

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

November 6, 2008

Steven L. Levine
Real Estate Consultant
New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, CT 06067

RE: **EM-CING-057-080819** – New Cingular Wireless PCS, LLC notice of intent to replace an existing telecommunications facility located at 36 Ritch Avenue, Greenwich, Connecticut.

Dear Mr. Levine:

At a public meeting held on October 30, 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, with the following conditions and recommendations:

Conditions:

- a) The flag shall be eliminated.
- b) All abutting property owners shall be notified in writing at least one week prior to the start of construction.
- c) The tower shall be painted a dull grey color or galvanized according to the Town of Greenwich's preference, and the paint shall be maintained in good condition if applicable.
- d) The green vinyl screening shall be maintained in good condition.
- e) Post-construction radio frequency power density measurements shall be taken to ensure compliance, and a copy of the report shall be sent to: the Council, the Town of Greenwich Planning and Zoning Office, Building Department, and the Communications Division of the Police Department.
- f) Any interference with the Town Emergency Communications equipment shall be corrected as soon as possible.
- g) All inactive equipment shall be removed upon termination.
- h) In the event that the tower is inactive for one year, it shall be removed within 90 days after the one year time period, and the site shall be restored to its previous appearance.
- i) Landscaping trees and screening plants shall be maintained.

Recommendations:

- a) Proper drainage should be maintained at the site.
- b) Signs located near the access drive shall be moved to the fenced compound if possible.

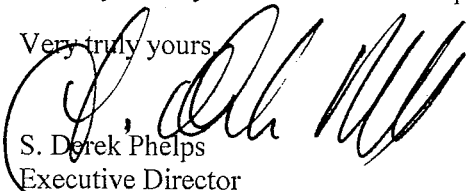
The proposed modifications are to be implemented as specified here and in your notice dated August 18, 2008, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations 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/cm

c: The Honorable Peter J. Tesei, First Selectman, Town of Greenwich
Diane Fox, Planning & Zoning Director, Town of Greenwich

EM-CING-057-080819

John M. Hartwell
42 Ritch Ave. W.
Greenwich, Ct. 06830
Tel (H) 203 - 531-1858
Tel (W) 203- 653-6648

October 24, 2008

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

RECEIVED
OCT 28 2008

CONNECTICUT
SITING COUNCIL

ORIGINAL

Re: Notice of Modifications to Existing Telecommunications Facility
36 Ritch Ave, Greenwich – notice dated October 21, 2008
from Steven L. Levine, Cingular Wireless

Dear Mr. Phelps,

In the above referenced notice I was asked if I had any comments to address them to you. I live on an adjoining property and have been going through years of issues with AT&T/Cingular regarding the work performed on the site which has included twice trespassing on my property and digging up my yard and driveway without my permission. At the moment I have a hole in my driveway which resulted in legal action against Cingular. While that issue was settled I now have a problem with Cingular and the Town of Greenwich as I have not been able to remove the pipe illegally placed on my property until Cingular follows the original plans. This will probably lead to more litigation.

In the package sent with the notice there is a letter from Diane Fox, Town of Greenwich Planning/Zoning Coordinator to Neil Alexander, attorney representing AT&T, dated January 11th, 2002 stating many conditions which were required to be met prior to the cell service being turned on. One of these unmet conditions was “ all driveway work will be on the Kelly property and not on the Hartwell property” There are other conditions also in this letter that were not met and again the cell service should never have been turned on.

Therefore, I am completely against any further work regarding this cell tower until the original requirements are met. If you would like more detail, please feel free to contact me.

Sincerely,

J. M. Hartwell



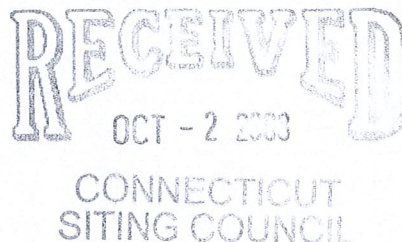
New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

HAND DELIVERED

October 1, 2008

Honorable Daniel F. Caruso, Chairman,
and Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051



Re: EM-CING-057-080819: AT&T Response to Town of Greenwich Land Use Department Memorandum Dated September 18, 2008

Dear Chairman Caruso and Members of the Council:

In response to comments from the Greenwich Land Use Department (attached), New Cingular Wireless PCS, LLC (AT&T) respectfully submits the following:

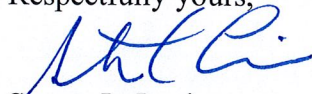
- 1) AT&T was unaware that the property owner was issued a zoning violation. Upon receiving the Town's memorandum, AT&T representatives spoke with representatives of the property owners. We understand that a gate was installed by them. This gate is totally unrelated to the tower facility and was apparently installed by the property owners as a matter of securing their property. We are advised that the property owners will be seeking local approval for their gate and otherwise defending themselves with respect to the zoning violation issued by the Town. That matter is, however, totally unrelated to the tower facility and the subject of this exempt modification filing with the Council.
- 2) AT&T was a party to litigation as referenced by the Town's Planning Department. Of note, there was no "illegal tie in" as suggested in the Town's memorandum, though the neighboring property owner did bring litigation against the property owners of 42 Ritch Avenue on this and other matters several years after the fact. AT&T was brought in as a third party to the litigation and facilitated a settlement. That settlement agreement is in and of itself an easement. Due to the nature of the litigation, there is no recorded easement nor is one required by the terms and conditions of this private agreement which is not a public document. As such, no easement map is available, though we have included an existing conditions survey which shows the underground pipe.
- 3) The flag on the tower was originally part of the plans approved by the Town's Planning & Zoning Commission several years ago. As requested by the Town, AT&T will remove the flag from the replacement tower specifications.

- 4) AT&T has no objection to notifying abutting property owners prior to the start of construction though it is not a legal requirement of any approvals required for the project. As such, AT&T will mail the abutters notice advising them at least 1 week prior to the date on which construction is to commence.
- 5) We note that this project by AT&T is solely for its required upgrades to the pole and no approvals are sought at this time to add other carriers to the structure.
- 6) As requested, the replacement tower will be painted a dull grey color and maintained in good condition.
- 7) We note the Town's comment regarding the green vinyl screening of the tower lease area and its requirement to be maintained.
- 8) This request is beyond State or local jurisdiction to require as set forth in Section 332(c)(7) of the Communications Act.
- 9) This is a standard requirement of the Siting Council as it relates to facilities under its jurisdiction and to which AT&T has no objection.
- 10) Radio frequency interference among FCC licensees, including the Town and AT&T, is solely subject to FCC rules and regulation which preempt any State or local jurisdiction in this area. AT&T will of course comply with all FCC rules in this regard including coordination with the Town to ensure no interference among their respective systems in the event there is claimed interference in the future.
- 11) As noted in response to comment number 9, removal of the facility if no longer in service, is a standard Siting Council requirement to which AT&T has no objection.
- 12) Landscaping trees and screening plants approved as part of the Town Planning & Zoning Commission's approval that resulted in a court settlement will be maintained and kept in a healthy growing condition.

For the foregoing reasons, AT&T respectfully submits that the proposed replacement of the Ritch Avenue flagpole tower in Greenwich constitutes an exempt modification under R.C.S.A. Section 16-50j-72(b)(3).

Should you have additional questions on this matter, please feel free to call Attorney Chris Fisher at (914) 761-1300. Thank you for your consideration in this matter.

Respectfully yours,



Steven L. Levine
Real Estate Consultant

Attachments

cc: Honorable Peter J. Tesei, 1st Selectman, Town of Greenwich
Diane W. Fox and Katie Blankley, Greenwich Planning & Zoning
Michele Briggs, Real Estate Manager, New Cingular Wireless PCS, LLC
Attorney Chris Fisher

DIANE W. FOX, AICP
DIRECTOR PLANNING AND ZONING/ZONING
ENFORCEMENT COORDINATOR/TOWN PLANNER



KATIE BLANKLEY, AICP, Deputy Director Planning
and Zoning

PATRICK LAROW, AICP, Senior Planner
CINDY TYMINSKI, Planner II
MAREK KOZIKOWSKI, Planner I

PLANNING AND ZONING - LAND USE DEPARTMENT

MEMORANDUM

TO: The Connecticut Siting Council
Derek Phelps, Executive Director
Ten Franklin Square
New Britain, CT 06051

FROM: Diane Fox, Director of Planning and Zoning/Town Planner/Zoning Enforcement
Coordinator
Katie Blankley, Deputy Director of Planning and Zoning/Assistant Town Planner

DATE: September 18, 2008

RE: New Cingular Wireless PCS, LLC
36 Ritch Avenue
EM-CING-057-080819

Thank you as always for the opportunity to comment on this request to modify an existing telecommunications facility. The request is to replace an existing 70' tower with a more structurally sound tower, also of 70', to accommodate replacement antennas within the pole. The upgraded antennas require a wider pole at the top. From the ground to 46' the diameter of the flagpole will be 24 1/2" and from 46' to 70' the pole will be 26 1/2". There will be no ground disturbance as the existing foundation will not be altered and no changes to the size of the lease area. There is only one carrier supported by this tower.

The following are our comments:

- 1) There is an existing gate that is currently the subject of a zoning violation. In discussion between the Zoning Enforcement Officer and the property owner, it was agreed that an application would be submitted to the Town Architectural Review Committee.
- 2) There was a recent legal dispute between the property owner and the neighbor John Hartwell, who owns 42 Ritch Avenue regarding the illegal tie-in of stormwater pipes to Mr. Hartwell's property. It is understood that the dispute was settled. It would be very helpful for an easement map to be provided and any easement agreement also be provided.

- 3) The plan shows a flag to be installed at the top of the tower. We suggest eliminating a flag so as not to draw undue attention to it and also the maintenance of the flag in the past has proven to be difficult.
- 4) Notify neighbors prior to the start of work.
- 5) It should be noted that the court settlement for the tower restricted the tower to one carrier only.
- 6) The towers be painted a dull gray color and the paint be maintained in good condition as determined by the Siting Council or the Town Of Greenwich Planning and Zoning Commission.
- 7) The green vinyl screening of the lease area be maintained in good condition.
- 8) After the installation of the equipment approved in this application, but prior to the activation of the site, an RF Engineer will conduct testing of the total output of non-ionizing electromagnetic emissions generated by all existing equipment on the tower and certify in writing that the emissions are in compliance with Federal and State Emission Standards. A copy of this certification be submitted to the Planning and Zoning Office, Building Department, and the Communications Division of the Police Department.
- 9) The applicant must remove all primary and secondary equipment upon termination.
- 10) In the event that any equipment causes interference with the Town Emergency Communication Equipment, the telecommunication carrier must immediately take all steps necessary to correct and eliminate the interference.
- 11) A pole, tower, or transmitting facility not in use for more than one year be removed by the service facility owner or its agents. This removal be completed within 90 days after the one-year period. Upon removal, the site shall be restored to its previous appearance. All cabling, antennas and mounting must also be removed.
- 12) Landscaping trees and screening plants, approved under the settlement agreement of FSP #2110, be kept in a healthy growing condition.

ZONING ENFORCEMENT OFFICE



**TOWN OF GREENWICH
CONNECTICUT**

September 9, 2008

36 Ritch Ave, LLC
16B Arther Street
Greenwich, CT. 06831

Re: Second Notice - Zoning Violation
36 Ritch Avenue

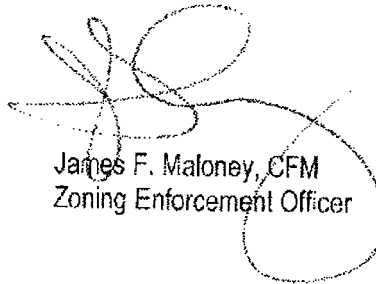
C8-0148

Dear Sir or Madame:

On July 17, 2008 we sent notice of zoning violation to your address. We have re-inspected the property and determined that the violation remains unabated.

This violation must be corrected to avoid further enforcement action, including criminal prosecution.

Our office remains available to respond to any questions you may have at (203) 622-7753.



James F. Maloney, CFM
Zoning Enforcement Officer

Encl
Cc: Diane Fox, Town Planner

RECEIVED

SEP 9 2008

PLANNING & ZONING
COMMISSION



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

August 20, 2008

The Honorable Peter J. Tesei
First Selectman
Town of Greenwich
P. O. Box 2540
Greenwich, CT 06836-2540

RE: **EM-CING-057-080819** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 36 Ritch Avenue, Greenwich, Connecticut.

Dear Mr. Tesei:

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 September 3, 2008.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/MP/cm

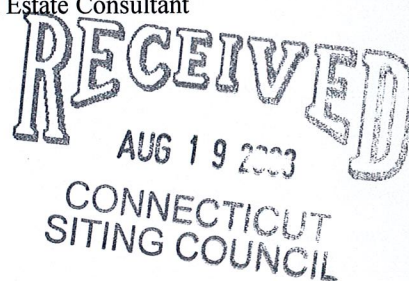
Enclosure: Notice of Intent

c: Diane Fox, Planning & Zoning Director, Town of Greenwich



New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant



HAND DELIVERED

August 18, 2008

Honorable Daniel F. Caruso, Chairman,
and Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing tele-communications facility located at 36 Ritch Avenue, Greenwich (owner, New Cingular Wireless)

Dear Chairman Caruso and Members of the Council:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") plans to modify the equipment configurations at many of its existing cell sites. UMTS technology offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile (GSM) communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the Internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

Unlike other UMTS upgrade projects recently presented to the Council, AT&T proposes to replace the existing tower with a more suitable structure rather than simply replacing the antennas and associated equipment. The facility is owned and operated by AT&T..

AT&T Wireless operates under licenses issued by the Federal Communications Commission ("FCC") to provide cellular and PCS mobile telephone service in Fairfield County, which includes the area to be served by the proposed installation.

Please accept this letter as notification to the Council, 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 is being sent to the 1st Selectman of the Town of Greenwich.

Existing Facility

The Greenwich facility is situated adjacent to I-95 North, between Ritch Avenue and the I-95 right-of-way. Site coordinates (NAD83) are approximately N41° 00' 18" and W73° 38' 54".

The Greenwich facility was initially approved by local P&Z Officials in January 2002 as a single-carrier site. It consists of a 70-foot flagpole within an 11 x 24 ft compound surrounded by a chain link fence.

Proposed Modifications

As shown on the attached drawings and as further described below, AT&T intends to replace the existing 70-foot flagpole with another, stronger 70-ft flagpole tower on the existing foundation.

Structural analysis has demonstrated that the existing flagpole is inadequate to support the new UMTS antenna configuration at 64 ft AGL (6 Powerwave 7770 antennas, 6 Powerwave TMA's, and 6 Powerwave diplexers). Therefore, a stronger tower is necessary to accommodate the UMTS upgrade. The existing flagpole is impracticable to reinforce, and constructing a replacement structure, rather than strengthening the existing tower, is in order.

To minimize site disturbance, AT&T plans to install the new, stronger flagpole structure on the existing foundation. Were the new flagpole structure to have the same diameter top-to-bottom that is required to house the new antenna array, it would exceed the bearing capacity of the existing foundation. Consequently, the new flagpole design includes a 24 ½ inch diameter flagpole from ground level to 46 feet AGL, and a 26 ½ inch diameter radome from 47 ft to 68 ft AGL to house the antennas and associated equipment.

Statutory Considerations

The Council has determined, through duly adopted regulations, that where certain criteria are met, replacement of a telecommunications tower is deemed not to have a substantial adverse environmental effect and does not require a Certificate. Those criteria address the proposal's effect on tower height, site boundaries, noise, and radio frequency power density. See R.C.S.A. Section 16-50j-72(b)(3).

AT&T submits that its proposal to replace the Ritch Avenue flagpole is just such a case and does not require a Certificate:

1. The overall height of both the existing and replacement flagpole structures would be the 70 feet above ground level.
2. The proposed changes will not affect property boundaries. The replacement tower will be constructed on the same leased parcel of land as the existing tower, in fact, on the same foundation.

3. The proposed additions will not increase the noise level at the existing facility by six decibels or more.

4. Operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density, measured at ground level, to or above the standard adopted by the State of Connecticut and the FCC. The "worst-case" exposure calculation in accordance with FCC OET Bulletin No. 65 (1997) for a point of interest at ground level beside the tower in relation to the operation of the proposed antenna array is as follows:

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
Other Users							0.00
AT&T GSM	64	880 - 894	4	296	0.1039	0.5867	17.72
AT&T GSM	64	1900 Band	2	427	0.0750	1.0000	7.50
AT&T UMTS	64	880 - 894	1	500	0.0439	0.5867	7.48
Total							32.7%

† Please note that the standard power density equation provided by the Council in its memo of January 22, 2001 incorporates a ground reflection factor of 2.56 (i.e., the square of 1.6) as described in FCC OET Bulletin No. 65.

The cumulative "worst-case" exposure from the proposed site configuration is 32.7 % of the ANSI/IEEE standard, as calculated for mixed frequency sites. Total power density levels resulting from tower replacement and shared use of the facility would thus remain within applicable standards.

For the foregoing reasons, AT&T respectfully submits that the proposed replacement of the Ritch Avenue flagpole tower in Greenwich constitutes an exempt modification under R.C.S.A. Section 16-50j-72(b)(3).

Please feel free to call me at (860) 513-7636 with questions concerning this application. Thank you for your consideration in this matter.

Respectfully yours,

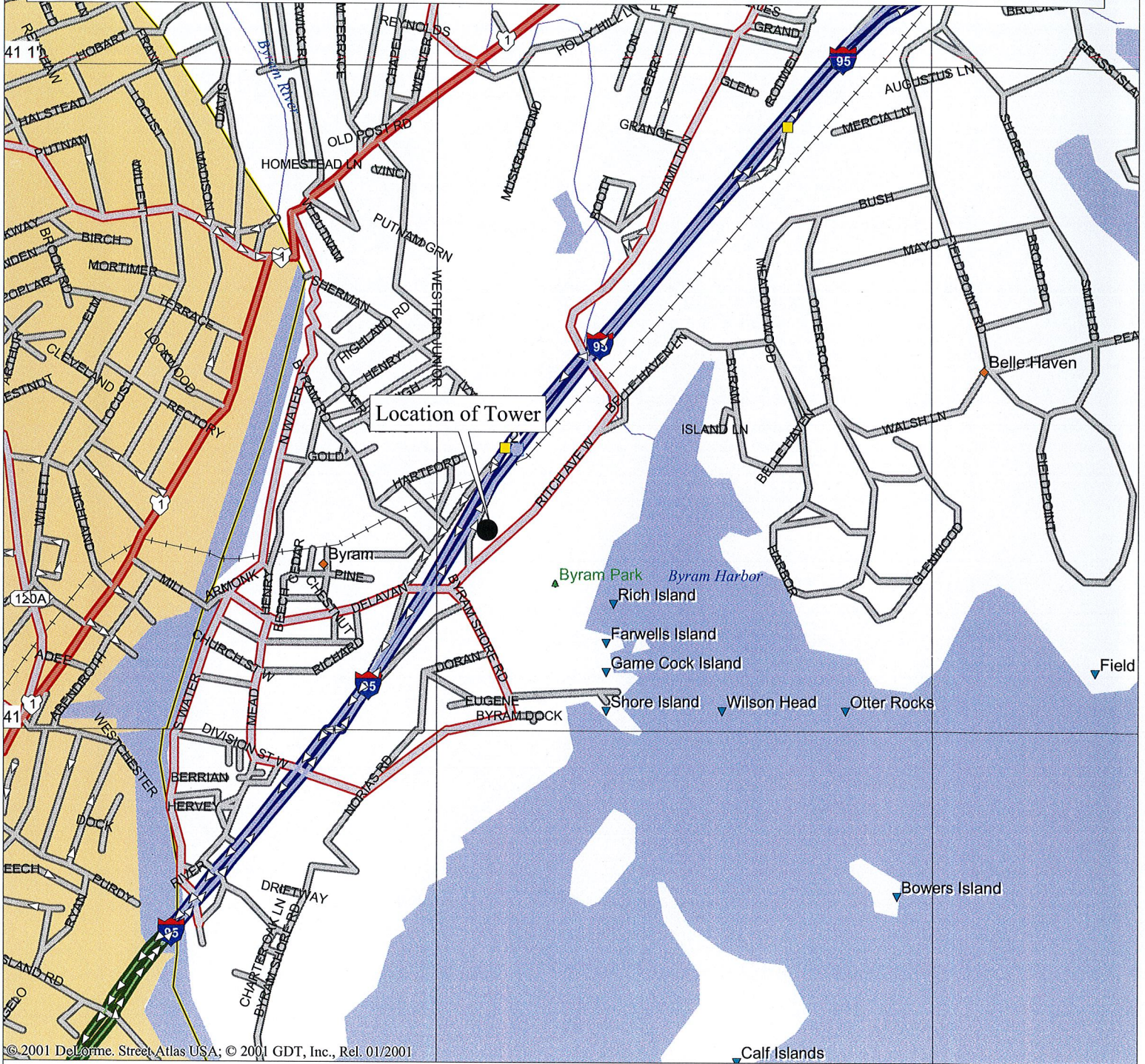


Steven L. Levine
Real Estate Consultant

Attachments

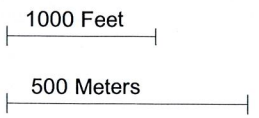
cc: Honorable Peter J. Tesei, 1st Selectman, Town of Greenwich
Michele Briggs, Real Estate Manager, New Cingular Wireless PCS, LLC
Attorney Chris Fisher

Greenwich - Ritch Avenue

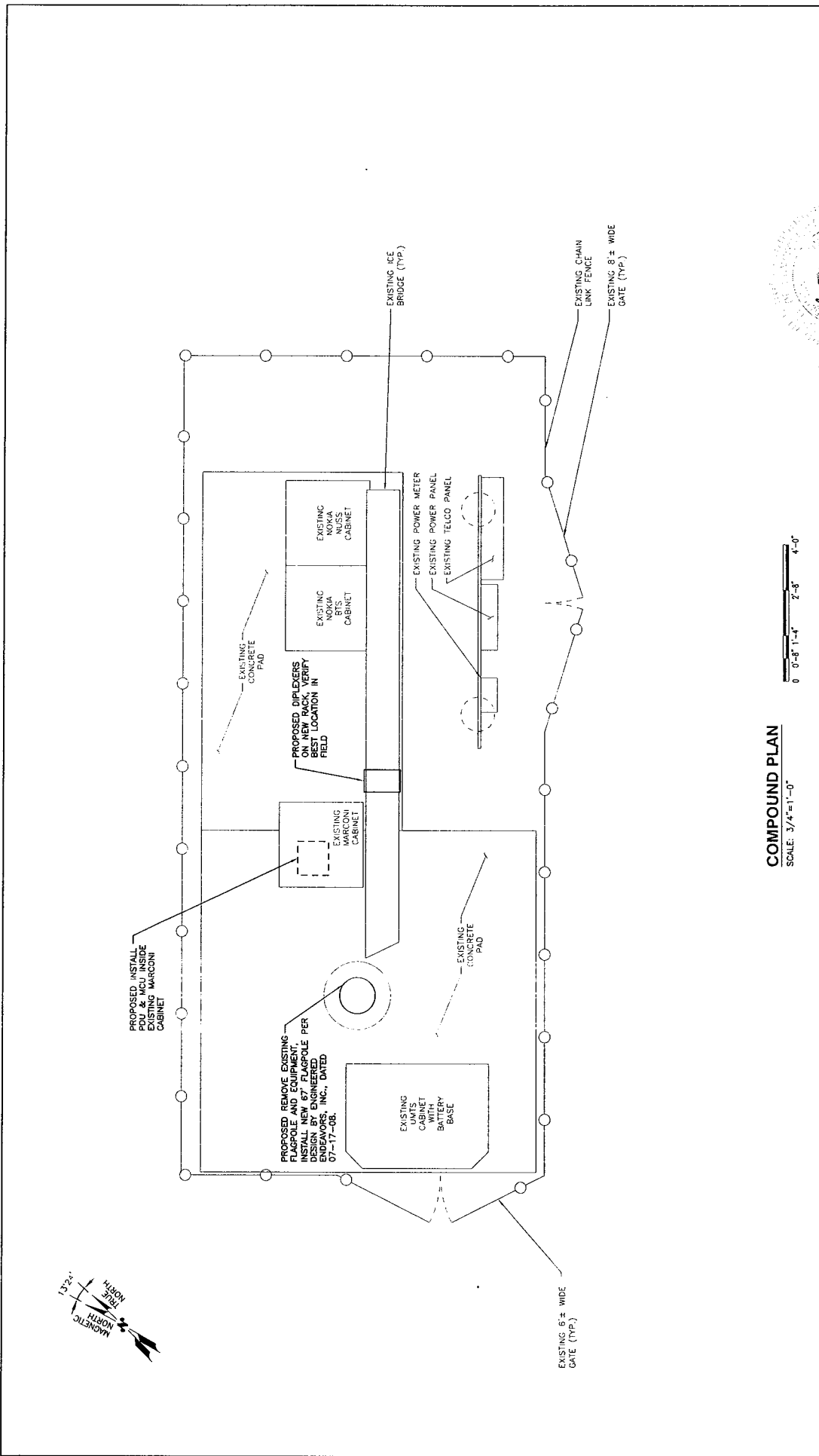


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Mag 15.00
 Mon Aug 04 11:07 2008
 Scale 1:15,625 (at center)



- | | |
|---------------------------|--------------------|
| Local Road | Geographic Feature |
| Major Connector | Park/Reservation |
| State Route | Exit/Food |
| Interstate/Limited Access | Locale |
| Toll Highway | State Boundary |
| US Highway | Population Center |
| Exit | Land |
| Railroad | Water |



COMPOUND PLAN

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



Hudson
Engineering & Construction
100 W. Main Street
Londonderry, NH 03053
Tel: (603) 568-5500
Fax: (603) 568-5504

SIAT
communications
184 ROCKINGHAM ROAD, UNIT A
LONDONDERRY, NH 03053

SITE NUMBER: 5004
SITE NAME: GREENWICH SOUTHWEST
35 RITCHIE AVENUE W
GREENWICH, CT 06830
FAIRFIELD COUNTY

500 ENTERPRISE DRIVE
ROCKY HILL, CT 06867

NO.	DATE	REVISIONS	DESIGNED BY:	DC	DRN BY:	PC
1	08/12/08	CONSTRUCTION FINAL	PC	DC	DC	DRN
0	08/17/09	ISSUED FOR CONSTRUCTION	PC	DC	DC	DRN

SCALE: AS SHOWN

David P. Hamm

AT&T
COMPOUND PLAN

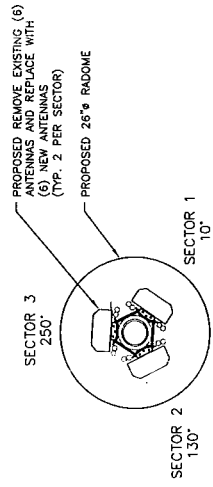
JOB NUMBER	5004.01
DRAWING NUMBER	A-1
REV	1

RF TABLE									
SECTOR	SECTOR NAME	ANTENNA MAKE & MODEL	ANTENNA COUNT	AZIMUTH	RAD CENTER	MECHANICAL DOWNTILT	TMA COUNT	DIPLEXER COUNT	# OF COAX CABLES
1	ALPHA	POWERWAVE 7770	2 PROPOSED 0 EXISTING	10°	82±	0*	2 PROPOSED 0 EXISTING	2 PROPOSED 0 EXISTING	0 PROPOSED 4 EXISTING
2	BETA	POWERWAVE 7770	2 PROPOSED 0 EXISTING	130°	82±	0*	2 PROPOSED 0 EXISTING	2 PROPOSED 0 EXISTING	0 PROPOSED 4 EXISTING
3	GAMMA	POWERWAVE 7770	2 PROPOSED 0 EXISTING	250°	82±	0*	2 PROPOSED 0 EXISTING	2 PROPOSED 0 EXISTING	0 PROPOSED 4 EXISTING

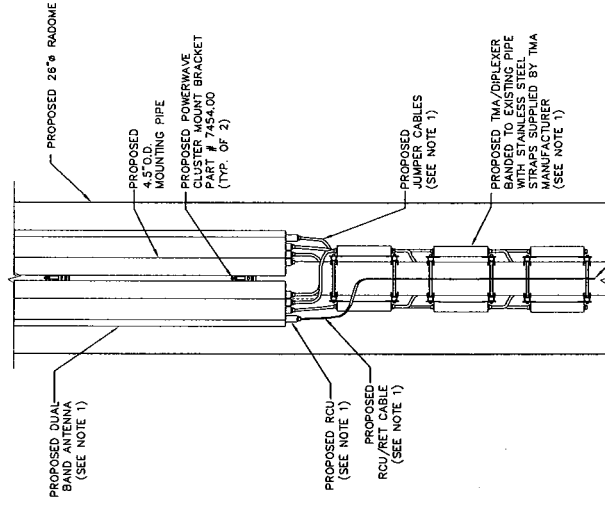
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
REFER TO STRUCTURAL ANALYSIS BY EEL, INC., DATED 07-17-08, PRIOR TO CONSTRUCTION.

NOTE:
CONTRACTOR TO CONFIRM FEASIBILITY OF INSTALLATION OF PROPOSED ANTENNAS IN FLAGPOLE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICTS.

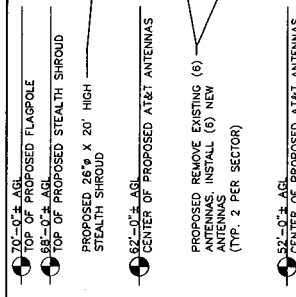


PROPOSED ANTENNA PLAN VIEW
SCALE: N.T.S.



NOTES:
1. REFER TO RF CONFIG & SECTOR SCHEMATICS FOR QUANTITY REQUIRED PER SECTOR

PROPOSED ANTENNA DETAIL
SCALE: 1" = 1'-0"



NORTHWEST ELEVATION
SCALE: 1/4" = 1'-0"

NO.	DATE	REVISIONS	DESIGNED BY: DC	DRAWN BY: PC
1	06/12/08	CONSTRUCTION FINAL	PC	DC (JPH)
2	06/17/08	ISSUED FOR CONSTRUCTION	PC	DC (JPH)



SITE NUMBER: 5004
SITE NAME: GREENWICH SOUTHWEST
36 RICH AVENUE W
GREENWICH, CT 06630
FAIRFIELD COUNTY



184 ROCKINGHAM ROAD, UNIT A
LONDONDERRY, NH 03053



PROJECT: 5004
DATE: 06/12/08
DRAWN BY: JPH
CHECKED BY: PC

JOB NUMBER	DRAWING NUMBER	REV
5004.01	A-2	1



New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

Honorable Peter J. Tesei
1st Selectman, Town of Greenwich
Town Hall 101 Field Point Rd.
Greenwich, CT 06836

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing tele-communications facility located at 36 Ritch Avenue, Greenwich (owner, New Cingular Wireless)

Dear Mr. Tesei:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") will be changing its equipment configuration at certain cell sites.

As required by Regulations of Connecticut State Agencies ("R.C.S.A.") Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review AT&T's proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes Cingular's proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council's procedures, please call me at (860) 513-7636 or Mr. Derek Phelps, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Steven L. Levine
Real Estate Consultant

Enclosure

**BUILDING PERMIT
TOWN OF GREENWICH
DPW-DIVISION OF BUILDINGS**

PERMIT NUMBER: 2-2918
THE DIVISION OF BUILDINGS GRANTS PERMISSION TO:
URS CORPORATION
795 BROOK STREET BLDG 5
ROCKY HILL, CT 06067

ISSUED DATE: 09/05/02

TO PERFORM THE FOLLOWING WORK:
NEW CONSTRUCTION/UTILITY STRUCTURE

LOCATION: 36 RITCH AVE	SECTION: GREENWICH
ZONE: R-6	USE GROUP: U
UNITS: 0	CONST. TYPE: TAX ACCT NO: 04-2334-5
NO. OF NEW ROOMS:	WIDTH/DEPTH:
VALUATION OF WORK \$ 128,000	PERMIT FEE PAID \$ 1,536.00

DESCRIPTION OF WORK: 1996 BOCA TELECOMMUNICATIONS FACILITY; ACCESS ROAD, FENCED ENCLOSURE, EQUIPMENT PAD, FLAGPOLE W/ CONCEALED ANTENNAS & CONCRETE FOUNDATION

OWNER: LELLEY, BRIAN & LAURA
ADDRESS: 36 RITCH AVE
GREENWICH, CT 06830



BUILDING OFFICIAL

Occupancy of this new building or addition prior to issuance of a Certificate of Occupancy and/or Compliance will be considered a violation of the State of Connecticut Basic Building Code and Building Zone Regulations. Prompt notification by the Plumbing, Electrical, HVAC and General contractors of completion of their respective portions of the work will avoid delay in issuance of the Certificate of Occupancy and/or Compliance.

- INSPECTIONS: REQUEST PHONE: 622-7772
- Normally there are eleven or more required inspections of a new building, and as many as apply on alterations and additions. Please see complete inspection type codes included with your permit package.
- 110. SOIL CONDITIONS - AFTER forms for footings are placed and BEFORE concrete is poured
 - 220. ELECTRICAL - wiring roughing
 - 320. PLUMBING - roughing
 - 420. HVAC - roughing
 - 130. FRAMING - AFTER the above inspections but BEFORE insulation or sheetrock.
 - 140. INSULATION
 - 441. CHECK TO FIRE EQUIPMENT
 - 299. ELECTRICAL FINAL - upon completion
 - 399. PLUMBING FINAL - upon completion
 - 499. HVAC FINAL - upon completion
 - 199. STRUCTURAL FINAL - upon completion

CHANGES, REGARDLESS OF SIZE, FROM STAMPED APPROVED PLANS MUST BE SUBMITTED TO DIVISION OF BUILDINGS BEFORE THEY ARE MADE.

APPROVED PLANS MUST BE RETAINED ON THE JOB AND AVAILABLE TO THE INSPECTORS AT ALL TIMES OR INSPECTION MAY BE REFUSED. SEPARATE PERMITS ARE REQUIRED FOR ELECTRICAL, OIL BURNER, PLUMBING, HVAC, SECURITY AND PHONE SYSTEMS, SIGNS, POOLS, FENCES, TENNIS COURTS AND OTHERS AS REQUIRED BY LAW.



Engineered
Endeavors, Inc.
7610 Jenther Drive
Mentor, OH 44060
USA

T (440) 918 1101
T (888) 270 3855
F (440) 918 1108

July 28, 2008

Reference: Foundation Analysis for a 70 ft Monopole
Site Name: Ritch Avenue
Site Number: CT-004
Site Location: Fairfield County, CT
EEI Job Number: 15505

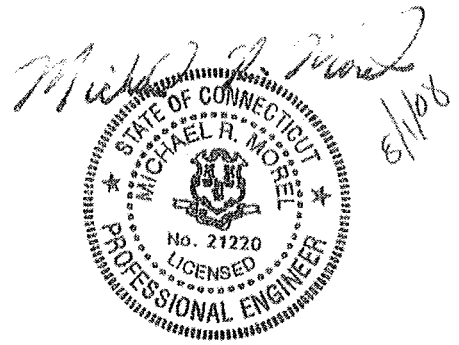


Table of Contents

Table of Contents..... 1
Executive Summary 1
Foundation Results..... 1
Conclusion..... 2

Executive Summary

The existing foundation is adequate to carry the new disguised pole loads. New AT&T pole can be installed on the existing foundation. The existing foundation was designed by URS Corporation AES and illustrated in the drawing number 913-010-004b-S01 revision 4. This drawing was the only document made available to EEI at the time of the analysis.

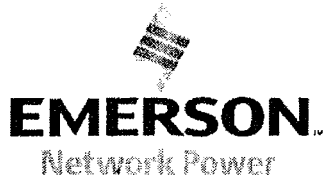
Introduction

The existing foundation was designed by URS Corporation. URS Corporation's foundation design drawing was provided to EEI for analysis. No other information regarding the existing foundation including a soil report was available for review.

Foundation Results

The original foundation was re-analyzed per TIA-222-G code. Table I provides a comparison of foundation loads between the original design loading and the new base loads. The original base reactions were determined using ASD method, and the new base reactions were determined using LRFD method. Assuming that the foundation is in excellent condition, it will be adequate to support the desired loading. The overturning safety factor of 1.40 is greater than the minimum required. This safety factor was determined without taking into





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consideration existing dowels, which provide additional resistance against overturning. The allowable net soil pressure of 10,000 psf is much greater than the minimum 3,000 psf required.

Table I: Foundation Base Loads


Loads	Original Loading (per TIA/EIA-222-F)	New Loading (per TIA-222-G)
Moment - <i>ft-kips</i>	85.7	143.04
Shear - <i>kips</i>	1.99	3.31
Axial - <i>kips</i>	3.49	3.5

Conclusion

The **existing foundation is adequate** to support new AT&T disguised pole. It is the responsibility of AT&T to verify that correct information was presented to EEI for analysis.

This report is intended for use with regard to this specific pole discussed in general herein and any substantial changes in mounting or loading should be brought to EEI's attention so that we may determine how this may effect our conclusions.

Engineered Endeavors, Inc.


Aleksandar Mrkajic
Design/Project Engineer
Engineered Endeavors Inc.





ENGINEERED
ENDEAVORS
INCORPORATED

The Experienced Point of View



ANALYSIS CALCULATIONS
FOR A
SPREAD FOOTER FOUNDATION

AT&T
70' FLAG POLE

RITCH AVENUE, CT-004
FAIRFIELD COUNTY, CT

EI Project Number 15505

July 28, 2008

7610 Jenther Drive • Mentor, Ohio 44060-4872
Phone: (440) 918-1101 • Phone: (888) 270-3855
Fax: (440) 918-1108 • www.engend.com

**FOUNDATION DESIGN CALCULATIONS
FOR
SPREAD FOOTING FOUNDATION**

ENGINEERED ENDEAVORS INC.
7610 Jentner Drive * Mentor, Ohio 44060
Tel:(216)918-1101 * Fax:(216)918-1108

31-Jul-08
12:48 PM

CUSTOMER	AT&T
STRUCTURE	70' FLAG POLE
EEl PROJECT	15505
LOCATION	FAIRFIELD COUNTY, CT
SITE NAME	RITCH AVENUE, CT-004

Monopole Base Reactions			
	Base Loads	Factored Loads	Factored w/ $\phi=0.75$
	TIA-222F	TIA-222G	(soil bearing press.)
Moment, kip-ft	0.0	143.04	190.7
Shear, kips	0	3.31	4.4
Axial, kips	0	3.5	4.7

Select the pole design code	TIA/EIA-222G		
Anchor Bolt Data			
Quantity	Length	Bolt Crc.Ø	Project., in
4.0	6.0	19.0	12.0

Soil unit wt, pcf 125.00 Concrete unit wt, pcf 150.00
IF FOUNDATION IS SUBMERGED, REDUCE UNIT WEIGHTS BY 62.4!

Minimum Foundation Parameters

Pedestal Min. Width, in 37.00 Pedestal Project., in 12.0
Found. Min Height, ft 5.5

Actual Foundation Size		
	Height, ft	Width, ft
Slab	2.50	10.00
Pedestal	1.50	3.00

Foundation Weight, kips 39.53
Concrete, cub.yd. 9.76
Soil Weight, kips 5.69
Total weight foundation and soil (not factored) 45.21

Total Vertical Load, kips 43.84
Total Overturning Moment, kip-ft 156.28
Total Resisting Moment, kip-ft 219.21

Safety Factor

1.40

for TIA-222F, SF>=2.0
for TIA-222G, SF>=1.25

Kern of Eccentricity, ft 1.67
Actual Eccentricity, ft 3.56 uplift exists!
Allowable Gross Soil Pressure, ksf (see soil report)
Allowable Net Soil Pressure, ksf (see soil report)
Max soil pressure, ksf per TIA-222G
per TIA-222F

10000.0

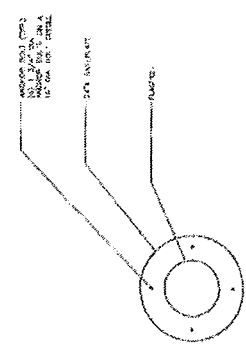
TIA-222G: divide loads
by $\phi=0.75$
2.71
n/a

GENERAL FLAGPOLE FOUNDATION NOTES

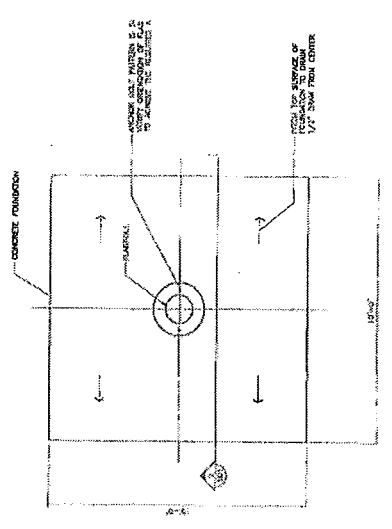
1. FOUNDATION SHALL BE AS SHOWN UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE NOTED.
5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
6. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
7. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
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14. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
15. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.

CONSTRUCTION ITEM	QUANTITY	UNIT
CONCRETE	1.00	CY
STEEL	1.00	TON
WOOD	1.00	CU YD
PAINT	1.00	GA

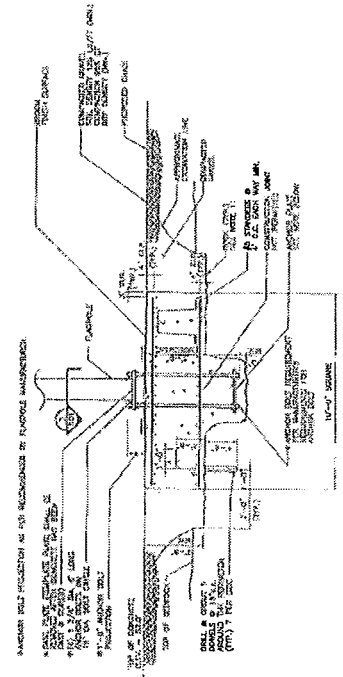
REVISIONS TO BE MADE BY THE CONTRACTOR. REVISION NUMBER SHALL BE INDICATED BY THE CONTRACTOR. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.



3 ANCHOR BOLT LAYOUT PLAN DETAIL
SCALE: 1/2" = 1'-0"



1 FLAGPOLE FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



2 ANCHOR BOLT LAYOUT PLAN DETAIL
SCALE: 1/2" = 1'-0"

NOTE: ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.

URS CORPORATION AES
795 BROOK STREET, BUILDING 5
ROCKY HILL, CONNECTICUT
1-800-525-0882
URS SEE NUMBER FOR T&E

AT&T
AT&T WORLDWIDE INTELLIGENCE
1000 WEST 17TH AVENUE
DENVER, COLORADO 80202

URS CORPORATION AES
795 BROOK STREET, BUILDING 5
ROCKY HILL, CONNECTICUT
1-800-525-0882
URS SEE NUMBER FOR T&E

AT&T
AT&T WORLDWIDE INTELLIGENCE
1000 WEST 17TH AVENUE
DENVER, COLORADO 80202

1 FLAGPOLE FOUNDATION PLAN
SCALE: 1/2" = 1'-0"

2 ANCHOR BOLT LAYOUT PLAN DETAIL
SCALE: 1/2" = 1'-0"

3 ANCHOR BOLT LAYOUT PLAN DETAIL
SCALE: 1/2" = 1'-0"

ZONING ENFORCEMENT OFFICE



**TOWN OF GREENWICH
CONNECTICUT**

July 23, 2008

C8-0148

Mr. Brian Kelly d/b/a 36 Ritch Avenue LLC
16B Arthur Street
Greenwich, CT. 06831

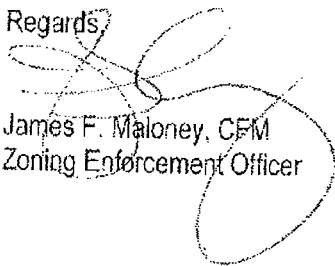
Re: Site Plan Violation
36 Ritch Avenue

Dear Mr. Kelly,

Our office has verified a complaint that a metal gate has been installed across an access at 36 Ritch Avenue. This was not part of the approved site plan and for that reason is a violation of the Town of Greenwich Building Zone Regulations Section 6-16(a). Until such time as you return to the Planning and Zoning Commission PZC for modification of the site plan that gate must be removed.

We are available at (203) 622-7753 if you have any questions. To apply to the PZC for an amended site plan approval, please contact (203) 622-7894.

Regards,


James F. Maloney, CFM
Zoning Enforcement Officer

Cc: attachments

RECEIVED

SEP 9 2008

PLANNING & ZONING
COMMISSION



TOWN OF GREENWICH

Planning and Zoning Commission

Diane W. Fox
Town Planner/Zoning Enforcement Coordinator

January 11, 2002

Neil J. Alexander, Esq.
Cuddy & Feder & Worby LLP
90 Maple Avenue
White Plains, New York 10601-5196

Re: AT&T Wireless v. Town of Greenwich, et al.

Dear Mr. Alexander, Esq.

This letter will summarize the conditions of the settlement in connection with the AT&T site plan# 2110 for construction of a 70 foot monopole for concealed wireless antenna for AT&T use only on a vacant parcel at 36 Ritch Ave in the R-6 zone (instead of the original location at 336 Hamilton Ave in the R-6 zone) as shown on plans of UBS Corporation, Artaiz Architect, dated December 4, 2001, as approved by the Planning and Zoning Commission at its meeting held on December 11, 2001, as follows:

Whereas the Commission held a public meeting on December 11, 2001 and discussed the proposed settlement of the appeal brought by AT&T on the Commission's denial of a site plan for an installation of a 100 foot antennae tower at 336 Hamilton Ave, and

Whereas the Commission notes that the Federal law precludes prohibiting these wireless communication structures, but notes that localities have some jurisdiction on locations for these facilities and the public is served by these communications facilities, and

Whereas the Commission notified the abutters of the proposed new monopole location at 36 Ritch Ave of the proposed hearing on the settlement and there was no opposition, and the Town Departments (Engineering, Highway and ZEO) have reviewed the site development plan and location of the monopole, ground equipment and proposed driveway, and

Whereas the Commission finds that the property owners of 36 Ritch Ave (the Kelly's) and their attorney, have agreed and approved the use of their vacant parcel for this 70 foot monopole and related equipment and concur with this site plan, and

Whereas the Commission finds that the proposed 70 foot monopole for concealed wireless antenna and related ground equipment by AT&T on a vacant parcel abutting the State of Ct. ROW at the Eastbound entry ramp of Exit 2 of I-95 is a preferred location over the Hamilton Ave site because the new site is not on a heavily traveled road, is serviced by a private driveway, the new monopole is 30 feet shorter than the original, abuts only a few properties and the monopole's "fall zone" would not touch any structure (unlike the prior location on Hamilton Ave), and this monopole will only serve one provider, AT&T, and

Therefore the Commission approves the proposed settlement and site plan application #2110 for construction by AT&T Wireless PCS of a 70 foot monopole and related equipment at 36 Ritch Ave as shown on stamped and signed plans of UBS Corporation AES by Ignacio Artaiz, Architect, Drawing Number 3CO-004-00A01 dated 12-04-01 subject to the following modifications to be shown on final revised plans:

1. Evergreens must be planted along the property lines with Hartwell and Malingaard, to screen the ground equipment from the neighbors; said evergreens should be shown on the revised final signed and sealed drawings and be noted at 8-10 ft high and particular species indicated

2. A small swale is required along the edge of the driveway to prevent drainage onto adjoining properties downslope. This swale should be shown on the revised plan and installed as part of the grading of the driveway;

3. Two catch basins should be installed approximately 5-10 feet apart to collect runoff (see engineering division comments), and curbing should be installed along the bottom of the driveway in the area to be asphalted (first 30 feet); Final review and approval of these additions is subject to DPW Engineering and

4. A survey is required to confirm that all driveway work will be on the Kelly property, and not on the Hartwell property, with details of the driveway design and dimensioned drawings for setbacks of the equipment and antennae pole, to be approved prior to construction by DPW Engineering, ZEO and P&Z.

5. An as-built plan be submitted at the conclusion of work and prior to initiation of services from this site.

6. This monopole is for AT&T use only and is limited to this one user. Any changes must return to P&Z.

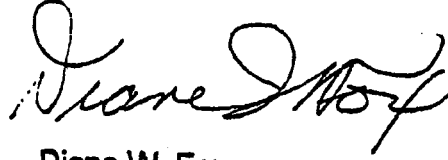
7. No other structures are permitted on this site except for those shown on the approved plans unless new plans are approved by the P&Z Commission

Three sets of signed and sealed engineering and survey revised plans with the above modifications should be submitted to Diane Fox, Town Planner, for signoff to the

Building Department in connect with your client's building permit application, and prior to any activity on site.

Please call if you have any questions.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Diane W. Fox".

Diane W. Fox
Town Planner/Zoning Enforcement Coordinator

c.c. Haden Garrish Esq.
William Haslun, Esq.

AT&T # 5004
Structure & Foundation
Design Calculations
70' Flag Pole
Site: Ritch Avenue/CT-004
EEI Job #: 15505-E01

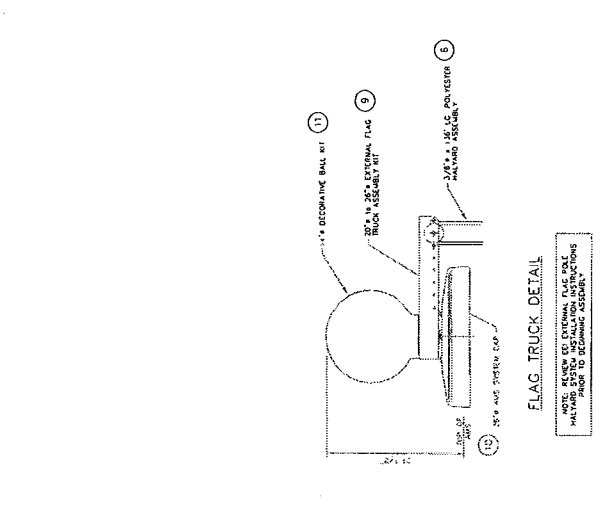
MATERIAL REQ. PER ASSEMBLY

ITEM	QTY.	DESCRIPTION
1	1	SHAFT ASSY (SINGLE)
2	2	4 1/2" x 18" COVER PL
3	1	HANDRAIL AS FOLLOWS
4	1	5" x 7" HANDBOLE COVER PL
5	1	20" BUSS BAR KIT
6	1	SHIELDING ASSEMBLY AND MOUNTING KIT
7	1	1/2" x 18" AMERICAN FLAG
8	1	2 1/2" x 18" AMERICAN FLAG
9	1	2 1/2" x 18" AMERICAN FLAG
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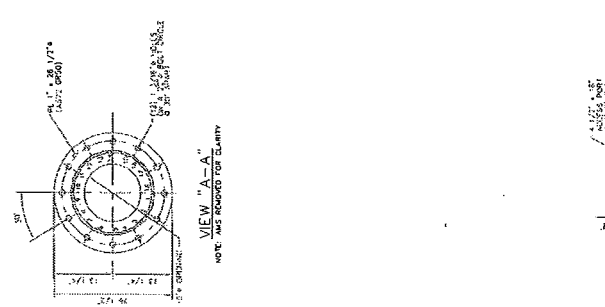
TOTAL GALV. STR. & ACCES. WT. 312.05#
 TOTAL ANCHOR BOLT & TEMPLATE WT. 312.05#

GENERAL NOTES

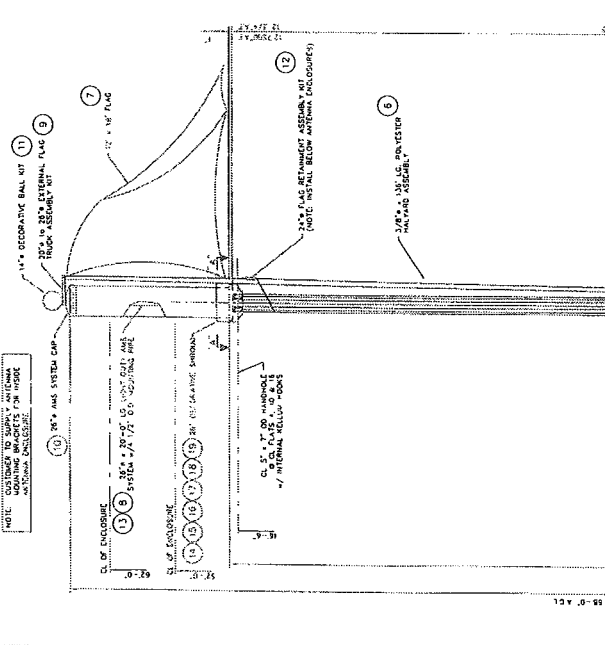
- MONOPILE IS DESIGNED IN ACCORDANCE WITH TIA-222-G AND ASCE 7 FOR 110 MPH 3" SECOND DUCT.
- ALL WELDS SHALL BE IN ACCORDANCE WITH AWS D1.1, LATEST EDITION, LONGITUDINAL SEAM WELDS SHALL BE FULL PENETRATION.
- ALL WELDS SHALL BE 2" ACCORDANCE WITH AWS D1.1, LATEST EDITION, LONGITUDINAL SEAM WELDS SHALL BE FULL PENETRATION.
- MONOPILE SHALL BE NOT BE GALVANIZED PER ASCE 7 AND THE POINTED (COLOR 80) TOUCH-UP PAINT NOT SUPPLIED.
- CONCRETE SHALL BE 4000 PSI AND THE POINTED (COLOR 80) TOUCH-UP PAINT NOT SUPPLIED.
- THE ORIENTATION OF THE MONOPILE SHALL BE REFERRED PRIOR TO CRECTION OF THE POLE.
- GAP BETWEEN TOP OF THE FOUNDATION AND BOTTOM OF THE BASE PLATE MAY BE FILLED WITH A NON-SHANK UNDERLAY IN THE BASE PLATE TO ENSURE THAT WEIGHT DOES NOT EXERT ON THE MONOPILE.
- ALL BOLT CONNECTIONS WITH 4330 NON-STRENGTH BOLTS SHALL BE ASSEMBLED IN ACCORDANCE WITH SHOP DRAWINGS IS RECOMMENDED BY THE FABRICATOR. ALL FABRICATOR'S WELDS, THE JOINTS AND CONNECTIONS SHALL BE ASSEMBLED IN ACCORDANCE WITH THE SHOP DRAWINGS. ALL FABRICATOR'S WELDS SHALL BE ASSEMBLED IN ACCORDANCE WITH THE SHOP DRAWINGS.
- CONCRETE SHALL BE 4000 PSI AND THE POINTED (COLOR 80) TOUCH-UP PAINT NOT SUPPLIED.
- POLE USED = 0.00000/H



ERECTON VIEW
 SCALE: NONE



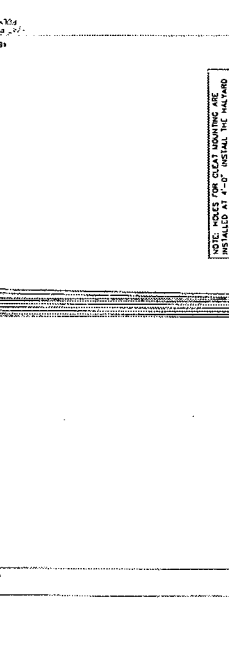
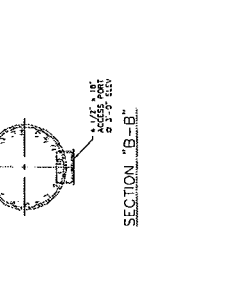
VIEW "A-A"
 NOTE: WAS REVISION FOR CLARITY



SECTION "B-B"



SECTION "C-C"



FLAG TRUCK DETAIL

SECTION "B-B"

SECTION "C-C"

ENGINEERED ENDEAVORS INCORPORATED
 THE ENGINEERING PART OF MEYER
 2010-JOURNAL DRIVE • MARIETTA, OH 44601-4872
 PH: (440) 918-1101 • FAX: (888) 270-3855
 WWW.ENGINEEREDENDEAVORS.COM

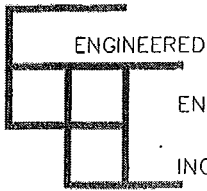
70'-0" FLAG POLE
AT&T WIRELESS
 FAIRFIELD COUNTY, CT

DATE: 08/18/10
 DRAWING NO: 153609
 PROJECT NO: G857211

NOTE: ALL DIMENSIONS SHOWN FROM BOTTOM OF FLAG POLE UNLESS OTHERWISE NOTED

NOTE: THIS DRAWING IS A CONFIGURATION AND MAY NOT BE A PART OF THE ASSEMBLY. ANY PARTS SHOWN WITHOUT THE RESULTS OF A VISUAL CHECK AT THE FABRICATOR'S FACILITY SHALL BE ASSEMBLED IN ACCORDANCE WITH THE SHOP DRAWINGS.

8/18/10



Customer

AT&T WIRELESS

By A. MRKAJIC

7/17/08

ENDEAVORS

Structure

70' FLAG POLE

Checked

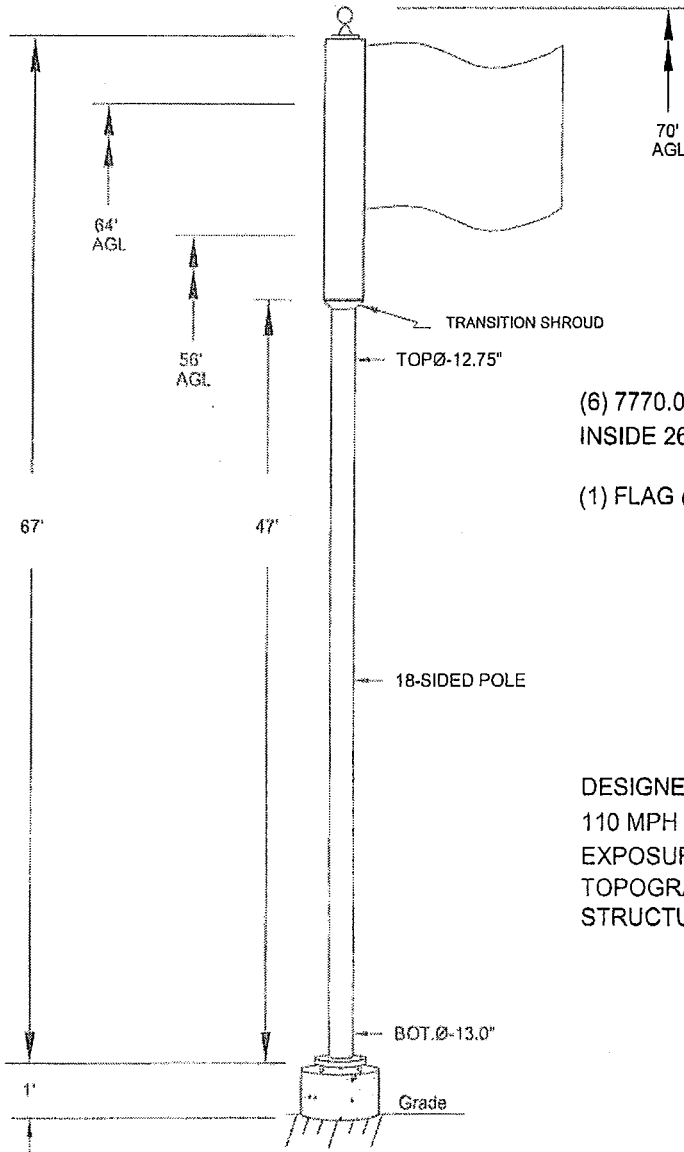
Date

15505

INCORPORATED

Job/Quote No.

SITE LOCATION - FAIRFIELD COUNTY, CT
SITE NAME - RITCH AVENUE, CT-004



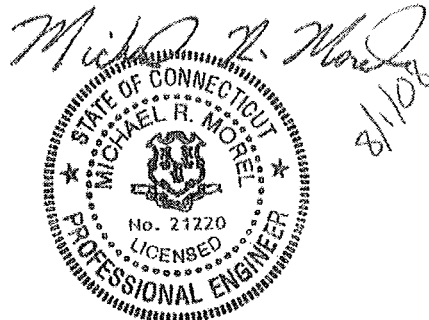
ANTENNA LOADING:

(6) 7770.00 POWERWAVE ANT. W/TMA
INSIDE 26"Ø x 20' ANT.MOUNT. SPOOL. @ 64', & 56'±

(1) FLAG @ TOP (12' x 18')

DESIGN NOTES:

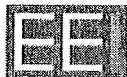
DESIGNED IN ACCORDANCE WITH TIA/EIA 222 G
110 MPH BASIC WIND SPEED
EXPOSURE-C
TOPOGRAPHIC CATEGORY-1
STRUCTURE CLASSIFICATION-II



NOTE: IT IS THE RESPONSIBILITY OF THE PURCHASER TO VERIFY THAT THE WIND LOADS AND DESIGN CRITERIA SPECIFIED MEET THE REQUIREMENTS OF ALL LOCAL BUILDING CODES

COMMUNICATIONS STRUCTURE WIND LOADING DEVELOPMENT

Per the ANSI/TIA 222-G-2005



**ENGINEERED
ENDEAVORS
INCORPORATED**
The Exposure & Point of View

7610 Jenther Drive
Mentor, Ohio 44060
Tel (440) 918-1101 * Fax (440) 918-1108



CUSTOMER: AT&T
SITE LOCATION: FAIRFIELD COUNTY, CT
SITE NAME: RITCH AVENUE
SITE NUMBER: CT-004

CURRENT DATE: 07/17/08
STRUCTURE: 70' FLAG POLE
JOB NUMBER: 15505
STATUS: Release

Load Combinations

6	$1.0D + 1.0W_o$	SERVICE DEAD LOAD FACTOR = 1.0	MAXIMUM DEFLECTION (in) = 28.2
		SERVICE WIND LOAD FACTOR = 1.0	MAXIMUM ROTATION @ TOP (°) = 4.00
1	$1.2D + 1.6W_o$	WIND DEAD LOAD FACTOR = 1.2	
		WIND w/o ICE FACTOR = 1.6	
3	$1.2D + 1.0D_i + 1.0W_i$	WIND DEAD LOAD w/ICE FACTOR = 1.2	WEIGHT OF ICE (pcf) = 56
		WIND w/ICE FACTOR = 1.0	TEMPERATURE FACTOR =
		DEAD LOAD FACTOR FOR ICE = 1.0	N/A to non-guy structures

General Information

STRUCTURE HEIGHT (ft) = 47.00	STRUCTURE CLASSIFICATION	II	(Importance Factor)
NUMBER OF MONOPOLE SIDES = 18	DESIGN	DESIGN	SERVICE (Section 2.8.3)
DESIGN WIND SPEED (mph) = 110	Wind Load w/o Ice	1.00	1.00
WIND SPEED w/ICE (mph) = 50	Wind Load w/ Ice	1.00	
RADIAL ICE (in) = 0.75	Ice Thickness	1.00	
OPERATIONAL WIND SPEED (mph) = 60	Earthquake	1.00	
DIRECTIONALITY DESIGN, $K_d = 0.95$	EXPOSURE CATEGORY -	C	
DIRECTIONALITY SERVICE, $K_d = 0.85$	$Z_g = 900$		
DESIGN GUST RESPONSE FACTOR, $G_h = 1.10$	$\alpha = 9.5$		
SERVICE GUST RESPONSE FACTOR, $G_h = 1.10$	$K_e = 1.0$		
FORCE COEFFICIENT w/o ICE, $C_f = 0.65$	$K_{zmin} = 0.85$		
FORCE COEFFICIENT w/ICE, $C_f = 1.20$	TOPOGRAPHIC CATEGORY-	1	
ACROSS POINTS FACTOR = 1.015	$K_t = N/A$		
	$f = N/A$		

COMMUNICATIONS STRUCTURE WIND LOADING DEVELOPMENT
Per the ANSI/TIA 222-G-2005



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 Tel (440) 918-1101 * Fax (440) 918-1108



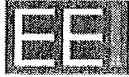
CUSTOMER: AT&T
SITE LOCATION: FAIRFIELD COUNTY, CT
SITE NAME: RITCH AVENUE
SITE NUMBER: CT-004

CURRENT DATE: 07/17/08
STRUCTURE: 70' FLAG POLE
JOB NUMBER: 15505
STATUS: Release

Antenna Loading

	DESCRIPTION	QTY	HEIGHT (ft)	K _z	CASE 1		CASE 2		CASE 3	
					EPA (ft ²)	WEIGHT (lbs)	EPA (ft ²)	WEIGHT (lbs)	EPA ₁ (ft ²)	WEIGHT ₁ (lbs)
1	26" x 20"	1	57	1.134	20.00	1100.00	20.00	1100.00	34.34	1946.58
2	12' x 18' FLAG	1	61	1.141		500.00		500.00		750.00
3										
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Loading Case 1 - Serviceability

The loading developed in Case 1 shall be used for the evaluation of serviceability for the twist and sway limits. The design of a monopole must also take into account the factored loading cases.

WIND VELOCITY (mph) = 60

Load Combination
 1.0D + 1.0W_o

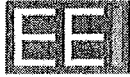
Antenna Loads

	HEIGHT (ft)	APPURTENANCE FORCES		GRAVITY (kips)	WIND (kips)
		GRAVITY (kips)	WIND (kips)		
1	57	1.100	0.194	1.100	0.194
2	61	0.500		0.500	
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4					
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7					
8					
9					
10					
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Monopole Pressures

	HEIGHT (ft)	EXPOSURE COEFFICIENT Kz	WIND	WIND
			PRESSURE ON POLE (psf)	PRESSURE ON POLE (psf)
1	1.68	0.850	4.83	4.83
2	5.04	0.850	4.83	4.83
3	8.39	0.850	4.83	4.83
4	11.75	0.850	4.83	4.83
5	15.11	0.850	4.84	4.84
6	18.46	0.887	5.04	5.04
7	21.82	0.919	5.22	5.22
8	25.18	0.947	5.38	5.38
9	28.54	0.972	5.53	5.53
10	31.89	0.995	5.66	5.66
11	35.25	1.016	5.78	5.78
12	38.61	1.036	5.89	5.89
13	41.96	1.054	6.00	6.00
14	45.32	1.071	6.09	6.09
15	47.00	1.080	6.14	6.14

COMMUNICATIONS STRUCTURE WIND LOADING DEVELOPMENT
Per the ANSI/TIA 222-G-2005



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CUSTOMER: AT&T
SITE LOCATION: FAIRFIELD COUNTY, CT
SITE NAME: RITCH AVENUE
SITE NUMBER: CT-004

CURRENT DATE: 07/17/08
STRUCTURE: 70' FLAG POLE
JOB NUMBER: 15505
STATUS: Release

Loading Case 2 - Design

WIND VELOCITY (mph) = 110.00

Load Combination
 1.2D + 1.6W_o

Antenna Loads

	HEIGHT (ft)	APPURTENANCE FORCES		GRAVITY (kips)	WIND (kips)
		GRAVITY (kips)	WIND (kips)		
1	57	1.100	0.728	1.320	1.165
2	61	0.500	0.312	0.600	0.312
3					
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6					
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Monopole Pressures

	HEIGHT (ft)	EXPOSURE COEFFICIENT K _z	WIND	WIND
			PRESSURE ON POLE (psf)	PRESSURE ON POLE (psf)
1	1.68	0.850	29.06	29.06
2	5.04	0.850	29.06	29.06
3	8.39	0.850	29.06	29.06
4	11.75	0.850	29.06	29.06
5	15.11	0.850	29.06	29.06
6	18.46	0.887	30.32	30.32
7	21.82	0.919	31.40	31.40
8	25.18	0.947	32.36	32.36
9	28.54	0.972	33.23	33.23
10	31.89	0.995	34.01	34.01
11	35.25	1.016	34.74	34.74
12	38.61	1.036	35.41	35.41
13	41.96	1.054	36.04	36.04
14	45.32	1.071	36.62	36.62
15	47.00	1.080	36.91	36.91

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Communications Structure Nonlinear Analysis and Design Program

7/17/2008 2:25:49 PM
Revision 2.0 08/15/07
Engineer A. MRKAJIC

Customer AT&T
Job Name 15505
Structure 70' FLAG POLE
Location FAIRFIELD COUNTY, CT
Site RITCH AVENUE
Site Number 0
Data File C:\DES\CELLPOLE\CEL\15505-47.Cel

OD BOT	OD TOP	NUM SIDES	THICK INCH	TAPER IN/FT	LENGTH FT	JOINT INCH	JOINT TYPE	YIELD KSI	WEIGHT LBS	JOINT HEIGHT
12.75	12.75	18	.2500	.000	47.00	.00	BASEPL	65.00	1567.	.00
TOTAL TUBE WEIGHT						1567.	POUNDS			
POLE SHAFT LENGTH						47.00	FEET			

AISC constants are used for stress reductions.
Tube sections have 18 sides
Internal bend radius = 4. X T
Tube diameters are measured flat to flat.
AISC Tube Shape Coefficient of 1. is applied.

RESISTANCE TABLE

ELEV Ft	DIAM In.	THICK In.	EFF FY Ksi	PhiPn Kips	PhiMn Ft-Kips	PhiVn Kips	PhiTn Ft-Kips	DEFLECT IN	TILT DEG
47.00	12.75	.2500	65.00	542.	147.	287.	293.		
41.50	12.75	.2500	65.00	542.	147.	287.	293.		
36.00	12.75	.2500	65.00	542.	147.	287.	293.		
30.00	12.75	.2500	65.00	542.	147.	287.	293.		
24.00	12.75	.2500	65.00	542.	147.	287.	293.		
18.00	12.75	.2500	65.00	542.	147.	287.	293.		
12.00	12.75	.2500	65.00	542.	147.	287.	293.		
6.00	12.75	.2500	65.00	542.	147.	287.	293.		
.00	12.75	.2500	65.00	542.	147.	287.	293.		

LOAD CASE 1

Loading Case 1 - Serviceability

DEAD LOAD FACTOR 1.00 RADIAL ICE .00 IN.

WIND VELOCITY 60. MPH BOTTOM 4.8 PSF TOP 6.1 PSF
 MAX BASE ROTATION 0.0 DEG

LOAD CASE 1 Loading Case 1 - Serviceability
 1.00 DEAD LOAD + 1.00 WIND - DESIGN

ELEV Ft	DIAM In.	THICK In.	EFF FY Ksi	RATIO	Pu Kips	Mu Ft-Kips	Vu Kips	Tu Ft-Kips	Displ Inches	Tilt Deg
47.00	12.75	.2500	65.00	.016	1.69	2.	.23	.0	4.02	.63
41.50	12.75	.2500	65.00	.025	1.88	3.	.27	.0	3.31	.61
36.00	12.75	.2500	65.00	.036	2.08	5.	.30	.0	2.63	.58
30.00	12.75	.2500	65.00	.048	2.28	6.	.34	.0	1.93	.53
24.00	12.75	.2500	65.00	.063	2.48	9.	.37	.0	1.31	.46
18.00	12.75	.2500	65.00	.078	2.69	11.	.40	.0	.78	.38
12.00	12.75	.2500	65.00	.095	2.89	13.	.43	.0	.36	.27
6.00	12.75	.2500	65.00	.113	3.10	16.	.45	.0	.10	.15
.00	12.75	.2500	65.00	.131	3.20	18.	.47	.0	.00	.00
Max Deflection Percentage .7%				Max Tilt .63 Degrees						

REACTION COMPONENTS (KIPS AND FT-KIPS)

TRANSVERSE SHEAR	VERTICAL FORCE	WIND SHEAR	MOMENT ABOUT TRANSVERSE	MOMENT ABOUT VERTICAL	MOMENT ABOUT WIND AXIS
.000	-3.198	.462	18.414	.000	.000

LOAD CASE 2

Loading Case 2 - Design

DEAD LOAD FACTOR 1.00 RADIAL ICE .00 IN.

WIND VELOCITY 110. MPH BOTTOM 29.1 PSF TOP 36.6 PSF
 MAX BASE ROTATION 0.0 DEG

LOAD CASE 2 Loading Case 2 - Design
 1.20 DEAD LOAD + 1.60 WIND - DESIGN

ELEV Ft	DIAM In.	THICK In.	EFF FY Ksi	RATIO	Pu Kips	Mu Ft-Kips	Vu Kips	Tu Ft-Kips	Displ Inches	Tilt Deg
47.00	12.75	.2500	65.00	.130	1.85	19.	1.94	.0	32.09	5.13
41.50	12.75	.2500	65.00	.203	2.03	29.	2.16	.0	26.34	4.94
36.00	12.75	.2500	65.00	.284	2.22	41.	2.38	.0	20.84	4.66
30.00	12.75	.2500	65.00	.382	2.43	55.	2.59	.0	15.27	4.24
24.00	12.75	.2500	65.00	.488	2.65	71.	2.78	.0	10.31	3.69
18.00	12.75	.2500	65.00	.602	2.88	87.	2.95	.0	6.10	3.00
12.00	12.75	.2500	65.00	.723	3.21	105.	3.09	.0	2.85	2.16
6.00	12.75	.2500	65.00	.850	3.42	124.	3.22	.0	.75	1.16
.00	12.75	.2500	65.00	.982	3.52	143.	3.31	.0	.00	.00

Max Deflection Percentage 5.7% Max Tilt 5.13 Degrees

REACTION COMPONENTS (KIPS AND FT-KIPS)

TRANSVERSE SHEAR	VERTICAL FORCE	WIND SHEAR	MOMENT ABOUT TRANSVERSE	MOMENT ABOUT VERTICAL	MOMENT ABOUT WIND AXIS
.000	-3.519	3.278	143.043	.000	.000

Design Summary Table

Elevation	Stress Ratio	Axial	Bending	Loading	
47.	.13	1.85	18.6	2	Loading Case 2 - Design
41.5	.2	1.85	29.3	2	Loading Case 2 - Design
36.	.28	2.03	41.1	2	Loading Case 2 - Design
30.	.38	2.22	55.3	2	Loading Case 2 - Design
24.	.49	2.43	70.8	2	Loading Case 2 - Design
18.	.6	2.65	87.5	2	Loading Case 2 - Design
12.	.72	2.88	105.2	2	Loading Case 2 - Design
6.	.85	3.21	123.7	2	Loading Case 2 - Design
0.	.98	3.52	143.	2	Loading Case 2 - Design

BASE PLATE AT ELEVATION	.00	FEET
TUBE DIAMETER	12.75	INCHES
DESIGN MOMENT	143.04	KIP FT
DESIGN MOMENT IS .00 DEGREES FROM THE WIND DIRECTION		
APPLIED AXIAL FORCE	3.5	KIPS
APPLIED SHEAR	3.31	KIPS

BOLT DATA

BOLT TYPE	A615GR75	
BOLTS ARE EVENLY SPACED		
DIAMETER	1.750	INCHES
EFFECTIVE AREA	1.900	SQ IN
BOLT YIELD	75.000	KSI
TOTAL LENGTH	6.0	FEET
BOTTOM TEMPLATE MUST BE BOLTED ON		
End plates are required.		
MINIMUM EMBEDMENT	4.7	FEET
NUMBER OF BOLTS	4	
BOLT CIRCLE DIAMETER	19.00	INCHES
APPLIED AXIAL STRESS	48.012	KSI
MAX BOLT FORCE	91.222	KIPS
MAX BOLT SHEAR	.828	KIPS
BOLT PHI	.75	
TENSION RESISTANCE	106.875	KIPS
SHEAR RESISTANCE	54.113	KIPS
RATIO	.869	
BOLT PHI	.750	

PLATE DATA

WIDTH OF TRIM ROUND	24.50	INCHES
DIAMETER OF TRIM ROUND	24.50	INCHES
BEND WIDTH REDUCTION	.600	
ORIENTATION: BENDING ACROSS POINTS		
MATERIAL	A572GR50	
PLATE YIELD	50.0	KSI
PROVIDED THICKNESS	1.750	INCHES
REQUIRED THICKNESS	1.701	INCHES
BOLT HOLE DIAMETER	2.125	INCHES
CENTER HOLE SIZE	8.00	INCHES
NET WEIGHT	.	POUNDS
RAW STOCK WEIGHT	.	POUNDS
SURFACE AREA	.	SQ FT
MAX APPLIED STRESS	42.52	KSI
APPLIED MOMENT	11.88	KIP-FT
RESIST MOMENT	12.57	KIP-FT
RATIO	.94	
PLATE PHI	.90	
PLATE YIELD	50.00	KSI
CONCRETE STRENGTH	3000.	PSI

Base Plate - use 24.50 inch TRIM ROUND x 1.750 inch A572GR50
with (4) 1.750 diameter x 6. foot caged A615GR75 bolts
on a 19. inch bolt circle. End plates are required.