

1. NARRATIVE

1.1 PROJECT DESCRIPTION

STP 9646(I)S VT. ROUTE 67A IS LOCATED IN THE VILLAGE OF NORTH BENNINGTON, BENNINGTON COUNTY, VERMONT. THE PROJECT BEGINS AT THE INTERSECTION OF HILLSIDE STREET AND RIVER ROAD WITH VT. ROUTE 67A AND EXTENDS NORTHERLY ALONG VT. ROUTE 67A FOR APPROXIMATELY 1900 m. WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING, RESURFACING WITH A SHIM/LEVELING COURSE AND WEARING COURSE, INTERSECTION RECONFIGURATION, SHOULDER RECONSTRUCTION, NEW SIDEWALK AND CURB, NEW RETAINING WALL CONSTRUCTION, NEW PAVEMENT MARKINGS, NEW SIGNS, DRAINAGE IMPROVEMENTS AND INCIDENTAL ITEMS.

1.2 SITE INVENTORY AND ANALYSIS

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

THE PROJECT AREA LIES WITHIN A SMALL VALLEY LOCATED BETWEEN BINGHAM HILL TO THE EAST AND AN UNKNOWN RAISED AREA TO THE WEST. THIS AREA IS KNOWN AS DRAINAGE BASIN I, BATTEN KILL, WALLOOMSAC AND HOOSIC RIVERS. THE PROJECT RUNS PARALLEL TO THE PARAN CREEK WHICH IS A TRIBUTARY OF THE WALLOOMSAC RIVER AND RUNS FROM LAKE PARAN TO ITS OUTFALL IN THE WALLOOMSAC RIVER. THE MAJORITY OF ALL SURFACE RUNOFF WITHIN IN THE PROJECT AREA IS COLLECTED IN THE NUMEROUS EXISTING CLOSED DRAINAGE SYSTEMS THAT OUTLET DIRECTLY INTO THE PARAN CREEK.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER

THERE ARE SEVERAL DRAINAGE SYSTEMS THAT ARE LOCATED ALONG THE PROJECT CORRIDOR THAT OUTLET DIRECTLY INTO THE PARAN CREEK. THIS PLAN HAS BEEN PREPARED ASSUMING THAT ONLY INLET GRATE ELEVATION CHANGES AND MINOR DRAINAGE STRUCTURE REHABILITATION WORK WILL BE PERFORMED UNDER THIS CONTRACT. IT IS ANTICIPATED THAT THAT NO EXISTING DRAINAGE SYSTEMS WILL BE MODIFIED DURING THE CONSTRUCTION OF THIS PROJECT. ALSO ALONG THE EASTERN SIDE OF THE PROJECT IS PARAN CREEK WHICH IS A NATURAL WATERWAY THAT RUNS FROM LAKE PARAN LOCATED NORTH OF THE PROJECT LIMITS AND EVENTUALLY FLOWS INTO THE WALLOOMSAC RIVER LOCATED TO THE SOUTH OF THE PROJECT AREA.

1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE MAJORITY OF THE EXISTING SITE TOPOGRAPHY CONSISTS OF AN URBAN ARTERIAL ROUTE SITUATED IN A COMMERCIALIZED AREA WITH RESIDENTIAL HOUSES SCATTERED ABOUT THE PROJECT. SANITARY SEWER AND WATER FACILITIES ARE PRESENT WITHIN THE PROJECT AREA, BUT THE IMPACTS ASSOCIATED WITH THIS CONTRACT ARE ANTICIPATED TO BE MINOR. AERIAL FACILITIES ARE ALSO PRESENT WITHIN THE PROJECT LIMITS.

1.2.4 VEGETATION

THE VEGETATION LOCATED WITHIN THE PROJECT LIMITS PRIMARILY CONSISTS OF GRASSED/LAWN AREAS ALONG THE RESIDENTIAL AREAS AND BITUMINOUS CONCRETE AND GRAVEL SURFACES IN THE VICINITY OF THE COMMERCIAL ESTABLISHMENTS. THERE ARE ALSO SOME ISOLATED WOODED AREAS LOCATED ALONG THE PROJECT CORRIDOR AND SOME AREAS OF SHRUBS/BRUSH LOCATED ALONG THE BANKS OF THE PARAN CREEK. IT IS ANTICIPATED THAT THERE WILL BE NO IMPACTS TO THE WOODED OR SHRUB/BRUSH AREAS DURING THE CONSTRUCTION OF THIS PROJECT. DUE TO THE RECONSTRUCTION OF THE SHOULDERS AND THE CONSTRUCTION OF A NEW SIDEWALK MOST LAWN AREAS WILL NEED TO BE REGRADED AND RESEEDED TO ESTABLISH TURF TO STABILIZE THE SOIL.

1.2.5 SOILS

THE SOILS LOCATED WITHIN THE PROJECT LIMITS HAVE BEEN PRIMARILY CLASSIFIED AS POTENTIALLY HIGHLY ERODIBLE OR HIGHLY ERODIBLE BY THE UNITED STATES DEPARTMENT OF AGRICULTURE'S NATIONAL RESOURCE 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)
64C	STOCKBRIDGE LOAM	8-15	HIGHLY ERODIBLE	0.24
65D	STOCKBRIDGE LOAM VERY SANDY	15-25	HIGHLY ERODIBLE	0.24
70B	GROTON GRAVELLY FINE SANDY LOAM	3-8	POTENTIALLY HIGHLY ERODIBLE	0.17
70E	GROTON GRAVELLY FINE SANDY LOAM	25-68	HIGHLY ERODIBLE	0.17

* MAP UNIT TYPE IS FROM THE NRCS SOIL SURVEY MAP FOR BENNINGTON COUNTY, VERMONT. SEE SHEETS 53 THROUGH 64 FOR MAP UNIT BOUNDARY LINES.

1.2.6 SENSITIVE RESOURCE AREAS

THE NORTHERN END OF THE PROJECT AREA IS LISTED WITH THE NATIONAL REGISTER OF HISTORIC PLACES AND IS KNOWN AS THE NORTH BENNINGTON HISTORIC DISTRICT. THERE ARE ALSO A NUMBER OF HISTORIC STRUCTURES SCATTERED ABOUT THE PROJECT AREA SOUTH OF THE HISTORIC DISTRICT. ALSO THE PARAN CREEK RUNS PARALLEL ALONG THE EASTERN SIDE AND THERE ARE SOME SMALL ISOLATED WETLANDS SCATTERED ABOUT THE PROJECT AREA. THERE IS ALSO A 15 m (50 FT) BUFFER ASSOCIATED WITH THE CREEK AND THE WETLANDS. THE CONTRACTOR SHALL PROTECT ALL FEATURES BEYOND THE CONSTRUCTION LIMITS FROM IMPACTS THROUGHOUT THE DURATION OF THE PROJECT.

DATUM	
VERTICAL	N/A
HORIZONTAL	NAD83 (1996)

1.2.7. PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

LOCATED ALONG THE ENTIRE EASTERN SIDE OF THE PROJECT AREA IS THE PARAN CREEK A TRIBUTARY TO THE WALLOOMSAC RIVER WHICH FLOWS FROM LAKE PARAN LOCATED TO THE NORTH OF THE PROJECT AREA UNDER VT. ROUTE 67A EAST OF THE PROJECT LIMIT AND INTO THE WALLOOMSAC RIVER LOCATED TO THE SOUTH OF THE PROJECT AREA.

1.3 TEMPORARY EROSION SEDIMENT CONTROL

1.3.1 DESCRIPTION OF ALL TEMPORARY STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES

TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED THROUGH BEST MANAGEMENT PRACTICES AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR. THE FOLLOWING IS A LIST OF TEMPORARY EROSION CONTROL MEASURES THAT SHALL BE IMPLEMENTED DURING THE CONSTRUCTION OF THIS PROJECT AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR:

- PROJECT DEMARCATION FENCE
- SILT FENCE
- INLET PROTECTION
- CHECK DAMS

1.3.2 DESIGN CALCULATIONS FOR ALL TEMPORARY STRUCTURAL CONTROL MEASURES

DUE TO THE TOPOGRAPHY ASSOCIATED WITH THE PROJECT ENVIRONS AND THE EXTENT OF THE PROPOSED WORK ANTICIPATED, NO TEMPORARY STRUCTURAL EROSION CONTROL MEASURE DESIGN CALCULATIONS WERE PERFORMED AT THIS TIME.

1.4 FINAL EROSION CONTROL MEASURES

1.4.1. DESCRIPTION OF PERMANENT EROSION AND SEDIMENT CONTROL MEASURES

EXISTING CULVERT OUTLETS SHALL BE PERMANENTLY PROTECTED WITH STONE APRONS AND ALL UNPAVED SURFACES SHALL BE SEED AND MULCHED TO PREVENT FUTURE EROSION AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

GENERAL NOTES FOR TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

1. THE EROSION PREVENTION & SEDIMENT CONTROL PLANS (EP&SCP) ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT AS REQUIRED BY THE VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 200L. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT TO CONTROL EROSION AND MINIMIZE THE SEDIMENTATION OF RIVERS, STREAMS AND/OR IMPOUNDMENTS SUCH AS LAKES AND RESERVOIRS. THE MEASURES CONSIST OF STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER MISCELLANEOUS POLLUTION PREVENTION CONTROLS.
2. COORDINATE THE INSTALLATION, USE, AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES WITH ROADWAY CONSTRUCTION ACTIVITIES TO ASSURE ECOLOGICAL, EFFECTIVE, AND CONTINUOUS EROSION PREVENTION AND SEDIMENT CONTROL. EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS.
3. INSPECTION OF SOIL EROSION AND POLLUTION CONTROL MEASURES SHALL BE DONE EVERY SEVEN (7) CALENDER DAYS AND WITHIN 24 HOURS OF A STORM EVENT 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 VOLUME OF AN EROSION CONTROL MEASURE IS APPROACHING ONE HALF OF ITS INTENDED CAPACITY OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.
4. INSTALL ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES AS SHOWN IN THE EP&SCP 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.
5. PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TRYING TO CONTROL ERODED SEDIMENT. THEREFORE STABILIZE ALL DISTURBED AREAS AS SOON AS IS PRACTICAL BUT NO MORE THAN TWO DAYS AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED EXCEPT FOR PERIMETER CONTROL MEASURES, WHICH SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING, GRUBBING OR GRADING ACTIVITY.
6. THE CONTRACTOR SHALL GRADE AND TRIM ALL SLOPES AS THE EXCAVATION PROGRESSES AND SEED ALL SLOPES AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.
7. THE CONTRACTOR SHALL HAVE A HYDROSEEDER AND/OR A MULCHING MACHINE AVAILABLE ON THE PROJECT SITE OR AVAILABLE AT ONE WEEK'S NOTICE (MAXIMUM) UNTIL THE PERMANENT SEEDING IS COMPLETED.
8. CONTROL ONLY SEDIMENT LADEN RUNOFF GENERATED BY THE PROJECT SITE. SEPARATE AND QUICKLY ROUTE CLEAN OFFSITE RUNOFF THROUGH THE PROJECT BY USING EARTH DIVERSION BERMS, DIVERSION CHANNELS, AND CULVERTS. A TEMPORARY LINING MATERIAL MAY BE REQUIRED WHERE THE CONTRACTOR PROVIDES TEMPORARY CHANNELS TO KEEP CONTRACTOR'S WORK SITES FREE FROM WATER DURING CONSTRUCTION AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.
9. 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.
10. 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.

GENERAL NOTES FOR TEMPORARY SOIL EROSION AND SEDIMENT CONTROL (CONT.)

11. DO NOT ALLOW CONSTRUCTION VEHICLES TO TRACK SEDIMENT OFFSITE OF THE PROJECT LIMITS.
12. DO NOT ALLOW ANY CONSTRUCTION EQUIPMENT TO OPERATE OR ACCESS ON THE DOWN SLOPE SIDE OF PERIMETER CONTROL MEASURES.
13. DO NOT ALLOW ANY CROSSING OF A FLOWING STREAM OR DISTURBANCE OF THE EXISTING STREAM BANK BY CONSTRUCTION EQUIPMENT EXCEPT AS AUTHORIZED BY THE ON-SITE PLAN COORDINATOR.
14. IN GENERAL, PRESERVE EXISTING VEGETATION, TREES, AND SHRUBS WHEN POSSIBLE AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

CONSTRUCTION SEQUENCING NOTES:

PHASE 1 - ESTABLISH PERIMETER CONTROLS

1. PRIOR TO BEGINNING ANY WORK WITHIN THE PROJECT LIMITS, PROJECT DEMARCATION FENCING SHALL BE ERECTED ALONG THE ENTIRE PROJECT AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.
2. INSTALL ALL NECESSARY EROSION CONTROL ITEMS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

PHASE 2 - RECONSTRUCT EXISTING ROADWAYS

1. THE CONTRACTOR SHALL RECONSTRUCT THE EXISTING ROADWAY BY UTILIZING TEMPORARY LANE CLOSURES AND MAINTAINING ONE-WAY TRAFFIC ON ONE UNOBSERVED 3.0 m LANE AT ALL TIMES THROUGH THE PROJECT AREA DURING WORKING HOURS. TRAFFIC SHALL BE RESTORED TO NORMAL OPERATIONS DURING NON-WORKING HOURS AND ALL HOLIDAYS PER SECTION 100 OF THE VERMONT AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 200L.
2. THE CONTRACTOR SHALL CONSTRUCT THE PROPOSED ROADWAY IN SUCH A MANNER THAT MINIMIZES THE DURATION OF EXPOSED GROUND BY STAGING HIS ACTIVITIES SO THAT ALL DISTURBED AREAS WILL BE EITHER PAVED OR STABILIZED AT THE END OF EACH WORK DAY. NO LONGITUDINAL DROP OFFS SHALL EXIST WITHIN THE PROJECT AREA DURING NON-WORKING HOURS. IT IS ANTICIPATED THAT THE CONTRACTOR WILL FIRST CONSTRUCT THE PROPOSED HILLSIDE STREET AND RIVER ROAD INTERSECTION, COLD PLANE THE EXISTING ROADWAY SURFACE, THEN RECONSTRUCT THE EASTERN SHOULDER, AND THEN RECONSTRUCT THE WESTERN SHOULDER ALONG WITH CONSTRUCTING THE PROPOSED SIDEWALK AND RETAINING WALLS. ONCE THE CONTRACTOR HAS INSTALLED ALL INCIDENTAL ITEMS AND THE SIDE SLOPES HAVE BEEN STABILIZED, THE FINAL PAVEMENT COURSES MAY BE PLACED.

PHASE 3 - REMOVE ALL TEMPORARY EROSION CONTROL AND PERIMETER CONTROL MEASURES

1. THE CONTRACTOR SHALL ONLY REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS AND THE PERIMETER CONSTRUCTION FENCE ONCE ALL WORK HAS BEEN COMPLETED AND THE SLOPES HAVE BEEN STABILIZED AS DIRECTED BY THE ON-SITE PLAN COORDINATOR.

TEMPORARY EROSION PREVENTION & SEDIMENT CONTROL NOTES

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