

HOLLOW BROOK REFUGIA DESIGN LEWIS CREEK ASSOCIATION

Note: Elevations are approximate. Survey was done with a fixed level. Horizontal accuracy is +/- 1-5ft. Vertical accuracy is +/- 0.5ft.



1 South Main St Waterbury, VT 05676 802-882-8335





PROPOSED CONDITIONS: OLD BRIDGE HOLLOW BROOK REFUGIA DESIGN LEWIS CREEK ASSOCIATION

**SLR**<sup>O</sup> 1 South Main St Waterbury, VT 05676 802-882-8335 ng: W:\CADDESIGN\3452-36-DE\CAD\HB-SECTIONS.DWG Layout Tab:XS2 3d by: CNAUMAN On this date: Fri, 2021 November 5 - 11:18am



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### RIGHT BANK (SOUTH)



OLD BRIDGE CROSS SECTION 1 (RS 5+22) SCALE: 1"=10'

	SLR	1 SOUTH MAIN STREET WATERBURY, VT 05676 802.882.8335 SLRCONSULTING.COM
DESCRIPTION DATE BY		
		CONCEPT DESIGN
<b>TYPICAL SECTIONS - OLD BRIDGE</b>	HOLLOW BROOK REFUGIA DESIGN	SUGARHOUSE LANE STARKSBORO, VERMONT
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SEDIMENT REMOVAL -



SEDIMENT REMOVAL OLD BRIDGE

### **RESTORATION NOTES**

- 1. RESTORE CONSTRUCTION AREA TO EXISTING CONDITIONS OR BETTER.
- 2. PLANT FLOODPLAIN AND RIVER EDGE AREAS WITH NATIVE SHRUBS, TREES, AND SEED MIX

## **OPERATION & MAINTENANCE NOTES**

- 1. REMOVALS ARE INTENDED TO RESTORE STREAM DYNAMIC EQUILIBRIUM TO ALLOW THE STREAM TO NATURALIZE OVER TIME. THE CHANNEL WILL CONTINUE TO MOVE SEDIMENT THROUGH THIS LOCATION AND MAY CHANGE SHAPE OVER TIME.
- 2. VEGETATION IS TO BE MONITORED DURING THE GROWING SEASON FOR TWO YEARS TO EVALUATE A SUCCESSFUL VEGETATION ESTABLISHMENT OF 80% AERIAL COVERAGE.
- 3. ANY AREAS OF POOR VEGETATIVE COVER SHALL BE REPLANTED ACCORDINGLY.

- REMOVE CONSTRICTING FILL AND ABUTMENTS



CONCRETE, FILL, AND ABUTMENT REMOVAL OLD BRIDGE



RESTORED CHANNEL BED

NOT TO SCALE

- CONCRETE REMOVAL

# CHANNEL BED GRADING AND RESTORATION NOTES:

### 1. REMOVAL OF EXISTING BED:

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.

2.1. 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.

3.1 SHALL BE A V-SHAPED CHANNEL WITH 10% SLOPE FROM DEEPEST POINT TO BANKS, SEE DIMENSIONS TABLE.

4.1. SHALL CONSIST OF A 30-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.

5.1. PLACE 18"-48" NATIVE BOULDER, SEE PLANS FOR SPACING AND LOCATIONS. SEE CHANNEL ROUGHNESS DETAIL FOR ROCK PLACEMENT AND ORIENTATION. 5.2. CHANNEL BED SHOULD BE ROUGH AND "MESSY". SEE UNDAMMED CHANNEL FOR LOCAL EXAMPLE.

INSTALL SAVED LOGS, STUMPS, AND ROOT WADS. PARTIALLY BURY IN BED OR BANKS TO CREATE HABITAT FEATURES.

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DETAILS - OLD BRIDGE	HOLLOW BROOK REFUGIA DE WHETSTONE BROOK AT MELI	BRATTLEBORO HOUSING PARTNER BRATTLEBORO, VERMONT	
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