



FY17 Vermont Better Roads Grant Application

Please complete this page ONCE and return with your Grant Category Application(s)

Town/Organization: Town of Manchester Contact Person(s): Leslie Perra / Jeff Williams
 Address: 6039 Main St. Manchester CT, VT 05255
Street Address Town Zip
 Email: l.perra@manchester-vt.gov Phone: (802) 362-1313 x 2
 DUNS #: 019105972 Fiscal Year End Month (MM): 06
 Accounting System: Automated Manual Combination

Please use the suggested documentation checklist below to ensure that all of the relevant items regarding your application have been included.

- Grant application cover sheet (Only submit one)
- Grant application form (One per category/project)
- Itemized Cost estimate for labor, equipment, and materials (see enclosed Cost Estimate Worksheet). If applicable, please break down funding by source (i.e. different grant sources)
- Project Location Map (please show location of affected water)
- Sketch of proposed erosion control measures or other management practices, including distances in feet
 Also show approximate location of town/other right-of-way and/or property lines
- Photo(s) of the project area
- Letters of Support (RPC, VTTrans District Technical Staff, ANR Rivers and Streams Engineers, etc.)
- If Category C River/Road Conflict or Category D River/Stream Structure or Culvert, you must attach ANR/ACOE consultation

Priority #5



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: Town of Manchester

Project Name: Three Maple Drive

Road Name: Three Maple Drive TH #: 311 Structure # (if applicable): _____

Road Type: Unpaved Uncurbed
Class 3

Watershed: Battenkill River

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

Road has undersized 24" culvert, thus causing severe erosion and overtops every couple of years during spring thaws and flash floods. Washes out roadway when it overtops. Area drains 300 acres with man made pond as well.

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):

Remove 24" existing culvert. Replace with 5' diameter culvert and riprap the headwalls. Making smooth transition from inlet to outlet. ANR conducted hydro study and awaiting VTrans hydro study.

Expected Effects (+ & -) on water quality (ex. Erosion will be eliminated by placing the stone ditch):

10 cy of erosion will be eliminated per year. Overtopping and road washing will also be eliminated with properly sized pipe.



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: _____

No, but priority for town.

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.):
Josh Carjaval, ANR; Jim Henderson, BCRC; Rachel Beauregard VTrans MAB

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:

Project budget attached.

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

Town will provide labor, equipment and materials.

Requested Grant Amount (\$20,000 max Category B, \$40,000 max Categories C & D): \$ 5,536.00

Estimated Total Project Cost (including 20% local match): \$ 6,920.00

Estimated Completion Date: 11/30/2016

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: _____

Title: Town Manager



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

Project Budget attached.

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

Town will provide labor, equipment and materials

Requested Grant Amount (\$20,000 max Category B, \$40,000 max Categories C & D): 5536⁰⁰

Estimated Total Project Cost (including 20% local match): 6920⁰⁰

Estimated Completion Date: 11/30/16

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.
- N/A* 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: _____

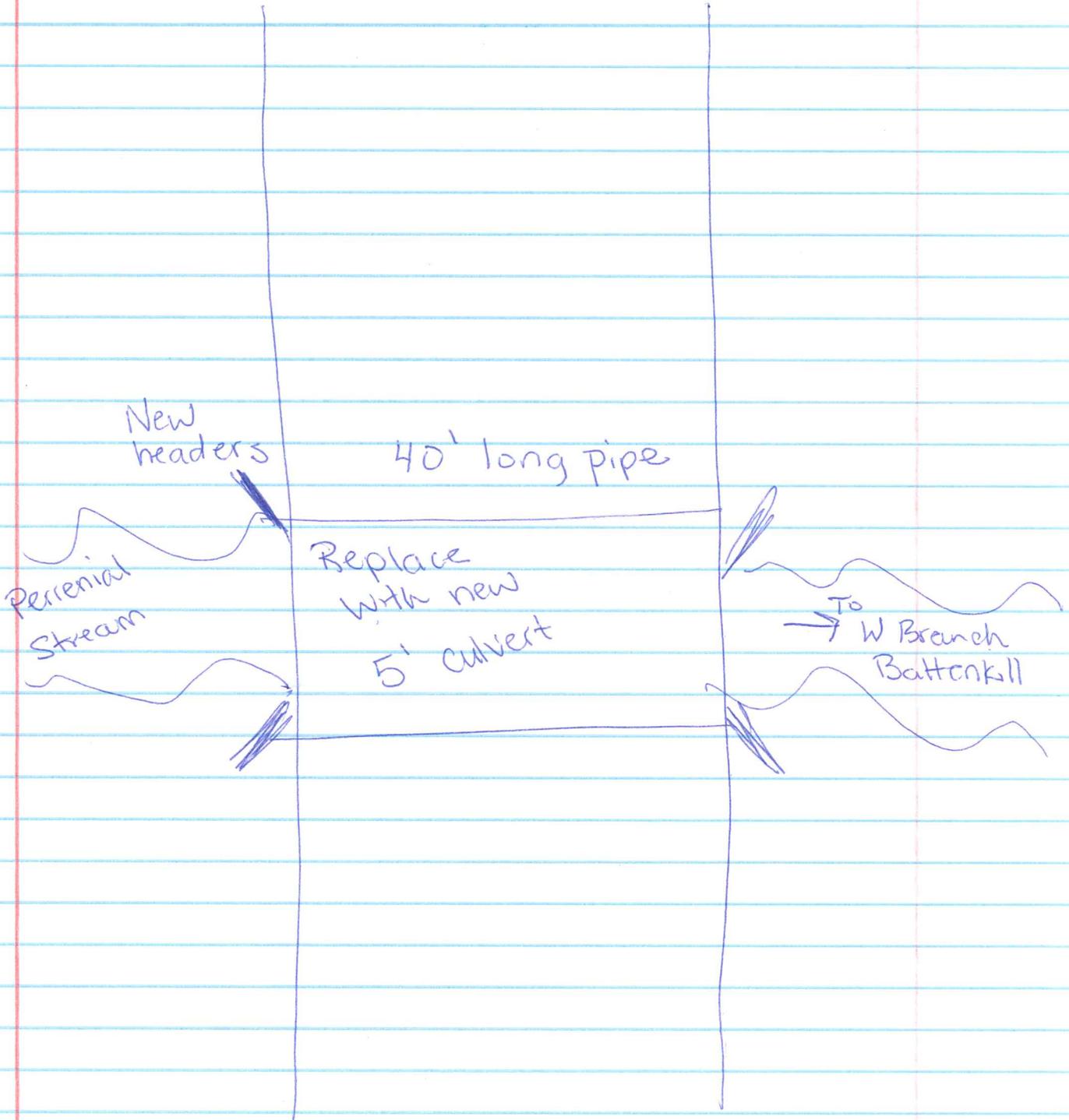
Title: Town Manager



Cost Estimate Worksheet
 Town and Road Name: **Three Maple Drive**

Project Name: **Three Maple Drive**

Labor	Rate	# Hours	Total (Rate x Hours)
Four DPW Employees	30.00	32	960.00
Labor Total			960.00
Equipment	Rate	# Hours	Total (Rate x Hours)
Excavator	100.00	8	800.00
Dump Truck	70.00	8	560.00
Equipment Total			1360.00
Materials	Rate	Amount	Total (Rate x Amount)
Stone	15 / Cu. Yd.	40 Cu. Yd.	600.00
Gravel	15 / Cu. Yd.	40 Cu Yd.	600.00
Culvert ' 5' diameter	75/ft	40 ft	3000.00
Materials Total			4200.00
Miscellaneous	Rate	Amount	Total (Rate x Hours)
ANR Permit		200.00	200.00
Hardware - Misc.		200.00	200.00
Miscellaneous Total			400.00
Grand Total			6920.00
Match			1384.00



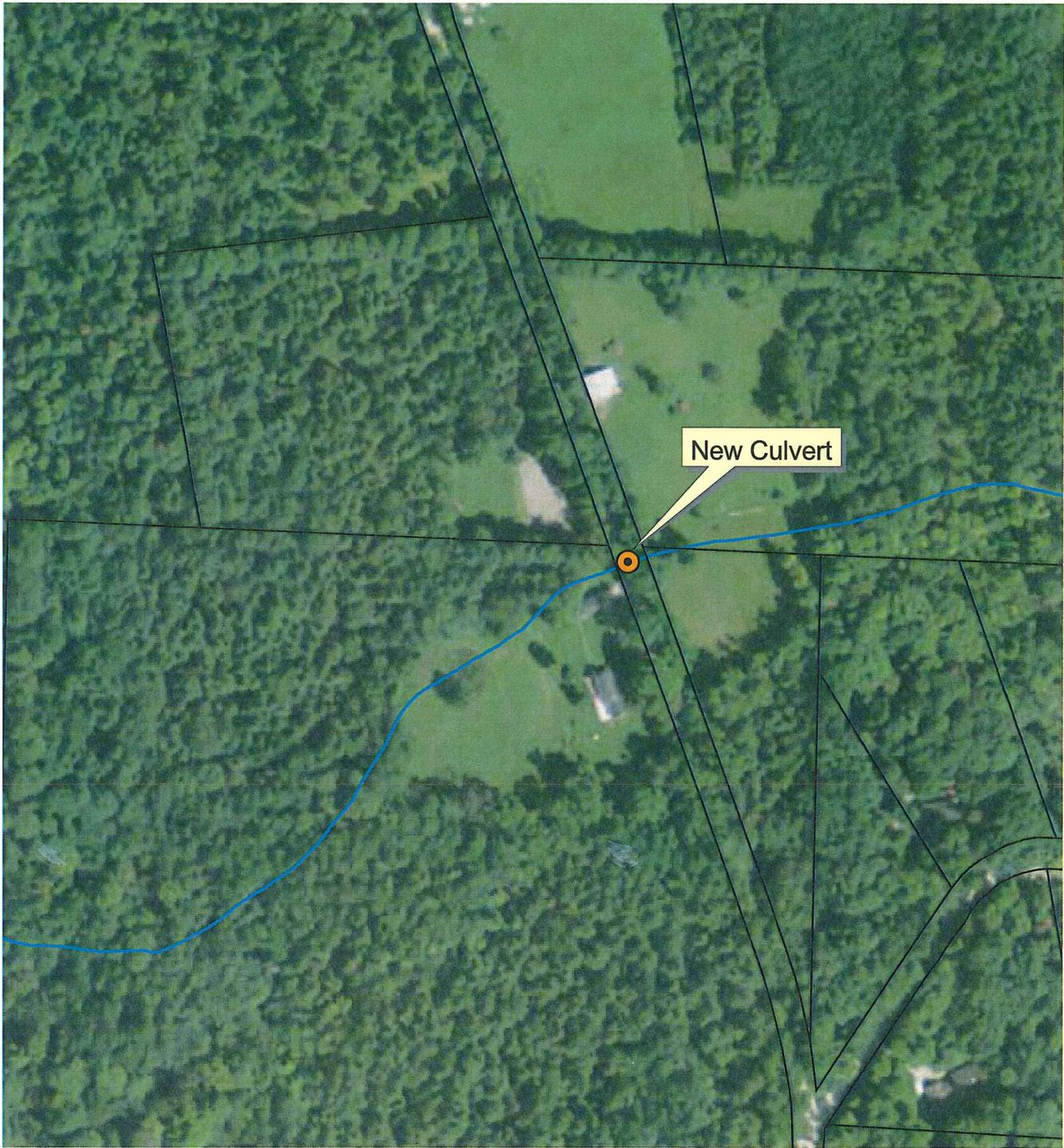
New headers

40' long pipe

Perennial Stream

Replace with new 5' culvert

To W Branch Battankill



**Three Maple Drive
2017 Better Road Grant Proposal
Manchester, Vermont**

 Parcel Lines





13





PERRA, LESLIE <l.perra@manchester-vt.gov>

Fwd: Manchester_Three Maple Drive

1 message

Jeff Williams <j.williams@manchester-vt.gov>
To: Leslie Perra <l.perra@manchester-vt.gov>

Mon, Apr 11, 2016 at 10:07 AM

Sent from my iPhone

Begin forwarded message:

From: "Carvajal, Joshua" <Joshua.Carvajal@vermont.gov>
Date: April 3, 2016 at 4:00:50 PM EDT
To: "WILLIAMS, JEFF" <j.williams@manchester-vt.gov>
Cc: Jim Henderson <jhenderson@bcrcvt.org>
Subject: Re: Manchester_Three Maple Drive

I recommend you request a hydraulics report for this structure so that there is documentation that Vtrans evaluated and sized the structure using their methodology. You might want to include the structure immediately to the south too (newer 24" HPDE).

The email sent on 3/29 should be used for the Better Roads grant application as evidence we discussed this project.

Josh

From: Carvajal, Joshua
Sent: Sunday, April 3, 2016 9:53 AM
To: WILLIAMS, JEFF
Cc: Jim Henderson
Subject: Re: Manchester_Three Maple Drive

Jeff,

As we discussed, the bankfull width measured at 5ft so an arch pipe will be good

to use at this crossing. After reviewing the hydraulic capacities, the closest equivalent waterway opening is 71" X 47" (12 gage).

Josh

From: Carvajal, Joshua
Sent: Tuesday, March 29, 2016 11:58 PM
To: WILLIAMS, JEFF
Cc: Jim Henderson
Subject: Manchester_Three Maple Drive

Hi Jeff,

This drainage area is slightly under 0.5 square miles which is larger than I expected. Based on the drainage area I am calculating a 6ft width for the stream channel but I'll stop by the site tomorrow to check further upstream and downstream. I'd like to double check this width before giving you a final pipe size.

For a 6ft width you should use a CMP arch with dimensions of 71" x 47" (a little bit bigger than the 24"!). There will need to be bed retention sills (6" metal weirs) included on the pipe sections. This larger pipe size would also drop the water level in the upstream ponded area so plan to include some stone armoring placed in the lowered channel both upstream and downstream from the new pipe.

This project will need a stream alteration permit, though you can wait until May/June to see if grant funds are awarded before submitting that application and fee - www.anr.state.vt.us/dec/waterq/rivers/docs/SA/Stream%20Alt%20Application_11052015.pdf

Josh Carvajal, P.E. CFM

Rivers Program

Agency of Natural Resources

Department of Environmental Conservation

cell: (802) 490-6163

www.watershedmanagement.vt.gov/rivers.htm

floodready.vermont.gov

Our email addresses have changed (@vermont.gov)

NEW: joshua.carvajal@vermont.gov

Please update your address book!



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 Manchester's proposal for funding through the Vermont Better Roads Grant Program to produce a road and culvert inventory with a capital budget and replace/upgrade culverts on Richville Road, River Road and Three Maple Drive. The last Manchester road and culvert inventory was produced in 2006 and lacks most of the attribution required by VT CULVERTS. BCRC will produce the road and culvert inventory using state protocols and prioritize high erosion sites. The Town of Manchester Highway Department and Select Board will develop the Capital Budget based on BCRC's inventory.

BCRC staff have visited the culvert replacement sites with Jeff Williams, Manchester Road Foreman. All these culverts are in the Batten Kill watershed and are in deteriorated conditions.

Thank you for your consideration of these important projects.

Sincerely,

Jim Henderson
Environmental Program Manager