SUB-BIDS REQUESTED FOR

TULALIP TELA GYM PHASE 1
(Earthwork/Utilities packages)

Bid Date: July 1st. 2026 at 12:00 PM

Please send bids to: smcguffin@jtmconstruction.com

JTM CONSTRUCTION

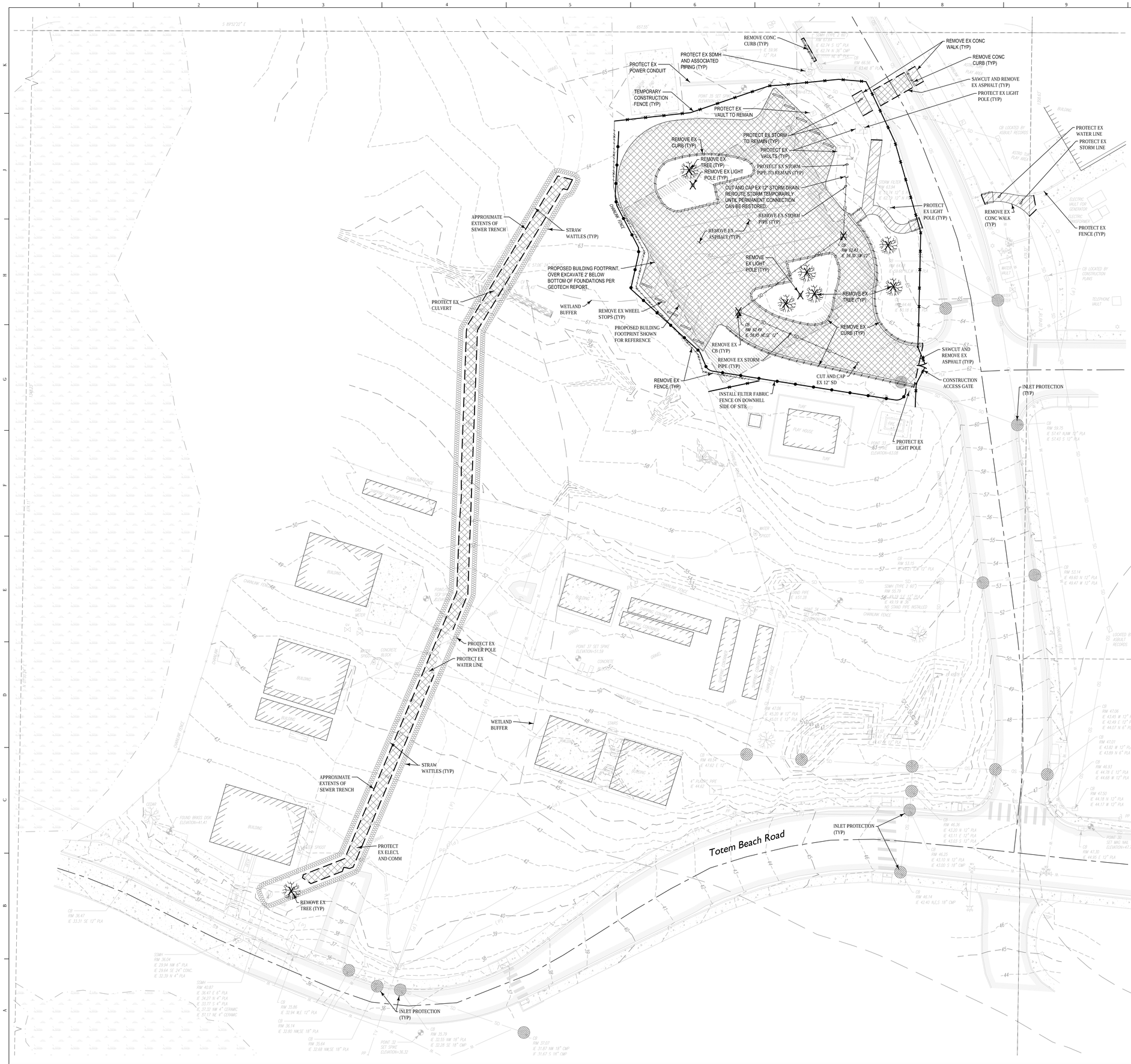
JTM CONSTRUCTION
5900 Airport Way South, #110
Seattle, Washington 98108
(206) 587-4000
www.jtmconstruction.com

We are an equal opportunity employer requesting bids from all interested firms including disabled veterans, disadvantaged, minority, women and emerging small businesses enterprises. JTM is signatory to the Carpenters and Laborers Unions

AGC WASHINGTON CHAPTER
THE CONSTRUCTION ASSOCIATION

We are a member of the AGC of Washington.

#CC JTMCOCI813DL



Call before you Dig. 8-1-1 or 1-800-424-5555 UNDERGROUND SERVICE (USA)

0 10 20 40

SCALE 1"=20'

Legend

- WETLAND
- SAWCUT LINE
- REMOVE CURBING
- REMOVE ASPHALT PAVEMENT
- REMOVE CONCRETE PAVEMENT
- DEMOLISH BUILDING
- REMOVE TREE(S)
- FENCING
- CABLE TV SERVICE
- ELECTRICAL SERVICE
- ELECTRICAL JBOX/VAULT
- GAS MAIN/SERVICE
- GAS METER/VALVE
- IRRIGATION LINE
- OVERHEAD POWER
- FIBER OPTIC LINE
- SANITARY SEWER
- SANITARY MH/CO
- STEAM LINE
- STORM DRAINAGE PIPE
- YD/CO/CB/CB 2/MH
- TELEPHONE SERVICE
- TELEPHONE BOX
- WATER MAIN
- FH/FDC/PIV/VALVE

Legend

- PROPERTY LINE (N 79°33'06" E – 46.81')
- LIMITS OF CONSTRUCTION
- INTERCEPTOR SWALE
- FILTER FABRIC FENCING (3 / C105)
- TEMPORARY CONSTRUCTION FENCING (4 / C116)
- STRAW WATTLES (2 / C105)
- TEMPORARY CONSTRUCTION GATE
- EXCAVATION SIDE SLOPE
- BOTTOM OF EXCAVATION
- INLET PROTECTION (1 / C118)

T.E.S.C. NOTES:

1. THE TESC MEASURES SHOWN ON THIS PLAN ARE REPRESENTATIVE OF ONLY ONE POSSIBLE TESC PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL TESC MEASURES NEEDED DURING ALL PHASES TO MEET THE REQUIREMENTS OF THE JURISDICTION HAVING AUTHORITY. ALL COSTS FOR MEETING THE REQUIREMENTS SHALL BE INCLUDED IN THE BASE BID.
2. INLET SEDIMENT PROTECTION SHALL BE PROVIDED AT ALL EXISTING CATCH BASINS WITHIN & ADJACENT TO WORK AREAS
3. BLOWING DUST SHALL BE PREVENTED. WATER TRUCK SHALL BE ON SITE AND OPERATIONAL AS NECESSARY.
4. STORMWATER RUNOFF WITH TURBIDITY EXCEEDING 25 NTU OR PH EXCEEDING 8.5 STANDARD UNITS SHALL NOT BE ALLOWED TO BE DISCHARGED FROM THE PROJECT SITE. CONSULT CSWPPP AND CONTRACTOR EMPLOYED CESCL FOR BENCHMARKS, MONITORING, REPORTING AND REMEDIATION REQUIREMENTS.
5. NO SEDIMENT SHALL BE TRACKED ONTO ADJACENT PAVED SURFACES. CONTRACTOR SHALL PROVIDE STREET SWEEPING PROMPTLY IF SEDIMENT TRACKING HAS OCCURRED.
6. ALL DISTURBED SURFACES SHALL BE COVERED WITH PLASTIC SHEETING, STRAW MULCH, HYDROSEED, OR CRUSHED SURFACING.
7. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS, INCLUDING TURBIDITY AND PH MONITORING
8. CONTRACTOR SHALL ADJUST THE EROSION CONTROL MEASURES TO THE PROPOSED GRADING LIMITS.

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1191 SECOND AVENUE, SUITE 1100 SEATTLE, WA 98101
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Tulalip Tela Gym

7607 Totem Beach Road
Marysville, WA 98271

Permit Set

Demolition and TESC Plan

ISSUANCE

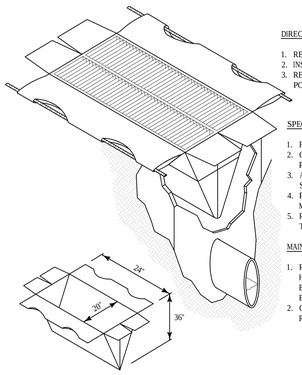
No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

C100



DIRECTIONS FOR USE

1. REMOVE DRAIN GRATE
2. INSERT FILTER
3. REPLACE GRATE TO HOLD IN POSITION

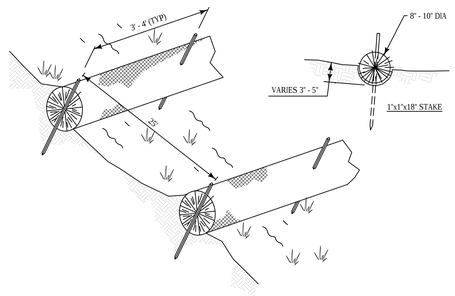
SPECIFICATIONS

1. FILTERS TO BE A MIN 3' DEEP
2. CONSTRUCTED OF WOVEN POLYPROPYLENE
3. ALL SEAMS DOUBLE STITCHED
4. PERMEABILITY - 40 GAL PER MIN / SQ FT
5. REUSEABLE OR THROW-AWAY

MAINTENANCE

1. REMOVE WHEN FILLED TO HALFWAY MARK USE FRONT END LOADER OR OTHER EQUIPMENT FOR REMOVAL
2. CLEAN AND REUSE OR REPLACE

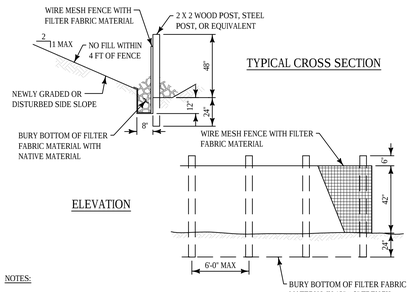
NTS **Catch Basin Sediment Filter** 1



NOTES:

1. STRAW WATTLE/ROLL SHALL BE MANUFACTURED FROM RICE STRAW AND WRAPPED IN TUBULAR PLASTIC NETTING. NETTING SHALL HAVE A STRAND THICKNESS OF 0.03" AND A KNOT THICKNESS OF 0.055 AND A WEIGHT OF 0.35 OZ PER FOOT AND SHALL BE MADE FROM 85% HDPE, 14% ETHYL VINYL ACETATE AND 1% COLOR FOR UV INHIBITION.
2. STRAW WATTLE/ROLL INSTALLATION REQUIRED THE PLACEMENT AND SECURE STAKING OF THE WATTLE/ROLL IN A TRENCH, 3'-5' (VARIES) DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND WATTLE/ROLL.
3. STRAW WATTLE/ROLLS MUST BE PLACED ALONG SLOPE CONTOURS.

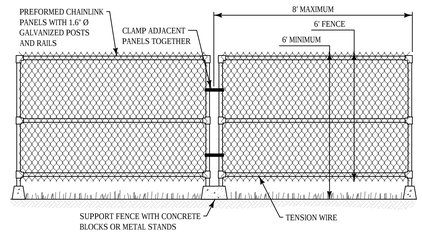
NTS **Straw Wattle/Roll Detail** 2



NOTES:

1. FENCE SHALL NOT BE INSTALLED ON SLOPES STEEPER THAN 2:1
2. JOINTS IN FILTER FABRIC SHALL BE OVERLAPPED 6 INCHES AT POST
3. USE STAPLES, WIRE RINGS, OR EQUIVALENT TO ATTACH FABRIC TO WIRE FENCE
4. REMOVE SEDIMENT WHEN IT REACHES 1/3 FENCE HEIGHT

NTS **Silt Fence** 3



NTS **Temporary Chain Link Fence** 4

NTS **Not Used** 5

NTS **Not Used** 6

NTS **Not Used** 7

NTS **Not Used** 8

NTS **Not Used** 9

NTS **Not Used** 10

NTS **Not Used** 11

NTS **Not Used** 12

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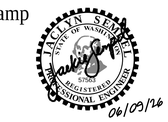

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Tulalip Tela Gym

7607 Totem Beach Road
Marysville, WA 98271

Permit Set

TESC DETAILS

ISSUANCE

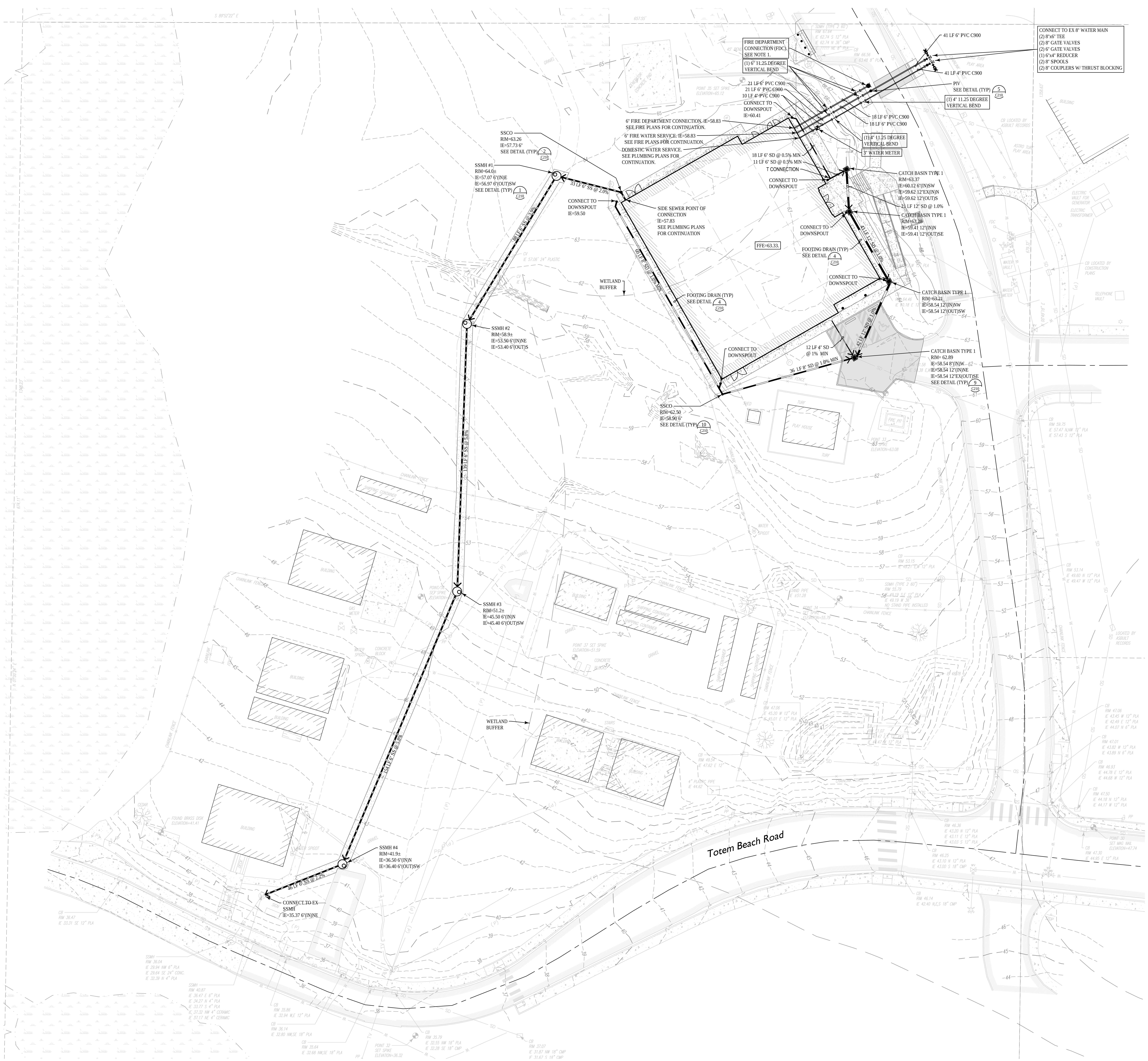
No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

C110



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or 1-800-424-5555
UNDERGROUND SERVICE (USA)

0 10 20 40
SCALE 1"=20'

Legend

- N 79°33'06" E - 46.81' — PROPERTY LINE
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL
- CONCRETE CURB
- 8" SS @ xx% — SANITARY SEWER
- SANITARY MH/CO
- 8" SD @ xx% — STORM DRAINAGE PIPE
- FTG — FOOTING DRAIN
- YD/CO/CB/CB 2/MH
- 12" DI W — WATER MAIN
- FH/FDC/PIV/VALVE
- WATER VAULT/METER
- 55 — CONTOUR (INDEX)
- 54 — CONTOUR

NOTES:

1. FDC PER WASHINGTON STATE FIRE CODE AND NFPA REQUIREMENTS. COORDINATE INSTALLATION AND PRODUCT DETAILS WITH FIRE PROTECTION ENGINEER AND FIRE DEPARTMENT PRIOR TO ORDERING MATERIAL.

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Tulalip Tela Gym

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Marysville, WA 98271

Permit Set

Drainage and Utilities Plan

ISSUANCE

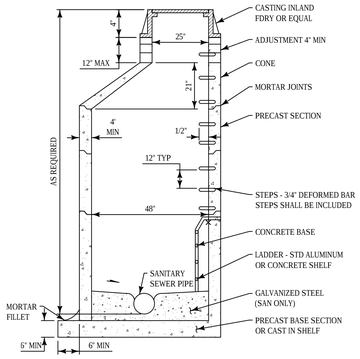
No.	Description	Date

PROJECT INFORMATION

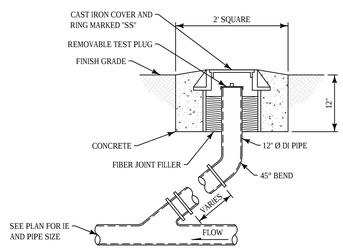
PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

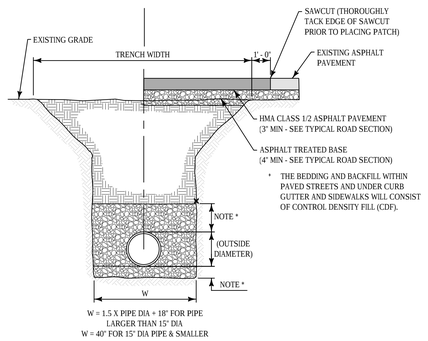
C200



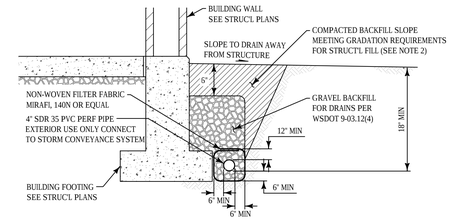
Sanitary Sewer Manhole NTS 1



Sanitary Sewer Cleanout NTS 2



Sewer Trench Detail NTS 3



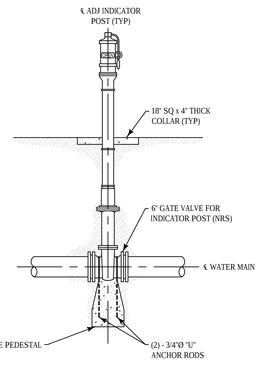
NOTES:

1. SEE ARCHITECTURAL PLANS FOR DRAINAGE GRAVEL BENEATH BUILDING SLAB.
2. STRUCTURAL FILL SHOULD CONSIST OF WELL-GRADED GRANULAR SOIL WITH NOT MORE THAN 5% FINES (BY WEIGHT BASE ON 3/4" PORTION) PASSING NO. 200 SIEVE (BY WEIGHT SIEVING) WITH NO PLASTIC FINES.
3. BACKFILL WITHIN 18" OF WALL SHOULD BE COMPACTED WITH HAND-OPERATED EQUIPMENT. HEAVY EQUIPMENT SHOULD NOT BE USED FOR BACKFILL, AS SUCH EQUIPMENT OPERATED NEAR THE WALL COULD INCREASE LATERAL EARTH PRESSURES AND POSSIBLY DAMAGE THE WALL.
4. ALL BACKFILL SHOULD BE PLACED IN LAYERS NOT EXCEEDING 6' LOOSE THICKNESS AND DENSELY COMPACTED. BENEATH PAVED OR SIDEWALK AREAS, COMPACT TO AT LEAST 95% MODIFIED PROCTOR MAXIMUM DENSITY (ASTM: D1557). OTHERWISE COMPACT TO 90% MINIMUM

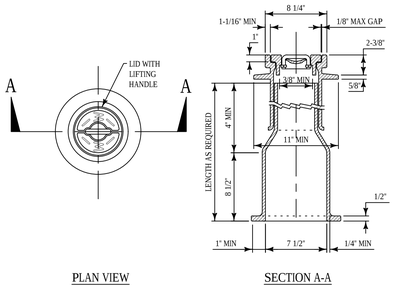
SUBDRAIN PIPE:

1. 4" MINIMUM DIAMETER PERFORATED OR SLOTTED PIPE; TIGHT JOINTS; SLOPED TO DRAIN (6'/100' MIN SLOPE); PROVIDE CLEAN-OUTS
2. PERFORATED PIPE HOLES (3/16" TO 1/4" Ø) TO BE IN LOWER HALF OF THE PIPE WITH LOWER QUARTER SEGMENT UNPERFORATED FOR WATER FLOW.
3. SLOTTED PIPE TO HAVE 1/8" MAXIMUM WIDTH SLOTS

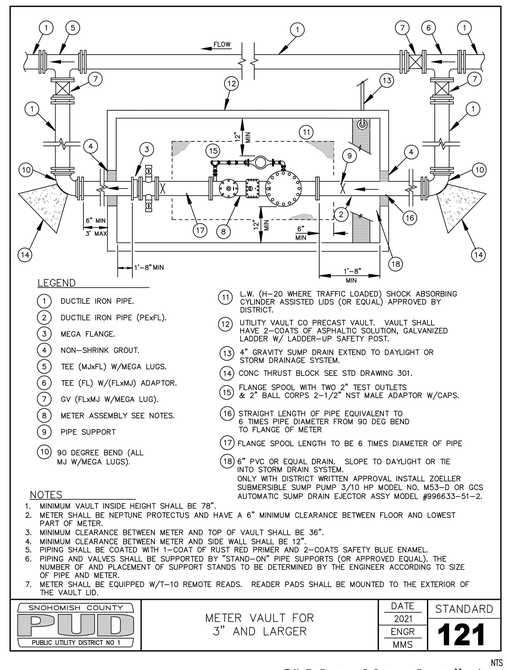
Exterior Footing Drain W/Filter Fabric Wrap NTS 4



Post Indicator Valve Detail NTS 5



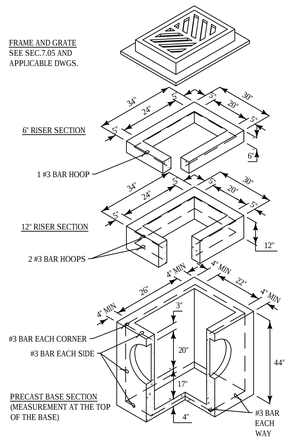
Water Line Valve Box NTS 6



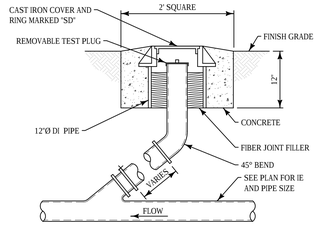
3" Water Meter Installation NTS 8

NOTES:

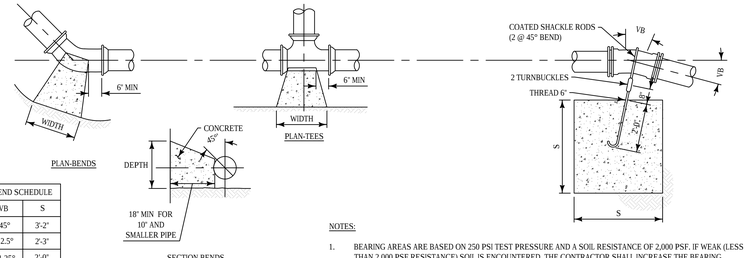
1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH THICKNESS CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX DIAMETER OF 20" KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2":FT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT/APWA STANDARD DWG B1-b.
12. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2' FROM VERTICAL EDGE OF CATCH BASIN.



Catch Basin Type I NTS 9



Storm Drain Cleanout NTS 10



VERTICAL BEND SCHEDULE		
PIPE SIZE	VB	S
4"	45°	3'-2"
4"	22.5°	2'-3"
4"	11.25°	2'-0"
6"	45°	4'-2"
6"	22.5°	2'-11"
6"	11.25°	2'-5"
8"	45°	5'-0"
8"	22.5°	3'-8"
8"	11.25°	2'-6"

PIPE SIZE	MIN BEARING AREA (SQ FT)= WIDTHxDEPTH				HYD, TEE, CAP VALVE, PLUG
	90° BEND	45° BEND	22.5° BEND	11.25° BEND	
3"	1.3	0.7	0.4	0.2	0.9
4"	2.3	1.2	0.6	0.3	1.6
6"	5	2.7	1.4	1	3.6
8"	9	5	3	2	7

NOTES:

1. BEARING AREAS ARE BASED ON 250 PSI TEST PRESSURE AND A SOIL RESISTANCE OF 2,000 PSF. IF WEAK (LESS THAN 2,000 PSF RESISTANCE) SOIL IS ENCOUNTERED, THE CONTRACTOR SHALL INCREASE THE BEARING AREAS SHOWN TO PREVENT MOVEMENT UNDER TEST OR OPERATING PRESSURES.
2. THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN CONSTRUCTING THRUST BLOCKS:
   A. BLOCKS MUST BE PORED AGAINST UNDISTURBED SOIL
   B. PIPE JOINT AND BOLTS MUST BE ACCESSIBLE
   C. CONCRETE SHOULD BE CURED FOR AT LEAST 5 DAYS AN SHOULD HAVE A COMPRESSION STRENGTH OF 2,000 LBS AT 28 DAYS.
A. BLOCKS MUST BE POSITIONED TO COUNTERACT THE DIRECTION OF THE RESULTANT THRUST FORCE.
3. ALL PIPE SHALL BE PROPERLY BEDDED PER STANDARD DETAILS

Thrust Blocking Sizing Table NTS 12

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Tulalip Tela Gym

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Permit Set

DRAINAGE AND UTILITY DETAILS

ISSUANCE

No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

C210

Call before you Dig. 8-1-1
or 1-800-424-5555
UNDERGROUND SERVICE (USA)

0 10 20 40
SCALE 1"=20'

Legend

- N 79°33'06" E – 46.81' PROPERTY LINE
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL
- CONCRETE RETAINING WALL
- CONCRETE CURB
- SANITARY SEWER
- SANITARY MH/CO
- STORM DRAINAGE PIPE
- YD/CO/CB/CB 2/MH
- WATER MAIN
- FH/FDC/PIV/VALVE
- WATER VAULT/METER
- CONTOUR (INDEX)
- CONTOUR

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Tulalip Tela Gym

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Permit Set

Grading and Paving Plan

ISSUANCE

No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

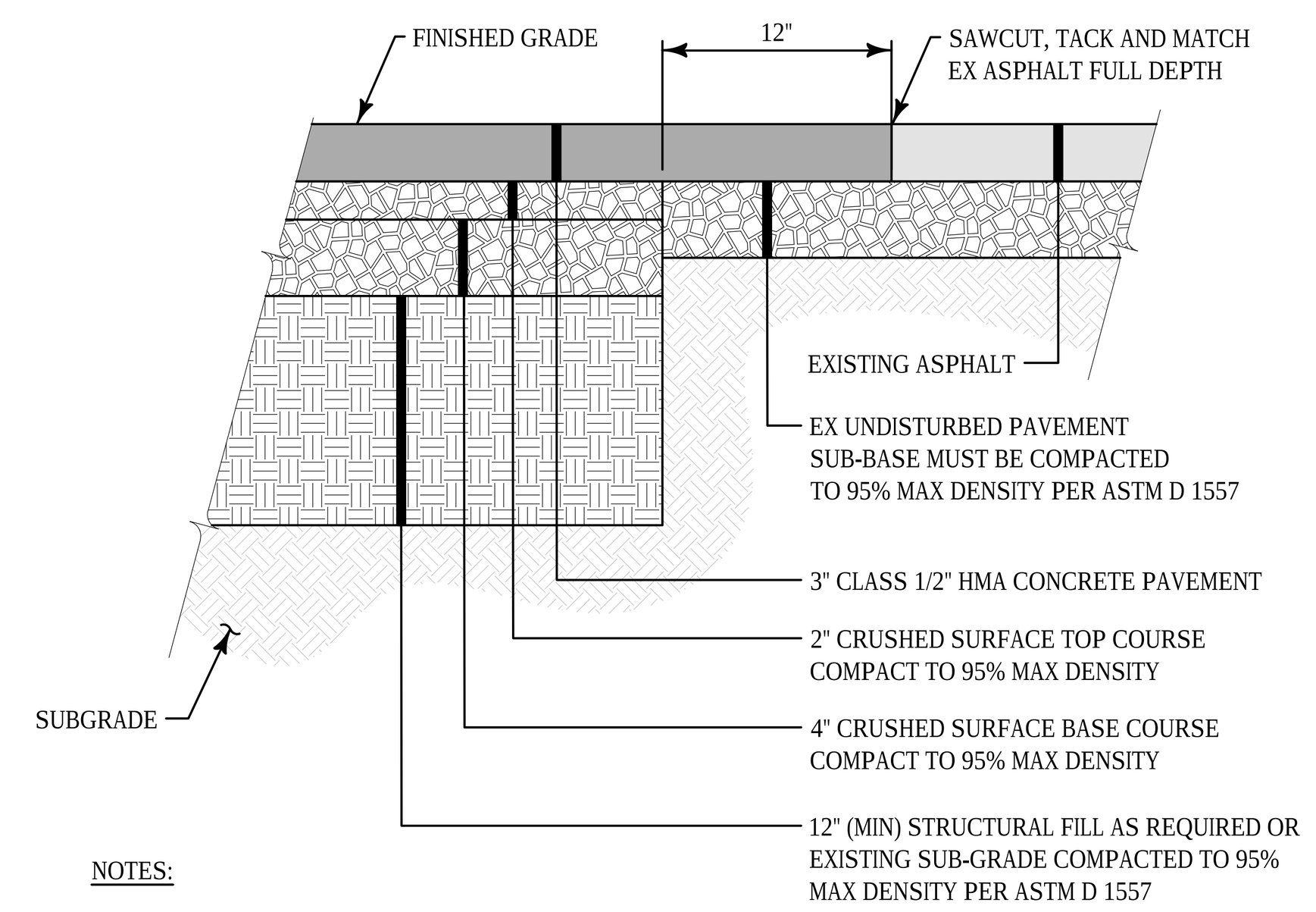
C300

General Paving Notes

NOTES:

1. SPECIFICATIONS FOR ALL ASPHALT CONCRETE WORK SHALL BE PER THE LATEST EDITION IN EFFECT OF THE "WASHINGTON STATE DEPT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION."
2. ALL ASPHALT CONCRETE PAVEMENT SHALL BE PLACED IN ACCORDANCE WITH WSDOT/APWA SECTION 5-04, UNLESS OTHERWISE SPECIFICALLY NOTED.
3. PROOF ROLL AND REMOVE ANY SOFT SPOTS. REPLACE REMOVED MATERIAL WITH STRUCTURAL FILL PER THE GEOTECHNICAL ENGINEER. CONTRACTOR SHALL TEST AND VERIFY SUB-GRADE MEETS COMPACTION REQUIREMENTS.
4. CRUSHED SURFACING SHALL BE PLACED IN ACCORDANCE WITH WSDOT/APWA SECTION 4-04, AND SHALL MEET THE REQUIREMENTS OF WSDOT/APWA SECTION 9-03.9(3).
5. AGGREGATE SHALL BE CLASS 1/2" MEDIUM GRADING CONFORMING TO SECTION 9-03.8 OF WSDOT / APWA. ASPHALT BINDER SHALL BE ASPHALT PAVING GRADE AR-4000 AND SHALL COMPLY WITH WSDOT / APWA 9-02.1. ASPHALT MIXING AND PROPORTIONING SHALL COMPLY WITH WSDOT / APWA 9-03.8.
6. SAWCUT FULL DEPTH WHERE NEW PAVEMENT ABUTS EXISTING AND APPLY TACK COAT.

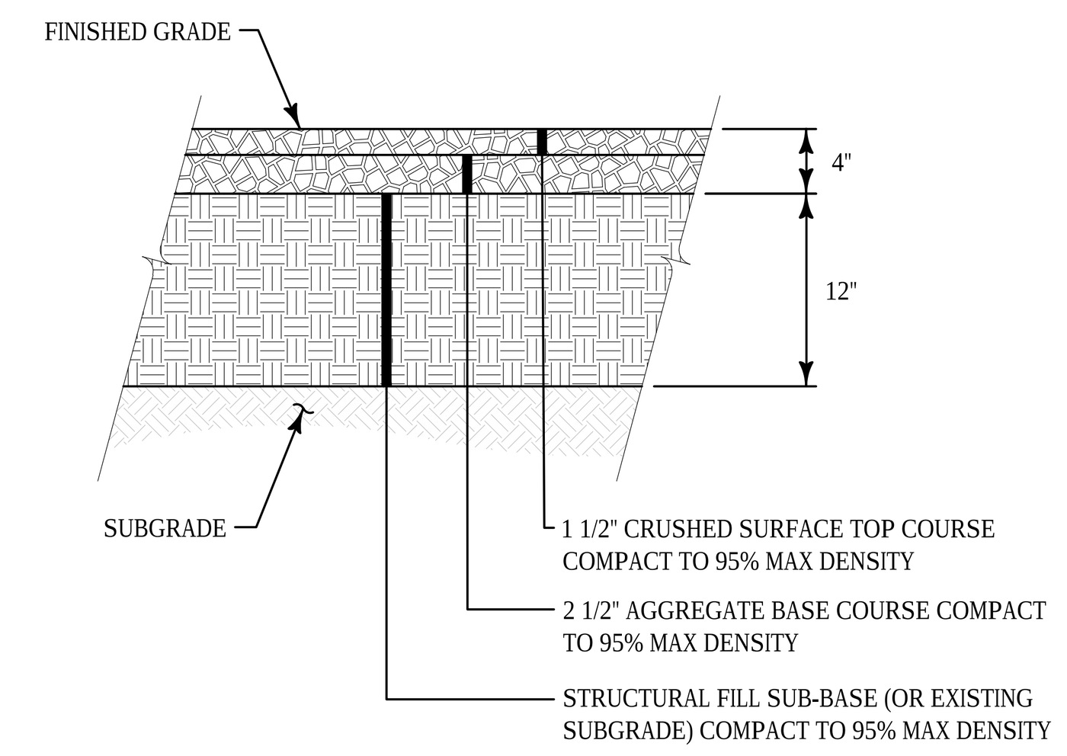
NTS
General Paving Notes 1



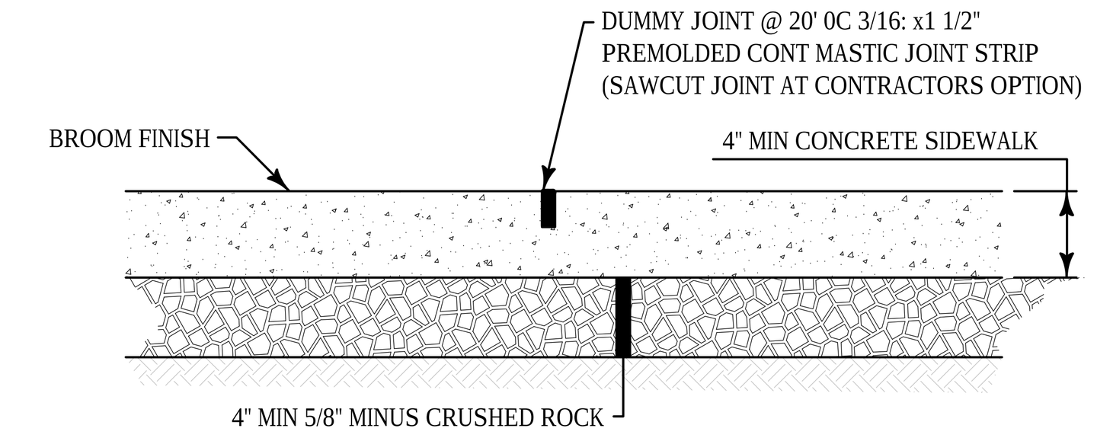
NOTES:

1. SEE DETAIL 1/C310 FOR GENERAL PAVING NOTES.

NTS
Standard Asphalt Paving Section 2



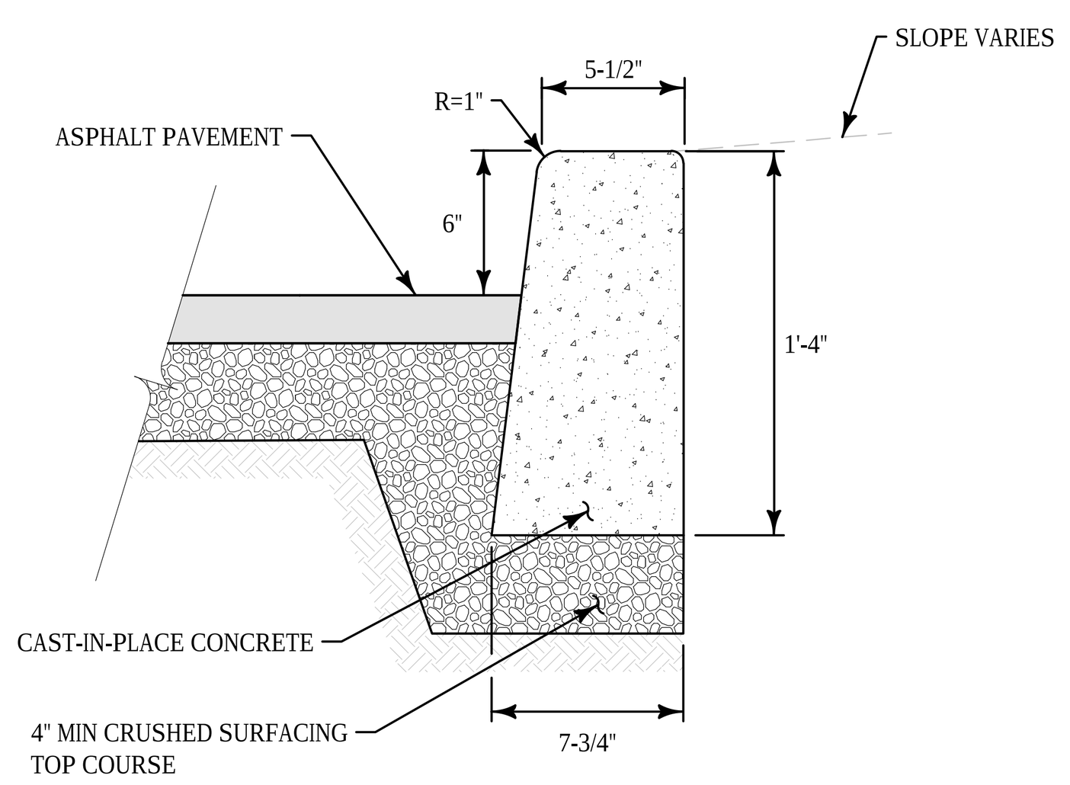
NTS
4" Gravel Road Section 3



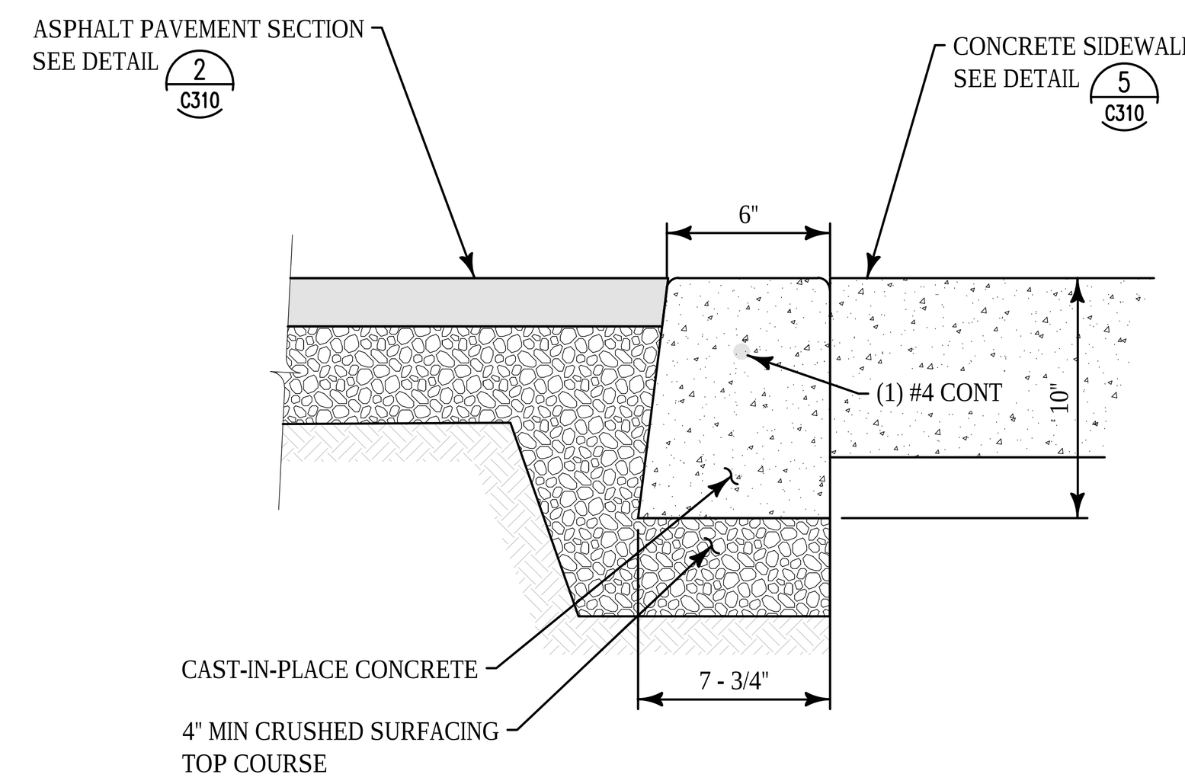
NOTE:

1. MINIMUM CONCRETE 3000 PSI (5 1/2 SACK)
2. PLACE TOOL JOINTS @ 5' 0C
3. IF WALK IS OVER 7' WIDE, PLACE LONGITUDINAL DUMMY JOINT ALONG CENTER OF WALK.
4. WHERE REPLACING EXISTING WALK, START NEW WALK AT EXISTING JOINT. MATCH EXISTING SCORING PATTERN & CONCRETE FINISH.

NTS
Concrete Sidewalk Detail 4



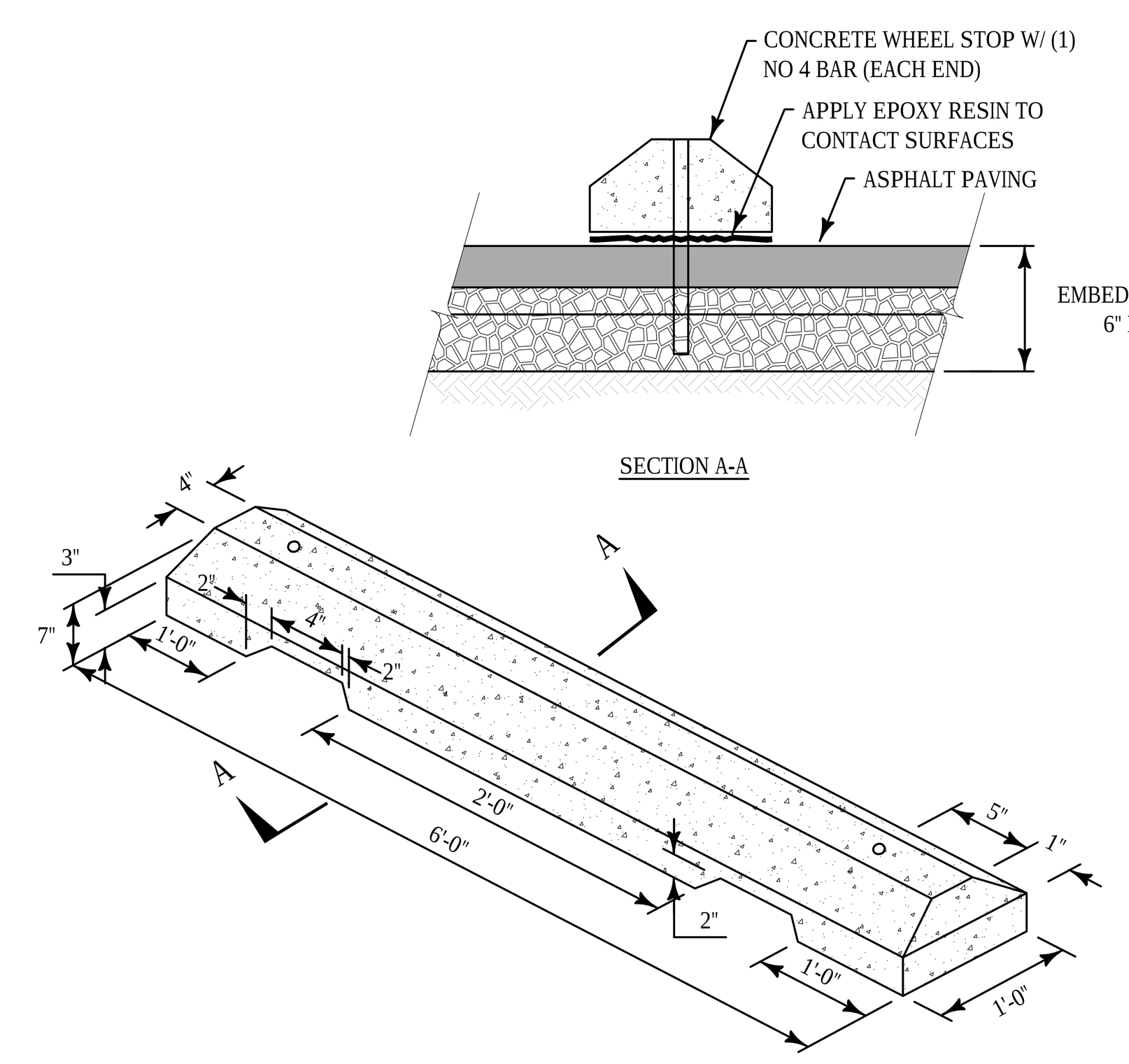
NTS
Concrete Vertical Curb 5



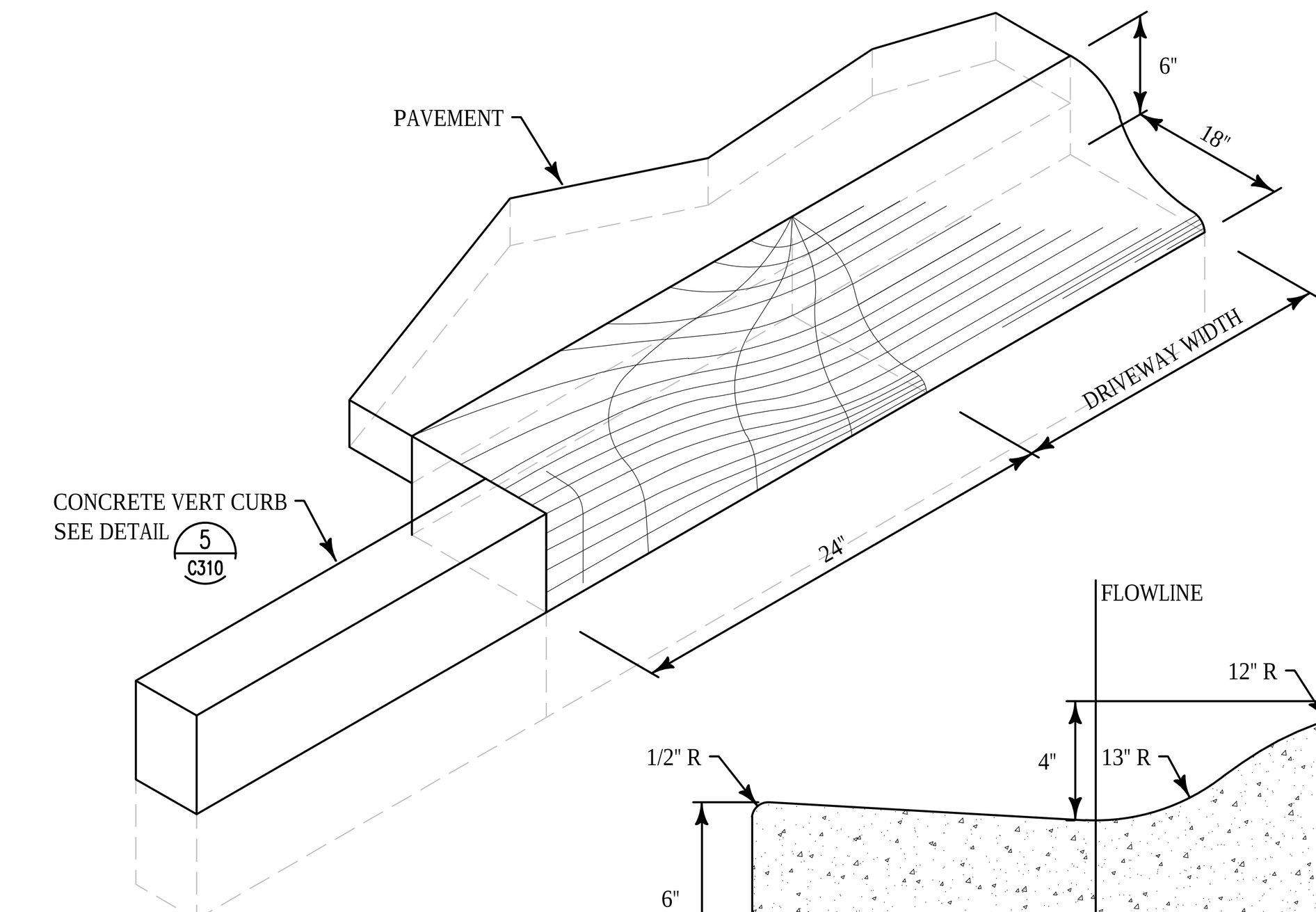
NOTE:

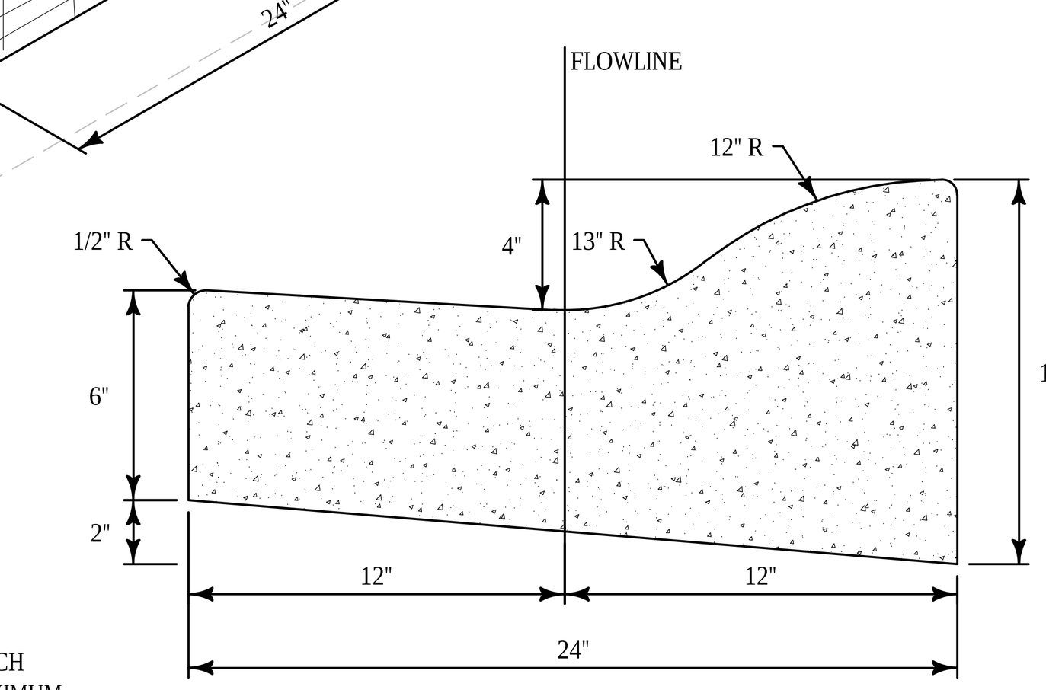
IN AREAS OF INTERIM ATB FINISH CONDITION, THE CURB TO BE INSTALLED IS TO PROVIDE A 6" CURB FACE FOLLOWING FUTURE ASPHALT PAVING. THE INTERIM DIMENSION IS TO BE 9" ON CURB FACE.

NTS
Depressed Curb 6



NTS
Wheel Stop 7

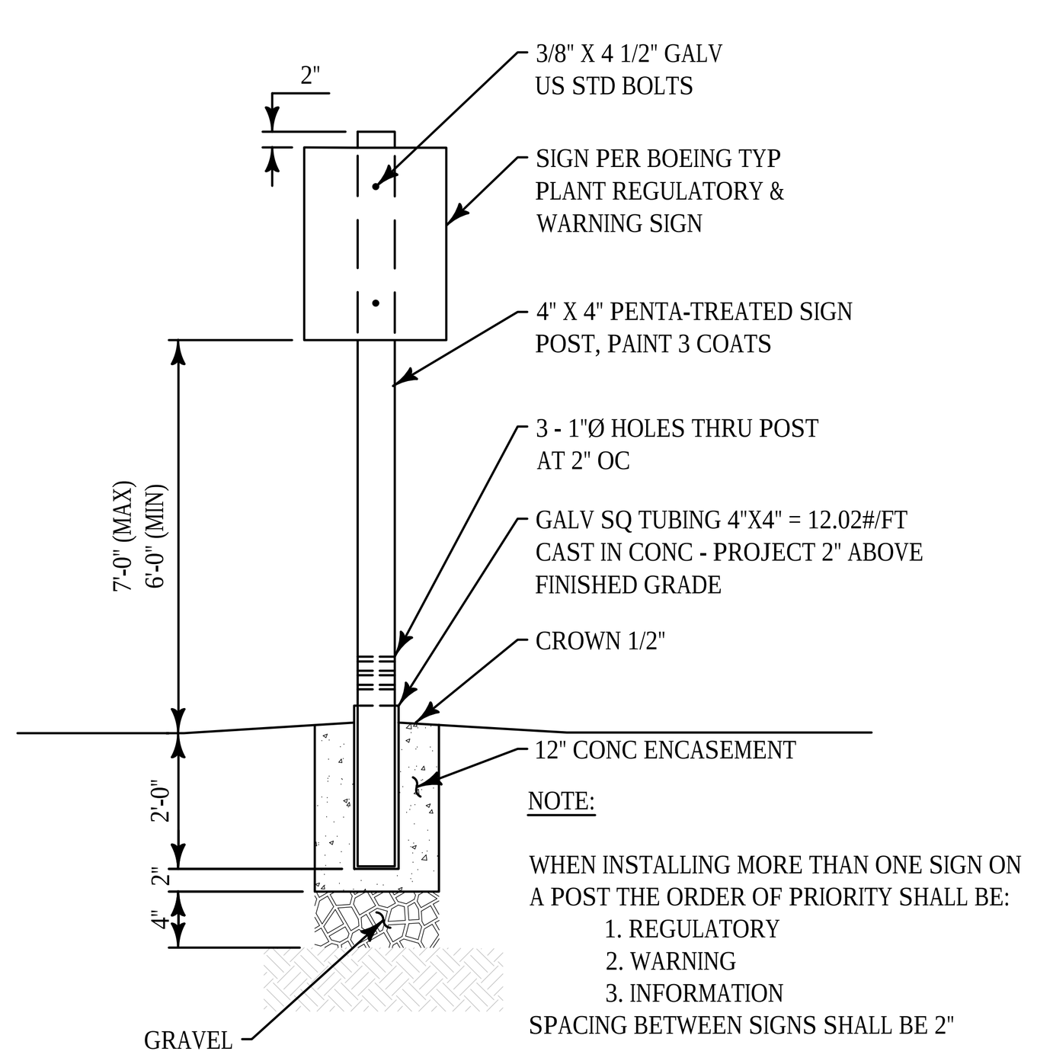




NOTES:

1. FORMS SHALL BE TRUE TO LINE AND GRADE AND SECURELY STAKED.
2. THRU JOINTS SHALL BE PLACED ADJACENT TO CATCH BASINS, INLETS, CURB RETURNS, ALLEYS, OR A MAXIMUM SPACING OF 10 FEET.
3. THRU JOINTS SHALL BE 1/2" WIDE PRE-MOLDED JOINT FILLER.
4. ALL JOINTS SHALL BE CLEAN AND EDGED.
5. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000.
6. STEEL FORMS ONLY MAY BE USED ON TANGENT SECTIONS, WOOD FORMS MAY BE USED ON CURVED SECTIONS.
7. FINISH SHALL BE LIGHT BROOM.

NTS
Rolled curb and transition 8



NOTE:

WHEN INSTALLING MORE THAN ONE SIGN ON A POST THE ORDER OF PRIORITY SHALL BE:
1. REGULATORY
2. WARNING
3. INFORMATION
SPACING BETWEEN SIGNS SHALL BE 2"

NTS
Sign Post 9

NTS
Not Used 10

NTS
Not Used 11

NTS
Not Used 12

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Stamp

COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING

Stamp

Stamp

Tulalip Tela Gym

7607 Totem Beach Road
Marysville, WA 98271

Permit Set

PAVING DETAILS

ISSUANCE

No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234 PERMIT #1234

SHEET NO

C310

COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING

ENGINEERING REPORT

Drainage Report

Tulalip Tela Gym
June 2026

PREPARED FOR:
The Tulalip Tribes

PREPARED THROUGH:
JTM Construction
5900 Airport Way S Suite 110
Seattle, WA 98108
206-587-4000

PREPARED BY:
COUGHLIN PORTER LUNDEEN
1191 Second Avenue, Suite 1100
Seattle, WA 98101
P 206.343.0460
CONTACT / Jackie Sempel, P.E.

Technical Information Report

Tulalip Tela Gym
Coughlin Porter Lundeen
Project No. C26010
June 09, 2026

TABLE OF CONTENTS

LIST OF TABLES

I PROJECT OVERVIEW

GENERAL DESCRIPTION

The following Technical Information Report (TIR) provides the technical information and design analysis required for developing the Grading Permit for the Tulalip Tela Gym project. The stormwater design for the project is based on the requirements set forth by the 2024 Department of Ecology Stormwater Management Manual for Western Washington (SWMMWW).

The project site is located south of 7607 Totem Beach Rd, Tulalip, WA within Section 22, Township 30 North, Range 4 East, of the Willamette Meridian in Snohomish, Washington. The existing site is currently occupied by a surface level parking lot.

The project consists of constructing a new prefabricated engineered gym, new ADA parking stalls, an ADA pathway connecting the existing Tela building to the new gym, new utility services, stormwater reroutes and associated landscaping.

EXISTING CONDITIONS

The existing project site is 0.52 acres and consists of a parking lot and associated landscaping within two drainage basins. Stormwater runoff in the north sub-basin sheet flows to the west and naturally disperses before eventually draining into an existing wetland. Stormwater in the south subbasin sheet flows across the parking lot from north to south and collects in a series of catch basins and into the existing conveyance system. The conveyance system routes stormwater south of the project site and into an existing detention pipe and swale for storage and treatment. Stormwater then leaves the property and enters the existing system under Totem Beach Rd.

PROPOSED CONDITIONS

The proposed project will remove the existing parking lot and stormwater infrastructure within the proposed building footprint. The surrounding areas will be regraded to accommodate the proposed site improvements. Stormwater in the north sub-basin will continue to sheet flow to the west and naturally disperse. Additional catch basins and conveyance pipes will be installed in the south sub basin to match the existing drainage patterns. Both sub-basins will address the applicable minimum requirements outlined the SWMMWW as applicable.

II MINIMUM REQUIREMENTS

The 2024 DOE SWMMWW outlines nine minimum requirements that must be addressed prior to permit approval. For this project, each sub-basin will address all minimum requirements as applicable for both new and replaced impervious surfaces. Based on our analysis of the Flow Charts for Determining Minimum Requirements for Redevelopment Projects, the north sub-basin has less than 2,000 sf of area disturbance, and therefore is only required to address minimum requirement #2. The south sub-basin will address each of the minimum requirements as summarized below.

(See Appendix A for **Figure 6** – Flow Chart for Redevelopment).

MR1 (PREPARATION OF STORM WATER SITE PLANS)

Stormwater site plans and reports that address each of the applicable minimum requirements are prepared by a licensed civil engineer and included as part of the Site Development Permit.

MR2 (CONSTRUCTION STORM DR POLLUTION PREVENTION PLAN)

A Construction Storm Water Pollution Prevention Plan is prepared as a separate document and included in the Grading Permit.

MR3 (SOURCE CONTROL OF POLLUTION)

Runoff from surface level pollution generating impervious surfaces (PGIS) and pollution generating pervious surfaces (PGPS) will be treated prior to discharge into the public storm system. Source control BMPs will be selected, designed, and maintained in accordance with the DOE Manual. These include, but are not limited to, the following:

- S417 BMPs for Maintenance of Stormwater Drainage and Treatment Systems
- S421 BMPs for Parking and Storage of Vehicles and Equipment
- S411 BMPs for Landscaping and Lawn/Vegetation Management
- S435 BMPs for Pesticide and an Integrated Pest Management Program
- S442 BMPs for Labeling Storm Drain Inlets on Your Property
- S443 BMPs for Fertilizer Application for Landscaping Areas
- S454 BMPS for Preventive Maintenance/Good Housekeeping
- S426 BMPS for Spills of Oil and Hazardous Substances
- S414 BMPS for Maintenances and Repair of Vehicles and Equipment

MR4 (PRESERVATION OF NATURAL DRAINAGE SYSTEM AND OUTFALLS)

The proposed development will match the existing basin and maintain a general slope from north to south and discharge into the existing conveyance system.

MR5 (ON-SITE STORM WATER MANAGEMENT)

The project will employ On-site Stormwater Management to meet the requirements set forth in the 2024 Department of Ecology Stormwater Management Manual based on the analysis of Figure I-3.3 to the maximum extent feasible. The project is considered flow control exempt and will therefore follow List #3 for MR5 compliance.

Per list #3, lawn and landscape areas will follow BMP T5.13: Post-Construction Soil Quality and Depth. Roof runoff will match existing conditions and enter the existing conveyance system where stormwater is detained and treated before leaving the site. Runoff from the other hard surfaces on site will also enter the same conveyance system.

MR6 (RUNOFF TREATMENT)

According to Section I-3.4.6 of the SWMM a project is required to provide water quality treatment if the amount of new and replaced pollution generating impervious surface (PGIS) is greater than 5,000 square feet.

The proposed project results in less than 5,000 square feet of pollution generating hard surface nor ¾ of an acre or more of pollution generating pervious surfaces, therefore stormwater runoff treatment is not required.

MR7 (FLOW CONTROL)

Per coordination with the Tulalip Tribe Department of Natural Resources, this project is not required to address flow control. See Appendix E for correspondence.

MR8 (WETLAND PROTECTION)

The project site is located within a portion of an existing wetland buffer and therefore will be addressed through wetland mitigation techniques. The project does not add any additional impervious surface within the wetland boundary. See the Wetland Mitigation Plan included as a separate document in the Permit Package.

MR9 (OPERATION AND MAINTENANCE)

An Operations and Maintenance (O&M) Manual is included in Appendix E of this report. The O&M Manual will remain on file with the project owner after completion to inform the property manager of maintenance requirements.

III OFF-SITE ANALYSIS

FIELD INSPECTION

Site visits have been made to gather information including a Downstream Analysis. No drainage problems were observed onsite. Please refer to downstream analysis below for more information.

DRAINAGE SYSTEM DESCRIPTIONS

The existing drainage system on site primarily consists of catch basins and conveyance pipes. All stormwater infrastructure related to detention or treatment will be protected to remain. A portion of the existing conveyance system on site will be rerouted to make way for the new gym building.

UPSTREAM ANALYSIS

Upstream of the existing site is an access road and stormwater pond, which contains its own stormwater system. The outfall pipe from the stormwater pond runs through the proposed project site, which will be rerouted as part of this project. The existing upstream conveyance systems will not be disturbed by the development; therefore, the project will not be impacted by upstream flows.

DOWNSTREAM ANALYSIS

Runoff onsite is captured by a series of catch basins within the parking lot or in the existing access drive. Once stormwater is collected, the conveyance system routes stormwater to a detention pipe for storage located to the south of the project site. From there, stormwater discharges into a treatment swale for stormwater treatment before discharging to the stormwater system under Totem Beach Rd, where stormwater eventually discharges into the Puget Sound.

Please see Appendix A, **Figure 6** – Downstream Analysis Map

IV. STORMWATER MITIGATION AND SITE HYDROLOGY

EXISTING SITE HYDROLOGY (PART A)

The existing site consists of a parking lot, concrete walkway and associated landscaping. Stormwater runoff in the north sub-basin sheet flows to the west and naturally disperses before eventually draining into an existing wetland. Stormwater in the south subbasin sheet flows across the parking lot from north to south and collects in a series of catch basins and into the existing conveyance system. Below is a tabulation of the existing site areas.

TABLE 1 - EXISTING SITE CONDITIONS AREA BREAKDOWN

Map shown in Figure 2

DEVELOPMENT	PERVIOUS AREA (AC)	IMPERVIOUS AREA (AC)
North Basin	0.01 AC	0.00 AC
South Basin	0.19 AC	0.32 AC
Total Project Area	**0.20 AC**	**0.32 AC**

DEVELOPED SITE HYDROLOGY (PART B)

The existing parking lot will be removed and replaced with a new gym building, ADA parking stalls, walkways and associated landscaping. The proposed project will mimic the existing drainage patterns for the site. Below is a tabulation of the developed site areas.

TABLE 2 – DEVELOPED SITE CONDITIONS AREA BREAKDOWN

Map shown in Figure 3

DEVELOPMENT	PERVIOUS AREA (AC)	IMPERVIOUS AREA (AC)
North Basin	0.07 AC	0.01 AC
South Basin	0.11 AC	0.33 AC
Total Project Area	**0.18 AC**	**0.34 AC**

V. CONVEYANCE SYSTEM ANALYSIS AND DESIGN

The proposed project does not significantly increase stormwater runoff leaving the site and therefore does not anticipate the project to have an impact on the downstream systems. See Appendix B for the Western Washington Hydrology Model (WWHM) results.

VI. SPECIAL REPORTS AND STUDIES

No special reports or studies are included for this project. A geotechnical report is attached.

VII. OTHER PERMITS

A separate building permit will be submitted for this project.

APPENDIX A - FIGURES

FIGURE 1 – VICINITY MAP

FIGURE 2 – EXISTING SITE CONDITIONS

FIGURE 3– PROPOSED SITE CONDITIONS

FIGURE 4 – SOILS MAP

FIGURE 5 – WETLAND MAP

FIGURE 6 – DOWNSTREAM MAP

FIGURE 1 - VICINITY MAP

NTS

Project: **Tela Gym**

Project No: **C26010** Date: **06/09/2026**

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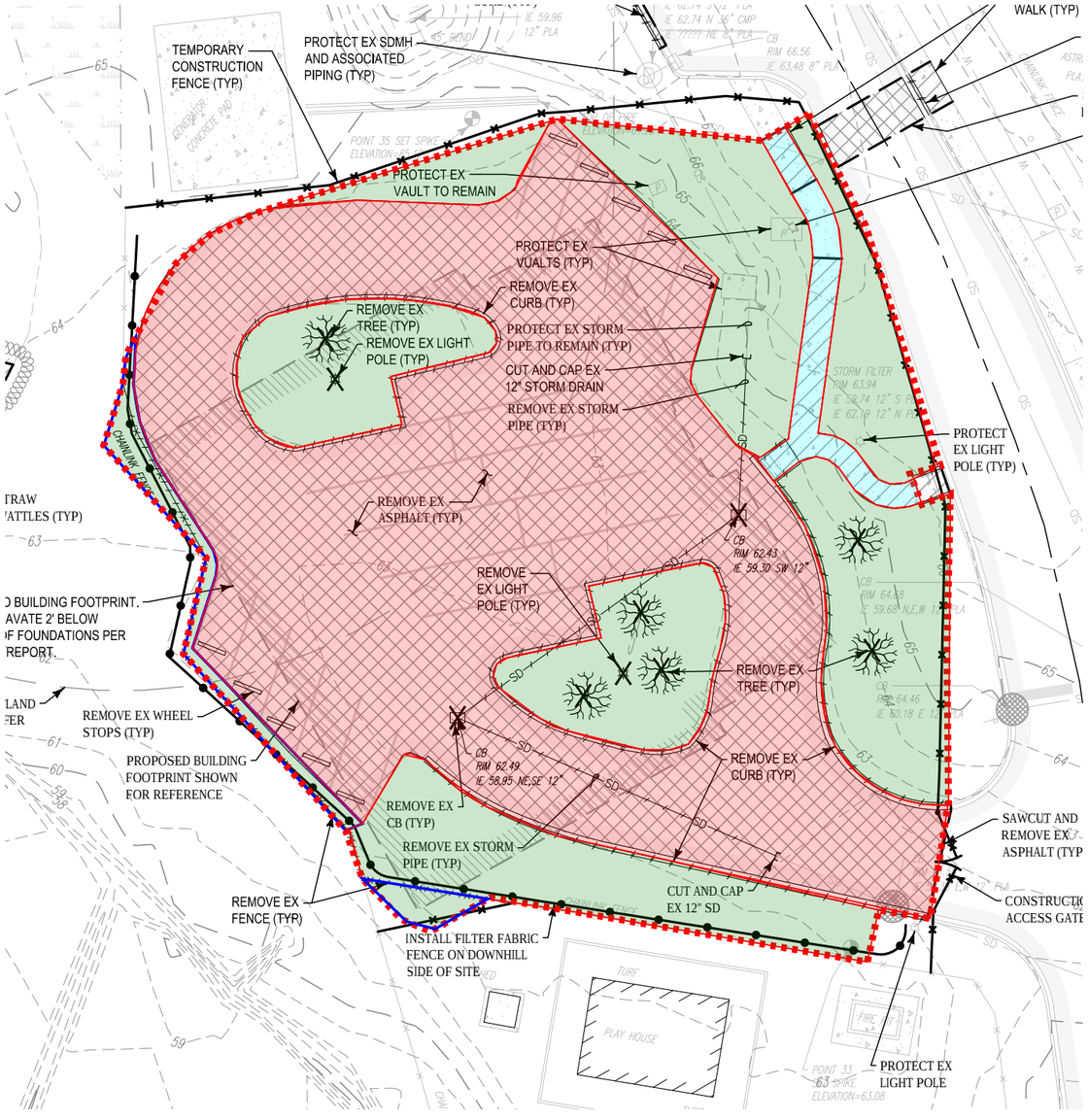
SCALE 1"=30'



Legend

Description	Quantity	Unit
North Lscape	0.01	ac
South Lscape	0.19	ac
South NPGIS	0.01	ac
South PGIS	0.31	ac
Total Site	0.52	ac

FIGURE 2

EXISTING CONDITIONS

Project: **Tela Gym**

Project No: **C26010** Date: **06/09/2026**

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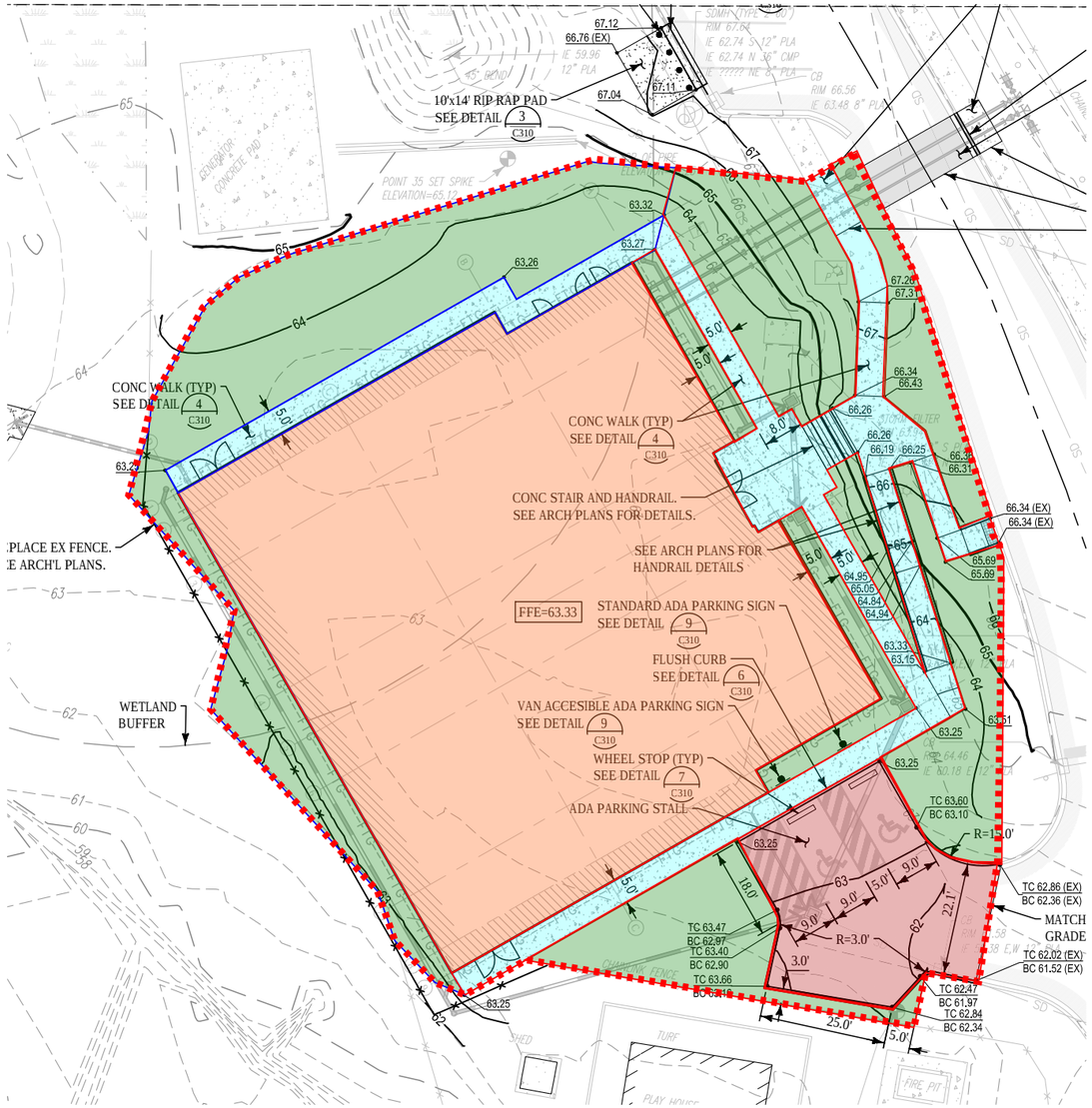

SCALE 1"=30'

Legend

Description	Quantity	Unit
North Lscape	0.07	ac
North NPGIS	0.01	ac
South Building	0.24	ac
South Lscape	0.11	ac
South NPGIS	0.05	ac
South PGIS	0.04	ac
Total Site	0.52	ac

FIGURE 3
PROPOSED CONDITIONS

Project: **Tela Gym**

Project No: **C26010** Date: **06/09/2026**

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Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
27	Kitsap silt loam, 0 to 8 percent slopes	1.8	100.0%
Totals for Area of Interest		**1.8**	**100.0%**

FIGURE 4
SOILS MAP

Project: **Tela Gym**

Project No: **C26010** Date: **06/09/2026**

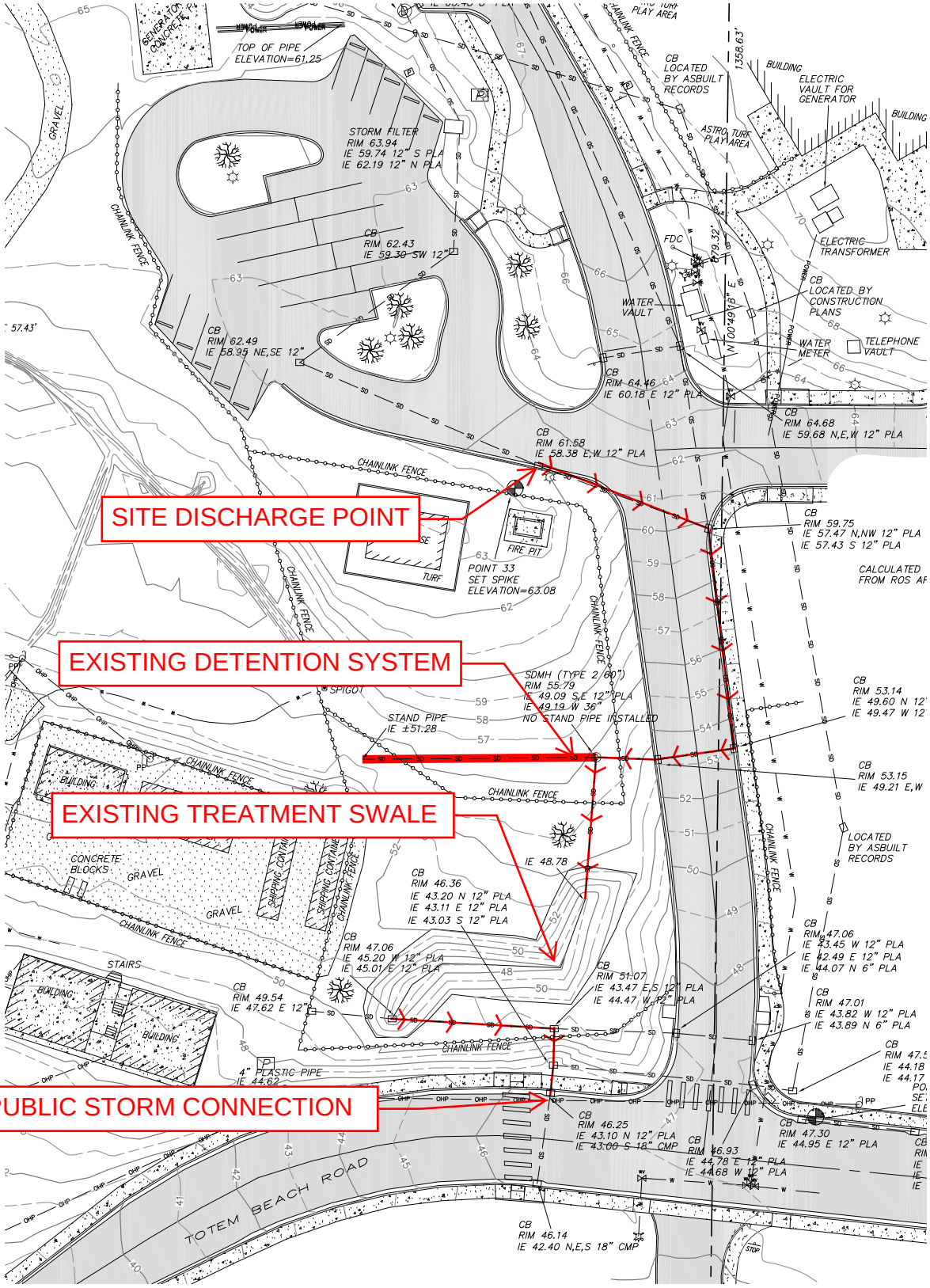

FIGURE 6

DOWNSTREAM MAP

Project: **Tela Gym**

Project No: **C26010** Date: **06/09/2026**

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APPENDIX B – ENGINEERING CALCULATIONS

WWHM BASIN FLOW RATE CALCULATIONS

WWHM2012

PROJECT REPORT

General Model Information

WWHM2012 Project Name: Site Flow Rates
Site Name:
Site Address:
City:

Report Date:	6/4/2026
Gage:	Everett
Data Start:	1948/10/01
Data End:	2009/09/30
Timestep:	15 Minute
Precip Scale:	0.800
Version Date:	2025/10/07
Version:	4.3.2

POC Thresholds

Low Flow Threshold for POC1:	50 Percent of the 2 Year
High Flow Threshold for POC1:	50 Year
Low Flow Threshold for POC2:	50 Percent of the 2 Year
High Flow Threshold for POC2:	50 Year

Landuse Basin Data

Predeveloped Land Use

North Basin

Bypass:	No
GroundWater:	No
Pervious Land Use	acre
C, Lawn, Flat	0.01
Pervious Total	0.01
Impervious Land Use	acre
Impervious Total	0
Basin Total	0.01

Element Flow Componants:

Surface	Interflow	Groundwater
Componant Flows To:		
POC 1	POC 1	

South Basin

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C, Lawn, Flat	0.19
Pervious Total	0.19

Impervious Land Use	acre
SIDEWALKS MOD	0.01
PARKING FLAT	0.31
Impervious Total	0.32
Basin Total	0.51

Element Flow Componants:

Surface	Interflow	Groundwater
Componant Flows To:		
POC 2	POC 2	

Mitigated Land Use

North Basin

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C, Lawn, Flat	0.07
Pervious Total	0.07

Impervious Land Use	acre
SIDEWALKS FLAT	0.01
Impervious Total	0.01
Basin Total	0.08

Element Flow Componants:

Surface	Interflow	Groundwater

Componant Flows To:

POC 1	POC 1

South Basin

Bypass:	No
GroundWater:	No

Pervious Land Use	acre
C, Lawn, Flat	0.11
Pervious Total	0.11

Impervious Land Use	acre
ROOF TOPS FLAT	0.24
SIDEWALKS FLAT	0.05
PARKING FLAT	0.04
Impervious Total	0.33
Basin Total	0.44

Element Flow Componants:

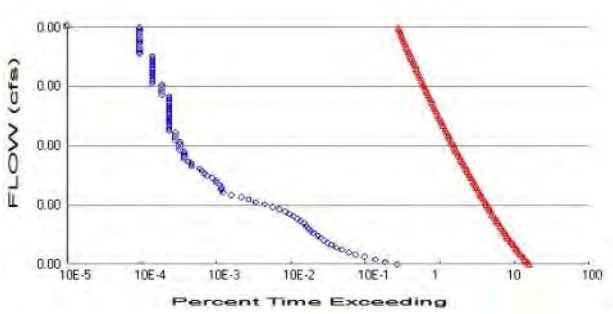
Surface	Interflow	Groundwater
Componant Flows To:		
POC 2	POC 2	

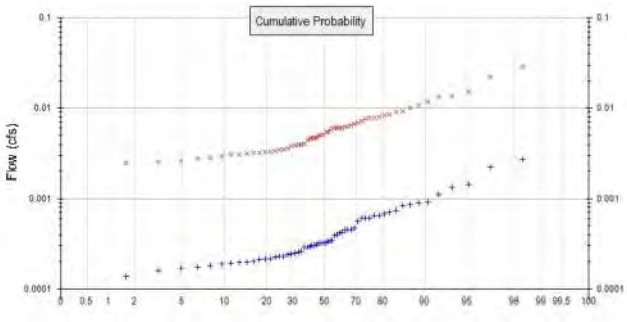
Routing Elements
Predeveloped Routing

Mitigated Routing

Analysis Results

POC 1





\+ Predeveloped x Mitigated

Predeveloped Landuse Totals for POC #1
Total Pervious Area: 0.01
Total Impervious Area: 0

Mitigated Landuse Totals for POC #1
Total Pervious Area: 0.07
Total Impervious Area: 0.01

Flow Frequency Method: Log Pearson Type III 17B

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	**Flow(cfs)**
2 year	0.000358
5 year	0.000664
10 year	0.000941
25 year	0.001395
50 year	0.00182
100 year	0.002331

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	**Flow(cfs)**
2 year	0.005181
5 year	0.008415
10 year	0.011135
25 year	0.015326
50 year	0.019059
100 year	0.023371

Annual Peaks

Annual Peaks for Predeveloped and Mitigated. POC #1

Year	**Predeveloped**	**Mitigated**
1949	0.000	0.006
1950	0.001	0.008
1951	0.000	0.004
1952	0.000	0.005
1953	0.000	0.005
1954	0.001	0.015
1955	0.001	0.008
1956	0.000	0.004
1957	0.001	0.008
1958	0.001	0.013

1959	0.000	0.004
1960	0.000	0.005
1961	0.003	0.028
1962	0.000	0.005
1963	0.001	0.011
1964	0.000	0.005
1965	0.000	0.002
1966	0.000	0.003
1967	0.000	0.007
1968	0.000	0.005
1969	0.002	0.022
1970	0.000	0.004
1971	0.000	0.006
1972	0.001	0.009
1973	0.000	0.006
1974	0.001	0.008
1975	0.000	0.007
1976	0.000	0.004
1977	0.000	0.003
1978	0.000	0.003
1979	0.001	0.012
1980	0.000	0.005
1981	0.000	0.003
1982	0.000	0.004
1983	0.001	0.006
1984	0.000	0.003
1985	0.000	0.006
1986	0.001	0.010
1987	0.000	0.006
1988	0.000	0.003
1989	0.000	0.006
1990	0.000	0.003
1991	0.000	0.003
1992	0.000	0.005
1993	0.000	0.003
1994	0.000	0.003
1995	0.000	0.003
1996	0.001	0.007
1997	0.001	0.013
1998	0.000	0.005
1999	0.000	0.003
2000	0.000	0.006
2001	0.000	0.002
2002	0.000	0.003
2003	0.000	0.003
2004	0.000	0.008
2005	0.000	0.003
2006	0.001	0.009
2007	0.001	0.008
2008	0.001	0.006
2009	0.000	0.004

Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	0.0027	0.0285
2	0.0022	0.0219
3	0.0014	0.0150

4	0.0013	0.0135
5	0.0011	0.0132
6	0.0009	0.0118
7	0.0009	0.0107
8	0.0009	0.0101
9	0.0008	0.0093
10	0.0007	0.0091
11	0.0007	0.0085
12	0.0007	0.0083
13	0.0006	0.0080
14	0.0006	0.0079
15	0.0006	0.0078
16	0.0006	0.0077
17	0.0006	0.0071
18	0.0006	0.0068
19	0.0005	0.0068
20	0.0005	0.0064
21	0.0004	0.0064
22	0.0004	0.0062
23	0.0004	0.0061
24	0.0004	0.0061
25	0.0004	0.0060
26	0.0004	0.0060
27	0.0003	0.0060
28	0.0003	0.0057
29	0.0003	0.0055
30	0.0003	0.0055
31	0.0003	0.0052
32	0.0003	0.0050
33	0.0003	0.0050
34	0.0003	0.0047
35	0.0003	0.0047
36	0.0003	0.0047
37	0.0003	0.0045
38	0.0003	0.0044
39	0.0003	0.0040
40	0.0003	0.0040
41	0.0003	0.0040
42	0.0002	0.0039
43	0.0002	0.0038
44	0.0002	0.0035
45	0.0002	0.0035
46	0.0002	0.0035
47	0.0002	0.0033
48	0.0002	0.0033
49	0.0002	0.0033
50	0.0002	0.0032
51	0.0002	0.0032
52	0.0002	0.0032
53	0.0002	0.0031
54	0.0002	0.0031
55	0.0002	0.0029
56	0.0002	0.0028
57	0.0002	0.0028
58	0.0002	0.0026
59	0.0002	0.0025
60	0.0001	0.0025
61	0.0001	0.0024

Duration Flows

The Duration Matching Failed

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.0002	5704	336660	5902	Fail
0.0002	3959	315913	7979	Fail
0.0002	2902	295807	10193	Fail
0.0002	2100	278268	13250	Fail
0.0002	1587	261157	16456	Fail
0.0003	1278	246613	19296	Fail
0.0003	1053	232496	22079	Fail
0.0003	870	219449	25224	Fail
0.0003	750	207835	27711	Fail
0.0003	662	196349	29659	Fail
0.0003	597	186361	31216	Fail
0.0004	542	176415	32548	Fail
0.0004	495	167645	33867	Fail
0.0004	434	159047	36646	Fail
0.0004	398	150962	37930	Fail
0.0004	371	143776	38753	Fail
0.0004	343	136589	39821	Fail
0.0005	322	130236	40445	Fail
0.0005	287	124012	43209	Fail
0.0005	259	118537	45767	Fail
0.0005	234	113083	48326	Fail
0.0005	207	107864	52108	Fail
0.0005	179	103265	57689	Fail
0.0006	152	98624	64884	Fail
0.0006	121	94496	78095	Fail
0.0006	97	90389	93184	Fail
0.0006	73	86625	118664	Fail
0.0006	58	82903	142936	Fail
0.0006	46	79224	172226	Fail
0.0007	34	75973	223450	Fail
0.0007	27	72679	269181	Fail
0.0007	25	69749	278996	Fail
0.0007	25	66797	267188	Fail
0.0007	24	63910	266291	Fail
0.0007	22	61343	278831	Fail
0.0008	22	58776	267163	Fail
0.0008	19	56509	297415	Fail
0.0008	16	54199	338743	Fail
0.0008	15	52039	346926	Fail
0.0008	14	49879	356278	Fail
0.0008	13	47890	368384	Fail
0.0009	10	46114	461140	Fail
0.0009	10	44339	443390	Fail
0.0009	9	42628	473644	Fail
0.0009	8	40874	510925	Fail
0.0009	8	39313	491412	Fail
0.0009	8	37751	471887	Fail
0.0010	8	36211	452637	Fail
0.0010	7	34864	498057	Fail
0.0010	7	33495	478500	Fail
0.0010	7	32276	461085	Fail
0.0010	7	30992	442742	Fail
0.0010	6	29902	498366	Fail
0.0011	6	28747	479116	Fail

0.0011	6	27592	459866	Fail
0.0011	6	26608	443466	Fail
0.0011	5	25602	512040	Fail
0.0011	5	24704	494079	Fail
0.0011	5	23742	474840	Fail
0.0012	5	22865	457300	Fail
0.0012	5	22052	441040	Fail
0.0012	5	21233	424660	Fail
0.0012	5	20475	409500	Fail
0.0012	5	19753	395060	Fail
0.0012	5	19075	381500	Fail
0.0013	5	18360	367200	Fail
0.0013	5	17710	354200	Fail
0.0013	5	17126	342520	Fail
0.0013	5	16540	330800	Fail
0.0013	5	15982	319640	Fail
0.0013	5	15438	308760	Fail
0.0014	4	14957	373925	Fail
0.0014	4	14416	360400	Fail
0.0014	4	13922	348050	Fail
0.0014	4	13479	336975	Fail
0.0014	4	13019	325475	Fail
0.0014	3	12572	419066	Fail
0.0015	3	12108	403600	Fail
0.0015	3	11747	391566	Fail
0.0015	3	11340	378000	Fail
0.0015	3	10953	365100	Fail
0.0015	3	10600	353333	Fail
0.0015	3	10232	341066	Fail
0.0016	3	9950	331666	Fail
0.0016	3	9610	320333	Fail
0.0016	3	9317	310566	Fail
0.0016	3	8983	299433	Fail
0.0016	3	8710	290333	Fail
0.0016	2	8434	421700	Fail
0.0017	2	8141	407050	Fail
0.0017	2	7884	394200	Fail
0.0017	2	7612	380600	Fail
0.0017	2	7371	368550	Fail
0.0017	2	7150	357500	Fail
0.0017	2	6900	345000	Fail
0.0018	2	6705	335250	Fail
0.0018	2	6494	324700	Fail
0.0018	2	6290	314500	Fail
0.0018	2	6087	304350	Fail
0.0018	2	5884	294200	Fail

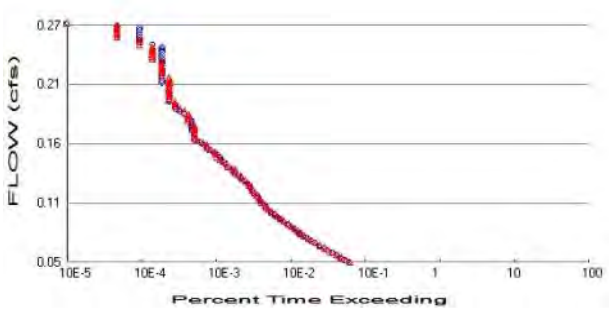
The development has an increase in flow durations from 1/2 Predeveloped 2 year flow to the 2 year flow or more than a 10% increase from the 2 year to the 50 year flow.
The development has an increase in flow durations for more than 50% of the flows for the range of the duration analysis.

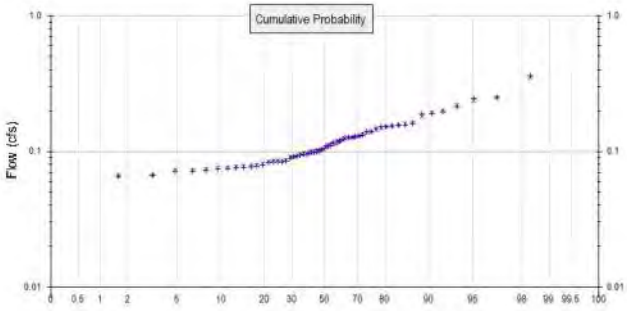
Water Quality

Water Quality BMP Flow and Volume for POC #1

On-line facility volume:	0 acre-feet
On-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.
Off-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.

POC 2





\+ Predeveloped x Mitigated

Predeveloped Landuse Totals for POC #2
Total Pervious Area: 0.19
Total Impervious Area: 0.32

Mitigated Landuse Totals for POC #2
Total Pervious Area: 0.11
Total Impervious Area: 0.33

Flow Frequency Method: Log Pearson Type III 17B

Flow Frequency Return Periods for Predeveloped. POC #2

Return Period	**Flow(cfs)**
2 year	0.107357
5 year	0.149639
10 year	0.181933
25 year	0.227954
50 year	0.266246
100 year	0.308166

Flow Frequency Return Periods for Mitigated. POC #2

Return Period	**Flow(cfs)**
2 year	0.108575
5 year	0.149728
10 year	0.180266
25 year	0.222769
50 year	0.257388
100 year	0.294639

Annual Peaks

Annual Peaks for Predeveloped and Mitigated. POC #2

Year	**Predeveloped**	**Mitigated**
1949	0.105	0.103
1950	0.139	0.139
1951	0.110	0.113
1952	0.096	0.097
1953	0.130	0.133
1954	0.187	0.180
1955	0.132	0.130
1956	0.058	0.059
1957	0.110	0.107
1958	0.250	0.249
1959	0.099	0.102

1960	0.092	0.091
1961	0.363	0.350
1962	0.117	0.119
1963	0.156	0.153
1964	0.078	0.078
1965	0.075	0.076
1966	0.076	0.077
1967	0.214	0.220
1968	0.119	0.121
1969	0.247	0.235
1970	0.084	0.085
1971	0.126	0.127
1972	0.162	0.162
1973	0.128	0.129
1974	0.157	0.160
1975	0.126	0.125
1976	0.085	0.086
1977	0.083	0.084
1978	0.066	0.066
1979	0.154	0.154
1980	0.074	0.075
1981	0.084	0.085
1982	0.084	0.086
1983	0.116	0.115
1984	0.098	0.100
1985	0.152	0.157
1986	0.151	0.148
1987	0.127	0.127
1988	0.096	0.097
1989	0.110	0.110
1990	0.072	0.073
1991	0.097	0.099
1992	0.100	0.099
1993	0.076	0.076
1994	0.072	0.073
1995	0.080	0.082
1996	0.103	0.102
1997	0.147	0.140
1998	0.140	0.143
1999	0.067	0.067
2000	0.196	0.199
2001	0.077	0.079
2002	0.072	0.074
2003	0.097	0.100
2004	0.191	0.193
2005	0.089	0.091
2006	0.123	0.119
2007	0.115	0.113
2008	0.091	0.091
2009	0.094	0.095

Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #2

Rank	Predeveloped	Mitigated
1	0.3626	0.3502
2	0.2501	0.2486
3	0.2474	0.2347
4	0.2144	0.2203

5	0.1965	0.1991
6	0.1907	0.1928
7	0.1871	0.1796
8	0.1618	0.1624
9	0.1569	0.1604
10	0.1561	0.1567
11	0.1541	0.1536
12	0.1522	0.1531
13	0.1513	0.1479
14	0.1474	0.1429
15	0.1400	0.1403
16	0.1391	0.1386
17	0.1318	0.1331
18	0.1304	0.1301
19	0.1283	0.1291
20	0.1266	0.1273
21	0.1263	0.1267
22	0.1257	0.1251
23	0.1229	0.1206
24	0.1188	0.1194
25	0.1167	0.1194
26	0.1159	0.1152
27	0.1154	0.1128
28	0.1102	0.1126
29	0.1097	0.1098
30	0.1096	0.1068
31	0.1051	0.1033
32	0.1026	0.1020
33	0.0995	0.1019
34	0.0993	0.1003
35	0.0981	0.1002
36	0.0974	0.0992
37	0.0967	0.0990
38	0.0959	0.0974
39	0.0957	0.0972
40	0.0937	0.0951
41	0.0921	0.0914
42	0.0914	0.0911
43	0.0891	0.0910
44	0.0854	0.0858
45	0.0843	0.0856
46	0.0841	0.0852
47	0.0840	0.0850
48	0.0826	0.0843
49	0.0795	0.0819
50	0.0782	0.0794
51	0.0771	0.0784
52	0.0763	0.0775
53	0.0757	0.0764
54	0.0747	0.0758
55	0.0737	0.0754
56	0.0724	0.0739
57	0.0721	0.0732
58	0.0719	0.0729
59	0.0666	0.0671
60	0.0658	0.0660
61	0.0584	0.0593

Duration Flows

The Duration Matching Failed

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.0537	1288	1335	103	Fail
0.0558	1120	1172	104	Fail
0.0580	983	1008	102	Fail
0.0601	869	895	102	Fail
0.0623	756	777	102	Fail
0.0644	670	687	102	Fail
0.0666	593	610	102	Fail
0.0687	514	531	103	Fail
0.0709	449	466	103	Fail
0.0730	396	412	104	Fail
0.0751	353	371	105	Fail
0.0773	315	321	101	Fail
0.0794	280	293	104	Fail
0.0816	260	265	101	Fail
0.0837	236	246	104	Fail
0.0859	212	219	103	Fail
0.0880	190	199	104	Fail
0.0902	166	173	104	Fail
0.0923	154	157	101	Fail
0.0945	138	144	104	Fail
0.0966	129	132	102	Fail
0.0988	116	118	101	Fail
0.1009	104	107	102	Fail
0.1031	98	101	103	Fail
0.1052	96	97	101	Fail
0.1074	87	88	101	Pass
0.1095	84	83	98	Pass
0.1117	78	79	101	Pass
0.1138	75	73	97	Pass
0.1159	68	70	102	Pass
0.1181	65	67	103	Pass
0.1202	62	64	103	Pass
0.1224	60	60	100	Pass
0.1245	56	57	101	Pass
0.1267	52	53	101	Pass
0.1288	46	48	104	Pass
0.1310	42	46	109	Pass
0.1331	38	39	102	Pass
0.1353	38	37	97	Pass
0.1374	38	35	92	Pass
0.1396	31	31	100	Pass
0.1417	29	30	103	Pass
0.1439	26	27	103	Pass
0.1460	25	24	96	Pass
0.1482	24	22	91	Pass
0.1503	22	21	95	Pass
0.1524	20	21	104	Pass
0.1546	17	18	105	Pass
0.1567	16	16	100	Pass
0.1589	15	16	106	Pass
0.1610	13	14	107	Pass
0.1632	11	12	109	Pass
0.1653	11	11	100	Pass
0.1675	11	11	100	Pass

0.1696	11	11	100	Pass
0.1718	10	11	110	Pass
0.1739	10	11	110	Pass
0.1761	10	11	110	Pass
0.1782	10	10	100	Pass
0.1804	10	9	90	Pass
0.1825	9	9	100	Pass
0.1847	9	9	100	Pass
0.1868	8	9	112	Fail
0.1889	7	8	114	Fail
0.1911	6	7	116	Fail
0.1932	6	6	100	Pass
0.1954	6	6	100	Pass
0.1975	5	6	120	Fail
0.1997	5	5	100	Pass
0.2018	5	5	100	Pass
0.2040	5	5	100	Pass
0.2061	5	5	100	Pass
0.2083	5	5	100	Pass
0.2104	5	5	100	Pass
0.2126	5	5	100	Pass
0.2147	4	5	125	Fail
0.2169	4	5	125	Fail
0.2190	4	5	125	Fail
0.2212	4	4	100	Pass
0.2233	4	4	100	Pass
0.2255	4	4	100	Pass
0.2276	4	4	100	Pass
0.2297	4	4	100	Pass
0.2319	4	4	100	Pass
0.2340	4	4	100	Pass
0.2362	4	3	75	Pass
0.2383	4	3	75	Pass
0.2405	4	3	75	Pass
0.2426	4	3	75	Pass
0.2448	4	3	75	Pass
0.2469	4	3	75	Pass
0.2491	3	2	66	Pass
0.2512	2	2	100	Pass
0.2534	2	2	100	Pass
0.2555	2	1	50	Pass
0.2577	2	1	50	Pass
0.2598	2	1	50	Pass
0.2620	2	1	50	Pass
0.2641	2	1	50	Pass
0.2662	1	1	100	Pass

The development has an increase in flow durations from 1/2 Predeveloped 2 year flow to the 2 year flow or more than a 10% increase from the 2 year to the 50 year flow.
The development has an increase in flow durations for more than 50% of the flows for the range of the duration analysis.

Water Quality

Water Quality BMP Flow and Volume for POC #2

On-line facility volume:	0 acre-feet
On-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.
Off-line facility target flow:	0 cfs.
Adjusted for 15 min:	0 cfs.

Model Default Modifications

Total of 0 changes have been made.

PERLND Changes

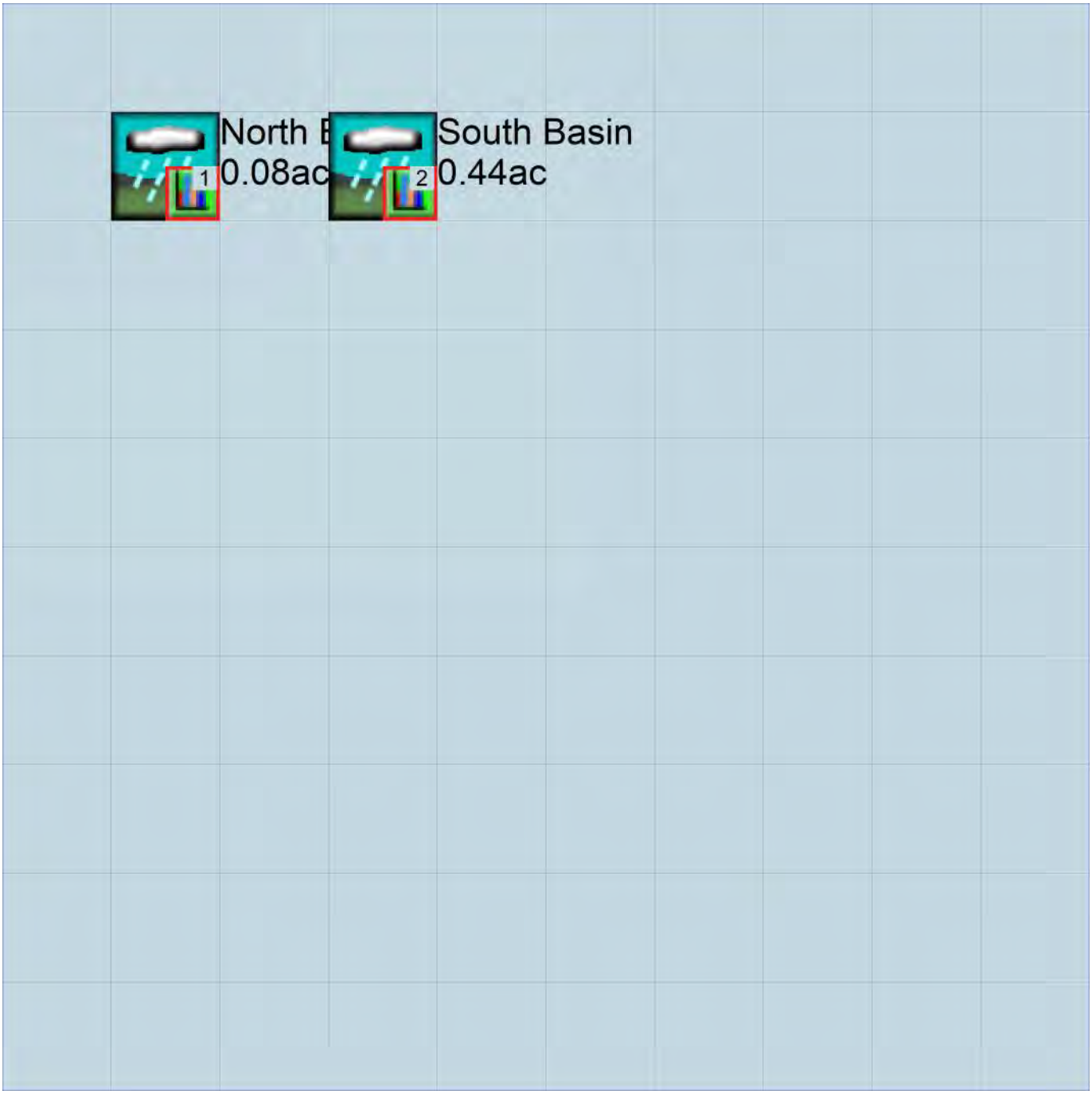
No PERLND changes have been made.

IMPLND Changes

No IMPLND changes have been made.

Appendix
Predeveloped Schematic

Mitigated Schematic



Predeveloped UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1948 10 01        END    2009 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   Site Flow Rates.wdm
MESSU       25   PreSite Flow Rates.MES
            27   PreSite Flow Rates.L61
            28   PreSite Flow Rates.L62
            30   POCSite Flow Rates1.dat
            31   POCSite Flow Rates2.dat
END FILES

OPN SEQUENCE
    INGRP               INDELT 00:15
      PERLND      16
      IMPLND       9
      IMPLND      11
      COPY       501
      COPY       502
      DISPLY       1
      DISPLY       2
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -  #<----------Title----------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1        North Basin                MAX                    1    2   30    9
    2        South Basin                MAX                    1    2   31    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -  #  NPT  NMN ***
    1         1    1
  501         1    1
  502         1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #         K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -  #                          User  t-series Engl Metr ***
                                          in  out           ***
   16     C, Lawn, Flat           1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************ Active Sections ******************************
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   16         0    0    1    0    0    0    0    0    0    0    0    0
  END ACTIVITY
```

```
  PRINT-INFO
    <PLS > ***************** Print-flags **************************** PIVL  PYR
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   16         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO

  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   16         0    0    0    0    0    0    0    0    0    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2         ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   16              0       4.5      0.03       400      0.05       0.5     0.996
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   16              0         0         2         2         0         0         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                                 ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   16            0.1      0.25      0.25         6       0.5      0.25
  END PWAT-PARM4

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS      IFWS       LZS      AGWS      GWVS
   16              0         0         0         0       2.5         1         0
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                     in  out           ***
    9      SIDEWALKS/MOD          1    1    1   27    0
   11      PARKING/FLAT           1    1    1   27    0
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************ Active Sections ****************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
    9         0    0    1    0    0    0
   11         0    0    1    0    0    0
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
    9         0    0    4    0    0    4    1    9
   11         0    0    4    0    0    0    1    9
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
    9         0    0    0    0    0
   11         0    0    0    0    0
  END IWAT-PARM1
```

```
  IWAT-PARM2
    <PLS >       IWATER input info: Part 2         ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
    9            400      0.05       0.1      0.08
   11            400      0.01       0.1       0.1
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >       IWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN
    9              0         0
   11              0         0
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
    9              0         0
   11              0         0
  END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->                  <--Area-->     <-Target->   MBLK   ***
<Name>   #                  <-factor->     <Name>   #   Tbl#   ***
North Basin***
PERLND  16                       0.01     COPY   501     12
PERLND  16                       0.01     COPY   501     13
South Basin***
PERLND  16                       0.19     COPY   502     12
PERLND  16                       0.19     COPY   502     13
IMPLND   9                       0.01     COPY   502     15
IMPLND  11                       0.31     COPY   502     15

******Routing******
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   48.4        DISPLY   1     INPUT  TIMSER 1
COPY   502 OUTPUT MEAN   1 1   48.4        DISPLY   2     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<------------------><---> User T-series  Engl Metr LKFG           ***
                                       in  out                              ***
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************* Active Sections ****************************
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ******************* PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                  ***
```

```
    # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
             FG FG FG FG  possible  exit  *** possible  exit      possible  exit
              *  *  *  *    *  *  *  *  *       *  *  *  *  *         ***
  END HYDR-PARM1

  HYDR-PARM2
    # -  #    FTABNO       LEN     DELTH     STCOR        KS      DB50       ***
  <------><--------><--------><--------><--------><--------><-------->       ***
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                          ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    0.8            PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    0.8            IMPLND   1 999 EXTNL  PREC
WDM      1 EVAP     ENGL    0.76           PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    0.76           IMPLND   1 999 EXTNL  PETINP

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
COPY   501 OUTPUT MEAN   1 1     48.4      WDM    501 FLOW     ENGL      REPL
COPY   502 OUTPUT MEAN   1 1     48.4      WDM    502 FLOW     ENGL      REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>            <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK       12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   12

  MASS-LINK       13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   13

  MASS-LINK       15
IMPLND     IWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   15


END MASS-LINK

END RUN
```

Mitigated UCI File

```
RUN

GLOBAL
  WWHM4 model simulation
  START       1948 10 01        END    2009 09 30
  RUN INTERP OUTPUT LEVEL    3    0
  RESUME     0 RUN     1                    UNIT SYSTEM     1
END GLOBAL

FILES
<File>  <Un#>   <-----------File Name------------------------------>***
<-ID->                                                              ***
WDM         26   Site Flow Rates.wdm
MESSU       25   MitSite Flow Rates.MES
            27   MitSite Flow Rates.L61
            28   MitSite Flow Rates.L62
            30   POCSite Flow Rates1.dat
            31   POCSite Flow Rates2.dat
END FILES

OPN SEQUENCE
    INGRP               INDELT 00:15
      PERLND      16
      IMPLND       8
      IMPLND       4
      IMPLND      11
      COPY       501
      COPY       502
      DISPLY       1
      DISPLY       2
    END INGRP
END OPN SEQUENCE
DISPLY
  DISPLY-INFO1
    # -  #<----------Title---------->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
    1        North Basin                MAX                    1    2   30    9
    2        South Basin                MAX                    1    2   31    9
  END DISPLY-INFO1
END DISPLY
COPY
  TIMESERIES
    # -  #  NPT  NMN ***
    1         1    1
  501         1    1
  502         1    1
  END TIMESERIES
END COPY
GENER
  OPCODE
    #    # OPCD ***
  END OPCODE
  PARM
    #    #         K ***
  END PARM
END GENER
PERLND
  GEN-INFO
    <PLS ><-------Name------->NBLKS   Unit-systems   Printer ***
    # -  #                          User  t-series Engl Metr ***
                                          in  out           ***
   16     C, Lawn, Flat           1    1    1    1   27    0
  END GEN-INFO
  *** Section PWATER***

  ACTIVITY
    <PLS > ************ Active Sections ******************************
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
   16         0    0    1    0    0    0    0    0    0    0    0    0
```

```
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags **************************** PIVL  PYR
    # -  # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *********
   16         0    0    4    0    0    0    0    0    0    0    0    0    1    9
  END PRINT-INFO

  PWAT-PARM1
    <PLS >  PWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP UZFG  VCS  VUZ  VNN VIFW VIRC  VLE INFC  HWT ***
   16         0    0    0    0    0    0    0    0    0    0    0
  END PWAT-PARM1

  PWAT-PARM2
    <PLS >      PWATER input info: Part 2         ***
    # -  # ***FOREST      LZSN    INFILT      LSUR     SLSUR     KVARY     AGWRC
   16              0       4.5      0.03       400      0.05       0.5     0.996
  END PWAT-PARM2

  PWAT-PARM3
    <PLS >      PWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN    INFEXP    INFILD    DEEPFR    BASETP    AGWETP
   16              0         0         2         2         0         0         0
  END PWAT-PARM3
  PWAT-PARM4
    <PLS >     PWATER input info: Part 4                              ***
    # -  #     CEPSC      UZSN      NSUR     INTFW       IRC     LZETP ***
   16            0.1      0.25      0.25         6       0.5      0.25
  END PWAT-PARM4

  PWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
               ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
    # -  # ***  CEPS      SURS       UZS      IFWS       LZS      AGWS      GWVS
   16              0         0         0         0       2.5         1         0
  END PWAT-STATE1

END PERLND

IMPLND
  GEN-INFO
    <PLS ><-------Name------->   Unit-systems   Printer ***
    # -  #                     User  t-series Engl Metr ***
                                     in  out           ***
    8      SIDEWALKS/FLAT         1    1    1   27    0
    4      ROOF TOPS/FLAT         1    1    1   27    0
   11      PARKING/FLAT           1    1    1   27    0
  END GEN-INFO
  *** Section IWATER***

  ACTIVITY
    <PLS > ************ Active Sections ****************************
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL   ***
    8         0    0    1    0    0    0
    4         0    0    1    0    0    0
   11         0    0    1    0    0    0
  END ACTIVITY

  PRINT-INFO
    <ILS > ******** Print-flags ******** PIVL  PYR
    # -  # ATMP SNOW IWAT  SLD  IWG IQAL    *********
    8         0    0    4    0    0    4    1    9
    4         0    0    4    0    0    0    1    9
   11         0    0    4    0    0    0    1    9
  END PRINT-INFO

  IWAT-PARM1
    <PLS >  IWATER variable monthly parameter value flags  ***
    # -  # CSNO RTOP  VRS  VNN RTLI     ***
```

```
    8         0    0    0    0    0
    4         0    0    0    0    0
   11         0    0    0    0    0
  END IWAT-PARM1

  IWAT-PARM2
    <PLS >      IWATER input info: Part 2         ***
    # -  # ***  LSUR     SLSUR      NSUR     RETSC
    8            400      0.01       0.1       0.1
    4            400      0.01       0.1       0.1
   11            400      0.01       0.1       0.1
  END IWAT-PARM2

  IWAT-PARM3
    <PLS >      IWATER input info: Part 3         ***
    # -  # ***PETMAX    PETMIN
    8              0         0
    4              0         0
   11              0         0
  END IWAT-PARM3

  IWAT-STATE1
    <PLS > *** Initial conditions at start of simulation
    # -  # ***  RETS      SURS
    8              0         0
    4              0         0
   11              0         0
  END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->                 <--Area-->     <-Target->   MBLK   ***
<Name>   #                 <-factor->     <Name>   #   Tbl#   ***
North Basin***
PERLND  16                       0.07     COPY   501     12
PERLND  16                       0.07     COPY   501     13
IMPLND   8                       0.01     COPY   501     15
South Basin***
PERLND  16                       0.11     COPY   502     12
PERLND  16                       0.11     COPY   502     13
IMPLND   4                       0.24     COPY   502     15
IMPLND   8                       0.05     COPY   502     15
IMPLND  11                       0.04     COPY   502     15

******Routing******
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
COPY   501 OUTPUT MEAN   1 1   48.4        DISPLY   1     INPUT  TIMSER 1
COPY   502 OUTPUT MEAN   1 1   48.4        DISPLY   2     INPUT  TIMSER 1



<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   #        <Name> # #<-factor->strg <Name>   #   #        <Name> # #  ***
END NETWORK

RCHRES
  GEN-INFO
    RCHRES       Name        Nexits   Unit Systems   Printer                ***
    # -  #<----------------><---> User T-series  Engl Metr LKFG             ***
                                        in  out                             ***
  END GEN-INFO
  *** Section RCHRES***

  ACTIVITY
    <PLS > ************ Active Sections ****************************
```

```
    # -  # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
  END ACTIVITY

  PRINT-INFO
    <PLS > ***************** Print-flags ****************** PIVL  PYR
    # -  # HYDR ADCA CONS HEAT  SED  GQL OXRX NUTR PLNK PHCB PIVL  PYR  *********
  END PRINT-INFO

  HYDR-PARM1
    RCHRES  Flags for each HYDR Section                                    ***
    # -  #  VC A1 A2 A3  ODFVFG for each *** ODGTFG for each     FUNCT  for each
           FG FG FG FG  possible  exit  *** possible  exit      possible  exit
            *  *  *  *    *  *  *  *  *       *  *  *  *  *        ***
  END HYDR-PARM1

  HYDR-PARM2
    # -  #    FTABNO       LEN     DELTH     STCOR        KS      DB50       ***
  <------><--------><--------><--------><--------><--------><-------->       ***
  END HYDR-PARM2
  HYDR-INIT
    RCHRES  Initial conditions for each HYDR section                       ***
    # -  # ***   VOL     Initial  value  of COLIND     Initial  value  of OUTDGT
          *** ac-ft     for each possible exit        for each possible exit
  <------><-------->     <---><---><---><---><---> *** <---><---><---><---><--->
  END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
END FTABLES

EXT SOURCES
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member->  ***
<Name>   # <Name> # tem strg<-factor->strg <Name>   #   #        <Name> # #  ***
WDM      2 PREC     ENGL    0.8            PERLND   1 999 EXTNL  PREC
WDM      2 PREC     ENGL    0.8            IMPLND   1 999 EXTNL  PREC
WDM      1 EVAP     ENGL    0.76           PERLND   1 999 EXTNL  PETINP
WDM      1 EVAP     ENGL    0.76           IMPLND   1 999 EXTNL  PETINP

END EXT SOURCES

EXT TARGETS
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name>   #        <Name> # #<-factor->strg <Name>   # <Name>    tem strg strg***
COPY     1 OUTPUT MEAN   1 1     48.4      WDM    701 FLOW     ENGL      REPL
COPY   501 OUTPUT MEAN   1 1     48.4      WDM    801 FLOW     ENGL      REPL
COPY     2 OUTPUT MEAN   1 1     48.4      WDM    702 FLOW     ENGL      REPL
COPY   502 OUTPUT MEAN   1 1     48.4      WDM    802 FLOW     ENGL      REPL
END EXT TARGETS

MASS-LINK
<Volume>   <-Grp> <-Member-><--Mult-->     <Target>       <-Grp> <-Member->***
<Name>             <Name> # #<-factor->     <Name>                <Name> # #***
  MASS-LINK       12
PERLND     PWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   12

  MASS-LINK       13
PERLND     PWATER IFWO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   13

  MASS-LINK       15
IMPLND     IWATER SURO       0.083333      COPY           INPUT  MEAN
  END MASS-LINK   15


END MASS-LINK

END RUN
```

Predeveloped HSPF Message File

Mitigated HSPF Message File

Disclaimer

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APPENDIX C – EXTERNAL REPORT

GEOTECHNICAL REPORT

APPENDIX D - OPERATION AND MAINTENANCE MANUAL

STANDARD MAINTENANCE

An operations and maintenance manual will be completed before project close out.

APPENDIX E - CORRESPONDENCE

Corey Johnson

From: Skylar Horner <shorner@jtmconstruction.com>
Sent: Monday, May 18, 2026 11:54 AM
To: Corey Johnson; Jackie Sempel
Cc: Jarrett Haynes
Subject: FW: New Gym at TELA - stormwater conditions

Categories: Filed by Newforma

FYI

Skylar Horner
PROJECT MANAGER
c 206.773.3360

From: Hailey Barrett <hbarrett@tulaliptribes-nsn.gov>
Sent: Monday, May 18, 2026 11:51 AM
To: Shane Daugherty <shane.daugherty@bhcconsultants.com>; Courtney Marganelli <courtney.marganelli@bhcconsultants.com>; Sarah Fritchman <sarah.fritchman@bhcconsultants.com>; Permits <permits@tulaliptribes-nsn.gov>
Cc: Valerie Streeter <vstreeter@tulaliptribes-nsn.gov>; Kurt Nelson <knelson@tulaliptribes-nsn.gov>; Todd Gray <toddgray@tulaliptribes-nsn.gov>; Thomas Dickerson <tdickerson@tulaliptribes-nsn.gov>; Jason Crain <jasonc@wenahagroup.com>; Sheryl Fryberg <sfryberg@tulaliptribes-nsn.gov>; Mekyla Fryberg <mekylafryberg@tulaliptribes-nsn.gov>; Kathi Johnny <kjohnny@tulaliptribes-nsn.gov>; Jarrett Haynes <jhaynes@jtmconstruction.com>; Skylar Horner <shorner@jtmconstruction.com>; Thomas Dickerson <tdickerson@tulaliptribes-nsn.gov>; Jingjing Yang <jyang@TGBArchitects.com>; Perla Galvan <pgalvan@TGBArchitects.com>; Kent Gregory <kgregory@tgbarchitects.com>; Mike Leslie <mikeleslie@tulaliptribes-nsn.gov>; Dexter Chin <dchin@tgbarchitects.com>
Subject: Fw: New Gym at TELA - stormwater conditions

Good morning,

See below for the updated determination with respect to Stormwater requirements for the proposed new TELA Gym. 😊

Thanks again!

All the best,

Hailey Barrett

(She / They) 🍇
Associate Planner I
Tulalip Tribes Planning Department
hbarrett@tulaliptribes-nsn.gov
360-716-4219

From: Valerie Streeter <vstreeter@tulaliptribes-nsn.gov>
Sent: Monday, May 18, 2026 11:39
To: Hailey Barrett <hbarrett@tulaliptribes-nsn.gov>
Cc: Kurt Nelson <knelson@tulaliptribes-nsn.gov>
Subject: New Gym at TELA - stormwater conditions

Hi Haily,

Can you forward this email to BHC and the project managers regarding the stormwater requirements for the new gym?

The Natural Resources Dept reviewed the request for a flow control study for the new TELA gym. We believe that this flow control study is unnecessary because the ultimate outfall for the stormwater drainage is in Tulalip Bay, which is a tidally influenced estuary. The facility is also less than half a mile from Tulalip Bay.

Tulalip Natural Resources would like the new gym to size its stormwater facilities to capture and treat the run-off on site as well as keep the connection to the existing downgradient stormwater infrastructure. We expect a stormwater report, SWPPP and other requirements according to the redevelopment thresholds.

Sincerely,

Valerie Streeter, Stormwater Planner
Tulalip Natural Resources

[EXTERNAL]

Construction Stormwater General Permit

Stormwater Pollution Prevention Plan (SWPPP)

for

Tulalip TELA Gym

Prepared for:

The Washington State Department of Ecology

Northwest Region

Permittee / Owner	Developer	Operator / Contractor
Tulalip Tribe	Wenaha Group	JTM

7607 Totem Beach Rd,Tulalip, WA 98271

Certified Erosion and Sediment Control Lead (CESCL)

Name	Organization	Contact Phone Number
Brandon Himmelberger	JTM	206-587-400

SWPPP Prepared By

Name	Organization	Contact Phone Number
Corey Johnson	Coughlin Porter Lundeen	206-343-0460

SWPPP Preparation Date

06-09-2026

Project Construction Dates

Activity / Phase	Start Date	End Date
Construction	July 2026	October 2026

Table of Contents

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Appendix/Glossary

List of Acronyms and Abbreviations

Acronym / Abbreviation	Explanation
303(d)	Section of the Clean Water Act pertaining to Impaired Waterbodies
BFO	Bellingham Field Office of the Department of Ecology
BMP(s)	Best Management Practice(s)
CESCL	Certified Erosion and Sediment Control Lead
CO_2	Carbon Dioxide
CRO	Central Regional Office of the Department of Ecology
CSWGP	Construction Stormwater General Permit
CWA	Clean Water Act
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
Ecology	Washington State Department of Ecology
EPA	United States Environmental Protection Agency
ERO	Eastern Regional Office of the Department of Ecology
ERTS	Environmental Report Tracking System
ESC	Erosion and Sediment Control
GULD	General Use Level Designation
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Units
NWRO	Northwest Regional Office of the Department of Ecology
pH	Power of Hydrogen
RCW	Revised Code of Washington
SPCC	Spill Prevention, Control, and Countermeasure
su	Standard Units
SWMMEW	Stormwater Management Manual for Eastern Washington
SWMMWW	Stormwater Management Manual for Western Washington
SWPPP	Stormwater Pollution Prevention Plan
TESC	Temporary Erosion and Sediment Control
SWRO	Southwest Regional Office of the Department of Ecology
TMDL	Total Maximum Daily Load
VFO	Vancouver Field Office of the Department of Ecology
WAC	Washington Administrative Code
WSDOT	Washington Department of Transportation
WWHM	Western Washington Hydrology Model

1 Project Information

Project/Site Name: TELA Gym
Street/Location: 7607 Totem Beach Rd
City: Tulalip State: WA Zip code: 98271
Subdivision:
Receiving waterbody: Tulalip Bay

1.1 Existing Conditions

Total acreage (including support activities such as off-site equipment staging yards, material storage areas, borrow areas).

Total acreage:	0.52
Disturbed acreage:	0.52
Existing structures:	0.000
Landscape topography:	0.20
Drainage patterns:	The existing runoff on site sheet flows to the south and is captured by a series of catch basins. From there, stormwater is conveyed to a detention and swale system for storage and treatment.
Existing Vegetation:	0.094 acres of grass.
Critical Areas (wetlands, streams, high erosion risk, steep or difficult to stabilize slopes):	Wetlands located approximately 260 feet to the west of the disturbed site.

List of known impairments for 303(d) listed or Total Maximum Daily Load (TMDL) for the receiving waterbody:

- Tulalip Bay: Fecal Coliform
- Tulalip Bay: Polychlorinated Biphenyls (PCBs)

Table 1 includes a list of suspected and/or known contaminants associated with the construction activity.

1.2 Proposed Construction Activities

Description of site development (example: subdivision):
The site development will consist of new gymnasium, asphalt parking stalls, concrete walkways and stairs and associated landscaping.

Description of construction activities (example: site preparation, demolition, excavation):
Construction activities will include site preparation, grading, and construction of the new gym.

Description of site drainage including flow from and onto adjacent properties. Must be consistent with Site Map in Appendix A:

The highpoint of the site is near an elevation of 67 feet near the existing parking lot on the northeast side of the site. The topography of the site is generally flat, with gentle slope inclinations from north to south. Runoff currently leaves the site via catch basins and below grade conveyance system.

Description of final stabilization (example: extent of revegetation, paving, landscaping):

Natural vegetation will be kept to the maximum extent feasible, the rest of the site will be developed with building, pavement or landscaping.

Contaminated Site Information:
Proposed activities regarding contaminated soils or groundwater (example: on-site treatment system, authorized sanitary sewer discharge):

Per the geotechnical report, there are no known contaminated soils or groundwater issues on this site.

2 Construction Stormwater Best Management Practices (BMPs)

The SWPPP is a living document reflecting current conditions and changes throughout the life of the project. These changes may be informal (i.e., hand-written notes and deletions). Update the SWPPP when the CESCL has noted a deficiency in BMPs or deviation from original design.

2.1 The 13 Elements

2.1.1 Element 1: Preserve Vegetation / Mark Clearing Limits

To protect adjacent properties and to reduce the area of soil exposed to construction, the limits of construction will be clearly marked before land-disturbing activities begin. Trees that are to be preserved, as well as all sensitive areas and their buffers, shall be clearly delineated, both in the field and on the plans. In general, natural vegetation and native topsoil shall be retained in an undisturbed state to the maximum extent possible.

List and describe BMPs:

- Preserving Natural Vegetation (BMP C101)
- High Visibility Plastic or Metal Fence (BMP 103)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

2.1.2 Element 2: Establish Construction Access

Construction access or activities occurring on unpaved areas shall be minimized, yet where necessary, access points shall be stabilized to minimize the tracking of sediment onto public roads, and wheel washing, street sweeping, and street cleaning shall be employed to prevent sediment from entering state waters. All wash wastewater shall be controlled on site. All site ingress/egress stabilization BMPs shall be installed according to BMP C105. Sediment will be removed from paved areas in and adjacent to construction work areas manually or using mechanical sweepers, as needed, to minimize tracking of sediments on vehicle tires away from the site and to minimize washoff of sediments from adjacent streets in runoff.

List and describe BMPs:

- Construction Road/Parking Area Stabilization (BMP 107)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

2.1.3 Element 3: Control Flow Rates

Will you construct stormwater retention and/or detention facilities?
☐ Yes ☒ No

Will you use permanent infiltration ponds or other low impact development (example: rain gardens, bio-retention, porous pavement) to control flow during construction?
☐ Yes ☒ No

List and describe BMPs:

- Straw Wattles (BMP 235)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

2.1.4 Element 4: Install Sediment Controls

All stormwater runoff from disturbed areas shall pass through an appropriate sediment removal BMP before leaving the construction site or prior to being discharged to an infiltration facility. Storm water will be discharged into native vegetation for infiltration. Drainage on site will not interfere with any juvenile Salmonids attemting to enter off-channel areas or drainages. Immediate action will be taken at the first sign of BMPs that are ineffective or failing.

List and describe BMPs:

- Silt Fence (BMP C233)
- Straw Wattles (BMP C235)
- Storm Drain Inlet Protection (BMP C220)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

2.1.5 Element 5: Stabilize Soils

Exposed and unworked soils shall be stabilized with the application of effective BMPs to prevent erosion throughout the life of the project.

West of the Cascade Mountains Crest

Season	Dates	Number of Days Soils Can be Left Exposed
During the Dry Season	May 1 – September 30	7 days
During the Wet Season	October 1 – April 30	2 days

Soils must be stabilized at the end of the shift before a holiday or weekend if needed based on the weather forecast.

Anticipated project dates: Start date: July 2026 End date: October 2026

Will you construct during the wet season?
☐ Yes ☒ No

List and describe BMPs:

- Temporary and Permanent Seeding (BMP C120)
- Mulching (BMP C121)
- Straw Wattles (BMP C235)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

2.1.6 Element 6: Protect Slopes

West of the Cascade Mountains Crest

All cut and fill slopes will be designed, constructed, and protected in a manner that minimized erosion

Will steep slopes be present at the site during construction?
☐ Yes ☒ No

List and describe BMPs:

- Temporary and Permanent Seeding (BMP C120)
- Mulching (BMP C121)
- Straw Wattles (BMP C235)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

2.1.7 Element 7: Protect Drain Inlets

All storm drain inlets and culverts made operable during construction shall be protected to prevent unfiltered or untreated water from entering the drainage conveyance system. However, the first priority is to keep all access roads clean of sediment and keep street wash water separate from entering storm drains until treatment can be provided. Storm Drain Inlet Protection (BMP C220) will be implemented for all drainage inlets and culverts that could potentially be impacted by sediment-laden runoff on and near the project site. Inlets will be inspected weekly at a minimum and daily during storm events.

List and describe BMPs:

- Storm Drain Inlet Protection (C220)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

2.1.8 Element 8: Stabilize Channels and Outlets

Where site runoff is to be conveyed in channels, or discharged to a stream or some other natural drainage point, efforts will be taken to prevent downstream erosion.

Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches, will be installed at the outlets of all conveyance systems.

List and describe BMPs:

- Outlet Protection (BMP C209)

Installation Schedules:TBD

Inspection and Maintenance plan: N/A

Responsible Staff: N/A

2.1.9 Element 9: Control Pollutants

The following pollutants are anticipated to be present on-site:

Table 2 – Pollutants

Pollutant (List pollutants and source, if applicable)
Vehicles and construction equipment
Excavation and tunneling spoils deswatering waste
Concrete and grout
Solid Waste

All pollutants, including waste materials and demolition debris, that occur onsite shall be handled and disposed of in a manner that does not cause contamination of stormwater. Good housekeeping and preventative measures will be taken to ensure that the site will be kept clean, well organized, and free of debris.

Vehicles, construction equipment, and/or petroleum product storage/dispensing:

- All vehicles, equipment, and petroleum product storage/dispensing areas will be inspected regularly to detect any leaks or spills, and to identify maintenance needs to prevent leaks or spills.
- On-site fueling tanks and petroleum product storage containers shall include secondary containment.
- Spill prevention measures, such as drip pans, will be used when conducting maintenance and repair of vehicles or equipment.
- In order to perform emergency repairs on site, temporary plastic will be placed beneath and, if raining, over the vehicle.
- Contaminated surfaces shall be cleaned immediately following any discharge or spill incident.

Excavation and tunneling spoils dewatering waste

- Dewatering BMPs and BMPs specific to the exaction and tunneling (including handling of contaminated soils) are discussed under Element 10

Concrete and grout:

- Process water and slurry resulting from concrete work will be prevented from entering the waters of the State by implementing:

    - Concrete Handling measures (BMP C151)
    - Sawcutting and Surfacing Pollution Prevention (BMP C152)
    - Concrete Washout Area (BMP C154)

Solid Waste:

- Solid waste will be stored in secure, clearly marked containers. Per:
    - Material Delivery, Storage and Containment (BMP C153)

List and describe BMPs:

- Sawcutting and Surfacing Pollution Prevention (BMP C152)
- Material Delivery, Storage and Containment (BMP C153)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

Will maintenance, fueling, and/or repair of heavy equipment and vehicles occur on-site?
☐ Yes ☒ No

List and describe BMPs: N/A

Installation Schedules: N/A

Inspection and Maintenance plan: N/A

Responsible Staff: N/A

Will wheel wash or tire bath system BMPs be used during construction?
☐ Yes ☒ No

List and describe BMPs:

- N/A

Installation Schedules: N/A

Inspection and Maintenance plan: N/A

Responsible Staff: N/A

Will pH-modifying sources be present on-site?
☒ Yes ☐ No

Table 3 – pH-Modifying Sources

☐	None
☐	Bulk cement
☐	Cement kiln dust
☐	Fly ash
☐	Other cementitious materials
☒	New concrete washing or curing waters

☒	Waste streams generated from concrete grinding and sawing
☐	Exposed aggregate processes
☐	Dewatering concrete vaults
☐	Concrete pumping and mixer washout waters
☐	Recycled concrete
☐	Recycled concrete stockpiles
☐	Other (i.e., calcium lignosulfate) [please describe:]

List and describe BMPs:

- Sawcutting and Surfacing Pollution Prevention (BMP C152)
- Concrete Handling (BMP C151)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

Concrete trucks must not be washed out onto the ground, or into storm drains, open ditches, streets, or streams. Excess concrete must not be dumped on-site, except in designated concrete washout areas with appropriate BMPs installed.

Will uncontaminated water from water-only based shaft drilling for construction of building, road, and bridge foundations be infiltrated provided the wastewater is managed in a way that prohibits discharge to surface waters?
☐ Yes ☒ No

List and describe BMPs: N/A

Installation Schedules: N/A

Inspection and Maintenance plan: N/A

Responsible Staff: N/A

2.1.11 Element 10: Control Dewatering

Per the geotechnical explorations, the groundwater level is below planned excavations, therefore dewatering is not expected as part of this project.

Table 4 – Dewatering BMPs

☐	Infiltration
☐	Transport off-site in a vehicle (vacuum truck for legal disposal)
☐	Ecology-approved on-site chemical treatment or other suitable treatment technologies
☐	Sanitary or combined sewer discharge with local sewer district approval (last resort)
☐	Use of sedimentation bag with discharge to ditch or swale (small volumes of localized dewatering)

List and describe BMPs: N/A

Installation Schedules: N/A

Inspection and Maintenance plan: N/A

Responsible Staff: N/A

2.1.12 Element 11: Maintain BMPs

All temporary and permanent Erosion and Sediment Control (ESC) BMPs shall be maintained and repaired as needed to ensure continued performance of their intended function.

Maintenance and repair shall be conducted in accordance with each particular BMP specification (see *Volume II of the SWMMWW*).

Visual monitoring of all BMPs installed at the site will be conducted at least once every calendar week and within 24 hours of any stormwater or non-stormwater discharge from the site. If the site becomes inactive and is temporarily stabilized, the inspection frequency may be reduced to once every calendar month.

All temporary ESC BMPs shall be removed within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed.

Trapped sediment shall be stabilized on-site or removed. Disturbed soil resulting from removal of either BMPs or vegetation shall be permanently stabilized.

Additionally, protection must be provided for all BMPs installed for the permanent control of stormwater from sediment and compaction. BMPs that are to remain in place following completion of construction shall be examined and restored to full operating condition. If sediment enters these BMPs during construction, the sediment shall be removed and the facility shall be returned to conditions specified in the construction documents.

List and describe BMPs:

- Material on Hand (BMP C150)
- Certified Erosion and Sediment Control Lead (BMP C160)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

Material on Hand (BMP C150)

Certified Erosion and Sediment Control Lead (BMP C160)

2.1.13 Element 12: Manage the Project

The project will be managed based on the following principles:

- Projects will be phased to the maximum extent practicable and seasonal work limitations will be taken into account.
- Inspection and monitoring:
    - Inspection, maintenance and repair of all BMPs will occur as needed to ensure performance of their intended function.
    - Site inspections and monitoring will be conducted in accordance with Special Condition S4 of the CSWGP. Sampling locations are indicated on the Site Map. Sampling station(s) are located in accordance with applicable requirements of the CSWGP.
- Maintain an updated SWPPP.
    - The SWPPP will be updated, maintained, and implemented in accordance with Special Conditions S3, S4, and S9 of the CSWGP.

As site work progresses the SWPPP will be modified routinely to reflect changing site conditions. The SWPPP will be reviewed monthly to ensure the content is current.

Table 5 – Management

☒	Design the project to fit the existing topography, soils, and drainage patterns
☒	Emphasize erosion control rather than sediment control
☒	Minimize the extent and duration of the area exposed
☒	Keep runoff velocities low
☒	Retain sediment on-site
☒	Thoroughly monitor site and maintain all ESC measures
☒	Schedule major earthwork during the dry season
☐	Other (please describe)

List and describe BMPs:

- Materials on Hand (BMP C150)
- Certified Erosion and Sedimentary Control Lead (BMP C160)
- Scheduling (BMP 162)

Installation Schedules: TBD

Inspection and Maintenance plan: TBD

Responsible Staff: TBD

Table 6 – BMP Implementation Schedule

Phase of Construction Project	**Stormwater BMPs**	**Date**	**Wet/Dry Season**
[Insert construction activity]	[Insert BMP]	[MM/DD/YYYY]	[Insert Season]
Phase of Construction Project	**Stormwater BMPs**	**Date**	**Wet/Dry Season**

[Insert construction activity]	[Insert BMP]	[MM/DD/YYYY]	[Insert Season]

2.1.14 Element 13: Protect Low Impact Development (LID) BMPs

On-site stormwater management BMPs used for runoff from roofs and other hard surfaces include: splash block dispersion and reverse sloped sidewalks. The areas on the site to be used for these BMPs shall be protected from siltation and compaction during constructing by sequencing the construction in a fashion to install these BMPs at the latter part of the construction grading operations, by excluding equipment from the BMPs and the associated areas, and by using the erosion and sedimentation control BMPs listed below.

The specific BMPs for runoff from roofs and other hard surfaces for this project include:

- BMP C102: Buffer Zone
- BMP C103: High Visibility Fence

3 Pollution Prevention Team

Table 7 – Team Information

Title	Name(s)	Phone Number
Certified Erosion and Sediment Control Lead (CESCL)	TBD	TBD
Resident Engineer	TBD	TBD
Emergency Ecology Contact	TBD	TBD
Emergency Permittee/ Owner Contact	TBD	TBD
Non-Emergency Owner Contact	TBD	TBD
Monitoring Personnel	TBD	TBD
Ecology Regional Office	Washington State Northwest Region	425-649-7000

4 Monitoring and Sampling Requirements

Monitoring includes visual inspection, sampling for water quality parameters of concern, and documentation of the inspection and sampling findings in a site log book. A site log book will be maintained for all on-site construction activities and will include:

- A record of the implementation of the SWPPP and other permit requirements
- Site inspections
- Stormwater sampling data

File a blank form under Appendix D.

The site log book must be maintained on-site within reasonable access to the site and be made available upon request to Ecology or the local jurisdiction.

Numeric effluent limits may be required for certain discharges to 303(d) listed waterbodies. See CSWGP Special Condition S8 and Section 5 of this template.

4.1 Site Inspection

Site inspections will be conducted at least once every calendar week and within 24 hours following any discharge from the site. For sites that are temporarily stabilized and inactive, the required frequency is reduced to once per calendar month.

The discharge point(s) are indicated on the Site Map (see Appendix A) and in accordance with the applicable requirements of the CSWGP.

4.2 Stormwater Quality Sampling

4.2.1 Turbidity Sampling

Requirements include calibrated turbidity meter or transparency tube to sample site discharges for compliance with the CSWGP. Sampling will be conducted at all discharge points at least once per calendar week.

Method for sampling turbidity:

Turbidity will be sampled with the method outlined in the NPDES permit.

Table 8 – Turbidity Sampling Method

☒	Turbidity Meter/Turbidimeter (required for disturbances 5 acres or greater in size)
☐	Transparency Tube (option for disturbances less than 1 acre and up to 5 acres in size)

The benchmark for turbidity value is 25 nephelometric turbidity units (NTU) and a transparency less than 33 centimeters.

If the discharge's turbidity is 26 to 249 NTU **or** the transparency is less than 33 cm but equal to or greater than 6 cm, the following steps will be conducted:

1. Review the SWPPP for compliance with Special Condition S9. Make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.
2. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible. Address the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
3. Document BMP implementation and maintenance in the site log book.

If the turbidity exceeds 250 NTU **or** the transparency is 6 cm or less at any time, the following steps will be conducted:

1. Telephone or submit an electronic report to the applicable Ecology Region's Environmental Report Tracking System (ERTS) within 24 hours.
    - **Central Region** (Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima): (509) 575-2490 or http://www.ecy.wa.gov/programs/spills/forms/nerts_online/CRO_nerts_online.html
    - **Eastern Region** (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman): (509) 329-3400 or http://www.ecy.wa.gov/programs/spills/forms/nerts_online/ERO_nerts_online.html
    - **Northwest Region** (King, Kitsap, Island, San Juan, Skagit, Snohomish, Whatcom): (425) 649-7000 or http://www.ecy.wa.gov/programs/spills/forms/nerts_online/NWRO_nerts_online.html
    - **Southwest Region** (Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, Wahkiakum,): (360) 407-6300 or http://www.ecy.wa.gov/programs/spills/forms/nerts_online/SWRO_nerts_online.html
2. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible. Address the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period
3. Document BMP implementation and maintenance in the site log book.
4. Continue to sample discharges daily until one of the following is true:
    - Turbidity is 25 NTU (or lower).
    - Transparency is 33 cm (or greater).
    - Compliance with the water quality limit for turbidity is achieved.
        - 1 - 5 NTU over background turbidity, if background is less than 50 NTU
        - 1% - 10% over background turbidity, if background is 50 NTU or greater
    - The discharge stops or is eliminated.

4.2.2 pH Sampling

pH monitoring is required for "Significant concrete work" (i.e., greater than 1000 cubic yards poured concrete over the life of the project). The use of recycled concrete or engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD] or fly ash) also requires pH monitoring.

For significant concrete work, pH sampling will start the first day concrete is poured and continue until it is cured, typically three (3) weeks after the last pour.

For engineered soils and recycled concrete, pH sampling begins when engineered soils or recycled concrete are first exposed to precipitation and continues until the area is fully stabilized.

If the measured pH is 8.5 or greater, the following measures will be taken:

1. Prevent high pH water from entering storm sewer systems or surface water.
2. Adjust or neutralize the high pH water to the range of 6.5 to 8.5 su using appropriate technology such as carbon dioxide (CO_2) sparging (liquid or dry ice).
3. Written approval will be obtained from Ecology prior to the use of chemical treatment other than CO_2 sparging or dry ice.

Method for sampling pH:

pH will be sampled per the method outlined in the NPDES permit.

Table 9 – pH Sampling Method

☐	pH meter
☐	pH test kit
☐	Wide range pH indicator paper

5 Discharges to 303(d) or Total Maximum Daily Load (TMDL) Waterbodies

5.1 303(d) Listed Waterbodies

Is the receiving water 303(d) (Category 5) listed for turbidity, fine sediment, phosphorus, or pH?

☐ Yes ☒ No

List the impairment(s):

5.2 TMDL Waterbodies

Waste Load Allocation for CWSGP discharges:

The proposed development is not discharging to a TMDL Waterbody

List and describe BMPs:

N/A

Discharges to TMDL receiving waterbodies will meet in-stream water quality criteria at the point of discharge.

The Construction Stormwater General Permit Proposed New Discharge to an Impaired Water Body form is included in Appendix F.

6 Reporting and Record Keeping

6.1 Record Keeping

6.1.1 Site Log Book

A site log book will be maintained for all on-site construction activities and will include:

- A record of the implementation of the SWPPP and other permit requirements
- Site inspections
- Sample logs

6.1.2 Records Retention

Records will be retained during the life of the project and for a minimum of three (3) years following the termination of permit coverage in accordance with Special Condition S5.C of the CSWGP.

Permit documentation to be retained on-site:

- CSWGP
- Permit Coverage Letter
- SWPPP
- Site Log Book

Permit documentation will be provided within 14 days of receipt of a written request from Ecology. A copy of the SWPPP or access to the SWPPP will be provided to the public when requested in writing in accordance with Special Condition S5.G.2.b of the CSWGP.

6.1.3 Updating the SWPPP

The SWPPP will be modified if:

- Found ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site.
- There is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

The SWPPP will be modified within seven (7) days if inspection(s) or investigation(s) determine additional or modified BMPs are necessary for compliance. An updated timeline for BMP implementation will be prepared.

6.2 Reporting

6.2.1 Discharge Monitoring Reports

Cumulative soil disturbance is one (1) acre or larger; therefore, Discharge Monitoring Reports (DMRs) will be submitted to Ecology monthly. If there was no discharge during a given monitoring period the DMR will be submitted as required, reporting "No Discharge". The DMR due date is fifteen (15) days following the end of each calendar month.

DMRs will be reported online through Ecology's WQWebDMR System.

6.2.2 Notification of Noncompliance

If any of the terms and conditions of the permit is not met, and the resulting noncompliance may cause a threat to human health or the environment, the following actions will be taken:

1. Ecology will be notified within 24-hours of the failure to comply by calling the applicable Regional office ERTS phone number (Regional office numbers listed below).
2. Immediate action will be taken to prevent the discharge/pollution or otherwise stop or correct the noncompliance. If applicable, sampling and analysis of any noncompliance will be repeated immediately and the results submitted to Ecology within five (5) days of becoming aware of the violation.
3. A detailed written report describing the noncompliance will be submitted to Ecology within five (5) days, unless requested earlier by Ecology.

Anytime turbidity sampling indicates turbidity is 250 NTUs or greater, or water transparency is 6 cm or less, the Ecology Regional office will be notified by phone within 24 hours of analysis as required by Special Condition S5.A of the CSWGP.

- **Northwest Region** at (425) 649-7000 for Island, King, Kitsap, San Juan, Skagit, Snohomish, or Whatcom County

Include the following information:

1. Your name and / Phone number
2. Permit number
3. City / County of project
4. Sample results
5. Date / Time of call
6. Date / Time of sample
7. Project name

In accordance with Special Condition S4.D.5.b of the CSWGP, the Ecology Regional office will be notified if chemical treatment other than CO_2 sparging is planned for adjustment of high pH water.

A. Site Map
B. BMP Detail
C. Correspondence
N/A
D. Site Inspection Form
E. Construction Stormwater General Permit (CSWGP)
F. 303(d) List Waterbodies / TMDL Waterbodies Information
G. Contaminated Site Information – NOT USED
H. Engineering Calculations – NOT USED

Appendix A – Site Map

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Stamp

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COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING
1191 SECOND AVENUE, SUITE 1100
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(206) 343-0460
www.cplinc.com

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Tulalip Tela Gym

7607 Totem Beach Road
Marysville, WA 98271

Permit Set

Grading and Paving Plan

ISSUANCE

No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW

DOH CRS #1234
PERMIT #1234

SHEET NO

C300

Appendix B – BMP Details

4.1 Source Control BMPs

BMP C101: Preserving Natural Vegetation

Purpose

Preserving natural vegetation helps reduce erosion and surface runoff.

Conditions of Use

Natural vegetation should be preserved on steep slopes, near perennial and intermittent watercourses or swales, and on building sites in wooded areas.

Design and Installation Specifications

Phase construction to preserve natural vegetation on the project site for as long as possible during the construction period.

Fence or clearly mark areas around trees that are to be saved. Where feasible, do not disturb ground within the dripline of trees that are to be saved.

Do not place fill of more than six inches depth within the dripline of trees that are to be saved.

If roots of plants intended to be saved must be cut due to excavations:

- Cut as few roots as possible, and cut them cleanly.
- Paint cut root ends with a wood dressing such as asphalt base paint.
- Backfill excavations in these areas as soon as possible.

Maintenance Standards

Inspect flagged and/or fenced areas regularly to make sure flagging or fencing has not been removed or damaged. If the flagging or fencing has been damaged or visibility reduced, it shall be repaired or replaced immediately and visibility restored.

If tree roots have been exposed or injured, "prune" cleanly with an appropriate pruning saw or loppers directly above the damaged roots and recover with native soils. Treatment of sap flowing trees (fir, hemlock, pine, soft maples) is not advised as sap forms a natural healing barrier.

BMP C102: Buffer Zones

Purpose

Buffer zones are undisturbed areas or strips of natural vegetation or an established suitable planting that reduce soil erosion and runoff velocities.

Conditions of Use

Note: Use of buffer zones located in critical areas requires compliance with Chapter 30.62A SCC. Natural buffer zones are used along streams, wetlands and other bodies of water that need protection from erosion and sedimentation. Vegetative buffer zones can be used to protect natural swales and can be incorporated into the natural landscaping of an area.

Design and Installation Specifications

Preserve natural vegetation or plantings in clumps, blocks, or strips where feasible..

Leave all unstable steep slopes in natural vegetation.

Mark clearing limits with high visibility fence meeting the requirements of BMP C103, and keep all equipment and construction debris out of buffer zones.

Keep all excavations outside the dripline of trees and shrubs.

Do not push debris or extra soil into the buffer zone area.

Maintenance Standards

Inspect the area frequently to make sure flagging remains in place and the area remains undisturbed.

BMP C103: High Visibility Fence

Purpose

High visibility fencing is intended to:

- restrict clearing to approved limits;
- prevent disturbance of sensitive areas, their buffers, and other areas required to be left undisturbed;
- limit construction traffic to designated construction entrances or roads; and,
- protect areas where marking with survey tape may not provide adequate protection.

Conditions of Use

See purpose.

Design and Installation Specifications

High visibility fence shall be either plastic or metal fence meeting the requirements of WSDOT Standard Specification 9-14.5(8) High Visibility Fencing.

Fencing shall be installed in accordance with WSDOT Standard Plan I-10.10-01 High Visibility Fence.

Fabric silt fence may be installed to serve as high visibility fence, provided the fence materials meet all specifications for BMP C103.

Fences shall not be wired or stapled to trees.

Maintenance Standards

If the fence has been damaged or visibility reduced, it shall be repaired or replaced immediately and visibility restored.

BMP C107: Construction Road/Parking Area Stabilization

Purpose

Stabilizing subdivision roads, parking areas, and other onsite vehicle transportation routes immediately after grading reduces erosion caused by construction traffic or runoff.

Conditions of Use

Permanent and temporary roads and parking areas used for construction traffic shall be stabilized.

High Visibility Fencing (BMP C103) shall be installed to limit the access of vehicles to only those roads and parking areas that are stabilized.

Design and Installation Specifications

On areas that will receive asphalt as part of the project, install the first lift as soon as possible.

A 6-inch depth of 2- to 4-inch crushed rock, gravel base, or crushed surfacing base course shall be applied immediately after grading or utility installation. A 4-inch course of asphalt treated base (ATB) may also be used, or the road/parking area may be paved. If cement or cement kiln dust is used for road base stabilization, pH monitoring and BMPs are necessary to evaluate and minimize the effects on stormwater. If the area will not be used for permanent roads, parking areas, or structures, a 6-inch depth of hog fuel may also be used. Whenever possible, construction roads and parking areas shall be placed on a firm, compacted subgrade.

Temporary road gradients shall not exceed 15%. If road runoff is concentrated in a drainage ditch, the runoff shall be routed to a sediment control BMP acceptable for using in treating concentrated flow. If feasible, road runoff may be allowed to sheetflow into a vegetated area meeting the requirements of BMP C234 – Vegetated Strip.

Storm drain inlets shall be protected to prevent sediment-laden water entering the storm drain system (see BMP C220).

Maintenance Standards

Inspect stabilized areas regularly, especially after large storm events.

Crushed rock, gravel base, hog fuel, etc. shall be added as required to maintain a stable driving surface and to stabilize any areas that have eroded.

BMP C120: Temporary and Permanent Seeding

NOTE: Small projects permitted in accordance with SCC 30.63A.810 shall only use BMPs in this section that do not require the involvement of a licensed engineer.

Purpose

Seeding is intended to reduce erosion by stabilizing exposed soils. A well-established vegetative cover is one of the most effective methods of reducing erosion.

Conditions of Use

Use seeding throughout the project on disturbed areas that have reached final grade or that will remain unworked for more than 30 days.

Between July 1 and August 30 seeding requires irrigation until 75% grass cover is established.

Between October 1 and March 30 seeding requires a cover of mulch with straw or an erosion control blanket until 75% grass cover is established.

Inspect all disturbed areas in late August to early September and complete all seeding by September 30.

Design and Installation Specifications

General

Seed shall conform to WSDOT Standard Specification 9-14.2 Seed.

Unless contradicted by information stated below, temporary and permanent seeding shall be performed in accordance with WSDOT Standard Specification 8-01.3(2) Seeding, Fertilizing, and Mulching, Sections A-F.

Final seed application is restricted to the periods April 1 through June 30 and September 1 through October 1.

Use of polyacrylamide (PAM) shall conform to the requirements of BMP C126.

Seed and mulch all disturbed areas not otherwise vegetated at final site stabilization. Final stabilization means the completion of all soil disturbing activities at the site and the establishment of a permanent vegetative cover, or equivalent permanent stabilization measures (such as pavement, riprap, gabions or geotextiles) which will prevent erosion.

Seed may be installed by hand or by hydroseeding. Hand seeding may be used for establishing temporary vegetation or for establishing permanent vegetation in areas less than one acre.

Apply mulch to all seeded areas, either on top of the seed or simultaneously by hydroseeding. See BMP C121: Mulching for specifications.

BMP C121: Mulching

Purpose

The purpose of mulching soils is to provide immediate temporary protection from erosion, and to enhance plant establishment by conserving moisture; holding fertilizer, seed, and topsoil in place; and moderating soil temperatures.

Conditions of Use

As a temporary cover measure, mulch shall be used:

- For less than 30 days on disturbed areas that require cover.
- At all times for seeded areas, especially during the wet season and during the hot summer months.
- During the wet season on slopes steeper than 3H:1V with more than 10 feet of vertical relief.

Design and Installation Specifications

Mulch materials and application rates shall conform to WSDOT Standard Specification 9-14.4 and subsections of that section pertaining to mulch materials and application, and to WSDOT Highway Runoff Manual BMP 6A-2.2 – Mulching.

Where the option of "Compost" is selected, it should be a coarse compost that meets the following size gradations when tested in accordance with the U.S. Composting Council "Test Methods for the Examination of Compost and Composting" (TMECC) Test Method 02.02-B.

- Minimum 100% passing 3" sieve openings
- Minimum 90% passing 1" sieve openings
- Minimum 70% passing ¾" sieve openings
- Minimum 40% passing ¼" sieve openings

For seeded areas mulch may be made up of cottonseed meal; fibers made of wood, recycled cellulose, hemp, kenaf; compost; or blends of these.

Tackifier, if used, shall conform to WSDOT Standard Specifications 9-14.4(7), 9-14.4(7)A, and 9-14.4(7)B.

Add seed and fertilizer at time of application.

Apply mulch to a minimum thickness of two inches, and increase thickness as needed until ground is not visible under mulch.

Mulch used within the ordinary high-water mark of surface waters should be selected to minimize potential flotation of organic matter. Composted organic materials have higher specific gravities (densities) than straw, wood, or chipped material.

BMP C150: Materials On Hand

Purpose

Quantities of erosion prevention and sediment control materials shall be kept on the project site at all times to be used for emergency situations such as unexpected heavy summer rains. Having these materials on-site reduces the time needed to implement BMPs when inspections indicate that existing BMPs are not meeting the SWPPP requirements.

Conditions of Use

Construction projects of any size or type can benefit from having materials on hand. A small commercial development project could have a roll of plastic and some gravel available for immediate protection of bare soil and temporary berm construction. A large earthwork project, such as highway construction, might have several tons of straw, several rolls of plastic, flexible pipe, sandbags, geotextile fabric and steel "T" posts.

Materials are stockpiled and readily available before any site clearing, grubbing, or earthwork begins. A large contractor or developer could keep a stockpile of materials that are available to be used on several projects.

If storage space at the project site is at a premium, the contractor may maintain the materials at their office or yard, provided that the office or yard is less than an hour from the project site.

Design and Installation Specifications

Depending on project type, size, complexity, and length, materials and quantities will vary. A good minimum that will cover numerous situations includes:

Material
Clear Plastic, 6 mil
Drainpipe, 6 or 8 inch diameter
Sandbags, filled
Straw Bales for mulching,
Quarry Spalls
Washed Gravel
Geotextile Fabric
Catch Basin Inserts
Steel "T" Posts

Maintenance Standards

All materials with the exception of the quarry spalls, steel "T" posts, and gravel should be kept covered and out of both sun and rain.

BMP C151: Concrete Handling

NOTE: Small projects permitted in accordance with SCC 30.63A.810 shall only use this BMP in a manner that does not require the involvement of a licensed engineer.

Purpose

Proper collection, handling and disposal of process water and slurry generated during concrete work, and of excess concrete, prevents these materials from contaminating waters of the state.

Conditions of Use

Any time concrete is used, these management practices shall be utilized. Concrete construction projects include, but are not limited to, the following:

- Curbs
- Sidewalks
- Roads
- Bridges
- Foundations
- Floors
- Runways

Design and Installation Specifications

Wash out concrete truck chutes, pumps, and internal components at an off-site location in accordance with applicable County, state, and federal regulations, or in designated concrete washout areas (see BMP C154). Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams.

Return unused concrete remaining in the truck and pump to the originating batch plant for recycling. Do not dump excess concrete on site, except in designated concrete washout areas.

Wash off hand tools including, but not limited to, screeds, shovels, rakes, floats, and trowels into formed areas only.

Wash equipment difficult to move, such as concrete pavers in areas that do not directly drain to natural or constructed stormwater conveyances.

Auxiliary concrete truck components (e.g. chutes and hoses) and small concrete handling equipment (e.g. hand tools, screeds, shovels, rakes, floats, trowels, and wheel-barrows) may be washed into formed areas awaiting concrete pour, or an upland site where the washwater will not contaminate surface or ground water.

Do not allow washdown from areas, such as concrete aggregate driveways, to drain directly to natural or constructed stormwater conveyances.

Contain washwater and leftover product in a lined container when no formed areas are available.

BMP C152: Sawcutting and Surfacing Pollution Prevention

Purpose

Proper collection, handling and disposal of process water and slurry generated during concrete sawcutting and surfacing work, and of excess concrete, prevents these materials from contaminating waters of the state.

Conditions of Use

Anytime sawcutting or surfacing operations take place, these management practices shall be utilized. Sawcutting and surfacing operations include, but are not limited to, the following:

- Sawing
- Coring
- Grinding
- Roughening
- Hydro-demolition
- Bridge and road surfacing

Design and Installation Specifications

Slurry and cuttings shall be vacuumed during cutting and surfacing operations.

Slurry and cuttings shall not remain on permanent concrete or asphalt pavement overnight.

Slurry and cuttings shall not drain to any natural or constructed drainage conveyance.

Collected slurry and cuttings shall be disposed of in a manner that does not violate groundwater or surface water quality standards.

Process water that is generated during hydro-demolition, surface roughening or similar operations shall not drain to any natural or constructed drainage conveyance and shall be disposed of in a manner that does not violate groundwater or surface water quality standards.

Cleaning waste material and demolition debris shall be handled and disposed of in a manner that does not cause contamination of water. If the area is swept with a pick-up sweeper, the material must be hauled out of the area to an appropriate disposal site.

Maintenance Standards

Continually monitor operations to determine whether slurry, cuttings, or process water could enter waters of the state. If inspections show that a violation of water quality standards could occur, stop operations and immediately implement preventive measures such as berms, barriers, secondary containment, and vacuum trucks.

BMP C153: Material Delivery, Storage and Containment

See Volume IV to determine appropriate BMPs for the project site.

BMP C154: Concrete Washout Facilities

Purpose

Concrete washout facilities prevent or reduce the discharge of pollutants to stormwater from concrete waste by providing a designated area on a construction site.

Conditions of Use

Use a concrete washout facility if:

- Concrete is used as a construction material
- It is not possible to dispose of all concrete wastewater and washout off-site (ready mix plant, etc.).
- Concrete trucks, pumpers, or other concrete coated equipment are washed on-site.

Wash out concrete trucks at an off-site location in accordance with applicable County, state, and federal regulations, or in designated concrete washout facilities. Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or surface water bodies.

Excess concrete shall only be disposed of onsite in a designated concrete washout facility. Dispose of hardened concrete according to applicable sold waste regulations.

If less than 10 concrete trucks or pumpers need to be washed out on-site, the washwater may be disposed of in a formed area awaiting concrete or an upland disposal site where it will not contaminate surface or ground water. The upland disposal site shall be at least 50 feet from storm drains, open ditches, or surface water bodies.

Auxiliary concrete truck components (e.g. chutes and hoses) and small concrete handling equipment (e.g. hand tools, screeds, shovels, rakes, floats, trowels, and wheel-barrows) may be washed into formed areas awaiting concrete pour, or an upland site where the washwater will not contaminate surface or ground water.

Place a secure, non-collapsing, non-water collecting cover over the concrete washout facility prior to predicted wet weather to prevent accumulation and overflow of precipitation.

Design and Installation Specifications

A concrete washout facility may be an above-grade or a below-grade structure built on the site, or may be a prefabricated concrete washout container.

For concrete washout facility built on the site, use below-grade structures unless excavation is not practical.

Install a sign adjacent to each temporary concrete washout facility to inform concrete equipment operators to utilize the proper facilities.

Temporary concrete washout facilities shall be located a minimum of 50 feet from storm drains, open ditches, and surface water bodies.

Concrete washout facilities constructed on-site shall be constructed as shown in Figures 4.6 and 4.7. The minimum length and minimum width shall be 10 ft.

BMP C160: Certified Erosion and Sediment Control Lead

Purpose

The project proponent designates at least one person as the responsible representative in charge of erosion and sediment control (ESC), and water quality protection. The designated person shall be the Certified Erosion and Sediment Control Lead (CESCL) who is responsible for ensuring compliance with all local, state, and federal erosion and sediment control and water quality requirements.

Conditions of Use

A CESCL shall be made available on projects one acre or larger that discharge stormwater to surface waters of the state.

The CESCL shall:

Have a current certificate proving attendance in an erosion and sediment control training course that meets the minimum ESC training and certification requirements established by Ecology. (Ecology will maintain a list of ESC training and certification providers at: https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Certified-erosion-sediment-control.)

OR

Be a Certified Professional in Erosion and Sediment Control (CPESC). For additional information visit: www.cpesc.net.

Specification

The CESCL shall have authority to act on behalf of the contractor or developer and shall be available, or on-call, 24 hours per day throughout the period of construction.

A CESCL may provide inspection and compliance services for multiple construction projects in the same geographic region.

Duties and responsibilities of the CESCL shall include, but are not limited to the following:

- Maintaining permit file on site at all times which includes the Construction SWPPP and any associated permits and plans.
- Directing BMP installation, inspection, maintenance, modification, and removal.
- Updating all project drawings and the Construction SWPPP with changes made.
- Completing any sampling requirements including reporting results using WebDMR.
- Keeping daily logs, and inspection reports. Inspection reports should include:
- Inspection date/time.
- Weather information; general conditions during inspection and approximate amount of precipitation since the last inspection.
- A summary or list of all BMPs implemented, including observations of all erosion/sediment control structures or practices. The following shall be noted:

BMP C162: Scheduling

Purpose

Sequencing a construction project reduces the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking.

Conditions of Use

- The construction sequence schedule is an orderly listing of all major land-disturbing activities together with the necessary erosion and sedimentation control measures planned for the project. This type of schedule guides the contractor on work to be done before other work is started so that serious erosion and sedimentation problems can be avoided.
- Following a specified work schedule that coordinates the timing of land-disturbing activities and the installation of control measures is perhaps the most cost-effective way of controlling erosion during construction. The removal of surface ground cover leaves a site vulnerable to accelerated erosion. Construction procedures that limit land clearing provide timely installation of erosion and sedimentation controls, and restore protective cover quickly can significantly reduce the erosion potential of a site.

Design Considerations

Minimize construction during rainy periods.

Schedule projects to disturb only small portions of the site at any one time. Complete grading as soon as possible. Immediately stabilize the disturbed portion before grading the next portion. Practice staged seeding in order to revegetate cut and fill slopes as the work progresses.

BMP C209: Outlet Protection

NOTE: Small projects permitted in accordance with SCC 30.63A.810 shall only use this BMP in a manner that does not require the involvement of a licensed engineer.

Purpose

Outlet protection prevents scour at conveyance outlets and minimizes the potential for downstream erosion by reducing the velocity of concentrated stormwater flows.

Conditions of Use

Outlet protection is required at the outlets of all ponds, pipes, ditches, or other conveyances, and where runoff is conveyed to a natural or manmade drainage feature such as a stream, wetland, lake, or ditch.

Design and Installation Specifications

The receiving channel at the outlet of a culvert shall be protected from erosion by rock lining a minimum of 6 feet downstream and extending up the channel sides a minimum of 1–foot above the maximum tailwater elevation or 1-foot above the crown, whichever is higher. For large pipes (more than 18 inches in diameter), the outlet protection lining of the channel is lengthened to four times the diameter of the culvert.

Standard wingwalls, and tapered outlets and paved channels should also be considered when appropriate for permanent culvert outlet protection.

Organic or synthetic erosion blankets, with or without vegetation, are usually more effective than rock, cheaper, and easier to install. Materials can be chosen using manufacturer product specifications. ASTM test results are available for most products and the designer can choose the correct material for the expected flow.

With low flows, vegetation (including sod) can be effective.

The following guidelines shall be used for riprap outlet protection:

- If the discharge velocity at the outlet is less than 5 fps (pipe slope less than 1%), use 2-inch to 8-inch riprap. Minimum thickness is 1 foot.
- For 5 to 10 fps discharge velocity at the outlet (pipe slope less than 3%), use 24-inch to 4-foot riprap. Minimum thickness is 2 feet.
- For outlets at the base of pipes sloping 10% or greater with a 10-foot vertical elevation drop, an energy dissipater shall be designed and constructed in accordance with EDDS Chapter 5-05L, Pipe Ends and Outfall Systems.

Filter fabric or erosion control blankets should always be used under riprap to prevent scour and channel erosion.

New pipe outfalls can provide an opportunity for low-cost fish habitat improvements. For example, an alcove of low-velocity water can be created by constructing the pipe outfall and associated energy dissipater back from the stream edge and digging a channel, over-widened to the upstream side, from the outfall. Overwintering juvenile and migrating adult salmonids may

BMP C220: Storm Drain Inlet Protection

Purpose

Storm drain inlet protection BMPs prevent coarse sediment from entering drainage systems prior to permanent stabilization of a disturbed area.

Conditions of Use

Use storm drain inlet protection where storm drain inlets are to be made operational before permanent stabilization of the disturbed drainage area. Provide protection for all storm drain inlets downslope and within 500 feet of a disturbed or construction area, unless the runoff that enters the catch basin will be conveyed to a sediment pond or trap.

Table 4.10 lists several options for inlet protection. All of the methods for storm drain inlet protection are prone to plugging and require a high frequency of maintenance. The maximum drainage area to a single protection BMP shall be 1 acre. Emergency overflows may be required where stormwater ponding would cause a hazard. If an emergency overflow is provided, additional end-of-pipe treatment may be required.

Table 4.10 Storm Drain Inlet Protection

Type of Inlet Protection	Emergency Overflow	Applicable for Paved/Earthen Surfaces	Conditions of Use
Drop Inlet Protection			
Excavated drop inlet protection	Yes, temporary flooding will occur	Earthen	Applicable for heavy flows. Easy to maintain. Large area Requirement: 30' X 30'/acre
Block and gravel drop inlet protection	Yes	Paved or Earthen	Applicable for heavy concentrated flows. Will not pond.
Gravel and wire drop inlet protection	No		Applicable for heavy concentrated flows. Will pond. Can withstand traffic.
Catch basin filters	Yes	Paved or Earthen	Frequent maintenance required.
Curb Inlet Protection			
Curb inlet protection with a wooden weir	Small capacity overflow	Paved	Used for sturdy, more compact installation.
Block and gravel curb inlet protection	Yes	Paved	Sturdy, but limited filtration.
Culvert Inlet Protection			
Culvert inlet sediment trap			18 month expected life.

Design and Installation Specifications

Excavated Drop Inlet Protection

- Excavated drop inlet protection is an excavated impoundment around the storm drain. Sediment settles out of the stormwater prior to entering the storm drain.
- Depth 1-2 ft as measured from the crest of the inlet structure.
- Side Slopes of excavation no steeper than 2:1.
- Minimum volume of excavation 35 cubic yards.
- Shape basin to fit site with longest dimension oriented toward the longest inflow area.
- Install provisions for draining to prevent standing water problems.
- Clear the area of all debris.
- Grade the approach to the inlet uniformly.
- Drill weep holes into the side of the inlet.
- Protect weep holes with screen wire and washed aggregate.
- Seal weep holes when removing structure and stabilizing area.
- Build a temporary dike downslope of the structure if necessary prevent bypass flow.

Block and Gravel Filter

- Block and gravel filter is a barrier formed around the storm drain inlet with standard concrete blocks and gravel. See Figure 4.16.
- Height 1 to 2 feet above inlet.
- Recess the first row 2 inches into the ground for stability.
- Support subsequent courses by placing a 2x4 through the block opening.
- Do not use mortar.
- Lay some blocks in the bottom row on their side for dewatering the pool.
- Place hardware cloth or comparable wire mesh with ½-inch openings over all block openings.
- Place gravel just below the top of blocks on slopes of 2:1 or flatter.
- An alternative design is a gravel donut.
- Inlet slope of 3H:1V.
- Outlet slope of 2H:1V.
- Provide a 1-foot wide level stone area between the structure and the inlet.
- Use inlet slope stones 3 inches in diameter or larger.
- Use gravel ½- to ¾-inch at a minimum thickness of 1 foot for the outlet slope.

Gravel and Wire Mesh Filter

- A gravel and wire mesh filter is a gravel barrier placed over the top of the inlet. This structure does not provide an overflow.
- Use hardware cloth or comparable wire mesh with ½-inch openings.
- Use coarse aggregate.
- Provide a height of 1 foot or more, 18 inches wider than inlet on all sides.
- Place wire mesh over the drop inlet so that the wire extends a minimum of 1-foot beyond each side of the inlet structure.
- If more than one strip of mesh is necessary, overlap the strips.
- Place coarse aggregate over the wire mesh.
- The depth of the gravel shall be at least 12 inches over the entire inlet opening and extend at least 18 inches on all sides.

Catchbasin filters

- Catchbasin filters should be designed by the manufacturer for use at construction sites. The limited sediment storage capacity increases the amount of inspection and maintenance required, which may be daily for heavy sediment loads. The maintenance requirements can be reduced by combining a catchbasin filter with another type of inlet protection. This type of inlet protection provides flow bypass without overflow and therefore may be a better method for inlets located along active rights-of-way.
- A BMP for dewatering must be provided at the site.
- The catch basin filter must have a high-flow bypass feature that will not clog under normal use at a construction site.
- Install the catchbasin filter according to the manufacturer's instructions.

Curb Inlet Protection with Wooden Weir

- Curb inlet protection with wooden weir is a barrier formed around a curb inlet with a wooden frame and gravel
- Use wire mesh with ½-inch openings.
- Use extra strength filter cloth.
- Construct a frame
- Attach the wire and filter fabric to the frame.
- Pile coarse washed aggregate against wire/fabric.
- Place weight on frame anchors.

Block and Gravel Curb Inlet Protection

- The block and gravel curb inlet protection is a barrier formed around an inlet with concrete blocks and gravel. See Figure 4.17.
- Use wire mesh with ½-inch openings.
- Place two concrete blocks on their sides abutting the curb at either side of the inlet opening. These are spacer blocks.
- Place a 2x4 stud through the outer holes of each spacer block to align the front blocks.
- Place blocks on their sides across the front of the inlet and abutting the spacer blocks.
- Place wire mesh over the outside vertical face.
- Pile coarse aggregate against the wire to the top of the barrier

Curb and gutter sediment barrier

- The curb and gutter sediment barrier is a sandbag or rock berm (riprap and aggregate) 3 feet high and 3 feet wide in a horseshoe shape. See Figure 4.18.
- Construct a horseshoe shaped berm, faced with coarse aggregate if using riprap, 3 feet high and 3 feet wide, at least 2 feet from the inlet.
- Construct a horseshoe shaped sedimentation trap on the outside of the berm sized to sediment trap standards for protecting a culvert inlet.

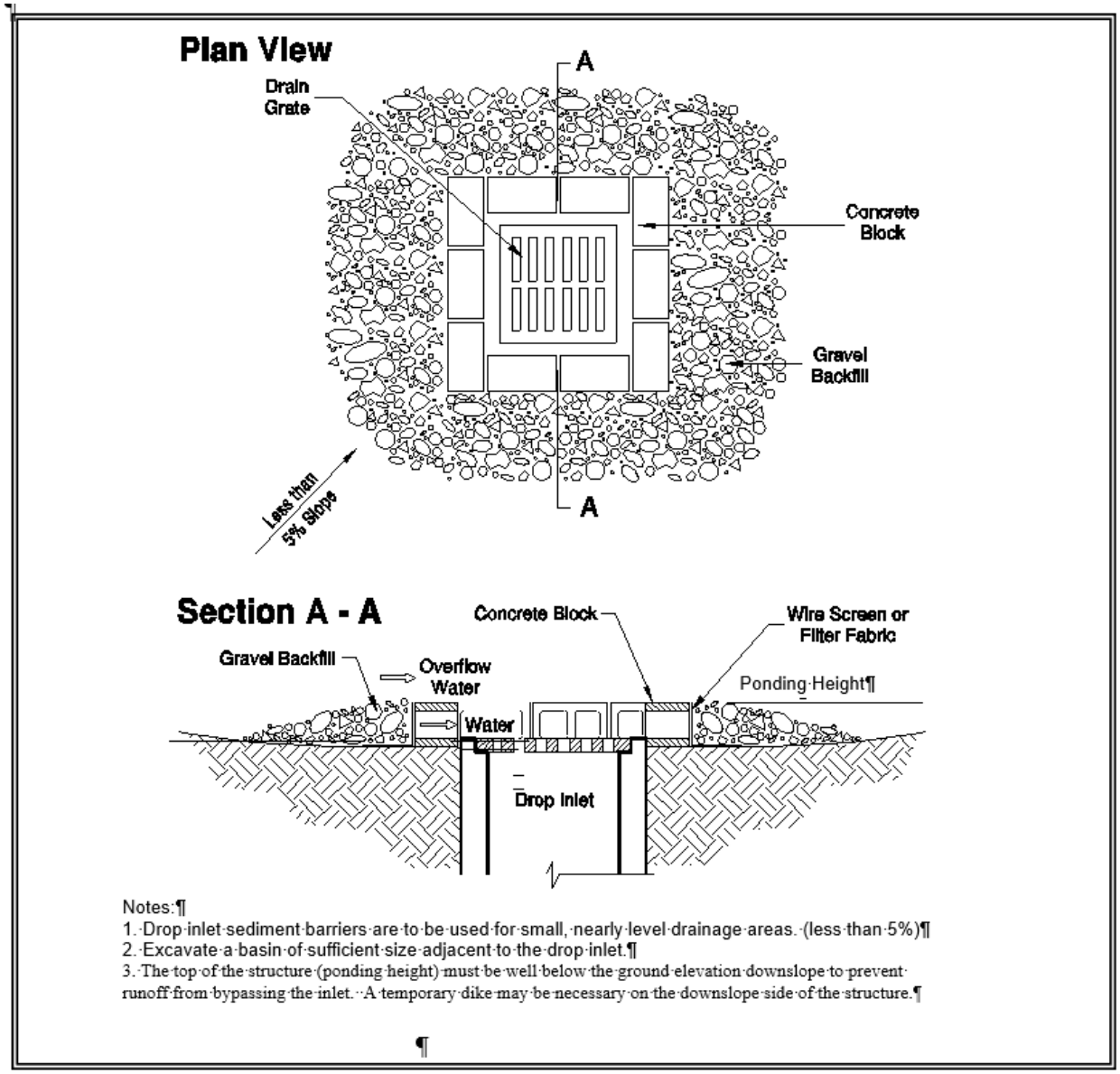

Figure 4.16 Block and Gravel Filter

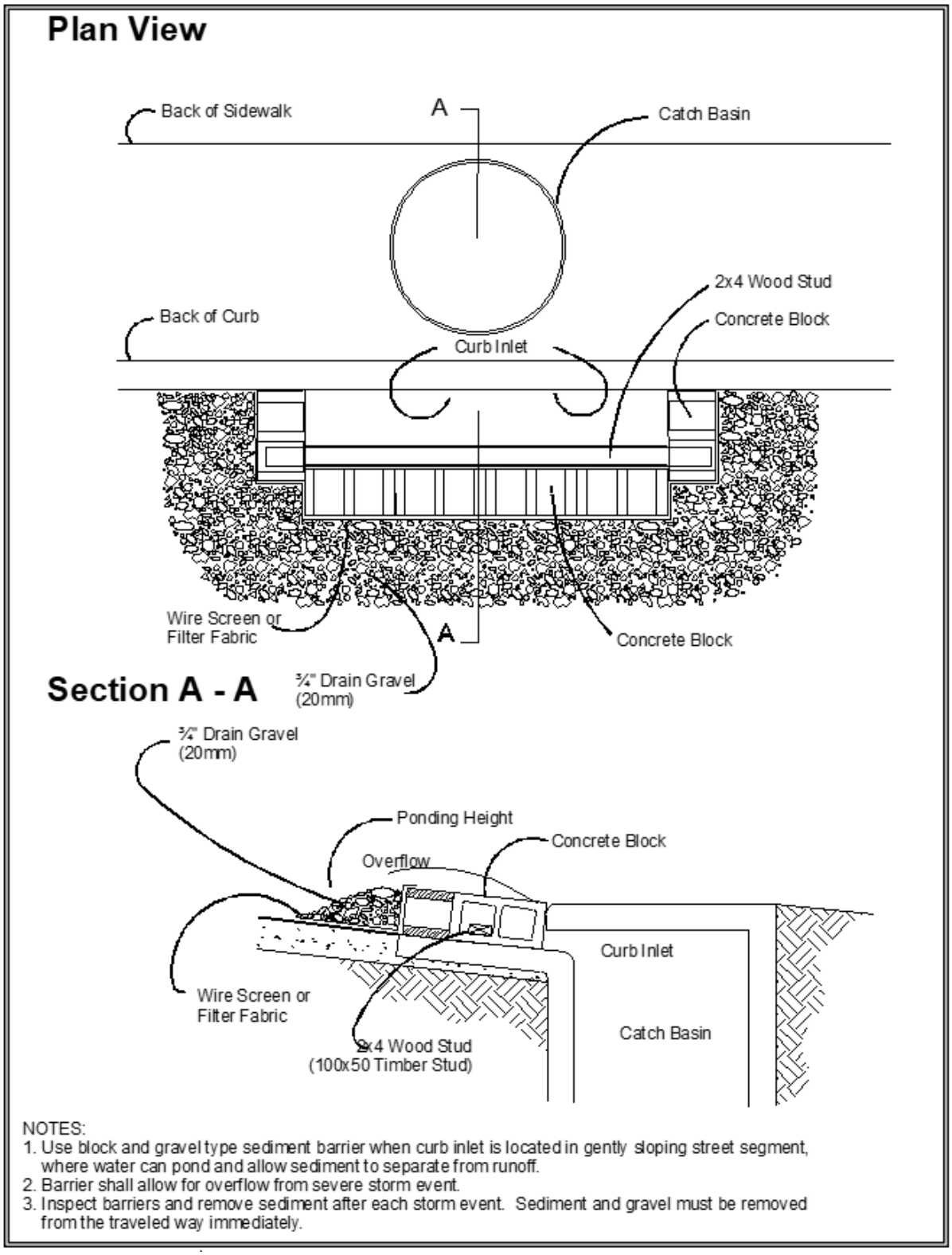

Figure 4.17 Block and Gravel Curb Inlet Protection

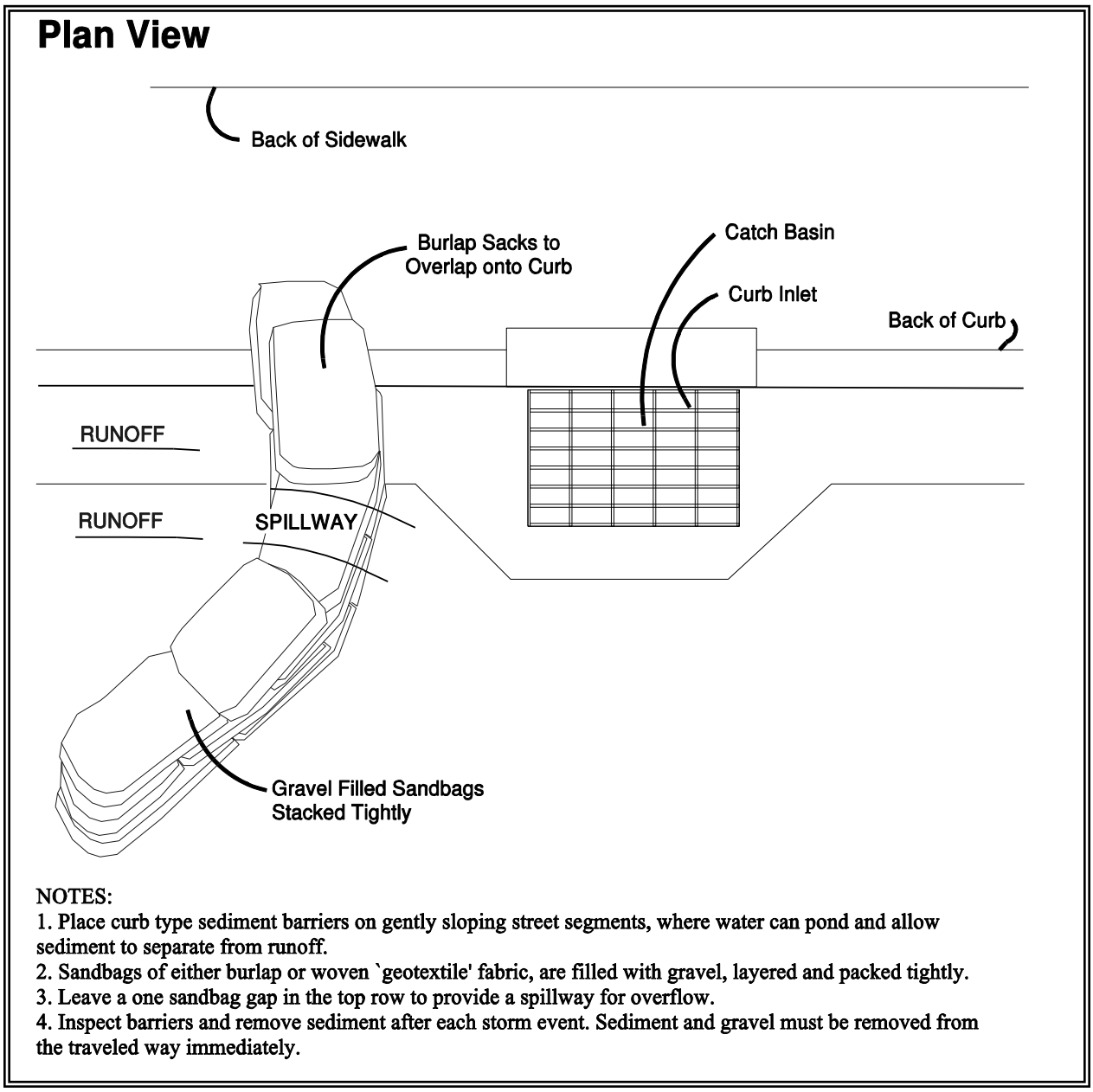

Figure 4.18 Curb and Gutter Barrier

Figure 4.19 RESERVED

Maintenance Standards

Catch basin filters must be inspected frequently, especially after storm events. If the insert becomes clogged, it should be cleaned or replaced.

Stone filters: If the stone filter becomes clogged with sediment, the stones must be pulled away from the inlet and cleaned or replaced.

Do not wash sediment into storm drains while cleaning. Spread all excavated material evenly over the surrounding land area or stockpile and stabilize as appropriate.

Approved equivalents

The Washington State Department of Ecology has approved products as able to meet the requirements of this BMP. Snohomish County may approve these products if they are used in accordance with all requirements of this BMP and all instructions and specifications provided by the manufacturer, plus additional requirements that may be established by the County.

BMP C233: Silt Fence

Purpose

A silt fence reduces the transport of coarse sediment from a construction site by providing a temporary physical barrier to sediment and reducing the runoff velocities of overland flow. See Figure 4.21 for details on silt fence construction.

Conditions of Use

Silt fence may be used downslope of all disturbed areas.

Silt fence is not intended to treat concentrated flows, nor is it intended to treat substantial amounts of overland flow. Any concentrated flows must be conveyed through the drainage system to a sediment pond. The only circumstance in which overland flow can be treated solely by a silt fence, rather than by a sediment pond, is when the area draining to the fence is one acre or less and flow rates are less than 0.5 cfs.

Silt fences should not be constructed in streams or used in V-shaped ditches. They are not an adequate method of silt control for anything deeper than sheet or overland flow.

Design and Installation Specifications

Use in combination with a sediment basin or other BMP.

The maximum slope steepness perpendicular to the fence line) shall be 1H:1V.

The maximum sheet or overland flow path length to the fence shall be 100 feet.

The maximum flow the silt fence shall be 0.5 cfs.

The geotextile used shall meet the standards set forth in 2008 WSDOT Standard Specifications, Section 9-33.1 Geosynthetic Material Requirements, Table 6.

Standard strength fabrics shall be supported with wire mesh, chicken wire, 2-inch x 2-inch wire, safety fence, or jute mesh to increase the strength of the fabric. Silt fence materials are available that have synthetic mesh backing attached.

Filter fabric material shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0°F. to 120°F.

100% biodegradable silt fence may be left in place after the project is completed.

Refer to Figure 4.21 for standard silt fence details.

The following Standard Notes shall be included in the construction documents.

- The contractor shall install and maintain temporary silt fences at the locations shown in the Plans.
- The silt fences shall be constructed in the areas of clearing, grading, or drainage prior to starting those activities.
- The minimum height of the top of silt fence shall be 2 feet and the maximum height shall be 2½ feet above the original ground surface.

- The filter fabric shall be sewn together at the point of manufacture, or at an approved location as determined by the Engineer, to form geotextile lengths as required. All sewn seams shall be located at a support post. Alternatively, two sections of silt fence can be overlapped, provided the contractor demonstrates to the satisfaction of the Engineer that the overlap is long enough and that the adjacent fence sections are close enough together to prevent silt laden water from escaping through the fence at the overlap.
- The filter fabric shall be attached on the up-slope side of the posts and support system with staples, wire, or in accordance with the manufacturer's recommendations. The filter fabric shall be attached to the posts in a manner that reduces the potential for tearing at the staples, wire, or other connection device.
- Support the filter fabric with wire or plastic mesh, dependent on the properties of the filter fabric selected for use. If wire or plastic mesh is used, the mesh shall be fastened securely to the up-slope of the posts with the filter fabric upslope of the mesh.
- Mesh support, if used, shall consist of steel wire with a maximum mesh spacing of 2 inches, or a prefabricated polymeric mesh. The grab tensile strength of the mesh shall be at least 180 lbs. Polymeric mesh must have equivalent resistance to ultraviolet radiation as the filter fabric used.
- The filter fabric at the bottom of the fence shall be buried in a trench to a minimum depth of 4 inches below the ground surface. The trench shall be backfilled and the soil tamped in place over the buried portion of the geotextile, such that no flow can pass beneath the fence and scouring cannot occur. If wire or polymeric back-up support mesh is used, the wire or polymeric mesh shall extend into the trench a minimum of 3 inches.
- Fence posts shall be placed or driven a minimum of 18 inches, provided that a minimum depth of 12 inches is allowed if topsoil or other soft subgrade soil is not present and a minimum depth of 18 inches cannot be reached. Fence post depths shall be increased by 6 inches if the fence is located on slopes of 3H:1V or steeper and the slope is perpendicular to the fence. If required post depths cannot be obtained, the posts shall be adequately secured by bracing or guying to prevent overturning of the fence due to sediment loading.
- Silt fences shall be located on contour as much as possible, except at the ends of the fence, where the fence shall be turned uphill such that the silt fence captures the runoff water and prevents water from flowing around the end of the fence.
- If the fence must cross contours, with the exception of the ends of the fence, a gravel check dam placed perpendicular to the back of the fence shall be used to minimize concentrated flow and erosion along the back of the fence. The gravel check dam shall be approximately 1-foot deep at the back of the fence. The dam shall be continued perpendicular to the fence at the same elevation until the top of the dam intercepts the ground surface behind the fence. Gravel check dams shall consist of crushed surfacing base course, gravel backfill for walls, or shoulder ballast. Gravel check dams shall be located every 10 feet along the fence where the fence must cross contours. The slope of the fence line where contours must be crossed shall not be steeper than 3H:1V.
- Wood, steel or equivalent posts shall be used. Wood posts shall have minimum dimensions of 2 inches by 2 inches by 3 feet minimum length, and shall be free of defects such as knots,

splits, or gouges. Steel posts shall consist of either size No. 6 rebar or larger, ASTM A 120 steel pipe with a minimum diameter of 1-inch, U, T, L, or C shape steel posts with a minimum weight of 1.35 lbs./ft. or other steel posts having equivalent strength and bending resistance to the post sizes listed. The spacing of the support posts shall be a maximum of 6 feet.

- Fence back-up support, if used, shall consist of steel wire with a maximum mesh spacing of 2 inches, or a prefabricated polymeric mesh. The strength of the wire or polymeric mesh shall be equivalent to or greater than 180 lbs. grab tensile strength. The polymeric mesh must be as resistant to ultraviolet radiation as the geotextile it supports.

Refer to Figure 4.22 for slicing method details. Install silt fence using the slicing method specification details follow.

- The base of both end posts must be at least 2 to 4 inches above the top of the silt fence fabric on the middle posts for ditch checks to drain properly. Use a hand level or string level, if necessary, to mark base points before installation.
- Install posts 3 to 4 feet apart in critical retention areas and 6 to 7 feet apart in standard applications.
- Install posts 24 inches deep on the downstream side of the silt fence, and as close as possible to the fabric, enabling posts to support the fabric from upstream water pressure.
- Install posts with the nipples facing away from the silt fence fabric.
- Attach the fabric to each post with three ties, all spaced within the top 8 inches of the fabric. Attach each tie diagonally 45 degrees through the fabric, with each puncture at least 1 inch vertically apart. In addition, each tie should be positioned to hang on a post nipple when tightening to prevent sagging.
- Wrap approximately 6 inches of fabric around the end posts and secure with 3 ties.
- No more than 24 inches of a 36-inch fabric is allowed above ground level.
- The installation should be checked and corrected for any deviation before compaction. Use a flat-bladed shovel to tuck fabric deeper into the ground if necessary.
- Compact the soil immediately next to the silt fence fabric with the front wheel of the tractor, skid steer, or roller exerting at least 60 pounds per square inch. Compact the upstream side first and then each side twice for a total of four trips.

Maintenance Standards

Repair damaged or deteriorated silt fence immediately

If concentrated flows are evident uphill of the fence, they must be intercepted and conveyed to a sediment pond.

Check the uphill side of the fence for signs of the fence clogging and acting as a barrier to flow and causing channelization of flows parallel to the fence. If this occurs, replace the fence or remove the trapped sediment.

Sediment deposits shall either be removed when the deposit reaches approximately one-third the height of the silt fence, or a second silt fence shall be installed.

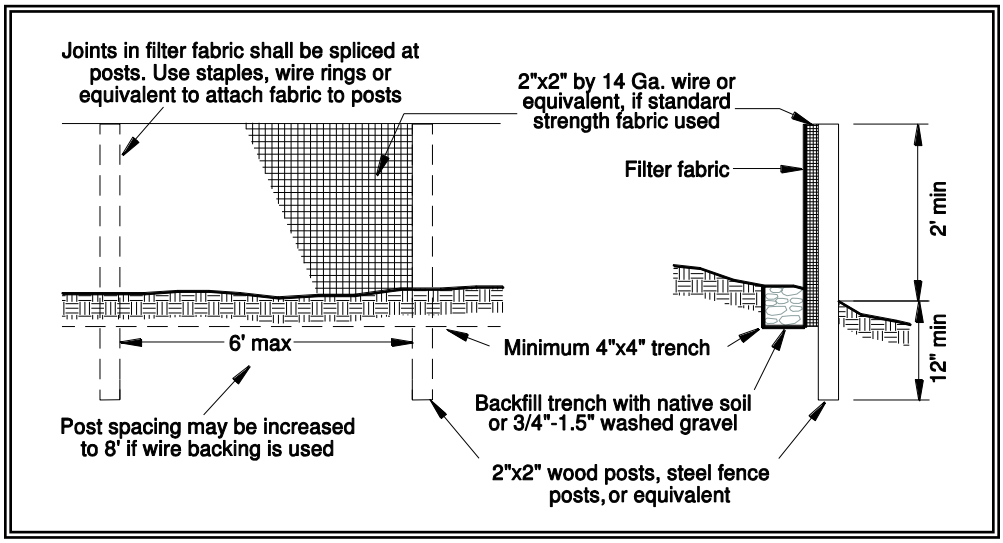

Figure 4.21 Silt Fence

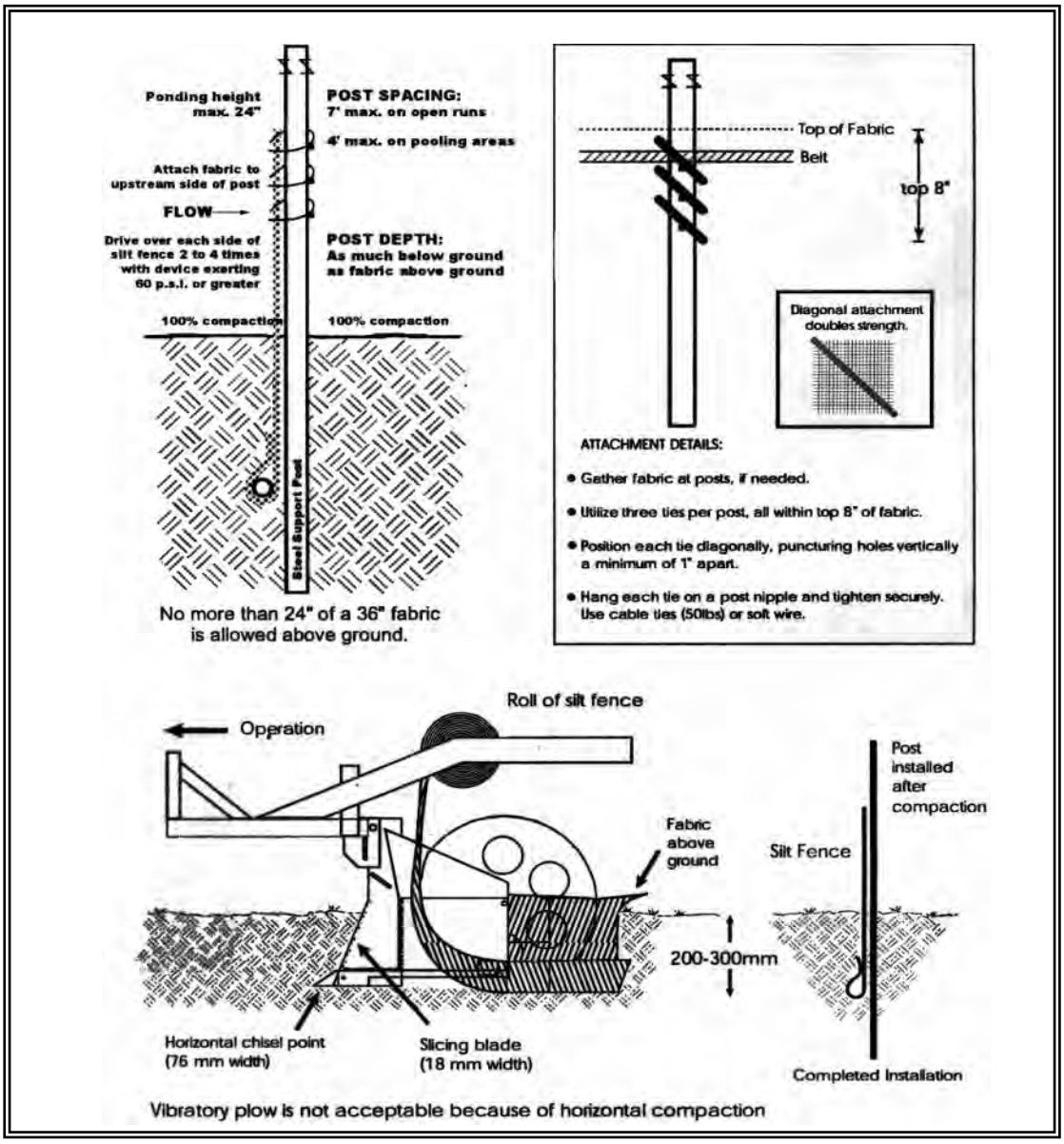

Figure 4.22 Silt Fence Installation by Slicing Method

BMP C235: Wattles

Purpose

Wattles are temporary erosion and sediment control barriers consisting of straw, compost, or other material that is wrapped in biodegradable tubular plastic or similar encasing material. They reduce the velocity and can spread the flow of rill and sheet runoff, and can capture and retain sediment. Wattles are typically 8 to 10 inches in diameter and 25 to 30 feet in length. Wattles are placed in shallow trenches and staked along the contour of disturbed or newly constructed slopes.

Conditions of Use

Use wattles:

- In disturbed areas that require immediate erosion protection.
- On exposed soils during the period of short construction delays, or over winter months.
- On slopes requiring stabilization until permanent vegetation can be established.

Generally, wattles are effective for one to two seasons.

Design and Installation Specifications

Wattles shall meet the requirements of WSDOT Standard Specifications, Section 9-14.5(5) Wattles.

Install wattles perpendicular to the flow direction and parallel to the slope contour.

Dig narrow trenches across the slope on contour to a depth of 3 to 5 inches on clay soils and soils with gradual slopes, or to a depth of 5 to 7 inches, or 1/2 to 2/3 of the thickness of the wattle on loose soils, steep slopes, and areas with high rainfall.

Start building trenches and installing wattles from the base of the slope and work up. Excavated material should be spread evenly along the uphill slope and compacted using hand tamping or other methods.

Construct trenches at contour intervals of 10 feet on steep slopes to 25 feet apart on shallow slopes.

Install the wattles snugly into the trenches and abut tightly end to end. Do not overlap the ends.

Install stakes at each end of the wattle, and at 4-foot centers along entire length of wattle.

If required, install pilot holes for the stakes using a straight bar to drive holes through the wattle and into the soil.

Wood stakes for wattles shall be made from untreated Douglas fir, hemlock, or pine species. Wood stakes shall be 2 by 2-inch nominal dimension and 36 inches in length. Willow cuttings or 3/8-inch rebar can also be used for stakes.

Stakes shall be driven through the middle of the wattle, leaving 2 to 3 inches of the stake protruding above the wattle.

Maintenance Standards

Wattles may require maintenance to ensure they are in contact with soil and thoroughly entrenched, especially after significant rainfall on steep sandy soils.

Inspect the slope after significant storms and repair any areas where wattles are not tightly abutted or water has scoured beneath the wattles.

Approved equivalents

The Washington State Department of Ecology has approved products as able to meet the requirements of this BMP. Snohomish County may approve these products if they are used in accordance with all requirements of this BMP and all instructions and specifications provided by the manufacturer, plus additional requirements that may be established by the County.

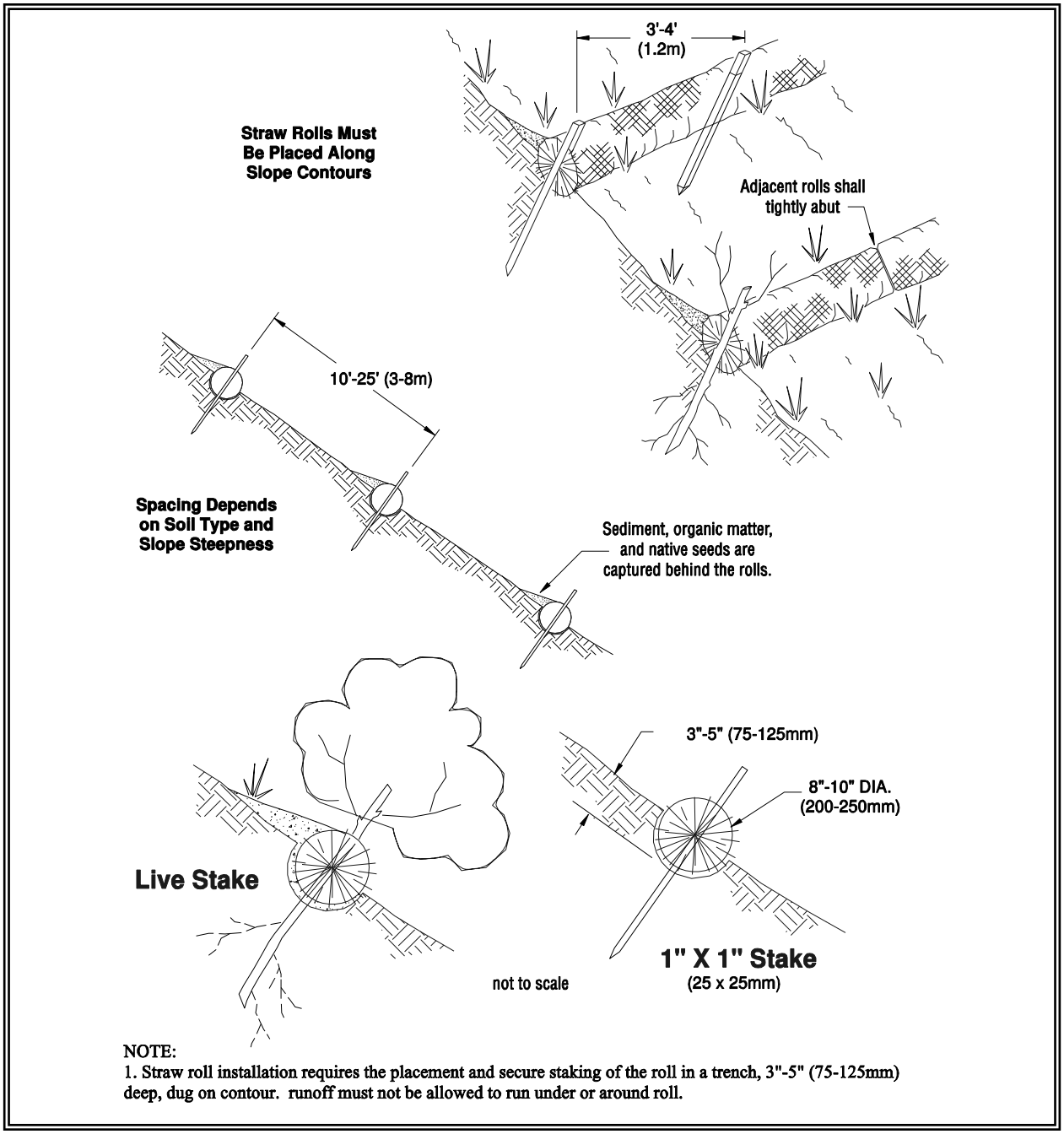

Figure 4.23 Straw Wattles

Figure 4.24 RESERVED

Appendix D – Site Inspection Form

Construction Stormwater Site Inspection Form

Project Name _____ Permit # _____ Inspection Date _____ Time _____

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): _____

Approximate rainfall amount in the last 24 hours (in inches): _____

Current Weather Clear ☐ Cloudy ☐ Mist ☐ Rain ☐ Wind ☐ Fog ☐

A. Type of inspection: Weekly ☐ Post Storm Event ☐ Other ☐

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	☐	Clearing/Demo/Grading	☐	Infrastructure/storm/roads	☐
Concrete pours	☐	Vertical Construction/buildings	☐	Utilities	☐
Offsite improvements	☐	Site temporary stabilized	☐	Final stabilization	☐

C. Questions:

1. Were all areas of construction and discharge points inspected? Yes ___ No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen Yes ___ No ___
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*) Yes ___ No ___
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?* Yes ___ No ___
5. If yes to #4 was it reported to Ecology? Yes ___ No ___
6. Is pH sampling required? pH range required is 6.5 to 8.5. Yes ___ No ___

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

_____

_____

_____

_____

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)						
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?						
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.						
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?						
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?						
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).						
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.						
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.						
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?						

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?						
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?						
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?						
	Is off-site storm water managed separately from stormwater generated on the site?						
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?						
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?						
7 Drain Inlets	Storm drain inlets made operable during construction are protected.						
	Are existing storm drains within the influence of the project protected?						
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?						
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?						
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?						
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?						
	Has secondary containment been provided capable of containing 110% of the volume?						
	Were contaminated surfaces cleaned immediately after a spill incident?						
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?						

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.						
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.						
	Dewatering has been done to an approved source and in compliance with the SWPPP.						
	Were there any clean non turbid dewatering discharges?						
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?						
12 Manage the Project	Has the project been phased to the maximum degree practicable?						
	Has regular inspection, monitoring and maintenance been performed as required by the permit?						
	Has the SWPPP been updated, implemented and records maintained?						
13 Protect LID	Is all Bioretention and Rain Garden Facilities protected from sedimentation with appropriate BMPs?						
	Is the Bioretention and Rain Garden protected against over compaction of construction equipment and foot traffic to retain its infiltration capabilities?						
	Permeable pavements are clean and free of sediment and sediment laden-water runoff. Muddy construction equipment has not been on the base material or pavement.						
	Have soiled permeable pavements been cleaned of sediments and pass infiltration test as required by stormwater manual methodology?						
	Heavy equipment has been kept off existing soils under LID facilities to retain infiltration rate.						

E. Check all areas that have been inspected. ✔

All in place BMPs ☐ All disturbed soils ☐ All concrete wash out area ☐ All material storage areas ☐
All discharge locations ☐ All equipment storage areas ☐ All construction entrances/exits ☐

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) _____ (Signature) _____ Date: _____

Title/Qualification of Inspector: _____

Appendix E – Construction Stormwater General Permit (CSWGP)

Errata

For the Construction Stormwater General Permit Issued on November 19, 2025 and effective on January 1, 2026

February 5, 2026

Numbering

Ecology has corrected two areas in S4.B where numbering was out of order, or numbers were duplicated due to formatting.

For example, S4.B contained S4.B.1&2 twice:

S4.B Original inaccurate numbering: S4.B.1,2,1,2

S4.B Corrected numbering: S4.B.1,2,3,4

Definition

Ecology has changed the definition of Groundwater Discharge Point from "industrial" to "construction" for clarification

Groundwater Discharge Point (or Discharge to Groundwater) means the location where stormwater associated with construction activities enters a stormwater infiltration structure that is used, intended or designed to infiltrate water into the ground

Removed "Draft"

Ecology removed the word "Draft" in the footer.

ADA Statement

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

To request ADA Accommodation, contact Water Quality Reception at 360-407-6600. For Washington Relay Service or TTY call 711 or 877-833-6341. Visit Ecology's ADA Accessibility web page[1] for more information.

For document translation services, call Water Quality Reception at 360-407-6600.

Para publicaciones en español, por favor llame a la Recepción de Calidad del Agua al 360-407-6600.

[1] https://ecology.wa.gov/About-us/Accessibility-equity/Accessibility

Issuance Date:	November 19, 2025
Effective Date:	January 1, 2026
Expiration Date:	December 31, 2030

CONSTRUCTION STORMWATER GENERAL PERMIT

National Pollutant Discharge Elimination System and
State Waste Discharge General Permit

State of Washington
Department of Ecology
Olympia, Washington 98504

In compliance with the provisions of
Chapter 90.48 Revised Code of Washington
(State of Washington Water Pollution Control Act)

and

Title 33 United States Code, Section 1251 et seq.
The Federal Water Pollution Control Act (The Clean Water Act)

Until this Permit expires, is modified, or is revoked, Permittees that have properly obtained coverage under this Permit are authorized to discharge in accordance with the special and general conditions that follow.

Jon Kenning, PhD
Water Quality Program Manager
Washington State Department of Ecology

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TABLE OF CONTENTS

SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions within this permit for additional submittal requirements. Appendix A provides a list of definitions. Appendix B provides a list of acronyms.

Table 1: Summary of Required Submittals

Permit Section	Submittal	Frequency	First Submittal Date
S5.A and S8	High Turbidity/Transparency Phone Reporting	As Necessary	Within 24 hours
S5.B	Discharge Monitoring Report	Monthly*	Within 15 days following the end of each month
S5.F and S8	Noncompliance Notification – Telephone Notification	As necessary	Within 24 hours
S5.F	Noncompliance Notification – Written Report	As necessary	Within 5 Days of non-compliance
S9.D	Request for Chemical Treatment Form	As necessary	Written authorization from Ecology is required prior to using chemical treatment (with the exception of dry ice, CO_2 or food grade vinegar to adjust pH)
G2	Notice of Change in Authorization	As necessary	
G6	Permit Application for Substantive Changes to the Discharge	As necessary	
G8	Application for Permit Renewal	1/permit cycle	No later than 180 days before expiration
S2.A	Notice of Permit Transfer	As necessary	
G19	Notice of Planned Changes	As necessary	

Permit Section	Submittal	Frequency	First Submittal Date
G21	Reporting Anticipated Non-compliance	As necessary	

NOTE: *Permittees must submit electronic Discharge Monitoring Reports (DMRs) to the Washington State Department of Ecology monthly, regardless of site discharge, for the full duration of permit coverage. Refer to Condition S5.B of this General Permit for more specific information regarding DMRs.

Table 2: Summary of Required On-site Documentation

Document Title	Permit Conditions
Permit Coverage Letter	See Conditions S2, S5
Construction Stormwater General Permit (CSWGP)	See Conditions S2, S5
Site Logbook	See Conditions S4, S5
Stormwater Pollution Prevention Plan (SWPPP)	See Conditions S5, S9
Site Map	See Conditions S5, S9

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

A. Permit Area

This Construction Stormwater General Permit (CSWGP) covers all areas of Washington State, except for federal operators and Indian Country as specified in Special Condition S1.E.3 and 4.

B. Operators Required to Seek Coverage Under this General Permit

1. Operators of the following construction activities are required to seek coverage under this CSWGP:

    a. Clearing, grading, excavation, construction support activity and other soil disturbing activity (S1.B.1.a.i.) that results in the disturbance of one or more acres (including off-site disturbance acreage related to construction-support activity as authorized in S1.C.2) and discharges stormwater to surface waters of the State; and clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more and discharge stormwater to surface waters of the State.

        i. For the purposes of determining which sites require permit coverage under the CSWGP include:

        - Forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, and discharge to surface waters of the State (that is, forest practices that prepare a site for construction activities); and
        - Construction support activities including equipment staging, borrow pit, material storage areas, dump areas, haul roads, construction roads, side-cast areas, on-site portable rock crusher, staging yards, parking areas, off-site construction support activities and other soil disturbing activities.

    b. Any size construction activity discharging stormwater to waters of the State that the Washington State Department of Ecology (Ecology):

        i. Determines to be a significant contributor of pollutants to waters of the State of Washington.

        ii. Reasonably expects to cause a violation of any water quality standard.

2. Operators of the following activities are not required to seek coverage under this CSWGP (unless specifically required under Special Condition S1.B.1.b, above):

a. Construction activities that discharge all stormwater and non-stormwater to groundwater, sanitary sewer, or combined sewer, and have no point source discharge to either surface water or a storm sewer system that drains to surface waters of the State.

b. Construction activities covered under an Erosivity Waiver (Special Condition S1.F).

c. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

C. Authorized Discharges

1. Stormwater Associated with Construction Activity
   Subject to compliance with the terms and conditions of this permit, Permittees are authorized to discharge stormwater associated with construction activity to surface waters of the State or to a storm sewer system that drains to surface waters of the State. (Note that "surface waters of the State" may exist on a construction site as well as off-site; for example, a creek running through a site.)

2. Stormwater Associated with Construction Support Activity
   This permit also authorizes stormwater discharge from support activities related to the permitted construction site provided:

   a. The support activity relates directly to the permitted construction site that is required to have an NPDES permit; and

   b. The support activity is not a commercial operation serving multiple unrelated construction projects, and does not operate beyond the completion of the construction activity; and

   c. Appropriate controls and measures are identified in the Stormwater Pollution Prevention Plan (SWPPP) for the discharges from the support activity areas.

3. Non-Stormwater Discharges
   The categories and sources of non-stormwater discharges identified below are authorized conditionally, provided the discharge is consistent with the terms and conditions of this permit:

   a. Discharges from fire-fighting activities

   b. Fire hydrant system flushing

   c. Potable water, including uncontaminated water line flushing

   d. Hydrostatic test water

   e. Uncontaminated air conditioning or compressor condensate

   f. Uncontaminated groundwater or spring water

   g. Uncontaminated excavation dewatering water (in accordance with S9.D.10)

h. Uncontaminated discharges from foundation or footing drains

i. Uncontaminated or potable water used to control dust. Permittees must minimize the amount of dust control water used

j. Routine external building wash down that does not use detergents

k. Landscape irrigation water

The SWPPP must adequately address all authorized non-stormwater discharges, except for discharges from fire-fighting activities, and must comply with Special Condition S3. At a minimum, discharges from potable water (including water line flushing), fire hydrant system flushing, and pipeline hydrostatic test water must undergo the following: dichlorination to a concentration of 0.1 parts per million (ppm) or less, and pH adjustment to within 6.5 – 8.5 standard units (su), if necessary.

D. Prohibited Discharges

The following discharges to waters of the State, including groundwater, are prohibited:

1. Concrete wastewater
2. Wastewater from washout and clean-up of stucco, paint, form release oils, curing compounds and other construction materials
3. Process wastewater as defined by 40 Code of Federal Regulations (CFR) 122.2 (See Appendix A of this permit)
4. Slurry materials and waste from shaft drilling, including process wastewater from shaft drilling for construction of building, road, and bridge foundations unless managed according to Special Condition S9.D.9.j
5. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance
6. Soaps or solvents used in vehicle and equipment washing
7. Wheel wash wastewater, unless it goes to a closed loop recirculation system or upland application, as stated in Special Condition S9.D.9
8. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed according to Special Condition S9.D.10

E. Limits on Coverage

Ecology may require any discharger to apply for and obtain coverage under an individual permit or another more specific general permit. Such alternative coverage required when Ecology determines that this CSWGP does not adequately assure water quality protection, or there is a reasonable potential for the project to cause or contribute to a violation of water quality standards.

The following stormwater discharges are not covered by this permit:

1. Post-construction stormwater discharges that originate from the site after completion of construction activities and the site has undergone final stabilization
2. Non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance, from which there is natural runoff as excluded in 40 CFR Subpart 122
3. Stormwater from any federal operator and Lands of Exclusive Federal Jurisdiction.
4. Stormwater from facilities located on Indian Country as defined in 18 U.S.C.§1151, except portions of the Puyallup Reservation as noted below.

   Indian Country includes:

   a. All land within any Indian Reservation notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation. This includes all federal, tribal, and Indian and non-Indian privately owned land within the reservation.

   b. All off-reservation Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

   c. All off-reservation federal trust lands held for Native American Tribes. Puyallup Exception: Following the Puyallup Tribes of Indians Land Settlement Act of 1989, 25 U.S.C. §1773; the permit does apply to land within the Puyallup Reservation except for discharges to surface water on land held in trust by the federal government.

5. Stormwater from any site covered under an existing NPDES individual permit in which stormwater management and/or treatment requirements are included for all stormwater discharges associated with construction activity.
6. Stormwater from a site where an applicable Total Maximum Daily Load (TMDL) requirement specifically precludes or prohibits discharges from construction activity.

F. Erosivity Waiver

Construction site operators may qualify for an Erosivity Waiver from the CSWGP if the following conditions are met:

1. The site will result in the disturbance of fewer than five (5) acres and the site is not a portion of a common plan of development or sale that will disturb five (5) acres or greater.
2. Calculation of Erosivity "R" Factor and Regional Timeframe:

   a. The project's calculated rainfall erosivity factor ("R" Factor) must be less than five (5) during the period of construction activity, (See the CSWGP homepage[2]

[2] https://ecology.wa.gov/regulations-permits/permits-certifications/stormwater-general-permits/construction-stormwater-permit

for a link to the EPA's calculator and step by step instructions on computing the "R" Factor in the EPA Erosivity Waiver Fact Sheet). The period of construction activity starts when the land is first disturbed and ends with final stabilization. In addition:

b. The entire period of construction activity must fall within the following timeframes:

   i. For sites west of the Cascades Crest: June 15 – September 15.

   ii. For sites east of the Cascades Crest, excluding the Central Basin: June 15 – October 15.

   iii. For sites east of the Cascades Crest, within the Central Basin: no timeframe restrictions apply. The Central Basin is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches. For a map of the Central Basin (Average Annual Precipitation Region 2), refer to CSWGP home[3].

3. Construction site operators seeking the waiver must submit a complete Erosivity Waiver certification form at least one week before disturbing the land via Ecology's Water Quality Permitting Portal or the Erosivity Waiver Certification form found on the CSWGP homepage. Certification must include statements that the operator will:

   a. Comply with applicable local stormwater requirements; and

   b. Implement appropriate erosion and sediment control BMPs to prevent violations of water quality standards.

4. This waiver is not available for facilities declared significant contributors of pollutants as defined in Special Condition S1.B.1.b or for any size construction activity that could reasonably expect to cause a violation of any water quality standard as defined in Special Condition S1.B.1.b.ii.

5. This waiver does not apply to construction activities which include non-stormwater discharges listed in Special Condition S1.C.3.

6. If construction activity extends beyond the certified waiver period for any reason, the operator must either:

   a. Recalculate the rainfall erosivity "R" factor using the original start date and a new projected ending date and, if the "R" factor is still under 5 and the entire project falls within the applicable regional timeframe in Special Condition S1.F.2.b, complete and submit an amended waiver certification form before the original waiver expires; or

   b. Submit a complete permit application to Ecology in accordance with Special Condition S2.A and B before the end of the certified waiver period.

[3] https://ecology.wa.gov/regulations-permits/permits-certifications/stormwater-general-permits/construction-stormwater-permit

S2. APPLICATION REQUIREMENTS

A. Permit Application Forms

7. Notice of Intent Form

a. Operators of new or previously unpermitted construction activities must submit a complete and accurate permit application (Notice of Intent, or NOI) to Ecology.

b. Operators must apply using the electronic application form (NOI) available on CSWGP homepage[4]. Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, Washington 98504-7696

c. The operator must submit the NOI at least 60 days before discharging stormwater from construction activities and must submit it prior to the date of the first public notice (See Special Condition S2.B, below, for details). The 30-day public comment period begins on the publication date of the second public notice. Unless Ecology responds to the complete application in writing, coverage under the general permit will automatically commence on the 31st day following receipt by Ecology of a completed NOI, or the issuance date of this permit, whichever is later; unless Ecology specifies a later date in writing as required by WAC173-226-200(2). See S8.B for Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters.

d. If an applicant intends to use a Best Management Practice (BMP) selected on the basis of Special Condition S9.C.4 ("demonstrably equivalent" BMPs), the applicant must notify Ecology of its selection as part of the NOI. In the event the applicant selects BMPs after submission of the NOI, the applicant must provide notice of the selection of an equivalent BMP to Ecology at least 60 days before intended use of the equivalent BMP.

e. Applicants must notify Ecology if they are aware of contaminated soils and/or contaminated groundwater associated with the construction activity. Contamination includes sites with known, remediated, or historically contaminated groundwater and /or soil. Provide detailed information with the NOI (as known and readily available) on the nature and extent of the contamination (concentrations, locations, and depth), as well as pollution prevention and/or treatment BMPs proposed to control the discharge of soil

[4] https://ecology.wa.gov/regulations-permits/permits-certifications/stormwater-general-permits/construction-stormwater-permit

and/or groundwater contaminants in stormwater. Examples of such information may include, but are not limited to:

i. List or table of all known contaminants with laboratory test results showing concentration and depth,

ii. Map with sample locations,

iii. Related portions of the Stormwater Pollution Prevention Plan (SWPPP) that address the management of contaminated and potentially contaminated construction stormwater and dewatering water.

iv. A brief project overview,

v. Dewatering plan and/or dewatering contingency plan.

8. Transfer of Coverage Form

The Permittee can transfer current coverage under this permit to one or more new operators, including operators of sites within a Common Plan of Development, provided:

a. The Permittee submits a complete Transfer of Coverage Form to Ecology, signed by the current and new discharger and containing a specific date for transfer of permit responsibility, coverage and liability (including any Administrative Orders associated with the permit); and

b. Ecology does not notify the current discharger and new discharger of intent to revoke coverage under the general permit. If this notice is not given, the transfer is effective on the date specified in the written agreement.

When a current discharger (Permittee) transfers a portion of a permitted site, the current discharger must also indicate the remaining permitted acreage after the transfer. Permittees completing partial transfers must include an updated site map. Transfers do not require public notice.

9. Modification of Coverage Form

Permittees must notify Ecology of any changes to the information provided on the NOI by submitting a Modification of Permit Coverage form in accordance with General Conditions G6 and G19. Permittees updating their permitted acreage must include an updated site map.

Examples of changes that require a Permittee to submit a modification of Coverage form to Ecology include, but are not limited to:

a. Changes to the Permittee's mailing address,

b. Changes to the on-site contact person information, and

c. Changes to the area/acreage affected by construction activity.

B. Public Notice

For new or previously unpermitted construction activities, the applicant must publish a public notice at least one time each week for two consecutive weeks, at least 7 days apart, in a newspaper with general circulation in the county where the construction is to take place. The notice must be run after the NOI has been submitted and must contain:

1. A statement that "The applicant is seeking coverage under the Washington State Department of Ecology's Construction Stormwater NPDES and State Waste Discharge General Permit."
2. The name, address, and location of the construction site.
3. The name and address of the applicant.
4. The type of construction activity that will result in a discharge (for example, residential construction, commercial construction, etc.), and the total number of acres disturbed over the lifetime of the project.
5. The name of the receiving water(s) (that is, the surface water(s) to which the site will discharge), or, if the discharge is through a storm sewer system, the name of the operator of the system and the receiving water(s) the system discharges to.

   The statement: *Any persons desiring to present their views on this construction project to the Washington State Department of Ecology regarding this application, or interested in Ecology's action on this application, may notify Ecology in writing no later than 30 days of the last date of publication of this notice. Ecology reviews public comments and considers whether discharges from this construction project would cause a measurable change in receiving water quality, and, if so, whether the project is necessary and in the overriding public interest according to Tier II antidegradation requirements under WAC 173-201A-320. Comments can be submitted to: Department of Ecology, PO Box 47696, Olympia, Washington 98504 7696 Attn: Water Quality Program, Construction Stormwater. Questions or concerns regarding post-construction stormwater impacts should be directed to the local jurisdiction.*

S3. COMPLIANCE WITH STANDARDS

A. Prior to the discharge of stormwater and non-stormwater to waters of the State, the Permittee must apply All Known, Available, and Reasonable methods of prevention, control, and Treatment (AKART). This includes the preparation and implementation of an adequate SWPPP, with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.

B. Ecology presumes that water quality standards are protected in the receiving water when the Permittee complies with the following conditions, unless discharge monitoring data or other site-specific information demonstrates that a discharge causes or contributes to a violation of water quality standards. The Permittee must fully:

1. Comply with all permit conditions, including planning, sampling, monitoring, reporting, and recordkeeping conditions.

2. Implement stormwater BMPs contained in stormwater management manuals published or approved by Ecology, or BMPs that are demonstrably equivalent to BMPs contained in stormwater management manuals published or approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control. (For purposes of this section, the stormwater manuals listed in Appendix 10 of the Phase I Municipal Stormwater Permit are approved by Ecology.)

C. Where construction sites also discharge to groundwater, the groundwater discharges must also meet the terms and conditions of this CSWGP. Permittees who discharge to groundwater through an injection well must also comply with any applicable requirements of the Underground Injection Control (UIC) regulations, Chapter 173-218 WAC.

S4. MONITORING REQUIREMENTS, BENCHMARKS, AND REPORTING TRIGGERS

A. Site Logbook

The Permittee must maintain a site logbook that contains a record of the implementation of the SWPPP and other permit requirements, including the installation and maintenance of BMPs, site inspections, and stormwater monitoring.

B. Site Inspections

All Permittees must have site inspections conducted by a Certified Erosion and Sediment Control Lead (CESCL). (See Special Conditions S4.B.3 and B.4, below, for detailed requirements of the Permittee's CESCL.)

Site inspections must include all areas disturbed by construction activities, all BMPs, and all stormwater discharge points under the Permittee's operational control.

1. The Permittee must have staff knowledgeable in the principles and practices of erosion and sediment control. The CESCL must have the skills to assess the:

    a. Site conditions and construction activities that could impact the quality of stormwater; and

    b. Effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges. The SWPPP must identify the CESCL, who must be present on site, or on-call at all times. The CESCL must obtain this certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology. (See BMP C160 in the manual, referred to in Special Condition S9.C.1 and 2.)

2. The CESCL must examine stormwater visually at all stormwater discharge points for the presence of suspended sediment, turbidity, discoloration, and oil sheen. The CESCL shall also examine the discharge point for indications of stormwater discharge(s), erosion, sedimentation, or BMP failure or maintenance needs. The CESCL must evaluate BMP effectiveness to determine if it is necessary to install, maintain, or repair BMPs to improve the quality of stormwater discharges.

    Based on the results of the inspection, the Permittee must correct the problems identified, by:

    a. Reviewing the SWPPP for compliance with Special Condition S9 and making appropriate revisions within 7 days of the inspection.

    b. Immediately beginning the process of fully implementing and maintaining appropriate source control and/or treatment BMPs, within 10 days of the inspection. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.

    c. Documenting BMP implementation and maintenance in the site logbook.

3. The CESCL must inspect all areas disturbed by construction activities, all BMPs, and all stormwater discharge points at least once every calendar week and within 24 hours of any discharge from the site. (For purposes of this condition, individual discharge events that last more than one (1) day do not require daily inspections. For example, if a stormwater pond discharges continuously over the course of a week, only one (1) inspection is required that week.) Inspection frequency may be reduced to once every calendar month for inactive sites that are temporarily stabilized.
4. The Permittee must summarize the results of each inspection in an inspection report or checklist and maintain that with the site logbook. Inspection reports/checklists must also be attached. At a minimum, each inspection report or checklist must include:
    a. Inspection date and time.
    b. Weather information.
    c. The general conditions during inspection.
    d. The approximate amount of precipitation since the last inspection.
    e. The approximate amount of precipitation within the last 24 hours.
    f. A summary or list of all implemented BMPs, including observations of all erosion/sediment control structures or practices.
    g. A description of:
        i. BMPs inspected (including location).
        ii. BMPs that need maintenance and why.
        iii. BMPs that failed to operate as designed or intended, and
        iv. Where additional or different BMPs are needed, and why.
    h. A description of stormwater discharged from the site. The Permittee must note the presence of suspended sediment, turbidity, discoloration, and oil sheen, as applicable.
    i. Any water quality monitoring performed during inspection.
    j. General comments and notes, including a brief description of any BMP repairs, maintenance, or installations made following the inspection.
    k. An implementation schedule for the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the SWPPP and the permit.
    l. A summary report of the inspection.
    m. The name, title, and signature of the person conducting the site inspection, a phone number or other reliable method to reach this person, and the

following statement: *I certify that this report is true, accurate, and complete to the best of my knowledge and belief.*

Table 3: Summary of Primary Monitoring Requirements

Size of Soil Disturbance[5]	Weekly Site Inspections	Weekly Sampling w/ Turbidity Meter	Weekly Sampling w/ Transparency Tube	Weekly pH Sampling[6]	CESCL Required for Inspections?
Sites that disturb fewer than 5 acres	Required	Sampling Required – either method[7]		Required	Yes
Sites that disturb 5 acres or more	Required	Required	Not Required[8]	Required	Yes

C. Turbidity/Transparency Sampling Requirements

1. Sampling Methods

a. If construction activity involves the disturbance of five (5) acres or more, the Permittee must conduct turbidity sampling per Special Condition S4.C.4.a, below.

b. If construction activity involves fewer than five (5) acres of soil disturbance, the Permittee must conduct either transparency sampling or turbidity sampling per Special Condition S4.C.4.a or b, below.

2. Sampling Frequency

a. The Permittee must sample all discharge points at least once every calendar week when stormwater (or authorized non-stormwater) discharges from the

[5] Soil disturbance is calculated by adding together all areas that will be affected by construction activity. Construction activity means clearing, grading, excavation, borrow pit areas, material storage areas, dump areas, haul roads, construction roads, side-cast areas, on-site portable rock crusher, staging yards, parking areas, off-site construction support activities, and any other activity that disturbs the surface of the land, including ingress/egress from the site.

[6] If construction activity involves significant concrete work (1,000 cubic yards of concrete or recycled concrete placed or poured over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer stormwater collection system that drains to other surface waters of the State, the Permittee must conduct pH sampling in accordance with Special Condition S4.D.

[7] Sites that disturb fewer than5 acres of soil, must conduct turbidity or transparency sampling in accordance with Special Condition S4.C.4.a or b.

[8] Sites equal to or greater than 5 acres of soil disturbance must conduct turbidity sampling using a turbidity meter in accordance with Special Condition S4.C.4.a.

site or enters any on-site surface waters of the state (for example, a creek running through a site). Samples must be representative of the flow and characteristics of the discharge.

b. Sampling is not required when there is no discharge during a calendar week.

c. Sampling is not required outside of operational hours or during unsafe conditions.

d. If the Permittee is unable to sample during a monitoring period, the Permittee must include a brief explanation in the monthly Discharge Monitoring Report (DMR).

e. Sampling is not required before construction activity begins.

   i. DMRs are still required to be submitted monthly.

f. The Permittee may reduce the sampling frequency for temporarily stabilized, inactive sites to once every calendar month

   i. DMRs are still required to be submitted monthly.

3. Sampling Locations

a. Sampling is required at all points where stormwater associated with construction activity (or authorized non-stormwater) is discharged on-site to surface waters of the state (for example, a creek running through a site), inlets, open conveyance; or any offsite discharges, including those to ground, (The Permittee may discontinue sampling at discharge points that drain areas of the project that are fully stabilized to prevent erosion).

b. The Permittee must identify all sampling point(s) in the SWPPP and on the site map and clearly mark these points in the field with a flag, tape, stake or other visible marker.

c. Sampling is not required for discharge that is sent directly to sanitary or combined sewer systems.

d. The Permittee may discontinue sampling at discharge points in areas of the project where the Permittee no longer has operational control of the construction activity.

4. Sampling and Analysis Methods

a. The Permittee performs turbidity analysis with a calibrated turbidity meter (turbidimeter) either on site or at an accredited lab. The Permittee must record the results in the site logbook in nephelometric turbidity units (NTUs).

b. The Permittee performs transparency analysis on site with a 1¾ inch diameter, 60 centimeter (cm)-long transparency tube. The Permittee will record the results in the site logbook in centimeters (cm).

Table 4: Monitoring and Reporting Requirements

Parameter	Unit	Analytical Method	Sampling Frequency	Benchmark Value
Turbidity	NTU	SM2130	Weekly, if discharging	25 NTUs
Transparency	Cm	Manufacturer instructions, or Ecology guidance	Weekly, if discharging	33 cm

5. Turbidity/Transparency Benchmark Values and Reporting Triggers

The benchmark value for turbidity is 25 NTUs. The benchmark value for transparency is 33 centimeters (cm). Note: Benchmark values do not apply to discharges to segments of water bodies on Washington State's 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus; these discharges are subject to a numeric effluent limit for turbidity. Refer to Special Condition S8 for more information and follow S5.F – Noncompliance Notification for reporting requirements applicable to discharges which exceed the numeric effluent limit for turbidity.

a. Turbidity 26 – 249 NTUs, or Transparency 32 – 7 cm:

If the discharge turbidity is 26 to 249 NTUs; or if discharge transparency is 32 to 7 cm, the Permittee must:

i. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs, and no later than 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.

ii. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.

iii. Document BMP implementation and maintenance in the site logbook.

b. Turbidity 250 NTUs or greater, or Transparency 6 cm or less:

If a discharge point's turbidity is 250 NTUs or greater, or if discharge transparency is less than or equal to 6 cm, the Permittee must complete the reporting and adaptive management process described below. For discharges which are subject to a numeric effluent limit for turbidity, see S5.F – Noncompliance Notification.

i. Within 24 hours, telephone or submit an electronic report to the applicable Ecology Region's Environmental Report Tracking System (ERTS) number), in accordance with Special Condition S5.A.

- **Central Region** (Okanogan, Chelan, Douglas, Kittitas, Yakima, Klickitat, Benton): (509) 575-2490
- **Eastern Region** (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman): (509) 329-3400
- **Northwest Region** (Kitsap, Snohomish, Island, King, San Juan, Skagit, Whatcom): (425) 649-7000
- **Southwest Region** (Grays Harbor, Lewis, Mason, Thurston, Pierce, Clark, Cowlitz, Skamania, Wahkiakum, Clallam, Jefferson, Pacific): (360) 407-6300

These numbers and a link to the ERTS reporting page are also listed at The CSWGP Homepage[9].

ii. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.

iii. Sample discharges daily until:

a.) Turbidity is 25 NTUs (or lower); or

b.) Transparency is 33 cm (or greater); or

c.) The Permittee has demonstrated compliance with the water quality standard for turbidity:

1) No more than 5 NTUs over background turbidity*, if background is less than 50 NTUs, or

2) No more than 10% over background turbidity*, if background is 50 NTUs or greater; or

*Note: background turbidity in the receiving water must be measured immediately upstream (upgradient) or outside of the area of influence of the discharge.

d.) The discharge stops or is eliminated.

iv. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within seven (7) days of the date the discharge exceeded the benchmark.

[9] https://ecology.wa.gov/regulations-permits/permits-certifications/stormwater-general-permits/construction-stormwater-permit

v. Document BMP implementation and maintenance in the site logbook.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with permit benchmarks.

D. pH Sampling Requirements – Significant Concrete Work or Engineered Soils

If construction activity involves significant concrete work (significant concrete work means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer system that drains to surface waters of the State, the Permittee must conduct pH sampling as set forth below. Note: In addition, discharges to segments of water bodies on Washington State's 303(d) list (Category 5) for high pH are subject to a numeric effluent limit for pH; refer to Special Condition S8.

1. The Permittee must perform pH analysis on site with a calibrated pH meter. The Permittee must record pH sampling results in the site logbook.
    a. pH meter calibration information must be maintained in the logbook.
2. During the applicable pH monitoring period defined below, the Permittee must obtain a representative sample of stormwater and conduct pH analysis at least once per week.
    a. For sites with significant concrete work, the Permittee must begin the pH sampling period when the concrete is first placed or poured and exposed to precipitation, and continue weekly throughout and after the concrete placement, pour and curing period, until stormwater pH is in the range of 6.5 to 8.5 (su).
    b. For sites with recycled concrete where monitoring is required, the Permittee must begin the weekly pH sampling period when the recycled concrete is first exposed to precipitation and must continue until the recycled concrete is fully stabilized with the stormwater pH in the range of 6.5 to 8.5 (su).
    c. For sites with engineered soils, the Permittee must begin the pH sampling period when the soil amendments are first exposed to precipitation and must continue until the area of engineered soils is fully stabilized.
3. The Permittee must sample pH in the sediment trap/pond(s) or other locations that receive stormwater runoff from the area of significant concrete work or engineered soils before the stormwater discharges to surface waters.
4. The benchmark value for pH is 8.5 standard units. Anytime sampling indicates that pH is 8.5 or greater, the Permittee must either:
    a. Prevent the high pH water (8.5 or above) from entering storm sewer systems or surface waters of the state; or

b. If necessary, adjust or neutralize the high pH water until it is in the range of pH 6.5 to 8.5 (su) using an appropriate treatment BMP such as carbon dioxide (CO2) sparging, dry ice or food grade vinegar. The Permittee must obtain written approval from Ecology before using any form of chemical treatment other than CO2 sparging, dry ice or food grade vinegar.

S5. REPORTING AND RECORDKEEPING REQUIREMENTS

A. High Turbidity Reporting

Anytime sampling performed in accordance with Special Condition S4.C indicates turbidity has reached the 250 NTUs or more (or transparency less than or equal to 6 cm), high turbidity reporting level, the Permittee must notify Ecology within 24 hours of becoming aware of a failure to comply either by calling the applicable Ecology Region's Environmental Report Tracking System (ERTS) number by phone or by submitting an electronic ERTS report through the online reporting form: (ERTS[10]). Also, see phone numbers in Special Condition S4.C.5.b.i.

B. Discharge Monitoring Reports (DMRs)

Permittees required to conduct water quality sampling in accordance with Special Conditions S4.C (Turbidity/Transparency), S4.D (pH), S8 (303[d]/TMDL sampling), and/or G12 (Additional Monitoring) must submit the results to Ecology.

Permittees must submit monitoring data using Ecology's WQWebDMR web application accessed through Ecology's Water Quality Permitting Portal.

Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper copy DMR at:

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

Permittees who obtain a waiver not to use WQWebDMR must use the forms provided to them by Ecology; submittals must be mailed to the address above. Permittees must submit DMR forms to be received by Ecology within 15 days following the end of each month.

If there was no discharge during a given monitoring period, all Permittees must submit a DMR as required with "no discharge" entered in place of the monitoring results. DMRs are required for the full duration of permit coverage (from the first full month following the effective date of permit coverage up until Ecology has approved termination of the coverage). For more information, contact Ecology staff using information provided at the PARIS [11]website.

[10]https://ecology.wa.gov/footer-pages/report-an-environmental-issue
[11] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-database

C. Records Retention

The Permittee must retain records of all monitoring information (site logbook, sampling results, inspection reports/checklists, etc.), Stormwater Pollution Prevention Plan, copy of the permit coverage letter (including Transfer of Coverage documentation) and any other documentation of compliance with permit requirements for the entire life of the construction project and for a minimum of five (5) years following the termination of permit coverage. Such information must include all calibration and maintenance records, and records of all data used to complete the application for this permit. This period of retention must be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

D. Recording Results

For each measurement or sample taken, the Permittee must record the following information:

1. Date, place, method, and time of sampling or measurement.
2. The first and last name of the individual who performed the sampling or measurement.
3. The date(s) the analyses were performed.
4. The first and last name of the individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

E. Additional Monitoring by the Permittee

If the Permittee samples or monitors any pollutant more frequently than required by this permit using test procedures specified by Special Condition S4 of this permit, the sampling results for this monitoring must be included in the calculation and reporting of the data submitted in the Permittee's DMR.

F. Noncompliance Notification

In the event the Permittee is unable to comply with any part of the terms and conditions of this permit, and the resulting noncompliance may cause a threat to human health or the environment (such as but not limited to spills or fuels or other materials, catastrophic pond or slope failure, and discharges that violate water quality standards), or exceed numeric effluent limitations (see S8 – Discharges to 303(d) or TMDL Waterbodies), the Permittee must, upon becoming aware of the circumstance:

1. Notify Ecology within 24 hours of the failure to comply by calling the applicable Regional office ERTS phone number (refer to Special Condition S4.C.5.b.i, or go to the reporting website[12])

[12] https://ecology.wa.gov/footer-pages/report-an-environmental-issue

2. Immediately take action to prevent the discharge/pollution, or otherwise stop or correct the noncompliance, and, if applicable, repeat sampling and analysis of any noncompliance immediately and submit the results to Ecology within five (5) days of becoming aware of the violation (See S5.F.3, below, for details on submitting results in a report).

3. Submit a detailed written report to Ecology within five (5) days of the time the Permittee becomes aware of the circumstances, unless requested earlier by Ecology. The report must be submitted using Ecology's Water Quality Permitting Portal (WQWebPortal) – Permit Submittals, unless a waiver from electronic reporting has been granted according to S5.B. The report must contain a description of the noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Permittee must report any unanticipated bypass and/or upset that exceeds any effluent limit in the permit in accordance with the 24-hour reporting requirement contained in 40 C.F.R. 122.41(iii)(B).

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply. Upon request of the Permittee, Ecology may waive the requirement for a written report on a case-by-case basis, if the immediate notification is received by Ecology within 24 hours.

G. Access to Plans and Records

1. The Permittee must retain the following permit documentation (plans and records) on site, or within reasonable access to the site, for use by the operator or for on-site review by Ecology or the local jurisdiction:

    a. General Permit

    b. Permit Coverage Letter

    c. Stormwater Pollution Prevention Plan (SWPPP)

    d. Site Logbook

    e. Erosivity Waiver (if applicable)

2. The Permittee must address written requests for plans and records listed above (Special Condition S5.G.1) as follows:

    a. The Permittee must provide a copy of plans and records to Ecology within 14 days of receipt of a written request from Ecology.

    b. The Permittee must provide a copy of plans and records to the public when requested in writing. Upon receiving a written request from the public for the Permittee's plans and records, the Permittee must either:

i. Provide a copy of the plans and records to the requester within 14 days of a receipt of the written request; or

ii. Notify the requester within 10 days of receipt of the written request of the location and times within normal business hours when the plans and records may be viewed; and provide access to the plans and records within 14 days of receipt of the written request; or

Within 14 days of receipt of the written request, the Permittee may submit a copy of the plans and records to Ecology for viewing and/or copying by the requester at an Ecology office, or a mutually agreed location. If plans and records are viewed and/or copied at a location other than at an Ecology office, the Permittee will provide reasonable access to copying services for which a reasonable fee may be charged. The Permittee must notify the requester within 10 days of receipt of the request where the plans and records may be viewed and/or copied.

S6. PERMIT FEES

The Permittee must pay permit fees assessed by Ecology. Fees for stormwater discharges covered under this permit are established by Chapter 173-224 WAC. Ecology continues to assess permit fees until the permit is terminated in accordance with Special Condition S10 or revoked in accordance with General Condition G5.

S7. SOLID AND LIQUID WASTE DISPOSAL

The Permittee must handle and dispose of solid and liquid wastes generated by construction activity, such as demolition debris, construction materials, contaminated materials, and waste materials from maintenance activities, including liquids and solids from cleaning catch basins and other stormwater facilities, in accordance with:

1. Special Condition S3, Compliance with Standards.
2. WAC 173-216-110.
3. Other applicable regulations.

S8. DISCHARGES TO 303(d) OR TMDL WATERBODIES

A. Sampling and Numeric Effluent Limits for Certain Discharges to 303(d)-Listed Water Bodies

1. Permittees who discharge to segments of water bodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, low dissolved oxygen or phosphorus, must conduct water quality sampling according to the requirements of this section, and Special Conditions S4.C.2.b-f and S4.C.3.b-d, and must comply with the applicable numeric effluent limitations in S8.C and S8.D.

2. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current listing by Ecology of impaired waters (Category 5) that exists on January 1, 2026, or the date when the operator's complete permit application is received by Ecology, whichever is later. For information about which surface waters are on the Category 5 list of impaired waters, refer to Ecology's Water Quality Atlas[13].

B. Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters

Construction sites that discharge to a TMDL or 303(d)-listed waterbody are not eligible for coverage under this permit unless the operator:

1. Prevents exposing stormwater to pollutants for which the waterbody is impaired, and retains documentation in the SWPPP that details procedures taken to prevent exposure on site; or

2. Documents that the pollutants for which the waterbody is impaired are not present at the site, and retains documentation of this finding within the SWPPP; or

3. Provides Ecology with data indicating the discharge is not expected to cause or contribute to an exceedance of a water quality standard and retains such data on site with the SWPPP. The operator must provide data and other technical information to Ecology that sufficiently demonstrate:

    a. For discharges to waters without an EPA-approved or -established TMDL, that the discharge of the pollutant for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the waterbody; or

    b. For discharges to waters with an EPA-approved or -established TMDL, that there is sufficient remaining waste load allocation in the TMDL to allow construction stormwater discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards.

[13] https://apps.ecology.wa.gov/waterqualityatlas/wqa/map

Operators of construction sites are eligible for coverage under this permit only after Ecology makes an affirmative determination that the discharge will not cause or contribute to the existing impairment or exceed the TMDL.

C. Sampling and Numeric Effluent Limits for Discharges to Water Bodies on the 303(d) List for Turbidity, Fine Sediment, Low Dissolved Oxygen or Phosphorus

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for turbidity, fine sediment, low dissolved oxygen or phosphorus must conduct turbidity sampling in accordance with Special Condition S4.C.2 and comply with either applicable numeric effluent limits noted in Table 5 below.

2. As an alternative to the 25 NTUs effluent limit noted in Table 5 below (applied at the point where stormwater [or authorized non-stormwater] is discharged off-site), Permittees may choose to comply with the surface water quality standard for turbidity. The standard is: no more than 5 NTUs over background turbidity when the background turbidity is 50 NTUs or less, or no more than a 10% increase in turbidity when the background turbidity is more than 50 NTUs. To use the water quality standard requirement, the sampling must take place at the following locations:

    a. Background turbidity in the 303(d)-listed receiving water immediately upstream (upgradient) or outside the area of influence of the discharge.

    b. Turbidity at the point of discharge into the 303(d)-listed receiving water, inside the area of influence of the discharge.

3. Discharges that exceed the numeric effluent limit for turbidity constitute a violation of this permit.

4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

Table 5: Turbidity, Fine Sediment, Low Dissolved Oxygen & Phosphorus Sampling and Limits for 303(d)-Listed Waters

Parameter identified in 303(d) listing	Parameter Sampled		Analytical Method	Sampling Frequency	Numeric Effluent Limit[1]
• Turbidity • Fine Sediment • Phosphorus • Low Dissolved oxygen	Turbidity	NTU	SM2130	Weekly, if discharging	25 NTUs, at the point where stormwater is discharged from the site; ***OR*** In compliance with the surface water quality standard for turbidity (S8.C.2.a)
• If Dewatering	Turbidity	NTU	SM2130	Daily, if discharging	25 NTUs, at the point where stormwater is discharged from the site, OR In compliance with the surface water quality standard for turbidity (S8.C.2.a)

1. Permittees subject to a numeric effluent limit for turbidity may, at their discretion, choose either numeric effluent limitation based on site-specific considerations including, but not limited to, safety, access and convenience.

D. Discharges to Water Bodies on the 303(d) List for High pH

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for high pH must conduct pH sampling in accordance with the table below and comply with the numeric effluent limit of pH 6.5 to 8.5 su (Table 6).

Table 6: pH Sampling and Limits for 303(d)-Listed Waters

Parameter identified in 303(d) listing	Parameter Sampled/Units	Analytical Method	Sampling Frequency	Numeric Effluent Limit
High pH	pH /Standard Units	pH meter	Weekly, if discharging	In the range of 6.5 – 8.5 su

2. At the Permittee's discretion, compliance with the limit shall be assessed at one of the following locations:

    a. Directly in the 303(d)-listed waterbody segment, inside the immediate area of influence of the discharge; or

    b. Alternatively, the Permittee may measure pH at the point where the discharge leaves the construction site, rather than in the receiving water.

3. Discharges that exceed the numeric effluent limit for pH (outside the range of 6.5 – 8.5 su) constitute a violation of this permit.

4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

E. Sampling and Limits for Sites Discharging to Waters Covered by a TMDL or another Pollution Control Plan

1. Discharges to a waterbody that is subject to a Total Maximum Daily Load (TMDL) for turbidity, fine sediment, low dissolved oxygen, high pH, or phosphorus must be consistent with the TMDL. Refer to Water Quality improvement projects[14] for more information on TMDLs.

    a. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges must be consistent with any specific waste load allocations or requirements established by the applicable TMDL.

        i. The Permittee must sample discharges weekly, unless otherwise specified by the TMDL, to evaluate compliance with the specific waste load allocations or requirements.

        ii. Analytical methods used to meet the monitoring requirements must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136.

        iii. Turbidity and pH methods need not be accredited or registered unless conducted at a laboratory which must otherwise be accredited or registered.

    b. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but has not identified specific requirements, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.

    c. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges,

[14] https://ecology.wa.gov/water-shorelines/water-quality/water-improvement/total-maximum-daily-load-process/directory-of-improvement-projects

compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.

d. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.

S9. STORMWATER POLLUTION PREVENTION PLAN

The Permittee must prepare and properly implement an adequate Stormwater Pollution Prevention Plan (SWPPP) for construction activity in accordance with the requirements of this permit beginning with initial soil disturbance and until final stabilization.

A. The Permittee's SWPPP must meet the following objectives:

1. To identify best management practices (BMPs) which prevent erosion and sedimentation, and to reduce, eliminate or prevent stormwater contamination and water pollution from construction activity.
2. To prevent violations of surface water quality, groundwater quality, or sediment management standards.
3. To control peak volumetric flow rates and velocities of stormwater discharges.

B. General Requirements

1. The SWPPP must include a narrative and drawings. All BMPs must be clearly referenced in the narrative and marked on the drawings. The SWPPP narrative must include documentation to explain and justify the pollution prevention decisions made for the project. Documentation must include:
    a. Information about existing site conditions (topography, drainage, soils, vegetation, etc.).
    b. Potential erosion problem areas.
    c. The 13 elements of a SWPPP in Special Condition S9.D.1-13, including BMPs used to address each element.
    d. Construction phasing/sequence and general BMP implementation schedule.
    e. The actions to be taken if BMP performance goals are not achieved—for example, a contingency plan for additional treatment and/or storage of stormwater that would violate the water quality standards if discharged.
    f. Engineering calculations for ponds, treatment systems, and any other designed structures. When a treatment system requires engineering calculations, these calculations must be included in the SWPPP. Engineering calculations do not need to be included in the SWPPP for treatment systems that do not require such calculations.
2. The Permittee must modify the SWPPP if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The Permittee must then:
    a. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the inspection or investigation.

b. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than 10 days from the inspection or investigation. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.

c. Document BMP implementation and maintenance in the site logbook.

The Permittee must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

C. Stormwater Best Management Practices (BMPs)

BMPs must be consistent with:

1. *Stormwater Management Manual for Western Washington* (most current approved edition at the time this permit was issued), for sites west of the crest of the Cascade Mountains; or

2. *Stormwater Management Manual for Eastern Washington* (most current approved edition at the time this permit was issued), for sites east of the crest of the Cascade Mountains; or

3. Revisions to the manuals listed in Special Condition S9.C.1 & 2, or other stormwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230; or

4. Documentation in the SWPPP that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable stormwater management manuals, including:

    a. The technical basis for the selection of all stormwater BMPs (scientific, technical studies, and/or modeling) that support the performance claims for the BMPs being selected.

    b. An assessment of how the selected BMP will satisfy AKART requirements and the applicable federal technology-based treatment requirements under 40 CFR part 125.3.

D. SWPPP – Narrative Contents and Requirements

The Permittee must include each of the 13 elements below in Special Condition S9.D.1-13 in the narrative of the SWPPP and implement them unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the SWPPP.

1. Preserve Vegetation/Mark Clearing Limits

a. Before beginning land-disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area.

b. Retain the duff layer, native topsoil, and natural vegetation in an undisturbed state to the maximum degree practicable.

2. Establish Construction Access

a. Limit construction vehicle access and exit to one route, if possible.

b. Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking sediment onto roads. Do not use crushed concrete, for construction access stabilization.

c. Locate wheel wash or tire baths on site, if the stabilized construction entrance is not effective in preventing sediment from being tracked onto roads.. Wheel washes and tire baths must comply with special condition S9.D.9.d to prevent discharge to surface waters and ensure appropriate treatment and disposal methods of wash water.

d. If sediment is tracked off-site, clean the affected roadway thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Remove sediment from roads by shoveling, sweeping, or pickup and transport of the sediment to a controlled sediment disposal area.

e. Conduct street washing only after sediment removal in accordance with Special Condition S9.D.2.d.

f. Control street wash wastewater by pumping back on site or otherwise preventing it from discharging into systems tributary to waters of the State.

3. Control Flow Rates

a. Protect properties and waterways downstream of construction sites from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site

b. Where necessary to comply with Special Condition S9.D.3.a, construct stormwater infiltration or detention BMPs as one of the first steps in grading. Assure that detention BMPs function properly before constructing site improvements (for example, impervious surfaces).

c. If permanent infiltration ponds are used for flow control during construction, protect these facilities from sedimentation during the construction phase.

4. Install Sediment Controls

The Permittee must design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, the Permittee must:

a. Construct sediment control BMPs (sediment ponds, traps, filters, infiltration facilities, etc.) as one of the first steps in grading. These BMPs must be functional before other land disturbing activities take place.

b. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.

c. Direct stormwater runoff from disturbed areas through a sediment pond or other appropriate sediment removal BMP, before the runoff leaves a construction site or before discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP but must meet the flow control performance standard of Special Condition S9.D.3.a.

d. Locate BMPs intended to trap sediment on site in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.

e. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible.

f. Where feasible, design outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column.

5. Stabilize Soils

a. The Permittee must stabilize exposed and unworked by application of effective BMPs that prevent erosion. Applicable BMPs include, but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control.

b. The Permittee must control stormwater volume and velocity within the site to minimize soil erosion.

c. The Permittee must control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.

d. Depending on the geographic location of the project, the Permittee must not allow soils and stockpiles to remain exposed and unworked for more than the time periods set forth below to prevent erosion.

- **West of the Cascade Mountains Crest**
  During the dry season (May 1 - September 30): 7 days
  During the wet season (October 1 - April 30): 2 days
- **East of the Cascade Mountains Crest**, except for Central Basin*
  During the dry season (July 1 - September 30): 10 days
  During the wet season (October 1 - June 30): 5 days
- **The Central Basin***, East of the Cascade Mountains Crest
  During the dry Season (July 1 - September 30): 30 days
  During the wet season (October 1 - June 30): 15 days

***Note: The Central Basin** is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches.

e. The Permittee must stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast.

f. The Permittee must stabilize soil stockpiles from erosion, protected with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.

g. The Permittee must minimize the amount of soil exposed during construction activity.

h. The Permittee must minimize the disturbance of steep slopes.

i. The Permittee must minimize soil compaction and, unless infeasible, preserve topsoil.

6. Protect Slopes

a. The Permittee must design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (for example, track walking).

b. The Permittee must divert off-site stormwater (run-on) or groundwater away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales. Off-site stormwater should be managed separately from stormwater generated on the site.

c. At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion.

i. West of the Cascade Mountains Crest: Temporary pipe slope drains must be sized to convey the flow rate calculated by one of the following methods:

- Single Event Hydrograph Method: the peak volumetric flow rate calculated using a 10-minute flow rate from a Type 1A, 10-year, 24-hour frequency storm for the developed condition, OR

- Continuous Simulation Method: Alternatively, the 10-year peak flow rates determined by an approved continuous runoff model with a 15-minute time step may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "lawn area."

ii. East of the Cascade Mountains Crest: Temporary pipe slope drains must be sized to handle the expected peak flow rate from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.

d. Place excavated material on the uphill side of trenches, consistent with safety and space considerations.

e. Place check dams at regular intervals within constructed channels that are cut down a slope.

7. Protect Drain Inlets

a. Protect all storm drain inlets made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.

b. Clean or remove and replace inlet protection devices when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).

8. Stabilize Channels and Outlets

a. Design, construct and stabilize all on-site conveyance channels to prevent erosion from the following expected peak flows:

i. West of the Cascade Mountains Crest: calculate using one of the following methods:

- Single Event Hydrograph Method: Channels must handle the peak volumetric flow rate using a 10-minute time step from a Type 1A, 10-year, 24-hour frequency storm, OR
- Continuous Simulation Method Alternatively, the 10-year, peak flow rate indicated by an approved continuous runoff model with a 15-minute time step may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the

WWHM to predict flows, bare soil areas should be modeled as "lawn area."

ii. East of the Cascade Mountains Crest: Channels must handle the expected peak flow rate from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.

b. Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, along construction road shoulders, sloped work areas, and downstream reaches at the outlets of all conveyance systems.

9. Control Pollutants

Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants. The Permittee must:

a. Handle and dispose of all pollutants, including waste materials and demolition debris that occur on site in a manner that does not cause contamination of stormwater or waters of the state.

b. Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. Minimize storage of hazardous materials on-site. Safety Data Sheets (SDS) should be supplied for all materials stored. Keep chemicals in their original labeled containers. On-site fueling tanks must include secondary containment. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume of the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment. If the containment water is free from indicators of contamination, such as oil sheen, turbidity, color, odor, it may be discharged with other stormwater. Visibly contaminated containment water shall be disposed of appropriately.

c. Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.

d. Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, or to the sanitary sewer with local sewer district approval.

e. Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturers' label requirements for application rates and procedures.

f. Use BMPs to prevent contamination of stormwater runoff by pH-modifying sources. The sources for this contamination include, but are not limited to: bulk cement, cement kiln dust, fly ash, new concrete washing and curing

waters, recycled concrete, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, concrete pumping and mixer washout waters. (Also refer to the definition for "concrete wastewater" in Appendix A – Definitions.)

g. Adjust the pH of stormwater or authorized non-stormwater if necessary to prevent an exceedance of groundwater and/or surface water quality standards.

h. Assure that washout of concrete trucks is performed off-site or in designated concrete washout areas only. Do not wash out concrete truck drums onto the ground, or into storm drains, open ditches, streets, or streams. Washout of small concrete handling equipment may be disposed of in a formed area awaiting concrete where it will not contaminate surface or groundwater. Do not dump excess concrete on site, except in designated concrete washout areas. Concrete spillage or concrete discharge directly to groundwater or surface waters of the State is prohibited. At no time shall concrete be washed off into the footprint of an area where an infiltration BMP will be installed.

i. Obtain written approval from Ecology before using any chemical treatment, with the exception of CO2, dry ice or food grade vinegar, to adjust pH.

j. Uncontaminated water from water-only based shaft drilling for construction of building, road, and bridge foundations may be infiltrated provided the wastewater is managed in a way that prohibits discharge to surface waters. Prior to infiltration, water from water-only based shaft drilling that comes into contact with curing concrete must be neutralized until pH is in the range of 6.5 to 8.5 (su).

k. If a construction activity involves the demolition or renovation of any buildings built before 1980, the permittee must implement BMP S438 [BMPs for Construction Demolition] of the SWMMMs.

10. Control Dewatering

a. Permittees must discharge foundation, vault, and trench dewatering water, which have characteristics similar to stormwater runoff at the site, in conjunction with BMPs to reduce sedimentation before discharge to a sediment trap or sediment pond.

b. Permittees may discharge clean, non-turbid dewatering water, such as well-point groundwater, to systems tributary to, or directly into surface waters of the State, as specified in Special Condition S9.D.8, provided the dewatering flow does not cause erosion or flooding of receiving waters. Do not route clean dewatering water through stormwater sediment ponds. Note that “surface waters of the State” may exist on a construction site as well as off-site; for example, a creek running through a site.

c. Other dewatering treatment or disposal options may include:

i. Infiltration

ii. Transport off-site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters.

iii. Ecology-approved on-site chemical treatment or other suitable treatment technologies (See S9.D.9.i, regarding chemical treatment written authorization).

iv. Sanitary or combined sewer discharge with local sewer district approval, if there is no other option.

v. Use of a sedimentation bag with discharge to a ditch or swale for small volumes of localized dewatering.

d. Permittees must handle highly turbid or contaminated dewatering water separately from stormwater.

11. Maintain BMPs

a. Permittees must maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to assure continued performance of their intended function in accordance with BMP specifications.

b. Permittees must remove all temporary erosion and sediment control BMPs within 30 days after achieving final site stabilization or after the temporary BMPs are no longer needed.

12. Manage the Project

a. Phase development projects to the maximum degree practicable and take into account seasonal work limitations.

b. Inspect, maintain and repair all BMPs as needed to assure continued performance of their intended function. Conduct site inspections and monitoring in accordance with Special Condition S4.

c. Maintain, update, and implement the SWPPP in accordance with Special Conditions S3, S4, and S9.

13. Protect Infiltration BMPs

Permittees must protect existing and proposed infiltration BMPs during construction. The primary purpose of on-site Stormwater Management (often referred to as low impact development, or LID) is to reduce the disruption of the natural site hydrology through infiltration. LID BMPs are permanent facilities.

a. Permittees must protect all LID BMPs (including, but not limited to, Bioretention and Rain Garden facilities) from sedimentation through installation and maintenance of erosion and sediment control BMPs on portions of the site that drain into the infiltration BMPs. Restore the BMPs to their fully functioning condition if they accumulate sediment during

construction. Restoring the BMP must include removal of sediment and any sediment-laden soils within the BMP and replacing the removed soils with soils meeting the design specification.

b. Permittees must maintain the infiltration capabilities of infiltration BMPs by protecting against compaction by construction equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to construction equipment.

c. Permittees must control erosion and avoid introducing sediment from surrounding land uses onto permeable pavements. Do not allow muddy construction equipment on the base material or pavement. Do not allow sediment-laden runoff onto permeable pavements or base materials.

d. Permittees must clean permeable pavements fouled with sediments or no longer passing an initial infiltration test using local stormwater manual methodology or the manufacturer's procedures.

e. Permittees must keep all heavy equipment off existing soils under infiltration BMPs that have been excavated to final grade to retain the infiltration rate of the soils.

E. SWPPP – Map Contents and Requirements

The Permittee's SWPPP must also include a vicinity map or general location map (for example, a USGS quadrangle map, a portion of a county or city map, or other appropriate map) with enough detail to identify the location of the construction site and receiving waters within one mile of the site.

The SWPPP must also include a legible site map (or maps) showing the entire construction site. The following features must be identified, unless not applicable due to site conditions.

1. The direction of north, property lines, and existing structures and roads.
2. Cut and fill slopes indicating the top and bottom of slope catch lines.
3. Approximate slopes, contours, and direction of stormwater flow before and after major grading activities.
4. Areas of soil disturbance and areas that will not be disturbed.
5. Locations of structural and nonstructural controls (BMPs) identified in the SWPPP.
6. Locations of off-site material, stockpiles, waste storage, borrow areas, and vehicle/equipment storage areas.
7. Locations of all surface water bodies, including wetlands.
8. Locations where stormwater or non-stormwater discharges off-site and/or to a surface waterbody, including wetlands.
9. Location of water quality sampling station(s), if sampling is required by state or local permitting authority.

10. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.
11. Location or proposed location of infiltration facilities.

S10. NOTICE OF TERMINATION (NOT)

Partial terminations of permit coverage are not authorized.

A. Conditions for an NOT

The site is eligible for final termination of coverage when it has met any of the following conditions:

1. The site has undergone final stabilization, the Permittee has removed all temporary BMPs (except biodegradable BMPs clearly manufactured with the intention for the material to be left in place and not interfere with maintenance or land use), and all stormwater discharges associated with construction activity have been eliminated; or
2. All portions of the site that have not undergone final stabilization per Special Condition S10.A.1 have been sold and/or transferred (per Special Condition S2.A), and the Permittee no longer has operational control of the construction activity; or
3. For residential construction only, the Permittee has completed temporary stabilization, and the homeowners have taken possession of the residences.

B. Process for Terminating

When the site is eligible for termination, the Permittee must submit a complete and accurate Notice of Termination (NOT) form, signed in accordance with General Condition G2, to:

Department of Ecology
Water Quality Program - Permit Fee Unit
PO Box 47600
Olympia, WA 98504-7696

When an electronic termination form is available, the Permittee may choose to submit a complete and accurate Notice of Termination (NOT) form through the Water Quality Permitting Portal rather than mailing a hardcopy as noted above.

The termination is effective on the 31st **Calendar Day** following the date Ecology receives a complete NOT form, unless Ecology notifies the Permittee that termination request is denied because the Permittee has not met the eligibility requirements in Special Condition S10.A.

Permittees are required to comply with all conditions and effluent limitations in the permit until the permit has been terminated.

Permittees transferring the property to a new property owner or operator/Permittee are required to complete and submit the Notice of Transfer form to Ecology but are not required to submit a Notice of Termination form for this type of transaction.

Note: When site conditions cause a delay in Ecology's inspection, the effective date of the NOT will be back dated to the 31st day following submittal, if the site inspection verifies that the site is eligible for termination

If Ecology notifies the Permittee that termination request is denied because the Permittee has not met the eligibility requirements in Special Condition S10.A, the Permittee remains under permit coverage and must continue to comply with all permit conditions.

GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this general permit must be consistent with the terms and conditions of this general permit. Any discharge of any pollutant more frequent than or at a level in excess of that identified and authorized by the general permit must constitute a violation of the terms and conditions of this permit.

G2. SIGNATORY REQUIREMENTS

A. All permit applications (including NOIs, NOTs, and Transfer of Coverage forms) signed and certified:

1. In the case of corporations, by a responsible corporate officer.
2. In the case of a partnership, by a general partner of a partnership.
3. In the case of sole proprietorship, by the proprietor.
4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

B. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to Ecology.
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

C. Changes to authorization. If an authorization under paragraph G2.B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G2.B.2 above must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this section must make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G3. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

A. To enter upon the premises where a discharge is located or where any records are kept under the terms and conditions of this permit.

B. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.

C. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.

D. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G4. GENERAL PERMIT MODIFICATION AND REVOCATION

This permit may be modified, revoked and reissued, or terminated in accordance with the provisions of Chapter 173-226 WAC. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

A. When a change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this permit.

B. When effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this permit.

C. When a water quality management plan containing requirements applicable to the category of dischargers covered under this permit is approved, or

D. When information is obtained that indicates cumulative effects on the environment from dischargers covered under this permit are unacceptable.

G5. REVOCATION OF COVERAGE UNDER THE PERMIT

Pursuant to Chapter 43.21B RCW and Chapter 173-226 WAC, the Director may terminate coverage for any discharger under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:

A. Violation of any term or condition of this permit.

B. Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts.

C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

D. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.

E. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.

F. Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.

G. Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

Ecology may require any discharger under this permit to apply for and obtain coverage under an individual permit or another more specific general permit.

Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within ninety (90) days from the time of revocation and is submitted along with a complete individual permit application form.

G6. REPORTING A CAUSE FOR MODIFICATION

The Permittee must submit a new application, or a supplement to the previous application, whenever a material change to the construction activity or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least sixty (60) days prior to any proposed changes. Filing a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G7. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit will be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G8. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit. The Permittee must reapply using the electronic application form (NOI) available on Ecology's website. Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

G9. REMOVED SUBSTANCE

The Permittee must not re-suspend or reintroduce collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to the final effluent stream for discharge to state waters.

G10. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information that Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology, upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

G11. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, or by imprisonment at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten

thousand dollars ($10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

G14. UPSET

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

1. an upset occurred and that the Permittee can identify the cause(s) of the upset;
2. the permitted facility was being properly operated at the time of the upset;
3. the Permittee submitted notice of the upset as required in Special Condition S5.F, and;
4. the Permittee complied with any remedial measures required under this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G15. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G16. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G17. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G18. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than $20,000 per day of violation, or imprisonment of not more than four (4) years, or both.

G19. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, give notice to Ecology of planned physical alterations, modifications or additions to the permitted construction activity. The Permittee should be aware that, depending on the nature and size of the changes to the original permit, a new public notice and other permit process requirements may be required. Changes in activities that require reporting to Ecology include those that will result in:

A. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).

B. A significant change in the nature or an increase in quantity of pollutants discharged, including but not limited to: a 20% or greater increase in acreage disturbed by construction activity.

C. A change in or addition of surface water(s) receiving stormwater or non-stormwater from the construction activity.

D. A change in the construction plans and/or activity that affects the Permittee's monitoring requirements in Special Condition S4.

Following such notice, permit coverage may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G20. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to Ecology, it must promptly submit such facts or information.

G21. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee must give advance notice to Ecology by submission of a new application or supplement thereto at least forty-five (45) days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, must be

scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

G22. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER THE PERMIT

Any discharger authorized by this permit may request to be excluded from coverage under the general permit by applying for an individual permit. The discharger must submit to the Director an application as described in WAC 173-220-040 or WAC 173-216-070, whichever is applicable, with reasons supporting the request. These reasons will fully document how an individual permit will apply to the applicant in a way that the general permit cannot. Ecology may make specific requests for information to support the request. The Director will either issue an individual permit or deny the request with a statement explaining the reason for the denial. When an individual permit is issued to a discharger otherwise subject to the construction stormwater general permit, the applicability of the construction stormwater general permit to that Permittee is automatically terminated on the effective date of the individual permit.

G23. APPEALS

A. The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal by any person within 30 days of issuance of this general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.

B. The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that discharger. Consideration of an appeal of general permit coverage of an individual discharger is limited to the general permit's applicability or non-applicability to that individual discharger.

C. The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

G24. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

G25. BYPASS PROHIBITED

A. Bypass Procedures

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited for stormwater events below the design criteria for stormwater

management. Ecology may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, 3 or 4) is applicable.

1. Bypass of stormwater is consistent with the design criteria and part of an approved management practice in the applicable stormwater management manual.

2. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health.

3. Bypass of stormwater is unavoidable, unanticipated, and results in noncompliance of this permit.

This bypass is permitted only if:

a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment facility.

c. Ecology is properly notified of the bypass as required in Special Condition S5.F of this permit.

4. A planned action that would cause bypass of stormwater and has the potential to result in noncompliance of this permit during a storm event.

The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

a. A description of the bypass and its cause

b. An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.

c. A cost-effectiveness analysis of alternatives including comparative resource damage assessment.

d. The minimum and maximum duration of bypass under each alternative.

e. A recommendation as to the preferred alternative for conducting the bypass.

f. The projected date of bypass initiation.

g. A statement of compliance with SEPA.

h. A request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated.

i. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

5. For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above must be considered during preparation of the Stormwater Pollution Prevention Plan (SWPPP) and must be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

Ecology will consider the following before issuing an administrative order for this type of bypass:

a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.

b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.

c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve, conditionally approve, or deny the request. The public must be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by Ecology under RCW 90.48.120.

B. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely

affecting human health or the environment.

APPENDIX A – DEFINITIONS

AKART is an acronym for "**A**ll **K**nown, **A**vailable, and **R**easonable methods of prevention, control, and **T**reatment." AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling pollution associated with a discharge.

Applicable TMDL means a TMDL for turbidity, fine sediment, low dissolved oxygen, high pH, or phosphorus, which was completed and approved by EPA before January 1, 2021, or before the date the operator's complete permit application is received by Ecology, whichever is later. TMDLs completed after a complete permit application is received by Ecology become applicable to the Permittee only if they are imposed through an administrative order by Ecology, or through a modification of permit coverage.

Applicant means an operator seeking coverage under this permit.

Benchmark means a pollutant concentration used as a permit threshold, below which a pollutant is considered unlikely to cause a water quality violation, and above which it may. When pollutant concentrations exceed benchmarks, corrective action requirements take effect. Benchmark values are not water quality standards and are not numeric effluent limitations; they are indicator values.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control stormwater associated with construction activity, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Buffer means an area designated by a local jurisdiction that is contiguous to and intended to protect a sensitive area.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Calendar Day means a period of 24 consecutive hours starting at 12:00 midnight and ending the following 12:00 midnight.

Calendar Week (same as **Week**) means a period of seven consecutive days starting at 12:01 a.m. (0:01 hours) on Sunday.

Certified Erosion and Sediment Control Lead (CESCL) means a person who has current certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (See BMP C160 in the SWMM).

Chemical Treatment means the addition of chemicals to stormwater and/or authorized non-stormwater prior to filtration and discharge to surface waters.

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC 1251 et seq.

Combined Sewer means a sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinance.

Common Plan of Development or Sale means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules and/or by different contractors, but still under a single plan. Examples include: 1) phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g., a development where lots are sold to separate builders); 2) a development plan that may be phased over multiple years, but is still under a consistent plan for long-term development; 3) projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility; and 4) linear projects such as roads, pipelines, or utilities. If the project is part of a common plan of development or sale, the disturbed area of the entire plan must be used in determining permit requirements.

Composite Sample means a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots.

Concrete Wastewater means any water used in the production, pouring and/or clean-up of concrete or concrete products, and any water used to cut, grind, wash, or otherwise modify concrete or concrete products. Examples include water used for or resulting from concrete truck/mixer/pumper/tool/chute rinsing or washing, concrete saw cutting and surfacing (sawing, coring, grinding, roughening, hydro-demolition, bridge and road surfacing). When stormwater comingles with concrete wastewater, the resulting water is considered concrete wastewater and must be managed to prevent discharge to waters of the State, including groundwater.

Construction Activity means land disturbing operations including clearing, grading, excavation, and other soil disturbing activities which disturb the surface of the land. Such activities may include road construction, construction of residential houses, office buildings, or industrial buildings, site preparation, soil compaction, movement and stockpiling of topsoils, and demolition activity.

Construction Support Activity means on or off-site acreage that will be disturbed as a direct result of the construction project and will discharge stormwater. Construction-support activities may include, but are not limited to: equipment staging, borrow pit, material storage areas, dump areas, haul roads, construction roads, side-cast areas, on-site portable rock crusher, staging yards, parking areas, off-site construction support activities and all other soil disturbing activities.

Contaminant means any hazardous substance that does not occur naturally or occurs at greater than natural background levels. See definition of “hazardous substance” and WAC 173-340-200.

Contaminated soil means soil which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

Contaminated groundwater means groundwater which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

Date of Receipt – This is defined in RCW 43.21B.001(2) as five business days after the date of mailing; or the date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the agency, constitutes sufficient evidence of actual receipt. The date of actual receipt, however, may not exceed forty-five days from the date of mailing.

Days (compliance period interval) - When the compliance period is stated in days: (A) exclude the day of the event that triggers the period; (B) count every day, including intermediate Saturdays, Sundays, and legal holidays; and (C) include the last day of the period, but if the last day is a Saturday, Sunday, or legal holiday, the period continues to run until the end of the next day that is not a Saturday, Sunday, or legal holiday.

Demonstrably Equivalent means that the technical basis for the selection of all stormwater BMPs is documented within a SWPPP, including:

1. The method and reasons for choosing the stormwater BMPs selected.
2. The pollutant removal performance expected from the BMPs selected.
3. The technical basis supporting the performance claims for the BMPs selected, including any available data concerning field performance of the BMPs selected.
4. An assessment of how the selected BMPs will comply with state water quality standards.
5. An assessment of how the selected BMPs will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment (AKART).

Department means the Washington State Department of Ecology.

Detention means the temporary storage of stormwater to improve quality and/or to reduce the mass flow rate of discharge.

Dewatering means the act of pumping groundwater or stormwater away from an active construction site.

Director means the Director of the Washington State Department of Ecology or his/her authorized representative.

Discharger means an owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the Federal Clean Water Act.

Domestic Wastewater means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration or surface waters as may be present.

Ecology means the Washington State Department of Ecology.

Engineered Soils means the use of soil amendments including, but not limited, to Portland cement treated base (CTB), cement kiln dust (CKD), or fly ash to achieve certain desirable soil characteristics.

Equivalent BMPs means operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to groundwater than BMPs selected from the SWMM.

Erosion means the wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Erosion and Sediment Control BMPs means BMPs intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, sediment traps, and ponds. Erosion and sediment control BMPs are synonymous with stabilization and structural BMPs.

Federal Operator is an entity that meets the definition of "Operator" in this permit and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, performing construction activity for any such department, agency, or instrumentality.

Final Stabilization (same as **fully stabilized** or **full stabilization**) means the completion of all soil disturbing activities at the site and the establishment of permanent vegetative cover, or equivalent permanent stabilization measures (such as pavement, riprap, gabions, or geotextiles) which will prevent erosion. See the applicable Stormwater Management Manual for more information on vegetative cover expectations and equivalent permanent stabilization measures.

Groundwater means water in a saturated zone or stratum beneath the land surface or a surface waterbody.

Groundwater Discharge Point (or Discharge to Groundwater) means the location where stormwater associated with construction activities enters a stormwater infiltration structure that is used, intended or designed to infiltrate water into the ground

Hazardous Substance means any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6), or any dangerous or extremely dangerous waste as designated by rule under chapter 70.105 RCW; any hazardous sub-stance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under section 101(14) of the federal cleanup law, 42U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director by rule to present a threat to human health or the environment if released into the environment. The term hazardous substance

does not include any of the following when contained in an underground storage tank from which there is not a release: crude oil or any fraction thereof or petroleum, if the tank is in compliance with all applicable federal, state, and local law.

Injection Well means a well that is used for the subsurface emplacement of fluids. (See Well.)

Jurisdiction means a political unit such as a city, town or county; incorporated for local self-government.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

Notice of Intent (NOI) means the application for, or a request for coverage under this general permit pursuant to WAC 173-226-200.

Notice of Termination (NOT) means a request for termination of coverage under this general permit as specified by Special Condition S10 of this permit.

Operational Hours means when work is happening on site related to the project and project support activities, whether the activities are scheduled or unscheduled.

Operator means any party associated with a construction project that meets either of the following two criteria:

- The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

Permittee means individual or entity that receives notice of coverage under this general permit.

pH means a liquid's measure of acidity or alkalinity. A pH of 7 is defined as neutral. Large variations above or below this value are considered harmful to most aquatic life.

pH Monitoring Period means the time period in which the pH of stormwater runoff from a site must be tested a minimum of once every seven days to determine if stormwater pH is between 6.5 and 8.5.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the State. This term does not include return flows from irrigated agriculture. (See the Fact Sheet for further explanation)

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste. This term does not include sewage from vessels within the meaning of section 312 of the CWA, nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the CWA.

Pollution means contamination or other alteration of the physical, chemical, or biological properties of waters of the State; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the State as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

Process Wastewater means any non-stormwater which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. If stormwater commingles with process wastewater, the commingled water is considered process wastewater.

Receiving Water means the waterbody at the point of discharge. If the discharge is to a storm sewer system, either surface or subsurface, the receiving water is the waterbody to which the storm system discharges. Systems designed primarily for other purposes such as for groundwater drainage, redirecting stream natural flows, or for conveyance of irrigation water/return flows that coincidentally convey stormwater are considered the receiving water.

Representative means a stormwater or wastewater sample which represents the flow and characteristics of the discharge. Representative samples may be a grab sample, a time-proportionate composite sample, or a flow proportionate sample. Ecology's Construction Stormwater Monitoring Manual provides guidance on representative sampling.

Responsible Corporate Officer for the purpose of signatory authority means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Sanitary Sewer means a sewer which is designed to convey domestic wastewater.

Sediment means the fragmented material that originates from the weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

Sedimentation means the depositing or formation of sediment.

Sensitive Area means a waterbody, wetland, stream, aquifer recharge area, or channel migration zone.

SEPA (State Environmental Policy Act) means the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Significant Amount means an amount of a pollutant in a discharge that is amenable to available and reasonable methods of prevention or treatment; or an amount of a pollutant that has a reasonable potential to cause a violation of surface or groundwater quality or sediment management standards.

Significant Concrete Work means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project.

Significant Contributor of Pollutants means a facility determined by Ecology to be a contributor of a significant amount(s) of a pollutant(s) to waters of the State of Washington.

Site means the land or water area where any "facility or activity" is physically located or conducted.

Source Control BMPs means physical, structural or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead-end sump.

Stabilization means the application of appropriate BMPs to prevent the erosion of soils, such as, temporary and permanent seeding, vegetative covers, mulching and matting, plastic covering and sodding. See also the definition of Erosion and Sediment Control BMPs.

Storm Drain means any drain which drains directly into a storm sewer system, usually found along roadways or in parking lots.

Storm Sewer System means a means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains designed or used for collecting or conveying stormwater. This does not include systems which are part of a combined sewer or Publicly Owned Treatment Works (POTW), as defined at 40 CFR 122.2.

Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface waterbody, or a constructed infiltration facility.

Stormwater Management Manual (SWMM) or Manual means the technical Manual published by Ecology for use by local governments that contain descriptions of and design

criteria for BMPs to prevent, control, or treat pollutants in stormwater. There are two manuals, one for Eastern Washington and one for Western Washington.

Stormwater Pollution Prevention Plan (SWPPP) means a documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of stormwater.

Surface Waters of the State includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surfac**e** waters and water courses within the jurisdiction of the state of Washington.

Temporary Stabilization means the exposed ground surface has been covered with appropriate materials to provide temporary stabilization of the surface from water or wind erosion. Materials include, but are not limited to, mulch, riprap, erosion control mats or blankets and temporary cover crops. Seeding alone is not considered stabilization. Temporary stabilization is not a substitute for the more permanent "final stabilization."

Total Maximum Daily Load (TMDL) means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet state water quality standards. Percentages of the total maximum daily load are allocated to the various pollutant sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The TMDL calculations must include a "margin of safety" to ensure that the waterbody can be protected in case there are unforeseen events or unknown sources of the pollutant. The calculation must also account for seasonable variation in water quality.

Transfer of Coverage (TOC) means a request for transfer of coverage under this general permit as specified by Special Condition S2.A of this permit.

Treatment BMPs means BMPs that are intended to remove pollutants from stormwater. A few examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

Transparency means a measurement of water clarity in centimeters (cm), using a 60 cm transparency tube. The transparency tube is used to estimate the relative clarity or transparency of water by noting the depth at which a black and white Secchi disc becomes visible when water is released from a value in the bottom of the tube. A transparency tube is sometimes referred to as a "turbidity tube."

Turbidity means the clarity of water expressed as nephelometric turbidity units (NTUs) and measured with a calibrated turbidimeter.

Uncontaminated means free from any contaminant. See definition of "contaminant" and WAC 173-340-200.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waste Load Allocation (WLA) means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2[h]).

Water-Only Based Shaft Drilling is a shaft drilling process that uses water only and no additives are involved in the drilling of shafts for construction of building, road, or bridge foundations.

Water Quality means the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW, which include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Well means a bored, drilled or driven shaft, or dug hole whose depth is greater than the largest surface dimension. (See Injection Well.)

Wheel Wash Wastewater means any water used in, or resulting from the operation of, a tire bath or wheel wash (BMP C106: Wheel Wash), or other structure or practice that uses water to physically remove mud and debris from vehicles leaving a construction site and prevent track-out onto roads. When stormwater comingles with wheel wash wastewater, the resulting water is considered wheel wash wastewater and must be managed according to Special Condition S9.D.9.

APPENDIX B – ACRONYMS

AKART	All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment
BMP	Best Management Practice
CESCL	Certified Erosion and Sediment Control Lead
CFR	Code of Federal Regulations
CKD	Cement Kiln Dust
Cm	Centimeters
CPD	Common Plan of Development
CTB	Cement-Treated Base
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
ERTS	Environmental Report Tracking System
ESC	Erosion and Sediment Control
FR	Federal Register
LID	Low Impact Development
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SWMM	Stormwater Management Manual
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
UIC	Underground Injection Control
USC	United States Code
USEPA	United States Environmental Protection Agency
WAC	Washington Administrative Code
WQ	Water Quality
WWHM	Western Washington Hydrology Model

COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING

Wetland Mitigation Plan – TELA Gymnasium

Project Name	TELA Gymnasium
Report Name	Wetland Mitigation Plan
Client Name	Tulalip Tribes
Document Date	June 9, 2026

Prepared For	JTM Construction ATN: Jarrett Haynes 5900 Airport Way S Seattle, WA 98108
Prepared By	Coughlin Porter Lundeen 1191 Second Ave, Suite 1100 Seattle, A 98101

Table of Contents

Introduction

Coughlin Porter Lundeen has been hired to prepare a wetland buffer mitigation plan in support of the Tulalip TELA Gymnasium. The Project site is located at 7607 Totem Beach Road in Marysville, WA (Figure 1).

The purpose of this report is to identify wetland buffer impacted by the Project site for conformance with Chapter 30.62A of the Snohomish County Code (SC). This document also includes a wetland buffer mitigation plan in support of the proposed wetland buffer offset to unavoidable temporary and permanent buffer impacts and has been prepared in compliance with the mitigation requirements and development standards defined in SCC 30.62A.150 and SCC 30.62A.320, respectively.

Figure 1. Vicinity Map

Existing Conditions

The existing project site is 0.52 acres and consists of a parking lot and associated landscaping. Stormwater runoff in the north sub-basin sheet flows to the west and naturally disperses before eventually draining into an existing wetland. Stormwater in the south subbasin sheet flows across the parking lot from north to south and collects in a series of catch basins and into the existing conveyance system. The conveyance system routes stormwater south of the project site and into an existing detention pipe and swale for storage and treatment. Stormwater then leaves the property and enters the existing system under Totem Beach Rd.

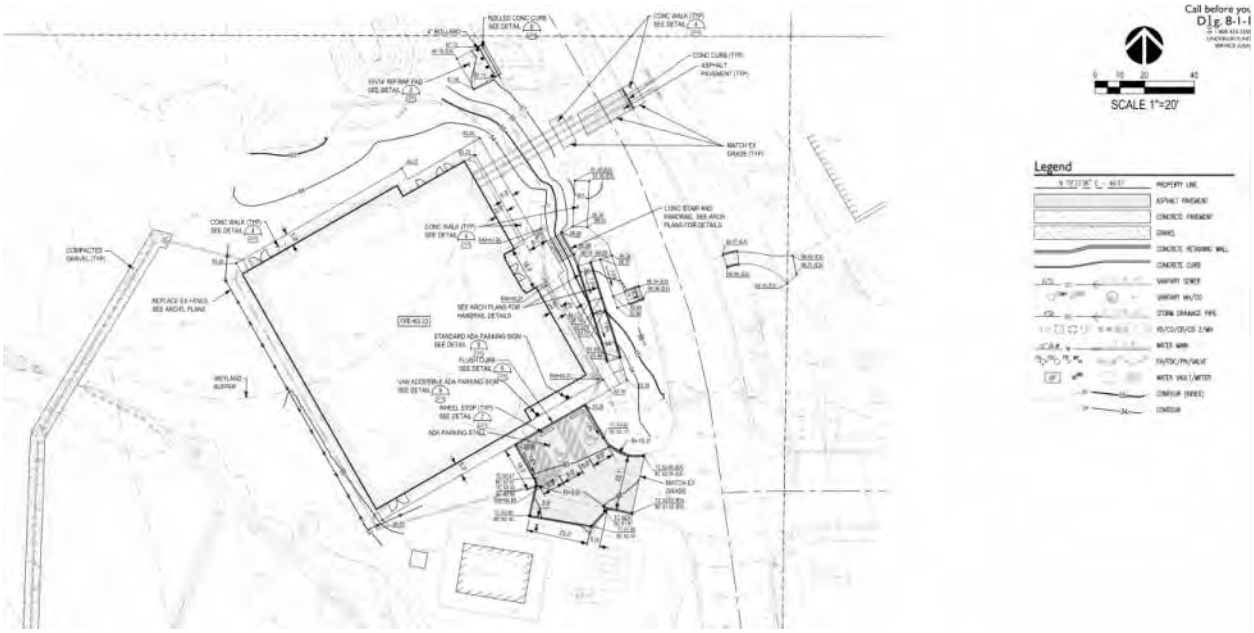
The area features rich wetland and riparian buffers to the west of the site. Typical species include red cedar, hooker willow, bitter cherry, black twinberry, and wapato. These areas serve as valued biological ecosystems, supporting juvenile salmon and play a vital role in preserving food webs by providing shade and organic material to local creeks and streams.

Figure 2: Project Location

Project Description

The proposed project will remove the existing parking lot and associated stormwater infrastructure within the planned building footprint. Adjacent areas will be regraded to accommodate the proposed site improvements and establish suitable site conditions for development. Stormwater runoff within the northern sub-basin will continue to discharge as sheet flow to the west, where it will disperse naturally across the landscape. Within the southern sub-basin, additional catch basins and conveyance piping will be installed to maintain drainage patterns consistent with existing site conditions. Water service will be extended from the existing main located east of the project site, while sanitary sewer service will be routed beneath the gravel access road west of the site. Site preparation activities, including grading and placement of fill, will support construction of the proposed improvements while maintaining overall site drainage functionality.

FIGURE 3: PROPOSED SITE



Critical Areas Summary

The Tulalip Tribes Natural Resources Department's wetland biologists have spent considerable time inventorying, assessing, monitoring, and ultimately restoring or enhancing wetlands on the Tulalip Reservation. The project site is due east of Tulalip Creek and a Salmon Rearing Pond, which is registered with the National Wetlands Inventory as an Estuarine and Marin Deepwater Wetland, requiring a 200-foot buffer setback. As described above, the project team looked at various alternatives that reduced the impact to this wetland buffer area. There was no feasible alternative to adhere to the standard wetland buffer while achieving the goals and objectives of the Project. More specifically, there is no feasible design alternative to reposition the Project footprint to adhere to the standard wetland buffers defined in SCC 30.62A.320.

In order to partially achieve avoidance, a buffer reallocation is being sought to address those portions of the Project that extend into the outer portion of the wetland buffer. While complete avoidance was not feasible, the Project has been designed in a way to minimize adverse effects on the wetland buffer.

Buffer Mitigation Plan

Per SCC 30.62A.310, any development activity shall demonstrate that all reasonable efforts have been made to avoid and minimize any potential impacts to wetlands or FWHCAs or associated buffer. Mitigation sequencing is a set of steps demonstrating how a project design prevents and/or minimizes avoidable impacts on the environment. The summarization below demonstrates the Project will adhere to the mitigation sequencing requirements in SCC 30.62A.310(3).

Alternatives

The project team evaluated multiple building locations during the design process to avoid and minimize impacts to the adjacent wetland buffer. An initial preferred location was identified immediately south of the existing parking lot within the maintained lawn area, which would have provided convenient access to the existing TELA Center while preserving existing parking capacity. However, development in this location would have required filling a drainage ditch that conveys runoff directly to the wetland, potentially altering existing stormwater delivery patterns and hydrologic functions. In addition, this alternative would have necessitated substantial grading and fill within the ravine area, as well as construction of a diversion system to reroute the drainage ditch around the proposed building footprint.

Given the potential impacts to wetland hydrology, along with the increased construction complexity and associated costs, the project team evaluated alternative locations. Siting the building within the existing impervious parking lot was identified as the practicable alternative with the lowest potential impact on downstream drainage conditions and adjacent wetland resources. Although this option presented challenges related to site accessibility and the loss of existing parking spaces, it avoided direct impacts to the drainage ditch and minimized changes to existing hydrologic conditions. Several building configurations and orientations within the parking lot were subsequently assessed. The selected design represents the alternative that minimizes the conversion of existing pervious surfaces to impervious surfaces, thereby preserving existing site conditions to the greatest extent practicable while meeting project objectives.

Mitigation Sequencing

This buffer mitigation plan is intended to summarize the proposed wetland buffer enhancement actions that will be completed in support of the Project. Enhancement actions will consist of planting an assortment of native vegetation to establish a structurally diverse plant community to emulate the onsite wetland buffer.

Temporary Impacts

The wetland buffer areas where temporary disturbances will occur as shown in Appendix A – Exhibit 2 (approx. 5,795 sq. ft.) will be restored and further enhanced compared to pre-Project conditions as shown in the Wetland Mitigation Exhibit (Appendix A – Exhibit 1). Following grading and utility trenching, these areas will be restored to the existing condition or planted with an assortment of native groundcover and shrub species. Existing conditions where temporary disturbances will occur primarily consist of existing gravel or asphalt pavement. Per SCC 30.62A.310, the minimum standard to restore existing functions shall be completed at a 1:1 impact to restoration ratio.

Construction Best Management Practices (BMPs) will be employed to minimize the potential for impacts from construction activities on nearby wetlands. BMPs that will be followed include the use of silt fencing and straw wattles until disturbed areas are stabilized, maintaining existing vegetation where possible, and seeding and mulching disturbed areas if construction is paused for at least 30 days (Appendix A). All of these BMPs are designed to stabilize slopes and minimize erosion to reduce resulting sedimentation into the wetlands.

Permanent Impacts

In support of the proposed buffer impacts, approximately 1,905 square feet of buffer will be converted to pervious area and planted with native species in as shown in the Wetland Mitigation Exhibit (Appendix A

– Exhibit 1). The pervious area within the wetland buffer (955 square feet) is a landscape island with two trees and no native plants. That area is to be offset by the 1,905 square feet of converted pervious area and proposed buffer restoration.

Please note that the enhancement proposed in support of the buffer restoration will also enhance the portion of wetland buffer that will be temporarily disturbed during construction. Current conditions in the temporarily disturbed areas predominantly consist of pavement. Restoring those areas to pre-project conditions would not be beneficial to the wetland buffer. Therefore, the Project proposes to further enhance the temporarily disturbed areas by planting native shrubs. In summary, more net pervious area will replace the impervious area, bettering the existing condition.

Mitigation Work Plan

The Project will provide 1,905 square feet of native seed mix as shown in the Wetland Mitigation Exhibit (Appendix A – Exhibit 1). The Project will begin construction in July of 2026 and finish in the Fall of 2026. All wetland mitigation plantings will be planted before construction is complete. See Appendix B for full civil plan set, which includes a proposed grading plan and erosion control measures.

Maintenance plan

A consistent maintenance plan shall be followed by the owner and their subcontractors to ensure the Project meets the performance standards. Maintenance shall continue for at least 5 years per SCC 30.62A.310. Maintenance should include, but not limited to: water or irrigate during dry months, supplement soil amendments and/or mulch, remove invasive plantings or weeds and install fencing to prohibit disturbance by people or animals as needed.

Performance Standards

The goal of the wetland buffer enhancement is to provide native vegetation to improve the wetland buffer and functions. The wetland buffer enhancement area shall follow the performance standards of:

1. Free of trash each monitoring year.
2. A minimum of 80% survival of planted vegetation each monitoring year.
3. A maximum of 10% invasive and noxious species coverage throughout the monitoring period.

Monitoring requirements

The wetland enhancement area should be monitored yearly by the Tulalip Tribe and/or their subcontractors. A written report shall be provided to the Tulalip Tribe Planning Department which will include at a minimum a summary of maintenance actions conducted onsite, a description of the general well being of the plantings, potential problems observed (if any) and any recommendations or changes to the monitoring plan.

Appendix A – Wetland Mitigation Exhibit

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Permit Set

WETLAND MITIGATION EXHIBIT

ISSUANCE

No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

EXHIBIT 1

0 10 20 40

SCALE 1"=20'

REMOVE CONC CURB (TYP)
PROTECT EX SDMH AND ASSOCIATED PIPING (TYP)
PROTECT EX POWER CONDUIT
TEMPORARY CONSTRUCTION FENCE (TYP)
PROTECT EX VAULT TO REMAIN
3,263 sf
REMOVE EX CURB (TYP)
REMOVE EX TREE (TYP)
REMOVE EX LIGHT POLE (TYP)
PROTECT EX STORM TO REMAIN (TYP)
PROTECT EX VAULTS (TYP)
PROTECT EX STORM PIPE TO REMAIN (TYP)
CUT AND CAP EX 12" STORM DRAIN, REROUTE STORM TEMPORARILY UNTIL PERMANENT CONNECTION CAN BE RESTORED
REMOVE EX STORM PIPE (TYP)
REMOVE EX ASPHALT (TYP)
REMOVE EX LIGHT POLE (TYP)
REMOVE EX TREE (TYP)
REMOVE EX CURB (TYP)
REMOVE EX CB (TYP)
REMOVE EX STORM PIPE (TYP)
REMOVE EX FENCE (TYP)
INSTALL FILTER FABRIC FENCE ON DOWNHILL SIDE OF SITE
CUT AND CAP EX 12" SD
PROTECT EX LIGHT POLE
REMOVE EX CONC WALK (TYP)
REMOVE CONC CURB (TYP)
SAWCUT AND REMOVE EX ASPHALT (TYP)
PROTECT EX LIGHT POLE (TYP)
PROTECT EX WATER LINE
PROTECT EX STORM LINE
PROTECT EX LIGHT POLE (TYP)
REMOVE EX CONC WALK (TYP)
PROTECT EX FENCE (TYP)
SAWCUT AND REMOVE EX ASPHALT (TYP)
CONSTRUCTION ACCESS GATE
INLET PROTECTION (TYP)
APPROXIMATE EXTENTS OF SEWER TRENCH
STRAW WATTLES (TYP)
PROPOSED BUILDING FOOTPRINT, OVER EXCAVATE 2' BELOW BOTTOM OF FOUNDATIONS PER GEOTECH REPORT
PROTECT EX CULVERT
WETLAND BUFFER
REMOVE EX WHEEL STOPS (TYP)
PROPOSED BUILDING FOOTPRINT SHOWN FOR REFERENCE
2,532 sf
PROJECT EX POWER POLE
PROTECT EX WATER LINE
WETLAND BUFFER
STRAW WATTLES (TYP)
APPROXIMATE EXTENTS OF SEWER TRENCH
PROTECT EX ELEC'L AND COMM
REMOVE EX TREE (TYP)
INLET PROTECTION (TYP)
INLET PROTECTION (TYP)
Totem Beach Road

Legend

- WETLAND
- SAWCUT LINE
- REMOVE CURBING
- REMOVE ASPHALT PAVEMENT
- REMOVE CONCRETE PAVEMENT
- DEMOLISH BUILDING
- REMOVE TREE(S)
- FENCING
- CABLE TV SERVICE
- ELECTRICAL SERVICE
- ELECTRICAL JBOX/VAULT
- GAS MAIN/SERVICE
- GAS METER/VALVE
- IRRIGATION LINE
- OVERHEAD POWER
- FIBER OPTIC LINE
- SANITARY SEWER
- SANITARY MH/CO
- STEAM LINE
- STORM DRAINAGE PIPE
- YD/CO/CB/CB 2/MH
- TELEPHONE SERVICE
- TELEPHONE BOX
- WATER MAIN
- FH/FDC/PIV/VALVE

Legend

- PROPERTY LINE (N 79°33'06" E – 46.81')
- LIMITS OF CONSTRUCTION
- INTERCEPTOR SWALE
- FILTER FABRIC FENCING (3/C105)
- TEMPORARY CONSTRUCTION FENCING (4/C105)
- STRAW WATTLES (2/C105)
- TEMPORARY CONSTRUCTION GATE
- EXCAVATION SIDE SLOPE
- BOTTOM OF EXCAVATION
- INLET PROTECTION (1/C105)

T.E.S.C. NOTES:

1. THE TESC MEASURES SHOWN ON THIS PLAN ARE REPRESENTATIVE OF ONLY ONE POSSIBLE TESC PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL TESC MEASURES NEEDED DURING ALL PHASES TO MEET THE REQUIREMENTS OF THE JURISDICTION HAVING AUTHORITY. ALL COSTS FOR MEETING THE REQUIREMENTS SHALL BE INCLUDED IN THE BASE BID.
2. INLET SEDIMENT PROTECTION SHALL BE PROVIDED AT ALL EXISTING CATCH BASINS WITHIN & ADJACENT TO WORK AREAS
3. BLOWING DUST SHALL BE PREVENTED. WATER TRUCK SHALL BE ON SITE AND OPERATIONAL AS NECESSARY.
4. STORMWATER RUNOFF WITH TURBIDITY EXCEEDING 25 NTU OR PH EXCEEDING 8.5 STANDARD UNITS SHALL NOT BE ALLOWED TO BE DISCHARGED FROM THE PROJECT SITE. CONSULT CSWPPP AND CONTRACTOR EMPLOYED CESCL FOR BENCHMARKS, MONITORING, REPORTING AND REMEDIATION REQUIREMENTS.
5. NO SEDIMENT SHALL BE TRACKED ONTO ADJACENT PAVED SURFACES. CONTRACTOR SHALL PROVIDE STREET SWEEPING PROMPTLY IF SEDIMENT TRACKING HAS OCCURRED.
6. ALL DISTURBED SURFACES SHALL BE COVERED WITH PLASTIC SHEETING, STRAW MULCH, HYDROSEED, OR CRUSHED SURFACING.
7. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS, INCLUDING TURBIDITY AND PH MONITORING
8. CONTRACTOR SHALL ADJUST THE EROSION CONTROL MEASURES TO THE PROPOSED GRADING LIMITS.

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Marysville, WA 98271

Permit Set

Demolition and TESC Plan

ISSUANCE

No.	Description	Date

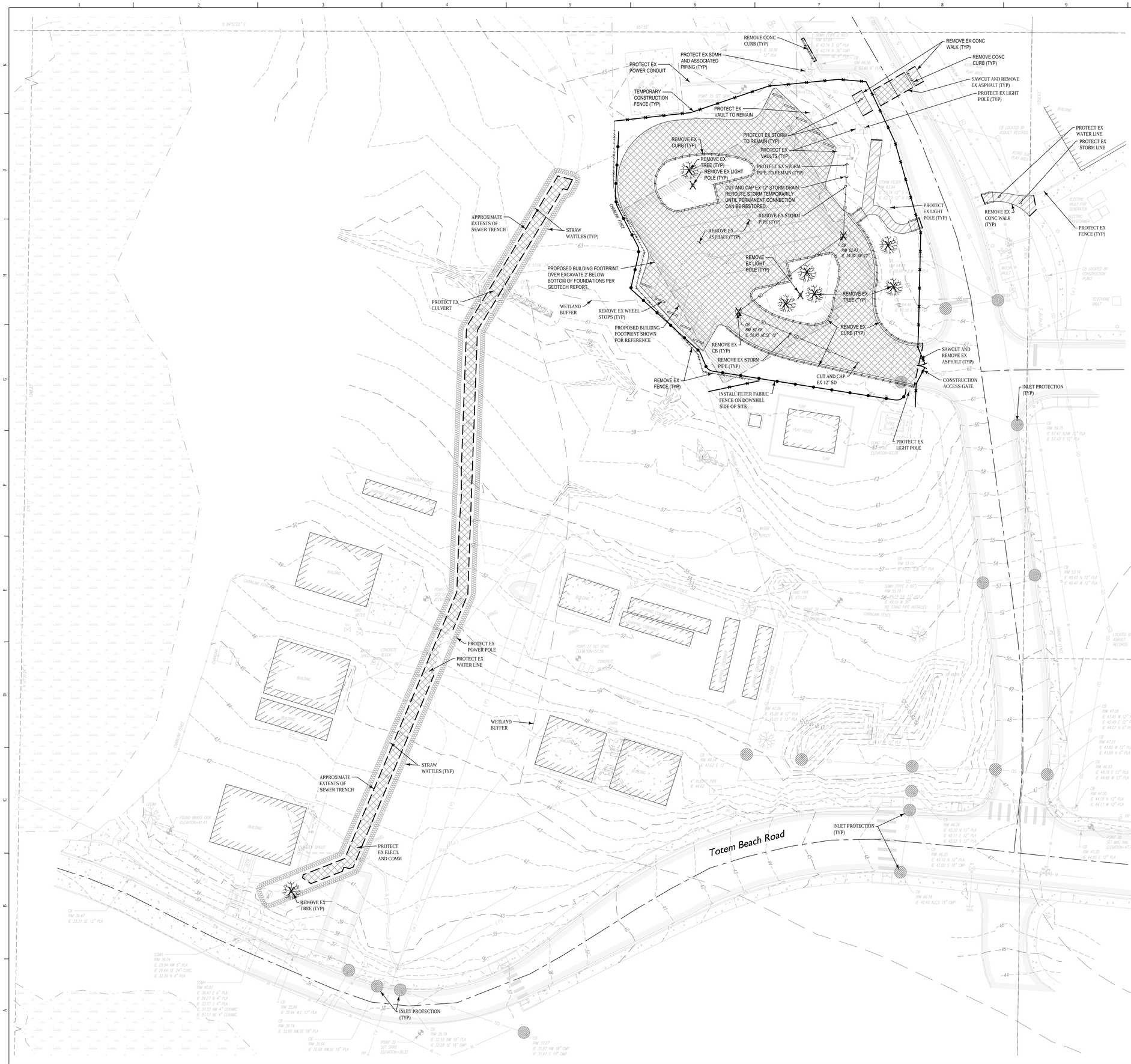
PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	FJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

EXHIBIT 2

Appendix B – Civil Plan Set



Call before you Dig. 8-1-1 or 1-800-424-5555 UNDERGROUND SERVICE (USA)

0 10 20 40

SCALE 1"=20'

Legend

- WETLAND
- SAWCUT LINE
- REMOVE CURBING
- REMOVE ASPHALT PAVEMENT
- REMOVE CONCRETE PAVEMENT
- DEMOLISH BUILDING
- REMOVE TREE(S)
- FENCING
- CABLE TV SERVICE
- ELECTRICAL SERVICE
- ELECTRICAL JBOX/VAULT
- GAS MAIN/SERVICE
- GAS METER/VALVE
- IRRIGATION LINE
- OVERHEAD POWER
- FIBER OPTIC LINE
- SANITARY SEWER
- SANITARY MH/CO
- STEAM LINE
- STORM DRAINAGE PIPE
- YD/CO/CB/CB 2/MH
- TELEPHONE SERVICE
- TELEPHONE BOX
- WATER MAIN
- FH/FDC/PIV/VALVE

Legend

- PROPERTY LINE (N 79°33'06" E – 46.81')
- LIMITS OF CONSTRUCTION
- INTERCEPTOR SWALE
- FILTER FABRIC FENCING (3 / C105)
- TEMPORARY CONSTRUCTION FENCING (4 / C116)
- STRAW WATTLES (2 / C105)
- TEMPORARY CONSTRUCTION GATE
- EXCAVATION SIDE SLOPE
- BOTTOM OF EXCAVATION
- INLET PROTECTION (1 / C118)

T.E.S.C. NOTES:

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4. STORMWATER RUNOFF WITH TURBIDITY EXCEEDING 25 NTU OR PH EXCEEDING 8.5 STANDARD UNITS SHALL NOT BE ALLOWED TO BE DISCHARGED FROM THE PROJECT SITE. CONSULT CSWPPP AND CONTRACTOR EMPLOYED CESCL FOR BENCHMARKS, MONITORING, REPORTING AND REMEDIATION REQUIREMENTS.
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8. CONTRACTOR SHALL ADJUST THE EROSION CONTROL MEASURES TO THE PROPOSED GRADING LIMITS.

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Tulalip Tela Gym

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Marysville, WA 98271

Permit Set

Demolition and TESC Plan

ISSUANCE

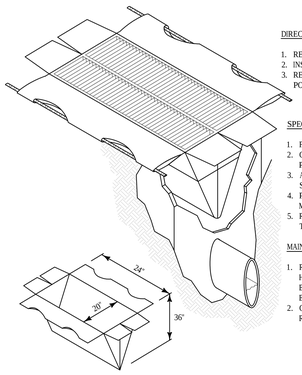
No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

C100



DIRECTIONS FOR USE

1. REMOVE DRAIN GRATE
2. INSERT FILTER
3. REPLACE GRATE TO HOLD IN POSITION

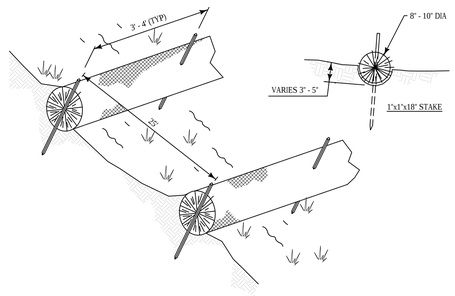
SPECIFICATIONS

1. FILTERS TO BE A MIN 3' DEEP
2. CONSTRUCTED OF WOVEN POLYPROPYLENE
3. ALL SEAMS DOUBLE STITCHED
4. PERMEABILITY - 40 GAL PER MIN / SQ FT
5. REUSEABLE OR THROW-AWAY

MAINTENANCE

1. REMOVE WHEN FILLED TO HALFWAY MARK USE FRONT END LOADER OR OTHER EQUIPMENT FOR REMOVAL
2. CLEAN AND REUSE OR REPLACE

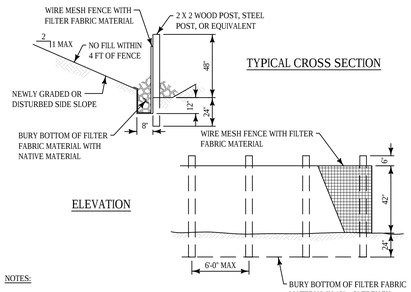
NTS **Catch Basin Sediment Filter** 1



NOTES:

1. STRAW WATTLE/ROLL SHALL BE MANUFACTURED FROM RICE STRAW AND WRAPPED IN TUBULAR PLASTIC NETTING. NETTING SHALL HAVE A STRAND THICKNESS OF 0.03" AND A KNOT THICKNESS OF 0.055 AND A WEIGHT OF 0.35 OZ PER FOOT AND SHALL BE MADE FROM 85% HDPE, 14% ETHYL VINYL ACETATE AND 1% COLOR FOR UV INHIBITION.
2. STRAW WATTLE/ROLL INSTALLATION REQUIRED THE PLACEMENT AND SECURE STAKING OF THE WATTLE/ROLL IN A TRENCH, 3'-5' (VARIES) DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND WATTLE/ROLL.
3. STRAW WATTLE/ROLLS MUST BE PLACED ALONG SLOPE CONTOURS.

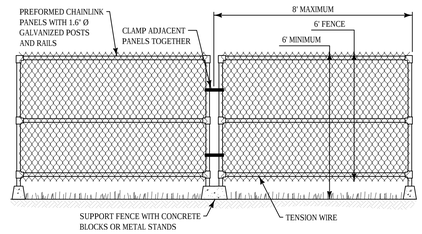
NTS **Straw Wattle/Roll Detail** 2



NOTES:

1. FENCE SHALL NOT BE INSTALLED ON SLOPES STEEPER THAN 2:1
2. JOINTS IN FILTER FABRIC SHALL BE OVERLAPPED 6 INCHES AT POST
3. USE STAPLES, WIRE RINGS, OR EQUIVALENT TO ATTACH FABRIC TO WIRE FENCE
4. REMOVE SEDIMENT WHEN IT REACHES 1/3 FENCE HEIGHT

NTS **Silt Fence** 3



NTS **Temporary Chain Link Fence** 4

NTS **Not Used** 5

NTS **Not Used** 6

NTS **Not Used** 7

NTS **Not Used** 8

NTS **Not Used** 9

NTS **Not Used** 10

NTS **Not Used** 11

NTS **Not Used** 12

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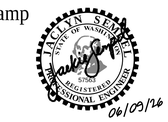

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Marysville, WA 98271

Permit Set

TESC DETAILS

ISSUANCE

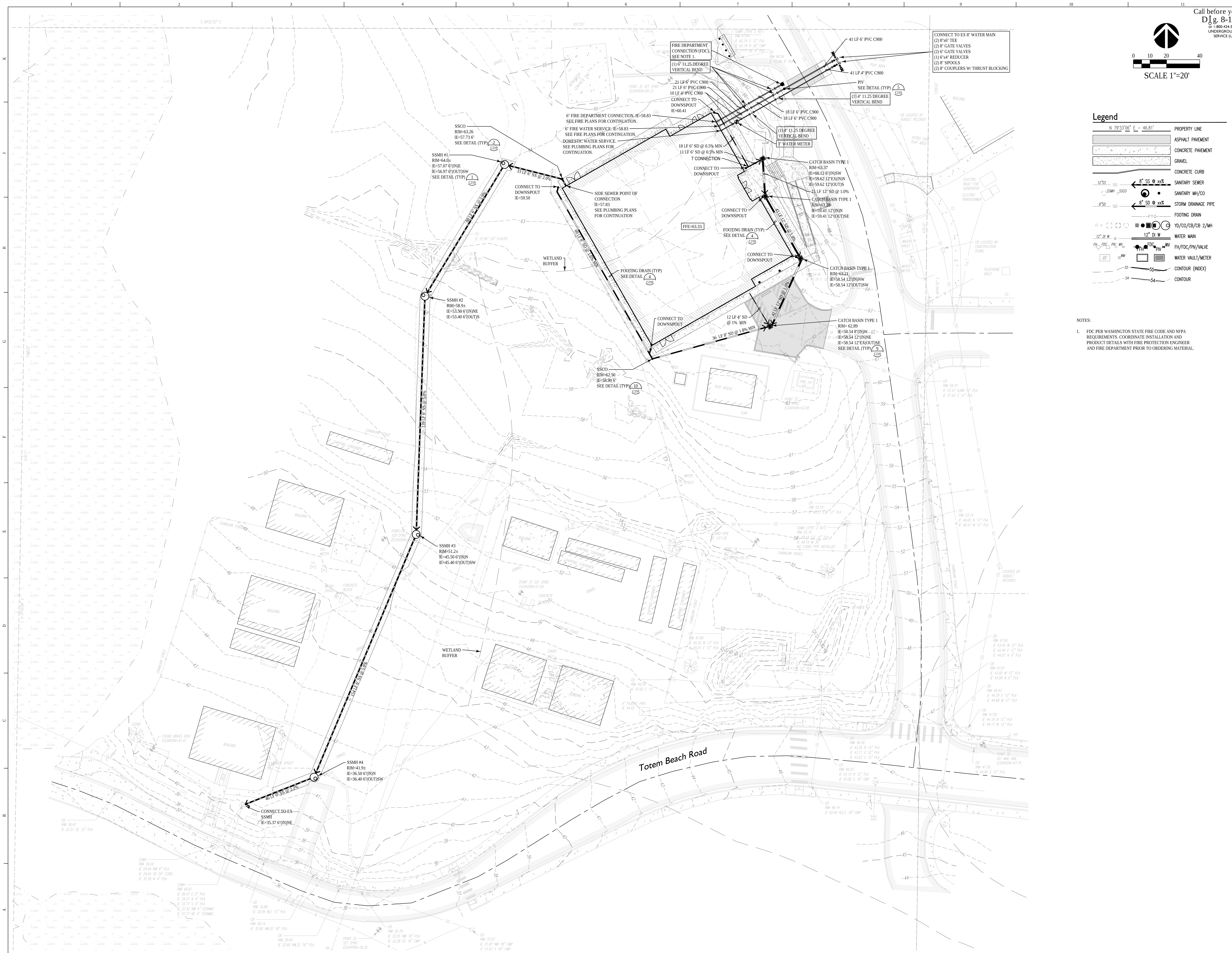
No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

C110



NOTES:

1. FDC PER WASHINGTON STATE FIRE CODE AND NFPA REQUIREMENTS. COORDINATE INSTALLATION AND PRODUCT DETAILS WITH FIRE PROTECTION ENGINEER AND FIRE DEPARTMENT PRIOR TO ORDERING MATERIAL.

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JACLYN SEMLER, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER, 06/03/26

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Tulalip Tela Gym

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Marysville, WA 98271

Permit Set

Drainage and Utilities Plan

ISSUANCE

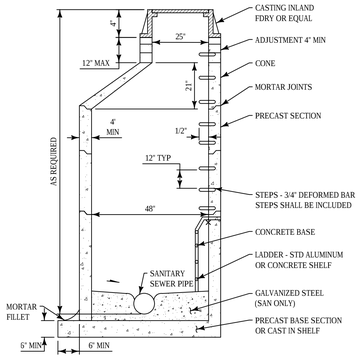
No.	Description	Date

PROJECT INFORMATION

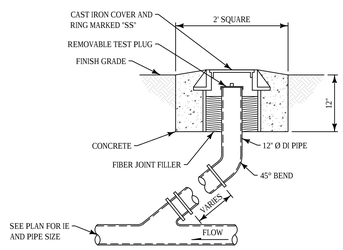
PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

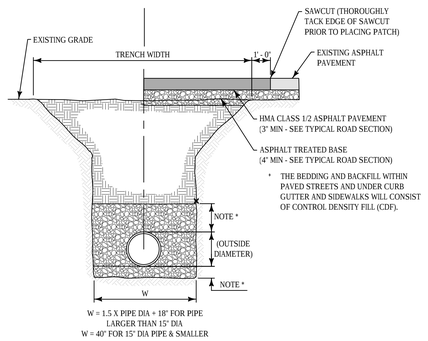
C200



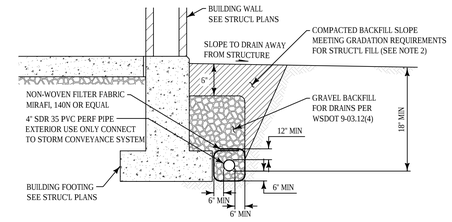
Sanitary Sewer Manhole NTS 1



Sanitary Sewer Cleanout NTS 2



Sewer Trench Detail NTS 3



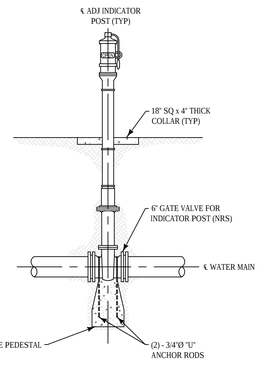
NOTES:

1. SEE ARCHITECTURAL PLANS FOR DRAINAGE GRAVEL BENEATH BUILDING SLAB.
2. STRUCTURAL FILL SHOULD CONSIST OF WELL-GRADED GRANULAR SOIL WITH NOT MORE THAN 5% FINES (BY WEIGHT BASE ON 3/4" PORTION) PASSING NO. 200 SIEVE (BY WEIGHT SIEVING) WITH NO PLASTIC FINES.
3. BACKFILL WITHIN 18" OF WALL SHOULD BE COMPACTED WITH HAND-OPERATED EQUIPMENT. HEAVY EQUIPMENT SHOULD NOT BE USED FOR BACKFILL, AS SUCH EQUIPMENT OPERATED NEAR THE WALL COULD INCREASE LATERAL EARTH PRESSURES AND POSSIBLY DAMAGE THE WALL.
4. ALL BACKFILL SHOULD BE PLACED IN LAYERS NOT EXCEEDING 6' LOOSE THICKNESS AND DENSELY COMPACTED. BENEATH PAVED OR SIDEWALK AREAS, COMPACT TO AT LEAST 95% MODIFIED PROCTOR MAXIMUM DENSITY (ASTM: D1557). OTHERWISE COMPACT TO 90% MINIMUM

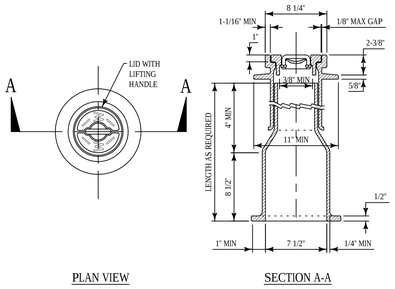
SUBDRAIN PIPE:

1. 4" MINIMUM DIAMETER PERFORATED OR SLOTTED PIPE; TIGHT JOINTS; SLOPED TO DRAIN (6'/100' MIN SLOPE); PROVIDE CLEAN-OUTS
2. PERFORATED PIPE HOLES (3/16" TO 1/4" Ø) TO BE IN LOWER HALF OF THE PIPE WITH LOWER QUARTER SEGMENT UNPERFORATED FOR WATER FLOW.
3. SLOTTED PIPE TO HAVE 1/8" MAXIMUM WIDTH SLOTS

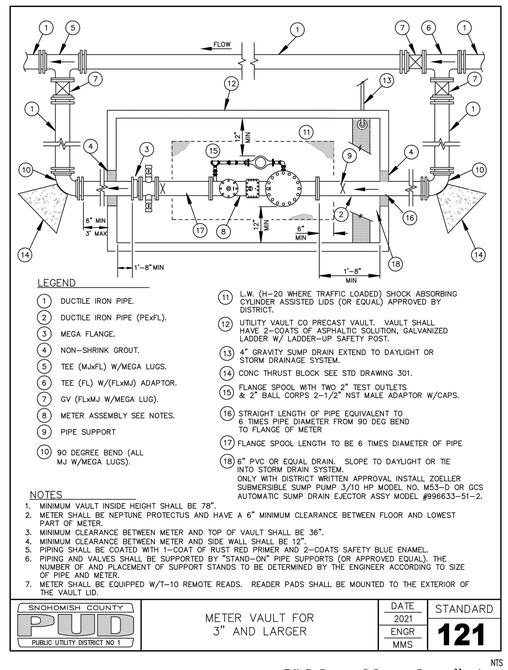
Exterior Footing Drain W/Filter Fabric Wrap NTS 4



Post Indicator Valve Detail NTS 5



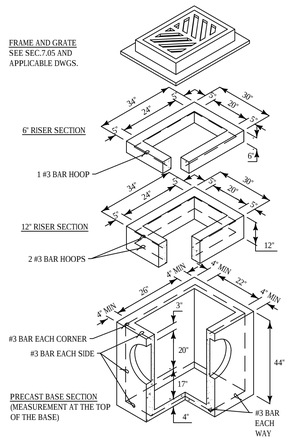
Water Line Valve Box NTS 6



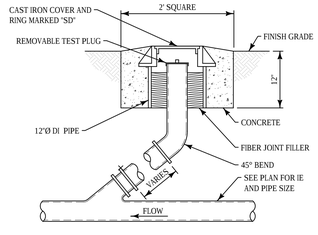
3" Water Meter Installation NTS 8

NOTES:

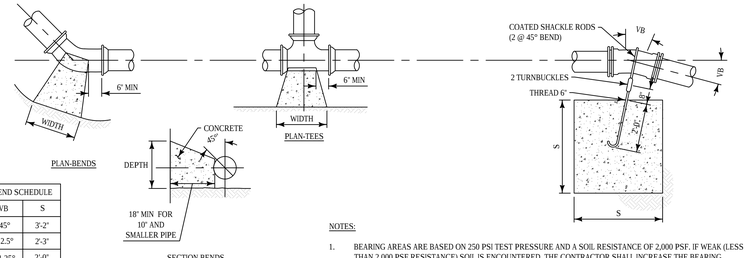
1. CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478 (AASHTO M 199) & C890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE WSDOT/APWA STANDARD SPECIFICATIONS.
2. AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
3. ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
4. PRECAST BASES SHALL BE FURNISHED WITH THICKNESS CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS CATCH BASIN WALL THICKNESS.
6. ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX DIAMETER OF 20" KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
7. THE MAX DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
8. THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2":FT.
9. CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
10. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
11. FOR CATCH BASINS IN PARKING LOTS REFER TO WSDOT/APWA STANDARD DWG B1-b.
12. EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2' FROM VERTICAL EDGE OF CATCH BASIN.



Catch Basin Type I NTS 9



Storm Drain Cleanout NTS 10



VERTICAL BEND SCHEDULE		
PIPE SIZE	VB	S
4"	45°	3'-2"
4"	22.5°	2'-3"
4"	11.25°	2'-0"
6"	45°	4'-2"
6"	22.5°	2'-11"
6"	11.25°	2'-5"
8"	45°	5'-0"
8"	22.5°	3'-8"
8"	11.25°	2'-6"

PIPE SIZE	MIN BEARING AREA (SQ FT)= WIDTHxDEPTH				HYD, TEE, CAP VALVE, PLUG
	90° BEND	45° BEND	22.5° BEND	11.25° BEND	
3"	1.3	0.7	0.4	0.2	0.9
4"	2.3	1.2	0.6	0.3	1.6
6"	5	2.7	1.4	1	3.6
8"	9	5	3	2	7

NOTES:

1. BEARING AREAS ARE BASED ON 250 PSI TEST PRESSURE AND A SOIL RESISTANCE OF 2,000 PSF. IF WEAK (LESS THAN 2,000 PSF RESISTANCE) SOIL IS ENCOUNTERED, THE CONTRACTOR SHALL INCREASE THE BEARING AREAS SHOWN TO PREVENT MOVEMENT UNDER TEST OR OPERATING PRESSURES.
2. THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN CONSTRUCTING THRUST BLOCKS:
   A. BLOCKS MUST BE PORED AGAINST UNDISTURBED SOIL
   B. PIPE JOINT AND BOLTS MUST BE ACCESSIBLE
   C. CONCRETE SHOULD BE CURED FOR AT LEAST 5 DAYS AN SHOULD HAVE A COMPRESSION STRENGTH OF 2,000 LBS AT 28 DAYS.
A. BLOCKS MUST BE POSITIONED TO COUNTERACT THE DIRECTION OF THE RESULTANT THRUST FORCE.
3. ALL PIPE SHALL BE PROPERLY BEDDED PER STANDARD DETAILS

Thrust Blocking Sizing Table NTS 12

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Tulalip Tela Gym

7607 Totem Beach Road
Marysville, WA 98271

Permit Set

DRAINAGE AND UTILITY DETAILS

ISSUANCE

No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

SHEET NO

C210

Call before you Dig. 8-1-1 or 1-800-424-5555 UNDERGROUND SERVICE (USA)

0 10 20 40
SCALE 1"=20'

Legend

N 79°33'06" E – 46.81'	PROPERTY LINE
	ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	GRAVEL
	CONCRETE RETAINING WALL
	CONCRETE CURB
12"SS / 8" SS @ xx%	SANITARY SEWER
SSMH SSCO	SANITARY MH/CO
8"SD / 8" SD @ xx%	STORM DRAINAGE PIPE
	YD/CO/CB/CB 2/MH
12" DI W	WATER MAIN
FH FDC PIV WV	FH/FDC/PIV/VALVE
	WATER VAULT/METER
55	CONTOUR (INDEX)
54	CONTOUR

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Grading and Paving Plan

ISSUANCE

No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234
	PERMIT #1234

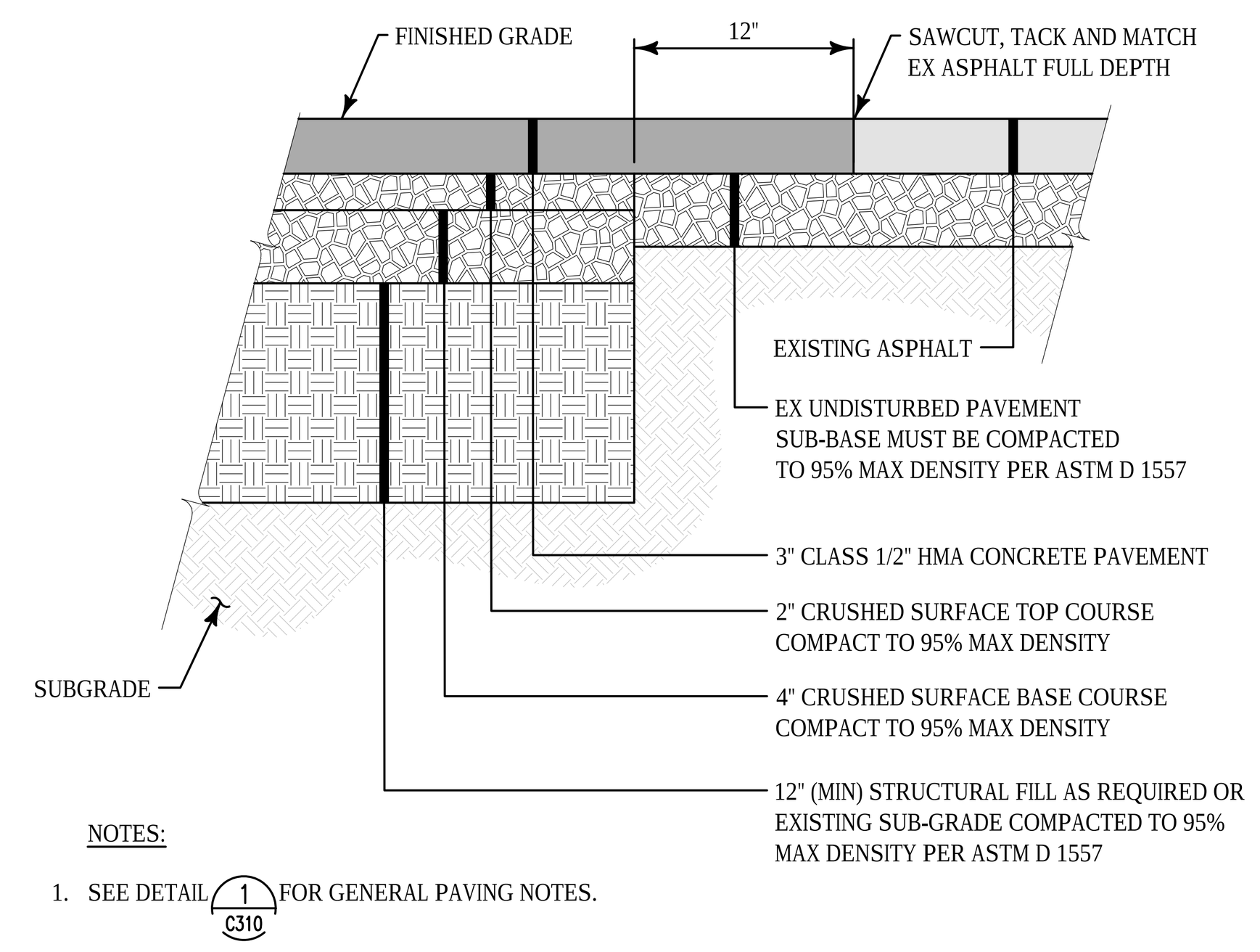
SHEET NO

C300

NOTES:

1. SPECIFICATIONS FOR ALL ASPHALT CONCRETE WORK SHALL BE PER THE LATEST EDITION IN EFFECT OF THE "WASHINGTON STATE DEPT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION."
2. ALL ASPHALT CONCRETE PAVEMENT SHALL BE PLACED IN ACCORDANCE WITH WSDOT/APWA SECTION 5-04, UNLESS OTHERWISE SPECIFICALLY NOTED.
3. PROOF ROLL AND REMOVE ANY SOFT SPOTS. REPLACE REMOVED MATERIAL WITH STRUCTURAL FILL PER THE GEOTECHNICAL ENGINEER. CONTRACTOR SHALL TEST AND VERIFY SUB-GRADE MEETS COMPACTION REQUIREMENTS.
4. CRUSHED SURFACING SHALL BE PLACED IN ACCORDANCE WITH WSDOT/APWA SECTION 4-04, AND SHALL MEET THE REQUIREMENTS OF WSDOT/APWA SECTION 9-03.9(3).
5. AGGREGATE SHALL BE CLASS 1/2" MEDIUM GRADING CONFORMING TO SECTION 9-03.8 OF WSDOT / APWA. ASPHALT BINDER SHALL BE ASPHALT PAVING GRADE AR-4000 AND SHALL COMPLY WITH WSDOT / APWA 9-02.1. ASPHALT MIXING AND PROPORTIONING SHALL COMPLY WITH WSDOT / APWA 9-03.8.
6. SAWCUT FULL DEPTH WHERE NEW PAVEMENT ABUTS EXISTING AND APPLY TACK COAT.

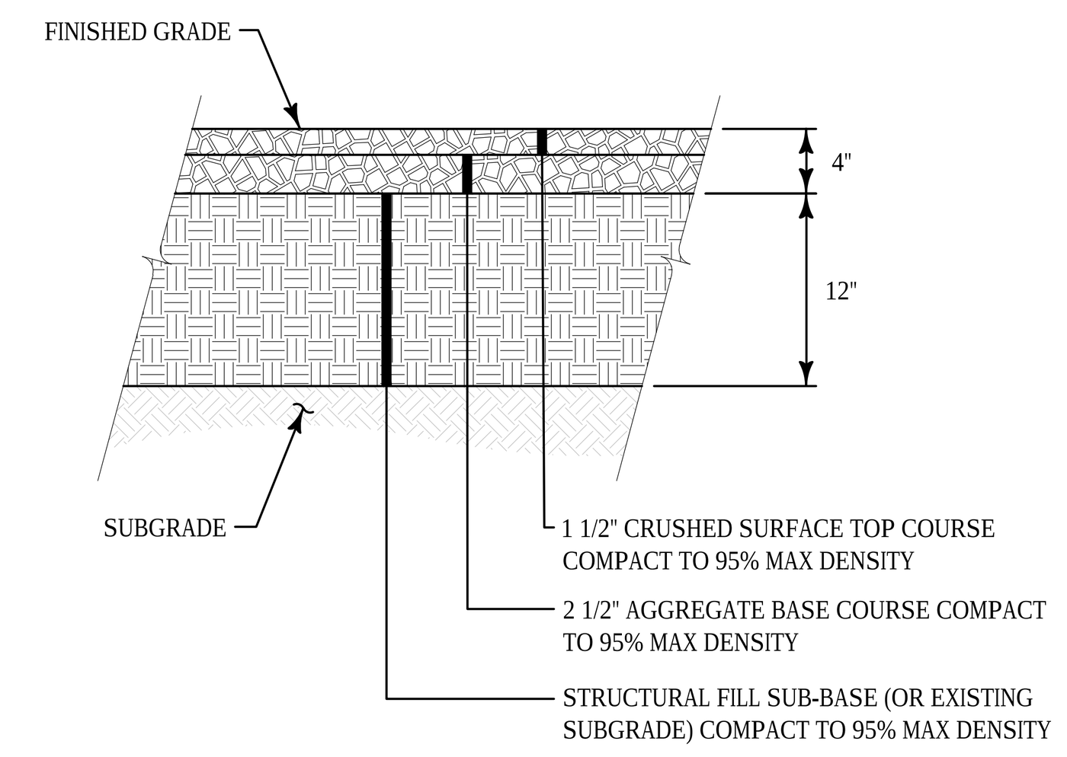
NTS
General Paving Notes 1



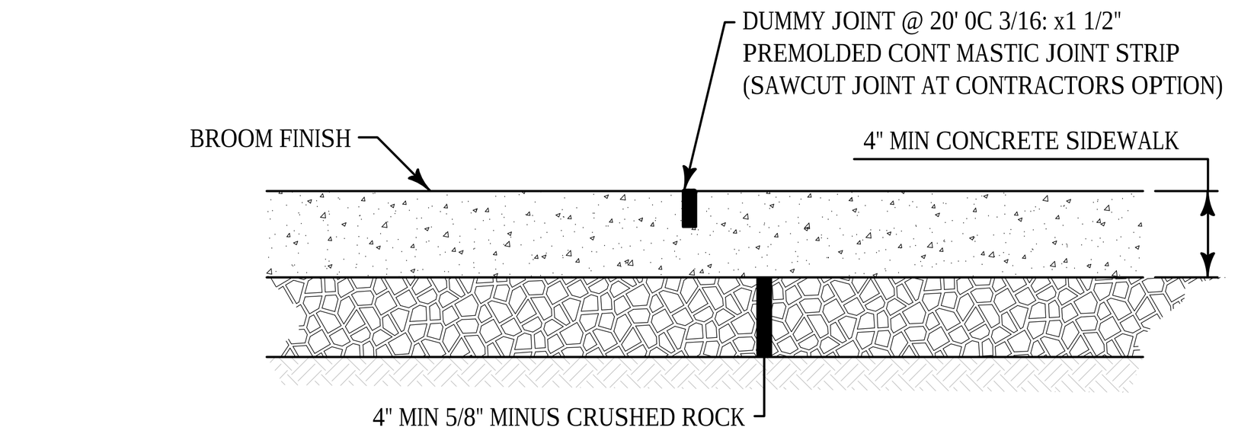
NOTES:

1. SEE DETAIL 1/C310 FOR GENERAL PAVING NOTES.

NTS
Standard Asphalt Paving Section 2



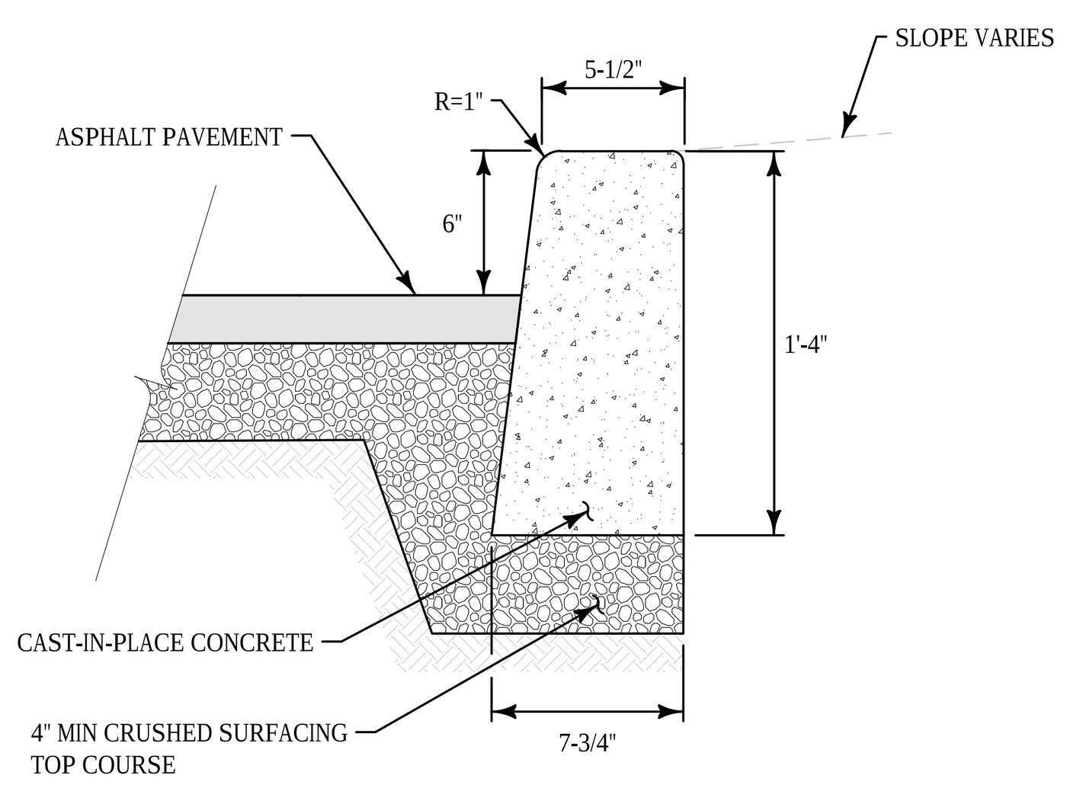
NTS
4" Gravel Road Section 3



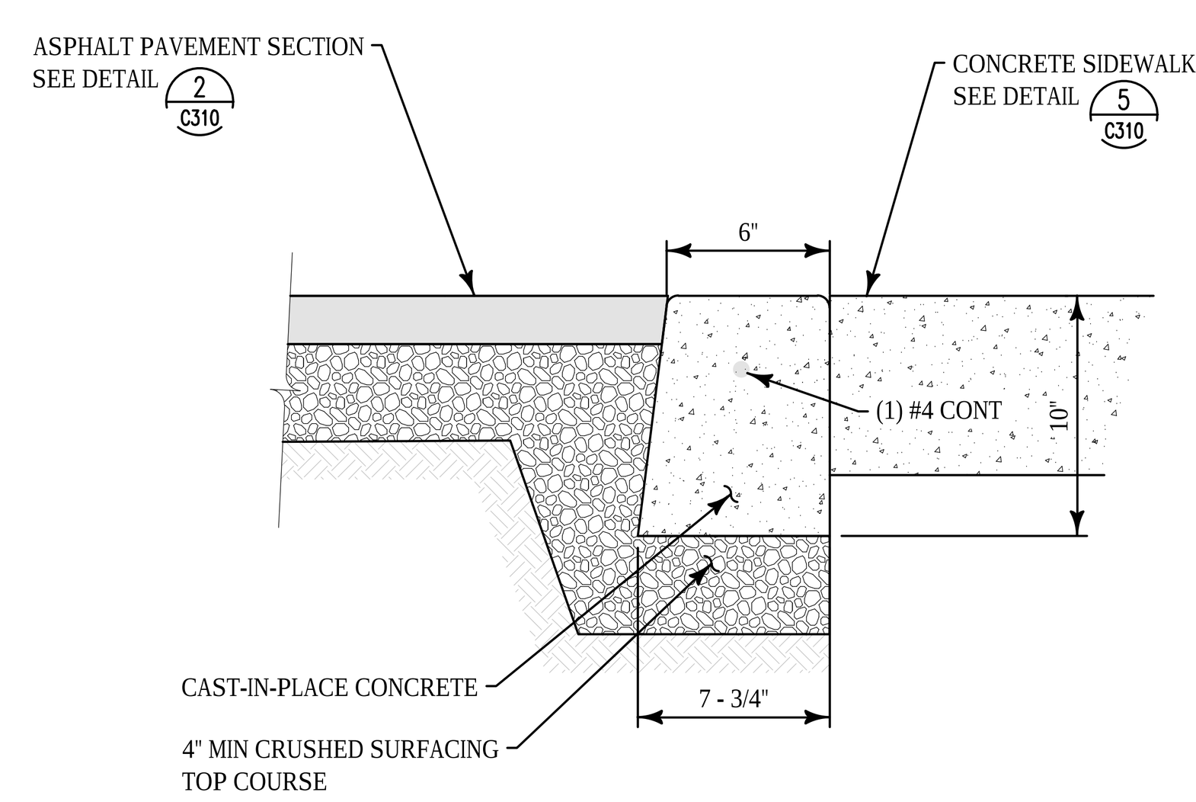
NOTE:

1. MINIMUM CONCRETE 3000 PSI (5 1/2 SACK)
2. PLACE TOOL JOINTS @ 5' 0C
3. IF WALK IS OVER 7' WIDE, PLACE LONGITUDINAL DUMMY JOINT ALONG CENTER OF WALK.
4. WHERE REPLACING EXISTING WALK, START NEW WALK AT EXISTING JOINT. MATCH EXISTING SCORING PATTERN & CONCRETE FINISH.

NTS
Concrete Sidewalk Detail 4



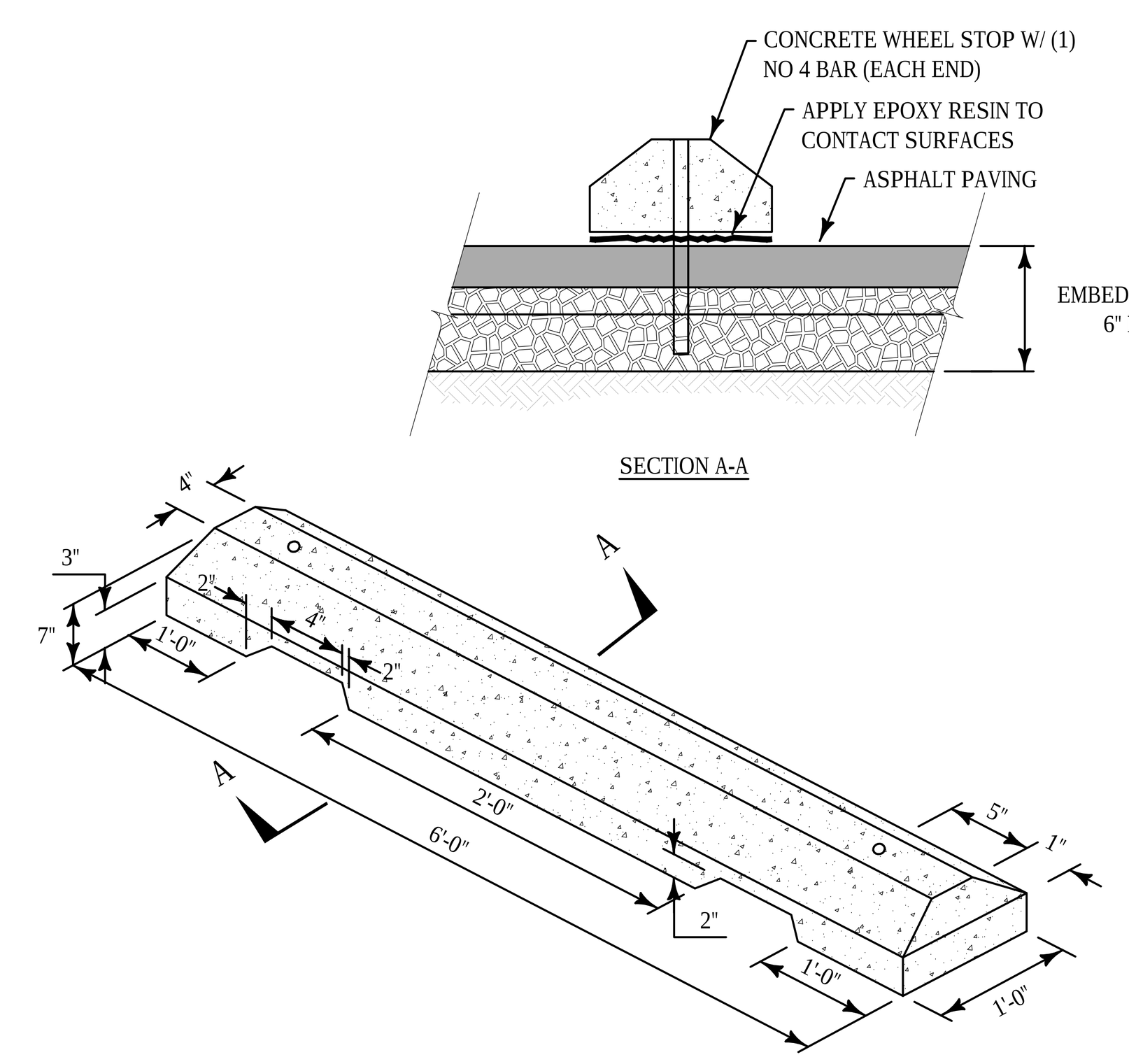
NTS
Concrete Vertical Curb 5



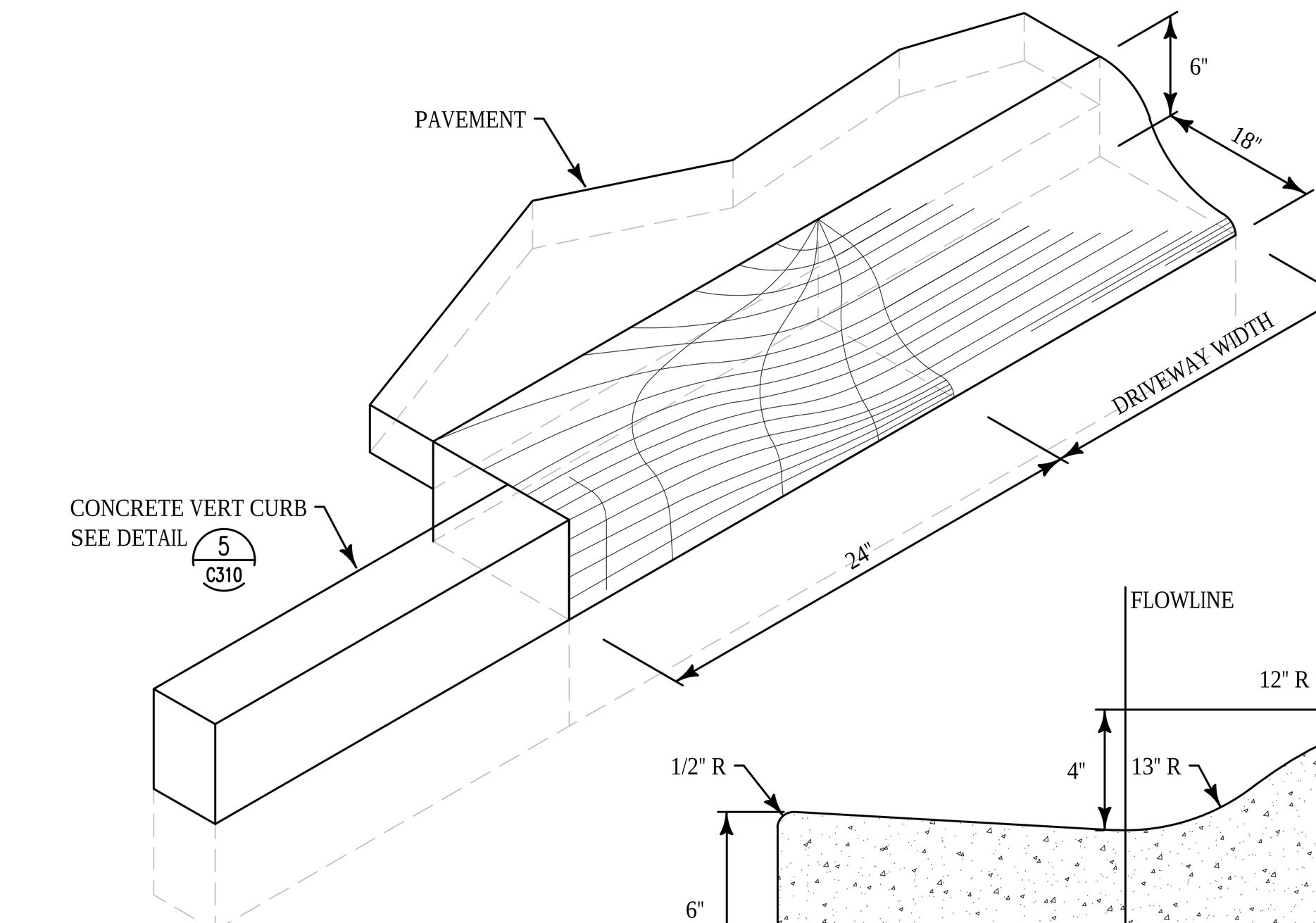
NOTE:

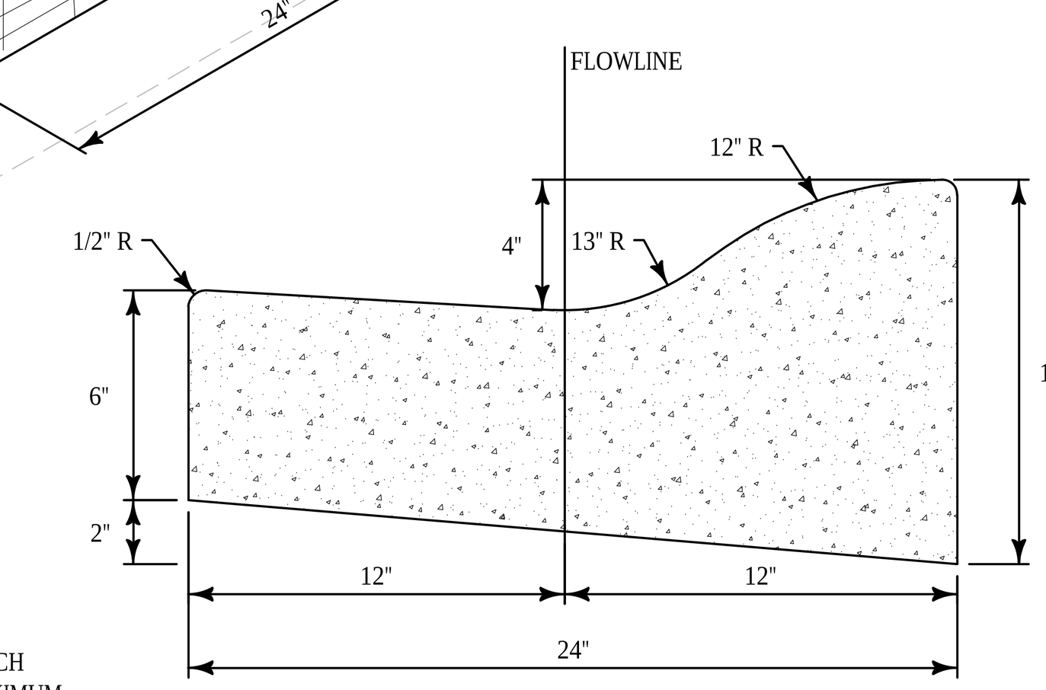
IN AREAS OF INTERIM ATB FINISH CONDITION, THE CURB TO BE INSTALLED IS TO PROVIDE A 6" CURB FACE FOLLOWING FUTURE ASPHALT PAVING. THE INTERIM DIMENSION IS TO BE 9" ON CURB FACE.

NTS
Depressed Curb 6



NTS
Wheel Stop 7

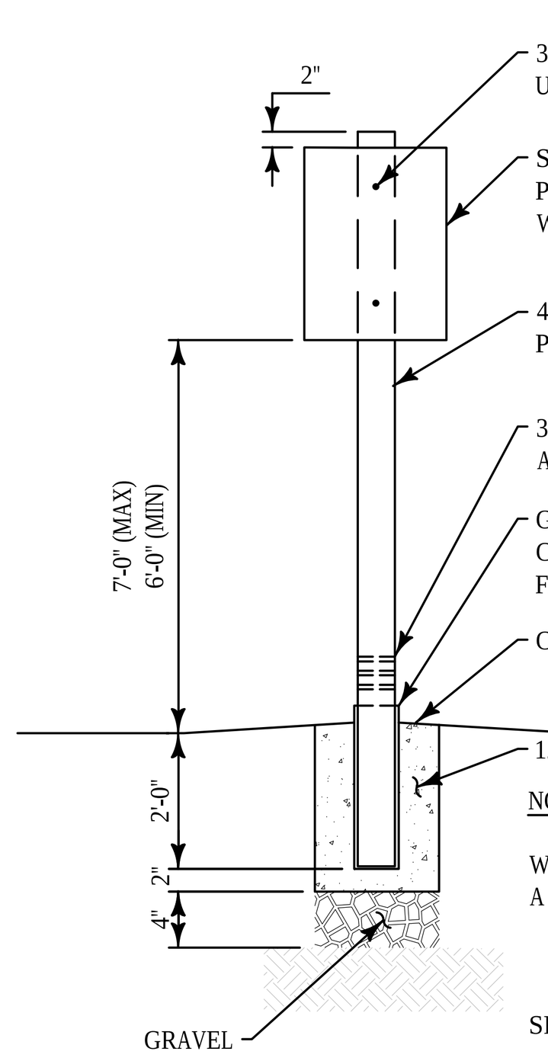




NOTES:

1. FORMS SHALL BE TRUE TO LINE AND GRADE AND SECURELY STAKED.
2. THRU JOINTS SHALL BE PLACED ADJACENT TO CATCH BASINS, INLETS, CURB RETURNS, ALLEYS, OR A MAXIMUM SPACING OF 10 FEET.
3. THRU JOINTS SHALL BE 1/2" WIDE PRE-MOLDED JOINT FILLER.
4. ALL JOINTS SHALL BE CLEAN AND EDGED.
5. CONCRETE SHALL BE CEMENT CONCRETE CLASS 4000.
6. STEEL FORMS ONLY MAY BE USED ON TANGENT SECTIONS, WOOD FORMS MAY BE USED ON CURVED SECTIONS.
7. FINISH SHALL BE LIGHT BROOM.

NTS
Rolled curb and transition 8



NOTE:

WHEN INSTALLING MORE THAN ONE SIGN ON A POST THE ORDER OF PRIORITY SHALL BE:
1. REGULATORY
2. WARNING
3. INFORMATION
SPACING BETWEEN SIGNS SHALL BE 2"

NTS
Sign Post 9

NTS
Not Used 10

NTS
Not Used 11

NTS
Not Used 12

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Permit Set

PAVING DETAILS

ISSUANCE

No.	Description	Date

PROJECT INFORMATION

PROJECT NUMBER:	C26010
PROJECT LEAD:	JJS
DRAWN BY:	PRW
	DOH CRS #1234 PERMIT #1234

SHEET NO

C310