

# MCF COMMUNICATIONS, INC

**metroPCS**  
Unlimit Yourself.

**PVD0224B**  
**MCF PORTSMOUTH SOUTH**  
895 MIDDLE ROAD  
(WITH ACCESS FROM STONEGATE DRIVE)  
PORTSMOUTH, RI 02871  
NEWPORT COUNTY

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED 11/19/2010 FILE # 10-0852  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

*Margaret D. Worschke*

## SITE INFORMATION:

PROPERTY OWNER: DAVID & WILLIAM COTTA  
895 MIDDLE ROAD  
PORTSMOUTH, RI 02871

TOWER OWNER: MCF COMMUNICATIONS, INC.  
733 TURNPIKE ST, SUITE 105  
NORTH ANDOVER, MA 01845

TOWER OWNER SITE ID: N/A

APPLICANTS: METRO PCS  
285 BILLERICA ROAD  
CHELMSFORD, MA 01824  
(978) 244-7000

MCF COMMUNICATIONS, INC.  
733 TURNPIKE ST, SUITE 105  
NORTH ANDOVER, MA 01845

SITE ADDRESS: 895 MIDDLE ROAD  
PORTSMOUTH, RI 02871  
NEWPORT

COUNTY: NEWPORT

LATITUDE: 41° 34' 8.51"

LONGITUDE: 71° 16' 0.19"

ZONING CLASSIFICATION: R30 - FARM MDL-01

ZONING JURISDICTION: TOWN OF PORTSMOUTH

TAX ID PARCEL NUMBER: MAP: 51,57 PARCEL: 17

ARCHITECT / ENGINEER: ADVANCED ENGINEERING GROUP, P.C.  
34 HEMINGWAY DRIVE  
EAST PROVIDENCE, RI 02915

POWER COMPANY: NSTAR (COMMONWEALTH)  
ONE NSTAR WAY  
WESTWOOD, MA 02090  
(888) 633-3797

TELEPHONE COMPANY: VERIZON  
185 FRANKLIN STREET  
BOSTON, MA 02107  
(800) 941-9900

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

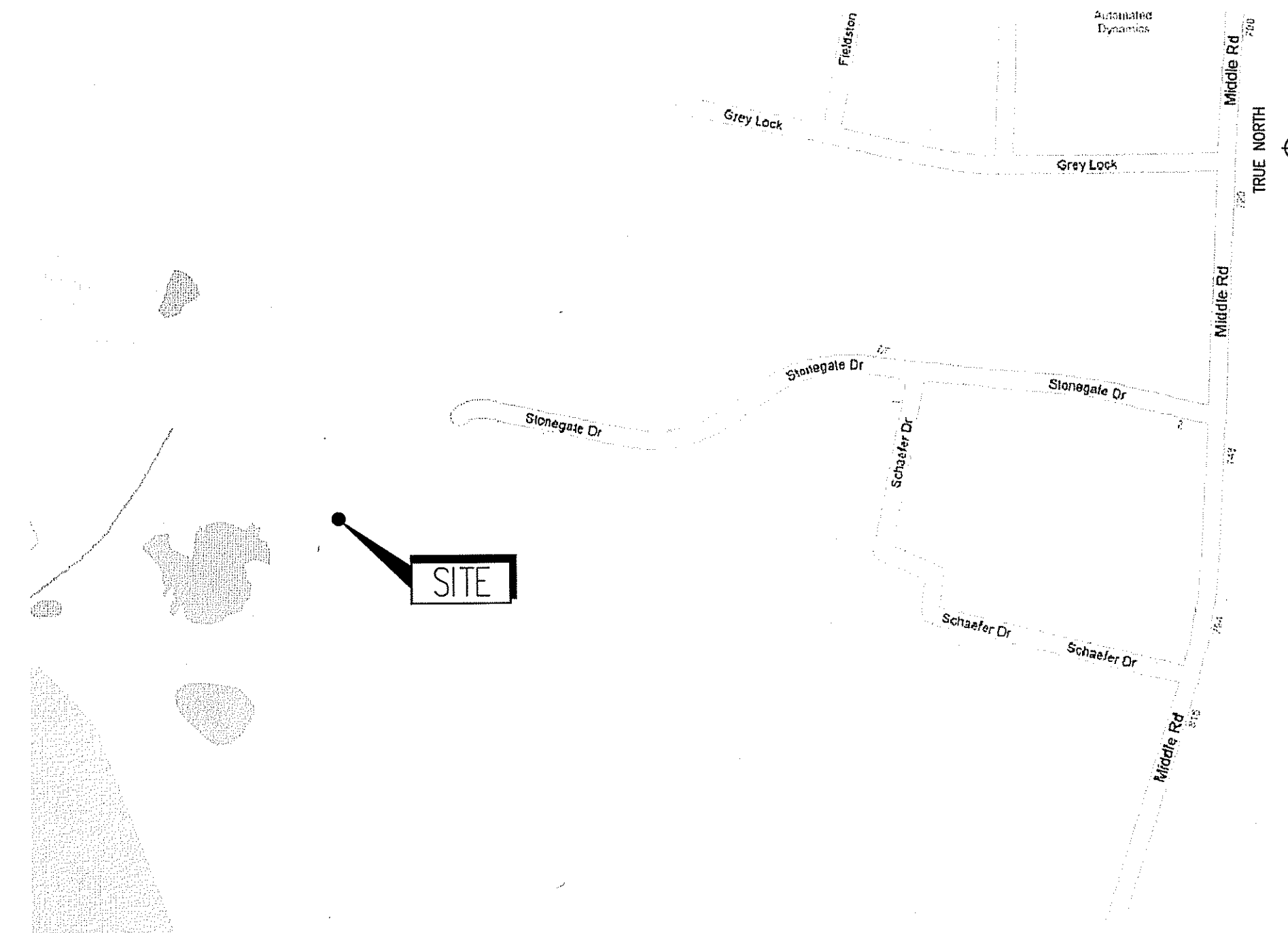
CONSTRUCTION MANAGER: DAVE BEAN  
(978) 244-7200

OPS CONTACT: MIKE WILBANKS  
(978) 244-7280

## SITE TYPE: COLLOCATION ON FUTURE MONOPOLE

### VICINITY MAP

SCALE: N.T.S.



### DRIVING DIRECTIONS

HEAD SOUTHEAST ON BILLERICA RD/MA-129 E TOWARD OMNI WAY, TAKE THE RAMP ONTO US-3 S THEN TAKE EXIT 25B TO MERGE ONTO I-95 S/MA-128 S TOWARD PROVIDENCE RI, CONTINUE ONTO US-1 N, CONTINUE ONTO I-93 N, TAKE EXIT 4 FOR STATE ROUTE 24 S TOWARD BROCKTON/FALL RIVER, MERGE ONTO MA-24 S, TAKE THE EXIT ONTO I-195 W/MA-24 S TOWARD FALL RIVER, TAKE EXIT 8A TO MERGE ONTO MA-24 S TOWARD TIVERTON R.I./NEWPORT R.I., CONTINUE ONTO RI-24 S ENTERING RHODE ISLAND, TAKE THE EXIT TOWARD MIDDLETOWN/NEWPORT BEACHES, MERGE ONTO TURNPIKE AVE, CONTINUE ONTO E MAIN RD/RI-138 S, SLIGHT RIGHT AT MIDDLE RD DESTINATION WILL BE ON THE RIGHT

### APPROVALS

LANDLORD: \_\_\_\_\_

FIELD CONST. MGR: \_\_\_\_\_

RF ENGINEER: \_\_\_\_\_

SITE ACQUISITION AGENT: \_\_\_\_\_

ARCHITECT/ENGINEER: \_\_\_\_\_

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### DO NOT SCALE DRAWINGS

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

### PROJECT DESCRIPTION

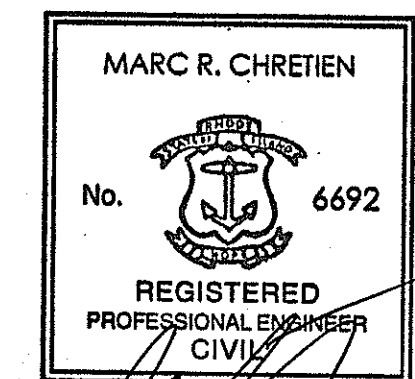
- THIS IS AN UNMANNED AND RESTRICTED ACCESS EQUIPMENT AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE. THIS FACILITY WILL CONSUME NO UNRECOVERABLE ENERGY.
- NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
- NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.
- NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.
- METRO PCS MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT.
- "SUPPLEMENTAL ENVIRONMENTAL PROJECT" (SEP)- INVOLVES THE PLANTING OF NATIVE WETLAND SHRUBS AND CREATION OF WETLAND TO REPLACE 50' PERIMETER WETLAND LOST DURING CONSTRUCTION EFFORTS).

MCF COMMUNICATIONS, INC.  
733 TURNPIKE ST, SUITE 105  
NORTH ANDOVER, MA 01845  
OFFICE: (978) 687-2536  
FAX: (978) 258-8850

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

**ADVANCED**  
ENGINEERING GROUP, P.C.  
Civil Engineering - Site Development Surveying -  
Telecommunications  
34 HEMINGWAY DRIVE  
EAST PROVIDENCE, RI 02915  
PH: 401-534-2003  
FAX: 401-533-6354



ENGINEER/LAND SURVEYOR

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

### REVISIONS

REV. #	DATE	DESCRIPTION
3	6/24/10	CONSTRUCTION REVISED
2	2/25/10	CONSTRUCTION REVISED
1	12/07/09	ISSUED FOR CONSTRUCTION
0	11/20/09	ISSUED FOR REVIEW

PROJECT NO.	DESIGNED BY:	MRC	SCALE:
PVD0224B	DRAWN BY:	MG	AS SHOWN
	CHECK'D BY:	MRC	

SITE NAME:  
**PVD0224B**  
**MCF PORTSMOUTH SOUTH**

SITE ADDRESS:  
895 MIDDLE ROAD  
PORTSMOUTH, RI 02871

DRAWING TITLE:  
**TITLE SHEET**  
JUL 8 2010

DRAWING NO:  
**T-1**

**GENERAL NOTES:**

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR - METRO PCS  
SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)  
OWNER - METRO PCS  
OEM - ORIGINAL EQUIPMENT MANUFACTURER
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND T1 PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
- SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- SUBCONTRACTOR SHALL NOTIFY ADVANCED ENGINEERING GROUP, P.C. 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS & POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
- CONSTRUCTION SHALL COMPLY WITH METRO PCS SITES.
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL 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.
- 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 TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

**SITE WORK GENERAL NOTES:**

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

**CONCRETE AND REINFORCING STEEL NOTES:**

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS
- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
CONCRETE CAST AGAINST EARTH.....3 IN.  
CONCRETE EXPOSED TO EARTH OR WEATHER:  
#6 AND LARGER .....2 IN.  
#5 AND SMALLER & WWF .....1½ IN.  
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:  
SLAB AND WALL .....¾ IN.  
BEAMS AND COLUMNS .....½ IN.
- A CHAMFER ¼" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL 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. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.
- CONCRETE CYLINDER TEST IS NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;  
(A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIER'S PLANT.  
(B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.  
FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
- AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
- EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

**STRUCTURAL STEEL NOTES:**

- ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND METRO PCS SPECIFICATION 25252-000-3PS-GET-0001 UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
- BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾") AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ¾" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD OR APPROVED EQUAL.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
- ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

**SOIL COMPACTION NOTES FOR SLAB ON GRADE:**

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

**COMPACTION EQUIPMENT:**

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

**CONSTRUCTION NOTES:**

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

**ELECTRICAL INSTALLATION NOTES:**

- WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- SUBCONTRACTOR SHALL MODIFY EXISTING CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLEING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA, AND MATCH EXISTING INSTALLATION REQUIREMENTS.
- POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC & OSHA AND MATCH EXISTING INSTALLATION REQUIREMENTS
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #3 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- CABINETS, BOXES, AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED 11/28/2010 FILE # 10-0082  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

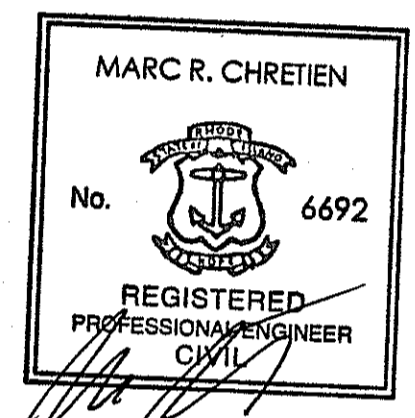
*Martin W. Wenzel*

**MCF COMMUNICATIONS, INC.**

733 TURNPIKE ST, SUITE 105  
NORTH ANDOVER, MA 01845  
OFFICE: (978) 687-2536  
FAX: (978) 258-8850

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THIRD FLOOR  
CHELMSFORD, MA 01824  
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FAX (978) 244-7240



ENGINEER/LAND SURVEYOR

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**REVISIONS**

REV.#	DATE	DESCRIPTION
3	6/24/10	CONSTRUCTION REVISED
2	2/25/10	CONSTRUCTION REVISED
1	12/07/09	ISSUED FOR CONSTRUCTION
0	11/20/09	ISSUED FOR REVIEW

PROJECT NO.	DESIGNED BY:	MRC	SCALE:
PVD0224B	DRAWN BY:	MG	AS SHOWN
	CHECKED BY:	MRC	

**SITE NAME:**

**PVD0224B**  
**MCF PORTSMOUTH**  
**SOUTH**

**SITE ADDRESS:**

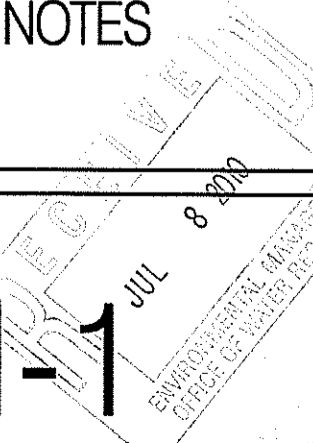
895 MIDDLE ROAD  
PORTSMOUTH, RI 02871

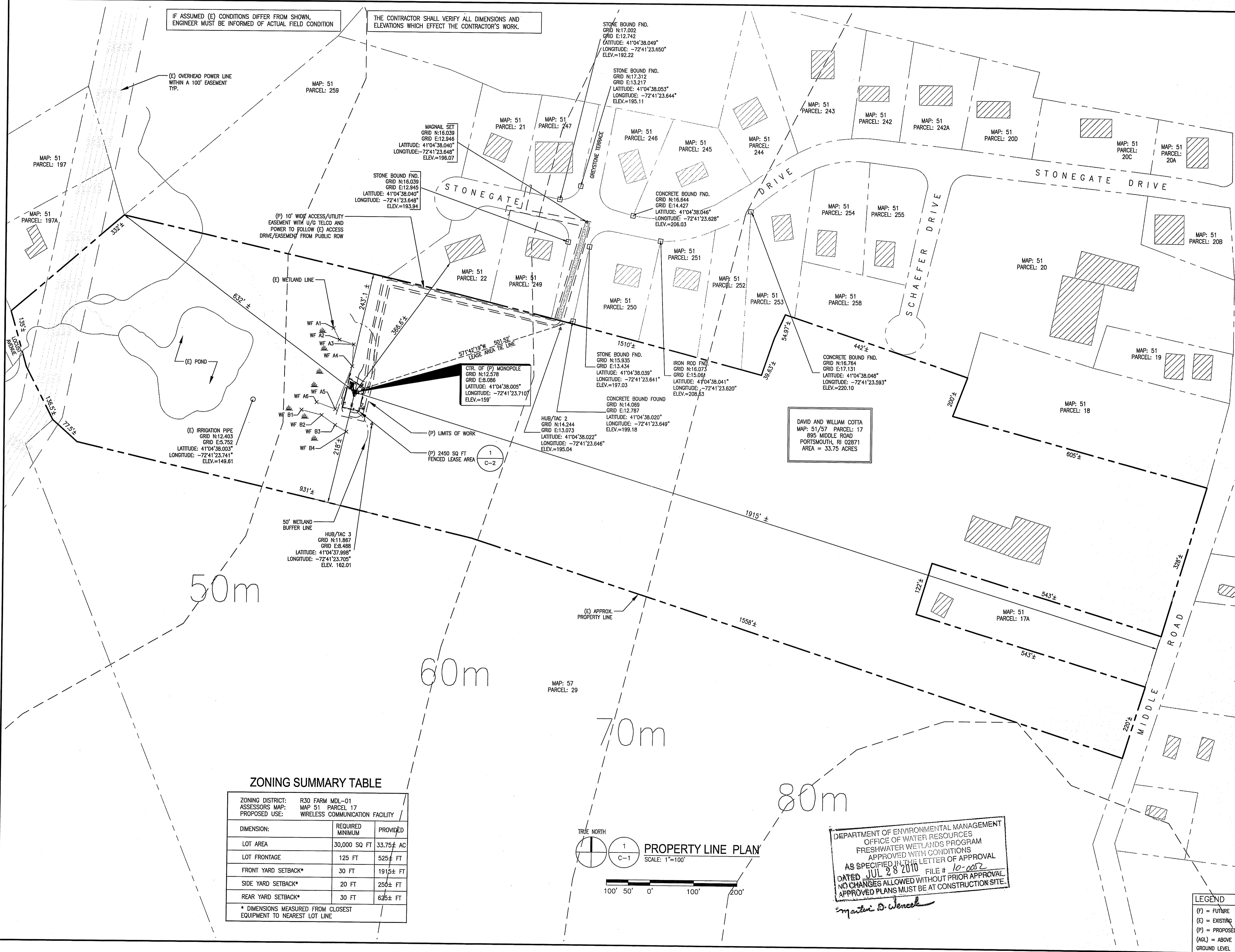
**DRAWING TITLE:**

GENERAL NOTES

**DRAWING NO.:**

**GN-1**





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FAX: 401-353-6564

MARC R. CHRETIEN  
No. 6692  
REGISTERED PROFESSIONAL ENGINEER  
ENGINEER/LAND SURVEYOR

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PROJECT NO.	DESIGNED BY:	MRC	SCALE:
PV00224B	DRAWN BY:	MC	AS SHOWN
	CHECK'D BY:	MRC	

SITE NAME:  
**PVD0224B  
MCF PORTSMOUTH  
SOUTH**

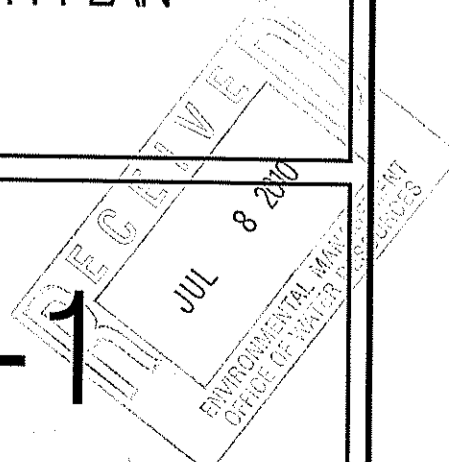
SITE ADDRESS:  
895 MIDDLE ROAD  
PORTSMOUTH, RI 02871

DRAWING TITLE:  
**PROPERTY PLAN**

DRAWING NO:  
**C-1**

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JUL 28 2010 FILE # 10-002  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

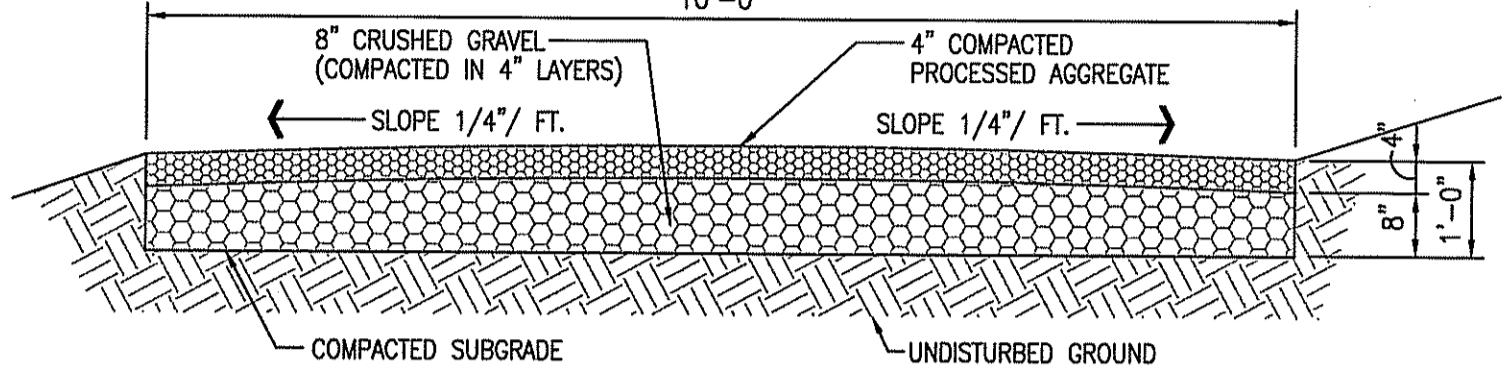
*Matthew D. Wencel*



IF ASSUMED (E) CONDITIONS DIFFER FROM SHOWN, ENGINEER MUST BE INFORMED OF ACTUAL FIELD CONDITION

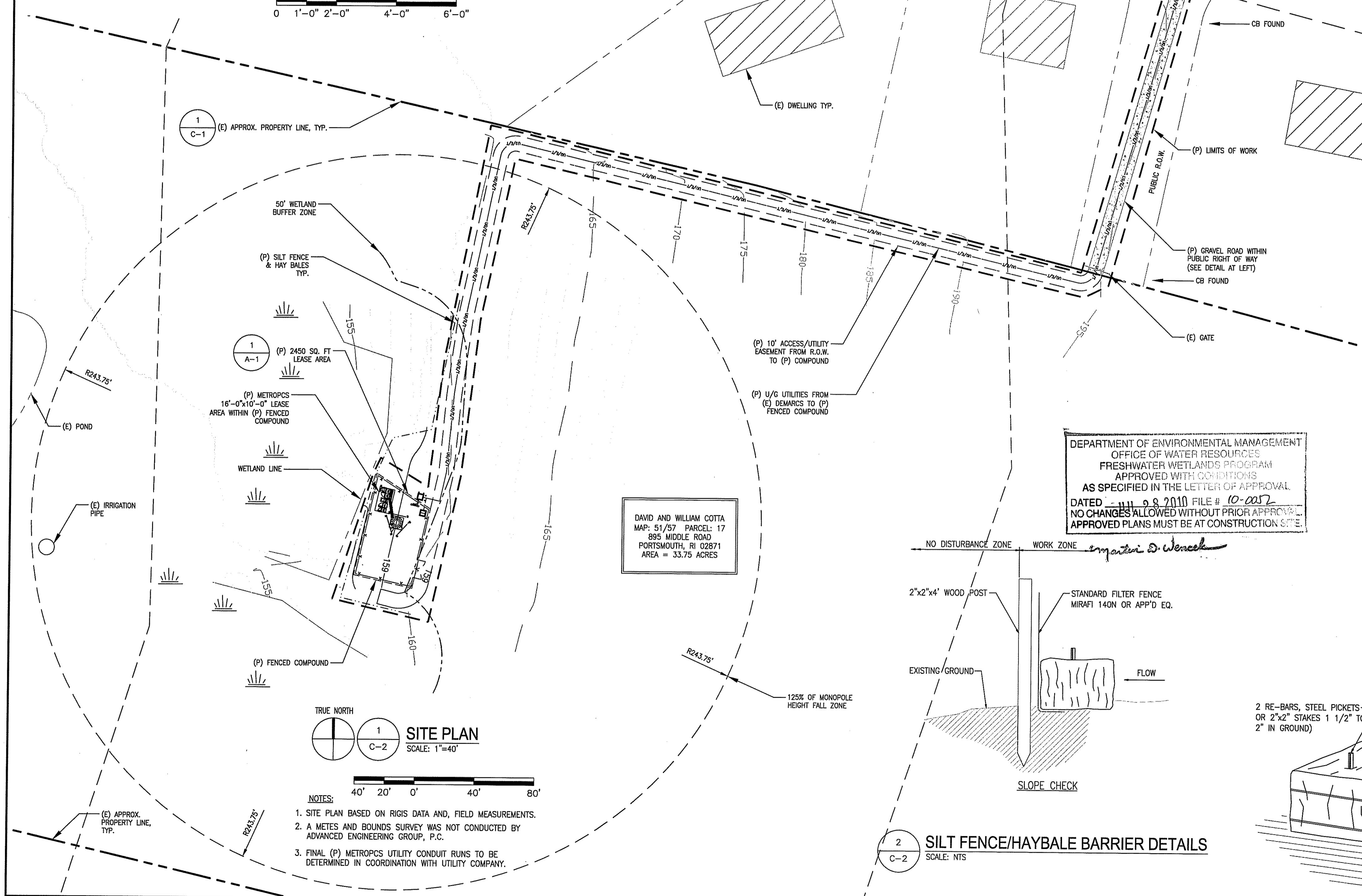
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WHICH EFFECT THE CONTRACTOR'S WORK.

CRUSHED GRAVEL		PROCESSED AGGREGATE	
SIEVE	% PASSING BY WEIGHT	SIEVE	% PASSING BY WEIGHT
5"	100	2 1/4"	100
3 1/2"	90-100	2"	95-100
1 1/2"	55-95	3/4"	50-75
1 1/4"	25-60	1/4"	25-45
10	15-45	#40	5-20
#40	5-25	#100	2-12
100	0-10		
#200	0-5		



**GRAVEL ACCESS CROSS SECTION**

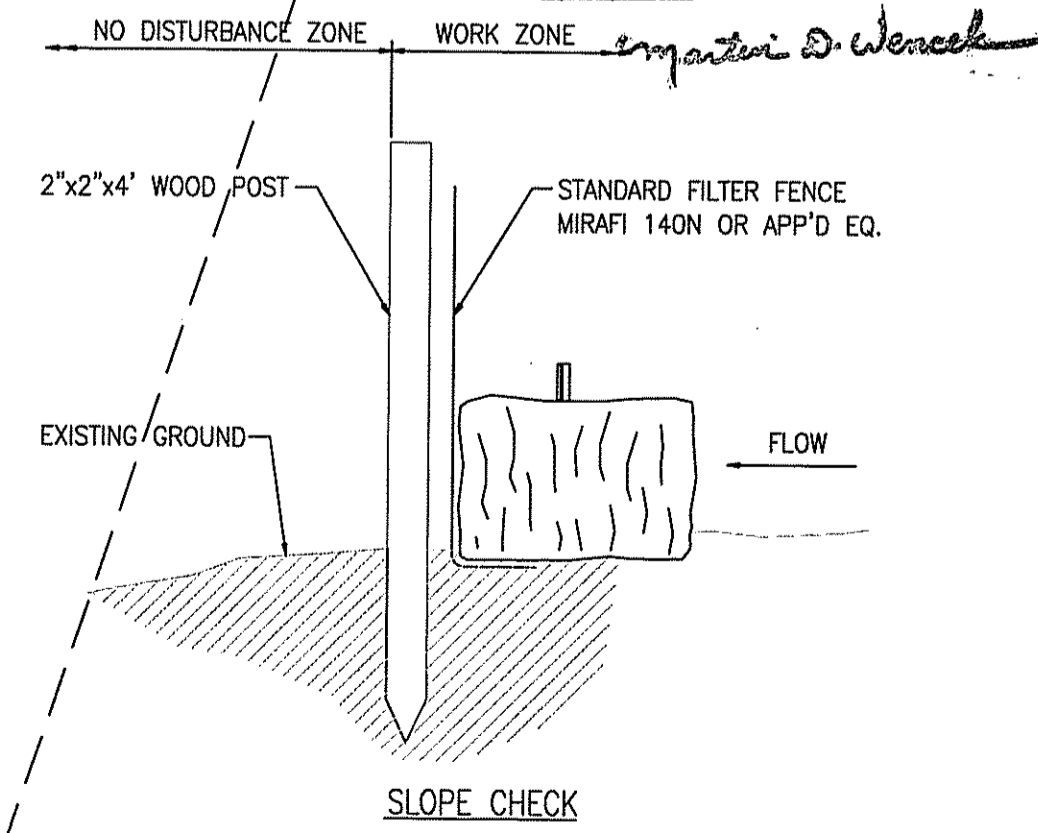
SCALE: 1/2"=1'-0"  
0 1'-0" 2'-0" 4'-0" 6'-0"



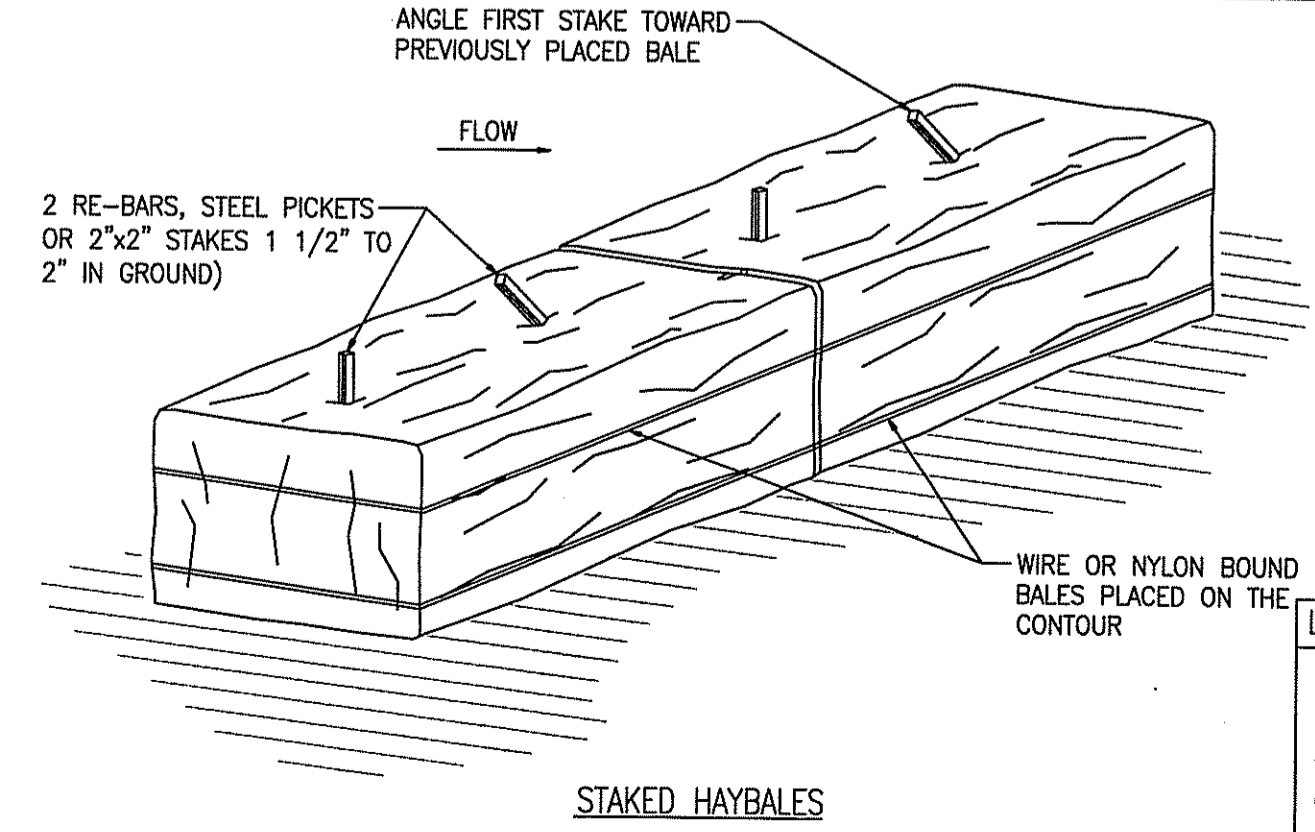
**SITE PLAN**  
SCALE: 1"=40'

- NOTES:
1. SITE PLAN BASED ON RIGIS DATA AND, FIELD MEASUREMENTS.
  2. A METES AND BOUNDS SURVEY WAS NOT CONDUCTED BY ADVANCED ENGINEERING GROUP, P.C.
  3. FINAL (P) METROPCS UTILITY CONDUIT RUNS TO BE DETERMINED IN COORDINATION WITH UTILITY COMPANY.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED 08/20/10 FILE # 10-2052  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.  
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**SILT FENCE/HAYBALE BARRIER DETAILS**  
SCALE: NTS



**STAKED HAYBALES**

**GENERAL NOTES:**

1. FIELD SURVEY DATE: OCTOBER 31, 2009
2. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
3. HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83)
4. SITE CONTROL POINT: CENTER OF EXISTING MONOPOLE  
LATITUDE: N 42° 19' 15.20"  
LONGITUDE: W 71° 09' 36.00"
5. PROPERTY OWNER: DAVID & WILLIAM COTTA  
895 MIDDLE ROAD  
PORTSMOUTH, RI 02871
6. SITE NUMBER: PVD0224B
7. SITE ADDRESS: 895 MIDDLE ROAD  
PORTSMOUTH, RI 02871
8. APPLICANTS: METROPCS MASSACHUSETTS, LLC  
285 BILLERICA ROAD, THIRD FLOOR  
CHELMSFORD, MA 01824  
(978) 244-7000  
  
MCF COMMUNICATIONS, INC.  
733 TURNPIKE ST, SUITE 105  
NORTH ANDOVER, MA 01845  
OFFICE: (978) 687-2536  
FAX: (978) 258-8850
9. JURISDICTION: TOWN OF PORTSMOUTH, RI
10. TAX ID: MAP 51/57 PARCEL 17
11. DEED REFERENCE: DEED BOOK: 119 PAGE: 70
12. PLAN REFERENCES: TOWN OF PORTSMOUTH ASSESSORS MAPS & PLAN REFERENCES AS INDICATED BELOW
13. ZONING JURISDICTION: R30 FARM MDL=01
14. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. CALL THE FOLLOWING FOR ALL PRE-CONSTRUCTION NOTIFICATION 72-HOURS PRIOR TO ANY EXCAVATION ACTIVITY:  
DIG SAFE SYSTEM (MA, ME, NH, RI, VT): 1-888-344-7233  
CALL BEFORE YOU DIG (CT): 1-800-922-4455
15. PROPERTY LINE INFORMATION IS COMPILED FROM ASSESSORS PLAN AND RECORD DOCUMENTS AND IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD BOUNDARY SURVEY, AND IS SUBJECT TO CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE. A FULL BOUNDARY SURVEY WAS NOT PERFORMED.
16. NO PART OF THE LEASE AREA LIES WITHIN THE 100 YEAR FLOOD ZONE AS SHOWN ON FLOOD INSURANCE RATE MAP FOR THE TOWN OF PORTSMOUTH, RI - NEWPORT COUNTY - COMMUNITY PANEL NUMBER: 445405 0010 C  
REVISED DATE: MARCH 2, 1983
17. BEARING SYSTEM OF THIS PLAN IS BASED ON TRUE NORTH. TRUE NORTH WAS ESTABLISHED FROM EXISTING PLAN REFERENCE. IT IS NOT INTENDED TO BE AN EXACT REPRESENTATION OF TRUE NORTH.

**LEGEND**

	PROPERTY LINE
	ABUTTING PROPERTY LINE
	EXIST. CONTOUR
	EXIST. CHAIN LINK FENCE
	PROP. CHAIN LINK FENCE
	EXIST. TREE LINE
	EXIST. STREET LAYOUT
	EXIST. EASEMENT
	EXIST. OVERHEAD UTILITIES
	PROP. OVERHEAD UTILITIES
	EXIST. UNDERGROUND UTILITIES
	PROP. UNDERGROUND UTILITIES
	EXIST. UTILITY POLE #XXX
	ZONING BOUNDARY LINE
	ZONING DISTRICT

**ZONE XX**

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**ADVANCED ENGINEERING GROUP, P.C.**  
Civil Engineering - Site Development Surveying -  
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34 BROADWAY DRIVE  
EAST PROVIDENCE, RI 02915  
PH: 401-354-2463  
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MARC R. CHRETIEN  
No. 6692  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
ENGINEER/LAND SURVEYOR

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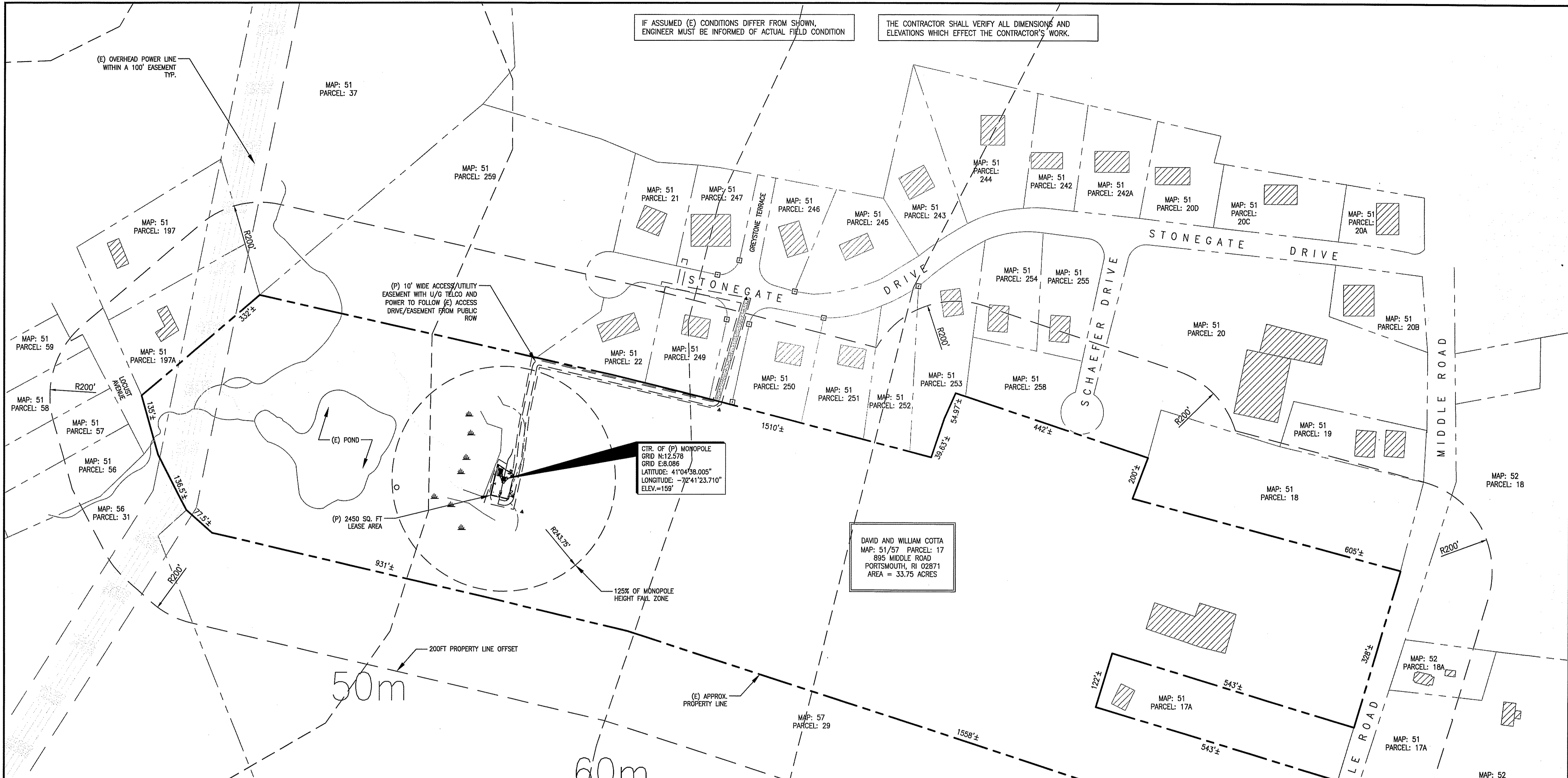
PROJECT NO.	DESIGNED BY:	MRC	SCALE:
PVD0224B	DRAWN BY:	MG	AS SHOWN
	CHECK'D BY:	MRC	

**SITE NAME:**  
PVD0224B  
MCF PORTSMOUTH SOUTH

**SITE ADDRESS:**  
895 MIDDLE ROAD  
PORTSMOUTH, RI 02871

**DRAWING TITLE:**  
SITE PLAN & NOTES

**DRAWING NO.:**  
C-2  
JUL 8 2010



IF ASSUMED (E) CONDITIONS DIFFER FROM SHOWN, ENGINEER MUST BE INFORMED OF ACTUAL FIELD CONDITION

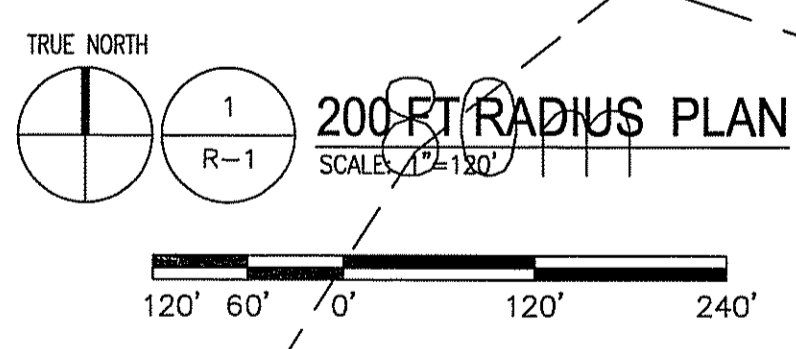
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CTR. OF (P) MONOPOLE  
 GRID N:12.578  
 GRID E:3.086  
 LATITUDE: 41°04'58.005"  
 LONGITUDE: -72°41'23.710"  
 ELEV.=159'

DAVID AND WILLIAM COTTA  
 MAP: 51/57 PARCEL: 17  
 895 MIDDLE ROAD  
 PORTSMOUTH, RI 02871  
 AREA = 33.75 ACRES

**200 FT RADIUS ABUTTERS LIST**

MAP LOT	PROPERTY ADDRESS	OWNER	MAILING ADDRESS	MAP LOT	PROPERTY ADDRESS	OWNER	MAILING ADDRESS
51 197	184 Locust Ave. Portsmouth, RI 02871	McCabe, Elizabeth A.	164 Locust Ave. Portsmouth, RI 02871	51 17	895 Middle Road Portsmouth, RI 02871	Cotta, David M. & Sandra A.	895 Middle Road Portsmouth, RI 02871
51 197A	182 Locust Ave. Portsmouth, RI 02871	Leonard, Harry S. & Marsha L. Trustees Bank of Newport Trustee	182 Locust Ave. Portsmouth, RI 02871	57 29	991-997 Middle Road Portsmouth, RI 02871	Decastro, Stephen E. & Patricia L.	991 Middle Road, Portsmouth, RI 02871
51 259	0 Stonegate Drive Portsmouth, RI 02871	Koell, Christopher R.	111 Morrison Ave. Middletown, RI 02842	51 56	187-189 Locust Ave. Portsmouth, RI 02871	Almeida, Alfred A. & Cecelia	187-189 Locust Ave. Portsmouth, RI 02871
51 22	180 Stonegate Drive Portsmouth, RI 02871	Cornevale, David J. & Angela M.	180 Stonegate Drive Portsmouth, RI 02871	51 57	185 Locust Ave. Portsmouth, RI 02871	Carter, Gilda	185 Locust Ave. Portsmouth, RI 02871
51 249	158 Stonegate Drive Portsmouth, RI 02871	Delamer, Kevin J. & Laura M.	158 Stonegate Drive Portsmouth, RI 02871	51 58	183 Locust Ave. Portsmouth, RI 02871	Antolino, Anne Marie	183 Locust Ave. Portsmouth, RI 02871
51 250	144 Stonegate Drive Portsmouth, RI 02871	Silvia, Peter A. & Frances C.	144 Stonegate Drive Portsmouth, RI 02871	51 59	173 Locust Ave. Portsmouth, RI 02871	State of Rhode Island	173 Locust Ave. Portsmouth, RI 02871
51 251	132 Stonegate Drive Portsmouth, RI 02871	Willett, Thomas K. & Barbara E.	132 Stonegate Drive Portsmouth, RI 02871	51 37	86 Locust Ave. Portsmouth, RI 02871	Pendleton, Robert L. & Linda M.	86 Locust Ave. Portsmouth, RI 02871
51 252	0 Stonegate Drive Portsmouth, RI 02871	Munkacsy, Mark J. & Mortha S.	379 Vanderbilt Lane Portsmouth, RI 02871	56 31	371 Union Street Portsmouth, RI 02871	Green Valley Country Club, Inc.	371 Union Street Portsmouth, RI 02871
51 253	110 Stonegate Drive Portsmouth, RI 02871	Nogueira, Augustus & Leslie Ric	110 Stonegate Drive Portsmouth, RI 02871	57 172	0 Lilac Lane Portsmouth, RI 02871	Lilac Lane	Lilac Lane Portsmouth, RI 02871
51 254	96 Stonegate Drive Portsmouth, RI 02871	Spain, William R. & Nancy S.	P.O. Box 5165 Newport, RI 02841	57 161	143 Lilac Lane Portsmouth, RI 02871	Pavkovic, Michael Frederick Pavkovic, Paris Bossert	143 Lilac Lane Portsmouth, RI 02871
51 255	11 Schoeffer Drive Portsmouth, RI 02871	Zitka, Glen I. & Nancy J.	11 Schoeffer Drive Portsmouth, RI 02871	57 151	936 Middle Road Portsmouth, RI 02871	Corvese, Michael Louis & Donna	936 Middle Road Portsmouth, RI 02871
51 258	33 Schoeffer Drive Portsmouth, RI 02871	Toomey, Dennis J. & Lorilee S.	33 Schoeffer Drive Portsmouth, RI 02871	57 30	920 Middle Road Portsmouth, RI 02871	Souza, Shirley A.	920 Middle Road Portsmouth, RI 02871
51 20	805 and 817 Middle Rd. Portsmouth, RI 02871	Maher, Stephen T. & Carol Manche	805 Middle Road Portsmouth, RI 02871	52 19	904 Middle Road Portsmouth, RI 02871	Amber, Bernice A. & David B. Warren	904 Middle Road Portsmouth, RI 02871
51 19	835 Middle Road Portsmouth, RI 02871	Hallman, Scott D.	288 Bristol Ferry Road Portsmouth, RI 02871	52 18	0 Middle Road Portsmouth, RI 02871	Cotta, William J. et al David M.	895 Middle Road Portsmouth, RI 02871
51 18	859 Middle Road Portsmouth, RI 02871	Souza, John R. & Evelyn P.	859 Middle Road Portsmouth, RI 02871	52 18A	824 Middle Road Portsmouth, RI 02871	Cotta, William J.	24 McCorrie Lane Portsmouth, RI 02871
51 17A	897 Middle Road Portsmouth, RI 02871	Cotta, David M. & Sandra A.	895 Middle Road Portsmouth, RI 02871	52 20	892 Middle Road Portsmouth, RI 02871	Clopeck, David	P.O.Box 4414 Key West, FL 33041-4414



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN LETTER OF APPROVAL  
 DATED JUL 20 2010 FILE # 10-0057  
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*Signature of David W. Wenzel*

MCF COMMUNICATIONS, INC.  
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 NORTH ANDOVER, MA 01845  
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 FAX: (978) 258-8850

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**ADVANCED**  
 ENGINEERING GROUP, P.C.  
 Civil Engineering - Site Development Surveying -  
 Telecommunications  
 34 HEMLOCK DRIVE  
 EAST PROVIDENCE, RI 02915  
 PH: 401-354-2453  
 FAX: 401-633-6354



ENGINEER/LAND SURVEYOR

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3	6/24/10	CONSTRUCTION REVISED
2	2/25/10	CONSTRUCTION REVISED
1	12/07/09	ISSUED FOR CONSTRUCTION
0	11/20/09	ISSUED FOR REVIEW

PROJECT NO.	DESIGNED BY:	MRC	SCALE:
PVD0224B	DRAWN BY:	MG	AS SHOWN
	CHECK'D BY:	MRC	

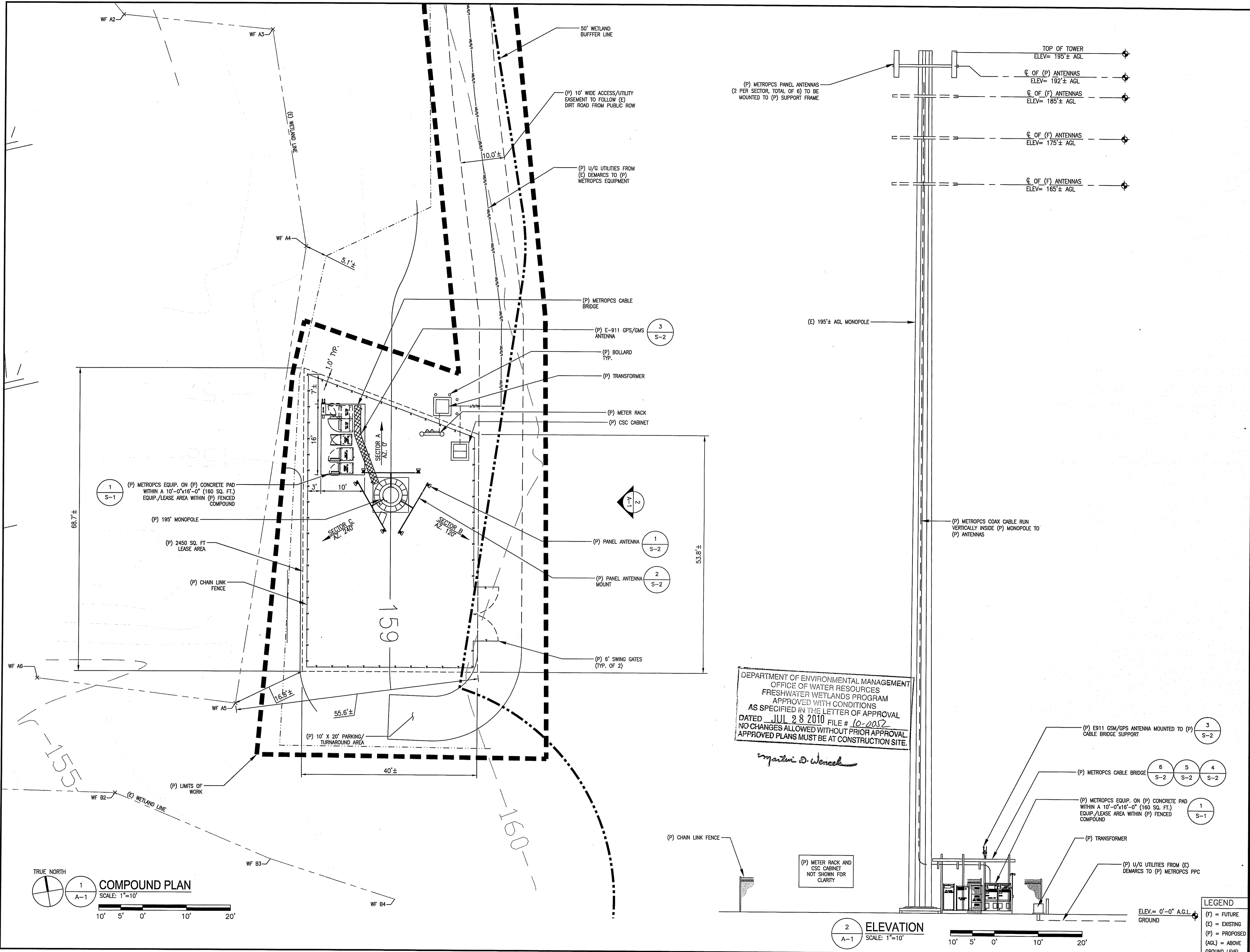
SITE NAME:  
**PVD0224B  
 MCF PORTSMOUTH  
 SOUTH**

SITE ADDRESS:  
 895 MIDDLE ROAD  
 PORTSMOUTH, RI 02871

DRAWING TITLE:  
 200 FT RADIUS PLAN

DRAWING NO:  
**R-1**

LEGEND  
 (F) = FUTURE  
 (E) = EXISTING  
 (P) = PROPOSED  
 (AGL) = ABOVE GROUND LEVEL



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PVD0224B	DRAWN BY:	MG	AS SHOWN
	CHECK'D BY:	MRC	

SITE NAME:  
**PVD0224B  
 MCF PORTSMOUTH  
 SOUTH**

SITE ADDRESS:  
 895 MIDDLE ROAD  
 PORTSMOUTH, RI 02871

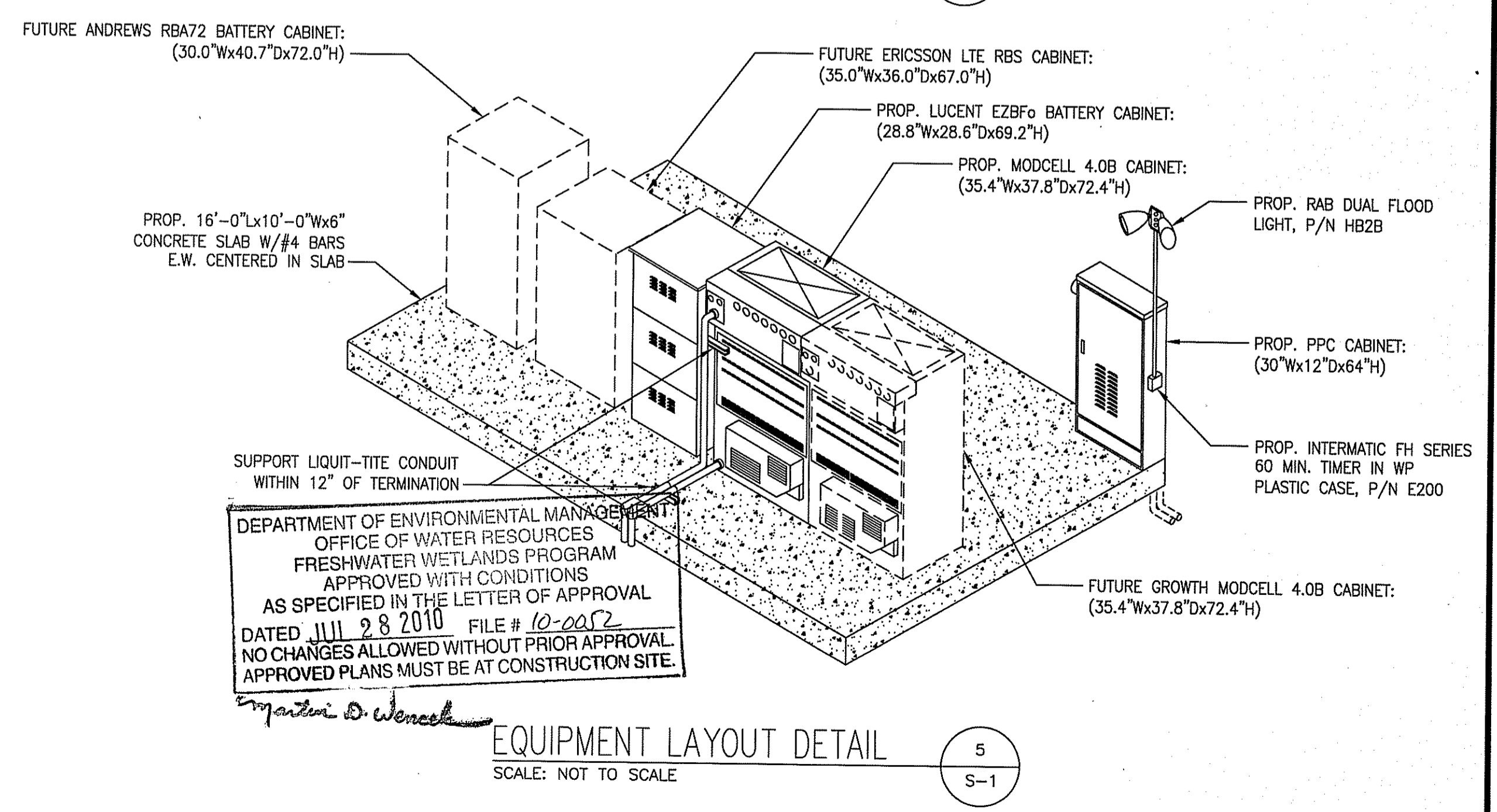
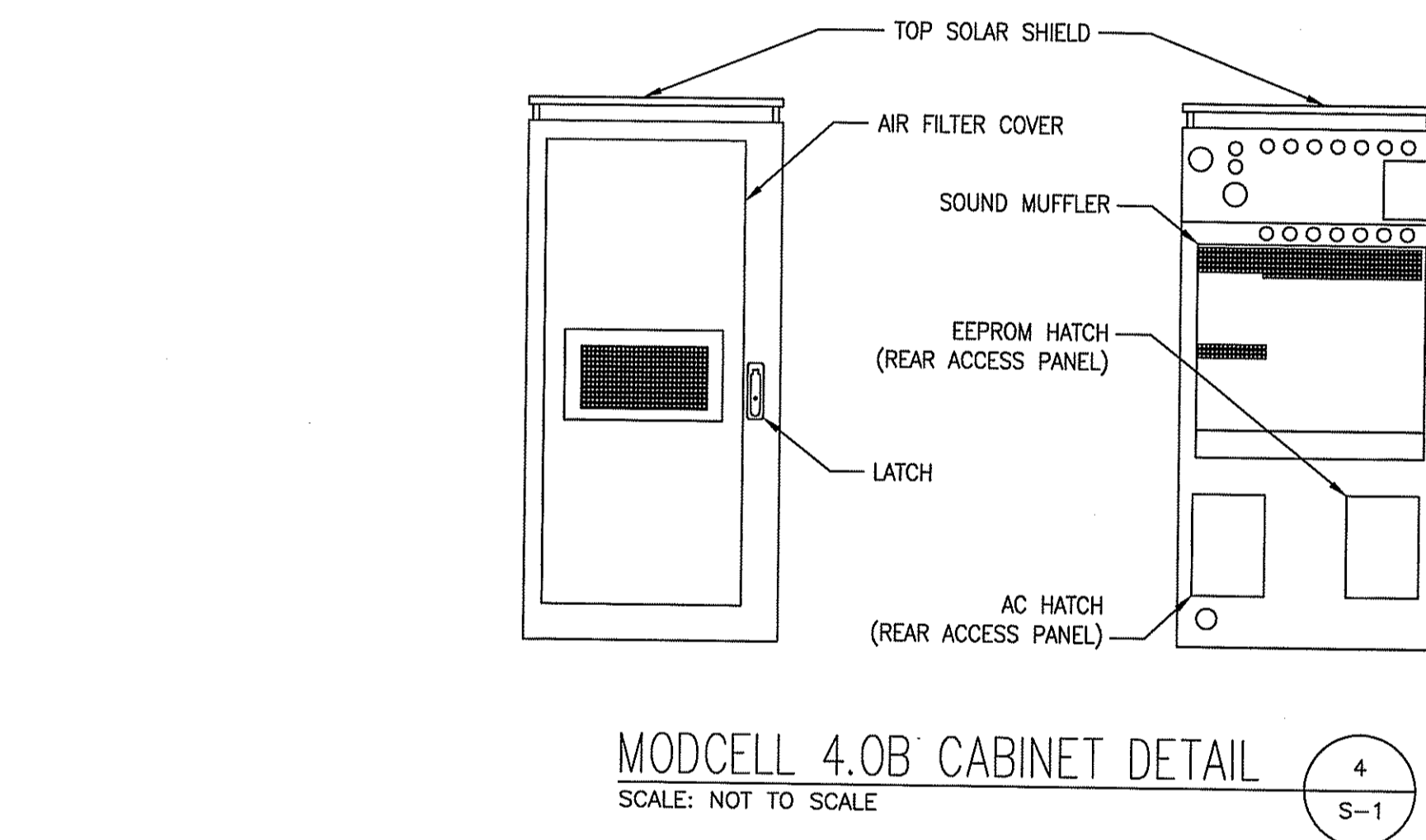
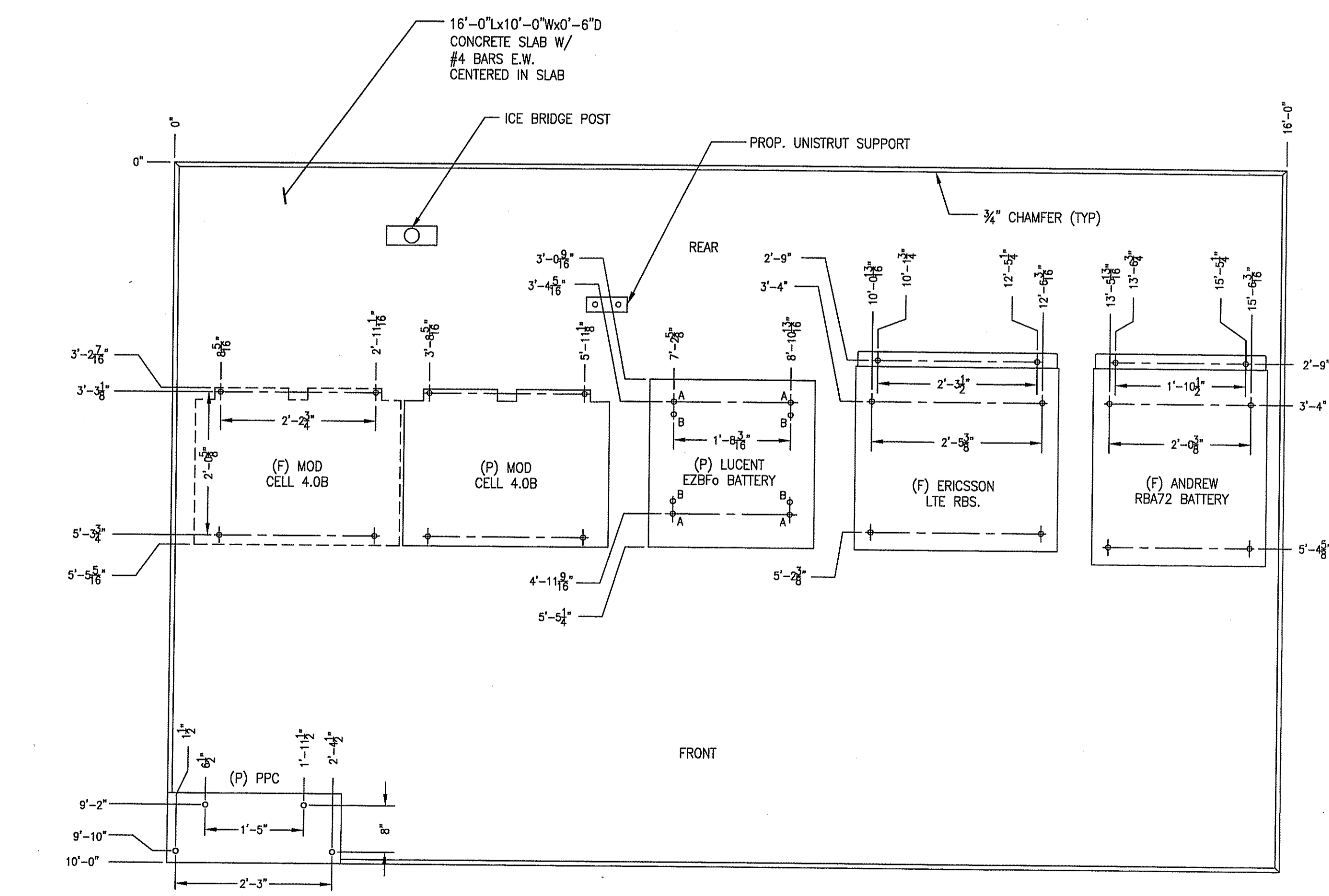
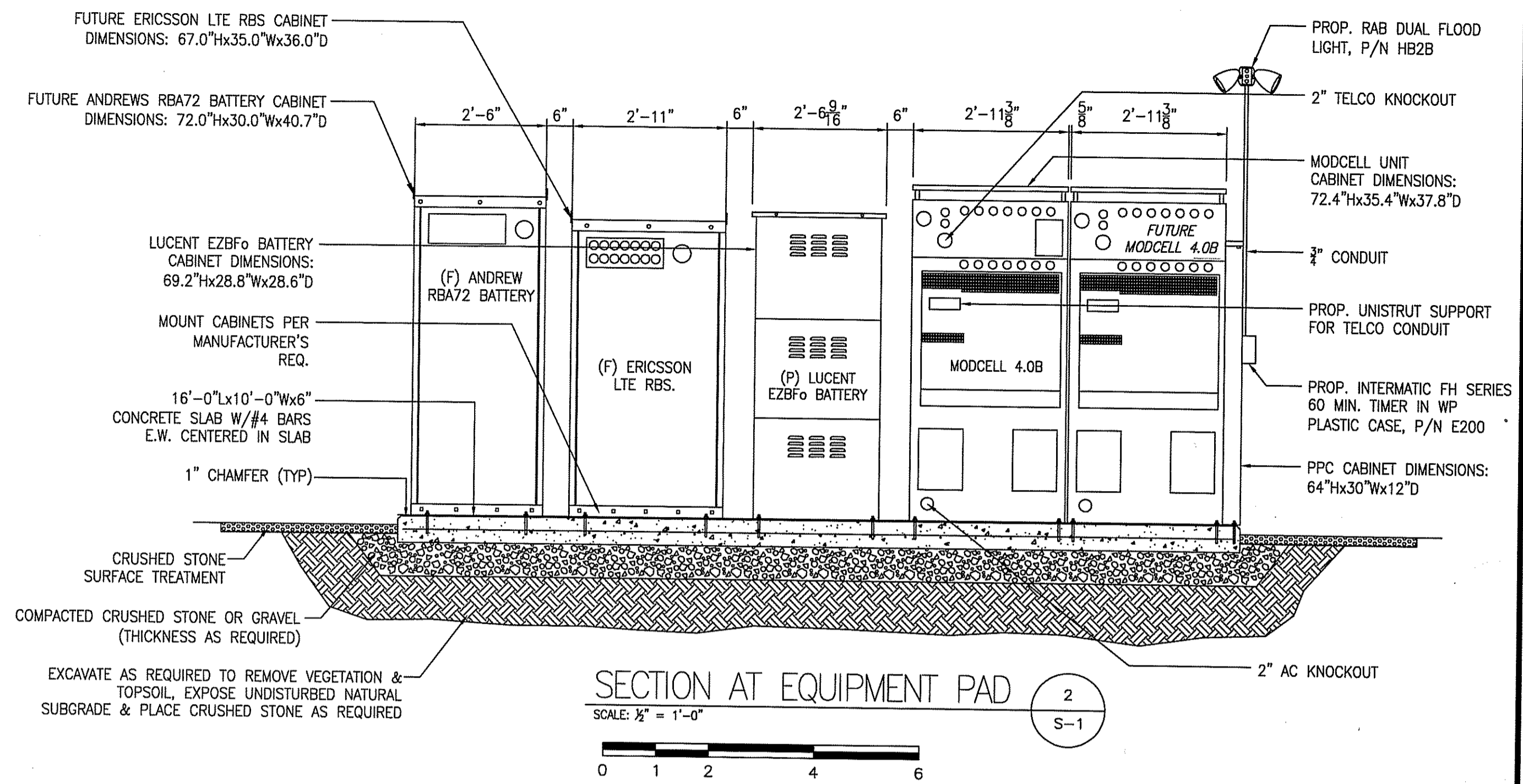
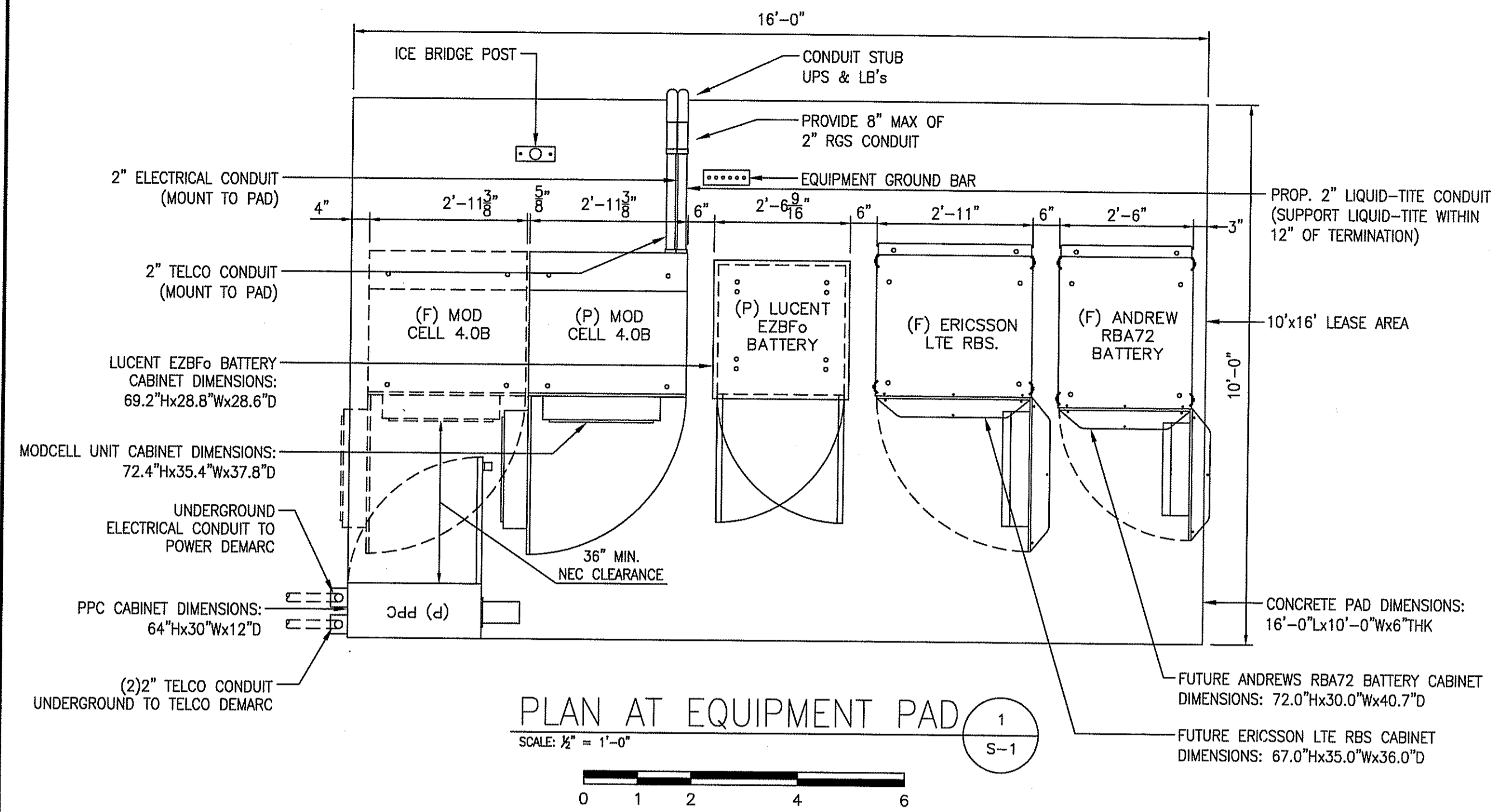
DRAWING TITLE:  
**COMPOUND PLAN  
 & ELEVATION**

DRAWING NO:  
**A-1**

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED JUL 28 2010 FILE # 10-0052  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

*Martin D. Wenzel*

LEGEND  
 (F) = FUTURE  
 (E) = EXISTING  
 (P) = PROPOSED  
 (AGL) = ABOVE GROUND LEVEL



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

**ANCHORING FOOTPRINT DETAIL**  
SCALE: 3/4" = 1'-0"  
0 8" 1'-4" 2'-8" 4'-0"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
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DATED 11/11 28 2010 FILE # 10-2052  
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*Margaret D. Wencel*

**MCF COMMUNICATIONS, INC.**  
733 TURNPIKE ST, SUITE 105  
NORTH ANDOVER, MA 01845  
OFFICE: (978) 687-2536  
FAX: (978) 258-8850

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**ADVANCED ENGINEERING GROUP, P.C.**  
Civil Engineering - Site Development Surveying -  
Telecommunications  
34 HIGHLAND DRIVE  
EAST PROVIDENCE, RI 02915  
PH: 401-354-2403  
FAX: 401-353-6264

**MARC R. CHRETIEN**  
No. 6692  
REGISTERED PROFESSIONAL ENGINEER  
ENGINEER/LAND SURVEYOR  
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

REV. #	DATE	DESCRIPTION
3	6/24/10	CONSTRUCTION REVISED
2	2/25/10	CONSTRUCTION REVISED
1	12/07/09	ISSUED FOR CONSTRUCTION
0	11/20/09	ISSUED FOR REVIEW

PROJECT NO.	DESIGNED BY:	SCALE:
PVD0224B	MRC	AS SHOWN

**SITE NAME:**  
**PVD0224B  
MCF PORTSMOUTH  
SOUTH**

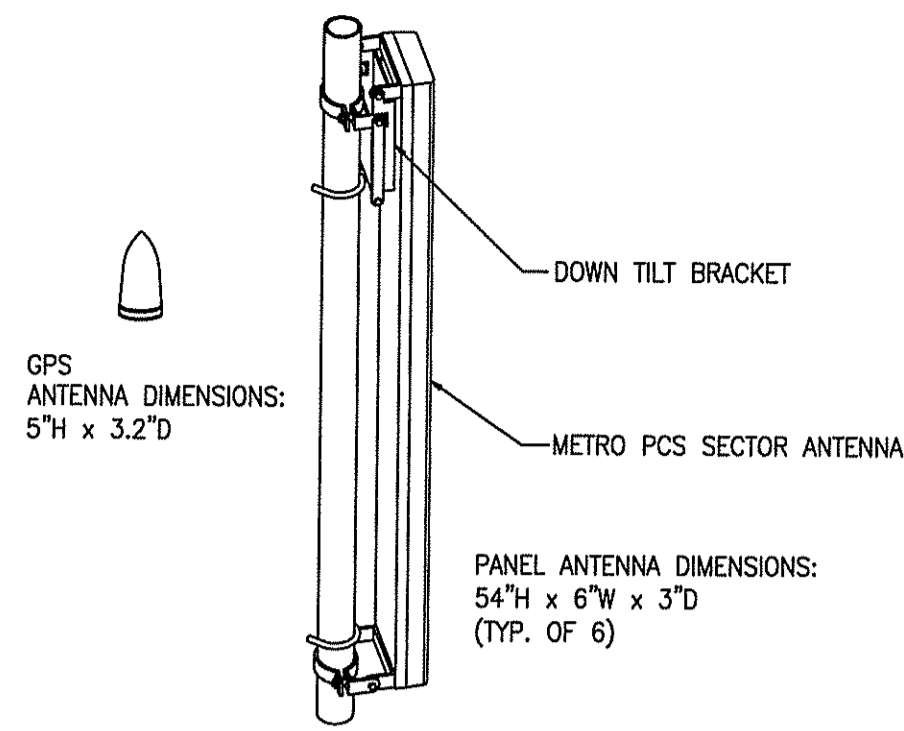
**SITE ADDRESS:**  
895 MIDDLE ROAD  
PORTSMOUTH, RI 02871

**DRAWING TITLE:**  
**EQUIPMENT PLAN, SECTIONS  
& DETAILS**

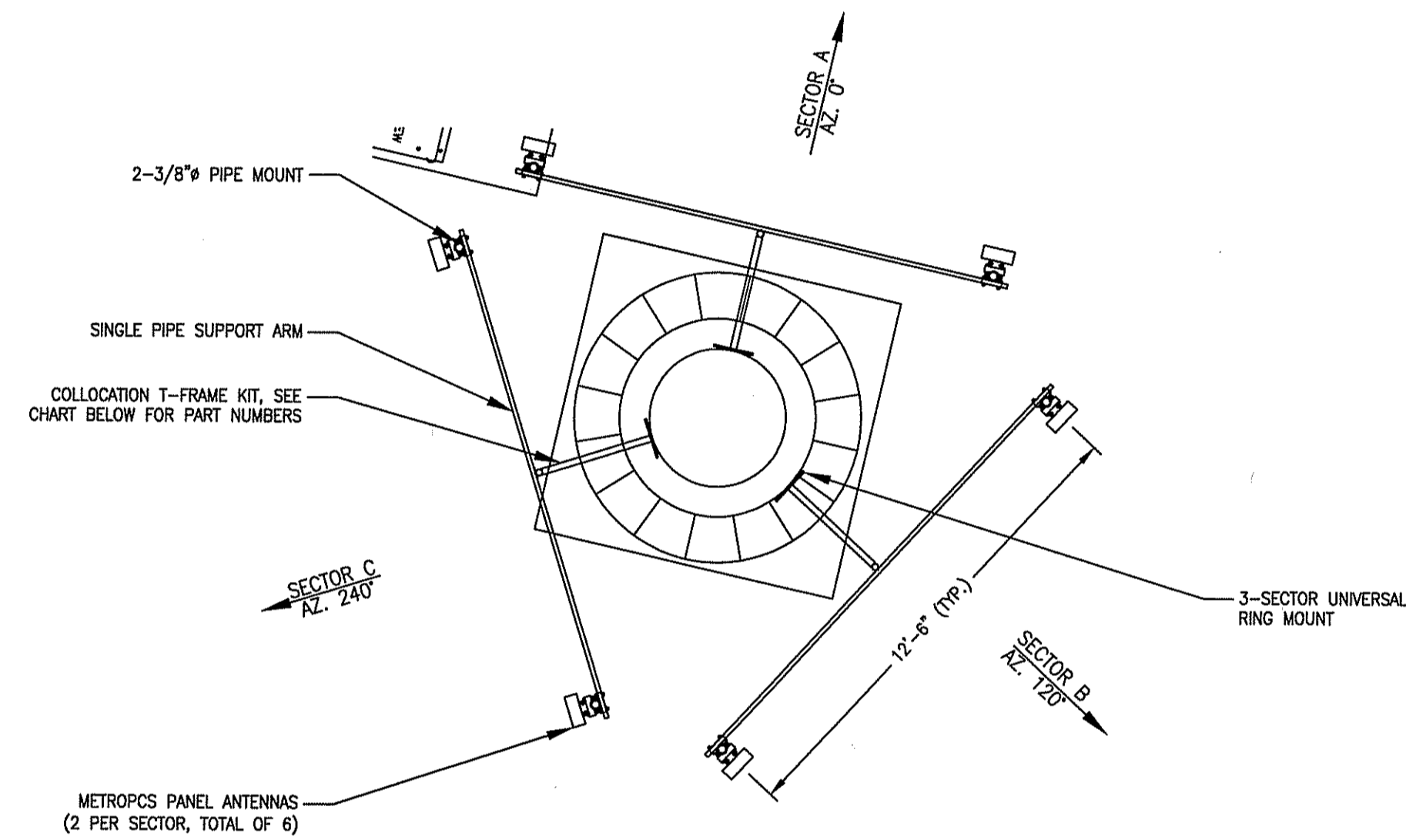
**DRAWING NO.:**  
**S-1**

RF SYSTEM SCHEDULE

SECTOR	TYPE	AZIMUTH	ANTENNA INFORMATION				MAIN FEEDLINE				TOP JUMPER		BOTTOM JUMPER		RET SYSTEM INFO					
			ELECTRICAL DOWNTILT	MECHANICAL DOWNTILT	RAD CTR, AGL	MAKE	MODEL	FEED	CABLE	MFG	LENGTH	COLOR	SIZE	LENGTH	SIZE	LENGTH	MFG	MODEL	CABLE	LENGTH
ALPHA	Tx/Rx	0°	-	-	195'±	KATHREIN	800 10504	BOTTOM	FXL 1873	COMMSCOPE	230'±	I R	1/2"	6'	1/2"	10'	KATHREIN	860 10025	3/8" (860-10010)	230'±
	Tx/Rx	0°	-	-	195'±	KATHREIN	800 10504	BOTTOM	FXL 1873	COMMSCOPE	230'±	II R	1/2"	6'	1/2"	10'				
BETA	Tx/Rx	120°	-	-	195'±	KATHREIN	800 10504	BOTTOM	FXL 1873	COMMSCOPE	230'±	I Y	1/2"	6'	1/2"	10'	KATHREIN	860 10025	3/8" (860-10010)	10M, 32.8'± (DAISY CHAIN)
	Tx/Rx	120°	-	-	195'±	KATHREIN	800 10504	BOTTOM	FXL 1873	COMMSCOPE	230'±	II Y	1/2"	6'	1/2"	10'				
GAMMA	Tx/Rx	240°	-	-	195'±	KATHREIN	800 10504	BOTTOM	FXL 1873	COMMSCOPE	230'±	I BI	1/2"	6'	1/2"	10'	KATHREIN	860 10025	3/8" (860-10010)	10M, 32.8'± (DAISY CHAIN)
	Tx/Rx	240°	-	-	195'±	KATHREIN	800 10504	BOTTOM	FXL 1873	COMMSCOPE	230'±	II BI	1/2"	6'	1/2"	10'				
-	GPS	-	-	-	-	-	-	-	1/2"	-	25'±	I Y & II Y	-	-	-	-	-	-	-	

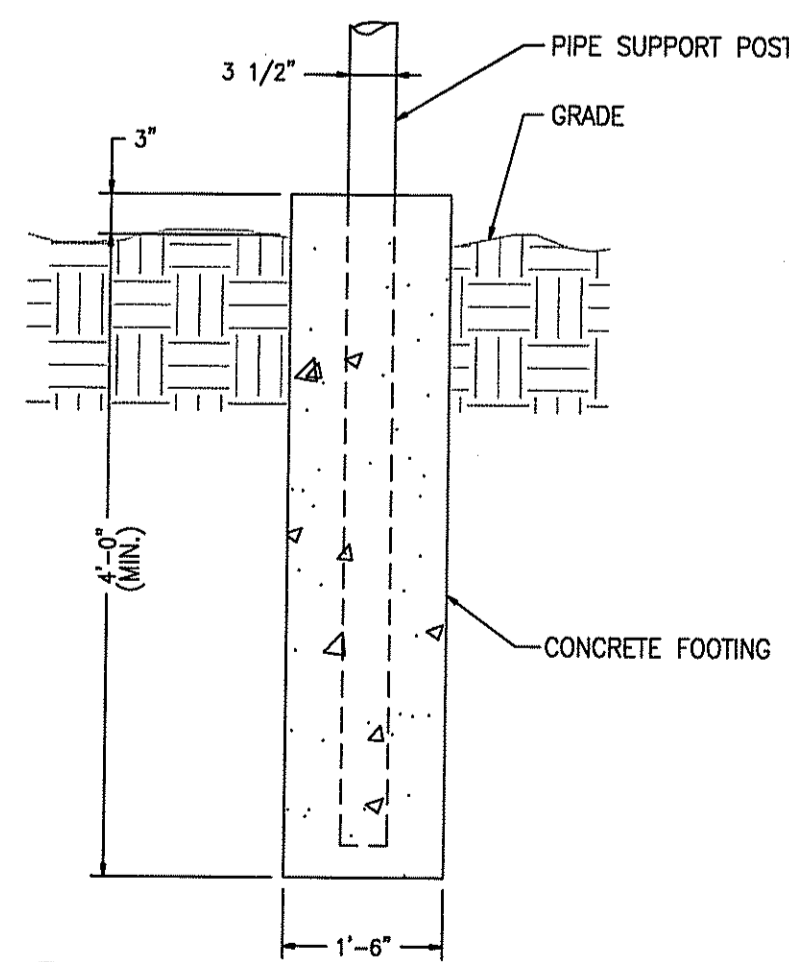


1 GPS AND ANTENNA DETAIL  
SCALE: NTS

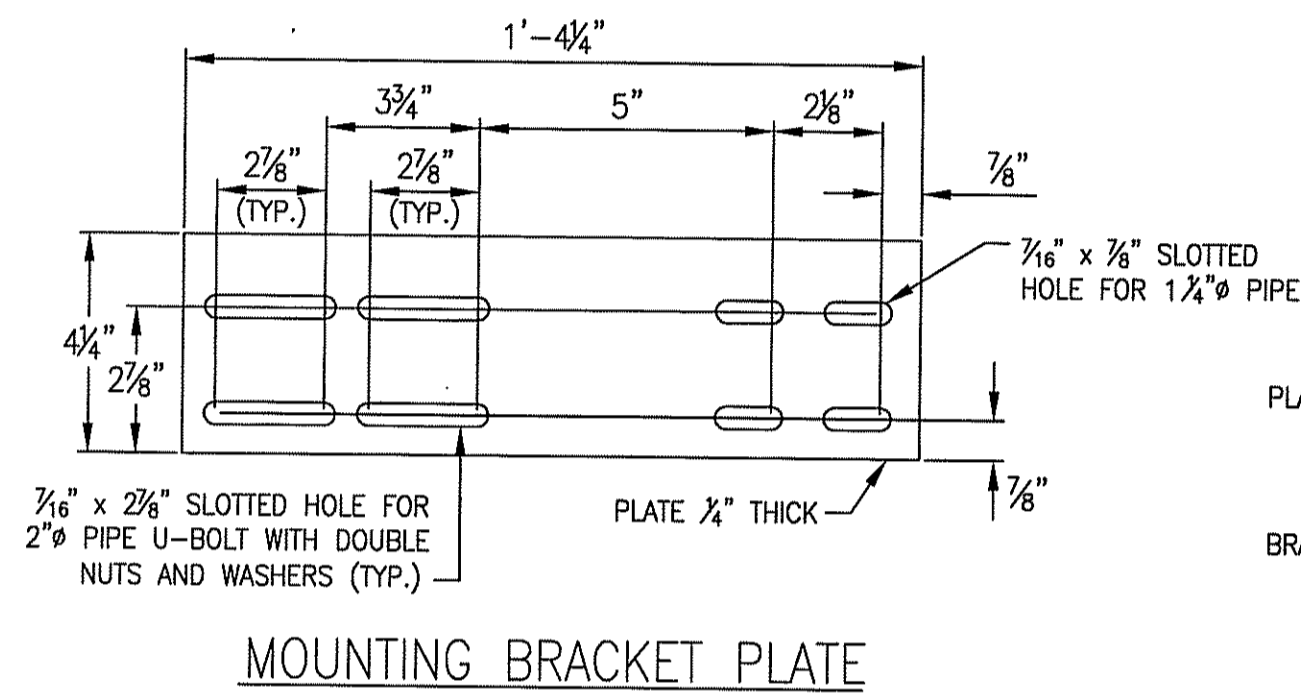


COLOCATION T-FRAME KIT	MONOPOLE #
MC-K12S-6-72	10"-30"
MC-K12L-6-72	30"-60"

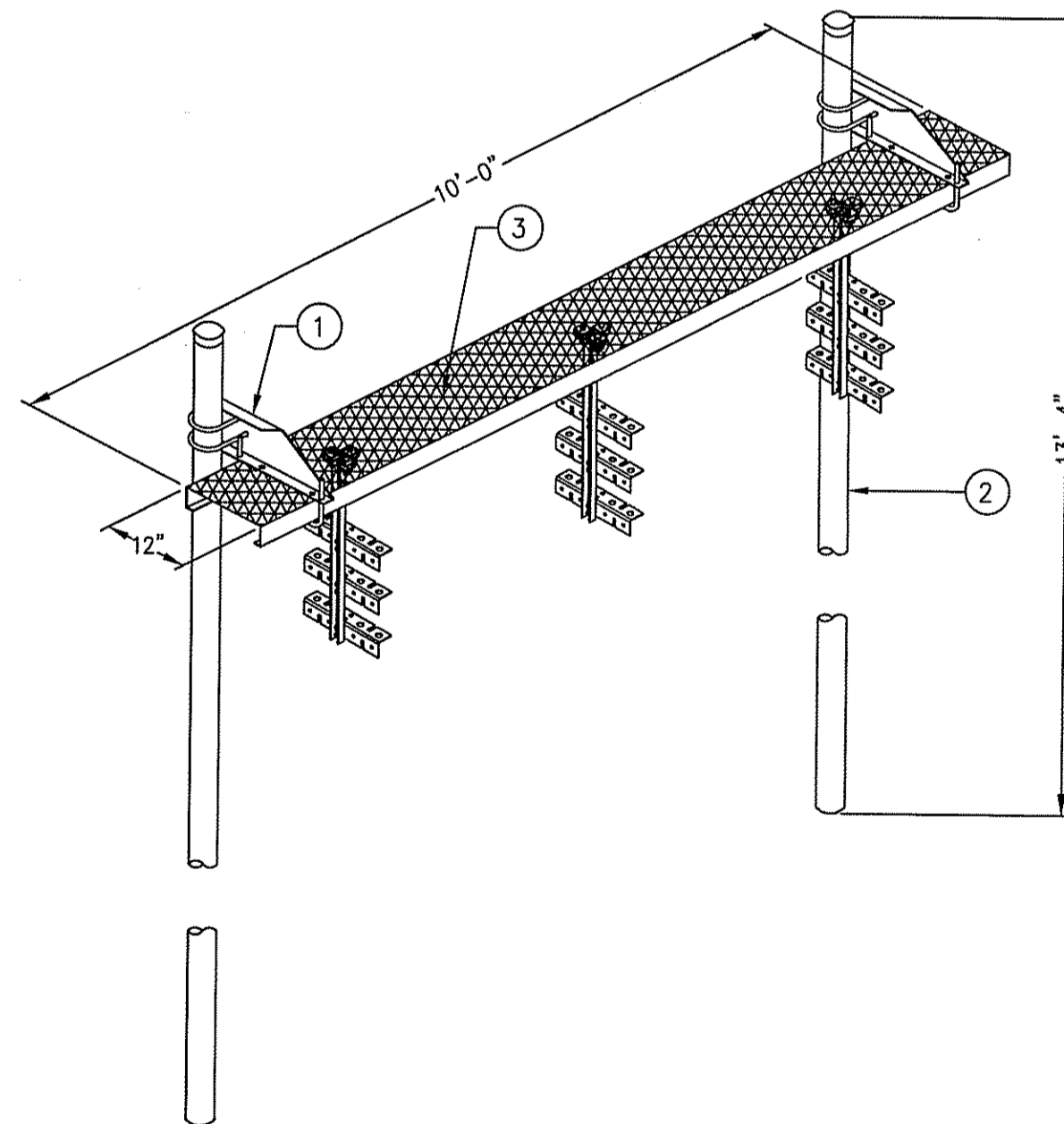
2 ANTENNA MOUNTING PLAN  
SCALE: N.T.S.



4 CABLE BRIDGE FOOTING  
SCALE: NTS

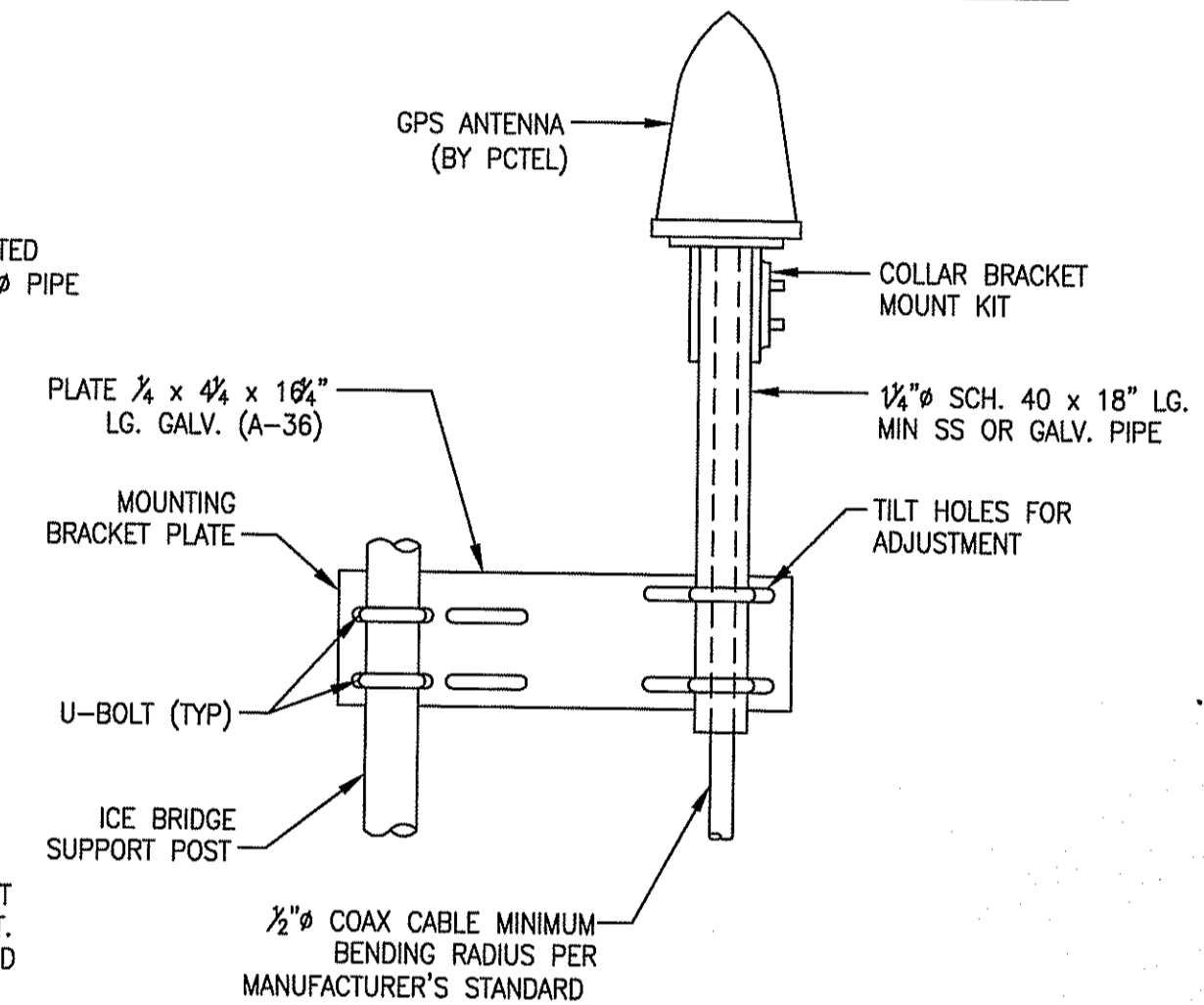


1. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1"-1 1/2" DIAMETER GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.
2. THE MOUNTING PLATE SHALL BE FASTENED AS SHOWN AND ATTACHED TO THE APPROPRIATE SUPPORT STRUCTURE USING U-BOLTS. THE SUPPORT PIPE SHALL THEN BE ATTACHED TO THE MOUNTING PLATE USING THE OVERSIZE U-BOLTS PROVIDED TO ALLOW ADJUSTMENT. IT IS CRITICAL THAT THE GPS ANTENNA IS MOUNTED WITHIN 2 DEGREES OF VERTICAL AND THE BASE OF THE ANTENNA IS WITHIN 2 DEGREES OF LEVEL.



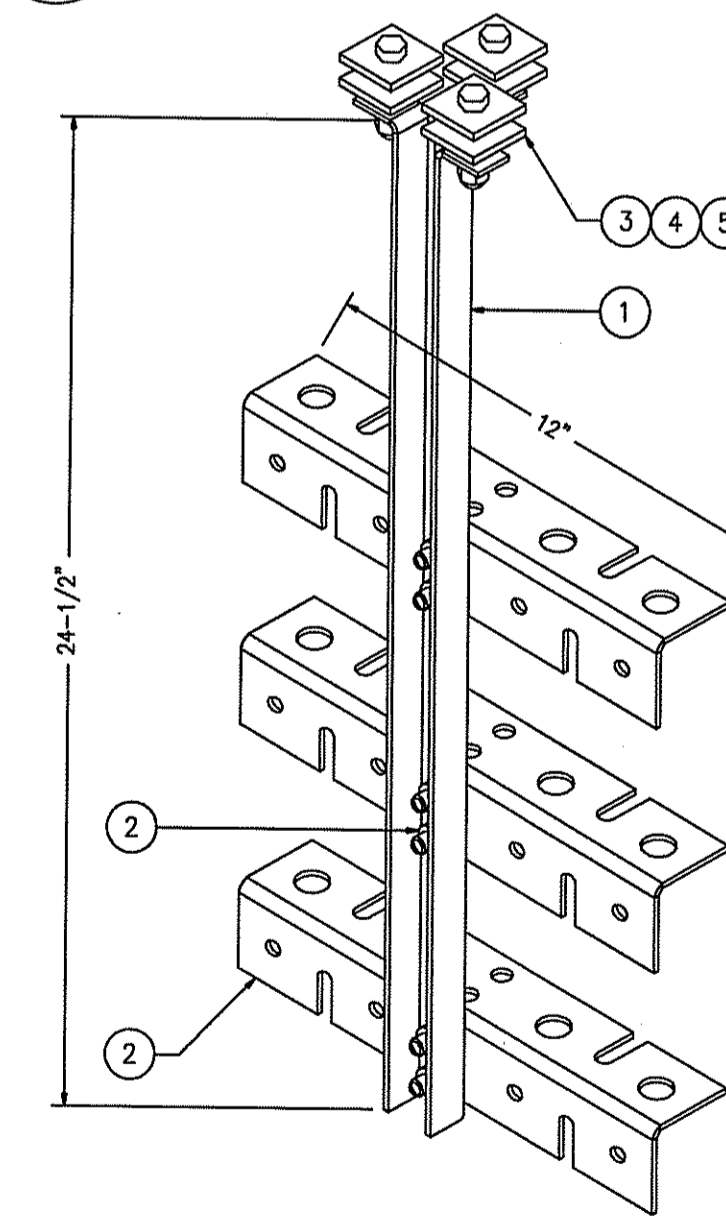
ITEM	PART NO.	DESCRIPTION	QTY.
1	WBLB123.06	12" WAVEGUIDE BRIDGE SUPPORT BRACKET	2
2	MF-130	DIRECT BURIAL PIPE COLUMN, 13'-4"	2
3	WB-CY110	12" SAFETY GRATING	1
4	WB-K110BH	HARDWARE KIT ITEM #5-16	1

5 CABLE BRIDGE DETAIL  
SCALE: NTS



GPS ANTENNA MOUNTING BRACKET

3 GPS MOUNTING DETAIL  
SCALE: NTS



ITEM	PART NO.	DESCRIPTION	QTY.
1	WBT243.01	VERTICAL TRAPEZE SECTION	1
2	WBT123.02	12" HORIZONTAL TRAPEZE SECTION	3
3	MT-387	SQUARE WASHER, 1 1/2"x1 1/2"W/7/16" HOLE	6
4	GB-03205	3/8"x2" GALV. BOLT KIT	3
5	GW-03	3/8" GALV. FLAT WASHER	3
6	GB-03105	3/8"x1" GALV. BOLT KIT	6

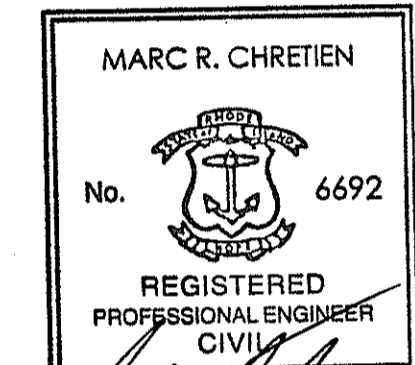
6 CABLE LADDER DETAIL  
SCALE: NTS

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Telecommunications  
34 FENIMORE DRIVE  
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FAX: 401-633-6354



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PROJECT NO.	DESIGNED BY:	MRC	SCALE:
PVD0224B	DRAWN BY:	MC	AS SHOWN
	CHECK'D BY:	MRC	

SITE NAME:  
**PVD0224B  
MCF PORTSMOUTH  
SOUTH**

SITE ADDRESS:  
895 MIDDLE ROAD  
PORTSMOUTH, RI 02871

DRAWING TITLE:  
**ANTENNA MOUNTING PLAN,  
SCHEDULE & DETAILS**

DRAWING NO:  
**S-2**

MCF COMMUNICATIONS, INC.  
 733 TURNPIKE ST, SUITE 105  
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PROJECT NO. PVD0224B	DESIGNED BY: MRC DRAWN BY: MG CHECK'D BY: MRC	SCALE: AS SHOWN
-------------------------	---	--------------------

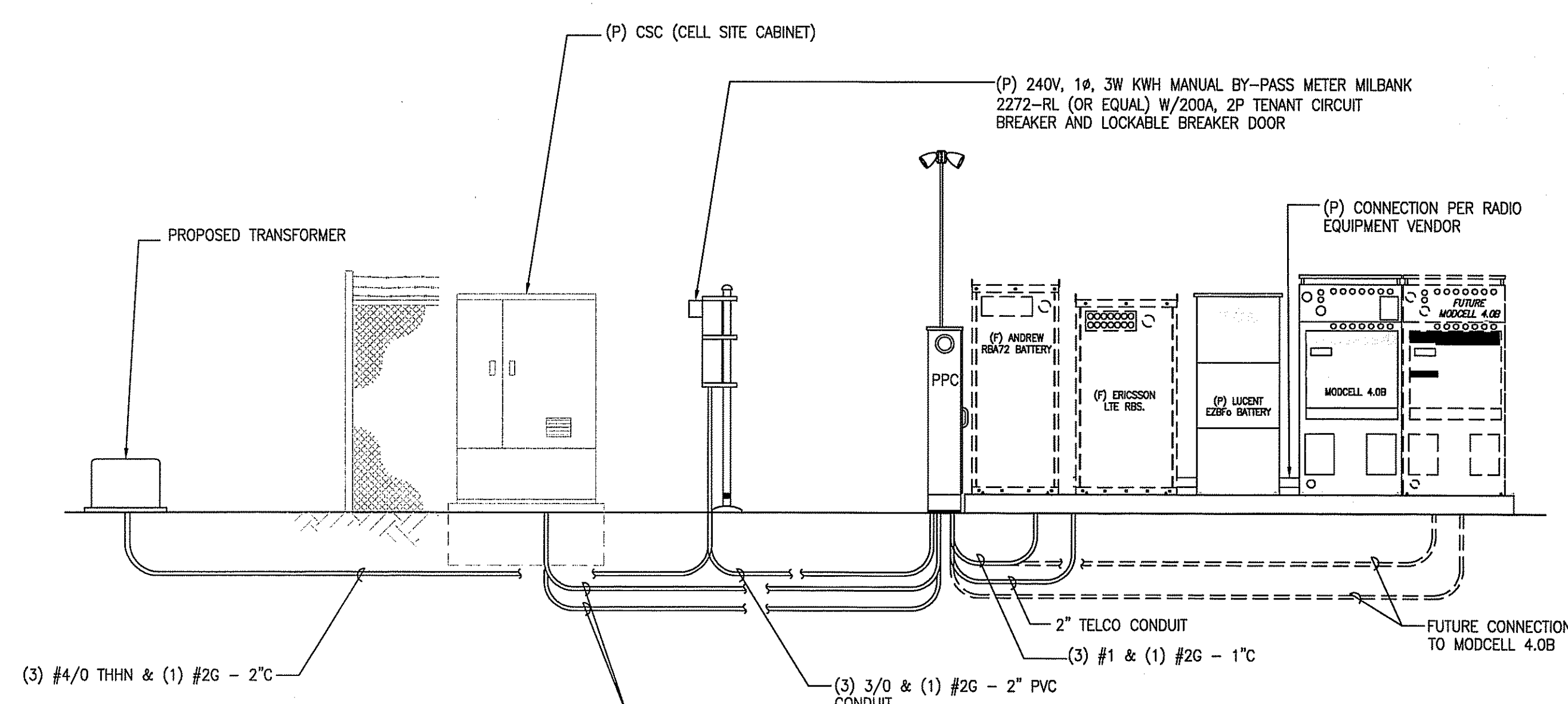
SITE NAME:  
**PVD0224B  
 MCF PORTSMOUTH  
 SOUTH**

SITE ADDRESS:  
 895 MIDDLE ROAD  
 PORTSMOUTH, RI 02871

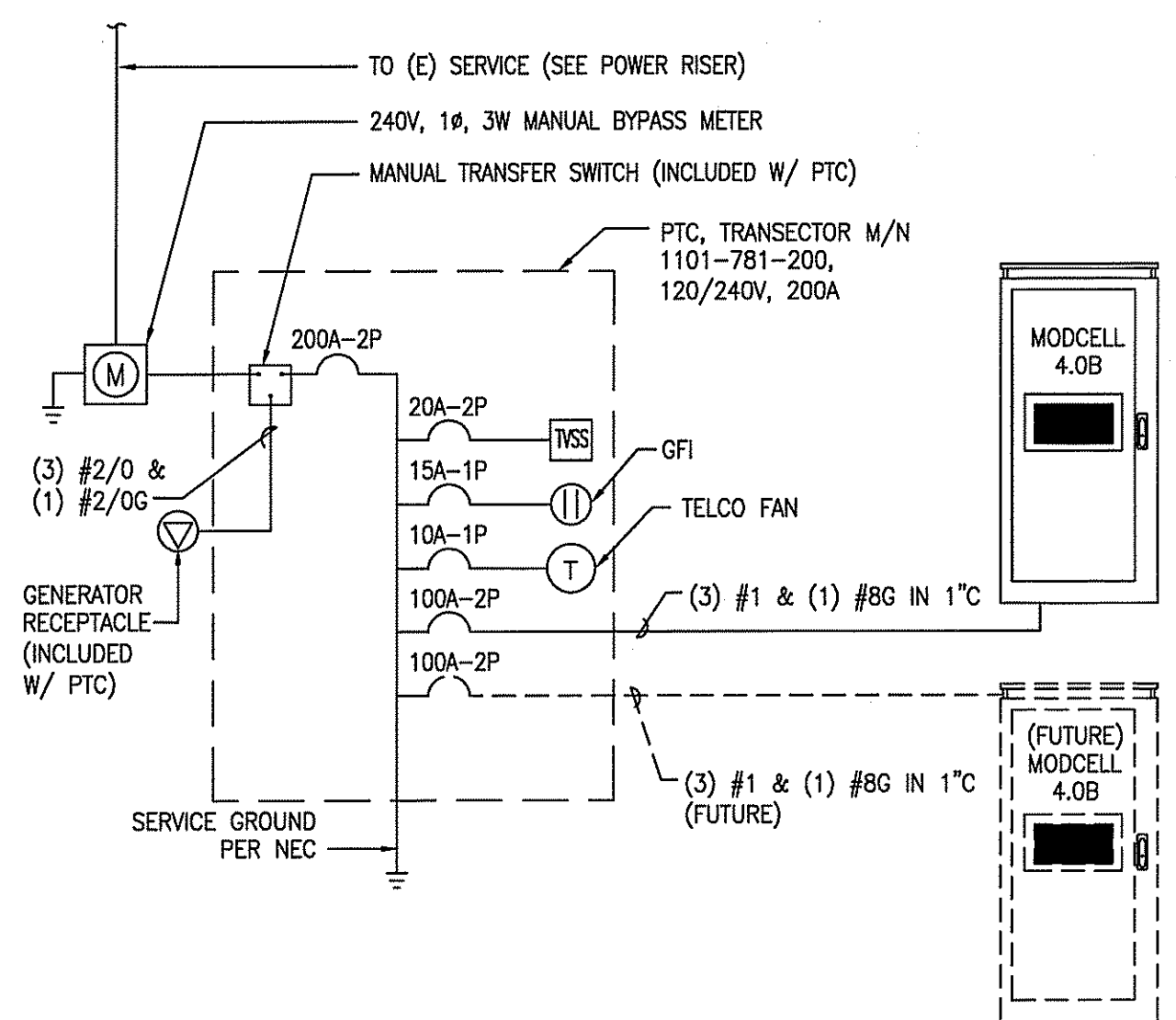
DRAWING TITLE:  
**ONE LINE DIAGRAM,  
 RISERS & DETAILS**

DRAWING NO:  
**E-1**

MAKE ALL CONNECTIONS AS PER UTILITY COMPANY'S REQUIREMENTS



**2 POWER RISER DIAGRAM**  
 SCALE: NTS



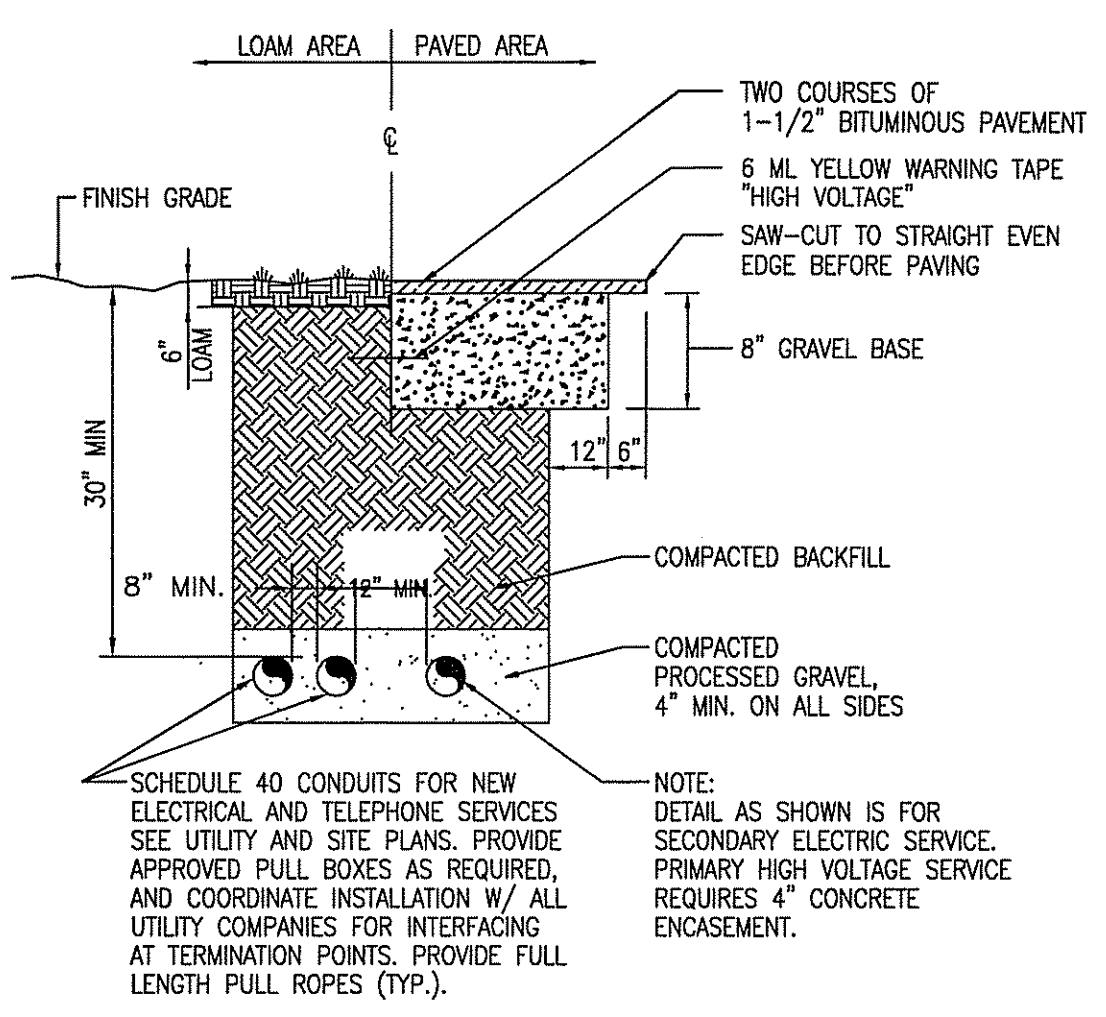
**1 ONE-LINE DIAGRAM**  
 SCALE: NTS

PANEL SCHEDULE

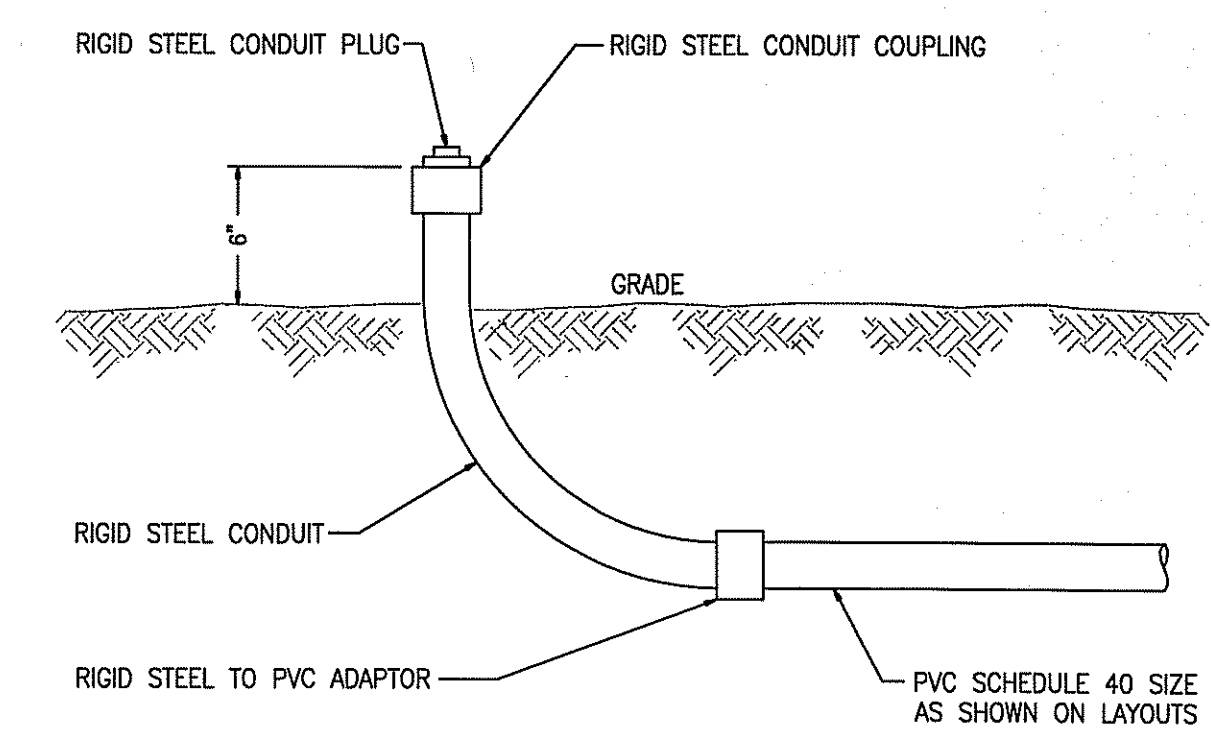
SQUARE D, TYPE Q0 22,000 A.I.C.  
 SQUARE D, TYPE Q 200A,2P MAIN NEMA 1

CKT #	DESCRIPTION	AMP	AMP	DESCRIPTION	CKT #
1	MOD CELL #1	100	-	SPARE	2
3				SPARE	4
5	MOD CELL #2 (FUTURE)	100	-	SPARE	6
7				SPARE	8
9	SPARE	-	-	SPARE	10
11				SPARE	12
13	SPARE	-	-	SPARE	14
15				SPARE	16
17	SPARE	-	-	SPARE	18
19				SPARE	20
21	SURGE SUPPRESSER	20	10	TELCO FAN	22
23				GFI RECEPTACLE	24

**3 PANEL SCHEDULE**  
 SCALE: NTS



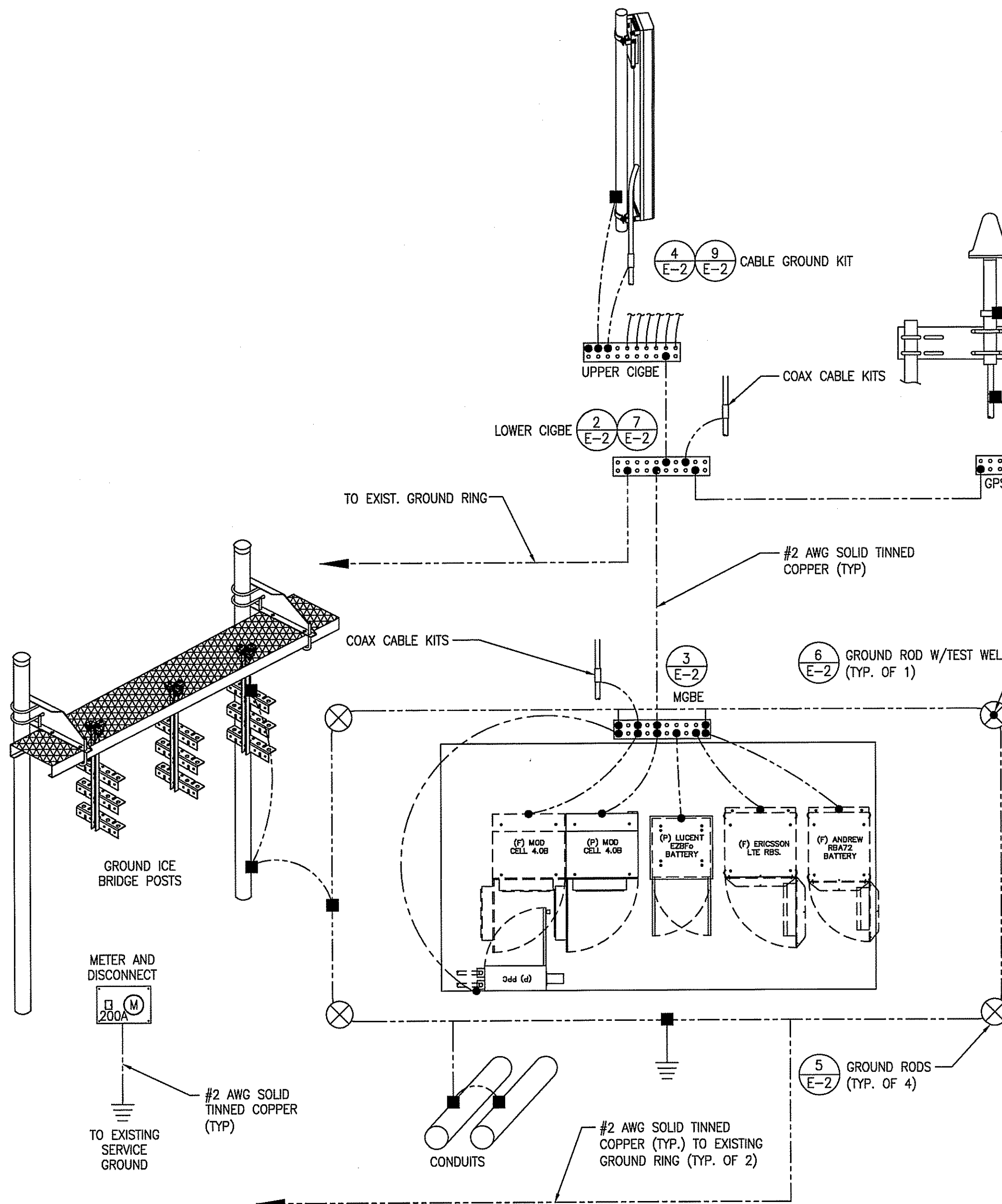
**4 BURIED CONDUIT DETAIL**  
 SCALE: NTS



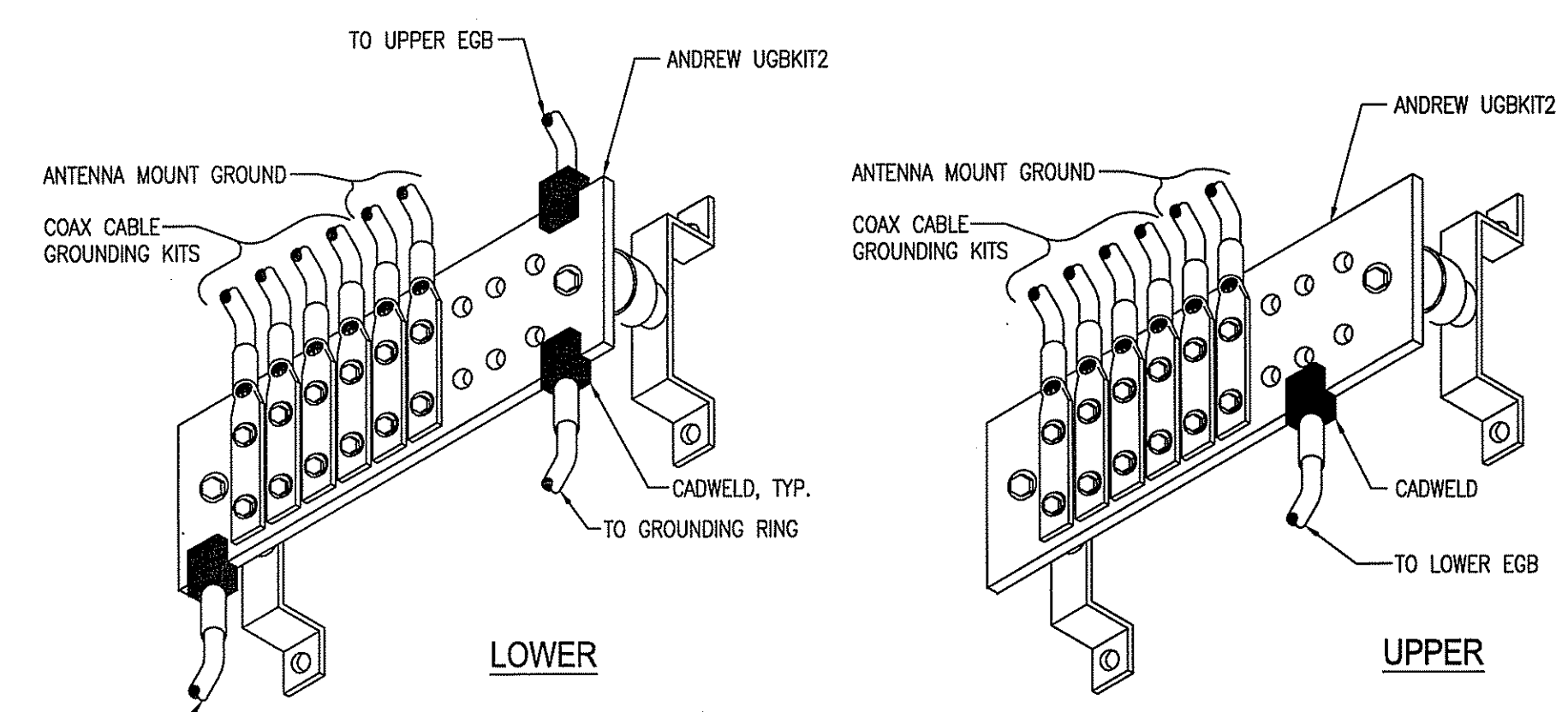
**5 CONDUIT DETAIL**  
 SCALE: NTS

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 PRESERVED WETLANDS PROGRAM  
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 DATED JUL 28 2010 FILE # 10-0057  
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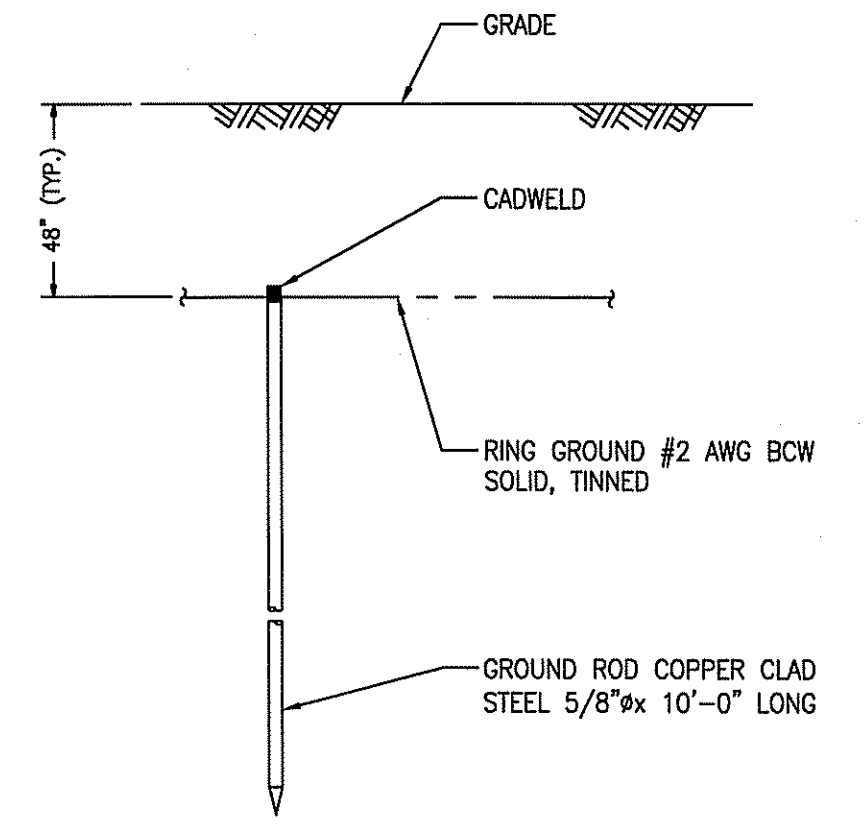
*Martin D. Wencel*



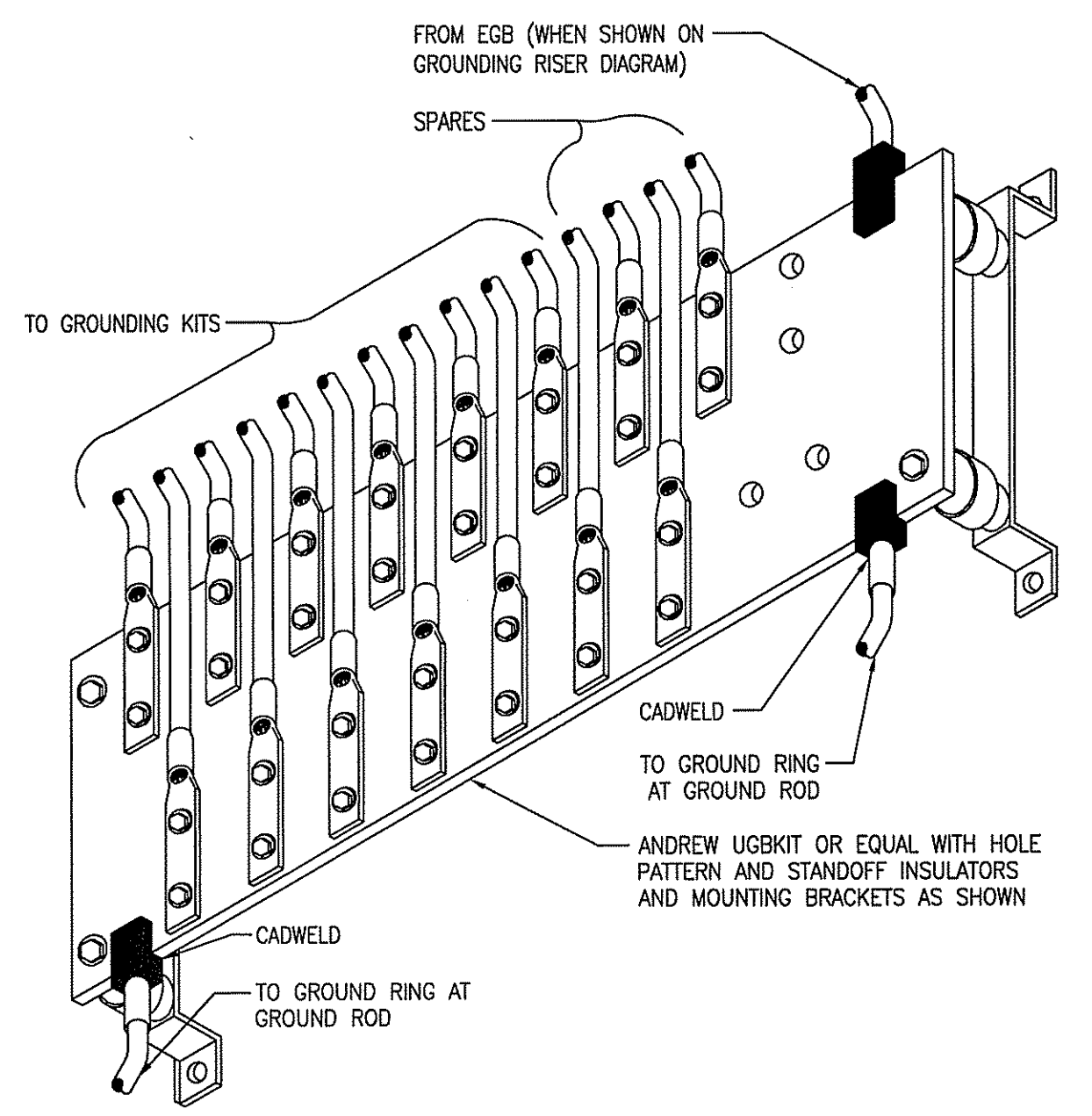
**1 GROUNDING RISER DIAGRAM**  
E-2 SCALE: NTS



**2 COAX ISOLATED GROUND BAR EXTERNAL (CIGBE)**  
E-2 SCALE: NTS

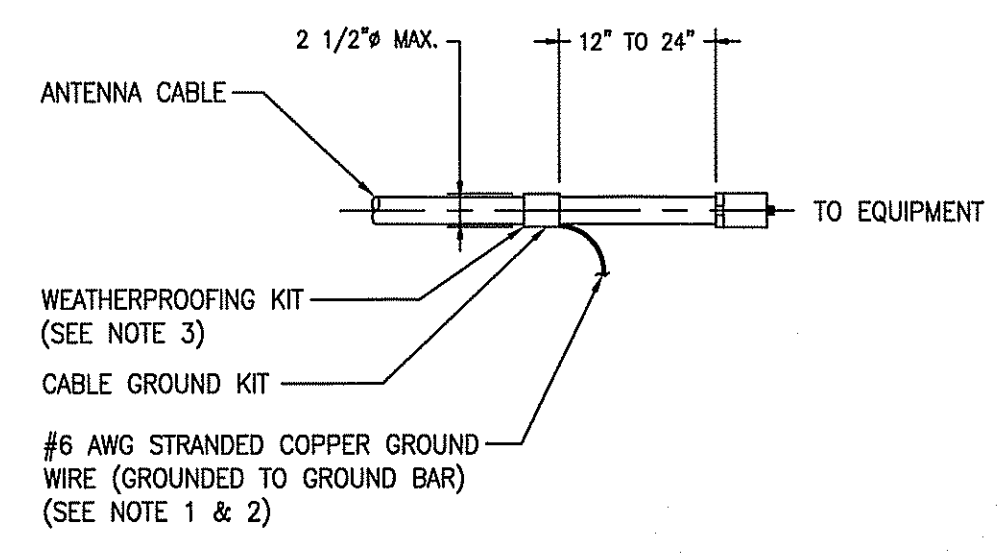


**5 GROUND ROD DETAIL**  
E-2 SCALE: NTS



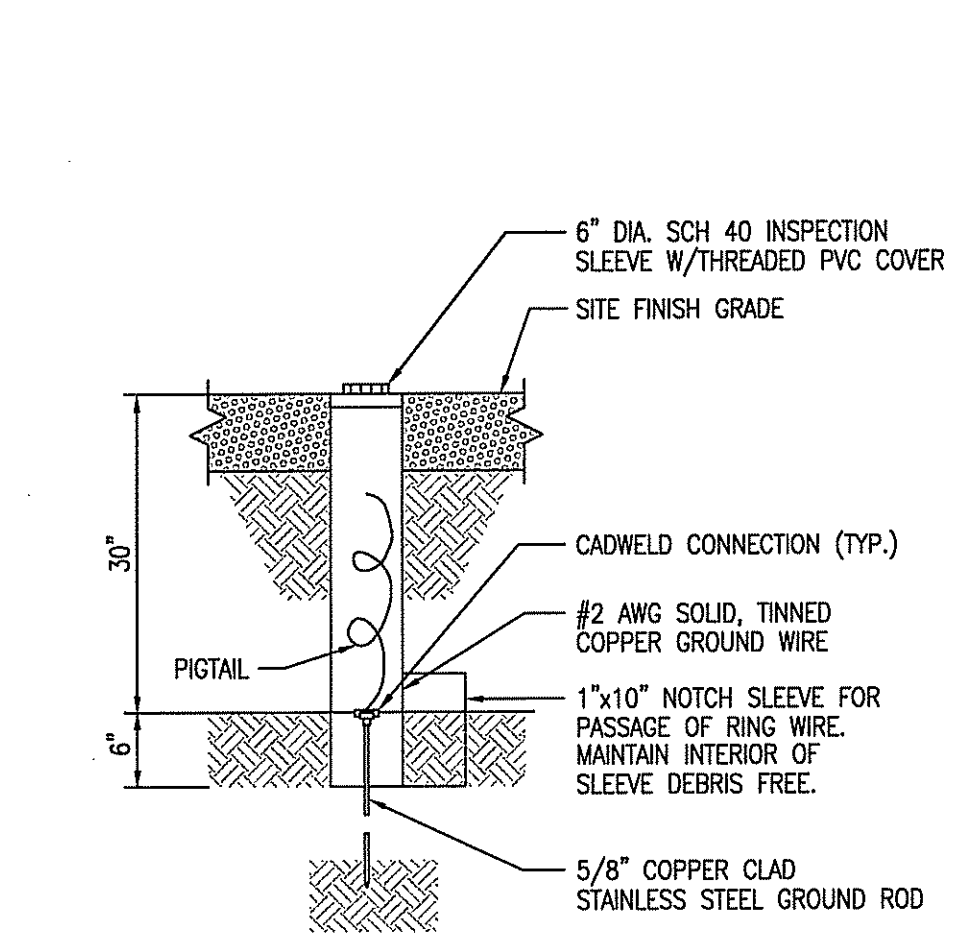
**3 MASTER GROUND BAR (MGB) / EQUIPMENT (EGB)**  
E-2 SCALE: NTS

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

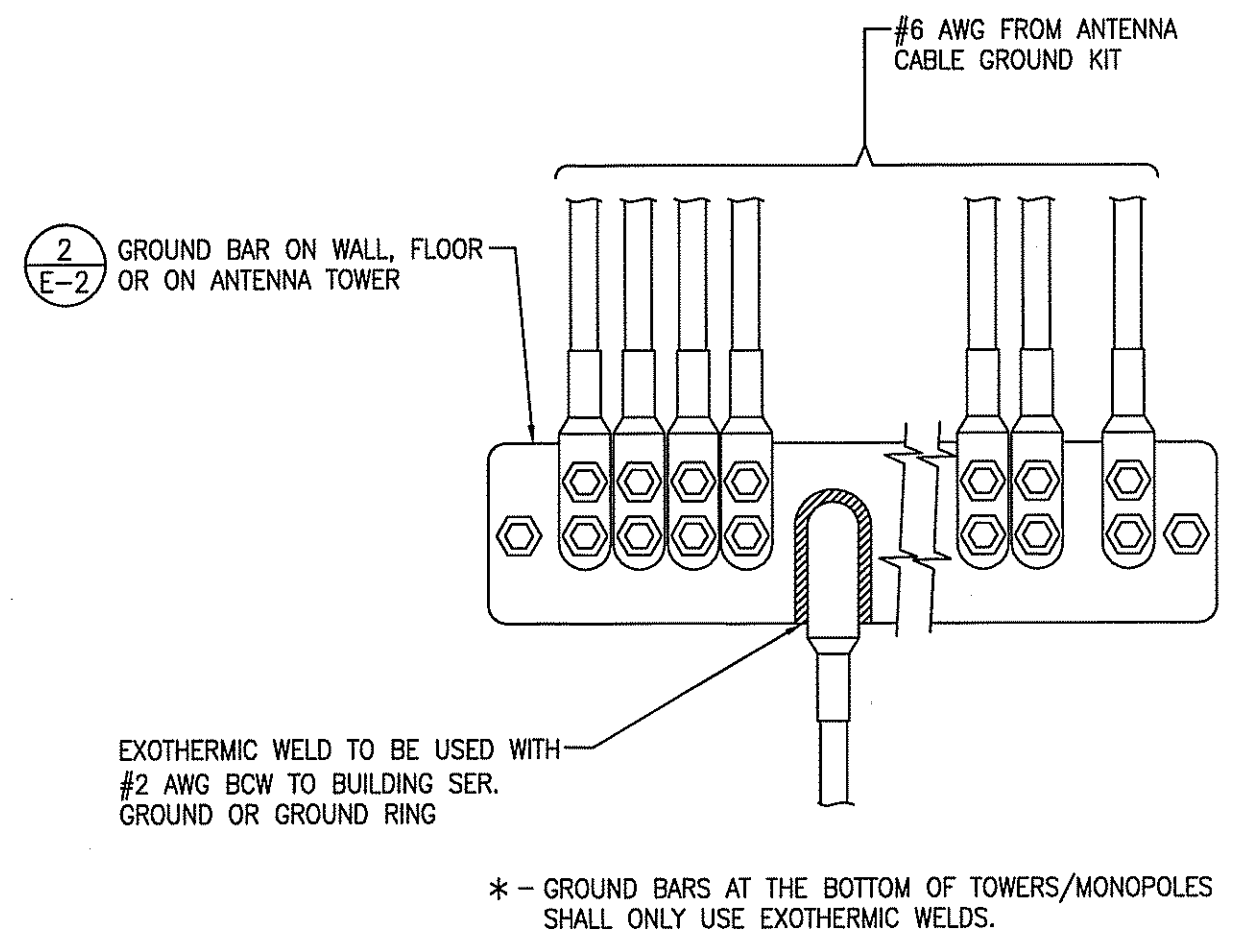


**4 CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE**  
E-2 SCALE: NTS

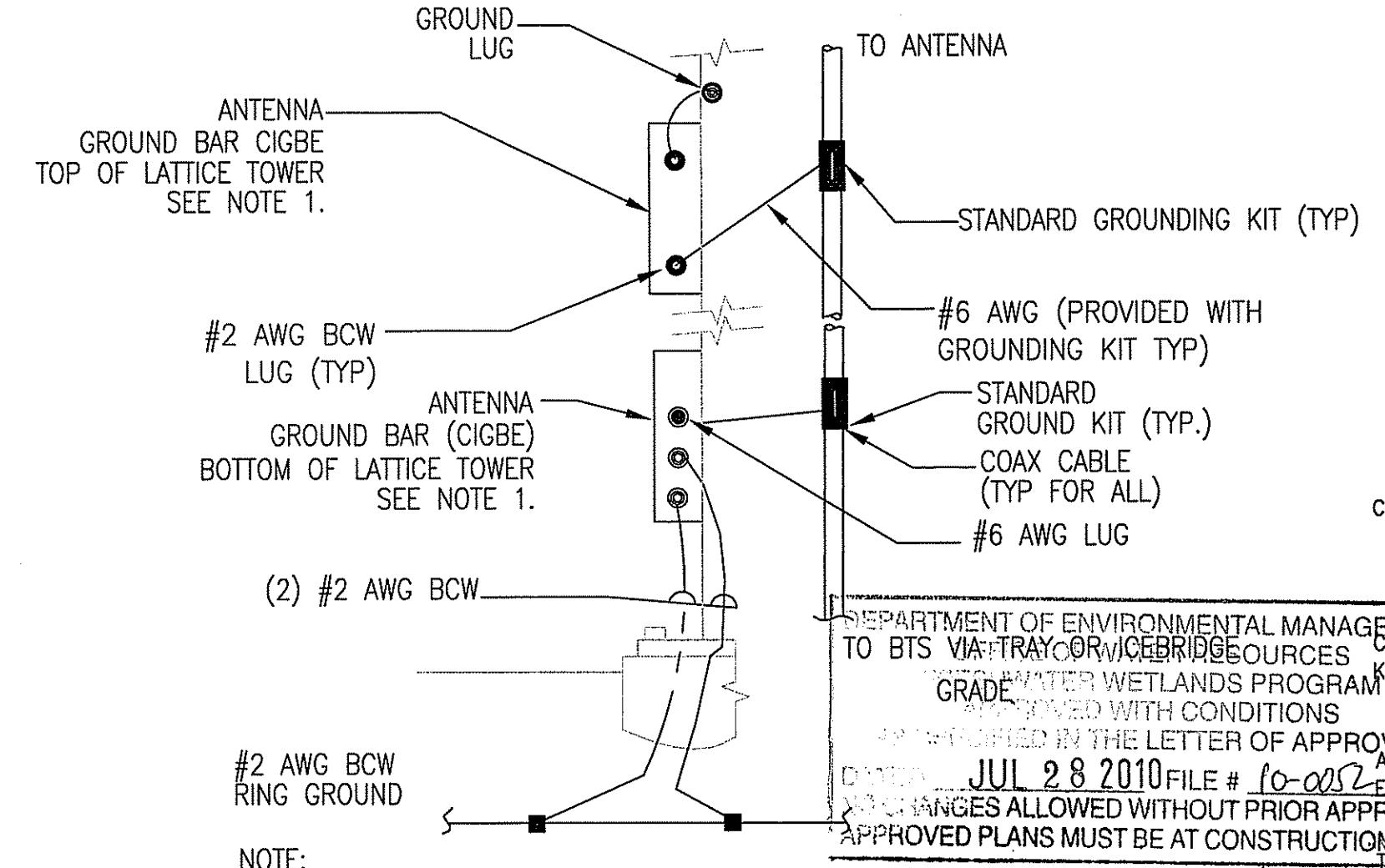
- NOTES:**
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
  - WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.



**6 GROUND ROD TEST WELL DETAIL**  
E-2 SCALE: NTS

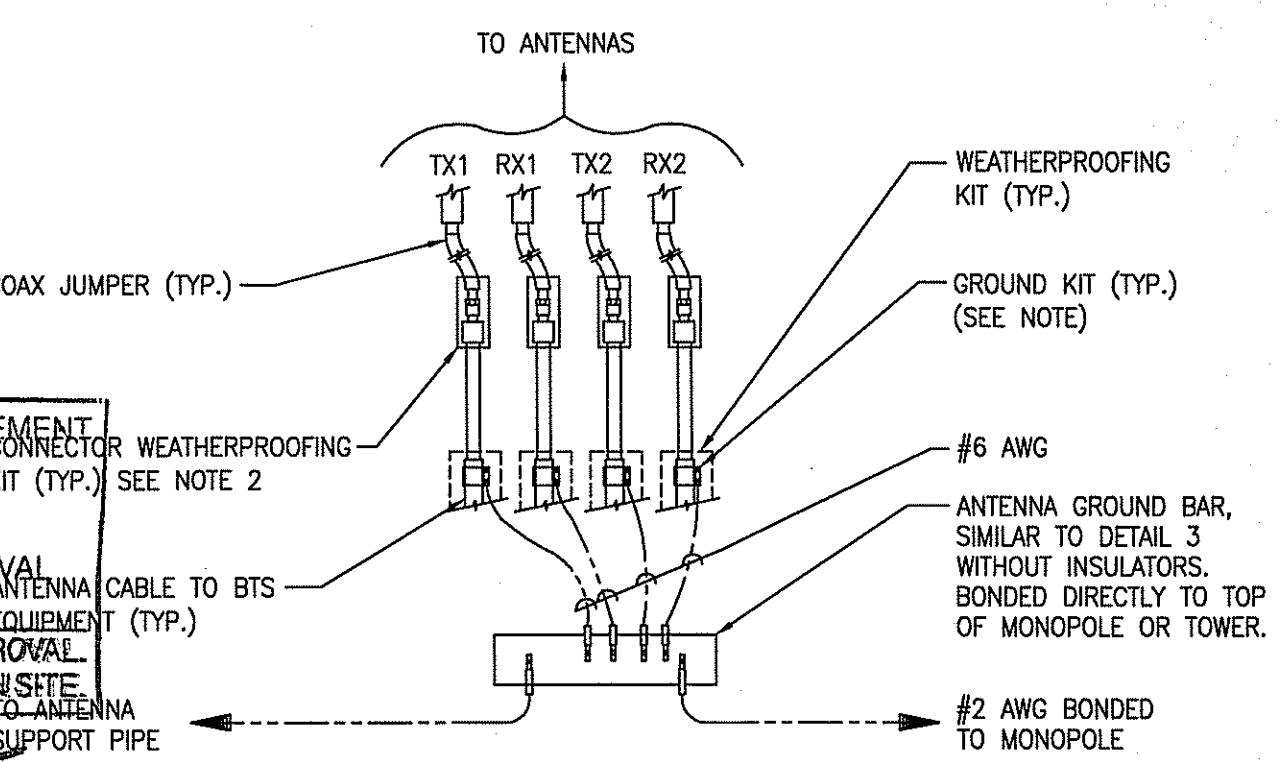


**7 INSTALLATION OF GROUND WIRE TO GROUND BAR**  
E-2 SCALE: NTS



**8 ANTENNA CABLE GROUNDING - TOWER**  
E-2 SCALE: NTS

- NOTE:**
- NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER. ANTENNA LOCATION AND CONNECTION ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
  - A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.



**9 CONNECTION OF GROUND WIRE TO GROUNDING BAR, TOWER/MONOPOLE**  
E-2 SCALE: NTS

**MCF COMMUNICATIONS, INC.**  
733 TURNPIKE ST, SUITE 105  
NORTH ANDOVER, MA 01845  
OFFICE: (978) 687-2536  
FAX: (978) 258-8850

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TEL (978) 244-7200  
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**EG ADVANCED**  
**ENGINEERING GROUP, P.C.**  
Civil Engineering - Site Development Surveying -  
Telecommunications  
34 HENNINGWAY DRIVE  
EAST PROVIDENCE, RI 02915  
PH: 401-384-2463  
FAX: 401-633-6264

MARC R. CHRETIEN  
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PROFESSIONAL ENGINEER  
CIVIL  
ENGINEER/LAND SURVEYOR

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REVISIONS		
REV. #	DATE	DESCRIPTION
3	6/24/10	CONSTRUCTION REVISED
2	2/25/10	CONSTRUCTION REVISED
1	12/07/09	ISSUED FOR CONSTRUCTION
0	11/20/09	ISSUED FOR REVIEW

PROJECT NO. PVD0224B	DESIGNED BY: MRC	SCALE: AS SHOWN
	DRAWN BY: MG	
	CHECK'D BY: MRC	

**SITE NAME:**  
**PVD0224B**  
**MCF PORTSMOUTH**  
**SOUTH**

**SITE ADDRESS:**  
895 MIDDLE ROAD  
PORTSMOUTH, RI 02871

**DRAWING TITLE:**  
**GROUNDING DETAILS**

**DRAWING NO:**  
**E-2**

APPROVED  
JUL 8 2010

MCF COMMUNICATIONS, INC.  
 733 TURNPIKE ST, SUITE 105  
 NORTH ANDOVER, MA 01845  
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**ADVANCED**  
 ENGINEERING GROUP, P.C.  
 Civil Engineering - Site Development Surveying -  
 Telecommunications  
 34 HEMLOCK DRIVE  
 EAST PROVIDENCE, RI 02915  
 PH: 401-354-2403  
 FAX: 401-333-0354

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REVISIONS

REV. #	DATE	DESCRIPTION
3	6/24/10	NO CHANGES
2	5/11/10	WETLAND LINE UPDATES
1	2/25/10	ISSUED FOR CONSTRUCTION
0	11/20/09	ISSUED FOR REVIEW

PROJECT NO.	DESIGNED BY:	MRC	SCALE:
PVD0224B	DRAWN BY:	MG	AS SHOWN
	CHECK'D BY:	MRC	

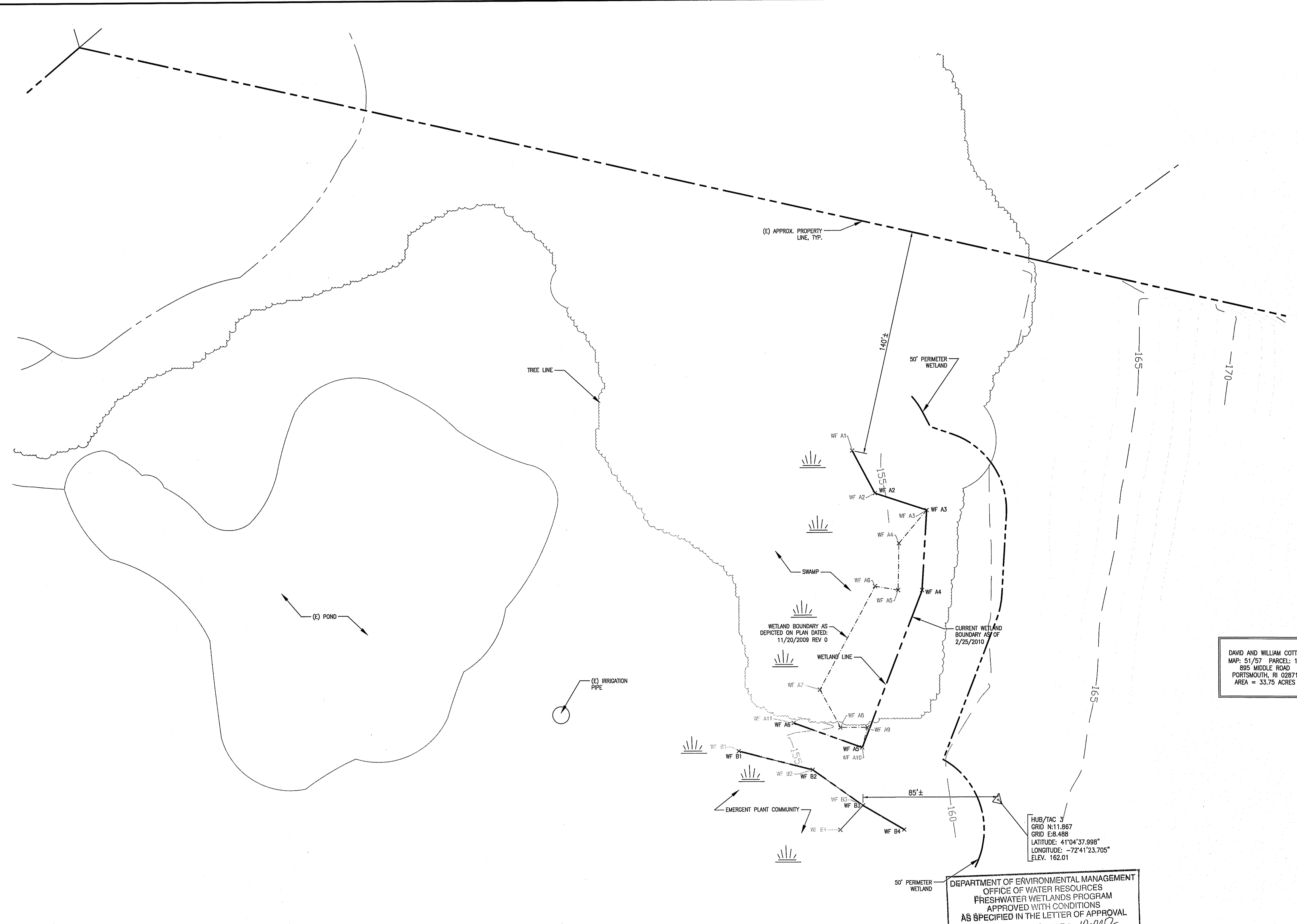
SITE NAME:  
**PVD0224B  
 MCF PORTSMOUTH  
 SOUTH**

SITE ADDRESS:  
 895 MIDDLE ROAD  
 PORTSMOUTH, RI 02871

DRAWING TITLE:  
**WETLAND EDGE  
 VERIFICATION PLAN**

DRAWING NO:  
**WV-1**

DAVID AND WILLIAM COTTA  
 MAP: 51/57 PARCEL: 17  
 895 MIDDLE ROAD  
 PORTSMOUTH, RI 02871  
 AREA = 33.75 ACRES



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
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 DATED JUL 28 2010 FILE # 10-002  
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*Martin D. Wenzel*

TRUE NORTH  
**WETLAND VERIFICATION PLAN**  
 SCALE: 1"=30'  
 30' 15' 0' 30' 60'

- NOTES:
- SITE PLAN BASED ON RIGIS DATA AND, FIELD
  - MEASUREMENTS, A METES AND BOUNDS SURVEY WAS NOT CONDUCTED BY ADVANCED ENGINEERING GROUP, P.C.
  - WETLAND DELINEATION DONE BY SAGE ENVIRONMENTAL

LEGEND  
 WF A# = SWAMP WETLAND LINE  
 WF B# = EMERGEN PLANT COMMUNITY LINE  
 WF B#-X = WETLAND LINE POINT

