

## EPSC PLAN NARRATIVE

### 1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES WIDENING VT ROUTE 100 TO CONSTRUCT A NORTHBOUND RIGHT-TURN LANE AND INSTALLING A TRAFFIC CONTROL SIGNAL AT THE INTERSECTION. THE WORK ALSO INCLUDES REMOVING EXISTING PAVEMENT ALONG BISHOP MARSHALL DRIVE AND THE RELOCATION OF EXISTING GUARDRAIL. THE WORK ALSO INCLUDES REMOVING ALL OF THE PAVEMENT ON VT ROUTE 100 (LAPORTE ROAD) WITHIN THE PROJECT LIMITS, AND REGRADING THE ROAD TO ADJUST THE PROFILE AND REPAVING. THE PROJECT IS LOCATED IN THE TOWN OF MORRISTOWN, ON VT ROUTE 100, AT THE INTERSECTION OF VT ROUTE 100, ALT VT ROUTE 100, VT ROUTE 100 (LAPORTE ROAD), AND BISHOP MARSHALL DRIVE.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE AND PAVEMENT REMOVAL WITHIN THE PROJECT AREA AS SHOWN ON THE ATTACHED EPSC PLAN. TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 0.59 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL BE COMPLETED IN TWO CONSTRUCTION SEASONS.

### 1.2 SITE INVENTORY

#### 1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE AREA IS HILLY WITH VEGETATED SLOPES AND FORESTED UPLANDS. ROADWAY SIDE SLOPES CONSISTS OF VEGETATED UNDERGROWTH AND LANDSCAPE AREAS.

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

THE UNNAMED STREAM IS THE ONLY MAJOR WATERBODY ON THE PROJECT SITE WHICH IS A TRIBUTARY OF THE LAMOILLE RIVER. THE UNNAMED STREAM CROSSES UNDER VT ROUTE 100 IN A 48 INCH CONCRETE PIPE WITHIN THE PROJECT LIMITS AND WOULD BE CLASSIFIED AS FLAT, WITH A NARROW, SOIL LINED CHANNEL. THE STREAM BED CONSISTS OF GRAVEL AND SOIL.

#### 1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF MOSTLY GRASS AND SMALL LANDSCAPE TREES INCLUDING HARD AND SOFTWOODS. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY THE PROPOSED SIDE SLOPE CONSTRUCTION WITHIN THE WIDENING AREA AND THE REGRADED AREA ALONG VT ROUTE 100 (LAPORTE ROAD). DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES. CLEARING SHALL BE KEPT TO A MINIMUM.

#### 1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF LAMOILLE, VERMONT. SOILS ON THE PROJECT SITE ARE: SALMON VERY FINE SANDY LOAM, 15% TO 25% SLOPES, "K FACTOR" = 0.32. THIS SOIL IS CONSIDERED MODERATELY ERODIBLE, ADAMS LOAMY FINE SAND, 2% TO 8% SLOPES, "K FACTOR" = 0.20. THIS SOIL IS NOT CONSIDERED HIGHLY ERODIBLE, ADAMS LOAMY FINE SAND, 8% TO 15% SLOPES, "K FACTOR" = 0.20. THIS SOIL IS NOT CONSIDERED HIGHLY ERODIBLE, ADAMS LOAMY FINE SAND, 15% TO 25% SLOPES, "K FACTOR" = 0.20. THIS SOIL IS NOT CONSIDERED HIGHLY ERODIBLE, SWANVILLE SILT LOAM, 0% TO 3% SLOPES, "K FACTOR" = 0.28. THIS SOIL IS CONSIDERED MODERATELY ERODIBLE. BOOTHBAY SILT LOAM, 8% TO 15% SLOPES, "K FACTOR" = 0.43. THIS SOIL IS CONSIDERED HIGHLY ERODIBLE.

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 AREAS

CRITICAL HABITATS: NO  
HISTORICAL OR ARCHEOLOGICAL AREAS: NO  
PRIME AGRICULTURAL LAND: NO  
THREATENED AND ENDANGERED SPECIES: SEE ENVIRONMENTAL COMMITMENTS MEMO  
WATER RESOURCE: UNNAMED STREAM (TRIBUTARY OF LAMOILLE RIVER)  
WETLANDS: YES (NO IMPACT)

### 1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. 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 PLACED 1.5 FEET FROM THE TOE OF SLOPE TO PHYSICALLY MARK SITE BOUNDARIES. PDF CAN BE LOCATED CLOSER TO THE PROPOSED SLOPE LIMITS IN SENSITIVE AREAS OR AS DIRECTED BY THE ENGINEER. PDF SHALL BE INSTALLED PRIOR TO THE BEGINNING OF ANY EARTHWORK ON THE PROJECT.

#### 1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION CHANGES.

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

#### 1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS.

FOR THIS PROJECT IT IS ASSUMED THAT WORK OUTSIDE THE PAVED SURFACE WILL BE REQUIRED BUT WILL BE KEPT TO A MINIMUM. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLANS AND ANYWHERE CONSTRUCTION EQUIPMENT MAY BE GOING FROM AREAS OF EXPOSED SOIL 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 UP SLOPE EARTHWORK IN ACCORDANCE WITH THE EROSION PREVENTION AND CONTROL PLANS.

EROSION LOG (FIBER ROLL) WILL BE INSTALLED AT THE TOE OF SLOPE AS PROPOSED ON THE EPSC PLAN.

#### 1.4.5 DIVERT UPLAND RUNOFF

THE PROJECT AREA IS RELATIVELY FLAT THEREFORE THERE ARE NO UPLAND RUNOFF AREAS THAT CONTRIBUTE TO THE PROJECT AREA SO NO SPECIFIC DIVERSION MEASURES ARE ANTICIPATED TO BE REQUIRED.

#### 1.4.6 SLOW DOWN CHANNELIZED RUNOFF

THERE ARE NO CHANNELIZED SWALES WITHIN THE PROJECT AREA THAT NEED TO BE PROTECTED SO NO SPECIFIC EROSION PREVENTION AND SEDIMENT CONTROLS ARE REQUIRED.

#### 1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES, SUCH AS EROSION MATTING, SHALL BE INSTALLED AS SHOWN ON THE PLANS.

#### 1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE.

TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS ON EXPOSED SOIL AREAS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SOIL SLOPES STEEPER THAN 1:3 AS SHOWN ON THE PLANS.

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

#### 1.4.9 WINTER STABILIZATION

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

#### 1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE. SEEDING AND MULCHING SHALL BE USED TO STABILIZE SOIL. SEE THE EROSION CONTROL DETAILS FOR SEED TYPES AND APPLICATION RATES.

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

NO DEWATERING ACTIVITIES ARE EXPECTED AS PART OF THIS PROJECT.

#### 1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR AFTER ANY RAINFALL EVENT THAT RESULTS IN DISCHARGE FROM THE SITE.

### 1.5 SEQUENCE AND STAGING

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

#### 1.5.1 CONSTRUCTION SEQUENCE

#### 1.5.2 OFFSITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS INCLUDING, BUT NOT LIMITED TO, STAGING AREAS SHALL FOLLOW SUBSECTIONS 105.25-105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.



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|-----------------|-------------------|
| PROJECT NAME:   | MORRISTOWN        |
| PROJECT NUMBER: | STPG SGNL(47)     |
| FILE NAME:      | z15t047eronar.dgn |
| PROJECT LEADER: | J. SANTACRUCE     |
| DESIGNED BY:    | J. SANTACRUCE     |
| EPSC NARRATIVE  |                   |
| PLOT DATE:      | 5/13/2016         |
| DRAWN BY:       | J. SANTACRUCE     |
| CHECKED BY:     | B. COLBURN        |
| SHEET           | 29 OF 58          |