

I. NARRATIVE

I.1 PROJECT DESCRIPTION

U.S. ROUTE 4, NH HES 020-1(2) PROJECT IS LOCATED IN THE TOWN OF FAIR HAVEN, RUTLAND COUNTY, VERMONT. THE PROJECT BEGINS AT A POINT APPROXIMATELY 56 FT EAST OF NEW YORK - VERMONT STATE LINE AND EXTENDS EASTERLY ALONG U.S. ROUTE 4 FOR APPROXIMATELY 6336 FT (1.2 MILES). WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES THE REMOVAL OF THE EXISTING JUG HANDLE AND ASSOCIATED DECELERATION LANE PAVEMENT ALONG WITH THE NARROWING OF U.S. ROUTE 4 TO ONE LANE PRIOR TO THE INTERSECTION WITH VT ROUTE 4A. IN ADDITION, THE REMAINING PAVEMENT SURFACE WILL BE COLD PLANED AND REPAVED WITH A NEW WEARING COURSE AND LEVELING COURSE, NEW PAVEMENT MARKINGS, NEW SIGNS, GUARDRAIL ADJUSTMENTS AND INCIDENTAL ITEMS. U.S. ROUTE 4 IS A LIMITED ACCESS HIGHWAY. THE TOTAL EARTH DISTURBANCE THROUGHOUT THE DURATION OF THIS PROJECT SHALL BE APPROXIMATELY 0.85 ACRE.

I.2 SITE INVENTORY AND ANALYSIS

I.2.1 OFF-SITE DRAINAGE CHARACTERISTICS (UP AND DOWN GRADIENT)

THE PROJECT AREA IS PRIMARILY LOCATED WITHIN THE EXISTING PAVED SECTION OF THE U.S. ROUTE 4 WESTBOUND BARREL WITH WOODED AND GRASSED AREAS ALONG WITH ISOLATED SECTIONS OF ROCK OUT CROPS ALONG THE ROADWAY. THERE ARE NO RESIDENTIAL OR COMMERCIAL PROPERTIES LOCATED WITHIN THE PROJECT AREA. THE MAJORITY OF THE SURFACE RUNOFF ASSOCIATED WITH THIS WATERSHED IS CONVEYED BY OVERLAND FLOW THAT IS COLLECTED VARIOUS CLOSED DRAINAGE SYSTEMS THAT OUTLET INTO THE POULTNEY RIVER, A TRIBUTARY OF THE CHAMPLAIN CANAL.

I.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

LOCATED WITHIN THE PROJECT AREA IS THE POULTNEY RIVER, A TRIBUTARY OF THE CHAMPLAIN CANAL. SURFACE RUNOFF FROM THE PROJECT AREA IS CONVEYED BY PRIMARILY BY OVERLAND FLOW THAT IS COLLECTED BY VARIOUS CLOSED DRAINAGE SYSTEMS THAT OUTLET INTO THE POULTNEY RIVER. TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROLS MEASURES WILL BE USED TO PROTECT THE WATER COURSES FROM BECOMING TURBID DURING CONSTRUCTION

I.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE EXISTING SITE TOPOGRAPHY CONSISTS OF A LIMITED ACCESS ROADWAY, U.S. ROUTE 4, RUNNING THROUGH A MODERATELY WOODED RURAL AREA IN ROLLING TERRAIN. THERE ARE NO RESIDENTIAL OR COMMERCIAL STRUCTURES LOCATED IN THE VICINITY OF THE PROJECT AREA. LIMITED OVERHEAD AND UNDERGROUND UTILITIES ARE PRESENT WITHIN PROJECT AREA ALONG WITH OVERHEAD STREET LIGHTING IN THE VICINITY OF THE U.S. ROUTE 4, VT. ROUTE 4A INTERSECTION. THIS PROJECT WILL REQUIRE THE REMOVAL OF SOME OF THE EXISTING STREET LIGHTING LOCATED WITH IN THE AREA OF THE JUG HANDLE.

I.2.4 VEGETATION

THE VEGETATION LOCATED WITHIN THE PROJECT AREA PRIMARILY CONSISTS OF WOODED AND GRASSED AREAS WITH ISOLATED AREAS OF ROCK OUT CROPS. IT IS ANTICIPATED THAT SOME TREES AND/OR SHRUBS WILL BE TRIMMED DURING THE CONSTRUCTION OF THIS PROJECT.

I.2.5 SOILS

THE SOILS LOCATED WITHIN THE RECONSTRUCTION LIMITS HAVE BEEN CLASSIFIED AS "NOT HIGHLY ERODIBLE" AND "POTENTIALLY HIGHLY ERODIBLE" BY THE UNITED STATES DEPARTMENT OF AGRICULTURE'S NATIONAL RESOURCES CONSERVATION SERVICE (NRCS). THE FOLLOWING IS A LIST OF SOIL TYPES THAT ARE LOCATED WITHIN THE PROJECT AREA.

MAP UNIT TYPE *	DESCRIPTION	SLOPES (%)	ERODIBILITY	ERODIBILITY FACTOR (K)
43C	TACONIC - MACOMBER COMPLEX	8 - 25	POTENTIALLY HIGHLY ERODIBLE	0.24
54A	NINIGRET FINE SANDY LOAM	0 - 4	NOT HIGHLY ERODIBLE	0.32
80A	KINGSBURY SILTY CLAY LOAM	0 - 3	NOT HIGHLY ERODIBLE	0.49
82B	VERGENNES CLAY	3 - 8	NOT HIGHLY ERODIBLE	0.49

\*MAP UNIT TYPE IS FROM NRCS SOIL SURVEY MAP FOR RUTLAND COUNTY, VERMONT. SEE SHEETS I34 THROUGH I38 FOR MAP UNIT BOUNDARY LINES.

I.2.6 SENSITIVE RESOURCE AREAS

NO KNOWN OCCURRENCES OF CRITICAL HABITATS, OR HISTORICAL OR ARCHEOLOGICAL SITES EXIST WITHIN THE LIMITS OF THE PROJECT AREA. THERE ARE TWO VERMONT THREATENED AND ENDANGERED SPECIES THAT ARE KNOWN TO INHABIT THE GENERAL PROJECT VICINITY. THESE ARE THE TIMBER RATTLESNAKE (ENDANGERED) AND EASTERN RAT SNAKE (THREATENED). IF EITHER OF THESE SPECIES IS ENCOUNTERED DURING CONSTRUCTION IT IS IMPERATIVE THAT NO HARM IS DONE TO THEM. IF EITHER OF THESE SPECIES IS ENCOUNTERED DURING CONSTRUCTION, THE VTRANS ENVIRONMENTAL SECTION SHOULD BE NOTIFIED TO CONTACT THE APPROPRIATE INDIVIDUALS TO DOCUMENT AND RELOCATE IF NECESSARY. REPRESENTATIVES FROM VTRANS ENVIRONMENTAL (GLENN GINGRAS, BIOLOGIST 828-3979 OR CHRIS SLESAR, ENVIRONMENTAL SPECIALIST 828-5743) SHOULD BE INVITED TO THE PRE-CONSTRUCTION MEETING TO DISCUSS AND TO PROVIDE CONTACT INFORMATION. THE PROJECT AREA PRIMARILY CONTAINS SOILS THAT ARE CLASSIFIED AS PRIME FARMLAND BY THE NRCS. THERE ARE NO KNOWN WETLANDS OR IMPAIRED WATERWAYS LOCATED WITHIN THE PROJECT AREA.

I.3 RISK EVALUATION

THE TOTAL EARTH DISTURBANCE THROUGHOUT THE DURATION OF THIS PROJECT SHALL BE LESS THAN ONE ACRE. THEREFORE THE PROJECT HAS BEEN CLASSIFIED AS A NON-JURISDICTIONAL PROJECT. 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 THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH VANR VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION GENERAL PERMIT PROCESS.

I.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 AS REQUIRED BY THE VAOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006 AND THE AGENCY'S EROSION PREVENTION AND SEDIMENT CONTROL PROTOCOL DATED FEBRUARY 2007. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT TO MINIMIZE EROSION AND PREVENT THE SEDIMENTATION OF RIVERS, STREAMS AND/OR IMPOUNDMENTS SUCH AS LAKES AND RESERVOIRS. THE MEASURES PRIMARILY CONSIST OF STABILIZATION AND/OR STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER MISCELLANEOUS POLLUTION PREVENTION CONTROLS.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TRYING TO CONTROL ERODED SEDIMENT. MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS, OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION PREVENTION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE EMPLOYED WHEREVER POSSIBLE. THEREFORE, STABILIZE ALL DISTURBED AREAS AS SOON AS PRACTICAL BUT NO MORE THAN TWO DAYS AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED.

THE CONTRACTOR SHALL COORDINATE THE INSTALLATION, USE, AND REMOVAL OF EROSION PREVENTION AND SEDIMENT CONTROL MEASURES WITH ROADWAY CONSTRUCTION ACTIVITIES TO ASSURE ECOLOGICAL, EFFECTIVE, AND CONTINUOUS EROSION PREVENTION AND SEDIMENT CONTROL. THE CONTRACTOR SHALL EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS.

THE CONTRACTOR SHALL INSTALL ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES AS SHOWN IN THE EPSC PLANS OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. DO NOT MODIFY THE TYPE, SIZE, OR LOCATION OF ANY CONTROL OR PRACTICE WITHOUT APPROVAL FROM THE ON-SITE PLAN COORDINATOR.

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.

CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO PREVENT ANY DAMAGE TO THE WATERS OF THE UNITED STATES FROM POLLUTION BY DEBRIS, SEDIMENT, OR OTHER FOREIGN MATERIAL, OR FROM MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR THE WATERS OF THE UNITED STATES. THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO THE WATERS OF THE UNITED STATES ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH WOULD CAUSE THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL OR OTHER IMPURITIES. IF THE CONTRACTOR USES WATER FROM THE WATERS OF THE UNITED STATES, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM TO PROTECT AND MAINTAIN STREAM WATER QUALITY. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO THE WATERS OF THE UNITED STATES, NOR SHALL WASHING FROM CONCRETE TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY WETLANDS OR WATERS OF THE UNITED STATES.

(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.)

I.4.1 MARK SITE BOUNDARIES

PROJECT DEMARCATION FENCING WILL BE USED TO DELINEATE THE LIMITS IN WHICH THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT AND PERSONNEL. THIS MEASURE WILL LIMIT THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION. THE CONTRACTOR SHALL INSTALL THE PERIMETER CONTROLS PRIOR TO STARTING ANY WORK WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL NOT ALLOW ANY CONSTRUCTION EQUIPMENT TO OPERATE OR ACCESS ON THE DOWN SLOPE SIDE OF ANY PERIMETER CONTROL MEASURE. THE CONTRACTOR SHALL NOT ALLOW ANY CROSSING OF A FLOWING STREAM OR DISTURBANCE OF THE EXISTING STREAM BANKS BY CONSTRUCTION EQUIPMENT EXCEPT AS AUTHORIZED BY THE ON-SITE PLAN COORDINATOR.

I.4.2 LIMIT DISTURBANCE AREA

EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES (PHASING) AS CONSTRUCTION ACTIVITIES PROCEED. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AND AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. IN GENERAL, PRESERVE EXISTING VEGETATION, TREES AND SHRUBS WHEN POSSIBLE, AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

I.4.3 STABILIZE CONSTRUCTION EXIT

IT IS NOT ANTICIPATED THAT STABILIZED CONSTRUCTION ENTRANCES WILL BE REQUIRED TO CONSTRUCT THE PROPOSED PROJECT DUE TO ITS LIMITED SIZE AND LOCATION. HOWEVER, IF SITE CONDITIONS CHANGE THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES PER THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATIONS LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. THE CONTRACTOR SHALL NOT ALLOW CONSTRUCTION VEHICLES TO TRACK SEDIMENT OFFSITE OF THE PROJECT LIMITS. (PAYMENT FOR WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT).

I.4.4 INSTALL SILT FENCE

SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK AS SHOWN ON THE PLANS AS NECESSARY OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. FILTER FABRIC PROTECTION WILL NEED TO BE INSTALLED AT ALL DROP INLETS.

I.4.5 DIVERT UPLAND RUNOFF

CONTROL ONLY SEDIMENT LADEN RUNOFF GENERATED FROM THE PROJECT SITE. IT IS NOT ANTICIPATED THAT TEMPORARY DRAINAGE SWALES WILL BE NEEDED TO DIVERT UPLAND RUNOFF AWAY FROM THE PROJECT. HOWEVER, IF SITE CONDITIONS CHANGE THE CONTRACTOR SHALL CONSTRUCT TEMPORARY DIVERSION DIKES OR SWALES PER THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATIONS LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. (PAYMENT FOR WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT).

I.4.6 SLOW DOWN CHANNELIZED RUNOFF

THE CONTRACTOR SHALL INSTALL CHECK DAMS AS SHOWN ON THE PLANS OR AS NECESSARY AS DIRECTED BY THE ON-SITE PLAN COORDINATOR TO SLOW DOWN CHANNELIZED RUNOFF.

I.4.7 CONSTRUCT PERMANENT CONTROLS

IT IS NOT ANTICIPATED THAT PERMANENT CONTROLS WILL BE REQUIRED TO CONTROL STORMWATER WITHIN THE PROJECT AREA. HOWEVER, IF SITE CONDITIONS CHANGE THE CONTRACTOR SHALL INSTALL PERMANENT MEASURES AS DIRECTED BY THE ON-SITE PLAN COORDINATOR (PAYMENT FOR THIS WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT).

I.4.8 STABILIZE EXPOSED SOILS

THE CONTRACTOR SHALL GRADE AND TRIM ALL SLOPES AS THE EXCAVATION PROGRESSES AND STABILIZE ALL SLOPES AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. TRACKING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY EROSION MATTING AS REQUIRED, WILL BE UTILIZED ON A REGULAR BASIS. SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF FORECASTED RAIN. SEEDING 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. THE CONTRACTOR SHALL HAVE A HYDRO SEEDER AVAILABLE ON THE PROJECT SITE OR AVAILABLE AT ONE WEEK'S NOTICE (MAXIMUM) UNTIL PERMANENT SEEDING IS COMPLETED.

I.4.9 WINTER STABILIZATION

THE PROJECT IS ANTICIPATED TO BE COMPLETED BY OCTOBER 16, 2009, PRIOR TO THE WINTER CONSTRUCTION SEASON. IF THE PROJECT CANNOT BE SUBSTANTIALLY COMPLETED PRIOR TO THE WINTER CONSTRUCTION SEASON, VARIOUS MEASURES SPECIFIC TO WINTER SHALL BE EMPLOYED AS NECESSARY OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR (SEE THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATIONS LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL).

I.4.10 STABILIZE SOIL AT FINAL GRADE

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

I.4.11 DE-WATERING ACTIVITIES

NO DE-WATERING ACTIVITIES WILL BE REQUIRED AS PART OF THIS PROJECT.

I.4.12 INSPECT YOUR SITE

INSPECTION OF EROSION PREVENTION AND SEDIMENT CONTROL MEASURES USED WITHIN THE PROJECT SITE SHALL BE INSPECTED ON A DAILY BASIS AND AFTER EVERY STORM GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. REPAIRS SHALL BE MADE AS NEEDED WHEN DAMAGE TO MEASURES ARE DISCOVERED AND SEDIMENT SHALL BE REMOVED WHEN THE STORAGE CAPACITY OF A SEDIMENT CONTROL MEASURE APPROACHES ONE HALF OF ITS INTENDED CAPACITY OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

<b>GENERAL EROSION CONTROL NARRATIVE SHEET #1</b>	PROJECT NAME: FAIR HAVEN	
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