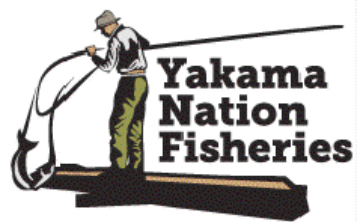
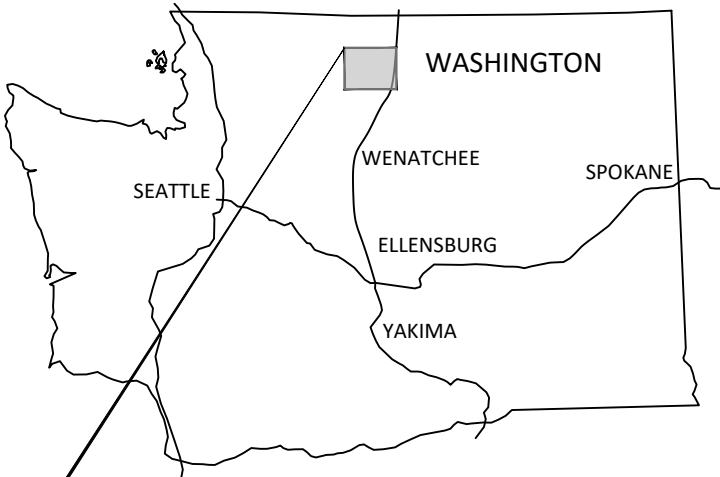
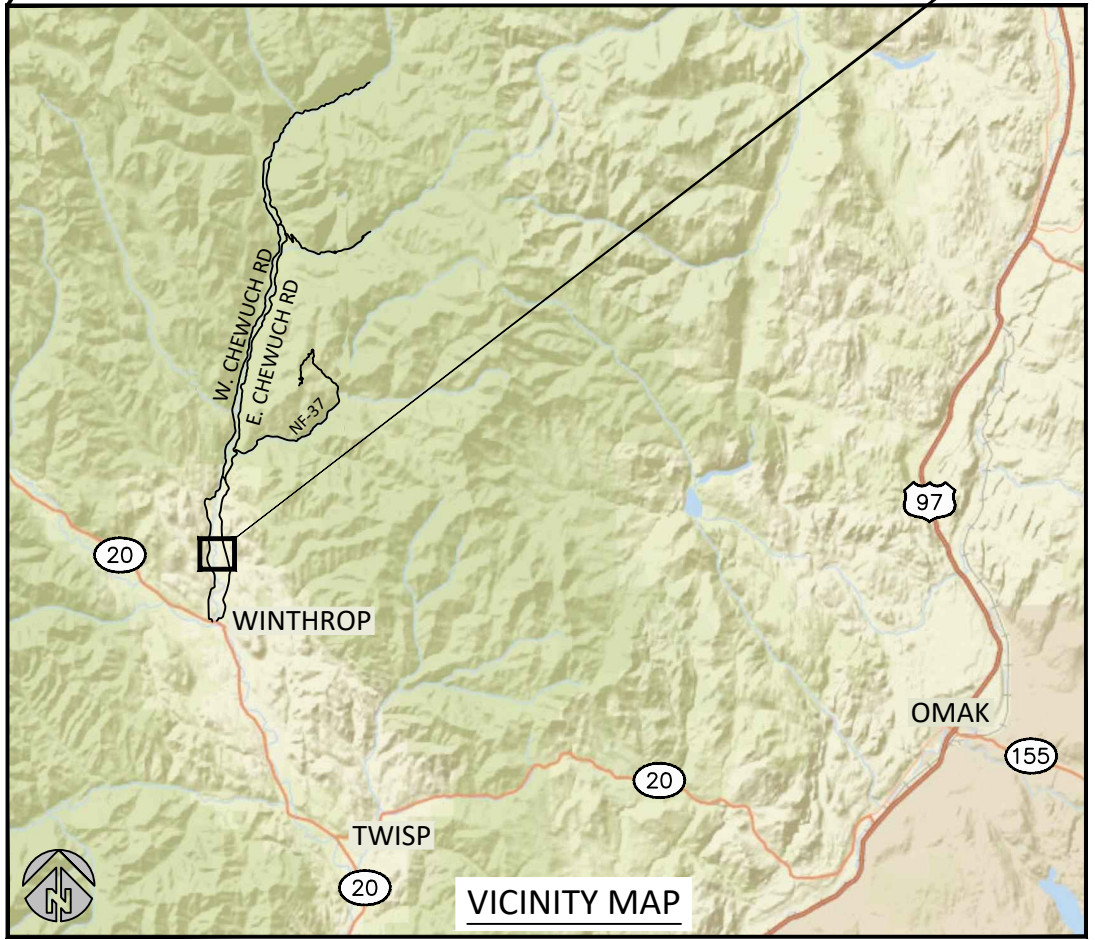


CHEWUCH RIVER MILE 4 FISH HABITAT ENHANCEMENT PROJECT

Conceptual Design



Yakama Nation Fisheries
2 JOHNSON LANE
WINTHROP WA, 98862



SHEET LIST

- 1 COVER SHEET, VICINITY MAPS, SHEET LIST
- 2 PROJECT REACH - SURVEY POINTS & CONTOURS
- 3 PROJECT SITE OVERVIEW
- 4 SIDE CHANNEL PROFILE AND SECTION VIEWS
- 5 SIDE CHANNEL DETAILS
- 6 MAINSTEM LOG STRUCTURE DETAILS

SITE LOCATION:
LATITUDE: 48°31'16"
LONGITUDE: -120°11'05"
OKANOGAN COUNTY, WASHINGTON

WATERBODY: CHEWUCH RIVER
TRIBUTARY OF: METHOW RIVER

G:\C-D\Chewuch_RM4_Design_170257\Drawings\Civil_3D\ch-rm4.2_base.dwg - mike_m - 12/10/18

NO.	BY	DATE	REVISION DESCRIPTION

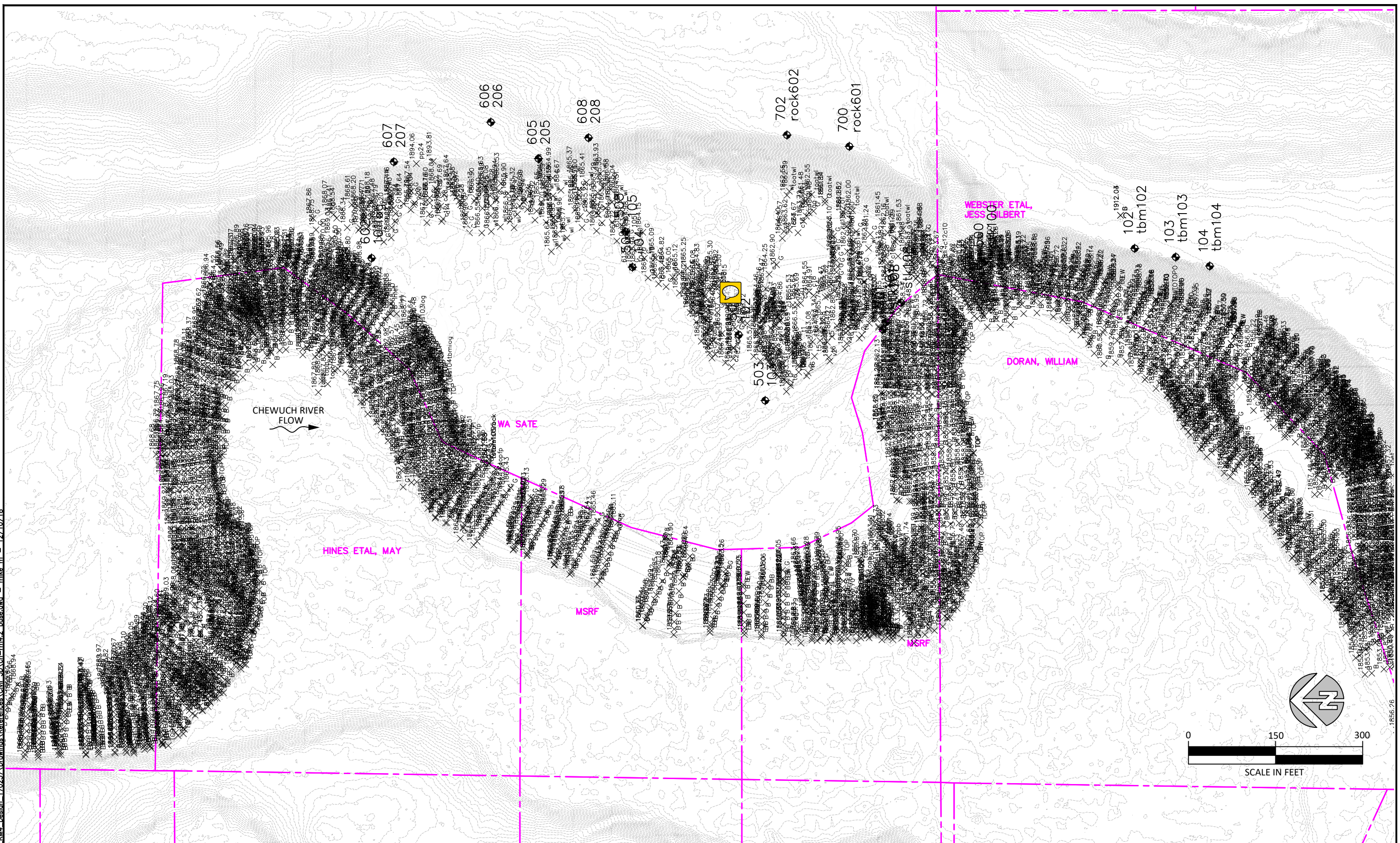
MM	MB	CB
DRAWN	DESIGNED	CHECKED
XX	11-13-18	
APPROVED	DATE	PROJECT

**YAKAMA NATION FISHERIES PROGRAM
CHEWUCH RIVER MILE 4.2
FISH HABITAT ENHANCEMENT PROJECT**



501 Portway Avenue, Suite 101
Hood River, OR 97031
541.386.9003
www.interfluve.com

**PROJECT REACH
SURVEY POINTS & CONTOURS**



NO.	BY	DATE	REVISION DESCRIPTION

MM	MB	CB
DRAWN	DESIGNED	CHECKED
XX	11-13-18	
APPROVED	DATE	PROJECT

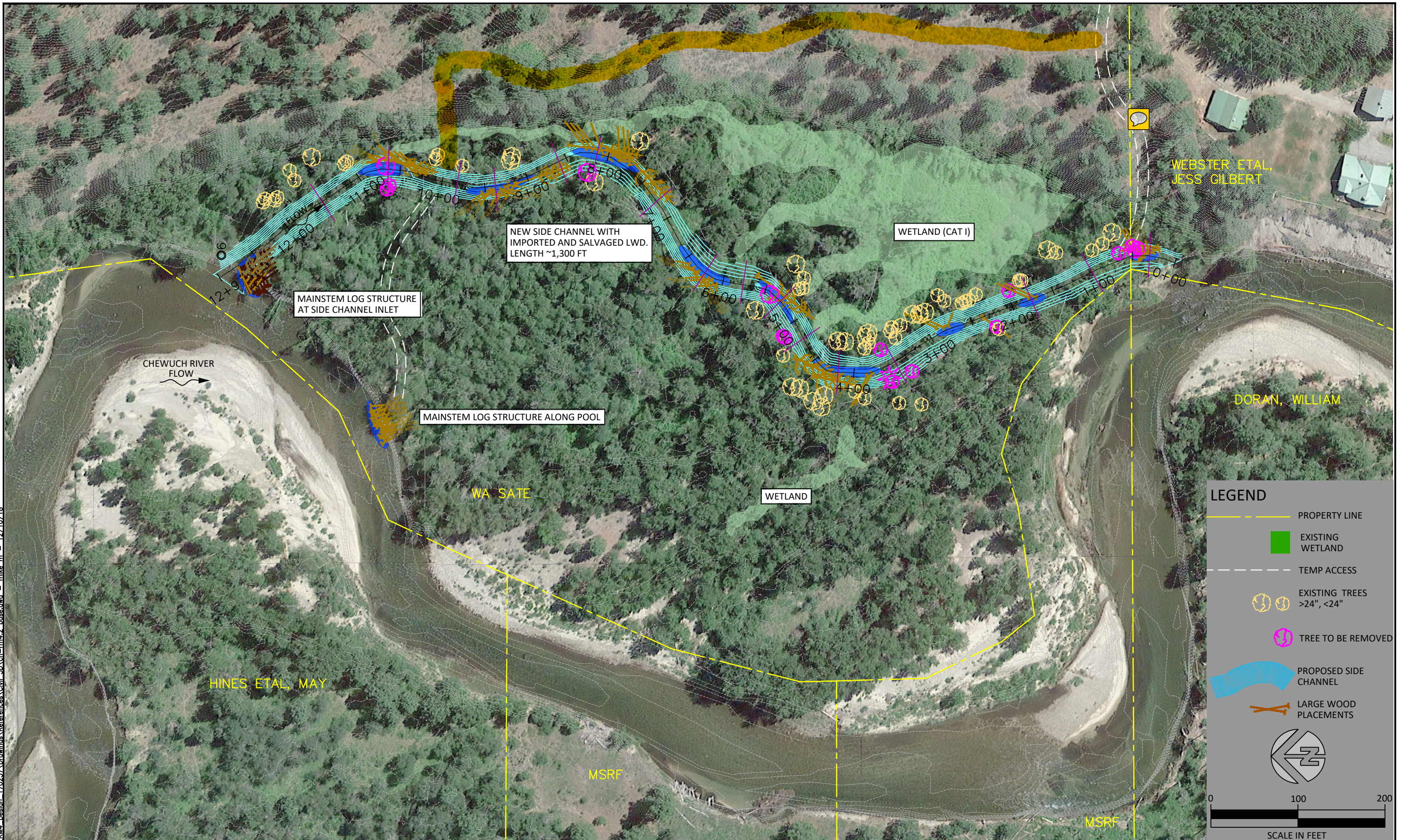
**YAKAMA NATION FISHERIES PROGRAM
CHEWUCH RIVER MILE 4.2
FISH HABITAT ENHANCEMENT PROJECT**



501 Portway Avenue, Suite 101
Hood River, OR 97031
541.386.9003
www.interfluve.com

**PROJECT REACH
SURVEY POINTS & CONTOURS**

G:\C-D\Chewuch_RM4_Design_170257\Drawings\References\Civil_3D\ch-rm4.2_base.dwg - mike_m - 12/10/18



NEW SIDE CHANNEL WITH IMPORTED AND SALVAGED LWD. LENGTH ~1,300 FT

MAINSTEM LOG STRUCTURE AT SIDE CHANNEL INLET

MAINSTEM LOG STRUCTURE ALONG POOL

WETLAND (CAT I)

WETLAND

WEBSTER ETAL, JESS GILBERT

DORAN, WILLIAM

HINES ETAL, MAY

MSRF

MSRF

LEGEND

- PROPERTY LINE
- EXISTING WETLAND
- TEMP ACCESS
- EXISTING TREES >24", <24"
- TREE TO BE REMOVED
- PROPOSED SIDE CHANNEL
- LARGE WOOD PLACEMENTS

SCALE IN FEET

NO.	BY	DATE	REVISION DESCRIPTION

MM	MB	CB
DRAWN	DESIGNED	CHECKED
XX	11-13-18	
APPROVED	DATE	PROJECT

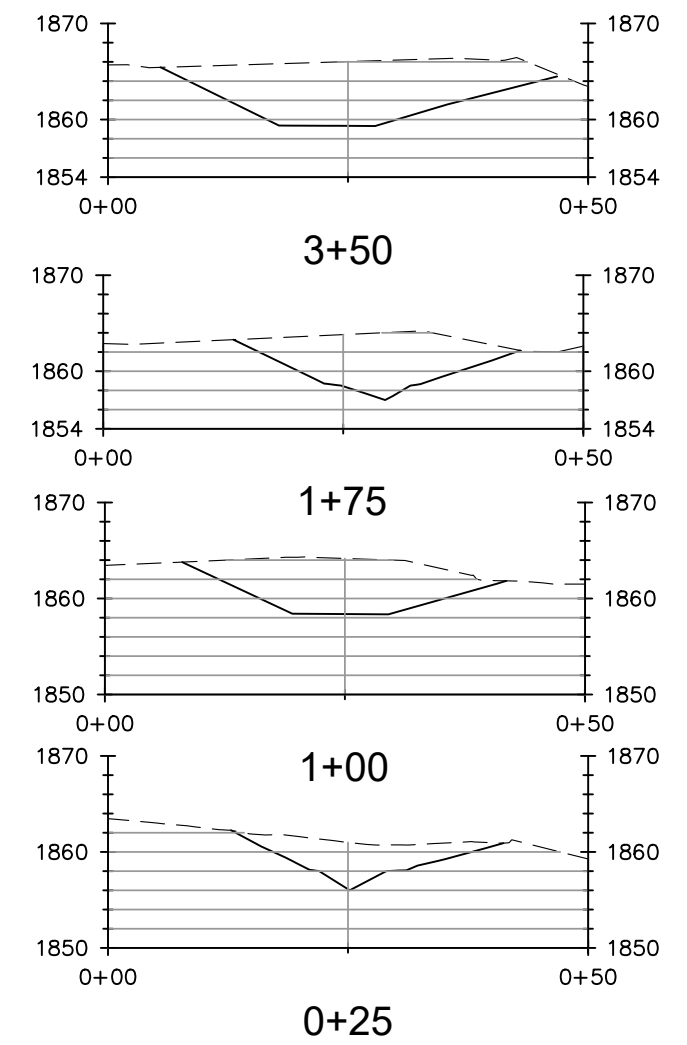
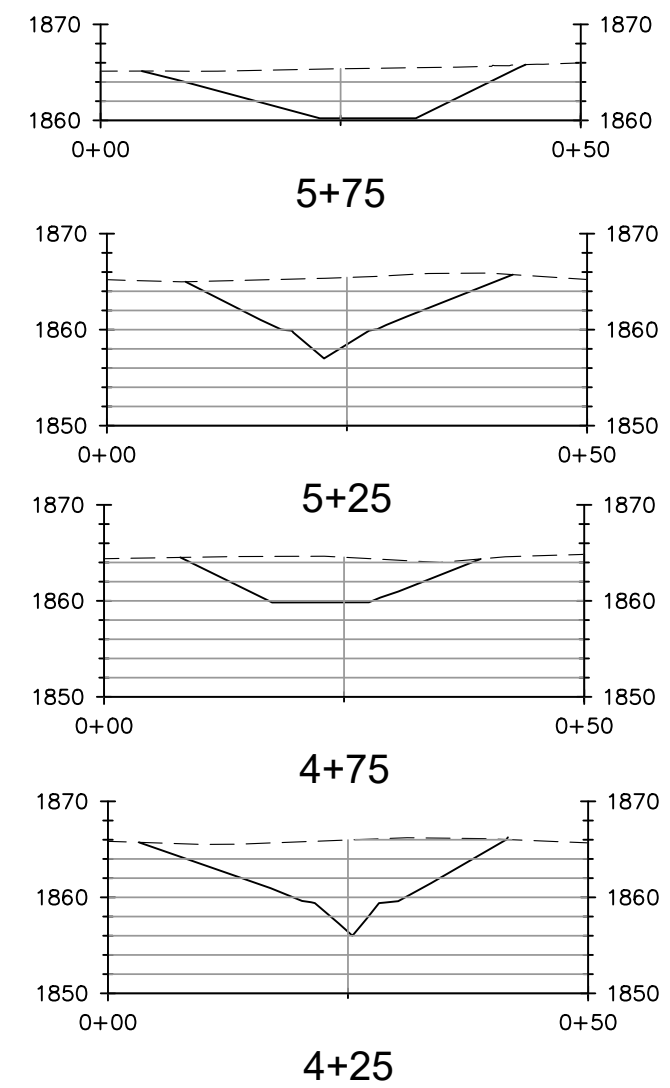
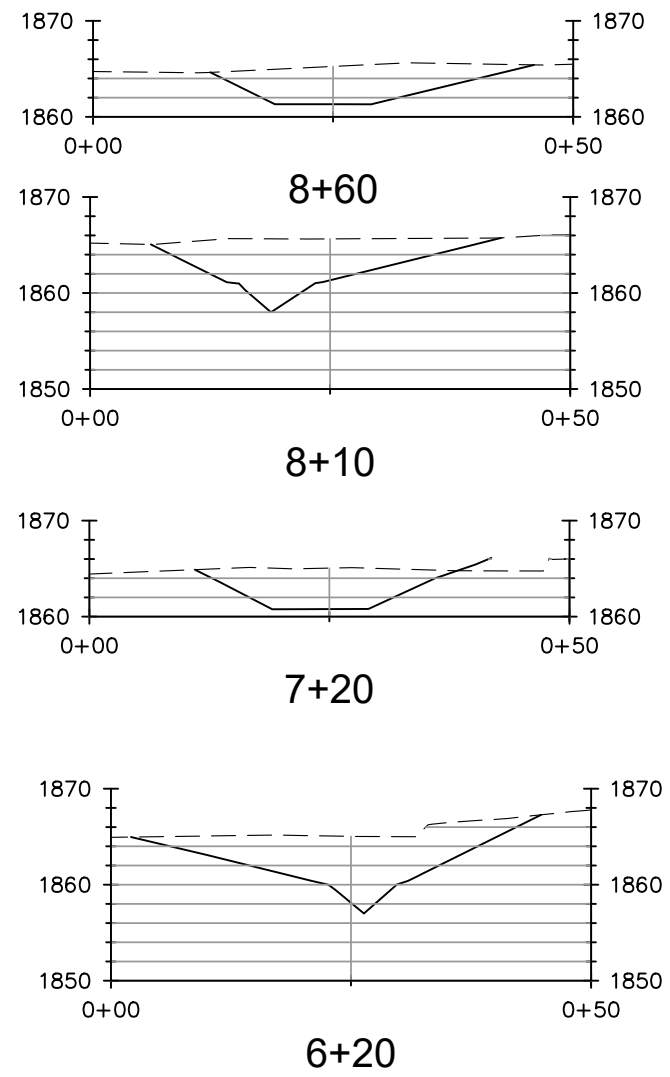
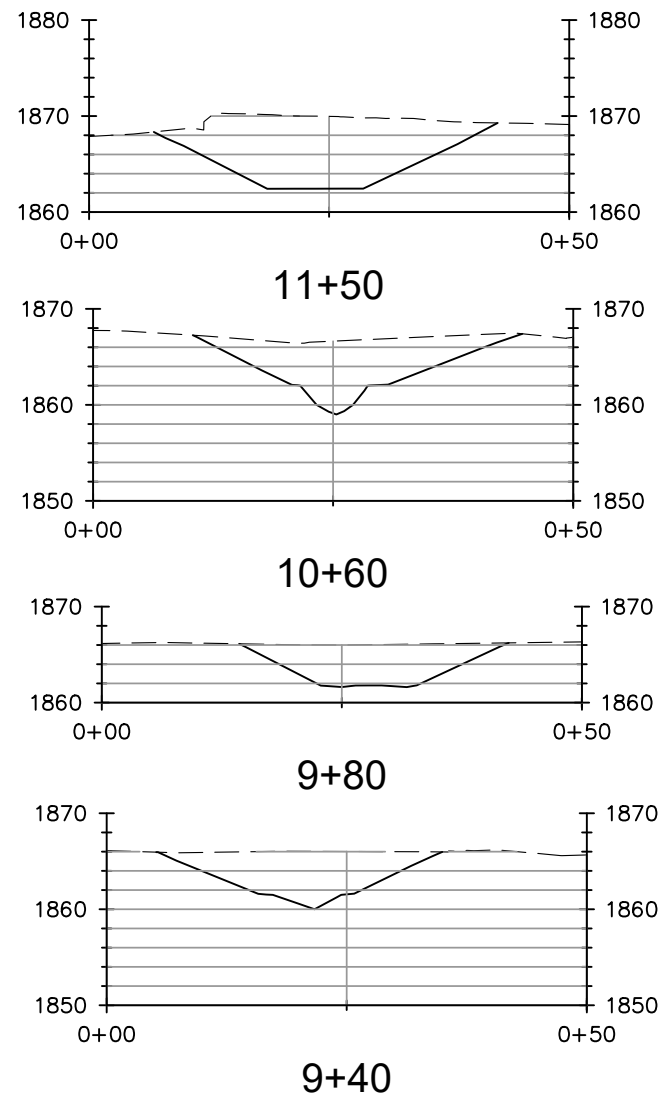
**YAKAMA NATION FISHERIES PROGRAM
CHEWUCH RIVER MILE 4.2
FISH HABITAT ENHANCEMENT PROJECT**

501 Portway Avenue, Suite 101
Hood River, OR 97031
541.386.9003
www.interfluve.com

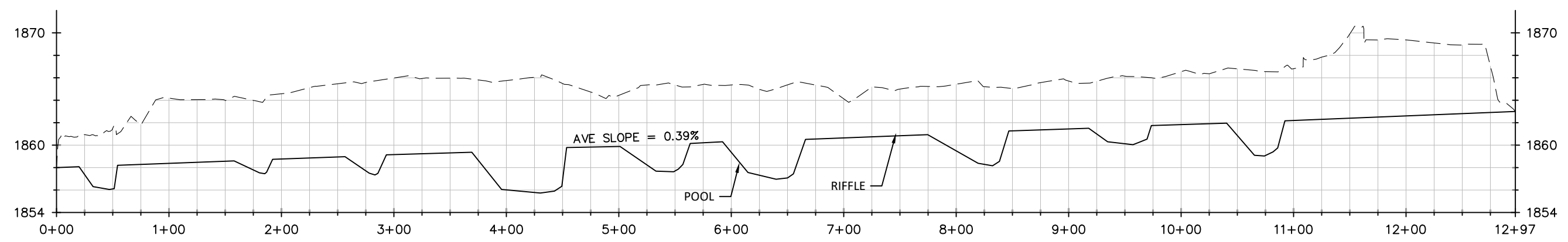
**CONCEPTUAL DESIGN
SIDE CHANNEL & LOG STRUCTURES**

SHEET
3 OF 6

G:\C-D\Chewuch_RM4_Design_17025\Drawings\References\Civil_3D\ch-rm4.2_base.dwg - mike_m - 12/10/18



SECTION VIEWS



PROFILE VIEW - SIDE CHANNEL CENTERLINE

NO.	BY	DATE	REVISION DESCRIPTION

MM	MB	CB
DRAWN	DESIGNED	CHECKED
XX	11-13-18	
APPROVED	DATE	PROJECT

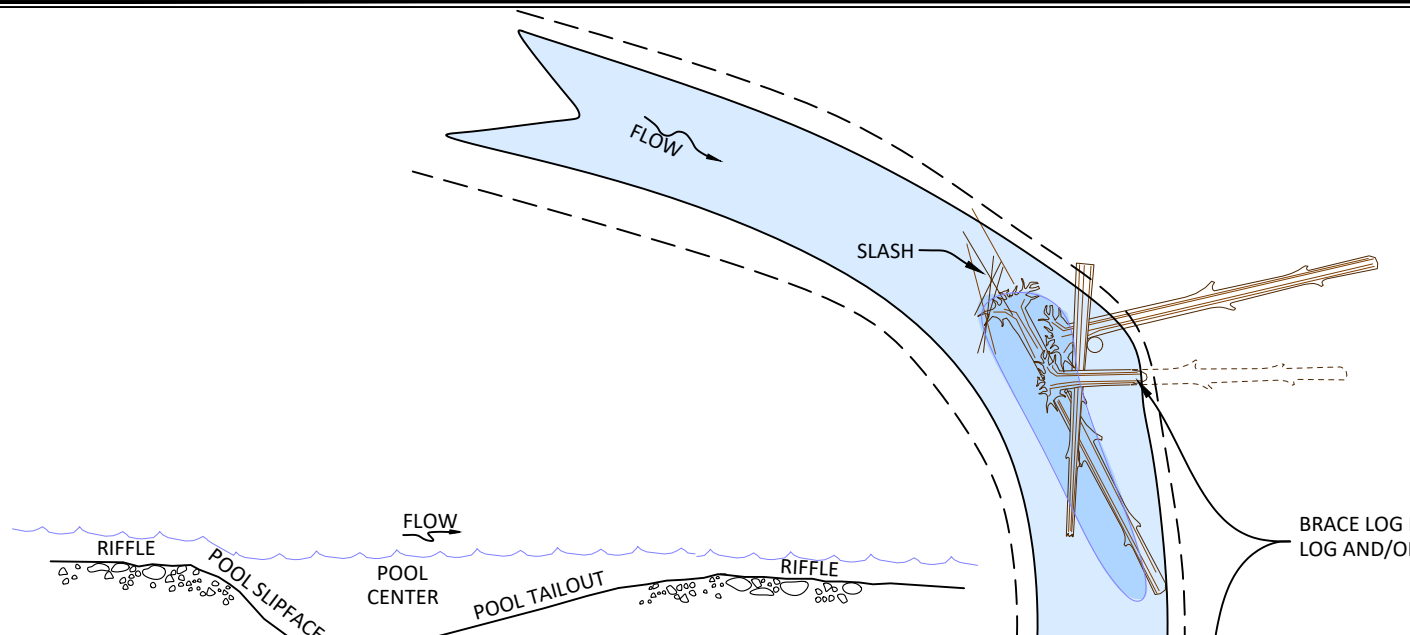
YAKAMA NATION FISHERIES PROGRAM
CHEWUCH RIVER MILE 4.2
FISH HABITAT ENHANCEMENT PROJECT



501 Portway Avenue, Suite 101
Hood River, OR 97031
541.386.9003
www.interfluve.com

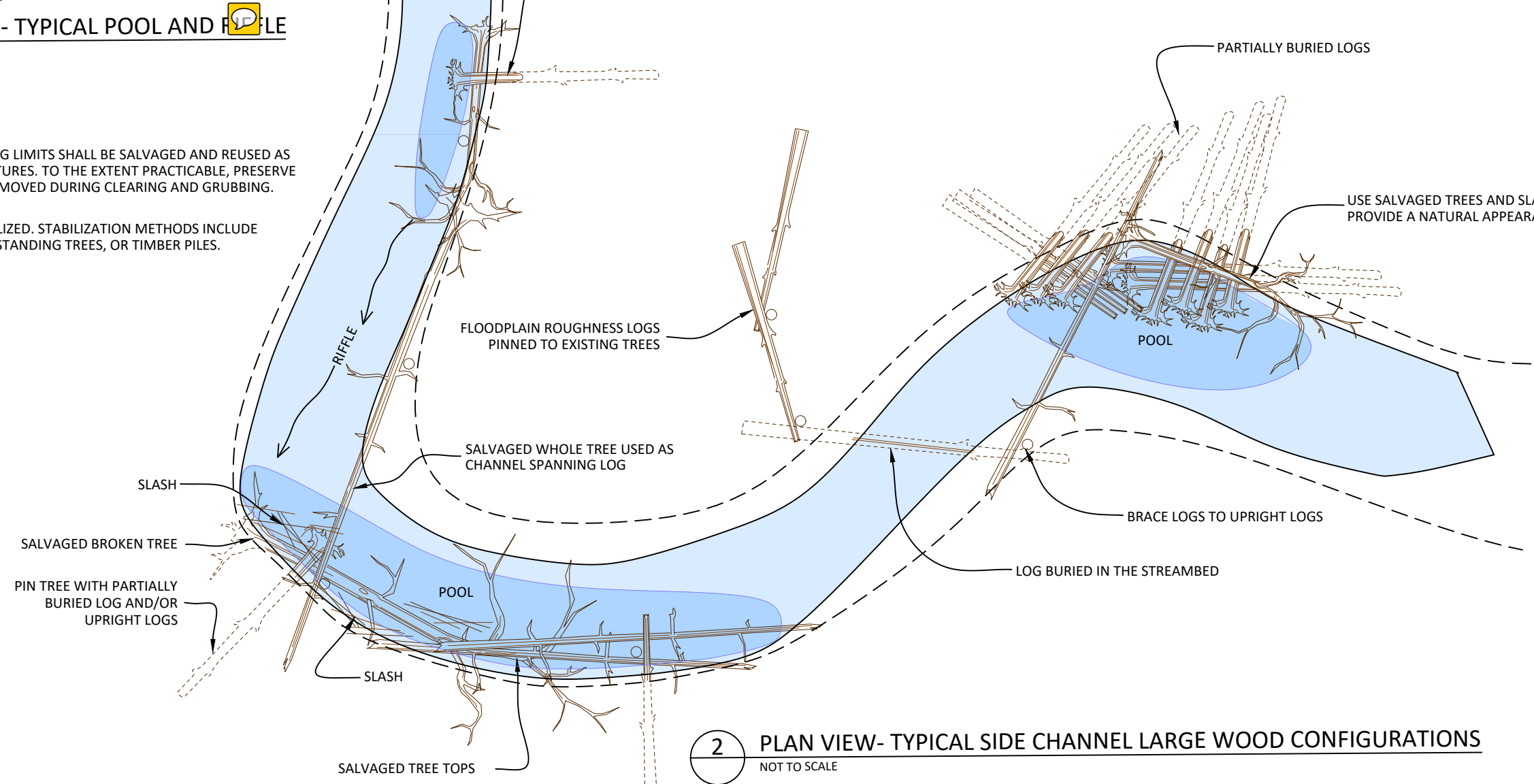
SIDE CHANNEL
SECTION AND PROFILE VIEWS

G:\C-D\Chewuch_RM4_Design_170257\Drawings\References\Civil_3D\ch-rm4.2_base.dwg - mike_m - 12/10/18

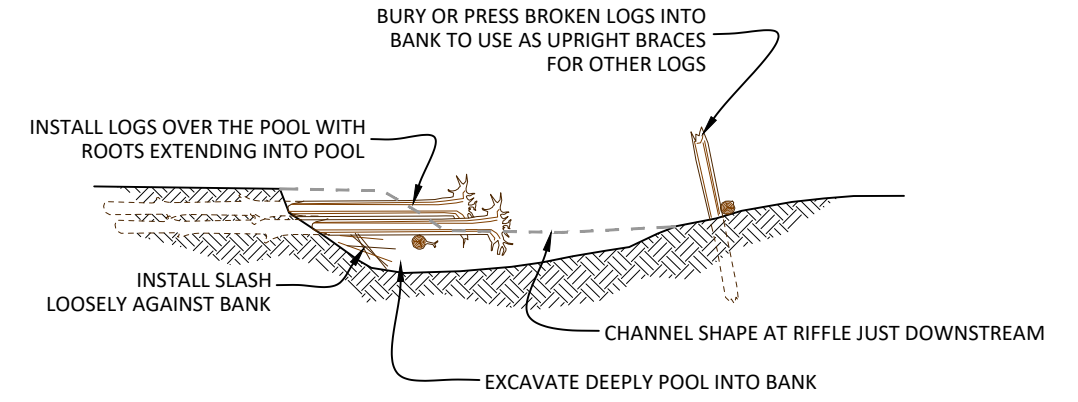


1 PROFILE VIEW - TYPICAL POOL AND RIFFLE
NOT TO SCALE

- NOTES:
- TREES AND SHRUBS WITHIN CLEARING LIMITS SHALL BE SALVAGED AND REUSED AS LOGS AND SLASH IN HABITAT STRUCTURES. TO THE EXTENT PRACTICABLE, PRESERVE BRANCHES AND ROOTS ON TREES REMOVED DURING CLEARING AND GRUBBING.
 - WOOD STRUCTURES SHALL BE STABILIZED. STABILIZATION METHODS INCLUDE PARTIAL BURIAL, BRACING AGAINST STANDING TREES, OR TIMBER PILES.



2 PLAN VIEW- TYPICAL SIDE CHANNEL LARGE WOOD CONFIGURATIONS
NOT TO SCALE



3 SECTION VIEW - TYPICAL POOL AND LWD
NOT TO SCALE

NO.	BY	DATE	REVISION DESCRIPTION

MM	MB	CB
DRAWN	DESIGNED	CHECKED
XX	11-13-18	
APPROVED	DATE	PROJECT

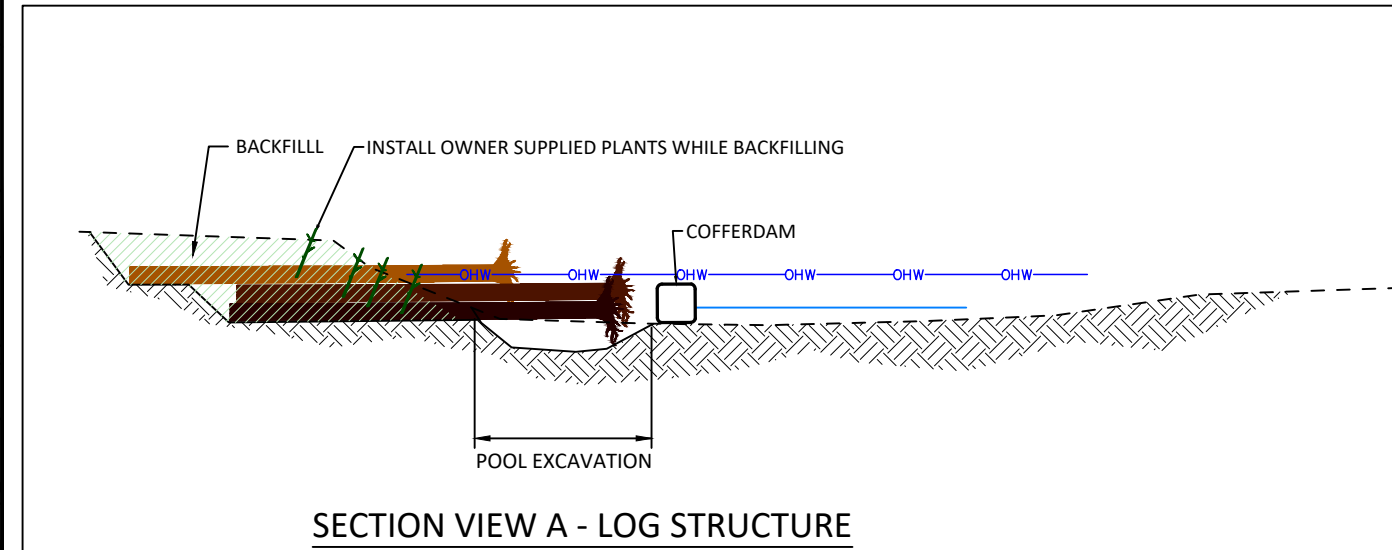
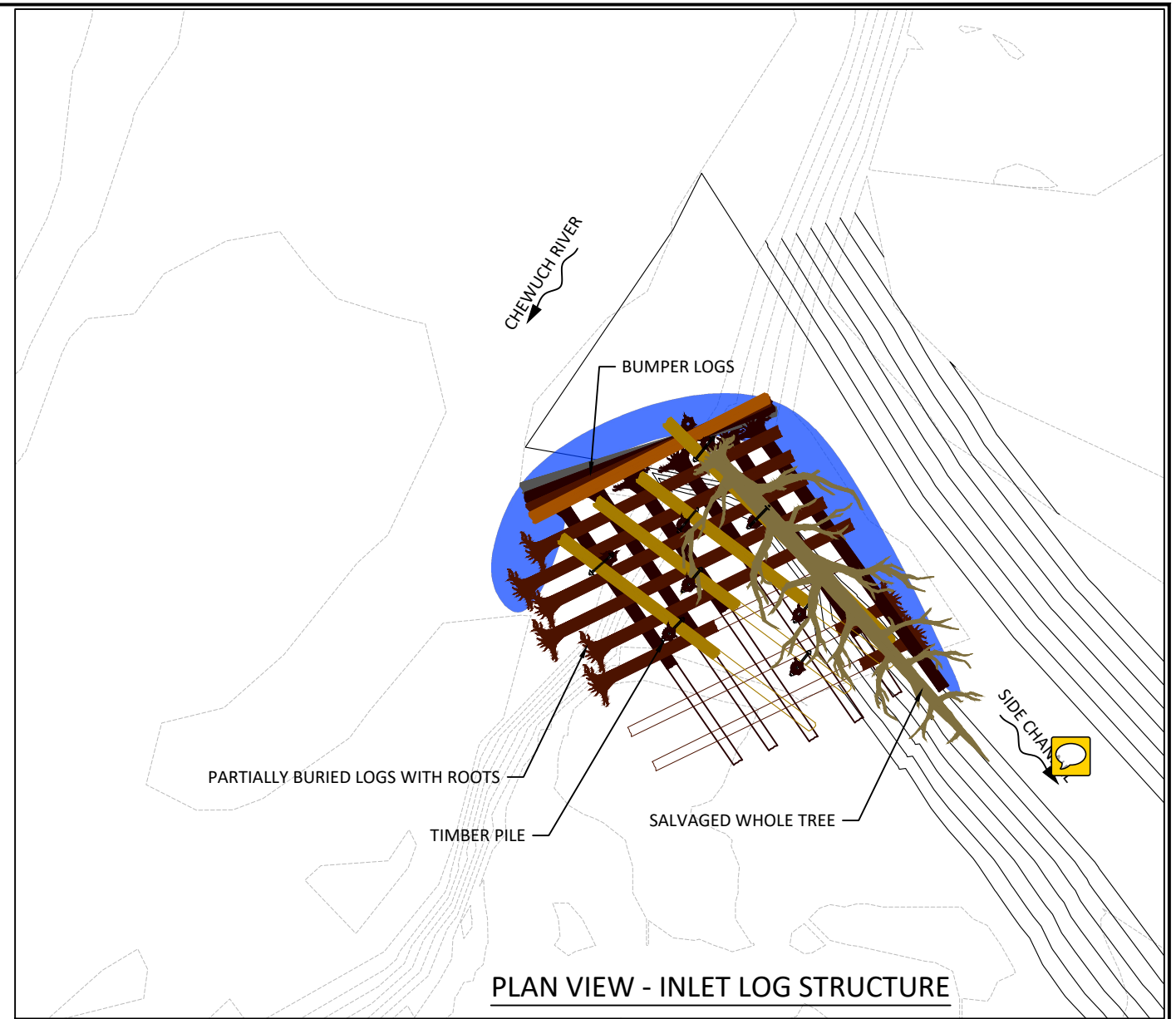
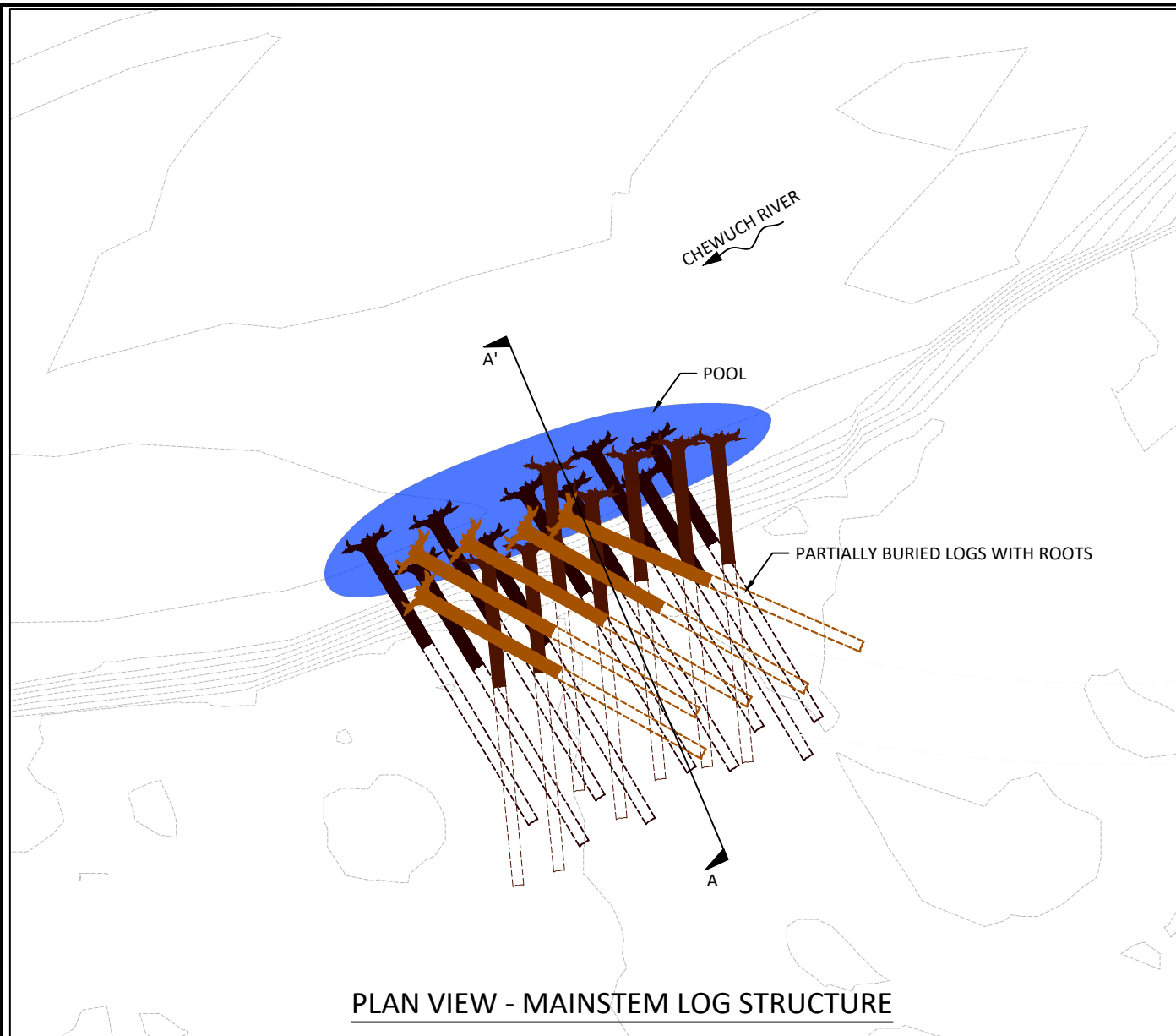
**YAKAMA NATION FISHERIES PROGRAM
CHEWUCH RIVER MILE 4.2
FISH HABITAT ENHANCEMENT PROJECT**



501 Portway Avenue, Suite 101
Hood River, OR 97031
541.386.9003
www.interfluve.com

**SIDE CHANNEL
TYPICAL DETAILS**

G:\C-D\Chewuch_RM4_Design_170257\Drawings\References\Civil_3D\ch-rm4.2_base.dwg - mike_m - 12/10/18



NO.	BY	DATE	REVISION DESCRIPTION

MM	MB	CB
DRAWN	DESIGNED	CHECKED
XX	11-13-18	PROJECT
APPROVED	DATE	PROJECT

**YAKAMA NATION FISHERIES PROGRAM
CHEWUCH RIVER MILE 4.2
FISH HABITAT ENHANCEMENT PROJECT**



501 Portway Avenue, Suite 101
Hood River, OR 97031
541.386.9003
www.interfluve.com

MAINSTEM LOG STRUCTURES