



# 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@po.state.ct.us](mailto:siting.council@po.state.ct.us)

Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

September 25, 2003

Christopher B. Fisher, Esq.  
Cuddy & Feder LLP  
90 Maple Avenue  
White Plains, NY 10601-5196

RE: **EM-AT&T-168-107-049-027-030903** - AT&T Wireless notice of intent to modify existing telecommunications facilities located at 478 Good Hill Road, Woodbury, Connecticut, South Orange Center Road, Orange, Connecticut, 279 King Street, Enfield, Connecticut, and 48 Cow Hill Road, Clinton, Connecticut.

Dear Attorney Fisher:

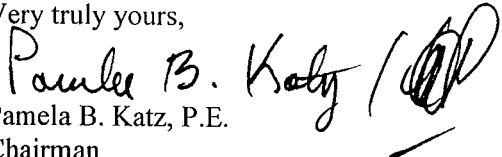
At a public meeting held on September 23, 2003, the Connecticut Siting Council (Council) acknowledged your notice to modify these existing telecommunications facilities, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated September 2, 2003. 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 existing facility sites that would not increase tower heights, extend the boundaries of the tower site, increase noise levels at the tower site boundaries by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundaries to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. These facilities have also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on these towers.

This decision is under the exclusive jurisdiction of the Council. Any additional change to these facilities 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.

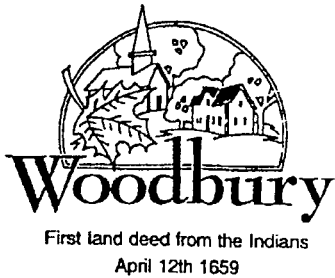
Thank you for your attention and cooperation.

Very truly yours,

  
Pamela B. Katz, P.E.  
Chairman

PBK/laf

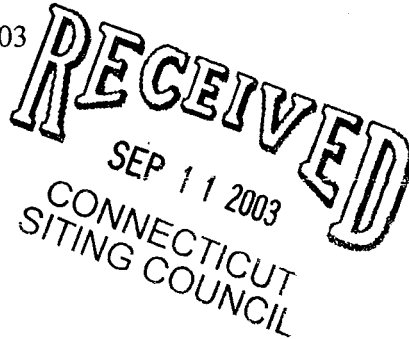
c: Honorable Richard W. Crane, First Selectman, Town of Woodbury  
Christopher S. Wood, Town Planner, Town of Woodbury  
Honorable Mitchell R. Goldblatt, First Selectman, Town of Orange  
Paul Dinice, Zoning Enforcement Officer, Town of Orange  
Honorable Mary Lou Strom, Mayor, Town of Enfield  
Jose Giner, Director of Planning & Community Development, Town of Enfield  
Honorable James M. McCusker, Jr., First Selectman, Town of Clinton  
Thomas Lane, Zoning Enforcement Officer, Town of Clinton



**TOWN OF WOODBURY**  
Town Planning Office  
281 Main Street South  
Post Office Box 369  
Woodbury, Connecticut 06798-0369

TELEPHONE: (203) 263-3467  
FAX: (203) 263-5076

September 9, 2003



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

RE: Docket No. 183 (EM-AT&T-168-107-049-027-030903)  
487 Good Hill Road, Woodbury, CT

Dear Mr. Phelps:

In response to your letter to Richard Crane, First Selectman of the Town of Woodbury, we offer the following comment:

Section 5.2.11.d.2.ii of the Woodbury Zoning Regulations (attached) requires that panel antennae do not exceed two (2) feet in width. The proposal before you calls for panel widths of three (3) feet. We hereby request if possible to modify the design to accommodate our regulations.

Woodbury thanks you for the opportunity to comment on this application.

Sincerely,

Mark DeVoe, AICP

cc: Richard Crane, First Selectman  
Woodbury Zoning Commission



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Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

September 4, 2003

Honorable James M. McCusker, Jr.  
First Selectman  
Town of Clinton  
54 East Main Street  
Clinton, CT 06413

RE: **EM-AT&T-168-107-049-027-030903** – AT&T Wireless notice of intent to modify existing telecommunications facilities located at 478 Good Hill Road, Woodbury, Connecticut, South Orange Center Road, Orange, Connecticut, 279 King Street, Enfield, Connecticut, and 48 Cow Hill Road, Clinton, Connecticut.

Dear Mr. McCusker:

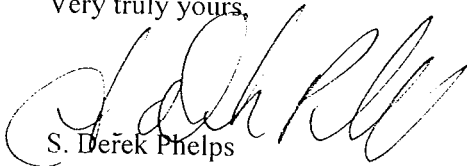
The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for September 23, 2003, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,



S. Derek Phelps  
Executive Director

SDP/ld

Enclosure: Notice of Intent

c: Thomas Lane, Zoning Enforcement Officer, Town of Clinton



# STATE OF CONNECTICUT

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Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

September 4, 2003

Honorable Mary Lou Strom  
Mayor  
Town of Enfield  
820 Enfield Street  
Enfield, CT 06082

RE: **EM-AT&T-168-107-049-027-030903** – AT&T Wireless notice of intent to modify existing telecommunications facilities located at 478 Good Hill Road, Woodbury, Connecticut, South Orange Center Road, Orange, Connecticut, 279 King Street, Enfield, Connecticut, and 48 Cow Hill Road, Clinton, Connecticut

Dear Ms. Strom:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for September 23, 2003, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps  
Executive Director

SDP/ld

Enclosure: Notice of Intent

c: Jose Giner, Director of Planning and Community Development, Town of Enfield



# STATE OF CONNECTICUT

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Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

September 4, 2003

Honorable Mitchell R. Goldblatt  
First Selectman  
Town of Orange  
Town Hall  
617 Orange Center Road  
Orange, CT 06477-2423

RE: **EM-AT&T-168-107-049-027-030903** – AT&T Wireless notice of intent to modify existing telecommunications facilities located at 478 Good Hill Road, Woodbury, Connecticut, South Orange Center Road, Orange, Connecticut, 279 King Street, Enfield, Connecticut, and 48 Cow Hill Road, Clinton, Connecticut.

Dear Mr. Goldblatt:

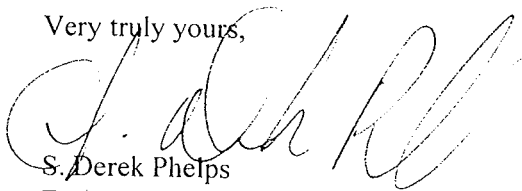
The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for September 23, 2003, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,



S. Derek Phelps  
Executive Director

SDP/ld

Enclosure: Notice of Intent

c: Paul Dinice, Zoning Enforcement Officer, Town of Orange



# STATE OF CONNECTICUT

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Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

September 4, 2003

Honorable Richard W. Crane  
First Selectman  
Town of Woodbury  
281 Main Street South  
P. O. Box 369  
Woodbury, CT 06798-0369

RE: **EM-AT&T-168-107-049-027-030903** – AT&T Wireless notice of intent to modify existing telecommunications facilities located at 478 Good Hill Road, Woodbury; South Orange Center Road, Orange; 279 King Street, Enfield; and 48 Cow Hill Road, Clinton, Connecticut.

Dear Mr. Crane:

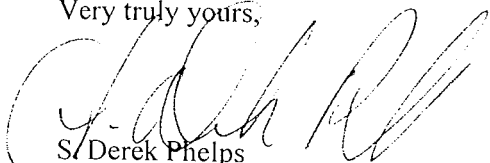
The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for September 23, 2003, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,



S/ Derek Phelps  
Executive Director

SDP/ld

Enclosure: Notice of Intent

c: Christopher S. Wood, Town Planner, Town of Woodbury

**RECEIVED**  
SEP 03 2003

CUDDY & FEDER LLP  
90 MAPLE AVENUE  
WHITE PLAINS, NEW YORK 10601-5196

CONNECTICUT CUDDY  
SITING COUNCIL 1974-2000

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THOMAS R. BEIRNE (also DC)  
THOMAS M. BLOOMER  
JOSEPH P. CARLUCCI  
LUCIA CHIOCCCHIO (also CT)  
ROBERT DISIENA  
KENNETH J. DUBROFF  
ROBERT FEDER  
CHRISTOPHER B. FISHER (also CT)  
ANTHONY B. GIOFFRE III (also CT)  
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KENNETH F. JURIST  
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DANIEL F. LEARY (also CT)  
BARRY E. LONG

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NORWALK, CONNECTICUT

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NEIL T. RIMSKY  
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JONATHAN S. SAUL (also NJ)  
JENNIFER L. VAN TUYL  
CHAUNCEY L. WALKER (also CA)  
  
Of Counsel  
ANDREW A. GLICKSON (also CT)  
ROBERT L. OSAR (also TX)  
MARYANN M. PALERMO  
ROBERT C. SCHNEIDER

September 2, 2003

VIA FEDERAL EXPRESS

Hon. Pamela B. Katz, Chairman and Members  
of the Siting Council  
Connecticut Siting Council  
10 Franklin Square  
New Britain, Connecticut 06051

EM-AT&T-168-107-049-027-030903

Re: AT&T Wireless  
Enhanced "911" Services  
Notice of Exempt Modifications

Hon. Pamela B. Katz, Chairman and Members of the Siting Council:

AT&T has previously filed notice of and the Council has acknowledged several minor modifications to tower sites needed for AT&T's provision of enhanced "911" services to the public in accordance with FCC requirements. See EM-AT&T-"UNIVERSAL"-030221. These modifications were limited to installation of a small receive only GPS antenna (about 4" in diameter and height) and the placement of either additional electronic equipment within existing equipment shelters or a separate equipment cabinet on existing AT&T concrete equipment pads at its sites.

For technical reasons, AT&T must make further improvements at select sites to ensure availability of E911 services to users of its network. As such, AT&T will be adding panel antennas at several sites as needed to ensure receipt of E911 signals as follows:

**Page 2**

- 1) Docket No. 183 - 478 Good Hill Road, Woodbury, Connecticut (AT&T #L-07): 3 new panel antennas 72" x 36" x 7.5" at 147'; mounted to existing platform (with additional T-arms) structural attached
- 2) Municipally Approved Tower - South Orange Center Road, Orange, Connecticut (AT&T CT-101): 3 new panel antennas 72" x 36" x 7.5" at 177' 9"; mounted to existing platform (with additional t-arms); structural attached
- 3) Docket No. 139 - 279 King Street, Enfield, Connecticut (AT&T CT-154): 3 new panel antennas 55" x 16" x 5"; mounted to existing tower extension; structural attached
- 4) Docket No. 148 - 48 Cow Hill Road, Clinton, Connecticut (AT&T CT-207): 3 new panel antennas 55" x 16" x 5"; mounted to existing tower platform at 180'; structural attached

AT&T hereby notifies the Siting Council of its intent to modify the captioned facilities pursuant to Section 16-50j-72 of the Regulations of Connecticut State Agencies.

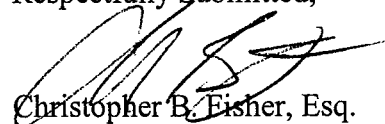
It is respectfully submitted that this filing be accepted in lieu of a site by site filing given the de minimis nature of the modifications which are being implemented by AT&T as part of a Federal mandate and that each site specific modification is "exempt" pursuant to Council regulations as more fully set forth in this notice. Specifically, at each site, the proposed antennas and cables installed at AT&T Wireless' facilities constitutes exempt "modifications" of existing facilities as defined in Connecticut General Statutes Section 16-50i(d) and regulations promulgated pursuant thereto. The proposed modifications will not result in an increase in tower heights or extend the boundaries of existing compounds and will comply with state building code requirements. See structural letters attached as Exhibit A. Further, there will be no increase in noise levels by six (6) decibels or more at the tower or Facility site boundaries. Moreover, the total radio frequency electromagnetic radiation power density at the Facility site boundaries will be unchanged because no new transmission equipment is being deployed as part of the Enhanced 911 modifications.



Page 3

Accordingly, AT&T Wireless requests that the Connecticut Siting Council acknowledge that the proposed modifications to the sites set forth below and as outlined in this notice meet the Council's exemption criteria.

Respectfully Submitted,



Christopher B. Fisher, Esq.  
On behalf of AT&T Wireless

cc: Richard W. Crane, First Selectman, Town of Woodbury  
Mitchell R. Goldblatt, First Selectman, Town of Orange  
William R. Vayda, Mayor, Town of Enfield  
Jim Mc Cusker, First Selectman, Town of Clinton  
Leslie Small, Wireless Network Group, Inc.  
Robin Van Laer, Bechtel

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# DETAILED STRUCTURAL ANALYSIS AND EVALUATION OF 147' EXISTING MONOPOLE FOR NEW ANTENNA ARRANGEMENT

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478 Good Hill Road  
Woodbury, Connecticut  
AT&T Site No.: L-07

---

*prepared for*



AT&T  
15 EAST MIDLAND AVE.  
PARAMUS, NJ 07652

*prepared by*



URS CORPORATION  
795 BROOK STREET, BUILDING 5  
ROCKY HILL, CT 06067  
TEL. 860-529-8882

36916460.00000  
BA 2047

May 22, 2003

1. **EXECUTIVE SUMMARY**

This report summarizes the structural analysis of the existing 147' (197' future) monopole. This report analyzes the current 147' monopole with existing and proposed AT&T equipment. Future extensions or modifications will require further structural analysis. The monopole is located at 478 Good Hill Road in Woodbury, Connecticut.

The analysis was conducted in accordance with the TIA/EIA-222-F standard and BOCA 1996 Building Code with 1999 Connecticut Supplement including 2000 amendments for wind velocity of 85 mph and 74 mph concurrent with ½" ice. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined on the following page of this report.

The results of the analysis indicate that the monopole structure is in compliance with the loading conditions and the material and member sizes for the monopole. The monopole is considered feasible with the TIA/EIA-222-F standard and BOCA 1996 Building Code with 1999 Connecticut Supplement including 2000 amendments for the wind load classification specified above and the existing and proposed antenna loading.

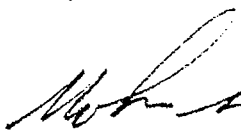
This analysis is based on:

- 1) The tower structure's capacity not including any assessment of the condition of the tower.
- 2) Tower and foundation design documents prepared by Paul J. Ford and Company job no. 29200-1379 approved September 15, 2000.
- 3) Geotechnical study prepared by Dr. Clarence Welti, P.E., P.C., dated March 27, 2000.
- 4) Antenna and mount configuration as specified on the following page of this report.
- 5) TIA/EIA-222-F wind load configuration.

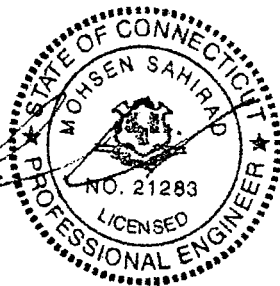
This report is only valid per the assumptions and data utilized in this report for antenna inventory, mounts and associated cables. The user of this report shall field verify the assumptions of the antenna and mount configurations. Notify the engineer in writing immediately if any of the assumptions in this report are other than specified.

Should you have any questions, please contact us.

Sincerely,  
**URS Corporation AES**



Mohsen Sahirad, P.E.  
Senior Structural Engineer



MS/ddm

cc: Dilip Banerjee – Bechtel  
Alitz Abadjian – URS  
Doug Roberts – URS  
Naish Artaiz – URS  
CF/Book

2. INTRODUCTION

A structural analysis of this 147' (197' future) monopole was performed by URS Corporation AES (URS) for AT&T Wireless. This report analyzes the current 147' monopole with existing and proposed AT&T equipment. Future extensions or modifications will require further structural analysis. The monopole is located at 478 Good Hill Road in Woodbury, Connecticut.

The structure is self-supporting and was manufactured by Summit Manufacturing Inc., job no. 11443. The monopole and foundation were designed by Paul J. Ford and Company, job no. 29200-1379, approved September 15, 2000.

This analysis was conducted to evaluate twist (rotation), sway (deflection), and stress on the monopole. The analysis was also used to find the effect of the forces to the foundation resulting from the antenna arrangement listed below.

Antenna and Mount Configuration:

ANTENNA & MOUNT DESCRIPTION	CARRIER	CENTERLINE ELEVATION
(9) Allgon 7184 antennas mounted on low profile platform with (9) 1 5/8" coax cables inside the monopole	AT&T (existing)	147' - 0"
(3) 776QNB120EXM antennas mounted on (6) 5' standoff T-arms* and (12) 1-5/8" and (3) 1/2" coax cables inside the monopole	AT&T (proposed)	147' - 0"

\* (3) mounts to be installed approximately at 146'-0" elevation and (3) mounts to be installed approximately at 141'-0" elevation

Note: 1. This analysis is based on the assumption that all carrier antenna cables are to be placed within the monopole unless otherwise noted. Porthole may be required. Installation of porthole shall be done per manufacturer suggestion.  
2. Physical verification may be required to ensure that adequate space is available inside the monopole.

### 3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS

The structural analysis was done in accordance with TIA/EIA-222-F June 1996, Structural Standard for Steel Antenna Towers and Antenna Supporting Structures, the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Allowable Stress Design (ASD).

The analysis was conducted using ERI Tower 2.0. Two load conditions were evaluated as shown below which were compared to allowable stresses according to AISC and TIA/EIA. The two load combinations were investigated in ERI Tower 2.0 to determine the stress, sway and rotation.

Load Condition 1 = 85 mph Wind Load (without ice) + Tower Dead Load  
Load Condition 2 = 74 mph Wind Load (with ice) + Ice Load + Tower Dead Load

The TIA/EIA standard permits one-third increase in allowable stresses for towers and monopoles less than 700 feet tall. For purposes of this analysis, allowable stresses of the monopole members were increased by one-third in computing the load capacity.

### 4. EVALUATION OF MONOPOLE

Combined axial and bending stresses on the monopole structure were evaluated to compare with allowable stresses in accordance with AISC. The calculated stresses under the proposed loading were below the allowable stresses.

### 5. CONCLUSIONS

Our analysis determined that the monopole and its foundation will support the proposed antenna loading, based upon the information from the tower report provided by Paul J. Ford and Company.

Detailed analysis for the proposed antenna arrangement and load condition is provided in Appendix A.

#### Limitations/Assumptions:

This report is based on the following:

1. Paul J. Ford and Company job no. 29200-1379 approved September 15, 2003.
2. Geotechnical report prepared by Dr. Clarence Welti, P.E., P.C., dated March 27, 2000.
3. Tower loading for antennas and mounts as listed in this report.
4. Tower is properly installed and maintained.
5. All members were as specified in the original design documents and are in good condition.
6. All required members are in place.
7. All bolts are in place and are properly tightened.
8. Tower is in plumb condition.
9. All members are galvanized.
10. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.

11. Foundations were properly constructed to support original design loads as specified in the original design documents.

12. All co-axial cable is installed within monopole, except as noted.

URS hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact URS. URS disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

**Ongoing and Periodic Inspection and Maintenance by the Owner:**

After the Contractor has successfully completed the installation and the work has been accepted, the tower owner will be responsible for the ongoing and periodic inspection and maintenance of the Tower.

The owner shall refer to TIA/EIA-222-F, for recommendations for maintenance and inspection. The frequency of the inspection and maintenance intervals is to be determined by the owner based upon actual site and environmental conditions. It is recommended that a complete and thorough inspection of the entire tower structural system is performed at least yearly and more frequently as conditions warrant. According to TIA/EIA-222-F, It is recommended that the structure be inspected after severe wind and/or ice storms or other extreme loading conditions.

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**DETAILED STRUCTURAL ANALYSIS AND  
EVALUATION OF 180' EXISTING MONOPOLE  
FOR NEW ANTENNA ARRANGEMENT**

**Orange Transfer Station  
Orange, Connecticut  
AT&T Site No.: CT-101**

---

*prepared for*



**AT&T WIRELESS PCS  
12 OMEGA DRIVE, 2<sup>ND</sup> FLOOR  
STAMFORD, CT 06902**

*prepared by*

**URS**

**URS CORPORATION  
795 BROOK STREET, BUILDING 5  
ROCKY HILL, CT 06067  
TEL. 860-529-8882**

**36916470.00000  
BA 2048**

**May 16, 2003**

1. **EXECUTIVE SUMMARY**

This report summarizes the structural analysis of the existing 180' monopole at the Orange Transfer Station South Orange Center Road, Orange, Connecticut. The analysis was conducted in accordance with the TIA/EIA-222-F standard for wind velocity of 85 mph and 85 mph concurrent with 1/2" ice with reduction. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined on the following page of this report.

The results of the analysis indicate the structure to be in compliance with the loading conditions and the material and member sizes for the monopole and foundation. The monopole is considered feasible with the TIA/EIA-222-F wind load classification specified above and all the existing and proposed antenna loading.

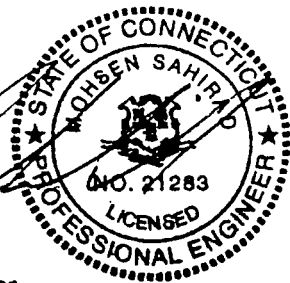
This analysis is based on:

- 1) The tower structure's theoretical capacity not including any assessment its condition.
- 2) Tower and foundation design prepared by Paul J. Ford and Company project no. 20501-0701 dated August 7, 2001 including its revised foundation dated August 28, 2001.
- 3) Antenna inventory as specified on the following page of this report.
- 4) Soils report prepared by Dr. Clarence Welti, P.E., P.C. dated June 7, 2001.
- 5) TIA/EIA-222-F wind load classification.

This report is only valid as per the assumptions and data utilized in this report for antenna inventory, mounts and associated cables. The user of this report shall field verify the assumptions of antenna and mount configurations. Notify the engineer in writing immediately if any of the assumptions found in this report are other than specified.

If you should have any questions, please call.

Sincerely,  
URS Corporation AES



Mohsen Sahirad, P.E.  
Senior Structural Engineer

MS/ddm

cc: Dilip Banerjee – Bechtel  
Alitz Abadjian – URS  
N.A., D.F. - URS  
CF/Book



**2. INTRODUCTION:**

A structural analysis of this existing 180' communications monopole was performed by URS Corporation A/E/S (URS) for AT&T Wireless. The monopole is located at the Orange Transfer Station in Orange, Connecticut.

The structure is self-supporting and was designed by Paul J. Ford and Company project no. 20501-0701 dated August 7, 2001 including its revised foundation dated August 28, 2001.

This analysis was conducted to evaluate twist (rotation), sway (deflection), and stress on the monopole. The analysis was also used to find the effect of the forces to the foundation resulting from the antenna arrangement listed below:

**Antenna and Mount Configuration:**

ANTENNA & MOUNT DESCRIPTION	CARRIER	CENTERLINE ELEVATION
(6) RR90-17-02 DP antennas with low profile platform and (12) 1 5/8" coax cable inside the monopole	AT&T (existing)	177' - 9"
(12) DB980H65T2E antennas with low profile platform and (12) 1-5/8" coax cable inside the monopole	Sprint (existing)	127' - 9"
(12) DB844H9C antennas with low profile platform and (12) 1-5/8" coax cable inside the monopole	Verizon (existing)	117' - 0"
(3) 776QNB120EXM antennas mounted on (6) 5' standoff T-arms* and (12) 1-5/8" and (3) 1/2" coax cables inside the monopole	AT&T (proposed)	177' - 9"

\* Mounts to be installed approximately 2' - 6" above and below centerline of existing platform

**Note:** 1. This analysis is based on the assumption that all carrier antenna cables are to be placed within the monopole unless otherwise noted. Porthole may be required. Installation of porthole shall be done per manufacturer suggestion.  
2. Physical verification may be required to ensure that adequate space is available inside the monopole.

**3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS:**

Methodology:

The structural analysis was done in accordance with TIA/EIA-222-F June 1996, Structural Standard for Steel Antenna Towers and Antenna Supporting Structures, the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Allowable Stress Design (ASD).

The analysis was conducted using ERI Tower 2.0. Two load conditions were evaluated as shown below which were compared to allowable stresses according to AISC and TIA/EIA. The two load combinations were investigated in ERI Tower 2.0 to determine the stress, sway and rotation.

Load Condition 1 = 85 mph Wind Load (without ice) + Tower Dead Load  
Load Condition 2 = 74 mph Wind Load (with ice) + Ice Load + Tower Dead Load

The TIA/EIA standard permits one-third increase in allowable stresses for towers and monopoles less than 700 feet tall. For purposes of this analysis, allowable stresses of the monopole members were increased by one-third in computing the load capacity.

**4. FINDINGS AND EVALUATION:**

Combined axial and bending stresses on the monopole structure were evaluated to compare with allowable stresses in accordance with AISC. In all cases, calculated stresses under the proposed loading were less than allowable stresses. A detailed foundation analysis was not performed since forces were lower than those used in the original analysis performed by URS that indicated the constructed foundation has sufficient capacity for proposed AT&T antenna installation.

**5. CONCLUSIONS**

Our analysis concludes that the monopole and foundation will support the proposed new antenna arrangements under the analysis criteria outlined on the previous page.

Our analysis for the proposed new antenna arrangement and load condition is provided in Appendix A.

**Limitations/Assumptions:**

This report is based on the following:

1. Tower inventory as listed in this report.
2. Tower is properly installed and maintained.
3. All members were as specified in the original design documents and are in good condition.
4. All required members are in place.
5. All bolts are in place and are properly tightened.
6. Tower is in plumb condition.
7. Protective coatings are in good condition
8. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.

9. Foundations were properly constructed to support original design loads as specified in the original design documents.

10. All co-axial cable is installed within the monopole, except as noted.

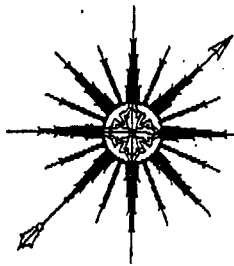
URS is not responsible for any modifications completed prior to or hereafter, which URS is not or was not directly involved. Modifications include but are not limited to:

1. Adding or relocating antennas and platform

URS hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact URS. URS disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

**Ongoing and Periodic Inspection and Maintenance:**

1. After the Contractor has successfully completed the installation and the work has been accepted, the owner will be responsible for the ongoing and periodic inspection and maintenance of the tower.
2. The owner shall refer to TIA/EIA-222-F, Section 14 and Annex E for recommendations for maintenance and inspection. The frequency of the inspection and maintenance intervals is to be determined by the owner based upon actual site and environmental conditions. It is recommended that a complete and thorough inspection of the entire tower structural system is performed at least yearly and more frequently as conditions warrant. According to TIA/EIA-222-F section 14.1, Note 1: It is recommended that the structure be inspected after severe wind and/or ice storms or other extreme loading conditions.



# ALL-POINTS TECHNOLOGY CORPORATION, P.C.

August 11, 2003

Crown Castle Atlantic  
500 West Cummings Park  
Suite 3400  
Woburn, MA 01801

Attn: Lincoln Erhard  
Re: AT&T Wireless Antenna Additions  
150' Valmont Monopole Tower  
Enfield, Connecticut  
Crown BU #806373

Dear Lincoln,

All-Points Technology Corporation, P.C. performed a structural analysis of Crown Castle's 150' Valmont monopole tower located at 279 King Street in Enfield, Connecticut. The tower was analyzed in accordance with EIA/TIA-222-F, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures for AT&T Wireless' proposed three DB978QNB120 panel antennas to be installed on the existing extension at 160'. Waveguide cables are to be twelve 1-5/8" and three 7/8" cables.

Our analysis indicates the tower and foundation are capable of supporting AT&T's proposed antennas. Waveguide cables may be installed on the inside or outside of the monopole.

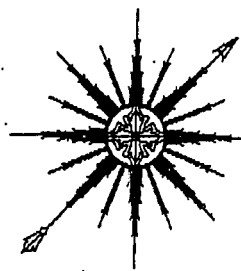
We appreciate this opportunity to provide our services to you. Please call if you have any questions.

Sincerely,  
All-Points Technology Corporation, P.C.

Robert E. Adair, P.E.  
Principal



CT105342 Enfield 8-11-03 ltr.doc



# ALL-POINTS TECHNOLOGY CORPORATION, P.C.

July 31, 2003

Crown Castle Atlantic  
500 West Cummings Park  
Suite 3400  
Woburn, MA 01801

Attn: Lincoln Erhard  
Re: AT&T Wireless Antenna Additions  
212' ROHN SSMW Tower  
Clinton, Connecticut  
Crown BU #806363


Dear Lincoln,

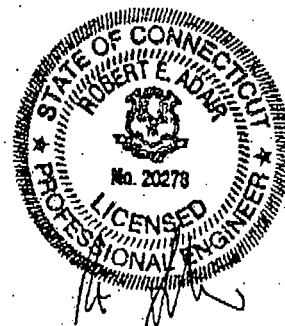
All-Points Technology Corporation, P.C. performed a structural analysis of Crown Castle's 212' ROHN SSMW tower located at 48 Cow Hill Road in Clinton, Connecticut. The tower was analyzed in accordance with EIA/TIA-222-F, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures for AT&T Wireless' proposed three DB978QNB120 panel antennas to be installed on existing mounts at 180'. Waveguide cables are to be twelve 1-5/8" and three 7/8" cables.

Our analysis indicates the tower and foundation are capable of supporting AT&T's proposed antennas. Waveguide cables must be installed on the inside of an existing waveguide ladder or stacked on existing waveguide cables.

We appreciate this opportunity to provide our services to you. Please call if you have any questions.

Sincerely,  
All-Points Technology Corporation, P.C.

  
Robert E. Adair, P.E.  
Principal



CT105392 Clinton 7-31-03 ltr.doc

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September 24, 2003

VIA FACSIMILE (860-827-2950)

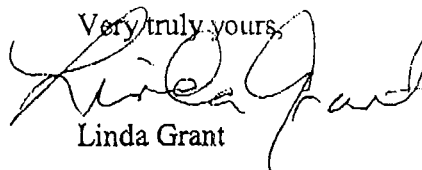
Michael Perrone  
 Siting Analyst  
 Connecticut Siting Council  
 10 Franklin Square  
 New Britain, Connecticut 06051

Re: EM-AI&T-168-107-049-027-030903  
279 King Street, Enfield, Connecticut

Dear Mr. Perrone:

In response to your request, the latitude and longitude for the above referenced site is 42.960000, -72.59277. Please do not hesitate to contact us should you require any additional information.

Very truly yours,



Linda Grant