

EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REHABILITATION OF AN EXISTING ROCK SLOPE ADJACENT TO INTERSTATE 91 NORTHBOUND. THE PROJECT BEGINS AND ENDS BETWEEN MILE MARKERS 142.562 AND 142.707, RESPECTIVELY. THE SUBJECT ROCK SLOPE IS LOCATED IN THE TOWN OF LYNDON, ADJACENT TO AND RIGHT OF INTERSTATE 91 NORTHBOUND.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, AS WELL AS WASTE, BORROW AND STAGING AREAS, AND OTHER EARTH DISTURBING ACTIVITIES WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS AS SHOWN ON THE ATTACHED EPSC PLAN.

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 0.69 ACRE.

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 FAIRLY FLAT WITH STEEP SLOPES ADJACENT TO THE NORTHBOUND BARREL OF INTERSTATE 91. WITHIN THE PROJECT LIMITS THERE IS A HEADWALL AND DROP INLET THAT RECEIVE WATER DRAINING OFF OF THE ROCK SLOPE AND INTERSTATE 91.

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

DRAINAGE THROUGH THE PROJECT AREA CONSISTS PRIMARILY OF OVERLAND FLOW WHICH COLLECTS IN GRASSED SWALES THAT RUN PARALLEL WITH INTERSTATE 91 AND EVENTUALLY DISCHARGE INTO A DROP INLET THAT RUNS ACROSS THE NORTHBOUND BARREL TO THE MEDIAN. THERE ARE NO WETLANDS WITHIN THE PROJECT CORRIDOR.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF GRASSY SWALES AND EVERGREEN TREES ON THE ROCK SLOPE. THE IMPACT TO VEGETATION WILL CONSIST OF CLEARING AND GRUBBING ON TOP OF THE ROCK SLOPE AND DITCH WORK ADJACENT TO THE INTERSTATE HIGHWAY. THE DISTURBED AREA WILL BE COVERED WITH TEMPORARY EROSION MATTING UNTIL THE VEGETATION CAN BE ESTABLISHED AND STABILIZE THE AREA.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF CALEDONIA, VERMONT. SEE TABLE BELOW FOR SOIL TYPES LOCATED WITHIN THE PROJECT AREA.

MAP UNIT	DESCRIPTION	SLOPES	K-VALUE
214D	VERSHIRE-LOMBARD COMPLEX, VERY FINE SANDY LOAM	15-35%	0.32

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: YES, NORTHERN LONG EARED BAT, FEDERAL LISTED THREATENED SPECIES.
WATER RESOURCE: NONE
WETLANDS: NO

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF CONSTRUCTION GENERAL PERMIT 3-9020 FOR STORM WATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION PREVENTION AND SEDIMENT 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 VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL 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.

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

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

1.4.3 SITE ENTRANCE/EXIT STABILIZATION
TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR'S PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS
SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

FILTER FABRIC DROP INLET PROTECTION AND PIPE INLET PROTECTION WILL BE INSTALLED TO FILTER SEDIMENT FROM INCOMING STORM WATER FOR EXISTING DROP INLETS AND CULVERTS ALONG THE INTERSTATE.

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

THE PROJECT AREA IS RELATIVELY FLAT. THEREFORE IT IS NOT ANTICIPATED THAT DIVERSION MEASURES WILL BE NECESSARY.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF
CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSION POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

STONE CHECK DAMS WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN, AT A MINIMUM.

1.4.7 CONSTRUCT PERMANENT CONTROLS
PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION
ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE.

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

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

1.4.9 WINTER STABILIZATION
IF CONSTRUCTION ACTIVITIES INVOLVING EARTH DISTURBANCE CONTINUE PAST OCTOBER 15 OR BEGIN BEFORE APRIL 15, THE FOLLOWING MUST BE INCORPORATED INTO THE EPSC PLAN:

- ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING.
- LIMITS OF DISTURBANCE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
- A SNOW MANAGEMENT PLAN INCLUDING ADEQUATE STORAGE AND CONTROL OF SNOWMELT, REQUIRING CLEARED SNOW TO BE STORED DOWN GRADIENT OF ALL AREAS OF DISTURBANCE AND PROHIBITING STORAGE OF SNOW IN STORMWATER TREATMENT STRUCTURES.
- A MINIMUM 25 FOOT BUFFER SHALL BE MAINTAINED FROM PERIMETER CONTROLS SUCH AS SILT FENCE TO ALLOW FOR SNOW CLEARING AND MAINTENANCE.
- IN AREAS OF DISTURBANCE WITHIN 100 FEET OF A RECEIVING WATER, SILT FENCE SHALL BE REINFORCED OR ELSE REPLACED WITH PERIMETER DIKES, SWALES, OR OTHER PRACTICES RESISTANT TO THE FORCES OF SNOW LOADS.
- DRAINAGE STRUCTURES SHALL BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
- THE CONTRACTOR SHALL INSTALL SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE AHEAD OF GROUND FREEZING.
- WHERE MULCH IS THE SELECTED STABILIZATION MEASURE, USE DOUBLE THE STANDARD RATE OF MULCH.
- THE REQUIREMENT FOR NETTING OR OTHER APPROACH TO ANCHOR MULCH TO PREVENT REMOVAL BY WIND.
- TO ENSURE COVER OF DISTURBED SOIL IN ADVACE OF A MELT EVENT, AREAS OF DISTURBED SOIL MUST BE STABILIZED AT THE END OF EACH WORK DAY, WITH THE FOLLOWING EXCEPTIONS:
 - IF NO PRECIPITATION WITHIN 24 HOURS IS FORECAST AND WORK WILL RESUME IN THE SAME DISTURBED AREA WITHIN 24 HOURS, DAILY STABILIZATION IS NOT NECESSARY.
 - DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS HOUSE FOUNDATIONS OR OPEN UTILITY TRENCHES.
- REMOVE SNOW OR ICE TO LESS THAN 1 INCH THICKNESS PRIOR TO STABILIZATION.

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

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

1.4.11 DE-WATERING ACTIVITIES
NO DE-WATERING ACTIVITIES ANTICIPATED AT THIS TIME.

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

1.5 SEQUENCE AND STAGING

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

1.5.1 CONSTRUCTION SEQUENCE

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

1.5.3 UPDATES

PROJECT NAME: LYNDON	
PROJECT NUMBER: IM 091-3(51)	
FILE NAME: z13a370epscgn01.dgn	PLOT DATE: 12/13/2016
PROJECT LEADER: D. GOZALKOWSKI	DRAWN BY: J. HEALD
DESIGNED BY: J. OLSEN	CHECKED BY: J. SHIELDS
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