

Daniel F. Caruso  
Chairman

# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

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

April 30, 2009

Steven L. Levine  
Real Estate Consultant  
New Cingular Wireless PCS, LLC  
500 Enterprise Drive  
Rocky Hill, CT 06067-3900

RE: **EM-CING-019-090403** - New Cingular Wireless PCS LLC notice of intent to modify an existing telecommunications facility located at 50 Tiffany Road, Brooklyn, Connecticut.

Dear Mr. Levine:

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

- The reinforcements recommended in the structural analysis dated April 2, 2009 shall be performed prior to the antenna swap;
- The water tank shall not exceed 100 percent of its post-construction structural rating; and
- A signed letter from a Professional Engineer duly licensed in the State of Connecticut shall be submitted to the Council to certify that the reinforcements were properly completed and the water tank does not exceed 100 percent of its post-construction structural rating.

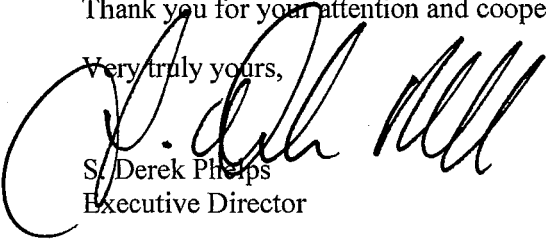
The proposed modifications are to be implemented as specified here and in your notice dated April 3, 2009, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations 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.

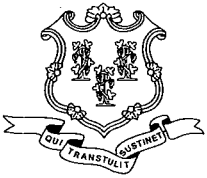
Very truly yours,



S. Derek Phelps  
Executive Director

SDP/MP/laf

c: The Honorable Roger Engle, First Selectman, Town of Brooklyn  
Chester Dobrowski, Zoning Enforcement Officer, Town of Brooklyn  
Mark Yellin



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

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

April 6, 2009

The Honorable Roger Engle  
First Selectman  
Town of Brooklyn  
Town Hall  
P. O. Box 356  
Brooklyn, CT 06234-0356

RE: **EM-CING-019-090403** - New Cingular Wireless PCS LLC notice of intent to modify an existing telecommunications facility located at 50 Tiffany Road, Brooklyn, Connecticut.

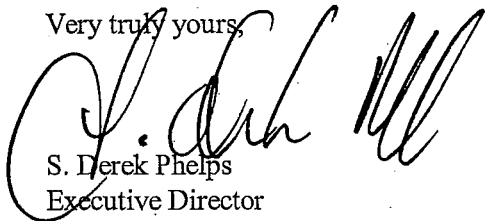
Dear Mr. Engle:

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

If you have any questions or comments regarding this proposal, please call me or inform the Council by April 20, 2009.

Thank you for your cooperation and consideration.

Very truly yours,



S. Derek Phelps  
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Chester Dobrowski, Zoning Enforcement Officer, Town of Brooklyn

EM-CING-019-090403



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

April 3, 2009

ORIGINAL

RECEIVED  
APR - 3 2009

CONNECTICUT  
SITING COUNCIL

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 50 Tiffany Road, Brooklyn (owner, Mark Yellin)

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. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

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.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall

squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will be unaffected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than some enlarged equipment pads as may be noted in the attachments.
3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.
4. Radio frequency power density may increase due to use of one or more GSM channel for UMTS transmissions. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, New Cingular Wireless respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

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

Sincerely,



Steven L. Levine  
Real Estate Consultant

Attachments

**NEW CINGULAR WIRELESS  
Equipment Modification**

50 Tiffany Road, Brooklyn  
Site Number 2139  
Local P&Z Approvals 6/98 (see attached documentation)

**Tower Owner/Manager:** Mark Yellin  
**Geographic Coordinates:** N41° 47' 51" and W71° 53' 12" (see attached location map)  
**Equipment Configuration:** Water Tank (dry)

**Current and/or Approved:** Nine panel antennas @ 131 ft AGL  
Six 1¼ inch coax cables  
Equipment Shelter

**Planned Modifications:** Remove all existing antennas & mounting poles  
Install new mounting poles per structural analysis and CD's  
Install six Powerwave 7770 antennas @ 131 ft  
Install six TMA's and six diplexers @ 131 ft  
Install three additional runs 1¼ inch coax

**Power Density:**

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 14.8 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density following proposed modifications would be approximately 18 % of the standard.

**Existing**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							10.18
Cingular GSM	121	1900 Band	2	427	0.0210	1.0000	2.10
Cingular GSM	121	880 - 894	2	296	0.0145	0.5867	2.48
<b>Total</b>							<b>14.8%</b>

\* Sum of conservative standard values for T-Mobile and Sprint-Nextel.

## Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							10.18
Cingular UMTS	131	880 - 894	1	500	0.0105	0.5867	1.79
Cingular GSM	131	1900 Band	2	427	0.0179	1.0000	1.79
Cingular GSM	131	880 - 894	4	296	0.0248	0.5867	4.23
<b>Total</b>							<b>18.0%</b>

\* Sum of conservative standard values for T-Mobile and Sprint-Nextel.

### Structural information:

The attached structural analysis demonstrates that the water tank will have sufficient structural capacity to accommodate the proposed equipment modifications providing that antenna mounting pipes are replaced as recommended (structural analysis by Hudson Design Group, 4/2/09; and construction drawings by Hudson Design Group, 4/1/09).

**PLANNING AND ZONING COMMISSION**

**TOWN OF BROOKLYN**

CONNECTICUT 06234

Legal Notice to be Published:  
One time only, Tuesday, May 12, 1998.


**LEGAL NOTICE**

**TOWN OF BROOKLYN**  
**Planning and Zoning Commission**


At the Regular Meeting of the Brooklyn Planning and Zoning Commission held on May 6, 1998, the following decisions were rendered:

**APPROVED** - SPR-98-03 Springwich Cellular Ltd. Partnership, 50 Tiffany Street, Antenna Installation and Related Building.

**APPROVED** - SD-98-2 Corner Properties, Corner of Mason Road and Route 169, Two-Lot Subdivision.

  
Bruce Parsons 

Bruce Parsons  
Chairman

(Please bill to Account # 10089300. Any questions/problems contact Maureen at 779-3411 before 2:00 p.m.)  
Thank you! 



# APPLICATION FOR BUILDING PERMIT

PERMIT NO. 005203

(Application must be typed or printed)

TOWN OF BROOKLYN  
CONNECTICUT

LOCATION OF JOB (NO. & STREET) <b>50 Juyany St</b>		CARD NO.	MAP <b>47</b>	BLOCK	LOT <b>46</b>
OWNER <b>Mark Yellin</b>	TEL.	ADDRESS (NO., STREET, TOWN, STATE, ZIP)			
APPLICANT <b>SNET</b>	TEL.	ADDRESS (NO., STREET, TOWN, STATE, ZIP)			
BUILDER <b>Kolcoska Const.</b>	TEL. <b>860-42-9286</b>	ADDRESS (NO., STREET, TOWN, STATE, ZIP) <b>51 Park St, Southington, CT</b>			
LICENSE #	NAME & TEL. # OF PERSON RESPONSIBLE <b>De Prezeko</b>				

## All Permits Must Be Posted And Visible From The Street

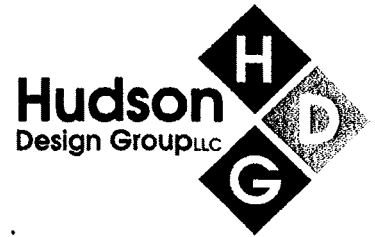
<p><b>SIZE OF BUILDING</b></p> <p>STORIES _____ NO. OF FAMILIES _____</p> <p>HEIGHT _____ DEPTH _____ FRONT _____</p> <p>TOTAL FLOOR AREA (NEW) _____ SQ.FT.</p> <p><b>TYPE OF WORK BEING DONE</b></p> <p><input type="checkbox"/> ORIG. CONSTRUCTION    <input type="checkbox"/> REPAIR</p> <p><input type="checkbox"/> ALTERATION                <input type="checkbox"/> DEMOLITION</p> <p><input type="checkbox"/> ADDITION</p> <p><b>CONSTRUCTION VALUE</b></p> <p>ESTIMATED _____</p> <p>ACTUAL _____</p> <p><b>TYPE OF HEAT</b></p> <p><input type="checkbox"/> ELECTRIC                    <input type="checkbox"/> SOLAR</p> <p><input type="checkbox"/> GAS                            <input type="checkbox"/> OTHER</p> <p><input type="checkbox"/> OIL</p>	<p><b>DISTANCES FROM LOT LINE</b> (Circle Front Lot Line)</p> <p>EAST _____ WEST _____ NORTH _____ SOUTH _____</p> <p><b>PROPOSED USE</b></p> <p><input type="checkbox"/> NEW HOME (Single Family)</p> <p><input type="checkbox"/> MULTI FAMILY</p> <p># OF BEDROOMS _____</p> <p>WATER SUPPLY _____</p> <p><input type="checkbox"/> ADDITION</p> <p><input type="checkbox"/> GARAGE</p> <p><input type="checkbox"/> DECK/PORCH</p> <p><input type="checkbox"/> SHED</p> <p><input type="checkbox"/> POOL</p> <p><input type="checkbox"/> COMMERCIAL/PUBLIC</p> <p><input type="checkbox"/> OTHER _____</p> <p>BUILDING PLANS                <u>REQUIRED</u>    <u>ATTACHED</u></p> <p>MATERIALS LIST                <u>ON PLANS</u>    <u>ATTACHED</u></p>	<p><b>OTHER REQUIREMENTS</b></p> <p>ZONING PERMIT                <u>REQ'D.</u>    <u>ATTACHED</u></p> <p>PLOT PLAN                        <u>REQ'D.</u>    <u>ATTACHED</u></p> <p>SEPTIC PERMIT                <u>REQ'D.</u>    <u>ATTACHED</u></p> <p><b>APPROVALS</b></p> <p>ZONING _____ FIRE MARSHAL _____</p> <p>WETLAND _____ ENGINEER _____</p> <p>SANITATION _____ STREET SUPT. _____</p> <p><b>FEE COVERS</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">VALUE</th> <th style="text-align: center;">FEE</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> CONSTRUCTION</td> <td style="text-align: center;"><u>50,000</u></td> <td style="text-align: center;"><u>350</u></td> </tr> <tr> <td><input type="checkbox"/> PLUMBING</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><input type="checkbox"/> HEATING</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><input type="checkbox"/> ELECTRICAL</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><input type="checkbox"/> SEPTIC</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><input checked="" type="checkbox"/> ZONING</td> <td style="text-align: center;">_____</td> <td style="text-align: center;"><u>35</u></td> </tr> <tr> <td><input type="checkbox"/> OTHER</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>TOTAL</b></td> <td style="text-align: center;"><b>_____</b></td> <td style="text-align: center;"><b><u>385</u></b></td> </tr> </tbody> </table> <p>CHECK # <u>2660</u>    DATE PAID _____</p>		VALUE	FEE	<input checked="" type="checkbox"/> CONSTRUCTION	<u>50,000</u>	<u>350</u>	<input type="checkbox"/> PLUMBING	_____	_____	<input type="checkbox"/> HEATING	_____	_____	<input type="checkbox"/> ELECTRICAL	_____	_____	<input type="checkbox"/> SEPTIC	_____	_____	<input checked="" type="checkbox"/> ZONING	_____	<u>35</u>	<input type="checkbox"/> OTHER	_____	_____	<b>TOTAL</b>	<b>_____</b>	<b><u>385</u></b>
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<b>TOTAL</b>	<b>_____</b>	<b><u>385</u></b>																											

DESCRIPTION OF WORK / REMARKS:

telecommunications

All work covered by this application has been authorized by the (owner) or (agent) of this property and will be done according to state regulations. This permit shall lapse if work does not commence within 6 months.

Date _____	Owner/Agent Signature _____
Date <u>6/18/98</u>	Building Official <u>[Signature]</u>



April 2, 2009

Tim Burks  
AT&T  
500 Enterprise Drive, Suite 3A  
Rocky Hill, CT 06067

RE: Structural Assessment  
Site Number: 2139  
Site Name: Brooklyn Tank

Dear Mr. Burks:

Hudson Design Group LLC (HDG) has been authorized by AT&T to assess the structural capability of this referenced site with regard to the existing structure's ability to support the following field changes: **1.) remove nine existing antennas and replace with six new Powerwave 7770 antennas, TMA's and Diplexers.**

Hudson Design Group performed a visual survey of the above structure and has completed a review of photos. The existing equipment locations are referenced in HDG's drawings dated 11-19-2008 (attached).

Based on our evaluation, we have determined that the existing pipe masts are **NOT ADEQUATE TO SUPPORT THE ABOVE FIELD CHANGES**. HDG recommends replacing the existing 2" sch. 40 pipe masts with 2" sch. 160 (XXH) pipe masts at 7'-0" tall. HDG recommends utilizing the existing diagonal steel kicker braces for lateral support. All details will be designed and furnished in the construction drawings. This evaluation is based on the requirements of the requirements of the TIA/EIA-222-F in conjunction with the International Building Code, with the 2005 Connecticut Supplement. Calculations and referenced documents submitted upon request.

This determination was based on the following limitations and assumptions:

1. Equipment and locations should not deviate from the construction drawings without written approval of the engineer.
2. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
3. The roof of the existing water tank structure in the location of the mounts is free from damage at this time.

If you have any questions about this project, please contact our office.

Respectfully Submitted,  
Hudson Design Group LLC

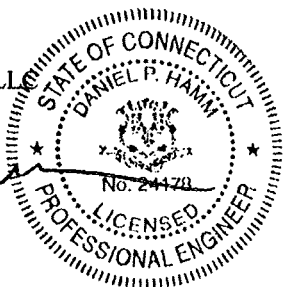
A handwritten signature in black ink, appearing to read 'DCK'.

Derek Creaser  
Sr. Project Manager

Approved by:  
Hudson Design Group LLC

A handwritten signature in black ink, appearing to read 'D.F. Hamm'.

Daniel F. Hamm, P.E.  
Principal





**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

April 3, 2009

Honorable Roger Engle  
1<sup>st</sup> Selectman, Town of Brooklyn  
Town Hall 4 Wolf Den Rd.  
Brooklyn, Connecticut 06234-0356

Re: Telecommunications Facility – 50 Tiffany Road, Brooklyn

Dear Mr. Engle:

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 (“Cingular”) 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 Cingular’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

**PROJECT INFORMATION**

SCOPE OF WORK: UNMANNED TELECOMMUNICATIONS FACILITY MODIFICATIONS  
 SITE ADDRESS: 50 TIFFANY ST. BROOKLYN, CT 06239  
 LATITUDE: 41° 47' 50.7" N  
 LONGITUDE: -71° 53' 12.1" W  
 JURISDICTION: NATIONAL, STATE & LOCAL CODES OR ORDINANCES  
 CURRENT USE: TELECOMMUNICATIONS FACILITY  
 PROPOSED USE: TELECOMMUNICATIONS FACILITY  
 NOC# 866-915-5600



**SITE NUMBER: 2139**  
**SITE NAME: BROOKLYN TANK**

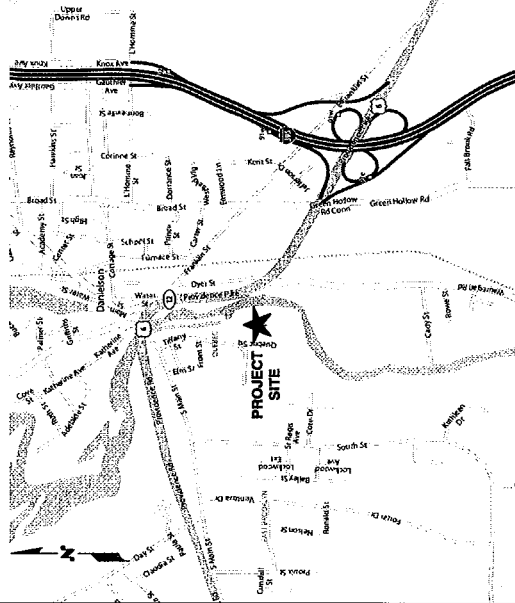
**DRAWING INDEX**

**REV**

- T-1 TITLE SHEET
- GN-1 GENERAL NOTES
- A-1 COMPOUND PLAN & EQUIPMENT PLAN
- A-2 ANTENNA LAYOUT AND ELEVATION
- G-1 GROUNDING, ONE-LINE DIAGRAM & DETAILS

**VICINITY MAP**

DIRECTION TO SITE: FROM ENTERPRISE DR. ROCKY HILL GOINS TOWARDS CAPITOL BLDG. - TURN LEFT ON CAPITOL BLDG. TURN LEFT ON WEST ST. TURN LEFT TO TAKE RAMP ONTO I-91 N. TOWARD HARTFORD - TAKE EXIT #25-28/GLASTONBURY/OLD WETHERSFIELD ONTO CT-3 N TOWARD #25/GLASTONBURY - TAKE THE NORWICH EXIT ONTO CT-2 E - TAKE EXIT #28N/PROVIDENCE ONTO I-385 N - TAKE EXIT #91/DANIELSON/HARTFORD ONTO PROVIDENCE PIKE (US-6 W) - CONTINUE TO FOLLOW US-6 W. TURN LEFT ON A LOCAL ROAD. TURN LEFT ON S MAIN ST. TURN RIGHT ON TIFFANY ST. - ARRIVE AT 50 TIFFANY ST. BROOKLYN, ON THE LEFT



**GENERAL NOTES**

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED, PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSIBLE BY MAINTENANCE PERSONNEL FOR PERFORMANCE OF MAINTENANCE. THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T REPRESENTATIVE IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CALL



BEFORE YOU DIG

CALL TOLL FREE 800-922-4455

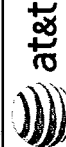
UNDERGROUND SERVICE ALERT



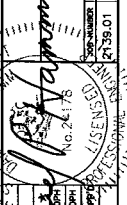
22 KEEWAYDIN DRIVE  
 SALEM, NH 03079



**SITE NUMBER: 2139**  
**SITE NAME: BROOKLYN TANK**  
 50 TIFFANY ST.  
 BROOKLYN, CT 06239  
 WINDHAM COUNTY



500 ENTERPRISE DRIVE, SUITE 3A  
 ROCKY HILL, CT 06067



NO.	DATE	REVISIONS	DESIGNED BY	DCHECKED BY
1	4/02/09	CONSTRUCTION REVISED		
0	2/19/09	ISSUED FOR CONSTRUCTION		

NO.	DATE	REVISIONS	DESIGNED BY	DCHECKED BY
1				

NO.	DATE	REVISIONS	DESIGNED BY	DCHECKED BY
1				

**GROUNDING NOTES**

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AIA), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH THE SUBCONTRACTOR'S GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATIONS, RADIO, LIGHTNING PROTECTION, AND AC POWER GESS'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE BY TWO OR MORE COPPER BONDED CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BITS EQUIPMENT.
5. EACH BITS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES. 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BITS 2 AWG STRANDED COPPER FOR OUTDOOR BITS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTI-OXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDED CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDED FITTINGS OR BY BONDED ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING #2 AWG SOLID BARE TINNED FIELD GROUND WIRE, PER NEC 250.30

**GENERAL NOTES**

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR - SA  
SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)  
OWNER - AT&T MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTORS SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. THE SUBCONTRACTOR SHALL OBTAIN ALL NECESSARY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. FITTING LIST SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT SHALL BE PROVIDED BY THE SUBCONTRACTOR. ALL OTHER MATERIALS AND FITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. THE SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND CONDUIT WHERE AVAILABLE. THE SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE DESIGNATED LOCATION. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE ORDERED WITH 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERRECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A572 (50 KSI) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A106 (60 KSI) UNLESS OTHERWISE NOTED. ALL WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERRECTED USING A COMPATIBLE ZINC RICH PAINT.
16. GENERAL CONSTRUCTION SERVICES FOR LIMITS SPECIFICATIONS AND SITES.\*
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE DONE IN AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN TO PROTECT THE PUBLIC AND THE WORKERS FROM RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RE EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:  
SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL VERIFY THE ADOPTED CODES AND STANDARDS FOR THE LOCATION OF THE CONTRACT WORK SHALL GOVERN THE DESIGN.  
BUILDING CODE: 2003 IBC WITH 2005 CONNECTICUT AMENDMENTS  
ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS  
LIGHTNING CODE: REFER TO ELECTRICAL DRAWINGS  
SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:  
AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;  
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)  
MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION;  
TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F,  
STRUCTURAL STANDARDS FOR STEEL  
ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES. REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.  
FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS APPLYING TO THESE METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE CONTRACTOR SHALL CONSULT WITH THE OWNER. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

**ABBREVIATIONS**

AGL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS	TBD	TO BE DETERMINED
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBR	TO BE REMOVED
BTS	BASE TRANSCENDER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
ES	EXISTING	N/A	NOT TO SCALE	TYP	TYPICAL
EGR	EQUIPMENT GROUND RING	REF.	REFERENCE		

AT&T  
GENERAL NOTES

1 4/27/09 CONSTRUCTION REVISED  
0 2/19/09 ISSUED FOR CONSTRUCTION

NO. DATE REVISIONS BY CHK'D BY  
1 4/27/09 DC JPH  
0 2/19/09 DC JPH

SCALE: AS SHOWN DESIGNED BY: DC DRAWN BY: AP

2739.01

NO. 2479

REGISTERED PROFESSIONAL ENGINEER  
STATE OF CONNECTICUT  
LICENSE NO. 2479

**at&t**

500 ENTERPRISE DRIVE, SUITE 3A  
ROCKY HILL, CT 06067

**SITE NUMBER: 2139**  
**SITE NAME: BROOKLYN TANK**

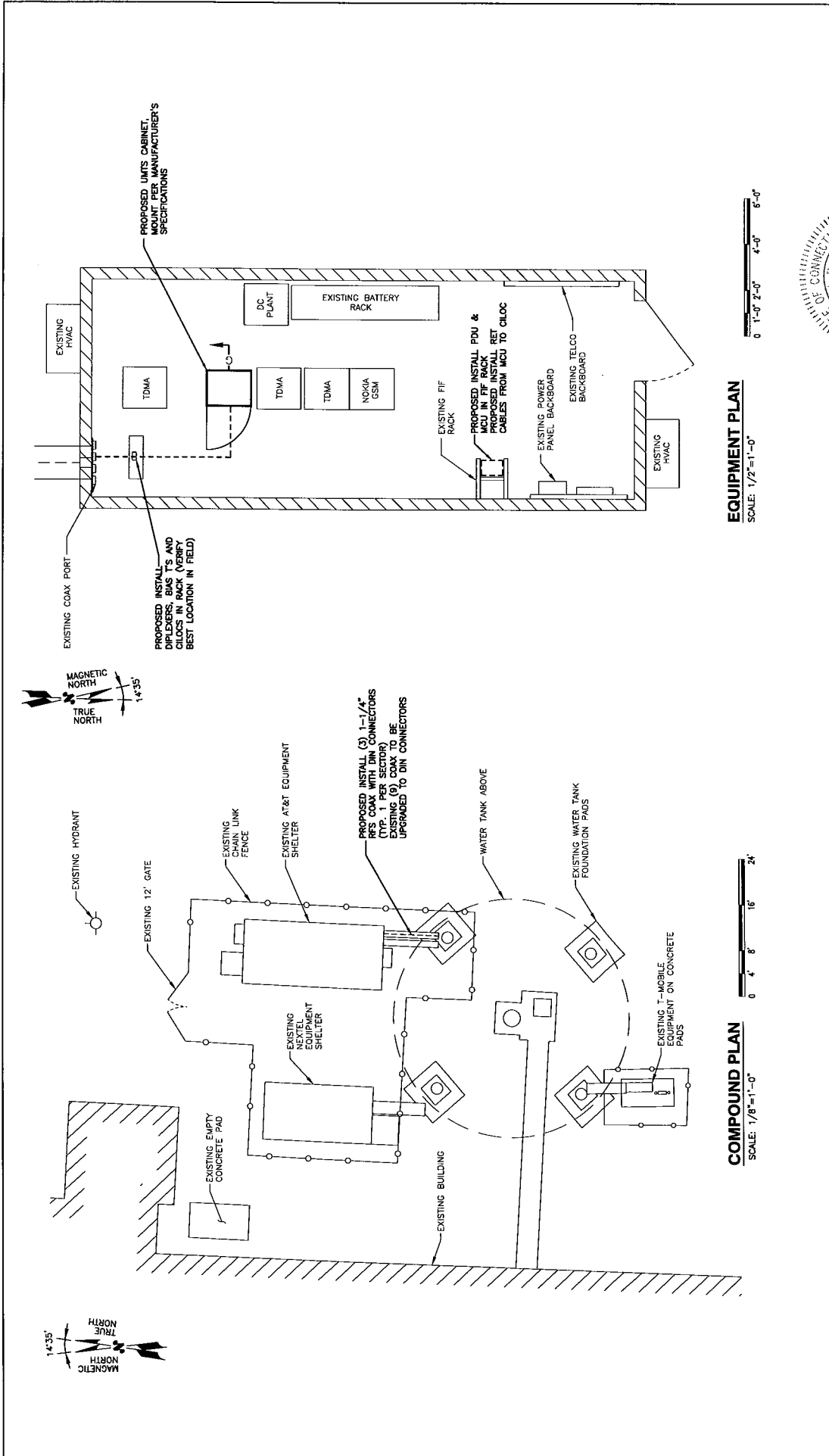
50 TIFFANY ST.  
BROOKLYN, CT 06239  
WINDHAM COUNTY

**SIAD**  
communications

22 KEEMWOOD DRIVE  
SALEM, NH 03079

**udson**  
Design Group, LLC

1485 SACONNET DRIVE  
BUILDING 25 NORTH SUITE 2-101  
N. ANDOVER, MA 01850  
TEL: (978) 537-5533  
FAX: (978) 334-5588

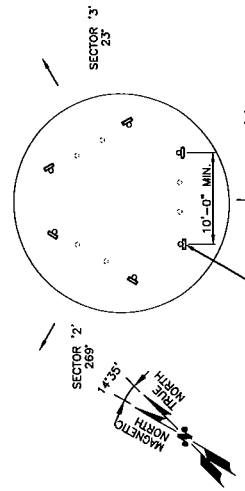


 HUDSON DESIGN GROUP 100 WASHINGTON STREET, 3RD FLOOR N. ANDOVER, MA 01861 TEL: (978) 652-5533 FAX: (978) 652-5588		 SIAT COMMUNICATIONS 22 KEEMAYON DRIVE SALEM, NH 03079		 500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067	
<b>SITE NUMBER: 2199</b> <b>SITE NAME: BROOKLYN TANK</b> 50 TIFFANY ST BROOKLYN, CT 06239 WINDHAM COUNTY		AT&T COMPOUND PLAN & EQUIPMENT PLAN		2739.01 1	
1 2/27/09 CONSTRUCTION REVISED BY: JCH 0 2/19/09 ISSUED FOR CONSTRUCTION BY: JCH		NO. DATE REVISIONS SCALE: AS SHOWN DESIGNED BY: DC DRAWN BY: AP		2739.01 1	

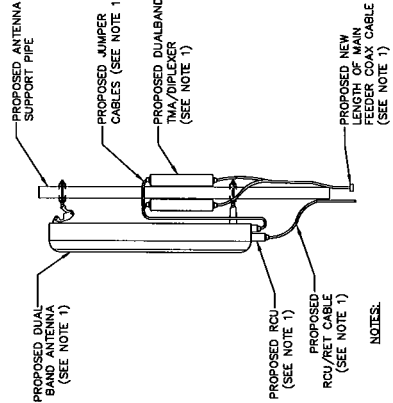
RF TABLE			
SECTOR	ANTENNA MAKE & MODEL	ANTENNA COUNT	RAD CENTER AZIMUTH
1	POWERWAVE 7770	2 PROPOSED 0 EXISTING	131°±
2	POWERWAVE 7770	2 PROPOSED 0 EXISTING	269°±
3	POWERWAVE 7770	2 PROPOSED 0 EXISTING	131°±

**NOTE:**  
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED ANTENNAS HAS BEEN DETERMINED PRIOR TO CONSTRUCTION.

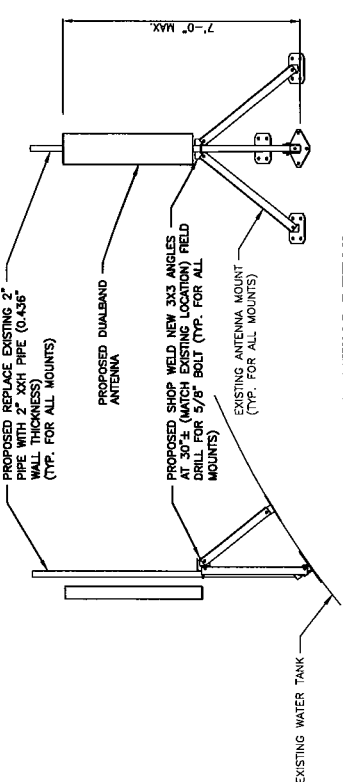
**NOTE:**  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



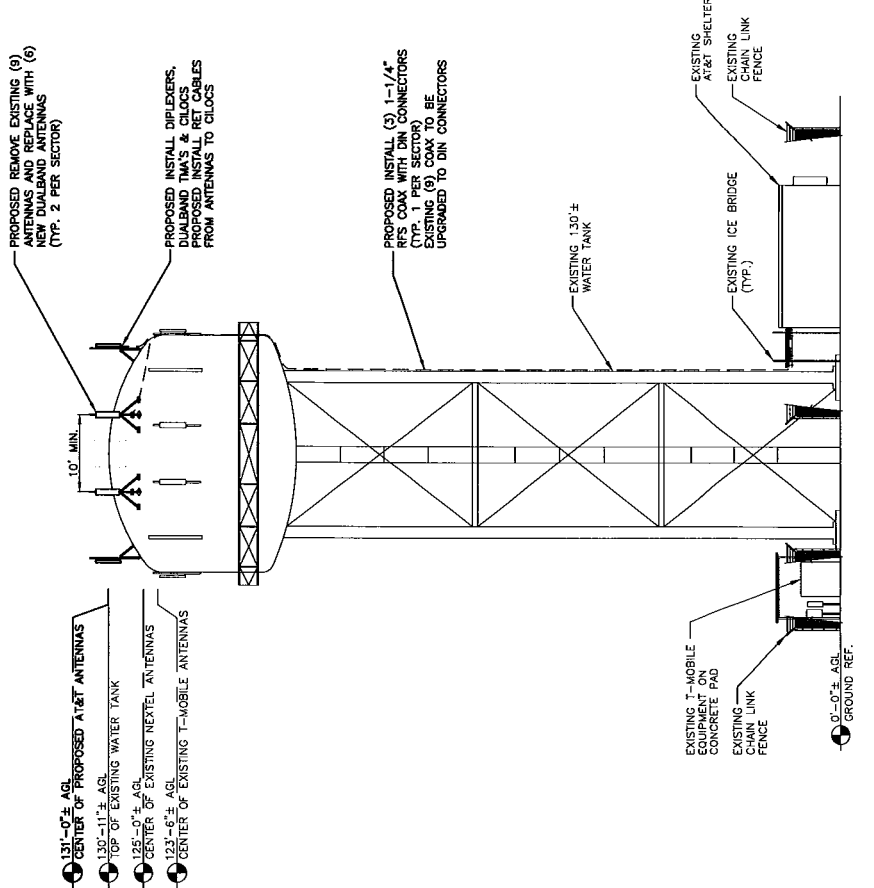
**ANTENNA PLAN**  
SCALE: N.T.S.



**PROPOSED ANTENNA DETAIL**  
SCALE: N.T.S.



**MOUNTING DETAIL**  
SCALE: 1/2"=1'-0"



**EAST ELEVATION**  
SCALE: 3/32"=1'-0"

**Hudson**  
Design Group Inc.  
180 DODD STREET, SUITE 2-101  
N. ANDOVER, MA 01850  
TEL: 978.655.6533  
FAX: 978.655.6586

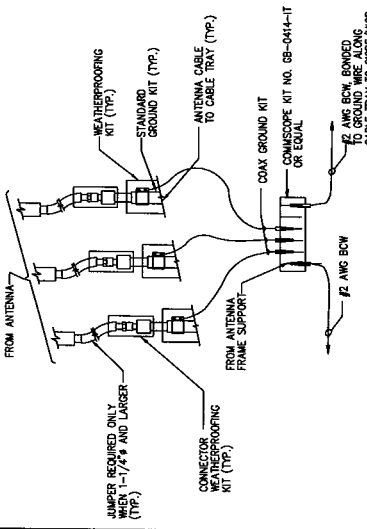
**SLAT**  
COMMUNICATIONS  
22 KEENEYDIN DRIVE  
SALEM, NH 03079

**at&t**  
SITE NUMBER: 2139  
SITE NAME: BROOKLYN TANK  
50 TIFFANY ST.  
BROOKLYN, CT 06239  
WINDHAM COUNTY

**at&t**  
500 ENTERPRISE DRIVE, SUITE 3A  
ROCKY HILL, CT 06067

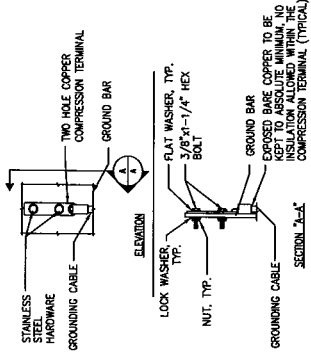
Professional Engineer  
No. 24,765  
LISTENSON, JAMES  
239.01  
DATE: 12/19/09  
ISSUED FOR CONSTRUCTION  
BY: CHEMUN  
REVISIONS:  
CONSTRUCTION REVISED  
DATE: 4/20/09

AT&T  
ANTENNA LAYOUT AND ELEVATION  
DRAWING NUMBER: A-2  
SCALE: AS SHOWN  
DESIGNED BY: DC  
DRAWN BY: AP



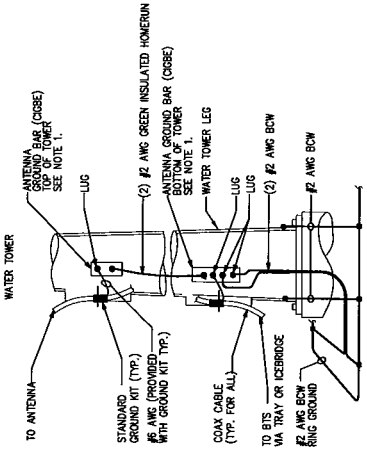
**NOTE:**  
 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND.

**GROUND WIRE TO GROUND BAR CONNECTION DETAIL**  
 1. N.T.S.



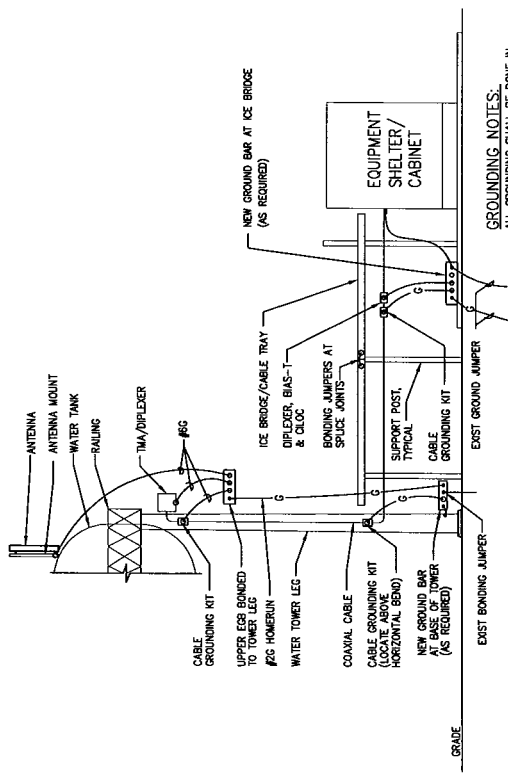
**NOTE:**  
 1. "DOUBLE UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.  
 2. CODE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.  
 3. CABLE DOWNLEADS FROM UPPER EGG, LOWER EGG, AND MGR.

**TYPICAL GROUND BAR CONNECTION DETAIL**  
 3. N.T.S.



**NOTE:**  
 1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATION AND CONNECTION ANTENNA LOCATION.  
 2. A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

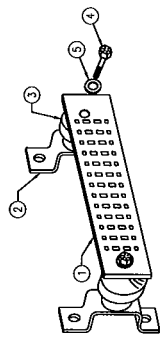
**ANTENNA CABLE GROUNDING**  
 4. N.T.S.



**GROUNDING NOTES:**  
 ALL GROUNDING SHALL BE DONE IN ACCORDANCE WITH THE AT&T MOBILITY GROUNDING GUIDE.

**2. GROUNDING ONE LINE DIAGRAM**  
 2. N.T.S.

WIRELESS SOLUTIONS, INC.	
NO.	DESCRIPTION
1	HUBS-0420-IS SOLID END BAR (20"x4"x1/4")
2	WALL MTC. BRKT.
3	INSULATORS
4	5/8"-11x1" H.H.C.S.
5	5/8" LOCKWASHER



**5. GROUND BAR - DETAIL**  
 5. N.T.S.

EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

**SECTION "T" - SURGE PRODUCERS**  
 CABLE ENTRY PORTS (HATCH PLATES) (#2)  
 GENERATOR FRAMEWORK (IF AVAILABLE) (#2)  
 COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)  
 +24V POWER SUPPLY RETURN BAR (#2)  
 -48V POWER SUPPLY RETURN BAR (#2)  
 RECTIFIER FRAMES.

**SECTION "A" - SURGE ABSORBERS**  
 INTERIOR GROUND RING (#2)  
 EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)  
 METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)  
 BUILDING STEEL (IF AVAILABLE) (#2)

**Hudson Design Group**  
 1000 BROADWAY  
 BUILDING 2000, SUITE 2101  
 NEW YORK, NY 10004  
 TEL: 878-557-6553  
 FAX: 878-244-8881

**SIAD communications**  
 22 KEENAVOIN DRIVE  
 SALEM, NH 03079

**at&t**  
 500 ENTERPRISE DRIVE, SUITE 3A  
 ROCKY HILL, CT 06067

**at&t**  
 500 ENTERPRISE DRIVE, SUITE 3A  
 ROCKY HILL, CT 06067

**AT&T**  
 PROJECT NO. 01-111111  
 SHEET NO. 01-111111-01  
 DATE: 12/19/09  
 DRAWN BY: AP  
 CHECKED BY: [Signature]  
 DESIGNED BY: DC  
 SCALE: AS SHOWN  
 REVISIONS:  
 NO. DATE BY  
 1 4/07/09 CONSTRUCTION REVISED AP DC JPH  
 2 2/19/09 ISSUED FOR CONSTRUCTION AP DC JPH  
 3 12/19/09 [Signature] [Signature] [Signature]  
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 5 12/19/09 [Signature] [Signature] [Signature]