

# AT&T

## AT&T WIRELESS SERVICES, L.L.C. SITE NUMBER: 22-048 SITE NAME: MERCY HOSPITAL

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### REV.

### DIRECTIONS

Take I-95 N (Portions toll). Merge onto I-295 N via exit number 6A toward S. PORTLAND/  
PORTLAND DOWNTOWN (Portions toll). Take the exit, exit number 5 toward ME-22/ CONGRESS ST.  
Keep RIGHT at the fork in the ramp. Keep LEFT at the fork in the ramp. Turn RIGHT onto CONGRESS ST.  
Turn SLIGHT RIGHT onto STATE ST/ ME-77 S.

### PROJECT INFORMATION

SCOPE OF WORK: INSTALLATION OF AN UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING A 13'x5' EQUIPMENT LEASE AREA INSIDE OF EXISTING PENTHOUSE. AT&T ANTENNAS TO COLLOCATE ON EXISTING PENTHOUSE @ 78'± A.G.L.

SITE ADDRESS: 120 STATE STREET  
PORTLAND, MAINE 04101  
(CUMBERLAND)

PROPERTY OWNER: MERCY HOSPITAL  
144 STATE STREET  
PORTLAND, ME 04101

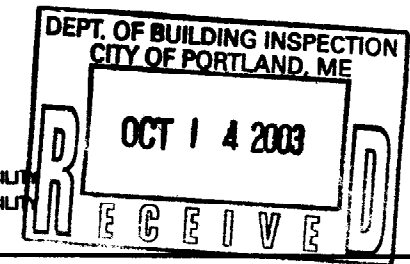
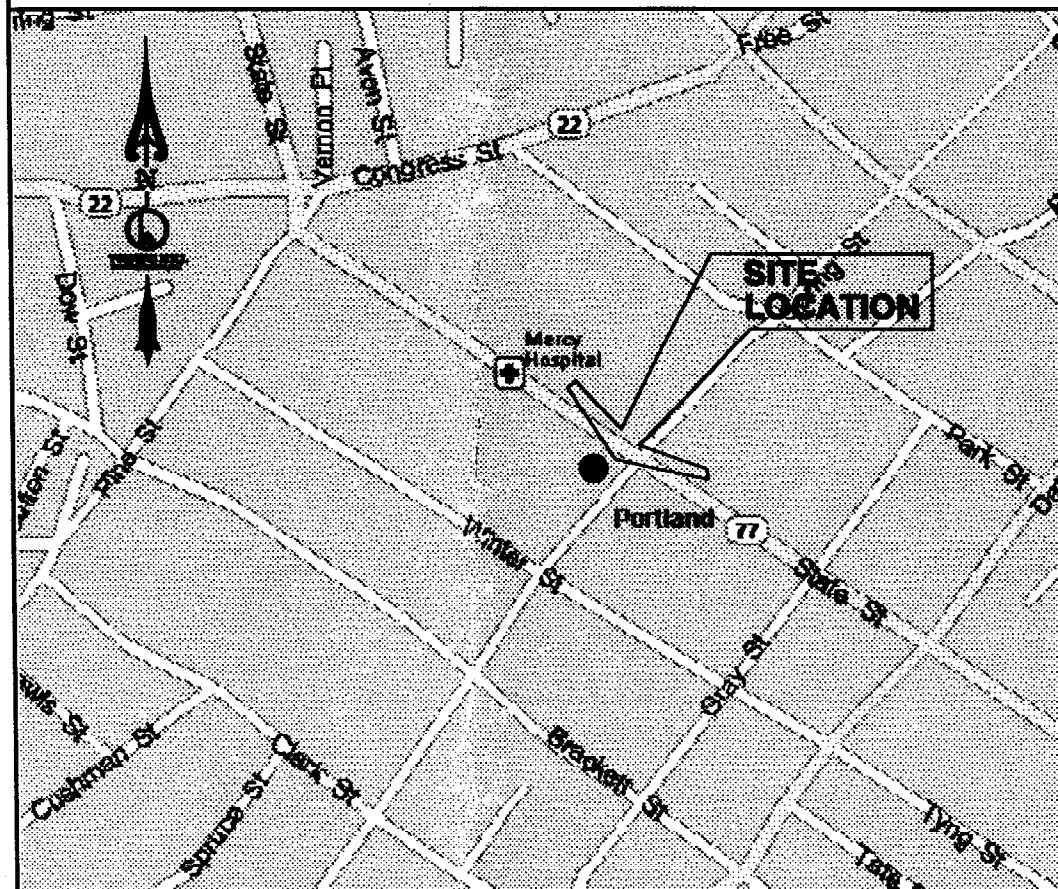
CONTACT PERSON: DAVE LIBBY  
1-207-797-7536

APPLICANT: AT&T WIRELESS SERVICES, L.L.C.  
400 BLUE HILL DRIVE  
SUITE 100  
WESTWOOD, MASSACHUSETTS 02090

LATITUDE: 43° 39' 05.02" N  
LONGITUDE: 70° 15' 52.51" W  
LAT/LONG TYPE: NAD 83 GPS

ELEVATION: 125.5'± A.M.S.L.  
JURISDICTION: TOWN OF PORTLAND, ME  
TAX I.D. NUMBER: 045 C007001  
CURRENT USE: TELECOMMUNICATIONS FACILITY  
PROPOSED USE: TELECOMMUNICATIONS FACILITY

### VICINITY MAP



### SITE QUALIFICATION PARTICIPANTS

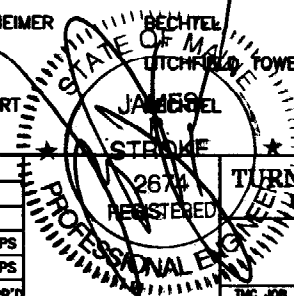
	NAME	COMPANY	NUMBER
A/E	MICHAEL JOYCE	TURNING MILL CONSULTANTS, INC.	1-508-888-4383
SAC	CHRIS MCCARRIER	TURNING MILL CONSULTANTS, INC.	1-781-704-8165
RF	RAKESH GOEL	BECHTEL	1-978-436-2314
CON	KENT WEINHEIMER	BECHTEL	1-978-436-2328
LANDLORD	DAVE LIBBY	UTCHFIELD TOWER CO.	1-207-797-7536
OTHER	MATT WICKERT	JAMES BEL	1-978-436-2312

TURNING MILL CONSULTANTS, INC  
ENGINEERS, ENGINEERS AND CONSTRUCTION MANAGERS  
100 TUPPER ROAD, UNIT #9, PO BOX 1159  
SANDWICH, MA 02563  
PHONE: (508) 888-4383 ~ FAX: (508) 888-4246

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**AT&T**  
AT&T WIRELESS SERVICES, INC.  
400 BLUE HILL DRIVE  
SUITE 100  
WESTWOOD, MASSACHUSETTS 02090

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	10/09/03	ISSUED FOR CONSTRUCTION	TDR	MFJ	JPS
A	09/23/03	ISSUED FOR REVIEW	TDR	MFJ	JPS
SCALE AS SHOWN		DESIGNED	DRAWN		

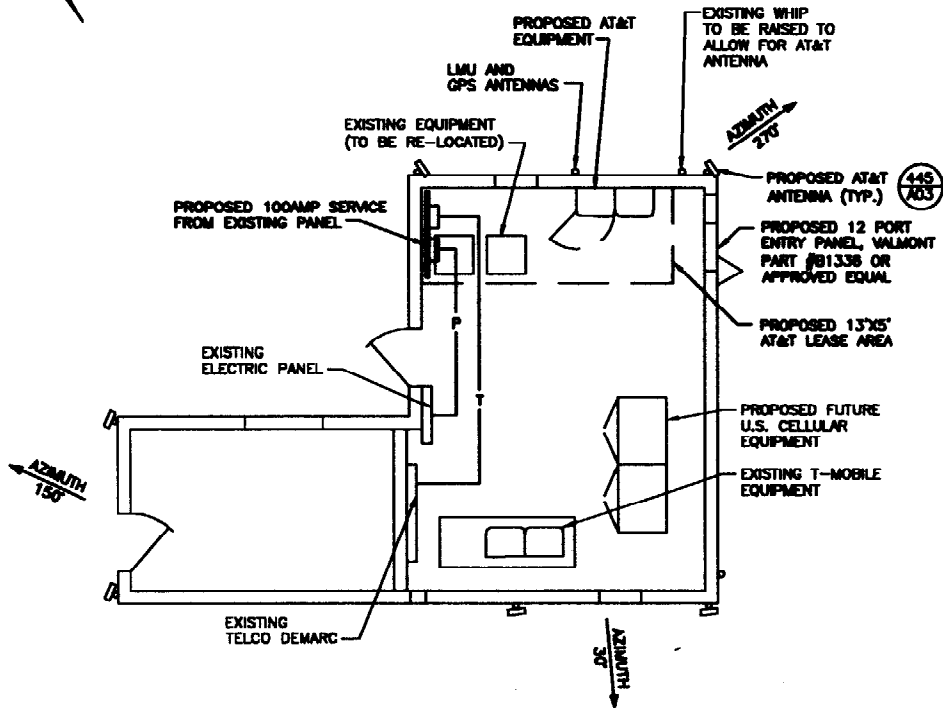
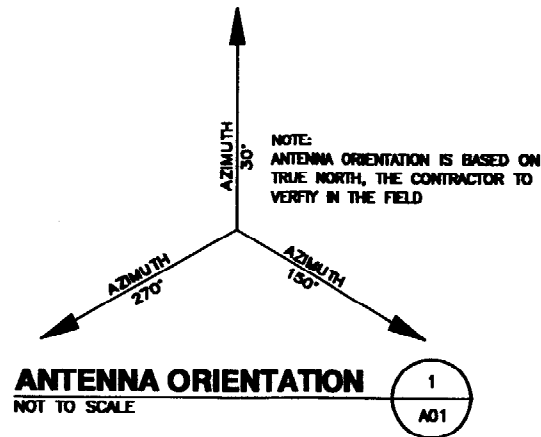


TURNING MILL CONSULTANTS, INC  
ENGINEERS AND CONSTRUCTION MANAGERS  
TITLE SHEET  
COLLOCATE ON EXISTING PENTHOUSE

TMC JOB NO.	JOB NO.	DRAWING NUMBER	REV
ATT 3.44	24445	912-022-048A-T01	0

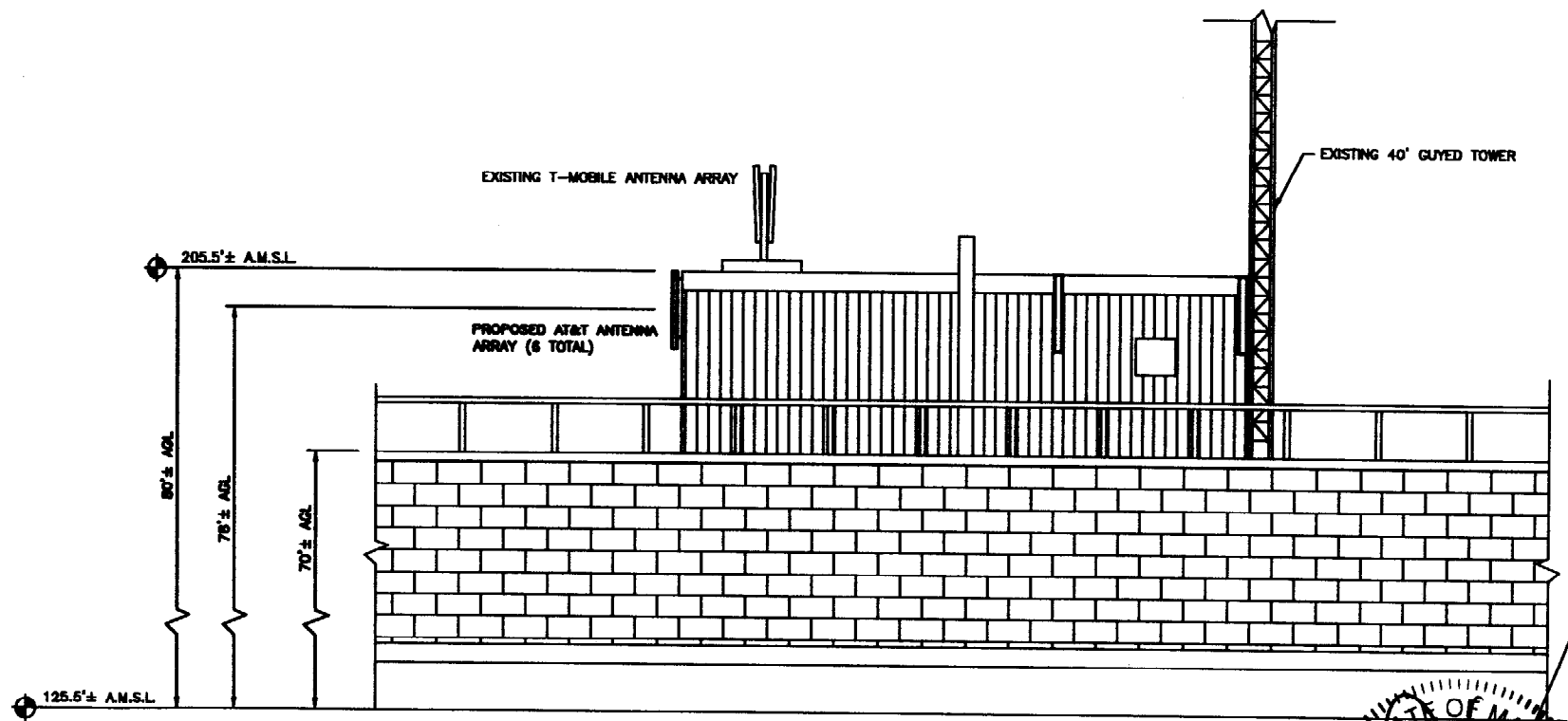
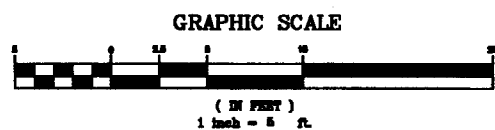
**NOTE:**

1. TOWER ANTENNA LOCATIONS ARE FROM EXISTING INFORMATION AND NOT FROM AN ACTUAL TOWER MAPPING OR FIELD SURVEY.
2. ANTENNA HEIGHTS MAY VARY. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF ANTENNAS, SITE UTILITIES AND FEATURES PRIOR TO START OF CONSTRUCTION.
3. SITE DETAILS ARE FROM EXISTING INFORMATION PROVIDED TO THIS OFFICE AND ARE NOT THE RESULT OF A FIELD SURVEY.



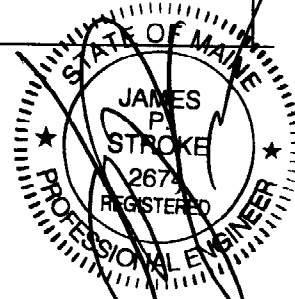
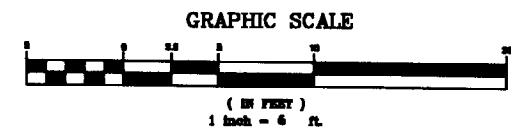
**ENLARGED SITE PLAN**  
SCALE: 1" = 5'

2  
A01



**PENTHOUSE ELEVATION**  
SCALE: 1" = 5'

3  
A01



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68 TUPPER ROAD, UNIT #3, PO BOX 1169  
SANDWICH, MA 02568  
PHONE: (508) 888-4383 ~ FAX: (508) 888-4246

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144 120 STATE STREET  
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**AT&T**  
AT&T WIRELESS SERVICES, INC.  
480 BLUE HILL DRIVE  
SUITE 100  
WESTWOOD, MASSACHUSETTS 02080

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	10/08/03	ISSUED FOR CONSTRUCTION	TDR	MFJ	JPS
A	08/23/03	ISSUED FOR REVIEW	TDR	MFJ	JPS
SCALE AS SHOWN		DESIGNED	DRAWN		

**TURNING MILL CONSULTANTS, INC**  
ENGINEERS AND CONSTRUCTION MANAGERS  
SITE LAYOUT PLAN & ELEVATION VIEW  
COLLOCATE ON EXISTING PENTHOUSE

TMC JOB NO.	JOB NO.	DRAWING NUMBER	REV
ATT 3.44	24445	912-022-048A-A01	0

**GENERAL NOTES:**

1. THIS PROPOSAL IS FOR AN UNMANNED TELECOMMUNICATIONS FACILITY CONSISTING OF COLLOCATING ON AN EXISTING TOWER WITH ANTENNAS AND THE PLACEMENT OF OUTDOOR EQUIPMENT CABINETS AT THE TOWER BASE.
2. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE.
3. THE PROPOSED FACILITY IS UNMANNED AND IS NOT FOR HUMAN HABITAT. (NO HANDICAP ACCESS IS REQUIRED).
4. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
5. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS PROPOSAL.
6. OUTDOOR STORAGE AND SOLID WASTE CONTAINERS ARE NOT PROPOSED.
7. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF SPECIFICATION NUMBER 24897-011-3PS-A00Z-00001, "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES", AND 24897-011-3PS-ED00-00001, "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATIONS AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
8. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY THE CONSTRUCTION OPERATION.
9. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTION REQUIRED FOR CONSTRUCTION.
10. SUBCONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
11. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND DRAWINGS PROVIDED BY THE SITE OWNER. SUBCONTRACTOR SHALL NOTIFY BECHTEL OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
12. NO WHITE STROBIC LIGHTS ARE PERMITTED. LIGHTING, IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
13. SUBCONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR UNDERGROUND UTILITY MARKOUT PRIOR TO CONSTRUCTION.
14. ALL SIGNS SHALL BE FURNISHED AND INSTALLED AT ALL AT&T WIRELESS SERVICES (AWS) SITES IN ACCORDANCE WITH SPECIFICATION 24897-011-3PS-A00Z-00006.

**SITE WORK GENERAL NOTES:**

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

SITE WORK GENERAL NOTES **300**

**CONCRETE AND REINFORCING STEEL NOTES:**

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE PROJECT SPECIFICATIONS.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

CONCRETE CAST AGAINST EARTH.....3 IN.  
CONCRETE EXPOSED TO EARTH OR WEATHER:

#6 AND LARGER .....2 IN.  
#5 AND SMALLER & WWF .....1 1/2 IN.

CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:

SLAB AND WALL .....3/4 IN.  
BEAMS AND COLUMNS .....1 1/2 IN.

5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

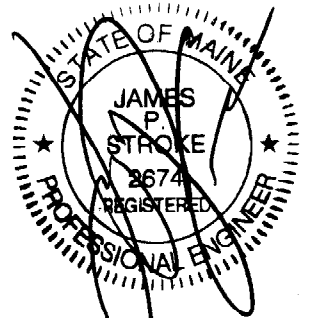
6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DONEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.

CONCRETE AND REINFORCING STEEL NOTES **302**

**STRUCTURAL STEEL NOTES:**

1. ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.
2. ALL WELDING SHALL BE PERFORMED USING E70 ELECTRODES AND WELDING SHALL CONFORM TO AWS AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AWS "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (3/4" DIA) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
5. CONCRETE EXPANSION ANCHORS AND EPOXY ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. MANUFACTURER'S MINIMUM CONCRETE EDGE DISTANCE SHALL BE MAINTAINED DURING INSTALLATION.

STRUCTURAL STEEL NOTES **301**



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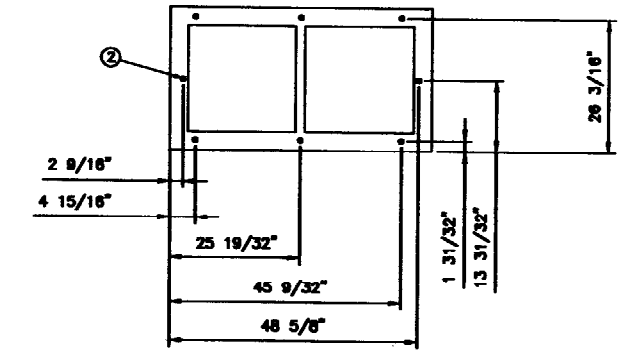
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SITE NO. 22-048  
144 STATE STREET  
PORTLAND, ME 04101



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SCALE		AS SHOWN	DESIGNED	DRAWN	

<b>TURNING MILL CONSULTANTS, INC</b> ENGINEERS AND CONSTRUCTION MANAGERS			
CONSTRUCTION DETAILS COLLOCATE ON EXISTING PENTHOUSE			
TITLE JOB NO.	JOB NO.	DRAWING NUMBER	REV
ATT 3.44	24445	912-022-048A-A02	0

- ① ALL DIMENSIONS TO BE FIELD VERIFIED.
- ② RECOMMENDED CABINET MOUNTING ANCHORS ARE HILTI KWIK BOLT II 5/8" HOLE DIAMETER AT A MIN. 2.75" EMBED.



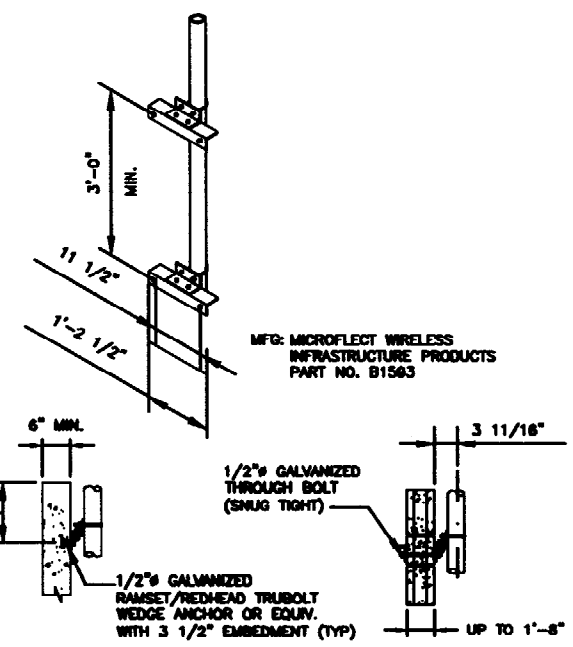
BASE FRAME FOOTPRINT  
NTS

ERICSSON RBS 2206 DIMENSIONS	
CABINET	HEIGHT x WIDTH x DEPTH
RBS 2206	72.87"x23.77"x15.87"D
FOOTPRINT (INCLUDING INSTALLATION FRAME)	63 1/2"x51 3/16"x28"D

ERICSSON RBS 2206 WEIGHT & FLOOR LOADING		
CABINET	APPROX. MAX. WEIGHT	MAX. FLOOR LOADING
RBS 2206	507 LBS (WEIGHT WITHOUT BATTERIES)	1301 LBS (WEIGHT WITH BATTERIES)

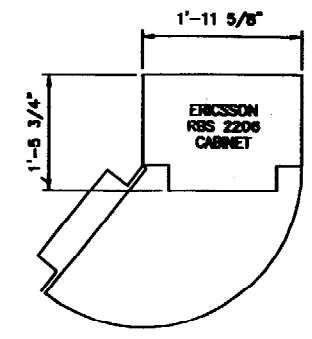
CABINET ANCHORING BY ERICSSON SHALL BE BASED ON A PEAK ACCELERATION VALUE OF 0.12G.

ERICSSON RBS 2206 MINIMUM CLEARANCES	
DIRECTION	USB 2001 2 BAY MINIMUM CLEARANCE
CABINET FRONT	52"
CABINET REAR	2"
CABINET RIGHT	N/A
CABINET LEFT	36"
ABOVE THE CABINET	40"



FOR SOLID CONCRETE WALLS  
FOR BLOCK WALLS UP TO 1'-8" THICK

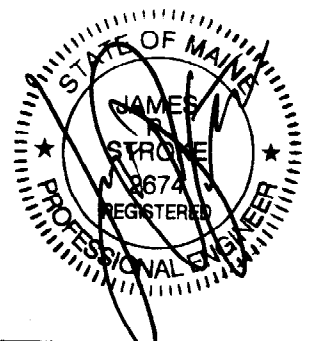
ANTENNA MOUNTED AT PARAPET WALL  
DETAIL 445 A01



PLAN VIEW

- NOTES:
- ERICSSON CABINET SHALL BE PROVIDED WITH OPTIONAL ERICSSON BASE FRAME OR WITH MICROFLECT SUPPORT FRAME PN-08528 AND ENTRY PANEL PN-08521 OR EQUIVALENT.

ERICSSON RBS 2206 CABINET  
DETAIL 361A A01



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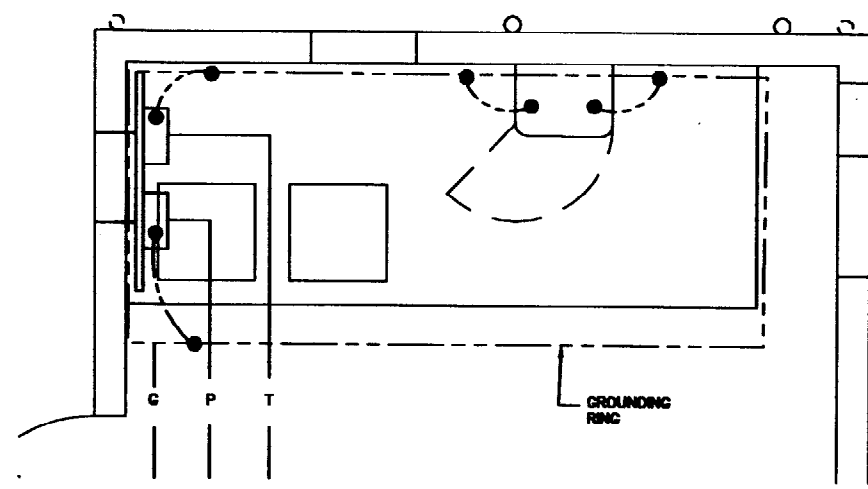
SCALE AS SHOWN    DESIGNED    DRAWN

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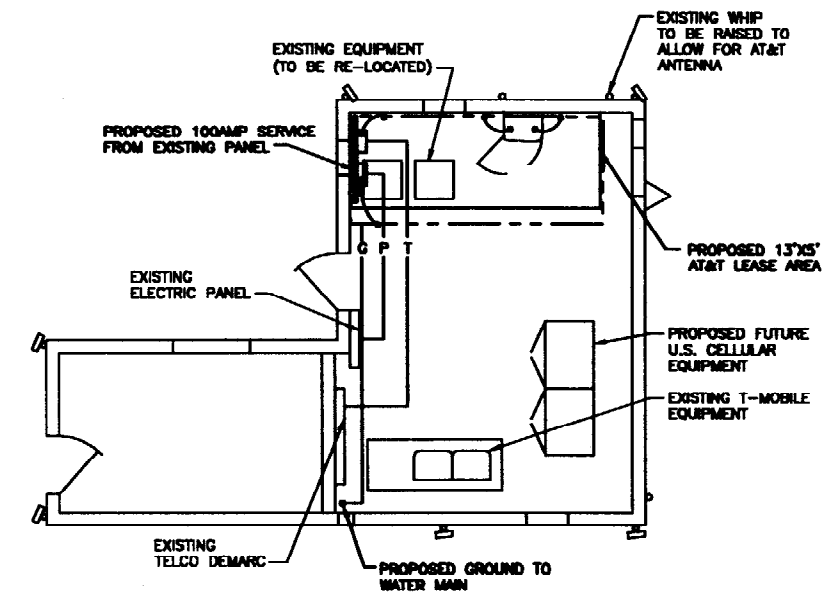
TMC JOB NO.	JOB NO.	DRAWING NUMBER	REV
ATT 3.44	24445	912-022-048A-A03	0

**ELECTRICAL NOTES:**

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND ALL APPLICABLE LOCAL CODES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
3. THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
4. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC (CADWELD) CONNECTIONS.
5. SERVICE TO EQUIPMENT CABINETS SHALL BE 120/240 VAC, 200 AMP, SINGLE PHASE, 60 Hz.
6. ALL GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMIC (CADWELD).
7. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR & EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
8. ALL EXOTHERMIC CONNECTIONS TO THE GROUND RODS SHALL START AT THE TOP & HAVE A VERTICAL SEPARATION OF 8" FOR EVERY ADDITIONAL CONNECTION.
9. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
10. ALL EXTERIOR GROUND CONDUCTORS SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
11. GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" 10-FT. LONG, AND SHALL BE DRIVEN VERTICALLY WITH THEIR TOPS 18" BELOW FINAL GRADE (TYP).
12. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
13. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
14. MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED 5 OHMS. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH PROJECT SPECIFICATION FOR FACILITY GROUNDING, USING FALL OF POTENTIAL METHOD.
15. ANTENNA GROUND KITS SHALL BE FURNISHED BY AT&T AND INSTALLED BY CONTRACTOR.

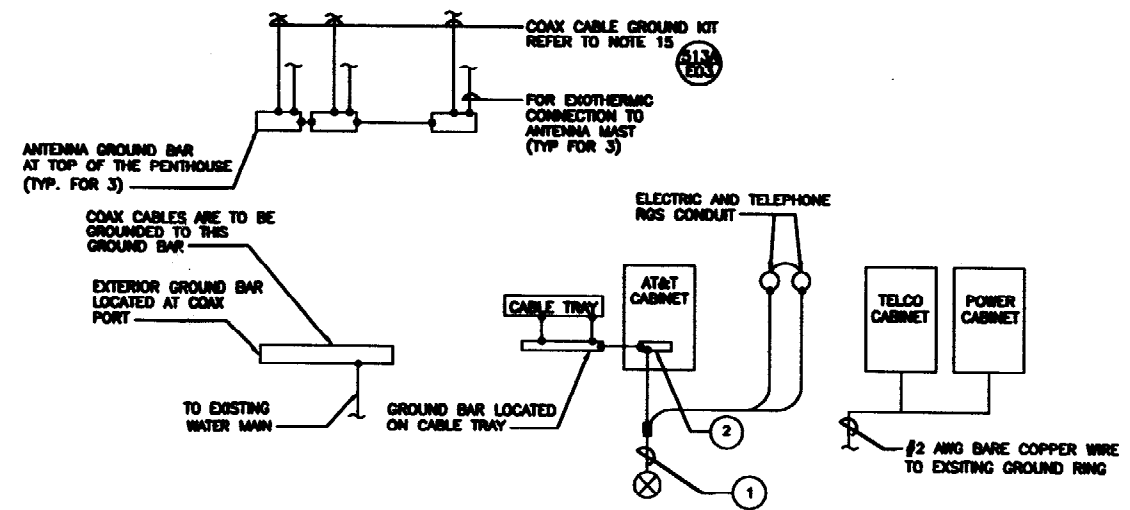


**ENLARGED GROUNDING PLAN**  
SCALE: NONE



**GROUNDING PLAN**  
SCALE: NONE

- 1 #2 AWG BARE COPPER WIRE TO GROUND ROD REFER TO DETAIL 300 AND NOTE #14.
- 2 CABINET GROUND BAR. PROVIDE GROUND CONNECTIONS TO WATER MAIN.
- 3 BOND EACH SECTION OF CABLE TRAY
- 4 EXTERNAL GROUND BAR MOUNTED TO BASE OF AN EXISTING STRUCTURE



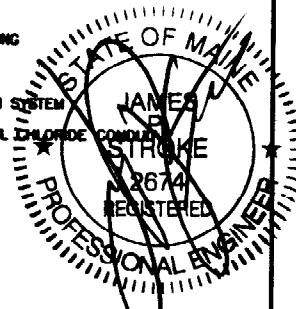
**GROUNDING DIAGRAM**  
SCALE: 1" = 10'

**ELECTRICAL SYMBOLS:**

- ⊗ GROUND ROD
- DISCONNECT SWITCH
- ⊕ METER
- CADWELD TYPE CONNECTION
- COMPRESSION TYPE CONNECTION
- GROUNDING WIRE
- ⊗ XXX REF. DRAWING NUMBER
- ⊗ XXX REPRESENTS DETAIL NUMBER

**ABBREVIATIONS:**

- AWG AMERICAN WIRE GAUGE
- BCW BARE COPPER WIRE
- DWG DRAWING
- EMT ELECTRICAL METALLIC TUBING
- MGB MASTER GROUND BAR
- PCS PERSONAL COMMUNICATION SYSTEM
- PVC RIGID (SCH. 40) POLYVINYL CHLORIDE CONDUIT
- RGS RIGID GALVANIZED STEEL
- RWY RACEWAY
- TYP TYPICAL



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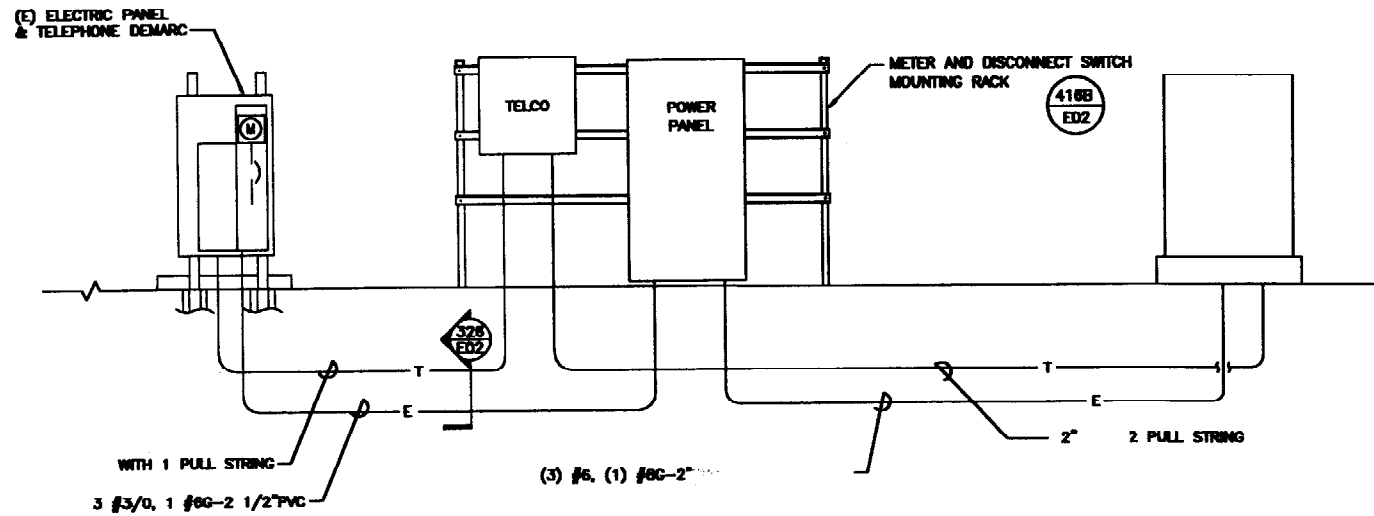
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AT&T WIRELESS SERVICES, INC.  
400 BLUE HILL DRIVE  
SUITE 100  
WESTWOOD, MASSACHUSETTS 02090

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	10/08/03	ISSUED FOR CONSTRUCTION	TDR	MFJ	JPS
A	08/23/03	ISSUED FOR REVIEW	TDR	MFJ	JPS
SCALE AS SHOWN		DESIGNED	DRAWN		

**TURNING MILL CONSULTANTS, INC**  
ENGINEERS AND CONSTRUCTION MANAGERS  
EXTERIOR GROUNDING PLAN  
COLLOCATE ON EXISTING PENTHOUSE

THE JOB NO.	JOB NO.	DRAWING NUMBER	REV
ATT 3.44	24445	912-022-048A-E01	0

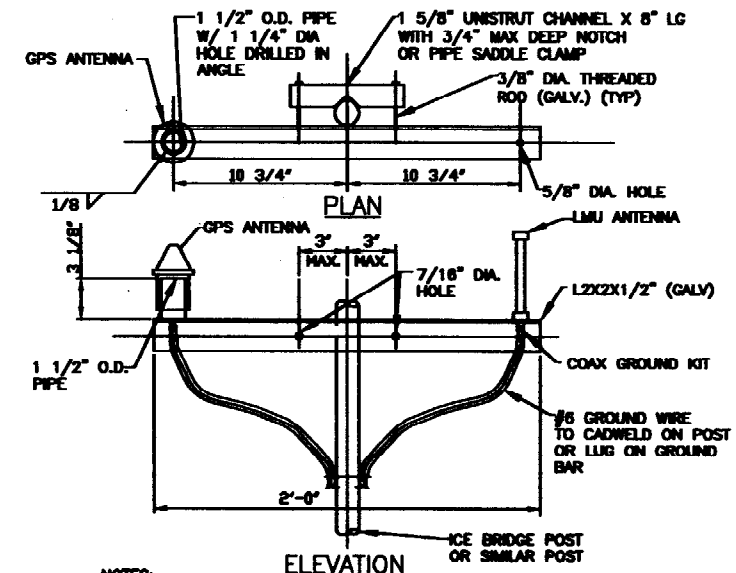


**NOTES:**

1. SUBCONTRACTOR SHALL PROVIDE A SINGLE PHASE, 100 AMP, 3 WIRE, 120/240 VAC, 60HZ SERVICE FOR AWS SITE.
2. SUBCONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY BEFORE THE START OF CONSTRUCTION. POWER AND TELEPHONE CONDUIT SHALL BE PROVIDED AND INSTALLED PER UTILITY REQUIREMENTS.
3. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT REFER TO DRAWINGS PROVIDED BY PPC MANUFACTURER.
4. ALL SERVICE EQUIPMENT AND INSTALLATIONS SHALL COMPLY WITH THE N.E.C. AND UTILITY COMPANY AND LOCAL CODE REQUIREMENTS.
5. SUBCONTRACTOR SHALL INSTALL 3/4" OF FLEX CONDUIT WITH ALL CONDUIT FITTINGS (NUTS, REDUCING BUSHINGS, ELBOWS, COUPLINGS, ETC.) NECESSARY FOR CONNECTION TO THE BTS CABINET.
6. SUBCONTRACTOR SHALL PROVIDE ELECTRICAL SERVICE EQUIPMENT WITH FAULT CURRENT RATINGS GREATER THAN THE AVAILABLE FAULT CURRENT FROM THE POWER UTILITY.
7. POWER, CONTROL AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG AND LARGER), 600V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED.
8. CUT, COIL AND TAPE A 10 FOOT PITIAL FROM END OF FLEX CONDUIT FOR TERMINATION BY ERICSSON.

POWER AND TELCO SINGLE LINE DIAGRAM  
NTS

1

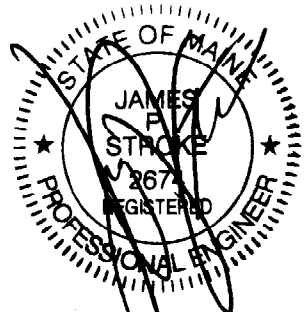


**NOTES:**

1. LOCATION OF ANTENNA MUST HAVE CLEAR VIEW OF SOUTHERN SKY AND CANNOT HAVE ANY BLOCKAGES EXCEEDING 25% OF THE SURFACE AREA OF A HEMISPHERE AROUND THE GPS ANTENNA.
2. ALL GPS ANTENNA LOCATIONS MUST BE ABLE TO RECEIVE CLEAR SIGNALS FROM A MINIMUM OF FOUR (4) SATELLITES. VERIFY WITH HANDHELD GPS BEFORE FINAL LOCATION OF GPS ANTENNA.

GPS/LMU ANTENNA SUPPORT

DETAIL 800D  
NTS A01



**TURNING MILL CONSULTANTS, INC**  
DEVELOPERS, ENGINEERS AND CONSTRUCTION MANAGERS  
68 TUPPER ROAD, UNIT #3, PO BOX 1169  
SANDWICH, MA 02563  
PHONE: (508) 888-4383 ~ FAX: (508) 888-4248

SITE NAME: MERCY HOSPITAL  
SITE NO. 22-048  
144 480 STATE STREET  
PORTLAND, ME 04101

**AT&T**  
AT&T WIRELESS SERVICES, INC.  
400 BLUE HILL DRIVE  
SUITE 100  
WESTWOOD, MASSACHUSETTS 02080

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	10/08/03	ISSUED FOR CONSTRUCTION	TDR	MFJ	JPS
A	08/23/03	ISSUED FOR REVIEW	TDR	MFJ	JPS
SCALE		AS SHOWN	DESIGNED	DRAWN	

**TURNING MILL CONSULTANTS, INC**  
ENGINEERS AND CONSTRUCTION MANAGERS  
ONE-LINE DIAGRAM & DETAILS  
COLLOCATE ON EXISTING PENTHOUSE

TAC JOB NO.	JOB NO.	DRAWING NUMBER	REV
ATT 3.44	24445	912-022-048A-E02	0

TURNING MILL CONSULTANTS, INC  
 DEVELOPERS, ENGINEERS AND CONSTRUCTION MANAGERS  
 60 TUPPER ROAD, UNIT #3, PO BOX 1198  
 SANDWICH, MA 02063  
 PHONE: (508) 888-4383 ~ FAX: (508) 888-4248

SITE NAME: MERCY HOSPITAL  
 SITE NO. 22-048  
 1/4 180 STATE STREET  
 PORTLAND, ME 04101

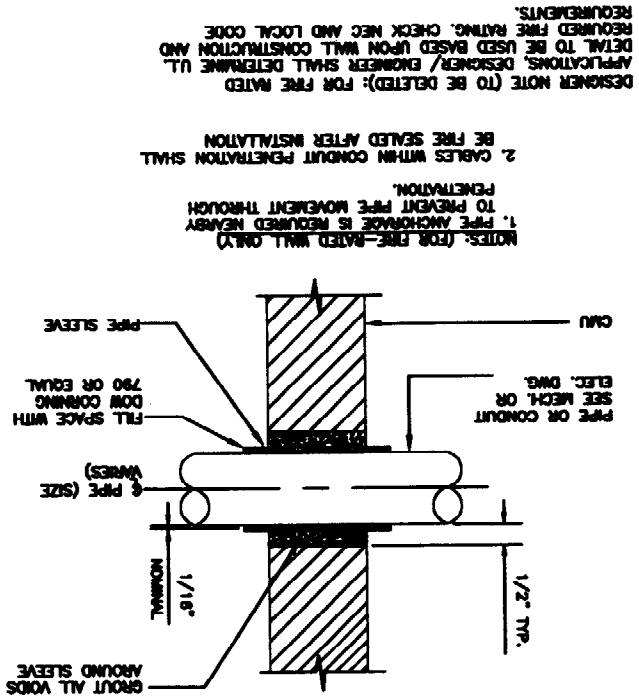
AT&T  
 WESTWOOD, MASSACHUSETTS 02090  
 SUITE 108  
 488 BLUE HILL DRIVE  
 AT&T WIRELESS SERVICES, INC.

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	10/08/03	ISSUED FOR CONSTRUCTION	TDR	W.F.	J.P.S.
1	08/23/03	ISSUED FOR REVIEW	TDR	W.F.	J.P.S.

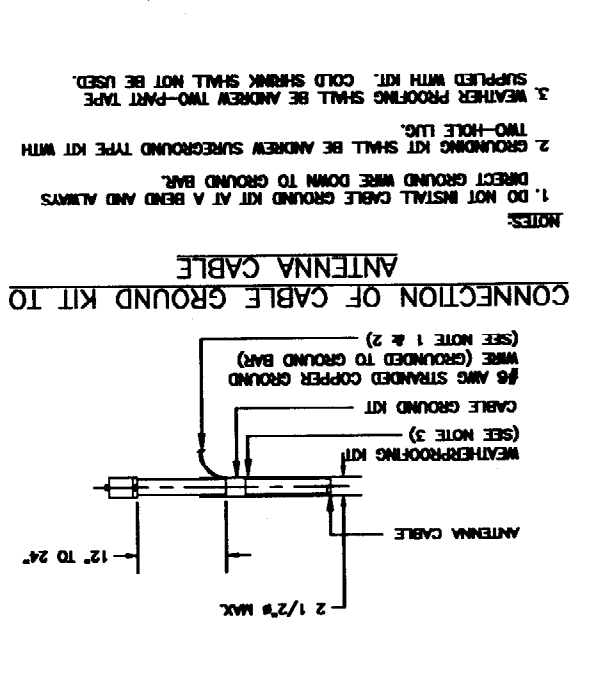
SCALE AS SHOWN  
 DESIGNED  
 DRAWN

ATT 3.44	24445	912-022-048A-E03
TWO JOB NO.	JOB NO.	DRAWING NUMBER
TURNING MILL CONSULTANTS, INC ENGINEERS AND CONSTRUCTION MANAGERS		
GROUNDING DETAILS COLLOCATE ON EXISTING PENHOUSE		

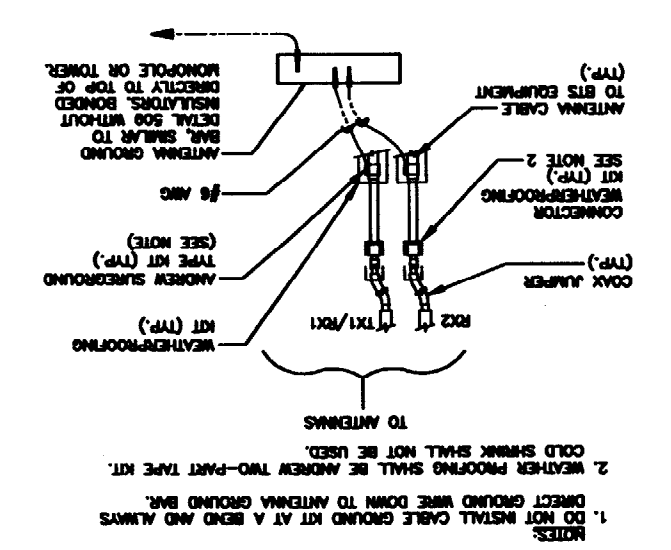
DETAIL 104  
 NIS  
 (CONCRETE WALL SIMILAR)  
 PIPE PENETRATION AT CMU WALL



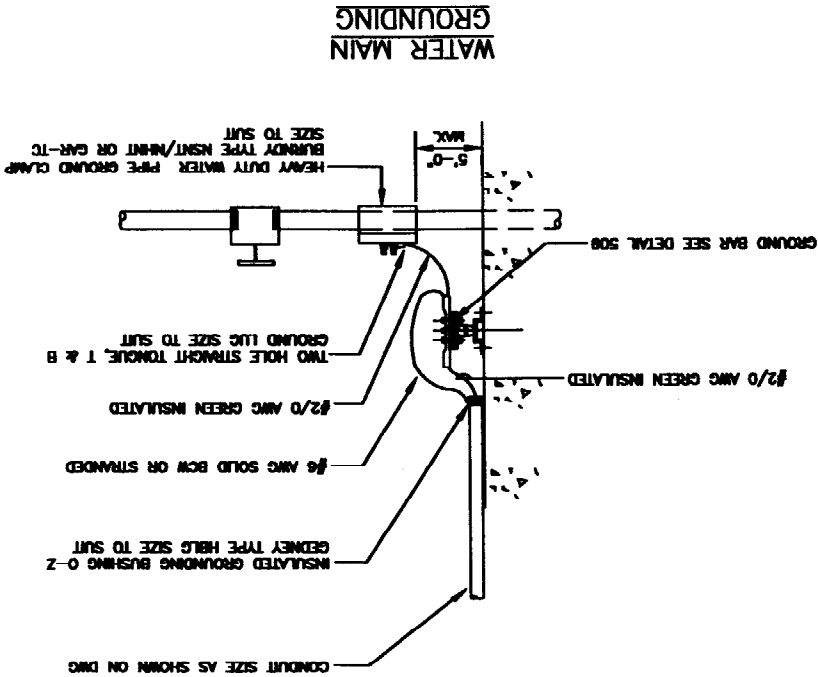
DETAIL 513A/513A  
 NIS  
 ANTENNA CABLE  
 CONNECTION OF CABLE GROUND KIT TO



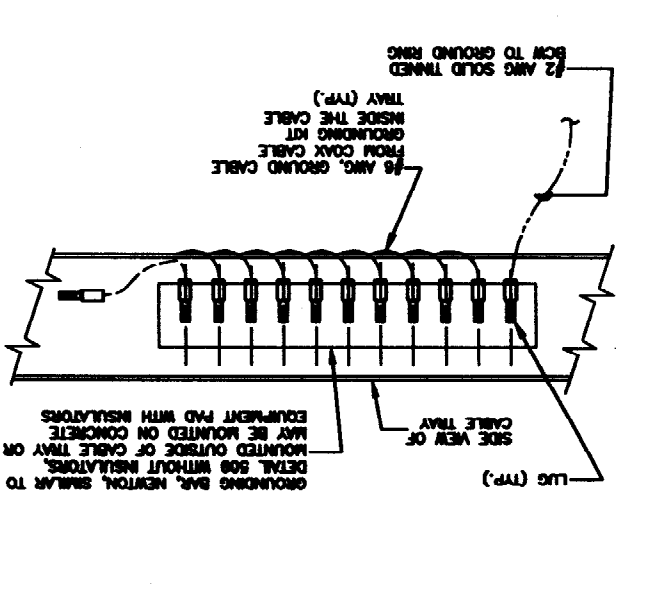
DETAIL 522C  
 NIS  
 CONNECTION OF GROUND WIRE TO GROUNDING  
 BAR, TOWER/MONOPOLE



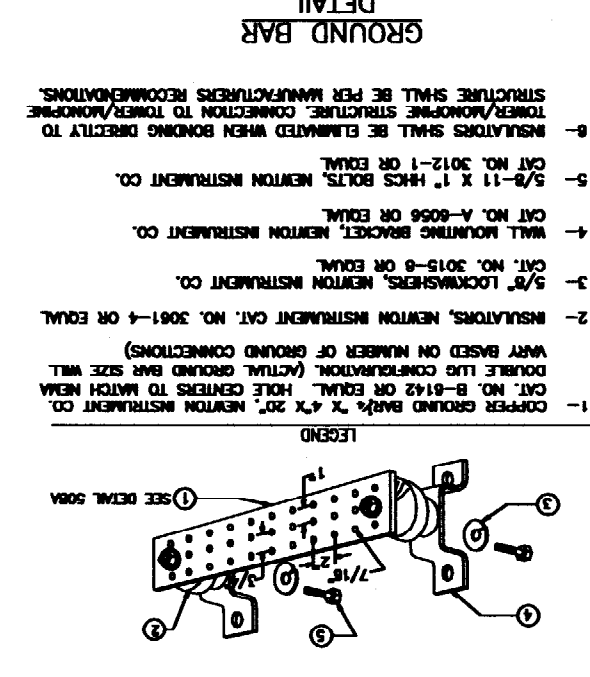
DETAIL 505  
 NIS  
 WATER MAIN  
 GROUNDING



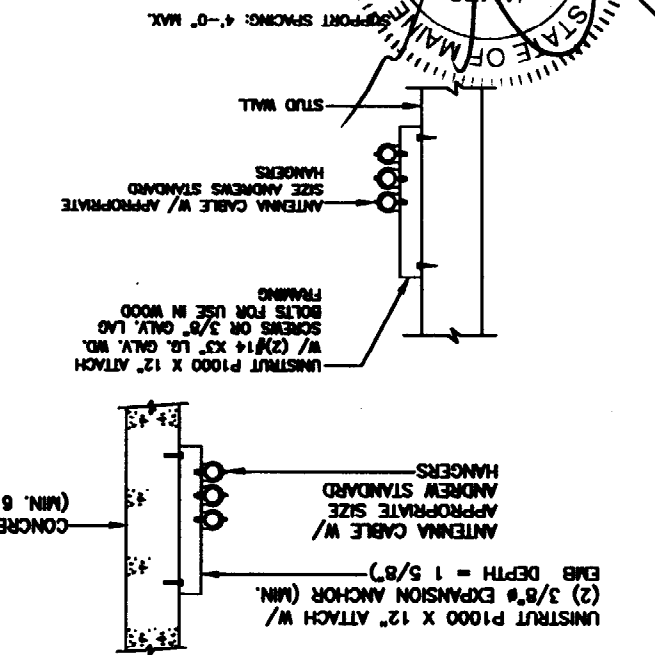
DETAIL 523A  
 NIS  
 GROUND BAR MOUNTED ON CABLE TRAY  
 MONOPOLE OR SELF-SUPPORT TOWER SITE



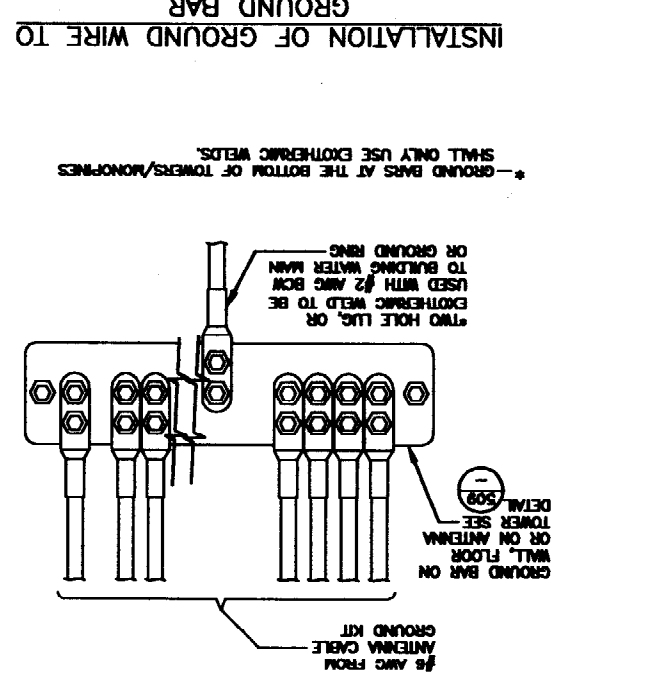
DETAIL 509  
 NIS  
 GROUND BAR  
 DETAIL



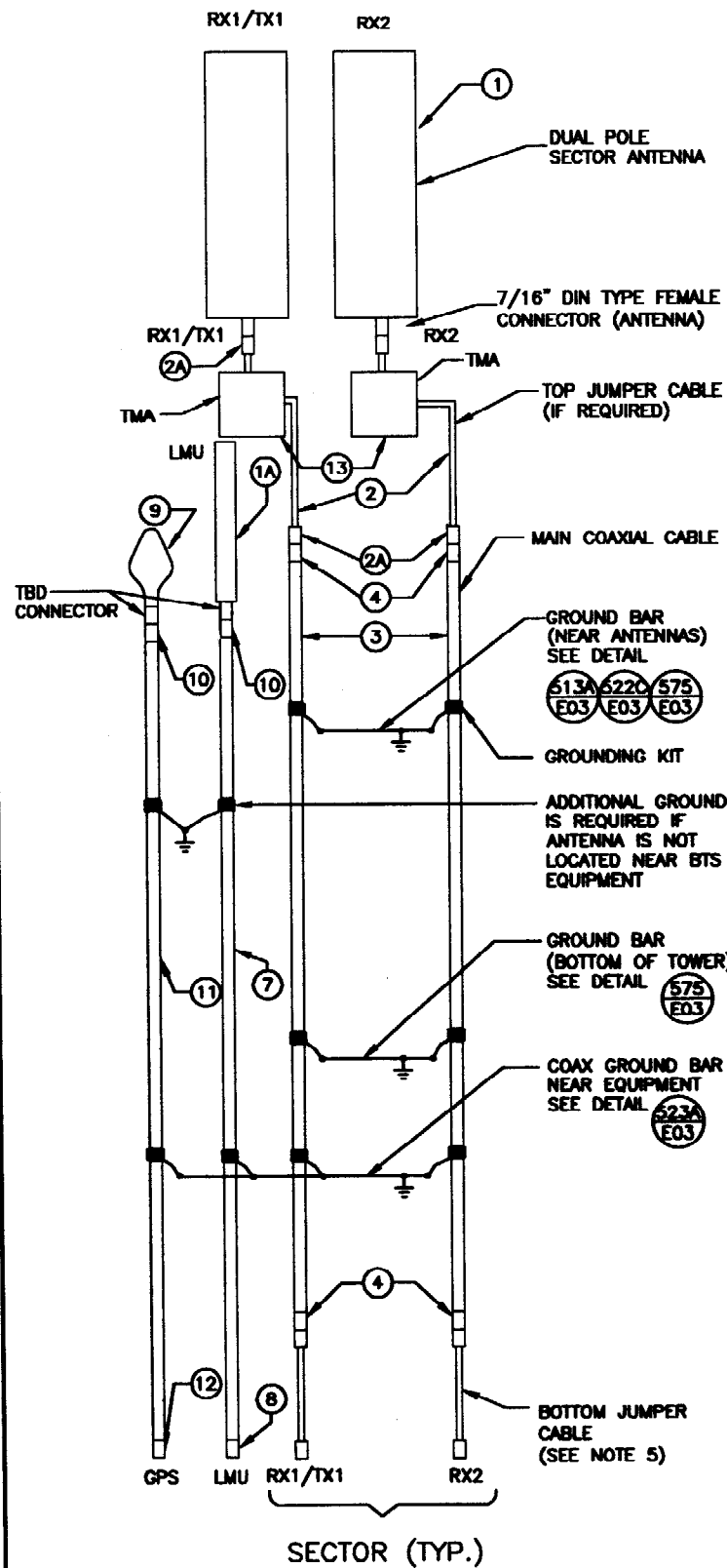
DETAIL 555  
 NIS  
 GABLE SUPPORT  
 DETAIL



DETAIL 508A  
 NIS  
 GROUND BAR  
 INSTALLATION OF GROUND WIRE TO



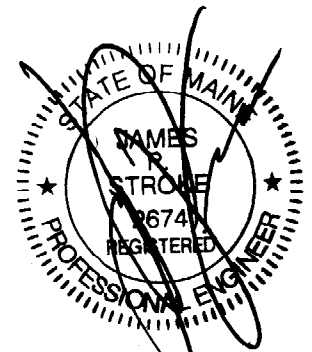
STATE OF MAINE  
 REGISTERED PROFESSIONAL ENGINEER  
 JAMES N. STROBE  
 2672  
 TURNING MILL CONSULTANTS, INC  
 ENGINEERS AND CONSTRUCTION MANAGERS  
 60 TUPPER ROAD, UNIT #3, PO BOX 1198  
 SANDWICH, MA 02063  
 PHONE: (508) 888-4383 ~ FAX: (508) 888-4248



ITEM NO.	ITEM DESCRIPTION	SECTOR A AZIMUTH 30°		SECTOR B AZIMUTH 150°		SECTOR C AZIMUTH 270°		TOTAL QUANTITY (SEE NOTE 1)
		RX1/TX1	RX2/TX2	RX1/TX1	RX2/TX2	RX1/TX1	RX2/TX2	
	COLOR CODE	ONE GREEN	TWO GREEN	ONE BLUE	TWO BLUE	ONE WHITE	TWO WHITE	
1	ANTENNA (SEE NOTE 3 & 4) AS-BUILT SERIAL #	ALLGON 7334	ALLGON 7334	ALLGON 7334	ALLGON 7334	ALLGON 7334	ALLGON 7334	6
	MECHANICAL DOWNTILT	-5°	-5°	-2°	-2°	-2°	-2°	
2	ANTENNA JUMPER (ANDREW) (LENGTH)	L4A-PDMDM-4 (4 FEET)	L4A-PDMDM-4 (4 FEET)	L4A-PDMDM-4 (4 FEET)	L4A-PDMDM-4 (4 FEET)	L4A-PDMDM-4 (4 FEET)	L4A-PDMDM-4 (4 FEET)	6
2A	ATTACHED MALE DIN CONNECTOR (ANDREW)	INCLUDED W/ITEM #2	INCLUDED W/ITEM #2	INCLUDED W/ITEM #2	INCLUDED W/ITEM #2	INCLUDED W/ITEM #2	INCLUDED W/ITEM #2	
3	MAIN COAX (LENGTH) (ANDREW)	7/8" (70FT) LDF5-50A	7/8" (70FT) LDF5-50A	7/8" (70FT) LDF5-50A	7/8" (70FT) LDF5-50A	7/8" (70FT) LDF5-50A	7/8" (70FT) LDF5-50A	420 FT
4	UNATTACHED FEMALE DIN CONNECTOR (ANDREW)	(2) L5PDF-RPC	(2) L5PDF-RPC	(2) L5PDF-RPC	(2) L5PDF-RPC	(2) L5PDF-RPC	(2) L5PDF-RPC	12
5	UNATTACHED MALE DIN CONNECTOR (ANDREW)	L5PDM-RPC	L5PDM-RPC	L5PDM-RPC	L5PDM-RPC	L5PDM-RPC	L5PDM-RPC	6
6	COAX SURGE ARRESTOR (ANDREW)	N/A	N/A	N/A	N/A	N/A	N/A	0
1A	LMU ANTENNA	KATHREIN 738-454 OMNI						1
7	LMU COAX (LENGTH) (ANDREW)	1/2" (10 FT) LDF4-50A						10 FT
8	UNATTACHED CONNECTOR	TBD						1
9	GPS ANTENNA	MATSUSHITA VC 100						1
10	UNATTACHED-CONNECTOR	TBD						2
11	GPS COAX (LENGTH) (ANDREW)	1/2" (10 FT) LDF4-50A						10 FT
12	UNATTACHED-CONNECTOR	TBD						1
13	TMA	TMA KRY 112 71/2	TMA KRY 112 71/2	TMA KRY 112 71/2	TMA KRY 112 71/2	TMA KRY 112 71/2	TMA KRY 112 71/2	6

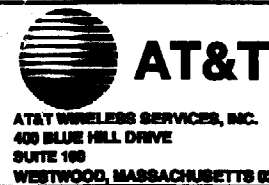
**NOTES:**

- ALL MATERIALS ON THE ABOVE TABLE SHALL BE PROVIDED BY THE CONTRACTOR TO THE SUBCONTRACTOR FOR INSTALLATION.
- SUBCONTRACTOR SHALL AS-BUILT CABLE LENGTHS AND PROVIDE ANTENNA SERIAL NUMBERS ON RED-LINED DRAWINGS.
- ANTENNAS SHALL BE PROCURED AND INSTALLED WITH DOWNTILT BRACKETS AND HEAVY DUTY CLAMPS SUPPLIED BY ANTENNA MANUFACTURER.
- COLOR CODE ALL MAIN CABLES AT TWO LOCATIONS USING COLORED TAPE:  
NEAR ANTENNAS  
NEAR EQUIPMENT  
  
COLOR CODING OF COAXIAL CABLE FOR LINE IDENTIFICATION SHALL BE IN ACCORDANCE WITH THE ABOVE TABLE.
- ANDREW COAX GROUND KITS, ANDREW COAX WEATHER PROOFING, ANDREW SNAP-IN HANGER CLAMPS, AND ANDREW HOISTING GRIPS SHALL BE PROVIDED BY THE CONTRACTOR TO THE SUBCONTRACTOR FOR INSTALLATION.



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SITE NO. 22-048  
144 420 STATE STREET  
PORTLAND, ME 04101



NO.	DATE	REVISIONS	BY	CHK	APP'D
0	10/09/03	ISSUED FOR CONSTRUCTION	TDR	MFJ	JPS
A	08/23/03	ISSUED FOR REVIEW	TDR	MFJ	JPS
SCALE AS SHOWN		DESIGNED	DRAWN		

**TURNING MILL CONSULTANTS, INC**  
ENGINEERS AND CONSTRUCTION MANAGERS  
ANTENNA SCHEMATIC & DETAILS  
COLLOCATE ON EXISTING PENTHOUSE

TMC JOB NO.	JOB NO.	DRAWING NUMBER	REV
ATT 3.44	24445	912-022-048A-E04	0