MILL CREEK FISH PASSAGE PROJECT CHELAN COUNTY NATURAL RESOURCES DEPARTMENT

AS-BUILT PLANS



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CONTACT INFORMATION

NATURAL SYSTEMS DESIGN, INC

305 FLORA STREET BELLINGHAM, WA 98225 (360) 656-5207

CHELAN COUNTY NATURAL RESOURCES

411 WASHINGTON STREET, SUITE 201 WENATCHEE, WA 98801 (509) 667-6533 Nov 09, 2020 FINAL DESIGN

COVER SHEET

SHEET 1 OF 13

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GENERAL NOTES

- 1. THESE PLANS HAVE BEEN PREPARED FOR THE EXCLUSIVE USE OF CHELAN COUNTY NATURAL RESOURCES DEPARTMENT (CCNRD), HEREAFTER REFERRED TO AS "CONTRACTING AGENCY" AND THEIR AUTHORIZED AGENTS. THE CONTRACTING AGENCY WILL DESIGNATE A REPRESENTATIVE, HEREAFTER REFERRED TO AS "CONTRACTING OFFICER" TO REPRESENT THE CONTRACTING AGENCY AND TO INTERACT WITH THE CONTRACTOR ON THEIR BEHALF. THE CONTRACTING OFFICER WILL BE ON-SITE DURING CONSTRUCTION AND WILL BE RESPONSIBLE FOR ADMINISTRATION OF THE CONSTRUCTION CONTRACT BETWEEN THE CONTRACTING AGENCY AND THE CONTRACTOR.
- 2. NATURAL SYSTEMS DESIGN HEREAFTER REFERRED TO AS "ENGINEER" IS RESPONSIBLE FOR THE PREPARATION OF THESE PLANS AND CONTRACT DOCUMENTS; AND WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGE, OR USE, OF THESE PLANS WHICH INCLUDES ALTÉRATION, DELETION, OR EDITING OF THIS DOCUMENT WITHOUT EXPLICIT WRITTEN PERMISSION FROM THE ENGINEER. ANY OTHER UNAUTHORIZED USE OF THIS DOCUMENT IS PROHIBITED
- 3. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS IN ACCORDANCE WITH THE PROVISIONS OUTLINED BY THE PROJECT CONTRACT DOCUMENTS.
- 4. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF THE CONTRACTING AGENCY. IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD PLANS FOR CONSTRUCTION OF ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT EDITION AND THE CONTRACT DOCUMENTS UNLESS NOTED OTHERWISE. ALL REFERENCES TO THE "STANDARD SPECIFICATIONS" SHALL MEAN THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, CURRENT FDITION.
- 5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTOR(S) TO EXAMINE THE PROJECT SITE PRIOR TO THE OPENING OF BID PROPOSALS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, SUCH AS THE NATURE AND LOCATION OF THE WORK: AND THE GENERAL AND LOCAL CONDITIONS. PARTICULARLY THOSE AFFECTING THE AVAILABILITY OF TRANSPORTATION, THE DISPOSAL, HANDLING, AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRICITY, ROADS, THE UNCERTAINTIES OF WEATHER, THE CONDITIONS OF THE GROUND, SURFACE AND SUBSURFACE MATERIALS, GROUNDWATER, THE EQUIPMENT AND FACILITIES NEEDED FOR AND DURING THE PERFORMANCE OF THE WORK, AND THE COSTS THEREOF, ANY FAILURE BY THE CONTRACTOR AND SUBCONTRACTOR(S) TO ACQUAINT THEMSELVES WITH ALL THE AVAILABLE INFORMATION WILL NOT RELIEVE THE CONTRACTOR AND SUBCONTRACTOR(S) FROM RESPONSIBILITY FOR PROPERLY ESTIMATING THE DIFFICULTY AND COST OF SUCCESSFULLY PERFORMING THE WORK.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE CONTRACT DOCUMENTS AND FOR ALL REQUIRED SUBMITTALS TO THE CONTRACTING AGENCY.

PERMIT NOTES

- 1. EVERY REASONABLE EFFORT SHALL BE MADE TO CONDUCT THE ACTIVITIES SHOWN IN THESE PLANS, IN A MANNER THAT MINIMIZES THE ADVERSE IMPACT ON WATER QUALITY, FISH AND WILDLIFE, AND THE NATURAL ENVIRONMENT.
- 2. ALL WORK WILL BE IN COMPLIANCE WITH PERMIT CONDITIONS ISSUED BY PERTINENT REGULATORY AGENCIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE COPIES OF ALL PERMITS ON THE JOB SITE, AND UNDERSTAND AND COMPLY WITH ALL PERMIT CONDITIONS.
- 3. ALL WORK THAT DISTURBS THE SUBSTRATE, BANK, OR SHORE OF A WATERS OF THE STATE THAT CONTAINS FISH LIFE SHALL BE CONDUCTED ONLY DURING THE WORK PERIOD FOR THAT WATERBODY AS ALLOWED BY RELEVANT HYDRAULIC WORK PERMITS. THOSE PORTIONS OF THE PROJECT WORK THAT OCCUR OUTSIDE OR ABOVE THE ORDINARY HIGH WATER MARK (ABOVE THE USACE JURISDICTIONAL LINE) ARE NOT SUBJECT TO THE WORK PERIODS DESCRIBED ABOVE UNLESS SPECIFIED IN THE RELEVANT PERMITS.
- 4. ALL ACTIVITIES THAT INVOLVE WORK ADJACENT TO, OR WITHIN THE WETTED CHANNEL SHALL, AT ALL TIMES, REMAIN CONSISTENT WITH ALL APPLICABLE WATER QUALITY STANDARDS; EFFLUENT LIMITATION; AND STANDARDS OF PERFORMANCE, PROHIBITIONS, PRETREATMENT STANDARDS, AND MANAGEMENT PRACTICES ESTABLISHED PURSUANT TO THE CLEAN WATER ACT OR PURSUANT TO APPLICABLE STATE AND LOCAL LAW.
- 5. IF AT ANY TIME, AS A RESULT OF PROJECT ACTIVITIES, FISH ARE OBSERVED IN DISTRESS, A FISH KILL OCCURS, OR WATER QUALITY PROBLEMS DEVELOP (INCLUDING EQUIPMENT LEAKS OR SPILLS), OPERATIONS SHALL CEASE AND THE CONTRACTING AGENCY SHALL BE NOTIFIED IMMEDIATELY.
- IF, DURING CONSTRUCTION, ARCHAEOLOGICAL REMAINS ARE ENCOUNTERED, CONSTRUCTION IN 6. THE VICINITY SHALL BE HALTED, AND THE STATE OFFICE OF HISTORIC PRESERVATION AND THE CONTRACTING AGENCY SHALL BE NOTIFIED IMMEDIATELY.

SURVEY NOTES

- 1. UNLESS NOTED OTHERWISE ON THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION.
- 2. ALL ALIGNMENTS SHOWN IN THESE DRAWINGS WILL BE MADE AVAILABLE TO THE CONTRACTOR IN ELECTRONIC FORMAT (.DWG, SHAPE FILE, LANDXML, ETC.) FOR THE CONTRACTOR TO USE IN SURVEYING AND STAKING OUT PROJECT ELEMENTS.
- 3. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON THE JOB SHOWING "AS-CONSTRUCTED" CHANGES MADE TO DATE. UPON COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL SUPPLY TO CONTRACTING AGENCY A SET OF PLANS, MARKED UP TO THE SATISFACTION OF THE CONTRACTING AGENCY, REFLECTING THE AS-CONSTRUCTED MODIFICATIONS
- 4. ELEVATIONS SHOWN ON THE PLANS FOR PIPE INVERTS, TOPS OF BANKS, THALWEG, GRADE CONTROLS, FTC., ARE BASED UPON THE TOPOGRAPHIC INFORMATION SHOWN ON THE PLANS THE CONTRACTOR SHALL VERIFY ALL NECESSARY SURFACE ELEVATIONS IN THE FIELD AND NOTIFY THE CONTRACTING AGENCY OF ANY DISCREPANCIES, WHICH MIGHT AFFECT PROPER OPERATION OF THE NEW FACILITIES BEFORE BREAKING GROUND AND PRIOR TO FACILITY INSTALLATION. THE CONTRACTING AGENCY SHALL BE CONTACTED IN THE EVENT THERE ARE DISCREPANCIES SO THAT THE PROPER ADJUSTMENTS CAN BE MADE BY ENGINEER PRIOR TO THE INSTALLATION OF THE FACILITIES, AS SET FORTH IN THE SPECIAL PROVISIONS.
- 5. LIDAR FOR THIS PROJECT WAS COLLECTED IN 2015 AND IS REPRESENTATIVE OF CONDITIONS AT THE TIME OF COLLECTION. LIDAR DATA HAVE BEEN SUPPLEMENTED WITH LOCAL GROUND SURVEY TO BETTER DEFINE THE CHANNEL; GROUND SURVEY OCCURRED IN 2008. THE HORIZONTAL DATUM IS NAD83 WASHINGTON STATE PLANE NORTH (FT). THE VERTICAL DATUM IS NAVD88 (FT).

EROSION, SEDIMENT CONTROL AND WATER MANAGEMENT NOTES

- 1. A SEDIMENT AND EROSION CONTROL PLAN WILL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED FOR APPROVAL BY CONTRACTING AGENCY AND/OR THE ENGINEER BEFORE ANY CONSTRUCTION MAY BEGIN. THE SEDIMENT AND EROSION CONTROL PLAN WILL IDENTIFY BEST MANAGEMENT PRACTICES TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS DRAINAGE SYSTEMS AND ADJACENT PROPERTIES IS MINIMIZED
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY EROSION CONTROL MEASURES. THE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT.
- 3. ACTIVITIES SHALL BE DESIGNED AND CONSTRUCTED TO AVOID AND MINIMIZE ADVERSE IMPACTS TO WATERS OF THE UNITED STATES TO THE MAXIMUM EXTENT PRACTICAL THROUGH THE USE OF PRACTICAL ALTERNATIVES. ALTERNATIVES THAT SHALL BE CONSIDERED INCLUDE THOSE THAT MINIMIZE THE NUMBER AND EXTENT OF IN-WATER WORK AND EQUIPMENT CROSSINGS OF WETTED CHANNELS.
- 4. AT NO TIME SHALL SEDIMENT-LADEN WATER BE DISCHARGED OR PUMPED DIRECTLY INTO THE SUBJECT RIVER, STREAM, OR WETLAND. WATER SHALL BE DISCHARGED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE PROJECT PERMITS AND / OR CONTRACT DOCUMENTS.
- 5. IF HIGH WATER LEVEL CONDITIONS THAT CAUSE SILTATION OR EROSION ARE ENCOUNTERED DURING CONSTRUCTION, WORK SHALL STOP UNTIL THE WATER LEVEL SUBSIDES.
- 6. PERMIT CONDITIONS CONTAIN SPECIFIC REQUIREMENTS FOR THE CONTROL OF EROSION AND TURBIDITY FROM PROJECT OPERATIONS. TURBIDITY WILL BE MONITORED ON A FREQUENT BASIS BY THE PROJECT MANAGEMENT AND INSPECTION STAFF ON-SITE. TURBIDITY AMOUNTS IN EXCESS OF THE PERMITTED CONCENTRATIONS AND/OR DURATIONS WILL CAUSE WORK TO BE STOPPED UNTIL IMPROVED PRACTICES ARE IN EFFECT AND THE PROBLEMS CONTROLLED. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR ANY PROJECT DELAYS THAT OCCUR BY NATURE OF THIS FAILURE TO ADEQUATELY CONTAIN SEDIMENT ON-SITE.
- 7. CONTRACTOR SHALL LIMIT MACHINERY MOVEMENT TO CONSTRUCTION AREAS DEFINED ON SITE PLAN OR IDENTIFIED AS ACCEPTABLE BY THE ENGINEER OR CONTRACTING AGENCY.
- 8. ALL EXTERNAL GREASE, OIL, SOIL, VEGETATION, AND OTHER DEBRIS, SHALL BE PRESSURE-WASHED OFF THE EQUIPMENT PRIOR TO TRANSPORT TO THE SITE.
- 9. ALL EQUIPMENT OPERATING BELOW OHWM SHALL UTILIZE READILY BIODEGRADABLE VEGETABLE-BASED HYDRAULIC FLUIDS.
- 10. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT NO PETROLEUM PRODUCTS, HYDRAULIC FLUID, SEDIMENTS, SEDIMENT-LADEN WATER, CHEMICALS, OR ANY OTHER TOXIC OR DELETERIOUS MATERIALS ARE ALLOWED TO ENTER OR LEACH INTO THE SUBJECT RIVER, STREAM, OR WETLAND,
- 11. THE CONTRACTOR SHALL HAVE AN EMERGENCY SPILL KIT ONSITE AT ALL TIMES.
- 12. NO TREES OR WETLAND VEGETATION SHALL BE REMOVED UNLESS THEY ARE SHOWN AND NOTED TO BE REMOVED ON THE PLANS OR AS DIRECTLY SPECIFIED ON-SITE BY THE PROJECT MANAGEMENT STAFF. ALL TREES CONFLICTING WITH GRADING SHALL BE REMOVED. NO GRADING SHALL TAKE PLACE WITHIN THE DRIP LINE OF TREES NOT TO BE REMOVED UNLESS OTHERWISE APPROVED.







NAME OR	INITIALS AND DATE	GEOGRAPH	IC INFORMATION
DESIGNED	NT	LATITUDE	47'30'40"N
CHECKED	RH	LONGITUDE	120'37'55"W
DRAWN	NT	TN/SC/RG	T23N/S6/R18E
CHECKED	JS	DATE	JULY 31, 2019

CONSTRUCTION NOTES

- DOCUMENTS

MILL CREEK FISH

PASSAGE PROJECT

TEM NO.	QUANTITY	UNITS	DESCRIPTION
1	LUMP SUM	L.S.	MOBILIZATION
2	0.25	ACRE	CLEARING
3	1,260	L.F.	HIGH VISIBILITY FENCE
4	LUMP SUM	L.S.	TEMPORARY STREAM DIVERSION
5	LUMP SUM	L.S.	TEMPORARY DETOUR
6	LUMP SUM	L.S.	TEMPORARY BRIDGE
7	1,150	C.Y.	STRUCTURE EXCAVATION CLASS A INCL. HAUL
8	LUMP SUM	L.S.	SHORING OR EXTRA EXCAVATION CL. A
9	LUMP SUM	L.S.	STRUCTURAL PLATE CULVERT
10	490	C.Y.	GRAVEL BACKFILL FOR PIPE ZONE BEDDING
11	535	S.F.	STRUCTURAL EARTH WALL
12	LUMP SUM	L.S.	CHANNEL GRADING
13	LUMP SUM	L.S.	CHANNEL CONSTRUCTION
14	20	C.Y.	STREAMBED SAND
15	115	C.Y.	CRUSHED SURFACING BASE COURSE
16	132	TON	HMA CL. 3/8 IN. PG 64-28
17	91	L.F.	BEAM GUARDRAIL TYPE 31
18	4	EACH	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL
19	2	EACH	BEAM GUARDRAIL PLACEMENT – 25' SPAN
20	LUMP SUM	L.S.	SURVEYING
21	LUMP SUM	L.S.	PROJECT TEMPORARY TRAFFIC CONTROL
22	0.42	ACRE	SEEDING AND MULCHING
23	LUMP SUM	L.S.	EROSION CONTROL AND WATER POLLUTION PREVENTION
24	LUMP SUM	L.S.	TEMPORARY FENCE
25	682	L.F.	PAINT LINE
26	5,000	DOL	MINOR CHANGE

13. FOLLOWING CONSTRUCTION, SITE RESTORATION WILL INCLUDE ESTABLISHING LONG-TERM EROSION PROTECTION MEASURES. THESE MEASURES WILL INCLUDE PLANTINGS, EROSION CONTROL FABRIC, SEED, AND MULCH. EQUIPMENT AND EXCESS SUPPLIES WILL BE REMOVED AND THE WORK AREA WILL BE CLEANED.

1. CONTRACT DOCUMENTS REFER IN PART, TO THESE PLANS,

2. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLETE ALL WORK AS INDICATED IN THE CONTRACT DOCUMENTS.

3. CONSTRUCTION HOURS SHALL BE WEEKDAYS BETWEEN 7:00 A.M. AND 6:30 P.M. UNLESS PRIOR APPROVAL IS RECEIVED FROM THE CONTRACTING AGENCY.

4. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE BY THE CONTRACTING AGENCY OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.

THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT.

7. THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, ROADWAY, DRAINAGE WAYS, PRIVATE BRIDGE, CULVERTS, AND VEGETATION UNTIL SUCH ITEMS ARE TO BE DISTURBED OR REMOVED AS INDICATED IN THE CONTRACT

8. THE CONTRACTOR SHALL KEEP THE JOB SITE CLEAN AND HAZARD FREE. CONTRACTOR SHALL DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH FOR THE DURATION OF THE WORK. UPON COMPLETION OF WORK, CONTRACTOR SHALL REMOVE ALL MATERIAL AND EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY.

9. DIMENSION CALLOUTS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON THE PLANS.

10. MATERIAL AND EQUIPMENT SHALL NOT BE STORED OUTSIDE OF IDENTIFIED STAGING AREAS THE CONTRACTOR SHALL USE ONLY DESIGNATED SPECIFIC SITES FOR STORAGE OF EQUIPMENT AND MATERIALS AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS.

> FINAL DESIGN 2020 **.**60 Nov

NOTES & SUMMARY OF QUANTITIES

SHEET 2 OF 13

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PAVEMENT REMOVAL AS NECESSARY FOR PAVING SHORING OR EXTRA EXCAVATION CL. A STRUCTURE EXCAVATION CLASS A INCL. HAUL EXISTING ROAD SURFACE 24'-8" SPAN 20' MIN SPAN · SEE SHEET 9 FOR LIMIT OF PAVEMENT REMOVAL UNDISTURBED NATIVE SOIL --Q₁₀₀ WSE 1.54.1V SEE NOTE 2 8' WIDE PIPE BEDDING ZONE PER CONTECH 12' NOTES: 1 THE CONTRACTOR SHALL FURNISH A STRUCTURAL PLATE CULVERT MEETING THE MINIMUM DIMENSIONS SHOWN ON THIS SHEET. THE STRUCTURAL PLATE CULVERT SHALL BE BE GALVANIZED STEEL WITH 8 GAGE OR THICKER PLATES. IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL SUBMIT TYPE 3E WORKING DRAWINGS the second FOR THE CULVERT AND FOOTINGS DOCUMENTING PRECAST FOOTING CONFORMANCE WITH APPLICABLE DESIGN STANDARDS. <u>8888888</u>8888 LOAD RATINGS SHALL BE PROVIDED IN ACCORDANCE WITH THE WSDOT BRIDGE DESIGN MANUAL, CHAPTER 13. REFER GRAVEL BACKFILL FOR PIPE TO THE SPECIAL PROVISIONS FOR MORE INFORMATION. CULVERT BEDDING MATERIAL ZONE BEDDING IF EXTRA EXCAVATION IS USED IN LIEU OF SHORING, NATIVE 2 MATERIAL MAY BE USED AS BACKFILL PROVIDED IT CAN BE COMPACTED TO 90 PERCENT MAXIMUM DENSITY. OTHERWISE SELECT BORROW SHALL BE IMPORTED. BOULDERS ARE VISIBLE WITHIN THE LIMITS OF 3 EXCAVATION PAY ITEMS EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE GEOTECHNICAL REPORT AND BECOMING FAMILIAR WITH SITE CONDITIONS PRIOR TO EXCAVATION AND SHALL MOBILIZE EQUIPMENT CAPABLE OF COMPLETING THE EXCAVATION REQUIRED TO COMPLETE THE WORK. CONTRACTOR FURNISHED STRUCTURAL PLATE CULVERT EXCEEDED MIN. DIMENSIONS REQUIRING ADDITIONAL STRUCTURE EXCAVATION AND IMPORTED VOLUME OF GRAVEL BACKFILL FOR PIPE ZONE BEDDING. CONTRACTOR OPTED FOR PERFORMING EXTRA EXCAVATION RATHER THAN SHORING FOR CONSTRUCTION OF STRUCTURAL PLATE CULVERT. Ø Natural Systems Design AME OR INITIALS AND DATE SEOGRAPHIC INFORMATION MILL CREEK FISH ATITUDE 47'30'40"N SIGNED IF THIS BAR DOES NOT MEASURE 1" THEN RAWING IS NOT PLOTTED TO ORIGINAL SCALE. P ONGITUDE 120'37'55"W (\mathcal{O}) HECKED RH PASSAGE PROJECT STONAL. TN/SC/RG T23N/S6/R18E AWN NT

HECKED JS JULY 31, 2019

DATE













SIGN SPACING = X (FE	ET)	
RURAL HIGHWAYS	60/65 MPH	800'+-
RURAL ROADS	45/55 MPH	500'+-
URBAN ARTERIALS AND RURAL ROADS	35/40 MPH	350'+-
RURAL ROADS URBAN STREETS RESIDENTIAL AREAS & BUSINESS DISTRICTS	25/30 MPH	200'+-
ALL SIGNS ARE 48" X 48" AND B OTHERWISE DESIGNATED.	LACK ON ORANGE	UNLESS

BUFFER DATA								
FFER SPACE = B								
PEED (MPH)	25	30	35	40	45	50	55	60
NGTH (feet)	155	200	250	305	360	425	495	570
OTECTIVE VE	HICLE RC	LL AHE	EAD DI	STANCE	= R			
VEHICLE TYPE	TYPICAL LOADEI (I	- VEHIO D WEIG _BS)	CLE HT	POST SPEE (MPH	ED ID H)	STATIONARY OPERATION (MPH)		
4 YARD IMP TRUCK	24,000			50-5 45	5	75 50		
2 TON RGO TRUCK	15,000			50-5 45	50-55 100 45 75		00	_
1 TON RGO TRUCK	10,000			50-55 45		1	50 00	
ULL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT.								

 \ast when a TMA is used, the Roll Ahead distance is 30' min. To 100' Max. PROTECTIVE VEHICLE MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.

TRAFFIC CONTROL PLAN -	
ALTERNATE OPTION	



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N/SC/RG T23N/S6/R18E

DATE

JULY 31, 2019

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JS

PASSAGE PROJECT

RESTORATION SEED MIX					
ECIES NAME	COMMON NAME	LBS OF PLS/ACRE			
IILLEA MILLEFOLIUM	WESTERN YARROW	0.5			
INATHERUM HYMENOIDES	INDIAN RICEGRASS	7			
OPYRON SPICATUM	BLUEBUNCH WHEATGRASS	13			
MUS TRACHYCAULUS	SLENDER WHEATGRASS	6			
TUCA IDAHOENSIS	IDAHO FESCUE	7			
IATIUM NUDICAULE	BARESTEM BISCUITROOT	2			
INUS SERICEUS	SILKY LUPINE	10			
SECUNDA	SANDBERG BLUEGRASS	4			
ENTILLA GRACILIS	SLENDER CINQUEFOIL	0.75			
IDAGO ALTISSIMA	CANADA GOLDENROD	0.75			

SITE RESTORATION PLAN

13 SHEET 13 OF 13 09, 2020 Nov