

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

January 22, 2008

Thomas J. Regan, Esq. Brown Rudnick Berlack Israels LLP CityPlace I 185 Asylum Street Hartford, CT 06103

RE: **EM-SPRINT-NEXTEL-014-071220** – Sprint Nextel Corporation notice of intent to modify an existing telecommunications facility located at 850 West Main Street, Branford, Connecticut.

Dear Attorney Regan:

At a public meeting held on January 10, 2008, 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 December 20, 2007, 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.

Very truly yours,

Daniel F. Caruso

Chairman

DFC/MP/cm

c: The Honorable Anthony "Unk" DaRos, First Selectman, Town of Branford Justine K. Gillen, Zoning Enforcement Officer, Town of Branford Crown Castle International

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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

December 20, 2007

The Honorable Anthony "Unk" DaRos First Selectman Town of Branford Town Hall 1019 Main Street P. O. Box 150 Branford, CT 06405-0150

RE: **EM-SPRINT-NEXTEL-014-071220** – Sprint Nextel Corporation notice of intent to modify an existing telecommunications facility located at 850 West Main Street, Branford, Connecticut.

Dear Mr. DaRos:

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 January 10, 2008, 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 January 9, 2008.

Thank you for your cooperation and consideration.

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S. **p**erek Pheips Executive Director

SDP/jb

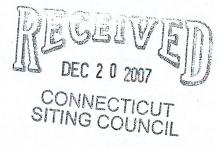
Enclosure: Notice of Intent

c: Justine K. Gillen, Zoning Enforcement Officer, Town of Branford Diana Ross, Inland Wetland Enforcement Officer, Town of Branford



THOMAS J. REGAN
Direct Dial: (860) 509-6522
tregan@brownrudnick.com

Via Hand Delivery



December 20, 2007



CityPlace I 185 Asylum Street Hartford Connecticut 06103 tel 860.509.6500 fax 860.509.6501

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

RE: Sprint Nextel Corporation - Exempt Modifications

Dear Mr. Phelps:

Enclosed for filing are Sprint Nextel Corporation's Notices of Exempt Modification for the addition of WiMAX antennas at the following locations:

- o 945 East Center Street, Wallingford
- o 850 West Main Street, Branford
- o 1069 Connecticut Avenue, Bridgeport
- o 120 Universal Drive, North Haven

I have enclosed four separate checks, each in the amount of \$500.00 to cover the filing fees. If you have any questions, please feel free to contact me.

Very truly yours,

BROWN RUDNICK BERLACK ISRAELS LLP

Thomas I Regan

Thomas J. Regan

cc: Town of Wallingford via 1st Class Mail w/ applicable attachment Town of Branford via 1st Class Mail w/ applicable attachment City of Bridgeport via 1st Class Mail w/ applicable attachment Town of North Haven via 1st Class Mail w/ applicable attachment

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NG COUNCIL



EM-SPRINT-NEXTEL-014-071220

In re:

Sprint Nextel Corporation's Notice to Make an Exempt Modification to an Existing Facility at 850 West Main Street, Branford, Connecticut.

EXEMPT MODIFICATION NO. ____

December 20, 2007

DEC 2 0 2007

NOTICE OF EXEMPT MODIFICATION

SITING COUNCIL

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 Branford of Sprint's intent to make an exempt modification to an existing monopole

(the "Tower") located at 850 West Main Street in Branford, Connecticut. Specifically, Sprint

plans to add three WiMAX antennas and a microwave dish to its existing 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

Tower, 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 and a microwave dish to the Tower and install additional WiMAX-related electronic equipment at the base of the Tower.

BROWN RUDNICK BERLACK ISRAELS LLP CITYPLACE I 185 ASYLUM STREET HARTFORD, CT 06103 (860) 509-6500 The Tower is a 120-foot monopole located at 850 West Main Street in Branford,

Connecticut (41.2776° latitude north, -72.8374° longitude west). The Tower is owned by Crown

Castle. Currently, Sprint has six CDMA antennas (two per sector) located on the Tower with an antenna centerline at 120 feet. Sprint equipment cabinets are located on an 8-foot by 11-foot concrete slab at the base of the Tower. A site plan with the Tower specifications is attached.

Sprint plans to add three KMW-AM-X-WM-17-65-00T (WiMAX) antennas (one per sector) to its existing array. The WiMAX antennas will have the same centerline as the existing antennas – 120 feet. Sprint will also install one 2-foot microwave dish with a centerline of approximately 118'. To confirm the Tower can support these changes, Sprint commissioned GDP Associates to perform a structural analysis of the Tower (attached). According to the structural analysis, dated December 11, 2007, "the tower and its foundation are sufficient for the proposed, existing and reserved loadings" (emphasis in original).

Sprint will also install two WiMAX equipment cabinets. One cabinet will be mounted to the existing steel frame on Sprint's existing concrete pad. The other equipment cabinet will require a 2-foot extension of the steel frame and concrete pad. This increase in the size of the concrete pad will not require any increase in the size of the compound. In addition, Sprint will mount a global positioning system (GPS) antenna to an existing ice bridge post. 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 Tower will not increase noise levels at the site.

The new antennas will not adversely impact the health and safety of the surrounding community or the people working on the Tower. The total radio frequency exposure measured around the Tower will be well below the National Council on Radiation Protection and

BROWN RUDNICK BERLACK ISRAELS LLP CITYPLACE I 185 ASYLUM STREET HARTFORD, CT 06103 (860) 500-6500 Measurements' ("NCRP") standard adopted by the Federal Communications Commission ("FCC"). The worst-case power density analysis measured at the base of the Tower indicates that the WiMAX antennas and microwave antenna will emit 4.2080% and 0.02% respectively of the NCRP's standard for maximum permissible exposure. A cumulative power density analysis indicates that together, all of the antennas on the Tower will emit only 27.3037% 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 Tower, even with extremely conservative assumptions. The power density analysis is attached.

In conclusion, Sprint's proposed plan to add WiMAX antennas at this site does not constitute a modification subject to the Council's jurisdiction because Sprint will not increase the height of the Tower, 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

Brown Rudnick Berlack Israels LLP 185 Asylum Street, CityPlace I

Hartford, CT 06103-3402

Email - tregan@brownrudnick.com

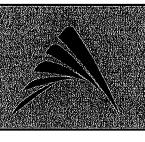
Phone - 860.509.6522

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BROWN RUDNICK BROWN RUDNICK
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Sprint Nextel Corp.



TRANSCEND WIRELESS, LLC 479 ROUTE 17 NORTH, 2ND FLOOR MAHWAH, NJ 07430

1 INTERNATIONAL BLVD., SUITE 800 MAHWAH, NJ 07495

Sprint Nextel

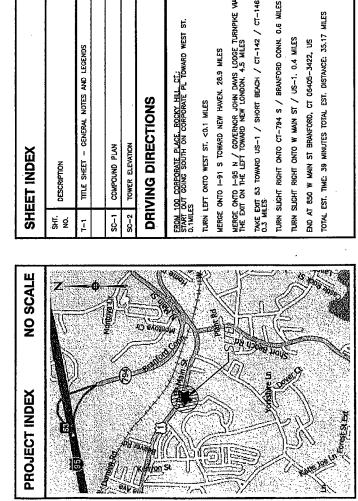
BEACON HILL

500 ENTERPRISE DRIVE, SUITE 3B ROCKY HILL, CONNECTICUT 1-(860)-529-8882

URS CORPORATION AES

DESIGNED BY: PJS DRAWN BY: RR

CT01YC219/CT03XC048 850 WEST MAIN STREET BRANFORD, CT 06405



	PROJECT INDEX	NDEX
	SITE NUMBER: SITE NAME:	CT01YC218 BEACON H
EGENDS	SITE ADDRESS:	850 WEST BRANFORD
	APPLICANT:	SPRINT NE 1 INTERNA MAHWAH,
	CONTACT:	JASON DE
	PROPERTY OWNER:	CROWN CA
WARD WEST ST.	JURISDICTION:	CONNECTIO
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LODGE TURNPIKE VIA 4.5 MILES		

TITLE SHEET - GENERAL NOTES AND

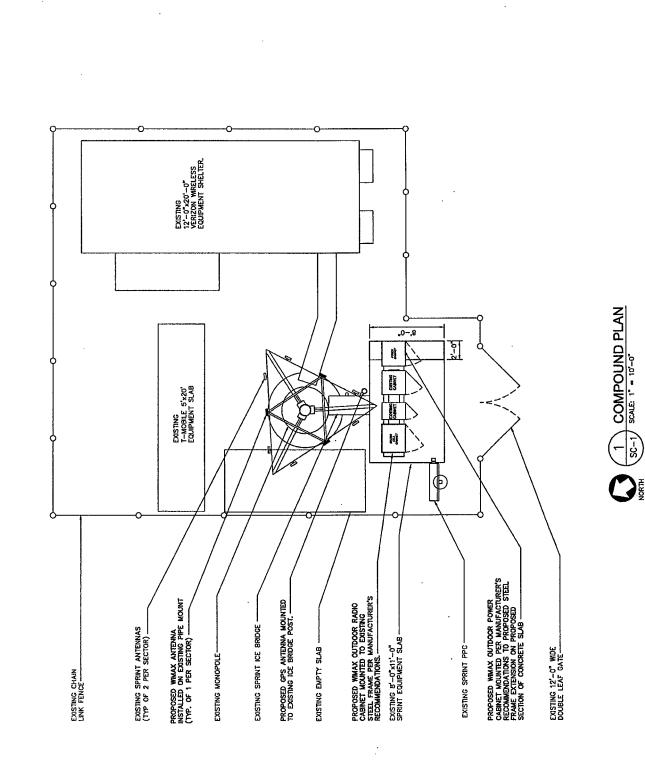
COMPOUND PLAN

PROJECT INDEX	EX
Site number: Site name:	CT01YC219/CT03XC048 BEACON HILL
SITE ADDRESS:	850 WEST MAIN STREET BRANFORD, CT 06405
APPLICANT:	SPRINT NEXTEL CORP. 1 INTERNATIONAL BLVD, SUTTI MAHWAH, NJ 07495
CONTACT:	JASON DEIBERT (347) 284-8
PROPERTY OWNER:	CROWN CASTLE
JURISDICTION:	CONNECTICUT SITING COUNCIL
LATRUDE: LONGRUDE:	41.2776 -72.8374*

BEACON HILL

CT01YC219/CT03XC048 850 WEST MAIN STREET BRANFORD, CT 06405

	DATE	
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	DRAWING	
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Sprint Nextel

Corp.
1 INTERNATIONAL BLVD.,
SUITE 800
MAHWAH, NJ 07495

TRANSCEND WIRELESS, LLC 479 ROUTE 17 NORTH, 2ND FLOOR MAHWAH, NJ 07430

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500 ENTERPRISE DRIVE, SUITE 3B ROCKY HILL, CONNECTICUT 1-(860)-529-8882

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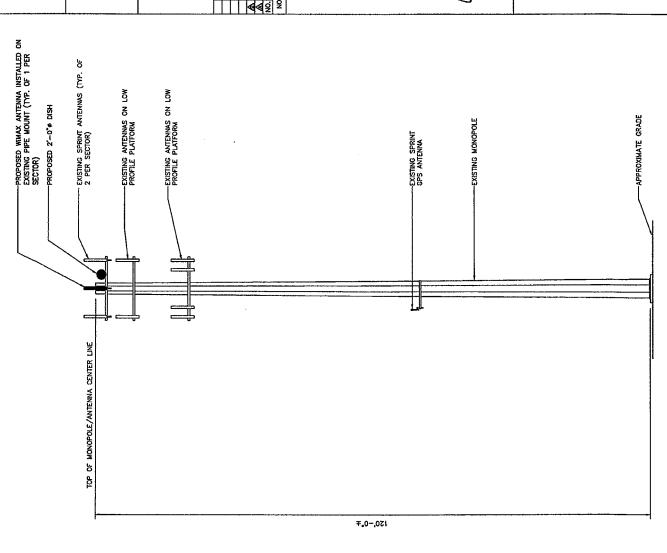


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CT01YC219/CT03XC048 850 WEST MAIN STREET BRANFORD, CT 06405

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36917299	SC2	12/17/07 3 OF 3	30F 3	4

TOWER ELEVATION SCALE 1" = 20"-0"



Date:

December 11, 2007

Paul Brown Crown Castle International 9105 Monroe Road; Suite 150 Charlotte. NC 28270 (919) 661-6351 **GPD** Associates

520 South Main St., Suite 2531

Akron, Ohio 44311 (614) 210-0751

kdavis@gpdgroup.com

Subject:

Structural Analysis Report

Carrier Designation

Sprint Co-locate
Sprint Site Name:

Sprint Site Number:

Beacon Hill CT01YC219

Crown Castle Designation

Crown Castle BU Number:

876322

Crown Castle Site Name:

Tartaglia Property

Crown Castle JDE Number:

96187

GPD Associate Designation

GPD Associates Project Number:

2007295.50

Site Data

850 West Main Street, Branford, CT 06405

Latitude 41° 16' 40.188", Longitude 72° 50' 12.696"

120' Summit Monopole w/ 10' Extension

Dear Mr. Brown,

GPD is pleased to submit this "Structural Analysis Report" to determine the structural integrity of the aforementioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 268121, in accordance with application 53282, revision 3. The purpose of the analysis is to determine the suitability of the tower with the existing and reserved loading configurations and the addition of the following proposed loading configuration:

Elev. 120'

- (3) AM-X-WM-17-65-00T Antennas on an existing 13' LP Platform w/ (6) 1-5/8" internal coax
- (1) Andrew VHLP2-23-2WH Dish mounted on the same platform w/ (1) 1/2" internal coax
- (3) KMW KMDAPS2050000 Tower Mounted Amplifiers mounted behind the antennas

This analysis has been performed in accordance with the TIA/EIA-222-F standard based upon a wind speed condition of 85 mph. Based on our analysis we have determined the <u>tower and its foundation are sufficient</u> for the proposed, existing, and reserved loadings as referenced in Tables 1 and 2.

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,

JB Suan

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

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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 Sprint PCS to Crown Castle International. This report was commissioned by Mr. Paul Brown of Crown Castle International.

The existing tower is structurally satisfactory for the proposed loading configuration for a basic wind speed of 85 mph with 1/2" radial ice (25% reduction) in accordance with TIA/EIA-222-F. The tower rating/capacity is 92.3%.

Foundation reactions, with the proposed loads, were found to be 62.5% of the original design reactions. If the existing foundation were properly designed for the original reactions it is our opinion the foundation is adequate.

ANALYSIS CRITERIA

The current requirements of TIA/EIA-222-F are for a basic wind speed of 85 mph with 1/2" 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 New Haven County, Connecticut be analyzed with a 85 mph wind speed.

Table 1 - 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)
120*	3	KMW	AM-X-WM-17-65-00T		6**	1-5/8
	1	Andrew	VHLP2-23-2WH Dish		1**	1/2
	3	KMW	KMDAPS205000 TMA's			

^{*} Both the MLA and Proposed Loading scenarios were considered. The MLA loading was found to control the analysis.

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)
120	6	Decibel	DB980H90E-M	13' LP Platform	6	1-5/8
113	6	Swedcom	ALP-E 9011-DIN	12' LP Platform	12	1-5/8
	6 (Reserved)	Swedcom	ALP-E 9011-DIN			
104	1	Kathrein	OG-860/1920/GPS-A	12' LP Platform	1	1-1/4
101	12	RFS/Celwave	APX16PV-16PVL-E		6	1-5/8
	6	Remec	TMA's			
52	1	Kathrein	OG-860/1920/GPS-A	Pipe	1	1/2

Note: All coax are internal to monopole U.N.O.

^{**} See Appendix C for the proposed coax layout.

TOWER DESCRIPTION

The existing monopole has 12 sides and is evenly tapered from 42.48" (flat-flat) at the base to 22" (flat-flat) at the top. It has three major sections connected with slip joints. The structure is galvanized and has no tower lighting. This analysis includes a 10' monopole extension with a circular cross section and constant diameter of 18".

The tower was originally designed for Bechtel by Summit Manufacturing, Inc. of West Hazleton, Pennsylvania for an 90 mph wind speed with 1/2" radial ice in accordance with EIA/TIA-222-F 1996.

ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Original Tower Drawings	Summit Manufacturing, Inc. Job #: 3734, dated 7/1/98	Doc ID # 1529811	Crown DMZ

Analysis Methods

RISA Tower (Version 5.0.2.0), 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 manufacturer's specifications.
- 2. The tower and structures have been maintained in accordance with manufacturer's specifications.
- 3. The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 & 2 and the referenced drawings.
- 4. Dishes are oriented per Crown Castle CCC spreadsheet.

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 4 – Tower Summary

Notes	Member	Strength (KSI)	Capacity	Elevation (feet)	Results
	Pole (L1)	35	0.8%	120 – 130	Pass
	Pole (L2)	65	64.4%	77 – 120	Pass
	Pole (L3)	65	87.7%	38 – 77	Pass
	Pole (L4)	65	92.3%	0 - 38	Pass
	Base Plate	50	83.5%		Pass
	Anchor Rods	75	63.2%	<u> </u>	Pass
	Foundation	O.T.M.	62.5% of (Original Design	Pass
	St	ructure Rating: 92	2.3%		

Recommended Modifications

The tower and its foundation are satisfactory for the proposed loads 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.

The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD ASSOCIATES, but are beyond the scope of 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.

CT01YC219 (850 West Main Street, Branford, CT) - Siting Council Power Density Calculations	reet, Branford	, CT) - Siting Cou	incil Power Den	isity Calculations				
Sprint Nextel Directional Antennas ESMR - 2657 MHz 120'	SMR - 2657 MHz	120'						
						Note: Power dens	Note: Power densities are in mW/ cm²	
					Centerline of	Power density		
Transmitters:	Frequency	CT Standard	Number of	ERP (W)	Tx antennas	calculated at		
	in MHz	mW/ cm²	Channels	per channel	AGL (ft.)**	base of tower	% of CT Standard	
WiMAX	2657	1.0000	3	562	120	0.0420798	4.2080%	
CDMA	1962.5	1.0000	11	411	120	0.1128366	11.2837%	
Microwave	22500	1.0000	2	4.42	120	0.0002206	0.02%	
From previous filings:per CSC power density data base	r density data ba	ise						
Verizon							7.2600%	
Verizon							2.4500%	
T-Mobile							2.0800%	
Total % of CT Standard			,				27.3037%	

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