

PROJECT REPORT

FAWN HILL WOODLAND VALLEY ROAD STREAM PROJECT- UPDATE 12/14/2010

Project Number: AWSMP_1008T2



Cornell University
Cooperative Extension
Ulster County

Ulster County Soil and Water Conservation District

December 14, 2010

Warner Creek Stream Management Project

1.0 Project Description

The Fawn Hill Site project is primarily a bank stabilization project initiated by the Town of Shandaken to preserve and protect the Woodland Valley Road. The project site is situated on private property owned by Ed Twerdak at 790 Woodland Valley Road, Town of Shandaken New York and 600(ft) below the Fawn Hill Road on the left bank side of Woodland Valley Creek.



The project site had previously been identified has a potential problem by the property owner and by the Town of Shandaken Highway Supervisor, Eric Hofmeister. Eric approached the Ashokan Watershed Stream Management Program (AWSMP) office in September 2009 for possible funding and technical assistance.

The eroding stream bank is approximately 25ft above stream and 80ft long. The bank is composed of fluvial deposits, glacial till and road fill material. The Woodland Valley Road runs adjacent to the bank and portions of the road are approximately 8ft from the edge of the eroding bank. The stream channel at the base of eroding area is primarily a bedrock controlled pool.



Figure 1 Top photo shows undercut road at the top of the failing bank. Bottom photo is an aerial photo of Woodland Valley Creek, project location and proximity to the road.

2.0 Problem Assessment



Figure 2 Visual analysis depicting pool, failing bank and location of Woodland Valley Road.

Primary Objectives:

- Stabilize stream to prevent street deterioration and to protect public infrastructure.

Secondary Objectives:

- Demonstrate the use of bio-engineering to stabilize steep slope
- Maintain pool for habitat and recreation

Current Status

- Cost of project covered at 75% level from a FEMA mitigation fund, AWSMP funds 25% level.
- Overall cost of project approximately \$125,000.
- Completed project installation. Installed 150ft of stacked stone wall and bio-engineered vegetated reinforced soil slope (VRSS).
- Final step scheduled for spring 2011 to plant trees and shrubs on upper slope

2.0 Appedix A: Miscellaneous drawings and photos

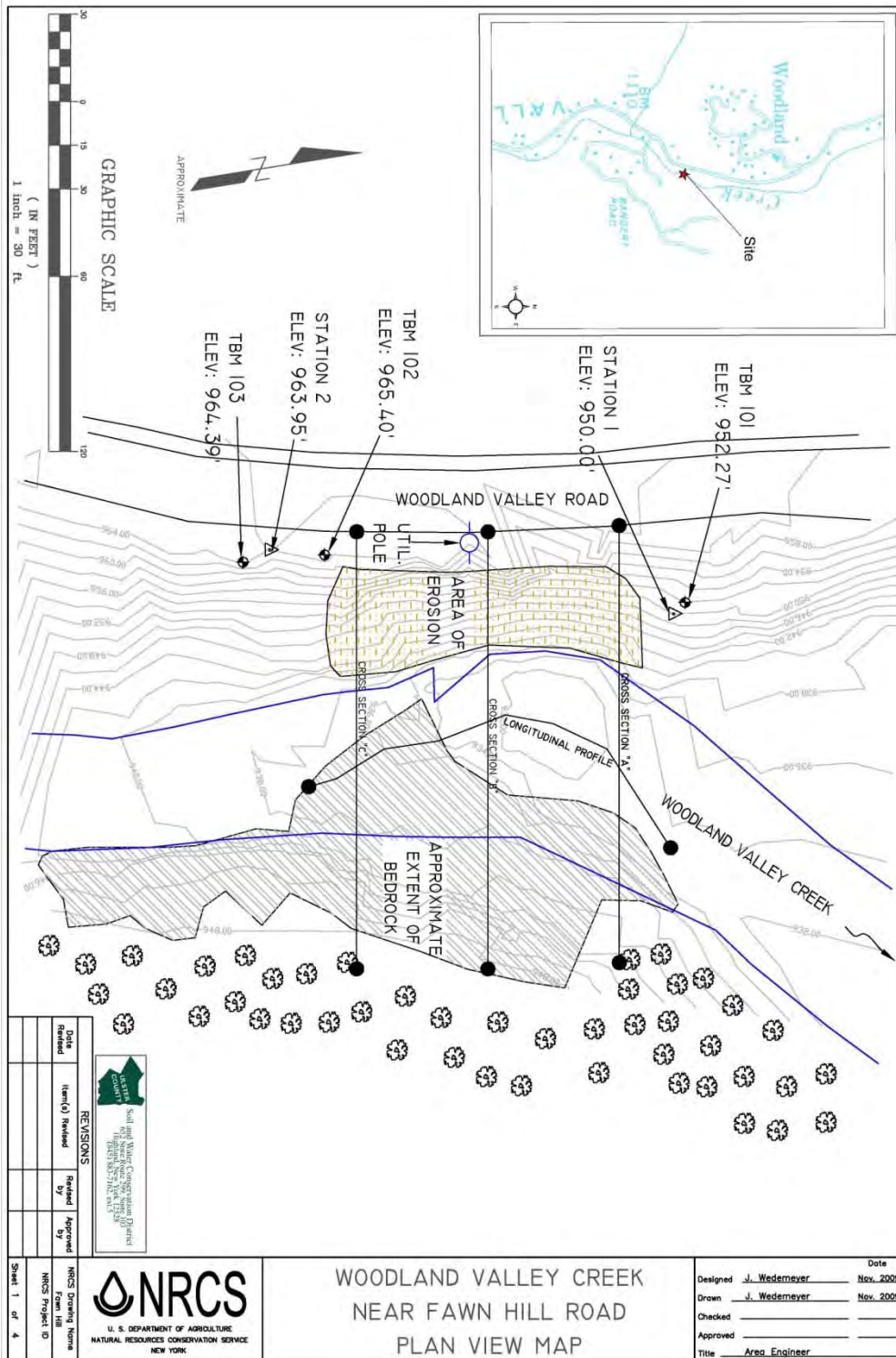


Figure 3 Plan view drawing of survey

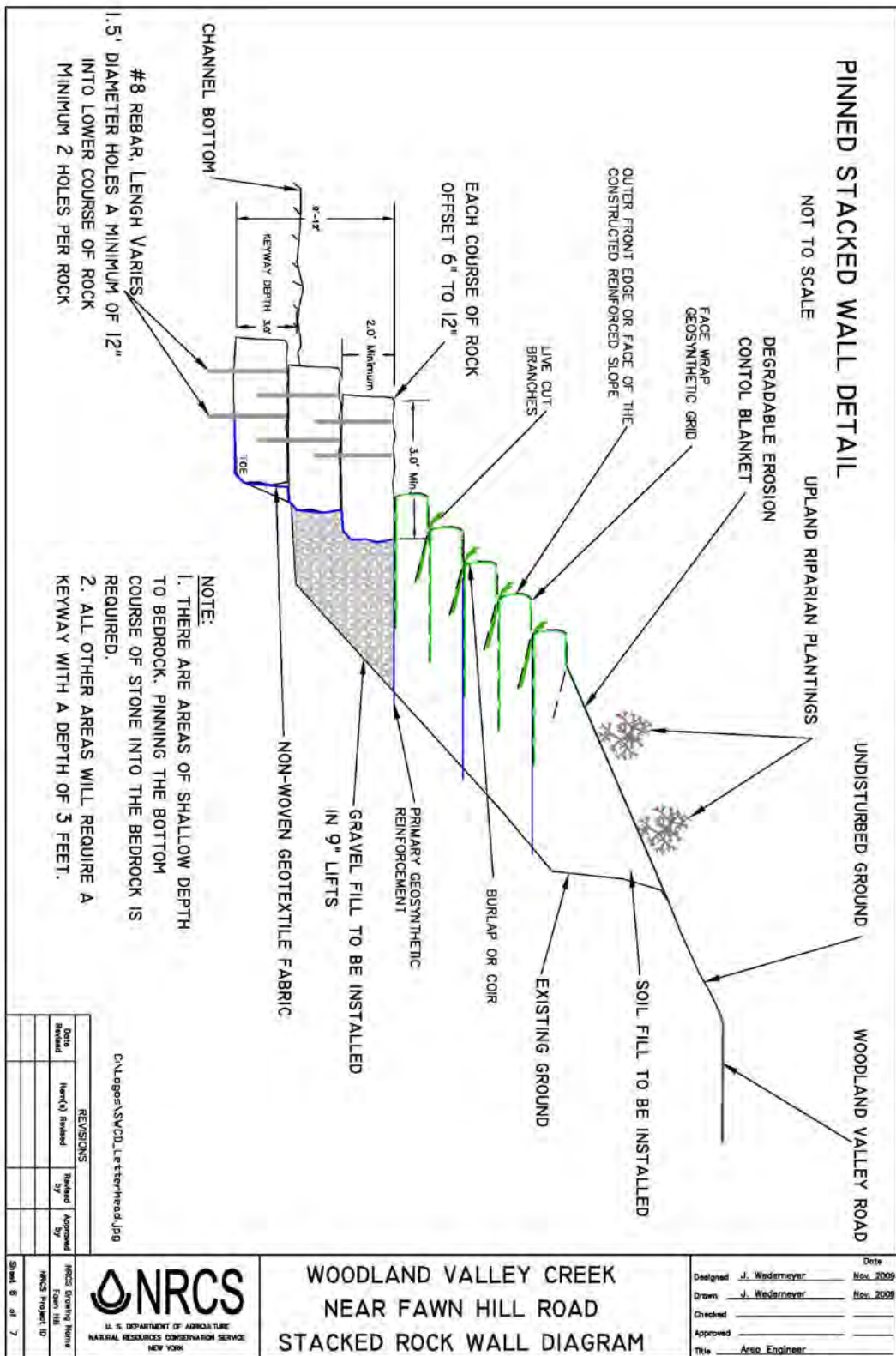


Figure 4 Drawing depicting stacked rock wall and VRSS



Figure 5 Construction of stacked rock wall.



Figure 6 Construction continued 1



Figure 7 Construction continued 2



Figure 8 Construction continued 3



Figure 9 October 1st 2010 flood event approximately one hour after peak stage

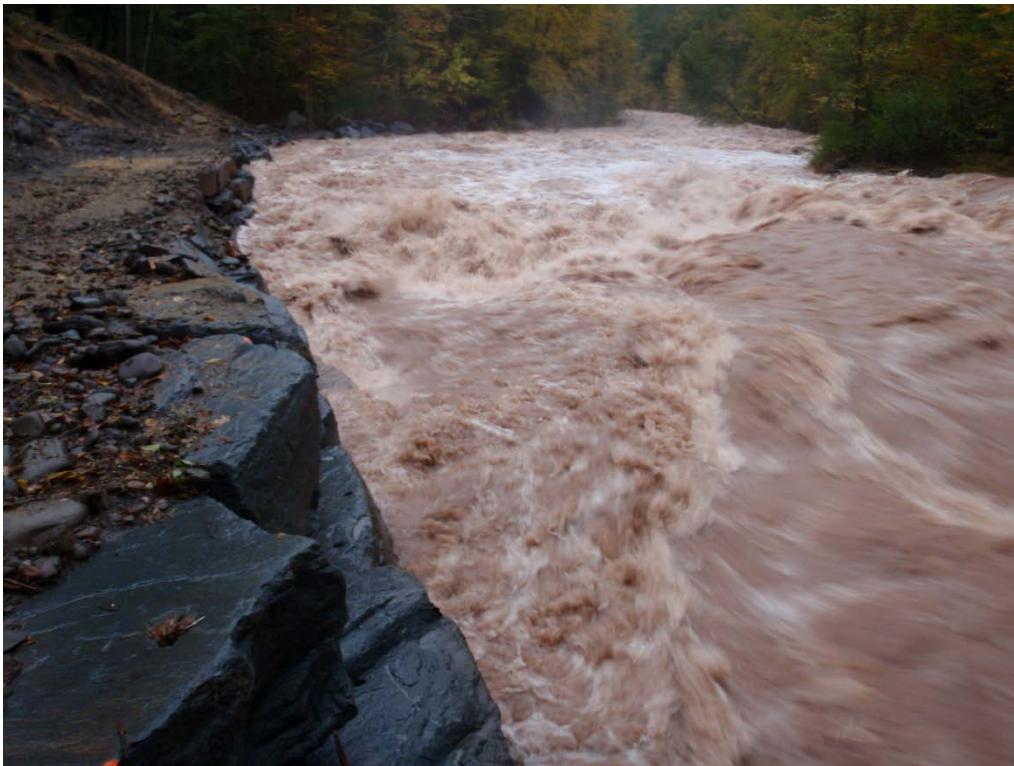


Figure 10 View looking downstream during October 1st 2010 flood event



Figure 11 Construction of VRSS 1



Figure 12 Construction of VRSS 2



Figure 13 Construction of VRSS 3



Figure 14 Application of erosion control matting



Figure 15 Erosion control matting 2



Figure 16 Completed application of erosion control matting



Figure 17 Completed project December 10 2010