

EROSION CONTROL NARRATIVE

SITE TO PREVENT THE TRACKING OF SILTS AND SEDIMENTS OFFSITE. COARSE STONE FILL OVER FILTER FABRIC SHOULD BE UTILIZED WHERE AN ALREADY ESTABLISHED STABLE ENTRANCE DOES NOT EXIST. THE CRUSHED STONE PRODUCT USED FOR THE CONSTRUCTION OF THE STABILIZED ENTRANCES SHALL BE MONITORED FOR SEDIMENT ACCUMULATION AND REPLACED AS NECESSARY AS DIRECTED BY THE RESIDENT ENGINEER. STABILIZED CONSTRUCTION ENTRANCES SHALL ALSO BE ESTABLISHED AND MAINTAINED AT ALL OFFSITE WASTE AND BORROW AREAS. THE MINIMUM SIZE OF A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 15 FEET WIDE BY 50 FEET LONG.

AFTER THE CLEARING OF TREES AND SHRUBS, BUT PRIOR TO ANY GRUBBING AND EXCAVATION, CONSTRUCT PERIMETER CONTROLS TO ENSURE THAT ANY DISTURBED SEDIMENT DOES NOT LEAVE THE SITE. SEDIMENT TRAPS/BASINS, WHERE WATER HAS BEEN ADEQUATELY TREATED, MAY BE DIRECTED TO NEARBY UNDISTURBED STREAMS OR SWALES.

INSTALL PERIMETER SILT FENCE IN AREAS OF PROPOSED WORK AS SHOWN ON THE PLANS PRIOR TO GRUBBING AND FILLING ACTIVITIES. IN AREAS OF HIGH EXPOSURE, IT MAY BE NECESSARY TO DOUBLE UP PROTECTION WITH ADDITIONAL SILT FENCING. IN AREAS OF EXPOSED LEDGE, STONE CHECK DAMS WILL BE UTILIZED.

DURING GRUBBING OPERATIONS, STONE CHECK DAM BARRIERS SHALL BE INSTALLED AT ANY OBVIOUS CONCENTRATED FLOW DISCHARGE POINTS, OR AS DIRECTED BY THE RESIDENT ENGINEER.

THE FINAL LEDGE GRADE WILL BE ACHIEVED BEFORE COMPLETE REMOVAL OF THE ABUTMENTS SO THAT THEY CAN BE USED TO TRAP SEDIMENT.

THE LEDGE SHOULD BE EXPOSED STARTING AT THE TOE OF THE SLOPE AND CONTINUE TOWARD THE NEW ABUTMENTS. THIS EXCAVATION SHALL BE ACCOMPLISHED IN ONE DAY.

ALL AREAS OF EXPOSED SOILS AFTER THE GRUBBING ACTIVITY SHALL BE TEMPORARILY STABILIZED WITH MULCHING & SEEDING, EROSION MATTING, OR JUTE MATTING AS SOON AS PRACTICAL AND BEFORE ANY PREDICTED RAINFALL EVENT. THESE TEMPORARY EROSION MEASURES CAN BE PLACED IN ANY COMBINATION IN AREAS OF POTENTIAL EROSION AS DEEMED NECESSARY BY THE RESIDENT ENGINEER.

AFTER PERIMETER CONTROLS ARE IN PLACE, AND PRIOR TO GRADING OPERATIONS, CONSTRUCT TEMPORARY ONSITE SEDIMENT TRAPS WHERE NECESSARY. GRADE DISTURBED AREAS TO DRAIN TOWARD SEDIMENT TRAPS WHERE POSSIBLE.

ANY MATERIAL STOCKPILES, INCLUDING BUT NOT LIMITED TO, GRUBBING MATERIAL, SAND BORROW, EARTH BORROW, GRANULAR BORROW, TOPSOIL, AND ANY EXCAVATED WASTE PILES SHALL BE MULCHED AND SHALL ALSO HAVE SILT FENCE INSTALLED AROUND THE BASE OF THE STOCKPILE.

ANY OFF-SITE AREAS WHERE BORROW OR EXCAVATED MATERIALS WILL BE STOCKPILED WILL HAVE A DOUBLE INSTALLATION OF SILT FENCE AROUND THE BASE OF EACH STOCKPILE. WASTE DISPOSAL SITES WILL ALSO HAVE A DOUBLE INSTALLATION OF SILT FENCE AROUND THE BASE OF EACH STOCKPILE, AND IMMEDIATELY AFTER FINAL GRADING, SHALL BE SEEDED AND MULCHED. REMOVAL OF THE SILT FENCES AROUND THE WASTE AREAS SHALL BE PERFORMED ONLY AFTER THE APPROVAL OF THE ON-SITE COORDINATOR.

BRIDGE EROSION

NEW SLOPES STEEPER THAN 50% (1-2 SLOPES) WILL BE CONSTRUCTED WITH STONE FILL FOR SLOPE STABILIZATION AS THE EMBANKMENT CONSTRUCTION PROGRESSES.

ROADWAY EROSION CONTROLS

ALL INLETS FOR EXISTING OR NEW DRAINAGE STRUCTURES SHALL BE PROTECTED WITH AN APPROVED INLET PROTECTION MEASURE.

ON ANY PARTIALLY COMPLETED CUT AND FILL SLOPES, ALL EXPOSED SOILS WILL BE STABILIZED WITH JUTE MATTING OR SEEDED AND MULCHED. IN AREAS OF CONCENTRATED RUNOFF ABOVE NEWLY CONSTRUCTED FILL SLOPES, FLEXIBLE SLOPE PIPES OR OTHER APPROVED DIVERSION METHODS WILL BE USED TO TRANSPORT RUNOFF DOWN THE FILL SLOPES TO SEDIMENT TRAPS OR SETTLING BASINS.

ANY NEW FILL SLOPES THAT ARE DESIGNED WITH STONE FILL BLANKETS FOR SLOPE STABILIZATION SHALL BE CONSTRUCTED WITH THE STONE FILL BEING PLACED AS THE FILL SLOPE EMBANKMENT CONSTRUCTION PROGRESSES.

THE SUBBASE MATERIAL SHOULD BE PLACED AS SOON AS THE SUBGRADE HAS REACHED ITS FINAL GRADE AND SLOPE. THE TEMPORARY TRAVELING SURFACE WILL BE GRADED TO PROMOTE SHEET FLOW OFF THE SURFACE ONTO SLOPES, OR FLOWS WILL BE DIRECTED TO COLLECTION AREAS AND SHALL BE TRANSPORTED DOWN THE FILL SLOPES TO SEDIMENT TRAPS OR SETTLING BASINS.

ON PARTIALLY COMPLETED WORK, ALL EXPOSED SOIL WILL BE COVERED WITH MATTING AND STABILIZED AT THE END OF EACH WORK DAY.

FINAL EROSION CONTROLS

ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED FOLLOWING FINAL GRADING ACTIVITIES. ALL AREAS THAT ARE GRADED OUTSIDE OF THE GROWING SEASON SHALL BE TREATED WITH SLOPE STABILIZATION UNTIL SEEDING & MULCHING CAN BE PERFORMED.

ON ANY PARTIALLY COMPLETED CUT AND FILL SLOPES, ALL EXPOSED SOILS WILL BE STABILIZED WITH TEMPORARY EROSION MATTING OR SEEDED AND MULCHED. IN AREAS OF CONCENTRATED RUNOFF ABOVE NEWLY CONSTRUCTED FILL SLOPES, FLEXIBLE SLOPE PIPES OR OTHER APPROVED DIVERSION METHODS WILL BE USED TO TRANSPORT RUNOFF DOWN THE FILL SLOPES TO SEDIMENT TRAPS OR SETTLING BASINS.

ANY NEW FILL SLOPES THAT ARE DESIGNED WITH STONE FILL BLANKETS FOR SLOPE STABILIZATION SHALL BE CONSTRUCTED WITH THE STONE FILL BEING PLACED AS THE FILL SLOPE EMBANKMENT CONSTRUCTION PROGRESSES.

MATERIAL SHALL NOT BE PLACED BENEATH THE NEW STRUCTURE OR BELOW THE ORDINARY HIGH WATER ELEVATION. REFER TO THE HYDRAULICS INFORMATION ON THE PRELIMINARY INFORMATION SHEET.

THE NEWLY PLACED GRUBBING MATERIAL SHALL BE STABILIZED WITH JUTE MATTING AND/OR SEED & MULCH AS DIRECTED BY THE RESIDENT ENGINEER.

REMOVAL OF SILT FENCE SHALL COMMENCE ONLY AFTER ALL UPSLOPE AREAS ARE STABILIZED AND WELL ESTABLISHED, AND THE RESIDENT ENGINEER HAS APPROVED THE REMOVAL.

REMOVE PERIMETER SILT FENCE AND SEDIMENT TRAPS ONLY AFTER ANY TOE-OF-FILL DITCHES HAVE BEEN STABILIZED AND VEGETATION IS WELL ESTABLISHED.

REMOVE ALL REMAINING TEMPORARY EROSION CONTROL MEASURES, REGRADE ANY AREAS IF NECESSARY, TREAT ALL REGRADED AREAS WITH JUTE MATTING AND/OR MULCH & SEED, AND ESTABLISH ANY FINAL EROSION CONTROL DEVICES AS DEEMED NECESSARY BY THE RESIDENT ENGINEER.

SEDIMENT SETTLING BASIN SIZING CRITERIA

PUMP FLOW RATE		REQUIRED SURFACE AREA		LENGTH = 2:1 WIDTH			
Q (gpm)	Q (m ³ /s)	(ft ²)	(m ²)	L (ft)	W (ft)	L (m)	W (m)
50	0.0032	595	55	35.0	17.0	10.6	5.3
100	0.0063	1200	111	49.0	24.5	15.0	7.5
150	0.0095	1776	165	59.6	29.8	18.2	9.1
200	0.0126	2368	220	68.8	34.4	21.0	10.5
250	0.0158	2970	276	77.0	38.5	23.4	11.7
300	0.0189	3560	330	84.4	42.2	25.8	12.9
350	0.0221	4155	386	91.2	45.6	27.8	13.9

EROSION CONTROL NARRATIVE #2

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PROJECT LEADER:	W. SYMONDS	DRAWN BY:	J. GILMORE
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