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TS-SPRINT-057-070712

**VIA HAND DELIVERY**

July 12, 2007

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

**RECEIVED**  
JUL 12 2007  
CONNECTICUT  
SITING COUNCIL

**RE: Sprint / Sound Shore Drive, Greenwich**

Dear Mr. Phelps:

Enclosed for filing are an original and 20 copies of Sprint Nextel Corporation's proposal to share an existing CL&P lattice tower off of Sound Shore Drive near Cos Cob Harbor in Greenwich. An electronic copy of this filing has been e-mailed to Ms. Fontaine and Ms. Mulcahy. Also enclosed is a check in the amount of \$500.00 to cover the filing fee.

Please feel free to contact me with any questions.

Very truly yours,

**BROWN RUDNICK BERLACK ISRAELS LLP**

By:   
Thomas J. Regan

Enclosures

# 40242522 v1 - MERCIECM - 026122/0013

**CONNECTICUT SITING COUNCIL**

In re:

Request of Sprint Nextel Corporation for the : **PETITION NO.** \_\_\_\_\_  
Approval of the Shared Use of the Connecticut :  
Light & Power Company Lattice Tower Located :  
on Sound Shore Drive in Greenwich, :  
Connecticut. : July 12, 2007

**TOWER SHARING PROPOSAL**

Sprint Nextel Corporation (“Sprint”) proposes herein to share an existing Connecticut Light & Power Company (“CL&P”) lattice transmission tower (the “Tower”) and associated compound located off of Sound Shore Drive in Greenwich, Connecticut (collectively, the “Facility”). Pursuant to Connecticut General Statutes §16-50aa (the “Statute”), Sprint requests a finding from the Connecticut Siting Council (the “Council”) that the shared use of this Facility is technically, legally, environmentally and economically feasible, will meet public safety concerns, will avoid the unnecessary proliferation of towers, and is in the public interest. Sprint further requests an order approving the proposed shared use of this Facility.

A. The Facility

The Facility is located off of Sound Shore Drive near Cos Cob Harbor in Greenwich, Connecticut. CL&P owns the property and the existing 99’ Tower. Within the lattice Tower there is a 120’ monopole with AT&T’s antennas mounted with a centerline at 120’.

B. Proposed Project

Sprint plans to install its iDEN network panel antennas on the lattice Tower with a centerline at 92’-3”. Sprint’s base station equipment will be located within a 20’-6” x 8’ lease

area underneath the Tower, adjacent to AT&T's existing equipment pad. No increase in the size of the compound will be necessary. In addition, there will be no changes made to the access road or parking area. Telephone and electrical utilities will be routed underground from the existing telco cabinet adjacent to Sprint's proposed equipment pad. Attached under Tab 1 is a site plan for the Facility.

### C. Technical Feasibility

Consistent with the requirements of the Statute, it is technically feasible for Sprint to collocate at this Facility. As stated above, there is sufficient space within the existing compound within which Sprint anticipates locating their base station equipment. Moreover, the Tower has been designed to carry the loads resulting from the collocation of Sprint's antennas and equipment at the ANSI/TIA/EIA recommended standards. Attached under Tab 2 is a structural analysis from Northeast Utilities dated September 17, 2003 with additional information on the structural integrity of the Tower.

### D. Legal Feasibility

The Council has the authority, pursuant to the Statute, to issue an order approving the shared use of this Tower. By issuing an order approving Sprint's use of the Tower, Sprint will be able to proceed with obtaining a building permit for its proposed installation on the tower. Therefore, consistent with the Statute, Sprint's proposal is legally feasible.

#### E. Economic Feasibility

Sprint is a wireless telecommunications provider licensed by the Federal Communications Commission in many major United States trading areas, including Connecticut. Sprint signed a Letter of Agreement with Northeast Utilities for the purpose of locating Sprint's antennas and associated equipment at the Facility in order for Sprint to provide wireless telecommunications service to this area of Greenwich. The Letter of Agreement is attached under Tab 3. Therefore, the shared use of this Facility is economically feasible.

#### F. Environmental Feasibility

Pursuant to the Statute, Sprint's proposal to locate its antennas on the existing lattice Tower will be environmentally feasible for the following reasons:

- The overall impact on the Town of Greenwich will be decreased with the sharing the existing lattice Tower versus the proliferation of new towers in the area.
- The proposal will not increase the height of the Tower.
- The proposal will have a very minimal visual impact because Sprint's iDEN network antennas will be located on the existing lattice section of the Tower and no increase in the height of the Tower or the monopole inside the Tower is necessary. In addition, Sprint's base station equipment will be located underneath the Tower in a visually unobtrusive area. A photographic documentation map and photographic simulation are included under Tab 4.

- There will be no increased impact on any wetland or water resources.
- There will be no increased impact on air quality because no air pollutants will be generated during the normal operation of the Facility.
- There will only be a brief, slight increase in noise pollution during the attachment of the antennas and building of the equipment shed.
- During construction, the Sprint's project will generate a small amount of traffic as workers arrive and depart and materials are delivered. Upon completion, traffic will be limited to an average of one monthly maintenance/inspection visit.

#### G. Public Safety Concerns / Benefits

There will be no adverse impact to the health and safety of the surrounding community or the workers at the Facility due to the addition of Sprint's antennas to the Tower. The total radio frequency exposure measured at the Facility 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 for Sprint's iDEN network antennas, measured at the base of the Tower, indicates that Sprint's antennas will emit only 11.88% of the maximum permissible exposure as set by the NCRP. In addition, Sprint prepared a cumulative power density analysis for the carriers on the Tower (Sprint iDEN) and monopole (AT&T) in conjunction with the other carriers currently located on a separate tower on the subject property (Sprint CDMA & Verizon). The cumulative power density calculations are included under Tab


5. The cumulative power density indicates that the radio-frequency energy at the Facility will never be greater than 30.73% of the maximum permissible exposure standard as set by the NCRP. Therefore, Sprint's analyses clearly show that the maximum level of radio-frequency energy emitted from the Facility solely by Sprint's iDEN network antennas, as well as in conjunction with the other carriers' antennas, will be well below the FCC's mandated radio frequency exposure limits in all locations around the Tower, even with extremely conservative assumptions.

Furthermore, Sprint expects to enhance the safety of the Greenwich community by improving the wireless communications of local residents and travelers throughout the area. Currently, Sprint is unable to provide an acceptable level of service along Interstate 95. This site will cover a 1.2-mile radius in most directions and will benefit customers and travelers along Route 1 as well as people at the Metro North Train Station in the Cos Cob area of Greenwich.

Conclusion

For the reasons stated above, the attachment of Sprint's iDEN network antennas to this existing lattice Tower would meet all the requirements set forth in the Statute. This proposal is technically, legally, environmentally and economically feasible and meets all public safety concerns. Therefore, Sprint respectfully requests that the Council approve this request for the shared use of the CL&P Tower located off of Sound Shore Drive in Greenwich, Connecticut.

Sprint Nextel Corporation,

By:  \_\_\_\_\_

Thomas J. Regan  
Brown Rudnick Berlack Israels LLP  
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185 Asylum Street,  
Hartford, CT 06103-3402  
Phone - (860) 509-6522  
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tregan@brownrudnick.com

# 40241413 v2 - MERCIECM - 026122/0013

# NEXTEL COMMUNICATIONS OF THE MID-ATLANTIC INC

## DBA NEXTEL COMMUNICATIONS CT-3640A SOUND SHORE

A&E FIRM  
**URS CORPORATION AES**  
 500 ENTERPRISE DRIVE  
 ROCKY HILL, CONNECTICUT  
 1-(860)-529-8882

# NEXTEL

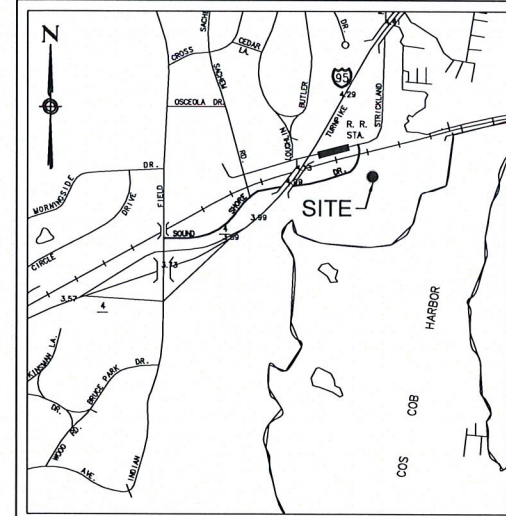
A&E SEAL

URS PROJECT NUMBER 36930429 (GDN 109) DRAWN BY KAP

NO.	DATE	ISSUED FOR
A	02.28.07	REVIEW
B	06.07.07	REVIEW

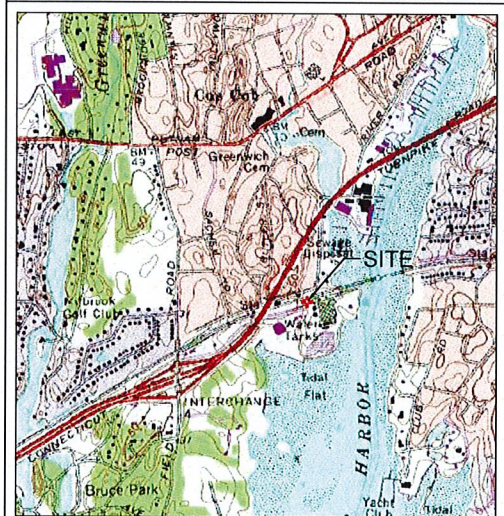
RELEASE BY AA DATE 02.26.07

LOCATION MAP SCALE: N.T.S.



**SITE DIRECTIONS**  
 FROM HARTFORD, TAKE I-91 S TOWARD NEW HAVEN / N. Y. CITY. MERGE ONTO I-95 S / GOVERNOR JOHN DAVIS LODGE TURNPIKE VIA THE EXIT ON THE LEFT. TAKE THE INDIAN FIELD RD EXIT - EXIT 4 - TOWARD COS COB. TURN RIGHT ONTO INDIAN FIELD RD. TURN RIGHT ONTO SOUND SHORE DR.

USGS TOPO MAP SCALE: N.T.S.



**CODE REFERENCES**  
 BUILDING CODE:  
 CONNECTICUT STATE BUILDING CODE  
 2003 INTERNATIONAL BUILDING CODE  
 2003 INTERNATIONAL PLUMBING CODE  
 2003 INTERNATIONAL MECHANICAL CODE  
 2003 INTERNATIONAL EXISTING BUILDING CODE  
 2005 CONNECTICUT SUPPLEMENT  
 2005 NATIONAL ELECTRICAL CODE  
 CONNECTICUT STATE FIRE SAFETY CODE  
 2003 INTERNATIONAL FIRE CODE

**PROJECT INDEX**

SITE NUMBER: CT-3640A  
 SITE NAME: SOUND SHORE  
 SITE ADDRESS: SOUND SHORE DRIVE GREENWICH, CT 06830  
 APPLICANT: NEXTEL COMMUNICATIONS OF THE MID-ATLANTIC, INC DBA NEXTEL COMMUNICATIONS 100 CORPORATE PLACE ROCKY HILL, CT 06067  
 PROPERTY OWNER: NORTHEAST UTILITIES SERVICE COMPANY P.O. BOX 270 HARTFORD, CT 06141-0270 (203) 665-5000  
 SITE CONTACT: HANK O'BRIEN NORTHEAST UTILITIES (860) 665-6987  
 JURISDICTION: TOWN OF GREENWICH  
 ZONING DISTRICT: R-6 SINGLE AND TWO-FAMILY RESIDENCE  
 USGS MAP: COS COB STATION  
 COUNTY: FAIRFIELD  
 LATITUDE: 41°-01'-42.62"  
 LONGITUDE: -73°-35'-53.85"  
 GROUND ELEVATION: 43.4 AMSL ELEVATION (IN FEET)  
 TOP STRUCTURE: 165.9 AMSL ELEVATION (IN FEET)

**PROJECT CONTACTS**

NEXTEL CONSTRUCTION MANAGER: BILL HINCKLEY (860) 367-3058 WILLIAM.HINCKLEY@GDWIRELESS.COM

**PROJECT DESCRIPTION**

THE SCOPE OF THIS PROJECT INCLUDES THE PROPOSED INSTALLATION OF A 12'-6" x 8'-0" LEASE AREA WITH OUTDOOR WIRELESS COMMUNICATIONS EQUIPMENT CABINETS AND THE INSTALLATION OF SIX (6) NEXTEL PANEL ANTENNAS AND FOUR (4) GPS ANTENNAS LOCATED ON AN EXISTING LATTICE TOWER.

**SHEET INDEX**

SHT. NO.	DESCRIPTION	REV NO	REVISION DATE
T-1	TITLE SHEET - GENERAL NOTES AND LEGEND	B	06.07.07
Z-1	SITE PLAN	B	06.07.07
Z-2	COMPOUND PLAN, TOWER ELEVATION AND DETAILS	B	06.07.07
Z-3	EQUIPMENT CABINET PLAN, ELEVATIONS AND NOTES	B	06.07.07

**APPROVALS**

OWNER	DATE
NEXTEL R.F. ENGINEER	DATE
NEXTEL CONSTRUCTION	DATE
NEXTEL SITE ACQUISITION	DATE
NEXTEL FIELD OPERATIONS	DATE
GENERAL DYNAMICS	DATE

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES OR MODIFICATIONS THEY MAY IMPOSE.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.



**SOUND SHORE**

**CT-3640A**  
 SOUND SHORE DRIVE  
 GREENWICH, CT  
 06830

NEXTEL COMMUNICATIONS OF THE MID-ATLANTIC, INC DBA NEXTEL COMMUNICATIONS 100 CORPORATE PLACE ROCKY HILL, CT 06067 OFFICE: (860) 513-5400 FAX: (860) 513-5444

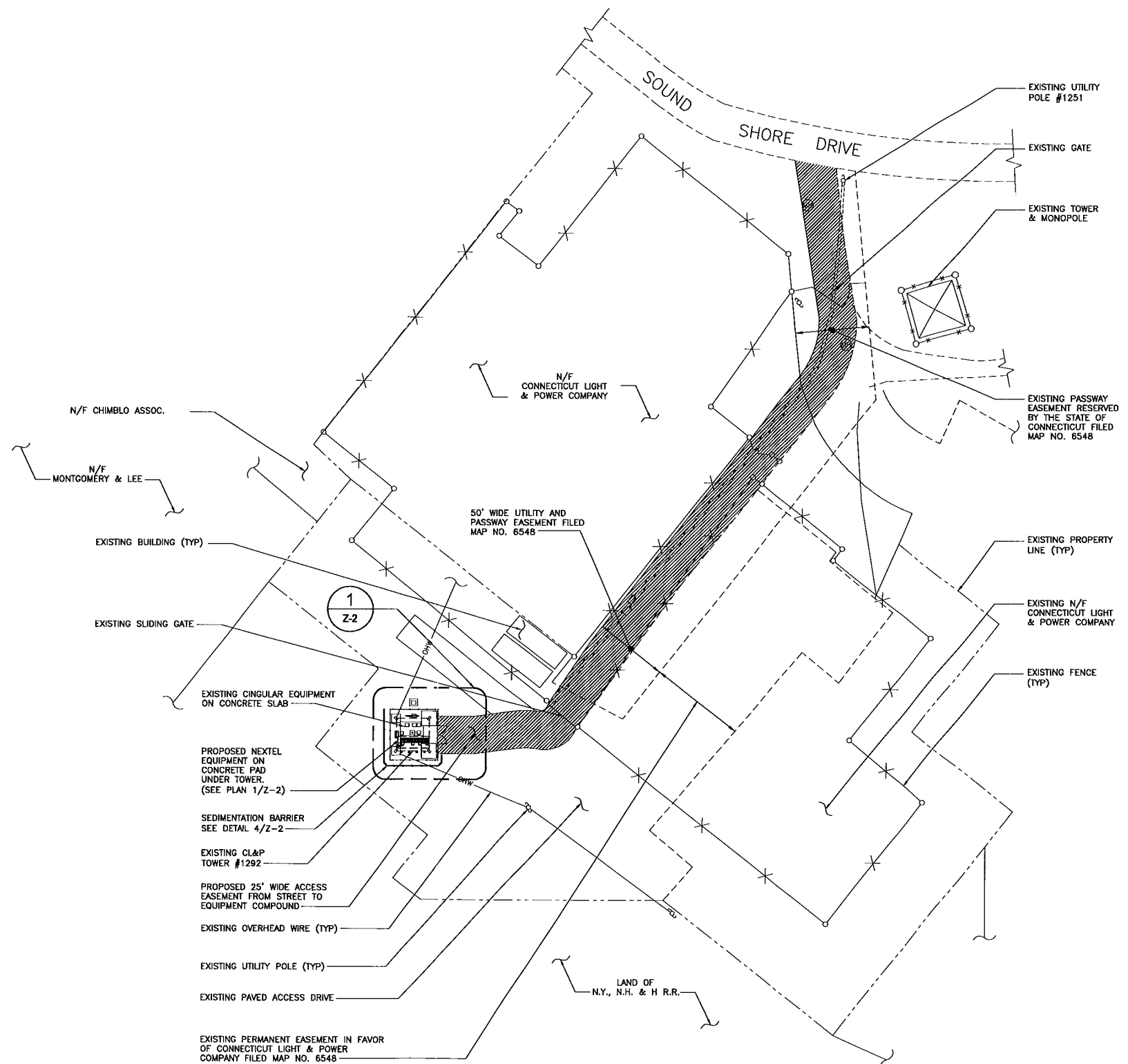
SHEET TITLE  
**TITLE SHEET - GENERAL NOTES AND LEGEND**

SHEET NUMBER

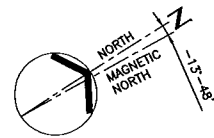
**T-1**



GENERAL LEGEND		
DESCRIPTIONS	EXISTING	PROPOSED
PROPERTY LINE	---	---
HIGHWAY LINE	---	---
LEASE LINE	---	---
CHAIN LINK FENCE	—○—○—	---
CONTOUR LINES	—128—	---
UTILITY POLE	∅	---
SEDIMENTATION FENCE	~~~~~	—#—#—
TREE LINE	~~~~~	---
SPOT ELEVATION	x 276.5	---



1 SITE PLAN  
Z-1 SCALE: 1" = 40'-0"  
0 20 40 80 120



0 1 2 3  
ORIGINAL SIZE IN INCHES

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A&E FIRM  
**URS CORPORATION AES**  
500 ENTERPRISE DRIVE  
ROCKY HILL, CONNECTICUT  
1-(860)-529-8882

**NEXTEL**

A&E SEAL

URS PROJECT NUMBER 36930429 (GDN 109) DRAWN BY KAP

NO.	DATE	ISSUED FOR
A	02.28.07	REVIEW
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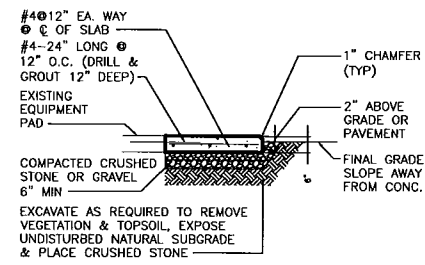
RELEASE BY AA DATE 02.26.07

**SOUND SHORE**  
CT-3640A  
SOUND SHORE DRIVE  
GREENWICH, CT  
06830

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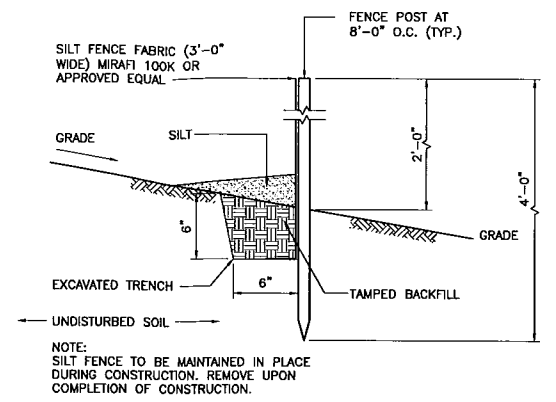
SHEET TITLE  
**SITE PLAN**

SHEET NUMBER  
**Z-1**



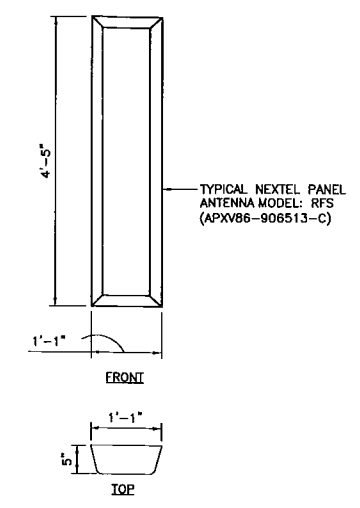
NOTE:  
 1. GRAVEL SHALL BE NATURAL OR CRUSHED STONE  
 WITH 100% PASSING 1 INCH SIEVE.

**5 CONCRETE PAD DETAIL**  
 Z-2 SCALE: N.T.S.

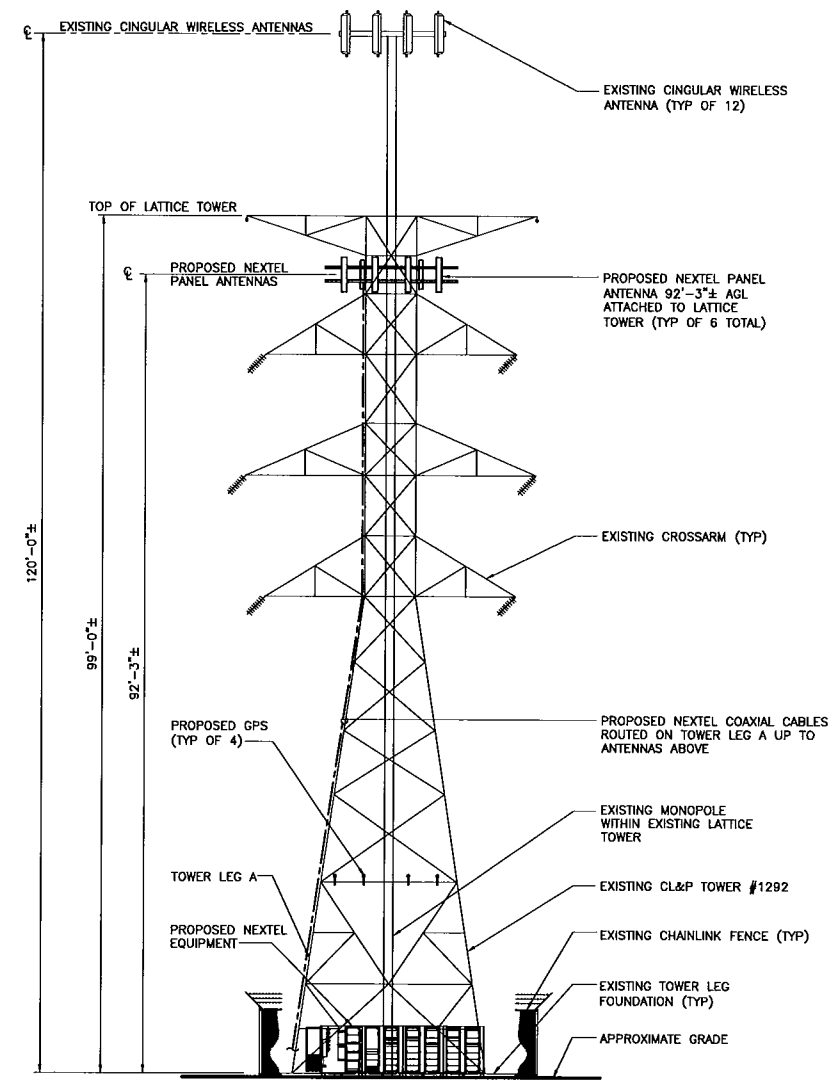


NOTE:  
 SILT FENCE TO BE MAINTAINED IN PLACE  
 DURING CONSTRUCTION. REMOVE UPON  
 COMPLETION OF CONSTRUCTION.

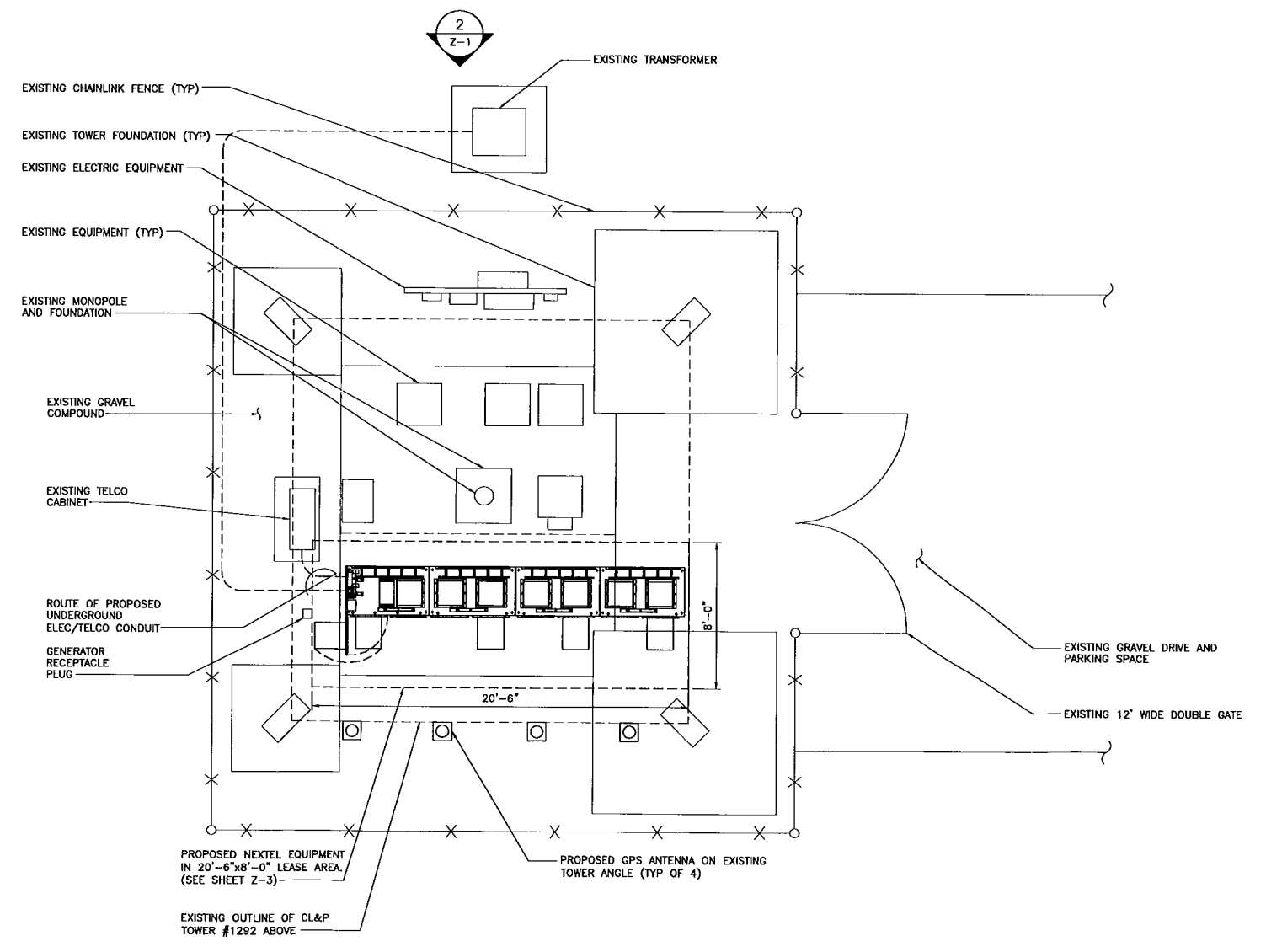
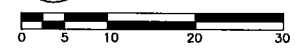
**4 SEDIMENTATION  
 BARRIER/SILT FENCE DETAIL**  
 Z-2 SCALE: 1 1/2" = 1'-0"



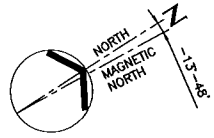
**3 TYPICAL PANEL ANTENNA**  
 Z-2 SCALE: 3/4" = 1'-0"



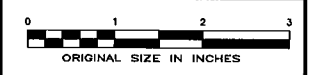
**2 TOWER ELEVATION**  
 Z-2 SCALE: 1" = 10'-0"



**1 COMPOUND PLAN**  
 Z-2 SCALE: 1/4" = 1'-0"



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 FAX: (860) 513-5444

SHEET TITLE  
**COMPOUND PLAN,  
 TOWER ELEVATION  
 AND DETAILS**

SHEET NUMBER  
**Z-2**

**SOIL EROSION AND CONTROL NOTES**

**EROSION CONTROL NOTES**

- 1) THE EROSION CONTROL PROCEDURES SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE "DEP BULLETIN 34, CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL DATED 2002".
- 2) DURING CONSTRUCTION AND THEREAFTER EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. NOT GREATER THAN 80,000 SQ. FT. OF LAND SHALL BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME AND SHALL NOT EXCEED 90 DAYS. LAND SHOULD NOT BE LEFT EXPOSED DURING THE WINTER MONTHS.
- 3) SILTATION FENCING SHALL BE INSTALLED WHERE SHOWN PRIOR TO ANY ON SITE GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. IT SHOULD BE MAINTAINED DURING AND AFTER DEVELOPMENT TO REMOVE SEDIMENT FROM RUNOFF WATER AND FROM LAND UNDERGOING DEVELOPMENT. WHERE POSSIBLE NATURAL DRAINAGE-WAYS SHOULD BE UTILIZED AND LEFT OPEN TO REMOVE EXCESS SURFACE WATER.
- 4) ALL DISTURBED AREAS AND SIDE SLOPES WHICH ARE FINISH GRADED WITH NO FURTHER CONSTRUCTION TO TAKE PLACE SHALL BE LOAMED AND SEEDED. A MINIMUM OF 4" OF LOAM SHALL BE INSTALLED. A SEED, LIME AND FERTILIZER PROGRAM SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE "DEP BULLETIN 34, CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL DATED 2002".
- 5) ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH SHALL BE REGRADED LATER DURING CONSTRUCTION SHALL BE MACHINE HAY MULCHED AND SEEDED WITH RYE GRASS TO PREVENT EROSION. HAY OR STRAW MULCH SHALL BE APPLIED TO ALL FRESHLY SEEDED AREAS AT A RATE OF 2 TONS PER ACRES. BALES SHALL BE UNSPOILED, AIR-DRIED, AND FREE FROM WEED, SEEDS AND ANY COARSE MATERIAL.
- 6) UPON ESTABLISHMENT OF VEGETATION OF ALL DISTURBED AREAS AND UPON COMPLETION OF CONSTRUCTION, ALL SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED FROM THE SITE.

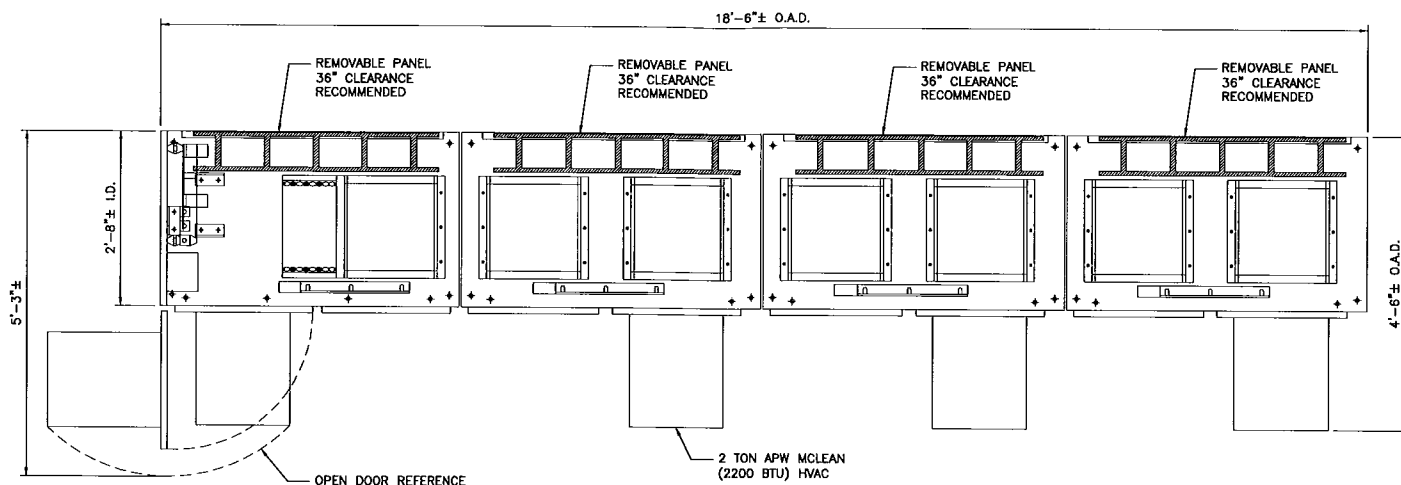
**SILT FENCE NOTES**

- 1) THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES
- 2) MAINTENANCE SHALL BE PERFORMED AS NEEDED TO PREVENT BULGES IN THE SILT FENCE DUE TO DEPOSITION OF SEDIMENT.
- 3) SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
- 4) IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 5) SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT, THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- 6) SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATION.

**EQUIPMENT SPECIFICATIONS**

- 1) ENCLOSURE DIMENSIONS:  
85.88'h x 221.36'w x 32.00'd (5'-6"±h x 18'-6"±w x 2'-8"±d)  
+6.00'h (6"±) BASE RING  
72.25" (6'-1"±) TOTAL HEIGHT WITH BASE
- 2) MATERIAL:  
A. 0.190 ALUMINUM (ASTM B209 5052-H32)
- 3) WEIGHT: (INCLUDING CUSTOMER SUPPLIED EQUIPMENT)  
A. ALUMINUM: APPROXIMATE 8800lbs
- 4) FINISH:  
POWDERCOAT TRIMTE WHITE.
- 5) HVAC:  
4 - '2 TON' AIR CONDITIONERS (2400 BTU EACH)  
W/ SHORT CYCLE PROTECTION & LOW AMBIENT KIT.
- 6) INPUT POWER:  
120/240 VAC, 200A, 60Hz  
ENCLOSURE DRAW: 158 AMPS (NOMINAL).
- 7) LOAD CENTER:  
30 POSITION, 200 AMP
- 8) ALARMS:  
HI-TEMP, HI-TEMP SHUTDOWN, LOW-TEMP, INTRUSION.
- 9) RACKS:  
2 ● 5 RACK UNITS &  
7 ● 35 RACK UNITS
- 10) SURGE PROTECTION:  
AC SURGE PROTECTION: TRANSECTOR MCP120T-A-10M.  
RF SURGE PROTECTION: POLYPHASE 9 MAIN & 2 GPS  
T-1 SURGE PROTECTION: TRANSECTOR TSJ-48-CLT.
- 11) MISCELLANEOUS:  
32-110 CFM CIRCULATING FANS  
LIGHTS - 4 HALOGEN  
HYDROGEN RELEASE VENT  
1 STRING 12105 BATTERIES (POWER BATTERY CO.)  
  
UL LISTED TYPE 3R ENCLOSURE (E181330) CAT. 508, 891.  
COMPLIES WITH 1996 NEC (NATIONAL ELECTRIC CODE)  
US PATENT 5,801,632

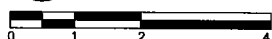
(TOP VIEW - FRONT DOORS CLOSED)



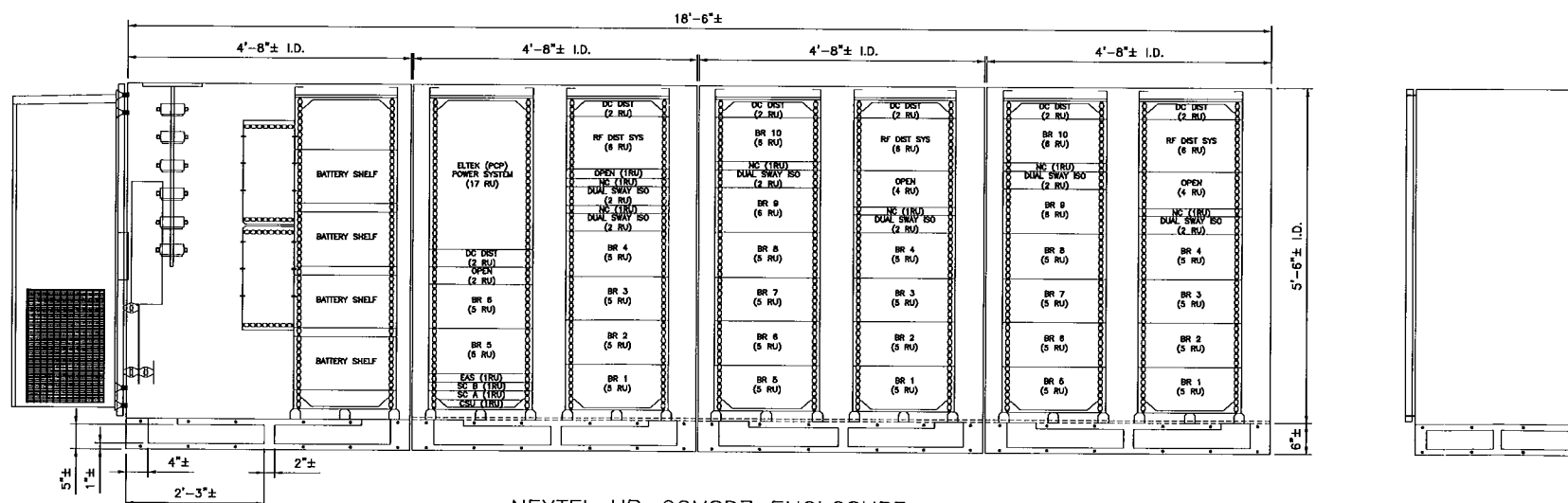
NEXTEL HP-COMSD7 ENCLOSURE

3 EQUIPMENT CABINETS PLAN (TOP VIEW)

Z-3 SCALE: 3/4" = 1'-0"



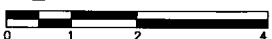
(FRONT VIEW - LEFT DOOR OPEN, OTHERS OMITTED)



NEXTEL HP-COMSD7 ENCLOSURE

1 EQUIPMENT CABINETS ELEVATION (FRONT VIEW)

Z-3 SCALE: 3/4" = 1'-0"



EQUIPMENT CABINETS

2 ELEVATION (RIGHT SIDE VIEW)

Z-3 SCALE: 3/4" = 1'-0"



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**NEXTEL**

A&E SEAL

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100 CORPORATE PLACE  
ROCKY HILL, CT 06067  
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FAX: (860) 513-5444

SHEET TITLE  
**EQUIPMENT BUILDING  
ELEVATIONS AND  
NOTES**

SHEET NUMBER

**Z-3**



**Northeast  
Utilities System**

107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company  
P.O. Box 270  
Hartford, CT 06141-0270  
(203) 665-5000

**STRUCTURAL ANALYSIS OF AN EXISTING  
CONNECTICUT LIGHT & POWER COMPANY  
115-kV TRANSMISSION LINE TOWER TO SUPPORT  
ADDITIONAL LOADS FROM NEXTEL PCS ANTENNAS**

**COS COB - WATERSIDE 1740 LINE  
COS COB - SOUTHEND 1750 LINE  
TOWER #1292  
GREENWICH, CONNECTICUT**

**Prepared by:** Northeast Utilities Service Company  
Transmission Line & Civil Engineering Section  
September 17, 2003

**GREENWICH TOWER #1292**  
**COS COB - WATERSIDE 1740 LINE**  
**COS COB - SOUTHEND 1750 LINE**  
**TOWER ANALYSIS FOR ADDITION OF NEXTEL PCS ANTENNAS**

**INTRODUCTION**

This report summarizes the results of a structural analysis performed on the existing 99-foot high galvanized steel lattice tower. The tower was manufactured by Lehigh Structural Steel Co. in 1968 of ASTM A36 structural steel. It currently supports a double circuit 115-kV line and a FWT monopole with a AT&T Wireless antenna platform attached. The current proposal is to add additional Nextel PCS antennas between the shield wire and top conductor arms. An analysis was also made for the existing concrete foundation.

An increased lateral and vertical loading on the tower will result from the addition of 6 panel antennas attached to the body of the existing tower. The existing FWT monopole is located inside of the existing tower, and extends some 20 feet above the top of it. Lateral wind loads from the monopole, with attached AT&T platform and antennas, are transferred to the tower at various elevations along its height. The monopole consists of a galvanized steel pipe riser with 12 AT&T panel antennas mounted on a platform at 120 feet above the top of the tower foundations. Coax cables feeding the AT&T antennas are routed inside of the pipe riser and are supported by it. The FWT monopole was originally designed by FWT of Fort Worth, Texas for AT&T Wireless. At that time, a structural analysis of the tower was performed by Paul J. Ford and Company to verify its adequacy for supporting the AT&T equipment. Their analysis used design criteria supplied by Northeast Utilities (NU). The proposed Nextel antennas, located at 92 feet above the top of the tower foundations, will consist of 6 panel antennas, each fed by two 1-1/4" coax cables. The Nextel coax cables are routed up the north tower leg to the antenna level. The design of the Nextel antenna mounting system was performed by Tectonic Engineering Consultants, Mountainville, New York, using design criteria supplied by NU.

**STRUCTURAL ANALYSIS**

The present structural analysis was performed using the requirements of the National Electrical Safety Code (NESC) as required by the Connecticut Department of Public Utility Control (DPUC), ANSI/ASCE 10-90: "Design of Latticed Steel Transmission Structures", and NU's "Criteria for Design of PCS Masts Extending Above Transmission Structures and Analysis of Transmission Structures Supporting PCS Masts". The tower was analyzed using a computer program entitled TOWER and hand calculations.

TOWER is a microcomputer-based program for the analysis and design of steel latticed towers, distributed by Power Line Systems, Inc. of Madison, Wisconsin. The load combinations used were as follows:

Load Condition 1 - NESC Heavy Loading (2002 Edition)

1/2" of Radial Ice on Wires

Wind on Wires: 4 psf

Wind on 2 Tower Faces: 6.4 psf

Overload Factors:

Wire Tension: 1.65

Wire Weight: 1.5

Wind: 2.5

Double Circuit 115-kV Line:

(6) - 1272 kcmil ACSR Conductors at 2,000 pounds tension.

(1) - 7#8 aw Shield Wire at 2,000 pounds tension.

Wind Span: 102 ft.

Weight Span: 506 ft.

Line Angle: 90°

Wind Loads from FWT "Power Mount" Monopole with AT&T antennas, and Nextel antennas - see attachment.

Load Condition 2 - Extreme Wind Loading (2002 Edition)

Wind on Wires: varies from 32.2 psf @ 99' to 29.4 psf @ 55'.

Wind on Each Tower Face: 50.1 psf

Overload Factors:

Wire Tension: 1.0

Wire Weight: 1.0

Wind: 1.0

Double Circuit 115-kV Line:

(6) - 1272 kcmil ACSR Conductors at 1,116 pounds tension.

(1) - 7#8 aw Shield Wire at 1,108 pounds tension.

Wind Span: 102 ft.

Weight Span: 506 ft.

Line Angle: 90°

Wind Loads from FWT "Power Mount" Monopole with AT&T antennas, and Nextel antennas - see attachment.

**ORIGINAL DESIGN**

The original design loading for the tower was as follows:

Shield wires – (2) 7#8 aw

Conductors – (6) 1272 kcmil ACSR

Wind Span: 1000 ft

Weight Span: 1200 ft

Line Angle: 30<sup>0</sup> to 90<sup>0</sup>

a. all wires intact under Load Case 1, 2 or 3.

b. any combination of one broken shield wire and three broken conductors under Load Case 1.

Load Case 1: NESC Heavy; conductors @ 10,000 pounds; shield wires @ 4,200 pounds.

Wind on 1-1/2 Tower Faces: 6.4 psf

Overload Factors:

Wire Tension: 1.65

Wire Weight: 1.27

Wind: 2.54

Load Case 2: Extreme Wind (transverse) @ 90 mph; conductors @ 4,672 pounds; shield wires @ 1,060 pounds.

Wind on 1-1/2 Tower Faces: 32 psf

Overload Factors:

Wire Tension: 1.15

Wire Weight: 1.15

Wind: 1.15

Load Case 3: 1" Radial Ice, no wind; conductors @ 11,500 pounds; shield wires @ 6,000 pounds.

No Wind

Overload Factors:

Wire Tension: 1.15

Wire Weight: 1.15

## RESULTS

### Tower Analysis

The existing CL&P tower #1292 was analyzed for Load Conditions 1 & 2 as described above, using the actual wind and weight spans; the actual line angle; the existing wire configuration; and the loads from the FWT "Power Mount" monopole with AT&T PCS antennas and platforms, and the proposed Nextel PCS antennas and coax cables.

The tower is capable of supporting the proposed loads (double circuit 115-kV line, FWT "Power Mount" with AT&T antennas, and Nextel antennas).

### Foundation Analysis

The foundation was checked by comparing the maximum proposed loads at the tower base with the original design loads. The existing concrete foundation is capable of supporting the present and proposed loads.

## CONCLUSIONS

The analysis indicates that the existing tower and foundations can safely support the additional lateral and vertical loads imposed upon it by the FWT "Power Mount" monopole, with attached AT&T platform and antennas, and the Nextel PCS appurtenances under the present transmission line loadings.

The six (6) new panel antennas and twelve (12) new 1-1/4" dia. Nextel coax cables must be attached to the existing tower as shown in Tectonic Engineering & Surveying Consultants Drawing S-1.

Prepared by: Northeast Utilities Service Company  
Transmission Line & Civil Engineering Section  
Richard A. Drasdis  
Principal Engineer  
September 17, 2003





**Northeast  
Utilities System**

107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company  
P.O. Box 270  
Hartford, CT 06141-0270  
(860) 665-5000

July 3, 2007

Mr. Craig Pugh  
Director, Site Development  
Sprint Nextel Corporation  
Crossroads Corporate Center  
One International Boulevard, Suite 800  
Mahwah, NJ 07495

Re: Site Permitting Authorization  
Greenwich Telecommunications Site

Dear Mr. Pugh:

Authorization is hereby given to Sprint Nextel Corporation, its employees and its duly authorized agents and independent contractors (hereinafter collectively referred to as "Sprint Nextel Corporation", to apply for any and all local municipal, state and federal licenses, permits and approvals, including but not limited to Connecticut Siting Council, building permits, zoning variances, zoning special exceptions, site plan and subdivision approvals, driveway, wetlands and terrain alteration permits, which are or may be necessary or required for Sprint Nextel Corporation to construct, operate and maintain a wireless communications system (PCS System), and/or antenna site on the following property over which The Connecticut Light & Power Company (CL&P) has easement rights:

CL&P Lattice Tower, CT3640A  
Sound Shore Drive  
Greenwich, Connecticut

The foregoing authorization is given subject to the following conditions:

1. This authorization shall be nonexclusive. Nothing herein shall prevent or restrict CL&P from authorizing any other person or entity to apply for any similar licenses, permits or approvals to construct, operate and maintain any other communication system or facility of any type on the property at any time.
2. This authorization shall not obligate CL&P to pay for or reimburse any costs or expenses or to provide any assistance of any kind in connection with any applications, or bind or obligate CL&P to agree or be responsible for any on-site or off-site improvements, development restrictions, impact fees or assessments, capital improvement charges, bonds or other security, or any other fee, assessment, charge or expense imposed or required as a condition of any license, permit or approval. Sprint Nextel Corporation shall be solely and fully responsible for all fees, charges costs and expenses of any kind in connection with any applications. CL&P agrees to reasonably cooperate with Sprint Nextel Corporation in signing such applications or other similar documents as may be required in order for Sprint Nextel Corporation to apply for any license, permit or approval.

3. This authorization shall not be deemed or construed to grant or transfer to Sprint Nextel Corporation any interest in the property, whatsoever, and shall not in any respect obligate or require CL&P to sell, lease or license the Property to Sprint Nextel Corporation or otherwise allow Sprint Nextel Corporation to use or occupy the property for any purpose, regardless of whether any licenses, permits and approvals applied for by Sprint Nextel Corporation for the property are granted. Sprint Nextel Corporation understands and acknowledges that any and all applications filed by Sprint Nextel Corporation for the property at Sprint Nextel Corporation's sole risk and without any enforceable expectation that the property will be made available for Sprint Nextel Corporation's use.
4. Sprint Nextel Corporation shall be required to supply to CL&P, free of charge and contemporaneous with Sprint Nextel Corporation's filing of same, a complete copy of any and all applications, plans, reports and other public filings made by Sprint Nextel Corporation with any local, municipal, state or federal governmental or regulatory officer, agency board, bureau, commission or other person or body for any licenses, permits or approvals for the property, and to keep CL&P fully informed on a regular basis of the status of Sprint Nextel Corporation's applications.
5. This authorization shall automatically expire six (6) months after the date of this letter, unless extended in writing by mutual agreement of CL&P and Sprint Nextel Corporation.

Very truly yours,



Jeffrey W. Elliott, Supervisor  
Survey Engineering & Rights of Way

**AGREED TO ON BEHALF OF** Sprint Nextel Corporation

By: \_\_\_\_\_

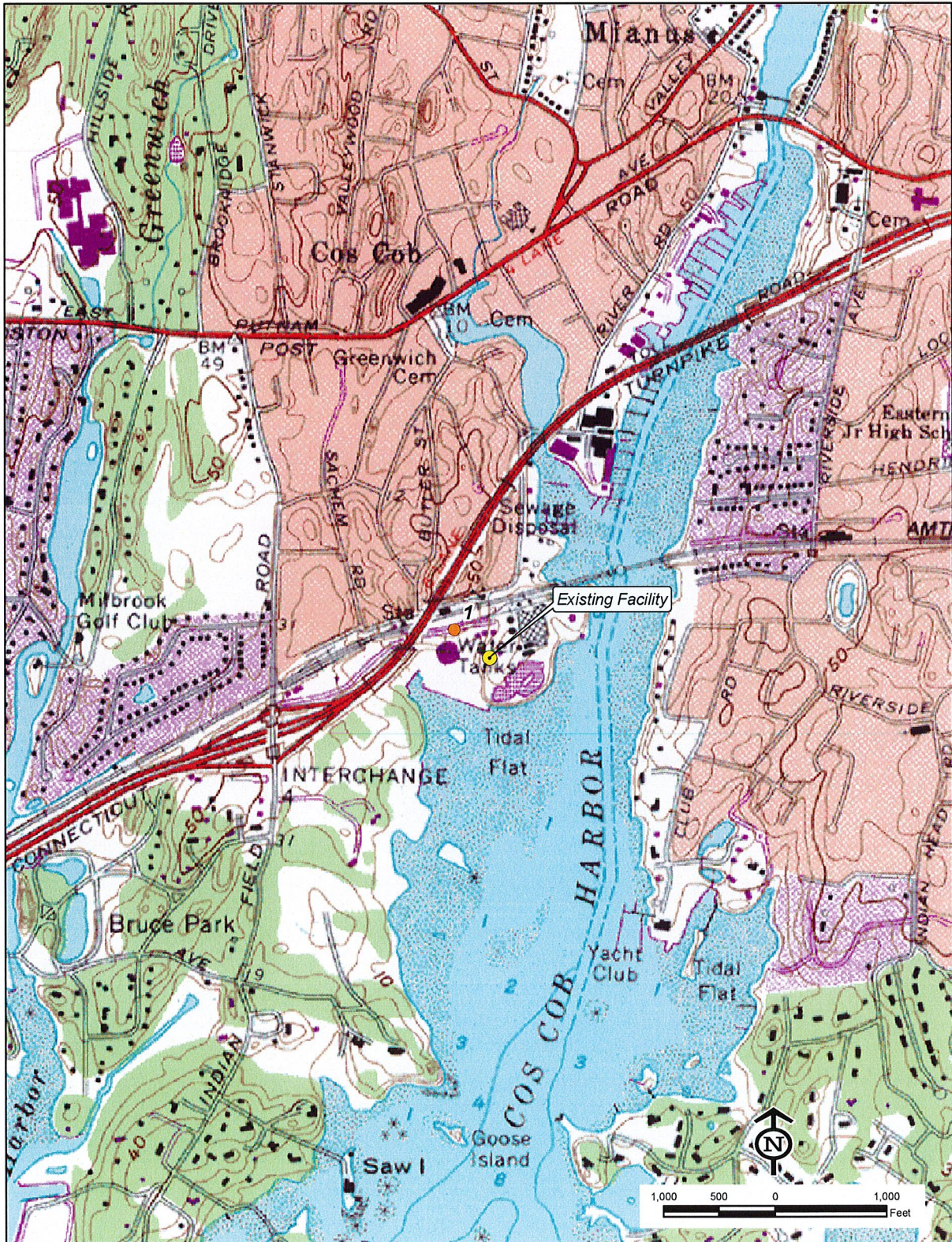


Duly Authorized

CL&P Lattice Tower, CT3640A  
Sound Shore Drive  
Greenwich, Connecticut

# Photolog Documentation

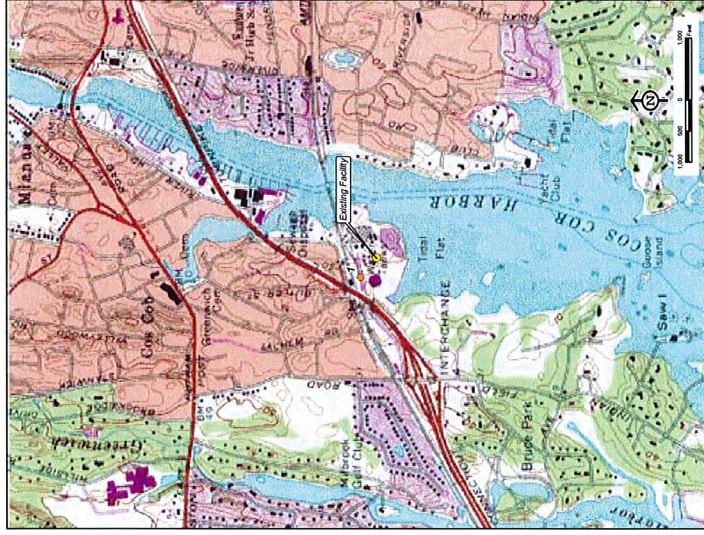
Town of  
Greenwich  
Connecticut



ctm\data\proj\40654\Sites\CT3640A\_Greenwich\graphics\visuals\CT3640A\_photolog.mxd

# Photographic Documentation and Simulation View 1

Town of  
Greenwich  
Connecticut



Dekraft Road  
Greenwich, Ct  
CT3640A

Proposed installation  
on existing tower

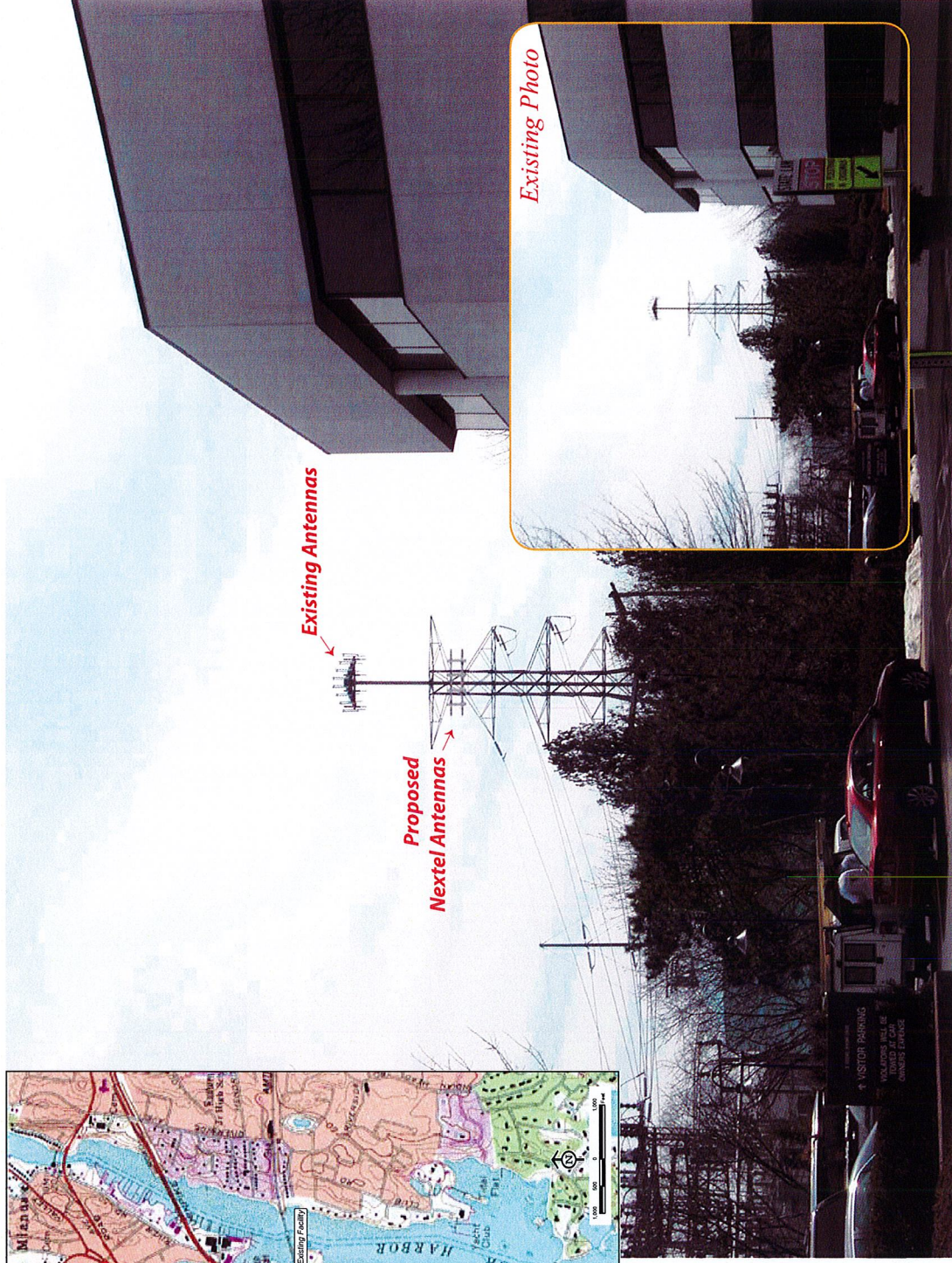


PHOTO TAKEN FROM SOUND SHORE DRIVE ADJACENT TO METRO NORTH RAIL STATION PARKING LOT,  
LOOKING SOUTHEAST  
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.07 MILE +/-

NEXTEL

Yonasse Hengen Brusiltn, Inc.

Greenwich, CT3640 (NU strx 1292) (Sound Shore Ave Greenwich, CT) - CT Siting Council Power Density Calculations									
Sprint Nextel Directional Antennas ESMR - 851 MHz - 86' AGL									
Note: Power densities are in mW/ cm <sup>2</sup>									
Transmitters:	Frequency in MHz	CT Standard mW/ cm <sup>2</sup>	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard		
Sprint Nextel iDEN	851	0.5673	12	100	80	0.0673875	11.8779%		
From prior file:									
Sprint Nextel CDMA							2.3920%		
AT&T TDMA							6.0740%		
AT&T GSM							3.0410%		
Verizon 800							5.9900%		
Verizon 1900							1.3600%		
** lowest Sprint Nextel antenna centerline is 86' adjusted to 80' per OET 65 Bulletin for 6' average head height.									
Total % of CT Standard							30.7349%		

THIS CHECK IS VOID WITHOUT A BLUE GREEN BACKSHOULDER AND A BLUE WATER MARK. PLEASE HOLD AT ANGLE TO VIEW



**BROWN RUDNICK**

One Financial Center  
Boston, MA 02111

CITIZENS BANK  
Boston, MA 02108  
FIRM OPERATING ACCOUNT

CHECK NO.: 293889

DATE 07/10/07

5-7017  
2110

PAY FIVE HUNDRED AND 00/100

NET AMOUNT \$500.00

FIRM OPERATING ACCOUNT

TO THE ORDER OF THE CONNECTICUT SITING COUNCIL

AMOUNTS OVER \$1,000 REQUIRE TWO SIGNATURES

⑈ 293889⑈ ⑆ 211070175⑆ ⑈ 1130983630⑈