

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND BUILDING PERMIT



**This is to certify that**

ALPINE REALTY CORP /Netcom Wireless Facilities

**Located at**

509 FOREST AVE

**PERMIT ID:** 2013-00040

**CBL:** 127 A002001

has permission to **replace/upgrade antennas, cables & equipment cabinets on building.**

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be procured prior to occupancy.

\_\_\_\_\_  
**Fire Prevention Officer**

*Janine Bonke*  
\_\_\_\_\_  
**Code Enforcement Officer / Plan Reviewer**

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY  
THERE IS A PENALTY FOR REMOVING THIS CARD**

**PERMIT ID:** 2013-00040

**Located at:** 509 FOREST AVE

**CBL:** 127 A002001

**City of Portland, Maine - Building or Use Permit Application**

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

<b>Permit No:</b> 2013-00040	<b>Issue Date:</b>	<b>CBL:</b> 127 A002001
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<b>Location of Construction:</b> 509 FOREST AVE	<b>Owner Name:</b> ALPINE REALTY CORP	<b>Owner Address:</b> 380 WARREN AVE PORTLAND, ME 04103		<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Netcom Wireless Facilities	<b>Contractor Address:</b> 10 Aevo Park Drive Unit 3 Plymouth MA 02360		<b>Phone</b> (508) 732-0020
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Alterations - Commercial		<b>Zone:</b> B2b
<b>Past Use:</b> Commercial	<b>Proposed Use:</b> Commercial	<b>Permit Fee:</b> \$170.00	<b>Cost of Work:</b> \$15,000.00	<b>CEO District:</b> 7
		<b>FIRE DEPT:</b> <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input checked="" type="checkbox"/> N/A		<b>INSPECTION:</b> Use Group: <i>NA</i> Type: <i>telecommunications</i> MUBEC 2009 Signature: <i>JMB 1/30/13</i>
<b>Proposed Project Description:</b> Install and upgrade cell tower/antenna on building. <i>r &amp; equipment</i>		<b>Signature:</b> <i>JMB</i> <b>PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)</b> Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: _____ Date: _____		

<b>Permit Taken By:</b> bjs	<b>Date Applied For:</b> 01/07/2013	<b>Zoning Approval</b>		
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1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building permits do not include plumbing, septic or electrical work. 3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..	<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: <i>1/9/13 JMB</i>	<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>JMB</i>
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**CERTIFICATION**

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE



# General Building Permit Application

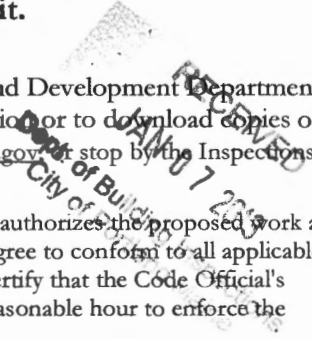
If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>509 Forest St.</u>		
Total Square Footage of Proposed Structure/Area <u>N/A</u>		Square Footage of Lot <u>N/A</u>
Tax Assessor's Chart, Block & Lot Chart#      Block#      Lot#  <u>127 A002001</u>	Applicant * <b>must be owner, Lessee or Buyer</b> * Name <u>Sprint</u> Address <u>1 International Blvd</u> <u>Suite 800</u> City, State & Zip <u>Mahwah, NJ 07495</u>	Telephone: <u>978-828-3264</u> <u>Kristen LeDuc</u> <u>Agent / Sprint</u>
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name <u>Alpine Realty Corp</u> Address <u>380 Warren Ave.</u> City, State & Zip <u>Portland ME</u> <u>04103</u>	Cost Of Work: \$ <u>15,000</u> C of O Fee: \$ <u>-</u> Total Fee: \$ <u>170.00</u>
Current legal use (i.e. single family) <u>Commercial</u> If vacant, what was the previous use? <u>N/A</u> Proposed Specific use: <u>Wireless Communication Modification - Unmanned.</u> Is property part of a subdivision? <u>NO</u> If yes, please name _____ Project description: <u>Install Fiber Dist. box w/in lease area. Replace existing antennas. Replace existing GPS Antenna. Replace existing coax cable w/ Hybridflex Cables. Replace existing equipment cabinets. Replace existing local exchange carrier w/ Fiber Optics.</u>		
Contractor's name: <u>Charles B. Anti, Netcom Wireless Facilities 2</u> Address: <u>10 Acvo Park Dr. Unit 3</u> City, State & Zip <u>Plymouth, MA 02360</u> Telephone: <u>508-732-0020</u> Who should we contact when the permit is ready: <u>Kristen LeDuc, NBIC</u> Telephone: <u>978-828-3264</u> Mailing address: <u>8 Brentwood Cr. Danvers, MA 01923</u>		

**Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.**

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov) or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.



Signature: Kristen LeDuc, Agent      Date: 1-4-13

**This is not a permit; you may not commence ANY work until the permit is issued.**



**NETWORK BUILDING  
& CONSULTING, LLC**

January 4, 2013

Jeanie Bourke, CEO  
Building Department  
389 Congress Street  
Portland, ME 04101

RE: Sprint Site modification at 509 Forest Street, Portland, Maine

Jeanie,

Enclosed please find a Building Permit Application, site plans and related documents for Sprint's modification project at 509 Forest Street. Also, included is a copy of the check and the 1<sup>st</sup> page of the application could you kindly include a receipt for the check, and a "received" stamp on the 1<sup>st</sup> page of the application when the building permit is issued.

If you have any questions or comments, please feel free to contact me at the number or email listed below.

Thank you,

*Kristen LeDuc*

**Network Building & Consulting, LLC, an authorized representative of Sprint Nextel**

Kristen LeDuc  
978-828-3264 Office & Mobile  
[kleduc@nbcllc.com](mailto:kleduc@nbcllc.com)  
8 Brentwood Circle  
Danvers, MA 01923

RECEIVED  
JAN 07 2013  
Dept. of Building Inspections  
City of Portland Maine



# Commercial Interior & Change of Use Permit Application Checklist

All of the following information is required and must be submitted. Checking off each item as you prepare your application package will ensure your package is complete and will help to expedite the permitting process.

## One (1) complete set of construction drawings must include:

Note: Construction documents for costs in excess of \$50,000.00 must be prepared by a Design Professional and bear their seal.

- Cross sections w/framing details
- Detail of any new walls or permanent partitions
- Floor plans and elevations
- Window and door schedules
- Complete electrical and plumbing layout.
- Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment or other types of work that may require special review
- Insulation R-factors of walls, ceilings, floors & U-factors of windows as per the IEEC 2003
- Proof of ownership is required if it is inconsistent with the assessors records.
- Reduced plans or electronic files in PDF format are required if originals are larger than 11" x 17".
- Per State Fire Marshall, all new bathrooms must be ADA compliant.

Separate permits are required for internal and external plumbing, HVAC & electrical installations.

**For additions less than 500 sq. ft. or that does not affect parking or traffic, a site plan exemption should be filed including:**

- The shape and dimension of the lot, footprint of the existing and proposed structure and the distance from the actual property lines.
- Location and dimensions of parking areas and driveways, street spaces and building frontage.
- Dimensional floor plan of existing space and dimensional floor plan of proposed space.

**A Minor Site Plan Review is required for any change of use between 5,000 and 10,000 sq. ft. (cumulatively within a 3-year period)**



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

4/12/12

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER O'Grady Insurance Agency 117 Court Street Plymouth, MA 02360	CONTACT NAME:	
	PHONE (A/C No Ext):	FAX (A/C No):
INSURED NETCOM WIRELESS FACILITIES 2, INC. 10 AERO PARK DR, UNIT 3 PLYMOUTH, MA 02360	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A:	ESSEX INSURANCE CO
	INSURER B:	QUINCY MUTUAL
	INSURER C:	TORUS SPECIALTY INS. CO
	INSURER D:	LIBERTY MUTUAL FIRE INS CO
	INSURER E:	
	INSURER F:	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	Y Y	3DG5178	11/9/11	11/9/12	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (EA OCCURRENCE) \$ 50,000 MED EXP (Any one person) \$ 1,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 1,000,000
B	AUTOMOBILE LIABILITY ANY AUTO ALLOWED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	Y Y	AFV205857	2/22/12	2/22/13	COMBINED SINGLE LIMIT (EA ACCIDENT) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB EXCESS LIAB DED RETENTION \$	Y Y	85215C120AL1	2/9/12	2/9/13	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/EMERSON EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N N/A	WC5-31S-375622-022	2/18/12	2/18/13	WC STATUTORY LIMITS OTHER EL EACH ACCIDENT \$ 500,000 EL DISEASE - EA EMPLOYEE \$ 500,000 EL DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

COSTROTTA CONSTRUCTION MANAGEMENT INC AND ALL OTHER PARTIES ARE REQUIRED BY CONTRACT ARE INCLUDED AS ADDITIONAL INSURED ON PRIMARY AND NONCONTRIBUTORY BASIS FOR ALL GENERAL LIABILITY AND AUTO LIABILITY. EXCESS LIABILITY FOLLOWS FORM OVER GENERAL LIABILITY, AUTO LIABILITY, AND EMPLOYER LIABILITY. A WAIVER OF SUBROGATION APPLIES TO ALL POLICIES IN FAVOR OF THE ADDITIONAL INSURED

CERTIFICATE HOLDER	CANCELLATION
	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE
	PATRICK O'GRADY

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ACORD 25 (2010/05)  
Phone:The ACORD name and logo are registered marks of ACORD  
Fax: E-Mail:



Massachusetts - Department of Public Safety  
Board of Building Regulations and Standards

Construction Supervisor  
License: **CS-094261**

**CHARLES B ANTI**  
**100 BARNFIELD DRIVE**  
**PLYMOUTH MA 02360**



*Thomas J. Bligh*  
Commissioner

Expiration  
**10/29/2013**

Site Name: 509 Forest Ave., Portland, ME

Sprint PCS Site ID #: BS62XC009A

14. Hazardous Substances. Owner represents and warrants to Sprint PCS that it has no knowledge of any substance, chemical or waste on the Site that is identified as hazardous, toxic or dangerous (collectively, "Substance") in any applicable federal, state or local law or regulation. Sprint PCS will not introduce or use any Substance on the Site in violation of any applicable law. Owner will have sole responsibility for the identification, investigation, monitoring and remediation and/or cleanup of any Substance discovered at the Site unless the presence or release of the Substance is caused by the activities of Sprint PCS.

15. Subordination and Non-Disturbance. This Agreement is subordinate to any mortgage or deed of trust of record against the Site as of the Lease Commencement Date. Promptly after this Agreement is fully executed, however, Owner will obtain a non-disturbance agreement in a form reasonably acceptable to Sprint PCS from the holder of any mortgage or deed of trust.

16. Property Taxes. Sprint PCS will be responsible for payment of all personal property taxes assessed directly upon and arising solely from its use of the Facilities on the Site. Sprint PCS will pay to Owner any increase in real property taxes attributable solely to any improvements to the Site made by Sprint PCS within 60 days after receipt of satisfactory documentation indicating calculation of Sprint PCS' share of the real estate taxes and payment of the real estate taxes by Owner. Owner will pay when due all other real estate taxes and assessments attributable to the property of Owner of which the Site is a part.

17. Insurance. Sprint PCS will procure and maintain commercial general liability insurance, with limits of not less than \$1,000,000 combined single limit per occurrence for bodily injury and property damage liability, with a certificate of insurance to be furnished to Owner within 30 days after Sprint PCS' receipt of a written request. Each party hereby waives its right of recovery against the other for any loss or damage covered by any insurance policies maintained by the waiving party. Each party will cause each insurance policy obtained by it to provide that the insurance company waives all rights of recovery by subrogation against the other party in connection with any damage covered by the policy.

18. Maintenance. Sprint PCS will be responsible for repairing and maintaining the Facilities and any other improvements installed by Sprint PCS at the Site in a proper operating and reasonably safe condition; provided, however, if any repair or maintenance is required due to the acts or omissions of Owner, its agents, contractors or employees, Owner will promptly reimburse Sprint PCS for the reasonable costs incurred by Sprint PCS to restore the damaged areas to the condition which existed immediately prior thereto. Owner will maintain and repair all other portions of the property of which the Site is a part in a proper operating and reasonably safe condition.

19. Miscellaneous. (a) This Agreement applies to and binds the heirs, successors, executors, administrators and assigns of the parties to this Agreement; (b) this Agreement is governed by the laws of the state in which the Site is located; (c) Owner agrees to promptly execute and deliver to Sprint PCS a recordable Memorandum of Agreement in the form of Exhibit B, attached hereto; (d) this Agreement (including the Exhibits) constitutes the

entire agreement between the parties and supersedes all prior written and verbal agreements, representations, promises or understandings between the parties. Any amendments to this Agreement must be in writing and executed by both parties; (e) if any provision of this Agreement is invalid or unenforceable with respect to any party, the remainder of this Agreement or the application of the provision to persons other than those as to whom it is held invalid or unenforceable, will not be affected and each provision of this Agreement will be valid and enforceable to the fullest extent permitted by law; and (f) the prevailing party in any action or proceeding in court or mutually agreed upon arbitration proceeding to enforce the terms of this Agreement is entitled to receive its reasonable attorneys' fees and other reasonable enforcement costs and expenses from the non-prevailing party.

20. Non-Binding Until Fully Executed. This Agreement is for discussion purposes only and does not constitute a formal offer by either party. This Agreement is not and will not be binding on either party until and unless it is fully executed by both parties.

The following Exhibits are attached to and made a part of this Agreement: Exhibits A, A1-A2-A3-A4, B and C

OWNER:

Alpine Realty Corp.

By: Arthur P. Girard  
Name: Arthur P. Girard  
Title: President  
Taxpayer ID: 65-0387225  
Address: 120 Exchange Street  
Portland, ME 04101

Date: \_\_\_\_\_  
 See Exhibit A1 for continuation of Owner signatures

SPRINT PCS:  
Sprint Spectrum L.P. a Delaware Corporation

By: Don Mueller  
Name: Don Mueller  
Title: Director Site Development - East

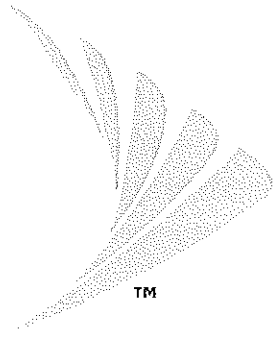
Date: \_\_\_\_\_

- Attach Exhibit A - Site Description
- Attach Exhibit A1-A2-A3-A4 Lease Exhibit
- Attach Exhibit B - Rider to Site Agreement
- Attach Exhibit C - Memorandum of Agreement Form



# Sprint<sup>®</sup>

VISION



**NOTE:**  
OWNER AND TENANT MAY, FROM TIME TO TIME AT TENANT'S OPTION, REPLACE THIS EXHIBIT WITH AN EXHIBIT SETTING FORTH THE LEGAL DESCRIPTION OF THE SITE, OR WITH ENGINEERED OR AS-BUILT DRAWING DEPICTING THE SITE OR ILLUSTRATING STRUCTURAL MODIFICATIONS OR CONSTRUCTION PLANS OF THE SITE. ANY VISUAL OR TEXTUAL REPRESENTATION OF THE EQUIPMENT LOCATED WITHIN THE SITE CONTAINED IN THESE OTHER DOCUMENTS IS ILLUSTRATIVE ONLY, AND DOES NOT LIMIT THE RIGHTS OF SPRINT AS PROVIDED FOR IN THE AGREEMENT. THE LOCATIONS OF ANY ACCESS AND UTILITY EASEMENTS ARE ILLUSTRATIVE ONLY. ACTUAL LOCATIONS MAY BE DETERMINED BY TENANT AND/OR THE SERVICING UTILITY COMPANY IN COMPLIANCE WITH LOCAL LAWS AND REGULATIONS.

**Sprint<sup>®</sup>**  
VISION  
1 INTERNATIONAL BLVD, SUITE 800  
MAHWAH, NJ 07475  
TEL: (908) 357-7441

**Alcatel-Lucent**  
1 ROBBINS ROAD  
WESTFORD, MA 01886  
TEL: (978) 952-1600

**Hudson Design Group, Inc.**  
1600 OSGOOD STREET  
BUILDING 20 NORTH, SUITE 3090  
N. ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5586

SITE NUMBER:  
**BS62XC009**

SITE NAME:  
**509 FOREST AVE**

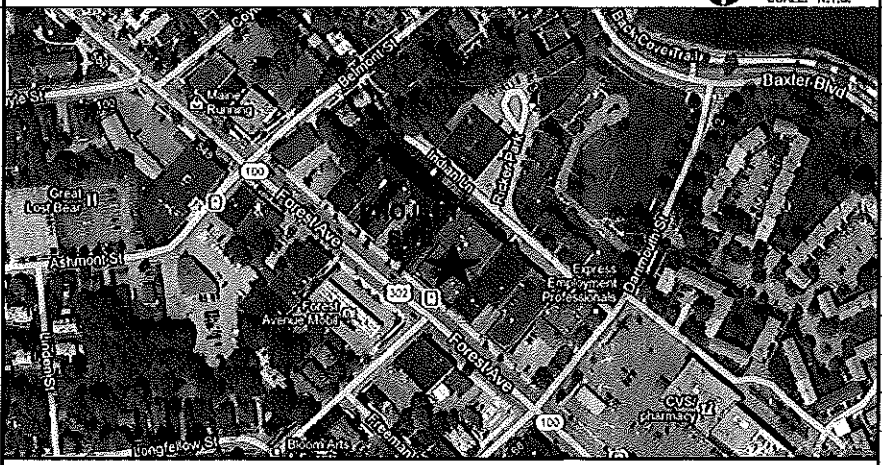
SITE ADDRESS:  
**509 FOREST AVENUE  
PORTLAND, ME 04103**

## SITE INFORMATION

SITE NUMBER: BS62XC009  
SITE NAME: 509 FOREST AVE  
SITE ADDRESS: 509 FOREST AVENUE  
PORTLAND, ME 04103  
COUNTY: CUMBERLAND  
ZONING: COMMERCIAL  
PARCEL ID: 127 A002001  
COORDINATES: N 43° 40' 03.59"  
W 70° 16' 43.77"  
GROUND ELEV.: 36± (AMSL)  
STRUCTURE TYPE: ROOF TOP  
STRUCTURE HEIGHT: 52.3± (AGL)  
ANTENNA RAD CENTER: 59± (AGL)  
PROPERTY OWNER: ALPINE REALTY CORP  
380 WARREN AVENUE  
PORTLAND, ME 04103  
STRUCTURE OWNER: ALPINE REALTY CORP  
380 WARREN AVENUE  
PORTLAND, ME 04103

LOCAL POWER COMPANY: CENTRAL MAINE POWER CO.  
162 CANCO ROAD  
PORTLAND, ME 04103  
(800) 750-4000  
LOCAL TELCO COMPANY: FAIRPOINT  
45 FOREST AVENUE  
PORTLAND, ME 04101  
(866) 984-2001  
APPLICANT: SPRINT  
1 INTERNATIONAL BLVD,  
SUITE 800  
MAHWAH, NJ 07495  
APPLICANT REPRESENTATIVE: ALCATEL-LUCENT  
1 ROBBINS ROAD  
WESTFORD, MA 01886  
(978)952-1600  
SITE ACQUISITION CONSULTANT: ALCATEL-LUCENT  
1 ROBBINS ROAD  
WESTFORD, MA 01886  
(978)952-1600  
A&E CONSULTANT: HUDSON DESIGN GROUP LLC  
1600 OSGOOD STREET  
BLDG 20 NORTH, SUITE 3090  
NORTH ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5586

## VICINITY MAP



**DIRECTIONS FROM 1 INTERNATIONAL BLVD, MAHWAH, NJ:**  
HEAD NORTH ON INTERNATIONAL BLVD/PARK ST TOWARD QUEENSLAND RD. CONTINUE TO FOLLOW INTERNATIONAL BLVD. TAKE THE 3RD RIGHT ONTO PARK LN CONTINUE STRAIGHT ONTO LEISURE LN. CONTINUE ONTO NJ-17 N. TAKE THE NEW JERSEY 17 N/INTERSTATE 287 N EXIT TOWARD INTERSTATE 87/NORTH NY THRUWAY. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-287 N/17 N/N Y. THRUWAY AND MERGE ONTO I-287 N/NJ-17 ENTERING NEW YORK. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-87 S/I-287/TAPPAN ZEE BR/NEW YORK CITY/NEW YORK THRUWAY AND MERGE ONTO I-287 E/87 S CONTINUE TO FOLLOW I-287 E. TAKE THE EXIT ONTO I-95 N ENTERING CONNECTICUT. TAKE EXIT 48 ON THE LEFT TO MERGE ONTO I-91 N TOWARD HARTFORD. TAKE EXIT 29 TO MERGE ONTO CT-15 NUS-5 N TOWARD I-84 E/E HARTFORD/BOSTON. CONTINUE ONTO CT-15 N. MERGE ONTO I-84 E. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-90 E/N.H. - MAINE/BOSTON AND MERGE ONTO I-90 E. TAKE EXIT 10 TOWARD AUBURN/WORCESTER. FOLLOW SIGNS FOR I-290 E/WORCESTER AND MERGE ONTO I-290 E. TAKE EXIT 26B ON THE LEFT FOR INTERSTATE 495 N TOWARD LOWELL. MERGE ONTO I-495 N. MERGE ONTO I-95 N, SLIGHT RIGHT ONTO I-295 N. TAKE EXIT 6B TO MERGE ONTO ME-100 N/US-302 W/FOREST AVE. DESTINATION ON RIGHT.

## SHEET INDEX

SHEET NO.	DESCRIPTION
T-1	TITLE SHEET
GN-1	GENERAL NOTES
A-1	ROOF PLAN & EQUIPMENT LAYOUT
A-2	ANTENNA SCENARIO & ELEVATION
A-3	DETAILS
A-4	RF DATA SHEET
A-5	CABINET & ANTENNA WIRING DIAGRAM
S-1	STRUCTURAL DETAILS
S-2	STRUCTURAL DETAILS
S-3	STRUCTURAL DETAILS
E-1	TYPICAL POWER & GROUNDING ONE LINE DIAGRAM
AAV	SEE AAV SHEETS

*Daniel P. Hamm*  
APPROVED BY: DPH

## APPROVALS

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

CONSTRUCTION: \_\_\_\_\_ DATE: \_\_\_\_\_  
LEASING/ SITE ACQUISITION: \_\_\_\_\_ DATE: \_\_\_\_\_  
RF ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_  
LANDLORD/ PROPERTY OWNER: \_\_\_\_\_ DATE: \_\_\_\_\_

## GENERAL NOTES

- THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION:  
- HANDICAPPED ACCESS NOT REQUIRED  
- POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED  
- NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- DEVELOPMENT AND USE OF THE SITE WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.  
BUILDING CODE: IBC 2009  
ELECTRICAL CODE: 2005 NATIONAL ELECTRICAL CODE  
STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS

## SCOPE OF WORK

- INSTALL FIBER DISTRIBUTION BOX WITHIN EXISTING LEASE AREA. RETRO FIT EXISTING BTS CABINET WITH RETRO FIT KIT & REPLACE EXISTING BBU WITH (2) BBU CABINET.
- REMOVE (3) EXISTING CDMA ANTENNAS REPLACE WITH (3) NETWORK VISION ANTENNAS & (6) RRH'S.
- REMOVE EXISTING CDMA COAX CABLES & INSTALL (3) HYBRIFLEX CABLES FROM EQUIPMENT CABINET TO ANTENNA
- REMOVE EXISTING GPS ANTENNA AND REPLACE WITH NEW GPS ANTENNA
- EXISTING LOCAL EXCHANGE CARRIER LANDLINE BACKHAUL FACILITIES TO BE REPLACED WITH PROPOSED ALTERNATIVE ACCESS VENDOR (AAV) FIBER OPTIC FACILITIES INCLUDING PROPOSED OVERHEAD/UNDERGROUND CONDUITS AND NETWORK INTERFACE DEVICE.

DIG SAFE SYSTEMS, INC.  
CALL BEFORE YOU DIG  
1-800-922-4455 OR DIAL 811

RECEIVED BY: *Daniel P. Hamm* JK

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
2	12/28/12	ISSUED FOR CONSTRUCTION	MAP
1	12/10/12	ISSUED FOR REVIEW	RH

SITE NUMBER:  
**BS62XC009**  
SITE NAME:  
**509 FOREST AVE**  
SITE ADDRESS:  
**509 FOREST AVENUE  
PORTLAND, ME 04103**

SHEET TITLE  
**TITLE SHEET**

SHEET NUMBER  
**T-1**





*Daniel P. Hamm*

CHECKED BY: JX

APPROVED BY: DPH

APPROVED BY: DPH

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
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1	12/10/12	ISSUED FOR REVIEW	RH

SITE NUMBER:  
BS62XC009

SITE NAME:  
509 FOREST AVE

SITE ADDRESS:  
509 FOREST AVENUE  
PORTLAND, ME 04103

SHEET TITLE  
ROOF PLAN &  
EQUIPMENT LAYOUT

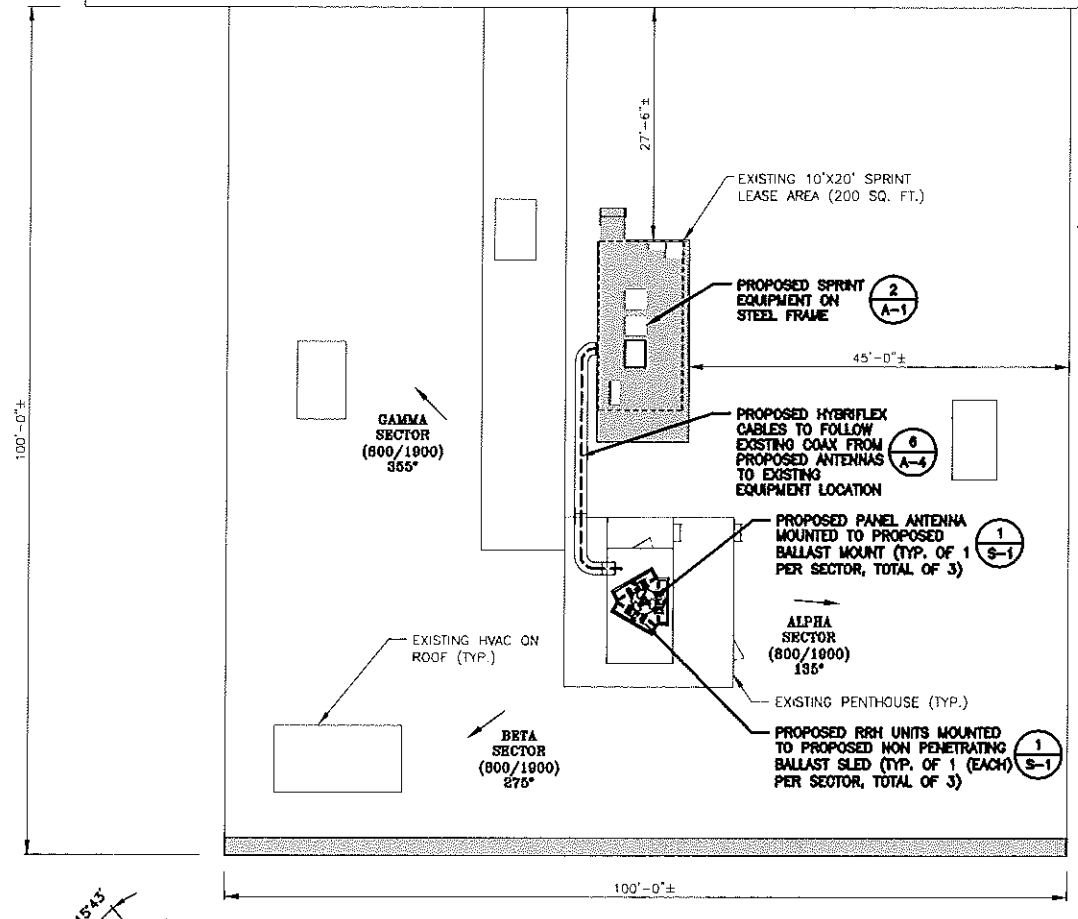
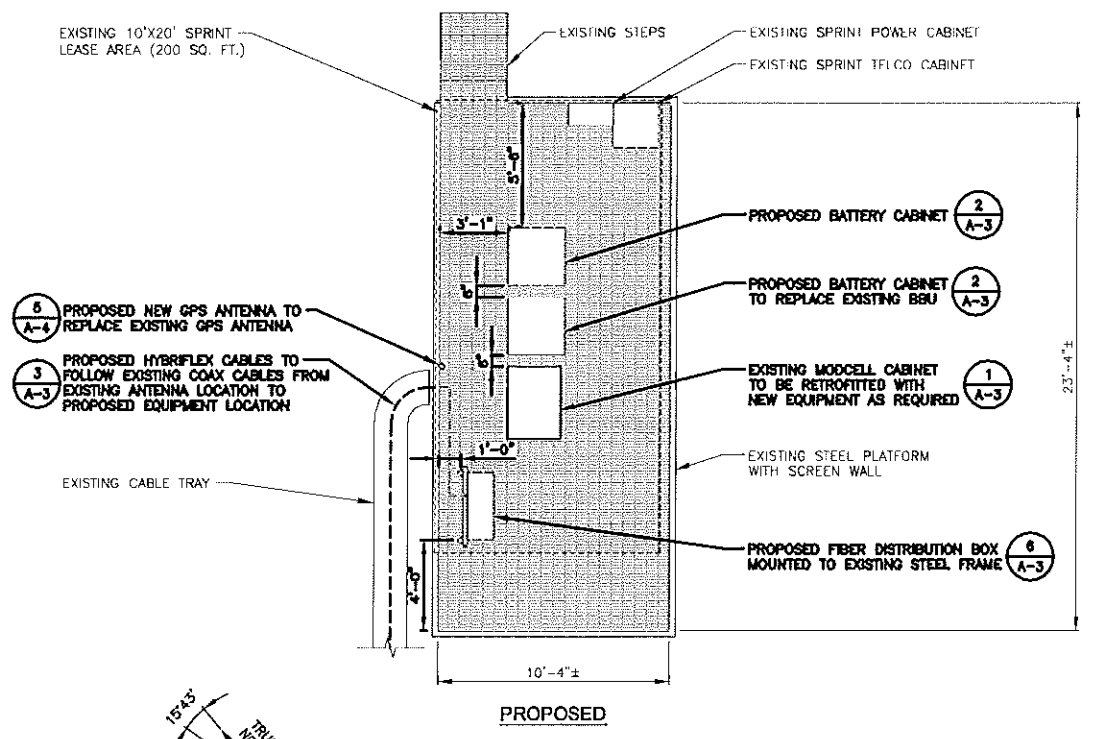
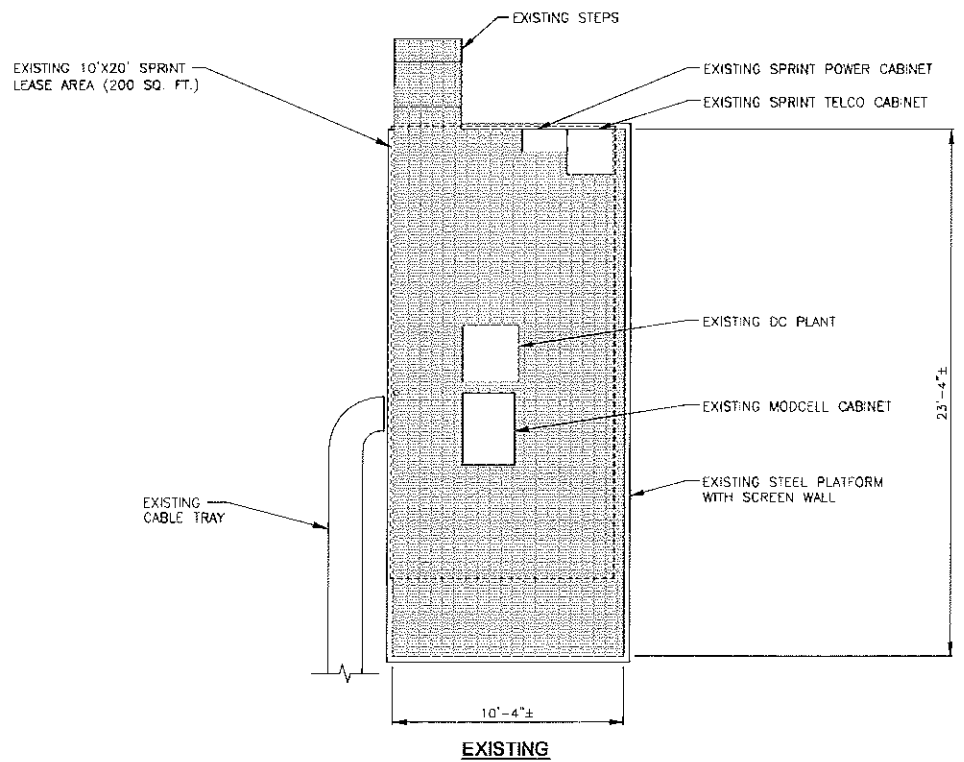
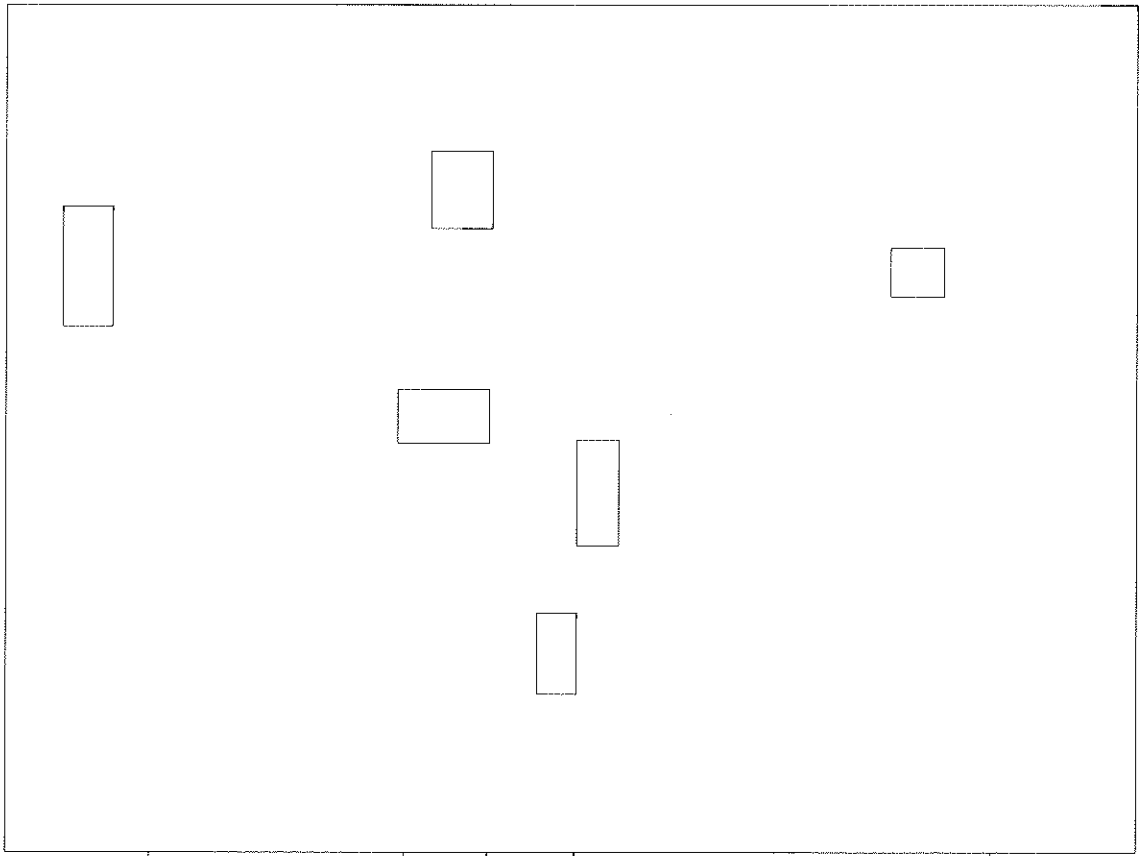
SHEET NUMBER  
A-1

**NOTES:**

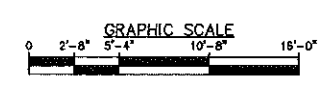
- 1) VERIFY EXACT ANTENNA MODEL & AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION.
- 2) REMOVE EXISTING GPS ANTENNA AND REPLACE WITH NEW GPS ANTENNA.

**STRUCTURAL NOTE:**

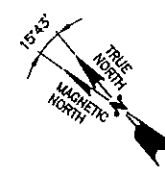
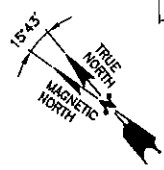
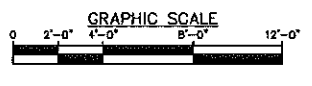
STRUCTURAL INFORMATION TAKEN FROM STRUCTURAL ANALYSIS PERFORMED BY HUDSON DESIGN GROUP, LLC. DATED: DECEMBER 11, 2012



**ROOF PLAN**  
SCALE: 3/16"=1'-0"



**EQUIPMENT PLANS**  
SCALE: 1/4"=1'-0"



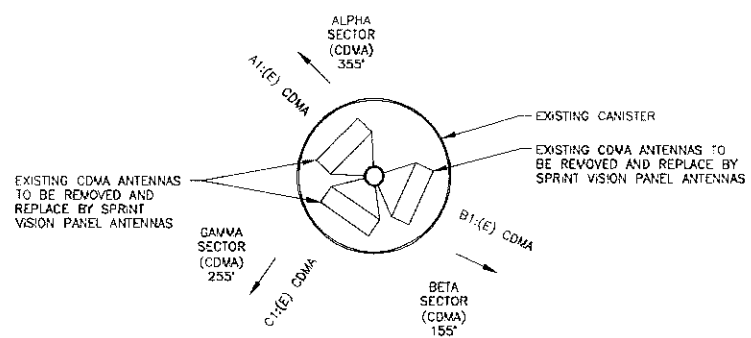
**ANTENNA STATUS LEGEND:**  
 (E) - EXISTING  
 CDMA - SPRINT ANTENNA  
 (P) - PROPOSED  
 MM - MULTIMODAL ANTENNA

**NOTE:**  
 EXISTING ANTENNA AND PLATFORM ORIENTATIONS HAS BEEN TAKEN FROM NETWORK VISION 3G RAN PLANNING PLAYBOOK. G.C. TO VERIFY EXISTING ORIENTATIONS PRIOR TO PROPOSED INSTALLATION.

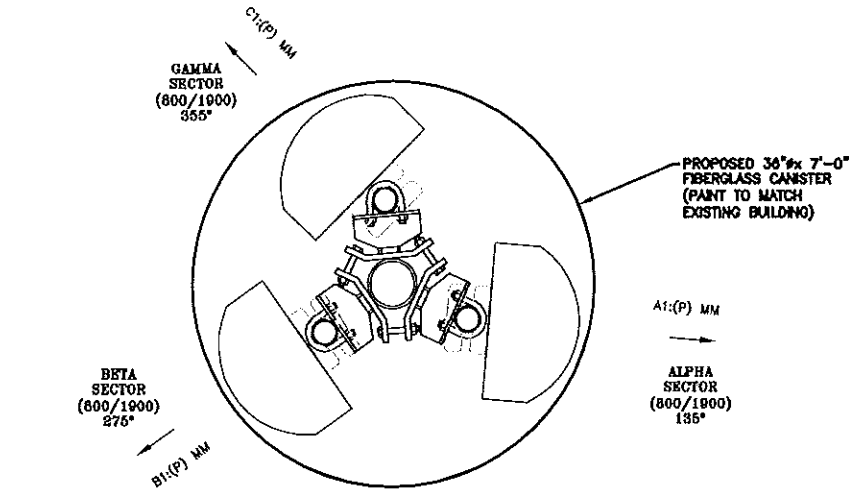
**NOTE:**  
 HOT SWAP OF PROPOSED ANTENNAS IS REQUIRED

**STRUCTURAL NOTE:**  
 STRUCTURAL INFORMATION TAKEN FROM STRUCTURAL ANALYSIS PERFORMED BY HUDSON DESIGN GROUP, LLC. DATED: DECEMBER 11, 2012

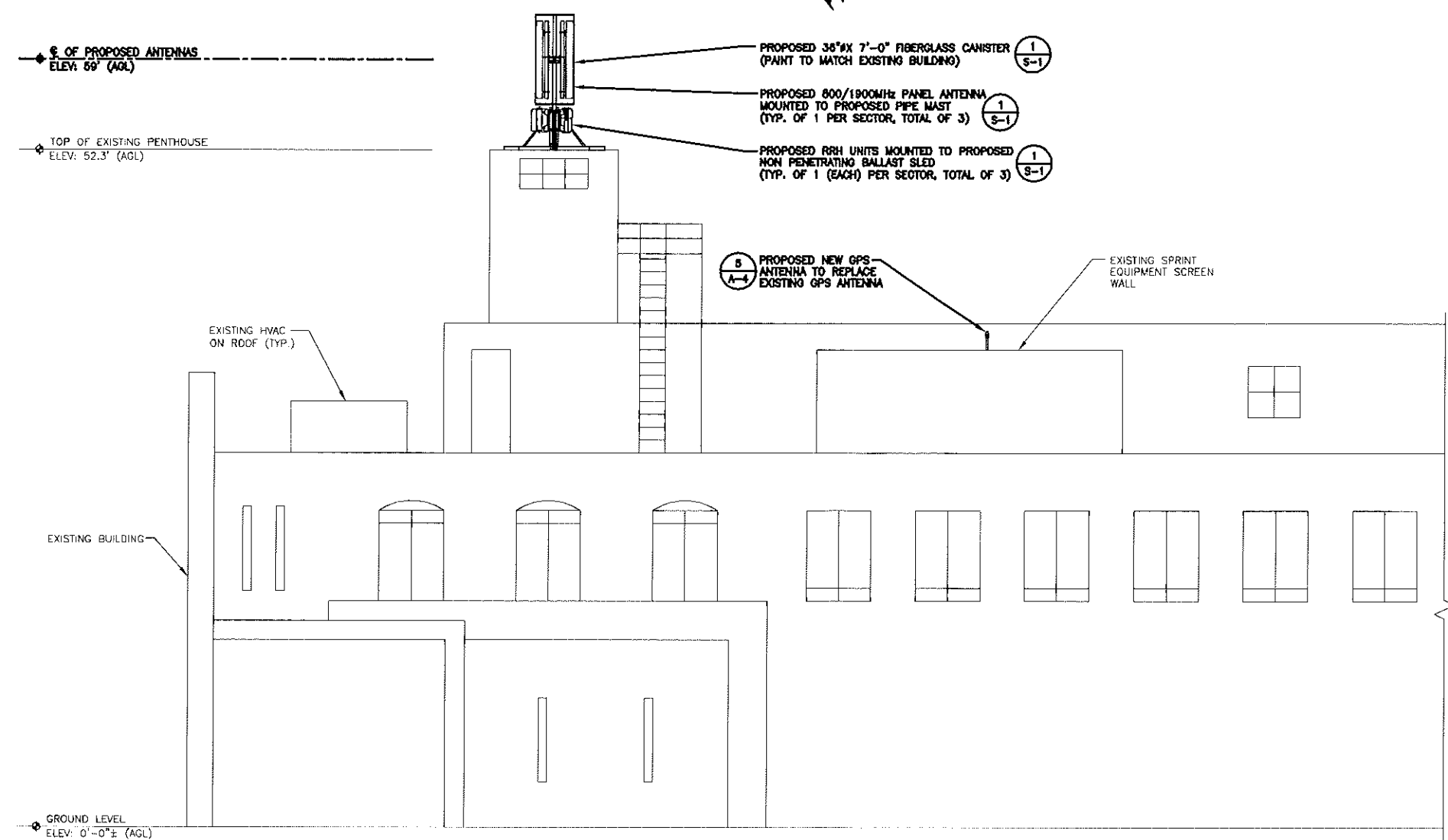
**NOTES:**  
 1) VERIFY EXACT ANTENNA MODEL & AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION.  
 2) REMOVE EXISTING GPS ANTENNA AND REPLACE WITH NEW GPS ANTENNA.



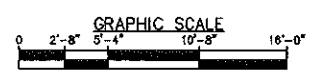
**EXISTING ANTENNA PLAN**  
 SCALE: N.T.S.



**INTERMEDIATE/FINAL ANTENNA PLAN**  
 SCALE: N.T.S.



**PARTIAL SOUTH EAST ELEVATION**  
 SCALE: 3/16"=1'-0"



**Sprint VISION**  
 1 INTERNATIONAL BLVD, SUITE 800  
 MAHWAH, NJ 07435  
 TEL: (800) 357-7641

**Alcatel-Lucent**  
 1 ROBINS ROAD  
 WESTFORD, MA 01886  
 TEL: (978) 952-1600

**Hudson Design Group**  
 1400 OSGOOD STREET  
 BUILDING 20 NORTH, SUITE 3090  
 N. ANDOVER, MA 01845  
 TEL: (978) 557-5653  
 FAX: (978) 336-5385

*Daniel P. Hamm*

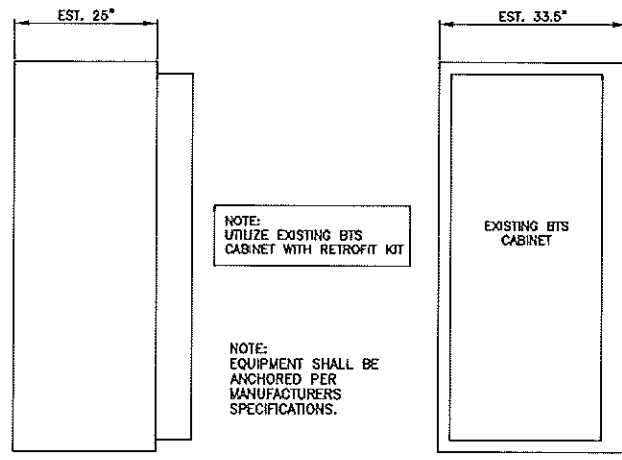
APPROVED BY: DPH

SUBMITTALS			
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1	12/10/12	ISSUED FOR REVIEW	RH

SITE NUMBER:  
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 509 FOREST AVE  
 SITE ADDRESS:  
 509 FOREST AVENUE  
 PORTLAND, ME 04103

SHEET TITLE  
 ANTENNA SCENARIO  
 & ELEVATION

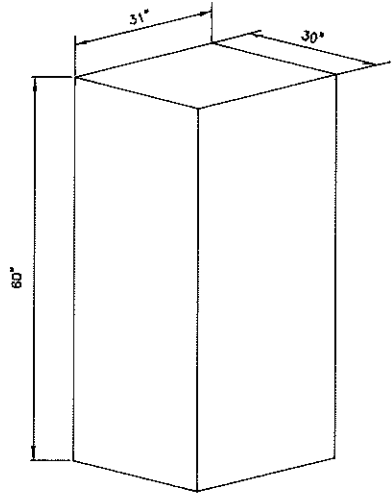
SHEET NUMBER  
 A-2



NOTE:  
UTILIZE EXISTING BTS  
CABINET WITH RETROFIT KIT

NOTE:  
EQUIPMENT SHALL BE  
ANCHORED PER  
MANUFACTURERS  
SPECIFICATIONS.

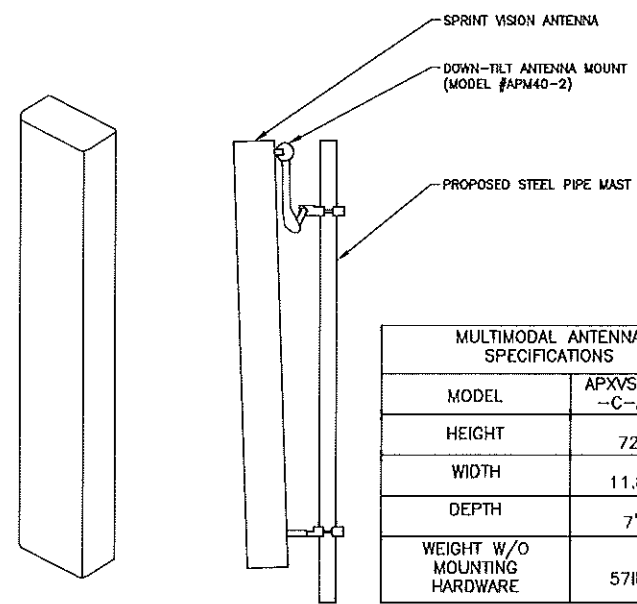
LEFT SIDE VIEW FRONT VIEW  
**EXISTING BTS CABINET**  
SCALE: N.T.S.



60ECv2 CABINET SPECIFICATIONS	
HEIGHT	60"
WIDTH	31"
DEPTH	30"
TYPICAL WEIGHT (3) BATTERY-STRINGS	1625 LBS.
MAX. WEIGHT (5) BATTERY-STRINGS	2830 LBS.

NOTE:  
EQUIPMENT SHALL BE ANCHORED PER  
MANUFACTURERS SPECIFICATIONS.

**BATTERY BACK-UP CABINET**  
SCALE: N.T.S.

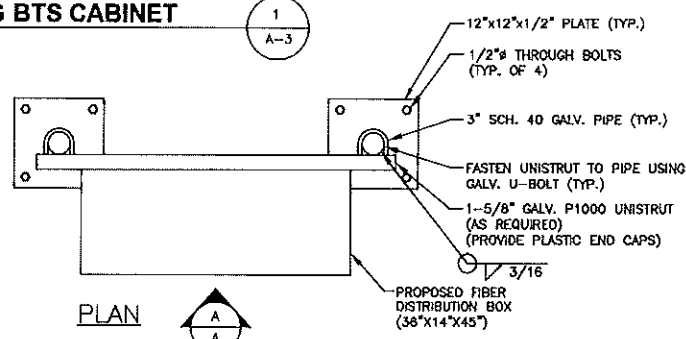


MULTIMODAL ANTENNA SPECIFICATIONS	
MODEL	APXVSP18 --C-A20
HEIGHT	72"
WIDTH	11.8"
DEPTH	7"
WEIGHT W/O MOUNTING HARDWARE	57lbs

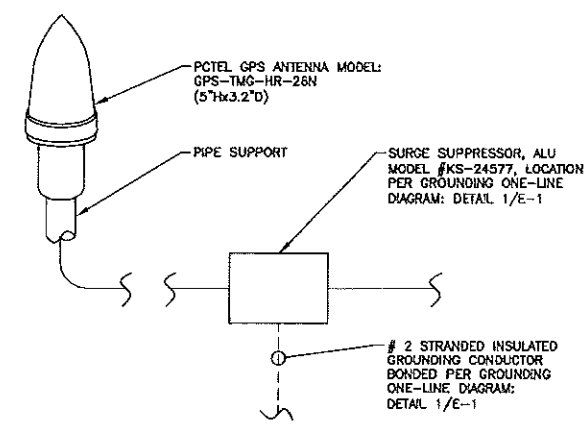
**MULTIMODAL ANTENNA DETAIL**  
SCALE: N.T.S.

NOTE:  
EQUIPMENT SHALL BE ANCHORED PER  
MANUFACTURERS SPECIFICATIONS.

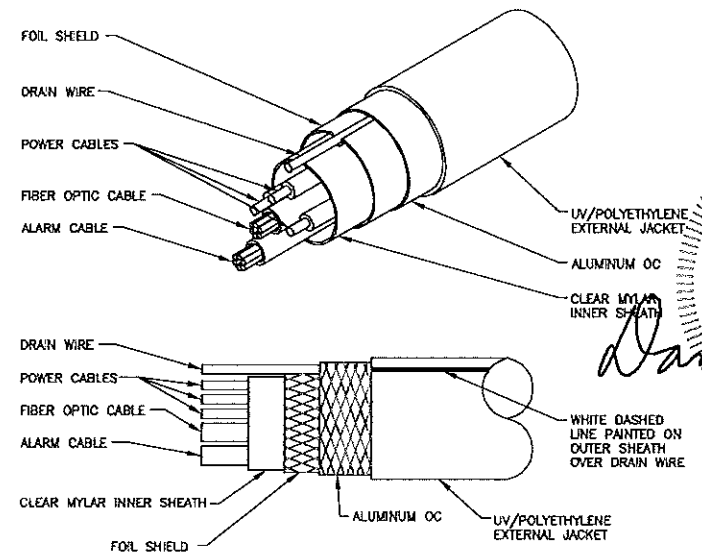
FIBER DISTRIBUTION BOX SPECIFICATIONS	
HEIGHT	45"
WIDTH	36"
DEPTH	14"



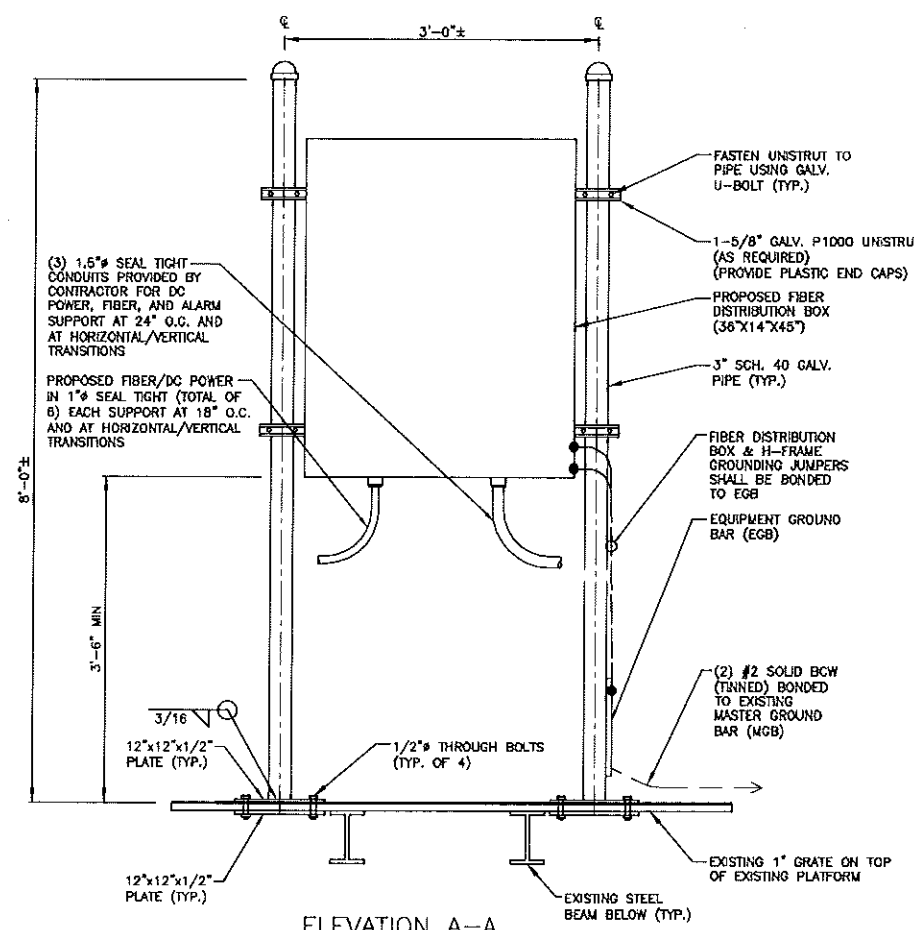
**PLAN**



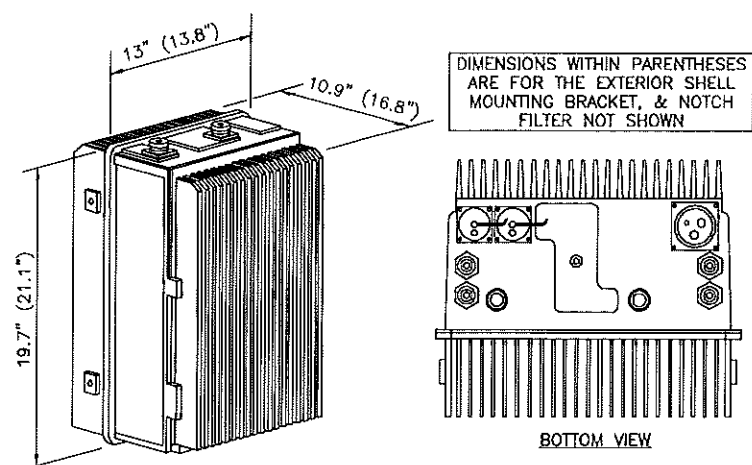
**GPS ANTENNA DETAIL**  
SCALE: N.T.S.



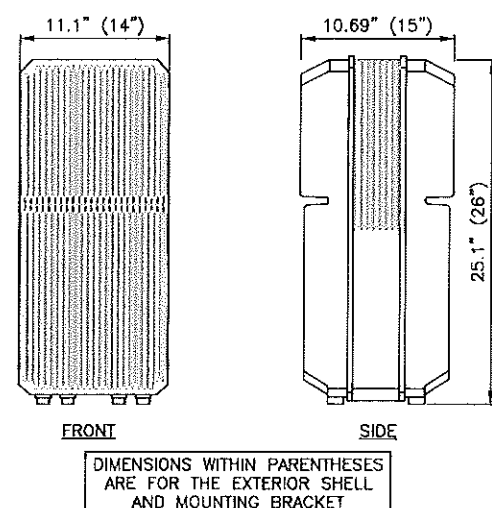
**HYBRIFLEX CABLE DETAIL**  
SCALE: N.T.S.



**FIBER DISTRIBUTION BOX**  
SCALE: N.T.S.



**FD-RRH-2x50-800**  
SCALE: N.T.S.



**FD-RRH-4x40-1900**  
SCALE: N.T.S.

**Sprint VISION**  
1 INTERNATIONAL BLVD, SUITE 830  
MAIRWAH, NJ 07445  
TEL: (800) 357-7441

**Alcatel-Lucent**  
1 ROBENS ROAD  
WESTFORD, MA 01885  
TEL: (978) 952-1600

**Hudson Design Group**  
1600 OSGOOD STREET  
BUILDING 20 NORTH, SUITE 3070  
N. ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 334-5564

*Daniel P. Hamm*

APPROVED BY: DPH

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
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1	12/10/12	ISSUED FOR REVIEW	RH

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BS62XC009  
SITE NAME:  
509 FOREST AVE  
SITE ADDRESS:  
509 FOREST AVENUE  
PORTLAND, ME 04103

SHEET TITLE  
DETAILS

SHEET NUMBER  
A-3

Market		VT-NH-ME		
Cascade ID		BS62XC009		
		SECTOR 1	SECTOR 2	SECTOR 3
Split sector present		No	No	No
1900MHz_Azimuth		135	275	355
1900MHz_No_of_Antennas		1	1	1
1900MHz_RADCenter(ft)		57.1 (**)59	57.1 (**)59	57.1 (**)59
1900MHz_Antenna_Make		RFS	RFS	RFS
1900MHz_Antenna_Model		APXVSP18-C-A20	APXVSP18-C-A20	APXVSP18-C-A20
1900MHz_Horizontal_Beamwidth		65	65	65
1900MHz_Vertical_Beamwidth		5.5	5.5	5.5
1900MHz_Antenna_Height (ft)		6	6	6
1900MHz_AntennaGain(dBd)		15.9	15.9	15.9
1900MHz_E_Tilt		-5	0	0
1900MHz_M_Tilt		0	0	0
1900MHz_Carrier_Forecast_Year_2013		2	2	2
1900MHz_RRH_Manufacturer		ALU	ALU	ALU
1900MHz_RRH_Model		RRH 1900 4X45 65WHz	RRH 1900 4X45 65WHz	RRH 1900 4X45 65WHz
1900MHz_RRH_Count		1	1	1
1900MHz_RRH_Location		Top of the Pole/Tower	Top of the Pole/Tower	Top of the Pole/Tower
1900MHz_Combiner_Model		No Combiner Required	No Combiner Required	No Combiner Required
1900MHz_Top_Jumper #1_Length (RRH or Combiner-to-Antenna for TT or Main Coax to		10 (*)10	10 (*)10	10 (*)10
1900MHz_Top_Jumper #1_Cable_Model (RRH or Combiner-to-Antenna for TT or Main Coax		LCF12-50J	LCF12-50J	LCF12-50J
1900MHz_Top_Jumper #2_Length (RRH to Combiner for TT if applicable, ft)		N/A	N/A	N/A
1900MHz_Top_Jumper #2_Cable_Model (RRH to Combiner for TT if applicable)		N/A	N/A	N/A
1900MHz_Main_Coax_Cable_Length (ft)		N/A (*)90	N/A (*)90	N/A (*)90
1900MHz_Main_Coax_Cable_Model		N/A	N/A	N/A
1900MHz_Bottom_Jumper #1_Length (Ground based RRH to Combiner-OR-Main Coax, ft)		N/A	N/A	N/A
1900MHz_Bottom_Jumper #1_Cable_Model (Ground based RRH to Combiner-OR-Main Coax)		N/A	N/A	N/A
1900MHz_Bottom_Jumper #2_Length (Ground based-Combiner to Main Coax, ft)		N/A	N/A	N/A
1900MHz_Bottom_Jumper #2_Cable_Model (Ground based-Combiner to Main Coax)		N/A	N/A	N/A
800MHz_Azimuth		135	275	355
800MHz_No_of_Antennas		0	0	0
800MHz_RADCenter(ft)		57.1 (**)59	57.1 (**)59	57.1 (**)59
800MHz_Antenna_Make		RFS	RFS	RFS
800MHz_Antenna_Model		APXVSP18-C-A20 (Shared w/1900)	APXVSP18-C-A20 (Shared w/1900)	APXVSP18-C-A20 (Shared w/1900)
800MHz_Horizontal_Beamwidth		65	65	65
800MHz_Vertical_Beamwidth		11.5	11.5	11.5
800MHz_Antenna_Height (ft)		6	6	6
800MHz_AntennaGain (dBd)		13.4	13.4	13.4
800MHz_E_Tilt		0	-8	-8
800MHz_M_Tilt		0	0	0
800MHz_RRH_Manufacturer		ALU	ALU	ALU
800MHz_RRH_Model		800 MHz RRH 2x50W	800 MHz RRH 2x50W	800 MHz RRH 2x50W
800MHz_RRH_Count		1	1	1
800MHz_RRH_Location		Top of the Pole/Tower	Top of the Pole/Tower	Top of the Pole/Tower
800_Top_Jumper #1_Length (RRH to Antenna for TT or Main Coax to Antenna for GM)		10 (*)10	10 (*)10	10 (*)10
800_Top_Jumper_Cable_Model (RRH to Antenna for TT or Main Coax to Antenna for GM)		LCF12-50J	LCF12-50J	LCF12-50J
800MHz_Main_Coax_Cable_Length (ft)		N/A (*)90	N/A (*)90	N/A (*)90
800MHz_Main_Coax_Cable_Model		N/A	N/A	N/A
800_Bottom_Jumper #1_Length (Ground based RRH to Main Coax)		N/A	N/A	N/A
800_Bottom_Jumper #1_Cable_Model (Ground based RRH to Main Coax)		N/A	N/A	N/A
Plumbing Scenario *		124	124	124
Comments	* If plumbing scenario does not match the material received, please contact your Construction Manager 11/9/2012			

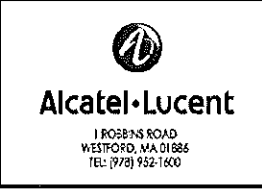
**SPRINT CONSTRUCTION STANDARDS:**

GENERAL CONTRACTOR SHALL ADHERE TO THE FOLLOWING SPRINT CONSTRUCTION STANDARDS (AS AMENDED FROM TIME TO TIME AND AVAILABLE ON THE ALU FST DATABASE):

- CONSTRUCTION STANDARDS: INTEGRATED CONSTRUCTION STANDARDS FOR WIRELESS SITES - VERSION 4.0, INCLUDING EXHIBITS A-M.
- CONSTRUCTION SPECIFICATIONS: CONSTRUCTION STANDARDS EXHIBIT A - STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES (VERSION 4.0).
- GROUNDING STANDARDS: EXTERIOR GROUNDING SYSTEM DESIGN, GROUNDING STANDARDS (SUPPLEMENT); ANTI-THEFT UPDATE TO SPRINT GROUNDING 082412 AND SPRINT ENGINEERING LETTER EL-0504 DATED 04.20.12.
- WEATHER PROOFING STANDARDS: EXCERPT FROM CONSTRUCTION STANDARDS EXHIBIT A, SECTION 3.6 WEATHERPROOFING CONNECTORS AND GROUND KITS.
- COLOR CODING: SPRINT NEXTEL ANT AND LINE COLOR CODING (DRAFT) V3 08-08-11.

**NOTE:**

(\*) NOTE: ALU CM SHALL CONFIRM ALL JUMPER/HYBRIFLEX LENGTHS BEFORE PREPARING B.O.M.



*Handwritten signature: Daniel P. Hamm*

APPROVED BY: DPH

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
2	12/28/12	ISSUED FOR CONSTRUCTION	MAP
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BS62XC009  
SITE NAME:  
509 FOREST AVE  
SITE ADDRESS:  
509 FOREST AVENUE  
PORTLAND, ME 04103

SHEET TITLE  
RF DATA SHEET

SHEET NUMBER  
A-4

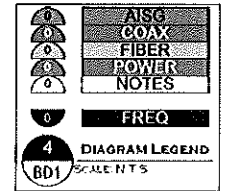
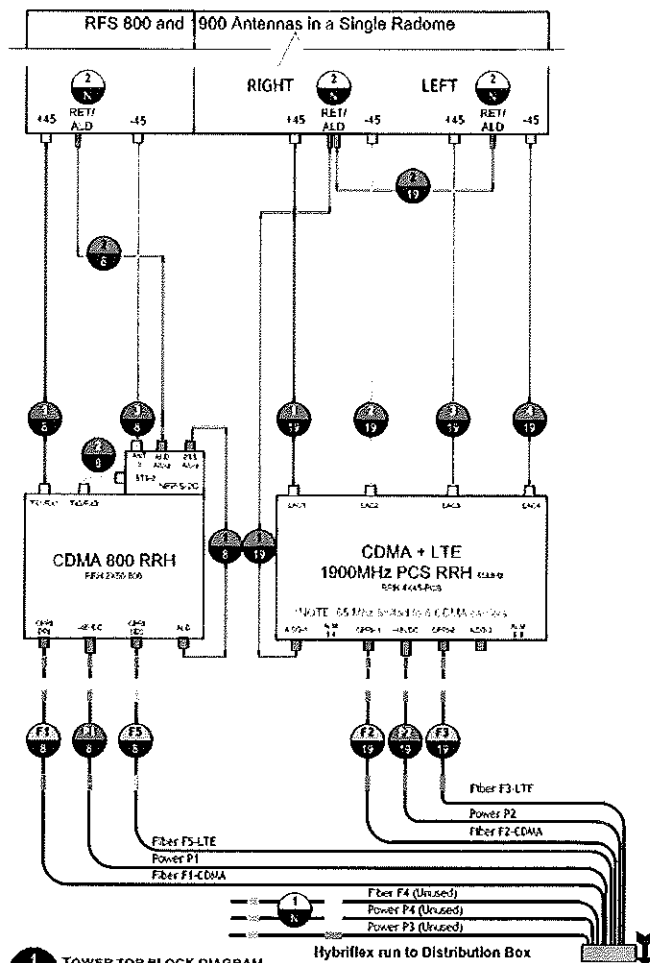
**RF DATA SHEET**

SCALE: N.T.S.



**IMPORTANT:**  
GENERAL CONTRACTOR/TOWER CREW SHALL VERIFY THAT THE LATEST RF DATA SHEET ARE USED FOR EQUIPMENT INSTALLATION.

SCENARIO 124\_v2.0



**Power Feed Polarity Definition:**  
 IF wires are BLACK AND BLACK/WHITE STRIPE:  
 ■ Black = -48VDC Feed (Battery)  
 ■ Black/White Stripe = Return

IF wires are RED AND BLACK:  
 ■ Red = -48VDC Feed (Battery)  
 ■ Black = Return

**NOTE:** For power feed use the same Hybriflex OEM color designator as the fiber.

■ MM Pair 1 = F1 = Green = P1 (Green)  
 ■ MM Pair 2 = F2 = Blue = P2 (Blue)  
 ■ MM Pair 3 = F3 = Red = P3 (Red)  
 ■ MM Pair 4 = F4 = Yellow = P4 (Yellow)  
 ■ MM Pair 5 = F5 = Orange = (No P5 power feed)

**1 TOWER TOP BLOCK DIAGRAM**  
 SCALE: N.T.S.

**2 HYBRIFLEX OEM COLOR CODE**  
 SCALE: N.T.S.

1	DC Power Pair 3 Hybriflex, 1900 LTE RRH1 -48VDC port TO/FROM Distribution Box Breaker 3 (S1), 7 (S2), 11 (S3) 1900MHz
2	Fiber Pair 3, 1900 RRH2 CPRI PRI port TO/FROM Distribution Box, Top L.C Bulkhead, Position 3-4 (S1), 5-10 (S2), Lower L.C BH, Position 3-4 (S3) 1900MHz
3	DC Power Jumper, Power Pair 3 CTAP TO/FROM 1900 LTE RRH2 -48VDC port (42" Jumper) 1900MHz
4	Fiber Jumper, 1900 RRH1 CPRI SEC port TO/FROM 1900 RRH2 CPRI SEC port 1900MHz
5	AISG Cable jumper, 1900 CDMA RRH1 AISG port TO/FROM 1900 Antenna RET/ADL port 1900MHz
6	AISG Cable jumper, 1900 Antenna RET/ADL port TO/FROM 1900 Antenna RET/ALO port (RET Motors) 1900MHz
7	Coax jumper, 1900 LTE RRH1 TX1/RX1 port TO/FROM Combiner Port G1 1900MHz
8	Coax jumper, 1900 LTE RRH1 TX2/RX2 port TO/FROM Combiner Port G2 1900MHz
9	Coax jumper, 1900 LTE RRH2 TX1/RX1(logical TX/RX3) port TO/FROM Combiner Port G3 1900MHz
10	Coax jumper, 1900 LTE RRH2 TX2/RX2(logical TX/RX4) port TO/FROM Combiner Port G4 1900MHz
11	DC Power Pair 2 Hybriflex, 1900 CDMA RRH1 -48VDC port TO/FROM Distribution Box Breaker 2(S1), 6 (S2), 10 (S3) 1900MHz
12	Fiber Pair 2, 1900 CDMA RRH1 CPRI PRI port TO/FROM Distribution Box, Top L.C Bulkhead, Position 13-14 (S1), 19-20 (S2), Lower L.C BH, Position 13-14 (S3) 1900MHz
13	DC Power Jumper, Power Pair 2 CTAP TO/FROM 1900 CDMA RRH2 -48VDC port (42" Jumper) 1900MHz
14	Fiber Jumper, 1900 RRH1 CPRI SEC port TO/FROM 1900 RRH2 CPRI SEC port 1900MHz
15	Coax jumper, 1900 CDMA RRH1 TX1/RX1 port TO/FROM Combiner Port A1B1 1900MHz
16	Coax jumper, 1900 CDMA RRH1 TX2/RX2 port TO/FROM Combiner Port A2B2 1900MHz
17	Coax jumper, 1900 CDMA RRH2 TX1/RX1(logical TX/RX3) port TO/FROM Combiner Port A3B3 1900MHz
18	Coax jumper, 1900 CDMA RRH2 TX2/RX2(logical TX/RX4) port TO/FROM Combiner Port A4B4 1900MHz
19	Coax jumper, 1900 Combiner COM 1 port TO/FROM Antenna +45 port 1900MHz
20	Coax jumper, 1900 Combiner COM 2 port TO/FROM Antenna -45 port 1900MHz
21	Coax jumper, 1900 Combiner COM 3 port TO/FROM Antenna +45 port 1900MHz
22	Coax jumper, 1900 Combiner COM 4 port TO/FROM Antenna -45 port 1900MHz
1	Spare Fiber Pairs & DC Power terminated, weatherproofed, spooled and be wrapped to side of 800MHz RRH (cable management) Notes
2	Alarm jumper cap connection. This alarm jumper must be in place to make the RRH # 2 of the pair. (# 2 is always the one farthest from the ppe) Notes
3	Power Cable "Y" jumper. C-Tap jumper from Pair 3 to 1900 RRH2. Weatherproof C-Tap and leave 18-24" loop Notes

**CONNECTION LEGEND**  
 SCALE: N.T.S.

**IMPORTANT:**  
 GENERAL CONTRACTOR/TOWER CREW SHALL VERIFY THAT THE LATEST NETWORK VISION RAN CONNECTION DIAGRAMS ARE USED FOR EQUIPMENT INSTALLATION

**IMPORTANT:**  
 VELCRO STRAPS ONLY MAY BE USED ON FIBER. CABLE TIES OR TIE WRAP MUST NOT BE USED ON FIBER.

**Sprint**  
 VISION  
 1 INTERNATIONAL BLVD, SUITE 800  
 MAHAHAN, NJ 07475  
 TEL: (800) 337-7641

**Alcatel-Lucent**  
 1 ROSSIS ROAD  
 WESTFORD, MA 01886  
 TEL: (978) 952-1600

**Hudson**  
 Design Group  
 1600 OSGOOD STREET  
 BUILDING 20 NORTH, SUITE 3090  
 N. ANDOVER, MA 01845  
 TEL: (978) 557-5553  
 FAX: (978) 335-5584

*Daniel P. Hamm*

APPROVED BY: DPH

SUBMITTALS			
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2	12/28/12	ISSUED FOR CONSTRUCTION	MAP
1	12/10/12	ISSUED FOR REVIEW	RH

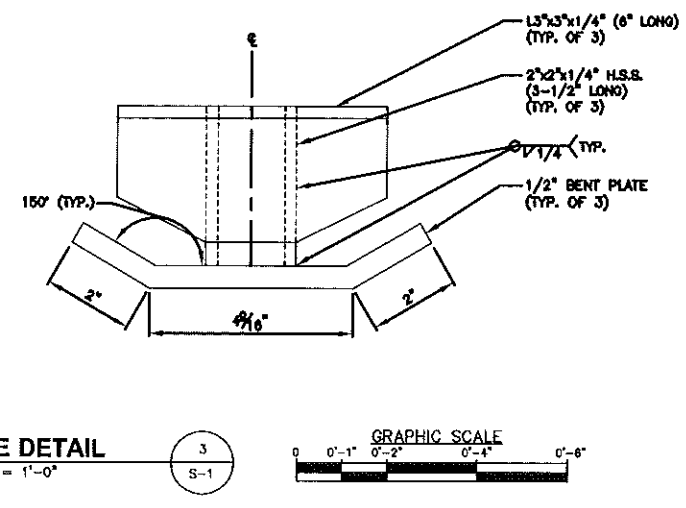
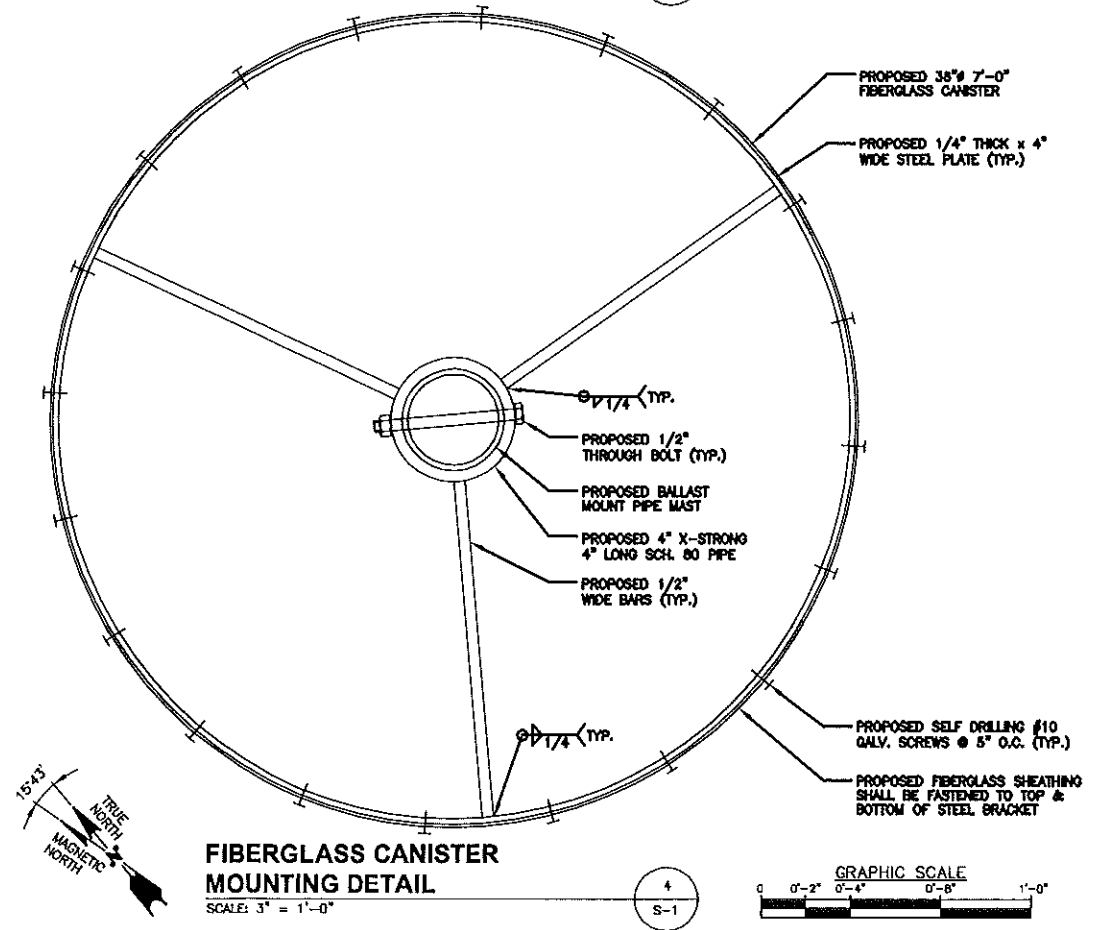
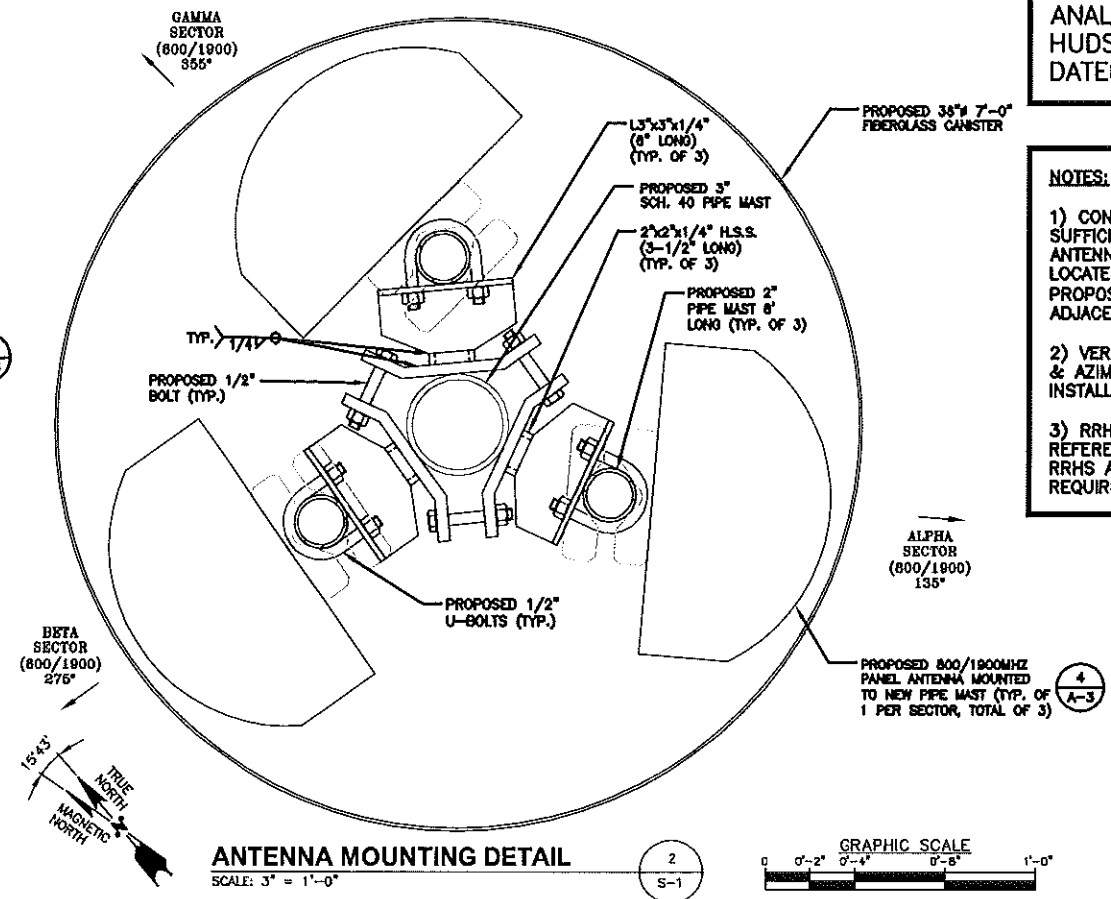
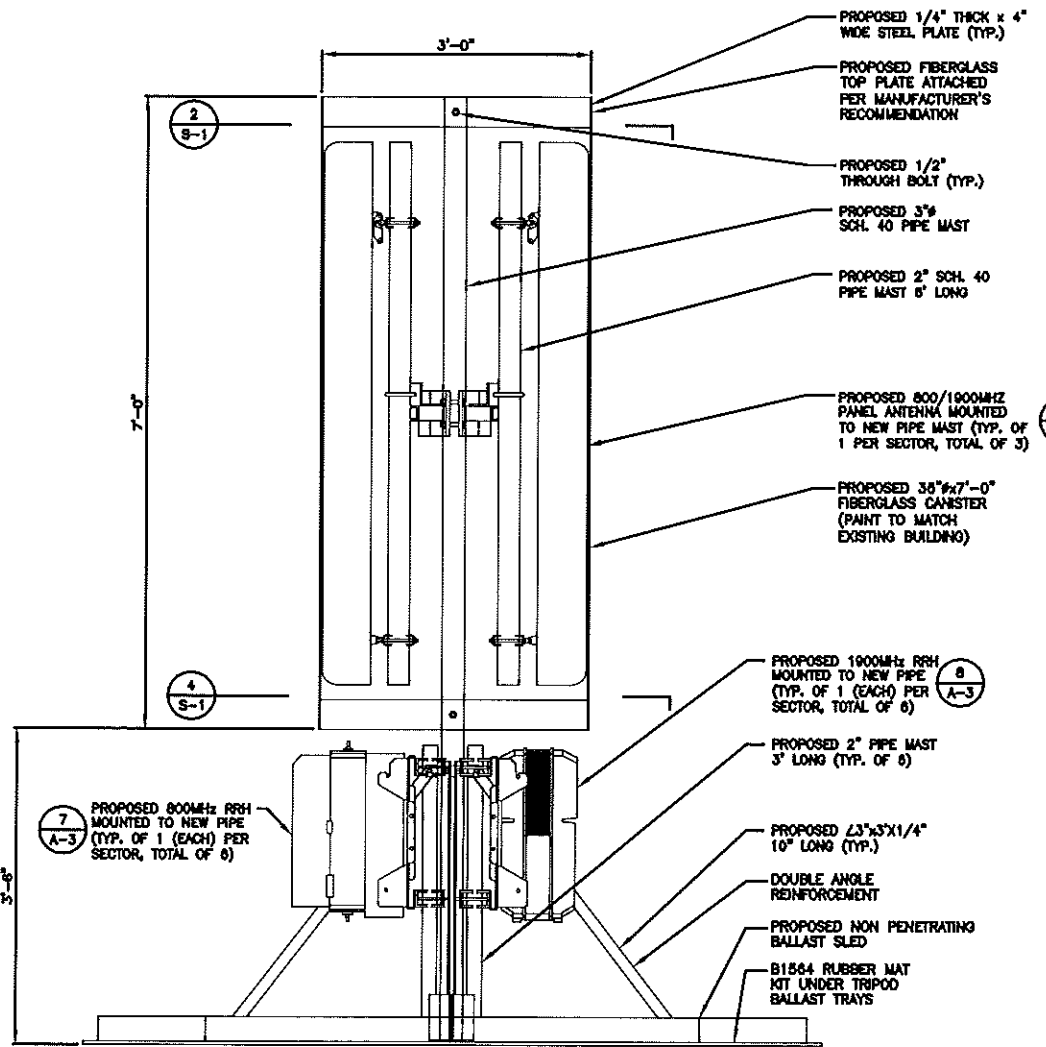
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 BS62XC009  
 SITE NAME:  
 509 FOREST AVE  
 SITE ADDRESS:  
 509 FOREST AVENUE  
 PORTLAND, ME 04103

SHEET TITLE  
 CABINET &  
 ANTENNA WIRING  
 DIAGRAM

SHEET NUMBER  
 A-5

**STRUCTURAL NOTE:**  
STRUCTURAL INFORMATION  
TAKEN FROM STRUCTURAL  
ANALYSIS PERFORMED BY  
HUDSON DESIGN GROUP, LLC.  
DATED: DECEMBER 11, 2012

**NOTES:**  
1) CONTRACTOR TO VERIFY THAT THERE IS  
SUFFICIENT ROOM BEHIND PROPOSED  
ANTENNAS FOR PROPOSED RRHS TO BE  
LOCATED WITHOUT CONFLICTING WITH OTHER  
PROPOSED RRHS/MOUNTING PIPES ON  
ADJACENT SECTORS.  
2) VERIFY EXACT RRH AND ANTENNA MODEL  
& AZIMUTHS WITH RF ENGINEER PRIOR TO  
INSTALLATION.  
3) RRH LOCATION ONLY SHOWN AS  
REFERENCE. CONTRACTOR TO CONFIGURE  
RRHS AS NEED TO MEET PROPOSED  
REQUIREMENTS.



*Daniel P. Hamm*

CHECKED BY: JX

APPROVED BY: DPH

**SUBMITTALS**

REV.	DATE	DESCRIPTION	BY
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1	12/10/12	ISSUED FOR REVIEW	RH

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BS62XC009

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PORTLAND, ME 04103

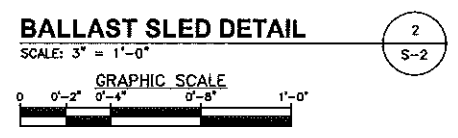
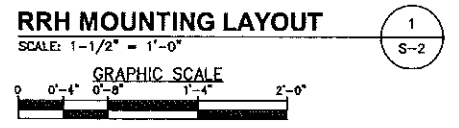
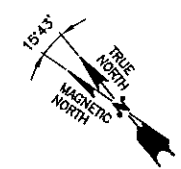
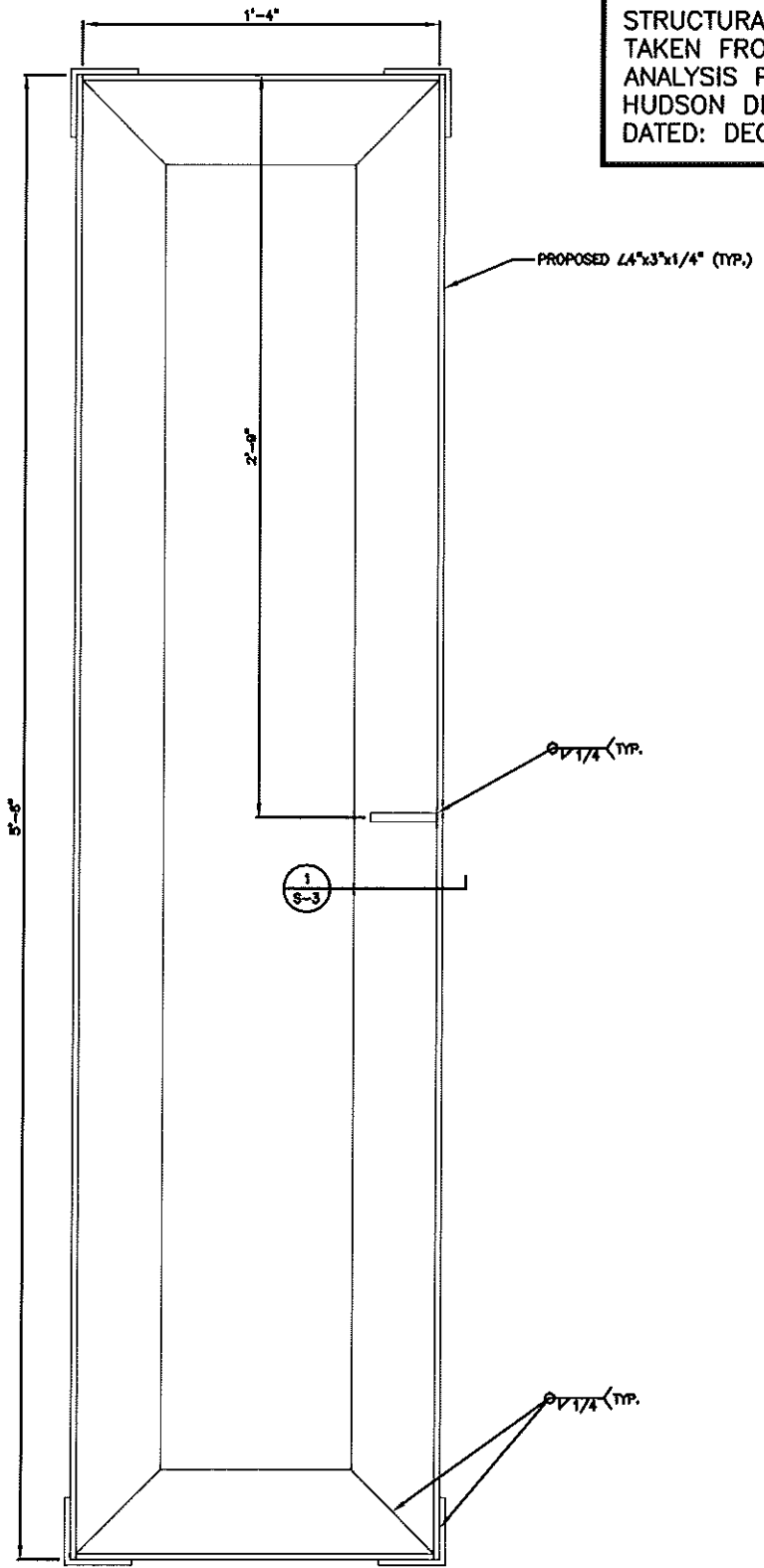
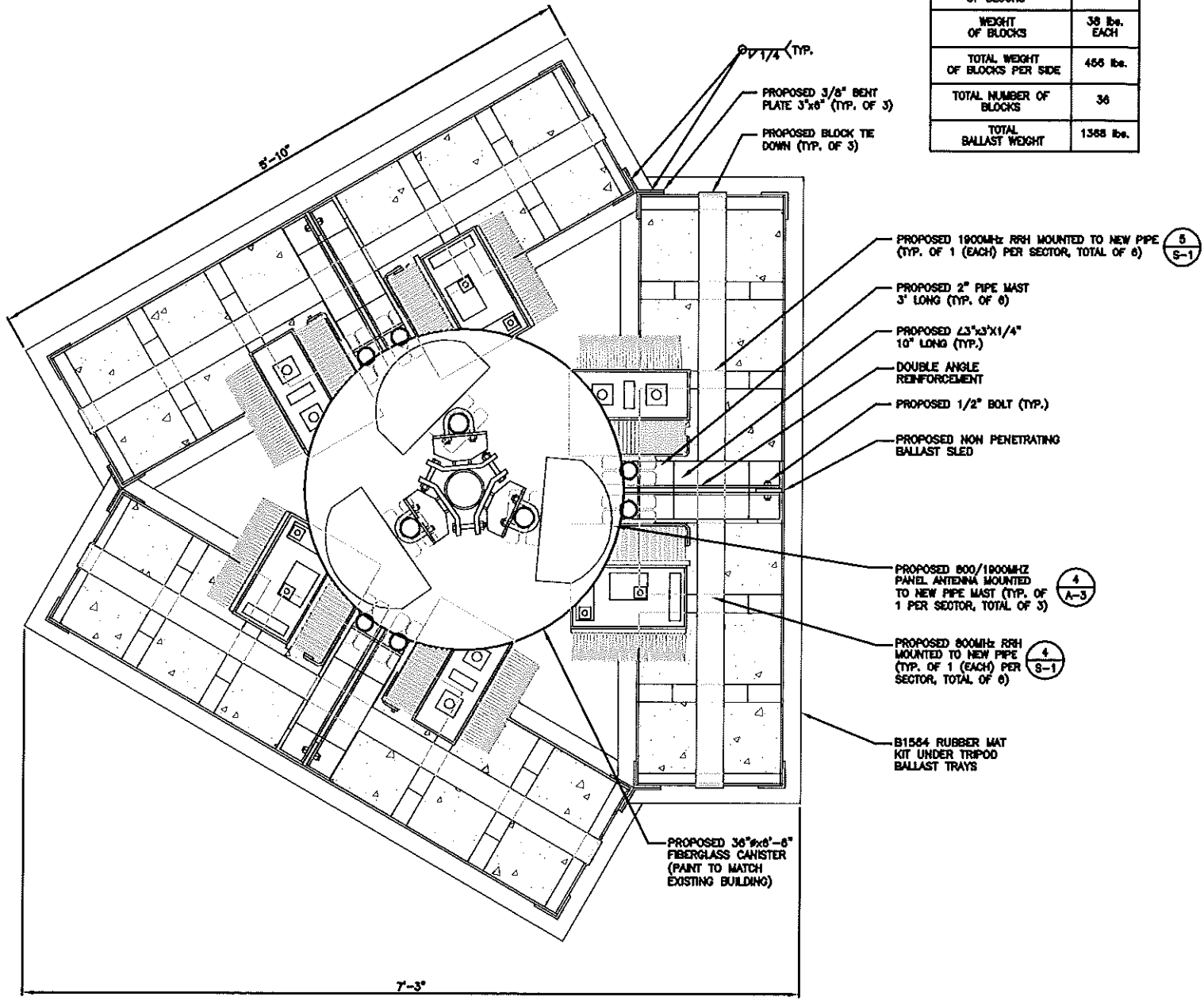
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DETAILS

SHEET NUMBER  
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**STRUCTURAL NOTE:**  
 STRUCTURAL INFORMATION  
 TAKEN FROM STRUCTURAL  
 ANALYSIS PERFORMED BY  
 HUDSON DESIGN GROUP, LLC.  
 DATED: DECEMBER 11, 2012

NUMBER OF BLOCKS PER SIDE	12
SIZE OF BLOCKS	4"x8"x10"
WEIGHT OF BLOCKS	38 lbs. EACH
TOTAL WEIGHT OF BLOCKS PER SIDE	456 lbs.
TOTAL NUMBER OF BLOCKS	36
TOTAL BALLAST WEIGHT	1368 lbs.



**Sprint VISION**  
 1 INTERNATIONAL BLVD, SUITE 800  
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 TEL: (800) 357-7641

**Alcatel-Lucent**  
 1 ROBBINS ROAD  
 WESTFORD, MA 01586  
 TEL: (978) 952-1600

**Hudson Design Group, LLC**  
 1600 OSGOOD STREET  
 BUILDING 20 NORTH, SUITE 3090  
 FLEMING, MA 01845  
 TEL: (978) 557-5553  
 FAX: (978) 336-5585

*Daniel P. Hamm*

CHECKED BY: JX

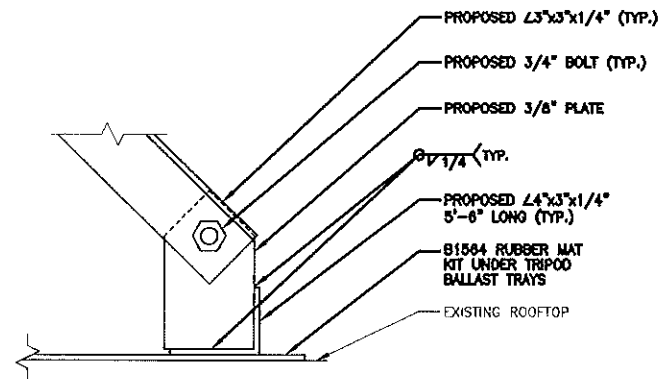
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 509 FOREST AVENUE  
 PORTLAND, ME 04103

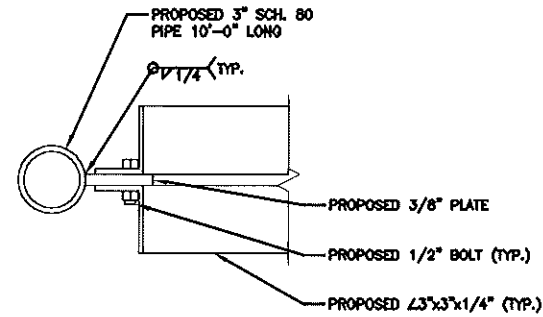
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 DETAILS

SHEET NUMBER  
 S-2



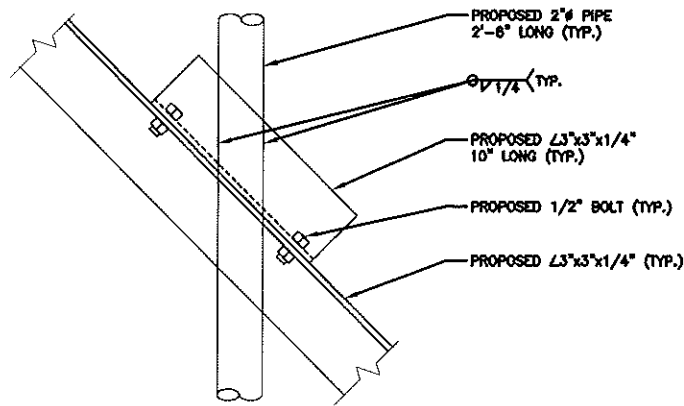
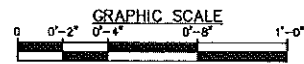
**BALLAST SLED DETAIL 1**

SCALE: 3" = 1'-0"



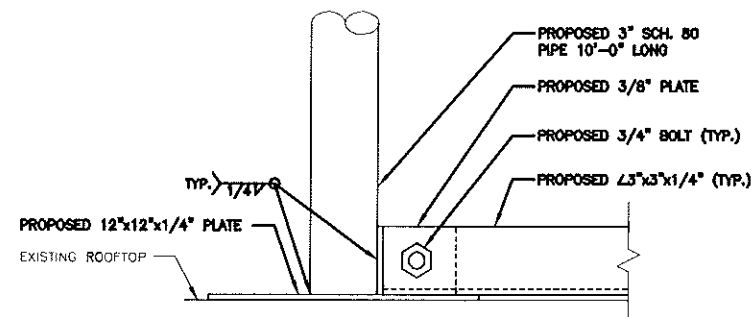
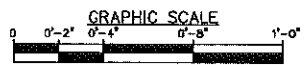
**BALLAST SLED DETAIL 4**

SCALE: 3" = 1'-0"



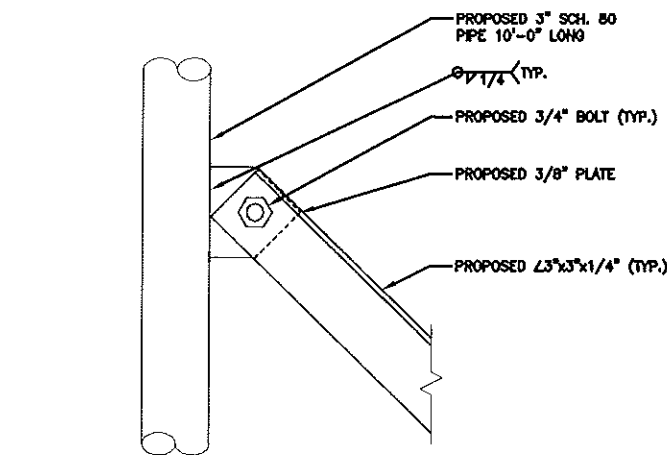
**BALLAST SLED DETAIL 2**

SCALE: 3" = 1'-0"



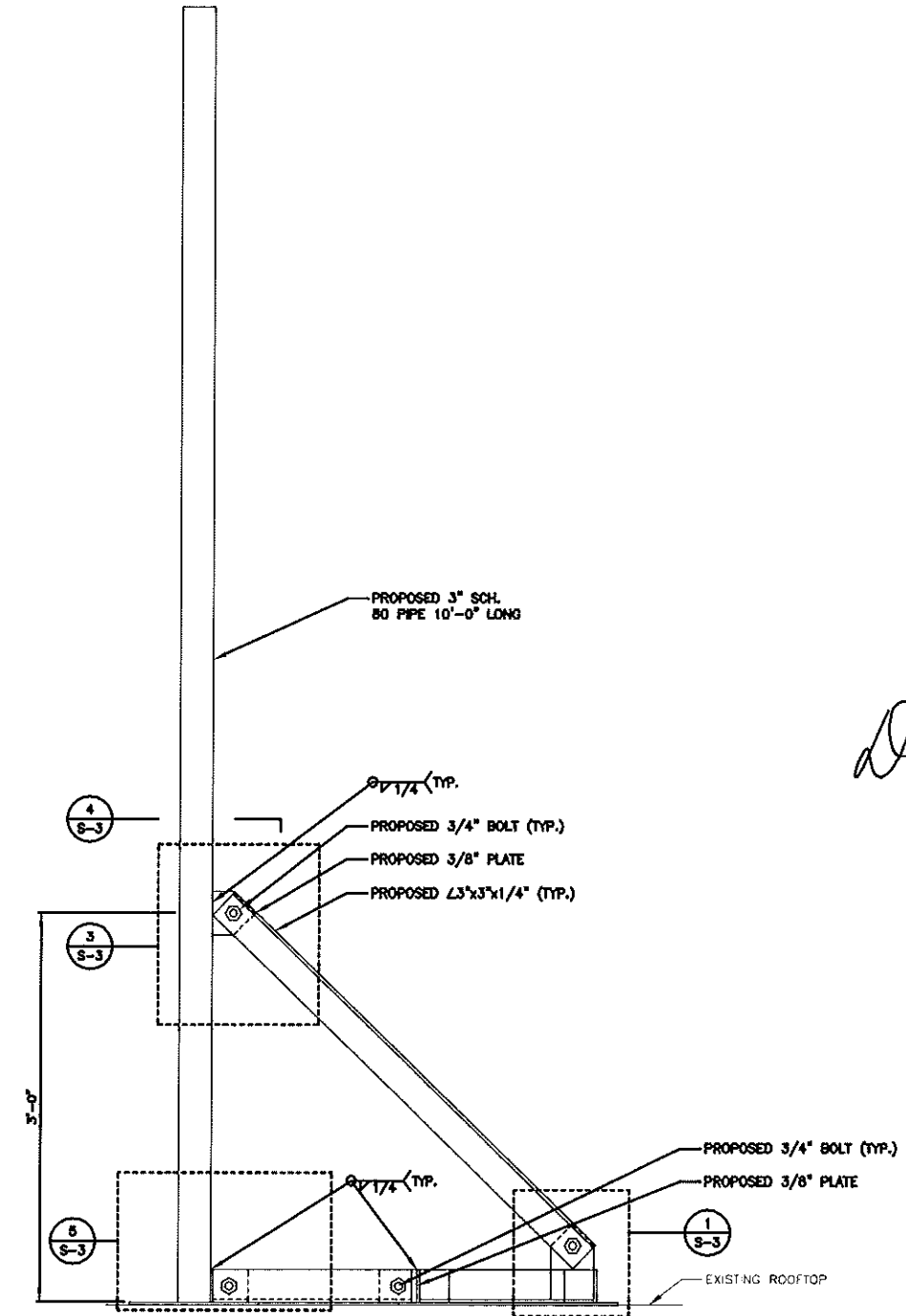
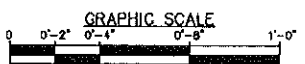
**BALLAST SLED DETAIL 5**

SCALE: 3" = 1'-0"



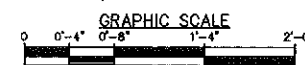
**BALLAST SLED DETAIL 3**

SCALE: 3" = 1'-0"



**BALLAST SLED DETAIL 6**

SCALE: 1-1/2" = 1'-0"



**STRUCTURAL NOTE:**  
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 HUDSON DESIGN GROUP, LLC.  
 DATED: DECEMBER 11, 2012

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 TEL: (978) 952-1600

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 Design Group, Inc.  
 1600 OSGOOD STREET  
 BUILDING 20 NORTH, SUITE 309D  
 N. ANDOVER, MA 01845  
 TEL: (978) 557-5553  
 FAX: (978) 334-5564

*Daniel P. Hamm*

APPROVED BY: DPH

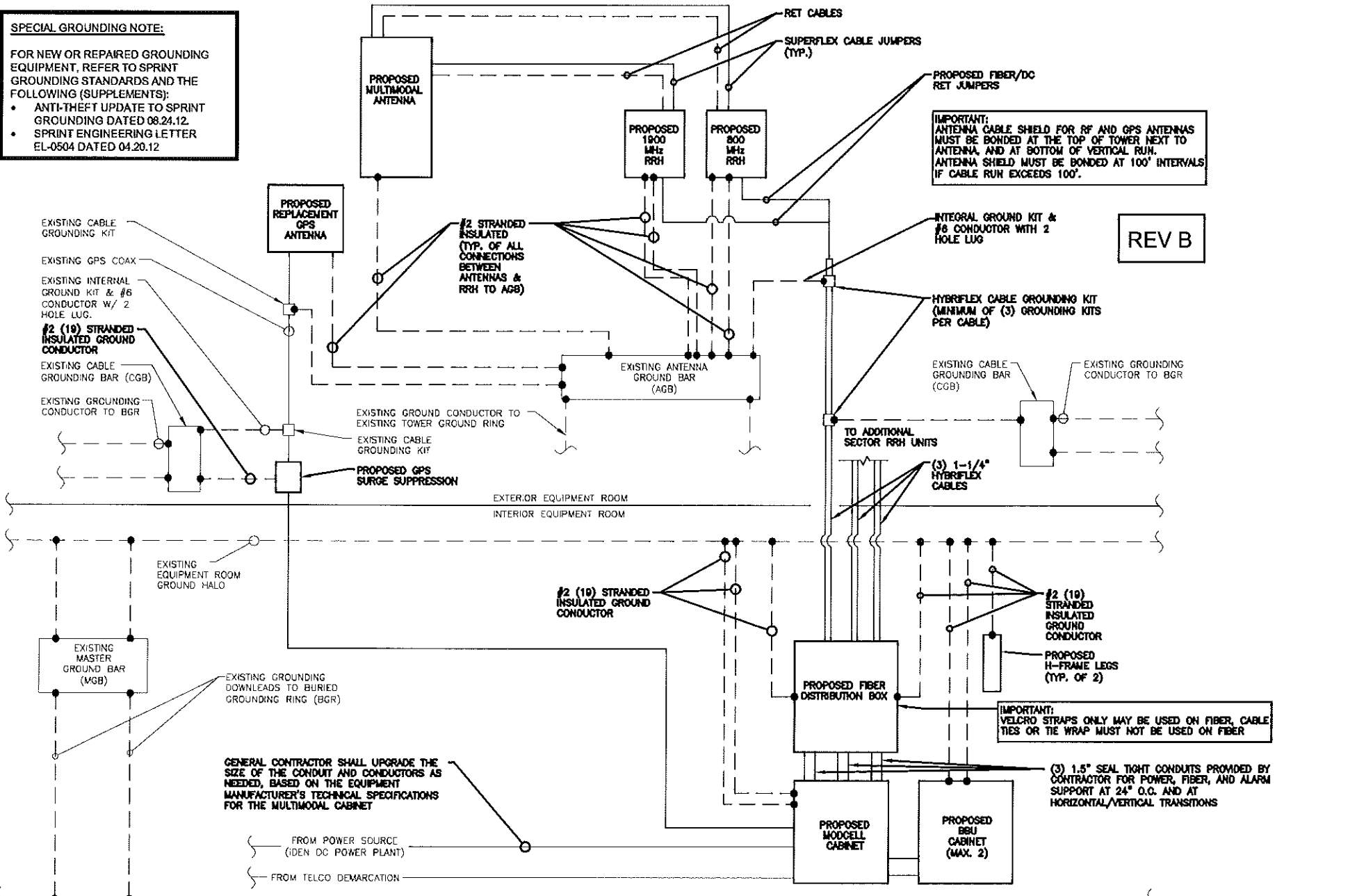
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 PORTLAND, ME 04103

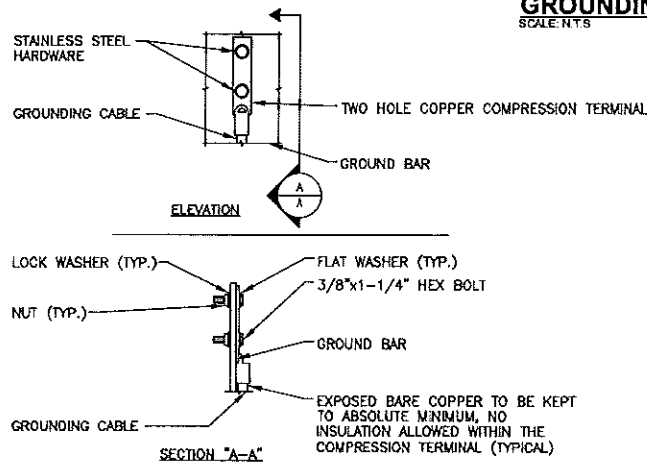
SHEET TITLE  
 STRUCTURAL  
 DETAILS

SHEET NUMBER  
 S-3

**SPECIAL GROUNDING NOTE:**  
 FOR NEW OR REPAIRED GROUNDING EQUIPMENT, REFER TO SPRINT GROUNDING STANDARDS AND THE FOLLOWING (SUPPLEMENTS):  
 • ANTI-THEFT UPDATE TO SPRINT GROUNDING DATED 08.24.12  
 • SPRINT ENGINEERING LETTER EL-0504 DATED 04.20.12

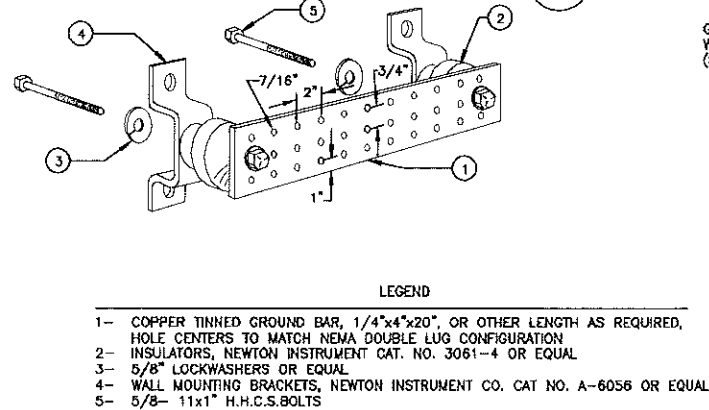


**TOWER TOP INTERIOR TYPICAL POWER & GROUNDING ONE LINE DIAGRAM**  
 SCALE: N.T.S.



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

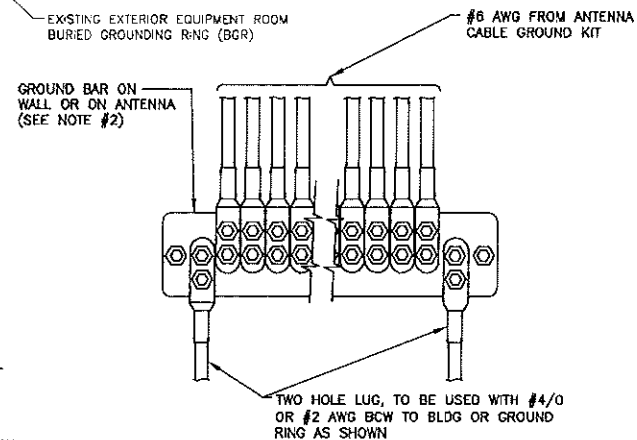
**TYPICAL GROUND BAR CONNECTION DETAIL**  
 SCALE: N.T.S.



**LEGEND**  
 1- COPPER TINNED GROUND BAR, 1/4"x4"x20", OR OTHER LENGTH AS REQUIRED, HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION  
 2- INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4 OR EQUAL  
 3- 5/8" LOCKWASHERS OR EQUAL  
 4- WALL MOUNTING BRACKETS, NEWTON INSTRUMENT CO. CAT NO. A-6056 OR EQUAL  
 5- 5/8- 11x1" H.C.S. BOLTS

**NOTES:**  
 1. ALL BOLTS, NUTS, WASHERS AND LOCK WASHERS SHALL BE 18-8 STAINLESS STEEL.  
 2. ALL GROUND BARS SHALL BE GALVANIZED WITH ANTI-THEFT HARDWARE.

**TYPICAL GROUND BAR DETAIL**  
 SCALE: N.T.S.



**NOTES:**  
 1. CONTRACTOR TO UTILIZE KOPR-SHIELD (THOMAS & BETTS) ON ALL LUG CONNECTIONS.  
 2. ALL GROUND BARS SHALL BE GALVANIZED WITH ANTI-THEFT HARDWARE.

**TYPICAL INSTALLATION OF GROUND WIRE TO GROUND BAR DETAIL**  
 SCALE: N.T.S.

**ELECTRICAL NOTES**

- 1) ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- 2) THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTING WITH LOCAL UTILITY COMPANIES AND SPRINT CONSTRUCTION MANAGER.
- 3) ALL CONDUITS ROUTED BELOW GRADE SHALL TRANSITION TO RIGID GALVANIZED ELBOWS WITH RIGID GALVANIZED STEEL CONDUIT ABOVE GRADE.
- 4) ALL METAL CONDUITS SHALL BE PROVIDED WITH GROUNDING BUSHINGS.
- 5) GENERAL CONTRACTOR SHALL PROVIDE ALL DIRECT BURIED CONDUITS WITH PLASTIC WARNING TAPE IDENTIFYING CONTENTS. TAPE COLORS SHALL BE ORANGE FOR TELEPHONE AND RED FOR ELECTRIC.
- 6) ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- 7) THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIALS DESCRIBED BY DRAWINGS AND SPECIFICATIONS INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- 8) GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- 9) ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- 10) BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- 11) ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THIN INSULATION.
- 12) RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- 13) RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- 14) ABOVE GROUND PORTION OF CONDUIT BETWEEN BTS AND PROJECT OWNER'S CELL SITE SHALL BE RIGID CONDUIT.
- 15) FOR NEW OR REPAIRED GROUNDING EQUIPMENT, REFER TO SPRINT GROUNDING STANDARDS AND THE FOLLOWING SUPPLEMENTS

ANTI-THEFT UPDATE TO SPRINT GROUNDING DATED 08.24.12  
 SPRINT ENGINEERING LETTER EL-0504 DATED 04.20.12

**GROUNDING NOTES**

- 1) ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- 2) ALL GROUND WIRE SHALL BE BARE COPPER #2 AWG UNLESS OTHERWISE NOTED.
- 3) ALL GROUND WIRES SHALL PROVIDE A STRAIGHT, DOWNWARD PATH TO GROUND WITH GRADUAL BENDS AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
- 4) EACH EQUIPMENT CABINET SHALL BE CONNECTED TO THE MASTER GROUND BAR (MGB) WITH #2 AWG INSULATED STRANDED COPPER WIRE. EQUIPMENT CABINETS SHALL EACH HAVE (2) CONNECTIONS.
- 5) PROVIDE DEDICATED #2 AWG COPPER GROUND WIRE FROM EACH ANTENNA MOUNTING PIPE TO ASSOCIATED AGB (TYP.).
- 6) ANTENNA GROUND KITS SHALL BE FURNISHED BY SPRINT AND INSTALLED BY ELECTRICAL CONTRACTOR.
- 7) COORDINATE NEW SPRINT GROUND SYSTEM WITH EXISTING SITE GROUND SYSTEM.
- 8) GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH PROJECT OWNER'S BTS SITE GROUNDING STANDARDS.
- 9) GROUND HYBRIFLEX CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS HYBRIFLEX CABLE GROUNDING KITS.
- 10) ALL GROUND CONNECTIONS TO BE BURNDY HYGROND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- 11) ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
- 12) CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- 13) APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.

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 VISION  
 1 INTERNATIONAL BLVD, SUITE 600  
 MAHWAH, NJ 07475  
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 TEL: (978) 952-1600

**Hudson**  
 Design Group  
 1600 OSGOOD STREET  
 BUILDING 20 NORTH, SUITE 3090  
 N. ANDOVER, MA 01845  
 TEL: (978) 557-5553  
 FAX: (978) 336-5383

*Daniel P. Hamm*  
 CHECKED BY: JX  
 APPROVED BY: DPH

**SUBMITTALS**

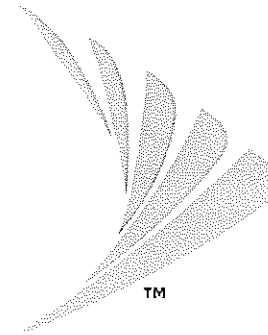
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 PORTLAND, ME 04103

SHEET TITLE  
**TYPICAL POWER & GROUNDING ONE LINE DIAGRAM**

SHEET NUMBER  
 E-1

# Sprint<sup>®</sup> VISION



SITE NUMBER:  
**BS62XC009**

SITE NAME:  
**PORTLAND**

SITE ADDRESS:  
**509 FOREST AVENUE  
PORTLAND, ME 04101**

**Sprint**  
VISION  
1 INTERNATIONAL BLVD, SUITE 800  
MAHWAH, NJ 07495  
TEL: (800) 357-7641

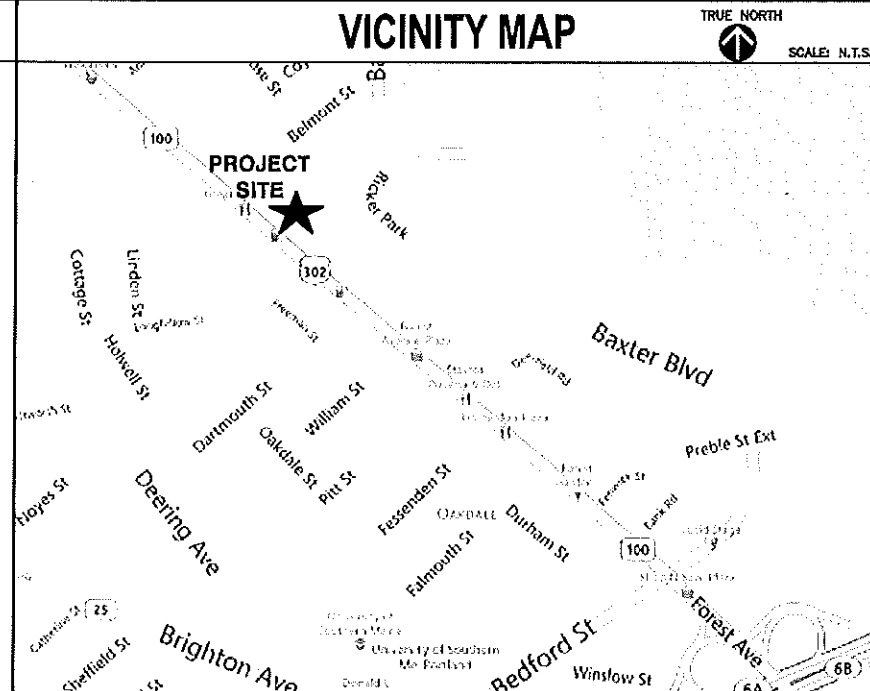
**Alcatel-Lucent**  
1 ROBBINS ROAD  
WESTFORD, MA 01886  
TEL: (978) 952-1600

**Hudson Design Group, LLC**  
1600 OSGOOD STREET  
BUILDING 20 NORTH, SUITE 2-101  
N. ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 336-5584

## SITE INFORMATION

SITE NUMBER:	BS62XC009	LOCAL POWER COMPANY:	CENTRAL MAINE POWER
SITE NAME:	PORTLAND	AAV PROVIDER:	FAIRPOINT
SITE ADDRESS:	509 FOREST AVENUE PORTLAND, ME 04101	APPLICANT:	SPRINT 1 INTERNATIONAL BLVD, SUITE 800 MAHWAH, NJ 07495
COUNTY:	CUMBERLAND	APPLICANT REPRESENTATIVE:	ALCATEL-LUCENT 1 ROBBINS ROAD WESTFORD, MA 01886 TEL: (978) 952-1600
ZONING:	B2b - BUSINESS COMMUNITY	SITE ACQUISITION CONSULTANT:	ALCATEL-LUCENT 1 ROBBINS ROAD WESTFORD, MA 01886 TEL: (978) 952-1600
PARCEL ID:	MAP 127 LOT A002	A&E CONSULTANT:	HUDSON DESIGN GROUP LLC 1600 OSGOOD STREET BLDG 20 NORTH, SUITE 2-101 NORTH ANDOVER, MA 01845 TEL: (978) 557-5553 FAX: (978) 336-5586
COORDINATES:	N 43°40'3.59" W 70°16'43.77"		
GROUND ELEV.:	36± (AMSL)		
STRUCTURE TYPE:	ROOF TOP		
STRUCTURE HEIGHT:	55' (AGL)		
ANTENNA RAD CENTER:	59± (AGL)		
PROPERTY OWNER:	ALPINE REALTY CORP. 380 WARREN AVENUE PORTLAND, ME 04103		

## VICINITY MAP



## SHEET INDEX

SHEET	DESCRIPTION	REV
T-1	TITLE SHEET	0
T-2	SITE PHOTOS	0
A-1	COMPOUND PLAN	0
A-2	DETAILS	0

## APPROVALS

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

ALCATEL-LUCENT REP: \_\_\_\_\_ DATE: \_\_\_\_\_  
 AAV REP: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SITE ACQUISITION: \_\_\_\_\_ DATE: \_\_\_\_\_  
 LANDLORD/PROPERTY OWNER: \_\_\_\_\_ DATE: \_\_\_\_\_

## GENERAL NOTES

- THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION:  
 -HANDICAPPED ACCESS NOT REQUIRED  
 - PORTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED  
 -NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- DEVELOPMENT AND USE OF THE SITE WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.  
 BUILDING CODE: MASSACHUSETTS STATE BUILDING CODE 780 CMR - 8TH EDITION  
 ELECTRICAL CODE: 2008 NATIONAL ELECTRICAL CODE  
 STRUCTURAL CODE: TIA/EIA-222-G OR LATEST EDITION

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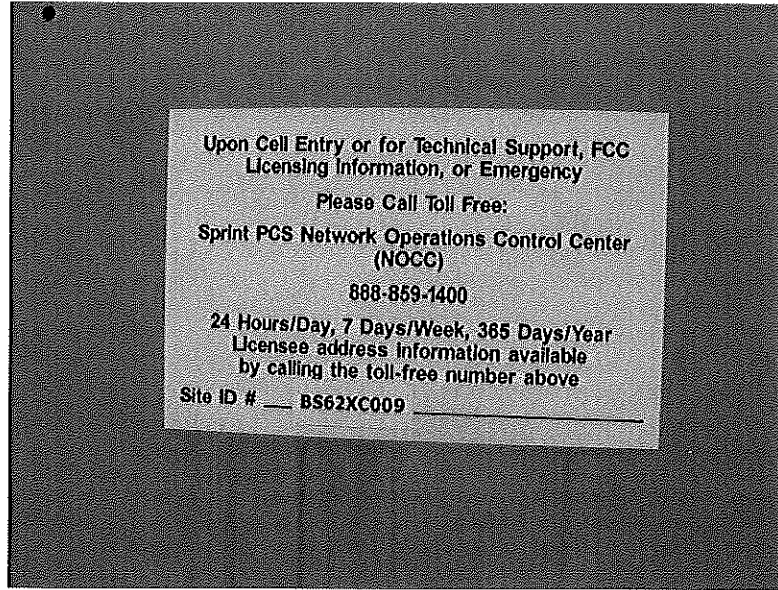
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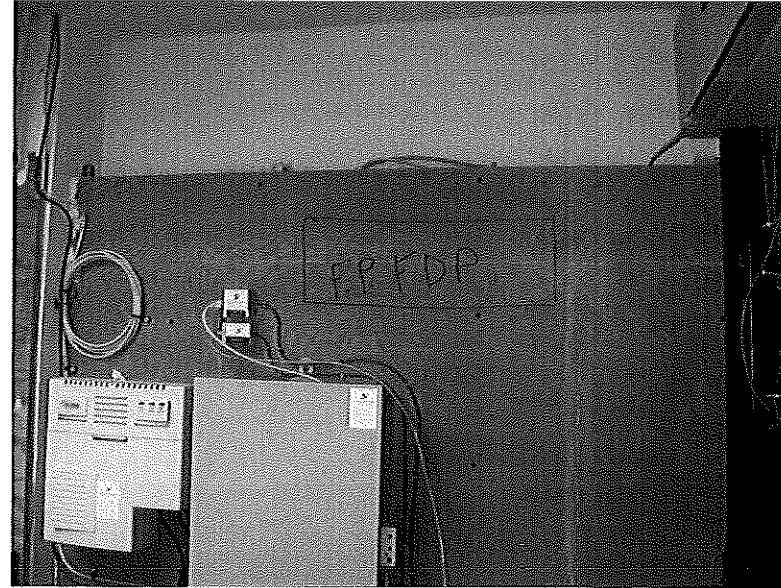
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SHEET TITLE  
TITLE SHEET

SHEET NUMBER  
T-1



EXISTING SIGNAGE 1  
T-2



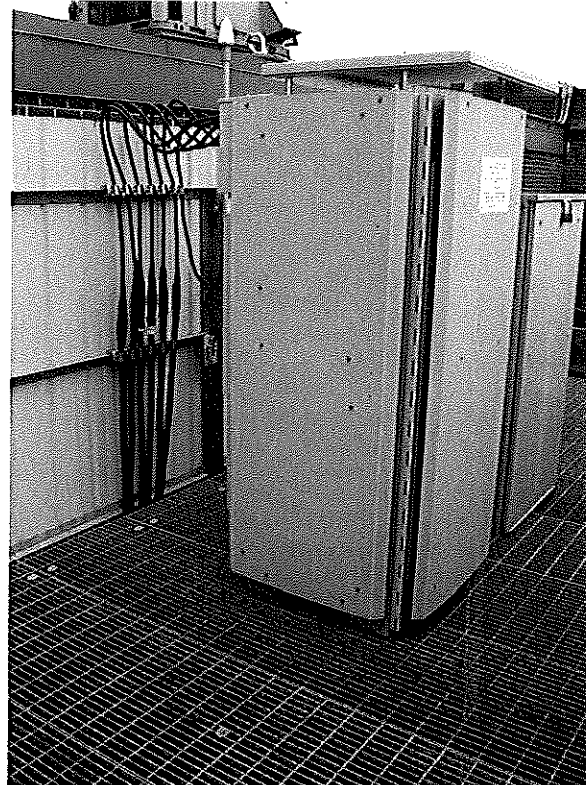
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T-2



EXISTING EQUIPMENT AREA 3  
T-2



EXISTING TELCO CABINET 4  
T-2



EXISTING POWER SOURCE 5  
T-2

PROPOSED INSTALL NEW METRO NID  
INSIDE EXISTING SPRINT TELCO CABINET



PROPOSED NID EQUIPMENT LOCATION 6  
T-2

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CHECKED BY: KB

APPROVED BY: DPH

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SHEET TITLE  
SITE PHOTOS

SHEET NUMBER  
T-2

**Sprint**  
VISION  
1 INTERNATIONAL BLVD, SUITE 800  
MAHWAH, NJ 07435  
TEL: (800) 337-7641

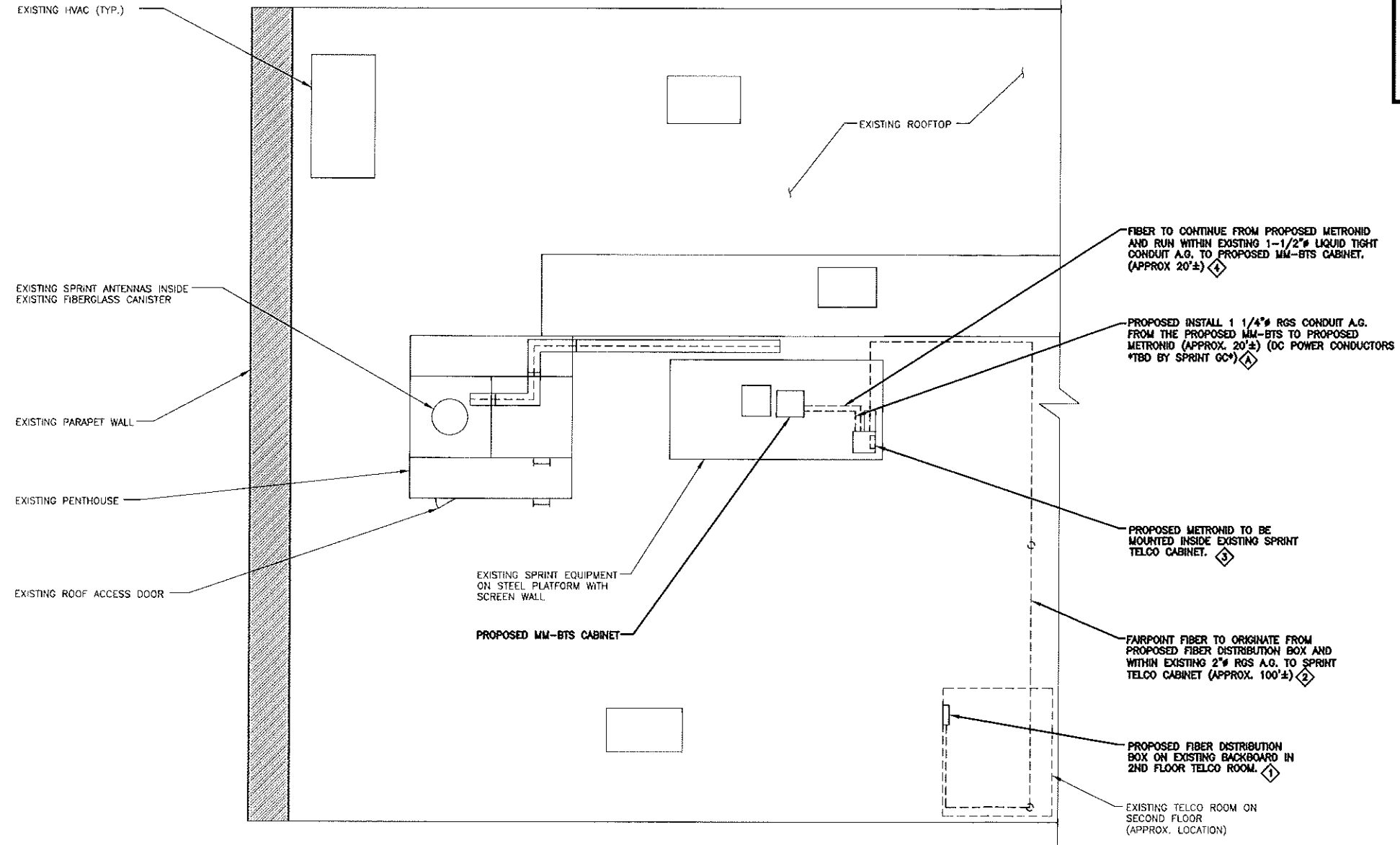
**Alcatel-Lucent**  
1 ROSAN ROAD  
WESTFORD, MA 01886  
TEL: (978) 952-1600

**Hudson**  
Design Group, Inc.  
1600 OSGOOD STREET  
BUILDING 20 NORTH, SUITE 2-101  
N. ANDOVER, MA 01845  
TEL: (978) 557-5553  
FAX: (978) 335-5586

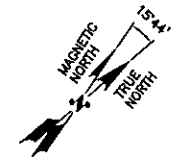
- AAV SCOPE OF WORK NOTES:**
- ① FIBER RUN: PROPOSED FIBER DISTRIBUTION BOX ON EXISTING BACKBOARD IN 2ND FLOOR TELCO ROOM.
  - ② FAIRPOINT FIBER TO ORIGINATE FROM PROPOSED FIBER DISTRIBUTION BOX AND WITHIN EXISTING 2" RGS A.G. TO SPRINT TELCO CABINET (APPROX. 100'±)
  - ③ PROPOSED METRONID TO BE MOUNTED INSIDE EXISTING SPRINT TELCO CABINET.
  - ④ FIBER TO CONTINUE FROM PROPOSED METRONID AND RUN WITHIN EXISTING 1-1/2" LIQUID TIGHT CONDUIT A.G. TO PROPOSED MM-BTS CABINET. (APPROX 20'±)
  - ⑤ PROPOSED FIBER FROM PROPOSED FIBER DISTRIBUTION BOX TO PROPOSED MM-BTS CABINET (APPROX. 120'± TOTAL)
  - ⑥ POWER RUN: PROPOSED INSTALL 1 1/4" RGS CONDUIT A.G. FROM THE PROPOSED MM-BTS TO PROPOSED METRONID (APPROX. 20'±) (DC POWER CONDUCTORS \*TBD BY SPRINT GC\*)

CALL  
BEFORE YOU DIG  
CALL TOLL FREE 888-DIG-SAFE

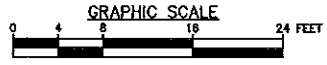
SPRINT TO PROVIDE MULE TAPE AND INNERDUCT IN EXISTING/PROPOSED CONDUIT PATHS UNLESS OTHERWISE NOTED



NOTE: EQUIPMENT ON ROOF NOT SHOWN FOR CLARITY



**COMPOUND PLAN**  
SCALE: 1/8"=1'-0"



CHECKED BY: KB

APPROVED BY: DPH

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
0	08/27/12	FOR REVIEW	WA

SITE NUMBER:  
BS62XC009  
SITE NAME:  
PORTLAND  
SITE ADDRESS:  
509 FOREST AVENUE  
PORTLAND, ME 04101

SHEET TITLE  
COMPOUND PLAN

SHEET NUMBER  
A-1

MAXIMUM PIPE DIAMETER (%)	MAXIMUM EMT	ANNULAR SPACE (in.)	FORMING MATERIAL THICKNESS (in.)	MINIMUM SEALANT THICKNESS (in.)	F RATING (HOURS)	T RATING (HOURS)
1-1/2	-	3/8 TO 2-1/8	2-1/2	2	3	1
6	4	3/8 TO 3/4	3-1/2	1	3	0
6	4	3/8 TO 1	2-1/2	2	3	0

CONCRETE FLOOR OR WALL ASSEMBLY, MINIMUM 4-1/2 in. THICKNESS FLOOR/ MINIMUM 8-1/2 in. WALL

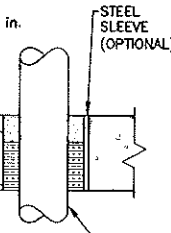
TYPE AS OR TYPE SS: MINIMUM THICKNESS OF SEALANT AS SPECIFIED IN THE TABLE BELOW, APPLIED WITHIN THE OPENING, FLUSH WITH THE TOP SURFACE OF THE FLOOR OR BOTH SURFACES OF THE WALL.

FORMING MATERIAL: MINERAL WOOL INSULATION (MINIMUM 4.0 pcf) FIRMLY PACKED INTO THE OPENING AS A PERMANENT FORM; SEE TABLE FOR MINIMUM REQUIRED THICKNESS

METALLIC PIPE: STEEL PIPE: 6" (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE. CONDUIT: 4" (OR SMALLER) ELECTRICAL METALLIC TUBING (EMT) OR 6" RIGID STEEL CONDUIT.

UL SYSTEM NUMBER: C-AJ-1020  
F RATING - 3 HR.

PIPE AND CONDUIT PENETRATION  
DETAIL IN CONCRETE OR MASONRY

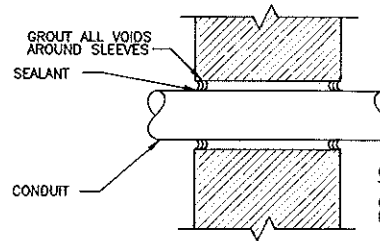
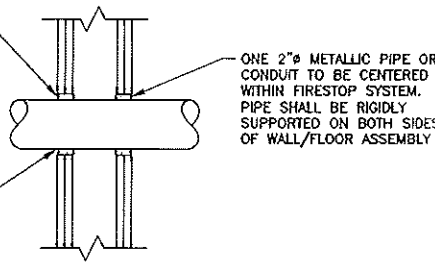


PACKING MATERIAL: MIN. 1 in. THICKNESS OF MIN. 3.5 pcf FIBERGLASS INSULATION SHALL BE WRAPPED AROUND THE THROUGH-PENETRANT AND SECURED TOGETHER BY MEANS OF NO. 24 AWG STEEL TIE WIRE. PACKING MATERIAL SHALL BE CENTERED AT MID-DEPTH OF OPENING AND RECESSED FROM BOTH SURFACES OF WALL ASSEMBLY REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.

FILL VOID OR CAVITY MATERIAL - CAULK OR PUTTY: IN 2 HR FIRE RATED ASSEMBLIES MIN 3/4 in. THICKNESS FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/4 in. CROWN IS FORMED AROUND THE PENETRATING ITEM. IN 1 HR FIRE RATED ASSEMBLIES, MIN 5/8 in. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS ON BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 3/8 in. CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING 1 in. BEYOND THE PERIPHERY OF THE OPENING.

SPECIFIED TECHNOLOGIES INC. SPECSEAL SERIES SSS SEALANT, SPECSEAL LCI SEALANT OR SPECSEAL PUTTY. UL SYSTEM NUMBER: W-L-1029  
F RATING - 1 & 2 HR.

PIPE AND CONDUIT PENETRATION  
DETAIL IN GYPSUM WALLBOARD



PIPE AND CONDUIT PENETRATION  
DETAIL IN NON-RATED PARTITION

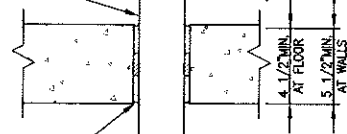
### PENETRATION DETAILS

SCALE: N.T.S.

ALL CORES THROUGH ELECTRIC ROOMS TO BE FIRE-STOPPED.  
USE FULL CONDUIT RUNS THROUGH PENETRATIONS

PACKING MATERIAL: MIN 1-1/2 in. THICKNESS OF MIN 6 pcf MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.

ONE 2" SCHEDULE 40 PVC PIPE TO BE CENTERED WITHIN FIRESTOP SYSTEM. A NOM. ANNULAR SPACE OF 5/16" IS REQUIRED WITHIN THE FIRESTOP SYSTEM PIPE SHALL BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL/FLOOR ASSEMBLY



FILL VOID OR CAVITY MATERIAL - SEALANT: MIN 2 in. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH THE TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL.

SPECIFIED TECHNOLOGIES INC. SPECSEAL SERIES SSS SEALANT OR SPECSEAL LCI SEALANT.

UL SYSTEM NUMBER: C-AJ-2057  
F RATING - 2 HR.

PVC CONDUIT PENETRATION  
DETAIL IN CONCRETE OR MASONRY

WALL HR	MAX DIAM OF THROUGH PENETRANT in.	T RATING HR
1	2	
2	1-1/4	
2	2	
2	1-1/4	1 1/2

THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

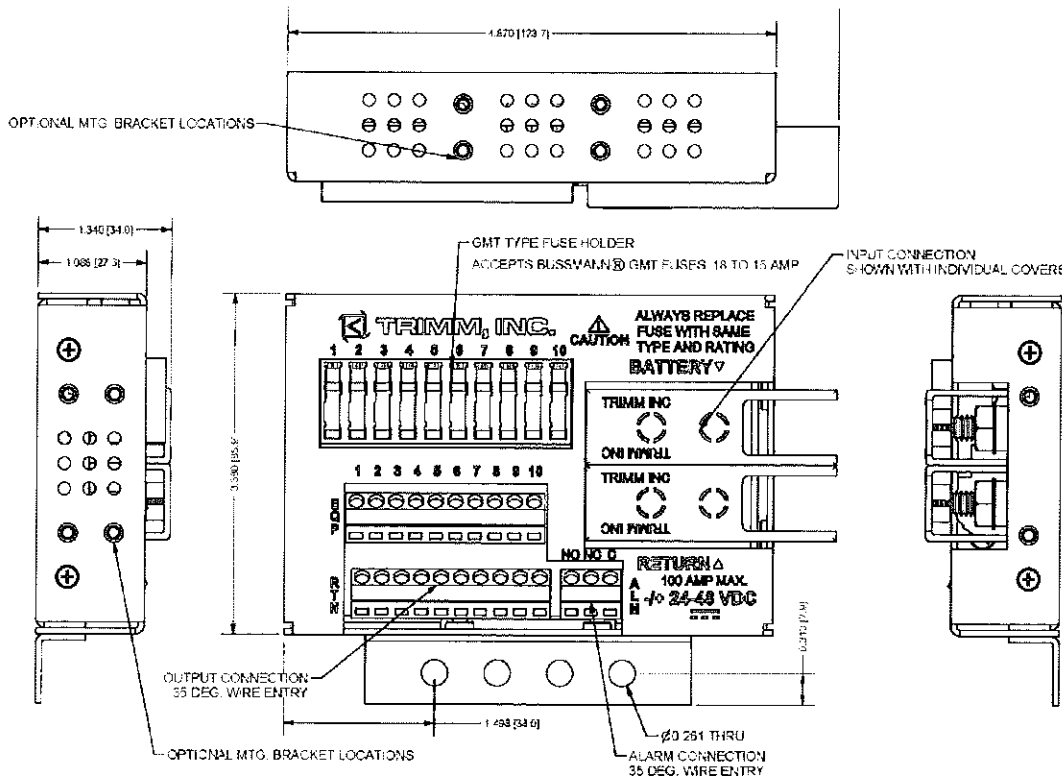
THROUGH PENETRANTS: ONE 2" NONMETALLIC PIPE, CONDUIT OR RACEWAY TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. A NOM ANNULAR SPACE OF 5/16 in. IS REQUIRED WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR RACEWAY TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR OR WALL ASSEMBLY.

FILL VOID OR CAVITY MATERIAL - SEALANT: MIN 5/8 in. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/4 in. THICK CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING 1 in. BEYOND THE PERIPHERY OF THE OPENING.

SPECIFIED TECHNOLOGIES INC. SPECSEAL SERIES SSS SEALANT, SPECSEAL LCI SEALANT.

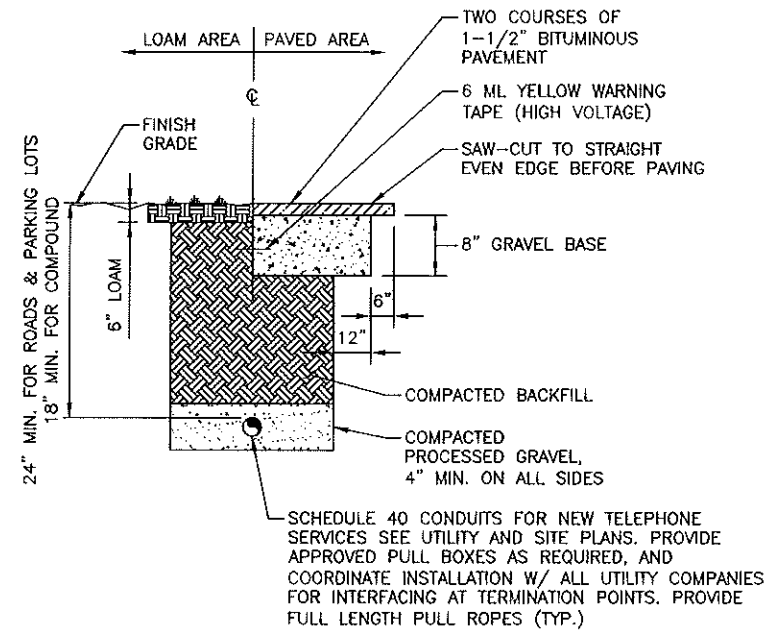
UL SYSTEM NUMBER: W-L-2093  
F RATING - 1 & 2 HR.

PVC CONDUIT PENETRATION  
DETAIL IN GYPSUM WALLBOARD



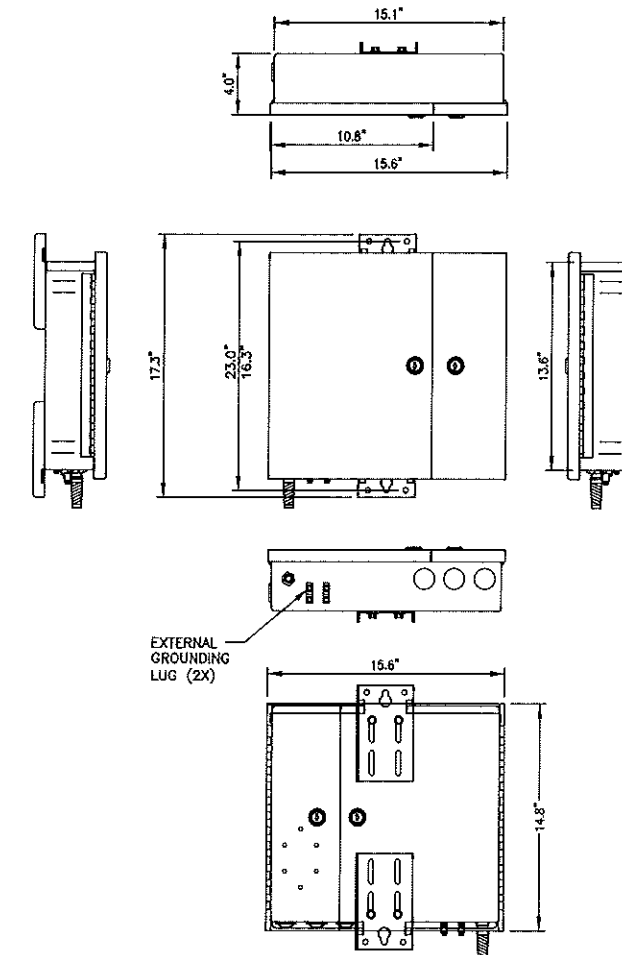
### FUSE PANEL DETAIL

SCALE: N.T.S.



### BURIED CONDUIT DETAIL

SCALE: N.T.S.



### METRO NID CABINET DETAIL

SCALE: N.T.S.

**Sprint**  
VISION

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1 ROBESON ROAD  
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Design Group, LLC

1600 OSGOOD STREET  
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N. ANDOVER, MA 01845  
TEL: (978) 537-5533  
FAX: (978) 336-5564

CHECKED BY: KB

APPROVED BY: DPH

### SUBMITTALS

REV.	DATE	DESCRIPTION	BY
0	08/27/12	FOR REVIEW	MA

SITE NUMBER:  
BS62XC009

SITE NAME:  
PORTLAND

SITE ADDRESS:  
509 FOREST AVENUE  
PORTLAND, ME 04101

SHEET TITLE

DETAILS

SHEET NUMBER

A-2