

Kittitas County Conservation District Caribou RM 1.17 Diversion Removal

PROJECT GOAL

The objective of this project is to remove an abandoned irrigation diversion and eliminate a fish passage barrier on Caribou Creek. Erosion protection for banks will be installed once the barrier has been removed.

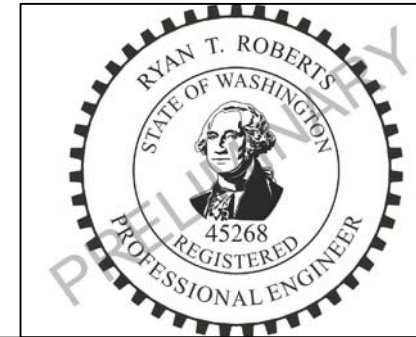
Proposed Project Sequencing:

1. Excavate creek bypass trench, line trench with plastic, divert creek, remove fish.
2. Demolition and removal of concrete structure and underground pipe.
3. Grade banks to minimum 1.5:1 slopes, blending to existing upstream and downstream banks.
4. Install riprap erosion protection along right bank toe and full height of left bank. Install seed and fabric on upper banks.
5. Reintroduce flow from bypass channel.
6. Restore site to preexisting conditions.

Sheet Index

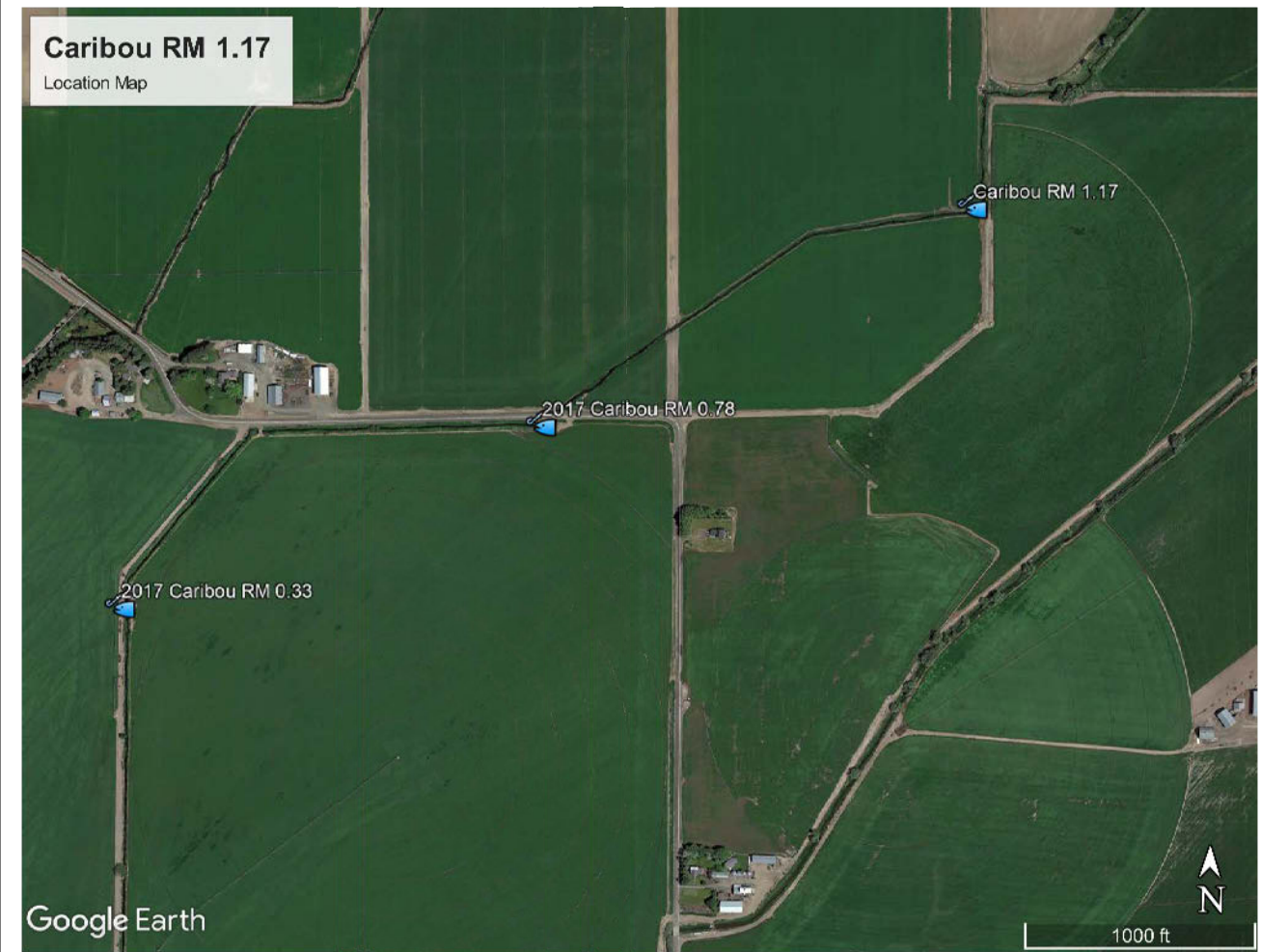
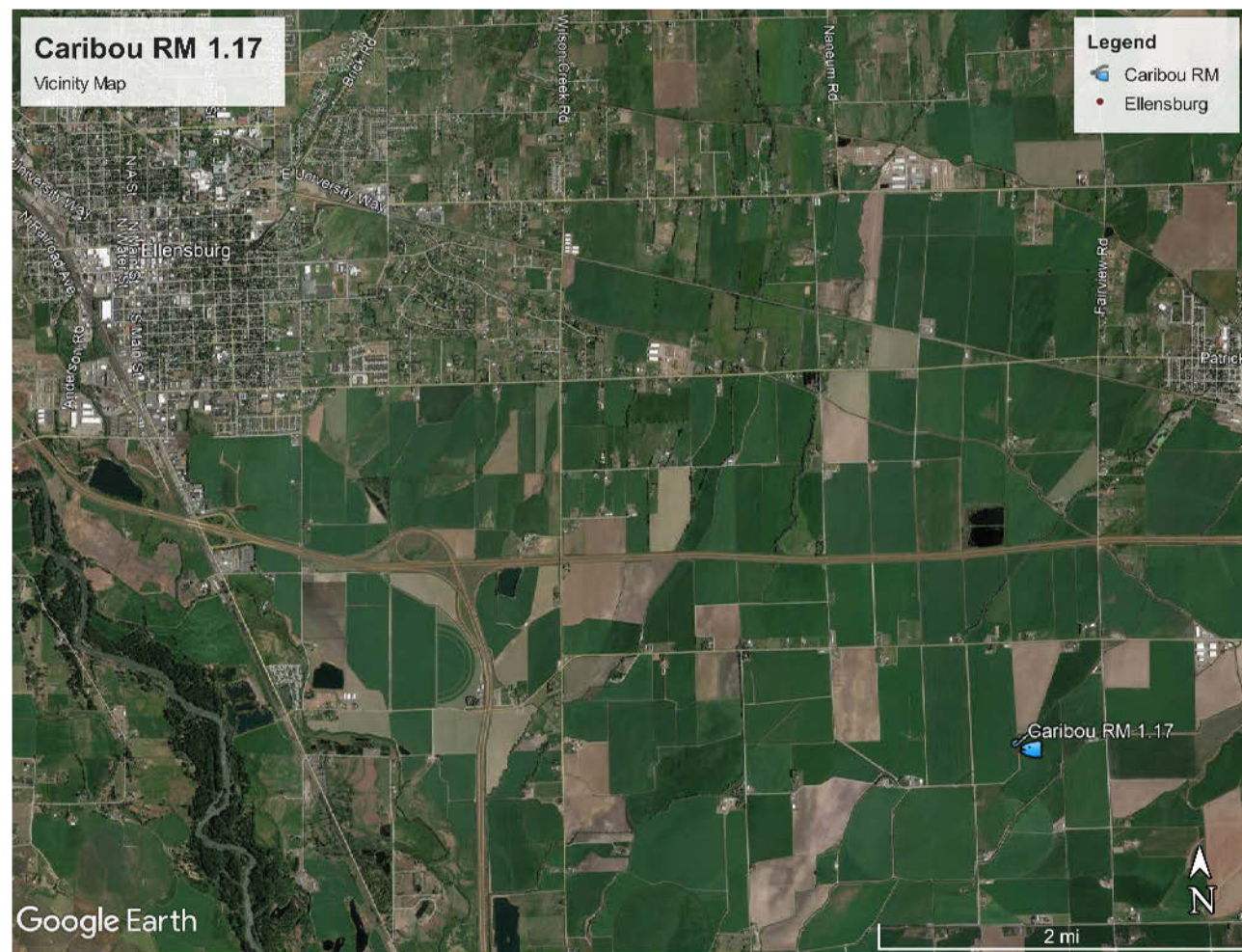
1. Cover Sheet
2. Existing Topo/Demo Plan
3. Proposed Grading/Bypass Plan
4. Profile & Cross-sections

CALL BEFORE YOU DIG – 811



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| Date | 12-18 |
| Designed | KCCD |
| Drawn | KCCD |
| Checked | |
| Approved | |

Caribou Diversion Removal
Cover Sheet
Vicinity & Location Maps



Kittitas County
Conservation District
2211 W Dolarway Rd. Suite 4
Ellensburg WA 98926

File Name

Drawing Name

Sheet 1 of 4

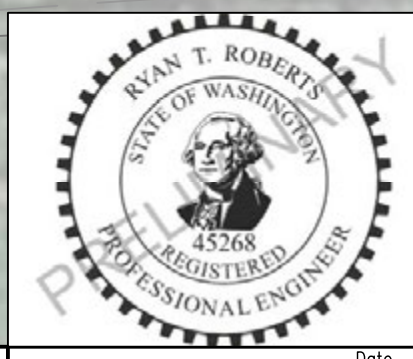
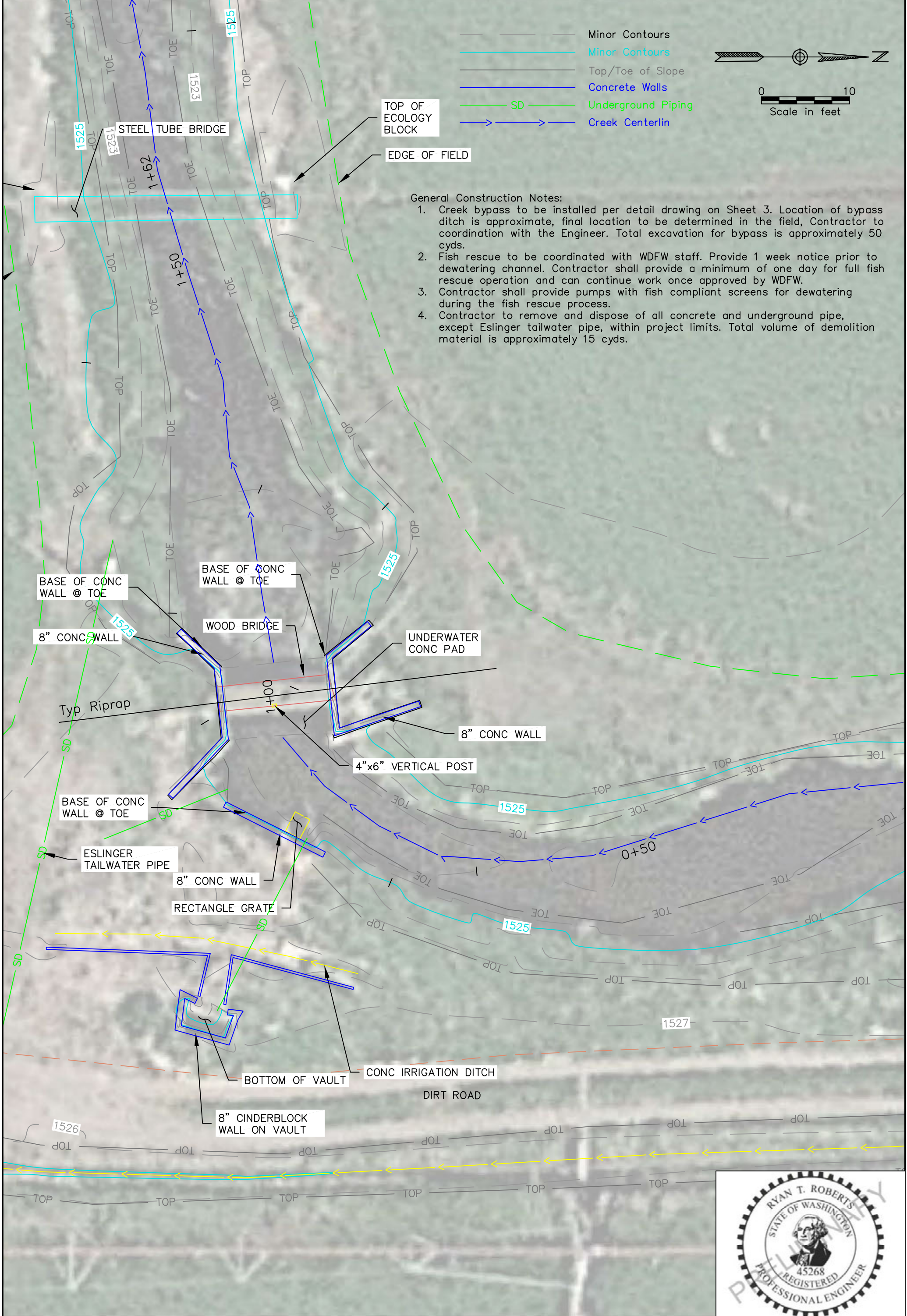
- Minor Contours
- Minor Contours
- Top/Toe of Slope
- Concrete Walls
- SD
- Underground Piping
- Creek Centerlin



TOP OF ECOLOGY BLOCK
EDGE OF FIELD

General Construction Notes:



1. Creek bypass to be installed per detail drawing on Sheet 3. Location of bypass ditch is approximate, final location to be determined in the field, Contractor to coordinate with the Engineer. Total excavation for bypass is approximately 50 cyds.
2. Fish rescue to be coordinated with WDFW staff. Provide 1 week notice prior to dewatering channel. Contractor shall provide a minimum of one day for full fish rescue operation and can continue work once approved by WDFW.
3. Contractor shall provide pumps with fish compliant screens for dewatering during the fish rescue process.
4. Contractor to remove and dispose of all concrete and underground pipe, except Eslinger tailwater pipe, within project limits. Total volume of demolition material is approximately 15 cyds.



File Name
Drawing Name
Kittitas County Conservation District
2211 W Dolarway Rd. Suite 4
Ellensburg WA 98926

Caribou Diversion Removal
Existing Conditions
Demolition Plan
Bypass Plan

| | | Date |
|----------|------|-------|
| Designed | KCCD | 12-18 |
| Drawn | KCCD | 12-18 |
| Checked | | |
| Approved | | |

-  Minor Contours
-  Minor Contours
-  Eslinger Drain Pipe
-  Creek Centerline

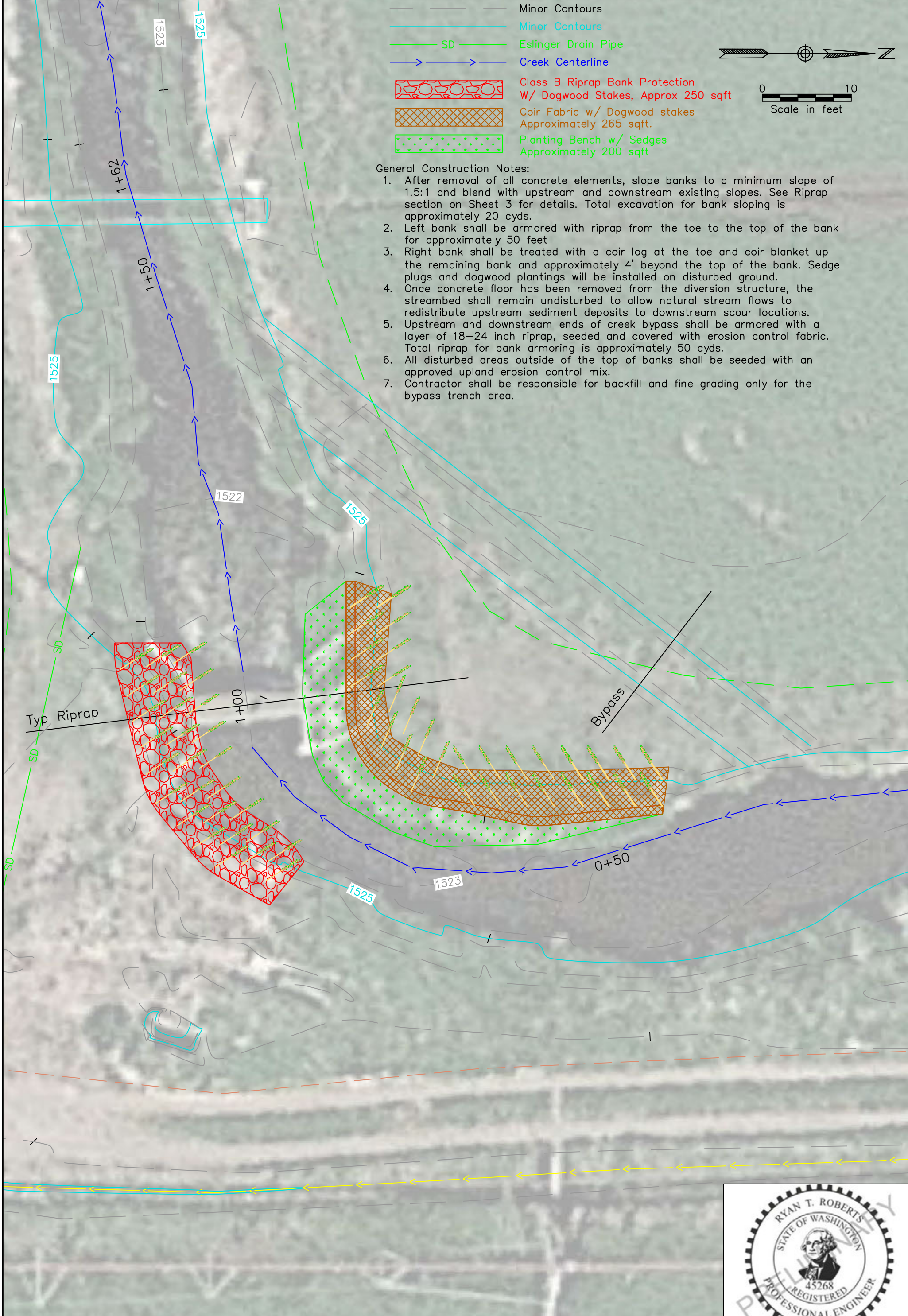


0 10
Scale in feet

-  Class B Riprap Bank Protection
W/ Dogwood Stakes, Approx 250 sqft
-  Coir Fabric w/ Dogwood stakes
Approximately 265 sqft.
-  Planting Bench w/ Sedges
Approximately 200 sqft

General Construction Notes:

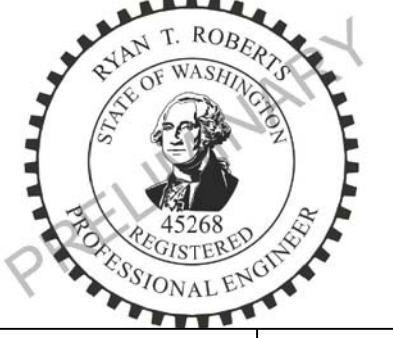
1. After removal of all concrete elements, slope banks to a minimum slope of 1.5:1 and blend with upstream and downstream existing slopes. See Riprap section on Sheet 3 for details. Total excavation for bank sloping is approximately 20 cyds.
2. Left bank shall be armored with riprap from the toe to the top of the bank for approximately 50 feet
3. Right bank shall be treated with a coir log at the toe and coir blanket up the remaining bank and approximately 4' beyond the top of the bank. Sedge plugs and dogwood plantings will be installed on disturbed ground.
4. Once concrete floor has been removed from the diversion structure, the streambed shall remain undisturbed to allow natural stream flows to redistribute upstream sediment deposits to downstream scour locations.
5. Upstream and downstream ends of creek bypass shall be armored with a layer of 18-24 inch riprap, seeded and covered with erosion control fabric. Total riprap for bank armoring is approximately 50 cyds.
6. All disturbed areas outside of the top of banks shall be seeded with an approved upland erosion control mix.
7. Contractor shall be responsible for backfill and fine grading only for the bypass trench area.



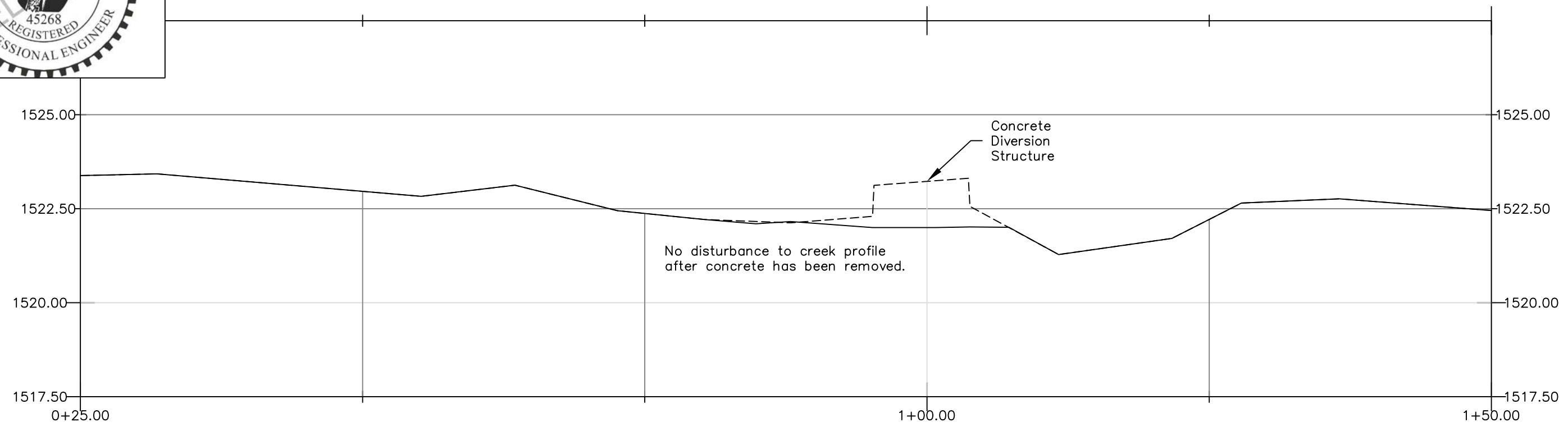
File Name
Drawing Name
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Conservation District
2211 W Dolarway Rd. Suite 4
Ellensburg WA 98926

Caribou Diversion Removal
Creek Bank Grading
Riprap Plan

| | | | |
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| Designed | KCCD | Date | 12-18 |
| Drawn | KCCD | | 12-18 |
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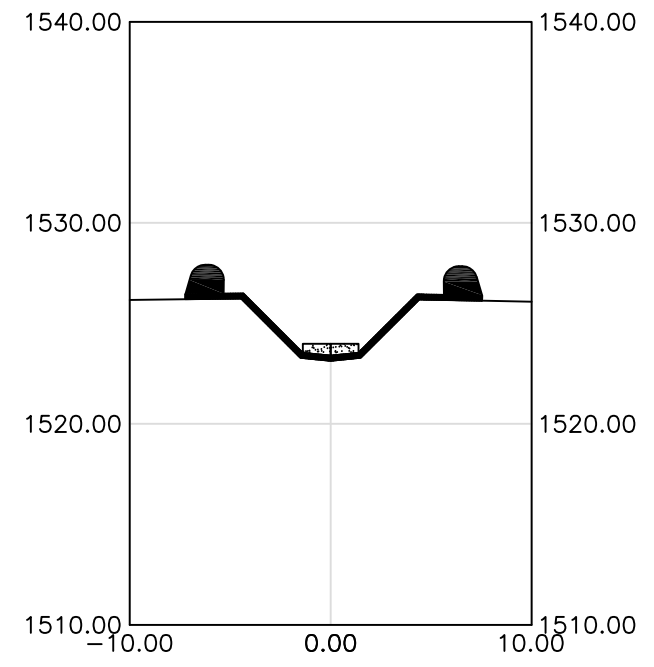
Creek CL Profile
 1:10 Horizontal
 1:3 Vertical



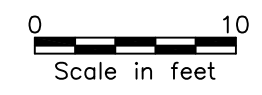
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Caribou Diversion Removal
 Profile & Cross-Section Details

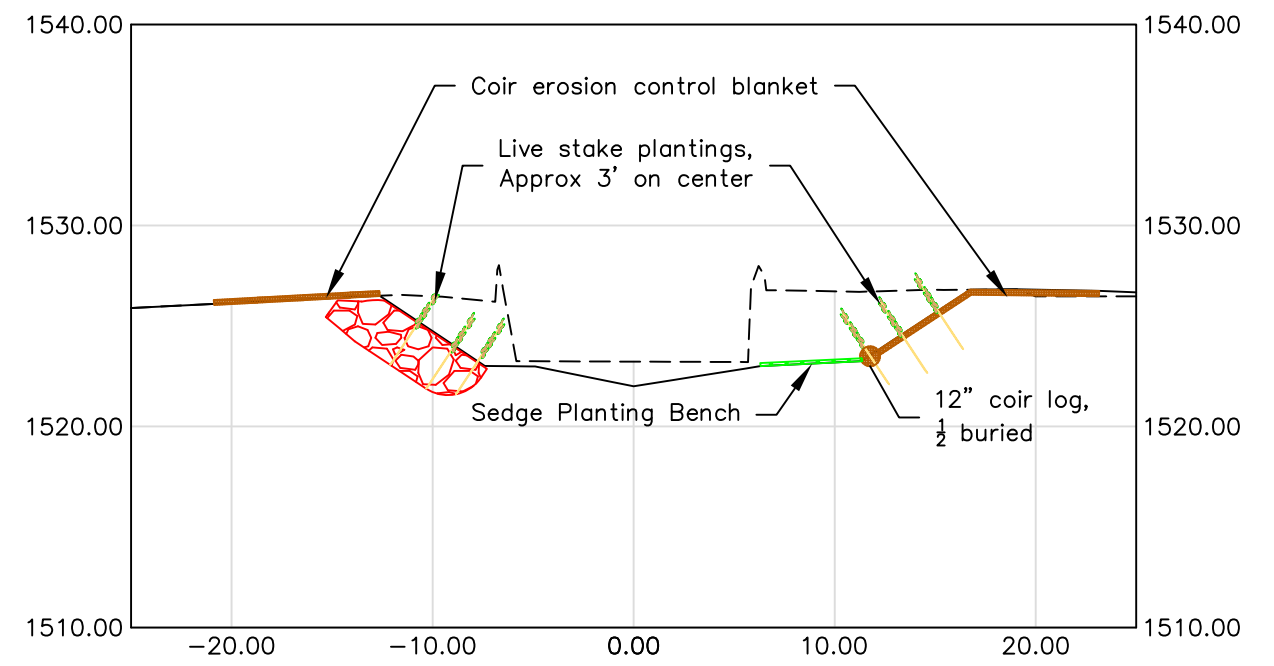
Bypass Alignment 0+25



- General Bypass Construction Notes:
1. Average depth of bypass trench is approx 3 feet, bottom width approx 3 feet, side slopes approx 1:1. Flow of 25 cfs at approx 1 foot of depth.
 2. Trench length is approx 100 feet. Liner will shall extend to the opposite bank both the upstream and downstream ends.
 3. Line trench with minimum 10 mil thickness plastic liner, minimum width of 12'. Place excavation spoils on top of liner edges to secure.
 4. Dig small trench across bypass subgrade every 25 feet before placing liner. Once liner is installed, place sandbags along small trenches on top of the liner.



Creek CL Alignment 1+00



- General Riprap Construction Notes:
1. Riprap bank protection shall consist Class B rock for erosion and scour protection per WSDOT material specification 9-13.4(2). Thickness of material shall be a minimum of 30". Rock shall be placed at a minimum slope of 1.5:1 and blend into the existing banks.
 2. The left bank erosion protection shall be constructed from the toe of the slope to the top of the bank. The right bank erosion protection shall be constructed from the toe of the slope to an approximate vertical height of 3 feet. The remaining right bank shall be graded smooth to the top of the bank, seeded with an erosion control grass seed mix and protected with coir erosion control fabric.

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