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Daniel M. Laub
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April 24, 2017

**VIA OVERNIGHT DELIVERY**
Hon. Robert Stein, Chairman
and Members of the Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: New Cingular Wireless PCS, LLC ("AT&T")
Petition for a Declaratory Ruling
1 Circular Drive, Hamden, Connecticut

Dear Chairman Stein and Members of the Council:

On behalf of New Cingular Wireless PCS, LLC (AT&T), we respectfully enclose an original and fifteen (15) copies of a Petition for a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is required to install a rooftop tower facility at 1 Circular Drive, Hamden, Connecticut. Please also find enclosed check number 11199 representing the filing fee for this petition and a CD with an electronic copy of the submission.

Should the Council or Staff have any questions about this matter please do not hesitate to contact me.

Very truly yours,

Daniel M. Laub

cc: Mayor Curt B. Leng
Dan Kops, Planning and Zoning
AT&T
Centerline
Christopher B. Fisher, Esq.



C&F: 3239281.1
C&F: 3408432.1

**CONNECTICUT SITING COUNCIL**

**PETITION OF NEW CINGULAR WIRELESS PCS, LLC ("AT&T") TO THE CONNECTICUT SITING COUNCIL FOR A DECLARATORY RULING THAT NO CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS REQUIRED TO REMOVE AN EXISTING ROOFTOP FLAGPOLE TOWER FACILITY AND INSTALLATION OF NEW REPLACEMENT FLAGPOLE TOWER FACILITY ON SAME BUILDING ON THE EXISTING BUILDING LOCATED AT 1 CIRCULAR AVENUE, HAMDEN, CONNECTICUT**

**PETITION NO. _____**

**APRIL 24, 2017**

**PETITION FOR DECLARATORY RULING TO REMOVE AN EXISTING ROOFTOP FLAGPOLE TOWER FACILITY AND INSTALL A NEW REPLACEMENT FLAGPOLE TOWER FACILITY ON THE SAME BUILDING 1 CIRCULAR AVENUE, HAMDEN, CONNECTICUT**

## I. Introduction

New Cingular Wireless PCS, LLC ("AT&T"), the "Petitioner", hereby petitions the Connecticut Siting Council ("Council") pursuant to Sections 16-50j-38 and 16-50j-39 of the Regulations of Connecticut State Agencies ("R.C.S.A.") for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required pursuant to Section 16-50k of the Connecticut General Statutes ("C.G.S.") to Removal of an existing rooftop flagpole tower facility and installation of new replacement flagpole tower facility on same building located at 1 Circular Avenue, Hamden, Connecticut (the "Site").

## II. Existing Site

The existing site at 1 Circular Drive in Hamden is an existing office building with an active flagpole wireless facility operating on the roof of the building.

## III. AT&T's Proposal

AT&T is licensed by the Federal Communications Commission ("FCC") to provide wireless services in this area of the State of Connecticut.

AT&T's proposed facility is detailed in the drawings included as Attachment 1 prepared by Com Ex Consultants prepared on March 31, 2017. Also, annexed hereto as Attachment 2 is a structural analysis dated March 31, 2017 concluding that the existing building can support AT&T's proposed installation.

## IV. The Proposal Will Not Have A Substantial Adverse Environmental Effect

A comparison of the existing and proposed conditions reveals no substantial or significant environmental impacts associated with AT&T's proposed replacement of the existing tower or the installation of the new stealth chimney.

### A. Minimal Physical Impact On Building Site

AT&T's proposed modifications will not result in any additional disturbance to the site as it will be located on the rooftop of the existing building. Existing access to the site will continue to be utilized and no tree removal or ground disturbance is necessary for these modifications. The facility is unmanned and requires no water or wastewater connections and generates no waste.

### B. Compliance With MPE Limits

The operation of AT&T's antennas will not increase the total radio frequency electromagnetic power density at the site to a level at or above applicable standards. A power density report is included in Attachment 3. The total radio frequency power density will be allowable under FCC established general public limit at ground level and the occupational limit on the rooftop and well within standards adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes. Please note that the notice signage and barriers described in Attachment 3 will be provided and installed by AT&T.

### C. Visibility

As demonstrated in the photo simulations included in Attachment 4, AT&T's facility will not materially change the overall character of existing views or create a visual impact on the surrounding area. Indeed, the proposed facility provides only a de minimus difference from existing conditions. No FAA lighting or marking AT&T's installation is required. As substantiated by the State Historic Preservation Officer, the relocation of the flagpole tower from the front of the building to the rear of the building will lessen the overall visibility of the facility. Please see SHPO letter included as Attachement 5. As such, AT&T respectfully submits that the visibility of the proposed facility is neither significant nor adverse for purposes of the Council's regulatory considerations in ruling on this petition for a declaratory ruling.

## V. Notice of Petition Filing

Pursuant to R.C.S.A. Section 16-50j-40(a), notice of AT&T's intent to file this Petition was sent to each person appearing of record as an owner of property that abuts the site, as well as the appropriate municipal officials and government agencies as listed in Section 16-50e of the C.G.S. Certification of such notice, a copy of the notice and the list of property owners and municipal officials and government agencies to whom the notice was sent are included in Attachment 6. A map with a corresponding list of abutting property owners is also included in Attachment 6.

## VII. Conclusion

As set forth herein, AT&T's proposed facility and associated equipment and improvements are wholly consistent with legislative findings outlined in Section 16-50g and 16-50aa of the General Statutes of Connecticut that seek to avoid the unnecessary proliferation of towers in the State. It is respectfully submitted that AT&T's facility does not present any significant adverse environmental effects as listed in Section 16-50p of the General Statutes. Therefore and for all the foregoing reasons, AT&T petitions the Connecticut Siting Council for a determination that the proposed wireless telecommunications facility does not require a Certificate of Environmental Compatibility and Public Need and that the Council issue an order approving same.

Respectfully Submitted,

Daniel M. Laub, Esq.
On behalf of the Petitioner AT&T
Cuddy & Feder, LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
(914) 761-1300

cc: Mayor Curt B. Leng
Dan Kops, Planning and Zoning
AT&T
Centerline
Christopher B. Fisher, Esq.

# ATTACHMENT 1

## PROJECT INFORMATION

SCOPE OF WORK:
- REPLACE EXISTING RADOME WITH NEW RADOME TO MAINTAIN UNIFORM WIDTH
- REMOVING AND REPLACING EXISTING STEALTH POLE AND MOUNTING PLATFORM (FINAL DESIGN BY OTHERS)
- REPLACE 1 ANTENNA PER SECTOR (TOTAL OF 3 NEW ANTENNAS)
- ADD 1 NEW RRH & A2 MODULE PER SECTOR (TOTAL OF 3 NEW RRHs & A2 MODULES), RELOCATE EXISTING RRHS
- ADD (2) 1 5/8" COAX PER SECTOR, (6) TOTAL
- UPGRADE EXISTING DUL TO DUS

| | |
|---|---|
| SITE ADDRESS: | 1 CIRCULAR AVENUE<br>HAMDEN, CT 06514 |
| LATITUDE: | 41.3468919 41° 20' 48.81084"N |
| LONGITUDE: | -72.9340989 72° 56' 02.75604"W |
| USID: | 24508 |
| TOWER OWNER: | TBD |
| TYPE OF SITE: | FLAG MONOPOLE/OUTDOOR EQUIPMENT |
| STRUCTURE HEIGHT: | 44'-6"± (TOP OF FLAG MONOPOLE) |
| RAD CENTER: | 39'-0"± |
| CURRENT USE: | UNMANNED WIRELESS TELECOMMUNICATIONS FACILITY |
| PROPOSED USE: | UNMANNED WIRELESS TELECOMMUNICATIONS FACILITY |

## DRAWING INDEX

| | | REV. |
|---|---|---|
| T-1 | TITLE SHEET | 0 |
| GN-1 | GROUNDING & GENERAL NOTES | 0 |
| A-1 | SITE PLAN | 0 |
| A-2 | EQUIPMENT LAYOUTS | 0 |
| A-3 | ANTENNA LAYOUTS & ELEVATIONS | 0 |
| A-4 | DETAILS | 0 |
| G-1 | GROUNDING, ONE-LINE DIAGRAM & DETAILS | 0 |
| S1 | SITE PLAN & NOTES | 0 |
| S2 | PLATFORM FRAMING | 0 |

## APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN, ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AMD MAY IMPOSE CHANGES OR SITE MODIFICATIONS.

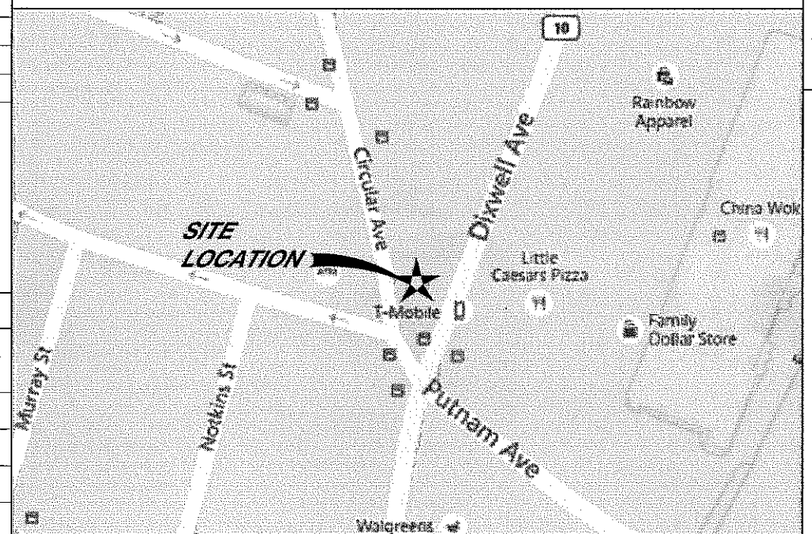
| DISCIPLINE: | NAME: | DATE: |
|---|---|---|
| SITE ACQUISITION: | | |
| CONSTRUCTION MANAGER: | | |
| AT&T PROJECT MANAGER: | | |

at&t MOBILITY

# FA CODE: 10071066
# SITE NUMBER: CT5317
# SITE NAME: HAMDEN-WHITNEYVILLE

## VICINITY MAP

FROM ROCKY HILL, TAKE RAMP LEFT FOR I-91 S, AT EXIT 17, TAKE RAMP RIGHT FOR CT-15 S. TOWARD W. CROSS PKWY / E. MAIN ST, AT EXIT 60, TAKE RAMP RIGHT FOR CT-10 TOWARD NEW HAVEN/HAMDEN, TURN RIGHT ONTO CT-10/DIXWELL AVE, TURN RIGHT ONTO CIRCULAR AVE, SITE WILL BE ON RIGHT




## PROJECT TEAM

**CLIENT REPRESENTATIVE**
COMPANY: EMPIRE TELECOM
ADDRESS: 16 ESQUIRE ROAD, BILLERICA, MA 01821
CONTACT: DAVID COOPER
PHONE: 617-639-4908
EMAIL: dcooper@empiretelecomm.com

**SITE ACQUISITION:**
COMPANY: VERTICAL DEVELOPMENT, LLC
ADDRESS: 20 COMMERCIAL STREET, BRANFORD, CT 06405
CONTACT: DAVID BASS
PHONE: 203-826-5857
EMAIL: dbass@verticaldevelopmentllc.com

**ZONING:**
COMPANY: VERTICAL DEVELOPMENT, LLC
ADDRESS: 20 COMMERCIAL STREET, BRANFORD, CT 06405
CONTACT: DAVID BASS
PHONE: 203-826-5857
EMAIL: dbass@verticaldevelopmentllc.com

**ENGINEERING:**
COMPANY: COM-EX CONSULTANTS, LLC
ADDRESS: 115 ROUTE 46, SUITE E39, MOUNTAIN LAKES, NJ 07046
CONTACT: NICHOLAS D. BARILE, P.E.
PHONE: 862-209-4300
EMAIL: nbarile@comexconsultants.com

**RF ENGINEER:**
COMPANY: AT&T MOBILITY - NEW ENGLAND
ADDRESS: 550 COCHITUATE ROAD, SUITE 550 13 & 14, FRAMINGHAM, MA 01701
CONTACT: CAMERON SYME
PHONE: 508-596-7146
EMAIL: cs6970@att.com

**CONSTRUCTION MANAGEMENT:**
COMPANY: EMPIRE TELECOM
ADDRESS: 16 ESQUIRE ROAD, BILLERICA, MA 01821
CONTACT: GRZEGORZ "GREG" DORMAN
PHONE: 484-683-1750
EMAIL: gdorman@empiretelecomm.com

## 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 ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND 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 DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CONNECTICUT ONE CALL SYSTEM, INC. STOP - CALL BEFORE YOU DIG! 1-800-922-4455

CONNECTICUT LAW REQUIRES TWO WORKING DAYS NOTICE PRIOR TO ANY EARTH MOVING ACTIVITIES BY CALLING 800-922-4455 OR DIAL 811


COM-EX Consultants
115 ROUTE 46
SUITE E39
MOUNTAIN LAKES, NJ 07046
PHONE: 862.209.4300
FAX: 862.209.4301

EMPIRE telecom
16 ESQUIRE ROAD
BILLERICA, MA 01821


SITE NUMBER: CT5317
SITE NAME: HAMDEN-WHITNEYVILLE

1 CIRCULAR AVENUE
HAMDEN, CT 06514
NEW HAVEN COUNTY

at&t MOBILITY
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

| NO. | DATE | REVISIONS | BY | CHK | APP'D |
|---|---|---|---|---|---|
| 0 | 03/31/17 | ISSUED AS FINAL | NJM | NDB | NDB |

SCALE: AS SHOWN | DESIGNED BY: NJM | DRAWN BY: NJM

SEAL: STATE OF CONNECTICUT, DOUGLAS B. ROBERTS, 28643, REGISTERED PROFESSIONAL ENGINEER

AT&T

DRAWING TITLE: TITLE SHEET

| JOB NUMBER | DRAWING NUMBER | REV |
|---|---|---|
| 15159-EMP | T-1 | 0 |

## 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 AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING 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. TESTS SHALL BE PERFORMED IN ACCORDANCE WITH 25471-000-3PS-EG00-0001, DESIGN & TESTING OF FACILITY GROUNDING FOR CELL SITES.
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 BTS EQUIPMENT.
5. EACH BTS 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 BTS; 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED WITH STAINLESS STEEL HARDWARE 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 AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
13. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ANSI/TIA 222. FOR TOWERS BEING BUILT TO REV-G OF THE STANDARD, THE WIRE SIZE OF THE BURIED GROUND RING AND CONNECTIONS BETWEEN THE TOWER AND THE BURIED GROUND RING SHALL BE CHANGED FROM 2 AWG TO 2/0 AWG. IN ADDITION, THE MINIMUM LENGTH OF THE GROUND RODS SHALL BE INCREASED FROM EIGHT FEET (8') TO TEN FEET (10').
14. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE ½" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID TINNED COPPER GROUND WIRE, PER NEC 250.50.

## GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

| | | |
|---|---|---|
| CONTRACTOR | – | EMPIRE TELECOM |
| SUBCONTRACTOR | – | GENERAL CONTRACTOR (CONSTRUCTION) |
| OWNER | – | AT&T MOBILITY |
| OEM | – | ORIGINAL EQUIPMENT MANUFACTURER |

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR 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 (EMPIRE TELECOM).
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 LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY 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. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
7. 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.
8. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR. ROUTING OF TRENCHING SHALL BE APPROVED BY CONTRACTOR
9. 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 OWNER.
10. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OFF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
11. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
12. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
13. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS UNLESS OTHERWISE SPECIFIED. ALL CONCRETING WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
14. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy=36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCH UP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
15. CONSTRUCTION SHALL COMPLY WITH SPECIFICATION 25741-000-3APS-A00Z-00002, "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."
16. 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.
17. 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 COORDINATED WITH CONTRACTOR. ALSO, WORK MAY NEED TO BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
18. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
19. SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
    - INTERNATIONAL BUILDING CODE: IBC 2009 WITH LOCAL & COUNTY AMENDMENTS
    - NATIONAL ELECTRICAL CODE: NEC 2011 WITH LOCAL & COUNTY AMENDMENTS
    - FIRE/LIFE SAFETY CODE: NFPA-101 2009 WITH LOCAL & COUNTY AMENDMENTS
20. 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, THIRTEENTH EDITION
    - AMERICAN SOCIETY OF TESTING OF MATERIALS, ASTM
    - TELECOMMUNICATIONS INDUSTRY ASSOCIATION (ANSI/TIA-222-G-1), STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES:
    - TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS
    - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OSHA
    - INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVELY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT
    - TELCORDIA GR-1503, COAXIAL CABLE CONNECTIONS
21. FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.
22. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA AND SUBMIT TO THE ENGINEER ANY DISCREPANCIES FROM THE DRAWINGS.
23. INFORMATION SHOWN ON THIS SET OF PLANS TAKEN FROM DRAWINGS PREPARED BY HUDSON DESIGN GROUP FOR A RECENT UPGRADE DATED 03/11/2011. CONTRACTOR TO NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.


COM-EX Consultants
115 ROUTE 46
SUITE E39
MOUNTAIN LAKES, NJ 07046
PHONE: 862.209.4300
FAX: 862.209.4301

EMPIRE telecom
16 ESQUIRE ROAD
BILLERICA, MA 01821


**SITE NUMBER: CT5317**
**SITE NAME: HAMDEN-WHITNEYVILLE**

1 CIRCULAR AVENUE
HAMDEN, CT 06514
NEW HAVEN COUNTY

at&t MOBILITY
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

| NO. | DATE | REVISIONS | BY | CHK | APP'D |
|---|---|---|---|---|---|
| 0 | 03/31/17 | ISSUED AS FINAL | NJM | NDB | NDB |

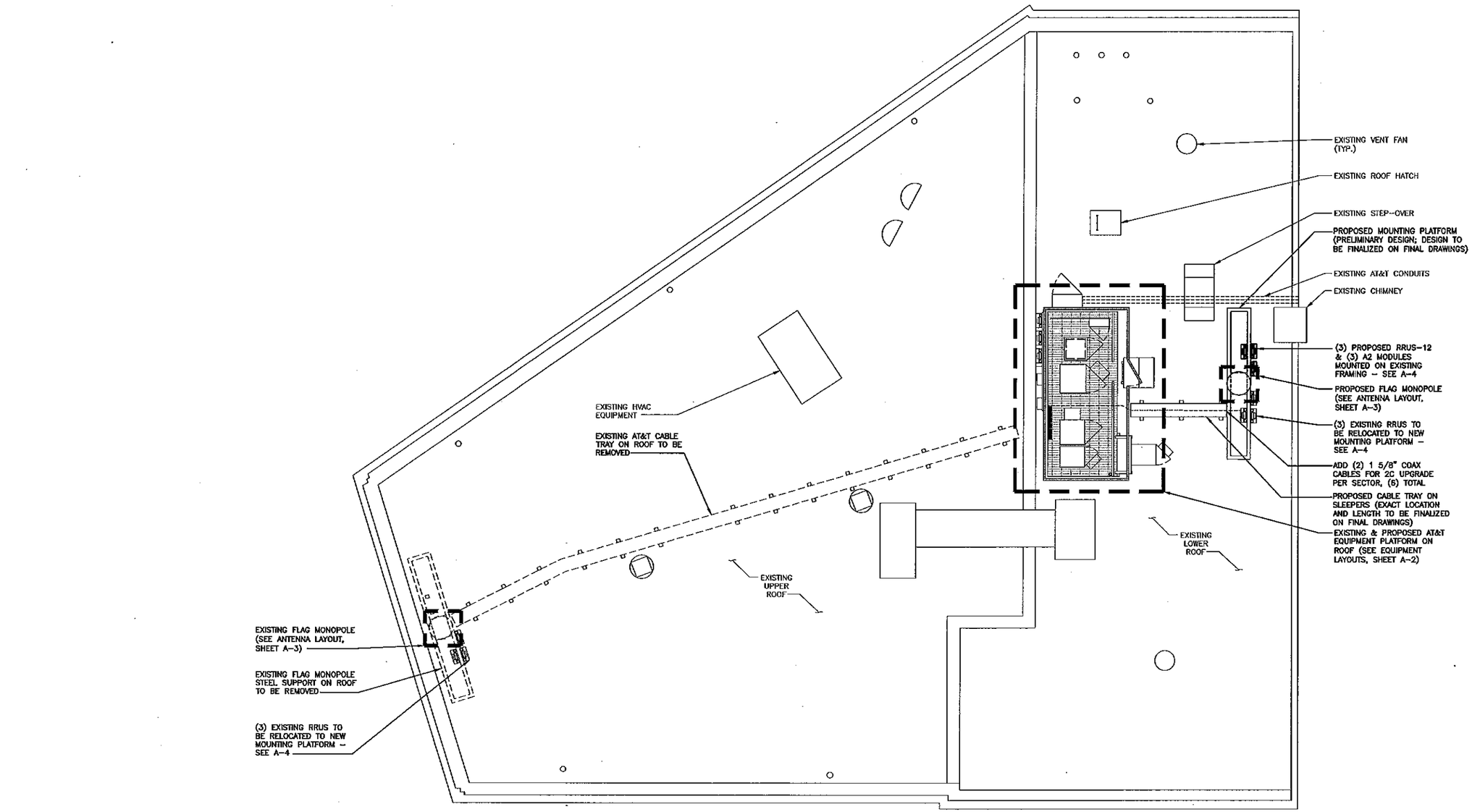
SCALE: AS SHOWN | DESIGNED BY: NJM | DRAWN BY: NJM

SEAL:
STATE OF CONNECTICUT
DOUGLAS G. WHITE
LICENSED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
CT LICENSE NO. 28643

AT&T

DRAWING TITLE:
GROUNDING & GENERAL NOTES

| JOB NUMBER | DRAWING NUMBER | REV |
|---|---|---|
| 15159-EMP | GN-1 | 0 |




NORTH

## SITE PLAN

SCALE: 3/16" = 1'-0"

GRAPHIC SCALE: 3/16"=1'-0"

THIS IS A PRELIMINARY DESIGN. EXACT DESIGN FOR MOUNTING PLATFORM WILL BE BY OTHERS ON FINAL DRAWINGS.

NOTE:
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA AND SUBMIT TO THE ENGINEER ANY DISCREPANCIES FROM THE DRAWINGS.

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PHONE: 862.209.4300
FAX: 862.209.4301

EMPIRE telecom
16 ESQUIRE ROAD
BILLERICA, MA 01821

**SITE NUMBER: CT5317**
**SITE NAME: HAMDEN-WHITNEYVILLE**

1 CIRCULAR AVENUE
HAMDEN, CT 06514
NEW HAVEN COUNTY

at&t MOBILITY
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

| NO. | DATE | REVISIONS | BY | CHK | APP'D |
|---|---|---|---|---|---|
| 0 | 03/31/17 | ISSUED AS FINAL | NJM | NDB | NDB |

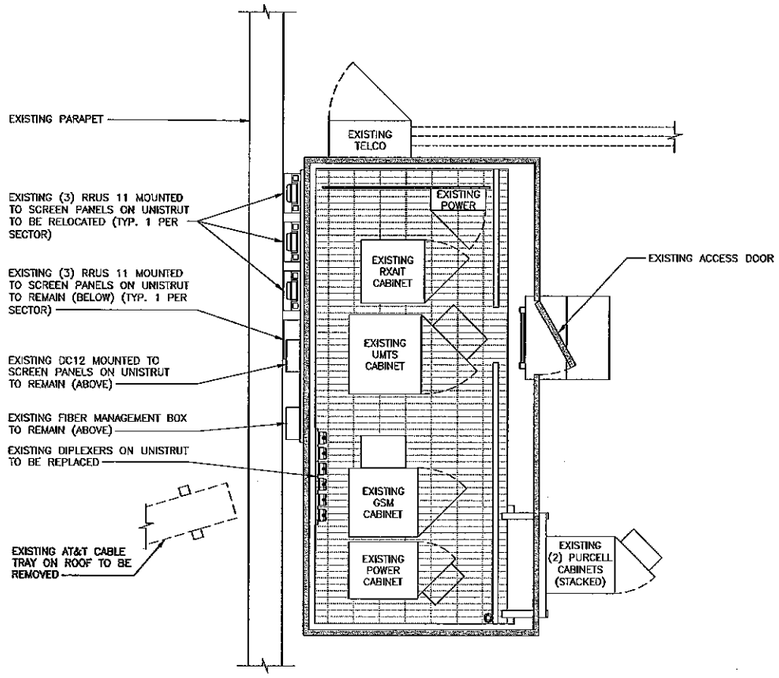
SCALE: AS SHOWN | DESIGNED BY: NJM | DRAWN BY: NJM

SEAL:
STATE OF CONNECTICUT
DOUGLAS B. HEBERT
PROFESSIONAL ENGINEER
CT LICENSE NO. 28643

AT&T

DRAWING TITLE:
ROOFTOP LAYOUT

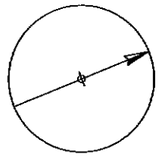
| JOB NUMBER | DRAWING NUMBER | REV |
|---|---|---|
| 15159-EMP | A-1 | 0 |



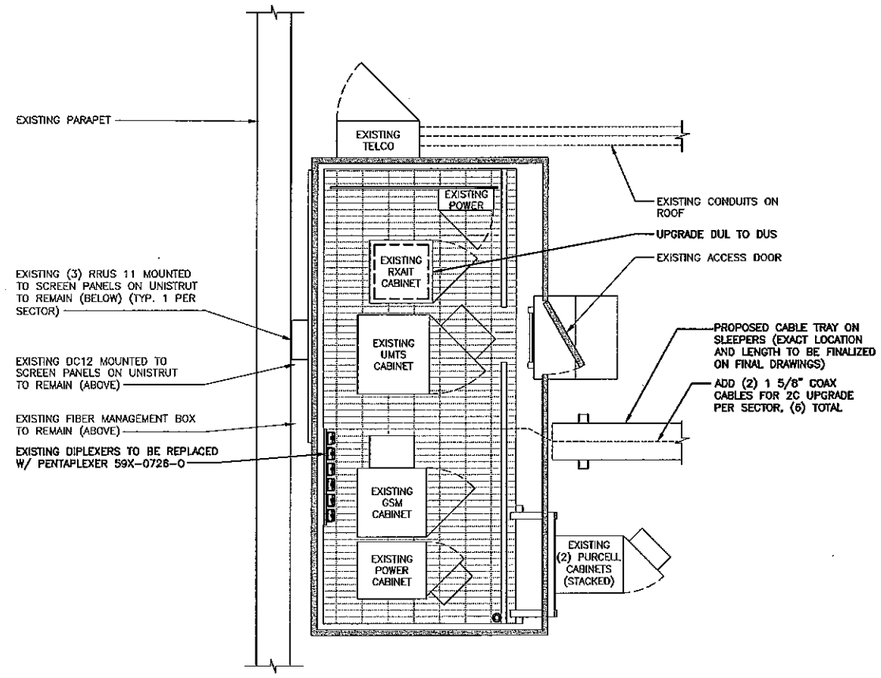

## EXISTING EQUIPMENT LAYOUT

SCALE: 3/8" = 1'-0"

GRAPHIC SCALE: 3/8"=1'-0"



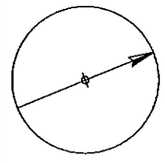
NORTH




## PROPOSED EQUIPMENT LAYOUT

SCALE: 3/8" = 1'-0"

GRAPHIC SCALE: 3/8"=1'-0"



NORTH

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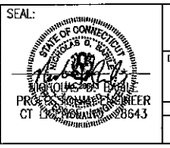
SCALE: AS SHOWN | DESIGNED BY: NJM | DRAWN BY: NJM

SEAL:

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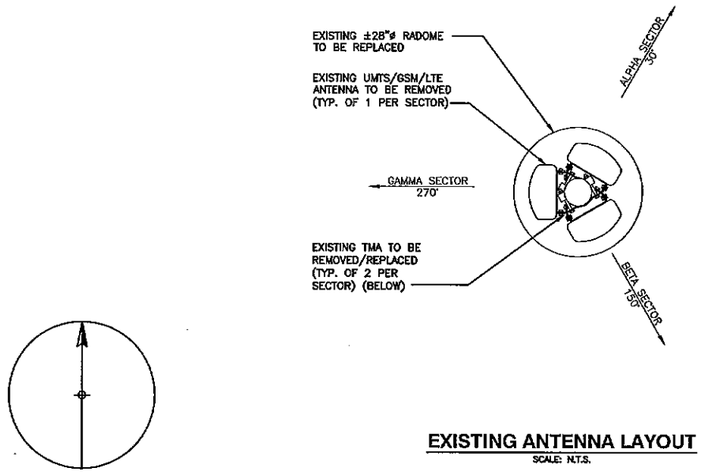
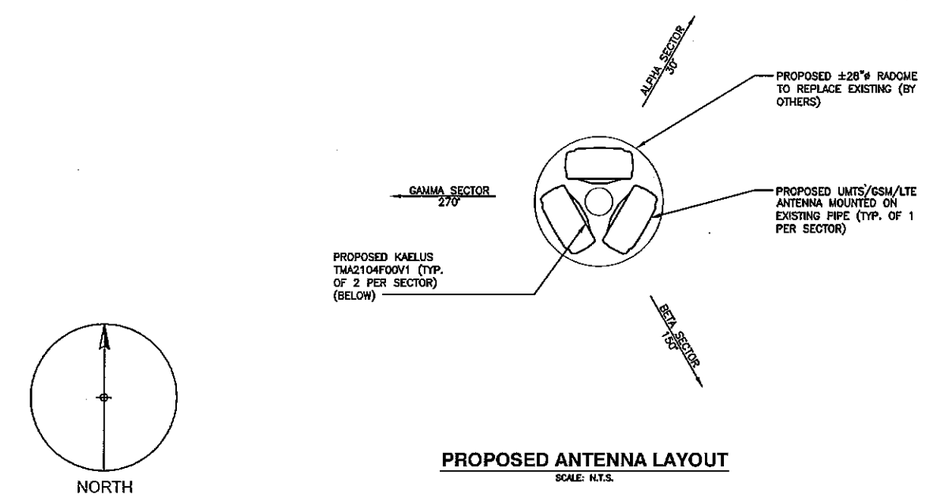
DRAWING TITLE: EQUIPMENT LAYOUTS

| JOB NUMBER | DRAWING NUMBER | REV |
|---|---|---|
| 15159-EMP | A-2 | 0 |



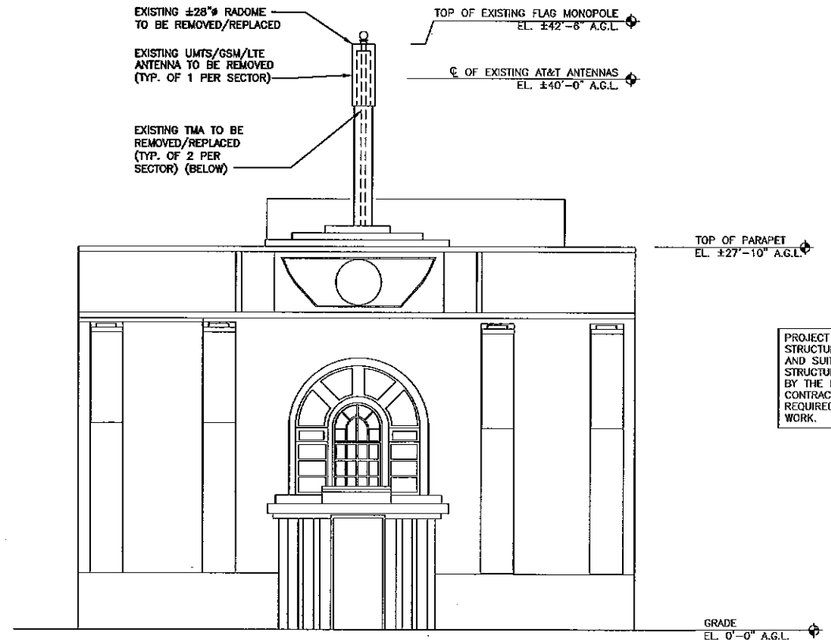

## EXISTING ANTENNA LAYOUT

SCALE: N.T.S.




## PROPOSED ANTENNA LAYOUT

SCALE: N.T.S.




## EXISTING TOWER ELEVATION

SCALE: NTS

PROJECT OWNER IS RESPONSIBLE FOR PROVIDING A STRUCTURAL STABILITY ANALYSIS TO DETERMINE THE CAPACITY AND SUITABILITY OF THE EXISTING ANTENNA SUPPORT STRUCTURE TO SAFELY CARRY ALL ADDITIONAL LOADS IMPOSED BY THE PROPOSED EQUIPMENT AS SHOWN HEREIN. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCORPORATING ANY REQUIRED STRUCTURAL MODIFICATIONS INTO THEIR SCOPE OF WORK.

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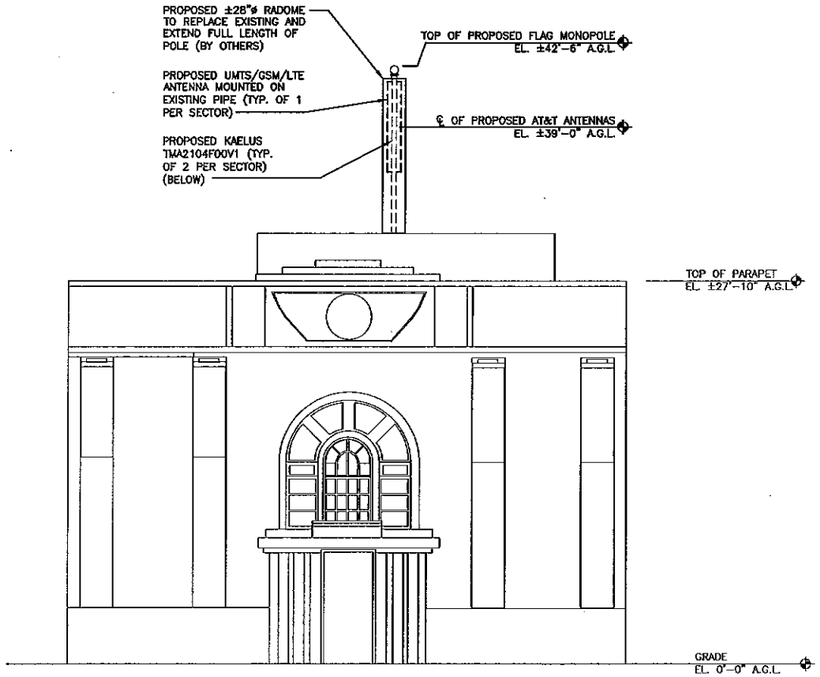


## PROPOSED TOWER ELEVATION

SCALE: NTS

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SCALE: AS SHOWN | DESIGNED BY: NJM | DRAWN BY: NJM

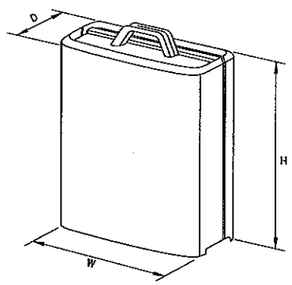
SEAL:

STATE OF CONNECTICUT
DOUGLAS B. ROBERTS
LICENSED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
CT LICENSE NO. 28643

AT&T

DRAWING TITLE:
ANTENNA LAYOUTS & ELEVATIONS

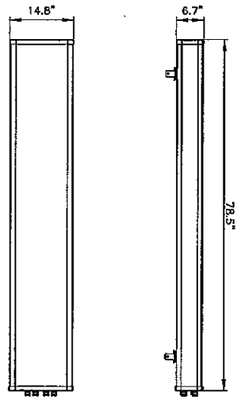
| JOB NUMBER | DRAWING NUMBER | REV |
|---|---|---|
| 15159-EMP | A-3 | 0 |




| MODEL | H x W x D | WEIGHT |
|---|---|---|
| *RRUS-11 | 19.69" x 16.97" x 7.17" | 50.7 LBS |
| RRUS-12 | 20.4" x 18.5" x 7.5" | 58 LBS |
| A2 MODULE | 16.4" x 15.2" x 3.4" | 22 LBS |

* DENOTES EXISTING

## RRUS DETAIL
SCALE: N.T.S.

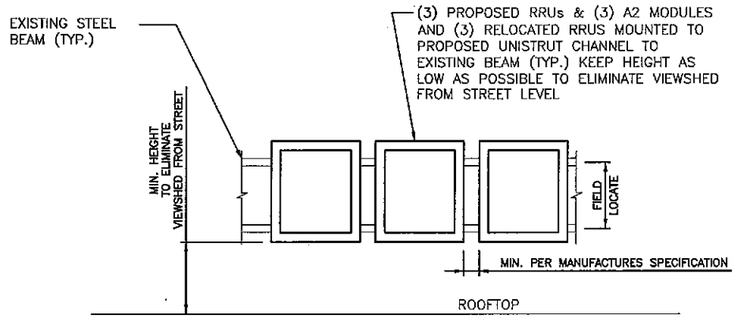



FRONT VIEW SIDE VIEW

BOTTOM VIEW

| MANUFACTURER | QUINTEL |
|---|---|
| MODEL | KATHRIEN |
| WEIGHT | 81.4 LBS |

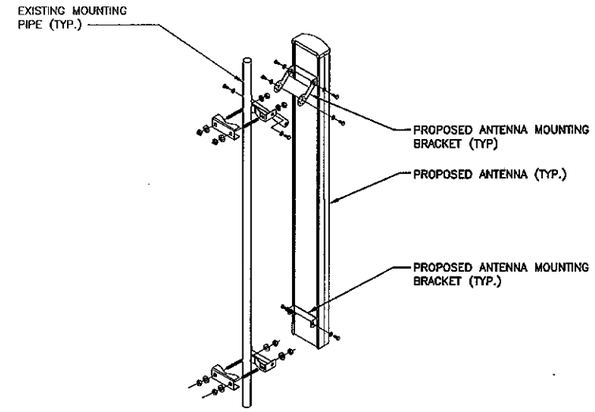
## 80010798 ANTENNA DETAIL
SCALE: N.T.S.




NOTES:

1. SUBCONTRACTOR SHALL SUPPLY AND INSTALL UNISTRUT (OR EQUIVALENT) MOUNTING CHANNELS.
2. SUBCONTRACTOR SHALL SUPPLY (BUT NOT INSTALL) 3/8"ø UNISTRUT BOLTING HARDWARE AND SPRING NUTS. TYPICAL FOUR PER RRU. SUBCONTRACTOR SHALL BAG THE BOLTING HARDWARE AND HANG FROM INSTALLED UNISTRUT FRAME.
3. SPACING MAY VARY BASED ON SELECTED EQUIPMENT. ADJUSTMENTS TO SPACING WILL BE MADE BY RRU INSTALLER.

## PROPOSED RRU MOUNTING DETAIL (FRONT VIEW)
SCALE: N.T.S.




## ANTENNA MOUNTING DETAIL
SCALE: N.T.S.

### EXISTING ANTENNA SCHEDULE

| SECTOR | POSITION | MAKE | MODEL | SIZE (INCHES) |
|---|---|---|---|---|
| ALPHA | A1 | KMW | AM-X-CD-14-65-00T-RET | 48"x11.8x5.9" |
| BETA | B1 | KMW | AM-X-CD-14-65-00T-RET | 48"x11.8x5.9" |
| GAMMA | C1 | KMW | AM-X-CD-14-65-00T-RET | 48"x11.8x5.9" |

### FINAL ANTENNA SCHEDULE

| SECTOR | POSITION | MAKE | MODEL | SIZE (INCHES) |
|---|---|---|---|---|
| ALPHA | A1 | KATHRIEN | 80010798 | 78.5"x14.8"x6.7" |
| BETA | B1 | KATHRIEN | 80010798 | 78.5"x14.8"x6.7" |
| GAMMA | G1 | KATHRIEN | 80010798 | 78.5"x14.8"x6.7" |

### PROPOSED RRU SCHEDULE

| SECTOR | MAKE | MODEL | SIZE (INCHES) | ADDITIONAL COMPONENT | SIZE (INCHES) |
|---|---|---|---|---|---|
| ALPHA | ERICSSON | RRUS-11 | 17.8"x17.3"x7.2" | | |
| | ERICSSON | RRUS-12 | 20.4"x18.5"x7.5" | A2 MODULE | 16.4"x15.2"x3.4" |
| BETA | ERICSSON | RRUS-11 | 17.8"x17.3"x7.2" | | |
| | ERICSSON | RRUS-12 | 20.4"x18.5"x7.5" | A2 MODULE | 16.4"x15.2"x3.4" |
| GAMMA | ERICSSON | RRUS-11 | 17.8"x17.3"x7.2" | | |
| | ERICSSON | RRUS-12 | 20.4"x18.5"x7.5" | A2 MODULE | 16.4"x15.2"x3.4" |

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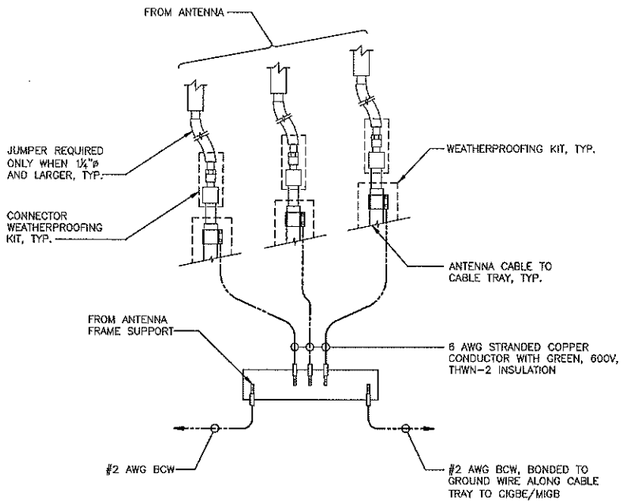
SCALE: AS SHOWN | DESIGNED BY: NJM | DRAWN BY: NJM

SEAL: STATE OF CONNECTICUT — THOMAS G. SCARDINO — 28643 — PROFESSIONAL ENGINEER

AT&T

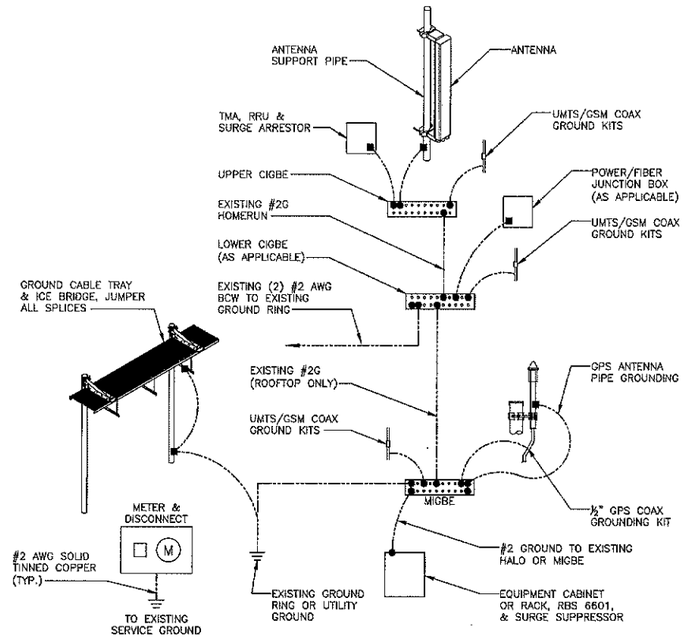
DRAWING TITLE: DETAILS

| JOB NUMBER | DRAWING NUMBER | REV |
|---|---|---|
| 15159-EMP | A-4 | 0 |



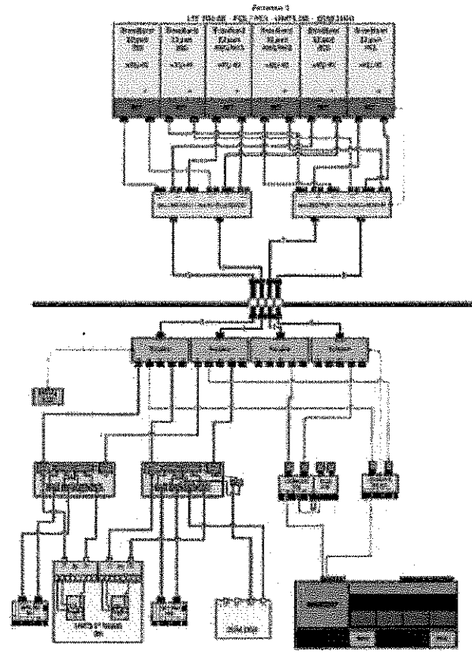

## GROUND WIRE TO GROUND BAR CONNECTION DETAIL

SCALE: N.T.S.



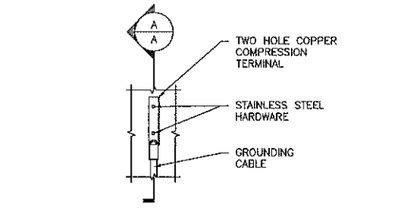

## GROUNDING RISER DIAGRAM

SCALE: N.T.S.



## TYPICAL PLUMBING DIAGRAM (PER SECTOR)

SCALE: N.T.S.

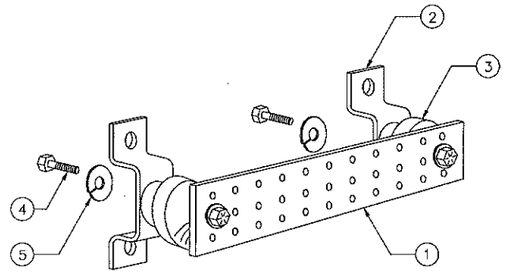



NOTE:

1. "DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB.

## TYPICAL GROUND BAR CONNECTION DETAIL

SCALE: N.T.S.




| ITEM NO. | QTY. | DESCRIPTION |
|---|---|---|
| 1 | 1 | SOLID GROUND BAR (20"x 4"x ¼") |
| 2 | 2 | WALL MOUNTING BRACKET |
| 3 | 2 | INSULATORS |
| 4 | 4 | ⅜"-11x1" H.H.C.S. |
| 5 | 4 | ⅜" LOCK WASHER |

## GROUND BAR DETAIL

SCALE: N.T.S.

NOTES:

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 "P" – SURGE PRODUCERS
- CABLE ENTRY PORTS (HATCH PLATES) (#2)
- GENERATOR FRAMEWORK (IF AVAILABLE) (#2)
- TELCO GROUND BAR
- 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)

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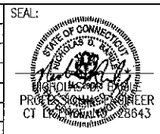
SCALE: AS SHOWN | DESIGNED BY: NJM | DRAWN BY: NJM

SEAL:

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DRAWING TITLE: GROUNDING, ONE-LINE DIAGRAM & DETAILS

| JOB NUMBER | DRAWING NUMBER | REV |
|---|---|---|
| 15159-EMP | G-1 | 0 |

## 1.0 DESIGN INFORMATION AND GENERAL REQUIREMENTS

1.0 GENERAL
ALL DIMENSIONS ARE APPROXIMATE, CONTRACTOR SHOULD VERIFY ALL DIMENSIONS BEFORE FABRICATION OF STEEL AND COMMENCEMENT OF WORK.

1.1 CODES
a. 2016 CONNECTICUT STATE BUILDING CODE
b. MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE/SEI 7-10, AMERICAN SOCIETY OF CIVIL ENGINEERS
c. STEEL CONSTRUCTION MANUAL, 14TH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION

1.2 LOADS AND DESIGN CRITERIA
a. WIND LOADING: V: 125 MPH (ULTIMATE) / 97 MPH (NOMINAL), EXPOSURE B, OCCUPANCY CATEGORY II
b. EQUIPMENT AS LISTED IN CONSTRUCTION DRAWINGS PREPARED BY COM-EX CONSULTANTS, DATED 01/25/2017, AND STRUCTURAL ANALYSIS REPORT PREPARED BY DESTEK ENGINEERING, LLC, DATED 03/31/2017.

1.3 NOTES
a. PRIOR TO PURCHASE OR FABRICATION OF MATERIAL, THE CONTRACTOR SHALL PERFORM AN INSPECTION VERIFYING MEMBER AND BOLT SIZES. SHOULD THE CONTRACTOR DISCOVER ANY DAMAGED OR MISSING MEMBERS OR THE MEMBER OR BOLT SIZES DO NOT MATCH THOSE LISTED, DESTEK SHALL BE NOTIFIED IMMEDIATELY.
b. CONTRACTOR TO REPLACE ALL BOLTS REMOVED WITH NEW BOLTS OF SAME TYPE, UNLESS NOTED OTHERWISE.

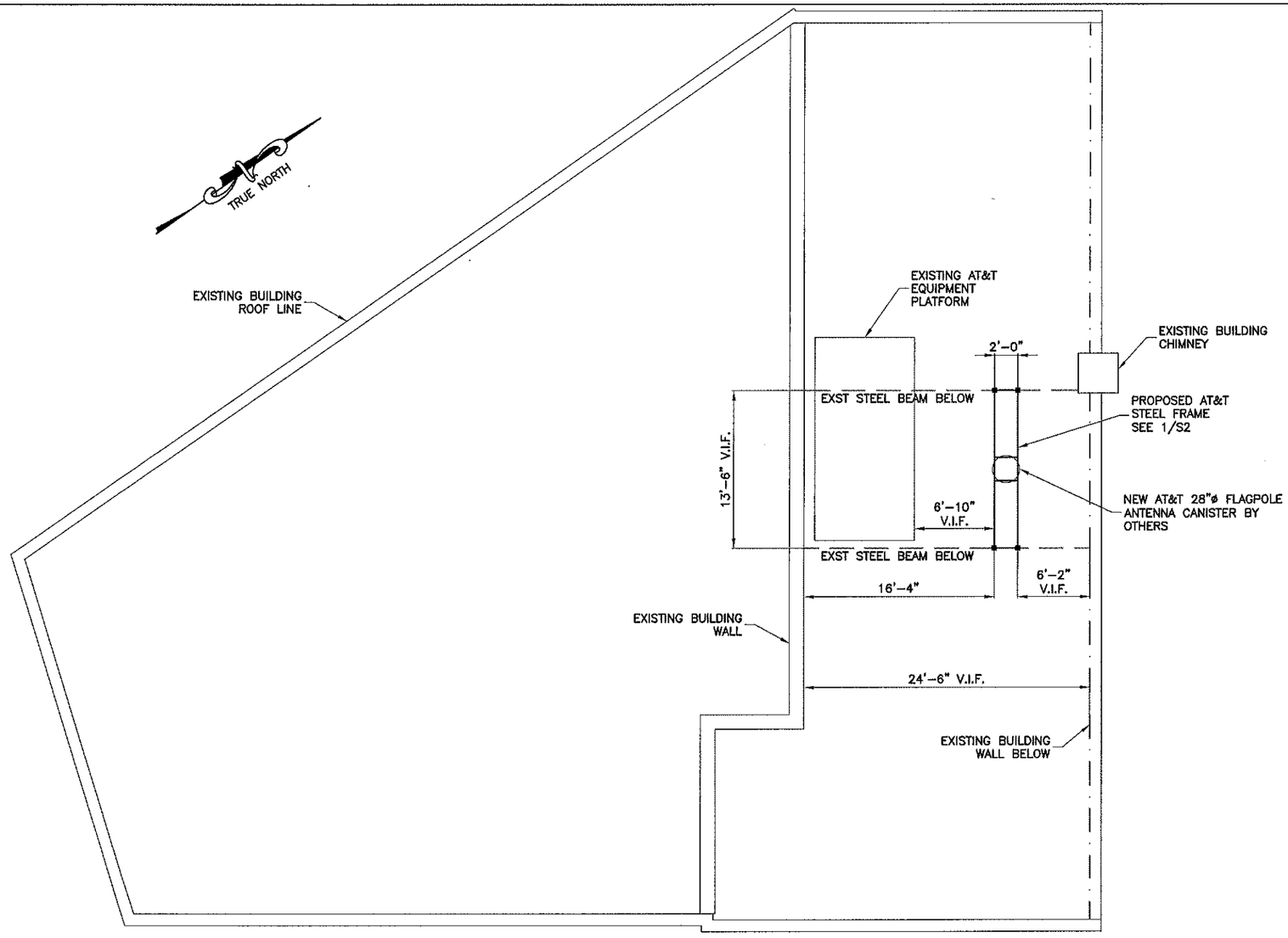
## 2.0 STRUCTURAL STEEL

2.1 MATERIALS
a. STRUCTURAL STEEL . . . . . ASTM A992
MISC ANGLE & PLATE . . . . ASTM A36
PIPE . . . . . ASTM A53 GR. B
RODS . . . . . ASTM A572-50 (MINIMUM)
HSS. . . . . ASTM A500, GR. B, Fy=46 KSI
b. BOLTS . . . . . ASTM A325 U.N.O.
c. WELDING ELECTRODES . . . . . AWS A5.1 (E70XX)
d. STEEL CONSTRUCTION SHALL CONFORM TO "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ANSI/AISC 360-10"
e. WELDING SHALL CONFORM TO AWS D1.1/D1.3/D1.7 AS APPLICABLE.
f. THE FABRICATOR SHALL FURNISH CHECKED SHOP AND ERECTION DRAWINGS TO THE ENGINEER, AND OBTAIN APPROVAL PRIOR TO FABRICATING ANY STRUCTURAL STEEL. SHOP DRAWINGS SHALL CONFORM TO "DETAILING FOR STEEL CONSTRUCTION, 2ND EDITION"
g. POOR MATCHING OF HOLES SHALL BE CORRECTED BY DRILLING TO THE NEXT LARGER SIZE. WELDING FOR REDRILLING WILL NOT BE PERMITTED.

2.2 CONNECTIONS
a. SHOP CONNECTIONS MAY BE BOLTED OR WELDED
b. CONNECTIONS WHERE THE BEAM SHEAR (V) IS NOT NOTED ON THE DRAWINGS, SIMPLE SHEAR CONNECTIONS SHALL BE DESIGNED TO DEVELOP 1/2 OF THE MAXIMUM TOTAL UNIFORM LOAD CAPACITY OF THE BEAM.
c. FIELD CONNECTIONS SHALL BE MADE WITH A325 BOLTS AND HARDENED WASHERS EXCEPT AS INDICATED ON THE DESIGN DRAWINGS
d. CONNECTIONS NOT SHOWN ON DRAWINGS SHALL BE DESIGNED BY THE STEEL FABRICATOR. CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" AND "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
e. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER.
f. BOLT HOLES SHALL BE CUT, DRILLED OR PUNCHED AT RIGHT ANGLES TO THE SURFACE OF THE METAL AND SHALL NOT BE MADE OR ENLARGED BY BURNING. HOLES SHALL BE CLEAN CUT WITHOUT TORN OR RAGGED EDGES. OUTSIDE BURRS RESULTING FROM DRILLING OR REAMING OPERATION SHALL BE REMOVED WITH A TOOL MAKING A 1/16 INCH BEVEL. BOLT HOLES SHALL BE 1/16 INCH OVERSIZE.

2.3 FINISHES
a. STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION PER ASTM A123
b. BOLTS AND NUTS SHALL BE HOT DIP GALVANIZED PER ASTM A153.
c. ALL SURFACES DAMAGED BY FIELD WELDING OR CUTTING SHALL BE PAINTED WITH COLD GALVANIZING COMPOUND TWICE. THE PAINT SHOULD BE AT LEAST 93% PURE ZINC. RUST-OLEUM PROFESSIONAL, (MODEL# 7585838) OR SIMILAR.

2.4 WELDING
a. CONTRACTOR TO TAKE ALL NECESSARY PRECAUTIONS FOR FIRE PREVENTION DURING WELDING, SUCH AS; INSTALLING 3000 (NFPA 701) FIRE BLANKET AROUND COAX. MORE SPLATTER AND SPARKS SHOULD BE ANTICIPATED WHILE WELDING ON GALVANIZED SURFACE. COAX IS FLAMMABLE AND SHALL CATCH FIRE IF NOT PROTECTED. WATER SHALL BE ON SITE OF ADEQUATE AMOUNT AND AVAILABLE AT SHORT NOTICE AT ALL TIMES DURING WELDING ACTIVITY. CONTRACTOR SHOULD BE ABLE TO TRANSPORT THE WATER TO THE HEIGHT WELDING BEING PERFORMED.
b. WELDING ON GALVANIZED SURFACE SHOULD BE DONE WITH EXTREME CAUTION. IF THE WELD MATERIAL IS CONTAMINATED WITH ZINC, IT DOES NOT PROVIDE A STRUCTURAL WELD. GROUND GALVANIZING BEFORE WELDING.
c. WELDING CERTIFICATE MUST BE PROVIDED PRIOR TO WELDING. ALL WELDING SHALL BE PERFORMED BY AWS QUALIFIED WELDER WHO HAS EXPERIENCE WITH GALVANIZED SURFACES.




1/S1 **SITE PLAN** N.T.S.

## 3.0 WOOD NOTES

3.1 GENERAL
a. CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING AND BRACING FOR ALL STRUCTURAL ELEMENTS DURING CONSTRUCTION.
b. LUMBER IN CONTACT WITH CONCRETE AND OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPB LP-2.
c. EXTERIOR LUMBER SHALL BE A MINIMUM OF 8" ABOVE FINISHED GRADE.
d. INTERIOR LUMBER SHALL BE A MINIMUM OF 18" ABOVE FINISHED CRAWL SPACE GRADE.
e. ALL TREATED LUMBER AND PLYWOOD SHALL COMPLY WITH THE REQUIREMENTS OF "AWPA U1-05- USE CATEGORY SYSTEM: USER SPECIFICATION FOR TREATED WOOD" FOR WOOD TREATMENTS DETERMINED BY USE CATEGORIES, EXPECTED SERVICE CONDITIONS, AND SPECIFIC APPLICATIONS.
f. SAWN LUMBER SHALL BE PROVIDED IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, BY THE AMERICAN FOREST & PAPER ASSOCIATION. FINGER JOINTED LUMBER IN ACCORDANCE WITH THE AMERICAN SOFTWOOD LUMBER STANDARD PS 20 AND THE SOUTHERN PINE INSPECTION BUREAU (SPIB) "GLUED LUMBER PROCEDURES FOR SOUTHERN PINE" MAY BE USED FOR "STUD USE ONLY" OR "VERTICAL USE ONLY" IN DRY USE CONDITIONS. FINGER JOINTED LUMBER SHALL BE JOINED WITH A HEAT RESISTANT ADHESIVE (HRA) IN ACCORDANCE WITH THE AMERICAN LUMBER STANDARD COMMITTEE. IT IS IMPORTANT TO KEEP FINGER JOINTED STUDS DRY AND PROTECTED FROM WET WEATHER AND EXCESSIVE MOISTURE WHILE IN STORAGE AND DURING CONSTRUCTION. THE MOISTURE CONTENT OF FINGER JOINTED LUMBER STUDS SHALL BE 19% OR LESS AT THE TIME OF PERMANENT ENCLOSURE. FINGER JOINTED STUDS SHALL BE LATERALLY BRACED BY WALL SHEATHING OR PROPERLY ANCHORED HORIZONTAL BRIDGING AT THE MID-HEIGHT OF THE WALL STUDS PRIOR TO THE APPLICATION OF DEAD AND/OR LIVE LOADS.
g. HOLES IN JOISTS, RAFTERS, STUDS AND PLATES NOT EXCEEDING 1/5 THE DEPTH/WIDTH OF THE MEMBER AND NOT CLOSER THAN 3 TIMES THE DEPTH/WIDTH OF THE MEMBER FROM THE END ARE PERMITTED AT THE MID-DEPTH/WIDTH OF THE MEMBER.
h. FASTEN SHEATHING WITH 8D NAILS @ 6" O/C (6" MAXIMUM) AT PANEL EDGES AND @ 12" O/C AT INTERMEDIATE SUPPORTS. (V = 260LBS./FT @ 6" O/C, V = 380LBS./FT @ 4" O/C, V = 490LBS./FT @ 3" O/C)

DRAWINGS PLOTTED TO SCALE ON 11x17 SHEETS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LICENSE NO: PEC001429


PREPARED FOR:
COM-EX Consultants
115 Route 46 - Suite E39
Mountain Lakes, NJ 07046

| NUM | DATE | DESCRIPTION: |
|---|---|---|
| A | 03/31/17 | ISSUED FOR CONSTRUCTION |

CT5317 - FA CODE:10071066

ADDRESS:
1 CIRCULAR AVENUE,
HAMDEN, CT 06514

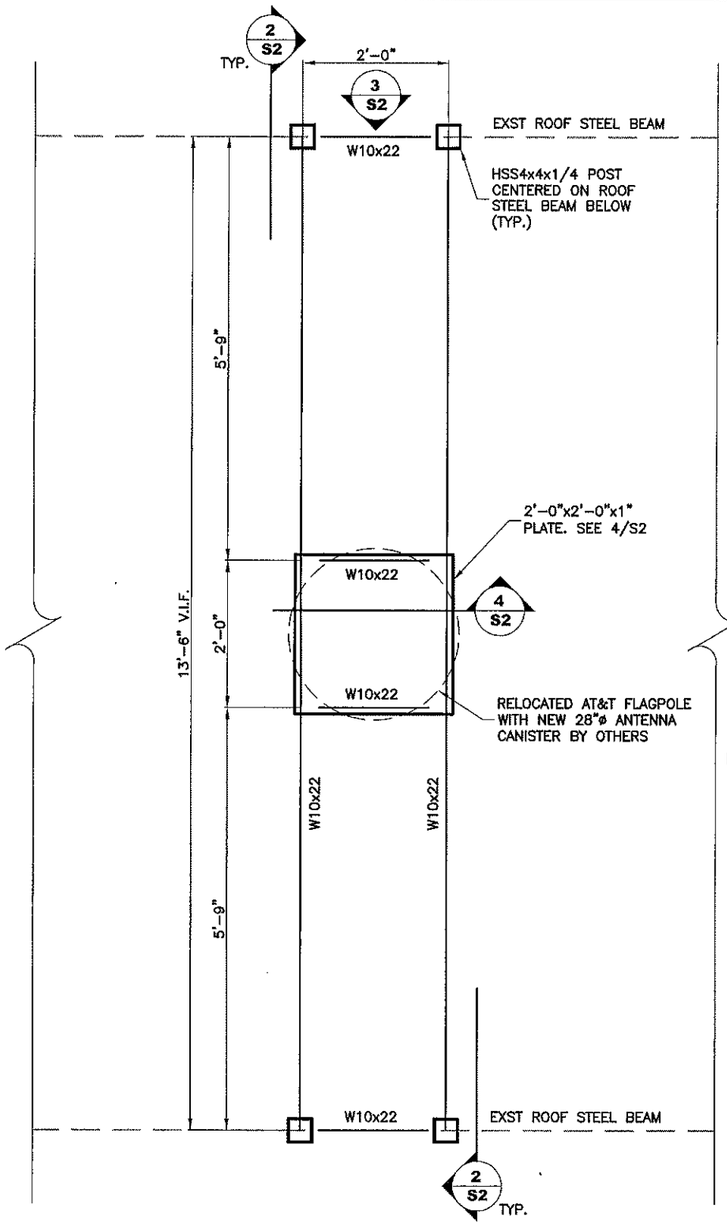
DESIGNED: SA
DRAWN: SA
CHECKED: AC

JOB #: 1729003

**S1**
**SITE PLAN & NOTES**

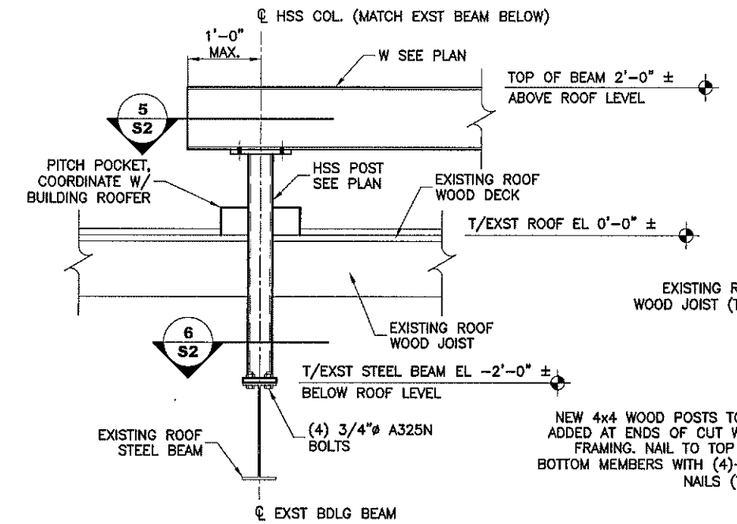
03/31/17
STATE OF CONNECTICUT
AHMET COLAKOGLU
PEN. 27057
LICENSED PROFESSIONAL ENGINEER

Ahmet Colakoglu, PE
CT License No: 27057



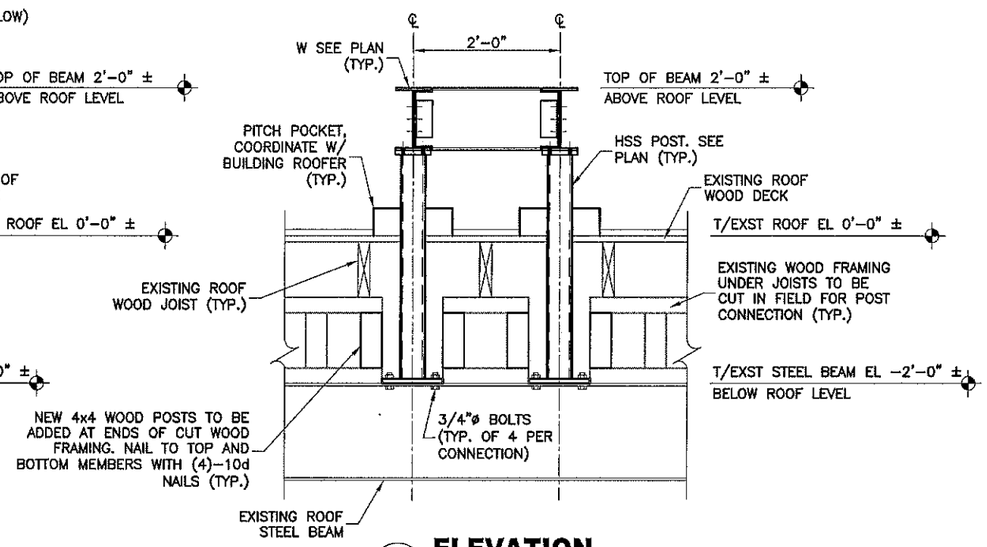

## 1/S2 PLATFORM FRAMING PLAN

1/2" = 1'-0" T/STL = 2'-0" ABOVE ROOF LEVEL



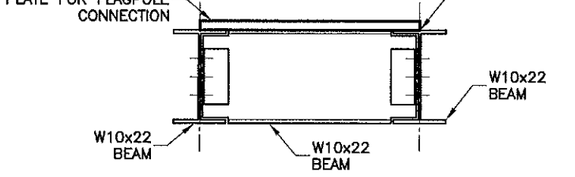

## 2/S2 POST CONNECTION DETAIL

1/2" = 1'-0"



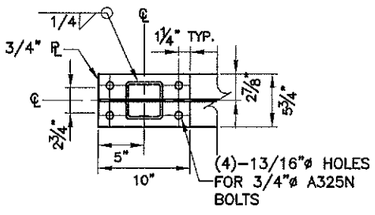

## 3/S2 ELEVATION

1/2" = 1'-0"



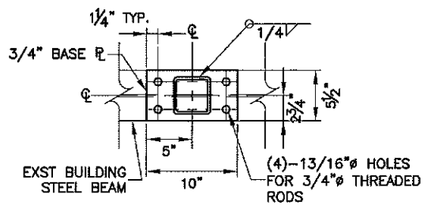

## 4/S2 SECTION

3/4" = 1'-0"



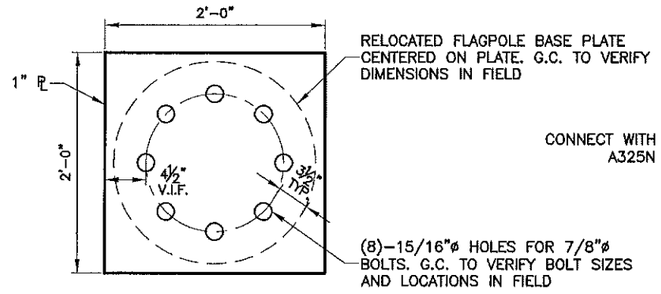

## 5/S2 SECTION

3/4" = 1'-0"



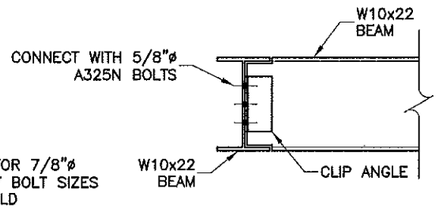

## 6/S2 SECTION

3/4" = 1'-0"




## 7/S2 FLAGPOLE CONNECTOR PLATE

3/4" = 1'-0"




## 8/S2 TYPICAL BEAM CONNECTION

3/4" = 1'-0"

DRAWINGS PLOTTED TO SCALE ON 11x17 SHEETS

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LICENSED PROFESSIONAL ENGINEER

Ahmet Colakoglu, PE
CT License No: 27057

DESIGNED: SA
DRAWN: SA
CHECKED: AC

JOB #: 1729003

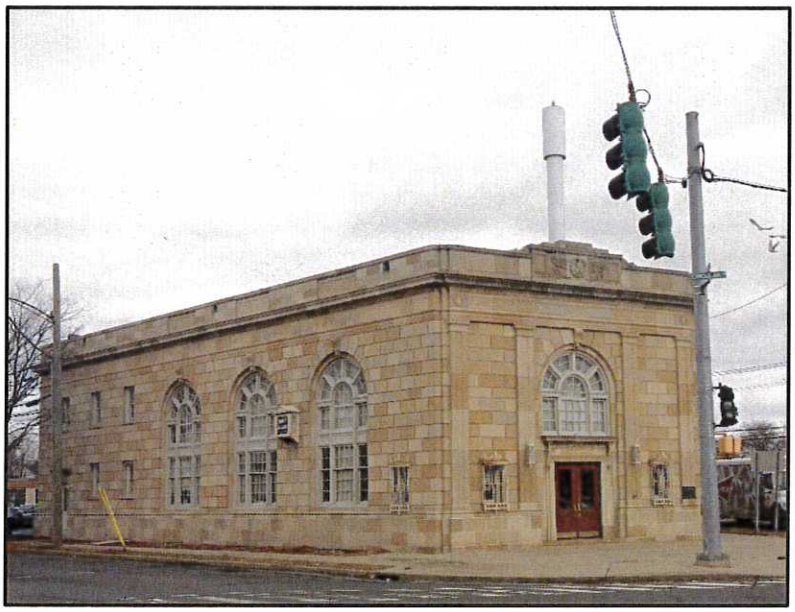
**S2 PLATFORM FRAMING**

# ATTACHMENT 2

**STRUCTURAL ANALYSIS REPORT**
**ROOFTOP**

Prepared For:

**Com-Ex Consultants, LLC**
**115 Route 46 – Suite E39**
**Mountain Lakes, NJ 07046**



**Structure Rating:**

| | |
|---|---|
| **Flagpole Support Frame:** | **Pass** |
| **Building:** | **Pass** |

Sincerely,
Destek Engineering, LLC
License #: PEC 001429

03/31/2017

STATE OF CONNECTICUT
AHMET COLAKOGLU
PEN. 27057
LICENSED
PROFESSIONAL ENGINEER

Ahmet Colakoglu, P.E.
Connecticut Professional Engineer
License No: 27057

**Site ID: CT5317**
**Site Name: Hamden-Whitneyville**
**FA Location Code: 10071066**
**1 Circular Avenue**
**Hamden, CT 06514**



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**CONTENTS**





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## 1.0 SUBJECT AND REFERENCES

The purpose of this analysis is to evaluate the structural capacity of the proposed relocation of telecommunication equipment on the building located at 1 Circular Avenue, Hamden, CT 06514, for the additions and alterations proposed by AT&T.

The structural analysis is based on a site visit performed by Destek Engineering, LLC (Destek) personnel on 01/19/17 and the following information provided to Destek:

- Construction Drawings prepared by Com-Ex Consultants, dated 01/25/2017
- Construction Drawings prepared by Natcomm, LLC, dated 01/13/03
- Flagpole Mapping Report prepared by Com-Ex, dated 07/19/2016.
- Relocated pole information, provided by Com-Ex, dated 03/22/2017

## 1.1 STRUCTURE AND EXISTING EQUIPMENT

The existing structure is a two story office building. The building roof is composed of wood framing supported on steel frames. AT&T currently operates a telecommunication facility located at the rooftop level. AT&T has a steel equipment platform supported on the roof steel beams and on a bearing wall. AT&T also has a flagpole canister on the south side of the building that currently holds three panel antennas, supported on a steel frame anchored to the roof structure. Please refer to the calculations in Appendix A for additional details.

## 2.0 PROPOSED ADDITION

AT&T is proposing to relocate the existing flagpole onto a new steel frame located at the North side of the structure, adjacent to the equipment shelter. The relocated pole will have a 28" diameter stealth canister running its entire length.

AT&T is also proposing the following antenna configuration at the site:

**Existing Configuration of AT&T Appurtenances:**

| Sector | Rad Center (Feet-AGL) | Antenna | Mount |
|---|---|---|---|
| Alpha, Beta & Gamma | 40'-0" | (3) KMW AM-X-CD-14-65-00T-RET Antennas<br>(6) UMTS/GSM/LTE TMAs | (1) Existing Flagpole |


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**Proposed and Final Configuration of AT&T Appurtenances:**

| Sector | Rad Center (Feet-AGL) | Antenna | Mount |
|---|---|---|---|
| Alpha, Beta & Gamma | 39'-0" | (3) Kathrein 80010798<br>(6) Kaelus TMA2104F00V1<br>(3) RRUS-11*<br>(3) RRUS-12*<br>(3) RRUS-A2 Modules* | (1) Relocated Flagpole |

*To be installed at the steel frame level

## 3.0 CODES AND LOADING

The analysis is in accordance with the following codes and loading as adopted in Connecticut:

- *2016 State Building Code* with all adopted amendments and supplements, International Code Council
- *Minimum Design Loads for Building and Other Structures ASCE/SEI 7-10*, American Society of Civil Engineers
- *Specifications for Structural Steel Buildings – Allowable Stress ANSI/AISC 360-10*, American National Standards Institute/American Institute for Steel Construction
- Ultimate Wind Speed: 125mph / Nominal Wind Speed: 97 mph
- Exposure: B

## 4.0 STANDARD CONDITIONS FOR ENGINEERING SERVICES ON EXISTING STRUCTURES

The analysis is based on the information provided to Destek and is assumed to be current and correct. Unless noted otherwise, the structure and the foundation system are assumed to be in good condition, free of defects and can achieve theoretical strength.

It is assumed that the structure has been maintained and shall be maintained during its service. The superstructure and the foundation system are assumed to be designed with proper engineering practice and fabricated, constructed and erected in accordance with the design documents. Destek will accept no liability which may arise due to any existing deficiency in design, material, fabrication, erection, construction, etc. or lack of maintenance.

The analysis results presented in this report are only applicable for the previously mentioned existing and proposed additions and alterations. Any deviation of the proposed equipment and placement, etc., will require Destek to generate an additional structural analysis.


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## 5.0 ANALYSIS AND ASSUMPTIONS

This structural analysis and qualification of the subject structure is based on either a load comparison or a strength check as following:

Pursuant to 2012 International Existing Building Code Sections 706 and 807, any existing gravity load-carrying structural element for which additions and/or alterations cause an increase in design gravity load of no more than 5 percent, shall be permitted to remain unaltered, and thus considered to be Code-compliant and adequate. Any existing gravity load-carrying structural element for which additions and/or alterations cause an increase in design gravity loads exceeding 5 percent is checked against the applicable Code criteria for new structures.

Pursuant to 2012 International Existing Building Code Sections 706 and 807, any existing lateral load-carrying structural element whose demand-capacity ratio with the addition and/or alteration considered is no more than 10 percent greater than its demand-capacity ratio with the addition and/or alteration ignored shall be permitted to remain unaltered, and thus considered to be Code-compliant and adequate. If the demand-capacity ratio increase is more than 10 percent, the subject structural element is checked against the applicable Code criteria for new structures.

The analysis was performed by utilizing RISA-3D, a commercially-available structural engineering software package developed by RISA Technologies, as applicable.

## 6.0 RESULTS AND CONCLUSION

**Steel Frame:** The proposed steel frame which will support the relocated pole is found to have **adequate** structural capacity for the proposed changes by AT&T, once it is built per the drawings prepared by Destek Engineering, LLC, dated 03/31/2017. For the code specified load combinations and as a maximum, the support frame members will be stressed to **22%** of their capacity.

**Existing Building:** The existing building is found to have **adequate** structural capacity to support the proposed installation by AT&T. For the code specified load combinations and as a maximum, the roof steel members will be stressed to **84%** of their capacity as a maximum.

Therefore, the proposed additions and alterations by AT&T **can** be implemented as intended once the support steel frame is built and with the conditions outlined in this report.

Should you have any questions about this report, please contact Ahmet Colakoglu, P.E. at (770) 693-0835 or acolakoglu@destekengineering.com.


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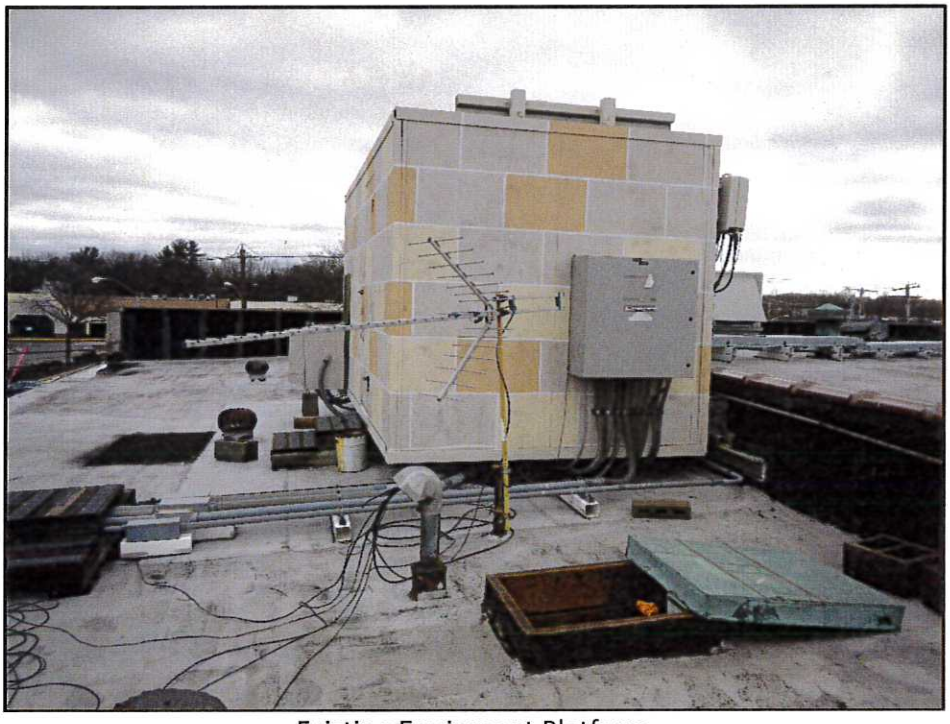
## APPENDIX A
## PICTURES AND CALCULATIONS

Existing Flagpole to be relocated to New Support Frame



Existing Equipment Platform

# CALCULATION SHEET

DESTEK ENGINEERING

## PURPOSE

The purpose of these calculations is to determine whether building located at 1 Circular Avenue, Hamden, CT 06514, has adequate structural capacity for the proposed flagpole antenna canister installation by AT&T Mobility.

All calculations in accordance with 2016 Connecticut Building Code with all adopted amendments and supplements.

## 1. Flagpole Antenna Canister Support Platform

## Gravity Loads

### FLAGPOLE CANISTER

Diameter: $D_{Canister} := 28in$

Height: $H_{Canister} := 18ft$

Wind Force Coefficient: $C_{f\_Canister} := 0.50$

Flagpole Total Weight (lb): $P_{Canister} := 350lbf + 500lbf + 350lbf = 1200\,lbf$
*includes pole, canister & equipment*

$$w_{canister} := \frac{P_{Canister}}{24in \cdot 24in} = 300 \cdot psf$$

### RRUS-11

Depth: $D_{rrus11} := 7.2in$

Width: $W_{rrus11} := 17.3in$

Height: $H_{rrus11} := 17.8in$

Wind Force Coefficient: $C_{f\_rrus11} := 1.32$

Equipment Self Weight (lb): $P_{rrus11} := 55lbf$

### RRUS-12+A2

Depth: $D_{rrus12} := 10.9in$

Width: $W_{rrus12} := 18.5in$

Height: $H_{rrus12} := 20.4in$

Wind Force Coefficient: $C_{f\_rrus12} := 1.31$

Equipment Self Weight (lb): $P_{rrus12} := 80lbf$

# CALCULATION SHEET

## Wind Loads

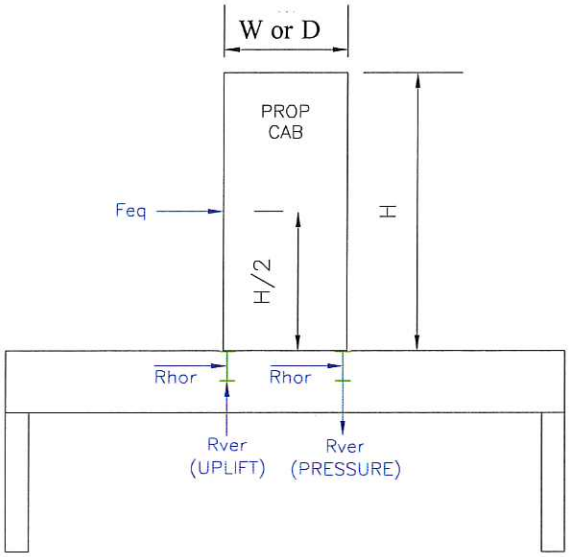
Reference, ASCE-7-10

| | | | |
|---|---|---|---|
| Location: | Hamden, New Haven County, CT | | |
| Classification: | II | | Table 1.5-1, pg. 2 |
| Platform height: | $z := 25ft + 6in$ | | |
| Exposure category: | $Exp := "B"$ | | Section 26.7.3, pg. 251 |

$$z_g := \begin{cases} 1200 \cdot ft & \text{if } Exp = "B" \\ 900 \cdot ft & \text{if } Exp = "C" \\ 700 \cdot ft & \text{if } Exp = "D" \end{cases} = 1200\,ft \qquad \alpha := \begin{cases} 7.0 & \text{if } Exp = "B" \\ 9.5 & \text{if } Exp = "C" \\ 11.5 & \text{if } Exp = "D" \end{cases} = 7$$

| | | | |
|---|---|---|---|
| Velocity pressure exposure coefficient: | $K_z := 2.01 \cdot \left(\frac{z}{z_g}\right)^{\frac{2}{\alpha}} = 0.67$ | | Table 29.3-1, pg. 310 |
| Topographic factor: | $K_{zt} := 1.0$ | | Section 26.8.2, pg. 254 |
| Wind directionality factor: | $K_d := 0.85$ | | Table 26.6-1, pg. 250 |
| Basic wind speed: | $V := 125 \cdot \sqrt{0.6} = 97$ | mph | Figure 26.5-1B, pg. 248b |
| Gust response factor: | $G := 0.85$ | | Section 26.9, pg. 254 |
| Velocity pressure: | $q_z := 0.00256 \cdot K_z \cdot K_{zt} \cdot K_d \cdot V^2 \cdot psf$ | | Equation 29.3-1, pg. 307 |
| | $q_z = 13.6 \cdot psf$ | | |

***Wind Loading on Equipment and Frame:***



# CALCULATION SHEET

***Wind Force on Wide Cabinet Faces:***
*Computed as distributed loads on supporting framing*

**For Flagpole Canister:**

Vertical Load (lbs/ft):
*Applied positive/negative as a force couple*

$$w_{vCanister} := \frac{C_{f\_Canister} \cdot q_z \cdot D_{Canister} \cdot H_{Canister}^2}{2 \cdot (24in) \cdot (24in)} = 644.66 \cdot plf$$

Horizontal Load (lbs/ft):

$$w_{hCanister} := \frac{C_{f\_Canister} \cdot q_z \cdot D_{Canister} \cdot H_{Canister}}{(24in)} = 143.26 \cdot plf$$

**For RRUS-11:**

Horizontal Load (lbs/ft):

$$w_{hrrus11} := C_{f\_rrus11} \cdot q_z \cdot W_{rrus11} \cdot H_{rrus11} = 38.51 \cdot lbf$$

**For RRUS-12+A2:**

Horizontal Load (lbs/ft):

$$w_{hrrus12} := C_{f\_rrus12} \cdot q_z \cdot W_{rrus12} \cdot H_{rrus12} = 46.84\,ft \cdot plf$$

***Wind Force on Narrow Cabinet Faces:***
*Computed as distributed loads on supporting framing*

**For Flagpole Canister:**

Vertical Load (lbs/ft):
*Applied positive/negative as a force couple*

$$w_{vCanister} := \frac{C_{f\_Canister} \cdot q_z \cdot D_{Canister} \cdot H_{Canister}^2}{2 \cdot (24in) \cdot (24in)} = 644.66 \cdot plf$$

Horizontal Load (lbs/ft):

$$w_{hCanister} := \frac{C_{f\_Canister} \cdot q_z \cdot D_{Canister} \cdot H_{Canister}}{(24in)} = 143.26 \cdot plf$$

**For RRUS-11:**

Horizontal Load (lbs/ft):

$$w_{lrrus11} := C_{f\_rrus11} \cdot q_z \cdot D_{rrus11} \cdot H_{rrus11} = 16.03 \cdot lbf$$

**For RRUS-12+A2:**

Horizontal Load (lbs/ft):

$$w_{lrrus12} := C_{f\_rrus12} \cdot q_z \cdot D_{rrus12} \cdot H_{rrus12} = 27.6 \cdot lbf$$

***Wind Force on Platform Members:***

**Loads on W10x22**

$Height := 10.125 \cdot in$ $\quad C_f := 2.0$

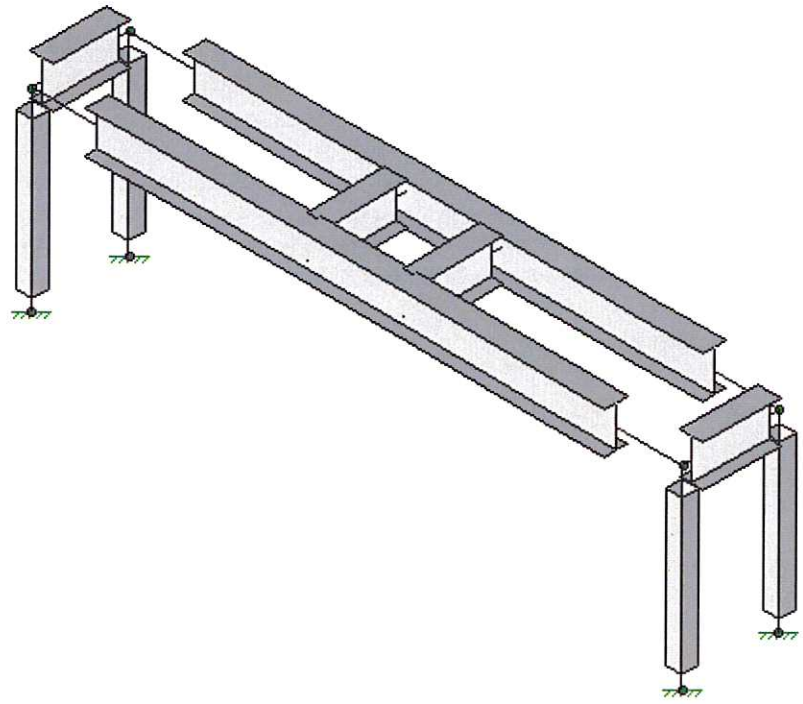
$F_{w10} := q_z \cdot G \cdot C_f \cdot Height = 19.57 \cdot plf$

**Loads on HSS4x4x1/4**

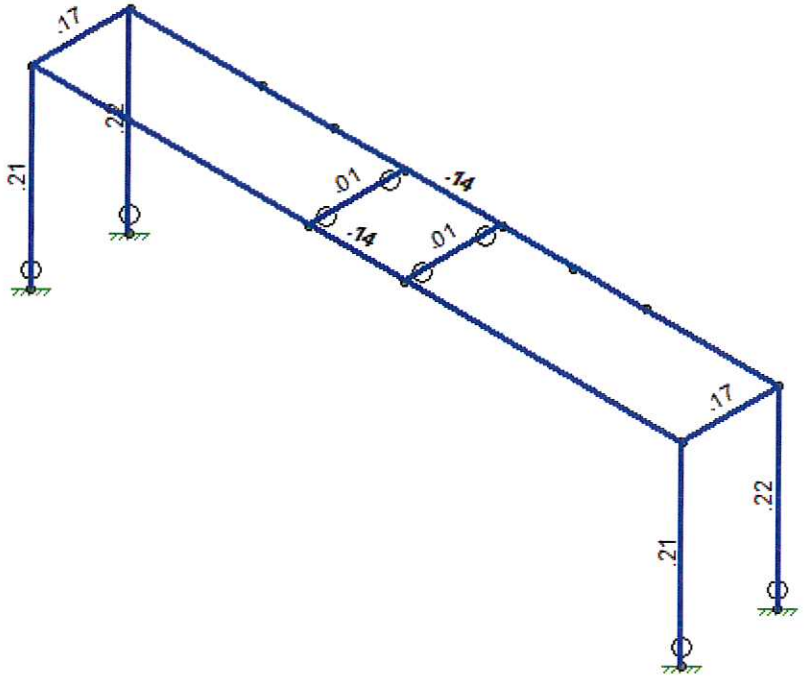
$Width := 4 \cdot in$ $\quad C_f := 2.0$

$F_{HSS4} := q_z \cdot G \cdot C_f \cdot Width = 7.73 \cdot plf$

# CALCULATION SHEET

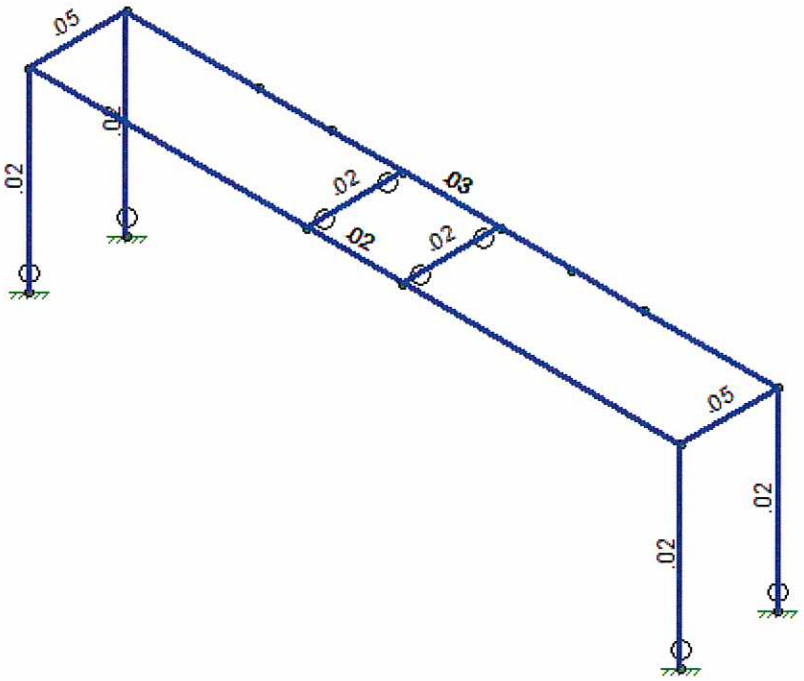



**Axial & Bending Check:**



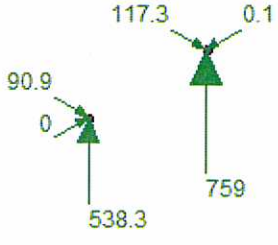
# CALCULATION SHEET

**Shear Check:**

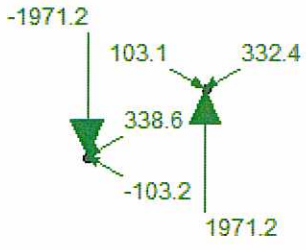



**Maximum Reactions on Roof:**

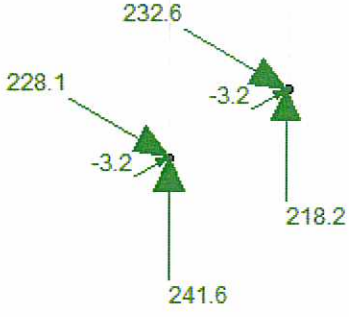
*For Dead Load:*




*For Front Wind Load:*




*For Side Wind Load:*



# CALCULATION SHEET

DESTEK ENGINEERING

## CHECK ROOF STRUCTURE UNDER PLATFORM

**Load Combinations** (reference ASCE 7-10)

1) DL
2) DL + LLr
3) DL+ SL

**Roof Dead Load**

For Roof:

Roof Planks - 3 psf
Roofing - 2 psf
Mech & Miscl - 5 psf

Roof Dead Load: $DL_R := 10psf$

**Ceiling Dead Load**

For Dropped Ceiling:

Ceiling Drywall - 4 psf
Framing - 1 psf

Ceiling Dead Load: $DL_C := 5.0psf$

**Equipment Platform Dead Load**

Total Weight:
includes equipment & platform

$$P_{platform} := \frac{14000lbf}{4} = 3500\,lbf$$

**Roof Live Load**

Per ASCE7-10: $LL_r := 20psf$ — ASCE 7-10 Table 4-1

**Snow Load**

Ground Snow Loads: $p_g := 30psf$ — ASCE 7-10: Figure 7-1

Thermal factor: $C_t := 1.0$ — ASCE 7-10: Table 7-3

Exposure Factor: $C_e := 0.9$ — ASCE 7-10: Table 7-2
Upper Level, Fully exposed

Importance factor: $I_s := 1.0$ — ASCE 7-10: Table 1.5-1
Risk Category II
Table 7-4

Flat Roof Snow Loads: $P_f := 0.7 \cdot C_e \cdot C_t \cdot I_s \cdot p_g$ — ASCE 7-10: Eq 7-1

$P_f = 18.9 \cdot psf$

Rain on Snow Surcharge: $P_f := P_f + 0psf$ — ASCE 7-10: Section 7.10

$P_f = 18.9 \cdot psf$

Minimum Roof Snow Load: $P_{f\_min} := 20 \cdot I_s \cdot psf = 20 \cdot psf$ — ASCE 7-10: Section 7.3

$P_f := \max(P_f, P_{f\_min})$

$P_f = 20 \cdot psf$

# CALCULATION SHEET

DESTEK ENGINEERING

## Loads on Roof Beam

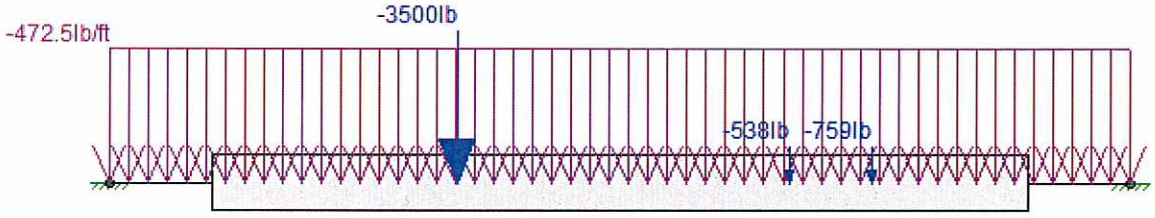
Beam Tributary Width: $W_{Trib} := 13ft + 6in$

Beam Dead Load: $w_{DLr} := (DL_R + DL_C) \cdot W_{Trib} = 202.5 \cdot plf$

Beam Live Load: $w_{LL} := LL_r \cdot W_{Trib} = 270 \cdot plf$

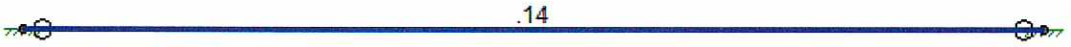
Beam Snow Load: $w_{SL} := P_f \cdot W_{Trib} = 270 \cdot plf$

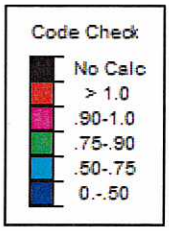
Load Configuration: (shown for DL+SL+Platform+Flagpole Frame)




Bending Check:


Shear Check:




Beam: *M1*

Shape: **W16X31**
Material: **A36 Gr.36**
Length: **294 in**
I Joint: **N1**
J Joint: **N2**
LC 3: DL + Addition + SL
Code Check: **0.844 (bending)**
Report Based On 97 Sections

***AISC 14th(360-10): ASD Code Check***
**Direct Analysis Method**

| | | | | |
|---|---|---|---|---|
| Max Bending Check | 0.844 | Max Shear Check | 0.141 (y) | |
| Location | 128.625 in | Location | 0 in | |
| Equation | H1-1b | Max Defl Ratio | L/412 | |
| Bending Flange | Compact | Compression Flange | Non-Slender | Qs=1 |
| Bending Web | Compact | Compression Web | Slender | Qa=1 |

| | | | y-y | z-z |
|---|---|---|---|---|
| Fy | 36 ksi | Lb | 147 in | 147 in |
| Pnc/om | 85171.073 lb | KL/r | 126.137 | 22.937 |
| Pnt/om | 196814.371 lb | | | |
| Mny/om | 12.629 k-ft | | | |
| Mnz/om | 68.219 k-ft | | | |
| Vny/om | 62964 lb | | | |
| Vnz/om | 62942.659 lb | | | |
| Cb | 1 | | | |

| | |
|---|---|
| L Comp Flange | 147 in |
| Warp Length | NC |
| L-torque | 294 in |
| Tau_b | 1 |

## 1.0 DESIGN INFORMATION AND GENERAL REQUIREMENTS

1.0 GENERAL
ALL DIMENSIONS ARE APPROXIMATE, CONTRACTOR SHOULD VERIFY ALL DIMENSIONS BEFORE FABRICATION OF STEEL AND COMMENCEMENT OF WORK.

1.1 CODES
a. 2016 CONNECTICUT STATE BUILDING CODE
b. MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE/SEI 7-10, AMERICAN SOCIETY OF CIVIL ENGINEERS
c. STEEL CONSTRUCTION MANUAL, 14TH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION

1.2 LOADS AND DESIGN CRITERIA
a. WIND LOADING: V: 125 MPH (ULTIMATE) / 97 MPH (NOMINAL), EXPOSURE B, OCCUPANCY CATEGORY II
b. EQUIPMENT AS LISTED IN CONSTRUCTION DRAWINGS PREPARED BY COM-EX CONSULTANTS, DATED 01/25/2017, AND STRUCTURAL ANALYSIS REPORT PREPARED BY DESTEK ENGINEERING, LLC, DATED 03/31/2017.

1.3 NOTES
a. PRIOR TO PURCHASE OR FABRICATION OF MATERIAL, THE CONTRACTOR SHALL PERFORM AN INSPECTION VERIFYING MEMBER AND BOLT SIZES. SHOULD THE CONTRACTOR DISCOVER ANY DAMAGED OR MISSING MEMBERS OR THE MEMBER OR BOLT SIZES DO NOT MATCH THOSE LISTED, DESTEK SHALL BE NOTIFIED IMMEDIATELY.
b. CONTRACTOR TO REPLACE ALL BOLTS REMOVED WITH NEW BOLTS OF SAME TYPE, UNLESS NOTED OTHERWISE.

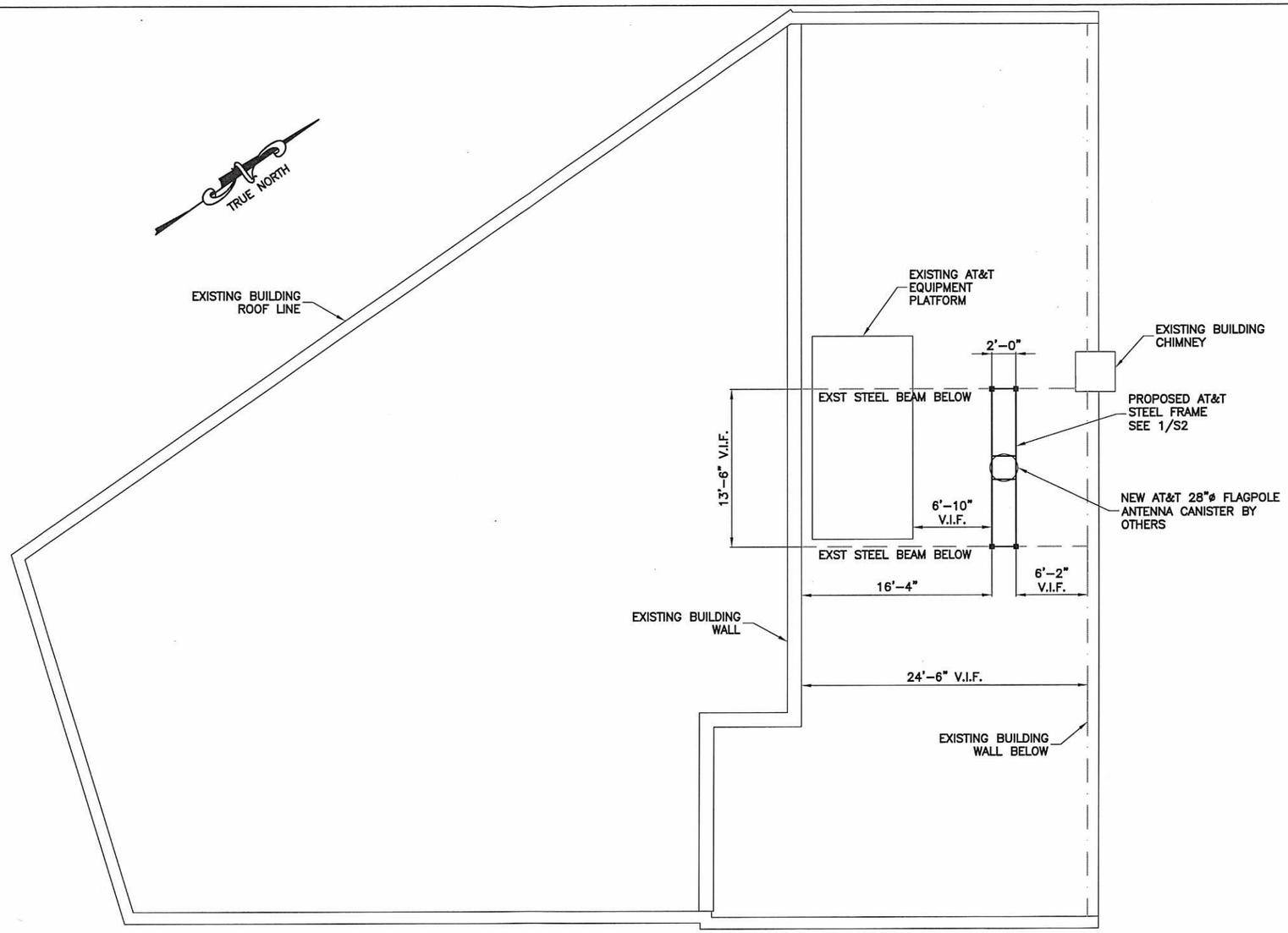
## 2.0 STRUCTURAL STEEL

2.1 MATERIALS
a. STRUCTURAL STEEL . . . . . ASTM A992
MISC ANGLE & PLATE . . . . ASTM A36
PIPE . . . . . ASTM A53 GR. B
RODS . . . . . ASTM A572-50 (MINIMUM)
HSS. . . . . ASTM A500, GR. B, Fy=46 KSI
b. BOLTS . . . . . ASTM A325 U.N.O.
c. WELDING ELECTRODES . . . . . AWS A5.1 (E70XX)
d. STEEL CONSTRUCTION SHALL CONFORM TO "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ANSI/AISC 360-10"
e. WELDING SHALL CONFORM TO AWS D1.1/D1.3/D1.7 AS APPLICABLE.
f. THE FABRICATOR SHALL FURNISH CHECKED SHOP AND ERECTION DRAWINGS TO THE ENGINEER, AND OBTAIN APPROVAL PRIOR TO FABRICATING ANY STRUCTURAL STEEL. SHOP DRAWINGS SHALL CONFORM TO "DETAILING FOR STEEL CONSTRUCTION, 2ND EDITION"
g. POOR MATCHING OF HOLES SHALL BE CORRECTED BY DRILLING TO THE NEXT LARGER SIZE. WELDING FOR REDRILLING WILL NOT BE PERMITTED.

2.2 CONNECTIONS
a. SHOP CONNECTIONS MAY BE BOLTED OR WELDED
b. CONNECTIONS WHERE THE BEAM SHEAR (V) IS NOT NOTED ON THE DRAWINGS, SIMPLE SHEAR CONNECTIONS SHALL BE DESIGNED TO DEVELOP 1/2 OF THE MAXIMUM TOTAL UNIFORM LOAD CAPACITY OF THE BEAM.
c. FIELD CONNECTIONS SHALL BE MADE WITH A325 BOLTS AND HARDENED WASHERS EXCEPT AS INDICATED ON THE DESIGN DRAWINGS
d. CONNECTIONS NOT SHOWN ON DRAWINGS SHALL BE DESIGNED BY THE STEEL FABRICATOR. CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" AND "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
e. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER.
f. BOLT HOLES SHALL BE CUT, DRILLED OR PUNCHED AT RIGHT ANGLES TO THE SURFACE OF THE METAL AND SHALL NOT BE MADE OR ENLARGED BY BURNING. HOLES SHALL BE CLEAN CUT WITHOUT TORN OR RAGGED EDGES. OUTSIDE BURRS RESULTING FROM DRILLING OR REAMING OPERATION SHALL BE REMOVED WITH A TOOL MAKING A 1/16 INCH BEVEL. BOLT HOLES SHALL BE 1/16 INCH OVERSIZE.

2.3 FINISHES
a. STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION PER ASTM A123
b. BOLTS AND NUTS SHALL BE HOT DIP GALVANIZED PER ASTM A153.
c. ALL SURFACES DAMAGED BY FIELD WELDING OR CUTTING SHALL BE PAINTED WITH COLD GALVANIZING COMPOUND TWICE. THE PAINT SHOULD BE AT LEAST 93% PURE ZINC. RUST-OLEUM PROFESSIONAL, (MODEL# 7585838) OR SIMILAR.

2.4 WELDING
a. CONTRACTOR TO TAKE ALL NECESSARY PRECAUTIONS FOR FIRE PREVENTION DURING WELDING, SUCH AS; INSTALLING 3000 (NFPA 701) FIRE BLANKET AROUND COAX. MORE SPLATTER AND SPARKS SHOULD BE ANTICIPATED WHILE WELDING ON GALVANIZED SURFACE. COAX IS FLAMMABLE AND SHALL CATCH FIRE IF NOT PROTECTED. WATER SHALL BE ON SITE OF ADEQUATE AMOUNT AND AVAILABLE AT SHORT NOTICE AT ALL TIMES DURING WELDING ACTIVITY. CONTRACTOR SHOULD BE ABLE TO TRANSPORT THE WATER TO THE HEIGHT WELDING BEING PERFORMED.
b. WELDING ON GALVANIZED SURFACE SHOULD BE DONE WITH EXTREME CAUTION. IF THE WELD MATERIAL IS CONTAMINATED WITH ZINC, IT DOES NOT PROVIDE A STRUCTURAL WELD. GROUND GALVANIZING BEFORE WELDING.
c. WELDING CERTIFICATE MUST BE PROVIDED PRIOR TO WELDING. ALL WELDING SHALL BE PERFORMED BY AWS QUALIFIED WELDER WHO HAS EXPERIENCE WITH GALVANIZED SURFACES.




1 / S1 **SITE PLAN** N.T.S.

## 3.0 WOOD NOTES

3.1 GENERAL
a. CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING AND BRACING FOR ALL STRUCTURAL ELEMENTS DURING CONSTRUCTION.
b. LUMBER IN CONTACT WITH CONCRETE AND OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPB LP-2.
c. EXTERIOR LUMBER SHALL BE A MINIMUM OF 8" ABOVE FINISHED GRADE.
d. INTERIOR LUMBER SHALL BE A MINIMUM OF 18" ABOVE FINISHED CRAWL SPACE GRADE.
e. ALL TREATED LUMBER AND PLYWOOD SHALL COMPLY WITH THE REQUIREMENTS OF "AWPA U1-05- USE CATEGORY SYSTEM: USER SPECIFICATION FOR TREATED WOOD" FOR WOOD TREATMENTS DETERMINED BY USE CATEGORIES, EXPECTED SERVICE CONDITIONS, AND SPECIFIC APPLICATIONS.
f. SAWN LUMBER SHALL BE PROVIDED IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, BY THE AMERICAN FOREST & PAPER ASSOCIATION. FINGER JOINTED LUMBER IN ACCORDANCE WITH THE AMERICAN SOFTWOOD LUMBER STANDARD PS 20 AND THE SOUTHERN PINE INSPECTION BUREAU (SPIB) "GLUED LUMBER PROCEDURES FOR SOUTHERN PINE" MAY BE USED FOR "STUD USE ONLY" OR "VERTICAL USE ONLY" IN DRY USE CONDITIONS. FINGER JOINTED LUMBER SHALL BE JOINED WITH A HEAT RESISTANT ADHESIVE (HRA) IN ACCORDANCE WITH THE AMERICAN LUMBER STANDARD COMMITTEE. IT IS IMPORTANT TO KEEP FINGER JOINTED STUDS DRY AND PROTECTED FROM WET WEATHER AND EXCESSIVE MOISTURE WHILE IN STORAGE AND DURING CONSTRUCTION. THE MOISTURE CONTENT OF FINGER JOINTED LUMBER STUDS SHALL BE 19% OR LESS AT THE TIME OF PERMANENT ENCLOSURE. FINGER JOINTED STUDS SHALL BE LATERALLY BRACED BY WALL SHEATHING OR PROPERLY ANCHORED HORIZONTAL BRIDGING AT THE MID-HEIGHT OF THE WALL STUDS PRIOR TO THE APPLICATION OF DEAD AND/OR LIVE LOADS.
g. HOLES IN JOISTS, RAFTERS, STUDS AND PLATES NOT EXCEEDING 1/5 THE DEPTH/WIDTH OF THE MEMBER AND NOT CLOSER THAN 3 TIMES THE DEPTH/WIDTH OF THE MEMBER FROM THE END ARE PERMITTED AT THE MID-DEPTH/WIDTH OF THE MEMBER.
h. FASTEN SHEATHING WITH 8D NAILS @ 6" O/C (6" MAXIMUM) AT PANEL EDGES AND @ 12" O/C AT INTERMEDIATE SUPPORTS. (V = 260LBS./FT @ 6" O/C, V = 380LBS./FT @ 4" O/C, V = 490LBS./FT @ 3" O/C)

STATE OF CONNECTICUT
AHMET COLAKOGLU
PEN. 27057
LICENSED PROFESSIONAL ENGINEER
03/31/2017

Ahmet Colakoglu, PE
CT License No: 27057


DESTEK ENGINEERING
DESTEK ENGINEERING, LLC
1281 KENNESTONE CIRCLE
SUITE 100
MARIETTA, GA 30066
TEL NO: 770-693-0835
ADMIN@DESTEKENGINEERING.COM
LICENSE NO: PEC001429


PREPARED FOR:
COM-EX Consultants
115 Route 46 - Suite E39
Mountain Lakes, NJ 07046

| NUM | DATE | DESCRIPTION: |
|---|---|---|
| A | 03/31/17 | ISSUED FOR CONSTRUCTION |

CT5317 - FA CODE:10071066

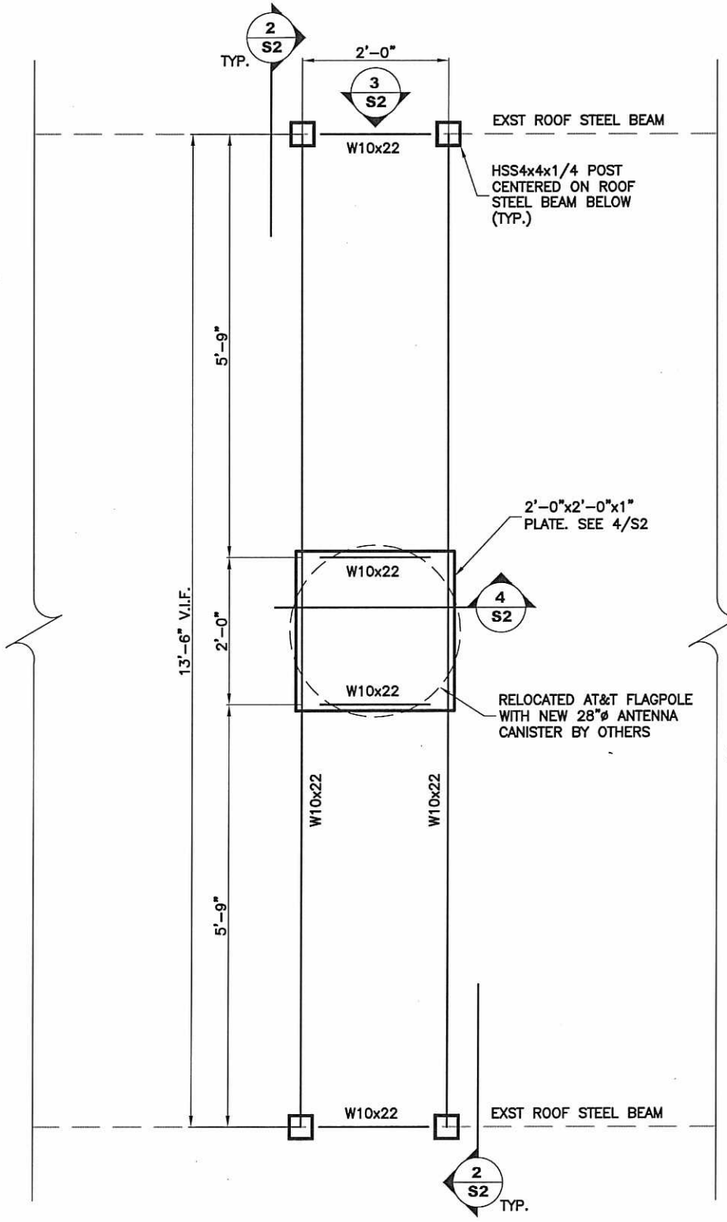
ADDRESS:
1 CIRCULAR AVENUE,
HAMDEN, CT 06514

DESIGNED: SA
DRAWN: SA
CHECKED: AC

JOB #: 1729003

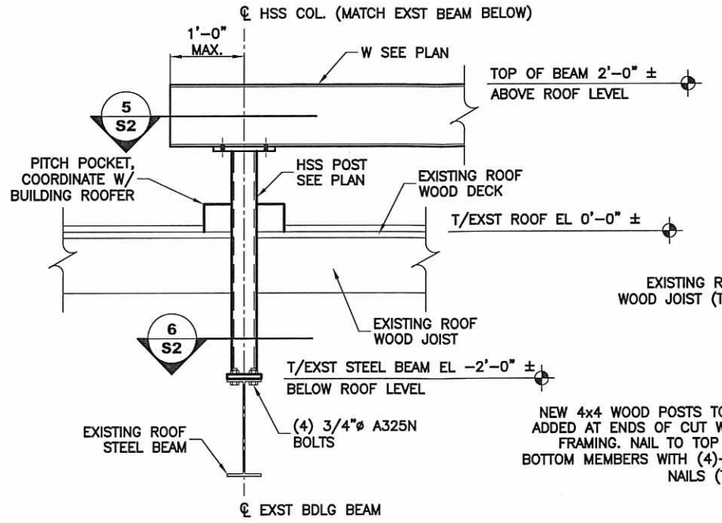
**S1**
**SITE PLAN & NOTES**

DRAWINGS PLOTTED TO SCALE ON 11x17 SHEETS



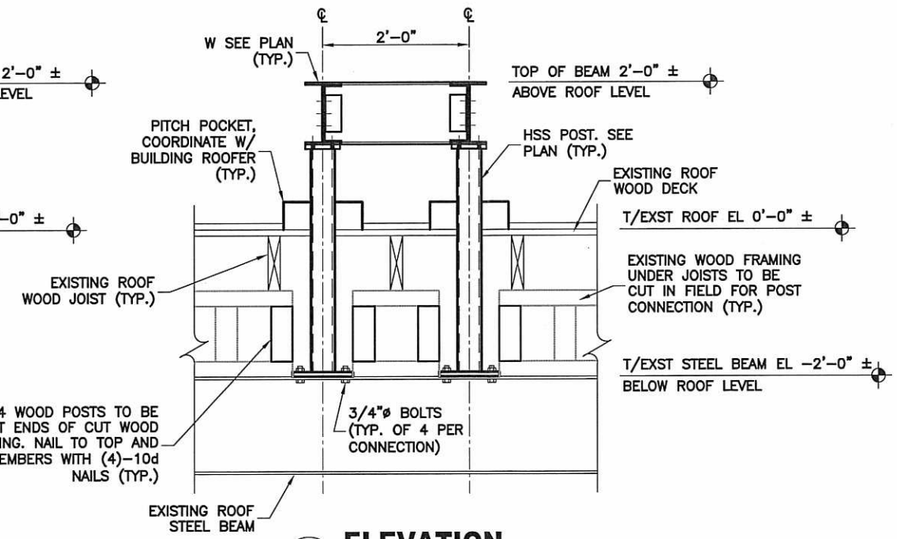

## 1/S2 PLATFORM FRAMING PLAN

1/2" = 1'-0" T/STL = 2'-0" ABOVE ROOF LEVEL



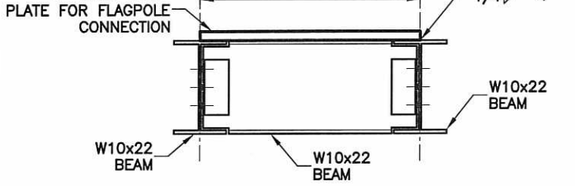

## 2/S2 POST CONNECTION DETAIL

1/2" = 1'-0"



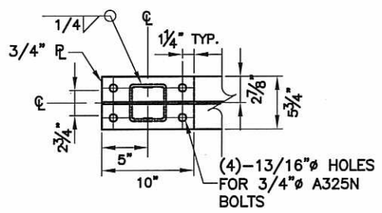

## 3/S2 ELEVATION

1/2" = 1'-0"



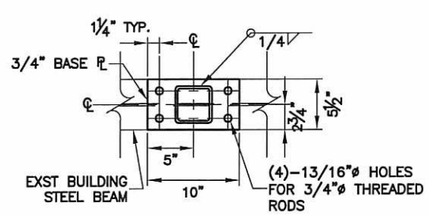

## 4/S2 SECTION

3/4" = 1'-0"



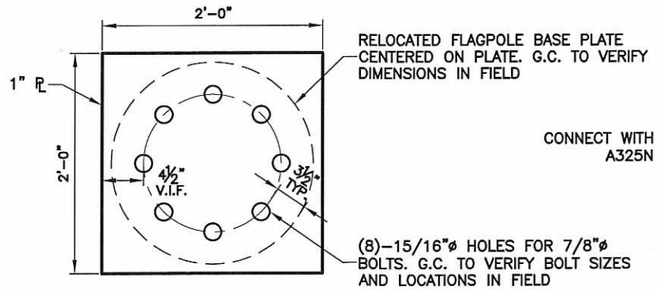

## 5/S2 SECTION

3/4" = 1'-0"



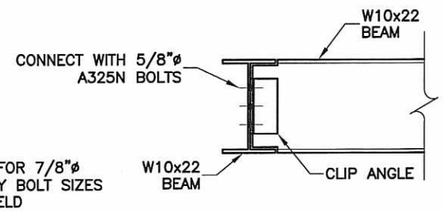

## 6/S2 SECTION

3/4" = 1'-0"




## 7/S2 FLAGPOLE CONNECTOR PLATE

3/4" = 1'-0"




## 8/S2 TYPICAL BEAM CONNECTION

3/4" = 1'-0"

DRAWINGS PLOTTED TO SCALE ON 11x17 SHEETS

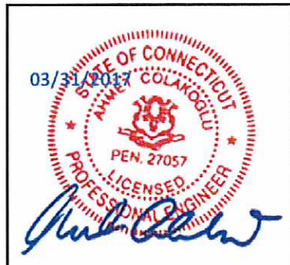
DESTEK ENGINEERING
DESTEK ENGINEERING, LLC
1281 KENNESTONE CIRCLE
SUITE 100
MARIETTA, GA 30066
TEL NO: 770-693-0835
ADMIN@DESTEKENGINEERING.COM
LICENSE NO: PEC001429

PREPARED FOR:
COM-EX Consultants
115 Route 46 - Suite E39
Mountain Lakes, NJ 07046

| NUM | DATE | DESCRIPTION: |
|---|---|---|
| A | 03/31/17 | ISSUED FOR CONSTRUCTION |

CT5317 – FA CODE:10071066

ADDRESS:
1 CIRCULAR AVENUE,
HAMDEN, CT 06514




Ahmet Colakoglu, PE
CT License No: 27057

DESIGNED: SA
DRAWN: SA
CHECKED: AC

JOB #: 1729003

**S2 PLATFORM FRAMING**

# ATTACHMENT 3

COM-EX
Consultants

115 ROUTE 46 SUITE E39, MOUNTAIN LAKES, NJ 07046
OFFICE: 862-209-4300 | FAX: 862-209-4301

# Photo Simulations

For

**1 Circular Avenue**
**Hamden, CT 06514**
**New Haven County**

Site ID: **CT5317**
FA#: **10071066**
Site Name: **Hamden Whitneyville**
Com-Ex Number: **15159-EMP**

Prepared for:

AT&T Mobility
550 Cochituate Road,
Framingham, MA 01701

Prepared by:

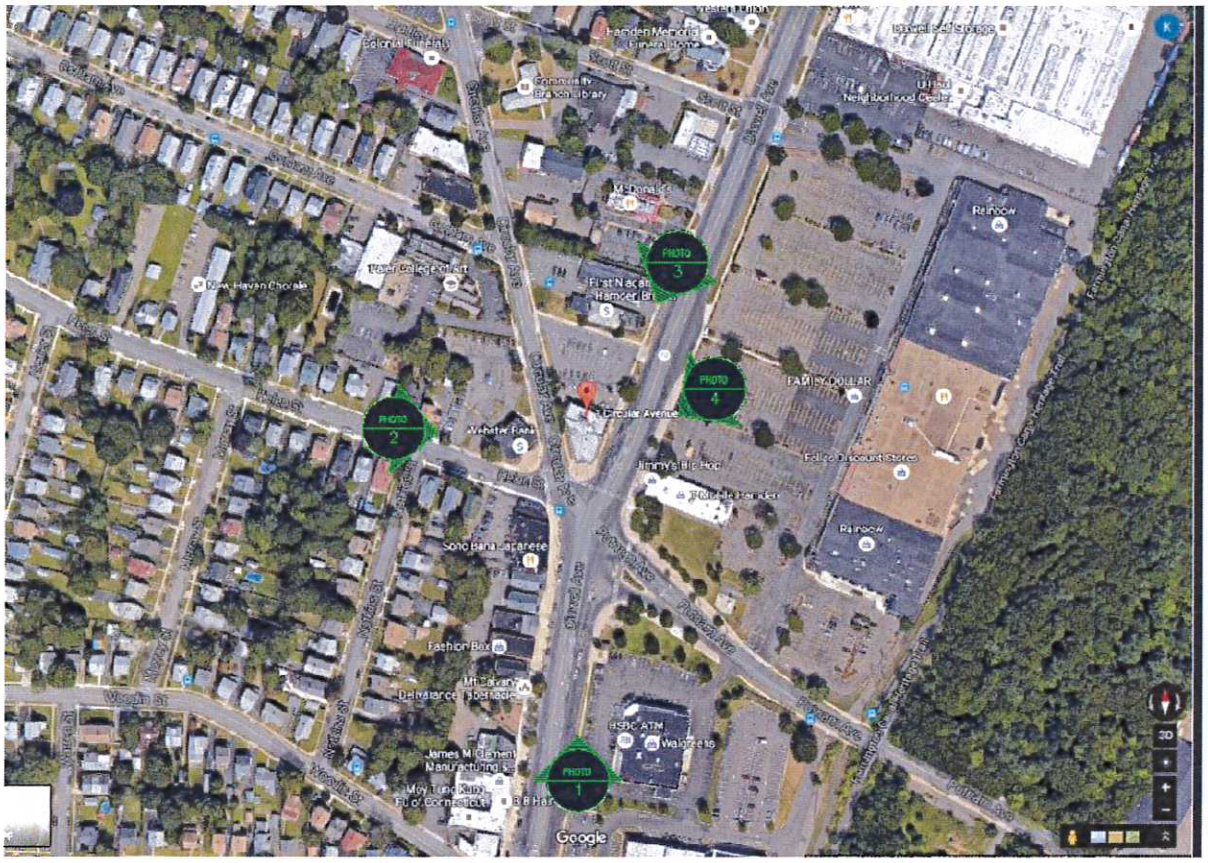
COM-EX
Consultants

## CONTENTS



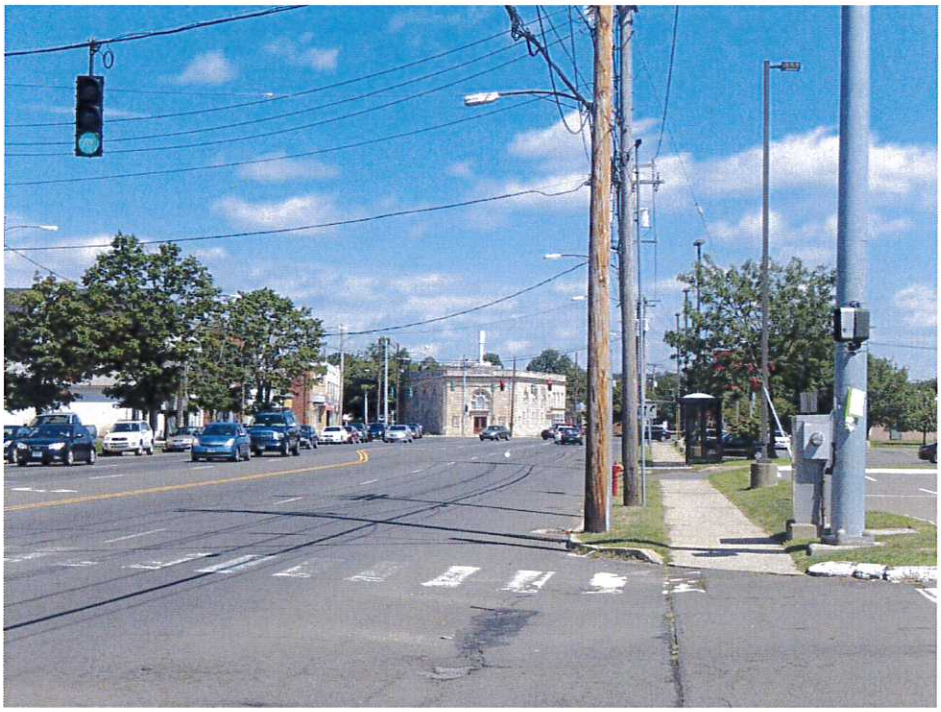
COM EX
Consultants

## 1 - Photo Location Map



## 2 – Photos

View 1 - Existing



View 1 - Proposed

COM EX
Consultants

View 2 – Existing

View 2 – Proposed

COM EX
Consultants

View 3 – Existing

View 3 – Proposed

COM EX
Consultants

View 4 – Existing


View 4 Proposed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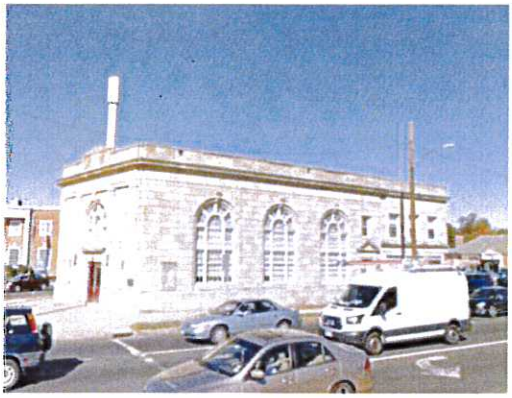
Consultants

# ATTACHMENT 4

SITESAFE
RF COMPLIANCE EXPERTS
A BUSINESS OF FDH VELOCITEL

200 North Glebe Road, Suite 1000, Arlington, VA 22203-3728
703.276.1100 • 703.276.1169 fax
info@sitesafe.com • www.sitesafe.com



# Empire Telecom on behalf of AT&T Mobility, LLC
# Site FA – 10071066
# Site ID – CT5317 (2C)
# USID – 24508
# Site Name – Hamden-Whitneyville
# Site Compliance Report

## 1 Circular Avenue
## Hamden, CT 06514

Latitude: N41-20-48.80
Longitude: W72-56-02.72
Structure Type: Rooftop

Report generated date: March 8, 2017
Report by: Young Kim
Customer Contact: Paul Wright

---

**AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.**

SITESAFE
RF COMPLIANCE EXPERTS
A BUSINESS OF FDH VELOCITEL

# Table of Contents

# 1 General Site Summary

## 1.1 Report Summary

| AT&T Mobility, LLC | Summary |
|---|---|
| Access to Antennas Locked? | No |
| RF Sign(s) @ access point(s) | (1) Information 1 @ Access |
| RF Sign(s) @ antennas | (1) Caution 2 @ Cylinder Base |
| Barrier(s) @ sectors | None |
| Max cumulative simulated RFE level on the Rooftop | 139.5% General Public Limit at AT&T Mobility, LLC Beta Sector Antenna #2 |
| FCC & AT&T Compliant? | Will be compliant |

**Note**: All existing signage was documented during a previous site visit on 6/14/16.

**The following documents were provided by the client and were utilized to create this report:**

**RFDS:** NEW-ENGLAND_CONNECTICUT_CTV5317_2016-LTE-Next-Carrier_LTE-2C_cb6561_2051A03K9Y_10071066_24508_09-21-2015_Final-Approved_v2.00

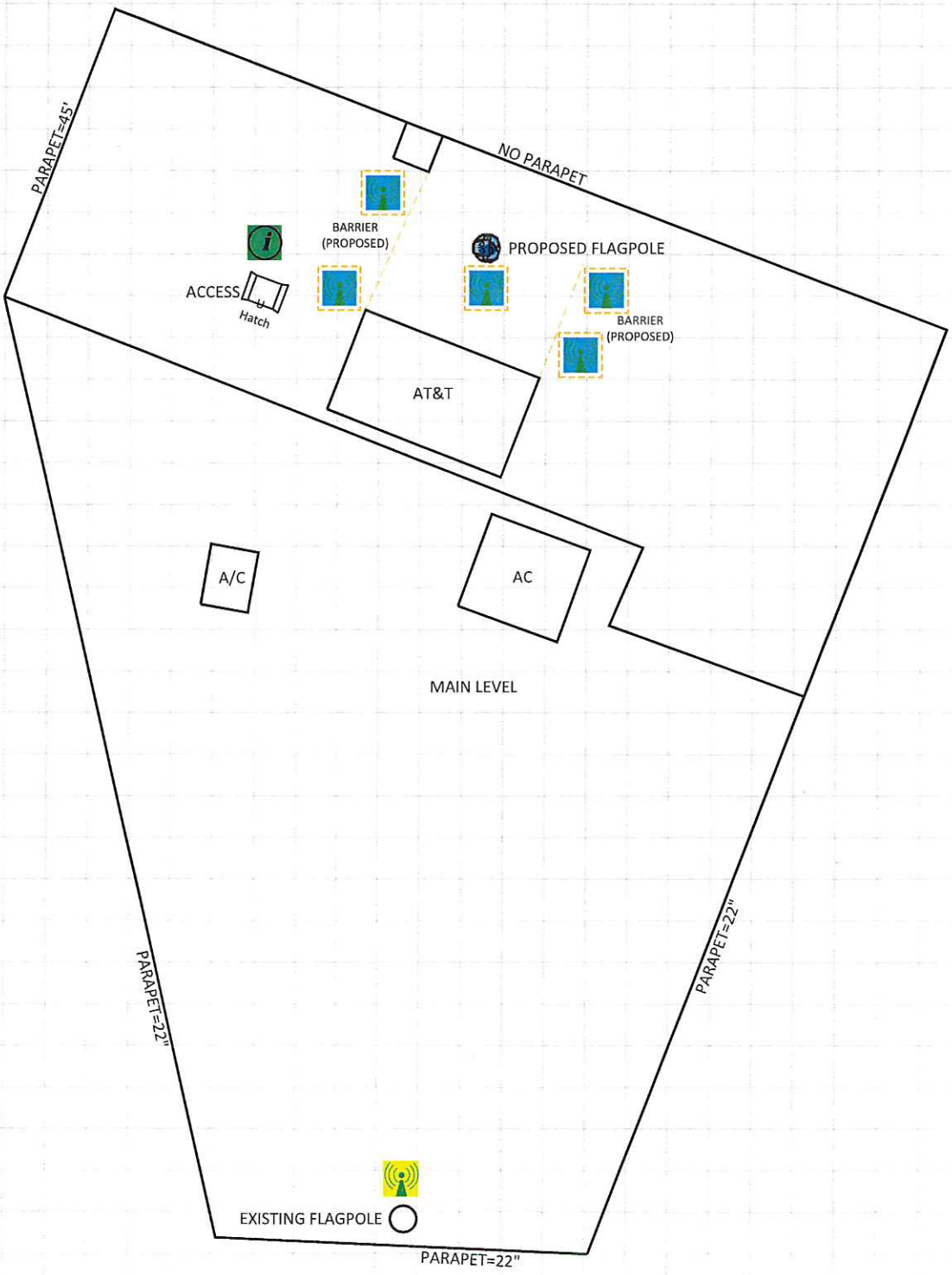
**CD's:** CT5317.Hamden Whitneyville.10071066.2C.CD.RevA.012517

## 2 Scale Maps of Site

The following diagrams are included:

- Site Scale Map
- Composite View
- Detailed View – All Sectors

# Site Scale Map For: Hamden-Whitneyville




(Feet)

0 7.2 14.4

www.sitesafe.com
Site Name:Hamden-Whitneyville
3/8/2017 5:40:40 PM

Carrier Identification

AT&T MOBILITY LLC | VERIZON WIRELESS | T-MOBILE | SPRINT | UNKNOWN CARRIER

Sign Legend

Caution 1 | Caution 2 | Notice 1 | Notice 2 | Info 1 | Info 2 | Warning

Barrier

Proposed Barriers/ Signs

## 3 Antenna Inventory

The following antenna inventory was obtained by the customer and utilized to create the site model diagrams:

| Ant ID | Operator | Antenna Make & Model | Type | TX Freq (MHz) | Az (Deg) | Hor BW (Deg) | Ant Len (ft) | Ant Gain (dBd) | 2G GSM Radio(s) | 3G UMTS Radio(s) | 4G Radio(s) | Total ERP (Watts) | X | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 1900 | 30 | 69 | 6 | 13.85 | 1 | 0 | 0 | 354.8 | 60.1' | 116.4' | 9.2' |
| 1 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 850 | 30 | 67 | 6 | 11.35 | 0 | 2 | 0 | 809.2 | 60.1' | 116.4' | 9.2' |
| 1 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 1900 | 30 | 69 | 6 | 13.85 | 0 | 2 | 0 | 1066.7 | 60.1' | 116.4' | 9.2' |
| 1 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 737 | 30 | 68 | 6 | 10.85 | 0 | 0 | 1 | 1475.7 | 60.1' | 116.4' | 9.2' |
| 1 | AT&T MOBILITY LLC (Proposed) | Quintel QS66512-3 | Panel | 1900 | 30 | 69 | 6 | 13.85 | 0 | 0 | 1 | 2421 | 60.1' | 116.4' | 9.2' |
| 2 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 1900 | 150 | 69 | 6 | 13.85 | 1 | 0 | 0 | 398.1 | 60.1' | 115.4' | 9.2' |
| 2 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 850 | 150 | 67 | 6 | 11.35 | 0 | 2 | 0 | 809.2 | 60.1' | 115.4' | 9.2' |
| 2 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 1900 | 150 | 69 | 6 | 13.85 | 0 | 2 | 0 | 1066.7 | 60.1' | 115.4' | 9.2' |
| 2 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 737 | 150 | 68 | 6 | 10.85 | 0 | 0 | 1 | 1475.7 | 60.1' | 115.4' | 9.2' |
| 2 | AT&T MOBILITY LLC (Proposed) | Quintel QS66512-3 | Panel | 1900 | 150 | 69 | 6 | 13.85 | 0 | 0 | 1 | 2421 | 60.1' | 115.4' | 9.2' |
| 3 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 1900 | 270 | 69 | 6 | 13.85 | 1 | 0 | 0 | 354.8 | 59.4' | 115.9' | 9.2' |
| 3 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 850 | 270 | 67 | 6 | 11.35 | 0 | 2 | 0 | 809.2 | 59.4' | 115.9' | 9.2' |
| 3 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 1900 | 270 | 69 | 6 | 13.85 | 0 | 2 | 0 | 1066.7 | 59.4' | 115.9' | 9.2' |
| 3 | AT&T MOBILITY LLC | Quintel QS66512-3 | Panel | 737 | 270 | 68 | 6 | 10.85 | 0 | 0 | 1 | 1475.7 | 59.4' | 115.9' | 9.2' |
| 3 | AT&T MOBILITY LLC (Proposed) | Quintel QS66512-3 | Panel | 1900 | 270 | 69 | 6 | 13.85 | 0 | 0 | 1 | 2421 | 59.4' | 115.9' | 9.2' |

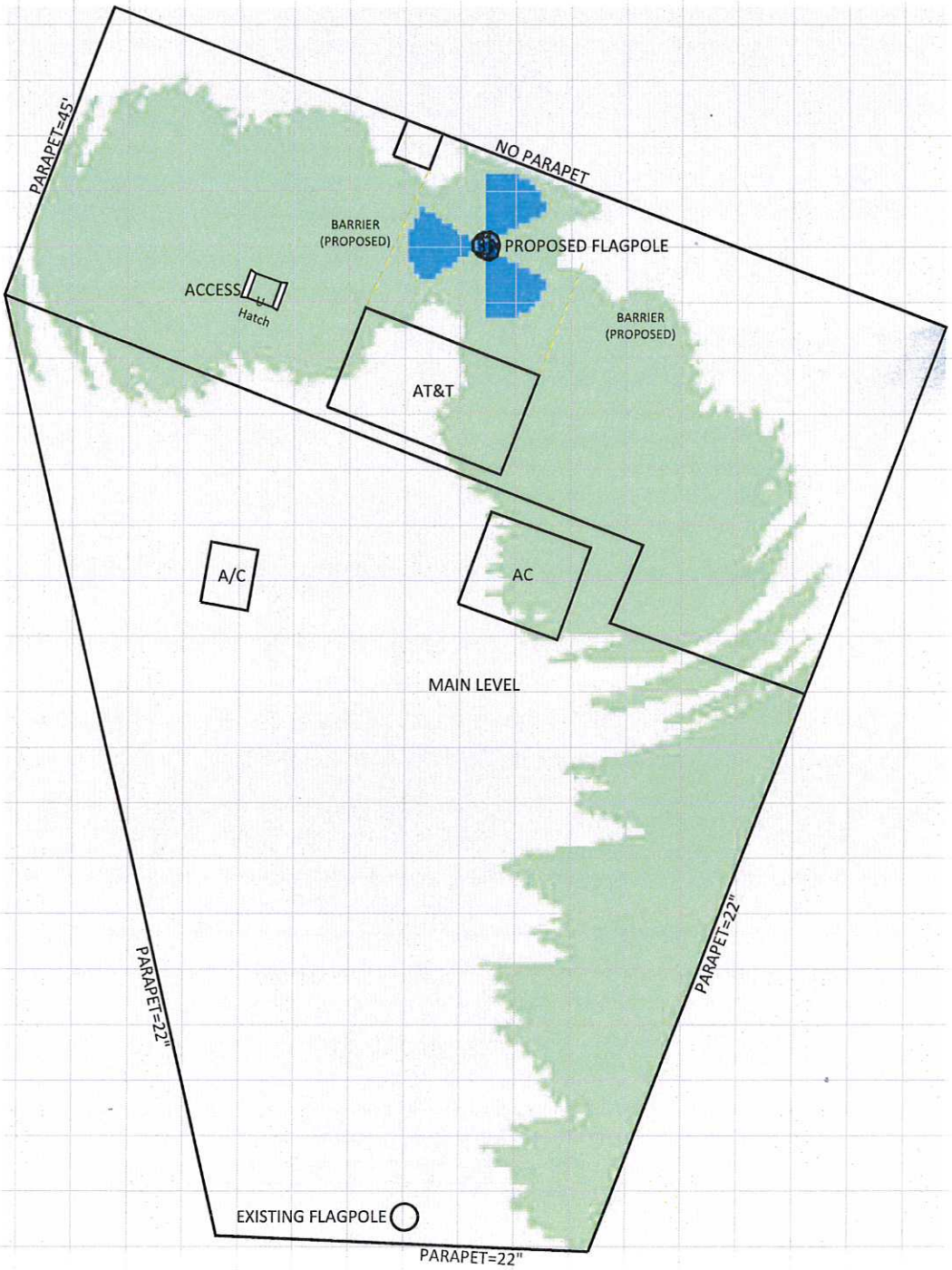
NOTE: X, Y and Z indicate relative position of the bottom of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates the bottom of the antenna height above the main site level unless otherwise indicated. The distance to the bottom of the antenna is calculated by subtracting half of the length of the antenna from the antenna centerline. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed.

# 4 Emission Predictions

In the RF Exposure Simulations below all heights are reflected with respect to main site level. In most rooftop cases this is the height of the main rooftop and in other cases this can be ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the main site level. Emissions are calculated appropriately based on the relative height and location of that area to all antennas.

The Antenna Inventory heights are referenced to the same level.

# RF Exposure Simulation For: Hamden-Whitneyville




% of FCC Public Exposure Limit
Spatial average 0' - 6'

% of FCC Public Exposure Limit

| >= 5000 | >= 500 | >= 100 | >= 5 | < 5 |
|---|---|---|---|---|

Carrier Identification

AT&T MOBILITY LLC · VERIZON WIRELESS · T-MOBILE · SPRINT · UNKNOWN CARRIER

(Feet)

0 8 16

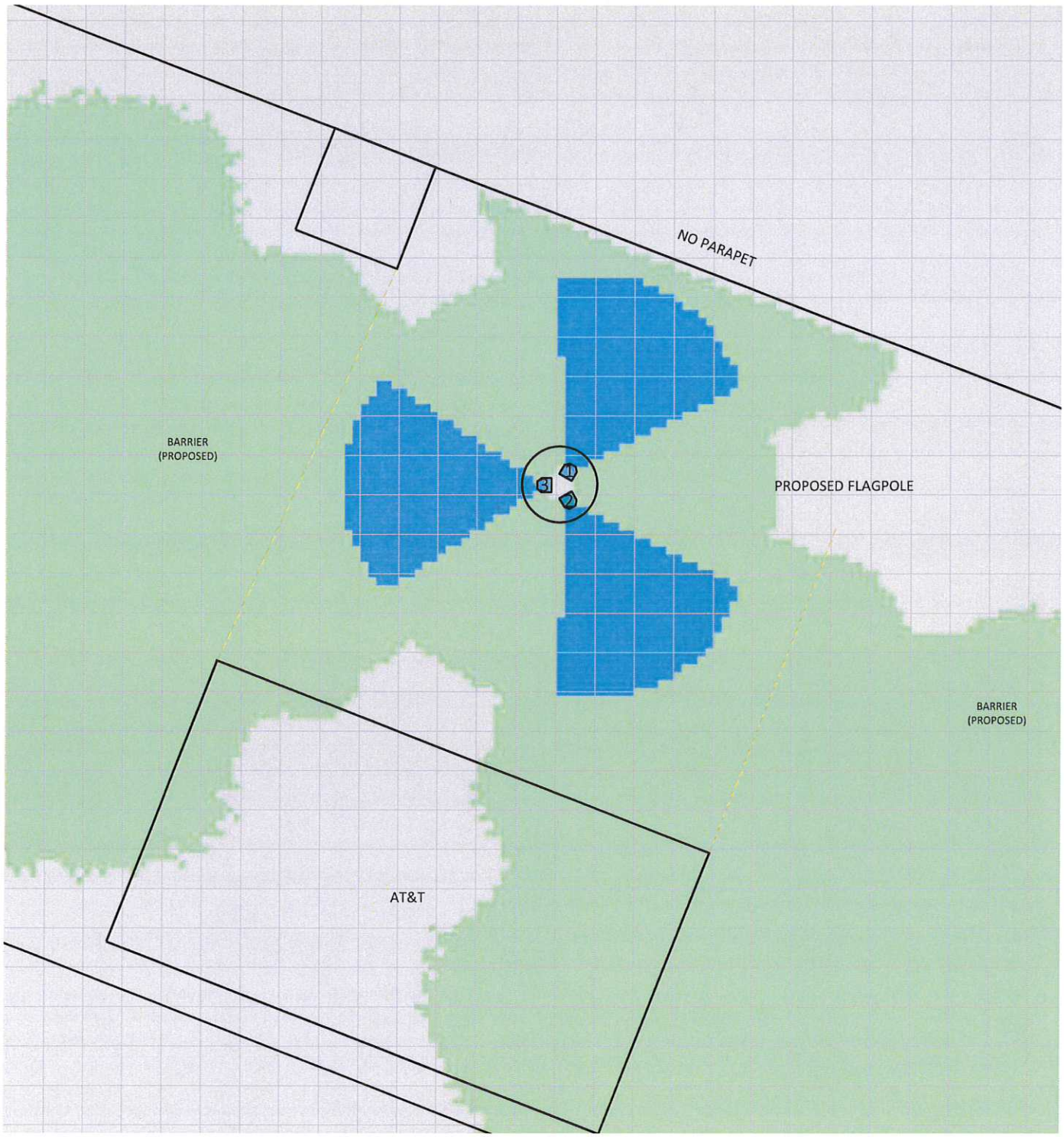
www.sitesafe.com
Site Name:Hamden-Whitneyville
3/8/2017 5:41:24 PM

Barrier

Proposed Barriers/ Signs

SitesafeTC Version:1.0.0.0 - 0.0.0.257
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: Hamden-Whitneyville
Detailed View – All Sectors




% of FCC Public Exposure Limit
Spatial average 0' - 6'

% of FCC Public Exposure Limit
>= 5000 >= 500 >= 100 >= 5 < 5

Carrier Identification
AT&T MOBILITY LLC VERIZON WIRELESS T-MOBILE SPRINT UNKNOWN CARRIER

Sign Legend
Caution 1 Caution 2 Notice 1 Notice 2 Info 1 Info 2 Warning
Barrier
Proposed Barriers/ Signs

(Feet)
0 2.4 4.8
www.sitesafe.com
Site Name:Hamden-Whitneyville
3/8/2017 5:43:22 PM

SitesafeTC Version:1.0.0.0 - 0.0.0.257
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

# 5 Site Compliance

## 5.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, RF hazard signage and antenna locations, Sitesafe has determined that:

AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.

The compliance determination is based on General Public RFE levels derived from theoretical modeling, RF signage placement, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the AT&T Mobility, LLC's proposed deployment plan could result in the site being rendered non-compliant.

Modeling is used for determining compliance and the percentage of MPE contribution.

## 5.2 Actions for Site Compliance

Based on FCC regulations, common industry practice, and our understanding of AT&T Mobility, LLC RF Safety Policy requirements, this section provides a statement of recommendations for site compliance. Recommendations have been proposed based on our understanding of existing access restrictions, signage, and an analysis of predicted RFE levels.

AT&T Mobility, LLC will be made compliant if the following changes are implemented:

**AT&T Mobility, LLC Proposed Alpha Sector Location**

Blue notice 2 sign required (At the flagpole base)

**AT&T Mobility, LLC Proposed Beta Sector Location**

Install a barrier 11 ft, as depicted in the site scale map.
Install 2 total Notice 2 sign(s) on the proposed barrier chain segments.

- 11 ft segment: (2) Notice 2 sign(s)

**AT&T Mobility, LLC Proposed Gamma Sector Location**

Install a barrier 14 ft, as depicted in the site scale map.
Install 2 total Notice 2 sign(s) on the proposed barrier chain segments.

- 14 ft segment: (2) Notice 2 sign(s)

**Notes:**

- Signage on the barriers should be placed in the middle of each barrier segment no more than 8' apart from each other.
- Barriers were only recommended in areas predicted to exceed the General Public MPE limit greater than 6' from the unprotected roof edge. All other predicted to exceed areas are within 6' of the unprotected roof edge.
- Ensure all existing signage documented in this report still exist at the site.

## 6 Reviewer Certification

The Reviewer whose signature appears below hereby certifies and affirms:

That I am an employee of Sitesafe, Inc., in Arlington, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Young Kim.

March 8, 2017

Klaus Bender

March 9, 2017

## Appendix A – Statement of Limiting Conditions

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, that Sitesafe became aware of during the normal research involved in creating this report. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data collected by Sitesafe provided by a second party and data collected by Sitesafe, the data will be used.

# Appendix B – Regulatory Background Information

## FCC Rules and Regulations

In 1996, the Federal Communication Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

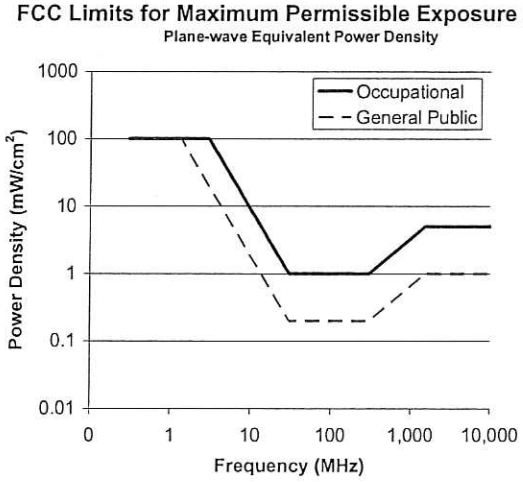
FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:



**Limits for Occupational/Controlled Exposure (MPE)**

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) ($mW/cm^2$) | Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes) |
|---|---|---|---|---|
| 0.3-3.0 | 614 | 1.63 | (100)* | 6 |
| 3.0-30 | 1842/f | 4.89/f | ($900/f^2$)* | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1500 | -- | -- | f/300 | 6 |
| 1500-100,000 | -- | -- | 5 | 6 |

**Limits for General Population/Uncontrolled Exposure (MPE)**

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) ($mW/cm^2$) | Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes) |
|---|---|---|---|---|
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34-30 | 824/f | 2.19/f | ($180/f^2$)* | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | -- | -- | f/1500 | 30 |
| 1500-100,000 | -- | -- | 1.0 | 30 |

f = frequency in MHz *Plane-wave equivalent power density

## OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

## Appendix C – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

**General Maintenance Work:** Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

**Training and Qualification Verification:** All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

**Physical Access Control:** Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

**RF Signage:** Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

**Assume all antennas are active:** Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

**Maintain a 3 foot clearance from all antennas:** There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

**Site RF Emissions Diagram:** Section 4 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

## Appendix D – RF Emissions

The RF Emissions Simulation(s) in this report display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix E.

The key at the bottom of each RF Emissions Simulation indicates percentages displayed referenced to FCC General Public Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Areas indicated as Gray are predicted to be below 5% of the MPE limits. **Gray represents areas more than 20 times below the most conservative exposure limit.**
- Green represents areas are predicted to be between 5% and 100% of the MPE limits. **Green areas are accessible to anyone.**
- Blue represents areas predicted to exceed the General Public MPE limits but are less than Occupational limits. **Blue areas should be accessible only to RF trained workers.**
- Yellow represents areas predicted to exceed Occupational MPE limits. **Yellow areas should be accessible only to RF trained workers able to assess current exposure levels.**
- Red represents areas predicted to have exposure more than 10 times the Occupational MPE limits. **Red indicates that the RF levels must be reduced prior to access.** An RF Safety Plan is required which outlines how to reduce the RF energy in these areas prior to access.

# Appendix E – Assumptions and Definitions

## General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The modeling is based on recommendations from the FCC's OET-65 bulletin with the following variances per AT&T guidance. Reflection has not been considered in the modeling, i.e. the reflection factor is 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur, but are shown as a prediction that could be realized. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

## Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

## Definitions

***5% Rule*** – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

***Compliance*** – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

***Decibel (dB)*** – A unit for measuring power or strength of a signal.

***Duty Cycle*** – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

***Effective (or Equivalent) Isotropic Radiated Power (EIRP)*** – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

***Effective Radiated Power (ERP)*** – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

***Gain (of an antenna)*** – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

***General Population/Uncontrolled Environment*** – Defined by the FCC, as an area where exposure to RF energy may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

***Generic Antenna*** – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

***Isotropic Antenna*** – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

***Maximum Measurement*** – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

***Maximum Permissible Exposure (MPE)*** – The maximum levels of RF exposure a person may be exposed to without harmful effect and with acceptable safety factor.

***Occupational/Controlled Environment*** – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are **aware** of the

potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

***OET Bulletin 65*** – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

***OSHA (Occupational Safety and Health Administration)*** – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

***Radio Frequency (RF)*** – The frequencies of electromagnetic waves which are used for radio communications. Approximately 3 kHz to 300 GHz.

***Radio Frequency Exposure (RFE)*** – The amount of RF power density that a person is or might be exposed to.

***Spatial Average Measurement*** – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average power density an average sized human will be exposed to at a location.

***Transmitter Power Output (TPO)*** – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.

## Appendix F – References

The following references can be followed for further information about RF Health and Safety.

Sitesafe, Inc.
http://www.sitesafe.com
FCC Radio Frequency Safety
http://www.fcc.gov/encyclopedia/radio-frequency-safety
National Council on Radiation Protection and Measurements (NCRP)
http://www.ncrponline.org
Institute of Electrical and Electronics Engineers, Inc., (IEEE)
http://www.ieee.org
American National Standards Institute (ANSI)
http://www.ansi.org
Environmental Protection Agency (EPA)
http://www.epa.gov/radtown/wireless-tech.html
National Institutes of Health (NIH)
http://www.niehs.nih.gov/health/topics/agents/emf/
Occupational Safety and Health Agency (OSHA)
http://www.osha.gov/SLTC/radiofrequencyradiation/
International Commission on Non-Ionizing Radiation Protection (ICNIRP)
http://www.icnirp.org
World Health Organization (WHO)
http://www.who.int/peh-emf/en/
National Cancer Institute
http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones
American Cancer Society (ACS)
http://www.cancer.org/docroot/PED/content/PED_1_3X_Cellular_Phone_Towers.asp?siteareа=PED
European Commission Scientific Committee on Emerging and Newly Identified Health Risks
http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_o_022.pdf
Fairfax County, Virginia Public School Survey
http://www.fcps.edu/fts/safety-security/RFEESurvey/
UK Health Protection Agency Advisory Group on Non-ionising Radiation
http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368
Norwegian Institute of Public Health
http://www.fhi.no/dokumenter/545eea7147.pdf

# ATTACHMENT 5

Department of Economic and Community Development

Connecticut
still revolutionary

January 30, 2017

Paul Wright
Empire Telecom
16 Esquire Road
Billerica, MA 01862

Subject: Proposed Telecommunications Collocation
1 Circular Avenue
Hamden, CT
AT&T Mobility

Dear Mr. Wright:

The State Historic Preservation Office is in receipt of the proposal for the above-referenced project, submitted for review and comment pursuant to the National Historic Preservation Act and in accordance with Federal Communications Commission regulations.

The property located at 1 Circular Avenue is individually listed on the National Register of Historic Places.

With consultation with SHPO, Empire Telecom has submitted new drawings, dated 1/25/2017, which relocates the 'flagpole' to the rear of the subject property without raising the height. The new location of the 'flagpole' is much less distracting, particularly from the south façade. SHPO has determined that the undertaking, as submitted, will constitute no adverse effect to historic resources.

The State Historic Preservation Office appreciates the opportunity to review and comment upon this project. These comments are provided in accordance with the Connecticut Environmental Policy Act and Section 106 of the National Historic Preservation Act. For further information please contact Todd Levine, Environmental Reviewer, at (860) 256-2759 or todd.levine@ct.gov.

Sincerely,

Catherine Labadia
Deputy State Historic Preservation Officer

# ATTACHMENT 6

NOTICE

Notice is hereby given, pursuant to Section 16-50j-40(a) of the Regulations of Connecticut State Agencies of a Petition being filed with the Connecticut Siting Council ("Siting Council") on or after April 24, 2017 by New Cingular Wireless PCS, LLC ("AT&T"). AT&T seeks a declaratory ruling that the proposed relocation of telecommunication equipment on the building located at 1 Circular Avenue, Hamden, Connecticut will not have significant adverse environmental effects that might otherwise require a certificate of environmental compatibility and public need ("Certificate").

AT&T's proposed relocation consists of removing the existing flagpole facility concealing AT&T antennas from the south side of the building and installing a new flagpole tower on the northern end of the same building. The flagpole will be secured onto a new mounting platform and steel frame anchored to the roof of the structure. The top of the new flagpole facility will reach 42 feet 6 inches above grade level and approximately 15 feet above the building parapet which is the same height as the existing flagpole facility. The new flagpole facility will be 28" in diameter and conceal AT&T's antennas from view similar to the existing facility.

The Petition will provide additional details of the proposal and explain why AT&T submits that this modification presents no significant adverse environmental effects. The location, height and other features of the facility are subject to review and potential change under provisions Connecticut General Statutes Sections 16-50g et. seq.

Copies of the Petition will be available for review during normal business hours on or after April 24, 2017 at the following:

Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Town Clerk of Hamden
Vera Morrison
2750 Dixwell Avenue
Hamden, Connecticut 06518

or the offices of the undersigned. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

Daniel M. Laub, Esq.
Cuddy & Feder LLP
445 Hamilton Ave, 14th Floor
White Plains, New York 10601
(914) 761-1300
Attorneys for the Petitioner

## CERTIFICATION OF SERVICE

I hereby certify that on the 19th day of April 2017, a copy of the foregoing notice of the filing of a Petition with the Connecticut Siting Council for a declaratory ruling was sent by certified mail, return receipt requested, to the list below:

Dated: April 21st, 2017

Cuddy & Feder LLP
45 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attorneys for:
New Cingular Wireless PCS, LLC (AT&T)

### State and Regional

| | |
|---|---|
| The Honorable George Jepsen<br>Attorney General<br>Office of the Attorney General<br>55 Elm Street<br>Hartford, CT 06106 | Department of Economic and Community Development<br>Catherine Smith, Commissioner<br>505 Hudson Street<br>Hartford, CT 06106 |
| Department of Public Health<br>Dr. Raul Pino, Commissioner<br>410 Capitol Avenue<br>P.O. Box 340308<br>Hartford, CT 06134 | Department of Energy and Environmental Protection<br>Public Utilities Regulatory Authority<br>Chairman Arthur House<br>Ten Franklin Square<br>New Britain, CT 06051 |
| Council on Environmental Quality<br>Karl J. Wagener, Executive Director<br>79 Elm Street<br>Hartford, CT 06106 | Department of Transportation<br>James P. Redeker, Commissioner<br>2800 Berlin Turnpike<br>Newington, CT 06111 |

| | |
|---|---|
| Department of Energy & Environmental Protection<br>Rob Klee, Commissioner<br>79 Elm Street<br>Hartford, CT 06106 | Department of Agriculture<br>Steven K. Reviczky, Commissioner<br>165 Capitol Avenue<br>Hartford, CT 06106 |
| Office of Policy and Management<br>Benjamin Barnes, Secretary<br>450 Capitol Avenue<br>Hartford, CT 06106 | State House Representative – 146th<br>Terry B. Adams<br>Legislative Office Building<br>Room 4000<br>Hartford, CT 06106 |

| | |
|---|---|
| Department of Emergency Services & Public Protection<br>Division of Emergency Management and Homeland Security<br>William Shea, Deputy Commissioner<br>25 Sigourney Street, 6th Floor<br>Hartford, CT 06106-5042 | State Senator – 27th District<br>Carlo Leone<br>Legislative Office Building<br>Room 3500<br>Hartford, CT 06106 |
| Department of Economic and Community Development-Offices of Culture and Tourism<br>Todd Levine, State Historic Preservation Officer, Historian/Environmental Reviewer<br>One Constitution Plaza, 2nd Floor<br>Hartford, CT 06103 | Western Connecticut Council of Governments<br>Francis Pickering, Executive Director<br>One River Road<br>Sandy Hook, CT 06482 |

## Federal

| | |
|---|---|
| Federal Communications Commission<br>445 12th Street SW<br>Washington, D.C. 20554 | Federal Aviation Administration<br>800 Independence Avenue, SW<br>Washington, DC 20591 |
| U.S. Congresswoman Elizabeth Esty<br>1 Grove St.<br>Suite 600<br>New Britain, CT 06053 | U.S. Senator Richard Blumenthal<br>90 State House Square, 10th Floor<br>Hartford, CT 06103 |
| U.S. Senator Christopher Murphy<br>One Constitution Plaza, 7th Floor<br>Hartford, CT 06103 | |

## Town of Hamden

| | |
|---|---|
| Curt B. Leng, Mayor<br>Hamden Government Center<br>2750 Dixwell Avenue<br>Hamden, CT 06518 | Planning and Zoning Commission<br>Hamden Government Center<br>2750 Dixwell Avenue<br>Hamden, CT 06518 |
| Zoning Board of Appeals<br>Hamden Government Center<br>2750 Dixwell Avenue<br>Hamden, CT 06518 | Clean and Green Commission<br>Hamden Government Center<br>2750 Dixwell Avenue<br>Hamden, CT 06518 |

April 19, 2017

**VIA CERTIFIED MAIL/**
**RETURN RECEIPT REQUESTED**
<<ADDRESSEE>>
<<ADDRESS>>

Re: New Cingular Wireless PCS, LLC ("AT&T")
Proposed Wireless Facility
1 Circular Avenue, Hamden, Connecticut

Dear Sir or Madam:

We are writing to you on behalf of our client New Cingular Wireless PCS, LLC ("AT&T") with respect to the above referenced matter and our client's intent to file a petition with the State of Connecticut Siting Council for approval of the relocation of an existing flagpole tower in association with a wireless communications tower facility (the "Facility") located on the rooftop of the captioned property.

State law requires that record owners of property abutting a parcel on which a facility is proposed be sent notice of an applicant's intent to file a petition with the Siting Council.

Included with this letter please find a Notice of this submission and details of the proposal. Of note, the location, height and other features of the Facility are subject to review and potential change by the Connecticut Siting Council under the provisions of Connecticut General Statutes §16-50g et seq.

If you have any questions concerning this petition, please contact the Connecticut Siting Council or the undersigned after April 24, 2017, the date that the petition is expected to be on file.

Very truly yours,

Daniel M. Laub

Enclosure

NOTICE

Notice is hereby given, pursuant to Section 16-50j-40(a) of the Regulations of Connecticut State Agencies of a Petition being filed with the Connecticut Siting Council ("Siting Council") on or after April 24, 2017 by New Cingular Wireless PCS, LLC ("AT&T"). AT&T seeks a declaratory ruling that the proposed relocation of telecommunication equipment on the building located at 1 Circular Avenue, Hamden, Connecticut will not have significant adverse environmental effects that might otherwise require a certificate of environmental compatibility and public need ("Certificate").

AT&T's proposed relocation consists of removing the existing flagpole facility concealing AT&T antennas from the south side of the building and installing a new flagpole tower on the northern end of the same building. The flagpole will be secured onto a new mounting platform and steel frame anchored to the roof of the structure. The top of the new flagpole facility will reach 42 feet 6 inches above grade level and approximately 15 feet above the building parapet which is the same height as the existing flagpole facility. The new flagpole facility will be 28" in diameter and conceal AT&T's antennas from view similar to the existing facility.

The Petition will provide additional details of the proposal and explain why AT&T submits that this modification presents no significant adverse environmental effects. The location, height and other features of the facility are subject to review and potential change under provisions Connecticut General Statutes Sections 16-50g et. seq.

Copies of the Petition will be available for review during normal business hours on or after April 24, 2017 at the following:

Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Town Clerk of Hamden
Vera Morrison
2750 Dixwell Avenue
Hamden, Connecticut 06518

or the offices of the undersigned. All inquiries should be addressed to the Connecticut Siting Council or to the undersigned.

Daniel M. Laub, Esq.
Cuddy & Feder LLP
445 Hamilton Ave, 14th Floor
White Plains, New York 10601
(914) 761-1300
Attorneys for the Petitioner

## CERTIFICATION OF SERVICE

I hereby certify that on the 19th day of April 2017, a copy of the foregoing letter and notice of the intent to file a Petition with the Connecticut Siting Council for a declaratory ruling was sent by certified mail, return receipt requested, to the abutting property owners listed below for the abutting properties identified by parcel number on the accompanying map.

Dated: April 21, 2017

Daniel M. Laub
Cuddy & Feder LLP
45 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Attorneys for:
New Cingular Wireless PCS, LLC (AT&T)

### Abutting Property Owners

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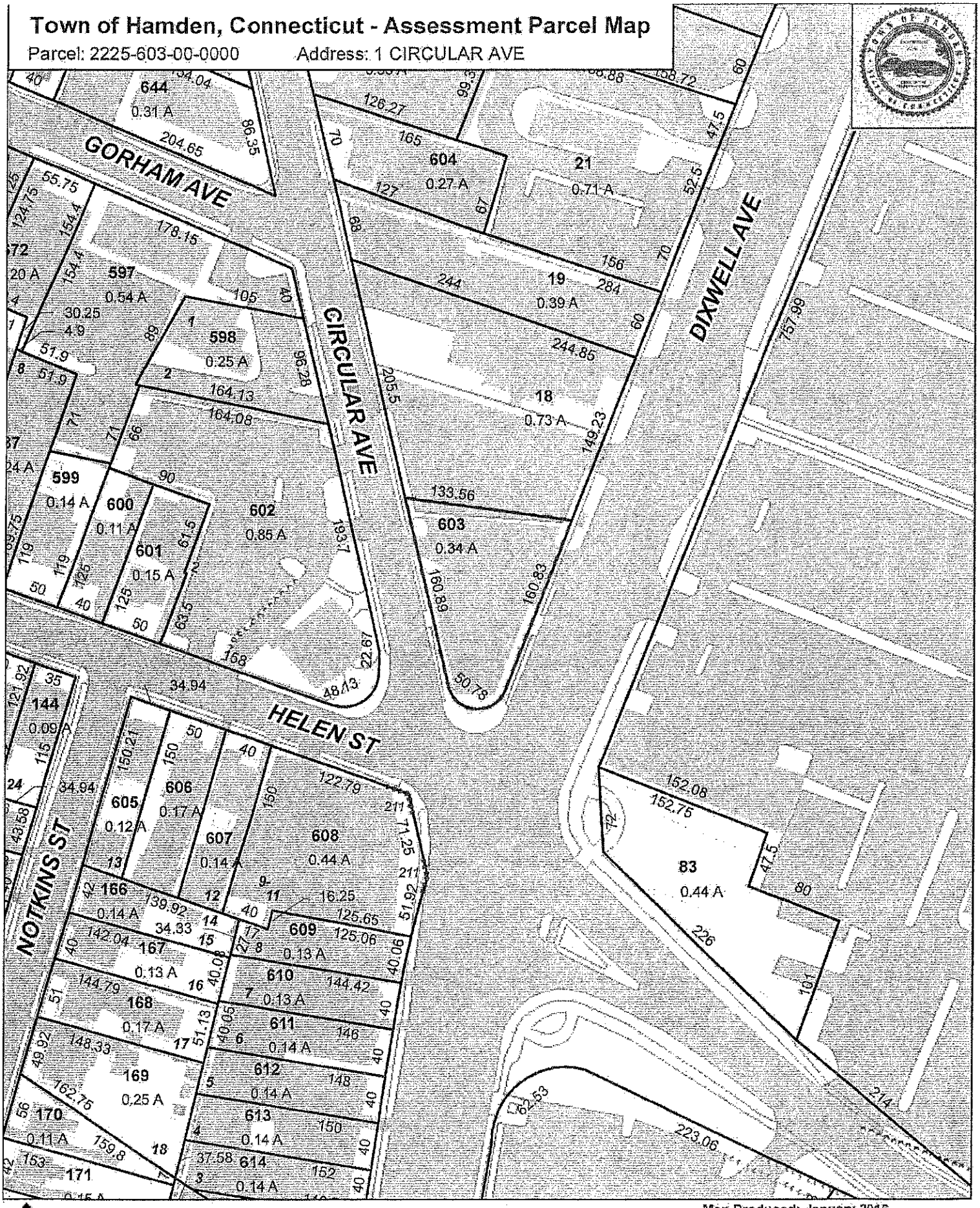
|---|---|
| **Parcel Number 603**<br>Martin McCarthy<br>1 Circular Avenue<br>Hamden, CT 06514 | **Parcel Number 026**<br>Four Forty Nine Putnam Assoc LLC et al<br>PO Box 1159<br>Deerfield, IL 60015 |
| **Parcel Number 018**<br>First Niagara Bank National Association<br>PO Box 428<br>Buffalo, NY 14231 | **Parcel Number 608**<br>Pasquale & Caterina Ciarleglio<br>23 Serafin Court<br>Hamden, CT 068518 |
| **Parcel Number 025**<br>Putnam Place Improvements LLC<br>580 White Plains Rd., Flr. 3<br>Tarrytown, NY 10591 | **Parcel Number 602**<br>Webster Bank<br>145 Bank Street<br>Waterbury, CT 06702 |
| **Parcel Number 083**<br>Hamden Town of<br>2750 Dixwell Avenue<br>Hamden, CT 06518 | |

# Town of Hamden, Connecticut - Assessment Parcel Map

Parcel: 2225-603-00-0000 Address: 1 CIRCULAR AVE




Approximate Scale: 1 inch = 100 feet

0 50 100 150 200 Feet

Map Produced: January 2016

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Hamden and its mapping contractors assume no legal responsibility for the information contained herein.