

EROSION CONTROL NARRATIVE

1. PROJECT DESCRIPTION

THE PURPOSE OF THIS CONSTRUCTION PROJECT IS TO COMPLETE IMPROVEMENTS ON U.S. ROUTES 4 & 7 IN THE CITY OF RUTLAND. PROPOSED CONSTRUCTION WILL CONSIST OF BOX CUT AND WIDENING OF U.S. ROUTE 7 BETWEEN STRONGS AVENUE AND HOPKINS STREET TO EXTEND THE EXISTING TWO WAY LEFT TURN LANE; 3000'+/- OF SHARED USE PATH; EXISTING SIDEWALK RECONSTRUCTION; 6000'+/- OF EXISTING CURB WILL BE REPLACED WITH VERTICAL GRANITE CURB AND BROUGHT TO A TYPICAL 7" REVEAL; UTILITY IMPROVEMENTS AND RELOCATIONS; SIGNING; PAVEMENT MARKINGS; OTHER INCIDENTAL ITEMS.

BELOW U.S. ROUTE 7 EXISTS A COMBINED STORM DRAINAGE AND SANITARY SEWER SYSTEM, WHERE ALL EXISTING DROP INLETS OR CATCH BASINS OUTLET DIRECTLY TO THE SANITARY SYSTEM. THIS EXISTING SYSTEM LEADS TO THE CITY'S WASTEWATER TREATMENT PLANT ALONG U.S. ROUTE 4 IN CENTER RUTLAND, AND OUTLETS TO THE OTTER CREEK. THE CITY IS BEGINNING THE PROCESS OF SEPARATING THE TWO SYSTEMS TO ONE DAY TREAT STORM DRAINAGE IN ITS OWN BMP. 2600'+/- OF THIS COMBINED SYSTEM WILL BE SEPARATED BETWEEN HOPKINS STREET AND TERRILL STREET, ONLY TO COMBINE AGAIN AND CONTINUE TO LEAD TO THE TREATMENT PLANT.

THE ASSOCIATED CONSTRUCTION WILL INVOLVE EXCAVATION AND EMBANKMENT; PLACEMENT OF AGGREGATE BASE COURSES; REPLACING STORM DRAINAGE AND SANITARY SEWER SYSTEMS; ASPHALT PAVING; PORTLAND CEMENT CONCRETE SIDEWALK CONSTRUCTION; INSTALLING PAVEMENT MARKINGS AND ROADWAY LIGHTING; INSTALLING TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES; AND PLACING TOPSOIL AND SEEDING. THE LOCATION OF THE PROJECT IS WITHIN THE PUBLIC RIGHT-OF-WAY ALONG U.S. ROUTES 4 & 7 IN THE CITY OF RUTLAND.

THIS PROJECT IS SCHEDULED TO BE COMPLETED BY OCTOBER 2014. SHOULD CONSTRUCTION OCCUR DURING THE WINTER CONSTRUCTION SEASON (OCT. 15TH - APRIL 15TH) THE CONTRACTOR SHALL PREPARE AND IMPLEMENT A WINTER CONSTRUCTION PLAN IN ACCORDANCE WITH THE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL AND CONSTRUCTION GENERAL PERMIT 3-9020.

2. AREA OF DISTURBANCE

THE TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 4.00 ACRES, NOT INCLUDING WASTE OR BORROW AREAS. OFF-SITE WASTE AREAS WILL BE REQUIRED. IT IS ANTICIPATED THAT 8,330 CY OF WASTE MATERIAL WILL NEED TO BE DISPOSED. THE WASTE MATERIAL WILL CONSIST MAINLY OF PAVEMENT EXCAVATION/GRINDINGS AND OLD SUBBASE AND SAND. ALL WASTE MATERIALS ARE EXPECTED TO BE CLEAN.

3. CONSTRUCTION SEQUENCE

THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXTENT OF DISTURBED SOILS LEFT OPEN TO EROSION AT ANY GIVEN TIME. A PROPOSED GENERAL SEQUENCE FOR EACH OF THE MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS:

• STORM DRAINAGE AND SANITARY SEWER CONSTRUCTION

- 1) INSTALL SEDIMENT CONTROL MEASURES.
- 2) DIVERT TRAFFIC FOR WORK AREA, MOVE AS NECESSARY.
- 3) INSTALL SEDIMENT CONTROL MEASURES WHERE NECESSARY, PUMP AND FILTER BAGS SHALL BE READY WHEN REQUIRED.
- 4) BEGIN UTILITY TRENCHING WORKING FROM SOUTH TO NORTH. EXISTING SANITARY SEWER SYSTEM SHALL REMAIN IN PLACE AND ACTIVE UNTIL PROPOSED SYSTEM IS TESTED.
- 5) CONNECT SERVICES.
- 6) INSTALL WESTERN CATCH BASINS AND TRANSVERSE DRAINAGE PIPE WHEN POSSIBLE.

• U.S. ROUTE 7 WEST SIDE

- 1) ESTABLISH PERIMETER CONTROLS AND MARK BOUNDARIES.
- 2) INSTALL SEDIMENT CONTROL MEASURES.
- 3) CLEAR SITE AREA, STRIP TOPSOIL AND STOCKPILE.
- 4) DIVERT TRAFFIC FOR WORK AREA, MOVE AS NECESSARY.
- 5) BOX CUT AND WIDEN ROADWAY, PLACE SUBBASE, INSTALL VERTICAL GRANITE CURB, PAVE ROADWAY.
- 6) RECONSTRUCT EXISTING SIDEWALK, CONSTRUCT SHARED USE PATH CONSTRUCT SIDEWALK RAMPS. LIMIT TOTAL PROJECT AREA OF DISTURBANCE TO 2 ACRES OR LESS.
- 7) FINAL GRADE SIDE SLOPES.
- 8) CONCURRENTLY INSTALL TEMPORARY STABILIZATION AND EPSC MEASURES AS WORK PROGRESSES.
- 9) INSTALL ALL PLANTINGS, SIGNS, LIGHTS, OTHER PROJECT INCIDENTALS.
- 10) SEED AND MULCH.

• U.S. ROUTE 7 EAST SIDE

- 1) ESTABLISH PERIMETER CONTROLS AND MARK BOUNDARIES.
- 2) INSTALL SEDIMENT CONTROL MEASURES.
- 3) CLEAR SITE AREA, STRIP TOPSOIL AND STOCKPILE.
- 4) DIVERT TRAFFIC FOR WORK AREA, MOVE AS NECESSARY.
- 5) BOX CUT AND WIDEN ROADWAY, PLACE SUBBASE, INSTALL VERTICAL GRANITE CURB, PAVE ROADWAY.

- 6) RECONSTRUCT EXISTING SIDEWALK, CONSTRUCT SHARED USE PATH CONSTRUCT SIDEWALK RAMPS. LIMIT TOTAL PROJECT AREA OF DISTURBANCE TO 2 ACRES OR LESS.
- 7) FINAL GRADE SIDE SLOPES.
- 8) CONCURRENTLY INSTALL TEMPORARY STABILIZATION AND EPSC MEASURES AS WORK PROGRESSES.
- 9) INSTALL ALL PLANTINGS, SIGNS, LIGHTS, OTHER PROJECT INCIDENTALS.
- 10) SEED AND MULCH

4. STABILIZATION OF EXPOSED SOILS

- SEED AND MULCH WILL BE USED FOR BOTH PERMANENT AND TEMPORARY STABILIZATION MEASURES. ROLLED EROSION CONTROL PRODUCT (RECP) WILL BE USED IN PLACE OF MULCH FOR SLOPES GREATER THAN 1V:3H. MULCH IS TO BE APPLIED AT THE VTRANS SPECIFIED MINIMUM APPLICATION RATE OF 2 TONS/ACRE, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- DISTURBED AREAS AND SOIL STOCKPILES THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS SHALL BE TEMPORARILY STABILIZED WITHIN 48 HOURS.
- EXPOSED AREAS THAT HAVE ACHIEVED FINAL GRADE SHALL BE PERMANENTLY STABILIZED WITHIN 48 HOURS.
- IN AREAS WHERE VEGETATIVE COVER WILL PROVIDE PERMANENT STABILIZATION, SEEDING TO BE COMPLETED BETWEEN APRIL 15 AND SEPTEMBER 15.

5. DRAINAGE AREAS AND DISCHARGE POINTS

THE PROJECT HAS TWO DISCHARGE POINTS TO THE RECEIVING WATER, MOON BROOK AND THE OTTER CREEK WHICH IS THE EXISTING OUTLET OF THE CITY'S WASTEWATER TREATMENT FACILITY. EACH DISCHARGE CORRESPONDS TO A DRAINAGE AREA IN WHICH THE PROJECT HAS BEEN DIVIDED.

• DRAINAGE AREA 1 - SCA

THIS DRAINAGE AREA IS LOCATED IN THE IMMEDIATE VICINITY OF THE MOON BROOK BOX CULVERT. THIS AREA INCLUDES DISTURBANCE OF 0.83 ACRES. RUNOFF WILL BE COLLECTED BY THE IMPROVEMENTS MADE TO THE EXISTING CLOSED DRAINAGE SYSTEM AND CONTINUE TO OUTLET DIRECTLY TO MOON BROOK. PROPOSED EARTH DISTURBANCE ACTIVITIES WILL OCCUR DIRECTLY ON THE BANKS OF THE BROOK. DISTURBANCE IN THIS AREA WILL BE DUE TO THE ROADWAY WIDENING, CURB INSTALLATION, STORM DRAINAGE AND SANITARY SEWER CONSTRUCTION, SIDEWALK RECONSTRUCTION, SHARED USE PATH CONSTRUCTION AND OTHER INCIDENTALS.

• DRAINAGE AREA 2 - SCB

THIS DRAINAGE AREA ENCOMPASSES THE REMAINDER OF THE CONSTRUCTION SITE. THIS AREA INCLUDES DISTURBANCE OF 3.17 ACRES. RUNOFF WILL BE PICKED UP IN THE COMBINED STORM DRAINAGE AND SANITARY SEWER SYSTEM. THIS SYSTEM WILL DISCHARGE DIRECTLY TO THE SANITARY SEWER SYSTEM LEADING TO THE CITY'S WASTEWATER TREATMENT PLANT. THIS TREATMENT PLANT OUTLETS TO THE OTTER CREEK. THE PROJECT IS LOCATED APPROXIMATELY 2 MILES AWAY FROM THE TREATMENT PLANT. PROPOSED EARTH DISTURBANCE ACTIVITIES WILL OCCUR DIRECTLY ON TOP OF THE SEWER SYSTEM. DISTURBANCE IN THIS AREA WILL BE DUE TO THE ROADWAY WIDENING, CURB INSTALLATION, STORM DRAINAGE AND SANITARY SEWER CONSTRUCTION, SIDEWALK RECONSTRUCTION, SHARED USE PATH CONSTRUCTION AND OTHER INCIDENTALS.

DRAINAGE AREA SUMMARY

DRAINAGE AREA	TOTAL DISTURB. (ACRES)	LIMIT OF CONCURRENT DISTURBANCE	RECEIVING WATER
SCA	0.82	2 ACRE	MOON BROOK
SCB	3.17	2 ACRES	COMBINED SYSTEM

SEE THE EPSC SUMMARY SHEETS FOR FURTHER DETAIL REGARDING DRAINAGE AREAS AND RELATED SLOPE AND SOIL ERODIBILITY.

6. WASTE, BORROW, AND STAGING AREAS

- OFF-SITE WASTE AND BORROW AREAS HAVE NOT BEEN IDENTIFIED FOR THIS PROJECT. IT IS ANTICIPATED THAT 8,330 CY OF WASTE MATERIAL WILL NEED TO BE DISPOSED. THE WASTE MATERIAL WILL CONSIST MAINLY OF PAVEMENT EXCAVATION/GRINDINGS AND OLD SUBBASE AND SAND. ALL WASTE MATERIALS ARE EXPECTED TO BE CLEAN. ONCE SELECTED, THE CONTRACTOR AND THE CITY WILL AMEND THE PERMIT TO INCLUDE OFF-SITE WASTE AREAS. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PERMIT, AS NECESSARY, ANY OFF-SITE WASTE AND BORROW AREAS THAT ARE NEEDED. ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NECESSARY FOR WASTE, BORROW, AND STAGING AREAS OUTSIDE THE PROJECT LIMITS SHALL BE PAID FOR PER 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- LOCATE ADDITIONAL AREAS FOR DISPOSAL OF STUMPS, EXCESS SOILS AND COLLECTED SEDIMENT, IF NECESSARY. DISPOSE OF THESE MATERIALS IN A MANNER THAT WILL NOT RESULT IN SEDIMENTS ENTERING WATERS OF THE STATE.

- DISPOSAL SITES REQUIRE RELATIVELY LEVEL TERRAIN WITH AN ISOLATION DISTANCE OF AT LEAST 100' FROM ANY SURFACE WATERS, INCLUDING WETLANDS.

- VEHICLE AND EQUIPMENT STORAGE AREAS OR AREAS ADJACENT TO CONSTRUCTION TRAILERS OR OTHER HIGH TRAFFIC AREAS SHALL BE COVERED WITH GEOTEXTILE FABRIC AND 12" OF GRAVEL. FOLLOWING COMPLETION OF CONSTRUCTION, ALL NON-NATIVE MATERIALS SHALL BE REMOVED FROM THE STAGING AREA. COMPACTED, RUTTED, OR OTHERWISE DISTURBED SOILS SHALL BE TILLED, RAKED, SEEDING AND MULCHED.

- ERODIBLE MATERIALS STOCKPILED WITHIN THE MATERIAL STORAGE AREAS SHALL BE ISOLATED WITH SILT FENCE OR OTHER ACCEPTABLE SEDIMENT BARRIER. SOIL STOCKPILED ON THE SITE SHALL BE SEEDING AND MULCHED.

7. WINTER CONSTRUCTION REQUIREMENTS

IT IS EXPECTED THAT CONSTRUCTION ACTIVITIES WILL BE COMPLETED BY OCTOBER 2014. SHOULD CONSTRUCTION OCCUR DURING THE WINTER CONSTRUCTION SEASON (OCT. 15 - APRIL 15) THE CONTRACTOR SHALL PREPARE AND IMPLEMENT A WINTER CONSTRUCTION PLAN IN ACCORDANCE WITH THE VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL AND CONSTRUCTION GENERAL PERMIT 3-9020. IF ACTIVITIES ARE ON-GOING IN WINTER MONTHS, THE CONTRACTOR SHALL FOLLOW REQUIREMENTS FOR WINTER CONSTRUCTION, AS DEFINED IN SPECIFIC PERMIT CONDITIONS AND AS FOLLOWS:

- ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING.
- LIMITS OF DISTURBANCE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
- DEVELOPMENT OF A SNOW MANAGEMENT PLAN THAT INCLUDES:
 - ADEQUATE STORAGE AND CONTROL OF MELT-WATER
 - STORAGE OF CLEARED SNOW TO BE PLACED DOWN SLOPE OF DISTURBED AREAS AND OUT OF STORMWATER TREATMENT STRUCTURES
- A MINIMUM 25-FOOT BUFFER SHALL BE MAINTAINED FROM PERIMETER CONTROLS.
- DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
- SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED AHEAD OF FROZEN GROUND.
- MULCH TO BE APPLIED AT TWICE THE REGULAR SPECIFIED RATE, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- AREAS OF DISTURBED SOILS 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 AREA WITHIN 24 HOURS.
 - DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS OPEN UTILITY TRENCHES, MUST BE STABILIZED AT THE END OF EACH WORK WEEK.
- PRIOR TO STABILIZATION, SNOW OR ICE MUST BE REMOVED TO LESS THAN 25MM (1") THICKNESS.

CONTRACTOR RESPONSIBILITIES, LIMITATIONS & PROHIBITIONS

1. GENERAL NOTES

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO AMEND/UPDATE ALL PLANS AND EXISTING PERMITS WHEN ADDING DETAILED CONSTRUCTION PHASING OR ANYTHING ELSE THAT MAY DEVIATE FROM THE APPROVED PLANS AS DIRECTED BY THE RESIDENT ENGINEER.
- OTHER THAN THOSE SHOWN ON THE PLANS ALL LAND DISTURBANCES WITHIN 50' OF ALL WATER BODIES, MEASURED FROM THE TOP OF BANK, AND WETLANDS, ARE PROHIBITED WITHOUT FURTHER REGULATORY REVIEW.
- CONTRACTOR TO MAINTAIN ALL EXISTING STREAMS AND RIPARIAN BUFFER ZONES IN THEIR NATURAL CONDITION.
- OFF-SITE DISCHARGES OF ANY MATERIAL OTHER THAN STORMWATER, SUCH AS VEHICLE AND EQUIPMENT MAINTENANCE SPILLS, FUELS, WASH WATER, CONSTRUCTION DEBRIS, OIL, WET CONCRETE (INCLUDING WASHOUT WATER FROM CONCRETE BATCH TRUCKS OR EQUIPMENT USED TO MIX CONCRETE), AND OTHER SUBSTANCES, ARE PROHIBITED.

THE FAILURE TO PROMPTLY ABATE THE DISCHARGE OF SEDIMENT OR ANY OTHER WASTE WHICH CAUSES A VISIBLE DISCOLORATION OF SURFACE WATERS (INCLUDING WETLANDS), OR IS FOUND TO BE VIOLATING WATER QUALITY STANDARDS BASED ON MONITORING, IS PROHIBITED. ANY CORRECTIVE ACTION UNDERTAKEN TO REMOVE SEDIMENT FROM A WETLAND IS ALSO PROHIBITED.



PROJECT NAME: RUTLAND CITY
PROJECT NUMBER: STP 019-3(57)

FILE NAME: ...\\PlotFiles\rut.epsc.narr.dgn PLOT DATE: 7/12/2013
PROJECT LEADER: GAE DRAWN BY: PZA
DESIGNED BY: TFD CHECKED BY: GAE
EPSC NARRATIVE ECN-01 SHEET 339 OF 392