EROSION AND SEDIMENT CONTROL PLAN

WIND COLEBROOK SOUTH

COLEBROOK, CONNECTICUT

Prepared for:

BNE Energy Inc.
Producer of green clean energy

BNE Energy
29 South Main Street
Town Center, Suite 200
West Hartford, CT 06107

by:

ZAPATA
TRUST • INTEGRITY • QUALITY

6302 Fairview Road, Suite 600
Charlotte, NC 28210

MARCH 2011

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29 South Main Street
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Phone (800) 450-0503

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APPENDICES

Section 1.0
PROJECT INTRODUCTION

1.0 PROJECT INTRODUCTION

Project/Site Information:

Project/Site Name: Wind Colebrook South

Location: 29 Flagg Hill Road
Colebrook, Connecticut

Latitude/Longitude:	Latitude:	Longitude:
	41° 57' 50" N	73° 08' 46" W

Method for determining latitude/longitude: Google Earth

1.1 SITE SUMMARY

1.1.1 Existing Conditions

Located at 29 Flagg Hill Road and consists approximately 79.74 acres and is undeveloped with the exception of the meteorological tower, which is approximately 180 feet in height. The Property is located along the Norfolk town line and approximately 600 feet from the Winsted/Winchester town line. Though the surrounding land uses are mixed, consisting of both commercial and residential development, the property is located in the R-2 residential zone. The Colebrook zoning regulations do not address wind turbine installations. The Property is abutted by the undeveloped land owned by the Nature Conservancy to the west, land owned by the Gun Club to the north and residential properties to the east and south. The site is currently accessed via Flagg Hill Road. This access point will be maintained throughout the construction process. Currently, there are no structural stormwater discharge points. All stormwater flows over land to discharge points off site.

1.1.2 Project Description

The developer plans to install three GE 1.6 MW wind turbines at the Property: one in the northwest corner of the Property, one in the northeast corner of the Property and one in the southern area of the Property where the meteorological tower is currently located. In addition to the three turbines, the project will include construction of temporary equipment lay-down areas for each turbine, crane assembly area, access road, permanent facility support building and associated ground equipment including an electrical collector yard and associated utility infrastructure so that the turbines can be interconnected to the electrical grid. Following completion of the project, all temporary structures will be removed and the site returned to pre-construction conditions.

1.1.3 Site Specific Concerns

The terrain and existing topography of the project site is such that during construction special care will be required to ensure that all BMPs remain intact and functioning.

1.1.4 Construction Schedule

Currently specific dates for construction have not been determined but anticipate construction to begin in spring 2011. Specific dates will be provided to the reviewing officials.

1.2 PROJECT OWNER AND OPERATOR

The project owner and operator, BNE Energy, will be the responsible entity for completing the project. The address and telephone is:

BNE Energy
29 South Main Street
Town Center Suite 200
West Hartford, CT 06107
(800) 450-0503

1.3 SOILS, SLOPES, VEGETATION, AND CURRENT DRAINAGE PATTERNS

1.3.1 Soil type(s)

Based upon a review of typical geologic conditions and the National Soil Cooperative Survey, the soils have been classified as (1) Bice- Millsite complex soils slopes 3 to 45 percent slopes – very rocky; (2) Westminster- Millsite- Rock Outcrop complex 3 to 15 percent slopes; (3) Bice fine sandy loams ranging from 3 to 15 percent slopes – very stony; (4) Schroon fine sandy loams ranging from 2 to 15 percent slopes - very stony; (5) Shelburne fine sandy loam, 8 to 35 percent slopes – extremely stony; (6)Ashfield fine sandy loam, 8 to 15 percent slpoes – very stony, (7) Wonsqueak mucky peat; and (8) Brayton-loonmeadow complex – extremely stony.

1.3.2 Slopes

The project site consists of varying slope conditions ranging from relatively flat conditions in the area of the meteorological tower to steep slopes along the eastern and western property boundary.

1.3.3 Drainage Patterns

Existing site topography is such that runoff migrates, typically via overland sheet flow, through the site to either the existing pond or to an existing ditch line along Flagg Hill Road. An unnamed perennial watercourse outlets from the pond in the vicinity of the southern Property boundary, flowing south.

1.3.4 Vegetation

The property is generally characterized by second growth and upland hardwood forest. Forested uplands in the eastern portion of the Property are dominated by deciduous pole timber (trees 4.0 to 11.9 inches diameter at breast height [DBH]) and small sawtimber size trees (12 to 15 inches DBH). While in the northwest and southwest corners of the property is characterized as red oak-northern hardwood forest.

1.4 SITE FEATURES AND SENSITIVE AREAS TO BE PROTECTED

1.4.1 Receiving Waters and TMDL Applicability

There are currently zero impaired waterways on the most current 303(d) listing of impaired waterways within the vicinity of the project site.

1.4.2 Wetlands

Within to the property boundary a wetland has been identified and delineated. Mitigation and impacts are discussed in the environmental assessment completed by VHB, Inc.

Section 2.0

CONSTRUCTION ACTIVITIES

2.0 CONSTRUCTION ACTIVITIES

2.1 DESCRIPTION OF CONSTRUCTION ACTIVITY

Prior to construction BNE will complete all pre-construction planning activities. BNE will continue to consult with municipalities, state agencies and federal agencies, as applicable, and will conduct site surveys to determine construction methodologies and procedures to minimize adverse effects to the environment and public.

Construction will typically consist of activities such as:

- Surveys to stake access roads and structural locations
- Wetland delineation
- Geotechnical investigations
- Establishment of construction staging area
- Installation of sediment and erosion control devices
- Excavation and installation of access roads
- Excavation and installation of lay-down and equipment assembly areas
- Excavation and installation of foundations and erection of new structures
- Installation of conductors
- Restoration of site, including re-establishment of vegetative areas

2.2 CONSTRUCTION SITE ESTIMATES

The following are estimates of the construction site:

Area to be disturbed: 14.17 acres
Total Project area: 80.0 acres
Percentage impervious area before construction: 0 %
Runoff coefficient before construction: 55
Percentage impervious area after construction: 2.7 %
Runoff coefficient after construction: 56
Summary of groundwater recharge: 0.018 AC-FT

Section 3.0
EROSION CONTROL BMP'S

3.0 BEST MANAGEMENT PRACTICES

Soil erosion and sediment controls are measures that are used to reduce the amount of soil particles that are carried from a land area and deposited in receiving waters. This section provides a general description of the most appropriate control measures proposed for the Project. The permittee's construction contractor(s) and their subcontractors will be responsible for amending the erosion and sediment controls in the SWPPP for their portion(s) of the project. Based on field conditions at the time of construction, the contractors or subcontractors may adjust the locations and types of BMPs so that erosion and sedimentation are controlled to the maximum extent practicable. However, in no case will modifications to the SWPPP result in any less stringent erosion and sedimentation control measures than specified herein.

3.1 STRUCTURAL CONTROL PRACTICES

Structural control practices divert flows from exposed soils, store water flow, or otherwise limit runoff from exposed areas of the site. Such practices may include silt fences, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, rock outlet protection (rip-rap), reinforced soil retaining systems, and temporary or permanent sediment basins. Some of these practices may be used as both temporary and permanent control measures. Structural control practices should be placed in upland areas to the degree practicable to prevent erosion and reduce sedimentation in lower elevation areas.

3.2 TEMPORARY EROSION CONTROL PRACTICES

Erosion and sediment control measures will be in place prior to the initiation of soil disturbing activities and will be maintained throughout construction. The contractor may need erosion control measures in other locations of the project as work progresses to keep sediment from leaving the construction site. These measures will be determined by the contractor in the field; if measures are changed in the field, the SWPPP must be modified accordingly. All temporary erosion controls will be removed after the protected area is finally stabilized. The minimum temporary erosion and sediment control practices that will be used for the Project are discussed in the following sections.

3.2.1 Sediment Fence (GSF)

Will retain sediment from small disturbed areas. Sediment fence will be placed along slopes as shown on construction details. The contractor will use his best judgment to install additional sediment fence as necessary to prevent loss of sediment. Refer to section 5-11 of 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

Maintenance: Inspect the silt fence at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. When used for dewatering operations, inspect frequently before, during and after pumping operations. Remove the sediment deposits, or if room allows, install a second silt fence up slope from the existing fence when deposits reach approximately one half the height of the existing fence. Replace or repair within 24 hours of an observed failure. Refer to Connecticut Guidelines for Soil Erosion and Sediment Control figure GF-5 for troubleshooting failures. Maintain silt fence until the contributing area is stabilized.

3.2.2 Hay Bale Barrier (HB)

Will retain sediment from small disturbed areas. Hay bales will be placed along slopes as shown on construction details. The contractor will use his best judgment to install additional hay bales as necessary to prevent loss of sediment. Refer to section 5-11 of 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

Maintenance: Inspect the hay bale barrier at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. When used for dewatering operations, inspect frequently before, during and after pumping operations. Remove the sediment deposits, or if room allows, install a secondary barrier up slope from the existing barrier when deposits reach approximately one half the height of the barrier. Replace or repair within 24 hours of an observed failure. Refer to Connecticut Guidelines for Soil Erosion and Sediment Control figure HB-5 for troubleshooting failures. Maintain hay bale barrier until the contributing area is stabilized.

3.2.3 Stone Check Dam (SCD)

Will be used to reduce velocity of concentrated flows, thus reducing erosion of the drainage way.

Maintenance: Inspect the stone check dam at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. Remove the sediment deposits when deposits reach approximately one half the height of the check dam. Replace or repair within 24 hours of an observed failure. Maintain until the contributing area is stabilized.

3.2.4 Temporary Pipe Slope Drain (TSD)

Will be used to carry water over excessive changes in grade. TSD's will convey concentrated stromwater runoff flows without causing erosion problems either on or at the toe of the slope.

Maintenance: Inspect the temporary pipe slope drain at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. Repair damage as necessary. Avoid the placement of any material on the top of the pipe and prevent vehicular traffic from crossing the slope drain.

3.2.5 Temporary Diversion (TD)

Will be used to divert sediment laden runoff from a disturbed area to a sediment trapping facility.

Maintenance: When the temporary diversion is located within close proximity to on going construction activities, inspect the diversion at the end of each work day and immediately repair damage caused by construction equipment. Otherwise, inspect the temporary diversion and associated measures at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. Repair within 24 hours of an observed failure.

3.2.6 Temporary Fill Berm (TFB)

Will be used to divert runoff from unprotected fill slopes during construction to a stabilized outlet or sediment trapping facility.

Maintenance: Inspect the temporary fill berm and associated controls at the end of each work day to ensure the criteria for installing the measures have been met. Determine if repair or modification is needed. This measure is temporary and under most situations will be covered the next work day. Maintenance requirements should be minimal. The contractor should avoid placing other material over the berm and construction traffic should not be allowed to cross.

3.2.7 Temporary Sediment Trap (TST)

Will be used to detain sediment laden runoff from small disturbed areas long enough to allow the majority of sediment to settle out.

Maintenance: Inspect the temporary sediment trap and associated controls at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. Check the outlet to verify that it is structurally sound and has not been damaged by erosion or construction equipment. The height of the stone outlet should be maintained at least 1 foot below the crest of the embankment. When sediment has accumulated more than one quarter of the minimum wet storage volume, dewater and remove sediment as necessary to restore the trap to its original dimensions.

3.2.8 Construction Entrance (CE)

Will be used to reduce tracking of sediment off site to paved areas.

Maintenance: Maintain the entrance in a condition which will prevent tracking and washing of sediment onto paved surfaces. Provide periodic top dressing with additional stone or additional length as required. Immediately remove all sediment spilled, dropped, washed or tracked onto paved surfaces.

3.2.9 Tree Protection (TP)

Will be used to ensure the survival of existing desirable trees for their effectiveness in soil erosion and sediment control during construction.

Maintenance: Inspect tree protection zones weekly during site construction for damage to the tree crown, trunk and root system. When trees have been damaged or the protection zone has been compromised, consult an arborist licensed in CT to determine how damage should be addressed.

3.2.10 Temporary Erosion Control Blankets (ECB)

Will be used to provide temporary surface protection to disturbed soils to absorb raindrop impact and to reduce sheet and rill erosion.

Maintenance: Inspect temporary erosion control blankets at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs. Repair any dislodged or failed blankets immediately.

3.3 SOIL STABILIZATION PRACTICES

Soil stabilization involves covering disturbed soils with grass, mulch, straw, geotextiles, trees, vines, or shrubs. Stabilization practices for exposed disturbed soils are extremely important while

conducting construction activities. Vegetative cover serves to reduce the erosion potential by absorbing the energy of raindrops, promoting infiltration in lieu of runoff, and reducing the velocity of runoff. Stabilization measures shall be initiated as soon as practicable, but no more than 14 days after construction activities have temporarily or permanently ceased on any portion of the site.

3.4 MAINTENANCE AND INSPECTIONS

All erosion and sediment control devices shall be installed pursuant to the specifications in the construction details. They will be maintained so that they remain effective at all times.

Erosion and sediment control devices will be inspected by qualified personnel at least once every seven calendar days or at least once every 14 calendar days and within 24 hours of each 0.5-inch or greater rainfall event. During each inspection, the construction inspector will complete the Inspection and Maintenance Report Form located in the appendix. This form will be copied and used as necessary. Ineffective temporary erosion control measures will be repaired or replaced before the next storm event or as soon as practicable. The permittee will immediately install additional temporary erosion control devices in any area deemed in need of protection.

Following temporary or final stabilization, inspections must be conducted at least once a month. If construction has been halted due to frozen conditions, regular inspections are not mandatory until one month before the expected thaw. If vegetation establishment is not satisfactory, special steps to correct the problem will be implemented such as over seeding, mulching, sodding, or the use of erosion control blankets. Once a definable area of the construction site has been finally stabilized, no further inspection requirements apply to that area.

3.5 FINAL STABILIZATION

3.5.1 Seeding

The contractor will be responsible for labor, materials, tools, equipment, and other related items required for preparing ground, providing for sowing of seeds, fertilizing, mulching and top dressing, and other management practices required for erosion control and to achieve final stabilization. It will be the contractor's responsibility to make sure that the soil seedbed is not blown, washed, or otherwise removed from the site. The contractor will make repairs (including replacement of lost topsoil and mulch) to the seedbed preparation site in the event of heavy rain, wind, or other natural events that cause damage. When practicable, native plant species should be used for landscaping.

3.5.2 Fertilizer

Soil in areas of disturbance may need supplementation from fertilizer. Soil tests may be necessary to determine the most appropriate fertilizer for each location. Once applied, the fertilizer will be worked into the soil to limit exposure to stromwater. Fertilizer spills will be cleaned up immediately and will not be applied along or in a waterway.

3.5.3 Mulching

Mulching will be used in conjunction with both temporary and permanent seeding practices to enhance success by providing erosion protection prior to the onset of vegetative growth. Mulches enhance plant establishment by moderating soil temperatures and conserving moisture. After

seeding, straw or hay mulch will be applied at a rate of two to three tons per acre on the disturbed areas. Other forms of mulch will be applied at a rate designated by the Project Engineer. Mulch will not be applied in wetlands, on lawns, and areas where hydro-mulch is used. Mulch will be anchored immediately after placement on steep slopes and stream banks. Mulch will be held in place by a very thin covering of topsoil, small brush, pins, stakes, wire mesh, asphalt binder, or other adhesive material approved by the project engineer.

3.5.4 Topsoiling

Topsoil should be applied in areas where the subsoil or existing surface soil does not provide an adequate growth medium for the desired vegetation, where soil is too shallow to provide adequate rooting depth, or where the soil contains substances toxic to the desired vegetation. Topsoil shall be reasonably free from subsoil and stumps, roots, brush, stones, and clay lumps or similar objects.

3.5.5 Temporary Control Removal

Temporary erosion controls will be left in place until the Project site is stabilized with a uniform vegetative cover of 70 percent density of the native background vegetative cover on all unpaved areas. Following re-vegetation, the permittee will conduct periodic site visits to make sure that vegetation establishment is satisfactory. If sufficient vegetative cover has not been achieved, additional restoration measures will be implemented. Inspection results will be documented using the Inspection and Maintenance Report Form found in the appendix. All temporary soil erosion and sediment control measures will be removed and disposed of after final site stabilization is achieved and before submitting the NOT.

Section 4.0
EROSION CONTROL PLAN APPENDICES

4.0 APPENDICES

Appendix A – Maps and Drawings

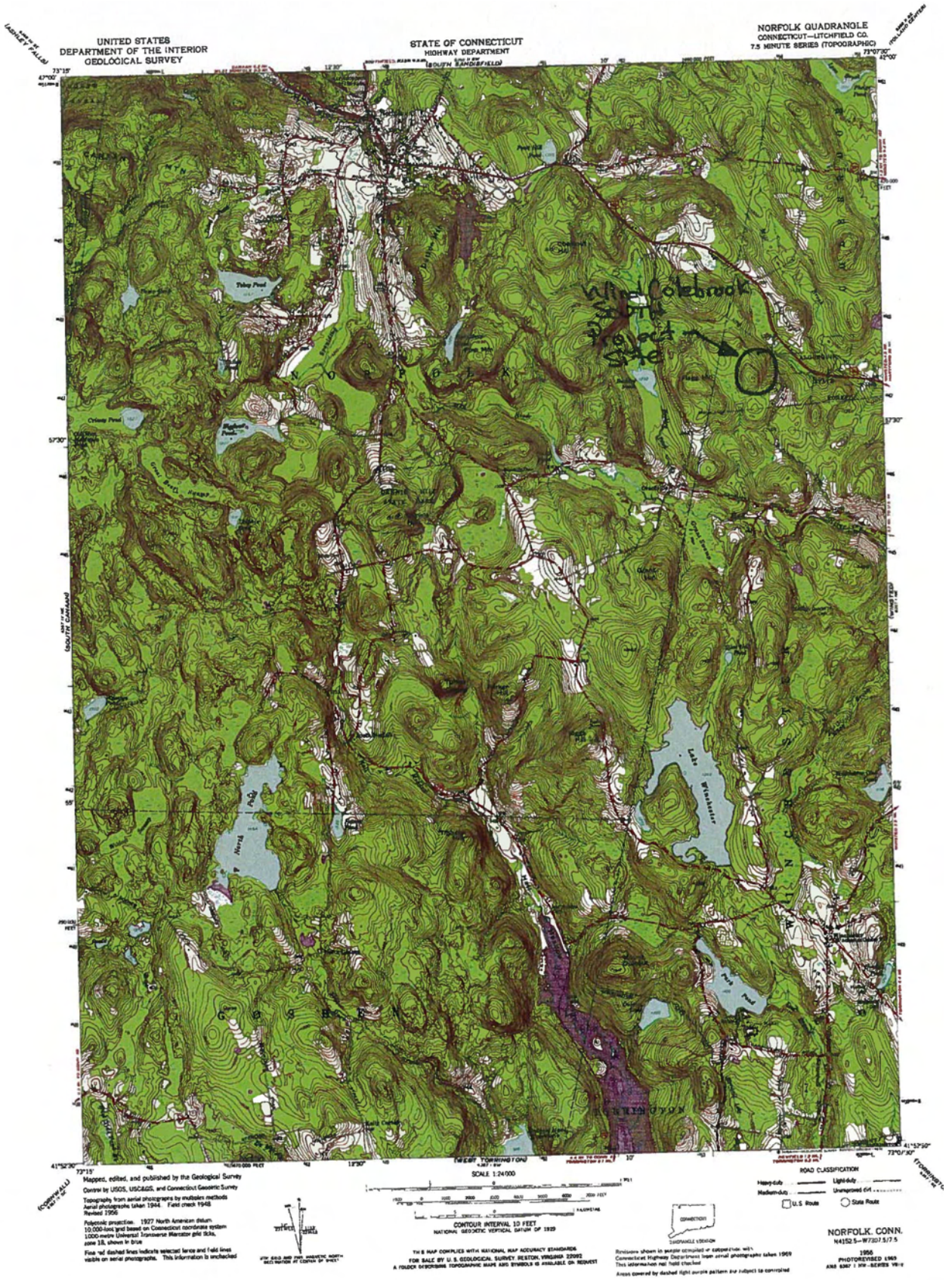
- Site Maps
- Site Plans

Appendix B – Inspection and Maintenance Records

- Inspection & Maintenance Log
- Inspection Report
- Maintenance Report

Appendix C – Calculations and Supporting Documentation

APPENDIX A
MAPS AND DRAWINGS


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
STATE OF CONNECTICUT
HIGHWAY DEPARTMENT
NORFOLK QUADRANGLE
CONNECTICUT—LITCHFIELD CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
Wind Colebrook South
Project Site
SCALE 1:24000
CONTOUR INTERVAL 10 FEET
NORFOLK, CONN.
1956
PHOTOREVISED 1969

Latitude and Longitude

Applicant Name:
(as indicated on the *Permit Application Transmittal Form*)

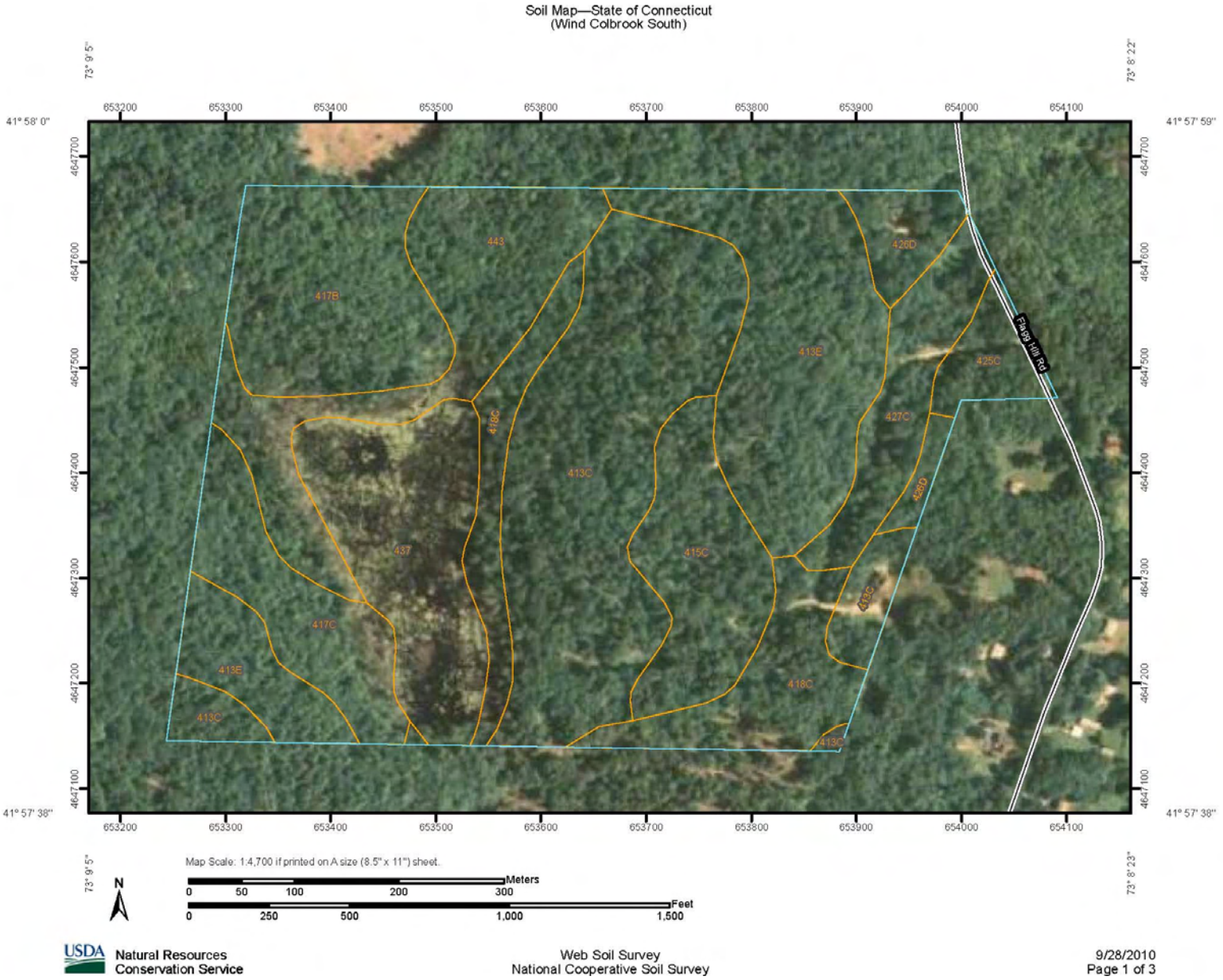
Method of latitude and longitude determination (check one):

☐ Global Positioning System (GPS) ☐ USGS Map ☒ Other (please specify)

In the table below, label each point for which latitude and longitude were measured, being consistent with identification numbers assigned throughout the application (e.g., 100, 101, etc.). For renewals or modifications of existing permits, please provide the existing permit number. Also provide: a brief description of the point (e.g., monitoring well, pipe outlet, air stack, etc.); latitude and longitude in degrees, minutes and seconds (e.g., 41E 16' 29"); and the name of the USGS quadrangle map(s) the points described are located on.

ID Number	Permit Number	Description	Latitude	Longitude	Quad Map Name	For DEP Use Only: GIS ID
1		Property Centerpoint	41°57'50"N	73°08'46"W		

DEP-APP-003 1 of 1 Rev. 12/10/99


Soil Map—State of Connecticut
(Wind Colbrook South)
73° 9' 5"
73° 8' 22"
41° 58' 0"
41° 57' 59"
41° 57' 38"
73° 8' 23"
653200
653300
653400
653500
653600
653700
653800
653900
654000
654100
4647700
4647600
4647500
4647400
4647300
4647200
4647100
443
426D
417B
413E
425C
427C
418C
413C
425D
437
415C
417C
413E
413C
418C
413C
Fishing Hill Rd
Map Scale: 1:4,700 if printed on A size (8.5" x 11") sheet.
N
Meters
0 50 100 200 300
Feet
0 250 500 1,000 1,500
USDA Natural Resources Conservation Service
Web Soil Survey
National Cooperative Soil Survey
9/28/2010
Page 1 of 3

Soil Map–State of Connecticut
(Wind Colbrook South)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Oceans
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:4,700 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 18N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 7, Dec 3, 2009

Date(s) aerial images were photographed: 8/14/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

State of Connecticut (CT600)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
413C	Bice-Millsite complex, 3 to 15 percent slopes, very rocky	20.1	22.0%
413E	Bice-Millsite complex, 15 to 45 percent slopes, very rocky	14.5	15.8%
415C	Westminster-Millsite-Rock outcrop complex, 3 to 15 percent slopes	6.4	7.0%
417B	Bice fine sandy loam, 3 to 8 percent slopes, very stony	8.9	9.7%
417C	Bice fine sandy loam, 8 to 15 percent slopes, very stony	5.5	6.0%
418C	Schroon fine sandy loam, 2 to 15 percent slopes, very stony	8.3	9.0%
425C	Shelburne fine sandy loam, 8 to 15 percent slopes, very stony	2.0	2.2%
426D	Shelburne fine sandy loam, 15 to 35 percent slopes, extremely stony	2.6	2.9%
427C	Ashfield fine sandy loam, 8 to 15 percent slopes, very stony	4.6	5.0%
437	Wonsqueak mucky peat	9.1	9.9%
443	Brayton-Loonmeadow complex, extremely stony	9.5	10.4%
Totals for Area of Interest		**91.8**	**100.0%**

CONSTRUCTION SCHEDULE:

1. INSTALL SILT FENCE, INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
2. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
3. APPLY SEEDING, TEMPORARY OR PERMANENT, OR OTHER TYPES OF STABILIZATION AS REQUIRED AS SOON AS GRADED AREAS ARE COMPLETE OR WHERE WORK STOPS.
4. COMPLETE FINE GRADING.
5. PREPARE ALL DISTURBED AREAS FOR SEEDING AND GROUND COVER.
6. APPLY PERMANENT SEEDING AND GROUND COVER.
7. AFTER SITE IS STABILIZED AND APPROVALS RECEIVED, ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE REMOVED AND THOSE DISTURBED AREAS SHALL BE SEEDED.
8. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURE.
9. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
10. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED.

MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
3. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
4. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS ACTIVITY IN THAT PORTION OF THE SITE WILL RESUME WITHIN 21 DAYS.
5. ALL SEEDED AREAS SHALL BE FERTILIZED, RE-SEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATION TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

TREE PROTECTION NOTES:

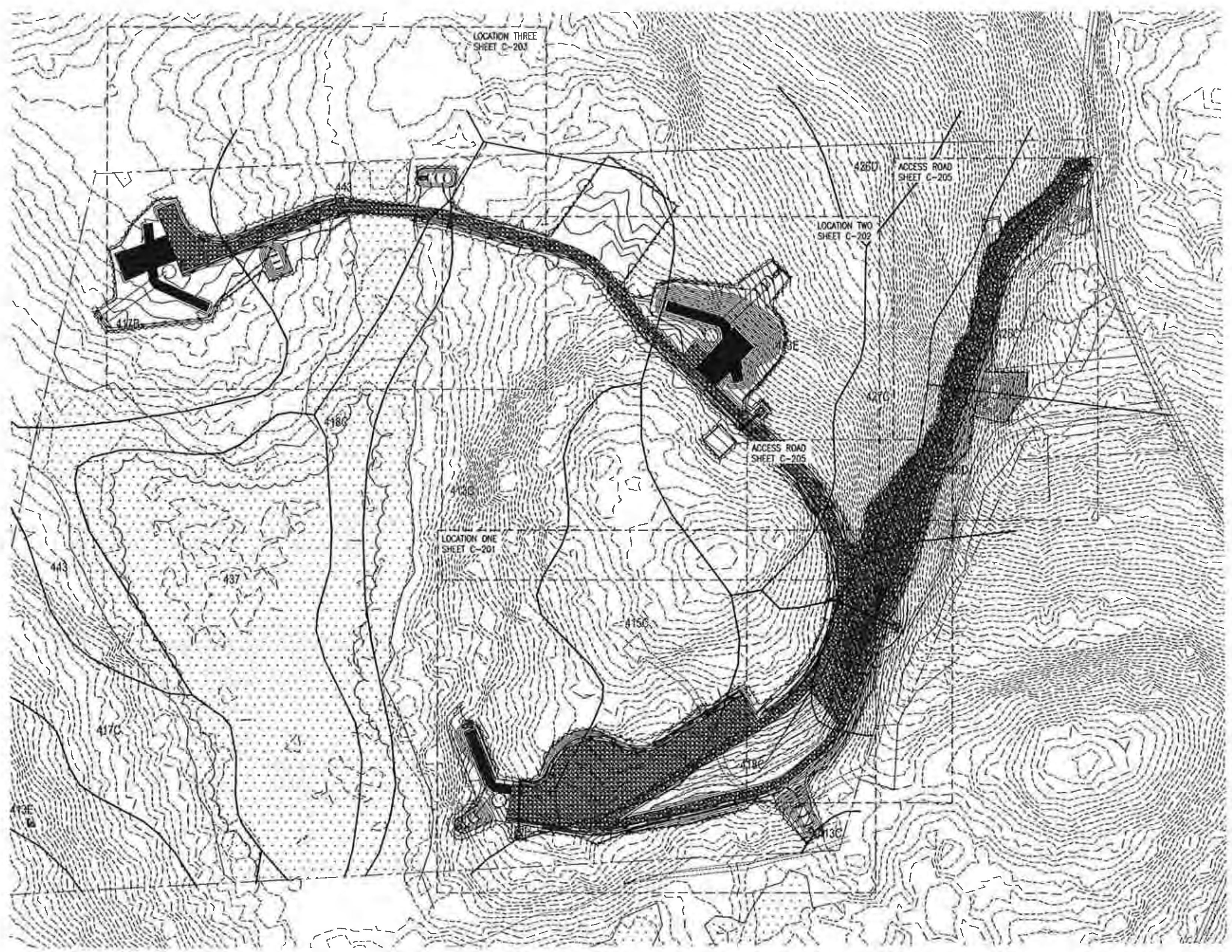
1. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, CLEARING, GRADING, OR CONSTRUCTION, AND NOT REMOVED UNTIL AFTER FINAL INSPECTION BY URBAN FORESTRY STAFF.
2. NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, BURIAL PITS, TRENCHING OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN TREE PROTECTION AREAS, EXCEPT AS SHOWN ON APPROVED PLANS.
3. VIOLATIONS OF TREE PROTECTION REQUIREMENTS ARE SUBJECT TO FINES, AND/OR IMMEDIATE CORRECTIVE ACTION/MITIGATION.
4. NO GRUBBING WITHIN TREE PROTECTION ZONE. LEAVE SPOIL AND LEAF LITTER UNDISTURBED. SUPPLEMENT WITH 1"-2" OF MULCH. RE-SEED WITH GRASS ONLY IN DISTURBED/GRADED AREAS.
5. BRUSH VINES, AND SMALL TREES (8" DIAMETER, OR AS SMALL AS 2" CALIPER) MAY BE HAND CLEARED ONLY AND CUT FLUSH WITH GROUND SURFACE. EXISTING TREES MAY BE LIMBED UP 6'-0" (LEAVING AT LEAST 2/3 OF THE BRANCHES TO IMPROVE VISIBILITY).
6. EXPOSED TREE ROOTS MUST BE CLEANLY CUT WITH A SHARP PRUNING TOOL; BACKFILL AS SOON AS POSSIBLE TO MINIMIZE EXPOSURE TO THE AIR.
7. TREE PROTECTION FENCE IS TO BE LOCATED 1 FOOT PER TREE DIAMETER INCH AWAY FROM THE TREE IN THE SETBACK.

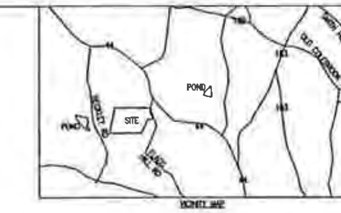
EROSION CONTROL NOTES:

1. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE.
2. MAXIMUM GRADED SLOPES ARE 2:1. WHEN STEEPER SLOPES MUST BE USED PLANS MUST BE SEALED BY A GEO-TECHNICAL ENGINEER FOR SLOPE STABILITY AND FINAL SURFACE STABILIZATION.
3. DE-WATERING OF SITE DIRECTLY INTO STREAM, WETLAND OR CREEK IS PROHIBITED.

GENERAL CONSTRUCTION NOTES:

1. ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISH GRADES.
2. CONTRACTOR SHALL BLEND SMOOTHLY NEW GRADING TO EXISTING GRADE.
3. CONTRACTOR SHALL IMMEDIATELY NOTIFY OWNER OR ENGINEER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTIONS BEFORE PROCEEDING.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.
5. CONTRACTOR SHALL WORK WITH CAUTION DURING EARTHWORK ACTIVITIES NEAR EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE AGENCY FOR FIELD LOCATIONS OF ALL UNDERGROUND UTILITIES BEFORE STARTING CONSTRUCTION.





LEGEND

Symbol	Description
84C / 84B	SOIL TYPE BOUNDARY
TD> TD>	TEMPORARY DIVERSION DITCH
S F	SILT FENCE
TP TP	TREE PROTECTION FENCE
HB	STRAW HAY BALES
	CULVERT PIPE/SLOPE DRAIN
	WETLAND LIMITS
	STONE CHECK DAM
FLOW	FLOW ARROW
TS	TEMPORARY SEEDING
TST	TEMPORARY SEDIMENT TRAP
PS	PERMANENT SEEDING
	CATCH BASIN
	COMPACTED EARTH
	GRAVEL

Map Unit Legend

413C	[illegible] rocky	20.1	22.0%
413E	Bice-Millsite complex, 15 to 45 percent slopes, very rocky	[illegible]	[illegible]
415C	Westminster-Millsite-Rock outcrop complex, 3 to 15 percent slopes	[illegible]	7.0%
417B	Bice fine sandy loam, 3 to 8 percent slopes, very stony	[illegible]	[illegible]
417C	Bice fine sandy loam, 8 to 15 percent slopes, very stony	[illegible]	[illegible]
418C	Schroon fine sandy loam, 2 to 15 percent slopes, very stony	[illegible]	9.0%
425C	Shelburne fine sandy loam, 8 to 15 percent slopes, very stony	[illegible]	2.2%
426D	Shelburne fine sandy loam, 15 to 35 percent slopes, extremely stony	[illegible]	[illegible]
[illegible]	Ashfield fine sandy loam, 8 to 15 percent slopes, very stony	[illegible]	5.0%
437	[illegible]	[illegible]	[illegible]
443	[illegible]	[illegible]	[illegible]
Totals for Area of Impact		[illegible]	[illegible]

AREA TO BE CLEARED: 622711 SQ FT / 14.30 ACRES
AREA WITHIN 100' WETLAND BUFFER: XXX SQ FT / XXX ACRES
DIRECT WETLAND IMPACT NOT TO EXCEED 4722 SQ. FT.

N

0 150 300

MARK	DESCRIPTION	DATE	APPR.
2	INCORPORATED REQUESTED REVISIONS	03-14-11	MLC
1	CONNECTICUT SITING COUNCIL SUBMISSION	11-19-10	TLK

NOT FOR CONSTRUCTION - CONNECTICUT SITING COUNCIL USE ONLY

DESIGNED BY: RSS | DATE: 03-14-11
DWN BY: RSW | CKD BY: TLK
SUBMITTED BY: BNE ENERGY
PLOT SCALE: AS SHOWN | PLOT DATE: 03-14-11 | FILE NUMBER: 1355
SIZE: ANSI D | FILE NAME: [illegible]

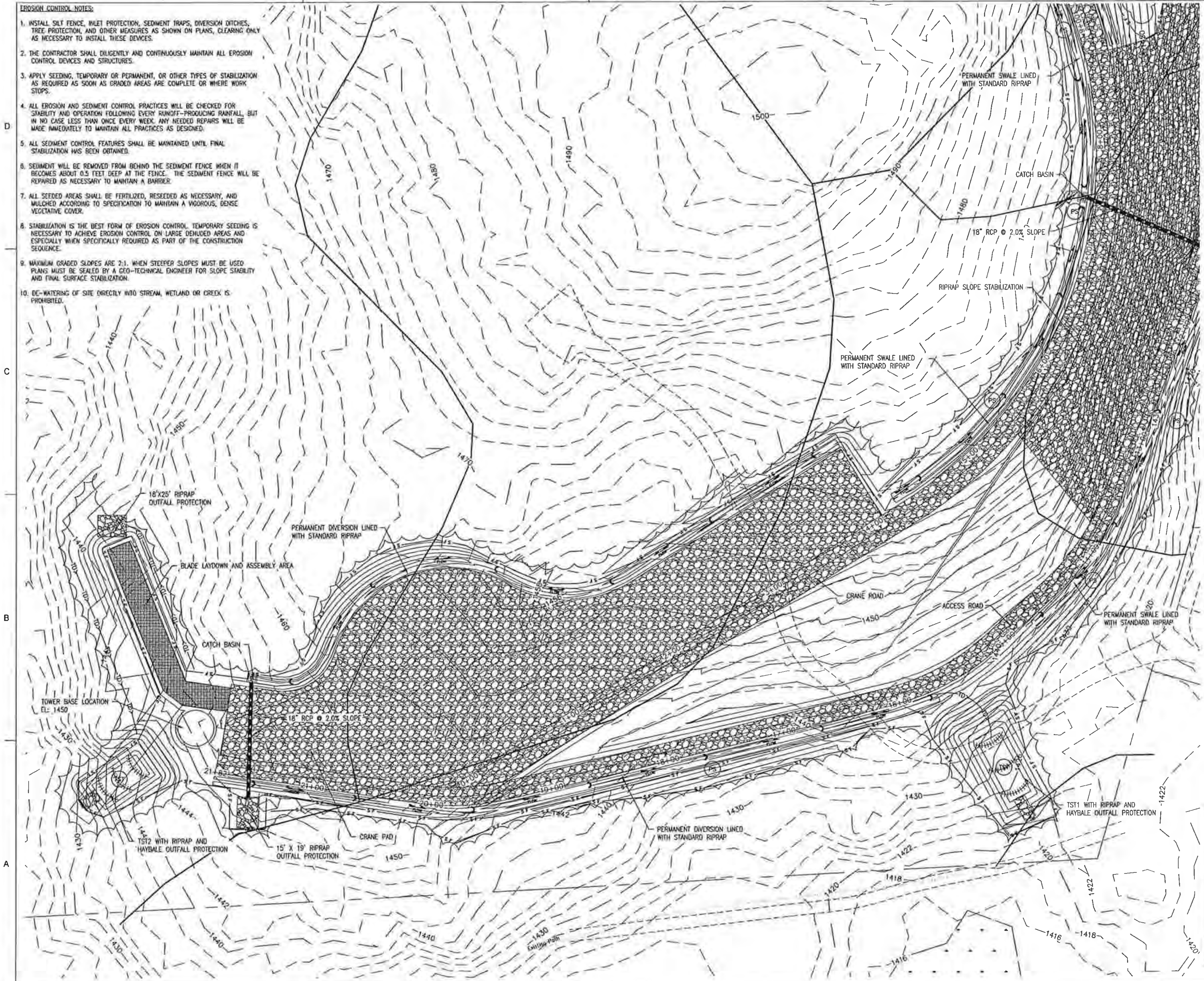
WIND COLEBROOK SOUTH
CONNECTICUT

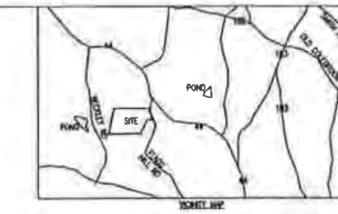
OVERALL EROSION CONTROL PLAN

SHEET IDENTIFICATION
C-200

EROSION CONTROL NOTES:

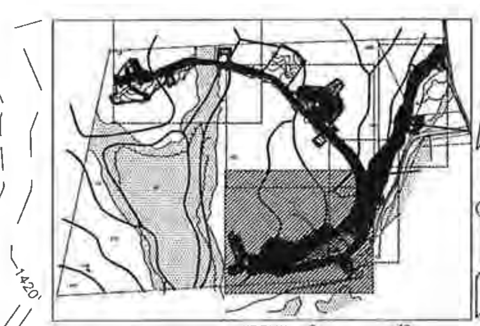
1. INSTALL SILT FENCE, INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
2. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
3. APPLY SEEDING, TEMPORARY OR PERMANENT, OR OTHER TYPES OF STABILIZATION AS REQUIRED AS SOON AS GRADED AREAS ARE COMPLETE OR WHERE WORK STOPS.
4. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
5. ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
6. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
7. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATION TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
8. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE.
9. MAXIMUM GRADED SLOPES ARE 2:1. WHEN STEEPER SLOPES MUST BE USED PLANS MUST BE SEALED BY A GEO-TECHNICAL ENGINEER FOR SLOPE STABILITY AND FINAL SURFACE STABILIZATION.
10. DE-WATERING OF SITE DIRECTLY INTO STREAM, WETLAND OR CREEK IS PROHIBITED.





LEGEND

Symbol	Description
84C / 84B	SOIL TYPE BOUNDARY
TD> TD>	TEMPORARY DIVERSION DITCH
S F	SILT FENCE
TP TP	TREE PROTECTION FENCE
HB	STRAW HAY BALES
	CULVERT PIPE/SLOPE DRAIN
	WETLAND LIMITS
	STONE CHECK DAM
FLOW	FLOW ARROW
TS	TEMPORARY SEEDING
TST	TEMPORARY SEDIMENT TRAP
PS	PERMANENT SEEDING
	CATCH BASIN
	COMPACTED EARTH
	GRAVEL



KEYPLAN 0 40 80

MARK	DESCRIPTION	DATE	APPR
2	INCORPORATED REQUESTED REVISIONS	03-14-11	MLC
1	CONNECTICUT SITING COUNCIL SUBMISSION	11-19-10	TLK

NOT FOR CONSTRUCTION - CONNECTICUT SITING COUNCIL USE ONLY

DESIGNED BY: RSS		DATE: 03-14-11
DWN BY: RSW	CKD BY: TLK	
SUBMITTED BY: BNE ENERGY		
PLOT SCALE: AS SHOWN	PLOT DATE: 03-14-11	FILE NUMBER: 1355
SIZE: ANSI D	FILE NAME:	

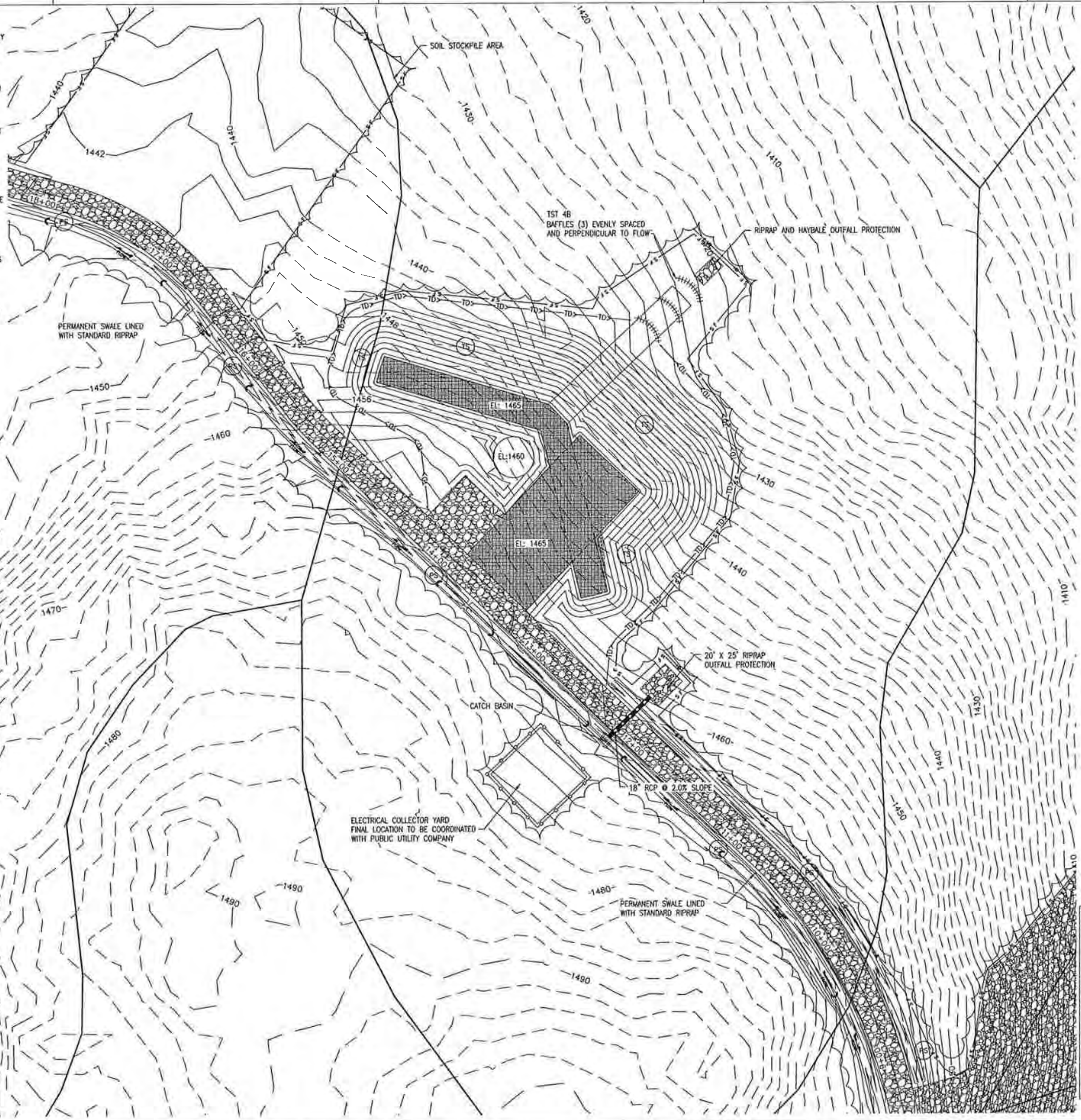
WIND COLEBROOK SOUTH
CONNECTICUT

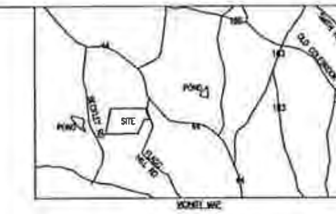
TURBINE LOCATION ONE AND CRANE ASSEMBLY AREA EROSION CONTROL PLAN

SHEET IDENTIFICATION
C-201

EROSION CONTROL NOTES:

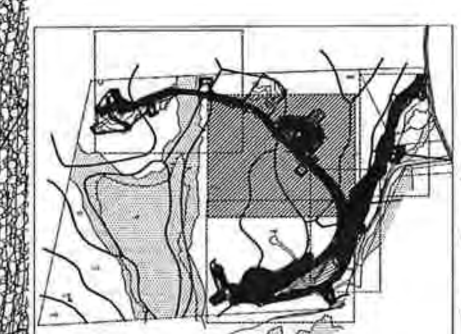
1. INSTALL SILT FENCE, INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
2. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
3. APPLY SEEDING, TEMPORARY OR PERMANENT, OR OTHER TYPES OF STABILIZATION AS REQUIRED AS SOON AS GRADED AREAS ARE COMPLETE OR WHERE WORK STOPS.
4. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
5. ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
6. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
7. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATION TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
8. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE.
9. MAXIMUM GRADED SLOPES ARE 2:1. WHEN STEEPER SLOPES MUST BE USED PLANS MUST BE SEALED BY A GEO-TECHNICAL ENGINEER FOR SLOPE STABILITY AND FINAL SURFACE STABILIZATION.
10. DE-WATERING OF SITE DIRECTLY INTO STREAM, WETLAND OR CREEK IS PROHIBITED.





LEGEND

Symbol	Description
84C / 84B	SOIL TYPE BOUNDARY
TD> TD>	TEMPORARY DIVERSION DITCH
S F	SILT FENCE
TP TP	TREE PROTECTION FENCE
HB	STRAW HAY BALES
	CULVERT PIPE/SLOPE DRAIN
	WETLAND LIMITS
	STONE CHECK DAM
FLOW	FLOW ARROW
TS	TEMPORARY SEEDING
TST	TEMPORARY SEDIMENT TRAP
PS	PERMANENT SEEDING
	CATCH BASIN
	COMPACTED EARTH
	GRAVEL



KEYPLAN 0 40 80

MARK	DESCRIPTION	DATE	APPR.
2	INCORPORATED REQUESTED REVISIONS	03-14-11	MLC
1	CONNECTICUT SITING COUNCIL SUBMISSION	11-15-10	TLK

NOT FOR CONSTRUCTION - CONNECTICUT SITING COUNCIL USE ONLY

DESIGNED BY: RSS | DATE: 03-14-11
DWN BY: RSW | CKD BY: TLK
SUBMITTED BY: BNE ENERGY
PLOT SCALE: AS SHOWN | PLOT DATE: 03-14-11 | FILE NUMBER: 1355
SIZE: ANSI D | FILE NAME:

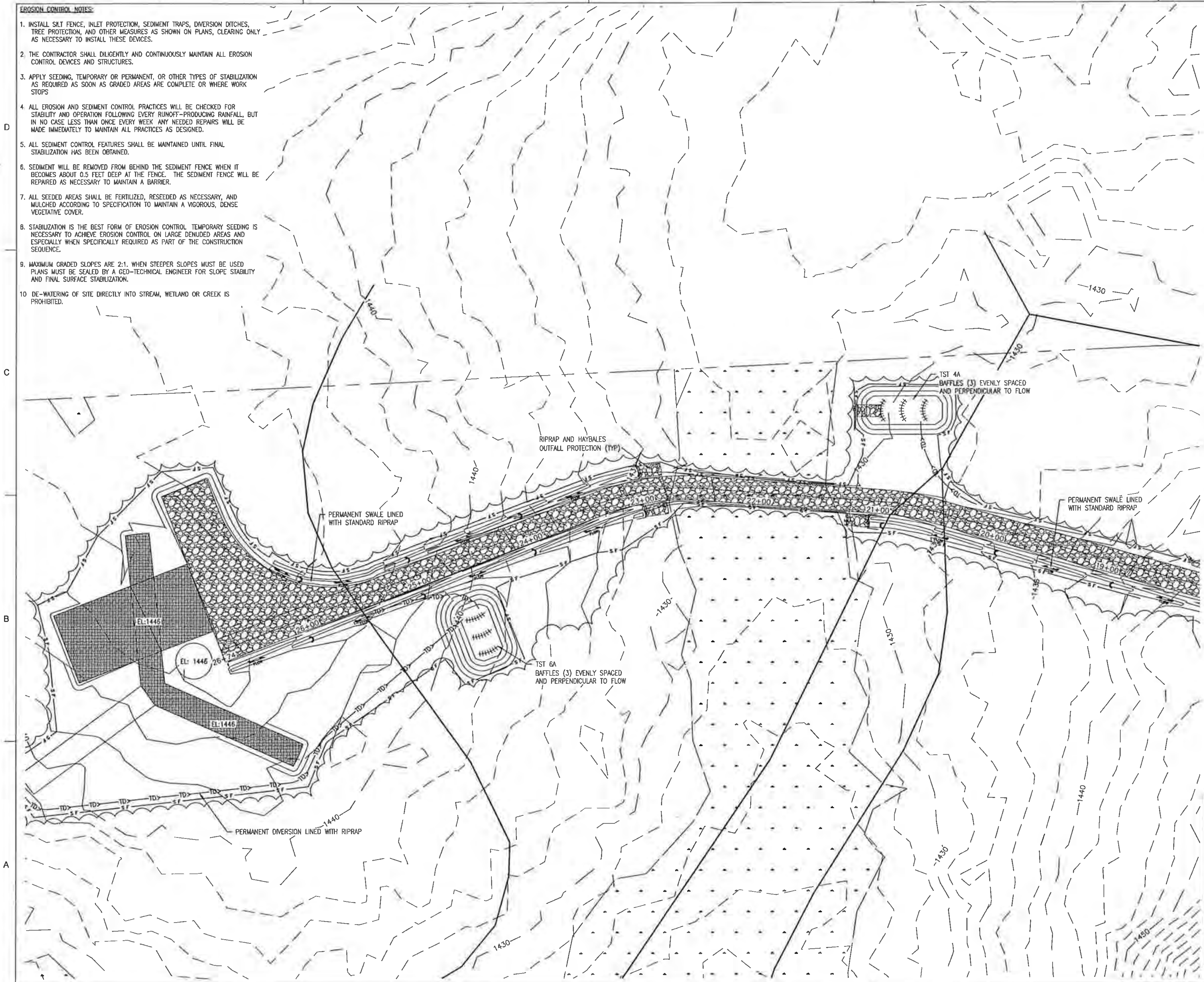
WIND COLEBROOK SOUTH
CONNECTICUT

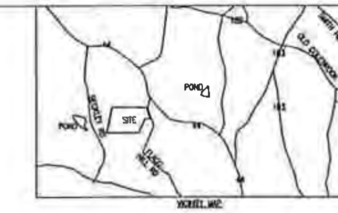
TURBINE LOCATION TWO
EROSION CONTROL PLAN

SHEET IDENTIFICATION
C-202

EROSION CONTROL NOTES:

1. INSTALL SILT FENCE, INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
2. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
3. APPLY SEEDING, TEMPORARY OR PERMANENT, OR OTHER TYPES OF STABILIZATION AS REQUIRED AS SOON AS GRADED AREAS ARE COMPLETE OR WHERE WORK STOPS
4. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
5. ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
6. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
7. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATION TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
8. STABILIZATION IS THE BEST FORM OF EROSION CONTROL TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE.
9. MAXIMUM GRADED SLOPES ARE 2:1. WHEN STEEPER SLOPES MUST BE USED PLANS MUST BE SEALED BY A GEO-TECHNICAL ENGINEER FOR SLOPE STABILITY AND FINAL SURFACE STABILIZATION.
10. DE-WATERING OF SITE DIRECTLY INTO STREAM, WETLAND OR CREEK IS PROHIBITED.





LEGEND

84C / 84B	SOIL TYPE BOUNDARY
TD> TD>	TEMPORARY DIVERSION DITCH
S F	SILT FENCE
TP TP	TREE PROTECTION FENCE
HB	STRAW HAY BALES
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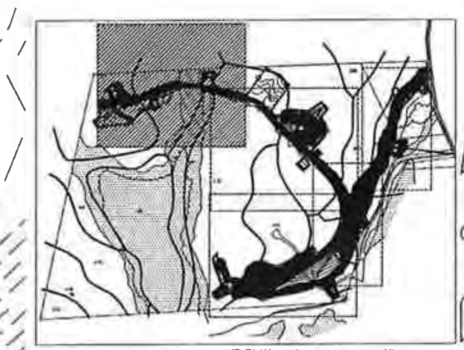
	WETLAND LIMITS
	STONE CHECK DAM
FLOW	FLOW ARROW
TS	TEMPORARY SEEDING
TST	TEMPORARY SEDIMENT TRAP
PS	PERMANENT SEEDING
	CATCH BASIN
	COMPACTED EARTH
	GRAVEL



KEYPLAN 0 40 80

MARK	DESCRIPTION	DATE	APPR.
2	INCORPORATED REQUESTED REVISIONS	03-14-11	MLC
1	CONNECTICUT SITING COUNCIL SUBMISSION	11-18-10	TLK

NOT FOR CONSTRUCTION - CONNECTICUT SITING COUNCIL USE ONLY

DESIGNED BY: RSS		DATE: 03-14-11
DWN BY: RSW	CKD BY: TLK	
SUBMITTED BY: BNE ENERGY		
PLOT SCALE AS SHOWN	PLOT DATE: 03-14-11	FILE NUMBER: 1355
SIZE: ANSI D	FILE NAME:	

6302 FAIRVIEW ROAD #600 PHONE: (704) 358-8240
CHARLOTTE, NC 28210 FAX: (704) 358-8342
ZAPATA@ZAPATAINC.COM WWW.ZAPATAINC.COM

WIND COLEBROOK SOUTH
CONNECTICUT

TURBINE LOCATION THREE
EROSION CONTROL PLAN

SHEET IDENTIFICATION
C-203

EROSION CONTROL NOTES:

1. INSTALL SILT FENCE, INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES
2. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
3. APPLY SEEDING, TEMPORARY OR PERMANENT, OR OTHER TYPES OF STABILIZATION AS REQUIRED AS SOON AS GRADED AREAS ARE COMPLETE OR WHERE WORK STOPS.
4. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED
5. ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
6. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER
7. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATION TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
8. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE
9. MAXIMUM GRADED SLOPES ARE 2:1. WHEN STEEPER SLOPES MUST BE USED PLANS MUST BE SEALED BY A GEO-TECHNICAL ENGINEER FOR SLOPE STABILITY AND FINAL SURFACE STABILIZATION.
10. DE-WATERING OF SITE DIRECTLY INTO STREAM, WETLAND OR CREEK IS PROHIBITED.

RIPRAP SLOPE STABILIZATION
CATCH BASIN
18" RCP @ 2.0% SLOPE
13' X 18' RIPRAP OUTFALL PROTECTION
PERMANENT SWALE LINED WITH STANDARD RIPRAP
PERMANENT SWALE LINED WITH STANDARD RIPRAP
RIPRAP SLOPE STABILIZATION
MATCHLINE SEE 1 OF 3 SHEET
PERMANENT DIVERSION LINED WITH STANDARD RIPRAP
GEO-TEXTILE FABRIC AND RIPRAP SLOPE STABILIZATION
PERMANENT DIVERSION LINED WITH STANDARD RIPRAP
MATCHLINE SEE 3 OF 3 SHEET

LEGEND

- 84C / 84B — SOIL TYPE BOUNDARY
- TD — TD — TEMPORARY DIVERSION DITCH
- S F — SILT FENCE
- TP — TP — TREE PROTECTION FENCE
- HB — STRAW HAY BALES
- CULVERT PIPE/SLOPE DRAIN
- WETLAND LIMITS
- STONE CHECK DAM
- FLOW — FLOW ARROW
- TS — TEMPORARY SEEDING
- TST — TEMPORARY SEDIMENT TRAP
- PS — PERMANENT SEEDING
- GF — GEO-TEXTILE FABRIC
- CB — CATCH BASIN
- COMPACTED EARTH
- GRAVEL

KEYPLAN

MARK	DESCRIPTION	DATE	APPR.
2	INCORPORATED REQUESTED REVISIONS	03-14-11	MEC
1	CONNECTICUT SITING COUNCIL SUBMISSION	11-19-10	TLK

NOT FOR CONSTRUCTION - CONNECTICUT SITING COUNCIL USE ONLY

DESIGNED BY: RBS | DRAWN BY: PMW | CHKD BY: TLK | SUBMITTED BY: SNET | PLOT SCALE: AS SHOWN | PLOT DATE: 03-14-11 | DATE: 03-14-11 | FILE NUMBER: 1335 | SIZE: ANSI D | FILE NAME:

LAST MARKED, PRINTED AND PLOTTED ON THIS DATE UNLESS OTHERWISE NOTED ON PLANS

WIND COLEBROOK SOUTH
CONNECTICUT

ACCESS ROAD STA: 0+00 TO 15+16
EROSION CONTROL PLAN

SHEET IDENTIFICATION
C-204

APPENDIX B
INSPECTION AND MAINTENANCE RECORDS

INSPECTOR CERTIFICATION

Project:	Wind Colebrook South
Project Location:	29 Flagg Hill Road Colebrook, Connecticut
Contractor:	
Address:	
Phone:	
Fax:	

CONSTRUCTION INSPECTION & MAINTENANCE LOG

Date	Activity	Description	(1) Report No.
	❑ Inspection ❑ Maintenance	By: ___________________________	
	❑ Inspection ❑ Maintenance	By: ___________________________	
	❑ Inspection ❑ Maintenance	By: ___________________________	
	❑ Inspection ❑ Maintenance	By: ___________________________	
	❑ Inspection ❑ Maintenance	By: ___________________________	
	❑ Inspection ❑ Maintenance	By: ___________________________	
	❑ Inspection ❑ Maintenance	By: ___________________________	
	❑ Inspection ❑ Maintenance	By: ___________________________	
	❑ Inspection ❑ Maintenance	By: ___________________________	
	❑ Inspection ❑ Maintenance	By: ___________________________	

CONSTRUCTION SITE INSPECTION REPORT

General Information				
Project Name:	Wind Colebrook South			
Location:	29 Flagg Hill Road Colebrook, Connecticut			
CT DEP Tracking No.		(1) Report No.		
Date of Inspection:		Start / End Time:		
Inspector's Name(s):				
Inspector's Title(s):				
Inspector's Contact Information:				
Describe present phase of construction:				
Type of Inspection: ❑ Regular ❑ Pre-storm event ❑ During storm event ❑ Post-storm event				
Weather Information				
Has it rained since the last inspection? ❑Yes ❑No If yes, provide: Storm Start Date & Time: Storm Duration (hrs): Approximate Rainfall (in):				
Weather at time of this inspection?				
Discharge Information (A)				
Do you suspect that discharges may have occurred since the last inspection? ❑Yes ❑No				
Are there any discharges at the time of inspection? ❑Yes ❑No				
Describe location of any discharges from the site:				

SITE-SPECIFIC BMPs

(B)	BMP Description	BMP Installed and Operating Properly?	Corrective Action Needed	Date for corrective action / responsible party
1		❑Yes ❑No		
2		❑Yes ❑No		
3		❑Yes ❑No		
4		❑Yes ❑No		
5		❑Yes ❑No		
6		❑Yes ❑No		
7		❑Yes ❑No		
8		❑Yes ❑No		
9		❑Yes ❑No		
10		❑Yes ❑No		
11		❑Yes ❑No		
12		❑Yes ❑No		
13		❑Yes ❑No		
14		❑Yes ❑No		
15		❑Yes ❑No		
16		❑Yes ❑No		
17		❑Yes ❑No		
18		❑Yes ❑No		
19		❑Yes ❑No		

OVERALL SITE ISSUES

(C)	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	❑Yes ❑No	❑Yes ❑No		
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	❑Yes ❑No	❑Yes ❑No		
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	❑Yes ❑No	❑Yes ❑No		
4	Are discharge points and receiving waters free of sediment deposits?	❑Yes ❑No	❑Yes ❑No		
5	Are storm drain inlets properly protected?	❑Yes ❑No	❑Yes ❑No		
6	Is there evidence of sediment being tracked into the street?	❑Yes ❑No	❑Yes ❑No		
7	Is trash/litter from work areas collected and placed in covered	❑Yes ❑No	❑Yes ❑No		

(C)	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person
	dumpsters?				
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	❑Yes ❑No	❑Yes ❑No		
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	❑Yes ❑No	❑Yes ❑No		
10	Are materials that are potential stormwater contaminants stored inside or under cover?	❑Yes ❑No	❑Yes ❑No		
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	❑Yes ❑No	❑Yes ❑No		
12	(Other)	❑Yes ❑No	❑Yes ❑No		
13	(Other)	❑Yes ❑No	❑Yes ❑No		

(C)	BMP/activity	Implemented?	Maintained?	Corrective Action	Date for corrective action/responsible person

GENERAL INSPECTION COMMENTS AND EXPLANATION

General Inspection Comments (D)
Is other descriptive information attached to this inspection report? ❑Yes ❑No

Plan Information (E)
Were all current plan BMP's in place at the time of inspection? ❑Yes ❑No
Are additional BMP's required? ❑Yes ❑No
Does the plan need to be updated? ❑Yes ❑No
Explanation of additional BMP and Plan update requirements:

Certification statement:
I certify that I have thoroughly and completely reviewed the Stormwater Pollution Control Plan for the site. I further certify, based on such review and in my professional judgment, that the Stormwater Pollution Control Plan has been prepared in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, and the conditions for the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities issued on October 1, 2002 (or as reissued or modified), and the controls required for such Plan are appropriate for the site. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.

Name: _____
(Please print)
Signature: _____

Title: _____ Date: _____

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CONSTRUCTION SITE MAINTENANCE REPORT

General Information				
Project Name:	Wind Colebrook South			
Location:	29 Flagg Hill Road Colebrook, Connecticut			
CT DEP Tracking No.:		(1) Report No.		
Date of Maintenance:		Start / End Time:		
Describe present phase of construction:				
Type of Maintenance: ❑ Regular ❑ Pre-storm event ❑ Post-storm event ❑ Plan Update				
Maintenance Information				
Inspection Report Reference (No., Item)	Maintenance performed:			
Performed by:				
Inspection Report Reference (No., Item)	Maintenance performed:			
Performed by:				
Inspection Report Reference (No., Item)	Maintenance performed:			
Performed by:				
Inspection Report Reference (No., Item)	Maintenance performed:			
Performed by:				
Inspection Report Reference (No., Item)	Maintenance performed:			
Performed by:				

Inspection Report Reference (No., Item)	Maintenance performed:
Performed by:	
Inspection Report Reference (No., Item)	Maintenance performed:
Performed by:	
Inspection Report Reference (No., Item)	Maintenance performed:
Performed by:	
Inspection Report Reference (No., Item)	Maintenance performed:
Performed by:	
Inspection Report Reference (No., Item)	Maintenance performed:
Performed by:	
Inspection Report Reference (No., Item)	Maintenance performed:
Performed by:	
Inspection Report Reference (No., Item)	Maintenance performed:
Performed by:	
Inspection Report Reference (No., Item)	Maintenance performed:
Performed by:	

Certification statement:
I certify that I have thoroughly and completely reviewed the Stormwater Pollution Control Plan for the site. I further certify, based on such review and in my professional judgment, that the Stormwater Pollution Control Plan has been prepared in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, and the conditions for the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities issued on October 1, 2002 (or as reissued or modified), and the controls required for such Plan are appropriate for the site. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.

Name: _____

Signature: _____

Title: _____ Date: _____

APPENDIX C
CALCULATIONS AND SUPPORTING DOCUMENTATION

Permanent Diversion (PD) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 7

Permanent Diversion (PD) - Basin 1A

County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	
Basin Area (AC):	1.7	AC	
10-yr, 24-hr Pipe Runoff Rate (cfs):	7.46	cfs	
Lining Type (Riprap, Concrete, or Flagstone):	Riprap		
Riprap Type (Standard, Intermediate, or Modified)	Standard		
Maximum Permissible Velocity for Material (fps):	14	fps	
Channel Shape:	Trapezoidal		
Channel Slope (ft/ft):	0.05		
Channel Side Slope:	**2.0**	**:1**	
Channel Base Width (ft):	**2.0**	**ft**	2' minimum
Channel Depth (ft):	**0.75**	**ft**	
Channel Area:	2.625	sf	
Channel Perimeter (ft):	5.35	ft	
Channel Top Width (ft):	**5.0**	**ft**	4' minimum
Mannings Roughness Coefficient, "n":	0.041		
Assumed depth flow depth (ft):	0.75	ft	
Assumed Flow Area (sf):	2.625	sf	
Assumed Wetted Perimeter (ft):	5.4	ft	
Assumed Hydraulic Radius (ft):	0.49	ft	
Assumed Velocity (fps):	5.05	fps	
Assumed Flow Rate (cfs):	13.26	cfs	
Minimum Ridge Width (ft):	4	ft	4' minimum
Minimum Freeboard (ft):	0.3	ft	
Assumed Freeboard (ft):	**1.0**	**ft**	
Assumed Ridge Width (ft):	**4.0**	**ft**	

Permanent Diversion (PD) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 7

Permanent Diversion (PD) - Basin 1B

County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	
Basin Area (AC):	1.9	AC	
10-yr, 24-hr Pipe Runoff Rate (cfs):	8.66	cfs	
Lining Type (Riprap, Concrete, or Flagstone):	Riprap		
Riprap Type (Standard, Intermediate, or Modified)	Standard		
Maximum Permissible Velocity for Material (fps):	14	fps	
Channel Shape:	Trapezoidal		
Channel Slope (ft/ft):	0.20		
Channel Side Slope:	**2.0**	**:1**	
Channel Base Width (ft):	**2.0**	**ft**	2' minimum
Channel Depth (ft):	**0.50**	**ft**	
Channel Area:	1.5	sf	
Channel Perimeter (ft):	4.24	ft	
Channel Top Width (ft):	**4.0**	**ft**	4' minimum
Mannings Roughness Coefficient, "n":	0.041		
Assumed depth flow depth (ft):	0.5	ft	
Assumed Flow Area (sf):	1.5	sf	
Assumed Wetted Perimeter (ft):	4.2	ft	
Assumed Hydraulic Radius (ft):	0.35	ft	
Assumed Velocity (fps):	8.13	fps	
Assumed Flow Rate (cfs):	12.20	cfs	
Minimum Ridge Width (ft):	4	ft	4' minimum
Minimum Freeboard (ft):	0.3	ft	
Assumed Freeboard (ft):	**1.0**	**ft**	
Assumed Ridge Width (ft):	**4.0**	**ft**	

Permanent Diversion (PD) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 7

Permanent Diversion (PD) - Basin 2A

County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	
Basin Area (AC):	0.2	AC	
10-yr, 24-hr Pipe Runoff Rate (cfs):	0.98	cfs	
Lining Type (Riprap, Concrete, or Flagstone):	Riprap		
Riprap Type (Standard, Intermediate, or Modified)	Standard		
Maximum Permissible Velocity for Material (fps):	14	fps	
Channel Shape:	Trapezoidal		
Channel Slope (ft/ft):	0.20		
Channel Side Slope:	**2.0**	**:1**	
Channel Base Width (ft):	**2.0**	**ft**	2' minimum
Channel Depth (ft):	**0.20**	**ft**	
Channel Area:	0.48	sf	
Channel Perimeter (ft):	2.89	ft	
Channel Top Width (ft):	**4.0**	**ft**	4' minimum
Mannings Roughness Coefficient, "n":	0.041		
Assumed depth flow depth (ft):	0.2	ft	
Assumed Flow Area (sf):	0.48	sf	
Assumed Wetted Perimeter (ft):	2.9	ft	
Assumed Hydraulic Radius (ft):	0.17	ft	
Assumed Velocity (fps):	4.91	fps	
Assumed Flow Rate (cfs):	2.35	cfs	
Minimum Ridge Width (ft):	4	ft	4' minimum
Minimum Freeboard (ft):	0.3	ft	
Assumed Freeboard (ft):	**1.0**	**ft**	
Assumed Ridge Width (ft):	**4.0**	**ft**	

Permanent Diversion (PD) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 7

Permanent Diversion (PD) - Basin 3A

County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	
Basin Area (AC):	1.5	AC	
10-yr, 24-hr Pipe Runoff Rate (cfs):	6.56	cfs	
Lining Type (Riprap, Concrete, or Flagstone):	Riprap		
Riprap Type (Standard, Intermediate, or Modified)	Standard		
Maximum Permissible Velocity for Material (fps):	14	fps	
Channel Shape:	Trapezoidal		
Channel Slope (ft/ft):	0.10		
Channel Side Slope:	**2.0**	**:1**	
Channel Base Width (ft):	**2.0**	**ft**	2' minimum
Channel Depth (ft):	**0.50**	**ft**	
Channel Area:	1.5	sf	
Channel Perimeter (ft):	4.24	ft	
Channel Top Width (ft):	**4.0**	**ft**	4' minimum
Mannings Roughness Coefficient, "n":	0.041		
Assumed depth flow depth (ft):	0.5	ft	
Assumed Flow Area (sf):	1.5	sf	
Assumed Wetted Perimeter (ft):	4.2	ft	
Assumed Hydraulic Radius (ft):	0.35	ft	
Assumed Velocity (fps):	5.75	fps	
Assumed Flow Rate (cfs):	8.63	cfs	
Minimum Ridge Width (ft):	4	ft	4' minimum
Minimum Freeboard (ft):	0.3	ft	
Assumed Freeboard (ft):	**1.0**	**ft**	
Assumed Ridge Width (ft):	**4.0**	**ft**	

Permanent Diversion (PD) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 7

Permanent Diversion (PD) - Basin 3B

County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	
Basin Area (AC):	3.0	AC	
10-yr, 24-hr Pipe Runoff Rate (cfs):	13.40	cfs	
Lining Type (Riprap, Concrete, or Flagstone):	Riprap		
Riprap Type (Standard, Intermediate, or Modified)	Standard		
Maximum Permissible Velocity for Material (fps):	14	fps	
Channel Shape:	Trapezoidal		
Channel Slope (ft/ft):	0.05		
Channel Side Slope:	**2.0**	**:1**	
Channel Base Width (ft):	**2.0**	**ft**	2' minimum
Channel Depth (ft):	**1.00**	**ft**	
Channel Area:	4	sf	
Channel Perimeter (ft):	6.47	ft	
Channel Top Width (ft):	**6.0**	**ft**	4' minimum
Mannings Roughness Coefficient, "n":	0.041		
Assumed depth flow depth (ft):	1	ft	
Assumed Flow Area (sf):	4	sf	
Assumed Wetted Perimeter (ft):	6.5	ft	
Assumed Hydraulic Radius (ft):	0.62	ft	
Assumed Velocity (fps):	5.90	fps	
Assumed Flow Rate (cfs):	23.58	cfs	
Minimum Ridge Width (ft):	4	ft	4' minimum
Minimum Freeboard (ft):	0.3	ft	
Assumed Freeboard (ft):	**1.0**	**ft**	
Assumed Ridge Width (ft):	**4.0**	**ft**	

Permanent Diversion (PD) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 7

Permanent Diversion (PD) - Basin 5A

County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	
Basin Area (AC):	1.3	AC	
10-yr, 24-hr Pipe Runoff Rate (cfs):	5.94	cfs	
Lining Type (Riprap, Concrete, or Flagstone):	Riprap		
Riprap Type (Standard, Intermediate, or Modified)	Standard		
Maximum Permissible Velocity for Material (fps):	14	fps	
Channel Shape:	Trapezoidal		
Channel Slope (ft/ft):	0.06		
Channel Side Slope:	**2.0**	**:1**	
Channel Base Width (ft):	**2.0**	**ft**	2' minimum
Channel Depth (ft):	**0.75**	**ft**	
Channel Area:	2.625	sf	
Channel Perimeter (ft):	5.35	ft	
Channel Top Width (ft):	**5.0**	**ft**	4' minimum
Mannings Roughness Coefficient, "n":	0.041		
Assumed depth flow depth (ft):	0.75	ft	
Assumed Flow Area (sf):	2.625	sf	
Assumed Wetted Perimeter (ft):	5.4	ft	
Assumed Hydraulic Radius (ft):	0.49	ft	
Assumed Velocity (fps):	5.53	fps	
Assumed Flow Rate (cfs):	14.53	cfs	
Minimum Ridge Width (ft):	4	ft	4' minimum
Minimum Freeboard (ft):	0.3	ft	
Assumed Freeboard (ft):	**1.0**	**ft**	
Assumed Ridge Width (ft):	**4.0**	**ft**	

Permanent Diversion (PD) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 7

Permanent Diversion (PD) - Basin 5B

County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	
Basin Area (AC):	1.2	AC	
10-yr, 24-hr Pipe Runoff Rate (cfs):	5.49	cfs	
Lining Type (Riprap, Concrete, or Flagstone):	Riprap		
Riprap Type (Standard, Intermediate, or Modified)	Standard		
Maximum Permissible Velocity for Material (fps):	14	fps	
Channel Shape:	Trapezoidal		
Channel Slope (ft/ft):	0.05		
Channel Side Slope:	**2.0**	**:1**	
Channel Base Width (ft):	**2.0**	**ft**	2' minimum
Channel Depth (ft):	**0.75**	**ft**	
Channel Area:	2.625	sf	
Channel Perimeter (ft):	5.35	ft	
Channel Top Width (ft):	**5.0**	**ft**	4' minimum
Mannings Roughness Coefficient, "n":	0.041		
Assumed depth flow depth (ft):	0.5	ft	
Assumed Flow Area (sf):	1.5	sf	
Assumed Wetted Perimeter (ft):	4.2	ft	
Assumed Hydraulic Radius (ft):	0.35	ft	
Assumed Velocity (fps):	4.07	fps	
Assumed Flow Rate (cfs):	6.10	cfs	
Minimum Ridge Width (ft):	4	ft	4' minimum
Minimum Freeboard (ft):	0.3	ft	
Assumed Freeboard (ft):	**1.0**	**ft**	
Assumed Ridge Width (ft):	**4.0**	**ft**	

Permanent Diversion (PD) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 7

Permanent Diversion (PD) - Basin 6B

County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	
Basin Area (AC):	1.2	AC	
10-yr, 24-hr Pipe Runoff Rate (cfs):	5.49	cfs	
Lining Type (Riprap, Concrete, or Flagstone):	Riprap		
Riprap Type (Standard, Intermediate, or Modified)	Standard		
Maximum Permissible Velocity for Material (fps):	14	fps	
Channel Shape:	Trapezoidal		
Channel Slope (ft/ft):	0.05		
Channel Side Slope:	**2.0**	**:1**	
Channel Base Width (ft):	**2.0**	**ft**	2' minimum
Channel Depth (ft):	**0.50**	**ft**	
Channel Area:	1.5	sf	
Channel Perimeter (ft):	4.24	ft	
Channel Top Width (ft):	**4.0**	**ft**	4' minimum
Mannings Roughness Coefficient, "n":	0.041		
Assumed depth flow depth (ft):	0.5	ft	
Assumed Flow Area (sf):	1.5	sf	
Assumed Wetted Perimeter (ft):	4.2	ft	
Assumed Hydraulic Radius (ft):	0.35	ft	
Assumed Velocity (fps):	4.07	fps	
Assumed Flow Rate (cfs):	6.10	cfs	
Minimum Ridge Width (ft):	4	ft	4' minimum
Minimum Freeboard (ft):	0.3	ft	
Assumed Freeboard (ft):	**1.0**	**ft**	
Assumed Ridge Width (ft):	**4.0**	**ft**	

Permanent Diversion (PD) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 7

Permanent Diversion (PD) - Basin 6C

County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	
Basin Area (AC):	1.2	AC	
10-yr, 24-hr Pipe Runoff Rate (cfs):	5.31	cfs	
Lining Type (Riprap, Concrete, or Flagstone):	Riprap		
Riprap Type (Standard, Intermediate, or Modified)	Standard		
Maximum Permissible Velocity for Material (fps):	14	fps	
Channel Shape:	Trapezoidal		
Channel Slope (ft/ft):	0.05		
Channel Side Slope:	**2.0**	**:1**	
Channel Base Width (ft):	**2.0**	**ft**	2' minimum
Channel Depth (ft):	**0.75**	**ft**	
Channel Area:	2.625	sf	
Channel Perimeter (ft):	5.35	ft	
Channel Top Width (ft):	**5.0**	**ft**	4' minimum
Mannings Roughness Coefficient, "n":	0.041		
Assumed depth flow depth (ft):	0.75	ft	
Assumed Flow Area (sf):	2.625	sf	
Assumed Wetted Perimeter (ft):	5.4	ft	
Assumed Hydraulic Radius (ft):	0.49	ft	
Assumed Velocity (fps):	5.05	fps	
Assumed Flow Rate (cfs):	13.26	cfs	
Minimum Ridge Width (ft):	4	ft	4' minimum
Minimum Freeboard (ft):	0.3	ft	
Assumed Freeboard (ft):	**1.0**	**ft**	
Assumed Ridge Width (ft):	**4.0**	**ft**	

Outlet Protection (OP) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 10

Pipe Discharge Rate			
County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	See Table 7-2, Chapter 7
25-yr, 24-hr Rainfall Amount (in):	5.5	in	See Table 7-2, Chapter 7
Outfall Soil Type:	Clay, fine gravel, graded loam to gravel		
Allowable Velocity without Erosion (fps):	4.5	fps	See Figure OP-1, Chapter 5, Section 10
Basin Area (AC):	1.7	AC	
10-yr, 24-hr Pipe Discharge Rate (cfs):	7.46	cfs	Rational Method Formula
25-yr, 24-hr Pipe Discharge Rate (cfs):	8.7	cfs	Rational Method Formula
Pipe Diameter (in):	18	in	
Pipe Area (sf):	1.8	sf	
Hydraulic Radius (ft):	0.4	ft	
Pipe Slope (ft/ft):	0.01	ft/ft	
Manning's Coefficient, n:	0.013		
Maximum Pipe Discharge Rate (cfs):	10.53	cfs	Mannings Equation
10-yr, 24-hr Pipe Velocity (fps):	4.22	fps	
25-yr, 24-hr Pipe Velocity (fps):	4.94	fps	
Outlet Protection Design Discharge Rate (cfs):	**8.73**	**cfs**	
Can pipe handle 10-yr, 24-hr discharge rate?	Yes.		
Is outlet protection required per CT Guidelines?	Yes.		
Outlet Protection - Cross-Drain from PD (Basin 1A)			
Outlet Protection Design Discharge Rate (cfs):	8.73	cfs	
Maximum Inside Culvert Width in Feet, Do	1.5	ft	
Length of Apron, La = (1.7Q/Do^3/2)+8Do	20	ft	See Apron Dimensions Calc. 1, Chapter 5, Section 10
Is there a well-defined channel downstream of apron?	No		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Is tailwater elevation less than the center of the pipe?	Yes		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Apron Width, W:	24.6	ft	See Apron Dimensions Calc. 2, Chapter 5, Section 10

Figure OP-1 Allowable Velocities for Various Soils

Soil Texture	Allowable Velocities (fps)
Sandy & sandy loam	2.5
Silt Loam	3
Sandy clay loam	3.5
Clay loam	4
Clay, fine gravel, graded loam to gravel	4.5
Cobbles	5
Shale	5.5

Outlet Protection (OP) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 10

Pipe Discharge Rate			
County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	See Table 7-2, Chapter 7
25-yr, 24-hr Rainfall Amount (in):	5.5	in	See Table 7-2, Chapter 7
Outfall Soil Type:	Clay, fine gravel, graded loam to gravel		
Allowable Velocity without Erosion (fps):	4.5	fps	See Figure OP-1, Chapter 5, Section 10
Basin Area (AC):	0.3	AC	
10-yr, 24-hr Pipe Discharge Rate (cfs):	1.12	cfs	Rational Method Formula
25-yr, 24-hr Pipe Discharge Rate (cfs):	1.3	cfs	Rational Method Formula
Pipe Diameter (in):	18	in	
Pipe Area (sf):	1.8	sf	
Hydraulic Radius (ft):	0.4	ft	
Pipe Slope (ft/ft):	0.01	ft/ft	
Manning's Coefficient, n:	0.013		
Maximum Pipe Discharge Rate (cfs):	10.53	cfs	Mannings Equation
10-yr, 24-hr Pipe Velocity (fps):	0.63	fps	
25-yr, 24-hr Pipe Velocity (fps):	0.74	fps	
Outlet Protection Design Discharge Rate (cfs):	**1.31**	**cfs**	
Can pipe handle 10-yr, 24-hr discharge rate?	Yes.		
Is outlet protection required per CT Guidelines?	No.		
Outlet Protection - Cross-Drain from PD (Basin 2A)	**No outlet protection required**		
Outlet Protection Design Discharge Rate (cfs):	1.31	cfs	
Maximum Inside Culvert Width in Feet, Do	1.5	ft	
Length of Apron, La = (1.7Q/Do^3/2)+8Do	13	ft	See Apron Dimensions Calc. 1, Chapter 5, Section 10
Is there a well-defined channel downstream of apron?	No		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Is tailwater elevation less than the center of the pipe?	Yes		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Apron Width, W:	17.7	ft	See Apron Dimensions Calc. 2, Chapter 5, Section 10

Figure OP-1 Allowable Velocities for Various Soils

Soil Texture	Allowable Velocities (fps)
Sandy & sandy loam	2.5
Silt Loam	3
Sandy clay loam	3.5
Clay loam	4
Clay, fine gravel, graded loam to gravel	4.5
Cobbles	5
Shale	5.5

Outlet Protection (OP) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 10

Pipe Discharge Rate			
County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	See Table 7-2, Chapter 7
25-yr, 24-hr Rainfall Amount (in):	5.5	in	See Table 7-2, Chapter 7
Outfall Soil Type:	Clay, fine gravel, graded loam to gravel		
Allowable Velocity without Erosion (fps):	4.5	fps	See Figure OP-1, Chapter 5, Section 10
Basin Area (AC):	0.8	AC	
10-yr, 24-hr Pipe Discharge Rate (cfs):	3.35	cfs	Rational Method Formula
25-yr, 24-hr Pipe Discharge Rate (cfs):	3.9	cfs	Rational Method Formula
Pipe Diameter (in):	24	in	
Pipe Area (sf):	3.1	sf	
Hydraulic Radius (ft):	0.5	ft	
Pipe Slope (ft/ft):	0.05	ft/ft	
Manning's Coefficient, n:	0.013		
Maximum Pipe Discharge Rate (cfs):	50.72	cfs	Mannings Equation
10-yr, 24-hr Pipe Velocity (fps):	1.07	fps	
25-yr, 24-hr Pipe Velocity (fps):	1.25	fps	
Outlet Protection Design Discharge Rate (cfs):	**3.92**	**cfs**	
Can pipe handle 10-yr, 24-hr discharge rate?	Yes.		
Is outlet protection required per CT Guidelines?	No.		
Outlet Protection - Temporary Diversion (Basin 9A)	**No outlet protection required**		
Outlet Protection Design Discharge Rate (cfs):	3.92	cfs	
Maximum Inside Culvert Width in Feet, Do	2.0	ft	
Length of Apron, La = (1.7Q/Do^3/2)+8Do	18	ft	See Apron Dimensions Calc. 1, Chapter 5, Section 10
Is there a well-defined channel downstream of apron?	No		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Is tailwater elevation less than the center of the pipe?	Yes		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Apron Width, W:	24.4	ft	See Apron Dimensions Calc. 2, Chapter 5, Section 10

Figure OP-1 Allowable Velocities for Various Soils

Soil Texture	Allowable Velocities (fps)
Sandy & sandy loam	2.5
Silt Loam	3
Sandy clay loam	3.5
Clay loam	4
Clay, fine gravel, graded loam to gravel	4.5
Cobbles	5
Shale	5.5

Outlet Protection (OP) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 10

Pipe Discharge Rate			
County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	See Table 7-2, Chapter 7
25-yr, 24-hr Rainfall Amount (in):	5.5	in	See Table 7-2, Chapter 7
Outfall Soil Type:	Sandy clay loam		
Allowable Velocity without Erosion (fps):	5.0	fps	See Figure OP-1, Chapter 5, Section 10
Basin Area (AC):	0.6	AC	
10-yr, 24-hr Pipe Discharge Rate (cfs):	2.55	cfs	Rational Method Formula
25-yr, 24-hr Pipe Discharge Rate (cfs):	3.0	cfs	Rational Method Formula
Pipe Diameter (in):	24	in	
Pipe Area (sf):	3.1	sf	
Hydraulic Radius (ft):	0.5	ft	
Pipe Slope (ft/ft):	0.20	ft/ft	
Manning's Coefficient, n:	0.013		
Maximum Pipe Discharge Rate (cfs):	101.44	cfs	Mannings Equation
10-yr, 24-hr Pipe Velocity (fps):	0.81	fps	
25-yr, 24-hr Pipe Velocity (fps):	0.95	fps	
Outlet Protection Design Discharge Rate (cfs):	**2.98**	**cfs**	
Can pipe handle 10-yr, 24-hr discharge rate?	Yes.		
Is outlet protection required per CT Guidelines?	No.		
Outlet Protection - Temporary Diversion (Basin 9B)	**No outlet protection required**		
Outlet Protection Design Discharge Rate (cfs):	2.98	cfs	
Maximum Inside Culvert Width in Feet, Do	2.0	ft	
Length of Apron, La = (1.7Q/Do^3/2)+8Do	18	ft	See Apron Dimensions Calc. 1, Chapter 5, Section 10
Is there a well-defined channel downstream of apron?	Yes		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Is tailwater elevation less than the center of the pipe?	No		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Apron Width, W:	Width of channel.	ft	See Apron Dimensions Calc. 2, Chapter 5, Section 10

Figure OP-1 Allowable Velocities for Various Soils

Soil Texture	Allowable Velocities (fps)
Sandy & sandy loam	2.5
Silt Loam	3
Sandy clay loam	3.5
Clay loam	4
Clay, fine gravel, graded loam to gravel	4.5
Cobbles	5
Shale	5.5

Outlet Protection (OP) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 10

Pipe Discharge Rate			
County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	See Table 7-2, Chapter 7
25-yr, 24-hr Rainfall Amount (in):	5.5	in	See Table 7-2, Chapter 7
Outfall Soil Type:	Clay, fine gravel, graded loam to gravel		
Allowable Velocity without Erosion (fps):	4.5	fps	See Figure OP-1, Chapter 5, Section 10
Basin Area (AC):	0.6	AC	
10-yr, 24-hr Pipe Discharge Rate (cfs):	2.55	cfs	Rational Method Formula
25-yr, 24-hr Pipe Discharge Rate (cfs):	3.0	cfs	Rational Method Formula
Pipe Diameter (in):	18	in	
Pipe Area (sf):	1.8	sf	
Hydraulic Radius (ft):	0.4	ft	
Pipe Slope (ft/ft):	0.01	ft/ft	
Manning's Coefficient, n:	0.013		
Maximum Pipe Discharge Rate (cfs):	10.53	cfs	Mannings Equation
10-yr, 24-hr Pipe Velocity (fps):	1.44	fps	
25-yr, 24-hr Pipe Velocity (fps):	1.69	fps	
Outlet Protection Design Discharge Rate (cfs):	**2.98**	**cfs**	
Can pipe handle 10-yr, 24-hr discharge rate?	Yes.		
Is outlet protection required per CT Guidelines?	No.		
Outlet Protection - Cross-drain from PD (Basin 3A)	**No outlet protection required**		
Outlet Protection Design Discharge Rate (cfs):	2.98	cfs	
Maximum Inside Culvert Width in Feet, Do	1.5	ft	
Length of Apron, La = (1.7Q/Do^3/2)+8Do	15	ft	See Apron Dimensions Calc. 1, Chapter 5, Section 10
Is there a well-defined channel downstream of apron?	No		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Is tailwater elevation less than the center of the pipe?	Yes		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Apron Width, W:	19.3	ft	See Apron Dimensions Calc. 2, Chapter 5, Section 10

Figure OP-1 Allowable Velocities for Various Soils

Soil Texture	Allowable Velocities (fps)
Sandy & sandy loam	2.5
Silt Loam	3
Sandy clay loam	3.5
Clay loam	4
Clay, fine gravel, graded loam to gravel	4.5
Cobbles	5
Shale	5.5

Outlet Protection (OP) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 5, Section 10

Pipe Discharge Rate			
County:	Litchfield, CT		
10-yr, 24-hr Rainfall Amount (in):	4.7	in	See Table 7-2, Chapter 7
25-yr, 24-hr Rainfall Amount (in):	5.5	in	See Table 7-2, Chapter 7
Outfall Soil Type:	Sandy clay loam		
Allowable Velocity without Erosion (fps):	5.0	fps	See Figure OP-1, Chapter 5, Section 10
Basin Area (AC):	1.5	AC	
10-yr, 24-hr Pipe Discharge Rate (cfs):	6.70	cfs	Rational Method Formula
25-yr, 24-hr Pipe Discharge Rate (cfs):	7.8	cfs	Rational Method Formula
Pipe Diameter (in):	24	in	
Pipe Area (sf):	3.1	sf	
Hydraulic Radius (ft):	0.5	ft	
Pipe Slope (ft/ft):	0.10	ft/ft	
Manning's Coefficient, n:	0.013		
Maximum Pipe Discharge Rate (cfs):	71.73	cfs	Mannings Equation
10-yr, 24-hr Pipe Velocity (fps):	2.13	fps	
25-yr, 24-hr Pipe Velocity (fps):	2.49	fps	
Outlet Protection Design Discharge Rate (cfs):	**7.84**	**cfs**	
Can pipe handle 10-yr, 24-hr discharge rate?	Yes.		
Is outlet protection required per CT Guidelines?	Yes.		
Outlet Protection - Permanent Diversion (Basin 3B)			
Outlet Protection Design Discharge Rate (cfs):	7.84	cfs	
Maximum Inside Culvert Width in Feet, Do	2.0	ft	
Length of Apron, La = (1.7Q/Do^3/2)+8Do	21	ft	See Apron Dimensions Calc. 1, Chapter 5, Section 10
Is there a well-defined channel downstream of apron?	Yes		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Is tailwater elevation less than the center of the pipe?	No		See Apron Dimensions Calc. 2, Chapter 5, Section 10
Apron Width, W:	Width of channel.	ft	See Apron Dimensions Calc. 2, Chapter 5, Section 10

Figure OP-1 Allowable Velocities for Various Soils

Soil Texture	Allowable Velocities (fps)
Sandy & sandy loam	2.5
Silt Loam	3
Sandy clay loam	3.5
Clay loam	4
Clay, fine gravel, graded loam to gravel	4.5
Cobbles	5
Shale	5.5

Temporary Sediment Trap (TST) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

Temporary Sediment Trap 1

Required Treatment Volume per Acre Disturbed Area:	134.0	CY/AC	See Trap Capacity, 5-11-25
Disturbed Drainage Area:	2.5	AC	
Treatment Volume Required:	335.0	CY	
Maximum Disturbed Drainage Area per Sediment Trap:	5.0	AC	See Applicability, 5-11-25
Number of Sediment Traps Required:	1.0		
Treatment Volume Required per Trap:	335.0	CY	
Wet Storage Required per Trap:	167.5	CY	See Trap Capacity, 5-11-25
Assumed Wet Storage Depth, Dw:	2.50	FT	See Figure TST-2, 5-11-27
Assumed Bottom Width, Wb:	20.0	FT	
Assumed Bottom Length, Lb:	55.0	FT	
Assumed Side Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Assumed Upstream Slope:	2.0	FT/FT	
Assumed Downstream Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Wet Storage Surface Width:	30.0	FT	
Wet Storage Surface Length:	65.0	FT	
Wet Storage Surface Area, Aw:	1,950.0	SF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	4,875.0	CF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	180.6	CY	See Figure TST-1, 5-11-26
Is Vw greater than required?	Yes		
Dry Storage Volume Required per Trap:	154.4	CY	
Assumed Dry Storage Depth, Dd:	2.00	FT	See Figure TST-2, 5-11-27
Dry Storage Surface Width:	38.0	FT	
Dry Storage Surface Length:	73.0	FT	
Dry Storage Surface Area, Ad:	2,774.0	SF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	4,724.0	CF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	175.0	CY	See Figure TST-1, 5-11-26
Dry Storage Percentage of Total:	49%		
Total Provided Storage Volume, V:	355.5	CY	
Is V greater than Required Treatment Volume?	Yes		
Freeboard:	1.0	FT	See Figure TST-4, 5-11-29
Embankment Height, H:	3.00	FT	See Figure TST-2, 5-11-27
Embankment Top Width, W:	2.5	FT	See Figure TST-2, 5-11-27

Temporary Sediment Trap (TST) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

Temporary Sediment Trap 2

Required Treatment Volume per Acre Disturbed Area:	134.0	CY/AC	See Trap Capacity, 5-11-25
Disturbed Drainage Area:	1.1	AC	
Treatment Volume Required:	147.4	CY	
Maximum Disturbed Drainage Area per Sediment Trap:	5.0	AC	See Applicability, 5-11-25
Number of Sediment Traps Required:	1.0		
Treatment Volume Required per Trap:	147.4	CY	
Wet Storage Required per Trap:	73.7	CY	See Trap Capacity, 5-11-25
Assumed Wet Storage Depth, Dw:	2.00	FT	See Figure TST-2, 5-11-27
Assumed Bottom Width, Wb:	15.0	FT	
Assumed Bottom Length, Lb:	40.0	FT	
Assumed Side Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Assumed Upstream Slope:	2.0	FT/FT	
Assumed Downstream Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Wet Storage Surface Width:	23.0	FT	
Wet Storage Surface Length:	48.0	FT	
Wet Storage Surface Area, Aw:	1,104.0	SF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	2,208.0	CF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	81.8	CY	See Figure TST-1, 5-11-26
Is Vw greater than required?	Yes		
Dry Storage Volume Required per Trap:	65.6	CY	
Assumed Dry Storage Depth, Dd:	1.50	FT	See Figure TST-2, 5-11-27
Dry Storage Surface Width:	29.0	FT	
Dry Storage Surface Length:	54.0	FT	
Dry Storage Surface Area, Ad:	1,566.0	SF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	2,002.5	CF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	74.2	CY	See Figure TST-1, 5-11-26
Dry Storage Percentage of Total:	48%		
Total Provided Storage Volume, V:	155.9	CY	
Is V greater than Required Treatment Volume?	Yes		
Freeboard:	1.0	FT	See Figure TST-4, 5-11-29
Embankment Height, H:	2.50	FT	See Figure TST-2, 5-11-27
Embankment Top Width, W:	2.5	FT	See Figure TST-2, 5-11-27

Temporary Sediment Trap (TST) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

Temporary Sediment Trap 2A

Required Treatment Volume per Acre Disturbed Area:	134.0	CY/AC	See Trap Capacity, 5-11-25
Disturbed Drainage Area:	3.2	AC	
Treatment Volume Required:	424.8	CY	
Maximum Disturbed Drainage Area per Sediment Trap:	5.0	AC	See Applicability, 5-11-25
Number of Sediment Traps Required:	1.0		
Treatment Volume Required per Trap:	424.8	CY	
Wet Storage Required per Trap:	212.4	CY	See Trap Capacity, 5-11-25
Assumed Wet Storage Depth, Dw:	3.00	FT	See Figure TST-2, 5-11-27
Assumed Bottom Width, Wb:	20.0	FT	
Assumed Bottom Length, Lb:	55.0	FT	
Assumed Side Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Assumed Upstream Slope:	2.0	FT/FT	
Assumed Downstream Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Wet Storage Surface Width:	32.0	FT	
Wet Storage Surface Length:	67.0	FT	
Wet Storage Surface Area, Aw:	2,144.0	SF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	6,432.0	CF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	238.2	CY	See Figure TST-1, 5-11-26
Is Vw greater than required?	Yes		
Dry Storage Volume Required per Trap:	186.6	CY	
Assumed Dry Storage Depth, Dd:	2.00	FT	See Figure TST-2, 5-11-27
Dry Storage Surface Width:	40.0	FT	
Dry Storage Surface Length:	75.0	FT	
Dry Storage Surface Area, Ad:	3,000.0	SF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	5,144.0	CF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	190.5	CY	See Figure TST-1, 5-11-26
Dry Storage Percentage of Total:	44%		
Total Provided Storage Volume, V:	428.7	CY	
Is V greater than Required Treatment Volume?	Yes		
Freeboard:	1.0	FT	See Figure TST-4, 5-11-29
Embankment Height, H:	3.00	FT	See Figure TST-2, 5-11-27
Embankment Top Width, W:	2.5	FT	See Figure TST-2, 5-11-27

Temporary Sediment Trap (TST) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

Temporary Sediment Trap 3

Required Treatment Volume per Acre Disturbed Area:	134.0	CY/AC	See Trap Capacity, 5-11-25
Disturbed Drainage Area:	0.6	AC	
Treatment Volume Required:	81.7	CY	
Maximum Disturbed Drainage Area per Sediment Trap:	5.0	AC	See Applicability, 5-11-25
Number of Sediment Traps Required:	1.0		
Treatment Volume Required per Trap:	81.7	CY	
Wet Storage Required per Trap:	40.9	CY	See Trap Capacity, 5-11-25
Assumed Wet Storage Depth, Dw:	2.00	FT	See Figure TST-2, 5-11-27
Assumed Bottom Width, Wb:	10.0	FT	
Assumed Bottom Length, Lb:	30.0	FT	
Assumed Side Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Assumed Upstream Slope:	2.0	FT/FT	
Assumed Downstream Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Wet Storage Surface Width:	18.0	FT	
Wet Storage Surface Length:	38.0	FT	
Wet Storage Surface Area, Aw:	684.0	SF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	1,368.0	CF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	50.7	CY	See Figure TST-1, 5-11-26
Is Vw greater than required?	Yes		
Dry Storage Volume Required per Trap:	31.1	CY	
Assumed Dry Storage Depth, Dd:	1.50	FT	See Figure TST-2, 5-11-27
Dry Storage Surface Width:	24.0	FT	
Dry Storage Surface Length:	44.0	FT	
Dry Storage Surface Area, Ad:	1,056.0	SF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	1,305.0	CF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	48.3	CY	See Figure TST-1, 5-11-26
Dry Storage Percentage of Total:	49%		
Total Provided Storage Volume, V:	99.0	CY	
Is V greater than Required Treatment Volume?	Yes		
Freeboard:	1.0	FT	See Figure TST-4, 5-11-29
Embankment Height, H:	2.50	FT	See Figure TST-2, 5-11-27
Embankment Top Width, W:	2.5	FT	See Figure TST-2, 5-11-27

Temporary Sediment Trap (TST) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

Temporary Sediment Trap 4A

Required Treatment Volume per Acre Disturbed Area:	134.0	CY/AC	See Trap Capacity, 5-11-25
Drainage Area:	2.0	AC	
Treatment Volume Required:	263.3	CY	
Maximum Disturbed Drainage Area per Sediment Trap:	5.0	AC	See Applicability, 5-11-25
Number of Sediment Traps Required:	1.0		
Treatment Volume Required per Trap:	263.3	CY	
Wet Storage Required per Trap:	131.7	CY	See Trap Capacity, 5-11-25
Assumed Wet Storage Depth, Dw:	2.00	FT	See Figure TST-2, 5-11-27
Assumed Bottom Width, Wb:	20.0	FT	
Assumed Bottom Length, Lb:	60.0	FT	
Assumed Side Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Assumed Upstream Slope:	2.0	FT/FT	
Assumed Downstream Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Wet Storage Surface Width:	28.0	FT	
Wet Storage Surface Length:	68.0	FT	
Wet Storage Surface Area, Aw:	1,904.0	SF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	3,808.0	CF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	141.0	CY	See Figure TST-1, 5-11-26
Is Vw greater than required?	Yes		
Dry Storage Volume Required per Trap:	122.3	CY	
Assumed Dry Storage Depth, Dd:	2.00	FT	See Figure TST-2, 5-11-27
Dry Storage Surface Width:	36.0	FT	
Dry Storage Surface Length:	76.0	FT	
Dry Storage Surface Area, Ad:	2,736.0	SF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	4,640.0	CF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	171.9	CY	See Figure TST-1, 5-11-26
Dry Storage Percentage of Total:	55%		
Total Provided Storage Volume, V:	312.9	CY	
Is V greater than Required Treatment Volume?	Yes		
Freeboard:	1.0	FT	See Figure TST-4, 5-11-29
Embankment Height, H:	3.00	FT	See Figure TST-2, 5-11-27
Embankment Top Width, W:	2.0	FT	See Figure TST-2, 5-11-27

Temporary Sediment Trap (TST) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

Temporary Sediment Trap 4B

Required Treatment Volume per Acre Disturbed Area:	134.0	CY/AC	See Trap Capacity, 5-11-25
Drainage Area:	2.6	AC	
Treatment Volume Required:	342.5	CY	
Maximum Disturbed Drainage Area per Sediment Trap:	5.0	AC	See Applicability, 5-11-25
Number of Sediment Traps Required:	1.0		
Treatment Volume Required per Trap:	342.5	CY	
Wet Storage Required per Trap:	171.3	CY	See Trap Capacity, 5-11-25
Assumed Wet Storage Depth, Dw:	2.00	FT	See Figure TST-2, 5-11-27
Assumed Bottom Width, Wb:	29.0	FT	
Assumed Bottom Length, Lb:	58.0	FT	
Assumed Side Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Assumed Upstream Slope:	2.0	FT/FT	
Assumed Downstream Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Wet Storage Surface Width:	37.0	FT	
Wet Storage Surface Length:	66.0	FT	
Wet Storage Surface Area, Aw:	2,442.0	SF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	4,884.0	CF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	180.9	CY	See Figure TST-1, 5-11-26
Is Vw greater than required?	Yes		
Dry Storage Volume Required per Trap:	161.6	CY	
Assumed Dry Storage Depth, Dd:	2.00	FT	See Figure TST-2, 5-11-27
Dry Storage Surface Width:	45.0	FT	
Dry Storage Surface Length:	74.0	FT	
Dry Storage Surface Area, Ad:	3,330.0	SF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	5,772.0	CF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	213.8	CY	See Figure TST-1, 5-11-26
Dry Storage Percentage of Total:	54%		
Total Provided Storage Volume, V:	394.7	CY	
Is V greater than Required Treatment Volume?	Yes		
Freeboard:	1.0	FT	See Figure TST-4, 5-11-29
Embankment Height, H:	3.00	FT	See Figure TST-2, 5-11-27
Embankment Top Width, W:	2.0	FT	See Figure TST-2, 5-11-27

Temporary Sediment Trap (TST) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

Temporary Sediment Trap 6A

Required Treatment Volume per Acre Disturbed Area:	134.0	CY/AC	See Trap Capacity, 5-11-25
Drainage Area:	1.6	AC	
Treatment Volume Required:	212.1	CY	
Maximum Disturbed Drainage Area per Sediment Trap:	5.0	AC	See Applicability, 5-11-25
Number of Sediment Traps Required:	1.0		
Treatment Volume Required per Trap:	212.1	CY	
Wet Storage Required per Trap:	106.1	CY	See Trap Capacity, 5-11-25
Assumed Wet Storage Depth, Dw:	2.00	FT	See Figure TST-2, 5-11-27
Assumed Bottom Width, Wb:	21.0	FT	
Assumed Bottom Length, Lb:	42.0	FT	
Assumed Side Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Assumed Upstream Slope:	2.0	FT/FT	
Assumed Downstream Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Wet Storage Surface Width:	29.0	FT	
Wet Storage Surface Length:	50.0	FT	
Wet Storage Surface Area, Aw:	1,450.0	SF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	2,900.0	CF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	107.4	CY	See Figure TST-1, 5-11-26
Is Vw greater than required?	Yes		
Dry Storage Volume Required per Trap:	104.7	CY	
Assumed Dry Storage Depth, Dd:	2.00	FT	See Figure TST-2, 5-11-27
Dry Storage Surface Width:	37.0	FT	
Dry Storage Surface Length:	58.0	FT	
Dry Storage Surface Area, Ad:	2,146.0	SF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	3,596.0	CF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	133.2	CY	See Figure TST-1, 5-11-26
Dry Storage Percentage of Total:	55%		
Total Provided Storage Volume, V:	240.6	CY	
Is V greater than Required Treatment Volume?	Yes		
Freeboard:	1.0	FT	See Figure TST-4, 5-11-29
Embankment Height, H:	3.00	FT	See Figure TST-2, 5-11-27
Embankment Top Width, W:	2.0	FT	See Figure TST-2, 5-11-27

Temporary Sediment Trap (TST) Design

Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

Temporary Sediment Trap 6B

Required Treatment Volume per Acre Disturbed Area:	134.0	CY/AC	See Trap Capacity, 5-11-25
Drainage Area:	1.8	AC	
Treatment Volume Required:	247.5	CY	
Maximum Disturbed Drainage Area per Sediment Trap:	5.0	AC	See Applicability, 5-11-25
Number of Sediment Traps Required:	1.0		
Treatment Volume Required per Trap:	247.5	CY	
Wet Storage Required per Trap:	123.7	CY	See Trap Capacity, 5-11-25
Assumed Wet Storage Depth, Dw:	2.00	FT	See Figure TST-2, 5-11-27
Assumed Bottom Width, Wb:	23.0	FT	
Assumed Bottom Length, Lb:	46.0	FT	
Assumed Side Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Assumed Upstream Slope:	2.0	FT/FT	
Assumed Downstream Slope:	2.0	FT/FT	See Slope Limitations, 5-11-26
Wet Storage Surface Width:	31.0	FT	
Wet Storage Surface Length:	54.0	FT	
Wet Storage Surface Area, Aw:	1,674.0	SF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	3,348.0	CF	See Figure TST-1, 5-11-26
Wet Storage Volume, Vw:	124.0	CY	See Figure TST-1, 5-11-26
Is Vw greater than required?	Yes		
Dry Storage Volume Required per Trap:	123.5	CY	
Assumed Dry Storage Depth, Dd:	2.00	FT	See Figure TST-2, 5-11-27
Dry Storage Surface Width:	39.0	FT	
Dry Storage Surface Length:	62.0	FT	
Dry Storage Surface Area, Ad:	2,418.0	SF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	4,092.0	CF	See Figure TST-1, 5-11-26
Dry Storage Volume, Vd:	151.6	CY	See Figure TST-1, 5-11-26
Dry Storage Percentage of Total:	55%		
Total Provided Storage Volume, V:	275.6	CY	
Is V greater than Required Treatment Volume?	Yes		
Freeboard:	1.0	FT	See Figure TST-4, 5-11-29
Embankment Height, H:	3.00	FT	See Figure TST-2, 5-11-27
Embankment Top Width, W:	2.0	FT	See Figure TST-2, 5-11-27