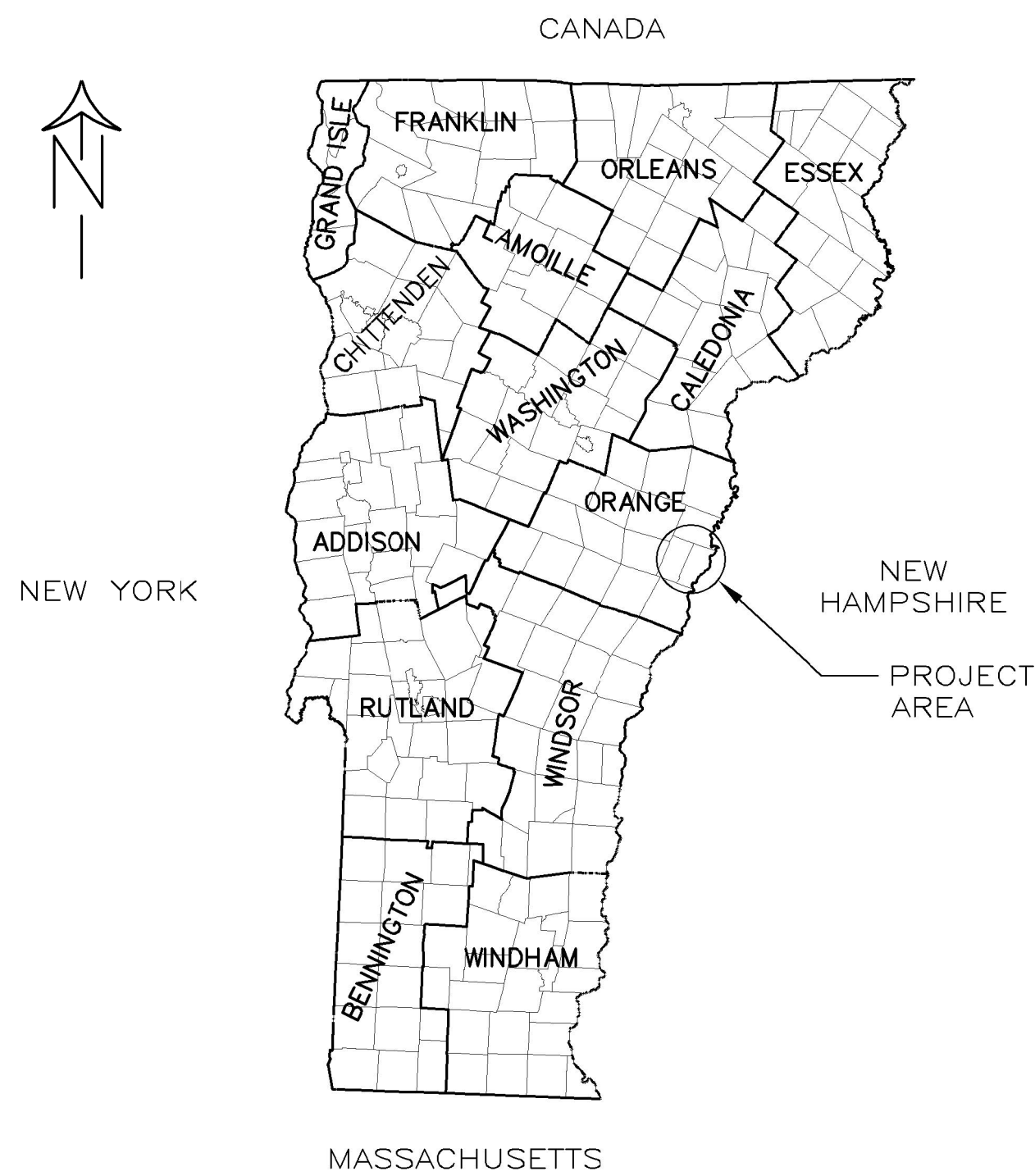


HORIZONS SHORELINE RESTORATION FAIRLEE, VERMONT



LOCATION MAP
NTS



LOCATION MAP
NTS

PREPARED FOR:



PREPARED BY:




FINAL PLANS
OCTOBER 30, 2024
Rev 1 MARCH 25, 2025

LIST OF DRAWINGS

TITLE SHEET	-
GENERAL NOTES	C-1
SITE PLAN	C-2
CROSS SECTIONS AND DETAIL	C-3

	1	2	3	4	5	6	7	8	9	10
G	GENERAL PROJECT NOTES			18. The Contractor is responsible for familiarizing himself with the requirements of these permits prior to bidding, and for complying with them during construction.			RESTORATION OF SURFACES NOTES			
	1. The purpose of this project is to replace the existing failing concrete wall with a more natural stone toe.			BOUNDARY NOTES			29. The Contractor shall apply rock and crushed gravel to construction access locations off public roads if needed to prevent rutting, erosion, and tracking of material offsite. Unless otherwise directed by owner, remove material at conclusion of work.			
	2. The property is owned by the Aloha Foundation. For the purpose these notes and the administration of the construction project, the "Owner" is considered the White River Natural Resources Conservation Service.			19. Parcel boundaries unless otherwise noted are approximate and are based on digital tax maps. Ripple Natural Resources makes no claim to their accuracy or completeness.			30. Contractor must restore staging, and work areas to pre-construction conditions. Restoration may include applying topsoil, grass seed, fertilizer, and mulch to affected lawn areas and patching parking lot areas or driveways that may have been damaged by construction activities.			
F	3. The Owner may designate an Engineer or other Owner's Representative to make engineering and management decisions.			20. The Owner is obtaining all easements, rights of way, and/or related permission from landowners and abutters prior to construction.			REVEGETATION NOTES			
	4. Engineering performed by Matt Murawski, Ripple Natural Resources, 802-522-3473, matt@ripplenr.com and Mary Nealon, Bear Creek Environmental, 802-223-5140, Mary@BearCreekEnvironmental.com .			21. All construction activities will be performed within the proposed limits of construction. Any need to go beyond these limits may trigger additional permitting requirements and will first need to be approved by the Owner in writing.			31. The Contractor shall loam, seed, and mulch all disturbed areas beyond top of bank.			
	5. Topographic contours shown on plans based on 2017 LiDAR. Planimetric and cross section elevation data are based on field survey by Ripple and Bear Creek on June 28, 2024. Surveyed elevations adjusted to approximately match LiDAR. Vertical is NAVD88.			ALLOWABLE WORK AREA			32. Loam, which may be stockpiled at the start of construction if existing material is suitable, shall be placed a minimum of 6 inches thick.			
E	6. The Contractor shall bid and perform the work from a complete set of plans and specifications, and shall notify the Engineer of any conflicts within the construction documents.			22. The Contractor shall mark the allowable work area prior to construction to prevent inadvertent impact to wetlands.			33. Unless otherwise specified, seed for disturbed surfaces shall be a high quality turf mix suitable for the site.			
	7. No deviation or departure from the design intent presented in the plans and specifications will be allowed unless authorized by the Engineer.			23. Work area is as shown on C-2, and includes 15' from top of wall into the lake and the following angle points:			34. In naturalized buffer area east of boat house, seed shall be New England Restoration Mix for Wet Sites by New England Wetland Plants, Inc (www.newp.com) applied at a rate of 50 lb/ac, or approved equivalent.			
	8. The Contractor must receive prior written authorization from the Engineer for any proposed substitutions for items and materials specified on these drawings.			a. STA 0+28, R29'			35. Loose straw mulch shall be applied to disturbed surfaces away from flowing water at a rate of 2 tons per acre. A 100% biodegradable fabric with no plastic components may be substituted.			
	9. The Contractor is responsible for the means and methods of construction and for conditions at the site.			b. STA 0+43, R29'			36. Plantings shall be installed by others and will include the following:			
D	GENERAL CONSTRUCTION NOTES			c. STA 1+06, R13'			a. Four trees at least 1.5" diameter with no branches lower than 6'.			
	10. Site conditions may differ from those shown on the drawings due to current water level and sedimentation and erosion since the time of survey.			d. STA 1+06, L70'			b. Willow stakes in slope as shown on detail.			
	11. Contractor must stake out limits of proposed work prior to construction to prevent inadvertent impact beyond property lines or allowable work areas.			e. STA 2+04, L37'			EROSION CONTROL NOTES			
C	SUBSURFACE CONDITIONS			f. STA 1+83, L10'			37. The Contractor shall at all times make a reasonable effort to prevent the discharge of turbid water from the work area.			
	12. No subsurface investigations have been conducted.			g. STA 1+83, R13'			38. A floating turbidity curtain shall be installed and maintained for the duration of the project. Location shown is approximate and shall be adjusted based on water depth and manufacturers recommendations.			
	13. Remnants of former concrete walls or additional concealed portions of the existing wall may be encountered within the areas to be excavated for this project. It is the Contractor's responsibility to remove these remnants if they interfere with the proposed grades.			h. STA 2+04, R34'			CONSTRUCTION SEQUENCE			
B	REQUIRED MEETINGS, SUBMITTALS, INSPECTIONS, AND REGULATORY CLEARANCES			i. STA 2+33, R44'			The work shall be completed in general accordance with this proposed construction sequence. Material deviations must be approved by the Engineer and may also require regulatory approval.			
	14. The Contractor must participate in an on-site pre-construction conference.			UTILITIES NOTES			1. Install project demarcation flagging at property line and wetland boundaries.			
	15. The Contractor must submit an anticipated work schedule to the Owner's Representative each week.			26. The location of utilities shown on these plans, if any, is approximate, and Ripple Natural Resources makes no claim to its accuracy or completeness.			2. Improve access to the work area to include hardened construction entrance if needed and ground protection in wetland buffer.			
	16. Contractor shall submit for advanced approval shop drawings and/or product literature for all products for use in the project.			27. Prior to the start of construction, the Contractor is responsible for verifying and determining the location, size, and elevation of all utilities (above and below ground) within the project limits, and to take the necessary precautions to protect utilities during construction. Contact dig--safe at 1-800-dig-safe (www.digsafe.com) at least 72 hours before digging.			3. Install erosion controls.			
A	17. The following regulatory clearances are being secured by the Owner for this project:			28. The Owner shall be notified in writing of any utilities found interfering with the proposed construction, and appropriate remedial action be shall be determined and agreed upon by the Owner's Representative before proceeding with the work.			4. Remove concrete wall in sections and replace with new stone toe.			
	a. US Army Corps of Engineers Dredge & Fill Clearance						5. Revegetate and restore disturbed surfaces per the plans.			
	b. Vermont Shoreline Encroachment Permit						6. Remove erosion controls and project demarcation flagging.			

DESIGNED BY: M/TM
 DRAWN BY: M/TM
 CHECKED BY: M/TM
 DATE: 10/30/2024
 RIPPLE PROJECT #: 202401

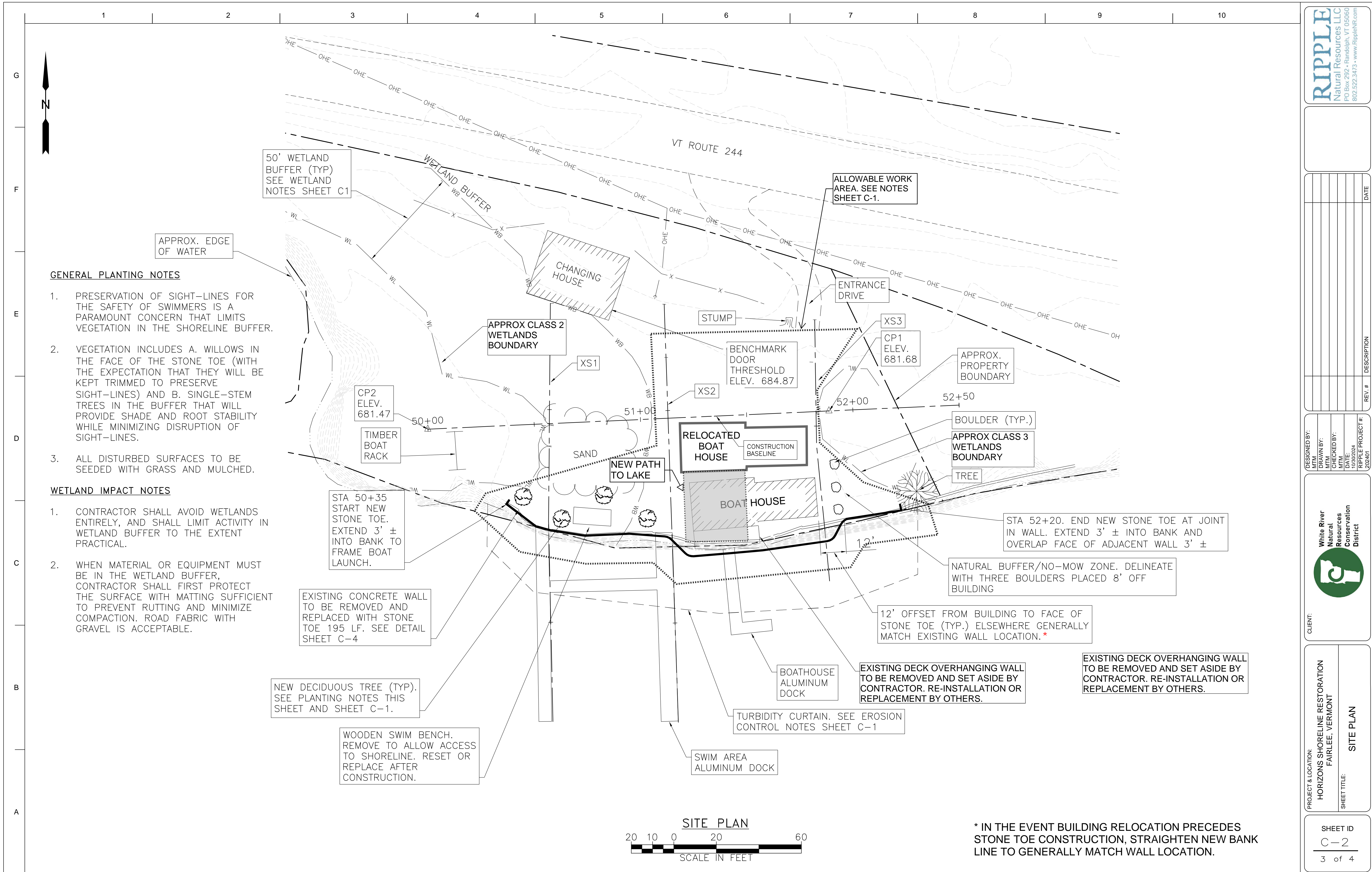
CLIENT:  White River Natural Resources Conservation District

PROJECT & LOCATION: HORIZONS SHORELINE RESTORATION FAIRLEE, VERMONT
 SHEET TITLE: GENERAL NOTES

SHEET ID
 C-1
 2 of 4



REV. #	DESCRIPTION	DATE



GENERAL PLANTING NOTES

1. PRESERVATION OF SIGHT-LINES FOR THE SAFETY OF SWIMMERS IS A PARAMOUNT CONCERN THAT LIMITS VEGETATION IN THE SHORELINE BUFFER.
2. VEGETATION INCLUDES A. WILLOWS IN THE FACE OF THE STONE TOE (WITH THE EXPECTATION THAT THEY WILL BE KEPT TRIMMED TO PRESERVE SIGHT-LINES) AND B. SINGLE-STEM TREES IN THE BUFFER THAT WILL PROVIDE SHADE AND ROOT STABILITY WHILE MINIMIZING DISRUPTION OF SIGHT-LINES.
3. ALL DISTURBED SURFACES TO BE SEEDED WITH GRASS AND MULCHED.

WETLAND IMPACT NOTES

1. CONTRACTOR SHALL AVOID WETLANDS ENTIRELY, AND SHALL LIMIT ACTIVITY IN WETLAND BUFFER TO THE EXTENT PRACTICAL.
2. WHEN MATERIAL OR EQUIPMENT MUST BE IN THE WETLAND BUFFER, CONTRACTOR SHALL FIRST PROTECT THE SURFACE WITH MATTING SUFFICIENT TO PREVENT RUTTING AND MINIMIZE COMPACTION. ROAD FABRIC WITH GRAVEL IS ACCEPTABLE.

50' WETLAND BUFFER (TYP) SEE WETLAND NOTES SHEET C1

ALLOWABLE WORK AREA. SEE NOTES SHEET C-1.

APPROX. EDGE OF WATER

APPROX CLASS 2 WETLANDS BOUNDARY

APPROX. PROPERTY BOUNDARY

APPROX CLASS 3 WETLANDS BOUNDARY

STA 50+35 START NEW STONE TOE. EXTEND 3' ± INTO BANK TO FRAME BOAT LAUNCH.

STA 52+20. END NEW STONE TOE AT JOINT IN WALL. EXTEND 3' ± INTO BANK AND OVERLAP FACE OF ADJACENT WALL 3' ±

EXISTING CONCRETE WALL TO BE REMOVED AND REPLACED WITH STONE TOE 195 LF. SEE DETAIL SHEET C-4

12' OFFSET FROM BUILDING TO FACE OF STONE TOE (TYP.) ELSEWHERE GENERALLY MATCH EXISTING WALL LOCATION.*

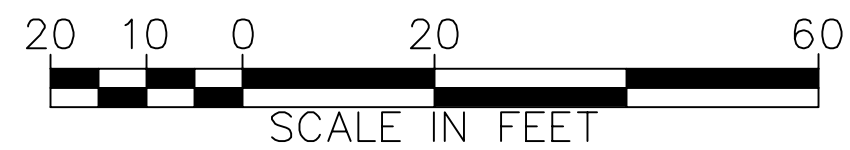
NEW DECIDUOUS TREE (TYP). SEE PLANTING NOTES THIS SHEET AND SHEET C-1.

EXISTING DECK OVERHANGING WALL TO BE REMOVED AND SET ASIDE BY CONTRACTOR. RE-INSTALLATION OR REPLACEMENT BY OTHERS.

WOODEN SWIM BENCH. REMOVE TO ALLOW ACCESS TO SHORELINE. RESET OR REPLACE AFTER CONSTRUCTION.

EXISTING DECK OVERHANGING WALL TO BE REMOVED AND SET ASIDE BY CONTRACTOR. RE-INSTALLATION OR REPLACEMENT BY OTHERS.

SITE PLAN



* IN THE EVENT BUILDING RELOCATION PRECEDES STONE TOE CONSTRUCTION, STRAIGHTEN NEW BANK LINE TO GENERALLY MATCH WALL LOCATION.

REV. #	DESCRIPTION	DATE

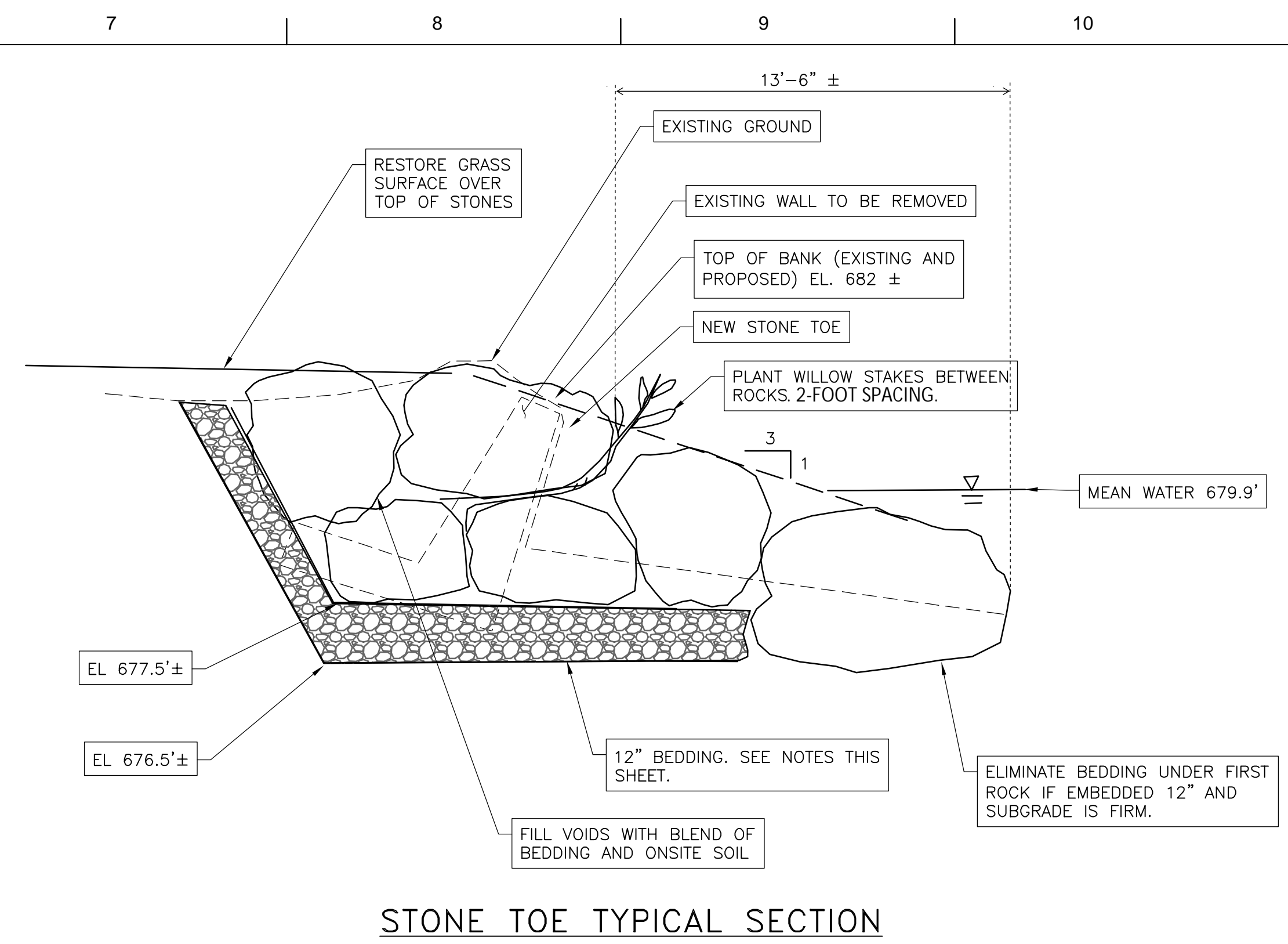
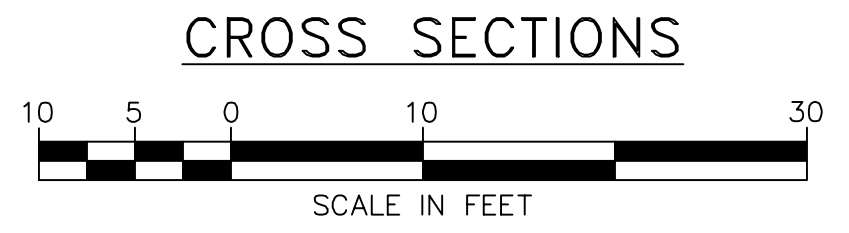
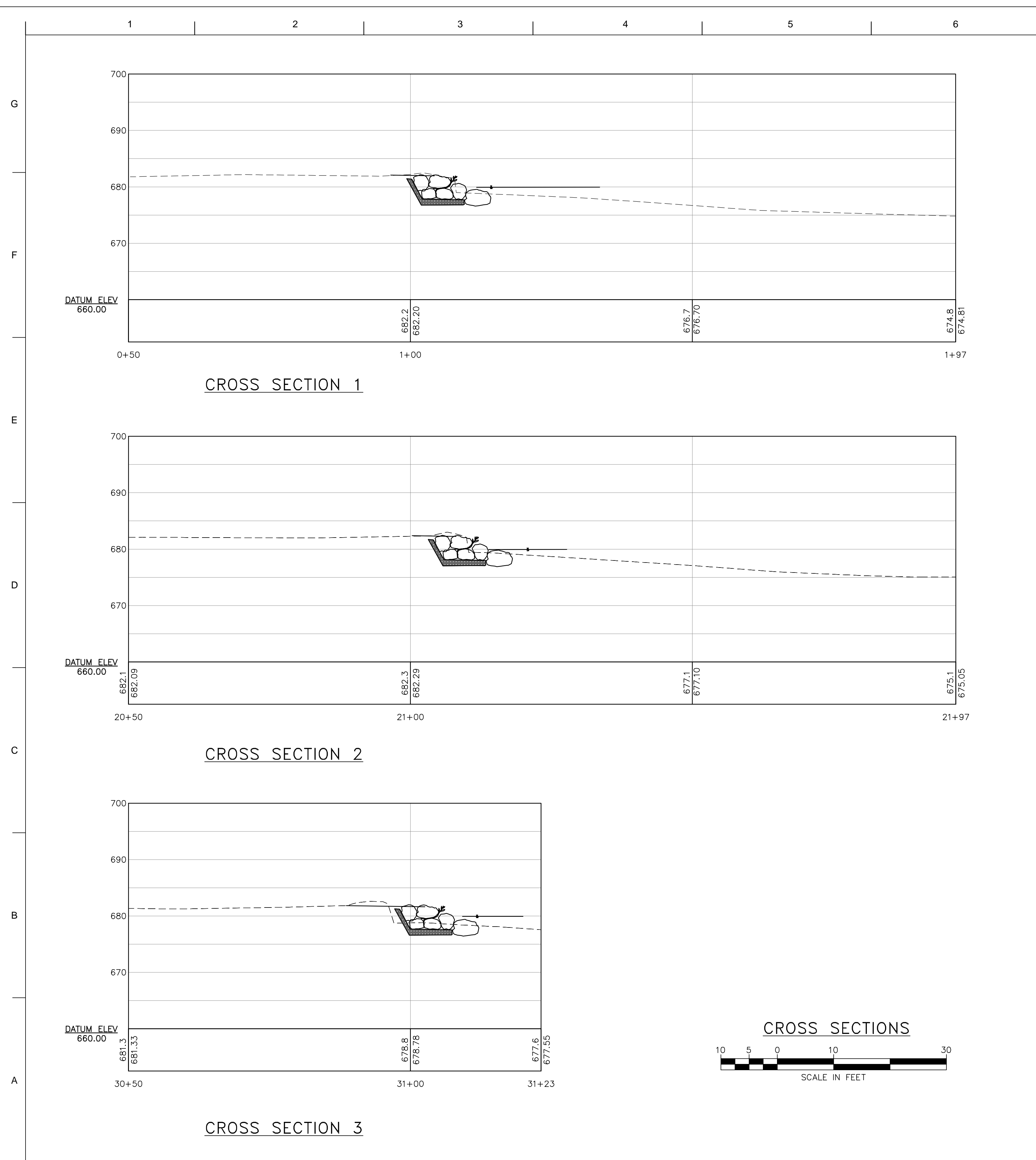
DESIGNED BY: MTM
DRAWN BY: MTM
CHECKED BY: MTM
DATE: 10/30/2024
RIPPLE PROJECT #: 202401

CLIENT:

White River Natural Resources Conservation District

PROJECT & LOCATION:
HORIZONS SHORELINE RESTORATION
FAIRLEE, VERMONT

SHEET TITLE:
SITE PLAN



STONE TOE NOTES:

1. GENERAL
 - a. Maintain existing top of bank location except around Boat House as indicated on site plan.
 - b. Select and place individual stones to maximize contact with adjacent stones.
 - c. Place stacked stones to overlap the joint between two stones on the lower tier in order to avoid running vertical joints.
 - d. Thoroughly backfill and chink stones of a lower tier before placing stones of the next tier.
 - e. Construct with 3H:1V effective face slope to encourage upward movement of ice and reduction of horizontal ice pressure on the stone.
2. STONE SIZE. Individual stones shall meet the following dimensional requirements:
 - a. Short axis shall be at least 1.5'
 - b. Intermediate axis shall be at least 2.5'
 - c. Stone volume (Short x Intermediate x Long axis) shall be at least 24.0 cubic feet.
3. BEDDING
 - a. Bedding shall be 9-inch minus, and be uniformly graded from coarse to fine. This material shall consist of crushed quarried rock (or approved equivalent) and shall be reasonably free from silt, loam, clay or organic matter.
 - b. Extend bedding under all stones at the direction of Engineer if existing material is insufficient to support stones.
4. BACKFILL AND CHINKING. The contractor is responsible for thoroughly chinking placed stone so there are no voids between adjacent stones and the installation acts as a monolithic mass. Bedding material is typically suitable for chinking.
5. TEST SECTION. The contractor must provide the engineer an opportunity to inspect, with 48-hour prior notice, an in-place stone toe test section. The test section must be between 10 and 20 feet long and be installed to the thickness and elevations indicated in the construction documents. Installation of additional stone is not to continue until the engineer has completed or waived this inspection.
6. GRUBBING. Contractor shall place a 6" (minimum) layer of grubbing material over the top of the finished stone toe down to normal low water elevation. Grubbing material shall be worked in to the stone. On-site excavated material may be used if, in the opinion of the engineer, an adequate percentage of fines and organics are present in the material to support vegetation.

RIPPLE
Natural Resources LLC
PO Box 292 • Randolph, VT 05060
802.522.3473 • www.RippleNR.com

REV. #	DESCRIPTION	DATE

DESIGNED BY: MTM
DRAWN BY: MTM
CHECKED BY: MTM
DATE: 10/30/2024
RIPPLE PROJECT #: 202401

CLIENT: White River Natural Resources Conservation District

PROJECT & LOCATION: HORIZONS SHORELINE RESTORATION FAIRLEE, VERMONT
SHEET TITLE: CROSS SECTIONS

SHEET ID: C-3
4 of 4