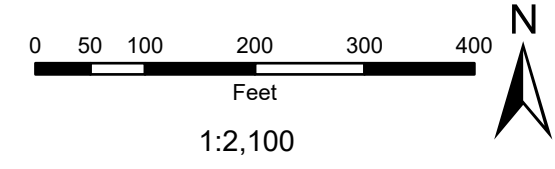




PARTRIDGE HILL - PROPOSED CONDITIONS

ENOS AND PARTRIDGE HILL ROAD IMPROVEMENTS - HINESBURG, VERMONT
WINOOSKI NATURAL RESOURCES CONSERVATION DISTRICT



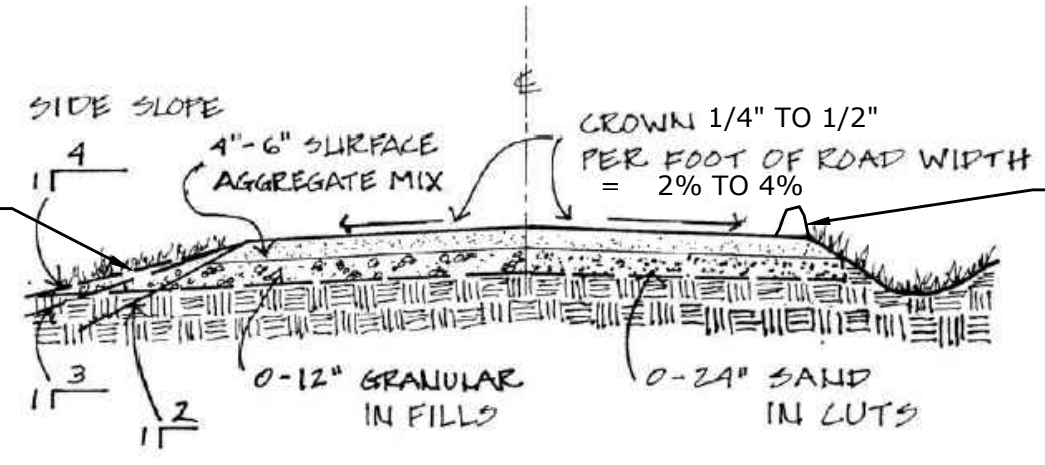
SLR

1 SOUTH MAIN ST
SECOND FLOOR
WATERBURY, VT 05676
802.882.8335

NOTES:
NEW DRIVEWAY CULVERTS ARE 15" DIAMETER AND NEW ROAD CULVERTS ARE 18" DIAMETER UNLESS OTHERWISE NOTED

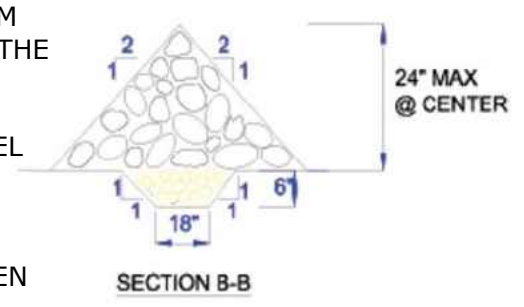
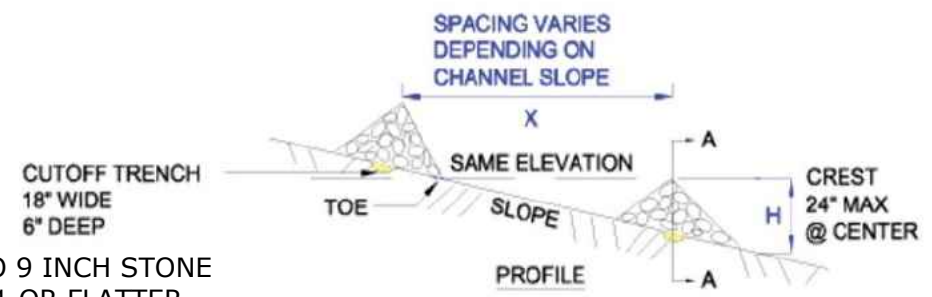
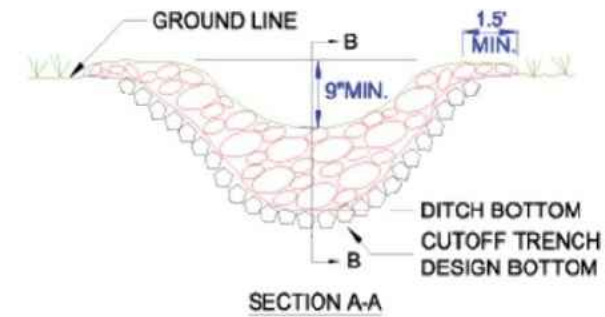
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SHOULDER WILL BE LOWER THAN TRAVEL LANE AND RUNOFF SHALL FLOW IN A DISTRIBUTED MANNER TO GRASS OR FORESTED AREA WHERE POSSIBLE



ROAD CROWN & PROFILE

- REGRADE ROAD SURFACE TO REMOVE RUTS, EROSION, AND GRADER/PLOW BERMS
- CROWN SHOULD BE MAINTAINED

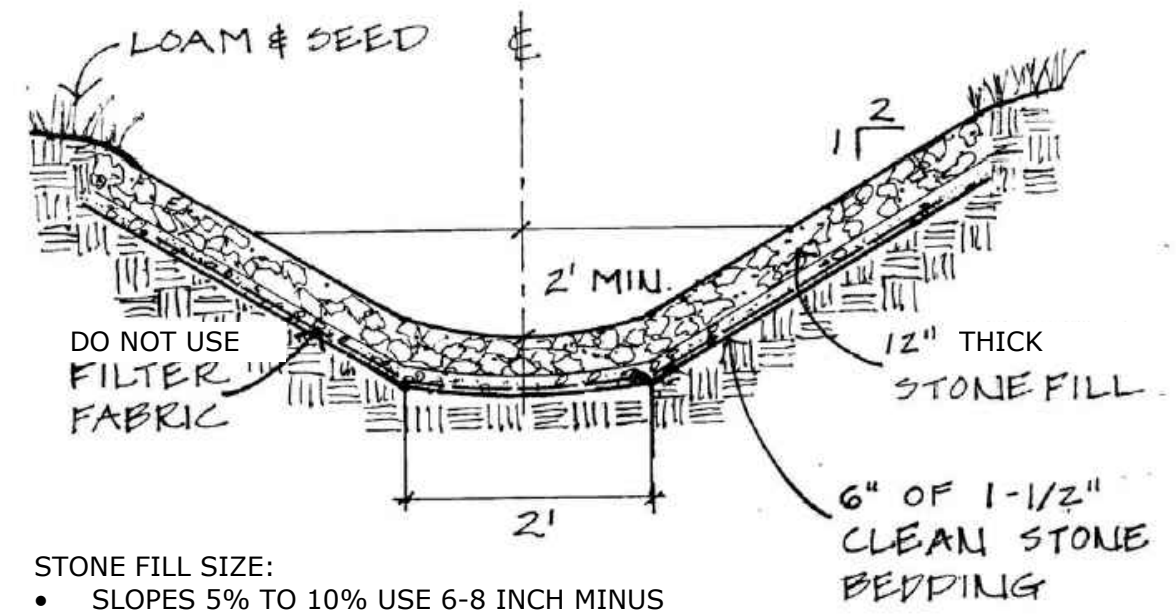


STONE CHECK DAM

- USE MIX OF 2 TO 9 INCH STONE
- SIDE SLOPES 2:1 OR FLATTER
- SPAN WIDTH OF CHANNEL AND UP SIDES OF BANKS
- SPACE SO THAT THE TOE OF THE UPSTREAM DAM IS THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM
- PERIODICALLY REMOVE ACCUMULATED SEDIMENT AND DEBRIS TO ALLOW CHANNEL TO DRAIN THROUGH THE STONE AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM
- IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, A LINER OF STONE SHOULD BE INSTALLED

OPERATION & MAINTENANCE NOTES:

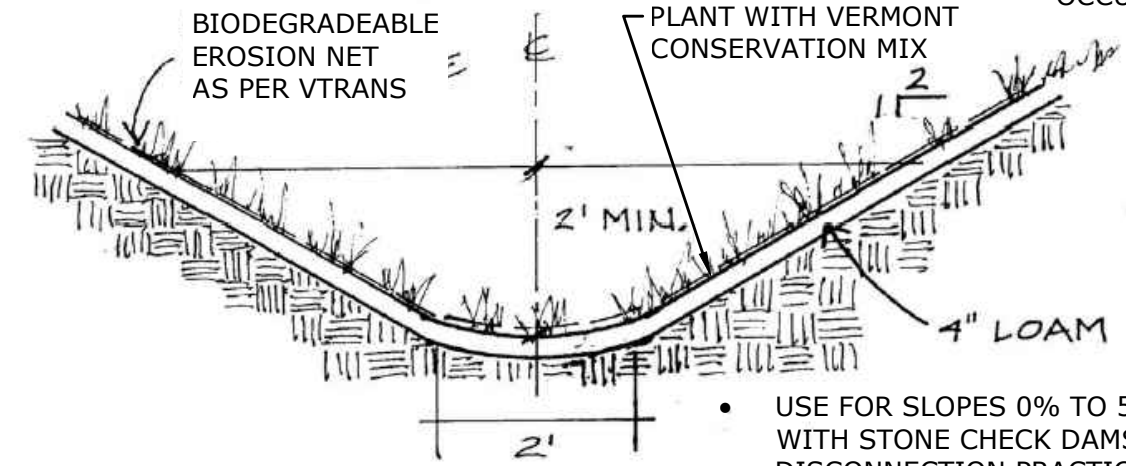
ANNUALLY IN SPRING AFTER THAW AND AFTER LARGE RAINSTORMS, INSPECT ALL ROAD FEATURES.
NOTE WHERE EROSION IS AFFECTING FEATURE DESIGN.
SPECIFIC OPERATION & MAINTENANCE NOTES LISTED FOR EACH FEATURE.



- STONE FILL SIZE:
- SLOPES 5% TO 10% USE 6-8 INCH MINUS
 - SLOPES MORE THAN 10% USE 12 INCH MINUS

STONE LINED DITCH

- RESHAPE SWALE AND REAPPLY SURFACE TREATMENT WHERE GULLY EROSION (>1 FT DEEP) IS OCCURRING



GRASS LINED DITCH

- USE FOR SLOPES 0% TO 5% OR 5% TO 8% WITH STONE CHECK DAMS OR DISCONNECTION PRACTICES EVERY 164 FEET
- NO BARE SOILS ALLOWED
- USE TRAPEZOIDAL OR PARABOLIC CROSS SECTION

REFERENCE NOTE: ADAPTED FROM "VERMONT BETTER BACKROADS MANUAL, CLEAN WATER YOU CAN AFFORD" A PUBLICATION OF THE NORTHERN VERMONT & GEORGE D. AIKEN RESOURCE CONSERVATION DEVELOPMENT (R C & D) COUNCILS, NOVEMBER 1995, UPDATED 2002, 2009.

STONE CHECK DAM DETAIL FROM STATE OF VERMONT AGENCY OF NATURAL RESOURCES DEPARTMENT OF ENVIRONMENTAL CONSERVATION VERMONT POLLUTION DISCHARGE ELIMINATION SYSTEM (VPDES) GENERAL PERMIT 3-9040 FOR STORMWATER DISCHARGES FROM MUNICIPAL ROADS, FINAL DRAFT.



REVISIONS

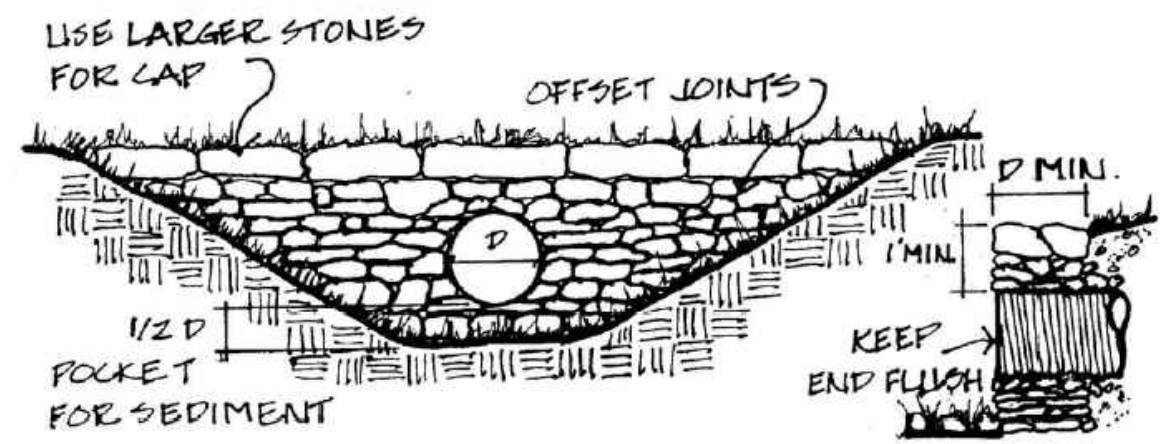
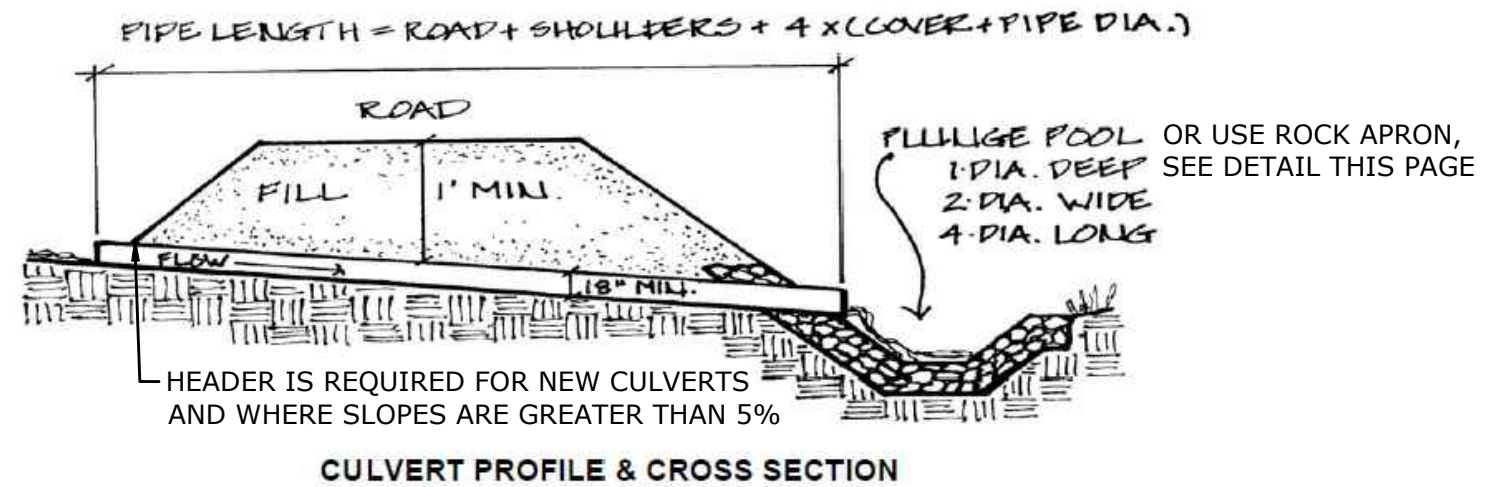
DETAILS - ROAD SECTION
ENOS AND PARTRIDGE HILL ROAD IMPROVEMENTS
HINESBURG VERMONT

JCL DESIGNED	AOM DRAWN	JCL CHECKED
SCALE: NOT TO SCALE		
DATE: MAY 6, 2026		
PROJECT NO: 14439.00008		
SHEET NO: DET-1		

Plotted by: AMARCUCD On this date: Wed, 2026 May 6 - 11:43am

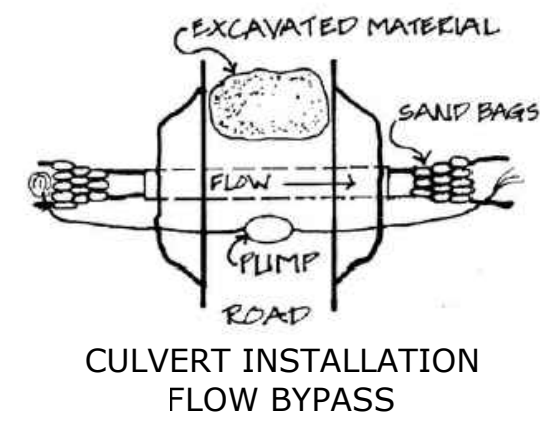
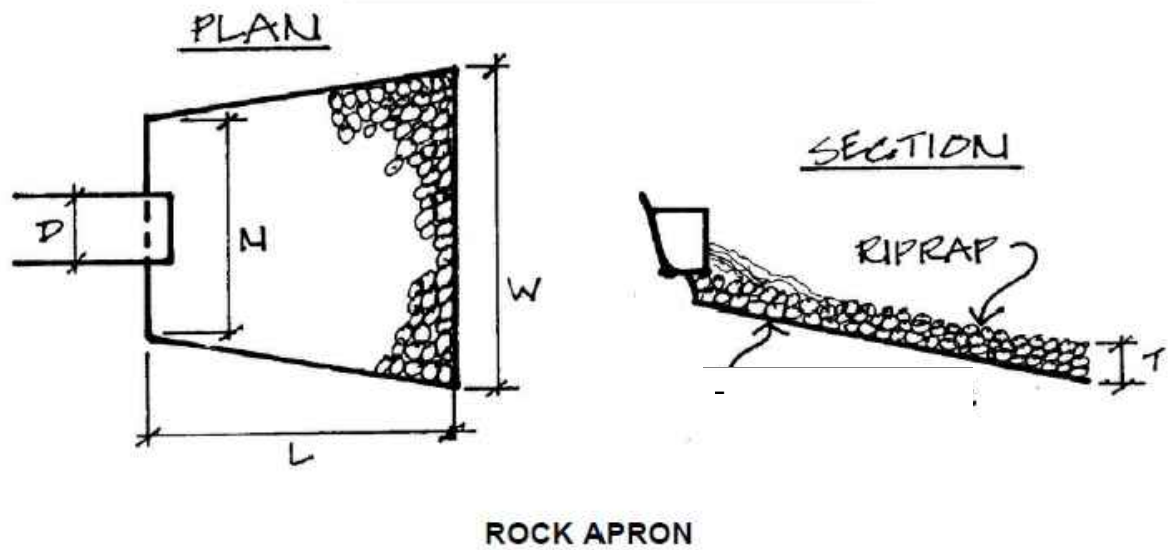
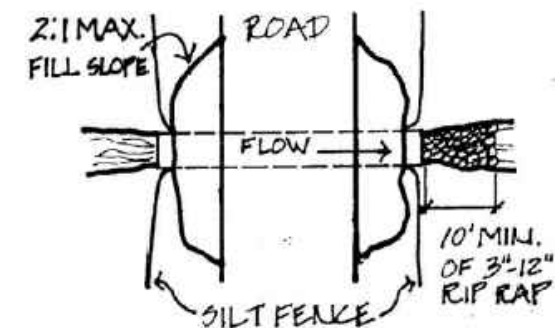
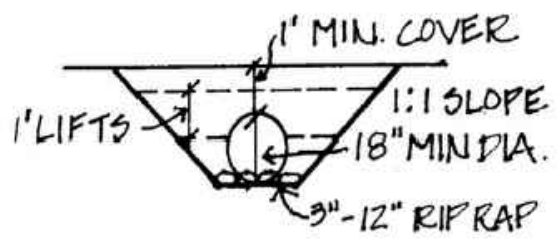
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Rock Apron Specifications					
Culvert Diameter (D)	Riprap Size	T (in.)	N (ft.)	W (ft.)	L (ft.)
18 inches	(3-12 inch)	18	4.5	14.5	10.0
24 inches	(3-12 inch)	18	6.0	20.0	14.0

D = diameter of culvert
T = depth of stone in apron
N = width of apron near culvert
W = width at downhill end of apron
L = length of apron



- CHECK INLET AND OUTLETS TO REMOVE ACCUMULATED DEBRIS BLOCKING OPENING
- REPLACE DISLODGED HEADER OR APRON STONES

REFERENCE NOTE: ADAPTED FROM "VERMONT BETTER BACKROADS MANUAL, CLEAN WATER YOU CAN AFFORD" A PUBLICATION OF THE NORTHERN VERMONT & GEORGE D. AIKEN RESOURCE CONSERVATION DEVELOPMENT (R C & D) COUNCILS, NOVEMBER 1995, UPDATED 2002, 2009.



REVISIONS

DETAILS - CULVERT

ENOS AND PARTRIDGE HILL ROAD IMPROVEMENTS

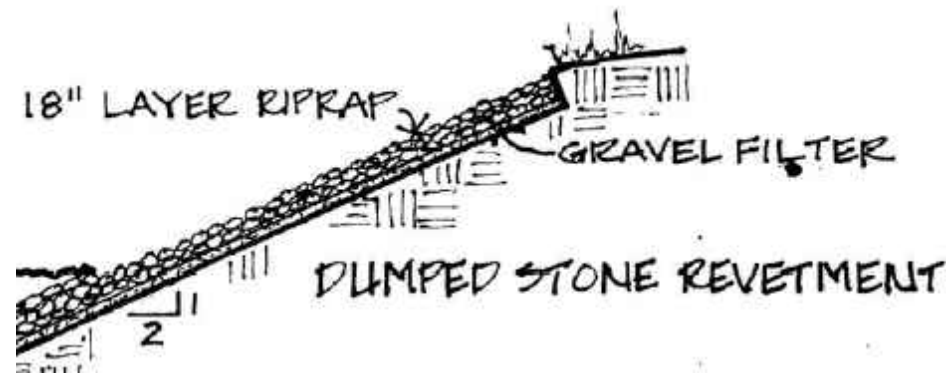
HINESBURG, VERMONT

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DATE MAY 6, 2026		
PROJECT NO. 14439.00008		
DET-2		

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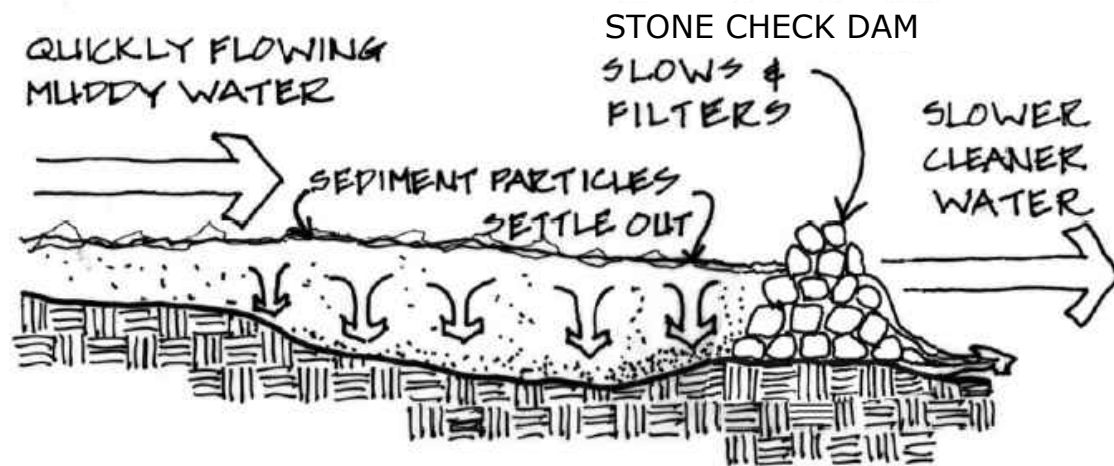
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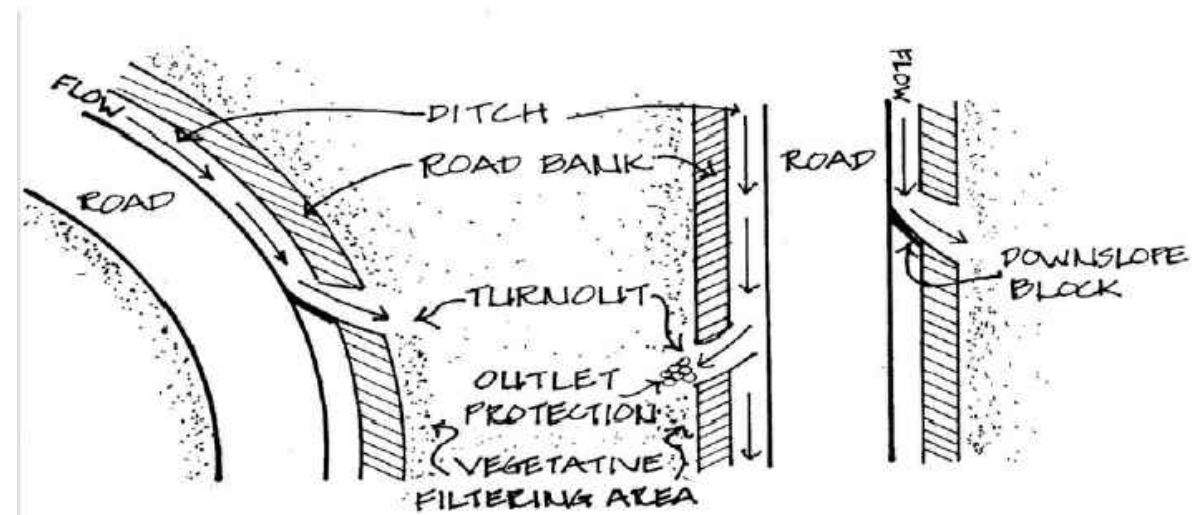
STONE ARMOR OR ROAD EDGE STABILIZATION

- RIRPAP SIZE IS BASED ON QUANTITY AND VELOCITY OF WATER
- ALWAYS CONTACT A STREAM ALTERNATION ENGINEER BEFORE INSTALLING RIPRAP AT A STREAM BANK
- USE ANGULAR STONE
- COVER WITH GRUBBINGS OR TOPSOIL AND SEED. IF ON A STREAM BANK, ONLY APPLY ABOVE ORDINARY HIGH WATER.
- CONSIDER PLANTING WITH ADDITIONAL VEGETATION



SEDIMENT TRAP

- INSPECT ANNUALLY AND AFTER LARGE STORMS
- REMOVE ACCUMULATED SEDIMENT WHEN HALF FULL.



TURN-OUT

- AVOID DIRECT OUTLET TO SURFACE WATERS
- STABILIZE OUTLET BASED ON SLOPE:
 - 0% TO 5% STABILIZE WITH GRASS
 - 5% TO 10% STABILIZE WITH 6-8 INCH MINUS STONE
 - GREATER THAN 10% STABILIZE WITH 12 INCH MINUS STONE
- REMOVE ACCUMULATED SEDIMENT WHEN HALF FULL

REFERENCE NOTE: ADAPTED FROM "VERMONT BETTER BACKROADS MANUAL, CLEAN WATER YOU CAN AFFORD" A PULICATION OF THE NORTHERN VERMONT & GEORGE D. AIKEN RESOURCE CONSERVATION DEVELOPMENT (R C & D) COUNCILS, NOVEMBER 1995, UPDATED 2002, 2009.

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DETAILS - OTHER

ENOS AND PARTRIDGE HILL ROAD IMPROVEMENTS

HINESBURG, VERMONT

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PROJECT NO. 14439.00008		

DET-3

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