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SURVEY NOTES:

- 1. THIS TOPOGRAPHIC PLAN IS THE RESULT OF AN ON THE GROUND FIELD SURVEY CONDUCTED BETWEEN AUGUST 18 AND AUGUST 26, 2009 BY THE HORSLEY WITTE GROUP, INC.
- 2. PROPERTY LINE TAKEN FROM CLASS 1 SURVEY PLAN PROVIDED BY NATIONAL SURVEYORS-DEVELOPERS DATED SEPTEMBER 2008.
- 3. HORIZONTAL DATUM RHODE ISLAND STATE PLANE COORDINATE SYSTEM SCALED FROM RHODE ISLAND GIS DATA.
- 4. VERTICAL DATUM IS ASSUMED. (BENCHMARK SPK SET AT 124.23 (ASSUMED)) SEE SHEET 4.
- 5. TEST PIT LOCATIONS ARE FIELD OBSERVATIONS ONLY AND WERE NOT FIELD SURVEYED.
- 6. SEWER LINES TAKEN FROM CLASS 1 SURVEY PLAN PROVIDED BY NATIONAL SURVEYORS-DEVELOPERS DATED SEPTEMBER 2008
- 7. THE UNDERGROUND LINES SHOWN ON THIS PLAN MAY NOT BE ALL THE UNDERGROUND UTILITIES ON THE PROPERTY. THE LOCATIONS OF EXISTING UTILITIES CAN ONLY BE ACCURATELY DEPICTED WHEN OBSERVED DIRECTLY OR AT THE GROUND SURFACE. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. UNDERGROUND LINES MAY HAVE BEEN COMPILED FROM SKETCHES, PLAN AND EASEMENT DOCUMENTS. UNDERGROUND LINES HAVE NOT BEEN OBSERVED DIRECTLY. ALL LINES SHOULD BE FIELD VERIFIED PRIOR TO ANY CONSTRUCTION.
- 8. THE APPROXIMATE BUILDING LOCATIONS SHOWN ON THIS PLAN WERE TAKEN FROM GIS DATA AND WERE NOT FIELD LOCATED
- 9. THIS PLAN DOES NOT SHOW ANY RECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.
- 10. EXISTING CONTOUR INTERVALS ARE EQUAL TO ONE FOOT.
- 11. THE ACCURACY OF MEASURED PIPE INVERTS AND PIPE SIZES IS SUBJECT TO FIELD CONDITIONS, THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS AND OTHER CONDITIONS.

GENERAL CONSTRUCTION NOTES

- 1. ALL SITE PREPARATION NECESSARY TO COMPLETE THIS PROJECT ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 2. ALL NECESSARY POLICE DETAIL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL COORDINATE WITH THE LOCAL POLICE DEPARTMENT.
- 3. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS, PAY ALL FEES INCLUDING POLICE DETAILS AND POST ALL BONDS, IF NECESSARY, ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE OWNER AND THE ENGINEER.
- 4. ALL EXISTING CONDITIONS SHOWN SHALL BE CONSIDERED APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLING ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
- 5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR CORRECT. THE LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE TOWN OF BURRILLVILLE, AND "DISSAFE" (1-800-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK IN PREVIOUSLY UNALTERED AREAS TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESOLVE CONFLICTS BETWEEN THE PROPOSED UTILITIES AND FIELD-LOCATED UTILITIES AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED, INCOMPLETELY SHOWN, OR INCORRECTLY SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCURATE RECORDS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED AND EXISTING UTILITIES FOUND DURING CONSTRUCTION FOR THE PREPARATION OF THE AS-BUILT PLAN.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EXISTING UTILITIES IN WORKING ORDER AND FREE FROM DAMAGE DURING THE ENTIRE DURATION OF THE PROJECT. ALL COST RELATED TO THE REPAIR OF UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- 7. THE CONTRACTOR SHALL UTILIZE ALL PRECAUTIONS AND MEASURES TO ENSURE THE SAFETY OF THE PUBLIC, ALL PERSONAL AND PROPERTY DURING CONSTRUCTION IN ACCORDANCE WITH OSHA STANDARDS, INCLUDING BARRICADES, SAFETY LIGHTING, CONES, POLICE DETAIL AND/OR FLAGMEN AS DETERMINED NECESSARY BY THE ENGINEER AND/OR THE TOWN OF BURRILLVILLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF POLICE DETAIL AND FOR COORDINATING WITH THE LOCAL OR STATE POLICE DEPARTMENT FOR ALL REQUIRED POLICE DETAIL.
- 8. ANY TRENCHING WORK WITHIN A ROADWAY SHALL BE COORDINATED WITH THE PROPER LOCAL & STATE AGENCY. TRENCH SAFETY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INCLUDING ANY LOCAL AND/OR STATE PERMITS REQUIRED FOR THE TRENCHWORK. THIS WORK MAY BE REQUIRED TO TAKE PLACE OUTSIDE OF NORMAL HOURS OF OPERATION FOR THE FACILITY. THE CONTRACTOR SHALL PLAN ACCORDINGLY.
- 9. ANY TRENCH WORK WITHIN EXISTING PAVEMENT SHALL BE SAWCUT PER THE APPLICABLE DETAILS. TRENCHWORK BACKFILL AND COMPACTION SHALL HAVE MAX. 8-INCH LIFTS. CONTRACTOR SHALL BE REQUIRED TO REMOVE PATCH AND REPAVE AFTER ONE COMPLETE 12-MONTH CYCLE IF SETTLEMENT OCCURS DUE TO INADEQUATE COMPACTION AS DETERMINED BY THE ENGINEER WITHIN THE WARRANTY PERIOD.
- 10. ALL IMPORTED MATERIAL SHALL BE CLEAN.
- 11. SITE LAYOUT SURVEY REQUIRED FOR CONSTRUCTION WILL BE PROVIDED BY THE CONTRACTOR AND SHALL BE CONDUCTED BY A RHODE ISLAND REGISTERED PROFESSIONAL LAND SURVEYOR. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR FOR ALL SITE SURVEY WORK.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS DURING CONSTRUCTION INCLUDING BENCHMARK LOCATIONS AND ELEVATIONS AT CRITICAL AREAS. THE LOCATION OF ALL CONTROL POINTS AND BENCHMARKS SHALL BE COORDINATED WITH THE ENGINEER.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL GRADE STAKES SET BY THE SURVEYOR. GRADE STAKES SHALL REMAIN UNTIL A FINAL INSPECTION OF THE ITEM HAS BEEN COMPLETED BY THE ENGINEER. ANY RE-STAKING OF PREVIOUSLY SURVEYED SITE FEATURES SHALL BE THE RESPONSIBILITY (INCLUDING COST) OF THE CONTRACTOR.
- 14. UNLESS OTHERWISE SPECIFIED ON THE PLANS AND DETAILS/SPECIFICATIONS, ALL SITE CONSTRUCTION MATERIALS AND METHODOLOGIES ARE TO CONFORM TO THE MOST RECENT VERSION OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 15. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS REGARDING NOISE, VIBRATION, DUST, SEDIMENTATION CONTAINMENT, AND TRENCH WORK.
- 16. SOLID WASTES SHALL BE COLLECTED AND STORED IN A SECURED DUMPSTER. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.
- 17. THE CONTRACTOR SHALL RESTORE ALL SURFACES EQUAL TO THEIR ORIGINAL CONDITION AFTER CONSTRUCTION IS COMPLETE. AREAS NOT DISTURBED BY CONSTRUCTION SHALL BE LEFT NATURAL. THE CONTRACTOR SHALL TAKE CARE TO PREVENT DAMAGE TO SHRUBS, TREES, OTHER LANDSCAPING AND/OR NATURAL FEATURES. WHEREAS THE PLANS DO NOT SHOW ALL LANDSCAPE FEATURES, EXISTING CONDITIONS MUST BE VERIFIED BY THE CONTRACTOR IN ADVANCE OF THE WORK.
- 18. ALL UNPAVED AREAS DISTURBED BY THE WORK SHALL HAVE A MINIMUM OF 4-INCHES OF LOAM INSTALLED AND BE SEEDED WITH GRASS SEED AS SHOWN ON THE PLAN AND/OR DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING ANY LOAM AND SEEDED AREAS UNTIL LAWN GROWTH IS ESTABLISHED AND APPROVED BY THE ENGINEER AND/OR OWNER.
- 19. ALL PROPOSED STRUCTURES SHALL BE DESIGNED BY THEIR MANUFACTURERS FOR AASHTO H-20 LOADING. PRECAST CONCRETE SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 5000 PSI UNLESS OTHERWISE NOTED HEREIN.
- 20. LEDGE OR BOULDER EXCAVATION IS NOT ANTICIPATED FOR THIS SITE. HOWEVER, THE CONTRACTOR SHALL PROVIDE A UNIT PRICE COST IN CUBIC YARD MEASURE FOR LEDGE AND/OR BOULDER REMOVAL. LEDGE AND/OR BOULDERS LESS THAN 1 CUBIC YARD IN SIZE BASED ON THE AVERAGE DIMENSIONS WILL NOT BE CONSIDERED PAYABLE ROCK. UNIT PRICE SHALL BE GIVEN FOR BOTH ON AND OFF SITE DISPOSAL. COST OF REPLACEMENT MATERIAL SHALL BE INCLUDED IF ADDITIONAL FILL MATERIAL IS REQUIRED.
- 21. IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED, THE CONTRACTOR IS TO IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER AND OWNER.
- 22. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE. A THOROUGH INSPECTION OF THE WORK PERIMETER IS TO BE MADE AND ALL DISCARDED MATERIALS, BLOWN OR WATER CARRIED DEBRIS, SHALL BE COLLECTED, AND REMOVED FROM THE SITE.

BASIC CONSTRUCTION SEQUENCE

- 1. SURVEY AND STAKE THE PROPOSED LIMIT OF DISTURBANCE AND LIMIT OF SEDIMENTATION BARRIERS.
- 2. PLACE SEDIMENTATION BARRIERS (HAYBALES, SILT FENCE, ETC.) AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS/LIMIT OF DISTURBANCE AS SHOWN ON THE PROJECT PLANS AS APPROVED BY THE TOWN OF BURRILLVILLE.
- 3. INSTALL TEMPORARY CONSTRUCTION ENTRANCES IN LOCATIONS SHOWN ON PLANS. NO OTHER ENTRANCES SHALL BE USED TO GAIN ACCESS TO THE SITE BY ANY CONSTRUCTION OR DELIVERY VEHICLES.
- 4. BEGIN CLEARING THE SITE AS REQUIRED.
- 5. SURVEY AND STAKE CENTERLINE OF THE PROPOSED BIKE PATHS.
- 6. BEGIN CLEARING AND GRUBBING IN AREA OF BIKE PATH. ANY TOPSOIL STRIPPED FROM THE AREA OF THE PROPOSED BIKE PATH SHALL BE STOCKPILED IN AN APPROVED LOCATIONS. TOPSOIL STOCKPILES ARE TO BE PROTECTED BY A SEDIMENT BARRIER.
- 7. INSTALL TEMPORARY CONVEYANCE DEVICES (SWALES, CHECK DAMS, PIPES, ETC.) AS NECESSARY TO CONTROL RUNOFF DURING CONSTRUCTION.
- 8. BEGIN ROUGH GRADING AREAS FOR BIKE PATH. BRING ROUGH GRADING TO PROPER ELEVATIONS AS SOON AS PRACTICABLE. WORK SHALL PROGRESS DILIGENTLY TO MINIMIZE TIME SOILS ARE UN-STABILIZED.
- 9. PERMANENTLY SEED ALL DISTURBED AREAS OUTSIDE OF THE AREA TO BE PAVED.
- 10. PLACE COMPACTED GRAVEL AND ROUGH GRADE THE ROADWAYS/PARKING AREAS IN ACCORDANCE WITH THE SITE PLANS AND IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS AS SOON AS POSSIBLE.
- 11. COMPLETE PAVED BIKE PATH CONSTRUCTION PER SITE PLANS AND IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS. ROADS AND PARKING AREAS ARE NOT TO BE PAVED UNTIL THE ENTIRE PERMANENT DRAINAGE SYSTEM HAS BEEN INSTALLED AND ALL PIPE CONNECTIONS COMPLETE.
- 12. FINISH PERMANENT STABILIZATION.
- 13. SWEEP THE PAVED PEDESTRIAN/BIKE PATH.
- 14. COMPLETE ALL REMAINING PLANTING AND SEEDING.
- 15. REMOVAL OF ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS SHALL BE APPROVED BY THE ENGINEER AND WHEN THE CONTRIBUTING AREA HAS REACHED A MINIMUM OF 80% STABILIZATION.

GENERAL GRADING AND DRAINAGE NOTES

- 1. ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- 2. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- 3. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- 4. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- 5. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE FOR ALL NATURAL AND PAVED AREAS.
- 6. PROPOSED ELEVATIONS ARE SHOWN TO FINISH PAVEMENT OR GRADE UNLESS NOTED OTHERWISE.
- 7. ALL EARTHWORK AND SITE PREPARATION SHALL BE DONE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF ANY SUBSURFACE INVESTIGATION OR GEOTECHNICAL REPORTS PREPARED FOR THIS SITE.
- 8. PEDESTRIAN/BIKE PATH IS NOT TO BE PAVED UNTIL THE ALL SIDE SLOPES AND DISTURBED AREAS HAVE BEEN STABILIZED.

CULVERT REPAIR AND MAINTENANCE NOTES:

ALL EIGHT CULVERTS LOCATED ALONG THE PROPOSED MULTI-USE PATH REQUIRE SOME FORM OF MAINTENANCE TO ENSURE THAT THEY WILL FUNCTION PROPERLY IN THE FUTURE. IN THE CASE OF CULVERT 2 AND CULVERT 4, IT MAY BE NECESSARY TO REPLACE THESE CULVERTS IN-KIND UPON CONSTRUCTION OF THE PROPOSED MULTI-USE PATH. UNDER RIDEM / FRESHWATER WETLANDS PROGRAM RULE 6.01 CULVERT MAINTENANCE AND LIMITED REPLACEMENT IS ALLOWED WITHOUT ADDITIONAL WETLANDS PERMITTING. BELOW IS A SUMMARY OF THE MAINTENANCE ACTIVITIES RECOMMENDED AT EACH OF THE CULVERT CROSSINGS.

- 1. CULVERT 1 - REMOVE SEDIMENT FROM WITHIN THE CULVERT AS NECESSARY.
- 2. CULVERT 2 - REMOVE BRANCHES, STONES, AND DEBRIS FROM INSIDE THE BARREL OF THE CULVERT. REPAIR CULVERT WALLS BY REPLACING STONES AND MORTAR. IF IT IS DETERMINED THAT THE CULVERT IS UNREPAIRABLE THE CULVERT IS TO BE REPLACED IN-KIND WITH A 24" X 24" BOX CULVERT EMBEDDED TO A DEPTH OF THREE INCHES.
- 3. CULVERT 3 - REMOVE DEBRIS FROM INLET OF CULVERT TO IMPROVE FLOW CONDITIONS AND REDUCE FREQUENCY OF PATH OVERTOPPING.
- 4. CULVERT 4 - FIELD LOCATE THE INLET AND OUTLET OF THE EXISTING 6-INCH DI PIPE DURING PATH CONSTRUCTION. REMOVE DEBRIS FROM CULVERT BARREL. IF NECESSARY, REPLACE IN-KIND AND MATCH EXISTING CULVERT DIMENSIONS AND INVERT ELEVATIONS.
- 5. CULVERT 5 - REMOVE STONES FROM CULVERT ENTRANCE THAT ARE PARTIALLY OBSTRUCTING THE FLOW PATH. REPLACE STONES TO THEIR ORIGINAL LOCATION ALONG THE WALLS OF THE ENTRANCE CHANNEL. BANK STABILIZATION AT THE DOWNSTREAM CULVERT END TO PREVENT FURTHER EROSION AS SHOWN ON PLANS. RIP RAP APRON TO BE PROVIDED AT DOWNSTREAM OUTLET - SEE DETAIL.
- 6. CULVERT 6 - STABILIZE THE STREAM BED WITH RIPRAP TO DISSIPATE ENERGY FROM EROSION FLOWS AS SHOWN ON THE PLANS. RIP RAP APRON TO BE PROVIDED AT DOWNSTREAM OUTLET - SEE DETAIL.
- 7. CULVERT 7 - REMOVE SEDIMENT FROM WITHIN THE CULVERT AS NECESSARY TO INCREASE THE FLOW CAPACITY.
- 8. CULVERT 8 - REMOVE SEDIMENT FROM WITHIN THE CULVERT AS NECESSARY TO INCREASE THE FLOW CAPACITY.

STORMWATER FACILITY OPERATION & MAINTENANCE:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSPECTION AND MAINTENANCE OF ALL STORMWATER MANAGEMENT UNTIL SUCH TIME THAT THE PEDESTRIAN/BIKE PATH AND ASSOCIATED WORK HAS BEEN ACCEPTED BY THE OWNER.
- 2. THE CONTRACTOR SHALL INSPECT AND RESTORE/CLEAN ALL FACILITIES (INLETS, MANHOLES, INFILTRATION BASINS, ETC.) OF SEDIMENT AND DEBRIS PRIOR TO THE OWNER'S ACCEPTANCE.
- 3. ALL SEDIMENT AND DEBRIS SHALL BE DISPOSED OF PROPERLY IN A PRE-APPROVED LOCATION AS APPROVED BY THE TOWN OF BURRILLVILLE.
- 4. THE CONTRACTOR SHOULD REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION PERTAINING TO STORMWATER FACILITY OPERATION AND MAINTENANCE REQUIREMENTS AND SHALL MAINTAIN A WORKING COPY ON SITE AT ALL TIMES.
- 5. ALL STORMWATER FACILITIES SHALL BE INSPECTED BY THE CONTRACTOR AFTER EVERY MAJOR RAINFALL EVENT FOR THE ENTIRE DURATION OF THE CONSTRUCTION PROJECT AND THE FIRST 3-MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION AND CONSTRUCTION.
- 6. SPECIFIC ANNUAL MAINTENANCE SHALL BE AS FOLLOWS:
 - A. RIP-RAP SLOPE PROTECTION: RIP RAP AT THE OUTFALLS WILL BE INSPECTED ANNUALLY AND REPAIRED AS NECESSARY.
 - B. BIORETENTION SYSTEMS AND RAINGARDENS: THE BIORETENTION SYSTEMS AND RAIN GARDENS WILL BE INSPECTED SEMI-ANNUALLY FOR THE FIRST YEAR OF OPERATION AND ANNUALLY AFTER THE FIRST YEAR, AND AFTER MAJOR STORM EVENTS. GENERAL MAINTENANCE OF BIORETENTION SYSTEMS FALLS UNDER LANDSCAPING PRACTICES. THE PLANTING SOIL BED WILL BE MONITORED FOR PROPER PH, EROSION, AND AERATION. MULCH WILL BE REPLACED BI-ANNUALLY, AND ILL-ESTABLISHED, DEAD OR SEVERELY DISEASED PLANTS WILL BE REMOVED AND REPLACED ANNUALLY. SEDIMENT BUILD-UP FROM THE PEA GRAVEL DIAPHRAGM WILL BE REMOVED AS NEEDED, AND THE DIAPHRAGM ITSELF WILL BE REPLACED WHEN NECESSARY.
 - C. GRASS SWALES: A GENERAL INSPECTION OF THE SWALE SHALL BE CONDUCTED ANNUALLY AND AFTER MAJOR STORM EVENTS. THE WORK CONSISTS OF REMOVAL OF ANY TRASH AND/OR DEBRIS FROM THE BOTTOM OF THE SWALE. REMOVAL OF SEDIMENT WITHIN THE SWALE WHEN BUILDUP IS GREATER THAN OR EQUAL TO 3-INCHES. MOWING OF THE GRASS AT LEAST FOUR TIMES A YEAR TO A HEIGHT OF 8-INCHES DURING THE GROWING SEASON, CORRECTING ANY EROSION GULLYING, AND RESEEDING AS NECESSARY. SEDIMENT SHALL BE DISPOSED OF OFF-SITE IN A PRE-APPROVED LOCATION.
 - D. ROUTINE MAINTENANCE: OTHER ROUTINE MAINTENANCE WILL INCLUDE REMOVAL OF TRASH AND LITTER FROM PAVED AND PERIMETER AREAS, AND ANNUAL STREET AND PARKING LOT SWEEPING AFTER THE SPRING THAW TO AVOID EXCESSIVE ACCUMULATION OF SEDIMENT IN THE DRAINAGE SYSTEM. THE PIPES DRAINING THE PROJECT WILL BE INSPECTED ANNUALLY FOR PROPER FLOW.

NOTE: OPERATION AND MAINTENANCE CHECKLIST AVAILABLE UPON REQUEST

ENVIRONMENTAL - EROSION & SEDIMENT CONTROL NOTES

- 1. PRIOR TO THE START OF CONSTRUCTION A NOTICE OF INTENT (NOI) MUST BE FILED WITH RIDPES. THE CONTRACTOR SHOULD REFER TO THE STORMWATER AND POLLUTION PREVENTION PLAN (SWPPP) REGARDING ALL EROSION CONTROL MATTERS AND SHALL MAINTAIN A WORKING COPY ON SITE AT ALL TIMES. THE CONTRACTOR SHALL FOLLOW THE SWPPP PROTOCOL FOR SITE MAINTENANCE, INSPECTIONS AND PROPER DOCUMENTATION UNTIL THE SITE HAS BEEN ACCEPTED BY THE OWNER. AT THE COMPLETION OF THE PROJECT A NOTICE OF TERMINATION WILL NEED TO BE FILED BY THE CONTRACTOR OR OWNER WITH RIDPES. IN ACCORDANCE WITH RIDPES REGULATIONS THE COMPLETE SWPPP WHICH SHALL INCLUDE ALL OF THE SITE EROSION CONTROL DOCUMENTATION, WEEKLY EROSION INSPECTION REPORTS COMPLETED BY THE DESIGNATED SITE PERSONNEL, AND ANY OTHER PERTINENT SITE DOCUMENTATION MUST BE RETAINED FOR A MINIMUM OF 3 YEARS FROM THE DATE OF TERMINATION.
- 2. THE SITE CONSTRUCTION FOREMAN SHALL BE DESIGNATED AS THE ON-SITE PERSONNEL RESPONSIBLE FOR THE DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROLS AND SHALL IMPLEMENT ALL NECESSARY MEASURE TO CONTROL EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE.
- 3. THE CONTRACTOR SHALL INSTALL ALL SEDIMENT AND EROSION CONTROL MEASURES AS SHOWN ON THE DESIGN PLANS, AND AS DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER BEFORE ANY CONSTRUCTION ACTIVITIES ARE TO BEGIN. THESE MEASURES SHALL BE CHECKED, MAINTAINED/REPLACED AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT. SUCH MEASURE SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGH THE CONSTRUCTION PERIOD.
- 4. A MINIMUM SURPLUS OF 100-FEET OF EROSION CONTROL BARRIER (SILT FENCE, HAYBALE, &/OR SILT SOCK) SHALL BE STOCKPILED ON SITE AT ALL TIMES.
- 5. THE CONTRACTOR SHALL PROTECT THE ADJACENT WETLANDS AND BUFFERS FROM SEDIMENTATION DURING PROJECT CONSTRUCTION UNTIL ACCEPTANCE BY THE OWNER & IN CONFORMANCE WITH THE ORDER OF CONDITIONS.
- 6. A CONSTRUCTION EXIT SHALL BE CONSTRUCTED AS SHOWN IN THE DETAILS TO SHED DIRT FROM CONSTRUCTION VEHICLE TIRES. THE CRUSHED STONE PAD WILL BE REPLACED/CLEANED AS NEEDED TO MAINTAIN ITS EFFECTIVENESS.
- 7. THE LIMIT OF ALL CLEARING, GRADING AND DISTURBANCES SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE CARE TO MINIMIZE SITE WORK IN A MANNER TO MINIMIZE AREAS OF EXPOSED SOIL. IF TREES ARE TO BE CUT ON THE ENTIRE SITE, ONLY THOSE AREAS WHICH ARE ACTIVELY UNDER CONSTRUCTION SHALL BE GRUBBED. THE REQUIRED SEDIMENTATION CONTROL FACILITIES MUST BE PROPERLY ESTABLISHED, CLEARLY VISIBLE AND IN OPERATION PRIOR TO INITIATING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK.
- 8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MONITOR LOCAL WEATHER REPORTS DURING CONSTRUCTION AND PRIOR TO SCHEDULING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES WHICH WILL LEAVE LARGE DISTURBED AREAS UNSTABILIZED. IF INCLEMENT WEATHER IS PREDICTED, THE CONTRACTOR SHALL USE THEIR BEST PROFESSIONAL JUDGEMENT WHEN SCHEDULING CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR INSURING THE NECESSARY EROSION CONTROL DEVICES ARE INSTALLED AND FUNCTIONING PROPERLY TO MINIMIZE EROSION FROM ANY IMPENDING WEATHER EVENTS.
- 9. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF 0.25 INCH OR GREATER DURING CONSTRUCTION TO INSURE THAT THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE INTACT AND FUNCTIONING PROPERLY. IDENTIFIED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY AND NO LATER THAN 24 HOURS AFTER IDENTIFICATION.
- 10. SOIL STOCKPILES LEFT OVERNIGHT SHALL BE SURROUNDED BY THEIR PERIMETERS WITH SILT SOCK, SILT FENCE, HAYBALES, OR A COMBINATION OF SILT FENCE WITH HAYBALE, AS DETERMINED NECESSARY.
- 11. DISTURBED AREAS AND SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHOULD PROVIDE APPROPRIATE STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY AREAS HAVING A SLOPE GREATER THAN 4:1 SHALL BE REINFORCED WITH EROSION BLANKETS OR APPROVED EQUAL UNTIL THE SITE IS PROPERLY STABILIZED. TEMPORARY SWALES MAY ALSO BE REQUIRED IF DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER.
- 12. THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT IN ANY EXISTING CATCHBASIN RECEIVING RUNOFF FROM THE SITE. UPON THE INSTALLATION OF EACH CATCH BASIN, THE CONTRACTOR SHALL INSTALL A SILT SACK OR APPROVED EQUIVALENT. THESE ARE TO BE INSPECTED AFTER EACH SIGNIFICANT STORM EVENT AND REMOVED AND EMPTIED AS NEEDED DURING THE ENTIRE CONSTRUCTION PERIOD.
- 13. SMALL SEDIMENTATION BASINS MAY BE CONSTRUCTED ON AN AS-NEEDED BASIS DURING CONSTRUCTION TO AID IN THE CAPTURE OF SITE RUNOFF AND SEDIMENT. IT WILL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR, IN CONSULTATION WITH THE ENGINEER, TO SIZE AND CREATE THESE BASINS IN APPROPRIATE LOCATIONS.
- 14. THE CONTRACTOR SHALL CONTAIN ALL SEDIMENT ON SITE. ALL EXITS FROM THE SITE WILL BE SWEEP AS NECESSARY INCLUDING ANY SEDIMENT TRACKING. PAVED AREAS SHALL BE SWEEP AS NEEDED TO REMOVE SEDIMENT AND POTENTIAL POLLUTANTS WHICH MAY ACCUMULATE DURING SITE WORK.
- 15. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A PRE-APPROVED LOCATION BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
- 16. THE CONTRACTOR SHALL PROVIDE ON SITE OR MAKE READILY AVAILABLE THE NECESSARY EQUIPMENT AND SITE PERSONNEL DURING CONSTRUCTION HOURS FOR THE DURATION OF THE PROJECT TO INSURE ALL EROSION AND SEDIMENTATION CONTROL DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER. IF SITE WORK IS SUSPENDED DURING THE WINTER MONTHS THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE PERSONNEL AND EQUIPMENT EITHER ON SITE OR MAKE READILY AVAILABLE TO INSURE ALL EROSION AND SEDIMENTATION CONTROL DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER.
- 17. PROPER MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR IF DEWATERING IS NECESSARY DURING CONSTRUCTION. THESE MEASURES SHALL INCLUDE DEWATERING PUMPS, TEMPORARY HAYBALES, SILT FENCES, SILT SOCKS AND/OR OTHER APPROVED DEVICES. THE DEWATERING SETUP SHALL BE APPROVED BY THE ENGINEER.
- 18. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE ENGINEER AT NO EXTRA COST TO THE OWNER.
- 19. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE TO AN APPROVED DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.
- 20. CEMENT TRUCKS OR ANY OTHER CONSTRUCTION VEHICLES SHALL NOT BE WASHED ONSITE. ANY CEMENT OR CONCRETE PRODUCTS ENTERING THE SURROUNDING WETLANDS SHALL BE REMOVED BY HAND AT THE CONTRACTOR'S EXPENSE.
- 21. BURIAL OF ANY STUMPS, SOLID DEBRIS, AND/OR STONES/BOULDERS ONSITE IS PROHIBITED. NO ROAD SALT OR OTHER DE-ICING CHEMICALS SHALL BE USED ON THE ACCESS ROADWAY.
- 22. THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE DURING CONSTRUCTION OF ALL STORMWATER FACILITIES INSTALLED OR AFFECTED BY THE PROJECT. ANY SEDIMENT OR DEBRIS COLLECTED WITHIN THESE FACILITIES FROM THE PROJECT WORK SHALL BE REMOVED PRIOR TO THE OWNER'S ACCEPTANCE.

LEGEND:

GENERAL

EXISTING	PROPOSED	BERM
---	---	BUILDING
---	---	CENTERLINE
---	---	CONTOUR - MINOR
---	---	CONTOUR - MAJOR
---	---	CURB
---	---	EDGE OF PAVEMENT
---	---	FENCE - CHAIN LINK
---	---	FENCE - WIRE
---	---	FENCE - WOOD
---	---	GUARD RAIL
---	---	LIMIT OF WORK
---	---	PATHWAY
---	---	TREE LINE
---	---	CROSSWALK/PAVEMENT STRIPING
---	---	CONSTRUCTION ENTRANCE/EXIT

PROPERTY INFORMATION

EXISTING	PROPOSED	ABUTTING LOT
---	---	EASEMENT LINE
---	---	PROPERTY, LOT, OR ROAD
---	---	SETBACK LINE

UTILITIES

EXISTING	PROPOSED	OVERHEAD WIRE
OH-W	---	SANITARY SEWER
S	---	DRAIN PIPE
D	---	

EROSION & SEDIMENT CONTROL

PROPOSED	SILT FENCE-HAYBALE
SFHB	

ENVIRONMENTAL

EXISTING	WETLAND BOUNDARY
---	50' PERIMETER WETLAND
---	100' RIVERBANK WETLAND
---	STREAM

SYMBOLS

- BENCHMARK
- BOUNDARY
- CONTROL POINT
- SEWER MANHOLE
- DRAIN MANHOLE
- UTILITY POLE W/GUY
- TEST PIT
- WETLAND FLAG
- WETLAND
- ACCESS GATE

Revisions

No.	Date	By	Appr.	Description
1	05/14/10	BRK/BRK		Revisions Per RIDEM

Horsley Witten Group, Inc.
Sustainable Environmental Solutions
www.horsleywitten.com
90 Route 6A
Sandwich, MA 02563
508-893-6600 voice
508-893-9760 fax

Checked By: FFL
Drawn By: AEC
Designed By: BRK
Date: JANUARY 2010

PERMITTING PLANS
HARRISVILLE-PASCOAG MULTI-USE
PATH
BURRILLVILLE, RHODE ISLAND
CONSTRUCTION NOTES

Plan Set:

Prepared For:
Town of Burrillville
144 Harrisville Main Street
Burrillville, RI 02830
Phone: (410) 568-4300
Fax: ---

Survey Provided By:
Horsley Witten Group
90 Route 6A
Sandwich, MA 02563
Phone: (508) 833-6600
Fax: (508) 833-9760
Date: February, 2006

Registration:
FAT PIU LEE
No. 7984
REGISTERED PROFESSIONAL ENGINEER
(CIVIL)

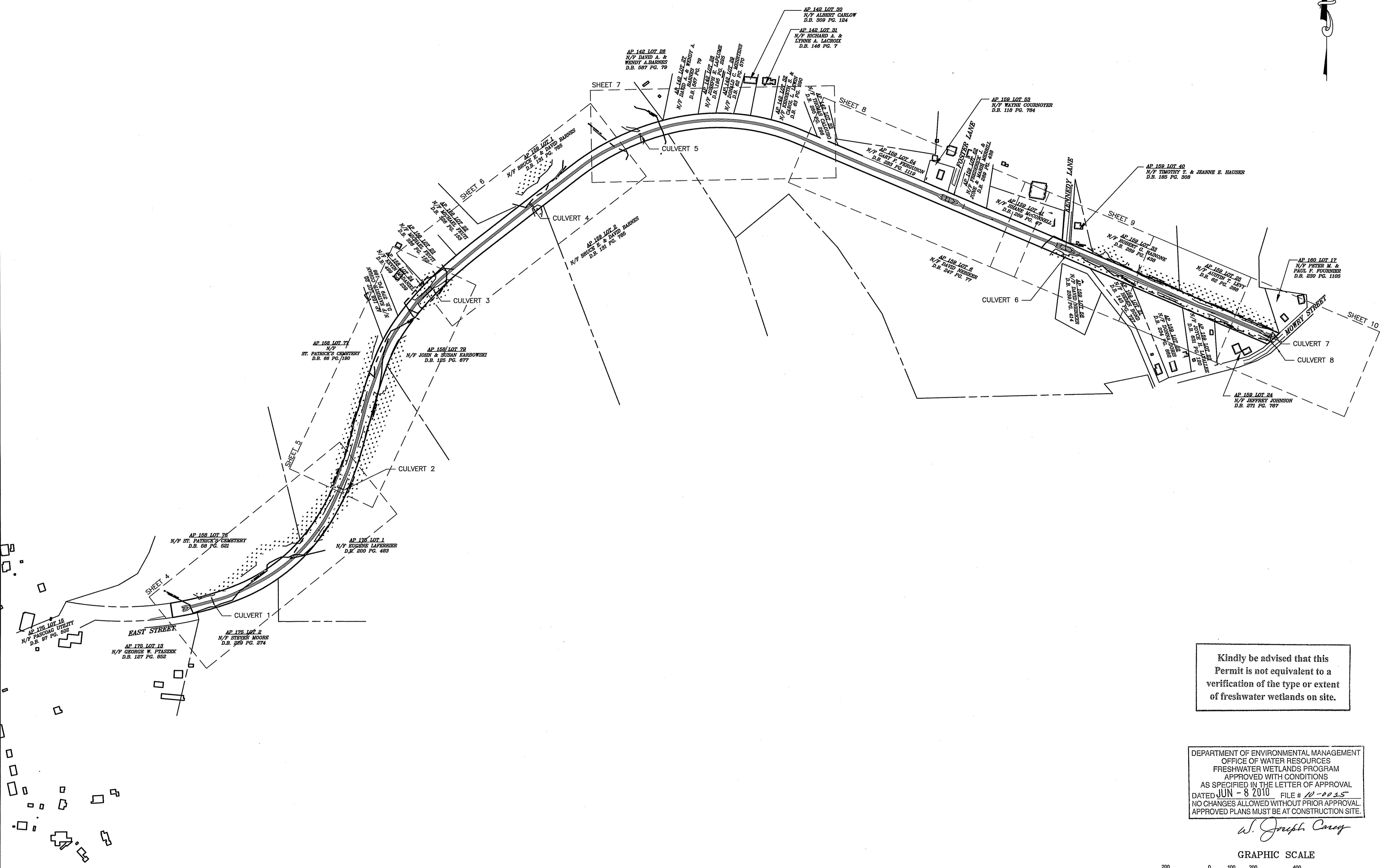
Project Number: 8086A
Sheet: 2 of 12
Drawing Number: C-2

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 JUN - 8 2010 FILE # 12-20-25
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Caray

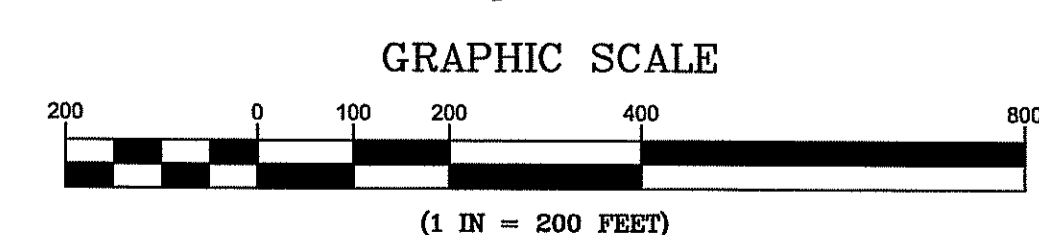
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Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED JUN - 8 2010 FILE # 10-00215
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

J. Joseph Carey



Revisions	Date	By	Description
1	05/14/10	BRK/BRK	Revisions Per RIDEM

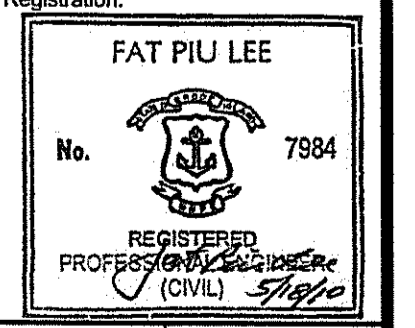
Horsley Witten Group, Inc.
 Sustainable Environmental Solutions
 www.horsleywitten.com
 90 Route 6A
 Sandwich, MA 02563
 Phone: 508-833-3150
 Fax: 508-833-3100

Date: JANUARY 2010
 Designed By: BRK
 Drawn By: AEC
 Checked By: FFL

Plan Set:
PERMITTING PLANS
HARRISVILLE-PASCOAG MULTI-USE
PATH
BURRILLVILLE, RHODE ISLAND
 Overall Plan

Prepared For:
 Town of Burrillville
 144 Harrisville Main Street
 Burrillville, RI 02830
 Phone: (410) 568-4300
 Fax: ...

Survey Provided By:
 Horsley Witten Group
 90 Route 6A
 Sandwich, MA 02563
 Phone: (508) 833-3150
 Fax: (508) 833-3150
 Dated: February, 2006

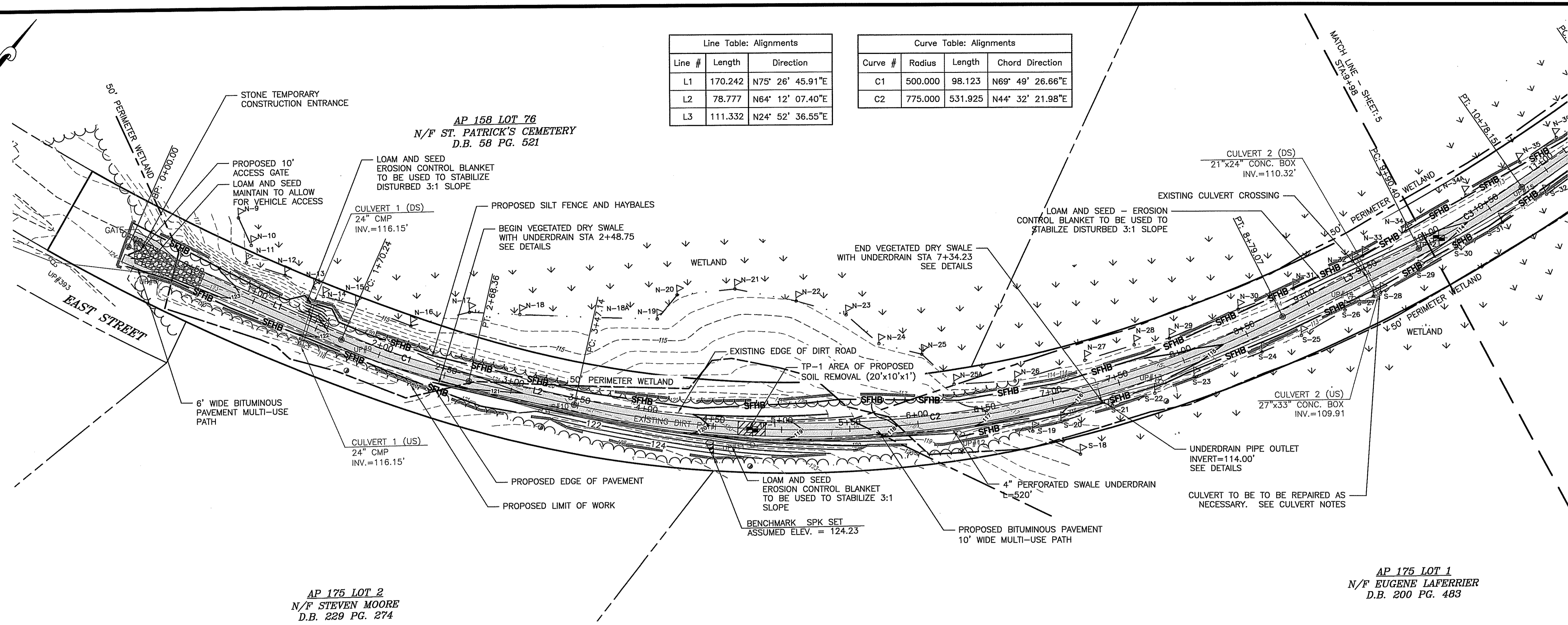


Project Number: 8086A
 Sheet: 3 of 12
 Drawing Number: C-3

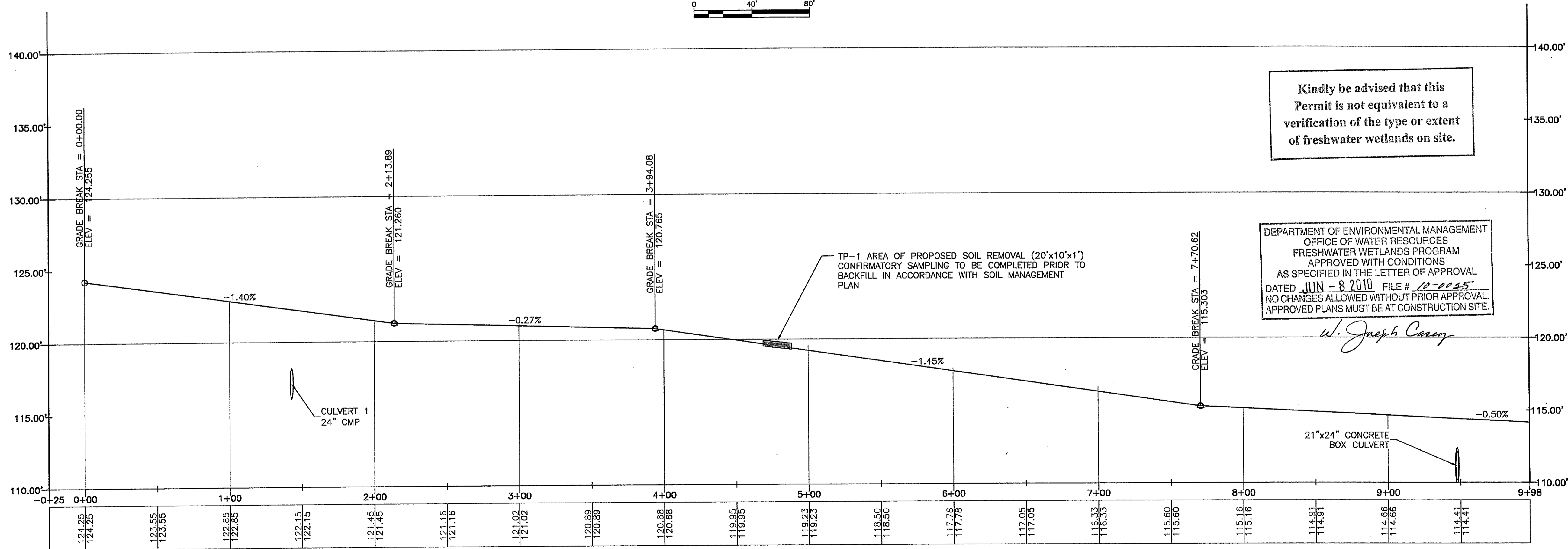
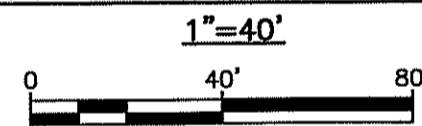
last modified: 05/19/10 by bk H:\Projects\2008\8086A Burrillville_Rail_Phase_ILD\Drawings-8086A\8086A-GD.dwg

Line Table: Alignments		
Line #	Length	Direction
L1	170.242	N75° 26' 45.91"E
L2	78.777	N64° 12' 07.40"E
L3	111.332	N24° 52' 36.55"E

Curve Table: Alignments			
Curve #	Radius	Length	Chord Direction
C1	500.000	98.123	N69° 49' 26.66"E
C2	775.000	531.925	N44° 32' 21.98"E



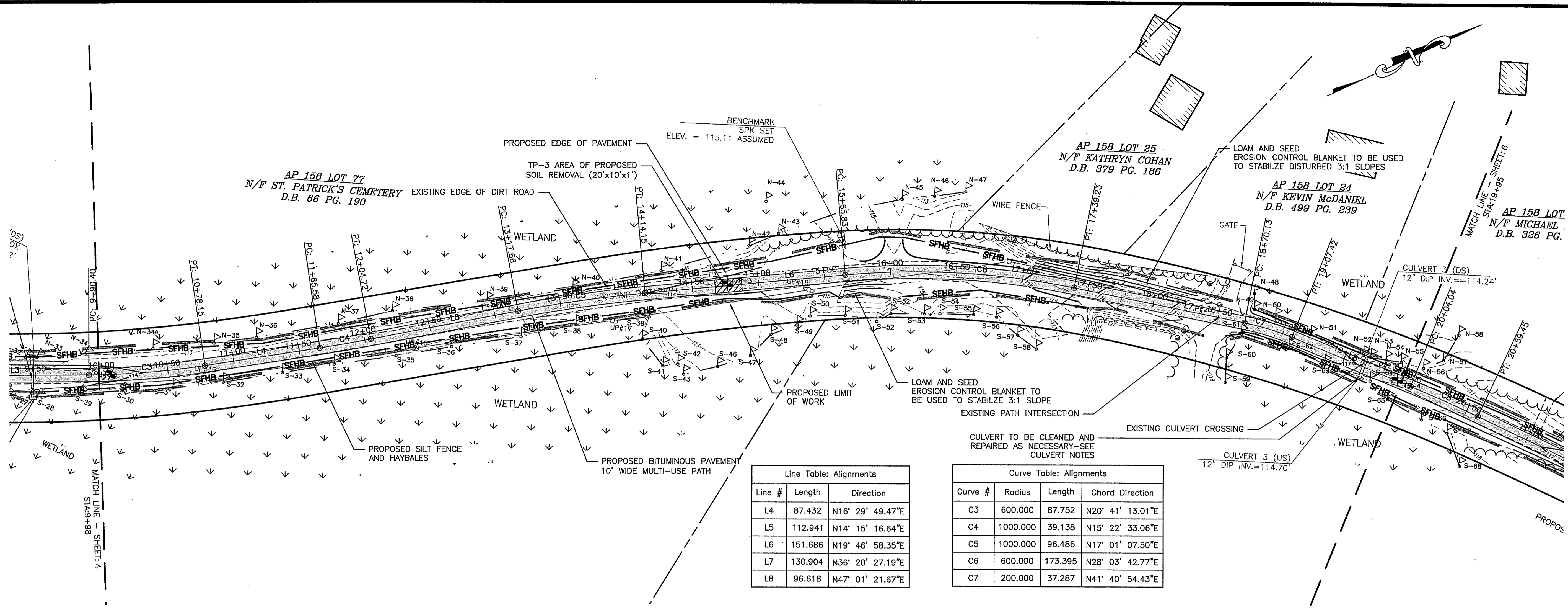
PROPOSED PATH STA 0+00 TO STA 9+98



PROPOSED PATH STA 0+00 TO 9+98
HORIZONTAL: 1"=40', VERTICAL: 1"=4'

<p>Revisions</p> <table border="1"> <thead> <tr> <th>No.</th> <th>Date</th> <th>By</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		No.	Date	By	Description				
No.	Date	By	Description						
<p>Horsley Witten Group, Inc. Sustainable Environmental Solutions www.horsleywitten.com 90 Route 6A Sandwich, MA 02563 508-833-6000 voice 508-833-3150 fax</p>									
<p>PERMITTING PLANS HARRISVILLE-PASCOAG MULTI-USE PATH BURRILLVILLE, RHODE ISLAND PROPOSED CONDITIONS - (1)</p>									
<p>Prepared For: Town of Burrillville 144 Harrisville Main Street Burrillville, RI 02830 Phone: (401) 568-4300 Fax: ---</p>	<p>Plan Title: PROPOSED CONDITIONS - (1)</p>								
<p>DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESOURCES FRESHWATER WETLANDS PROGRAM APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL DATED JUN - 8 2010 FILE # 10-0055 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL. APPROVED PLANS MUST BE AT CONSTRUCTION SITE.</p> <p><i>W. Joseph Casey</i></p>									
<p>Survey Provided By: Horsley Witten Group 90 Route 6A Sandwich, MA 02563 Phone: (508) 833-6000 Fax: (508) 833-3150 Date: February, 2006</p>	<p>Registrations: FAT PIU LEE No. 7984 REGISTERED PROFESSIONAL CIVIL ENGINEER</p>								
<p>Project Number: 8086A Sheet: 4 of 12 Drawing Number: C-4</p>									

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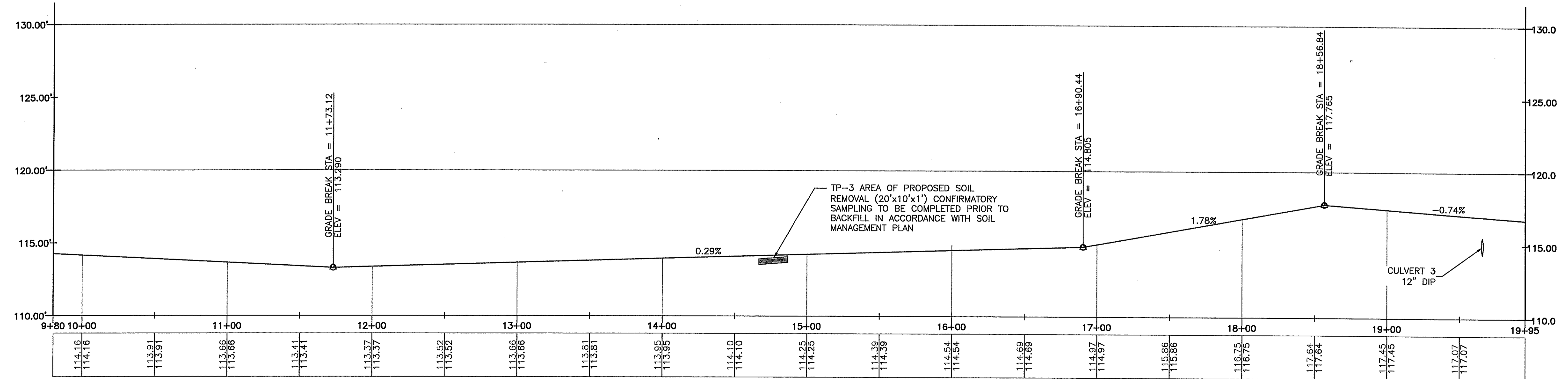
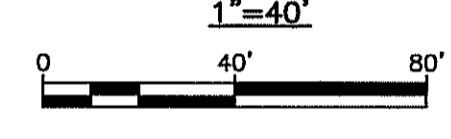
Line Table: Alignments

Line #	Length	Direction
L4	87.432	N16° 29' 49.47"E
L5	112.941	N14° 15' 16.64"E
L6	151.686	N19° 46' 58.35"E
L7	130.904	N36° 20' 27.19"E
L8	96.618	N47° 01' 21.67"E

Curve Table: Alignments

Curve #	Radius	Length	Chord Direction
C3	600.000	87.752	N20° 41' 13.01"E
C4	1000.000	39.138	N15° 22' 33.06"E
C5	1000.000	96.486	N17° 01' 07.50"E
C6	600.000	173.395	N28° 03' 42.77"E
C7	200.000	37.287	N41° 40' 54.43"E

PROPOSED PATH STA 9+97.64 TO STA 19+95



PROPOSED PATH STA 9+98 TO STA 19+95
HORIZONTAL: 1"=40', VERTICAL: 1"=4'

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 JUN - 8 2010 FILE # 12-0035
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Conroy

Revisions

Rev.	Date	By	Description
1	05/14/10	BRK/BRK	Revisions Per RIDEM

Horsley Witten Group, Inc.
Sustainable Environmental Solutions
www.horsleywitten.com
90 Route 6A
Southwick, MA 02563
Phone: (508) 833-3150
Fax: 508-833-3150

Checked By: FFL
Drawn By: AEC
Designed By: BRK
Date: JANUARY 2010

PERMITTING PLANS
HARRISVILLE-PASCOAG MULTI-USE
PATH
BURRILLVILLE, RHODE ISLAND
PROPOSED CONDITIONS - (2)

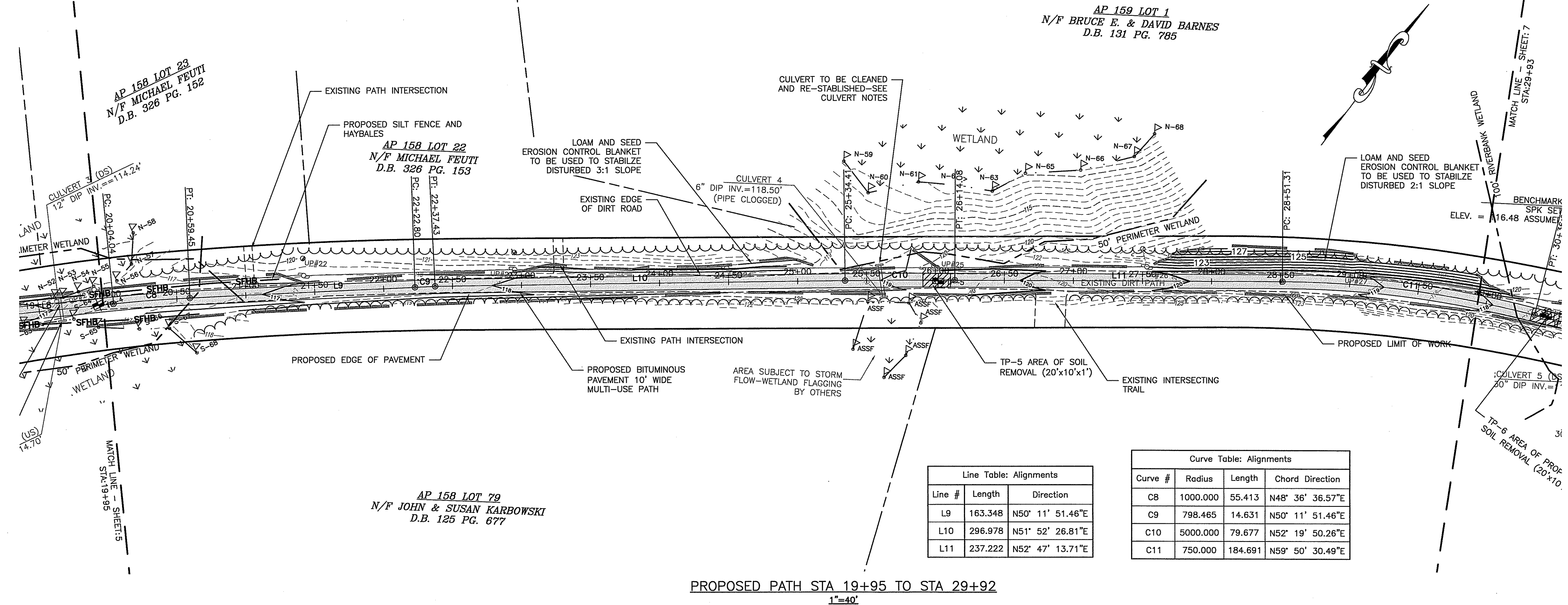
Prepared For:
Town of Burrillville
144 Harrisville Main Street
Burrillville, RI 02830
Phone: (410) 588-4300
Fax:

Survey Provided By:
Horsley Witten Group
90 Route 6A
Southwick, MA 02563
Phone: (508) 833-3150
Fax: (508) 833-3150
Date: February, 2006

Registration:
FAT PIU LEE
No. 7384
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

Project Number: Sheet:
8086A 5 of 12

last modified: 05/19/10 printed: 05/19/10 by bk H:\Projects\2008\8086A Burrillville_Rail_Phase_II\Drawings-8086A\8086A-GD.dwg

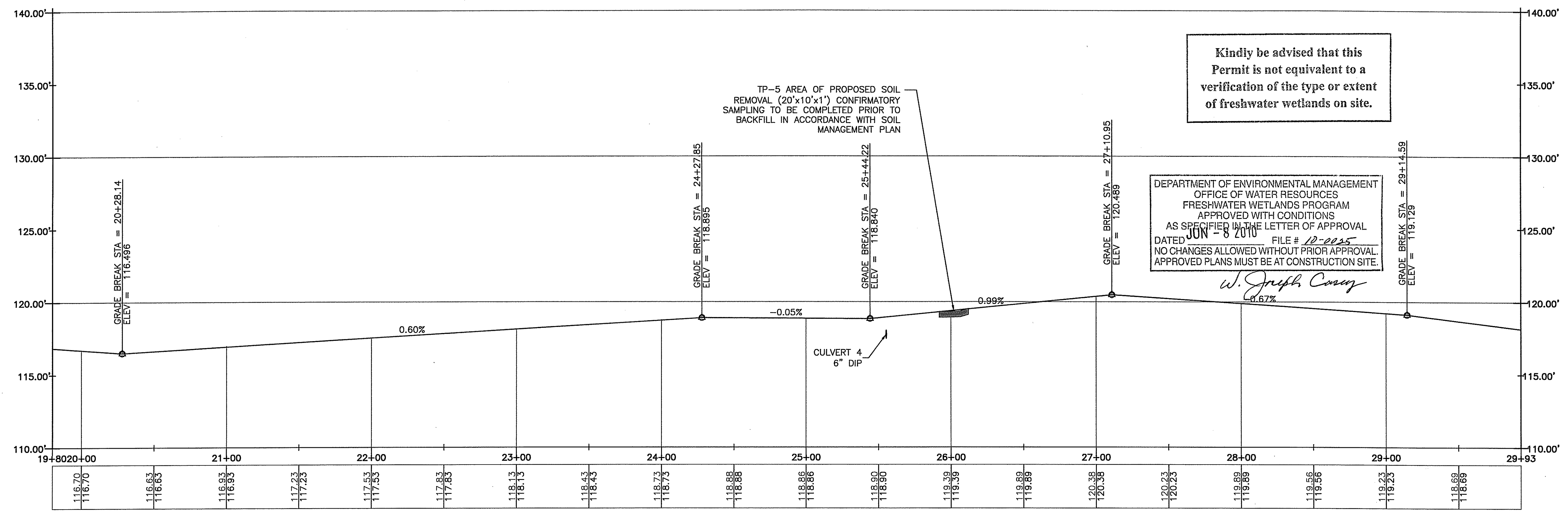


Line Table: Alignments

Line #	Length	Direction
L9	163.348	N50° 11' 51.46"E
L10	296.978	N51° 52' 26.81"E
L11	237.222	N52° 47' 13.71"E

Curve Table: Alignments

Curve #	Radius	Length	Chord Direction
CB	1000.000	55.413	N48° 36' 36.57"E
C9	798.465	14.631	N50° 11' 51.46"E
C10	5000.000	79.677	N52° 19' 50.26"E
C11	750.000	184.691	N59° 50' 30.49"E



PROPOSED PATH STA 19+95 TO STA 29+93
HORIZONTAL: 1"=40', VERTICAL: 1"=4'

Revisions

Rev	Date	By	Description
1			

Horsley Witten Group, Inc.
Sustainable Environmental Solutions
www.horsleywitten.com
90 Route 6A
Sandwich, MA 02563
508-833-6600 voice
508-833-3150 fax

Plan Title: **PERMITTING PLANS
HARRISVILLE-PASCOAG MULTI-USE
PATH
BURRILLVILLE, RHODE ISLAND
PROPOSED CONDITIONS - (3)**

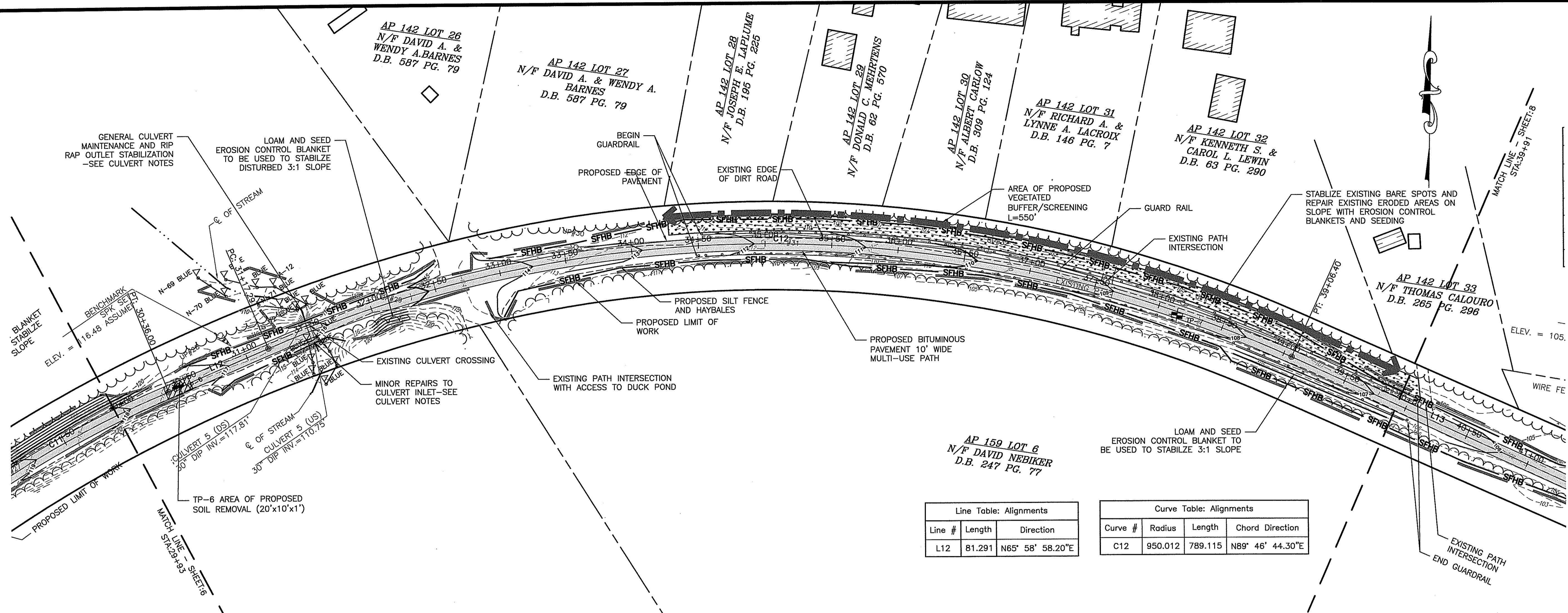
Prepared For: **Town of Burrillville**
144 Harrisville Main Street
Burrillville, RI 02800
Phone: (410) 568-4300
Fax: ---

Survey Provided By: **Horsley Witten Group**
90 Route 6A
Sandwich, MA 02563
Phone: (508) 833-6600
Fax: (508) 833-3150
District: February, 2006

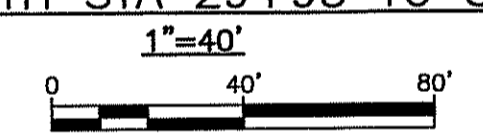
Registration:
FAT PIU LEE
No. 7894
REGISTERED PROFESSIONAL ENGINEER (CIVIL)
State of Rhode Island

Project Number: **8086A** Sheet: **6 of 12**
Drawing Number: **C-6**

last modified: 05/19/10 by bk H:\Projects\2008\8086A Burrillville_Rail_Phase_I\Drawings-8086A\8086A-GD.dwg

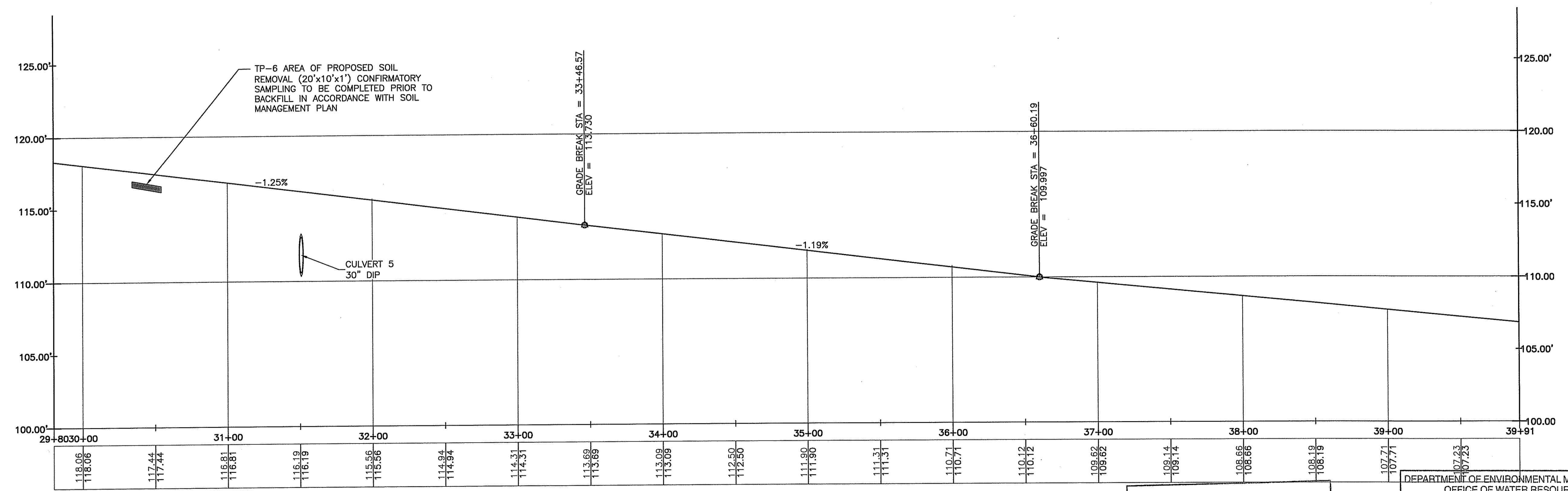


PROPOSED PATH STA 29+93 TO STA 39+91



Line Table: Alignments		
Line #	Length	Direction
L12	81.291	N65° 58' 58.20"E

Curve Table: Alignments			
Curve #	Radius	Length	Chord Direction
C12	950.012	789.115	N89° 46' 44.30"E



PROPOSED PATH STA 29+93 TO STA 39+91
HORIZONTAL: 1"=40', VERTICAL: 1"=4'

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

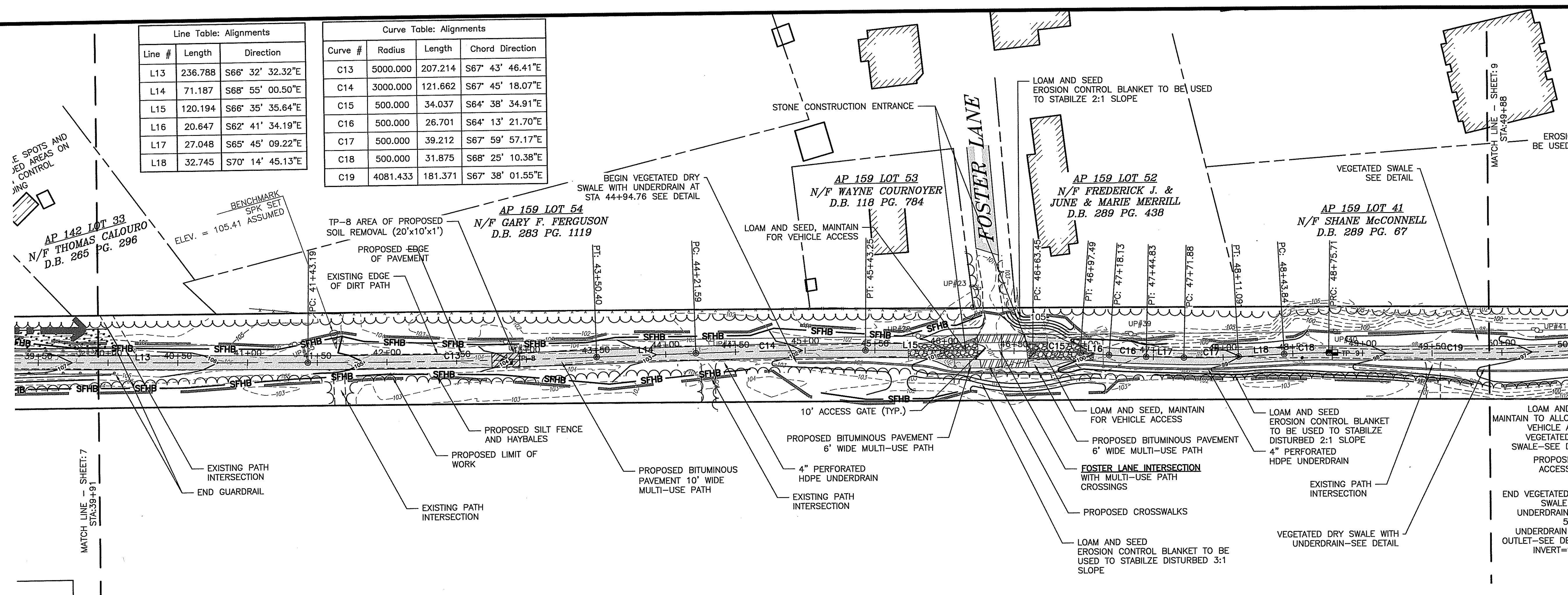
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN - 8 2010 FILE # 10-0025
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Conroy

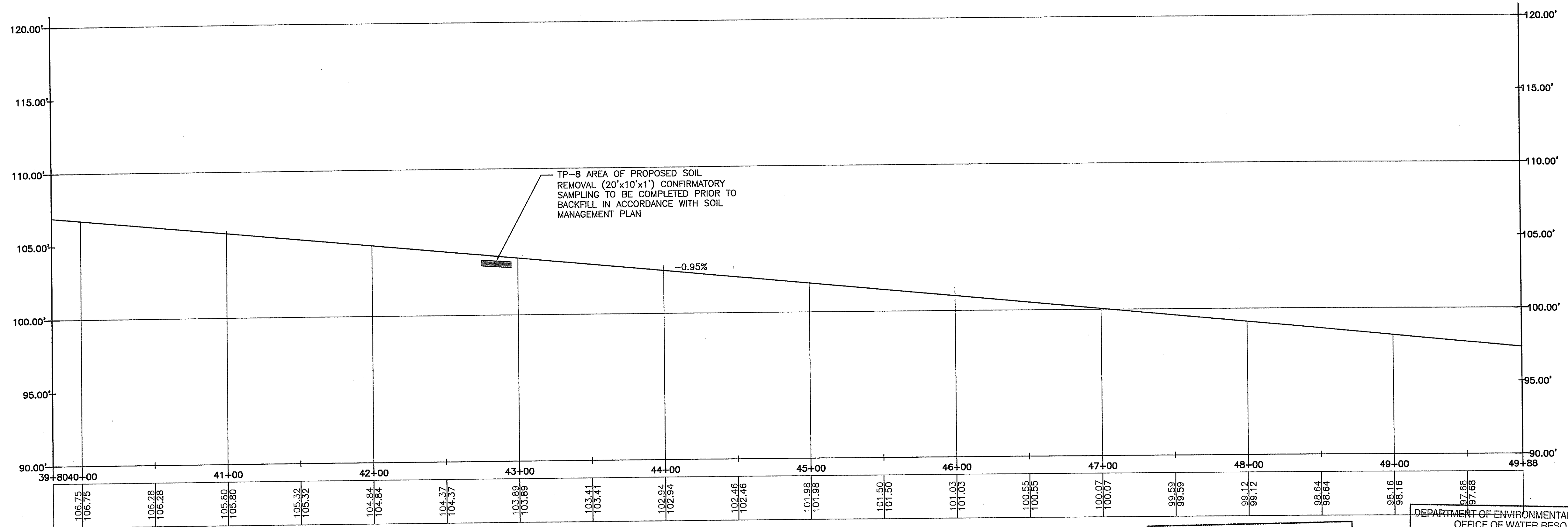
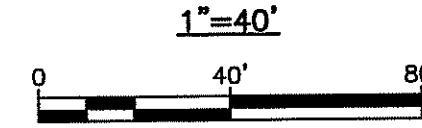
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Rev.	Date	By	Description						
<p>Horsley Witten Group, Inc. Sustainable Environmental Solutions www.horsleywitten.com 90 Route 6A Sawatch, MA 02683 Phone: (508) 853-6600 Fax: (508) 853-5100 E-mail: info@hws.com</p>									
<p>Plan Set: PERMITTING PLANS HARRISVILLE-PASCOAG MULTI-USE PATH BURRILLVILLE, RHODE ISLAND Proposed Conditions - (4)</p>									
<p>Prepared For: Town of Burrillville 144 Harrisville Main Street Burrillville, RI 02830 Phone: (401) 568-4300 Fax: ---</p>									
<p>Survey Provided By: Horsley Witten Group 90 Route 6A Sawatch, MA 02683 Phone: (508) 853-6600 Fax: (508) 853-5100 Date: February, 2006</p>									
<p>Registration: FAT PIU LEE No. 7884 REGISTERED PROFESSIONAL ENGINEER (CIVIL) Project Number: 8086A Sheet: 7 of 12 Drawing Number: C-7</p>									

last modified: 05/19/10 printed: 05/19/10 by bk H:\Projects\2008\0806A Burrillville_Rail_Phase_1\Drawings-8086A\8086A-GD.dwg

Line Table: Alignments			Curve Table: Alignments			
Line #	Length	Direction	Curve #	Radius	Length	Chord Direction
L13	236.788	S66° 32' 32.32"E	C13	5000.000	207.214	S67° 43' 46.41"E
L14	71.187	S68° 55' 00.50"E	C14	3000.000	121.662	S67° 45' 18.07"E
L15	120.194	S66° 35' 35.64"E	C15	500.000	34.037	S64° 38' 34.91"E
L16	20.647	S62° 41' 34.19"E	C16	500.000	26.701	S64° 13' 21.70"E
L17	27.048	S65° 45' 09.22"E	C17	500.000	39.212	S67° 59' 57.17"E
L18	32.745	S70° 14' 45.13"E	C18	500.000	31.875	S68° 25' 10.38"E
			C19	4081.433	181.371	S67° 38' 01.55"E



PROPOSED PATH STA 39+91 TO STA 49+88



PROPOSED PATH STA 39+91 TO STA 49+88
HORIZONTAL: 1"=40', VERTICAL: 1"=4'

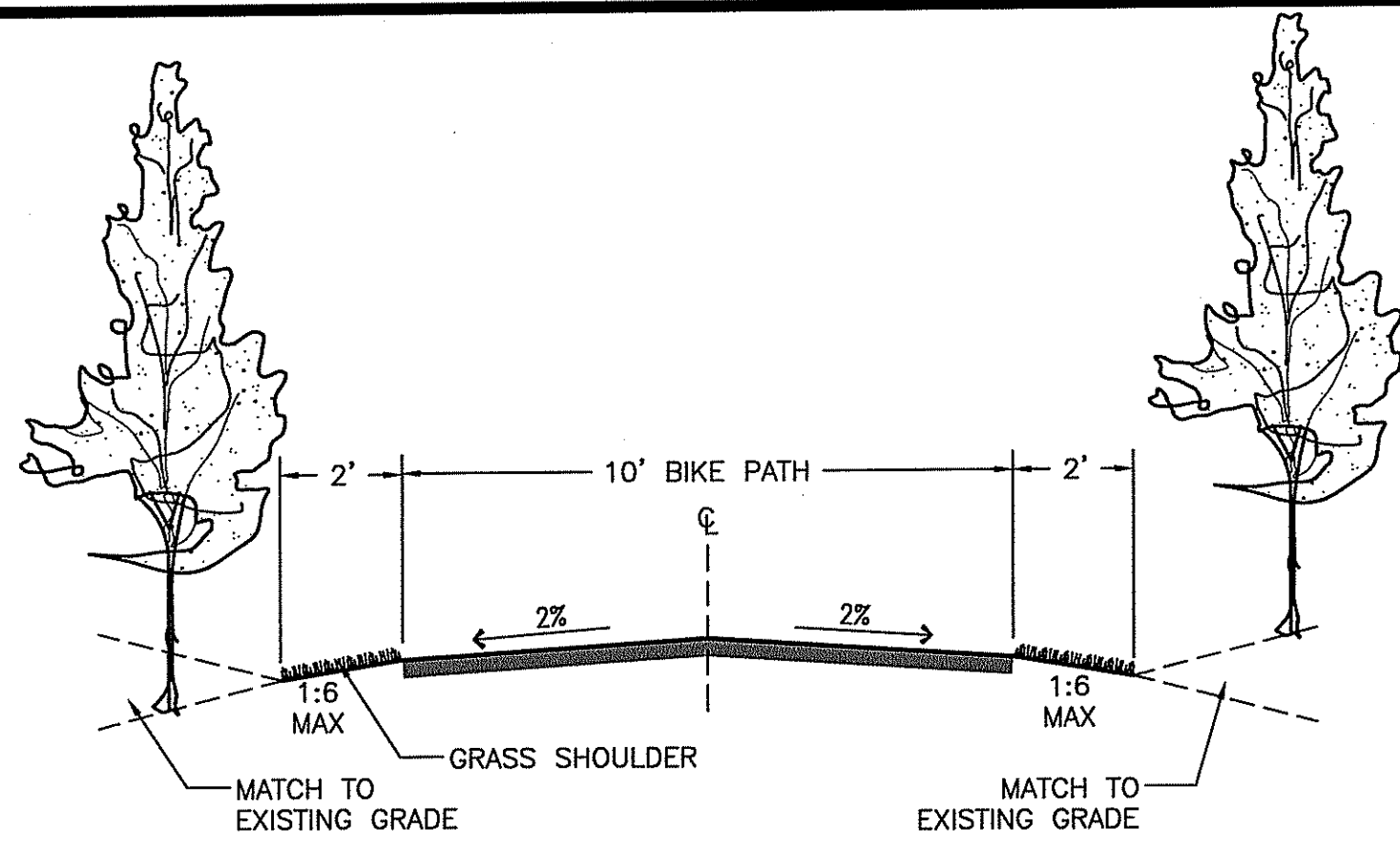
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JUN - 8 2010 FILE # 10-2005
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

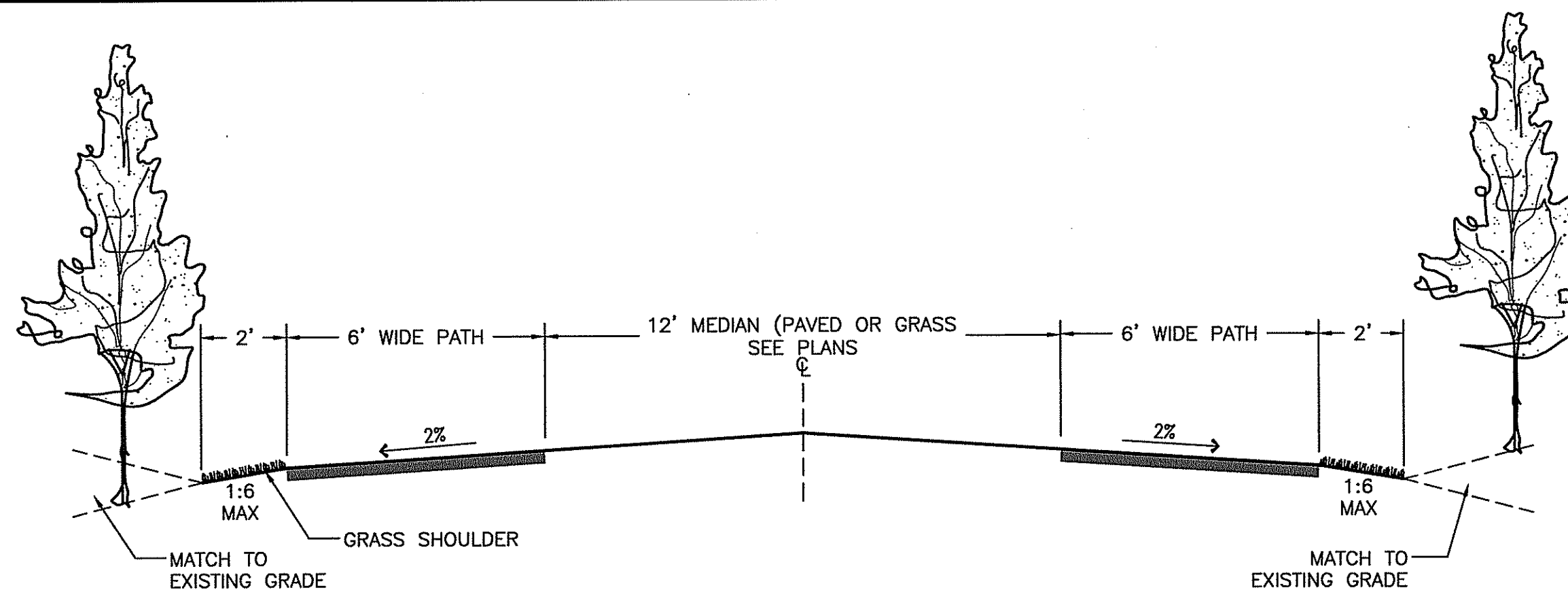
W. Joseph Carney

Revisions (Grid for revisions)	
Horsley Witten Group, Inc. Sustainable Environmental Solutions www.horsleywitten.com 90 Route 6A Sandwich, MA 02563 508-833-6600 voice 508-833-3150 fax	
PERMITTING PLANS HARRISVILLE-PASCOAG MULTI-USE PATH BURRILLVILLE, RHODE ISLAND PROPOSED CONDITIONS - (5)	
Prepared For: Town of Burrillville 144 Harrisville Main Street Burrillville, RI 02830 Phone: (410) 588-4300 Fax:	Survey Provided By: Horsley Witten Group 90 Route 6A Sandwich, MA 02563 Phone: (508) 833-6600 Fax: (508) 833-3150 Dated: February, 2006
Project Number: 8086A Sheet: 8 of 12 Drawing Number: C-8	
FAT PIU LEE No. 7384 REGISTERED PROFESSIONAL ENGINEER (CIVIL) Date: MAY 21 2010	

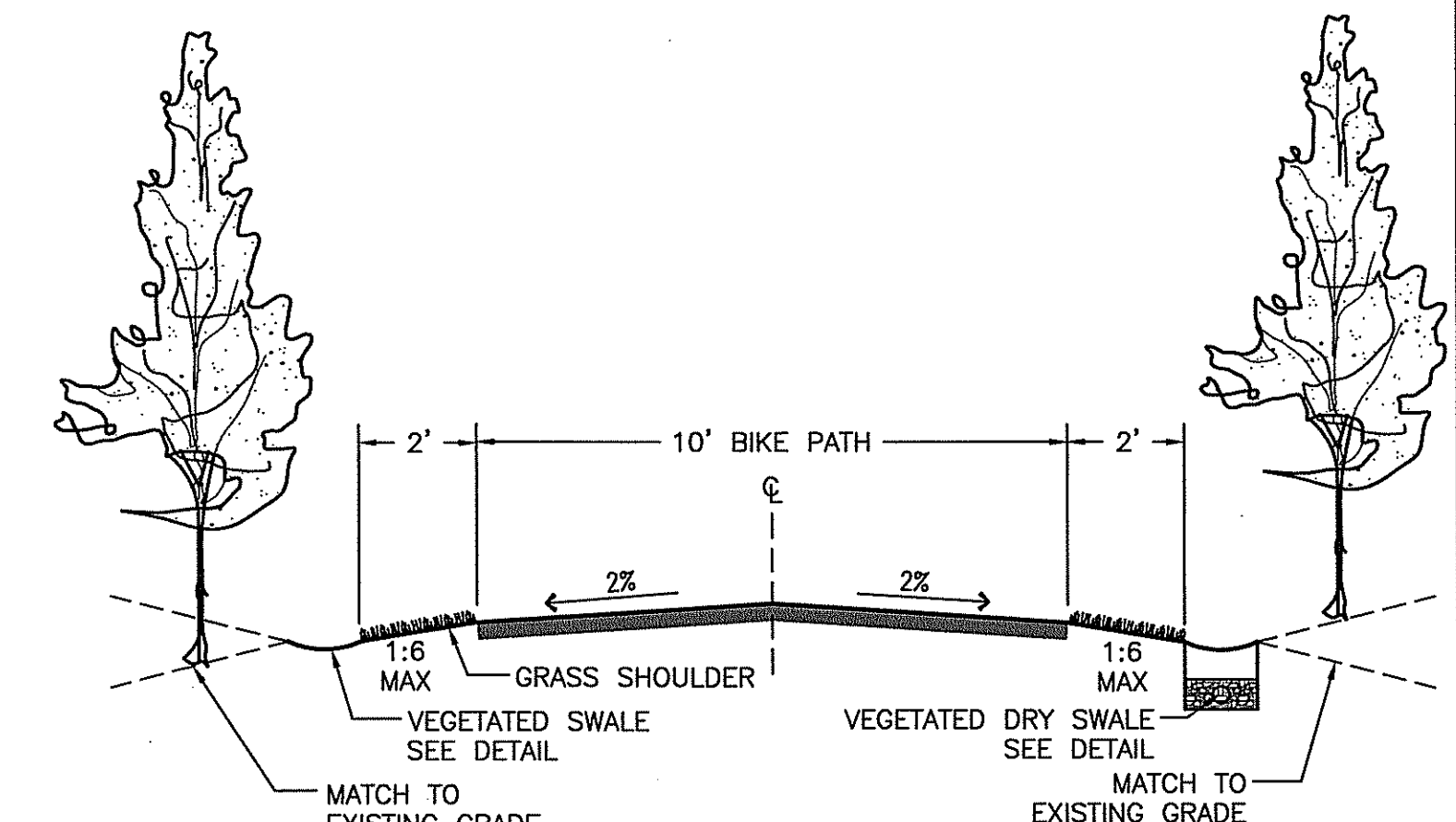
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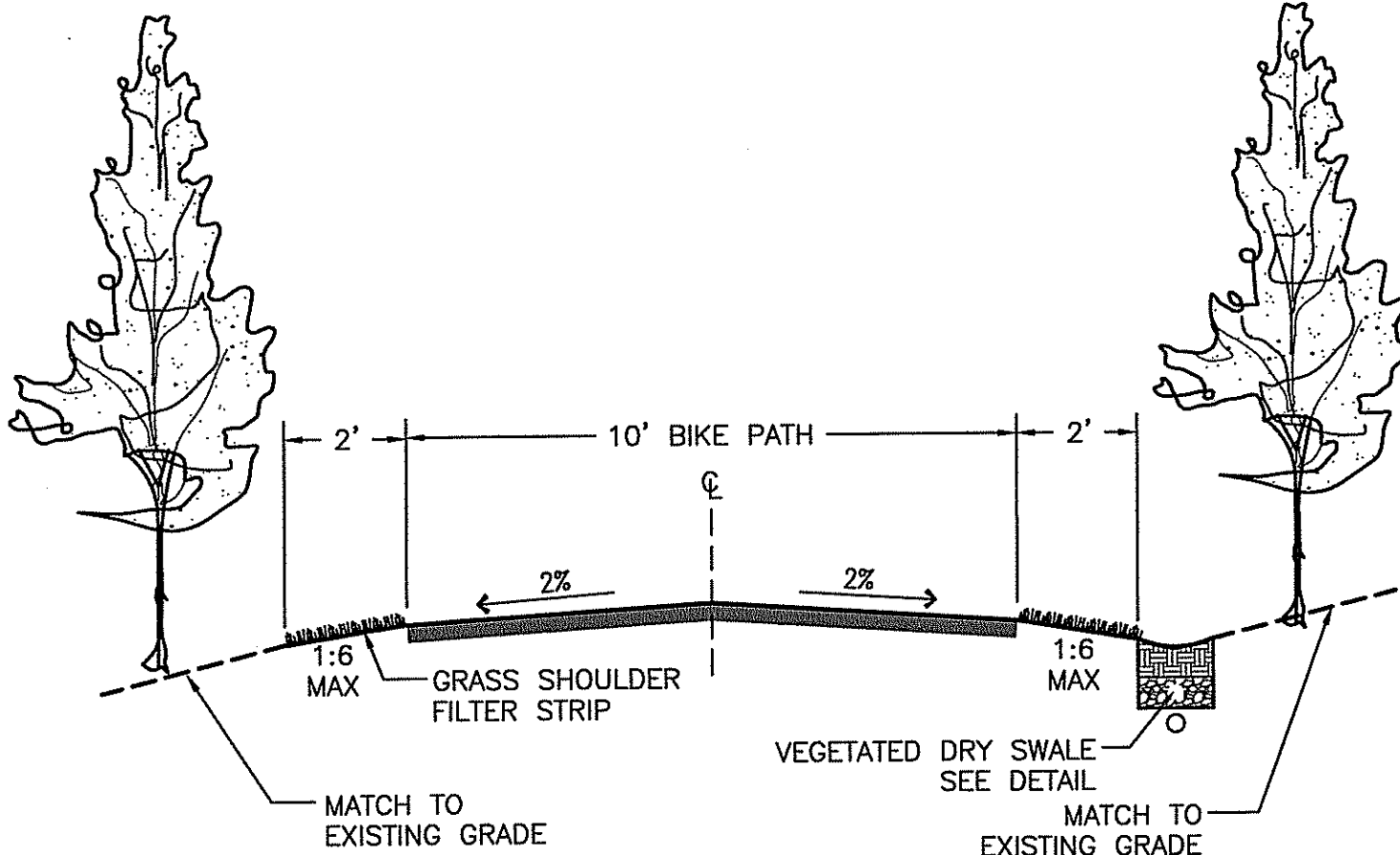
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NOT TO SCALE



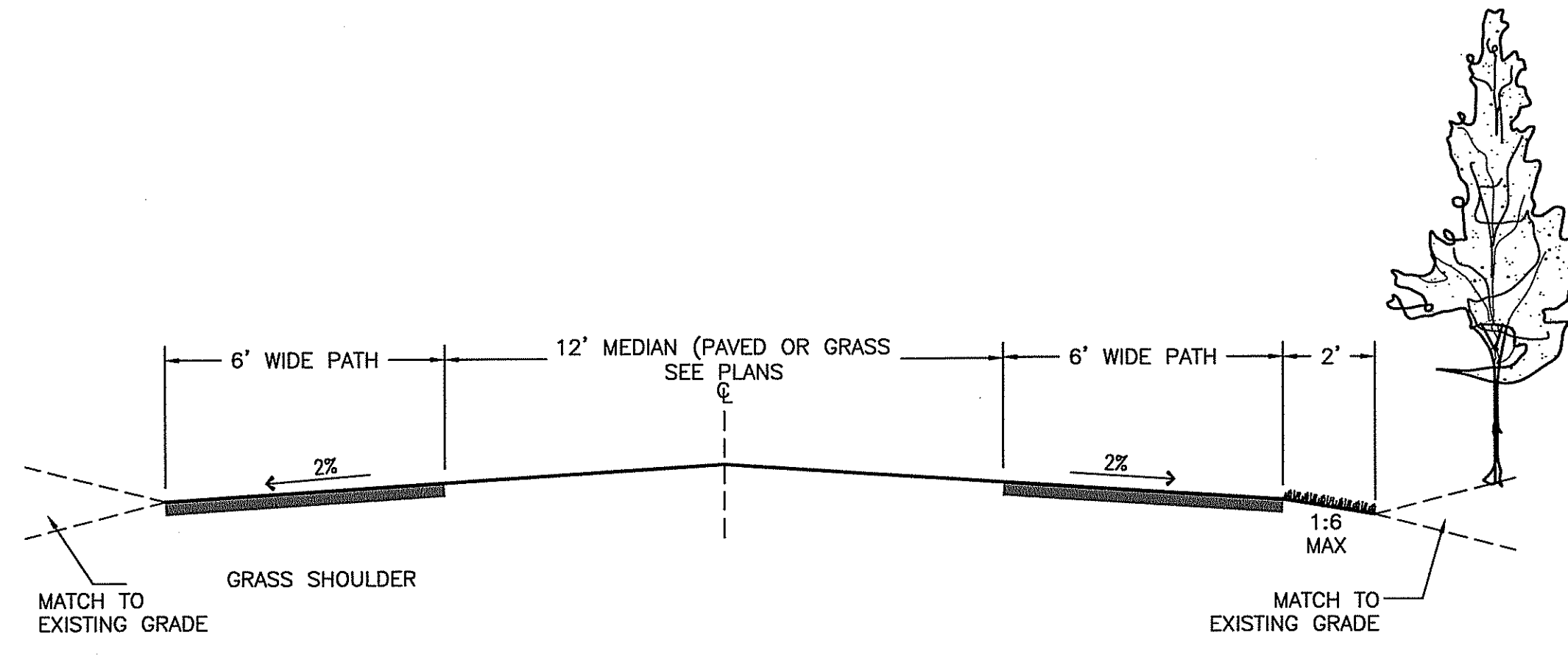
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STA 46+00 TO 46+32, STA 46+50 TO 48+81
NOT TO SCALE



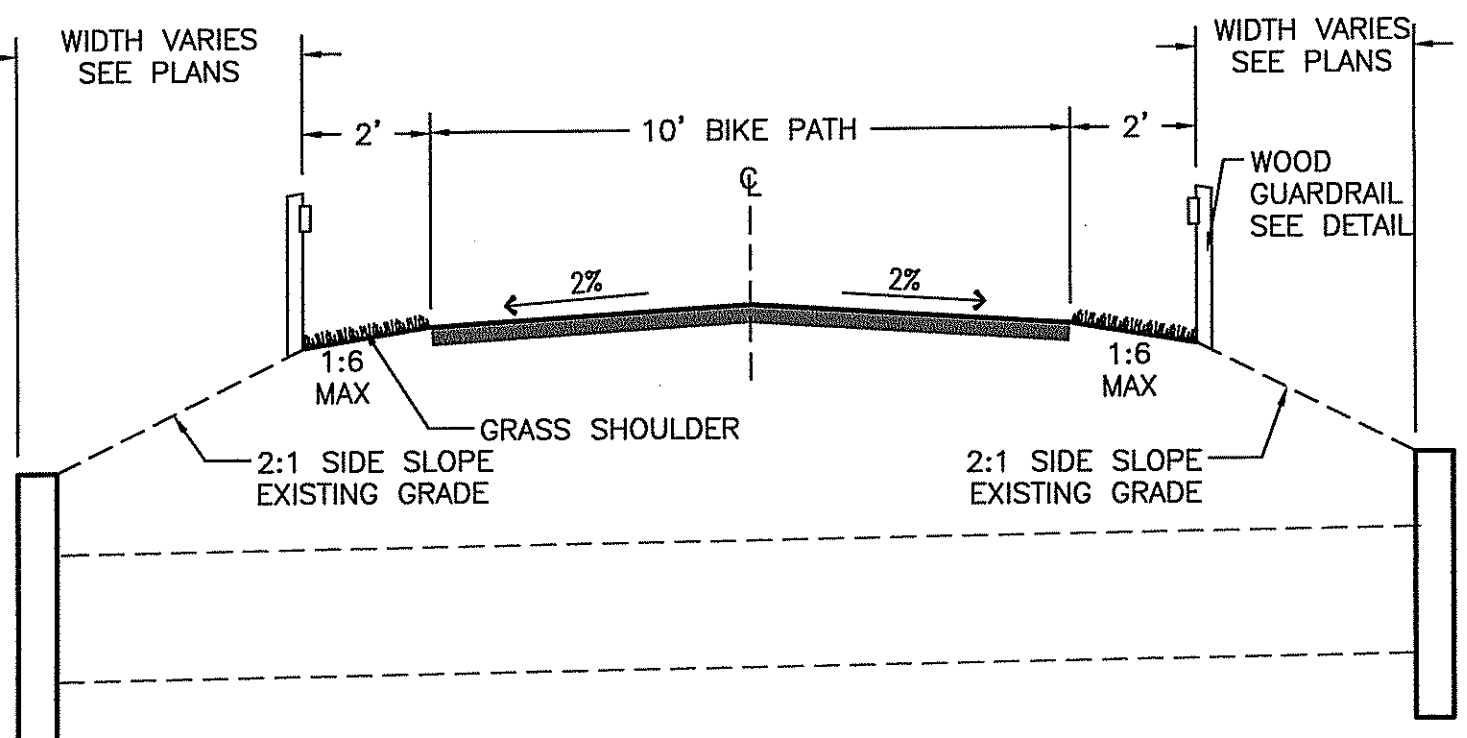
CROWNED PATH CROSS SECTION
STA 46+81 TO 51+75
NOT TO SCALE



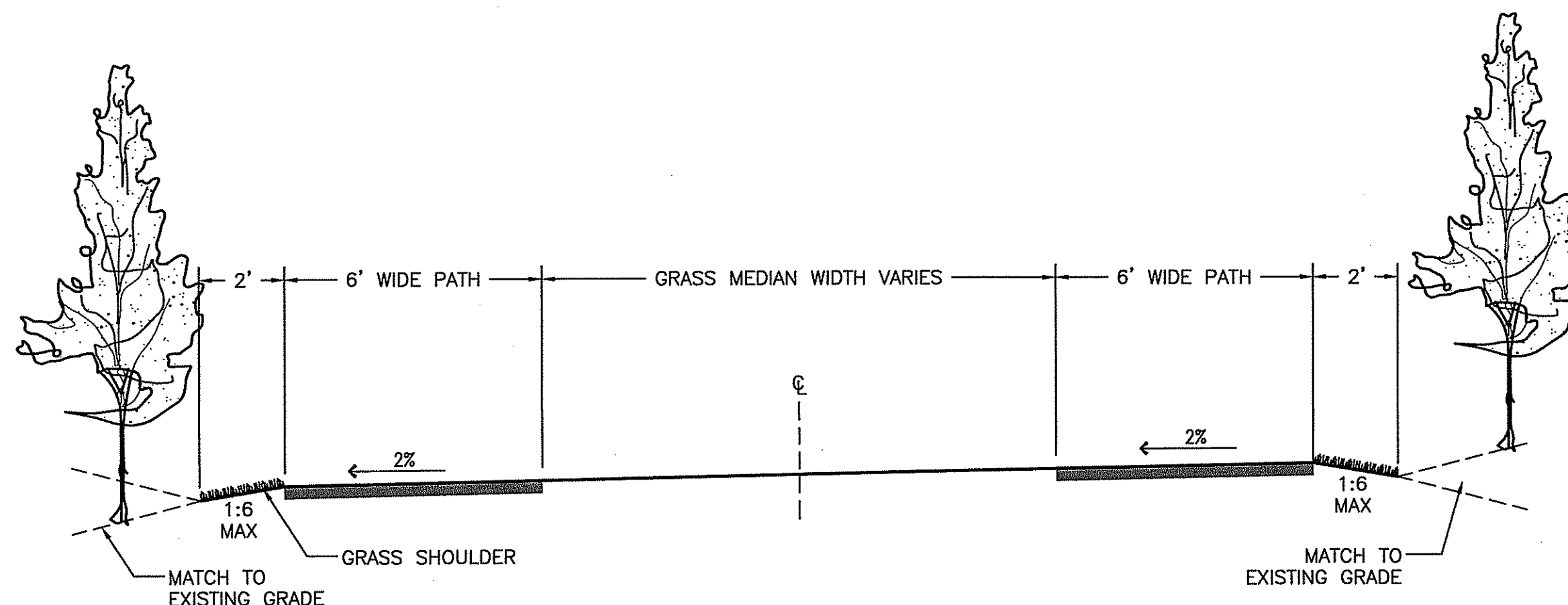
CROWNED PATH CROSS SECTION
STA 2+50 TO 7+15
NOT TO SCALE



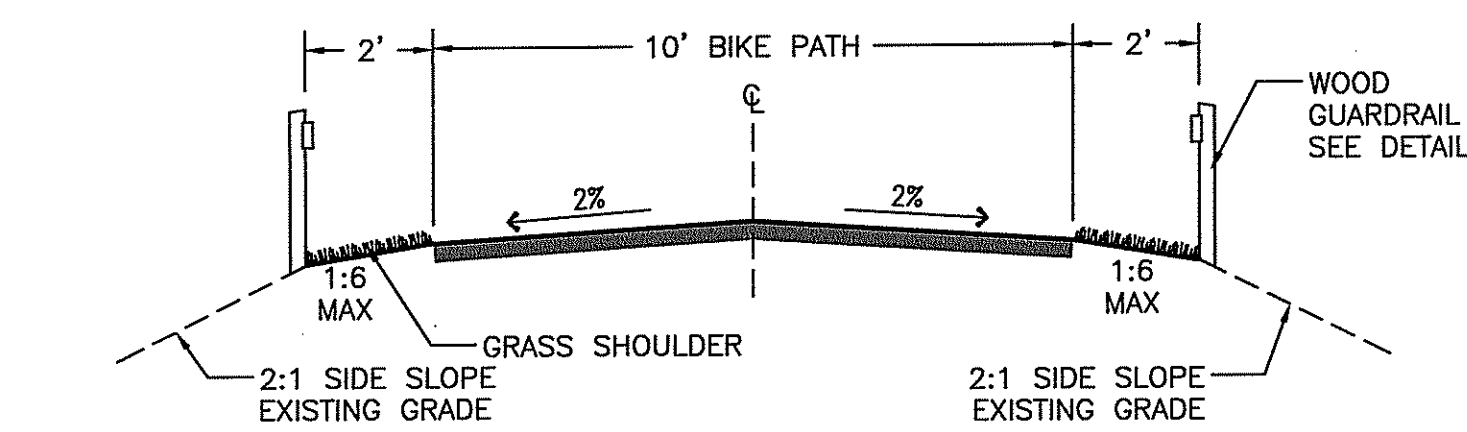
CROWNED SPLIT PATH CROSS SECTION
STA 46+32 TO 46+50
NOT TO SCALE



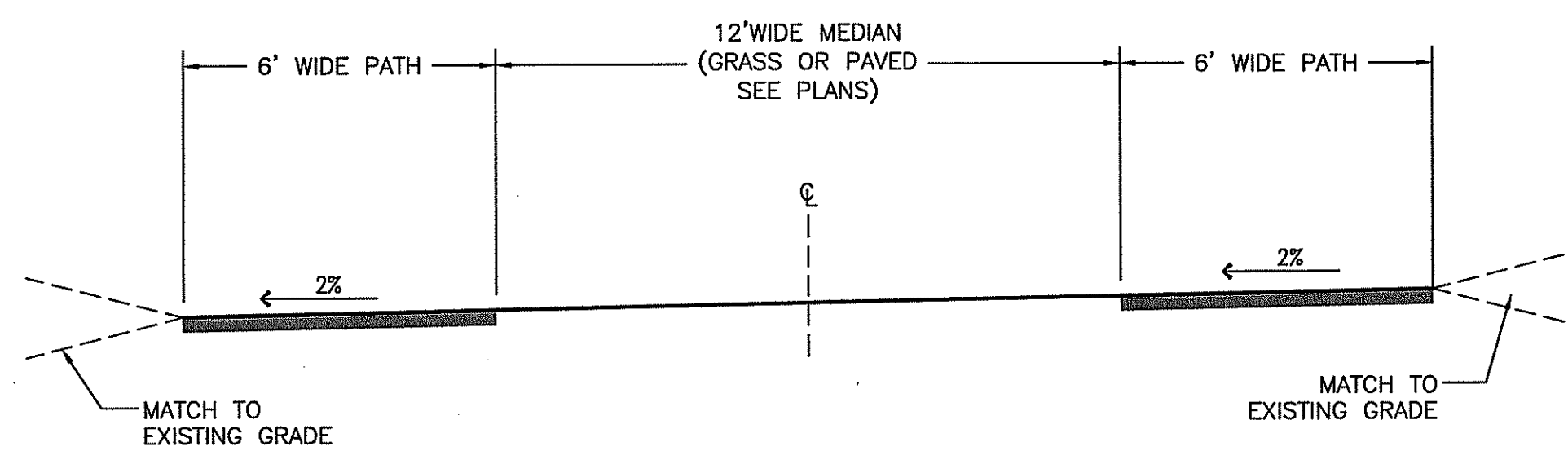
TYPICAL CROWNED PATH CULVERT CROSS SECTION
NOT TO SCALE



SUPER ELEVATED SPLIT PATH CROSS SECTION
STA 51+75 TO 51+95, STA 52+32 TO 52+61
NOT TO SCALE



CROWNED CROSS SECTION
STA 31+50 TO 34+50
NOT TO SCALE



SUPER ELEVATED SPLIT PATH CROSS SECTION
STA 51+95 TO 52+32
NOT TO SCALE

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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 JUN - 8 2010 FILE # 10-2005
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Conroy

Revisions	By	Date	Description

Horsley Witten Group, Inc.
Sustainable Environmental Solutions
www.horsleywitten.com
90 Route 6A
Sandwich, MA 02563
508-833-6600 voice
508-833-3750 fax
Date: JANUARY 2010
Designed By: BRK
Checked By: AEC
Drawn By: AEC
Plan Set: PFL

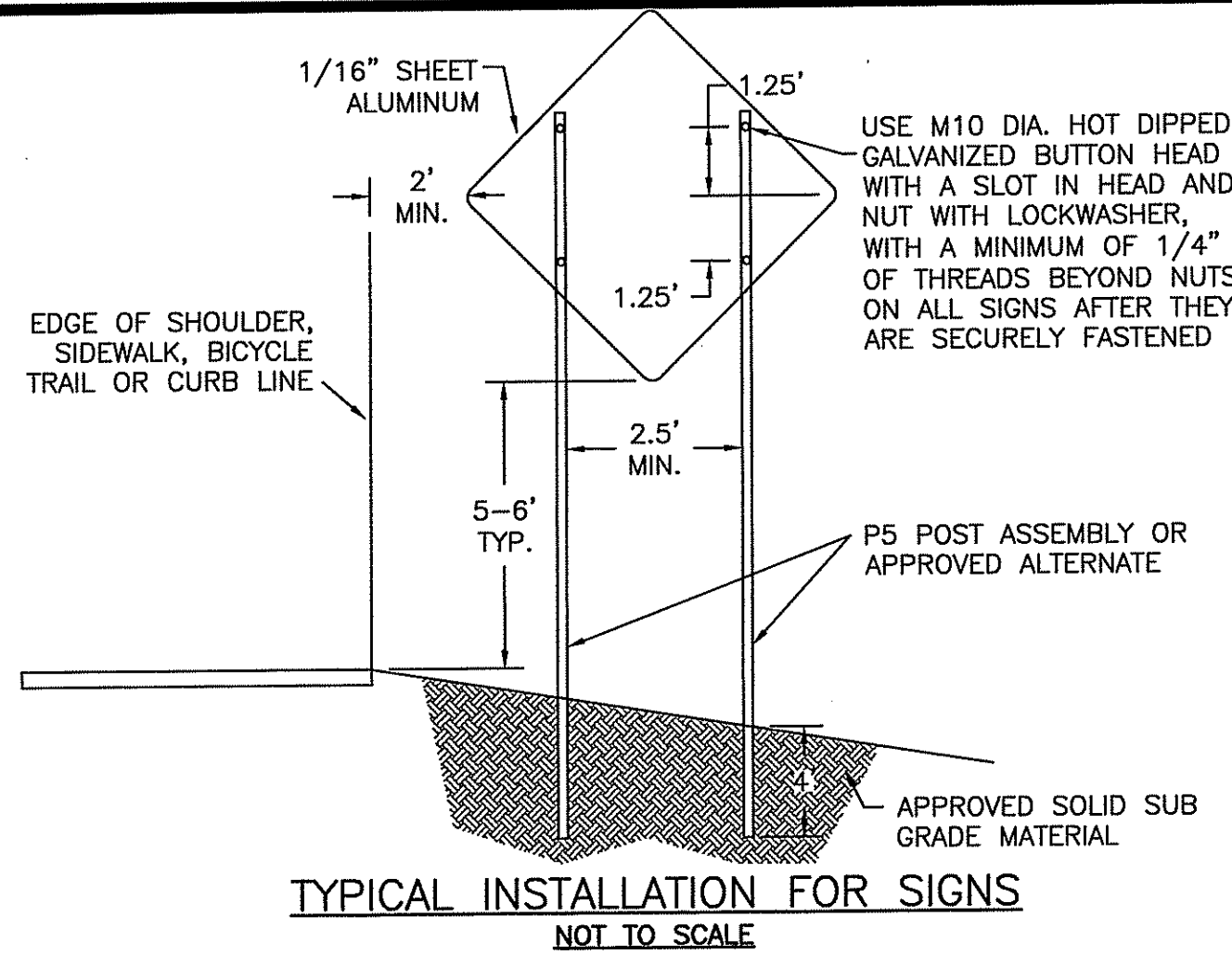
PERMITTING PLANS
HARRISVILLE - PASCOAG MULTI-USE PATH
BURRILLVILLE, RHODE ISLAND
CROSS SECTIONS

Prepared For:
Town of Burrillville
144 Harrisville Mills Street
Burrillville, RI 02834
Phone: (401) 568-4300
Fax: ---

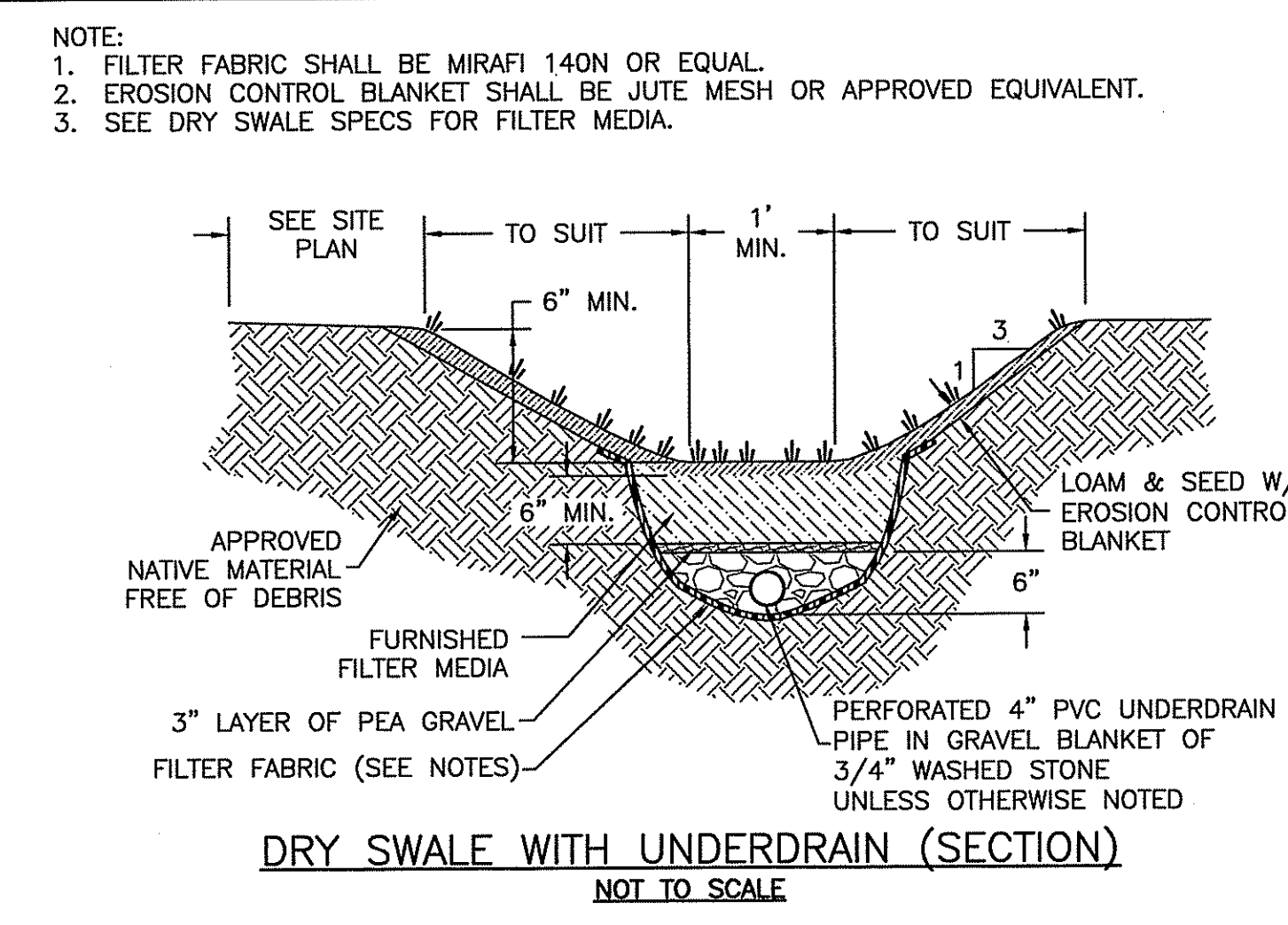
Survey Provided By:
Horsley Witten Group
90 Route 6A
Sandwich, MA 02563
Phone: (508) 833-6600
Fax: (508) 833-3750
Date: February, 2006

Registration:
FAT PIU LEE
No. 7894
REGISTERED PROFESSIONAL ENGINEER
(CIVIL)

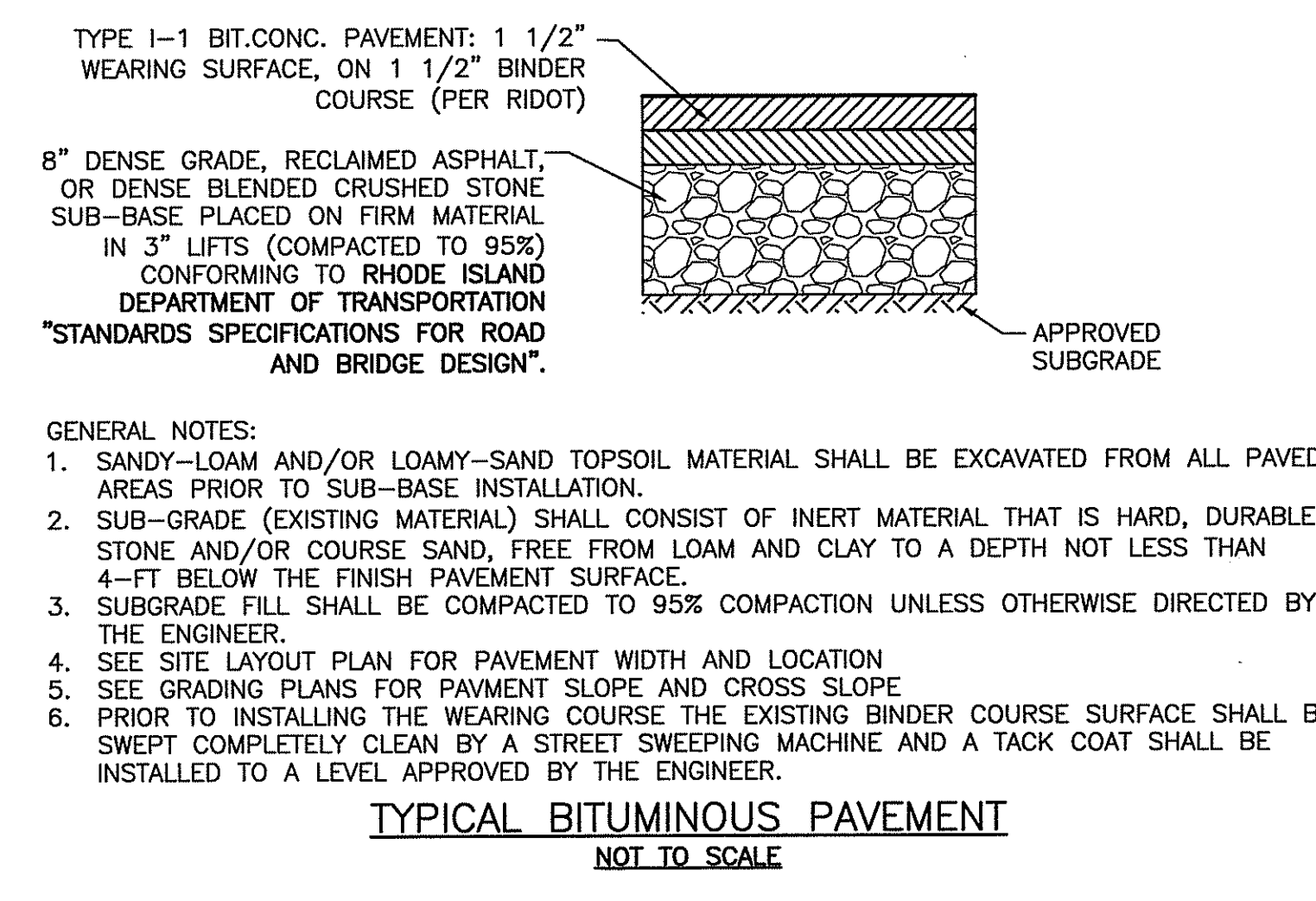
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Drawing Number: C-11



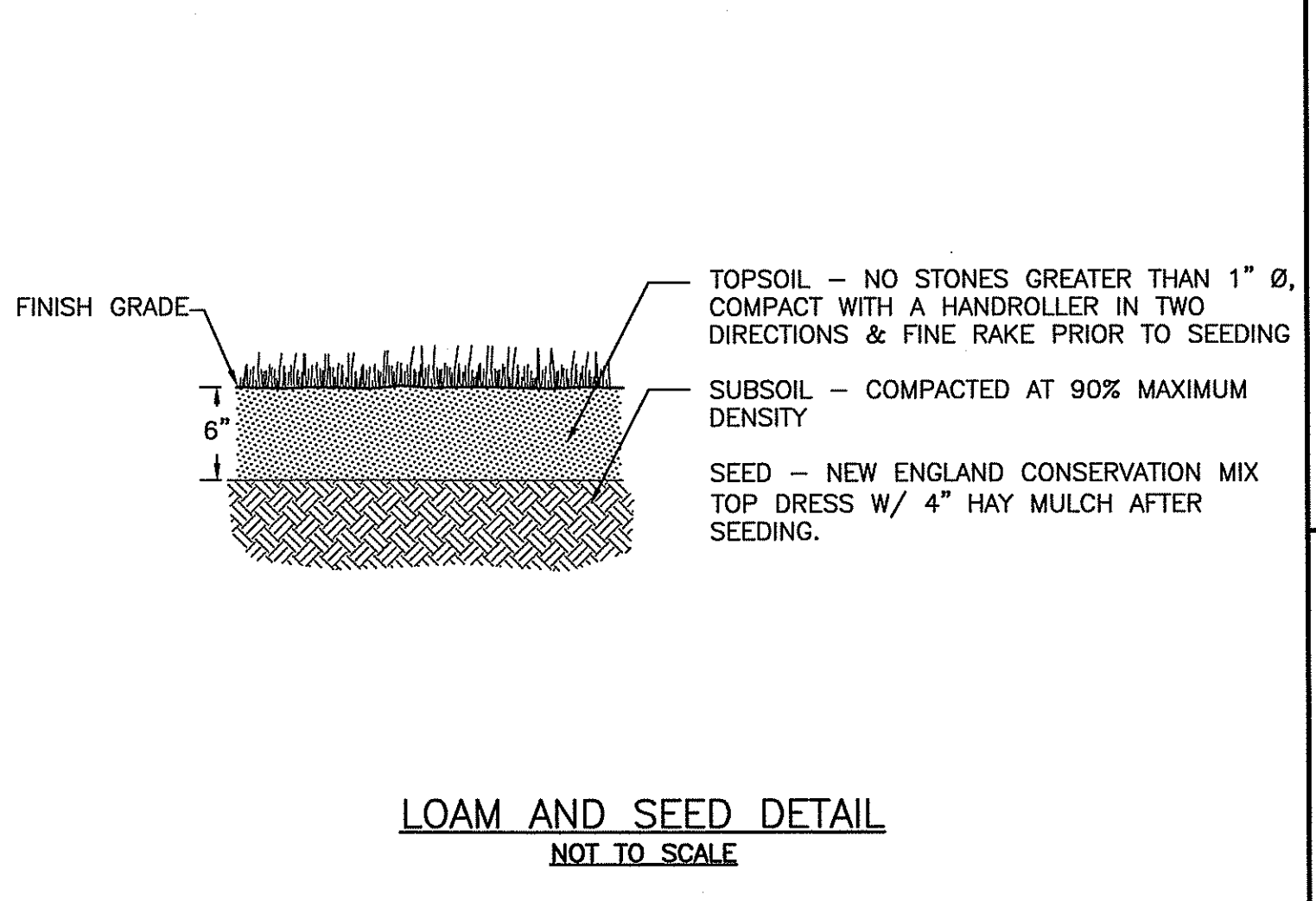
TYPICAL INSTALLATION FOR SIGNS
NOT TO SCALE



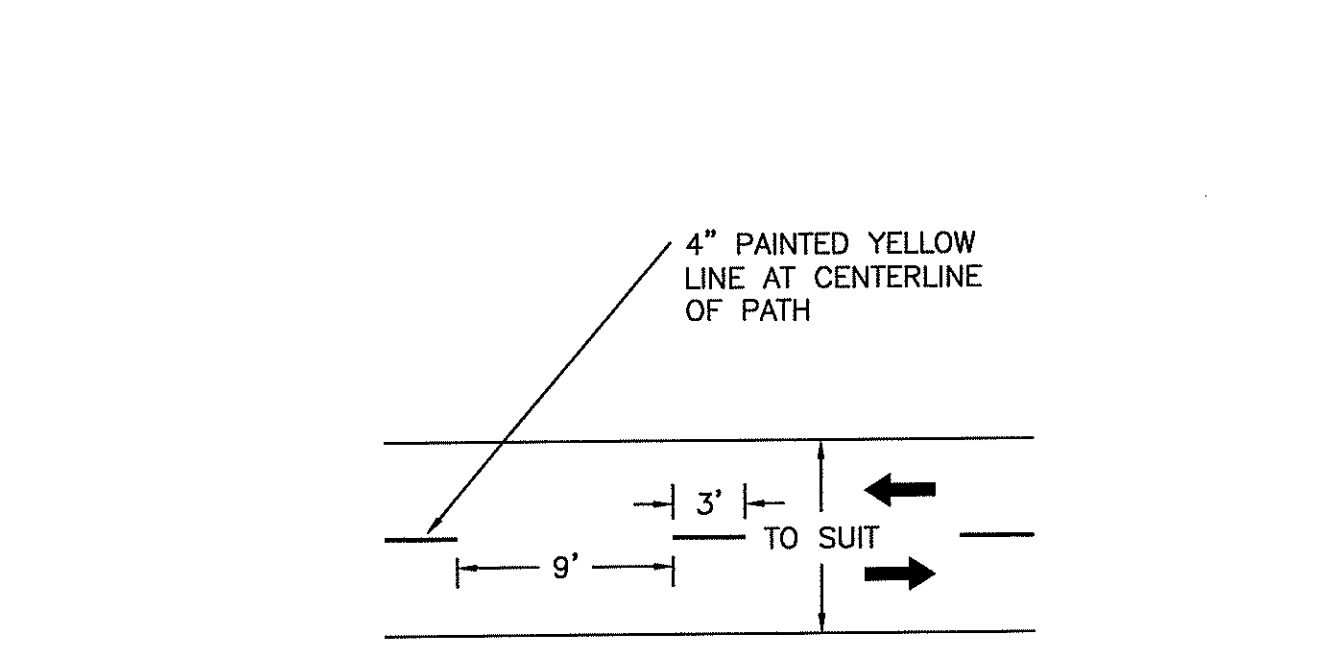
DRY SWALE WITH UNDERDRAIN (SECTION)
NOT TO SCALE



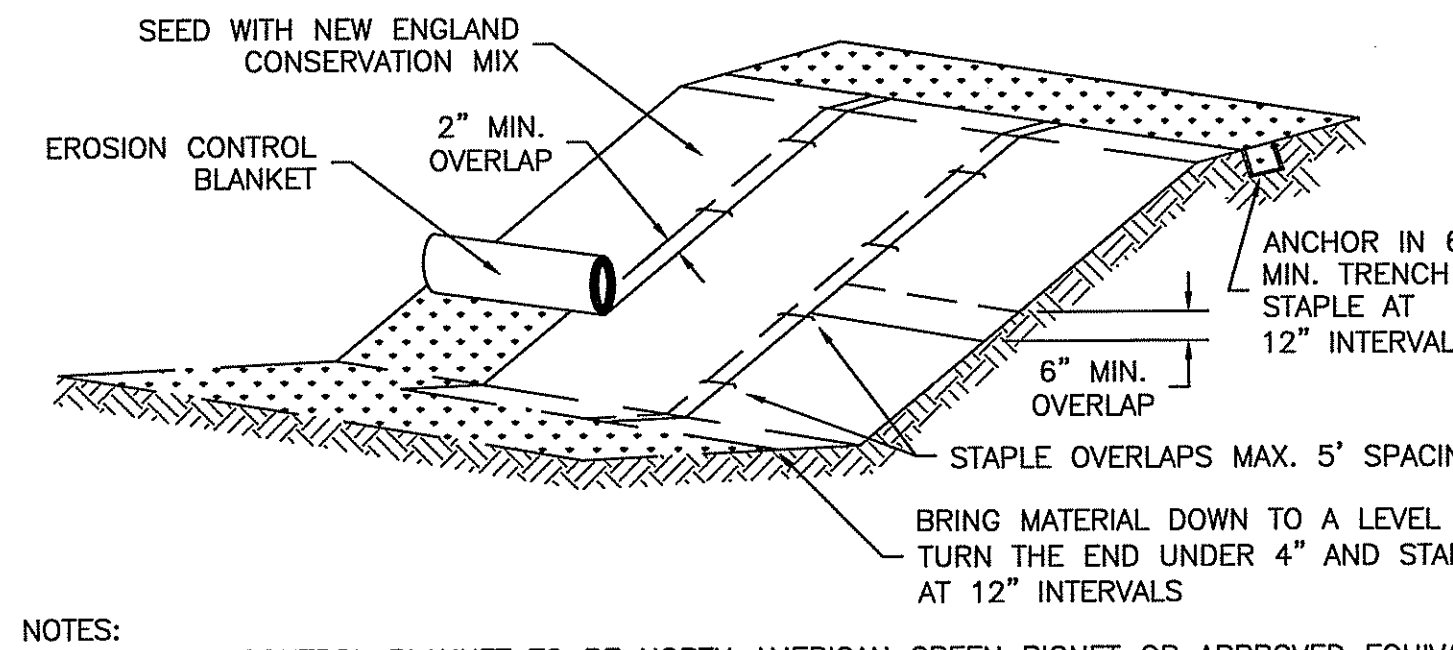
TYPICAL BITUMINOUS PAVEMENT
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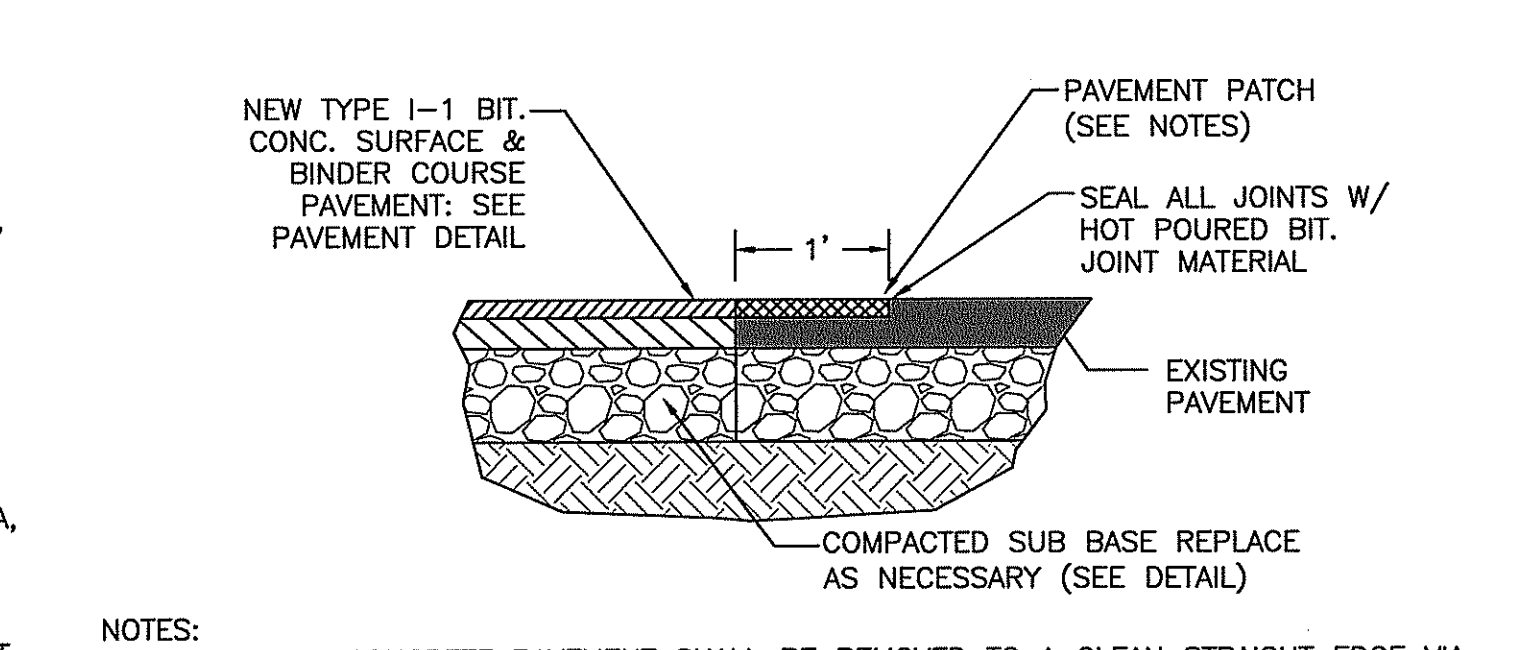
LOAM AND SEED DETAIL
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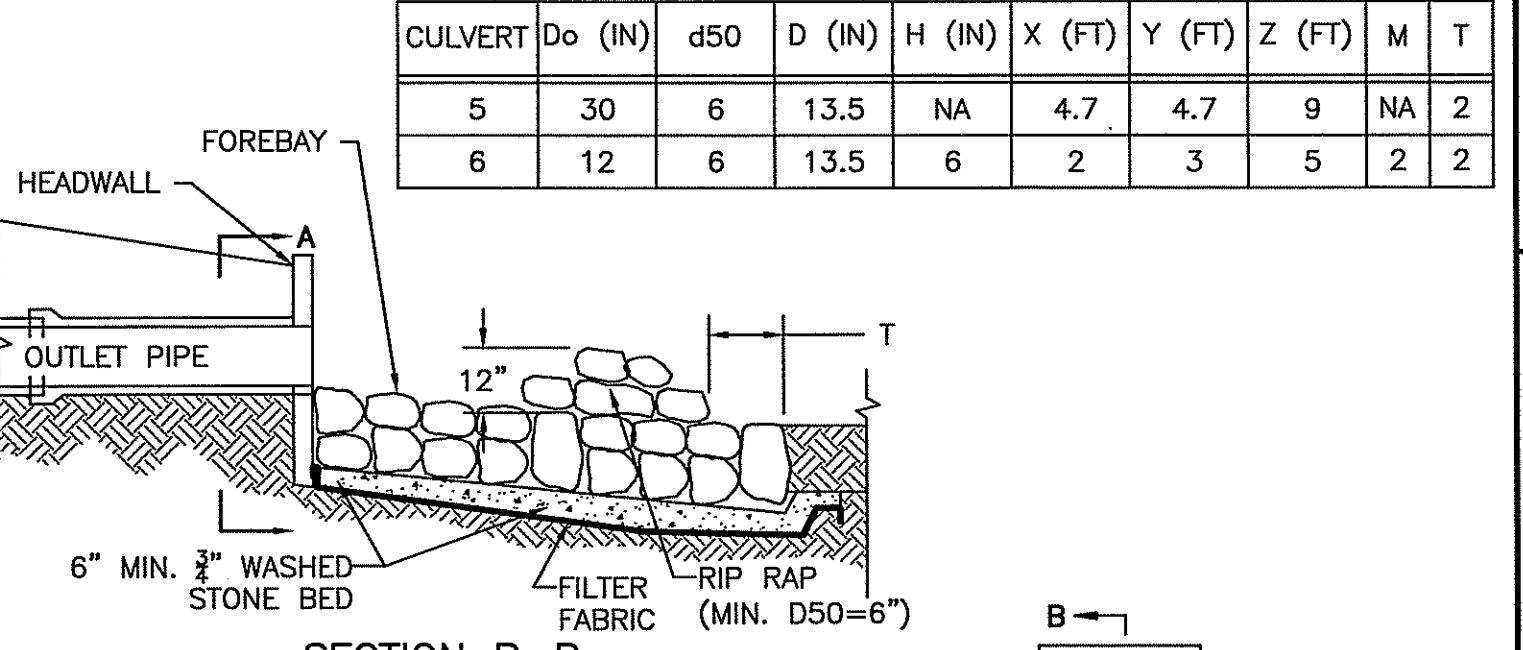
TYPICAL BICYCLE PEDESTRIAN TRAIL STRIPING
DETAIL
NOT TO SCALE



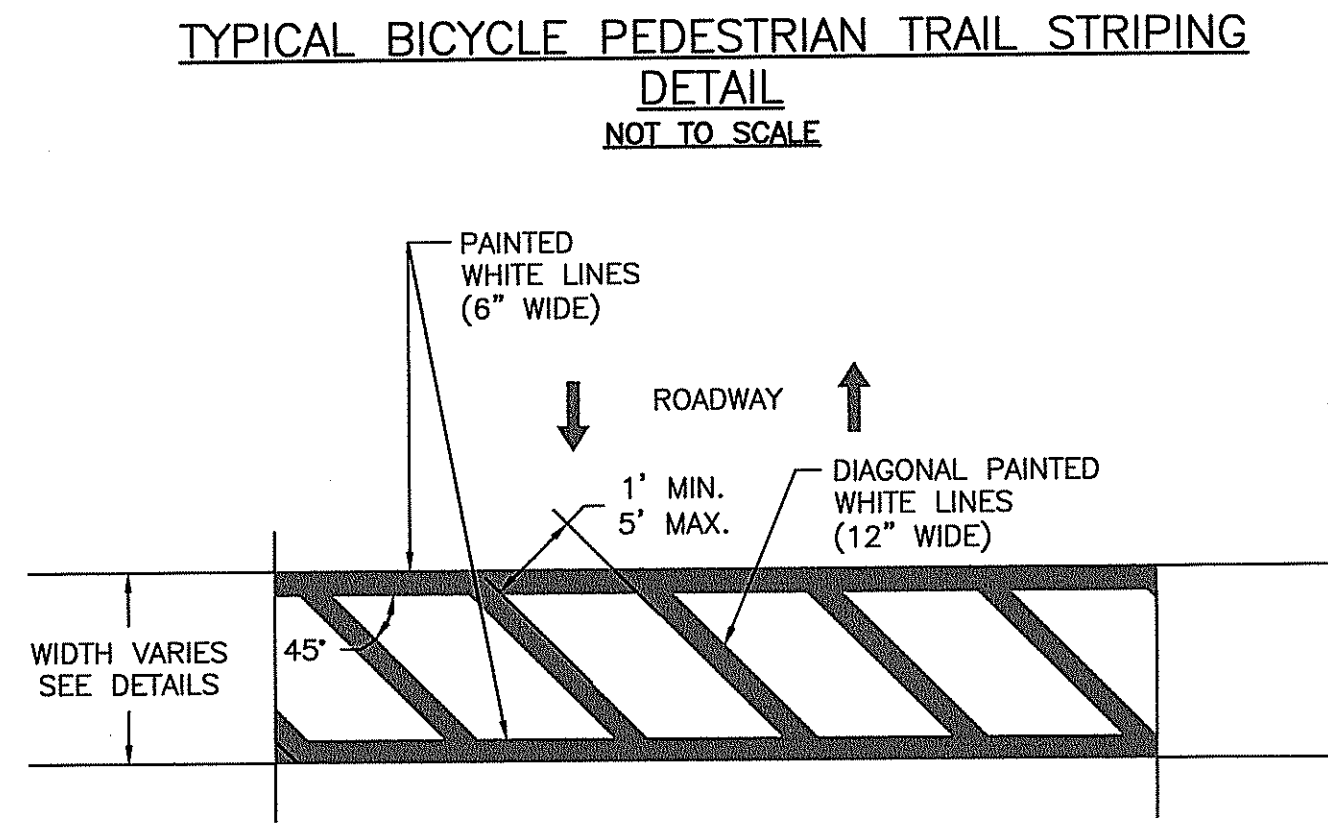
EROSION CONTROL BLANKET DETAIL
NOT TO SCALE



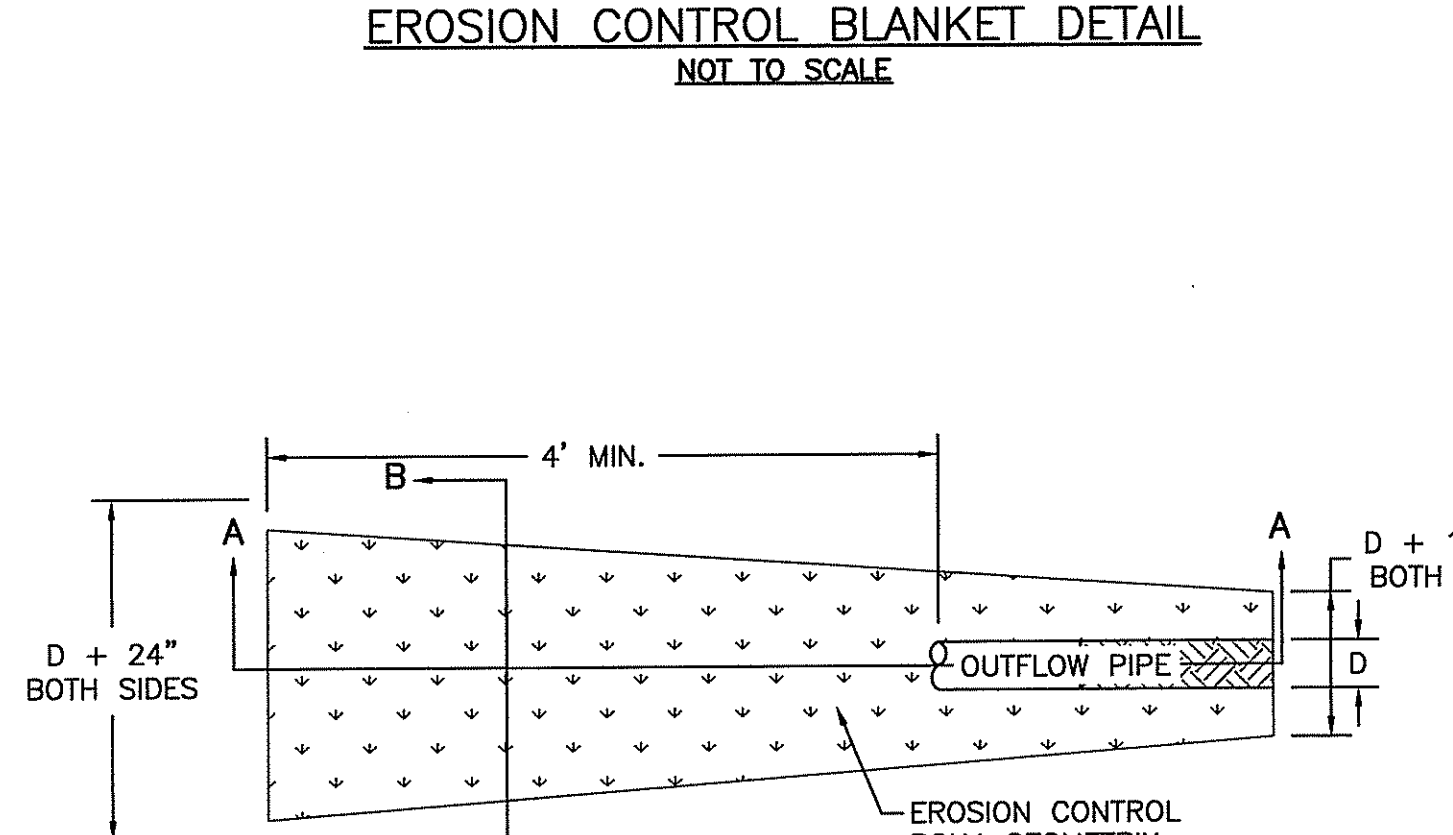
TYPICAL PAVEMENT PATCH DETAIL
NOT TO SCALE



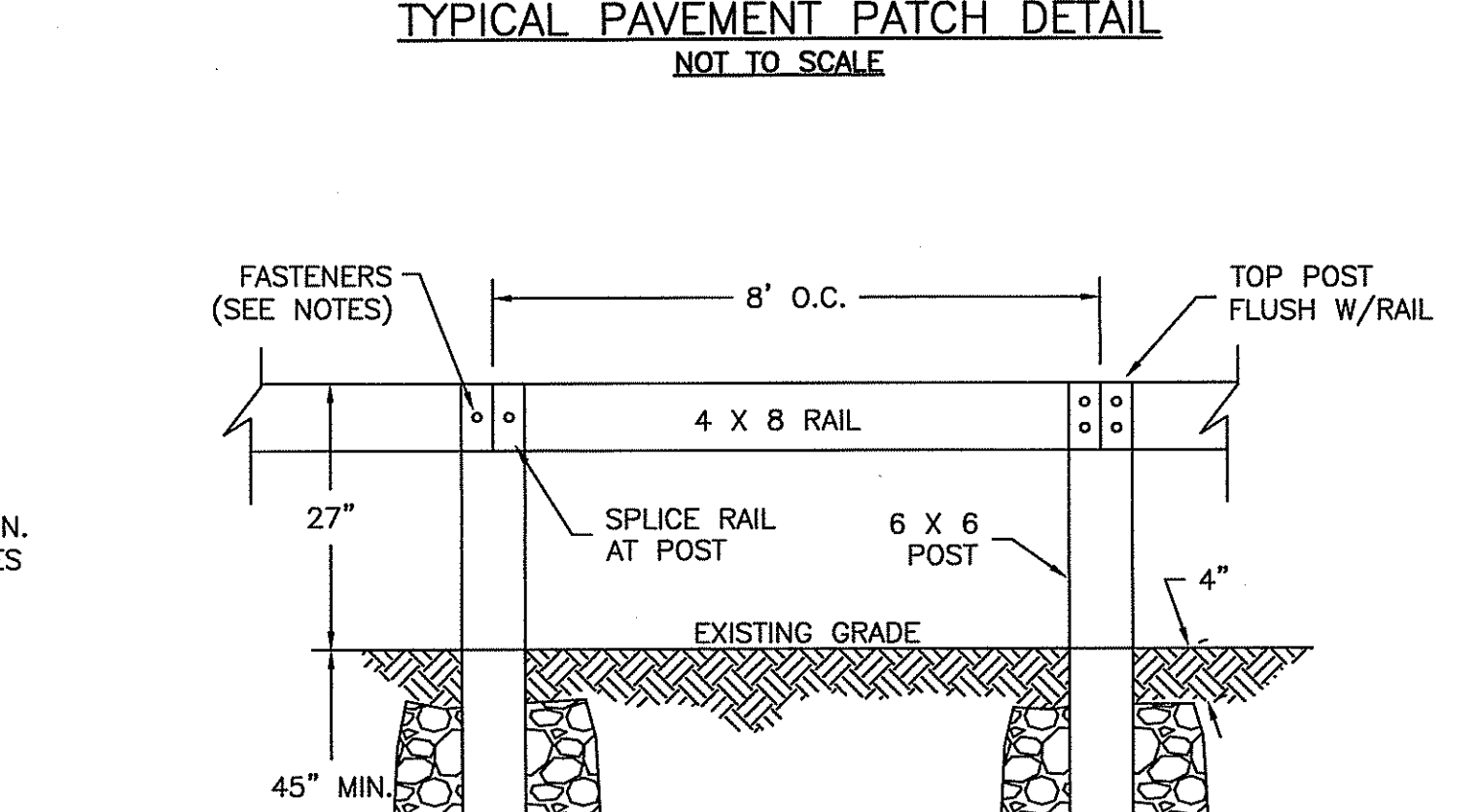
SECTION B-B



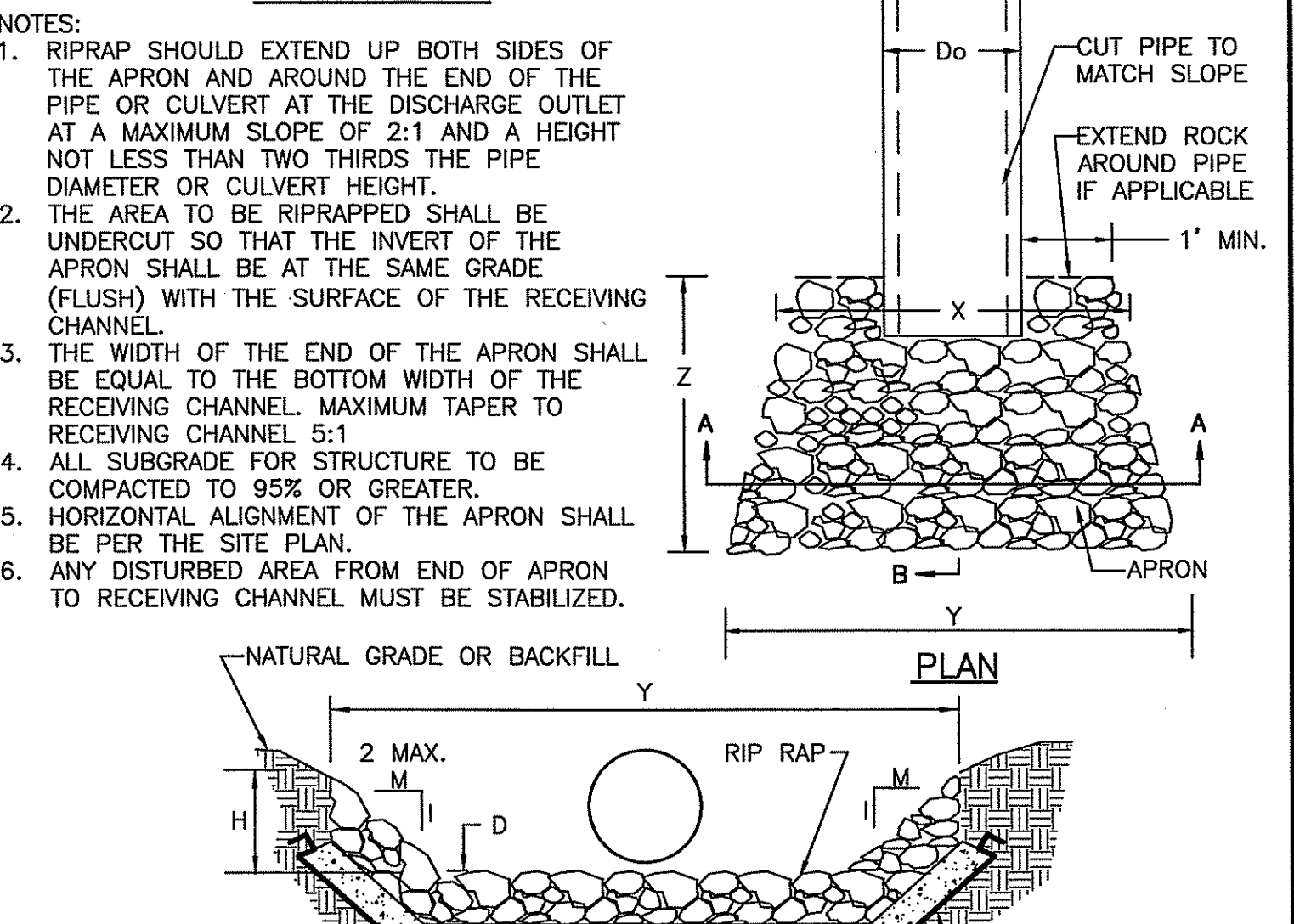
TYPICAL CROSSWALK STRIPING AND STOP LINE DETAIL
NOT TO SCALE



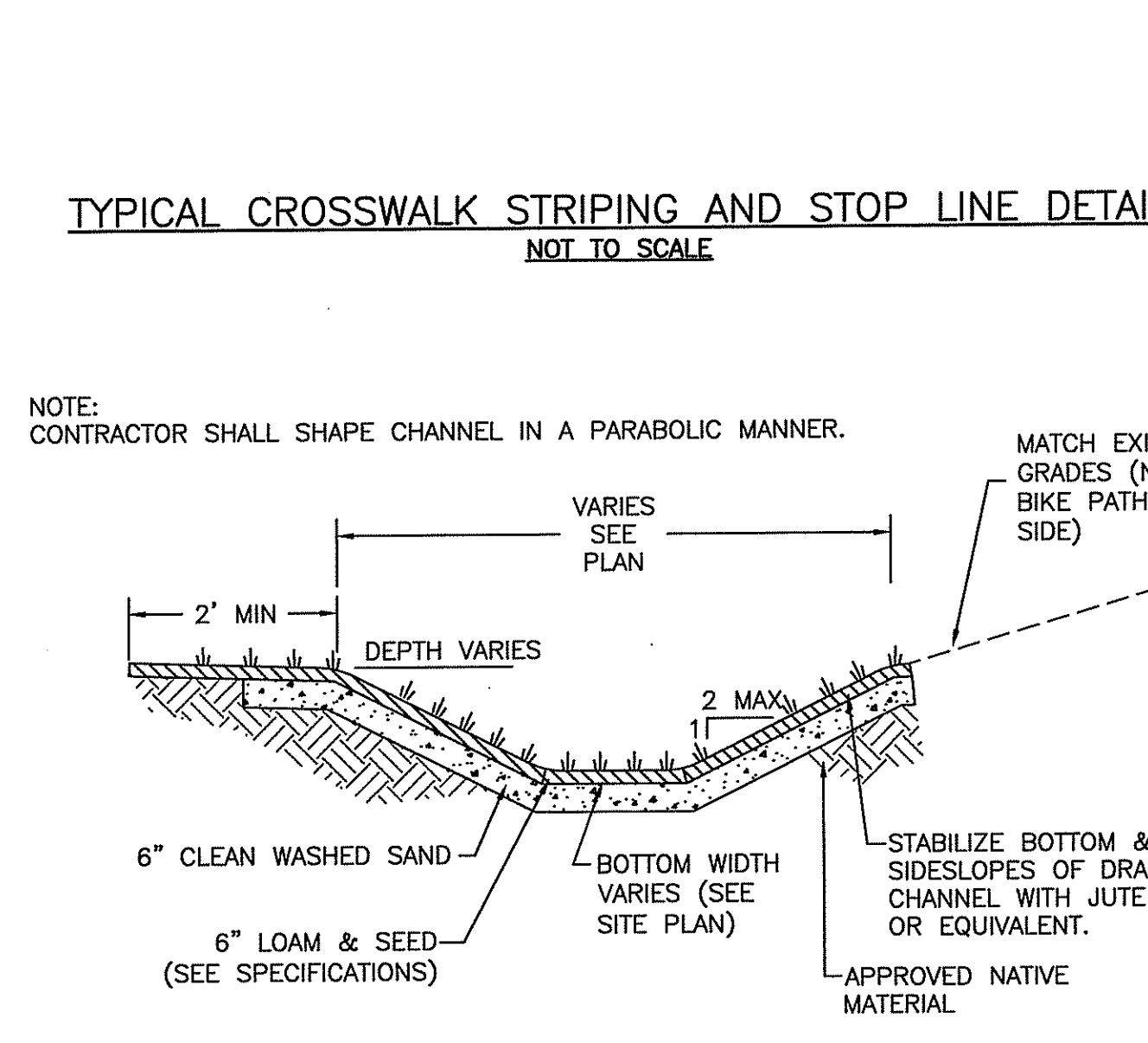
PIPE OUTFLOW DETAIL
NOT TO SCALE



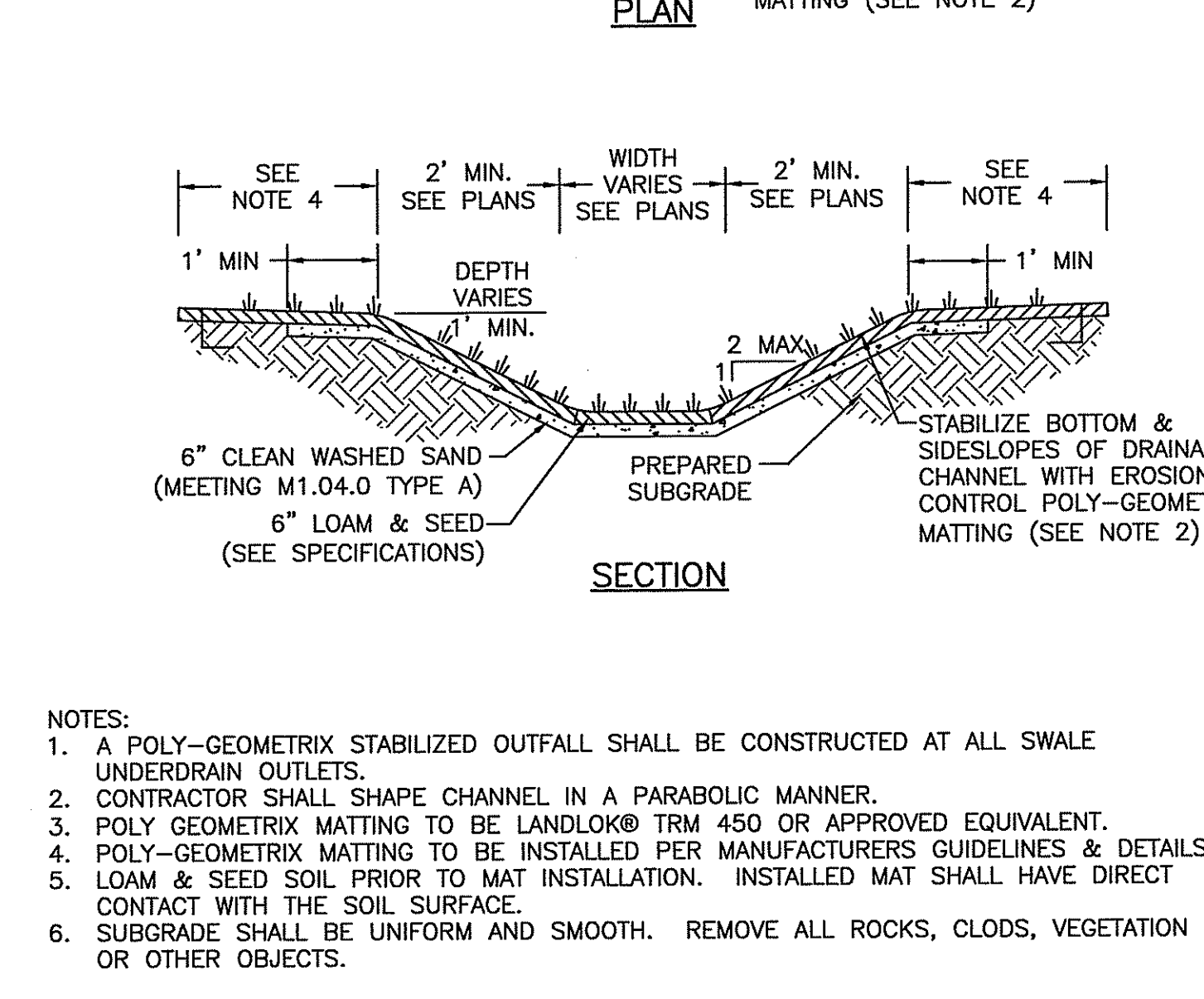
WOOD PEDESTRIAN BARRIER
NOT TO SCALE



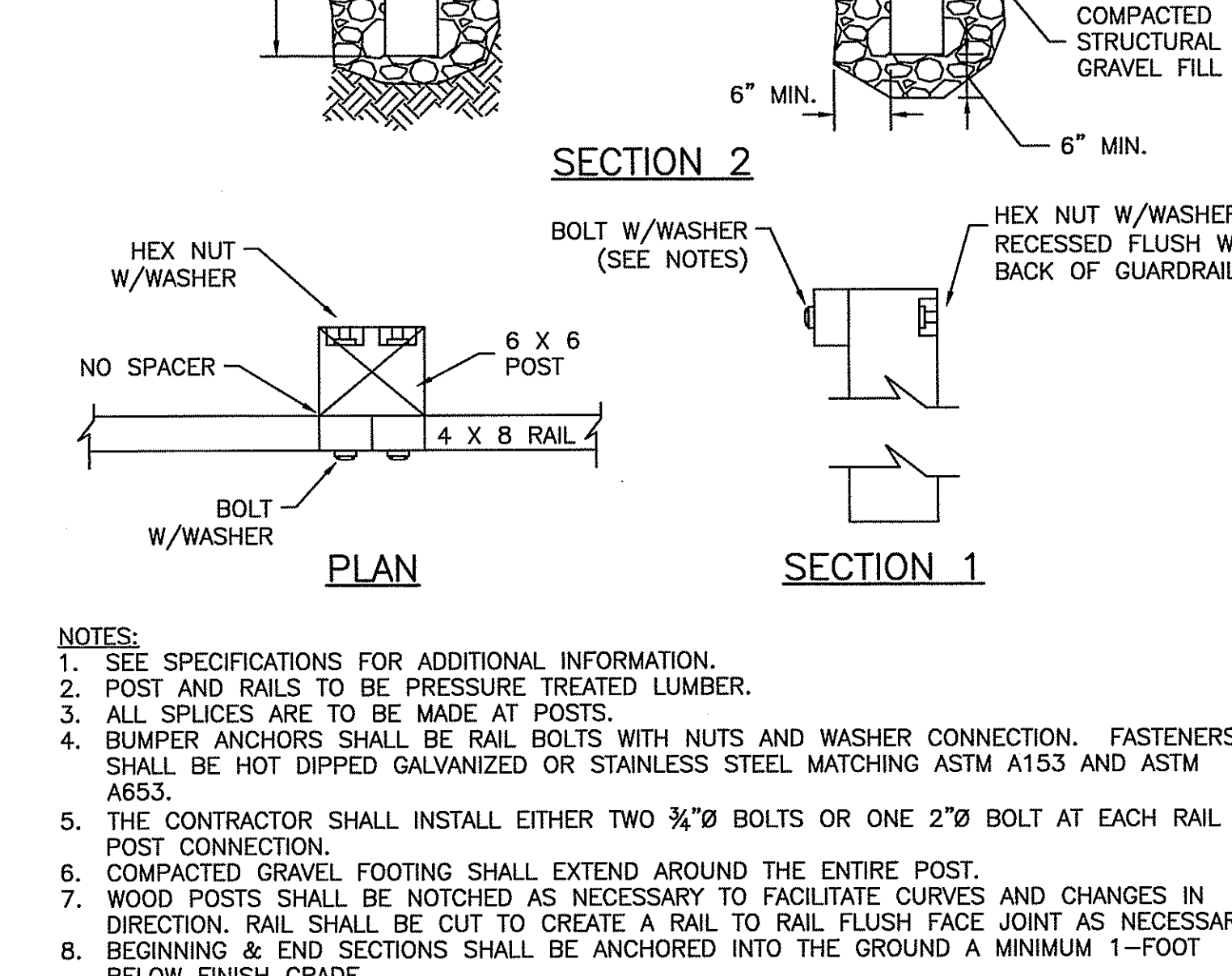
SECTION A-A
TYPICAL RIP RAP OUTFALL DETAIL
NOT TO SCALE



TYPICAL GRASS CHANNEL DETAIL
NOT TO SCALE



SECTION
NOTES:
1. A POLY-GEOMETRIX STABILIZED OUTFALL SHALL BE CONSTRUCTED AT ALL SWALE UNDERDRAIN OUTLETS.
2. CONTRACTOR SHALL SHAPE CHANNEL IN A PARABOLIC MANNER.
3. POLY GEOMETRIX MATTING TO BE LANDLOK® TRM 450 OR APPROVED EQUIVALENT.
4. POLY-GEOMETRIX MATTING TO BE INSTALLED PER MANUFACTURERS GUIDELINES & DETAILS.
5. LOAM & SEED SOIL PRIOR TO MAT INSTALLATION. INSTALLED MAT SHALL HAVE DIRECT CONTACT WITH THE SOIL SURFACE.
6. SUBGRADE SHALL BE UNIFORM AND SMOOTH. REMOVE ALL ROCKS, CLOUDS, VEGETATION OR OTHER OBJECTS.



SECTION 1
SECTION 2
NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. POST AND RAILS TO BE PRESSURE TREATED LUMBER.
3. ALL SPLICES ARE TO BE MADE AT POSTS.
4. BUMPER ANCHORS SHALL BE RAIL BOLTS WITH NUTS AND WASHER CONNECTION. FASTENERS SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL MATCHING ASTM A153 AND ASTM A653.
5. THE CONTRACTOR SHALL INSTALL EITHER TWO 3/4 inch BOLTS OR ONE 2 inch BOLT AT EACH RAIL TO POST CONNECTION.
6. COMPACTED GRAVEL FOOTING SHALL EXTEND AROUND THE ENTIRE POST.
7. WOOD POSTS SHALL BE NOTCHED AS NECESSARY TO FACILITATE CURVES AND CHANGES IN DIRECTION. RAIL SHALL BE CUT TO CREATE A RAIL TO RAIL FLUSH FACE JOINT AS NECESSARY.
8. BEGINNING & END SECTIONS SHALL BE ANCHORED INTO THE GROUND A MINIMUM 1-FOOT BELOW FINISH GRADE.

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 JUN - 8 2010 FILE # 08-0055
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Casey

Revisions

Rev.	Date	By	Description
1		PFL	
2		AEK	
3		BRK	

Checked By: PFL
Drawn By: AEK
Designed By: BRK
Date: JANUARY 2010

Horsley Witten Group, Inc.
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Savannah, MA 02563
508-835-6600 voice
508-835-5700 fax

PERMITTING PLANS
HARRISVILLE-PASCOAG MULTI-USE
PATH
BURRILLVILLE, RHODE ISLAND
CONSTRUCTION DETAILS

Plan Set: HARRISVILLE-PASCOAG MULTI-USE PATH CONSTRUCTION DETAILS

Prepared For: Town of Burrillville
144 Harrisville Main Street
Burrillville, RI 02830
Phone: (401) 568-4900
Fax: ---

Survey Provided By: Horsley Witten Group
90 Route 6A
Savannah, MA 02563
Phone: (508) 835-6600
Fax: (508) 835-5700
Date: February, 2006

FAT PIU LEE
No. 7984
REGISTERED PROFESSIONAL CIVIL ENGINEER

Project Number: 8086A
Sheet: 12 of 12
Drawing Number: C-12

last modified: 05/19/10 printed: 05/19/10 by bk H:\Projects\2008\8086A Burrillville_Rail_Phase_II\Drawings-8086A\8086A-DE.dwg