

Vermont Better Roads Grant Program Application

Please complete one application per category and/or project you are applying for. You may make copies of the application for multiple applications per category and/or multiple categories.

Please check the Category you are applying for:

- B. Correction of a Road Related Erosion Problem and/or Stormwater Mitigation Retrofit for both gravel and paved roads
- C. Correction of a Stream Bank or Slope Related Problem
- D. Structure/culvert upgrades

Town/Organization: Rupert

Project Name: Youlin Road Ditches & Culverts

Road Name: Youlin Rd TH #: 23 Structure # (if applicable): _____

Road Type: Unpaved Uncurbed
Class 3

Watershed: Battenkill-White Creek -Hudson River

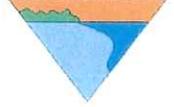
Please provide a thorough description of the problem (ex. Roadway has steep slope with no ditch which is causing roadway erosion):

Roadway has 10-15% slope and is entrenched, which causes erosion on edges of roadway. Ditches have filled and need stone lining (remove & replace existing). Upsize culvert to better accomodate high flows.

Description of Project and how you plan to complete the work (ex. Stone line 500' of ditch by reshaping ditch and stone lining, working from the top of the project down to the bottom):

Working from top down raise roadway to allow sheet flow where possible. Remove full stone ditches and replace with new stone (approx 975'), replace culvert & upsize to 24". All work will follow Better Roads standards for ditching, crown & culverts.

Expected Effects (+ & -) on water quality (ex. Erosion will be eliminated by placing the stone ditch):
Erosion will be eliminated (approx 20 yds) by sheet flow, stone lined ditches and upsized culvert.



Distance from end of project to nearest water (stream, lake, or stormwater system that outlets directly to water). 0-50'



Progress to Date:

None

Is there an emergency reason this project must be completed quickly? If yes, please explain:

No

Has this project been identified through a municipal road inventory, capital budget plan, tactical basin plan, culvert inventory, or other management plan? If yes, please list which.

Yes: moderate erosion risk, likely higher with ground truthing

No

Please list any professionals you may have contacted for assistance with this project (ANR River

Management Engineer, Army Corps of Engineers, VTrans District Technical staff, Basin Planner etc.):

BCCD - Shelly Stiles

BCRC - Jim Henderson

VTransMAB - Rachel Beauregard

ANR - Josh Carjaval

Is the project located in the town "Right of Way?" Yes, No, Both (if "Both" please explain further).

Yes

Will the town road crew complete this work? Yes, No, Some (if "some" please explain further).

Yes



Describe how the grant funds will be spent and/or attach a project budget:
Budget attached

How do you plan to meet the required 20% match on this grant?:
Town labor & equipment

Requested Grant Amount (\$20,000 max Category B, \$40,000 max Categories C & D): \$ 23,700.00

Estimated Total Project Cost (including 20% local match): \$ 4,740.00

Estimated Completion Date: 10/31/2016

REQUIRED ATTACHMENTS:

- Itemized Cost Estimate (labor, equipment, materials)
(For assistance, call Better Backroads at 802-828-4585)
- Project Location Map
(Please show location of affected water; 1:12,000 USGS map, if possible)
- Sketch of proposed erosion control measures, including:
 - Distances (ft.)
 - Estimate of waste & borrow quantities
 - Approx. location of town/other right-of-way and/or property lines
- Photo(s) of the project area.
- Agreement for Entry and/or Deed of Easement (if project is outside Town ROW).
- If project involves stream or river/road conflict, include documentation of consultation with a River Management Engineer.
- Other appropriate supporting documents.

By signing this application I certify that all the information provided is accurate to the best of my knowledge. We will comply with all the requirements of the grant including making our books available for audit if required.

SIGNATURE OF APPLICANT: (Must be Town Administrator/Manager or Select Board Chair)

Name: Mark D. Linn

Title: selectboard chair







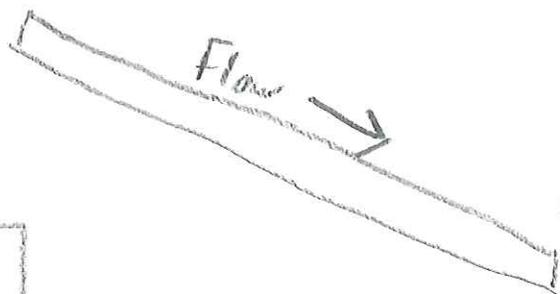
Yowlin Rd
town
of Rupert

625'

elevate rd
Above shoulder
For sheeting

Stone
Line
proposed

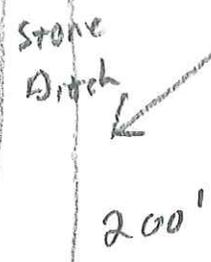
9%
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9%



clean
and
replace



clean and
replace



mill Brook → B 41

24" culvert into
mill Brook



Bennington County Conservation District

Promoting rural livelihoods and protecting natural resources in southwestern Vermont

April 11, 2016

Board of Supervisors

Ken Leach
Chair
(Rupert)
325-2514

Jim Henderson
Vice-Chair
(Sandgate)
375-9461

Josh Carvajal
(Bennington)
490-6163

Debbie Johnson
(Shaftsbury)
442-5945

Joe Nolan
(Arlington)
733-2143

Partners/Staff

Philip Rivara
Natural Resources
Conservation
Service Soil
Conservationist

Shelly Stiles
District Manager

Mr. Alan May
Municipal Assistance Bureau
Vermont Agency of Transportation
1 National Life Drive
Montpelier, VT 05633

RE: Town of Rupert Better Roads application

Dear Alan,

The Bennington County Conservation District is pleased to support the application for a Vermont Better Roads program grant by and for the Town of Rupert to 1) replace culverts and raise the road bed on Youlin Road (a high priority in the recently completed Rupert Stormwater Master Plan) and 2) to repair a drainage issue on Roger Road, a high priority of the Rupert highway crew. We look forward to working with the Town on these initiatives.

Sincerely,

Shelly Stiles, district manager



Bennington County Regional Commission

111 SOUTH STREET • SUITE 203 • BENNINGTON, VERMONT 05201 • (802) 442-0713 OR 442-0682 •
FAX (802) 442-0439

Alan May
Agency of Transportation
Municipal Assistance Bureau
1 National Life Drive
Montpelier, Vermont 05633

April 11, 2016

Dear Alan,

Please accept this letter expressing BCRC's support of The Town of Rupert's proposal for funding through the Vermont Better Roads Grant Program to conduct a road and culvert inventory and improve stormwater drainage on Youlin and Roger's Roads. Although a Stormwater Master Plan was created for the Mill Brook watershed in 2015, a town-wide road and culvert inventory has not been completed. BCRC considers this a priority project.

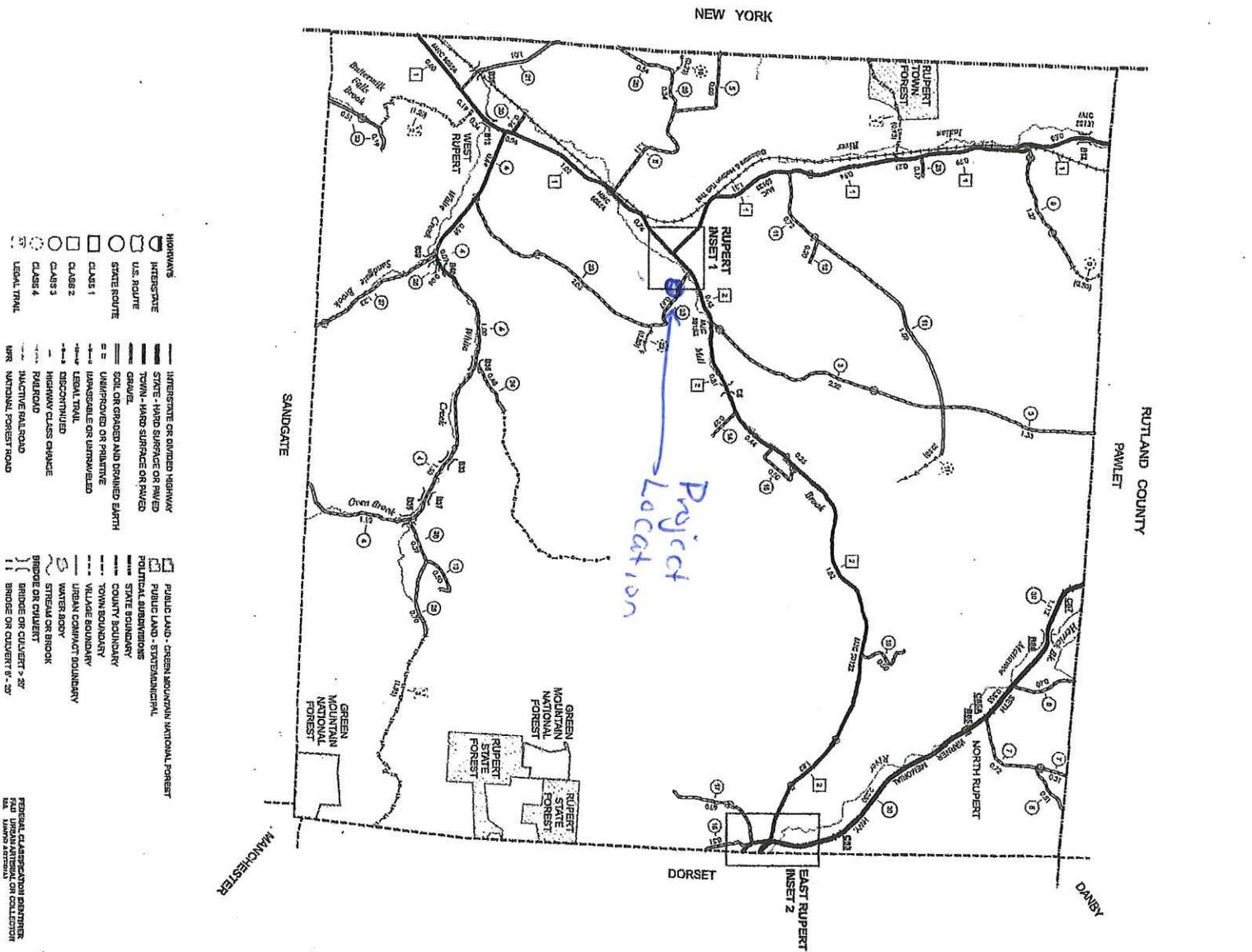
BCRC staff have visited the Youlin Road and Rogers Road sites with the Rupert Highway Department. Youlin Road is a high priority site identified in the recently completed Stormwater Master Plan. The road bed is below grade and water flows down the bed of the road leading to erosion and the transport of large amounts of sediment into Mill Brook. The road base in the mid-section of this project is a severely deteriorated driving surface that exacerbates problems with erosion and sedimentation. The road bed will be raised, grass lined ditches installed and two damaged culverts will be replaced.

Rogers Road is also below grade and is served by an undersized, deteriorated culvert. The roadbed will be raised to allow sheet flow off the road eliminating the erosion and transport of sediment into the brook. The deteriorated 36 inch culvert will be replaced with a 71 inch by 47 inch squashed culvert as recommended by AOT and DEC staff who have visited the site.

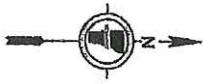
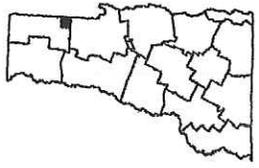
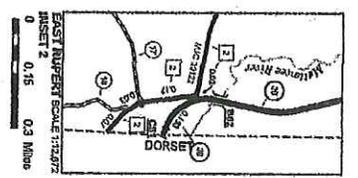
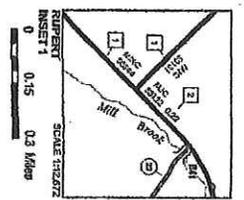
Thank you for your consideration of these important projects.

Sincerely,

Jim Henderson
Environmental Program Manager



- HIGHWAYS**
- INTERSTATE
 - U.S. ROUTE
 - STATE ROUTE
 - CLASS 1
 - CLASS 2
 - CLASS 3
 - CLASS 4
 - LEGAL TRAIL
- INTERSTATE OR DIVIDED HIGHWAY**
- STATE - HARD SURFACE OR PAVED
 - TOWN - HARD SURFACE OR PAVED
 - GRAVEL
 - SOIL OR GRAVEL AND DRAINED EARTH
 - UNPAVED OR PALLETTED
 - UNUSABLE OR UNPAVED
 - LEGAL TRAIL
 - DISCONTINUED
 - HIGHWAY CLASS CHANGE
 - PAVED
 - ACTIVE RAILROAD
 - INACTIVE RAILROAD
 - NATURAL FOREST ROAD
- PUBLIC LAND - GREEN MOUNTAIN NATIONAL FOREST**
- POLITICAL JURISDICTIONS
 - STATE BOUNDARY
 - COUNTY BOUNDARY
 - TOWN BOUNDARY
 - VILLAGE BOUNDARY
 - URBAN CORPACT BOUNDARY
 - WATER BODY
 - BRIDGE OR CULVERT
 - BRIDGE OR CULVERT > 20'
 - BRIDGE OR CULVERT 6' - 20'
- FEDERAL CLASSIFICATION ROUTING**
- ROAD
 - URBAN NATIONAL OR COLLECTOR
 - MAJOR ARTERIAL



VERMONT
GENERAL HIGHWAY MAP
Town of Rupert
BENNINGTON COUNTY

Transportation District #1

Prepared by the
Vermont Agency of Transportation
Division of Policy, Planning and Intermodal Development
in cooperation with
U.S. Department of Transportation
Federal Highway Administration

Map prepared June 04, 2015
SCALE 1:31,680



Project RD-1: Youlin Road Erosion and Ditches

Site Description

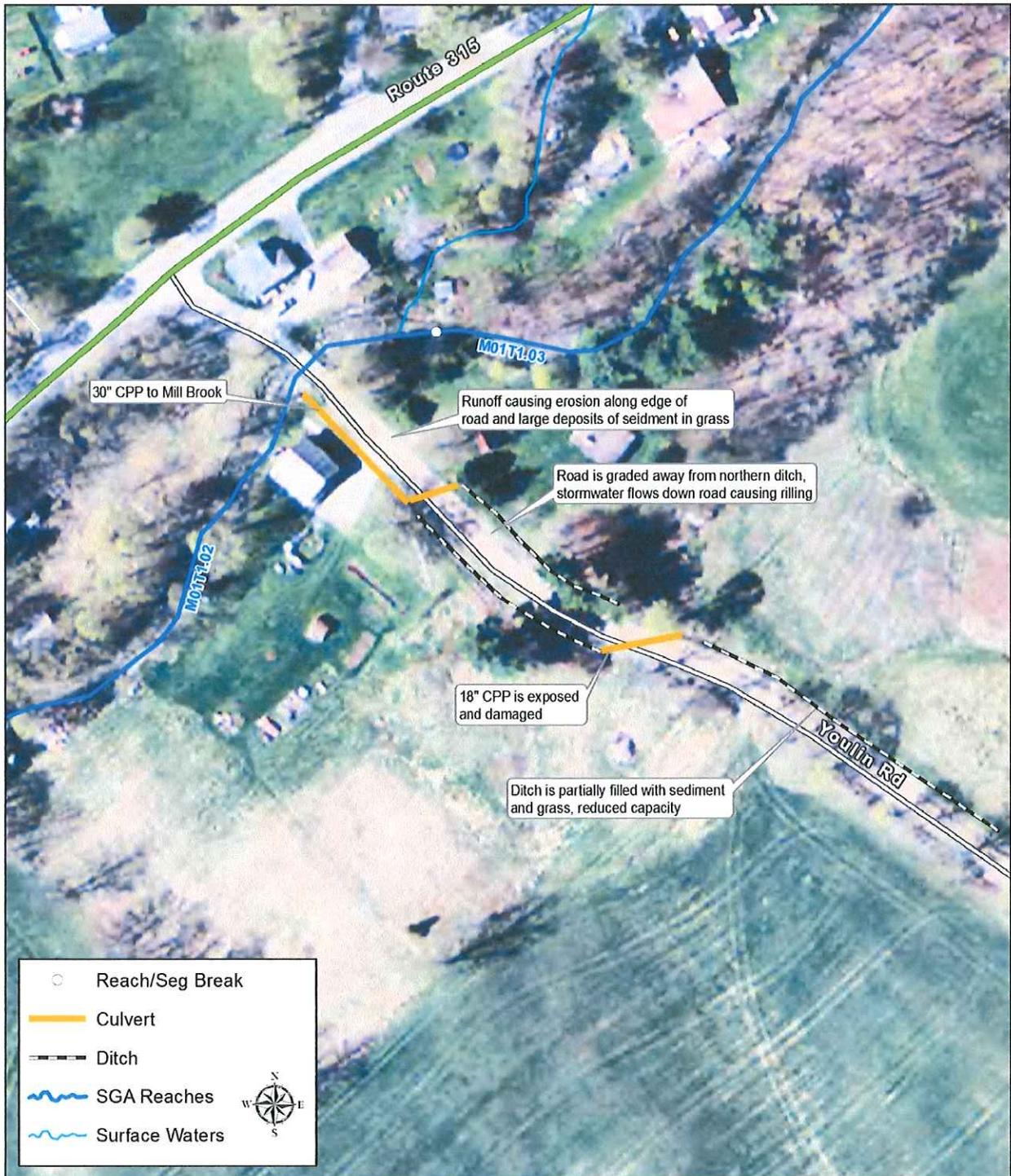
Ditches on both sides of Youlin Road are filled in and have reduced capacity (Map 3 in Appendix A). The northeast edge of the road for approximately 240 feet does not fully drain to the ditch causing runoff to flow along the edge of the road bypassing the inlet of the 18" diameter cross-culvert. This runoff is causing erosion and sediment deposition along the road (see photograph below). An 18" CPP located 180 feet up the hill from the erosion site is set too shallow and is damaged. A site detail map is provided on the following page.



Rilling of road edge from stormwater runoff along lower Youlin Road.

Site Recommendations

We have discussed this site in detail in the field with the Town Highway Department, including the potential to raise the road grade along and above the steep hill on Youlin Road. Raising the road bed and altering the grading would help to direct runoff to the northern ditch. Ditches on both sides of the road should be cleaned out to increase capacity. The 18" cross-culvert that is partially exposed and damaged should be replaced and set with sufficient cover. The road bed should be raised and graded to better direct runoff to the ditches.

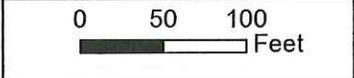


	Reach/Seg Break
	Culvert
	Ditch
	SGA Reaches
	Surface Waters


Fitzgerald Environmental Associates, LLC
 18 Severance Green, Suite 203
 Colchester, VT 05446
 Telephone: 802.876.7778
www.fitzgeraldenvironmental.com

**Town of Rupert
 Stormwater Master Plan**

Problem Area RD-1 Detail Map



Map 1

Date: Oct 19, 2015
 Drawn: JHB