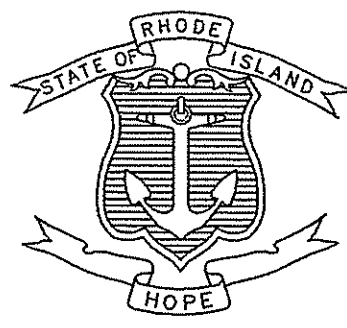


FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	R.I.	BRO-0378 (001)	2008	1	18

INDEX

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2	PLAN SYMBOLS AND GENERAL LEGEND
3	GENERAL NOTES NO. 1
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5	TYPICAL SECTIONS
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STATE OF RHODE ISLAND

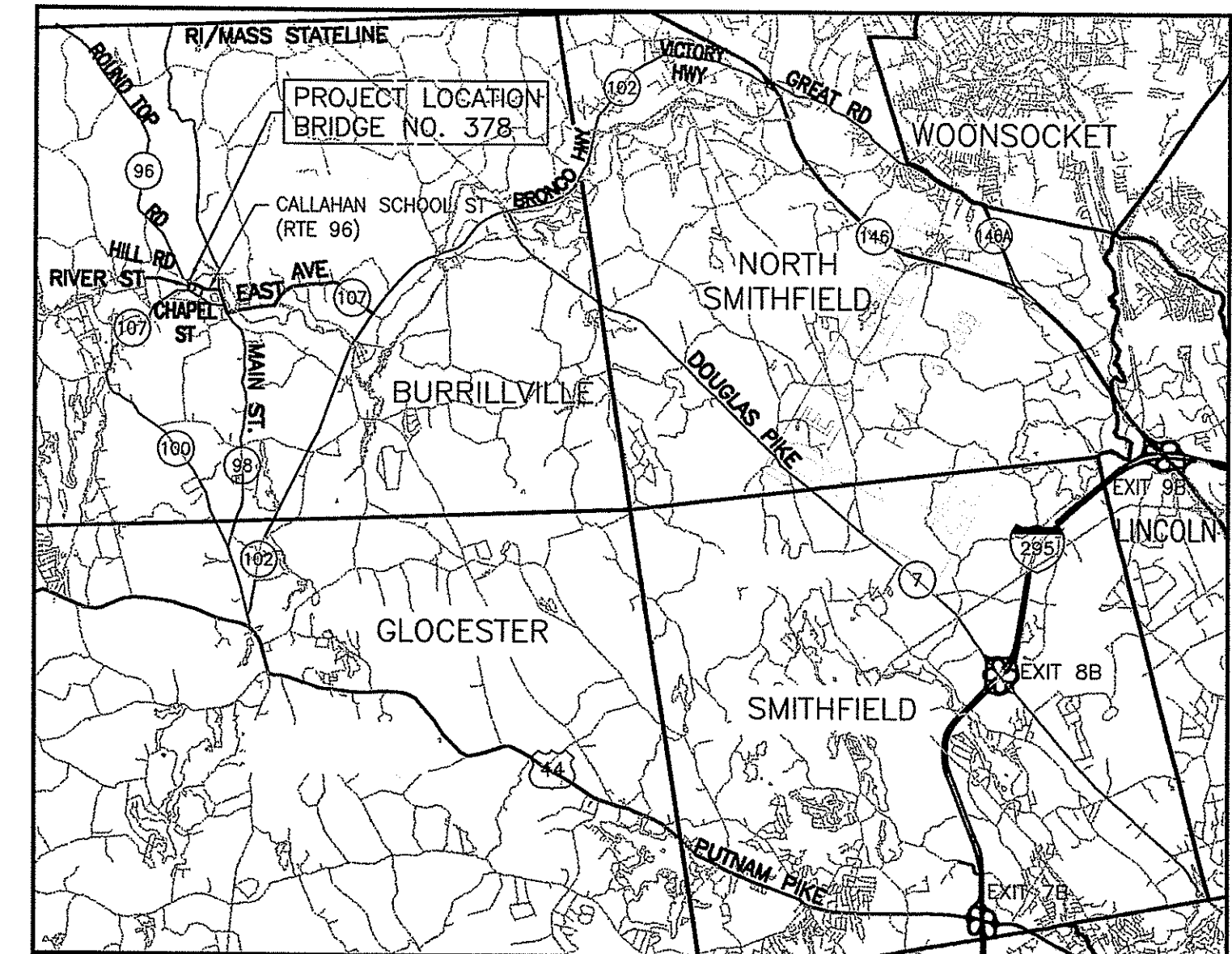


DEPARTMENT OF TRANSPORTATION

PLAN, PROFILE AND SECTIONS OF PROPOSED

REPLACEMENT OF

ROUND TOP BRIDGE NO. 378



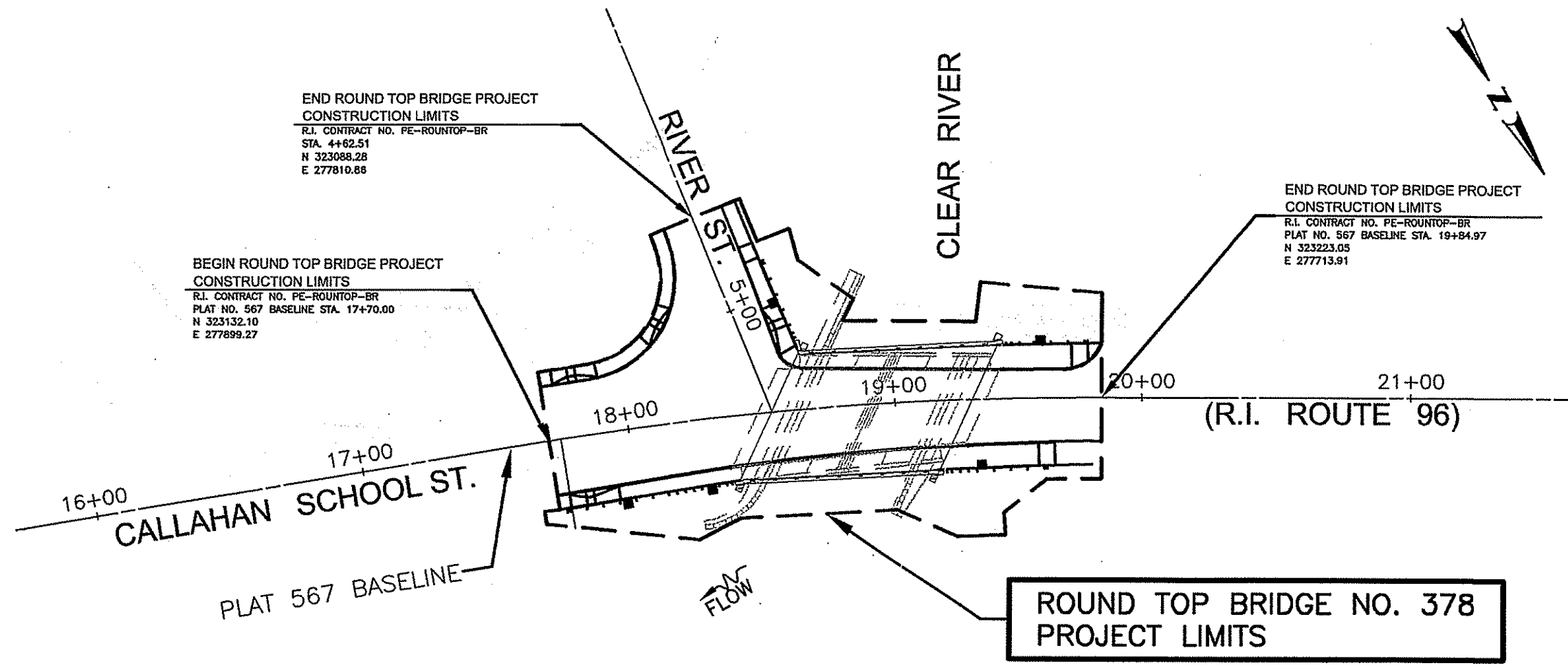
LOCATION MAP
N.T.S.

PROJECT LIMITS

TOWN OF BURRILLVILLE
COUNTY OF PROVIDENCE

R.I. CONTRACT NO. PE-ROUNTOP-BR F.A. PROJECT NO. BRO-0378 (001)

LENGTH = 0.041 MILES



LAYOUT PLAN
SCALE: N.T.S.

SCALES OF DRAWINGS

AS SHOWN

BASE OF LEVELS
NGVD 29

BRYANT ASSOCIATES, INC.
Engineers - Surveyors - Construction Managers
14 Breakneck Hill Road, Suite 200
Lincoln, Rhode Island 02865-3925
Tel. (401) 722-7660 FAX (401) 722-7530

R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS
SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.

90% SUBMISSION
DATED: 11/21/08

Michael E. LeBeau
MICHAEL E. LeBEAU
No. 6824
REGISTERED PROFESSIONAL ENGINEER
CIVIL
1-31-09

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 27 2009 FILE # 09-00/0
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

R.I. DEPARTMENT OF TRANSPORTATION	
APPROVED	
DEPUTY CHIEF ENGINEER	DATE
APPROVED	
CHIEF ENGINEER	DATE
APPROVED	
DIRECTOR	DATE
DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	
APPROVED	
DIVISION ADMINISTRATOR	DATE

Contract Number PE-ROUNTOP-BR
Number of Sheet 1
Total Sheets 18

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI	BRO-0378(001)	2008	3	18

GENERAL NOTES:

- ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.
- THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE TRAVEL LANE SO AS NOT TO CAUSE A SAFETY HAZARD, IN ACCORDANCE WITH SECTION 106.06 OF THE RIDOT STANDARD SPECIFICATIONS, LATEST EDITION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED IN SUFFICIENT DETAIL, THEREBY ENABLING HIM TO CONSTRUCT THE PROJECT IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS. SURVEY WILL BE PROVIDED BY THE CONTRACTOR. THE RESIDENT ENGINEER WILL NOT AUTHORIZE CONSTRUCTION ACTIVITIES TO BEGIN UNTIL HE IS SATISFIED THAT ALL GROUND CONTROL HAS BEEN ESTABLISHED, TIED DOWN, AND DULY RECORDED IN STANDARD FIELD BOOKS.
- ALL R.I. STD. 9.9.0 CONSTRUCTION ACCESS ROADS SHALL BE CONSTRUCTED PRIOR TO ANY ROADWAY ACCEPTING CONSTRUCTION TRAFFIC.
- THE FREQUENCY AND APPLICATION RATES FOR THE DUST CONTROL ITEMS WILL BE AS DIRECTED BY THE ENGINEER.
- ALL SIDEWALK AND DRIVEWAYS DESIGNATED FOR REPLACEMENT SHALL BE CUT AND MATCHED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO PAVEMENT PLACEMENT ON THE CONCRETE BASE OR COLD PLANED PAVEMENT, AND ON ANY NEW COURSE WHICH HAS BEEN OPEN TO TRAFFIC, OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS, AND/OR AS DIRECTED BY THE ENGINEER. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS. ALL APPLICATIONS ON BOTH HORIZONTAL AND VERTICAL SURFACES SHALL BE PAID FOR UNDER THE CONTRACT UNIT BID PRICE FOR CODE 403.0300 "ASPHALT EMULSION TACK COAT."
- THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, PLANTABLE SOIL AND SEED IN AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED WITH THE PERMISSION OF THE ENGINEER.
- UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BE ALLOWED TO STOCKPILE REMOVED PAVEMENT MATERIALS WITHIN THE PROJECT LIMITS.
- CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
- PRIOR TO INSTALLATION, ALL SIGNS, MOUNTINGS AND LOCATIONS SHALL BE APPROVED OR MODIFIED BY THE ENGINEER.
- THE COORDINATE SYSTEM IS THE R.I. STANDARD GRID SYSTEM, NAD-1983. THE VERTICAL CONTROL IS NGVD-1929.
- PAVEMENT OPERATIONS FOR CURBED SECTIONS: IN AREAS WHERE CURBING IS SET TO FINISH LINE AND GRADE, THE CONTRACTOR WILL NOT BE REQUIRED TO UTILIZE THE SENSOR AND SKY-TYPE DEVICE FOR AUTOMATIC GRADE CONTROL, BUT WILL BE ALLOWED TO MANUALLY ADJUST THE BITUMINOUS PAVEMENT FOR CONTROLLING GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.
- NO FUEL STORAGE, VEHICLE REFUELING, OR EQUIPMENT STORAGE SHALL TAKE PLACE IN DESIGNATED WETLANDS, NOR WITHIN 100' OF ANY WATER BODY. THIS REQUIREMENT SHALL NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION THAT APPLIES TO THE SAME, UNLESS THIS REQUIREMENT IS MORE STRINGENT THAN SAID LAW, ORDINANCE, RULE OR REGULATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT AT THE END OF FINAL PAVING OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN REESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO PAVING AND COLD PLANING OPERATIONS.
- ALL EMBANKMENTS SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12" (AFTER COMPACTION) AND SHALL BE COMPACTED AS SPECIFIED BEFORE THE NEXT LAYER IS PLACED. ALSO, EMBANKMENT CONSTRUCTION SHALL CONFORM TO SECTION 202.03.2 OF THE RIDOT STANDARD SPECIFICATIONS, LATEST EDITION.
- IF THIS PROJECT IS ON A HURRICANE EVACUATION AND DIVERSIONARY ROUTE, AS DESIGNATED ON THE COVER SHEET, THE CONTRACTOR IS ADVISED THAT UPON 12 (TWELVE) HOURS NOTICE THE ROADWAY SHALL BE OPEN TO EVACUEES AND EMERGENCY PERSONNEL. ANY EXTRA WORK NECESSARY TO COMPLY WITH THIS REQUIREMENT WILL BE REIMBURSED UNDER FORCE ACCOUNT PROCEDURES.
- THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS STATED IN THE ENVIRONMENTAL APPROVALS ISSUED FOR THE PROJECT FROM THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM). COPIES OF THE PERMITS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH THESE CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).
- FOR ALL PROJECTS INVOLVING KNOWN SITE REMEDIATION ISSUES, THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE CONSTRUCTION RELATED PROVISIONS, CONDITIONS, AND STIPULATIONS OF ANY REMEDIAL PLANS DEVELOPED FOR THE PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).
- NO UNPROTECTED CONSTRUCTED FEATURE MAY PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. HEADWALL, DRAINAGE INLET, ETC.
- THE REMAINING SECTION OR STUB OF A BREAKWAY BASE MAY NOT PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. SIGN POSTS, LIGHT POLES FIRE HYDRANTS, ETC.
- THE EXISTING SURVEY WAS PREPARED BY BRYANT ASSOCIATES AND CONFORMS TO A CLASS III SURVEY. THE HIGHWAY AND PROPERTY LINES SHOWN ON THE PLANS CONFORM TO CLASS I STANDARD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) ALL MATERIALS INDICATED ON THE PLANS TO INCLUDE BUT NOT LIMITED TO: CONCRETE, BITUMINOUS PAVEMENT, CURBING, ETC.
- ALL ITEMS NOT REFERENCED FOR MODIFICATION WILL BE EXISTING TO REMAIN, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL COORDINATE WITH THE TOWN OF BURRILLVILLE AND THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE A STOCKPILE LOCATION.
- ANY LOCATIONS WHERE NEW SIDEWALK WILL BE GREATER THAN 5 FEET IN WIDTH AN ADDITIONAL LONGITUDINAL CONTROL JOINT WILL BE REQUIRED AT NO ADDITIONAL COST TO THE STATE.
- FINAL PAVEMENT MARKINGS SHALL BE WHITE AND YELLOW EPOXY RESIN PAVEMENT MARKINGS. THE EPOXY PAVEMENT MARKINGS SHALL BE PLACED ON THE FINISHED COURSE OF PAVEMENT NO SOONER THAN 2 WEEKS BUT NO LONGER THAN 4 WEEKS AFTER PLACEMENT OF THE FINAL SURFACE COURSE.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

- NO UNDISTURBED AREAS SHALL BE CLEARED OF EXISTING VEGETATION AFTER OCTOBER 15 OF ANY CALENDAR YEAR OR DURING ANY PERIOD OF FULL OR LIMITED WINTER SHUTDOWN. ALL DISTURBED SOILS EXPOSED PRIOR TO OCTOBER 15 OF ANY CALENDAR YEAR SHALL BE SEEDED OR PROTECTED BY THAT DATE. ANY SUCH AREAS THAT DO NOT HAVE ADEQUATE VEGETATIVE STABILIZATION, AS DETERMINED BY THE RESIDENT ENGINEER OR ENVIRONMENTAL INSPECTOR, BY NOVEMBER 15 OF ANY CALENDAR YEAR, MUST BE STABILIZED THROUGH THE USE OF EROSION CONTROL MATTING OR HAY MULCH IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. IF WORK CONTINUES WITHIN ANY OF THESE AREAS DURING THE PERIOD FROM OCTOBER 15 THROUGH APRIL 15, CARE MUST BE TAKEN TO ENSURE THAT ONLY THE AREA REQUIRED FOR THAT DAY'S WORK IS EXPOSED, AND ALL ERODIBLE SOIL MUST BE RESTABILIZED WITHIN 5 WORKING DAYS. ANY WORK TO CORRECT PROBLEMS RESULTING FROM FAILURE TO COMPLY WITH THIS PROVISION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THERE WILL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS. STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 2 WEEKS OF FINAL GRADING.
- STOCKPILES OF MATERIAL SHALL NOT BE LOCATED WITHIN REGULATED WETLANDS OR BUFFER ZONE AREAS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES OF ERODIBLE MATERIAL SHALL ALSO BE SEEDED AND RINGED WITH R.I. STD. 9.1.0 TO STABILIZE.
- IF THE PLANS INCLUDE SPECIFIC AREAS FOR PLACEMENT OF CONSTRUCTION DEWATERING BASINS AND/OR EQUIPMENT AND MATERIALS STORAGE AND STOCKPILING, AND IF THE CONTRACTOR ELECTS TO UTILIZE ANY OTHER AREAS FOR THESE PURPOSES, THIS SHALL BE APPROVED BY THE ENGINEER ONLY AFTER OBTAINING ANY NECESSARY PERMITS AND/OR PERMIT MODIFICATIONS FROM THE APPROPRIATE REGULATORY AUTHORITY(IES). ANY PERMITTING REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE ACCOMPLISHED AT NO COST TO THE STATE. THE ENGINEER WILL COORDINATE SUBMISSION OF ANY REQUIRED PERMIT APPLICATIONS MATERIALS WITH THE RIDOT OFFICE OF ENVIRONMENTAL PROGRAMS.
- JUTE MESH SHALL BE USED TO STABILIZE PLANTABLE SOIL AND/OR LOAM IN ALL DITCHES, ON ALL SLOPES ADJACENT TO WETLANDS AND WETLAND PERIMETERS, AND ON ALL SLOPES WITHIN WATER QUALITY BASINS. JUTE MESH IN DITCHES SHALL EXTEND TO AN ELEVATION 2 FEET ABOVE THE BOTTOM OF THE DITCH.
- SEEDING ON ALL SLOPES 3 TO 1 OR STEEPER SHALL CONSIST OF THE FOLLOWING APPLICATIONS UNLESS CHANGED IN THE CONTRACT.
 - SEEDING TYPE I.
 - ADHESIVE MULCH STABILIZER
- UNVEGETATED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR PERIODS IN EXCESS OF 2 WEEKS OR THROUGH THE INACTIVE WINTER SEASON.
- PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION (HORIZONTAL AND VERTICAL) OF ALL EXISTING PIPES AND/OR STRUCTURES WHICH ARE TO BE CONNECTED. ANY VARIATION FOUND FROM THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION. WORK CAN COMMENCE ONLY UPON THE ENGINEER'S AUTHORIZATION.
- ALL DRAINAGE AND UTILITY STRUCTURES WITHIN THE PAVED ROADWAY SHALL BE ADJUSTED TO GRADE WITH THE SURROUNDING PAVEMENT PRIOR TO THE WINTER SHUTDOWN.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL THROUGHOUT THE WORK AREA.
- CATCH BASIN RIM GRADES NOTED ON PLANS ARE DEPRESSED 0.1' OR LOWER THAN THE GUTTER GRADE. RIM ELEVATIONS SHOWN ARE FINAL GRADES. THE CONTRACTOR SHALL PLACE FRAMES AND GRATES 0.1' BELOW THE GRADE CONSTRUCTED IN THIS CONTRACT OR AS DIRECTED BY THE ENGINEER.
- PROVISIONS FOR CLEARING TO ACCESS OUTFALLS DURING THE CLEANING AND FLUSHING OF THE CLOSED DRAINAGE SYSTEM SHALL BE KEPT TO A MINIMUM.
 - ANY VEGETATIVE CLEARING SHALL BE LIMITED TO BRUSH AND TREES LESS THAN 3" DIAMETER.
 - NO HEAVY EQUIPMENT MAY ENCRONCH UPON VEGETATED PERIMETER OR RIVERBANK WETLANDS AS WELL AS BIOLOGICAL WETLANDS.
- THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES FOR OUTLET PROTECTION PRIOR TO CLEANING AND FLUSHING STORM WATER DRAINAGE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL FLUSHED SEDIMENTS ARE REMOVED. AT ALL OUTFALL LOCATIONS WHERE PIPES ARE TO BE CLEANED AND FLUSHED, OUTLET PROTECTION (R.I. STD. 9.1.0 OR 9.3.0) SHALL BE INSTALLED TO TRAP SEDIMENTS. THESE SEDIMENTS SHALL THEN BE REMOVED AND DISPOSED OF LEGALLY BEFORE THE OUTLET PROTECTION DEVICES ARE REMOVED. IF OUTLET PROTECTION AT THE OUTFALL IS NOT FEASIBLE, THEN THE OUTLET PIPE OF THE LAST DRAINAGE STRUCTURE TO BE CLEANED SHALL BE PLUGGED TO CAPTURE ALL MATERIALS FLUSHED FROM PIPES. AFTER THE MATERIALS ARE REMOVED FROM THE DRAINAGE STRUCTURE, THE OUTLET SHALL BE UNPLUGGED TO RESUME NORMAL FUNCTIONING.
- R.I. STD. 9.8.0 BALED HAY INLET PROTECTION SHALL BE INSTALLED AT ALL CATCH BASINS AND INLETS WHENEVER SUBBASE IS EXPOSED, AND SHALL REMAIN IN PLACE UNTIL THE ADJUTTING GROUND SURFACES ARE STABILIZED.
- WHERE BALED HAY INLET PROTECTION AND SILT FENCES ARE USED AT CATCH BASINS, THEY SHALL BE REMOVED AT THE END OF THE PROJECT OR AS DIRECTED BY THE ENGINEER IN ORDER TO PREVENT CLOGGING OF THE INLET.
- DETENTION AND RETENTION BASINS MAY BE ROUGH GRADED AND STABILIZED WITH VEGETATION AND/OR OTHER EROSION CONTROL MEASURES AS REQUIRED BY THE ENGINEER PRIOR TO USE AS TEMPORARY SEDIMENTATION BASINS DURING PROJECT CONSTRUCTION. FINAL BASIN CONSTRUCTION SHALL NOT COMMENCE UNTIL ALL SOURCES OF SEDIMENT HAVE BEEN ELIMINATED. FINAL ROADSIDE VEGETATION IS ESTABLISHED AND USE OF TEMPORARY BASINS IS NO LONGER REQUIRED AS DIRECTED BY THE ENGINEER. ANY ISSUES RELATING TO EROSION AND/OR SEDIMENT TRANSPORT INTO WETLAND AREAS RESULTING FROM SUCH USE OF SEDIMENTATION BASINS DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY CORRECTIVE ACTION REQUIRED TO RESOLVE SUCH ISSUES SHALL BE COMPLETED BY THE CONTRACTOR.
- THE TOE OF ANY FILL SLOPE IS TO REMAIN AT LEAST 1' INSIDE OF ALL EROSION CONTROLS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR COVER ANY PORTION OF THE EROSION CONTROL MEASURES WITH MATERIAL THAT IS PLACED ON ANY EROSION CONTROLS BY THE CONTRACTOR, OR ANY AGENT OF THE CONTRACTOR, SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR, AND ANY NECESSARY REPAIRS TO THE EROSION CONTROLS ACCOMPLISHED.
- PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES, EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AT THOSE AREAS INDICATED ON THE PLANS. CLEARING MAY OCCUR PRIOR TO INSTALLATION OF SUCH CONTROLS, HOWEVER NO GRUBBING, GRADING, FILLING OR OTHER SOIL DISTURBANCE SHALL OCCUR PRIOR TO INSTALLATION. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS.
- ALL HAY BALES, SILT FENCE OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP TO MINIMIZE EROSION. TEMPORARY SEED WILL CONFORM TO RIDOT STANDARD TEMPORARY SEED MIX.
- THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE STATE.
- THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE SPECIFIED IN SUBSECTION L.02.03 OF THE RIDOT STANDARD SPECIFICATIONS, LATEST EDITION.
- ADDITIONAL EROSION CONTROLS, SHALL BE INSTALLED AS DIRECTED BY THE RESIDENT ENGINEER. THESE ADDITIONAL ITEMS WILL BE PAID AT THE UNIT PRICE FOR THAT BID ITEM.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES (CONTINUED):

- ALL TEMPORARY SOIL STOCKPILE AREAS SHALL BE PROTECTED WITH A ROW OF STAKED HAYBALES (R.I. STD 9.1.0), AND, WHEN LEFT EXPOSED FOR LONG PERIODS OF TIME (GREATER THAN 20 DAYS), WITH A SPREAD HAY MULCH AND WOVEN NETTING (OR EXCELSIOR EROSION CONTROL MATTING). THERE SHALL BE NO SEPARATE PAYMENT FOR THESE PROVISIONS, IT SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS.
- ANY PUMPING OF ACCUMULATED GROUNDWATER OR SURFACE WATER IN THE PROPOSED PROJECT CONSTRUCTION AREA, WHICH MAY BE NECESSARY FOR DEWATERING, SHALL BE DISCHARGED INTO SEDIMENT TRAPS (R.I. STD. 9.7.0) CONSISTING OF A CHAMBER CONSTRUCTED OF CONCRETE MEDIAN BARRIERS (R.I. STD 40.2.0) TO BE LINED WITH A FILTER FABRIC (INCLUDING WALLS), ENCLOSED CRUSHED STONE TO DISPERSE INFLOW VELOCITY. FILTER FABRIC SHALL BE ANCHORED WITH SAND BAGS ATOP THE MEDIAN. BARRIERS AND HAYBALES SHALL BE INSTALLED AT THE OUTLET LOCATION ONE CORNER OF THE CHAMBER. THE COMPLETE REMOVAL OF THESE DEVICES (HAYBALES, STONE, BARRIER, SEDIMENT, ETC.) SHALL OCCUR UPON CONSTRUCTION COMPLETION.
- DURING THE CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE ALL CONTROLS AS NEEDED. MAINTENANCE SHALL BE CARRIED OUT IN ACCORDANCE WITH SECTION 212 OF THE LATEST RIDOT STANDARD SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR CARRYING OUT NECESSARY MAINTENANCE DURING ALL PHASES OF THE PROJECT CONSTRUCTION, INCLUDING PERIODS OF "WINTER SHUTDOWN".
- UPON COMPLETION OF PROJECT CONSTRUCTION, AND PRIOR TO VACATING THE SITE, THE CONTRACTOR SHALL CONDUCT A FINAL INSPECTION AND REPAIR ANY VEGETATIVE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES (SEEDING, PLANTING, ETC.) WHERE REQUIRED, AND REPAIR (OR REMOVE WHERE APPROPRIATE) ANY TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL DEVICE (SILT FENCES, HAYBALES, SANDBAGS, ETC.) AFTER PERMANENT SOIL STABILIZATION ON THE ENTIRE SITE HAS OCCURRED, ALL TEMPORARY CONTROL MEASURES (EXCLUDING HAYBALES) MUST BE REMOVED.

UTILITY NOTES:

- EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. BUILDING SERVICE CONNECTIONS (ELECTRIC, GAS, TELEPHONE, WATER AND SANITARY) ARE NOT SHOWN. CONTRACTOR IS TO ASSUME SERVICES ARE PRESENT TO ALL BUILDINGS.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH THE "DIG SAFE LAW" ENACTED BY R.I. LEGISLATURE BILL NO. 795-291, WHICH BECAME EFFECTIVE JULY 1, 1979 AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY APPLICABLE CITY, TOWN, STATE OR FEDERAL AGENCY. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE DIG SAFE PROGRAM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES AND ENSURE THAT ALL UTILITIES HAVE BEEN MARKED PRIOR TO COMMENCING THEIR WORK. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANY, SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE STATE.
- ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE CAPPED.
- EXISTING WATER SERVICES SHALL BE RECONNECTED TO THE NEW WATER MAINS.
- UTILITY SERVICE CONNECTIONS SHALL BE MAINTAINED TO ALL EXISTING FACILITIES TO REMAIN.
- FIRE HYDRANTS SHALL NOT BE REMOVED FROM SERVICE WITHOUT WRITTEN AUTHORIZATION FROM THE FIRE DEPARTMENT OR THE WATER AUTHORITY.
- ALL NEW WATER LINES SHALL BE DISINFECTED TO THE SATISFACTION OF THE WATER AUTHORITY IN ACCORDANCE WITH THE SPECIFICATIONS.
- ALL UTILITY POLE RELATED WORK SHALL BE BY OTHERS.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 27 2009 FILE # 09-0010
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Gyartan D. Weneck

REVISIONS			RHODE ISLAND	
NO.	DATE	BY	DEPARTMENT OF TRANSPORTATION	
			REPLACEMENT OF	
			ROUND TOP BRIDGE NO. 378	
			BURRILLVILLE	RHODE ISLAND
			GENERAL NOTES NO. 1	
			CHECKED BY _____	DATE _____ SCALE _____

BRYANT ASSOCIATES, INC.
Engineers - Surveyors - Construction Managers
14 Breakneck Hill Road, Suite 200
Lincoln, Rhode Island 02865-3925

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	RI	BRO-0378(001)	2008	4	18

LANDSCAPE NOTES:

1. ALL PLANT MATERIAL MUST BE TAGGED AT THE NURSERY IN ACCORDANCE WITH THE RIDOT STANDARD SPECIFICATIONS, LATEST EDITION.
2. ALL PLANT SUBSTITUTIONS AND/OR CHANGES IN PLANT LOCATION MUST BE APPROVED IN ACCORDANCE WITH THE RIDOT STANDARD SPECIFICATIONS, LATEST EDITION.
3. ALL PLANT MATERIAL IS TO BE FIELD LOCATED BY A REPRESENTATIVE FROM THE RIDOT LANDSCAPE ARCHITECTURE UNIT.
4. A LANDSCAPE REPRESENTATIVE MUST BE ON SITE TO APPROVE ALL TRIMMING AND CLEARING NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS.
5. ANY TOPSOIL USED AS PLANTABLE SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS, AND SHALL CONFORM WITH SECTION M18 OF THE RIDOT STANDARD SPECIFICATIONS, LATEST EDITION.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. ALL SIGN MOUNTINGS FOR TEMPORARY AND CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE RIDOT STANDARD SPECIFICATIONS, LATEST EDITION.
3. THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.
4. ADVANCE FLAGPERSON SIGNS (W20-7A) SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A FLAGPERSON OR A POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"x18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.
5. POLICE OFFICERS (AND NOT FLAGPERSONS) SHALL BE UTILIZED WHEN WORK WILL IMPACT SIGNALIZED INTERSECTIONS AND LIMITED ACCESS HIGHWAYS.
6. POLYETHYLENE DRUMS SHALL BE UTILIZED AS CHANNELIZING DEVICE WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.
7. ARROW PANELS SHALL BE SET IN THE FLASHING FOUR CORNERS CAUTION MODE UNLESS UTILIZED FOR A MERGING TAPER. ARROW PANELS SET IN THE FLASHING ARROW MODE SHALL NOT BE UTILIZED FOR LANE SHIFTS.
8. TEMPORARY CONSTRUCTION SIGNS AND OTHER WORK ZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND/OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
9. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS. THEY MAY BE PARKED WITHIN THE STATE RIGHT-OF-WAY ONLY IN AREAS 30' BEYOND THE OUTSIDE EDGE OF THE TRAVEL LANES AND/OR IN AREAS APPROVED BY THE ENGINEER.
10. TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.
11. THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES. TEMPORARY PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE THE END OF THE WORK SHIFT ON ALL COLD-PLANED OR NEW ROADWAY SURFACES THAT WILL BE OPENED TO THE TRAFFIC AT THE END OF THE SHIFT.

FRESHWATER WETLAND NOTES:

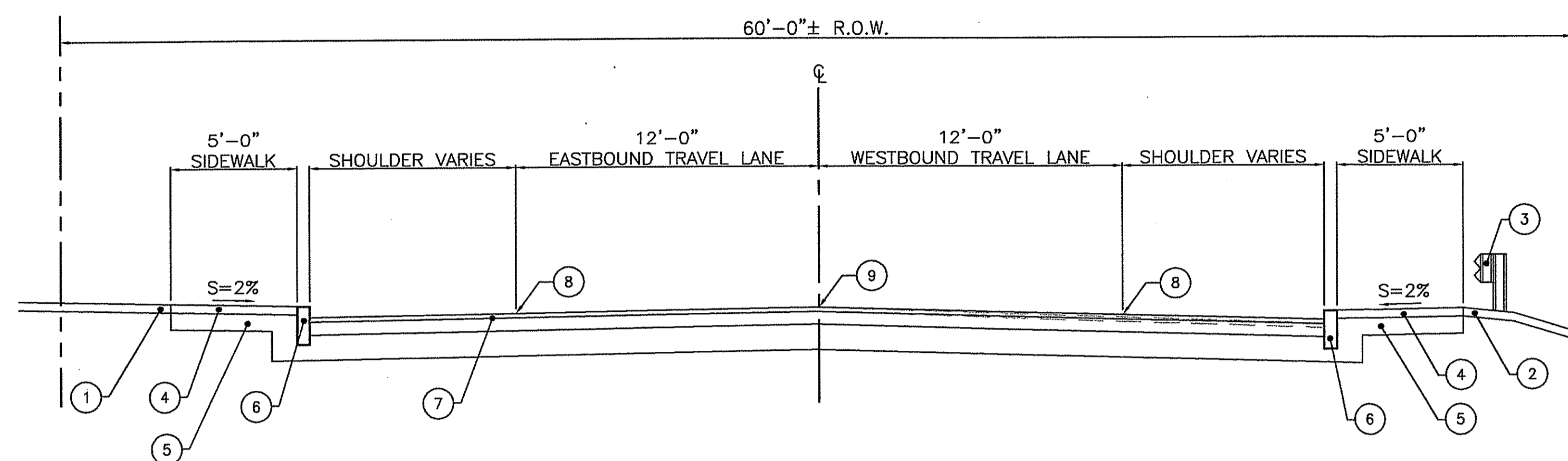
1. PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES, EROSION AND SEDIMENTATION CONTROLS WILL BE INSTALLED AT THOSE AREAS INDICATED ON THE PLANS OR AS DICTATED BY RIDEM. CLEARING MAY OCCUR PRIOR TO THE INSTALLATION OF SUCH CONTROLS, HOWEVER NO GRUBBING, GRADING, FILLING OR OTHER SOIL DISTURBANCE SHALL OCCUR PRIOR TO INSTALLATION.
2. ALL EXCESS SOIL, STUMPS, TREES, ROCKS, BOULDERS, AND OTHER NON-ROADWAY RELATED (I.E. CURBING, SIDEWALK, PAVEMENT MILLINGS, ETC.) REFUSE SHALL BE LEGALLY DISCARDED OFF-SITE IN AN APPROPRIATE UPLAND LOCATION, OUTSIDE OF ALL REGULATED FRESHWATER WETLAND AREAS.
3. THE HAYBALE/SILT FENCE LINE (R.I. STD 9.3.0) ILLUSTRATED ON THESE PLANS, TO BE STAKED IN THE FIELD PRIOR TO CONSTRUCTION, SHALL SERVE AS THE STRICT LIMITS OF DISTURBANCE FOR THE PROJECT WITHIN OR ADJACENT TO REGULATED FRESHWATER WETLAND AREAS. NO ALTERATIONS, INCLUDING VEGETATIVE CLEARING OR SURFACE DISTURBANCE, SHALL OCCUR BEYOND THIS HAYBALE/SILT FENCE LINE. ALL HAY BALES AND SILT FENCE ARE TO BE INSTALLED WITH THE LOWER 6 INCHES BURIED AND BACKFILLED WITH COMPACTED SOIL MATERIAL WHEN USED IN COMBINATION, A SUFFICIENT AMOUNT OF SILT FENCE SHALL BE PLACED IN THE TRENCH SO THAT THE HAYBALE STAKES ARE DRIVEN THROUGH THE FABRIC OF THE FENCE.
4. THE LIMITS OF DISTURBANCE OUTLINED ON THE GENERAL PLAN REPRESENTS PROPOSED ACTIVITIES WITHIN AREAS REGULATED UNDER THE RULES AND REGULATIONS GOVERNING THE ADMINISTRATION AND ENFORCEMENT OF THE FRESHWATER WETLANDS ACT (JUNE 2007).
5. COLD PLANE AND OVERLAY OPERATIONS PERFORMED WITHIN THE EXISTING RIGHT OF WAY ARE EXEMPT UNDER PROVISIONS OF RULE 6.0 GOVERNING THE ADMINISTRATION AND ENFORCEMENT OF THE FRESHWATER WETLANDS ACT (JUNE 2007).
6. THE LIMITS OF CLEARING, GRADING, AND DISTURBANCES (WITHIN THE LOD SHOWN ON THE PLANS) SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THESE LIMITS, AS DEPICTED ON THE PROJECT PLANS, SHALL BE TOTALLY UNDISTURBED, TO REMAIN IN A COMPLETELY NATURAL CONDITION. NO UNDISTURBED AREAS WILL BE CLEARED OF EXISTING VEGETATION AFTER OCTOBER 15 OF ANY CALENDAR YEAR. ALL DISTURBED SOILS EXPOSED PRIOR TO OCTOBER 15 OF ANY CALENDAR YEAR SHALL BE SEEDED OR PROTECTED BY THAT DATE. ANY SUCH AREAS THAT DO NOT HAVE ADEQUATE VEGETATIVE STABILIZATION, AS DETERMINED BY THE RIDOT RESIDENT ENGINEER OR ENVIRONMENTAL INSPECTOR, BY NOVEMBER 15 OF ANY CALENDAR YEAR, MUST BE STABILIZED THROUGH THE USE OF EROSION CONTROL MATTING OR HAY MULCH, IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE RI SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. IF WORK CONTINUES WITHIN ANY OF THESE AREAS DURING THE PERIOD FROM OCTOBER 15 THROUGH APRIL 15, CARE MUST BE TAKEN TO ENSURE THAT ONLY THE AREA REQUIRED FOR THAT DAY'S WORK IS EXPOSED, AND ALL ERODABLE SOIL MUST BE RESTABILIZED WITHIN 5 WORKING DAYS. ANY ADDITIONAL WORK REQUIRED TO CORRECT PROBLEMS RESULTING FROM FAILURE TO COMPLY WITH THIS PROVISION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION, IT SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS.
7. THE ENTIRE PROJECT AREA IS LOCATED WITHIN THE RIDEM 200' RIVERBANK WETLAND ASSOCIATED WITH THE CLEAR RIVER. EDGE OF CLEAR RIVER (RIDEM-10'WIDE) IS COINCIDENT WITH WALLS.
8. NO CONSTRUCTION VEHICLES SHALL BE DRIVEN WITHIN WETLANDS OR INTO THE CLEAR RIVER. CONSTRUCTION MATERIALS AND DEBRIS, WHICH FALLS INTO THE RIVER, SHALL BE IMMEDIATELY REMOVED.
9. ROUND TOP BRIDGE NO. 378 CARRIES CALLAHAN SCHOOL STREET (R.I. ROUTE 96) ACROSS THE CLEAR RIVER IN THE TOWN OF BURRILLVILLE, RI. THE PROJECT IS LOCATED AT THE INTERSECTION OF CALLAHAN SCHOOL STREET AND RIVER STREET.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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AS SPECIFIED IN THE LETTER OF APPROVAL
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Maryanne D. Wencel

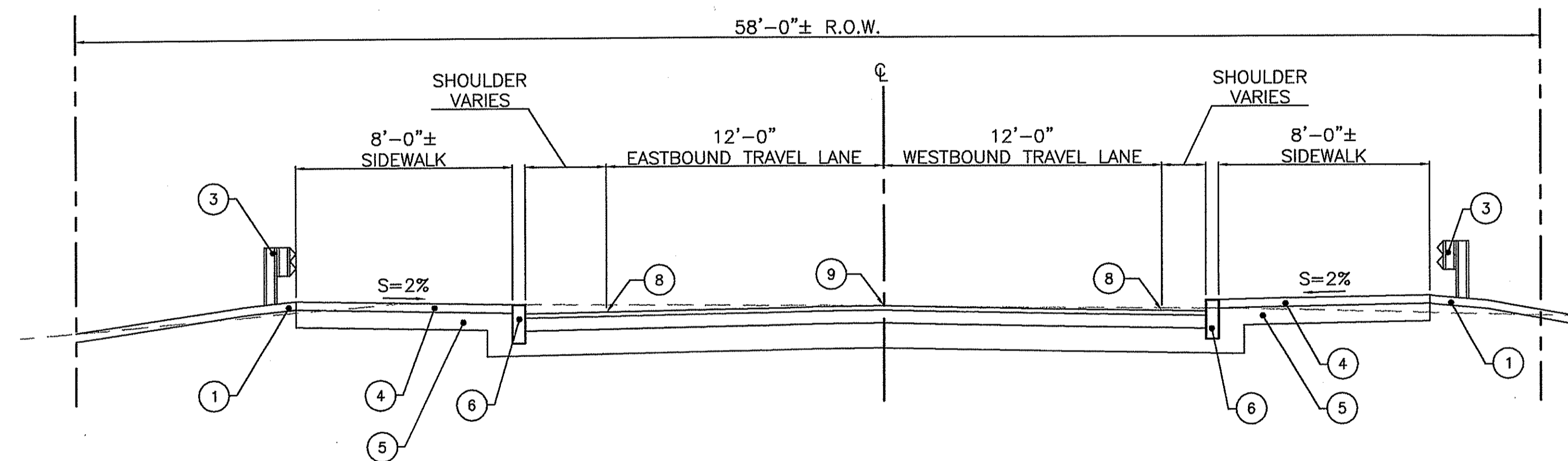
REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION
NO.	DATE	BY	
			REPLACEMENT OF ROUND TOP BRIDGE NO. 378 BURRILLVILLE RHODE ISLAND
			GENERAL NOTES NO. 2
			CHECKED BY _____ DATE _____ SCALE NONE

BRYANT ASSOCIATES, INC.
Engineers - Surveyors - Construction Managers
14 Breakneck Hill Road, Suite 200
Lincoln, Rhode Island 02865-3925



TYPICAL SECTION

CALLAHAN SCHOOL STREET
STA. 17+70 TO STA. 18+53
NTS



TYPICAL SECTION

CALLAHAN SCHOOL STREET
STA. 19+27 TO STA. 19+85
NTS

LEGEND

- ① LOAM BORROW 4" DEEP AND RESIDENTIAL SEEDING, TYPE 2
- ② PLANTABLE SOIL 4" DEEP AND GENERAL HIGHWAY SEEDING, TYPE 1, WITH ADHESIVE MULCH STABILIZER
- ③ STEEL BEAM GUARDRAIL, R.I. STD. 34.2.0
- ④ 4" CEMENT CONCRETE SIDEWALK R.I. STD. 43.1.0
- ⑤ 8" GRAVEL BORROW SUBBASE COURSE
- ⑥ GRANITE CURB R.I. STD. 7.3.0
- ⑦ 2" BITUMINOUS CONCRETE SURFACE COURSE, TYPE I-1
6" BITUMINOUS BASE COURSE (2 LIFTS OF 3" THICKNESS)
12" GRAVEL BORROW SUBBASE
- ⑧ 6" EPOXY RESIN PAVEMENT MARKINGS - WHITE
- ⑨ 4" EPOXY RESIN PAVEMENT MARKINGS - DOUBLE YELLOW

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Ernest D. Wencel

NOTE

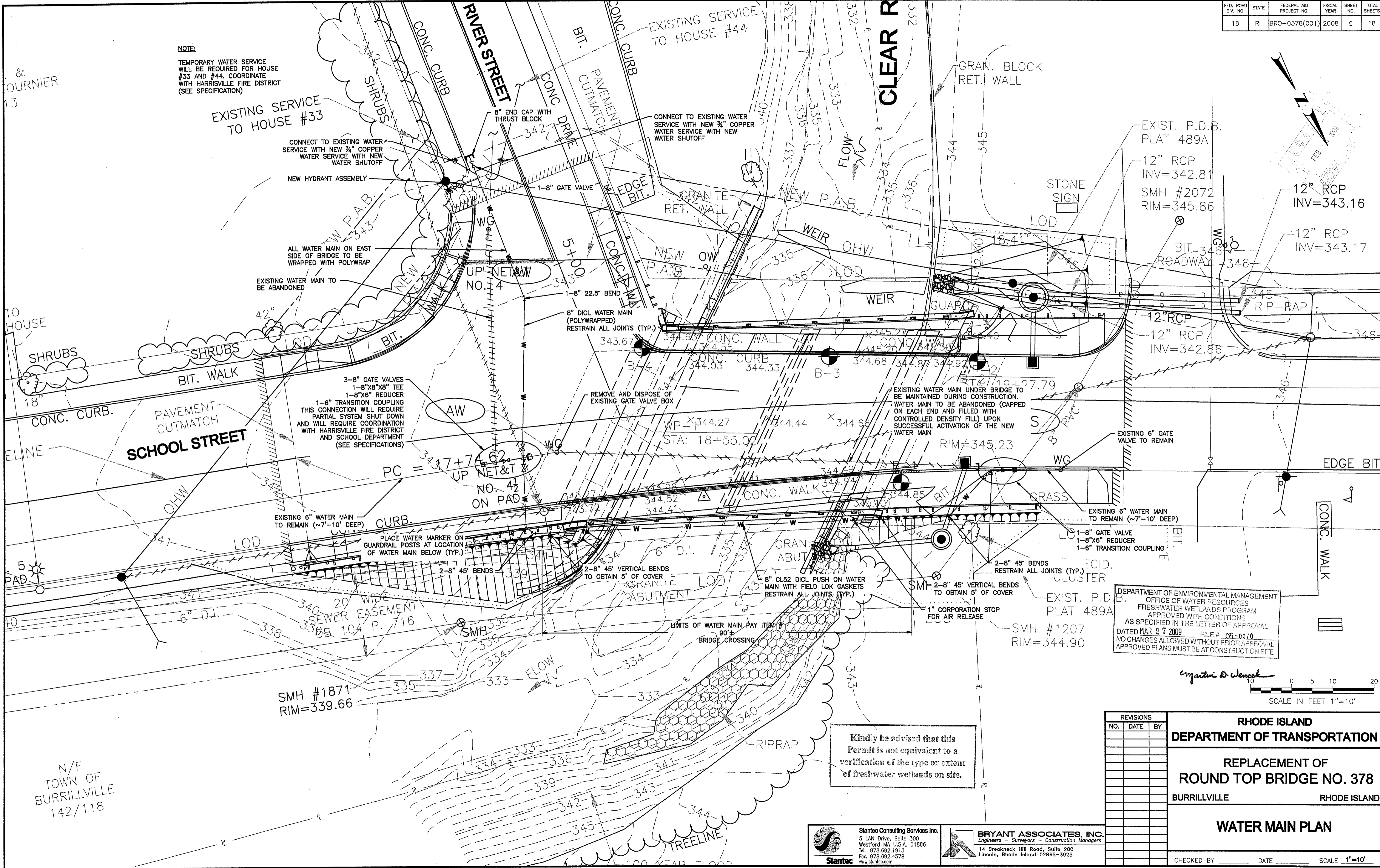
FOR STA. 18+53 TO STA. 19+27 REFER TO THE TYPICAL BRIDGE SECTIONS SHEET.

REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION
NO.	DATE	BY	
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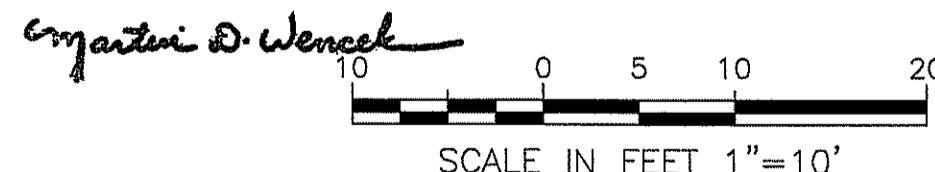
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Engineers - Surveyors - Construction Managers
14 Breakneck Hill Road, Suite 200
Lincoln, Rhode Island 02865-3925

CHECKED BY _____ DATE _____ SCALE NONE

NOTE:
 TEMPORARY WATER SERVICE WILL BE REQUIRED FOR HOUSE #33 AND #44. COORDINATE WITH HARRISVILLE FIRE DISTRICT (SEE SPECIFICATION)



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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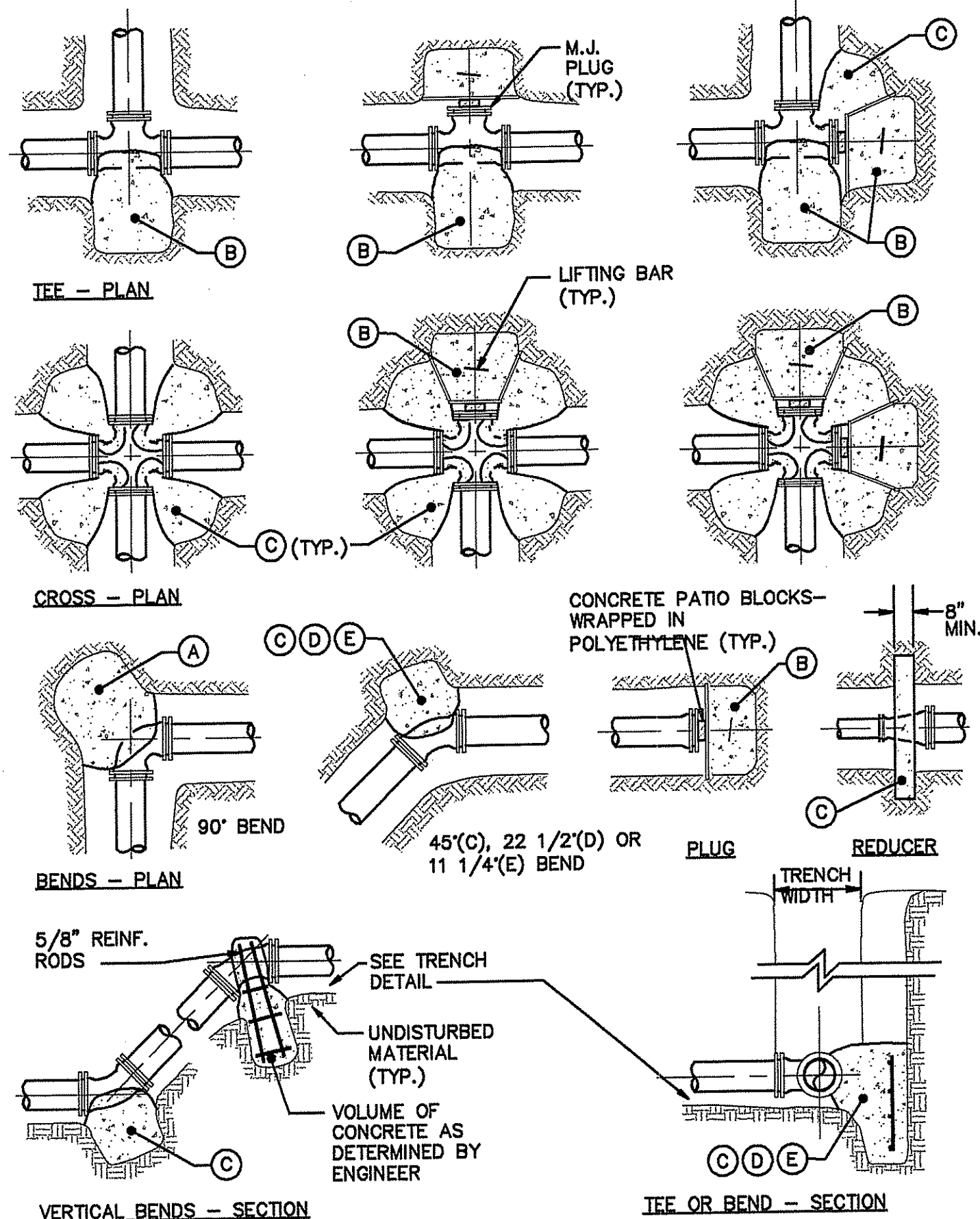


Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

REVISIONS			RHODE ISLAND DEPARTMENT OF TRANSPORTATION	
NO.	DATE	BY		
			REPLACEMENT OF ROUND TOP BRIDGE NO. 378	
			BURRILLVILLE RHODE ISLAND	
			WATER MAIN PLAN	
			CHECKED BY _____	DATE _____
				SCALE 1"=10'

Stantec
 Stantec Consulting Services Inc.
 5 LAN Drive, Suite 300
 Westford MA U.S.A. 01886
 Tel. 978.692.1913
 Fax. 978.692.4578
 www.stantec.com

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THRUST BLOCK SCHEDULE SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL

REACTION TYPE	PIPE SIZE											
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"
(A)	0.89	2.19	3.92	5.57	8.62	10.91	15.41	18.02	24.06	34.64	53.83	77.39
(B)	0.65	1.55	2.76	4.19	6.09	8.37	10.89	13.87	17.01	24.49	38.06	54.72
(C)	0.48	1.19	2.12	3.01	4.66	5.91	8.34	9.71	13.02	18.75	29.13	41.88
(D)	0.25	0.60	1.08	1.54	2.37	3.01	4.25	4.97	6.64	9.56	14.85	21.35
(E)	0.13	0.30	0.54	0.77	1.19	1.52	2.12	2.51	3.33	4.79	7.45	10.71

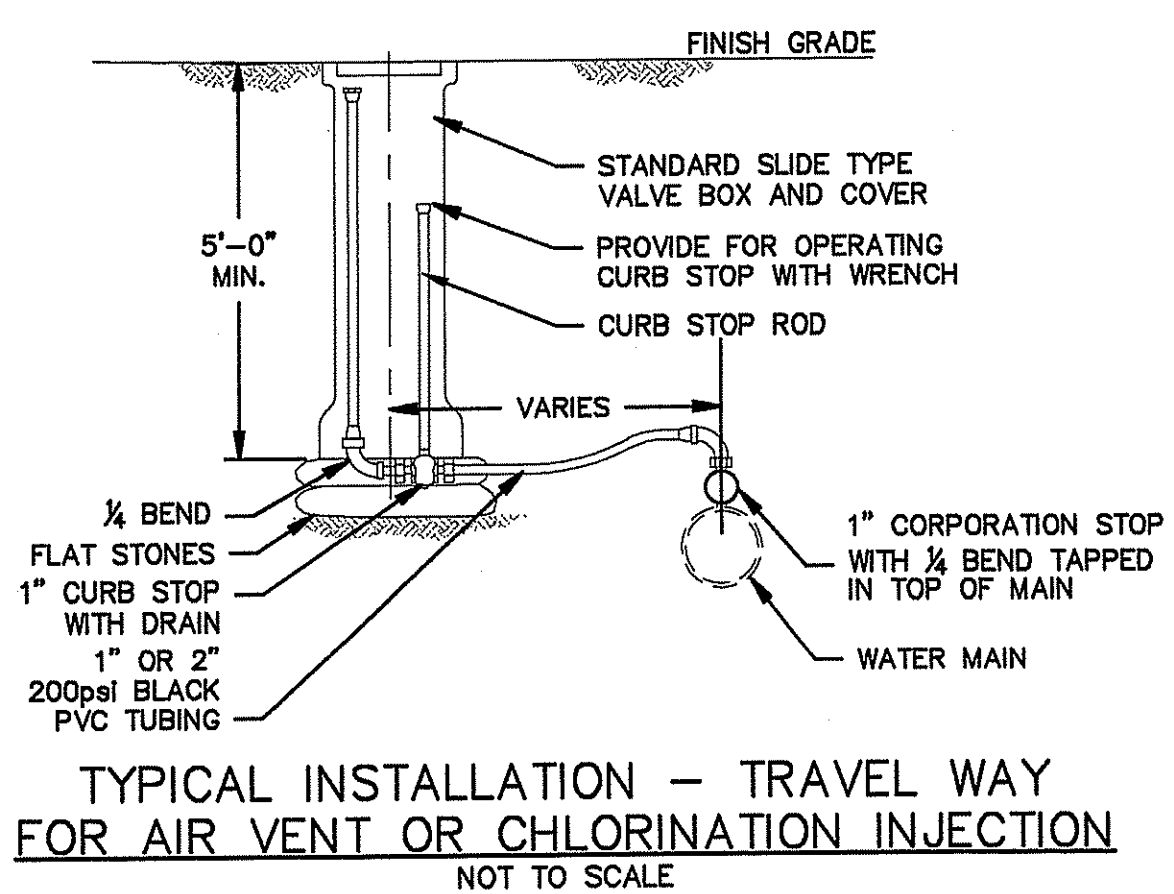
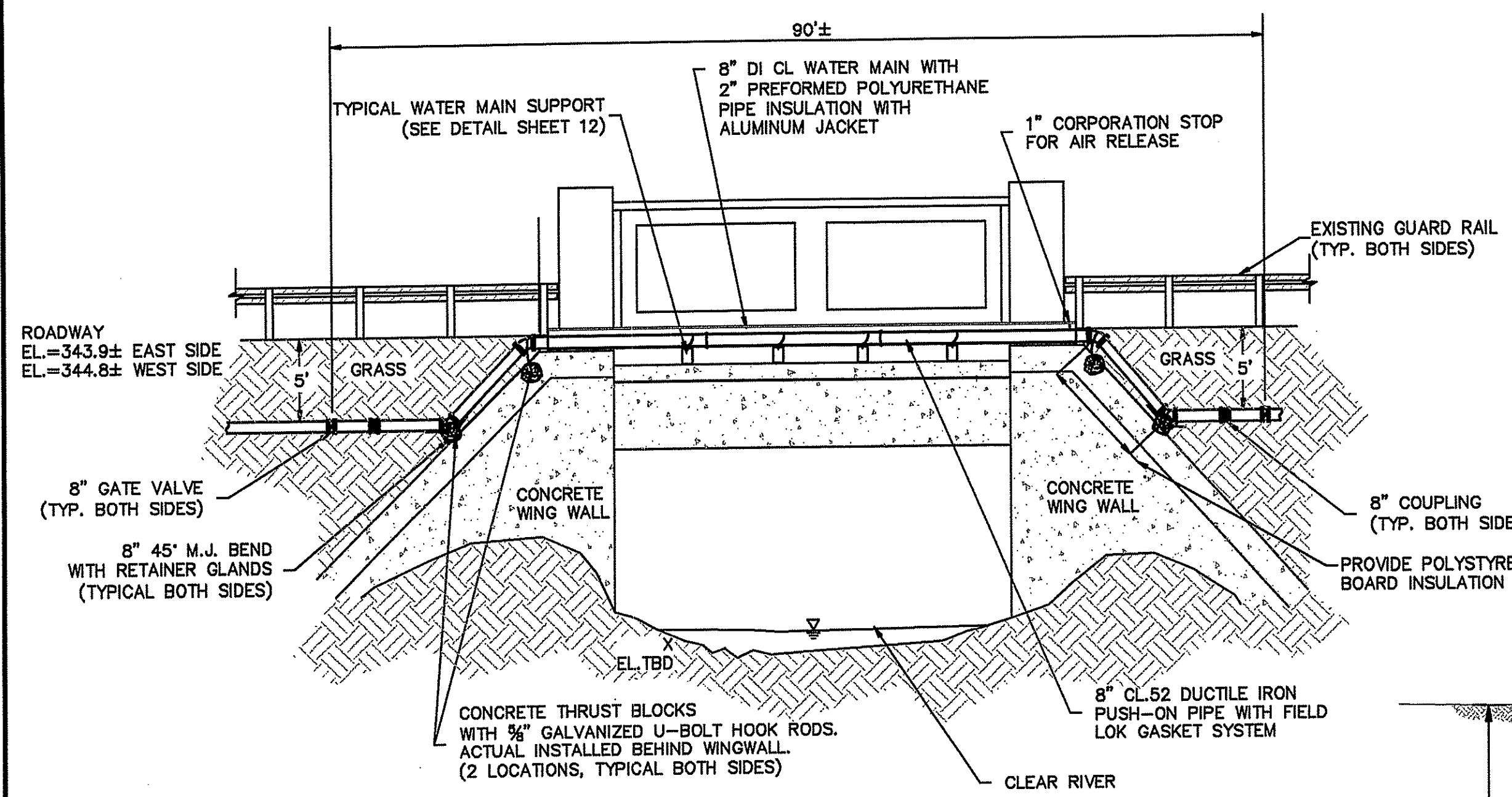
TEST PRESSURE = 100 PSIG

OTHER TEST PRESSURES FOR THE ABOVE REACTIONS

TEST PRESSURE TO BE 200 PSI MIN. AT LOW END OF THE TEST SECTION. SQUARE FEET OF CONCRETE THRUST BLOCKING FOR OTHER TEST PRESSURES IS DIRECTLY PROPORTIONAL TO THE ABOVE TABLE. FOR INSTANCE, AT 200 PSI TEST PRESSURE FOR ABOVE NUMBERS DOUBLE.

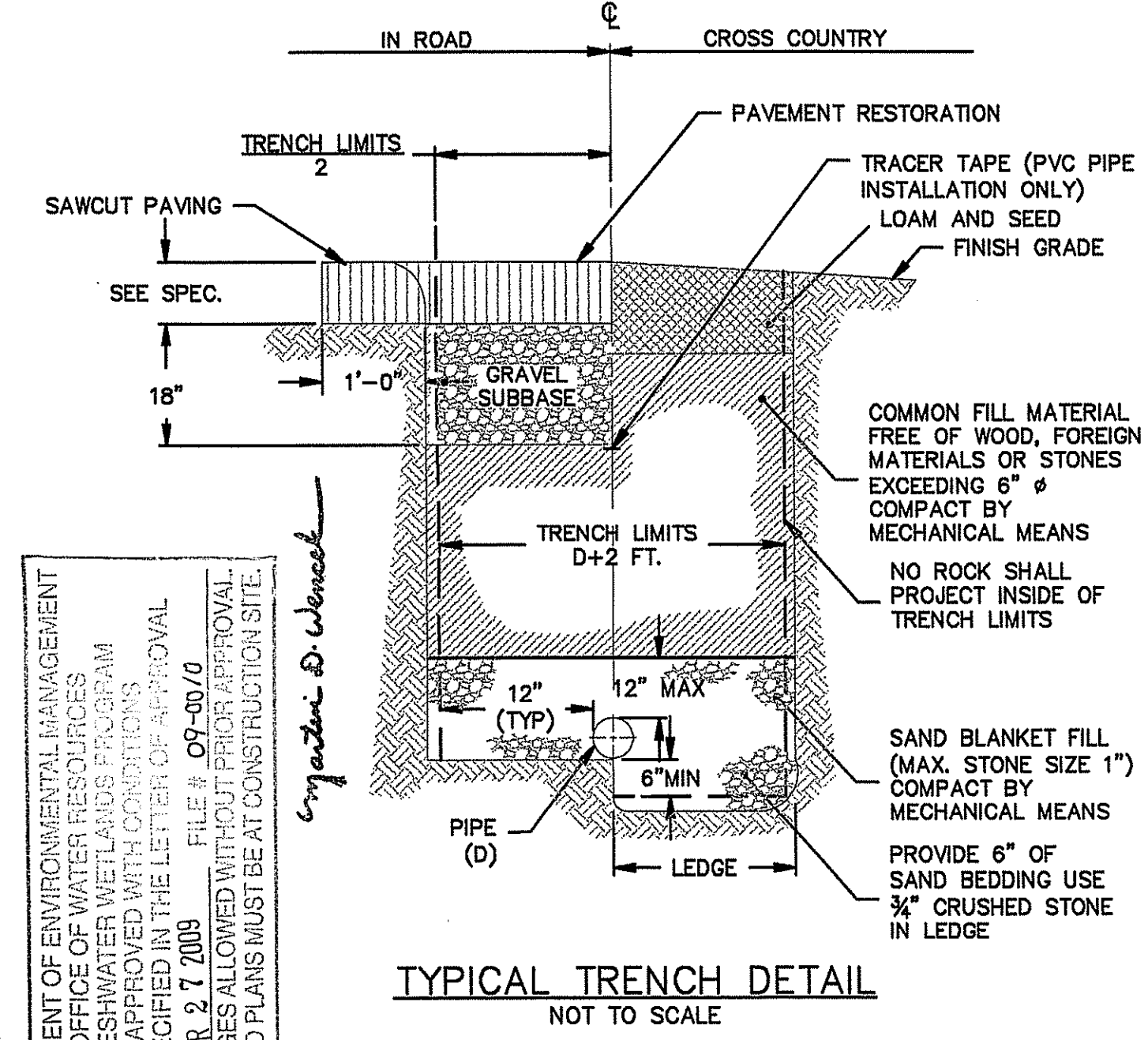
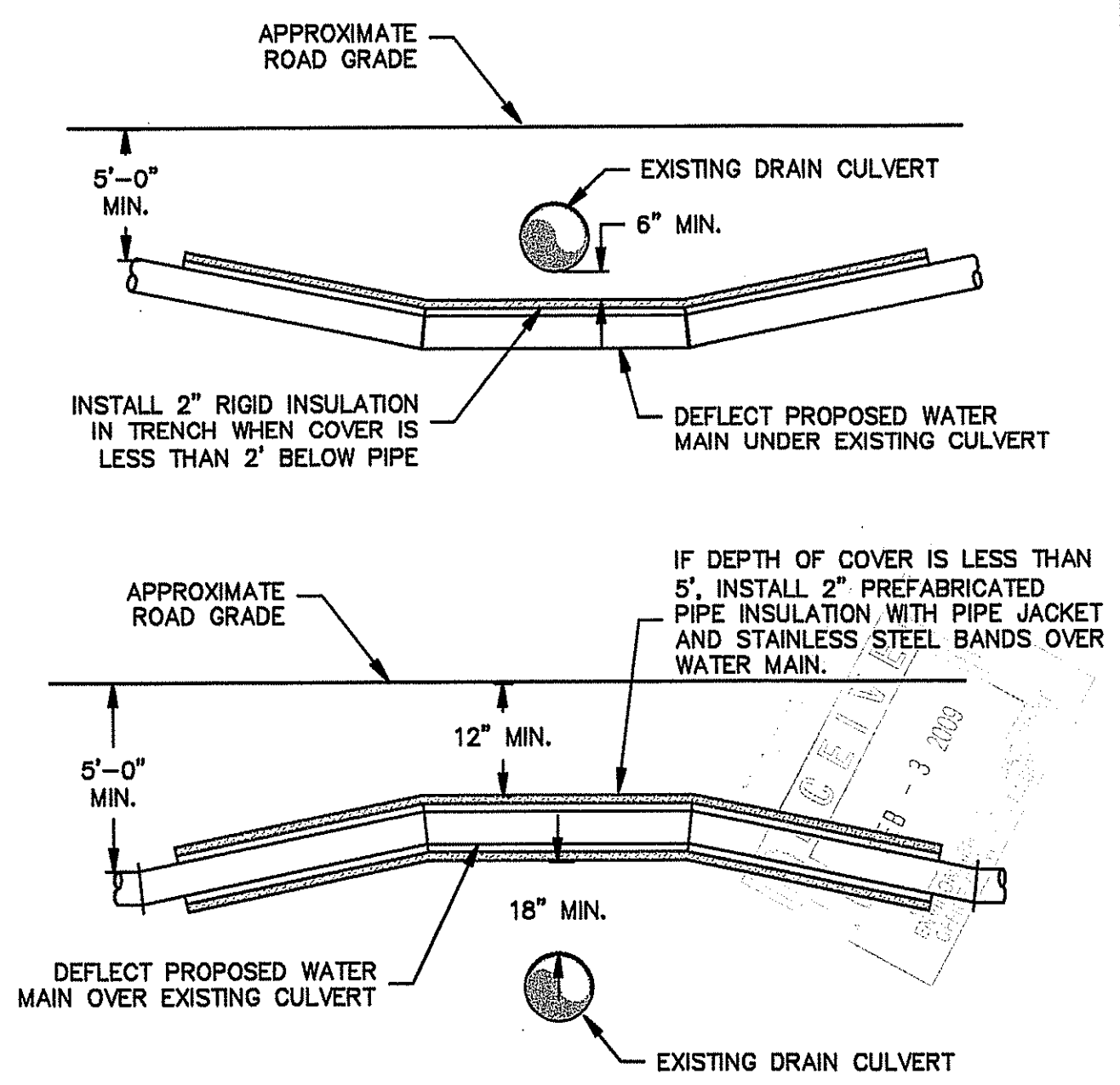
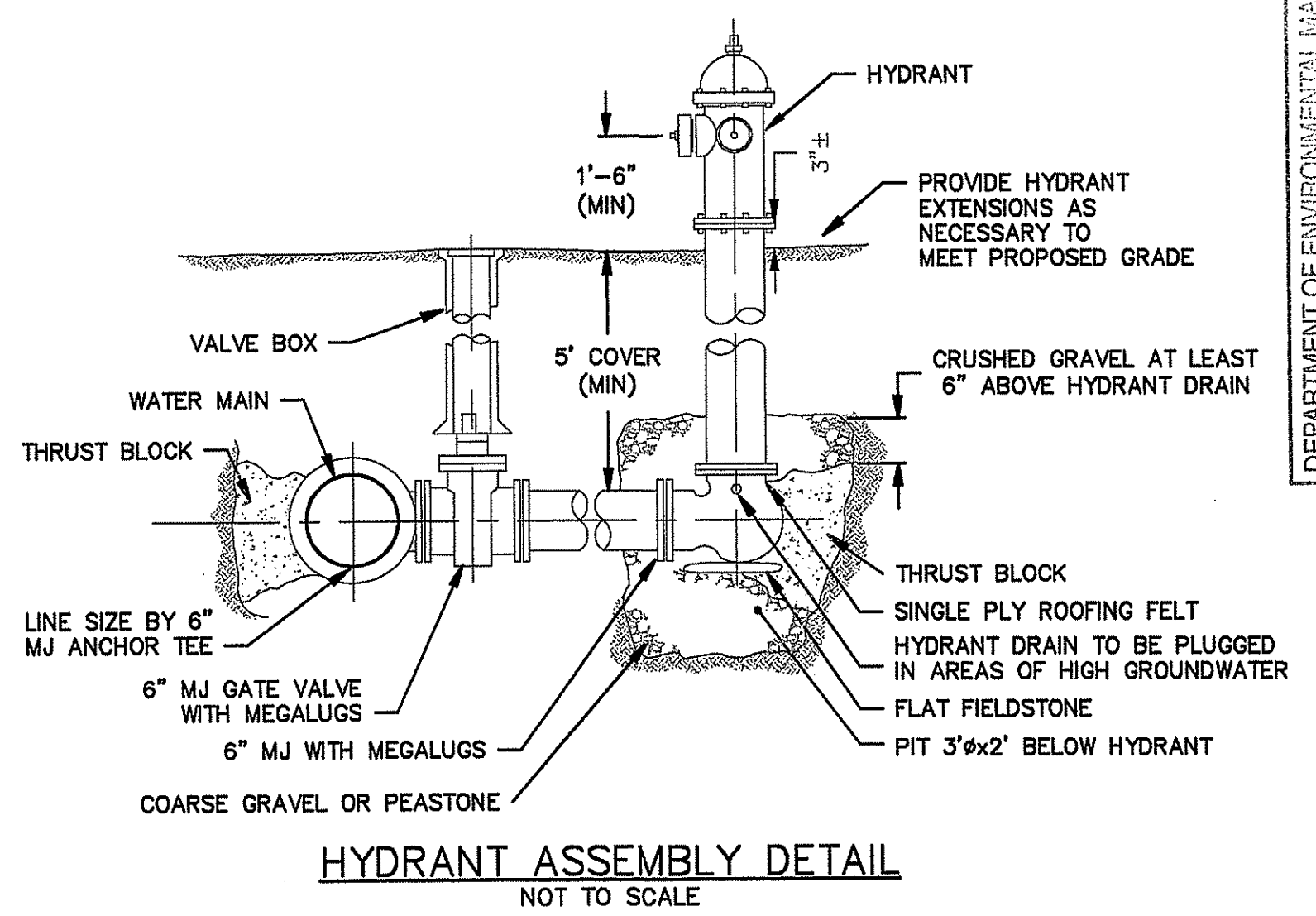
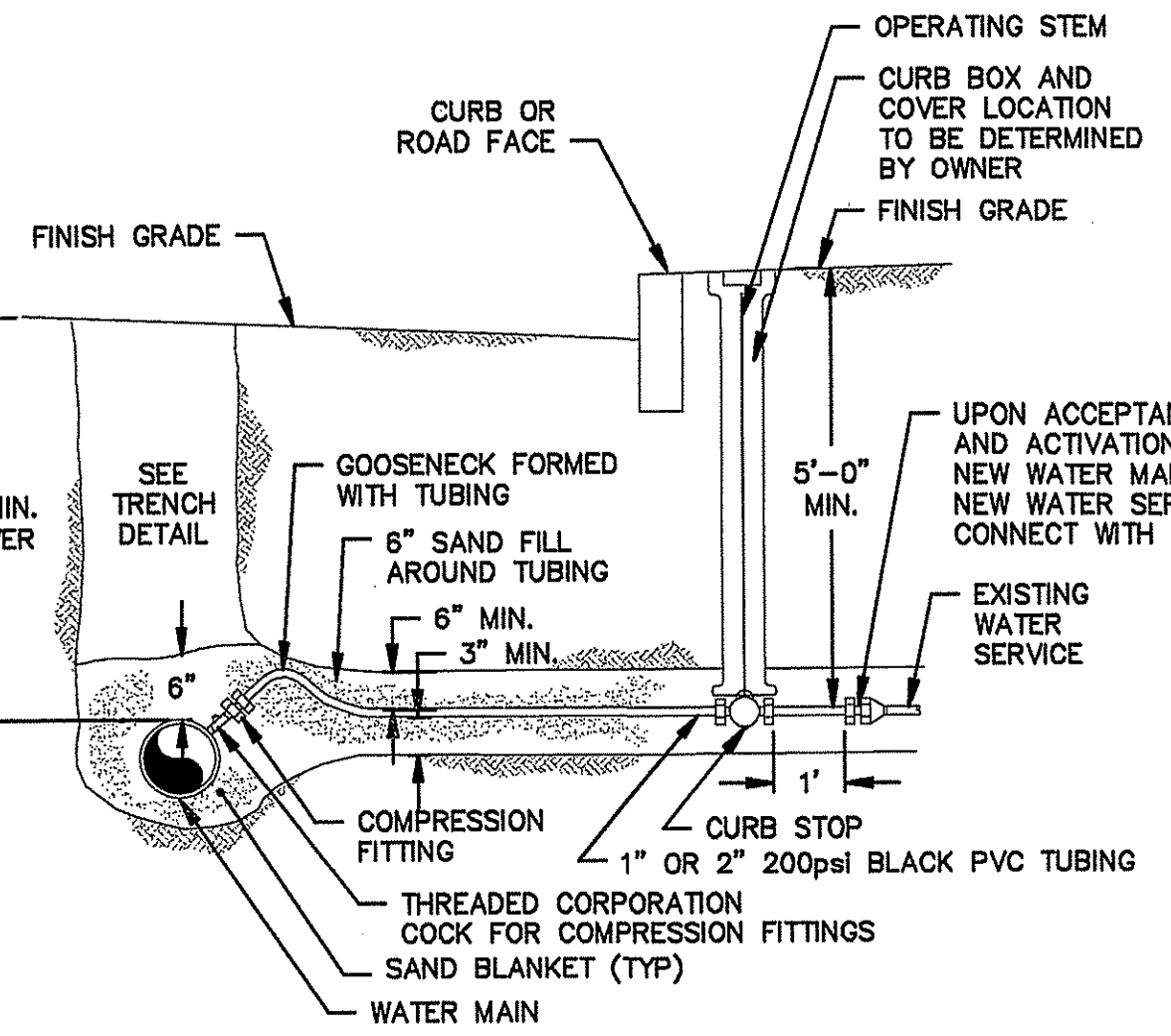
- NOTES:**
- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
 - ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
 - PLACE CONCRETE PATIO BLOCKS IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCK.
 - REQUIREMENTS OF THE ABOVE TABLE PRESUME MINIMUM SOIL BEARING OF 1 TON PER SQUARE FOOT, AND MAY BE VARIED BY THE ENGINEER TO MEET OTHER CONDITIONS ENCOUNTERED.
 - MEGALUG RETAINER GLANDS ARE REQUIRED FOR ALL MECHANICAL JOINTS. THESE GLANDS DO NOT REDUCE THE REQUIREMENTS FOR THRUST RESTRAINT.
 - ALL FITTINGS SHALL BE WRAPPED IN POLYETHYLENE OR BUILDING PAPER PRIOR TO INSTALLATION OF CONCRETE RESTRAINT.
 - THREADED ROD SHALL BE ANSI A242 F50 PIPE RESTRAINT NUTS TO MATCH AWWA C111. THREADED RODS AND NUTS TO BE FIELD COATED WITH BITUMINOUS PAINT.
 - THRUST RESTRAINT IS REQUIRED FOR ALL TEES, BENDS, REDUCERS, CAPS, PLUGS, OR CROSSES.
 - INSTALL LIFT HOOKS INTO THRUST BLOCKS AT END CAPS AND PLUGS.

THRUST BLOCK DETAILS
NOT TO SCALE



CONSTRUCTION NOTES

- THE CONTRACTOR SHALL NOTIFY "DIG SAFE" 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO BEGINNING THE WORK.
- THE EXISTING UTILITIES AND ALL OTHER STRUCTURES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE AND MAY NOT BE IN THE EXACT LOCATION SHOWN OR MAY NOT BE SHOWN AT ALL. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR THE COMPLETE FIELD INVESTIGATION, PERSONALLY, OF ALL EXISTING UTILITIES TO HIS COMPLETE SATISFACTION PRIOR TO SUBMITTING A FORMAL BID.
- NEW WATER MAINS SHALL WHEREVER POSSIBLE BE LAID OVER EXISTING SEWERS AND SEWER SERVICES, AND UNDER ANY EXISTING DRAINS, GAS MAINS, TELEPHONE CABLES, ELECTRIC CABLES, OR OTHER WATER MAINS AS SHOWN ON THE PLANS UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- NEW WATER MAINS SHALL BE INSTALLED AT A MINIMUM DEPTH OF 5'-0" FROM FINISH GRADE TO TOP OF PIPE, WHERE NECESSARY NEW WATER LINES WILL BE INSTALLED AT A GREATER DEPTH TO CLEAR OBSTACLES AT NO ADDITIONAL COST. MINIMUM CLEARANCES OF UTILITIES AS SHOWN ON THE DRAWINGS MUST BE MAINTAINED. THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE ENGINEER TO INSTALL ANY WATER LINES WITH LESS THAN 5'-0" DEPTH TO COVER. ANY WATER LINES INSTALLED WITH LESS THAN THE REQUIRED MINIMUM DEPTH OF COVER MUST BE INSULATED TO THE EXTENT INDICATED ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL EXCAVATE SUFFICIENTLY AHEAD OF HIS PIPE INSTALLATION SO AS TO DETERMINE WHETHER TO RAISE OR LOWER THE PROPOSED WATER MAIN SUCH THAT IT WILL CLEAR EXISTING UTILITIES.
- MEGALUGS SHALL BE PROVIDED FOR MECHANICAL JOINTS ON BENDS, TEES, PLUGS, CAPS, VALVES AND HYDRANTS WHERE SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO SECURE UTILITY POLES IN AREAS WHERE NEW WATER MAIN IS TO BE INSTALLED WITHIN 10' OF POLES.
- ALL FENCES, MAIL BOXES, SIGNS, WALKS, CURBS, ETC. SHALL BE REMOVED AND REPLACED AS NECESSARY TO COMPLETE THE WORK. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DISTURBING STONE WALLS AND TREES DURING CONSTRUCTION. THE COST OF ALL SUCH WORK SHALL BE INCLUDED UNDER WATER MAIN ITEMS.
- THE CONTRACTOR SHALL INSTALL NEW WATER SERVICES TO PROPERTY LINE AND RECONNECT TO EXISTING SERVICE. LOCATION TO BE AS DIRECTED BY ENGINEER.
- THE CONTRACTOR SHALL NOT OPEN OR CLOSE ANY VALVES WHICH HOLD WATER IN THE SYSTEM. THE WATER DISTRICT WILL, UPON 24 HOURS NOTICE FROM THE CONTRACTOR, OPEN AND/OR CLOSE ANY VALVES REQUIRED FOR DRAINING OR ADMITTING WATER TO VARIOUS SECTIONS OF THE MAINS.
- ALL DISTURBED AREAS BEYOND PAYMENT LIMITS SHALL BE RESTORED AT NO ADDITIONAL COST.
- ANY WATER THAT IS PUMPED AND DISCHARGED FROM THE TRENCH AND/OR EXCAVATION AS PART OF THE CONTRACTOR'S WATER HANDLING SHALL BE FILTERED BY AN APPROVED METHOD PRIOR TO ITS DISCHARGE INTO A RECEIVING WATER OR DRAINAGE SYSTEM.
- THE PUMPED WATER SHALL BE FILTERED THROUGH BALED HAY, A VEGETATIVE FILTER STRIP OR A VEGETATED CHANNEL TO TRAP SEDIMENT OCCURRING AS A RESULT OF THE CONSTRUCTION OPERATIONS. THE VEGETATED CHANNEL SHALL BE CONSTRUCTED SUCH THAT DISCHARGE FLOW RATE SHALL NOT EXCEED A VELOCITY OF MORE THAN 1 FPS. THE SEDIMENT SHALL BE CLEARED FROM THE CHANNEL PERIODICALLY.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Ernesto D. Wilson

REVISIONS		
NO.	DATE	BY

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF ROUND TOP BRIDGE NO. 378

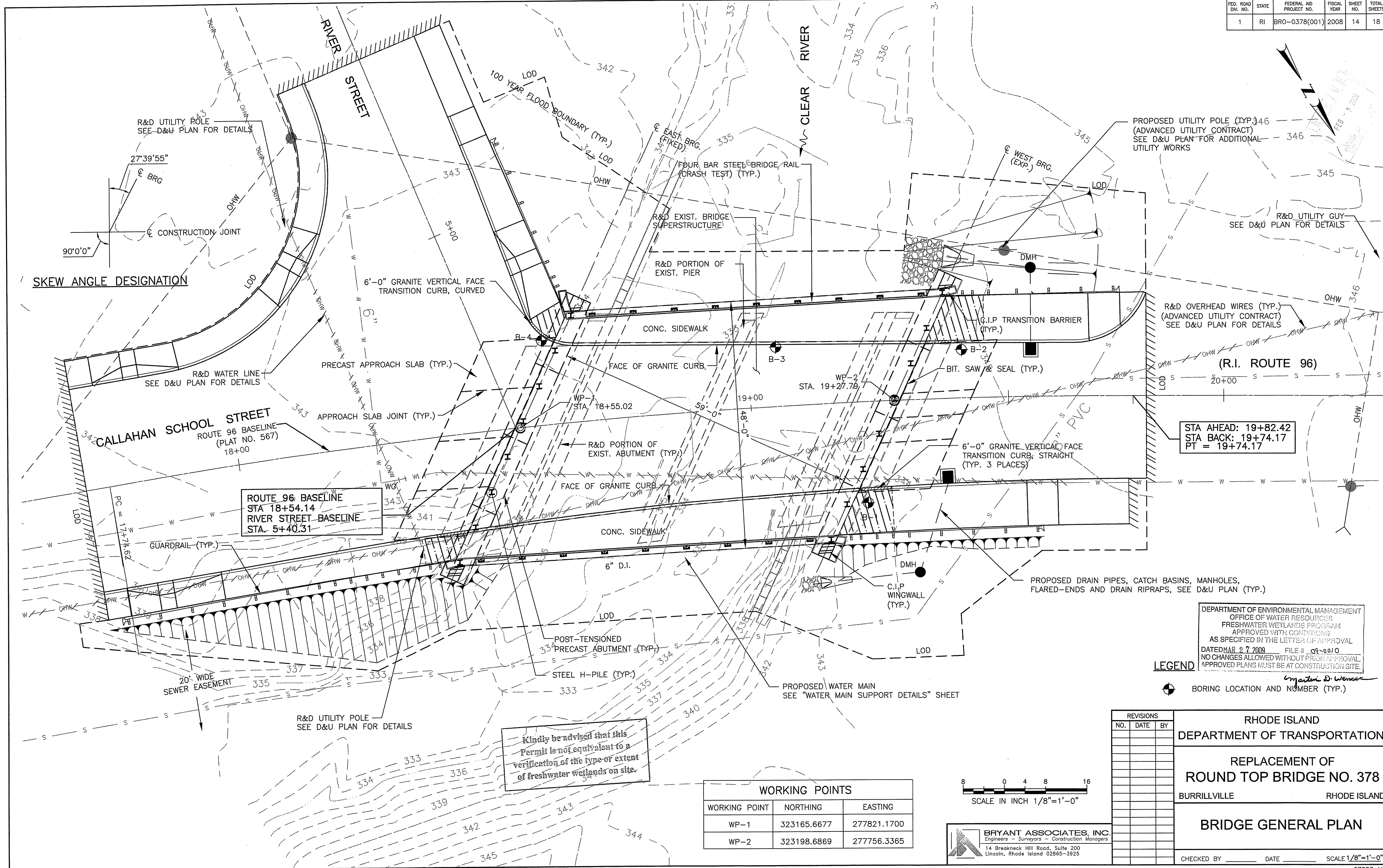
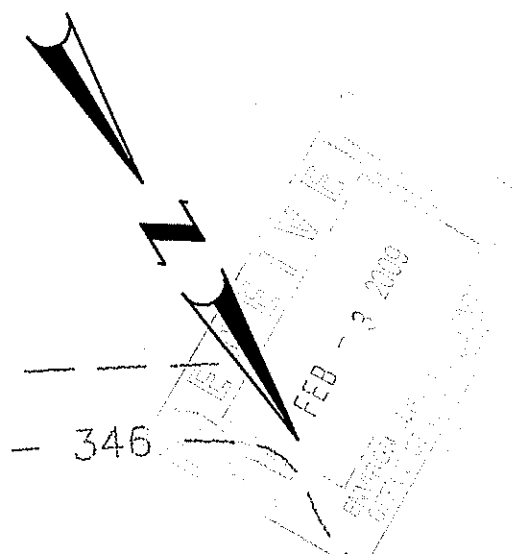
BURRILLVILLE RHODE ISLAND

WATER MAIN DETAILS

CHECKED BY _____ DATE _____ SCALE AS SHOWN

Stantec Consulting Services Inc.
5 LAN Drive, Suite 300
Westford MA U.S.A. 01886
Tel. 978.692.1913
Fax. 978.692.4578
www.stantec.com

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14 Brookneck Hill Road, Suite 200
Lincoln, Rhode Island 02865-5925



PROPOSED UTILITY POLE (TYP.) (ADVANCED UTILITY CONTRACT) SEE D&U PLAN FOR ADDITIONAL UTILITY WORKS

R&D UTILITY GUY SEE D&U PLAN FOR DETAILS

R&D OVERHEAD WIRES (TYP.) (ADVANCED UTILITY CONTRACT) SEE D&U PLAN FOR DETAILS

(R.I. ROUTE 96)

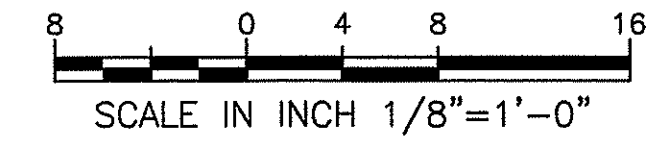
STA AHEAD: 19+82.42
STA BACK: 19+74.17
PT = 19+74.17

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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LEGEND
BORING LOCATION AND NUMBER (TYP.)

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

WORKING POINTS		
WORKING POINT	NORTHING	EASTING
WP-1	323165.6677	277821.1700
WP-2	323198.6869	277756.3365



BRYANT ASSOCIATES, INC.
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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

REPLACEMENT OF
ROUND TOP BRIDGE NO. 378

BURRILLVILLE RHODE ISLAND

BRIDGE GENERAL PLAN

CHECKED BY _____ DATE _____ SCALE 1/8"=1'-0"

