



**Request for Clean Water Act
Section 401 Water Quality Certification
Washington State Department of Ecology**
Phone: (360) 407-6076 or E-mail: ecyrefedpermits@ecy.wa.gov

AGENCY USE ONLY

Date Received: 2/3/2023
Aquatics ID No. 141405
Team: CRO
Valid Request: Pending

This Section 401 Water Quality Certification (WQC) Request form identifies information needed in order to review and process a Section 401 WQC Request. Please see Department of Ecology's (Ecology) [webpage](#) for more information about the Section 401 WQC Request process.

Submit this Section 401 WQC Request form along with a [Joint Aquatic Resources Permit Application](#) (JARPA) and supporting information¹ to ecyrefedpermits@ecy.wa.gov and copy the federal permitting agency.

A. Federal Permit or License Reference Number, if known: _____
Department of Ecology (Ecology) Aquatics ID Number, if known: _____
Project Name: Manastash Rd Creek Bank Stabilization County: Kittitas

B. Project Proponent Name: Kelee Hodges

C. Documentation showing that the Pre-Filing Meeting Request was submitted at least 30 days prior to submitting this Section 401 WQC Request. Attach either of the following:

- ☐ E-mail acknowledgement of receipt from Ecology
☒ Copy of previously submitted Pre-Filing Meeting Request Form

D. A completed, signed, and dated JARPA should be submitted with this form.

Did you attach a JARPA? ☒ Yes ☐ No

E. The following is a list of documents needed for Ecology's WQC review, along with a brief explanation. Depending on the project, additional information may be requested.

Please let us know what information you are submitting with this WQC request form.

Required for all projects:

1. State Environmental Policy Act (SEPA) determination and/or checklist:
☐ Final SEPA determination attached
☐ SEPA determination pending
☒ Exempt from SEPA (see [SEPA Guidance](#))
☐ SEPA is not required (e.g., federal agency projects)

¹ To submit documents over 25MB, e-mail ecyrefedpermits@ecy.wa.gov to request a secure link.

To request an ADA accommodation, contact Ecology by phone at (360) 407-6076 or email at ecyrefedpermits@ecy.wa.gov, or visit <https://ecology.wa.gov/accessibility>.
For Relay Service or TTY call 711 or 877-833-6341.

Si necesita este formulario en español, por favor, llámenos a (360) 407-6076
o envíenos un correo electrónico a: ecyrefedpermits@ecy.wa.gov

2. Project drawings attached:

- ☒ Vicinity map
- ☒ Plan view
- ☒ Cross-section(s)
- ☒ Plan set
- ☐ Other: _____

3. Best management practices and construction methodology, provided in the attached:

- ☒ JARPA
- ☐ Water Quality Monitoring and Protection Plan (WQMPP)
- ☐ Project drawings, sheets: _____
- ☐ Mitigation Plan pages: _____
- ☐ Other document(s): _____

Notes:

- This is needed for in-water work (below ordinary high water mark), including wetlands.
- Describe best management practices to be implemented to protect water quality.
- Describe construction sequencing and methodology.

4. Water quality monitoring, provided in the attached:

- ☐ Water Quality Monitoring Plan (WQMP).
- ☐ Water Quality Monitoring and Protection Plan (WQMPP is similar to WQMP, but includes best management practices).
- ☒ Other (please identify location, such as JARPA, Part 8): JARPA Part 8

Notes:

- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.
- A plan is needed when conducting work in a waterbody (e.g., creek, ditch, river, lake, pond, marine, estuarine).
- Include water quality parameters such as turbidity, oil sheen, pH (e.g., poured in-place concrete, concrete demolition), etc.
- See [State Water Quality Standards for Surface Waters](#) (Chapter 173-201A-200 or -210 WAC)
- If needed, templates are available.

Required depending on the project type:

5. Erosion and sediment control for upland work (above ordinary high water mark) that addresses stormwater during construction and long-term:

This information is included in the attached:

- ☒ JARPA
- ☒ Project drawings, sheets: 4-5
- ☐ Stormwater Pollution Prevention Plan, pages: _____
- ☐ Mitigation Plan, pages: _____
- ☐ Other document(s): _____

6. Wetland report, including the attached:

- ☐ Wetland delineation report
- ☐ Delineation data sheets
- ☐ Wetland rating forms

Notes:

- Needed when there is a discharge (dewatering, excavation or fill) to wetlands.
- Report needs to include both a wetland delineation and rating.
- Include delineation data sheets and rating forms.
- For more information see [wetland delineation resources](#) and [hiring a qualified wetland professional](#).
- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.

7. Mitigation, avoidance and minimization

- ☐ Wetland [avoidance and minimization checklist](#)
- ☐ Other aquatic resource avoidance and minimization demonstration
- ☐ Mitigation Plan
- ☐ Other: _____

Notes:

- Wetland [avoidance and minimization webpage](#).

8. Mitigation plan, provided in the attached:

- ☐ Riparian Planting and Monitoring Plan (Needed when riparian vegetation is removed or modified)
- ☐ Wetland or stream/other aquatic resource Mitigation Plan
- ☐ Wetland Mitigation Bank Use Plan (use when proposing mitigation bank use)
- ☐ In-Lieu Fee (ILF) Use Plan (use when proposing ILF mitigation)
- ☒ Project drawings, sheets: 4-5, 10, 13-15
- ☐ Other: _____

Notes:

- Needed to offset impacts to wetland, stream, marine, or other aquatic habitat.
- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.
- For more information, see [wetland compensatory mitigation](#).

9. Dredging

- ☐ Dredging Plan attached
- ☐ Suitability Determination attached

Notes:

- Needed when sediments will be dredged for maintenance, navigation, or other purposes.
- Covers in-water disposal and sediment anti-degradation.
- Dredging Plan should include dredge footprint and depth, dredge type, best management practices, disposal plan, off-loading plan for upland disposal, etc.
- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.
- For information on suitability determinations, see [Dredged Material Management Office](#).

10. Dewatering

- ☒ Dewatering Plan attached

Notes:

- Needed for complex in-water work or management of excavated/dredged material.

- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.
- May also be required for some excavation projects.

F. Required Certification Statements:

The project proponent hereby certifies that all information contained herein is true, accurate, and complete, to the best of my knowledge and belief.

Initial KH

The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.

Initial KH

Signature: Kelee Hodges Date: 2/3/2023

Print Name: Kelee Hodges



WASHINGTON STATE

Joint Aquatic Resources Permit Application (JARPA) Form^{1,2} [\[help\]](#)

USE BLACK OR BLUE INK TO ENTER ANSWERS IN THE WHITE SPACES BELOW.



US Army Corps
of Engineers
Seattle District

AGENCY USE ONLY

Date received: 2/3/2023 edoc
Rec' Section 401 Request From
Agency reference #: _____
Tax Parcel #(s): _____

Part 1–Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [\[help\]](#)

Manastash Road Creek Bank Stabilization and Sno-Park Improvement

Part 2–Applicant

The person and/or organization responsible for the project. [\[help\]](#)

2a. Name (Last, First, Middle)

Josh Fredrickson

2b. Organization (If applicable)

Kittitas County Public Works

2c. Mailing Address (Street or PO Box)

411 N. Ruby St., Suite 1

2d. City, State, Zip

Ellensburg, WA 98926

2e. Phone (1)

509-962-7523

2f. Phone (2)

2g. Fax

509-962-7663

2h. E-mail

josh.fredrickson@co.kittitas.wa.us

¹Additional forms may be required for the following permits:

- If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 764-3495.
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they accept the JARPA.

²To access an online JARPA form with [\[help\]](#) screens, go to

http://www.epermitting.wa.gov/site/alias_resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx.

For other help, contact the Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.

Part 3—Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b of this application.) [\[help\]](#)

3a. Name (Last, First, Middle)			
3b. Organization (If applicable)			
3c. Mailing Address (Street or PO Box)			
3d. City, State, Zip			
3e. Phone (1)	3f. Phone (2)	3g. Fax	3h. E-mail

Part 4—Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both **upland and aquatic** ownership because the upland owners may not own the adjacent aquatic land. [\[help\]](#)

- ☐ Same as applicant. (Skip to Part 5.)
- ☒ Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)
- ☐ There are multiple upland property owners. Complete the section below and fill out [JARPA Attachment A](#) for each additional property owner.
- ☐ Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete [JARPA Attachment E](#) to apply for the Aquatic Use Authorization.

4a. Name (Last, First, Middle)			
4b. Organization (If applicable)			
4c. Mailing Address (Street or PO Box)			
4d. City, State, Zip			
4e. Phone (1)	4f. Phone (2)	4g. Fax	4h. E-mail

Part 5–Project Location(s)

Identifying information about the property or properties where the project will occur. [\[help\]](#)

- ☐ There are multiple project locations (e.g. linear projects). Complete the section below and use [JARPA Attachment B](#) for each additional project location.

5a. Indicate the type of ownership of the property. (Check all that apply) [help]			
☐ Private ☐ Federal ☒ Publicly owned (state, county, city, special districts like schools, ports, etc.) ☐ Tribal ☐ Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)			
5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]			
Milepost 10.65 to 11.01 Manastash Rd			
5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]			
Ellensburg, WA 98926			
5d. County [help]			
Kittitas			
5e. Provide the section, township, and range for the project location. [help]			
¼ Section	Section	Township	Range
SE / SW	13 / 14	17 N	16 E
5f. Provide the latitude and longitude of the project location. [help]			
Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)			
46.961047 N / 120.793875 W			
5g. List the tax parcel number(s) for the project location. [help]			
The local county assessor's office can provide this information.			
There is no tax parcel number for the project location. Adjacent properties are listed in Section 5h.			
5h. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C .) [help]			
Name	Mailing Address		Tax Parcel # (if known)
Schmidt Ranches LLC	300 Mission View Dr		564933
	Ellensburg, WA 98926		
Terry Clark & Donna Becker	17741 Manastash Rd.		754933
	Ellensburg, WA 98926		
Washington State Department of Natural Resources	PO Box 47014		449136
	Olympia, WA 98504		
Daniel & Sharon Jonassen	280 Mitchell Rd.		854933
	Ellensburg, WA 98926		

5i. List all wetlands on or adjacent to the project location. [\[help\]](#)

There are no wetlands present within the project footprint.

5j. List all waterbodies (other than wetlands) on or adjacent to the project location. [\[help\]](#)

South Fork Manastash Creek is the only water body on or adjacent to the project location.

5k. Is any part of the project area within a 100-year floodplain? [\[help\]](#)

☒ Yes ☐ No ☐ Don't know

5l. Briefly describe the vegetation and habitat conditions on the property. [\[help\]](#)

Riparian habitat within the Project footprint consists of an eroded streambank with an intact riparian zone upstream and downstream of the washout. Riparian areas and buffers in the immediate project area are somewhat altered from previous land uses and consist of willow (*Salix* spp.), cottonwood (*Populus balsamifera*), dogwood (*Cornus sericea*) and alder (*Alnus incana*). Adjacent upland habitat is primarily disturbed areas associated with rural residences and Douglas-fir (*Pseudotsuga menziesii*) and Ponderosa pine (*Pinus ponderosa*) associated ecotypes.

5m. Describe how the property is currently used. [\[help\]](#)

The property is currently used for public travel and right-of-way associated with Manastash Road which provides access to nearby residences and recreationalists accessing the Okanogan-Wenatchee National Forest. The streambed adjacent to the road is on unoccupied private land.

5n. Describe how the adjacent properties are currently used. [\[help\]](#)

The adjacent properties are residential and/or recreational in nature.

5o. Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [\[help\]](#)

Existing structure include a paved roadway surface providing residential and recreational access. Currently the two lane road is restricted to one lane due to bank erosion and undercutting causing unsafe conditions.

5p. Provide driving directions from the closest highway to the project location, and attach a map. [\[help\]](#)

From I-90 Exit 109, drive north on Canyon Rd 0.5 miles, turn left onto E Umptanum Rd., in 1.7 miles turn right on to Manastash Rd, drive 10.65 miles to end of the County Road.

Part 6—Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [help]			
The project will repair the eroded streambank and associated roadway embankment (approximately 350 linear feet) and install guardrail.			
6b. Describe the purpose of the project and why you want or need to perform it. [help]			
This section of Manastash Road is restricted to a single lane due to stream bank erosion. The purpose of the project is to restore the roadway to a safe and functional two-way road. A revetment will be constructed below the roadway to stabilize the bank and provide long term protection of the roadway. Due to the deteriorated condition of the road shoulder, width-restriction closure, and active bank erosion, the immediate repair of the bank and roadway is necessary for continued access and use of Manastash Road. Manastash Road is the only access for several isolated rural residences and a priority arterial for access to US Forest Service property. The repairs will provide safe and continued access for residents. In addition, the project will stop active bank erosion, and provide channel roughness and enhanced habitat benefits due to the added complexity.			
6c. Indicate the project category. (Check all that apply) [help]			
☐ Commercial ☐ Residential ☐ Institutional ☒ Transportation ☐ Recreational ☒ Maintenance ☒ Environmental Enhancement			
6d. Indicate the major elements of your project. (Check all that apply) [help]			
☐ Aquaculture ☒ Bank Stabilization ☐ Boat House ☐ Boat Launch ☐ Boat Lift ☐ Bridge ☐ Bulkhead ☐ Buoy ☐ Channel Modification	☐ Culvert ☐ Dam / Weir ☐ Dike / Levee / Jetty ☐ Ditch ☐ Dock / Pier ☐ Dredging ☐ Fence ☐ Ferry Terminal ☐ Fishway	☐ Float ☐ Floating Home ☐ Geotechnical Survey ☐ Land Clearing ☐ Marina / Moorage ☐ Mining ☐ Outfall Structure ☐ Piling/Dolphin ☐ Raft	☐ Retaining Wall (upland) ☒ Road ☐ Scientific Measurement Device ☐ Stairs ☐ Stormwater facility ☐ Swimming Pool ☐ Utility Line
☐ Other:			

6e. Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. [\[help\]](#)

- Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year floodplain.

Project Timeline and Sequencing

The Project will likely begin in summer 2023 and will take up to 20 weeks to complete. Work below the OHWM of South Fork Manastash Creek will require approximately 8 weeks to complete and will occur within the approved Washington Department of Fish and Wildlife (WDFW) in-water work window of July 16 through September 30. However, to maximize flexibility and avoid additional construction seasons, the County is requesting a one-month extension on the work window, through October 31, 2023. The in-water work window is proposed from July 16 through October 31. This work window was approved and used for the Manastash Bridge Replacement project in 2017, approximately 0.4 mile downstream from the Project location.

Project sequencing will likely be mobilization; staging and traffic management; temporary erosion and sediment control and best management practice (BMP) installation; isolation and dewatering; revetment construction; embankment construction; planting; roadway reconstruction and paving; guardrail and signage; and demobilization.

Equipment

Equipment to be used will include but is not limited to excavators, mini-excavators, dozer, graders, dump trucks, front loaders, backhoe, generators, pumps (for groundwater management), pavement scarifier (to remove existing roadway), and paver.

Site Preparation and Vegetation Removal

Site preparation work will include delineating the Project area with high-visibility fencing, placing BMPs for sediment and erosion control, and relocating utilities if necessary (**Appendix A, Sheet 4**).

Approximately 6,700 square feet of hillside between the road and the creek are within the clearing limits for the Project. The majority of this area is actively eroding bank and consists of bare soil and rock with minimal riparian habitat (e.g., small shrubs) adjacent to the creek; however, the removal of some small shrubs under 6 in dbh is anticipated for equipment access within the dry stream bed (**Appendix B, Photographs 1 and 2**). Mature trees within this area are all adjacent to the roadway on the upper bank (rooted approximately 15 feet above the creek), however, they do provide some shade and were therefore considered riparian habitat (**Appendix B, Photographs 3 and 5**). Vegetation removal between the road and the creek includes the removal of approximately 11 ponderosa pine (*Pinus ponderosa*) and 3 Douglas-fir (*Pseudotsuga menziesii*) that range in size from 10-inch to 30-inch diameter at breast height (dbh). If possible, the larger trees will be avoided. Where applicable, trees larger than 12 inch dbh that cannot be avoided will be removed with root wad intact, stored onsite, and incorporated into the revetment. Vegetation under 6-inch dbh that will be removed to stabilize the bank, will include redosier dogwood, (*Cornus sericea*), mock orange (*Philadelphus lewisii*), willow (*Salix* sp.), Nootka rose (*Rosa nutkana*), alder (*Alnus* spp.), snowberry (*Symphoricarpos albus*), and ocean spray (*Holodiscus discolor*). Where possible, the contractor will clear vegetation to ground level but will not grub to allow natural regeneration in areas where temporary impacts may occur. While this habitat provides some riparian function (e.g., shade from 14 trees), the majority of this area is bare soil and rock where the bank has already sloughed off or consists of small shrubs and herbaceous vegetation that provide little if any riparian function.

Access, Staging, and Traffic Control

A traffic control plan will be utilized to manage traffic during construction. This may include one-lane, two-way traffic control zone with flaggers. (**Appendix A, Sheet 11**)

Equipment and material staging will occur within the Project area on the existing roadway, isolated from traffic, and potentially within a widened driveway area near the Project if the landowner allows. Existing County roads will be used to transport of equipment and materials to the Project site. The contractor is responsible for obtaining permits and clearances for the use of any alternate staging areas.

Work Area Isolation and Rewatering

Before bank stabilization occurs below the OHWM of South Fork Manastash Creek, the work areas will be isolated from flowing water using temporary stream isolation. The Project will occur during low-flow conditions. At lower flows, the isolation area is relatively shallow, typically 6 to 12 inches deep. The construction area below the OHWM will be isolated from the flows of South Fork Manastash Creek to minimize the effects of turbidity and allow construction in isolation. The isolation structures will be placed after the area to be isolated has been seined and blocked with nets to remove any fish that may be present.

Only the area around the bank stabilization will be isolated (**Appendix A, Sheet 5**). At no time will isolation span the width of South Fork Manastash Creek. Natural flow will be directed away from the isolation area using either sandbags, super sacks, or water bladders. The final isolation methodology will be determined by the contractor. The diversion barrier system may require the use of pumps (4" to 6" gas powered 'trash' pump) to manage hyporheic flows behind the barrier to maintain a dry work area. The dry work area will be accessed from the stream bank as prescribed in the construction contract.

For the purpose of permitting when calculating temporary fill volumes, it is assumed the isolation structures will consist of temporary fill such as sandbags or super sack(s). The amount of temporary fill below the OHWM required for the isolation is approximately 145 cubic yards. The duration of use will be during the approved in-water work window and may take up to 8 weeks.

The isolation structures will be placed starting at the upstream bank tie-in location and will be constructed in a horseshoe shape to isolate the work area before tying into the bank downstream of the bank stabilization area. The isolation structure may be placed using a thumbed excavator or similar equipment. Plastic sheeting will likely be used in coordination with the isolation structure to more efficiently isolate flows.

As the isolation structure is constructed, qualified biologists will be on-site to monitor flows as they recede and remove any fish that become stranded behind the diversion following Washington State Department of Transportation (WSDOT) Fish Exclusion Protocol and Standards. All fish captured or handled during dewatering activities will be reported. If needed, to dewater holding pools behind the isolation structure, small pumps will have filtered intakes meeting NMFS screening criteria. Once the structure is in place and the isolated area is completely enclosed, block nets will be removed, and there will be no restriction to up or down stream movement of fish.

The isolated area of South Fork Manastash Creek will be the minimum size necessary for the construction of the revetment and barbs. The total isolated footprint below the OHWM will be approximately 8,465 square feet (**Appendix A, Sheet 5**). When construction of the revetment and barbs is complete, the isolation structures will be removed slowly starting at the downstream end to reintroduce water to the work area and minimize downstream turbidity.

Revetment and Barb Construction

The Project is located along a section of the South Fork Manastash Creek with a wide floodplain and several braided channels that are activated during high flows. The Project is located at the upper end of this floodplain where the creek forms a cutbank that is eroding the material below Manastash Road. Equipment access will occur from the dry stream bed (**Attachment A, Sheet 5**). The revetment and barbs will be constructed where the roadway and approach driveway continue to actively erode, so repairing the embankment will halt on-going erosion, improve water quality, and improve and maintain habitat. The upstream end of the revetment will taper with fill limits above the OHWM for protection between barbs.

The revetment will extend partially into the existing channel bed and the final height will be built above the 100-year water surface elevation. The revetment will extend the length of the erosion area (approximately 280 linear feet) and will "kick-out" slightly on the upstream end to deflect flows away from the bank. The revetment will extend from below to well above the OHWM, providing bank protection and energy dissipation. The revetment and barbs will require approximately 180 cubic yards of fill below the OHWM to provide 280 linear feet of bank protection (**Appendix A, Sheets 13-15**).

The revetment will be constructed using a combination of large rock and wood, with logs both keyed into the revetment and secured in place at the toe of the revetment. Working from the isolated work area or existing roadway, large logs with root wad will be placed throughout the repair area (**Appendix A, Sheets 6 and 15**), perpendicular to the bank. These logs will be placed with the root wads extending into the channel, angled

slightly upstream. If necessary, these logs will be locked into place using earth anchors or cabled to large rock.

Large rock armoring will be placed on top of and around these logs to create an undulating rock toe. End dumping of fill material for roadway embankment will only occur in areas isolated by the rock toe or above the OHWM. Rock will be a mix of sizes to ensure proper protection of the roadway, with the largest rock placed at the toe of the revetment. Final hydraulic design will determine the amount, size, and placement of rock armoring. The final quantity of logs with root wads to be incorporated will be determined later in the design phase.

Up to five rock barbs will be placed within the revetment (**Appendix A, Sheet 13**). These barbs will be of varying lengths based on required deflection of flows, with the longest barb extending approximately 5.6 feet from the bank. The footprint of the barbs will be approximately 120 sf per barb. The barbs will be placed upstream from the revetment and will require approximately 40 cy of fill below the OHWM. Approximately 180 cubic yards of fill will be required below the OHWM for the construction of the revetment and barbs.

Roadway Embankment

When the revetment is completed to an elevation above the 100 year-flood elevation, the roadway embankment will be constructed using suitable fill material at a minimum 2H:1V slope (**Appendix A, Sheet 13**). Embankment material will be placed with equipment operating from the roadway above the creek.

Planting and Site Restoration

Native riparian vegetation will be incorporated within the rock revetment, in suitable areas at the toe of the revetment, on the impacted banks, and withing the barbs where possible. Willow cuttings will provide the best likelihood for success, with dogwood, cottonwood, and alder planted in areas above the revetment that have saturation during the growing season. Plants will be harvested from a local source or purchased from a native plant nursery. Disturbed roadside, the temporary detour footprint, and new non-riparian embankment areas that are not rock will be seeded with a native roadside and erosion control mix and stabilized with mulch cover prior to Project completion.

Roadway Reconstruction and Demobilization

The existing roadway will be widened and repaved (**Appendix A, Sheet 6**). The roadway approaches will be reconstructed with fill, paved, striped, guardrail installed, and signage placed as the last order of work before completion. BMP placement will prevent any discharge during paving activities.

The existing impervious surface in the project area prior to the washout was approximately 17,255square feet. Post-project, total impervious surface will be approximately 17,255 square feet There is no net increase in square footage of new impervious surface from widening the road and creating a turnaround. All stormwater associated with this impervious surface will be collected and treated through infiltration in roadside ditches south of the roadway. To minimize fill within the creek, a ditch will not be installed north of the roadway. Instead, the roadway will be reconstructed to existing condition with no increase in runoff towards the creek compared to pre-washout conditions.

6f. What are the anticipated start and end dates for project construction? (Month/Year) [\[help\]](#)

- If the project will be constructed in phases or stages, use [JARPA Attachment D](#) to list the start and end dates of each phase or stage

Start Date: July 2023

End Date: October 2023

☐ See JARPA Attachment D

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [\[help\]](#)

\$1,541,100

6h. Will any portion of the project receive federal funding? [\[help\]](#)

- If yes, list each agency providing funds

☒ Yes ☐ No ☐ Don't know

Federal Highway Administration – Federal Lands Access Program

Part 7–Wetlands: Impacts and Mitigation

- ☐ Check here if there are wetlands or wetland buffers on or adjacent to the project area.
(If there are none, skip to Part 8.) [\[help\]](#)

7a. Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [help]
☐ Not applicable
7b. Will the project impact wetlands? [help]
☐ Yes ☐ No ☐ Don't know
7c. Will the project impact wetland buffers? [help]
☐ Yes ☐ No ☐ Don't know
7d. Has a wetland delineation report been prepared? [help]
• If Yes, submit the report, including data sheets, with the JARPA package.
☐ Yes ☐ No
7e. Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [help]
• If Yes, submit the wetland rating forms and figures with the JARPA package.
☐ Yes ☐ No ☐ Don't know
7f. Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [help]
• If Yes, submit the plan with the JARPA package and answer 7g. • If No, or Not applicable, explain below why a mitigation plan should not be required.
☐ Yes ☐ No ☐ Don't know

7g. Summarize what the mitigation plan is meant to accomplish, and describe how a watershed approach was used to design the plan. [\[help\]](#)

7h. Use the table below to list the type and rating of each wetland impacted, the extent and duration of the impact, and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [\[help\]](#)

Activity (fill, drain, excavate, flood, etc.)	Wetland Name ¹	Wetland type and rating category ²	Impact area (sq. ft. or Acres)	Duration of impact ³	Proposed mitigation type ⁴	Wetland mitigation area (sq. ft. or acres)

¹ If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report.

² Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.

³ Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.

⁴ Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)

Page number(s) for similar information in the mitigation plan, if available: _____

7i. For all filling activities identified in 7h, describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [\[help\]](#)

7j. For all excavating activities identified in 7h, describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [\[help\]](#)

Part 8–Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, “waterbodies” refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [\[help\]](#)

☒ Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

8a. Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment. [\[help\]](#)

☐ Not applicable

Timing of the project will be coordinated with WDFW to minimize impacts to the aquatic environment (provided emergency conditions do not arise prior to the anticipated start date). Work will occur in the dry after the project area is isolated. The stream will be diverted to provide continual flow and access for aquatic species. Water quality will be maintained at all times within the Washington State Department of Ecology guidelines in Washington Administrative Code (WAC) 173-201A. Minimization measures (MM) that will be required in the contract and will further minimize or prevent impacts are listed below:

MM 1 – Bank stabilization and channel work below the OHWM will only occur in isolation from active flows.

MM 2 – All work below the OHWM will be conducted during the identified in-water work window.

MM 3 – All equipment will be inspected for leaks prior to each workday.

MM 4 – All equipment that works below the OHWM will contain vegetable oil or other biodegradable alternative to hydraulic fluid.

MM 5 – Equipment staging and fueling will occur more than 50 feet from the OHWM of the South Fork Manastash Creek.

MM 6 – Worksite isolation and fish exclusion will be conducted by qualified biologists in accordance with the 2016 Washington State Department of Transportation Fish Exclusion Protocols and Standards.

MM 7 – If small pumps are used to dewater holding pools or hyporheic flows, they will be screened to NMFS criteria. Once fish are removed from the area behind the isolation area, pumps will not require screening.

MM 8 – During removal of containment measures, water will be reintroduced to the isolation area slowly, starting at the downstream end, to minimize turbidity and allow natural equilibration to occur.

MM 9 – BMPs such as wattles or silt fence will be used to prevent the discharge of any material into flowing water.

MM 10 – Vegetation removal required for access that is not part of the permanent impact limits will be cut, but not grubbed, to allow natural regeneration.

MM 11 – Isolation and BMPs will be sufficient to contain turbidity within State water quality standards. No untreated dewatering water, latent pH water, or concrete materials will be discharged to flowing water or remain in the stream channel prior to re-introduction of the stream.

MM 12 – The contractor will be required to develop and follow a Temporary Erosion and Sediment Control Plan, Spill Prevention, Control, and Containment Plan, and Water Quality Monitoring Plan. These plans will ensure protection of the aquatic resource during construction.

8b. Will your project impact a waterbody or the area around a waterbody? [\[help\]](#)

☒ Yes ☐ No

8c. Have you prepared a mitigation plan to compensate for the project's adverse impacts to non-wetland waterbodies? [\[help\]](#)

- If Yes, submit the plan with the JARPA package and answer 8d
- If No, or Not applicable, explain below why a mitigation plan should not be required

☐ Yes ☒ No ☐ Don't know

The design of the bank stabilization project utilizes bioengineered principles that are consistent with WDFW Integrated Streambank Protection Guidelines. In addition, the incorporation of LWD and planting of riparian vegetation has been used on similar projects in the area, and when integrated as part of the design are considered self-mitigating project elements by the Services and WDFW.

8d. Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.

- If you already completed 7g you do not need to restate your answer here. [\[help\]](#)

The beneficial effects of the project mitigate for the short-term, temporary effects to South Fork Manastash Creek. The rock and LWD revetment is intended to halt active channel erosion and provide increased channel complexity and roughness features where the current project area has none. Replanting vegetation that was lost to erosion will improve functional riparian habitat long term, and in-stream flow deflection structures will decrease energy, slow water velocity, and increase the habitat value in this reach.

8e. Summarize impact(s) to each waterbody in the table below. [\[help\]](#)

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name ¹	Impact location ²	Duration of impact ³	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Fill (Isolation structure)	South Fork Manastash Creek	Below OHWM	Temporary	Appx. 145 cy	750 sf
Fill (rock and streambed material)	South Fork Manastash Creek	Below OHWM	Permanent	255 cy	280 linear feet
Dewatered area	South Fork Manastash Creek	Below OHWM	Temporary	N/A	6,000 sf
Excavation (streambed material)	South Fork Manastash Creek	Below OHWM	Permanent	7 cy	10 sf

¹ If no official name for the waterbody exists, create a unique name (such as "Stream 1") The name should be consistent with other documents provided.

² Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain.

³ Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter "permanent" if applicable.

8f. For all activities identified in 8e, describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [\[help\]](#)

Temporary Fill

If super sacks are used for the isolation structure, approximately 145 cubic yards will be considered temporary fill below the OWHM.

Permanent Fill

Over excavation below the OWHM is required for the revetment along approximately 280 ft of South Fork Manastash Creek. This will result in a total of approximately 7 cubic yards of excavation below the OWHM of the creek. The revetment will require approximately 255 cubic yards of fill be placed below the OWHM of the creek. The revetment will extend into creek on average approximately 15 feet beyond the existing toe of the slope. Material will include class 2 riprap and logs with root wad intact. This is a net difference of 255 cubic yards of permanent fill material below the OWHM of the creek.

8g. For all excavating or dredging activities identified in 8e, describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [\[help\]](#)

Permanent Excavation

Slight excavation below the OWHM is required to key in the large rock toe and habitat logs along approximately 280 ft of South Fork Manastash Creek. Any excavated material will remain onsite below the OWHM and placed within the revetment. This will not result in a permanent impact below the OWHM. The revetment will require approximately 255 cubic yards of fill be placed below the current OWHM of the creek to rebuild the previously-existing stream bank.

Part 9--Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

9a. If you have already worked with any government agencies on this project, list them below. [\[help\]](#)

Agency Name	Contact Name	Phone	Most Recent Date of Contact
WDFW	Scott Downes	(509) 457-9307	
NMFS	Sean Gross		
USFWS	Cindy Raekes	(509) 665-3508	
WSDOT	Phil Nugent	(509) 577-1781	1/2/2023
FHWA	Gary Martindale	(360) 534-9344	5/31/2022
DAHP	Sydney Hanson	(360) 280-7563	11/18/2021

9b. Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA on the Washington Department of Ecology's 303(d) List? [help] • If Yes, list the parameter(s) below • If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d			
☒ Yes ☐ No			
This section of South Fork Manastash Creek is not 303d listed for any parameter. The South Fork Manastash Creek is on the 303(d) impaired water quality list for water temperature above and below the Project area. In addition, sections of the main stem of Manastash Creek are listed as Clean Water Act Section 303(d) Category 5 waters for temperature, dissolved oxygen, and bacteria.			
9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [help] • Go to http://cfpub.epa.gov/surf/locate/index.cfm to help identify the HUC			
17030001- Upper Yakima			
9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [help] • Go to https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed-look-up to find the WRIA #			
39- Upper Yakima			
9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity? [help] • Go to https://ecology.wa.gov/Water-Shorelines/Water-quality/Freshwater/Surface-water-quality-standards/Criteria for the standards			
☒ Yes ☐ No ☐ Not applicable			
9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? [help] • If you don't know, contact the local planning department • For more information, go to https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-laws-rules-and-cases			
☐ Urban ☐ Natural ☐ Aquatic ☐ Conservancy ☒ Other: Rural Conservancy			

9g. What is the Washington Department of Natural Resources Water Type? [\[help\]](#)

- Go to <http://www.dnr.wa.gov/forest-practices-water-typing> for the Forest Practices Water Typing System.

☒ Shoreline ☐ Fish ☐ Non-Fish Perennial ☐ Non-Fish Seasonal

9h. Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? [\[help\]](#)

- If No, provide the name of the manual your project is designed to meet.

☒ Yes ☐ No

Name of manual: Stormwater Manual for Eastern Washington 2004

9i. Does the project site have known contaminated sediment? [\[help\]](#)

- If Yes, please describe below.

☐ Yes ☒ No

9j. If you know what the property was used for in the past, describe below. [\[help\]](#)

The project site has been maintained County right-of-way since 1940.

9k. Has a cultural resource (archaeological) survey been performed on the project area? [\[help\]](#)

- If Yes, attach it to your JARPA package.

☒ Yes ☐ No -The assessment is in review with DAHP as a FHWA action.

9l. Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [\[help\]](#)

Common Name	Listing Status	Determination
U.S. Fish and Wildlife Service		
Canada lynx	Threatened	No effect
Yellow-billed cuckoo	Threatened	No effect
Bull trout – Columbia River DPS	Threatened	May affect, not likely to adversely affect
Bull trout – Critical Habitat	Designated	No effect
National Marine Fisheries Service		
Steelhead – Middle Columbia River (MCR) Summer-run DPS	Threatened	Likely to adversely affect
Steelhead – Critical Habitat	Designated	No effect

The USFWS consultation has been completed. USFWS concurs with determination. NMFS consultation has been completed.

9m. Name each species or habitat on the Washington Department of Fish and Wildlife's Priority Habitats and Species List that might be affected by the proposed work. [\[help\]](#)

The project is within an area with regular concentration areas for elk and mule deer. Additionally, rainbow trout and westslope cutthroat have occurrence/migration areas within the project area. However, the project will not affect any priority habitat or species.

Part 10–SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Online Project Questionnaire at <http://apps.oria.wa.gov/opas/>.
- Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or help@oria.wa.gov.
- For a list of addresses to send your JARPA to, click on [agency addresses for completed JARPA](#).

10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [\[help\]](#)

- For more information about SEPA, go to <https://ecology.wa.gov/regulations-permits/SEPA-environmental-review>.

☐ A copy of the SEPA determination or letter of exemption is included with this application.

☐ A SEPA determination is pending with _____ (lead agency). The expected decision date is _____.

☐ I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [\[help\]](#)

☒ This project is exempt (choose type of exemption below). ☒ Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt? <u>WAC 197-11-800(3)</u> ☐ Other: _____
☐ SEPA is pre-empted by federal law.
10b. Indicate the permits you are applying for. (Check all that apply.) [help]
LOCAL GOVERNMENT
Local Government Shoreline permits: ☐ Substantial Development ☐ Conditional Use ☐ Variance ☒ Shoreline Exemption Type (explain): <u>WAC 197-11-800(3) WAC 173-27-040(2)(b)</u>
Other City/County permits: ☒ Floodplain Development Permit ☐ Critical Areas Ordinance
STATE GOVERNMENT
Washington Department of Fish and Wildlife: ☒ Hydraulic Project Approval (HPA) ☐ Fish Habitat Enhancement Exemption – Attach Exemption Form
Washington Department of Natural Resources: ☐ Aquatic Use Authorization Complete JARPA Attachment E and submit a check for \$25 payable to the Washington Department of Natural Resources. <u>Do not send cash.</u>
Washington Department of Ecology: ☒ Section 401 Water Quality Certification ☐ Authorization to impact waters of the state, including wetlands (Check this box if the proposed impacts are to waters not subject to the federal Clean Water Act)
FEDERAL AND TRIBAL GOVERNMENT
United States Department of the Army (U.S. Army Corps of Engineers): ☒ Section 404 (discharges into waters of the U.S.) ☐ Section 10 (work in navigable waters)
United States Coast Guard: For projects or bridges over waters of the United States, contact the U.S. Coast Guard at: ☐ Bridge Permit: D13-SMB-D13-BRIDGES@uscg.mil ☐ Private Aids to Navigation (or other non-bridge permits): D13-SMB-D13-PATON@uscg.mil
United States Environmental Protection Agency: ☐ Section 401 Water Quality Certification (discharges into waters of the U.S.) on tribal lands where tribes do not have treatment as a state (TAS)
Tribal Permits: (Check with the tribe to see if there are other tribal permits, e.g., Tribal Environmental Protection Act, Shoreline Permits, Hydraulic Project Permits, or other in addition to CWA Section 401 WQC) ☐ Section 401 Water Quality Certification (discharges into waters of the U.S.) where the tribe has treatment as a state (TAS).

Part 11—Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [\[help\]](#)

11a. Applicant Signature (required) [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. _____ (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. JNF (initial)

Joshua Fredrickson _____ [Signature] _____ 01/Feb/2023
Applicant Printed Name Applicant Signature Date

11b. Authorized Agent Signature [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

Authorized Agent Printed Name Authorized Agent Signature Date

11c. Property Owner Signature (if not applicant) [\[help\]](#)

Not required if project is on existing rights-of-way or easements (provide copy of easement with JARPA).

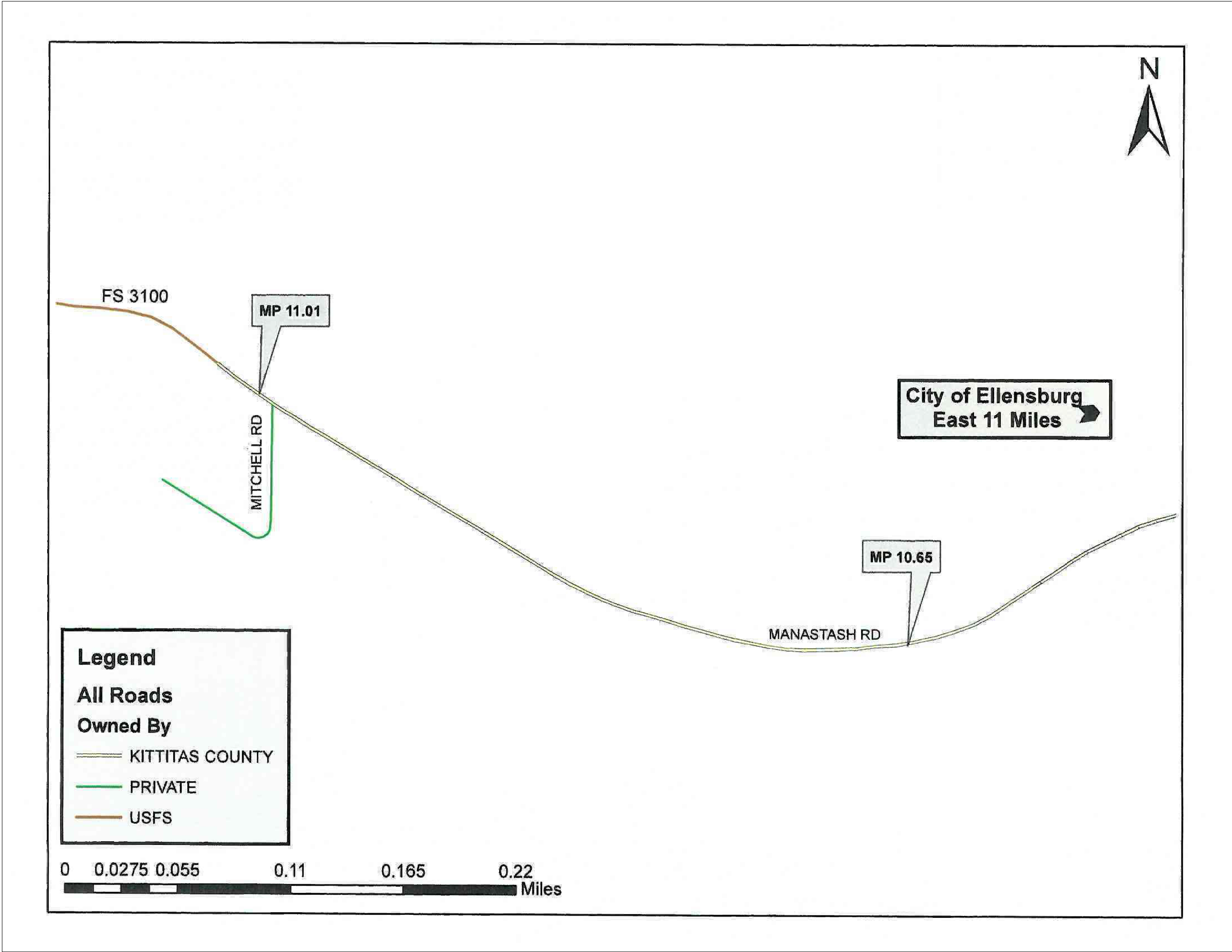
I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

Property Owner Printed Name Property Owner Signature Date

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-011 rev. 09/2018

Kittitas County
Washington
Manastash Road
Creek Bank Stabilization and
Snow Park Improvement
PT SE ¼ SEC 14. & SW ¼ SEC 15 T17N R16E, W.M.

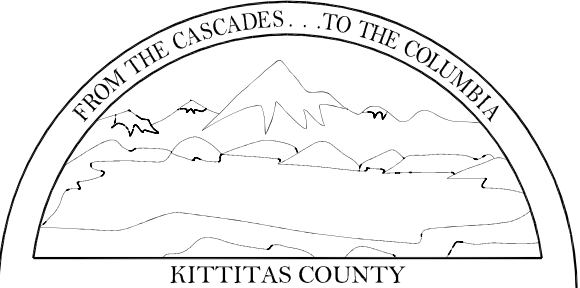


County Officials
Brett Wachsmith
Laura Osiadacz
Cory Wright
County Commissioners

Mark Cook, P.E.
Public Works Director
Josh Fredrickson, P.E.
County Engineer

Sheet Index

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12	After Hours Traffic Control	TC-02
13	Details	DT-01
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15	Details	DT-03

Manastash Rd		
Manastash Creek Bank Stabilization		
1/26/2023		
Designed By:	C. Curtis	
Entered By:	C. Curtis	
County Engineer:	J. Fredrickson	
P.W. Director:	M. Cook	
Revision	Date	By
 Know what's below. Call before you dig.		
		
		
Federal Aid No. FLAP-19DE(001)		
C.R.P. No. 273-16		
	/	

General Notes

The basis for control of work shall be as follows:

- A. It is the responsibility of the contractor to have an approved set of plans and any necessary permits on the job site wherever work is being accomplished.
- B. The county shall have the authority to enforce these plans and specifications, as well as all other referenced or pertinent specifications. The County Engineer will appoint designees, project engineers, assistants, and inspectors as necessary to inspect the work, and they will exercise such authority as the County Engineer may delegate.
- C. It is the responsibility of the contractor to notify the county in advance of beginning work on any project. A pre-construction meeting and/or field review shall be required before the commencement of work.
- D. Failure to comply with the provisions of these plans and specifications may result in stop work orders, removal of work accomplished, or other penalties as established by law.
- E. Provisions of Section 1-05 (Control of Work) of the WSDOT Standard Specifications, current edition, shall apply, with the term "Engineer" therein construed to be the County Engineer.
- F. Unless otherwise approved or directed, all construction work shall be done in accordance with the most current edition of WSDOT Standard Specifications.

Construction Notes

Construction sites shall be maintained for access, accessibility, and safety at all times. Site maintenance activities shall include, but are not limited to the following:

- A. On existing roads, two-way traffic and all existing lanes of traffic shall be maintained at all times unless detour and/or traffic control plans have been approved in advance by the County Engineer. See KCC 12.09.05 for construction traffic control requirements.
- B. Roads shall be kept free of dirt and debris.
- C. Pedestrian and bicycle facilities shall be kept free of obstructions, and in compliance with ADA guidelines.
- D. Drainage facilities shall be maintained to ensure proper function, and stormwater, erosion, and sedimentation control devices shall be maintained and fully functional at all times. See KCC 12.06.040 for stormwater requirements.

Abbreviations

WSDOT	=	Washington State Department of Transportation
KCC	=	Kittitas County Code
HMA	=	Hot Mix Asphalt
ADA	=	Americans with Disabilities Act
'	=	Foot/Feet
"	=	Inch/Inches

Summary of Quantities

Bid Item Number	Quantity	Unit	Description	Reference
			PREPARATION	
1	1	LS	MOBILIZATION	Std. 1-09.7
2	0.55	ACRE	CLEARING AND GRUBBNG	Std. 2-01.1; Special 2-01.1
3	1	LS	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	Std. 2-02; Special 2-02.3
			GRADING	
4	200	C.Y.	COMMON BORROW INCL. HAUL	Std. 2-03.5
5	1225	C.Y.	ROADWAY EXCAVATION INCL. HAUL	Std. 2-03.5; Special 8-19
			DRAINAGE	
6	140	TON	QUARRY ROCK	Std. 8-15.5
7	1	L.S.	TEMPORARY STREAM DIVERSON	Std. 8-31.5
8	1675	C.Y.	ROCK FOR EROSION AND SCOUR PROTECTION CLASS B	Special 8-19
9	250	C.Y.	ROCK FOR EROSION AND SCOUR PROTECTION CLASS C	Special 8-19
10	7	EACH	LARGE WOODY STRUCTURE A	Special 8-26
11	6	EACH	LARGE WOODY STRUCTURE B	Special 8-26
			SURFACING	
12	475	TON	CRUSHED SURFACING BASE COURSE	Std. 4-04.5
13	70	TON	PERMEABLE BALAST	Std. 8-15.5
			HOT MIX ASPHALT	
14	260	TON	HMA CL. 1/2 IN. PG 64-28	Special 5-04.5
			EROSION CONTROL	
15	1	DAY	ESC LEAD	Std. 8-01.5(2)
16	1	EST	EROSION AND WATER POLLUTION PREVENTION	Std. 8-01.5(1)
17	0.55	ACRE	SEEDING AND MULCHING	Std. 8-02.5
18	1400	L.F.	HIGH VISIBILITY SILT FENCE	Std. 8-01.5(2)
			TRAFFIC	
19	425	L.F.	PAINT LINE	Std. 8-22.5
20	1	L.S.	TRAFFIC CONTROL	Std. 1-10.5(1)
21	175	L.F.	BEAM GUARDRAIL TYPE 31 - XX FT LONG POST	Std. 8-11.5
22	1	EACH	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	Std. 8-11.5
23	1	EACH	BEAM GUARDRAIL ANCHOR TYPE 10	Std. 8-11.5
			OTHER ITEMS	
24	1	L.S.	ROADWAY SURVEYING	Special 1-05.4
25	1	EST.	ROADSIDE CLEANUP	Std. 2-01.5
26	1	L.S.	TRIMMING AND CLEANUP	Std. 2-11.5
27	1	EST.	MINOR CHANGE	Special 1-04.4(1)
28	1	L.S.	SPCC PLAN	Std. 1-07.15(1)

Manastash Rd

Manastash Creek
Bank Stabilization

1/26/2023

Designed By: C. Curtis

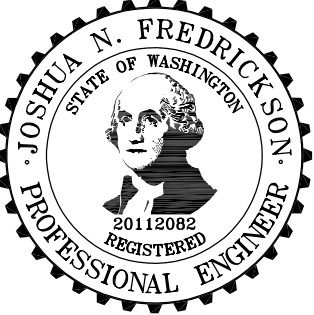
Entered By: C. Curtis

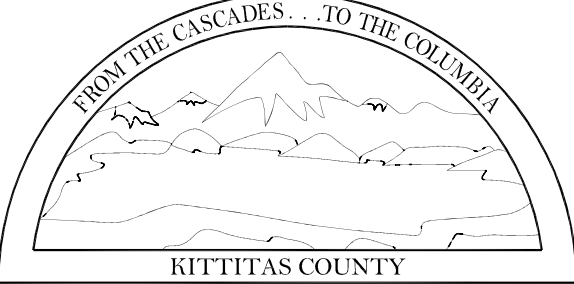
County Engineer: J. Fredrickson

P.W. Director: M. Cook

RevisionDateBy

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Federal Aid No.
FLAP-19DE(001)

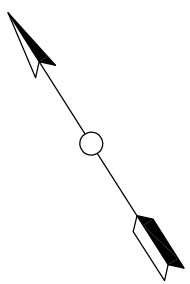
C.R.P. No.
273-16

General Notes

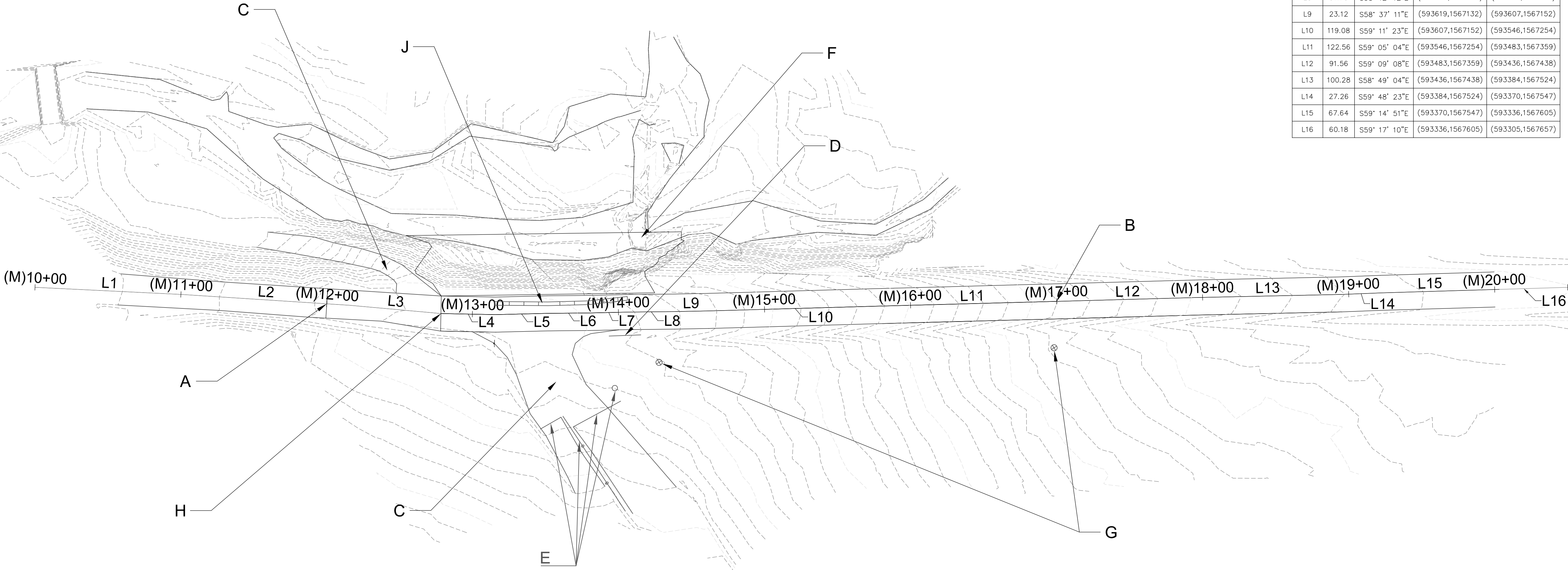
GE-0101 / 15

Manastash Washout

PT. SE ¼ SEC 14. & SW ¼ SEC 15 T17N R16E, W.M.



Line Table: (M) Line				
Line #	Length	Direction	Start Point	End Point
L1	100.56	S54° 47' 06"E	(593868,1566772)	(593810,1566854)
L2	115.17	S53° 52' 31"E	(593810,1566854)	(593742,1566947)
L3	62.74	S52° 26' 03"E	(593742,1566947)	(593703,1566996)
L4	37.29	S56° 24' 29"E	(593703,1566996)	(593683,1567028)
L5	35.76	S58° 58' 23"E	(593683,1567028)	(593664,1567058)
L6	28.64	S58° 04' 08"E	(593664,1567058)	(593649,1567082)
L7	26.42	S58° 55' 15"E	(593649,1567082)	(593636,1567105)
L8	31.73	S58° 12' 12"E	(593636,1567105)	(593619,1567132)
L9	23.12	S58° 37' 11"E	(593619,1567132)	(593607,1567152)
L10	119.08	S59° 11' 23"E	(593607,1567152)	(593546,1567254)
L11	122.56	S59° 05' 04"E	(593546,1567254)	(593483,1567359)
L12	91.56	S59° 09' 08"E	(593483,1567359)	(593436,1567438)
L13	100.28	S58° 49' 04"E	(593436,1567438)	(593384,1567524)
L14	27.26	S59° 48' 23"E	(593384,1567524)	(593370,1567547)
L15	67.64	S59° 14' 51"E	(593370,1567547)	(593336,1567605)
L16	60.18	S59° 17' 10"E	(593336,1567605)	(593305,1567657)

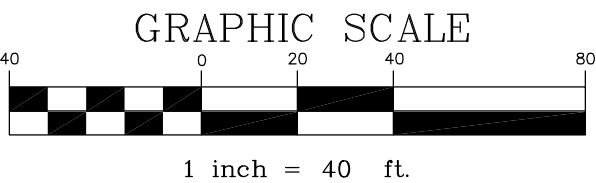


General Notes

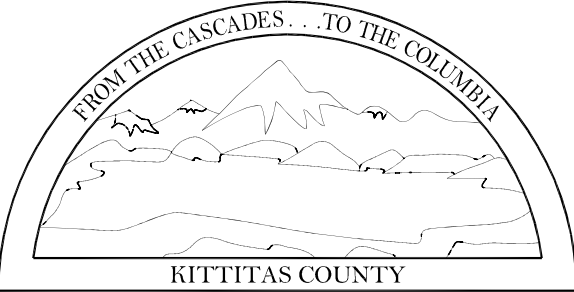
- All stationing is based on centerline of roadways unless otherwise noted.
- Unless otherwise provided for in these plans and specifications, all materials and workmanship shall be in accordance with the requirements of the current edition of the State of Washington, Department of Transportation Standard Specifications for Road and Bridge Construction and Title 12 of the Kittitas County Code.
- Approved construction plans shall be on the job site at all times when project is under construction.
- It will be the contractor's responsibility to contact all utility companies in order to assure that all lines, conduits, poles, vaults, and other appurtenances are properly located.

Construction Notes

- Start of Project: Sta. (M)12+00 = N593751.03 E1566934.00 (See PP-01 for profile details)
- End of Project: Sta. (M)17+00 = N593484.52 E1567356.58 (See PP-01 for profile details)
- Existing Driveway: Access to driveways shall be maintained throughout the project.
- Existing mailbox to be temporarily moved during project.
- Existing infrastructure to be preserved and protected throughout project.
- Existing Log Jam in creek.
- Existing Over Head Utility Poles to be protected and preserved throughout project.
- End of County Road (end of pavement).
- Existing Signs to be protected and preserved throughout project
- Existing Jersey Barrier to be removed.



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Federal Aid No.
FLAP-19DE(001)

C.R.P. No.
273-16

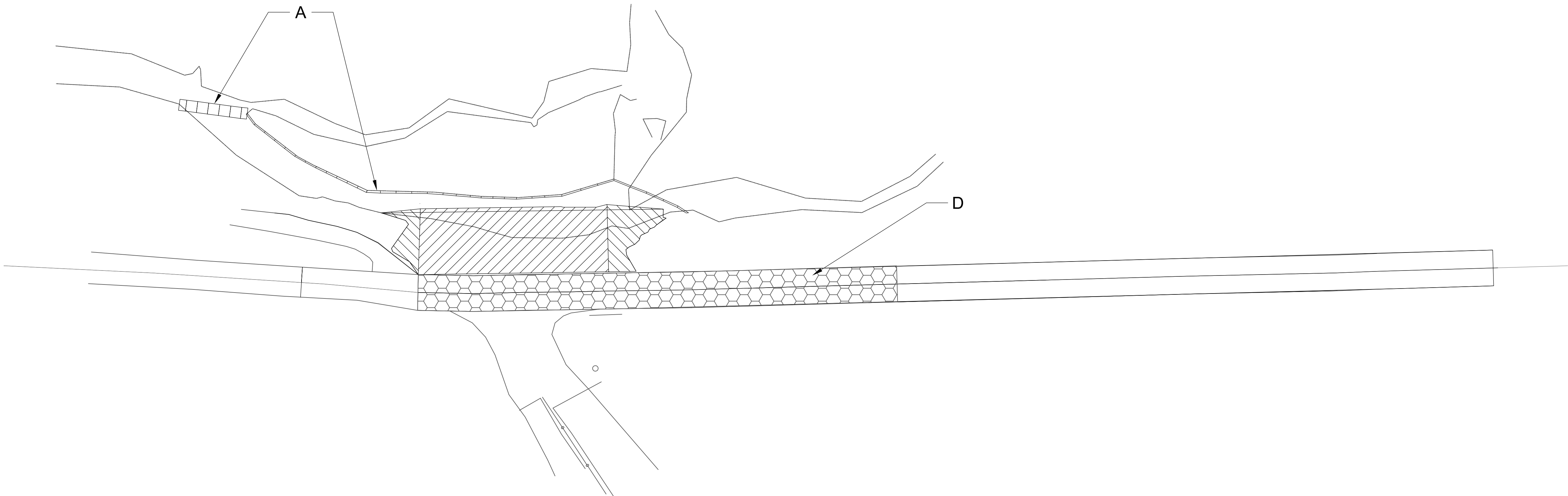
Existing Conditions

EX-01

02 / 15

Manastash Washout

PT. SE ¼ SEC 14. & SW ¼ SEC 15 T17N R16E, W.M.

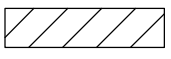
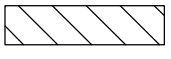
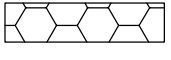


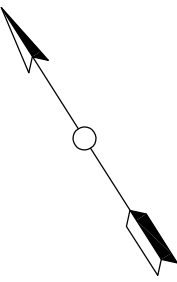
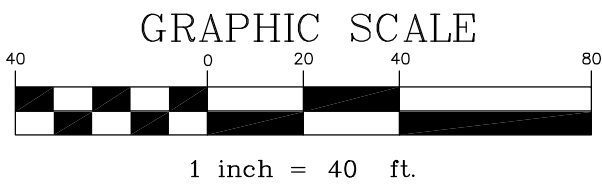
General Notes

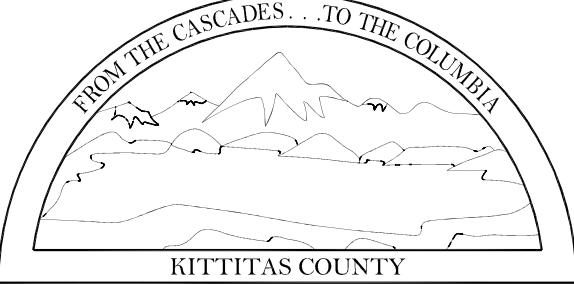
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Construction Notes

A. Stream Diversion Structure

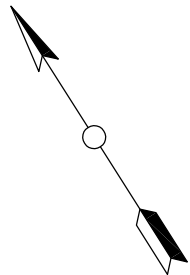
-  Rock Revetment (Sta. (M)12+75 to Sta. (M)14+00)
-  Rock Revetment Transition Area, blend to match existing
-  HMA replacement (Sta. (M)12+75 to Sta. (M)17+00)



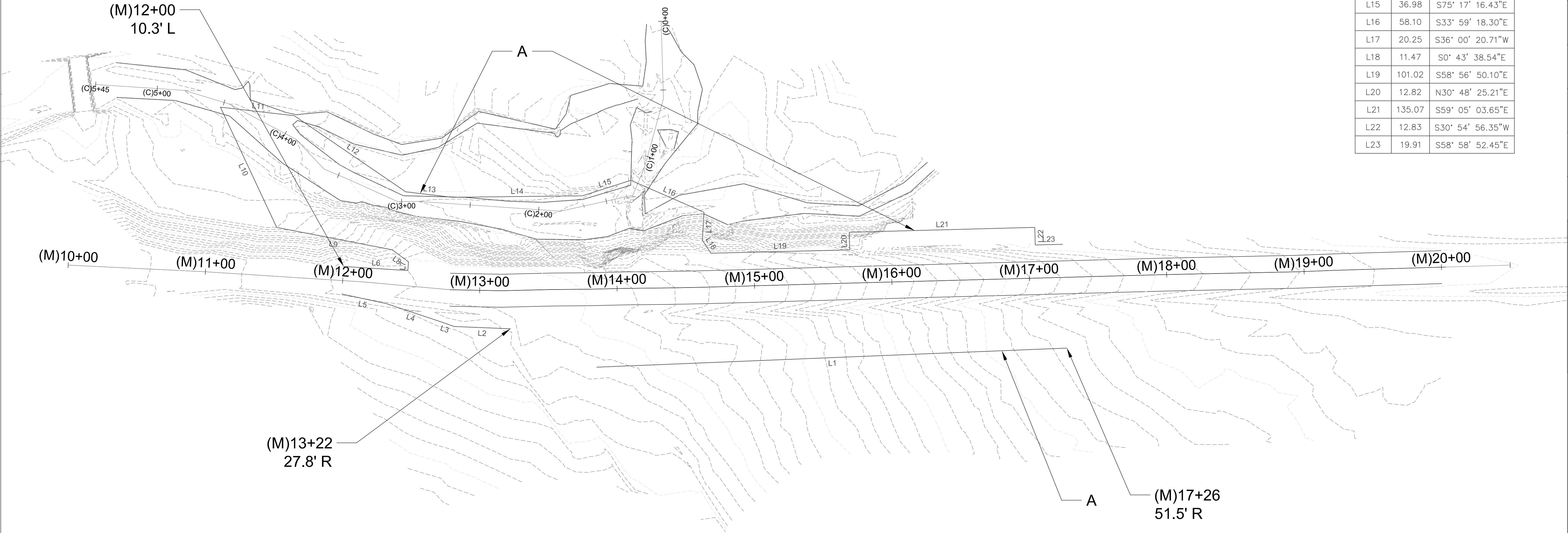
Manastash Rd		
Manastash Creek Bank Stabilization		
1/26/2023		
Designed By:	C. Curtis	
Entered By:	C. Curtis	
County Engineer:	J. Fredrickson	
P.W. Director:	M. Cook	
Revision	Date	By
 Know what's below. Call before you dig.		
		
		
Federal Aid No. FLAP-19DE(001)		
C.R.P. No. 273-16		
Project Overview		
PO-01	03 / 15	

Manastash Washout

PT. SE ¼ SEC 14. & SW ¼ SEC 15 T17N R16E, W.M.



TESC Line Table		
Line #	Length	Direction
L1	342.33	N59° 53' 56.82"W
L2	40.83	N55° 15' 44.55"W
L3	11.95	N38° 23' 12.54"W
L4	40.39	N39° 06' 49.69"W
L5	33.02	N45° 25' 38.05"W
L6	46.77	S53° 56' 11.89"E
L7	6.39	N36° 05' 36.94"E
L8	14.66	N21° 06' 20.51"W
L9	85.65	N46° 34' 49.12"W
L10	96.65	N7° 22' 18.84"E
L11	54.18	S50° 56' 42.02"E
L12	98.15	S23° 12' 12.36"E
L13	34.02	S50° 52' 51.95"E
L14	94.77	S58° 13' 10.00"E
L15	36.98	S75° 17' 16.43"E
L16	58.10	S33° 59' 18.30"E
L17	20.25	S36° 00' 20.71"W
L18	11.47	S0° 43' 38.54"E
L19	101.02	S58° 56' 50.10"E
L20	12.82	N30° 48' 25.21"E
L21	135.07	S59° 05' 03.65"E
L22	12.83	S30° 54' 56.35"W
L23	19.91	S58° 58' 52.45"E

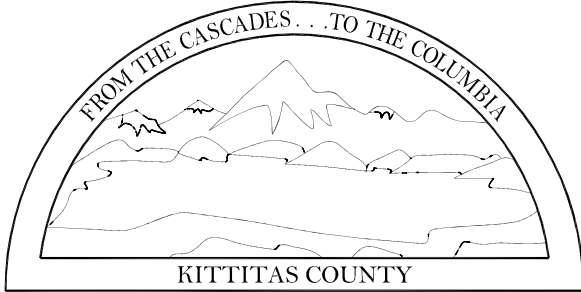
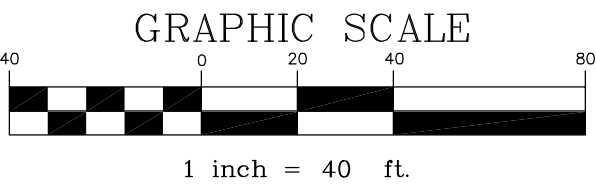


General Notes

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- Refer to the 2019 Department of Ecology Stormwater Management Manual for Eastern Washington.
- All sedimentation and erosion control facilities must be in operation prior to any construction activities to ensure that sediment laden water does not enter the natural drainage system. The implementation, maintenance, replacement and additions to the erosion and sedimentation control systems shall be the responsibility of the contractor.
- The erosion and sedimentation control system facilities depicted on these plans are intended to be minimum requirements to meet anticipated site conditions. As construction progresses, additional facilities may be needed to ensure complete siltation control. It is the contractor's responsibility to address any conditions that may be created by construction activities or changing weather conditions, and to provide additional facilities as may be needed to protect sensitive areas or storm drainage systems.
- The High Visibility Silt fence will delineate the clearing limits for this project.

Construction Notes

- High visibility silt fence per WSDOT standard plan I-30.17-01.
- Additional BMPs to be deployed as necessary



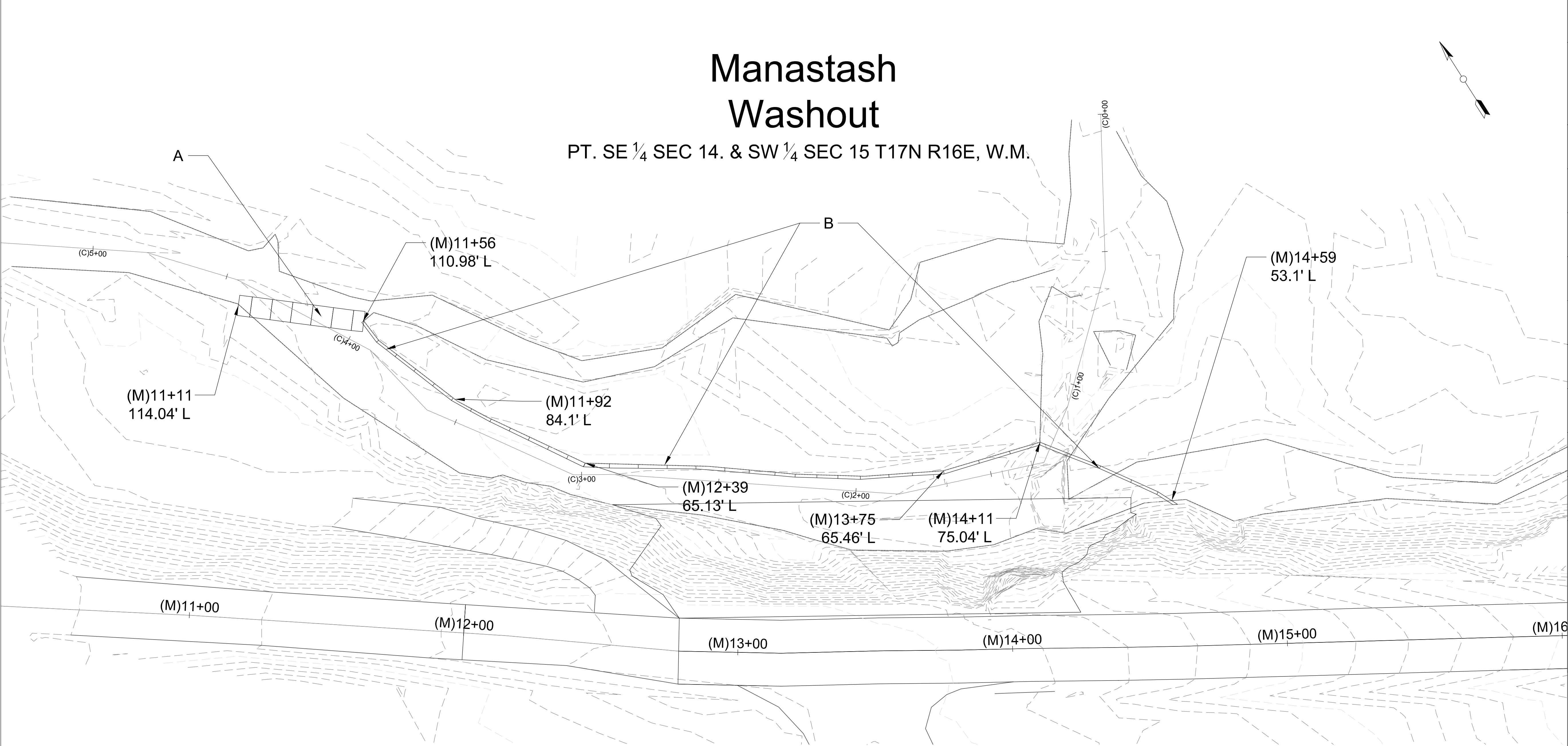
Federal Aid No.
FLAP-19DE(001)

C.R.P. No.
273-16

Temporary Erosion and Sediment Control

TE-01

04 / 15



General Notes

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3. Approved construction plans shall be on the job site at all times when project is under construction.

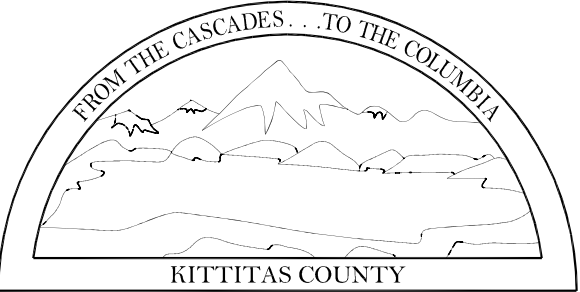
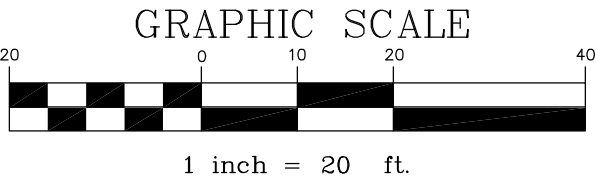
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Construction Notes

- A. Bulk Bags for stream diversion (minimum height 40")
- B. Sandbag wall for stream diversion (minimum height 28")
- C. Station and offset data is given from the most recent survey, however the entire area is wetland and the creek boundry likely changes from season to season.



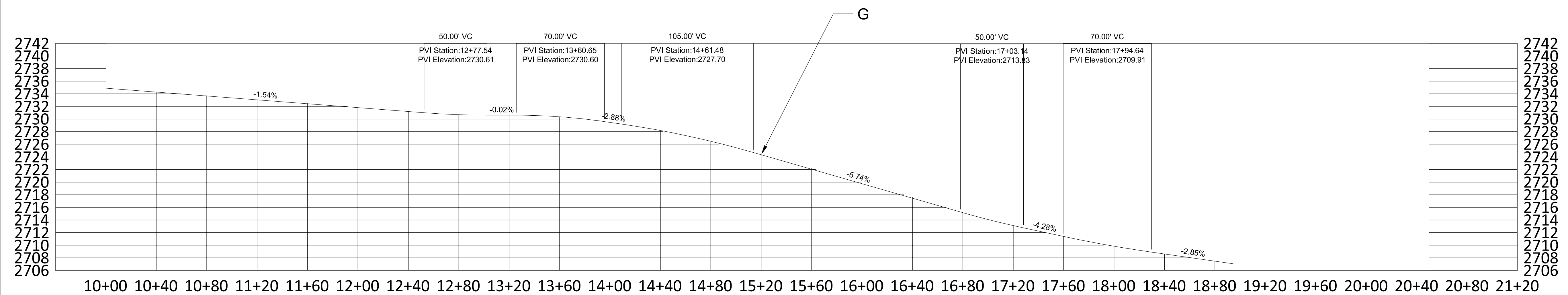
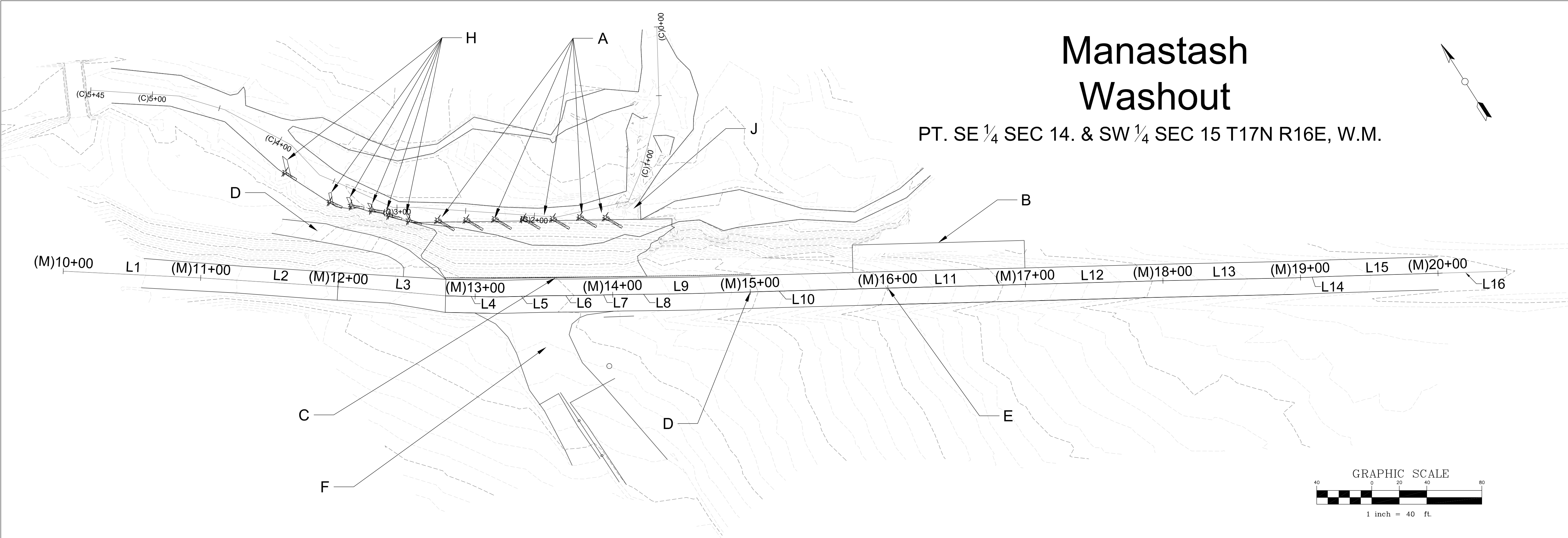
Federal Aid No.
FLAP-19DE(001)

C.R.P. No.
273-16

Stream Bypass

BP-01

05 / 15



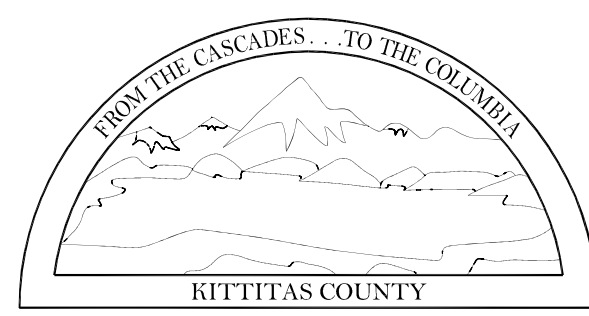
General Notes

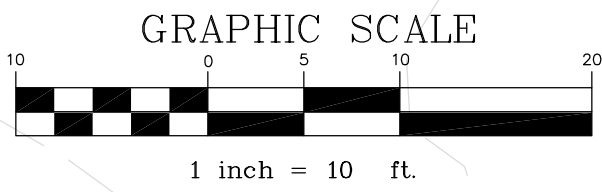
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- Where newly constructed paving meets existing paving, the contractor shall provide a butt-joint. Application of a thin tack coat of emulsified asphalt shall be applied to the existing vertical edge to ensure proper bonding.
- The completed surface shall meet the requirements of special provision 5-04.

Construction Notes

- Large woody structures Type A. Typical spacing 20ft. See DT-02 for details.
- Area of required fill (minimum 3H:1V). Additional details in Special Provision ####
- Type 31 Beam Guardrail per WSDOT Standard Plan C-20.10-07. Details on GR-01.
- Begin Pavement Transition ((M)15+00).
- Paving Limits ((M)16+00), match existing cross slope
- Restore existing driveway with CSBC or material approved by property owners.
- Existing profile to be maintained.
- Rock barbs and Large Wood Material Type B. Typical spacing 15ft. See DT-03 for details.

Line Table: (M) Line				
Line #	Length	Direction	Start Point	End Point
L1	100.56	S54° 47' 06"E	(593868,1566772)	(593810,1566854)
L2	115.17	S53° 52' 31"E	(593810,1566854)	(593742,1566947)
L3	62.74	S52° 26' 03"E	(593742,1566947)	(593703,1566996)
L4	37.29	S56° 24' 29"E	(593703,1566996)	(593683,1567028)
L5	35.76	S58° 58' 23"E	(593683,1567028)	(593664,1567058)
L6	28.64	S58° 04' 08"E	(593664,1567058)	(593649,1567082)
L7	26.42	S58° 55' 15"E	(593649,1567082)	(593636,1567105)
L8	31.73	S58° 12' 12"E	(593636,1567105)	(593619,1567132)
L9	23.12	S58° 37' 11"E	(593619,1567132)	(593607,1567152)
L10	119.08	S59° 11' 23"E	(593607,1567152)	(593546,1567254)
L11	122.56	S59° 05' 04"E	(593546,1567254)	(593483,1567359)
L12	91.56	S59° 09' 08"E	(593483,1567359)	(593436,1567438)
L13	100.28	S58° 49' 04"E	(593436,1567438)	(593384,1567524)
L14	27.26	S59° 48' 23"E	(593384,1567524)	(593370,1567547)
L15	67.64	S59° 14' 51"E	(593370,1567547)	(593336,1567605)
L16	60.18	S59° 17' 10"E	(593336,1567605)	(593305,1567657)

Manastash Rd		
Manastash Creek Bank Stabilization		
1/26/2023		
Designed By:		C. Curtis
Entered By:		C. Curtis
County Engineer:		J. Fredrickson
P.W. Director:		M. Cook
Revision	Date	By
 Know what's below. Call before you dig.		
		
		
Federal Aid No. FLAP-19DE(001)		
C.R.P. No. 273-16		
Plan and Profile		
PP-01	06 / 15	

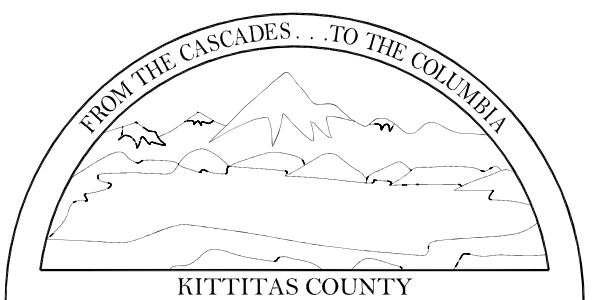
PT. SE $\frac{1}{4}$ SEC 14. & SW $\frac{1}{4}$ SEC 15 T17N R16E, W.M.

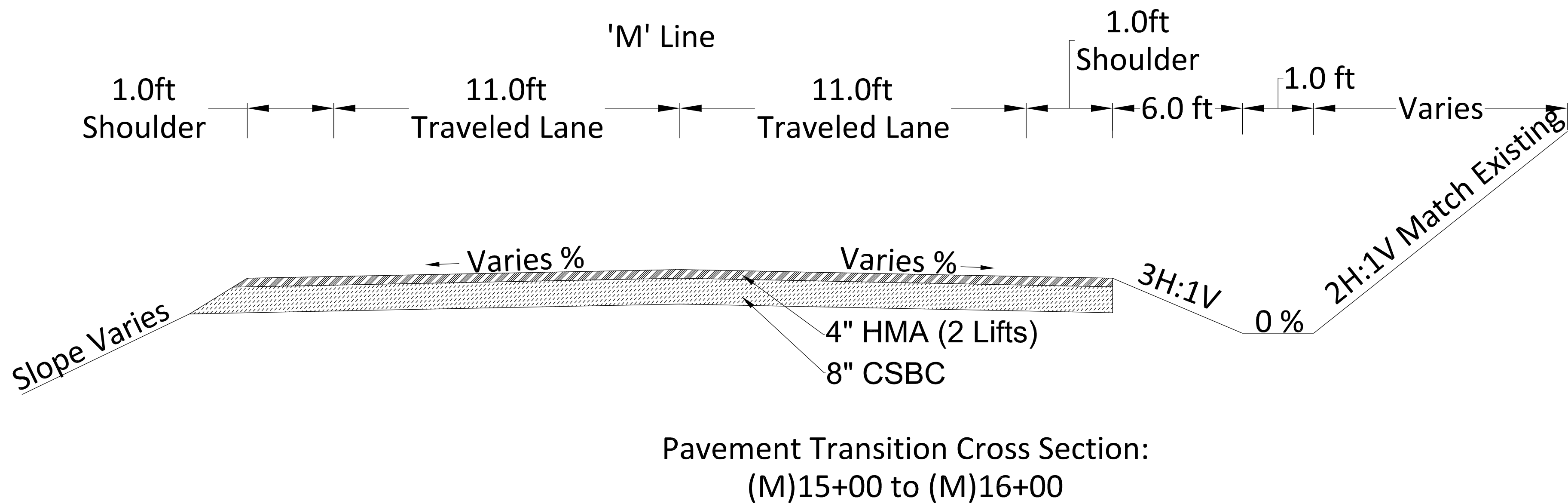
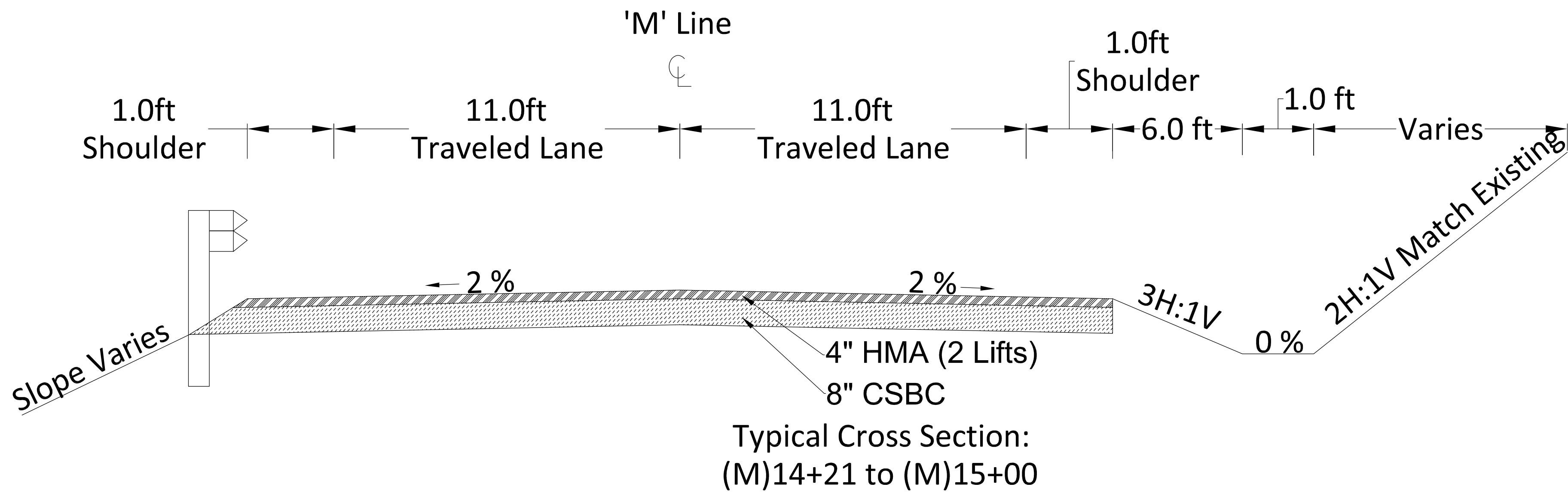
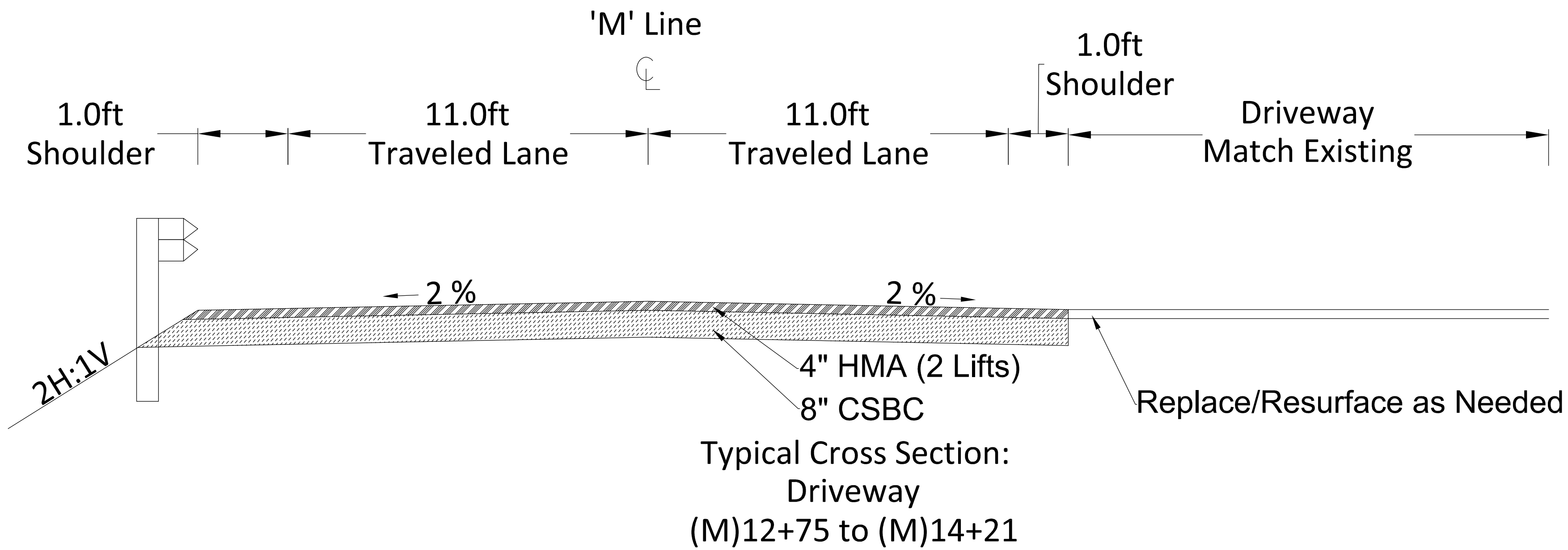
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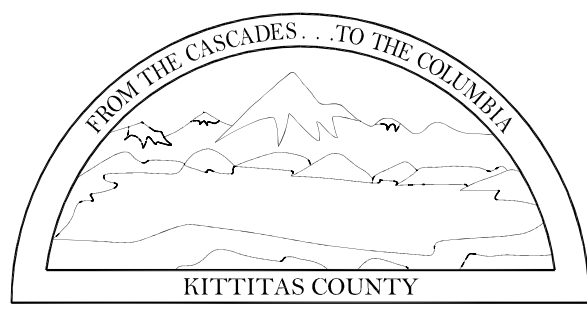
A. Start Beam Guardrail Type 31 Sta. (M) 12+90. End Beam Guardrail Type 31 Sta (M) 14+65.
Total length of GR 172.5ft (C-20.10-08). Station and offset to face of rail.

B. Type 10 Anchor (C-23.60-04)

C. Beam Guardrail Type 31 Non-Flared Terminal (C-22.45-06)

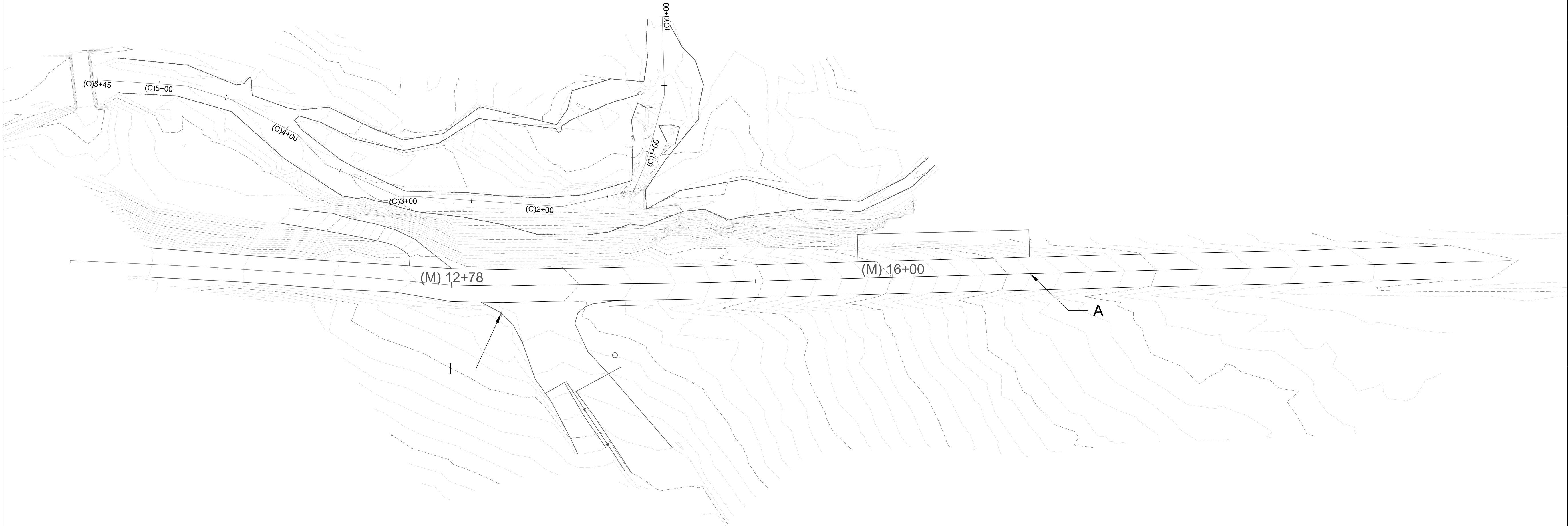
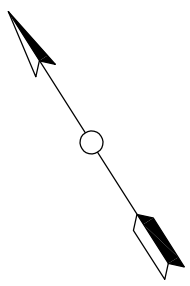
Manastash Rd		
Manastash Creek Bank Stabilization		
1/26/2023		
Designed By:	C. Curtis	
Entered By:	C. Curtis	
County Engineer:	J. Fredrickson	
P.W. Director:	M. Cook	
Revision	Date	By
 Know what's below. Call before you dig.		
		
		
Federal Aid No. FLAP-19DE(001)		
C.R.P. No. 273-16		
Guardrail Plan		
GR-01	07 / 15	



Manastash Rd		
Manastash Creek Bank Stabilization		
1/26/2023		
Designed By:	C. Curtis	
Entered By:	C. Curtis	
County Engineer:	J. Fredrickson	
P.W. Director:	M. Cook	
Revision	Date	By
 Know what's below. Call before you dig.		
		
		
Federal Aid No. FLAP-19DE(001)		
C.R.P. No. 273-16		
Typical Cross Sections		
XS-01	08 / 15	

Manastash Washout

PT. SE ¼ SEC 14. & SW ¼ SEC 15 T17N R16E, W.M.

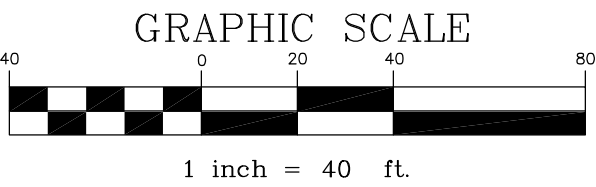


General Notes

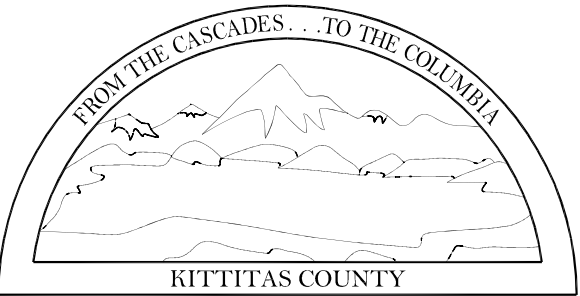
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Construction Notes

- A. Match exisisting striping from Sta. (M) 12+78 to Sta. (M)16+00
- B. Existing 'End of County Road' sign to be reinstalled at same location (Sta. (M)13+15 Offset: 19.7'R). All other signs to be protected and preserved throughout project.



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Federal Aid No.
FLAP-19DE(001)

C.R.P. No.
273-16

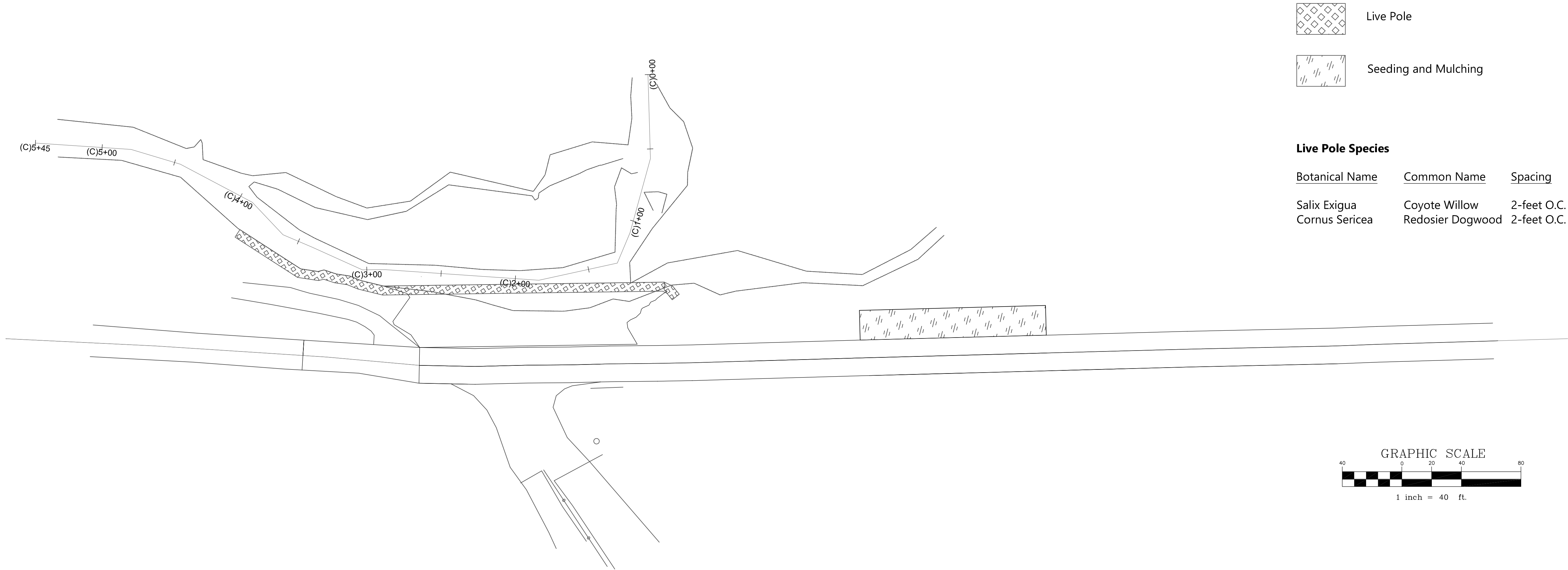
Striping and Sign Details

SP-01

09 / 15

Manastash Washout

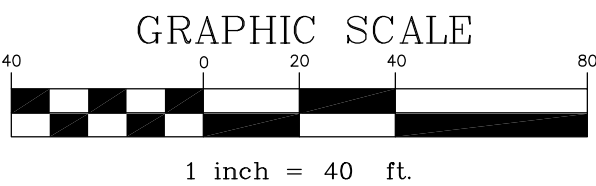
PT. SE ¼ SEC 14. & SW ¼ SEC 15 T17N R16E, W.M.



Live Pole

Seeding and Mulching

Live Pole Species		
Botanical Name	Common Name	Spacing
Salix Exigua	Coyote Willow	2-feet O.C.
Cornus Sericea	Redosier Dogwood	2-feet O.C.

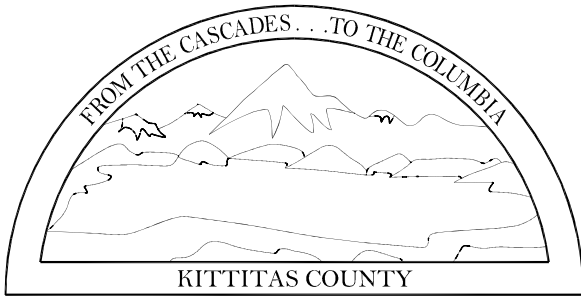
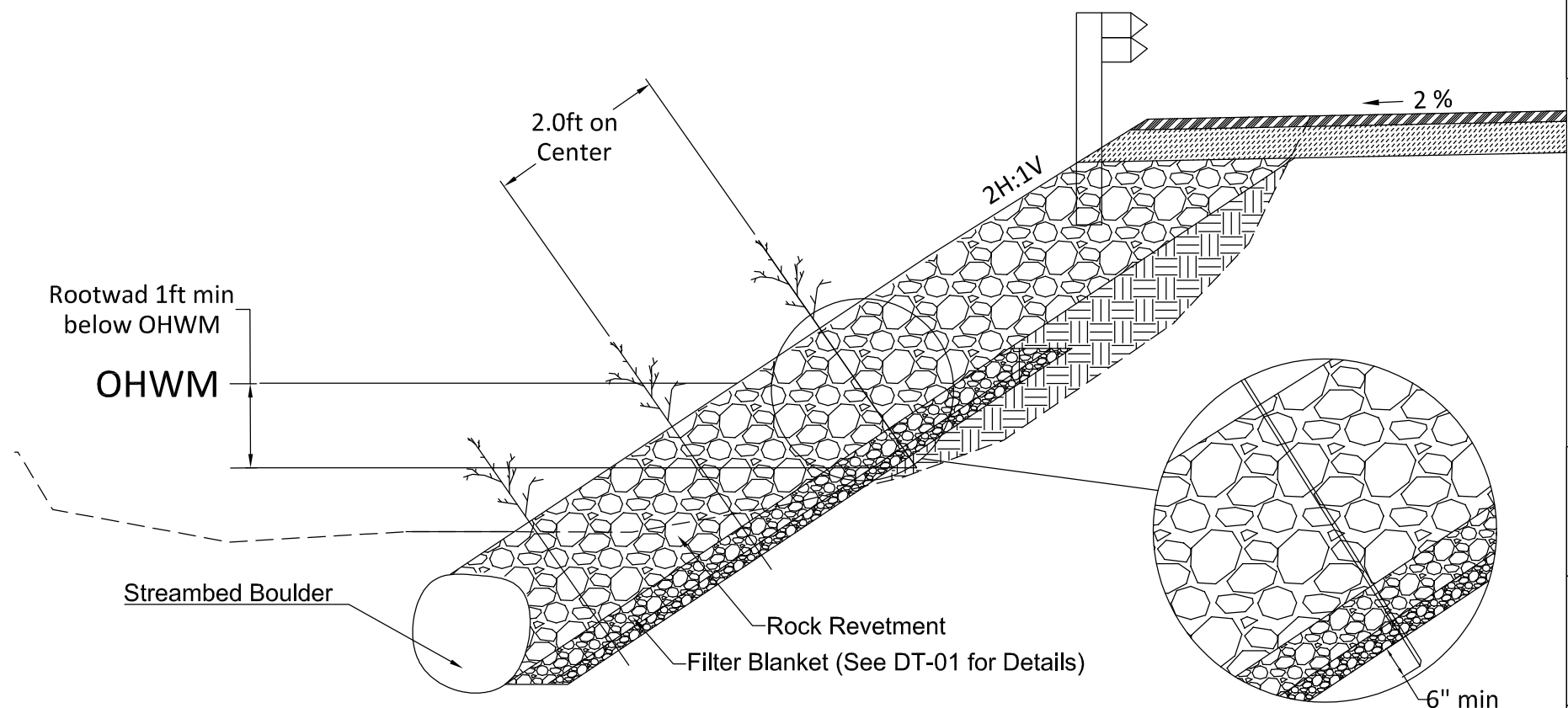


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Construction Notes

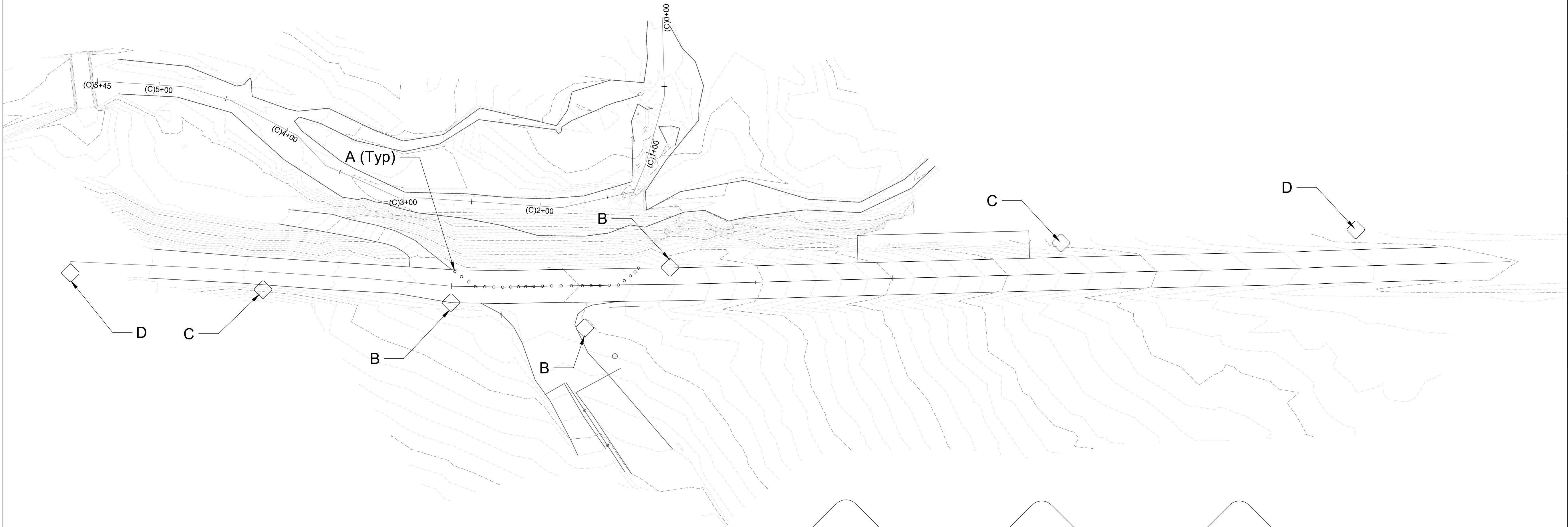
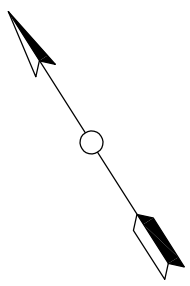
- Planting per schedule on this page. Additional Details in Special Provision #####
- Live poles shall be placed on the south bank of Manastash Creek from the toe of the slope to the ordinary high water mark. Seeding and mulching shall be placed on all areas of disturbed soil. Additional Details in Special Provision #####



Federal Aid No. FLAP-19DE(001)		
C.R.P. No. 273-16		
Planting Schedule		
PS-01	10 / 15	

Manastash Washout

PT. SE ¼ SEC 14. & SW ¼ SEC 15 T17N R16E, W.M.

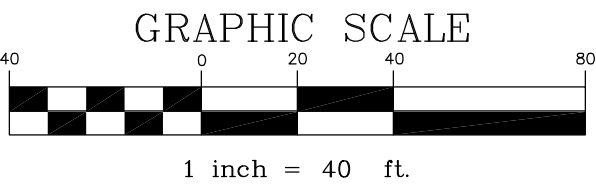


General Notes

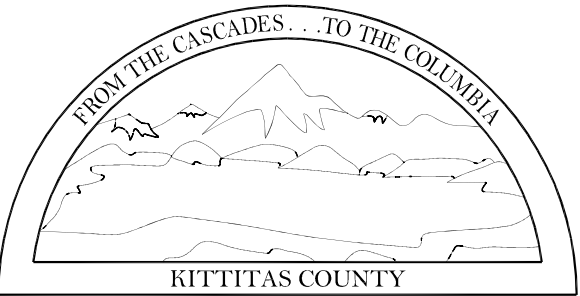
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Construction Notes

- A. Traffic Barrel
- B. "Yield to Oncoming Traffic" Class A Sign
- C. "One Lane Road Ahead" Class A Sign
- D. "Traffic Revision Ahead" Class A Sign



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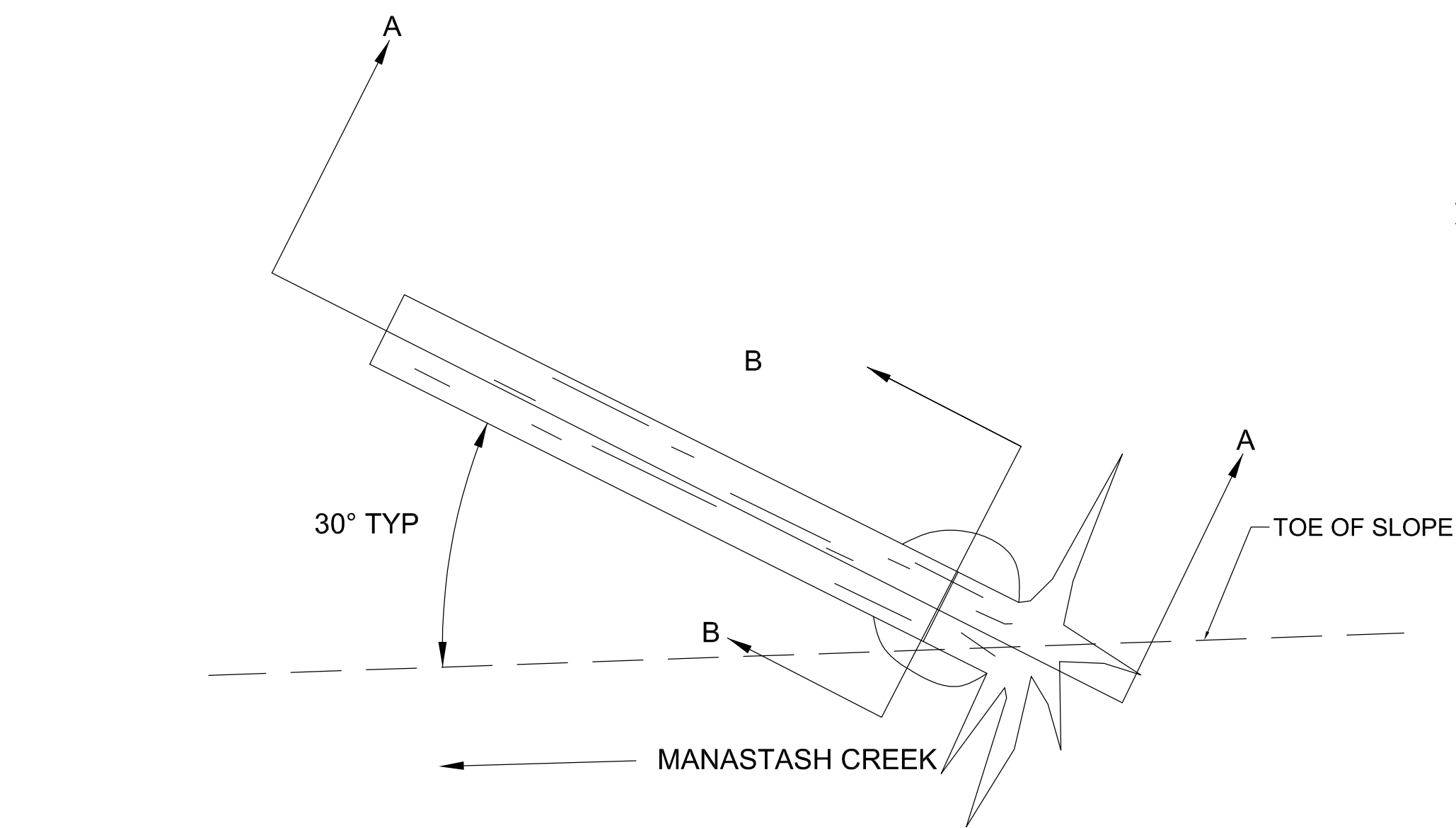
Federal Aid No.
FLAP-19DE(001)

C.R.P. No.
273-16

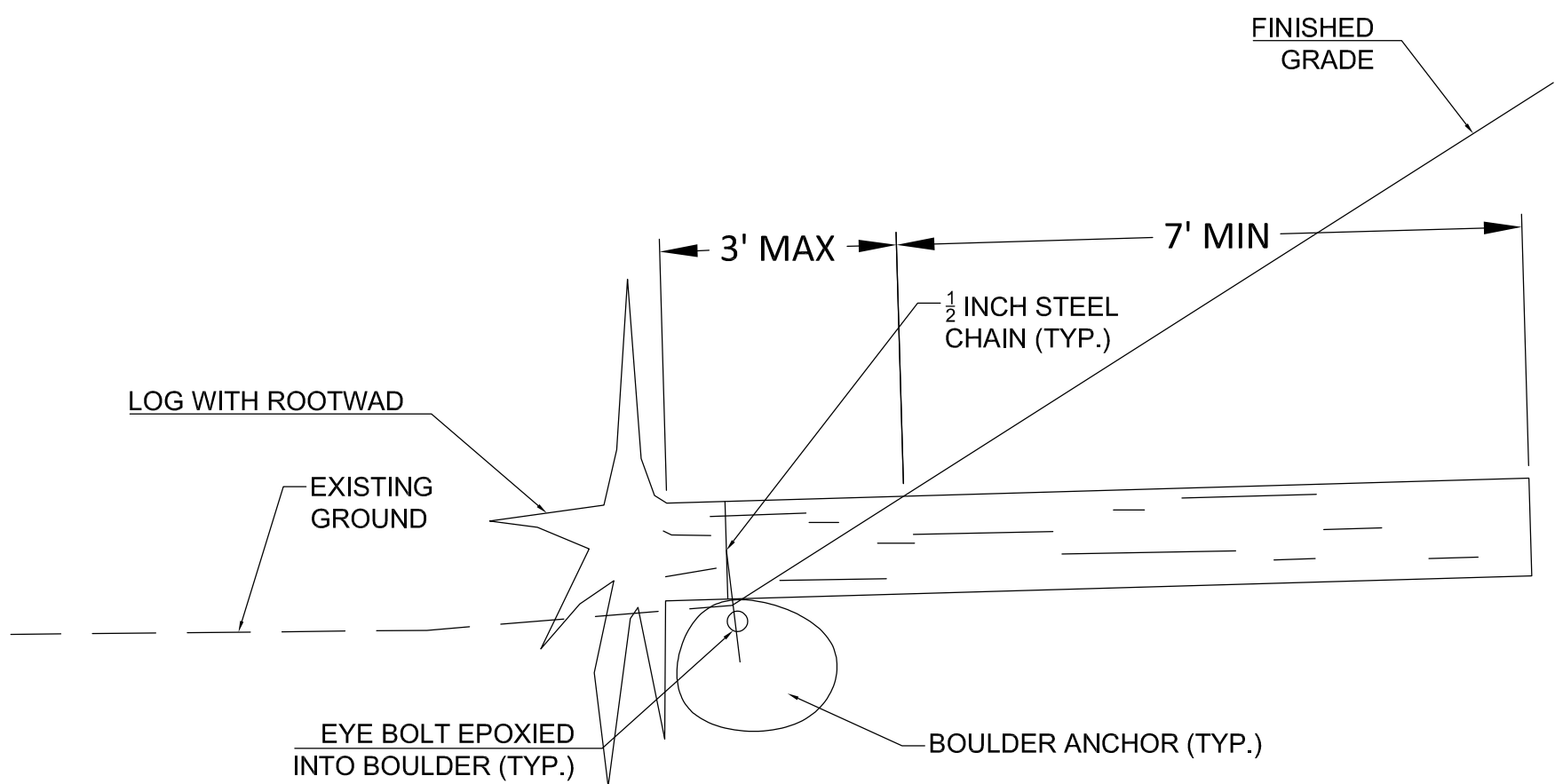
After Hours Traffic Control

TC-02

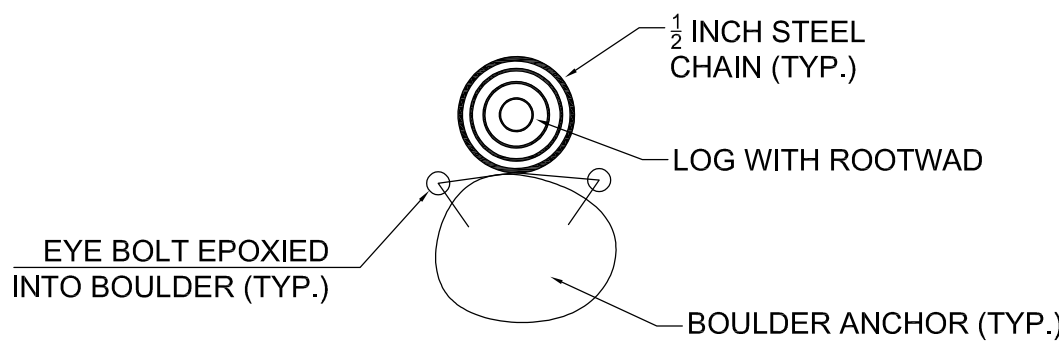
12 / 15



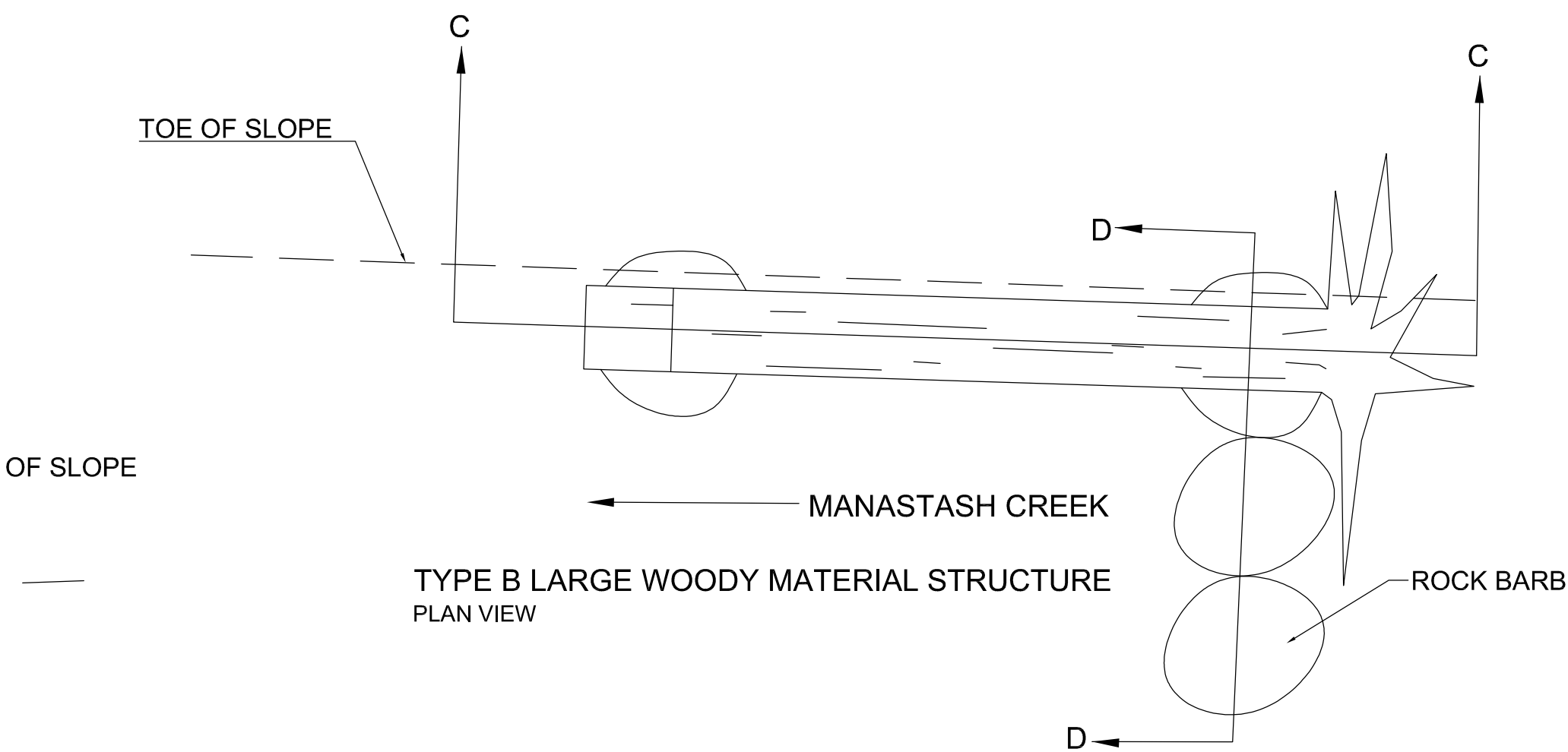
TYPE A LARGE WOODY MATERIAL STRUCTURE
PLAN VIEW



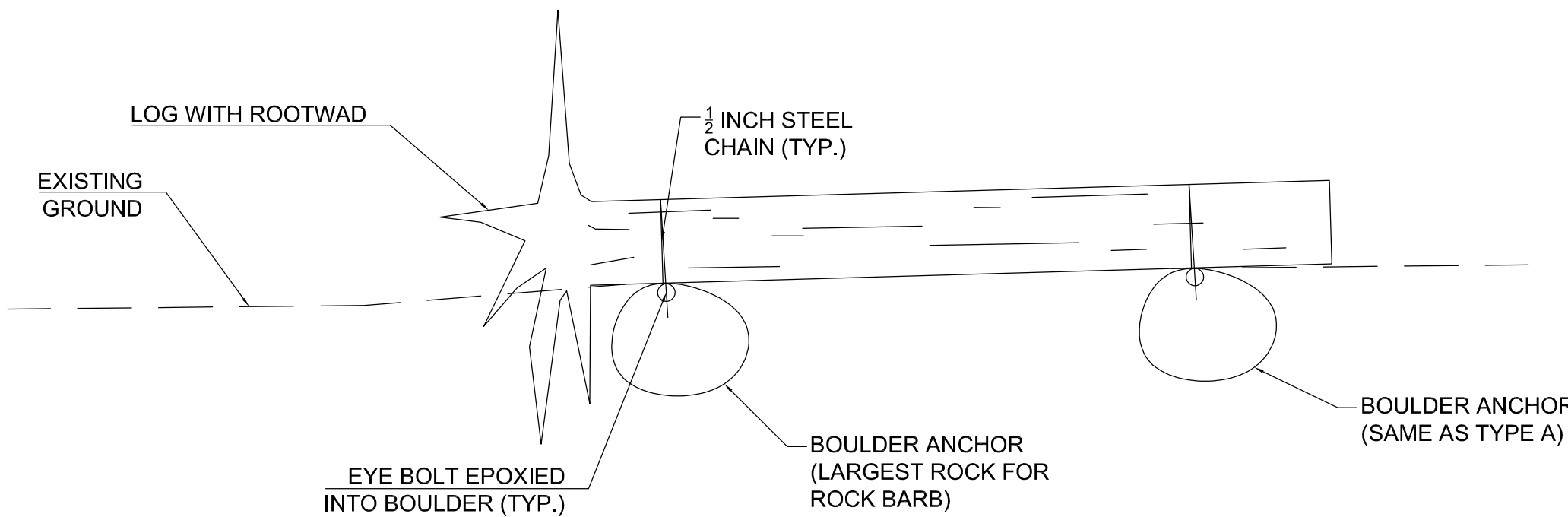
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SECTION A-A



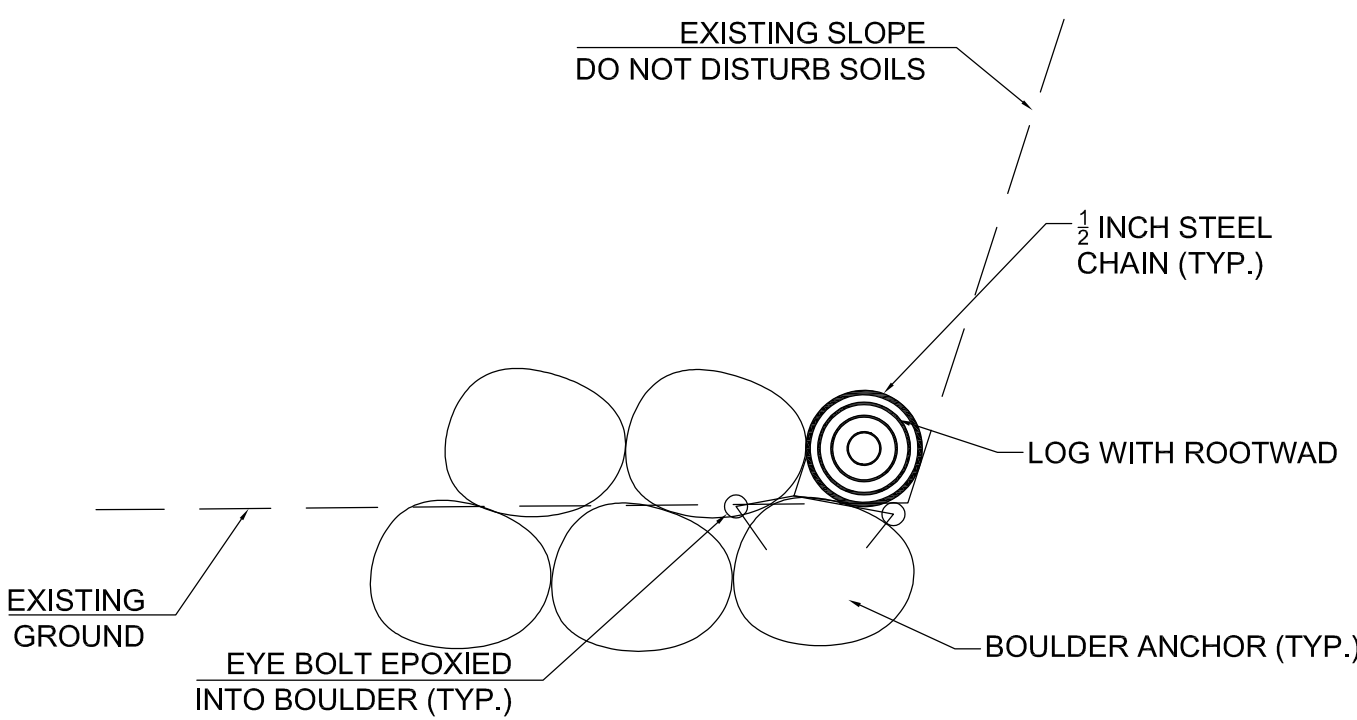
TYPE A LARGE WOODY MATERIAL STRUCTURE
SECTION B-B



TYPE B LARGE WOODY MATERIAL STRUCTURE
PLAN VIEW

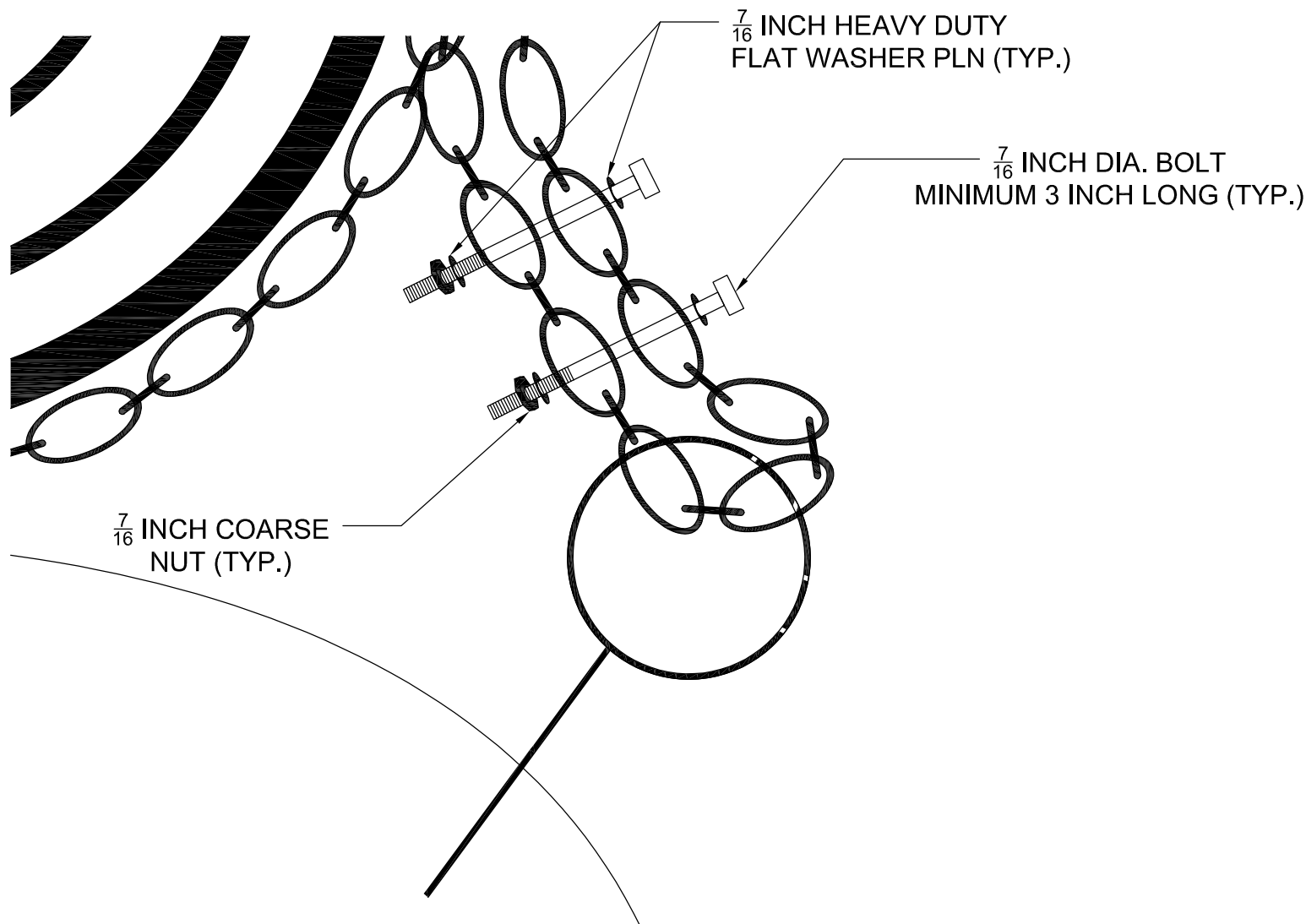
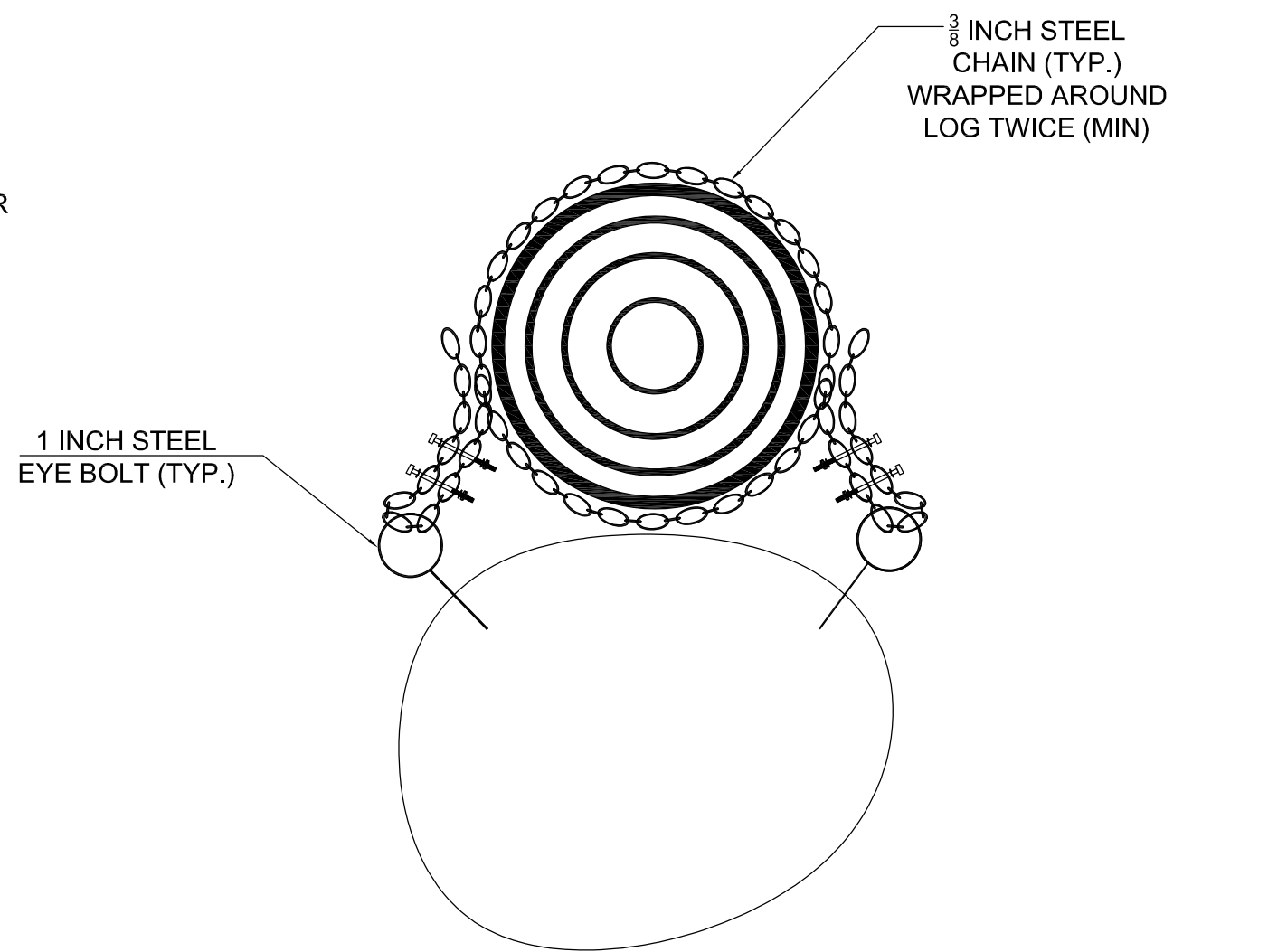


TYPE B LARGE WOODY MATERIAL STRUCTURE
SECTION C-C

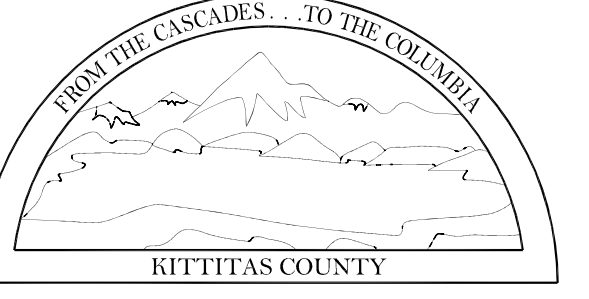


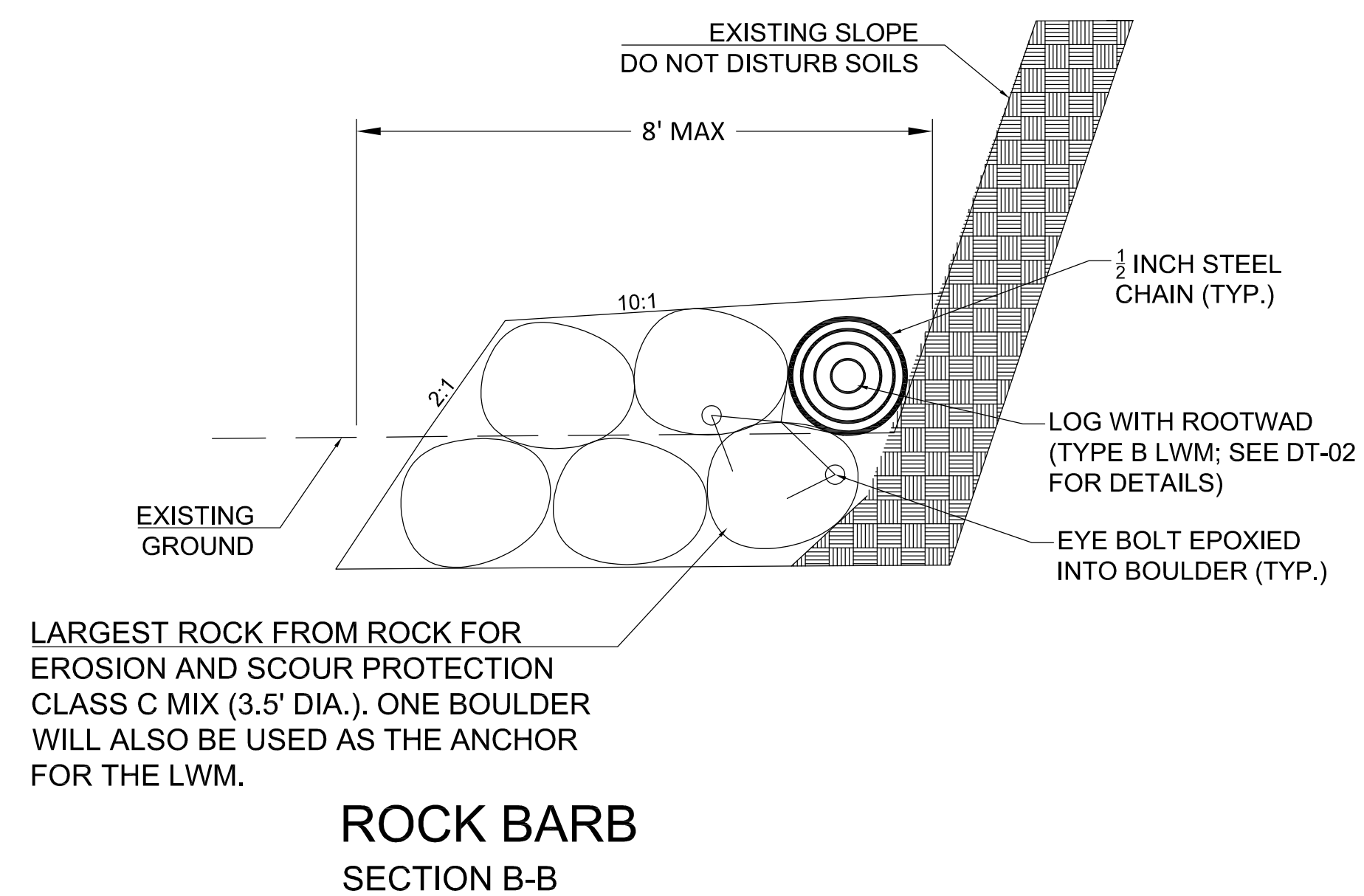
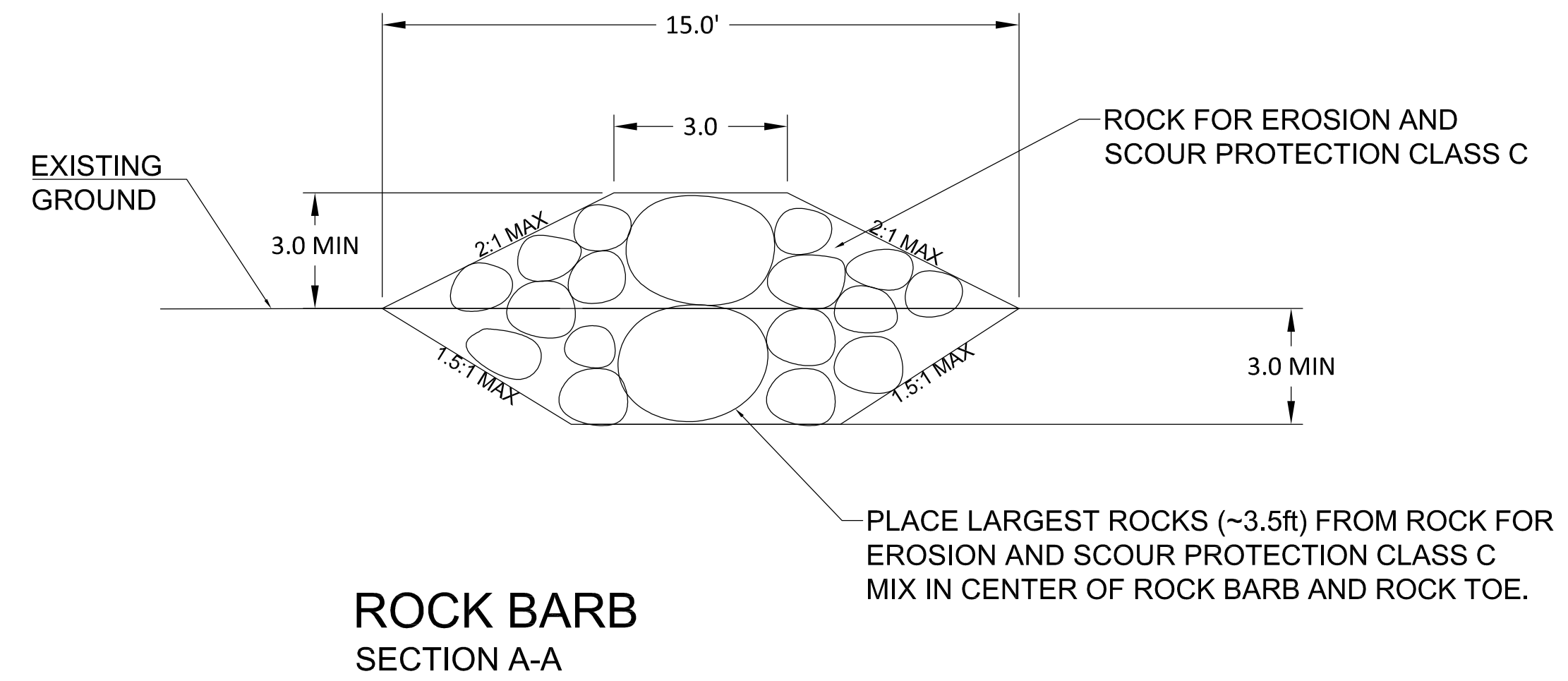
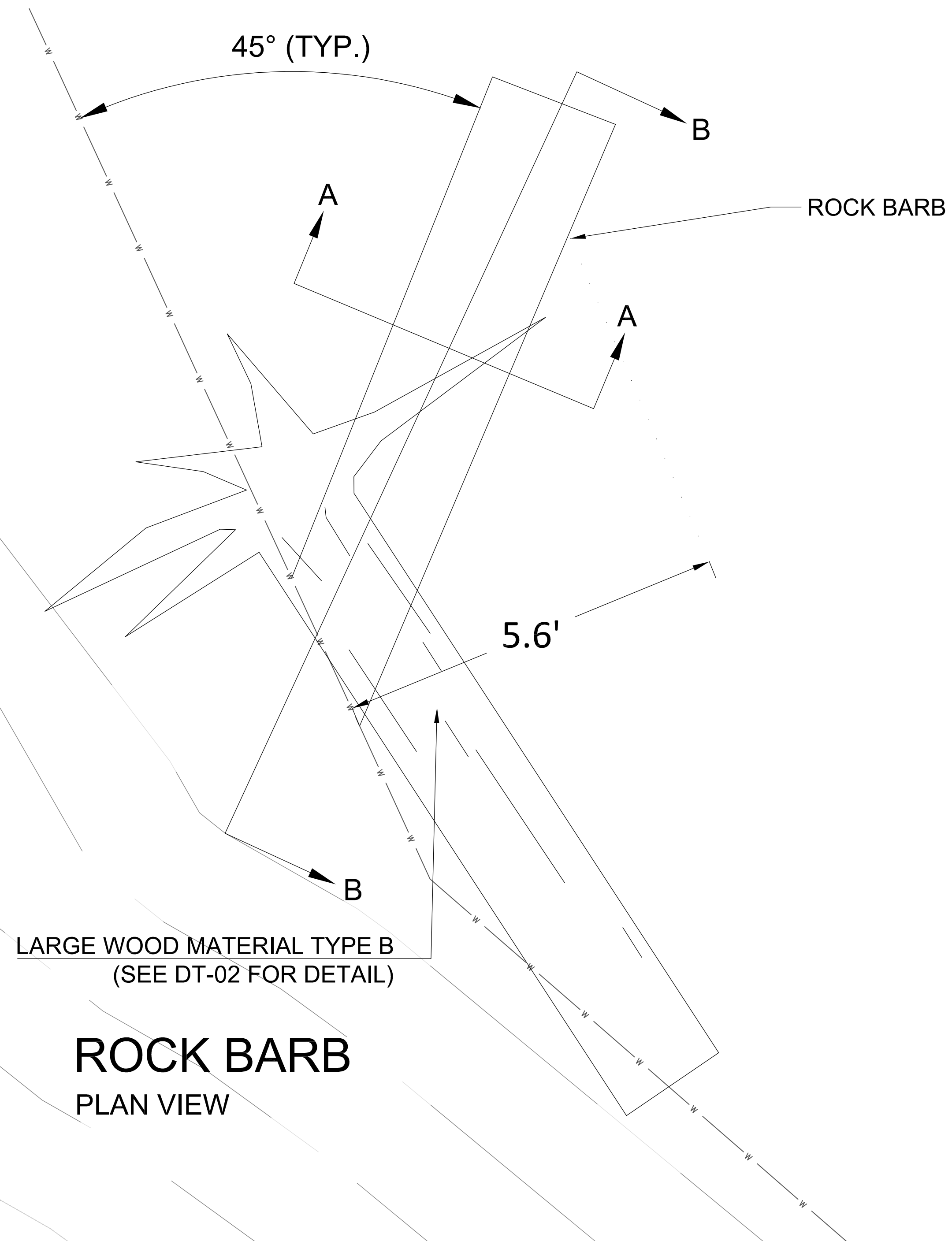
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SECTION D-D

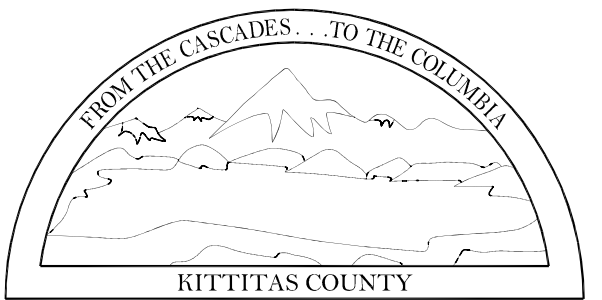
ANCHOR BOULDER DETAIL



**Additional details in Special Provision 8-26

Manashtash Rd		
Manashtash Washout		
1/26/2023		
Designed By:	C. Curtis	
Entered By:	C. Curtis	
County Engineer:	J. Fredrickson	
P.W. Director:	M. Cook	
Revision	Date	By
 Know what's below. Call before you dig.		
		
		
Federal Aid No.		
C.R.P. No.		
Hydraulic Structures		
DT-02	14 / 15	



Manastash Rd		
Manastash Creek Bank Stabilization		
1/26/2023		
Designed By:	C. Curtis	
Entered By:	C. Curtis	
County Engineer:	J. Fredrickson	
P.W. Director:	M. Cook	
Revision	Date	By
 Know what's below. Call before you dig.		
		
		
Federal Aid No. FLAP-19DE(001)		
C.R.P. No. 273-16		
OPTION A		
DT-03	15 / 15	

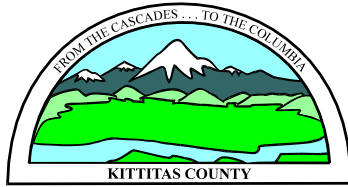
Appendix B-Photos











KITTITAS COUNTY

DEPARTMENT OF PUBLIC WORKS

Mark Cook, Director

February 3, 2023

Attention: Federal Permit Unit

Washington State Department of Ecology

Subject: Kittitas County Public Works; Manastash Road Bank Stabilization Project
JARPA Application Package

Kittitas County Public Works needs to repair an actively eroding bank on South Fork Manastash Creek that has caused on-going loss of the traveled surface of Manastash Road. The original roadway embankment at has been impacted by stream erosion. The design utilizes bio-engineered principles that are consistent with Washington Department of Fish and Wildlife (WDFW) Integrated Streambank Protection Guidelines, including flow deflection structures combined with a rock revetment with several pieces of large woody debris (LWD). The final repair will reconstruct the road embankment, provide long-term protection of the roadway, increase channel roughness and habitat complexity, and arrest further up- and downstream erosion. The revetment and bank area will be planted with native riparian vegetation to replace lost riparian function and long-term roadway protection.

Enclosed please find a Joint Aquatic Resources Permit Application (JARPA) package for the subject project, complete with drawings, site photographs, and a Section 106 cultural resources assessment. I have also submitted a copy of the JARPA package to the US Army Corps of Engineers Seattle District, Regulatory Branch as the project meets the conditions of USACE Nationwide Permit 13, bank stabilization, and will not exceed state water quality standards.

I have submitted the JARPA to WDFW via their APPS web portal. I have spoken with Scott Downes (WDFW Area Habitat Biologist) regarding this project.

Please let me know of any questions or additional information. If you have questions, you can reach me by phone at 509-962-7051 or email me at kelee.hodges.pw@co.kittitas.wa.us.

Sincerely,

Kelee Hodges
Environmental/Transportation Planner
Kittitas County Public Works

Encl: Manastash Rd JARPA package;

Cc w/encl: Josh Fredrickson, Kittitas County Engineer