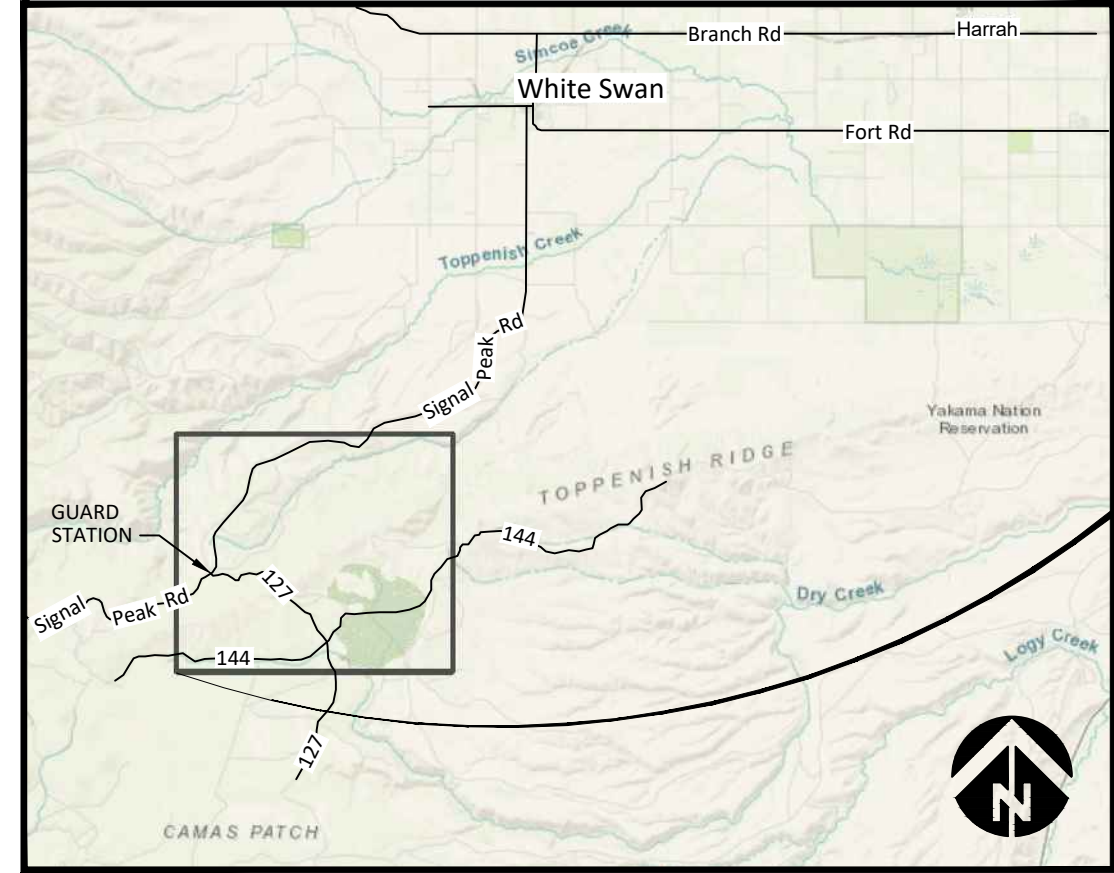
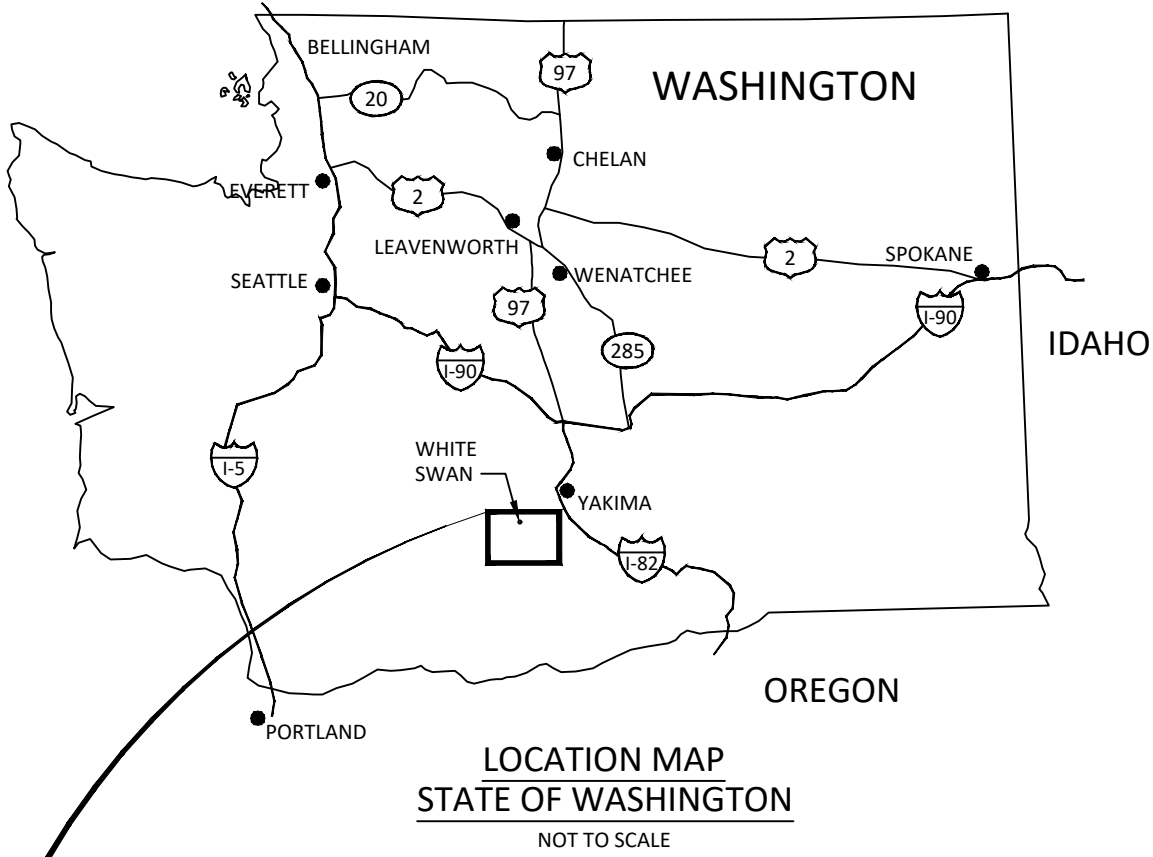


STARVATION FLATS UPPER NW MEADOW FINAL DESIGN

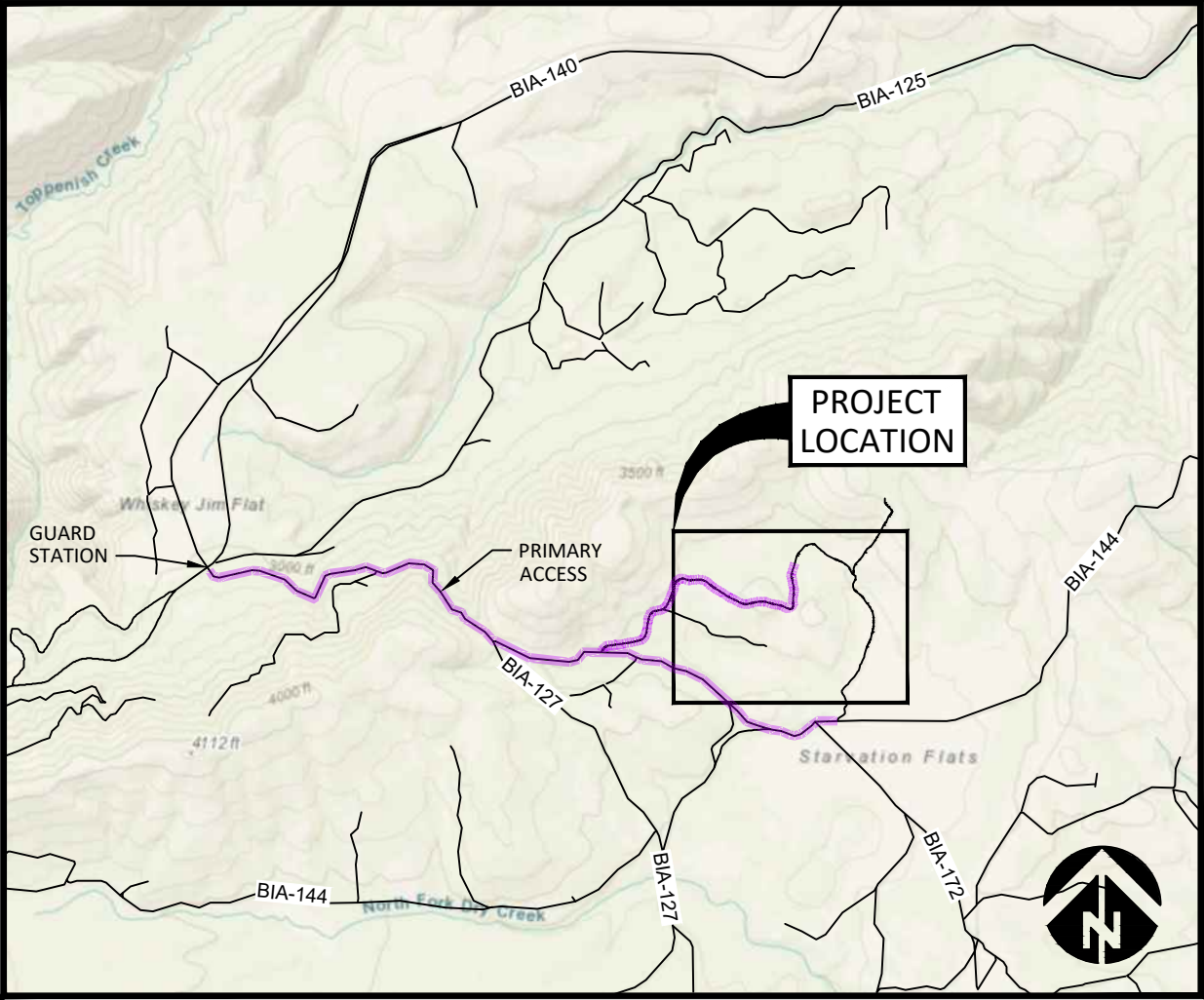
YAKAMA NATION FISHERIES PROGRAM

Designs for work completed in previous phases have been edited out

JUNE 28, 2021



VICINITY MAP
SCALE: 1/4" = 1 mi.



SITE MAP
SCALE: 1" = 1 mi.

UPSTREAM COORDINATES:
LATITUDE 46° 14' 33.25" N
LONGITUDE 120° 48' 41.78" W

DOWNSTREAM COORDINATES:
LATITUDE 46° 13' 51.82" N
LONGITUDE 120° 48' 09.66" W

SECTION 33, TOWNSHIP 9N, RANGE 16E

WATERBODY: DRY CREEK
TRIBUTARY OF: YAKIMA RIVER

SHEET LIST

- 1 COVER SHEET, LOCATION, AND SHEET LIST
- 2 GENERAL NOTES, LEGEND, AND ESTIMATED QUANTITIES
- 3 GENERAL NOTES
- 4 EXISTING CONDITIONS, SITE ACCESS, AND STAGING
- 5 CONSERVATION BMPs AND TESC MEASURES (1 OF 2)
- 6 CONSERVATION BMPs AND TESC MEASURES (2 OF 2)
- 7 PROPOSED CONDITIONS OVERVIEW
- ~~8 PROPOSED CONDITIONS PLAN (1 OF 6)~~
- ~~9 PROPOSED CONDITIONS PLAN (2 OF 6)~~
- ~~10 PROPOSED CONDITIONS PLAN (3 OF 6)~~
- ~~11 PROPOSED CONDITIONS PLAN (4 OF 6)~~
- 12 PROPOSED CONDITIONS PLAN (5 OF 6)
- 13 PROPOSED CONDITIONS PLAN (6 OF 6)
- ~~14 BANK LAYBACK TYPICAL DETAILS~~
- ~~15 VALLEY GRADE CONTROL STA 12+00 PLAN AND DETAILS~~
- 16 VALLEY GRADE CONTROL STA 70+00 PLAN AND DETAILS
- 17 VALLEY GRADE CONTROL TYPICAL DETAILS
- ~~18 PLUG AND POND TYPICAL DETAILS~~
- ~~19 HEADCUT REVETMENT TYPICAL DETAILS~~
- 20 DITCH FILL AND MEADOW ROUGHNESS TYPICAL DETAILS
- 21 DITCH PLUG AND RELIEF TYPICAL DETAILS
- 22 SURFACE FABRIC TREATMENT TYPICAL DETAILS
- 23 ROAD IMPROVEMENTS AND DECOMMISSIONING
- ~~24 REVEGETATION PLAN (1 OF 2)~~
- ~~25 REVEGETATION PLAN (2 OF 2)~~
- ~~26 REVEGETATION TYPICAL DETAILS~~
- 27 SPECIFICATIONS (1 of 6)
- 28 SPECIFICATIONS (2 of 6)
- 29 SPECIFICATIONS (3 of 6)
- 30 SPECIFICATIONS (4 of 6)
- 31 SPECIFICATIONS (5 of 6)
- 32 SPECIFICATIONS (6 of 6)

Sheets not
in Phase 3



NO.	BY	DATE	REVISION DESCRIPTION

DF	PLJG	GJ
DRAWN	DESIGNED	CHECKED
JG	6/28/2021	
APPROVED	DATE	PROJECT

YAKAMA NATION FISHERIES PROGRAM
YAKAMA RESERVATION
STARVATION FLATS UPPER NW MEADOW FINAL DESIGN



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

COVER SHEET, LOCATION, AND
SHEET LIST

1.1. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR JOB SITE SAFETY DURING CONSTRUCTION. CONSTRUCTION MEANS AND METHODS SHALL BE IN CONFORMANCE WITH THE WASHINGTON STATE SAFETY STANDARDS FOR CONSTRUCTION WORK PER CHAPTER 296-155 OF THE WASHINGTON ADMINISTRATIVE CODE (WAC) AND APPLICABLE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. CONTRACTOR SHALL PROVIDE APPROPRIATE SAFETY ORIENTATIONS FOR PERSONS ON-SITE AND HOLD REGULAR ON-SITE SAFETY MEETINGS.

- 2.1. THE CONTRACTOR SHALL ATTEND A MANDATORY PRE-BID SITE MEETING. THE PRE-BID MEETING DATE SHALL BE AS DETERMINED BY THE OWNER.
- 2.2. THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH OWNER AND ENGINEER PRIOR TO BEGINNING CONSTRUCTION. THE PRE-CONSTRUCTION MEETING DATE SHALL BE AS DETERMINED BY THE OWNER.
- 2.3. CONTRACTOR'S PROJECT MANAGER SHALL ATTEND REGULARLY SCHEDULED ON-SITE MEETINGS WITH THE OWNERS REPRESENTATIVE DURING CONSTRUCTION. THESE MEETINGS SHALL BE NO LONGER THAN 2 HOURS EACH AND NO MORE FREQUENT THAN ONCE PER WEEK.

- 3.1. CONTRACT DOCUMENTS INCLUDE THESE PROJECT PLANS AND THE PROJECT'S AMENDMENTS AND SPECIAL PROVISIONS TO THE WSDOT STANDARD SPECIFICATIONS.
- 3.2. UNLESS INDICATED OTHERWISE BY THE PROJECT PLANS AND SPECIFICATIONS, ALL WORK SHALL CONFORM TO THE LATEST EDITIONS OF STANDARD PLANS AND SPECIFICATIONS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), AND APPLICABLE LOCAL STANDARDS AS DETERMINED BY THE OWNER.
- 3.3. IN CASE OF A CONFLICT BETWEEN THE PLANS, SPECIFICATIONS, OTHER CONTRACT DOCUMENT, REGULATORY STANDARDS, OR LOCAL REGULATIONS; THE MORE STRINGENT, AS DETERMINED BY THE OWNER, SHALL TAKE PRECEDENCE. PRIOR TO PROCEEDING WITH THE WORK IN QUESTION THE CONTRACTOR SHALL OBTAIN CLARIFICATION/DIRECTION FROM THE OWNER.
- 3.4. QUANTITIES SHOWN ON THE PLANS ARE ESTIMATES, CONTRACTOR IS RESPONSIBLE FOR VERIFYING ITEMS AND QUANTITIES REQUIRED TO COMPLETE THE WORK AS SHOWN ON THE PLANS AND REQUIRED IN THE SPECIFICATIONS.
- 3.5. PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED ON THE PROJECT PLANS OR IN THE SPECIFICATIONS THE CONTRACTOR SHALL RECEIVE IN WRITING AUTHORIZATION FROM THE OWNER.
- 3.6. PROJECT PLANS USED FOR CONSTRUCTION SHALL BE PRINTED IN FULL COLOR AND TO SCALE.

4.1. THIS PROJECT IS PERMITTED BY YAKAMA NATION AND FEDERAL AGENCIES. IN CASE OF A CONFLICT BETWEEN THE PERMITS AND THE PROJECT PLANS AND SPECIFICATIONS, THE MORE STRINGENT, AS DETERMINED BY THE OWNER IN CONSULTATIONS WITH THE PERMITTING AGENCY, SHALL PREVAIL. THE CONTRACTOR WILL BE PROVIDED A HARD COPY OF THE PROJECT PERMITS BY THE OWNER. THE CONTRACTOR SHALL KEEP A HARD COPY OF THE PROJECT PERMITS AVAILABLE ON-SITE AT ALL TIMES DURING CONSTRUCTION.

5.1. WORK SHALL OCCUR DURING THE PERMITTED WORK PERIOD. CHANGES TO THE WORK PERIOD SHALL BE AT THE SOLE DISCRETION OF THE OWNER. TIME IS OF THE ESSENCE FOR THE CONTRACT AND LIQUIDATED DAMAGES MAYBE SOUGHT BY THE OWNER FOR CERTAIN DELAYS IN PROJECT COMPLETION. SEE PROJECT CONTRACT AND PERMITS FOR ADDITIONAL REQUIREMENTS.

- 6.1. PROJECT HORIZONTAL COORDINATE SYSTEM: NORTH AMERICAN DATUM OF 1983 (NAD83) WASHINGTON STATE PLANE, SOUTH ZONE. WELL KNOWN IDENTIFICATION (WKID): 2286, AUTHORITY: EPSG.
- 6.2. PROJECT VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), GEOID 12B.
- 6.3. PROJECT LENGTH AND ELEVATION UNIT: PLANS, SECTIONS AND PROFILES - DECIMAL US SURVEY FEET. DETAILS AND TYPICALS - DECIMAL FEET OR INCHES.

- 7.1. LIDAR DATA WAS COLLECTED ON OCTOBER 4, 2015 BY QUANTUM SPATIAL, UNDER THE OVERSIGHT AND DIRECTION OF CHRISTOPHER GLANTZ (REGISTERED WASHINGTON STATE PROFESSIONAL LAND SURVEYOR NUM. 48755). THE LIDAR DATA AS A BARE EARTH AND HIGHEST HIT DIGITAL ELEVATION MODEL (DEM) RASTER FILES (1M X 1M) WERE PROVIDED TO THE DESIGN ENGINEER BY QUANTUM SPATIAL. THE PROVIDED DEMS WERE ADAPTED FOR PROJECT USE TO PROVIDE A BASE FOR DEVELOPMENT OF THE PRE-PROJECT DIGITAL ELEVATION MODEL AND CANOPY HEIGHT ANALYSIS.
- 7.2. GROUND BASED TOPOGRAPHIC AND FEATURE LOCATION SURVEY DATA WAS COLLECTED IN OCTOBER OF 2020 AND MAY OF 2021 BY INTER-FLUVE STAFF, UNDER THE OVERSIGHT AND DIRECTION OF JOHN GAFFNEY (REGISTERED WASHINGTON STATE PROFESSIONAL ENGINEER NUM. 51075). THE SURVEY USED RTK GPS EQUIPMENT. POSITION AND ELEVATION DATA WAS POST PROCESSED AND CORRECTED BASED ON THE BASE LOCATION ON CONTROL POINT 200.
- 7.3. PRE-PROJECT SURFACE DATA (DEM, EXISTING CONTOURS, GRADES, AND LINES) SHOWN ARE DERIVED FROM THE AERIAL LIDAR. THE GROUND BASED TOPOGRAPHIC AND FEATURE LOCATION SURVEY DATA WAS USED TO VERIFY THE LIDAR AND LOCATE KEY PROJECT EXISTING AND PROPOSED FEATURES. PRE-PROJECT SITE CONDITIONS AND FEATURES SHOWN ON THE PLANS REPRESENT CONDITIONS AT THE TIME OF THE PRE-PROJECT SURVEY.
- 7.4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF PRE-PROJECT CONDITIONS SHOWN ON THE PLANS ARE SUFFICIENTLY REPRESENTATIVE OF THE CURRENT PRE-PROJECT CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY SUBSTANTIAL DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER PRIOR TO PROCEEDING WITH THE WORK.
- 7.5. ROADS SHOWN ARE FOR VISUAL REFERENCE ONLY AND ARE CONSIDERED APPROXIMATE. ROAD DATA WAS PROVIDED BY YAKAMA NATION IN GIS SHAPE FILE FORMAT AND WERE ADAPTED AND REFINED FOR PROJECT USE BY INTER-FLUVE.
- 7.6. AERIAL PHOTO DISPLAYED: NATIONAL AGRICULTURAL IMAGERY PROGRAM (NAIP) IMAGERY TAKEN AUGUST 3, 2019.

- 8.1. BEDROCK: THE TOE OF A SIMCOE MOUNTAIN BASALT FLOW APRON UNDERLIES THE DOWNSTREAM PORTION OF THE PROJECT AREA AND DEFINES THE EASTERN AND SOUTHERN VALLEY EDGES. COLUMBIA RIVER BASALTS UNDERLY THE UPPER SECTION OF THE PROJECT AREA.
- 8.2. SOILS: THE SOIL TYPES DELINEATED BY THE BUREAU OF INDIAN AFFAIRS ARE REPORTED AS SILT-LOAM WITH VARIATIONS IN PERCENT OF CLAY, ASH, AND SAND. SOIL DEPTH TO UNDERLYING BEDROCK RANGES FROM 20 TO MORE THAN 80 INCHES.
- 8.3. SUBSURFACE INVESTIGATIONS: NO SUBSURFACE INVESTIGATIONS, OTHER THAN OBSERVATIONS ALONG ERODED CHANNEL BANKS, HAVE BEEN COMPLETED WITHIN THE PROJECT FOOTPRINT FOR THIS PROJECT.

9.1. NO KNOWN UTILITIES ARE LOCATED WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR HAVING UTILITIES LOCATED PRIOR TO CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CONTACT THE UTILITY LOCATION REQUEST CENTER (ONE-CALL CENTER) AT 1-800-424-5555 FOR UTILITY LOCATE PRIOR TO GROUND DISTURBING WORK THAT MAY IMPACT EXISTING UTILITIES.

10.1. FENCES, GATES, AND OTHER INFRASTRUCTURE IMPACTED DURING CONSTRUCTION THAT IS NOT IDENTIFIED ON THE PLANS FOR REMOVAL SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER PRIOR TO FINAL COMPLETION. FENCES, GATES, AND OTHER PRIVATE INFRASTRUCTURE IDENTIFIED FOR REMOVAL ON THE PLANS OR APPROVED FOR REMOVAL BY THE OWNER SHALL BE PROPERLY DISPOSED OF OFF-SITE.

- 11.1. CULTURAL RESOURCE MONITORING TO BE PROVIDED BY THE OWNER DURING GROUND DISTURBING ACTIVITIES. THE CONTRACTOR SHALL ACCOMMODATE THE MONITORING PERSONNEL AND COMPLY WITH THEIR DIRECTION RELATIVE TO INTERACTIONS WITH POTENTIAL CULTURAL RESOURCES.
- 11.2. IF YOUR WORK BRINGS YOU INTO CONTACT WITH ANY OF THE FOLLOWING CULTURAL RESOURCES:

- YOU MUST IMMEDIATELY DISCONTINUE ALL GROUND-DISTURBING ACTIVITY. DO NOT TOUCH OR MOVE THE OBJECTS AND MAINTAIN THE CONFIDENTIALITY OF THE SITE. FOLLOW THE PROCEDURES LISTED IN THE TRIBES INADVERTENT DISCOVERY PROCEDURE. THEN AWAIT FURTHER DIRECTION FROM THE TRIBES CULTURAL RESOURCES STAFF.

- 12.1. TRIBUTARIES OF STARVATION FLATS ARE INTERMITTENT WITHIN THE PROJECT AREA, TYPICALLY DRYING OUT BY LATE JULY ANNUALLY. AS SUCH THE PROJECT AREA LIES OUTSIDE THE JURISDICTIONAL BOUNDARIES OF WATERS OF THE US.
- 12.2. SEASONAL WETLANDS ARE PRESENT WITHIN THE PROJECT SITE. WETLAND DELINEATIONS WERE PERFORMED AT THE PROJECT SITE ON NOVEMBER 16, 2020 BY INTER-FLUVE PERSONNEL, UNDER THE OVERSIGHT AND DIRECTION OF EMILY ALCOTT (PROFESSIONAL WETLANDS SCIENTIST NUM. 2692).

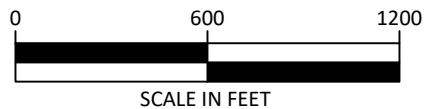
Description	Quantity
CLEARING AND GRUBBING	7.2 Acres
EXCAVATION, NATIVE	3,440 CY
BACKFILL INCL. COMPACTION, NATIVE	3,440 CY
BACKFILL INCL. COMPACTION, IMPORT	1,430 CY
ROCK FOR EROSION AND SCOUR PROTECTION, IMPORT	4,350 CY
NEW ROAD GRADING	3,490 SY
TREE CUTTING	2.5 Acres
ROAD DECOMMISSIONING	1.1 Acres
EROSION CONTROL FABRIC	14,300 SY
REVEGETATION, PRAIRIE	6.2 Acres
REVEGETATION, FLOODPLAIN	4.6 Acres
REVEGETATION, POND	2.4 Acres

APPROX	APPROXIMATE
AVE	AVERAGE
CFS	CUBIC FEET PER SECOND
CMs	CONSERVATION MEASURES
CY	CUBIC YARDS
°	DEGREES
DIA	DIAMETER
EL or ELEV	ELEVATION
EXIST	EXISTING
FT or '	FEET
HWY	HIGHWAY
HORIZ	HORIZONTAL
IN or "	INCH
INV	INVERT
LN	LANE
MAX	MAXIMUM
MIN	MINIMUM
NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
OHW	ORDINARY HIGH WATER
%	PERCENT
RD	ROAD
RMx	RIVER MILE x
STA	STATION
TBD	TO BE DETERMINED
TBM	TEMPORARY BENCHMARK
TESC	TEMPORARY EROSION AND SEDIMENTATION CONTROL
TYP	TYPICAL
VERT	VERTICAL
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WSE	WATER SURFACE ELEVATION
YR	YEAR



					DF DRAWN	PLJG DESIGNED	GJ CHECKED	YAKAMA NATION FISHERIES PROGRAM YAKAMA RESERVATION STARVATION FLATS UPPER NW MEADOW FINAL DESIGN  501 Portway Avenue, Suite 101 Hood River, OR 97031 541.386.9003 www.interfluve.com	GENERAL NOTES, LEGEND, AND ESTIMATED QUANTITIES	SHEET	
					JG APPROVED	6/28/2021 DATE				2 OF 32	
NO.	BY	DATE	REVISION DESCRIPTION								

13. CONSTRUCTION STAKING 13.1. PRIOR TO MOBILIZATION OF HEAVY EQUIPMENT OR MATERIALS ONTO THE SITE CONTRACTOR SHALL MEET WITH THE OWNER AND ENGINEER TO REVIEW AREAS MARKED BY THE OWNER: 13.1.1. SENSITIVE RESOURCE AREAS TO BE AVOIDED; 13.1.2. LIMITS OF DISTURBANCE; 13.1.3. EQUIPMENT ENTRY AND EXIT POINTS; 13.1.4. ACCESS ROUTE ALIGNMENTS; AND 13.1.5. STAGING, STORAGE, AND STOCKPILE AREAS; 13.2. THE OWNER WILL PROVIDE THE CONTRACTOR WITH A 3D ENGINEERED MODEL OF THE PROJECT PLANS. THE CONTRACTOR SHALL USE THE CONTENT OF THE 3D ENGINEERED MODEL, IN CONJUNCTION WITH THE PLANS AND CONSTRUCTION SURVEY EQUIPMENT, TO STAKE OUT AND ASSIST IN COMPLETING THE WORK SHOWN ON THE PLANS. IN CASE OF A CONFLICT BETWEEN THE 3D ENGINEERED MODEL AND THE PLANS, THE PLANS SHALL TAKE PRECEDENCE OVER THE 3D ENGINEERED MODEL. 13.3. CONTRACTOR SHALL PROVIDE PROJECT SURVEY AS NECESSARY TO COMPLETE THE WORK AND PROVIDE THE OWNER A MEANS OF VISUALLY VERIFYING THAT THE WORK WAS COMPLETED PER PLAN. THIS SHALL INCLUDE ESTABLISHING INTERMEDIATE CONTROL POINTS, INSTALLING GRADE STAKES, INSTALLING LOCATION AND LOCATION OFF-SET STAKES, AND SETTING OTHER STAKES, FLAGGING, OR MARKINGS DETERMINED TO BE NECESSARY. CONTRACTOR SHALL ACCOMMODATE INQUIRIES FROM THE OWNER AND ENGINEER CONCERNING THE METHODS USED TO ESTABLISH CONSTRUCTION STAKING. THE CONTRACTOR SHALL ACCOMMODATE GRADE AND LOCATION CHECK REQUESTS MADE BY THE OWNER AND ENGINEER THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE TIME AND SAFE ACCESS FOR THE CONTRACTING OFFICER'S INDEPENDENT GRADE AND LOCATION VERIFICATION THROUGHOUT CONSTRUCTION. 13.4. FIELD ADJUSTMENTS TO THE LINES, GRADES, AND LOCATIONS OF WORK ITEMS ARE TO BE EXPECTED GIVEN THE NATURE OF THE PROJECT AND THE KNOWN POTENTIAL FOR VARIATIONS IN CONDITIONS WITHIN AND ADJACENT TO NATURALLY CHANGING SYSTEM. THE CONTRACTOR SHALL CONSULT THE OWNER AND ENGINEER PRIOR TO MAKING FIELD ADJUSTMENTS. FIELD ADJUSTMENTS SHALL BE APPROVED BY THE OWNER. THE LOCATION, ALIGNMENT, AND ELEVATION OF FEATURES ARE SUBJECT TO ADJUSTMENT BASED ON FIELD CONDITIONS AND MATERIAL SIZE DELIVERED, AS APPROVED BY THE OWNER. 13.5. A NUMBER OF PROJECT PRIMARY SURVEY CONTROL POINTS HAVE BEEN ESTABLISHED IN THE PROJECT AREA, SEE PLANS. THE CONTRACTOR SHALL REPLACE DAMAGED OR DESTROYED PRIMARY SURVEY CONTROL POINTS AT NO ADDITIONAL COST TO THE OWNER.															
14. EROSION CONTROL 14.1. CONTRACTOR SHALL BE SOLELY RESPONSIBLE, AT OWN EXPENSE, FOR PROVIDING AND MAINTAINING ALL NECESSARY EROSION CONTROL FACILITIES TO COMPLY WITH APPLICABLE EROSION CONTROL REGULATIONS AND TO MAINTAIN CLEAN ACCESS ROUTES. 14.2. EROSION CONTROL MEASURES SHALL BE PREPARED AND CARRIED OUT, COMMENSURATE IN SCOPE WITH THE ACTION, THAT MAY INCLUDE THE FOLLOWING: 14.2.1. TEMPORARY EROSION CONTROLS. 14.2.1.1. TEMPORARY EROSION CONTROLS SHALL BE IN PLACE BEFORE ANY SIGNIFICANT ALTERATION OF THE ACTION SITE AND APPROPRIATELY INSTALLED DOWNSLOPE OF PROJECT ACTIVITY WITHIN THE RIPARIAN BUFFER AREA UNTIL SITE REHABILITATION IS COMPLETE. 14.2.1.2. IF THERE IS A POTENTIAL FOR ERODED SEDIMENT TO ENTER THE STREAM, SEDIMENT BARRIERS SHALL BE INSTALLED AND MAINTAINED FOR THE DURATION OF PROJECT IMPLEMENTATION. 14.2.1.3. TEMPORARY EROSION CONTROL MEASURES MAY INCLUDE FIBER WATTLES, SILT FENCES, JUTE MATTING, WOOD FIBER MULCH AND SOIL BINDER, OR GEOTEXTILES AND GEOSYNTHETIC FABRIC. 14.2.1.4. SOIL STABILIZATION UTILIZING WOOD FIBER MULCH AND TACKIFIER (HYDRO-APPLIED) MAY BE USED TO REDUCE EROSION OF BARE SOIL IF THE MATERIALS ARE NOXIOUS WEED FREE AND NONTOXIC TO AQUATIC AND TERRESTRIAL ANIMALS, SOIL MICROORGANISMS, AND VEGETATION. 14.2.1.5. SEDIMENT SHALL BE REMOVED FROM EROSION CONTROLS ONCE IT HAS REACHED 1/3 OF THE EXPOSED HEIGHT OF THE CONTROL. 14.2.1.6. ONCE THE SITE IS STABILIZED AFTER CONSTRUCTION, TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED. 14.2.2. EMERGENCY EROSION CONTROLS. THE FOLLOWING MATERIALS FOR EMERGENCY EROSION CONTROL SHALL BE AVAILABLE AT THE WORK SITE: 14.2.2.1. A SUPPLY OF SEDIMENT CONTROL MATERIALS; AND 14.2.2.2. AN OIL-ABSORBING FLOATING BOOM WHENEVER SURFACE WATER IS PRESENT. 14.3. SEE PROJECT PERMITS FOR ADDITIONAL REQUIREMENTS.															
15. STAGING, STORAGE, AND STOCKPILE AREAS. 15.1. STAGING AREAS (USED FOR CONSTRUCTION EQUIPMENT STORAGE, VEHICLE STORAGE, FUELING, SERVICING, AND HAZARDOUS MATERIAL STORAGE) SHALL BE 150 FEET OR MORE FROM ANY NATURAL WATER BODY OR WETLAND, OR ON AN ADJACENT, ESTABLISHED ROAD AREA IN A LOCATION AND MANNER THAT WILL PRECLUDE EROSION INTO OR CONTAMINATION OF THE WATERBODY OR WETLAND. 15.2. NATURAL MATERIALS USED FOR IMPLEMENTATION OF RESTORATION, SUCH AS LARGE WOOD, GRAVEL, AND BOULDERS, MAY BE STAGED OUTSIDE THE DESIGNATED STAGING AREAS WITHIN THE LIMITS OF DISTURBANCE AS APPROVED BY THE OWNER. 15.3. ANY LARGE WOOD, TOPSOIL, AND NATIVE CHANNEL MATERIAL DISPLACED BY CONSTRUCTION SHALL BE STOCKPILED FOR USE DURING SITE RESTORATION AT A SPECIFICALLY IDENTIFIED AND FLAGGED AREA.															
15.4. ANY MATERIAL NOT USED IN RESTORATION, AND NOT NATIVE TO THE PROJECT SITE SHALL BE REMOVED TO AN OFF-SITE LOCATION FOR DISPOSAL.															
16. EQUIPMENT 16.1. MECHANIZED EQUIPMENT AND VEHICLES SHALL BE SELECTED, OPERATED, AND MAINTAINED IN A MANNER THAT MINIMIZES ADVERSE EFFECTS ON THE ENVIRONMENT (E.G., MINIMALLY-SIZED, LOW PRESSURE TIRES; MINIMAL HARD-TURN PATHS FOR TRACKED VEHICLES; TEMPORARY MATS OR PLATES WITHIN WET AREAS OR ON SENSITIVE SOILS). ALL VEHICLES AND OTHER MECHANIZED EQUIPMENT SHALL BE: • STORED, FUELED, AND MAINTAINED IN A VEHICLE STAGING AREA PLACED 150 FEET OR MORE FROM ANY NATURAL WATER BODY OR WETLAND OR ON AN ADJACENT, ESTABLISHED ROAD AREA; • REFUELED IN A VEHICLE STAGING AREA PLACED 150 FEET OR MORE FROM A NATURAL WATERBODY OR WETLAND, OR IN AN ISOLATED HARD ZONE, SUCH AS A PAVED PARKING LOT OR ADJACENT, ESTABLISHED ROAD (THIS MEASURE APPLIES ONLY TO GAS-POWERED EQUIPMENT WITH TANKS LARGER THAN 5 GALLONS); • BIODEGRADABLE LUBRICANTS AND FLUIDS SHALL BE USED ON EQUIPMENT OPERATING IN AND ADJACENT TO MEADOW, OTHER THAN ALONG EXISTING DESIGNATED ROADS. • INSPECTED DAILY FOR FLUID LEAKS BEFORE LEAVING THE VEHICLE STAGING AREA FOR OPERATION WITHIN 150 FEET OF ANY NATURAL WATER BODY OR WETLAND; AND • THOROUGHLY CLEANED BEFORE OPERATION AND AS OFTEN AS NECESSARY DURING OPERATION, TO REMAIN GREASE FREE. • ALL EQUIPMENT USED FOR SITE WORK SHALL BE CLEANED OF DIRT, PLANT MATERIAL (TO PREVENT THE SPREAD OF NOXIOUS WEEDS), PRIOR TO ENTERING THE PROJECT AREA.															
17. DUST ABATEMENT 17.1. THE OWNER WILL DETERMINE THE APPROPRIATE DUST CONTROL MEASURES BY CONSIDERING SOIL TYPE, EQUIPMENT USAGE, PREVAILING WIND DIRECTION, AND THE EFFECTS CAUSED BY OTHER EROSION AND SEDIMENT CONTROL MEASURES. IN ADDITION, THE FOLLOWING CRITERIA SHALL BE FOLLOWED: • WORK SHALL BE SEQUENCED AND SCHEDULED TO REDUCE EXPOSED BARE SOIL SUBJECT TO WIND EROSION. • DUST-ABATEMENT ADDITIVES AND STABILIZATION CHEMICALS SHALL NOT BE USED. • PETROLEUM-BASED PRODUCTS SHALL NOT BE USED FOR DUST ABATEMENT.															
18. SPILL PREVENTION, CONTROL, AND COUNTER MEASURES 18.1. THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING MEASURES: • A DESCRIPTION OF HAZARDOUS MATERIALS THAT WILL BE USED, INCLUDING INVENTORY, STORAGE, AND HANDLING PROCEDURES SHALL BE AVAILABLE ON-SITE. • WRITTEN PROCEDURES FOR NOTIFYING ENVIRONMENTAL RESPONSE AGENCIES SHALL BE POSTED AT THE WORK SITE. • SPILL CONTAINMENT KITS (INCLUDING INSTRUCTIONS FOR CLEANUP AND DISPOSAL) ADEQUATE FOR THE TYPES AND QUANTITY OF HAZARDOUS MATERIALS USED AT THE SITE SHALL BE AVAILABLE AT THE WORK SITE. • WORKERS SHALL BE TRAINED IN SPILL CONTAINMENT PROCEDURES AND BE INFORMED OF THE LOCATION OF SPILL CONTAINMENT KITS. • ANY WASTE LIQUIDS GENERATED AT THE STAGING AREAS SHALL BE TEMPORARILY STORED UNDER AN IMPERVIOUS COVER, SUCH AS A TARPULIN, UNTIL THEY CAN BE PROPERLY TRANSPORTED TO AND DISPOSED OF AT A FACILITY THAT IS APPROVED FOR RECEIPT OF HAZARDOUS MATERIALS.															
19. CONSTRUCTION ACCESS AND SEQUENCING 19.1. THE PROJECT IS ENTIRELY WITHIN THE YAKAMA RESERVATION. ACCESS TO THE SITE REQUIRES PRIOR AUTHORIZATION FROM THE YAKAMA NATION. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED ACCESS AUTHORIZATIONS FOR ALL VEHICLES AND PERSONNEL FROM THE OWNER PRIOR TO ENTRY. 19.2. CONTRACTOR SHALL SUBMIT AN ACCESS, STAGING, AND SEQUENCING PLAN TO THE OWNER FOR APPROVAL PRIOR TO MOBILIZATION. THE PLAN SHALL INCLUDE ANY ANTICIPATED CHANGES TO THE ACCESS ROUTES AND STAGING AREAS SHOWN ON THE PLANS. CHANGES TO THE ACCESS ROUTES AND STAGING AREAS ARE SUBJECT TO REVIEW AND APPROVAL BY THE OWNERS CULTURAL RESOURCES STAFF IN CONSULTATION WITH STATE, FEDERAL, AND TRIBAL AGENCIES. 19.3. ALL EQUIPMENT, MATERIALS AND PERSONNEL SHALL REMAIN WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THE PLANS OR MARKED IN THE FIELD BY THE OWNER. THE CONTRACTOR SHALL KEEP THE WORK AREAS IN A NEAT AND CLEAN CONDITION FREE OF DEBRIS AND LITTER FOR THE DURATION OF THE PROJECT. AREAS DISTURBED OUTSIDE THE LIMITS OF DISTURBANCE, EITHER INADVERTENTLY OR INTENTIONALLY BY THE CONTRACTOR, SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER. 19.4. EXISTING ACCESS ROADS AND PATHS SHALL BE PREFERENTIALLY USED WHENEVER REASONABLE, AND THE NUMBER AND LENGTH OF TEMPORARY ACCESS ROUTES AND PATHS THROUGH MEADOW AREAS SHALL BE MINIMIZED TO LESSEN SOIL DISTURBANCE AND COMPACTION, AND IMPACTS TO VEGETATION. ACCESS ROUTES OTHER THAN THE ONES SHOWN SHALL BE ONLY AS APPROVED BY THE OWNER. 19.5. THE REMOVAL OF RIPARIAN VEGETATION DURING CONSTRUCTION OF TEMPORARY ACCESS ROUTES SHALL BE MINIMIZED. WHEN TEMPORARY VEGETATION REMOVAL IS REQUIRED, VEGETATION SHALL BE CUT AT GROUND LEVEL (NOT GRUBBED).				JOHN R. GAFFNEY STATE OF WASHINGTON  61075 REGISTERED PROFESSIONAL ENGINEER 											
				501 Portway Avenue, Suite 101 Hood River, OR 97031 541.386.9003 www.interfluve.com				GENERAL NOTES							
								SHEET							
								3 OF 32							
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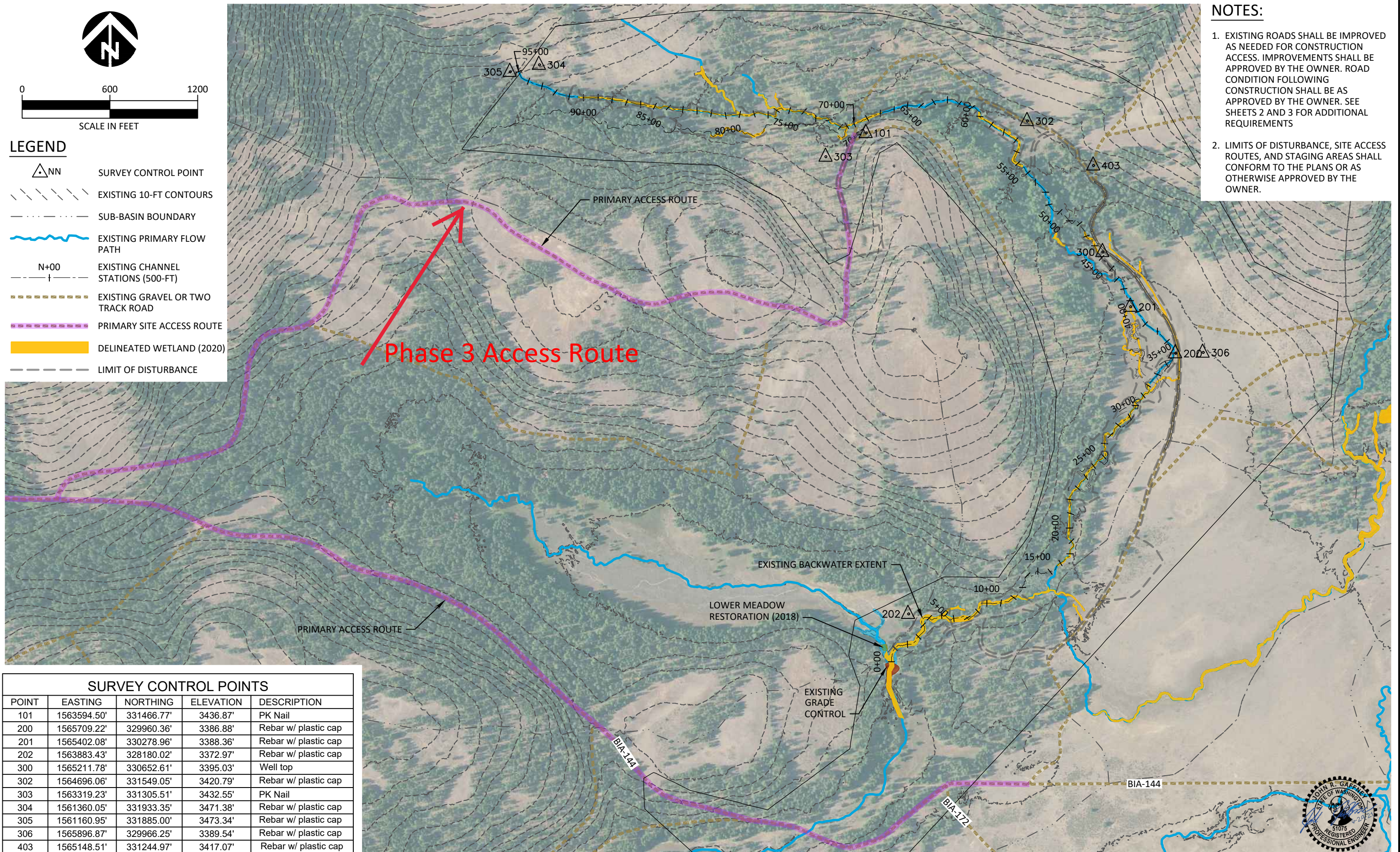


LEGEND

- SURVEY CONTROL POINT
- EXISTING 10-FT CONTOURS
- SUB-BASIN BOUNDARY
- EXISTING PRIMARY FLOW PATH
- EXISTING CHANNEL STATIONS (500-FT)
- EXISTING GRAVEL OR TWO TRACK ROAD
- PRIMARY SITE ACCESS ROUTE
- DELINEATED WETLAND (2020)
- LIMIT OF DISTURBANCE

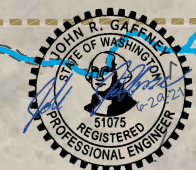
NOTES:

- EXISTING ROADS SHALL BE IMPROVED AS NEEDED FOR CONSTRUCTION ACCESS. IMPROVEMENTS SHALL BE APPROVED BY THE OWNER. ROAD CONDITION FOLLOWING CONSTRUCTION SHALL BE AS APPROVED BY THE OWNER. SEE SHEETS 2 AND 3 FOR ADDITIONAL REQUIREMENTS
- LIMITS OF DISTURBANCE, SITE ACCESS ROUTES, AND STAGING AREAS SHALL CONFORM TO THE PLANS OR AS OTHERWISE APPROVED BY THE OWNER.



SURVEY CONTROL POINTS

POINT	EASTING	NORTHING	ELEVATION	DESCRIPTION
101	1563594.50'	331466.77'	3436.87'	PK Nail
200	1565709.22'	329960.36'	3386.88'	Rebar w/ plastic cap
201	1565402.08'	330278.96'	3388.36'	Rebar w/ plastic cap
202	1563883.43'	328180.02'	3372.97'	Rebar w/ plastic cap
300	1565211.78'	330652.61'	3395.03'	Well top
302	1564696.06'	331549.05'	3420.79'	Rebar w/ plastic cap
303	1563319.23'	331305.51'	3432.55'	PK Nail
304	1561360.05'	331933.35'	3471.38'	Rebar w/ plastic cap
305	1561160.95'	331885.00'	3473.34'	Rebar w/ plastic cap
306	1565896.87'	329966.25'	3389.54'	Rebar w/ plastic cap
403	1565148.51'	331244.97'	3417.07'	Rebar w/ plastic cap



YAKAMA NATION FISHERIES PROGRAM
YAKAMA RESERVATION
STARVATION FLATS UPPER NW MEADOW FINAL DESIGN

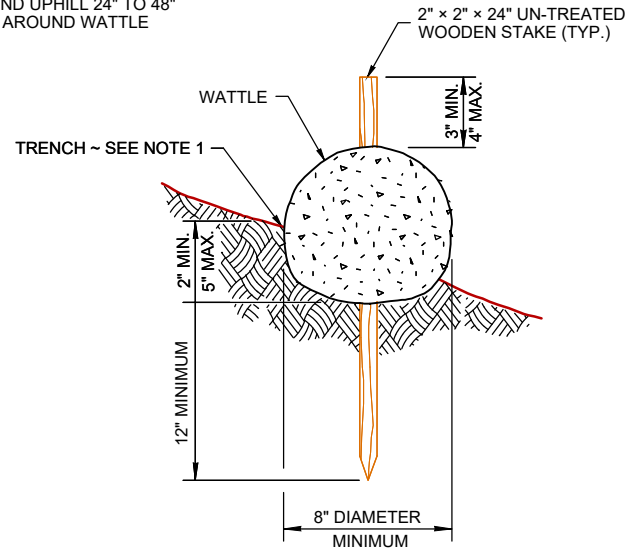
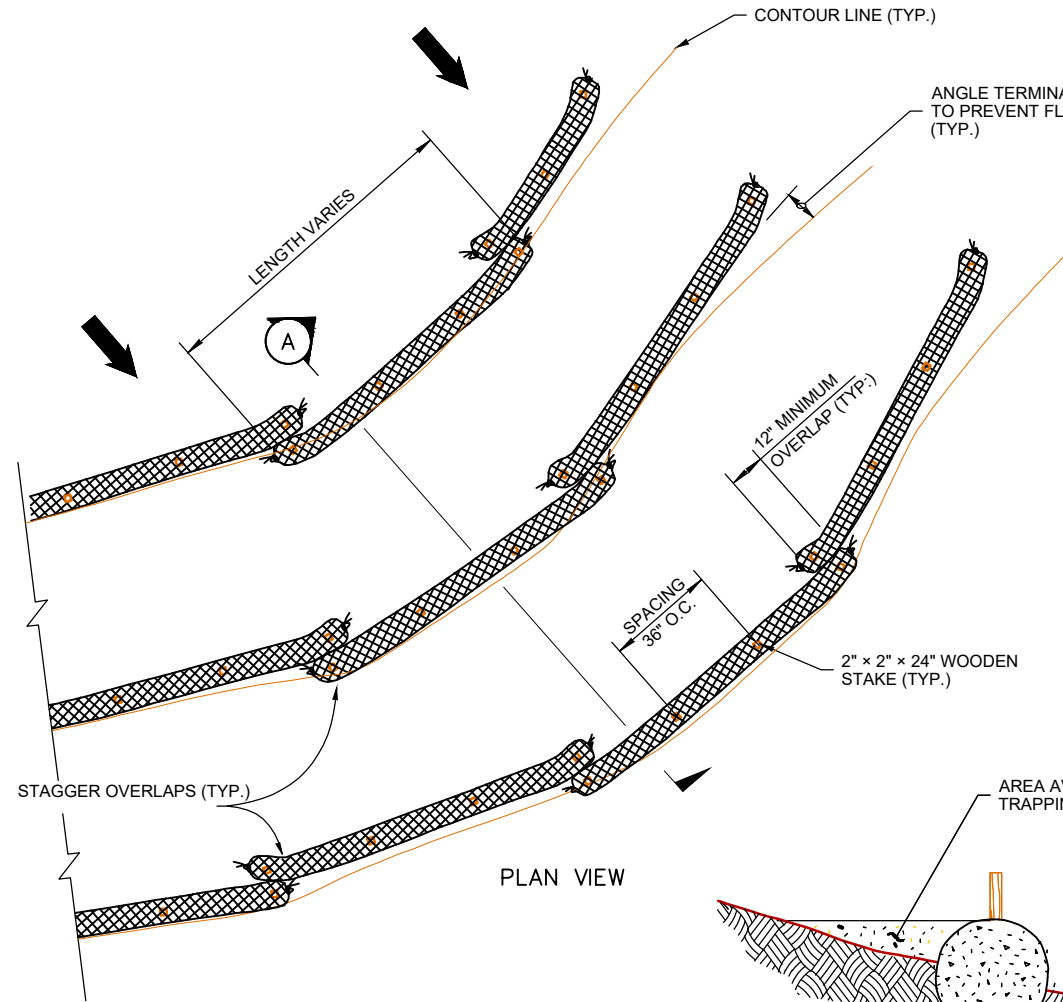


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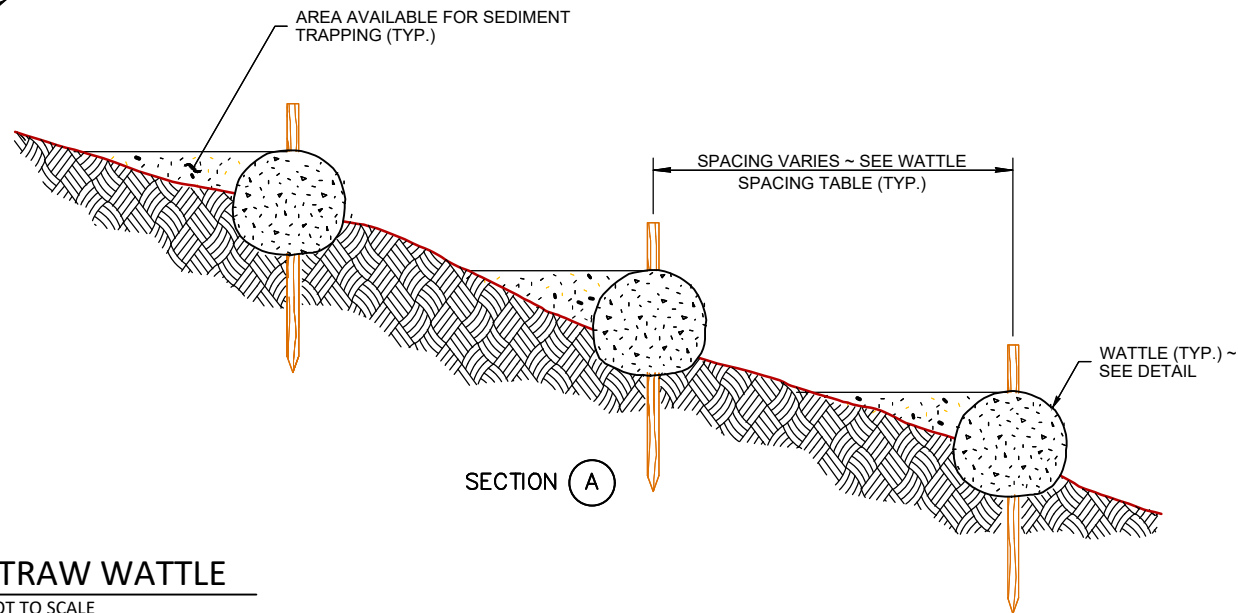
EXISTING CONDITIONS, SITE ACCESS,
AND STAGING

DF	PLJG	GJ
DRAWN	DESIGNED	CHECKED
JG	6/28/2021	
APPROVED	DATE	PROJECT

NO.	BY	DATE	REVISION DESCRIPTION



WATTLE DETAIL



SECTION A

8" DIAMETER WATTLE SPACING TABLE	
SLOPE	MAXIMUM SPACING
1H : 1V	10' - 0"
2H : 1V	20' - 0"
3H : 1V	30' - 0"
4H : 1V	40' - 0"

STRAW WATTLE
NOT TO SCALE

NOTES

1. WATTLES SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 9-14.5(5). INSTALL WATTLES ALONG CONTOURS. INSTALLATION SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 8-01.3(10).
2. SECURELY KNOT EACH END OF WATTLE. OVERLAP ADJACENT WATTLE ENDS 12" BEHIND ONE ANOTHER AND SECURELY TIE TOGETHER.
3. COMPACT EXCAVATED SOIL AND TRENCHES TO PREVENT UNDERCUTTING. ADDITIONAL STAKING MAY BE NECESSARY TO PREVENT UNDERCUTTING.
4. INSTALL WATTLE PERPENDICULAR TO FLOW ALONG CONTOURS.
5. WATTLES SHALL BE INSPECTED REGULARLY, AND IMMEDIATELY AFTER A RAINFALL PRODUCES RUNOFF, TO ENSURE THEY REMAIN THOROUGHLY ENTRENCHED AND IN CONTACT WITH THE SOIL.
6. PERFORM MAINTENANCE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 8-01.3(15).
7. REFER TO WSDOT STANDARD SPECIFICATION 8-01.3(16) FOR REMOVAL.

I:\projects\2021\Yakama Nation Fisheries Program\Starvation Flats Upper NW Meadow Final Design.dwg, 6/28/2021

NO.	BY	DATE	REVISION DESCRIPTION

DF	PLJG	GJ
DRAWN	DESIGNED	CHECKED
JG	6/28/2021	
APPROVED	DATE	PROJECT

YAKAMA NATION FISHERIES PROGRAM
YAKAMA RESERVATION
STARVATION FLATS UPPER NW MEADOW FINAL DESIGN



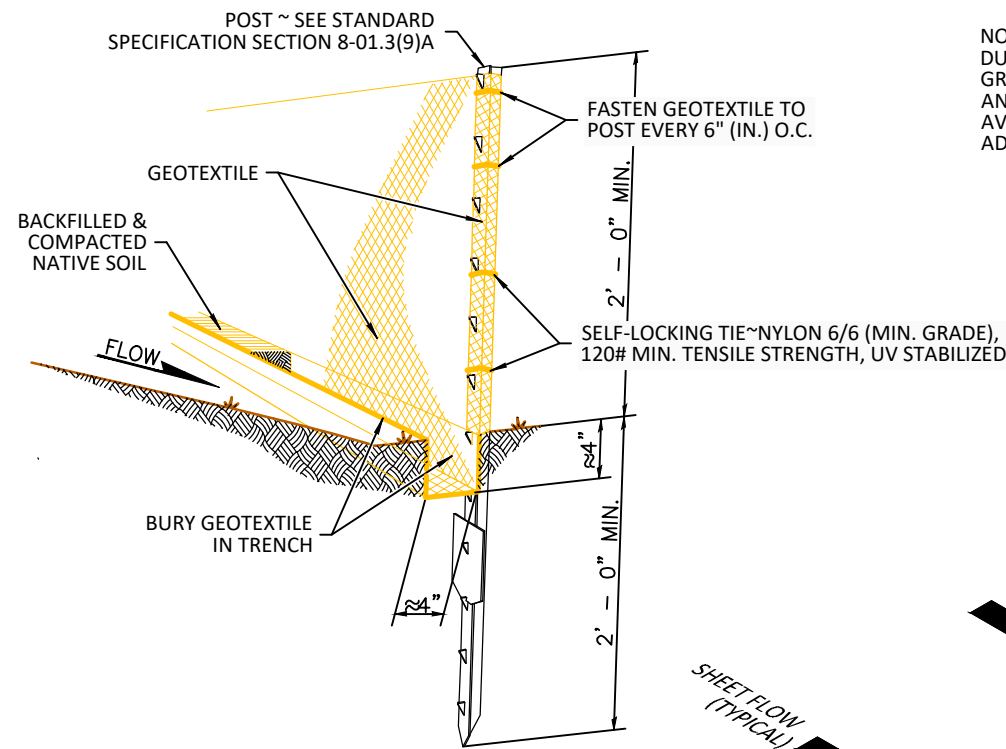
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CONSERVATION BMPS AND TESC
MEASURES (1 OF 2)

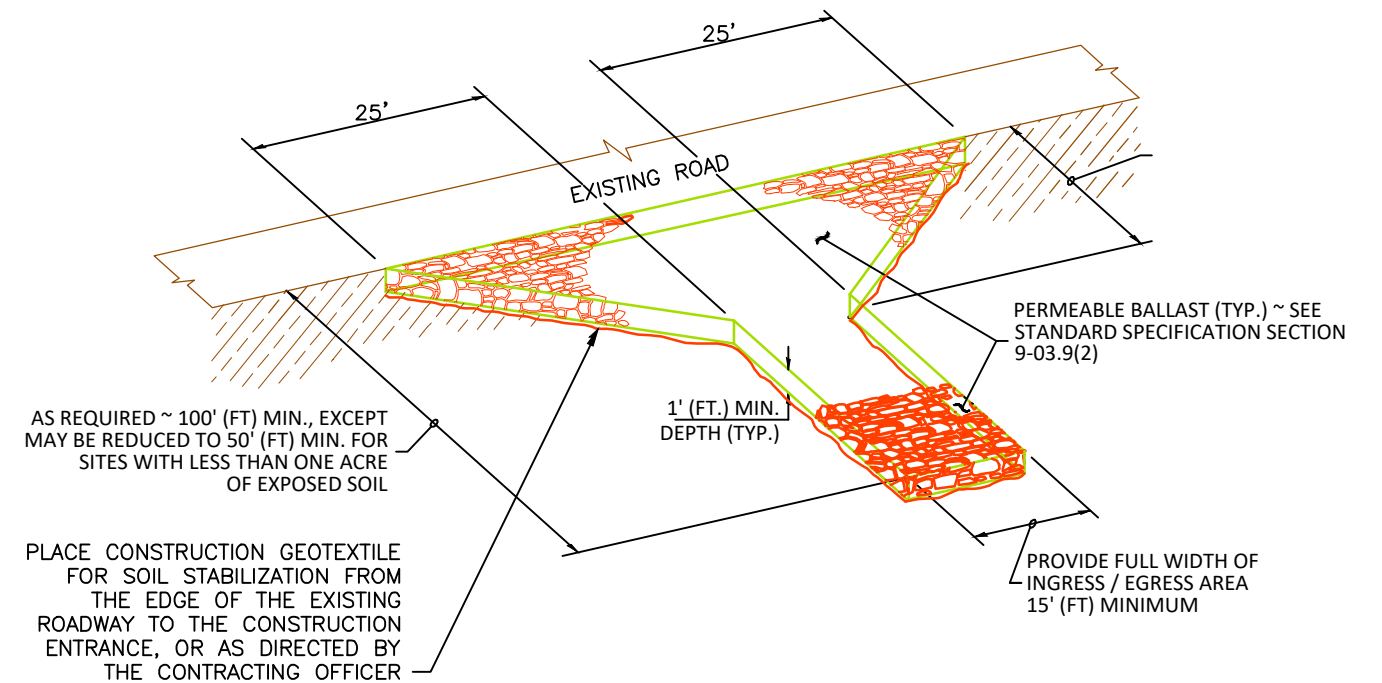


SHEET

5 OF 32



NOTE:
DURING EXCAVATION, MINIMIZE DISTURBING THE
GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE,
AND SMOOTH SURFACE FOLLOWING EXCAVATION TO
AVOID CONCENTRATING FLOWS. COMPACTION MUST BE
ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

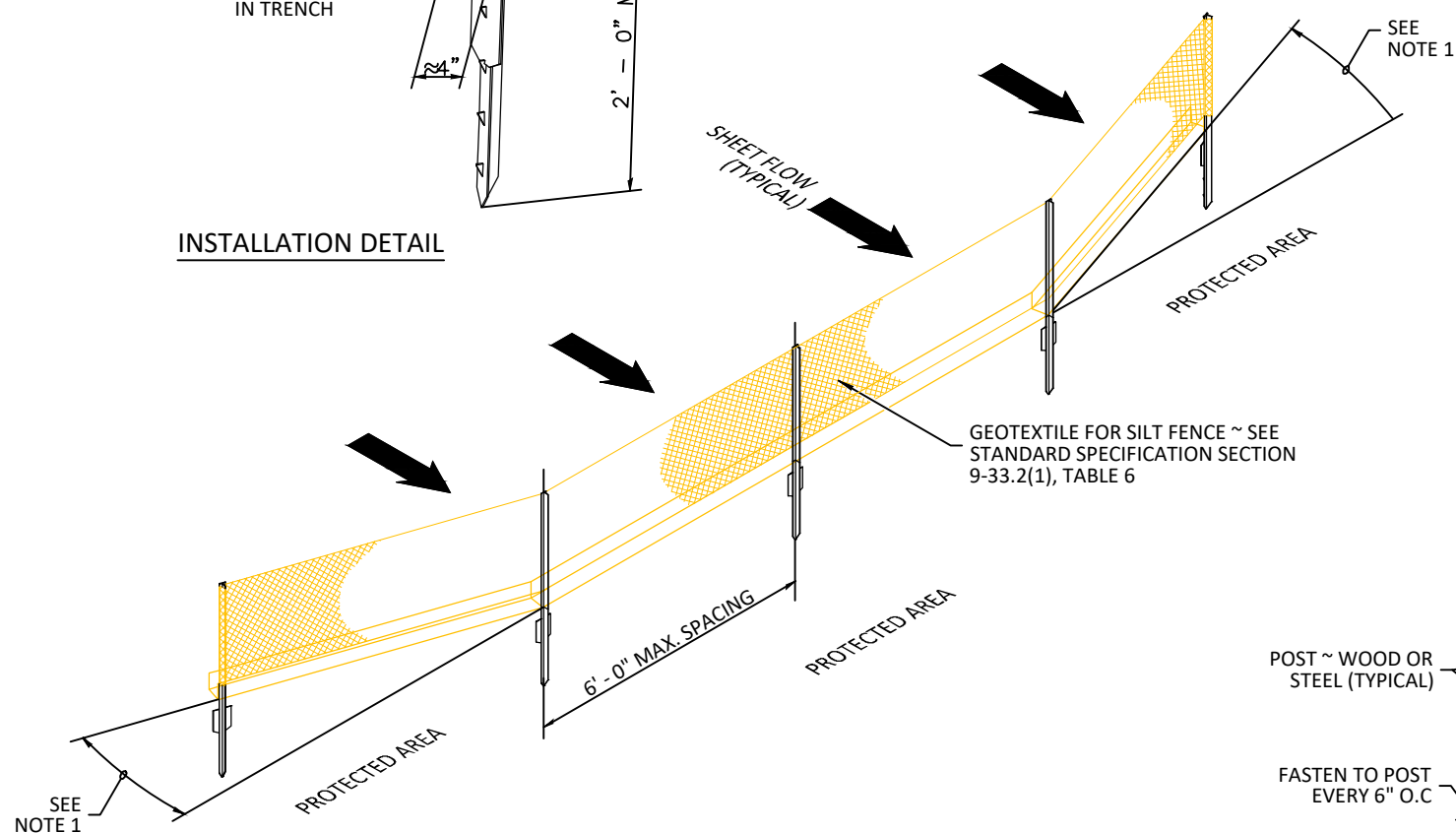


NOTE:
STABILIZED CONSTRUCTION ENTRANCE
SHALL MEET THE REQUIREMENTS OF
STANDARD SPECIFICATION SECTION
8-01.3(7)

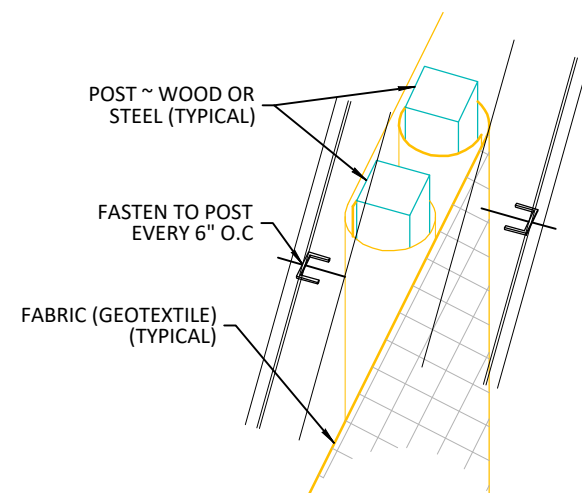
ISOMETRIC VIEW

TYPICAL DETAIL - STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



ISOMETRIC VIEW



SPICED FENCE SECTIONS SHALL BE CLOSE ENOUGH
TOGETHER TO PREVENT SILT LADEN WATER FROM
ESCAPING THROUGH THE FENCE AT THE OVERLAP.

SPICE DETAIL

NOTES:

1. INSTALL THE ENDS OF THE SILT FENCE TO POINT SLIGHTLY UPSLOPE TO PREVENT SEDIMENT FROM FLOWING AROUND THE ENDS OF THE FENCE.
2. PERFORM MAINTENANCE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTIONS 8-01.3(9)A AND 8-01.3(15).
3. SPLICES SHALL NEVER BE PLACED IN LOW SPOTS OR SUMP LOCATIONS. IF SPLICES ARE LOCATED IN LOW OR SUMP AREAS, THE FENCE MAY NEED TO BE REINSTALLED UNLESS THE PROJECT ENGINEER APPROVES THE INSTALLATION.
4. INSTALL SILT FENCING PARALLEL TO MAPPED CONTOUR LINES.

TYPICAL DETAIL - SILT FENCE

NOT TO SCALE

NO.	BY	DATE	REVISION DESCRIPTION
	DF	PL/JG	GJ
	DRAWN	DESIGNED	CHECKED
	JG	6/28/2021	
	APPROVED	DATE	PROJECT

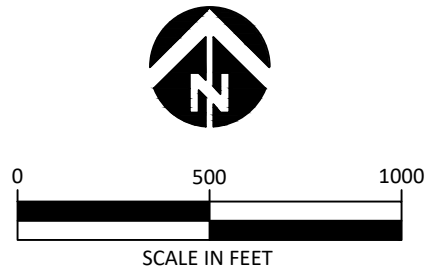
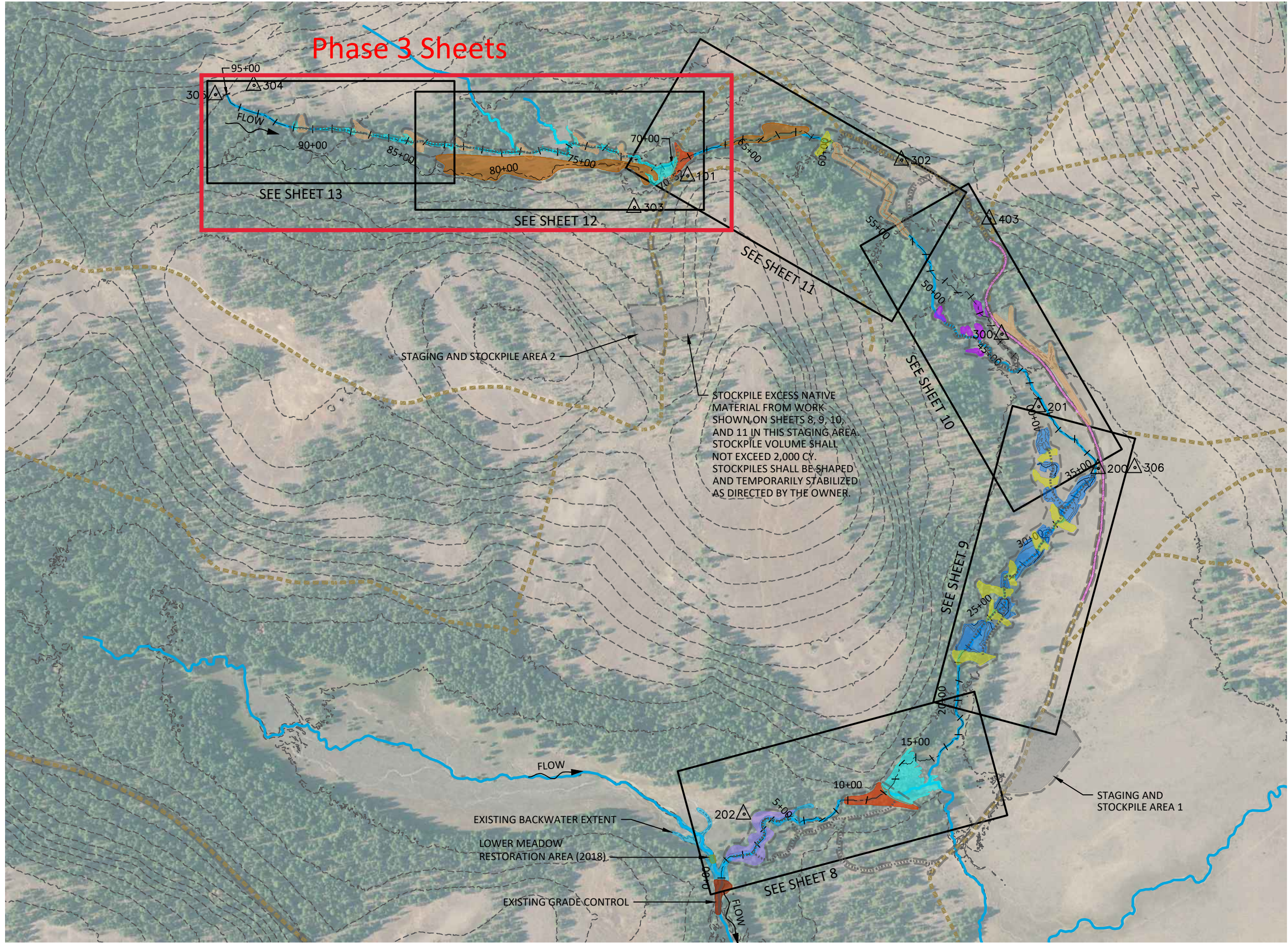
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CONSERVATION BMPs AND TESC
MEASURES (2 OF 2)





LEGEND

- SURVEY CONTROL POINT
- EXISTING 10-FT CONTOURS
- EXISTING PRIMARY FLOW PATHS
- EXISTING CHANNEL STATIONS (500-FT)
- EXISTING ROAD
- TEMPORARY ACCESS ROUTE
- ROAD IMPROVEMENT
- LIMIT OF DISTURBANCE
- PROPOSED STAGING / STOCKPILE AREA
- BANK LAYBACK
- GRADE CONTROL AND BACKWATER
- PLUG AND POND
- PLUG AND BACKWATER
- HEADCUT REVETMENT
- FILL DITCH
- FLOODPLAIN ROUGHNESS



NO.	BY	DATE	REVISION DESCRIPTION

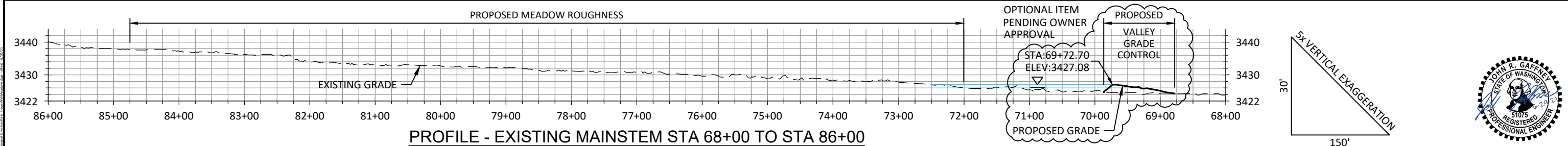
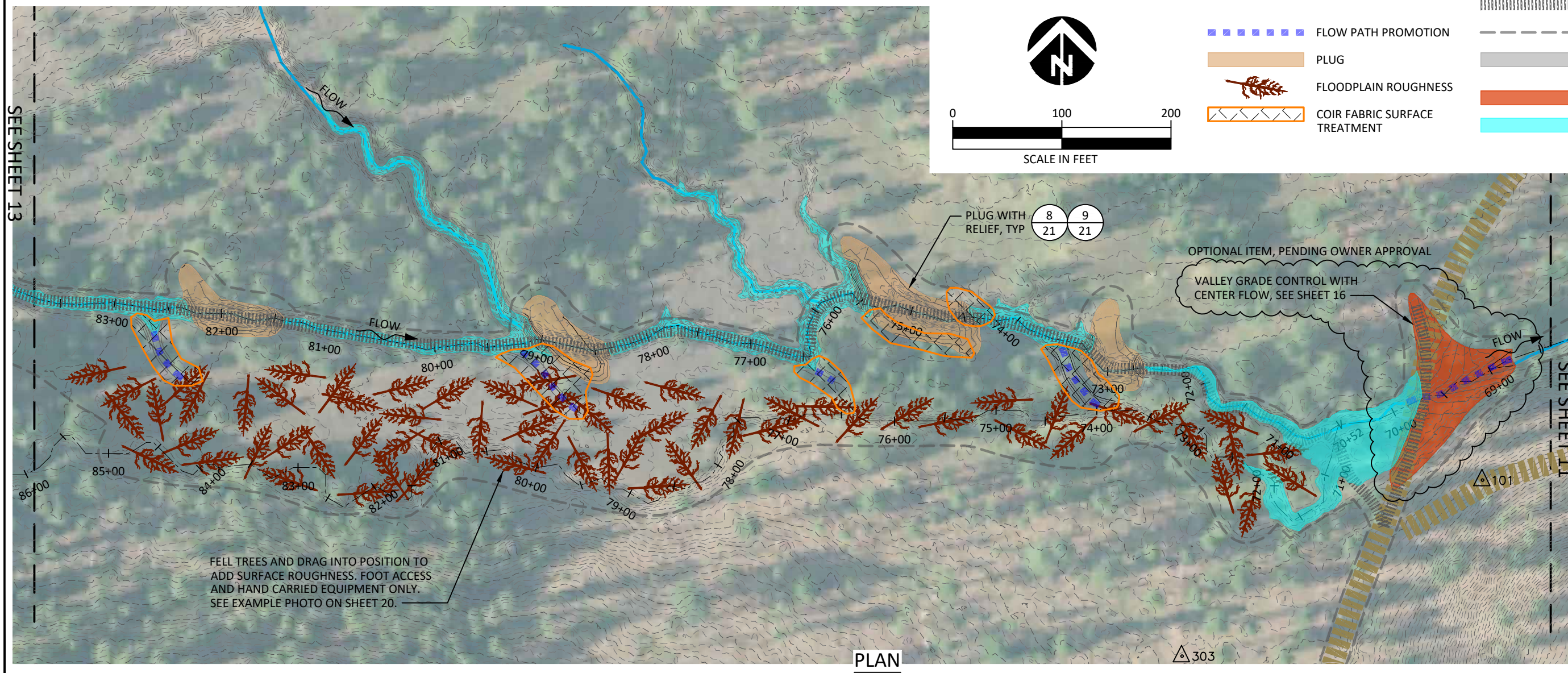
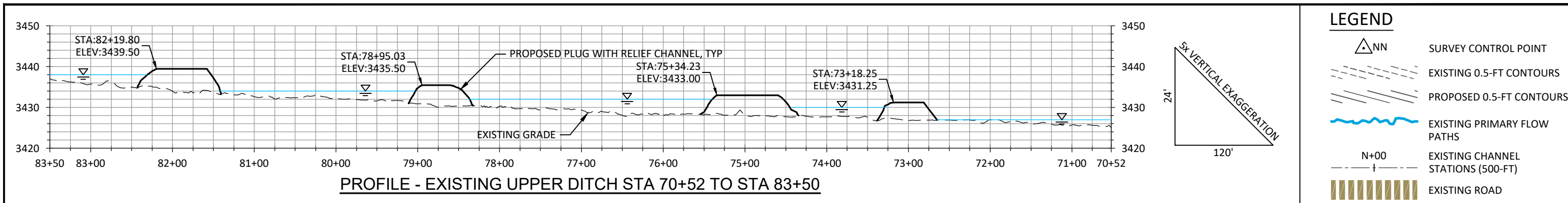
DF	PLJG	GJ
DRAWN	DESIGNED	CHECKED
JG	6/28/2021	
APPROVED	DATE	PROJECT

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PROPOSED CONDITIONS OVERVIEW



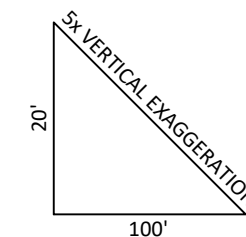
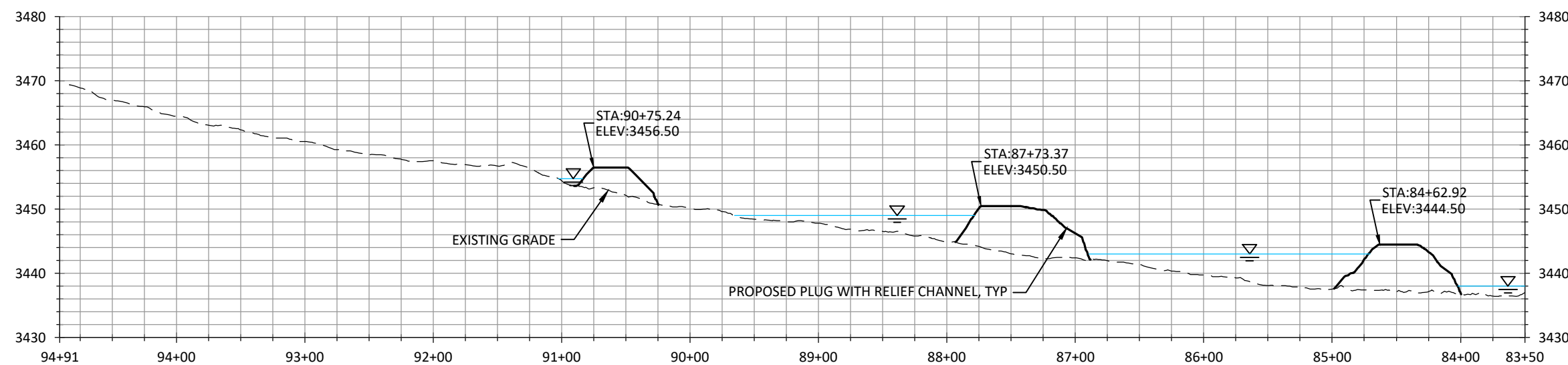


0 100 200
SCALE IN FEET

LEGEND

- SURVEY CONTROL POINT
- EXISTING 0.5-FT CONTOURS
- PROPOSED 0.5-FT CONTOURS
- EXISTING PRIMARY FLOW PATHS
- EXISTING CHANNEL STATIONS (500-FT)
- TEMPORARY ACCESS ROUTE
- LIMIT OF DISTURBANCE
- PROPOSED STAGING / STOCKPILE AREA
- BACKWATER
- FLOW PATH PROMOTION
- PLUG
- FLOODPLAIN ROUGHNESS
- COIR FABRIC SURFACE TREATMENT

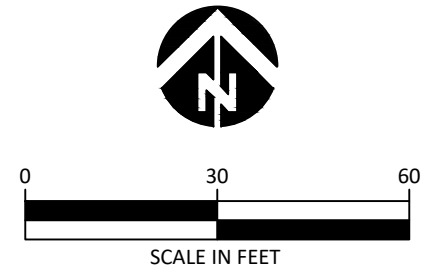
PLAN



PROFILE - EXISTING UPPER DITCH STA 83+50 TO STA 94+91

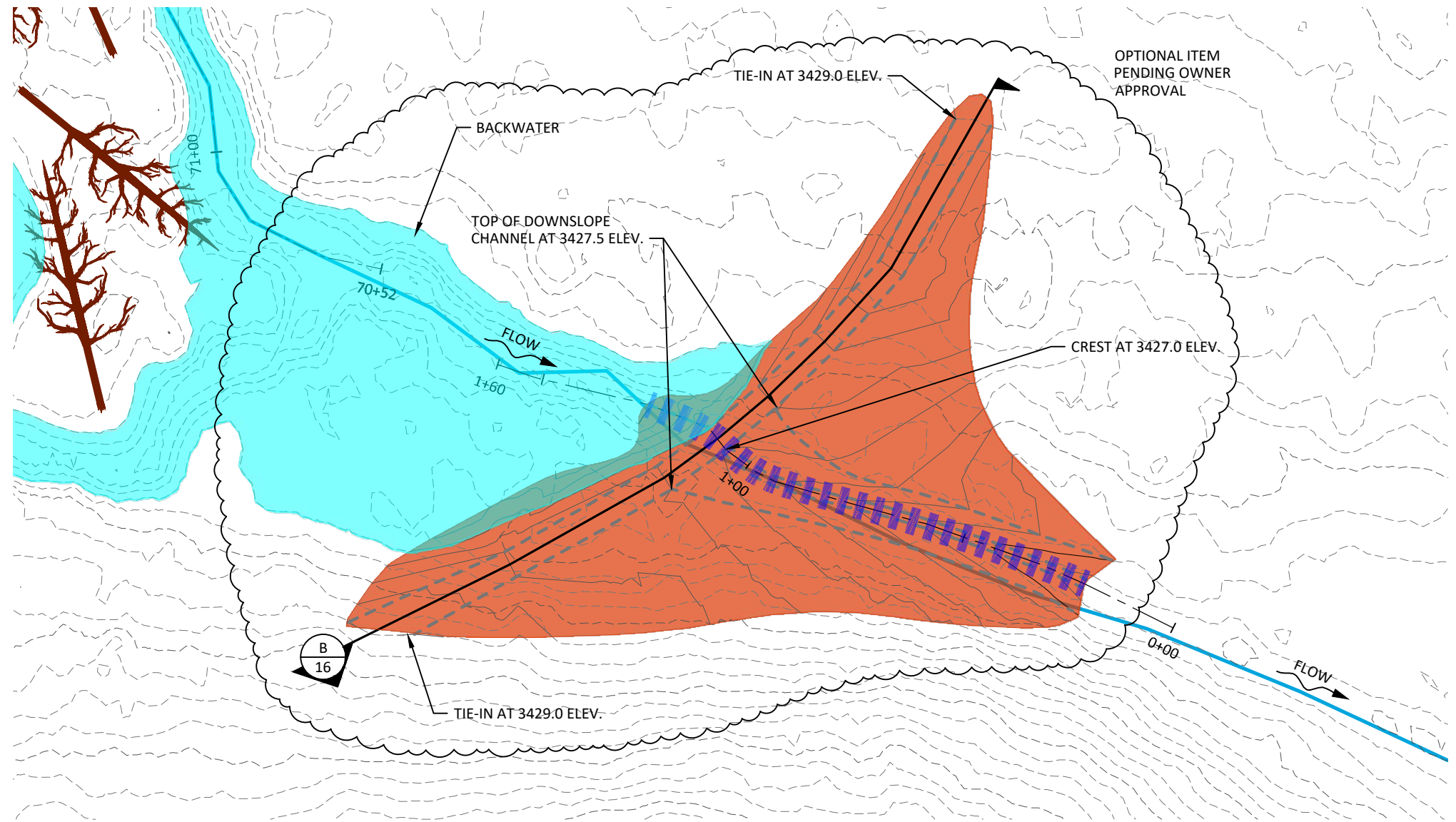


				DF DRAWN	PLJG DESIGNED	GJ CHECKED	YAKAMA NATION FISHERIES PROGRAM YAKAMA RESERVATION STARVATION FLATS UPPER NW MEADOW FINAL DESIGN		 501 Portway Avenue, Suite 101 Hood River, OR 97031 541.386.9003 www.interfluve.com	PROPOSED CONDITIONS PLAN (6 OF 6)	SHEET 13 OF 32
NO.	BY	DATE	REVISION DESCRIPTION	JG APPROVED	6/28/2021 DATE						

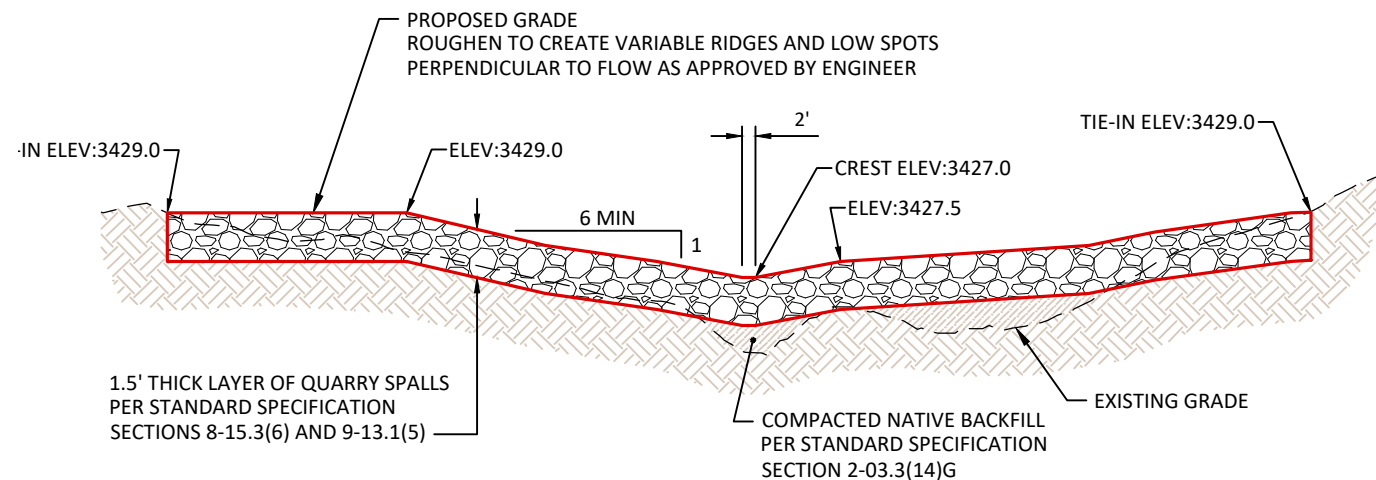


LEGEND

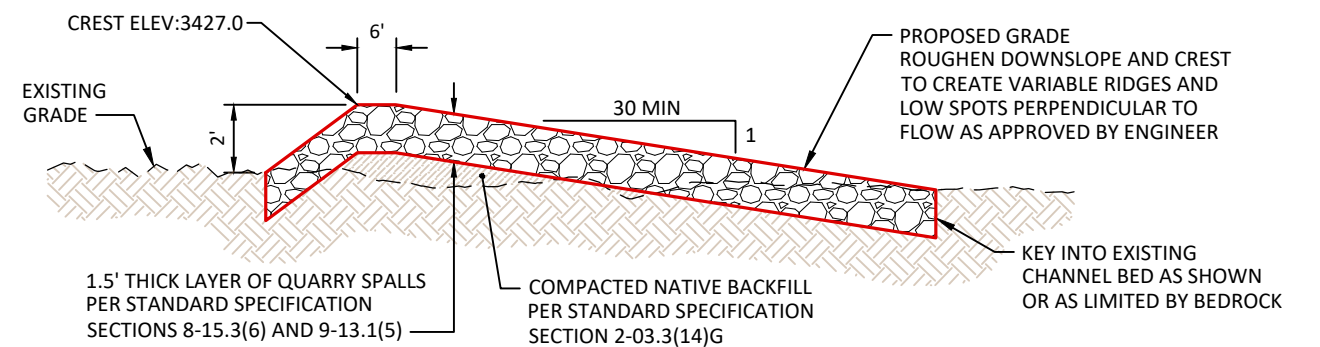
- SURVEY CONTROL POINT
- EXISTING 0.5-FT CONTOURS
- EXISTING PRIMARY FLOW PATHS
- EXISTING CHANNEL STATIONS (500-FT)
- GRADE CONTROL
- BACKWATER
- FLOW PATH PROMOTION



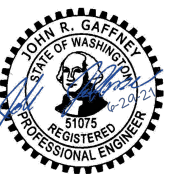
PLAN



B
16
SECTION - VALLEY GRADE CONTROL



PROFILE OF THALWEG - VALLEY GRADE CONTROL AT STATION 70+00



NO.	BY	DATE	REVISION DESCRIPTION

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APPROVED	DATE	PROJECT

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VALLEY GRADE CONTROL STA 70+00
PLAN AND DETAILS

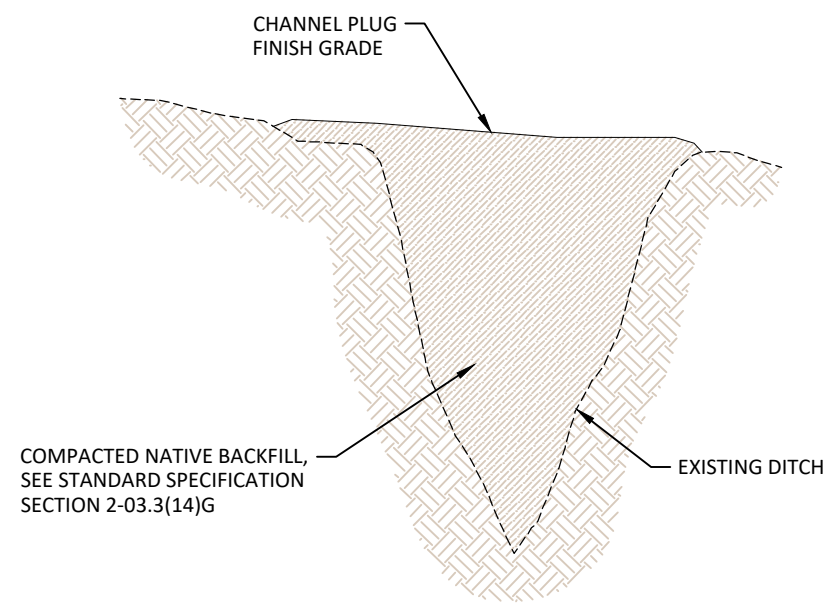


EXAMPLE PHOTO - VALLEY GRADE CONTROL (IN PROFILE VIEW)

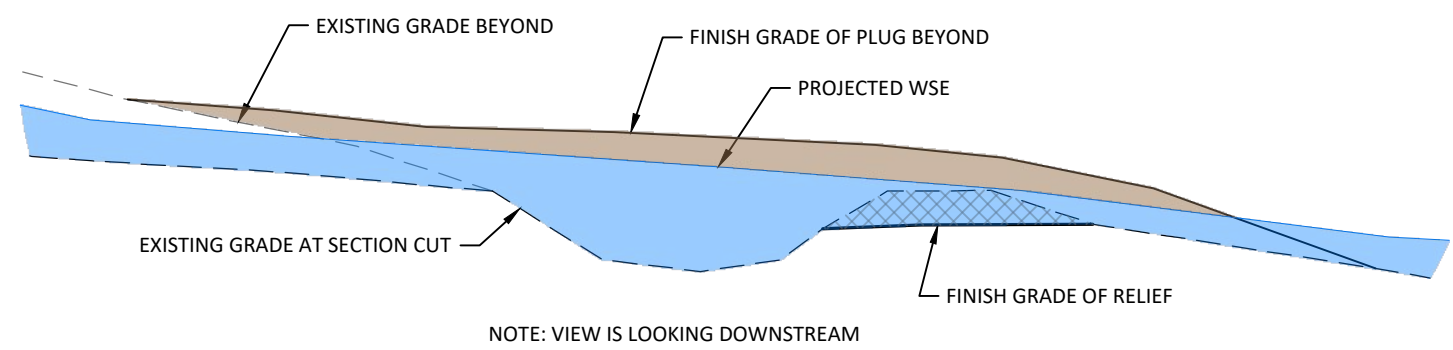
EXAMPLE PHOTO - VALLEY GRADE CONTROL (IN SECTION VIEW)



				DF DRAWN	PL,JG DESIGNED	GJ CHECKED	YAKAMA NATION FISHERIES PROGRAM YAKAMA RESERVATION STARVATION FLATS UPPER NW MEADOW FINAL DESIGN	 501 Portway Avenue, Suite 101 Hood River, OR 97031 541.386.9003 www.interfluve.com	VALLEY GRADE CONTROL TYPICAL DETAILS	SHEET 17 OF 32
NO.	BY	DATE	REVISION DESCRIPTION	APPROVED	6/28/2021 DATE	PROJECT				

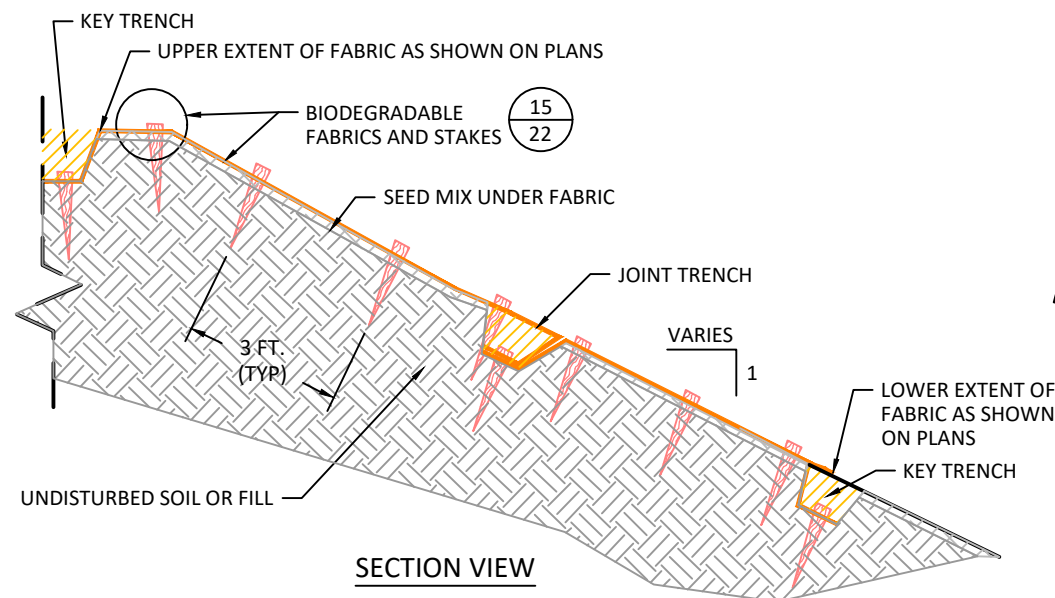


8
21 **TYPICAL SECTION - DITCH PLUG**
NOT TO SCALE

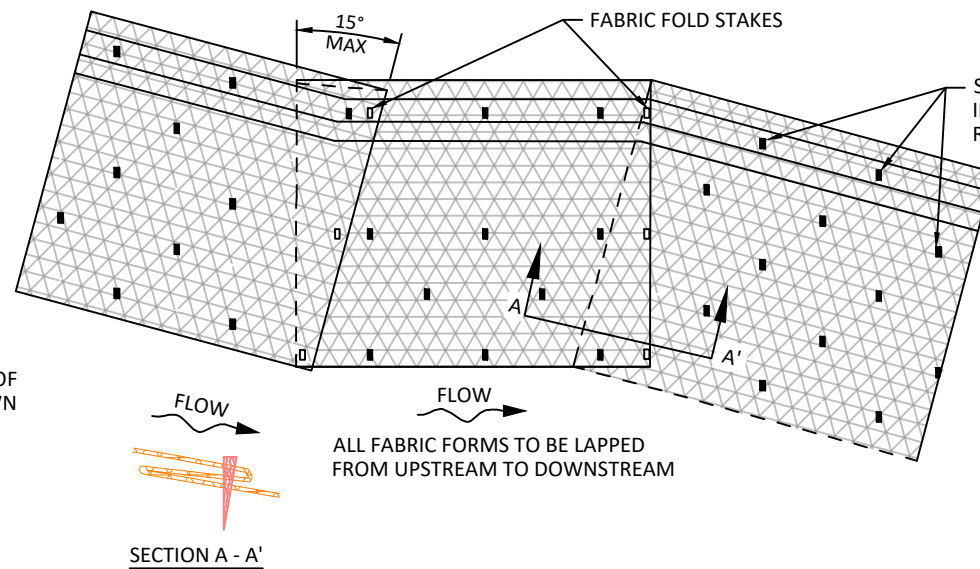


9
21 **TYPICAL SECTION AT RELIEF CHANNEL (PLUG BEYOND)**
NOT TO SCALE

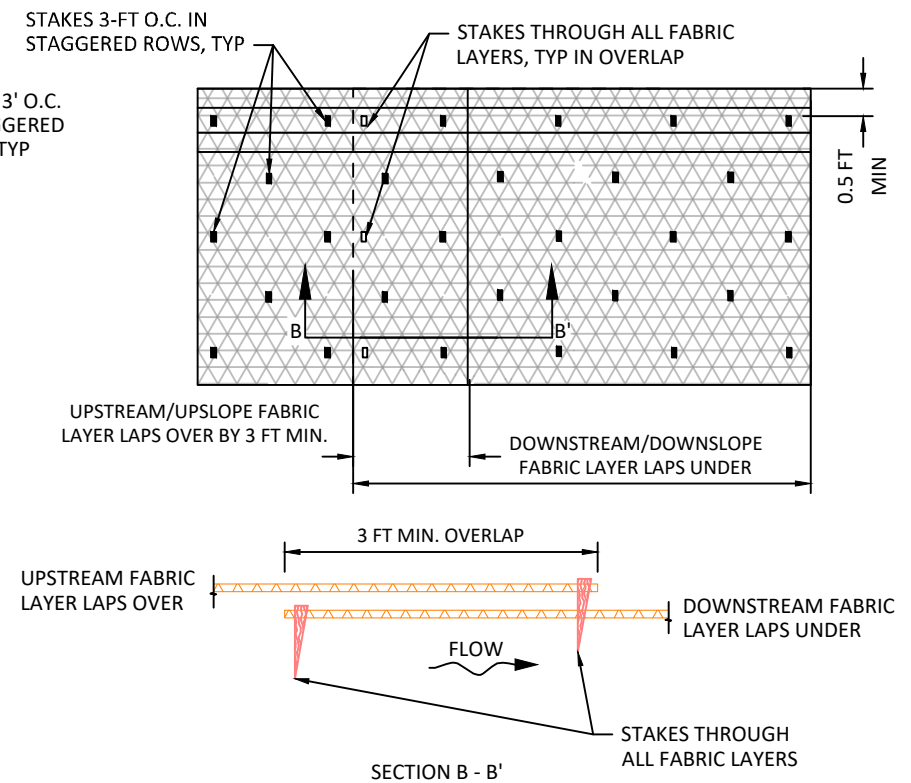




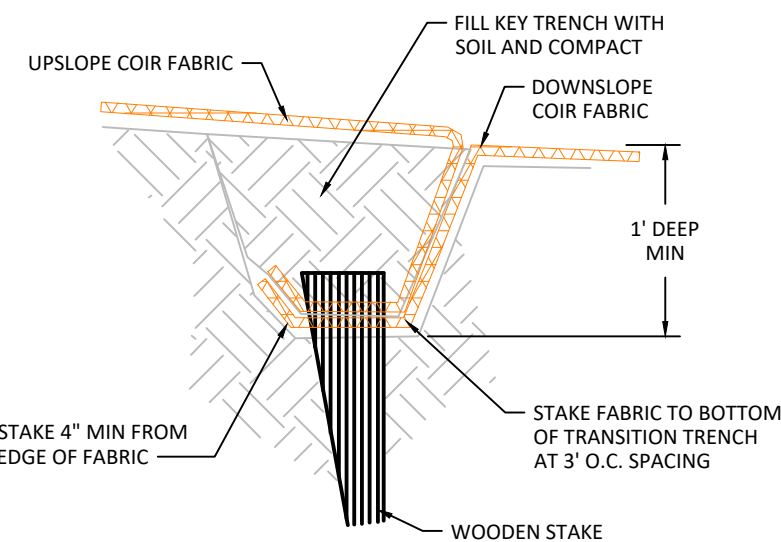
9
22 **SURFACE FABRIC**
NOT TO SCALE



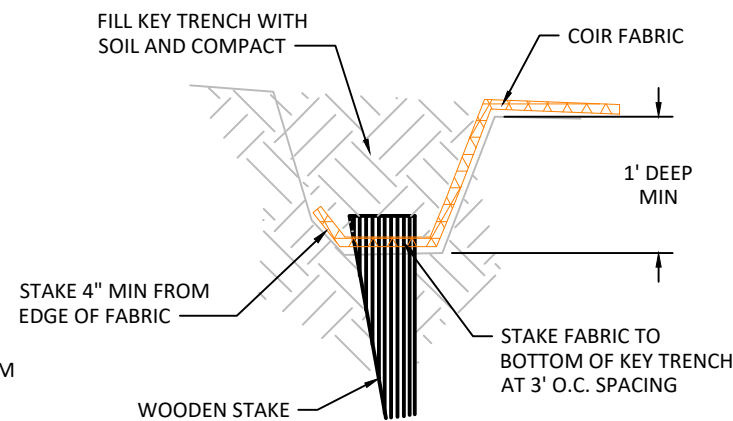
10
22 **FOLDING OF FABRIC AT BENDS**
NOT TO SCALE



11
22 **FABRIC JOINING PERPENDICULAR TO SLOPE**
NOT TO SCALE



12
22 **JOINT TRENCH PARALLEL TO SLOPE**
NOT TO SCALE



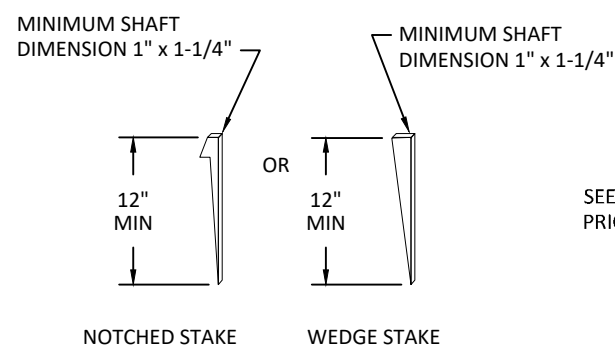
13
22 **KEY TRENCH AT ALL FABRIC EDGES**
NOT TO SCALE

GENERAL NOTES ON COIR FABRIC

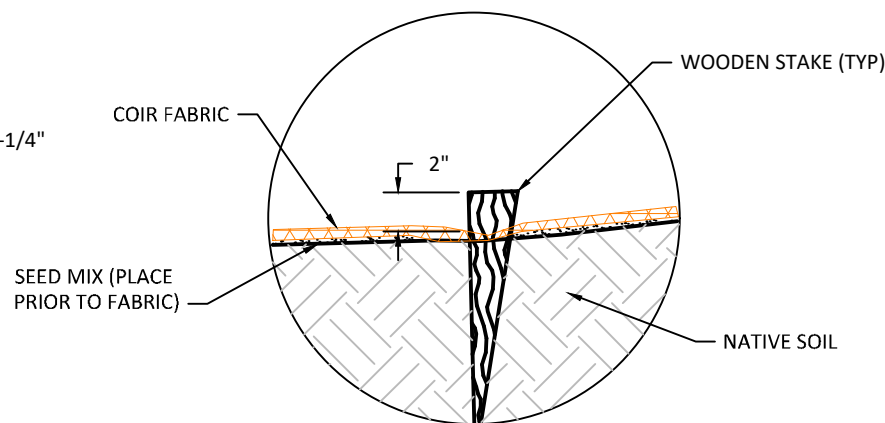
1. FABRIC SHALL BE NON-WOVEN COIR FABRIC, MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 9-14.6(2)D.
2. INSERT AND DRIVE WOOD STAKES, SEE STANDARD SPECIFICATION SECTION 9-14.6(10), BETWEEN THE FIBERS OF THE COIR FABRIC AS SHOWN. STAKING SHALL NOT BE FACILITATED BY PRE-CUTTING OF THE COIR FABRICS.
3. FABRIC ENDS PERPENDICULAR TO THE SLOPE SHALL BE JOINED BY LAPPING THE UPSTREAM PIECE OF FABRIC OVER THE DOWNSTREAM PIECE AS SHOWN.
4. FABRIC ENDS PARALLEL TO THE SLOPE SHALL BE JOINED WITH A JOINT TRENCH.
5. FABRIC EXTENT EDGES SHALL BE FINISHED WITH A KEY TRENCH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
6. PLACE SEED ON NATIVE SOIL PRIOR TO COVERING SOIL WITH FABRIC.



EXAMPLE PHOTO



14
22 **WOODEN STAKE FABRICATION**
NOT TO SCALE



15
22 **BIODEGRADABLE FABRIC AND STAKES**
NOT TO SCALE

NO.	BY	DATE	REVISION DESCRIPTION

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SURFACE FABRIC TREATMENT
TYPICAL DETAILS

SHEET

22 OF 32



Amendments to the Standard Specifications and Special Provisions				1-05.4Conformity with and Deviations from Plans and Stakes				1-07.16Protection and Restoration of Property			
INTRODUCTION				This section is supplemented with the following:				1-07.16(2)Vegetation Protection and Restoration			
The following Amendments to the Division 1, Division 2, Division 6, Division 8, and Division 9 Standard Specifications are made a part of this contract and supersede any conflicting provisions of the 2021 Standard Specifications for Road, Bridge and Municipal Construction, and the foregoing Amendments to the Standard Specifications, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter “Standard Specifications”). Each Amendment contains all current revisions to the applicable section of the Standard Specifications and may include references which do not apply to this particular project. The following Amendments and Special Provisions shall be used in conjunction with the applicable provisions of Washington Department of Transportation Standard Specifications for Road, Bridge and Municipal Construction 2021 M 41-10, or as amended hereafter.				Contractor shall be responsible to have a Professional Land Surveyor licensed in the State of Washington establish survey control, grade stakes and location stakes as necessary to complete work in all respects. The Owner will verify a portion of the survey layout.				Add:			
				It is the responsibility of the Contractor to verify the accuracy of all survey information provided by the Owner prior to commencing earthwork operations. Survey layout completed by the Owner or Engineer should be considered as general guidance only. Commencement of these operations constitutes acceptance of the survey information as appropriate to meet the intent of the Contract.				Vegetation protection and restoration shall be incidental to Clearing and Grubbing.			
				1-05.4(1)Submittal				1-07.26Personal Liability of Public Officers			
				Prior to mobilization the Contractor shall submit a Survey Staking Plan including a narrative, diagrams showing staking configuration, and schedule of staking for approval by the Owner.				Revise paragraph to read:			
								Neither the Owner, Engineer, employees of Owner nor employees of Engineer shall be personally liable for any acts or failure to act in connection with the Contract, it being understood that in such matters, they are acting solely as agents of the Owner.			
				1-05.4(2)Measurement				1-09Measurement and Payment			
				No measurement will be made for lump sum pay item “Surveying”				1-09.1Measurement of Quantities			
								Revise:			
								Volume measurement (in the hauling vehicle) shall not be allowed without prior written authorization of the Owner. Volume measurement shall be in place measure. Volume measurements do not include expansion of excavated material nor compaction of placed material.			
				1-05.4(3)Payment				1-09.7Mobilization			
				No separate payment will be made for “Surveying”. Costs for “Surveying” shall be incidental to the work.				Add:			
								Temporary site access shall be through alignments shown in the plans. Minor deviations to the alignments shall occur as required by the Owner to preserve sensitive areas or trees, or to avoid damage to fence posts or other features identified in the field. Deviations from the alignments shown in the plans shall be approved by Owner prior to use. If fence is removed to facilitate access or construction, the Contractor shall replace or repair fence at no additional cost to the Owner. Site access routes shall be maintained and restored to original or better condition unless they are designated for decommissioning on the Plans.			
				1-05.5Vacant							
				Add the following Sections:							
				1-05.5Required Submittals							
				The Contractor shall prepare and submit the following submittals according to the requirements for each submittal. The Owner's approval shall be required prior to commencing work related to each submittal.							
				1-05.4(1)Survey Staking Plan							
				1-07.15(1)SPCC Plan							
				8-01.3(1)TESC Plan							
				8-02.3(2)DDecompaction Work Plan							
				8-26.3(1)Stream Diversion Plan							
				8-27.3(1)Dewatering Plan							
				9-14.6(2)Biodegradable Erosion Control Blanket							
				9-14.6(10)Wood Stakes							
				1-05.6Inspection of Work and Materials							
				Add:							
				The Contractor shall accommodate periodic verification of accuracy of local positioning systems and global positioning systems used by the Contractor to layout and check the locations and elevation of the work.							
				The Contractor shall accommodate inspection of grading by the Engineer. The first inspection shall occur when areas are rough graded to elevations shown on the Plans. The second inspection shall occur when the grading is complete but before grading equipment has been removed from the work area. Time required to conduct inspections shall not warrant a time extension. Inspections by the Engineer shall not relieve the Contractor from the responsibility of checking grades and slopes as the work progresses and conformance with the grades and slopes shown on the Plans.							

2-01.2(2) Disposal Method No. 2 - Waste Site								2-03.3(14)G Backfilling			
Add:								Add:			
This disposal method shall only be used for invasive and non-native cleared and grubbed vegetation.								Place and compact backfill as specified on Plans within and around structures and features to the depth and lines shown on the Plans. Type and amount of material used for backfill, and the manner of placing material, shall be as shown on the Plans, described in the Specifications and are subject to approval by the Engineer.			
2-01.2(3) Disposal Method No. 3 - Chipping											
Add:											
Chipping shall only be as approved by the Owner. Other methods shall take precedence.								Use suitable backfill material from material excavated from required excavations for project Work, where possible, and at the discretion of the Engineer. If sufficient suitable material is not available from on-site excavations, obtain additional suitable material from nearby borrow sources as approved by the Owner and Engineer.			
In the event that there is excess cleared woody material, not otherwise incorporated into the project, the material shall be chipped on-site and stockpiled. Chips shall be stockpiled in a location designated by the Owner.											
2-01.3 Construction Requirements								2-03.4 Measurement			
2-01.3(1) Clearing								Replace with:			
Add item number 8 as follows:								No allowance is made for expansion of excavated materials nor compaction of placed materials. Expansion of excavated materials and compaction of placed materials shall be incidental to other bid items for purposes of handling, haul, stockpile, etc. Measurement shall not be made by truck count or weight without prior written approval of the Owner.			
8. Within grading limits remove trees with rootwads intact and salvage as whole trees, for incorporation into the work as shown on the Plans and at the direction of the Contracting or as otherwise approved by the Engineer.								“Excavation incl. Near-Site Stockpile” shall be measured by cubic yard. All excavated material shall be measured in the position it occupied before the excavation was performed. The original ground shall be taken as one of the following: 1) The existing grade (pre-project) shown on the Plans, 2) the existing grade (pre-project) digital terrain model, or 3) a pre-excavation ground survey conducted by a Professional Land Surveyor licensed in the State hired by the Contractor at no additional cost to the Owner. The original ground shall be compared with the planned finished section shown in the Plans. Slope/ground intercept points defining the limits of the measurement shall be as staked. No additional compensation will be made for excavated material that is stockpiled, re-excavated, and moved again.			
2-01.3(3) Vacant											
Add the following Section:											
2-01.3(3) Salvage of Woody Vegetation											
Included in this item are the removal and salvage of trees and other woody vegetation as designated by the Owner.								“Embankment Fill and Compaction” shall be measured by cubic yard. All fill material shall be measured following compaction relative to the original ground. The original ground shall be taken as one of the following: 1) The existing grade (pre-project) shown on the Plans, 2) the existing grade (pre-project) digital terrain model, or 3) a pre-fill ground survey conducted by a Professional Land Surveyor licensed in the State hired by the Contractor at no additional cost to the Owner. The original ground shall be compared with the planned finished section shown in the Plans. Slope/ground intercept points defining the limits of the measurement shall be as staked. No additional compensation will be made for fill material that is stockpiled, re-excavated, and filled again.			
The Contractor shall:											
1. Within grading limits, to the maximum practicable extent, excavate around each rootwad to loosen soil and then push over the woody vegetation in order to salvage woody vegetation with intact attached roots.											
2. Stockpile salvaged woody vegetation outside of the clearing limits but within reach of the excavator during construction. Stockpiling methods shall limit damage to the wood vegetation such as breaking of trunks and limbs.											
3. Salvaged wood material shall be incorporated into wood placements as approved by the Engineer.											
4. Evenly distribute within the limits of disturbance and along decommissioned access routes wood material not otherwise incorporated into wood placements shown on the Plans.											
5. Dispose of excess woody materials in accordance with 2-02.2.											
2-01.4 Measurement								2-03.5 Payment			
Replace with:								Replace with:			
Salvage of Woody Vegetation (2-01.3(3)) shall be considered incidental to the Clearing and Grubbing bid item. Measurement and compensation for the installation of the salvaged woody material is described in Section 8-31 and paid under that item. No separate compensation shall be made for placement of the salvaged woody material.								Payment shall be considered full compensation for all equipment, labor, tools, materials, and incidentals necessary to complete this work as specified. Payment will be made in accordance with <i>Section 1-04.8</i> and <i>Section 1-09.9</i> for the following bid items:			
								“Excavation incl. Near-Site Stockpile” per cubic yard			
								“Embankment Fill and Compaction” per cubic yard			

Division 9 Materials

9-13 Riprap, Quarry Spalls, Slope Protection, and Rock for Erosion and Scour Protection and Rock Walls

9-13.1 Riprap and Quarry Spalls

9-13.1(5) Quarry Spalls

Add:

Quarry spalls shall be locally sourced from borrow pits identified by the Owner. Variation in the material gradations shall only be as approved by the Engineer. Quarry spalls with 40 percent or more material larger than 3-inches in the distribution shall be preferentially used for the Valley Grade Control Structures shown on the Plans. Quarry Spalls with smaller than average grain sizes in the distribution shall be preferentially used for the Road Improvement Embankment shown on the Plans. The largest stones within the Quarry Spalls borrow pits shall be allocated for placement along the edge of the road improvement swales.

9-14 Erosion Control and Roadside Planting

9-14.6 Erosion Control Devices

9-14.6(2) Biodegradable Erosion Control Blanket

Add:

Submit product data and the Contractor's certification of conformance to the specifications for Biodegradable Erosion Control Blanket proposed for use in construction for review by the Engineer. If alternative “or equal” products are submitted, material samples shall be submitted as well. Contractor shall not order materials until the Engineer's acceptance has been obtained.

9-14.6(2)D Vacant

Add the following Section:

9-14.6(2)D Coir Fabric

Coir fabrics shall consist of 100% biodegradable materials. Nylon or synthetic fiber material in any of the coir fabrics is not acceptable. Only those coir fabrics specified will be accepted unless otherwise reviewed and approved by the Owner.

Each roll of coir fabric shall be packaged individually in a suitable sheet, wrapper, or container to protect the fabric from damage to ultraviolet light, moisture, and mud during normal storage and handling.

Each roll of coir fabric shall be identified with a tag or label securely affixed to the outside of the roll on one end. The label shall include the manufacturer or supplier, the style number, and the roll and lot numbers.

Store all coir fabrics elevated off the ground and ensure that they are adequately covered to protect the material from damage and exposure to moisture and sunlight. Protect coir fabrics from sharp objects which may damage the fabric. Coir fabrics damaged during transport, storage or placement shall be replaced at no expense to the Owner.

The Owner may randomly select and obtain samples from rolls of coir fabric after arrival on the site and prior to installation to compare to previously submitted samples.

9-14.6(2)E Vacant

Add the following Section:

9-14.6(2)E Nonwoven Coir Fabric

The nonwoven coir fabric shall be a biodegradable coconut fiber matrix natural fiber netting mat from one of the following manufactures; North American Green BioNet C125BN, Western Excelsior Excel CC-4 All Natural, Nedia C400B, or equal as reviewed and approved by the Engineer. The fabric shall meet the following performance criteria:

Property	Test Method	Criterion
Thickness, min.	ASTM D 6525	0.23 in (5.84mm)
Resiliency, min.	ECTC Guidelines	85%
Water Absorbency	ASTM D 1117	365% (+/-10%)
Mass/Unit Area, min.	ASTM D 6475	9.5 oz/sy (322 g/sm)
Light Penetration, min.	ECTC Guidelines	10%
Tensile Strength –MD, min.	ASTM D 6818	206 lb/ft (3.0 kN/m)
Elongation – MD, max.	ASTM D 6818	20%
Tensile Strength – TD, min.	ASTM D 6818	130 lb/ft (1.9 kN/m)
Elongation – TD, max.	ASTM D 6818	20%
Minimum Roll Width	Measured	6.6 ft.

MD = machine direction, TD = Thread direction

9-14.6(10) Vacant

Add the following Section:

9-14.6(10) Wood Stakes

Wood Stakes shall be used to anchor all coir fabrics. Stakes shall be untreated wood free of rot and decay, produced from stud grade or better lumber. Stakes shall be the style and dimensions shown on the Plans.

Submit product data and the Contractor's certification of conformance to the specifications for Wood Stakes proposed for use in construction for review by the Engineer. If alternative “or equal” products are submitted, material samples shall be submitted as well. Contractor shall not order or manufacture materials until the Engineer's acceptance has been obtained.

9-14.7 Plant Materials

9-14.7(1) Description

Add the following numbered items:

4. Live cuttings shall be harvested no less than 7 days and no more than 14 days prior to installation. Live cuttings shall be continuously and fully submerged in fresh water from within 1 hour of harvest to within 1 hour of installation.

5. Live cuttings shall have the lower rooting end recut cut to an approximate 45-degree angle no more than 1 hour prior to installation. The fresh cut prior to installation shall be 1 inch up from the original cut made during harvest.

5.1.

NO.	BY	DATE	REVISION DESCRIPTION

DF	PL,JG	GJ
DRAWN	DESIGNED	CHECKED
JG	6/28/2021	
APPROVED	DATE	PROJECT

YAKAMA NATION FISHERIES PROGRAM
YAKAMA RESERVATION
STARVATION FLATS UPPER NW MEADOW FINAL DESIGN



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SPECIFICATIONS (6 OF 6)

