

2

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 Londonderry

Project Name: Haven Hill Road

Road Name: Haven Hill Road TH #: 43 Structure # (if applicable): _____

Road Type: Paved or Unpaved (circle one) Curbed or Uncurbed (circle one)
Class 1 Class 2 Class 3 Class 4 (circle one)

Watershed: West River

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

Steep grade greater than 5% that should be stone lined according to Codes and Standards.

This project area does not show up as a high risk on the Road Erosion Risk Ranking Map, however as we know this map has not been field verified yet. As photos included will show, there is a seasonal stream that runs paralel with the road.

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):

Stone lining ditch that was reshaped last year. The project area is .3 of a mile long. We would use Town equipment and staff to do the work.

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

Erosion would be eliminated we would end up with less silt plugging culverts or ending up in a seasonal stream.

Distance from end of project to nearest water (stream, lake, or stormwater system that outlets directly to water). Please circle one: 0-50' 50-250' 250'+

Progress to Date:

Trees have been cut, ditch has been formed, stone check dams installed and seed & mulch applied as a temporary erosion control measure.

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

Please list any professionals you may have contacted for assistance with this project (ANR River Management Engineer, Army Corps of Engineers, VT Trans District Technical staff, Basin Planner etc.):

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: see attached

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

The town equipment and man power

Requested Grant Amount (\$20,000 max Category B, \$40,000 max Categories C & D): \$10,941.94

Estimated Total Project Cost (including 20% local match): \$2,188.39.

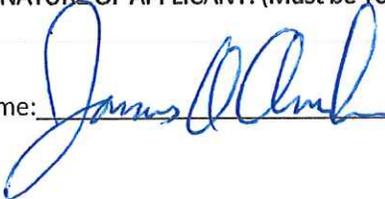
Estimated Completion Date: September 15, 2016

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: 

April 10,2016

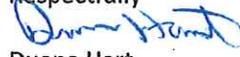
To the Better Road Selection Committee,

This stone line ditching project is a small piece of a 5 year plan to upgrade Haven Hill Road. This road for several years has been one of our muddiest roads during mud season and the Town has spent a considerable amount of money in the past doing quick "fixes". Last year, we cut a considerable amount of trees out of the right of way allowing us to ditch and slope banks properly. Our plan this year in addition to the stone line ditching will be to change out existing metal culverts to plastic, strip 12" of material off the road and place road fabric over .3 of a mile. Replace with 6" of 3"crushed gravel and 6 inches of $\frac{3}{4}$ " crushed sur pack.

We plan to treat .3 of a mile annually for the next 5 years to complete this road. Future road segments will include culvert replacement, underdrain where necessary, ditching, install road fabric, and the same gravel application as stated above.

We thank you for your consideration of this project.

Respectfully

 ROAD FOREMAN
Duane Hart



Natural Resources Atlas
Vermont Agency of Natural Resources

vermont.gov



1: 2,039
April 8, 2016



104.0
0 52.00 104.0 Meters
WGS_1984_Web_Mercator_Auxiliary_Sphere
© Vermont Agency of Natural Resources
1" = 170 Ft 1cm = 20 Meters
THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

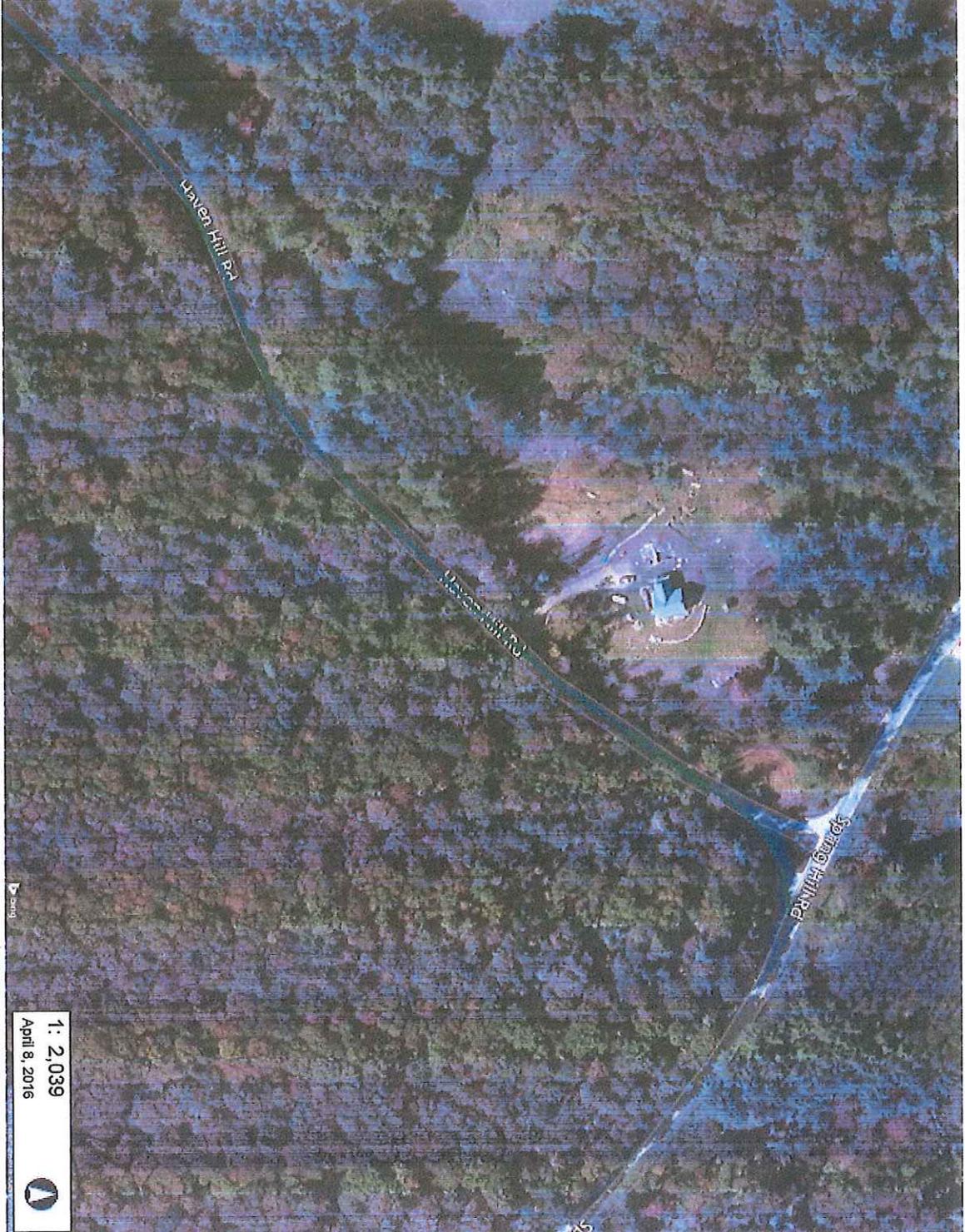


LEGEND

Town Boundary

NOTES

Map created using ANR's Natural Resources Atlas



1: 2,039
April 8, 2016

104.0 0 52.00 104.0 Meters
WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 170 Ft. 1cm = 20 Meters
© Vermont Agency of Natural Resources THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.



LEGEND

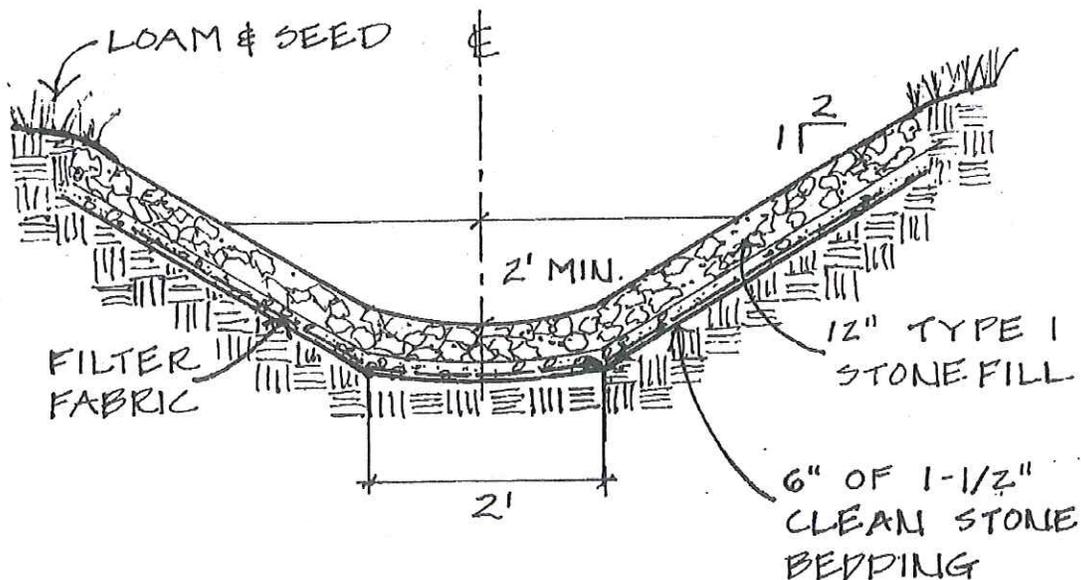
- Low Risk, 0.5 - 4
- Moderate Risk, 4.5 - 6
- High Risk, >= 6.5
- Town Boundary

NOTES

Map created using ANR's Natural Resources Atlas

DITCHES

- Size ditches so they are large enough to handle runoff from the drainage area.
- The preferred equipment for creating ditches is a rubber-tired excavator with an articulated bucket.
- Line ditches which have a less than 5% slope with grass in order to filter sediments. Use mulch or erosion control blankets to hold seed in place and allow it to become established.
- Line ditches which have a greater than 5% slope with riprap.
- Line ditches as soon as possible to prevent erosion and to maintain the ditch profile.
- Ditches should deposit water away from the road and prevent standing water, which can weaken the road.
- Outlet ditches into vegetated areas, where possible.
- Vegetated ditches installed after September 15th should be stabilized with either erosion control blankets or hydroseeding to provide adequate protection for winter.



STONE LINED DITCH

DITCHES

TABLE 1: DITCH LININGS		
Channel Slope	Lining	Thickness
0-5%	grass	
5-10%	R#3 (2 - 6 inch) diameter rock	7.5"
> 10%	R#4 (3-12 inch) diameter rock	12"

Cleaning & Maintenance:

- Clean ditches when they become clogged with sediments or debris to prevent overflows and washouts.
- Check ditches after major storm events as they may have obstructions, erosion, or collapsed banks.
- Regrade ditches only when absolutely necessary and line with vegetation or stone as soon as possible.
- Preventing erosion from uphill or on backslopes can lengthen the time needed between ditch cleanings.

Economic advantages of maintaining a properly constructed ditch estimated over a 20 year period are:

\$36,000/mile/20 years for an improperly constructed ditch
\$26,000/mile/20 years for a properly constructed ditch

\$10,000/mile/20 years
SAVINGS FOR INSTALLING A PROPER DITCH

This amount can be increased by **\$5,000/mile/20 years** if an excavator is used instead of a backhoe

Everett Hammond
Director of Public Works
Rockingham, VT



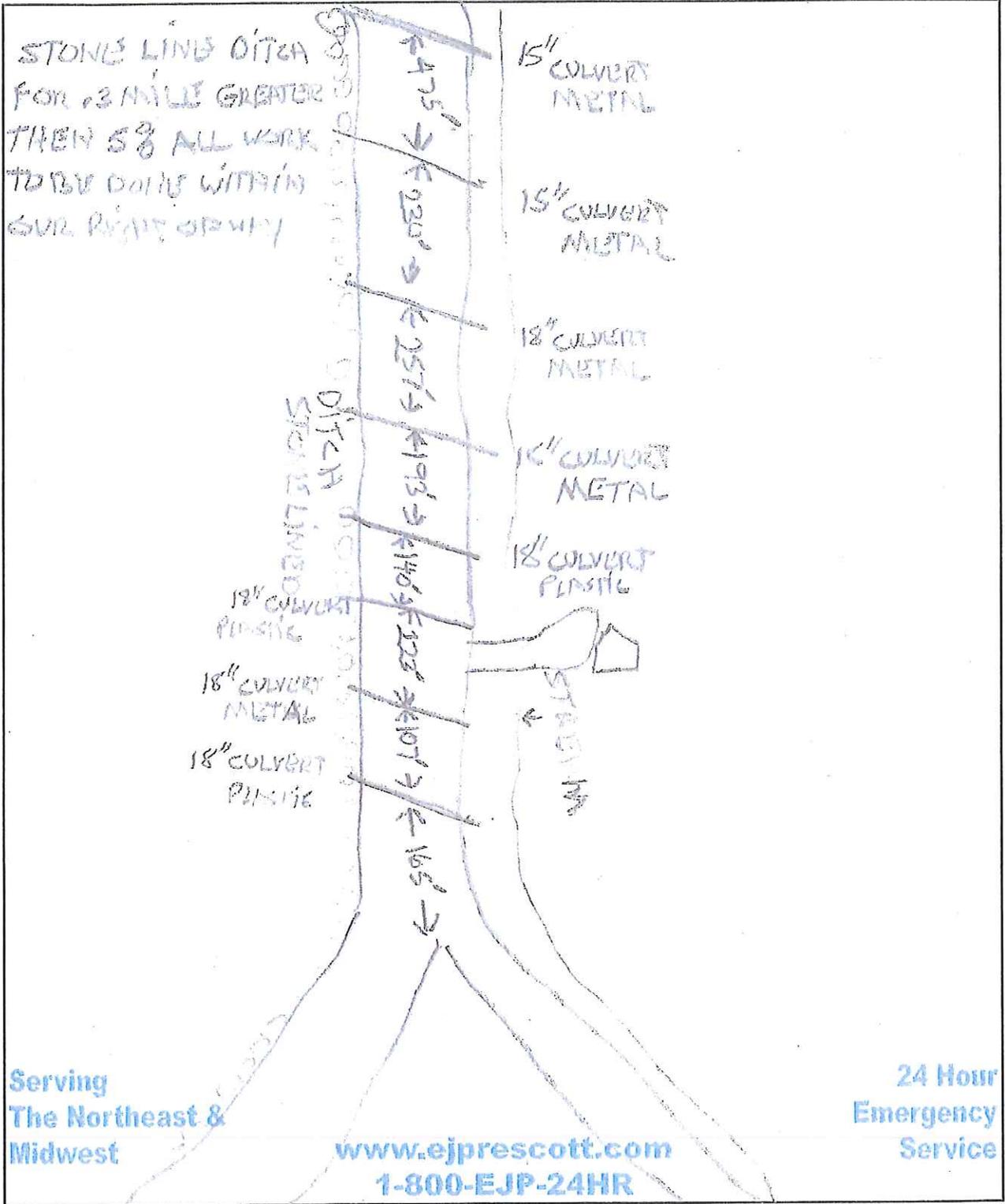
WATER • WASTEWATER • STORMWATER
SOLUTIONS

JOB _____

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

SCALE _____



Serving
The Northeast &
Midwest

www.ejprescott.com
1-800-EJP-24HR

24 Hour
Emergency
Service



