

Vermont Department of Environmental Conservation

Watershed Management Division
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Agency of Natural Resources

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AUTHORIZATION TO CONDUCT STREAM ALTERATION ACTIVITIES

Pursuant to Section C.2.3.2.(c)ii of the VT Stream Alteration General Permit (Reporting activities requiring an application)

Project Number: **SA-05-041-2015 Athens VanKuren Bridge** Access driveway on Lot 270 Route 35 to Lot 272
Applicant Name: Renee C. VanKuren House Lot at 272 Route 35 Contact: Renee VanKuren
Mailing Address: Renee VanKuren, PO Box 53, Grafton, VT 05146 Phone: (518) 861-6980
Project Location: Access Drive over unnamed tributary to Athens Brook Email: rvankure@gmail.com

The Secretary of the Vermont Agency of Natural Resources (VT ANR) has determined that:


1. This project authorizes the new installation of a 15' span bridge to access the proposed house at 272 Route 35 on an easement across the existing Vietzke house lot at 270 Route 35. The bridge abutments shall be protected from channel scour using Type E1 stone or larger in the attached VT SRMPP Appendix M Stone Sizing guidance document.
2. The proposed activity is eligible for coverage under the VT ANR Stream Alteration General Permit.
3. The proposed activity will meet the terms and conditions of the General Permit provided:
 - a) The project will be completed and approved as shown on the attached undated plans and notes, prepared by Renee VanKuren, and approved by the VT ANR using Type E1 stone or larger for abutment scour protection.
 - b) The project will not adversely affect the public safety by increasing flood hazards.
 - c) The project will not significantly damage fish life or wildlife.
 - d) The project will not significantly damage the rights of riparian owners.
 - e) The project will not obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.
 - f) The project is conducted in a manner which minimizes or avoids any discharge of sediment or other pollutants to surface waters in violation of the VT Water Quality Standards.
 - g) The ANR River Management Engineer is notified by phone or email prior to when construction begins and when the project is complete.
 - h) In-stream working dates for all GP activities are from July 1st through October 1st; any in-stream work outside these dates will require an Individual Stream Alteration Permit authorization by the River Management Engineer.
 - i) This authorization has been posted for ten days public comment. This authorization constitutes final approval.

If there are any changes in the project plan or deviation in construction from the plan, the Permittee must notify the River Management Engineer immediately.

If the project is constructed as you have described, as shown on the above referenced approved plans and according to the above conditions, there is no reason to expect any violation of Vermont Water Quality Standards.

Signed this 13th day of May, 2016
Alyssa B. Schuren, Commissioner
Department of Environmental Conservation

This permit expires October 1, 2016.

by 

Todd Menees, P.E., P.H., River Management Engineer

Streambed Stone Fill Design Guidance

Type	Velocity Range (fps)*	Embeddedness (in)
E1	$V \leq 9$	18
E2	$9 < V \leq 11$	24
E3	$11 < V \leq 13$	36
E4	$13 < V \leq 15$	48

*Maximum velocity should be based on a minimum 50-year design flow rate and calculated at the structure outlet.

Item xxx.xxx CY Streambed Stone Fill Specification

Type E1. The longest dimension of the stone shall be at least 18 inches, and at least 50 percent of the volume of the stone in place shall have a least dimension of 12 inches, and at least 25 percent of the particles shall have a maximum dimension of 2 inches and be well graded material.

Type E2. The longest dimension of the stone shall be at least 24 inches, and at least 50 percent of the volume of the stone in place shall have a least dimension of 18 inches, and at least 25 percent of the particles shall have a maximum dimension of 2 inches and be well graded material.

Type E3. The longest dimension of the stone shall be at least 36 inches, and at least 50 percent of the volume of the stone in place shall have a least dimension of 24 inches, and at least 25 percent of the particles shall have a maximum dimension of 2 inches and be well graded material.

Type E4. The longest dimension of the stone shall be at least 48 inches, and at least 50 percent of the volume of the stone in place shall have a least dimension of 36 inches, and at least 25 percent of the particles shall have a maximum dimension of 2 inches and be well graded material.

Notes

- The streambed stone fill shall be hard, blasted, angular rock other than serpentine rock containing the fibrous variety chrysotile (asbestos). Similar sized river sediment is an acceptable alternative as is a mixture of angular material and river sediment.
- Stone placed inside of a closed structure shall be placed such that the structure is not damaged.
- Care shall be taken to limit segregation of the materials.
- Add sand borrow item as needed to seal the bed and prevent subsurface flow.
- There shall be no subsurface flow upon final inspection.

VanKuren Permit Bridge Details

Precast concrete abutments measuring 2.5 x 2.5 x 14 feet

5 12" I Beams x 20 feet each

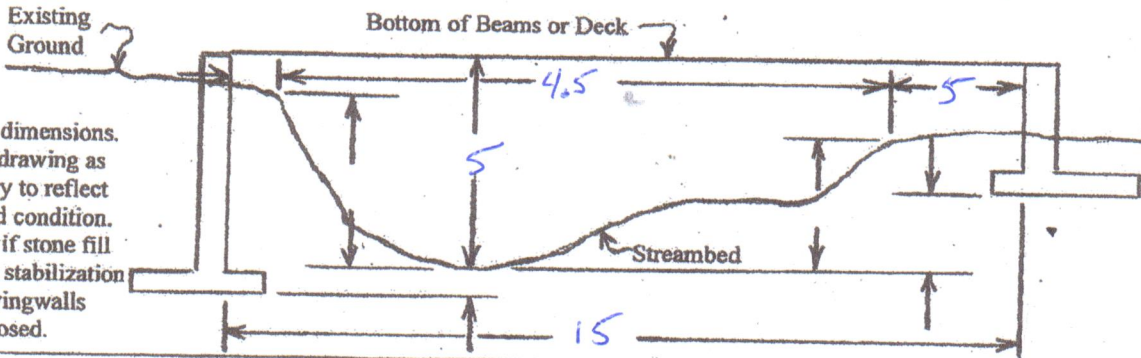
Decking 3 x 6 or 3 x 8 rough cut locust

back filled with stone to level with road surface

BRIDGE TYPICAL CROSS SECTION VIEW FACING DOWNSTREAM

Left Bank

Right Bank

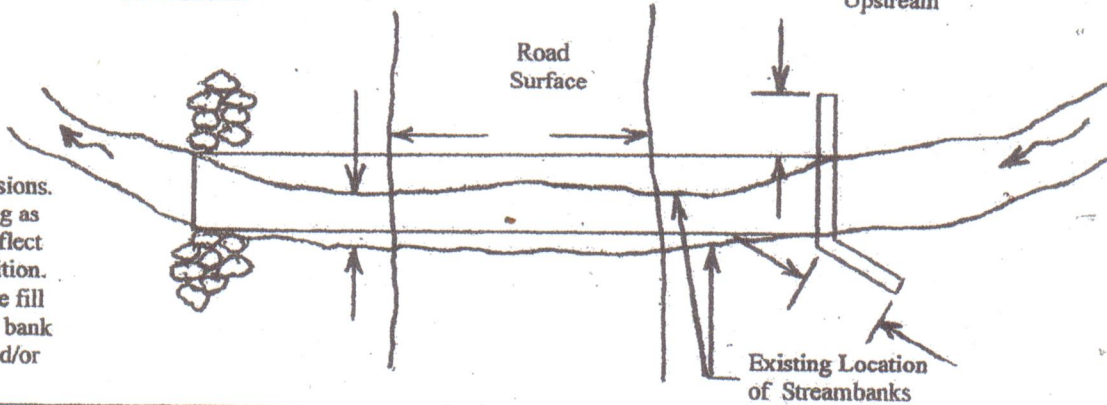


Notes:
 Provide dimensions.
 Modify drawing as necessary to reflect proposed condition.
 Indicate if stone fill or bank stabilization and/or wingwalls are proposed.

BURIED STRUCTURE TYPICAL PLAN VIEW CULVERT, PIPE-ARCH, ARCH, BOX

Downstream

Upstream



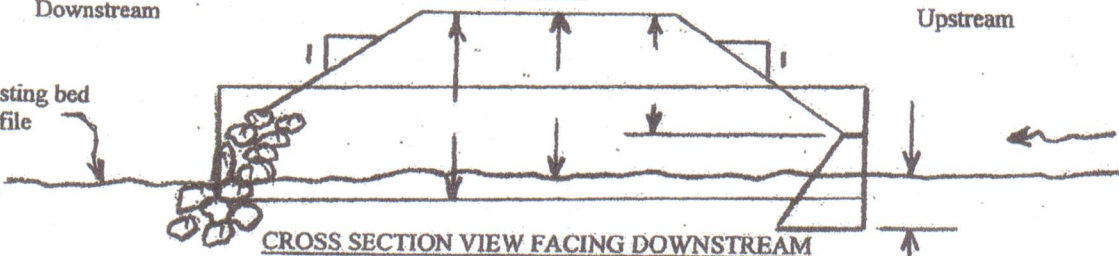
Notes:
 Provide dimensions.
 Modify drawing as necessary to reflect proposed condition.
 Indicate if stone fill or bank stabilization and/or headwalls are proposed.

BURIED STRUCTURE TYPICAL PROFILE AND CROSS SECTION

Downstream

Upstream

Existing bed profile



CROSS SECTION VIEW FACING DOWNSTREAM

Notes:
 Provide dimensions.