

DRAWING INDEX

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QUANTITIES

Item	Quantity	Units
Clearing/Grubbing/Stripping	0.1	ac
Excavation - common	1,525	cy
Excavation - existing riprap	100	cy
Excavation - existing intake structure	1	ea
Compacted Earthfill	1,104	cy
Riprap Acquisition	324	cy
Riprap Placement	424	cy
Vmax S200 TRM w/HS-12 anchors	480	sqft
Reinforced Concrete	9	cy
3/4" minus, clean pea gravel	40	cy
ASTM C33 Sand	8	cy
Cobble	7	cy
36" 12 ga CMP, w/bands, poly coated	52	ft
96" 10 ga CMP fabricated riser, poly coated	14	ft
36" x 36" SS Slide Gate w/wall thimble	1	ea
12"x2-1/2" 14 ga grating planks	32	ft
Treated timber planks	66	sqft
H Pile 12x53	84	ft
8"x8"x5/8" A36 rectangular tubing	16	ft
6"x6"x1/2" A36 angle	4	ft
4" Sch40 steel pipe	70	ft
6"x8"x1" A36 angle	4	ft
2-1/4" x 3/16" 19-W-4 serrated grating	32	sqft
Trees w/rootwads	2	ea
Live staking	1,900	sqft
Grass Seeding	0.4	ac

Conservation Practice Standards

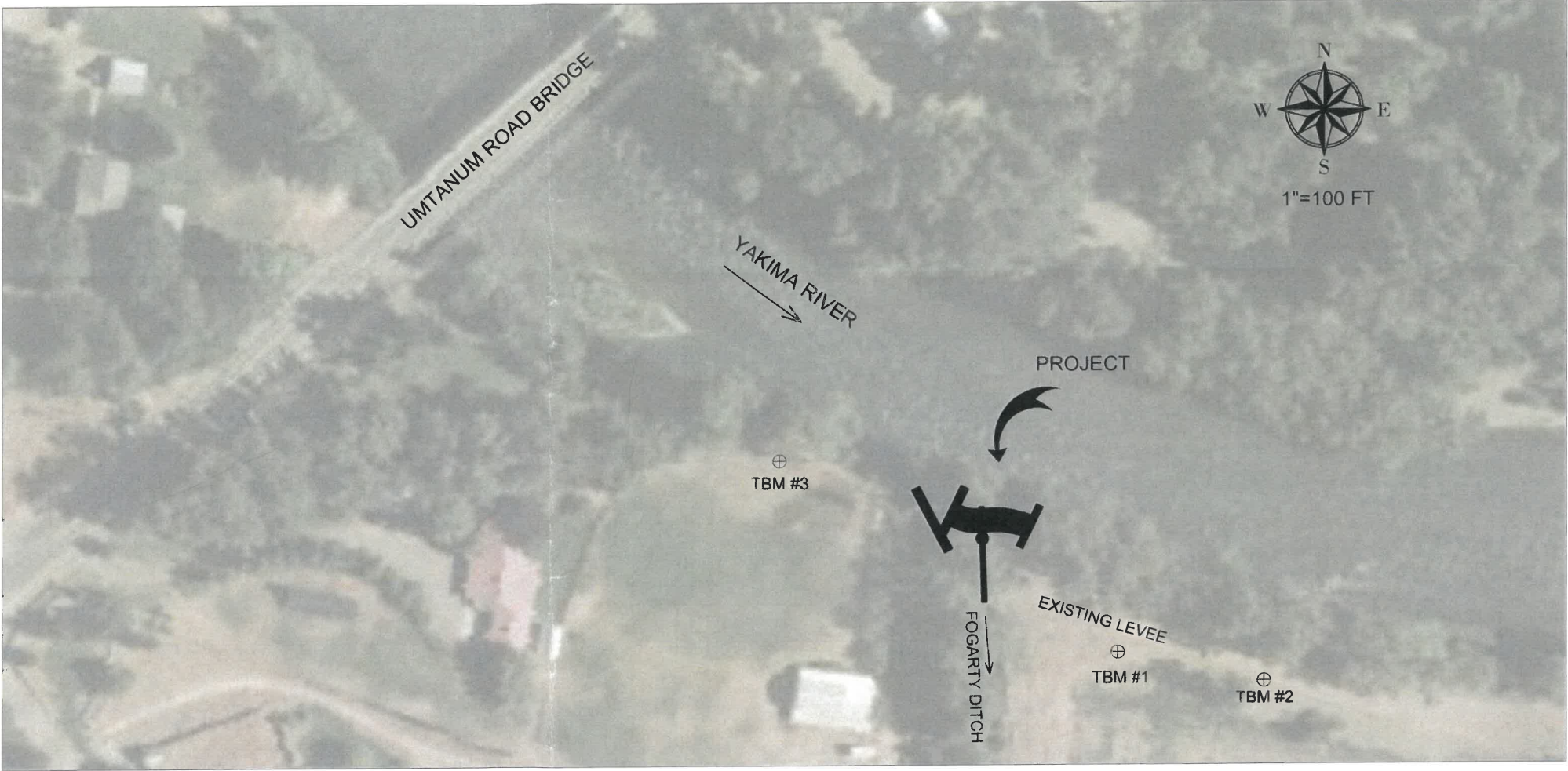
580- Streambank Protection: Qbkf ~7,170 cfs
587- Structure for Water Control: Effective Height = 15.6 ft
342- Critical Area Planting: Area = 0.4 ac

To the best of my professional knowledge, judgement, and belief, the design represented by these drawings meets NRCS standards and specifications.

FOGARTY DITCH EWP FLOOD PROTECTION PROJECT
DSR #53-08-26-5046-001

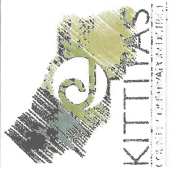
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PREPARED BY THE
KITTITAS COUNTY CONSERVATION DISTRICT



General Notes

- The project shall be constructed to the lines and grades as shown in these drawings and detailed in the associated construction specifications. In the event of a conflict, information shown in the drawings shall govern.
- Coordinates listed in the drawings are NSRS 2007 Washington State Plane, South Zone, NAD83, NAVD88, in U.S. Survey Feet.
- Topographic data used for this design was derived from survey work completed by the Kittitas County Conservation District utilizing RTK GPS and total station for above ground topography and a SonTek ADCP unit for approximate river bed topography. The Kittitas County Conservation District makes no guarantee as to the accuracy of this data and resulting quantity estimates.
- Quantities are listed as estimated "in place" cubic yards.
- Contractor shall verify dimensions and locations before starting work and immediately notify the Engineer of any discrepancy. It is the Contractor's responsibility to ensure that all interferences are resolved as required for the proper operation of each equipment item. Shop drawings, as outlined in the specifications, will be submitted and approved by the Engineer prior to materials purchase, fabrication, or installation.
- As required by Washington State Law (RCW 19.122), it is the responsibility of the Contractor to contact the Washington811 Center at least 2, but no more than 10, business days before starting excavation work. The Kittitas County Conservation District does not make any representation to the existence or non-existence of any public and/or private buried utility lines. The Contractor shall protect all existing public and private utilities and ensure they remain in place and operational during construction.
- Excavation shall comply with current Occupational Safety and Health Administrative Standards.
- Replacement of any road surfacing, fencing, gates, or other structures disturbed during construction is the responsibility of the Contractor.

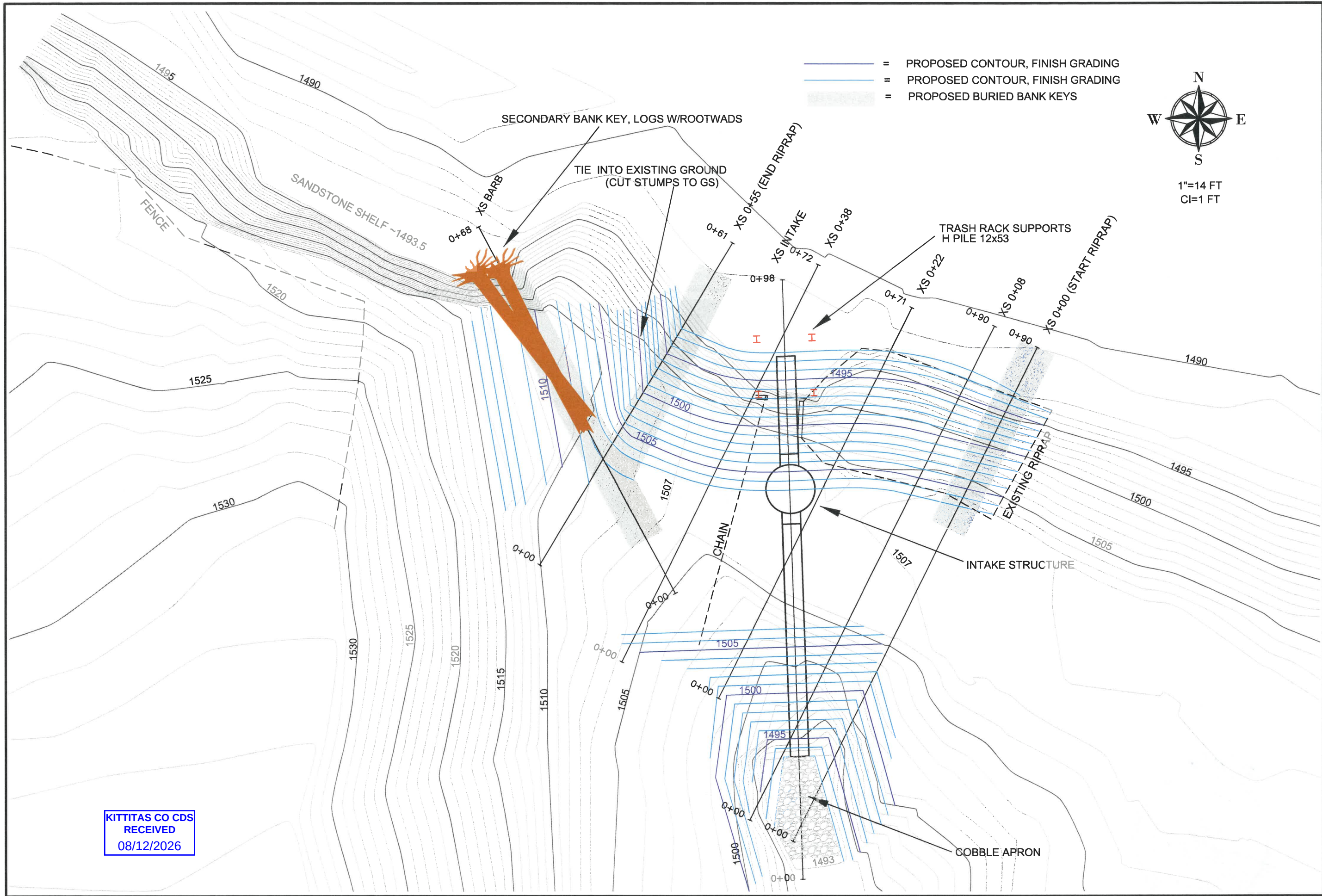


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PROJECT LOCATION, QUANTITIES
FOGARTY DITCH EWP PROJECT

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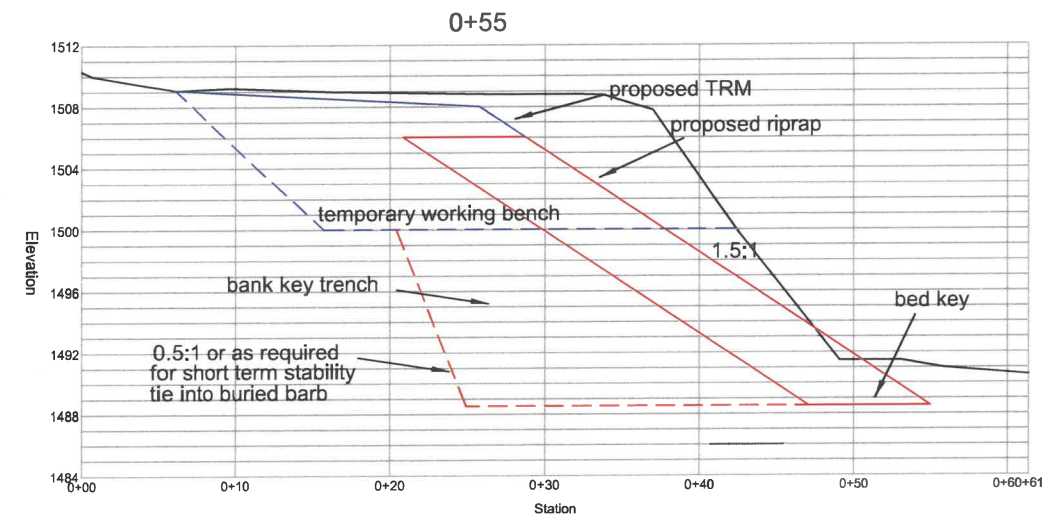
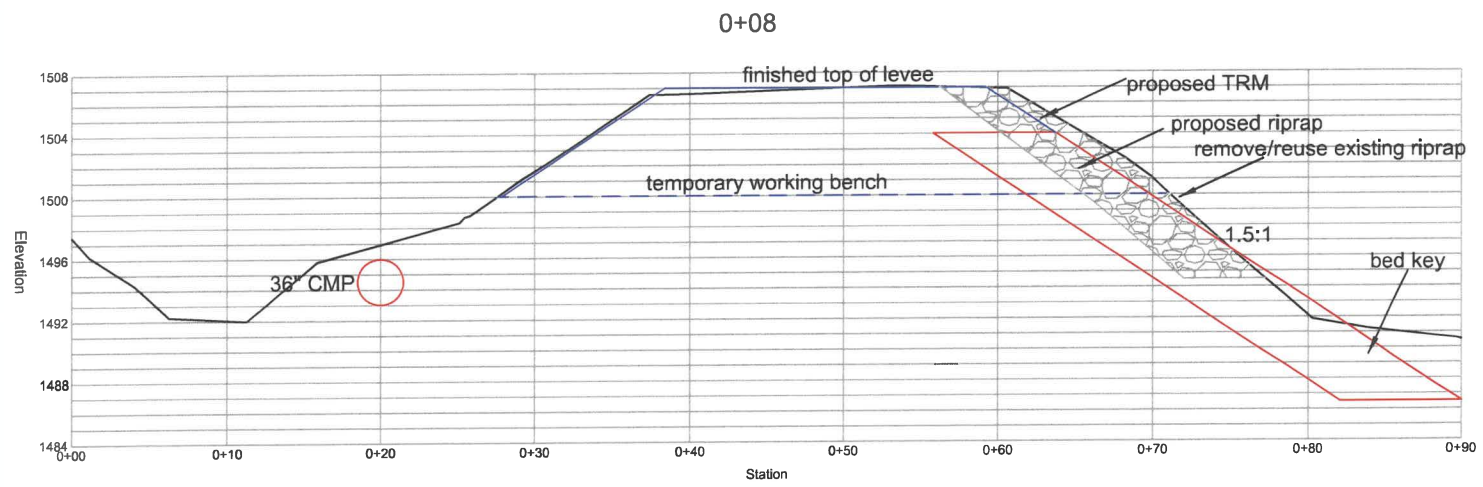
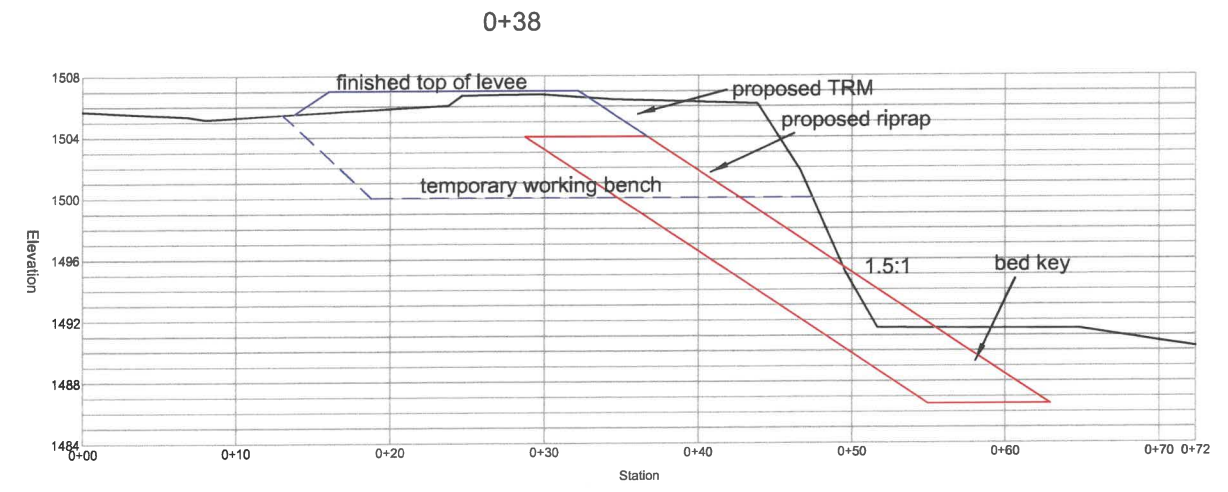
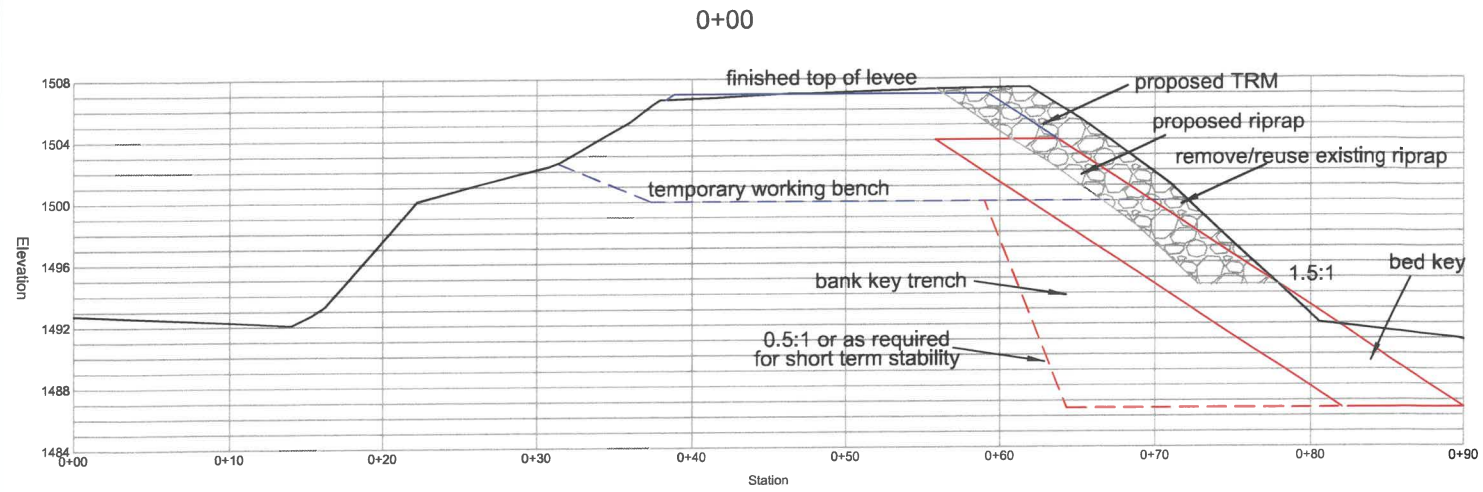
PROJECT LAYOUT FOGERTY DITCH IRRIGATION INTAKE

Designed: Christy Fisher
Drawn: Christy Fisher

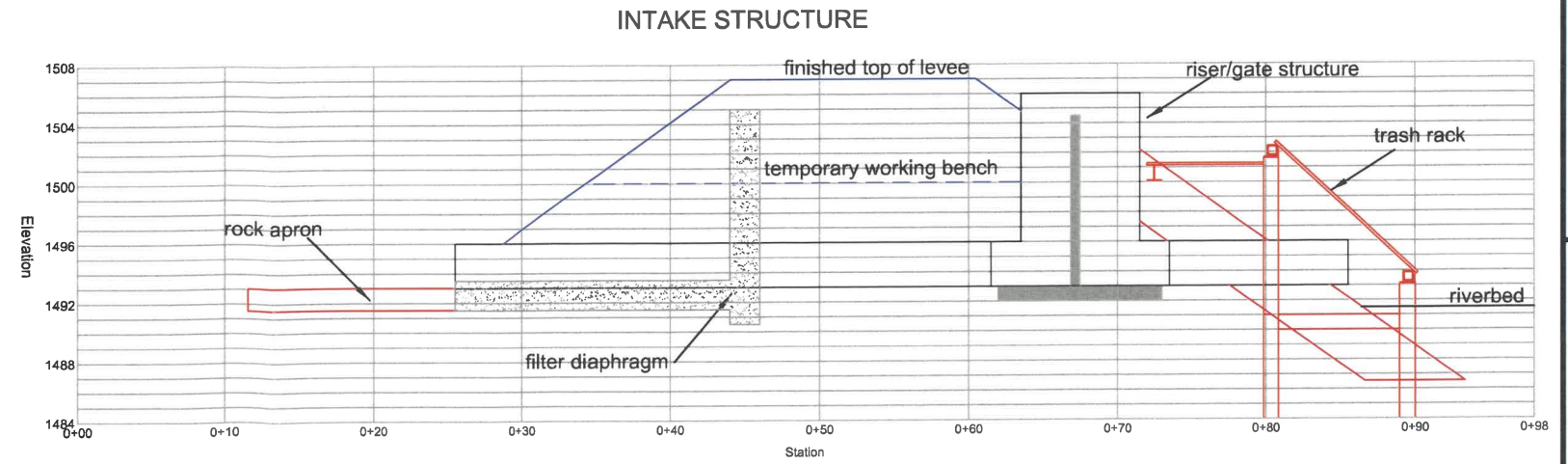
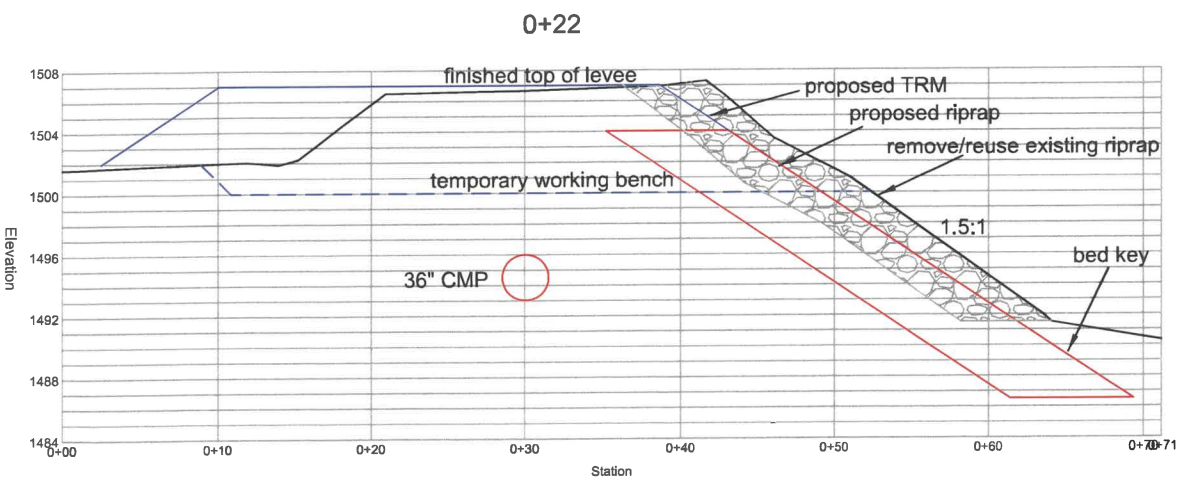
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CROSS SECTIONS
H: 1"=12 FT V: 1"=12 FT



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CROSS SECTIONS
FOGERTY DITCH EWP PROJECT

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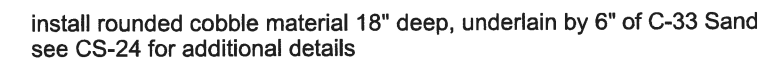
1"=2.5'



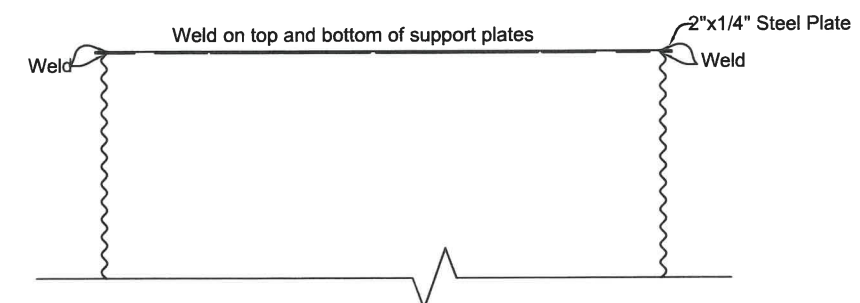
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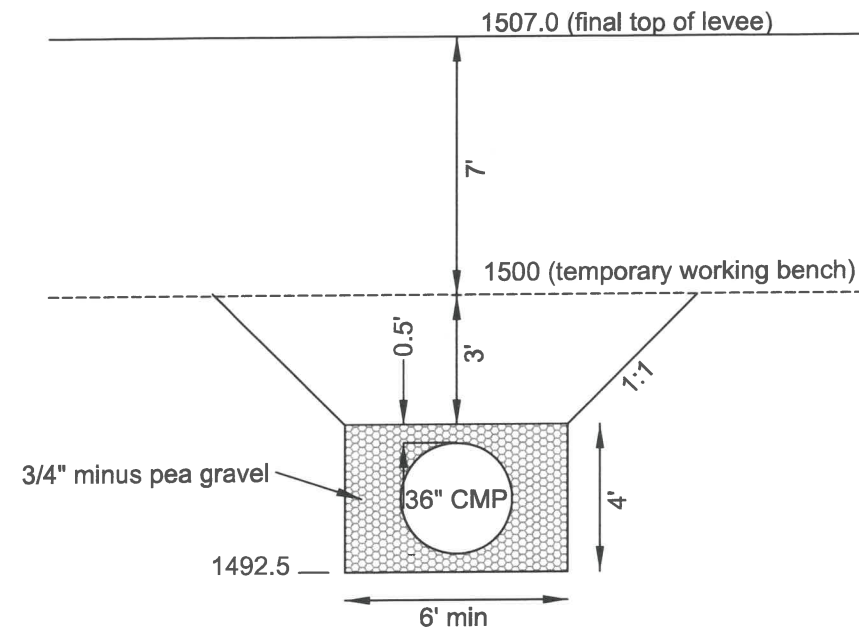


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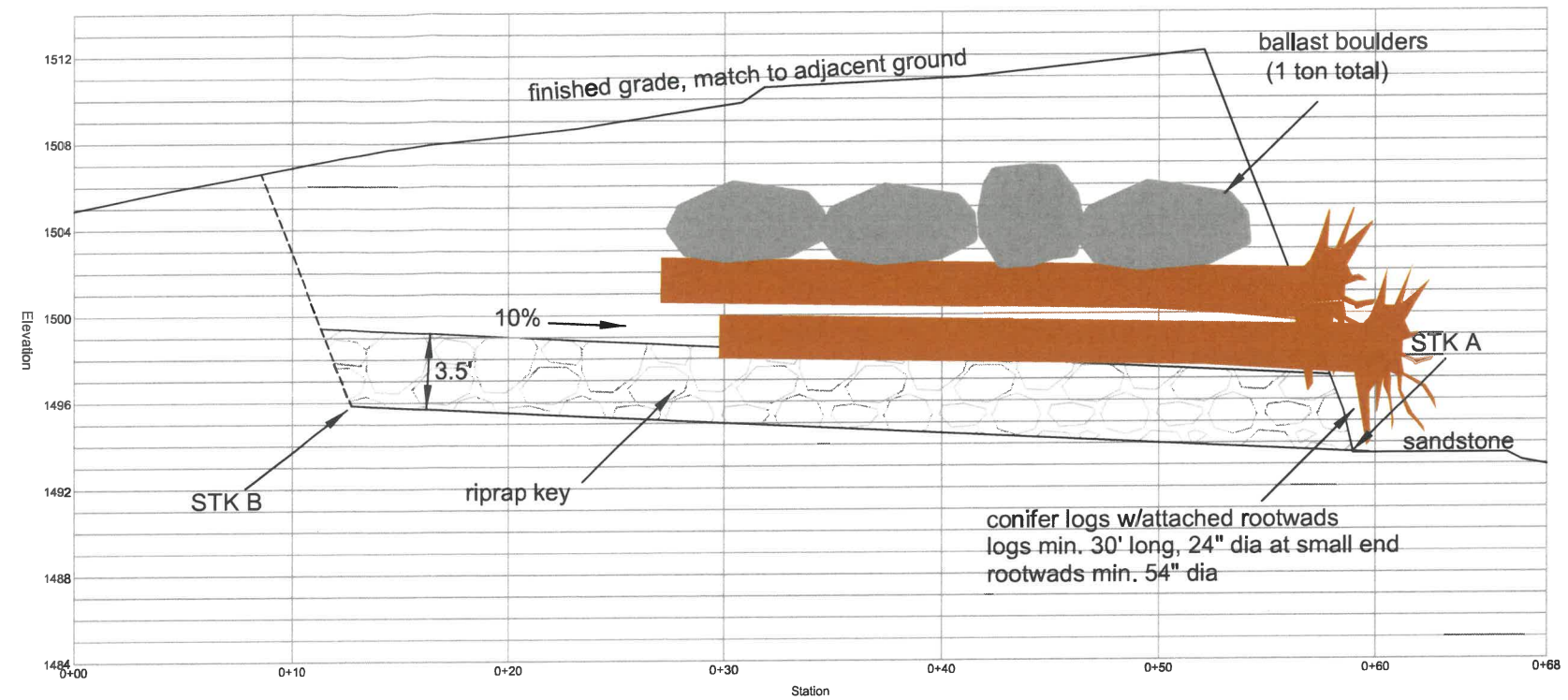
INTAKE STRUCTURE TRENCH DETAIL

1" = 5 FT



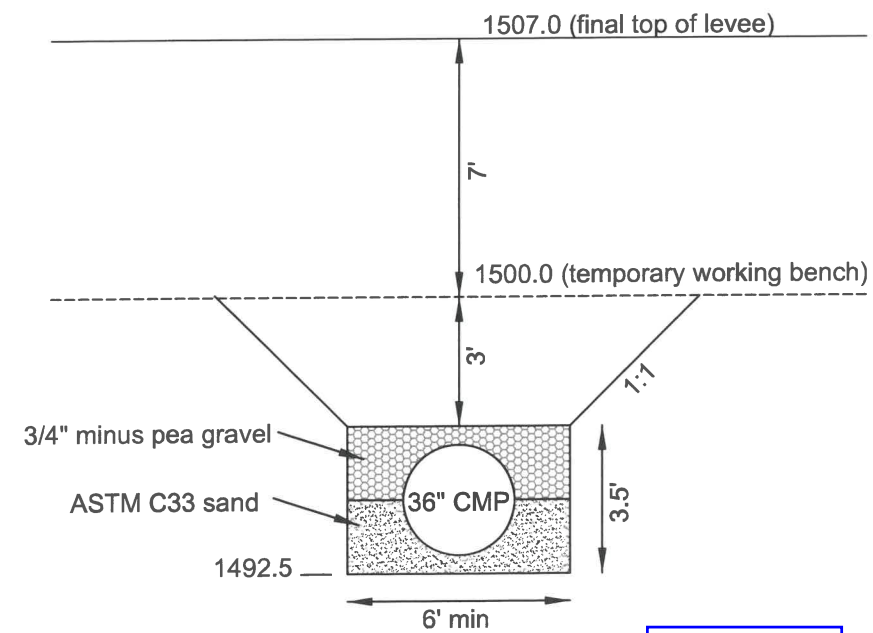
SECONDARY BANK KEY PROFILE

1" = 8 FT



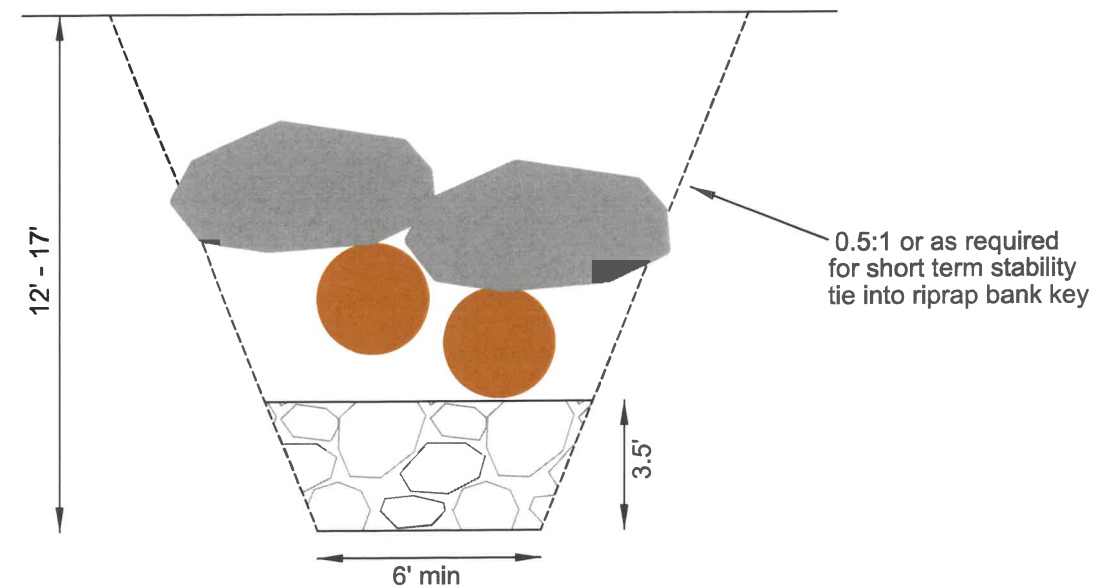
INTAKE STRUCTURE SAND FILTER DETAIL

1" = 5 FT



SECONDARY BANK KEY CROSS SECTION

1" = 5 FT



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INTAKE & SECONDARY KEY DETAILS FOGERTY DITCH EWP PROJECT

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Date: 7/1/2026

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RIPRAP & TRM DETAILS
FOGERTY DITCH EWP PROJECT

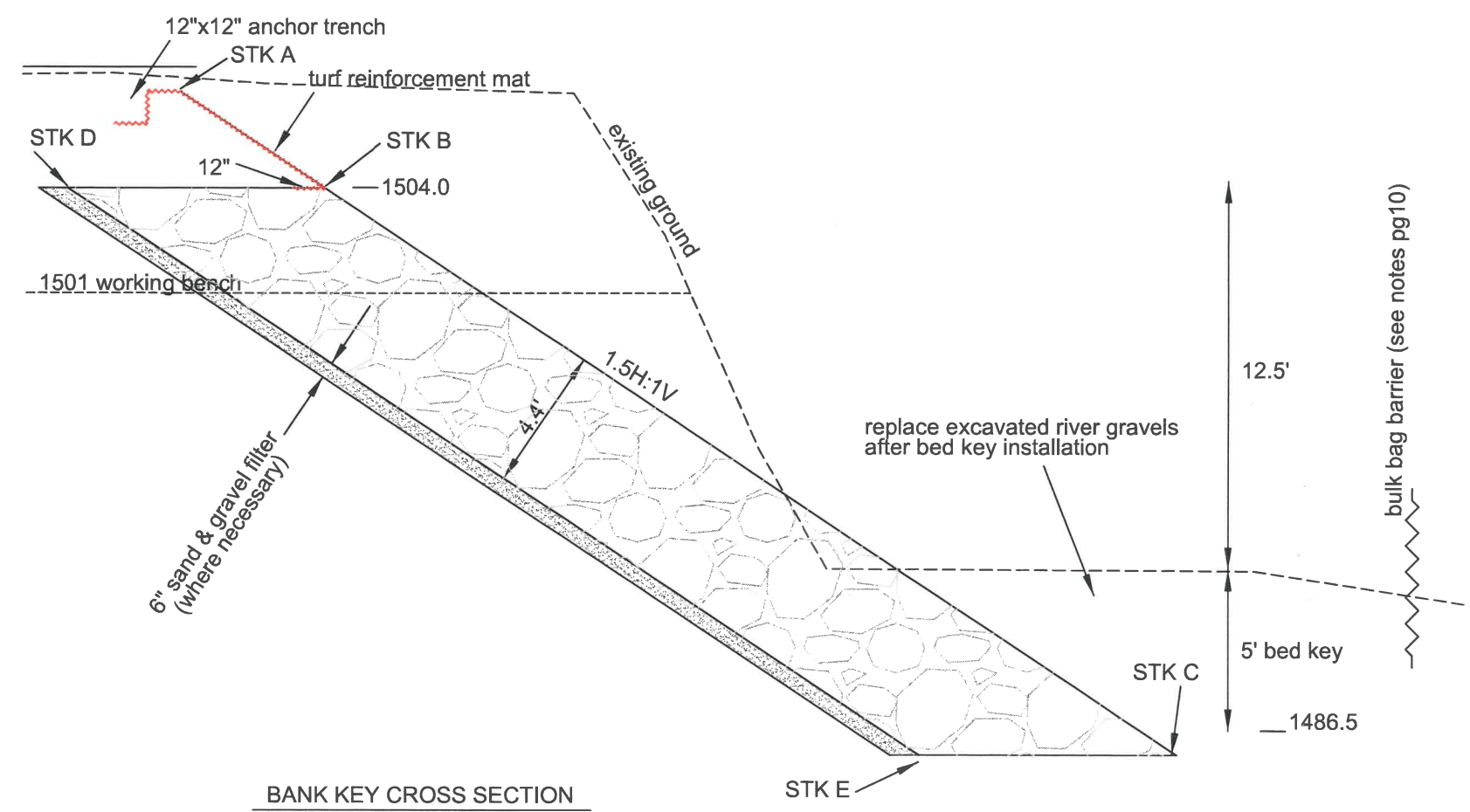
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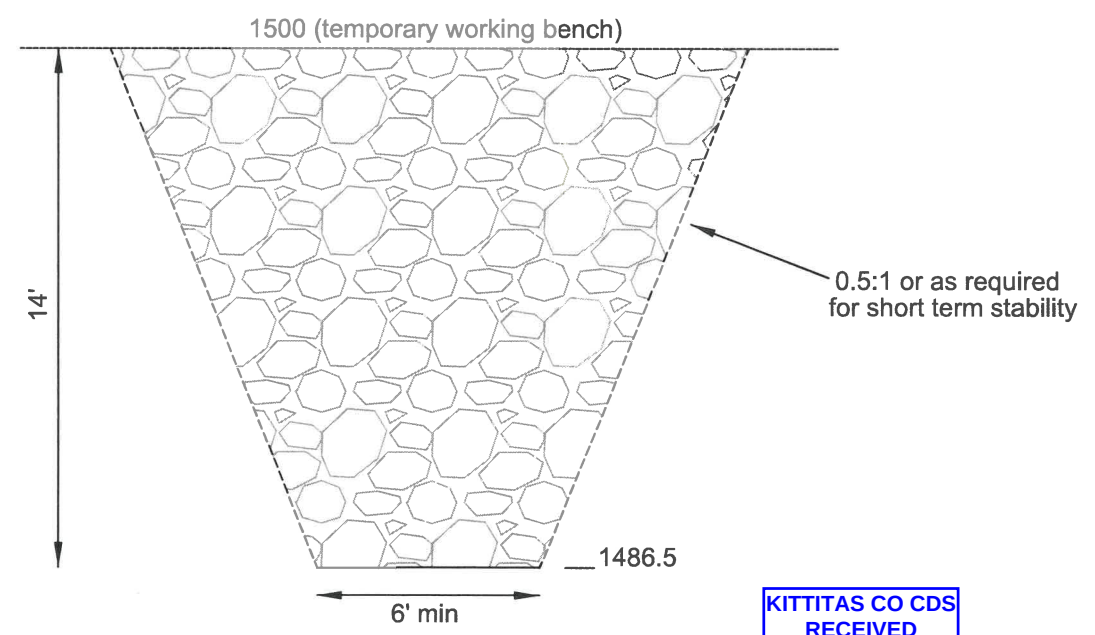
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BLANKET RIPRAP DETAIL
1" = 5 FT



BANK KEY CROSS SECTION
1"=5 FT



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NOTES

- EXCAVATED LEVEE MATERIAL WILL BE STOCKPILED IN AN AREA WHERE ORGANIC DEBRIS, OLD STEEL/CONCRETE FRAGMENTS, AND OTHER EXCAVATED MATERIALS WILL NOT MIX WITH IT. IF A CLAY CORE IS FOUND TO BE PRESENT, THAT MATERIAL WILL ALSO BE STOCKPILED SEPERATELY.
- RIPRAP WILL COME FROM A PRE-APPROVED SOURCE AND MEET THE FOLLOWING GRADATION (WSDOT CLASS D), AS WELL AS ALL REQUIREMENTS IN CS-61:

Size (in)	% Passing (smaller)
54	100%
48	70 - 90%
40	40 - 60%
30	15 - 50%
20	15% max
- THE EXISTING LEVEE APPEARS TO BE CONSTRUCTED OUT OF A SAND AND FINE GRAVEL MIX, HOWEVER IF FINE GRAINED SOILS ARE FOUND PRESENT ON THE EXCAVATED SLOPE IN ANY LOCATIONS, THESE WILL NEED TO BE OVEREXCAVATED BY 6" AND FILLED WITH ONSITE SAND AND GRAVEL MATERIALS FOR A FILTER, AS SHOWN.
- TURF REINFORCEMENT MAT WILL BE VMAX S200 (OR APPROVED EQUAL), RATED FOR STABILITY ON RIVER BANKS FOR 8.5 FPS UNVEGETATED / 18 FPS VEGETATED. TRM TO FASTENED WITH FALCON HR-12 TWIST PINS (OR APPROVED EQUAL) AT 18" C-C IN A 12" x12" KEY TRENCH AT THE TOP OF THE SLOPE AND AT 20" C-C BOTH DIRECTIONS ON THE FACE OF THE SLOPE. OVERLAPS WILL BE AT LEAST 12" (IF REQUIRED), SHINGLED SO THAT UPSTREAM MAT SITS ABOVE DOWNSTREAM. GRASS SEED WILL BE SPREAD ON SLOPE AS OUTLINED IN CS-6, PRIOR TO TRM PLACEMENT.
- PLACE LIVE COYOTE WILLOW BUNDLES WITHIN THE RIPRAP BETWEEN ELEVATIONS 1493.6 AND 1498.2 AS IT IS PLACED, SEE CS-6 AND PAGE 10 FOR REQUIREMENTS.

STAKE OUT COORDINATES

Point	Northing	Easting	Elevation
TBM #1	599,297.7	1,623,990.7	1,506.8
TBM #2	599,277.2	1,624,090.7	1,509.1
TBM #3	599,430.0	1,623,758.3	1,522.2
36" CMP INLET	599,397.7	1,623,896.3	1,493.0
36" CMP OUTLET	599,332.3	1,623,898.5	1,493.0
CENTER 96" RISER	599,376.0	1,623,897.0	1,492.5
H-PILE CENTER	599,391.5	1,623,892.0	1,500.5
H-PILE CENTER	599,391.8	1,623,901.0	1,500.5
H-PILE CENTER	599,400.8	1,623,900.7	1,492.0
H-PILE CENTER	599,400.5	1,623,891.7	1,492.0
SECONDARY KEY A	599,410.9	1,623,850.6	1,493.5
SECONDARY KEY B	599,367.8	1,623,873.6	1,498.1

Point	Northing	Easting	Elevation
XS 0+00 STK A	599,373.2	1,623,924.6	1,507.0
XS 0+00 STK B	599,377.5	1,623,926.7	1,504.0
XS 0+00 STK C	599,399.2	1,623,937.4	1,486.5
XS 0+00 STK D	599,370.4	1,623,923.2	1,504.0
XS 0+00 STK E	599,392.1	1,623,933.9	1,486.5
XS 0+22 STK A	599,376.1	1,623,902.4	1,507.0
XS 0+22 STK B	599,380.7	1,623,904.7	1,504.0
XS 0+22 STK C	599,405.6	1,623,917.0	1,486.5
XS 0+22 STK D	599,373.6	1,623,901.2	1,504.0
XS 0+22 STK E	599,398.6	1,623,913.5	1,486.5
XS 0+55 STK A	599,383.4	1,623,868.1	1,507.0
XS 0+55 STK B	599,387.1	1,623,870.3	1,504.0
XS 0+55 STK C	599,409.3	1,623,883.6	1,486.5
XS 0+55 STK D	599,380.3	1,623,866.2	1,504.0
XS 0+55 STK E	599,402.4	1,623,879.5	1,486.5



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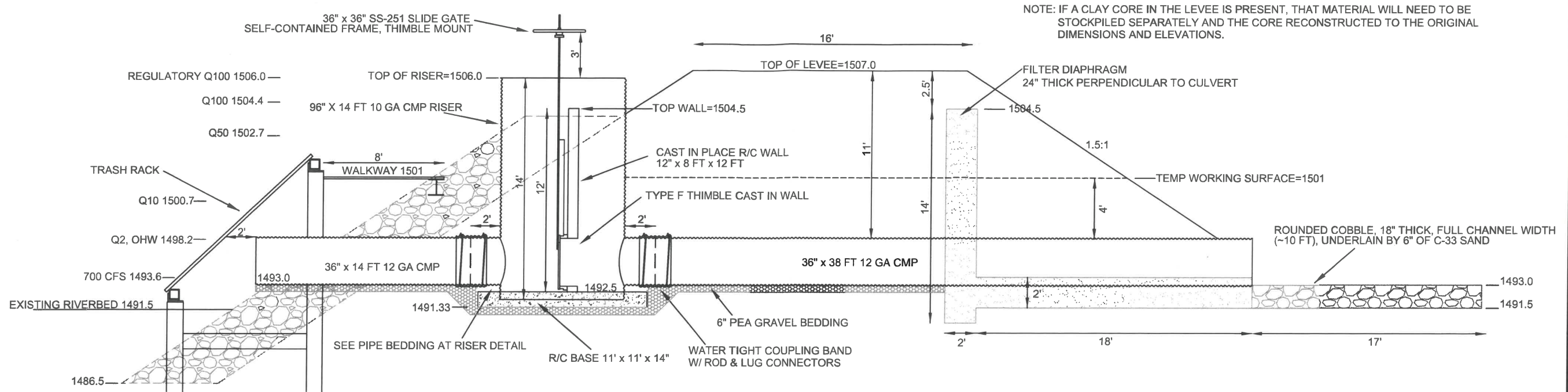
INTAKE STRUCTURE DETAILS
FOGERTY DITCH EWP PROJECT

Designed: Christi Fisher
Drawn: Christi Fisher

Date: 8/5/2026
Sheet 4 of 10

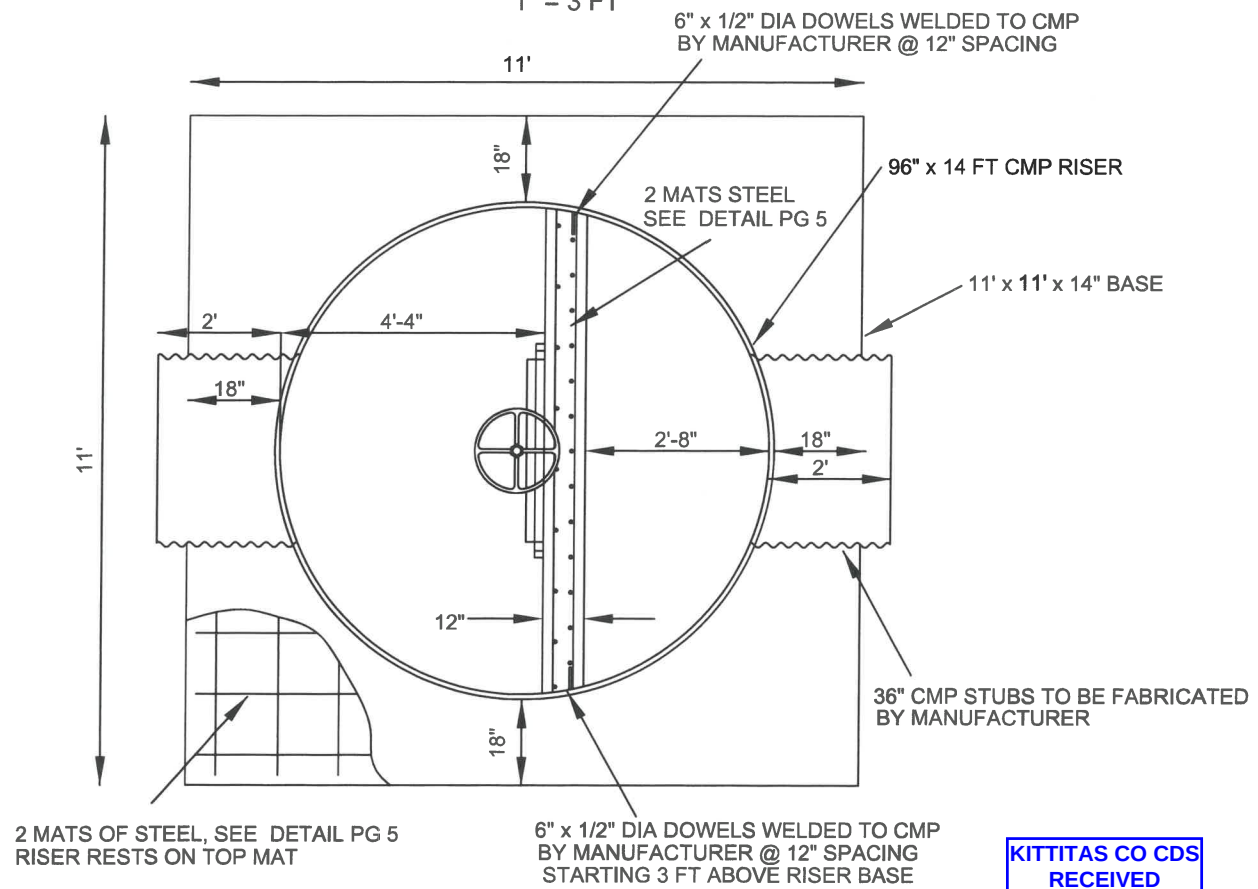
INTAKE STRUCTURE PROFILE VIEW

1" = 7 FT



RISER PLAN VIEW

1" = 3 FT



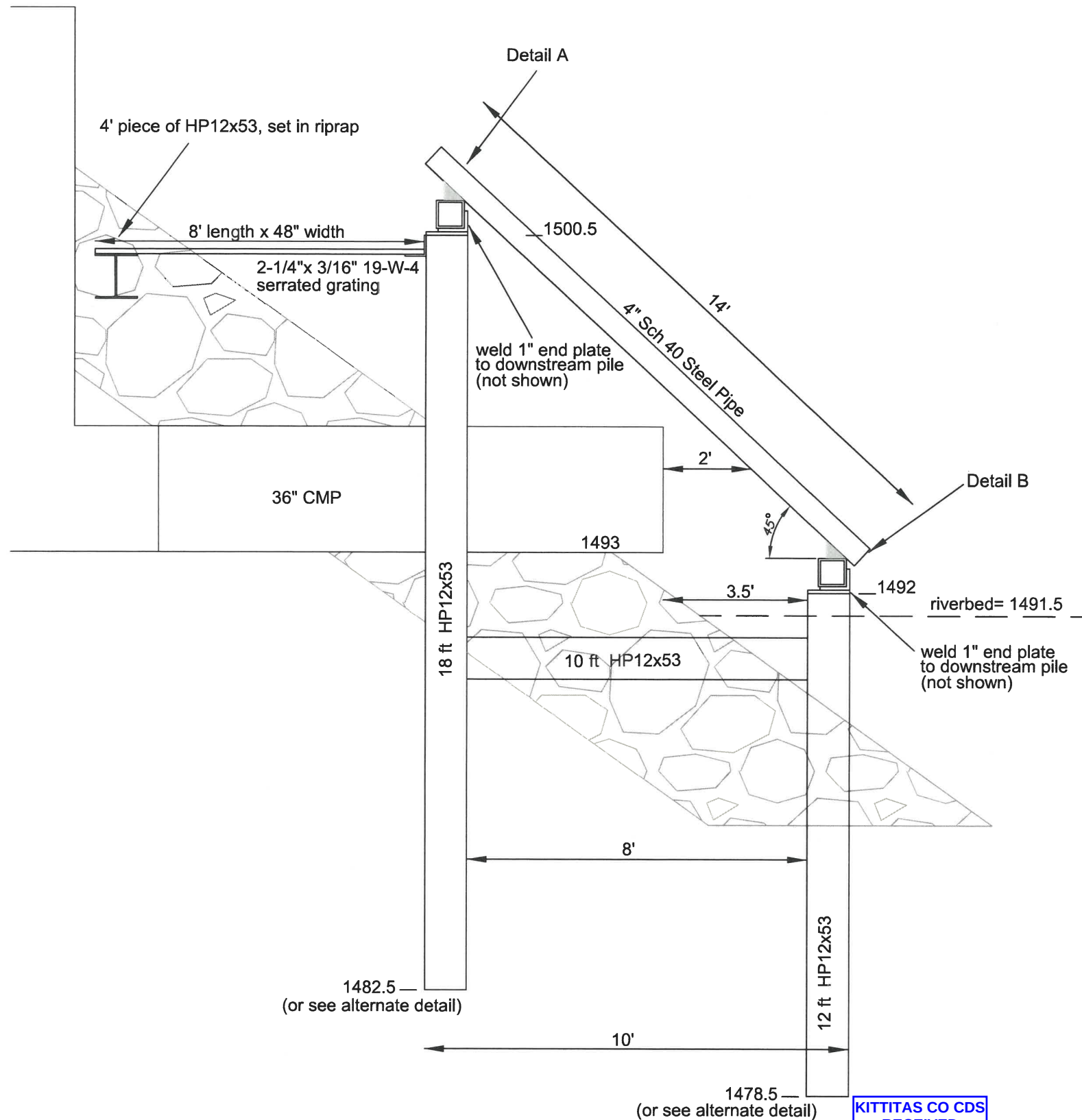
NOTES

1. 96" CMP RISER WITH 36" STUBS TO BE 10 GAUGE GALVANIZED STEEL, WITH WELDED SEAMS, POLYMER COATED TO 10 MIL, INSIDE AND OUT. 1/2" DIA BY 6" LONG STEEL DOWELS TO BE WELDED AT 12" CC AS SHOWN. WHERE COATING IS DAMAGED DUE TO WELDING, COATING WILL BE TOUCHED UP. 36" CMP WILL BE 12 GAUGE GALVANIZED STEEL, WITH 10 MIL POLYMER COATING, INSIDE AND OUT.
2. WATER TIGHT COUPLING BANDS WILL BE MIN. 24" WIDE, SPLIT BAND, GASKETED, WITH DOUBLE ROD AND LUG CONNECTORS.
3. SOILS ONSITE ARE A MIX OF GRAVELS, COBBLES, SANDS, AND ASHY LOAM SOILS. THE RISER BASE MAY BE CAST DIRECTLY ON NATIVE SOILS IF SUITABLE GRAVEL IS PRESENT, AS DETERMINED BY THE ENGINEER. IF SOILS ARE UNSUITABLE, THEN OVEREXCAVATE, PLACE, AND COMPACT ONSITE SAND AND GRAVEL MATERIAL BELOW THE 6" OF PEA GRAVEL.
4. SLIDE GATE SHALL BE STAINLESS STEEL, MPI MCWANE SS-251-1-T-36x36-20, WITH TYPE F THIMBLE MOUNT, AND A STANDARD RISING STEM HANDWHEEL OPERATOR. A TYPE F THIMBLE SHALL BE CAST INTO THE WALL FOR MOUNTING THE GATE. COMPARABLE GATE OR MOUNTING METHODS MAY BE SUBSTITUTED WITH PRIOR APPROVAL FROM THE ENGINEER. AN 8" DIAMETER CIRCULAR OPENING WILL BE PROVIDED IN THE GATE AT AN INVERT ELEVATION OF 1493.3 FT.
5. THE GATE FRAME WILL BE COMPOSED OF STAINLESS STEEL GUIDE RAILS WITH UHMW SEAT/SEALS UPSTREAM AND DOWNSTREAM. THE GATE SHOULD BE RATED FOR A MINIMUM 20 FT OF HEAD PRESSURE.
6. ANCHOR HARDWARE FOR THE GATE AND RAILS, INCLUDING STUDS, NUTS, AND WASHERS SHALL BE ENGINEERED AND PROVIDED BY THE GATE MANUFACTURER.
7. CONCRETE WILL PROPORTIONED, TRANSPORTED, PLACED, AND CURED IN ACCORDANCE WITH ACI-318. THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 4,000 PSI. MAXIMUM WATER TO CEMENT RATIO, BY MASS, IS 0.50 FOR THE MIX. THE SLUMP SHALL BE 2 TO 4" EXCEPT WHEN SUPER PLASTICIZER IS USED. AIR CONTENT SHALL BE 5 TO 8% OF CONCRETE VOLUME.
8. CONCRETE WILL NOT BE DROPPED MORE THAN 5 FT UNLESS SUPER PLASTICIZER IS USED IN THE CONCRETE MIX.
9. REINFORCING STEEL SHALL BE ASTM DESIGNATION A-615, GRADE 60, #5 BAR. SLAB STEEL WILL BE SUPPORTED BY CONCRETE BLOCKS OF AT LEAST 4,000 PSI ADEQUATE TO SUPPORT THE RISER WEIGHT AND MAT. MINIMUM SPLICE LENGTH IS 22" (BOTH DIRECTIONS).
10. CONCRETE COVER OF 3" REQUIRED OVER REINFORCING STEEL CAST AGAINST SOIL. CONCRETE COVER OF 2" REQUIRED ON WALLS AND SLABS TO BE EXPOSED TO AIR AND/OR WATER.
11. FILTER DIAPHRAGM TO BE CONSTRUCTED OF C-33 SAND TO THE DIMENSIONS SHOWN.
12. WALKWAY GRATING TO BE SERRATED FOR SAFETY, MIN. 48" WIDE, WELDED BOTH SIDES.
13. ROUNDED COBBLE OUTLET PROTECTION WILL HAVE A D50 OF APPROXIMATELY 12" AND BE WELL GRADED.

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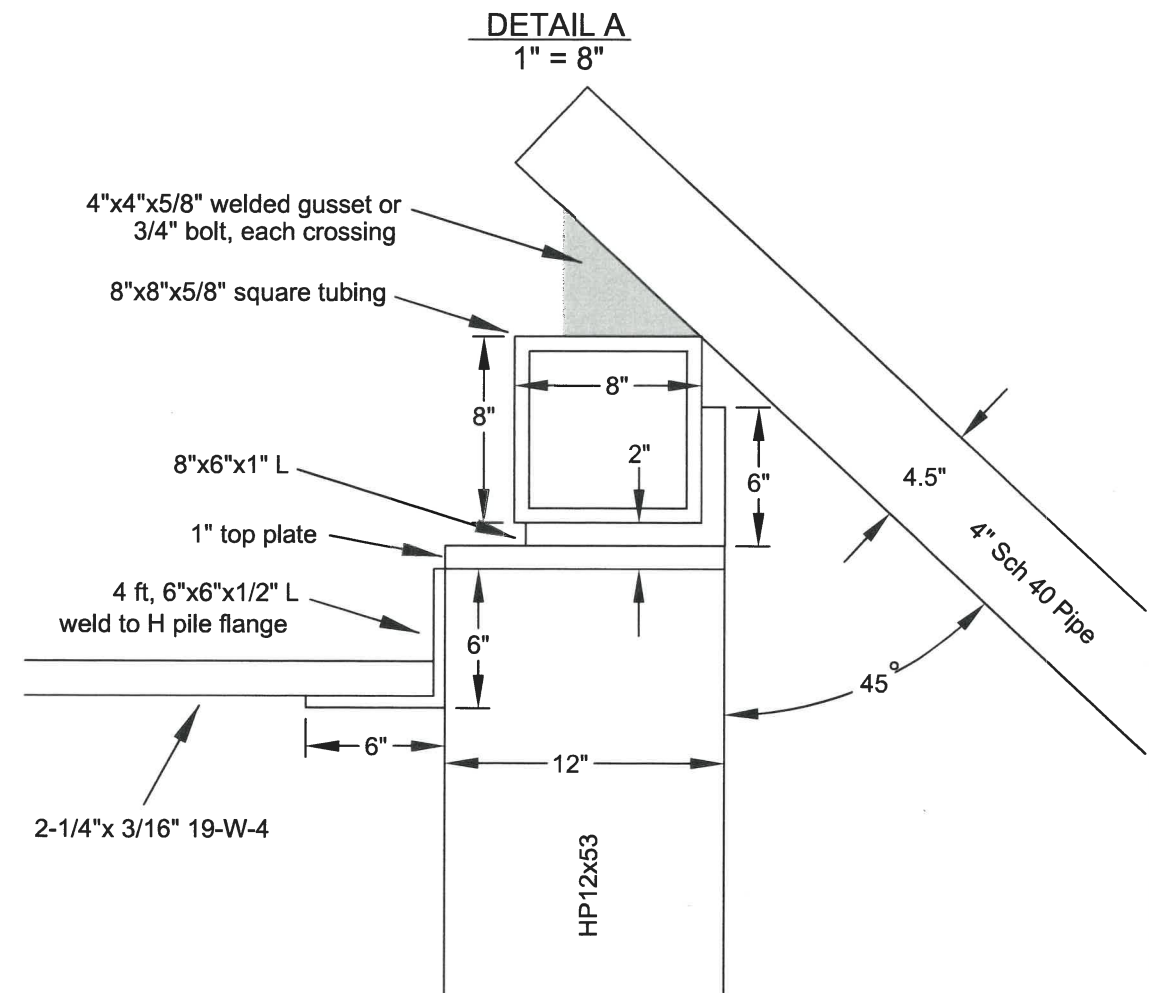
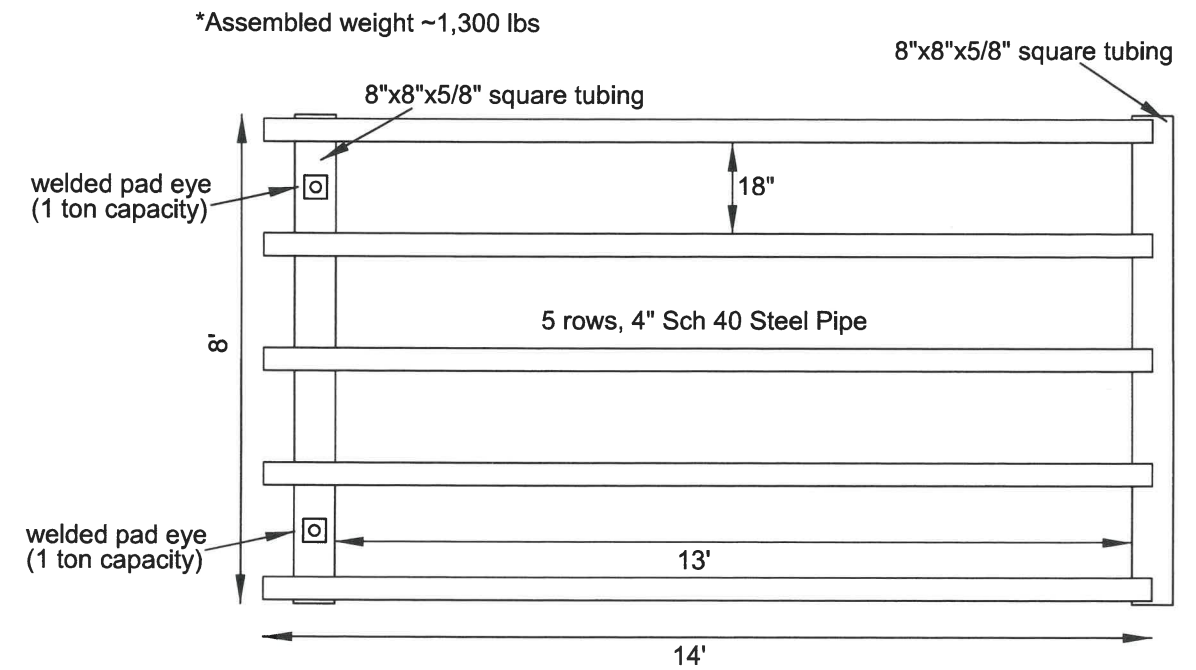
TRASH RACK SECTION VIEW

1" = 3 FT



REMOVABLE PORTION OF TRASH RACK- PLAN VIEW

1" = 3 FT



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TRASH RACK DETAILS FOGERTY DITCH EWP PROJECT

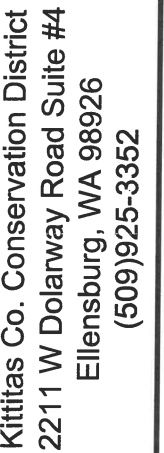
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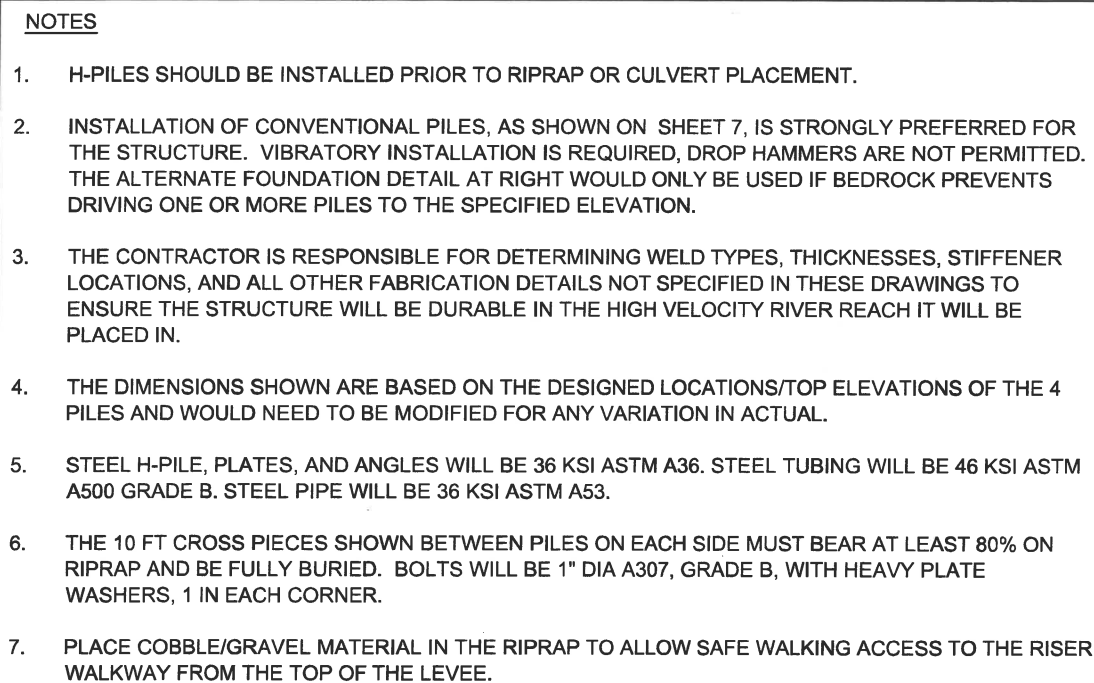
TRASH RACK DETAILS FOGERTY DITCH EWP PROJECT

Designed: Christi Fisher

Drawn: Christi Fisher

Date: 7/6/2026

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NOTES

1. CONTRACTOR WILL INSTALL 1 TON BULK BAGS FILLED WITH CLEAN PEA GRAVEL TO PROVIDE AN ISOLATION DIKE FOR THE WORK AREA ON THE YAKIMA RIVER SIDE. WATER SURFACE ELEVATIONS ARE EXPECTED TO BE 1496.3 FT OR LOWER DURING THE IN WATER WORK PERIOD.
2. CONTRACTOR WILL INSTALL A SANDBAG AND PLASTIC ISOLATION DIKE BETWEEN THE WORK AREA AND FOGARTY DITCH.
3. WORK WITHIN THE WETTED PERIMETER OF THE YAKIMA RIVER FOR THIS PROJECT MUST BE COMPLETED BETWEEN SEPT 1 TO OCT 15.
4. THROUGHOUT THE TIME PERIOD WHEN FLOW THROUGH THE INTAKE IS BLOCKED FOR CONSTRUCTION, THE CONTRACTOR MUST MAINTAIN MINIMUM 2 CFS FLOW TO FOGARTY DITCH VIA A PORTABLE PUMP. A FISH SCREEN WILL BE PROVIDED ON THE SUCTION LINE MEETING WDFW/NMFS REQUIREMENTS.
5. DEWATERING PUMP(S) USED IN THE PIPE TRENCH MUST DISCHARGE OVER A WELL VEGETATED AREA BEHIND THE LEVEE, AT LEAST 100 FT FROM A WATERWAY.
6. ONLY TREES MARKED FOR REMOVAL MAY BE CUT DURING THE PROJECT.
7. WILLOW BUNDLES TO BE PLANTED WITHIN RIPRAP WILL BE FRESHLY HARVESTED, LEAVES STRIPPED, WITH STEM DIAMETERS OF 1/4"-1/2". STEMS TO BE AT LEAST 4 FT LONG, WITH NO MORE THAN 6" STICKING OUT THE FACE OF THE RIPRAP. BUNDLE 6 STEMS TOGETHER AND TIE WITH BIODEGRADABLE TWINE. SOAK FOR AT LEAST 2 DAYS PRIOR TO INSTALLATION.
8. RED OZIER DOGWOOD CUTTINGS WILL BE FRESHLY HARVESTED, WITH STEM DIAMETERS OF 1/4"-1/2" AND LEAVES STRIPPED. STEMS TO BE AT LEAST 3 FT LONG AND INSTALLED IN PRE-DRIVEN HOLES, NO MORE THAN 6" ABOVE GROUND. SOAK FOR AT LEAST 2 DAYS PRIOR TO INSTALLATION AND PLANT IN THE AREA SHOWN AT 2 FT ON CENTER BOTH DIRECTIONS.
9. COTTONWOOD STEMS CANNOT BE HARVESTED UNTIL FALL WHEN LEAVES HAVE NATURALLY FALLEN OFF. PLANT IN AVAILABLE OPENINGS IN THE EXISTING VEGETATION IN THE AREAS SHOWN, SPACING APPROXIMATELY 5 FT.
10. ALL DISTURBED AREAS NOT IN ROCK OR GRAVEL WILL BE BROADCAST SEEDED AS OUTLINED IN CS-6.

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WORK LIMITS, SEDIMENT CONTROL, PLANTING FOGARTY DITCH IRRIGATION INTAKE

Designed: Christy Fisher

Drawn: Christy Fisher

Date: 8/5/2026

Sheet 10 of 10