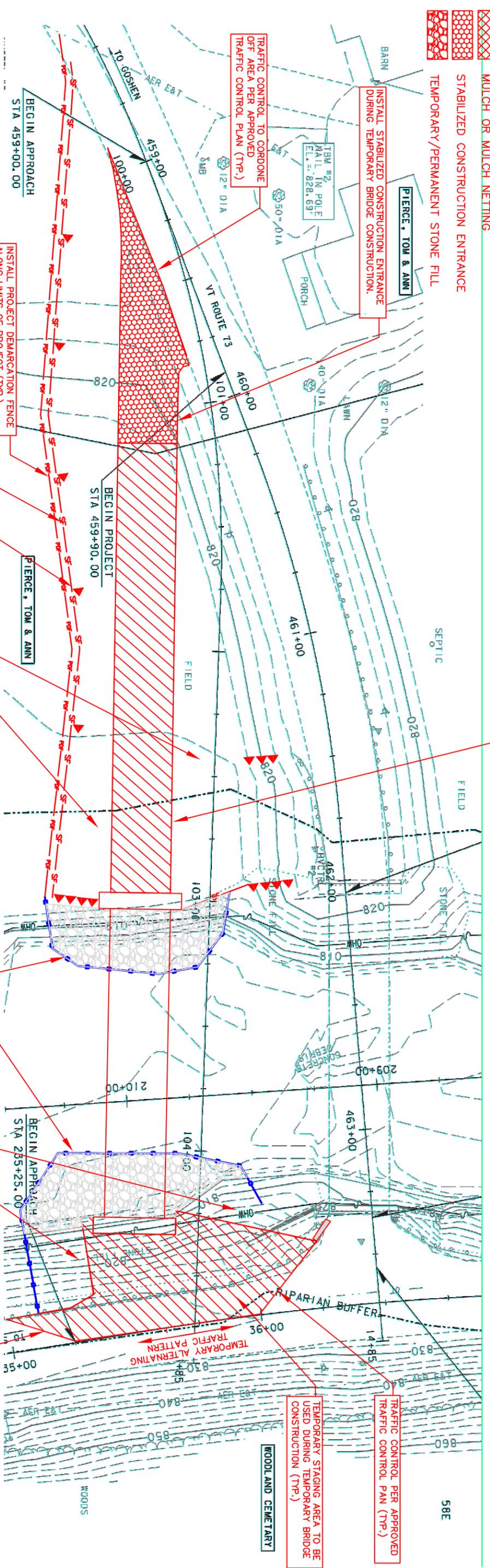
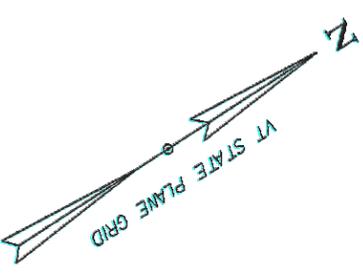


KEY TO EROSION CONTROL SYMBOLS:

- SILT FENCE
- COFFERDAM
- STONE CHECK DAM
- DIRECTION OF FLOW ARROW
- TURBIDITY BARRIER
- PROJECT DEMARCATION FENCE
- TEMPORARY STAGING AREAS
- MULCH OR MULCH NETTING
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY/PERMANENT STONE FILL



GENERAL NOTES:

1. REFERENCE MADE TO PLANS PREPARED FOR THE STATE OF VERMONT AGENCY OF TRANSPORTATION BY VANASSE HANGEN BRUSTLIN, INC., "ROCHESTER, PROJECT NUMBER ER BRF 0162(18), 9/15/13," SHEET 231 OF 238.
2. IN THE EVENT OF CONFLICT BETWEEN DETAILS, EROSION CONTROLS AND/OR RELATED NOTES SHOWN ON PATHWAYS EPSC PLANS AND VTRANS CONTRACT DOCUMENTS, CONTRACT DOCUMENTS SHALL GOVERN EXCEPT WHERE MORE STRINGENT REGULATORY REQUIREMENTS APPLY.

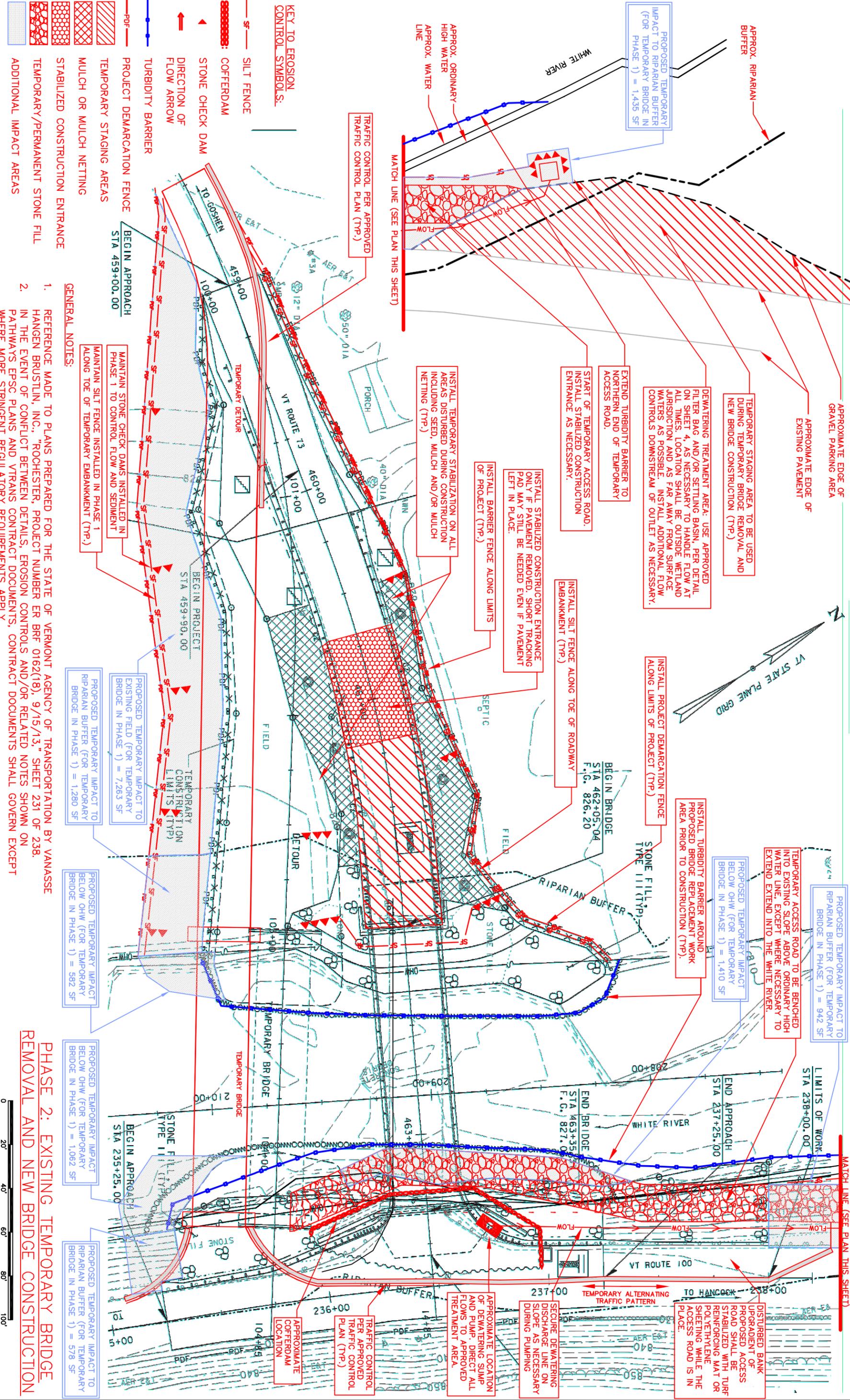


PHASE 1: TEMPORARY BRIDGE CONSTRUCTION

REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY

EROSION PREVENTION AND SEDIMENT CONTROL PLAN FOR W.M. SCHULTZ CONSTRUCTION, INC FOR		PATHWAYS CONSULTING, LLC	
VERMONT AGENCY OF TRANSPORTATION - ROCHESTER ER BRF 0162 (18)		240 MECHANIC STREET, SUITE 100 LEBANON, NEW HAMPSHIRE 03786 (603) 448-2200	
SCALE: 1" = 40'	DESIGNED BY: SAW	1	
DRAWN BY: AMS	CHECKED BY: SAW		
DATE: 04/23/14	PROJ. NO. 12455		
VERMONT ROUTE 73, ROCHESTER, VERMONT		SHEET 1 OF 4	

MATCH LINE (SEE PLAN THIS SHEET)



- KEY TO EROSION CONTROL SYMBOLS:**
- Sf — SILT FENCE
 - COFFERDAM
 - STONE CHECK DAM
 - DIRECTION OF FLOW ARROW
 - TURBIDITY BARRIER
 - PROJECT DEMARCATION FENCE
 - TEMPORARY STAGING AREAS
 - MULCH OR MULCH NETTING
 - STABILIZED CONSTRUCTION ENTRANCE
 - TEMPORARY/PERMANENT STONE FILL
 - ADDITIONAL IMPACT AREAS

- GENERAL NOTES:**
- REFERENCE MADE TO PLANS PREPARED FOR THE STATE OF VERMONT AGENCY OF TRANSPORTATION BY VANASSE HANGEN BRUSTLIN, INC., "ROCHESTER, PROJECT NUMBER ER BRP 0162(18), 9/15/13," SHEET 231 OF 238.
 - IN THE EVENT OF CONFLICT BETWEEN DETAILS, EROSION CONTROLS AND/OR RELATED NOTES SHOWN ON PATHWAYS EPSC PLANS AND VTTRANS CONTRACT DOCUMENTS, CONTRACT DOCUMENTS SHALL GOVERN EXCEPT WHERE MORE STRINGENT REGULATORY REQUIREMENTS APPLY.

PHASE 2: EXISTING TEMPORARY BRIDGE REMOVAL AND NEW BRIDGE CONSTRUCTION

REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY

EROSION PREVENTION AND SEDIMENT CONTROL PLAN FOR W.M. SCHULTZ CONSTRUCTION, INC FOR
VERMONT AGENCY OF TRANSPORTATION - ROCHESTER ER BRP 0162 (18)
 VERMONT ROUTE 73, ROCHESTER, VERMONT

PATHWAYS CONSULTING, LLC
 240 MECHANIC STREET, SUITE 100
 LEBANON, NEW HAMPSHIRE 03786
 (603) 448-2200

SCALE: 1" = 40'
 DESIGNED BY: SAW
 DRAWN BY: AMS
 CHECKED BY: SAW
 DATE: 04/24/14
 PROJ. NO. 12455

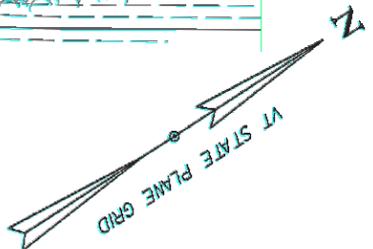
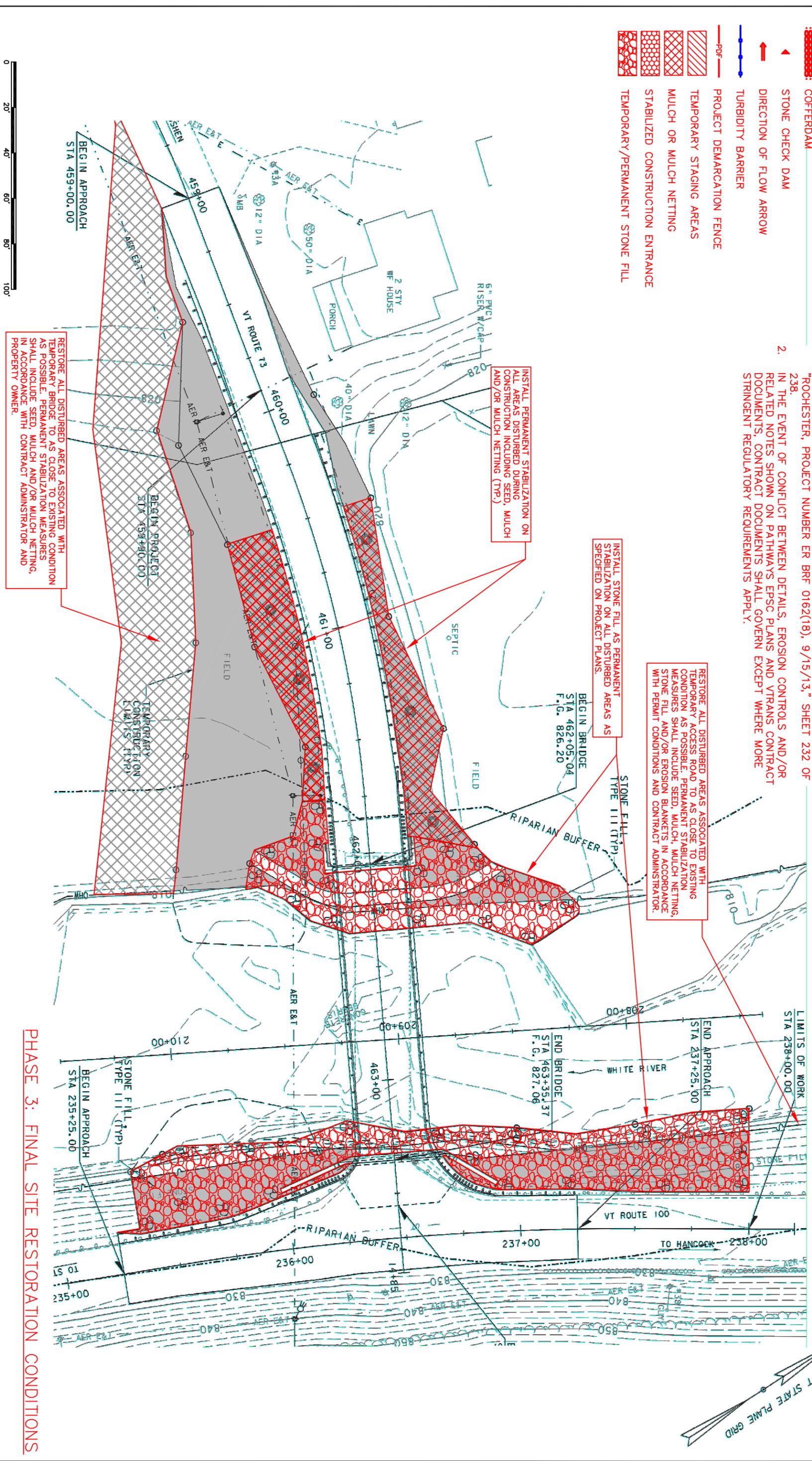
2
 SHEET 2 OF 4

KEY TO EROSION CONTROL SYMBOLS:

-  SILT FENCE
-  COFFERDAM
-  STONE CHECK DAM
-  DIRECTION OF FLOW ARROW
-  TURBIDITY BARRIER
-  PROJECT DEMARCATION FENCE
-  TEMPORARY STAGING AREAS
-  MULCH OR MULCH NETTING
-  STABILIZED CONSTRUCTION ENTRANCE
-  TEMPORARY/PERMANENT STONE FILL

GENERAL NOTES:

1. REFERENCE MADE TO PLANS PREPARED FOR THE STATE OF VERMONT AGENCY OF TRANSPORTATION BY VANASSE HANGEN BRUSTLIN, INC., "ROCHESTER, PROJECT NUMBER ER BRF 0162(18), 9/15/13," SHEET 232 OF 238.
2. IN THE EVENT OF CONFLICT BETWEEN DETAILS, EROSION CONTROLS AND/OR RELATED NOTES SHOWN ON PATHWAYS EPSC PLANS AND VTRANS CONTRACT DOCUMENTS, CONTRACT DOCUMENTS SHALL GOVERN EXCEPT WHERE MORE STRINGENT REGULATORY REQUIREMENTS APPLY.



PHASE 3: FINAL SITE RESTORATION CONDITIONS

REVISION NO.	DATE	DESCRIPTION	MADE BY	CHECKED BY	APPROVED BY

EROSION PREVENTION AND SEDIMENT CONTROL PLAN FOR W.M. SCHULTZ CONSTRUCTION, INC FOR
VERMONT AGENCY OF TRANSPORTATION - ROCHESTER ER BRF 0162 (18)
 VERMONT ROUTE 73, ROCHESTER, VERMONT

PATHWAYS CONSULTING, LLC
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 (603) 448-2200

SCALE: 1" = 40'
 DESIGNED BY: SAW
 DRAWN BY: AMS
 CHECKED BY: SAW
 DATE: 04/24/14
 PROJ. NO. 12455

3
SHEET 3 OF 4

**Erosion Prevention and Sediment Control (EPSC)
and
Temporary Stream Diversion Plan**

For

**State of Vermont Agency of Transportation (VTrans)
Rochester ER BRF 0162 (18)
Rochester, Vermont**

Contractor and EPSC Contact:

W.M. Schultz Construction, Inc.
Post Office Box 2620
Ballston Spa, New York 12020
Phone: (518) 885-0060
Fax: (518) 885-0744

EPSC Plan Preparation Date:

April 24, 2014

Estimated Project Dates:

**Project Start Date: April 28, 2014
Project Completion Date: October 31, 2014**

Project No. 12455

Prepared By:



PATHWAYS CONSULTING, LLC

Planning • Civil & Environmental Engineering • Surveying • Construction Assistance
240 Mechanic Street • Suite 100
Lebanon, New Hampshire 03766
(603) 448-2200 • Fax: (603) 448-1221 • www.pathwaysconsult.com

TABLE OF CONTENTS

	<u>Page No.</u>
1.0: EROSION PREVENTION AND SEDIMENT CONTROL NARRATIVE	1
1.1 Project Description.....	1
1.2 Site Inventory.....	1
1.3 Risk Evaluation.....	1
1.4 Erosion Prevention and Sediment Control.....	1
1.5 Sequence and Staging	2
1.6 Contact Information/Responsible Parties	12
1.7 Schedule.....	13
1.8 Inspection Form	13
2.0: EROSION PREVENTION AND SEDIMENT CONTROL PLANS	13

APPENDICES

Appendix A	Site Location Map
Appendix B	EPSC Plans
Appendix C	Inspection Form
Appendix D	Off-Site Activity Records
Appendix E	EPSC Plan Revision Documentation Form

1.0 EROSION PREVENTION AND SEDIMENT CONTROL NARRATIVE

1.1 Project Description

See Sheet 229 of the Contract Plans for information related to the project description prepared for the Vermont Agency of Transportation (VTrans) for this project.

1.2 Site Inventory

See Sheet 229 of the Contract Plans for information related to the site inventory, such as drainage characteristics, vegetation, soils, and sensitive areas, prepared for VTrans for this project.

1.3 Risk Evaluation

See Sheet 229 of the Contract Plans for information related to the risk evaluation prepared for VTrans for this project. The project is not expected to disturb one or more acres of area and does not require coverage under Vermont Agency of Natural Resources (VANR) Construction General Permit No. 3-9020; therefore, a risk evaluation is not required. In the event that changes are made prior to or during construction that result in the disturbance of one or more acres, the contractor shall be responsible for additional permitting with the VANR.

1.4 Erosion Prevention and Sediment Control

See Sheets 229 to 235 of the Contract Plans for information related to general erosion prevention and sediment controls and typical details prepared for VTrans for this project. Please also refer to the VANR “Low Risk Site Handbook for Erosion Prevention and Sediment Control,” dated August 2006, which is considered part of this EPSC Plan.

Section 1.5 provides a detailed construction sequence that identifies the type of work activity to be performed, the specific earth disturbances to be addressed, and specific erosion control measures (relating to the typical measures discussed on Sheets 229 to 235 of the Contract Plans) that will be implemented during each respective stage of work to prevent erosion, control sediment transport, and achieve timely stabilization of disturbed areas.

See also Appendix B for updated EPSC plans that include detailed site-specific information provided by the contractor to supplement the general EPSC Plan information provided in the Contract Plans, and document and address construction activities and related erosion and sediment controls to be implemented during construction.

The proposed temporary bridge location, staging, access and other specific information was provided by the contractor. Details on the proposed cofferdam were utilized to depict the location on the EPSC plans and to determine the measures, equipment, and materials to be used for treatment of dewatering flows from the area contained by the cofferdam. The EPSC plans should be updated in the event that any changes are made to this approach.

1.5 Sequence and Staging

General Construction Sequence: The work related to this project involves the removal and replacement of bridge #19 (temporary bridge) on Vermont (VT) Route 73 over the White River in Rochester, VT, as depicted on the Site Location Map provided in Appendix A. The project includes installation of a new temporary bridge, complete removal and replacement of the existing temporary bridge, stream channel and bank stabilization, and approximately 800 feet of the roadway work (500 feet on VT Route 73 and 300 feet on VT Route 100). The new temporary bridge will be installed downstream of the existing temporary bridge to allow traffic to be detoured around the permanent bridge location during construction. The proposed steel plate girder bridge will be installed along a new alignment in a similar location as the existing temporary bridge. The project also includes temporary travelways and associated traffic controls, temporary access roads to the bridge work areas, roadway approach work (cold plane and repaving), guardrails, stone fill along the stream channel bed and banks, earthwork, stream diversion measures, erosion and sediment controls, and site restoration.

Traffic Sequencing: Since a road closure is not allowed for this project, a temporary bridge will be installed south of the existing temporary bridge. Once the new temporary bridge is in place, traffic will be rerouted over the new temporary bridge with the necessary traffic controls along VT Route 73 and VT Route 100 in order to minimize disturbance of normal traffic flow through the work areas. Traffic controls will also include reducing VT Route 100 to a signalized one-lane alternating traffic pattern during construction, to allow room for staging and construction of the east abutment for the new bridge. The in-stream work (temporary cofferdam and turbidity barriers) will also involve multiple phases that coincide with the traffic control and work phases. Erosion and sediment controls will also be installed within each traffic control phase in order to minimize disturbance of the White River and the surrounding areas. Work will be sequenced in three separate phases according to the major work phases and necessary traffic patterns identified by the Contractor and depicted on Sheets 230 to 233 of the Contract Plans as summarized below:

- Phase 1 - During this phase, traffic on VT Route 73 will continue to be routed over the existing temporary bridge during construction of the new temporary bridge and roadway approaches on the west and east sides. Similarly, the north-south traffic flow will continue on VT Route 100, but will be shifted to one-lane signalized alternating traffic pattern south of the existing VT Route 73/100 intersection while the new temporary bridge and approaches are constructed.
- Phase 2 - At the beginning of this phase, the one-lane signalized alternating traffic detour will be shifted further north of the new temporary bridge traffic on VT Route 73 to allow traffic to be rerouted onto the new temporary bridge and detour constructed in Phase 1. At this point, additional staging areas will be established on the west and east sides of the existing temporary bridge to facilitate removal of the existing temporary bridge structure and construction of the new bridge, abutments and stone fill stabilization. A temporary cofferdam will be installed on the east bank of the White River generally above the ordinary high water line

to allow construction of the east bridge abutment. A temporary access road will also be installed along the east bank of the river (west of the cofferdam) extending from the north side of the new temporary bridge approximately 250 feet north to an existing gravel parking area along VT Route 100. The temporary access road will be constructed of stone fill and will require some fill within the river and excavation into the east stream bank in order to minimize impacts. The cofferdam and temporary access road will be removed at the end of this phase, once the new bridge, abutment and bank stabilization work has been completed.

- Phase 3 - During this phase, traffic will be shifted onto the newly constructed bridge and the one-lane signalized alternating traffic detour will be shifted to the south, similar to the detour in Phase 1, while the temporary bridge is removed. This will include shifting of the detour on the west side of the project area so that the temporary roadway approach can be removed along with the temporary bridge. Once the temporary bridge is removed, final bank stabilization measures will be completed around the temporary bridge location. Upon complete removal of the temporary bridge, all remaining roadway work on VT Route 100 and VT Route 73 will be completed and two-way traffic will resume on VT Route 100.

Stream Diversion Sequencing: Various stream diversion and dewatering measures will be utilized to provide a semi-dry working condition adjacent to the river during bridge removal, temporary bridge construction and final bridge replacement. The stream diversion and dewatering measures are only anticipated during Phase 2 and will include only the installation of a cofferdam and associated dewatering system on the east side of the White River during removal of the existing temporary bridge and construction of the new bridge abutment. The cofferdam will be installed once traffic has been shifted onto the new temporary bridge and the one-lane detour is in-place along VT Route 100, as outlined above. The cofferdam will be utilized to maintain a semi-dry containment area for the east abutment removal and replacement activities to take place within. A dewatering sump, pumping system and treatment measures will also be necessary within the cofferdam containment area to lower the water level during abutment removal, excavation, new abutment, and filling.

During Phase 2, the work areas contained within the cofferdam will be dewatered to a treatment area located approximately 250 feet north on the west side of the existing gravel parking area along VT Route 100. The treatment area will be located above the top of bank and as far from the White River as possible. During Phases 1 and 2, geotextile filter curtains (a.k.a. turbidity barrier) will also be installed along the stream banks on each side of the White River to fully enclose and control sediment from any disturbed work areas during each respective phase.

A temporary access road and staging areas, in addition to the temporary traffic detours, will be necessary during Phase 2 to access the work areas at the base of the existing river banks on the east side of the new bridge location. All other work areas will primarily be accessed from staging areas established above the top of bank, especially for work on the west side of the river. The temporary access road is anticipated to extend from the existing gravel parking area on the

north end of the project area to the new temporary bridge abutment along the east river bank. The temporary access road will be benched into the existing river bank to minimize the impacts in the river to the extent possible, and will be constructed of clean stone fill for all areas below the ordinary high water line. The area of the temporary access road will be fully enclosed with a turbidity barrier, but is not expected to have any substantial impact on normal stream flows within the White River. Additional temporary erosion controls and stabilization (i.e., water bars, stone check dams, silt fence, etc.) will be installed along this temporary access road, as detailed in the EPSC Plans. Once the temporary access road has been removed, all disturbed areas will be restored to previously existing grades and fully stabilized.

Overall Project Phasing: The overall project phasing will be as follows:

1. Mobilization to the site, setup field office, and other facilities.
2. Establish construction limits.
3. Setup traffic controls on VT Route 100 and VT Route 73.
4. Establish perimeter erosion controls.
5. Tree clearing, as needed.
6. Setup Phase 1 detour and traffic controls (traffic remains on existing temporary bridge).
7. Install new temporary bridge and roadway approaches.
8. Setup Phase 2 detour and traffic controls (traffic shifted onto temporary bridge).
9. Install cofferdam and associated dewatering measures (east side of existing temporary bridge).
10. Establish temporary access road for bridge removal and construction.
11. Remove existing temporary bridge and construct new bridge, complete roadway and bank stabilization work on new bridge.
12. Setup Phase 3 detour and traffic controls (traffic shifted onto new bridge).
13. Remove temporary bridge, approach, and detour.
14. Install final stabilization south of the new bridge.
15. Complete any remaining roadway and/or other work.
16. Final stabilization, general site restoration, and demobilization.

Within each work phase, it is important to limit the area of disturbance to locations where construction activities are underway and stabilize them as quickly as possible. The construction activities will be sequenced according to the construction sequencing provided below to minimize the duration and area of exposed soils within the limits of disturbance and to allow for efficient completion of work. Some variation in the sequence of construction activities and erosion control measures may eventually be necessary at each work area, depending on the specific site conditions and progress of work. In this case, the EPSC Plans and narrative will be updated by the contractor as necessary to document these changes for the project site and specific activities.

The intended construction sequence is as follows:

1. **Pre-Construction Meeting:** Conduct a pre-construction meeting, which should include the contractor, the VTrans resident engineer, the

construction environmental engineer, and any other parties deemed necessary.

2. **Clearing Limits:** Flag all clearing limits with survey tape where tree or vegetation removal will be necessary.
3. **Wetland Limits:** Flag all wetland areas, including top of stream bank, with survey tape within project limits.
4. **Limits of Construction:** Install project demarcation fencing to delineate the limits of construction, which the contractor will access with vehicles or equipment, or disturb during completion of all required work. This task shall include clearly delineating jurisdictional wetland areas that are permitted for disturbance or to remain undisturbed. Project demarcation fencing will generally be installed along the top of slopes above areas of excavation or to cordon off areas and to prevent access during unsafe working conditions.
5. **Traffic Controls:** Install all necessary traffic controls along VT Route 100 and VT Route 73 per the contract plans and the VTrans requirements. Temporary traffic controls are anticipated to include separate temporary traffic barricades, jersey barriers, signalization warning signage, and markings, for each of the traffic control Phases 1 through 3 outlined above, as well as additional temporary traffic controls during short-term lane closures as necessary during activities such as mobilization and demobilization, installation of temporary facilities, stabilized construction entrances, material deliveries, or movement of equipment and vehicles. This access may vary during the progress of work depending on the side of the road that will be closed off, and the requirement to maintain thru-lanes for one-way or two-way traffic.
6. **Perimeter Controls:** Install silt fence perimeter controls at the limit of disturbance. This task will include, at a minimum, a line of silt fence down-gradient of all temporary or permanent disturbances within the project limits, as shown on the EPSC Plans for each project phase. Additional silt fence will also be installed along the top of the river banks, at the top of slopes above areas of excavation, at the toe of graded slopes, limits of work, or other areas as necessary to control erosion and prevent sediment from impacting adjacent undisturbed areas and surface waters. Silt fence may also be needed down-gradient of temporary travelways and access roads, since significant grading and surface disturbances are possible during access road and staging area setup and usage. Silt fence will be installed parallel with the existing contours and where appropriate to protect downstream undisturbed areas.
7. **Tree Clearing:** Clear all trees and significant vegetation, in accordance with the project clearing limits or as directed by the resident engineer, within previously flagged or fenced construction limits, and simultaneously install temporary stabilization measures, including temporary seed and mulch, wood chips, and/or crushed stone on disturbed areas. All disturbed slopes steeper than 3:1 will be protected with temporary erosion matting, where necessary.

8. **Stabilized Construction Entrances:** Grade and install stabilized construction entrances on each side of the work area, as shown on EPSC Plans. Since VT Route 100 and VT Route 73 are paved roadways, stabilized construction entrances may only be required where the existing pavement and subbase materials have been removed, or during initial work to install the new temporary bridge and roadway approaches. Stabilized construction entrances may only require short tracking pads where temporary access roads meet existing pavement as necessary to control tracking of sediment beyond the work areas, and to assist with dust control on each end of the work area. Full-length stabilized construction entrances may not be needed in most cases, and will be determined in the field. Some form of stabilized construction entrance or tracking pad is anticipated for temporary access and staging on each side of the work areas during bridge removal and replacement, but not for temporary travelways that will be paved for each traffic control phase. Adequate traffic controls shall be in place along VT Route 100 and VT Route 73 in the vicinity prior to installing and using the stabilized construction entrances.
9. **Temporary Construction Access and Staging Areas (Phases 1 and 2):** Temporary construction access roads and staging areas are anticipated during Phases 1 and 2 for accessing the bridge work areas, as shown on the EPSC Plans. All necessary temporary stabilization, erosion controls, and surface runoff measures shall be installed simultaneously with grading activities to prevent erosion on disturbed areas, contain sediment, and convey stormwater through the disturbed areas, especially in any areas of concentrated drainage. This process may include, in addition to perimeter controls already installed, diversion and stone-lined swales, stone check dams, temporary erosion matting on slopes, water bars, and temporary mulch. Where difficult or unsuitable soil conditions (wet, soft, etc.) are encountered within access roads or staging areas, temporary surface stabilization may require an application of crushed stone placed on geotextile fabric, as directed by the resident engineer. Stone fill or existing stone materials from areas to be excavated may be utilized for creating level staging pads adjacent to the work areas, if approved by the resident engineer.

Temporary Access Roads: Where temporary access roads have to be benched into the existing slopes, stormwater runoff from up-gradient areas may concentrate along the perimeter silt fence at the toe of slope, and a temporary diversion ditch may be necessary along this silt fence to convey drainage to a discharge point into the existing stream channel. Stone check dams and/or stone lining shall be installed along the silt fence as necessary to control flow velocity, contain sediment, and limit turbidity at the discharge point. Temporary erosion matting shall be installed on all cut and fill slopes steeper than 3:1 within 48 hours of slope grading and prior to any rain events. Water bars may be installed along the surface of the access road at 50-foot intervals as necessary to control runoff. All related erosion controls shall be in place prior to utilizing access roads. Any portion of the access roads that are installed below the ordinary high

water level of the White River shall consist of clean stone fill with minimal fine materials. Geotextile filter fabric is also recommended below any stone fill that is placed in the river to minimize impacts to existing vegetation and river bed materials.

Staging and Stockpiling: Where additional staging areas are located outside immediate work areas, such as on level terrain within the right-of-way (ROW), within lane closures, or on off-site areas, additional surface water, or erosion controls are required as the specific field conditions dictate. Earth stockpiles shall be temporarily stabilized with seed and mulch if the duration of exposure is expected to be greater than 14 days. Silt fence shall be placed on the down-gradient side only if necessary to contain stockpiled materials and prevent sediment from being washed into the existing ditches, stream, or onto undisturbed areas. The contractor may utilize temporary lane closures along roads adjacent to the work areas for equipment or material delivery, such as concrete trucks, if approved by the resident engineer.

Off-Site Staging and Disposal Area: Activities that will take place at an approved off-site areas shall adhere to all applicable erosion and sediment control requirements contained in this EPSC Plan, property owner requirements, and other applicable requirements contained in the VTrans approval of this area. This may include installation of stabilized construction entrances, site perimeter controls, perimeter controls around stockpile areas, and stabilization measures, where necessary, at the off-site locations, as determined in the field. The off-site areas shall also be monitored in conjunction with on-site areas for the entire duration of usage and until all disturbed areas have been fully stabilized.

10. **Cofferdam and Stream Diversion Measures:** Setup stream diversion measures for each respective work phase (Phase 1 and 2) prior to any disturbances to the streambed or banks in accordance with the approved EPSC Plan. This task is anticipated to include a sand bag cofferdam in the river during temporary bridge abutment construction (Phase 1), and a cofferdam on the upland around the eastern existing bridge abutment (Phase 2), a dewatering sump and pump system and associated treatment measures, and turbidity barriers, as detailed on the EPSC Plans.

Cofferdam Construction: The cofferdams shall be installed around the new temporary bridge and existing bridge work areas and tied into the banks of the river at each end to prevent stream flow into the contained work areas and limit leakage out of the containment areas. The cofferdams may be lined with 6 mil polyethylene sheeting on the inside and/or outside faces to limit leakage and transport of fine sediments into and out of the containment area. A geotextile filter curtain (a.k.a. turbidity barrier) shall be installed in Phase 2 on the west side (or waterward) of the cofferdam in the existing stream channel to contain sediment leakage from the containment area and associated disturbances, and shall remain in place until the cofferdam is removed, stone fill bank stabilization is installed and all other disturbed areas are fully stabilized.

Containment Area Dewatering: The cofferdam containment areas will be dewatered as necessary by a separate dewatering sump and pump system with dewatering treatment measures located on the upland, as detailed on the EPSC Plans. The dewatering sump within the containment area is intended to maintain semi-dry working conditions during abutment removal/replacement and backfill, to limit the amount of sediment and turbid water conveyed from the containment to the dewatering treatment area, and prevent the discharge of sediment and turbidity to the downstream surface waters. It is critical that the contractor maintains the sump and pump system constantly to ensure that the suction intake is flowing clearly, not clogged, and functioning as intended. The discharge hose extending to the dewatering treatment area should be adequately supported as necessary to prevent shifting or separation at the pipe joints, or any unexpected discharge outside the contained areas.

The dewatering treatment areas will consist of, at a minimum, a filter bag fitted to the end of the pump discharge hose, to remove sediment and turbidity prior to discharge back into the river via existing swales and overland flow. The approximate location of the dewatering area has been depicted on the EPSC Plans, but may need to be adjusted in the field to ensure that discharge will flow away from active work areas. Dewatering treatment measures shall be adequately sized to handle potential flow volumes expected from dewatering activities, and may require additional treatment measures if sediment and turbidity is not adequately removed. Additional erosion, sediment, and turbidity control measures may be necessary to control the flow velocity, remove excess sediment not contained by the filter bag, and limit turbidity from being discharged onto adjacent areas or into nearby surface waters. Additional measures may include a stone check dam, stone and fabric check dam, stone lining installed along the down-gradient silt fence, erosion control matting or a dewatering treatment basin (hay bale or stone berm lined with fabric) as necessary to contain sediment and turbidity at the discharge point, and provide the necessary storage capacity to adequately treat and remove sediment and turbidity.

Cofferdam and dewatering measures shall remain in place and operational during the entire duration of the abutment removal and replacement work, until such time as the work below the ordinary high water line is complete, disturbed streambed and banks are fully restored and stabilized, and all potential sources of sediment or contamination have been eliminated. Once this condition is achieved, the cofferdam and dewatering system can be removed.

Turbidity Barriers: Turbidity barriers and/or sand bag cofferdams shall be in place around all active work areas that will involve disturbances on the bed and/or banks of the White River. These measures shall be installed prior to any upgradient disturbances, and shall be maintained until all disturbed areas are fully stabilized. The turbidity barriers shall be adequately secured in a fixed position within the river with anchors and lines as necessary to prevent excessive movement during varying flow levels and velocities. The turbidity barriers shall be long enough to extend

from the water surface to the river bed during normal high water conditions. It is critical that the contractor maintains the turbidity barriers to ensure that they are functioning as intended, are maintained in a relatively fixed position, do not collect excessive debris, and are repaired in the event of damage from debris or other causes.

11. **Stream Channel and Bank Disturbances:** Prior to any disturbances within the river channel and banks, turbidity barriers and/or cofferdams shall be in place around the work areas and functioning as intended. Excavated soil and stone materials shall be stockpiled in the construction staging areas for re-use or disposal, and shall only be placed in areas contained by adequate perimeter erosion and sediment controls.
12. **Bridge Removal and Replacement Work:** Complete bridge removal, excavation, and replacement work, as specified in the Contract Plans. Prior to any concrete work within the river channel or on the river banks, cofferdam diversion, dewatering measures and/or turbidity barriers shall be in place and operating to limit water within the respective work areas and contain sediment and/or concrete contamination.

During any concrete work, the contractor shall also ensure that no excess grout, concrete, or associated washwater is allowed to pass into downstream surface waters during these operations. A separate dewatering sump and treatment measures may be needed around isolated areas during concrete work to prevent mixing of waters contaminated with concrete with other dewatering flows, as deemed necessary by the resident engineer.

If any additional dewatering from areas contaminated with concrete is deemed necessary during concrete work, dewatering flows shall be pumped to a treatment basin, or a filter bag with additional treatment measures, since a filter bag alone is not typically adequate for removing the fine particles and turbidity associated with concrete contamination. A detail has been provided on Sheet 4 of the EPSC Plans in the event that this additional treatment measure is needed. The contractor shall continuously monitor the filter bag and/or treatment basin throughout the duration of these activities to ensure that adequate filtration is achieved, and that no untreated water escapes from these areas into the stream.

13. **Restoration of Bridge Areas:** The disturbed portion of riverbed and banks will be re-established to finished grades in accordance with the Contract Plans. Cofferdam diversion, dewatering measures and/or turbidity barriers shall remain in place and functioning until finished grades have been achieved and all disturbed areas are stabilized.

All disturbed surfaces in the river and on the banks below the ordinary high water line shall be stabilized, per the contract plans or as directed by the resident engineer, with stone fill, permanent seed, and mulch, or erosion matting, where required for slopes steeper than 3:1 or where erosion, washout, or scouring may be a concern. Once this condition is achieved, the cofferdam diversion, dewatering measures, and/or turbidity barriers can be removed.

14. **Remove Temporary Access Roads and/or Staging Areas:** Remove all temporary construction access roads, staging areas, cofferdams, and dewatering measures once work is completed in these areas.
15. **Remaining Roadway Work:** Complete all remaining roadway work, including granular backfill, subbase, roadway surface course, shoulder, guardrail, and other work. All disturbed areas within the work areas shall be contained with perimeter controls until all areas have been fully stabilized.
16. **Final Stabilization:** Install landscaping and final stabilization within 48 hours of final grading activities for all disturbed areas including topsoiling, permanent seeding, mulching, sodding (if deemed necessary), mulch netting, erosion matting, and stone fill.
17. **Site Cleanup:** Remove stabilized construction entrances and stabilize with permanent seed, mulch, and erosion matting as necessary. Remove all temporary erosion and sediment control measures, and perimeter controls once final stabilization has been achieved for all disturbed areas. Remove traffic controls and reestablish normal traffic patterns once work has been deemed complete, or as directly by the resident engineer.
18. **On-going Monitoring and Maintenance Activities:** The contractor shall continuously inspect and maintain all erosion and sediment control measures. Additional inspections shall be required by the On-Site Plan Coordinator and/or EPSC Plan Monitor on a weekly basis and after every rain event in which runoff is discharged from the site. The following Best Management Practices (BMPs) measures are recommended throughout duration of construction:
 - The On-Site Plan Coordinator should utilize Accuweather website (www.accuweather.com) or other appropriate service to predict precipitation events that could impact stream flows and erosion controls. The contractor shall be prepared to install all erosion and sediment controls prior to rain events.
 - The contractor shall have all necessary erosion control equipment and materials, including mulch and mulching equipment, on-site for the duration of work in order to stabilize disturbed slopes, inlets, outlets, and any other areas of potential concern.
 - Maintain dust control in current work area at all times.
 - Unpaved roadway areas intended for overnight travel shall be treated with water or another approved dust control product (e.g., Calcium Chloride) prior to the end of the work day.
 - Continuously inspect and maintain all stormwater, erosion, and sediment control measures throughout construction, until disturbed areas have been stabilized.
 - Remove trapped sediment from erosion and sediment control measures as appropriate for each type of BMP utilized, and as directed.
 - Monitoring of the EPSC and erosion controls shall continue prior to, during, and after weather conditions that could cause erosion

and or sedimentation issues. The contractor shall also anticipate the need to return to the site to address any deficiencies, as directed, on a very short time frame.

19. **Site Completion:** Upon completion of each work phase, all disturbed areas must be stabilized.

Off-Site Activities: All work related to this project is anticipated to be within the bounds of the VTrans ROW with the exception of temporary bridge detour and access roads, staging areas, portions of the dewatering measures, and minor perimeter controls where there is inadequate room for the necessary construction activities. It is the responsibility of the contractor and/or VTrans to secure authorization for access on adjacent properties as necessary to allow work to be undertaken outside the ROW.

The project will generate a limited amount of vegetation from tree clearing activities and typical construction related debris. Any debris that requires removal from the project site will be disposed of by the contractor in accordance with any applicable laws and regulations. All excavated soil materials (such as topsoil, soil, boulders, rock, etc.) will remain on-site and shall be utilized in final grading and stabilization of disturbed areas, to the extent possible. It is anticipated that the contractor will need to import limited volumes of stone fill to establish finished grades within the work areas.

The contractor intends to utilize two off-site areas for construction, staging and disposal of excess waste materials, as identified on the “Off-Site Activity Exemption Record” and “Off-Site Activity Submittal” forms included in Appendix D. The Savory Pit is an off-site commercial gravel pit, while the Bowen property is a private pasture on the southwest side of the site that will be used to construct the temporary bridge detour. Both sites have been reviewed and approved by VTrans. The contractor shall adhere to all applicable conditions of this approval, including installation, maintenance, and monitoring of general erosion and sediment controls at this location, as necessary, and in accordance with this EPSC Plan. Additional erosion and sediment control requirements have been incorporated into the construction sequence in Item No. 9 and 19 of Section 1.5 above.

EPSC Plan Updates: The EPSC Plan is a document that must be amended to reflect changes occurring at the site. Revisions to the EPSC Plan may include additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, and updates to the site plans. All revisions to the EPSC Plan should be documented on the revision documentation form provided in Appendix E.

If construction activities or design modifications are made that could impact the measures shown on the enclosed EPSC Plans, this EPSC Plan and this narrative will be amended appropriately, and include a description of the new activities, and the planned erosion control measures to be implemented.

1.6 Contact Information/Responsible Parties

<i>VTRANS PROJECT CONTACT</i>	<i>PHONE/FAX/MOBILE</i>	<i>ADDRESS</i>
Chris Williams, Resident Engineer VTrans Construction	Mobile: (802) 498-4170	Field Office: 42 North Main Street Rochester, Vermont 05767
Jennifer Fitch, Project Manager VTrans Structures	Phone: (802) 828-3042 Fax: (802) 828-3566	One National Life Drive Montpelier, Vermont 05633-5001
William H. Farley, P.E., CPESC Assistant Construction Env. Engineer VTrans Construction	Phone: (802) 828-5483 Fax: (802) 828-2795 Mobile: (802) 279-8143	
<i>CONTRACTOR and EPSC CONTACT</i>		
Kevin Ture, Project Manager W.M. Schultz Construction, Inc.	Phone: (518) 885-0060 X221 Fax: (518) 885-0744 Mobile: (518) 956-0255	Post Office Box 2620 Ballston Spa, New York 12020
<i>ON-SITE PROJECT COORDINATOR and EMERGENCY 24-HOUR CONTACT</i>		
Tom Jackson, Site Superintendent W.M. Schultz Construction, Inc.	Phone: (518) 885-0060 Fax: (518) 885-0744 Mobile: (518) 857-3056	Post Office Box 2620 Ballston Spa, New York 12020
<i>EPSC PLAN PREPARER and MONITOR (AS NEEDED)</i>		
Scott A. Williams, P.E. Pathways Consulting, LLC	Phone: (603) 448-2200 Fax: (603) 448-1221 Mobile: (203) 722-5690	240 Mechanic Street, Suite 100 Lebanon, New Hampshire 03766

EPSC Responsibilities:

The On-Site Plan Coordinator shall be responsible for the following duties:

- Compliance with the EPSC Plan and other applicable documents.
- Implementing the EPSC Plan, committing resources to implement BMPs.
- Training of all staff and subcontractors as necessary to make them aware of the BMPs, control measures, and good-housekeeping procedures that must be implemented on the project site.
- Installing structural stormwater controls.
- Supervising and implementing good housekeeping programs, such as site cleanup and disposal of trash and debris, hazardous material management and disposal, and vehicle and equipment maintenance.
- Daily monitoring of the site conditions, erosion and stormwater controls, and BMPs in accordance with the contract documents, VTrans Standard Specifications, and approved EPSC Plan requirements.
- Conducting routine inspections of the site to ensure all BMPs are being implemented and maintained, and follow-up reporting using the Inspection form provided in Appendix C.
- Maintaining the BMPs.
- Documenting changes to the EPSC Plan using the form in Appendix E.
- Communicating changes in the EPSC Plan to people working on the site.
- Subcontractor compliance with the EPSC Plan.

The EPSC Plan Monitor shall be responsible for the following duties:

- Conducting periodic (as needed) monitoring of the site conditions, erosion and stormwater controls, BMPs in accordance with the approved EPSC

Plan requirements, and follow-up reporting using the Inspection form provided in Appendix C.

- Recommendations relating to EPSC Plan and BMPs.

1.7 Schedule

The project is scheduled for start with mobilization and site setup around April 28, 2014 with actual construction beginning shortly thereafter. Final completion is scheduled for October 31, 2014.

The specific schedule for construction activities at the site location are not known at this time, but the contractor has provided a preliminary schedule of all project related activities. Once a more specific schedule is determined, dates should be added to this EPSC Plan, as appropriate.

1.8 Inspection Form

The site shall be monitored in accordance with the conditions of the approved EPSC Plan. The On-Site Plan Coordinator and/or EPSC Plan Monitor shall visit the site on a weekly basis and after every rain event to observe the conditions of surface water and erosion controls. The Inspection Form has been provided in Appendix C for use during all on-site inspections.

A maintenance inspection report will be made after each inspection by the On-Site Plan Coordinator and/or EPSC Plan Monitor. A copy of the completed form shall be filed with the VTrans, attached to this document for reference and tracking, and maintained on-site during the entire construction project. Following construction, the completed forms will be retained at the construction manager's office for a minimum of three (3) years.

2.0 EROSION PREVENTION AND SEDIMENT CONTROL PLANS

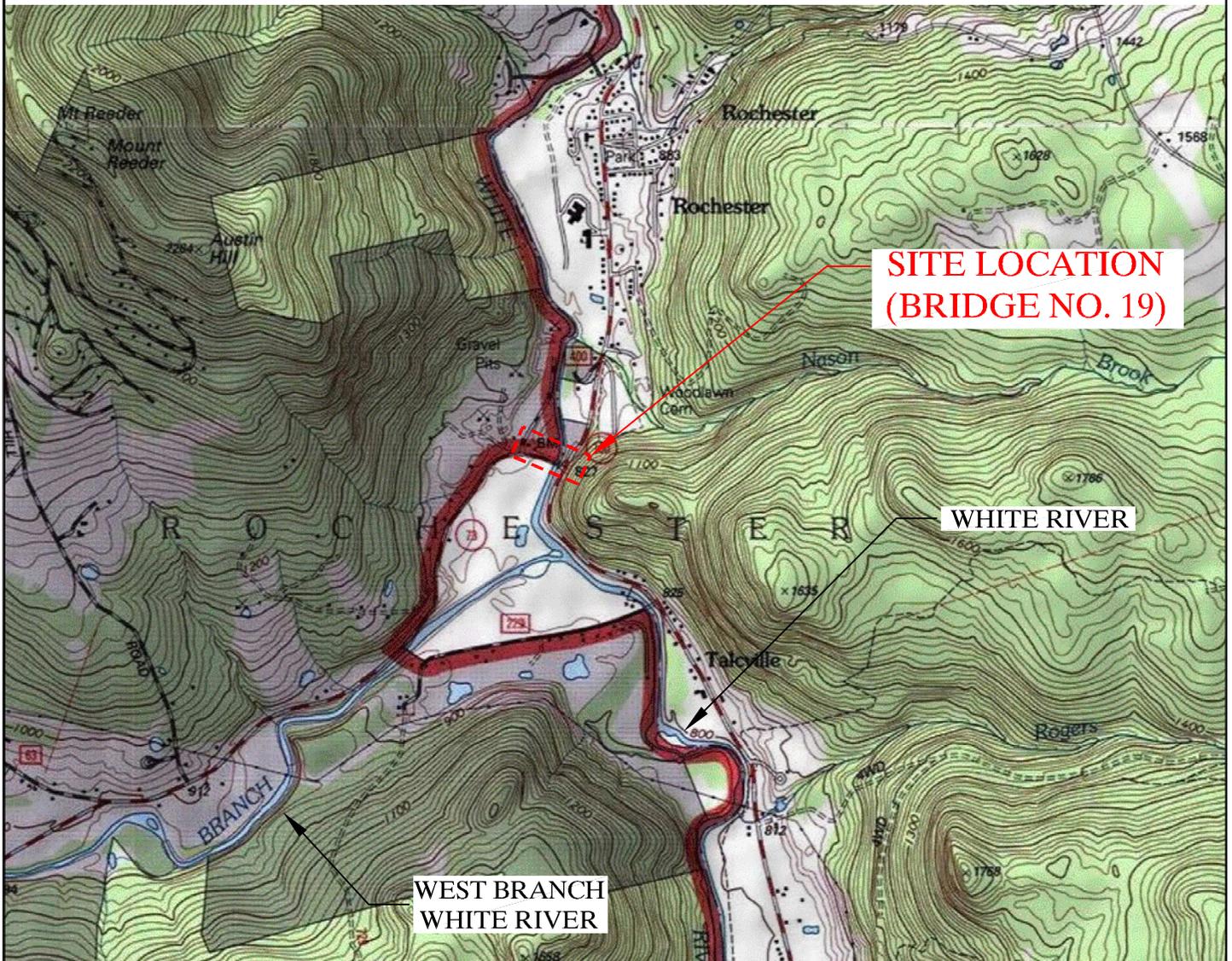
EPSC Plans for this project are included in Appendix B. The EPSC plans also include the following information:

- Direction(s) of stormwater flow and approximate slopes before and after major grading activities;
- Areas of soil disturbance;
- Areas that will not be disturbed;
- Natural features to be preserved;
- Locations of major structural and non-structural BMPs identified in the EPSC;
- Locations and timing of stabilization measures;
- Locations of storm drain inlets;
- Standard Erosion Control Specifications;
- Construction Sequencing;
- Winter Construction Notes; and
- Erosion Control Details.

This EPSC Plan document shall be updated during construction activities in order to identify each type of erosion and sediment control BMP that will be utilized.

APPENDICES

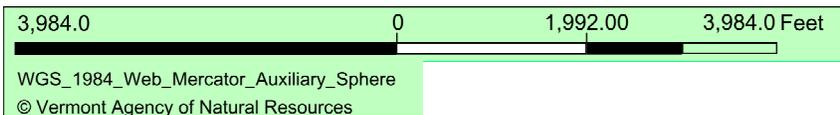
**APPENDIX A
SITE LOCATION MAP**



**SITE LOCATION
(BRIDGE NO. 19)**

WHITE RIVER

**WEST BRANCH
WHITE RIVER**



Pathways Consulting, LLC
 240 Mechanic Street, Suite 100
 Lebanon, New Hampshire 03766
 (603) 448-2200 FAX: (603) 448-1221

SITE LOCATION MAP FOR
VTRANS ROCHESTER ER BRF 0162(18)
 VERMONT ROUTE 73 AND 100, ROCHESTER, VERMONT

SCALE: AS SHOWN
 DESIGNED BY: SAW
 DRAWN BY: AMS
 CHECKED BY: SAW
 DATE: 03/05/14
 PROJ. NO. 12455

**APPENDIX B
EPSC PLANS**

APPENDIX C
INSPECTION FORM

Project Name:			Date:		Time Since Last Storm:	
Inspector:			On-Site Coordinator:			
Measure Inspected	Y	N	STA/Off	Corrective Action Taken (CAT)	Date CAT	
Boundary Limits						
Site boundary markers are up and visible						
Disturbance is only occurring within marked boundaries						
Limit Disturbance Area						
Only acreage listed on <i>Authorization to Discharge</i> is disturbed at one time						
Stabilize Construction Entrance/Exit						
Off site tracking of sediment prevented						
Sediment Barriers						
Silt fence trenched into ground						
Accumulated sediment < 1/2 height of measure						
Diversion						
All upland stormwater is diverted around the work area						
Check Dams						
Check dams are in place and stretch the width of the channel						
Channels are stable with no erosion						
Stabilize Exposed Soils						
Seed and mulch, and/or matting placed in accordance w/ permit requirements						
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 Activities						
Accumulated sediment is removed to allow sufficient treatment						

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

APPENDIX D
OFF-SITE ACTIVITY RECORDS

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 15 days for review once the application is administratively complete.

▪ **SUBMITTAL INFORMATION**

Project Name/District: <u>ROCHESTER BRIDGE 19</u>	Contractor/District Tech: <u>W.M. SCHULTZ CONST.</u>
Contact: <u>KEVIN TURE</u> Phone: <u>518-956-0255</u> Fax: <u>518-885-0744</u> e-mail: <u>Kture@wmschultz.com</u>	
Resident Engineer: <u>CHRIS WILLIAMS</u> Phone: _____ Fax: _____	

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

<input type="checkbox"/> Waste	<input type="checkbox"/> Borrow	<input type="checkbox"/> Staging	<input checked="" type="checkbox"/> Other (ex. dewatering location): <u>TEMPORARY FILL</u>
Material: Type (asphalt, concrete, earthen, etc.) <u>EARTHEN</u>		Quantity (yds ³) _____	
Total Area of Land Disturbance (sq ft) <u>9,000 SF +/-</u>			
Additional Info: <u>PLACE TEMPORARY FILL FOR DETOUR, REMOVE WHEN COMPLETE</u>			

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

Name: <u>MYRON BOWEN</u> <small>Print Name</small>	Address: <u>2124 No. Hollow Road</u> <u>ROCHESTER, VT. 05767</u>	Phone: <u>802-767-4625</u>
<input checked="" type="checkbox"/> Private Residential/Commercial	<input type="checkbox"/> Town/State Owned Facility	<input type="checkbox"/> Other
Additional Info: _____		
Are there other users of this site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Known past uses: <u>PASTURE</u>		
<input type="checkbox"/> Location Map (must be USGS Geological Survey Map (7.5'))		
<input checked="" type="checkbox"/> Sketch of Area:	<input checked="" type="checkbox"/> North arrow	<input checked="" type="checkbox"/> Approx scale <input checked="" type="checkbox"/> Recognizable features
Permit Info:		
Act 250 Permit Exists? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, # _____ Copy Enclosed? <input type="checkbox"/> Yes <input type="checkbox"/> No		
List of Other Existing Permits: _____		
Landowner Agreement (Signature is required for all private, town, and state owned properties.)		
I, <u>Myron Bowen</u> , verify the above permit information to be accurate and allow use of the proposed area by		
<small>Landowner / Facility Manager Signature</small>		
<u>W.M. SCHULTZ CONST.</u> as shown on the attached sketch and in accordance with VTrans specifications and requirements.		
<small>Name of Contractor</small>		Date: <u>4/22/14</u>

▪ **EPSC PLAN** (Except for operating pits, if the proposed area involves erodible materials or earth disturbance you must provide an EPSC Plan with this submittal)

<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Not Applicable
--	---

Off-Site Activity Exemption Record

To be completed by the Contractor and filed with the Resident Engineer.
Check the appropriate exemption category from the boxes below.

Staging Area Exemptions

The placement of construction trailers, equipment, and/or non-erodible materials

- On existing paved or gravel surfaces which will not require any additional earth disturbance

Borrow Site Exemptions

- Existing, in-use gravel pits which have an Act 250 Permit as long as the use does not modify the conditions of said permit (Act 250 Permit # provided by Contractor)
- Existing, in-use, commercial gravel pits that are "Grandfathered" from the Act 250 Permit Review Process as long as a landowner signature is provided.
- Inter-project Material Usage - The use of surplus materials from one project as borrow for another in which the owner and contractor are the same in both projects and neither involve work outside the respective contract construction limits

Waste Disposal Exemptions

- The use of project generated Solid Wastes to build the same project, or another project owned by the same entity.
- Batch plants for recycling of materials and subsequent re-use
- The disposal of any (erodible or non-erodible) materials in an existing shed at any public transportation facility to which the material will be stored for later re-use
- Existing, in-use gravel pits which have an Act 250 Permit as long as the use does not modify the conditions of said permit (Act 250 Permit # provided by Contractor)
- Existing, in-use, commercial gravel pits that are "Grandfathered" from the Act 250 Permit Review Process as long as a landowner signature is provided.
- Inter-project Material Usage - The use of surplus materials from one project as borrow for another in which the owner and contractor are the same in both projects and neither involve work outside the respective contract construction limits
- The disposal of hazardous materials at a facility which has been reviewed and approved by the Agency's Hazardous Materials Specialist.

Project Name: ROCHESTER ER BRF 0162(18)

Proposed Area Name: "Savery Pit" (Bureau of mines # 43-00761)

Act 250 Permit # (for Existing, In-use sites) _____

Act 250 Grandfathered Signature Myron T. Bowen
(Owner or authorized representative)

Myron T. Bowen

APPENDIX E
EPSC PLAN REVISION DOCUMENTATION FORM

EPSC Plan Revision Documentation Form

This Erosion Prevention and Sediment Control Plan (EPSC Plan) should be revised and updated to address changes in site conditions, new or revised government regulations, and additional on-site stormwater and erosion controls.

All revisions to the EPSC Plan must be documented on the EPSC Plan Revision Documentation Form, which should include the information shown below. The authorized facility representative who approves the EPSC Plan should be an individual at or near the top of the facility's management organization, such as the president, vice president, construction manager or supervisor, on-site coordinator, or environmental manager. The signature of this representative attests that the EPSC Plan revision information is true and accurate. Previous authors and facility representatives are not responsible for the revisions.

Revision Number	Description of the Revision	Date	Revision Preparer	Company Representative Signature
Originally Issued	Draft	April 24, 2014	Pathways Consulting, LLC	 Scott A. Williams, P.E.
1	Final Revisions per VTrans		Pathways Consulting, LLC	 Scott A. Williams, P.E.
2				
3				
4				
5				