VERMONT AGENCY OF NATURAL RESOURCES

STREAM ALTERATION INDIVIDUAL PERMIT APPLICATION

10 VSA, CHAPTER 41, SUBCHAPTER 2

Agency Use Only

Project # _____

Receipt Date _____

Applicant Name Town of Stowe, c/o Harry Shepard, Town Engineer

Mailing Address P.O. Box 703, Stowe, VT, 05672

Phone 802-253-8770 Cell _____ Email hshepard@townofstowevermont.org

Project Location: Town Stowe, VT Stream West Branch Little River Lat 44° 28' 45"

Nearby town highway or state route VT Route 108 (Mountain Rd) **ATTACH MAP** Long 72° 43' 37"

Project Description:

Magnitude (length, volume, etc.) Relocation of 1100 LF of rec path away from river, 4.2 ac of flood storage bench creation along 2500 LF of river, stabilize 1400 LF of channel bank, convert 0.5 ac of wooded area to ag use.

Purpose Protect property, infrastructure, portion of Stowe Rec Path and Bridge #7, and farmland including silage leachate disposal system and manure pit.

Construction Procedure Constructed by mechanical means, work in completed in two phases, work in small areas to limit active disturbance at any given time. See plans for more detail.

Erosion/Sediment/Water Control Procedure Work conducted during low flow periods only, temporary isolation berms and pilot channels used to create channel bank work area. See plans for more detail.

ATTACH 2 COPIES : layout plan, typical or surveyed cross sections, stream profile and pertinent hydraulic or hydrologic information

Consultant/Project Supervisor Milone & MacBroom, Inc. Phone 802-882-8335 Email roys@miloneandmacbroom.com brianc@miloneandmacbroom.com

Duration of in-stream construction (anticipated) Phase I: Aug-Sept, 2015 / Phase II: Aug-Sept, 2016

Name and addresses of landowners and/or abutters adjacent to or across the stream from the project: Signatures are necessary if you intend to work on adjacent property or if the project will directly affect the property of others. Attach extra sheet, if needed.

Name * See Attached List * Address _____

Name _____ Address _____

Name _____ Address _____

APPLICANT MUST FILE COPY OF THIS APPLICATION WITH TOWN CLERK AND ADJOINERS

CERTIFICATION: I hereby certify that the information on this application is, to the best of my knowledge, true and accurate and that I have forwarded a copy of this application to the selectboard and town clerk of the town in which this project is to occur and to each landowner adjoining or across the stream from the project area as required in the Vermont Stream Alteration Rule. **I recognize that by signing this application I am giving consent to employees of the State to enter the subject property for the purpose of processing this application and for ensuring the compliance with subsequent agency decisions relating to the project.**

Print Full Name Harry Shepard, Public Works Director / Town Engineer

Signature of Applicant _____ Date May 13, 2015

NOTE: A PERMIT MAY BE REQUIRED FROM THE US ARMY CORPS OF ENGINEERS. For information contact:
US Army Corps of Engineers, VT Project Office, 11 Lincoln St - Rm210, Essex Jct VT 05452 802-872-2893

ENCLOSE $225.00 APPLICATION FEE PAYABLE BY CHECK OR MONEY ORDER TO THE "STATE OF VERMONT"
MUNICIPALITIES ARE EXEMPT FROM FEE

INSTRUCTIONS

STREAM ALTERATION INDIVIDUAL PERMIT APPLICATION

(1) This application is for use by anyone proposing to alter by excavation, movement or fill of greater than 10 cubic yards any watercourse with greater than 10 square miles of watershed at the point of alteration. The limits of a watercourse extend from the top of the streambank to the top of the opposite streambank. If you have any questions regarding the jurisdiction of the statute call the Rivers Program at 802-490-6195.

(2) Submit the application at least 2 – 3 weeks before working dates.

(3) Submit your application to:

Department of Environmental Conservation
Rivers Program
One National Life Drive – Main 2
Montpelier, VT 05620-3522
ANR.WSMDRivers@state.vt.us

(4) Provide the applicant's name and contact information. Applicant can be landowner, municipality, contractor or other.

(5) Describe location by town, stream, nearby roads and latitude/longitude (if known). Provide a map. See: http://www.watershedmanagement.vt.gov/rivers/htm/rv_management.htm

(6) Describe the purpose of your project (what you wish to accomplish), its physical extent (size), the anticipated construction procedure and the erosion, sediment and water control plan.

(7) Provide plans necessary to adequately depict the proposal. Include plan view, typical or surveyed cross sections, stream profile and any other pertinent hydraulic, hydrologic, structural or property boundary information. Provide copies of FEMA flood maps wherever any floodway encroachment is anticipated. Provide two (2) copies of all design plans, elevations, sections, etc.

(8) Include name, phone number and email of consultant and/or project supervisor. Project participants may be required to participate in a project review meeting or site and/or subsequent pre-construction conference.

(9) Note anticipated in-stream construction duration.

(10) The names and addresses of property owners and abutters must be provided on the application. **Signatures are preferred** and will be considered to indicate consent to the project.

(11) Applicant must file a copy of the application with the selectboard and town clerk of the town in which the project is located and with each abutting owner upstream, downstream and across the stream from the project location.

(12) Sign and date the application. Recognize that your signature certifies that the information provided is true, that you have sent copies to the Town Clerk and to adjoiners and that you have consented to on-site inspections by State employees.

(13) Enclose application fee (no cash) $225.00 payable to "State of Vermont". Municipal projects are exempt.

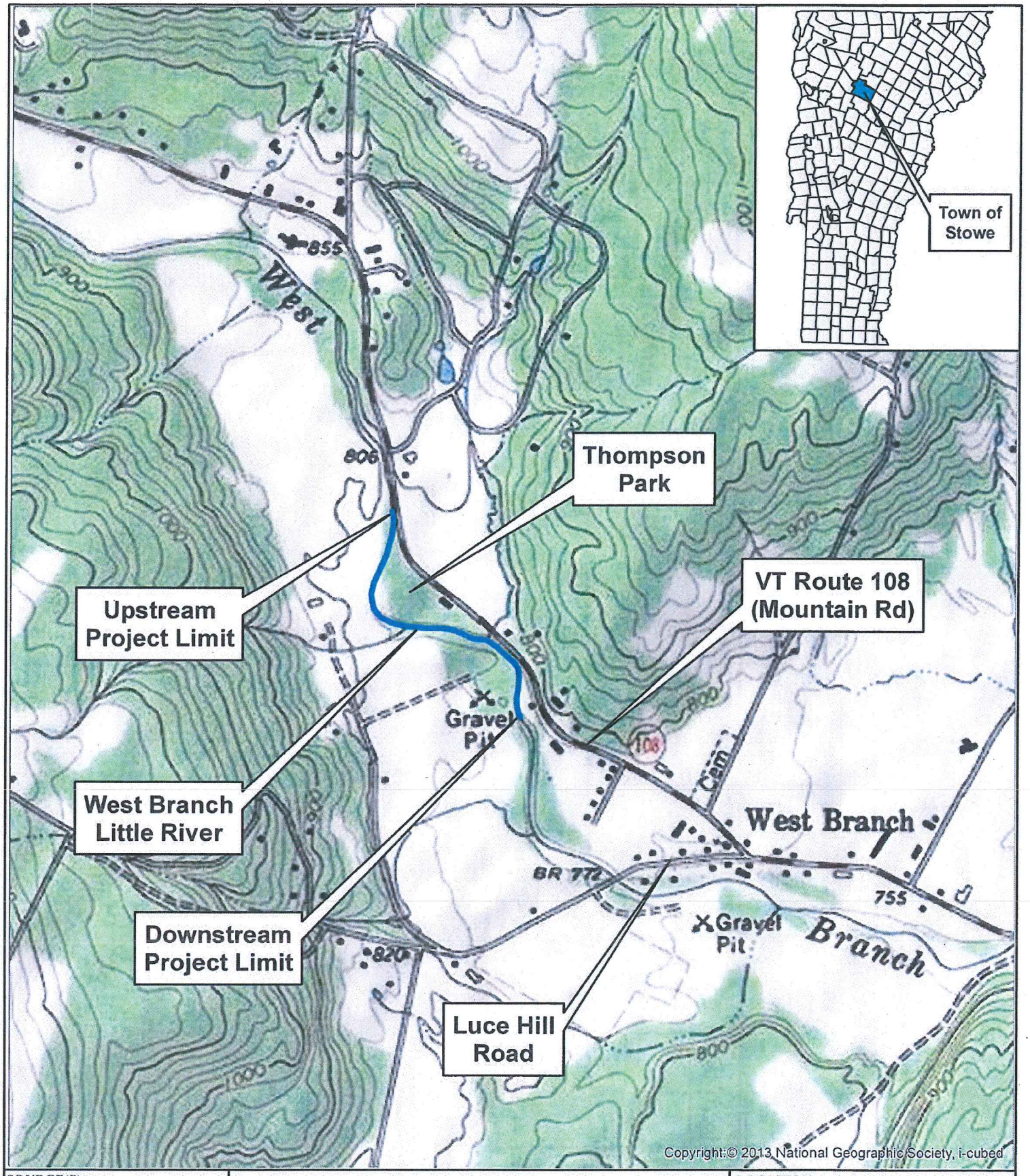
(14) If the project involves work below USGS el. 95.5 in a tributary of Lake Champlain or USGS el. 682 in a tributary of Lake Memphremagog, a permit may be required under 29 V.S.A. Chap. 11. Contact Lakes and Ponds Section of the Vermont Department of Environmental Conservation at 802-490-6100.

(15) Concurrent federal jurisdiction may be exerted under Section 1 of the Rivers and Harbors Act or Section 404 of the Clean Water Act. Contact US Army Corps of Engineers, Essex VT at 802-872-2893.

West Branch Little River Management Project - Stowe, VT

List of Landowners / Abbutters

No.	Tax Map ID	SPAN	Name	Address
1	06-031.000	621-195-12343	Paul Percy	29 Percy Hill Rd., Stowe Vt. 05672
2	06-036.000	621-195-12350	Charles & Janet Perkins	80 South Cove Rd., Burlington, VT 05401
3	06-037.000	621-195-10629	Lewis Coty/Anne C. Steel Revocable Trust	C/O Steel PO Box 33, Stowe, VT 05672
4	06-040.000	621-195-10999	Doreen Foust	2925 Oak Ridge Farm, Huntington Valley, PA 19006
5	06-042.000	621-195-13296	Charles & Janet Perkins	80 South Cove Rd., Burlington, VT 05401
6	11-252.000	621-195-10962	Pamela M. Flory	2619 Mountain Rd., Stowe, VT 05672
7	11-253.000	621-195-12945	Town of Stowe	PO Box 248, Stowe, VT 05672



SOURCE(S):
US Topo Maps
VT VCGI

N

Location Map

LOCATION:
Stowe, VT

West Branch Little River Management Project

MXD: Y:\5446-01\maps\Stowe-LocationMap_v2.mxd

Map By: BMC
MMI#: 5446-01-4
Original: 05/13/2015
Revision: ---
Scale: 1 inch = 1,500 feet

MILONE & MACBROOM
1 South Main Street - 2nd Floor
Waterbury, Vermont 05676
(802) 882-8335 Fax: (802) 882-8346
www.miloneandmacbroom.com

Public Works Department
PO Box 730
Stowe, VT 05672
802-253-8770

May 13, 2015

US Army Corps of Engineers
8 Carmichael Street, Suite 205
Essex Junction, Vermont 05452
Att: Mr. Michael Adam, Senior Project Manager

Vermont Department of Environmental Conservation
Watershed Management Division-Rivers Program
1 National Life Drive, Main 2
Montpelier, Vermont 05620-3522
Att: Mr. Michael Kline, Program Manager

Vermont Department of Environmental Conservation
Watershed Management Division-Stormwater Program
1 National Life Drive, Main 2
Montpelier, Vermont 05620-3522
Att: Mr Padraic Monks, Program Manager

Subject: Permit Applications
Stowe Recreation Path/Bouchard Farm-West River Streambank Stabilization Project

Gentlemen,

Enclosed please find applicable permit applications for the subject project. The subject project is intended to remediate a severe and streambank erosion conditions proximate to Bridge 7 on the Town of Stowe Recreation Path (Rec. Path). These conditions have worsened significantly since hurricane Irene including most recently by the flood in April 2014. Unfortunately, remediation of these conditions have not qualified for FEMA Public Assistance of Mitigation Grant funding These conditions have required the closure and temporary relocation of portions of the Rec. Path and threaten the foundations of Bridge 7. In addition, the condition threatens the USDA/NRCS sponsored manure treatment system on the Bouchard Farm, the property on which the Town has an easement for its Rec. Path in this location, owned by Mr. Paul Percy. The project proposed is the result of extensive analysis and design development undertaken by our engineers, Milone & MacBroom, Inc. and negotiations and compromise by numerous stakeholders.

In March the Town was awarded a grant for $541,800 from the USDA/NRCS for the streambank stabilization portions of this work. Copy of the Press Release issued by the USDA for this grant is enclosed. In combination with the required 25% local match, this will provide approximately $675,000 towards the estimated construction cost of $900,000. The Town has expended approximately $60,000 to date for the associated engineering services. It is the Town's hope to maximize the available grant funds with eligible streambank stabilization work (Phase 1) and undertake the requisite Rec. Path relocation (ineligible) as a Town capital project in 2016 (Phase 2). Unfortunately, the USDA/NRCS grant requires that the eligible construction be complete by October 15, 2015. To achieve this deadline and take advantage of these funds, bidding will need to occur in July and construction will need to occur in August-Sept of this year. Accordingly, we respectfully request the timely review and processing of your respective permit applications. We are confident that it is in the public interest to do so. If you have any technical questions, please contact Mr. Roy Schiff, PE, PhD with Milone and MacBroom directly at 802-882-8335 or RoyS@miloneandMacbroom.com. If you have any administrative questions, please contact the writer directly.

Thank you for your cooperation and assistance.

Sincerely,

Harry J Shepard

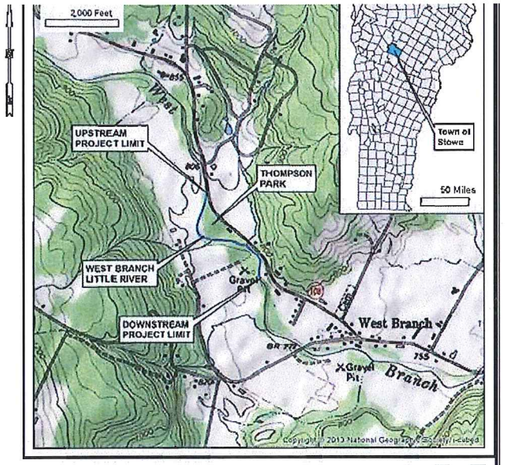
Town of Stowe
Harry J. Shepard III, P.E.
Public Works Director

CC: Paul Percy, Owner-Bouchard Farm
Charles Safford, Town Manager
Roy Schiff, PE, PhD, Milone & MacBroom, Inc
Michel Lapointe, PE, USDA/NRCS

WEST BRANCH LITTLE RIVER MANAGEMENT PROJECT

STOWE, VERMONT

5446-01-4
MAY 13, 2015

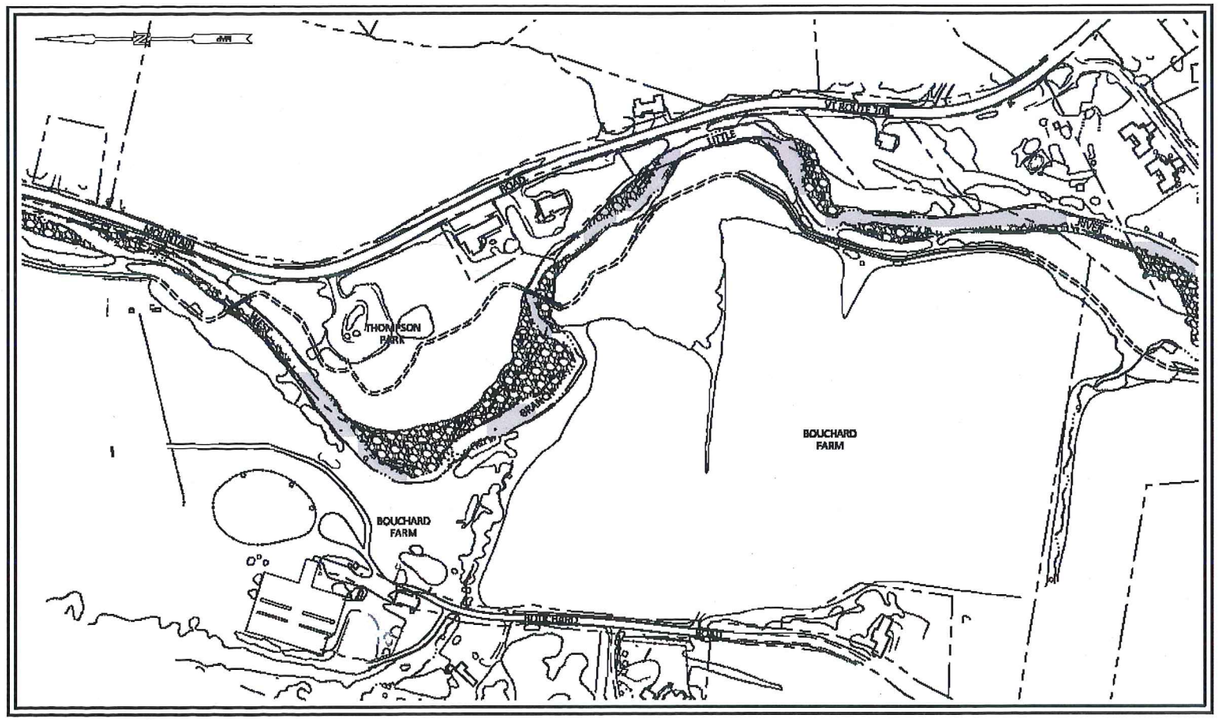


LOCATION MAP:

SCALE 1" = 2000'

LEGEND

- CONTOUR - MAJOR
- CONTOUR - MINOR
- FEMA FLOODPLAIN - 100-YR
- FEMA FLOODPLAIN - 500-YR
- FEMA FLOODWAY
- USACE ORDINARY HIGH WATER
- STOWE FEH OVERLAY DISTRICT
- APPROXIMATE PROPERTY LINE
- EDGE OF PAVEMENT
- GRAVEL DRIVE / PARKING
- FENCE LINE - EXISTING
- BRUSH LINE - EXISTING
- TREE LINE - EXISTING
- TREELINE - PROPOSED
- EDGE OF WATER - EXISTING
- EDGE OF WATER - PROPOSED
- RECREATION PATH
- RECREATION PATH - APPROXIMATE
- RECREATION PATH - PROPOSED
- BEDROCK OUTCROP
- BANK EROSION - EXISTING
- RIPRAP ARMOR - EXISTING
- RIPRAP ARMOR - PROPOSED
- VEGETATED SLOPE - PROPOSED
- SEDIMENT BAR - EXISTING
- FLOOD BENCH - PROPOSED



PROJECT SITE VICINITY MAP:

SCALE 1" = 300'

PREPARED FOR:

TOWN OF STOWE
67 MAIN STREET
P.O. BOX 248
STOWE, VERMONT 05672

LIST OF REGULATORY DRAWINGS

NO.	NAME	TITLE
--	--	TITLE SHEET
01	EX1	SITE PLAN - EXISTING CONDITIONS
02	EX2	SITE PLAN - EXISTING CONDITIONS
03	PR1	SITE PLAN - PROPOSED CONDITIONS - PHASE I
04	PR2	SITE PLAN - PROPOSED CONDITIONS - PHASE II
05	SE1	SEDIMENT & EROSION CONTROL PLAN - PHASE I
06	SE2	SEDIMENT & EROSION CONTROL PLAN - PHASE II
07	XS1	CROSS SECTIONS
08	XS2	CROSS SECTIONS
09	XS3	CROSS SECTIONS
10	SD1	STANDARD DETAILS

PREPARED BY:

MILONE & MACBROOM®

1 South Main Street - 2nd Floor
Waterbury, Vermont 05676
(802) 882-8355 Fax (802) 882-8346
www.milonandmacbroom.com

811
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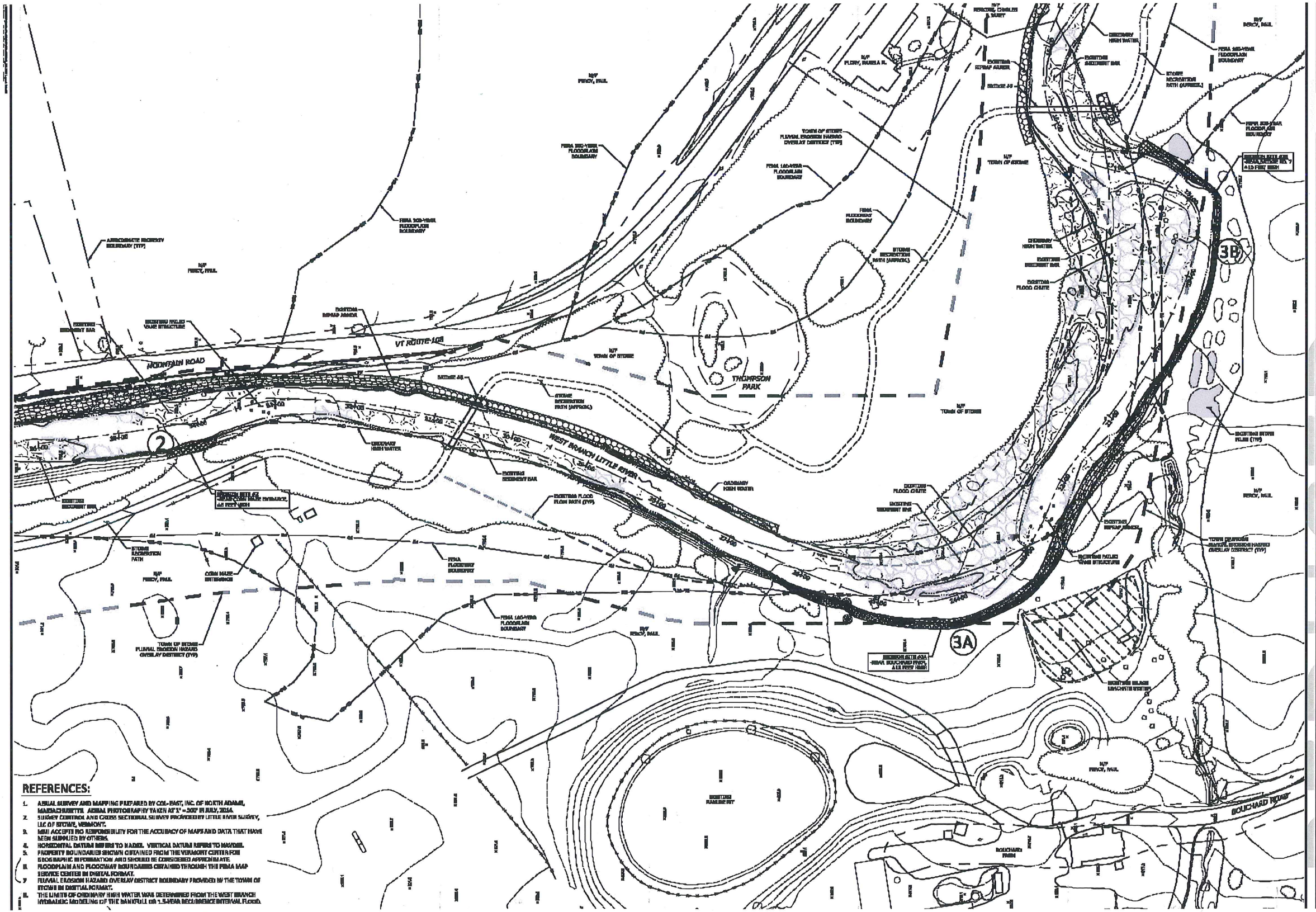
REDUCED



REFERENCES:

1. AERIAL SURVEY AND MAPPING PREPARED BY COL-EAST, INC. OF NORTH ADAMS, MASSACHUSETTS. AERIAL PHOTOGRAPHY TAKEN AT 1" = 200' IN JULY, 2014.
2. SURVEY CONTROL AND CROSS SECTIONAL SURVEY PROVIDED BY LITTLE RIVER SURVEY, LLC OF STOWE, VERMONT.
3. MMI ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA THAT HAVE BEEN SUPPLIED BY OTHERS.
4. HORIZONTAL DATUM REFERS TO NAD83. VERTICAL DATUM REFERS TO NAVD88.
5. PROPERTY BOUNDARIES SHOWN OBTAINED FROM THE VERMONT CENTER FOR GEOGRAPHIC INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE.
6. FLOODPLAIN AND FLOODWAY BOUNDARIES OBTAINED THROUGH THE FEMA MAP SERVICE CENTER IN DIGITAL FORMAT.
7. FLUVIAL EROSION HAZARD OVERLAY DISTRICT BOUNDARY PROVIDED BY THE TOWN OF STOWE IN DIGITAL FORMAT.
8. THE LIMITS OF ORDINARY HIGH WATER WAS DETERMINED FROM THE WEST BRANCH HYDRAULIC MODELING OF THE BANKFULL OR 1.5-YEAR RECURRENCE INTERVAL FLOOD.

TOWN OF STOWE

MILONE & MACBROOM®
1 Church Hill Road, 2nd Floor
W Windsor, Vermont 05089
(802) 674-5003
Fax (802) 674-5016
www.milonemacbroom.com

DATE	BY	DESCRIPTION

SITE PLAN - EXISTING CONDITIONS

WEST BRANCH LITTLE RIVER MANAGEMENT

STOWE, VERMONT

REGULATORY DRAWING

DMC	DMC	RKD
DESIGNED	DRAWN	REVIEWED

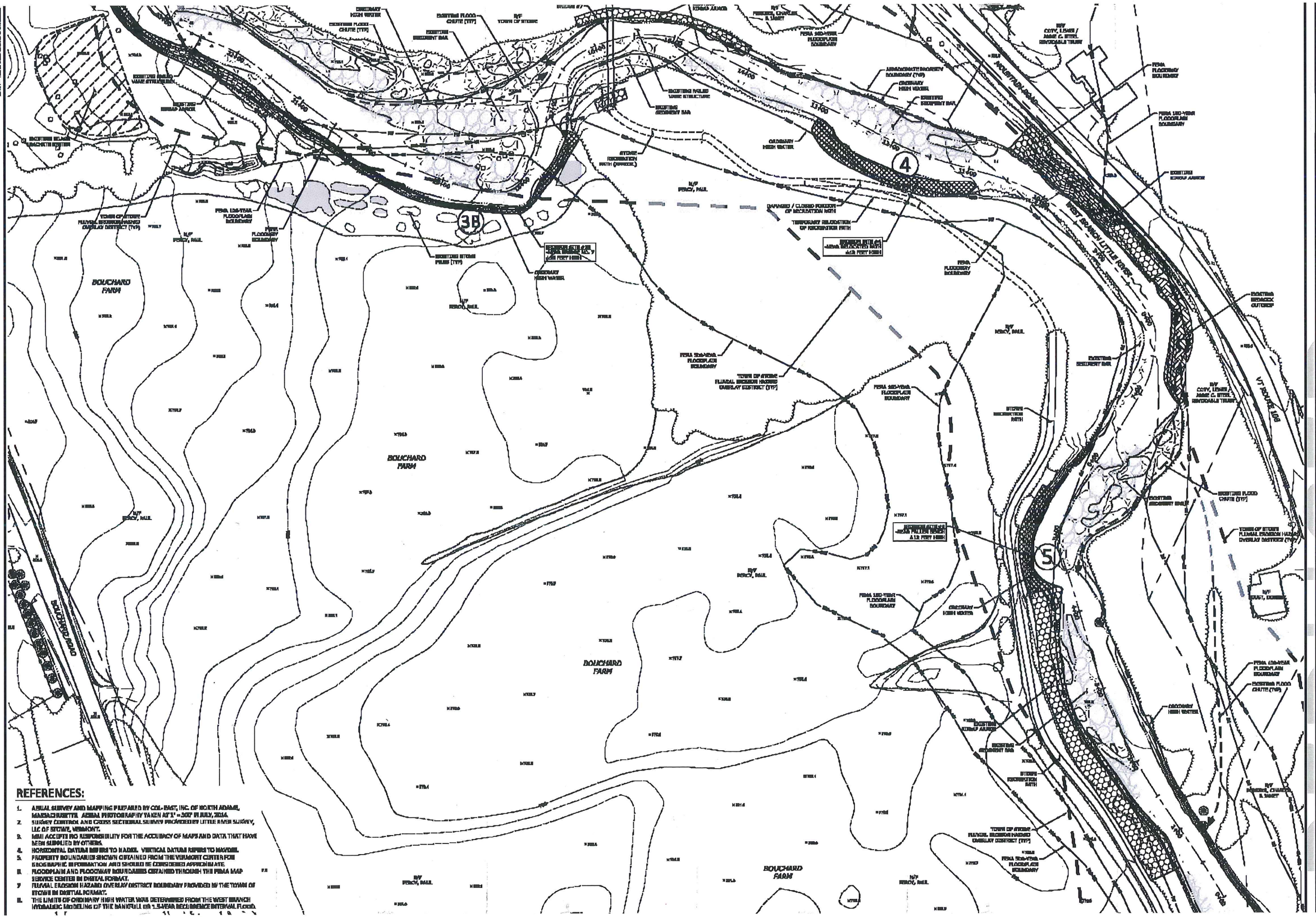
SCALE: 1" = 60'

DATE: MAY 13, 2016

DRAWING NO. 8449-01-4

SHEET 1 OF 10

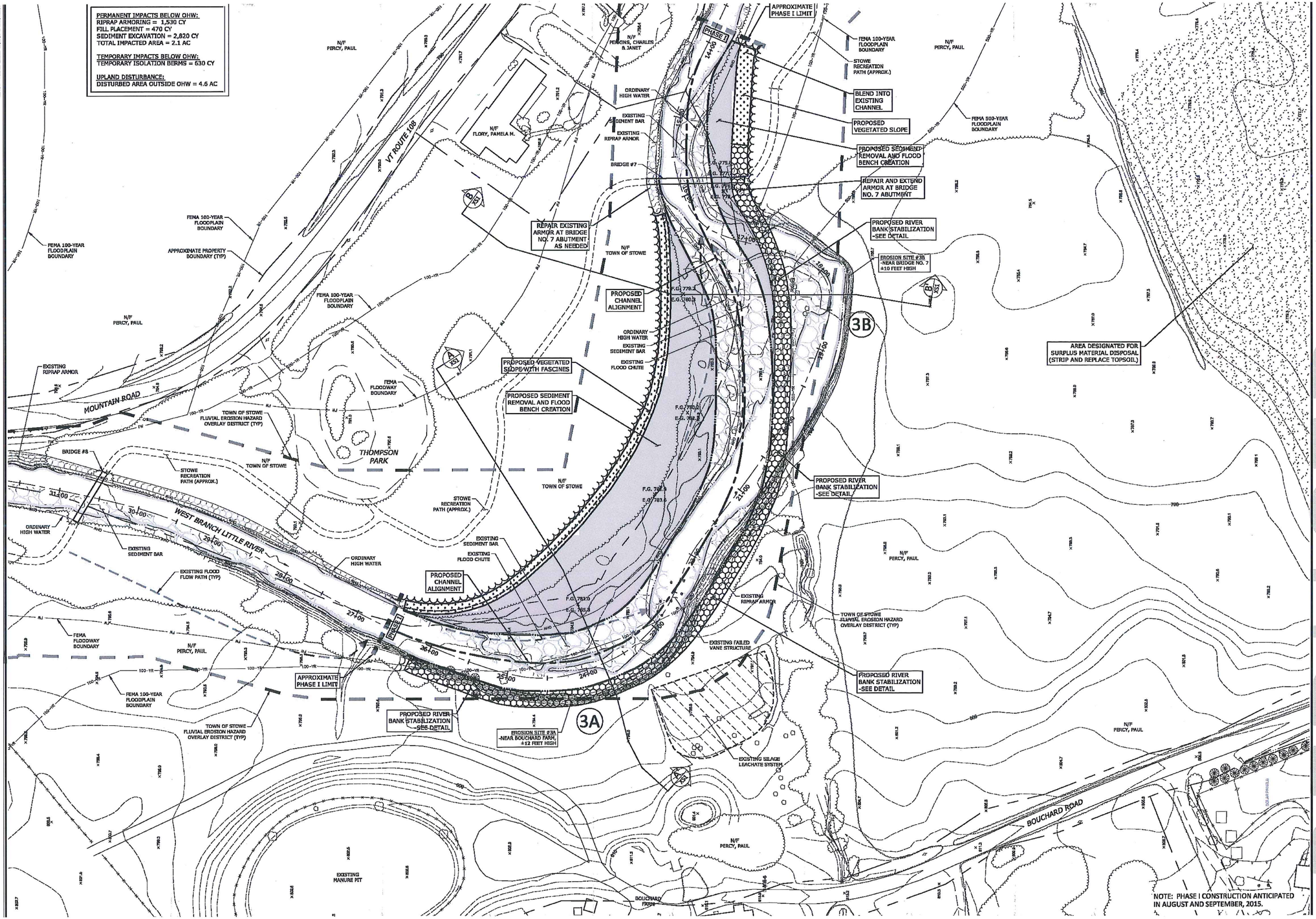
EX1


BOUCHARD FARM
BOUCHARD ROAD
WEST BRANCH LITTLE RIVER
VT ROUTE 100
ORDINARY HIGH WATER
EXISTING FLOOD CHUTE (TYP)
EXISTING SEDIMENT BAR
FEMA 100-YEAR FLOODPLAIN BOUNDARY
FEMA 500-YEAR FLOODPLAIN BOUNDARY
TOWN OF STOWE FLUVIAL EROSION HAZARD OVERLAY DISTRICT (TYP)
EXISTING STORM PIPES (TYP)
EXISTING BUILDING WOOD STRUCTURE
EXISTING BUILDING MASONRY STRUCTURE
EXISTING BUILDING WOOD STRUCTURE
EXISTING BUILDING MASONRY STRUCTURE
EXISTING BRIDGE ABUTMENT
EXISTING BRIDGE ABUTMENT
EXISTING BRIDGE ABUTMENT

PERMANENT IMPACTS BELOW OHW:
RIPRAP ARMORING = 1,530 CY
FILL PLACEMENT = 470 CY
SEDIMENT EXCAVATION = 2,820 CY
TOTAL IMPACTED AREA = 2.1 AC

TEMPORARY IMPACTS BELOW OHW:
TEMPORARY ISOLATION BERMS = 630 CY

UPLAND DISTURBANCE:
DISTURBED AREA OUTSIDE OHW = 4.6 AC



NOTE: PHASE I CONSTRUCTION ANTICIPATED IN AUGUST AND SEPTEMBER, 2015.

TOWN OF STOWE

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DESCRIPTION	DATE	BY

REGULATORY DRAWING

SITE PLAN - PROPOSED CONDITIONS - PHASE I

WEST BRANCH LITTLE RIVER MANAGEMENT

STOWE, VERMONT

BMC	BMC	RKS
DESIGNED	DRAWN	CHECKED

SCALE: 1" = 50'

DATE: MAY 13, 2015

PROJECT NO.: 5446-01-4

SHEET NO.: 3 OF 10

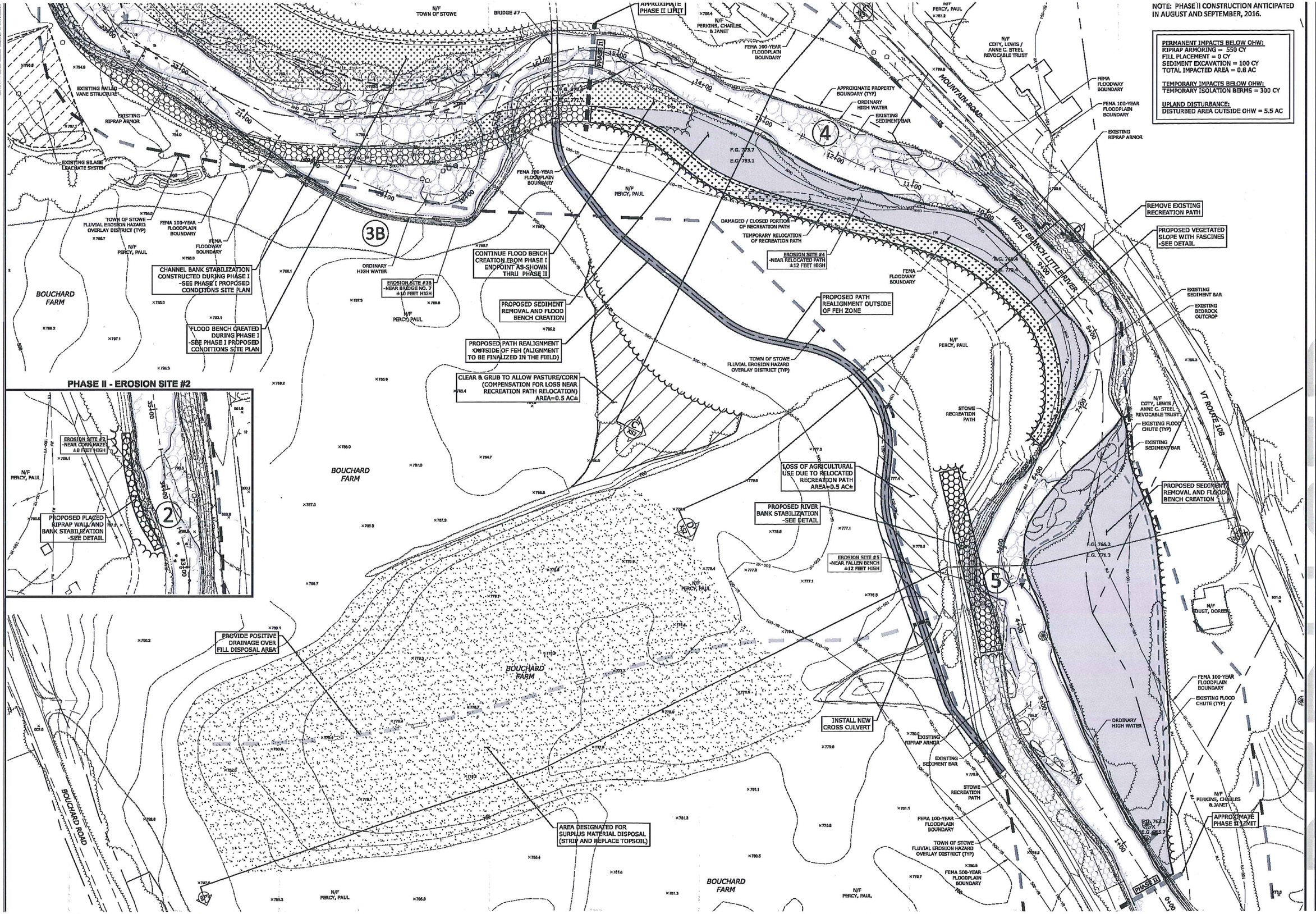
PR1

NOTE: PHASE II CONSTRUCTION ANTICIPATED IN AUGUST AND SEPTEMBER, 2016.

PERMANENT IMPACTS BELOW OHW:
RIPRAP ARMORING = 550 CY
FILL PLACEMENT = 0 CY
SEDIMENT EXCAVATION = 100 CY
TOTAL IMPACTED AREA = 0.8 AC

TEMPORARY IMPACTS BELOW OHW:
TEMPORARY ISOLATION BERMS = 300 CY

UPLAND DISTURBANCE:
DISTURBED AREA OUTSIDE OHW = 5.5 AC



TOWN OF Stowe

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DESCRIPTION	DATE	BY

REGULATORY DRAWING

SITE PLAN - PROPOSED CONDITIONS - PHASE II

WEST BRANCH LITTLE RIVER MANAGEMENT

STOWE, VERMONT

BMC	BMC	RKS
DESIGNED	DRAWN	CHECKED

SCALE: 1" = 50'

DATE: MAY 13, 2015

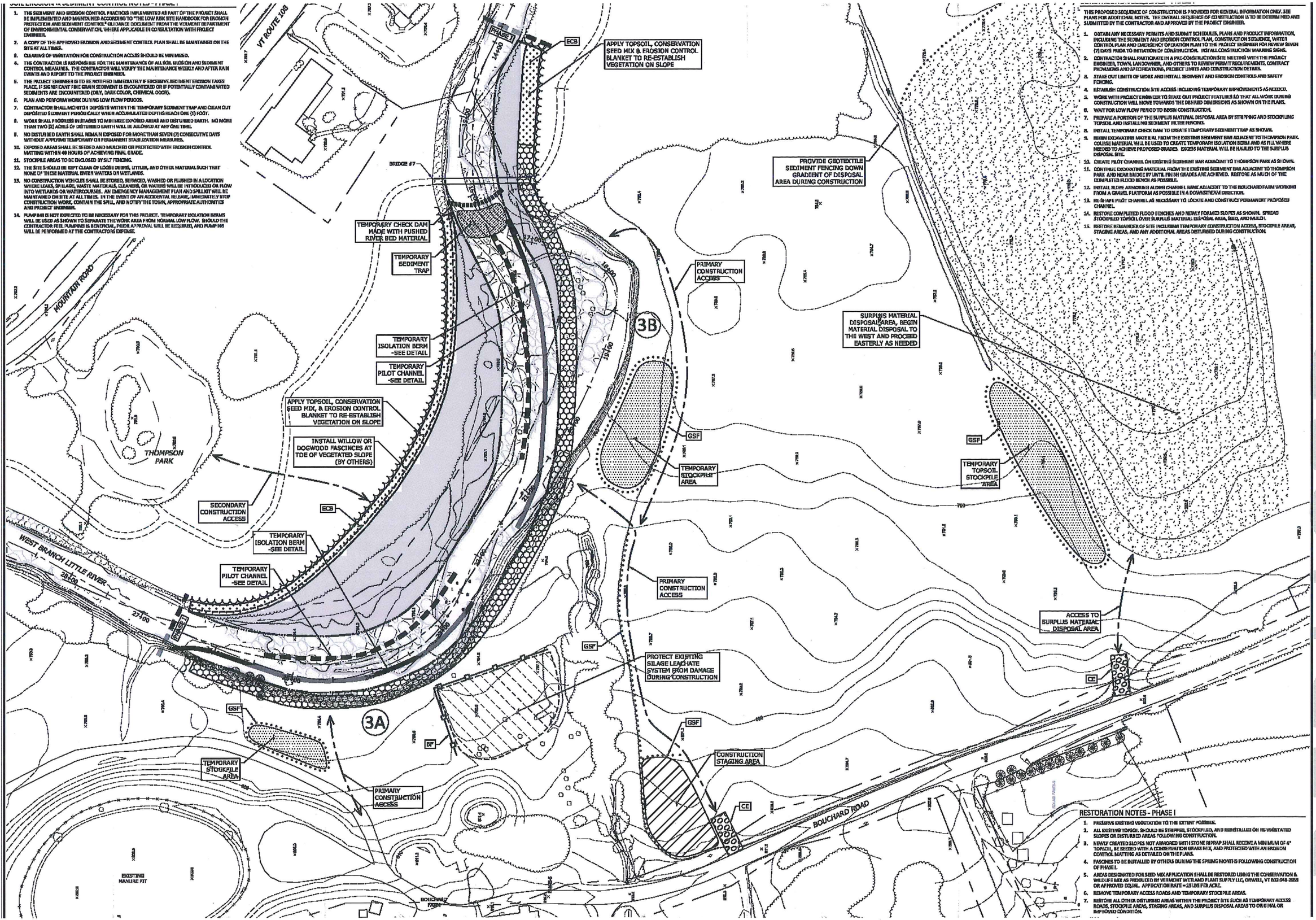
PROJECT NO.: 5446-01-4

SHEET NO.: 4 OF 10

PR2

SOIL EROSION & SEDIMENT CONTROL NOTES - PHASE I

1. THE SEDIMENT AND EROSION CONTROL PRACTICES IMPLEMENTED AS PART OF THE PROJECT SHALL BE IMPLEMENTED AND MAINTAINED ACCORDING TO "THE LOW RISK SITE HANDBOOK FOR EROSION PROTECTION AND SEDIMENT CONTROL" GUIDANCE DOCUMENT FROM THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHERE APPLICABLE IN CONSULTATION WITH PROJECT ENGINEER.
2. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
3. CLEARING OF VEGETATION FOR CONSTRUCTION ACCESS SHOULD BE MINIMIZED.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES. THE CONTRACTOR WILL VERIFY THE MAINTENANCE WEEKLY AND AFTER RAIN EVENTS AND REPORT TO THE PROJECT ENGINEER.
5. THE PROJECT ENGINEER IS TO BE NOTIFIED IMMEDIATELY IF EXCESSIVE SEDIMENT EROSION TAKES PLACE, IF SIGNIFICANT FINE GRAIN SEDIMENT IS ENCOUNTERED OR IF POTENTIALLY CONTAMINATED SEDIMENTS ARE ENCOUNTERED (OILY, DARK COLOR, CHEMICAL ODOR).
6. PLAN AND PERFORM WORK DURING LOW FLOW PERIODS.
7. CONTRACTOR SHALL MONITOR DEPOSITS WITHIN THE TEMPORARY SEDIMENT TRAP AND CLEAN OUT DEPOSITED SEDIMENT PERIODICALLY WHEN ACCUMULATED DEPTHS REACH ONE (1) FOOT.
8. WORK SHALL PROGRESS IN STAGES TO MINIMIZE EXPOSED AREAS AND DISTURBED EARTH. NO MORE THAN TWO (2) ACRES OF DISTURBED EARTH WILL BE ALLOWED AT ANY ONE TIME.
9. NO DISTURBED EARTH SHALL REMAIN EXPOSED FOR MORE THAN SEVEN (7) CONSECUTIVE DAYS WITHOUT APPLYING TEMPORARY OR PERMANENT STABILIZATION MEASURES.
10. EXPOSED AREAS SHALL BE SEEDED AND MULCHED OR PROTECTED WITH EROSION CONTROL MATTING WITHIN 48 HOURS OF ACHIEVING FINAL GRADE.
11. STOCKPILE AREAS TO BE ENCLOSED BY SILT FENCING.
12. THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER, AND OTHER MATERIAL SUCH THAT NONE OF THESE MATERIAL ENTER WATERS OR WETLANDS.
13. NO CONSTRUCTION VEHICLES SHALL BE STORED, SERVICED, WASHED OR FLUSHED IN A LOCATION WHERE LEAKS, SPILLAGE, WASTE MATERIALS, CLEANERS, OR WATERS WILL BE INTRODUCED OR FLOW INTO WETLANDS OR WATERCOURSES. AN EMERGENCY MANAGEMENT PLAN AND SPILL KIT WILL BE MAINTAINED ON SITE AT ALL TIMES. IN THE EVENT OF AN ACCIDENTAL RELEASE, IMMEDIATELY STOP CONSTRUCTION WORK, CONTAIN THE SPILL, AND NOTIFY THE TOWN, APPROPRIATE AUTHORITIES AND PROJECT ENGINEER.
14. PUMPING IS NOT EXPECTED TO BE NECESSARY FOR THIS PROJECT. TEMPORARY ISOLATION BERMS WILL BE USED AS SHOWN TO SEPARATE THE WORK AREA FROM NORMAL LOW FLOW. SHOULD THE CONTRACTOR FEEL PUMPING IS BENEFICIAL, PRIOR APPROVAL WILL BE REQUIRED, AND PUMPING WILL BE PERFORMED AT THE CONTRACTORS EXPENSE.



THIS PROPOSED SEQUENCE OF CONSTRUCTION IS PROVIDED FOR GENERAL INFORMATION ONLY. SEE PLANS FOR ADDITIONAL NOTES. THE OVERALL SEQUENCE OF CONSTRUCTION IS TO BE DETERMINED AND SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE PROJECT ENGINEER.

1. OBTAIN ANY NECESSARY PERMITS AND SUBMIT SCHEDULES, PLANS AND PRODUCT INFORMATION, INCLUDING THE SEDIMENT AND EROSION CONTROL PLAN, CONSTRUCTION SEQUENCE, WATER CONTROL PLAN AND EMERGENCY OPERATION PLAN TO THE PROJECT ENGINEER FOR REVIEW SEVEN (7) DAYS PRIOR TO INITIATION OF CONSTRUCTION. INSTALL CONSTRUCTION WARNING SIGNS.
2. CONTRACTOR SHALL PARTICIPATE IN A PRE-CONSTRUCTION SITE MEETING WITH THE PROJECT ENGINEER, TOWN, LANDOWNER, AND OTHERS TO REVIEW PERMIT REQUIREMENTS, CONTRACT PROVISIONS AND SPECIFICATIONS, PROJECT LIMITS AND CONSTRUCTION DETAILS.
3. STAKE OUT LIMITS OF WORK AND INSTALL SEDIMENT AND EROSION CONTROLS AND SAFETY FENCING.
4. ESTABLISH CONSTRUCTION SITE ACCESS (INCLUDING TEMPORARY IMPROVEMENTS AS NEEDED).
5. WORK WITH PROJECT ENGINEER TO STAKE OUT PROJECT FEATURES SO THAT ALL WORK DURING CONSTRUCTION WILL MOVE TOWARDS THE DESIRED DIMENSIONS AS SHOWN ON THE PLANS.
6. WAIT FOR LOW FLOW PERIOD TO BEGIN CONSTRUCTION.
7. PREPARE A PORTION OF THE SURPLUS MATERIAL DISPOSAL AREA BY STRIPPING AND STOCKPILING TOPSOIL AND INSTALLING SEDIMENT FILTER FENCING.
8. INSTALL TEMPORARY CHECK DAM TO CREATE TEMPORARY SEDIMENT TRAP AS SHOWN.
9. BEGIN EXCAVATING MATERIAL FROM THE EXISTING SEDIMENT BAR ADJACENT TO THOMPSON PARK. COARSE MATERIAL WILL BE USED TO CREATE TEMPORARY ISOLATION BERM AND AS FILL WHERE NEEDED TO ACHIEVE PROPOSED GRADES. EXCESS MATERIAL WILL BE HAULED TO THE SURPLUS DISPOSAL SITE.
10. CREATE PILOT CHANNEL ON EXISTING SEDIMENT BAR ADJACENT TO THOMPSON PARK AS SHOWN.
11. CONTINUE EXCAVATING MATERIAL FROM THE EXISTING SEDIMENT BAR ADJACENT TO THOMPSON PARK AND NEAR BRIDGE BY UNITS. FINISH GRADES ARE ACHIEVED. RESTORE AS MUCH OF THE COMPLETED FLOOD BENCH AS POSSIBLE.
12. INSTALL SLOPE ARMORING ALONG CHANNEL BANK ADJACENT TO THE BOUCHARD FARM WORKING FROM A GRAVEL PLATFORM AS POSSIBLE IN A DOWNSTREAM DIRECTION.
13. RE-SHAPE PILOT CHANNEL AS NECESSARY TO LOCATE AND CONSTRUCT PERMANENT PROPOSED CHANNEL.
14. RESTORE COMPLETED FLOOD BENCHES AND NEWLY FORMED SLOPES AS SHOWN. SPREAD STOCKPILED TOPSOIL OVER SURPLUS MATERIAL DISPOSAL AREA, SEED, AND MULCH.
15. RESTORE REMAINDER OF SITE INCLUDING TEMPORARY CONSTRUCTION ACCESS, STOCKPILE AREAS, STAGING AREAS, AND ANY ADDITIONAL AREAS DISTURBED DURING CONSTRUCTION.

RESTORATION NOTES - PHASE I

1. PRESERVE EXISTING VEGETATION TO THE EXTENT POSSIBLE.
2. ALL EXISTING TOPSOIL SHOULD BE STRIPPED, STOCKPILED, AND REINSTALLED ON RE-VEGETATED SLOPES OR DISTURBED AREAS FOLLOWING CONSTRUCTION.
3. NEWLY CREATED SLOPES NOT ARMORED WITH STONE RIPRAP SHALL RECEIVE A MINIMUM OF 4" TOPSOIL, BE SEEDED WITH A CONSERVATION GRASS MIX, AND PROTECTED WITH AN EROSION CONTROL MATTING AS DETAILED ON THE PLANS.
4. FASCINES TO BE INSTALLED BY OTHERS DURING THE SPRING MONTHS FOLLOWING CONSTRUCTION OF PHASE I.
5. AREAS DESIGNATED FOR SEED MIX APPLICATION SHALL BE RESTORED USING THE CONSERVATION & WILDLIFE MIX AS PRODUCED BY VERMONT WETLAND PLANT SUPPLY LLC, CORNWALL, VT 802-948-2558 OR APPROVED EQUAL. APPLICATION RATE = 25 LBS PER ACRE.
6. REMOVE TEMPORARY ACCESS ROADS AND TEMPORARY STOCKPILE AREAS.
7. RESTORE ALL OTHER DISTURBED AREAS WITHIN THE PROJECT SITE SUCH AS TEMPORARY ACCESS ROADS, STOCKPILE AREAS, STAGING AREAS, AND SURPLUS DISPOSAL AREAS TO ORIGINAL OR IMPROVED CONDITION.

TOWN OF STOWE

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DESCRIPTION	DATE	BY

REGULATORY DRAWING

SEDIMENT & EROSION CONTROL PLAN - PHASE I

WEST BRANCH LITTLE RIVER MANAGEMENT

STOWE, VERMONT

DESIGNED	DRAWN	CHECKED
BMC	BMC	RKB

SCALE: 1" = 50'

DATE: MAY 13, 2015

PROJECT NO. 3446-01-4

SHEET NO. 5 OF 10

SHEET NAME: SE1

THIS PROPOSED SEQUENCE OF CONSTRUCTION IS PROVIDED FOR GENERAL INFORMATION ONLY. SEE PLANS FOR ADDITIONAL NOTES. THE OVERALL SEQUENCE OF CONSTRUCTION IS TO BE DETERMINED AND SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE PROJECT ENGINEER.

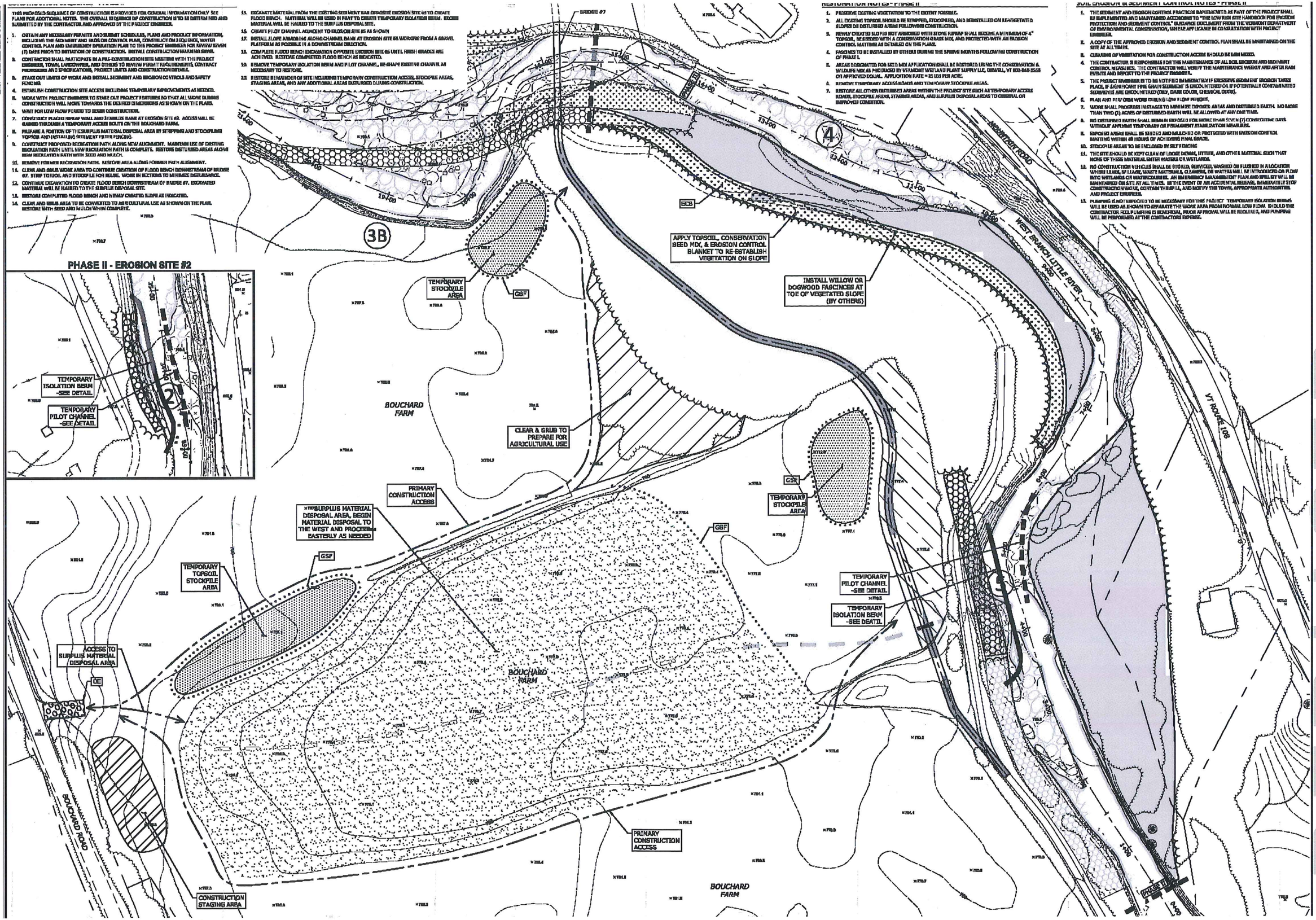
1. OBTAIN ANY NECESSARY PERMITS AND SUBMIT SCHEDULES, PLANS AND PRODUCT INFORMATION, INCLUDING THE SEDIMENT AND EROSION CONTROL PLAN, CONSTRUCTION SEQUENCE, WATER CONTROL PLAN AND EMERGENCY OPERATION PLAN TO THE PROJECT ENGINEER FOR REVIEW SEVEN (7) DAYS PRIOR TO INITIATION OF CONSTRUCTION. INSTALL CONSTRUCTION WARNING SIGNS.
2. CONTRACTOR SHALL PARTICIPATE IN A PRE-CONSTRUCTION SITE MEETING WITH THE PROJECT ENGINEER, TOWN, LANDOWNER, AND OTHERS TO REVIEW PERMIT REQUIREMENTS, CONTRACT PROVISIONS AND SPECIFICATIONS, PROJECT LIMITS AND CONSTRUCTION DETAILS.
3. STAKE OUT LIMITS OF WORK AND INSTALL SEDIMENT AND EROSION CONTROLS AND SAFETY FENCING.
4. ESTABLISH CONSTRUCTION SITE ACCESS INCLUDING TEMPORARY IMPROVEMENTS AS NEEDED.
5. WORK WITH PROJECT ENGINEER TO STAKE OUT PROJECT FEATURES SO THAT ALL WORK DURING CONSTRUCTION WILL MOVE TOWARDS THE DESIRED DIMENSIONS AS SHOWN ON THE PLANS.
6. WAIT FOR LOW FLOW PERIOD TO BEGIN CONSTRUCTION.
7. CONSTRUCT PLACED RIPRAP WALL AND STABILIZE BANK AT EROSION SITE #3. ACCESS WILL BE GAINED THROUGH A TEMPORARY ACCESS ROUTE ON THE BOUCHARD FARM.
8. PREPARE A PORTION OF THE SURPLUS MATERIAL DISPOSAL AREA BY STRIPPING AND STOCKPILING TOPSOIL AND INSTALLING SEDIMENT FILTER FENCING.
9. CONSTRUCT PROPOSED RECREATION PATH ALONG NEW ALIGNMENT. MAINTAIN USE OF EXISTING RECREATION PATH UNTIL NEW RECREATION PATH IS COMPLETE. RESTORE DISTURBED AREAS ALONG NEW RECREATION PATH WITH SEED AND MULCH.
10. REMOVE FORMER RECREATION PATH. RESTORE AREA ALONG FORMER PATH ALIGNMENT.
11. CLEAR AND GRUB WORK AREA TO CONTINUE CREATION OF FLOOD BENCH DOWNSTREAM OF BRIDGE #7. STRIP TOPSOIL AND STOCKPILE FOR REUSE. WORK IN SECTIONS TO MINIMIZE DISTURBANCE.
12. CONTINUE EXCAVATION TO CREATE FLOOD BENCH DOWNSTREAM OF BRIDGE #7. EXCAVATED MATERIAL WILL BE HAULED TO THE SURPLUS DISPOSAL SITE.
13. RESTORE COMPLETED FLOOD BENCH AND NATURALLY CREATED SLOPE AS INDICATED.
14. CLEAR AND GRUB AREA TO BE CONVERTED TO AGRICULTURAL USE AS SHOWN ON THE PLAN. RESTORE WITH SEED AND MULCH WHEN COMPLETE.
15. EXCAVATE MATERIAL FROM THE EXISTING SEDIMENT BAR DURING EROSION SITE #3 TO CREATE FLOOD BENCH. MATERIAL WILL BE USED IN PART TO CREATE TEMPORARY ISOLATION BERM. EXCESS MATERIAL WILL BE HAULED TO THE SURPLUS DISPOSAL SITE.
16. CREATE PILOT CHANNEL ADJACENT TO EROSION SITE #3 AS SHOWN.
17. INSTALL SLOPE ARMORING ALONG CHANNEL BANK AT EROSION SITE #3 WORKING FROM A GRAVEL PLATFORM AS POSSIBLE IN A DOWNSTREAM DIRECTION.
18. COMPLETE FLOOD BENCH EXCAVATION OPPOSITE EROSION SITE #3 UNTIL FINISH GRADES ARE ACHIEVED. RESTORE COMPLETED FLOOD BENCH AS INDICATED.
19. REMOVE TEMPORARY ISOLATION BERM AND PILOT CHANNEL, RE-SHAPE EXISTING CHANNEL AS NECESSARY TO RESTORE.
20. RESTORE REMAINDER OF SITE INCLUDING TEMPORARY CONSTRUCTION ACCESS, STOCKPILE AREAS, STAGING AREAS, AND ANY ADDITIONAL AREAS DISTURBED DURING CONSTRUCTION.

RESTORATION NOTES - PHASE II

1. PRESERVE EXISTING VEGETATION TO THE EXTENT POSSIBLE.
2. ALL EXISTING TOPSOIL SHOULD BE STRIPPED, STOCKPILED, AND REINSTALLED ON REVEGETATED SLOPES OR DISTURBED AREAS FOLLOWING CONSTRUCTION.
3. NEWLY CREATED SLOPES NOT ARMORED WITH STONE RIPRAP SHALL RECEIVE A MINIMUM OF 4" TOPSOIL, BE SEEDED WITH A CONSERVATION GRASS MIX, AND PROTECTED WITH AN EROSION CONTROL MATTING AS DETAILED ON THE PLANS.
4. FASCINES TO BE INSTALLED BY OTHERS DURING THE SPRING MONTHS FOLLOWING CONSTRUCTION OF PHASE I.
5. AREAS DESIGNATED FOR SEED MIX APPLICATION SHALL BE RESTORED USING THE CONSERVATION & WILDLIFE MIX AS PRODUCED BY VERMONT WETLAND PLANT SUPPLY LLC, CHESTER, VT 802-848-3558 OR APPROVED EQUAL. APPLICATION RATE = 25 LBS PER ACRE.
6. REMOVE TEMPORARY ACCESS ROADS AND TEMPORARY STOCKPILE AREAS.
7. RESTORE ALL OTHER DISTURBED AREAS WITHIN THE PROJECT SITE SUCH AS TEMPORARY ACCESS ROADS, STOCKPILE AREAS, STAGING AREAS, AND SURPLUS DISPOSAL AREAS TO ORIGINAL OR IMPROVED CONDITION.

SOIL EROSION & SEDIMENT CONTROL NOTES - PHASE II

1. THE SEDIMENT AND EROSION CONTROL PRACTICES IMPLEMENTED AS PART OF THE PROJECT SHALL BE IMPLEMENTED AND MAINTAINED ACCORDING TO "THE LOW RISK SITE HANDBOOK FOR EROSION PROTECTION AND SEDIMENT CONTROL" GUIDANCE DOCUMENT FROM THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WHERE APPLICABLE IN CONSULTATION WITH PROJECT ENGINEER.
2. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
3. CLEARING OF VEGETATION FOR CONSTRUCTION ACCESS SHOULD BE MINIMIZED.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF ALL BOX, EROSION AND SEDIMENT CONTROL MEASURES. THE CONTRACTOR WILL VERIFY THE MAINTENANCE WEEKLY AND AFTER RAIN EVENTS AND REPORT TO THE PROJECT ENGINEER.
5. THE PROJECT ENGINEER IS TO BE NOTIFIED IMMEDIATELY IF EXCESSIVE SEDIMENT EROSION TAKES PLACE, IF SIGNIFICANT FINE GRAIN SEDIMENT IS ENCOUNTERED OR IF POTENTIALLY CONTAMINATED SEDIMENTS ARE ENCOUNTERED (OILY, DARK COLOR, CHEMICAL ODOR).
6. PLAN AND PERFORM WORK DURING LOW FLOW PERIOD.
7. WORK SHALL PROGRESS IN STAGES TO MINIMIZE EXPOSED AREAS AND DISTURBED EARTH. NO MORE THAN TWO (2) ACRES OF DISTURBED EARTH WILL BE ALLOWED AT ANY ONE TIME.
8. NO DISTURBED EARTH SHALL REMAIN EXPOSED FOR MORE THAN SEVEN (7) CONSECUTIVE DAYS WITHOUT APPLYING TEMPORARY OR PERMANENT STABILIZATION MEASURES.
9. EXPOSED AREAS SHALL BE SEEDED AND MULCHED OR PROTECTED WITH EROSION CONTROL MATTING WITHIN 48 HOURS OF ACHIEVING FINAL GRADE.
10. STOCKPILE AREAS TO BE ENCLOSED BY SILT FENCING
11. THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER, AND OTHER MATERIAL SUCH THAT NONE OF THESE MATERIAL ENTER WATERS OR WETLANDS.
12. NO CONSTRUCTION VEHICLES SHALL BE STORED, SERVICED, WASHED OR FUELED IN A LOCATION WHERE LEAKS, SPILLAGE, WASTE MATERIALS, CLEANERS, OR WATER WILL BE INTRODUCED OR FLOW INTO WETLANDS OR WATERCOURSES. AN EMERGENCY MANAGEMENT PLAN AND SPILL KIT WILL BE MAINTAINED ON SITE AT ALL TIMES. IN THE EVENT OF AN ACCIDENTAL RELEASE, IMMEDIATELY STOP CONSTRUCTION WORK, CONTAIN THE SPILL, AND NOTIFY THE TOWN, APPROPRIATE AUTHORITIES AND PROJECT ENGINEER.
13. PUMPING IS NOT EXPECTED TO BE NECESSARY FOR THIS PROJECT. TEMPORARY ISOLATION BERMS WILL BE USED AS SHOWN TO SEPARATE THE WORK AREA FROM NORMAL LOW FLOW. SHOULD THE CONTRACTOR FEEL PUMPING IS BENEFICIAL, PRIOR APPROVAL WILL BE REQUIRED, AND PUMPING WILL BE PERFORMED AT THE CONTRACTORS EXPENSE.



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MILONE & MACBROOM®
1 South Mills Street, 2nd Floor
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(802) 863-4544
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DATE	BY	DESCRIPTION

REGULATORY DRAWING

SEDIMENT & EROSION CONTROL PLAN - PHASE II

WEST BRANCH LITTLE RIVER MANAGEMENT

STOWE, VERMONT

BMC	BMC	RJCB
DRAWN	DESIGN	CHECKED

SCALE: 1" = 60'

DATE: MAY 13, 2016

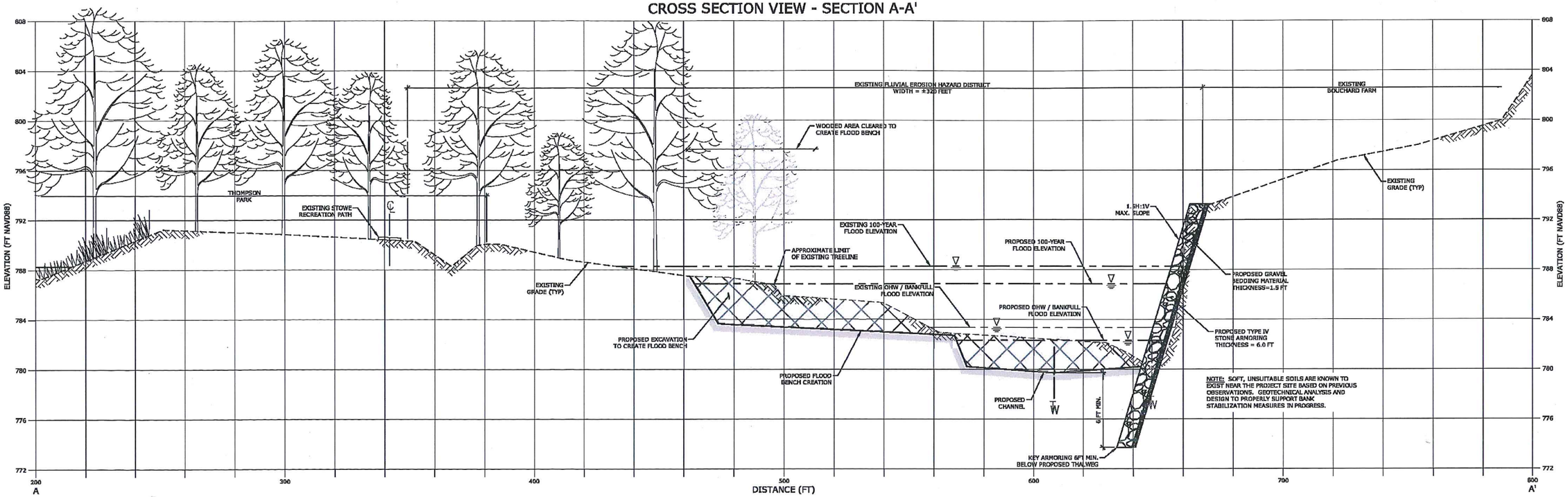
PROJECT NO.: 5448-11-4

SHEET NO.: 6 OF 10

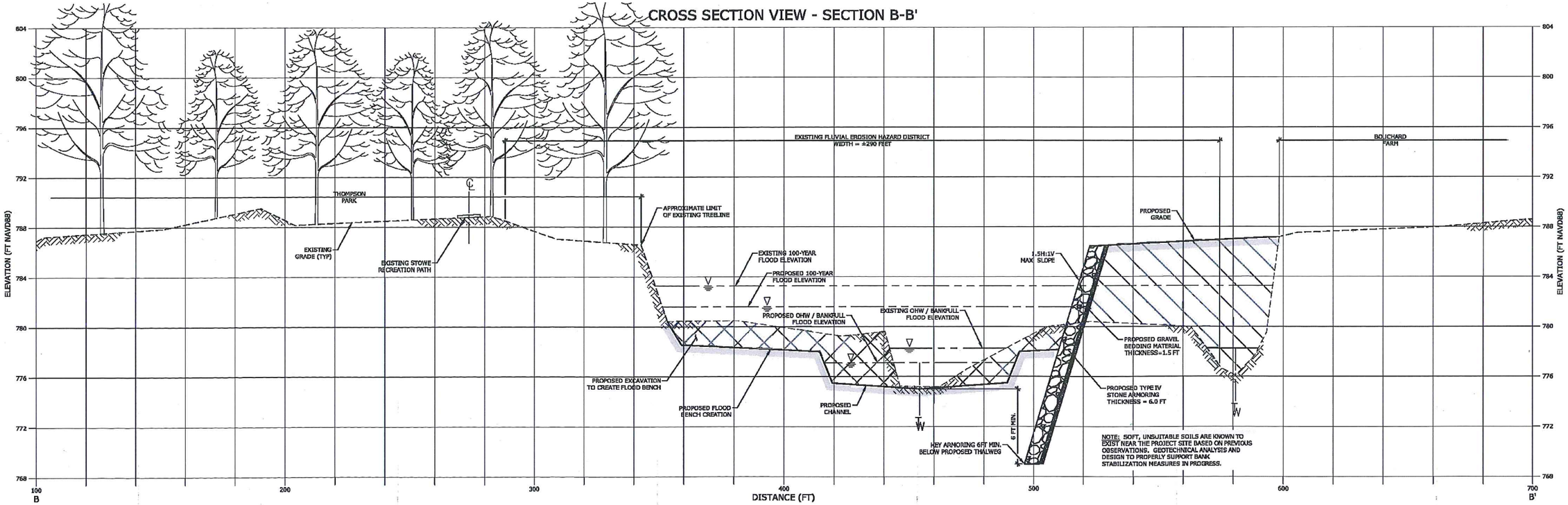
SHEET NAME: SE2

NOTE: CROSS SECTION VIEWS SHOWN IN LEFT TO RIGHT ORIENTATION LOOKING DOWNSTREAM.

CROSS SECTION VIEW - SECTION A-A'



CROSS SECTION VIEW - SECTION B-B'



SCALE 1"=20'H 1"=4'V

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DATE	BY

DESCRIPTION

REGULATORY DRAWING

CROSS SECTIONS

WEST BRANCH LITTLE RIVER MANAGEMENT

STOWE, VERMONT

BMC	BMC	RKS
DESIGNED	DRAWN	CHECKED

SCALE: 1" = 20' H, 1" = 4' V

DATE: MAY 13, 2015

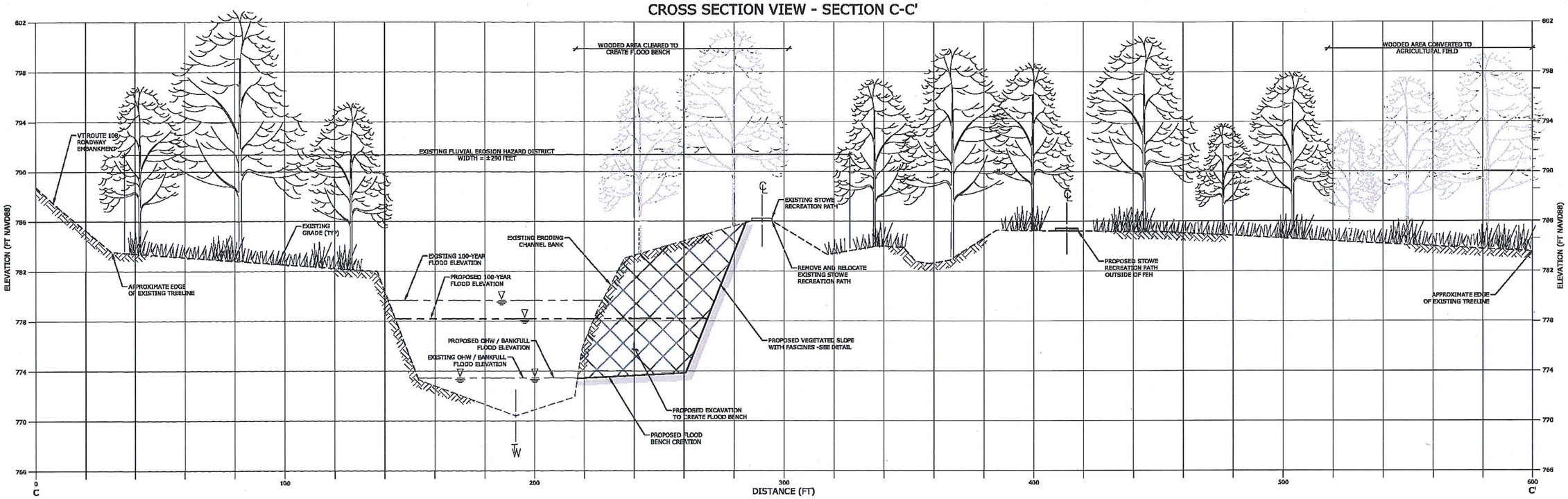
PROJECT NO.: 5446-01-4

SHEET NO.: 7 OF 10

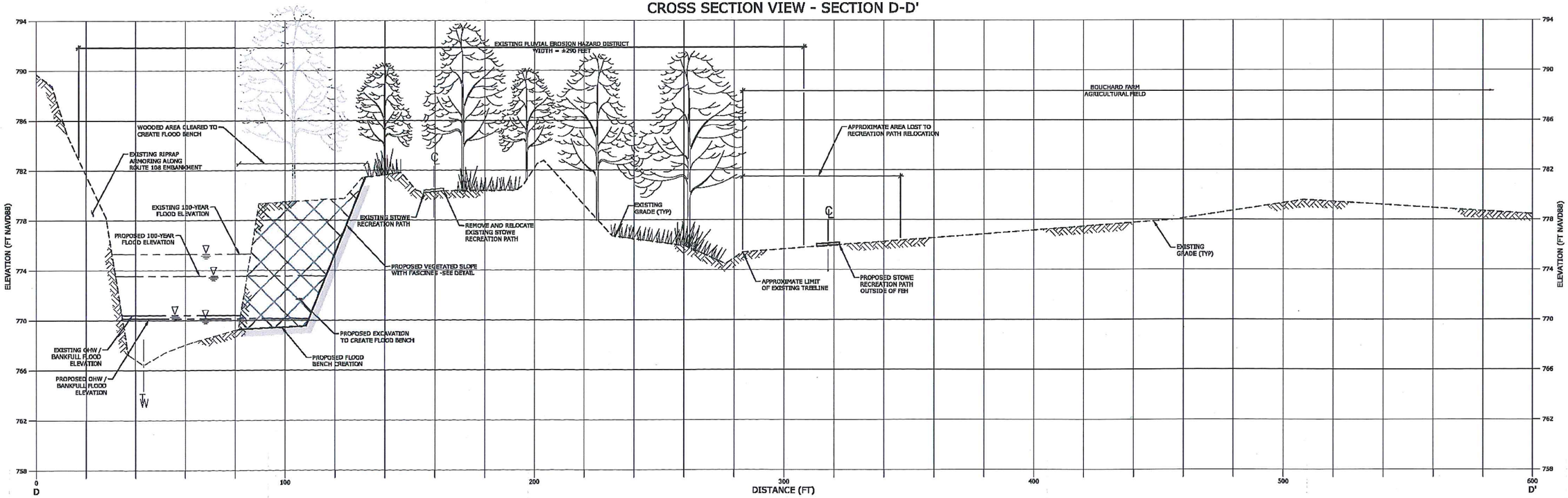
XS1

NOTE: CROSS SECTION VIEWS SHOWN IN A LEFT TO RIGHT ORIENTATION LOOKING DOWNSTREAM.

CROSS SECTION VIEW - SECTION C-C'



CROSS SECTION VIEW - SECTION D-D'



SCALE 1"=20'H 1"=4'V

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DESCRIPTION	DATE	BY

REGULATORY DRAWING

CROSS SECTIONS

WEST BRANCH LITTLE RIVER MANAGEMENT

STOWE, VERMONT

BMC	BMC	RKS
DESIGNED	DRAWN	CHECKED

SCALE: 1" = 20' H, 1" = 4' V

DATE: MAY 13, 2015

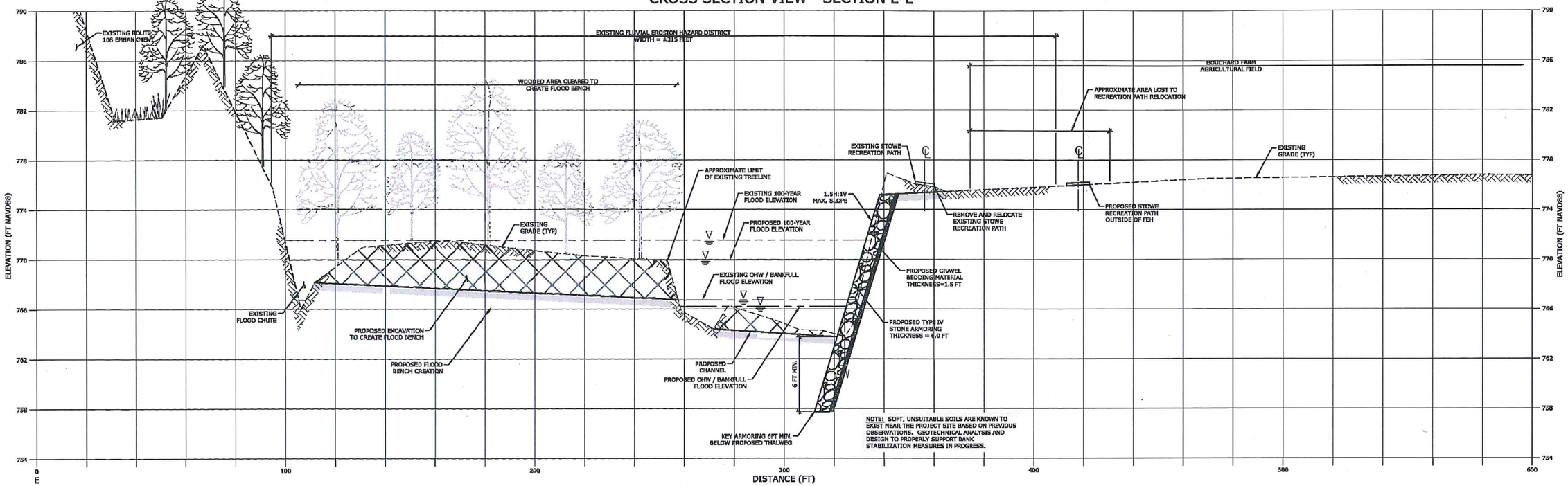
PROJECT NO.: 5446-01-4

SHEET NO.: 8 OF 10

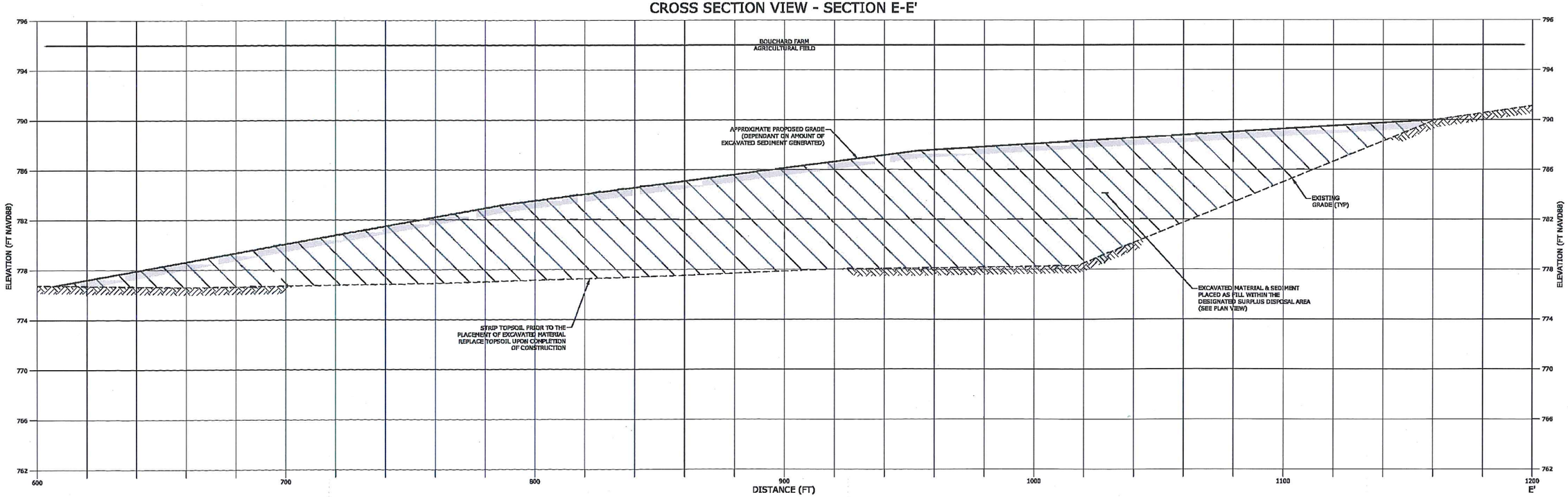
XS2

NOTE: CROSS SECTION VIEWS SHOWN IN A LEFT TO RIGHT ORIENTATION LOOKING DOWNSTREAM.

CROSS SECTION VIEW - SECTION E-E'



CROSS SECTION VIEW - SECTION E-E'



SCALE 1" = 20' H
1" = 4' V

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DESCRIPTION	DATE	BY

REGULATORY DRAWING

CROSS SECTIONS

WEST BRANCH LITTLE RIVER MANAGEMENT

STOWE, VERMONT

DESIGNED	DRAWN	CHECKED
BMC	BMC	RKS

SCALE: 1" = 20' H, 1" = 4' V

DATE: MAY 13, 2015

PROJECT NO.: 5446-01-4

SHEET NO.: 9 OF 10

XS3

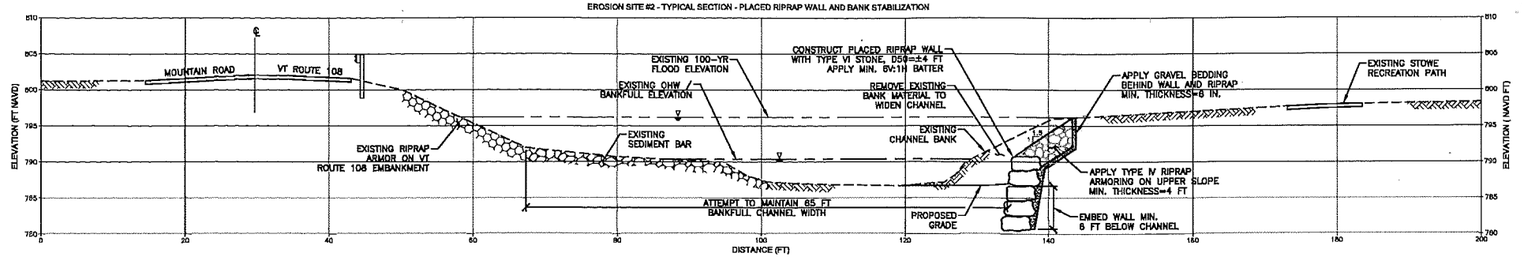
GENERAL NOTES

1. THE CONTRACTOR SHALL DESIGNATE A SUPERINTENDENT AT THE START OF CONSTRUCTION AND THE CONTRACTOR'S SUPERINTENDENT SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR AND HIS/HER JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR COMPLYING WITH THE JOB SPECIFICATIONS AND PERMIT REQUIREMENTS.
2. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER FOR DETERMINATION. THE CONTRACTOR IS EXPECTED TO PROVIDE FIELD ENGINEERING SERVICES DURING CONSTRUCTION TO ESTABLISH AND RECORD GRADES, LINES, AND ELEVATIONS. EXACT ELEVATIONS, SLOPES, AND CHANNEL SHAPES WILL BE APPROVED IN FIELD BY THE PROJECT ENGINEER.
3. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "DIG SAFE" AT 1-888-DIG-SAFE (344-7233). THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO DISTURB EXISTING UTILITIES.
4. THE PROJECT SITE IS SUBJECT TO FLOODING. THE CONTRACTOR SHALL MONITOR WEATHER FORECASTS AND STABILIZE THE CONSTRUCTION SITE AND REMOVE EQUIPMENT FROM FLOOD PRONE AREAS IN THE EVENT OF FLOOD WARNINGS. ALL WORK SHALL BE PERFORMED DURING LOW WATER.
5. CONTRACTOR MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS AND REGULATIONS THROUGHOUT DURATION OF PROJECT. COMPLIANCE WITH ALL CONDITIONS OF APPLICABLE AND SECURED PERMITS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE. COPIES OF ALL PERMITS AND AUTHORIZATIONS SHALL BE MAINTAINED ON THE PROJECT SITE BY THE CONTRACTOR THROUGHOUT CONSTRUCTION.
6. ALL STORAGE AND ACCESS ROUTES, PEDESTRIAN FENCES/BARRIERS, WORKING HOURS, AND LIMITS OF CLEARING SHALL BE FLAGGED BY CONTRACTOR PRIOR TO CONSTRUCTION AND APPROVED BY TOWN, LANDOWNER, AND PROJECT ENGINEER.
7. NO CONSTRUCTION VEHICLES SHALL BE STORED, SERVICED, WASHED OR FLUSHED IN A LOCATION WHERE LEAKS, SPILLAGE, WASTE MATERIALS, CLEANERS, OR WATERS WILL BE INTRODUCED OR FLOW INTO WETLANDS OR WATERCOURSES. AN EMERGENCY MANAGEMENT PLAN AND SPILL KIT WILL BE MAINTAINED ON SITE AT ALL TIMES. IN THE EVENT OF AN ACCIDENTAL RELEASE, IMMEDIATELY STOP CONSTRUCTION WORK, CONTAIN THE SPILL, AND NOTIFY THE TOWN, APPROPRIATE AUTHORITIES AND PROJECT ENGINEER.
8. THERE SHALL BE NO CLAIMS FOR EXTRA COMPENSATION DUE TO DELAYS IN WATER CONTROL ASSOCIATED WITH HIGH WATER LEVELS FROM NATURAL EVENTS SUCH AS FLOODS.
9. THE CONTRACTOR SHALL MAINTAIN ALL ROADWAYS, SIDEWALKS, AND WALKWAYS IN THE AREA FREE OF SOIL, MUD, AND CONSTRUCTION DEBRIS. CONSTRUCTION ENTRANCES MUST BE MAINTAINED AT EACH SITE ACCESS POINT. SEE PLANS AND DETAILS.
10. TRAFFIC CONTROL IF NECESSARY MUST CONFORM TO GUIDELINES SET IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", MOST CURRENT EDITION, AS PUBLISHED BY U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
11. A DISPOSAL AREA FOR SURPLUS EXCAVATED MATERIAL HAS BEEN DESIGNATED, SEE PLANS. ONLY CLEAN MATERIAL EXCAVATED TO INSTALL BANK STABILIZATION OR CREATE FLOOD BENCHES SHALL BE DISPOSED OF IN THE DESIGNATED AREA UNLESS OTHERWISE NOTED OR DIRECTED BY THE PROJECT ENGINEER.
12. ANY MATERIAL EXPORTED OFF-SITE SHALL BE LEGALLY DISPOSED OF IN AN UPLAND LOCATION AT NO ADDITIONAL COST. THE CONTRACTOR IS RESPONSIBLE FOR FINDING A SUITABLE RECIPIENT OF THE MATERIAL, GAINING REGULATORY APPROVAL FOR EXPORTED MATERIAL PLACEMENT IF NEEDED, AND HAULING. THE CONTRACTOR SHALL COORDINATE MATERIAL EXPORT WITH THE TOWN.
13. ALL AREAS SURROUNDING THE PROJECT SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED UPON COMPLETION OF CONSTRUCTION. THE RESTORATION OF THE SITE IS SUBJECT TO APPROVAL BY THE TOWN AND THE PROJECT ENGINEER.
14. FOLLOWING COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PARTICIPATE IN A FINAL SITE INSPECTION WITH THE TOWN AND PROJECT ENGINEER FOR THE PURPOSE OF VERIFYING THAT THE PROJECT HAS BEEN COMPLETED ACCORDING TO THE CONSTRUCTION PLANS, SPECIFICATIONS AND THE TERMS AND CONDITIONS OF THE CONTRACT.

CONSTRUCTION NOTES

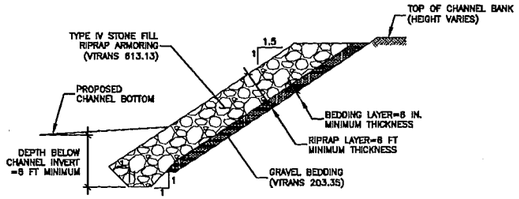
1. THE CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF PLANS ON SITE AT ALL TIMES AND FOLLOW THE SPECIFICATIONS, DETAILS, AND NOTES FOR ALL ASPECTS OF THE PROJECT. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER IMMEDIATELY.
2. ALL PROPOSED GRADES AND SPOT ELEVATIONS ON THE PLANS INDICATE FINISHED GRADE. THE NEED TO MODIFY PROPOSED FINISHED GRADES MAY BE REQUIRED IF UNEXPECTED CONDITIONS ARE ENCOUNTERED (I.E. BEDROCK, LEDGE, ETC.) OR IF SIGNIFICANT CHANGES TO EXISTING CONDITIONS OCCURS.
3. ALL SKETCHES, SHOP DRAWINGS, OR CHANGE ORDERS REQUESTED SHALL BE REVIEWED AND APPROVED BY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION.
4. EARTH MOVING AND HAULING, ROCK DRILLING OR CRUSHING, JACK HAMMER AND SIMILAR EXCESSIVELY LOUD EQUIPMENT SHALL NOT BE OPERATED ON SUNDAYS OR BETWEEN THE HOURS OF 5:30 P.M. AND 7:00 A.M. EXCEPT IN EMERGENCY SITUATIONS.
5. TEMPORARY STOCKPILE AND STAGING AREAS TO BE FLAGGED BY CONTRACTOR PRIOR TO CONSTRUCTION AND APPROVED BY TOWN, LANDOWNERS AND PROJECT ENGINEER, AND SHALL BE LOCATED AWAY FROM SENSITIVE AREAS INCLUDING BUT NOT LIMITED TO WETLANDS AND WATERCOURSES.
6. ALL STORAGE AND ACCESS ROUTES, PEDESTRIAN FENCES/BARRIERS, WORKING HOURS, AND LIMITS OF CLEARING SHALL BE APPROVED BY THE TOWN, LANDOWNER, AND THE PROJECT ENGINEER.
7. AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL PROVIDE A FORM OF BARRIER OR CONSTRUCTION FENCING AT THE SITE ENTRANCE TO PREVENT MOTORIZED VEHICLE ACCESS.
8. NO DISTURBANCE BEYOND THE ESTABLISHED LIMITS OF CLEARING IS ALLOWED UNLESS PRIOR PERMISSION IS OBTAINED FROM THE TOWN, LANDOWNER, AND PROJECT ENGINEER.
9. ALL PRECAUTIONS SHALL BE TAKEN TO PREVENT THE POTENTIAL TRANSPORT OF INVASIVE SPECIES TO THE CONSTRUCTION SITE. THE CONTRACTOR SHALL INSPECT AND CLEAN ALL EQUIPMENT PRIOR TO TRANSPORT TO THE CONSTRUCTION SITE.
10. MATERIAL EXCAVATED FROM THE EXISTING CHANNEL BANKS AND SEDIMENT BARS IS SCHEDULED TO BE DISPOSED OF ON-SITE IN THE AREA DESIGNATED ON THE PLANS. ANY REMOVAL OF EXCAVATED MATERIAL FROM THE PROJECT SITE SHALL BE APPROVED BY THE TOWN. IF PERMISSION IS GRANTED, MATERIAL EXPORTED OFF-SITE SHALL BE LEGALLY DISPOSED OF IN AN UPLAND LOCATION AT NO ADDITIONAL COST TO THE TOWN, AND THE CONTRACTOR IS RESPONSIBLE FOR GAINING REGULATORY APPROVAL IF NEEDED AND HAULING IF PERMISSION IS GRANTED.
11. TEMPORARY IMPROVEMENTS TO ALLOW CONSTRUCTION EQUIPMENT TO ACCESS THE PROJECT AREA MAY BE REQUIRED ALONG THE PROPOSED SITE ACCESS. SITE ACCESS IS TO BE LOCATED AS SHOWN ON THE PLANS. NO TREE CLEARING ALONG THE ACCESS ROUTE WILL BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE TOWN AND LANDOWNER.
12. ANY MATERIAL IMPORTED TO THE SITE TO IMPROVE THE SITE ACCESS SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION. SITE ACCESS IS TO BE RESTORED TO PRE-PROJECT CONDITIONS TO THE EXTENT POSSIBLE, AND MEASURES SHALL BE TAKEN TO PREVENT FURTHER ACCESS BY MOTORIZED VEHICLES. RESTORATION OF THE SITE ACCESS IS SUBJECT TO APPROVAL BY THE TOWN, LANDOWNER, AND THE PROJECT ENGINEER.
13. CONSTRUCTION IS TO TAKE PLACE DURING LOW WATER CONDITIONS. SIGNIFICANT WATER CONTROL IS NOT ANTICIPATED. A WATER HANDLING PLAN HAS BEEN PROVIDED. THE CONTRACTOR SHALL BE PREPARED TO PROVIDE MINIMAL WATER HANDLING AS SPECIFIED IN THE WATER CONTROL PLAN SHOULD THE NEED ARISE DURING CONSTRUCTION. CHANGES OR MODIFICATIONS TO THE WATER HANDLING APPROACH BY THE CONTRACTOR IS SUBJECT TO REVIEW AND APPROVAL BY THE PROJECT ENGINEER.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING THE WEATHER FORECASTS AND SHALL BE RESPONSIBLE FOR STABILIZING THE SITE AND REMOVING EQUIPMENT FROM FLOOD PRONE AREAS IN THE EVENT OF FLOOD WARNINGS. A FLOOD CONTINGENCY AND EMERGENCY ACTION PLAN SHALL BE PROVIDED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
15. ALL EQUIPMENT USED IN OR NEAR TO THE WATER SHALL HAVE TIGHT SEALS, AND SHALL NOT POLLUTE THE WATER.
16. VERMONT ROUTE 108 (MOUNTAIN ROAD), BOUCHARD ROAD AND THE PARKING AREA AT THOMPSON PARK IS COMMONLY USED BY RESIDENTS AND TOURIST FOR ACCESS. ADEQUATE WARNING OF CONSTRUCTION ACTIVITIES AND SAFETY SIGNS ARE REQUIRED. AN ADEQUATE TRAVEL LANE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, AND IF CONDITIONS WARRANT, A FLAG PERSON SHALL BE POSTED TO ALLOW SAFE PASSAGE THROUGH THE CONSTRUCTION ZONE. PERMISSION AND APPROVAL BY THE TOWN SHALL BE REQUIRED FOR ANY TEMPORARY CLOSURE OF A ROADWAY OR THE STOWE RECREATIONAL PATH DURING CONSTRUCTION.

EROSION SITE #2 - TYPICAL SECTION - PLACED RIPRAP WALL AND BANK STABILIZATION



PLACED RIPRAP WALL AND BANK STABILIZATION

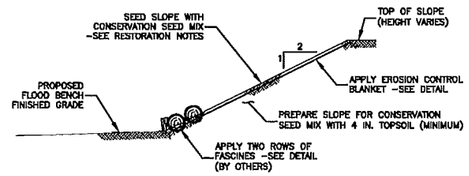
SCALE: 1" = 10'



NOTES:
1. SOFT, UNSUITABLE SOILS ARE KNOWN TO EXIST NEAR THE PROJECT SITE BASED ON PREVIOUS OBSERVATIONS. GEOTECHNICAL ANALYSIS AND DESIGN TO PROPERLY SUPPORT BANK STABILIZATION MEASURES IN PROGRESS

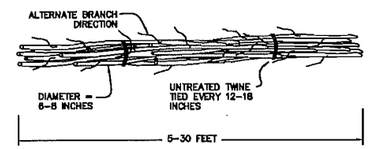
RIVER BANK STABILIZATION

NOT TO SCALE



SLOPE RE-VEGETATION WITH FASCINES

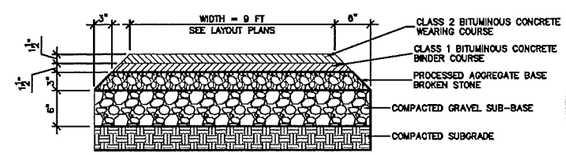
NOT TO SCALE



NOTES:
1. SHRUB WILLOW AND DOGWOOD BRANCHES MUST BE HARVESTED DORMANT
2. COLD STORAGE MUST BE MAINTAINED BEFORE PLANTING
3. PLANT MATERIAL MAY BE SOAKED IN WATER 24-48 HOURS BEFORE PLANTING
4. BACKFILL WITH MOIST SOIL AND COMPACT WITH FEET
5. OVERLAP FASCINES BY 18 INCHES ALONG TRENCH
6. BURY FASCINES ONLY 50%-75% TO ALLOW PROPER ACCESS TO LIGHT
7. PLANT WHEN SOIL HAS THAWED IN SPRINT, NO LATER THAN MAY 15

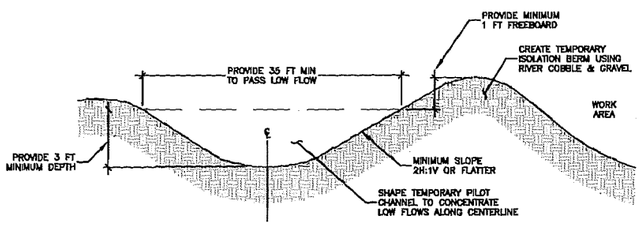
WILLOW / DOGWOOD FASCINES

NOT TO SCALE



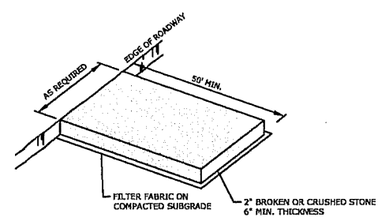
PROPOSED RECREATION PATH

NOT TO SCALE



TEMPORARY PILOT CHANNEL & ISOLATION BERM

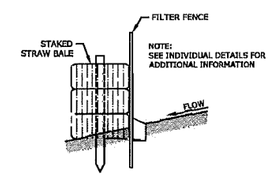
NOT TO SCALE



NOTE: CONSTRUCTION ENTRANCE PAD SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH PROMOTE VEHICULAR TRACKING OF MUD - INSTALL WHERE SHOWN ON THE PLANS

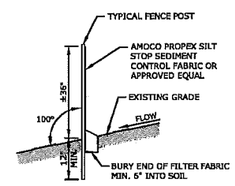
CONSTRUCTION ENTRANCE PAD (CE)

NOT TO SCALE



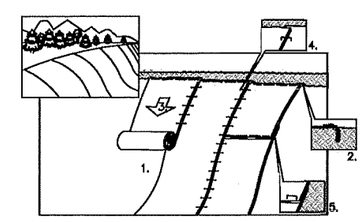
SEDIMENT FILTER FENCE & STRAW BALE (GSF) (SB)

NOT TO SCALE



SEDIMENT FILTER FENCE (GSF)

NOT TO SCALE



NOTES:
1. USE BIONET SHORT TERM BIODEGRADABLE EROSION CONTROL BLANKETS ITEM NUMBER S150BN, AS MANUFACTURED BY NORTH AMERICAN GREEN, 5401 ST. WENDEL-CYNTHIANA ROAD, POSEYVILLE, IN 47633.
2. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF AMENDED SOIL AND SEED.
3. BEGIN AT TOP OF SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6: WIDE TRENCH. BACKFILL AND COMPACT BEFORE STAPLING.
4. ROLL BLANKETS DOWN SLOPE IN DIRECTION OF WATER FLOW.
5. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
6. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAP AREA, APPROXIMATELY 12" APART.
7. REFER TO GENERAL STAPLE PATTERN GUIDE IN "NORTH AMERICAN GREEN" CATALOGUE OR WEBSITE FOR CORRECT STAPLE PATTERN.

EROSION CONTROL BLANKET (ECB)

NOT TO SCALE

MILONE & MACBROOM®
1 South Main Street, 2nd Floor
Waterbury, Vermont 05676
(802) 882-8335
Fax (802) 882-8346
www.milonemacbroom.com

DESCRIPTION	DATE	BY

REGULATORY DRAWING

STANDARD DETAILS

WEST BRANCH LITTLE RIVER MANAGEMENT

STOWE, VERMONT

BMC	BMC	RKS
DESIGNED	DRAWN	CHECKED

SCALE: AS SHOWN

DATE: MAY 13, 2015

PROJECT NO. 5446-01-4

SHEET NO. 10 OF 10

SD1