

**EPSC NARRATIVE**

**1.1 PROJECT DESCRIPTION**

BEGINNING ON VT 14 IN EAST MONTPELIER AT A POINT APPROXIMATELY 176 METERS (0.11 MILES) SOUTH OF BRIDGE #69 OVER SODOM POND BROOK AND EXTENDING NORTHERLY ALONG VT 14 TO A POINT 120 METERS (0.07 MILES) NORTH OF THE BRIDGE.

WORK TO BE PERFORMED UNDER THIS CONTRACT INCLUDES INSTALLATION OF A TEMPORARY BRIDGE, REPLACEMENT OF BRIDGE #69 ON A PROPOSED ALIGNMENT, WIDENING OF ROADWAY, NEW GUARDRAIL, PAVEMENT AND ASSOCIATED ROADWAY ITEMS.

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

NOTE: AREA OF DISTURBANCE SHALL INCLUDE LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, INCLUDING ANY WASTE, STAGING AND BORROW AREAS WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS.

THE TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 2.00 ACRES.

**1.2 SITE INVENTORY**

**1.2.1 OFF SITE DRAINAGE CHARACTERISTICS (UP AND DOWN-GRADIENT)**

THE WATER RUNOFF SHOULD BE MINIMAL AND BE LIMITED TO THE PROJECT AREAS DUE TO THE NATURE OF THE SURROUNDING TERRAIN.

THE OVERALL TOPOGRAPHY OF THE AREA IS RELATIVELY FLAT, WITH STEEP SLOPES OCCURRING ONLY AT VERMONT ROUTE 14 SIDE SLOPES.

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

SODOM POND BROOK IS THE ONLY WATERWAY WITHIN THE PROJECT LIMITS. SODOM POND BROOK IS CHARACTERIZED AS SMALL, LOW RELIEF, ALLUVIAL, MEANDERING AND EQUIWIDTH.

THERE WILL BE CHANNEL WORK AS PART OF THIS PROJECT.

THERE ARE CLASS II AND CLASS III WETLANDS THROUGHOUT THE PROJECT AREA. SEE SITE PLANS FOR FURTHER DETAIL.

THERE ARE SEVERAL EXISTING CULVERTS AND DRAINAGE WAYS WITHIN THE PROJECT LIMITS.

**1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES**

VERMONT ROUTE 14 IS AN EXISTING PAVED ROAD.

THE MAJORITY OF THIS PROJECT IS CONSIDERED TO BE "IN A FILL TYPICAL", MEANING THE EXISTING ROADWAY (VERMONT ROUTE 14) IS HIGHER THAN THE SURROUNDING MEAN GROUND ELEVATION.

THERE ARE TWO EXISTING GRAVEL DRIVES THAT WILL BE REDEVELOPED AS PART OF THIS PROJECT.

THERE ARE NO BUILDINGS LOCATED WITHIN THE PROJECT.

THERE WILL BE SOME RELOCATION OF THE EXISTING OVERHEAD UTILITIES AS PART OF THIS PROJECT.

FOR FINAL CONTOURS AND SLOPES SEE THE CROSS SECTIONS AND/OR EPSC - FINAL CONDITIONS SITE PLAN.

**1.2.4 VEGETATION**

THE VEGETATION SURROUNDING THE PROJECT IS A MIX OF GRASSY FIELDS, AGRICULTURAL FIELDS AND WOODED AREAS WITH SCATTERED GROUPS OF SMALL TREES. IMPACTS TO VEGETATION WILL BE LIMITED TO THAT WHICH ARE AFFECTED BY THE CONSTRUCTION OF THE NEW BRIDGE ON THE EXISTING ALIGNMENT AND THE TEMPORARY BRIDGE.

FOLLOWING THE CONSTRUCTION OF THE NEW BRIDGE, THE SLOPES WILL BE STABILIZED WITH STONE FILL AND VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES

**1.2.5 SOILS**

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE WEB SOIL SURVEY FOR THE COUNTY OF ADDISON, VERMONT. SOILS IN THE PROJECT AREA ARE AS FOLLOWS:

SOILS NAME	SLOPE	EROSION FACOTR (K)
4A - SUNNY SILT LOAM	0-2%	0.32
41E - BUXTON SILT LOAM	25-45%	0.32
44B- LAMOINE SILT LOAM	3-8%	0.32
44C- LAMOINE SILT LOAM	8-15%	0.32
60A- WEIDER VERY FINE SANDY LOAM	0-3%	0.32

NOTE: K-VALUES GENERALLY INDICATE THEFOLLOWING: 0.0-0.23 = LOW EROSION POTENTIAL; 0.24-0.36 = MODERATE EROSION POTENTIAL; 0.37 AND HIGHER = HIGH EROSION POTENTIAL.

DUE TO ENGINEERING REQUIREMENTS FOR FILL MATERIAL, MUCH OF THE FILL MATERIAL WILL NEED TO BE BROUGHT IN FROM AN OUTSIDE SOURCE. SINCE IT IS UNKNOWN WHERE THIS SOURCE PIT WILL BE, EROSABILITY PROPERTIES ARE NOT PROVIDED HEREIN.

**1.2.6 SENSITIVE RESOURCES AREAS**

THERE ARE NO CRITICAL HABITATS, HISTORICAL AREAS, THREATENED AND ENDANGERED SPECIES EXISTING WITHIN THE PROJECT AREA.

THERE IS A WILDLIFE HABITAT AREA WITHIN CLOSE PROXIMITY TO THE PROJECT AREA, WHICH WILL NOT BE IMPACTED BY THIS PROJECT.

SENSITIVE RESOURCES LOCATED WITHIN THE PROJECT LIMITS ARE ARCHEOLOGICAL AREAS, AGRICULTURAL LAND, WATER RESOURCES (SODOM POND BROOK), FLOOD PLAIN, AND CLASS II AND CLASS III WETLANDS.

**1.3 RISK EVALUATION**

**RISK DETERMINATION**

THIS PROJECT HAS BEEN DETERMINED TO BE LOW RISK DUE TO THE FOLLOWING MITIGATION FACTORS.

- THE PROJECT WILL BE LIMITED TO TWO ACRES OR LESS OF DISTURBED EARTH AT ANY ONE TIME.
- THE PROJECT WILL HAVE A MAXIMUM OF 7 CONSECUTIVE DAYS OF DISTURBED EARTH EXPOSURE IN ANY LOCATION BEFORE TEMPORARY OR FINAL STABILIZATION IS IMPLEMENTED
- THE PROJECT WILL INCLUDE LESS THAN TWO ACRES OF DISTURBANCE ON SOIL THAT IS GREATER THAN 5% SLOPE.

BASIC RISK EVALUATION RESULTED IN A MORE DETAILED ANALYSIS TO DETERMINE RISK, AND RESULTED IN THE FOLLOWING REQUIREMENTS:

- IMPLEMENT THE LOW RISK SITE HANDBOOK AND FOLLOW THIS EPSC PLAN PREPARED FOR THIS PROJECT.
- ALL AREAS MUST HAVE TEMPORARY OR FINAL STABILIZATION WITHIN 21 DAYS OF THE INITIAL DISTURBANCE AND STABILIZED THEREAFTER ON A DAILY BASIS. THE FOLLOWING EXCEPTIONS APPLY:
  - STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN 24 HOURS AND NO PRECIPITATION IS FORECASTED FOR THE NEXT 24 HOURS.
  - STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION WITH A DEPTH OF 2 FEET OR GREATER.
- INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT RESULTING IN THE DISCHARGE OF STORMWATER FROM THE CONSTRUCTION SITE.
- IF THERE IS A DISCHARGE OF VISIBLY DISCOLORED STORMWATER FROM THE CONSTRUCTION SITE OR FROM THE CONSTRUCTION SITE TO WATERS OF THE STATE, THE PERMITTEE SHALL TAKE IMMEDIATE CORRECTIVE ACTION.
- IF THERE IS A DISCHARGE OF VISIBLY DISCOLORED STORMWATER FROM THE CONSTRUCTION SITE TO WATERS OF THE STATE, THE ON-SITE PLAN COORDINATOR SHALL, WITHIN 72 HOURS OF FIRST DISCOVERING THE DISCHARGE, SUBMIT A WRITTEN REPORT ABOUT THE DISCHARGE AND THE RESULTING CORRECTIVE ACTION TO THE VERMONT AGENCY OF NATURAL RESOURCES, DEPARTMENT OF ENVIRONMENTAL CONSERVATION DEC).

**RISK RE-EVALUATION**

SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN A POTENTIAL CHANGE IN THE RISK OR SHOULD THE PROJECT BECOME PART OF A COMMON DEVELOPMENT PLAN, THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH THE DEC VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION PERMIT PROCESS.

BORROW AND STAGING EROSION PREVENTION AND SEDIMENT CONTROL SHALL BE PAID FOR IN ACCORDANCE WITH SUBSECTION 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

**1.4 EROSION PREVENTION AND SEDIMENT CONTROL**

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. 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.

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.

(REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR EACH PRACTICE REQUIRED ON THE PROJECT TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING.)

ADDITIONAL EROSION CONTROL DETAILS MAY ALSO BE FOUND ON THE FOLLOWING WEBSITE:  
[www.aot.state.vt.us/Caddhelp](http://www.aot.state.vt.us/Caddhelp)

COORDINATE THE INSTALLATION, USE AND REMOVAL OF EPSC MEASURES WITH THE CONSTRUCTION ACTIVITIES TO ENSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION AND SEDIMENT CONTROL. EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS. THE CONTRACTOR WILL USE ADDITIONAL EPSC MEASURES AS NECESSIATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE ENGINEER. SEE SUBSECTION 105.23 OF THE VERMONT AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

INSTALL ALL EPSC MEASURES AS SHOWN IN THE EROSION CONTROL PLAN OR AS DIRECTED BY THE ENGINEER. DO NOT MODIFY THE TYPE, SIZE OR LOCATION OF ANY CONTROL OR PRACTICE WITHOUT THE APPROVAL OF THE ENGINEER. ALL CHANGES SHALL BE APPROVED BY THE CONSTRUCTION ENVIRONMENTAL ENGINEER AND ALSO BE NOTED ON THE PLANS, IN THE WEEKLY INSPECTION REPORT AND IF NECESSARY, REPORTED TO THE APPROPRIATE AUTHORITY IN A TIMELY MANNER.

DO NOT ALLOW ANY CONSTRUCTION EQUIPMENT TO OPERATE ON THE DOWN SLOPE SIDE OF THE PERIMETER CONTROL MEASURES.

**1.4.1 MARK SITE BOUNDARIES**

PROJECT DEMARCATION FENCING, DENOTED -PDF- ON THE PLANS, IS USED TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION.

**1.4.2 LIMIT DISTURBANCE AREA**

EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES (PHASING) AS CONSTRUCTION PROCEEDS. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AND AS DIRECTED BY THE ENGINEER.

**1.4.3 STABILIZED CONSTRUCTION ENTRANCE**

STABILIZED CONSTRUCTION ENTRANCE SHALL BE UTILIZED AS SHOWN IN THE PLANS TO MINIMIZE TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS AND REDUCE POTENTIAL RUNOFF OF SEDIMENT INTO RECEIVING WATERS. STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.

**1.4.4 INSTALL SILT FENCE**

SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK AS SHOWN ON THE PLANS OR AS NECESSARY.

**1.4.5 DIVERT UPLAND RUNOFF**

DIVERSIONARY MEASURES SHALL BE USED WHEN UPLAND RUNOFF IS ENTERING THE PROJECT LIMITS.

**1.4.6 SLOW DOWN CHANNELIZED RUNOFF**

CHECK DAMS SHALL BE UTILIZED TO CONTROL CONCENTRATED FLOW OF STORMWATER WITHIN THE PROJECT LIMITS.

**1.4.7 CONSTRUCT PERMANENT CONTROLS**

USE STONE AS SHOWN IN THE PLANS FOR SLOPE LINING, INLET, OUTLET AND CHANNEL PROTECTION

RE-VEGETATE AREAS AS SHOWN ON THE FINAL CONDITIONS PLANS WITH SEED AND MULCH.

THE SLOPES ALONG CHANNEL BANKS ARE TO BE LINED WITH HEAVY STONE. STREAM BANK VEGETATION WILL THEN BE INTRODUCED IN THE GRUBBING MATERIAL THAT IS TO BE PLACED OVER THE STREAM BANK STONE FILL.

**1.4.8 STABILIZE EXPOSED SOILS**

TRACKING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, WILL BE UTILIZED ON A REGULAR BASIS. SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF FORECASTED RAIN.

SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING INTERMITTENT PHASES OF CONSTRUCTION.

**1.4.9 WINTER STABILIZATION**

SHOULD CONSTRUCTION PROCEDE PAST OCTOBER 15TH, SPECIFIC WINTER EPSC PROCEDURES SHALL BE FOLLOWED DURING CONSTRUCTION AND PRIOR TO ANY SHUT DOWN. SEE LOW RISK SITE HANDBOOK FOR FURTHER INFORMATION.

**1.4.10 STABILIZE SOIL AT FINAL GRADE**

SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

**1.4.11 DE-WATERING ACTIVITIES**

FILTER BAGS SHALL BE USED DURING DEWATERING PUMPING OPERATIONS.

**1.4.12 INSPECT YOUR SITE**

INSPECT SITE BASED ON PERMIT AUTHORIZATION OR SPECIAL PROVISION REQUIREMENTS.

**EPSC NARRATIVE**

PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	STP 037-2(9)
FILE NAME:	sf200epsc_nar.dgn
PROJECT LEADER:	K. HIGGINS
DESIGNED BY:	J. SALVATORI
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