



EM-METROPCS-043-130115

148 Roberts Street
East Hartford

JULIE D. KOHLER

PLEASE REPLY TO: Bridgeport
WRITER'S DIRECT DIAL: (203) 337-4157
E-Mail Address: jkohler@cohenandwolf.com

May 22, 2014

Via Electronic and First Class Mail

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

**Re: Connecticut Siting Council Audit
MetroPCS Exempt Modifications - Notifications of Completion**

Dear Attorney Bachman:

We received your correspondence dated May 19, 2014 regarding the Connecticut Siting Council's 2013 first quarter audit of the MetroPCS and T-Mobile exempt modification acknowledgements and towershare approvals. You brought to our attention deficiencies in written notification of completion of construction and/or written notification of compliance with site-specific conditions.

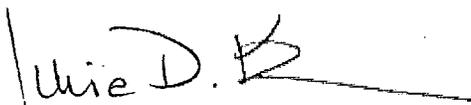
Specifically as it relates to the MetroPCS sites, we have confirmed that none of the 90 MetroPCS exempt modification acknowledgements on the attached spreadsheet were ever implemented. The proposed modifications to these facilities were suspended as a result of the T-Mobile/MetroPCS merger.

As none of these facilities were ever modified and all of the acknowledgements have since expired, we respectfully submit that notices of completion are not required for these 90 MetroPCS sites.

We are researching the T-Mobile exempt modification written notification issues and will respond as soon as we have information responsive to your request.

Please let me know if you have any questions or need any additional information.

Sincerely,


Julie D. Kohler, Esq.

1115 BROAD STREET
P.O. BOX 1821
BRIDGEPORT, CT 06601-1821
TEL: (203) 368-0211
FAX: (203) 394-9901

158 DEER HILL AVENUE
DANBURY, CT 06810
TEL: (203) 792-2771
FAX: (203) 791-8149

320 POST ROAD WEST
WESTPORT, CT 06880
TEL: (203) 222-1034
FAX: (203) 227-1373

657 ORANGE CENTER ROAD
ORANGE, CT 06477
TEL: (203) 298-4066
FAX: (203) 298-4068



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

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www.ct.gov/csc

May 19, 2014

Julie D. Kohler, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604

RE: Exempt Modification and Tower Share Conditions and Notification of Completion

Dear Attorney Kohler:

The Connecticut Siting Council (Council) acknowledges modifications to telecommunications facilities that satisfy the exemption criteria under Regulations of Connecticut State Agencies §16-50j-72. The Council also approves requests for shared use of existing telecommunications facilities that satisfy the criteria under Connecticut General Statutes §16-50aa and Regulations of Connecticut State Agencies §16-50j-89. The Council routinely imposes standard conditions in acknowledgments of exempt modifications and approvals of tower share requests, including a requirement that notification be provided to the Council upon completion of construction. The Council may also add site-specific conditions in acknowledgments of exempt modifications and approvals of tower share requests that require the requesting entities to provide written confirmation to the Council that the conditions have been met.

Council staff has conducted an audit of the exempt modifications and tower share decisions from January 1, 2013 through March 31, 2013, and has identified deficiencies in written notification of completion of construction and/or written notification of compliance with site-specific conditions.

Due to the merger between MetroPCS and T-Mobile, the Council is providing your office with a list for both carriers. Attached please find a list of exempt modifications and tower share requests that are currently not in compliance with the conditions imposed by the Council.

The Council hereby requests evidence of compliance on these matters before the close of business on July 1, 2014. If additional time is needed to gather the requested information, please submit a written request for an extension of time prior to July 1, 2014.

If you have any questions or concerns, please call the Council office at 860-827-2935.

Thank you for your attention to this matter.

Sincerely,

Melanie Bachman
Acting Executive Director

MB/cm



EM/TS.#	Address	Town	Council Additional Conditions	Compliance with Council Additional Conditions Received	Notice of Completion Received	Decision Date
EM-METROPICS-004-121228MA	10 Redwood Lane	Avon	N/A	N/A	No	2/13/2013
EM-METROPICS-007-121226-MA	260 Beckley Road	Bedin	N/A	N/A	No	1/30/2013
EM-METROPICS-011-121228-MA	1021 Blue Hills Avenue	Bloomfield	N/A	N/A	No	1/30/2013
EM-METROPICS-011-130215MA	785 Park Avenue	Bloomfield	N/A	N/A	No	3/12/2013
EM-METROPICS-014-121226A-MA	150 North Main Street	Branford	N/A	N/A	No	1/30/2013
EM-METROPICS-014-121226B-MA	4 Beaver Road	Branford	N/A	N/A	No	1/30/2013
EM-METROPICS-017-121228A-MA	790 Willis Road	Bristol	N/A	N/A	No	1/30/2013
EM-METROPICS-017-121228B-MA	371 Terryville Avenue	Bristol	N/A	N/A	No	1/30/2013
EM-METROPICS-025-121224-MA	1119 Summit Road	Cheshire	N/A	N/A	No	1/30/2013
EM-METROPICS-025-121228MA	500 Highland Avenue	Cheshire	N/A	N/A	No	2/4/2013
EM-METROPICS-025-130131MA	705 West Johnson Avenue	Cheshire	N/A	N/A	No	2/22/2013
EM-METROPICS-033-130125MA	160 West Street	Cromwell	N/A	N/A	No	2/19/2013
EM-METROPICS-033-130204MA	201 Main Street	Cromwell	N/A	N/A	No	2/22/2013
EM-METROPICS-033-121231-MA	179 Shunpike Road	Cromwell	N/A	N/A	No	3/5/2013
EM-METROPICS-043-130108	310 Prestige Park	East Hartford	N/A	N/A	No	2/13/2013
EM-METROPICS-043-121228MA	1455 Forbes Street	East Hartford	N/A	N/A	No	2/13/2013
EM-METROPICS-043-130115	148 Roberts Street	East Hartford	N/A	N/A	No	2/14/2013
EM-METROPICS-043-130226MA	100 Sunset Ridge Drive	East Hartford	N/A	N/A	No	3/15/2013
EM-METROPICS-047-121228MA	232 South Main Street	East Windsor	N/A	N/A	No	2/14/2013
EM-METROPICS-049-121228MA	Bright Meadow Boulevard	Enfield	N/A	N/A	No	2/13/2013
EM-METROPICS-049-130115	4 Oliver Road	Enfield	N/A	N/A	No	2/14/2013
EM-METROPICS-052-121228-MA	130a Birdseye Road	Farmington	N/A	N/A	No	1/30/2013
EM-METROPICS-052-130125A-MA	200 Colt Highway (Rte. 6)	Farmington	N/A	N/A	No	2/19/2013
EM-METROPICS-054-121224-MA	1679 New London Turnpike	Glastonbury	N/A	N/A	No	1/30/2013
EM-METROPICS-054-121228MA	2577 Main Street	Glastonbury	N/A	N/A	No	2/4/2013
EM-METROPICS-062-121226-MA	2755 State Street	Hamden	N/A	N/A	No	1/30/2013
EM-METROPICS-062-130204MA	890 Evergreen Avenue	Hamden	N/A	N/A	No	2/22/2013
EM-METROPICS-064-121228A-MA	99 Meadow Street	Hartford	N/A	N/A	No	1/30/2013
EM-METROPICS-064-121228B-MA	289 Mountain Street	Hartford	N/A	N/A	No	1/30/2013

EM-METROPACS-132-121228B-MA	300 Governors Highway	South Windsor	N/A	N/A	No	2/14/2013
EM-METROPACS-131-121231A-MA	625 Spring Street	Southington	N/A	N/A	No	2/14/2013
EM-METROPACS-131-121231B-MA	80 Shurtle Meadow Road	Southington	N/A	N/A	No	2/14/2013
EM-METROPACS-131-130125MA	1394 Route 322	Southington	N/A	N/A	No	2/19/2013
EM-METROPACS-139-121224-MA	848 East Street South	Suffield	N/A	N/A	No	1/30/2013
EM-METROPACS-052-130125B-MA	319 New Britain Avenue	Unionville	N/A	N/A	No	2/19/2013
EM-METROPACS-148-121224-MA	90 North Plains Industrial Road	Wallingford	N/A	N/A	No	1/30/2013
EM-METROPACS-148-121228MA	316 Woodhouse Avenue	Wallingford	N/A	N/A	No	2/6/2013
EM-METROPACS-148-130114MA	922 Northrop Road	Wallingford	N/A	N/A	No	2/13/2013
EM-METROPACS-151-121231-MA	150 Mattatuck Heights Road	Waterbury	N/A	N/A	No	2/14/2013
EM-METROPACS-151-130204MA	184 Garden Hill Circle	Waterbury	N/A	N/A	No	2/22/2013
EM-METROPACS-151-130103MA	299 Sheffield Street	Waterbury	N/A	N/A	No	3/5/2013
EM-METROPACS-155-121228A-MA	471 South Quaker Lane	West Hartford	N/A	N/A	No	1/30/2013
EM-METROPACS-155-121228B-MA	1358 New Britain Avenue	West Hartford	N/A	N/A	No	1/31/2013
EM-METROPACS-155-130125A-MA	3114 Albany Avenue	West Hartford	N/A	N/A	No	2/19/2013
EM-METROPACS-155-130125B-MA	1050 New Britain Avenue	West Hartford	N/A	N/A	No	2/19/2013
EM-METROPACS-156-130107MA	668 Jones Hill Road	West Haven	N/A	N/A	No	1/29/2013
EM-METROPACS-156-121231A-MA	24 Rockdale Road	West Haven	N/A	N/A	No	2/14/2013
EM-METROPACS-156-121231B-MA	85 Plainfield Avenue	West Haven	N/A	N/A	No	2/14/2013
EM-METROPACS-159-130104MA	23 Kelleher Court	Wethersfield	N/A	N/A	No	1/29/2013
EM-METROPACS-159-130108	75 Wells Road	Wethersfield	N/A	N/A	No	1/29/2013
EM-METROPACS-164-121228A-MA	99 Day Hill Road	Windsor	N/A	N/A	No	2/13/2013
EM-METROPACS-164-121228B-MA	419 Broad Street	Windsor	N/A	N/A	No	2/13/2013
EM-METROPACS-164-121228C-MA	50 Pine Lane	Windsor	N/A	N/A	No	2/13/2013
EM-METROPACS-165-130108	4 Volunteer Road	Windsor Locks	N/A	N/A	No	1/29/2013
EM-METROPACS-166-121228MA	347 East Street	Wolcott	N/A	N/A	No	2/7/2013
EM-METROPACS-167-121224-MA	77 Pease Road	Woodbridge	N/A	N/A	No	1/30/2013

EM-METROPICS-064-121228C-MA	439-455 Homestead Avenue	Hartford	N/A	N/A	No	1/30/2013
EM-METROPICS-064-130115	219 New Park Avenue	Hartford	N/A	N/A	No	2/14/2013
EM-METROPICS-066-121228MA	159 Weingart Road	Harwinton	N/A	N/A	No	2/13/2013
EM-METROPICS-074-130103MA	218 Wheeler Road	Litchfield	N/A	N/A	No	3/5/2013
EM-METROPICS-077-130110MA	239 East Middle Turnpike	Manchester	N/A	N/A	No	2/13/2013
EM-METROPICS-077-121228MA	53 Slater Street	Manchester	N/A	N/A	No	2/13/2013
EM-METROPICS-080-130131MA	West Peak Road	Meriden	N/A	N/A	No	2/19/2013
EM-METROPICS-082-121231-MA	238 Meriden Road	Middlefield	N/A	N/A	No	3/5/2013
EM-METROPICS-083-121224A-MA	290 Preston Ave.	Middletown	N/A	N/A	No	1/30/2013
EM-METROPICS-083-121224B-MA	90 Industrial Park Road	Middletown	N/A	N/A	No	1/30/2013
EM-METROPICS-083-121231-MA	50 Fairchild Road	Middletown	N/A	N/A	No	2/14/2013
EM-METROPICS-084-121228MA	185 Research Drive	Milford	N/A	N/A	No	2/6/2013
EM-METROPICS-089-121217A-MA	723 Farmington Avenue	New Britain	N/A	N/A	No	1/9/2013
EM-METROPICS-089-121217B-MA	1 Hartford Square	New Britain	N/A	N/A	No	1/9/2013
EM-METROPICS-089-121217C-MA	1367 East Street	New Britain	N/A	N/A	No	1/11/2013
EM-METROPICS-089-121228-MA	200 Stanley Street	New Britain	N/A	N/A	No	1/30/2013
EM-METROPICS-093-130107MA	389 Forbes Avenue	New Haven	N/A	N/A	No	2/25/2013
EM-METROPICS-094-121228A-MA	123 Costello Road	Newington	N/A	N/A	No	1/30/2013
EM-METROPICS-094-121228B-MA	605 Willard Avenue	Newington	N/A	N/A	No	1/30/2013
EM-METROPICS-094-121228C-MA	99 Cedarwood Lane	Newington	N/A	N/A	No	1/30/2013
EM-METROPICS-099-121228MA	150 Foxon Road	North Branford	N/A	N/A	No	2/4/2013
EM-METROPICS-099-130304MA	88 Parsonage Hill Road	North Branford	N/A	N/A	No	3/26/2013
EM-METROPICS-101-121231A-MA	117 Washington Avenue	North Haven	N/A	N/A	No	2/14/2013
EM-METROPICS-101-121231B-MA	2 Dwight Street	North Haven	N/A	N/A	No	2/14/2013
EM-METROPICS-101-130125MA	50 Divine Street	North Haven	N/A	N/A	No	2/19/2013
EM-METROPICS-107-121224-MA	525 South Orange Center Road	Orange	N/A	N/A	No	1/30/2013
EM-METROPICS-110-130115	10 Sparks Street	Plainville	N/A	N/A	No	2/13/2013
EM-METROPICS-110-130215MA	77 West Main Street	Plainville	N/A	N/A	No	3/12/2013
TS-METROPICS-110-130227MA	335 S Washington Street	Plainville	N/A	N/A	No	3/25/2013
EM-METROPICS-119-121224A-MA	902 France St. (aka North St)	Rocky Hill	N/A	N/A	No	1/30/2013
EM-METROPICS-119-121224B-MA	699 West Street	Rocky Hill	N/A	N/A	No	1/30/2013
EM-METROPICS-119-121231-MA	699 Old Main Street	Rocky Hill	N/A	N/A	No	2/14/2013
EM-METROPICS-124-121228MA	6 Progress Avenue	Seymour	N/A	N/A	No	2/6/2013
EM-METROPICS-132-121228A-MA	59 McGuire Road	South Windsor	N/A	N/A	No	2/14/2013



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

E-Mail: siting.council@ct.gov

www.ct.gov/csc

February 14, 2013

Jacky Clifford
Tower Resource Management, Inc.
16 Chestnut Street, Suite 220
Foxborough, MA 02035

RE: **EM-METROPCS-043-130115MA** - MetroPCS Massachusetts, LLC notice of intent to modify an existing telecommunications facility located at 148 Roberts Street, East Hartford, Connecticut.

Dear Ms. Clifford:

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

- Any deviation from the proposed modification as specified in this notice and supporting materials with Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice received January 15, 2013. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Linda Roberts
Executive Director

LR/CDM/laf

c: The Honorable Marcia A. Leclerc, Mayor, Town of East Hartford
Michael J. Dayton, Town Planner, Town of East Hartford
Global Tower Partners



**METROPCS MASSACHUSETTS, LLC NOTICE OF INTENT TO MODIFY
AN EXISTING TELECOMMUNICATIONS FACILITY AT
148 ROBERTS STREET, EAST HARTFORD, CT 06108**

Pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes § 16-50g et. Seq. (“PUESA”), and Sections 16-50j-72(b) and 16-50j-73 of the Regulations of Connecticut State Agencies (“R.C.S.A”) adopted pursuant to the PUESA, Metro PCS, Inc., by and through its agent MetroPCS Massachusetts, LLC (“MetroPCS”) and as successor in interest to Pocket Communications hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at 148 Roberts Street, East Hartford, Connecticut 06108. The telecommunications facility is owned by Global Tower Partners and leased to MetroPCS

MetroPCS’ Proposed Wireless Modifications

MetroPCS as successor in interest to Pocket Communications achieved an initial exempt modification approval from the Siting Council to install antennas and related ground equipment on July 28, 2011. The facility consists of a one hundred thirty (130) foot high self-support monopole telecommunications tower (the “Tower”) within a fenced compound. MetroPCS now intends to modify the facility as shown on the enclosed plans prepared by Chappell Engineering Associates, LLC and annexed hereto as Exhibit 1. The modifications will consist of ground work only and includes installing equipment within the existing MetroPCS lease area. The modifications consist of removing the one (1) existing radio cabinet and replacing with one (1) proposed radio cabinet and one (1) proposed battery cabinet. The existing ppc cabinet will remain resulting in a final ground configuration of one (1) radio cabinet, one (1) battery cabinet and one (1) ppc cabinet all within the existing metroPCS lease area. MetroPCS will not be modifying the existing antennas and related equipment installed on the tower at this time and therefore; will not affect the structural capacity of the existing tower.

In accordance with R.C.S.A Section 16-50j-73, a copy of this submission is being sent to **The Town Assessor’s Office – Brian Smith, 740 Main Street, East Hartford, CT 06108**. A copy of this submission is also being sent to **Double E Properties of East Hartford (The Master Club, LLC.) 148 Roberts Street, East Hartford, CT 06108** the property owner on which the tower is located.

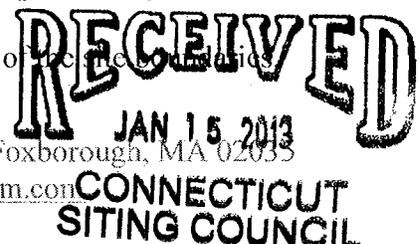
MetroPCS’ Proposed Wireless Modifications Constitutes An “Exempt Modification”

The proposed modification to the Roberts Street Facility constitutes an exempt modification of an existing facility provided for in R.C.S.A Section 16-50j-72(b)(2) and Council regulations promulgated pursuant thereto.

- 1) The proposed modifications are restricted to ground equipment only and will not result in an increase in the height of the existing tower.
- 2) The proposed modifications will not require expansion of the telecommunications facility.

TRM Inc. - Jacky Clifford, 16 Chestnut Street, Suite 220, Foxborough, MA 02035

Contact: 508-446-1047 or jclifford@trmcom.com



- 3) The proposed modifications will not increase noise levels at the facility by six decibels or more.
- 4) MetroPCS' proposed facility will not increase the cumulative radio frequency electromagnetic radiation power density at the Tower site's boundary to or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. A cumulative General Power Density table for MetroPCS' proposed modified facility is included as Exhibit 2.

For all the foregoing reasons, MetroPCS' respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A Section 16-50j-72(b)(2)

Respectfully submitted,

TRM Inc. – Jacky Clifford, 16 Chestnut Street, Suite 220, Foxborough, MA 02035
Contact # 508-446-1047 or e-mail jclifford@trmcom.com
On behalf of MetroPCS Massachusetts, LLC

cc: The Town Assessor's Office – Brian Smith, 740 Main Street, East Hartford, CT 06108

**Property Owner: Double E Properties of East Hartford (The Master Club, LLC.) 148
Roberts Street, East Hartford, CT 06108**

Exhibit 1

Site Plan

metroPCS.

Unlimit Yourself.

HFC1287B

GTP ROBERTS STREET EAST HARTFORD

148 ROBERTS STREET
EAST HARTFORD, CT 06108
HARTFORD COUNTY

GTP SITE: CT-5037

SITE TYPE: COLOCATION ON EXISTING MONOPOLE

SITE INFORMATION:

PROPERTY OWNER: DOUBLE E PROPERTIES OF EAST HARTFORD (W/A THE MASTERS CLUB, LLC.)
148 ROBERTS STREET
EAST HARTFORD, CT 06108

TOWER OWNER: GLOBAL TOWER PARTNERS
750 PARK OF COMMERCE BLVD., SUITE 300
BOCA RATON, FL 33487

TOWER OWNER SITE ID: CT-5037

APPLICANT: MetroPCS MASSACHUSETTS, LLC
285 BILLERICA ROAD, THIRD FLOOR
CHELMSFORD, MA 01824
(978) 244-7200

SITE ADDRESS: 148 ROBERTS STREET
EAST HARTFORD, CT 06108

COUNTY: HARTFORD

LATITUDE: N 41.773338°

LONGITUDE: W 72.613464°

ZONING CLASSIFICATION: I-2 (INDUSTRIAL 2)

ZONING JURISDICTION: TOWN OF EAST HARTFORD

TAX ID PARCEL NUMBER: MAP 35 LOT 18

ARCHITECT / ENGINEER: CHAPPELL ENGINEERING ASSOCIATES, I.L.C.
201 BOSTON POST ROAD WEST, SUITE 301
MARLBOROUGH, MA 01752

POWER COMPANY: CONNECTICUT LIGHT & POWER
CENTRAL DIVISION
P.O. BOX 270
HARTFORD, CT 06141
(800) 286-2000

TELEPHONE COMPANY: AT&T CONNECTICUT
2147 SUMMER STREET
STAMFORD, CT 06905-4523
(203) 708-9992

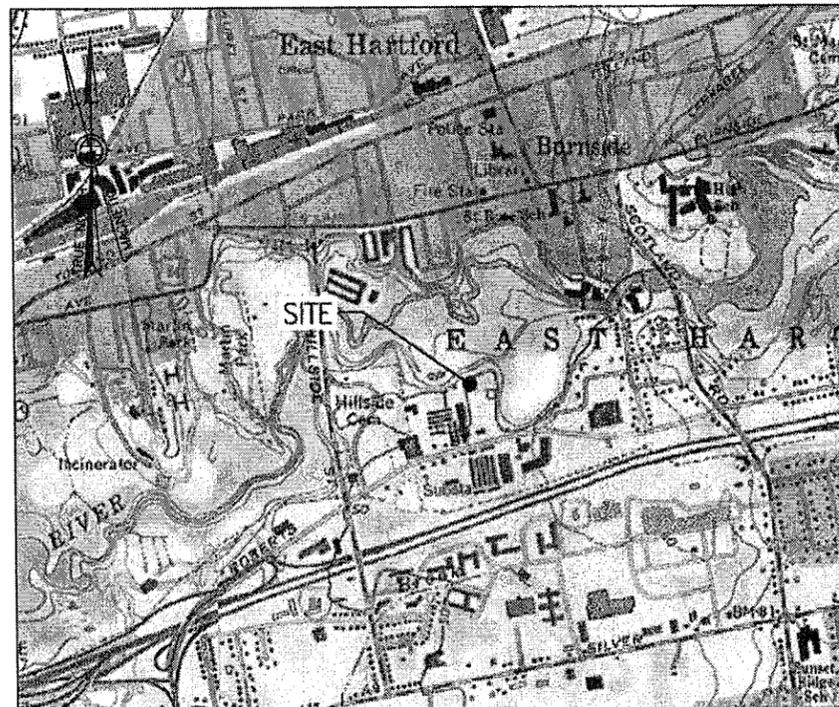
SITE ACQUISITION MANAGER: KELLIE DUNN
(978) 244-7200

CONSTRUCTION MANAGER: DAVE BEAN
(978) 244-7200

OPS CONTACT: MIKE WILBANKS
(978) 244-7200

VICINITY MAP

SCALE: 1"=1000'



DRIVING DIRECTIONS

TAKE I-495 SOUTH TOWARD MARLBOROUGH. TAKE EXIT 25B FOR I-290 WEST TOWARD WORCESTER. TAKE EXIT 7 FOR I-90 / MASS PIKE. FOLLOW SIGNS FOR I-90 WEST / SPRINGFIELD / ALBANY AND MERGE ONTO I-90 WEST. TAKE EXIT 9 FOR I-84 WEST TOWARD US-20 / HARTFORD / NEW YORK CITY. TAKE EXIT 58 FOR ROBERTS STREET TOWARD SILVER LANE / BURNSIDE AVENUE. TURN RIGHT ONTO ROBERTS STREET. SITE WILL BE LOCATED ON THE LEFT HAND SIDE.

APPROVALS

LANDLORD: _____

FIELD CONST. MGR: APPROVED
By Greg Knight at 2:57 pm, Aug 02, 2011

RF ENGINEER: APPROVED
By Frantz Pierre at 3:41 pm, Jul 29, 2011

SITE ACQUISITION AGENT: _____

ARCHITECT/ENGINEER: _____

SHEET INDEX

DWG.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
C-1	PROPERTY PLAN	1
A-1	COMPOUND PLAN & ELEVATION	1
S-1	EQUIPMENT PLAN, SECTIONS & DETAILS	1
S-2	ANTENNA MOUNTING PLAN, SCHEDULES & DETAILS	1
E-1	ONE-LINE DIAGRAM, RISER, DETAILS & NOTES	1
E-2	GROUNDING DETAILS	1

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT DESCRIPTION

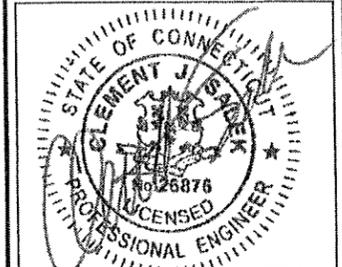
- THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
- THIS FACILITY WILL CONSUME NO UNRECOVERABLE ENERGY.
- NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
- NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.
- NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.
- METRO PCS MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT.

metroPCS.
Unlimit Yourself.

285 BILLERICA ROAD
THIRD FLOOR
CHELMSFORD, MA 01824
TEL (978) 244-7200
FAX (978) 244-7240

CHAPPELL
ENGINEERING
ASSOCIATES, LLC
Civil - Structural - Land Surveying

R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 301
MARLBOROUGH, MA 01752
(508) 481-7400
www.choppellengineering.com



ENGINEER/LAND SURVEYOR DATE

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

REVISIONS

REV. #	DATE	DESCRIPTION
1	07/28/11	ISSUED FOR Z/C FINAL
0	07/25/11	ISSUED FOR Z/C REVIEW

PROJECT NO.	DESIGNED BY:	SCALE:
736.387	JMT	AS SHOWN

SITE NAME:
HFC1287B
GTP ROBERTS STREET
EAST HARTFORD

SITE ADDRESS:
148 ROBERTS STREET
EAST HARTFORD, CT 06108

DRAWING TITLE:
TITLE SHEET

DRAWING NO:
T-1

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR - METRO PCS
 SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER - METRO PCS
 OEM - ORIGINAL EQUIPMENT MANUFACTURER
- 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.
- 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, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND 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 AND/OR LANDLORD PRIOR TO CONSTRUCTION.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
- THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
- CONSTRUCTION SHALL COMPLY WITH ALL METRO PCS STANDARDS AND SPECIFICATIONS.
- 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.
- THE EXISTING CELL SITES ARE 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 SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- IF THE EXISTING CELL SITE IS 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 TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

- THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
- ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE METRO PCS SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301 CODE REQUIREMENTS
- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 CONCRETE CAST AGAINST EARTH.....3 IN.
 CONCRETE EXPOSED TO EARTH OR WEATHER:
 #6 AND LARGER2 IN.
 #5 AND SMALLER & WWF1 1/2 IN.
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
 SLAB AND WALL3/4 IN.
 BEAMS AND COLUMNS1/2 IN.
- A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
- CONCRETE CYLINDER TEST IS NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER:
 (A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIER'S PLANT.
 (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
 FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
- AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
- EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

- ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND METRO PCS SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
- BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (9/8") AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 3/8" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
- ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

- EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
- COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
- AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
 4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED, PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.
 5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E), AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

- HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

- FIELD VERIFICATION: SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, METRO PCS ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
- COORDINATION OF WORK: SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
- CABLE LADDER RACK: SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

- WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLEING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSIA, AND MATCH INSTALLATION REQUIREMENTS.
- POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSIA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKETS; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENGAGED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

metroPCS
 Unlimit Yourself.

285 BILLERICA ROAD
 THIRD FLOOR
 CHELMSFORD, MA 01824
 TEL (978) 244-7200
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 Civil - Structural - Land Surveying

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 201 BOSTON POST ROAD WEST, SUITE 301
 MARLBOROUGH, MA 01752
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 www.chappellengineering.com

STATE OF CONNECTICUT
 ROBERT J. ROBERTS
 LICENSED PROFESSIONAL ENGINEER
 LICENSE NO. 26876
 07/25/11
 ENGINEER/LAND SURVEYOR DATE

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

REVISIONS		
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1	07/28/11	ISSUED FOR Z/C FINAL
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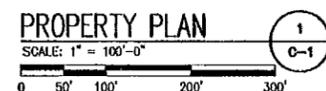
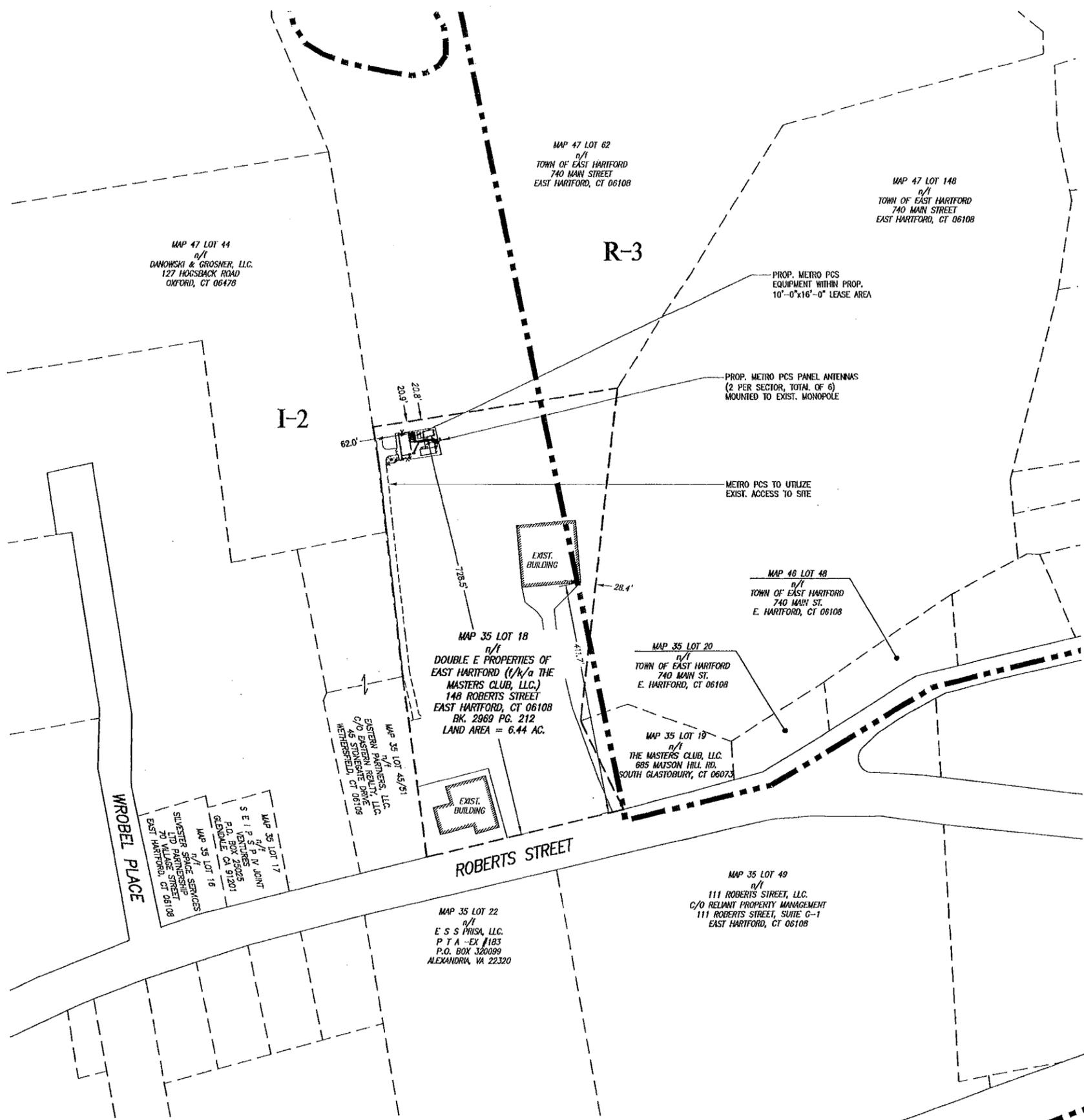
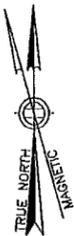
PROJECT NO. 736.387	DESIGNED BY: JMT DRAWN BY: CMC CHECK'D BY: JMT	SCALE: AS SHOWN
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SITE NAME:
**HFC1287B
 GTP ROBERTS STREET
 EAST HARTFORD**

SITE ADDRESS:
 148 ROBERTS STREET
 EAST HARTFORD, CT 06108

DRAWING TITLE:
GENERAL NOTES

DRAWING NO.:
GN-1



GENERAL NOTES:

- FIELD SURVEY DATE: 04/21/11
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
- HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83)
- SITE CONTROL POINT: CENTER OF MONOPOLE
LATITUDE: N.41.773338° (NAD 83)
LONGITUDE: W.72.613464° (NAD 83)
- PROPERTY OWNER: DOUBLE E PROPERTIES OF EAST HARTFORD (1/4/a THE MASTERS CLUB, LLC.)
148 ROBERTS STREET
EAST HARTFORD, CT 06108
- SITE NAME: 148 ROBERTS STREET
EAST HARTFORD, CT 06108
- SITE ADDRESS: 148 ROBERTS STREET
EAST HARTFORD, CT 06108
- APPLICANT: MetroPCS MASSACHUSETTS, LLC
285 BILLERICA ROAD, THIRD FLOOR
CHELMSFORD, MA 01824
- JURISDICTION: TOWN OF EAST HARTFORD
- TAX ID: MAP 35 LOT 18
- DEED REFERENCE: BK. 2969 PG. 212
- PLAN REFERENCES: TOWN OF EAST HARTFORD ASSESSOR/GIS MAPS
- ZONING JURISDICTION: I-2 (INDUSTRIAL 2)
- ALL UNDERGROUND UTILITY INFORMATION PRESENTED HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO THE COMMENCEMENT OF ANY SITE WORK. CALL DIGSAFE 1-888-344-7233 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
- THE PROPERTY LINES SHOWN WERE COMPILED UTILIZING TOWN ASSESSOR'S PLANS, GIS, RECORDED DEEDS AND PLANS OF REFERENCE AS INDICATED.
- THE SITE IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON FLOOD INSURANCE RATE MAP FOR THE TOWN OF EAST HARTFORD, COMMUNITY PANEL 09003G MAP 0388F DATED 09/26/2008.
- BEARING SYSTEM OF THIS PLAN IS BASED ON TRUE NORTH. TRUE NORTH WAS ESTABLISHED FROM EXIST. PLAN REFERENCE. IT IS NOT INTENDED TO BE AN EXACT REPRESENTATION OF TRUE NORTH.

LEGEND

- PROPERTY LINE
- - - - - ABUTTING PROPERTY LINE
- - - - - EXIST. EASEMENT
- x - x - x - EXIST. CHAIN LINK FENCE
- o - o - o - EXIST. STOCKADE FENCE
- - - - - EXIST. EDGE OF PAVEMENT
- OHW - OHW - EXIST. OVERHEAD UTILITIES
- OHW - OHW - PROP. OVERHEAD UTILITIES
- T/E - T/E - T/E - PROP. UTILITIES
- (o) - EXIST. UTILITY POLE
- - - - - ZONING BOUNDARY

ZONING DISTRICT LEGEND

I-2	INDUSTRIAL 2
R-3	RESIDENCE 3

ZONING INFORMATION

ZONING DISTRICT: I-2 - INDUSTRIAL 2			
DESCRIPTION	REQUIRED	EXISTING	PROP.
MIN. LOT AREA	20,000 S.F.	8.3 AC.±	N/A
MIN. LOT FRONTAGE	70'	372.0'±	N/A
PROPERTY SETBACKS	FRONT	25'	411.7'±
	SIDE	10'	28.4'±
	REAR	25'	20.8'±
MAX. HEIGHT	50'	130.0'±	100.0'±

NOTE:

- PLOT PLAN BASE ON TOWN OF EAST HARTFORD ASSESSORS MAPS AND FIELD VISIT BY CHAPPELL ENGINEERING ASSOCIATES, LLC. ON 04/21/11.
- SETBACKS ARE TAKEN FROM THE CLOSEST POINT OF EQUIPMENT TO PROPERTY LINES.

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ENGINEER/LAND SURVEYOR DATE

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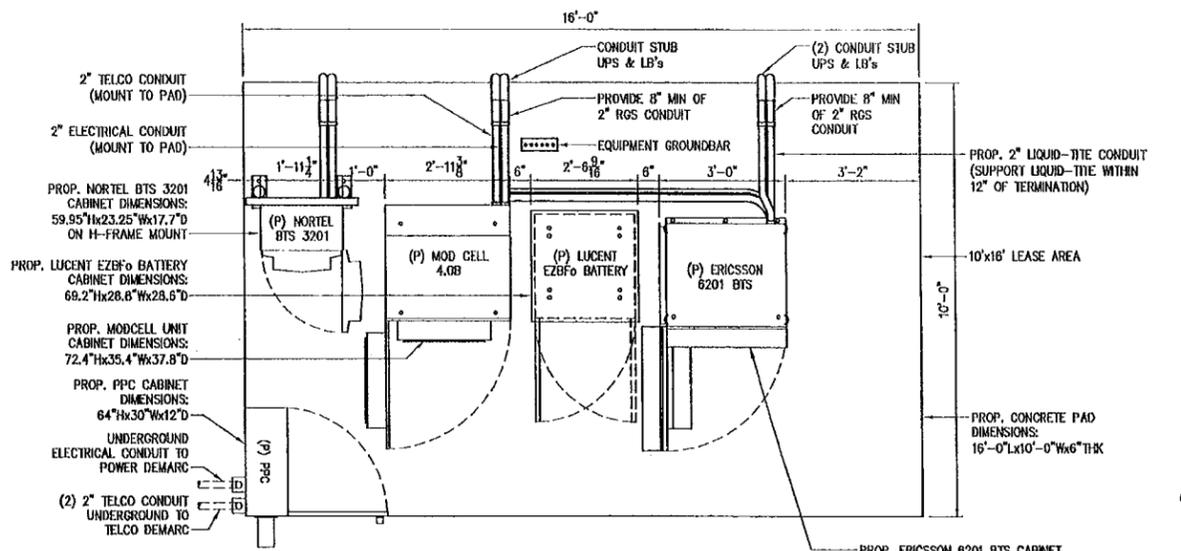
PROJECT NO. 736.387	DESIGNED BY: JMT DRAWN BY: CMC CHECKED BY: JMT	SCALE: 1" = 100'
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SITE NAME:
**HFC1287B
GTP ROBERTS STREET
EAST HARTFORD**

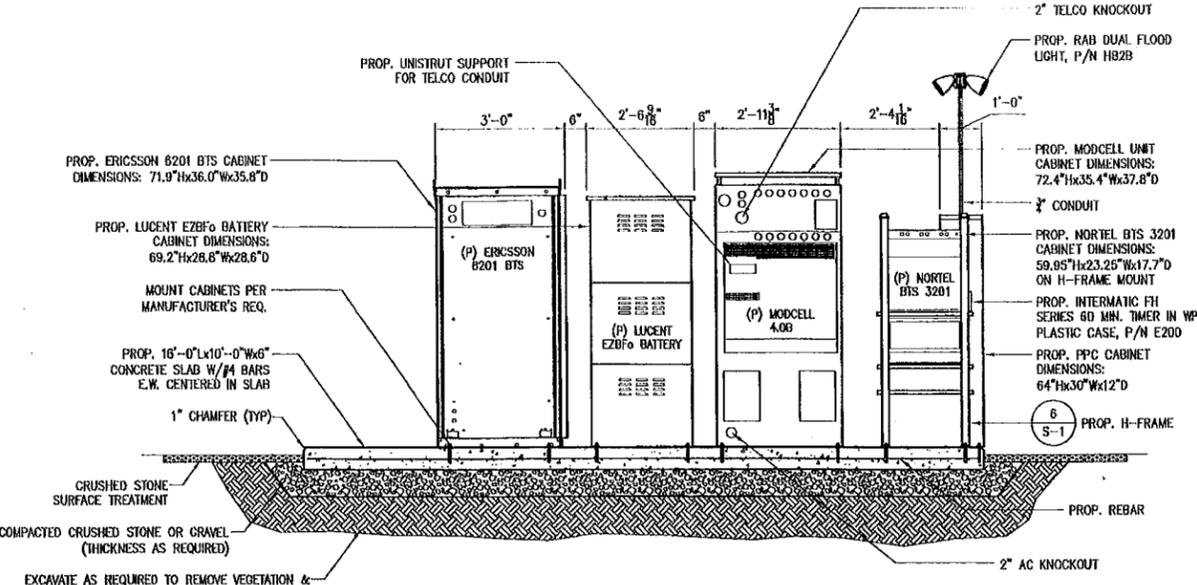
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148 ROBERTS STREET
EAST HARTFORD, CT 06108

DRAWING TITLE:
PROPERTY PLAN

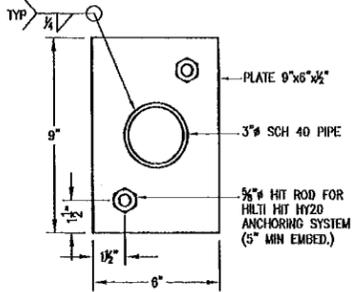
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C-1



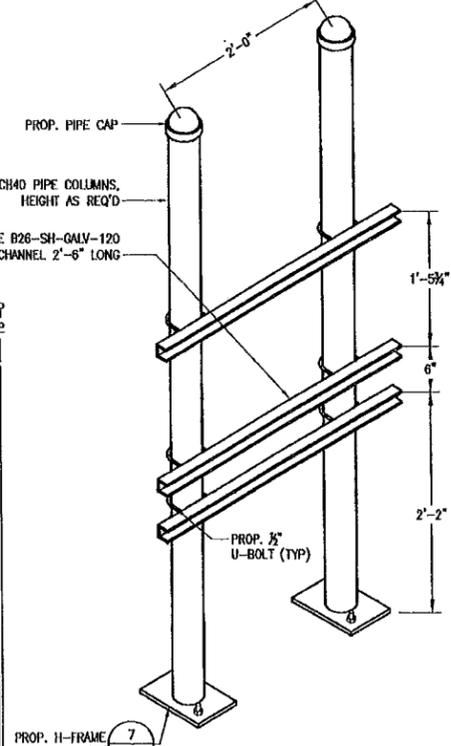
PLAN AT EQUIPMENT PAD
SCALE: 1/2" = 1'-0"
S-1



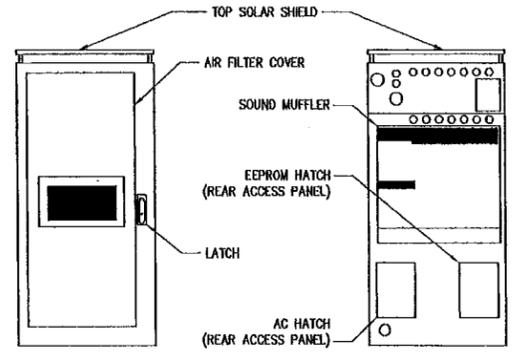
SECTION AT EQUIPMENT PAD
SCALE: 1/2" = 1'-0"
S-1



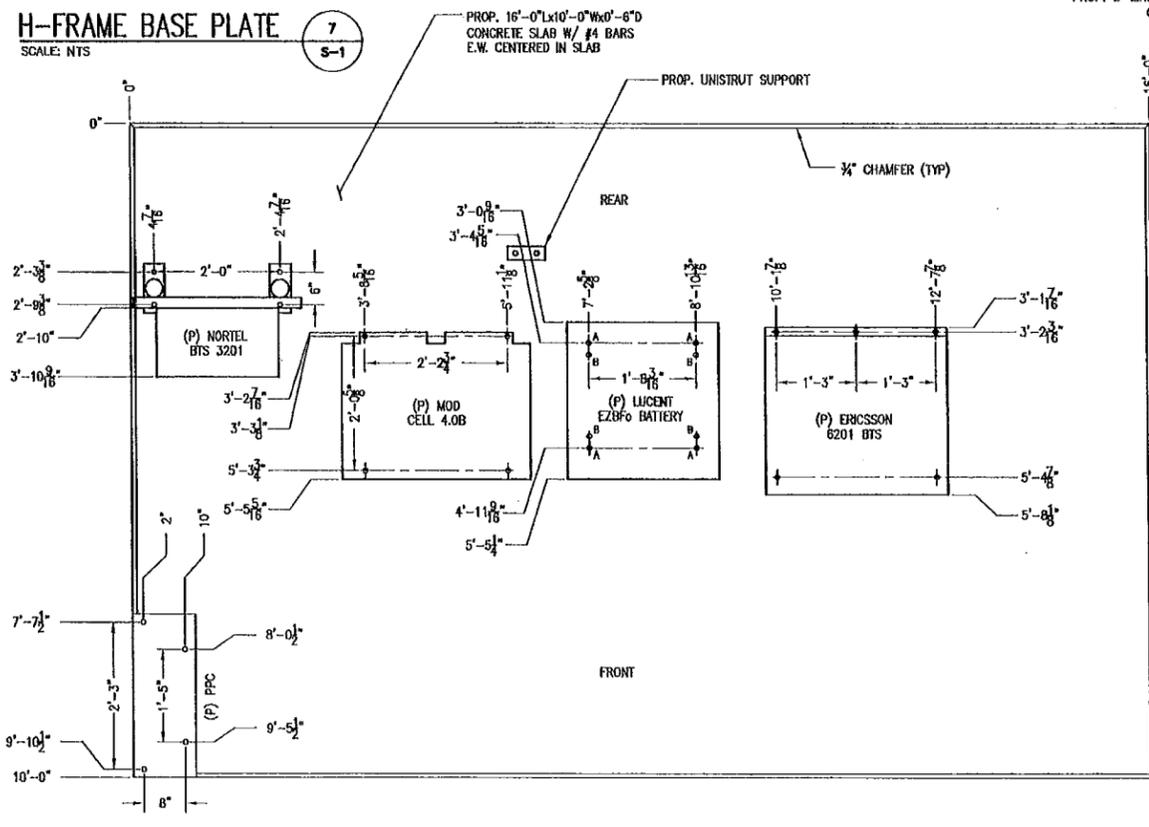
H-FRAME BASE PLATE
SCALE: NTS
S-1



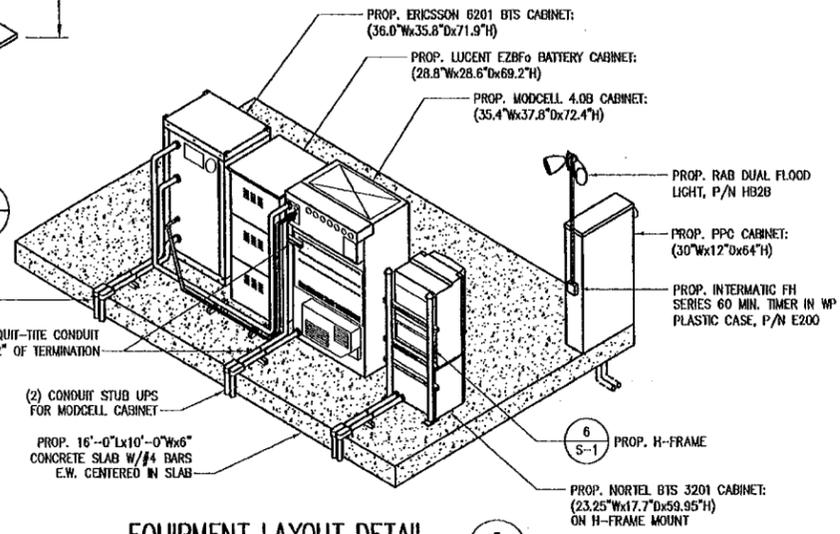
H-FRAME
SCALE: NTS
S-1



EQUIPMENT CABINET DETAIL
SCALE: NOT TO SCALE
S-1



ANCHORING FOOTPRINT DETAIL
SCALE: 3/4" = 1'-0"
S-1



EQUIPMENT LAYOUT DETAIL
SCALE: NOT TO SCALE
S-1

- NOTES:**
1. MOUNT CABINETS TO CONCRETE PAD PER MANUFACTURER'S REQUIREMENTS.
 2. PROVIDE 3'-0" MIN SERVICE ACCESS IN FRONT AND REAR OF ALL CABINETS.
 3. MOUNT PPC TO CONCRETE WITH PROVIDED HARD RUBBER GASKET TO MINIMIZE CORROSION.

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STATE OF CONNECTICUT
CLEMENT J. [Signature]
No. 26876
LICENSED PROFESSIONAL ENGINEER

ENGINEER/LAND SURVEYOR DATE

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DRAWN BY: CMC
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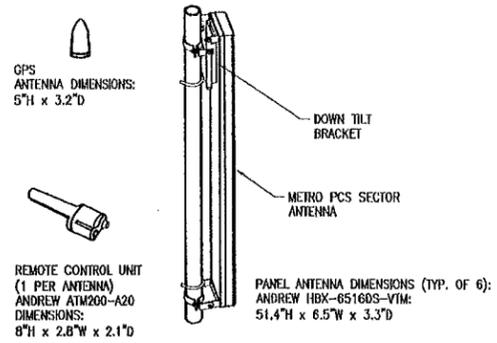
SITE ADDRESS:
148 ROBERTS STREET
EAST HARTFORD, CT 06108

DRAWING TITLE:
EQUIPMENT PLAN,
SECTIONS & DETAILS

DRAWING NO.:
S-1

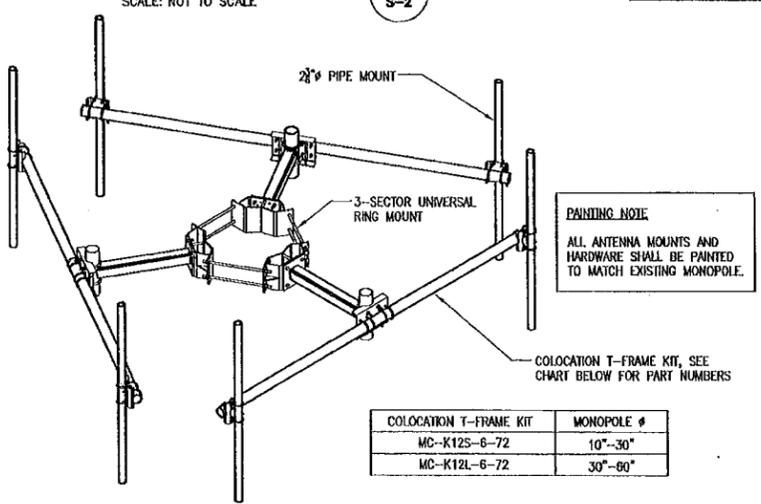
RF SYSTEM SCHEDULE

ANTENNA INFORMATION								MAIN FEEDLINE				TOP JUMPER		BOTTOM JUMPER		RET SYSTEM INFO					
SECTOR	TYPE	AZIMUTH	ELECTRICAL DOWNTILT	MECHANICAL DOWNTILT	RAD CTR, AGL	MAKE	MODEL	FEED	CABLE	MFG	LENGTH	COLOR	SIZE	LENGTH	SIZE	LENGTH	MFG	MODEL	CABLE	LENGTH	
ALPHA	Tx/Rx	0°	-2°	-	100'±	ANDREW	HBX-6516DS-VTM	BOTTOM	FXL-1873	COMMSCOPE	155'±	I R	1/2"	6'	1/2"	6'	ANDREW	ATM200-A20	3/8"	(860-100mm)	155'±
								BOTTOM	FXL-1873	COMMSCOPE	155'±	II R	1/2"	6'	1/2"	6'					
	Tx/Rx	0°	-2°	-	100'±	ANDREW	HBX-6516DS-VTM	BOTTOM	FXL-1873	COMMSCOPE	155'±	TBD	1/2"	6'	1/2"	6'	ANDREW	ATM200-A20	3/8"	(860-10010)	10M, 32.8'± (DIASY CHAIN)
								BOTTOM	FXL-1873	COMMSCOPE	155'±	TBD	1/2"	6'	1/2"	6'					
BETA	Tx/Rx	130°	-2°	-	100'±	ANDREW	HBX-6516DS-VTM	BOTTOM	FXL-1873	COMMSCOPE	155'±	I B	1/2"	6'	1/2"	6'	ANDREW	ATM200-A20	3/8"	(860-10010)	10M, 32.8'± (DIASY CHAIN)
								BOTTOM	FXL-1873	COMMSCOPE	155'±	II B	1/2"	6'	1/2"	6'					
	Tx/Rx	130°	-2°	-	100'±	ANDREW	HBX-6516DS-VTM	BOTTOM	FXL-1873	COMMSCOPE	155'±	TBD	1/2"	6'	1/2"	6'	ANDREW	ATM200-A20	3/8"	(860-10010)	10M, 32.8'± (DIASY CHAIN)
								BOTTOM	FXL-1873	COMMSCOPE	155'±	TBD	1/2"	6'	1/2"	6'					
GAMMA	Tx/Rx	240°	-2°	-	100'±	ANDREW	HBX-6516DS-VTM	BOTTOM	FXL-1873	COMMSCOPE	155'±	I G	1/2"	6'	1/2"	6'	ANDREW	ATM200-A20	3/8"	(860-10010)	10M, 32.8'± (DIASY CHAIN)
								BOTTOM	FXL-1873	COMMSCOPE	155'±	II G	1/2"	6'	1/2"	6'					
	Tx/Rx	240°	-2°	-	100'±	ANDREW	HBX-6516DS-VTM	BOTTOM	FXL-1873	COMMSCOPE	155'±	TBD	1/2"	6'	1/2"	6'	ANDREW	ATM200-A20	3/8"	(860-10010)	10M, 32.8'± (DIASY CHAIN)
								BOTTOM	FXL-1873	COMMSCOPE	155'±	TBD	1/2"	6'	1/2"	6'					
-	GPS	-	-	-	10'±	PCTEL	KS24019	BOTTOM	1/2"	COMMSCOPE	25'±	TBD	-	-	-	-	-	-	-	-	



GPS AND PANEL ANTENNA DETAIL

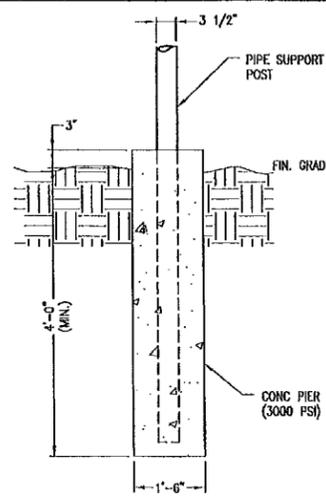
1 S-2



ANTENNA MOUNT

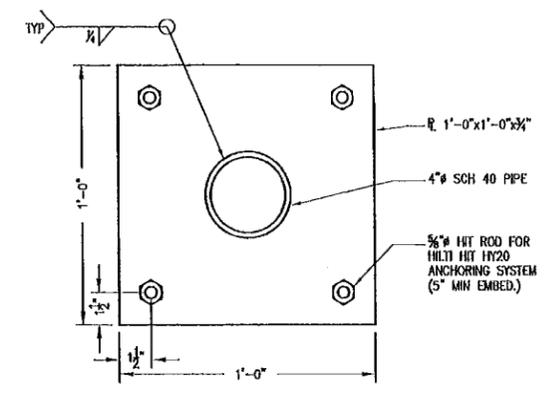
2 S-2

- NOTES:
- FOR EXPOSED LEDGE, PROVIDE GROUT LEVELING PAD. INSTALL (2) 3/8" EXPANSION ANCHORS, 6" LONG.
 - FOR BURIED LEDGE AT LESS THAN 3"-6" BELOW FINISH GRADE, CORE 8" HOLE INTO LEDGE 18" DEEP. FILL AROUND PIPE WITH NON-SHRINK GROUT. USE COAL TAR ON BURIED LENGTH OF PIPE, AND BACKFILL TO FINISH GRADE.
 - FOR CONCRETE, FASTEN BASEPLATE W/ (2) 3/8" EXPANSION ANCHORS, 6" LONG.
 - FOR POSTS ON CONCRETE OR EXPOSED LEDGE, PROVIDE 4"x8"x3/8" BASEPLATE WITH (2) 1/2" HOLES 6" O.C.



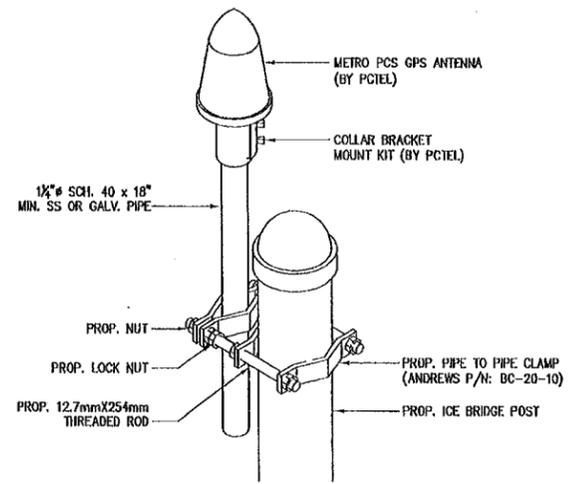
CABLE BRIDGE PIER

5 S-2



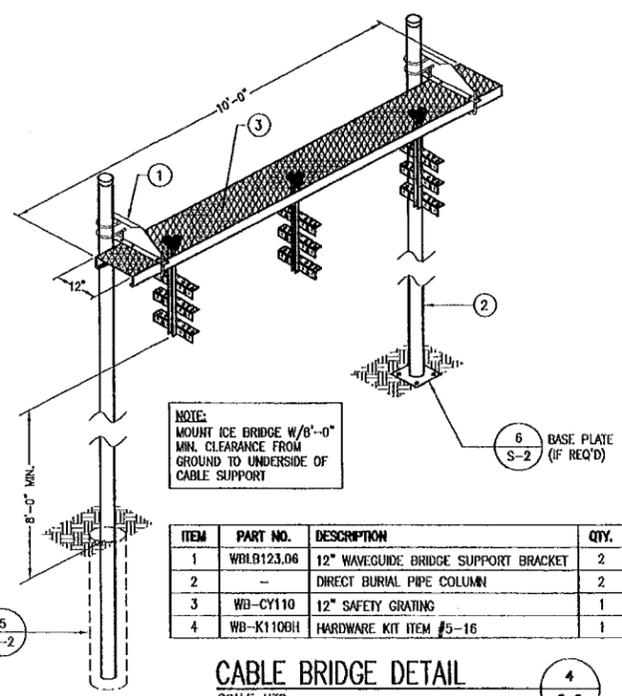
CABLE BRIDGE BASE PLATE

6 S-2



GPS MOUNTING DETAIL

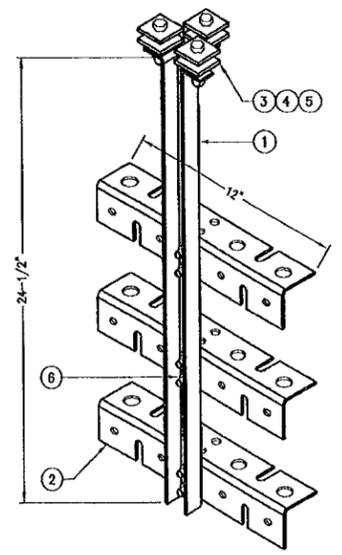
3 S-2



CABLE BRIDGE DETAIL

4 S-2

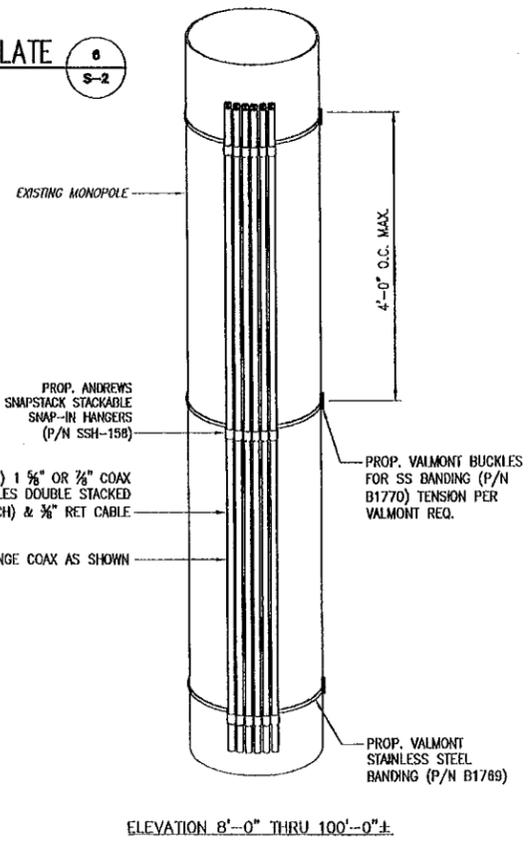
ITEM	PART NO.	DESCRIPTION	QTY.
1	WDLB123.06	12" WAVEGUIDE BRIDGE SUPPORT BRACKET	2
2	-	DIRECT BURIAL PIPE COLUMN	2
3	WB-CY110	12" SAFETY GRATING	1
4	WB-K110BH	HARDWARE KIT ITEM #5-16	1



CABLE LADDER DETAIL

7 S-2

ITEM	PART NO.	DESCRIPTION	QTY.
1	WDL243.01	VERTICAL TRAPEZE SECTION	
2	WDL243.02	12" HORIZONTAL TRAPEZE SECTION	
3	MI-307	SQUARE WASHER, 1 1/2"x1 1/2"W/7/16" HOLE	
4	GB-03205	3/8"x2" GALV. BOLT KIT	
5	GW-03	3/8" GALV. FLAT WASHER	
6	GB-03105	3/8"x1" GALV. BOLT KIT	6



CABLE MOUNTING DETAIL

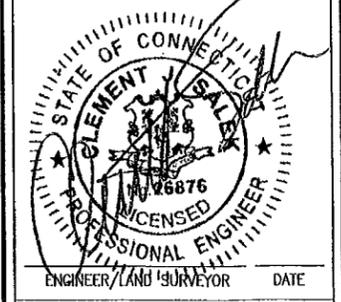
8 S-2

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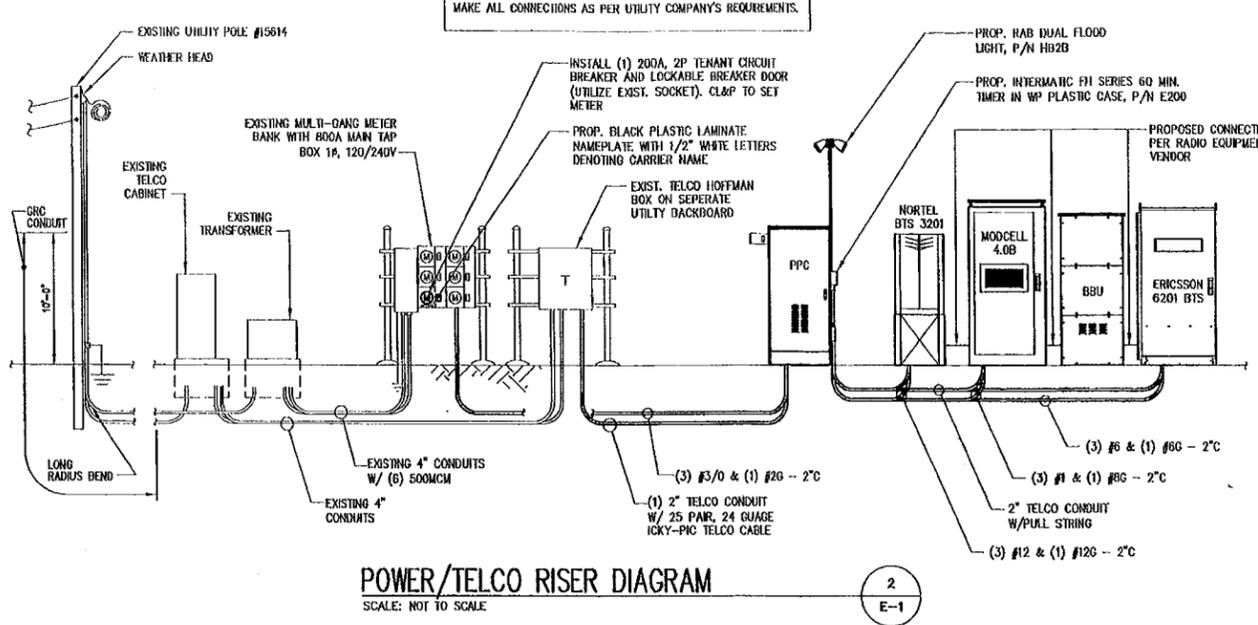
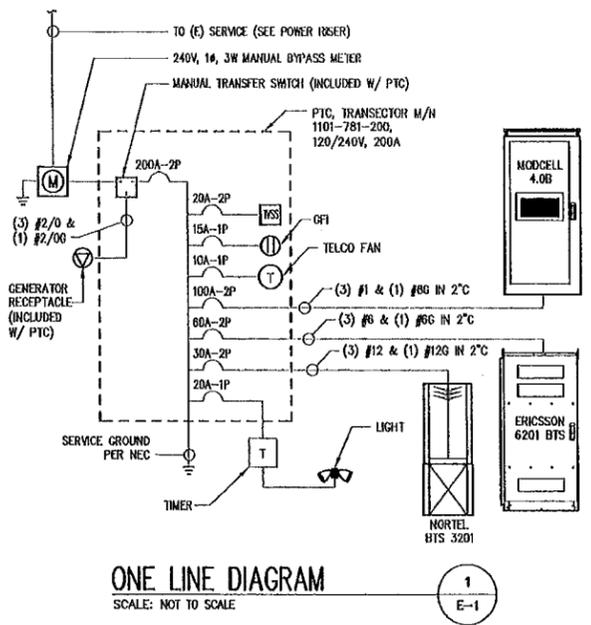
PROJECT NO.	DESIGNED BY: JMT	SCALE:
736.387	DRAWN BY: CMC	AS SHOWN
	CHECK'D BY: JMT	

SITE NAME:
HFC1287B
GTP ROBERTS STREET
EAST HARTFORD

SITE ADDRESS:
148 ROBERTS STREET
EAST HARTFORD, CT 06108

DRAWING TITLE:
ANTENNA MOUNTING
PLAN, SCHEDULES &
DETAILS

DRAWING NO:
S-2



- ELECTRICAL AND GROUNDING NOTES:**
- ELECTRICAL**
- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND ALL APPLICABLE LOCAL CODES.
 - CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
 - SERVICE TO EQUIP. SHALL BE 120/240 VAC, 200 AMP, 1 ϕ , 60 Hz.
 - THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
- GROUNDING**
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC (CADWELD) CONNECTIONS.
 - ALL GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC (CADWELD).
 - ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR & EXTERIOR) SHALL BE FORMED USING HIGH PRESS CHIMPS.
 - ALL EXOTHERMIC CONNECTIONS TO THE GROUND RODS SHALL START AT THE TOP & HAVE A VERTICAL SEPARATION OF 6" FOR EVERY ADDITIONAL CONNECTION.
 - ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
 - ALL EXTERIOR GROUND CONDUCTORS SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
 - GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" 10-FT. LONG, AND SHALL BE DRIVEN VERTICALLY WITH THEIR TOPS 48" BELOW FINAL GRADE.
 - CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
 - USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
 - MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED 5 OHMS. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT SPECIFICATION FOR FACILITY GROUNDING, USING FALL OF POTENTIAL METHOD.
 - ANTENNA GROUND KITS SHALL BE FURNISHED BY METRO PCS AND INSTALLED BY CONTRACTOR.

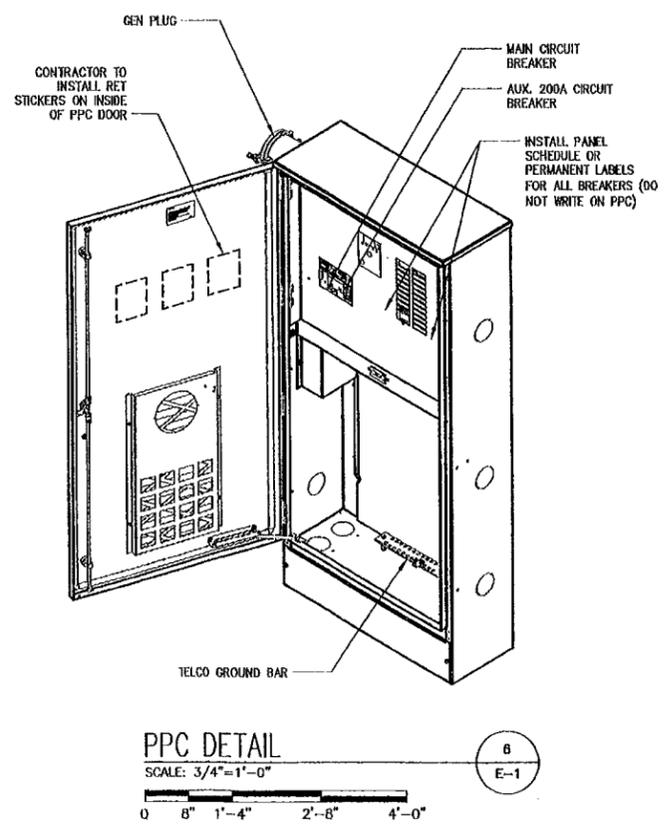
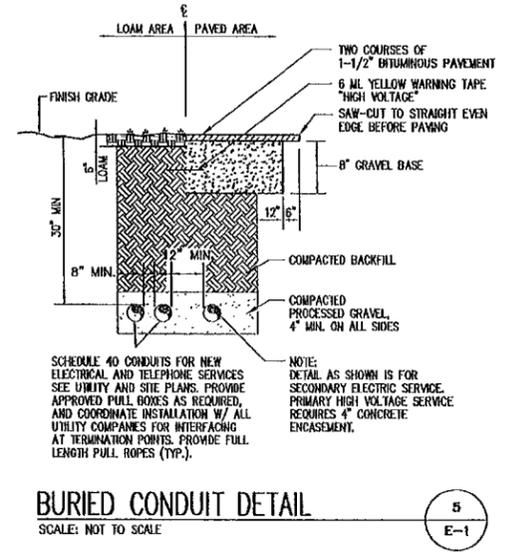
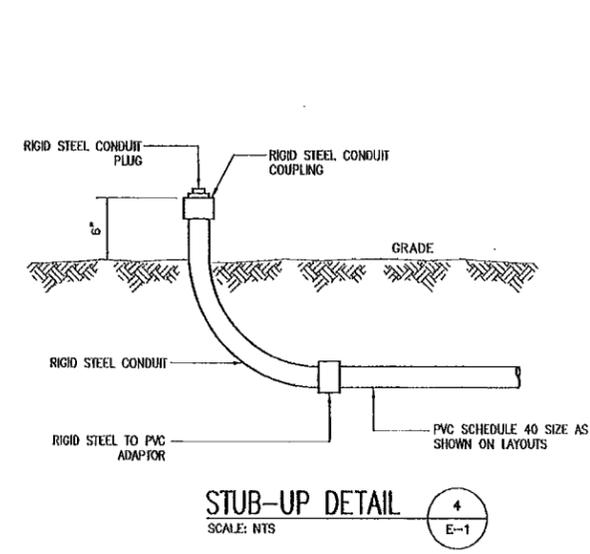
SQUARE D, TYPE 00
SQUARE D, TYPE Q 200A, 2P MAIN

PANEL SCHEDULE

22,000 A.I.C.
NEMA 1

CKT #	DESCRIPTION	AMP	AMP	DESCRIPTION	CKT #
1	MODECELL	100	--	SPARE	2
3	SPARE	--	--	SPARE	4
5	SPARE	--	--	SPARE	6
7	SPARE	--	--	SPARE	8
9	ERICSSON 6201	60	--	SPARE	10
11	SPARE	--	--	SPARE	12
13	SPARE	--	--	SPARE	14
15	SPARE	--	--	SPARE	16
17	SPARE	--	--	SPARE	18
19	NORTEL 3201	30	--	SPARE	18
21	LIGHT & TIMER	20	--	SPARE	20
22	TELCO FAN (IF REQ'D)	10	--	SPARE	22
23	SURGE SUPPRESSOR	20	--	SPARE	24
24	GFI RECEPTACLE	15	--	SPARE	24

PANEL SCHEDULE
SCALE: NTS



- LEGEND:**
- ⊗ GROUND TEST WELL
 - ⚡ GROUND ROD
 - DISCONNECT SWITCH
 - Ⓜ METER
 - ▲ CADWELD TYPE CONNECTION
 - COMPRESSION TYPE CONNECTION
 - GROUNDING WIRE
 - XXX REPRESENTS DETAIL NUMBER
 - XXX REF. DRAWING NUMBER
- ABBREVIATIONS:**
- AWG AMERICAN WIRE GAUGE
 - BCW BARE COPPER WIRE
 - CGBE COAX GROUND BAR EXTERNAL
 - CIGBE COAX ISOLATED GROUND BAR EXTERNAL
 - DWG DRAWING
 - EMT ELECTRICAL METALLIC TUBING
 - MOB MASTER GROUND BAR
 - PCS PERSONAL COMMUNICATION SYSTEM
 - PVC RIGID (SCH. 40) POLYVINYL CHLORIDE CONDUIT
 - RGS RIGID GALVANIZED STEEL
 - RWY RACEWAY
 - TYP TYPICAL

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STATE OF CONNECTICUT
CLEMENT J. BALDWIN
LICENSED PROFESSIONAL ENGINEER
NO. 6876
ENGINEER/LAND SURVEYOR DATE

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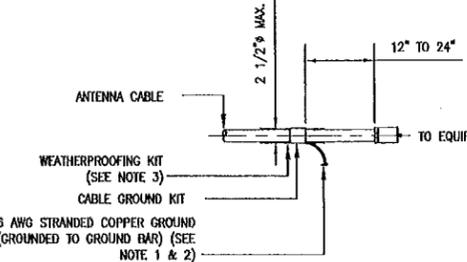
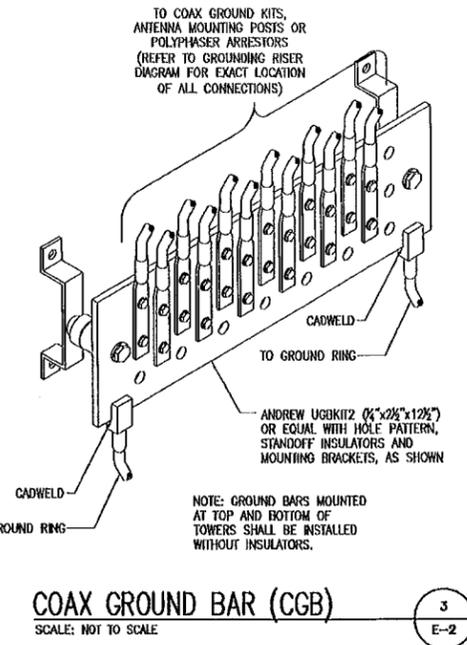
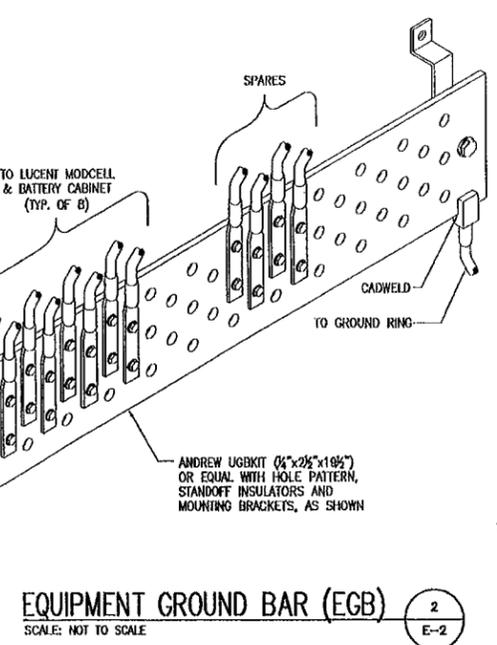
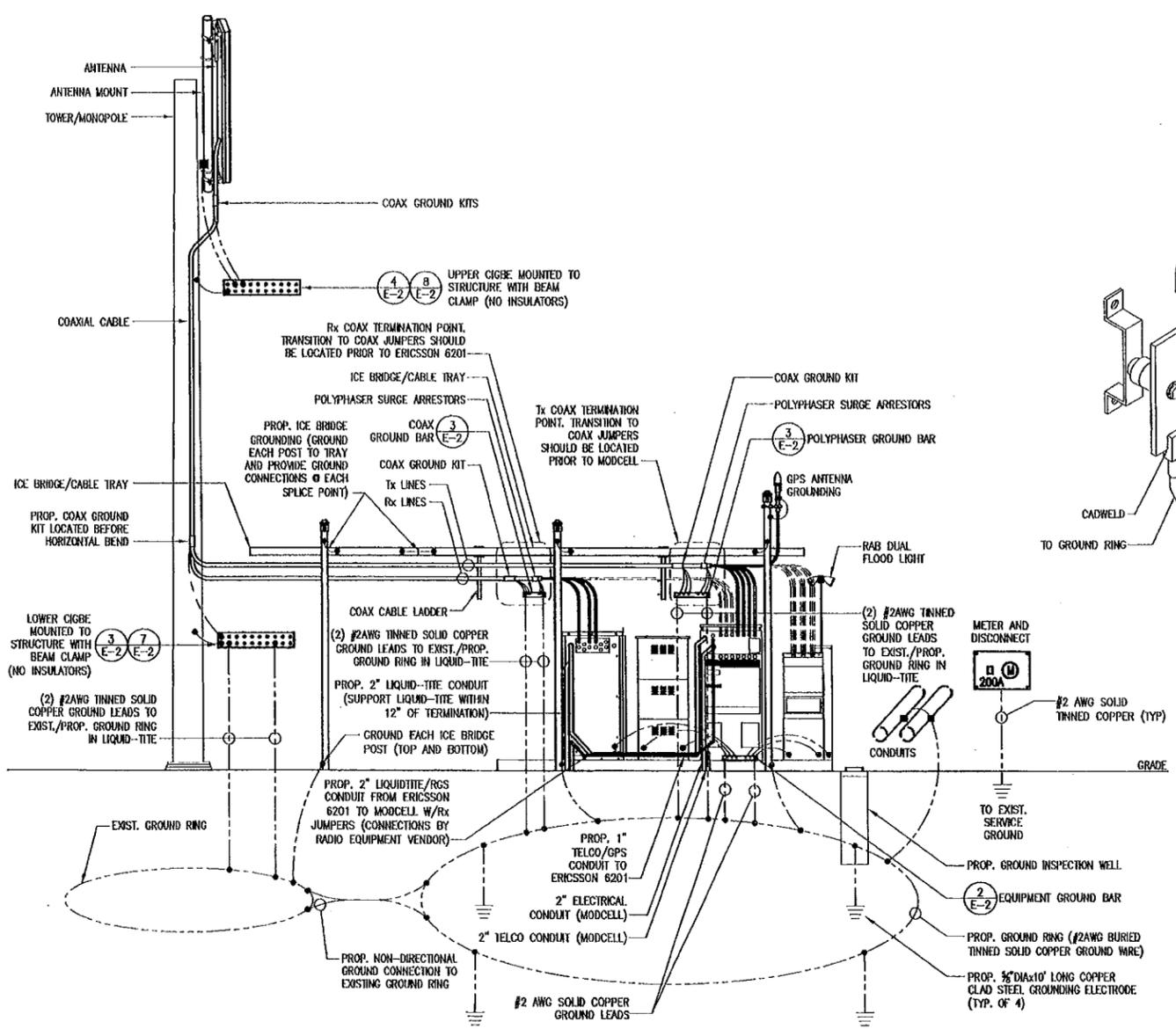
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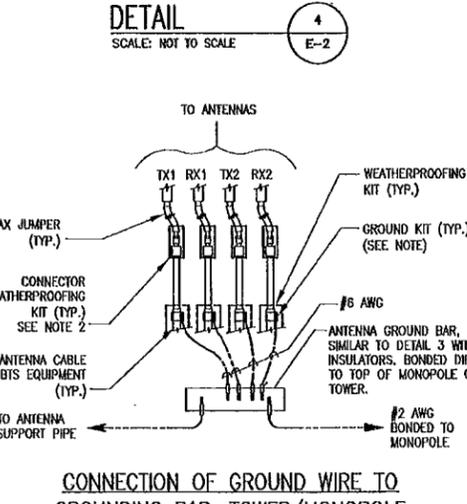
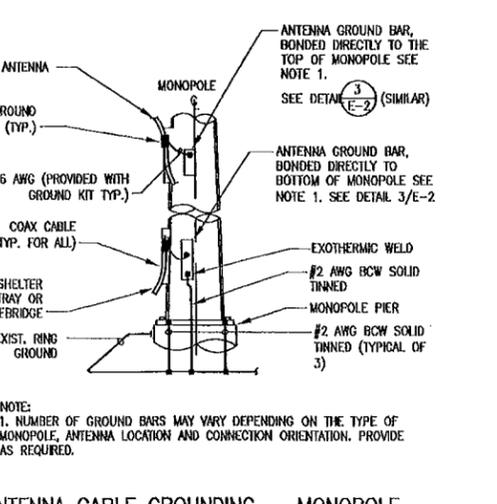
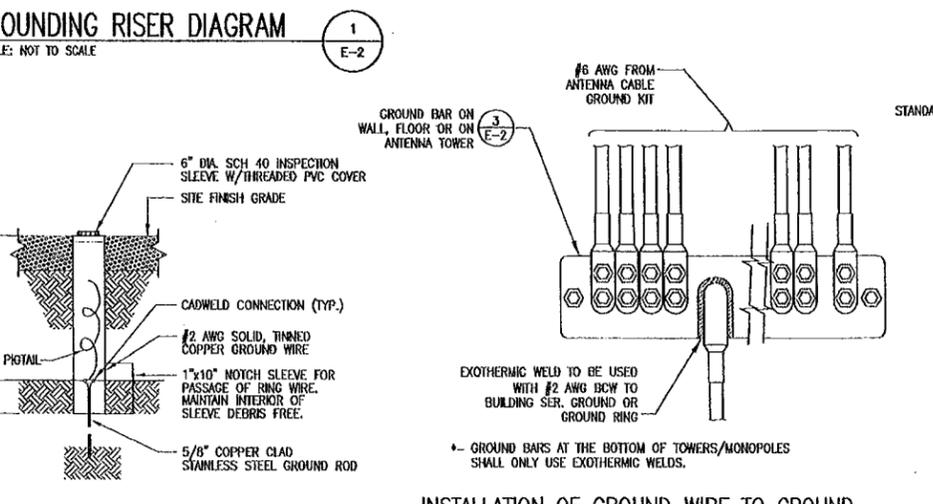
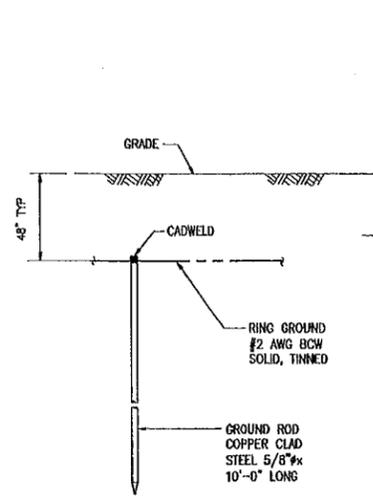
DRAWING TITLE:
ONE-LINE DIAGRAM,
RISER, DETAILS & NOTES

DRAWING NO.:
E-1



NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
- WEATHER PROOFING SHALL BE TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

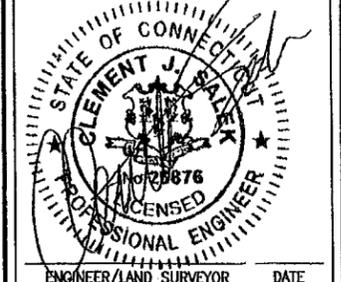


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EAST HARTFORD

SITE ADDRESS:
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EAST HARTFORD, CT 06108

DRAWING TITLE:
GROUNDING DETAILS

DRAWING NO.:
E-2

Exhibit 2

Power Density Calculation

Power Density Calculations

Control Number	Site	Carrier	#Ch mels	ERP/ Ch	Ant Ht	Density (mW/cm ²)	MHz	S	%MPE	Site Total
Docket 228	East Hartford - 128 Roberts Street	Nextel	9	100	90	0.0400	851	0.5673	7.04%	
EM-VER-043-100507	East Hartford - 148 Roberts Street	Verizon	9	314	120	0.0706	869	0.5793	12.18%	
EM-VER-043-100507	East Hartford - 148 Roberts Street	Verizon	3	426	120	0.0319	1970	1.0000	3.19%	
EM-VER-043-100507	East Hartford - 148 Roberts Street	Verizon	1	821	120	0.0205	757	0.5047	4.06%	
Penion 941	East Hartford - 148 Roberts Street	Clearwire	2	153	128	0.0067	2496	1.0000	0.67%	
Penion 941	East Hartford - 148 Roberts Street	Clearwire	1	211	128	0.0046	11 GHz	1.0000	0.46%	
EM-Sprint-043-040601	East Hartford - 128 Roberts Street	Sprint	11	308.5	110	0.1008	1963	1.0000	10.08%	37.69%
	East Hartford - 148 Roberts Street	metroPCS CDMA	3	727	100	0.0784	2135	1.0000	7.84%	45.54%
	East Hartford - 148 Roberts Street	metroPCS LTE	1	1200	100	0.0431	2130	1.0000	4.31%	49.85%