

T. Buck Construction, Inc.

*249 Merrow Road, Auburn, Maine 04210-8319
(207) 783-6223 * (FAX) 783-3970*

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

Vermont Agency of Transportation

Bridge rehabilitation in the town of Jamaica, VT

ER BHF 013-1(16)

Submitted: 1/11/13

RESUBMITTED: 2/8/13

1.0 SPSC Plan Narrative

1.1 PROJECT DESCRIPTION

This project involves the replacement of bridge 78 which is located in the town of Jamaica on Vermont Route 10-0, Approximately 1.2 miles south of the junction of Vermont Route 100 and 20. There is currently a temporary bridge in place, off alignment, following the destruction of the Old Bridge 78 during Tropical Storm Irene. The new structure will be approximately 241 feet in length with 59 feet of road work. Abutment #1 & #2 will both be integral abutments on piles. The total area of disturbance as shown on the attached EPSC plan is approximately 1.42 Acres. It is anticipated that this project will last one construction season.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY

The topography of the area is mostly well established tree lines with occasional open areas. VT route 100, Smith Rd and Henderson Rd. are within the project site. For final contours and slopes see cross section sheets.

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

Wardsboro brook is the only water source on the project site. The brook is classified as Sinuous, Semi-Alluvial, And Incised with flood damage. The stream bed consists of gravel, cobbles, and boulders.

1.2.3 VEGETATION

The Vegetation in the project area consists of hardwood trees and undergrowth,. The impact to the vegetation will be limited to that which is directly affected by replacement of the existing structure. Upon project completion the channel will be armored with stone fill type IV as specified on the plans. Disturbed vegetation will be reestablished with standard seed and mulch practices.

1.2.4 SOILS

All soil data came from the U.S. Department of Agriculture Soil Conservation Service for the County of Windham, Vermont. Soils on the project site are:

56E	Monadnock Fine Sandy Loam	25% TO 50% Slopes	"K" Factor = 0.28
50B	Colton Loamy Fine Sand	2% TO 8% Slopes	"K" Factor = 0.17
50D	Colton Loamy Fine Sand	15% TO 25% Slopes	"K" Factor = 0.17
64	Udfluvents Loamy	0% TO 3% Slopes	"K" Factor = N/A
23	Ondawa Fine Sandy Loam	0% TO 3% Slopes	"K" Factor = 0.24

Note: K-values generally indicate the following:

0.0 – 0.23 = Low Erosion Potential

0.24 – 0.36 = Moderate Erosion Potential

0.37 – And Higher = High Erosion Potential

1.2.5 SENSITIVE RESOURCE AREA

Critical Habitats: NO

Historical or Archeological Areas: NO

Prime Agricultural Land: NO

Threatened and Endangered Species: NO

Water Resource: Wardsboro Brook

Wetlands: NO

1.3 RISK EVALUATION

This project falls under the jurisdiction of general permit 3-9020 for storm water 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 consist of applying measures throughout construction of the project in order to minimize 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 of 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 this project falls under the CGP3-9020, 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 DISTURBED 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 barriers 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 shall be installed prior to any upslope work.

1.4.5 DIVERT UPLAND RUNOFF

Diversions 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.

It is not anticipated that any diversionary measures are needed on this project.

1.4.6 SLOW DOWN CHANNELISED RUNOFF

Check structures shall be utilized to reduce the velocity, and thus the erosive potential, of concentrated flow in channels.

It is not anticipated that any check structures will be needed on this project.

1.4.7 CONSTRUCT PERMANENT CONTROLS

Permanent storm water treatment devices shall be installed as shown on the plans and in accordance with permit conditions. Stone fill shall be installed as shown on the EPSC plans. Geotextile shall be installed below the stone fill type IV as shown on channel cross sections.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

All areas of disturbance must have temporary stabilize in place within 48 hours of disturbance or in accordance with the construction general permit 3-9020 authorization.

Surface Roughing 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 sloped steeper than 1:3

The forecast if 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 (Oct 15th – April 15th). Refer to the low risk site handbook for guidance.

1.4.10 STABILIZE SOIL AT FINAL GRADE

The urban seed mix shall be used on all areas to be re-vegetated as shown on the final condition plans. 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 anticipated. A filter bag location for the treatment has been proposed and is shown on the plans. However the specific means for treatment of discharge shall be provided by the contractor.

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

1.5.1 CONSTRUCTION SEQUENCE

1) Setup Job Trailers and Mobilize Equipment – Mid/Late January (1 week)

The job trailers and construction equipment will be kept near station 118+00 (left) on the property of Kevin & Dana Ladd. An offsite activity submittal was submitted and approved. The entrance to the staging area will be stabilized using gravel/stone in accordance with item 653.35 Vehicle Tracking Pad. Silt fence and other sediment barriers will be installed around any disturbed soil that may enter the river.

2) Construct Abutments – Mid / Late April (6 Weeks)

The construction of the abutments up to the bridge seat elevation will require excavation near station 119+50 and 121+90. The abutments will be pile caps with return wing walls as shown on plan sheets 34-37 of 85. The excavation will not be lower than the Q25 elevation (675.9) so no impact to the river is anticipated. T Buck will slope the excavation to provide access to construct the pile cap abutments. All disturbed slopes will be stabilized in accordance with this plan. The abutments will be backfilled up to the specified elevation as soon as the concrete has reached the required strength. Final slope stabilization located under the structural steel will be installed prior to structural steel being set in accordance with note 8 on sheet 3.

3) Construct Pier – Mid April – Late June (8 Weeks)

This activity includes the installation and removal of an access road and temporary causeway to the pier location, and the construction of the pier according to the plans & specs. The access road will be constructed from station 122+00 back to station 120+75. The access road will be cut through the existing slope. The road will be stabilized with stone / rip rap as needed for construction vehicles to utilize. The existing rip rap on the slope will be utilized to the greatest extent possible when constructing the temporary causeway leading to the pier location. The road will be removed after the pier is constructed and the final slopes can be achieved without the need to access the pier for construction purposes.

The construction of the pier begins with the installation of a sheet pile cofferdam near station 120+75. The cofferdam construction will require excavators to dig directly into the streambed to remove a layer of "cobbles" as shown on boring B-104 on plan sheet 28 of 85. Prior to an excavator digging in the river, sediment barriers such as filter curtain and sand bag diversion structures will be utilized to minimize the effect on the downstream waters. In general, T Buck will aim to contain the excavation area until the sheet pile cofferdam is installed. Once the sheet pile cofferdam is installed, it can be excavated and de watered in accordance with section 1.4.11 of this plan.

The contract drawings show a proposed location for a filter bag between the new bridge and existing temporary bridge. T Buck plans to pump the water from the cofferdam under the temporary and then into a ditch along the western side of the temporary bridge. Check dams will be used to filter the pumped water before it enters the stream.

4) Remove Existing Temporary Bridge (6 weeks)

The removal of the temporary bridge comes after the new bridge is completely open and operational. Once the Mabey Bridge is removed, the approaches can be excavated and shaped to the final lines and grades as shown on sheets 53-55 of 85. The disturbed slopes will be stabilized in accordance with this plan.

1.5.2 OFF-SITE ACTIVITIES

Separate Off-Site Activity submittals will be provided as soon as all the required documentation is acquired. In general, T Buck plans to stage the trailers and equipment near the project site on Kevin & Dana Ladd's property located near station 118+00. T Buck plans on disposing of excess material at a pit owned by Cersosimo Industries, Inc. located in East Jamaica (approximately 2 miles from site). All proper erosion control measures will be utilized on all off site locations.

1.5.3 UPDATES

As changes are required in the field, T Buck will alter this plan and describe such changes meeting the guidelines of section 1.5.1.

1.6 CONTACT INFORMATION

1.6.1 The on-site plan coordinator will be Harry Pottle. He can be reached at 207-754-2169 or at his office number (TBD). Harry has managed several projects in Vermont, most recently a bridge project in Springfield. Harry has been to erosion control training and understands the intent and requirements of erosion control procedures. Harry will be on-site every day and has the ability of halt construction. And Harry is capable and responsible for making sure the project is constructed in accordance with the plans and specs.

1.6.2 The Plan Preparer is Brian Emmons. He can be reached at the main office in Auburn, Me 207-783-6223 x 205. His cell phone number is 207-212-0960. Brian has prepared several erosion control plans for the state of Vermont in recent years as well as numerous plans in Maine and NH over the past 8 years. Brian estimated the project and understands the applicable spec sections and the intent of the plans as it relates to erosion control as well as the structural concept. Brian will communicate with Harry on a daily basis to ensure the project is being constructed properly.

1.7 CONSTRUCTION SCHEDULE

See the attached Construction Schedule.

1.8 INSPECTION FORM

T Buck Construction will utilize the standard inspection form found at:

<http://www.aot.state.vt.us/TechServices/EnvPermit/erosionpreventionandsedimentcontrol.htm>

2.0 EROSION PREVENTION AND SEDIMENT CONTROL PLAN

Construction Sequence

- The colored site plan corresponds to the steps described in section 1.5.1
- See attached cofferdam construction sequence
- See attached Contract drawings

Offsite Activity

- See attached approval for staging area on the Ladd property.
- It is anticipated that an offsite activity submittal will be completed for a gravel pit nearby as the location for all excess excavation.

Details

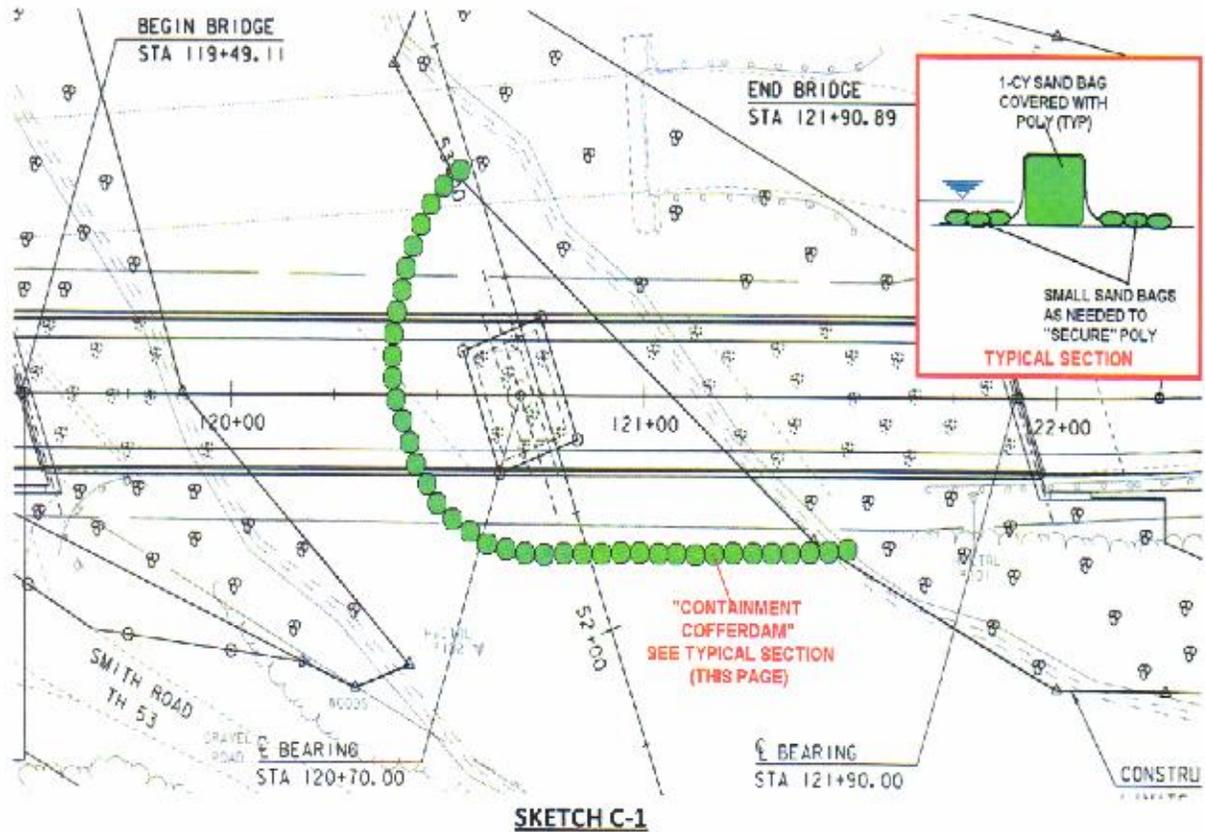
- See attached standard details in applicable contract drawings

Updates

- In the event that actual site conditions make it impossible or impracticable to drive stakes for proper installation of silt fence, T Buck intends on using Curlex Sediment Log. A cut sheet is attached to this plan.

COFFERDAM CONSTRUCTION SEQUENCE

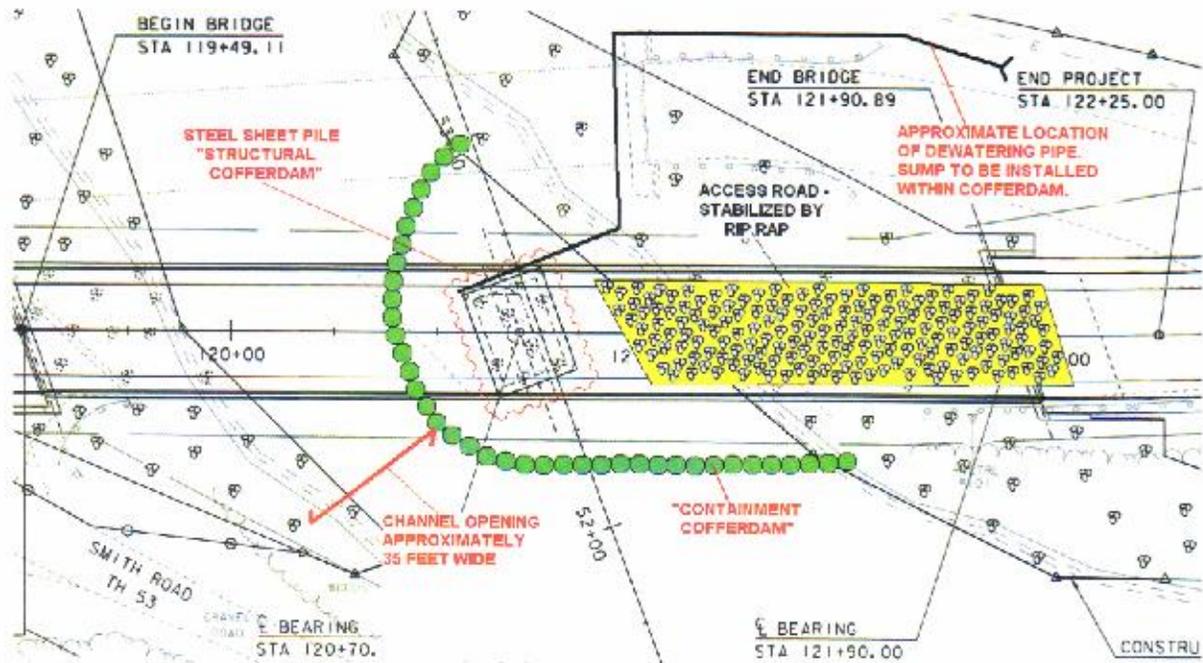
- 1) Install filter curtain across river near station 52+00
- 2) Install sand bag containment around excavation in general conformance with sketch C-1
 - a. The top of the sand bags shall have an elevation at least 672.7 (Q2.33 elevation).



- 3) Install access road from Abutment 2 area down to pier location.
 - a. Begin at station 122+00 at elevation near 683 and end at station 120+90 at elevation near 666.0. the slope of the access road will be close to 16%
 - b. The access road shall be stabilized with rip rap

4) Install Sheet pile cofferdam

- a. Pre-excavate trench around perimeter of cofferdam.
 - i. T Buck will utilize a Cat 345D to excavate in front of the installation of the sheet pile.
- b. Install sheets in trench in conjunction with pre-excavation. See Sketch C-2
 - i. Sheets will be installed using a Movax attachment on a CAT 328 excavator.
 1. Sheets will be installed in trench created by the CAT 345D
 - ii. See structural cofferdam plan. Stamped by Eric Calderwood of Calderwood Engineering.
 - iii. Top of sheet pile should be near/lower than elevation 666



SKETCH C-2

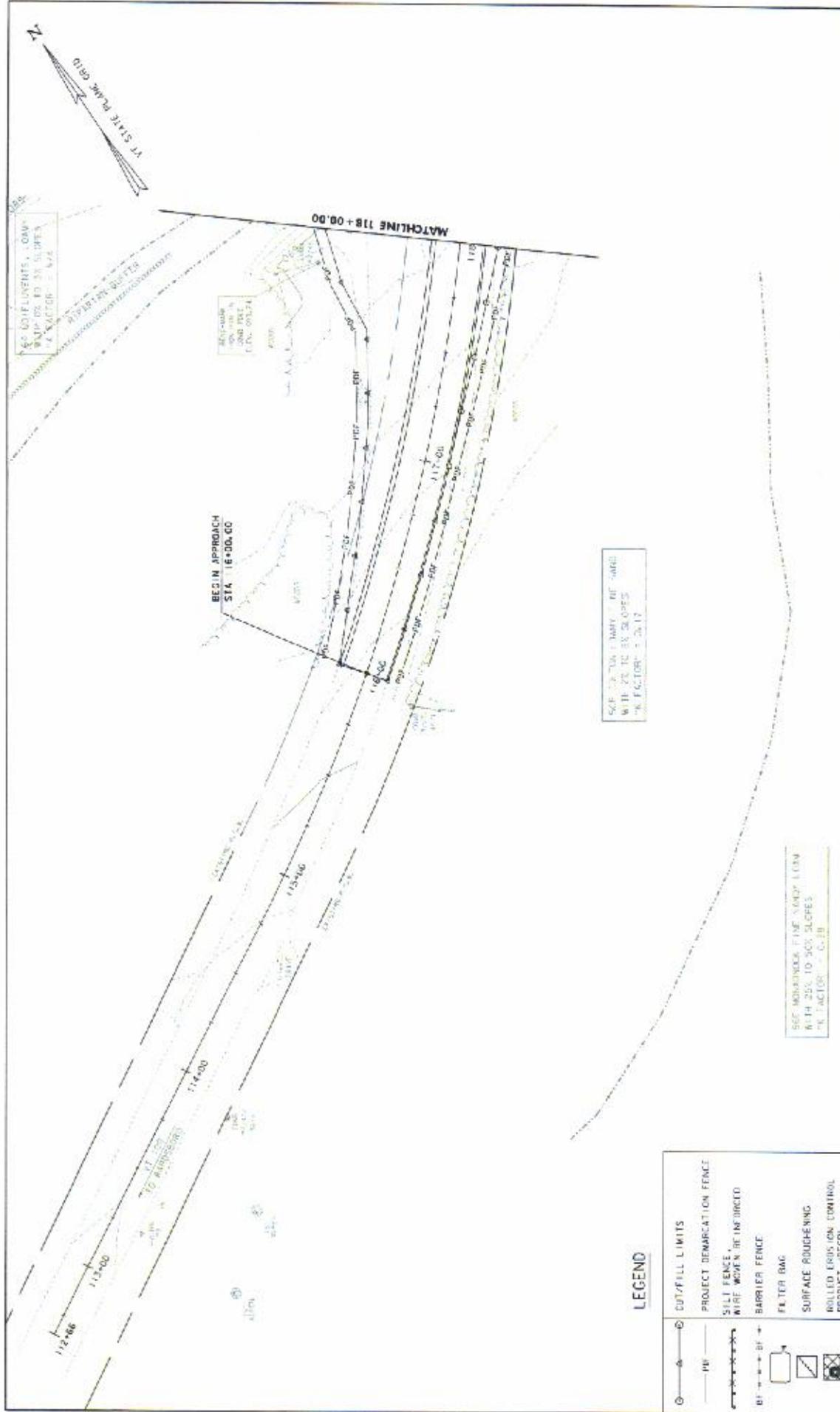
- c. Excavate within cofferdam down to required elevation of frame (elev. 661.39)
- d. Install frame around cofferdam and secure to sheet piling
- e. Continue excavation of cofferdam to elevation near 652.0
- f. Install 12" of crushed stone base

5) Construct Pier

- a. Establish sedimentation pond for dewatering purposes.
 - i. Two 4" pumps will be used in sump holes located within the cofferdam to maintain water level while forming concrete
- b. Form / place / strip footing of pier to elevation 658.5
- c. Form / place / strip pier stem to elevation 678.5
- d. Backfill footing and pier stem using specified materials

6) Remove Cofferdam

- a. Remove frame prior to finish backfilling
- b. Extract sheets using Movax attachment on CAT 328
- c. Remove sand bags from river
 - i. Reinstall filter curtain if necessary before removing sand bags
- d. Excavate / shape slope back to Abutment 2 and install type IV stone as specified



SCOUR ELEMENTS - OAW
 SLOPE 25 TO 35 SLOPES
 "K" FACTOR = 0.75

EPSC
 2000 PILE
 C.D. 09.24

SEE SECTION 1007.01
 WITH 25 TO 35 SLOPES
 "K" FACTOR = 0.75

SEE MONITORING PLAN VANDY LION
 WITH 25 TO 35 SLOPES
 "K" FACTOR = 0.75

LEGEND

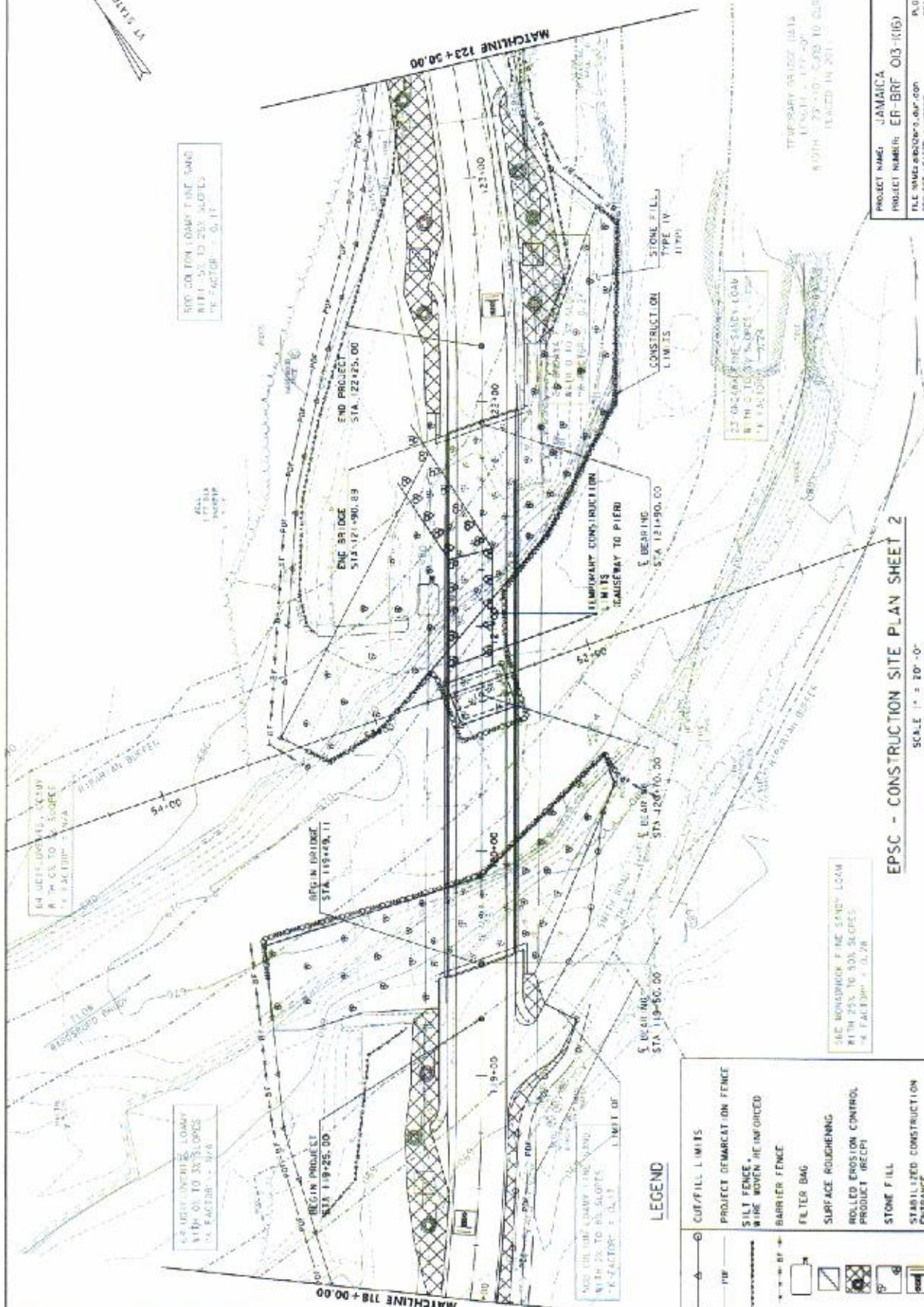
	CUT/FILL LIMITS
	PROJECT DEMARCATION FENCE
	SILT FENCE
	WIRE MESH REINFORCED
	BARRIER FENCE
	FILTER BAG
	SURFACE ROUGHENING
	ROLLED EROSION CONTROL PRODUCT (RECP)
	STONE FILL
	STABILIZED CONSTRUCTION ENTRANCE
	TURBIDITY CURTAIN

EPSC - CONSTRUCTION SITE PLAN SHEET 1

SCALE 1" = 20'-0"

PROJECT NAME: JAMAICA
 PROJECT NUMBER: ER-BRF-013-R15
 FILE NAME: ERB2005.dwg
 PROJECT LEADER: G. LINDSEY
 DESIGNED BY: G. LINDSEY
 EPSC CONSTRUCTION SITE PLAN SHEET 1
 SHEET 50 OF 85

NOON



500 COLTON LOAMY TINE SAND
WITH 0% TO 25% SLOPES
K-F FACTOR = 0.17

54 WEST-DRENCH, CUT-UP
WITH 0% TO 2% SLOPES
K-F FACTOR = 0.74

5-8 USEY LOAMY TINE SAND
WITH 0% TO 33% SLOPES
K-F FACTOR = 0.74

500 COLTON LOAMY TINE SAND
WITH 2% TO 8% SLOPES
K-F FACTOR = 0.17

27-02-06A FINE SANDY LOAM
WITH 2% TO 5% SLOPES
K-F FACTOR = 0.74

516 BONDURCK FINE SANDY LOAM
WITH 25% TO 50% SLOPES
K-F FACTOR = 0.28

TEMPORARY BRIDGE DATA
11.50 FT x 17.00 FT
WIDTH = 29'-00" C&G TO C&G
PLACED IN 2011

LEGEND

- PROJECT DEMARCATION FENCE
- SILT FENCE
- WIRE MESH REINFORCED
- BARRIER FENCE
- FILTER BAG
- SURFACE ROUGHENING
- ROLLED EROSION CONTROL PRODUCT (RECP)
- STONE FILL
- STABILIZED CONSTRUCTION ENTRANCE
- TURBIDITY CURTAIN

EPSC - CONSTRUCTION SITE PLAN SHEET 2

SCALE 1" = 20'-0"
20' 0' 20'

PROJECT NAME: JAMAICA
PROJECT NUMBER: ER-BRF 013-1(16)
FILE NUMBER: ER-001
PROJECT LEADER: S. HIGGINS
DESIGNED BY: S. HIGGINS
EPSC CONSTRUCTION SITE PLAN SHEET 2
SHEET 51 OF 85

DNVORCOWSON

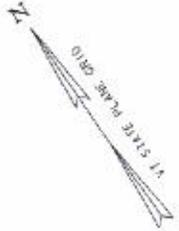


Reference
from N.T. 10
COB P.12
BASE 4/11/14

PROJECT NAME: JAMAICA
 PROJECT NUMBER: ER-BRF-03-RIS
 FILE NAME: BRIDGE-TOLOGY
 PROJECT LEADER: G. THORNTON
 DESIGNED BY: G. LAROCHE
 CHECKED BY: G. LAROCHE
 FINAL CONDITIONS SHEET 1
 SHEET 53 OF 85

FINAL CONDITIONS SHEET 1

SCALE 1" = 20'-3"
 20' 0' 20'



AREAS OF EARTH DISTURBANCE THAT WILL REQUIRE REVEGETATION

PROJECT NAME: JAMAICA
PROJECT NUMBER: ER-BRF-013-116
FILE NAME: AR200-01-FINAL.DWG
DESIGNED BY: G. LAROCHE
FINAL CONDITIONS SHEET 3

PLOT DATE: 0-NOV-2010
DRAWN BY: A. FREEMAN
CHECKED BY: G. LAROCHE
SHEET 55 OF 85

FINAL CONDITIONS SHEET 3

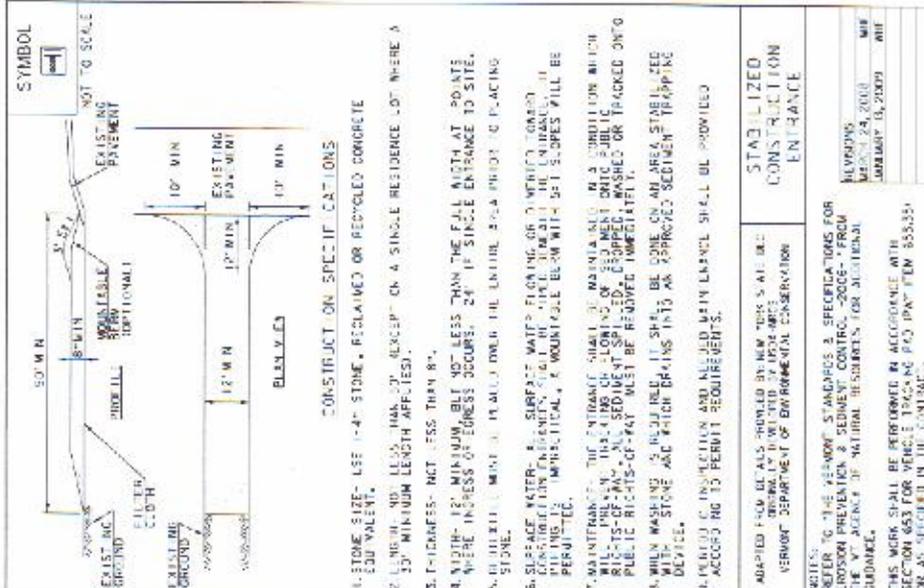
SCALE: 1" = 20'-0"
20' 0' 20'



ADAPTED FROM DETAILS PROVIDED BY NEW YORK STATE DEP. OF ENVIRONMENTAL CONSERVATION

REVISIONS

APRIL 1, 2008	WHF
JANUARY 15, 2009	WHF



ADAPTED FROM DETAILS PROVIDED BY NEW YORK STATE DEP. OF ENVIRONMENTAL CONSERVATION

REVISIONS

MARCH 24, 2008	WHF
JANUARY 15, 2009	WHF

VAOT RURAL AREA MIX		
LIBBIAC	NAME	GERM % PURITY %
45 BROADCAST HYDRPOSEED	45 CREEPING RED FESCUE	80% 98%
37.5% 22.5	45 FINE FESCUE	80% 98%
37.5% 22.5	45 BIRD TOE	90% 98%
5.0% 3	18 BIRD FOOT TREFOIL	85% 98%
15.0% 3	5 ANNUAL RYE GRASS	85% 98%
5.0% 3	5 ANNUAL RYE GRASS	85% 98%
100%	90	120

VAOT URBAN AREA MIX		
LIBBIAC	NAME	GERM % PURITY %
60 BROADCAST HYDRPOSEED	60 CREEPING RED FESCUE	80% 98%
34 13.90	10 PERENNIAL RYE GRASS	80% 98%
10.0% 34	10 PERENNIAL RYE GRASS	80% 98%
42.0% 34	10 PERENNIAL RYE GRASS	80% 98%
5.0% 4	5 ANNUAL RYE GRASS	85% 98%
100%	80	160

SOIL AMENDMENT GUIDANCE	
FERTILIZER	LIME
BROADCAST HYDRPOSEED	PELLETIZED FOLLOW
13.90	PELLETIZED FOLLOW
500 LB/AC	MANUFACTURER'S TOXIC/ MANUFACTURER'S

CONSTRUCTION GUIDANCE

- RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHMENT AREAS EXCEPT AS NOTED BY THE CONTRACTOR.
- URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
- ALL SEED MIXTURES SHALL HAVE A MOISTURE CONTENT EXCLUDING 0.40% OF WEIGHT AND SHALL BE FREE OF ALL NOXIOUS WEEDS.
- FERTILIZER AND LIMESTONE SHALL FOLLOW RATES SHOWN ON PLAN OR AS INDICATED BY THE ENGINEER.
- 5-DAY MULCH TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE. ACHIEVE 50% COVERAGE OR AS DIRECTED BY THE ENGINEER.
- SOILS TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- APPROPRIATE SOIL AMENDMENTS SHALL BE APPLIED TO ALL SOILS TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- TURF ESTABLISHMENT: IN AREAS WHERE TURF IS TO BE USED, THE TURF SHALL BE ESTABLISHED AND AFTER APRIL 15, CAN BE BETTER ASSURED A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VERMONT TECHNICAL LANDSCAPE MANUAL FOR TURF ESTABLISHMENT ROADSIDES AND TRANSPORTATION FACILITIES

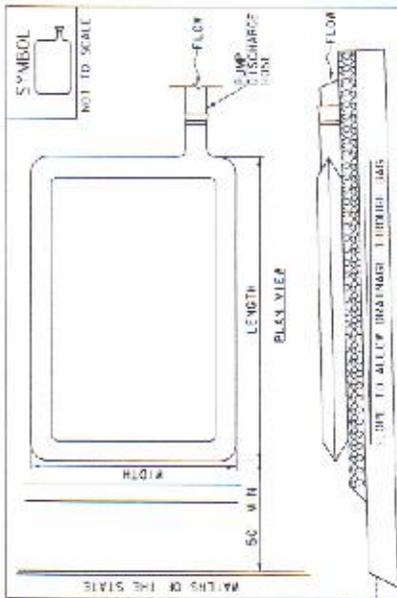
REVISIONS

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

PROJECT NAME: JAMAICA
PROJECT NUMBER: ER BRP 013-105

FILE NAME: ER BRP 013-105
PROJECT LEADER: G. HIGGS
DESIGNED BY: A. SALVATORI
EPSC DETAIL: 2

PLANT DATE: 01 OCT 2009
DRAWN BY: G. HIGGS AND
CHECKED BY: A. SALVATORI
SHEET: 57 OF 65



- CONSTRUCTION SPECIFICATIONS
1. THE PRIMARY PURPOSE OF FILTER BAG IS TO RETAIN SILT, SAND, AND FINES DURING DENSIFICATION OPERATIONS.
 2. FILTER BAGS SHALL BE INSTALLED ON A SUBGRADED SLOPE GRADUALLY ALLOWING INCOMING WATER TO FLOW THROUGH THE BAG.
 3. FILTER BAGS MAY ALSO BE FACED ON COARSE AGGREGATE, STONE, OR HAYBALS TO IMPROVE FILTERATION EFFICIENCY.
 4. FILTER BAGS SHALL BE LOCATED A MINIMUM OF 500' FROM WATERS OF THE STATE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
 5. THE NECK OF THE FILTER BAG SHALL BE STRAPPED TIGHTLY TO THE DISCHARGE PIPE.
 6. A FILTER BAG SHALL BE INSTALLED WITH THE NECK TIGHTLY TO THE TUB. SEDIMENT OR ALLON WATER TO PASS AT A REASONABLE RATE.
 7. FILTER BAG SHALL BE 3' SPECIFIED AS APPROVED IN THE EPSC PLAN OF AS SPECIFIED BY THE ENGINEER.

FILTER BAG	
<p>REFER TO THE MEMORANDUM, STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL, 2006-1 FROM THE VICTIM'S NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.</p> <p>THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 545 FOR FILTER BAG PAY ITEM 553.45 AND AS SPECIFIED IN THE CONTRACT.</p>	
REVISIONS	DATE
MARCH 24, 2008	WJF
JANUARY 3, 2009	WJF

OFF-SITE ACTIVITY REVIEW



VTRANS ENVIRONMENTAL RESOURCE REVIEW

Project/District Name: Jamaica ER-BRF 013-1(16) Proposed Area Name: Ladd Site

Waste Borrow Staging X: 479275.82 Y: 62840.32 (NAD83, meters)

Natural Resource Review

Accepted Rejected

Date 1/17/2013

Reviewer: John Lepore

Signature

John Lepore 1/17/2013

Comments _____

Cultural Resource Review

Accepted Rejected

Date 1/17/2013

Reviewer: Brennan Gauthier

Signature

Brennan Gauthier

Comments _____

For Jen Russell, VTrans Arch Officer

- The Site has been REJECTED for use at this time**
The Contractor is advised to:
- Seek another site for use
 - Hire an Environmental firm to _____
 - Hire an Archeological consultant to clear Section 106 issues

This site has been ACCEPTED (Site does not warrant any special conditions)

This site has been ACCEPTED with the following conditions:

- Maintain a minimum buffer of 50 feet from top of streambank
- Orange fencing must be installed to protect nearby resources _____
- Materials must be placed on geotextile fabric
- Use of this site must comply with applicable local/state/federal permitting regulations including but not limited to: _____
- Other: _____

The VT ANR Low Risk Site Handbook for EPSC measures should be used as a minimum measure for best management practices at waste, borrow and staging sites.

A copy of this Review has been faxed to the Resident Engineer/District Tech Yes No

A copy of this Review has been delivered to the Construction Env Eng (CEE) Yes No

This site may be subject to further review by the Construction Environmental Engineer. Please contact the CEE prior to use of this site.

This clearance is for the Natural and Cultural Resources Only.

479275.82

62840.32

X

Y

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 Standards Specifications Manual 2006) for review once the application is administratively complete.

received
1.9.13

SUBMITTAL INFORMATION

Project Name/District: Jamaica ER-BRF 013-1 (16) Contractor/District Tech: TBUCK CONSTRUCTION
 Contact: BRIAN EMMONS Phone: 202-783-6223 Fax: 202-783-8970 E-mail: bemmons@tbuckcon.net
 Resident Engineer: CHAD GREENWOOD Phone: TBD Fax: TBD

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

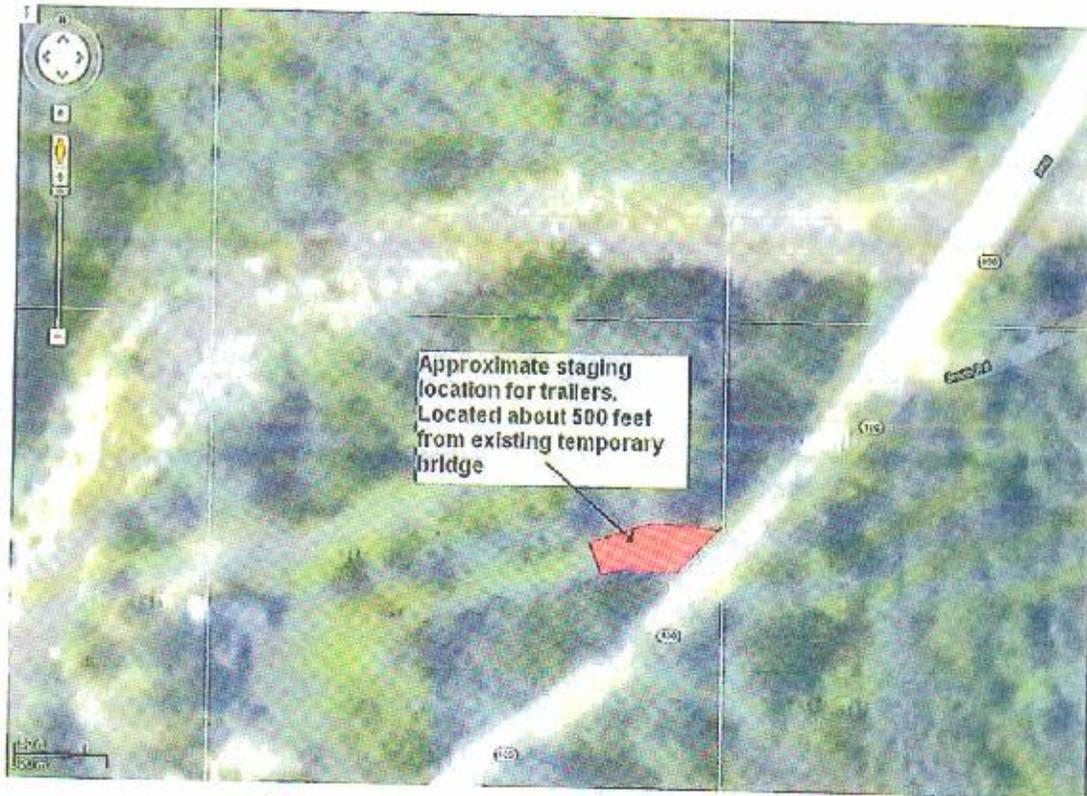
Waste Borrow Staging Other (ex. dewatering location): _____
 Material: Type (asphalt, concrete, earthen, etc.) TRAILER(S) Quantity (yds³) N/A
 Total Area of Land Disturbance (sq ft) 3000
 Additional Info: _____

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

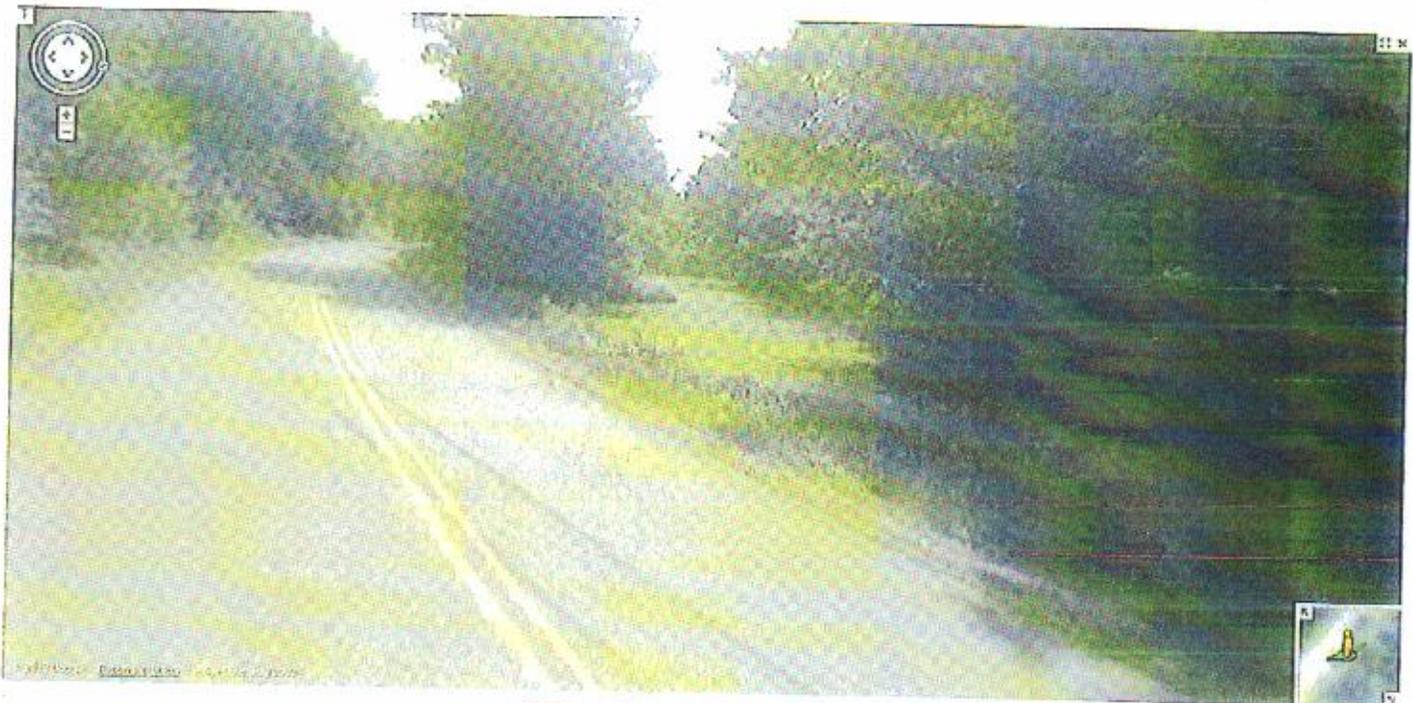
Name: DANA LADD Address: 2165 ROUTE 100 S, Jamaica, VT Phone: 802-874-9909
 Private Residential/Commercial Town/State Owned Facility
 Additional Info: N/A
 Are there other users of this site? Yes No
 Known past uses: ?
 Location Map (must be USGS Geological Survey Map (7.5'))
 Sketch of Area: North arrow Approx scale Recognizable features
 Permit Info:
 Act 250 Permit Exists? Yes No If Yes, # N/A Copy Enclosed? Yes No
 List of Other Existing Permits: N/A
 Landowner Agreement (Signature is required for all private, town, and state owned properties.)
 I, Dana Ladd verify the above permit information to be accurate and allow use of the proposed area by
T Buck Const. as shown on the attached sketch and in accordance with VTrans specifications and requirements.
 Date: 1-6-13

Full project name
Town where site is located.
Real sketch.
Rec'd all 1/10/13.

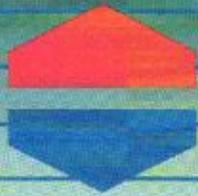
This clearance is for the Natural and Cultural Resources Only.



SKETCH OF SITE



STREET VIEW OF SITE



Curlex[®] Sediment Logs[®]

Excelsior Sediment Control Device

Product Description

Curlex Sediment Logs use excelsior fibers to reduce hydraulic energy & filter sediment-laden runoff. Tired of straw and hay bale checks being blown out and the fibers washed downstream to clog the nearest outlet? Fed up with spending all of your time and effort installing silt fence only to see it get knocked down when it rains or a good wind comes along? How about when you have to go back and pick up the loose fibers and/or remove those worn out silt fences and take them to the landfill? Next time, consider giving our Bioengineered Sediment Logs a try. Water filters through (not underneath) the diameter of the porous, interlocked fiber log matrix. As it does, velocity is naturally reduced and sediment is collected on the upstream side of the excelsior fiber log. Install Curlex Sediment Logs over bare soil, over rolled erosion control products, on steep slopes, around inlets and outlets, or around jobsites for perimeter control.

MATERIAL CHARACTERISTICS

Sediment Logs are versatile excelsior logs comprised of an outside containment fabric that is filled with unique Curlex fibers. Curlex fibers are made of Great Lakes Aspen excelsior fibers. The fibers are curled with soft interlocking barbs and 80% will be six inches in length or longer. The outside, open weave containment fabric is degradable, thus Sediment Logs will degrade in place if not removed. Sediment Logs are porous, allowing water to pass through the excelsior matrix, progressively slowing velocity and filtering sediment as it passes through the log diameter. Sediment Logs are extremely flexible and contour to the terrain to maintain intimate contact with the subgrade. In addition, they come with six other benefits; lightweight, no trenching, no weed seeds, no disposal hassles, are re-usable, and they hold their shape.

PERFORMANCE CAPABILITIES

Product Names / Nominal Diameters

Type I - (20 in) energy dissipation in heavy duty concentrated flow areas, slope interruption, inlet protection, perimeter control

Type II - (12 in) energy dissipation in mild to medium concentrated flow areas, slope interruption, inlet protection, perimeter control

Type III - (9 in) energy dissipation in mild concentrated flow areas, slope interruption, inlet protection, perimeter control

Type IV - (6 in) energy dissipation in low concentrated flow areas, slope interruption, inlet protection, perimeter control

TYPICAL APPLICATIONS

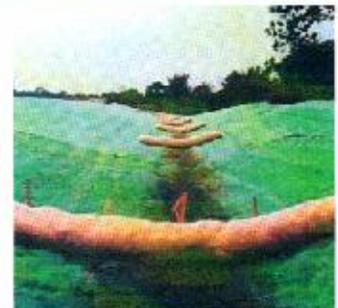
- Ditch bottoms, swales, and waterways
- Over bare soils and/or temporary & turf reinforcement blankets
- Drop structures and let down structures
- 360 degree protection around catch basins & drop inlet structures
- Curb & drainage outlets
- Project ingress & egress termination points
- As wattles on steep slopes
- Site perimeter control
- Use in place of bales, silt fence, reinforced silt fence, and rock checks

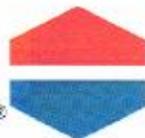
American
Excelsior
Company[®]



Earth Science Division

Arlington, Texas (800) 777-SOIL • www.curlex.com





SUGGESTED SPECIFICATIONS

General

Sediment Log consists of an outside, open weave, containment fabric filled with Great Lakes Aspen curled excelsior fibers. Its purpose is to provide a flexible, lightweight, porous, sediment control device demonstrating the ability to conform to terrain details and dissipate water velocity in concentrated flow areas.

Product

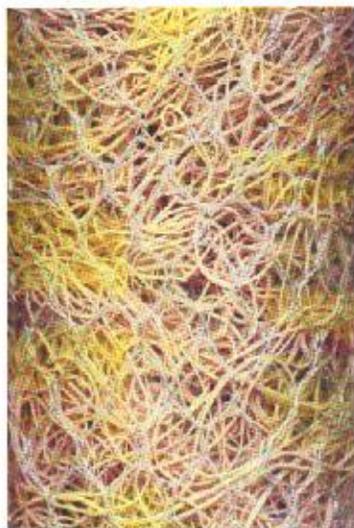
Sediment Control Device shall be Curlex Sediment Log, as manufactured by American Excelsior Company. Curlex Sediment Logs shall be made of Great Lakes Aspen Excelsior fibers encased in an outside, open weave containment fabric. Fibers shall be curled with soft, interlocking barbs to form a strong, organic filtration matrix. A minimum of 80 percent of the fibers shall be 15cm (6 in) or greater in length. Fibers shall be evenly distributed throughout the diameter and length of the Sediment Log. Excelsior fibers shall be weed seed free. Excelsior color shall be standard (natural). Netting at each end of the log shall be secured to assure fiber containment. Density of sediment logs shall not exceed 3 lb/ft³ to ensure necessary flow rates for filtering.

	TYPE I*	TYPE II*	TYPE III*	TYPE IV*
Product Name/Nominal Diameter	20 in	12 in	9 in	6 in
Length (±10%)	3.05 m (10 ft)	3.05 m (10 ft)	7.62 m (25 ft)	7.62 m (25 ft)
Weight (±10%)**	13.62 kg (30 lb)	9.02 kg (20 lb)	11.35 kg (25 lb)	5.45 kg (12 lb)
Net opening (hexagonal-shaped)	3.2 cm (1.3 in)	2.5 cm (1 in)	1.9 cm (.75 in)	1.3 cm (.5 in)

*Custom sizes available

**Weight is based on a dry fiber weight basis at time of manufacture. Baseline moisture content of Great Lakes Aspen Excelsior is 22%.

Curlex Sediment Logs Design Values With Comparisons To Typical Straw Wattles



Product Name/ Nominal Diameter	Channel Design			Slope Design	
	Density* (lb/ft ³)	GPM/ft ² **	GPM/linear ft of installed product	P Factor*** (event-based)	% Soil Retained
6" Curlex Sediment Log	2.4	42.5	19.5	0.461	53.9
9" Straw Wattle	4.5	7.5	5.6	0.676	32.4
9" Curlex Sediment Log	2.3	42.5	29.0	0.461	53.9
12" Straw Wattle	3.8	8.0	8.0	0.828	17.2
12" Curlex Sediment Log	2.5	40.0	36.7	0.297	70.3
20" Curlex Sediment Log	1.4	37.5	46.9	0.297	70.3

*Weight is based on a dry fiber weight basis at time of manufacture. Baseline moisture content of Great Lakes Aspen excelsior and AEC Premier Straw fibers are 22% and 15%, respectively.

**Based on ASTM D5141.

***Based on large-scale simulated rainfall testing.

Installation

Sediment Logs may be installed over bare soil, over rolled erosion control products, on steep slopes, around inlets and outlets, or around jobsites for perimeter control. Sediment Logs should remain in place until fully established vegetation and root systems have completely developed and can survive on their own. Sediment Logs that are not removed from the job site will degrade in place. Visit www.curlex.com for complete Curlex Sediment Logs installation details, slope spacing guide, and channel spacing guide.

Disclaimer: Curlex Sediment Log is a system for sediment control in channels and on slopes. American Excelsior Company (AEC) believes that the information contained herein to be reliable and accurate for use in sediment control applications. However, since physical conditions vary from job site to job site and even within a given job site, AEC makes no performance guarantees and assumes no obligation or liability for the reliability or accuracy of information contained herein for the results, safety, or suitability of using Sediment Log, or for damages occurring in connection with the installation of any erosion control product whether or not made by AEC or its affiliates, except as separately and specifically made in writing by AEC. These specifications are subject to change without notice.



If you would like to receive more information or consult with one of our Customer Care Center Specialists, please call us toll free at (888-352-9582) PDF download specifications available in the Technical Support Library at www.curlex.com