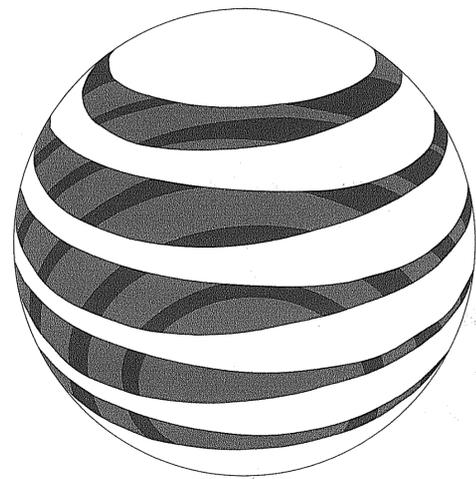


OCT -6 2009

ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES



at&t Mobility

COOPER ROAD 541 COOPER ROAD GLOCESTER, RI 02814



at&t Mobility

550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

COOPER ROAD

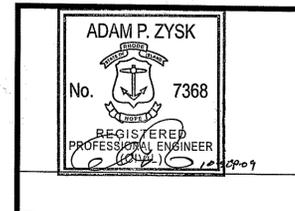
CONSTRUCTION DRAWINGS

NO.	DATE	DESCRIPTION
2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT



Dewberry-Goodkind, Inc.

280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: SK

REVIEWED BY: GHN

CHECKED BY: PPB

JOB NUMBER: 50019045

PROJECT NUMBER: 50019045

SITE ADDRESS

541 COOPER ROAD
GLOCESTER, RI 02814

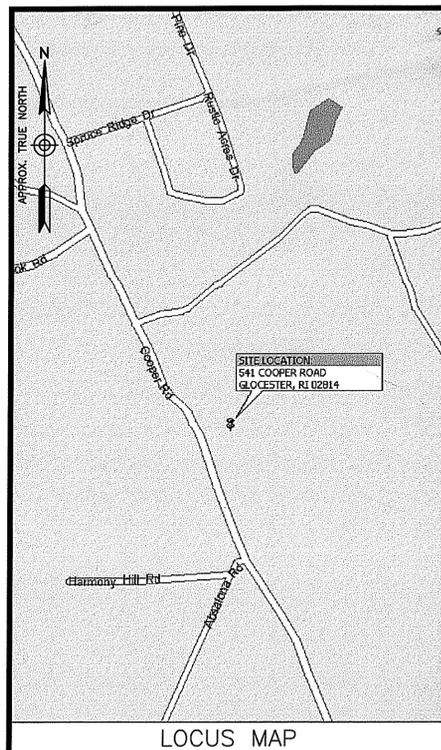
SHEET TITLE

TITLE SHEET

PAGE 1 OF 15

SHEET NUMBER

T-1



LOCUS MAP

ENGINEER
DEWBERRY
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE # (617) 695-3400
FAX # (617) 695-3310
CONTACT: GREG NAWROTZKI

SITE ACQUISITION/CONSTRUCTION
ABCOMM, LLC
953 PUTNAM PIKE
CHEPACHET, RI 02814
PHONE # (401) 567-0600
FAX # (401) 578-3808
CONTACT: JEFF GOLD

CONSULTANT TEAM

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

ABCOMM, LLC _____ DATE _____
R.F. ENGINEER _____ DATE _____
CONSTRUCTION _____ DATE _____
AT&T MOBILITY _____ DATE _____

APPROVALS

SITE NAME:
COOPER ROAD

PROPERTY OWNER:
JOHN BUCCI JR.
555 COOPER ROAD
CHEPACHET, RI 02814

APPLICANT/DEVELOPER:
ABCOMM, LLC
953 PUTNAM PIKE
CHEPACHET, RI 02814

ELECTRIC UTILITY:
NATIONAL GRID
1 (800) 322-3223

TELEPHONE UTILITY:
VERIZON
1 (800) 941-9900

CENTER OF EXISTING TOWER:*
LATITUDE (N): 41° 55' 07.0"
LONGITUDE (W): 71° 37' 04.0"
NAVD 88 GROUND ELEV.= 552'
* PER FAA 2-C CERTIFICATION

PROJECT SUMMARY

SITE ADDRESS:
541 COOPER ROAD
GLOCESTER, RI 02814

ZONING DISTRICT:
A-4 AGRICULTURAL

PROJECT DIRECTORY

THE PROJECT WILL CONSIST OF INSTALLING (12) ANTENNAS ON A PROPOSED 190'-0"± TALL A.G.L. LATTICE TOWER. AN EQUIPMENT SHELTER & DIESEL GENERATOR WILL BE LOCATED WITHIN A PROPOSED 80'X80' FENCED COMPOUND. POWER AND TELCO WILL BE TAKEN FROM EXISTING SOURCES ON COOPER ROAD.

PROJECT DESCRIPTION

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

A.D.A. COMPLIANCE:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
G-1	GENERAL NOTES
C-1	200' RADIUS PLOT PLAN
C-2	EXISTING CONDITIONS
C-3	SITE PLAN
C-4	GRADING PLAN
C-5	ROAD PROFILE
C-6	DETAILED SITE PLAN & ELEVATION
C-7	CONSTRUCTION DETAILS - I
C-8	CONSTRUCTION DETAILS - II
C-9	FOUNDATION DETAILS & ANTENNA B.O.M.
C-10	TMA & DIPLEXER DETAILS
E-1	ELECTRICAL RISER DIAGRAM
E-2	SCHEMATIC GROUNDING PLAN
E-3	GROUNDING DETAILS

SHEET INDEX

FROM FRAMINGHAM, TAKE THE I-90 E/I-90 W/MASSPIKE RAMP TO SPRINGFIELD/BOSTON TO I-90 W. TAKE EXIT 10A TOWARD WORCESTER/PROVIDENCE TO ROUTE 20 CONNECTOR. TAKE THE RT-146 S RAMP TO MILLBURY/PROVIDENCE RI. MERGE ONTO MAIN ST/RT-122A/RT-146. CONTINUE TO FOLLOW RT-146. TAKE THE HWY 146A EXIT TOWARD N SMITHFIELD RI. TURN LEFT AT RT-146A ENTERING RHODE ISLAND. CONTINUE ON RI-146A/RI-5. TURN RIGHT AT RI-102. TURN LEFT TOWARD VICTORY HWY. TURN RIGHT AT VICTORY HWY. SLIGHT LEFT AT MAIN ST. CONTINUE ON COOPER HILL RD. CONTINUE ON COOPER RD. THE SITE WILL BE ON THE LEFT.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 13 2010 FILE # 09-0258
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
W. Joseph Carey

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR - ABCOMM, LLC
SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
OWNER - ABCOMM, LLC
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 SCALE UNLESS OTHERWISE NOTED 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 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.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. 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 AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- SUBCONTRACTOR SHALL NOTIFY DEWBERRY 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 ENGINEER REVIEW.
- CONSTRUCTION SHALL COMPLY WITH SPECIFICATION 247B2-000-3APS-A00Z-000Z, "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF CINGULAR-GENESIS 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 ADVISED 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 CONTRACTOR. 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, TOP SOIL AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- 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 CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
- SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION.
- THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE AT&T SPECIFICATION FOR SITE SIGNAGE.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE TRANSMISSION 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, SEE SOIL COMPACTION NOTES.
- THE AREAS OF THE OWNER'S 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.
- EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL JURISDICTION'S GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

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 4000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000 PSI) MAY BE USED. ALL CONCRETING WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 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 (UNO). SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST EARTH.....3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 AND LARGER2 IN.
#5 AND SMALLER & WWF.....1 1/2 IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
SLAB AND WALL3/4 IN.
BEAMS AND COLUMNS.....1 1/2 IN.
- A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE 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 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.
- CONCRETE CYLINDER TEST IS NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC 1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER:
(A) RESULTS OF CONCRETE CYLINDER TESTS 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 UNLESS NOTED OTHERWISE. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE PERFORMED 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. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.
- BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4"Ø) CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
- 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 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.
- SUBCONTRACTOR 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 & TOPSOIL EXPOSE UNDISTURBED 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 ALTERNATIVE 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 & 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 ALTERNATIVE TO ITEMS 2 AND 3 PROOFROLL THE SUBGRADE SOILS WITH 5 PASSES OF A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). ANY 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, AT&T 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.

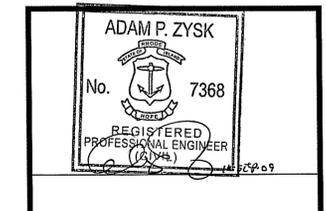
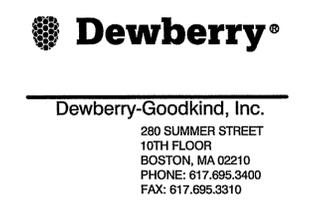
ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- SUBCONTRACTOR SHALL MODIFY EXISTING CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLE TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO THE CONTRACTOR FOR APPROVAL.
- CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- 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, POWER PHASE CONDUCTOR (I.E., HOTS), 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.
- 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 IDS).
- 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 (SIZE 14 AWG OR 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, UNLESS OTHERWISE SPECIFIED.
- 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.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (SIZE 6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (SIZE 14 AWG OR LARGER), 600V, 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 POWER 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. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- CABINETS, BOXES, AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.



COOPER ROAD

CONSTRUCTION DRAWINGS			
NO.	DATE	DESCRIPTION	STATUS
2	09/09/09	FOR SUBMITTAL	
1	05/06/09	FOR SUBMITTAL	
0	04/16/09	FOR SUBMITTAL	
A	04/07/09	FOR COMMENT	



DRAWN BY: SK

REVIEWED BY: GHN

CHECKED BY: PPB

JOB NUMBER: 50019045

PROJECT NUMBER: 50019045

SITE ADDRESS

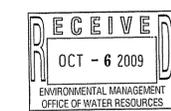
541 COOPER ROAD
GLOCESTER, RI 02814

SHEET TITLE

GENERAL NOTES

PAGE 2 OF 15

SHEET NUMBER



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 13 2010 FILE # 09-02-58
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Casey

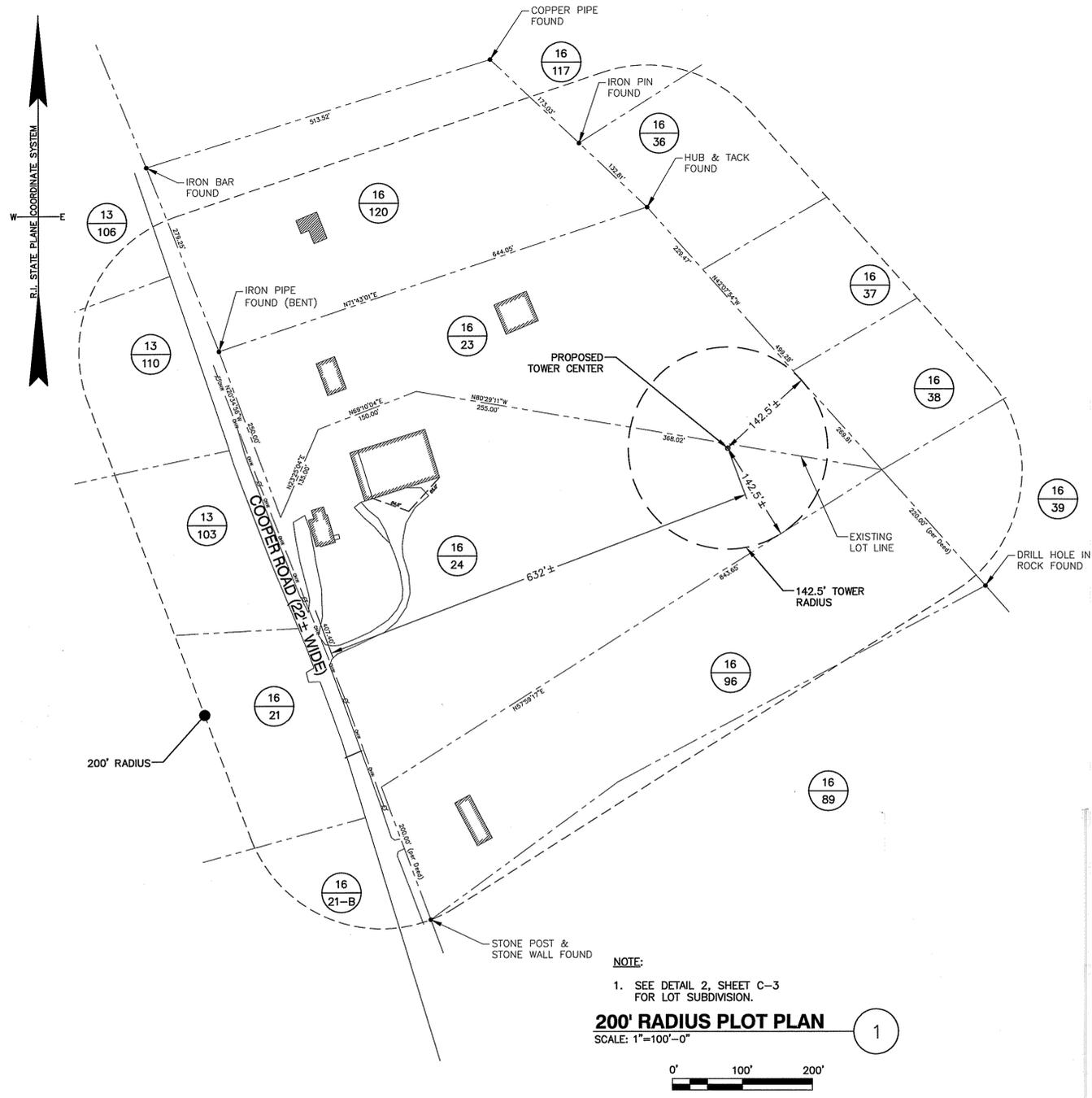
G-1

GENERAL NOTES

- FIELD SURVEY DATE: FEBRUARY 12, 2009
- VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1988.
- HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83).
- CENTER OF PROPOSED TOWER:
LATITUDE (N): 41° 55' 04.0"
LONGITUDE (W): 71° 37' 05.1"
NAVD 88 GROUND ELEV.= 552'
- OWNER: JOHN BUCCI JR.
555 COOPER ROAD
CHEPACHET, RI 02814
- SITE NAME: COOPER ROAD
- SITE NUMBER: DGI# 50019045
- SITE ADDRESS: 541 COOPER ROAD
CHEPACHET, RI 02814
- APPLICANT: ABCOMM, LLC,
953 PUTNAM PIKE
CHEPACHET, RI 02814
- JURISDICTION: GLOCESTER RHODE ISLAND
- TAX ID: MAP 016-024
- DEED REFERENCE: GLOCESTER R.D. BOOK 215 PAGE 330
- PLAT REFERENCE: H.C.R.D. PLAN #1553
- TRUE NORTH BASED ON GPS
- ELEVATIONS AND COORDINATES FROM GPS LOCATIONS.
- ALL UNDERGROUND UTILITY INFORMATION PRESENTED HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO COMMENCEMENT OF ALL SITE WORK. CALL DIGSAFE 1(800) 322-4844 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
- ACCORDING TO FLOOD INSURANCE RATE MAP THE PROPOSED LATTICE TOWER ON THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS ZONE X, NOT WITHIN THE 100 YEAR FLOOD BOUNDARY. MAP NUMBER 44007C0165G. PANEL 165 OF 451 PROVIDENCE COUNTY, RHODE ISLAND EFFECTIVE DATE: MARCH 2, 2009
- PROPERTY LINE INFORMATION IS COMPILED FROM RESULTS AND PLANS OF RECORD AND IS NOT THE RESULT OF A FULL BOUNDARY SURVEY. THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING TOPOGRAPHIC FEATURES FOR THE PROPOSED CELL TOWER.
- BEARING SYSTEM OF THIS PLAN IS BASED ON GRID NORTH.
- TOTAL AREA OF WETLANDS = 1.22 ACRES
- SURVEY PERFORMED BY:
VS LAND DATA
150 COOLIDGE ROAD
BERLIN, MA 01503
- WETLANDS DELINEATED BY:
AECOM
95 STATE ROAD
SAGAMORE BEACH, MA 02562
- SITE SURVEY WAS COMPLETED BY A RHODE ISLAND REGISTERED PROFESSIONAL LAND SURVEYOR.
- WETLANDS WERE FLAGGED BY A QUALIFIED WETLAND SCIENTIST.
- NO RESIDENTIAL STRUCTURES ARE LOCATED WITHIN 285' OF THE PROPOSED FACILITY.
- NO SCHOOL FACILITIES ARE LOCATED WITHIN 1000' OF THE PROPOSED FACILITY.
- THE CLOSEST EXISTING TOWER IS 1.83 MILES AWAY FROM THE PROPOSED FACILITY.

ZONING INFORMATION

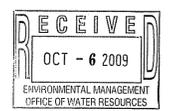
DISTRICT:	A-4 AGRICULTURAL	
	REQUIRED	PROPOSED
MIN. AREA:	4 ACRES	5.55 ACRES
MAX HEIGHT:	35'	190'
MIN. FRONTAGE:	200'	N/A
MIN. FRONT YARD DEPTH:	75'	632'±
MIN. SIDE YARD DEPTH:	50'	142.5'±
MIN. REAR YARD DEPTH:	100'	142.5'±



NOTE:
1. SEE DETAIL 2, SHEET C-3 FOR LOT SUBDIVISION.

200' RADIUS PLOT PLAN
SCALE: 1"=100'-0"

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 13 2010 FILE # 09-0258
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Casey

LEGEND

	EXISTING PROPERTY LINE
	PROPERTY LINE TO BE ELIMINATED
	PROPOSED PROPERTY LINE
	200' RADIUS
	142.5' TOWER RADIUS
	MAP/LOT
	EXISTING BUILDING

ABUTTERS LIST

MAP/ PARCEL ID	OWNER/ADDRESS	MAILING ADDRESS
13/103	MACIVER, SCOTT 554 COOPER ROAD CHEPACHET, RI 02814	SAME
13/106	COPPOLINO, JOACHIM JR. ET UX RENEE S 574 COOPER ROAD CHEPACHET, RI 02814	SAME
13/110	LEJEUNE, ROLAND T. ET UX JOANN P. TRUSTEES FAMILY TRUST 564 COOPER ROAD CHEPACHET, RI 02814	SAME
16/21	HARRIMAN, EDWARD J. ET UX ANNETTE M 538 COOPER ROAD CHEPACHET, RI 02814	SAME
16/21B	LEFEBVRE, EUGENE ET UX SHELLY 520 COOPER ROAD CHEPACHET, RI 02814	SAME
16/23	BUCCI, JOHN JR. 541 COOPER ROAD CHEPACHET, RI 02814	BUCCI, JOHN JR. 555 COOPER ROAD CHEPACHET, RI 02814
16/24	BUCCI, JOHN JR. 541 COOPER ROAD CHEPACHET, RI 02814	BUCCI, JOHN JR. 555 COOPER ROAD CHEPACHET, RI 02814
16/36	HIRST, VINCENT W. JR ET UX JOYCE A. 0 COOPER ROAD, CHEPACHET, RI 02814	HIRST, VINCENT W. JR ET UX JOYCE A. 429 CENTRAL STREET HARRISVILLE, RI 02830
16/37	OCTEAV, LAWRENCE A. JR. ET UX ELIZABETH M. 0 COOPER ROAD, CHEPACHET, RI 02814	OCTEAV, LAWRENCE A. JR. ET UX ELIZABETH M. 26 CROSS CREEK ROAD PLAINFIELD, CT 06374
16/38	CAMPPELLONE, EDITH ETAL PETER J. ETAL KELLI J. CAMPPELLONE 0 COOPER ROAD, CHEPACHET, RI 02814	CAMPPELLONE, EDITH ETAL PETER J. ETAL KELLI J. CAMPPELLONE 281 ABSALONA HILL ROAD CHEPACHET, RI 02814
16/39	GLOUCESTER LAND TRUST 0 COOPER ROAD, CHEPACHET, RI 02814	1145 PUTNAM PIKE CHEPACHET, RI 02814
16/89	DERRY, SCOTT M ET UX RHONDA M 519 COOPER ROAD, CHEPACHET, RI 02814	SAME
16/96	LENNOX, ADAM ET UX JILL 527 COOPER ROAD, CHEPACHET, RI 02814	SAME
16/117	MITSON, ROBERT A ET UX KATE L. TRUSTEES 575 COOPER ROAD CHEPACHET, RI 02814	SAME
16/120	BUCCI, JOAN 565 COOPER ROAD CHEPACHET, RI 02814	34 GEORGE WATERMAN ROAD JOHNSTON, RI 02919

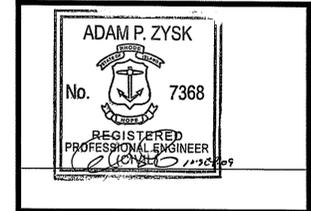


COOPER ROAD

CONSTRUCTION DRAWINGS

2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT

Dewberry®
Dewberry-Goodkind, Inc.
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: SK
REVIEWED BY: GHN
CHECKED BY: PPB
JOB NUMBER: 50019045
PROJECT NUMBER: 50019045
SITE ADDRESS

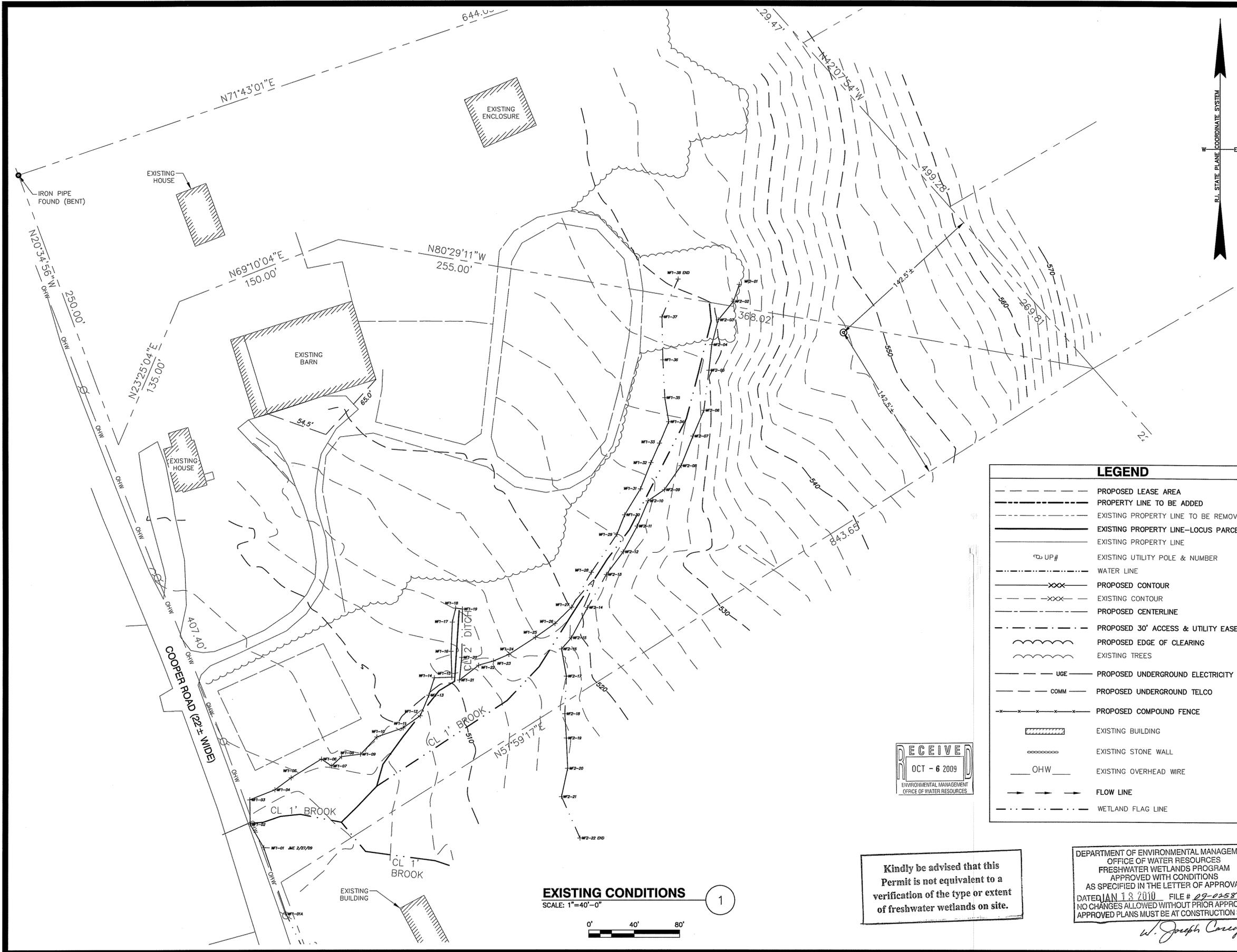
541 COOPER ROAD
GLOUCESTER, RI 02814

SHEET TITLE

200' RADIUS PLOT PLAN

PAGE 3 OF 15
SHEET NUMBER

C-1



at&t
Mobility
 550 COCHITUATE ROAD
 SUITES 13 & 14
 FRAMINGHAM, MA 01701

COOPER ROAD

CONSTRUCTION DRAWINGS

2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT

Dewberry
 Dewberry-Goodkind, Inc.
 280 SUMMER STREET
 10TH FLOOR
 BOSTON, MA 02210
 PHONE: 617.695.3400
 FAX: 617.695.3310

ADAM P. ZYSK
 No. 7368
 REGISTERED PROFESSIONAL ENGINEER
 (MASS) 10/23/2009

LEGEND

	PROPOSED LEASE AREA
	PROPERTY LINE TO BE ADDED
	EXISTING PROPERTY LINE TO BE REMOVED
	EXISTING PROPERTY LINE-LOCUS PARCEL
	EXISTING PROPERTY LINE
	EXISTING UTILITY POLE & NUMBER
	WATER LINE
	PROPOSED CONTOUR
	EXISTING CONTOUR
	PROPOSED CENTERLINE
	PROPOSED 30' ACCESS & UTILITY EASEMENT
	PROPOSED EDGE OF CLEARING
	EXISTING TREES
	PROPOSED UNDERGROUND ELECTRICITY
	PROPOSED UNDERGROUND TELCO
	PROPOSED COMPOUND FENCE
	EXISTING BUILDING
	EXISTING STONE WALL
	EXISTING OVERHEAD WIRE
	FLOW LINE
	WETLAND FLAG LINE

RECEIVED
 OCT - 6 2009
 ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES

EXISTING CONDITIONS
 SCALE: 1"=40'-0"
 0' 40' 80'

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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 DATED JAN 13 2010 FILE # 09-0258
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
W. Joseph Carey

DRAWN BY: SK
 REVIEWED BY: GHN
 CHECKED BY: PPB
 JOB NUMBER: 50019045
 PROJECT NUMBER: 50019045
 SITE ADDRESS
 541 COOPER ROAD
 GLOCESTER, RI 02814
 SHEET TITLE
 EXISTING CONDITIONS
 PAGE 4 OF 15
 SHEET NUMBER
 C-2

LEGEND

---	PROPOSED LEASE AREA
---	PROPERTY LINE TO BE ADDED
---	EXISTING PROPERTY LINE TO BE REMOVED
---	EXISTING PROPERTY LINE
---	BUILDING ENVELOPE SETBACK
UP#	EXISTING UTILITY POLE & NUMBER
---	WATER LINE
XXX	PROPOSED CONTOUR
XXX	EXISTING CONTOUR
---	PROPOSED CENTERLINE
---	PROPOSED 30' ACCESS & UTILITY EASEMENT
---	PROPOSED EDGE OF CLEARING
---	EXISTING TREES
---	PROPOSED UNDERGROUND ELECTRICITY
---	PROPOSED UNDERGROUND TELCO
---	PROPOSED COMPOUND FENCE
---	EXISTING BUILDING
---	EXISTING STONE WALL
OHW	EXISTING OVERHEAD WIRE
---	FLOW LINE
---	WETLAND FLAG LINE
---	100' RIVERBANK OFFSET

XX XX PLAT LOT

CERTIFICATION:
 THIS SURVEY AND PLAN SUBSTANTIALLY CONFORMS TO A CLASS I SURVEY AS ADOPTED BY THE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THIS PLAN IS GOOD FOR INTENT AS NOTED ONLY. THIS SURVEY WAS REPRODUCED BY REFERENCES AND RECORDED PLAT. AS CAN BE SEEN ON THE RECORDED DEEDS AND PLAT, THE GEOMETRY DATA AND HARD EVIDENCE (BOUNDS) ARE LACKING; THEREFORE PER SECTION 3.02 B.5 OF THE TECHNICAL STANDARDS, THIS BOUNDARY OPINION WAS BASED ENTIRELY ON KNOWN RECORD MONUMENTS, LINES OF POSSESSION, JUDGMENT OF THE RECORD PLAT, PLATS PROTRACTED AND OTHER EVIDENCE WHICH COULD RENDER THE LOCATIONS OF BOUNDARIES UNCERTAIN. THIS SURVEY IS NOT VALID FOR ANY PURPOSE WITHOUT WRITTEN CONSENT.

PROJECT NARRATIVE:
 ADD A WIRELESS, UNMANNED TELECOMMUNICATION FACILITY TO THE PROPERTY AT 541 COOPER ROAD, GLOUCESTER, RI. THE PLATS ARE BEING ALTERED TO MAINTAIN A 142.5' TOWER RADIUS.

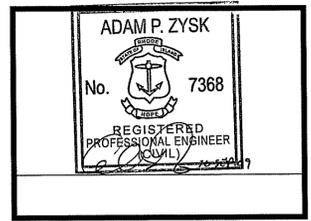


COOPER ROAD

CONSTRUCTION DRAWINGS

2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT

Dewberry
 Dewberry-Goodkind, Inc.
 280 SUMMER STREET
 10TH FLOOR
 BOSTON, MA 02210
 PHONE: 617.695.3400
 FAX: 617.695.3310

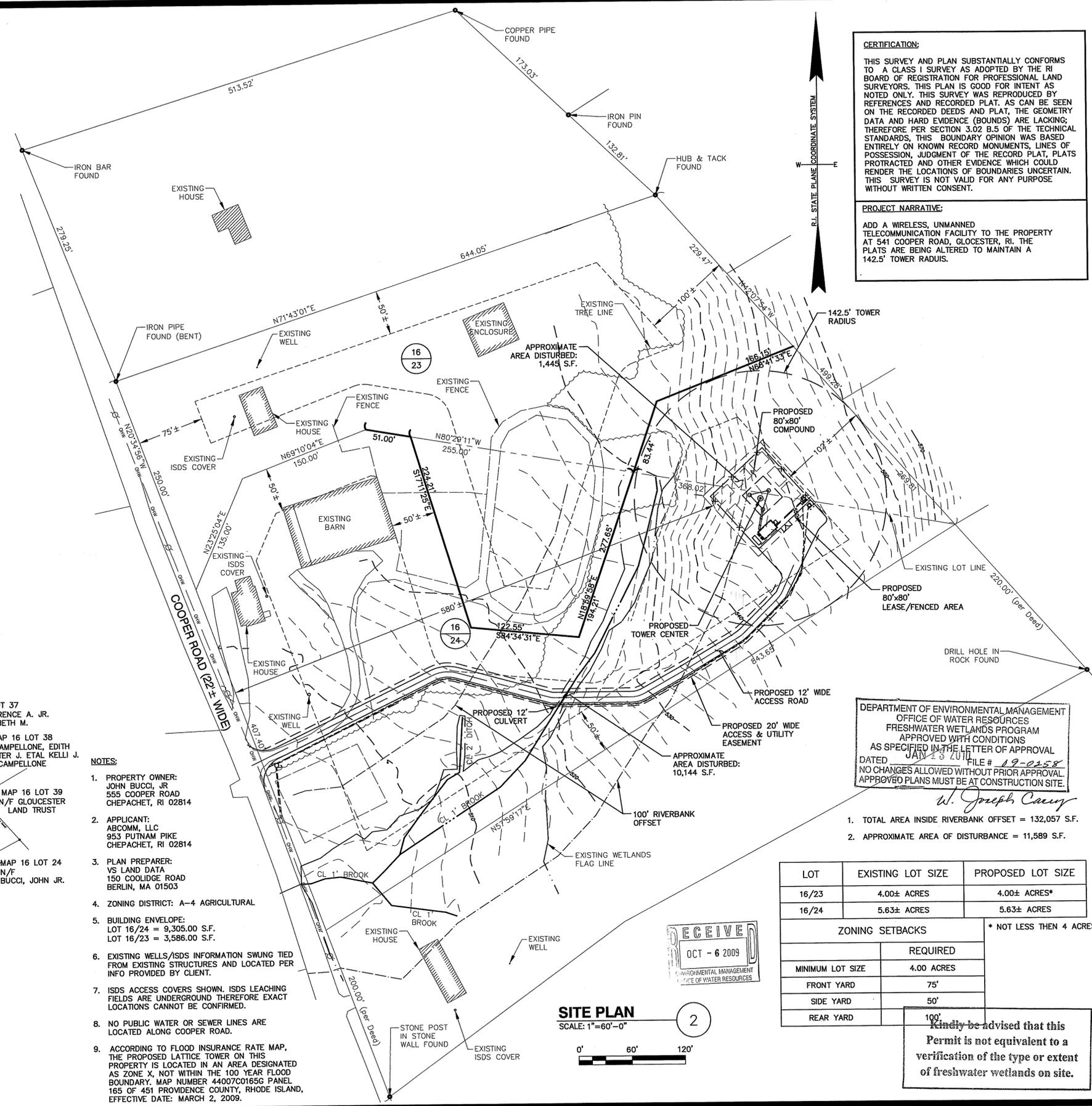


DRAWN BY:	SK
REVIEWED BY:	GHN
CHECKED BY:	PPB
JOB NUMBER:	50019045
PROJECT NUMBER:	50019045
SITE ADDRESS:	

541 COOPER ROAD
 GLOUCESTER, RI 02814

SHEET TITLE	
SITE PLAN	
PAGE 5 OF 15	
SHEET NUMBER	

C-3



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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 DATED JAN 13 2011 FILE # 19-0258
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
 W. Joseph Curry

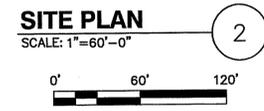
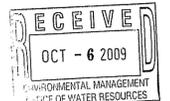
1. TOTAL AREA INSIDE RIVERBANK OFFSET = 132,057 S.F.
 2. APPROXIMATE AREA OF DISTURBANCE = 11,589 S.F.

LOT	EXISTING LOT SIZE	PROPOSED LOT SIZE
16/23	4.00± ACRES	4.00± ACRES*
16/24	5.63± ACRES	5.63± ACRES

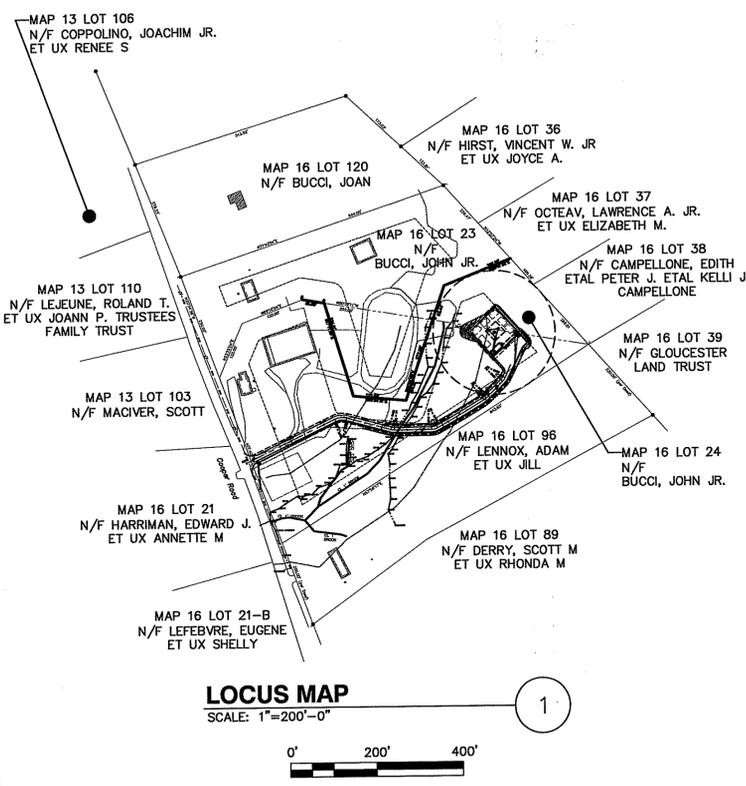
* NOT LESS THEN 4 ACRES.

ZONING SETBACKS	
	REQUIRED
MINIMUM LOT SIZE	4.00 ACRES
FRONT YARD	75'
SIDE YARD	50'
REAR YARD	100'

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- NOTES:**
- PROPERTY OWNER: JOHN BUCCI, JR 555 COOPER ROAD CHEPACHET, RI 02814
 - APPLICANT: ABCOMM, LLC 953 PUTNAM PIKE CHEPACHET, RI 02814
 - PLAN PREPARER: VS LAND DATA 150 COOLIDGE ROAD BERLIN, MA 01503
 - ZONING DISTRICT: A-4 AGRICULTURAL
 - BUILDING ENVELOPE: LOT 16/24 = 9,305.00 S.F. LOT 16/23 = 3,586.00 S.F.
 - EXISTING WELLS/ISDS INFORMATION SWUNG TIED FROM EXISTING STRUCTURES AND LOCATED PER INFO PROVIDED BY CLIENT.
 - ISDS ACCESS COVERS SHOWN. ISDS LEACHING FIELDS ARE UNDERGROUND THEREFORE EXACT LOCATIONS CANNOT BE CONFIRMED.
 - NO PUBLIC WATER OR SEWER LINES ARE LOCATED ALONG COOPER ROAD.
 - ACCORDING TO FLOOD INSURANCE RATE MAP, THE PROPOSED LATTICE TOWER ON THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS ZONE X, NOT WITHIN THE 100 YEAR FLOOD BOUNDARY. MAP NUMBER 44007C0165G PANEL 165 OF 451 PROVIDENCE COUNTY, RHODE ISLAND, EFFECTIVE DATE: MARCH 2, 2009.



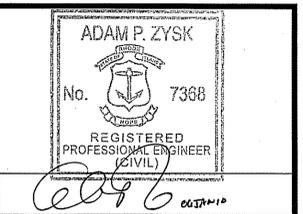
COOPER ROAD

CONSTRUCTION DRAWINGS

3	01/06/10	FOR SUBMITTAL
2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT

Dewberry

Dewberry-Goodkind, Inc.
 280 SUMMER STREET
 10TH FLOOR
 BOSTON, MA 02210
 PHONE: 617.695.3400
 FAX: 617.695.3310



DRAWN BY: SK

REVIEWED BY: GHN

CHECKED BY: PPB

JOB NUMBER: 50019045

PROJECT NUMBER: 50019045

SITE ADDRESS

541 COOPER ROAD
 GLOCESTER, RI 02814

SHEET TITLE

GRADING PLAN

PAGE 6 OF 15

SHEET NUMBER

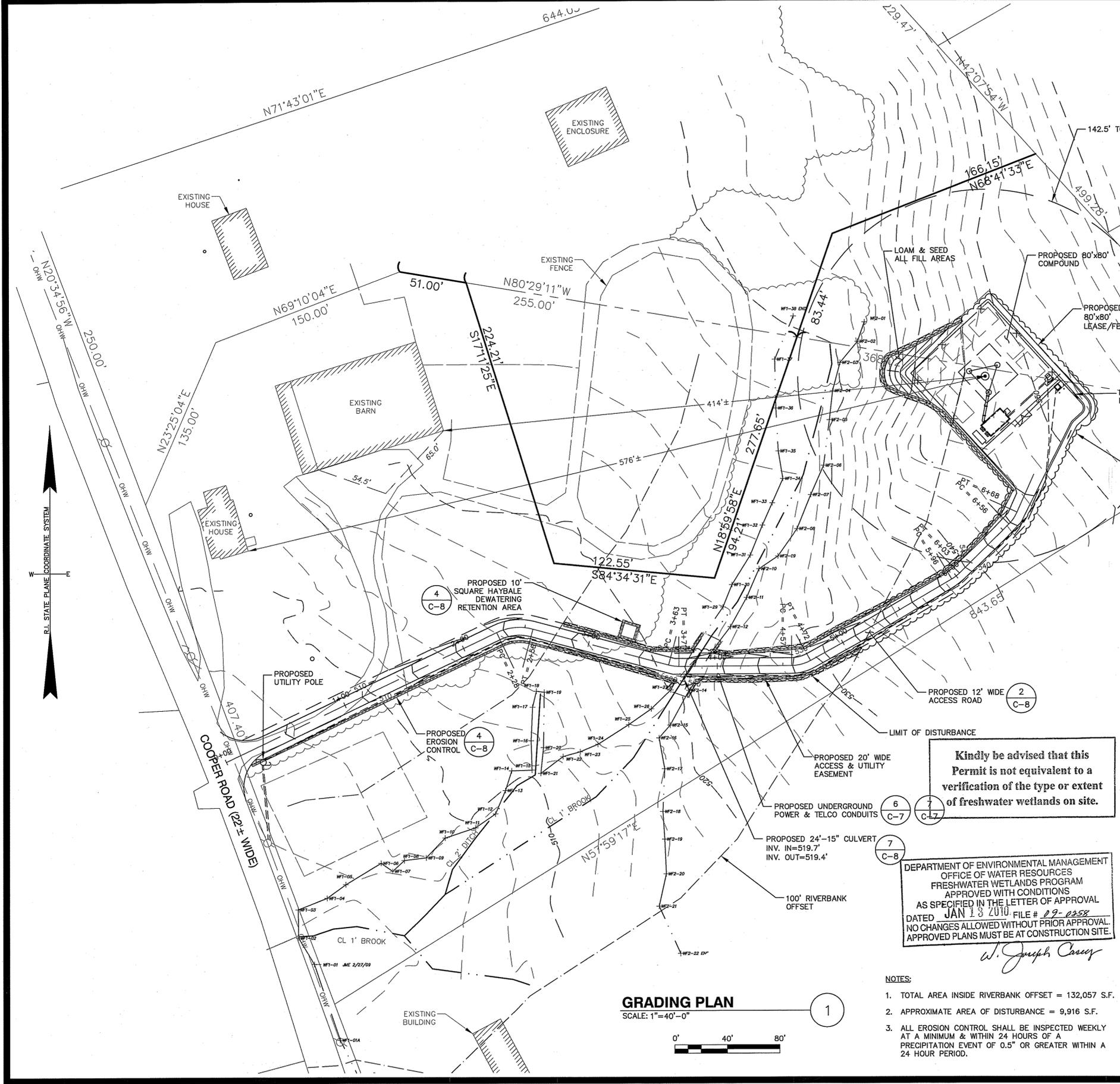
C-4

SEEDING AND REVEGETATION PLAN:

UPON COMPLETION OF SITE CONSTRUCTION, ALL AREAS PREVIOUSLY DISTURBED WILL BE TREATED AS STATED BELOW. THESE AREAS WILL BE CLOSELY MONITORED BY THE CONTRACTOR UNTIL SUCH TIME AS A SATISFACTORY GROWTH OF VEGETATION IS ESTABLISHED.

1. LOAM WILL BE SPREAD OVER ALL DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH OF 4 INCHES.
2. THE FOLLOWING WILL BE INCORPORATED INTO THE SOIL PRIOR TO SEEDING: AGRICULTURAL LIMESTONE AT THE RATE OF 130 POUNDS PER 1,000 SQUARE FEET, FOLLOWED BY 10-10-10 FERTILIZER AT THE RATE OF 14 POUNDS PER 1,000 SQUARE FEET.
3. DISTURBED AREAS WILL BE SEEDED AT THE RATE OF 100 LBS/ACRE OF SLOPE SEED AND 20 LBS/ACRE OF CROWN VETCH.
4. SEEDING WILL BE COMPLETED BETWEEN THE DATES OF APRIL 1 AND SEPTEMBER 15. WATERING MAY BE REQUIRED DURING DRY PERIODS.
5. HAY MULCH WILL BE APPLIED AT THE RATE OF 100 LBS. PER 1,000 SQ. FT. FOLLOWING SEEDING. MULCH SHALL BE ANCHORED BY WATERING OR TRACKING BY BULLDOZER FLAT AREAS, USING ANCHORING EMULSION OR TRACKING BY BULLDOZER ON AREAS OF MODERATE SLOPES AND INSTALLING BIODEGRADABLE NETS ON STEEP SLOPES (3:1 AND STEEPER).
6. ALL SEDIMENT CONTROL STRUCTURES WILL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 75% OF THE AREA IS VEGETATED WITH VIGOROUS GROWTH.

JAN 7 2010



LEGEND

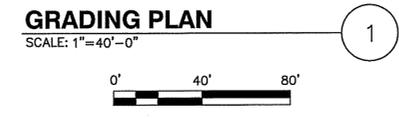
	PROPOSED LEASE AREA
	PROPERTY LINE TO BE ADDED
	EXISTING PROPERTY LINE TO BE REMOVED
	EXISTING PROPERTY LINE-LOCUS PARCEL
	EXISTING PROPERTY LINE
	EXISTING UTILITY POLE & NUMBER
	WATER LINE
	PROPOSED CONTOUR
	EXISTING CONTOUR
	PROPOSED CENTERLINE
	PROPOSED 30' ACCESS & UTILITY EASEMENT
	PROPOSED EDGE OF CLEARING
	EXISTING TREES
	PROPOSED UNDERGROUND ELECTRICITY
	PROPOSED UNDERGROUND TELCO
	PROPOSED COMPOUND FENCE
	EXISTING BUILDING
	EXISTING STONE WALL
	EXISTING OVERHEAD WIRE
	FLOW LINE
	WETLAND FLAG LINE
	100' RIVERBANK OFFSET
	LIMIT OF DISTURBANCE

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
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 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JAN 13 2010 FILE # 09-0258
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Casey

- NOTES:**
1. TOTAL AREA INSIDE RIVERBANK OFFSET = 132,057 S.F.
 2. APPROXIMATE AREA OF DISTURBANCE = 9,916 S.F.
 3. ALL EROSION CONTROL SHALL BE INSPECTED WEEKLY AT A MINIMUM & WITHIN 24 HOURS OF A PRECIPITATION EVENT OF 0.5" OR GREATER WITHIN A 24 HOUR PERIOD.



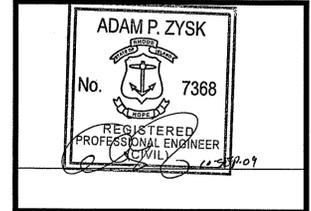
COOPER ROAD

CONSTRUCTION DRAWINGS

2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT



Dewberry-Goodkind, Inc.
 280 SUMMER STREET
 10TH FLOOR
 BOSTON, MA 02210
 PHONE: 617.695.3400
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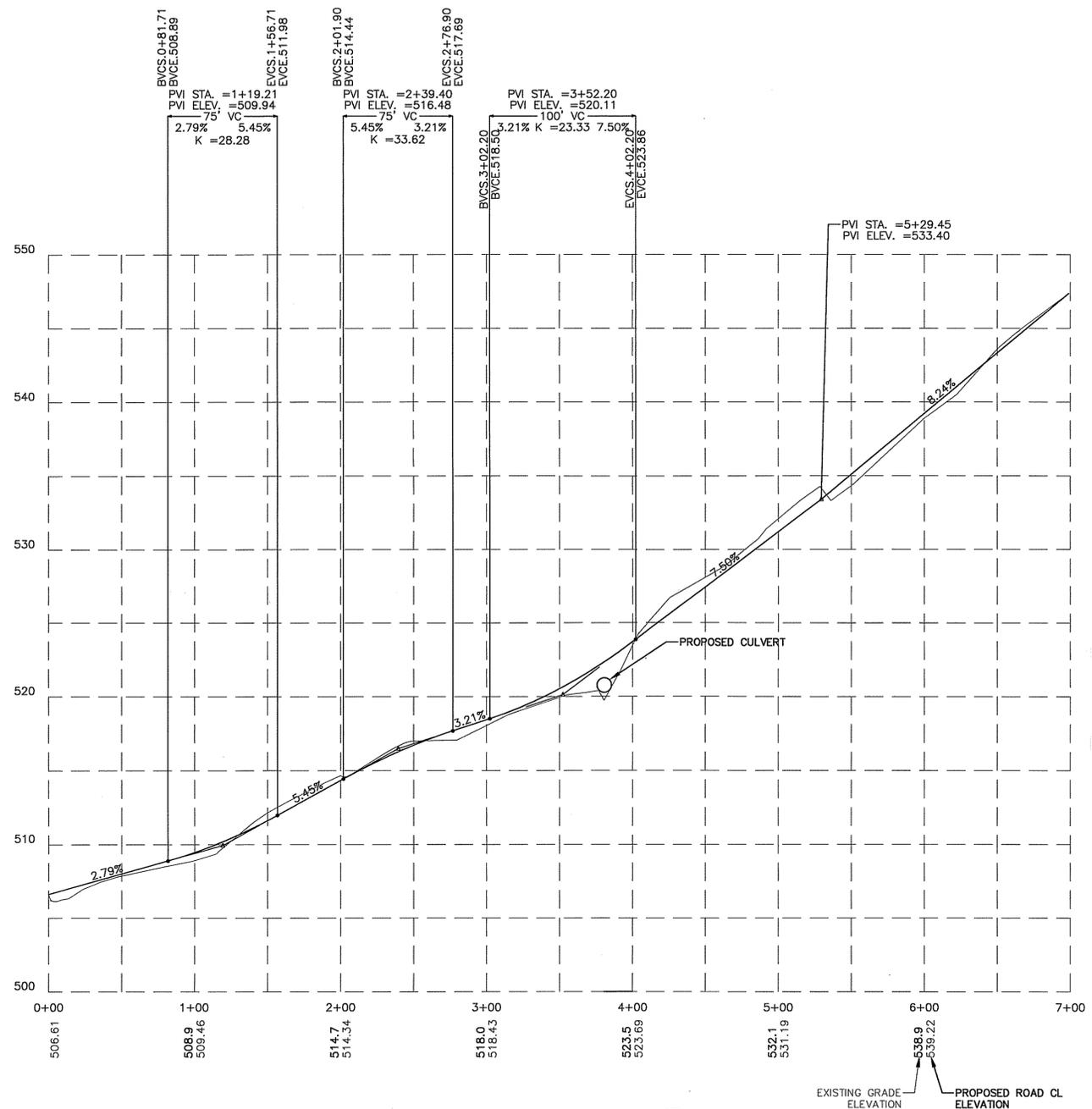
DRAWN BY:	SK
REVIEWED BY:	GHN
CHECKED BY:	PPB
JOB NUMBER:	50019045
PROJECT NUMBER:	50019045
SITE ADDRESS:	

541 COOPER ROAD
 GLOCESTER, RI 02814

SHEET TITLE	
ROAD PROFILE	
PAGE 7 OF 15	
SHEET NUMBER	

C-5

LEGEND
 BVCS-BEGINNING OF VERTICAL CURVE STATION
 BVCE-BEGINNING OF VERTICAL CURVE ELEVATION
 EVCS-END OF VERTICAL CURVE STATION
 EVCE-END OF VERTICAL CURVE ELEVATION
 PVI -POINT OF VERTICAL INTERSECTION



ROAD PROFILE
 HORIZONTAL SCALE: 1"=50'-0"
 VERTICAL SCALE: 1"=5'-0"

0' 50' 100'
 0' 5' 10'



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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JAN 13 2010 FILE # 09-0258
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

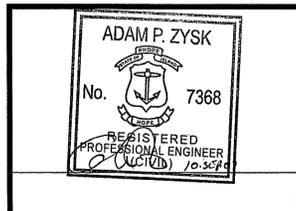
W. Joseph Conroy

COOPER ROAD

CONSTRUCTION DRAWINGS

2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT

Dewberry®
 Dewberry-Goodkind, Inc.
 280 SUMMER STREET
 10TH FLOOR
 BOSTON, MA 02210
 PHONE: 617.695.3400
 FAX: 617.695.3310

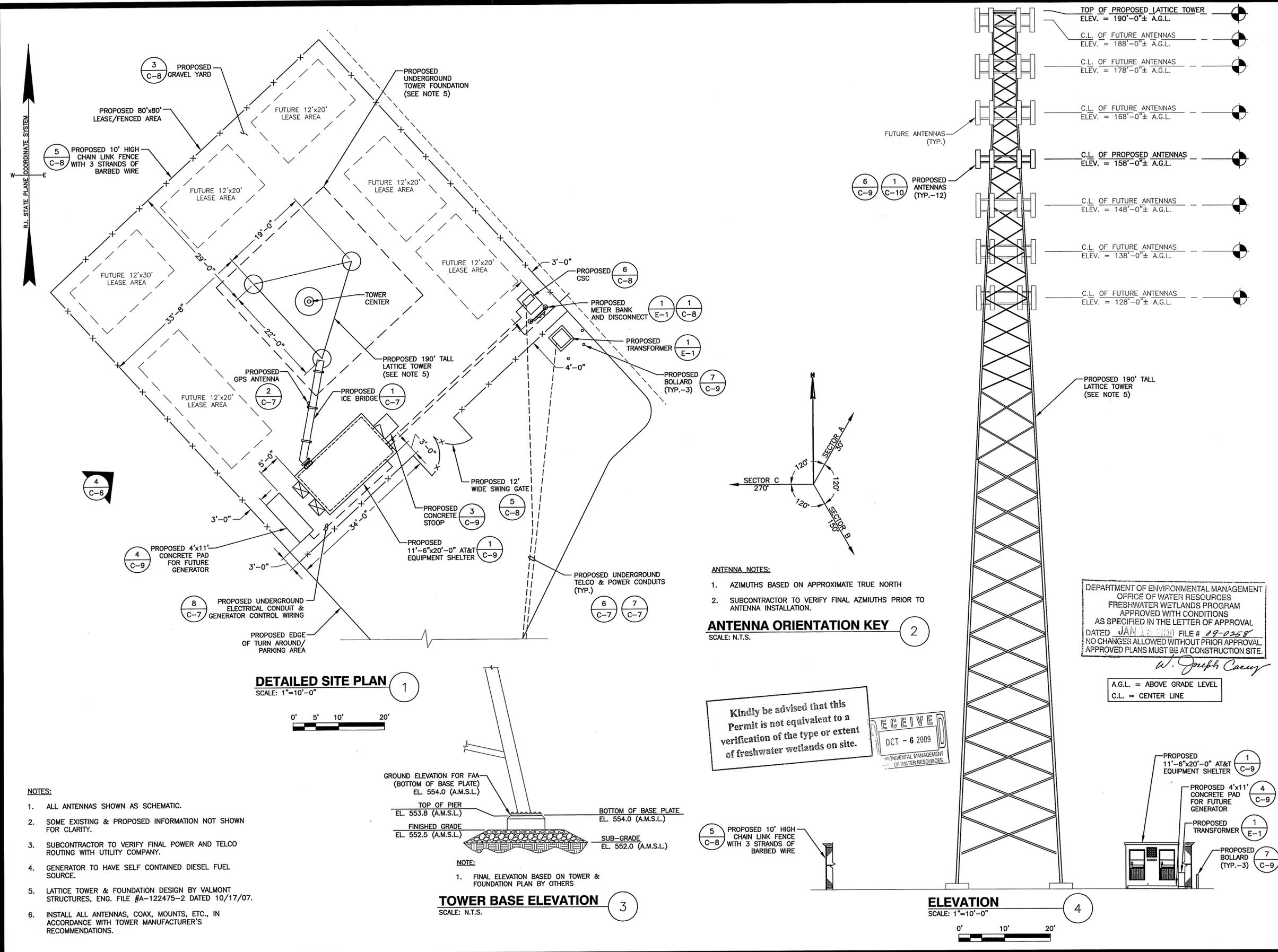


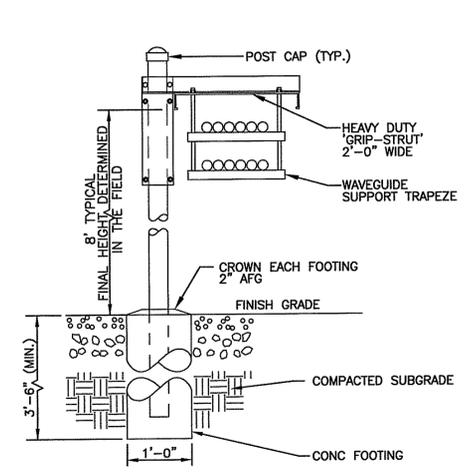
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REVIEWED BY:	GHN
CHECKED BY:	PPB
JOB NUMBER:	50019045
PROJECT NUMBER:	50019045
SITE ADDRESS:	

541 COOPER ROAD
 GLOCESTER, RI 02814

SHEET TITLE
DETAILED SITE PLAN & ELEVATION
 PAGE 8 OF 15
 SHEET NUMBER

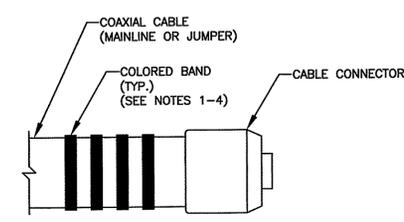
C-6





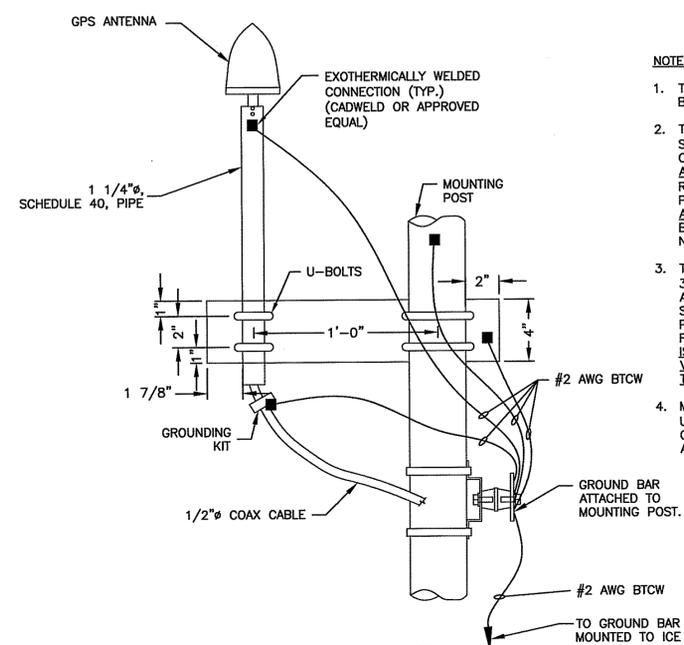
- NOTES:**
- ICE BRIDGE SHALL BE VALMONT GRIP STRUT TRANSMISSION LINE BRIDGE KIT (P/N: B2734) OR APPROVED EQUAL.
 - CABLE SUPPORT SHALL BE VALMONT DOUBLE LEVEL CHANNEL (P/N: 802264) OR APPROVED EQUAL.
 - ALL COMPONENTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
 - SUBCONTRACTOR SHALL DETERMINE REQUIRED QUANTITY OF ALL ICE BRIDGE COMPONENTS.
 - SNAP-IN HANGERS, SPLICE KITS, HINGE KITS, EXTENSION KITS, STIFFENERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE PROVIDED BY THE SUBCONTRACTOR AS REQUIRED.
 - ICE BRIDGE SHALL BE ROUTED TO ACCOMMODATE THE MINIMUM BENDING RADIUS OF THE COAXIAL CABLE.
 - ICE BRIDGE COMPONENTS SHOWN ARE SCHEMATIC, CONSULT MANUFACTURER FOR EXACT AND CURRENT SPECIFICATIONS.

ICE BRIDGE DETAIL
SCALE: N.T.S.



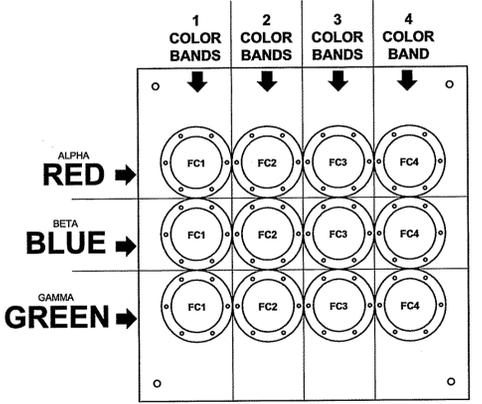
- NOTES:**
- COLOR CODING SHALL BE PLACED ON BOTH ENDS OF ALL MAINLINE COAXIAL CABLES AND ALL JUMPER CABLES NEAR THE CONNECTORS. COLOR CODING SHALL ALSO BE PLACED ON EACH MAINLINE COAX ON THE EXTERIOR OF THE SHELTER NEAR THE CABLE PORT.
 - COLOR TAPE SHALL BE MINIMUM 3/4" WIDE.
 - THE SPACING BETWEEN THE COLORED BANDS SHALL NOT BE LESS THAN THE THICKNESS OF THE COLORED TAPE.
 - COLOR AND QUANTITY OF COLORED BANDS SHALL BE AS SPECIFIED IN THE RF SCHEDULE.

CABLE COLOR CODING DETAIL
SCALE: N.T.S.

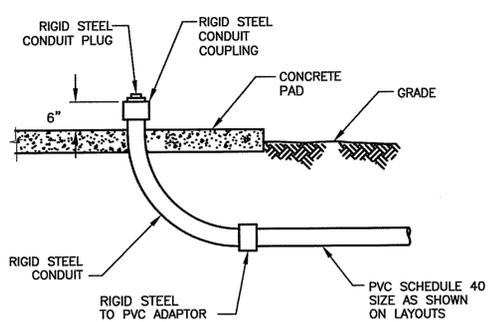


- NOTES:**
- THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORT.
 - THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40 GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18") USING HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.
 - THE MOUNTING PLATE SHALL BE FABRICATED AS SHOWN USING 3/8" THICK GALVANIZED STEEL, AND ATTACHED TO THE APPROPRIATE SUPPORT STRUCTURE USING U-BOLTS. THE SUPPORT PIPE SHALL THEN BE ATTACHED TO THE MOUNTING PLATE USING THE OVERSIZED U-BOLTS PROVIDED TO ALLOW FOR ADJUSTMENT. IT IS CRITICAL THAT THE BASE OF THE GPS IS MOUNTED SUCH THAT IT IS WITHIN 2 DEGREES OF THE VERTICAL AND THE BASE OF THE GPS IS WITHIN 2 DEGREES OF THE LEVEL.
 - MOUNTING PLATE MAY BE SUBSTITUTED WITH VALMONT UNIVERSAL MOUNTING KIT (P/N B1841) OR APPROVED EQUAL. GPS BASE MUST BE MOUNTED AS DESCRIBED IN NOTE 3 ABOVE.

GPS ANTENNA
SCALE: N.T.S.

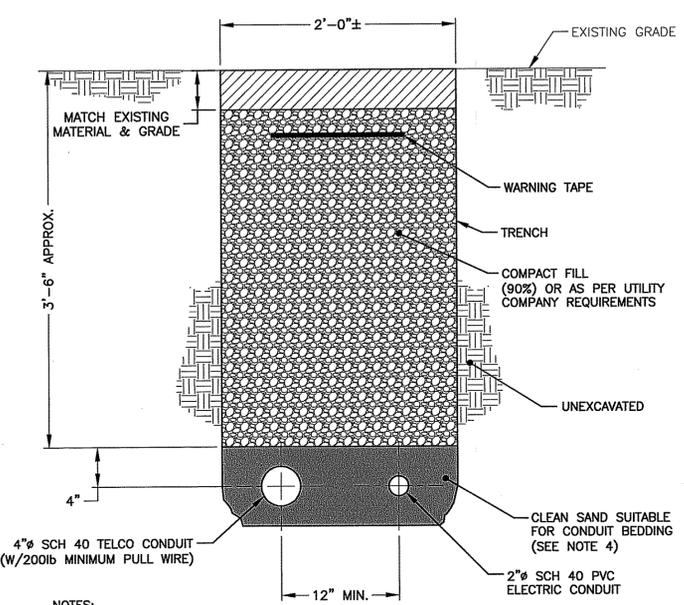


COAX COLOR CODING AND LABELING DETAIL
SCALE: N.T.S.



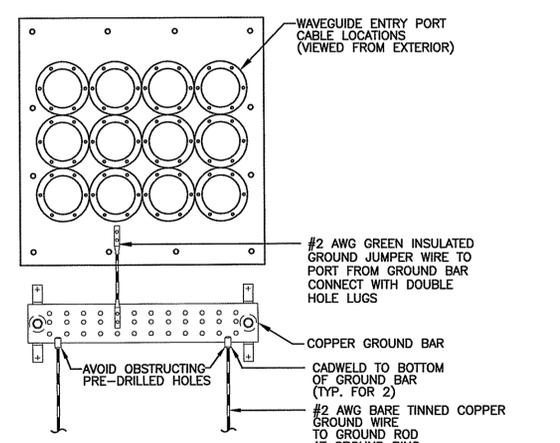
- NOTE:**
- DETAIL SHOWN TO BE USED ON CONDUIT RUN IN EXCESS OF 100' FROM EXISTING SOURCES TO SITE. IF LESS THAN 100' USE PVC THROUGH OUT.

UNDERGROUND CONDUIT STUB-UP DETAIL
SCALE: N.T.S.

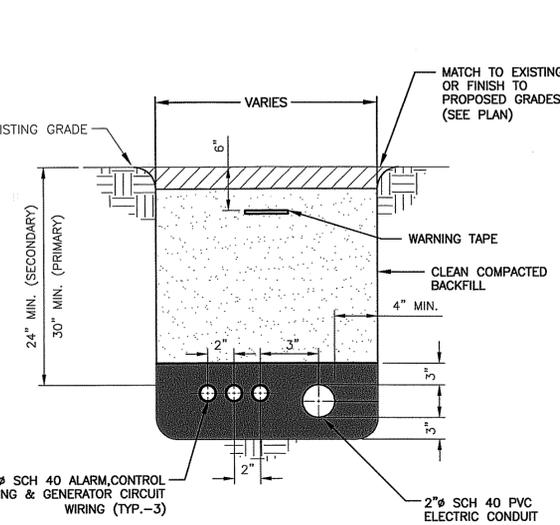


- NOTES:**
- IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
 - IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. SUBCONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
 - IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE SUBCONTRACTOR SHALL HAND DIG U/G TRENCHING.
 - CONCRETE ENCASE CONDUIT WHEN TRENCHING UNDER SITE ACCESS ROAD.

JOINT SERVICE TRENCH BURIED CONDUIT (ELECTRIC/TELEPHONE)
SCALE: N.T.S.



CABLE PORT GROUNDING EXTERIOR OF SHELTER (EXTERIOR VIEW)
SCALE: N.T.S.



- NOTES:**
- IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
 - IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. SUBCONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
 - IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE SUBCONTRACTOR SHALL HAND DIG U/G TRENCHING.

GENERATOR SERVICE TRENCH CONDUIT
SCALE: N.T.S.

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W. Joseph Carney

COOPER ROAD

CONSTRUCTION DRAWINGS

2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT

Dewberry
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ADAM P. ZYSK
No. 7368
REGISTERED PROFESSIONAL ENGINEER
12/22/09

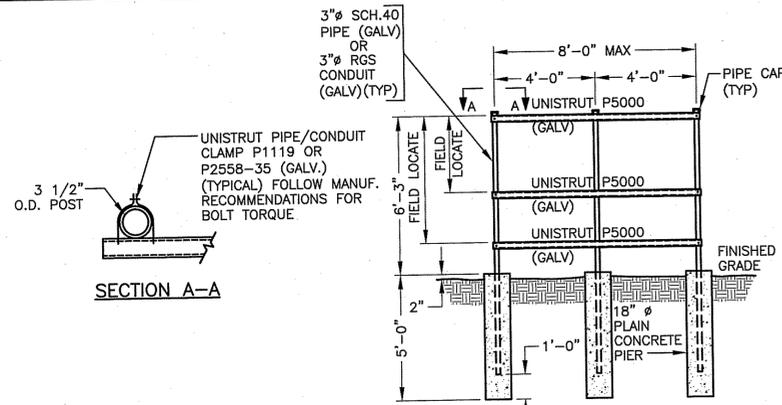
DRAWN BY: SK
REVIEWED BY: GHN
CHECKED BY: PPB
JOB NUMBER: 50019045
PROJECT NUMBER: 50019045
SITE ADDRESS:

541 COOPER ROAD
GLOCESTER, RI 02814

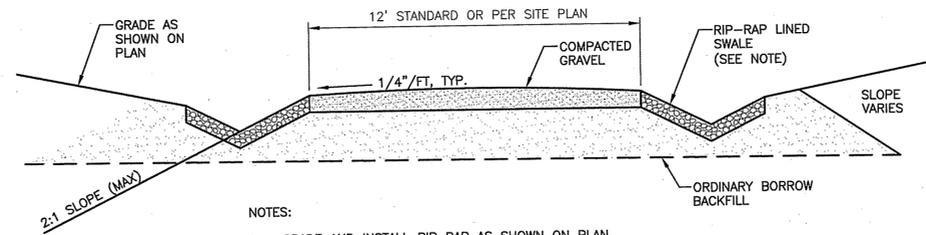
SHEET TITLE

CONSTRUCTION DETAILS-1

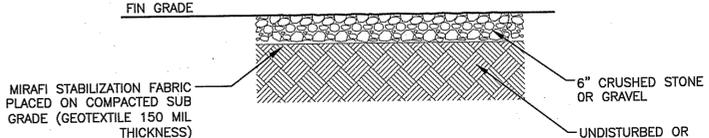
PAGE 9 OF 15
SHEET NUMBER



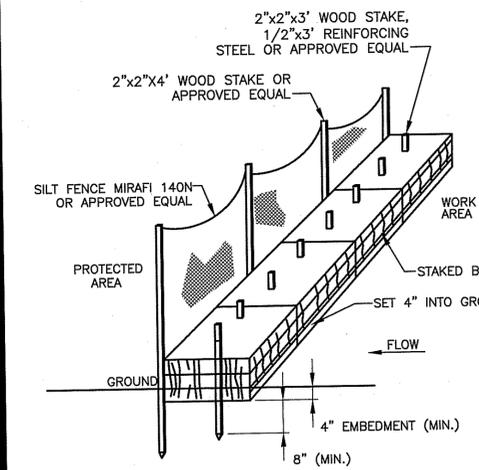
UTILITY MOUNTING RACK DETAIL
SCALE: N.T.S.



ROAD CROSS SECTION WITH SWALES
SCALE: N.T.S.

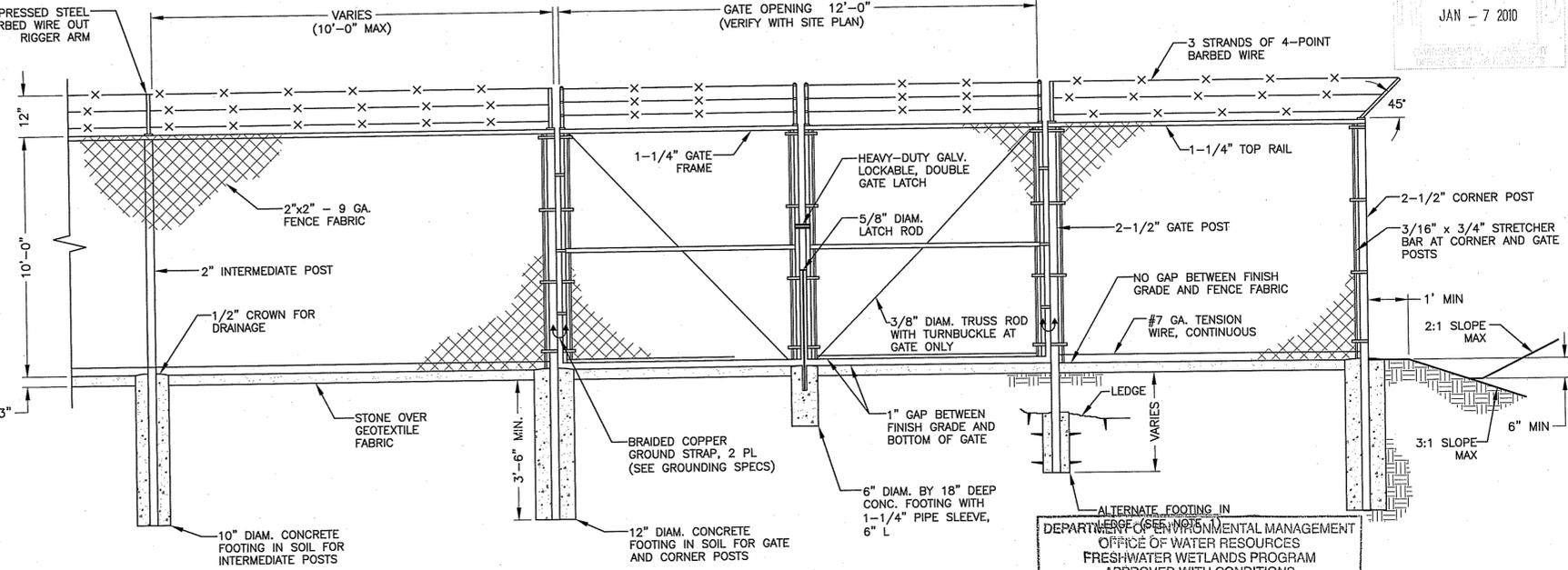


GRAVEL YARD DETAIL
SCALE: N.T.S.



**SILT FENCE/
HAY BALE BARRIER**
SCALE: N.T.S.

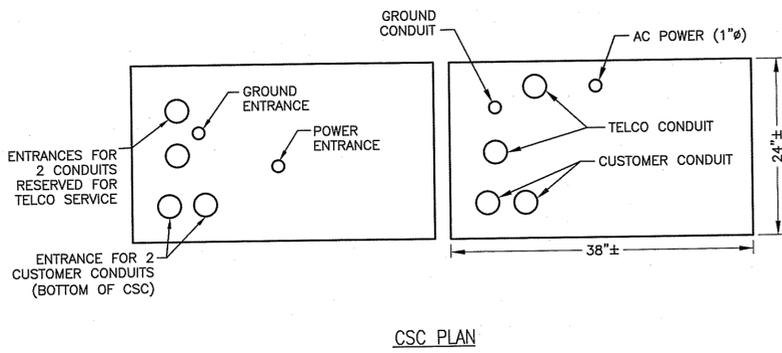
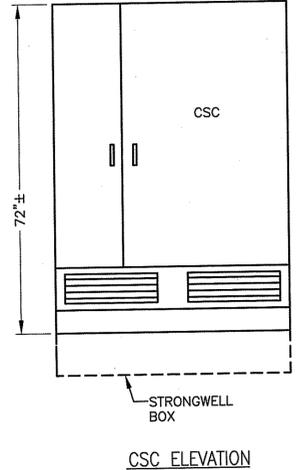
- FENCE NOTES:**
- ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN LEDGE: IF LEDGE IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'-6", CORE DRILL AN 8" DIA HOLE 18" INTO THE LEDGE, CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF LEDGE IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL-DRAINING GRAVEL.
 - ATTACH EACH GATE WITH 1-1/2" PAIR OF NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.



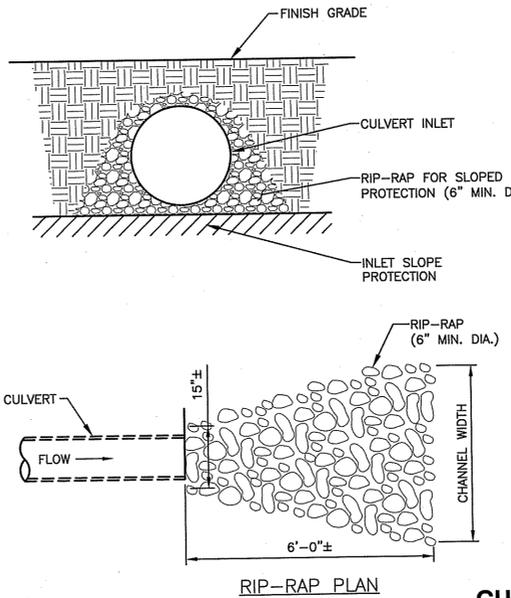
FENCE AND ACCESS GATE
SCALE: N.T.S.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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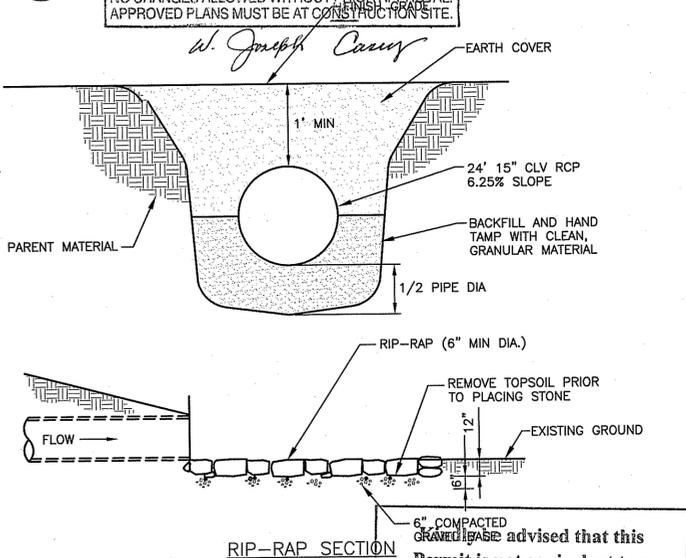
W. Joseph Curry



CELL SITE CABINET DETAIL
SCALE: N.T.S.



CULVERT DETAIL
SCALE: N.T.S.



6" COMPACTED GRAVEL BASE advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

COOPER ROAD

CONSTRUCTION DRAWINGS

3	01/06/10	FOR SUBMITTAL
2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT

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BOSTON, MA 02210
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ADAM P. ZYSK
No. 7368
REGISTERED PROFESSIONAL ENGINEER
(CIVIL)

DRAWN BY:	SK
REVIEWED BY:	GHN
CHECKED BY:	PPB
JOB NUMBER:	50019045
PROJECT NUMBER:	50019045
SITE ADDRESS	

541 COOPER ROAD
GLOCESTER, RI 02814

SHEET TITLE

CONSTRUCTION DETAILS-II

PAGE 10 OF 15
SHEET NUMBER

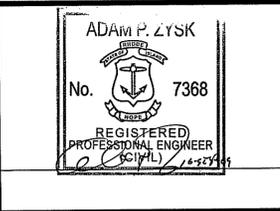
COOPER ROAD

CONSTRUCTION DRAWINGS

NO.	DATE	DESCRIPTION
2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT

Dewberry

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 280 SUMMER STREET
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 BOSTON, MA 02210
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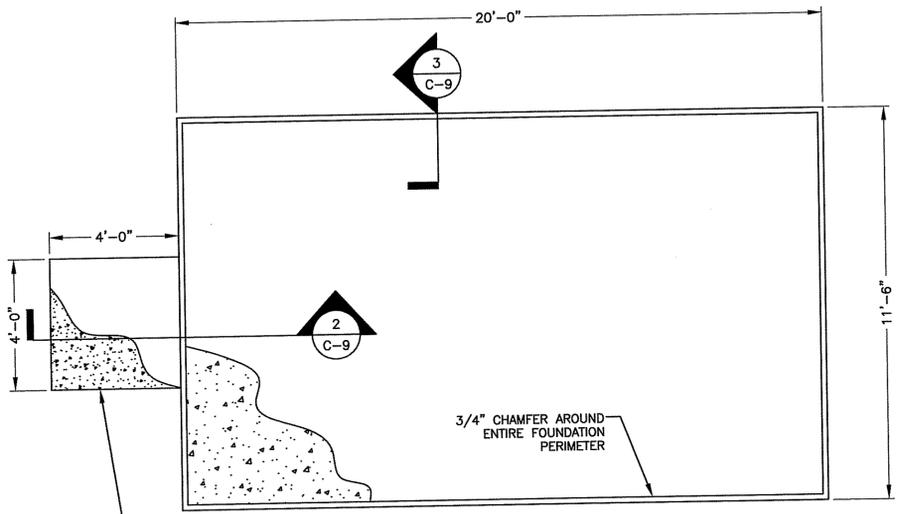


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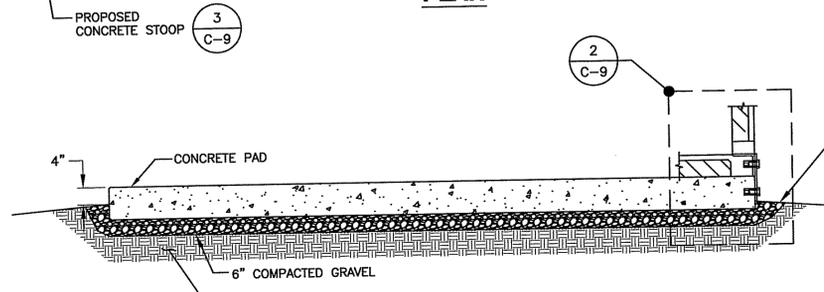
541 COOPER ROAD
 GLOCESTER, RI 02814

SHEET TITLE	FOUNDATION DETAILS & ANTENNA B.O.M.
PAGE	11 OF 15
SHEET NUMBER	

C-9



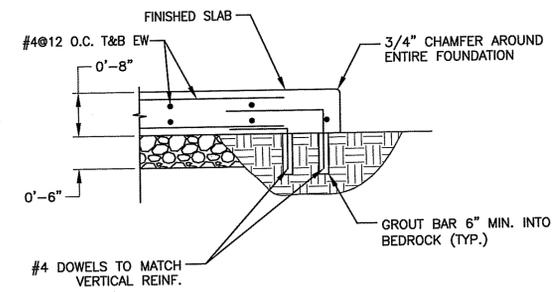
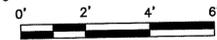
PLAN



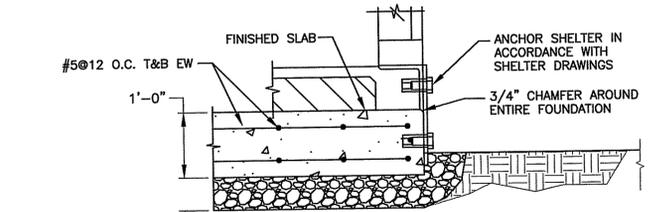
SECTION

- NOTES:**
- CONTRACTOR TO VERIFY FINAL SHELTER DIMENSIONS PRIOR TO CONSTRUCTION OF FOUNDATION.
 - GRADE SHALL SLOPE AWAY FROM THE CONCRETE PAD TO ALLOW FOR PROPER DRAINAGE.
 - ANCHOR SHELTER TO FOUNDATION PER SHELTER MANUFACTURER RECOMMENDATIONS.
 - IF BEDROCK IS ENCOUNTERED @ A SHALLOW DEPTH USE DETAIL 5, THIS SHEET.
 - BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED GRAVEL FILL. 95% COMPACTION.

CONCRETE PAD FOUNDATION
 SCALE: 3/8"=1'-0"

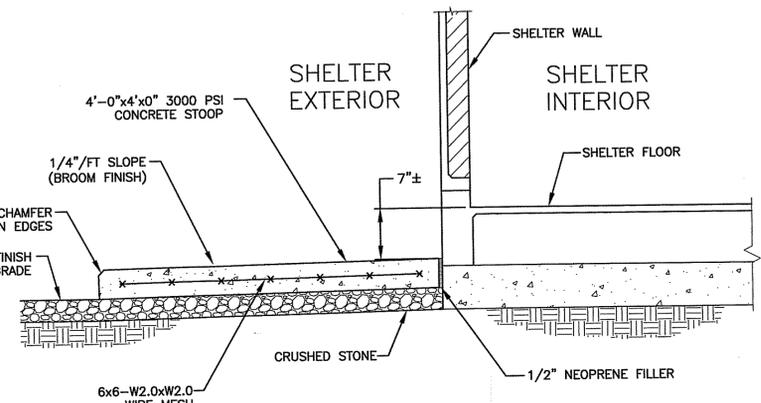
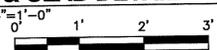


FOUNDATION SLAB DETAIL @ BEDROCK
 SCALE: 3/4"=1'-0"



- NOTES:**
- BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED GRAVEL FILL. 95% COMPACTION.
 - MAINTAIN 3" MIN. COVER ON ALL STEEL REINFORCEMENT.

FOUNDATION WALL & SLAB DETAIL
 SCALE: 3/4"=1'-0"



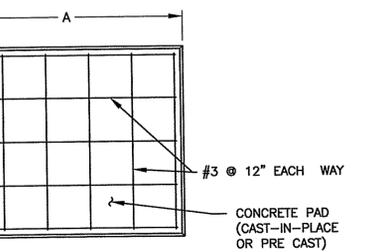
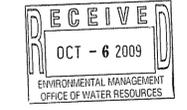
- NOTE:**
- VERIFY DOOR LOCATION WITH SHELTER MANUFACTURER PRIOR TO CONSTRUCTION.

CONCRETE STOOP SECTION
 SCALE: N.T.S.

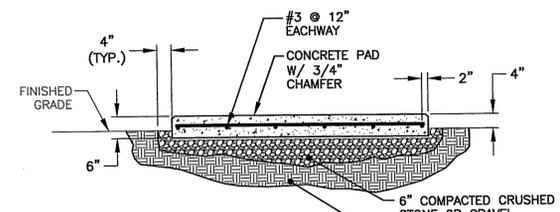
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ANTENNA AND COAXIAL CABLE BILL OF MATERIALS											
SECTOR	STATUS	COLOR CODE	ANTENNA	COAX CABLE FEED LOC	AZIMUTH (TRUE NORTH)	RAD CENTER	COAXIAL CABLE LENGTH	COAXIAL CABLE	MECHANICAL DOWNTILT	TMA	DIPLEXER
IA	PROPOSED	IR & IIR	POWERWAVE 7770.00	BOTTOM	30°	158'	2 @ 210'	1 5/8" COMMSCOPE	0°	(2) POWERWAVE LGP21401	-
IIA	PROPOSED	IIIR & IIVR	POWERWAVE 7770.00	BOTTOM	30°	158'	2 @ 210'	1 5/8" COMMSCOPE	0°	(2) POWERWAVE LGP21401	-
IB	PROPOSED	IB & IIB	POWERWAVE 7770.00	BOTTOM	150°	158'	2 @ 210'	1 5/8" COMMSCOPE	0°	(2) POWERWAVE LGP21401	-
IIB	PROPOSED	IIIB & IIVB	POWERWAVE 7770.00	BOTTOM	150°	158'	2 @ 210'	1 5/8" COMMSCOPE	0°	(2) POWERWAVE LGP21401	-
IG	PROPOSED	IG & IIG	POWERWAVE 7770.00	BOTTOM	270°	158'	2 @ 210'	1 5/8" COMMSCOPE	0°	(2) POWERWAVE LGP21401	-
IIG	PROPOSED	IIIG & IIVG	POWERWAVE 7770.00	BOTTOM	270°	158'	2 @ 210'	1 5/8" COMMSCOPE	0°	(2) POWERWAVE LGP21401	-
TOTAL QUAN.	-	-	6	-	-	-	2520'	-	-	12	-

ANTENNA AND COAXIAL CABLE B.O.M.
 SCALE: N.T.S.

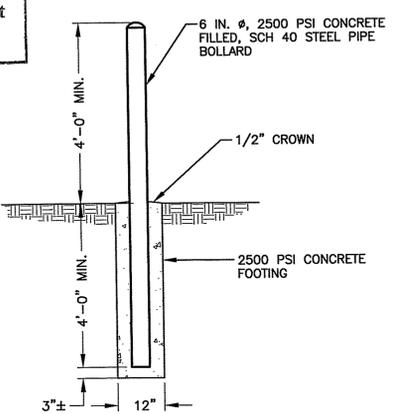


GENERATOR		
A	B	t (THICKNESS)
11'	4'	6"



- NOTES:**
- USE GALVANIZED HILTI EXPANSION ANCHORS OR, APPROVED EQUAL, FOR EQUIPMENT ANCHORAGE.
 - FOR SIZE AND LOCATION OF ANCHORS AND OTHER REQUIREMENTS, SEE EQUIPMENT VENDOR DRAWINGS.
 - IF BEDROCK IS ENCOUNTERED @ A SHALLOW DEPTH USE DETAIL 5, THIS SHEET.
 - BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED GRAVEL FILL. 95% COMPACTION.

OUTDOOR PAD FOR MINOR EQUIPMENT
 SCALE: N.T.S.



BOLLARD

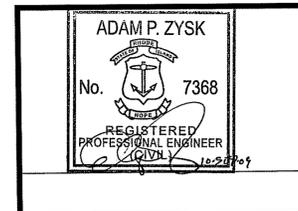
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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W. Joseph Conroy

COOPER ROAD

CONSTRUCTION DRAWINGS		
2	09/09/09	FOR SUBMITTAL
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DRAWN BY:	SK
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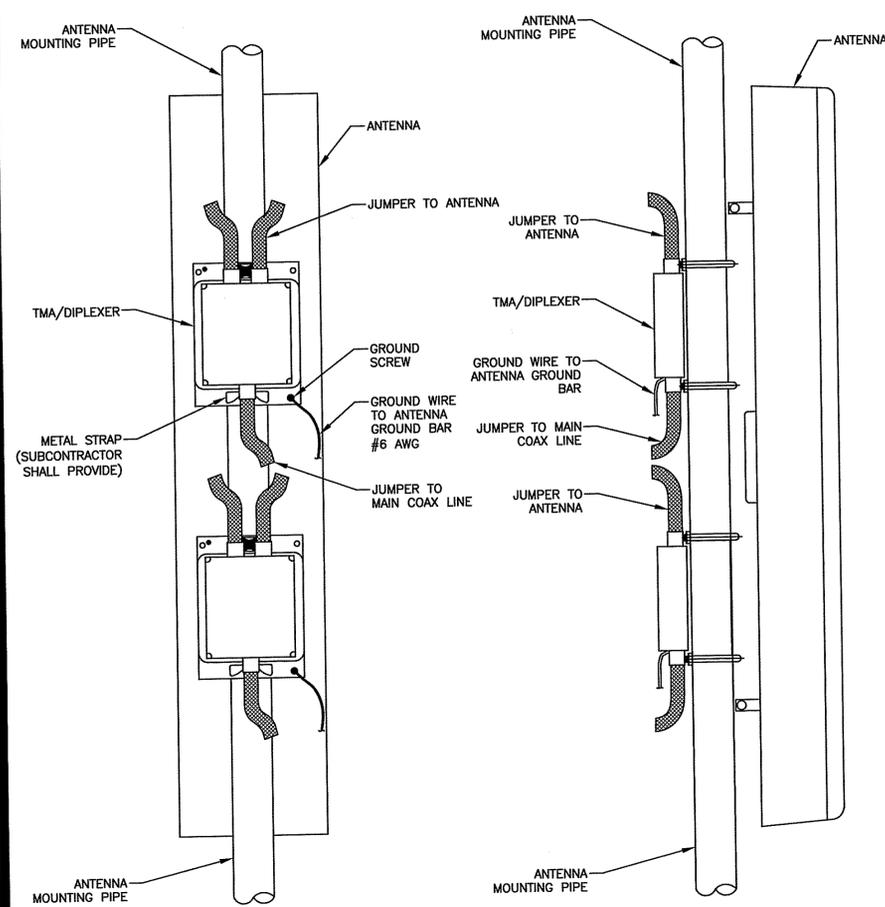
541 COOPER ROAD
 GLOCESTER, RI 02814

SHEET TITLE

TMA & DIPLEXER DETAILS

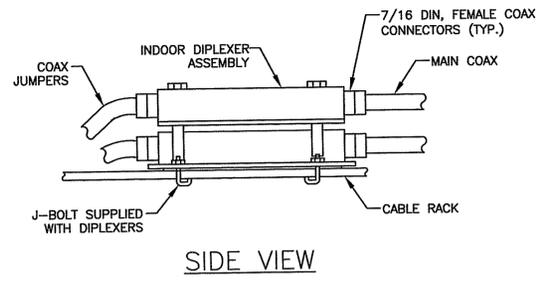
PAGE 12 OF 15
 SHEET NUMBER

C-10

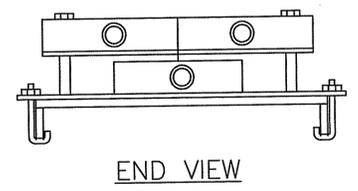


- NOTES:**
- TMA IS WEATHERPROOFED ENCLOSURE RATED TO IP65.
 - TMA SHALL NOT BE PAINTED. A LABEL STATING "DO NOT PAINT" IS PROVIDED WITH TMA AND SHALL BE MOUNTED ON UNIT WHERE IT IS CLEARLY VISIBLE.
 - IF POSSIBLE, TMA SHALL BE MOUNTED BEHIND ANTENNA TO MINIMIZE WIND LOADING ON STRUCTURE.
 - PROVIDE SUFFICIENT LENGTH OF JUMPER TO ALLOW FOR PROPER APPLICATION OF WEATHER PROOFING AT ANTENNA AND TMA CONNECTIONS.
 - BOND TMA GROUND STUD TO GROUND BAR WITH NO. 6 AWG GROUND WIRE AND 2-HOLE GROUND LUG.
 - BACKPLATE AND POLE CLAMPS FOR MOUNTING TO 2 3/8" DIA. ANTENNA MOUNTING PIPE PROVIDED WITH TMA.
 - TMA SHALL BE MOUNTED VERTICALLY.
 - CONNECTORS SHALL BE WEATHERPROOFED.
 - JUMPER CABLES SHALL BE SUPPORTED WITHIN 1 TO 2 FEET OF CONNECTORS.

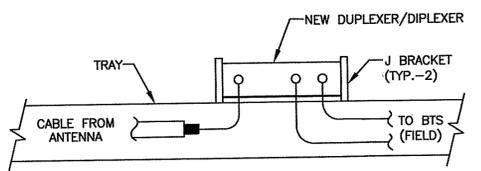
TOWER MOUNTED AMPLIFIER/DIPLEXER MOUNTING
 SCALE: N.T.S.



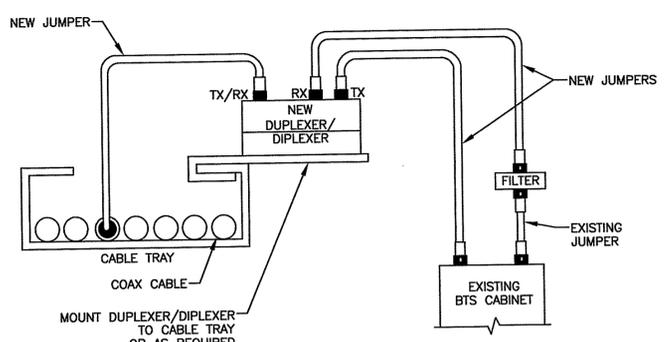
NOTE:
 1. DIPLEXER ASSEMBLY MAY BE HUNG BELOW THE CABLE RACK IF SPACE PERMITS.



DIPLEXER MOUNTING DETAIL - INDOOR
 SCALE: N.T.S.



PLAN



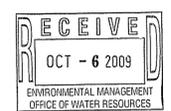
ELEVATION

DIPLEXER/DIPLEXER CONNECTION DETAIL
 SCALE: N.T.S.

- NOTES:**
MOUNTING TO A POLE OR BEAM
- ASSEMBLE THE POLE MOUNTING HARDWARE ON THE TMA AND INSTALL THE DESIRED LOCATION AS SHOWN IN DETAIL 1, THIS SHEET.
 - INSERT THE 3/8-16 UNC x 7" LG (M8 X 180MM) HEX BOLTS WITH THE WASHERS THROUGH THE HOLES IN THE TMA BRACKETS. BOLTS AND WASHERS MAY BE PRE-INSTALLED ON SOME VERSIONS OF THE ETB SERIES TMA.
 - ORIENT THE TMA IN THE SELECTED LOCATION WITH THE BTS PORT POINTING DOWN, OR AS REQUIRED, ALIGN THE V-GRIPS OF THE TMA BRACKETS WITH THE POLE OR THE TOWER MEMBER.
 - ATTACH THE REAR BRACKETS TO THE HEX BOLTS AND INSTALL FLAT WASHER, SPLIT LOCK WASHER, AND THE HEX NUT ON EACH BOLT. TIGHTEN HEX NUTS SECURELY WHILE MAINTAINING ALIGNMENT BETWEEN TMA BRACKET AND REAR BRACKET.
 - ATTACH A GROUND CABLE TO THE TMA USING THE PRE-INSTALLED HEX BOLT AND WASHERS. ROUTE THE GROUND CABLE TO THE GROUND BAR ON THE TOWER STRUCTURE AND ATTACH SECURELY WITH SUITABLE FASTENER.
- ROUTE A JUMPER CABLE FROM THE 850 MHz ANTENNA TO THE TMA PORT MARKED "ANT 850". ROUTE A SECOND JUMPER CABLE FROM THE 1900 MHz ANTENNA TO THE TMA PORT MARKED "ANT 1900". ROUTE A THIRD JUMPER CABLE FROM THE TMA PORT MARKED "BTS" TO THE TOWER FEEDER. BE SURE TO PROVIDE ADEQUATE CURVE OR LOOP TO RELIEVE UNDUE STRAIN ON CONNECTIONS AT EITHER END.
 - TIGHTEN RF CONNECTIONS TO 18-FT-LBS (25Nm) TORQUE.
 - WEATHERSEAL THE CABLE CONNECTIONS PER STANDARD PRACTICES IF REQUIRED BY LOCAL CONDITIONS. PROVIDED MATERIALS, IF ANY, CAN BE APPLIED ACCORDING TO THE INSTRUCTIONS ON THE PACKAGE.
 - APPLY CABLE TIES OR STRAPS (NOT SUPPLIED TO SECURE THE CABLES TO THE TOWER STRUCTURE.
 - SUBCONTRACTOR TO VERIFY MOUNTING HARDWARE SIZE.
 - SUBCONTRACTOR TO CONSULT PLUMBING DIAGRAM PRIOR TO INSTALLATION.

- NOTES:**
MOUNTING TO A WALL
- THE TMA CAN BE MOUNTED TO A SUITABLE FLAT SURFACE.
- THE REAR BRACKETS AND HARDWARE ARE NOT USED.
 - IF PRE-INSTALLED, 3/8-16 UNC x 6 1/4" LG (M8 X 160 MM) HEX BOLTS MUST BE REMOVED PRIOR TO WALL-MOUNTING. UNDO THE TWO CAP SCREWS TO DETACH THE TMA BRACKET AND RETRACT THE BOLTS. RE-INSTALL THE TMA BRACKETS AND TIGHTEN THE CAP SCREWS SECURELY.
 - MOUNT THE TMA TO THE WALL USING FOUR 5/16" OR 8MM BOLTS (NOT SUPPLIED) THROUGH THE HOLES IN THE TMA BRACKETS.
 - CONNECT RF AND GROUND CABLES, WEATHERSEAL AND SECURE WITH STRAPS AS OUTLINED ABOVE.
 - SUBCONTRACTOR TO VERIFY MOUNTING HARDWARE SIZE.

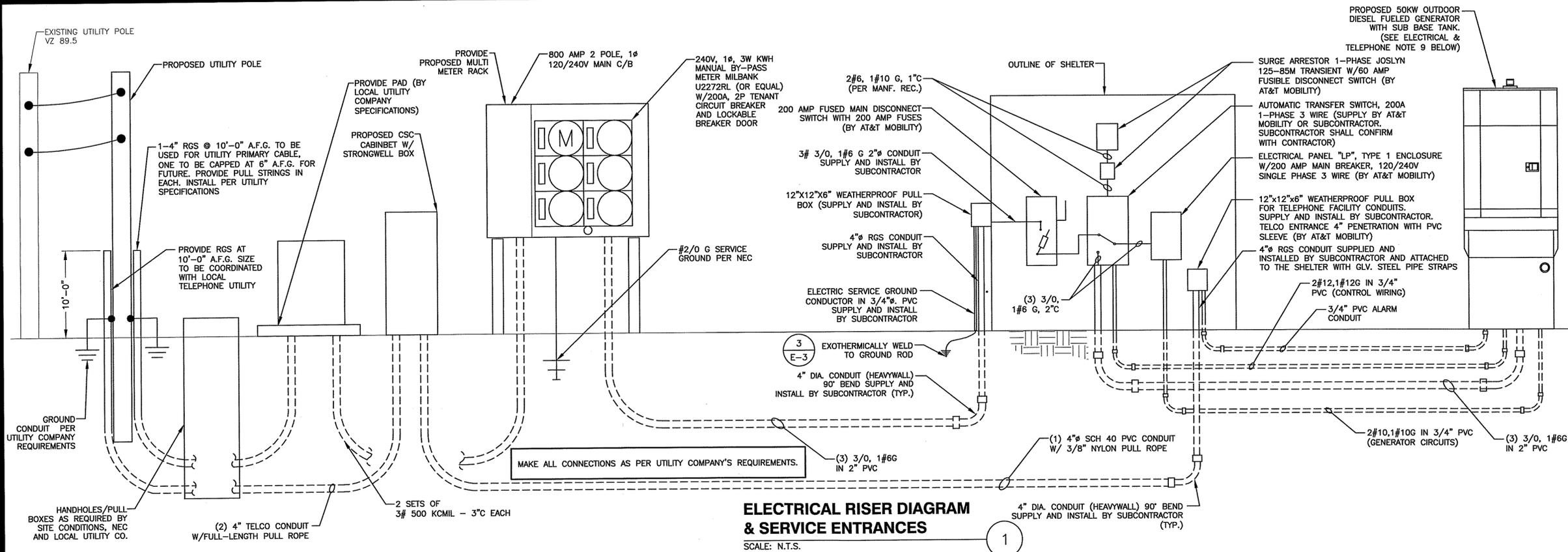
TMA MOUNTING DETAIL
 SCALE: N.T.S.



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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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 DATED JAN 13 2010 FILE # 09-0258
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Conroy



ELECTRICAL RISER DIAGRAM & SERVICE ENTRANCES
SCALE: N.T.S.

GENERAL ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES, O.S.H.A., NEC 2005, NFPA #70, AT&T MOBILITY SPECIFICATIONS, AND THE SPECIFICATIONS DETAILED IN THESE PLANS.
- SUBMITTAL OF BID INDICATES SUBCONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- SUBCONTRACTOR SHALL PERFORM ALL VERIFICATION, OBSERVATION, TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. SUBCONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT, AND DISCREPANCIES.
- THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE. SUBCONTRACTOR SHALL ENSURE THAT ACCESS TO EQUIPMENT IS MAINTAINED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AND ALL APPLICABLE CODES.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
- SUBCONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM, ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL DANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, IEEE, AND NFPA GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, AND NBFU.
- ALL CONDUIT INSTALLED MAY BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
- COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE SUBCONTRACTOR.
- ALL "CONDUIT ONLY" (C.O.) INSTALLATIONS SHALL HAVE A 3/8" PULL WIRE OR ROPE.
- SUBCONTRACTOR SHALL PROVIDE AT&T MOBILITY MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
- POWER WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
- ALL CONDUCTORS LARGER THAN #10 AWG SHALL BE STRANDED COPPER WITH THWN 600V INSULATION, UNLESS NOTED OTHERWISE.
- ALL MATING SURFACES OF GROUND CONNECTIONS SHALL BE CLEANED SMOOTH AND COATED WITH ANTI-OXIDANT PRIOR TO ATTACHMENT.
- ALL GROUND CONNECTIONS BELOW GRADE MUST BE EXOTHERMICALLY WELDED (CAD WELD OR APPROVED EQUAL)
- ALL EXTERIOR GROUNDING CONDUCTORS SHALL BE #2 AWG SOLID TINNED BARE COPPER WIRE UNLESS NOTED OTHERWISE.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C. COORDINATE SHORT CIRCUIT REQUIREMENTS WITH LOCAL UTILITY COMPANY.
- SUBCONTRACTOR SHALL PATCH, REPAIR, AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, M PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND, THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
- PENETRATIONS IN FIRE RATED WALLS SHALL BE SEALED IN ACCORDANCE WITH ALL APPLICABLE CODES.
- ALL MATERIALS SHALL BE U.L. LISTED.

24. CONDUIT:

- RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED RAPPED WITH HUNTS WRAP PROCESS NO. 3.
 - ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL. FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
 - FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT SHALL HAVE FULL SIZE GROUND WIRE. CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILINGS OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH ENGINEER PRIOR TO INSTALLING.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
 - SUBCONTRACTOR SHALL COORDINATE THE ELECTRICAL SERVICE WITH AT&T MOBILITY AND LOCAL UTILITY.
 - THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY NEC AND ALL APPLICABLE CODES.
 - GROUNTING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBCONTRACTOR SHALL SUBMIT TO THE PROJECT MANAGER ALL TEST REPORTS AND ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".
 - UPON COMPLETION OF WORK, CONDUCT CONTINUITY, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
 - ALL EXPOSED GROUND WIRING ROUTED ALONG THE SIDE OF EQUIPMENT SHELTERS OR ROUTED OVER CONCRETE FOUNDATIONS OR OTHER EXISTING STRUCTURES SHALL BE INSTALLED IN PROPERLY ANCHORED 3/4" (MIN.) PVC CONDUIT.
 - SUBCONTRACTOR SHALL NOT DISTURB EXISTING GROUNDING SYSTEM. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY AT NO ADDITIONAL COST.
 - ALL ELEMENTS OF ICE BRIDGE AND AT&T MOBILITY UTILITY BACKBOARD MUST BE BONDED AND JUMPERED TO GROUNDED COMPONENTS OF THESE SYSTEMS.
 - ALL INTERIOR CABLES AND WIRING SHALL BE NEATLY ROUTED IN OVERHEAD LADDER RACK AND FASTENED TO LADDER RACK.
 - ALL GROUNDING CONDUCTORS SHALL BE ROUTED DOWNWARDS FROM POINT OF ORIGIN TO TERMINATION POINT (GROUND BAR, GROUND RING, ETC).
 - GROUNTING CONDUCTORS SHALL NOT REVERSE DIRECTION (EXCEPT HALO & BURIED GROUND RINGS). OTHER EXCEPTIONS NEED TO BE APPROVED BY AT&T MOBILITY CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
 - GROUNTING CONDUCTORS SHALL HAVE A MINIMUM BENDING RADIUS OF 8".
 - ALL CONNECTIONS TO GROUND PLATES SHALL BE CAD WELDED TO THE CENTER OF THE PLATE. ALL DETAILS SHOWING CONNECTIONS TO GROUND RODS ARE ALSO VALID FOR SIMILAR CONNECTIONS TO GROUND PLATES.

ELECTRICAL AND TELEPHONE CONTACTS	
POWER COMPANY: NATIONAL GRID	TELEPHONE COMPANY: VERIZON
PHONE NUMBER: (800) 322-3223	PHONE NUMBER: (800) 941-9900

ELECTRICAL AND TELEPHONE GENERAL NOTES:

- FOLLOWING COMPLETION OF WORK, PROVIDE OWNER WITH AS-BUILT DRAWINGS SHOWING TELEPHONE AND ELECTRIC LOCATIONS.
- WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, NEC 2005.
- COORDINATE WITH UTILITY AND LOCAL ELECTRICAL INSPECTOR FOR FINAL POWER CONNECTION.
- UTILITY WILL SUPPLY METER. COORDINATE WITH UTILITY FOR METER TYPE AND INTERCONNECTION.
- ALL EXISTING UNDERGROUND LINES ON SITE TO BE LOCATED PRIOR TO CONSTRUCTION. CALL 1-888-DIG-SAFE PRIOR TO CONSTRUCTION.
- SEAL ALL SERVICE ENTRANCES INTO SHELTER FOLLOWING INSTALLATION.
- SEE PAGE E02 FOR GENERAL GROUNDING NOTES.
- COORDINATE WITH LOCAL TELEPHONE COMPANY FOR ALL ROUTING AND DESIGN.
- SUBCONTRACTOR TO VERIFY CONTROL WIRING SIZE WITH GENERATOR MANUFACTURER PRIOR TO CONSTRUCTION.



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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Carney



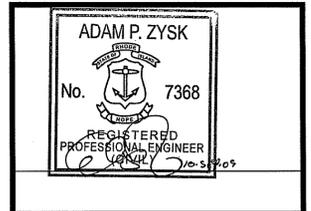
COOPER ROAD

CONSTRUCTION DRAWINGS

NO.	DATE	DESCRIPTION
2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT



Dewberry-Goodkind, Inc.
260 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY:	SK
REVIEWED BY:	GHN
CHECKED BY:	PPB
JOB NUMBER:	50019045
PROJECT NUMBER:	50019045
SITE ADDRESS:	

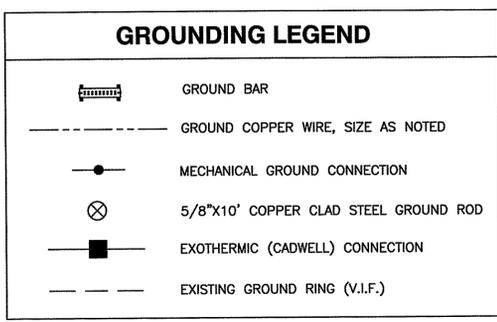
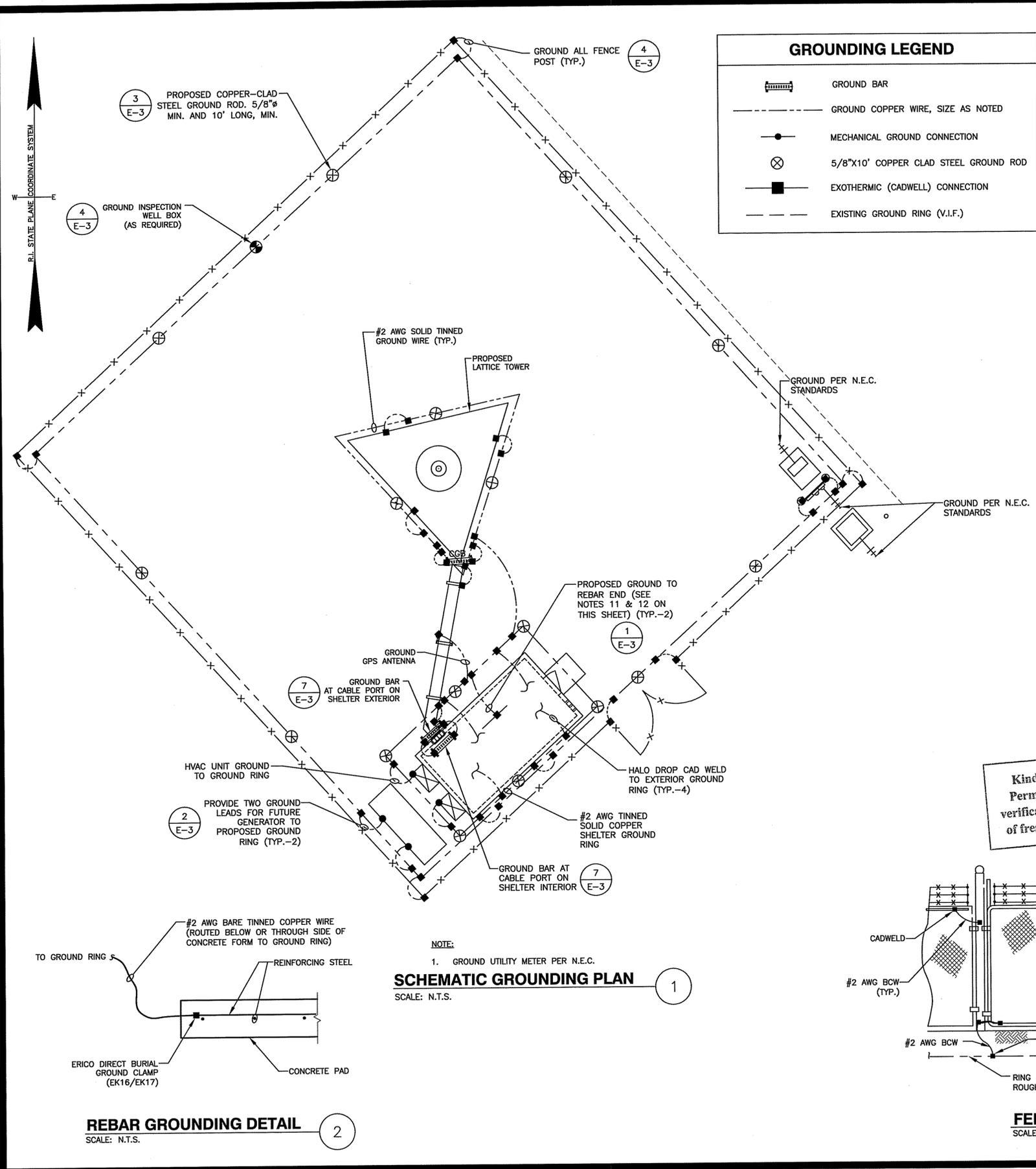
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GLOCESTER, RI 02814

SHEET TITLE

ELECTRICAL RISER DIAGRAM

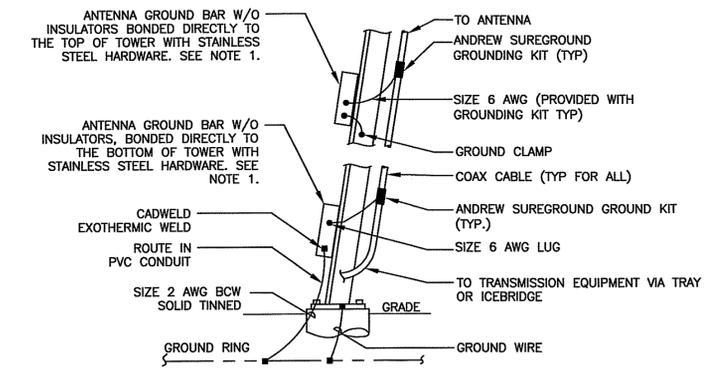
PAGE 13 OF 15
SHEET NUMBER

E-1



GROUNDING GENERAL NOTES

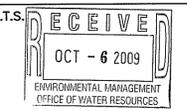
- ALL DOWN CONDUCTORS AND GROUND RING CONDUCTOR SHALL BE #2 AWG, SOLID, BARE, TINNED COPPER, UNLESS OTHERWISE NOTED. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMICALLY WELDED. CONDUCTOR SHALL BE AT A MINIMUM DEPTH BELOW GRADE OF 18 INCHES OR TO LEDGE. MINIMUM BEND RADIUS SHALL BE 8 INCHES. CONDUCTOR SHALL BE AT LEAST 24 INCHES FROM ANY FOUNDATION, UNLESS OTHERWISE NOTED.
- GROUND RODS SHALL BE 5/8" DIAMETER COPPER CLAD, HARGER, T&B, ERICO, OR EQUIVALENT. TOP OF ROD SHALL BE A MINIMUM OF 18" BELOW GRADE. IF LEDGE IS ENCOUNTERED, INSTALL GROUND ROD AT AN ANGLE. ELECTRICAL METER GROUND ROD EXCEPTED.
- WHERE MECHANICAL CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE, CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
- GRIND OFF GALVANIZING IN AFFECTED AREA. EXOTHERMICALLY WELD #2 CONDUCTOR AT 6" ABOVE GRADE OR FOUNDATION, WHICHEVER IS HIGHER. COLD-GALV AFTER. EXOTHERMICALLY WELD OTHER END TO GROUND RING.
- INSTALL GROUNDING KITS AT ANTENNA CENTERLINE, AND TOWER EXIT POINTS. GROUND COAX LINES. EXOTHERMICALLY WELD #2 DOWN CONDUCTOR TO PLATES, RUN DOWN TOWER, AND TIE INTO GROUNDING SYSTEM.
- ALL GROUNDING WORK SHALL COMPLY WITH AT&T CONSTRUCTION CONTRACT STANDARDS. FOLLOWING COMPLETION OF WORK, GROUND SYSTEM MUST BE TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS SUBMIT AN INDEPENDENT "FALL POTENTIAL" TESTING REPORT.
- ALL GROUNDING CONDUCTORS ON EXTERIOR WALL OF SHELTER SHALL BE INSTALLED IN 3/4" SCH 40 PVC CONDUIT TO 12" BELOW GRADE. ATTACH PVC WITH GALVANIZED "C" CLAMPS.
- CONTRACTOR SHALL HAND-DIG IN AREAS AROUND EXISTING UTILITIES.
- NOTIFY CONSTRUCTION ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
- GROUNDING RING IS SHOWN AS SCHEMATIC ONLY. IT IS DESIGNED WITHOUT BENEFIT OF RESISTIVITY TESTING AND DOES NOT NECESSARILY REPRESENT A GROUNDING SYSTEM TO MEET ANY SPECIFIC GROUND RESISTANCE.
- PRIOR TO POURING CONCRETE, ALL REBAR LOCATED NEAR THE BOTTOM OF THE FOUNDATION SHALL BE BONDED TOGETHER TO FORM A SINGLE GROUNDING ELECTRODE, BY STEEL TIES OF OTHER EFFECTIVE MEANS APPROVED BY NEC 2005 AND STRUCTURAL ENGINEER, AND BONDED TO THE GROUND RING AS DETAILED IN THESE PLANS. (INSPECTION MAY BE REQUIRED PRIOR TO POURING CONCRETE AND MUST BE COORDINATED BY CONTRACTOR.)
- IN ACCORDANCE WITH NEC 2005 REQUIREMENTS, ALL GROUNDING ELECTRODES PRESENT ON SITE SHALL BE BONDED TOGETHER (REFERENCE 2005 NEC ARTICLE 250.50).



- NOTE:
- NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED. GROUND BAR IS NOT REQUIRED FOR SITES WITH ONE COAX CABLE.

LATTICE TOWER - ANTENNA CABLE GROUNDING

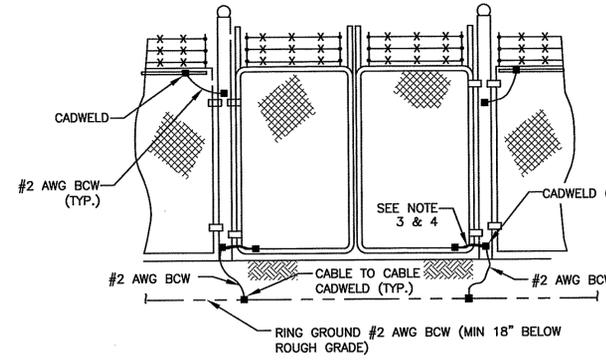
SCALE: N.T.S.



- NOTES:
- THE #2 AWG, BCW, FROM THE GROUND RING SHALL BE CADWELDED TO THE POST ABOVE GRADE.
 - BOND EACH HORIZONTAL POLE/BRACE TO EACH OTHER AND TO EACH VERTICAL POLE BONDED TO THE EXTERIOR GROUND RING.
 - GATE JUMPER SHALL BE #4/0 AWG WELDING CABLE OR FLEXIBLE COPPER BRAID BURNDY TYPE B WITH SLEEVES ON EACH END DESIGNED FOR EXOTHERMIC WELDING.
 - GATE JUMPER SHALL BE INSTALLED SO THAT IT WILL NOT BE SUBJECTED TO DAMAGING STRAIN WHEN GATE IS FULLY OPEN IN EITHER DIRECTION.

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FENCE GROUNDING DETAIL

SCALE: N.T.S.

SCHEMATIC GROUNDING PLAN

SCALE: N.T.S.

REBAR GROUNDING DETAIL

SCALE: N.T.S.



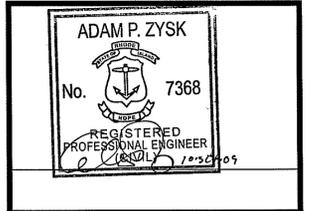
COOPER ROAD

CONSTRUCTION DRAWINGS

2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT



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280 SUMMER STREET
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PHONE: 617.695.3400
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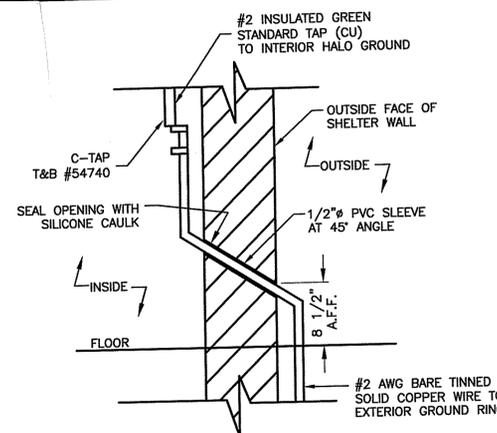


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CHECKED BY:	PPB
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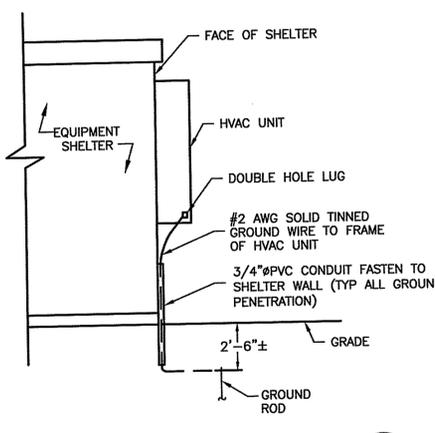
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GLOCESTER, RI 02814

SHEET TITLE
SCHEMATIC GROUNDING PLAN
PAGE 14 OF 15
SHEET NUMBER

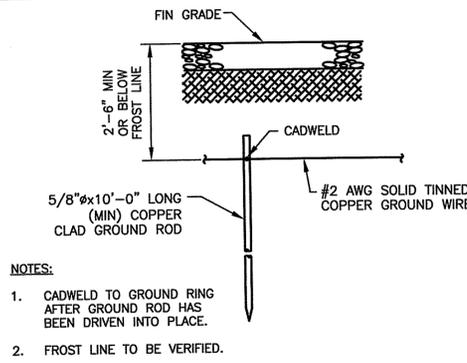
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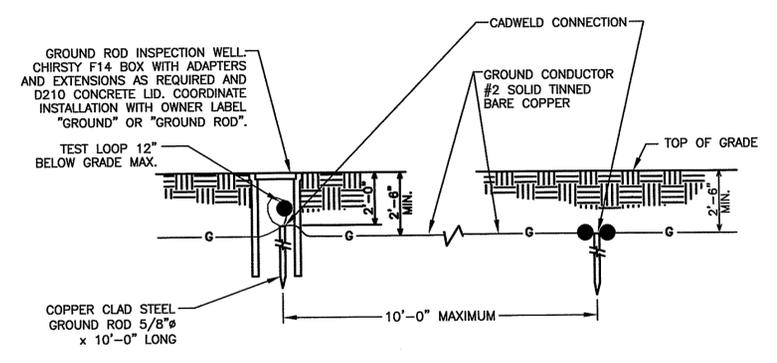
WALL GROUND PENETRATION
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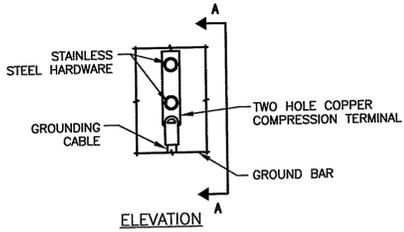
HVAC UNIT GROUND
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GROUND ROD
SCALE: N.T.S.

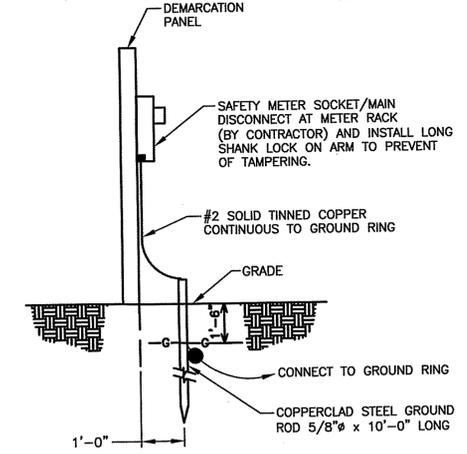
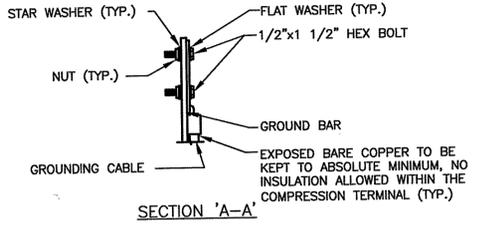


GROUND BOX DETAIL
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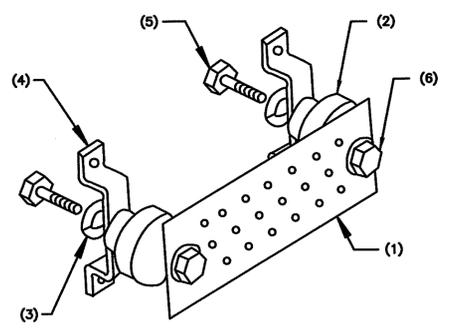


- NOTES:
1. DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED
 2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

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

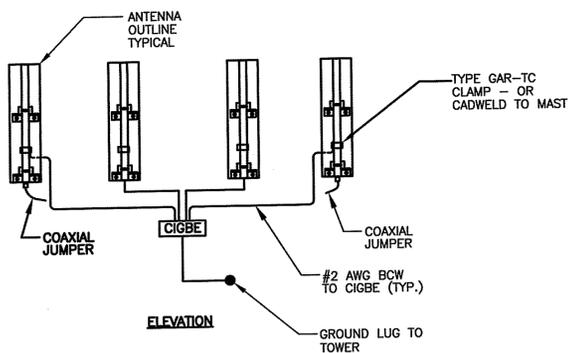


METER SOCKET GROUNDING
SCALE: N.T.S.

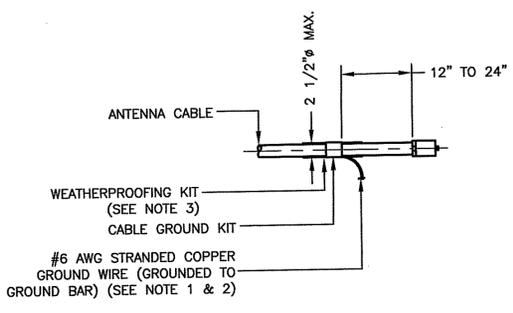


- LEGEND:
1. INSULATED COPPER GROUND BAR KIT WITH WALL BRACKETS, 1/4"x4"x24", NEWTON INSTRUMENT COMPANY CAT. #2141910100
 2. (2) INSULATORS (INCLUDED)
 3. (2) 1/2" LOCKWASHERS (INCLUDED)
 4. (2) WALL MOUNTING BRACKET (INCLUDED)
 5. (2) 1/2-13 X 1" H.H.C.S. (INCLUDED)
 6. (2) 1/2-13 X 7/8" H.H.C.S. (INCLUDED)

GROUND BAR PLATE (TYP.)
SCALE: N.T.S.

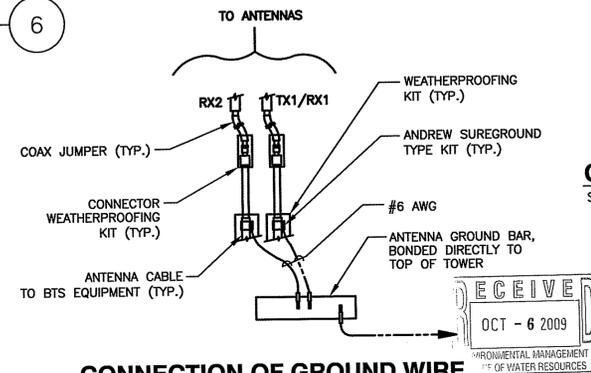


ANTENNA MOUNT GROUNDING DETAIL
SCALE: N.T.S.

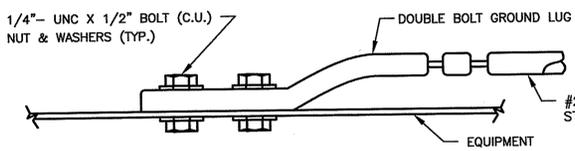


- NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. GROUNDING KIT SHALL BE ANDREW SUREGROUND TYPE KIT WITH TWO-HOLE LUG.
 3. WEATHER PROOFING SHALL BE ANDREW TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE DETAIL
SCALE: N.T.S.



CONNECTION OF GROUND WIRE TO GROUNDING BAR DETAIL
SCALE: N.T.S.



CONNECTION TO EQUIPMENT DETAIL
SCALE: N.T.S.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 13 2010 FILE # 09-0258
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Casey

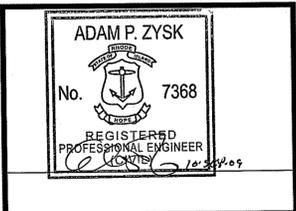
at&t
Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

COOPER ROAD

CONSTRUCTION DRAWINGS		
2	09/09/09	FOR SUBMITTAL
1	05/06/09	FOR SUBMITTAL
0	04/16/09	FOR SUBMITTAL
A	04/07/09	FOR COMMENT

Dewberry

Dewberry-Goodkind, Inc.
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
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DRAWN BY:	SK
REVIEWED BY:	GHN
CHECKED BY:	PPB
JOB NUMBER:	50019045
PROJECT NUMBER:	50019045
SITE ADDRESS	

541 COOPER ROAD
GLOCESTER, RI 02814

SHEET TITLE	
GROUNDING DETAILS	
PAGE 15 OF 15	
SHEET NUMBER	

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