Revised Soil Re-Use Management Plan

for

Jordan Property and Williams Property
East County Road and 29 Overlook Road
Rutland, Massachusetts 01543

Prepared for:

Lighthouse Environmental Management, LLC

April 24, 2015

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Environmental Engineering / Ground Water Consulting

Contents

1 Introduction

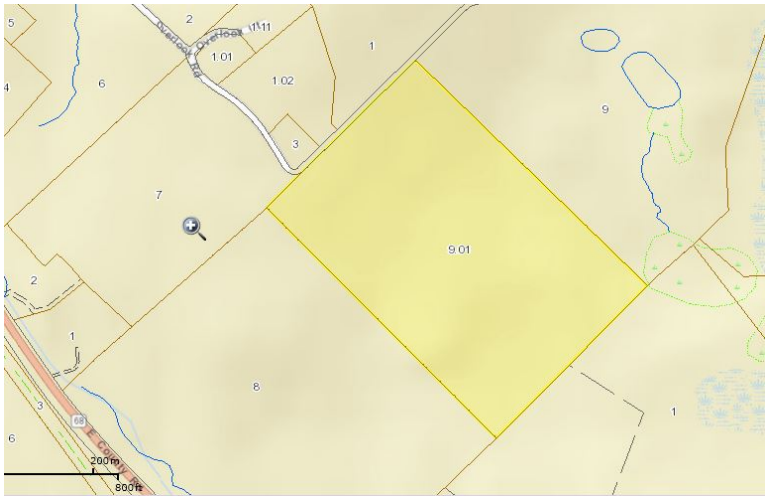
The following is a Revised Soil Re-Use Management Plan, (SRMP) prepared in support of the planned continued and expanded use for commercial farming of portions of two parcels of land in Rutland, MA, referred to as the Site, as described and depicted below:

- The Jordan Parcel: 51 Muschopauge Road, Assessor's Lot 067-A-8 (73.52 acres); and
- The Williams Parcel: 29 Overlook Road, Assessor's Lot 067-A-9.01 (54.81 acres);

(Lot designations and acreage from Rutland Assessors records).

Jordan Parcel:

Williams Parcel:



This revised plan provides an update and supersedes all previous SRMPs including:

- The original SRMP prepared by EnviroTrac Ltd. for a portion of the Site in September 2012;
- The revised SRMP prepared by EnviroTrac Ltd. in May 2013; and
- An amendment to the May 2013 SRMP prepared by D'Amore Associates, Inc. in May 2014.

The purposes for preparing this Revised SRMP are:

1. To incorporate the May 2014 amendment into the SRMP, which was prepared following publication of the Similar Soils Provision Guidance (WSC# 13-500); and
2. To include revisions to the SRMP recommended by MassDEP.

The Soil Acceptance Criteria Table for the Site was revised based upon the recently published Similar Soils Provision Guidance (WSC# 13-500) document issued by the Massachusetts Department of Environmental Protection (MassDEP) dated October 2, 2013 and the recent changes to reportable concentrations for the following elemental metals; cadmium, chromium (total), chromium (VI), lead and nickel that became effective on April 25, 2014.

Recommended revisions to the SMRP by MassDEP are associated with the Administrative Consent Order (ACO) that DEP is developing for the project.

This revised SMP addresses fill will be received from sending facilities, placed and graded the Jordan portion of the "Site". The only activities that will occur on the Williams portion of the site will be the operation and management of the storm water control structures and to place and grade topsoil, which is already stockpiled on site on less than 10% of the Williams parcel. Grading plans for both parcels are included in this revised SMP and will be discussed in later sections. A temporary construction easement on the Williams parcel will be developed to allow for maintenance of the storm water control measures.

1.1 Revised SRMP Objectives

The Site Owners and Lighthouse intend to conduct the soil management operations with approved "clean" fill and natural and re-worked natural soils from off-site locations that are considered to be the following:

- Non-Massachusetts Contingency Plan (MCP) regulated soils (i.e., less than RCS-1). Soils that are recognized to contain anthropogenic fill materials (reworked natural soil or soil with some small proportion of anthropogenic material) from non-MCP regulated sites, or other soils

brought from an MCP-regulated site that are < RCS-1 standards, non-impacted, and not considered part of a Disposal Site as defined in the MCP by the sending LSP. This soil is also MCP restricted in that it must also meet MCP "anti-degradation provisions" at 310 CMR 40.0032. This requirement is addressed through the development of "Soil Acceptance Criteria" presented in this plan; or

- Naturally occurring, non-impacted soils that do not originate from within affected layers on an MCP site or a site with filling activities and are not otherwise regulated.

Soils from on-going and proposed projects will be delivered to the appropriate section of the Site as specified by Lighthouse and the Owners and will be placed and tracked in accordance with procedures in this plan.

1.2 Contact Information

The Owner of the Parcel 67-A-9.01 is: William Williams, 29 Overlook Road, Rutland, MA 01543. Mr. Williams and Randy Jordan cooperatively manage farm operations on this parcel.

The owners of Parcel 067-A-8 are Wayne R. Jordan, Randy E. Jordan, and Brian H. Jordan, 51 Muschopauge Road, Rutland, MA 01543. Farm operation is provided by Mr. Randy Jordan.

The Operations Manager of the Site for soil placement operations is:

- Lighthouse Environmental Management, LLC, (Mr. Kevin Francis Gervais), 184 Stone Street, , Clinton, MA Cell Number: (617) 699-5245

The "Site LSP" reviewing candidate soil packages is:

- Denis D'Amore, D'Amore Associates, Inc.
  148 Ponakin Road
  Lancaster, MA 01523
  (978)368-1802 - Office
  (978)807-8301 - Cell

While the project is ongoing, the operations manager or his designee will be on call 24/7 to address any issues.

2 Background

2.1 Site Conditions

The Site is currently a farm and will continue to be used for these purposes with addresses at 29 Overlook Road and East County Road in Rutland, Massachusetts. The Site is located in a wooded area of Rutland about 1/4 mile northeast of Route 68 (East County Road) and is accessible from intersecting Wachusett Street which in turn intersects Overlook Road.

The Jordan and Williams properties are located in an agricultural zoned area. The Williams property has an Agricultural Preservation Restriction (APR) approved by the United States Department of Agriculture (USDA). The general site locus is shown on **Figure 1.** A detail of the existing topography is depicted on **Figure 2.** This map also shows the legal property parcel designations, recently mapped wetland boundaries in the vicinity of the soil placement areas, and USDA surface soil designations prepared by Thompson-Liston Associates, Inc. (TLA).

The portion of the property where soil has been placed from September 2012 to the present under the existing SRMP is on the Jordan parcel, with a small area (topsoil only) on the Williams parcel.

The project area was previously cornfield (in part) and woodland (in part) that was cleared in late 2011 to prepare for farming of corn primarily. The area was extremely stony with numerous boulders and minimal topsoil. In order to create a tillable soil the stones and boulders will be covered with layers of structural soil and finished with topsoil. The new topsoil will be amended with a previously permitted "Biomix" of short paper fiber, and/or compost that was placed on the Jordan parcel. The MassDEP approved Permit WRP WP30 for the Biomix placement based on soil background information prepared by New England Organics in August 2011, which is included in **Attachment A**.

2.2 Wetlands

There are bordering vegetated wetlands ("BVW") and a 100-foot buffer zone to the southeast and southwest of the work area, as shown on **Figure 2**. The National Resource Conservation Service (NRCS) prepared a figure that roughly located these wetland areas by GPS. The NRCS figure also plotted the perimeter of an area labeled "0.7 acre" with the notation "no hydric soils". The 0.7 acre area is isolated from identified wetlands and streams on and near the site, and therefore is not a bordering wetland. It has also been evaluated for possible consideration as Isolated Land Subject to Flooding ("ILSF") in accordance with Massachusetts Wetland Regulations. Based upon this evaluation, the area

does not qualify as ILSF. There are no hydric soils in this area in question and aerial photographs provided by Mass DEP do not depict this area as subject to flooding.

EcoTec Inc. of Worcester, MA (EI) delineated vegetated wetlands in the vicinity of the proposed work area in April, 2013 in accordance with state and federal delineation criteria. Wetland boundary flags were located by instrument survey and plotted on an *Existing Conditions Plan* (revised May 23, 2013) by Thompson-Liston Associates of Boylston, MA. The Existing Conditions Plan and other supporting materials were filed with the Rutland Conservation Commission on May 23, 2013 as part of a Wetlands Protection Act Request for Determination of Applicability. Following a public hearing, the Conservation Commission issued a Determination of Applicability on July 8, 2013 stating that:

1. Bordering Vegetated Wetland delineations shown on the submitted plan are accurate (noting that there are wetlands on other portions of the properties, not germane to the subject project); and
2. The so-called "0.7 acre isolated depression" is not an Area Subject to Jurisdiction under the Wetlands Protection Act.

The Determination of Applicability and its findings are valid for three years (until July 8, 2016). All soil placement activities are proposed outside of the delineated wetlands and associated 100 foot Buffer Zones. The Determination of Applicability, existing conditions plan and proposed soil grading plan are attached.

Muschopauge Brook, a mapped perennial stream, flows southeasterly across the western portion of the Jordan property, then easterly more than 500 feet south of the Williams property. No soil placement has occurred or is proposed within the 200 foot Riverfront Area associated with the Brook. There is also a 200 foot "Zone A" Protective Radius associated with the Muschopauge Brook due to its status as a tributary to the Quinapoxet Reservoir which is part of the City of Worcester drinking water supply and tributary to Wachusett Reservoir. Wachusett Reservoir is part of the metropolitan Boston water supply, administered by the Department of Conservation and Recreation (DCR). These areas are shown on **Figure 3**. No work is proposed within the Zone A as part of this project.

There is also no project Site runoff directed toward Muschopauge Pond, which is the Town of Rutland water supply, as Site runoff is captured by Muschopauge Brook. There are no municipal groundwater supply wells or mapped aquifers on the property. A public water supply and IWPA Protective Radius is located about ½ mile north and upgradient (Supply No. 2257010-02G).

2.3 Topography and Geology

Topography in the fill area is generally rolling and drains to wetland areas on the property and ultimately Muschopauge Brook southwest and southeast of the property. Grades on the Site are moderate and include exposed boulders and some ledge faces that are in the process of being covered and graded by soil imported under this SRMP. The USDA information indicates that the soil type is a loamy sand of the Peru-Marlow, Charlton-Paxton, and Charlton Chatfield Series as shown on Figure 2. The available water capacity of the soils is low with depth to water being greater than five feet. The topography in the area of soil re-use will be modified to create the necessary soil cover for planting and runoff control with engineered slopes.

The Site is located in a surficial geologic formation known as a glacial ground moraine. Glacial ground moraines consist of a veneer of till or glacial till, deposited directly from glacial ice over bedrock. Till consists of rock fragments ground by glacial ice with materials ranging from silt size particles to boulders.

The bedrock in the area of the Site is mapped as metamorphic rocks of the New Hampshire- Maine Sequence.

2.4 Water Supplies

The Muschopauge Brook flows across the western portion of the Jordan property outside of the project limits. This brook runs southeast then east and discharges into the Quinapoxet Reservoir about 1.5 miles away. This reservoir is used by the City of Worcester for drinking water supply purposes and is tributary to Wachusett Reservoir. Runoff from the area of the Site does not enter Muschopauge Pond, which is a source of drinking water for the Town of Rutland. There are six private wells adjacent to the Jordan and Williams parcels. There is a public water supply well located about ½ mile north of the Site. The water supply is considered topographically upgradient of the planned re-use area.

2.5 MCP Designation

Based upon land use and adjacent resource areas, the site would be designated S-1/GW-1 according to the Massachusetts Contingency Plan (MCP).

3 Regulatory Jurisdiction History and Activities Associated with the Site

The Site includes existing cornfields as well as areas that were previously wooded land that was cleared in 2011 to permit the farming of corn. The permit to import Biomix material was approved in 2011. The permit for the Biomix required approvals from the Board of Health, Conservation Commission and MassDEP. During the approval process, no issues were reportedly raised concerning the past use or the presence of potentially hazardous materials in the material or on the Site, or adjoining properties according to the Owners. According to MassDEP's Searchable Sites Database, there are no reportable releases near the Site. Release tracking number (RTN) 2-19106 was assigned to Jordan Farm on January 30, 2014 for the presence of nickel and chromium in fill brought onto the site in excess of the reportable concentration, which at that time was 20 mg/kg for nickel and 30 mg/kg for chromium. In May2014, the reportable concentrations for both metals were increased to 600 (nickel) and 100 (chromium), well in excess of the maximum concentrations of these metals in samples collected at the Site.

Soils were imported to the Jordan Farm re-use area from September 2012 to March 2013 and approval packages were posted on the Lighthouse web site. State and local agencies recently reviewed the original SRMP and provided inquiries requiring elaboration by the Owner, Lighthouse, and EnviroTrac in March 2013 regarding the origin and quality of imported soils, confirmation of wetland areas/boundaries, and history and planned use on the APR portion of the land.

A "Cease and Desist" order was filed by the Rutland Board of Health (BOH) in early March 2013 in order for them to review the information in the existing SRMP. The SRMP and soil re-use approval package information was provided to MassDEP (Bureau of Waste Site Cleanup and Resource Protection), Mass Department of Conservation and Recreation (DCR), National Resources Conservation Service (NRCS), and City of Worcester at the request of BOH. After review of this information, the BOH unanimously lifted the order on March 18, 2013 pending provision of a Revised SRMP that summarizes responses to all of the inquiries. A copy of the letter from the Town of Rutland to this effect is provided in **Attachment C**.

Lighthouse contracted with Mr. Paul McManus LSP, PWS of EI and TLA to coordinate with MassDEP, NRCS, DCR and local Rutland agencies to define wetland resource areas, prepare the necessary stormwater control map, which was superseded by the grading plans by Quinn Engineering attached as **Figure 4**, implement runoff controls, and document those activities in a Project NPDES

SWPPP that is provided in **Attachment D**. Attachment D also contains the NPDES EPA/CGP-NOI filing relative to the SWPPP.

Upon achievement of the final planned topography for the project (refer to Figure 4), the remaining two feet of fill material must be a suitable topsoil for the optimum crop growth. That material is being provided from a Site in New Hampshire which is described in **Attachment D** by Arthur Allen, CPSS of EI. Attachment D describes the characteristics and quality of the topsoil, and planned amendments for use, and also addresses the APR-NRCS Filling Material Criteria for Agricultural Applications.

Finally, as specified in the town's letter in Attachment C, agencies may opt to selectively collect representative soil samples from incoming truck loads for analysis as coordinated with Lighthouse and D'Amore prior to collection at their expense. D'Amore will be present during this sampling to agree on the soil collected for analysis and the type of analysis.

Approval of soil packages to the Site is on-going and approval packages are available for review from Lighthouse or D'Amore. The Acceptance Criteria Table for re-use of soil at the Site was modified and is discussed in upcoming sections.

4 Need for Additional Soil Fill

Approximately 215,500 tons of soil has been imported to date, the majority of which is on the Jordan property. The majority of the imported soil has been placed on the lower portion of the Jordan parcel, with lesser amounts placed in the higher elevation portion of the Jordan parcel, and a small percentage (topsoil only) placed on the Williams parcel (refer to grading plan, Figure 4)

Fill materials used at depth to date include mostly natural, non-impacted silty clay, with some granular urban fill blended in, as there is no specific soil type specified for the Site. The final cover will be blended with topsoil as described in the Soil Blending Report (refer to **Attachment E**). It is estimated that about 200,000 additional tons of soil (including topsoil) will be brought in that complies with updated Acceptance Criteria. In total, the current soil import is about 60 % complete.

Certain management practices have been and will be exercised by the Owner, Operator, and Operations Manager (Mr. Kevin Francis Gervais of Lighthouse) to maintain the designed grading to prevent substantial changes in runoff patterns toward the stream area and buffer zones located to the southwest/southeast.

The total period of time expected to import the necessary remaining soils is 48 months. The physical quality of the additional soil will be pre-approved by the Operator and Owner depending on the area where it will be used but is anticipated to include the same mixture of sand, silt, and clay until the final two feet when the topsoil will be placed.

5 Screening and Testing Requirements for Soil Acceptance

5.1 Similar Soils Provision Guidance (WSC# 13-500) Background

The Similar Soils Provision Guidance policy was developed to address the very specific application of an MCP provision (310 CMR 40.0032(3)) that allows certain soils to be managed (and re-used) without prior notice to, or approval from, MassDEP with the specific intent of crafting an instrument to assist in managing re-use of soil in reclamation and development projects such as the Site. The policy describes four requirements that must be met before managed soil can be moved to and re-used (or disposed) at a new location without notice to or approval from MassDEP. Those requirements are that the managed soil:

1. Must Not Be a Hazardous Waste.
2. Must Be Less Than Reportable Concentrations (RCs).
3. Must Not Create a Notifiable Condition at the Receiving Location.
4. Must Not Be Significantly More Contaminated Than Soil at the Receiving Location (also referred to as the "anti-degradation provision").

While these requirements are discussed in detail in the guidance document, which has been included as **Attachment F**, the focus of this SRMP revision is Requirement # 4, which establishes threshold criteria for a number of semi-volatile organic compounds (referred to as SVOCs) and a number of metals.

MassDEP has established several approaches to characterizing receiving site conditions including:

1. Assuming the soils at the receiving location are natural background:

In lieu of sampling for SVOCs and metals at the proposed receiving locations, which can be an expensive undertaking, MassDEP has established concentrations of these constituents in "natural" soil for RSC-1 and RCS-2 locations (refer to Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil (May, 2002) in **Attachment G**).

2. Sampling the soils at the receiving location:

This requires that a sufficient number of samples be taken at locations selected to provide an understanding of the concentrations of OHM present and the distribution of OHM throughout the receiving location.

3. Providing Technical Justification for an Alternative Approach:

MassDEP recognized that there may be situations for which a different combination of analytical and non-analytical information available for both the source and receiving locations is sufficient to conclude that the nature and concentrations of OHM in the soils are not significantly different.

MassDEP developed a multiplying factor to the maximum values of the OHM concentrations in both the soil at the receiving location and the soil proposed to be disposed of or reused that varies depending upon the concentration in the soil at the receiving location to determine the acceptability of soil at a receiving location, which is as follows:

If the concentration in soil at the receiving location for a given OHM is:	Then use a multiplying factor of:
< 10 mg/kg	10
10 mg/kg ≤ *x* <100 mg/kg	7.5
100 mg/kg ≤ *x* <1,000 mg/kg	5
≥ 1,000 mg/kg	2.5

In this manner, MassDEP established limits to the concentration of OHM in soil for re-use assuming natural background conditions at RCS-1in Attachment E.

5.2 Field Screening/Visual Criteria

Soil to be placed at the Sitewill require field screening and analytical testing to conform with MCP requirements and to demonstrate that the material is chemically and structurally suitable for the project. The characterization of the candidate soil will be done under supervision of a Qualified Environmental Professional (QEP)/LSP considering the MassDEP policies/guidance for characterization including the Similar Soils Provision Guidance (WSC# 13-500), "Due Diligence" (HW93-01H), and "Landfill Soil Re-use" (COMM-97-001) policies. Soil sampling will be done in-situ or ex-situ as justified by the QEP/LSP using discrete or composite samples to develop an adequate representation of the soil quality in consideration of soil disposition. The physical suitability will be reviewed and approved by the Owner and Lighthouse.

Lighthouse or a specified representative will conduct periodic screening of soils that will be shipped to the Site to make sure soils are as represented. Incoming soils may also be tested by Town of Rutland or City of Worcester personnel who are trained in sample collection with prior coordination with and notice to Lighthouse, D'Amore, and the Owner on the samples to be collected and analytes planned. These analyses will be funded by the party collecting the samples and results will be provided to Lighthouse, D'Amore, and the Owner for review.

Candidate soil must be evaluated by the generator for the following screening criteria and these results must be addressed in the soil profiling package prepared by the generator. Candidate soil being placed in the Site shall not exceed the following field screening/visual criteria:

- Field screening results of soil headspace from representative samples must not exhibit a reading of Total Organic Vapors (TOV) in the jar headspace exceeding 2 (two) parts per million by volume (ppmV) due to volatile constituents. Frequency of screening will be one per every 50 CY. Screening may be performed at the sending site or at the receiving Site by Lighthouse or another designated party as appropriate. If screening at the receiving Site results in exceedances to the criteria above, the load(s) will be rejected.
- Visually, the soil must not exhibit any staining, odors, or other discolorations indicative of oil and hazardous material (OHM) releases as demonstrated by the representative of the soil to be imported. Fill brought to the site will be inspected for these characteristics upon arrival by Lighthouse staff, who may reject loads based upon their observations.
- Loads rejected on the basis of visual, olfactory or PID screening will be immediately removed from the site.
- The urban fill soils must not contain any refuse, trash or solid debris. The soil may contain ancillary non-coated or non-painted brick pieces or non-coated/stained or non- impregnated concrete pieces < 3" diameter or cobbles less than 6 (six) inches diameter if it is contained within certain fill soils in very small quantities. **This material must be less than 5% of the fill material.** If soils contain more than this amount, the above-listed excluded material must be physically separated and sent to a designated construction and demolition (C&D) or permitted Asphalt, Brick, Concrete (ABC) disposal facility by the generator. Loads received at the Site that contain more than the acceptable amount of solid debris will be rejected by Lighthouse or the Owner and sent back to the site of origin at the generator's cost.
- Soil may contain naturally deposited silt and clay and a certain portion of naturally occurring organic content and moisture since drainage of the soil can occur on the Site while it is being stored, blended, and re-worked as supervised by Lighthouse. The physical quality will be reviewed by Lighthouse and soil placed near the top of the planned grade will be placed in accordance with the soil blending plan. No dredge spoils will be allowed unless permitted by MassDEP.
- Upon arrival of the trucks at the Site, each incoming load will be visually and olfactorily inspected and may be field screened with a PID by Lighthouse or another designated party and discrete soil samples may be collected from a representative number of loads to prepare a composite sample from the candidate property for confirmatory analysis by the Owner or Lighthouse at their discretion.
- Random Third Party QA/QC sampling will occur on a monthly basis. The load selected for QA/QC sampling will be segregated on a quarantined area until receipt of the laboratory

results. If the results are above the Acceptance Criteria, Lighthouse will have one month to remove the soil from the Site.

- If a load is rejected based upon Lighthouse QA/QC procedures (i.e., visual/olfactory, PID screening) or independent Third Party QA/QC procedures, Lighthouse will cease accepting soil from the sending facility until the situation is corrected. Information regarding rejected loads will be included in monthly and quarterly status reports.

6 Laboratory Analytical Testing Requirements

Each sample (also referred to as "test profile" in the following sections) should be analyzed for the following parameters:

- Volatile Organic Compounds (VOCs) by EPA Method 8260;
- Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270;
- Total MCP-14 by EPA Methods 6010, 7470 (for mercury) and 7010 (for thallium) (refer to Table 1 for analyte list);
- Pesticides by EPA Method 8081 (may be excluded or limited based on site history);
- Herbicides by EPA Method 8151 (may be excluded or limited based on site history);
- Total Petroleum Hydrocarbons (TPH) (summation of EPH fractions can be substituted);
- Reactivity (cyanide/sulfide) by EPA Method Ch. 7.3;
- pH/Corrosivity by EPA Method 9045;
- Ignitibility/flashpoint by EPA Method 1010;
- Specific Conductance (Conductivity) by EPA Method SM2540 ; and
- Any other potential constituents based on location-specific history.
- Analysis for hexavalent chromium will be required on every sample that exceeds RCS-1 for total chromium.
- TCLP analysis will be required of each sample that exceeds potential threshold values.
- Averaging of concentrations is not acceptable.
- Soil containing arsenic >RCS-1 from anywhere is not acceptable.

Any deviation from this sampling protocol must be clearly explained in the Request for Approval soil package.

7 Minimum Sampling Frequencies

The following are minimum sampling frequencies established by MADEP for soil re-use at the Site:

Soil Category	General Source/Origin Description	Minimum Test Profile Frequency
1	Naturally Deposited Soil: Not from an area of known or suspected high background levels of constituents (i.e., arsenic belt, Boston Blue clay); not proximate to urban fill soil; no MCP disposal sites nearby; and no industrial or manufacturing history.	1 test profile per 1,000 cubic yards (1,500-1,700 tons) for initial review. Supplemental testing of specific areas for specific contaminants that exceed any Soil Acceptance Criteria (SAC) to define/confirm limits of acceptable soil at 1 test per 100 cu. yd.
2	Naturally Deposited Soil: In proximity to urban fill or an MCP disposal site.	1 test profile per 1,000 cubic yards (1,500-1,700 tons) for initial review. Supplemental testing of specific areas for specific contaminants that exceed any SAC to define/confirm limits of acceptable soil at 1 test per 100 cu. yd.
3	Naturally Deposited Marine Soils and Boston Blue Clay: From areas of known or Suspected naturally occurring high background levels of constituents or otherwise regulated soil.	1 test profile per 1,000 cubic yards (1,500-1,700 tons) for initial review. Test Profile must include MCP-14 metals. Supplemental testing of specific areas for specific contaminants that exceed any SAC to define/confirm limits of acceptable soil at 1 test per 100 cu. yd.
4	Urban Fill Soil	1 test profile per 500 cubic yards (750-850 tons) for initial review. Test Profile must include MCP-14 metals. Supplemental testing of specific areas for specific contaminants that exceed any SAC to define/confirm limits of acceptable soil at 1 test per 100 cu. yd. Additional test parameters such as cyanide and asbestos may be required.
5	Soil from Industrial, Commercial or Manufacturing site with history of any of the following: tannery, textiles, chemical/paint production, circuit board manufacturing, plating/metal finishing, foundry operations, coal gasification, dry cleaning, salvage yards, pesticide/herbicide use, storage or distribution. A LSP, LSRP or LEP must provide a report detailing why such soils conform to the SAC.	1 test profile per 500 cubic yards (750-850 tons) for initial review. Test Profile must include MCP-14 metals. Supplemental testing of specific areas for specific contaminants that exceed any SAC to define/confirm limits of acceptable soil at 1 test per 100 cu. yd. Additional test parameters such as cyanide may be required.
6	Soil from sources not otherwise described above where historic test data indicate potential exceedance of any SAC or where past use or storage of OHM at more than household quantities.	1 test profile per 500 cubic yards (750-850 tons) for initial review. Supplemental testing of specific areas for specific contaminants that exceed any SAC to define/confirm limits of acceptable soil at 1 test per 100 cu. yd. Additional test parameters based on historic test data may be required.

Test profile soil samples should be multi-point composite samples with the exception of VOC samples, which should be a grab sample of the highest PID screening result for that test profile.

For acceptance purposes, soil density will be considered 1.5 tons per cu. yd. for soil sampled from a stockpile, and no greater than 1.7 ton per cu. yd. for soil sampled in-situ via borings or test pits. Further technical justification will be required for acceptance of soil with assumed density greater than 1.7 ton per cu. yd.

8 Site Soil Acceptance Criteria

The following table summarizes MADEP's derivation of the Soil Acceptance Criteria (SAC) for the Site:

VOCs (EPA 8260)	List analytes individually, with criteria based on 10% of RCS-1. For analytes with no RCS-1 value.
SVOCs (EPA 8270)	Similar Soil Policy Table 2. For analytes not listed in Table 2: 10% of RCS-1. For analytes with no RCS-1: to be determined on a case by case basis.
EPH	Each carbon range 1/2 RCS-1. Target analytes from Similar Soil Policy Table 2
TPH	1/2 RCS-1 (i.e., 500 mg/kg)
Pesticides (EPA 8081)	ND Trace levels of pesticides/herbicides can be accepted on a case by case basis
Herbicides (EPA 8151)	ND Trace levels of pesticides/herbicides can be accepted on a case by case basis
PCBs (EPA 8082)	10% of RCS-1 for total PCBs
MCP-14 (with Vanadium)	Similar Soil Policy Table 2 or calculate site specific criteria
Hexavalent Chromium	Similar Soil Policy Table 2 or calculate site specific criteria
Specific Conductance (EPA SM2540)	2000 umhos/cm (1/2 Comm 97 limit)
Flashpoint (EPA 1010)	>140
pH/Corrosivity (EPA 9045}	5.0-9.0
Reactive Sulfide/Cyanide (EPA Ch. 7.3)	500/250
PID Screening	<2 ppmV
asbestos fibers	ND

The Site Soil Acceptance Criteria have been revised to reflect limiting concentrations for SVOCs and metals for a RCS-1 receiving location assuming natural background conditions that have been established in the Similar Soils Provision Guidance and MADEP's recommendations for other constituents set forth in the above referenced table. The revised Site Soil Acceptance Criteria are presented in **Table 1 (attached**).

9 Soil Approval and Placement

Once the generator's Engineer, QEP or LSP representative has approved the analytical results as described in this plan, a generator representative shall forward the results of the soil profile package or pre-characterization study in letter format with attachments to Lighthouse who will provide initial feedback on the potential acceptance of a given soil. After initial approval is gained, the package will be sent to the Site LSP for review. Characterization results from each candidate property will be reviewed to confirm that the soil meets the requirements set forth in this plan. The Site LSP will then prepare an acknowledgement and approval letter to the owner/Lighthouse confirming the acceptance of the soil for confirmatory signature by Lighthouse The letter will specify the approved quantity, the quantity to be shipped, dates, restrictions (if any), and other pertinent items. The letter will be forwarded by Lighthouse or the Site LSP to the generator.

9.1 Soil Package Submittal Requirements

The majority of the soil that is scheduled to be placed in the Site is contemplated to originate from large construction projects where the soils have either been pre-characterized during the engineering phase of the development or characterized from stockpiled soil. All soils to be placed in the Site will be pre-characterized by the generator using appropriate characterization guidelines established in **Sections 5 through 7** of this SRMP and sampling results shall be demonstrated to meet the SAC limits in **Table 1**.

Prior to placement of material at the Site, the Site LSP will review the pre-characterization data packages of all potential candidate soils prior to acceptance of the materials. This will be done to demonstrate that the soils from the generator's property are in compliance with the Acceptance Criteria and other provisions of this plan. The Site LSP, Owner or Lighthouse may also request to review any environmental investigative reports regarding potential oil & hazardous material (OHM) release(s) and soil quality at the originating property. Prior to transporting any materials to the Site, generators must submit the following information in writing to the Owner and Project LSP for review and approval:

A Soil Profile Package shall be prepared by the candidate site owner/generator and Engineering Consultant/LSP, signed and dated for review by the owner/ Lighthouse and the Site LSP. The following information is required in the Soil Profile Package to obtain approval for the reuse of soil at the above referenced location:

1. Application letter addressed to Lighthouse and the Site LSP with information contained as described below.
2. Name of property owner (generator), and Engineering Consultant/LSP/QEP.
3. Project Name and Location, MCP Release Tracking Number (if applicable), and MCP history relative to candidate soils. Brief description of Site history including; a) current and past uses, b) soil category (refer to Section 7) and c) a description/source of any release(s) that have impacted the soil.
4. Boring logs and test pit logs or physical description of the material (sand, silt, clay, etc.).
5. The quantity of soil planned for reuse, and the number of soil samples collected and a description of how the samples were collected.
6. A site sketch or map of the soils depicting sampling locations and field screening results. An explanation as to why discrete or composite sampling was done to develop representative data.
7. The analytical data sheets and a summary of the analytical results in comparison to Acceptance Criteria in the Site Revised Soil Re-use Management Plan, demonstrating that results meet the criteria.
8. Discussion of shipment schedule, transporter (if known), and other pertinent coordination items.
9. Completed and signed Material Shipping Record (MSR) or Bill of Lading (BOL).

The Soil Profiling Package must be sent electronically to Lighthouse which will be reviewed, and; if acceptable, forwarded to the Site LSP. The Site LSP will review the package and will issue a letter of acknowledgement and acceptance to Lighthouse or the generator for countersignature. The package will then be forwarded to the generator.

If sufficient analytical data is not available from the generator, the owner, Lighthouse or the Site LSP, will require that the generator of the soils collect additional samples. This will ensure that, at a minimum, all concentrations of potential contaminants in the material are less than the Acceptance Criteria set forth in this plan and the equivalent frequency of testing requirements established in **Sections 5 through 7** of this SRMP. This will enable Lighthouse to provide the necessary background information to verify that material deposited in the Site is acceptable.

In some cases, crushed bedrock may also be accepted and physical/chemical analysis of the rock will be determined on a case-by-case basis for its intended use.

9.2 Soil Placement and Tracking

Once the analytical data from the proposed generator's property has been reviewed and approved by the owner, Lighthouse, and the Site LSP, the soils will be designated to a specific area which will be logged into the facility's database, with the estimated quantity. All soils being placed in the applicable area will require a MassDEP Material Shipping Record (MSR) or Bill-of- Lading (BOL) to accompany each truckload. The designated area will be noted on all MSRs or BOLs. The Site LSP will periodically inspect the Site and records on file at the Site for conformance with this plan.

The fill material will be spread in loose lifts not exceeding 24 inches. Soil placement will be outside of any established wetland buffer zones and compacted by multiple passes with a bulldozer. Materials will be spread and compacted daily. When grading and compacting material, no slope shall be greater than 3:1.

Lighthouse will maintain a daily log of the following activities:

- Name of trucking firm transporting fill material to the site.
- Weight and source of material for each truck.
- Physical characteristic and results of headspace screening if any for each truck.
- Location of the fill placed in the site.

The scale is located at the entrance to the Site. Directions to the Site from I-190 are provided in **Attachment H**. Once the truck has been weighed on a certified scale it will be directed to place the material into a specific area. The appropriate paperwork will be left on site at a designated location or handed directly to on-site personnel. The Soil piles will be placed within the designated area to be filled and will be spread out by the Site earth-works contractor until the desired grade is met. Then the area will be noted and coded in the files.

If the on-site personnel deem the material to be suspect after dumping, the load will be rejected and coordination made for it to be re-loaded and sent back to the generator for additional testing, at the generator's expense. If loads are received that contain large pieces of solid waste, the pieces will be segregated and stockpiled for re-loading and transport back to the site of origin at the generator's expense.

10 Other Considerations

10.1 Site Access and Quantity Estimating

Directions to the site are provided in Attachment G and the Site is about 12 miles from I-190. Prior to shipment, trucks will be weighed at a certified scale. Access will be through the access road into the Site and to the given phase area as directed by Lighthouse. Roadways will be maintained for truck access. Hours of operation are 7:00 am to 4:30 pm from Monday to Friday and some Saturdays. The Site Operations Manager maintains the appropriate equipment year-round to spread, dry, and compact the soils.

10.2 Dust and Sediment Control

The Owner will utilize the following measures to control fugitive dust and sediment associated with transporting, spreading and compacting soil to fill the Site:

- Filling operations shall be suspended when winds speeds exceed 40 mile per hour or when wind carries dust beyond the property line despite implementation of dust control measures.
- An operational water truck will be used when needed. Water will be applied to control dust as needed to prevent visible dust emissions and offsite dust impacts.
- Truck and trailer dumping of soil will be conducted in a manner to minimize fugitive dust generation.
- A gravel tracking pad will be constructed, if needed, at the equipment/vehicle site exit point to remove soil buildup from wheels and tracks and to assist in minimizing track-out onto public ways.
- Roads from the Site will be swept as needed to control fugitive dust and tracking of soil/sediment onto the public way.
- Erosion controls have been installed at the wetland buffer zones. Erosion controls include a series of sediment traps, hay bales, flocculent polymer ("floc logs") and crushed stone filter berms. The SWPPP provides final documentation on wetland buffer zones and runoff protection.

10.3 Health and Safety

Site specific Health and Safety measures will be implemented by the Operator to specify the types of personal protection, and engineering controls, to manage physical hazards associated with soil work. No environmental monitoring will be necessary as soils are < RCS-1 and will not constitute unacceptable exposures to contaminated soil through ingestion, dermal contact and inhalation.

10.4 Ground Water Monitoring

One upgradient and two downgradient monitoring wells will be installed in the saturated overburden. One week after they are installed, the wells will be purged and sampled for all the acceptance criteria described in Section 6. Two years after completion of the project, the downgradient wells will be purged and sampled for all the acceptance criteria described in Section 6. During operation of the facility, the wells will be sampled annually for MCP-14 metals (dissolved) and VOCs.

11 Inspections, Monitoring and Reporting

The following record keeping and reporting will be conducted at the site:

- Lighthouse will keep daily and weekly tally sheets of soil that comes into the facility along with notes as to the observable characteristics of the soil.
- The general locus of where soil is placed in the Site will be noted on a site plan.

The following inspections and reports will be required:

A. Independent Third Party Inspections

Independent Third Party inspects will occur monthly and include:

i. Observe the practices involved in the receipt and/or placement of soil and fill materials at the Property;
ii. Inspect the soil and fill materials that are being unloaded and/or placed during the inspection, if any, and inspect all areas of the Property where soil and fill materials have been placed since the previous inspection;
iii. Collect one QA/QC soil sample for laboratory testing for all of the parameters listed in Section 6.0.
iv. Collect a minimum of six spot elevation measurements within the filled areas of the Property with respect to established benchmarks using a hand-held GPS; and
v. Inspect all erosion control measures including but not limited to, silt fence, hay bales, temporary basins and swales.

B. Independent Third Party Inspection Reports

Monthly reports will be prepared by Independent Third Party and submitted to Lighthouse and DEP and must include the information required in the Administrative Consent Order (ACO).

C. Construction Status Reports

Construction Status Reports certified by Lighthouse and the Project LSP will be prepared quarterly by Lighthouse and must include the information required in the ACO.

Figures

0.45 0.225 0 0.45 0.9

Miles

Scale: 1:24,000

29 Overlook Road
Rutland, Massachusetts 01543-2014

FIGURE 1

SITE LOCUS MAP
UNITED STATES GEOLOGICAL SURVEY
WACHUSETT MTN. AND PAXTON, MASS. QUADRANGLES

Contour Interval: 3 m

Latitude/Longitude:

42° 24' 45" North
71° 53' 50" West

N
W E
S

EnviroTrac
Environmental Services

N/F JORDAN

N/F WILLIAMS

905C
PERU–MARLOW

902E
CHARLTON–PAXTON

926C
CHARLTON–CHATFIELD

N/F DYKSTRA

N30°33'05"W
1292.48'

N30°35'13"W
649.95'

S59°43'22"W
295.12'

S59°24'00"W
606.71'

APPROXIMATE TRUE NORTH

WETLAND CONTINUES UNDELINEATED

WETLAND CONTINUES UNDELINEATED

INTERMITTENT STREAM CHANNEL (WITHIN THE "A" WETLAND)

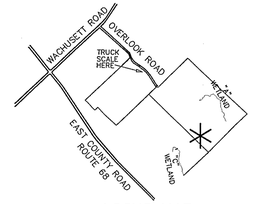
INTERMITTENT STREAM CHANNEL (WITHIN THE "A" WETLAND)

"C" WETLAND

"A" WETLAND

KEY

- WFL — WETLAND EDGE
- 100' BUFFER ZONE EDGE
- 2' EXISTING CONTOUR
- 10' EXISTING CONTOUR
- A36 — WETLAND FLAG
- 902E CHARLTON–PAXTON — SOIL TYPE BOUNDARY AND SOIL SERIES IDENTIFICATION



LOCUS MAP
1" = 1500'

NOTES:

1. WETLAND BOUNDARIES SHOWN WERE DELINEATED BY ECTOTEC, INC.
2. THE EXISTING SOIL TYPE BOUNDARIES AND DESCRIPTIONS ARE FROM THE NATURAL RESOURCES CONSERVATION SERVICE WEB SITE.

Figure 2

COMMONWEALTH OF MASSACHUSETTS
JAMES L. TETREAULT
CIVIL
NO. 38546
REGISTERED
PROFESSIONAL ENGINEER
5/16/2013

THOMPSON-LISTON ASSOCIATES, INC.
PROFESSIONAL CIVIL ENGINEERS
PROFESSIONAL LAND SURVEYORS
51 MAIN STREET, PO BOX 570
BOYLSTON, MASS. 01505–0570
TEL: 508–869–6151 FAX: 508–869–6842
EMAIL: info@tlainc.net

CLT. NO.	JOB NO.
3033	257–2101
DATE: MAY 16, 2013	DWG NO. OVERLOOKRDRUTLAND

REVISIONS	
DATE:	DESCRIPTION

SCALE: 1 INCH = 50 FEET

FEET 0 25 50 100 150

METERS 0 25 50

EXISTING CONDITIONS PLAN AT OVERLOOK AND JORDAN FARMS IN RUTLAND, MASSACHUSETTS

PREPARED FOR:
LIGHTHOUSE ENVIRONMENTAL MANAGEMENT, LLC
184 STONE STREET
CLINTON, MA 01510

MassDEP - Bureau of Waste Site Cleanup

MCP Numerical Ranking System Map: 500 Feet & 0.5 Mile Radii

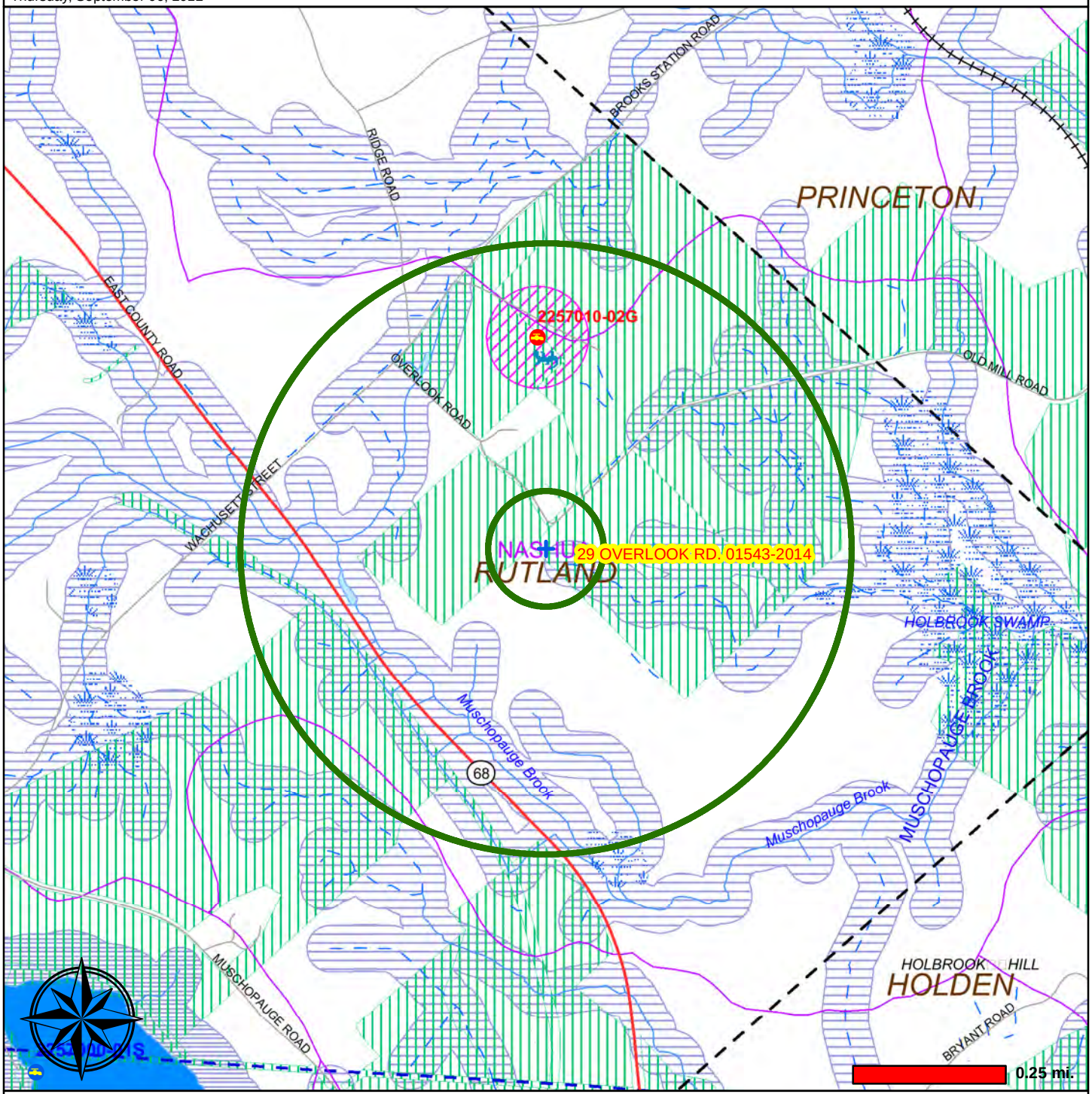
Site Name:
29 Overlook Road
Rutland, Mass. 01543-2014

RTN: None
UTM Coordinates: 4,698,319 m N, 260,364 m E

Thursday, September 06, 2012

The information shown on this map is the best available at the date of printing. For more information please refer to www.mass.gov/mgis/massgis.htm

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, MassDEP Region; Train, Powerline, Pipeline, Aqueduct

Basins: Major, Sub; Streams: Perennial, Intermittent; Man Made Shore, Dam

Aquifers: EPA Sole Source, High Yield, Medium Yield.....

Non-Potential Drinking Water Source Area:High, Medium (Yield).....

PWS Protection Areas: Zone II, IWPA, Zone A.....

Hydrogeology: Open Water, PWS Reservoir, Tidal Flat.....

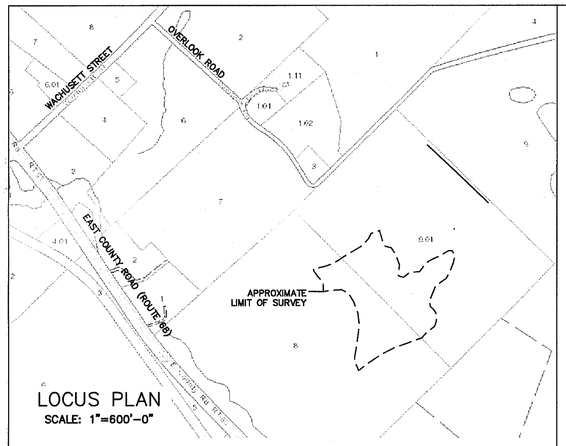
Wetlands: Saltwater, Freshwater, Cranberry Bog.....

FEMA 100yr Floodplain, Protected Open Space, ACEC...

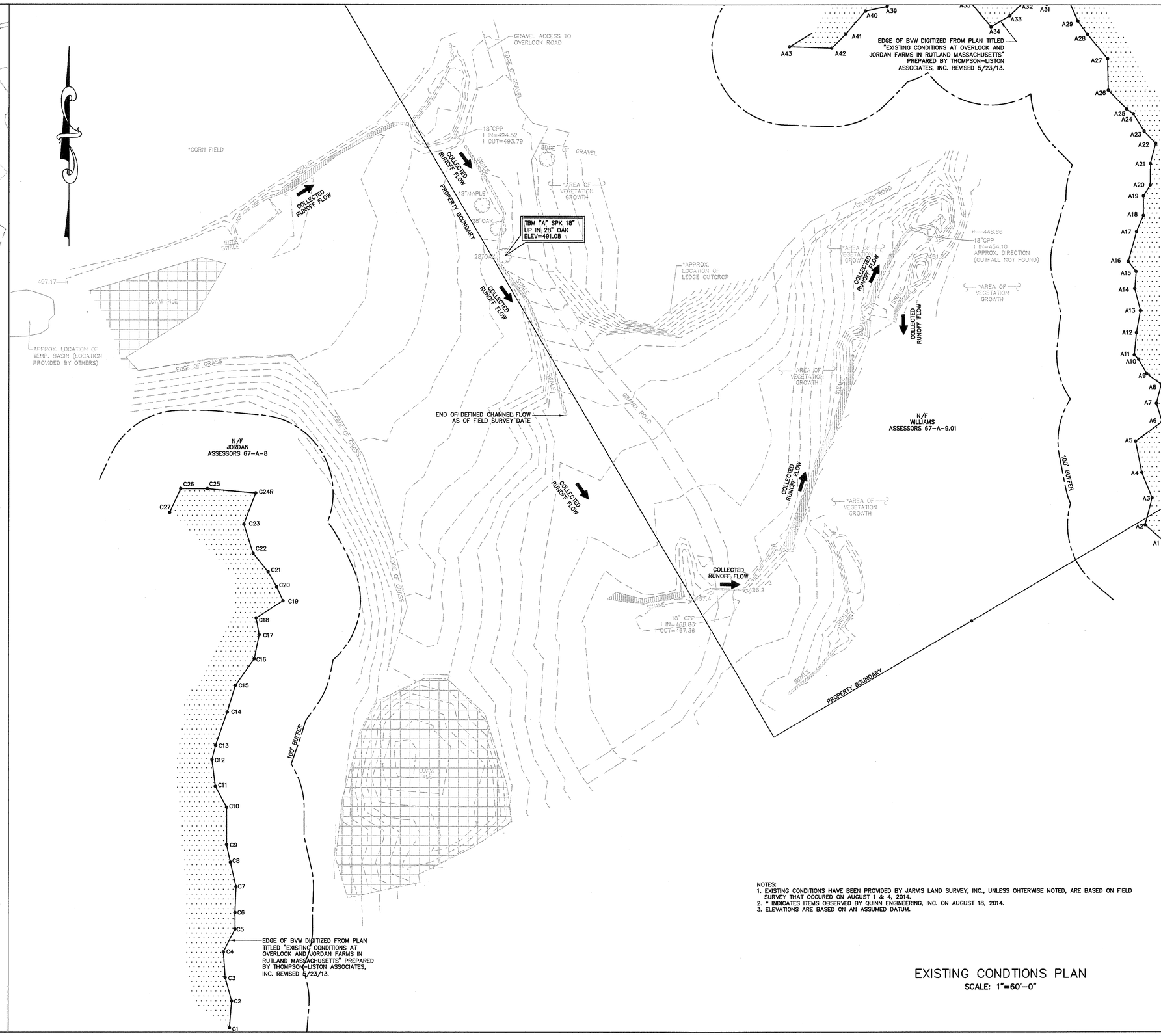
NHESP: Est. Rare Wetland Habitat, Certified Vernal Pool

MassDEP Permitted Solid Waste Landfill.....

Figure 3



LOCUS PLAN
SCALE: 1"=600'-0"



NOTES:
1. EXISTING CONDITIONS HAVE BEEN PROVIDED BY JARVIS LAND SURVEY, INC., UNLESS OHTERWISE NOTED, ARE BASED ON FIELD SURVEY THAT OCCURED ON AUGUST 1 & 4, 2014.
2. * INDICATES ITEMS OBSERVED BY QUINN ENGINEERING, INC. ON AUGUST 18, 2014.
3. ELEVATIONS ARE BASED ON AN ASSUMED DATUM.

EXISTING CONDTIONS PLAN
SCALE: 1"=60'-0"

DIG SAFE DIAL-811

NO.	REVISION	DATE
3	FINISH GRADES/PHASING	3/2/15
2	REV. NO. 2	9/17/14
1	REV. NO. 1	9/8/14

KEVIN J. QUINN CIVIL #33922

OWNER:
RICHARD WILLIAMS
&
WAYNE JORDAN

PREPARED FOR:
LIGHTHOUSE ENVIRONMENTAL MANAGEMENT, LLC
184 MAIN STREET
CLINTON, MA 01510

SURFACE WATER MANAGMENT PLAN
IN RUTLAND, MASSACHUSETTS
OVERLOOK ROAD / EAST COUNTY ROAD

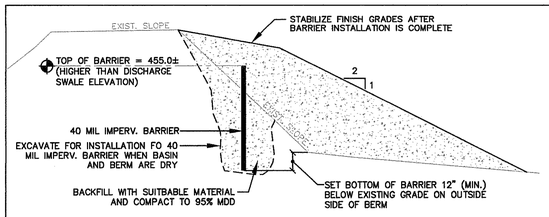
60 0 60 120 240
SCALE: 1"=60'

QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

DATE: AUGUST 28, 2014

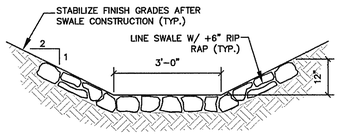
EXISTING CONDITIONS PLAN

SHEET 1 OF 6



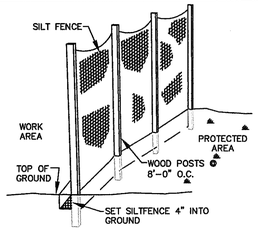
IMPERVIOUS BARRIER SECTION AT BASIN #1

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



SWALE SECTION

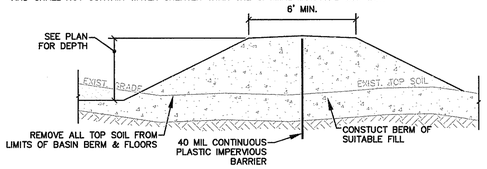
SCALE: 1/2"=1'-0"



STAKED SILT FENCE DETAIL

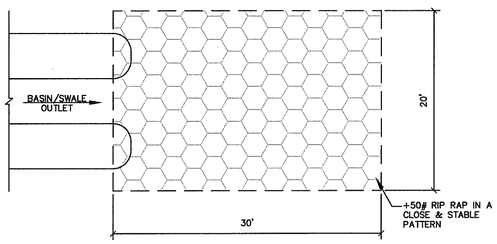
SCALE: NOT TO SCALE

NOTE:
1. THE IMPERVIOUS BARRIER SHALL EXTEND FROM THE TOP OF EMBANKMENT TO A DEPTH 24" BELOW THE BASIN FLOOR OR 12" INTO NATIVE SOIL (WHICHEVER IS DEEPER).
2. THE IMPERVIOUS BARRIER JOINTS SHALL BE OVERLAPPED AND FASTENED TO ENSURE WATERTIGHTNESS OF THE BARRIER.
3. SUITABLE FILL SHALL CONSIST OF MATERIAL SOIL FREE OF ORGANIC MATERIALS, LOAM, AND ANY DELETERIOUS MATERIALS. SUITABLE FILL SHALL NOT CONTAIN STONES LARGER THAN 10" IN ANY DIMENSION, AND SHALL HAVE LESS THAN 75% PASSING THE NO. 4 SIEVE AND A MAXIMUM OF 20% PASSING THE NO. 200 SIEVE. SUITABLE FILL SHALL NOT CONTAIN ANY BUILDING RUBBLE, GRANITE, OR CONCRETE BLOCK, ROOFING MATERIALS, OR OTHER CONSTRUCTION REFUSE. AT THE TIME OF PLACEMENT SUITABLE FILL SHALL NOT CONTAIN FROST, SNOW, OR ICE AND SHALL NOT CONTAIN WATER GREATER THAN THE OPTIMAL MOISTURE CONTENT.



TYPICAL SETTLING BASIN BERM DETAIL

SCALE: ±1/4"=1'-0"

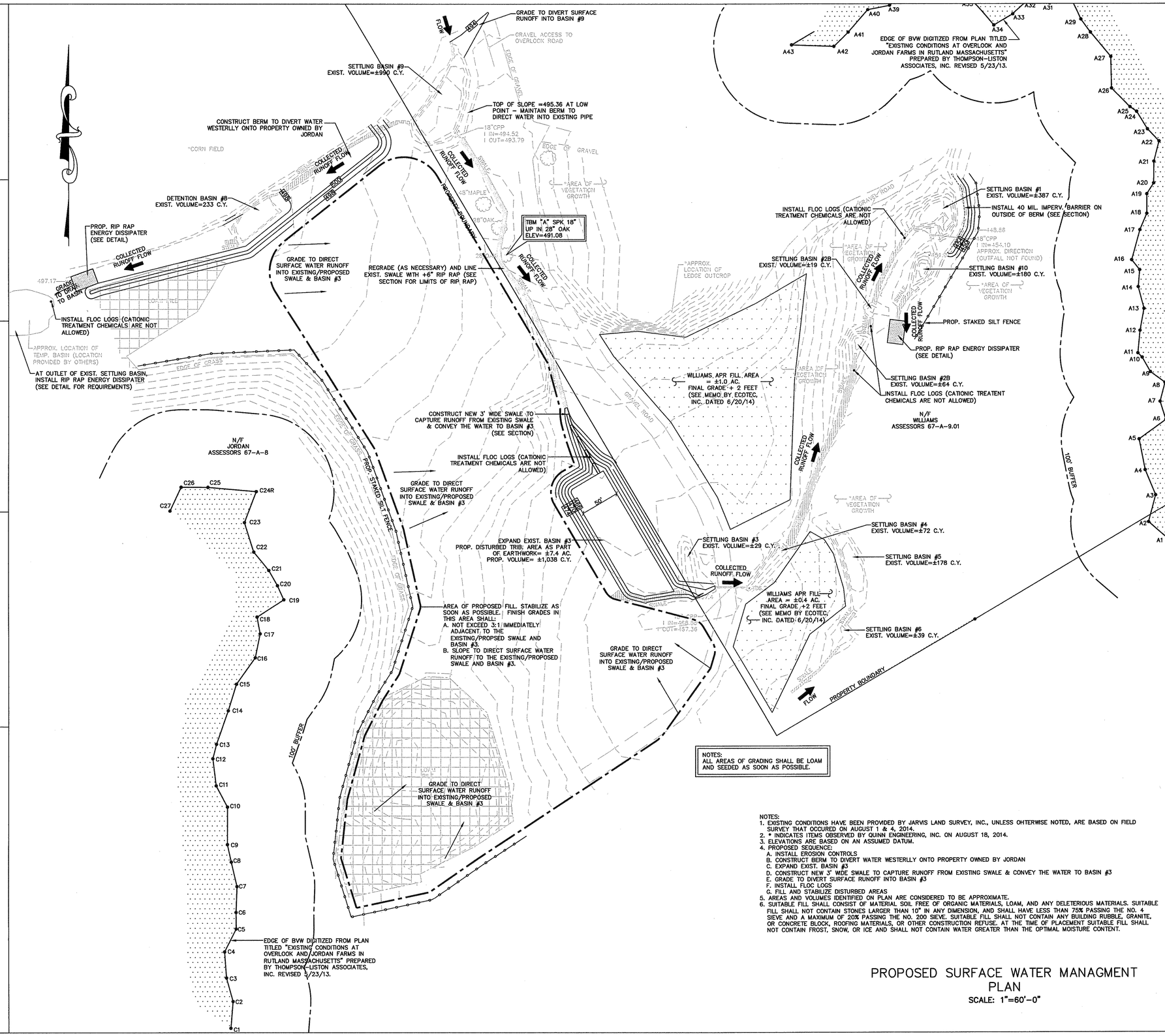


PLAN VIEW

NOTE: EXTEND RIP RAP AS EXPERIENCE DICTATES TO PREVENT EROSION CAUSED BY DISCHARGE FROM SETTLING BASINS AND SWALES.

SCHEMATIC BASIN/SWALE OUTLET DETAIL

SCALE: 1/8"=1'-0"



NOTES:
1. EXISTING CONDITIONS HAVE BEEN PROVIDED BY JARVIS LAND SURVEY, INC., UNLESS OHTERWISE NOTED, ARE BASED ON FIELD SURVEY THAT OCCURED ON AUGUST 1 & 4, 2014.
2. * INDICATES ITEMS OBSERVED BY QUINN ENGINEERING, INC. ON AUGUST 18, 2014.
3. ELEVATIONS ARE BASED ON AN ASSUMED DATUM.
4. PROPOSED SEQUENCE:
   A. INSTALL EROSION CONTROLS
   B. CONSTRUCT BERM TO DIVERT WATER WESTERLLY ONTO PROPERTY OWNED BY JORDAN
   C. EXPAND EXIST. BASIN #3
   D. CONSTRUCT NEW 3' WIDE SWALE TO CAPTURE RUNOFF FROM EXISTING SWALE & CONVEY THE WATER TO BASIN #3
   E. GRADE TO DIVERT SURFACE RUNOFF INTO BASIN #3
   F. INSTALL FLOC LOGS
   G. FILL AND STABILIZE DISTURBED AREAS
5. AREAS AND VOLUMES IDENTIFIED ON PLAN ARE CONSIDERED TO BE APPROXIMATE.
6. SUITABLE FILL SHALL CONSIST OF MATERIAL SOIL FREE OF ORGANIC MATERIALS, LOAM, AND ANY DELETERIOUS MATERIALS. SUITABLE FILL SHALL NOT CONTAIN STONES LARGER THAN 10" IN ANY DIMENSION, AND SHALL HAVE LESS THAN 75% PASSING THE NO. 4 SIEVE AND A MAXIMUM OF 20% PASSING THE NO. 200 SIEVE. SUITABLE FILL SHALL NOT CONTAIN ANY BUILDING RUBBLE, GRANITE, OR CONCRETE BLOCK, ROOFING MATERIALS, OR OTHER CONSTRUCTION REFUSE. AT THE TIME OF PLACEMENT SUITABLE FILL SHALL NOT CONTAIN FROST, SNOW, OR ICE AND SHALL NOT CONTAIN WATER GREATER THAN THE OPTIMAL MOISTURE CONTENT.

PROPOSED SURFACE WATER MANAGMENT PLAN

SCALE: 1"=60'-0"

DIG SAFE DIAL-811

NO.	REVISION	REV. NO. 1	REV. NO. 2	FINISH GRADES/PHASING
1		9/8/14	9/17/14	3/2/15

DATE

KEVIN J. QUINN CIVIL #33922

OWNER:
RICHARD WILLIAMS
&
WAYNE JORDAN

PREPARED FOR:
LIGHTHOUSE ENVIRONMENTAL MANAGEMENT, LLC
184 MAIN STREET
CLINTON, MA 01510

SURFACE WATER PLAN
IN RUTLAND, MASSACHUSETTS
OVERLOOK ROAD / EAST COUNTY ROAD

SCALE: 1"=60'
60 0 60 120 240

QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

DATE: AUGUST 28, 2014

PROPOSED SURFACE WATER MANAGMENT PLAN

SHEET 2 OF 6

GRADE TO DIVERT SURFACE RUNOFF INTO BASIN #9

GRAVEL ACCESS TO OVERLOOK ROAD

EDGE OF GRAVEL

TOP OF SLOPE =495.36 AT LOW POINT – MAINTAIN BERM TO DIRECT WATER INTO EXISTING PIPE

18"CPP
I.N.=494.52
I.OUT=493.79

EDGE OF GRAVEL

*AREA OF VEGETATION GROWTH

*CORN FIELD

GRADE TO DIVERT RUNOFF TOWARDS THE EXISTING SETTLING BASIN TO THE WEST. PLACE RIP RAP IN DIVERSION CHANNEL & ALONG CONCENTRATED FLOW PATH.

TBM "A" SPK 18" UP IN 28" OAK ELEV=491.08

PROPERTY BOUNDARY

PROVIDE TEMPORARY CULVERTED CROSSING AT SWALE FOR VEHICLE ACCESS

*APPROX. LOCATION OF LEDGE OUTCROP

APPROX. LIMIT OF PHASE 1

APPROX. LOCATION OF TEMP. BASIN (LOCATION PROVIDED BY OTHERS)

EDGE OF GRASS

PROP. STAKED SILT FENCE

N/F
JORDAN
ASSESSORS 67-A-8

GRADE TO DIRECT SURFACE WATER RUNOFF INTO EXISTING/PROPOSED SWALE & BASIN #3

100' BUFFER

LOAM PILE

GRADE TO DIRECT SURFACE WATER RUNOFF INTO EXISTING/PROPOSED SWALE & BASIN #3

EDGE OF BVW DIGITIZED FROM PLAN TITLED "EXISTING CONDITIONS AT OVERLOOK AND JORDAN FARMS IN RUTLAND MASSACHUSETTS" PREPARED BY THOMPSON-LISTON ASSOCIATES, INC. REVISED 5/23/13.

EDGE OF BVW DIGITIZED FROM PLAN TITLED "EXISTING CONDITIONS AT OVERLOOK AND JORDAN FARMS IN RUTLAND MASSACHUSETTS" PREPARED BY THOMPSON-LISTON ASSOCIATES, INC. REVISED 5/23/13.

*AREA OF VEGETATION GROWTH

GRAVEL ROAD

148.86
18"CPP
I.IN=454.10
APPROX. DIRECTION (OUTFALL NOT FOUND)

APPROX. LOCATION OF 2' THICK LOAM FILL AS PART OF PHASE 1

N/F
WILLIAMS
ASSESSORS 67-A-9.01

EXIST. BASIN #3

18" CPP
I.IN=468.33
I.OUT=467.36

APPROX. LOCATION OF 2' THICK LOAM FILL AS PART OF PHASE 1

GRADE TO DIRECT SURFACE WATER RUNOFF INTO EXISTING/PROPOSED SWALE & BASIN #3

PROPERTY BOUNDARY

100' BUFFER

PHASE 1 NOTES:
1. MAINTAIN STORMWATER RUNOFF IN ACCORDANCE WITH THE SURFACE WATER MANAGMENT PLAN (SHEET 2).
2. INSTALL TEMPORARY CULVERTED VEHICLE ACCESS IN SWALE. REMOVE AND RELOCATE ACCESS UPON COMPLETION OF THIS PHASE. RESTORE INTERIOR OF SWALE.
3. GRADING AND LOAM PLACEMENT MAY TAKE PLACE ON WILLIAMS PROPERTY OUTSIDE OF THE EXISTING RUNOFF CONVEYANCE SYSTEM.
4. FINISH SLOPES OF ALL FILL AREAS SHALL BE 3:1 OR LESS.

ESTIMATED PHASE 1 GRADING PLAN
SCALE: 1"=60'-0"

DIG SAFE DIAL-811

NO.	REVISION	DATE
3	FINISH GRADES/PHASING	3/2/15
2	REV. NO. 2	9/17/14
1	REV. NO. 1	9/8/14

KEVIN J. QUINN CIVIL #33922

OWNER:
RICHARD WILLIAMS
&
WAYNE JORDAN

PREPARED FOR:
LIGHTHOUSE ENVIRONMENTAL MANAGEMENT, LLC
184 STONE STREET
CLINTON, MA 01510

SURFACE WATER PLAN
IN RUTLAND, MASSACHUSETTS
OVERLOOK ROAD / EAST COUNTY ROAD

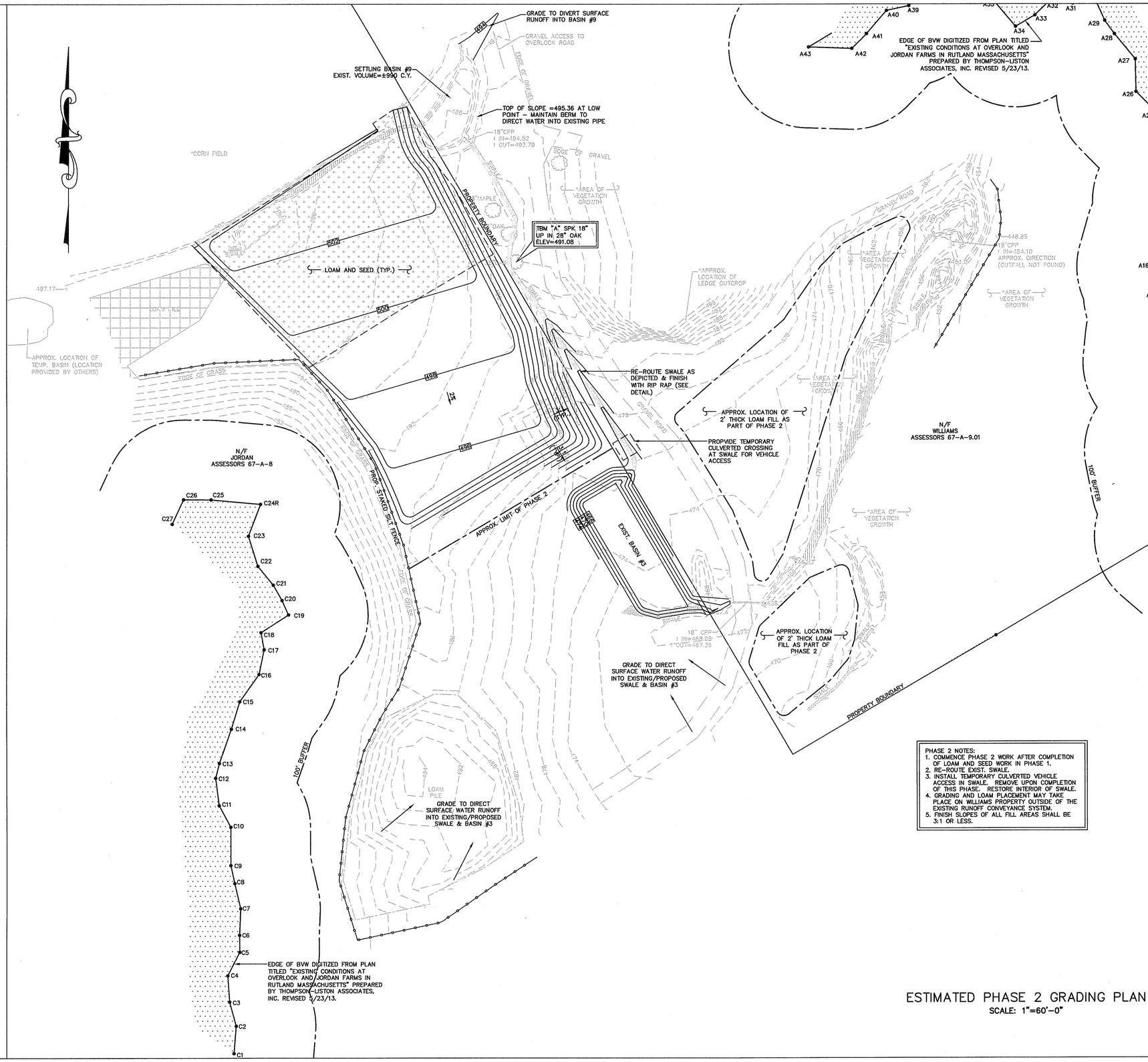
SCALE: 1"=60'

60 0 60 120 240

QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

DATE: AUGUST 28, 2014

ESTIMATED PHASE 1 GRADE PLAN



PHASE 2 NOTES:
1. COMMENCE PHASE 2 WORK AFTER COMPLETION OF LOAM AND SEED WORK IN PHASE 1.
2. RE-ROUTE EXIST. SWALE.
3. INSTALL TEMPORARY CULVERTED VEHICLE ACCESS IN SWALE. REMOVE UPON COMPLETION OF THIS PHASE. RESTORE INTERIOR OF SWALE.
4. GRADING AND LOAM PLACEMENT MAY TAKE PLACE ON WILLIAMS PROPERTY OUTSIDE OF THE EXISTING RUNOFF CONVEYANCE SYSTEM.
5. FINISH SLOPES OF ALL FILL AREAS SHALL BE 3:1 OR LESS.

ESTIMATED PHASE 2 GRADING PLAN
SCALE: 1"=60'-0"

DIG SAFE DIAL-811

NO.	REVISION	DATE
1	REV. NO. 1	9/8/14
2	REV. NO. 2	9/17/14
3	FINISH GRADES/PHASING	3/2/15

KEVIN J. QUINN CIVIL #33922

OWNER:
RICHARD WILLIAMS
&
WAYNE JORDAN

PREPARED FOR:
LIGHTHOUSE ENVIRONMENTAL
84 STONE STREET LLC
184 STONE STREET
CLINTON, MA 01510

SURFACE WATER PLAN
IN RUTLAND, MASSACHUSETTS
OVERLOOK ROAD / EAST COUNTY ROAD

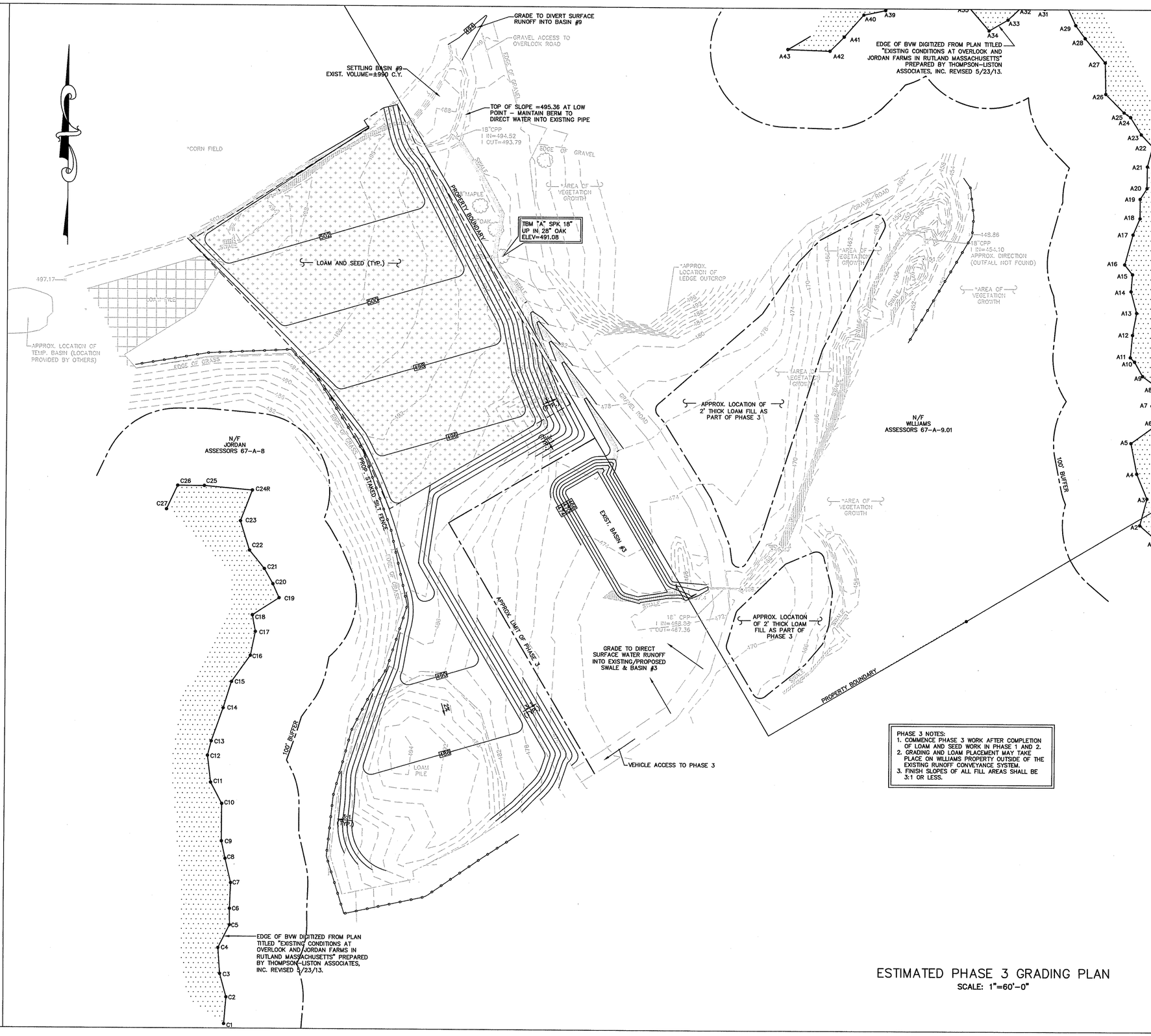
SCALE: 1"=60'
60 0 60 120 240

QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

DATE: AUGUST 28, 2014

ESTIMATED PHASE 2 GRADING PLAN

SHEET 4 OF 6



PHASE 3 NOTES:
1. COMMENCE PHASE 3 WORK AFTER COMPLETION OF LOAM AND SEED WORK IN PHASE 1 AND 2.
2. GRADING AND LOAM PLACEMENT MAY TAKE PLACE ON WILLIAMS PROPERTY OUTSIDE OF THE EXISTING RUNOFF CONVEYANCE SYSTEM.
3. FINISH SLOPES OF ALL FILL AREAS SHALL BE 3:1 OR LESS.

ESTIMATED PHASE 3 GRADING PLAN
SCALE: 1"=60'-0"

DIG SAFE DIAL-811

NO.	REVISION	DATE
3	FINISH GRADES/PHASING	3/2/15
2	REV. NO. 2	9/17/14
1	REV. NO. 1	9/8/14

KEVIN L QUINN CIVIL #39922

OWNER:
RICHARD WILLIAMS
&
WAYNE JORDAN

PREPARED FOR:
LIGHTHOUSE ENVIRONMENTAL MANAGEMENT, LLC
184 STONE STREET
CLINTON, MA 01510

SURFACE WATER PLAN
IN RUTLAND, MASSACHUSETTS
OVERLOOK ROAD / EAST COUNTY ROAD

SCALE: 1"=60'
240 120 60 0 60

QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

DATE: AUGUST 28, 2014

ESTIMATED PHASE 3 GRADING PLAN

SHEET 5 OF 6

GRADE TO DIVERT SURFACE RUNOFF INTO BASIN #9

GRAVEL ACCESS TO OVERLOOK ROAD

EDGE OF GRAVEL

TOP OF SLOPE =495.36 AT LOW POINT — MAINTAIN BERM TO DIRECT WATER INTO EXISTING PIPE

18"CPP
I IN=494.52
I OUT=493.79

EDGE OF GRAVEL

*AREA OF VEGETATION GROWTH

*CORN FIELD

UPON STABILIZATION OF PHASE 4, REMOVE RIP RAP, FILL DIVERSION SWALE, & GRADE THIS AREA SO THAT RUNOFF FROM THE CORN FIELD FLOWS ONTO THE PROPOSED FINISH GRADES

*MAPLE

*OAK

TBM "A" SPK 18"
UP IN 28" OAK
ELEV=491.08

PROPERTY BOUNDARY

SWALE

LOAM AND SEED (TYP.)

FILL IN EXIST. BASIN AND FINISH WITH LOAM AND SEED UPON STABILIZATION OF EARTHWORK WITHIN PHASE 4

497.17

LOAM PILE

APPROX. LOCATION OF TEMP. BASIN (LOCATION PROVIDED BY OTHERS)

EDGE OF GRASS

N/F
JORDAN
ASSESSORS 67-A-8

PROP. STAKED SILT FENCE

EDGE OF GRASS

100' BUFFER

C26 C25 C24R C27 C23 C22 C21 C20 C19 C18 C17 C16 C15 C14 C13 C12 C11 C10 C9 C8 C7 C6 C5 C4 C3 C2 C1

EDGE OF BVW DIGITIZED FROM PLAN TITLED "EXISTING CONDITIONS AT OVERLOOK AND JORDAN FARMS IN RUTLAND MASSACHUSETTS" PREPARED BY THOMPSON-LISTON ASSOCIATES, INC. REVISED 5/23/13.

A43 A42 A41 A40 A39 A34 A33 A32 A31 A29 A28 A27 A26 A25 A24 A23 A22 A21 A20 A19 A18 A17 A16 A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1

EDGE OF BVW DIGITIZED FROM PLAN TITLED "EXISTING CONDITIONS AT OVERLOOK AND JORDAN FARMS IN RUTLAND MASSACHUSETTS" PREPARED BY THOMPSON-LISTON ASSOCIATES, INC. REVISED 5/23/13.

*AREA OF VEGETATION GROWTH

GRAVEL ROAD

*APPROX. LOCATION OF LEDGE OUTCROP

148.86
18"CPP
I IN=454.10
APPROX. DIRECTION
(OUTFALL NOT FOUND)

*AREA OF VEGETATION GROWTH

N/F
WILLIAMS
ASSESSORS 67-A-9.01

UPON FINISH GRADING, FINISH WITH LOAM AND SEED (TYP.)

RE-ROUTE SWALE AS DEPICTED & FINISH WITH RIP RAP (SEE DETAIL)

*AREA OF VEGETATION GROWTH

100' BUFFER

SETTLING BASIN #3

PROP. 18" RCP CULVERT
INV. IN=468.83
INV. OUT=462.0±

PROP. RIP RAP ENERGY DISSIPATER (SEE DETAIL)

PROPERTY BOUNDARY

UPON FINISH GRADING, FINISH WITH LOAM AND SEED (TYP.)

PHASE 4 NOTES:
1. COMMENCE PHASE 4 WORK AFTER COMPLETION OF LOAM AND SEED WORK IN PHASE 1, 2 AND 3.
2. MAINTAIN THE EXISTING BASIN #3 AS LONG AS POSSIBLE. STABILIZE PORTIONS OF PHASE 4 WITH LOAM AND SEED AND FILL IN PORTIONS OF BASIN #3 WHEN ±1.0 ACRE OF PHASE 4 ON THE JORDAN PROPERTY REMAINS UNSTABILIZED.
3. REMOVE EXISTING 18" CULVERT OUTLET FROM EXISTING BASIN #3 & REPLACE WITH A PROPOSED 18" CULVERT AS INDICATED.
4. UPON INSTALLATION OF THE PROPOSED 18" CULVERT, GRADING AND LOAM PLACEMENT ON THE WILLIAMS PROPERTY MAY TAKE PLACE WITHIN THE EXISTING RUNOFF CONVEYANCE SYSTEM.
5. AT SWALE ADJACENT TO THE EXISTING CORN FIELD, REMOVE RIP RAP, FILL DIVERSION SWALE, GRADE & FINISH WITH LOAM AND SEED.
6. REMOVE EROSION CONTROL MEASURES.
7. FINISH SLOPES OF ALL FILL AREAS SHALL BE 3:1 OR LESS.

ESTIMATED PHASE 4 (FINISHED) GRADING PLAN
SCALE: 1"=60'-0"

DIG SAFE DIAL-811

NO.	REVISION	DATE
3	FINISH GRADES/PHASING	3/2/15
2	REV. NO. 2	9/17/14
1	REV. NO. 1	9/8/14

KEVIN J. QUINN CIVIL #33922

OWNER:
RICHARD WILLIAMS
&
WAYNE JORDAN

PREPARED FOR:
LUCAS ENVIRONMENTAL
MANAGEMENT, LLC
184 STONE STREET
CLINTON, MA 01510

SURFACE WATER PLAN
IN RUTLAND, MASSACHUSETTS
OVERLOOK ROAD / EAST COUNTY ROAD

240 120 60 0 60
SCALE: 1"=60'

QUINN ENGINEERING, INC.
P.O. Box 107
Paxton, Massachusetts 01612
(508)753-7999 Fax:(508)795-0939

DATE: AUGUST 28, 2014

ESTIMATED PHASE 4 (FINISHED) GRADING PLAN

Tables

TABLE 1

SUMMARY OF SOIL ACCEPTANCE CRITERIA , Revised 7/9/2014

OVERLOOK FARMS, RUTLAND, MA

Parameter	Standards		Acceptance Criteria		Comments (refer to notes below)
	Concentration in "Natural" Soil	MCP RCS-1 Reportable Concentrations	Calculated Acceptance Criteria		
GC/MS SEMI VOC/PAHs BY 8270D (mg/kg)					
1,1-Biphenyl	NE	0.05	<	0.005	*
1,2,4-Trichlorobenzene	NE	2	<	0.2	*
1,2-Dichlorobenzene	NE	9	<	0.9	*
1,3-Dichlorobenzene	NE	1	<	0.1	*
1,4-Dichlorobenzene	NE	1	<	0.1	*
2,4,5-Trichlorophenol	NE	4	<	0.4	*
2,4,6-Trichlorophenol	NE	1	<	0.1	*
2,4-Dichlorophenol	NE	1	<	0.1	*
2,4-Dimethylphenol	NE	1	<	0.1	*
2,4-Dinitrophenol	NE	3	<	0.3	*
2,4-Dinitrotoluene	NE	1	<	0.1	*
2,6-Dinitrotoluene	NE	100	<	10	*
2-Chloronaphthalene	NE	1,000	<	100	*
2-Chlorophenol	NE	1	<	0.1	*
2-Methylnaphthalene	0.5	0.7	<	<0.7	**
2-Methylphenol	NE	NE		NE	***
2-Nitrophenol	NE	100	<	10	*
3,3'-Dichlorobenzidine	NE	3	<	0.3	*
3+4-Methylphenol	NE	NE		NE	***
4-Bromophenyl phenyl ether	NE	100	<	10	*
4-Chloroaniline	NE	1	<	0.1	*
4-Nitrophenol	NE	100	<	10	*
Acenaphthene	0.5	4	<	<4	**
Acenaphthylene	0.5	1	<	<1	**
Acetophenone	NE	1,000	<	100	*
Aniline	NE	1,000	<	100	*
Anthracene	1	1,000	<	<10	**
Azobenzene	NE	NE		NE	***
Benzo[a]anthracene	2	7	<	<7	**
Benzo[a]pyrene	2	2	<	<2	**
Benzo[b]fluoranthene	2	7	<	<7	**
Benzo[g,h,i]perylene	1	1,000	<	<10	**
Benzo[k]fluoranthene	1	70	<	<10	**
Bis(2-chloroethoxy)methane	NE	500	<	50	*
Bis(2-chloroethyl)ether	NE	1	<	0.1	*
Bis(2-ethylhexyl) phthalate	NE	90	<	9	*
Butyl benzyl phthalate	NE	100	<	10	*
Chrysene	2	70	<	<20	**

TABLE 1

SUMMARY OF SOIL ACCEPTANCE CRITERIA , Revised 7/9/2014

OVERLOOK FARMS, RUTLAND, MA

Parameter	Standards		Acceptance Criteria		Comments (refer to notes below)
	Concentration in "Natural" Soil	MCP RCS-1 Reportable Concentrations	Calculated Acceptance Criteria		
Dibenz(a,h)anthracene	0.5	0.7	<	<0.7	**
Dibenzofuran	NE	100	<	10	*
Diethyl phthalate	NE	10	<	1	*
Dimethyl phthalate	NE	0.7	<	0.07	*
Di-n-butyl phthalate	NE	50	<	5	*
Di-n-octyl phthalate	NE	1,000	<	100	*
Fluoranthene	4	1,000	<	<40	**
Fluorene	1	1,000	<	<10	**
Hexachlorobenzene	NE	1	<	0.1	*
Hexachlorobutadiene	NE	30	<	3	*
Hexachloroethane	NE	1	<	0.1	*
Indeno[1,2,3-cd]pyrene	1	7	<	<7	**
Isophorone	NE	100	<	10	*
Naphthalene	0.5	4	<	<4	**
Nitrobenzene	NE	500	<	50	*
n-Nitrosodimethylamine	NE	50	<	5	*
Pentachlorophenol	NE	3	<	0.3	*
Phenanthrene	3	10-600	<	<10	**
Phenol	NE	1	<	0.1	*
Pyrene	4	1,000	<	<40	**
GC/MS VOA BY 8260C (mg/kg)					
1,1,1,2-Tetrachloroethane	NE	0.1	<	0.01	*
1,1,1-Trichloroethane	NE	30	<	3	*
1,1,2,2-Tetrachloroethane	NE	0.005	<	0.0005	*
1,1,2-Trichloroethane	NE	0.1	<	0.01	*
1,1-Dichloroethane	NE	0.4	<	0.04	*
1,1-Dichloroethene	NE	3	<	0.3	*
1,1-Dichloropropene	NE	NE		NE	***
1,2,3-Trichlorobenzene	NE	NE		NE	***
1,2,3-Trichloropropane	NE	100	<	10	*
1,2,4-Trichlorobenzene	NE	2	<	0.2	*
1,2,4-Trimethylbenzene	NE	1,000	<	100	*
1,2-Dibromo-3-Chloropropane	NE	10	<	1	*
1,2-Dibromoethane	NE	0.1	<	0.01	*
1,2-Dichlorobenzene	NE	9	<	0.9	*
1,2-Dichloroethane	NE	0.1	<	0.01	*
1,2-Dichloropropane	NE	0.1	<	0.01	*
1,3,5-Trimethylbenzene	NE	10	<	1	*
1,3-Dichlorobenzene	NE	3	<	0.3	*

TABLE 1

SUMMARY OF SOIL ACCEPTANCE CRITERIA , Revised 7/9/2014

OVERLOOK FARMS, RUTLAND, MA

Parameter	Standards		Acceptance Criteria		Comments (refer to notes below)
	Concentration in "Natural" Soil	MCP RCS-1 Reportable Concentrations	Calculated Acceptance Criteria		
1,3-Dichloropropane	NE	500	<	50	*
1,4-Dichlorobenzene	NE	1	<	0.1	*
1,4-Dioxane	NE	0.2	<	0.02	*
2,2-Dichloropropane	NE	NE		NE	***
2-Butanone (MEK)	NE	4	<	0.4	*
2-Chlorotoluene	NE	100	<	10	*
2-Hexanone	NE	100	<	10	*
4-Chlorotoluene	NE	NE		NE	***
4-Isopropyltoluene	NE	NE		NE	***
4-Methyl-2-pentanone (MIBK)	NE	NE		NE	***
Acetone	NE	6	<	0.6	*
Acrolein-Screen	NE	NE		NE	***
Benzene	NE	2	<	0.2	*
Bromobenzene	NE	100	<	10	*
Bromochloromethane	NE	0.005	<	0.0005	*
Bromodichloromethane	NE	0.1	<	0.01	*
Bromoform	NE	0.1	<	0.01	*
Bromomethane	NE	1	<	0.1	*
Carbon disulfide	NE	100	<	10	*
Carbon tetrachloride	NE	5	<	0.5	*
Chlorobenzene	NE	1	<	0.1	*
Chlorodibromomethane	NE	0.005	<	0.0005	*
Chloroethane	NE	100	<	10	*
Chloroform	NE	0.2	<	0.02	*
Chloromethane	NE	100	<	10	*
cis-1,2-Dichloroethene	NE	0.1	<	0.01	*
cis-1,3-Dichloropropene	NE	NE		NE	***
Dibromochloromethane	NE	0.005	<	0.0005	*
Dibromomethane	NE	500	<	50	*
Dichlorodifluoromethane	NE	1,000	<	100	*
Diethyl ether	NE	100	<	10	*
Di-Isopropyl ether	NE	NE		NE	***
Ethylbenzene	NE	40	<	4	*
Hexachlorobutadiene	NE	6	<	0.6	*
Isopropylbenzene	NE	1,000	<	100	*
Methyl tert-butyl ether	NE	0.1	<	0.01	*
Methylene Chloride	NE	0.1	<	0.01	*
m-Xylene & p-Xylene	NE	100	<	10	*
Naphthalene	NE	4	<	0.4	*

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OVERLOOK FARMS, RUTLAND, MA

Parameter	Standards		Acceptance Criteria		Comments (refer to notes below)
	Concentration in "Natural" Soil	MCP RCS-1 Reportable Concentrations	Calculated Acceptance Criteria		
n-Butylbenzene	NE	NE		NE	***
N-Propylbenzene	NE	100	<	10	*
o-Xylene	NE	100	<	10	*
sec-Butylbenzene	NE	NA		NE	***
Styrene	NE	3	<	0.3	*
Tert-amyl methyl ether	NE	NE		NE	***
Tert-butyl ethyl ether	NE	NE		NE	***
tert-Butylbenzene	NE	100	<	10	*
Tetrachloroethene	NE	1	<	0.1	*
Tetrahydrofuran	NE	500	<	50	*
Toluene	NE	30	<	3	*
trans-1,2-Dichloroethene	NE	1	<	0.1	*
trans-1,3-Dichloropropene	NE	NE		NE	***
Trichloroethene	NE	0.3	<	0.03	*
Trichlorofluoromethane	NE	1,000	<	100	*
Vinyl chloride	NE	0.7	<	0.07	*
GC SEMI VOA BY 8100 Modified					
TPH	NE	1,000	<	500	1/2 RCS-1 per MADEP
MA EPH Aliphatic/Aromatic Ranges by MADEP CAM IV B					
C9-C18 Aliphatic	NE	1,000	<	500	1/2 RCS-1 per MADEP
C19-C36 Aliphatic	NE	3,000	<	1,500	1/2 RCS-1 per MADEP
C11-C22 Aromatic	NE	1,000	<	500	1/2 RCS-1 per MADEP
Pesticides BY 8081B (mg/kg)					
4,4'-DDD	NE	8	<	0.15	
4,4'-DDE	NE	6	<	0.15	
4,4'-DDT	NE	6	<	0.15	
Aldrin	NE	0.08	<	0.08	
alpha-BHC	NE	50	<	0.15	
beta-BHC	NE	10	<	0.15	
Chlordane (technical)	NE	5	<	0.15	
delta-BHC	NE	10	<	0.15	
Dieldrin	NE	0.08	<	0.08	
Endosulfan I	NE	0.5	<	0.15	
Endosulfan II	NE	0.5	<	0.15	
Endosulfan sulfate	NE	NA	<	0.15	
Endrin	NE	10	<	0.15	
Endrin ketone	NE	NA	<	0.15	
gamma-BHC (Lindane)	NE	0.003	<	0.003	
Heptachlor	NE	0.3	<	0.15	

TABLE 1

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OVERLOOK FARMS, RUTLAND, MA

Parameter	Standards		Acceptance Criteria		Comments (refer to notes below)
	Concentration in "Natural" Soil	MCP RCS-1 Reportable Concentrations	Calculated Acceptance Criteria		
Heptachlor epoxide	NE	0.1	<	0.1	
Hexachlorobenzene	NE	0.7	<	0.15	
Methoxychlor	NE	200	<	0.15	
PCBs BY 8082A (mg/kg)					
PCB-1016	NE	1	<	0.1	
PCB-1221	NE	1	<	0.1	
PCB-1232	NE	1	<	0.1	
PCB-1242	NE	1	<	0.1	
PCB-1248	NE	1	<	0.1	
PCB-1254	NE	1	<	0.1	
PCB-1260	NE	1	<	0.1	
PCB-1262	NE	1	<	0.1	
PCB-1268	NE	1	<	0.1	
Herbicides BY 8151A (mg/kg)					
2,4,5-T	NE	NA	<	0.03	
2,4-D	NE	NA	<	0.03	
2,4-DB	NE	NA	<	0.03	
Dalapon	NE	NA	<	0.03	
Dicamba	NE	NA	<	0.03	
Dichlorprop	NE	NA	<	0.03	
Dinoseb	NE	NA	<	0.03	
Silvex (2,4,5-TP)	NE	100	<	0.03	
METALS BY various methods (see notes below) (mg/kg)					
Antimony	1	20	<	10	**
Arsenic	20	20	<	20	**
Barium	50	1,000	<	375	**
Beryllium	0.4	90	<	4	**
Cadmium	2	70	<	20	**
Chromium (Total)	30	100	<	<100	**
Chromium (Tri)	30	1,000	<	225	**
Chromium (Hex)	30	100	<	<100	**
Copper	40	NE	<	300	**
Lead	100	200	<	200	**
Mercury	0.3	20	<	3	**
Nickel	20	600	<	150	**
Selenium	0.5	400	<	5	**
Silver	0.6	100	<	6	**
Thallium	0.6	8	<	6	**
Vanadium	30	400	<	225	**

TABLE 1

SUMMARY OF SOIL ACCEPTANCE CRITERIA , Revised 7/9/2014

OVERLOOK FARMS, RUTLAND, MA

Parameter	Standards		Acceptance Criteria	Comments (refer to notes below)
	Concentration in "Natural" Soil	MCP RCS-1 Reportable Concentrations	Calculated Acceptance Criteria	
Zinc	100	1000	< 500	**
GENERAL CHEMISTRY BY MOISTURE (%)				
Percent Solids	NE	NA	NA	
GENERAL CHEMISTRY BY SM 2510B (umhos/cm)				
Specific Conductance (umhos/cm)	NE	NA	2000	
Flashpoint (EPA 1010)	NE	NA	> 140	
pH/Corrosivity (EPA 9045}	NE	NA	5.0-9.0	
Reactive Sulfide/Cyanide	NE	NA	500/250	
PID SCREENING	NE	NA	< 10 ppmv	
asbestos fibers	NE	NA	ND	

NOTES:

VOC is volatile organic compounds

PAH is polycyclic aromatic hydrocarbons

VOA is volatile organic analysis

PCB is polychlorinated biphenyls

TPH is total petroleum hydrocarbons

NE is Not Established

VOCs/Pest/Herbs: No VOCs can be accepted. Trace levels of pesticides/herbicides can be accepted on a case by case basis

^ Represents one-half of the laboratory detection limit

* Represents 10% of RCS-1 concentration

** Refer to WSC 13-500, Table 2, Limiting Soil Concentration

*** To be determined on a case by case basis

MCP-14 Metals (EPA Methods 6010 and 7470 (for mercury) and 7010 for thallium))	
Antimony	Mercury
Arsenic	Nickel
Barium	Selenium
Beryllium	Silver
Cadmium	Thallium
Chromium	Vanadium
Lead	Zinc

Attachments

Attachment A

BioMix Report

Jordan Dairy Farm Biomix Project

Located on Overlook Road, Rutland, Ma

August 17, 2011

SUBMITTED BY

James Talvy
New England Organics
138 North Main Street
West Brookfield, MA, 01585
Mobile Phone: (508) 612-0945
Office Phone: (603) 228-6428

Project Description

7/1/2011

New England Organics proposes the creation of new crop fields for the expansion of the Jordan Dairy Farm in Rutland, Massachusetts. This particular site was previously a woodland area, which was cleared for the purpose of creating new farmland. During the clear cutting process which involved the removal of stumps and large rocks, the growth layer was altered. To improve this area, a manufactured topsoil will be created on site through a blending process which will combine short paper fiber, existing soil and compost to help create new organic material. This type of manufactured topsoil, known as Biomix, results in a new nutrient balanced growth medium. The erosion resistance and high water holding capacity make Biomix an ideal product for creating and maintaining the nutrient level within the soil. The paper fiber used to produce this product originates at the Erving Paper Mill, located in Erving, Massachusetts. The wastewater treatment plant in Erving also collects a small amount of residential sanitary wastewater. The sanitary flow represents about 2% of the total flow to the wastewater treatment facility.

The Biomix product will be applied to the land in question using traditional agricultural incorporation methods. New England Organics guarantees the growth of grass on land used for their Biomix projects. The company personnel will also monitor the project at all stages, and will follow up with land owners after the project has been completed. By doing this, the people of New England Organics will assure the operators and town administrators that the job was completed as planned.

The Biomix program has, as its main purpose, the revegetation of disturbed lands, specifically the land owned by the operators of Jordan Farm. There are several

advantages to the Biomix product when compared to natural loams. These include higher levels of moisture retention, and erosion resistance, both important factors on damaged land being restored. In addition, the use of Biomix increases the sustainability of the land in question. Parcels of land onto which Biomix has been incorporated do not require the high levels of maintenance or fertilizer other types of land used for plant growth and other commercial uses typically require. Furthermore, due to the fact that natural sources of nitrogen are used in the production of Biomix, high use of potentially harmful synthetic sources of nitrogen are not necessary on areas of land onto which Biomix has been applied.

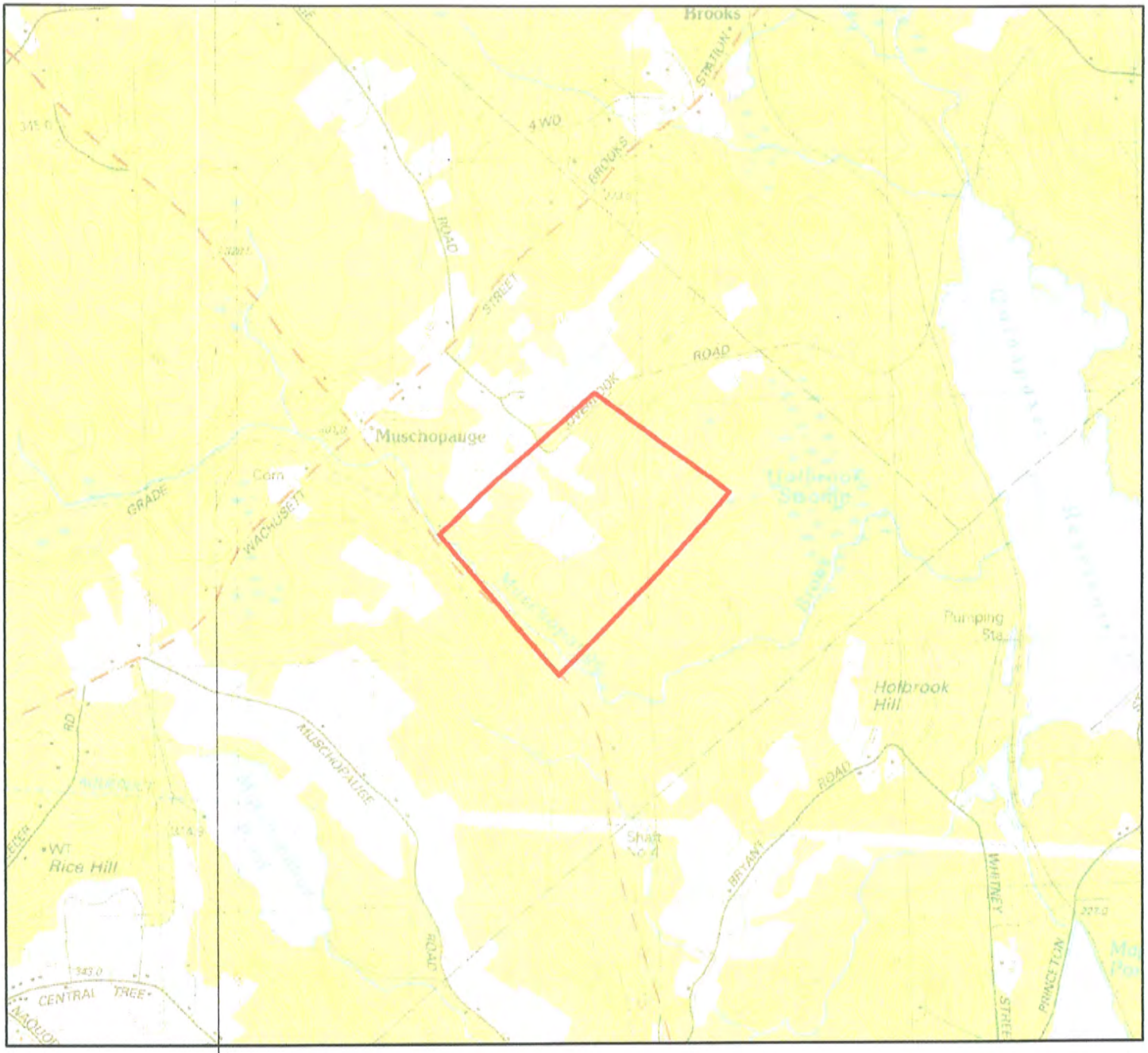
James Talvy
138 North Main Street
West Brookfield, MA, 01585
(508) 612-0945
james.talvy@casella.com

Jordan property

Date: 6/14/2011

Customer(s): James Talvy

Field Office: HOLDEN SERVICE CENTER
Agency: USDA - NRCS

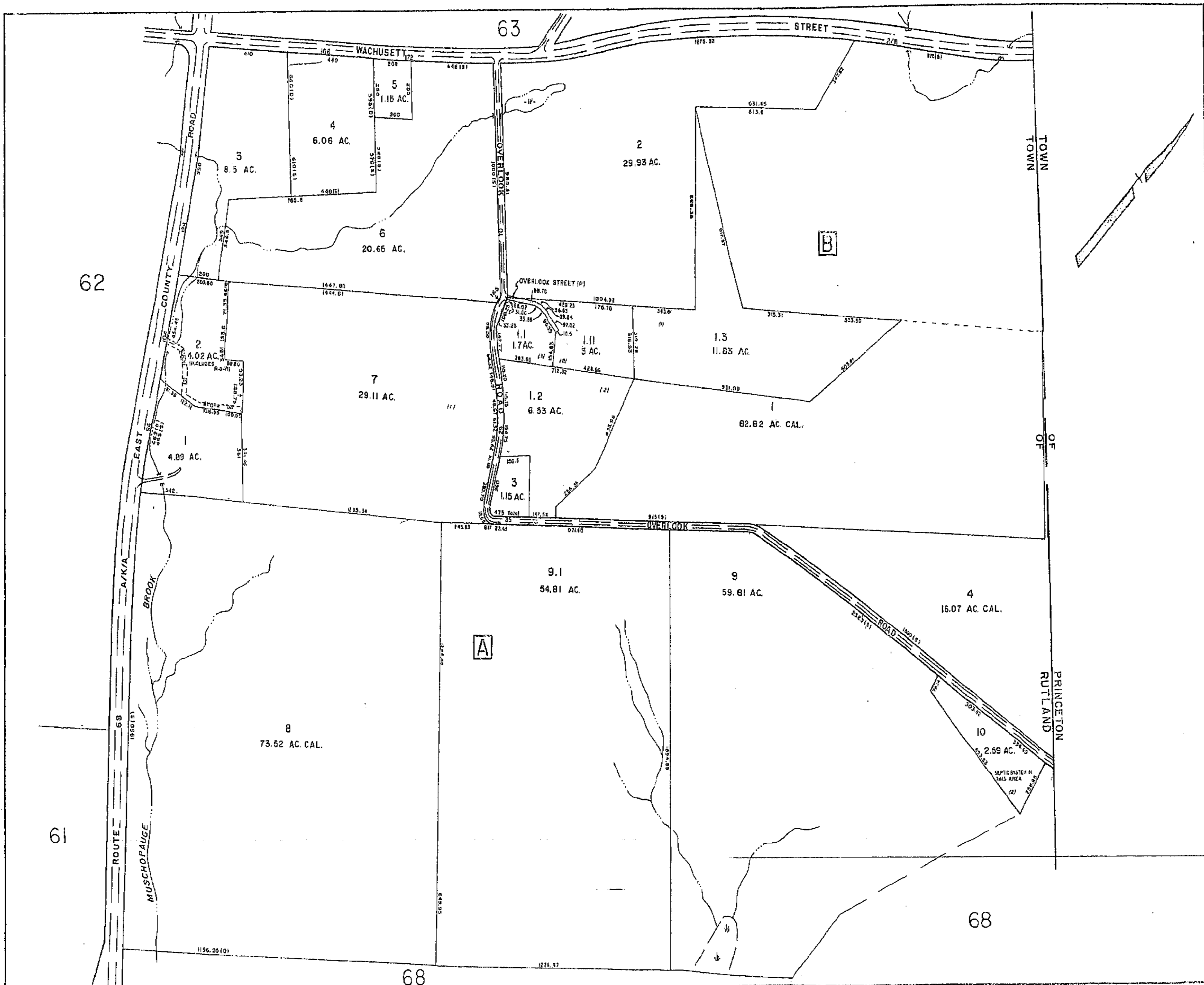


1:24,000

Legend

0 1,400 2,800 4,200 5,600 Feet

N



FOR TAX PURPOSES ONLY
NOT TO BE USED FOR CONVEYANCE
PREPARED BY
GENERAL MAPPING INC.
Youngwood, Pa. 15697

LEGEND

REVISIONS

1	GENERAL MAPPING INC. 12-31-77	8	GENERAL MAPPING INC. 12-31-86	11	JALBERT ENG. INC. 12/31/00
2	GENERAL MAPPING INC. 12-31-78	9	[illegible] DEC 31 [illegible]		
3	GENERAL MAPPING INC. 12-31-79				
4	GENERAL MAPPING INC. 12-31-80				
5	GENERAL MAPPING INC. 12-31-81				
6	GENERAL MAPPING INC. 12-31-82				
7	GENERAL MAPPING INC. 12-31-85				
8	GENERAL MAPPING INC. 12-31-84				

TOWN of RUTLAND

BOARD OF ASSESSORS

RUTLAND, MASS.

MAP NO. 67

DATE, AERIAL PHOTOGRAPHY: 3-20-76 DATE, MAP: 1-31-77

PHOTO NO.: 5-49, 5-51, G-58 & 6-60 SCALE: 1" = 200'

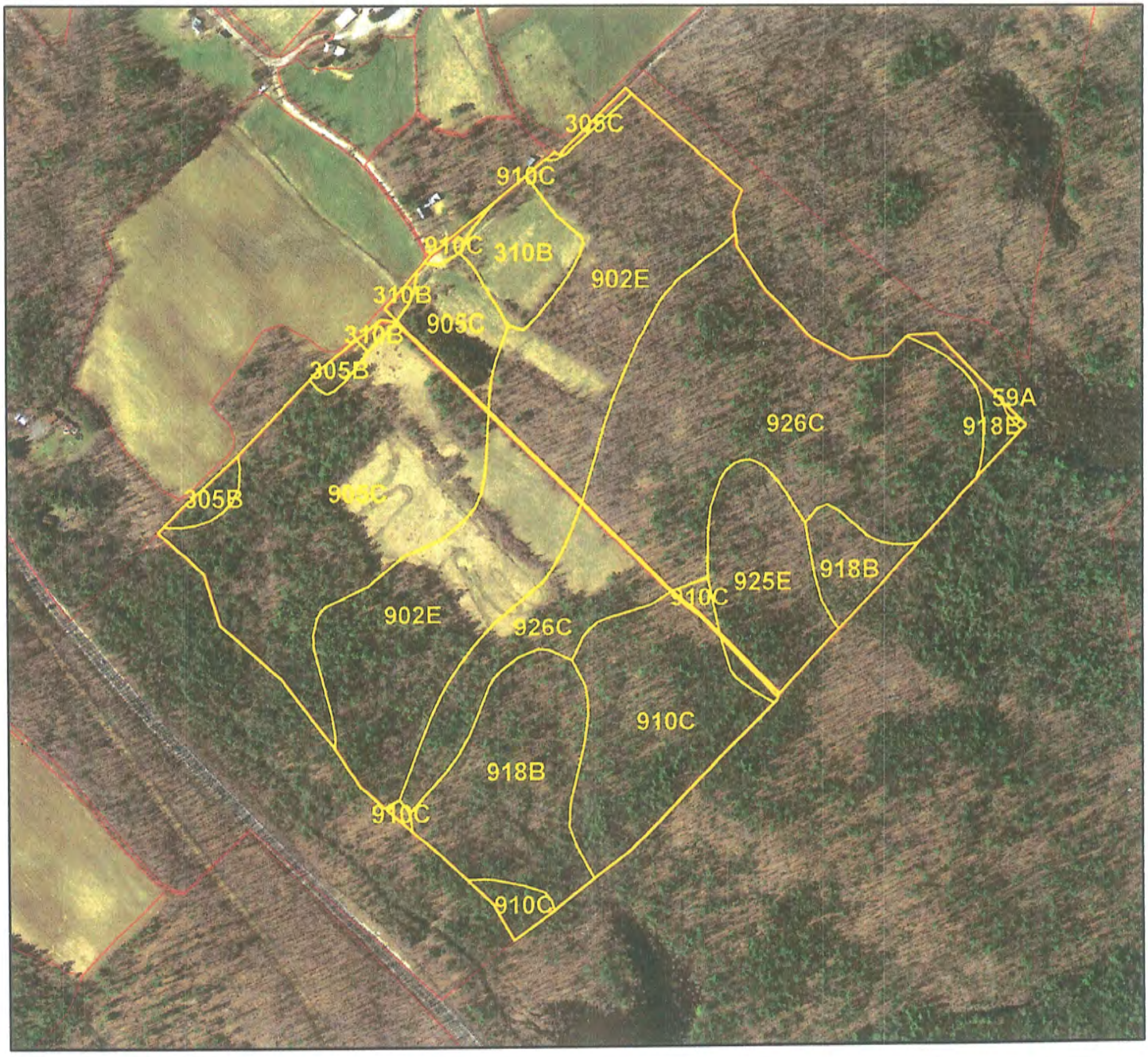
JANUARY 1, 2010

Jordan property

Date: 6/14/2011

Customer(s): James Talvy

Field Office: HOLDEN SERVICE CENTER
Agency: USDA - NRCS



Legend

- Soils Map
- Export_Output
- CLU polygons, Worcester County

1:6,622

0 390 780 1,170 1,560 Feet

N

Client: **New England Organics (MA)**

Client Designation: **Jordan Job**

Sample ID: Randy Jordan

Lab Sample ID: 99939.01
Matrix: soil
Date Sampled: 5/16/11
Date Received: 5/27/11

		Analytical Matrix	Units	Date of Analysis	Method	Analyst
Cadmium	< 0.5	SolTotDry	mg/kg	6/7/11	6020	DS
Chromium	**21**	SolTotDry	mg/kg	6/7/11	6020	DS
Copper	**8.5**	SolTotDry	mg/kg	6/7/11	6020	DS
Lead	**29**	SolTotDry	mg/kg	6/7/11	6020	DS
Mercury	< 0.1	SolTotDry	mg/kg	6/7/11	6020	DS
Nickel	**11**	SolTotDry	mg/kg	6/7/11	6020	DS
Phosphorus	**700**	SolTotDry	mg/kg	6/7/11	6020	DS
Potassium	**1700**	SolTotDry	mg/kg	6/7/11	6020	DS
Zinc	**47**	SolTotDry	mg/kg	6/7/11	6020	DS

Client: **New England Organics (MA)**

Client Designation: **Jordan Job**

Sample ID:	Randy Jordan
Lab Sample ID:	99939.01
Matrix:	soil
Date Sampled:	5/16/11
Date Received:	5/27/11
% Solid:	70.4
Units:	mg/kg
Date of Extraction/Prep:	6/2/11
Date of Analysis:	6/3/11
Analyst:	JW
Extraction Method:	3540C
Analysis Method:	8082
Dilution Factor:	1

PCB-1016	< 0.02
PCB-1221	< 0.02
PCB-1232	< 0.02
PCB-1242	< 0.02
PCB-1248	< 0.02
PCB-1254	< 0.02
PCB-1260	< 0.02
TMX (surr)	**96 %R**
DCB (surr)	**96 %R**

Acid cleanup was performed on the sample and associated Batch QC.

The sample was extracted past the hold time.

Attachment B

Determination of Applicability and Associated Documents

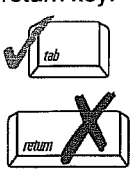
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 2 – Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



From:

Rutland Conservation Commission
Conservation Commission

To: Applicant

Kevin F. Gervais, Lighthouse Env. Mgmt. ,LLC
Name

The Green Building, 184 Stone Street
Mailing Address

Clinton | MA | 01510
City/Town | State | Zip Code

Property Owner (if different from applicant):

Randy Jordan, C. Richard Williams
Name

29 Overlook Rd.
Mailing Address

Rutland | MA | 01543
City/Town | State | Zip Code

1. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

Title	Date
Existing Conditions Plan at Overlook and Jordan Farms	May 16, 2013
Revised Flag C24, Test Plots Added	May 23, 2013

2. Date Request Filed:

June 11, 2013

B. Determination

Pursuant to the authority of M.G.L. c. 131, § 40, the Conservation Commission considered your Request for Determination of Applicability, with its supporting documentation, and made the following Determination.

Project Description (if applicable):

Filling and grading of land to create fields for crop production.

Project Location:

Overlook Road
Street Address

Rutland
City/Town

67
Assessors Map/Plat Number

8 & 9.1
Parcel/Lot Number

B. Determination (cont.)

The following Determination(s) is/are applicable to the proposed site and/or project relative to the Wetlands Protection Act and regulations:

Positive Determination
Note: No work within the jurisdiction of the Wetlands Protection Act may proceed until a final Order of Conditions (issued following submittal of a Notice of Intent or Abbreviated Notice of Intent) or Order of Resource Area Delineation (issued following submittal of Simplified Review ANRAD) has been received from the issuing authority (i.e., Conservation Commission or the Department of Environmental Protection).

☐ 1. The area described on the referenced plan(s) is an area subject to protection under the Act. Removing, filling, dredging, or altering of the area requires the filing of a Notice of Intent.

☒ 2a. The boundary delineations of the following resource areas described on the referenced plan(s) are confirmed as accurate. Therefore, the resource area boundaries confirmed in this Determination are binding as to all decisions rendered pursuant to the Wetlands Protection Act and its regulations regarding such boundaries for as long as this Determination is valid.

Areas A, B, and C as shown on plan are delineated accurately, other areas subject to the Wetlands Protection Act exist on these properties and are not bound by this delineation.
0.7 acre isolated depression is not protected by the Wetlands Protection Act as determined by the absence of hydric soils.

☐ 2b. The boundaries of resource areas listed below are not confirmed by this Determination, regardless of whether such boundaries are contained on the plans attached to this Determination or to the Request for Determination.

☐ 3. The work described on referenced plan(s) and document(s) is within an area subject to protection under the Act and will remove, fill, dredge, or alter that area. Therefore, said work requires the filing of a Notice of Intent.

☐ 4. The work described on referenced plan(s) and document(s) is within the Buffer Zone and will alter an Area subject to protection under the Act. Therefore, said work requires the filing of a Notice of Intent or ANRAD Simplified Review (if work is limited to the Buffer Zone).

☐ 5. The area and/or work described on referenced plan(s) and document(s) is subject to review and approval by:

Name of Municipality

Pursuant to the following municipal wetland ordinance or bylaw:

Name | Ordinance or Bylaw Citation

B. Determination (cont.)

☐ 6. The following area and/or work, if any, is subject to a municipal ordinance or bylaw but not subject to the Massachusetts Wetlands Protection Act:

☐ 7. If a Notice of Intent is filed for the work in the Riverfront Area described on referenced plan(s) and document(s), which includes all or part of the work described in the Request, the applicant must consider the following alternatives. (Refer to the wetland regulations at 10.58(4)c. for more information about the scope of alternatives requirements):

- ☐ Alternatives limited to the lot on which the project is located.
- ☐ Alternatives limited to the lot on which the project is located, the subdivided lots, and any adjacent lots formerly or presently owned by the same owner.
- ☐ Alternatives limited to the original parcel on which the project is located, the subdivided parcels, any adjacent parcels, and any other land which can reasonably be obtained within the municipality.
- ☐ Alternatives extend to any sites which can reasonably be obtained within the appropriate region of the state.

Negative Determination

Note: No further action under the Wetlands Protection Act is required by the applicant. However, if the Department is requested to issue a Superseding Determination of Applicability, work may not proceed on this project unless the Department fails to act on such request within 35 days of the date the request is post-marked for certified mail or hand delivered to the Department. Work may then proceed at the owner's risk only upon notice to the Department and to the Conservation Commission. Requirements for requests for Superseding Determinations are listed at the end of this document.

☐ 1. The area described in the Request is not an area subject to protection under the Act or the Buffer Zone.

☐ 2. The work described in the Request is within an area subject to protection under the Act, but will not remove, fill, dredge, or alter that area. Therefore, said work does not require the filing of a Notice of Intent.

☐ 3. The work described in the Request is within the Buffer Zone, as defined in the regulations, but will not alter an Area subject to protection under the Act. Therefore, said work does not require the filing of a Notice of Intent, subject to the following conditions (if any).

☐ 4. The work described in the Request is not within an Area subject to protection under the Act (including the Buffer Zone). Therefore, said work does not require the filing of a Notice of Intent, unless and until said work alters an Area subject to protection under the Act.

B. Determination (cont.)

☐ 5. The area described in the Request is subject to protection under the Act. Since the work described therein meets the requirements for the following exemption, as specified in the Act and the regulations, no Notice of Intent is required:

Exempt Activity (site applicable statuatory/regulatory provisions)

☐ 6. The area and/or work described in the Request is not subject to review and approval by:

Name of Municipality

Pursuant to a municipal wetlands ordinance or bylaw.

Name

Ordinance or Bylaw Citation

C. Authorization

This Determination is issued to the applicant and delivered as follows:

☐ by hand delivery on

Date

☑ by certified mail, return receipt requested on 7-8-2013

Date

This Determination is valid for **three years** from the date of issuance (except Determinations for Vegetation Management Plans which are valid for the duration of the Plan). This Determination does not relieve the applicant from complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.

This Determination must be signed by a majority of the Conservation Commission. A copy must be sent to the appropriate DEP Regional Office (see http://www.mass.gov/dep/about/region.findyour.htm) and the property owner (if different from the applicant).

Signatures

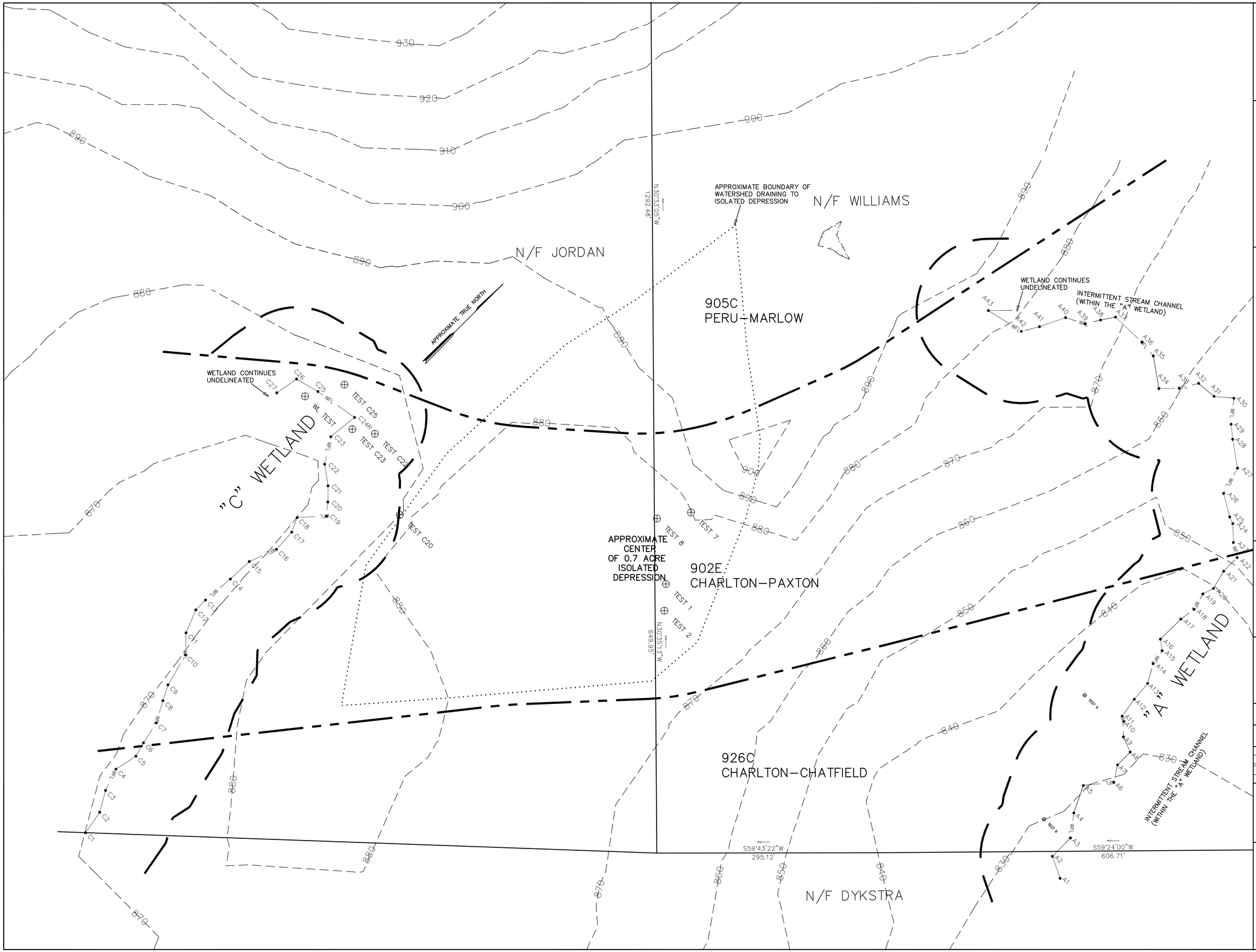
V Erin R Bigler

06/18/2013

Date

D. Appeals

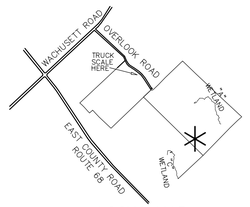
The applicant, owner, any person aggrieved by this Determination, any owner of land abutting the land upon which the proposed work is to be done, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate Department of Environmental Protection Regional Office (see http://www.mass.gov/dep/about/region.findyour.htm) to issue a Superseding Determination of Applicability. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and Fee Transmittal Form (see Request for Departmental Action Fee Transmittal Form) as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Determination. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant if he/she is not the appellant. The request shall state clearly and concisely the objections to the Determination which is being appealed. To the extent that the Determination is based on a municipal ordinance or bylaw and not on the Massachusetts Wetlands Protection Act or regulations, the Department of Environmental Protection has no appellate jurisdiction.



KEY

- WETLAND EDGE / 100' BUFFER ZONE EDGE
- 10' EXISTING CONTOUR
- WETLAND FLAG
- SOIL TYPE BOUNDARY AND SOIL SERIES IDENTIFICATION

902E CHARLTON–PAXTON



LOCUS MAP
1" = 1800'

NOTES:
1. WETLAND BOUNDARIES SHOWN WERE DELINEATED BY ECTOTEC, INC.
2. THE EXISTING SOIL TYPE BOUNDARIES AND DESCRIPTIONS ARE FROM THE NATURAL RESOURCES CONSERVATION SERVICE WEB SITE.
3. TOPOGRAPHY IS FROM THE MASSACHUSETTS GIS
4. THE LIMITS OF THE WATERSHED CONTRIBUTING RUNOFF TO THE 0.7 ACRE ISOLATED DEPRESSION WAS CONFIRMED IN THE FIELD TO BE 5.3 ACRES. THIS AREA IS INSUFFICIENT FOR THE ISOLATED DEPRESSION TO QUALIFY AS AN ISOLATED LAND SUBJECT TO FLOODING AS IT DOES NOT RECEIVE 1/4 ACRE FOOT OF RUNOFF FOR THE DEPRESSION TO STORE IN THE 1 YEAR (2.5 INCHES IN 24 HOURS) RETURN FREQUENCY STORM EVENT.

THOMPSON-LISTON ASSOCIATES, INC.
PROFESSIONAL CIVIL ENGINEERS
PROFESSIONAL LAND SURVEYORS
51 MAIN STREET, PO BOX 570
BOYLSTON, MASS. 01505-0570
TEL: 508-869-6151 FAX: 508-869-6842
EMAIL: info@tlainc.net

CLT. NO.	JOB NO.
3033	257-2101
DATE:	DWG NO.
MAY 16, 2013	OVERLOOKRDRUTLAND

REVISIONS	
DATE:	DESCRIPTION
5/23/13	REVISED FLAG C24, TEST PLOTS ADDED

SCALE: 1 INCH = 60 FEET

FEET 0 30 60 120 180

METERS 0 30 60

EXISTING CONDITIONS PLAN AT OVERLOOK AND JORDAN FARMS IN RUTLAND, MASSACHUSETTS

PREPARED FOR:
LIGHTHOUSE ENVIRONMENTAL MANAGEMENT, LLC
184 STONE STREET
CLINTON, MA 01510

Attachment C

Town of Rutland “Soil Project Expectations” letter (March 2013)

TOWN OF RUTLAND

MASSACHUSETTS

Office of the Board of Health
250 Main Street
Rutland, MA 01543
508-886-4102

**********REVISED**********

March 25, 2013

Kevin Gervais
Lighthouse Environmental Management, LLC
184 Stone Street
Clinton, MA 01510
CERTIFIED MAIL: 7003 3110 0001 9942 7070

Philip Guerin
City of Worcester, DPW, 18 East Worcester Street, Worcester, MA 01608
CERTIFIED MAIL: 7002 2030 0000 2950 2679

RE: Soil Re-use Overlook, Rutland, MA

At the Rutland Board of Health meeting on March 18, 2013, the Rutland Board of Health lifted the cease & desist order to suspend trucking of soils at Overlook, 29 Overlook Drive.

The following issues were discussed and expectations are as follows:

- **Sampling tests of soils** - frequency & cost will be determined between Worcester Department of Public Works and Lighthouse Environmental Management. A copy of the sample soil results will be sent to all interested parties.

- **Erosion Control Protocol** – more extensive erosion control plan will be agreed upon between Worcester Department of Public Works and Lighthouse Environmental Management.

- **Rutland Board of Health acting as negotiator –** The Board of Health will act as a negotiator regarding issues pertaining to the sampling of soils (number of soils taken and/or sample issue).

If you have any questions regarding these expectations, please contact the Board of Health at 508-886-4102. Thank you for your cooperation in this matter.

Sincerely,

Scott Gilroy
Chairman

cc: Charles R. Williams, Overlook, 35 Overlook Road, Rutland, MA 01543
Randy Jordan, 51 Muschopauge Road, Rutland, MA 01543
Lee Adams, DEP Regional Director, 627 Main Street, Worcester, MA 01608
Cheryl Poirier, DEP, 627 Main Street, Worcester, MA 01608
Gregory Root, DEP, 627 Main Street, Worcester, MA 01608
Richard Stromberg, EnviroTrac, 2 Merchant Street, Suite 2, Sharon, MA 02067
Kevin Scherer, City of Worcester, DPW, Moy Ranch Road, Route 31, Holden, MA 01520
Rutland Board of Selectmen
Rutland Department of Public Works
Rutland Conservation Commission

Attachment D

Project Storm Water Pollution Protection Plan (SWPPP) and EPA CGP/NOI

NPDES FORM 3510-9	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER AN NPDES GENERAL PERMIT	Form Approved. OMB Nos. 2040-0004

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section II of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section I of this form. Submission of this NOI also constitutes notice that the operator identified in Section II of this form meets the eligibility requirements of Parts 1.1 and 1.2 of the CGP for the project identified in Section III of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

I. Approval to Use Paper NOI Form

Have you been given approval from the Regional Office to use this paper NOI form*? ☐ Yes ☐ NO

If yes, provide the reason you need to use this paper form, the name of the EPA Regional Office staff person who approved your use of this form, and the date of approval:

Reason for using paper form:

Name of EPA staff person:

Date approval obtained:

*** Note: You are required to obtain approval from the applicable Regional Office prior to using this paper NOI form.**

II. Permit Information: Tracking Number (EPA Use Only) MAR12AK26

Permit Number: MAR120000 (see Appendix B of the CGP for the list of eligible permit numbers)

III. Operator Information

Name: Lighthouse Environmental Management LLC

Phone: (978)706-1782 Fax (Optional): (978)706-1784

Email: kevin@lighthousemgmt.com

IRS Employer Identification Number (EIN): 45-3734525

Point of Contact (First Name, Middle Initial, Last Name): Kevin F Gervais

Mailing Address:

Street: 184 Stone Street

City: Clinton State: MA Zip: 01510

NOI Preparer (Complete if NOI was prepared by someone other than the certifier):

Prepared by (First Name, Middle Initial, Last Name): Kevin F Gervais

Organization: Lighthouse Environmental Management LLC

Phone: (978)706-1782 Fax (Optional): (978)706-1784

E-mail: kevin@lighthousemgmt.com

IV. Project/Site Information

Project/Site Name: Overlook and Jordan Farms

Project/Site Address:

Street/Location: Overlook Road

City: Rutland State: MA Zip: 01543

County or similar government subdivision: Worcester

For the project/site for which you are seeking permit coverage, provide the following information:

Latitude/Longitude (Use one of three possible formats, and specify method)

Latitude	1. 42,23,48	N(degrees, minutes, seconds)	Longitude	1. 71,54,26	W(degrees, minutes, seconds)
	2. _____	N(degrees, minutes, decimal)		2. _____	W(degrees, minutes, decimal)
	3. _____	N(degrees, decimals)		3. _____	W(degrees, decimals)

Latitude/Longitude Data Source: ☐ U.S.G.S topographical map ☐ EPA Web Site ☐ GPS ☑ Other: Acme Mapper

If you used a U.S.G.S. topographic map, what was the scale?

Horizontal Reference Datum: ☐ NAD 27 ☐ NAD 83 or WGS 84 ☑ Unknown

Is your project/site located in Indian Country lands, or located on a property of religious or cultural significance to an Indian tribe? ☐ Yes ☑ No

If yes, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property:

Are you requesting coverage under this NOI as a "federal operator" as defined in Appendix A? ☐ Yes ☑ No

Estimated Project Start Date: 11/01/2012 Estimated Project Completion Date: 03/01/2016

Estimated Area to be Disturbed (to the nearest quarter acre): 125.0

Have earth-disturbing activities commenced on your project/site? ☑ Yes ☐ No

If yes, is your project an emergency-related project? ☐ Yes ☑ No

Have stormwater discharges from your project/site been covered previously under an NPDES permit? ☐ Yes ☑ No

If yes, provide the Tracking Number if you had coverage under EPA's CGP or the NPDES permit number if you had coverage under an EPA individual permit:

V. Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ☑ No

Are there any surface waters within 50 feet of your project's earth disturbances? ☐ Yes ☑ No

Receiving Waters and Wetlands Information: (Attach a separate list if necessary)

Surface water(s) to which discharge	Impaired Water	Listed Water Pollutant(s)	Tier 2, 2.5 or 3	Source	TMDL Name and Pollutant
Muschopauge Brook	No		Yes	Massachusetts DEP web site	

Describe the methods you used to complete the above table: Please refer to the Source(s) in the above table.

VI. Chemical Treatment Information

Will you use polymers, flocculants, or other treatment chemicals at your construction site? ☑ Yes ☐ No

If yes, will you use cationic treatment chemicals* at your construction site? ☐ Yes ☑ No

If yes, have you been authorized to use cationic treatment chemicals by your applicable EPA Regional Office in advance of filing your NOI*? ☐ Yes ☐ No

If you have been authorized to use cationic treatment chemicals by your applicable EPA Regional Office, attach a copy of your authorization letter and include documentation of the appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

Please indicate the treatment chemicals that you will use: Anionic polyacrylamide flocculants

* Note: You are ineligible for coverage under this permit unless you notify your applicable EPA Regional Office in advance and the EPA office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

VII. Stormwater Pollution Prevention Plan (SWPPP) Information

Has the SWPPP been prepared in advance of filing this NOI? ☑ Yes ☐ No

SWPPP Contact Information:

First Name, Middle Initial, Last Name: Kevin F Gervais

Organization: Lighthouse Environmental Management LLC

Phone: (978)706-1782 Fax (Optional): (978)706-1784

E-mail: kevin@lighthousemgmt.com

VIII. Endangered Species Protection

Using the instructions in Appendix D of the CGP, under which criterion listed in Appendix D are you eligible for coverage under this permit (only check 1 box)?

☑ A ☐ B ☐ C ☐ D ☐ E ☐ F

Provide a brief summary of the basis for criterion selection listed in Appendix D (e.g., communication with U.S. Fish and Wildlife Service or National Marine Fisheries Service, specific study):Publicly available information at the Massachusetts GIS web site using the OLIVER application

If you select criterion B, provide the Tracking Number from the other operator's notification of authorization under this permit:

If you select criterion C, you must attach a copy of your site map (see Part 7.2.6 of the permit), and you must answer the following questions:

What federally-listed species or federally-designated critical habitat are located in your "action area":

What is the distance between your site and the listed species or critical habitat (miles):

If you select criterion D, E, or F, attach copies of any letters or other communications between you and the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

IX. Historic Preservation

Are you installing any stormwater controls as described in Appendix E that require subsurface earth disturbance? (Appendix E, Step 1) ☑ Yes ☐ No

If yes, have prior surveys or evaluations conducted on the site have already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E, Step 2) ☑ Yes ☐ No

If no, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? (Appendix E, Step 3) ☐ Yes ☐ No

If no, did the SHPO, THPO, or other tribal representative (whichever applies) respond to you within the 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? (Appendix E, Step 4) ☐ Yes ☐ No

If yes, describe the nature of their response:

☐	Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions.
☐	No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls.
☐	Other: ____

X. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

First Name, Middle Initial, Last Name: Kevin F Gervais

Title: Project Manager

Signature: Date: Friday, May 10, 2013

E-mail: kevin@lighthousemgmt.com

Stormwater Pollution Prevention Plan (SWPPP)

For Construction Activities At:

Overlook and Jordan Farms
Overlook Road
Rutland, Massachusetts 01543

NPDES Permit Number: MAR12AK26

SWPPP Prepared For:

Kevin Gervais, Manager
Lighthouse Environmental Management, LLC
184 Stone Street
Clinton, MA 01510
Tel: 978-706-1782
Fax: 978-706-1784
kevin@lighthousemgmt.com

SWPPP Prepared By:

Thompson-Liston Associates, Inc.
Andrew B. Liston, PE, PLS, CPESC
51 Main Street, P.O. Box 570
Boylston, MA 01505
Tel: 508-869-6151
Fax: 508-869-6842
andrew.liston@tlainc.net

SWPPP Preparation Date:

May 7, 2013
Revised May 23, 2013

Estimated Project Dates:

Project Start Date: November 2012
Project Completion Date: March, 2016

Contents

SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 Operator(s) / Subcontractor(s)

Operator(s):

Lighthouse Environmental Management, LLC
Kevin Gervais, Manager
184 Stone Street
Clinton, MA 01510
Tel: 978-706-1782 Fax: 978-706-1784
kevin@lighthousemgmt.com

Subcontractor(s):

Company Name:
Contact Name:
Address:
City, State, Zip Code:
Telephone Number:
Fax/Email:
Area of control (if more than one operator at site):

Emergency 24-Hour Contact:

Lighthouse Environmental Management, LLC
Gary Salter, Inspector
Tel: (508)331-1884

1.2 Stormwater Team

Role or Responsibility: Operator
Position: Company Owner
Name: Kevin Gervais, Manager
Telephone Number: (508)835-5905
Email: kevin@lighthousemgmt.com

Role or Responsibility: SWPPP preparer
Position: PE, PLS and CPESC
Name: Andrew B. Liston
Telephone Number: (508)869-6151
Email: andrew.liston@tlainc.net

Role or Responsibility: Inspection
Position: Inspector
Name: Gary Salter
Telephone Number: (508)331-1884
Email: gary@dmarenvironmental.com

Role or Responsibility: Inspection
Position: Alternate Inspector
Name: Joseph Lamoreaux
Telephone Number: (978)833-3142
Email:

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1 *Project/Site Information*

Project Name and Address

Project/Site Name: Overlook and Jordan Farms
Project Street/Location: Overlook Road
City: Rutland
State: Massachusetts
ZIP Code: 01543
County or Similar Subdivision: Worcester County

Project Latitude/Longitude

(Use one of three possible formats, and specify method)

Latitude:	Longitude:
42° 23' 48" N (degrees/minutes/seconds)	71° 54' 26" W (degrees/minutes/seconds

Method for determining latitude/longitude:
☐ USGS topographic map (specify scale: _____) EPA Web site ☐ GPS
X Other (please specify): ACME MAPPER

Horizontal Reference Datum:
☐ NAD 27 NAD 83 or WGS 84 X Unknown or Assumed

If you used a U.S.G.S topographic map, what was the scale? _____

Additional Project Information

Is the project/site located on Indian country lands, or located on a property of religious or cultural significance to an Indian tribe? ☐ Yes ☒ No

If yes, provide the name of the Indian tribe associated with the area of Indian country (including the name of Indian reservation if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property:

If you are conducting earth-disturbing activities in response to a public emergency, document the cause of the public emergency *(e.g., natural disaster, extreme flooding conditions)*, information substantiating its occurrence *(e.g., state disaster declaration)*, and a description of the construction necessary to reestablish effective public services:

Are you applying for permit coverage as a "federal operator" as defined in Appendix A of the 2012 CGP? ☐ Yes ☒ No

2.2 *Discharge Information*

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ☒ No

Are there any surface waters that are located within 50 feet of your construction disturbances?
☐ Yes ☒ No

Table 1 – Names of Receiving Waters

Name(s) of the first surface water that receives stormwater directly from your site and/or from the MS4 (note: multiple rows provided where your site has more than one point of discharge that flows to different surface waters)
1. Muschopauge Brook flowing to Muschopauge Pond
2.
3.
4.
5.

[Include additional rows as necessary.]

Table 2 – Impaired Waters / TMDLs (Answer the following for each surface water listed in Table 1 above)

	Is this surface water listed as "impaired"?	If you answered yes, then answer the following:		
		What pollutant(s) are causing the impairment?	Has a TMDL been completed?	Title of the TMDL document
1.	☐ YES ☒ NO		☐ YES ☐ NO	
2.	☐ YES ☐ NO		☐ YES ☐ NO	
3.	☐ YES ☐ NO		☐ YES ☐ NO	
4.	☐ YES ☐ NO		☐ YES ☐ NO	
5.	☐ YES ☐ NO		☐ YES ☐ NO	
6.	☐ YES ☐ NO		☐ YES ☐ NO	

Describe the method(s) you used to determine whether or not your project/site discharges to an impaired water: I used a USGS map to determine that runoff from this site will eventually go to Lake Quinsigamond.

Table 3 – Tier 2, 2.5, or 3 Waters (Answer the following for each surface water listed in Table 1 above)

	Is this surface water designated as a Tier 2, Tier 2.5, or Tier 3 water? (see Appendix F)	If you answered yes, specify which Tier (2, 2.5, or 3) the surface water is designated as?
1.	☒ YES ☐ NO	Tier 2 according to 314CMR 4.00

2.3 Nature of the Construction Activity

General Description of Project

Provide a general description of the construction project:

The Overlook and Jordan Farms project is the proposed regrading of an approximate 125 acre site spanning the property lines of the two farms. The work area covers two farms to be cleared and re-graded for improved planting. No part of the construction will impact federally listed endangered species or critical habitat. No part of this construction will impact historic properties.

Size of Construction Project

What is the size of the property (in acres), the total area expected to be disturbed by the construction activities (in acres), and the maximum area expected to be disturbed at any one time?

There is no complete survey of the two farms, but the holdings are larger than the 125 acre work area.

Total site disturbance will be approximately 125 acres.

The maximum area that might be disturbed at any time is variable but the area being worked has stabilization continuing on a rolling basis. No erosion was seen in the most recent (05-03-13) site visit by employees of Thompson-Liston Associates, Inc.

Construction Support Activities (only provide if applicable)

Describe any construction support activities for the project (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas)

The scope and nature of the project is such that it will not include construction support activities. Fill materials are being delivered to and spread on the site in order to provide for a more efficient and usable farming area.

2.4 Sequence and Estimated Dates of Construction Activities

This project will be worked in one continuing phase. Importation of fill for farm land improvement began in December 2011 with the clearing of the trees and the stripping of surface layers of soil (loam) on this site and the clearing of the property and regrading to create temporary settling basins to ensure that stormwater runoff does not leave the site. Siltation control barriers have also been and will be installed at the work limits where stormwater runoff can flow off site. A portion of this part of the work has been previously completed at the time of the filing of the stormwater Notice of Intent.

A new site entrance mat will be installed and a new construction staging and equipment storage area created and protected against erosion by a line of staked straw bales and siltation fencing. Next, the amendments, repairs, and cleaning of the various existing erosion control measures will carried out. In additional areas, new erosion control measures will be installed.

Rough grading and earthwork operations have taken and will continue to take place accompanied by the installation of additional erosion control measures including straw bale diversion dikes. The sediment traps and, if necessary, a drainage systems will then be installed, where required. Additional protective measures will also be installed.

More exposed surface areas will be permanently stabilized in accordance with the plans. The expected completion of work is March 2016.

2.5 Allowable Non-Stormwater Discharges

List of Allowable Non-Stormwater Discharges Present at the Site

Type of Allowable Non-Stormwater Discharge	Likely to be Present at Your Site?
Discharges from emergency fire-fighting activities	☐ YES ☒ NO
Fire hydrant flushings	☐ YES ☒ NO
Landscape irrigation	☐ YES ☒ NO
Waters used to wash vehicles and equipment	☐ YES ☒ NO
Water used to control dust	☐ YES ☒ NO
Potable water including uncontaminated water line flushings	☐ YES ☒ NO
Routine external building wash down	☐ YES ☒ NO
Pavement wash waters	☐ YES ☒ NO
Uncontaminated air conditioning or compressor condensate	☐ YES ☒ NO
Uncontaminated, non-turbid discharges of ground water or spring water	☐ YES ☒ NO
Foundation or footing drains	☐ YES ☒ NO
Construction dewatering water	☐ YES ☒ NO

2.6 Site Maps

Site Maps are included in Appendix A of this SWPPP,

SECTION 3: DOCUMENTATION OF COMPLIANCE WITH OTHER FEDERAL REQUIREMENTS

3.1 Endangered Species Protection

Eligibility Criterion

Under which criterion listed in Appendix D are you eligible for coverage under this permit?

☒ **A** ☐ **B** ☐ **C** ☐ **D** ☐ **E**

For reference purposes, the eligibility criteria listed in Appendix D are as follows:

Criterion A.	No federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's "action area" as defined in Appendix A of this permit.

Criterion B.	The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your action area under eligibility Criterion A, C, D, E, or F and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the "action area". To certify your eligibility under this Criterion, there must be no lapse of NPDES permit coverage in the other operator's certification. By certifying eligibility under this Criterion, you agree to comply with any effluent limitations or conditions upon which the other operator's certification was based. You must include in your NOI the tracking number from the other operator's notification of authorization under this permit. If your certification is based on another operator's certification under Criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in Criterion C in your NOI form.
Criterion C.	Federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in or near your site's "action area," and your site's discharges and discharge-related activities are not likely to adversely affect listed threatened or endangered species or critical habitat. This determination may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to adversely affect listed species and critical habitat. To make this certification, you must include the following in your NOI: 1) any federally listed species and/or designated habitat located in your "action area"; and 2) the distance between your site and the listed species or designated critical habitat (in miles). You must also include a copy of your site map with your NOI.
Criterion D.	Coordination between you and the Services has been concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and must have resulted in a written concurrence from the relevant Service(s) that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.
Criterion E.	Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat. The result of this consultation must be either:
	i. a biological opinion that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modification of critical habitat; or
	ii. written concurrence from the applicable Service(s) with a finding that the site's discharges and discharge-related activities are not likely to adversely affect federally-listed species or federally-designated habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Criterion F.	Your construction activities are authorized through the issuance of a permit under section 10 of the ESA, and this authorization addresses the effects of the site's discharges and discharge-related activities on federally-listed species and federally-designated critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Supporting Documentation

Provide documentation for the applicable eligibility criterion you select in Appendix D, as follows:

For criterion A, indicate the basis for your determination that no federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's action area (as defined in Appendix A of the permit). Check the applicable source of information you relied upon:

- ☐ Specific communication with staff of the U.S. Fish & Wildlife Service or National Marine Fisheries Service.
- ☒ Publicly available species list -- At the Mass. GIS web site using the Oliver application.
- ☐ Other source:

For criterion B, provide the Tracking Number from the other operator's notification of permit authorization:

Provide a brief summary of the basis used by the other operator for selecting criterion A, B, C, D, E, or F:

For criterion C, provide the following information:

Also, provide a brief summary of the basis used for determining that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat:

For criterion D, E, or F, attach copies of any letters or other communication between you and the U.S. Fish & Wildlife Service or National Marine Fisheries Service concluding consultation or coordination activities.

3.2 *Historic Preservation*

Appendix E, Step 1

Do you plan on installing any of the following stormwater controls at your site? Check all that apply below, and proceed to Appendix E, Step 2.

- ☒ Dike
- ☒ Earthen Berm
- ☐ Catch Basin
- ☐ Pond
- ☒ Stormwater Conveyance Channel (e.g., ditch, trench, perimeter drain, swale, etc.)
- ☒ Culvert

☐ Other type of ground-disturbing stormwater control:

Appendix E, Step 2

If you answered yes in Step 1, have prior surveys or evaluations conducted on the site already determined that historic properties do not exist, or that prior disturbances at the site have precluded the existence of historic properties? ☒ YES ☐ NO

- If yes, no further documentation is required for Section 3.2 of the Template.
- If no, proceed to Appendix E, Step 3.

Appendix E, Step 3

If you answered no in Step 2, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? ☐ YES ☐ NO

If yes, provide documentation of the basis for your determination.

If no, proceed to Appendix E, Step 4.

Appendix E, Step 4

If you answered no in Step 3, did the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Office (THPO), or other tribal representative (whichever applies) respond to you within 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? ☐ YES ☐ NO

If no, no further documentation is required for Section 3.2 of the Template.

If yes, describe the nature of their response:

☐ Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions.

☐ No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls.

☐ Other:

3.3 Safe Drinking Water Act Underground Injection Control Requirements

Do you plan to install any of the following controls? Check all that apply below.

☐ Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

☐ Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow

☐ Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

SECTION 4: EROSION AND SEDIMENT CONTROLS

Along with a series of scheduled inspections, the operator will utilize a series of BMP's in order to limit erosion and control sediment which results from any erosion.

These will include site entrance mats, erosion control barriers, straw bale diversion dikes, temporary settling basins, flocculants and jute mesh receiving media, temporary and permanent slope stabilization and runoff diversion swales. These BMP's are described in greater detail on attachments included in this SWPPP.

4.1 Natural Buffers or Equivalent Sediment Controls

Buffer Compliance Alternatives

Are there any surface waters within 50 feet of your project's earth disturbances? ☐ YES ☒ NO

Check the compliance alternative that you have chosen:

- ☒ I will provide and maintain a 50-foot undisturbed natural buffer.
- ☐ I will provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by additional erosion and sediment controls, which in combination achieves the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.
- ☐ It is infeasible to provide and maintain an undisturbed natural buffer of any size, therefore I will implement erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.
- ☐ I qualify for one of the exceptions in Part 2.1.2.1.e. (If you have checked this box, provide information on the applicable buffer exception that applies, below.)

Buffer Exceptions

Which of the following exceptions to the buffer requirements applies to your site?

- ☐ There is no discharge of stormwater to the surface water that is located 50 feet from my construction disturbances.
- ☐ No natural buffer exists due to preexisting development disturbances that occurred prior to the initiation of planning for this project.
- ☐ For a "linear project" (defined in Appendix A), site constraints (e.g., limited right-of-way) make it infeasible for me to meet any of the CGP Part 2.1.2.1.a compliance alternatives.
- ☐ The project qualifies as "small residential lot" construction (defined in Part 2.1.2.1.e.iv and in Appendix A).

For Alternative 1 (see Appendix G, Part G.2.3.2.a):

For Alternative 2 (see Appendix G, Part G.2.3.2.b):

- ☐ Buffer disturbances are authorized under a CWA Section 404 permit.
- ☐ Buffer disturbances will occur for the construction of a water-dependent structure or water access area (e.g., pier, boat ramp, and trail).

4.2 Perimeter Controls

General

- Though other BMP's may be added as deemed necessary by the site contractor, the primary perimeter control will be a sedimentation control barrier as shown on attachments included in this SWPPP.

Specific Perimeter Controls

Sedimentation Control Barrier

Description

- Sedimentation control barriers will consist of a silt fence installed on stakes with the lower edge of the fencing keyed into the ground and backed by staked hay bales, the installation being as shown on attachments included in this SWPPP.

Installation

- Sedimentation control barriers were installed at the limit of work.

Maintenance Requirements

Maintenance of the sedimentation control barriers is to simply confirm that both elements, silt fence and staked hay bale are in place and have not deteriorated and that sediment deposited against the silt fence has not reached one-half the height of the silt fence. If so, sediment must be removed. If the condition of the silt fence or hay bales has deteriorated, that portion of the barrier over which they have must be replaced.

4.3 Sediment Track-Out

General

- The primary means by which the track out of sediment onto off site streets will be avoided will be through the use of site entrance mats during construction.

Specific Track-Out Controls

Site Entrance Mat

Description

- As shown on attachments included in this SWPPP, the site entrance mat will consist of a 6 inch layer of 1.5"--3.0" stone over a 6 inch thick layer of 3"--6" stone, the entire mat being 100 feet long and 26 feet wide at the site entrance.

Installation

- Exact dates of installation are not certain but a new site entrance mat will be installed before work resumes with site grading.

Maintenance Requirements

- Any sediment tracked out from the site shall be removed by the end of the same work day or by the end of the next work day if it occurred on a non-work day. The removal shall be by sweeping, shoveling, vacuuming the affected services or other efficient methods. Maintenance of the entrance mat itself shall consist of removing and replacing its stone if the voids between the stones are filled over one quarter of the mat's area.

4.4 Stockpiled Sediment or Soil

General

- Any stockpile created will be surrounded with silt fence or hay bales at least 10 feet from the base of the stockpile.

Specific Stockpile Controls

Silt fence

Description

- Silt fence will be installed, using Envirofence filter fabric attached to stakes 7.7 feet apart on center and with the bottom of the fencing keyed into a 6 inch x 6 inch trench on the stockpile side of the fence.

Installation

- The exact date if installation is uncertain but must be on the same day as a stockpile area is created.

Maintenance Requirements

- Silt fence installed around a stockpile must be inspected at the time of normal site inspections and must be replaced as necessary. Sediment deposited against the fence must be removed once it has reached half the height of the fence.

4.5 Minimize Dust

General

- Should dust become an issue, water will be sprayed to diminish airborne pollution.

Specific Dust Controls

Water spraying

Description

- Water will be sprayed from a truck if dust control requires.

Installation

- It is unlikely that dust control on this site will require water spraying and the timing of it will be determined by site conditions.

Maintenance Requirements

- The only maintenance requirement is for repeated applications where necessary, as determined by site conditions.

4.6 Minimize the Disturbance of Steep Slopes

General

- The creation of steep slopes on this site will be minimized and, in fact, nearly eliminated. That will be the primary means of minimizing the disturbance of such slopes during this project. Where such slopes occur, they will be treated with North American Green SC 150 erosion control blankets on slopes from 3:1 to 2:1, with C125 erosion control blankets where slopes are from 2:1

to 1.5:1 and with riprap for slopes steeper than that. Details of these applications are shown on attachments included in this SWPPP.

Specific Steep Slope Controls

North American Green SC150 Erosion Control Blanket
Description
- This is a double net straw-coconut blanket featuring a layer of 70% straw and 30% coconut fiber stitched with biodegradable thread between biodegradable natural fiber top and bottom nets and typically used on slopes 2:1 and flatter as shown on attachments included in this SWPPP.

Installation
- The date of installation is to be determined by the progress of site work.

Maintenance Requirements
- This erosion control blanket is expected to have a lifespan of 18 months before biodegrading. The only maintenance necessary is to ensure that it maintains contact with the underlying slope per the manufacturer's instructions.

Rip-rap slope stabilization
Description
- This is the application of 100 to 300 pound or larger stones placed over Mirafi 140N drainage fabric overlaying a 12 inch thick layer of gravel. The surface of the stones will be hand chinked to a nominally smooth finish through the placement of smaller pieces, as shown in the detail on attachments included in this SWPPP.

Installation
- The date of installation is to be determined by the progress of site work.

Maintenance Requirements
- The only maintenance is to move stones or install additional chinking as necessary in response to any slough or settling of the slope.

4.7 Topsoil

General
- Top soil will be imported at the conclusion of the general filling operation. Top soil will be laid to a depth of approximately 3 feet.

4.8 Soil Compaction

General
- In order to stabilize the site, loam will be spread over base imported material. The Owners will be planting farm grass or sowing the surface with rye as soon as is possible. These areas will be restricted from trucks passing over that location once it is stabilized

Specific Soil Compaction Controls
Description

- Vehicles will be restricted from passing over the location of the newly stabilized soils. The area will also be protected from stormwater runoff from exposed soil areas as these will inherently have a high amount of sediment which could disturb the stabilized areas.

Installation
- The exact date of the need to protect it from soil compaction is uncertain.

Maintenance Requirements
- The only maintenance requirement is to consistently protect against erosion.

4.9 Storm Drain Inlets

General
Catch basin or storm drain inlets are not and will not be present.

4.10 Constructed Stormwater Conveyance Channels

General
- No stormwater conveyance channels will be constructed for this project, only temporary runoff diversion swales.

4.11 Sediment Basins

General
- Though no specific locations for temporary settling basins are proposed as part of this design, it is mentioned as a BMP option for the contractor to utilize should the progress of work and weather conditions merit the installation of one. Many such basins are expected to be employed as work progresses. A temporary settling basin will be a created depression, that is typically of more than 10 feet in diameter and 2 feet in depth and have a stone overflow toward the discharge. Temporary settling basins will be used if a significant storm event is threatening so that runoff can be captured on site and pollutants allowed to settle out rather than simply flowing to perimeter barriers.

Specific sediment basins

Temporary settling basin
Description
- If a temporary settling basin is used on site it will be a created depression used to capture stormwater runoff from areas being worked at the time of an impending large rain event. The temporary settling basin will be more than a 10-foot diameter and more than 2 feet deep with an outlet directing any outflow toward other BMP's ensuring the best chance for removal of TSS and maintaining structural stability.

Installation
- These will be installed as necessary based upon site and weather conditions.

Maintenance Requirements
- Temporary settling basins must be cleaned out when deposited sediment within them has taken half of the original capacity of the basin.

4.12 Chemical Treatment

Soil Types

- The U.S.D.A Soil Survey of Worcester County, Northeastern Part, identifies soils on site as Paxton, Woodbridge-Paxton, and Peru-Marlow series soils categorized as hydrologic soil group "C" soils as well as Charlton-Chatfield series soils categorized as hydrologic soil group "B" soils.

Treatment Chemicals

List all treatment chemicals that will be used at the site and explain why these chemicals are suited to the soil characteristics: We may use anionic polyacrylamide blocks.

Describe the dosage of all treatment chemicals you will use at the site or the methodology you will use to determine dosage: A soil sample will be sent to Advanced Polymer Systems, Inc. in Georgia and that firm will determine the appropriate composition of flocculant blocks on a site with these soils.

Provide information from any applicable Material Safety Data Sheets (MSDS): Further data would have to be obtained from Advanced Polymer Systems, Inc.

Describe how each of the chemicals will be stored: The flocculant blocks will not be stored on site but immediately used upon their delivery. Temporarily, blocks may be stored in the construction trailer.

Include references to applicable state or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems: We are not aware of any restriction on the use of anionic flocculant blocks.

Special Controls for Cationic Treatment Chemicals (if applicable)

If you have been authorized by your applicable Regional Office to use cationic treatment chemicals, include the official EPA authorization letter or other communication, and identify the specific controls and implementation procedures you are required to implement to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards: We do not propose to use any cationic treatment chemicals.

Schematic Drawings of Stormwater Controls/Chemical Treatment Systems

Provide schematic drawings of any chemically-enhanced stormwater controls or chemical treatment systems to be used for application of treatment chemicals: We may not use any chemical treatments on site. If we do use anionic polyacrylamide, it will be to clean water discharged from a temporary settling basin. Pumped water will pass over two or more flocculant blocks and then over jute mesh netting so that particles that were in solution will attach to the jute mesh.

Training

Describe the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to the use of treatment chemicals: No special training is required for the use of anionic polyacrylamide blocks as would be supplied by Advanced Polymer Systems, Inc. or a similar product.

4.13 Dewatering Practices

General

- We do not expect to conduct any dewatering for this project.

4.14 Site Stabilization

Landscaping of areas on site
☒ *Vegetative* ☐ *Non-Vegetative*
☐ *Temporary* ☒ *Permanent*

Description
- Some exposed surfaces will be permanently stabilized with landscaping, mainly various types of grasses appropriate to agriculture.
- Plantings will commence within 14 days of the denoted areas being brought to grade and no longer within work areas for grading.

Installation
- The dates on which various landscaping elements will be installed are uncertain. The timing of installation is dependent on the completion of other preparatory work and on the season.
- The date of completion of installing landscaping is uncertain. Portions of the landscaping, such as the stabilization of slopes away from the grading area, may be completed earlier than in the other areas of grading.

Maintenance Requirements
- Maintenance requirements vary widely among the different plants and ground covers proposed. It will be the owner's responsibility to water, fertilize and maintain each particular planting as appropriate.

Site Stabilization Practice (only use this if you are <u>not</u> located in an arid, semi-arid, or drought-stricken area)
☐ *Vegetative* ☒ *Non-Vegetative*
☐ *Temporary* ☒ *Permanent*

Description
- Exposed surfaces with slopes greater than 2:1 will be permanently stabilized using riprap
- 100 to 300 pound riprap pieces will be set and chinked to a nominally smooth finish effectively preventing any erosion of the surface covered.
- A detail of proposed riprap installation is shown on attachments included in this SWPPP.

Installation
- It is not certain that riprap slope stabilization will be used on site and the timing of such installation cannot be determined at this time.
- The completion of the installation of riprap slope stabilization is therefore also uncertain.

Maintenance Requirements
- Maintenance of riprap slope stabilization typically consists of replacement of the small stone chinking in response to minor freeze thaw movement of stone. If larger movements or settling take place then heavy machinery must be used to regrade the slope and replace stone.

SECTION 5: POLLUTION PREVENTION STANDARDS

5.1 Potential Sources of Pollution

Construction Site Pollutants

Pollutant-Generating Activity	**Pollutants or Pollutant Constituents** (that could be discharged if exposed to stormwater)	**Location on Site** (or reference SWPPP site map where this is shown)
Waste disposal	Various debris pollutants, such as trash, and ruined sediment barrier fencing	Many areas of the site but especially near the construction trailer.

5.2 Spill Prevention and Response

Vehicles used on site will be fueled in a designated re-fueling location graded with spill berms to have capacity to contain a spill of even the entire fuel tank of any of the vehicles being used. Spills will be immediately reported to the operator and dealt with in accordance with state and local regulations.

5.3 Fueling and Maintenance of Equipment or Vehicles

General

- Vehicles will be refueled on site in a designated refueling area surrounded by spill berms to contain any spilled fuel. Construction personnel will be instructed in the use of a Spill Cleanup Kit and one will be kept on site at all times.

Specific Pollution Prevention Practices

Spill Berms
Description

- A refueling area surrounded by spill berms will be created near the construction trailer.
- A specific location is not indicated on the site plan but will be chosen to fit the ongoing construction.

Installation

- The designated refueling area will be created at the beginning of construction.

Maintenance Requirements

- The only maintenance requirements are to preserve the spill berms in good condition.

Spill Cleanup Kit
Description

- All construction personnel on site will be given instruction in the use of a spill cleanup kit and one will be maintained on site near the vehicle refueling area.
- A specific location is not for the vehicle refueling area is not indicated on the site plans but will be chosen to fit the ongoing construction.

Installation

- The cleanup kit will be on site when construction resumes.

Maintenance Requirements

- The only maintenance requirements are to replace the kit if it is used or in some way compromised in the course of construction.

5.4 Washing of Equipment and Vehicles

General

- There will be no washing of vehicles with soap or solvents on site. There may be plain water rinsing of construction vehicles if a water service has been installed.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Description

- Any vehicle washing will take place without the use of soap or solvents and will be done in a location such that direct runoff will be captured by either a temporary sediment basin or the drainage system.

Installation

- There will not be a designated location on site but washing will have to take place in a location that ensures that runoff is captured by either a sediment basin or the drainage system.

Maintenance Requirements

- There is no specific washing area to maintain.

5.5 Storage, Handling, and Disposal of Construction Products, Materials, and Wastes

5.5.1 Building Products

(Note: Examples include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures.)

General

- No building products will be used or stored on site.

5.5.2 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

General

- Various landscape materials containing pollutants that could be washed off with stormwater runoff will be stored under tarps before being used.

Specific Pollution Prevention Practices

Protection from rain using tarps

Description

- The size of areas to be landscaped are relatively small so no new free standing structures will be created for the temporary storage of pesticides, herbicides, insecticides, fertilizers and landscaping materials. They will be stored under tarps.

Installation

- The exact time of storage of landscaping products is uncertain.

Maintenance Requirements

- Maintenance requirements are to simply confirm the condition of tarps being used and replace them as necessary.

5.5.3 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

General

- The scope of the project is such that these fuels, oils and other chemicals may be stored on this site in a protected tank in the fueling area. Fuels are expected to be transported to the site as necessary by the site contractor.

5.5.4 Hazardous or Toxic Waste

(Note: Examples include paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids.)

General

- No such material will be used on site.

5.5.5 Construction and Domestic Waste

(Note: Examples include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.)

General

- No such materials will be used on site.

5.5.6 Sanitary Waste

General

- Portable toilets may be used on site.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Description

- Standard size portable toilets may be temporarily installed on site in a location where the ground is level to avoid tipping and where there is no danger of their being accidentally struck by construction vehicles.

Installation

- The date of portable toilets being installed on site is uncertain as it will depend upon the timing of work on site.

Maintenance Requirements

- Portable toilets shall be cleaned and removed in accordance with standard practice.

5.6 Washing of Applicators and Containers used for Paint, Concrete or Other Materials

General

- No washout areas are proposed on site.

5.7 Fertilizers

General

- Minimal fertilizer use is expected.

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Description

- The discharge of fertilizers containing nitrogen or phosphorus will be minimized through sparing application of fertilizers, through application at rates suggested by manufacturers, through application at the appropriate time of year for maximum uptake by proposed plantings and by avoiding application before forecast heavy rains.

Installation
- The date of use of fertilizers, if any, is uncertain.

Maintenance Requirements
- There are no specific maintenance requirements for the use of fertilzers.

5.8 Other Pollution Prevention Practices

General
- No other categories of pollution prevention practices are proposed for this project.

SECTION 6: INSPECTION AND CORRECTIVE ACTION

6.1 Inspection Personnel and Procedures

Personnel Responsible for Inspections

The following is a list of personnel who will be conducting site inspections:
Gary Salter, Inspector
Joseph Lamoreaux, Alternate Inspector
Kevin Gervais, Manager

Inspection Schedule

Specific Inspection Frequency
This site will be inspected on a bi-weekly schedule with additional inspections at the time of rainfalls of 0.25 inches or more.

Rain Gauge Location (if applicable)
The reference that will be used is the wunderground.com web site's station for the 01543 zip code.

Reductions in Inspection Frequency (if applicable)

- For the reduction in inspections in arid, semi-arid, or drought-stricken areas: This is not typically applicable in this location.

- For reduction in inspections due to frozen conditions: If extended frozen conditions are encountered, The inspector will submit an inspection form noting that an inspection was not conducted on the expected bi-weekly schedule due to such conditions.

Inspection Report Forms

Copies of blank Inspection form are included in Appendix D.

6.2 Corrective Action

Personnel Responsible for Corrective Actions

The owner/certifier and the site contractor are responsible for taking corrective actions required to prevent erosion, control sediment and prevent the discharge of pollutants from the site.

Corrective Action Forms

The corrective action form is found in Appendix E.

6.3 Delegation of Authority

The Delegation of Authority form is found in Appendix J of this SWPPP. The following is a list of individuals, or positions within the company who have been duly authorized to sign inspection reports:

Insert Company or Organization Name: Lighthouse Environmental Management, LLC
Insert Name: Gary Salter
Insert Position: Inspector
Insert Address: 184 Stone Street
Insert City, State, Zip Code: Clinton, MA 01510
Insert Telephone Number: (508)331-1884
Insert Fax/Email:

SECTION 7: TRAINING

Table 7-1: Documentation for Completion of Training

Name	Date Training Completed

SECTION 8: CERTIFICATION AND NOTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Kevin Gervais Title: Manager

Signature: _____ Date: _____

SWPPP APPENDICES

Appendix A – Site Maps

Appendix B – Copy of 2012 CGP

Appendix C – NOI and EPA Authorization Email

Appendix D – Inspection Form

Appendix E – Corrective Action Form

Appendix F – SWPPP Amendment Log

Appendix G – Subcontractor Certifications/Agreements

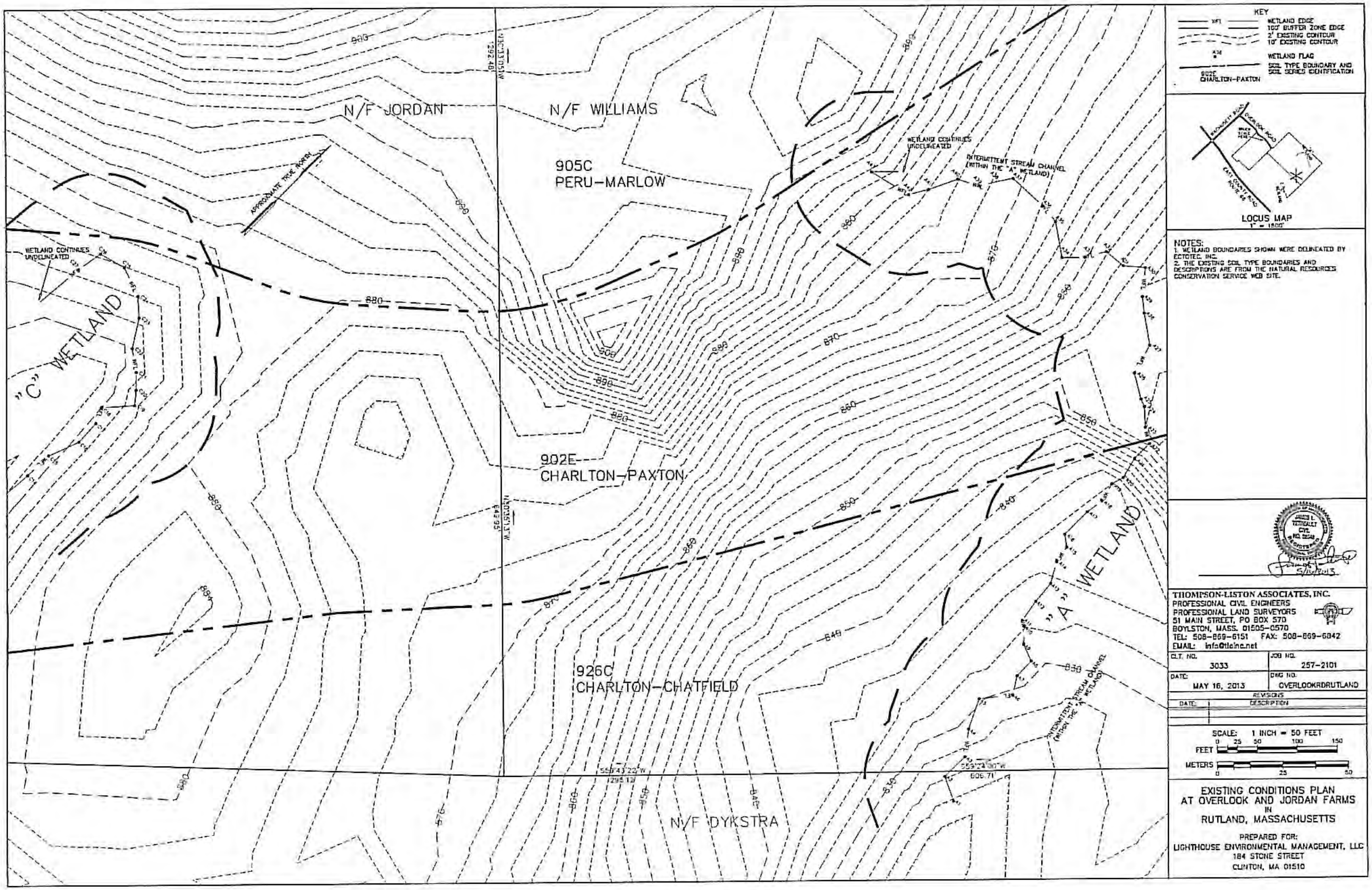
Appendix H – Grading and Stabilization Activities Log

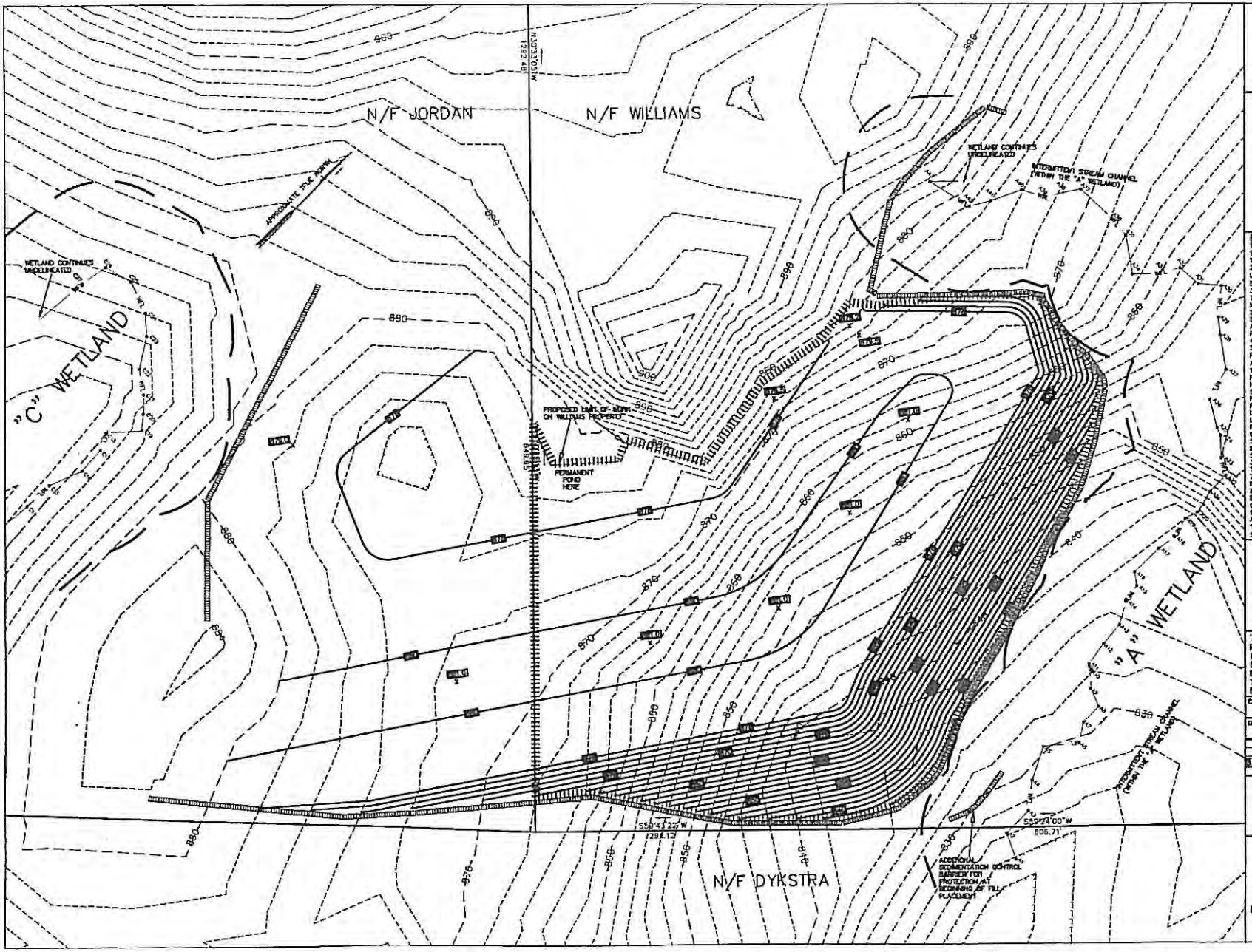
Appendix I – Training Log

Appendix J – Delegation of Authority

Appendix A – Site Maps

Site Plans of Overlook and Jordan Farms
Erosion Control Exhibit EX-A
Erosion Control Exhibit EX-B
Erosion Control Exhibit EX-C


KEY
WETLAND EDGE
100' BUFFER ZONE EDGE
2' EXISTING CONTOUR
10' EXISTING CONTOUR
WETLAND FLAG
SOIL TYPE BOUNDARY AND SOIL SERIES IDENTIFICATION
902E CHARLTON–PAXTON
LOCUS MAP
NOTES:
1. WETLAND BOUNDARIES SHOWN WERE DELINEATED BY ECTOTEC, INC.
2. THE EXISTING SOIL TYPE BOUNDARIES AND DESCRIPTIONS ARE FROM THE NATURAL RESOURCES CONSERVATION SERVICE WEB SITE.
THOMPSON-LISTON ASSOCIATES, INC.
PROFESSIONAL CIVIL ENGINEERS
PROFESSIONAL LAND SURVEYORS
51 MAIN STREET, PO BOX 570
BOYLSTON, MASS. 01505-0570
TEL: 508-869-6151 FAX: 508-869-6042
EMAIL: info@tlainc.net
CLT. NO. 3033
JOB NO. 257-2101
DATE: MAY 16, 2013
DWG NO. OVERLOOKRDRUTLAND
REVISIONS
DATE DESCRIPTION
SCALE: 1 INCH = 50 FEET
FEET 0 25 50 100 150
METERS 0 25 50
EXISTING CONDITIONS PLAN
AT OVERLOOK AND JORDAN FARMS
IN
RUTLAND, MASSACHUSETTS
PREPARED FOR:
LIGHTHOUSE ENVIRONMENTAL MANAGEMENT, LLC
184 STONE STREET
CLINTON, MA 01510
N/F JORDAN
N/F WILLIAMS
905C
PERU–MARLOW
902E
CHARLTON–PAXTON
926C
CHARLTON–CHATFIELD
N/F DYKSTRA
"C" WETLAND
"A" WETLAND
WETLAND CONTINUES UNDELINEATED
INTERMITTENT STREAM CHANNEL (WITHIN THE "A" WETLAND)
APPROXIMATE TRUE NORTH
N30°33'05"W 1292.48'
N30°35'13"W 643.95'
S55°43'22"W 1295.12'
S55°24'50"W 606.71'



KEY

WTL — WETLAND EDGE
100' BUFFER ZONE EDGE
5' EXISTING CONTOUR
10' EXISTING CONTOUR
PROPOSED CONTOUR
PROPOSED SPOT GRADE
PROPOSED SEDIMENTATION CONTROL BARRIER
WETLAND FLAG

LOCUS MAP
1" = 1500'

NOTES:
1. THE PROPOSED FILL AREA SHALL BE OUTSIDE OF THE 100 FOOT BUFFER ZONES OF BOTH THE "A" AND "C" WETLANDS.
2. THE PROPOSED 3:1 SLOPES SHALL BE STABILIZED USING LOAM AND STATE SLOPE SEED MIX (OR APPROVED EQUAL).
3. AT ALL TIMES, INCLUDING AT INTERMEDIATE STAGES, THE FILL SHALL BE PLACED SUCH THAT RUNOFF FROM NO MORE THAN HALF THE PLATEU CREATED FLOWS OVER THE SOUTH OR EAST FACING 3:1 SLOPE FACES BUT IS GRADED SUCH THAT HALF THE RUNOFF WILL FLOW NORTHERLY TO ANY TEMPORARY SETTLING BASIN OR THE PERMANENT POND/RD AREA AS SHOWN BY THE PROPOSED GRADING.
4. UNTIL THE FILLING IS COMPLETE AND THE AREA STABILIZED, THE TEMPORARY SETTLING BASIN OR PERMANENT POND SHALL BE CONFIGURED SUCH THAT ANY OUTFLOW DOES EASTERLY TOWARD THE "A" WETLANDS THROUGH A PREPARED CHANNEL HAVING A FLOW PATH AT LEAST 75 FEET LONG AND A GRADE OF NO MORE THAN 3%.
5. FLOW OUT OF THE TEMPORARY SETTLING BASIN OR PERMANENT POND SHALL PASS OVER AT LEAST 3 ANIONIC POLYACRYLAMIDE FLOCCULANT (BLOCKS AND THEN TWO LAYERS OF JUTE MESH BATTING FOR A DISTANCE OF AT LEAST 50 FEET IN ORDER TO CAPTURE FINES IN THE RUNOFF.
6. SEDIMENTATION CONTROL BARRIERS SHALL CONSIST OF SILT FENCE INSTALLED WITH THE EDGE PROPERLY KEYED INTO THE SOIL AND BACKED BY STAKED STRAW BALES. SEDIMENTATION BARRIERS INSTALLED AT THE TOE OF THE 3:1 SLOPES SHALL BE INSTALLED AT LEAST 8 FEET OFF THE TOE OF SLOPE.
7. WETLAND BOUNDARIES SHOWN WERE DELINEATED BY ECOTEC, INC.
8. EXISTING SOILS IN THE AREA OF FILL PLACEMENT ARE EXPECTED TO BE PERU-MARLOW, CHARLTON-PAXTON AND CHARLTON-CHATFIELD SERIES SOILS ACCORDING TO NRCS.
9. THE FINAL STABILIZATION OF THE TOP OF THE FILL AREA SHALL BE BY PLANTING OF CROPS ON 2 FEET OF TOPSOIL OVERLAYING 2 FEET OF GRANULAR FILL(FINE SANDY LOAM OR COARSER).

THOMPSON-LISTON ASSOCIATES, INC.
PROFESSIONAL CIVIL ENGINEERS
PROFESSIONAL LAND SURVEYORS
51 MAIN STREET, PO BOX 570
BOYLSTON, MASS. 01505-0570
TEL: 508-869-6131 FAX: 508-869-6042
EMAIL: info@tlainc.net

CLT. NO.	JOB NO.
3033	257-2101
DATE: MAY 10, 2013	DWG NO. OVERLOOKRUTLAND

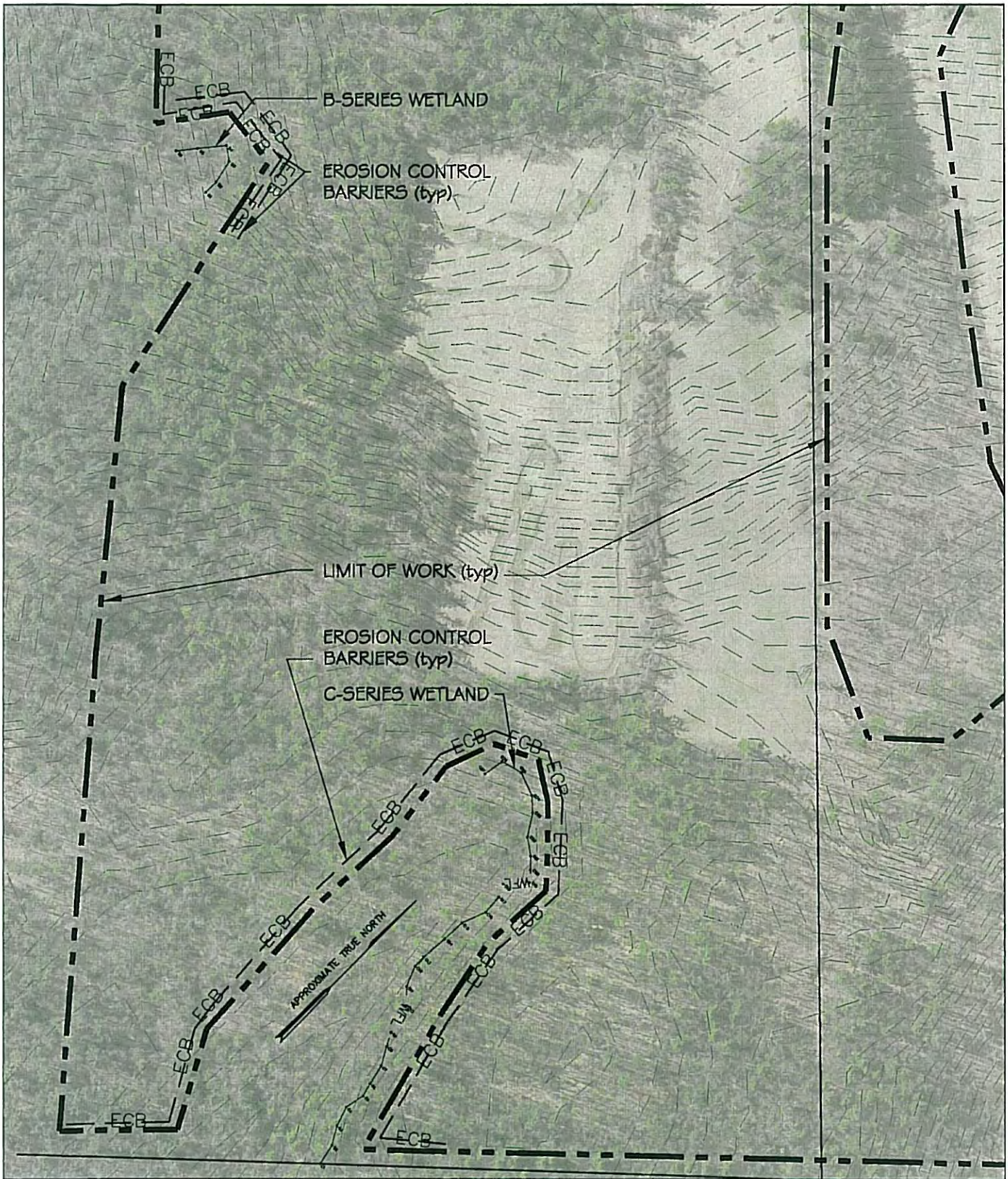
REVISIONS	
DATE:	DESCRIPTION
5/16/2013	SLOPE GRADE REVISED TO 3:1

SCALE: 1 INCH = 50 FEET
FEET 0 25 50 100 150
METERS 0 25 50

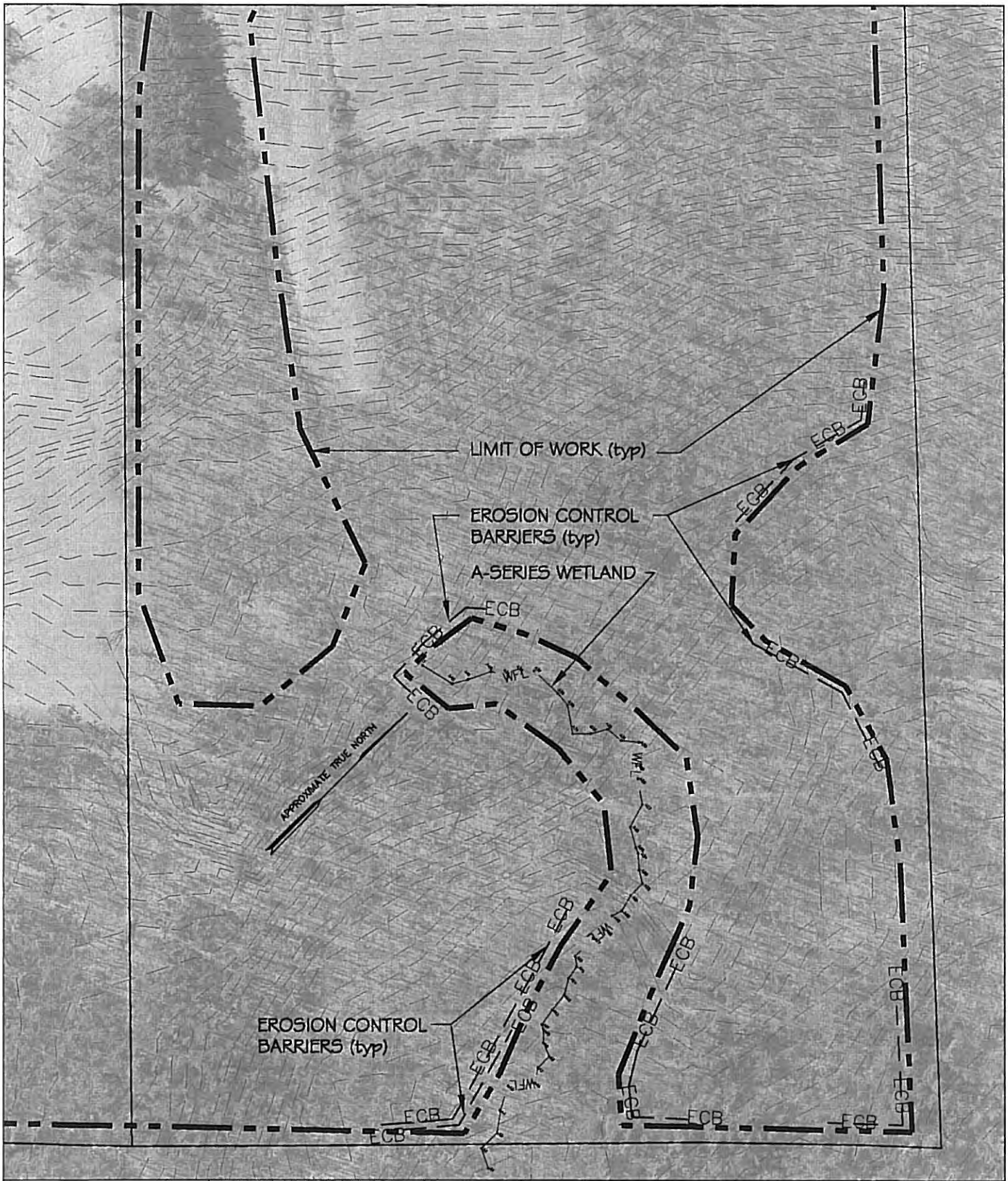
GRADING PLAN AT OVERLOOK AND JORDAN FARMS IN RUTLAND, MASSACHUSETTS

PREPARED FOR:
LIGHTHOUSE ENVIRONMENTAL MANAGEMENT, LLC
184 STONE STREET
CLINTON, MA 01810

257-2101 DATE: MAY 1, 2013 SCALE: 1"=200'	THOMPSON-LISTON ASSOCIATES, INC. *Professional Engineers Professional Land Surveyors* 51 Main Street, Post Office Box 570 Boylston, Massachusetts 01505-0570	EROSION CONTROL EXHIBIT LIGHTHOUSE ENVIRONMENTAL MANAGEMENT LLC 184 STONE STREET CLINTON, MASSACHUSETTS EX-A



257-2101 DATE: MAY 1, 2013 SCALE: 1"=200'	THOMPSON-LISTON ASSOCIATES, INC. *Professional Engineers Professional Land Surveyors* 51 Main Street, Post Office Box 570 Boylston, Massachusetts 01505-0570	EROSION CONTROL EXHIBIT LIGHTHOUSE ENVIRONMENTAL MANAGEMENT LLC 184 STONE STREET CLINTON, MASSACHUSETTS EX-B



257-2101 DATE: MAY 1, 2013 SCALE: 1"=200'	THOMPSON-LISTON ASSOCIATES, INC. *Professional Engineers Professional Land Surveyors* 51 Main Street, Post Office Box 570 Boylston, Massachusetts 01505-0570	EROSION CONTROL EXHIBIT LIGHTHOUSE ENVIRONMENTAL MANAGEMENT LLC 184 STONE STREET CLINTON, MASSACHUSETTS EX-C

Appendix B – Copy of 2012 CGP

The final 2012 CGP can be viewed at the below address:

http://www.epa.gov/npdes/pubs/cgp2012_finalpermit.pdf

Appendix C – Copy of NOI and EPA Authorization email

Andrew Liston

From: Kevin Gervais [kevin@lighthousemgmt.com]
Sent: Thursday, May 09, 2013 5:37 PM
To: Andrew Liston
Subject: Fwd: Construction General Permit NOI Certification Key (ACTION REQUIRED)
Attachments: Attachment - 1.pdf; Attachment - 2.pdf

---------- Forwarded message ----------
From: <noreply@epa.gov>
Date: Thu, May 9, 2013 at 2:02 PM
Subject: Construction General Permit NOI Certification Key (ACTION REQUIRED)
To: kevin@lighthousemgmt.com
Cc: cgp@epa.gov

Company: Lighthouse Environmental Management LLC
ATTN: Kevin Gervais
Overlook Road
Rutland MA 01543

Project/Site: Overlook and Jordan Farms
Overlook Road
Rutland MA 01543

Permit Tracking Number: MAR12AK26

You have been assigned as the certifying official for one or more 2012 Construction General Permit (CGP) Notices of Intent (NOI) for the project/site noted above.

To certify and complete submission of your CGP NOI to EPA:

1) Login to your Central Data Exchange (CDX) Account at https://cdx.epa.gov/. If you do not have a CDX account, you will need to register a CDX account to the email address designated for the certifying official on the prepared NOI application. You will need to make sure that the eNOI:CGP program has been added to the account.
2) On the MY CDX Page, select the "eNOI:CGP" link (listed under available account profiles).
3) Click the "Load Application" button (if necessary). Select the Construction General Permit NOI link.
4) Click "Add Certification Key" in the frame on the left side of the page.
5)Copy the alpha-numeric Certification Key from this email (see below) and
6) Click the Add button. A confirmation message should be displayed showing that you have successfully added a record to your account to certify.
7) Click the "Home" link in the frame on the left side of the page. Click the permit number on the home page that you wish to review and certify.
8) Review the information provided on the application and choose an appropriate action at the bottom of the page. You will have an option to Cancel (Postpone), Reject, or Submit to EPA (Certify). If you obtained regional approval, and mailed in a hard copy paper application for processing, please disregard this email.

Certification Key: e6ee3f4c-55c7-45f8-856c-b7b5b4a119d5

If you have any questions, please call the EPA NOI Processing Center at 1-866-352-7755 (toll free) or send an email to noi@avanticorporation.com.

EPA NOI Processing Center
Operated by Avanti Corporation
1200 Pennsylvania Ave., NW
Mail Code: 4203M
Washington, DC 20460

Company: Lighthouse Environmental Management LLC
ATTN: Kevin Gervais
Overlook Road
Rutland MA 01543

Project/Site: Overlook and Jordan Farms
Overlook Road
Rutland MA 01543

Permit Tracking Number: MAR12AK26

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Certification Key: e6ee3f4c-55c7-45f8-856c-b7b5b4a119d5

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1200 Pennsylvania Ave., NW
Mail Code: 4203M
Washington, DC 20460