MODIFICATIONS TO

CONTRACT EROSION PREVENTION

AND

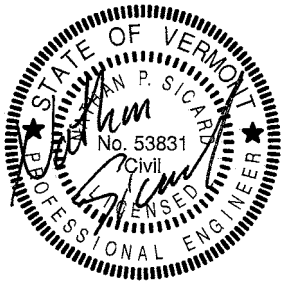
SEDIMENT CONTROL (EPSC) PLAN

FOR

HYDE PARK STP CULV (26)

FOR

A.L. St. Onge Contractor, Inc.
PO BOX 65
MONTGOMERY, VT 05470



APRIL, 2014

RUGGLES ENGINEERING SERVICES INC.

Ruggles Engineering Services, 1667 Shadow Lake Road, Glover, VT 05839
www.rugglesengineeringservices.com

EPSC NARRATIVE AMENDED

Section 1.1 through 1.4 are available as part of the Contract Plans (Sheet 50 of 60, dated 11/06/2013). The following amendments are to be considered with the Project Narrative. The project narrative is in the appendix.

1.1 Project Description

Add. – 1.1.1: The Project will also include a field office site, waste and borrow. Site staging will be within the limits of the work area limits of disturbance. The field office site is located approximately 0.5 miles south of the project on East Main St. The waste area will be adjacent to the office trailer.

Borrow for the project will be from an approved pit with an active 3-9003 MSGP for industrial activity.

1.2 Site inventory

1.2.1 Topography:

Add – 1.2.1.1: The proposed staging area includes slopes approximately 2-4%.

1.2.3 Vegetation:

Add – 1.2.2.1: The proposed access and staging includes vegetated farmland.

1.2.4 Soils:

Add - 1.2.4.1: Staging area/Waste Area. The USDA NRCS Soil Map indicates that the soils at the staging and waste area include Swanville Silt Loam. The land is identified as prime farmland but may have issues with seasonal high water tables and potential wetlands. There are no mapped VT Class II wetlands identified in the area. Pushing back the field topsoil, will expose the silt loam and has a high potential for erosion (k=.0.49) Exposing the soils for the placement of waste earth. The visual inspection of the staging (office trailer site is generally elevated above natural features associated with the Swanville soils and an adjacent stream. Maintaining a 50 foot buffer from the stream and edge of field should avoid any stream or wetland impacts.

1.5 Sequence and Staging

1.5.1 Construction Sequence and Implementation of EPSC Measures.

The construction sequence will be coordinated with the CPM schedule. A copy of the current CPM schedule is included in the appendix.

1.5.1.1. Initial EPSC Measures

Initial EPSC measures will be installed when the EPSC plan has been approved by the Agency. Project Delineation Fence will be installed to identify the limits of disturbance. Temporary Stabilized Construction Entrances will be installed at each approach to the temporary detour alignment and at access points on the south side of the highway. Barrier Fence and Silt Fence with fabric will be installed in areas within 100' of the stream and silt fence will be installed along the limits of disturbance shown on the EPSC Plan.

1.5.1.2. Detour Construction.

The detour construction will deviate from the Maintenance of Traffic Plans developed for the project. The detour plan will be replaced with a temporary bridge plan. The bridge will begin at approximately 44+80 and extend approximately to station 47+00. Limits of disturbance of this phase will be reduced from the original plan the limits necessary to drive piles for temporary bridge abutments (45+50 and 46+30). Once the piles are set for the bridge, the temporary abutments will be constructed at 44+80 and 47+00. Disturbance between these areas will be mulched for temporary stabilization.

After the bridge erection, the detour approaches will be constructed. The approaches will remain at approximately the same elevation as the existing highway so the excavation plan shown on the contract plans will not be required. Only temporary ditching will be used to channelize flow as shown on the EPSC plan. The ditch will be stabilized with erosion matting and stone check dams where slopes exceed 4%.

1.5.1.3. Culvert and Channel Excavation (Phase 1)

Access will be established to begin excavation for the new channel and to remove the culvert. The access will be from the southwest. Excavation will begin at the outlet and channel excavation will be completed in sections as the culvert is removed and new stone fill is installed to the limits of ordinary high water. Once channel excavation and channel stabilization is installed, the slope stabilization up to the bridge abutments will be installed. Any area that cannot be stabilized with the stone fill will receive temporary erosion matting until final stabilization can be completed.

Limits of this phase are anticipated to end at stream channel station 51+00. The remaining culvert will be removed when the temporary bridge is removed and the new bridge is in use.

Prior to beginning excavation, temporary measures will be used to control stream flow. The method of using steel sheeting to divert flow will not be used due to the concerns of existing ledge based on the soil borings. Temporary control of the stream will be with bypass pumping (if flows allow) or a culvert will be used inside of the existing structure. The culvert size will depend on conditions during the proposed work. It is anticipated that an 18”-24” pipe will be used for low water periods. The pipe will be secured to the existing culvert and the inlet will be dammed with sandbags and plastic. It will be anticipated that the structure will be overtopped during larger flow events. If the bypass pipe is used, it will be installed in section so it can be removed as the channel excavation is completed.

Dewatering.

During the channel excavation and stone fill installation, seepage is anticipated. The seepage will be collected behind a coffer dam at the pipe outlet. A dewatering pump will be used to convey seepage water to a filter bag. The filter bag will be located such that overland flow is possible prior to discharging back into the Centerville Brook. See EPSC Plan for location.

1.5.1.4. Detour Removal

The Detour will be removed and traffic will be moved to the final alignment. The temporary bridge will be removed. Access will be established again to the culvert. New stabilized construction entrances will be installed.

1.5.1.5. Culvert and Channel Excavation Phase 2

The last remaining sections of the culvert will be removed. Temporary bypass will be used again to control stream flow through the work area. Seepage dewatering will be collected again and pumped to a filter bag on the southwestern area of the project.

1.5.1.6. Final Stabilization

The work area will be restored to final stabilization working away from the culvert work area. The dewatering access and site area will be returned to finish grade and final stabilization measures will be installed, including erosion matting. Silt fence will remain until vegetation has been established on the site. Once the site is stable, all structural measures will be removed and property disposed.

1.5.2 Off-site Activities.

Off-site activities will include mobilization and demobilization of the office trailer. There will also be an area of the field behind the office trailer where the topsoil will be stripped back, stabilized and used for soil wasting. When excavation is complete, the topsoil will be pushed back over the top of the soil. Landowner information will be included using the Off-site Activities Form.

1.5.3 Updates

When updates are necessary A.L. St. Onge will contact Ruggles Engineering Services to submit a revised narrative.

1.6 Contact Information

1.6.1 On-Site Plan Coordinator:

Carl Gleason
A.L. St. Onge
PO Box 65
Montgomery, VT 05470
(802) 782-3978
gleason.cardl@gmail.com

Carl has over 30 years' experience in highway construction. Carl was previously a project resident engineer for VTrans highway projects. Carl is familiar with the EPSC contractor requirements, installation and maintenance methods.Carl will be onsite to implement the phases of EPSC and to coordinate the monitoring and inspections.

Carl will have the authority to hault construction and he is capable of ensuring the project will be constructed in accordance with the Plan and the terms of the project permits.

1.6.2 Plan Preparer:

Ruggles Engineering Services, Inc.
Nathan P. Sicard, P.E., VT License # 53831
1667 Shadow Lake Road
Glover, VT 05839
(802)-525-9130
nate.res@myfairpoint.net

Ruggles Engineering is familiar with the VT Standards and Specifications for Erosion Prevention and Sediment Control, relative sections of the VT Agency of Transportation Standard Specifications for Construction and Contract Special Provisions, and project specific permits.

1.7 Schedule

The contractor is attaching their proposed schedule to this plan. See Appendix A - SCHEDULES.

1.8 Inspection Form

See Appendix B - FORMS.

2 Erosion Prevention and Sediment Control Plan

See Appendix C – PLANS.

APPENDIX A – SCHEDULES

1. Contractor CPM Schedule – PREPARED BY CONTRACTOR.

APPENDIX B – FORMS

1. Off-Site Activities Form.
2. Inspection Form.

OFF-SITE ACTIVITY SUBMITTAL

- **This form is to be completed in its entirety by the Contractor/District Tech** when proposing any waste, borrow, or staging area or any work outside the defined Contract construction limits.
- **Submit to Karen Spooner:** karen.spooner@state.vt.us, Phone: (802)828-2169, Fax: (802)828-2334, VTrans Program Development Division, Environmental Section, One National Life Drive, Montpelier, VT 05633-5001
- **Submit a copy to the Resident Engineer**
- **Allow 21 calendar days (see Section 105.25 (c) of the VTrans Standard Specifications For Construction) for review once the application is administratively complete**.

- **SUBMITTAL INFORMATION**

Project Name/District:_____ **Contractor/District Tech:**_____

Contact:_____ **Phone:**_____ **Fax:**_____ **E-mail:**_____

Resident Engineer:_____ **Phone:** _____ **Fax:**_____

- **PROPOSAL INFORMATION** (Select one type of area being proposed for use per submittal and describe associated characteristics)

□ Waste □ Borrow □ Staging □ Other (ex. dewatering location):_____

Material: Type (asphalt, concrete, earthen, etc.)_____ Quantity (yds^3)_____

Total Area of Land Disturbance (sq ft)_____

Additional Info:_____

- **LANDOWNER/PROPERTY INFO** (Fill all applicable boxes; **attach a Location Map and Sketch of Area**)

Name:_____ **Address:**_____ **Phone:**_____
Print Name

□ Private Residential/Commercial □ Town/State Owned Facility □ Other

Additional Info:_____

Are there other users of this site? □ Yes □ No

Known past uses:_____

□ Location Map (must be USGS Geological Survey Map (7.5'))

□ Sketch of Area: □ North arrow □ Approx scale □ Recognizable features

Permit Info:

Act 250 Permit Exists? □ Yes □ No If Yes, #_____ Copy Enclosed? □ Yes □ No

List of Other Existing Permits:_____ _____

Landowner Agreement (Signature is required for all private-, town-, and state-owned properties)

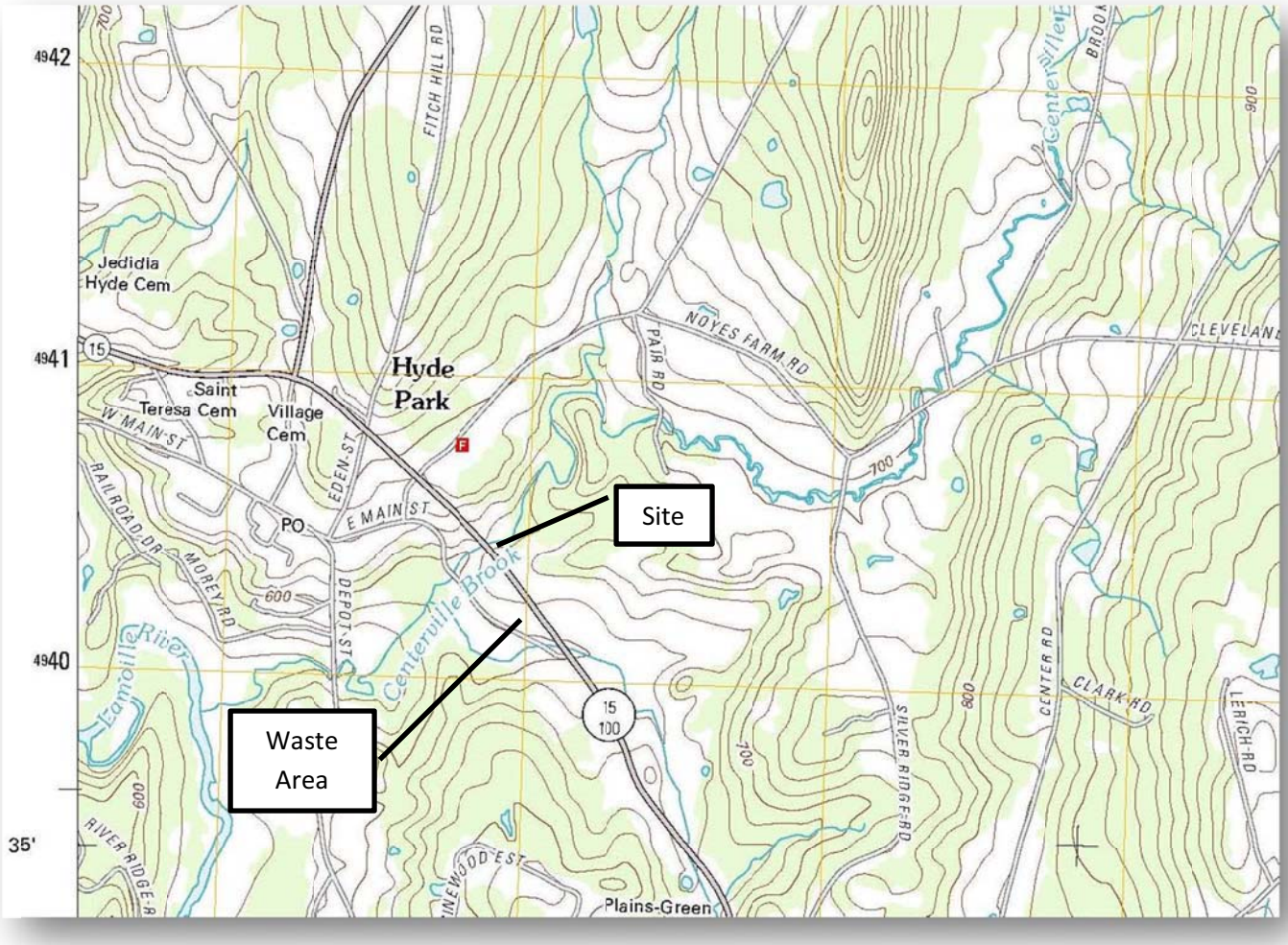
I, _____, warrant that the information in the above permit application is accurate and agree
Landowner/Facility Manager Signature

to the use of the proposed area by _____ as shown on the attached sketch. If acting as the agent of
Name of Contractor

the Landowner, I warrant (1) that the Landowner has the full right, power, and authority to authorize the proposed use, (2) that I am authorized to act as the Landowner's agent, and (3) that my authority to act as the Landowner's agent has not been revoked.

Date: _____

This clearance is for the Natural and Cultural Resources Only.



SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2

1000 500 0 METERS 1000 2000

1 0.5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

FEET

MN 15° 3' 268 MILS GN 1° 43' 30 MILS

UTM GRID AND 2012 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
XC
Grid Zone Designation
18T

2012 USGS 7.5" Quadrangle – Morrisville

VTrans Vermont Agency of Transportation	**EPSC Plan Inspection Report** (Non-Jurisdictional and Low Risk Projects)	
Project Name:	**Date:**	**Time Since Last Storm:**
Inspector:	**On-Site Coordinator:** (signature required)	

Measure Inspected	Y	N	STA/Off	Corrective Action (CA) Required	Date CA Occurred
Boundary Limits					
Site boundary markers are up and visible					
Disturbance is only occurring within marked boundaries					
Disturbance Area Limit					
Only acreage listed on *Authorization to Discharge* is disturbed at one time					
Stabilized Construction Entrance/Exit					
Off site tracking of sediment prevented					
Sediment Barriers					
Measure has been installed properly and is functioning as designed					
Accumulated sediment < ½ height of measure					
Diversion					
Upland stormwater is diverted around the work area					
Channelized Runoff					
Check structures are in place, extend the width of the channel, and have capacity to retain sediment in the next storm event					
Channels are stable with no erosion					
Exposed Soils Stabilization					
Seed and mulch, and/or matting placed in accordance w/ permit requirements and/or Specifications					
Soil is seeded and mulched or covered in erosion matting within 48 hours of final grade					
Winter Stabilization					
After Sept. 15, all disturbed areas are seeded & mulched to 3" deep or covered w/ matting					
For ongoing construction, exposed soil is mulched prior to forecasted events					
Dewatering Treatment					
Measure is preventing a discharge of turbid water from leaving the site					
Accumulated sediment is removed to allow sufficient treatment					

* Additional Measures and Discharges shall be reported on the back side of this form.

VTrans Vermont Agency of Transportation

EPSC Plan Inspection Report (Non-Jurisdictional and Low Risk Projects)

Measure Inspected	Y	N	STA/Off	Corrective Action	Date Taken
Additional Measures					
Discharges Noted					

* If there is a discharge of visibly discolored stormwater from the construction site to waters of the state, the On-Site Plan Coordinator shall inform the Resident Engineer and take corrective action and report the discharge in accordance with Section 6.1 of Permit 3-9020.

APPENDIX C – PLANS

1. EPSC Narrative Section 1-4 (Contract Plans).
2. EPSC Plan and Detail Sheets.

EROSION CONTROL NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPLACEMENT OF BRIDGE #42 (CORRUGATED METAL PLATE PIPE) ON VT 15 SPANNING 15 FEET OVER THE BODY OF WATER KNOWN AS CENTERVILLE BROOK IN THE TOWN OF HYDE PARK. THE PROJECT BEGINS AT A POINT 0.5 MILES SOUTHEASTERLY OF ITS INTERSECTION WITH VT ROUTE 100 AND PROCEEDS SOUTHEASTERLY ALONG VT ROUTE 15 FOR 0.045 MILES. WORK WILL INVOLVE REMOVAL OF EXISTING PIPE, CONSTRUCTION OF NEW ABUTMENTS AND CONSTRUCTION OF THE BRIDGE SUPERSTRUCTURE ON THE EXISTING ALIGNMENT. ALSO INCLUDED WILL BE RELATED TEMPORARY ROADWAY DETOUR, PERMANENT CHANNEL, AND APPROACH WORK.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA AND SUGGESTED MOT METHOD AS SHOWN ON THE ATTACHED EPSC PLAN. THE AREA OF DISTURBANCE DOES NOT INCLUDE WASTE, BORROW AND STAGING AREAS. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE LOCATION OF THE WASTE, BORROW AND STAGING AREAS, AS WELL AS THE MATERIAL STOCKPILE, REFUELING AND MAINTENANCE AREAS. A MAP SHALL BE ATTACHED IF NECESSARY.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 84,035 SQUARE FEET (1.93 ACRES).

IT IS ANTICIPATED THAT THE PROJECT WILL LAST TWO CONSTRUCTION SEASONS.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY, EXISTING ROADS, UTILITIES

THE TOPOGRAPHY ON BOTH SIDES OF VT 15 SLOPES DOWN STEEPLY AWAY FROM THE ROADWAY AND CONSISTS MOSTLY OF FIELD GRASS ON THE SLOPES AND LIGHTLY WOODED AREAS NEAR THE TOE OF SLOPE. PORTIONS NEAR THE WATER BODY ARE LIGHTLY WOODED WITH SHALLOW SLOPES. THE GENERAL TOPOGRAPHY OF THE AREA SLOPES FROM EAST TO WEST. ALL ROAD SURFACES IN THE PROJECT AREA ARE BITUMINOUS CONCRETE PAVEMENT. ONE COMMERCIAL PROPERTY BORDERS THE PROJECT ON THE SOUTHEASTERLY CORNER AND ONE RESIDENTIAL PROPERTY ON THE SOUTHWEST CORNER. BOTH ARE OUTSIDE THE PROJECT LIMITS.

THERE ARE OVERHEAD ELECTRICAL LINES ALONG THE EASTERLY SIDE OF THE NORTH APPROACH. THE LINES CROSS TO THE WESTERLY SIDE OF THE SOUTH APPROACH. THESE WILL BE RELOCATED TO ACCOMMODATE THE PROJECT. THERE ARE NO UNDERGROUND UTILITIES WITHIN THE PROJECT SITE.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THE BRIDGE SPANS THE BODY OF WATER KNOWN AS CENTERVILLE BROOK. THE BROOK IS CLASSIFIED AS SINUOUS. IN THE REACH INFLUENCED BY THE BRIDGE THE BROOK IS CHANNELIZED AND STRAIGHT, ITS BOUNDARIES ARE ALLUVIAL, AND ITS STREAM BANKS ARE INCISED WITH A NARROW FLOOD PLAIN. THE STREAM BED CONSISTS OF SAND AND GRAVEL AND LEDGE. CONSTRUCTION OF THE NEW BRIDGE WILL REQUIRE SOME PERMANENT IMPACTS OF CENTERVILLE BROOK. IT IS ANTICIPATED THAT EXISTING SOILS WILL BE DISTURBED IN THE BROOK DURING THE REMOVAL OF THE EXISTING CULVERT.

THE FOLLOWING DESCRIPTIONS ARE FOR THE EXISTING SITE PLANS: SURFACE DRAINAGE FROM VT 15 FLOWS DOWN EXISTING VEGETATED AND WOODED SIDESLOPES AND INTO CENTERVILLE BROOK.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF WELL ESTABLISHED FIELD AND LIGHTLY WOODED AREAS. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS REQUIRED FOR REPLACEMENT OF THE EXISTING CULVERT WITH A NEW BRIDGE. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES OR REPLACED WITH STONE FILL COVERED WITH GRUBBING MATERIAL.

1.2.4 SOILS

SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE FOR THE COUNTY OF LAMOILLE, VERMONT. SOILS ON THE PROJECT SITE ARE:

NEAR THE SOUTHERN PROJECT LIMITS AND NEAR THE NORTHERLY END OF THE BRIDGE THE SOIL TYPE IS BOOTHBAY SILT LOAM, 3 TO 8 PERCENT SLOPE, “K FACTOR” = 0.49. THE EROSION HAZARD IS “HIGH” DUE TO ITS K FACTOR.

NEAR THE NORTHERLY PROJECT LIMITS THE SOIL TYPE IS SALMON VERY FINE SANDY LOAM, 8 TO 15 PERCENT SLOPE, “K FACTOR” = 0.49. THE EROSION HAZARD IS “HIGH” DUE TO ITS K FACTOR.

NEAR CENTERVILLE BROOK THE SOIL TYPE IS BOOTHBAY SILT LOAM, 15 TO 25 PERCENT SLOPE, “K” FACTOR = 0.49. THE EROSION HAZARD IS “HIGH” DUE TO ITS K FACTOR.

1.2.4 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHAEOLOGICAL AREAS: YES (AREA OF ARCHAEOLOGICAL SIGNIFICANCE ALONG THE SOUTHEAST APPROACH BEYOND THE PROJECT LIMITS OF WORK.)
PRIME AGRICULTURE LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: CENTERVILLE BROOK
WETLANDS: YES, CLASS II, ADJACENT TO SOUTHEAST APPROACH QUADRANT
FISH & WILDLIFE HABITAT: COLDWATER FISHERY W/SEASONAL RESTRICTIONS

1.3 RISK EVALUATION

THE PROJECT FALLS UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES FOR LOW RISK PROJECTS. ANY MODIFICATIONS TO THE PROJECT THAT INCREASE THE RISK TO ENVIRONMENTAL RESOURCES SHALL BE EVALUATED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT TO AVOID SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES. BECAUSE THE PROJECT FALLS UNDER THE CGP 3-9020, BARRIER FENCE SHALL BE USED INSTEAD OF PROJECT DEMARCATION FENCE WITHIN 100 FEET OF A WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC).

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR’S PROGRESS SCHEDULE. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHOULD BE INSTALLED PRIOR TO ANY UPSLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN OR AS NECESSARY. BECAUSE THE PROJECT FALLS UNDER THE CGP 3-9020, SILT FENCE, WOVEN WIRE REINFORCED SHALL BE USED INSTEAD OF SILT FENCE WITHIN 100 FEET OF RECEIVING WATERS.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

DIVERSION OF UPLAND RUNOFF NOT ANTICIPATED.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

THE USE OF STONE CHECK DAMS IS ANTICIPATED FOR THIS PROJECT IF A TEMPORARY ROADWAY DETOUR IS UTILIZED.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS.

SEED AND MULCH WILL BE USED AS PERMANENT CONTROLS TO STABILIZE EXPOSED SOIL. STONE FILL WILL BE USED TO STABILIZE THE SLOPES AND STREAMBED AROUND ABUTMENTS.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9020 AUTHORIZATION.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

SHOULD EARTH DISTURBANCE BE PERFORMED OUTSIDE THE CONSTRUCTION SEASON, A WINTER EROSION AND SEDIMENT CONTROL PLAN DESCRIBING ALTERNATIVE STABILIZATION METHODS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO AUGUST 15 FOR APPROVAL.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER, AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

1.4.11 DE-WATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

TREATMENT OF DEWATERING COFFERDAM IS NOT ANTICIPATED.

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STIPULATIONS.

1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SUBSECTIONS 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

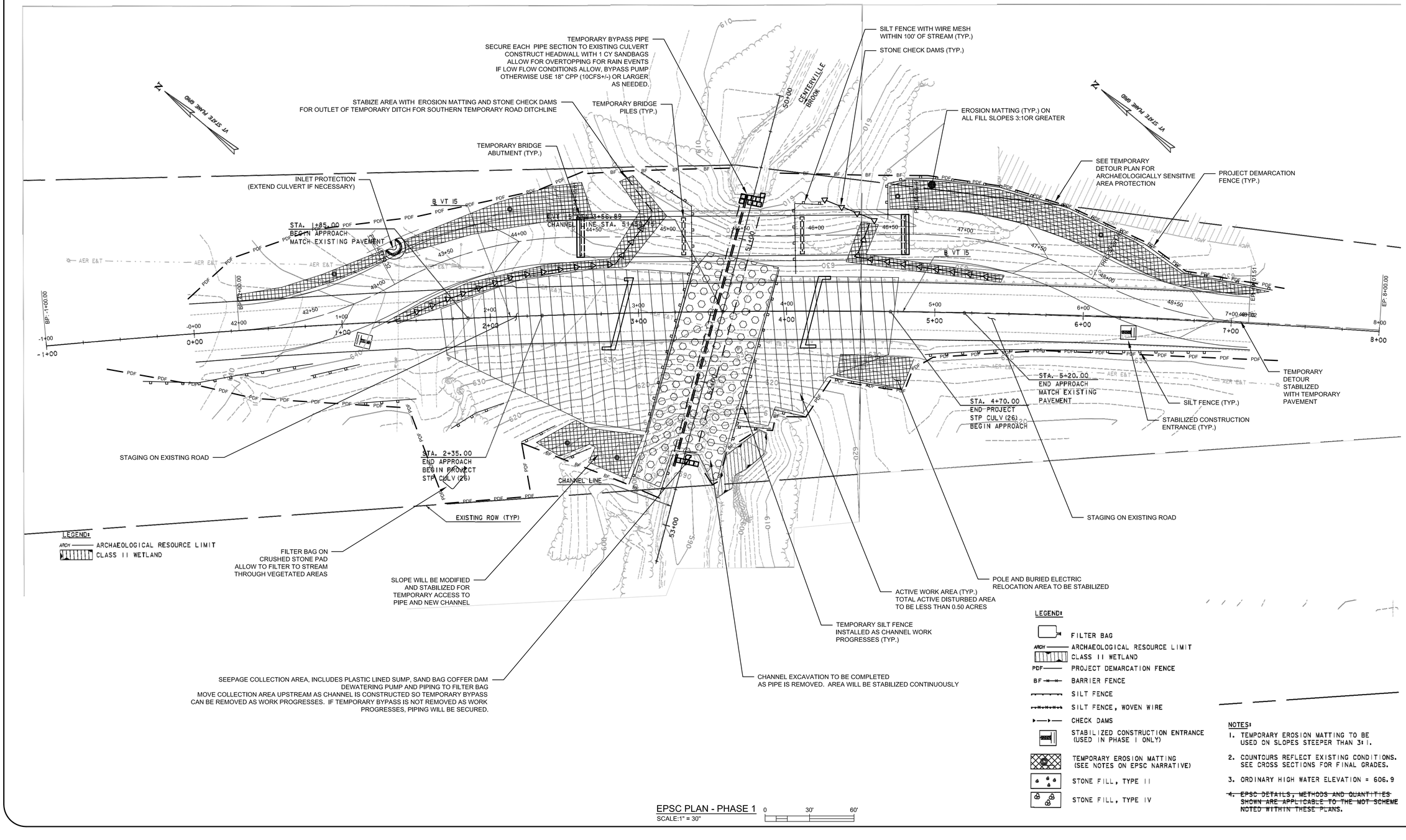
PROJECT NAME: HYDE PARK
PROJECT NUMBER: STP CULV(26)

FILE NAME: z11b292bdr_epscn.dgn
PROJECT LEADER: R. HEBERT
DESIGNED BY: D. BRYANT
EPSC NARRATIVE

PLOT DATE: 11/6/2013
DRAWN BY: D. BRYANT
CHECKED BY: D. BURHANS
SHEET 50 OF 60

GENERAL NOTES:

1. GENERAL NOTES APPLY TO ALL DRAWINGS FOR THE ENTIRE PROJECT. DRAWING NOTES APPLY ONLY TO THOSE DRAWINGS WHICH THEY APPEAR.
2. THIS PROJECT INCLUDES A SITE SPECIFIC EROSION CONTROL PLAN BASED ON THE CONTRACTORS INFORMATION.
3. THIS PLAN IS A SUPPLEMENT TO THE CONTRACT PLANS. THIS PLAN WAS BASED ON AN OVERLAY OF THE CONTRACT PLANS. FOLLOW ALL GENERAL NOTES, SPECIAL PROVISIONS AND EPSC NARRATIVE DETAILS.
4. THE STAGING AREA SITE INCLUDES IMAGERY FROM THE VERMONT NATURAL RESOURCES ATLAS. CONDITIONS MAY VARY IN THE FIELD.



EPSC PLAN - PHASE 1
SCALE:1" = 30"
0 30' 60'

RUGGLES
ENGINEERING SERVICES, INC.
1607 SHADOW LAKE ROAD, GLOVER, VT 05839
Civil Engineering-Site Development
Septic System Design-Soils Analysis
802-525-1930

JOB No. 14006

STATE OF VERMONT — Kim P. Ruggles — No. 53831 — REGISTERED PROFESSIONAL ENGINEER

PREPARED FOR: A.L. ST. ONGE CONTRACTORS, INC.
P.O. BOX 65, MONTGOMERY, VT 05470
Address

SITE SPECIFIC EPSC PLAN - PHASE 1
HYDE PARK STP CULV (26)

REVISIONS

No.	Description	Date
,	,	,
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,	,	,
,	,	,

Designed: NPS
Drawn: NPS
Checked: -
DATE: 4/17/14

1
Sheet of

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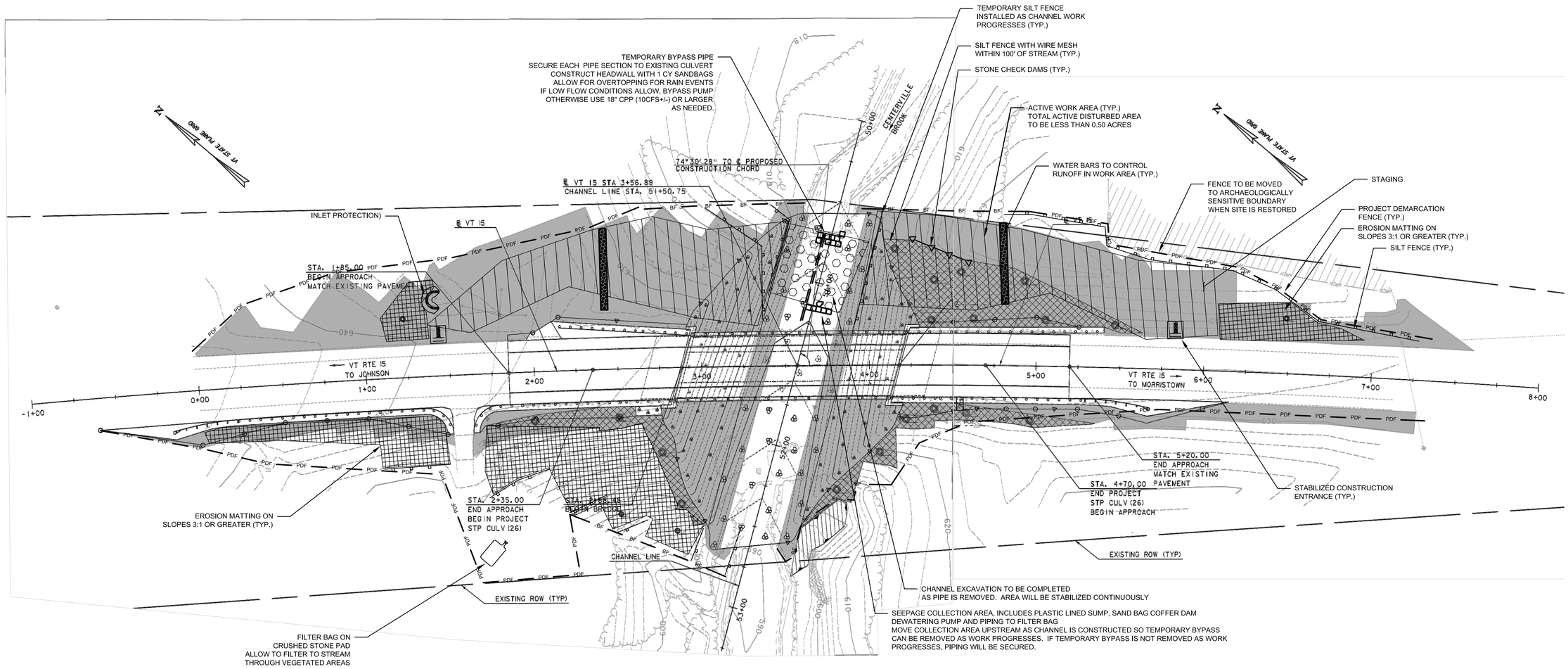
GENERAL NOTES:

1. GENERAL NOTES APPLY TO ALL DRAWINGS FOR THE ENTIRE PROJECT. DRAWING NOTES APPLY ONLY TO THOSE DRAWINGS WHICH THEY APPEAR.
2. THIS PROJECT INCLUDES A SITE SPECIFIC EROSION CONTROL PLAN BASED ON THE CONTRACTORS INFORMATION.
3. THIS PLAN IS A SUPPLEMENT TO THE CONTRACT PLANS. THIS PLAN WAS BASED ON AN OVERLAY OF THE CONTRACT PLANS. FOLLOW ALL GENERAL NOTES, SPECIAL PROVISIONS AND EPSC NARRATIVE DETAILS.
4. THE STAGING AREA SITE INCLUDES IMAGERY FROM THE VERMONT NATURAL RESOURCES ATLAS. CONDITIONS MAY VARY IN THE FIELD.



LEGEND:

- FILTER BAG
- ARCHAEOLOGICAL RESOURCE LIMIT
- CLASS II WETLAND
- PROJECT DEMARCATION FENCE
- BARRIER FENCE
- SILT FENCE
- SILT FENCE, WOVEN WIRE
- CHECK DAMS
- STABILIZED CONSTRUCTION ENTRANCE (USED IN PHASE I ONLY)
- TEMPORARY EROSION MATTING (SEE NOTES ON EPSC NARRATIVE)
- STONE FILL, TYPE II
- STONE FILL, TYPE IV

NOTES:

1. TEMPORARY EROSION MATTING TO BE USED ON SLOPES STEEPER THAN 3:1.
2. COUNTOURS REFLECT EXISTING CONDITIONS. SEE CROSS SECTIONS FOR FINAL GRADES.
3. ORDINARY HIGH WATER ELEVATION = 606.9
4. ~~EPSC DETAILS, METHODS AND QUANTITIES SHOWN ARE APPLICABLE TO THE NOT SCHEME NOTED WITHIN THESE PLANS~~

EPSC PLAN - PHASE 2
SCALE:1" = 30"

0 30' 60'

RUGGLES ENGINEERING SERVICES, INC.
1607 SHADOW LAKE ROAD, GLOVER, VT 05839
Civil Engineering-Site Development
Septic System Design-Soils Analysis
802-525-1801

JOB No. 14006

STATE OF VERMONT — NICHOLAS P. STUART — No. 53831 — REGISTERED PROFESSIONAL ENGINEER

PREPARED FOR: ST. ONGE CONTRACTORS, INC.
Address: P.O. BOX 65, MONTGOMERY, VT 05470

SITE SPECIFIC EPSC PLAN - PHASE 2
HYDE PARK STP CULV (26)

REVISIONS		
No.	Description	Date

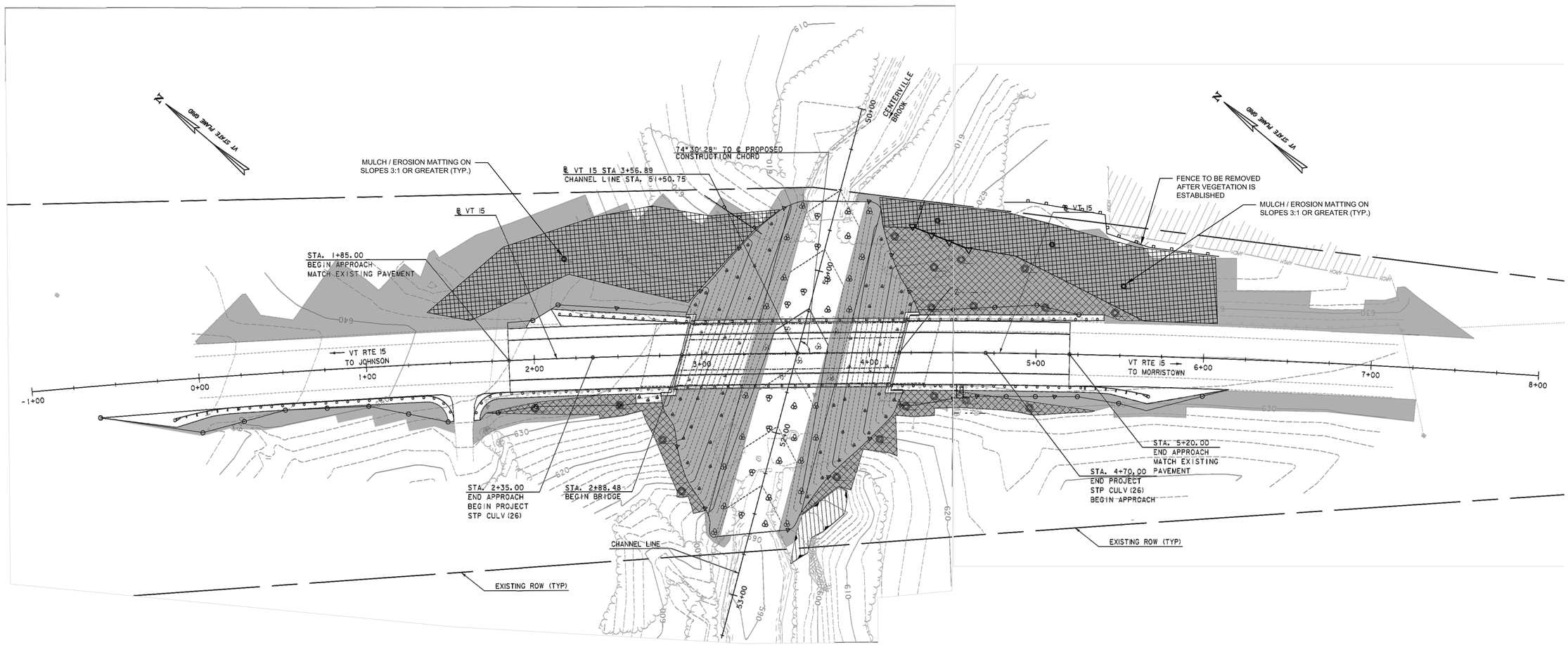
Designed: NPS
Drawn: NPS
Checked: -
DATE: 4/17/14

Sheet 2 of

C:\Users\Stuart\Desktop\Projects\St. Onge, AL\EPSC Plan, Hyde Park\EPSC\EPSC-PHASE 2.dwg-2013/02/18

GENERAL NOTES:

1. GENERAL NOTES APPLY TO ALL DRAWINGS FOR THE ENTIRE PROJECT. DRAWING NOTES APPLY ONLY TO THOSE DRAWINGS WHICH THEY APPEAR.
2. THIS PROJECT INCLUDES A SITE SPECIFIC EROSION CONTROL PLAN BASED ON THE CONTRACTORS INFORMATION.
3. THIS PLAN IS A SUPPLEMENT TO THE CONTRACT PLANS. THIS PLAN WAS BASED ON AN OVERLAY OF THE CONTRACT PLANS. FOLLOW ALL GENERAL NOTES, SPECIAL PROVISIONS AND EPSC NARRATIVE DETAILS.
4. THE STAGING AREA SITE INCLUDES IMAGERY FROM THE VERMONT NATURAL RESOURCES ATLAS. CONDITIONS MAY VARY IN THE FIELD.



LEGEND:

- FILTER BAG
- ARCHAEOLOGICAL RESOURCE LIMIT (ARCH)
- CLASS II WETLAND
- PROJECT DEMARCATION FENCE (PDF)
- BARRIER FENCE (BF)
- SILT FENCE
- SILT FENCE, WOVEN WIRE
- CHECK DAMS
- STABILIZED CONSTRUCTION ENTRANCE (USED IN PHASE I ONLY)
- TEMPORARY EROSION MATTING (SEE NOTES ON EPSC NARRATIVE)
- STONE FILL, TYPE II
- STONE FILL, TYPE IV

NOTES:

1. TEMPORARY EROSION MATTING TO BE USED ON SLOPES STEEPER THAN 3:1.
2. COUNTOURS REFLECT EXISTING CONDITIONS. SEE CROSS SECTIONS FOR FINAL GRADES.
3. ORDINARY HIGH WATER ELEVATION = 606.9
4. ~~EPSC DETAILS, METHODS AND QUANTITIES SHOWN ARE APPLICABLE TO THE MOT SCHEME NOTED WITHIN THESE PLANS~~

EPSC PLAN - PHASE 3
SCALE:1" = 30"
0 30' 60'

RUGGLES ENGINEERING SERVICES, INC.
1607 SHADOW LAKE ROAD, GLOVER, VT 05839
Civil Engineering-Site Development
Septic System Design-Soils Analysis
802-525-1180

JOB No. 14006

STATE OF VERMONT — JOHN P. SCOTT — No. 53831 — REGISTERED PROFESSIONAL ENGINEER

PREPARED FOR: A.L. ST. ONGE CONTRACTORS, INC.
Address: P.O. BOX 65, MONTGOMERY, VT 05470

SITE SPECIFIC EPSC PLAN - PHASE 3
HYDE PARK STP CULV (26)

REVISIONS		
No.	Description	Date
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,	,	,
,	,	,

Designed: NPS
Drawn: NPS
Checked: -
DATE: 4/17/14

3
Sheet of

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Vermont Agency of Natural Resources

Vermont Agency of Natural Resources

vermont.gov

PROJECT AREA

Use Stabilized Construction Entrance

Office Trailer site

1.Strip topsoil from field, push into berm along downhill slope/silt fence, temporary seed and mulch.
2. Fill site with soil.
3. Cover site with topsoil.
4. Seed and mulch for final stabilization.

Stream and wetland, remain a minimum of 50' from treeline.

Silt Fence

LEGEND

Town Boundary

1: 2,324

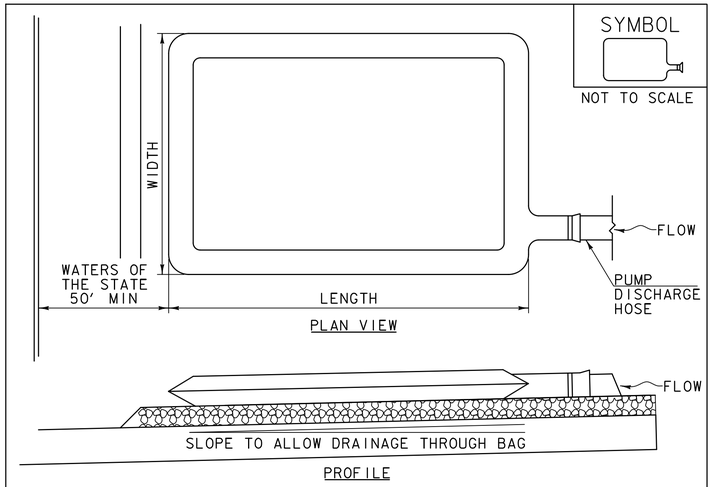
1in = 194 ft.
1cm = 23 meters

387.0 0 194.00 387.0 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

NOTES

Map created using ANR's Natural Resources Atlas



CONSTRUCTION SPECIFICATIONS

THE PRIMARY PURPOSE OF FILTER BAG IS TO RETAIN SILT, SAND, AND FINES DURING DEWATERING OPERATIONS.

FILTER BAGS SHALL BE INSTALLED ON A VEGETATED SLOPE GRADED TO ALLOW INCOMING WATER TO FLOW THROUGH THE BAG.

FILTER BAGS MAY ALSO BE PLACED ON COARSE AGGREGATE, STONE, OR HAYBALES TO INCREASE FILTRATION EFFICIENCY.

FILTER BAGS SHALL BE LOCATED A MINIMUM OF 50' FROM WATERS OF THE STATE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

THE NECK OF THE FILTER BAG SHALL BE STRAPPED TIGHTLY TO THE DISCHARGE HOSE.

A FILTER BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A REASONABLE RATE.

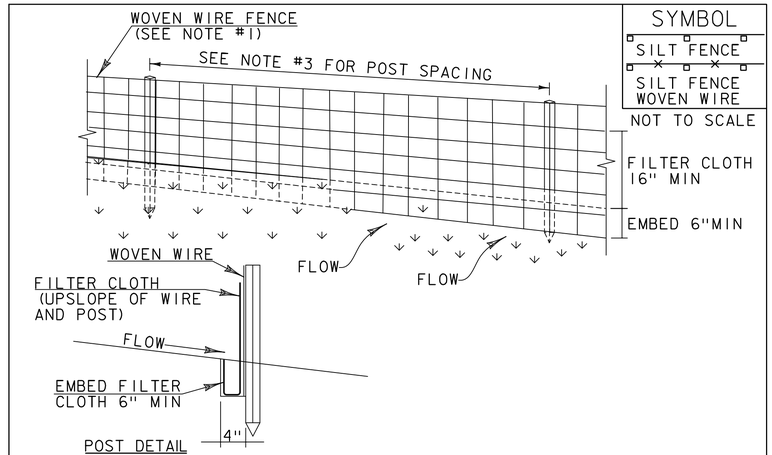
FILTER BAG SHALL BE DISPOSED OF AS APPROVED IN THE EPSC PLAN OR AS DIRECTED BY THE ENGINEER.

FILTER BAG

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR FILTER BAG (PAY ITEM 653.45) AND AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

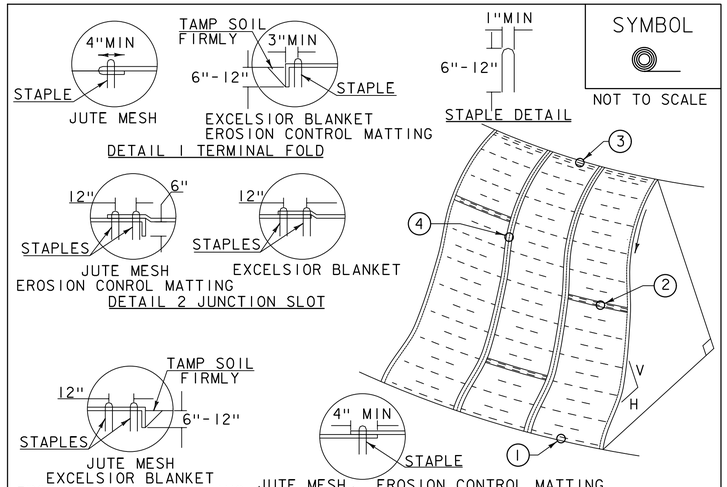
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF



CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) ~~OR PERMANENT EROSION MATTING (PAY ITEM 653.21).~~

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF

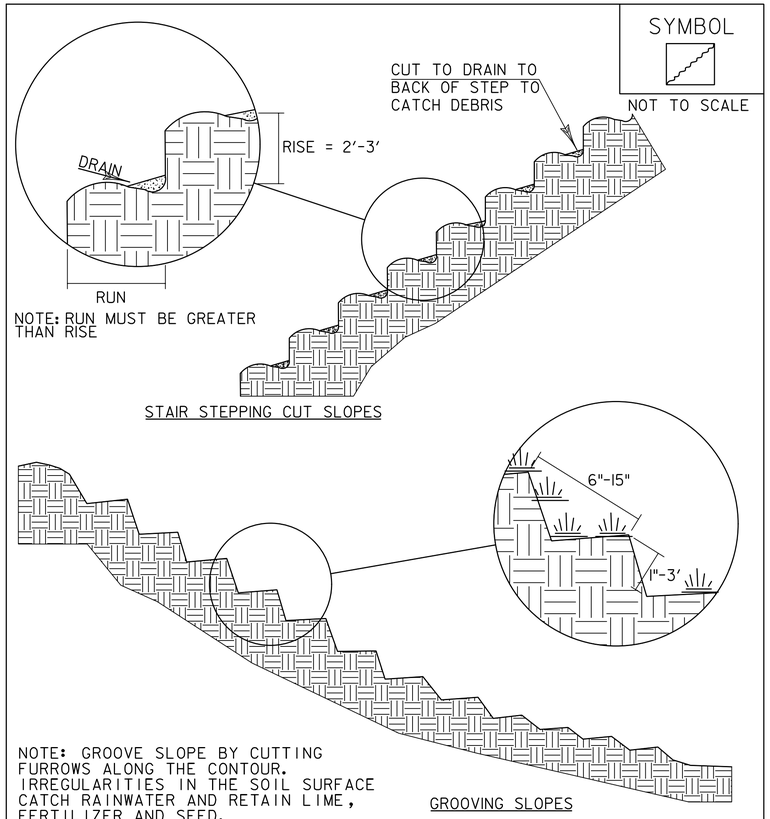
PROJECT NAME: HYDE PARK
PROJECT NUMBER: STP CULV(26)

FILE NAME: z11b292bdr_erodet.dgn
PROJECT LEADER: R. HEBERT
DESIGNED BY: D. BRYANT
EPSC DETAILS - 1

PLOT DATE: 11/6/2013
DRAWN BY: D. BRYANT
CHECKED BY: D. BURHANS
SHEET 57 OF 60

SYMBOL

NOT TO SCALE



STAIR STEPPING CUT SLOPES

GROOVING SLOPES

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

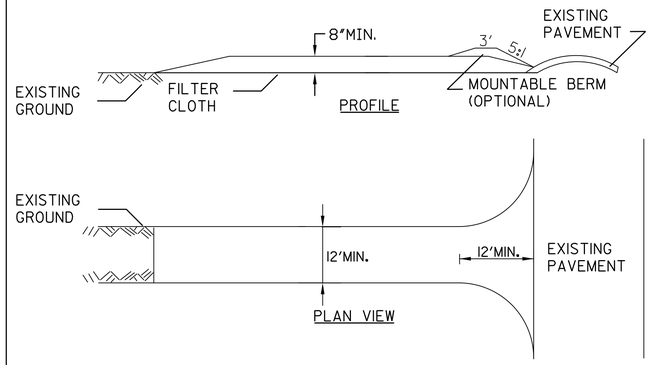
SURFACE ROUGHENING

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF

SYMBOL



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1-4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH APPLIES).
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STABILIZED CONSTRUCTION ENTRANCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.35 VEHICLE TRACKING PAD

REVISIONS	
FEBRUARY 9, 2007	WHF
MARCH 8, 2007	JMF

PROJECT NAME: HYDE PARK

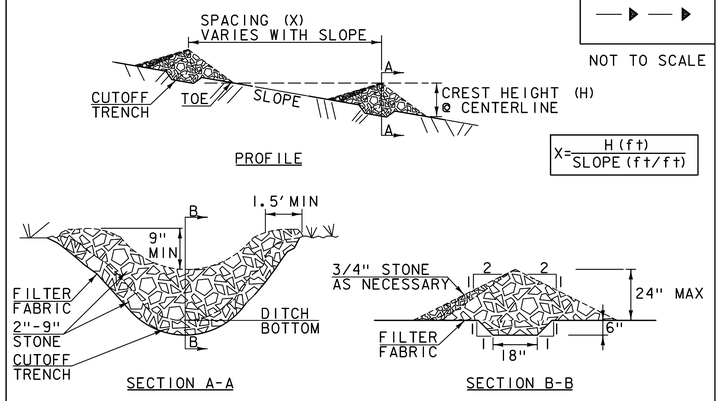
PROJECT NUMBER: STP CULV(26)

FILE NAME: zllb292bdr_erodet.dgn
PROJECT LEADER: R. HEBERT
DESIGNED BY: D. BRYANT
EPSC DETAILS - 2

PLOT DATE: 11/6/2013
DRAWN BY: D. BRYANT
CHECKED BY: D. BURHANS
SHEET 58 OF 60

SYMBOL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OFTHE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR TEMPORARY STONE CHECK DAM, TYPE I (PAY ITEM 653.25)

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 8, 2009	WHF

VAOT RURAL AREA MIX

	LBS/AC				
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
37.5%	22.5	45	CREEPING RED FESCUE	85%	98%
37.5%	22.5	45	TALL FESCUE	90%	95%
5.0%	3	6	RED TOP	90%	95%
15.0%	9	18	BIRDSFOOT TREFOIL	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	85%	95%
100%	60	120			

VAOT URBAN AREA MIX

	LBS/AC				
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
42.5%	34	68	CREEPING RED FESCUE	85%	98%
10.0%	8	16	PERENNIAL RYE GRASS	90%	95%
42.5%	34	68	KENTUCKY BLUE GRASS	85%	85%
5.0%	4	8	ANNUAL RYE GRASS	85%	95%
100%	80	160			

SOIL AMENDMENT GUIDANCE

FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	*FOLLOW*	PELLETIZED	*FOLLOW*
500 LBS/AC	*MANUFACTURER*	2 TONS/AC	*MANUFACTURER*

CONSTRUCTION GUIDANCE

1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER
5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
6. TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
7. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
8. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

REVISIONS	
JUNE 23, 2009	WHF
JANUARY 15, 2010	WHF
FEBRUARY 16, 2011	WHF

PROJECT NAME: HYDE PARK
PROJECT NUMBER: STP CULV(26)

FILE NAME: z11b292bdr_erodet.dgn
PROJECT LEADER: R. HEBERT
DESIGNED BY: D. BRYANT
EPSC DETAILS - 3

PLOT DATE: 11/6/2013
DRAWN BY: D. BRYANT
CHECKED BY: D. BURHANS
SHEET 59 OF 60