

# 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](mailto:siting.council@ct.gov)

Internet: [ct.gov/csc](http://ct.gov/csc)

Daniel F. Caruso

Chairman

May 7, 2008

Jennifer Young Gaudet  
Transcend Wireless  
479 Route 17 North  
2<sup>nd</sup> Floor  
Mahwah, NJ 07430

RE: **EM-SPRINT-NEXTEL-126-080331** – Sprint Nextel Corporation notice of intent to modify an existing telecommunications facility located at 14 Oxford Drive, Shelton, Connecticut.

Dear Ms. Gaudet:

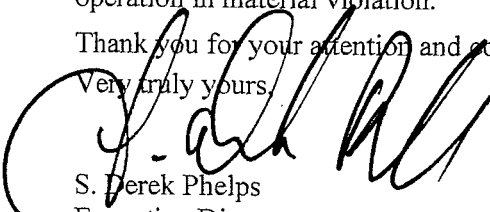
The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated March 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

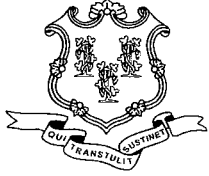
SDP/MP

c: Honorable Mark A. Lauretti, Mayor, City of Shelton  
Richard Schultz, Planning Administrator, City of Shelton  
American Tower



CONNECTICUT SITING COUNCIL

Affirmative Action / Equal Opportunity Employer



# STATE OF CONNECTICUT

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Internet: [ct.gov/csc](http://ct.gov/csc)

Daniel F. Caruso  
Chairman

April 4, 2008

The Honorable Mark A. Lauretti

Mayor

City of Shelton

54 Hill Street

P. O. Box 364

Shelton, CT 06484

RE: **EM-SPRINT-NEXTEL-126-080331** – Sprint Nextel Corporation notice of intent to modify an existing telecommunications facility located at 14 Oxford Road, Shelton, Connecticut.

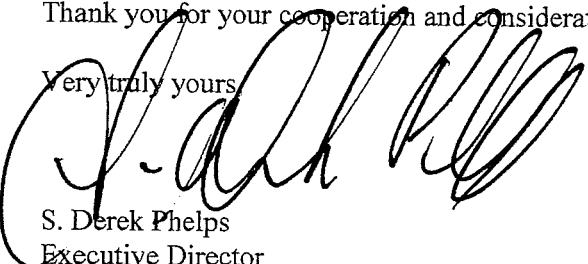
Dear Mayor Lauretti:

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 April 15, 2008.

Thank you for your cooperation and consideration.

Very truly yours,



S. Derek Phelps  
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Richard Schultz, Planning Administrator, City of Shelton

**Transcend Wireless**

479 ROUTE 17 NORTH  
2<sup>ND</sup> FLOOR  
MAHWAH, NJ 07430

PHONE: 201.684.0055  
FAX: 201.684.0066

EM-SPRINT-NEXTEL-126-080331

VIA OVERNIGHT DELIVERY

March 28, 2008

RECEIVED  
MAR 31 2008

CONNECTICUT  
SITING COUNCIL

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

Re: Sprint Nextel Corporation – exempt modification  
14 Oxford Road, Shelton, 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 Mayor of Shelton.

Sprint plans to modify the existing iDEN facility installed by Nextel at 14 Oxford Road, Shelton (coordinates 41°16’45.83” N, -73°11’08.16” 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).

Mr. S. Derek Phelps  
March 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 166' AGL on the 200' tower. Three (3) of the existing twelve (12) iDEN panel antennas (one per sector) will be replaced with WiMAX panel antennas. In addition, one microwave dish, approximately 2' in diameter, will be mounted at the same height. One GPS receive-only antenna will be attached to the existing shelter. None of the modifications will extend the height of the tower.
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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 cabinet 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's operations at the site will result in a power density of 7.18%; the combined site operations will result in a total power density of 22.91%.

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

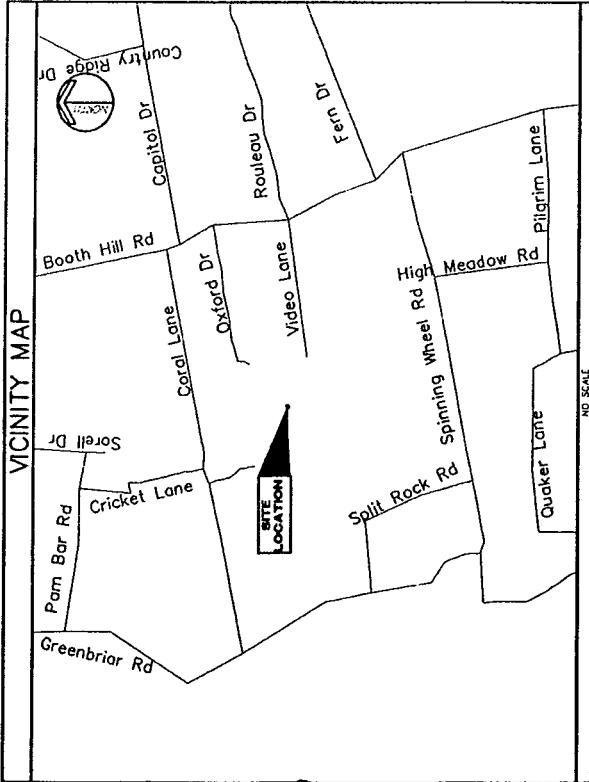
cc: Honorable Mark A. Lauretti, Mayor, City of Shelton  
Attachments



**SPRINT NEXTEL  
CORP.**

**SHELTON 2  
CT01YC100 / NCT0063  
14 OXFORD ROAD  
SHELTON, CT 06484**

**NOT FOR CONSTRUCTION**



**DRIVING DIRECTIONS**

FROM 100 CORPORATE PLACE, ROCKY HILL, CT.:  
HEAD SOUTH ON CORPORATE PL TOWARD WEST ST. LEFT ON WEST ST. MERGE I-91S. TAKE EXIT 17 FOR W CROSS PKWY/CT1-155. TAKE EXIT 52 FOR CT-8 TOWARD CT-108S. TURN RIGHT AT CT-108/STRAITFORD. TURN LEFT AT MACDONALD RD. TURN RIGHT AT BOOTH HILL RD. TURN LEFT AT OXFORD DR.

**PROJECT INDEX**

SITE NUMBER:	CT01YC100 / NCT0063
SITE NAME:	SHELTON 2
SITE ADDRESS:	14 OXFORD ROAD SHELTON, CT 06484
APPLICANT:	SPRINT NEXTEL CORP. 1 INTERNATIONAL BLD., SUITE 800 MAHWAH, NJ 07495
APPLICANT REPRESENTATIVE:	TRANSCEND WIRELESS, LLC 479 ROUTE 17 NORTH, 2ND FLOOR MAHWAH, NJ 07430
CONTACT:	JASON DEIBERT (347) 284-8617
PROPERTY OWNER:	AMERICAN TOWER CORPORATION 116 HUNTINGTON AVENUE BOSTON, MA 02116
JURISDICTION:	CONNECTICUT SITING COUNCIL
CORDINATES:	41° 16' 45.83"N (41.2794 N)
LATITUDE:	73° 11' 08.16"W (73.1856 W)
LONGITUDE:	

**SHEET INDEX**

SHEET NO:	SHEET TITLE	REVISION HISTORY	
		NO:	DATE
T01	TITLE SHEET	0	03 / 19 / 08
SC01	COMPOUND PLAN	0	03 / 19 / 08
SC02	TOWER ELEVATION	0	03 / 19 / 08

APPLICANT:

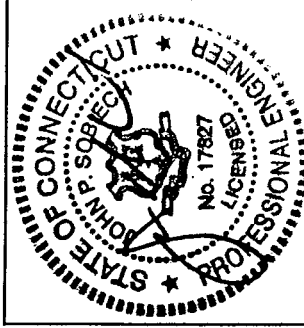
**SPRINT NEXTEL  
CORP.**  
1 INTERNATIONAL BLD., SUITE 800  
MAHWAH, NJ 07495

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

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**CHA**  
CLOUGH HARBOUR & ASSOCIATES LLP  
11 Wynnton Circle, PO Box 6200 - Albany, NY 12205-0200  
Main (518) 483-1800 - www.cloughharbour.com  
CHA PROJECT NO:  
17181 - 2017 - 1601

NO.	DATE	ISSUED FOR SITING COUNCIL	BY:	CHK:	APP'D:	APP'D:
0	03/19/08					



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**SITE ID:**  
CT01YC100-NCT0063

**SITE NAME:**  
SHELTON 2

**SITE ADDRESS:**  
14 OXFORD ROAD  
SHELTON, CT  
06484

**FAIRFIELD COUNTY**

**SHEET TITLE**  
TITLE SHEET

**SHEET NUMBER**  
T01

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

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

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**CH&A**  
 CLOUGH HARBOUR & ASSOCIATES LLP  
 81 New York City, PO Box 485, New York, NY 10206-0485  
 Phone: (212) 410-2000 • Fax: (212) 410-2001  
 CH&A, P.A.C.E.C.T., INC.  
 17181 - 2017 - 1601

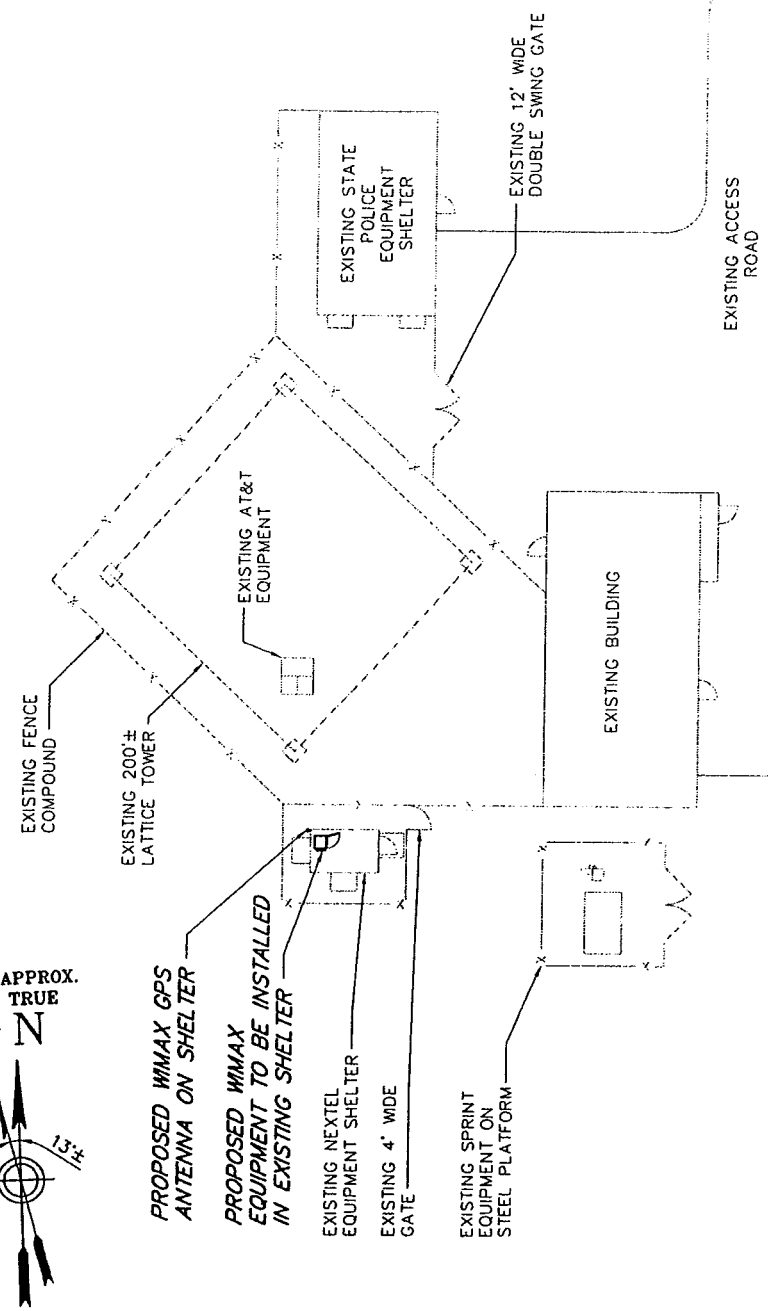
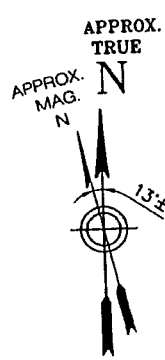
NO.	DATE	ISSUED FOR	BY:	CHK:	RJT:	APP'D:	JPS
0	03/19/08	ISSUED FOR SITING COUNCIL	EKC				



I, E.A. HOLDEN, OF LAW FOR MY PERSON, UNLESS THEY ARE  
 ACTING UNDER THE SUPERVISION OF A PROFESSIONAL  
 ENGINEER, TO ALTER THIS DOCUMENT.

SITE ID:  
**CT01YC100-NCT0063**  
 SITE NAME:  
**SHELTON 2**  
 SITE ADDRESS:  
**14 OXFORD ROAD  
 SHELTON, CT  
 06484**  
**FAIRFIELD COUNTY**

SHEET TITLE  
**COMPOUND PLAN**  
 SHEET NUMBER  
**SC01**



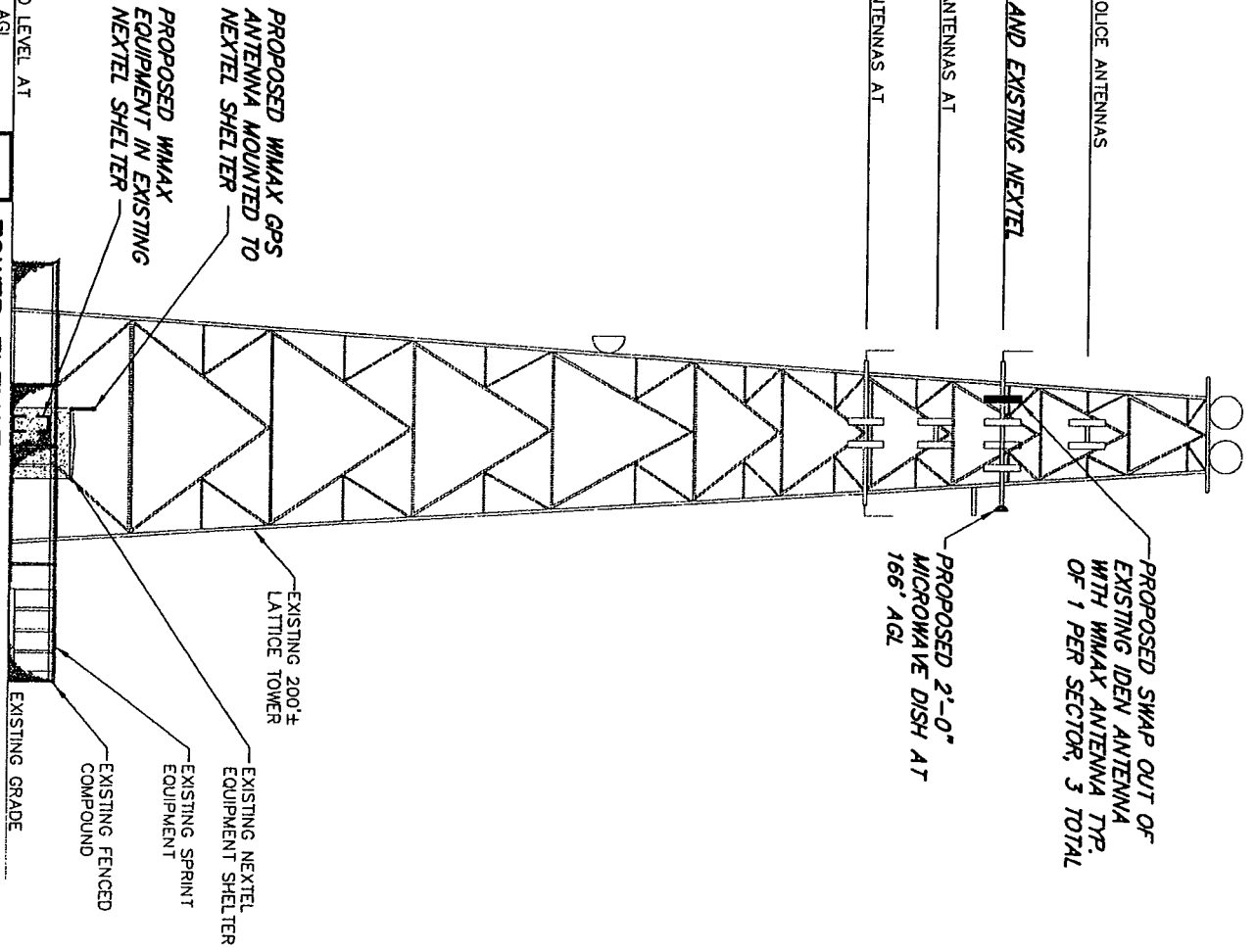
**NOT FOR CONSTRUCTION**

- CENTERLINE OF EXISTING STATE POLICE ANTENNAS AT 180' ± AGL
- **CENTERLINE OF PROPOSED AND EXISTING NEXTEL ANTENNAS AT 166' ± AGL**
- CENTERLINE OF EXISTING PANEL ANTENNAS AT 155' ± AGL
- CENTERLINE OF EXISTING AT&T ANTENNAS AT 144' ± AGL

● GROUND LEVEL AT 0'-0" ± AGL

**NOT FOR CONSTRUCTION**

**TOWER ELEVATION GRAPHIC SCALE**



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

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

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**CHA**  
CLOUGH HARBOR & ASSOCIATES LLP  
18 WYNNE CREEK RD BOX 5586 MAHWAH, NJ 07096-0586  
Phone: (201) 463-0200 • www.roughhorner.com  
CHA PROJECT NO.: 17181 - 2017 - 1801

NO.	02/18/08	ISSUED FOR REVIEW
A	BT: ENC	CHK: RJT APP'D: JPS
SUBMITTAL		

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: **CT01YC100-NCT0063**  
SITE NAME: **SHELTON 2**  
SITE ADDRESS: **14 OXFORD ROAD  
SHELTON, CT  
06484**  
FAIRFIELD COUNTY

SHEET TITLE: **TOWER ELEVATION**  
SHEET NUMBER: **SC02**



**AMERICAN TOWER**

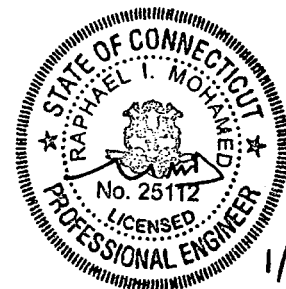
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## Structural Analysis Report

**Structure** : 200 ft AT&T TAG Tower  
**ATC Site Name** : Shelton/Trumbull, CT  
**ATC Site Number** : 88017  
**Proposed Carrier** : Sprint/Nextel  
**Carrier Site Name** : Shelton 2  
**Carrier Site Number** : CT01YC100-CT0063  
**County** : Fairfield  
**Eng. Number** : 41408821  
**Date** : January 15, 2008  
**Usage** : 104 %

Submitted by:  
Michael Deese, E.I.  
Design Engineer

**American Tower Engineering Services**  
400 Regency Forest Drive  
Cary, NC 27518  
Phone: 919-468-0112



1/17/08



**Introduction**

The purpose of this report is to summarize results of the structural analysis performed on the 200 ft. AT&T TAG Tower located at 14 Oxford Dr, Shelton, CT 06484, Fairfield County (ATC site #88017). Tower geometry, member sizes, and foundation information was based on a mapping by Tower Engineering Professionals (TEP #070851, dated May 30, 2007). The tower has been modified per a previous report by American Tower (ATC Project #40480232, dated July 13, 2007).

**Analysis**

The tower was analyzed using Power Line Systems, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition.

Basic Wind Speed: 90 mph (Fastest Mile) / 110 mph (3-Second Gust)  
 Radial Ice: 77.9 mph (Fastest Mile) w/ 1/2" ice  
 Code: TIA/EIA-222-F / 2003 International Building Code w/ 2005 Connecticut Supplements

**Antenna Loads**

The following antenna loads were used in the tower analysis.

**Existing Antennas**

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
214.5	1	8' Dipole	Platform w/ Handrails	(1) 1 5/8"	State of CT
209.5	1	14' Whip		(2) 1 5/8"	
				(2) 1/2"	
206.5	2	8' Dish w/ Radome		(2) EW65	
200.0	9	Dapa 58010	Platform w/ Handrails	(9) 1 5/8"	Sprint
183.5	1	BTS	Side Arm	(4) 3/8"	State of CT
	2	Scala AP14-850/150N		(2) 1 5/8"	
	1	8' Omni		(1) 1 5/8"	
	2	10' Omni		(2) 1 5/8"	
144.0	6	Powerwave 7770	Pipe	(12) 1 5/8"	Cingular
	6	Powerwave LGP-21401		N/A	
125.5	1	8' Dish w/ Radome	Dish	(1) EW65	State of CT
112.5	-	-	Platform w/ Handrails	-	-
75.0	-	-	Platform w/ Handrails	-	-
55.0	1	GPS Unit	Pipe	(1) 1/2"	Sprint

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
166.0	9	Decibel DB844H90E-XY	Sector Frame	(12) 1 5/8"	Sprint/Nextel
	3	KMW AM-X-WM-17-65-00T		(3) 1 1/4"	
	6	14" x 9" TTA		N/A	
	2	Andrew VHLP2-23-2WH		(2) 1/2"	

Install proposed 1 5/8" and 1 1/4" coax in same location as existing. Shield the (2) 1/2" coax behind or on top of existing.

**Results**

The maximum structure usage is: 104 % (Overstress Considered Acceptable)

Leg Forces	Original Design Reactions	Current Analysis Reactions	% Of Design
Uplift (Kips)	N/A	152.0	N/A
Axial (Kips)	N/A	200.6	N/A
Shear (Kips)	N/A	33.1	N/A

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

**Conclusion**

Based on these analysis results, the structure meets requirements per the TIA/EIA-222-F standard and the 2003 International Building Code with 2005 Connecticut Supplements.

The tower and foundation can support the existing and proposed antenna and transmission line loading as described in this report.

If you have any questions or require additional information, please call 919-466-5146.



**Transcend Wireless**

479 ROUTE 17 NORTH  
2<sup>ND</sup> FLOOR  
MAHWAH, NJ 07430

PHONE: 201.684.0035  
FAX: 201.684.0066

EM-SPRINT-NEXTEL-126-080331

VIA OVERNIGHT DELIVERY

March 28, 2008

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

RECEIVED  
MAR 31 2008  
CONNECTICUT  
SITING COUNCIL

Re: Sprint Nextel Corporation – exempt modification  
14 Oxford Road, Shelton, Connecticut

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Mr. S. Derek Phelps

March 28, 2008

Page 2

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Jennifer Young Gaudet

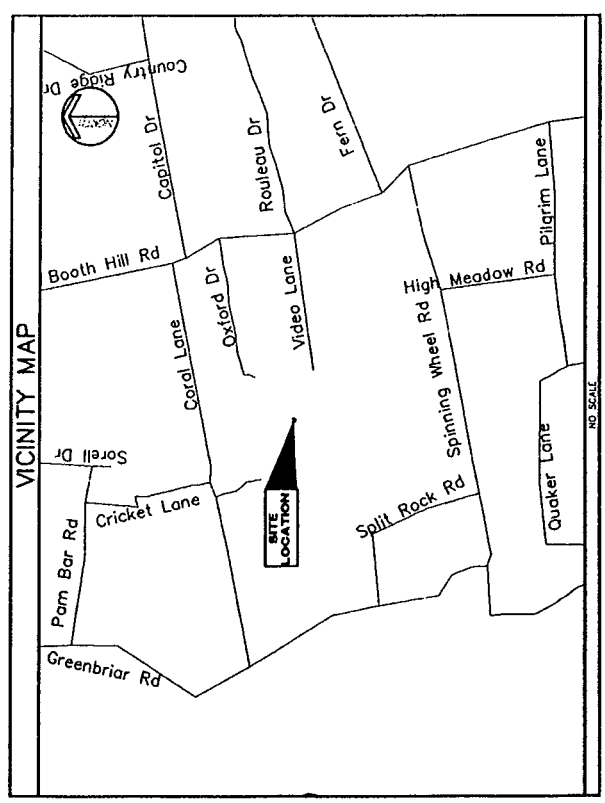
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Attachments



**SPRINT NEXTEL  
CORP.**

**SHELTON 2  
CT01YC100 / NCT0063  
14 OXFORD ROAD  
SHELTON, CT 06484**

**NOT FOR CONSTRUCTION**



**DRIVING DIRECTIONS**

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**PROJECT INDEX**

SITE NUMBER:	CT01YC100 / NCT0063
SITE NAME:	SHELTON 2
SITE ADDRESS:	14 OXFORD ROAD SHELTON, CT 06484
APPLICANT:	SPRINT NEXTEL CORP. 1 INTERNATIONAL BLVD., SUITE 800 MAHWAH, NJ 07495
APPLICANT REPRESENTATIVE:	TRANSCEND WIRELESS, LLC 479 ROUTE 17 NORTH, 2ND FLOOR MAHWAH, NJ 07430
CONTACT:	JASON DEIBERT (347) 284-8617
PROPERTY OWNER:	AMERICAN TOWER CORPORATION 116 HUNTINGTON AVENUE BOSTON, MA 02116
JURISDICTION:	CONNECTICUT SITING COUNCIL
COORDINATES:	41° 16' 45.83"N (41.2794 N)
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LONGITUDE:	

**SHEET INDEX**

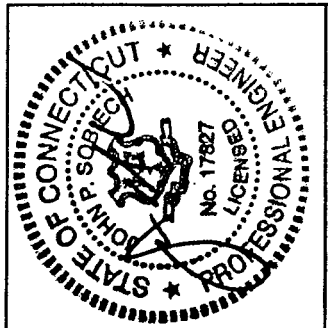
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APPLICANT:  
**SPRINT NEXTEL  
CORP.**  
 1 INTERNATIONAL BLVD, SUITE 800  
 MAHWAH, NJ 07495

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

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**CHA**  
 CLOUGH HARBOUR & ASSOCIATES LLP  
 11 Winter Cove, PO Box 2000 - Albany, NY 12240-0200  
 Tel: (518) 424-2500 • www.chaengineers.com  
 CHA PROJECT NO:  
 17161 - 2017 - 1001

SUBMITTAL			
NO.	DATE	ISSUED FOR SITING COUNCIL	APPROVED BY
0		CHK: EJC	APP'D: JPS



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

SITE ID:  
**CT01YC100-NCT0063**  
 SITE NAME:  
**SHELTON 2**  
 SITE ADDRESS:  
**14 OXFORD ROAD  
SHELTON, CT  
06484  
FAIRFIELD COUNTY**

SHEET TITLE  
**TITLE SHEET**  
 SHEET NUMBER  
**T01**

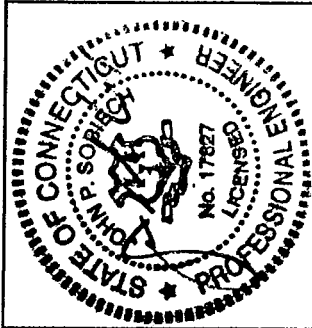
APPLICANT:

**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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**CHA**  
CLOUGH HARBOUR & ASSOCIATES LLP  
111 Western Circle, PO Box 5206 - Albany, NY 12205-0206  
Phone: (518) 432-4500 • www.cloughharbour.com  
CHA PROJECT NO:  
**17167 - 2017 - 1601**

SUBMITTAL			
NO.	DATE	ISSUED FOR	BY
0	03/19/08	ISSUED FOR SITING COUNCIL	
	BY:	CHK:	RJT
		APP'D:	JPS

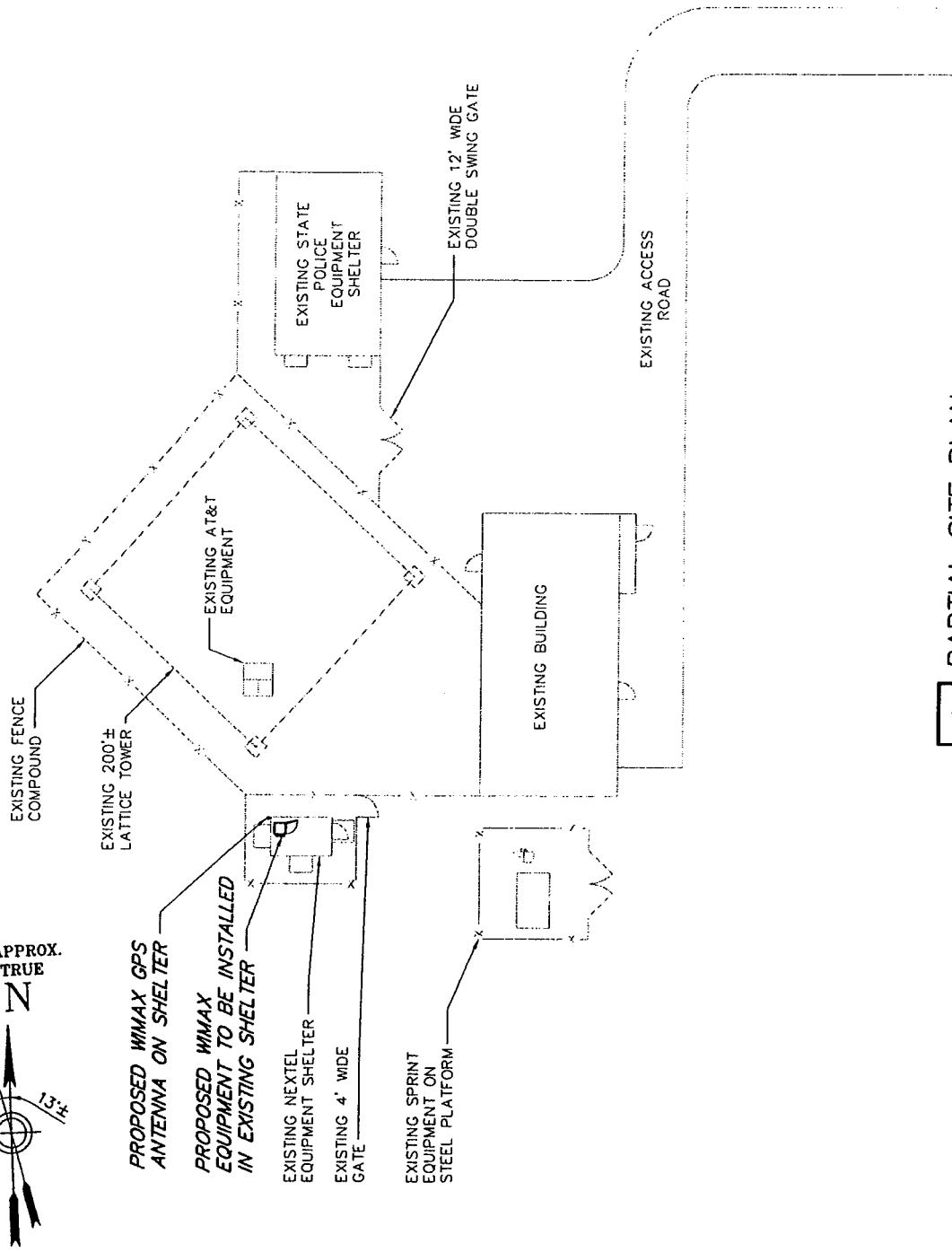
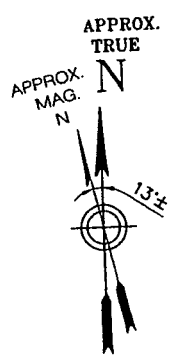


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SITE ID: **CT01YC100-NCT0063**  
SITE NAME: **SHELTON 2**  
SITE ADDRESS: **14 OXFORD ROAD  
SHELTON, CT  
06484**  
**FAIRFIELD COUNTY**

SHEET TITLE  
**COMPOUND PLAN**

SHEET NUMBER  
**SC01**



**NOT FOR CONSTRUCTION**





1 INTERNATIONAL BLVD, SUITE 800  
MAHWAH, NJ 07495

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

CHA  
CLOUDHARBOR & ASSOCIATES LLP  
11 WILKINSON CTR, PO BOX 5396 - ASBURY, NJ 07705-0396  
WWW.CHA-PROJECTS.COM  
CHA PROJECT NO:  
17161 - 2017 - 1801

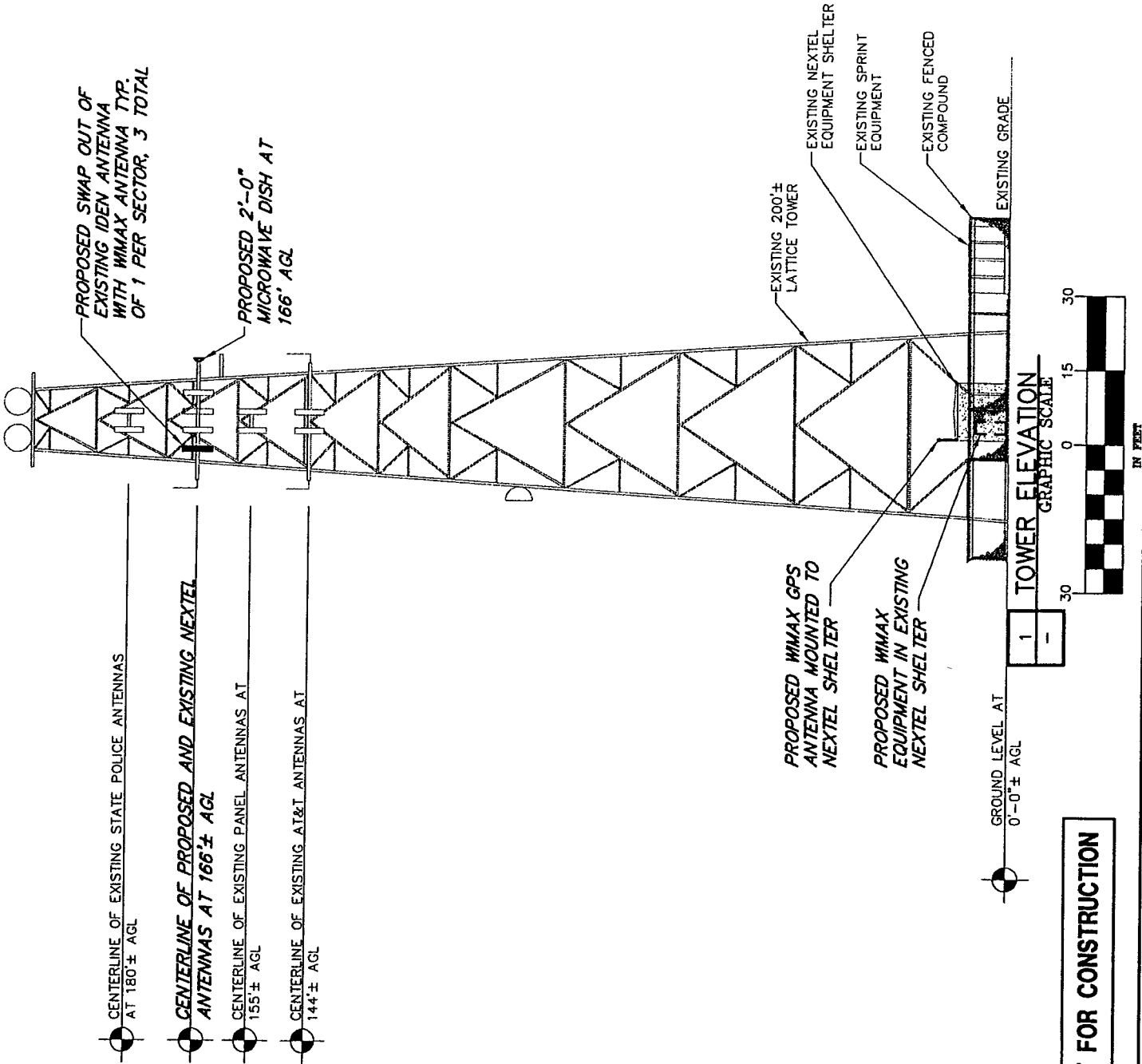
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NO.	DATE	ISSUED FOR REVIEW	
A	03/19/08	ISSUED FOR REVIEW	
	BY: EJC	CHK: RJT	APP'D: JPS

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SITE ID: CT01YC100-NCT0063  
SITE NAME: SHELTON 2  
SITE ADDRESS: 14 OXFORD ROAD  
SHELTON, CT 06484  
FAIRFIELD COUNTY

SHEET TITLE  
TOWER ELEVATION

SHEET NUMBER  
SC02



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

PROPOSED 2'-0" MICROWAVE DISH AT 166' AGL

CENTERLINE OF EXISTING STATE POLICE ANTENNAS AT 180'± AGL

CENTERLINE OF PROPOSED AND EXISTING NEXTEL ANTENNAS AT 166'± AGL

CENTERLINE OF EXISTING PANEL ANTENNAS AT 155'± AGL

CENTERLINE OF EXISTING AT&T ANTENNAS AT 144'± AGL

GROUND LEVEL AT 0'-0"± AGL

TOWER ELEVATION GRAPHIC SCALE

NOT FOR CONSTRUCTION



**AMERICAN TOWER**

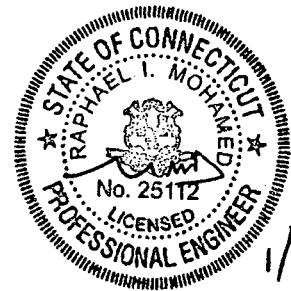
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## Structural Analysis Report

**Structure** : 200 ft AT&T TAG Tower  
**ATC Site Name** : Shelton/Trumbull, CT  
**ATC Site Number** : 88017  
**Proposed Carrier** : Sprint/Nextel  
**Carrier Site Name** : Shelton 2  
**Carrier Site Number** : CT01YC100-CT0063  
**County** : Fairfield  
**Eng. Number** : 41408821  
**Date** : January 15, 2008  
**Usage** : 104 %

Submitted by:  
Michael Deese, E.I.  
Design Engineer

**American Tower Engineering Services**  
400 Regency Forest Drive  
Cary, NC 27518  
Phone: 919-468-0112



1/17/08

**Introduction**

The purpose of this report is to summarize results of the structural analysis performed on the 200 ft. AT&T TAG Tower located at 14 Oxford Dr, Shelton, CT 06484, Fairfield County (ATC site #88017). Tower geometry, member sizes, and foundation information was based on a mapping by Tower Engineering Professionals (TEP #070851, dated May 30, 2007). The tower has been modified per a previous report by American Tower (ATC Project #40480232, dated July 13, 2007).

**Analysis**

The tower was analyzed using Power Line Systems, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition.

Basic Wind Speed: 90 mph (Fastest Mile) / 110 mph (3-Second Gust)  
 Radial Ice: 77.9 mph (Fastest Mile) w/ 1/2" ice  
 Code: TIA/EIA-222-F / 2003 International Building Code w/ 2005 Connecticut Supplements

**Antenna Loads**

The following antenna loads were used in the tower analysis.

**Existing Antennas**

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
214.5	1	8' Dipole	Platform w/ Handrails	(1) 1 5/8"	State of CT
209.5	1	14' Whip		(2) 1 5/8"	
206.5	2	8' Dish w/ Radome		(2) 1/2"	
200.0	9	Dapa 58010	Platform w/ Handrails	(2) EW65	Sprint
183.5	1	BTS	Side Arm	(9) 1 5/8"	State of CT
	2	Scala AP14-850/150N		(4) 3/8"	
	1	8' Omni		(2) 1 5/8"	
	2	10' Omni		(1) 1 5/8"	
144.0	6	Powerwave 7770	Pipe	(2) 1 5/8"	Cingular
	6	Powerwave LGP-21401		N/A	
125.5	1	8' Dish w/ Radome	Dish	(1) EW65	State of CT
112.5	-	-	Platform w/ Handrails	-	-
75.0	-	-	Platform w/ Handrails	-	-
55.0	1	GPS Unit	Pipe	(1) 1/2"	Sprint

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
166.0	9	Decibel DB844H90E-XY	Sector Frame	(12) 1 5/8"	Sprint/Nextel
	3	KMW AM-X-WM-17-65-00T		(3) 1 1/4"	
	6	14" x 9" TTA		N/A	
	2	Andrew VHLP2-23-2WH		(2) 1/2"	

Install proposed 1 5/8" and 1 1/4" coax in same location as existing. Shield the (2) 1/2" coax behind or on top of existing.

**Results**

The maximum structure usage is: 104 % (Overstress Considered Acceptable)

Leg Forces	Original Design Reactions	Current Analysis Reactions	% Of Design
Uplift (Kips)	N/A	152.0	N/A
Axial (Kips)	N/A	200.6	N/A
Shear (Kips)	N/A	33.1	N/A

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

**Conclusion**

Based on these analysis results, the structure meets requirements per the TIA/EIA-222-F standard and the 2003 International Building Code with 2005 Connecticut Supplements.

The tower and foundation can support the existing and proposed antenna and transmission line loading as described in this report.

If you have any questions or require additional information, please call 919-466-5146.

