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Vanasse Hangen Brustlin, Inc.

February 1, 2013

Ref:

72016.10

Mr. Timothy Fleury Senior Engineer Rhode Island Department of Environmental Management Office of Waste Management 235 Promenade Street Providence, RI 02908

Re:

Trestle Trail, Coventry Rhode Island

Response to Remedial Action Work Plan (RAWP) Comments September 20, 2012

Dear Mr. Fleury:

Vanasse Hangen Brustlin Inc. (VHB), on behalf of our client, Prime Engineering, Inc. (PEI), submits this letter to respond to comments dated September 20, 2012 regarding the Trestle Trail Remedial Action Work Plan (RAWP).

For the sake of clarity, VHB has re-stated the question/comment in italics and has provided a response below it.

1. If the trucks moving the contaminated soil will be leaving the site during the transport of contaminated soils to and from the stockpile locations (or disposal areas, etc.) then please provide the Department with information regarding the appropriate decontamination and management of these vehicles prior to leaving contaminated areas. Decontamination areas of the trucks are needed to ensure that contaminated soil is not tracked onto public streets and other areas.

VHB has worked with PEI to prepare a Job Specific Contract Specification that addresses decontamination, truck movement, and soil management to ensure that contaminated soil is not tracked onto public streets or other areas. The Specification is referenced as Code 202.9902 "Handling, Hauling, Stockpiling, and Management of Contaminated Soils." A copy of this specification is attached to this letter.

2. Please provide a site figure that illustrates a cross-sectional example of the bike path's width. This figure should show how wide the capping scenario will extend and how the cap will taper off, if applicable to the undisturbed ground.

Response included in Item 3 below.

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3. Please provide a site figure showing the locations of soil samples with respect to the areas to be excavated and/or capped. The soil sampling locations, specifically locations that have exceedances of the Residential Direct Exposure Criteria and locations that are to be used as points of compliance, should be included in the site figures to distinguish

The enclosed figures replace those previously provided in Appendix B. These include a "Typical Section Plan" which shows two typical cross sections. One is a typical section of the proposed shared-use path in an area of contaminated soil. The other is a typical section of proposed shared-use path in an area where contaminated soil is being reused under a cap to raise surface grades. In all areas, where impacted soil remains, a minimum of two foot of clean fill will be used for capping.

Plans 1 through 11 show the sections of trail, their corresponding impacted and compliance point locations, and the extent of soil to be removed as requested.

4. Section 9.10 Design Standards and Technical Specifications of the <u>Remediation Regulations</u> requires that the RAWP be stamped by a Professional Engineer in the State of Rhode Island. Please provide the PE stamp for this section of the RAWP.

A revised version of the RAWP including all new P.E. stamped figures, modified references, and the stamped certification page is provided with this letter.

5. Page 15 Soil Stockpile Management of the RAWP states that "proposed stockpile locations are shown on the attached plans in Appendix B." However, Appendix B does not depict the temporary stockpile locations for contaminated soils. Please revise the figures in Appendix B, or generate new figures, that show the locations for temporary soil stockpiles.

These areas are shown on the new figures provided in Appendix B.

6. Appendix B – Construction Plans lists certain areas outside the actual future bike path as "approximate location of excavation of contaminated soil..." These areas are defined specifically on plan numbers 1 & 5-11. Please provide more details as to the type of remediation (i.e. capping and/or excavation followed by compliance sampling) that will be implemented in these areas.

All areas will either be cut or filled based on the required grade elevations. Although four capping scenarios are set forth in the RAWP, the preferred method to be used is capping with two feet of clean fill overlying impacted soil in all instances where it is possible. Final trail cover material will be placed over the two feet of clean material. The other capping options remain in the RAWP in the unlikely event that unexpected field conditions require an alternative approach to the preferred method. Please refer to the drawings provided in Appendix B of the revised RAWP.



Mr. Timothy Fleury

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If you have any questions or comments regarding these responses, please feel free to contact me at (401) 272-8100.

Sincerely,

VANASSE HANGEN BRUSTLIN, INC.

Suzame C. Courtemanche, LSP, CHMM Director, Oil and Hazardous Materials

cc: A. Marshall, RIDOT R. Bailey, RIDEM

H. Neenan, Prime Engineering, Inc.

Enclosures:

Job Specific Code 202.9902 Handling, Hauling, and Management of Contaminated Soils Figures: Typical Section; and Plans 1 through 11 Revised Remedial Action Work Plan (February 2013)



Job Specific Cod 202.9902 Handling, Hauling, Stockpiling, and Management of Contaminated Soils

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JOB SPECIFIC R.I. CONTRACT NO. 2013-CH-018

CODE 202.9902

HANDLING, HAULING, STOCKPILING, AND MANAGEMENT OF CONTAMINATED SOILS

DESCRIPTION: This item includes the handling, hauling, and unloading of contaminated or hazardous soil from the excavation locations to approved stockpile locations, management of the contaminated soils, and the set-up and proper maintenance of the stockpiles, including provision of polyethylene, supplies, equipment and dust control.

The work shall be performed in accordance with all appropriate sections of the Rhode Island Department of Transportation (RIDOT) Standard Specifications for Road and Bridge Construction, amended December 2010, and all applicable revisions, and requirements of the Rhode Island Department of Environmental Management (RIDEM) Remedial Action Work Plan (RAWP) and Soil Management Plan (SMP) provided in the Appendices of the General Provisions - Construction Specific, respectively, and in compliance with any and all applicable permits. The RAWP and SMP describe the soil remediation protocols and contaminants of concern. In general, contaminated soil as identified in the RAWP and associated site plans will be excavated from "cut" areas and transported for temporary stockpiling at Camp Westwood Road pending re-use as "fill" in other portions of the project. Trucks carrying contaminated soil destined for Camp Westwood Road, and carrying contaminated soil from Camp Westwood Road to the designated fill locations along the project alignment, are required to be decontaminated to remove contaminated soil on the tires, truck body, etc. prior to leaving the work zone and traveling on the public roadways. More information is provided the RAWP and its appendices, in addition to the Decontamination Section of this Code.

REGULATORY REQUIREMENTS: Applicable regulations consist of all regulations cited in the RAWP and SMP in their most recent version, in addition to any others deemed applicable by the Contractor. This Section refers to many requirements found in these references, but in no way is intended to cite or reiterate all provisions therein or elsewhere. It is the Contractor's responsibility to know, understand, and abide by all such regulations and common practices only to the extent that they may be applicable to the Contractor's work and applicable sections of the regulations identified in this section, and other regulations that may be deemed applicable by the Contractor. The Contractor shall be responsible to determine all relevant and applicable regulations that pertain to the project. In the event of a conflict, the most stringent regulations shall govern. The following documents and/or publications are made part of this Code by reference herein:

- A. Rhode Island Rules and Regulations for the Investigation and Remediation of Hazardous Materials (the Remediation Regulations).
- B. Rhode Island Rules and Regulations for Hazardous Waste Management.
- C. Rhode Island Solid Waste Regulations.
- D. Rhode Island Oil Pollution Control Regulations.

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- E. Rhode Island Air Pollution Control Regulations.
- F. "Hazardous Waste Operations and Emergency Response", Federal Occupational Safety and Health Act (OSHA), 29 CFR 1910.120.
- G. "General Regulations for Hazardous Waste Management", EPA, 40 CFR 260.
- H. "Regulations for Identifying Hazardous Waste, Hazardous Waste Generators and Hazardous Waste Transporters", EPA, 40 CFR 261, 262 and 263.
- 1. U.S. Department of Transportation (U.S. DOT) Title 49 Code of Federal Regulations (CFR).
- J. Safety and Health Regulations Promulgated by the U.S. Department of Labor OSHA, 29 CFR 1910 Occupational Safety and Health Standards, and 29 CFR 1920 Safety and Health Regulations for Construction.
- K. U.S. EPA Standard Operating Safety Guidelines Office of Emergency and Remedial Response Hazardous Response Support Division.
- L. U.S. EPA Medical Monitoring Program Guidelines.

MATERIALS: All materials to be used shall be in accordance with all appropriate sections of the RIDOT Standard Specifications for Road and Bridge Construction, amended December 2010, and all applicable revisions.

The Contractor shall supply and utilize all required materials to adequately complete contaminated soil handling, hauling, and stockpiling as described in the RAWP and SMP. Personal protective equipment shall be as specified in the Contractor's project specific Health and Safety Plan (HASP).

Any clean fill required for backfilling will be common borrow or gravel borrow subbase course and shall be in accordance with all appropriate sections of the RIDOT Standard Specifications for Road and Bridge Construction, amended December 2010, and all applicable revisions and shall be certified by the Contractor as complying with the RIDEM Residential Direct Exposure Criteria as set forth in the Remediation Regulations.

CONSTRUCTION METHODS: The Contractor is responsible for all work described in the RAWP and SMP, in addition to ensuring compliance with the requirements of the RAWP, SMP and all applicable state, federal, or local regulations. This bid spec summarizes the major requirements, however, the Contractor is directed to review and understand the requirements of the RAWP and SMP.

ENGINEERED BARRIERS:

Contaminated soil areas that are to be capped are identified in the RAWP. The following encapsulation methods are proposed for the Trestle Trail in its entirety; however, cap option 1 is the preferred remedy for the East Section. Options 2 through 4 will only be used for the East Section if in-field conditions prevent installing two feet of clean fill. Deviation from the two feet of clean fill for the East Section must be approved by the State's design engineer (Prime Engineering, Inc.) prior to implementation to ensure proper function of the trail design:

- 1. Two feet of clean fill overlying impacted soil;
- 2. Asphalt Paved Areas These areas will consist of six inches of clean fill sub-base underlying two, two inch lifts of asphalt;
- 3. Geotextile overlain with one foot of clean fill;
- 4. Four inches of stone dust underlain by eight inches of clean fill and a geotextile fabric.

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If a deviation from two feet of clean fill is approved by the ENGINEER then in areas where geotextile will be used as the engineered barrier/cap, the Contractor shall use fabric that possesses a minimum puncture strength of 120 pounds and minimum burst strength of 400 pounds per square inch in accordance with RIDEM guidance. Any clean fill required for backfilling will be common borrow or gravel borrow subbase course and shall be in accordance with all appropriate sections of the RIDOT Standard Specifications for Road and Bridge Construction, amended December 2010, and all applicable revisions and shall be certified by the Contractor as complying with the RIDEM Residential Direct Exposure Criteria as set forth in the Remediation Regulations.

STOCKPILES: The Contractor shall supply and utilize all required equipment to adequately place and maintain the stockpiles in a neat and orderly fashion in 500 cubic yard intervals within the approved stockpile areas at the location referred to as Camp Westwood Road. Stockpiles shall not be located outside the limit of disturbance (LOD). All stockpiled soil shall be placed entirely on 6-mil polyethylene sheeting and be completely covered with a 6 mil layer of polyethylene at the completion of each day. The polyethylene sheets shall overlap adjacent sheets by a minimum of four (4) feet. The stockpiles shall be surrounded with staked hay bales. It is the responsibility of the Contractor to ensure that each stockpile location has been placed on and covered by the required polyethylene, and that erosion controls are in place. The polyethylene sheets and hay bales will be inspected daily by the Contractor to ensure that dust and/or erosion controls are properly secured. Upon completion of the use of the stockpiles, the Contractor is responsible for the removal and proper disposal of the polyethylene sheeting and erosion controls and to restore the stockpile area to a condition acceptable to the Engineer.

DUST/ODOR CONTROL: It is the Contractor's responsibility to control dust and odors as required by the RAWP and the SMP at stockpile locations and at all locations traveled for this stockpiling operation leading to and from the stockpile areas. The Contractor must provide all reasonable precautions to prevent excessive dust generation during soil handling activities, and the Contractor's work must comply with all applicable federal, state and local regulations include the RIDEM Air Pollution Control Regulations, specifically Regulation No. 5 regarding fugitive dust. The Contractor must conduct dust control measures during and after normal work hours and on weekends, as necessary, to control dust. All stockpiles shall be inspected on a daily basis.

UNEXPECTED CONDITIONS: Site excavation may unearth solid debris and/or refuse materials such as concrete, brick, rubble, pipe, lumber and other building materials. This material (other waste) should be segregated to the extent feasible and stockpiled separately utilizing the procedures outlined above. Disposal of this material is not the subject of the RAWP and/or SMP and it will be handled by the Contractor in a manner consistent with demolition and refuse clearing projects and in accordance with RIDEM Solid Waste Regulations. If unusual observations (e.g., drums, free product or unusual odors) are made during excavation within the Project work areas, further excavation work should cease immediately. Workers should not handle the identified material of interest and shall notify the RIDOT project supervisor for further direction. The Engineer will in turn notify RIDEM and the need for an addendum or amendment will be evaluated.

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HEALTH AND SAFETY: The Contractor is required to comply with all applicable state, federal and local health and safety requirements established by regulation and as described in the RAWP and SMP consistent with the type of contaminants identified for the Project, including but not limited to, OSHA Standard 1910.120 Hazardous Waste Operations (HazWoper). The Contractor is required to prepare and maintain a Site-specific HASP which shall be implemented as part of this work. The Contractor's employees and any Subcontractor employees who will be potentially exposed to contaminated soils as identified in the RAWP and SMP are required to have OSHA 40-hour health and safety training, and 8-hour refresher training as required. The Contractor must provide a copy of their Site specific HASP in addition to copies of employee training certificates to the Engineer for the persons who shall be performing the work at least 2 weeks prior to project implementation.

If visible dust is generated, then the level of dermal and respiratory protection shall be determined by the Contractor for his employees based upon periodic air monitoring to be performed by the Contractor in addition to any additional requirements of the Contractor's HASP. The Engineer may conduct duplicate air monitoring for quality assurance purposes. Level D protection, in addition to the following, shall be the minimum personal protective level for all on-Site personnel:

- Safety Leather Steel Toe Boots;
- Reflective Safety Vest;
- Rubber or Leather Gloves;
- Eye and Hearing Protection; and
- Hard Hat.

The Contractor is required to provide a safety officer who will be responsible for ensuring safety and compliance during the Project. The Contractor is required to have the necessary personal protective equipment available as specified in the Contractor's site specific HASP and shall have access to an inventory of personal protection equipment in the event that the level of personal protection equipment needs to be upgraded. The Contractor must provide a copy of their Site specific HASP (including documentation of training and any required medical monitoring or fit testing documentation) to the Engineer at least 2 weeks prior to project implementation.

RUNOFF PROTECTION: Prior to the start of excavation activities, sediment and erosion controls consisting of compost filter socks or other equivalent methods proposed by the Contractor will be installed by the Contractor at the Site. The Contractor is required to protect all catch basins/storm drains on the Site by placing compost filter socks around them. The Contractor shall inspect the catch basins/storm drains weekly to ensure the compost filter socks are adequately protecting the structures. If they are deemed inadequate, the Contractor must contact the Engineer and propose an alternative protection method.

SECURITY: The Contractor is responsible for maintaining Site security on a continuous basis. No trespassers are allowed on Site.

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DECONTAMINATION: The Contractor is responsible for decontaminating all tools, heavy equipment, and other items that leave the work area in accordance with the all requirements set forth in the RAWP and SMP, and properly characterizing and disposing of any waste/wastewater resulting from decontamination procedures. The Contractor is required to provide a written explanation of their proposed Decontamination Procedures to the Engineer a minimum of two (2) weeks before project initiation. This includes, but is not necessarily limited to, the following:

- Brush soil from equipment and containerize as appropriate. This collected soil may be added to the stockpiled soil at Camp Westwood Road pending reuse on the "fill" portions of the project alignment;
- Any soil that is not, or cannot, be reused on the alignment must be collected, sampled and analyzed for proper off-Site transportation and disposal at the frequencies and for the parameters established in the RAWP and/or SMP; and
- Construction entrances/stone stabilized pads will be placed at the construction boundary zone (i.e. the decontamination pad) to facilitate the removal of excess soil from vehicle tires for those vehicles which need to leave the work zone on a daily basis. In addition to traveling across the crushed stone area, excess soil will be brushed from the vehicles using a long-handled, stiff bristle brush. Trucks may also be loaded outside the contaminated work zone areas to minimize excess soil from remaining on wheels and truck bodies, provided the construction equipment performing the loading is decontaminated when exiting the work zone. Additional dust minimization efforts must be employed if loading transport vehicles outside the work zone to ensure no contaminated dust is released into non-impacted work areas; and
- The Contractor is responsible for the deconstruction and proper characterization and disposal of the decontamination pad and resultant surplus soil.

OPERATIONS LOG: The Contractor is responsible for maintaining an Operations Log as described in the SMP. The Operations Log will be maintained daily and will document the observations made during excavation throughout the Project Area. The log must include, but not necessarily be limited to, the following:

- Dates of earthwork activities;
- Dates and times of sampling;
- Soil Management Observations;
- Description of soil movements;
- Approximate volumes of excavated materials not reused;
- Waste/Soil tracking;
- Final off-Site disposal locations; and
- Disposal documentation.

The Contractor will provide a summary report to the Engineer on a daily basis, and shall provide copies of their Operating Log to the Engineer on a weekly basis. The Contractor is also responsible for compiling and submitting the logs to the RIDEM and RIDOT by the 15th of the following month in accordance with the requirements of the RIDEM Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations) and the RAWP and SMP.

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CONFORMANCE: While engaged in contamination/hazardous material removal and contaminated soil management, the Contractor shall be subject to on-Site inspection by the RIDOT inspector, Engineer, or other regulatory officials. If the work is in violation of the requirements of this, or any other specification, or is in violation of a state, local or federal regulation, the inspector may issue a stop work order to be in effect immediately and until the violation is resolved. Standby time and expenses required to resolve the violation shall be at the Contractor's expense.

SUBMITTALS: The Contractor shall submit the following to the Engineer:

- A. The names, addresses and responsibilities of subcontractors retained for work described in this section.
- B. A proposed schedule for work.
- C. Proposed dust monitoring and control measures.
- D. Health and Safety Plan and OSHA documentation.
- E. Proposed decontamination procedures.
- F. Daily work summary detailing excavation activities including the location and volume of excavated material and the stockpile in which it was placed and weekly submittals of the operations log.

METHOD OF MEASUREMENT: This item will not be measured for payment.

BASIS OF PAYMENT: Item Code 201.9904 "HANDLING, HAULING, STOCKPILING, AND MANAGEMENT OF CONTAMINATED SOILS" will be paid for at the contract "Lump Sum" price as listed in the Proposal. The price so stated shall constitute full and complete compensation for all labor, materials, tools and equipment, loading, handling, hauling, stockpiling, management of contaminated soils, polyethylene, dust/odor control, soil classification, segregation, soil characterization, health and safety plan, security, runoff protection, decontamination, operation logs, submittals, vehicle washing, street sweeping, and all other incidentals required to complete the work as described in this special provision, in the RAWP and SMP, and elsewhere as referenced in the Contract Documents, complete in place and accepted by the Engineer.

The Contractor shall not be paid separately for loading, handling, and hauling soils suitable for reuse on the project from the stockpiles to the areas of reuse. The cost for this effort shall be included in this item.

The installation and removal of construction entrances/stone stabilization pads as well as the furnishing, installation and removal of compost filter socks will be paid for under the appropriate bid items.

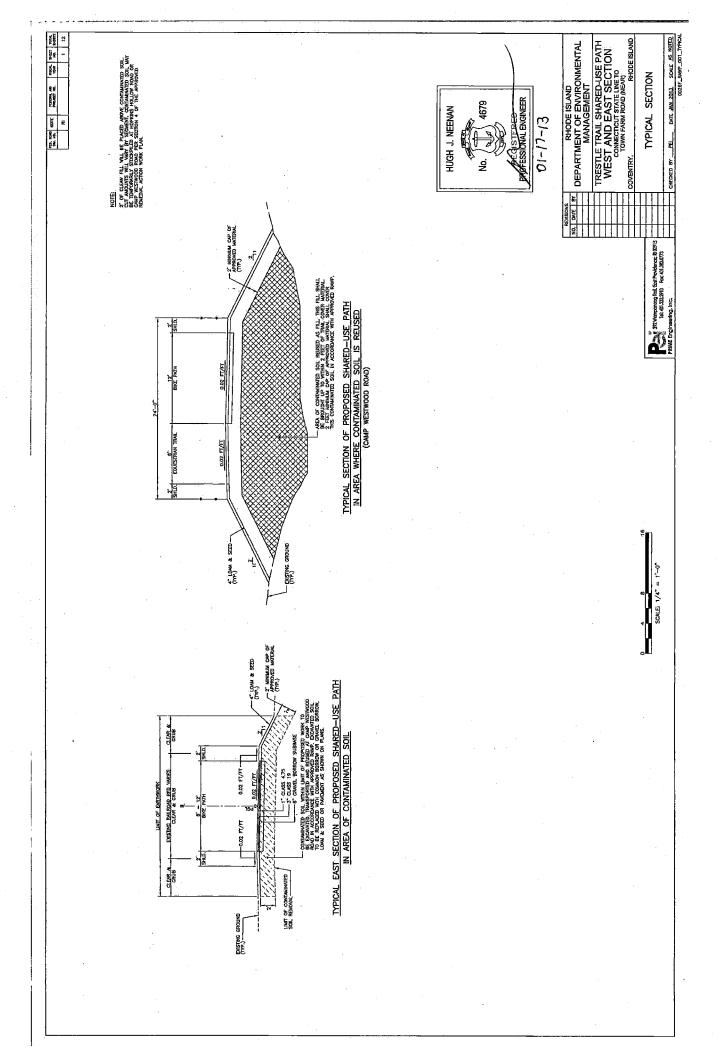
Excavation of contaminated soil shall be paid for under Item Code 202.0100 – Earth Excavation.

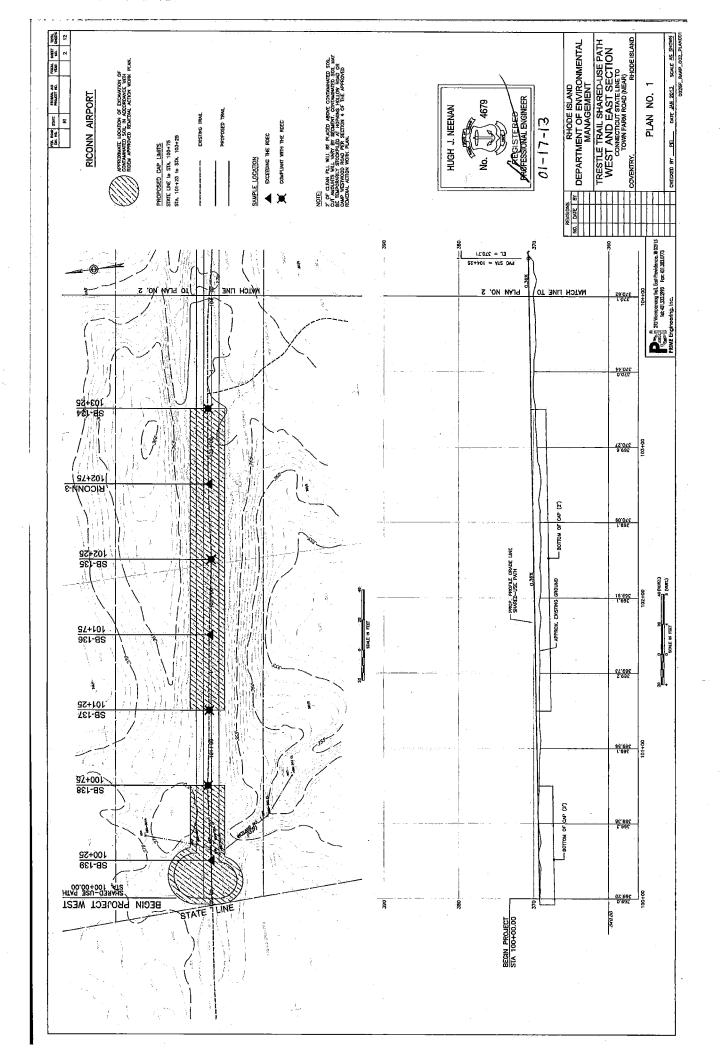
The placement of the excavated contaminated soil as common borrow at the areas east and west of Camp Westwood Road shall be paid for under Item Code 202.0700 – Common Borrow.

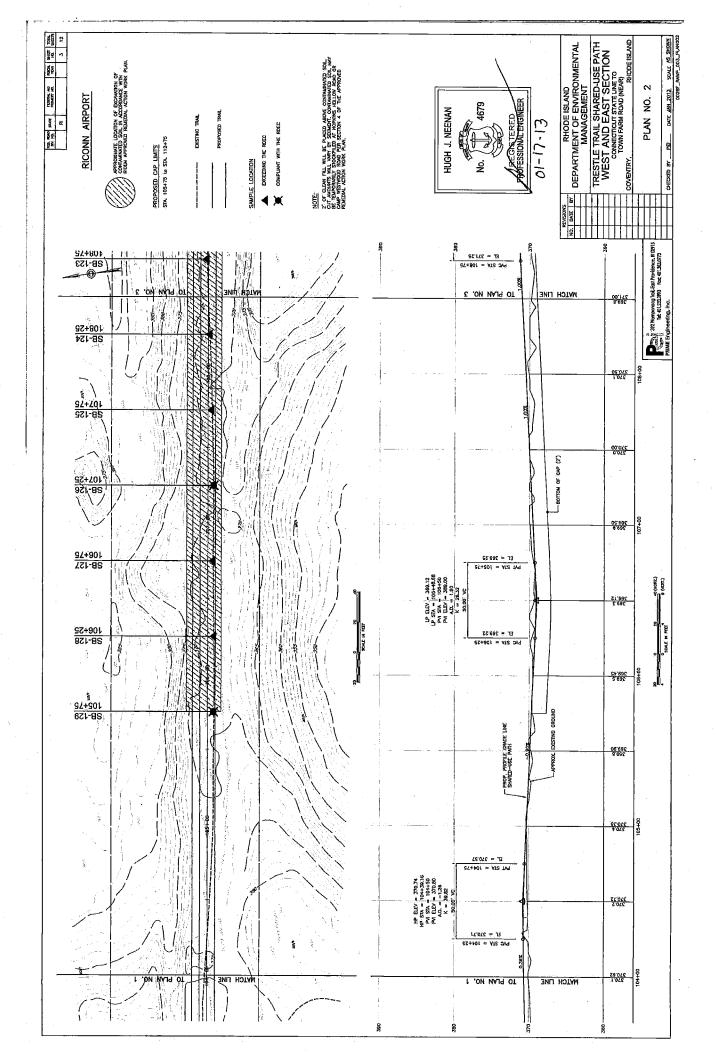
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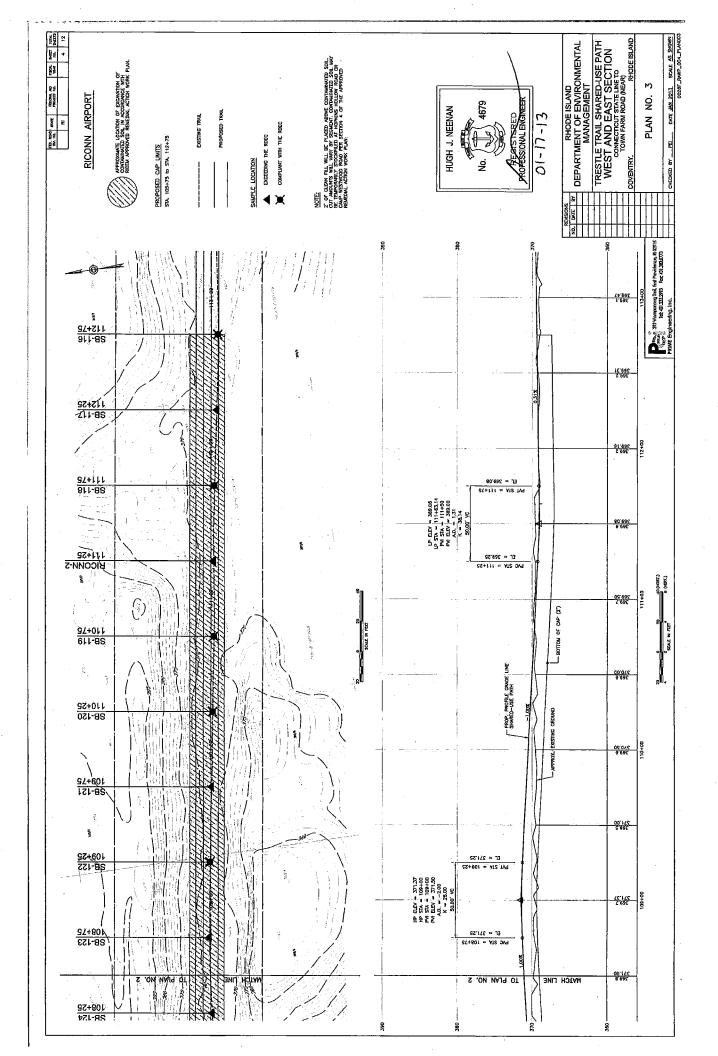
Gravel Borrow Subbase Course shall be paid for under Item Code 302.0100 – Gravel Borrow Subbase Course.

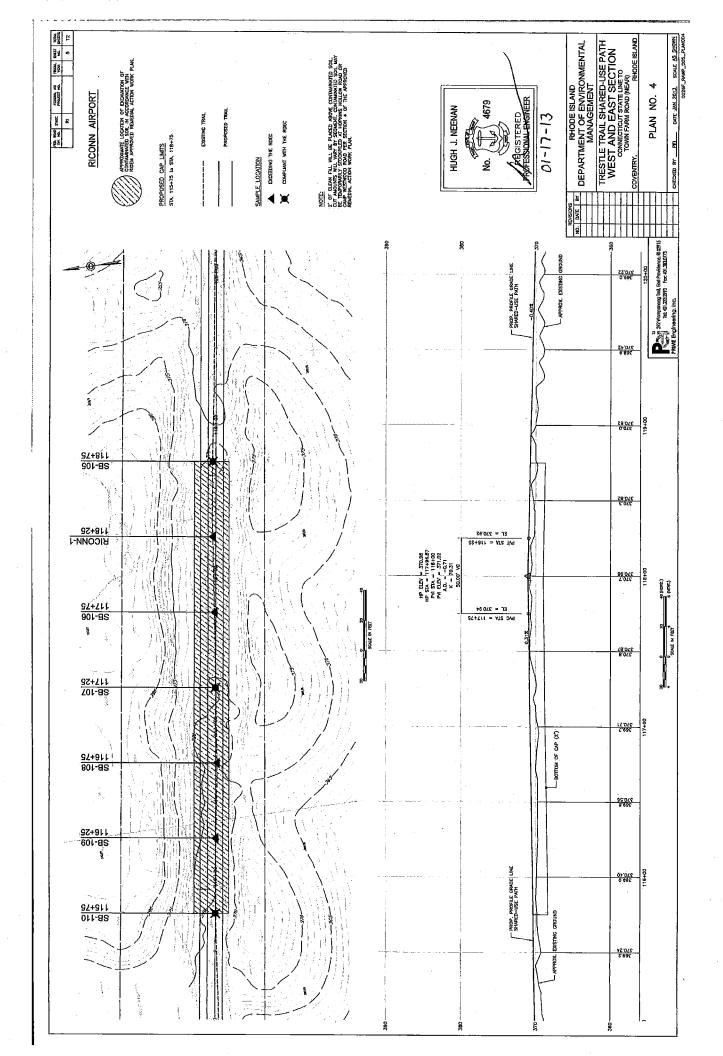
Revised RAWP Appendix B Figures

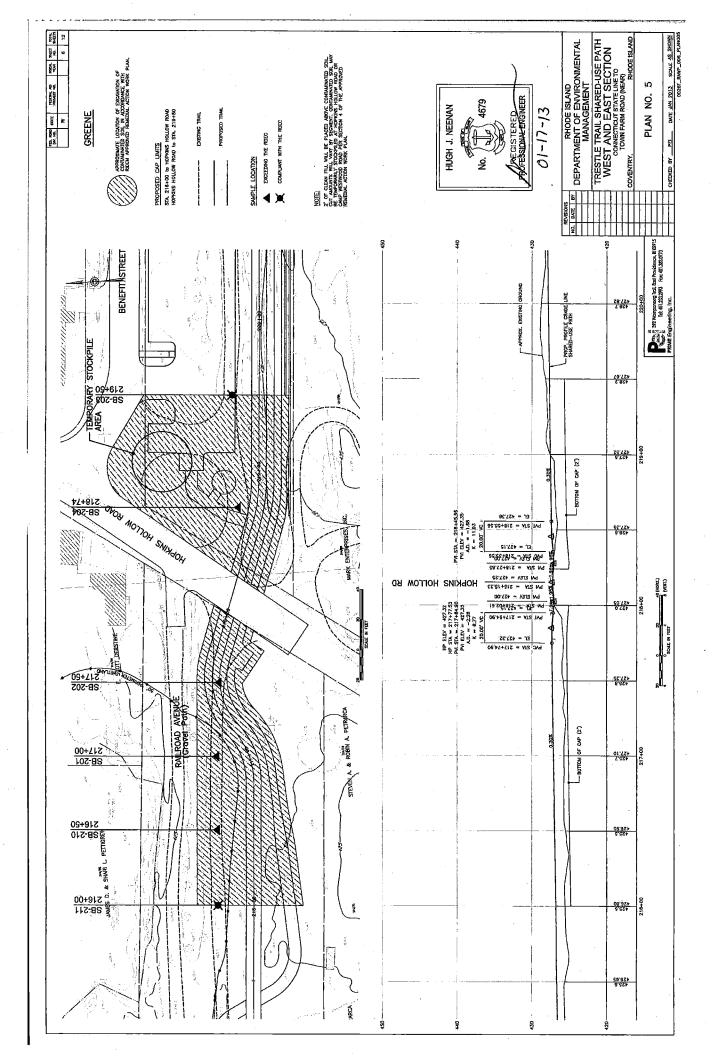


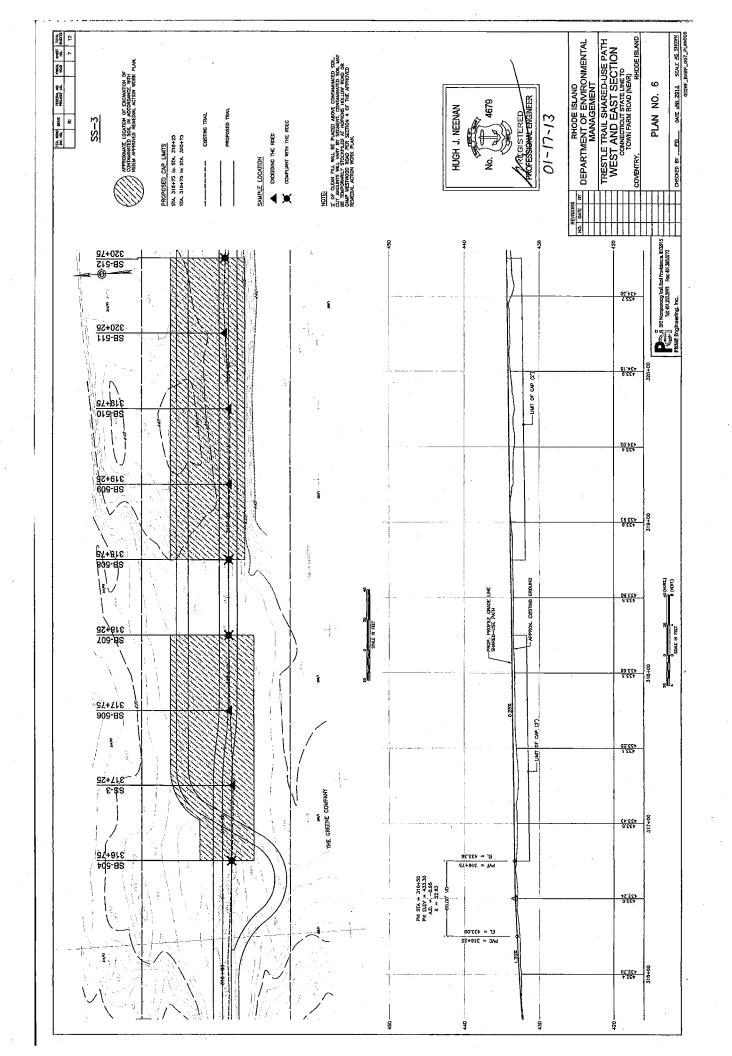


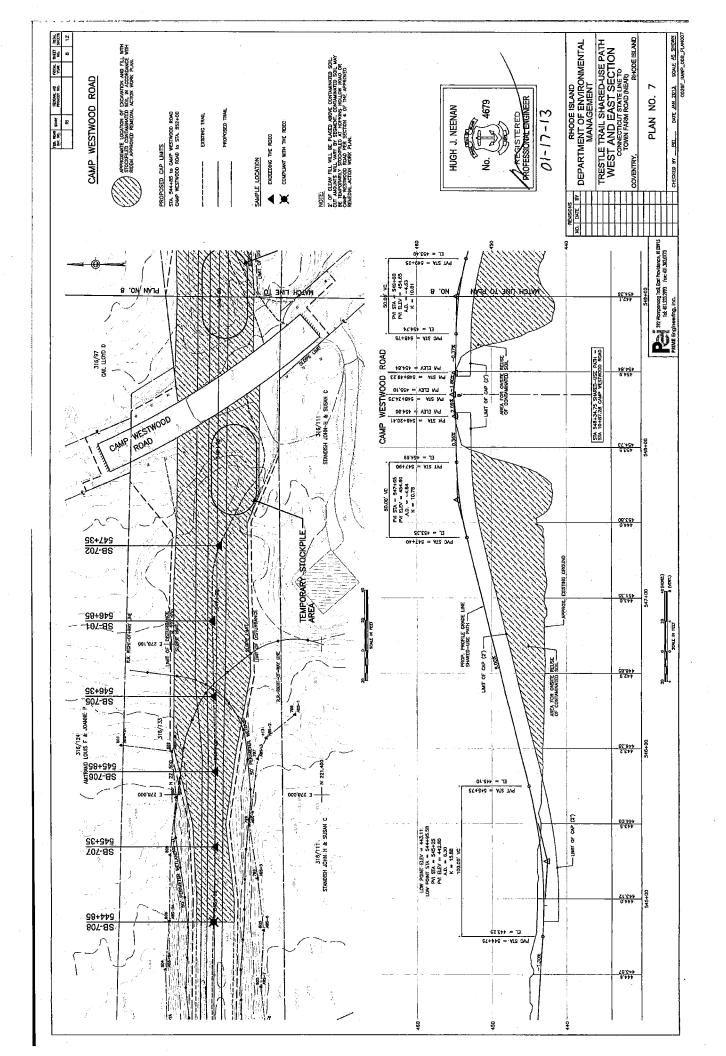


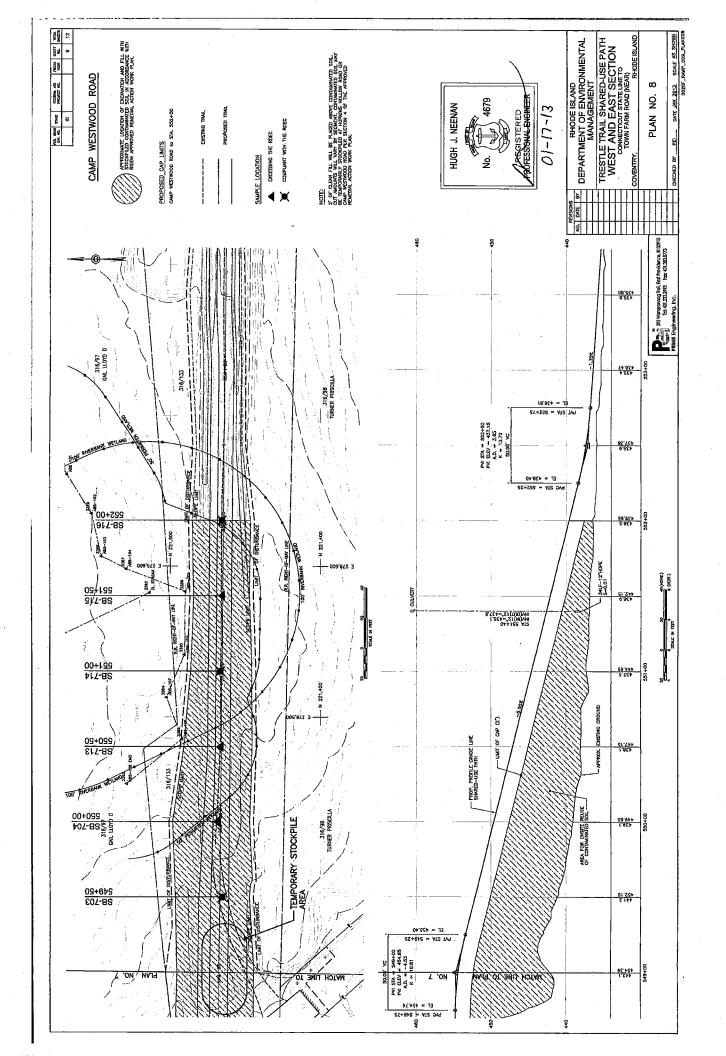


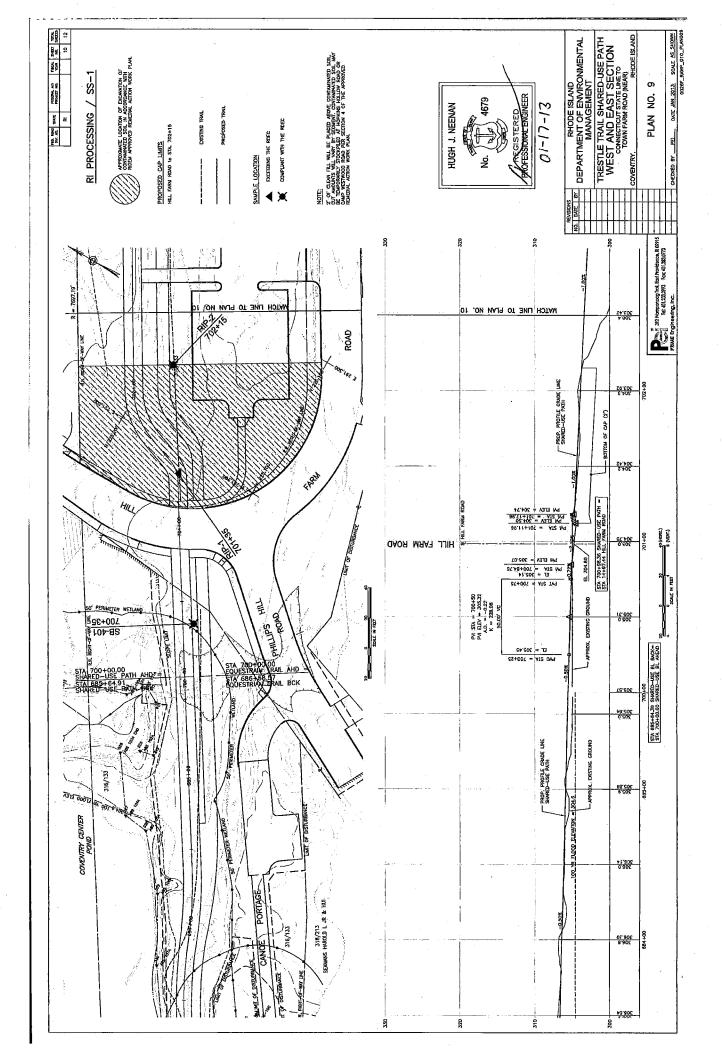


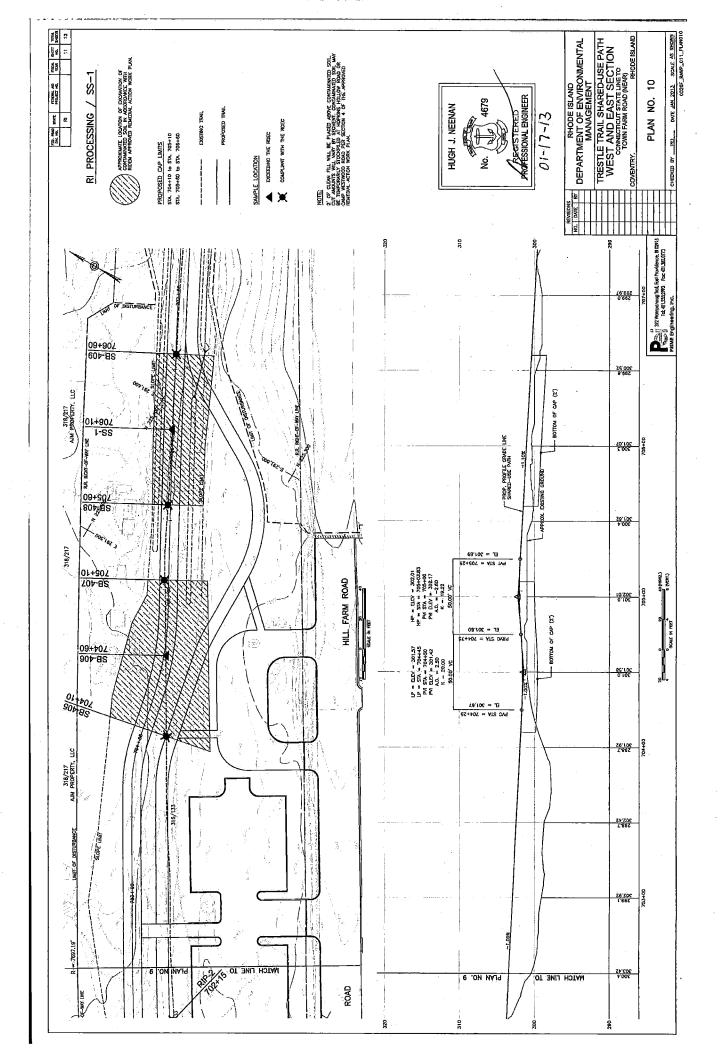


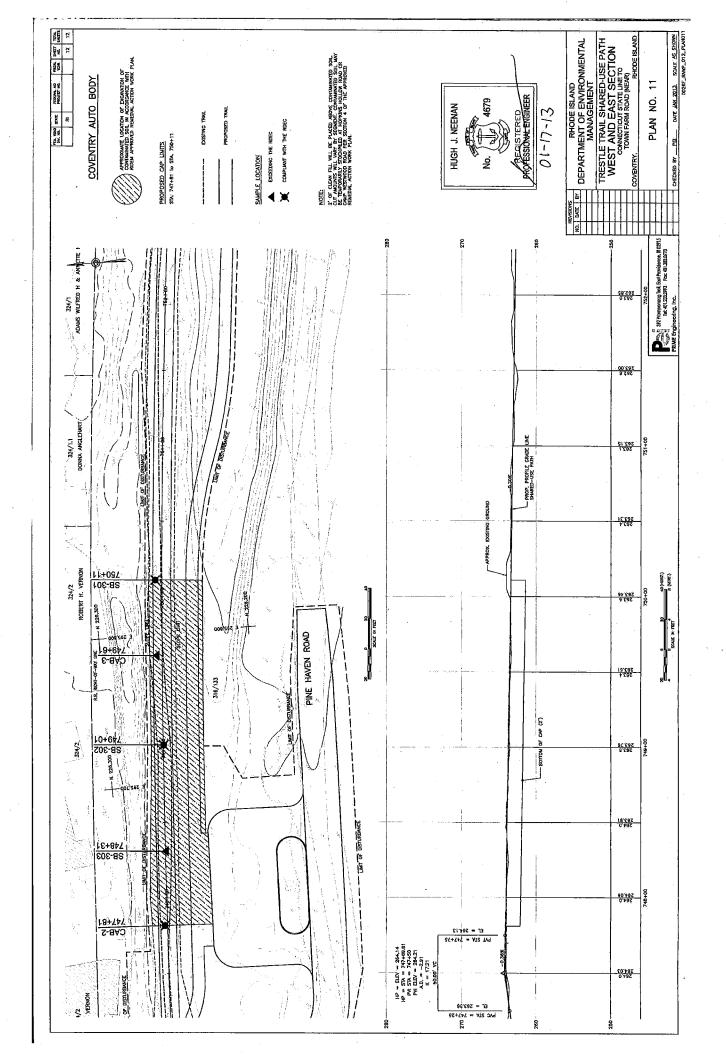












Revised RAWP February 1, 2013