

Vermont Department of Environmental Conservation

Watershed Management Division
Springfield Regional Office
100 Mineral Street, Suite 303
Springfield, VT 05156
www.watershedmanagement.vt.gov

Agency of Natural Resources

[phone] 802-885-8855
[fax] 802-885-8890
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AUTHORIZATION TO CONDUCT STREAM ALTERATION ACTIVITIES

Pursuant to Section C.2.2.5 of the VT Stream Alteration General Permit (Reporting Activities Replacement Culverts)

Project Number: **SA-05-008-2016 Andover Plumb Road Culvert**

Applicant Name: Select Board, Town of Andover, Vermont

Contact: Kevin Baker

Mailing Address: Town of Andover, 953 Weston-Andover Rd, Chester, VT 05143

Phone: (802) 875-3247

Project Location: Plumb Road over trib to Andover Branch of Williams River
Email: clerk@vermontel.net

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


1. This project authorizes the replacement of dual 18" culverts with a 6' dia. corrugated metal pipe culvert.
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 plans dated 2/1/16, prepared by Hammond Engineering as approved by the VT ANR as attached herein.
 - 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 when construction begins and when the project is complete.
 - h) In-stream working dates for all GP activities are from June 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 three 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.

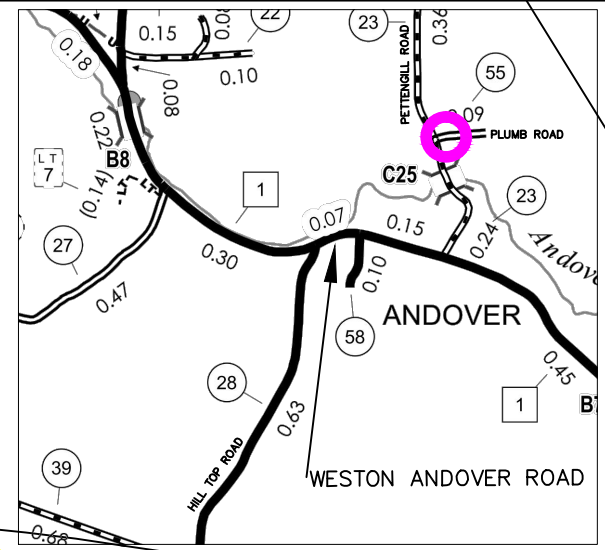
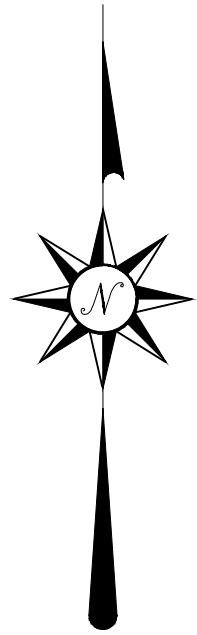
If the project is constructed as you have described, as shown on the above referenced approved plans and according to the above conditions, there is no reason to expect any violation of Vermont Water Quality Standards.

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

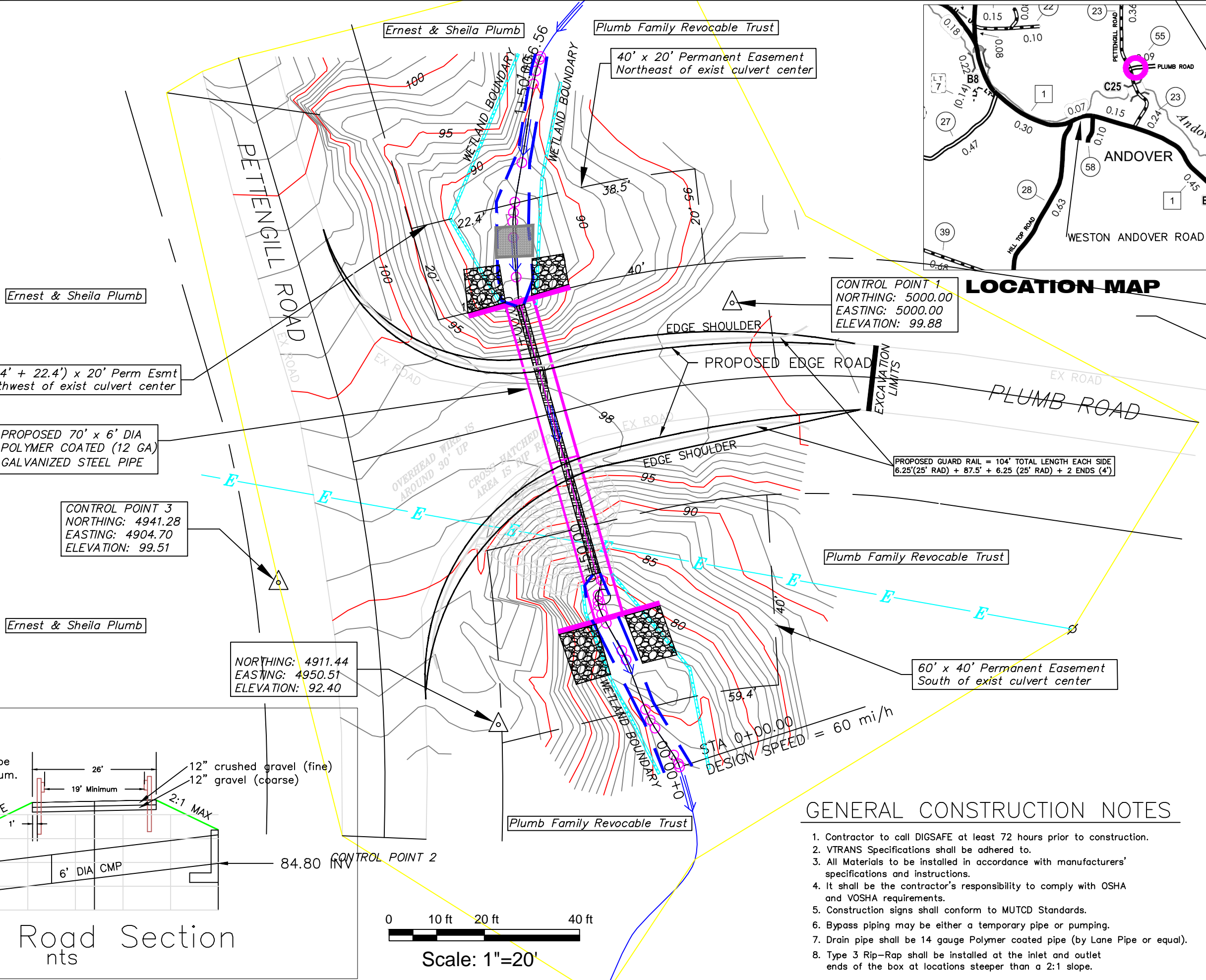
This permit expires October 1, 2016.

by 

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



LOCATION MAP



Ernest & Sheila Plumb

(17.4' + 22.4') x 20' Perm Esmt Northwest of exist culvert center

PROPOSED 70' x 6' DIA POLYMER COATED (12 GA) GALVANIZED STEEL PIPE

CONTROL POINT 3
NORTHING: 4941.28
EASTING: 4904.70
ELEVATION: 99.51

Ernest & Sheila Plumb

NORTHING: 4911.44
EASTING: 4950.51
ELEVATION: 92.40

CONTROL POINT 1
NORTHING: 5000.00
EASTING: 5000.00
ELEVATION: 99.88

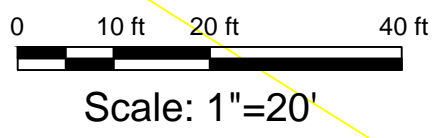
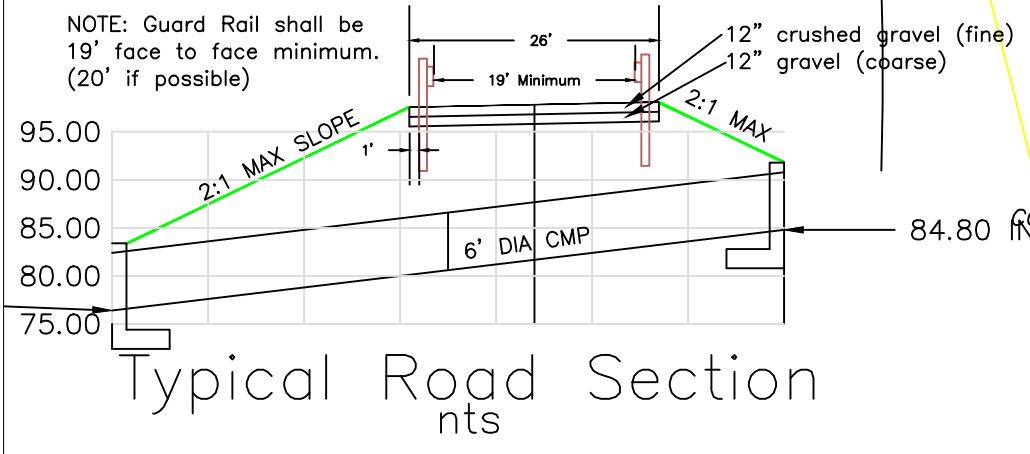
PROPOSED GUARD RAIL = 104' TOTAL LENGTH EACH SIDE
6.25'(25' RAD) + 87.5' + 6.25 (25' RAD) + 2 ENDS (4')

Plumb Family Revocable Trust

60' x 40' Permanent Easement South of exist culvert center

Plumb Family Revocable Trust

STA 0+00.00
DESIGN SPEED = 60 mi/h



GENERAL CONSTRUCTION NOTES

1. Contractor to call DIGSAFE at least 72 hours prior to construction.
2. VTRANS Specifications shall be adhered to.
3. All Materials to be installed in accordance with manufacturers' specifications and instructions.
4. It shall be the contractor's responsibility to comply with OSHA and VOSHA requirements.
5. Construction signs shall conform to MUTCD Standards.
6. Bypass piping may be either a temporary pipe or pumping.
7. Drain pipe shall be 14 gauge Polymer coated pipe (by Lane Pipe or equal).
8. Type 3 Rip-Rap shall be installed at the inlet and outlet ends of the box at locations steeper than a 2:1 slope.

Project No. FEB. 2016	Scale 1"=20'	Date 2/01/2016
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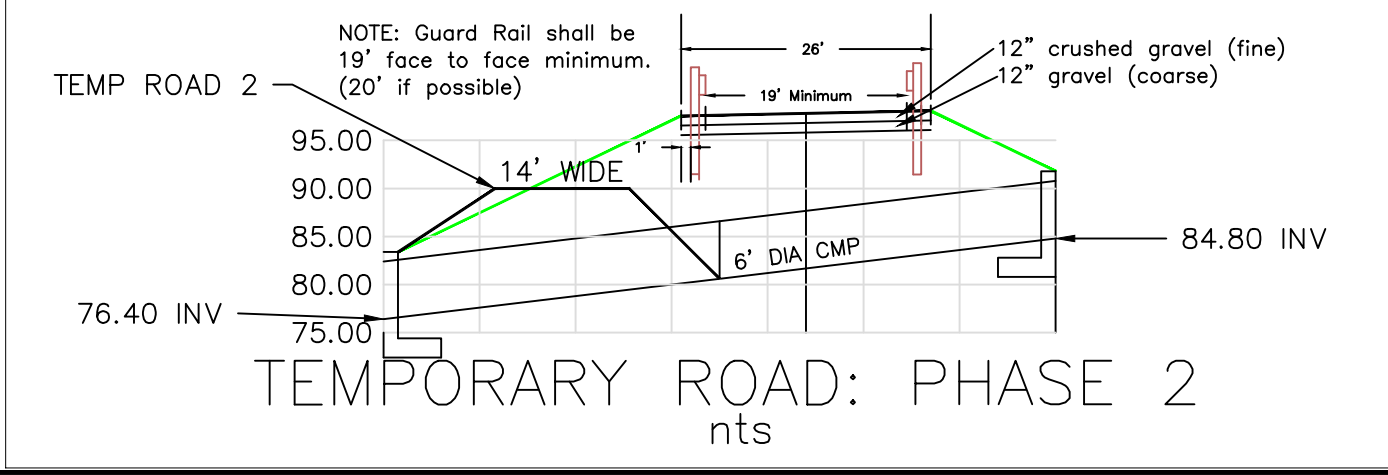
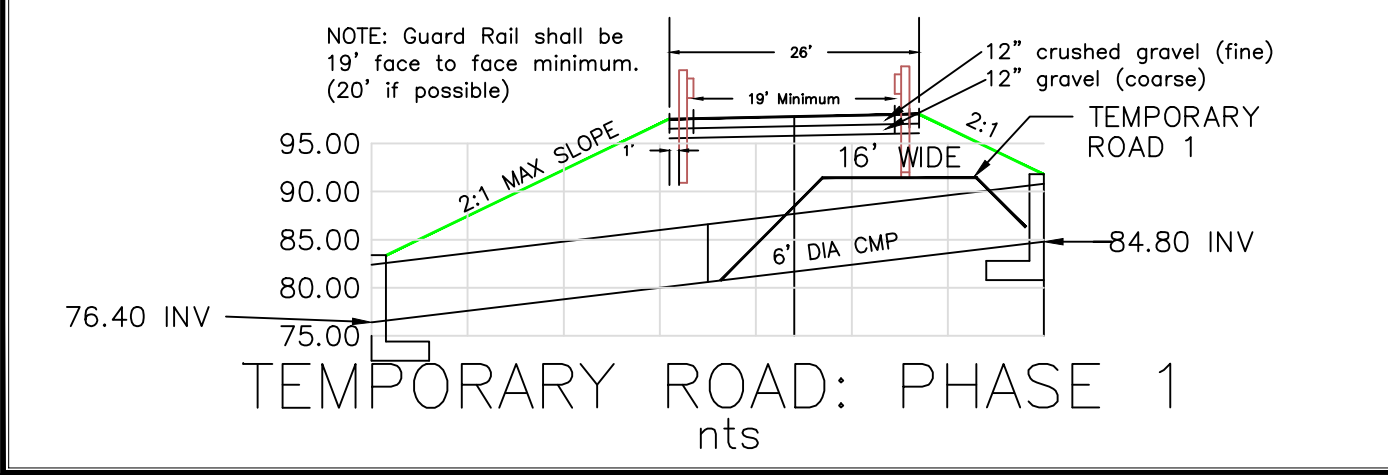
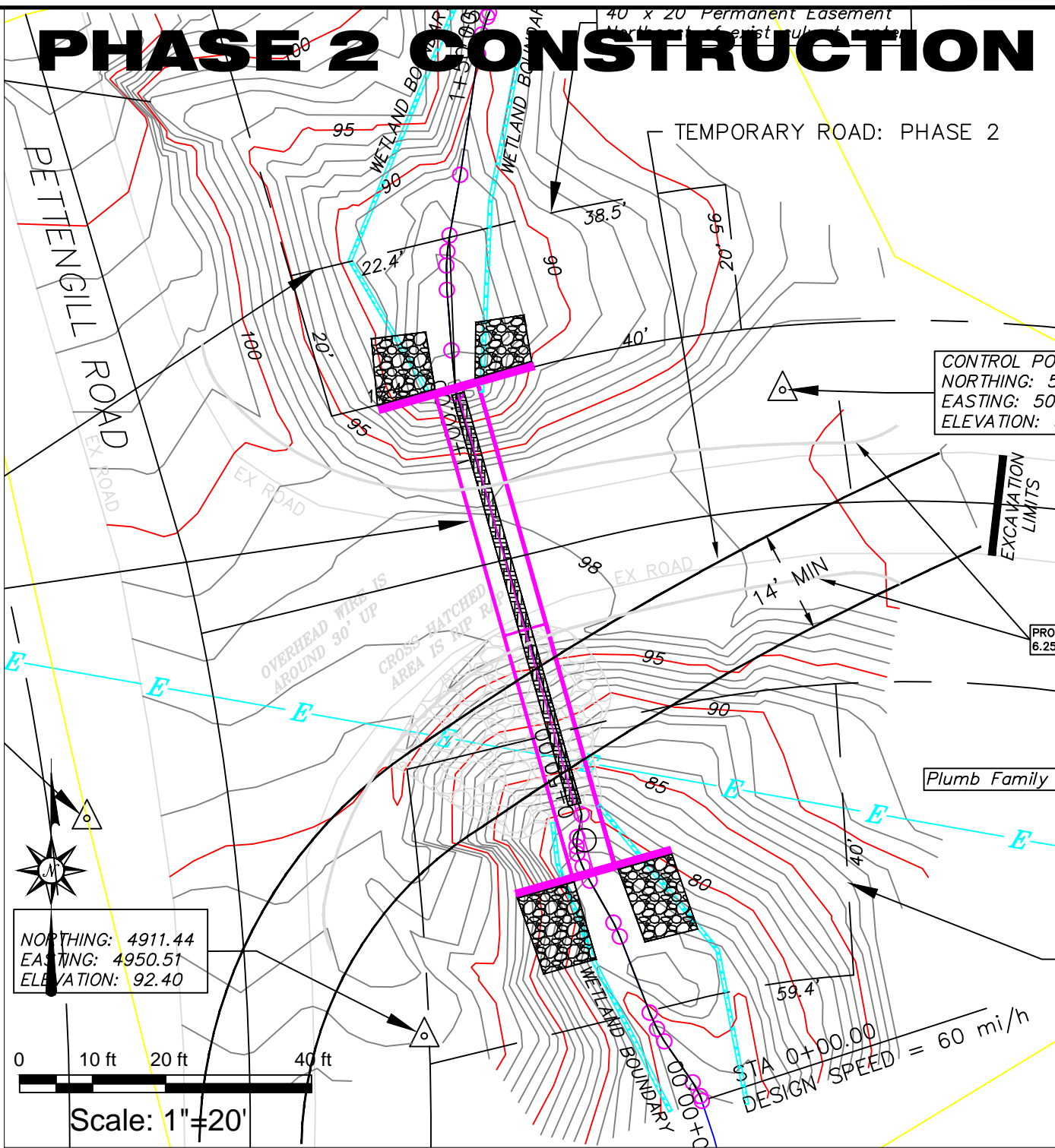
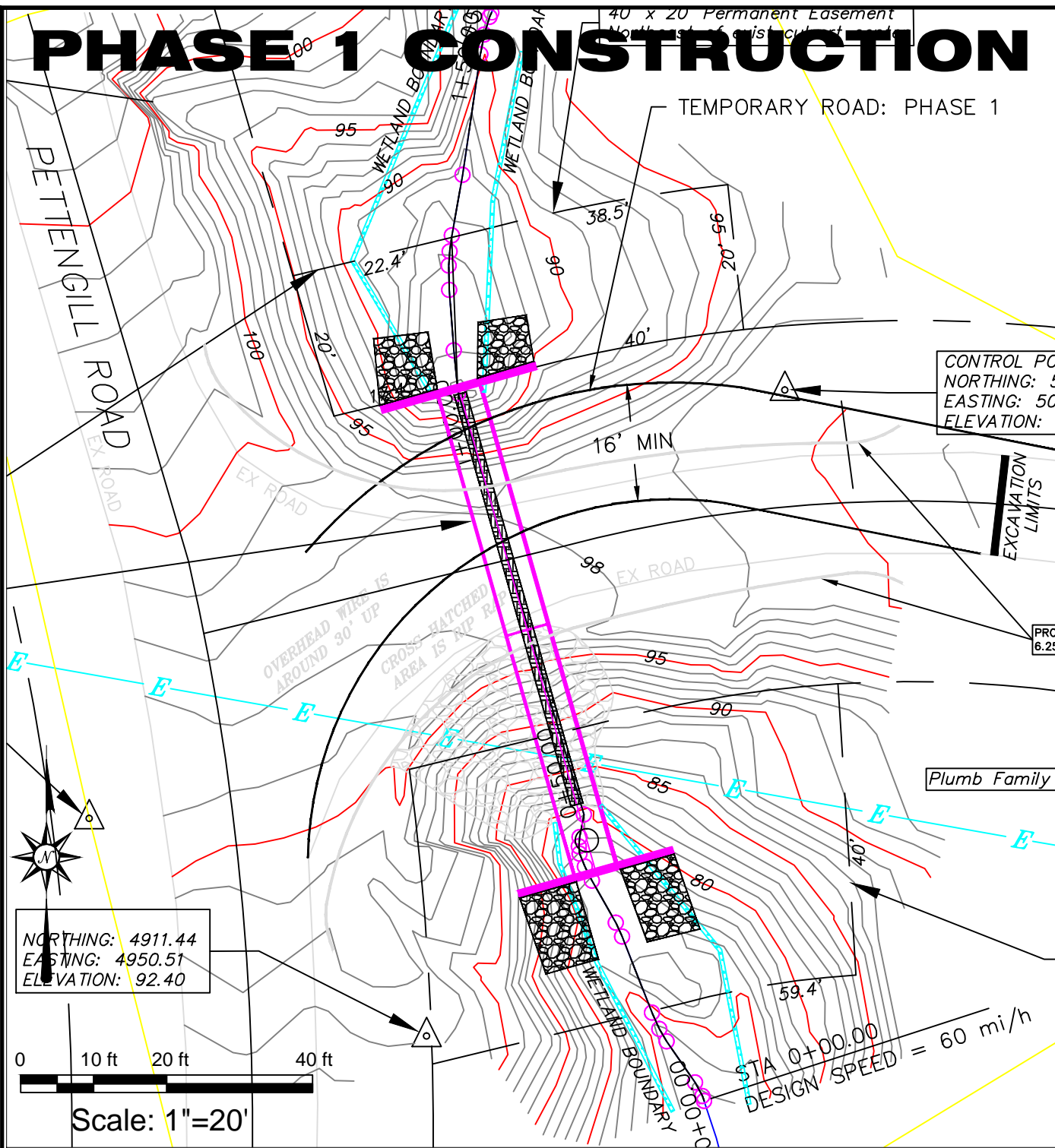
1/5		
Date	Revision	

Town of Andover, VT
953 Weston-Andover Road, Chester, VT 05143
Plumb Road 6' CMP
Site Plan

Hammond Engineering
Everett T. Hammond, PE
5 Lincoln St, Springfield, VT 05156
Phone: (802) 376-0042

PHASE 1 CONSTRUCTION

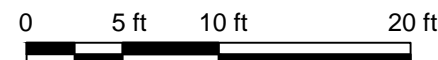
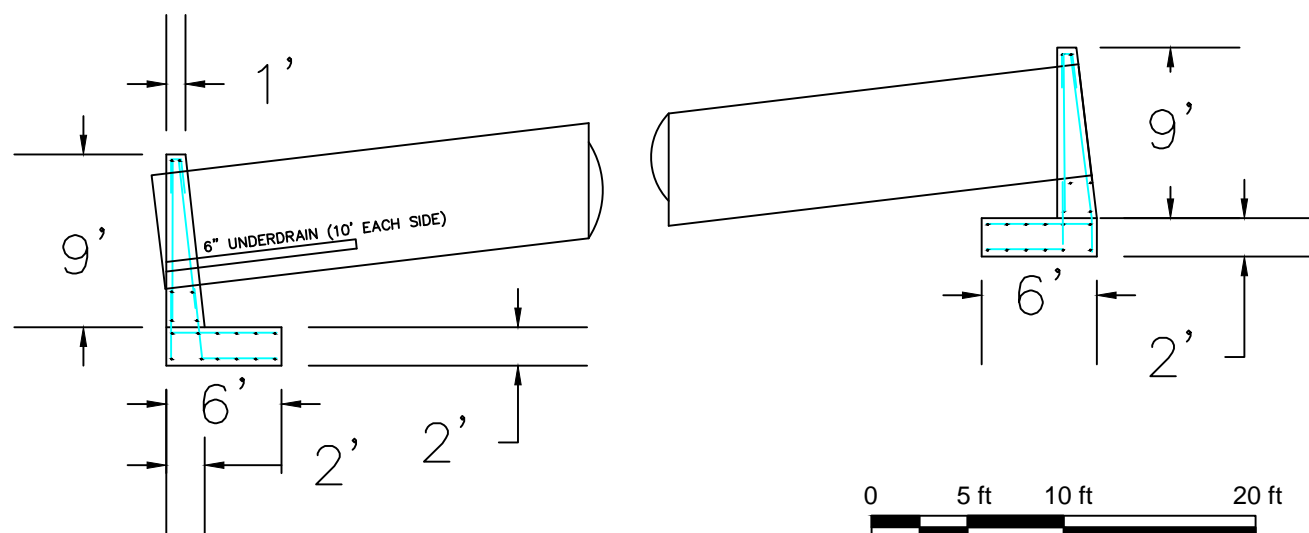
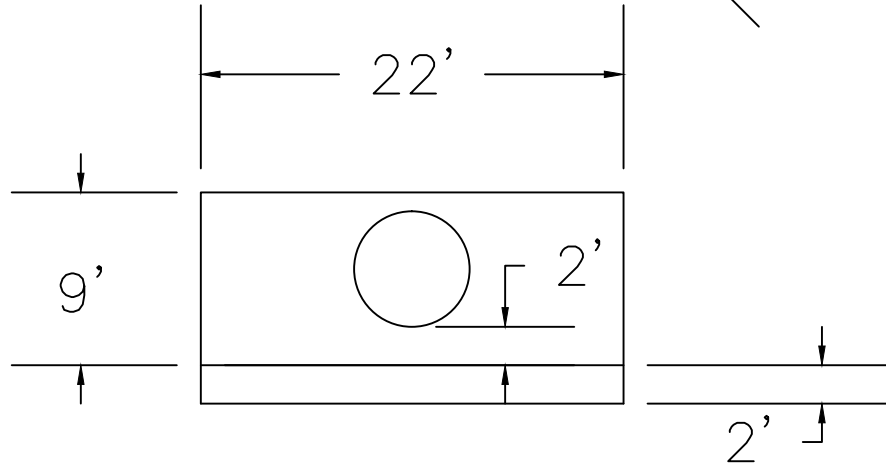
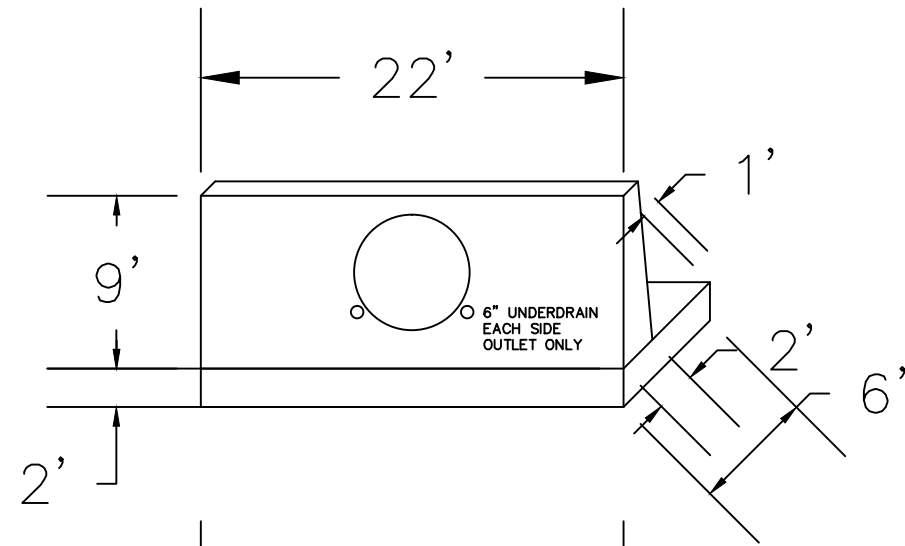
PHASE 2 CONSTRUCTION



Project No. FEB. 2016	Scale 1"=20'	Date 2/01/2016
2/5		
Town of Andover, VT		
953 Weston-Andover Road, Chester, VT 05143		
Plumb Road 6' CMP		
PHASED CONSTRUCTION		
Hammond Engineering	Everett T. Hammond, PE	5 Lincoln St, Springfield, VT 05156
Phone: (802) 376-0042		

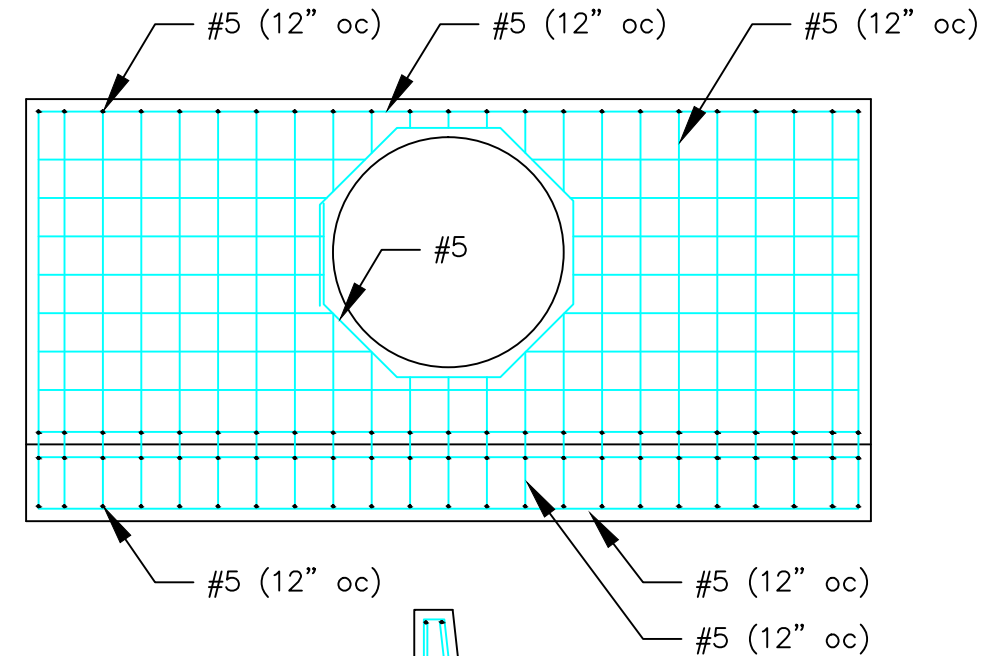
HEADWALL NOTES

1. Assumed allowable load for spread footings:
 - on soil: 4 KSF
 - on ledge: 10 KSF
2. Reinforcing steel grade: 60 ksi
3. Concrete Classification: Vermont Class A
4. Soil unit weight: 140 PSF
5. Assumed footing friction coefficient: 0.55
6. Soil friction angle: 33.67 degrees
7. All exposed edges to be chamfered 1"
8. All rebar shall have a clearance of 3" to face of concrete
9. Construction joint surface shall be rough

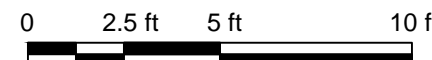


Scale: 1"=10'

HEADWALL DETAILS



CONCRETE QUANTITIES
 BASE: 9.8 CY
 HEADWALL: 9.5 CY



Scale: 1"=5'

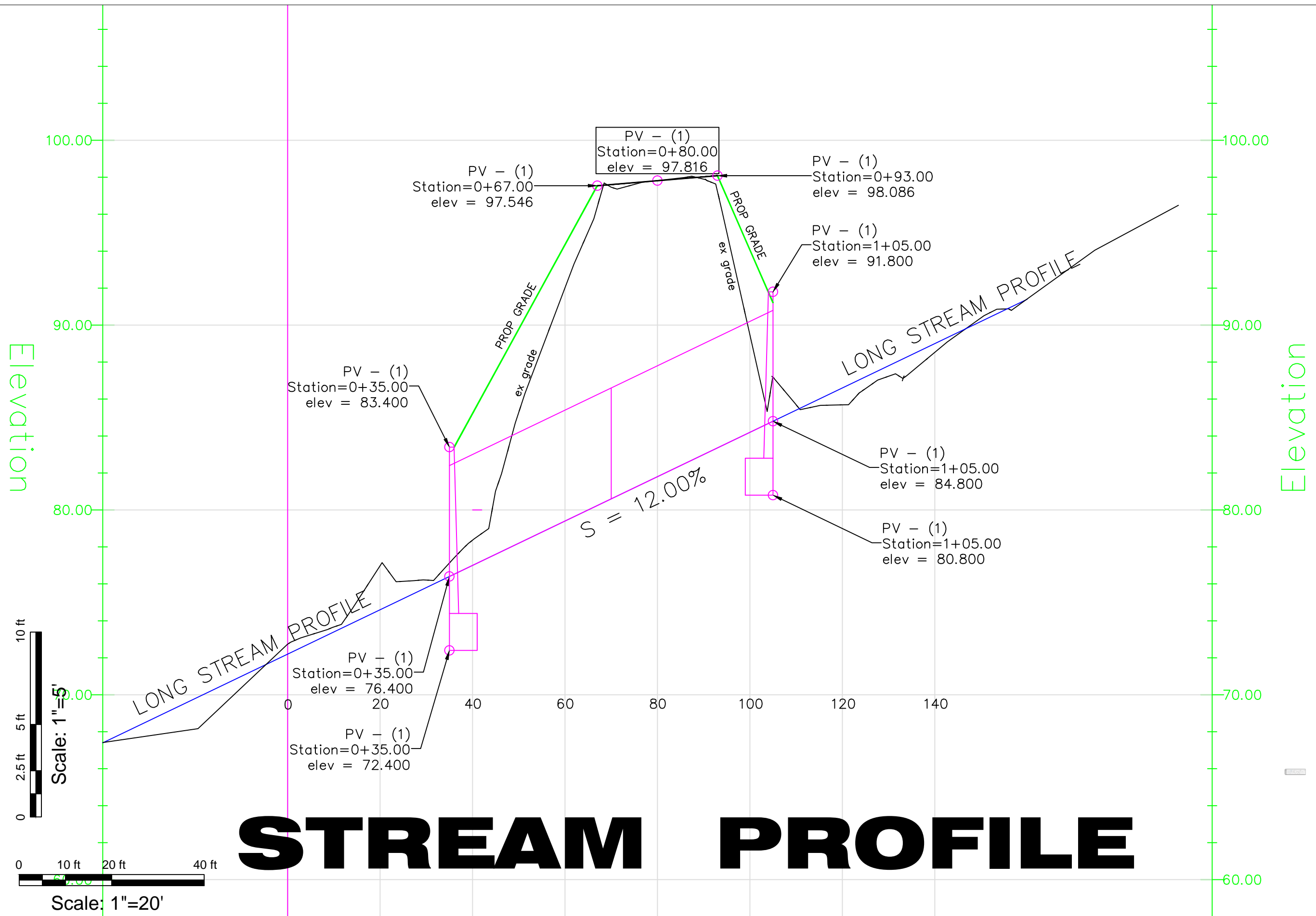
STEEL SCHEDULE

Project No. PLUMB ROAD, CULVERT
 JAN, 2016
 Scale 1"=20'
 Date 2/01/2016

3/5

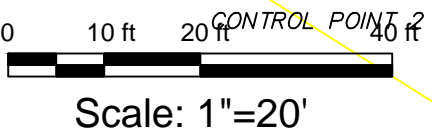
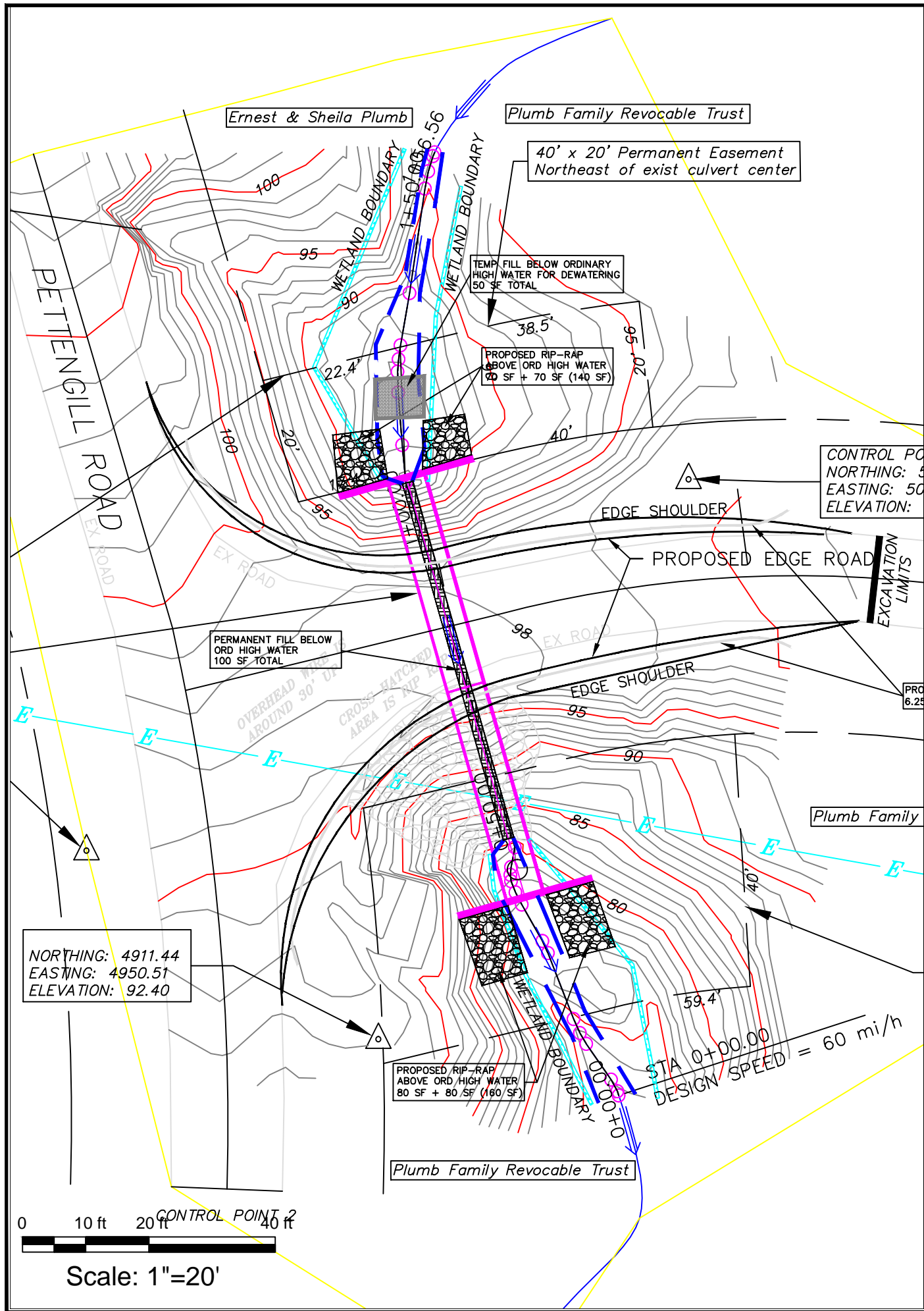
Town of Andover, VT
 953 Weston-Andover Road, Chester, VT 05143
Plumb Road 6' CMP
HEADWALL DETAILS

Hammond Engineering
 Everett T. Hammond, PE
 5 Lincoln St, Springfield, VT 05156
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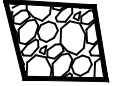

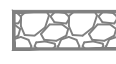





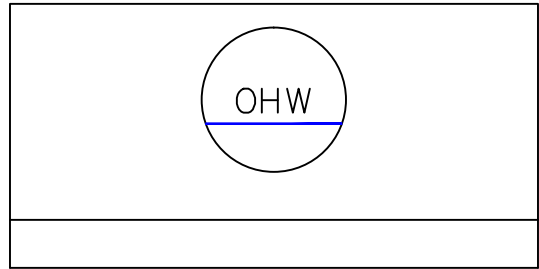
STREAM PROFILE

Project No. JAN. 2016		Scale 1"=20'		Date 2/01/2016	
4/5					
Town of Andover, VT					
953 Weston-Andover Road, Chester, VT 05143					
Plumb Road 6' CMP					
CULVERT PROFILE					
Hammond Engineering		Everett T. Hammond, PE			
5 Lincoln St, Springfield, VT 05156		Phone: (802) 376-0042			
Date	Revision	Date	Revision	Date	Revision



LEGEND

	PERMANENT TYPE 3 RIP RAP ABOVE OHW: 300 SF
	PERMANENT FILL BELOW OHW: 100 sf
	PERMANENT RIP RAP BELOW OHW: 0 sf
	TEMPORARY FILL BELOW OHW FOR DEWATERING: 50 SF
	ORDINARY HIGH WATER
	PROPOSED TEMPORARY BYPASS: NOT APPLICABLE



CMP ○ OHW
 CONC ○ OHW

PROP 6' DIA CMP

18" CMP &
 18" CONC

Project No. JAN_2016	Scale 1"=20'	Date 2/01/2016
5/5		
Town of Andover, VT 953 Weston-Andover Road, Chester, VT 05143 Plumb Road 6' CMP PERMIT PLANS		
Hammond Engineering Everett T. Hammond, PE 5 Lincoln St, Springfield, VT 05156 Phone: (802) 376-0042		