

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

Daniel F. Caruso
Chairman

April 21, 2008

Jennifer Young Gaudet
Transcend Wireless
479 Route 17 North
Mahwah, NJ 07430

RE: **EM-SPRINT-NEXTEL-035-080303** – Sprint Nextel Corporation notice of intent to modify an existing telecommunications facility located at 126 Ledge Road, Darien, Connecticut.

Dear Ms. Gaudet:

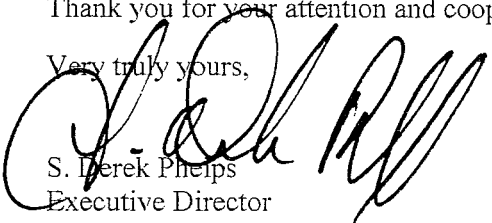
The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated February 28, 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.

Very truly yours,


S. Derek Phelps
Executive Director

SDP/MP

c: Honorable Evonne M. Klein, First Selectman, Town of Darien
John Crary, Town Administrator, Town of Darien
David J. Keating, Zoning Enforcement Officer, Town of Darien
Crown Castle



Transcend Wireless

479 ROUTE 17 NORTH
2ND FLOOR
MAHWAH, NJ 07430

PHONE: 201.684.0055
FAX: 201.684.0066

EM-SPRINT-NEXTEL-035-080303

VIA OVERNIGHT DELIVERY

February 28, 2008

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

Re: Sprint Nextel Corporation – exempt modification
126 Ledge Road, Darien, Connecticut

Dear Mr. Phelps:

This letter and attachments are submitted on behalf of Sprint Nextel Corporation (also identified as “Sprint” or “Nextel”). Sprint is enhancing its wireless system in Connecticut by implementing WiMAX technology. In order to do so, Sprint will modify antenna configurations and add related equipment at a number of its existing 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 First Selectman of Darien.

Sprint plans to modify the existing iDEN facility installed by Nextel at 126 Ledge Road (a/k/a 55 Ledge Road), Darien (coordinates 41°04’24.74” N, 73°28’41.4” W). Attached are a compound plan and elevation depicting the planned changes, and documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration. Also included is a power density calculation reflecting the modification to Sprint Nextel’s operations at the site.

The changes to the facility do not constitute a modification 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. 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).

RECEIVED
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CONNECTICUT
SITING COUNCIL

ORIGINAL

Mr. S. Derek Phelps
February 28, 2008
Page 2

1. The height of the overall structure will be unaffected. Both Nextel's existing and proposed antennas will be located at approximately 74' AGL on the tower, which is the recent subject of an extension from 100' to 120'. Three (3) of the existing nine (9) iDEN panel antennas (one per sector) will be replaced with WiMAX panel antennas; the remaining six (6) will be replaced with different iDEN antennas. One GPS receive-only antenna will be attached to the existing shelter. None of the modifications will extend the height of the tower.
2. The proposed changes will not extend the site boundaries. Because there is no room in the existing Nextel shelter, two WiMAX cabinets will be placed on a new concrete pad within the existing compound.
3. The proposed changes will not increase the noise level at the existing facility by six decibels or more. The incremental effect of the additional cabinets will be negligible.
4. The changes to the facility 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. As indicated on the attached power density calculation, Sprint Nextel's operations at the site will result in a power density of 24.95%; the combined site operations will result in a total power density of 69.48%.

Please feel free to call me at (860) 798-7454 with questions concerning this matter.
Thank you for your consideration.

Respectfully yours,



Jennifer Young Gaudet

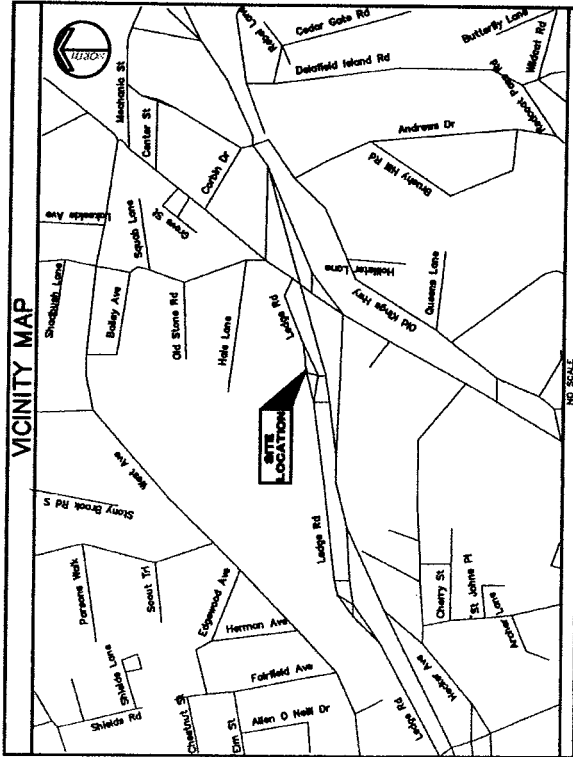
cc: Honorable Evonne Klein, First Selectman, Town of Darien
Attachments



**SPRINT NEXTEL
CORP.**

**IFDARIEN
CT01YC386 / NCT1047
126 LEDGE ROAD
DARIEN CT. 06820**

NOT FOR CONSTRUCTION



DRIVING DIRECTIONS

FROM 100 CORPORATE PLACE, ROCKY HILL, CT:
 HEAD SOUTH ON CORPORATE PL TOWARD WEST ST, TURN
 LEFT ON WEST ST, SLIGHT RIGHT TO MERGE ON I-91 S
 TOWARD NEW HAVEN, TAKE EXIT 17 FOR CT-15 S, TAKE
 EXIT 15 FOR MILFORD PKY, EAST, MERGE ONTO I-95 S,
 TOWARD NEW YORK, TAKE EXIT 11 FOR US-1 W, TURN LEFT
 ON US-1, TURN LEFT ON LEDGE ROAD, SITE WILL BE ON
 RIGHT.

PROJECT INDEX	
SITE NUMBER:	CT01YC386 / NCT1047
SITE NAME:	IFDARIEN
SITE ADDRESS:	126 LEDGE ROAD DARIEN, CT. 06820
APPLICANT:	SPRINT NEXTEL CORP. 1 INTERNATIONAL BLVD., SUITE 800 MAHWAH, NJ 07445
APPLICANT REPRESENTATIVE:	TRANSCEND WIRELESS, LLC 478 ROUTE 17 NORTH, 2ND FLOOR MAHWAH, NJ 07430
CONTACT:	JASON DEBERT (347) 284-8617
OWNER:	CROWN CASTLE INTERNATIONAL 1200 MAC ARTHUR BLVD. MAHWAH, NJ 07430
JURISDICTION:	CONNECTICUT SITING COUNCIL
CORNINATES:	41° 04' 20.74"N (41.0725 N)
LATITUDE:	73° 28' 41.4"W (-73.478056 W)
LONGITUDE:	

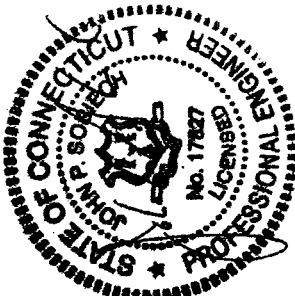
SHEET INDEX		
SHEET NO:	SHEET TITLE	REVISION HISTORY
		NO: DATE
T01	TITLE SHEET	0 02 / 28 / 08
SC01	COMPOUND PLAN	0 02 / 28 / 08
SC02	TOWER ELEVATION	0 02 / 28 / 08

APPLICANT:
**SPRINT NEXTEL
CORP.**
 1 INTERNATIONAL BLVD, SUITE 800
 MAHWAH, NJ 07445

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

CHA
 Drawing Copyright © 2008 Clough Harbour & Associates LLP
 CLOUGH HARBOUR & ASSOCIATES, LLP
 41 Wynton Court, PO Box 6260, Albany, NY 12208-0260
 Main: (518) 433-4300 • www.cloughharbour.com
 CHA PROJECT NO:
 17181 - 3013 - 1601

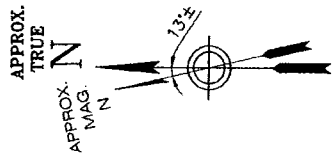
SUBMITTAL	
NO:	
02/28/08	ISSUED FOR SITING COUNCIL
BT: GWS	CHK: RJT
	APPD: JPS



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE ID:
CT01YC386 - NCT1047
 SITE NAME:
IFDARIEN
 SITE ADDRESS:
**126 LEDGE ROAD
DARIEN, CT
06820**
FAIRFIELD COUNTY

SHEET TITLE
TITLE SHEET
 SHEET NUMBER
T01



PROPOSED SWAP OUT OF EXISTING IDEN ANTENNA WITH WIMAX ANTENNA, TYP OF 1 PER SECTOR, 3 TOTAL.

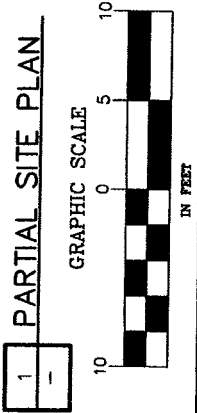
EXISTING 4' WIDE SWING GATE

PROPOSED 9'-0" ± HIGH ICE BRIDGE (APPROXIMATE LOCATION)
PROPOSED 4G EQUIPMENT TO BE INSTALLED ON PROPOSED CONCRETE SLAB
PROPOSED 3'-1" X 5'-2" CONCRETE SLAB

- EXISTING NEXTEL 7' X 11' SHELTER
- EXISTING 117' ± MONOPOLE
- EXISTING 9'-0" TALL, 2' WIDE ICE BRIDGE (TYP.)
- EXISTING SPRINT EQUIPMENT ON A 8'-0" X 11'-0" CONCRETE PAD
- EXISTING SPRINT RF CABINET
- EXISTING 30' x 60' COMPOUND

- PROPOSED 4G GPS ANTENNA MOUNTED TO EQUIPMENT SHELTER
- EXISTING NEXTEL ICE BRIDGE
- EXISTING EQUIPMENT BUILDING
- EXISTING METER
- EXISTING SPRINT PPC MINI
- EXISTING SPRINT BATTERY/RECTIFIER CABINET
- EXISTING SPRINT CABINET

NOTE:
NEXTEL TO UTILIZE EXISTING ACCESS DRIVE AND PARKING AREA.



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APPLICANT:
SPRINT NEXTEL CORP.
1 INTERNATIONAL BLVD, SUITE 800
MAHWAH, NJ 07485

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

CHA
Drawing Copyright © 2008 Clough Harbour & Associates LLP
CLOUGH HARBOUR & ASSOCIATES LLP
18 Westfield Circle, 9th Fl., 07093
Tel: (973) 451-4800 • www.cha-engineers.com
CHA PROJECT NO.
17181 - 3072 - 1801

SUBMITTAL			
NO.	ISSUED FOR SITING COUNCIL	CHK:	APP'D:
0	02/29/08	GWS	RJT
			JPS



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SITE ID:
CT01YC386-NCT1047
SITE NAME:
IFDARIEN
SITE ADDRESS:
126 LEDGE ROAD
DARIEN, CT
06820
FAITFIELD COUNTY

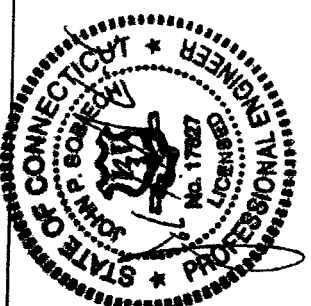
SHEET TITLE
COMPOUND PLAN
SHEET NUMBER
SC01

APPLICANT:
SPRINT NEXTEL CORP.
 1 INTERNATIONAL BLVD, SUITE 800
 MAHWAH, NJ 07495

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

CWA
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Clough Harbour & Associates LLP
 15 Village Circle, 20th Floor, Mahwah, NJ 07430-0809
 Mahwah, NJ 07430-0809
 CWA PROJECT NO.
 17181 - 3012 - 1801

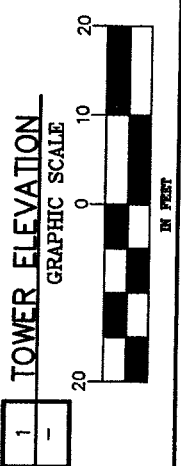
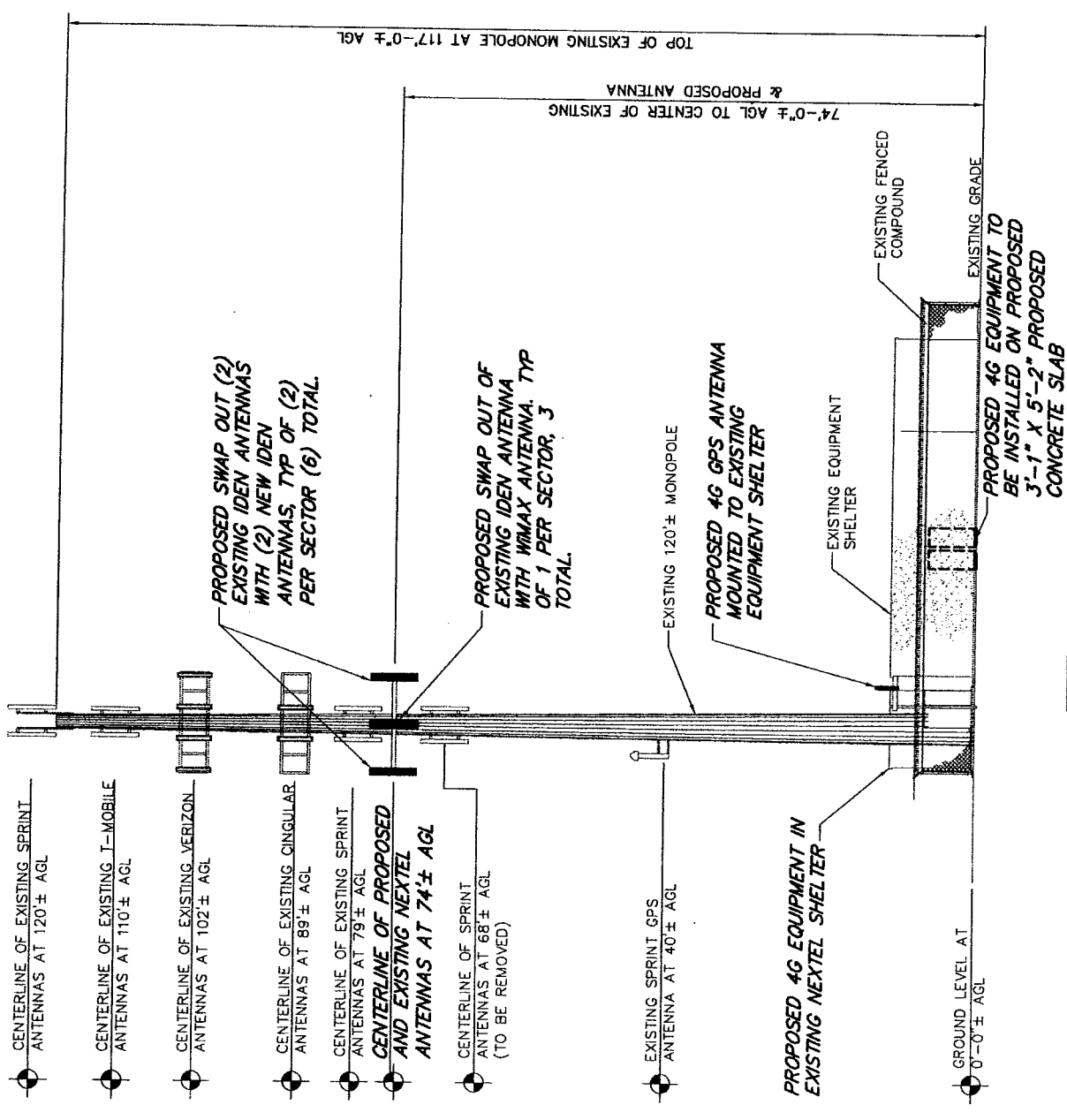
NO.	0	ISSUED FOR SITING COUNCIL
BY:	GWS	CHK: RJT
APP'D:	JPS	
SUBMITTA		



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE ID:
CT01YC386-NCT1047
 SITE NAME:
IFDARIEN
 SITE ADDRESS:
**126 LEDGE ROAD
 DARIEN, CT
 06820
 FAITFIELD COUNTY**

SHEET TITLE
TOWER ELEVATION
 SHEET NUMBER
SC02



NOT FOR CONSTRUCTION



FDH Engineering, Inc.
2730 Rowland Rd. Suite 100
Raleigh, NC 27615
(919) 755-1012
info@fdh-inc.com

Date: **December 5, 2007**

Veronica Harris
Crown Castle International
2000 Corporate Dr.
Canonsburg, PA 15317

Subject: Structural Opinion Letter

Carrier Designation:	Nextel Co-Locate	
	Carrier Site Number:	NCT1047
	Carrier Site Name:	IFDarien
Crown Castle Designation:	Crown Castle BU Number:	806352
	Crown Castle Site Name:	BRG 302 943052
	Crown Castle JDE Job Number:	95531
	Crown Castle PO Number:	266751
Engineering Firm Designation:	FDH Engineering, Inc. Project Number: 07-10172E	
Site Data:	126 Ledge Rd., Darien, CT, Fairfield Co.	
	Latitude 41°-4'-20.8", Longitude -73°-28'-41.4"	
	100 foot – Monopole Tower	

Dear Veronica Harris,

FDH Engineering, Inc. is pleased to submit this "Structural Opinion Letter" for 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 266751. The Purpose of the analysis 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 EIA/TIA-222-F standard and local code requirements based upon a wind speed of 90 mph without ice and 78 mph with 1/2" ice (fastest mile).

Table 1 – Proposed Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount Information	Number of Feed Lines	Feed Line Size (in)
74 ¹	6	Antel	BXA-80090/4 DIN FP	Existing Platform	9	7/8
	3	KMW	AM-X-WM-17-65-00T		6	1-5/8
	3	KMW	KMDAPS2050000		<u>9</u>	<u>1-1/4</u>
	<u>9</u> ²	<u>Swedcom</u>	<u>ALP-E-9011-DIN</u>			

1 This represents the final configuration for Nextel at 74'. According to information provided by Crown Castle, Nextel will replace their existing antennas with the proposed shown above. Nextel will also add (6) 1-5/8" coax and (3) TMAs for a final configuration of (9) antennas, (3) TMAs, and (15) coax at 74'.

2 The (9) Swedcom ALP-E-9011-DIN MLA antennas control. However, the MLA coax do not control.

Table 2 – Existing and Reserved Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines ⁷	Feed Line Size (in) ⁷
120	3	Decibel	932LG65VTE-B	7 ⁸	1-5/8
110	3	RFS/Celwave	APX16PV-16PVL-E	12	1-5/8
	6	Remec	S200557A-1		
102	6	Swedcom	ALP 9212-N	12	7/8
	6	Decibel	DB948F85T2E-M	<u>12</u>	<u>1-5/8</u>
	<u>12</u> ³	<u>BAM MLA</u>	<u>BAM MLA Antenna</u>		
89 ⁴	6	Powerwave	7770.00	12	1-1/4
	<u>3</u>	—	<u>Diplexers</u>	<u>9</u>	<u>1-5/8</u>
				<u>3</u>	<u>1-1/4</u>
74 ⁵	9	Decibel	DB844H90E-XY	9	7/8
68 ⁶	3	EMS	RV90-17-00DP	6	1-1/4
40	1	—	GPS	1	1/2

3 The (12) BAM MLA antennas do not control. However, the (12) 1-5/8" MLA coax were considered.

4 The (3) SLA Diplexers and SLA coax were considered.

5 Nextel will replace their existing loading at 74'. See the proposed loading above.

6 According to information provided by Crown Castle, the (3) EMS RV90-17-00DP antennas and (6) 1-1/4" coax at 68' will be removed prior to the installation of the proposed loading.

7 All existing and reserved coax installed inside the pole's shaft unless otherwise noted.

8 Coax installed outside the pole's shaft in a single row.

Table 3 – Design Antenna and Cable Information

Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
97	6 2	Andrew	8RL410C4R105 PD100	—	—
84	6 2	Andrew	8RL410C4R105 PD100	—	—

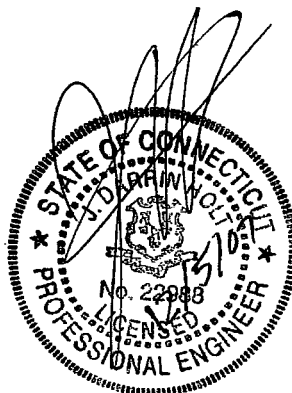
Based on our review of our previous analysis (see FDH Proj. No. 07-10172E Structural Analysis report dated October 5, 2007), the current loads, and the proposed loads, we have determined the tower structure and foundation **ARE** sufficient for the proposed loading.

We at the *FDH Engineering, Inc.* 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,



J. Darrin Holt, PhD, PE
President
CT PE License No. 22988



CT01YC386 (Ledge Road, Darien, CT) - Siting Council Power Density Calculations

Sprint Nextel Directional Antennas ESMR - 2657 MHz 74'										
Transmitters:	Frequency in MHz	CT Standard mW/cm ²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)**	Power density calculated at base of tower	Note: Power densities are in mW/cm ²			% of CT Standard
WiMAX	2657	1.0000	3	562	74	0.1106553				11.07%
Sprint/Nextel iDEN	851	0.5673	12	100	74	0.0787582				13.88%
From previous filings: per CSC power density data base										
Cingular										3.77%
Cingular GSM										11.45%
Cingular GSM										1.94%
Verizon										10.60%
Verizon										2.95%
T-Mobile										3.97%
Sprint										9.85%
Total % of CT Standard										69.48%