EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT IS AT THE INTERSECTION OF TH 8 (RIVER ST.) AND TH 10 (DOOR DR.) IN RUTLAND CITY. THIS PROJECT INVOLVES THE REMOVAL AND REPLACEMENT OF BRIDGE NO. 2, SOME APPROACH AND CHANNEL WORK. A NEW TWO-LANE, TWO-SPAN, STEEL GIRDER BRIDGE WILL BE CONSTRUCTED DOWNSTREAM OF THE EXISTING BRIDGE. TRAFFIC WILL BE MAINTAINED ON THE EXISTING BRIDGE, DURING CONSTRUCTION. FOLLOWING COMPLETION OF THE NEW BRIDGE, THE EXISTING BRIDGE, ABUTMENTS AND PIERS WILL BE REMOVED. TOTAL LENGTH OF PROJECT IS 1416 FEET, INCLUDING ROADWAY APPROACHES.

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 3.41 ACRES.

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

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY
THE TOPOGRAPHY OF THE PROJECT SITE IS HILLY WITH BROAD FLOODPLAINS. THE PROJECT AREA CONSISTS OF WELL ESTABLISHED VEGETATION WITH A MIXTURE OF TREES, SHRUBS AND GRASS. TOWN HIGHWAY 8 (RIVER ST.), TOWN HIGHWAY 10 (DOOR DR.), OTTER CREEK, AND EAST CREEK ARE WITHIN THE PROJECT LIMITS.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES
THE OTTER CREEK AND EAST CREEK ARE THE TWO WATER SOURCES ON THE PROJECT SITE. THE OTTER CREEK IS CLASSIFIED AS SINUOUS, INCISED AND ALLUVIAL. THE STREAM BED CONSISTS OF MOSTLY SILT AND SAND. THE CONFLUENCE OF THE EAST CREEK IS LOCATED APPROXIMATELY 200 FT NORTH OF THE EXISTING BRIDGE. THERE ARE TWO DROP INLETS ON SITE DRAINING FROM THE ROADWAY TO THE OTTER CREEK. THE DRAINAGE AREA IS 245.0 SQ. MI. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER FROM A FEW NEARBY SLOPES.

1.2.3 VEGETATION
THE VEGETATION IN THE PROJECT AREA CONSISTS OF HARDWOOD TREES, UNDERGROWTH AND GRASS. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY REPLACEMENT OF THE EXISTING BRIDGE. UPON PROJECT COMPLETION, THE CHANNEL WILL BE ARMORED WITH STONE FILL TYPE IV 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:
PAXTON FINE SANDY LOAM, VERY STONY, K = 0.24, 8-15% SLOPES
TEEL SILT LOAM, SANDY SUBSTRATUM, K = 0.49
RIPPOWAM FINE SANDY LOAM, K = 0.20
UDIPSAMMENTS, K = 0.15,NEARLY LEVEL
ELDRIDGE FINE SANDY LOAM, K = 0.24, 0% - 3% SLOPE

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: ARCHEOLOGICAL AREA ALONG DORR DR TO THE NORTH AND THE EXISTING BRIDGE IS A HISTORIC TRUSS
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: OTTER CREEK
WETLANDS: CLASS II WETLANDS ON THE SOUTHERN END OF THE PROJECT

1.3 RISK EVALUATION

THIS PROJECT FALLS UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES FOR LOW RISK PROJECTS. ANY MODIFICATIONS TO THE PROJECT THAT INCREASE THE RISK TO ENVIRONMENTAL RESOURCES SHALL BE EVALUATED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. 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 POLLLUTION 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 SPECIFC 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 APPPROVED 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. BECAUSE THIS PROJECT FALLS UNDER THE CGP 3-9020, BARRIER FENCE SHALL BE USED INSTEAD OF PROJECT DEMARCATION FENCE WITHIN 100 FEET OF A WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC).

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 CONTRACTORS 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 WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN. BECAUSE THIS PROJECT FALLS UNDER THE CGP 3-9020, WOVEN WIRE REINFORCED SILT FENCE SHALL BE USED INSTEAD OF SILT FENCE WITHIN 100 FEET UPSLOPE OF RECEIVING WATERS.

FILTER CURTAIN WILL BE INSTALLED SURROUNDING THE SUBSTRUCTURE CONSTRUCTION AREAS TO CONTAIN SEDIMENT

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 CONSTRUCITON SITE.

DIVERSIONARY MEASURES MAY BE NEEDED ON THE SLOPE ALONG DORR DR.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF
CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

STONE CHECK DAMS WILL BE INSTALLED AS SHOWN ON THE EPSC PLANS AND AS DIRECTED BY THE ENGINEER.

1.4.7 CONSTRUCT PERMANENT CONTROLS
PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

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.

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 SPECIFICATION 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

1.5.3 UPDATES

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PROJECT NAME:	RUTLAND CUTY
PROJECT NUMBER:	BRF 3000(16)
FILE NAME: s94j09forms.dgn	PLOT DATE: 27-JUL-2012
PROJECT LEADER: C. CARLSON	DRAWN BY: U.STANLEY
DESIGNED BY: U. STANLEY	CHECKED BY: U.STANLEY
EPSC NARRATIVE	SHEET 20 OF 53

SOIL INFORMATION: PAXTON FINE SANDY LOAM, VERY STONY
K = 0.24, 8-15% SLOPES
HYDROLOGIC SOIL GROUP: C

N

VT STATE PLANE GRID

MATCHLINE STA 499+25 (LAYOUT 3)

PAVED DRIVE

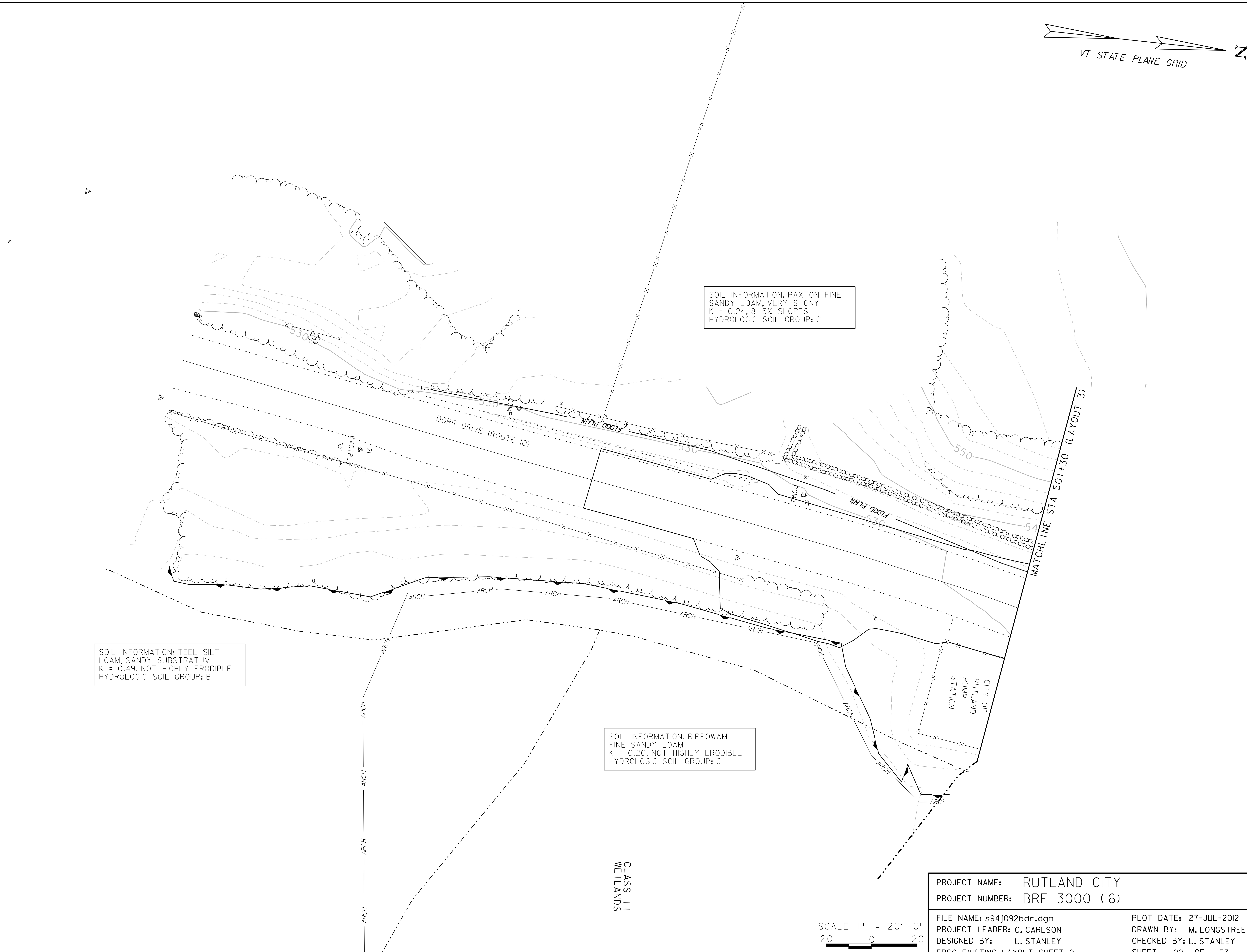
PAVED DRIVE

FLOOD PLAIN

OTTER CREEK

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

PROJECT NAME:	RUTLAND CITY
PROJECT NUMBER:	BRF 3000 (16)
FILE NAME: s94j092bdr.dgn	PLOT DATE: 27-JUL-2012
PROJECT LEADER: C. CARLSON	DRAWN BY: M. LONGSTREET
DESIGNED BY: U. STANLEY	CHECKED BY: U. STANLEY
EPSC EXISTING LAYOUT SHEET 1	SHEET 21 OF 53



PROJECT NAME: RUTLAND CITY	
PROJECT NUMBER: BRF 3000 (16)	
FILE NAME: s94j092bdr.dgn	PLOT DATE: 27-JUL-2012
PROJECT LEADER: C. CARLSON	DRAWN BY: M. LONGSTREET
DESIGNED BY: U. STANLEY	CHECKED BY: U. STANLEY
EPSC EXISTING LAYOUT SHEET 2	SHEET 22 OF 53

MATCHLINE STA 499+25 (LAYOUT 2)

MATCHLINE STA 104+25 (LAYOUT 4)

MATCHLINE STA 501+30 (LAYOUT 1)

N

VT STATE PLANE GRID

RIPARIAN BUFFER ZONE

SOIL INFORMATION: UDIPSAMMENTS
K = 0.15, NEARLY LEVEL
HYDROLIC SOIL GROUP: NOT RATED

SOIL INFORMATION: PAXTON FINE SANDY LOAM, VERY STONY
K = 0.24, 8-15% SLOPES
HYDROLOGIC SOIL GROUP: C

SOIL INFORMATION: RIPPOWAM FINE SANDY LOAM
K = 0.20, NOT HIGHLY ERODIBLE
HYDROLOGIC SOIL GROUP: C

OTTER CREEK

FLOOD PLAIN

GRAVEL DRIVE

DRAINAGE DITCH

T&E

ARCH

COMB

HYD

GUYW

MHS

HVCTRL

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

PROJECT NAME:	RUTLAND CITY
PROJECT NUMBER:	BRF 3000 (16)
FILE NAME: s94j092bdr.dgn	PLOT DATE: 27-JUL-2012
PROJECT LEADER: C. CARLSON	DRAWN BY: M. LONGSTREET
DESIGNED BY: U. STANLEY	CHECKED BY: U. STANLEY
EPSC EXISTING LAYOUT SHEET 3	SHEET 23 OF 53

SOIL INFORMATION: UDIPSAMMENTS
K = 0.15, NEARLY LEVEL
HYDROLIC SOIL GROUP: NOT RATED

MATCHLINE STA 104+25 (LAYOUT 3)

N

VT STATE PLANE GRID

BUILDING

GRAVEL PARKING LOT

PAVED DRIVE

COMB

GARDEN

FENCE

HYD

EL

HVCTRL

GUYW

FLOOD PLAIN

RIVER ST (TH 8)

WOODS

STONE WALL

RECREATION AREA

BASEBALL DIAMOND

RIPARIAN BUFFER ZONE

OTTER CREEK

TBE

ARCH

SOIL INFORMATION: RIPPOWAM
FINE SANDY LOAM
K = 0.20, NOT HIGHLY ERODIBLE
HYDROLOGIC SOIL GROUP: C

SOIL INFORMATION: ELDRIDGE
FINE SANDY LOAM
K = 0.24, 0% - 3% SLOPE
HYDROLIC SOIL GROUP: C

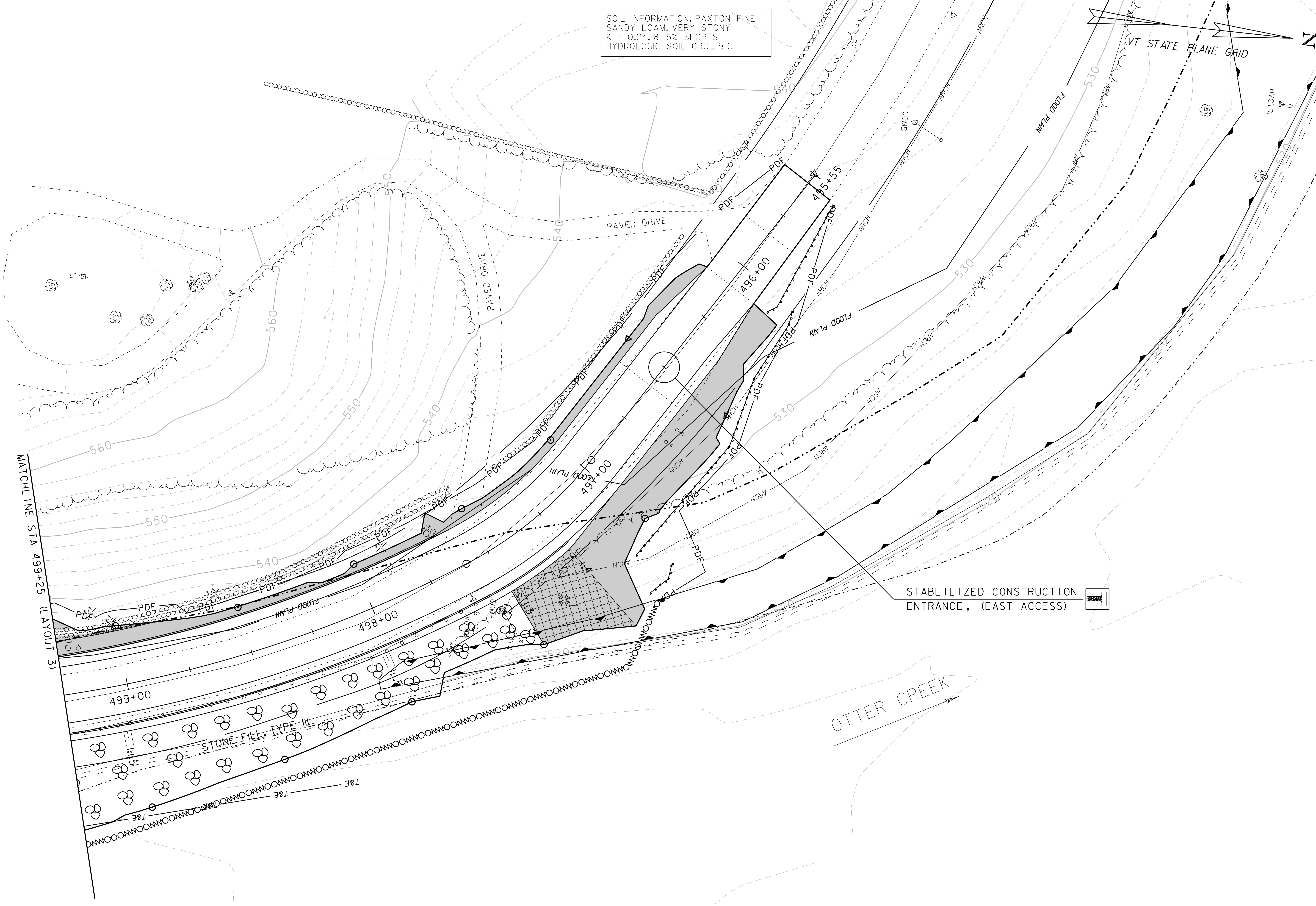
SOIL INFORMATION: UDIPSAMMENTS
K = 0.15, NEARLY LEVEL
HYDROLIC SOIL GROUP: NOT RATED

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

PROJECT NAME: RUTLAND CITY
PROJECT NUMBER: BRF 3000 (16)

FILE NAME: s94j092bdr.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: U. STANLEY
EPSC EXISTING LAYOUT SHEET 4

PLOT DATE: 27-JUL-2012
DRAWN BY: M. LONGSTREET
CHECKED BY: U. STANLEY
SHEET 24 OF 53



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

PROJECT NAME:	RUTLAND CITY
PROJECT NUMBER:	BRF 3000 (16)

FILE NAME: s94j092bdr.dgn	PLOT DATE: 27-JUL-2012
PROJECT LEADER: C. CARLSON	DRAWN BY: M. LONGSTREET
DESIGNED BY: U. STANLEY	CHECKED BY: U. STANLEY
EPSC CONSTRUCTION LAYOUT SHEET 1	SHEET 25 OF 53

PROJECT NAME:	RUTLAND CITY
PROJECT NUMBER:	BRF 3000 (16)

FILE NAME: s94j092bdr.dgn	PLOT DATE: 27-JUL-2012
PROJECT LEADER: C. CARLSON	DRAWN BY: M. LONGSTREET
DESIGNED BY: U. STANLEY	CHECKED BY: U. STANLEY
EPSC CONSTRUCTION LAYOUT SHEET 2	SHEET 26 OF 53

PROJECT NAME: RUTLAND CITY
PROJECT NUMBER: BRF 3000 (16)

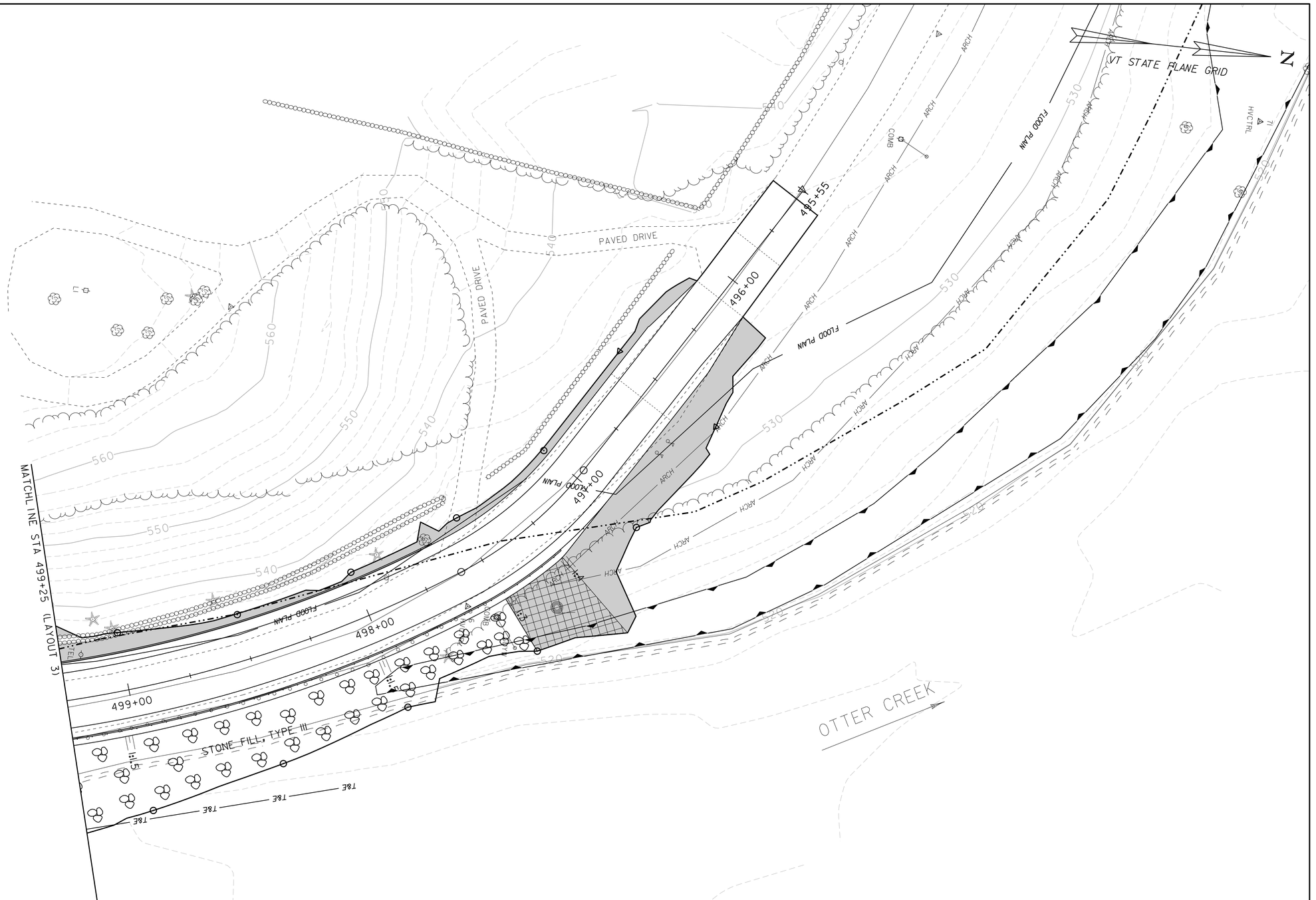
FILE NAME: s94j092bdr.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: U. STANLEY
EPSC CONSTRUCTION LAYOUT SHEET 3

PLOT DATE: 27-JUL-2012
DRAWN BY: M. LONGSTREET
CHECKED BY: U. STANLEY
SHEET 27 OF 53

PROJECT NAME:	RUTLAND CITY
PROJECT NUMBER:	BRF 3000 (16)

FILE NAME: s94j092bdr.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: U. STANLEY
EPSC CONSTRUCTION LAYOUT SHEET 4

PLOT DATE: 27-JUL-2012
DRAWN BY: M. LONGSTREET
CHECKED BY: U. STANLEY
SHEET 28 OF 53



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

PROJECT NAME:	RUTLAND CITY
PROJECT NUMBER:	BRF 3000 (16)
FILE NAME: s94j092bdr.dgn	PLOT DATE: 27-JUL-2012
PROJECT LEADER: C. CARLSON	DRAWN BY: M. LONGSTREET
DESIGNED BY: U. STANLEY	CHECKED BY: U. STANLEY
EPSC FINAL LAYOUT SHEET 1	SHEET 29 OF 53

PROJECT NAME:	RUTLAND CITY		
PROJECT NUMBER:	BRF 3000 (16)		
FILE NAME: s94j092bdr.dgn		PLOT DATE:	27-JUL-2012
PROJECT LEADER:	C. CARLSON	DRAWN BY:	M. LONGSTREET
DESIGNED BY:	U. STANLEY	CHECKED BY:	U. STANLEY
EPSC FINAL LAYOUT SHEET 2		SHEET	30 OF 53

PROJECT NAME:	RUTLAND CITY
PROJECT NUMBER:	BRF 3000 (16)

SCALE 1" = 20'-0"

FILE NAME: s94j092bdr.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: U. STANLEY
EPSC FINAL LAYOUT SHEET 3

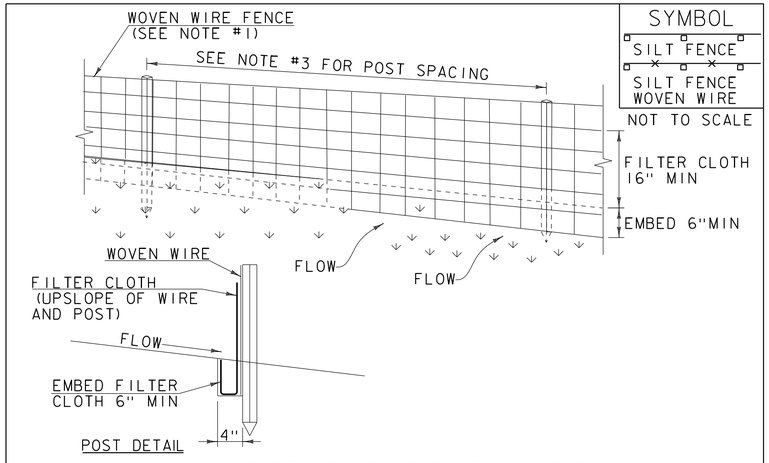
PLOT DATE: 27-JUL-2012
DRAWN BY: M. LONGSTREET
CHECKED BY: U. STANLEY
SHEET 31 OF 53

PROJECT NAME: RUTLAND CITY
PROJECT NUMBER: BRF 3000 (16)

FILE NAME: s94j092bdr.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: U. STANLEY
EPSC FINAL LAYOUT SHEET 4

PLOT DATE: 27-JUL-2012
DRAWN BY: M. LONGSTREET
CHECKED BY: U. STANLEY
SHEET 32 OF 53

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



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, MIRAFI100X, 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.

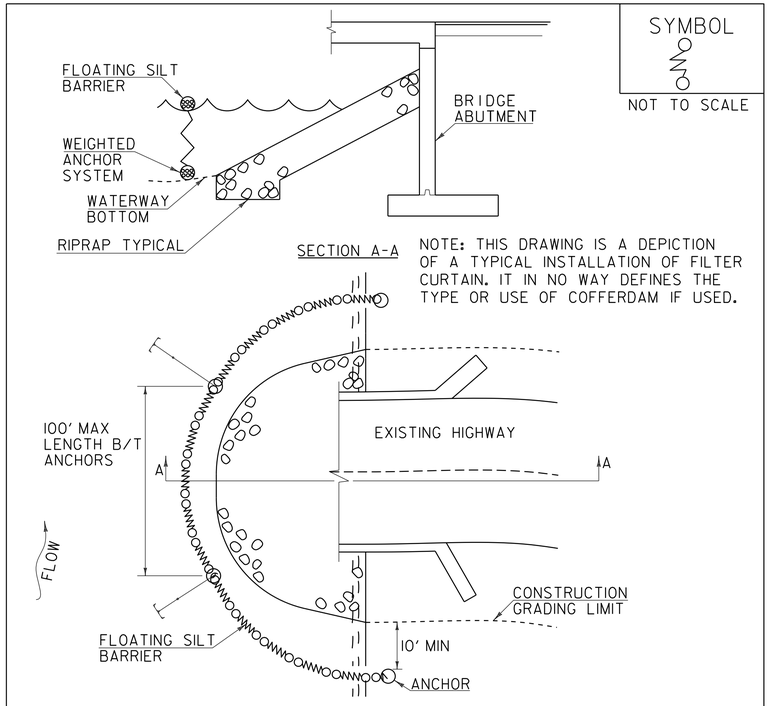
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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



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

EPSC LAYOUT PLAN SYMBOLOGY LEGEND

PROJECT BOUNDARY FENCE
- PDF — PDF — PROJECT DEMARCATION FENCE
- BF — BF — BARRIER FENCE

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

ENVIRONMENTAL RESOURCES
- WETLAND BOUNDARY
- RIPARIAN BUFFER ZONE
- SOIL TYPE BOUNDARY
- T&E — THREATENED & ENDANGERED SPECIES
- HAZ — HAZ — HAZARDOUS WASTE AREA
- AG — AGRICULTURAL LAND
- HABITAT — FISH & WILDLIFE HABITAT
- FLOOD PLAIN — FLOOD PLAIN
- STORM WATER
- USDA FOREST SERVICE LANDS
- WILDLIFE HABITAT SUIT/CONN

ARCHEOLOGICAL & HISTORIC
- ARCH — ARCHEOLOGICAL BOUNDARY
- HISTORIC DIST — HISTORIC DISTRICT BOUNDARY
- HISTORIC — HISTORIC AREA
- (H) HISTORIC STRUCTURE

UTILITY SYMBOLOGY
- AER E&T — AREAL ELECTRIC & TELEPHONE
- E — AREAL ELECTRIC
- UE — UNDERGROUND ELECTRIC
- UT — UNDERGROUND TELEPHONE
- UC — UNDER GROUND TV
- G — GAS LINE
- W — WATER LINE

CONSTRUCTION FEATURES
- TOE OF SLOPE CUT OR FILL
- STONE FILL, TYPE III
- STONE FILL, TYPE II
- STONE FILL, TYPE I

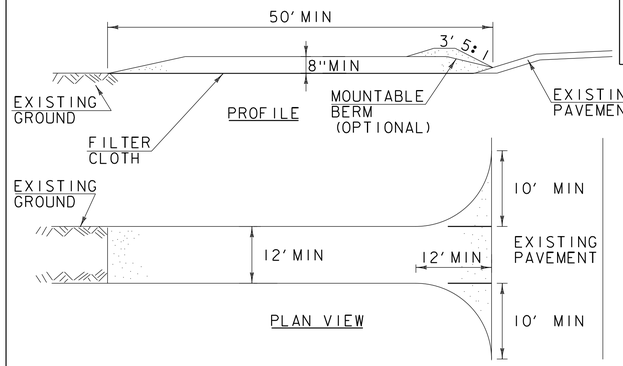
PROJECT NAME: RUTLAND CITY
PROJECT NUMBER: BRF 3000 (16)

FILE NAME: s94j092erodet.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: M. EVANS-MONGEON
EPSC DETAIL SHEET 1

PLOT DATE: 27-JUL-2012
DRAWN BY: M. LONGSTREET
CHECKED BY: U. STANLEY
SHEET 33 OF 53

SYMBOL

NOT TO SCALE



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.

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

STABILIZED CONSTRUCTION ENTRANCE

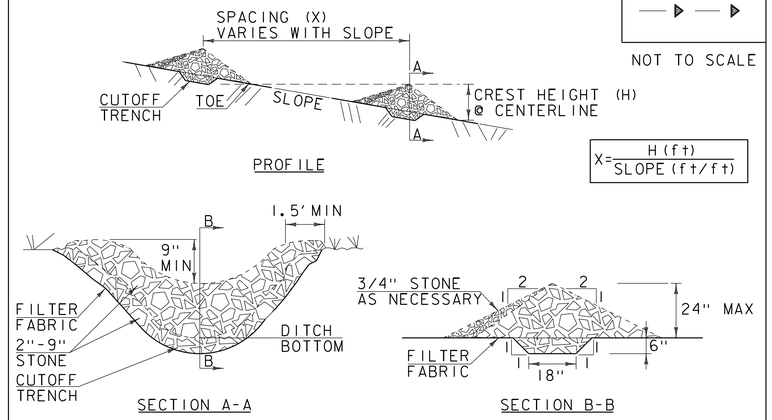
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

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

SYMBOL

NOT TO SCALE



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

VAOT RURAL AREA MIX

LBS/AC					
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
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

LBS/AC					
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
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

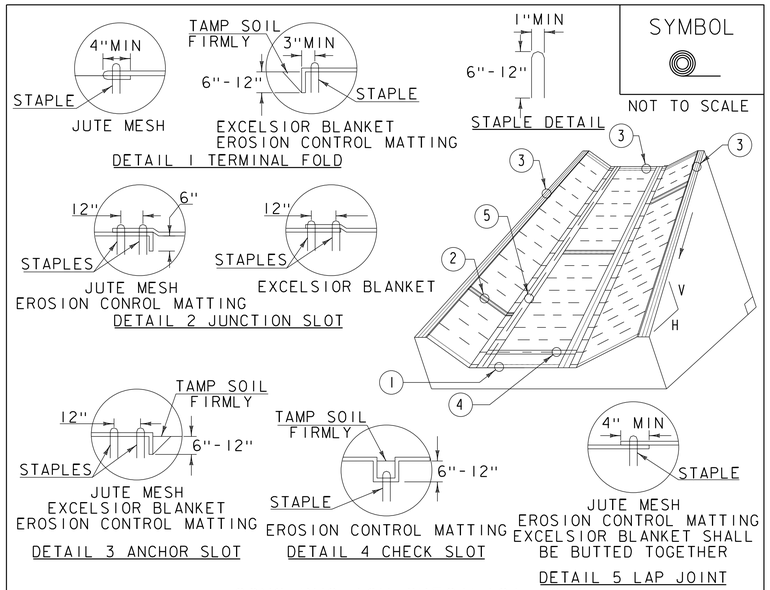
TURF ESTABLISHMENT

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

PROJECT NAME: RUTLAND CITY
PROJECT NUMBER: BRF 3000 (16)

FILE NAME: s94j092erodet.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: M. EVANS-MONGEON
EPSC DETAIL SHEET 2

PLOT DATE: 27-JUL-2012
DRAWN BY: M. LONGSTREET
CHECKED BY: U. STANLEY
SHEET 34 OF 53



CONSTRUCTION SPECIFICATIONS

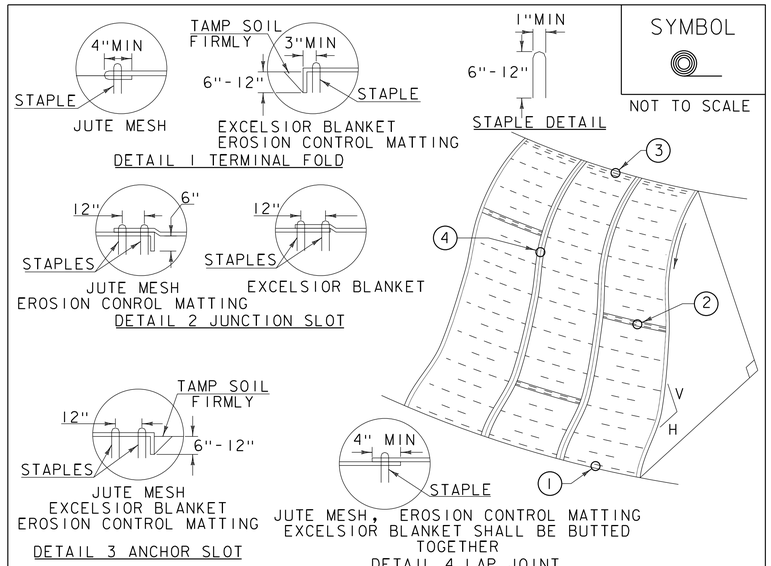
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO 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) DITCH

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	
MARCH 8, 2007	JMF
APRIL 16, 2007	WHF
JANUARY 13, 2009	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: RUTLAND CITY
PROJECT NUMBER: BRF 3000 (16)

FILE NAME: s94j092erodet.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: M. EVANS-MONGEON
EPSC DETAIL SHEET 3

PLOT DATE: 27-JUL-2012
DRAWN BY: M. LONGSTREET
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SHEET 35 OF 53