

RENAUD BROS., INC.

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EPSC Narrative for Brattleboro BRO 1442 (35)

Sections 1.1 to 1.4.12 can be found on the next sheet.

Section 1.5 Sequence and Staging

1.5.1a Installation of Temporary Bridge

- Project Demarcation Fence
- Silt Fence
- Fabric Screening Fence
- The temporary bridge is 56 feet long putting the abutments 12.5 feet away from the stream we do not anticipate the need for the filter curtain during this activity.
- The temporary approaches will be built and any final EPSC measures installed.

Any temporary side slopes greater than 3:1 will have temporary

1.5.1b Existing Bridge Demolition

- The filter curtain will be installed at this time. erosion matting.
- It is expected that the bridge deck will be removed in one piece and the abutments will be removed in as large of pieces as possible.

1.5.1c Excavation for New Abutments

- Stream diversion will be necessary at this time to excavate to the bottom of footing elevations. We plan to utilize a 48' diameter metal pipe to keep the water out of the work area.

1.5.1d New Abutments

- Once excavation to the bottom of footing is achieved the cast in place abutments will be constructed
- A concrete wash out location will be established and maintained.

1.5.1e Stone Fill and Erosion Matting

- Stone fill and erosion matting will be done before the bridge deck construction is complete around the new bridge.
- The remaining stone fill on the outer reaches of the project will be installed after the new bridge is complete and the temporary detour is removed.

1.5.1f Final EPSC Elements

- All final elements will be installed and temporary erosion control items removed once the project has final paving and the adequate grass growth.

A stockpile will be used for a wash out area. A bowl area will be created for the slurry to leach into. The wash out concrete will then be broken up to gravel size and mixed into the stock pile or removed completely.



Ronald K. Bell

1.5.2 Off-site Activities

- Concrete debris dump site will be Renaud Gravel in Dummerston
- Excavated borrow and Waste site will be Renaud Gravel in Dummerston

- Trailer area will be at 181 Sunset Lake Rd.

Section 1.6 Contact Information

1.6.1 On-site Plan Coordinator

- Primary:
Duane Fletcher 1-802-258-1863
20 years on Heavy Construction experience and erosion control implementation and inspection.
- Secondary:
Charlie Ezequelle 1-802-365-1944
12 years of Heavy Construction experience with 5 years of ESPC plan development, implementation and inspection.

1.6.2 Plan Preparer

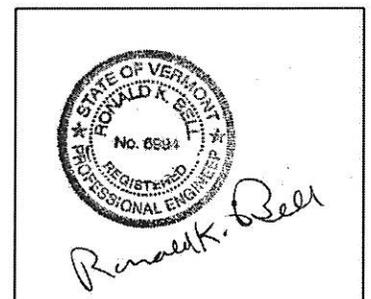
- Primary:
Charlie Ezequelle 1-802-365-1944
12 years of Heavy Construction experience with 5 years of ESPC plan development, implementation and inspection.
- Secondary:
Ron Bell 1-603-363-9966

Section 1.7 Schedule

See attached

Section 1.8 Inspection Form

See attached



EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REMOVAL AND REPLACEMENT OF THE EXISTING CONCRETE SUPERSTRUCTURE AND ABUTMENTS WITH RELATED APPROACH AND CHANNEL WORK. DURING CONSTRUCTION, TRAFFIC WILL BE DETOURED OVER A TEMPORARY BRIDGE PLACED UPSTREAM. THIS PROJECT IS LOCATED ON A LOCAL ROAD LOCATED NORTH OF ROUTE 9 OVER HALLADAY BROOK IN THE TOWN OF BRATTLEBORO. THE EXISTING BRIDGE IS APPROXIMATELY 25 FEET LONG AND HAS A 20 FOOT WIDE CONCRETE DECK. THE EXISTING SUBSTRUCTURE CONSISTS OF STONE ABUTMENTS AND WINGWALLS.

THE BRIDGE REPLACEMENT INCLUDES THE REMOVAL OF THE EXISTING STRUCTURE IN ITS ENTIRETY AND THE CONSTRUCTION OF A NEW 45 FOOT SINGLE SPAN BRIDGE WITH PRECAST CONCRETE NON-VOIDED SLABS TO CREATE A NEW BRIDGE WIDTH OF 26 FEET. NEW CONCRETE ABUTMENTS AND WINGWALLS WILL BE FORMED IN PLACE AND ASSOCIATED APPROACH WORK INCLUDES BRIDGE APPROACH SLABS AND NEW GUARDRAIL. ONCE THE BRIDGE IS COMPLETED, THE TEMPORARY BRIDGE AND ITS APPROACHES WILL BE REMOVED AND THE PROJECT AREA WILL BE RESTORED TO THE PREVIOUS CONDITIONS.

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 0.55 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY

THE ROAD IN THIS PROJECT AREA IS GENERALLY FLAT AND FOLLOWS THE LAY OF THE SURROUNDING TOPOGRAPHY. THERE IS A PRIVATE GRAVEL ROAD (REGINA VISTA) THAT RUNS ALONG THE SOUTHWEST SIDE OF THE RIVER. THERE ARE 2 RESIDENCES ON EITHER END OF THE BRIDGE WITH PROPERTY THAT WILL BE WITHIN THE PROJECT AREA.

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

HALLADAY BROOK IS LOCATED IN THE PROJECT AREA AND RUNS BETWEEN SUNSET LAKE AND REGINA VISTA ROAD BEFORE PASSING UNDER SUNSET LAKE ROAD. TWO MAINTAINED ORNAMENTAL PONDS ARE LOCATED WITHIN THE PROJECT INVESTIGATION AREA ON A RESIDENTIAL PROPERTY; EACH ARE MAPPED BY THE VERMONT STATE WETLAND INVENTORY AS CLASS II WETLANDS. HALLADAY BROOK GENERALLY CONSISTS OF COBBLES AND GRAVEL WITH OCCASIONAL BOULDERS. ON THE UPSTREAM SIDE OF SUNSET LAKE ROAD BRIDGE, THE EAST BANK OF THE STREAM IS VEGETATED AND RELATIVELY FLAT PROVIDING ADJACENT FLOOD STORAGE, WHILE THE WESTERN BANK IS PARTIALLY CUT AND STEEP BEFORE TRANSITIONING INTO A FORESTED BUFFER. DOWNSTREAM FROM SUNSET LAKE ROAD BRIDGE, THE EASTERN BANK IS VEGETATED FOR APPROXIMATELY 20 FEET BEFORE TRANSITIONING INTO A MAINTAINED FIELD, AND THE WESTERN BANK CONSISTS OF A MAINTAINED RESIDENTIAL LAWN WITH STRUCTURES LOCATED NEAR THE STREAM.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF SPECKLED ALDER, YELLOW BIRCH, REED CANARY GRASS, AND GRASSED LAWN AREAS. UPON PROJECT COMPLETION, THE CHANNEL WILL BE ARMORED WITH STONE FILL TYPE III AS SPECIFIED ON THE PLANS. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF WINDSOR, VERMONT. SOILS ON THE PROJECT SITE ARE PODUNK FINE SANDY LOAM AND DEERFIELD FINE SANDY LOAM, 2% TO 8% SLOPES, "K FACTOR" = 0.24. THE SOIL IS CONSIDERED MODERATELY ERODIBLE.

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: NO

WATER RESOURCE: HALLADAY BROOK

WETLANDS: THERE ARE TWO CLASS II WETLAND FEATURES MAPPED BY THE VERMONT STATE WETLAND INVENTORY WITHIN THE PROJECT INVESTIGATION AREA. A FIELD INVESTIGATION DETERMINED THAT THESE WERE ORNAMENTAL PONDS.

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF 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 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 LOW RISK SITE HANDBOOK 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 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.

SILT FENCE SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

FILTER CURTAIN SHALL BE INSTALLED WHERE WORK MUST TAKE PLACE WITHIN THE LIMITS OF HALLADAY BROOK AS PROPOSED ON THE EPSC PLAN.

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.

CHECK STRUCTURES SHALL BE INSTALLED AS SHOWN ON THE PLANS.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORM-WATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

PERMANENT EROSION CONTROL STRUCTURES ARE NOT ANTICIPATED FOR THIS PROJECT.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9020 AUTHORIZATION.

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

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

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

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

TREATMENT OF DEWATERING COFFERDAM IS ANTICIPATED. A LOCATION FOR TREATMENT HAS BEEN PROPOSED AND IS SHOWN ON THE PLANS. HOWEVER THE SPECIFIC MEANS FOR TREATMENT OF DISCHARGE SHALL BE PROVIDED BY THE CONTRACTOR. A dewatering pond will be setup at our staging area at 127 sunset Lake RD.

1.4.12 INSPECT YOUR SITE

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

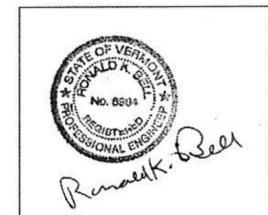
1.5 SEQUENCE AND STAGING

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

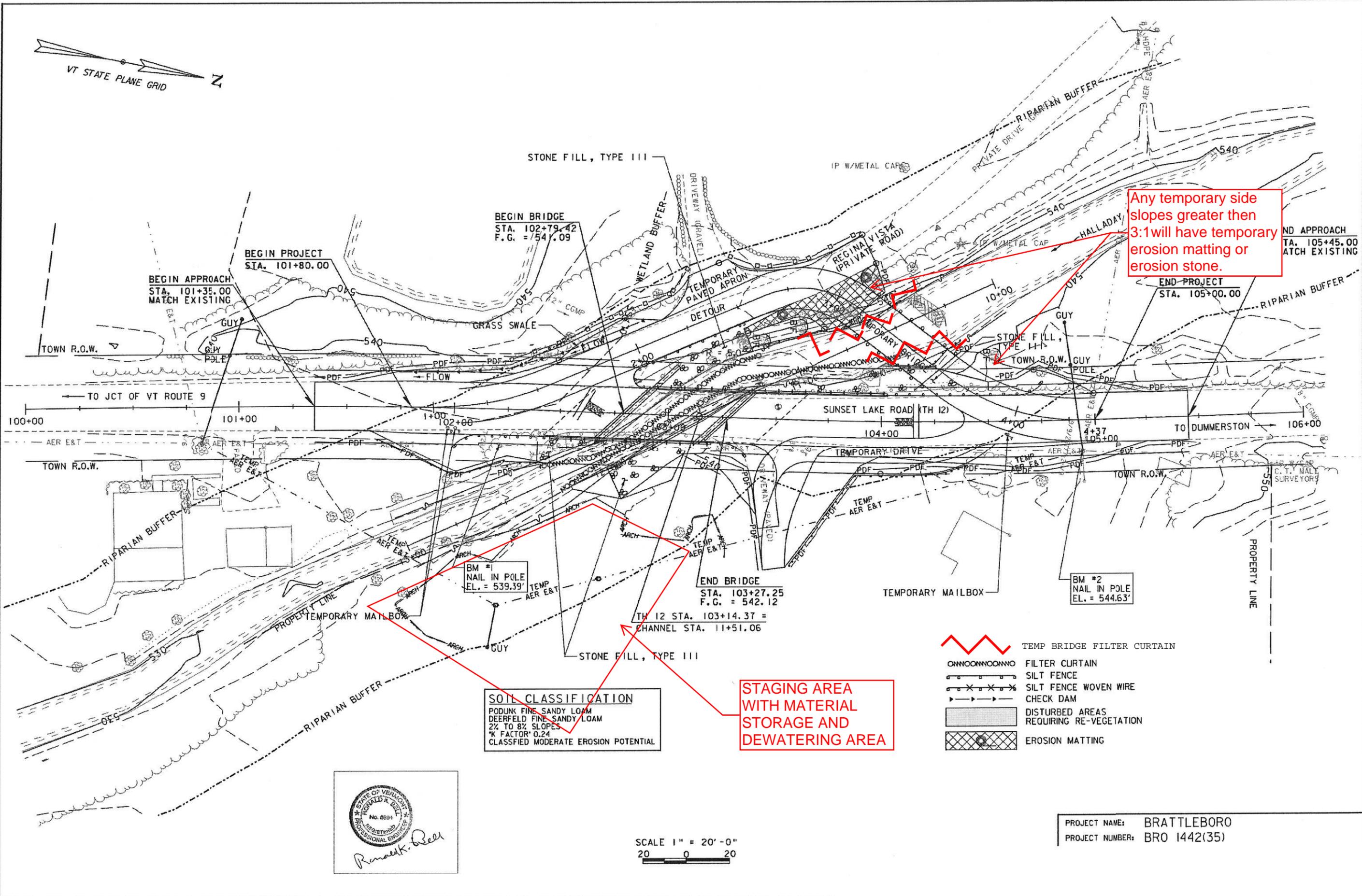
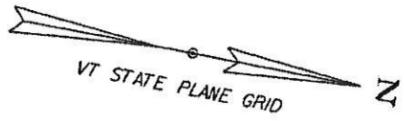
1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

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



PROJECT NAME: BRATTLEBORO
PROJECT NUMBER: BRO 1442(35)

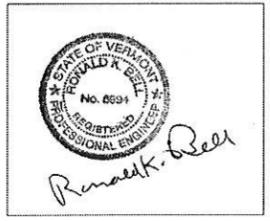


Any temporary side slopes greater than 3:1 will have temporary erosion matting or erosion stone.

SOIL CLASSIFICATION
 PODUNK FINE SANDY LOAM
 DEERFIELD FINE SANDY LOAM
 2% TO 8% SLOPES
 K FACTOR 0.24
 CLASSIFIED MODERATE EROSION POTENTIAL

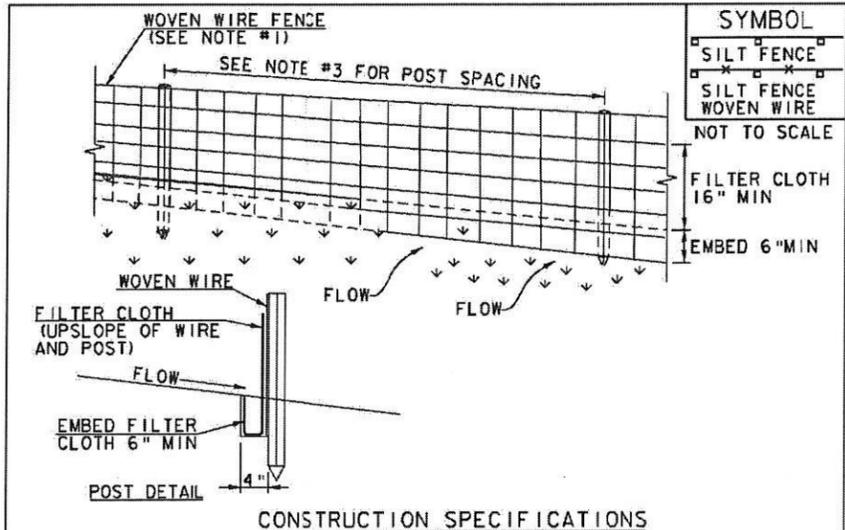
STAGING AREA WITH MATERIAL STORAGE AND DEWATERING AREA

- TEMP BRIDGE FILTER CURTAIN
- FILTER CURTAIN
- SILT FENCE
- SILT FENCE WOVEN WIRE
- CHECK DAM
- DISTURBED AREAS REQUIRING RE-VEGETATION
- EROSION MATTING



SCALE 1" = 20'-0"
 20 0 20

PROJECT NAME: BRATTLEBORO
 PROJECT NUMBER: BRO 1442(35)



- CONSTRUCTION SPECIFICATIONS**
1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
 2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF1100X, STABILINKA T140N OR APPROVED EQUIVALENT.
 3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
 4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
 6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO 'THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-' FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF

VAOT RURAL AREA MIX					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
37.5%	22.5	45	CREeping RED FESCUE	85%	98%
37.5%	22.5	45	TALL FESCUE	90%	95%
5.0%	3	6	RED TOP	90%	95%
15.0%	9	18	BIRDSFOOT TREFOIL	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	85%	95%
100%	60	120			

VAOT URBAN AREA MIX					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
42.5%	34	68	CREeping RED FESCUE	85%	98%
10.0%	8	16	PERENNIAL RYE GRASS	90%	95%
42.5%	34	68	KENTUCKY BLUE GRASS	85%	85%
5.0%	4	8	ANNUAL RYE GRASS	85%	95%
100%	80	160			

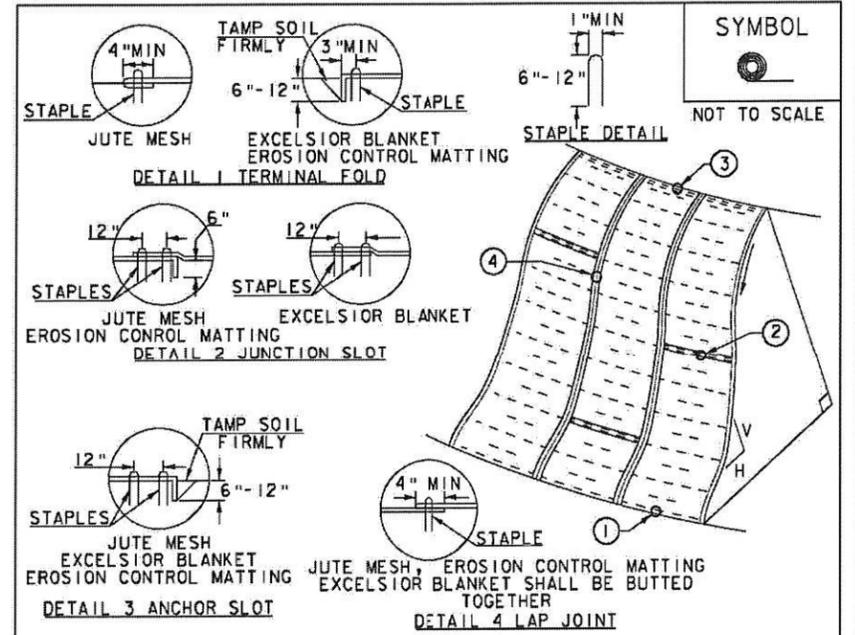
SOIL AMENDMENT GUIDANCE			
FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	FOLLOW	PELLETIZED	FOLLOW
500 LBS/AC	MANUFACTURER	2 TONS/AC	MANUFACTURER

- CONSTRUCTION GUIDANCE**
1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
 2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
 3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
 4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER
 5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
 6. TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
 7. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
 8. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

REVISIONS	
JUNE 23, 2009	WHF
JANUARY 15, 2010	WHF
FEBRUARY 16, 2011	WHF



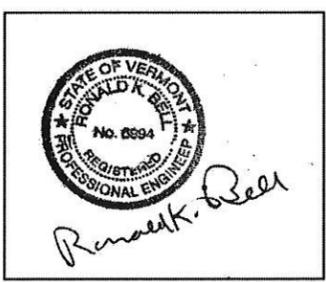
- CONSTRUCTION SPECIFICATIONS**
1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
 2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
 3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
 4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
 5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

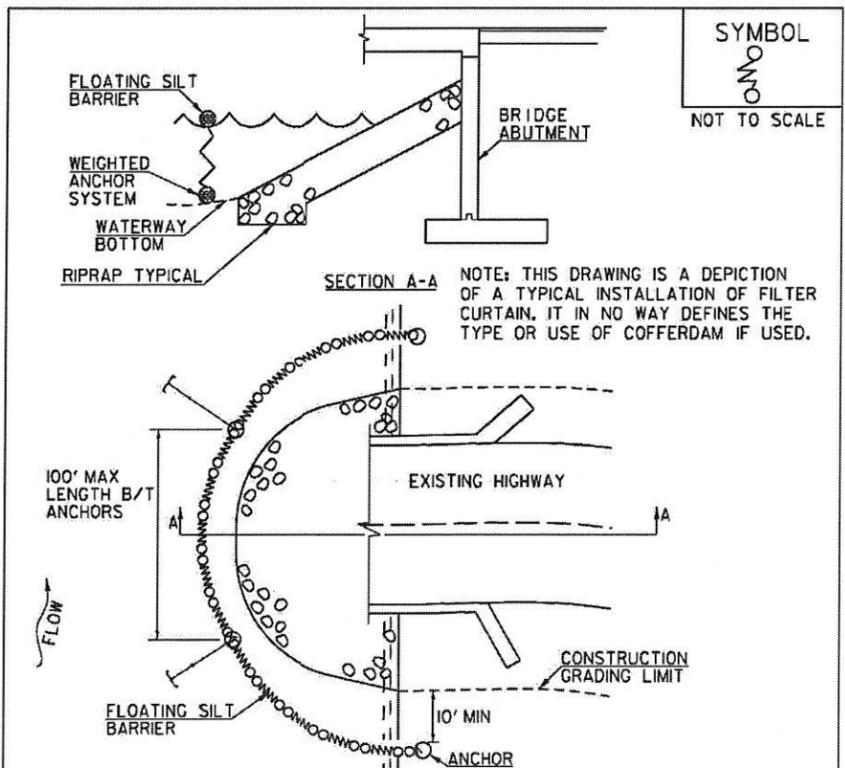
ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO 'THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-' FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF



PROJECT NAME: BRATTLEBORO
PROJECT NUMBER: BRO 1442(35)

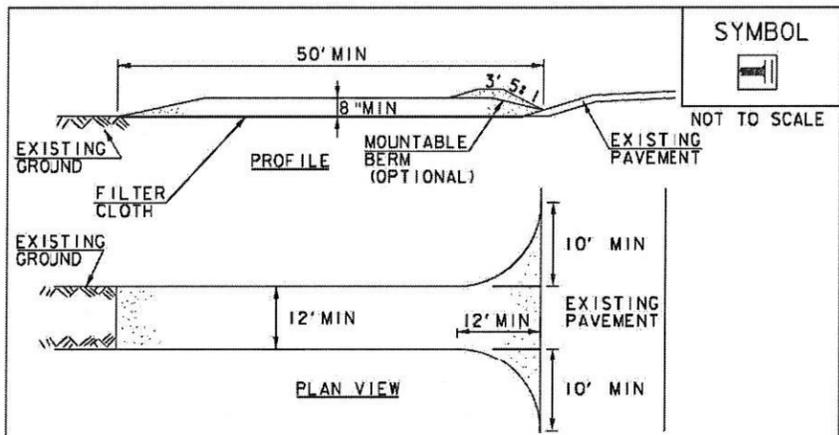


- CONSTRUCTION SPECIFICATIONS**
1. FILTER CURTAIN SHALL NOT BE PLACED ACROSS A FLOWING WATERWAY, OR IN A WATERWAY WITH STREAM VELOCITIES GREATER THAN 1.5 FEET/SECOND.
 2. MAXIMUM 100' LENGTH BETWEEN ANCHORS.
 3. LAST SECTION SHALL TERMINATE A MINIMUM OF 10' BEYOND LIMIT OF DISTURBANCE.
 4. THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE WHICH ALLOWS THE CURTAIN TO CONFORM TO THE BOTTOM OF THE WATERWAY.
 5. THE CURTAIN SHALL BE REMOVED BY SLOWLY PULLING TOWARD THE SHORE MINIMIZING THE ESCAPE OF SEDIMENTS INTO WATERWAY.

FILTER CURTAIN

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 FOR GEOTEXTILE FOR FILTER CURTAIN (PAY ITEM 649.61).

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF
SEPTEMBER 4, 2009	WHF



- CONSTRUCTION SPECIFICATIONS**
1. STONE SIZE- USE 1-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 2. LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
 3. THICKNESS- NOT LESS THAN 8".
 4. WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
 5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
 6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
 7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
 8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

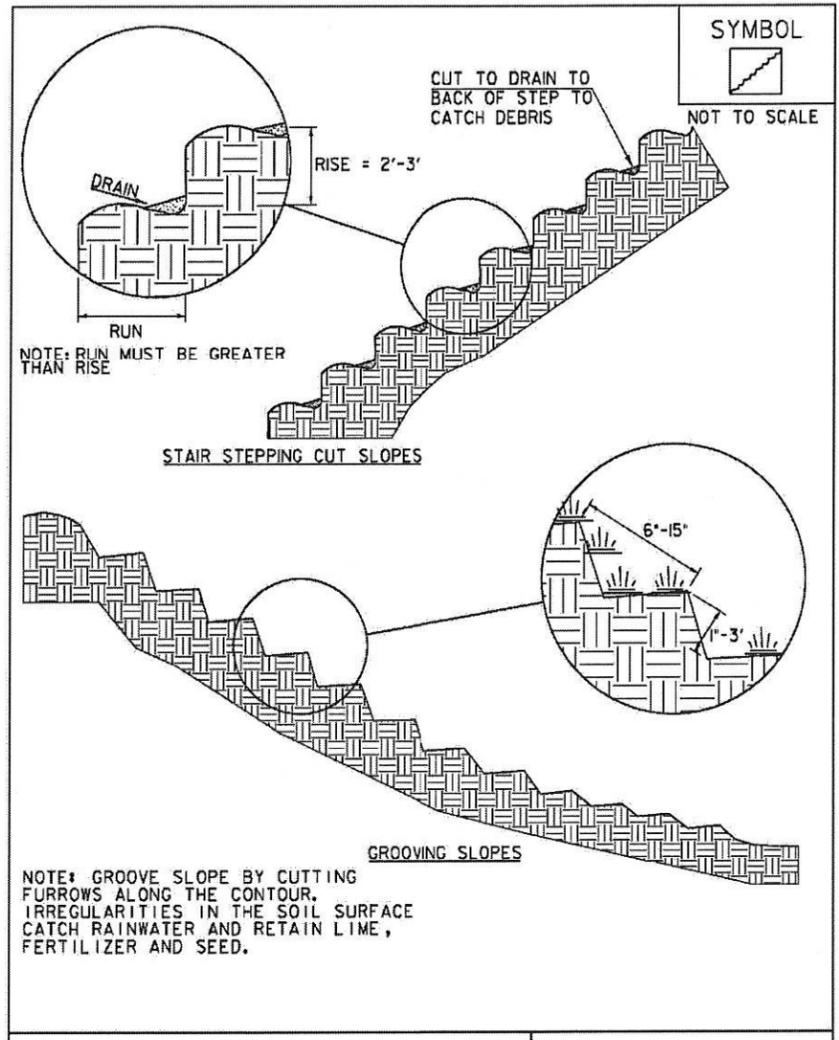
STABILIZED CONSTRUCTION ENTRANCE

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF



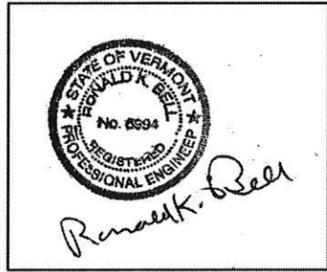
SURFACE ROUGHENING

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

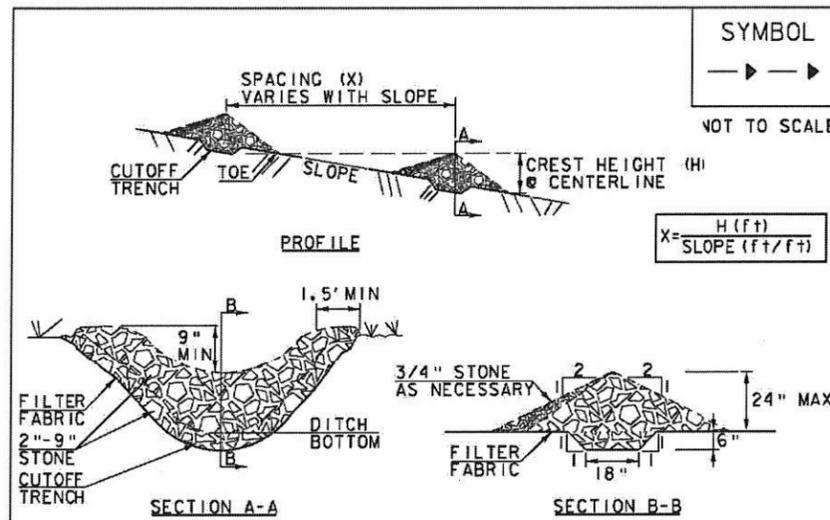
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF



PROJECT NAME: BRATTLEBORO
PROJECT NUMBER: BRO 1442(35)



CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAXIMUM DRAINAGE AREA 2 ACRES.

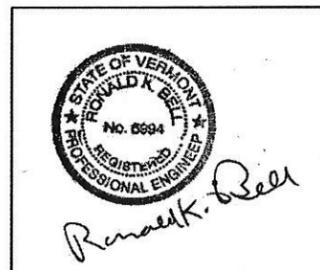
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
 ORIGINALLY DEVELOPED BY USDA-NRCS
 VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

NOTES:
 REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR TEMPORARY STONE CHECK DAM, TYPE I (PAY ITEM 653.25)

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 8, 2009	WHF



PROJECT NAME: BRATTLEBORO
 PROJECT NUMBER: BRO 1442(35)

ID	ID	Task Name	Duration	Remaining Duration	Early Start	Early Finish	Total Slack	Predecessors	% Complete	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June									
1	1	PRE-CONSTRUCTION	114 days	63.12 days	Mon 2-3-14	Tue 7-15-14	231 days		45%	[Gantt bar for Pre-Construction from Feb 2 to May 27]																									
2	2	NOTICE TO PROCEED	0 days	0 days	Mon 2-3-14	Mon 2-3-14	0 days		100%	[Gantt bar for Notice to Proceed at 2-3-14]																									
3	3	BRIDGE RAIL SUBMITTAL	30 days	30 days	Mon 2-3-14	Fri 3-14-14	198 days	2	0%	[Gantt bar for Bridge Rail Submittal from 2-3-14 to 3-14-14]																									
4	4	PRECAST DECK BEAM SUBMITTAL	60 days	6 days	Fri 2-14-14	Thu 5-8-14	111 days	2FS+9 days	90%	[Gantt bar for Precast Deck Beam Submittal from 2-14-14 to 5-8-14]																									
6	6	EROSION CONTROL PLAN	30 days	7.5 days	Wed 2-26-14	Tue 4-8-14	65.4 days	2FS+17 days	75%	[Gantt bar for Erosion Control Plan from 2-26-14 to 4-8-14]																									
7	7	TRAFFIC CONTROL PLAN	30 days	25.5 days	Fri 2-28-14	Thu 4-10-14	68.15 days	2FS+19 days	15%	[Gantt bar for Traffic Control Plan from 2-28-14 to 4-10-14]																									
8	8	MOBILIZATION	5 days	4.75 days	Wed 4-9-14	Tue 4-15-14	65.15 days	6	5%	[Gantt bar for Mobilization from 4-9-14 to 4-15-14]																									
9	9	EROSION CONTROL	2 days	1.3 days	Wed 4-16-14	Thu 4-17-14	291 days	6,8	35%	[Gantt bar for Erosion Control from 4-16-14 to 4-17-14]																									
10	10	CONSTRUCTION SIGNAGE	2 days	1.9 days	Wed 4-16-14	Thu 4-17-14	65.05 days	8,7	5%	[Gantt bar for Construction Signage from 4-16-14 to 4-17-14]																									
5	5	PRECAST BEAM FAB-DEL	45 days	36 days	Fri 5-9-14	Tue 7-15-14	102 days	4	20%	[Gantt bar for Precast Beam Fab-Del from 5-9-14 to 7-15-14]																									
11	11	CONSTRUCTION	116 days	114.85 days	Fri 4-18-14	Thu 10-2-14	64 days		1%	[Gantt bar for Construction from 4-18-14 to 10-2-14]																									
12	12	TEMPORARY BRIDGE	7 days	6.65 days	Fri 4-18-14	Mon 4-28-14	64.7 days	10	5%	[Gantt bar for Temporary Bridge from 4-18-14 to 4-28-14]																									
13	13	TRAFFIC CONTROL	14 days	13.3 days	Tue 4-29-14	Fri 5-16-14	64 days	12	5%	[Gantt bar for Traffic Control from 4-29-14 to 5-16-14]																									
14	14	TRAFFIC TRANSFER	1 day	1 day	Mon 5-19-14	Mon 5-19-14	64 days	13	0%	[Gantt bar for Traffic Transfer at 5-19-14]																									
15	15	BRIDGE DECK DEMO	1 day	1 day	Mon 5-19-14	Mon 5-19-14	64 days	14SS	0%	[Gantt bar for Bridge Deck Demo at 5-19-14]																									
16	16	WATER DIVERSION	1 day	1 day	Tue 7-1-14	Wed 7-2-14	64 days	15FS+29 days	0%	[Gantt bar for Water Diversion from 7-1-14 to 7-2-14]																									
17	17	EX ABUTMENT DEMO	1 day	1 day	Tue 7-1-14	Wed 7-2-14	64 days	16FS-1 day	0%	[Gantt bar for Ex Abutment Demo from 7-1-14 to 7-2-14]																									
18	18	ABUTMENT EXCAVATION	15 days	15 days	Wed 7-2-14	Thu 7-24-14	64 days	17	0%	[Gantt bar for Abutment Excavation from 7-2-14 to 7-24-14]																									
19	19	CAST IN PLACE ABUTMENTS	17 days	17 days	Tue 7-15-14	Thu 8-7-14	64 days	18FS-7 days	0%	[Gantt bar for Cast in Place Abutments from 7-15-14 to 8-7-14]																									
20	20	CAST IN PLACE WING WALLS	14 days	14 days	Thu 8-7-14	Wed 8-27-14	64 days	19	0%	[Gantt bar for Cast in Place Wing Walls from 8-7-14 to 8-27-14]																									
21	21	ELASTOMERIC PADS AND ANCHOR BOLTS	1 day	1 day	Thu 8-7-14	Fri 8-8-14	84 days	19	0%	[Gantt bar for Elastomeric Pads and Anchor Bolts at 8-7-14]																									
22	22	ABUTMENT BACKFILL	5 days	5 days	Wed 8-27-14	Thu 9-4-14	64 days	20	0%	[Gantt bar for Abutment Backfill from 8-27-14 to 9-4-14]																									
23	23	STONE FILL UNDER BRIDGE	2 days	2 days	Fri 9-5-14	Mon 9-8-14	64 days	22	0%	[Gantt bar for Stone Fill Under Bridge from 9-5-14 to 9-8-14]																									
24	24	PRECAST BRIDGE BEAM INSTALLATION	3 days	3 days	Tue 9-9-14	Thu 9-11-14	64 days	21,23,5	0%	[Gantt bar for Precast Bridge Beam Installation from 9-9-14 to 9-11-14]																									
25	25	BIDGE DECK TOPPING	5 days	5 days	Fri 9-12-14	Thu 9-18-14	64 days	24	0%	[Gantt bar for Bidge Deck Topping from 9-12-14 to 9-18-14]																									
26	26	BRIDGE DECK CURE TIME	10 days	10 days	Fri 9-19-14	Thu 10-2-14	64 days	25	0%	[Gantt bar for Bridge Deck Cure Time from 9-19-14 to 10-2-14]																									
27	27	BRIDGE RAIL	1 day	1 day	Fri 9-19-14	Fri 9-19-14	68 days	3,25	0%	[Gantt bar for Bridge Rail at 9-19-14]																									
28	28	ROAD GRAVELS	3 days	3 days	Fri 9-19-14	Tue 9-23-14	64 days	26FS-10 days	0%	[Gantt bar for Road Gravels from 9-19-14 to 9-23-14]																									
29	29	GUARD RAIL	1 day	1 day	Mon 9-22-14	Mon 9-22-14	68 days	27	0%	[Gantt bar for Guard Rail at 9-22-14]																									
30	30	PAVING AND LINE STRIPING	3 days	3 days	Wed 9-24-14	Fri 9-26-14	64 days	28	0%	[Gantt bar for Paving and Line Striping from 9-24-14 to 9-26-14]																									
31	31	OPEN BRIDGE	1 day	1 day	Mon 9-29-14	Mon 9-29-14	64 days	29,30	0%	[Gantt bar for Open Bridge at 9-29-14]																									
32	32	SUBSTANTIAL COMPLETION	1 day	1 day	Mon 9-29-14	Mon 9-29-14	64 days	31FS-1 day	0%	[Gantt bar for Substantial Completion at 9-29-14]																									
33	33	RESTORATIONS	178 days	178 days	Tue 9-30-14	Fri 6-5-15	0 days		0%	[Gantt bar for Restorations from 9-30-14 to 6-5-15]																									
34	34	TEMPORARY BRIDGE REMOVAL	3 days	3 days	Tue 9-30-14	Thu 10-2-14	165 days	31	0%	[Gantt bar for Temporary Bridge Removal from 9-30-14 to 10-2-14]																									
35	35	LANDSCAPING	3 days	3 days	Fri 10-3-14	Tue 10-7-14	165 days	34	0%	[Gantt bar for Landscaping from 10-3-14 to 10-7-14]																									
36	36	CLEAN UP AND DEMOBILIZATION	2 days	2 days	Wed 10-8-14	Thu 10-9-14	165 days	35	0%	[Gantt bar for Clean Up and Demobilization from 10-8-14 to 10-9-14]																									
37	37	INETRIM COMPLETION	1 day	1 day	Fri 11-14-14	Fri 11-14-14	32 days	32	0%	[Gantt bar for Inetrim Completion at 11-14-14]																									
38	38	WINTER SHUTDOWN	108 days	108 days	Mon 11-17-14	Wed 4-15-15	32 days	37	0%	[Gantt bar for Winter Shutdown from 11-17-14 to 4-15-15]																									
39	39	LANDSCAPING REVIEW	1 day	1 day	Wed 4-15-15	Wed 4-15-15	32 days	38FS-1 day	0%	[Gantt bar for Landscaping Review at 4-15-15]																									
40	40	FINAL INSPECTION	1 day	1 day	Mon 6-1-15	Mon 6-1-15	0 days	36,39	0%	[Gantt bar for Final Inspection at 6-1-15]																									
41	41	FINAL COMPLETION	1 day	1 day	Fri 6-5-15	Fri 6-5-15	0 days	40	0%	[Gantt bar for Final Completion at 6-5-15]																									

			EPSC Plan Inspection Report (Non-Jurisdictional and Low Risk Projects)			
Project Name:			Date:		Time Since Last Storm:	
Inspector:			On-Site Coordinator: (signature required)			
Measure Inspected	Y	N	STA/Off	Corrective Action (CA) Required	Date CA Occurred	
Boundary Limits						
Site boundary markers are up and visible						
Disturbance is only occurring within marked boundaries						
Disturbance Area Limit						
Only acreage listed on <i>Authorization to Discharge</i> is disturbed at one time						
Stabilized Construction Entrance/Exit						
Off site tracking of sediment prevented						
Sediment Barriers						
Measure has been installed properly and is functioning as designed						
Accumulated sediment < 1/2 height of measure						
Diversions						
Upland stormwater is diverted around the work area						
Channelized Runoff						
Check structures are in place, extend the width of the channel, and have capacity to retain sediment in the next storm event						
Channels are stable with no erosion						
Exposed Soils Stabilization						
Seed and mulch, and/or matting placed in accordance w/ permit requirements and/or Specifications						
Soil is seeded and mulched or covered in erosion matting within 48 hours of final grade						
Winter Stabilization						
After Sept. 15' all disturbed areas are seeded & mulched to 3" deep or covered w/ matting						
For ongoing construction, exposed soil is mulched prior to forecasted events						
Dewatering Treatment						
Measure is preventing a discharge of turbid water from leaving the site						
Accumulated sediment is removed to allow sufficient treatment						

* Additional Measures and Discharges shall be reported on the back side of this form.



EPSC Plan Inspection Report (Non-Jurisdictional and Low Risk Projects)

Measure Inspected	Y	N	STA/Off	Corrective Action	Date Taken
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Additional Measures

Discharges Noted

* If there is a discharge of visibly discolored stormwater from the construction site to waters of the state, the On-Site Plan Coordinator shall inform the Resident Engineer and take corrective action and report the discharge in accordance with Section 6.1 of Permit 3-9020.