

PROJECT INFORMATION

SCOPE OF WORK: UNMANNED TELECOMMUNICATIONS FACILITY MODIFICATIONS
 SITE ADDRESS: 246 DEERING AVENUE
 PORTLAND, ME 03082
 LATITUDE: 43.661152 N 43° 39' 40.15" N
 LONGITUDE: 70.278855 W 70° 16' 43.88" W
 JURISDICTION: NATIONAL, STATE & LOCAL CODES OR ORDINANCES
 CURRENT USE: TELECOMMUNICATIONS FACILITY
 PROPOSED USE: TELECOMMUNICATIONS FACILITY



SITE NUMBER: ME5045
SITE NAME: PORTLAND USM

DRAWING INDEX

REV

VICINITY MAP

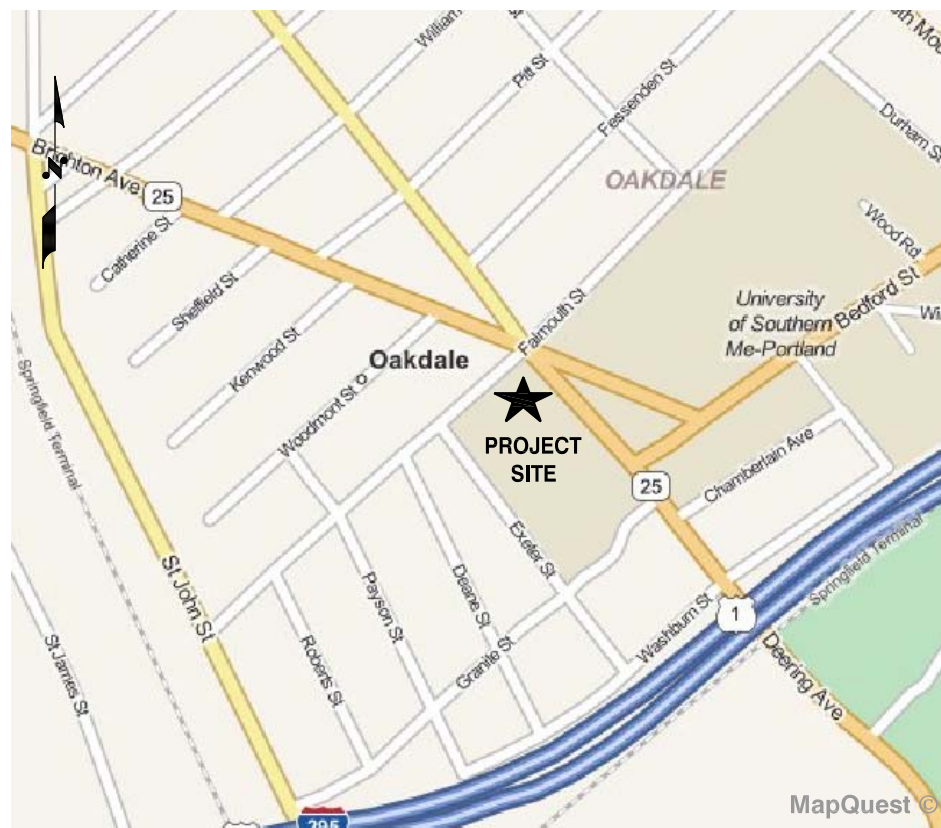
GENERAL NOTES

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DIRECTIONS:
 START OUT GOING SOUTHWEST ON COCHITUATE RD / RT-30 W TOWARD BURR ST. MAKE A U-TURN ONTO COCHITUATE RD / RT-30 E. TAKE THE RAMP TOWARD I-90 / MASSPIKE / SPRINGFIELD / BOSTON. MERGE ONTO I-90 E / MASSACHUSETTS TURNPIKE / MASS PIKE TOWARD I-95 / BOSTON (PORTIONS TOLL). TAKE THE I-95 N / RT-128 N / RT-30 EXIT, EXIT 14, TOWARD N.H.-MAINE / POINTS NORTH. MERGE ONTO I-95 N VIA THE EXIT ON THE LEFT TOWARD WALTHAM / PORTSMOUTH NH (PORTIONS TOLL) (PASSING THROUGH NEW HAMPSHIRE, THEN CROSSING INTO MAINE). MERGE ONTO I-295 N VIA EXIT 44 TOWARD SOUTH PORTLAND / DOWNTOWN PORTLAND (PORTIONS TOLL). TAKE THE ME-100 N / US-302 W / FOREST AVE EXIT, EXIT 6B. TURN SLIGHT RIGHT ONTO US-302 / ME-100 / FOREST AVE / 10TH MOUNTAIN DIVISION HWY. TURN LEFT ONTO BEDFORD ST. TURN RIGHT ONTO BRIGHTON AVE. TURN SHARP LEFT ONTO DEERING AVE / ME-25. 246 DEERING AVE IS ON THE RIGHT.

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



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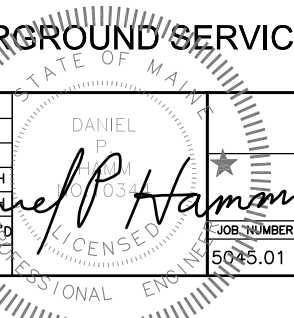
UNDERGROUND SERVICE ALERT



SITE NUMBER: ME5045
SITE NAME: PORTLAND USM
 246 DEERING AVENUE
 PORTLAND, ME 03082
 CUMBERLAND COUNTY



NO.	DATE	REVISIONS	BY	CHK	APP'D
1	02/23/12	ISSUED FOR PERMITTING	RP	DPH	
0	02/14/12	ISSUED FOR REVIEW	RP		



AT&T

TITLE SHEET (LTE)

JOB NUMBER	DRAWING NUMBER	REV
5045.01	T-1	1

1600 OSGOOD STREET
 BUILDING 20 NORTH, SUITE 2-101
 N. ANDOVER, MA 01845
 TEL: (978) 557-5553
 FAX: (978) 336-5586

800 MARSHALL PHELPS ROAD UNIT#: 2A
 WINDSOR, CT 06095

550 COCHITUATE ROAD
 FRAMINGHAM, MA 01701

SCALE: AS SHOWN DESIGNED BY: RP DRAWN BY: RP

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE 1/2" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

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

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
 16. CONSTRUCTION SHALL COMPLY WITH UMS SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."
 17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
 18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
 19. SINCE THE 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 ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
 20. APPLICABLE BUILDING CODES:
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
 BUILDING CODE: IBC 2009
 ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
 LIGHTENING CODE: REFER TO ELECTRICAL DRAWINGS
- SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:
- AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;
 - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION;
 - TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G, STRUCTURAL STANDARDS FOR STEEL
 - ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.
- FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS		
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBD	TO BE DETERMINED
BTS	BASE TRANSCEIVER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
EXISTING	EXISTING	N.T.S.	NOT TO SCALE	TBRR	TO BE REMOVED AND REPLACED
EG	EQUIPMENT GROUND	REF	REFERENCE		
EGR	EQUIPMENT GROUND RING	REQ	REQUIRED	TYP	TYPICAL

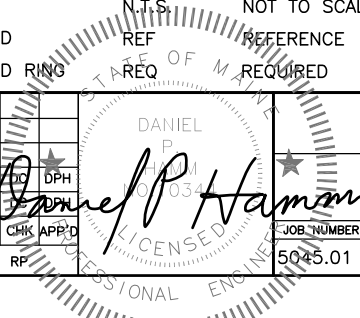
1600 OSGOOD STREET
 BUILDING 20 NORTH, SUITE 2-101
 N. ANDOVER, MA 01845
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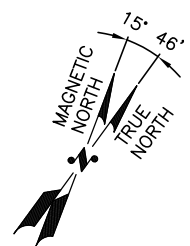
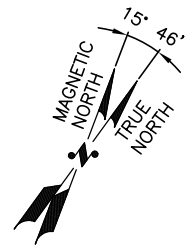
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SITE NAME: PORTLAND USM
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 CUMBERLAND COUNTY

550 COCHITUATE ROAD
 FRAMINGHAM, MA 01701

1 02/23/12 ISSUED FOR PERMITTING		RP	DPH	AT&T	
0 02/14/12 ISSUED FOR REVIEW		RP	DPH	GENERAL NOTES (LTE)	
NO.	DATE	REVISIONS	BY	CHEK	APP'D
SCALE: AS SHOWN		DESIGNED BY: RP	DRAWN BY: RP	JOB NUMBER: 5045.01	DRAWING NUMBER: GN-1
				REV	1



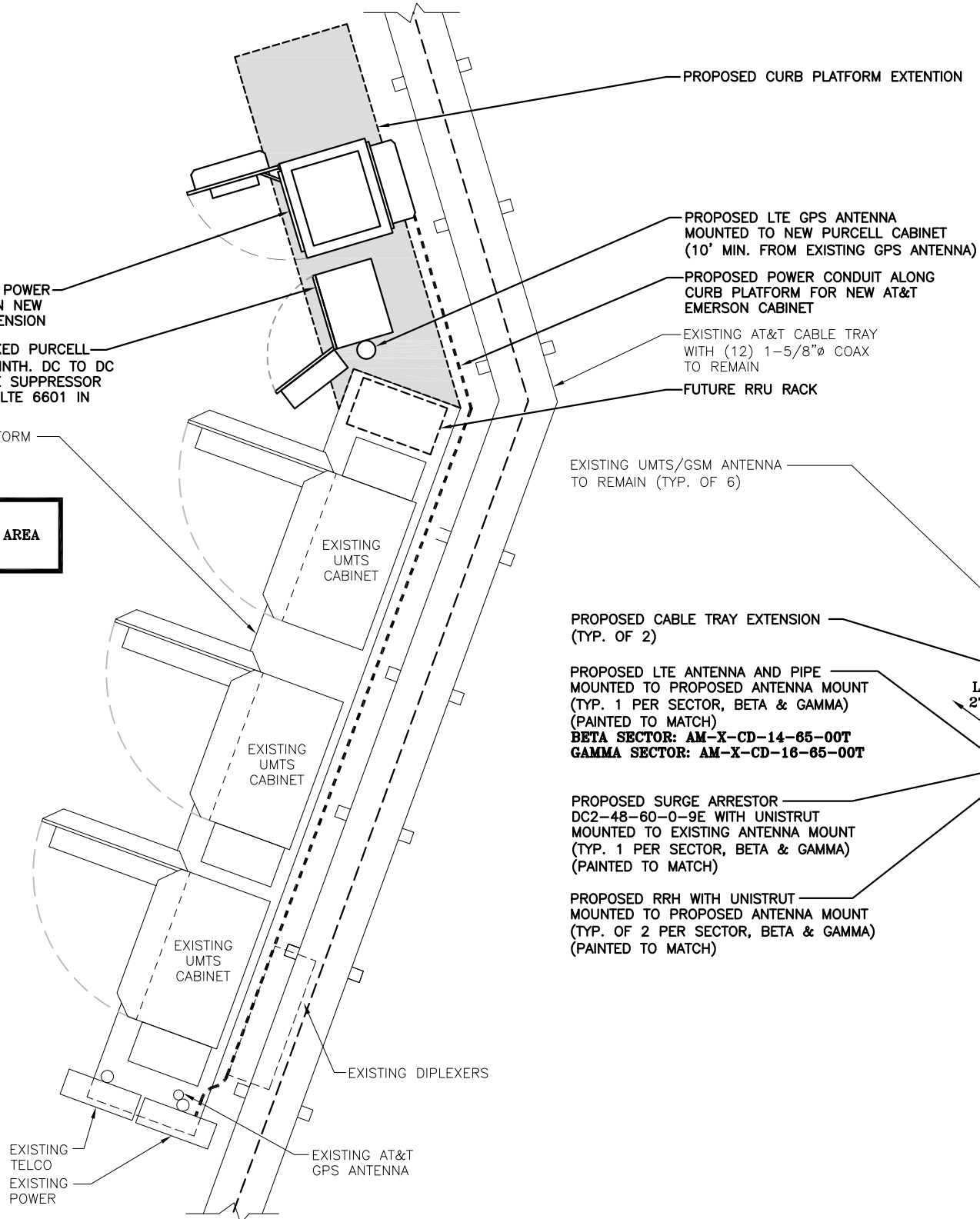


NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

PROPOSED EMERSON POWER CABINET MOUNTED ON NEW CURB PLATFORM EXTENSION
 PROPOSED (2) STACKED PURCELL CABINETS ON 14" PLINTH. DC TO DC CONVERTER & SURGE SUPPRESSOR IN BOTTOM CABINET, LTE 6601 IN TOP CABINET
 EXISTING CURB PLATFORM

NOTE:
ACCESS TO EQUIPMENT AREA NOT PROVIDED



EQUIPMENT PLAN

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



PROPOSED SURGE ARRESTOR DC2-48-60-0-9E WITH UNISTRUT MOUNTED TO EXISTING BUILDING (TYP. 1 PER SECTOR, ALPHA)
 PROPOSED RRH WITH UNISTRUT MOUNTED TO EXISTING BUILDING (TYP. OF 1 PER SECTOR, ALPHA)

PROPOSED LTE GPS ANTENNA MOUNTED TO NEW PURCELL CABINET (10' MIN. FROM EXISTING GPS ANTENNA)
 PROPOSED POWER CONDUIT ALONG CURB PLATFORM FOR NEW AT&T EMERSON CABINET
 EXISTING AT&T CABLE TRAY WITH (12) 1-5/8" COAX TO REMAIN
 FUTURE RRU RACK

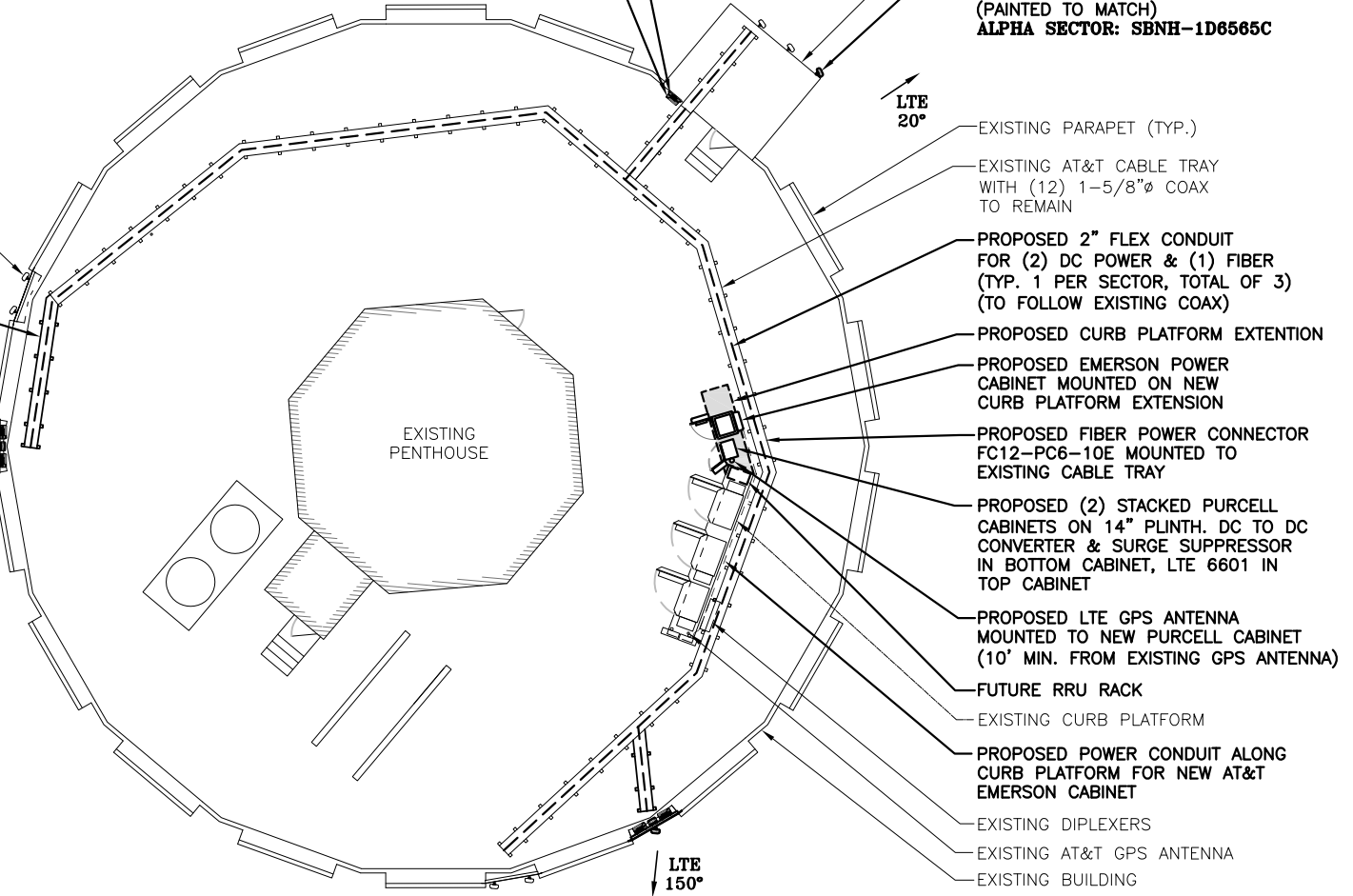
EXISTING UMTS/GSM ANTENNA TO REMAIN (TYP. OF 6)

PROPOSED CABLE TRAY EXTENSION (TYP. OF 2)

PROPOSED LTE ANTENNA AND PIPE MOUNTED TO PROPOSED ANTENNA MOUNT (TYP. 1 PER SECTOR, BETA & GAMMA) (PAINTED TO MATCH)
BETA SECTOR: AM-X-CD-14-65-00T
GAMMA SECTOR: AM-X-CD-16-65-00T

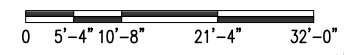
PROPOSED SURGE ARRESTOR DC2-48-60-0-9E WITH UNISTRUT MOUNTED TO EXISTING ANTENNA MOUNT (TYP. 1 PER SECTOR, BETA & GAMMA) (PAINTED TO MATCH)

PROPOSED RRH WITH UNISTRUT MOUNTED TO PROPOSED ANTENNA MOUNT (TYP. OF 2 PER SECTOR, BETA & GAMMA) (PAINTED TO MATCH)



ROOF PLAN

SCALE: 3/32"=1'-0"



Hudson Design Group
 1600 OSGOOD STREET
 BUILDING 20 NORTH, SUITE 2-101
 N. ANDOVER, MA 01845
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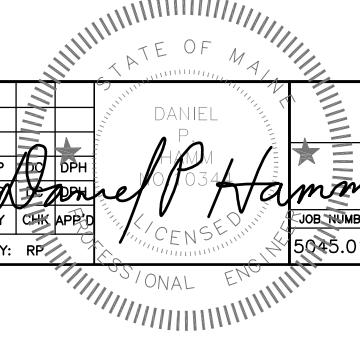
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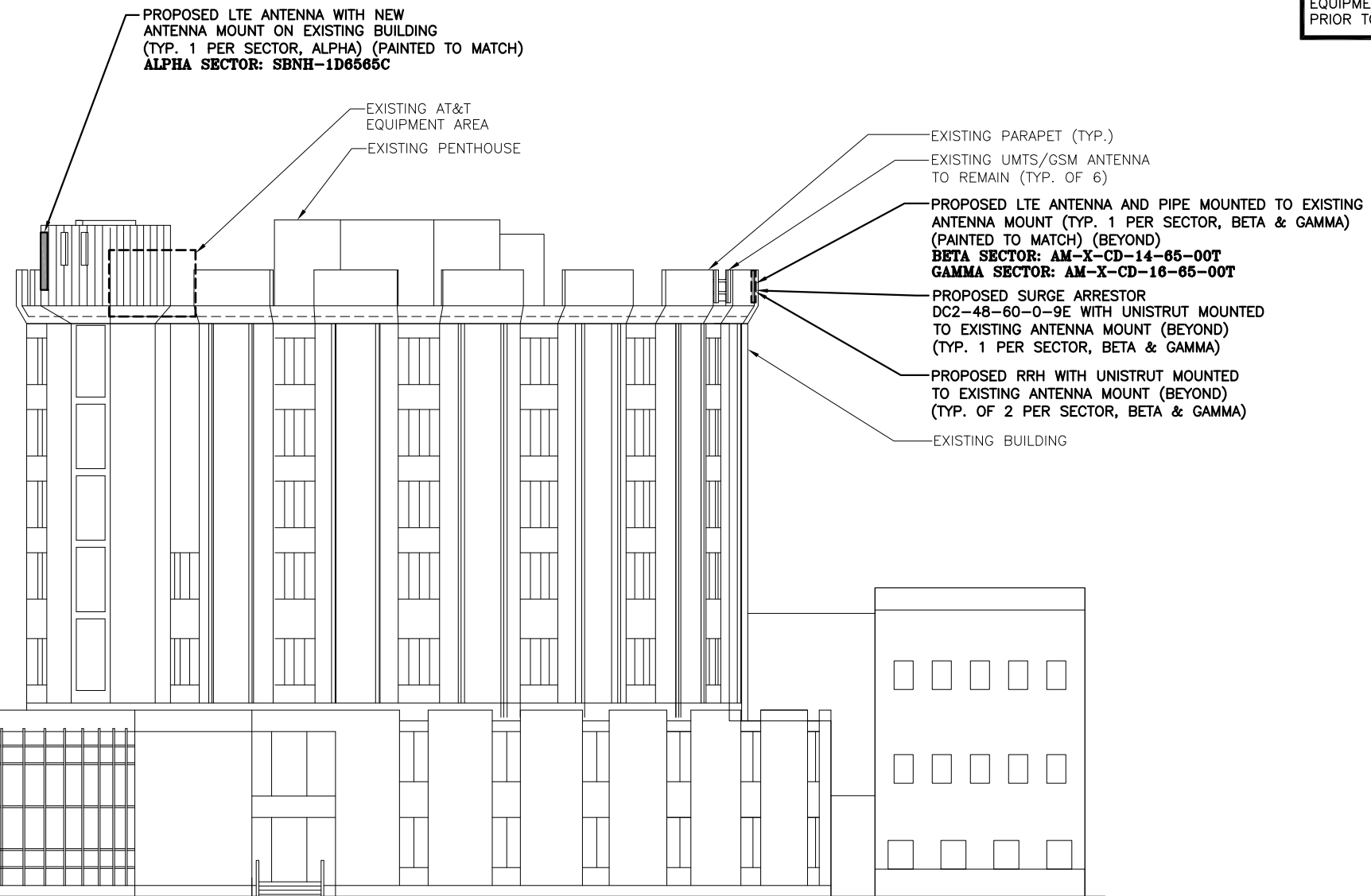


AT&T
 EQUIPMENT & ROOF PLAN (LTE)
 JOB NUMBER: 5045.01 DRAWING NUMBER: A-1 REV: 1

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

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

- CENTER OF EXISTING UMTS/GSM ANTENNAS (ALPHA)
90'-6"± AGL
- CENTER OF PROPOSED AT&T LTE ANTENNAS (ALPHA ONLY)
88'-8"± AGL
- TOP OF EXISTING PARAPET
87'-6"± AGL
- CENTER OF PROPOSED AT&T LTE ANTENNAS AND EXISTING UMTS/GSM ANTENNAS (BETA & GAMMA)
85'-2"± AGL
- TOP OF EXISTING ROOF
81'-0"± AGL
- GROUND LEVEL
ELEV. 0'-0"± (AGL)



NORTHWEST ELEVATION

SCALE: 3/32"=1'-0"



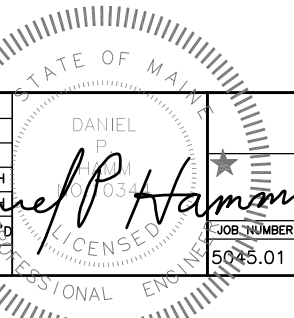
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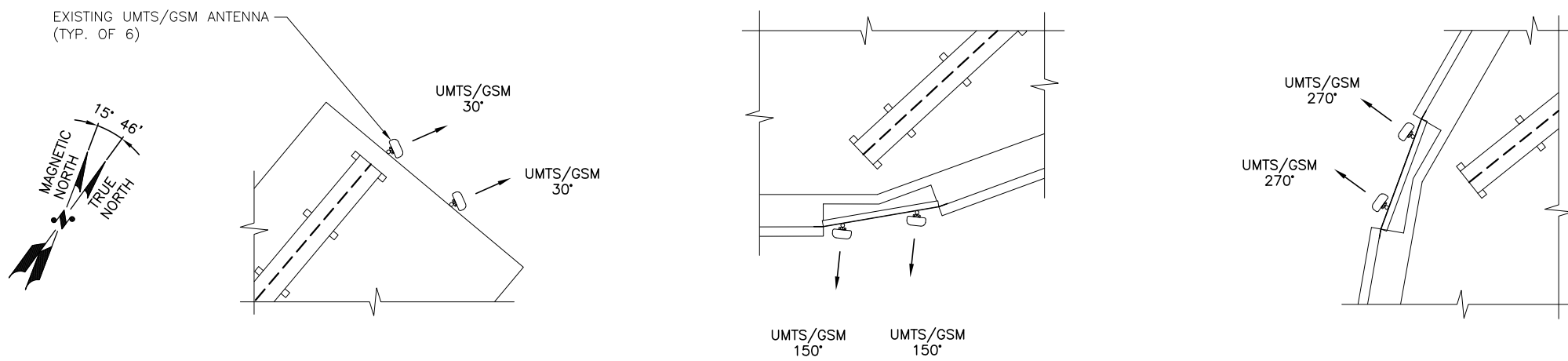
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AT&T	
ELEVATION PLAN (LTE)	
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5045.01	A-2
REV	1

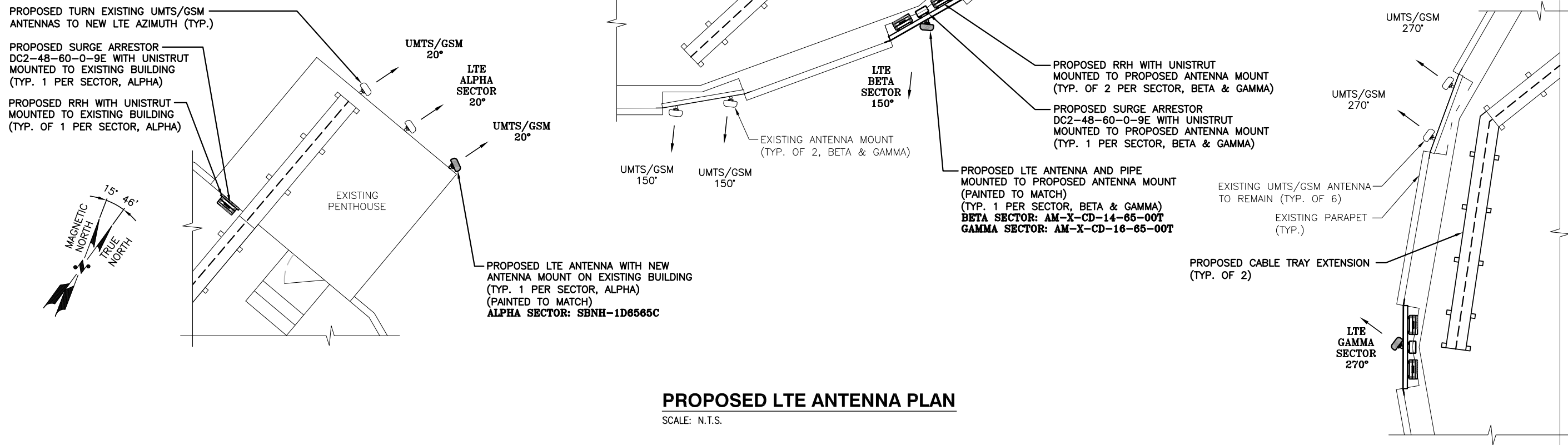
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NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.



EXISTING UMTS/GSM ANTENNA PLAN

SCALE: N.T.S.



PROPOSED LTE ANTENNA PLAN

SCALE: N.T.S.



1600 OSGOOD STREET
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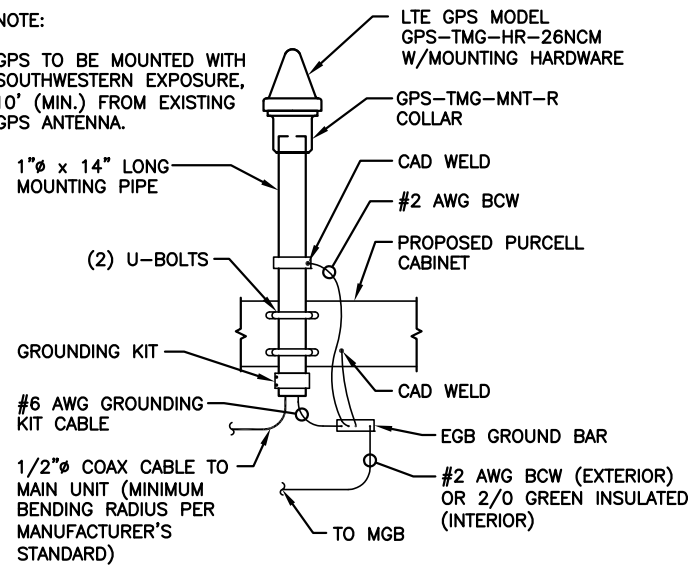


550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

				STATE OF MAINE		AT&T	
				DANIEL P. HAMM		ANTENNA PLAN (LTE)	
				PROFESSIONAL ENGINEER		JOB NUMBER: 5045.01	
				LICENSED		DRAWING NUMBER: A-3	
				REVISIONS		REV: 1	
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SCALE: AS SHOWN		DESIGNED BY: RP		DRAWN BY: RP			

NOTE:

GPS TO BE MOUNTED WITH SOUTHWESTERN EXPOSURE, 10' (MIN.) FROM EXISTING GPS ANTENNA.



GPS MOUNTING DETAIL

SCALE: N.T.S.

NUMBER OF COAXIAL CABLES	WIDTH OF CABLE TRAY	NOMINAL DEPTH OF CABLE TRAY
12	24"	4"
8	18"	4"
4	12"	4"

NOTE: MOUNT PROPOSED EQUIPMENT PER MANUFACTURERS SPECIFICATIONS

NOTE:

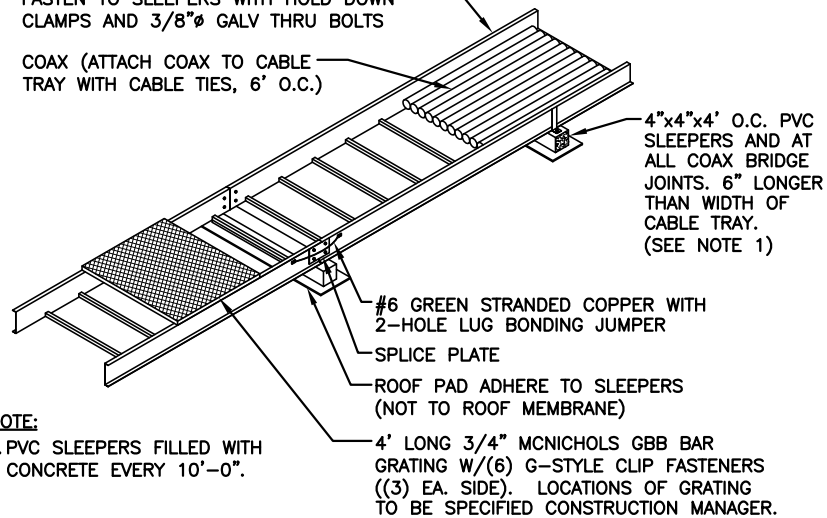
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:

AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

PROPOSED ANDREW 4" LADDER TRAY, 12" WIDE P/N LT-12-4D OR EQUAL. FASTEN TO SLEEPERS WITH HOLD DOWN CLAMPS AND 3/8" GALV THRU BOLTS

COAX (ATTACH COAX TO CABLE TRAY WITH CABLE TIES, 6' O.C.)

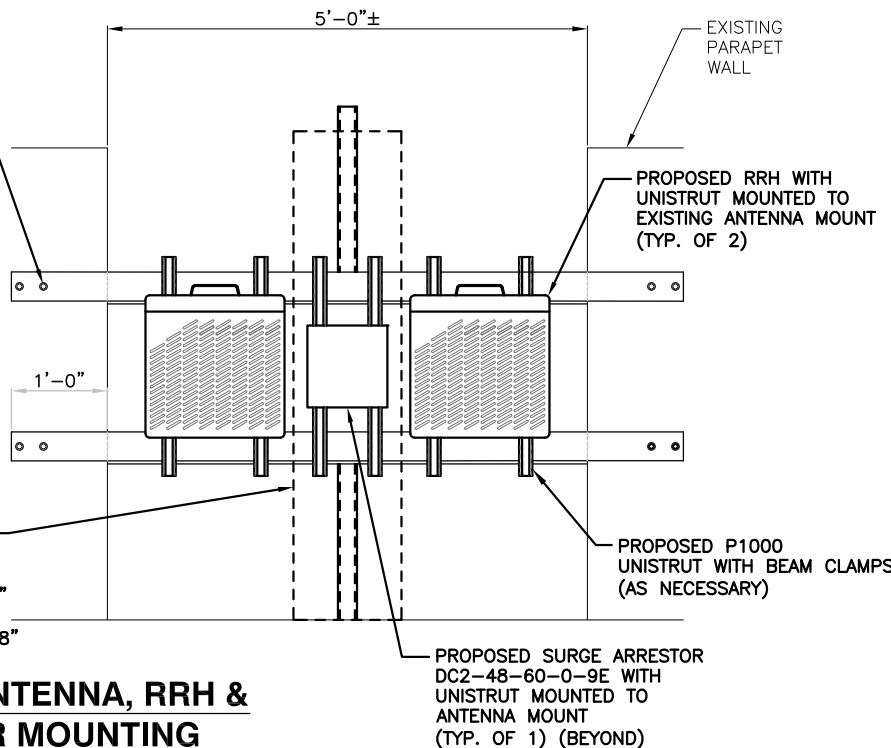


NOTE:

1. PVC SLEEPERS FILLED WITH CONCRETE EVERY 10'-0".

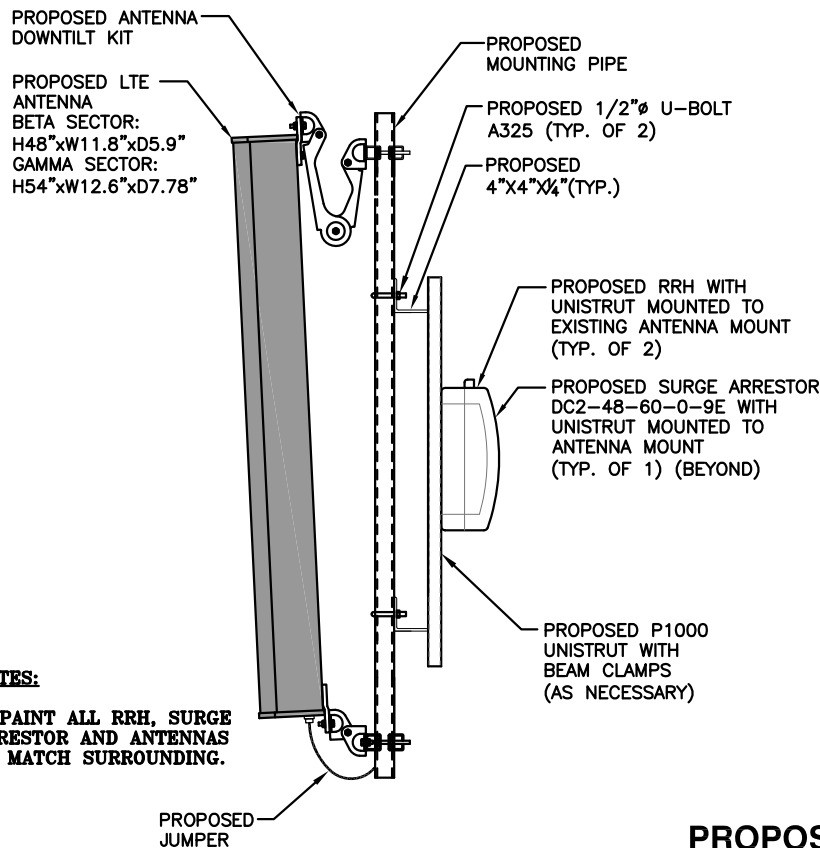
CABLE TRAY DETAIL

SCALE: N.T.S.



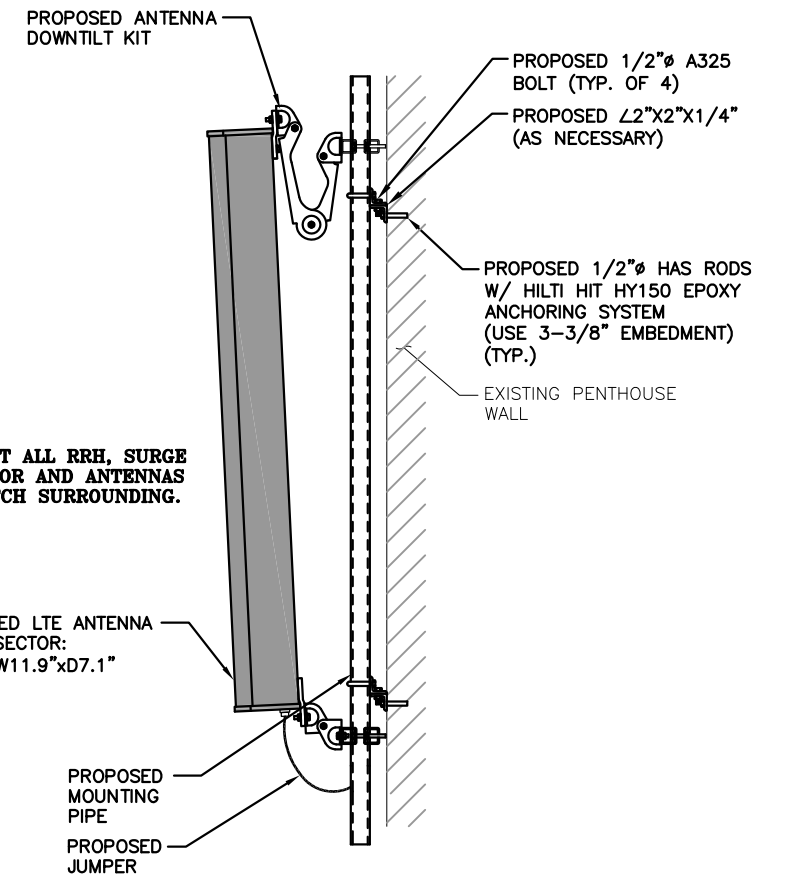
PROPOSED LTE ANTENNA, RRH & SURGE ARRESTOR MOUNTING DETAIL (BETA & GAMMA)

SCALE: N.T.S.



NOTES:

1. PAINT ALL RRH, SURGE ARRESTOR AND ANTENNAS TO MATCH SURROUNDING.



NOTES:

1. PAINT ALL RRH, SURGE ARRESTOR AND ANTENNAS TO MATCH SURROUNDING.

PROPOSED (ALPHA SECTOR) LTE ANTENNA MOUNTING DETAIL

SCALE: N.T.S.



1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 2-101
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586



800 MARSHALL PHELPS ROAD UNIT#: 2A
WINDSOR, CT 06095

SITE NUMBER: ME5045
SITE NAME: PORTLAND USM

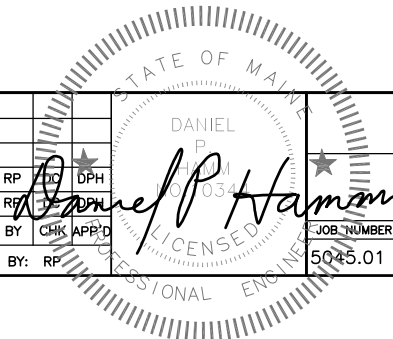
246 DEERING AVENUE
PORTLAND, ME 03082
CUMBERLAND COUNTY



550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D	JOB NUMBER	DRAWING NUMBER	REV
1	02/23/12	ISSUED FOR PERMITTING	RP	DPH		5045.01	A-4	1
0	02/14/12	ISSUED FOR REVIEW	RP					

SCALE: AS SHOWN DESIGNED BY: RP DRAWN BY: RP

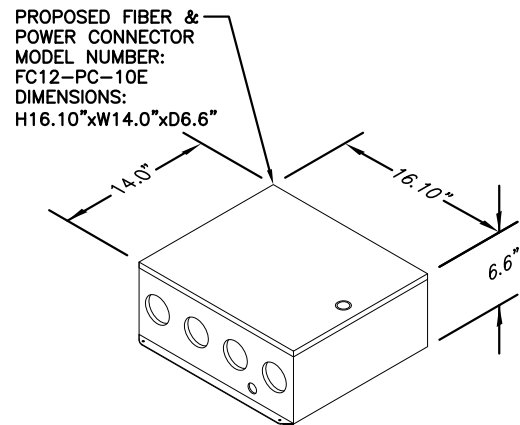


AT&T

DETAILS (LTE)

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

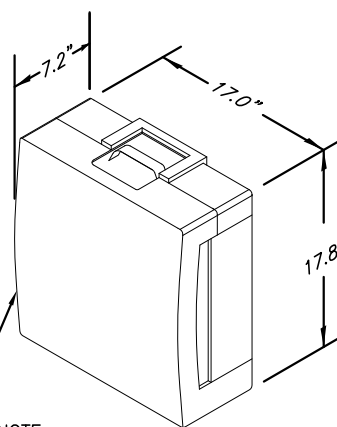
NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.



NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

FIBER & POWER CONNECTOR DETAIL

SCALE: N.T.S.

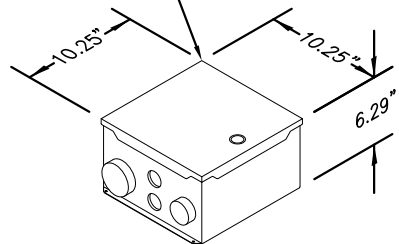


NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

RRH DETAIL

SCALE: N.T.S.

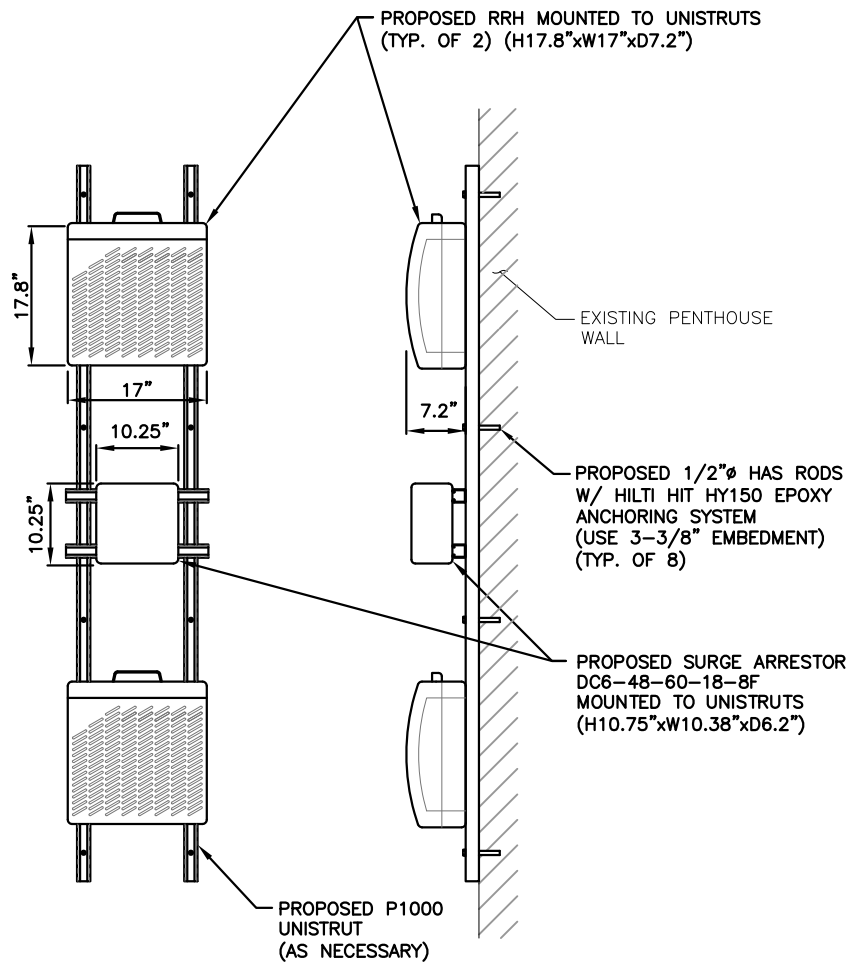
PROPOSED SURGE ARRESTOR
MODEL NUMBER:
DC2-48-60-0-9E
DIMENSIONS:
H10.25"xW10.25"xD6.29"



NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

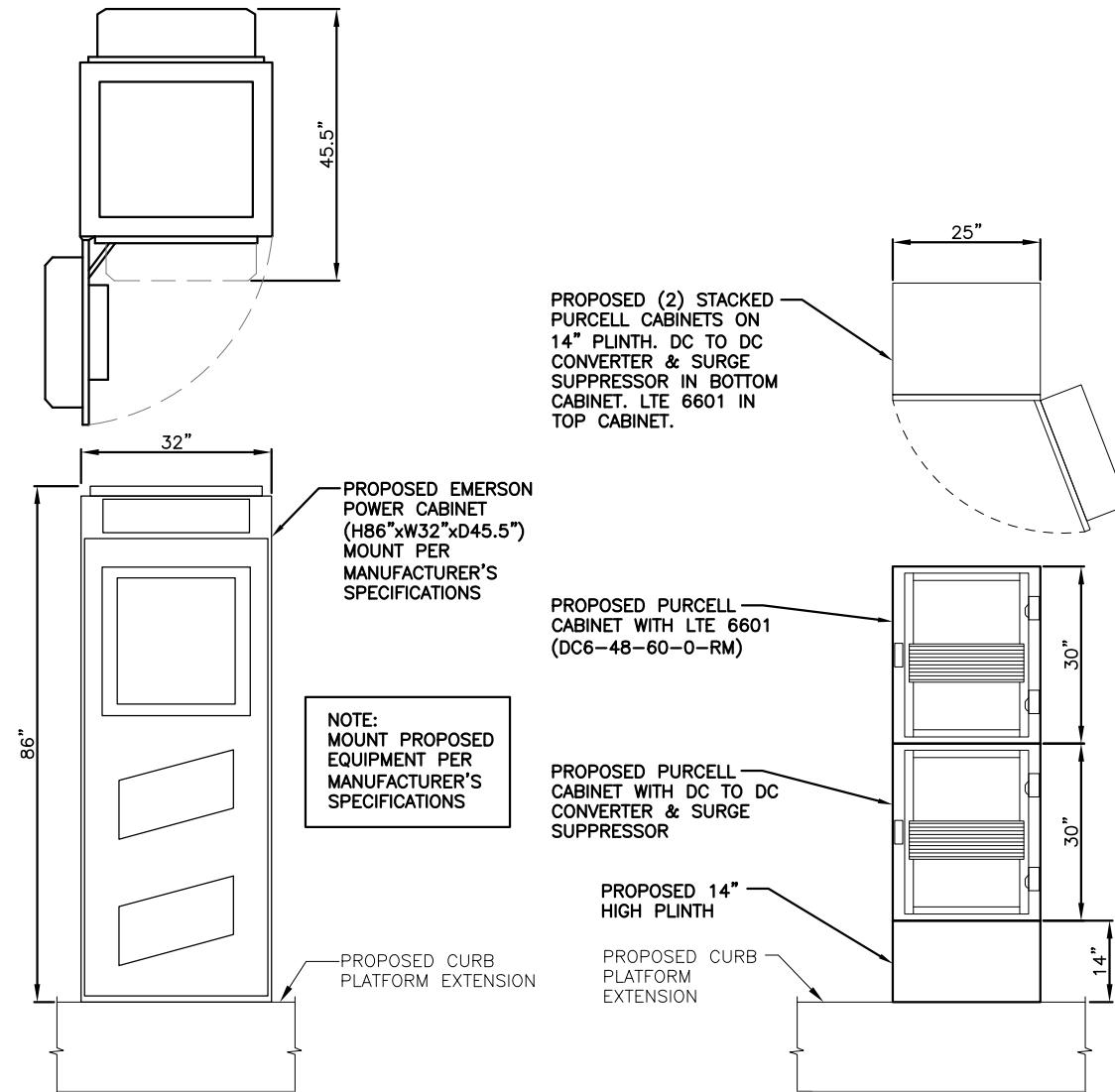
DC SURGE SUPPRESSOR DETAIL

SCALE: N.T.S.



PROPOSED LTE RRH AND SURGE ARRESTOR MOUNT DETAIL (ALPHA)

SCALE: N.T.S.



PROPOSED EQUIPMENT MOUNTING DETAIL

SCALE: N.T.S.

Hudson Design Group
1600 OSGOOD STREET
BUILDING 20 NORTH, SUITE 2-101
N. ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

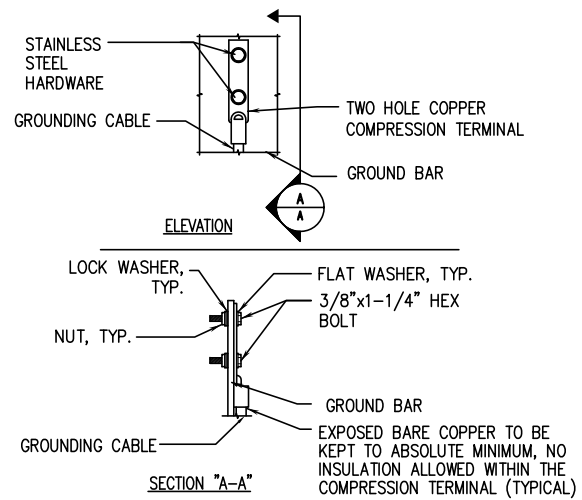
NEXLINK GLOBAL SERVICES
a UniTek GLOBAL SERVICES company
800 MARSHALL PHELPS ROAD UNIT#: 2A
WINDSOR, CT 06095

SITE NUMBER: ME5045
SITE NAME: PORTLAND USM
246 DEERING AVENUE
PORTLAND, ME 03082
CUMBERLAND COUNTY

at&t
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

1		02/23/12	ISSUED FOR PERMITTING	RP	DPH		AT&T		
0		02/14/12	ISSUED FOR REVIEW	RP	DPH		DETAILS (LTE)		
NO.	DATE	REVISIONS		BY	CHK	APP'D	JOB NUMBER	DRAWING NUMBER	REV
							5045.01	A-5	1

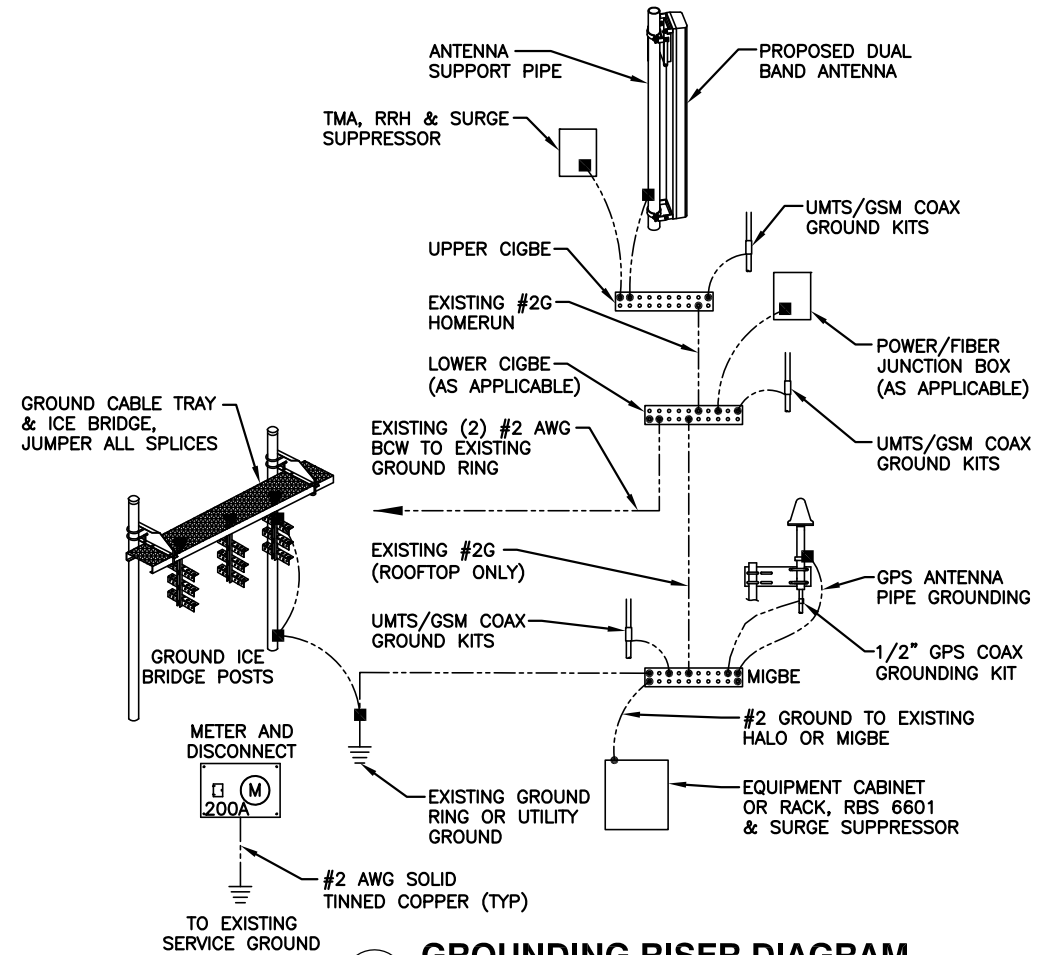
SCALE: AS SHOWN DESIGNED BY: RP DRAWN BY: RP



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

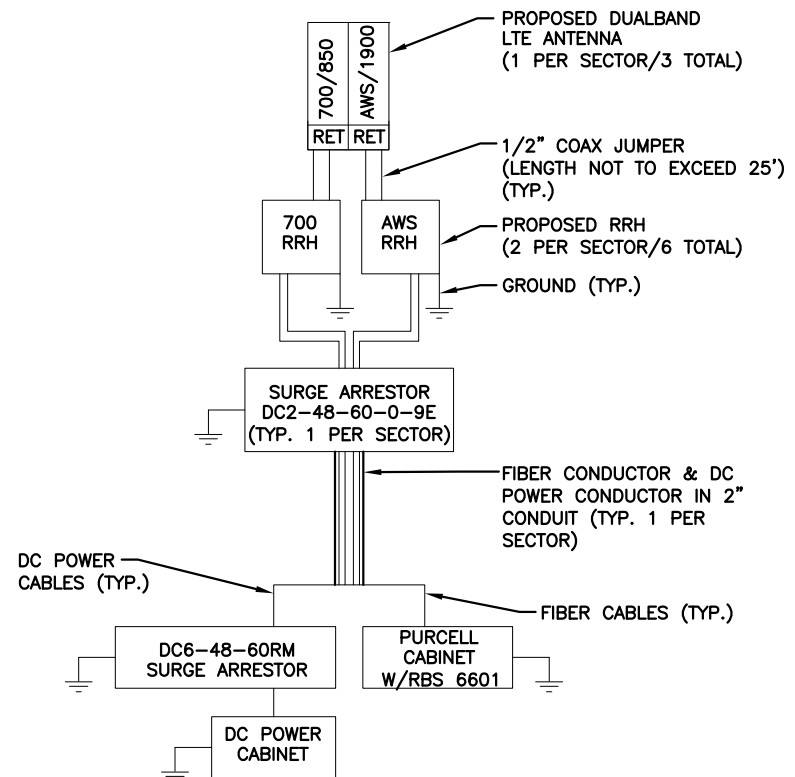
TYPICAL GROUND BAR CONNECTION DETAIL

2
—
N.T.S.



GROUNDING RISER DIAGRAM

1
—
N.T.S.

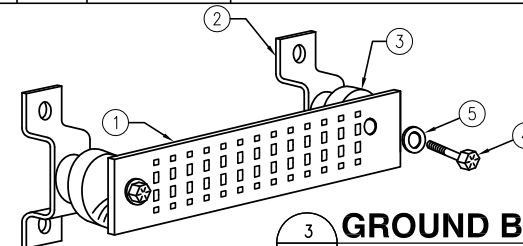


- NOTES:
- CONTRACTOR TO CONFIRM ALL PARTS.
 - INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS.

4 PLUMBING DIAGRAM

—
N.T.S.

WIRELESS SOLUTIONS INC.			
NO.	REQ.	PART NO.	DESCRIPTION
1	1	HLGB-0420-IS	SOLID GND. BAR (20"x4"x1/4")
2	2	—	WALL MTG. BRKT.
3	2	—	INSULATORS
4	4	—	5/8"-11x1" H.H.C.S.
5	4	—	5/8 LOCKWASHER



3 GROUND BAR - DETAIL

—
N.T.S.

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

SECTION "P" - SURGE PRODUCERS

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

SECTION "A" - SURGE ABSORBERS

- INTERIOR GROUND RING (#2)
- EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)
- METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)
- BUILDING STEEL (IF AVAILABLE) (#2)

