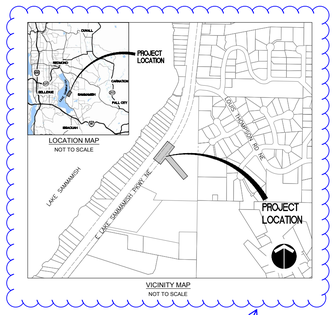
CITY OF SAMMAMISH

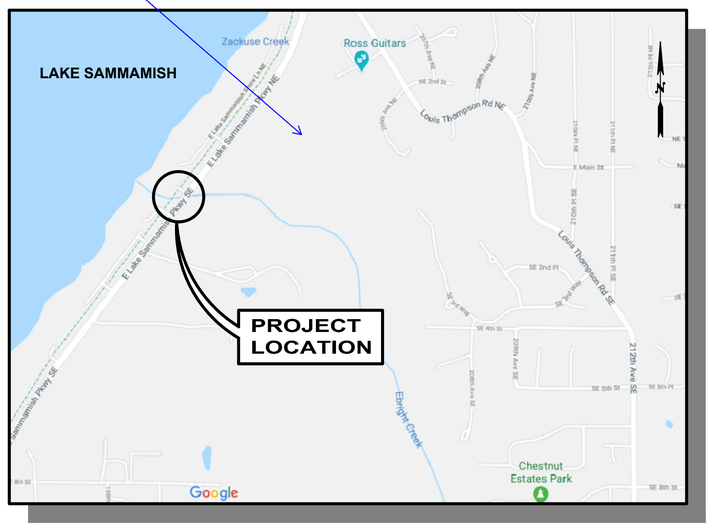
Remove duplicate

CITY OF SAMMAMISH EBRIGHT CREEK FISH PASSAGE

Label and Name pages of the PDF file to match Sheet number and name for easier electronic navigation.



Add project vicinity in the region. Improve legibility of road names.



VICINITY MAP
N.T.S.

May need to include Zayo and Verizon (Fiber backbones)

UTILITY COORDINATION CONTACTS:

UTILITIES:

EASTSIDE FIRE & RESCUE	(425)392-3433
SAMMAMISH PLATEAU WATER	(425)392-6256
COMCAST	(425)263-5353
FRONTIER	(425)261-6342
PUGET SOUND ENERGY (GAS)	(425)449-7410
PUGET SOUND ENERGY (POWER)	(425)457-4524
CENTURY LINK	(206)461-1402

CITY OF SAMMAMISH:

PROJECT MANAGER
STEPHANIE SULLIVAN, PE, M. ASCE (425)295-0560

Add City of Sammamish Council info (Mayor, Deputy Mayor), Interim City Manager, Public Works Director, City Engineer

SURVEYOR:
DUANE HARTMAN & ASSOCIATES, INC.
16928 WOODINVILLE-REDMOND ROAD, B-107
WOODENVILLE, WASHINGTON 98072

(425)483-4650

ENGINEERING:
OSBORN CONSULTING, INC.
LAURA RUPPERT, PE
1800 112TH AVE. NE, SUITE 220E
BELLEVUE, WA 98004
(425) 451-4009

DATUM:

HORIZONTAL DATUM: WASHINGTON STATE COORDINATE SYSTEM, NORTH ZONE NAD83(91), US FEET UTILIZING RTK GPS FIELD PROCEDURES WITH A COMBINED SCALE FACTOR OF (SC) 0.99996835. RXTENDED TO SITE FROM WSDOT CONTROL POINT #38611.

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88), US FEET. AS EXTENDED TO THE SITE VIA TRIMBLE RTKGPS TECHNIQUES.

SHEET INDEX

THE WATERSHED COMPANY
750 Sixth Street South
Kirkland WA 98033
p 425.822.5242
www.watershedco.com
Science & Design

DCG civil structural
Davido Consulting Group, Inc.
9706 4th Ave NE, Suite 300
www.dcgengr.com

30% SUBMITTAL

Know what's below. Call before you dig.

LAURA RUPPERT — STATE OF WASHINGTON — 43848 — REGISTERED PROFESSIONAL ENGINEER

Add approval box to include City PM, City Engineer, and PW Director

DESIGNED BY	MW
DRAWN BY	JJ
CHECKED BY	LR

OSBORN CONSULTING INCORPORATED

Osborn Consulting, Inc.
Bellevue | Seattle | Spokane
www.osbornconsulting.com

NO.	DATE	REVISION	BY

City of Sammamish Washington

Add City address

EBRIGHT CREEK FISH PASSAGE
CITY OF SAMMAMISH
COVERSHEET

JOB# / DWG	DATE
10–190038	03/13/2020
SCALE H: N/A V: N/A	SHEET 1 of 21

FILE NAME: C:\PW_OCI_WORKINGDIR\OSBORNCONSULTING-PW.BENTLEY.COM_OSBORNCONSULTING-PW-01\MAGGIE WILBANKS, EIT\DM5078135.P_10-190038_CVR.DWG
PLOT TIME: 3/13/2020 2:41 PM
USER NAME:MAGGIE WILBANKS, EIT

LEGEND:

EXISTING

POWER POLE

CONIFER TREE

DECIDUOUS TREE

DHA SURVEY CONTROL

GUY ANCHOR

VALVE

WATER METER

POWER VAULT

FIRE HYDRANT

LIGHT POLE

CULVERT

CONCRETE BOLLARD

MAIL BOX

GAS VALVE

OHW/WETLAND FLAG

BFW FLAG

SITE BENCHMARK

STAFF GAUGE

ASPHALT ROAD

UNDERGROUND SEWER LINE

WATER LINE

UNDERGROUND GAS LINE

OVERHEAD POWER AND TELEPHONE LINE

OVERHEAD POWER LINE

GRAVEL ROAD

FENCE LINE

ABBREVIATIONS:

ADT	AVERAGE DAILY TRAFFIC
APPROX.	APPROXIMATE, APPROXIMATELY
BMP	BEST MANAGEMENT PRACTICE
BW	BOTTOM OF WALL
CFS	CUBIC FEET PER SECOND
CHNL	CHANNEL
CL	CENTERLINE
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
CTR	CENTER
CY	CUBIC YARDS
DI	DUCTILE IRON
DIA	DIAMETER
E	EAST, EASTING
ELEV	ELEVATION
FLEX	FLEXIBLE
FT	FOOT, FEET
HPA	HYDRAULIC APPROVAL
HVF	HIGH VISIBILITY FENCE
IE	INVERT ELEVATION
LCL	LOCAL LOW POINT
MAX	MAXIMUM
MPH	MILES PER HOUR
MON	MONUMENT
N	NORTH, NORTHING
N.T.S.	NOT TO SCALE
OHWM	ORDINARY HIGH WATER MARK
RJ	RESTRAINED JOINT
ROW	RIGHT OF WAY
RXR	RAILROAD
S	SOUTH
SF	SQUARE FEET
STA.	STATION
SSMH	SANITARY SEWER MANHOLE
TBM	TEMPORARY BENCHMARK
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
W	WEST
XFMR	TRANSFORMER

EXISTING ABBREVIATIONS

WV	WATER VALVE
PRD	PER RECORD DRAWING
CONC	CONCRETE
PP/UG	POWER POLE W/ UNDERGROUND
CAB	CABINET
RCC	REBAR/ CONTROL CAP

TREES

A	ALDER
F	FIR
W	WILLOW
C	CEDAR
DEC	DECIDUOUS
CON	CONIFER
HEM	HEMLOCK
CWD	COTTONWOOD

PROJECT GENERAL NOTES:

1. PROTECTION OF THE ENVIRONMENT: NO CONSTRUCTION RELATED ACTIVITY SHALL CONTRIBUTE TO THE DEGRADATION OF THE ENVIRONMENT, ALLOW MATERIAL TO ENTER SURFACE OR GROUND WATER, OR ALLOW PARTICULATE EMISSIONS TO ENTER THE ATMOSPHERE, WHICH EXCEED STATE OR FEDERAL STANDARDS. ANY ACTIONS THAT POTENTIALLY ALLOW A DISCHARGE TO STATE WATERS MUST HAVE PRIOR APPROVAL FROM THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.
2. CONTRACTOR SHALL VERIFY LOCATION AND DEPTHS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

TESC GENERAL NOTES:

1. TESC MEASURES SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL FIELD LOCATE TO ACCOMMODATE SITE CONDITIONS AND WORK SCHEDULE.
2. THE TEMPORARY EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING IN ACCORDANCE WITH THE PLANS AND AS DIRECTED BY THE ENGINEER. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING ARE COMPLETED, AND SITE IS STABILIZED. SEDIMENT LADEN WATER SHALL NOT ENTER THE NATURAL DRAINAGE SYSTEMS.
3. TEMPORARY SILT FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED WATTLES, END RUNS, AND UNDER-CUTTING BENEATH WATTLES. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. ALL VEGETATION WITHIN CLEARING AND GRUBBING LIMITS SHALL BE REMOVED UNLESS NOTED OTHERWISE. ALL VEGETATION OUTSIDE DESIGNATED LIMITS SHALL REMAIN UNDISTURBED.
5. ALL CRITICAL AREA BUFFERS SHALL BE STAKED PRIOR TO CONSTRUCTION. LIMITS OF DISTURBANCE TO BE STAKED. ANY DISTURBANCE INSIDE CRITICAL AREA BUFFER SHALL BE RESTORED PER PLANTING SHEET XX.
6. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF SAMMAMISH TO NOTIFY, FACILITATE AND MAINTAIN ACCESS TO ACCOMMODATE WORK OUTSIDE OF THE RIGHT-OF-WAY WITH PROPERTY OWNERS.
7. ALL STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND PROTECTED FROM EROSION BY MECHANICAL OR VEGETATIVE MEANS.
8. ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY SEEDING, MULCHING, MATTING OR PLASTIC COVERING. FROM OCT. 1 TO APRIL 30 NO SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPT. 30, NO SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN 7 DAYS.
9. ALL PROPERTIES ADJACENT TO THE PROJECT SHALL BE PROTECTED FROM SEDIMENT DEPOSIT.
10. ALL POLLUTANTS OTHER THAN SEDIMENTS THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORM WATER. SEE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, 2019, VOLUME ii CHAPTER 2.
11. SEDIMENTS TRANSPORTED ONTO A ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
12. REMOVE TESC AND RETURN EROSION CONTROL AREAS TO ORIGINAL GROUND CONDITIONS UPON COMPLETION.

Add City Standard Plan Notes, as applicable, see attachment here.

Add Construction Sequence

30% SUBMITTAL

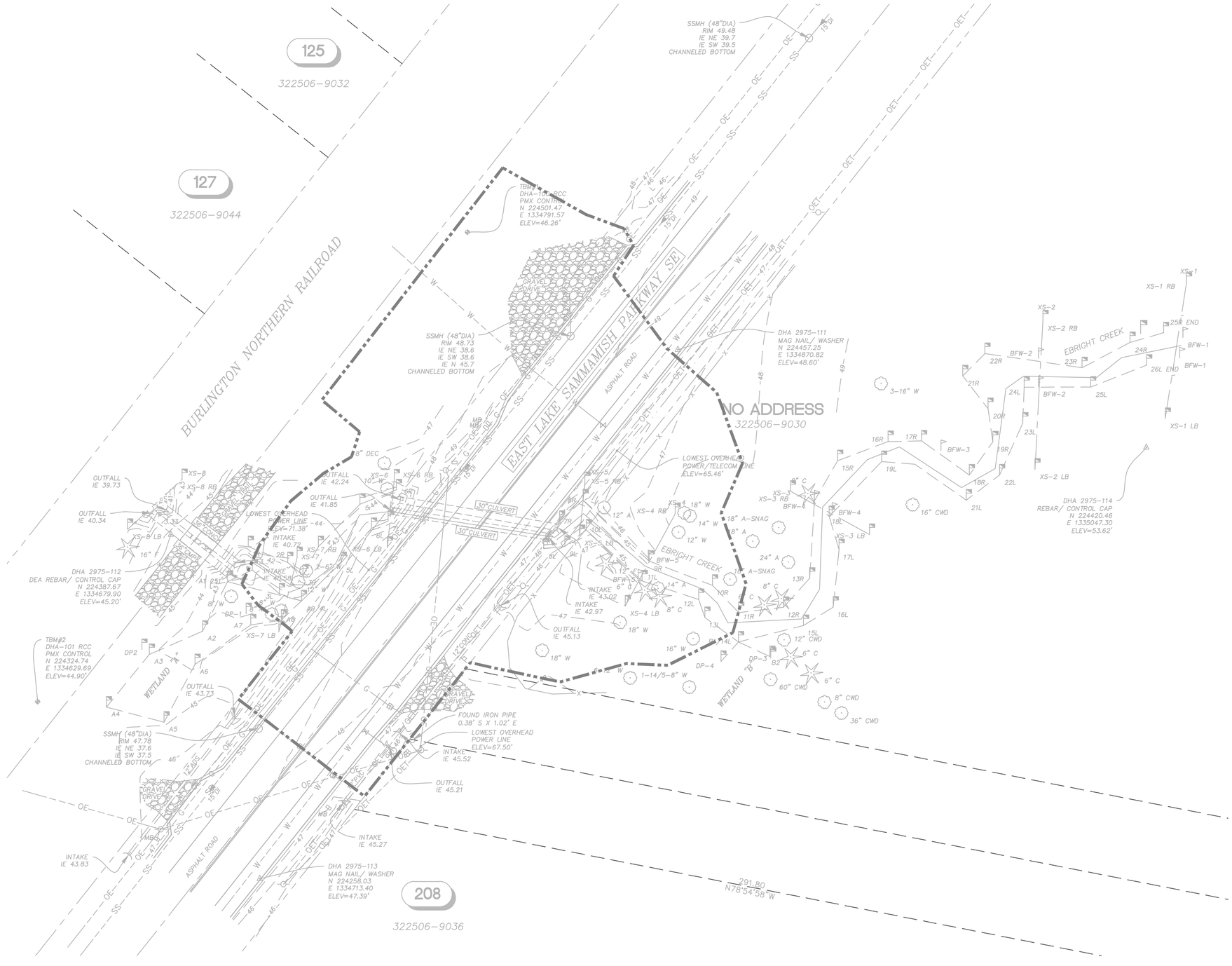
Osborn Consulting, Inc.
Bellevue | Seattle | Spokane
www.osbornconsulting.com

NO.	DATE	REVISION	BY

DESIGNED BY MW | DRAWN BY JJ | CHECKED BY LR

EBRIGHT CREEK FISH PASSAGE
CITY OF SAMMAMISH
GENERAL NOTES AND LEGEND

JOB# / DWG 10-190038 | DATE 03/13/2020 | SCALE H: N/A V: N/A | SHEET 2 of 21



SURVEY CONTROL GENERAL NOTES:

BENCHMARK:

WSDOT 38617 – CONCRETE MONUMENT WITH 2" BRASS CAP, DOWN 0.5' IN CASE AT CUL–DE–SAC MONUMENT IN 210TH PLACE.
NAVD88 ELEVATION = 362.109'.

TBM#1
EXISTING REBAR AND CONTROL CAP "PMX 1042" LOCATED ON EAST SIDE OF EAST LAKE SAMMAMISH TRAIL, 75'± EAST OF HOUSE #125.
NAVD88 ELEVATION = 46.26'

TBM#2
EXISTING REBAR AND CONTROL PMX CAP LOCATED ON THE WEST SIDE OF EAST LAKE SAMMAMISH TRAIL, 240'± SOUTHERLY FROM TBM#1.
NAVD88 ELEVATION = 44.90'

CONTOUR INTERVAL: (1') ONE FOOT CONTOURS

INSTRUMENT USED: THE PRIMARY MEASUREMENT EQUIPMENT UTILIZED IN THE PERFORMANCE OF THIS SURVEY WAS A LEICA MS–60 ELECTRONIC TOTAL STATION, SN# 624750.

UTILITIES MAPPING:
ALL EXISTING UTILITIES SHOWN HEREIN ARE TO BE VERIFIED HORIZONTALLY AND VERTICALLY PRIOR TO ANY CONSTRUCTION. ALL EXISTING FEATURES INCLUDING BURIED UTILITIES ARE SHOWN AS INDICATED BY RECORD LOCATION OR FIELD TIED AS A RESULT OF A UTILITY PAINT–OUT DURING THE COURSE OF THE FIELD SURVEY. DUANE HARTMAN & ASSOCIATES, INC. (DHA) ASSUMES NO LIABILITY FOR THE ACCURACY OF THE RECORD INFORMATION AND/OR THE UTILITY PAINT–OUT. FOR THE FINAL LOCATION OF THE EXISTING UTILITIES IN AREAS CRITICAL TO CONSTRUCTION, CONTACT THE UTILITY OWNER/AGENCY AND UTILITIES UNDERGROUND CENTER (800/424–5555).

TOPOGRAPHIC MAPPING:
THE MAP SHOWN HEREON IS THE RESULT OF A TOPOGRAPHIC SURVEY BY DUANE HARTMAN ASSOCIATES, INC. (DHA) COMPLETED ON DECEMBER 20, 2019. DHA ASSUMES NO LIABILITY, BEYOND SAID DATE, FOR ANY FUTURE SURFACE FEATURE MODIFICATIONS OR CONSTRUCTION ACTIVITIES THAT MAY OCCUR WITHIN OR ADJOINING THE PERIMETER OF THIS SURVEY. CONTACT DHA (425/483–5355) FOR SITE UPDATES AND VERIFICATIONS.

PROPERTY AND RIGHT OF WAY LINES:

LINES OF OWNERSHIP SHOWN HEREON ARE BASED UPON KING COUNTY SECTION BREAKDOWN MONUMENT POSITIONS EXPRESSED IN NAD83(1991) HORIZONTAL COORDINATES.

RECORD OF SURVEY RECORDED UNDER KING COUNTY RECORDING NUMBER 20000605900017 WAS REFERENCED AND TIED TO THE KING COUNTY SECTION BREAKDOWN AND SHOWN HEREON.

PROPERTY/RIGHT OF WAY LINES AND CORNERS SHOWN HEREON REPORTED TO A HORIZONTAL ACCURACY OF ±1.0'.

HORIZONTAL SCALE
SCALE: 1" = 20'
0 20 40 60

Know what's below. Call before you dig.

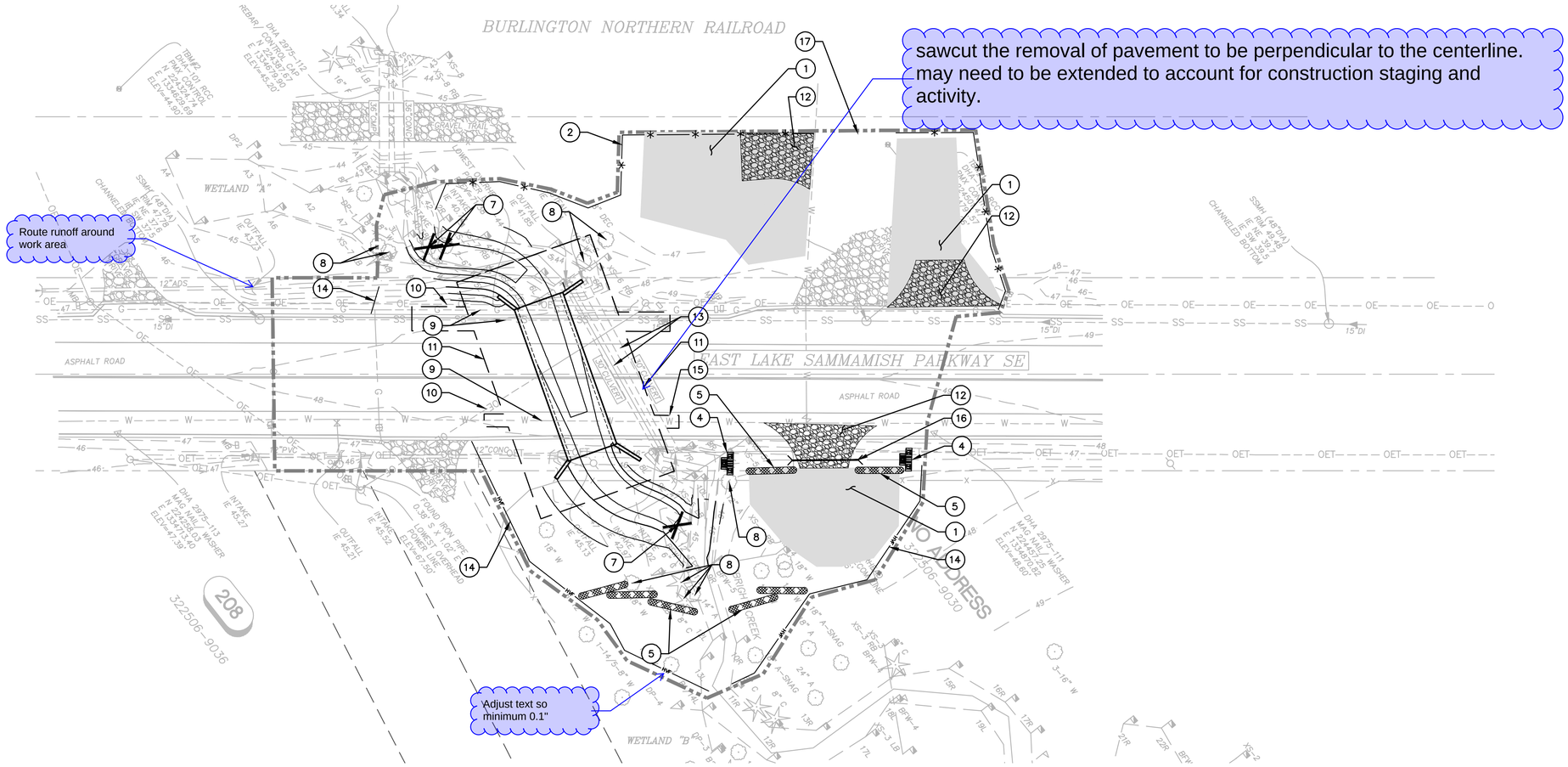
30% SUBMITTAL

DESIGNED BY MW DRAWN BY JJ CHECKED BY LR	OSBORN CONSULTING INCORPORATED	**Osborn Consulting, Inc.** Bellevue | Seattle | Spokane www.osbornconsulting.com	NO.	DATE	REVISION	BY	City of Sammamish Washington

EBRIGHT CREEK FISH PASSAGE
CITY OF SAMMAMISH
EXISTING SURVEY CONDITIONS

JOB# / DWG	DATE
10–190038	03/13/2020
SCALE: H: 1"=20' V: N/A	SHEET: 3 of 21

FILE NAME: C:\PW_OCL_WORKINGDIR\OSBORNCONSULTING–PW.BENTLEY.COM_OSBORNCONSULTING–PW–01\MAGGIE WILBANKS, EIT\DMS07813\P_10–190038_SV01.DWG
PLOT TIME: 3/13/2020 2:41 PM
USER NAME:MAGGIE WILBANKS, EIT



LEGEND

- CONSTRUCTION LIMITS
- HIGH VISIBILITY SILT FENCE
- TREE PROTECTION
- INTERCEPTOR DIKE AND SWALE
- HVF — HIGH VISIBILITY FENCE
- CG — CLEARING LIMITS
- FM — FORCE MAIN
- TEMPORARY CULVERT
- X — X — TEMPORARY SECURITY FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- INLET PROTECTION
- EXISTING DRAINAGE PATH
- P — PUMP
- RISER/WIER
- STRAW BALE
- GRAVEL BAG
- REMOVE TREE
- STRAW WATTLE/COMPOST SOCK

Add note regarding easements required.

TESC AND DEMOLITION NOTES:

1. POTENTIAL CONSTRUCTION STAGING AREA. LOCATION SHALL BE FIELD LOCATED AND APPROVED BY ENGINEER.
2. INSTALL HIGH VISIBILITY SILT FENCE PER WSDOT STD. PLAN I-30, 16-01.
3. INSTALL TEMPORARY GRAVEL BAG BERM.
4. INSTALL TEMPORARY STRAW BALE DAM.
5. INSTALL STRAW WATTLE PER WSDOT STD PLAN I-30.30-02, OR COMPOST STOCK PER STD PLAN I-30.40-02.

Is this item represented in the figure above?

6. TEMPORARY STREAM BYPASS. SEE PLAN ON SHEET 8.
7. REMOVE EXISTING TREE. TREE TO BE USED AS NEEDED IN WOOD STRUCTURE CONSTRUCTION FOR STREAM RESTORATION.
8. PROTECT EXISTING TREE.

Note: Tree protection required if tree is within work area and replanting needed for trees removed. Follow Sammamish tree protection code SMC 21A.37.

9. EXISTING UTILITY TO BE RELOCATED/ADJUSTED, SEE SHEET 18 FOR DETAILS.
10. PROTECT EXISTING UTILITY DURING CONSTRUCTION.
11. SAWCUT AND REMOVE EXISTING PAVEMENT, INCLUDING HMA PAVEMENT AND CONC. PANEL UNDERNEATH.
12. INSTALL STABILIZED CONSTRUCTION ENTRANCE PER WSDOT STD PLAN I-80.10-02.
13. REMOVE EXISTING CULVERTS, 30-IN DIAMETER, 60-FT LENGTH.
14. INSTALL HIGH VISIBILITY FENCE PER WSDOT STD I-10.10-01.
15. EXTENTS OF EXCAVATION FOR CULVERT REMOVAL AND INSTALLATION.
16. INSTALL TEMPORARY CULVERT UNDER CONSTRUCTION ACCESS ROAD.
17. MAINTAIN RESIDENTIAL ACCESS.

HORIZONTAL SCALE — SCALE: 1" = 20' (0, 20, 40, 60)

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JULIA RUPPERT — STATE OF WASHINGTON — 43848 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY	MW
DRAWN BY	JJ
CHECKED BY	LR

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NO.	DATE	REVISION	BY

City of Sammamish Washington

EBRIGHT CREEK FISH PASSAGE
CITY OF SAMMAMISH
TESC AND DEMO PLAN

JOB# / DWG	DATE
10-190038	03/13/2020
SCALE: H: 1"=20' V: N/A	SHEET: 6 of 21

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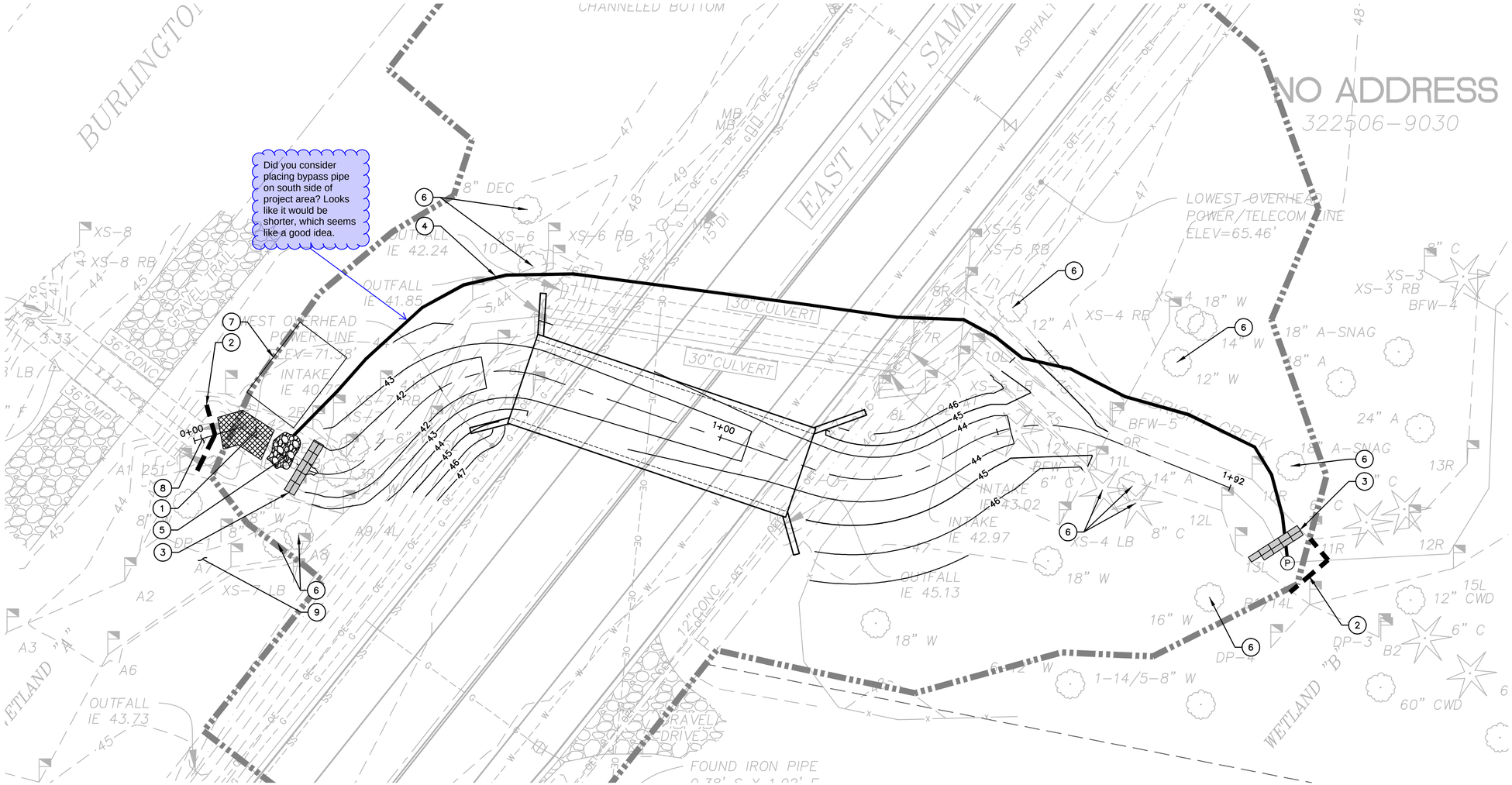

LEGEND:

- FISH SCREEN
- (P) BYPASS PUMP
- BYPASS PIPING
- GRAVEL BAG DAM
- RIPRAP MAT
- SEDIMENT MAT

TEMPORARY STREAM BYPASS GENERAL NOTES:

1. THE CONTRACTOR SHALL SUBMIT THE TEMPORARY BYPASS AND ISOLATION SYSTEM PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL. THE TEMPORARY BYPASS SYSTEM SHOWN ON PLAN IS SUGGESTED ONLY.
2. THE TEMPORARY BYPASS AND ISOLATION SYSTEM AND PLAN SHALL MEET ALL PERMIT REQUIREMENTS. CONTRACTOR SHALL REMOVE ALL TEMPORARY BYPASS MEASURES AFTER COMPLETION OF PROJECT.
3. THE TEMPORARY STREAM BYPASS SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTION.
4. PEAK FLOW RATES ANTICIPATED DURING THE PERIOD OF CONSTRUCTION COULD BE AS HIGH AS XX CFS. FLOW MAY BE HIGHER DURING HIGH RAINFALL EVENTS. CONTRACTOR SHALL BE PREPARED TO PROTECT WORK SITE DURING HIGHER FLOWS.
5. FISH EXCLUSION AND FISH REMOVAL SHALL BE PERFORMED BEFORE IN-WATER WORK IN ACCORDANCE WITH THE WASHINGTON DEPARTMENT OF FISH AND WILDLIFE HPA.
6. CONTRACTOR SHALL REMOVE AND WASTEHAUL EXISTING GRAVEL BAG BERM AFTER STREAM FLOWS HAVE BEEN RELOCATED INTO THE NEW CHANNEL.
7. NO GROUND DISTURBANCE (MECHANICAL EQUIPMENT) SHALL OCCUR OUTSIDE OF THE CLEARING AND GRADING LIMITS.
8. CONTRACTOR SHALL RETAIN ANY LARGE WOODY MATERIAL INSIDE THE CHANNEL REMOVED FOR CONSTRUCTION (DEFINED AS TREES OR TREE PARTS LARGER THAN 4-IN IN DIAMETER AND LONGER THAN 6-FT) AND REPLACE BELOW OHWM PRIOR TO COMPLETION OF THE PROJECT.

(#) TEMPORARY STREAM BYPASS CONSTRUCTION NOTES:

1. INSTALL SEDIMENT MAT.
2. INSTALL FISH SCREEN.
3. INSTALL GRAVEL BAG BERM.
4. INSTALL 24-IN DIA. BYPASS PIPE. INSTALL GRAVEL BAGS ON/AROUND PIPE INLET TO STABILIZE.
5. INSTALL TEMPORARY RIPRAP MAT TO PREVENT EROSION AT BYPASS OUTFALL. ALL RIPRAP SHALL BE REMOVED WHEN CONSTRUCTION IS COMPLETE.
6. EXISTING TREE/VEGETATION TO REMAIN. PROTECT DURING CONSTRUCTION PER ECOLOGY BMP C101: PRESERVING NATURAL VEGETATION. TREE LIMBS MAY BE TRIMMED WITH APPROVAL FROM THE CITY'S ARBORIST.
7. FILTER BAG FOR DEWATERING AND SEDIMENT REMOVAL.
8. TURBIDITY MONITORING STATION. SEE CONTRACT SPECIFICATIONS FOR MONITORING REQUIREMENTS.
9. CONTRACTOR ACCESS TO PERFORM IN-STREAM WORK DOWNSTREAM OF CULVERT SHALL BE WITHIN THE STREAM CHANNEL. NO WETLAND DISTURBANCE SHALL OCCUR.

HORIZONTAL SCALE — SCALE: 1" = 10' (0, 10, 20, 30)

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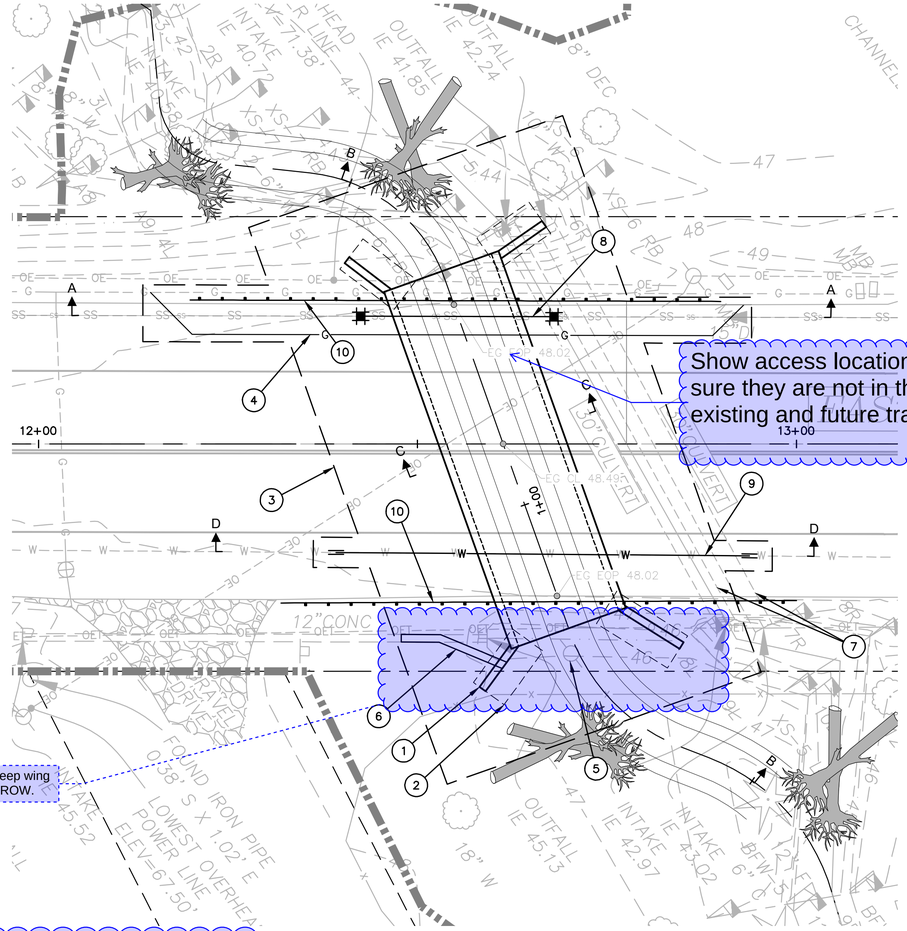
30% SUBMITTAL

JULIA RUPERT, STATE OF WASHINGTON, 43848, REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY MW	Osborn Consulting, Inc.	EBRIGHT CREEK FISH PASSAGE	JOB# / DWG 10-190038
DRAWN BY JJ	Bellevue | Seattle | Spokane	CITY OF SAMMAMISH	DATE 03/13/2020
CHECKED BY LR	www.osbornconsulting.com	STREAM BYPASS PLAN	SCALE H: 1"=10' V: N/A
			SHEET 8 of 21

NO.	DATE	REVISION	BY

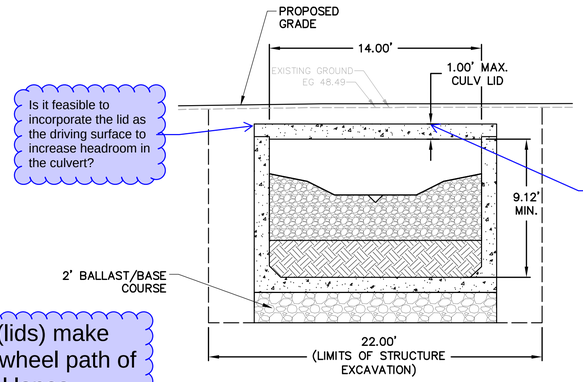
City of Sammamish Washington



If feasible, keep wing walls inside ROW.

Show access locations (lids) make sure they are not in the wheel path of existing and future travel lanes.

PLAN VIEW



Is it feasible to incorporate the lid as the driving surface to increase headroom in the culvert?

This may need to be thicker based on AASHTO Bridge Design. May need new proposed profile of roadway or riding surface box. (will need approach slabs)

C-C / ## CULVERT INSTALLATION

SCALE: 1"=5'

North Arrow doesn't match plan view

HORIZONTAL SCALE: SCALE: 1" = 10' (0 10 20 30)

VERTICAL SCALE: SCALE: 1" = 10' (0 10 20 30)

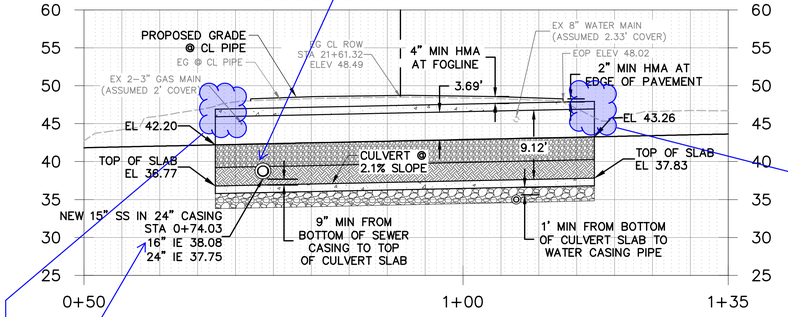
GENERAL NOTES:

1. xxx

CONSTRUCTION NOTES:

1. APPROXIMATE LOCATION OF WINGWALL (TYP)
2. APPROXIMATE LOCATION OF WINGWALL FOOTING (TYP)
3. APPROXIMATE EXCAVATION EXTENTS
4. RELOCATE GAS (BY OTHERS)
5. RELOCATE POLE (BY OTHERS)
6. CONNECT TO EXISTING 12" CULVERT AND DAYLIGHT THROUGH WINGWALL
7. ABANDON AND FILL EXISTING CULVERTS (2)
8. REMOVE AND REPLACE EXISTING 15" SANITARY SEWER
9. REMOVE AND RELOCATE EXISTING 8" WATER MAIN
10. NEW GUARDRAIL

Dimension cover over casing.



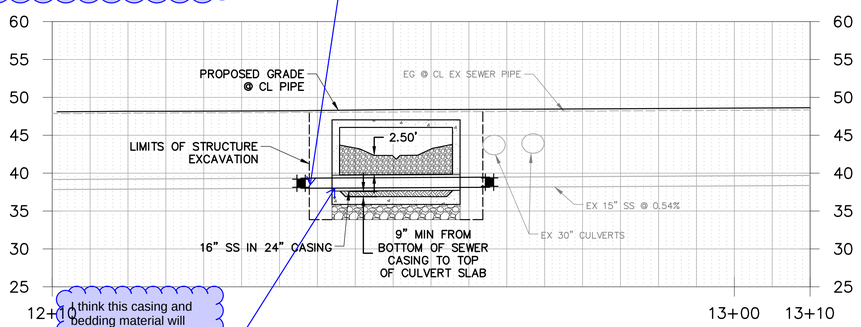
Show elevations at upper culvert corner.

Show elevations at upper culvert corner.

B-B / ## EBRIGHT CREEK CENTERLINE PROFILE

SCALE:1"=10'

Casing gets extended past the box enough to maintain.



I think this casing and bedding material will need to be engineered to prevent sediment transport from exposing the sewer.

A-A / ## SEWER PROFILE

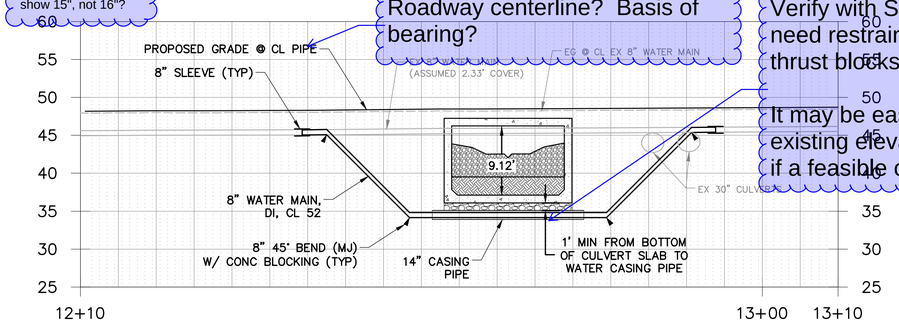
SCALE:1"=10'

Should sewer pipe show 15", not 16"?

Roadway centerline? Basis of bearing?

Verify with Sam Plat. may need restrained joints. Show thrust blocks and anchors.

It may be easier to keep existing elevation with casing, if a feasible option.



D-D / ## WATER MAIN PROFILE

SCALE:1"=10'

811 Know what's below. Call before you dig.

30% SUBMITTAL

DCG civil structural

DESIGNED BY	JL
DRAWN BY	MH
CHECKED BY	TB

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NO.	DATE	REVISION	BY

City of Sammamish Washington

EBRIGHT CREEK FISH PASSAGE
CITY OF SAMMAMISH
CULVERT LAYOUT

JOB# / DWG	10-190038
DATE	03/13/2020
SCALE	H: 1"=10' V: AS SHOWN
SHEET	11 of 21

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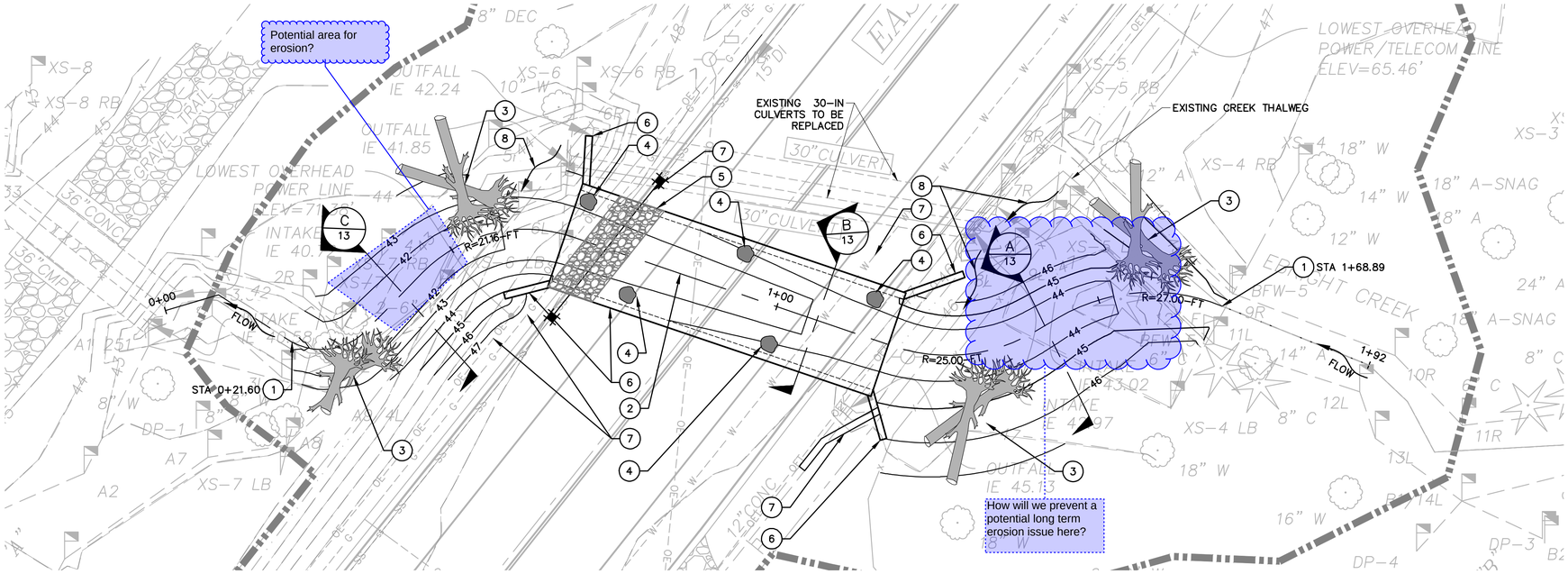
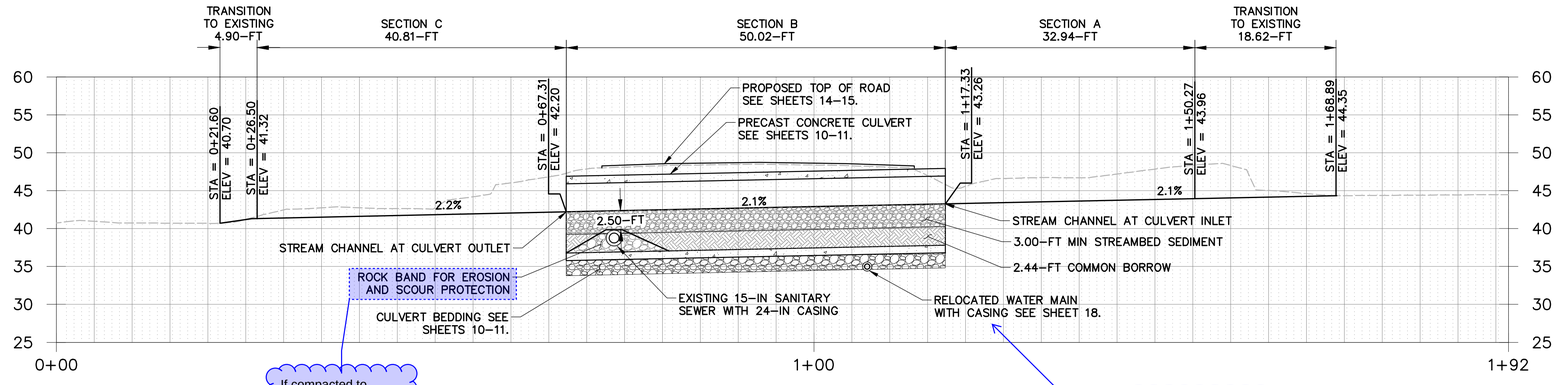


PLAN VIEW



PROFILE VIEW

If compacted to density, this seems like a reasonable way to protect the sewer from being exposed. Is there more we could do to prevent that possibility?

Is it possible to relocate and avoid casing the water? Let's discuss risks and costs of this.

HORIZONTAL SCALE: SCALE: 1" = 10' (0, 10, 20, 30)

VERTICAL SCALE: SCALE: 1" = 10' (0, 10, 20, 30)

GENERAL NOTES:

1. LOCATION OF LOG STRUCTURES AND HABITAT BOULDERS SHOWN IN PLAN VIEW ARE APPROXIMATE. LOG STRUCTURES AND HABITAT BOULDERS ARE TO BE INSTALLED AS SPECIFIED BY ENGINEER IN THE FIELD.

CONSTRUCTION NOTES:

(#) CONSTRUCTION NOTES:

(1) TIE IN TO EXISTING EBRIGHT CREEK CENTERLINE.

(2) CONSTRUCT STREAM CHANNEL ALIGNMENT AND PROFILE AS SHOWN ON THIS SHEET AND TYPICAL CROSS-SECTION PER DETAILS ON SHEET 13.

(3) INSTALL LARGE WOODY MATERIAL KEY PIECE.

(4) INSTALL HABITAT BOULDERS.

(5) INSTALL COARSE ROCK BAND.

(6) INSTALL CULVERT AND WING WALLS SEE SHEETS 10-11.

(7) SEE SHEET 18 FOR UTILITY IMPROVEMENTS.

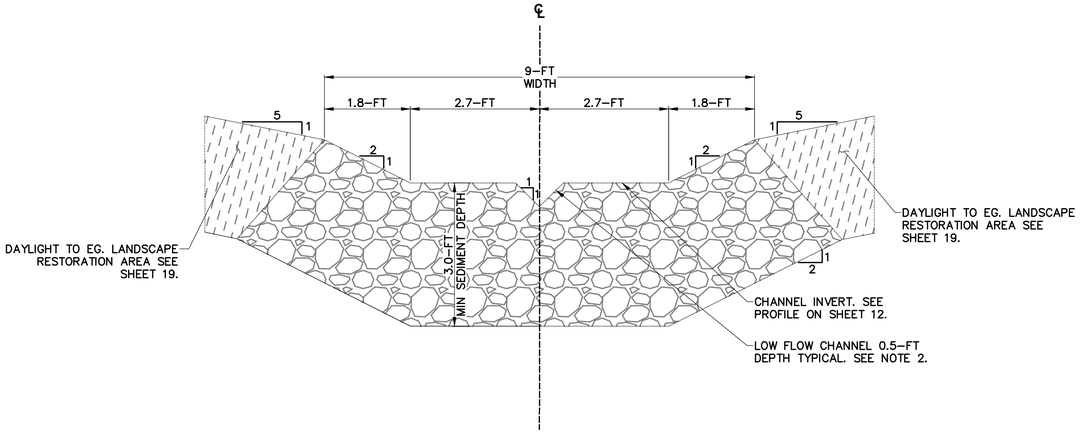
(8) PROVIDE POSITIVE DRAINAGE FROM ABANDONED CHANNEL TO PROPOSED CHANNEL.

JULIA RUPLEAN STATE OF WASHINGTON 43848 REGISTERED PROFESSIONAL ENGINEER

30% SUBMITTAL

DESIGNED BY MW / DRAWN BY JJ / CHECKED BY LR	OSBORN CONSULTING INCORPORATED	Osborn Consulting, Inc. Bellevue | Seattle | Spokane www.osbornconsulting.com	NO. / DATE / REVISION / BY	City of Sammamish Washington	EBRIGHT CREEK FISH PASSAGE CITY OF SAMMAMISH STREAM CHANNEL GRADING PLAN AND PROFILE

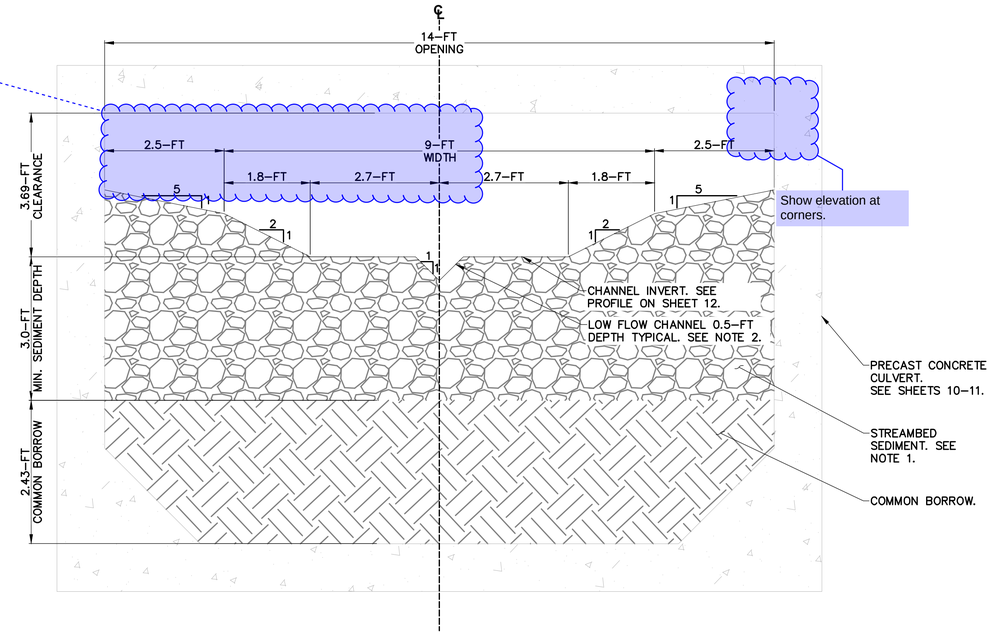
JOB# / DWG	DATE
10-190038	03/13/2020
SCALE: H: 1"=10' V: 1"=10'	SHEET: 12 of 21



A / 12 UPSTREAM CHANNEL DETAIL
N.T.S.

Consider armoring bends at channel inlet and outlet to prevent future erosion?

Maximize clearance from ground line to bottom of the top slab of the box culvert. Our experience with Zackuse shows that sediment transport/deposition into and through the box culvert can create maintenance problems for maintaining stream flows. Maximizing clearance will allow crews to enter box culvert to maintain if necessary.

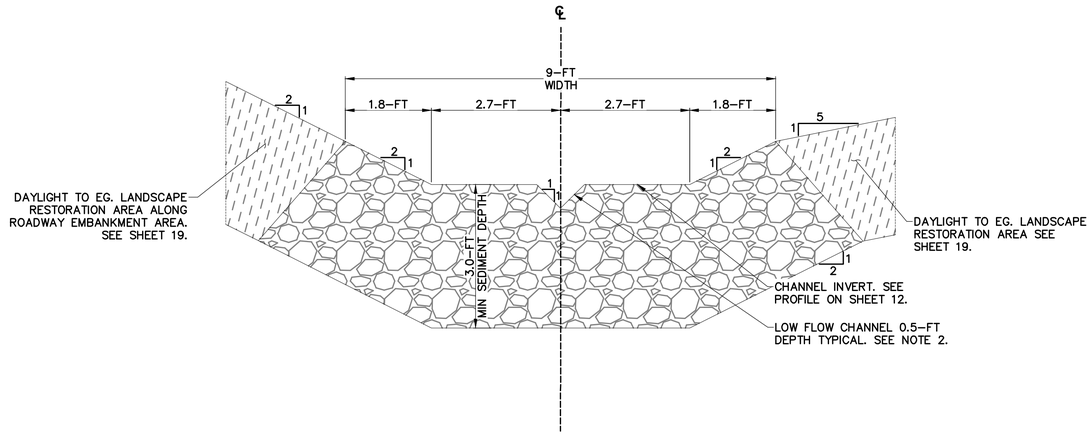


B / 12 CULVERT SECTION DETAIL
N.T.S.

NOTES:

1. STREAMBED SEDIMENT PER SPECIFICATION X.
2. LOCATE LOW FLOW CHANNEL AT CENTER OF CHANNEL IN TANGENT SECTIONS AND AT A 1–FT OFFSET ON THE OUTSIDE OF BENDS WITH A SMOOTH TRANSITION.

Add a note on occasional placement of large boulders within the culvert, per Sheet 12.



C / 12 DOWNSTREAM CHANNEL DETAIL
N.T.S.

30% SUBMITTAL

JULIA RUPPERT
STATE OF WASHINGTON
43848
REGISTERED
PROFESSIONAL ENGINEER

DESIGNED BY MW	Osborn Consulting, Inc.	EBRIGHT CREEK FISH PASSAGE	JOB# / DWG 10–190038
DRAWN BY JJ	Bellevue | Seattle | Spokane	CITY OF SAMMAMISH	DATE 03/13/2020
CHECKED BY LR	www.osbornconsulting.com	STREAM CHANNEL TYPICAL SECTIONS AND DETAILS	SCALE H: N/A V: N/A
OSBORN CONSULTING INCORPORATED	NO. DATE REVISION BY	City of Sammamish Washington	SHEET 13 of 21

FILE NAME: C:\P:W_OC_WORKINGDIR\OSBORNCONSULTING–PW.BENTLEY.COM_OSBORNCONSULTING–PW–01\MAGGIE WILBANKS, EIT\DMS07813\P_10–190038_DETAILS.DWG
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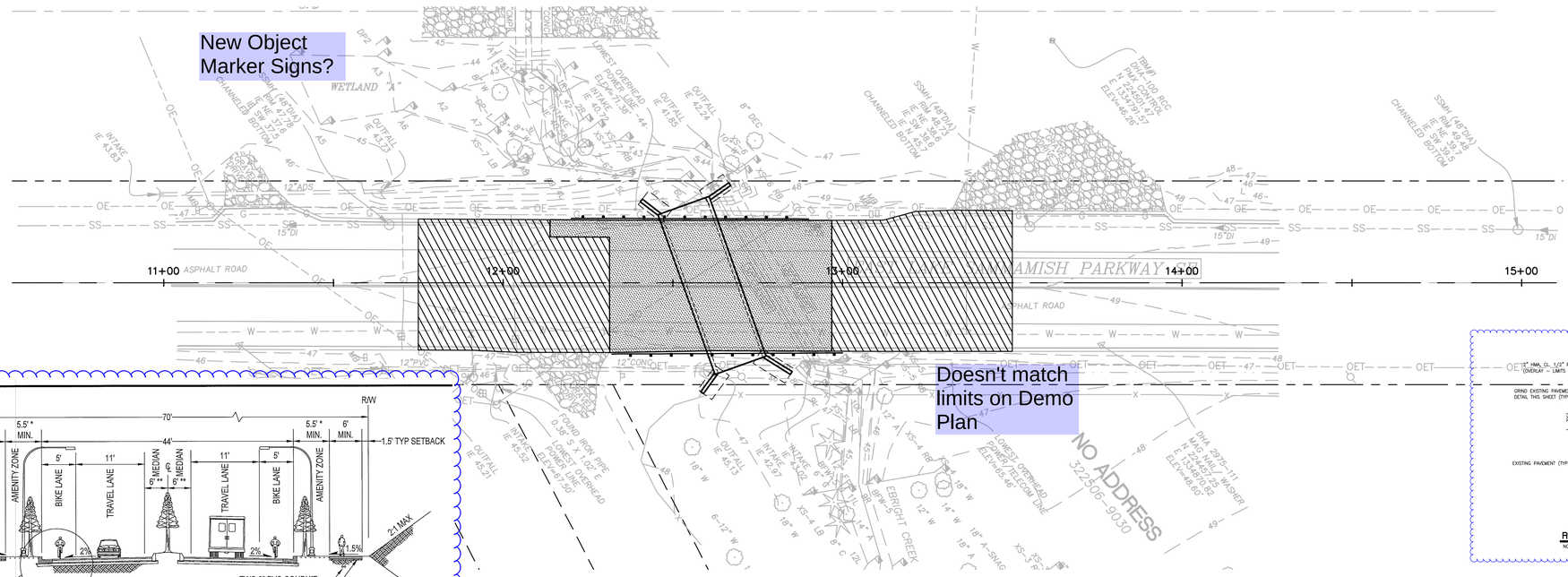
USER NAME:MAGGIE WILBANKS, EIT

SEC. 32, T. 25 N, R. 6 E., W.M.

New Object Marker Signs?

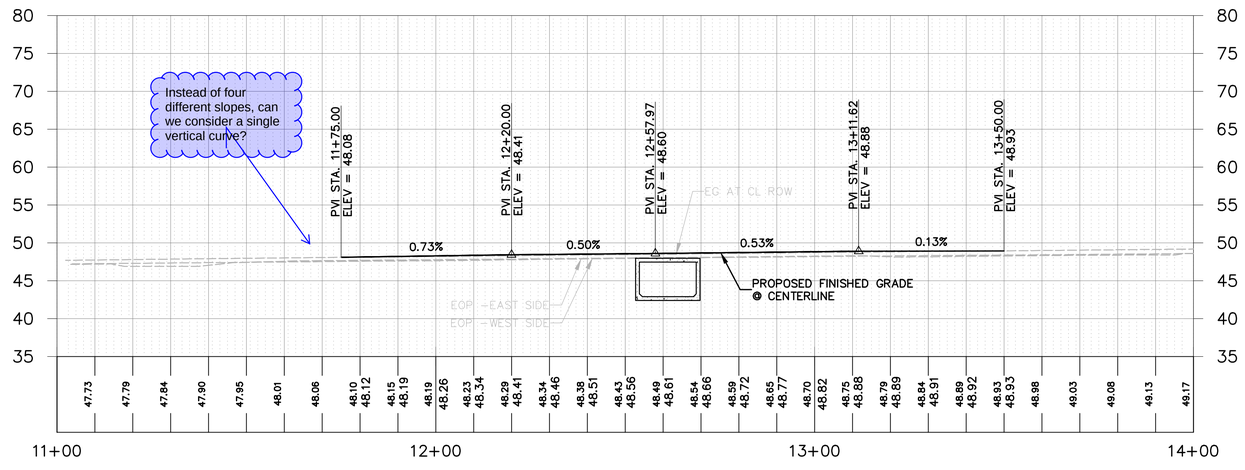


PLAN VIEW

HORIZONTAL SCALE: SCALE: 1" = 20' (0, 20, 40, 60)

VERTICAL SCALE: SCALE: 1" = 5' (0, 5, 10, 15)

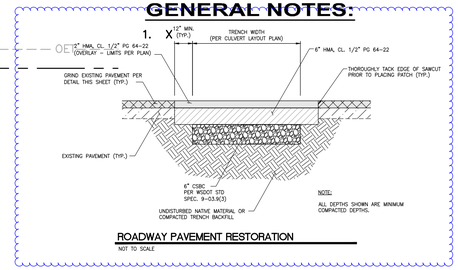
ROADWAY SECTION
MINOR ARTERIAL - 3 LANE
N.T.S.



PROFILE VIEW
SCALE: 1"=10'

GENERAL NOTES:

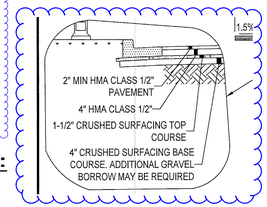
1. X



ROADWAY PAVEMENT RESTORATION
NOT TO SCALE

(#) CONSTRUCTION NOTES:

(1) X



Update full-depth restoration to match PW Standards for minor arterial.

PAVEMENT LEGEND:

FULL DEPTH PAVEMENT RESTORATION (2-INCH HMA CLASS 1/2-INCH OVER 0-INCH TO 4-INCH HMA CLASS 1-INCH)

GRIND AND OVERLAY PAVEMENT RESTORATION

2" HMA CLASS 1/2"
0"-4" HMA CLASS 1"

PAVEMENT SECTION
NTS

811 Know what's below. Call before you dig.

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PLOT TIME: 3/13/2020 5:35 PM
USER NAME:MAGGIE WILBANKS, EIT

DCG civil structural

DESIGNED BY JL | DRAWN BY MH | CHECKED BY TB

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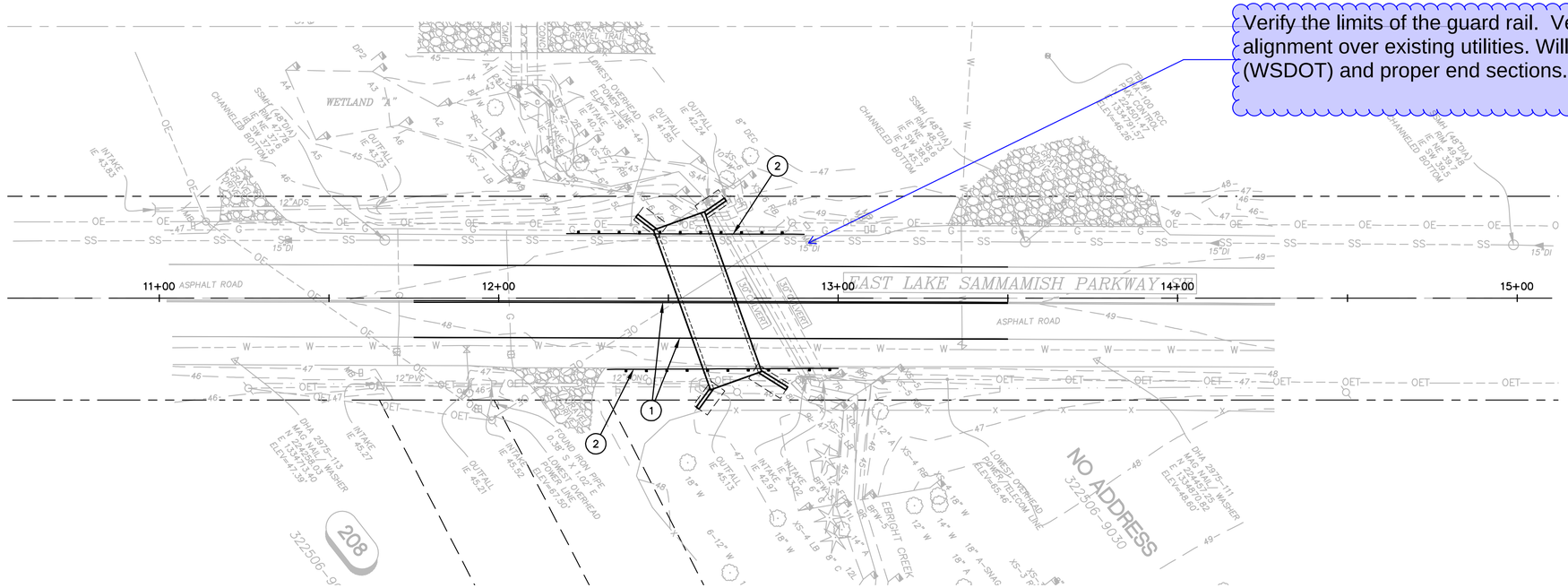
NO.	DATE	REVISION	BY

City of Sammamish Washington

EBRIGHT CREEK FISH PASSAGE
CITY OF SAMMAMISH
ROADWAY PLAN AND PROFILE

JOB# / DWG: 10-190038
DATE: 03/13/2020
SCALE: H: 1"=20' V: 1"=5'
SHEET: 14 of 21

SEC. 32, T. 25 N, R. 6 E., W.M.



PLAN VIEW

HORIZONTAL SCALE: SCALE: 1" = 20' (0, 20, 40, 60)

VERTICAL SCALE: SCALE: 1" = 5' (0, 5, 10, 15)

GENERAL NOTES:

1. X

(#) CONSTRUCTION NOTES:

(1) REPLACE DISTURBED PAINT MARKINGS IN KIND (TYP)

(2) GUARDRAIL (TYP)

Know what's below. Call before you dig.

30% SUBMITTAL

D|C|G civil structural

DESIGNED BY	DRAWN BY	CHECKED BY
JL	MH	TB

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City of Sammamish Washington

EBRIGHT CREEK FISH PASSAGE
CITY OF SAMMAMISH
GUARDRAIL AND CHANNELIZATION PLAN

JOB# / DWG: 10-190038
DATE: 03/13/2020
SCALE: H: 1"=20' V: N/A
SHEET: 16 of 21

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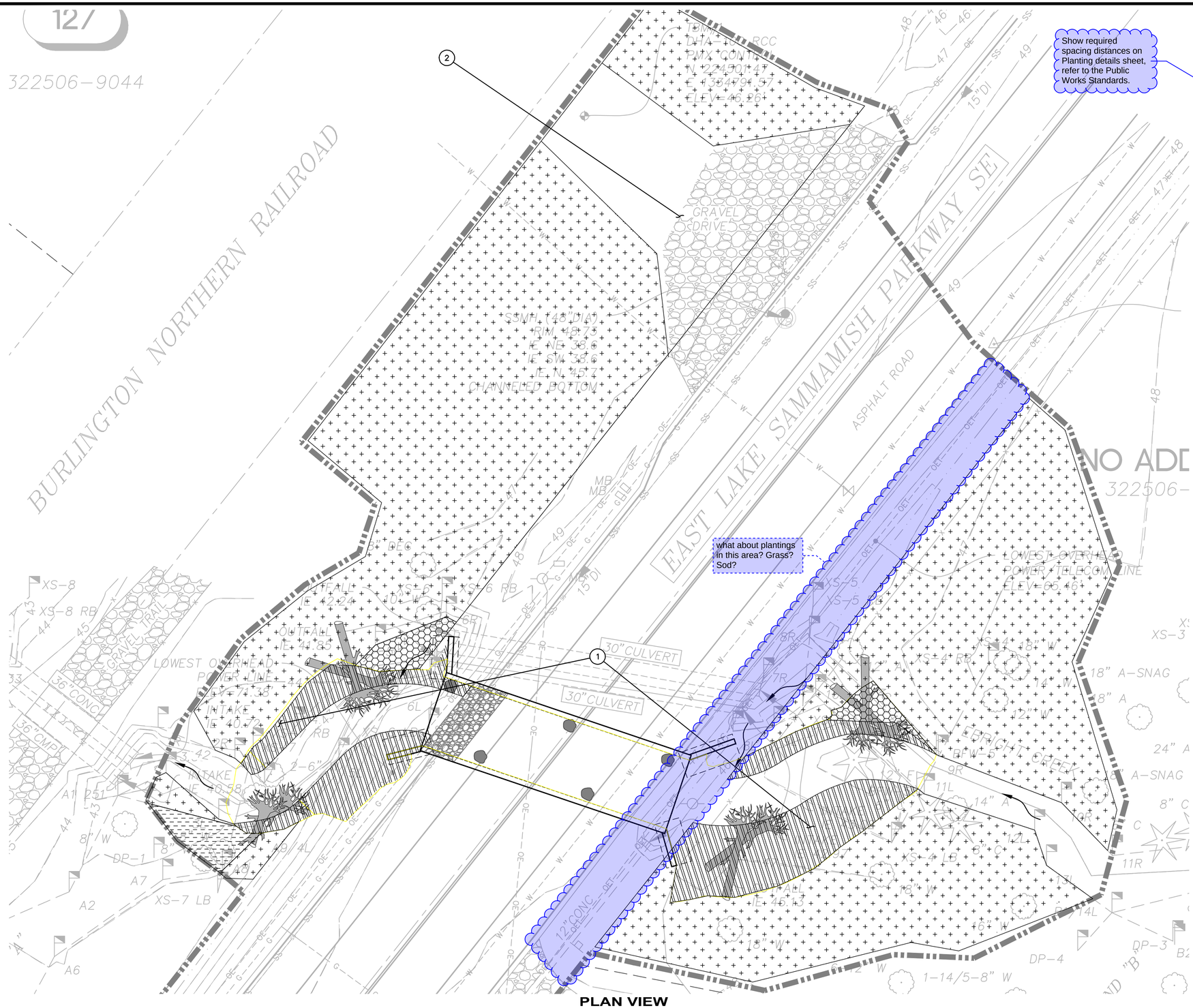

PLAN VIEW

Show required spacing distances on Planting details sheet, refer to the Public Works Standards.

SITE PREPARATION NOTES:

1. LANDSCAPE WITHIN PROJECT LIMITS SHALL BE RESOTRED TO EXISTING CONDITIONS OR BETTER.
2. SOILS IN PLANTING AREAS SHALL BE PREPARED PER BMP T5.13 POST CONSTRUCTION SOIL QUALITY AND DEPTH (STORMWATER MANUAL) EXCEPT ON TILL SOIL SLOPES GREATER THAN 33 PERCENT.
3. TREE PLACEMENT NEAR ROADS OR UTILITIES SHALL ADHERE TO CITY OF SAMMAMISH PUBLIC WORKS SETBACK REQUIREMENTS.
4. TREES, SHRUBS AND GROUNDCOVER SHALL ADHERE TO CITY OF SAMMAMISH PUBLIC WORKS SIZE AND SPACING REQUIREMENTS.
5. ALL RESTORATION PLANTING SHALL BE NATIVE SPECIES.

Remove "bioengineering" unless this is somehow applicable.

(#) CONSTRUCTION NOTES:

(1) COORDINATE BIOENGINEERING PLANTING WITH ENGINEER.

(2) EXISTING GRAVEL DRIVEWAY NOT SURVEYED. VERIFY LIMITS IN FIELD. RETURN TO EXISTING CONDITION.

PLANT CANDIDATE LIST:

UPLAND RESTORATION AREA:

TREES
ACER MACROPHYLLUM / BIGLEAF MAPLE
PSUEDOTSUGA MENZIESII / DOUGLAS-FIR
RHAMNUS PURSHIANA / CASCARA
THUJA PLICATA / WESTERN RED CEDAR

SHRUBS
ACER CIRCINATUM / VINE MAPLE
CORYLUS CORNUTA VAR. CALIFORNICA / BEAKED HAZELNUT
OEMLARIA CERASIFORMIS / OSOBERRY
PHYSOCARPUS CAPITATUS / NINEBARK
RIBES SANGUINEUM / RED-FLOWERING CURRENT
RUBUS SPECTABILIS / SALMONBERRY
SAMBUCUS RACEMOSA / RED ELDERBERRY
SYMPHORICARPOS ALBUS / SNOWBERRY

GROUNDCOVER
POLYSTICHUM MUNITUM / SWORD FERN

WETLAND RESTORATION AREA:

TREES
FRAXINUS LATIFOLIA / OREGON ASH
PICEA SITCHENSIS / SITKA SPRUCE
SALIX LASIANDRA / PACIFIC WILLOW
SALIX SITCHENSIS / SITKA WILLOW

SHRUBS
CORNUS SERICEA / RED-OSIER DOGWOOD
RIBES BRACTEOSUM / STINK CURRANT
RIBES LACUSTRE / SWAMP GOOSEBERRY

GROUNDCOVER
ATHYRIUM FILIX-FEMINA / LADY FERN

EMERGENT/BACKWATER RESTORATION AREA:

SHRUBS
RIBES BRACTEOSUM / STINK CURRANT (ON BANKS)

GROUNDCOVER
ATHYRIUM FILIX-FEMINA / LADY FERN (ON BANKS)
CAREX OBNUPTA / SLOUGH SEDGE
SCIRPUS ACUTUS / HARD STEM BULRUSH
SCIRPUS MICROCARPUS / SMALL FRUITED BULRUSH

RIPARIAN RESTORATION AREA:

LIVE STAKES:
CORNUS SERICEA / RED-OSIER DOGWOOD
PHYSOCARPUS CAPITATUS / NINEBARK
SALIX SITCHENSIS / SITKA WILLOW

N

HORIZONTAL SCALE SCALE: 1" = 10'
0 10 20 30

30% SUBMITTAL

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750 Kirkland Way, Suite 30
Kirkland, WA 98033
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www.watershedco.com
Science & Design

DESIGNED BY	DRAWN BY	CHECKED BY
GJ/MF	MF	GJ

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City of Sammamish Washington

EBRIGHT CREEK FISH PASSAGE
CITY OF SAMMAMISH
STREAM RESTORATION PLAN

JOB# / DWG	DATE
10-1900338	03/13/2020
SCALE	SHEET
H: 1"=10' V: N/A	19 of 21

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USER NAME:MAGGIE WILBANKS, EIT

DRAFT RESTORATION NOTES:

Monitoring and Maintenance:

The project designer or other designated representative will conduct construction monitoring. Revegetation plans implemented as mitigation will be subject to verification and performance monitoring as indicated on the plans and permits. Planted vegetation is to be inspected annually during the late summer or fall for at least five years following the initial planting to determine if supplemental planting during the following dormant season, weeding, or other maintenance should be recommended. Vegetation will be maintained at least twice each year for the first five years after project completion.

The mitigation plan also includes provisions for post–construction monitoring and maintenance of the restored planting areas for three to five years following installation (depending on permitting requirements).

A performance monitoring protocol will be conducted over a period of at least 5 years following construction. Metrics and assessments to be used will include the number and configuration of in–stream and flood plain wood pieces (as changing during the monitoring period), percent cover by and diversity of native plants, and the presence and prevalence (% cover) of invasive plants.

Construction work sequence for wetland and buffer mitigation and enhancement will occur in the following sequential order:

1. Prepare the planting areas:

   a. Buffer Restoration

   a.1. Site preparation

   a. remove gravel, garbage, and debris;

   b. clear all Himalayan blackberry and other non–native vegetation from the planting area, making sure to remove the roots;

   c. roto–till to de–compact soil and

   d. incorporate two inches of compost into the buffer restoration area (within the buffer only).

   d.1. All plant installation is recommended during the dormant season (October 15th – March 1st), for best survival.

   b. Wetland Restoration

   b.1. Stockpile excavated wetland soil:

   b.1.1. Survey and mark the extent of the temporary wetland impact are per the approved mitigation plan.

   b.1.2. Implement applicable Temporary Erosion and Sediment Control (TESC) plan protections.

   b.1.3. Temporarily stockpile suitable wetland soils in the temporary impact area.

   b.1.4. Distribute wetland soils over the graded portions of the wetland mitigation area. Backfill in a sequential manner, keeping topsoil on–top.

   c. All plant installation is recommended during the dormant season (October 15th – March 1st), for best survival.

2. Prepare a planting pit for each plant and install per the planting details.

3. Apply mulch rings around each installed tree and shrub with wood chip mulch, four inches thick, 18 inches in diameter.

4. Install a bidder–designed, temporary, above ground irrigation system to provide full coverage to all plants within the restoration area.

5. Apply grass seed mix per plan.

Standard Conservation Measures

1. Best Management Practices (BMP): Prior to start of construction, vegetation to be retained and any utilities within the excavation limits will be marked. Structural debris will be removed immediately to an approved upland location. Except for the trench stockpile construction sequence above, excavated soils will be stored at an appropriate upland location on–site or hauled to a suitable off–site location. Soils will be surrounded by silt fencing as necessary to control erosion and prevent silt–laden water from reaching streams or wetlands. Any excess excavation spoils will be disposed of off–site at the contractor's discretion in a manner that does not result in the filling of wetlands or in the generation of silt–laden runoff that enters streams or wetlands. Exposed soils in disturbed areas will be mulched with straw as needed to prevent erosion.

   All riparian– and buffer–related work will be conducted using best management practices for temporary erosion and sedimentation control. Use of standard temporary erosion control measures and post–project restoration of the disturbed riparian areas will prevent impacts to Ebright Creek due to this wetland–related work.

   Temporary stormwater detention ponds are to be constructed and runoff from across the construction area is to be conveyed into the ponds to the greatest extent practical. A silt fence is to be installed across the downslope edge of the entire construction area to minimize sediment accumulation in the adjacent buffer and wetland areas. All cleared areas are to be hydroseeded or covered with straw to minimize erosion during construction if left exposed for extended periods.

2. Standard erosion and sedimentation control notes: In addition to the BMPs identified above, the following erosion and sediment control measures will be applied to the site:

   2.1. Contractor shall submit Temporary Water Pollution / Erosion Control per the Contract Specifications.

   2.2. All limits of clearing and areas of vegetation preservation shall be observed during construction.

   2.3. All required sedimentation / erosion control facilities must be in operation prior to land clearing and / or other construction to ensure that sediment laden water does not enter the natural drainage system. All erosion and sediment facilities shall be maintained in a satisfactory condition until such time that clearing and / or construction is completed and the potential for on–site erosion has passed. The implementation, maintenance, replacement and additions to erosion / sedimentation control systems shall be the responsibility of the Contractor.

3. The erosion and sedimentation control systems depicted on this drawing are intended to be minimum requirements to meet anticipated site conditions. As construction progresses and as unexpected or seasonal conditions dictate, the Contractor should anticipate that more erosion and sedimentation control facilities will be necessary to ensure complete siltation control on the proposed site. During the course of construction, it shall be the obligation and responsibility of the Contractor to address any new conditions that may be created by his activities and to provide additional facilities, over and above the minimum requirements, as may be needed to protect adjacent properties and the water quality of the receiving drainage system.

4. At no time shall more than one foot of sediment be allowed to accumulate within a catch basin. The Contractor shall be responsible for removing and disposing of the sediment. All catch basins, conveyance lines and ditches shall be cleaned prior to paving.

5. The Contractor shall remove material dropped, washed or tracked from vehicles onto the City right–of–way or into the existing storm drainage system. Debris shall not be washed into the storm drainage system.

6. Temporary erosion control facilities shall be inspected weekly and maintained within 24 hours following a storm event. Sediment shall be removed to insure the facilities will function properly. The facilities shall be satisfactorily maintained until construction is completed and the potential for on–site erosion has passed.

7. All storm drain inlets made operable during construction shall be protected so that stormwater runoff shall not enter the conveyance system without first being filtered or otherwise treated to remove sediment.

8. No disturbed soil shall remain unstabilized for more than two days.

9. Contractor shall conform to the D.O.E. Stormwater General Permit conditions.

If this contract will not include long-term plant establishment, make that clear here. Will there be temporary irrigation? The contractor will expect to need that if he is to provide a warranty or maintain plant establishment. Without irrigation, time limits will need to be established, and provisions for extensive replacement. Note that under the Zackuse HPA conditions, an 80% survival rate of plantings after 3 years was stipulated. I assume Ebright would be the same.

Are planting spacing diagrams and species counts expected to be placed on this sheet for 60% submittal?

30% SUBMITTAL

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USER NAME:MAGGIE WILBANKS, EIT

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DRAWN BY MF
CHECKED BY GJ

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NO.	DATE	REVISION	BY

City of Sammamish Washington

EBRIGHT CREEK FISH PASSAGE
CITY OF SAMMAMISH
STREAM RESTORATION NOTES

JOB# / DWG: 10–1900338
DATE: 03/13/2020
SCALE: H: 1"=10' V: N/A
SHEET: 20 of 21