

# REQUEST FOR CONSTRUCTION BIDS

August 17, 2023

## Youngs Brook Dam Removal West Rutland, Vermont

### **1.0 Project Background**

The Youngs Brook Dam is located on Youngs Brook, a Tributary of the Clarendon River in West Rutland, Vermont. The dam was breached in 1995 and repairs were implemented to stabilize the remaining structure, lower the breach area to bedrock, and lower the normal pool.

The dam is located off Dewey Ave, and is accessed via the private driveway of 1010 Dewey Ave. The dam is owned by Ellen and Russell Green.

The goal of the project is to remove the dam and some of the accumulated sediment to reduce flood and erosion risk, protect water quality, restore the stream channel, and improve aquatic organism passage. Construction plans accompany this Request for Construction Bids (Attachment A).

Project construction is anticipated between September 15, 2023 and October 1, 2024. Disturbance must be minimized and contained with sediment and erosion controls that will be applied and maintained throughout the duration of the project. Instream work periods will limit timing of portions of the work.

This project is being led by the Town of West Rutland Vermont with project partner Vermont Natural Resources Council (VNRC). The project is funded by FEMA. The Contractor will be obligated to comply with all applicable laws, regulations, and policies. A non-exclusive list of laws and regulations applicable to Pre-Disaster Mitigation grants is available for review upon request.

The Town of West Rutland is currently seeking competitive bids to remove the dam and restore the stream channel. Companies that are women-owned, minority-owned, Section 3, and local small businesses are encouraged to submit bids.

### **2.0 General Scope of Work**

Work tasks will generally involve removal of the earthen embankment (15,600 CY) and concrete spillway (450 CY) at Youngs Brook Dam; removal of existing trees from the embankment; sediment removal and haul from site (11,000 CY); removal of upstream stone masonry wall; stream channel restoration using onsite logs and boulders; and site restoration (See Attachment A).

Seed and mulch will be performed as part of this contract. Other woody plantings will be performed by others in the future.

Work hours will be Monday through Saturday from 7 am to 7 pm. Work is not allowed on Sundays and holidays. Any change to work hours must be approved by the Landowner, Town, and Project Engineer

All disturbed areas including any damage done to private property shall be returned to pre-construction conditions including repairs of the road surface and seeding and mulching all disturbed areas. Disturbance shall be minimized during construction.

Trees cleared during construction should be reused onsite according to their type. Hardwood suitable for firewood should be cut into 12-foot sections and placed near the driveway. Softwood tree trunks with attached stumps should be stockpiled and reused as channel roughness elements. Limbs and hardwood rootballs should be removed from the site.

The Contractor is required to find a legal location to dispose of the sediment being removed from the project site that is not in a wetland, floodplain or river corridor. Local and state clearance of the fill disposal site(s) will be needed and the Project Engineer will assist the Contractor with obtaining approvals.

### **3.0 Owner's Project Representation**

The owner of the project is the Town of West Rutland and engineering oversight of the project will be conducted by Town's appointed Project Engineer – SLR Consulting. The Contractor will be obligated to comply with directives from the Project Engineer to ensure meeting all contract provisions and design specifications while complying with permit requirements. The Contractor will be obligated to adhere to the Terms and Conditions in the Contract with the owner.

### **4.0 Construction Access**

Construction access will be made from Dewey Ave along the landowners' existing driveway. A construction entrance pad leading from the gravel driveway will be needed to prevent tracking of sediment onto the driveway and road surface. The road may need to be swept to keep clean. Removal of vegetation at the access location shall be minimized.

If the Contractor wishes to leave the dam owner's land or the Town right-of-way, permission is required from landowners. Traffic lane closures are not anticipated, yet flaggers may be needed as trucks enter and leave Dewey Ave. All abutters have been notified about the project and will be notified again prior to start of construction.

### **5.0 Sequence of Work**

A possible sequence of work is provided in the construction plans (see Attachment A). The selected Contractor may suggest adjustments to this sequence or a different sequence of events to the Project Engineer. The final sequence of work will ultimately be determined by the Contractor and submitted to the Project Engineer for review and approval prior to construction.

### **6.0 Specifications**

Primary technical specifications are included in the details and notes on the construction plans (see Attachment A). The Contractor shall refer to the VTrans 2018 Standard Specifications for Construction. A formal technical specification package or project manual does not exist.

## **7.0 Sediment and Erosion Control**

Sediment and erosion control notes, water control notes, and details are contained in the construction plans (see Attachment A). Silt fencing will be required around any stockpiled materials to contain sediment migration during construction. Water control is needed during some phases of construction to prevent siltation of the stream. Turbid water is to be treated before discharge. Limits of area of disturbed earth (2 acres) and length of time of unstabilized disturbance (7 days) have been established to minimize impact to the stream.

## **8.0 Construction Notes**

Construction notes are contained in the construction plans (see Attachment A).

## **9.0 Construction Schedule**

Construction is planned for September 15, 2023 to October 1, 2024. Work is limited to the period between April 15 and October 15 of any year in accordance with the Dam Order. The in-stream work window is July 1 to October 1. A Notice to Proceed will be issued by the Project Engineer following a pre-construction site walk and approval of submittals prior to the start of work. The Project Engineer will provide periodic inspections of the site to ensure that the site remains stable and determine if additional sediment and erosion controls are needed, and if additional site recovery work is needed.

It is anticipated that the project will begin in Fall or Winter of 2023 to remove trees from the dam and stack them along the landowners driveway in the clearing. The site would remain stable over winter and then as the ground firms up in Spring 2024 stumps would be removed and dam removal above the ordinary high water line could take place. Work in the rivers would take place between July 1 and October 1 2024.

## **10.0 Regulatory Requirements**

Federal and state permitting has been completed for this project and conditions of each permit must be followed during construction. The Contractor must review permits in full to understand all regulatory requirements prior to construction. All permits must be posted at the project site prior to the start of construction. The following permits have been received or applied for (Attachment C).

- Vermont Dam Order (Attachment C)
- US Army Corps of Engineers Programmatic General Permit (In Review)
- Vermont Stream Alteration Permit (In Review)
- Vermont Construction General Permit (In Review)
- West Rutland Zoning Permit (In Review)

## **11.0 Insurance Requirements**

Prior to execution of a contract, the Contractor must provide the Town with a Certificate of Insurance showing coverage that meets the following requirements.

Workers' Compensation Insurance. The policy shall cover the obligations of the Contractor in accordance with the Workers' Compensations Law and Disability Benefits Law covering all operations under the Contract, whether performed by it, or by its subcontractor.

Liability and Property Damage Insurance. Unless otherwise specified, each policy shall have limits not less than: \$2,000,000 combined (Bodily Injury and Property Damage); \$3,000,000 aggregate, single limit per occurrence.

### **12.0 Compensation**

Payment for the project will be made in installments based on a schedule of values of the bid items. The final payment will only to be made after project completion and approval from the Project Engineer following a final site inspection. Payment will be based on percent complete of the lump sum bid items. Prior approval is needed from the Project Engineer for all change orders. All invoices will be emailed to Mary Ann Goulette at [mgoulette@westrutlandvt.org](mailto:mgoulette@westrutlandvt.org) and copied to the Project Engineer at [jlouisos@slrconsulting.com](mailto:jlouisos@slrconsulting.com) for review and payment upon approval.

### **13.0 Bid Submittal Information & Format**

Bids shall be presented on the enclosed bid sheet (Attachment D), along with two project references for past work of a similar nature. Bid proposals must be received in person or via Email to Mary Ann Goulette at 35 Marble Street, West Rutland, Vermont 05777 or at [mgoulette@westrutlandvt.org](mailto:mgoulette@westrutlandvt.org) in advance of the bid opening scheduled for **11:00 am Thursday September 7, 2023**. No late bids will be accepted. Bid results will be read aloud at the bid opening and emailed to all bidders.

Notice of award is anticipated by Friday September 15, 2023. The Town reserves the right to reject any or all bids on its own motion. The Town reserves the right to conduct value engineering with the lowest and most qualified bidder.

A mandatory pre-bid site showing is planned for Wednesday August 30, 2023 at 3:30 pm. Meet at the project site. Parking is available along Dewey Ave.

Questions about the bid will be accepted until 5:00 pm on Friday September 1, 2023. Final responses to questions will be issued in a final addendum by 5:00 pm Monday September 4, 2023.

Electronic copies of the construction plans are attached to this request. For questions contact Jessica Louisos [jlouisos@slrconsulting.com](mailto:jlouisos@slrconsulting.com) or Roy Schiff [rschiff@slrconsulting.com](mailto:rschiff@slrconsulting.com) at SLR Consulting 802-882-8335.

### **14.0 Attachments**

- Attachment A: Construction Plans
- Attachment B: Standard State Contract Provisions
- Attachment C: Received Permits
- Attachment D: Bid Sheet

**Attachment A**  
**Construction Plans**



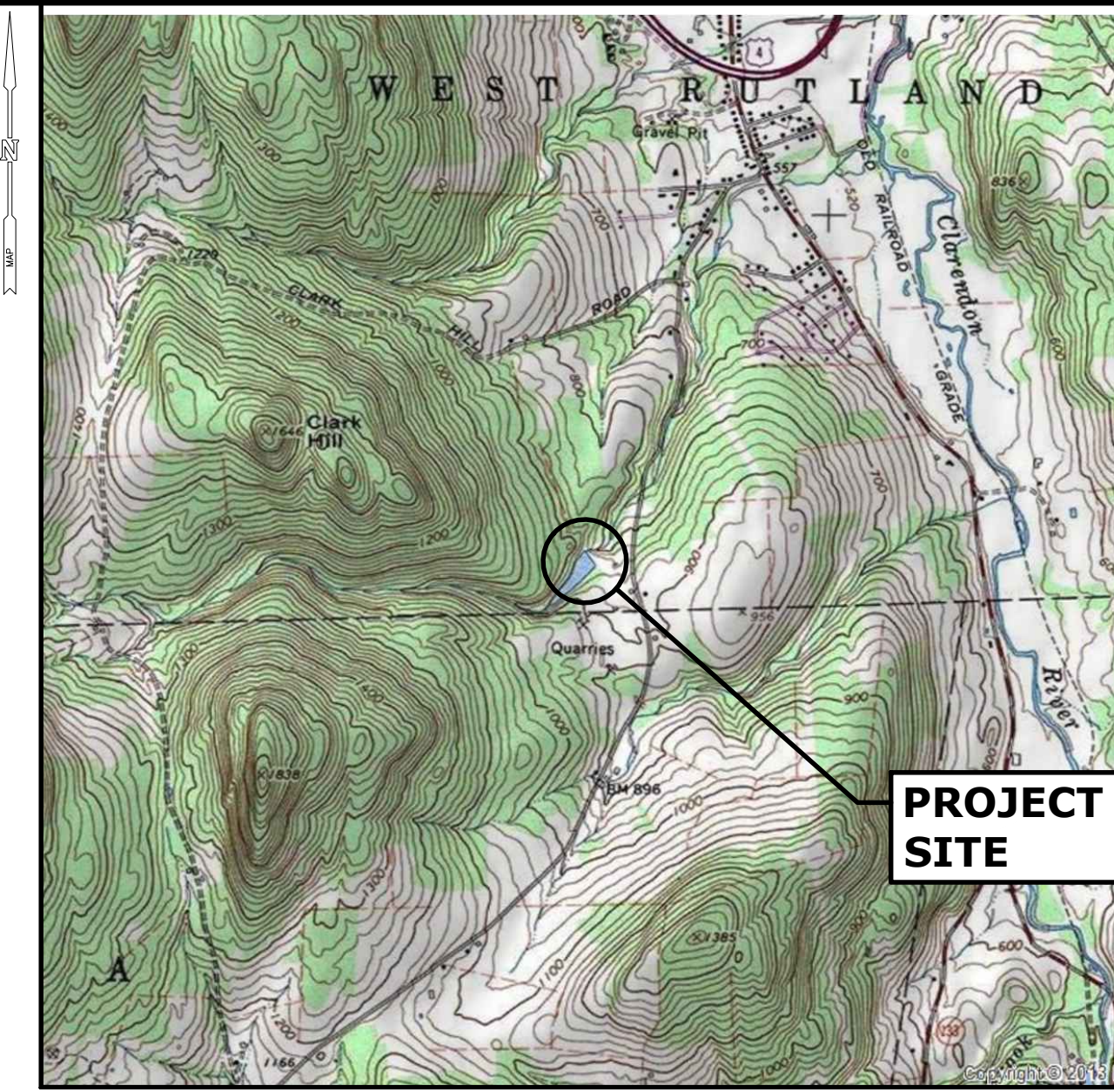
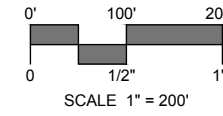
# YOUNGS BROOK DAM REMOVAL (VT # 238.01)

DEWEY AVE  
RUTLAND, VERMONT

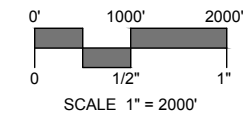
FINAL DESIGN  
NOVEMBER 12, 2021



PROJECT SITE VICINITY MAP:



LOCATION MAP:



**PREPARED FOR:**

RUTLAND NATURAL RESOURCES CONSERVATION DISTRICT  
179 SOUTH MAIN STREET, SUITE 4  
RUTLAND, VERMONT 05701

**LIST OF DRAWINGS**

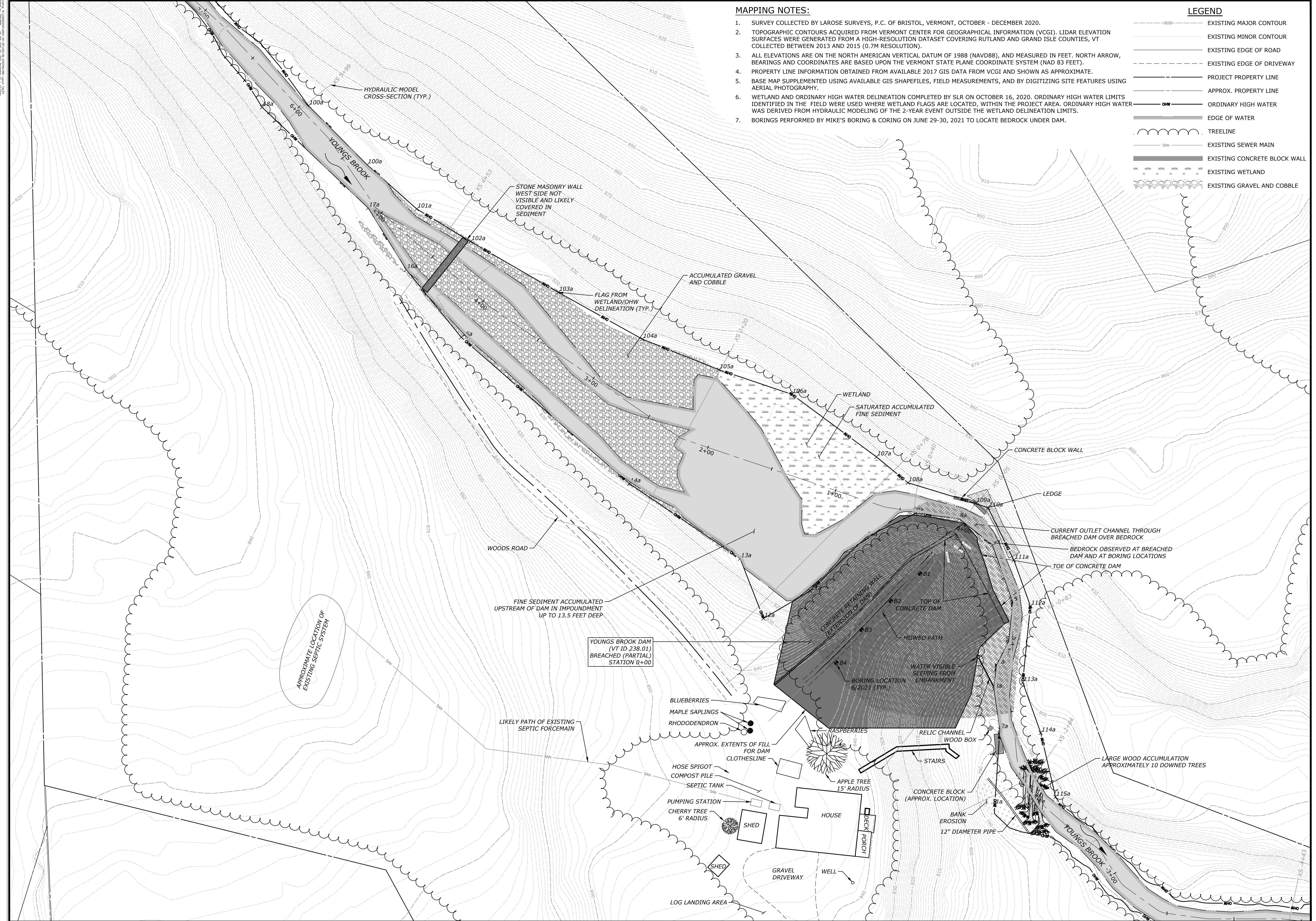
NO.	NAME	TITLE
01	--	TITLE
02	EX	SITE PLAN - EXISTING CONDITIONS
03	PR	SITE PLAN - PROPOSED CONDITIONS
04	CON	SITE PLAN - CONSTRUCTION ACCESS, SEQUENCE & WATER CONTROL
05	RE	SITE PLAN - RESTORATION
06	PRO	CHANNEL PROFILE
07	XS	TYPICAL CROSS-SECTIONS
08	DET-1	DETAILS I
09	DET-2	DETAILS II

**PREPARED BY:**



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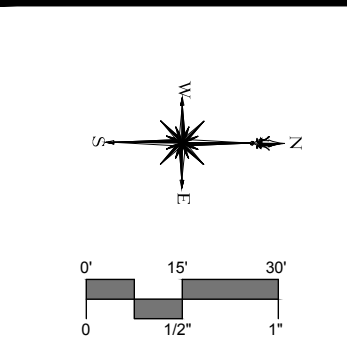


**MAPPING NOTES:**

1. SURVEY COLLECTED BY LAROSE SURVEYS, P.C. OF BRISTOL, VERMONT, OCTOBER - DECEMBER 2020.
2. TOPOGRAPHIC CONTOURS ACQUIRED FROM VERMONT CENTER FOR GEOGRAPHICAL INFORMATION (VCGI). LIDAR ELEVATION SURFACES WERE GENERATED FROM A HIGH-RESOLUTION DATASET COVERING RUTLAND AND GRAND ISLE COUNTIES, VT COLLECTED BETWEEN 2013 AND 2015 (0.7M RESOLUTION).
3. ALL ELEVATIONS ARE ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AND MEASURED IN FEET. NORTH ARROW, BEARINGS AND COORDINATES ARE BASED UPON THE VERMONT STATE PLANE COORDINATE SYSTEM (NAD 83 FEET).
4. PROPERTY LINE INFORMATION OBTAINED FROM AVAILABLE 2017 GIS DATA FROM VCGI AND SHOWN AS APPROXIMATE.
5. BASE MAP SUPPLEMENTED USING AVAILABLE GIS SHAPEFILES, FIELD MEASUREMENTS, AND BY DIGITIZING SITE FEATURES USING AERIAL PHOTOGRAPHY.
6. WETLAND AND ORDINARY HIGH WATER DELINEATION COMPLETED BY SLR ON OCTOBER 16, 2020. ORDINARY HIGH WATER LIMITS IDENTIFIED IN THE FIELD WERE USED WHERE WETLAND FLAGS ARE LOCATED, WITHIN THE PROJECT AREA. ORDINARY HIGH WATER WAS DERIVED FROM HYDRAULIC MODELING OF THE 2-YEAR EVENT OUTSIDE THE WETLAND DELINEATION LIMITS.
7. BORINGS PERFORMED BY MIKE'S BORING & CORING ON JUNE 29-30, 2021 TO LOCATE BEDROCK UNDER DAM.

**LEGEND**

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- - - EXISTING EDGE OF ROAD
- - - EXISTING EDGE OF DRIVEWAY
- PROJECT PROPERTY LINE
- - - APPROX. PROPERTY LINE
- OHW — ORDINARY HIGH WATER
- EDGE OF WATER
- TREELINE
- SAN — EXISTING SEWER MAIN
- EXISTING CONCRETE BLOCK WALL
- EXISTING WETLAND
- EXISTING GRAVEL AND COBBLE



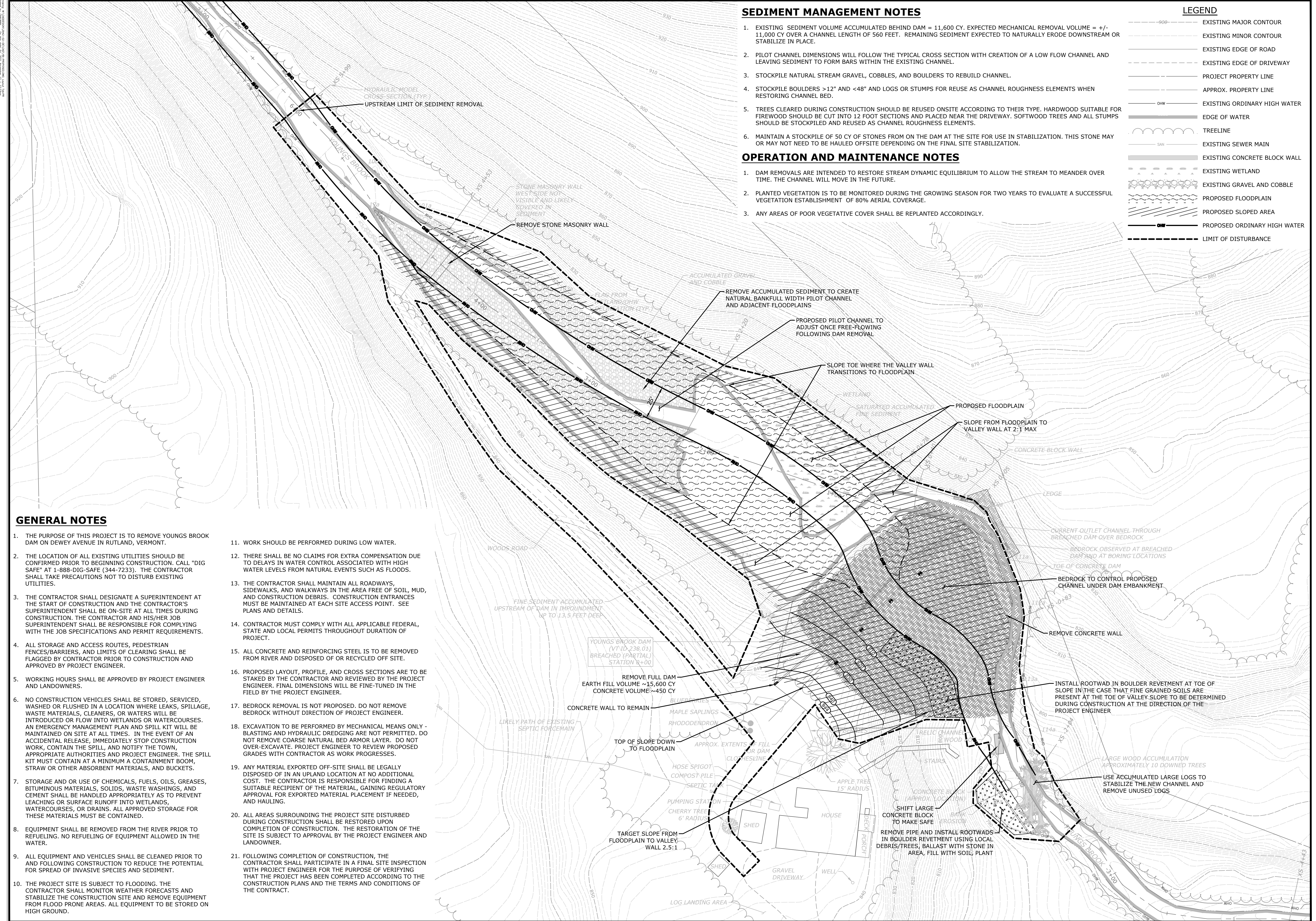
DESCRIPTION	DATE	BY

**FINAL DESIGN**

**SITE PLAN - EXISTING CONDITIONS**  
**YOUNGS BROOK DAM REMOVAL (VT # 238.01)**  
 DEWEY AVE  
 RUTLAND, VERMONT

JCL	DJO	RKS
DESIGNED	DRAWN	CHECKED
SCALE: 1"=30'		
DATE: NOVEMBER 12, 2021		
PROJECT NO.: 2942-02		
SHEET NO.: 2 OF 9		
<b>EX</b>		
SHEET NAME		





**SEDIMENT MANAGEMENT NOTES**

- EXISTING SEDIMENT VOLUME ACCUMULATED BEHIND DAM = 11,600 CY. EXPECTED MECHANICAL REMOVAL VOLUME = +/- 11,000 CY OVER A CHANNEL LENGTH OF 560 FEET. REMAINING SEDIMENT EXPECTED TO NATURALLY ERODE DOWNSTREAM OR STABILIZE IN PLACE.
- PILOT CHANNEL DIMENSIONS WILL FOLLOW THE TYPICAL CROSS SECTION WITH CREATION OF A LOW FLOW CHANNEL AND LEAVING SEDIMENT TO FORM BARS WITHIN THE EXISTING CHANNEL.
- STOCKPILE NATURAL STREAM GRAVEL, COBBLES, AND BOULDERS TO REBUILD CHANNEL.
- STOCKPILE BOULDERS >12" AND <48" AND LOGS OR STUMPS FOR REUSE AS CHANNEL ROUGHNESS ELEMENTS WHEN RESTORING CHANNEL BED.
- TREES CLEARED DURING CONSTRUCTION SHOULD BE REUSED ONSITE ACCORDING TO THEIR TYPE. HARDWOOD SUITABLE FOR FIREWOOD SHOULD BE CUT INTO 12 FOOT SECTIONS AND PLACED NEAR THE DRIVEWAY. SOFTWOOD TREES AND ALL STUMPS SHOULD BE STOCKPILED AND REUSED AS CHANNEL ROUGHNESS ELEMENTS.
- MAINTAIN A STOCKPILE OF 50 CY OF STONES FROM ON THE DAM AT THE SITE FOR USE IN STABILIZATION. THIS STONE MAY OR MAY NOT NEED TO BE HAULED OFFSITE DEPENDING ON THE FINAL SITE STABILIZATION.

**OPERATION AND MAINTENANCE NOTES**

- DAM REMOVALS ARE INTENDED TO RESTORE STREAM DYNAMIC EQUILIBRIUM TO ALLOW THE STREAM TO MEANDER OVER TIME. THE CHANNEL WILL MOVE IN THE FUTURE.
- PLANTED VEGETATION IS TO BE MONITORED DURING THE GROWING SEASON FOR TWO YEARS TO EVALUATE A SUCCESSFUL VEGETATION ESTABLISHMENT OF 80% AERIAL COVERAGE.
- ANY AREAS OF POOR VEGETATIVE COVER SHALL BE REPLANTED ACCORDINGLY.

**LEGEND**

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING EDGE OF ROAD
- EXISTING EDGE OF DRIVEWAY
- PROJECT PROPERTY LINE
- APPROX. PROPERTY LINE
- EXISTING ORDINARY HIGH WATER
- EDGE OF WATER
- TREELINE
- EXISTING SEWER MAIN
- EXISTING CONCRETE BLOCK WALL
- EXISTING WETLAND
- EXISTING GRAVEL AND COBBLE
- PROPOSED FLOODPLAIN
- PROPOSED SLOPED AREA
- PROPOSED ORDINARY HIGH WATER
- LIMIT OF DISTURBANCE

**GENERAL NOTES**

- THE PURPOSE OF THIS PROJECT IS TO REMOVE YOUNGS BROOK DAM ON DEWEY AVENUE IN RUTLAND, VERMONT.
- 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.
- 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.
- ALL STORAGE AND ACCESS ROUTES, PEDESTRIAN FENCES/BARRIERS, AND LIMITS OF CLEARING SHALL BE FLAGGED BY CONTRACTOR PRIOR TO CONSTRUCTION AND APPROVED BY PROJECT ENGINEER.
- WORKING HOURS SHALL BE APPROVED BY PROJECT ENGINEER AND LANDOWNERS.
- 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. THE SPILL KIT MUST CONTAIN AT A MINIMUM A CONTAINMENT BOOM, STRAW OR OTHER ABSORBENT MATERIALS, AND BUCKETS.
- STORAGE AND OR USE OF CHEMICALS, FUELS, OILS, GREASES, BITUMINOUS MATERIALS, SOLIDS, WASTE WASHINGS, AND CEMENT SHALL BE HANDLED APPROPRIATELY AS TO PREVENT LEACHING OR SURFACE RUNOFF INTO WETLANDS, WATERCOURSES, OR DRAINS. ALL APPROVED STORAGE FOR THESE MATERIALS MUST BE CONTAINED.
- EQUIPMENT SHALL BE REMOVED FROM THE RIVER PRIOR TO REFUELING. NO REFUELING OF EQUIPMENT ALLOWED IN THE WATER.
- ALL EQUIPMENT AND VEHICLES SHALL BE CLEANED PRIOR TO AND FOLLOWING CONSTRUCTION TO REDUCE THE POTENTIAL FOR SPREAD OF INVASIVE SPECIES AND SEDIMENT.
- 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. ALL EQUIPMENT TO BE STORED ON HIGH GROUND.
- WORK SHOULD BE PERFORMED DURING LOW WATER.
- THERE SHALL BE NO CLAIMS FOR EXTRA COMPENSATION DUE TO DELAYS IN WATER CONTROL ASSOCIATING WITH HIGH WATER LEVELS FROM NATURAL EVENTS SUCH AS FLOODS.
- 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.
- CONTRACTOR MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS THROUGHOUT DURATION OF PROJECT.
- ALL CONCRETE AND REINFORCING STEEL IS TO BE REMOVED FROM RIVER AND DISPOSED OF OR RECYCLED OFF SITE.
- PROPOSED LAYOUT, PROFILE, AND CROSS SECTIONS ARE TO BE STAKED BY THE CONTRACTOR AND REVIEWED BY THE PROJECT ENGINEER. FINAL DIMENSIONS WILL BE FINE-TUNED IN THE FIELD BY THE PROJECT ENGINEER.
- BEDROCK REMOVAL IS NOT PROPOSED. DO NOT REMOVE BEDROCK WITHOUT DIRECTION OF PROJECT ENGINEER.
- EXCAVATION TO BE PERFORMED BY MECHANICAL MEANS ONLY - BLASTING AND HYDRAULIC DREDGING ARE NOT PERMITTED. DO NOT REMOVE COARSE NATURAL BED ARMOR LAYER. DO NOT OVER-EXCAVATE. PROJECT ENGINEER TO REVIEW PROPOSED GRADES WITH CONTRACTOR AS WORK PROGRESSES.
- 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.
- 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 PROJECT ENGINEER AND LANDOWNER.
- FOLLOWING COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PARTICIPATE IN A FINAL SITE INSPECTION WITH PROJECT ENGINEER FOR THE PURPOSE OF VERIFYING THAT THE PROJECT HAS BEEN COMPLETED ACCORDING TO THE CONSTRUCTION PLANS AND THE TERMS AND CONDITIONS OF THE CONTRACT.

**MILONE & MACBROOM**  
 NOW PART OF **SLR**  
 1 SOUTH MAIN STREET  
 WATERBURY, VT 05676  
 802.882.8335  
 WWW.MMIINC.COM

DESCRIPTION	DATE	BY

**SITE PLAN - PROPOSED CONDITIONS**  
**YOUNGS BROOK DAM REMOVAL (VT # 238.01)**  
 DEWEY AVE  
 RUTLAND, VERMONT

JCL	DJO	RKS
DESIGNED	DRAWN	CHECKED
SCALE: 1"=30'		
DATE: NOVEMBER 12, 2021		
PROJECT NO.: 2942-02		
SHEET NO.: 3 OF 9		
PR		

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PROJECT: YOUNGS BROOK DAM REMOVAL (VT # 238-01) - WINDING IN CHINA  
DATE: 11/12/2021  
SCALE: 1"=30'  
SHEET NO: 4 OF 9

### INVASIVE SPECIES HANDLING NOTES

- INVASIVE SPECIES ARE LOCATED ON THE SITE. THESE NOTES PROVIDE BEST MANAGEMENT PRACTICES FOR PREVENTING THE SPREAD OF INVASIVE SPECIES. ADDITIONAL INFORMATION ON HANDLING AND IDENTIFICATION OF INVASIVE SPECIES CAN BE FOUND AT WWW.VTINVASIVES.ORG.
- THE INVASIVE SPECIES TARTARIAN HONEYSUCKLE ARE SCATTERED AROUND THE IMPOUNDMENT. A SMALL PATCH OF REED CANARY GRASS EXISTS ON RIVER RIGHT AT THE BOTTOM OF THE IMPOUNDMENT. THESE INVASIVE SPECIES WILL BE REMOVED.
- LOCATE AND USE STAGING AREAS THAT ARE FREE OF INVASIVE SPECIES TO AVOID SPREADING SEEDS AND OTHER VIABLE PLANT PARTS.
- PLAN WORK SEQUENCE SO CONSTRUCTION EQUIPMENT IS MOVED FROM AREAS NOT INFESTED BY INVASIVE SPECIES, MOVING INTO AREAS INFESTED WITH INVASIVE SPECIES WHENEVER POSSIBLE.
- ALL EQUIPMENT, MACHINERY, AND HAND TOOLS USED IN AREAS WHERE INVASIVE PLANTS OCCUR SHOULD BE CLEANED OF ALL VISIBLE SOIL AND PLANT MATERIALS BEFORE LEAVING THE SITE OR MOVING TO AREAS NOT ALREADY INFESTED. CLEANING SHOULD OCCUR WITHIN THE AREA ALREADY INFESTED. ACCEPTABLE CLEANING METHODS INCLUDE:
  - PORTABLE WASH STATION THAT CONTAINS RUNOFF FROM WASHED EQUIPMENT
  - HIGH PRESSURE AIR
  - BRUSH, BROOM, OR HAND TOOLS USED WITHOUT WATER.
- EXCAVATED MATERIAL TAKEN FROM SITES THAT CONTAIN INVASIVE PLANTS CANNOT BE USED AWAY FROM THE SITE OF INFESTATION UNTIL ALL VIABLE PLANT MATERIAL IS RENDERED NONVIABLE. EXCAVATED MATERIAL MAY BE REUSED WITHIN THE EXACT LIMITS OF INFESTATION.
- ANY EXTRA EXCAVATED MATERIAL CONTAINING INVASIVE PLANT MATERIAL MUST BE STOCKPILED ON AN IMPERVIOUS SURFACE UNTIL VIABLE PLANT MATERIAL IS DESTROYED OR DISPOSED OF.
- SOIL AND OTHER MATERIALS CONTAINING INVASIVE PLANT MATERIAL MUST BE COVERED DURING TRANSPORT.
- INVASIVE SPECIES CAN BE RENDERED NONVIABLE BY BURYING 3 FEET BELOW GROUND.

### EROSION CONTROL NOTES

- 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.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- CLEARING OF NATIVE VEGETATION FOR CONSTRUCTION ACCESS SHOULD BE MINIMIZED.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- 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 PROJECT ENGINEER.
- 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).
- PLAN AND PERFORM WORK FOR LOW FLOW PERIODS.
- STOCKPILE AND STAGING LOCATIONS AS INDICATED ON THE PLANS AND AS APPROVED BY THE PROJECT ENGINEER, SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE. WETLANDS SHALL BE PROTECTED AND REMAIN UNDISTURBED THROUGHOUT THE DURATION OF THE PROJECT.
- NO DISTURBED EARTH WILL REMAIN EXPOSED FOR MORE THAN SEVEN (7) CONSECUTIVE DAYS WITHOUT APPLYING TEMPORARY OR PERMANENT STABILIZATION MEASURES.
- EXPOSED AREAS SHALL BE SEEDED AND MULCHED OR PROTECTED WITH EROSION CONTROL MATTING WITHIN 48 HOURS OF ACHIEVING FINAL GRADE.
- ANY DISTURBED SLOPES 2:1 OR STEEPER SHALL BE STABILIZED WITH EROSION CONTROL BLANKET PER DIRECTION OF PROJECT ENGINEER, SEE DETAIL.

### TRAFFIC MANAGEMENT NOTES

- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS.
- ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- ALL CONSTRUCTION SIGNS SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF WORK.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.

### WATER CONTROL PLAN

- THE PROPOSED WATER CONTROL PLAN IS PROVIDED AS A RECOMMENDED APPROACH TO DEWATER THE WORK AREA. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING A PROPOSED WATER CONTROL PLAN TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION
- BEGIN WORK DURING LOW WATER.
- STONE FILTER BERM SHALL BE INSTALLED PRIOR TO IN-CHANNEL WORK AND MAINTAINED THROUGH END OF PROJECT.
- AS MUCH WORK AS POSSIBLE TO BE COMPLETED IN THE DRY TO MINIMIZE RIVER CHANNEL DISTURBANCE. WORK IS ANTICIPATED TO BE IN THE WATER AT TIMES. ISOLATION BERMS OR OTHER BARRIERS SHOULD ISOLATE ACTIVE WORK AREAS FROM FLOWING WATER.
- INSTALL DEWATERING BASIN OR OTHER APPROVED DEWATERING DEVICE TO RECEIVE WET SEDIMENT IF NOT IMMEDIATELY REMOVED FROM THE SITE. NO PERMANENT DISTURBANCE SHOULD TAKE PLACE DUE TO DEWATERING BASIN PLACEMENT.
- FLOW TO BE MAINTAINED IN THE EXISTING CHANNEL DURING STEPS A THROUGH E. RELOCATE FLOW ONCE PILOT CHANNEL HAS BEEN COMPLETED. THIS APPROACH MINIMIZES THE FIRST FLUSH OF SEDIMENT THAT IS MOBILIZED WHEN THE CHANNEL IS RELOCATED.
- COFFERDAMS MAY BE USED TO DIRECT WATER AWAY FROM CURRENT WORK AREAS. ALL COFFERDAMS NEED TO BE REMOVED AT END OF PROJECT.
- REMOVE DEWATERING BASIN AND TURBIDITY CURTAIN AND DISPOSE OF COLLECTED SEDIMENT IN LEGAL AREA OUTSIDE OF FLOODPLAIN OR WETLAND AREAS.
- PUMPING IS NOT EXPECTED TO BE NECESSARY FOR THIS PROJECT. TEMPORARY ISOLATION BERMS WILL BE USED TO SEPARATE THE WORK 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. DIRTY WATER SHOULD BE DISCHARGED TO A DEWATERING DISCHARGE BASIN OR OTHER DEVICE APPROVED BY THE PROJECT ENGINEER.
- IN THE EVENT OF A HIGH FLOW EVENT DURING CONSTRUCTION THE CONTRACTOR WILL HAVE A REPRESENTATIVE ON SITE TO MONITOR THE SITE AND REPORT TO PROJECT ENGINEER ON SITE CONDITIONS.
- TEMPORARY STABILIZATION MAY BE REQUIRED IN THE EVENT OF A HIGH FLOW EVENT.
- STEP F TO BE COMPLETED INCREMENTALLY TO BRING DAM AND SEDIMENT DOWN TOGETHER WHILE DAM CONTINUES TO HOLD UPSTREAM SEDIMENT IN PLACE.
- THE PROJECT ENGINEER SHALL BE ON SITE FOR AND APPROVE ALL DAM REMOVAL STAGES.

### CONSTRUCTION SEQUENCE NOTES

THIS PROPOSED DAM REMOVAL SEQUENCE IS PROVIDED AS A RECOMMENDED APPROACH. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING A PROPOSED SEQUENCE TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION.

#### STEP A: PRE-CONSTRUCTION ACTIVITIES:

- SUBMIT A SEDIMENT AND EROSION CONTROL PLAN, CONSTRUCTION SEQUENCE, AND WATER CONTROL PLAN TO THE PROJECT ENGINEER FOR REVIEW FIFTEEN (15) DAYS PRIOR TO INITIATION OF CONSTRUCTION.
- OBTAIN ANY NECESSARY WORK PERMITS AND SUBMIT SCHEDULES, PLANS, AND PRODUCT INFORMATION, INCLUDING THE EMERGENCY OPERATION PLAN TO THE PROJECT ENGINEER FOR REVIEW SEVEN (7) DAYS PRIOR TO INITIATION OF CONSTRUCTION.
- CONTRACTOR SHALL PARTICIPATE IN A PRE-CONSTRUCTION SITE WALK WITH THE PROJECT ENGINEER AND OTHERS TO REVIEW ENVIRONMENTAL PERMIT REQUIREMENTS, CONTRACT PROVISIONS, PROJECT LIMITS, AND CONSTRUCTION DETAILS.

#### STEP B: CONSTRUCTION SETUP ACTIVITIES:

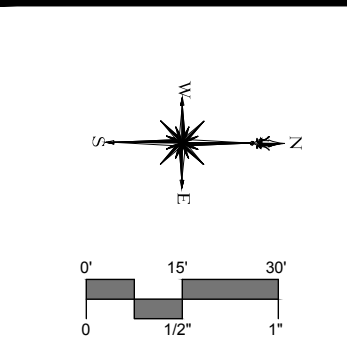
- INSTALL CONSTRUCTION WARNING SIGNS AND SAFETY FENCING. INITIATE TRAFFIC CONTROL.
- STAKE OUT LIMITS OF WORK AND INSTALL SEDIMENT AND EROSION CONTROLS, SAFETY FENCING, TEMPORARY CONSTRUCTION ACCESS, STAGING AND STORAGE AREAS. ALL TO BE REVIEWED BY PROJECT ENGINEER.
- WAIT FOR LOW FLOW TO BEGIN IN-CHANNEL WORK.

#### STEP I: POST-CONSTRUCTION ACTIVITIES:

- PERFORM SITE RECOVERY. REMOVE ALL ACCESS ROADS AND CONSTRUCTION ENTRANCES, AND STABILIZE AND RESTORE ALL DISTURBED AREAS. COMPLETE SITE RESTORATION. RESTORE TO ORIGINAL CONDITION, OR AS INDICATED ON THE PLANS.
- COMPLETE POST-CONSTRUCTION SITE WALK WITH PROJECT ENGINEER.

### LEGEND

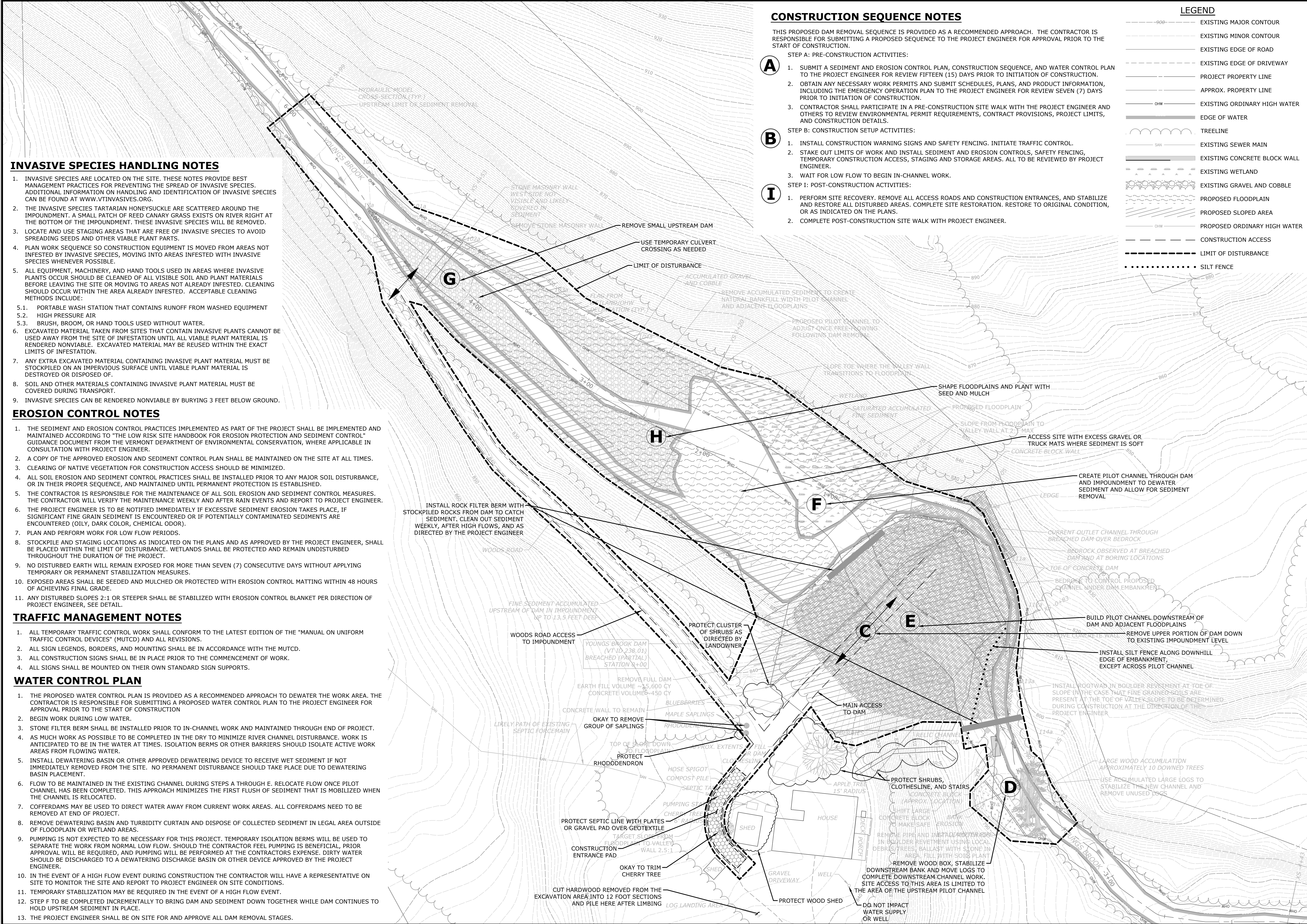
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING EDGE OF ROAD
- EXISTING EDGE OF DRIVEWAY
- PROJECT PROPERTY LINE
- APPROX. PROPERTY LINE
- EXISTING ORDINARY HIGH WATER
- EDGE OF WATER
- TREELINE
- EXISTING SEWER MAIN
- EXISTING CONCRETE BLOCK WALL
- EXISTING WETLAND
- EXISTING GRAVEL AND COBBLE
- PROPOSED FLOODPLAIN
- PROPOSED SLOPED AREA
- PROPOSED ORDINARY HIGH WATER
- CONSTRUCTION ACCESS
- LIMIT OF DISTURBANCE
- SILT FENCE



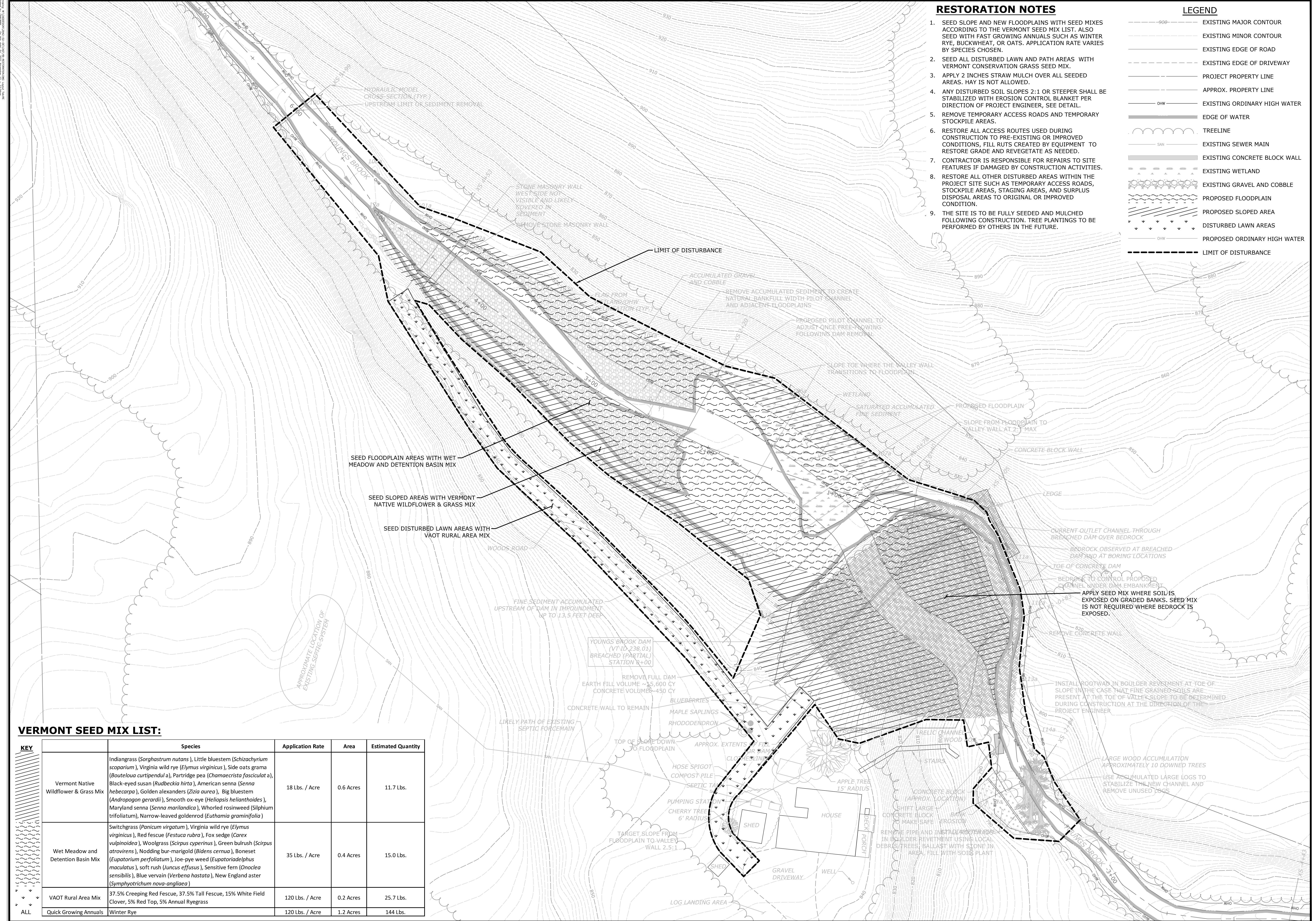
DESCRIPTION	DATE	BY

**SITE PLAN - CONSTRUCTION ACCESS, SEQUENCE & WATER CONTROL**  
**YOUNGS BROOK DAM REMOVAL (VT # 238-01)**  
 DEWEY AVE  
 RUTLAND, VERMONT

JCL	CMN	RKS
DESIGNED	DRAWN	CHECKED
SCALE: 1"=30'		
DATE: NOVEMBER 12, 2021		
PROJECT NO: 2942-02		
SHEET NO: 4 OF 9		
<b>CON</b>		







**RESTORATION NOTES**

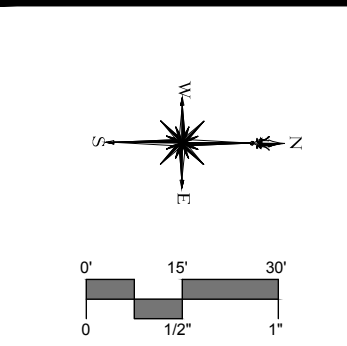
1. SEED SLOPE AND NEW FLOODPLAINS WITH SEED MIXES ACCORDING TO THE VERMONT SEED MIX LIST. ALSO SEED WITH FAST GROWING ANNUALS SUCH AS WINTER RYE, BUCKWHEAT, OR OATS. APPLICATION RATE VARIES BY SPECIES CHOSEN.
2. SEED ALL DISTURBED LAWN AND PATH AREAS WITH VERMONT CONSERVATION GRASS SEED MIX.
3. APPLY 2 INCHES STRAW MULCH OVER ALL SEEDED AREAS. HAY IS NOT ALLOWED.
4. ANY DISTURBED SOIL SLOPES 2:1 OR STEEPER SHALL BE STABILIZED WITH EROSION CONTROL BLANKET PER DIRECTION OF PROJECT ENGINEER, SEE DETAIL.
5. REMOVE TEMPORARY ACCESS ROADS AND TEMPORARY STOCKPILE AREAS.
6. RESTORE ALL ACCESS ROUTES USED DURING CONSTRUCTION TO PRE-EXISTING OR IMPROVED CONDITIONS, FILL RUTS CREATED BY EQUIPMENT TO RESTORE GRADE AND REVEGETATE AS NEEDED.
7. CONTRACTOR IS RESPONSIBLE FOR REPAIRS TO SITE FEATURES IF DAMAGED BY CONSTRUCTION ACTIVITIES.
8. 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.
9. THE SITE IS TO BE FULLY SEEDED AND MULCHED FOLLOWING CONSTRUCTION. TREE PLANTINGS TO BE PERFORMED BY OTHERS IN THE FUTURE.

**LEGEND**

- 900--- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- - - - - EXISTING EDGE OF ROAD
- - - - - EXISTING EDGE OF DRIVEWAY
- PROJECT PROPERTY LINE
- - - - - APPROX. PROPERTY LINE
- OHW EXISTING ORDINARY HIGH WATER
- EDGE OF WATER
- TREELINE
- EXISTING SEWER MAIN
- EXISTING CONCRETE BLOCK WALL
- EXISTING WETLAND
- EXISTING GRAVEL AND COBBLE
- PROPOSED FLOODPLAIN
- PROPOSED SLOPED AREA
- DISTURBED LAWN AREAS
- OHW PROPOSED ORDINARY HIGH WATER
- - - - - LIMIT OF DISTURBANCE

**VERMONT SEED MIX LIST:**

KEY	Species	Application Rate	Area	Estimated Quantity
Vermont Native Wildflower & Grass Mix	Indiangrass ( <i>Sorghastrum nutans</i> ), Little bluestem ( <i>Schizachyrium scoparium</i> ), Virginia wild rye ( <i>Elymus virginicus</i> ), Side oats grama ( <i>Bouteloua curtipendula</i> ), Partridge pea ( <i>Chamaecrista fasciculata</i> ), Black-eyed susan ( <i>Rudbeckia hirta</i> ), American senna ( <i>Senna hebecarpa</i> ), Golden alexanders ( <i>Zizia aurea</i> ), Big bluestem ( <i>Andropogon gerardii</i> ), Smooth ox-eye ( <i>Helopsis helianthoides</i> ), Maryland senna ( <i>Senna marilandica</i> ), Whorled rosinweed ( <i>Silphium trifoliatum</i> ), Narrow-leaved goldenrod ( <i>Euthamia graminifolia</i> )	18 Lbs. / Acre	0.6 Acres	11.7 Lbs.
Wet Meadow and Detention Basin Mix	Switchgrass ( <i>Panicum virgatum</i> ), Virginia wild rye ( <i>Elymus virginicus</i> ), Red fescue ( <i>Festuca rubra</i> ), Fox sedge ( <i>Carex vulpinoidea</i> ), Woolgrass ( <i>Scirpus cyperinus</i> ), Green bulrush ( <i>Scirpus atrovirens</i> ), Nodding bur-marigold ( <i>Bidens cernua</i> ), Boneset ( <i>Eupatorium perfoliatum</i> ), Joe-pye weed ( <i>Eupatoriadelphus maculatus</i> ), soft rush ( <i>Juncus effusus</i> ), Sensitive fern ( <i>Onoclea sensibilis</i> ), Blue vervain ( <i>Verbena hastata</i> ), New England aster ( <i>Symphotrichum nova-angliae</i> )	35 Lbs. / Acre	0.4 Acres	15.0 Lbs.
VAOT Rural Area Mix	37.5% Creeping Red Fescue, 37.5% Tall Fescue, 15% White Field Clover, 5% Red Top, 5% Annual Ryegrass	120 Lbs. / Acre	0.2 Acres	25.7 Lbs.
ALL	Quick Growing Annuals Winter Rye	120 Lbs. / Acre	1.2 Acres	144 Lbs.



DESCRIPTION	DATE	BY

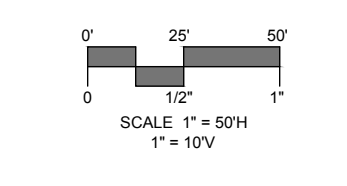
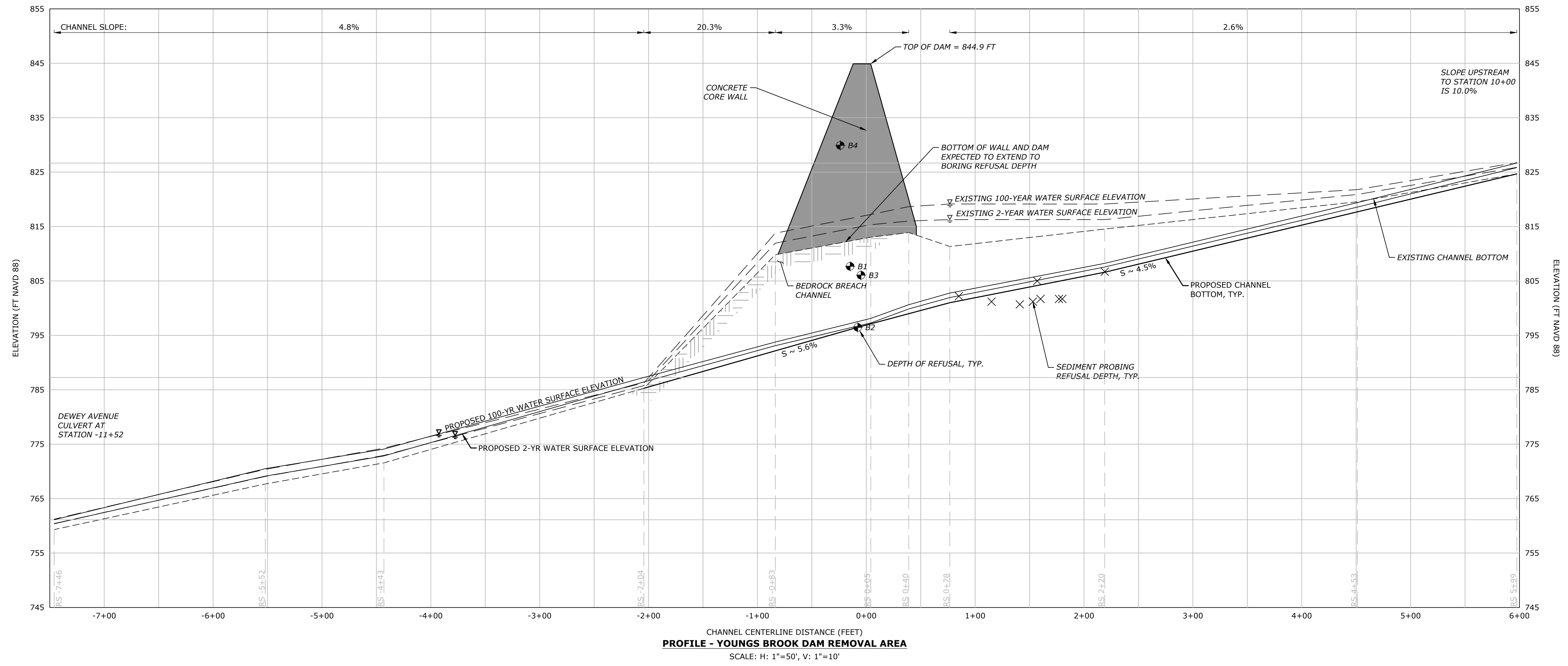
**FINAL DESIGN**

**SITE PLAN - RESTORATION**  
**YOUNGS BROOK DAM REMOVAL (VT # 238.01)**  
 DEWEY AVE  
 RUTLAND, VERMONT

JCL	CMN	RKS
DESIGNED	DRAWN	CHECKED
SCALE: 1"=30'		
DATE: NOVEMBER 12, 2021		
PROJECT NO: 2942-02		
SHEET NO: 5 OF 9		
<b>RE</b>		



SHEET 1 OF 9  
 PROJECT: 2942-02  
 DATE: 11/12/21  
 DRAWN BY: DJO  
 CHECKED BY: RKS  
 DESIGNED BY: JCL  
 SCALE: 1"=50' H, 1"=10' V



**MILONE & MACBROOM**  
 NOW PART OF **SLR**  
 160 RIVINGTON STREET  
 WATERBURY, VT 05676  
 802.882.8335  
 WWW.MMI-MNC.COM

DESCRIPTION	DATE	BY

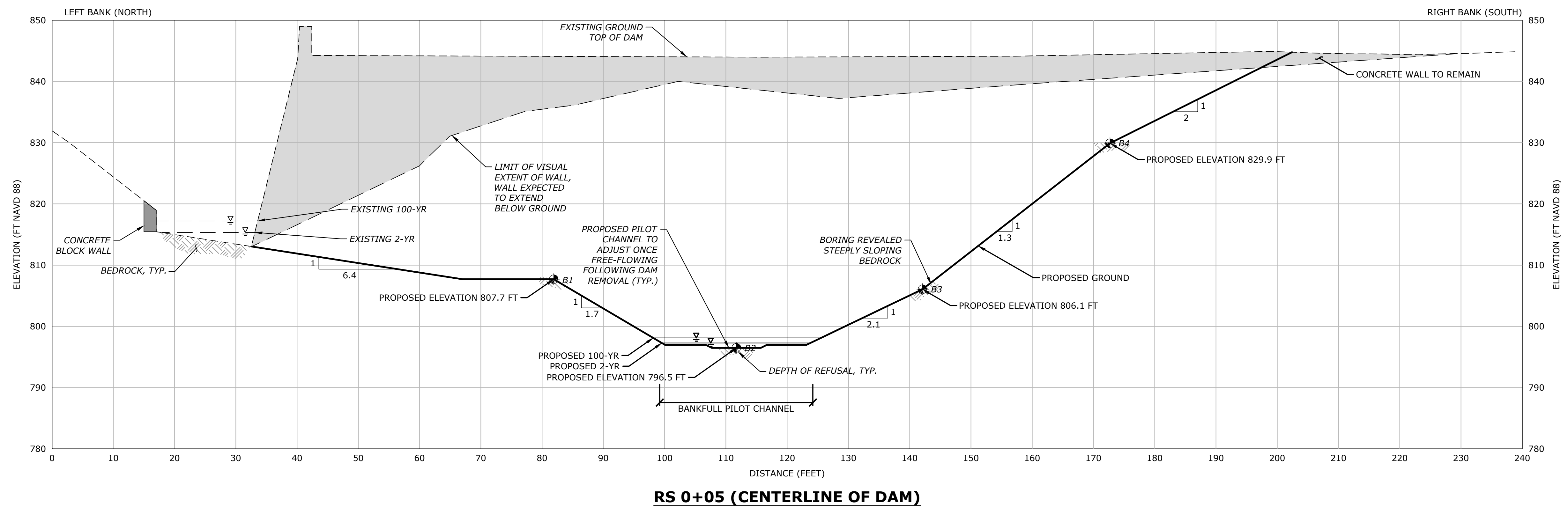
**FINAL DESIGN**

**CHANNEL PROFILE**  
**YOUNGS BROOK DAM REMOVAL (VT # 238.01)**  
 DEWEY AVE  
 RUTLAND, VERMONT

JCL	DJO	RKS
DESIGNED	DRAWN	CHECKED
SCALE: 1"=50' H, 1"=10' V		
DATE: NOVEMBER 12, 2021		
PROJECT NO.: 2942-02		
SHEET NO.: 6 OF 9		

**PRO**

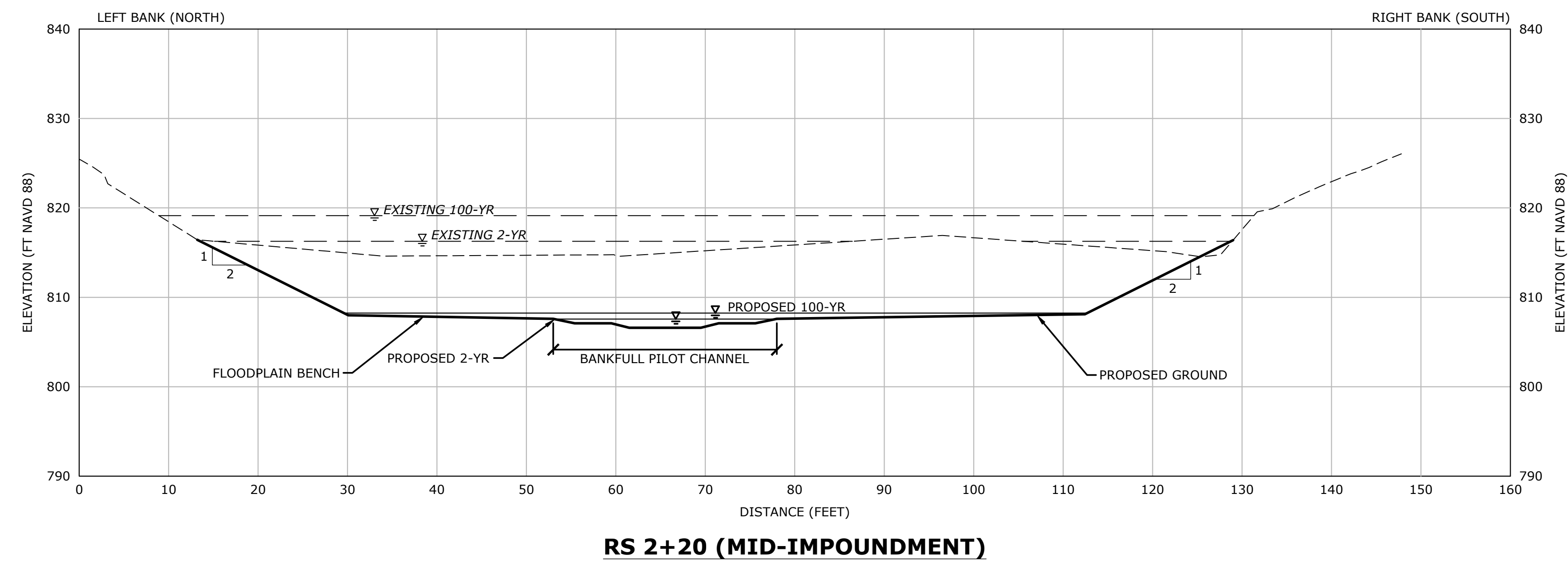




**RS 0+05 (CENTERLINE OF DAM)**

**DAM REMOVAL NOTES**

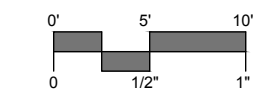
- CROSS SECTIONS VIEWED LOOKING DOWNSTREAM.
- ENTIRE CONCRETE STRUCTURE OF YOUNGS BROOK DAM TO BE REMOVED DOWN TO BEDROCK.
- DO NOT REMOVE BEDROCK.



**RS 2+20 (MID-IMPOUNDMENT)**

**CROSS SECTION NOTES**

- CROSS SECTIONS VIEWED LOOKING DOWNSTREAM.
- CONSTRUCTED CHANNEL TO BE CONSTRUCTED USING NATIVE CHANNEL BED MATERIAL, OR BE COMPOSED OF EXISTING BEDROCK, WITH ROUGHNESS (SEE DET-2).
- CHANNEL TYPE (BEDROCK OR SEDIMENT) TO BE REFINED IN FIELD WITH PROJECT ENGINEER AFTER DEWATERING AND SEDIMENT REMOVAL.
- BEDROCK CHANNEL SECTIONS**
  - DO NOT ATTEMPT TO MATCH PROPOSED GRADING IN AREAS WHERE BEDROCK IS ENCOUNTERED
  - BEDROCK NOT TO BE REMOVED
  - LOW-FLOW CHANNEL SET BY BEDROCK
- RIVER SEDIMENT CHANNEL SECTIONS**
  - REFER TO RESTORED CHANNEL BED AND TYPICAL CHANNEL SECTION DETAILS (SEE DET-2)
  - ALIGNMENT OF THE LOW-FLOW CHANNEL TO BE LOCATED IN THE FIELD DURING CONSTRUCTION BY THE PROJECT ENGINEER.



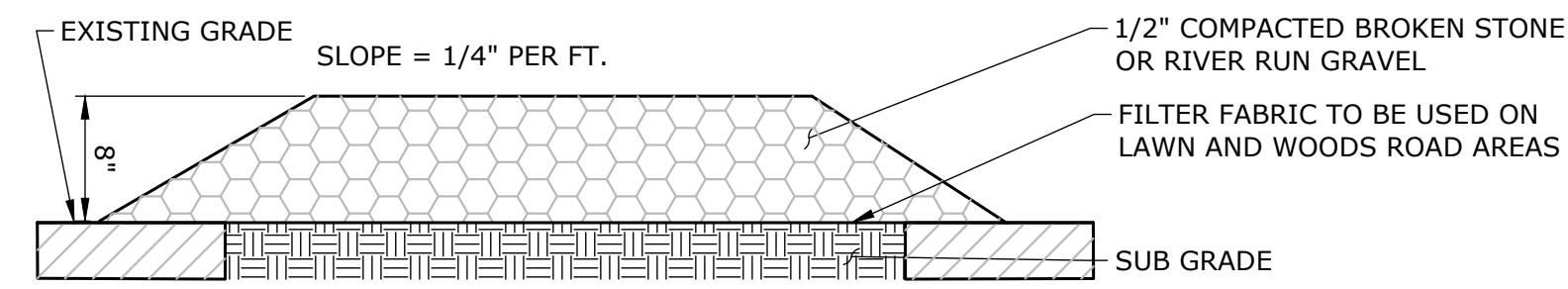
DESCRIPTION	DATE	BY

FINAL DESIGN

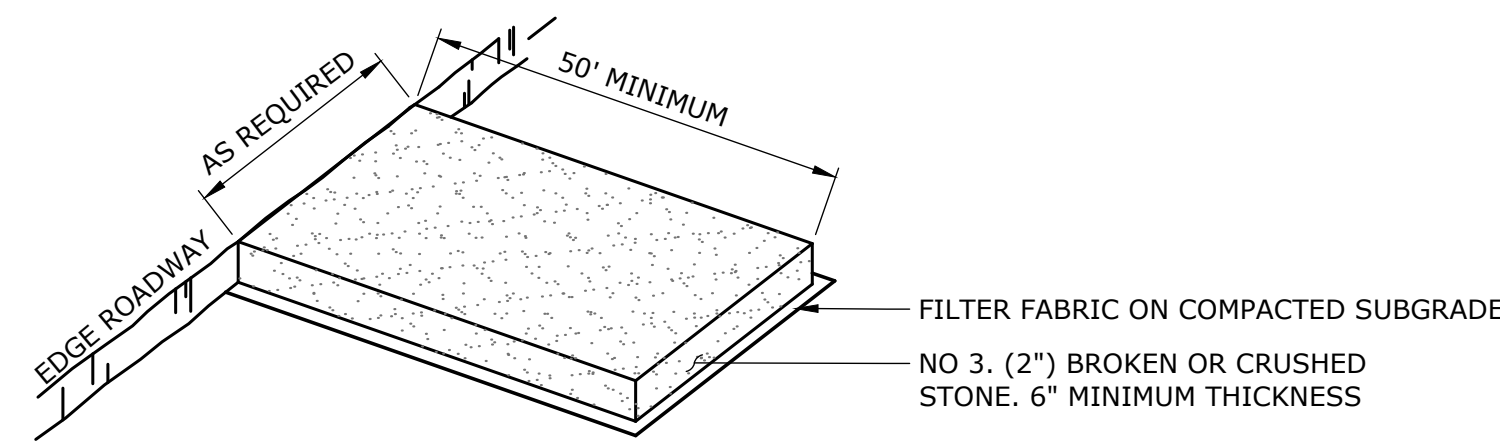
TYPICAL CROSS-SECTIONS  
YOUNGS BROOK DAM REMOVAL (VT # 238.01)  
DEWEY AVE  
RUTLAND, VERMONT

JCL DESIGNED	DJO DRAWN	RKS CHECKED
SCALE 1"=10'		
DATE NOVEMBER 12, 2021		
PROJECT NO. 2942-02		
SHEET NO. 7 OF 9		
SHEET NAME <b>XS</b>		



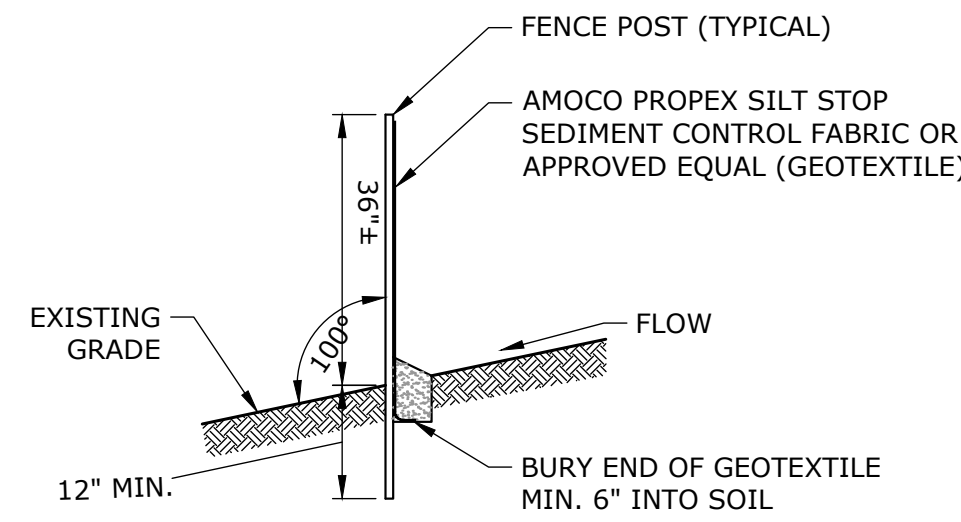


**CONSTRUCTION ACCESS ROAD**  
NOT TO SCALE

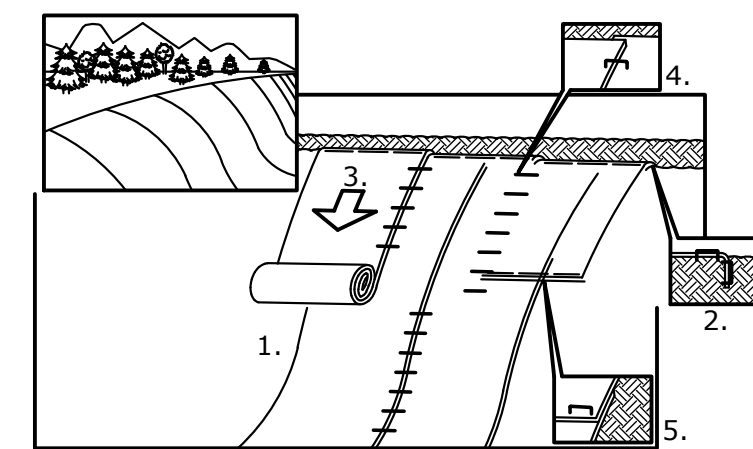


- NOTES:**
- CONSTRUCTION ENTRANCE PAD SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH GENERATE VEHICULAR TRACKING OF MUD.

**CONSTRUCTION ENTRANCE PAD**  
NOT TO SCALE



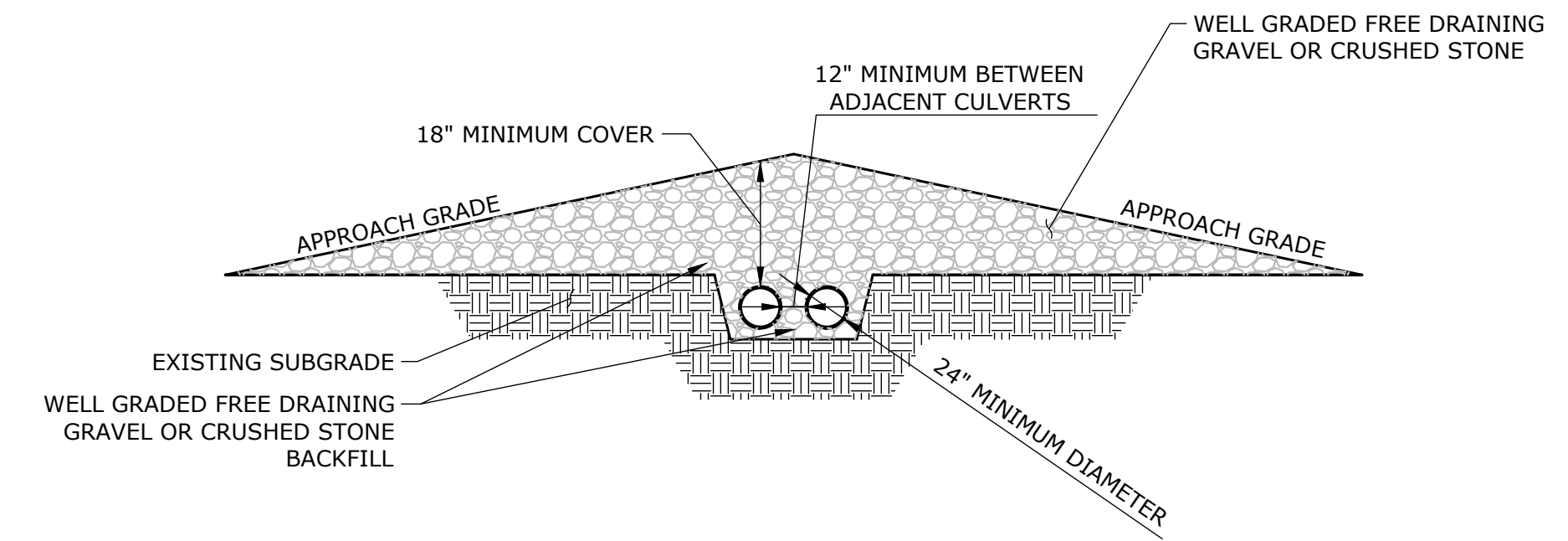
**SEDIMENT FILTER FENCE**  
NOT TO SCALE



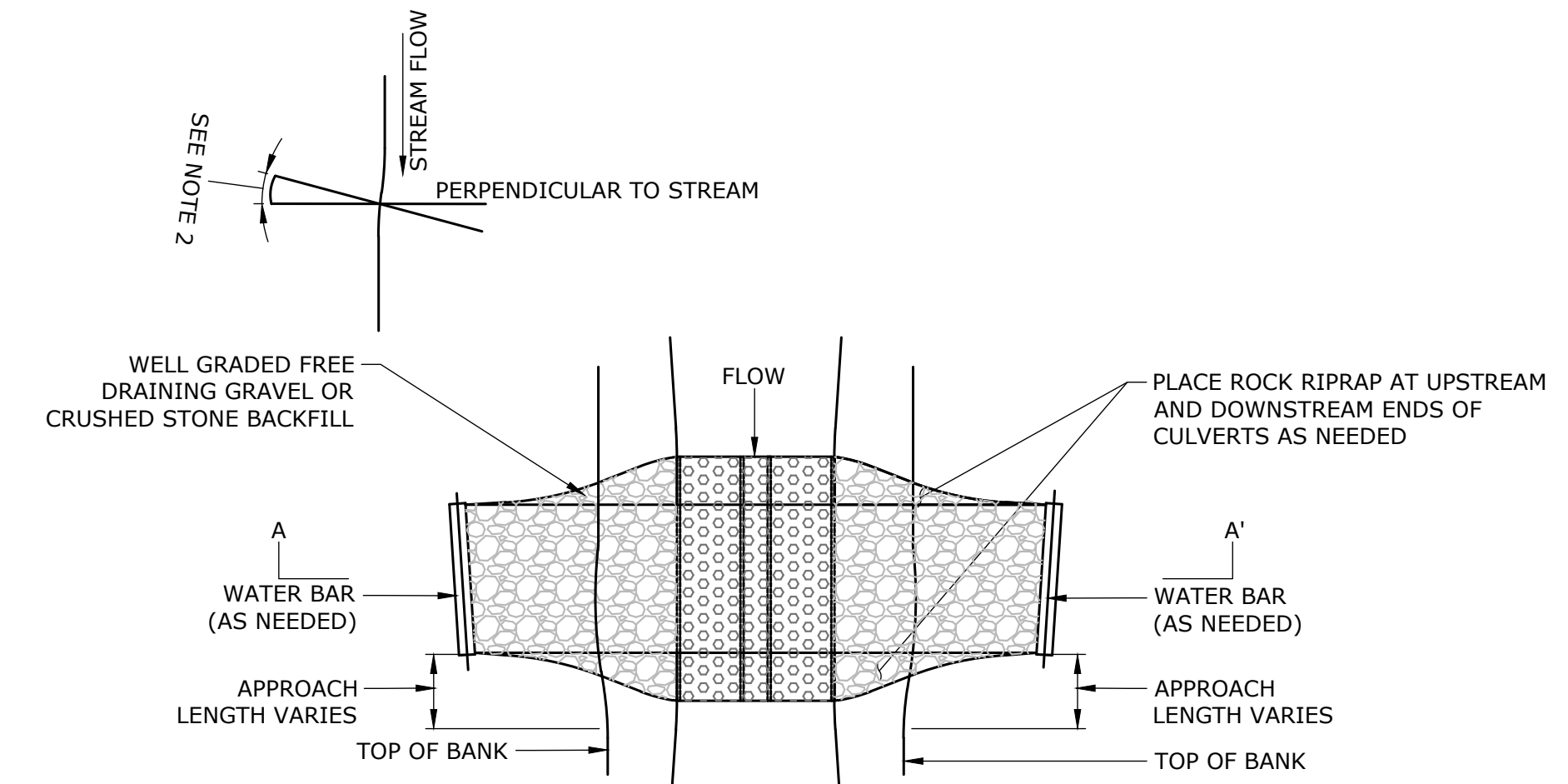
- NOTES:**
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING SCC225, DO NOT SEED PREPARED AREA. SCC225 MUST BE INSTALLED WITH PAPER SIDE DOWN.
  - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  - ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
  - THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
  - WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAP AREA, APPROXIMATELY 12" APART.

REFER TO GENERAL STAPLE PATTERN GUIDE IN NORTH AMERICAN GREEN CATALOG FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

**APPLICATION OF EROSION CONTROL BLANKET ON SLOPES**  
NOT TO SCALE

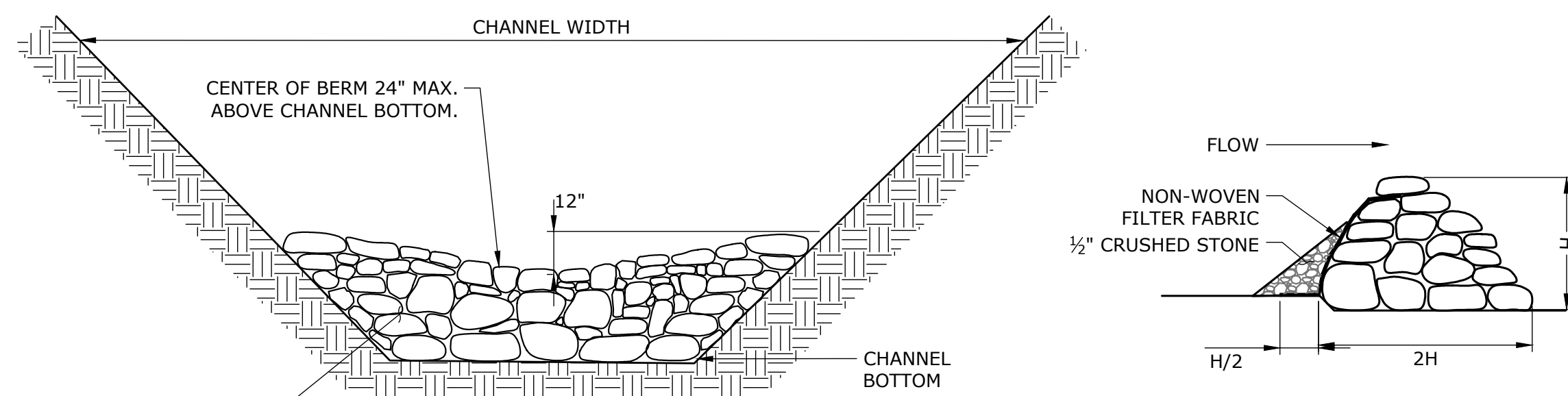


**CROSS SECTION A-A'**



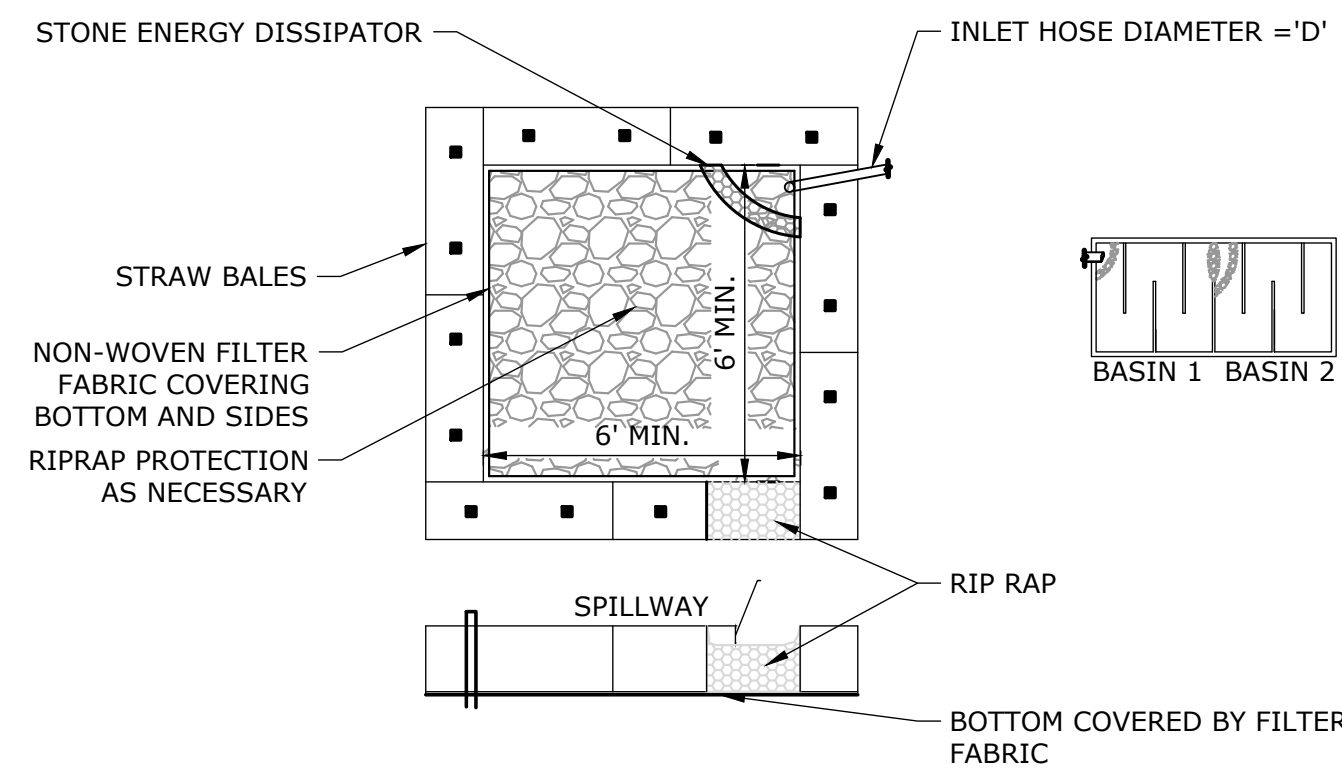
- NOTES:**
- CULVERT LENGTH SHALL NOT EXCEED 40 FEET.
  - THE CENTER OF THE STREAM CROSSING SHALL BE ALIGNED SO THAT IT IS NO GREATER THAN 15° FROM A LINE PERPENDICULAR TO THE STREAM FLOW.
  - CULVERTS SIZED TO CONVEY AVERAGE JULY FLOW WITH HEADWATER/DEPTH=0.8.

**TEMPORARY CULVERT CROSSING**  
NOT TO SCALE



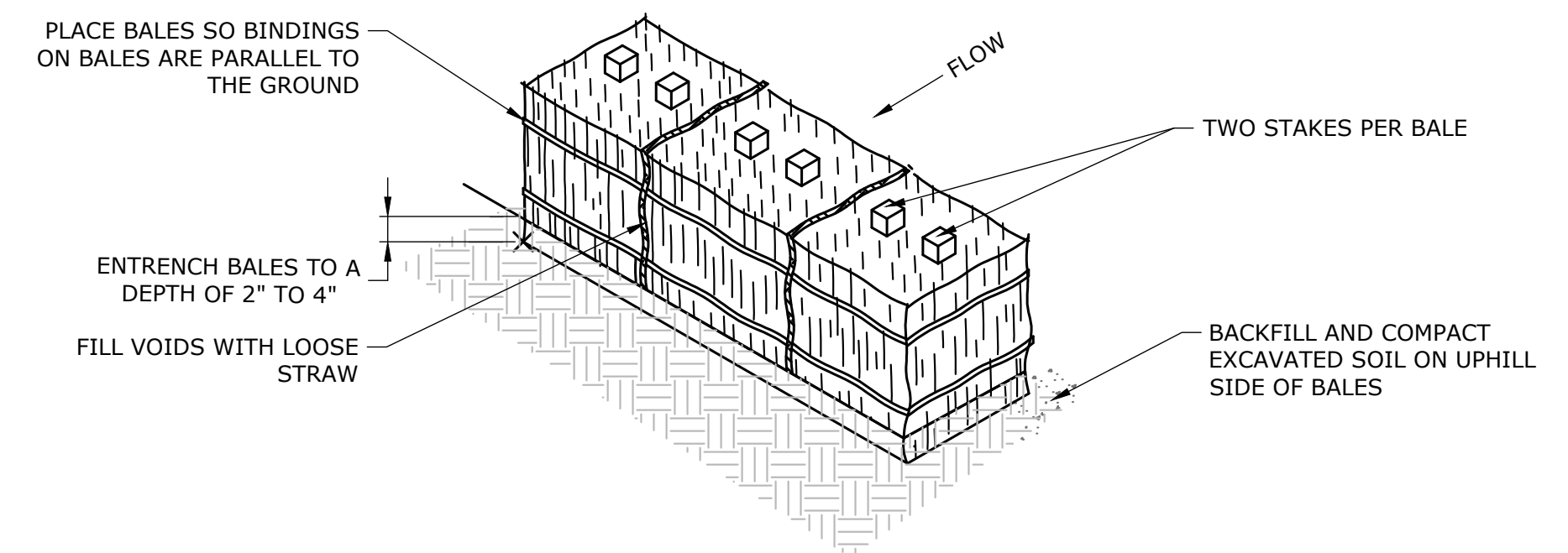
- NOTES:**
- CHOKE STONES TO FILL VOIDS BETWEEN STONES
  - REMOVE PRIOR TO DEMOBILIZATION.

**STONE FILTER BERM**  
NOT TO SCALE



- NOTES:**
- IF PUMPING VOLUME EXCEEDS BASIN CAPACITY, BASIN MAY BE USED IN SERIES.
  - INCREASE RIPRAP SIZE ON BASIN BOTTOM AS NECESSARY TO MAINTAIN SEDIMENT-FREE DISCHARGE WATERS

**PUMP SETTLING BASIN**  
NOT TO SCALE



- NOTES:**
- IDEALLY BALES SHOULD BE ENTRENCHED 2 TO 4 INCHES AND TIGHTLY BUTTED TOGETHER. BALES CAN BE SUCCESSFULLY PLACED WITHOUT A TRENCH IF GOOD GROUND CONTACT IS MADE. REMOVE HEAVY BRUSH AND FILL ALL VOIDS WITH LOOSE STRAW.
  - BALES SHALL BE ONLY USED AS A TEMPORARY BARRIER AND FOR NO LONGER THAN 60 DAYS.
  - WHEN SEDIMENTATION DEPOSITS REACH WITHIN 3" OF THE TOP OF BALES, REMOVE THE SEDIMENTATION OR ADD ADDITIONAL BALES ON SEDIMENTATION DIRECTLY BEHIND FIRST ROW OF BALES AS DIRECTED BY THE ENGINEER.
  - UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS AND WHEN DIRECTED BY THE ENGINEER, HAY BALES WILL BE REMOVED AND USED AS MULCH. ANY SEDIMENTATION WILL BE THINLY SPREAD UPON ESTABLISHED GROUND COVER.

**STRAW BALE BARRIER PROTECTION**  
NOT TO SCALE

DESCRIPTION	DATE	BY

FINAL DESIGN

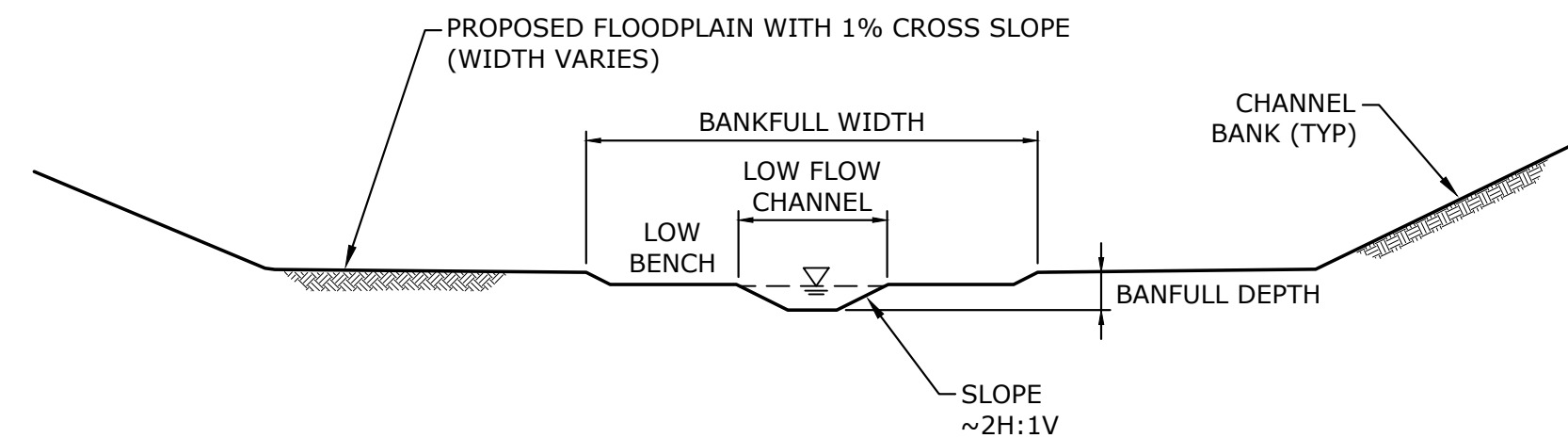
DETAILS I  
YOUNGS BROOK DAM REMOVAL (VT # 238.01)  
DEWEY AVE  
RUTLAND, VERMONT

JCL	CMN	RKS
DESIGNED	DRAWN	CHECKED
NOT TO SCALE		
NOVEMBER 12, 2021		
DATE		
PROJECT NO. 2942-02		
SHEET NO. 8 OF 9		
SHEET NAME		
<b>DET-1</b>		



RIVER	CHANNEL TYPE	WIDTH (FEET)	DEPTH (FEET)
YOUNGS BROOK	BANKFULL	25	1.0
YOUNGS BROOK	LOW FLOW	8	0.5

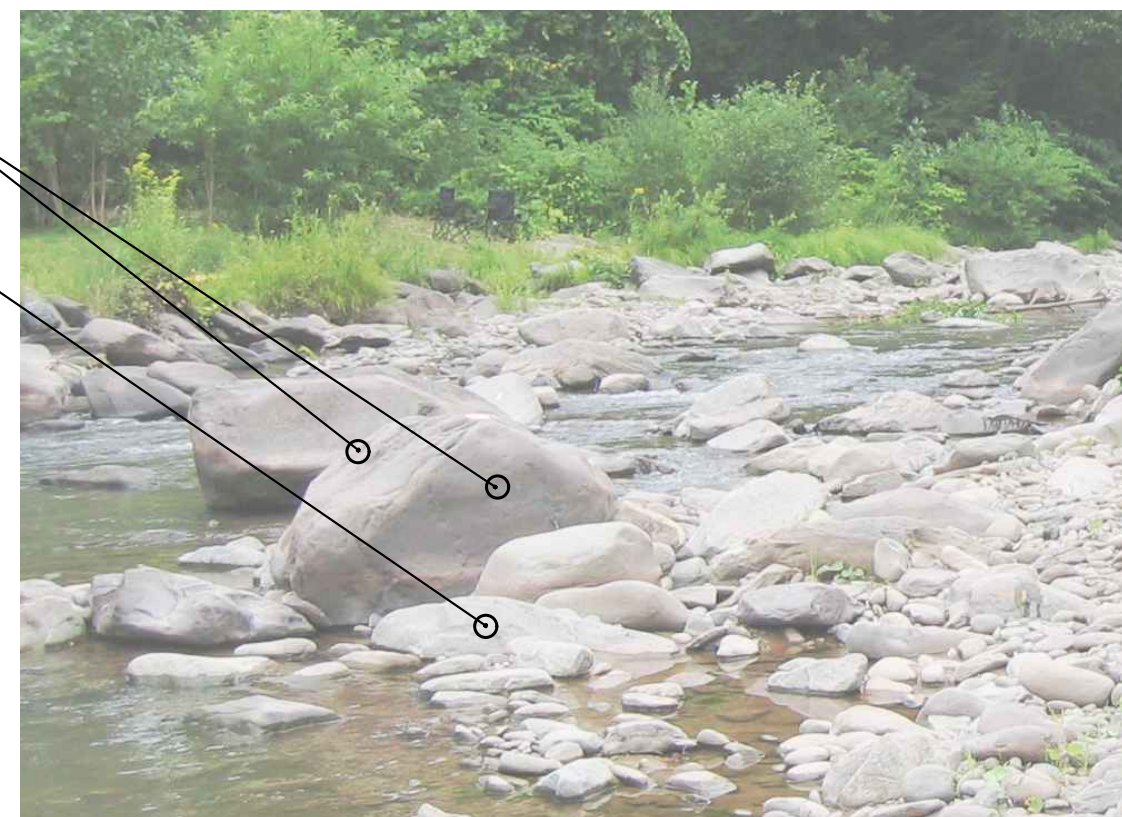
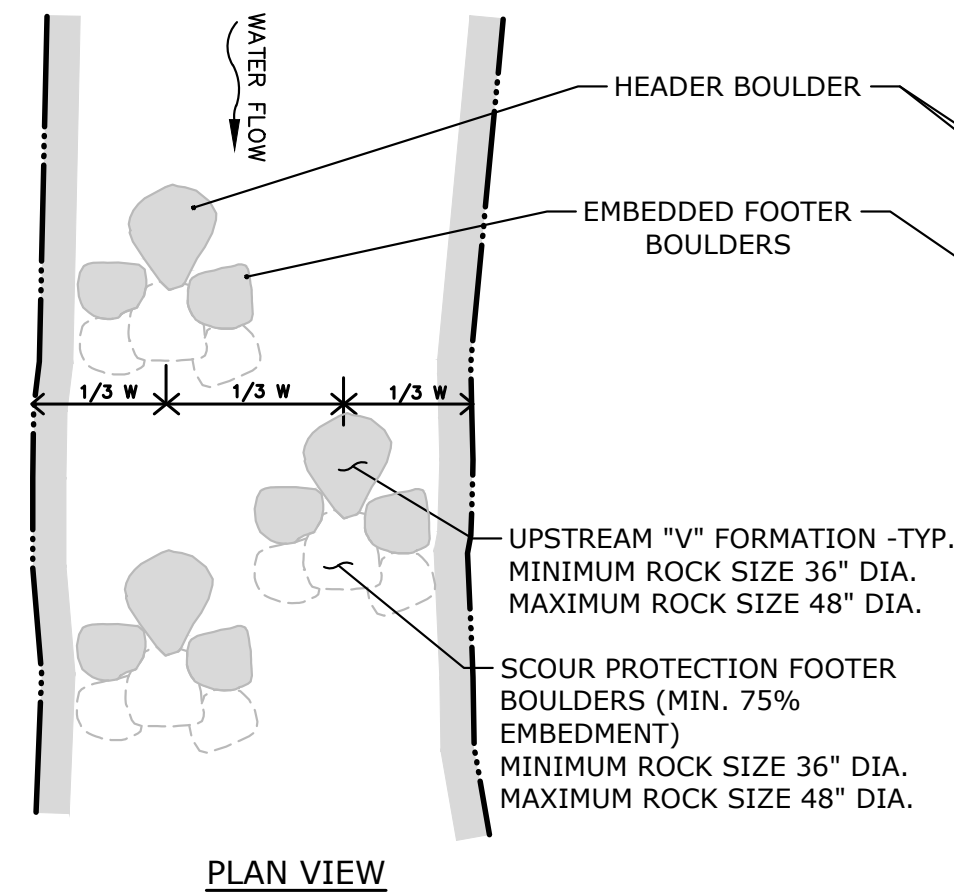
**TYPICAL CHANNEL DIMENSIONS**  
NOT TO SCALE



**NOTES:**

1. SET LOW FLOW PILOT CHANNEL WIDTH TO APPROXIMATELY  $\frac{1}{3}$  THE BANKFULL CHANNEL WIDTH.
2. SEE TYPICAL CHANNEL DIMENSIONS.
3. ALIGNMENT OF THE LOW FLOW CHANNEL TO BE LOCATED IN THE FIELD DURING CONSTRUCTION BY THE PROJECT ENGINEER.
4. PILOT CHANNEL TO BE CONSTRUCTED USING NATIVE CHANNEL BED MATERIAL. MAINTAIN ROUGH AND IRREGULAR CROSS SECTION.
5. SEED PROPOSED CHANNEL BED WITH LARGE NATIVE COBBLE, BOULDERS, AND WOOD AS DIRECTED BY THE PROJECT ENGINEER. SEE RESTORED CHANNEL BED DETAIL.

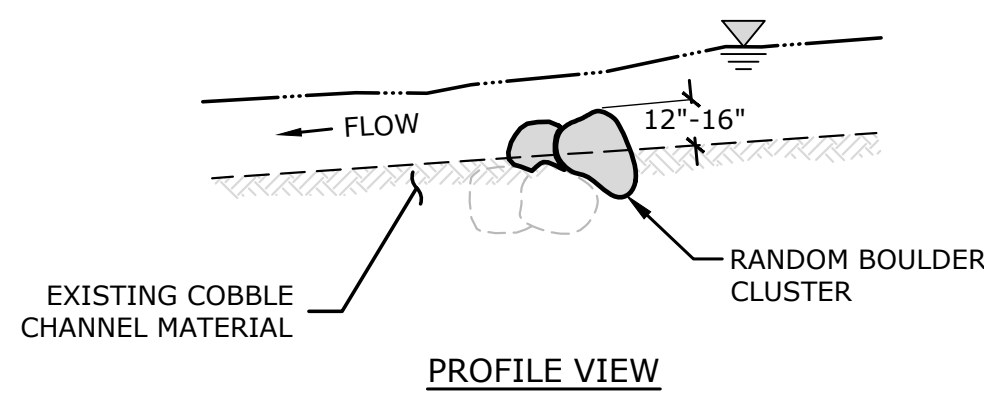
**TYPICAL CHANNEL SECTION**  
NOT TO SCALE



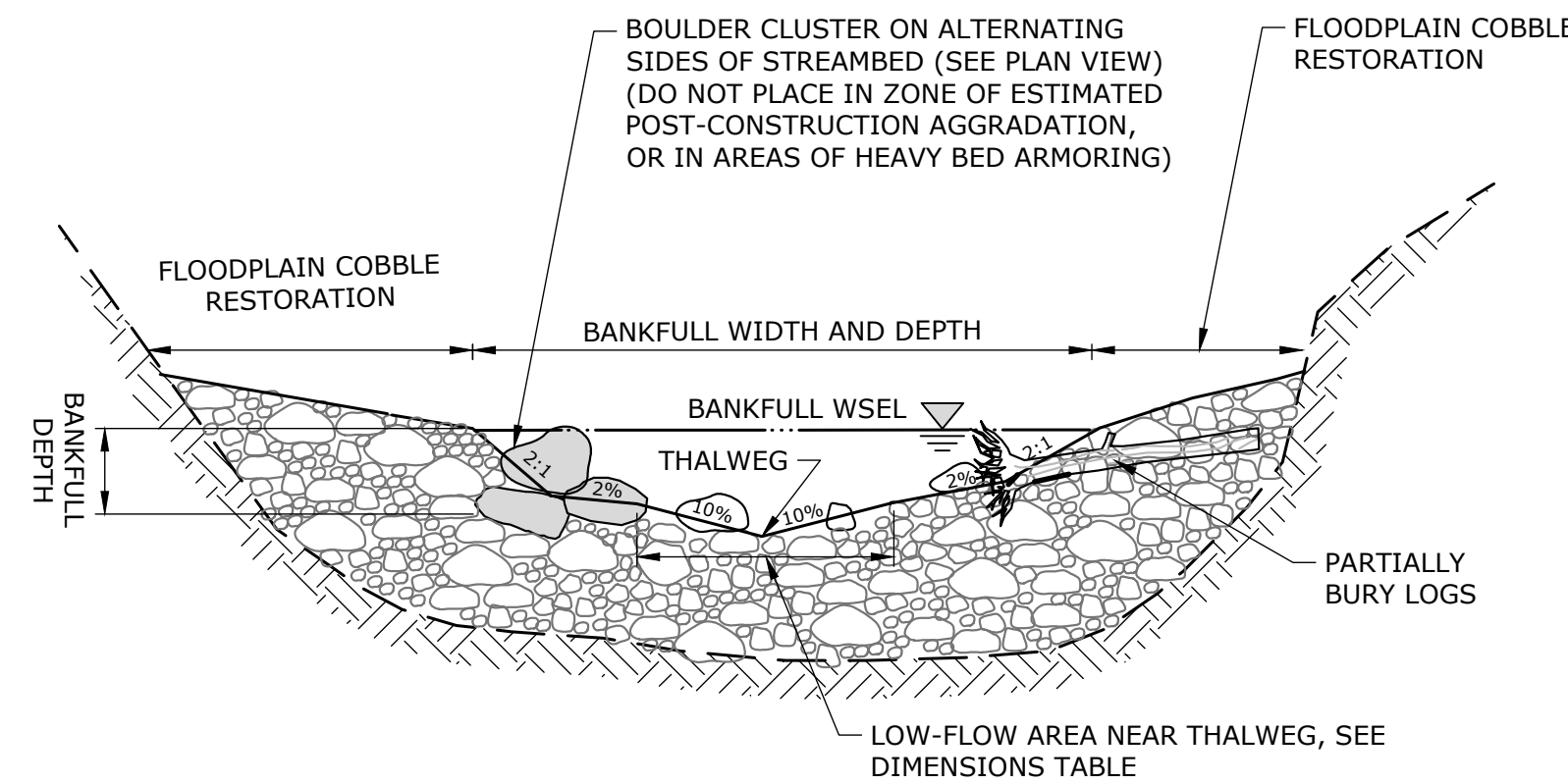
**TYPICAL PHOTO**

**NOTES:**

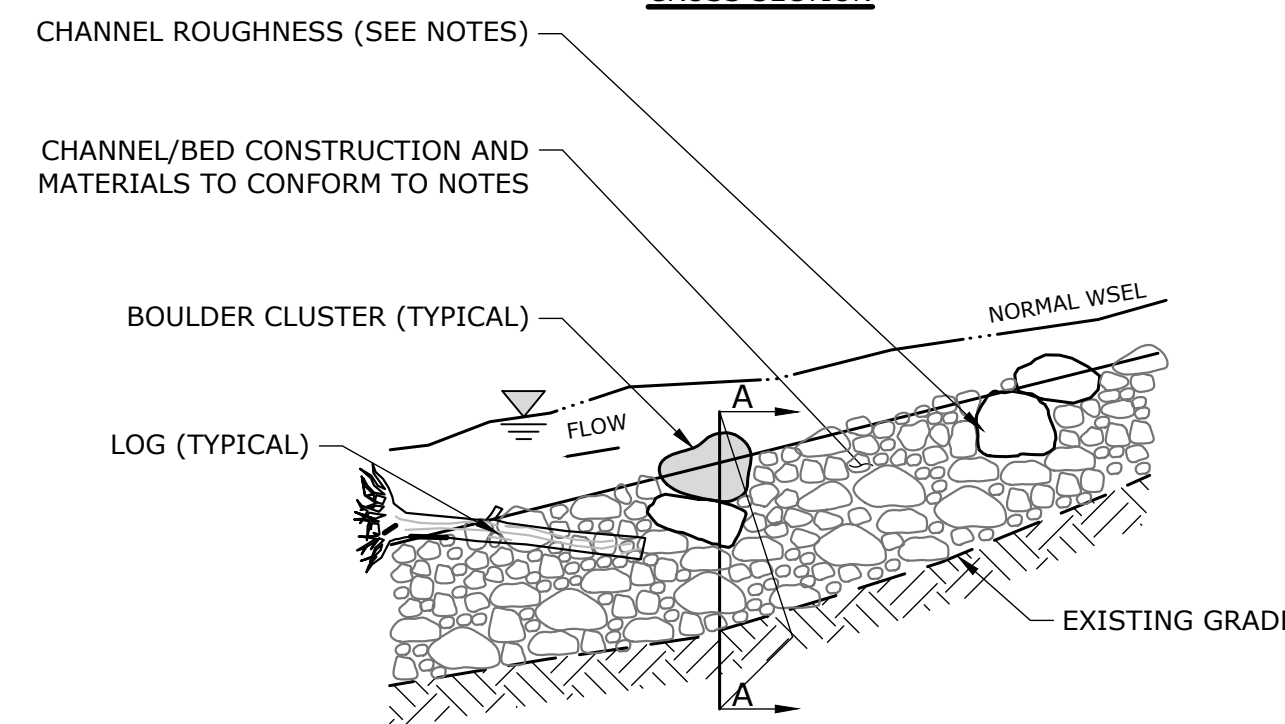
1. 3 BOULDERS PER RANDOM BOULDER CLUSTER, PLUS 3 SCOUR PROTECTION FOOTER BOULDERS.
2. PLACE BOULDERS IN THE MIDDLE THIRD OF THE STREAM WITHIN DEEPEST PORTION OF CHANNEL.
3. POSITION BOULDER GROUPS IN AN UPSTREAM "V" FORMATION.
4. INDIVIDUAL BOULDERS PLACED IN THE STREAM SHOULD BE 36" TO 48" IN DIAMETER.
5. POSITION BOULDERS WITH THEIR LONG AXIS PARALLEL TO THE STREAM FLOW.
6. INSTALL FOOTER BOULDER TO WEDGE HEADER BOULDER IN PLACE FROM DOWNSTREAM.
7. INSTALL SUCH THAT  $\frac{1}{2}$  OF ROCK DIAMETER IS BURIED IN STREAM CHANNEL.
8. FINISHED ELEVATION OF THE BOULDERS WILL BE DETERMINED IN THE FIELD.



**RANDOM BOULDER CLUSTER**  
NOT TO SCALE



**CROSS SECTION**

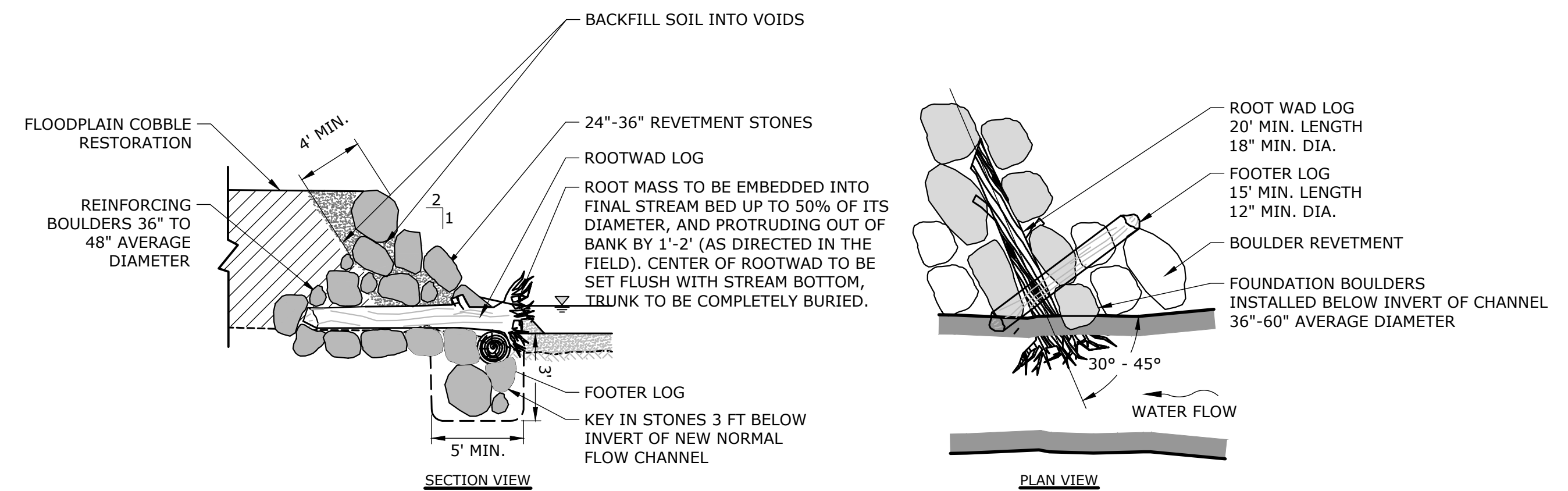


**PROFILE VIEW**

**RESTORED CHANNEL BED**  
NOT TO SCALE

**CHANNEL BED GRADING AND RESTORATION NOTES:**

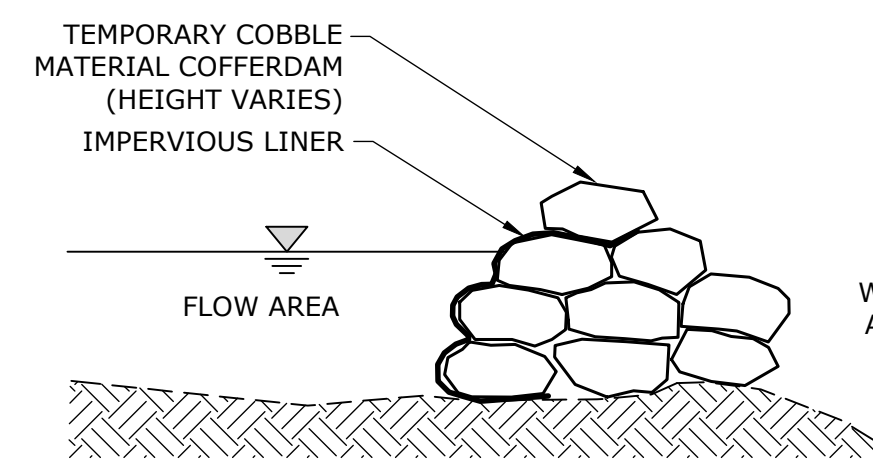
- 1. REMOVAL OF EXISTING BED:**
  - 1.1. REMOVE AND STOCKPILE ALL EXISTING SAND, GRAVEL, COBBLE, AND BOULDER TO MINIMUM 12" DEPTH WITHIN EXISTING BANKFULL CHANNEL. REUSE MATERIAL ON TOP 12" OF FINAL CHANNEL BED. ALL BOULDERS LOCATED PARTIALLY OR FULLY WITHIN THE 12" SHALL BE REMOVED FOR REUSE.
  - 1.2. SAVE AND STOCKPILE ALL LOGS FOR REUSE IN FINAL BED.
- 2. CHANNEL FORMATION:**
  - 2.1. PERFORM ROUGH GRADING OF CHANNEL.
  - 2.2. DO NOT REUSE FINE-GRAINED SILTS, CLAYS, OR ORGANIC MATERIAL WITHIN THE BANKFULL CHANNEL.
  - 2.3. TO ESTABLISH PILOT CHANNEL IN FILL SITUATION: FILL TO WITHIN 12" OF FINAL GRADE WITH NATURAL SAND & GRAVEL/COBBLE/BOULDER RE-USED FROM ON-SITE EXCAVATION. DO NOT USE SILTS, CLAYS, OR ORGANICS. DO NOT USE STOCKPILED BED ARMORING AS GENERAL FILL TO RAISE BED. PLACE FINAL 12" OF MATERIAL FROM STOCKPILED MATERIAL, AND SUPPLEMENT WITH BED ARMORING AS DESCRIBED BELOW.
  - 2.4. TO ESTABLISH PILOT CHANNEL IN CUT SITUATION, IN SUITABLE SOIL: PLACE FINAL 12" OF MATERIAL FROM STOCKPILED MATERIAL, AND SUPPLEMENT WITH ROUGHNESS AS DESCRIBED BELOW.
  - 2.5. TO ESTABLISH PILOT CHANNEL IN CUT SITUATION, IN UNSUITABLE SOIL: REMOVE MATERIAL TO 24" BELOW FINAL GRADE. PLACE 12" OF SUITABLE SAND/GRAVEL FILL. PLACE FINAL 12" OF MATERIAL FROM STOCKPILED MATERIAL, AND SUPPLEMENT WITH BED ARMORING AS DESCRIBED BELOW.
- 3. LOW-FLOW CHANNEL:**
  - 3.1. SHALL BE A V-SHAPED CHANNEL WITH 10% SLOPE FROM DEEPEST POINT TO BANKS, SEE DIMENSIONS TABLE.
- 4. BANKFULL CHANNEL:**
  - 4.1. SHALL CONSIST OF A 25-FOOT WIDE FLOW AREA UPLAND OF THE LOW-FLOW CHANNEL. IT SHALL GENERALLY SLOPE AT 2% TOWARDS THE LOW FLOW CHANNEL, AND BANKFULL DEPTH HEIGHT BANKS AT 2:1 SLOPE ALONG THE OUTER LIMITS. SEE PLAN AND DETAIL.
- 5. CHANNEL ROUGHNESS:**
  - 5.1. PLACE 18"-48" NATIVE BOULDER, SEE PLANS FOR SPACING AND LOCATIONS. SEE CHANNEL ROUGHNESS DETAIL FOR ROCK PLACEMENT AND ORIENTATION. CHANNEL BED SHOULD BE ROUGH AND "MESSY". SEE UNDAMMED CHANNEL FOR LOCAL EXAMPLE.
  - 5.2. INSTALL SAVED LOGS, STUMPS, AND ROOT WADS. PARTIALLY BURY IN BED OR BANKS TO CREATE HABITAT FEATURES.



**NOTES:**

1. TOP OF FOOTER LOG SHALL BE ONE FOOT BELOW LOWEST STREAMBED ELEVATION.
2. THE FINAL ELEVATION OF THE ROOT WAD WILL BE SUBJECT TO ADJUSTMENT BASED UPON CHANGING FIELD CONDITIONS.

**ROOTWAD IN BOULDER REVETMENT**  
NOT TO SCALE



**NOTES:**

1. COFFER DAM AND PUMP SYSTEM TO BE SIZED FOR NORMAL FLOW CONDITIONS.
2. SANDBAGS OR JERSEY BARRIERS ARE ACCEPTABLE ALTERNATIVES.
3. CONTRACTOR RESPONSIBLE FOR REMOVING COFFERDAM AND ALL MATERIALS FOLLOWING CONSTRUCTION.

**TEMPORARY COBBLE COFFERDAM**  
NOT TO SCALE



DESCRIPTION	DATE	BY

FINAL DESIGN

DETAILS II  
YOUNGS BROOK DAM REMOVAL (VT # 238.01)  
DEWEY AVE  
RUTLAND, VERMONT

JCL	CMN	RKS
DESIGNED	DRAWN	CHECKED

NOT TO SCALE

NOVEMBER 12, 2021

PROJECT NO. 2942-02

SHEET NO. 9 OF 9

DET-2



**Attachment B**

**Standard State Contract Provisions**



**ATTACHMENT C: STANDARD STATE PROVISIONS  
FOR CONTRACTS AND GRANTS  
REVISED DECEMBER 15, 2017**

**1. Definitions:** For purposes of this Attachment, “Party” shall mean the Contractor, Grantee or Subrecipient, with whom the State of Vermont is executing this Agreement and consistent with the form of the Agreement. “Agreement” shall mean the specific contract or grant to which this form is attached.

**2. Entire Agreement:** This Agreement, whether in the form of a contract, State-funded grant, or Federally-funded grant, represents the entire agreement between the parties on the subject matter. All prior agreements, representations, statements, negotiations, and understandings shall have no effect.

**3. Governing Law, Jurisdiction and Venue; No Waiver of Jury Trial:** This Agreement will be governed by the laws of the State of Vermont. Any action or proceeding brought by either the State or the Party in connection with this Agreement shall be brought and enforced in the Superior Court of the State of Vermont, Civil Division, Washington Unit. The Party irrevocably submits to the jurisdiction of this court for any action or proceeding regarding this Agreement. The Party agrees that it must first exhaust any applicable administrative remedies with respect to any cause of action that it may have against the State with regard to its performance under this Agreement. Party agrees that the State shall not be required to submit to binding arbitration or waive its right to a jury trial.

**4. Sovereign Immunity:** The State reserves all immunities, defenses, rights or actions arising out of the State’s sovereign status or under the Eleventh Amendment to the United States Constitution. No waiver of the State’s immunities, defenses, rights or actions shall be implied or otherwise deemed to exist by reason of the State’s entry into this Agreement.

**5. No Employee Benefits For Party:** The Party understands that the State will not provide any individual retirement benefits, group life insurance, group health and dental insurance, vacation or sick leave, workers compensation or other benefits or services available to State employees, nor will the State withhold any state or Federal taxes except as required under applicable tax laws, which shall be determined in advance of execution of the Agreement. The Party understands that all tax returns required by the Internal Revenue Code and the State of Vermont, including but not limited to income, withholding, sales and use, and rooms and meals, must be filed by the Party, and information as to Agreement income will be provided by the State of Vermont to the Internal Revenue Service and the Vermont Department of Taxes.

**6. Independence:** The Party will act in an independent capacity and not as officers or employees of the State.

**7. Defense and Indemnity:** The Party shall defend the State and its officers and employees against all third party claims or suits arising in whole or in part from any act or omission of the Party or of any agent of the Party in connection with the performance of this Agreement. The State shall notify the Party in the event of any such claim or suit, and the Party shall immediately retain counsel and otherwise provide a complete defense against the entire claim or suit. The State retains the right to participate at its own expense in the defense of any claim. The State shall have the right to approve all proposed settlements of such claims or suits.

After a final judgment or settlement, the Party may request recoupment of specific defense costs and may file suit in Washington Superior Court requesting recoupment. The Party shall be entitled to recoup costs only upon a showing that such costs were entirely unrelated to the defense of any claim arising from an act or omission of the Party in connection with the performance of this Agreement.

The Party shall indemnify the State and its officers and employees if the State, its officers or employees become legally obligated to pay any damages or losses arising from any act or omission of the Party or an agent of the Party in connection with the performance of this Agreement.

Notwithstanding any contrary language anywhere, in no event shall the terms of this Agreement or any document furnished by the Party in connection with its performance under this Agreement obligate the State to (1) defend or indemnify the Party or any third party, or (2) otherwise be liable for the expenses or reimbursement, including attorneys’ fees, collection costs or other costs of the Party or any third party.

**8. Insurance:** Before commencing work on this Agreement the Party must provide certificates of insurance to show that the following minimum coverages are in effect. It is the responsibility of the Party to maintain current certificates of insurance on file with the State through the term of this Agreement. No warranty is made that the coverages and limits listed



herein are adequate to cover and protect the interests of the Party for the Party's operations. These are solely minimums that have been established to protect the interests of the State.

*Workers Compensation:* With respect to all operations performed, the Party shall carry workers' compensation insurance in accordance with the laws of the State of Vermont. Vermont will accept an out-of-state employer's workers' compensation coverage while operating in Vermont provided that the insurance carrier is licensed to write insurance in Vermont and an amendatory endorsement is added to the policy adding Vermont for coverage purposes. Otherwise, the party shall secure a Vermont workers' compensation policy, if necessary to comply with Vermont law.

*General Liability and Property Damage:* With respect to all operations performed under this Agreement, the Party shall carry general liability insurance having all major divisions of coverage including, but not limited to:

Premises - Operations

Products and Completed Operations

Personal Injury Liability

Contractual Liability

The policy shall be on an occurrence form and limits shall not be less than:

\$1,000,000 Each Occurrence

\$2,000,000 General Aggregate

\$1,000,000 Products/Completed Operations Aggregate

\$1,000,000 Personal & Advertising Injury

*Automotive Liability:* The Party shall carry automotive liability insurance covering all motor vehicles, including hired and non-owned coverage, used in connection with the Agreement. Limits of coverage shall not be less than \$500,000 combined single limit. If performance of this Agreement involves construction, or the transport of persons or hazardous materials, limits of coverage shall not be less than \$1,000,000 combined single limit.

*Additional Insured.* The General Liability and Property Damage coverages required for performance of this Agreement shall include the State of Vermont and its agencies, departments, officers and employees as Additional Insureds. If performance of this Agreement involves construction, or the transport of persons or hazardous materials, then the required Automotive Liability coverage shall include the State of Vermont and its agencies, departments, officers and employees as Additional Insureds. Coverage shall be primary and non-contributory with any other insurance and self-insurance.

*Notice of Cancellation or Change.* There shall be no cancellation, change, potential exhaustion of aggregate limits or non-renewal of insurance coverage(s) without thirty (30) days written prior written notice to the State.

**9. Reliance by the State on Representations:** All payments by the State under this Agreement will be made in reliance upon the accuracy of all representations made by the Party in accordance with this Agreement, including but not limited to bills, invoices, progress reports and other proofs of work.

**10. False Claims Act:** The Party acknowledges that it is subject to the Vermont False Claims Act as set forth in 32 V.S.A. § 630 *et seq.* If the Party violates the Vermont False Claims Act it shall be liable to the State for civil penalties, treble damages and the costs of the investigation and prosecution of such violation, including attorney's fees, except as the same may be reduced by a court of competent jurisdiction. The Party's liability to the State under the False Claims Act shall not be limited notwithstanding any agreement of the State to otherwise limit Party's liability.

**11. Whistleblower Protections:** The Party shall not discriminate or retaliate against one of its employees or agents for disclosing information concerning a violation of law, fraud, waste, abuse of authority or acts threatening health or safety, including but not limited to allegations concerning the False Claims Act. Further, the Party shall not require such employees or agents to forego monetary awards as a result of such disclosures, nor should they be required to report misconduct to the Party or its agents prior to reporting to any governmental entity and/or the public.

**12. Location of State Data:** No State data received, obtained, or generated by the Party in connection with performance under this Agreement shall be processed, transmitted, stored, or transferred by any means outside the continental United States, except with the express written permission of the State.

**13. Records Available for Audit:** The Party shall maintain all records pertaining to performance under this agreement. "Records" means any written or recorded information, regardless of physical form or characteristics, which is produced or



acquired by the Party in the performance of this agreement. Records produced or acquired in a machine readable electronic format shall be maintained in that format. The records described shall be made available at reasonable times during the period of the Agreement and for three years thereafter or for any period required by law for inspection by any authorized representatives of the State or Federal Government. If any litigation, claim, or audit is started before the expiration of the three-year period, the records shall be retained until all litigation, claims or audit findings involving the records have been resolved.

**14. Fair Employment Practices and Americans with Disabilities Act:** Party agrees to comply with the requirement of 21 V.S.A. Chapter 5, Subchapter 6, relating to fair employment practices, to the full extent applicable. Party shall also ensure, to the full extent required by the Americans with Disabilities Act of 1990, as amended, that qualified individuals with disabilities receive equitable access to the services, programs, and activities provided by the Party under this Agreement.

**15. Set Off:** The State may set off any sums which the Party owes the State against any sums due the Party under this Agreement; provided, however, that any set off of amounts due the State of Vermont as taxes shall be in accordance with the procedures more specifically provided hereinafter.

**16. Taxes Due to the State:**

- A. Party understands and acknowledges responsibility, if applicable, for compliance with State tax laws, including income tax withholding for employees performing services within the State, payment of use tax on property used within the State, corporate and/or personal income tax on income earned within the State.
- B. Party certifies under the pains and penalties of perjury that, as of the date this Agreement is signed, the Party is in good standing with respect to, or in full compliance with, a plan to pay any and all taxes due the State of Vermont.
- C. Party understands that final payment under this Agreement may be withheld if the Commissioner of Taxes determines that the Party is not in good standing with respect to or in full compliance with a plan to pay any and all taxes due to the State of Vermont.
- D. Party also understands the State may set off taxes (and related penalties, interest and fees) due to the State of Vermont, but only if the Party has failed to make an appeal within the time allowed by law, or an appeal has been taken and finally determined and the Party has no further legal recourse to contest the amounts due.

**17. Taxation of Purchases:** All State purchases must be invoiced tax free. An exemption certificate will be furnished upon request with respect to otherwise taxable items.

**18. Child Support:** (Only applicable if the Party is a natural person, not a corporation or partnership.) Party states that, as of the date this Agreement is signed, he/she:

- A. is not under any obligation to pay child support; or
- B. is under such an obligation and is in good standing with respect to that obligation; or
- C. has agreed to a payment plan with the Vermont Office of Child Support Services and is in full compliance with that plan.

Party makes this statement with regard to support owed to any and all children residing in Vermont. In addition, if the Party is a resident of Vermont, Party makes this statement with regard to support owed to any and all children residing in any other state or territory of the United States.

**19. Sub-Agreements:** Party shall not assign, subcontract or subgrant the performance of this Agreement or any portion thereof to any other Party without the prior written approval of the State. Party shall be responsible and liable to the State for all acts or omissions of subcontractors and any other person performing work under this Agreement pursuant to an agreement with Party or any subcontractor.

In the case this Agreement is a contract with a total cost in excess of \$250,000, the Party shall provide to the State a list of all proposed subcontractors and subcontractors' subcontractors, together with the identity of those subcontractors' workers compensation insurance providers, and additional required or requested information, as applicable, in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54).

Party shall include the following provisions of this Attachment C in all subcontracts for work performed solely for the State of Vermont and subcontracts for work performed in the State of Vermont: Section 10 ("False Claims Act"); Section 11 ("Whistleblower Protections"); Section 12 ("Location of State Data"); Section 14 ("Fair Employment Practices and



Americans with Disabilities Act”); Section 16 (“Taxes Due the State”); Section 18 (“Child Support”); Section 20 (“No Gifts or Gratuities”); Section 22 (“Certification Regarding Debarment”); Section 30 (“State Facilities”); and Section 32.A (“Certification Regarding Use of State Funds”).

**20. No Gifts or Gratuities:** Party shall not give title or possession of anything of substantial value (including property, currency, travel and/or education programs) to any officer or employee of the State during the term of this Agreement.

**21. Copies:** Party shall use reasonable best efforts to ensure that all written reports prepared under this Agreement are printed using both sides of the paper.

**22. Certification Regarding Debarment:** Party certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, neither Party nor Party’s principals (officers, directors, owners, or partners) are presently debarred, suspended, proposed for debarment, declared ineligible or excluded from participation in Federal programs, or programs supported in whole or in part by Federal funds.

Party further certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, Party is not presently debarred, suspended, nor named on the State’s debarment list at: <http://bgs.vermont.gov/purchasing/debarment>

**23. Conflict of Interest:** Party shall fully disclose, in writing, any conflicts of interest or potential conflicts of interest.

**24. Confidentiality:** Party acknowledges and agrees that this Agreement and any and all information obtained by the State from the Party in connection with this Agreement are subject to the State of Vermont Access to Public Records Act, 1 V.S.A. § 315 et seq.

**25. Force Majeure:** Neither the State nor the Party shall be liable to the other for any failure or delay of performance of any obligations under this Agreement to the extent such failure or delay shall have been wholly or principally caused by acts or events beyond its reasonable control rendering performance illegal or impossible (excluding strikes or lock-outs) (“Force Majeure”). Where Force Majeure is asserted, the nonperforming party must prove that it made all reasonable efforts to remove, eliminate or minimize such cause of delay or damages, diligently pursued performance of its obligations under this Agreement, substantially fulfilled all non-excused obligations, and timely notified the other party of the likelihood or actual occurrence of an event described in this paragraph.

**26. Marketing:** Party shall not refer to the State in any publicity materials, information pamphlets, press releases, research reports, advertising, sales promotions, trade shows, or marketing materials or similar communications to third parties except with the prior written consent of the State.

**27. Termination:**

**A. Non-Appropriation:** If this Agreement extends into more than one fiscal year of the State (July 1 to June 30), and if appropriations are insufficient to support this Agreement, the State may cancel at the end of the fiscal year, or otherwise upon the expiration of existing appropriation authority. In the case that this Agreement is a Grant that is funded in whole or in part by Federal funds, and in the event Federal funds become unavailable or reduced, the State may suspend or cancel this Grant immediately, and the State shall have no obligation to pay Subrecipient from State revenues.

**B. Termination for Cause:** Either party may terminate this Agreement if a party materially breaches its obligations under this Agreement, and such breach is not cured within thirty (30) days after delivery of the non-breaching party’s notice or such longer time as the non-breaching party may specify in the notice.

**C. Termination Assistance:** Upon nearing the end of the final term or termination of this Agreement, without respect to cause, the Party shall take all reasonable and prudent measures to facilitate any transition required by the State. All State property, tangible and intangible, shall be returned to the State upon demand at no additional cost to the State in a format acceptable to the State.

**28. Continuity of Performance:** In the event of a dispute between the Party and the State, each party will continue to perform its obligations under this Agreement during the resolution of the dispute until this Agreement is terminated in accordance with its terms.



**29. No Implied Waiver of Remedies:** Either party's delay or failure to exercise any right, power or remedy under this Agreement shall not impair any such right, power or remedy, or be construed as a waiver of any such right, power or remedy. All waivers must be in writing.

**30. State Facilities:** If the State makes space available to the Party in any State facility during the term of this Agreement for purposes of the Party's performance under this Agreement, the Party shall only use the space in accordance with all policies and procedures governing access to and use of State facilities which shall be made available upon request. State facilities will be made available to Party on an "AS IS, WHERE IS" basis, with no warranties whatsoever.

**31. Requirements Pertaining Only to Federal Grants and Subrecipient Agreements:** If this Agreement is a grant that is funded in whole or in part by Federal funds:

**A. Requirement to Have a Single Audit:** The Subrecipient will complete the Subrecipient Annual Report annually within 45 days after its fiscal year end, informing the State of Vermont whether or not a Single Audit is required for the prior fiscal year. If a Single Audit is required, the Subrecipient will submit a copy of the audit report to the granting Party within 9 months. If a single audit is not required, only the Subrecipient Annual Report is required.

For fiscal years ending before December 25, 2015, a Single Audit is required if the subrecipient expends \$500,000 or more in Federal assistance during its fiscal year and must be conducted in accordance with OMB Circular A-133. For fiscal years ending on or after December 25, 2015, a Single Audit is required if the subrecipient expends \$750,000 or more in Federal assistance during its fiscal year and must be conducted in accordance with 2 CFR Chapter I, Chapter II, Part 200, Subpart F. The Subrecipient Annual Report is required to be submitted within 45 days, whether or not a Single Audit is required.

**B. Internal Controls:** In accordance with 2 CFR Part II, §200.303, the Party must establish and maintain effective internal control over the Federal award to provide reasonable assurance that the Party is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the award. These internal controls should be in compliance with guidance in "Standards for Internal Control in the Federal Government" issued by the Comptroller General of the United States and the "Internal Control Integrated Framework", issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

**C. Mandatory Disclosures:** In accordance with 2 CFR Part II, §200.113, Party must disclose, in a timely manner, in writing to the State, all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. Failure to make required disclosures may result in the imposition of sanctions which may include disallowance of costs incurred, withholding of payments, termination of the Agreement, suspension/debarment, etc.

**32. Requirements Pertaining Only to State-Funded Grants:**

**A. Certification Regarding Use of State Funds:** If Party is an employer and this Agreement is a State-funded grant in excess of \$1,001, Party certifies that none of these State funds will be used to interfere with or restrain the exercise of Party's employee's rights with respect to unionization.

**B. Good Standing Certification (Act 154 of 2016):** If this Agreement is a State-funded grant, Party hereby represents: (i) that it has signed and provided to the State the form prescribed by the Secretary of Administration for purposes of certifying that it is in good standing (as provided in Section 13(a)(2) of Act 154) with the Agency of Natural Resources and the Agency of Agriculture, Food and Markets, or otherwise explaining the circumstances surrounding the inability to so certify, and (ii) that it will comply with the requirements stated therein.

(End of Standard Provisions)



**Attachment C**

**Received Permits**



STATE OF VERMONT

AGENCY OF NATURAL RESOURCES

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**ORDER APPROVING APPLICATION TO ALTER A DAM**

**10 V.S.A Chapter 43**

Applicant: Russell and Ellen Green  
Application Number: DS2021-3  
Dam Name: Youngs Brook Dam  
Dam ID Number: 238.01  
Hazard Classification: SIGNIFICANT Hazard  
Waterbody: Youngs Brook, Otter Creek Basin  
Town: West Rutland  
Project: Remove Youngs Brook Dam

**\*Note: Please be aware that other VT Agency of Natural Resources (ANR) permits may be needed for your project, and it is your responsibility to secure any other required permits. To help assist in determining other VT ANR permits that might be needed, use VT ANR's Permit Navigator Tool by going to the VT Department of Environmental Conservation website ([dec.vermont.gov](http://dec.vermont.gov)). Please be aware that your project may require other local, state, or federal permits outside of VT ANR's jurisdiction which are not covered by the VT ANR Permit Navigator Tool. Failure to secure all necessary permits in advance of construction can result in significant impacts to your project's final scope and can take additional processing time\***

## FACTS

On December 20, 2021, an application under 10 V.S.A. Chapter 43 was filed with the Department of Environmental Conservation, Dam Safety Section (Department) by Russell and Ellen Green for alteration (removal) of a dam known as Youngs Brook Dam, located in West Rutland, Vermont. The application was considered complete on December 22, 2021.

On February 18, 2022 a public notice of the application and project was made available to State and local officials along with other interested parties, providing an opportunity to file written comments or to request a public information meeting. The end of the comment period was on March 24, 2022.

The Department reviewed the documents filed by the applicant and others and finds it has sufficient information to determine that this project will serve the public good and should be approved as provided in 10 V.S.A. §1086. A separate authorization will be made by the Department of Environmental Conservation's Rivers Program regarding stream restoration work.

## FINDINGS AND CONCLUSIONS

1. **Jurisdiction:** Youngs Brook Dam is on Youngs Brook in West Rutland, Vermont and is owned by Russell and Ellen Green (applicant). The proposed project involves the alteration (removal) of a dam that is capable of impounding more than 500,000 cubic feet of water/sediment. The dam or project does not relate to and is not incident to the generation of electric energy for public use or as a part of a public utility system. The Department has jurisdiction over this project pursuant to 10 V.S.A. §1081(a); and the Department's authorization to perform this alteration is necessary under 10 V.S.A. §1082.
2. **Project Description:** The project is the removal of the Youngs Brook Dam, an approximately 46-foot high by 254-foot long, partially breached, concrete gravity and stone masonry structure that is classified as a SIGNIFICANT hazard potential. The normal water level was reduced by the construction of a partial breach at the left end of the dam in 1994. The project will be conducted in a phased/iterative manner, including dam removal, lowering the water level, sediment removal and construction of a pilot channel. Stone check dams or rock filter berms will be installed to catch sediment during the project. The accumulated sediment will be cleaned out weekly, before and after storm events, and as directed by the applicant's engineer. A natural channel will reestablish through the impoundment area and on existing bedrock after the dam is removed. The completed project will result in removal of the dam and restoration of a free-flowing river in this location.
3. **Plans and Specifications:** The project is to be constructed in accordance with plans and specifications entitled, Youngs Brook Dam Removal, dated November 12, 2021. The



Engineer of Record for the project is Jessica Louisos, PE, of SLR, 1 South Main Street, Floor 2, Waterbury, Vermont, 05676.

4. **Project Purpose:** The purpose of the project is to remove Youngs Brook Dam, a SIGNIFICANT hazard potential dam and restore a section of Youngs Brook to a free-flowing and more natural condition.
5. **Public Good Determination 10 V.S.A. §1086(a)**
  - 1) **The quantity, kind and extent of cultivated agricultural land that may be rendered unfit for use by the project, including both the immediate and long-range agricultural land use impacts;** No cultivated agricultural lands will be rendered unfit for use by the project, including both the immediate and long-range agricultural use impacts.
  - 2) **Impact to scenic and recreational values;** The change to scenic and recreational values will be positive as removing the dam and restoring the flowing channel will allow the area to return to a more natural state and environmentally diverse area.
  - 3) **Impact to fish and wildlife;** In accordance with 10 VSA §1084, the Department of Fish & Wildlife investigated the potential effects on fish and wildlife habitats for the proposal to remove Youngs Brook Dam and restore the channel in this section of Youngs Brook. Dams and instream impoundments degrade riverine habitats, alter sediment transport, increase water temperatures and isolate aquatic populations. The permanent removal of this dam and elimination of an artificial impoundment will result in an overall improvement of aquatic habitat.
    - Erosion prevention and sediment control measures should be employed to prevent discharge of sediment to State waters.
    - To protect the health and population of Vermont's fisheries, the capture and transport of live fish is not allowed.
    - Do not interrupt downstream flows.
    - Monitor the riparian area of the project yearly during the growing season to ensure success of plantings.
  - 4) **Impact to forests and forest programs;** There will be no adverse impact or change in forests or forest programs from removing the existing dam.
  - 5) **[Repealed, Minimum Flows, see 10, below];**
  - 6) **The existing uses of the waters by the public for boating, fishing, swimming and other recreational uses;** The project will enhance existing public uses by restoring the natural flow regime. Existing recreational uses by the public are minimal as there is no public access across the private property surrounding the impoundment, which has largely filled in with sediment

- 7) **The creation of any hazard to navigation, fishing, swimming or other public uses;** The project eliminates a hazard and impediment to navigation, fishing, and swimming.
- 8) **The need for cutting clean and removal of all lumber or tree growth from all or part of the flowage area;** The project does not involve the cutting clean and removal of all lumber or all trees in the existing flowage area.
- 9) **The creation of any public benefits;** Removing the dam will eliminate the potential damage threat of a SIGNIFICANT hazard potential dam and create public benefits by the restoration of the original riverine flow pattern and resulting improvements to aquatic habitat and recreational uses of the waterway.
- 10) **Attainment of the Vermont Water Quality Standards;** The project will be done in a manner that maintains and protects water quality. Stone check dams will be installed and maintained to minimize sediment transport. The completed project will result in a natural free-flowing riverine system.
- 11) **Impact to any applicable state, regional or municipal plans;** Removing the dam and restoring the area to a more natural state will not have a negative impact on any state or regional plans or municipal plans.
- 12) **Impact to municipal grand lists and revenues;** The project will not impact the value of the property on the municipal list and revenues related thereto.
- 13) **Impact to public safety;** The project will result in the removal of a SIGNIFICANT hazard potential dam which results in a reduction of risk to public safety. The plans entitled, Youngs Brook Dam Removal, dated November 12, 2021 are adequate to provide for public safety.
- 14) **Hydroelectric potential;** Youngs Brook Dam was not related or incident to the generation of electric energy for public use or as part of a public power utility system. There is not significant hydroelectric potential at this site.

**The Department concludes that this project satisfies and will serve the public good requirements of 10 V.S.A. §1086.**

### **SPECIAL CONDITIONS**

1. The applicant shall notify the Department's Dam Safety Section (Steven Hanna, 802-490-6123) and the Town of West Rutland a minimum of **72 hours prior** to commencement of construction and provide the name and telephone number of the contact person for the construction project.
2. **A preconstruction meeting between the applicant or representative, the applicant's engineer or supervising representative, the selected contractor, and the Dam Safety Program shall be held prior to starting construction to review control of water plans,**



**project schedule, and Order Conditions. The Dam Safety Section shall be provided meeting minutes. In addition, if not already submitted to the Department, proof the Order has been filed in the land records of the Town of West Rutland shall be provided to the Department.**

3. **The Dam Safety Section shall be invited to a final completion meeting. The Dam Safety Section shall be provided meeting minutes.**
4. The project is to be constructed in accordance with plans and specifications entitled, Youngs Brook Dam Removal, dated November 12, 2021. The Design Engineer of Record for the project is Jessica Louisos, PE, of SLR, 1 South Main Street, Floor 2, Waterbury, Vermont, 05676.
5. Full time construction monitoring by the applicant's engineer shall be provided during the removal of material and dam lowering (removal) below El. 820 (in feet NAVD88); during removal of piping, and installation of root-wads on the downstream side of the dam; during construction of the pilot channel, and at such times as the engineer may consider appropriate.
6. The applicant's engineer monitoring construction shall submit via email on a weekly basis to the Dam Safety Program, a brief summary with observations and representative photographs that document the work including any materials testing results and instrumentation readings.
7. Any construction problems or unanticipated circumstances encountered during construction shall be immediately brought to the attention of the Dam Safety Section (Steven Hanna, 802-490-6123).
8. During removal of the dam, inflow shall be passed, and flow shall not be interrupted or otherwise stopped completely. The flow regime shall be run-of-river and allow for free movement of aquatic organisms to upstream reaches once the project is complete.
9. **The removal shall be completed by October 1, 2025**, unless other dates are approved in writing by the Department. The applicant shall notify the Department at least 14 days prior to a deadline if an extension appears necessary.
10. The work is subject to the following time of year restrictions:
  - Work is limited to the period between April 15 and October 15 of any year.
  - Work in the water, defined as, "work requiring water control, flow manipulation, manipulation of water levels, work directly in the water, or work below the normal water level in the reservoir," shall only occur during the period from June 1 to October 1 of any year.
  - Request to work outside of these dates must be provided to the Dam Safety Program at least 14 days prior and include the following in a written narrative and plans (if applicable).

- i. Documentation there is no reasonable alternative and/or the task is an emergency
  - ii. Updated construction schedule with a list of tasks to be completed outside of the period with their anticipated duration, completion date, and winter shutdown date, if applicable.
  - iii. A discussion of necessary water control measures and how this work will be sequenced to minimize the release of turbid waters.
  - iv. A plan of improved erosion and sediment controls and site stabilization measures to minimize the release of turbid waters, including a plan for the timely containment of sediment discharges should the improved measures fail in any way.
  - v. A monitoring plan to observe, document, and report ambient and receiving water turbidity.
  - vi. Work in the water before June 1 or after October 1 shall not be performed unless approved in writing by the Department after consultation with the Department of Fish & Wildlife.
- If requested by the Department, a site visit to observe site conditions and review work requirements shall be held. Work performed during this period may be subject to additional inspection by State personnel and may be subject to immediate work stoppage if Order or extension requirements are not being met.
11. The applicant shall ensure that every reasonable precaution is taken to prevent the discharge of petrochemicals and debris into waters of the State. Machinery shall be fueled away from waters of the State and shall be maintained in good mechanical condition in terms of integrity of hoses, seals, and gaskets.
12. Erosion prevention and sediment control (EPSC) measures shall be employed as necessary to prevent discharge of sediment to State waters. Disturbed soils shall be effectively stabilized by October 1<sup>st</sup>. Stone check dams or rock filter berms shall be installed to catch sediment and shall be cleaned out weekly, before and after storm events, and as directed by the applicant's engineer. If elevated turbidity is observed, work shall stop immediately until corrective measures are employed. Post construction remediation measures shall be required if deemed necessary by the Agency.
13. Live fish shall not be captured and transported in order to protect the health and population of Vermont's fisheries.
14. Debris and excess material associated with the project and operation shall be transported and disposed of properly in accordance with State law.
15. Monitor the riparian area of the project yearly during the growing season to ensure success of plantings.



## GENERAL CONDITIONS

1. This Order may be appealed to the Environmental Court by an aggrieved person within thirty (30) days from its date (10 V.S.A. §1099).
2. The applicant shall file this Order with the land records of the Town of West Rutland within 10 days of the issuance of this Order. **Proof of such filing shall be submitted to the Department within 10 days of the filing or at the preconstruction meeting, and prior to the start of construction.**
3. Any proposed modifications to the approved plans and specifications shall be submitted in writing to the Department. Such proposed modifications shall not be made unless approved in writing by the Department.
4. Applicant shall engage a professional engineer registered under Title 26 V.S.A. who has experience in the design, investigation, and removal of dams to monitor the construction, alteration or other action authorized by this Order. (10 V.S.A. § 1090). The engineer shall:
  - a. Submit construction status reports with photographs or other reports required by the Special Conditions **weekly** to the Department;
  - b. Submit, **within one week** of completion of the project, record drawings of the completed work to the Department; and
  - c. Certify in writing to the Department that the project has been completed in accordance with the approved plans and specifications and that in the Engineer's opinion that the dam has been completely and satisfactorily removed and site stabilized.
5. The project shall not be considered complete and in compliance with this Order until:
  - a. the record drawings, certification, and items required by Conditions 4(a) through (c) have been received and accepted by the Department;
  - b. the Department has inspected and approved the completed project; and
  - c. the Department has given its written acknowledgment that the project has been satisfactorily completed in accordance with this Order. The written acknowledgement shall be filed with the land records of the Town of West Rutland. **Proof of the filing shall be provided to the Department.**
6. This Order does not grant exclusive rights or privileges, which would impair any rights possessed by other riparian or littoral owners or the State of Vermont. It does not grant any right, title or easement to or over any land not owned in fee simple by the applicants. Nor does it authorize any violation of Federal, State, or local laws or regulations.

7. Nothing in this Order shall relieve the owner or operator of the authorized dam and impoundment from their legal duties, obligations and liabilities resulting from such ownership or operation.
8. The applicant shall allow the Commissioner of the Department, or a duly authorized representative, at reasonable times and upon presentation of credentials to enter upon and inspect the property and the project to determine compliance with this Order.
9. The terms and conditions of this Order shall run with the land.
10. This Order may be suspended or revoked at any time after reasonable notice and opportunity to be heard upon failure of Applicant to comply with any condition of this Order, applicable rule, or law. Continuing jurisdiction is reserved for these purposes.

### **ORDER APPROVING APPLICATION**

Based on due consideration of the factors that must be considered under the law and with the conditions contained herein, the Department hereby approves the project as applied for and authorization is hereby granted to carry out the proposed project in strict accordance with the approved plans and specifications entitled Youngs Brook Dam Removal, dated November 12, 2021, and the Special and General Conditions that are contained in this Order

Signed this 29<sup>th</sup> day of March, 2022

Peter Walke, Commissioner  
Department of Environmental Conservation

By:  \_\_\_\_\_

Eric Blatt, Director of Engineering  
Water Investment Division

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**Attachment D**

**Bid Sheet**

**BID SHEET**

YOUNGS BROOK DAM REMOVAL

WEST RUTLAND, VERMONT

**BIDS DUE: Thursday September 7, 2023 at 11:00 AM**

Company: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Reference 1: \_\_\_\_\_

Reference 2: \_\_\_\_\_

Bid Item	Typical Tasks	Unit	Quantity	Item Cost (\$)
A. MOBILIZATION / SITE PREPARATION	Job site setup, temporary construction fencing, site access, erosion and sedimentation control measures, construction signage, construction staking and survey, and water control.	Lump Sum	1	
B. TREE REMOVAL AND CLEARING	Excavation and stockpiling of trees. Limbing and cutting of hardwood trees.	Lump Sum	1	
D. DAM REMOVAL	Remove earthen embankment (15,600 CY) and concrete spillway (450 CY).	Lump Sum	1	
E. CHANNEL WORK	Remove impounded sediment (11,000 CY), form pilot channel, install saved trees, and install saved boulders. Remove upstream stone masonry wall.	Lump Sum	1	
E. SITE RESTORATION / DEMOBILIZATION	Seed and mulch (1.2 AC), remove access, and job site cleanup.	Lump Sum	1	
<b>TOTAL BID (written and \$)</b>				