VERMONT

Vermont Department of Environmental Conservation *Agency of Natural Resources*
Watershed Management Division
Rutland Regional Office http://dec.vermont.gov/watershed/rivers
88 Merchants Row, Suite 430 Asa Bloomer Building [cell] 802-490-6163
Rutland, VT 05701-5903 [fax] 802-786-5915

AUTHORIZATION TO CONDUCT STREAM ALTERATION ACTIVITIES

Pursuant to Section C.2.3 of the VT Stream Alteration General Permit (Reporting activities requiring an application)

Project Number: **SA-09-015-2016** Watercourse: **Unnamed trib. to N. Branch of Black River**

Applicant Name: **Carl Maki** Email: Heritageengineering@tds.net

Mailing Address: **148 Beaman Rd. Sterling, MA 01564** Phone: **(727) 631-7070**

Project Location: **6378 VT Route 106, Weathersfield, VT** Lat/Lon: **N 43.42697 / W 72.52627**

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

1. This project authorizes under **Section C.2.3 – Reconstruction of disturbed stream channel.**
2. The proposed activity is eligible for coverage under the VT ANR Stream Alteration General Permit (SAGP).
3. The proposed activity will meet the terms and conditions of the General Permit provided:
   a) The project will be completed **as described in the plans dated 07/19/2016, by Heritage Engineering,** and as approved by the Vermont Agency of Natural Resources.
   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 is completed.
   h) ***Normal in-stream Time of Year (TOY) working dates for all SAGP activities are from July 1st through October 1st,*** any in-stream work outside these dates will require an authorization by the River Management Engineer (RME).
   i) This authorization has been posted for **ten working days** public comment. This authorization constitutes final approval.

Additional Conditions: Onsite preconstruction meeting with RME is required prior to commencement of any instream work activities.

If there are any changes in the project plan or deviation in construction from the approved plans, Permittee must notify the ANR River Management Engineer immediately via phone (802) 490-6962 or email scott.jensen@vermont.gov

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 9th day of September, 2016 **This permit expires on October 1, 2017**.

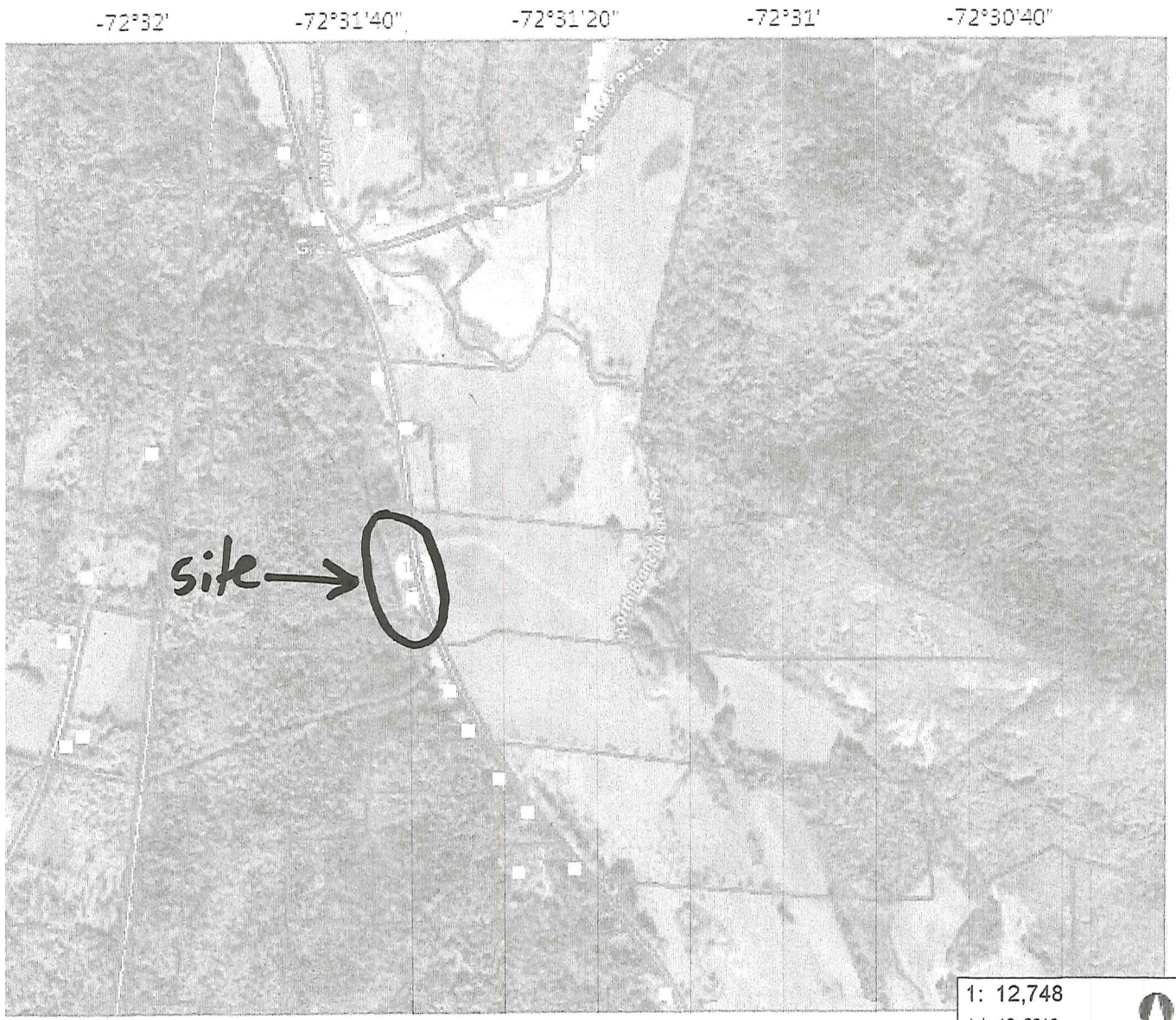
Alyssa B. Schuren, Commissioner
Department of Environmental Conservation

by: _____
Scott Jensen, P.E. River Management Engineer

Natural Resources Atlas

Vermont Agency of Natural Resources

vermont.gov



1: 12,748

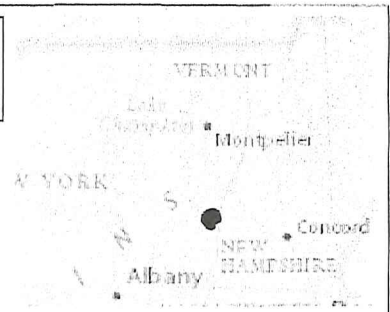
July 19, 2016

0 324.00 648.0 Meters

Mercator_Auxiliary_Sphere 1" = 1062 Ft. 1cm = 127 Meters

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

- Buildings (E911)
- Parcels (where available)
- Town Boundary

site:
6378
VT Route 106
Weathersfield
VT

NOTES

Map created using ANR's Natural Resources Atlas

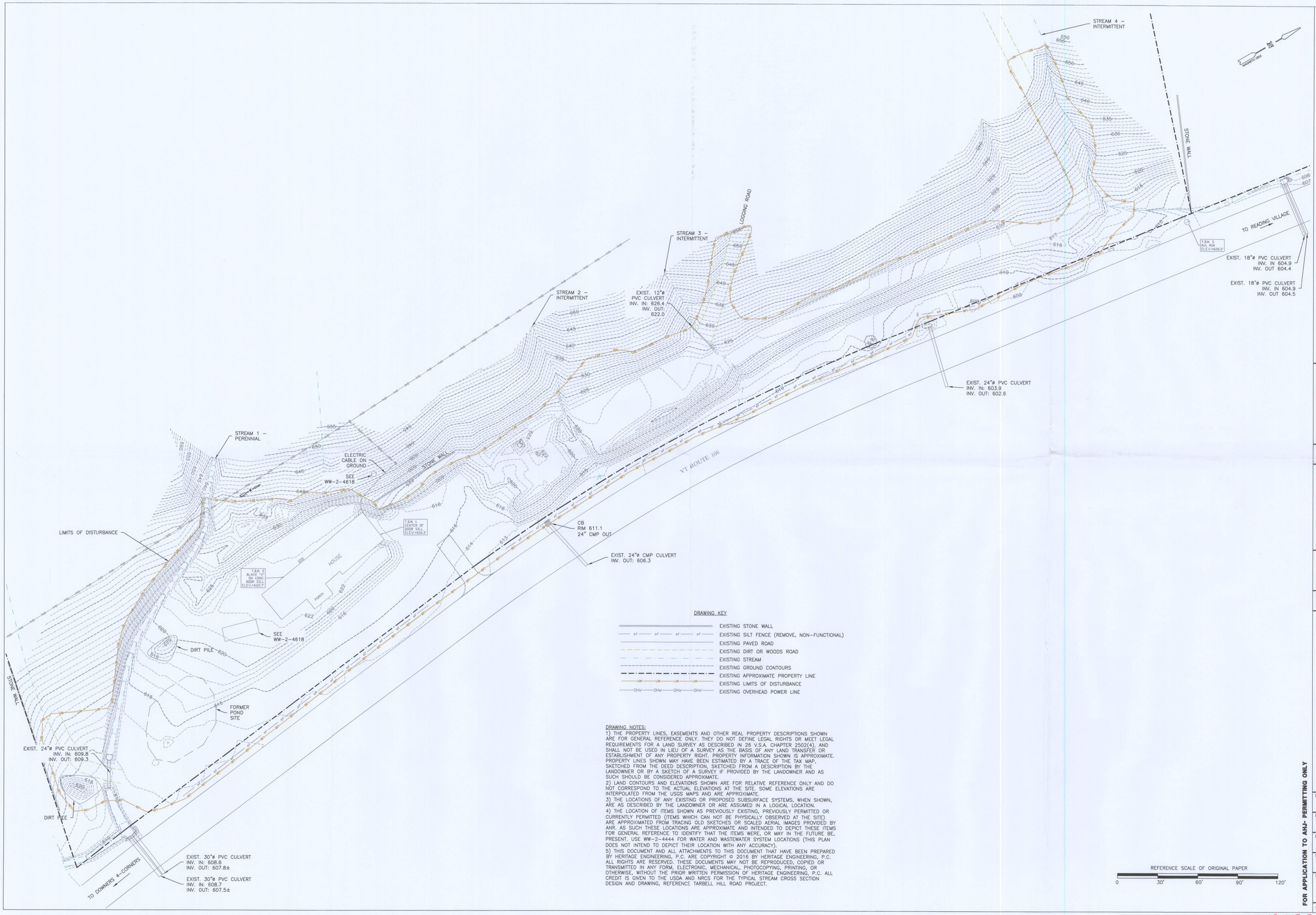
Maki Property Abutters

Peter Pratley, 10 Elm Street, Cos Cob, CT 06807-1605

William Smith, 6248 Rte 106, Reading, VT 05062

Patrick & William Smith, 6248 Rte 106, Reading, VT 05062

Paul & Julia Gignoux, 731 Stevens Rd, Cavendish, VT 05142



DRAWING KEY

- EXISTING STONE WALL
- EXISTING SILT FENCE (REMOVE, NON-FUNCTIONAL)
- EXISTING PAVED ROAD
- EXISTING DIRT OR WOODS ROAD
- EXISTING STREAM
- EXISTING GROUND CONTOURS
- EXISTING APPROXIMATE PROPERTY LINE
- EXISTING LIMITS OF DISTURBANCE
- EXISTING OVERHEAD POWER LINE

DRAWING NOTES:

1) THE PROPERTY LINES, EASEMENTS AND OTHER REAL PROPERTY DESCRIPTIONS SHOWN ARE FOR GENERAL REFERENCE ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN 26 V.S.A. CHAPTER 2502(4), AND SHALL NOT BE USED IN LIEU OF A SURVEY AS THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT. PROPERTY INFORMATION SHOWN IS APPROXIMATE. PROPERTY LINES SHOWN MAY HAVE BEEN ESTIMATED BY A TRACE OF THE TAX MAP, SKETCHED FROM THE DEED DESCRIPTION, SKETCHED FROM A DESCRIPTION BY THE LANDOWNER OR BY A SKETCH OF A SURVEY IF PROVIDED BY THE LANDOWNER AND AS SUCH SHOULD BE CONSIDERED APPROXIMATE.
2) LAND CONTOURS AND ELEVATIONS SHOWN ARE FOR RELATIVE REFERENCE ONLY AND DO NOT CORRESPOND TO THE ACTUAL ELEVATIONS AT THE SITE. SOME ELEVATIONS ARE INTERPOLATED FROM THE USGS MAPS AND ARE APPROXIMATE.
3) THE LOCATIONS OF ANY EXISTING OR PROPOSED SUBSURFACE SYSTEMS, WHEN SHOWN, ARE AS DESCRIBED BY THE LANDOWNER OR ARE ASSUMED IN A LOGICAL LOCATION.
4) THE LOCATION OF ITEMS SHOWN AS PREVIOUSLY EXISTING, PREVIOUSLY PERMITTED OR CURRENTLY PERMITTED (ITEMS WHICH CAN NOT BE PHYSICALLY OBSERVED AT THE SITE) ARE APPROXIMATED FROM TRACING OLD SKETCHES OR SCALED AERIAL IMAGES PROVIDED BY ANR. AS SUCH THESE LOCATIONS ARE APPROXIMATE AND INTENDED TO DEPICT THESE ITEMS FOR GENERAL REFERENCE TO IDENTIFY THAT THE ITEMS WERE, OR MAY IN THE FUTURE BE, PRESENT. USE WW-2-4444 FOR WATER AND WASTEWATER SYSTEM LOCATIONS (THIS PLAN DOES NOT INTEND TO DEPICT THEIR LOCATION WITH ANY ACCURACY).
5) THIS DOCUMENT AND ALL ATTACHMENTS TO THIS DOCUMENT THAT HAVE BEEN PREPARED BY HERITAGE ENGINEERING, P.C. ARE COPYRIGHT © 2016 BY HERITAGE ENGINEERING, P.C. ALL RIGHTS ARE RESERVED. THESE DOCUMENTS MAY NOT BE REPRODUCED, COPIED OR TRANSMITTED IN ANY FORM, ELECTRONIC, MECHANICAL, PHOTOCOPYING, PRINTING, OR OTHERWISE, WITHOUT THE PRIOR WRITTEN PERMISSION OF HERITAGE ENGINEERING, P.C. ALL CREDIT IS GIVEN TO THE USDA AND NRCS FOR THE TYPICAL STREAM CROSS SECTION DESIGN AND DRAWING, REFERENCE TARBELL HILL ROAD PROJECT.

REFERENCE SCALE OF ORIGINAL PAPER
0 30' 60' 90' 120'

Heritage Engineering, P.C.
P.O. Box 255
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Perkinsville, VT 05151
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heritageengineering@tds.net
www.heritageengineeringvt.com

HERITAGE ENGINEERING
CIVIL/STRUCTURAL DESIGN - SUBDIVISIONS - PERMITTING
CONSTRUCTION SERVICES - STORMWATER - SEPTIC DESIGN

STATE OF VERMONT
CRAIG T. HINDRICKS
3/23/16
NO. 8928
CIVIL
LICENSED PROFESSIONAL ENGINEER
For Application

NO.	DATE	DESCRIPTION	BY
1	07-19-2016	UPDATE FOR APPLICATION	DTH

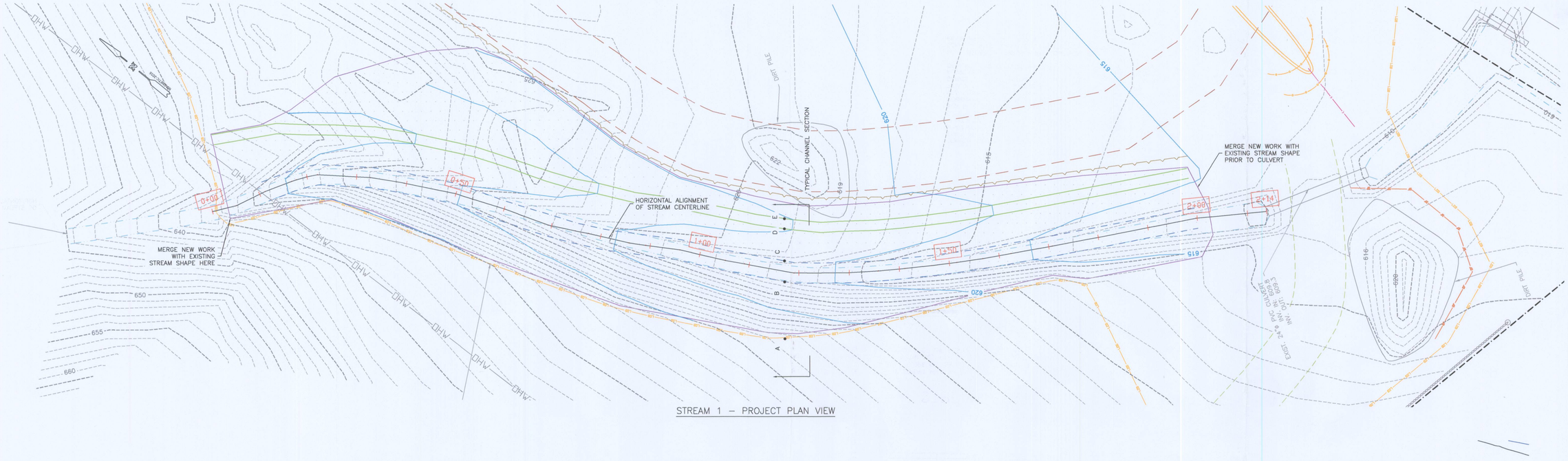
FOR APPLICATION TO ANR - PERMITTING ONLY

MAKI
6378 VT ROUTE 106, WEATHERSFIELD, VT
CARL MAKI
148 BEAMAN ROAD, STERLING, MA 01564

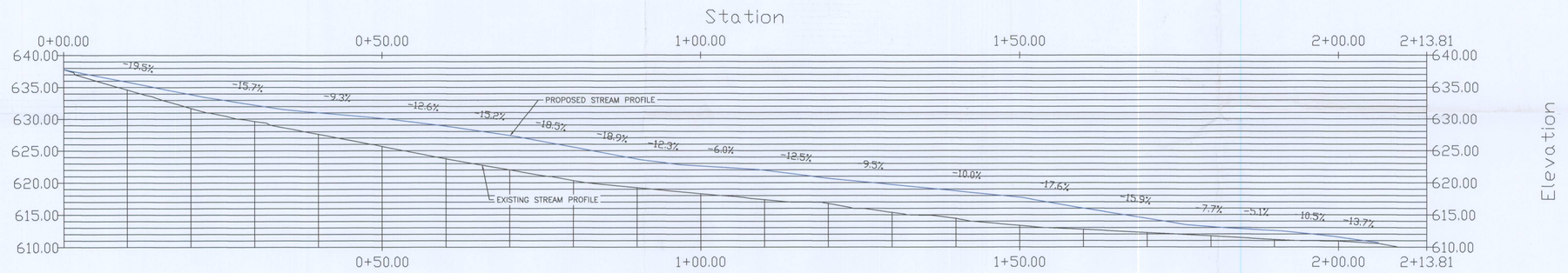
EXISTING SITE PLAN

DRAWN BY: DTH
DESIGNED BY: DTH
PROJECT NUMBER: 2016-12
SCALE: AS SHOWN
DATE: 04/20/16
DRAWING NO: 01
SHEET: 1 OF: 3

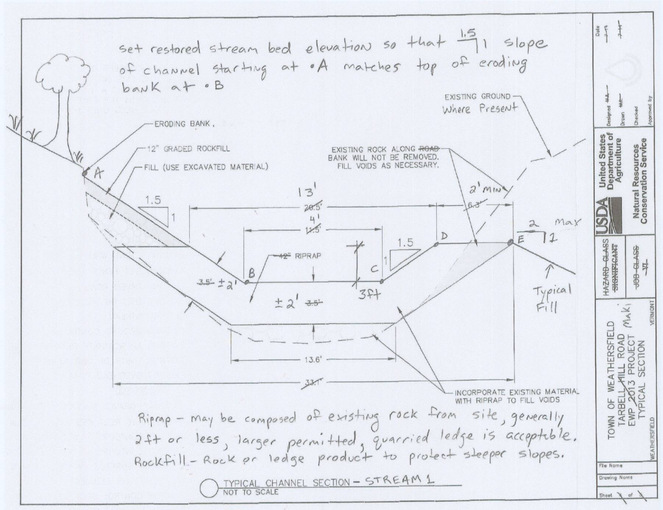
SA-09-015-2016



STREAM 1 – PROJECT PLAN VIEW



Profile View of Alignment – STREAM CENTERLINE



TYPICAL CHANNEL SECTION – STREAM 1
PROPOSED DETAIL SHOWN IS THAT USED FOR NEARBY STREAM RESTORATION PROJECT, PROPOSED BY NRCS AND APPROVED BY STATE AND LOCAL PERMIT AUTHORITIES, MARKED UP WITH PROJECT SPECIFIC GEOMETRY. NOT TO SCALE.

THE DESIGN CONCEPT OF THIS PROFILE VIEW IS TO DEMONSTRATE A MEANS OF RESTORING THE STREAM AREA SO THAT 1) THE HORIZONTAL ALIGNMENT IS GENERALLY MAINTAINED THE SAME AS THE EXISTING (WHICH APPEARS TO BE THAT PRESENT CIRCA 2013), 2) TO LESSEN THE SLOPE OF THE ADJACENT UPHILL STEEP BANK SO THAT IT IS STABLE., WHICH FOR THE CONCEPT SHOWN IS A 1.5:1 ROCK LINED SLOPE AND 3) TO ESTABLISH A 4FT WIDE CHANNEL BOTTOM AND 1.5:1 CHANNEL SIDE SLOPES SHOWN IN THE TYPICAL CROSS SECTION. DEVIATIONS FROM THE PROFILE SHOWN ARE ACCEPTABLE AND ANTICIPATED. IN GENERAL THE PROFILE OF THE RESTORED STREAM BANK IS RAISED UP TO ACCOMPLISH THIS INTENT AND ACCORDINGLY NEED ONLY BE HIGH ENOUGH IN ELEVATION TO DO SO.

PLAN AND PROFILE VIEW SCALES 1"=10'

0 10' 20' 30' 40'

DRAWING KEY

- EXISTING STONE WALL
- EXISTING SILT FENCE (REMOVE, NON-FUNCTIONAL)
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- EXISTING STREAM
- EXISTING GROUND CONTOURS
- EXISTING APPROXIMATE PROPERTY LINE
- EXISTING LIMITS OF DISTURBANCE
- EXISTING OVERHEAD POWER LINE

PROPOSED

- DRIVEWAY, GRAVEL SURFACES (APPROXIMATE LOCATION)
- APPROXIMATE RESTORED STREAM LOCATION
- GROUND CONTOURS – 5FT INTERVAL WHEN SHOWN
- GROUND CONTOURS – 2FT INTERVAL WHEN SHOWN
- PROPOSED SURFACE WATER DIVERSION SWALE
- SILT FENCE OR SEDIMENT BARRIER
- EROSION CONTROL SOCK OR SIMILAR LINEAR FILTER SYSTEM
- STREAM 1 – TOP OF BERM
- LIMITS OF DISTURBANCE
- RETAINING WALL SYSTEM BY OWNER FOR SLOPES STEEPER THAN 1:2
- CONSTRUCTION ENTRANCE

STREAM 1 RESTORATION AREA

STREAM 1 RESTORATION –
THE STREAM RESTORATION WORK IS TO BE COMPLETED DURING PERIODS OF NO FLOW WITHIN THE CHANNEL OR A PIPED BYPASS OF FLOW IS TO BE PROVIDED AROUND THE WORK AREA. THIS WORK IS NOT LINKED TO ANY SPECIFIC PHASES ON THIS PLAN, ALTHOUGH IT SHOULD BE PLANNED TO: COINCIDE WITH ADJACENT WORK AREAS AS THEY ARE COMPLETED, BE COMPLETED AFTER PHASE 1 AND BE COMPLETED BEFORE PHASE 5.

- REVIEW AND HAVE A COPY OF VERMONT STREAM ALTERATION PERMIT ON SITE FOR REFERENCE.
- REVIEW AND MAINTAIN COMPLIANCE WITH PROJECT SPECIFIC PERMIT DOCUMENT WHICH AUTHORIZES COVERAGE UNDER THE STREAM ALTERATION PERMIT.
- WORK ONLY WHEN THERE IS NO FLOWING WATER IN STREAM CHANNEL, I.E. WHEN IT IS DRY OR A DIVERSION SYSTEM IS INSTALLED.
- START AT TOP OF DISTURBED AREA AND WORK DOWNHILL IN A LINEAR FASHION SO THAT WHATEVER WORK IS STARTED IS FINISHED ACROSS THE CROSS SECTION PRIOR TO BEING SUBJECTED TO FLOW.
- NEW OR REPAIRED SOIL SLOPES ADJACENT TO THE STREAM SHOULD GENERALLY BE SLOPED LESS THAN 1V TO 2H WHEN POSSIBLE. PERMANENTLY STABILIZE WITH SEED AND MULCH AND FOLLOW GENERAL GRADING NOTES.
- STREAM 1, EARLIER STREAM CENTERLINE (ORIGINAL IS CONSIDERED THAT WHICH CAN BE OBSERVED FROM 2014 AND EARLIER INFORMATION) APPEARS TO BE AT OR NEAR THE CURRENT CENTERLINE, THAT IS THE STREAM HAS DEEPENED BUT NOT CHANGED ALIGNMENT. RESTORE APPROXIMATE ORIGINAL STREAM GRADE WITH NATIVE FILL FROM THE SITE WHICH IS PROTECTED FROM SCOUR AS SHOWN ON THE ATTACHED TYPICAL CHANNEL SECTION.

GENERAL GRADING NOTES –
START AT HIGHEST AREA AND WORK DOWNWARD AND AWAY FROM FINISHED AREAS IN LINEAR PROGRESSION FROM ONE END TO THE OTHER.
WHEN POSSIBLE REMOVE SURFACE ROCKS AND BOULDERS, USE FOR STREAM BED AND BANK WORK.
SMOOTH OUT DISTURBED SOIL SURFACES TO ACCEPT VEGETATION.
EXISTING PRIMARILY UNDISTURBED SOIL SLOPES SHOULD NOT BE CHANGED, OTHER THAN TO SMOOTH OUT MINOR AREAS OF DISTURBANCE.
NEW SOIL SLOPES WHICH ARE ESTABLISHED SHOULD GENERALLY BE SLOPED LESS THAN 1V TO 2H (1:2) WHEN POSSIBLE.
PERMANENTLY STABILIZE ALL SOILS SURFACES 1:2 OR LESS WITH SEED AND MULCH.
NEW SLOPES STEEPER THAN 1:2, PRIMARILY LIMITED TO PHASE 5 AREA FOR EXAMPLE, ARE TO BE PERMANENTLY STABILIZED WITH ROCK, PERMANENT EROSION MATTING OR RETAINING WALLS AS APPROPRIATE FOR THEIR SLOPE.
GRAVEL OR OTHER SUITABLE PERMANENT SURFACE IS TO BE APPLIED TO HIGHLY TRAVELED AREAS SUCH AS DRIVEWAYS.
ALONG ROADSIDE PROPERTY LINE, FINISH GRADE TO MATCH EXISTING GRADE AT HIGHWAY ROW AND CONNECT DRAINAGE COURSES TO THE STATE OF VERMONT ROADSIDE DRAINAGE SYSTEM. COORDINATE WITH VERMONT AGENCY OF TRANSPORTATION IF ANY WORK IS COMPLETED IN HIGHWAY RIGHT-OF-WAY.

NOTE REGARDING PHASING: THE NUMERICAL ORDER OF THE PHASING SEQUENCE IS INTENDED TO DESCRIBE THE GENERAL AREAS WHICH ARE DIFFERENT AT THE SITE AND THE GENERAL ORDER WHICH THE PROJECT COULD PROCEED, THEY ARE NOT INTENDED AS A RIGID FIXED SET PROGRESSION ORDER FOR THE WORK. THE ORDER WHICH IS IMPORTANT IS, PHASE 1 SHOULD GO FIRST, PHASE 5 SHOULD GO LAST AND THE STREAM RESTORATION WORK AND OTHER PHASES SHOULD BE COMPLETED IN BETWEEN.

Heritage Engineering, P.C.
P.O. Box 255
7290 VT Route 131, Suite 4A
Perkinsville, VT 05151
Ph/Fax (802) 263-5400
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www.heritageengineeringvt.com

HERITAGE ENGINEERING
CIVIL/STRUCTURAL DESIGN · SUBDIVISIONS · PERMITTING
CONSTRUCTION SERVICES · STORMWATER · SEPTIC DESIGN

STATE OF VERMONT
DAVID T. HINDINGER
NO. 8928
CIVIL
LICENSED PROFESSIONAL ENGINEER
For Application

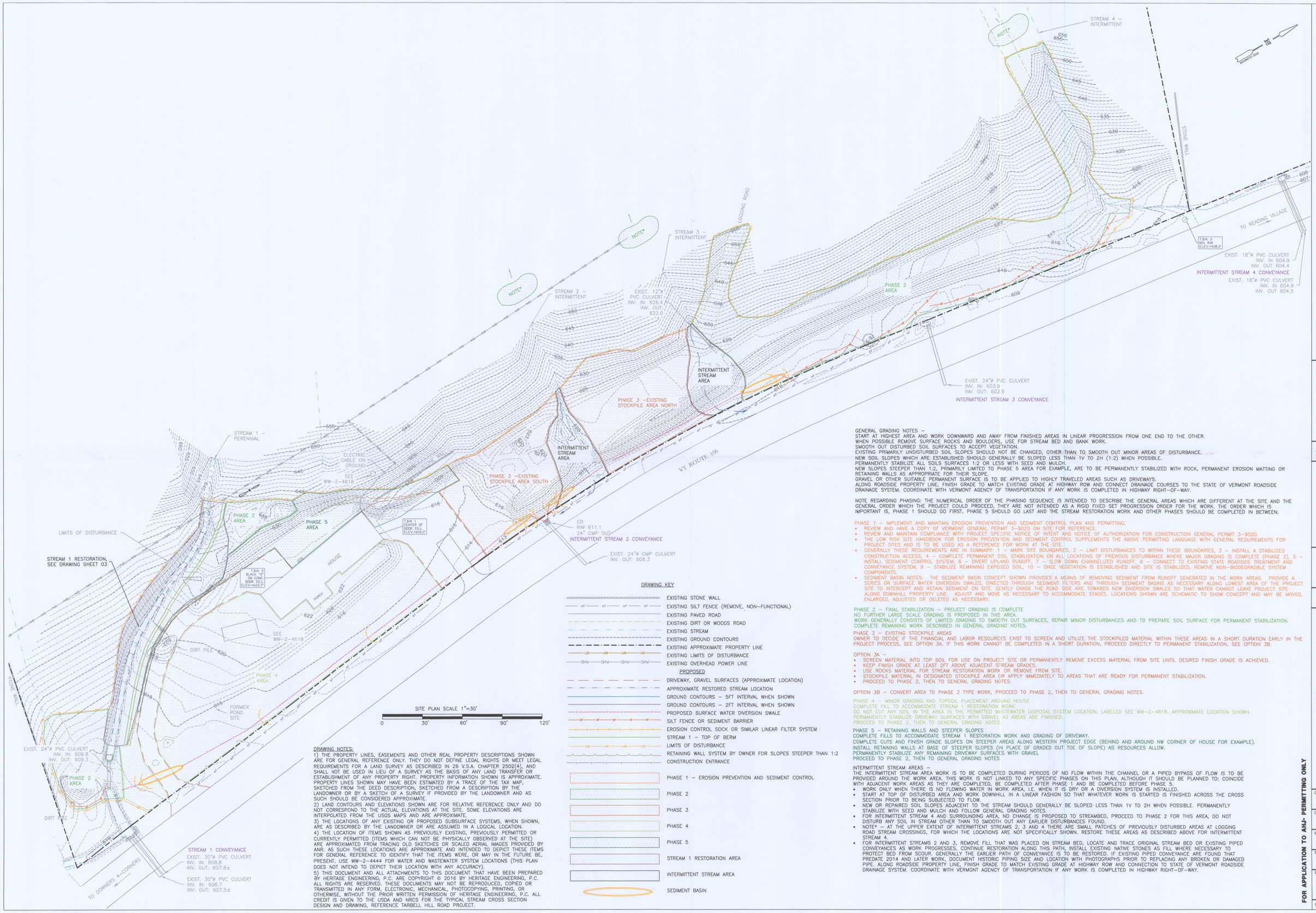
NO.	DATE	DESCRIPTION	BY

MAKI
6378 VT ROUTE 106, WEATHERSFIELD, VT
CARL MAKI
148 BEAMAN ROAD, STERLING, MA 01564

STREAM 1 - RESTORATION AND STABILIZATION PLAN

DRAWN BY: DTH
DESIGNED BY: DTH
PROJECT NUMBER: 2016-12
SCALE: AS SHOWN
DATE: 07/19/16
DRAWING NO: 03
SHEET: 3 OF: 3

FOR APPLICATION TO AHJ- PERMITTING ONLY



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PROPOSED

- DRIVEWAY, GRAVEL SURFACES (APPROXIMATE LOCATION)
- APPROXIMATE RESTORED STREAM LOCATION
- GROUND CONTOURS – 5FT INTERVAL WHEN SHOWN
- GROUND CONTOURS – 2FT INTERVAL WHEN SHOWN
- PROPOSED SURFACE WATER DIVERSION SWALE
- SILT FENCE OR SEDIMENT BARRIER
- EROSION CONTROL SOCK OR SIMILAR LINEAR FILTER SYSTEM
- STREAM 1 – TOP OF BERM
- LIMITS OF DISTURBANCE
- RETAINING WALL SYSTEM BY OWNER FOR SLOPES STEEPER THAN 1:2
- CONSTRUCTION ENTRANCE
- PHASE 1 – EROSION PREVENTION AND SEDIMENT CONTROL
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5
- STREAM 1 RESTORATION AREA
- INTERMITTENT STREAM AREA
- SEDIMENT BASIN

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4) THE LOCATION OF ITEMS SHOWN AS PREVIOUSLY EXISTING, PREVIOUSLY PERMITTED OR CURRENTLY PERMITTED (ITEMS WHICH CAN NOT BE PHYSICALLY OBSERVED AT THE SITE) ARE APPROXIMATED FROM TRACING OLD SKETCHES OR SCALED AERIAL IMAGES PROVIDED BY ANR. AS SUCH THESE LOCATIONS ARE APPROXIMATE AND INTENDED TO DEPICT THESE ITEMS FOR GENERAL REFERENCE TO IDENTIFY THAT THE ITEMS WERE, OR MAY IN THE FUTURE BE, PRESENT. USE WW-2-4444 FOR WATER AND WASTEWATER SYSTEM LOCATIONS (THIS PLAN DOES NOT INTEND TO DEPICT THEIR LOCATION WITH ANY ACCURACY).
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GENERAL GRADING NOTES –
START AT HIGHEST AREA AND WORK DOWNWARD AND AWAY FROM FINISHED AREAS IN LINEAR PROGRESSION FROM ONE END TO THE OTHER.
WHEN POSSIBLE REMOVE SURFACE ROCKS AND BOULDERS, USE FOR STREAM BED AND BANK WORK.
SMOOTH OUT DISTURBED SOIL SURFACES TO ACCEPT VEGETATION.
EXISTING PRIMARILY UNDISTURBED SOIL SLOPES SHOULD NOT BE CHANGED, OTHER THAN TO SMOOTH OUT MINOR AREAS OF DISTURBANCE.
NEW SOIL SLOPES WHICH ARE ESTABLISHED SHOULD GENERALLY BE SLOPED LESS THAN 1V TO 2H (1:2) WHEN POSSIBLE.
PERMANENTLY STABILIZE ALL SOILS SURFACES 1:2 OR LESS WITH SEED AND MULCH.
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GRAVEL OR OTHER SUITABLE PERMANENT SURFACE IS TO BE APPLIED TO HIGHLY TRAVELED AREAS SUCH AS DRIVEWAYS.
ALONG ROADSIDE PROPERTY LINE, FINISH GRADE TO MATCH EXISTING GRADE AT HIGHWAY ROW AND CONNECT DRAINAGE COURSES TO THE STATE OF VERMONT ROADSIDE DRAINAGE SYSTEM. COORDINATE WITH VERMONT AGENCY OF TRANSPORTATION IF ANY WORK IS COMPLETED IN HIGHWAY RIGHT-OF-WAY.

NOTE REGARDING PHASING: THE NUMERICAL ORDER OF THE PHASING SEQUENCE IS INTENDED TO DESCRIBE THE GENERAL AREAS WHICH ARE DIFFERENT AT THE SITE AND THE GENERAL ORDER IN WHICH THE PROJECT COULD PROCEED, THEY ARE NOT INTENDED AS A RIGID FIXED SET PROGRESSION ORDER FOR THE WORK. THE ORDER WHICH IS IMPORTANT IS, PHASE 1 SHOULD GO FIRST, PHASE 5 SHOULD GO LAST AND THE STREAM RESTORATION WORK AND OTHER PHASES SHOULD BE COMPLETED IN BETWEEN.

PHASE 1 – IMPLEMENT AND MAINTAIN EROSION PREVENTION AND SEDIMENT CONTROL PLAN AND PERMITTING.
- REVIEW AND HAVE A COPY OF VERMONT GENERAL PERMIT 3-9020 ON SITE FOR REFERENCE.
- REVIEW AND MAINTAIN COMPLIANCE WITH PROJECT SPECIFIC NOTICE OF INTENT AND NOTICE OF AUTHORIZATION FOR CONSTRUCTION GENERAL PERMIT 3-9020.
- THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL SUPPLEMENTS THE ABOVE PERMITTING LANGUAGE WITH GENERAL REQUIREMENTS FOR PROJECT SITES AND IS TO BE USED AS A REFERENCE FOR WORK AT THE SITE.
- GENERALLY THESE REQUIREMENTS ARE IN SUMMARY: 1 – MARK SITE BOUNDARIES, 2 – LIMIT DISTURBANCES TO WITHIN THESE BOUNDARIES, 3 – INSTALL A STABILIZED CONSTRUCTION ACCESS, 4 – COMPLETE PERMANENT SOIL STABILIZATION ON ALL LOCATIONS OF PREVIOUS DISTURBANCE WHERE MAJOR GRADING IS COMPLETE (PHASE 2), 5 – INSTALL SEDIMENT CONTROL SYSTEM, 6 – DIVERT UPLAND RUNOFF, 7 – SLOW DOWN CHANNELIZED RUNOFF, 8 – CONNECT TO EXISTING STATE ROADSIDE TREATMENT AND CONVEYANCE SYSTEM, 9 – STABILIZE REMAINING EXPOSED SOIL, 10 – ONCE VEGETATION IS ESTABLISHED AND SITE IS STABILIZED, REMOVE NON-BIODEGRADBLE SYSTEM COMPONENTS.
- SEDIMENT BASIN NOTES: THE SEDIMENT BASIN CONCEPT SHOWN PROVIDES A MEANS OF REMOVING SEDIMENT FROM RUNOFF GENERATED IN THE WORK AREAS. PROVIDE A SERIES OR SURFACE WATER DIVERSION SWALES, DIRECTED THROUGH SEDIMENT FILTERS AND THROUGH SEDIMENT BASINS AS NECESSARY ALONG LOWEST AREA OF THE PROJECT SITE TO INTERCEPT AND RETAIN SEDIMENT ON SITE. GENTLY GRADE THE ROAD SIDE ARE TOWARDS NEW DIVERSION SWALES SO THAT WATER CANNOT LEAVE PROJECT SITE ALONG DOWNHILL PROPERTY LINE. ADJUST AND MOVE AS NECESSARY TO ACCOMMODATE STAGES. LOCATIONS SHOWN ARE SCHEMATIC TO SHOW CONCEPT AND MAY BE MOVED, ENLARGED, ADJUSTED OR DELETED AS NECESSARY.

PHASE 2 – FINAL STABILIZATION – PROJECT GRADING IS COMPLETE
NO FURTHER LARGE SCALE GRADING IS PROPOSED IN THIS AREA.
WORK GENERALLY CONSISTS OF LIMITED GRADING TO SMOOTH OUT SURFACES, REPAIR MINOR DISTURBANCES AND TO PREPARE SOIL SURFACE FOR PERMANENT STABILIZATION.
COMPLETE REMAINING WORK DESCRIBED IN GENERAL GRADING NOTES.

PHASE 3 – EXISTING STOCKPILE AREAS
OWNER TO DECIDE IF THE FINANCIAL AND LABOR RESOURCES EXIST TO SCREEN AND UTILIZE THE STOCKPILED MATERIAL WITHIN THESE AREAS IN A SHORT DURATION EARLY IN THE PROJECT PROCESS, SEE OPTION 3A. IF THIS WORK CANNOT BE COMPLETED IN A SHORT DURATION, PROCEED DIRECTLY TO PERMANENT STABILIZATION, SEE OPTION 3B.

OPTION 3A –
- SCREEN MATERIAL INTO TOP SOIL FOR USE ON PROJECT SITE OR PERMANENTLY REMOVE EXCESS MATERIAL FROM SITE UNTIL DESIRED FINISH GRADE IS ACHIEVED.
- KEEP FINISH GRADE AT LEAST 2FT ABOVE ADJACENT STREAM GRADES.
- USE ROCKS MATERIAL FOR STREAM RESTORATION WORK OR REMOVE FROM SITE.
- STOCKPILE MATERIAL IN DESIGNATED STOCKPILE AREA OR APPLY IMMEDIATELY TO AREAS THAT ARE READY FOR PERMANENT STABILIZATION.
- PROCEED TO PHASE 2, THEN TO GENERAL GRADING NOTES.

OPTION 3B – CONVERT AREA TO PHASE 2 TYPE WORK, PROCEED TO PHASE 2, THEN TO GENERAL GRADING NOTES.

PHASE 4 – MINOR GRADING AND TOPSOIL PLACEMENT AROUND HOUSE
COMPLETE FILL TO ACCOMMODATE STREAM 1 RESTORATION WORK.
DO NOT CUT ANY SOIL IN THE AREA IN THE PERMITTED WASTEWATER DISPOSAL SYSTEM LOCATION, LABELED SEE WW-2-4618, APPROXIMATE LOCATION SHOWN.
PERMANENTLY STABILIZE DRIVEWAY SURFACES WITH GRAVEL AS AREAS ARE FINISHED.
PROCEED TO PHASE 2, THEN TO GENERAL GRADING NOTES.

PHASE 5 – RETAINING WALLS AND STEEPER SLOPES
COMPLETE FILLS TO ACCOMMODATE STREAM 1 RESTORATION WORK AND GRADING OF DRIVEWAY.
COMPLETE CUTS AND FINISH GRADE SLOPES ON STEEPER AREAS ALONG WESTERN PROJECT EDGE (BEHIND AND AROUND NW CORNER OF HOUSE FOR EXAMPLE).
INSTALL RETAINING WALLS AT BASE OF STEEPER SLOPES (IN PLACE OF GRADED OUT TOE OF SLOPE) AS RESOURCES ALLOW.
PERMANENTLY STABILIZE ANY REMAINING DRIVEWAY SURFACES WITH GRAVEL
PROCEED TO PHASE 2, THEN TO GENERAL GRADING NOTES.

INTERMITTENT STREAM AREAS –
THE INTERMITTENT STREAM AREA WORK IS TO BE COMPLETED DURING PERIODS OF NO FLOW WITHIN THE CHANNEL OR A PIPED BYPASS OF FLOW IS TO BE PROVIDED AROUND THE WORK AREA. THIS WORK IS NOT LINKED TO ANY SPECIFIC PHASES ON THIS PLAN, ALTHOUGH IT SHOULD BE PLANNED TO: COINCIDE WITH ADJACENT WORK AREAS AS THEY ARE COMPLETED, BE COMPLETED AFTER PHASE 1 AND BE COMPLETED BEFORE PHASE 5.
- WORK ONLY WHEN THERE IS NO FLOWING WATER IN WORK AREA, I.E. WHEN IT IS DRY OR A DIVERSION SYSTEM IS INSTALLED.
- START AT TOP OF DISTURBED AREA AND WORK DOWNHILL IN A LINEAR FASHION SO THAT WHATEVER WORK IS STARTED IS FINISHED ACROSS THE CROSS SECTION PRIOR TO BEING SUBJECTED TO FLOW.
- NEW OR REPAIRED SOIL SLOPES ADJACENT TO THE STREAM SHOULD GENERALLY BE SLOPED LESS THAN 1V TO 2H WHEN POSSIBLE. PERMANENTLY STABILIZE WITH SEED AND MULCH AND FOLLOW GENERAL GRADING NOTES.
- FOR INTERMITTENT STREAM 4 AND SURROUNDING AREA, NO CHANGE IS PROPOSED TO STREAMBED, PROCEED TO PHASE 2 FOR THIS AREA, DO NOT DISTURB ANY SOIL IN STREAM OTHER THAN TO SMOOTH OUT ANY EARLIER DISTURBANCES FOUND.
- NOTE* – AT THE UPPER EXTENT OF INTERMITTENT STREAMS 2, 3 AND 4 THERE ARE SMALL PATCHES OF PREVIOUSLY DISTURBED AREAS AT LOGGING ROAD STREAM CROSSINGS, FOR WHICH THE LOCATIONS ARE NOT SPECIFICALLY SHOWN. RESTORE THESE AREAS AS DESCRIBED ABOVE FOR INTERMITTENT STREAM 4.
- FOR INTERMITTENT STREAMS 2 AND 3, REMOVE FILL THAT WAS PLACED ON STREAM BED, LOCATE AND TRACE ORIGINAL STREAM BED OR EXISTING PIPED CONVEYANCES AS WORK PROGRESSES, CONTINUE RESTORATION ALONG THIS PATH, INSTALL EXISTING NATIVE STONES AS FILL WHERE NECESSARY TO PROTECT BED FROM SCOUR. GENERALLY THE EARLIER PATH OF CONVEYANCE IS TO BE RESTORED. IF EXISTING PIPED CONVEYANCE ARE FOUND THAT PREDATE 2014 AND LATER WORK, DOCUMENT HISTORIC PIPING SIZE AND LOCATION WITH PHOTOGRAPHS PRIOR TO REPLACING ANY BROKEN OR DAMAGED PIPE. ALONG ROADSIDE PROPERTY LINE, FINISH GRADE TO MATCH EXISTING GRADE AT HIGHWAY ROW AND CONNECTION TO STATE OF VERMONT ROADSIDE DRAINAGE SYSTEM. COORDINATE WITH VERMONT AGENCY OF TRANSPORTATION IF ANY WORK IS COMPLETED IN HIGHWAY RIGHT-OF-WAY.

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STATE OF VERMONT
DAVID T. HINDINGER
NO. 8928
CIVIL
LICENSED PROFESSIONAL ENGINEER
07/22/16
For Application

NO.	DATE	DESCRIPTION	BY

MAKI
6378 VT ROUTE 106, WEATHERSFIELD, VT
CARL MAKI
148 BEAMAN ROAD, STERLING, MA 01564

SITE PLAN, PHASING, EROSION PREVENTION AND SEDIMENT CONTROL PLAN

FOR APPLICATION TO AHJ- PERMITTING ONLY

DRAWN BY: DTH
DESIGNED BY: DTH
PROJECT NUMBER: 2016-12
SCALE: AS SHOWN
DATE: 07/19/16
DRAWING NO: 02
SHEET: 2 OF: 3