

RECEIVED
By Planning Department at 1:53 pm, Feb 04, 2025

MATTSON HILL SP

SW 1/4 SECTION 8, TOWNSHIP 29N, RANGE 6E, W.M.

OWNER/APPLICANT

DEDONATO GROUP
10257 NE 64TH ST.
KIRKLAND, WA 98033
425.417.3455
CONTACT: TOM DEDONATO

CIVIL ENGINEER

OMEGA ENGINEERING, INC.
JOSEPH SMEBY, PE
2707 WETMORE AVE.
EVERETT, WA 98201
425.903.4852
F: 425.259.1958

LEGAL DESCRIPTION

LOT 21, RUCKER'S MILL PLAT NO. 2, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 7 OF PLATS, PAGE 54, RECORDS OF SNOHOMISH COUNTY, WASHINGTON.

SUBJECT TO EASEMENTS, RESTRICTIONS AND RESERVATIONS OF RECORD.

ARBORIST

TREE SOLUTIONS INC.
2940 WESTLAKE AVE N (200)
SEATTLE, WA 98109
CONTACT: KATIE HOGAN

WETLAND BIOLOGIST

WATERMARK CRITICAL AREAS, LLC.
PO BOX 1785
STANWOOD, WA 98292
425.210.9228
CONTACT: JONI URBANSKI

DATUM NAVD 88

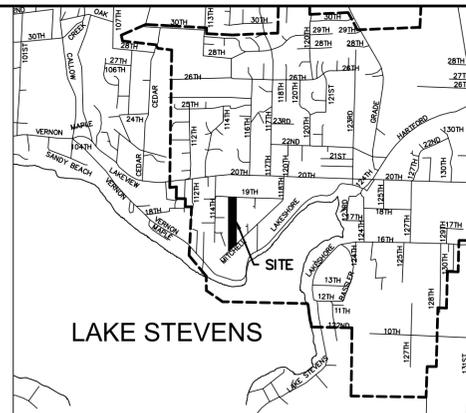
BENCHMARK
TBM#1
TOP OF CONCRETE MONUMENT AT THE CENTERLINE OF 19TH ST NE. APPROX. 150' EAST OF NE CORNER OF SITE
ELEV.=293.46

SITE DATA

SITE ADDRESS: 16XX MITCHELL RD. LAKE STEVENS, WA 98258
TAX ACCOUNT NO.: 0056230002100
WATER SUPPLY: SNOHOMISH COUNTY PUD NO. 1
SEWAGE DISPOSAL: LAKE STEVENS SEWER DISTRICT
GROSS SITE AREA: 3.68 ACRES = 160,415 SF

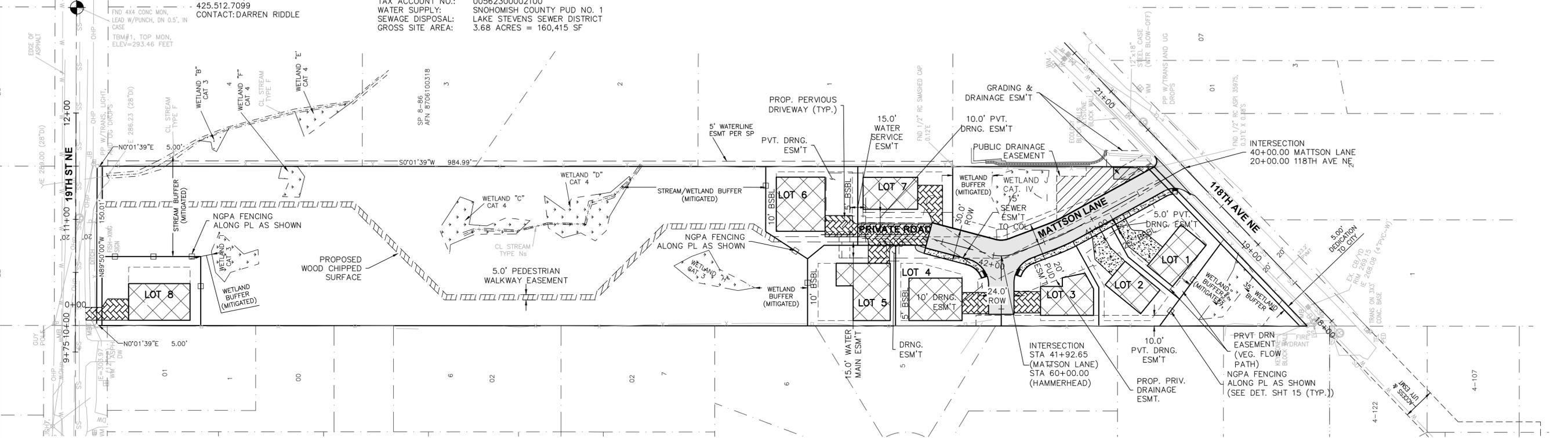
SURVEYOR

PACIFIC COAST SURVEYS, INC.
PO BOX 13619
MILL CREEK, WA 98012
425.512.7099
CONTACT: DARREN RIDDLE



VICINITY MAP
SCALE: 1" = 2,000'

BY	DATE	DESCRIPTION



IMPERVIOUS SURFACE LEGEND

- STANDARD ASPHALT
- STANDARD CONCRETE
- PERVIOUS CONCRETE
- ROOF

MAX ROOF PER PLAT DESIGN

LOT #	SF
1	1,533
2	1,248
3	1,750
4	2,005
5	2,228
6	2,354
7	1,545
8	2,040

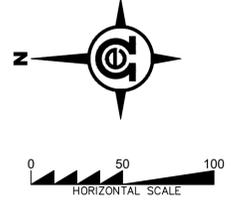
A City of Lake Stevens ROW Permit is required prior to any work within the existing ROW.

Per LSMC 14.60.400 all public streets, sidewalks, and other common areas or facilities in subdivisions shall be sufficiently illuminated to ensure the security of property and the safety of persons using such streets, sidewalks, and other common areas or facilities. An approved illumination plan is required prior to scheduling the pre-construction meeting.

No parking signs may be required along new public streets. Coordinate with the Fire Marshall and PW Inspector for requirements.

DRAWING INDEX

- 1) COVER SHEET
 - 2) SWPPP
 - 3) SWPPP DETAILS
 - 4) 19TH ST NE PLAN & PROFILE
 - 5) 118TH AVE NE PLAN & PROFILE
 - 6) GRADING PLAN
 - 7) DRAINAGE PLAN
 - 8) DRAINAGE DETAILS
 - 9) DRIVEWAY DETAILS
 - 10) PROFILES
 - 11) POND DETAIL
 - 12) STORM DETAILS
 - 13) SEWER & WATER PLAN
 - 14) SEWER & WATER PROFILE
 - 15) INTERSECTION DETAIL
 - 16) SIGHT DISTANCE
 - 17) NOTES
 - 18) DETAILS
 - 19) DETAILS
 - 20) DETAILS
- S1.1-S3.1) C&G STRUCTURAL PLANS
1) SIGNAGE



Know what's below.
Call two business days before you dig.

PFN: LUA2022-0071

CITY OF LAKE STEVENS CONSTRUCTION DRAWING REVIEW ACKNOWLEDGMENT

THIS PLAN SHEET HAS BEEN REVIEWED AND EVALUATED FOR GENERAL COMPLIANCE WITH THE APPLICABLE CITY OF LAKE STEVENS CODES AND ORDINANCES. CONFORMANCE OF THIS DESIGN WITH ALL APPLICABLE LAWS AND REGULATIONS IS THE FULL AND COMPLETE RESPONSIBILITY OF THE LICENSED DESIGN ENGINEER, WHOSE STAMP AND SIGNATURE APPEAR ON THIS SHEET. ACKNOWLEDGMENT OF CONSTRUCTION DRAWING REVIEW DOES NOT IMPLY CITY APPROVAL FOR CONSTRUCTION ACTIVITIES THAT REQUIRE OTHER COUNTY, STATE OR FEDERAL PERMIT REVIEW AND APPROVAL. THE PROPERTY OWNER AND LICENSED DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE ACQUISITION AND COMPLIANCE OF ALL APPLICABLE PERMITS OR AUTHORIZATIONS THAT MAY INCLUDE, BUT ARE NOT LIMITED TO, WDFW HYDRAULIC PROJECT APPROVAL (HPA), WASHINGTON STATE ECOLOGY'S NOTICE OF INTENT (NOI), NPDES CONSTRUCTION STORMWATER GENERAL PERMIT, ALL U.S. ARMY CORPS OF ENGINEERS HILL PERMITS, AND THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT.

PROJ. NO.	23-1018	DES. BY.	JMS
DATE:	1/31/2025		
SCALE:	1" = 50'		
DRAWING NO.	1 OF 20		

BY: Kimberly Klinkers
CITY ENGINEER/PUBLIC WORKS DIRECTOR

NOTE:
CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.

COVER SHEET

2707 WETMORE AVE.
EVERETT, WA 98201
1425.903.4852
1425.259.1958

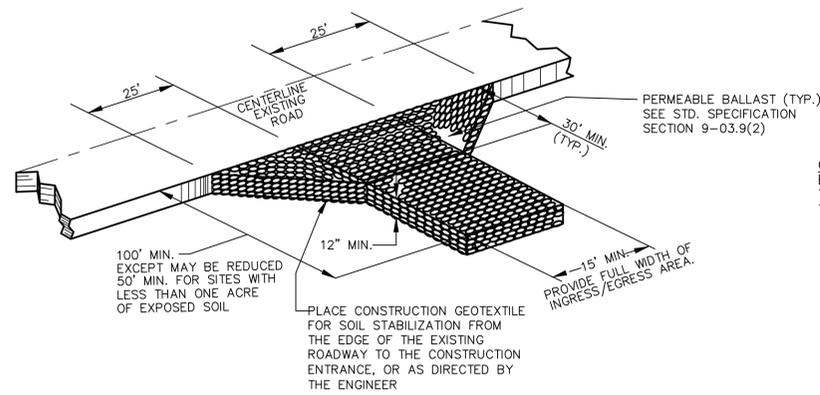
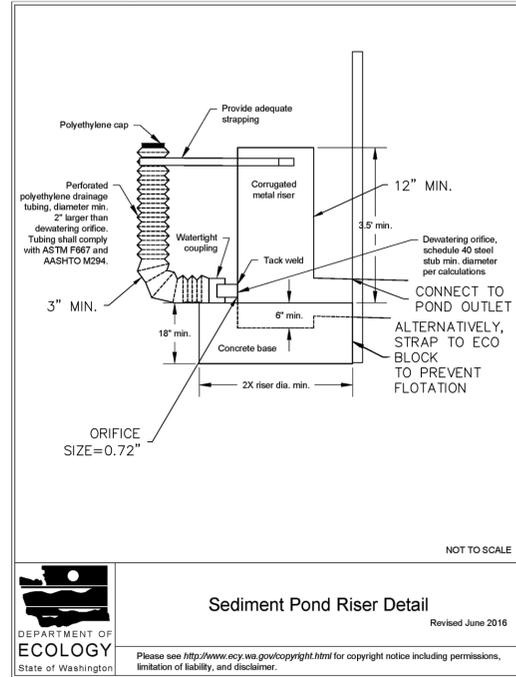


MATTSON HILL SP
CITY OF LAKE STEVENS, WASHINGTON
PORTION OF SECTION 8, TOWNSHIP 29 NORTH, RANGE 6 EAST, W.M.

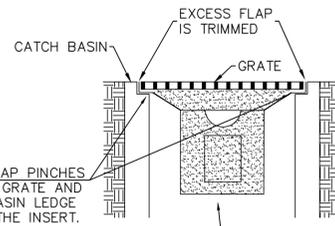
MATTSON HILL SP

SW 1/4 SECTION 8, TOWNSHIP 29N, RANGE 6E, W.M.

Figure II-3.30: Sediment Pond Riser Detail



WSDOT STANDARD PLAN 180.10-02
STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



CB INLET PROTECTION (PAVED AREAS)
NOT TO SCALE

HYDROSEEDING GENERAL NOTES

1. CONSTRUCTION ACCEPTANCE: WILL BE SUBJECT TO A WELL-ESTABLISHED GROUND COVER THAT FULFILLS THE REQUIREMENTS OF THE APPROVED CONSTRUCTION PLANS AND CITY OF MARYSVILLE STANDARDS.
2. ALL DISTURBED AREAS SUCH AS RETENTION FACILITIES, ROADWAY BACKSLOPES, ETC., SHALL BE SEEDING WITH A PERENNIAL GROUND COVER GRASS TO MINIMIZE EROSION. GRASS SEEDING WILL BE DONE USING AN APPROVED HYDROSEEDER OR AS OTHERWISE APPROVED BY THE CITY OF MARYSVILLE.
3. PREPARATION OF SURFACE: ALL AREAS TO BE SEEDING SHALL BE PREPARED IN A MANNER CONSISTENT WITH BMP T5.13 POST CONSTRUCTION SOIL QUALITY AND DEPTH IN CHAPTER 5 OF VOLUME V OF THE STORMWATER MANUAL.
4. IMMEDIATELY FOLLOWING FINISH GRADING PERMANENT VEGETATION SHALL BE APPLIED CONSISTENT WITH THE DESIGN AND MAINTENANCE STANDARDS FOR TEMPORARY AND PERMANENT SEEDING IN THE CITY ADOPTED DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON.
5. ALL HYDROSEEDING FIRMS SHALL HAVE A PRINTOUT OF THE APPLICATION RATE FOR EACH JOB READILY AVAILABLE FOR INSPECTION BY THE CONSTRUCTION INSPECTION DIVISION OF COMMUNITY DEVELOPMENT.
6. THE CITY OF LAKE STEVENS INSPECTION DIVISION OF COMMUNITY DEVELOPMENT SHALL BE NOTIFIED OF POTENTIAL HYDROSEEDING PRIOR TO THE COMMENCEMENT OF SAME TO ENSURE COMPLIANCE OF THESE SPECIFICATIONS.



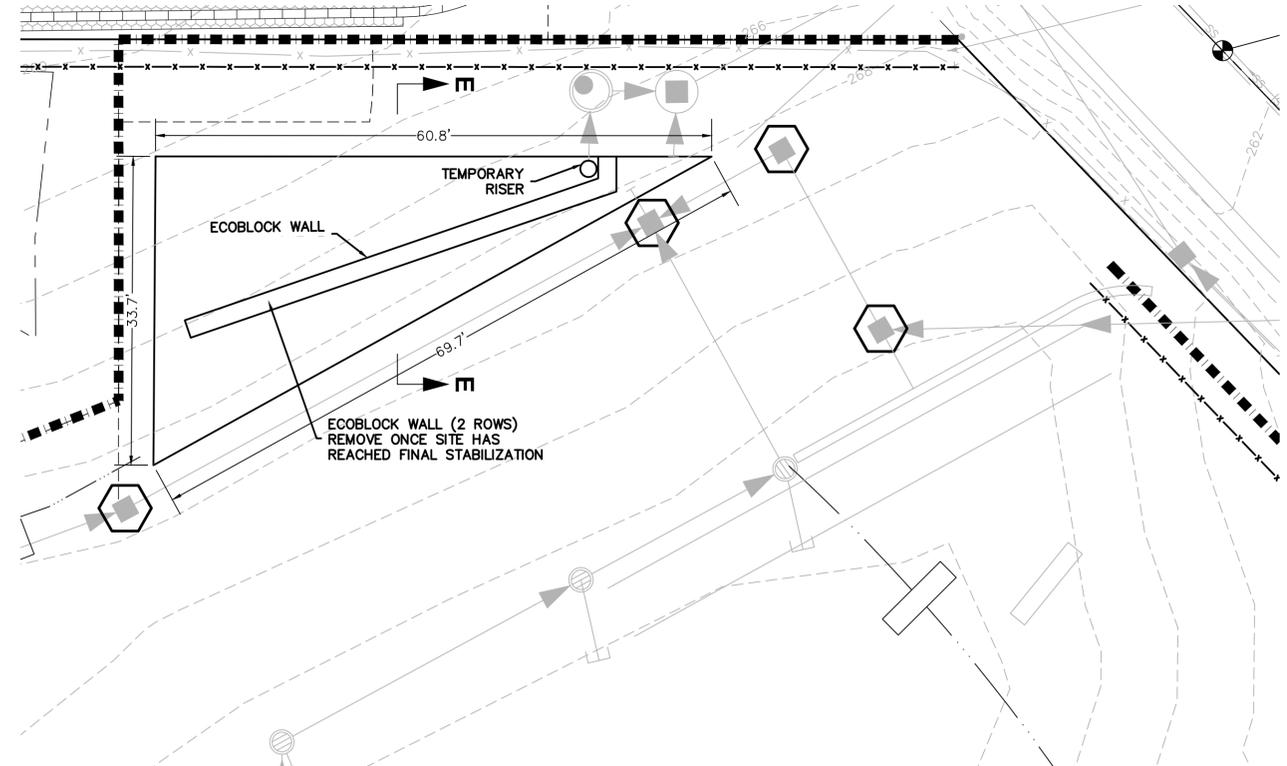
SWPPP
DETAILS

2707 WETMORE AVE.
EVERETT, WA 98201
1425.903.4852
1425.259.1958



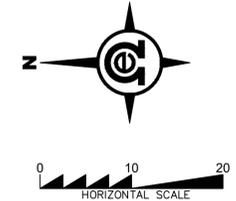
MATTSON
HILL SP
CITY OF LAKE STEVENS, WASHINGTON
PORTION OF SECTION 8, TOWNSHIP
29 NORTH, RANGE 6 EAST, W.M.

PROJ. NO.	23-1018	DES. BY.	JMS
DATE	1/31/2025		
SCALE	1" = 10'		
DRAWING NO.	3	OF	20



NOTE:
SDMH #3 TO BE PLUGGED UNTIL THE SEDIMENT POND IS ACTIVELY ONLINE.
FILTER PACKS SHALL NOT BE INSTALLED IN SDMH #2 UNTIL AFTER THE SITE HAS BEEN STABILIZED AND THE CONVEYANCE SYSTEM AND POND HAVE BEEN FLUSHED AND CLEANED.

NOTE:
CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.



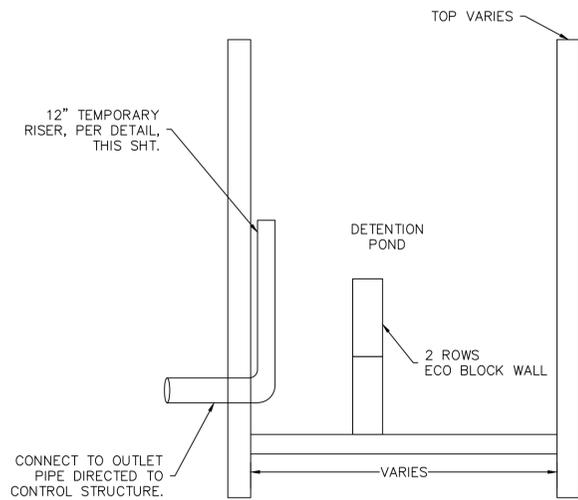
PFN: LUA2022-0071

CITY OF LAKE STEVENS
CONSTRUCTION DRAWING ACKNOWLEDGMENT

THIS PLAN SHEET HAS BEEN REVIEWED AND EVALUATED FOR GENERAL COMPLIANCE WITH THE APPLICABLE CITY OF LAKE STEVENS CODES AND ORDINANCES. CONFORMANCE OF THIS DESIGN WITH ALL APPLICABLE LAWS AND REGULATIONS IS THE FULL AND COMPLETE RESPONSIBILITY OF THE LICENSED DESIGN ENGINEER, WHOSE STAMP AND SIGNATURE APPEAR ON THIS SHEET. ACKNOWLEDGMENT OF CONSTRUCTION DRAWING REVIEW DOES NOT IMPLY CITY APPROVAL FOR CONSTRUCTION ACTIVITIES THAT REQUIRE OTHER COUNTY, STATE OR FEDERAL PERMIT REVIEW AND APPROVAL. THE PROPERTY OWNER AND LICENSED DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE ACQUISITION AND COMPLIANCE OF ALL APPLICABLE PERMITS OR AUTHORIZATIONS THAT MAY INCLUDE, BUT ARE NOT LIMITED TO, WDFW HYDRAULIC PROJECT APPROVAL (HPA), WASHINGTON STATE ECOLOGY'S NOTICE OF INTENT (NOI), NPDES CONSTRUCTION STORMWATER GENERAL PERMIT, ALL U.S. ARMY CORPS OF ENGINEERS HLL PERMITS, AND THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT.

THIS 16th DAY OF May, 2025

BY: Kimberly Klinkera
CITY ENGINEER/PUBLIC WORKS DIRECTOR



SECTION 'E-E'
DETENTION POND
N.T.S.

2019 Stormwater Management Manual for Western Washington
Volume II - Chapter 3 - Page 394

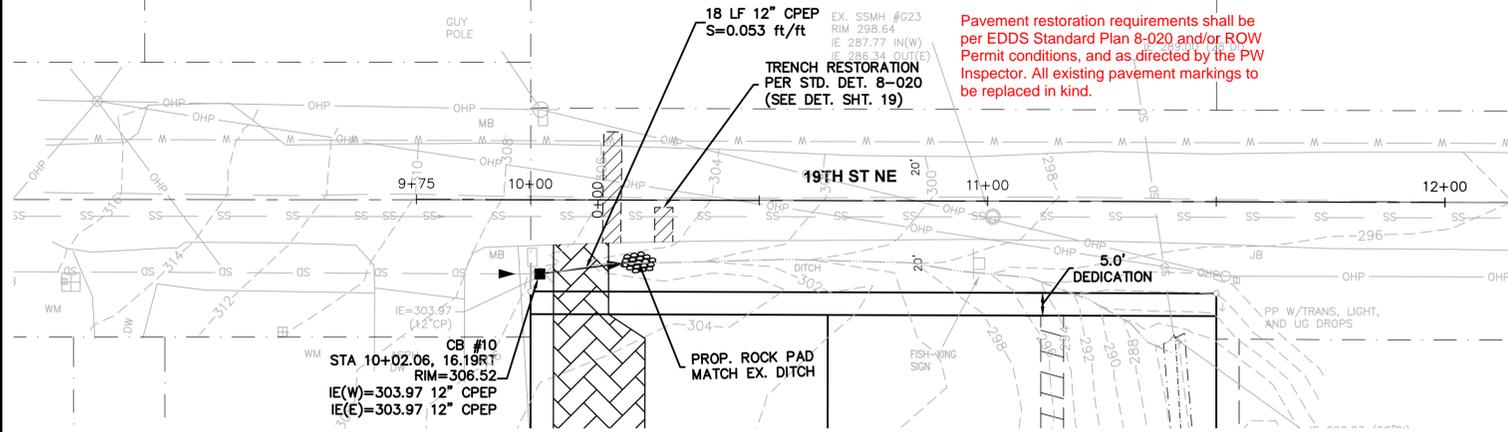


Sediment Pond Riser Detail
Revised June 2016

Please see <http://www.ecy.wa.gov/copyright.html> for copyright notice including permissions, limitation of liability, and disclaimer.

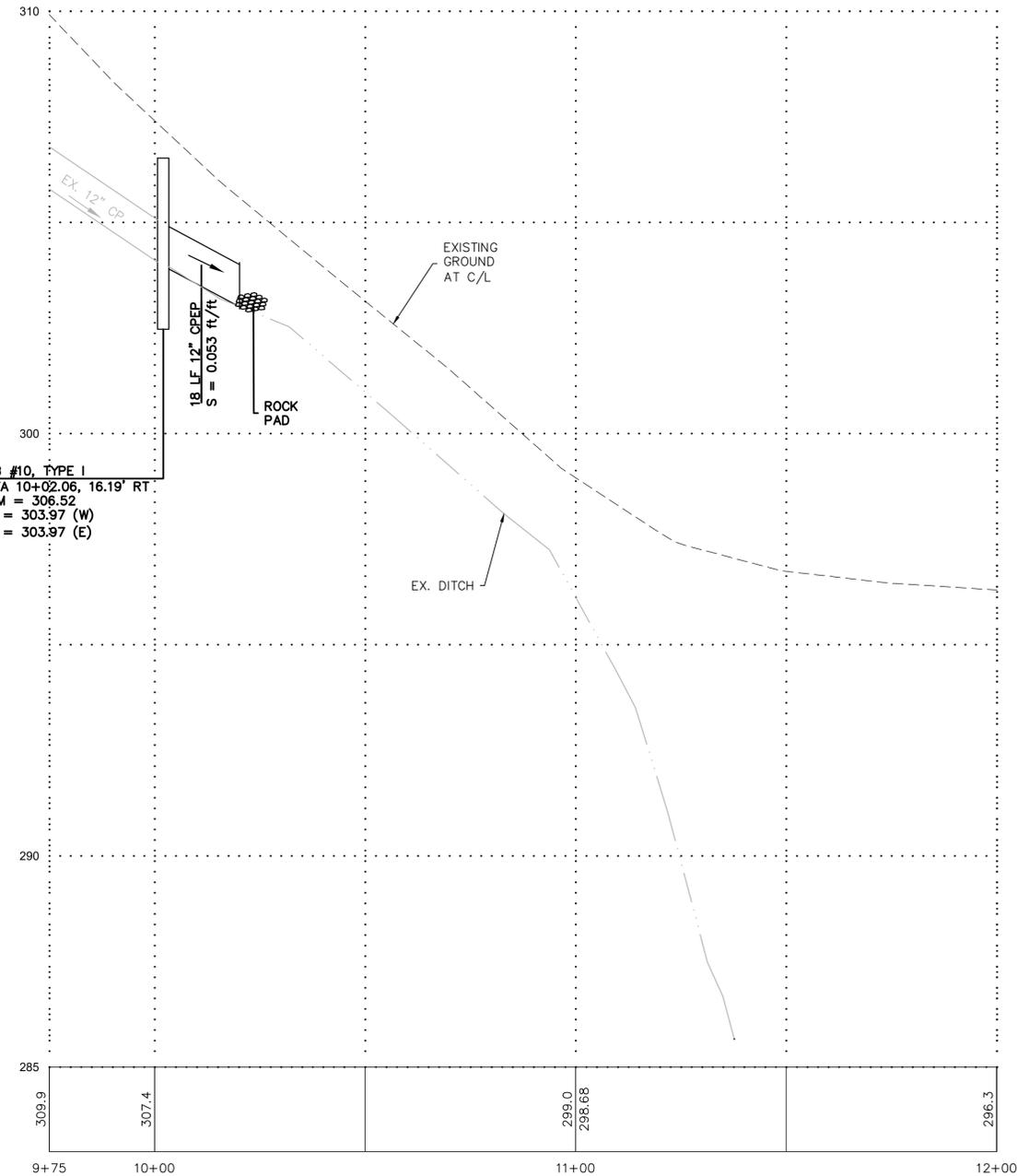
MATTSON HILL SP

SW 1/4 SECTION 8, TOWNSHIP 29N, RANGE 6E, W.M.

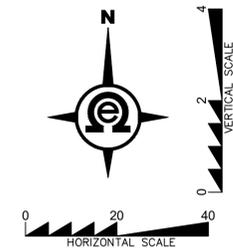


CB #10
STA 10+02.06, 16.19' RT
RIM=306.52
IE(W)=303.97 12" CPEP
IE(E)=303.97 12" CPEP

CB #10, TYPE I
STA 10+02.06, 16.19' RT
RIM = 306.52
IE = 303.97 (W)
IE = 303.97 (E)



19TH ST NE CENTERLINE PROFILE



Know what's below.
Call two business days before you dig.

PFN: LUA2022-0071

**CITY OF LAKE STEVENS
CONSTRUCTION DRAWING REVIEW ACKNOWLEDGMENT**

THIS PLAN SHEET HAS BEEN REVIEWED AND EVALUATED FOR GENERAL COMPLIANCE WITH THE APPLICABLE CITY OF LAKE STEVENS CODES AND ORDINANCES. CONFORMANCE OF THIS DESIGN WITH ALL APPLICABLE LAWS AND REGULATIONS IS THE FULL AND COMPLETE RESPONSIBILITY OF THE LICENSED DESIGN ENGINEER, WHOSE STAMP AND SIGNATURE APPEAR ON THIS SHEET. ACKNOWLEDGMENT OF CONSTRUCTION DRAWING REVIEW DOES NOT IMPLY CITY APPROVAL FOR CONSTRUCTION ACTIVITIES THAT REQUIRE OTHER COUNTY, STATE OR FEDERAL PERMIT REVIEW AND APPROVAL. THE PROPERTY OWNER AND LICENSED DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE ACQUISITION AND COMPLIANCE OF ALL APPLICABLE PERMITS OR AUTHORIZATIONS THAT MAY INCLUDE, BUT ARE NOT LIMITED TO, WDFW HYDRAULIC PROJECT APPROVAL (HPA), WASHINGTON STATE ECOLOGY'S NOTICE OF INTENT (NOI), NPDES CONSTRUCTION STORMWATER GENERAL PERMIT, ALL U.S. ARMY CORPS OF ENGINEERS HILL PERMITS, AND THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT.

THIS 16th DAY OF May, 2025.
BY: Kimberly Klinkers
CITY ENGINEER/PUBLIC WORKS DIRECTOR

R#	DATE	DESCRIPTION	BY



**19TH ST NE
FRONTAGE PLAN
& PROFILE**

2707 WETMORE AVE.
EVERETT, WA 98201
1 425.903.4852
f 425.259.1958



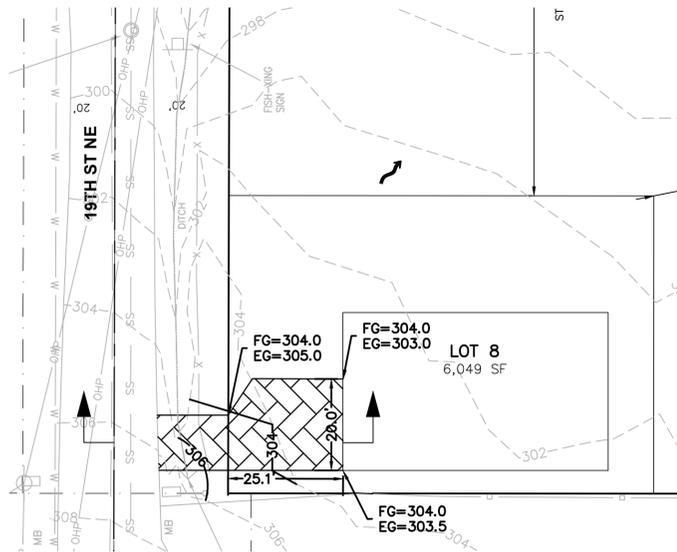
**MATTSON
HILL SP**
CITY OF LAKE STEVENS, WASHINGTON
PORTION OF SECTION 8, TOWNSHIP
29 NORTH, RANGE 6 EAST, W.M.

PROJ. NO.	23-1018	DES. BY	JMS
DATE	1/31/2025		
SCALE	1" = 20'		
DRAWING NO.	4	OF	20

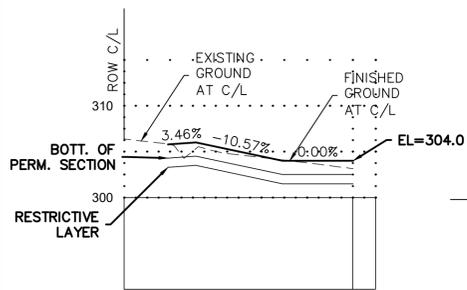
NOTE:
CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.

MATTSON HILL SP

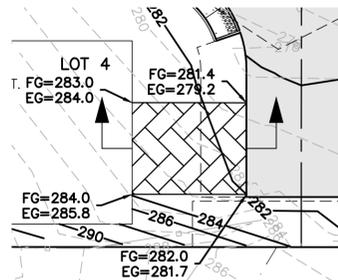
SW 1/4 SECTION 8, TOWNSHIP 29N, RANGE 6E, W.M.



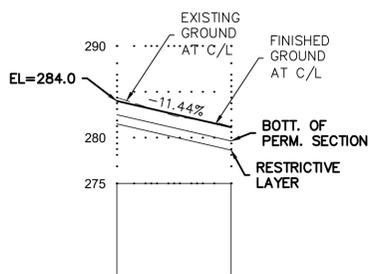
LOT 8 PERMEABLE PAVEMENT DETAIL
1" = 20'



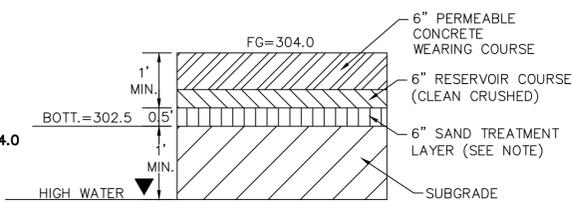
LOT 8 DRIVEWAY CENTERLINE PROFILE
SCALE: 1" = 20' HORIZ.
10' VERT.



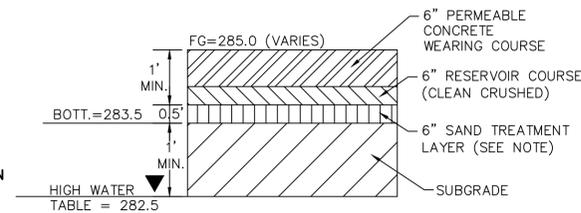
LOT 4 PERMEABLE PAVEMENT DETAIL
1" = 20'



LOT 4 DRIVEWAY CENTERLINE PROFILE
SCALE: 1" = 20' HORIZ.
10' VERT.

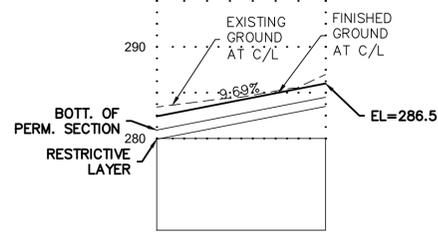


LOT 8 PERMEABLE PAVEMENT SECTION
NOT TO SCALE

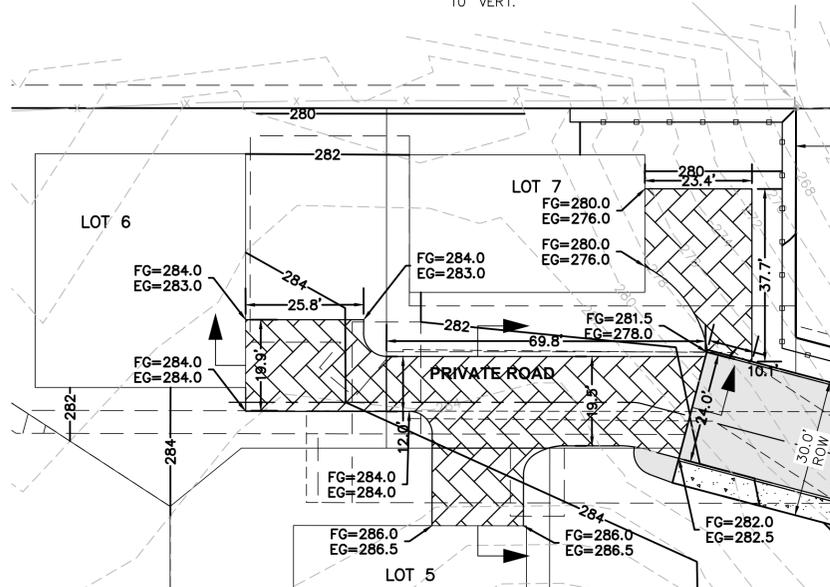


LOT 4 PERMEABLE PAVEMENT SECTION
NOT TO SCALE

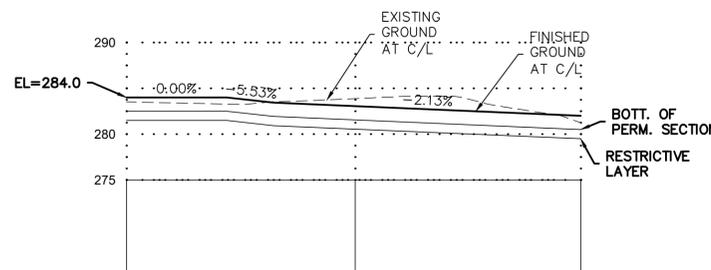
SAND TREATMENT LAYER NOTE:
DURING CONSTRUCTION AND PRIOR TO PLACEMENT OF RESERVOIR COURSE, THE PROJECT GEOTECH SHALL TEST THE SUBGRADE MATERIAL TO ENSURE IT PROVIDES THE NECESSARY WATER QUALITY TREATMENT. ANY AREAS THAT DO NOT MEET THE DOE REQUIREMENTS SHALL BE PROVIDED WITH A 6" SAND TREATMENT LAYER, PER DOE SPECIFICATIONS.



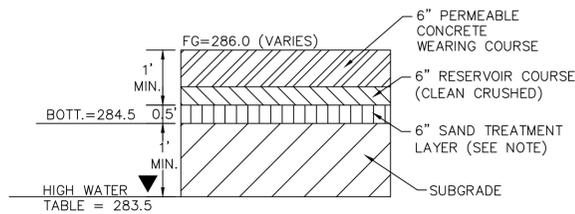
LOT 5 DRIVEWAY CENTERLINE PROFILE
SCALE: 1" = 20' HORIZ.
10' VERT.



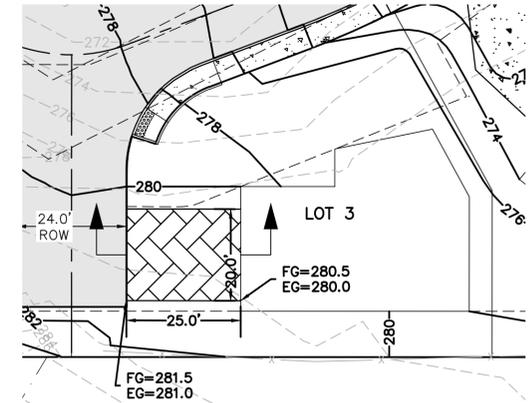
PRIVATE ROAD & LOT 5 PERMEABLE PAVEMENT DETAIL
1" = 20'



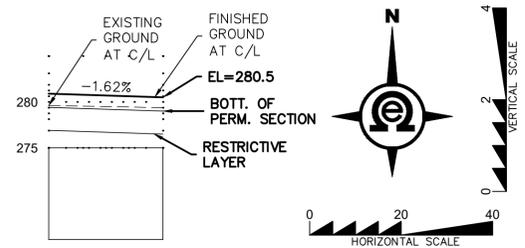
PRIVATE ROAD CENTERLINE PROFILE
SCALE: 1" = 20' HORIZ.
10' VERT.



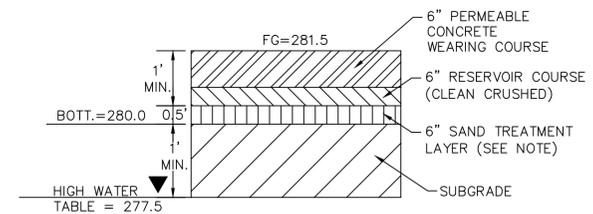
LOT 5 PERMEABLE PAVEMENT SECTION
NOT TO SCALE



LOT 3 PERMEABLE PAVEMENT DETAIL
1" = 20'



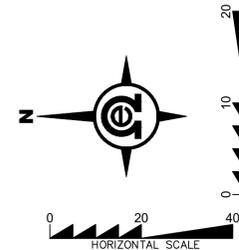
LOT 3 DRIVEWAY CENTERLINE PROFILE
SCALE: 1" = 20' HORIZ.
10' VERT.



LOT 3 PERMEABLE PAVEMENT SECTION
NOT TO SCALE



Know what's below.
Call two business days before you dig.



PFN: LUA2022-0071

CITY OF LAKE STEVENS CONSTRUCTION DRAWING REVIEW ACKNOWLEDGMENT

THIS PLAN SHEET HAS BEEN REVIEWED AND EVALUATED FOR GENERAL COMPLIANCE WITH THE APPLICABLE CITY OF LAKE STEVENS CODES AND ORDINANCES. CONFORMANCE OF THIS DESIGN WITH ALL APPLICABLE LAWS AND REGULATIONS IS THE FULL AND COMPLETE RESPONSIBILITY OF THE LICENSED DESIGN ENGINEER, WHOSE STAMP AND SIGNATURE APPEAR ON THIS SHEET. ACKNOWLEDGMENT OF CONSTRUCTION DRAWING REVIEW DOES NOT IMPLY CITY APPROVAL FOR CONSTRUCTION ACTIVITIES THAT REQUIRE OTHER COUNTY, STATE OR FEDERAL PERMIT REVIEW AND APPROVAL. THE PROPERTY OWNER AND LICENSED DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE ACQUISITION AND COMPLIANCE OF ALL APPLICABLE PERMITS OR AUTHORIZATIONS THAT MAY INCLUDE, BUT ARE NOT LIMITED TO, WDFW HYDRAULIC PROJECT APPROVAL (HPA), WASHINGTON STATE ECOLOGY'S NOTICE OF INTENT (NOI), NPDES CONSTRUCTION STORMWATER GENERAL PERMIT, ALL U.S. ARMY CORPS OF ENGINEERS HILL PERMITS, AND THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT.

THIS 16th DAY OF May, 2025

BY: *Kimberly Klinkera*
CITY ENGINEER/PUBLIC WORKS DIRECTOR

BY	DATE	DESCRIPTION



DRIVEWAY DETAILS

2707 WETMORE AVE.
EVERETT, WA 98201
1425.903.4852
1425.259.1958

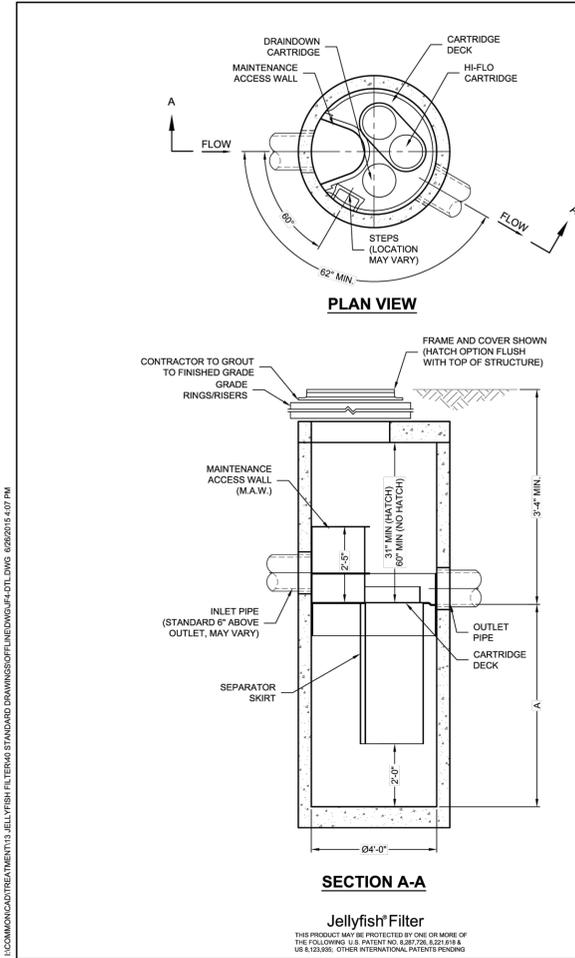


MATTSON HILL SP
CITY OF LAKE STEVENS, WASHINGTON
PORTION OF SECTION 8, TOWNSHIP 29 NORTH, RANGE 6 EAST, W.M.

PROJ. NO.	23-1018	DES. BY	JMS
DATE	1/31/2025	SCALE	1" = 20'
DRAWING NO.	9	OF	20

MATTSON HILL SP

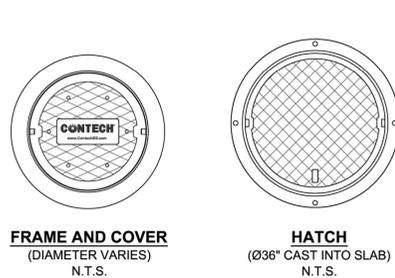
SW 1/4 SECTION 8, TOWNSHIP 29N, RANGE 6E, W.M.



JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN. Ø48" MANHOLE JELLYFISH PEAK TREATMENT CAPACITY IS 0.45 CFS. IF THE SITE CONDITIONS EXCEED 0.45 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION	54"	40"	27"	16"
CARTRIDGE DEPTH	45"	42"	42"	42"
OUTLET INVERT TO STRUCTURE INVERT (A)	0.13 / 0.085	0.13 / 0.085	0.09 / 0.045	0.05 / 0.025
FLOW RATE HIGH-FLO / DRAINDOWN (cfs) (per cart)	0.13 / 0.085	0.13 / 0.085	0.09 / 0.045	0.05 / 0.025
MAX. CARTS HIGH-FLO / DRAINDOWN	2 / 1			



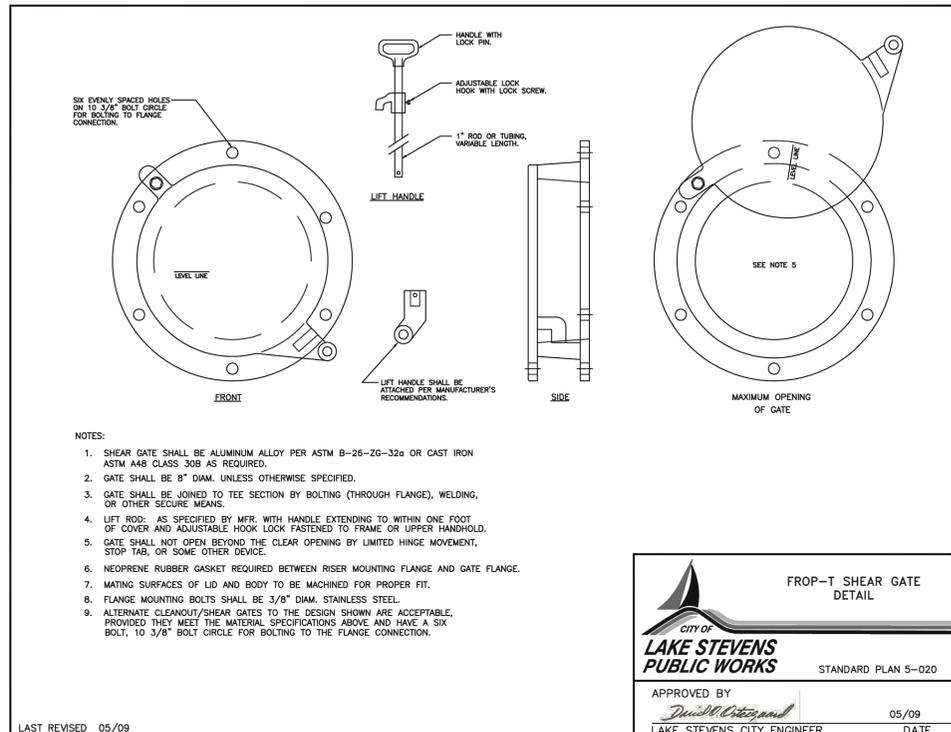
SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	SDMH #2
WATER QUALITY FLOW RATE (cfs)	0.019
PEAK FLOW RATE (cfs)	0.04
RETURN PERIOD OF PEAK FLOW (yrs)	100
# OF CARTRIDGES REQUIRED (HF / DD)	2 / 1
CARTRIDGE SIZE	27"
PIPE DATA:	
INLET PIPE #1	IE 254.95
INLET PIPE #2	254.95
OUTLET PIPE	254.45
RIM ELEVATION	264.61
ANTI-FLOTATION BALLAST	WIDTH HEIGHT
NOTES/SPECIAL REQUIREMENTS:	
* PER ENGINEER OF RECORD	

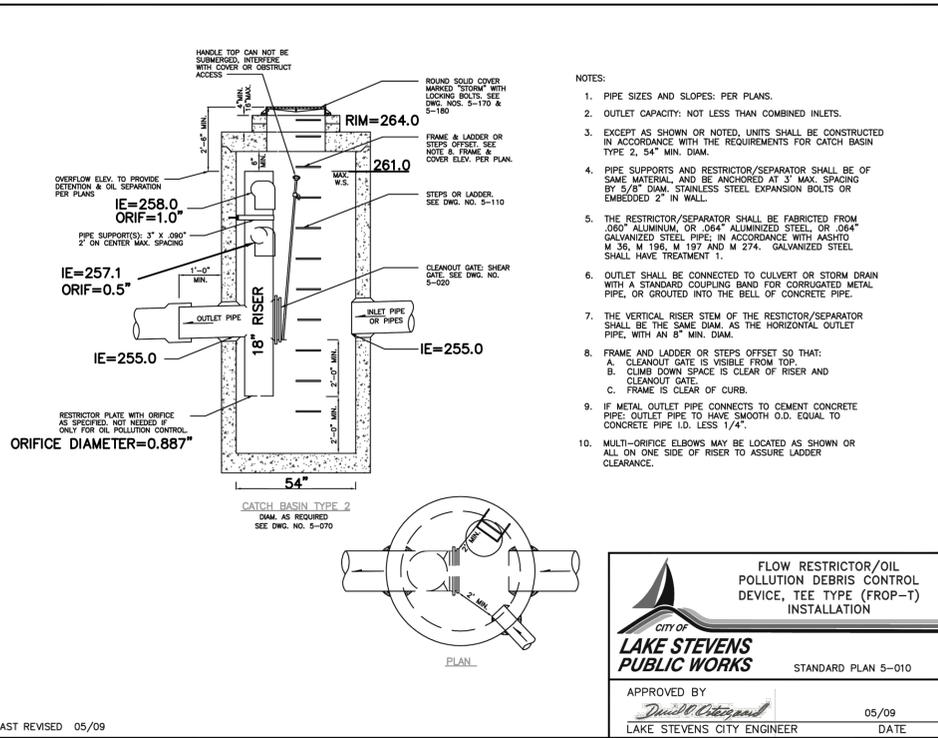
- GENERAL NOTES:**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE: www.conteches.com
 - JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 - STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 3', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M308 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
 - STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
 - NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED TO DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.
- INSTALLATION NOTES:**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE (LIFTING CLUTCHES PROVIDED).
 - CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERTIGHT OR FLEXIBLE BOOT).
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
 - CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (866) 749-3318.

CONTECH ENGINEERED SOLUTIONS LLC
www.conteches.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45389
900-338-1122 513-645-7000 513-645-7993 FAX

JELLYFISH JF4 STANDARD DETAIL OFFLINE CONFIGURATION



- NOTES:**
- SHEAR GATE SHALL BE ALUMINUM ALLOY PER ASTM B-26-26-32a OR CAST IRON ASTM A48 CLASS 30B AS REQUIRED.
 - GATE SHALL BE 8" DIAM. UNLESS OTHERWISE SPECIFIED.
 - GATE SHALL BE JOINED TO TEE SECTION BY BOLTING (THROUGH FLANGE), WELDING, OR OTHER SECURE MEANS.
 - LIFT ROD: AS SPECIFIED BY MFR. WITH HANDLE EXTENDING TO WITHIN ONE FOOT OF COVER AND ADJUSTABLE HOOK LOCK FASTENED TO FRAME OR UPPER HANDHOLD.
 - GATE SHALL NOT OPEN BEYOND THE CLEAR OPENING BY LIMITED HINGE MOVEMENT, STOP TAB, OR SOME OTHER DEVICE.
 - NEOPRENE RUBBER GASKET REQUIRED BETWEEN RISER MOUNTING FLANGE AND GATE FLANGE.
 - MATING SURFACES OF LID AND BODY TO BE MACHINED FOR PROPER FIT.
 - FLANGE MOUNTING BOLTS SHALL BE 3/8" DIAM. STAINLESS STEEL.
 - ALTERNATE CLEANOUT/SHEAR GATES TO THE DESIGN SHOWN ARE ACCEPTABLE, PROVIDED THEY MEET THE MATERIAL SPECIFICATIONS ABOVE AND HAVE A SIX BOLT, 10 3/8" BOLT CIRCLE FOR BOLTING TO THE FLANGE CONNECTION.



PFN: LUA2022-0071

CITY OF LAKE STEVENS CONSTRUCTION DRAWING REVIEW ACKNOWLEDGMENT

THIS PLAN SHEET HAS BEEN REVIEWED AND EVALUATED FOR GENERAL COMPLIANCE WITH THE APPLICABLE CITY OF LAKE STEVENS CODES AND ORDINANCES. CONFORMANCE OF THIS DESIGN WITH ALL APPLICABLE LAWS AND REGULATIONS IS THE FULL AND COMPLETE RESPONSIBILITY OF THE LICENSED DESIGN ENGINEER, WHOSE STAMP AND SIGNATURE APPEAR ON THIS SHEET. ACKNOWLEDGMENT OF CONSTRUCTION DRAWING REVIEW DOES NOT IMPLY CITY APPROVAL FOR CONSTRUCTION ACTIVITIES THAT REQUIRE OTHER COUNTY, STATE OR FEDERAL PERMIT REVIEW AND APPROVAL. THE PROPERTY OWNER AND LICENSED DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE ACQUISITION AND COMPLIANCE OF ALL APPLICABLE PERMITS OR AUTHORIZATIONS THAT MAY INCLUDE, BUT ARE NOT LIMITED TO, WDFW HYDRAULIC PROJECT APPROVAL (HPA), WASHINGTON STATE ECOLOGY'S NOTICE OF INTENT (NOI), NPDES CONSTRUCTION STORMWATER GENERAL PERMIT, ALL U.S. ARMY CORPS OF ENGINEERS HILL PERMITS, AND THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT.

THIS 16th DAY OF May, 2025

BY: *Kimberly Klinkers*
CITY ENGINEER/PUBLIC WORKS DIRECTOR

BY	DESCRIPTION	DATE

STORM DETAILS

1/31/2025

M. Sibley
ENGINEER

2707 WETMORE AVE.
EVERETT, WA 98201
1 425.903.4852
1 425.259.1958

OMEGA ENGINEERING, INC.



MATTSON HILL SP

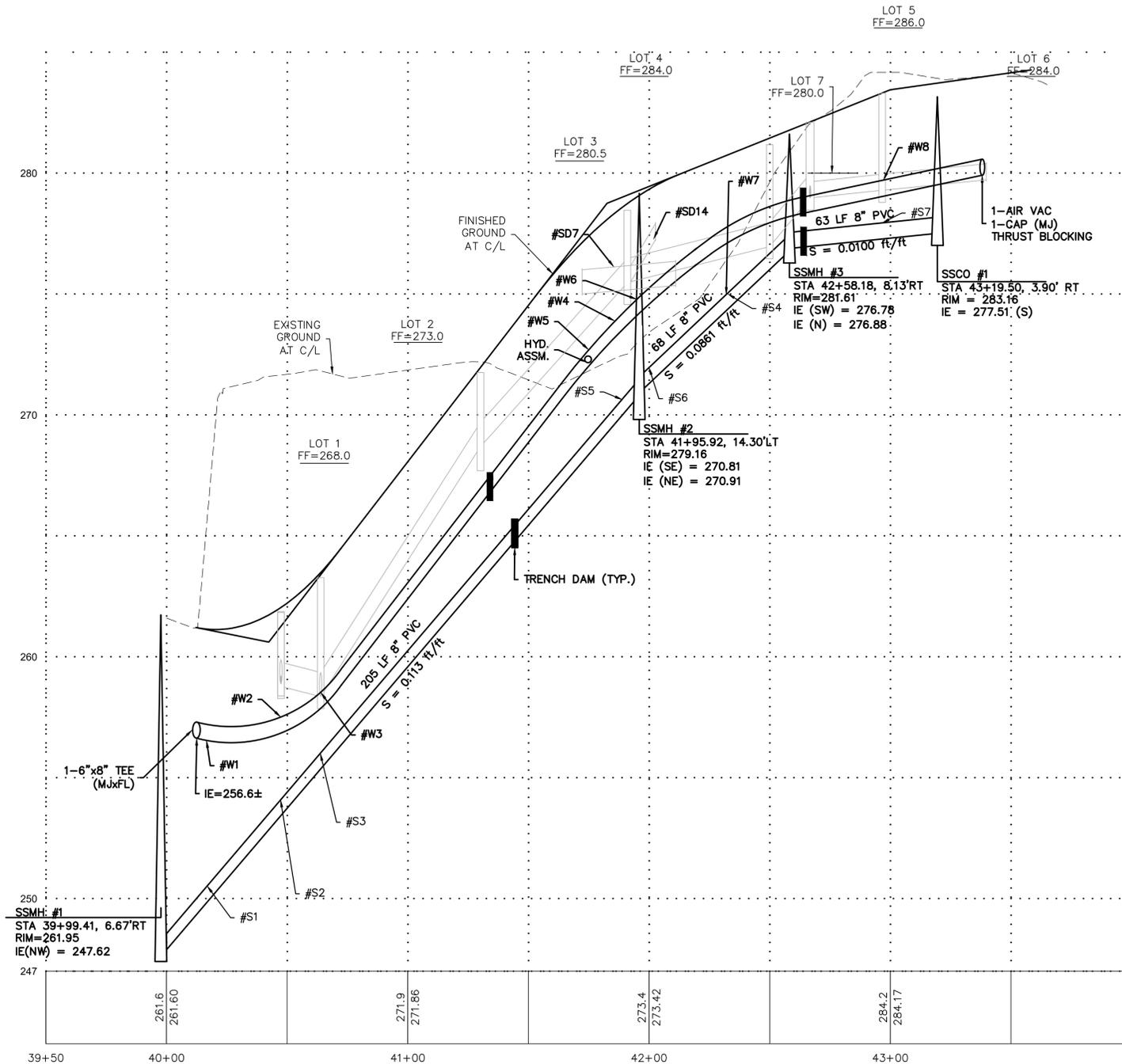
CITY OF LAKE STEVENS, WASHINGTON

PORTION OF SECTION 8, TOWNSHIP 29 NORTH, RANGE 6 EAST, W.M.

PROJ. NO.	23-1018	DES. BY	JSM
DATE	1/31/2025		
SCALE	N.T.S.		
DRAWING NO.	12		20

MATTSON HILL SP

SW 1/4 SECTION 8, TOWNSHIP 29N, RANGE 6E, W.M.



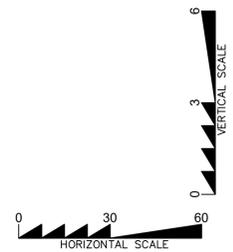
MATTSON LANE CENTERLINE PROFILE

#	TOP SS	BOTT SD	BOTT WA	VERT. DIFF.
S1 SS-SD	250.29	253.31		3.02'
S2 SS-SD	253.92	257.86		3.94'
S3 SS-SD	255.79	260.51		4.72'
* S4 SS-WA	275.02		277.05	2.03'
S5 SS-SD	270.26	283.89		13.63'
S6 SS-SD	272.17	276.56		4.39'
S7 SS-SD	277.94	279.48		1.54'

* S4 & W7 ARE THE SAME UTILITY CROSSING

#	TOP SS	TOP SD	BOTT SD	TOP WA	BOTT WA	VERT. DIFF.
W1 WA-SD		251.72			256.54	4.82'
W2 WA-SD			258.80	257.51		4.29'
W3 WA-SD			259.11	258.53		0.58'
W4 WA-SD		269.80			273.02	3.22'
W5 WA-SD			274.04	272.69		1.35'
W6 WA-SD			275.39	274.78		0.61'
* W7 WA-SS	275.02				277.05	2.03'
W8 WA-SD			280.69	279.70		0.99'

#	TOP SD	BOTT SD	VERT. DIFF.
SD1 SD-SD	276.54 N/S	275.70 E/W	0.84'
SD2 SD-SD	276.28 N/S	277.00 E/W	0.72'
SD3 SD-SD	274.93 N/S	269.67 E/W	5.26'



NOTE:
CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.

PFN: LUA2022-0071
CITY OF LAKE STEVENS
APPROVED FOR CONSTRUCTION
EXAMINED AND APPROVED THIS _____ DAY OF _____, 20____
BY: _____
FIRE MARSHAL
THESE PLANS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 18 MONTHS FROM THE DATE SHOWN.

CITY OF LAKE STEVENS
CONSTRUCTION DRAWING REVIEW ACKNOWLEDGMENT
THIS PLAN SHEET HAS BEEN REVIEWED AND EVALUATED FOR GENERAL COMPLIANCE WITH THE APPLICABLE CITY OF LAKE STEVENS CODES AND ORDINANCES. CONFORMANCE OF THIS DESIGN WITH ALL APPLICABLE LAWS AND REGULATIONS IS THE FULL AND COMPLETE RESPONSIBILITY OF THE LICENSED DESIGN ENGINEER, WHOSE STAMP AND SIGNATURE APPEAR ON THIS SHEET. ACKNOWLEDGMENT OF CONSTRUCTION DRAWING REVIEW DOES NOT IMPLY CITY APPROVAL FOR CONSTRUCTION ACTIVITIES THAT REQUIRE OTHER COUNTY, STATE OR FEDERAL PERMIT REVIEW AND APPROVAL. THE PROPERTY OWNER AND LICENSED DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE ACQUISITION AND COMPLIANCE OF ALL APPLICABLE PERMITS OR AUTHORIZATIONS THAT MAY INCLUDE, BUT ARE NOT LIMITED TO, WDFW HYDRAULIC PROJECT APPROVAL (HPA), WASHINGTON STATE ECOLOGY'S NOTICE OF INTENT (NOI), NPDES CONSTRUCTION STORMWATER GENERAL PERMIT, ALL U.S. ARMY CORPS OF ENGINEERS HILL PERMITS, AND THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT.
THIS 16th DAY OF May, 2025
BY: Kimberly Klinkera
CITY ENGINEER/PUBLIC WORKS DIRECTOR

BY	DESCRIPTION	DATE

SEWER & WATER
PROFILE

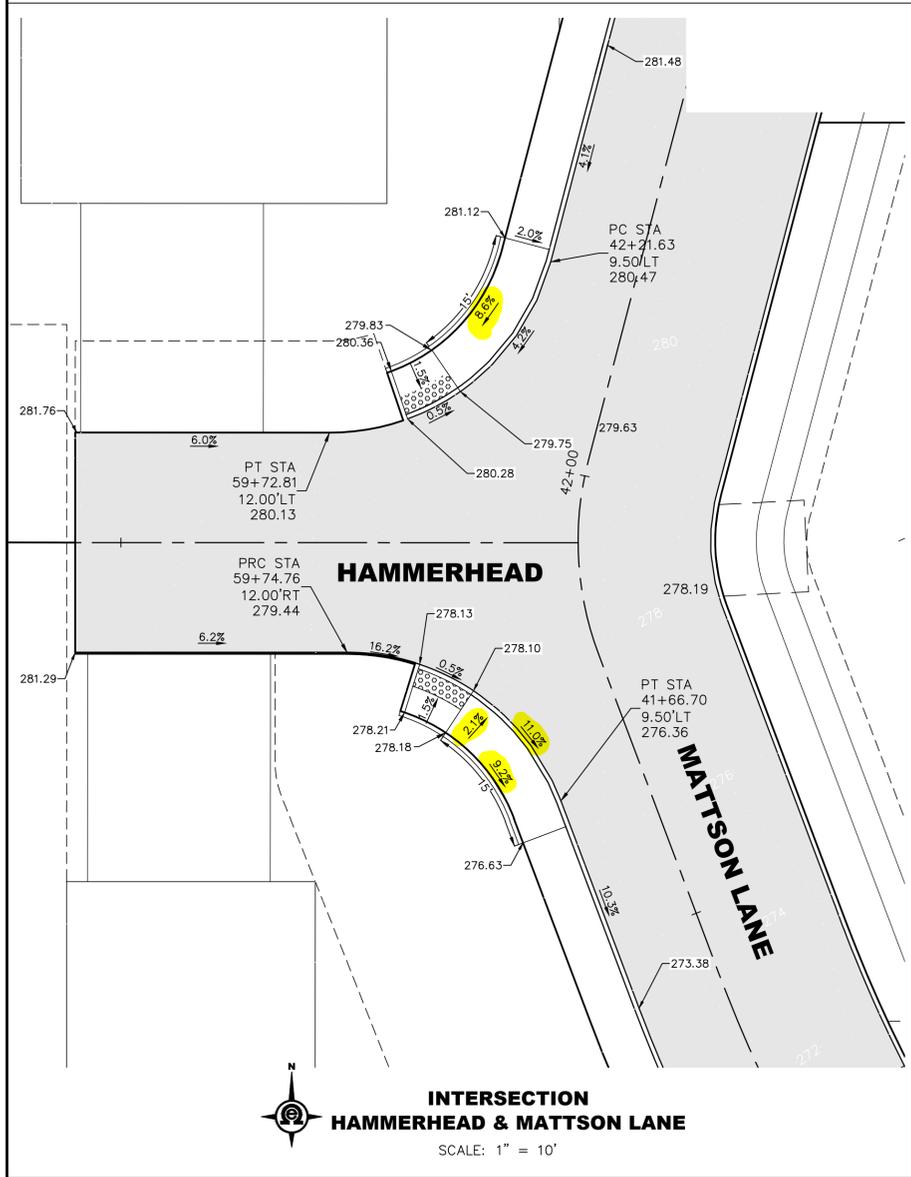
2707 WETMORE AVE.
EVERETT, WA 98201
1425.903.4852
1425.259.1958
OMEGA
ENGINEERING, INC.

MATTSON
HILL SP
CITY OF LAKE STEVENS, WASHINGTON
PORTION OF SECTION 8, TOWNSHIP
29 NORTH, RANGE 6 EAST, W.M.

PROJ. NO. 23-1018
DATE: 1/31/2025
SCALE: 1" = 30'
DRAWING NO. 14 OF 20

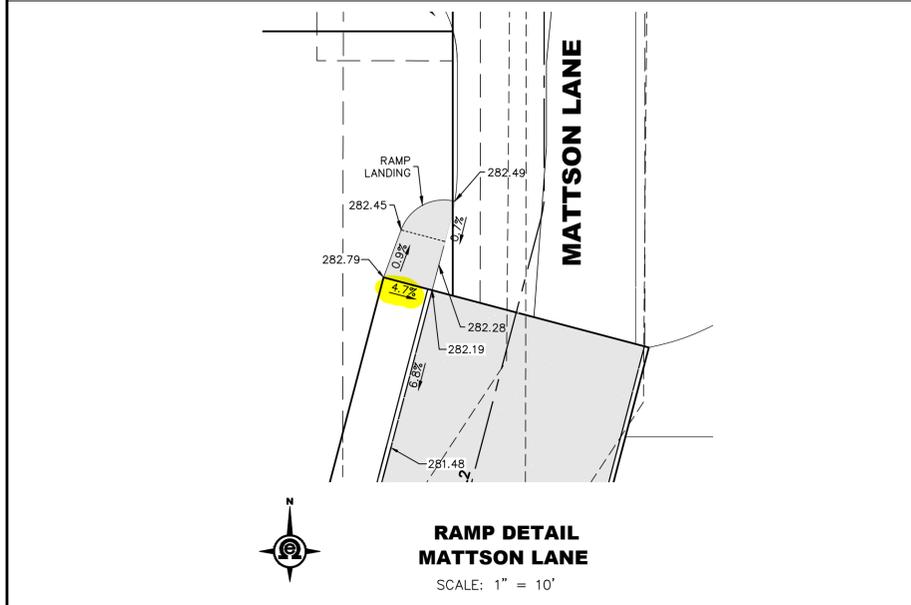
MATTSON HILL SP

SW 1/4 SECTION 8, TOWNSHIP 29N, RANGE 6E, W.M.



**INTERSECTION
HAMMERHEAD & MATTSON LANE**

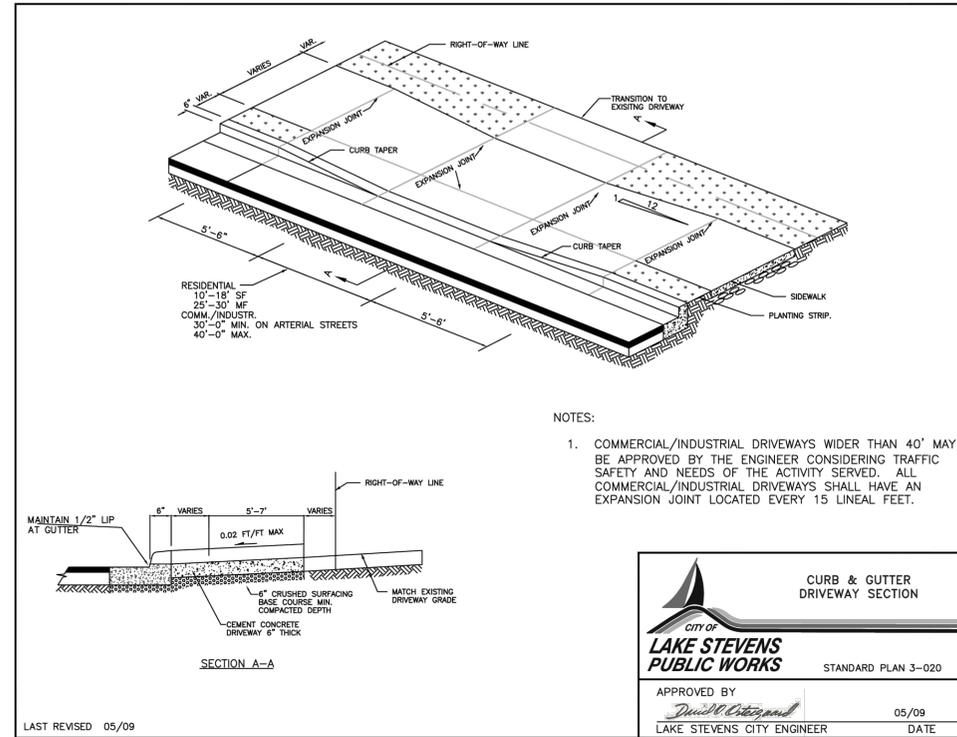
SCALE: 1" = 10'



**RAMP DETAIL
MATTSON LANE**

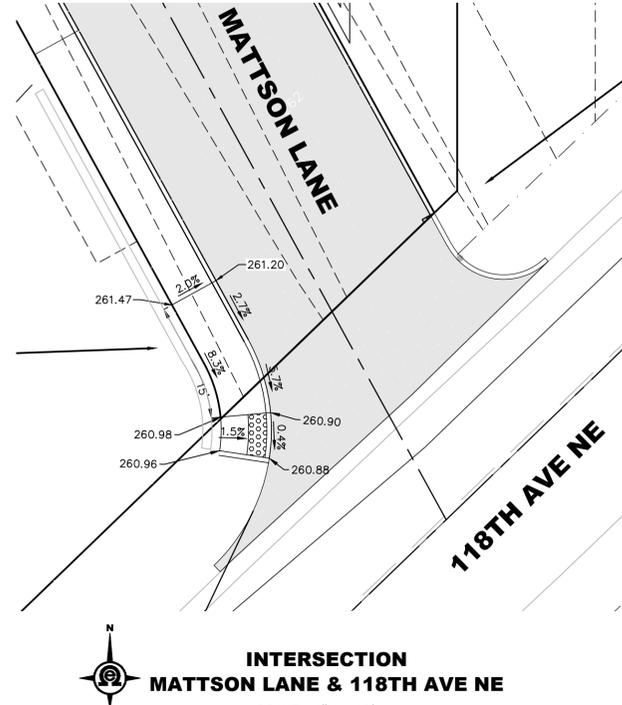
SCALE: 1" = 10'

All curb ramps and sidewalks to meet PROWAG and ADA Standards. Refer to WSDOT Standard Plans for guidance. Any elements that do not meet standards must be documented and approved by the City through an MEF prior to construction.



NOTES:

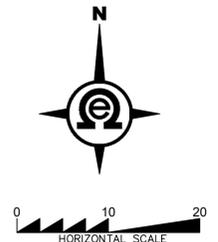
1. COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 40' MAY BE APPROVED BY THE ENGINEER CONSIDERING TRAFFIC SAFETY AND NEEDS OF THE ACTIVITY SERVED. ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED EVERY 15 LINEAL FEET.



**INTERSECTION
MATTSON LANE & 118TH AVE NE**

SCALE: 1" = 10'

NOTE:
CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.



PFN: LUA2022-0071

**CITY OF LAKE STEVENS
CONSTRUCTION DRAWING REVIEW ACKNOWLEDGMENT**

THIS PLAN SHEET HAS BEEN REVIEWED AND EVALUATED FOR GENERAL COMPLIANCE WITH THE APPLICABLE CITY OF LAKE STEVENS CODES AND ORDINANCES. PERFORMANCE OF THIS DESIGN WITH ALL APPLICABLE LAWS AND REGULATIONS IS THE FULL AND COMPLETE RESPONSIBILITY OF THE LICENSED DESIGN ENGINEER, WHOSE STAMP AND SIGNATURE APPEAR ON THIS SHEET. ACKNOWLEDGMENT OF CONSTRUCTION DRAWING REVIEW DOES NOT IMPLY CITY APPROVAL FOR CONSTRUCTION ACTIVITIES THAT REQUIRE OTHER COUNTY, STATE OR FEDERAL PERMIT REVIEW AND APPROVAL. THE PROPERTY OWNER AND LICENSED DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE ACQUISITION AND COMPLIANCE OF ALL APPLICABLE PERMITS OR AUTHORIZATIONS THAT MAY INCLUDE, BUT ARE NOT LIMITED TO, WDFW HYDRAULIC PROJECT APPROVAL (HPA), WASHINGTON STATE ECOLOGY'S NOTICE OF INTENT (NOI), NPDES CONSTRUCTION STORMWATER GENERAL PERMIT, ALL U.S. ARMY CORPS OF ENGINEERS FILL PERMITS, AND THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT.

THIS 16th DAY OF May, 2025

BY: Kimberly Klinkers
CITY ENGINEER/PUBLIC WORKS DIRECTOR

BY	DESCRIPTION	DATE



INTERSECTION DETAILS

2707 WETMORE AVE.
EVERETT, WA 98201
1 425.903.4852
1 425.259.1958

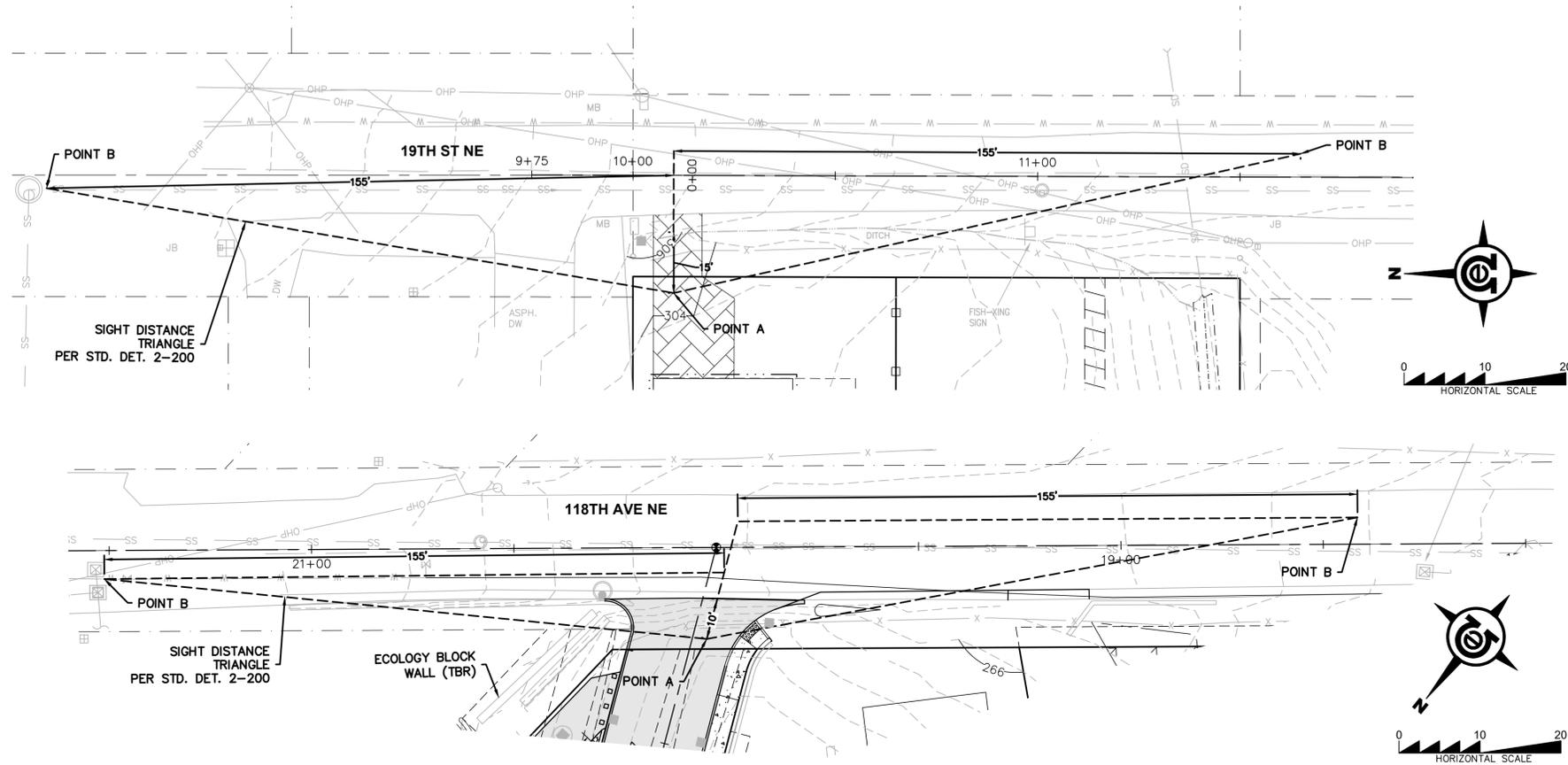


**MATTSON
HILL SP**
CITY OF LAKE STEVENS, WASHINGTON
PORTION OF SECTION 8, TOWNSHIP
29 NORTH, RANGE 6 EAST, W.M.

PROJ. NO.	23-1018	DES. BY	JMS
DATE	1/31/2025	SCALE	1" = 10'
DRAWING NO.	15	OF	20

MATTSON HILL SP

SW 1/4 SECTION 8, TOWNSHIP 29N, RANGE 6E, W.M.



Know what's below.
Call two business
days before you dig.

PFN: LUA2022-0071

**CITY OF LAKE STEVENS
CONSTRUCTION DRAWING REVIEW ACKNOWLEDGMENT**

THIS PLAN SHEET HAS BEEN REVIEWED AND EVALUATED FOR GENERAL COMPLIANCE WITH THE APPLICABLE CITY OF LAKE STEVENS CODES AND ORDINANCES. CONFORMANCE OF THIS DESIGN WITH ALL APPLICABLE LAWS AND REGULATIONS IS THE FULL AND COMPLETE RESPONSIBILITY OF THE LICENSED DESIGN ENGINEER, WHOSE STAMP AND SIGNATURE APPEAR ON THIS SHEET. ACKNOWLEDGMENT OF CONSTRUCTION DRAWING REVIEW DOES NOT IMPLY CITY APPROVAL FOR CONSTRUCTION ACTIVITIES THAT REQUIRE OTHER COUNTY, STATE OR FEDERAL PERMIT REVIEW AND APPROVAL. THE PROPERTY OWNER AND LICENSED DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE ACQUISITION AND COMPLIANCE OF ALL APPLICABLE PERMITS OR AUTHORIZATIONS THAT MAY INCLUDE, BUT ARE NOT LIMITED TO, WDFW HYDRAULIC PROJECT APPROVAL (HPA), WASHINGTON STATE ECOLOGY'S NOTICE OF INTENT (NOI), NPDES CONSTRUCTION STORMWATER GENERAL PERMIT, ALL U.S. ARMY CORPS OF ENGINEERS FILL PERMITS, AND THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT.

THIS 16th DAY OF May, 2025.

BY: Kimberly Klinkers
CITY ENGINEER/PUBLIC WORKS DIRECTOR

NOTE:
CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.

BY	DESCRIPTION	DATE	R#



**SIGHT
DISTANCE**

2707 WETMORE AVE.
EVERETT, WA 98201
1 425.903.4852
1 425.259.1958



**MATTSON
HILL SP**
CITY OF LAKE STEVENS, WASHINGTON
PORTION OF SECTION 8, TOWNSHIP
29 NORTH, RANGE 6 EAST, W.M.

PROJ. NO.	23-1018	DES. BY	JMS
DATE	1/31/2025		
SCALE	1" = 20'		
DRAWING NO.	16	OF	20

MATTSON HILL SP

SW 1/4 SECTION 8, TOWNSHIP 29N, RANGE 6E, W.M.

GENERAL NOTES

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT CITY OF LAKE STEVENS ENGINEERING DESIGN AND DEVELOPMENT STANDARDS; THE CURRENT EDITION OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION; AND THE CURRENT ADOPTED EDITION OF THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON.
- ALL WORK WITHIN THE PLAT AND CITY RIGHT-OF-WAY SHALL BE SUBJECT TO THE INSPECTION OF THE PUBLIC WORKS DIRECTOR, DESIGNEE, OR DESIGNATED REPRESENTATIVE.
- PRIOR TO ANY SITE CONSTRUCTION, INCLUDING CLEARING/LOGGING OR GRADING, THE SITE CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR (OR PROJECT ENGINEER) AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR'S NAME AND PHONE NUMBER IS PACIFIC COAST SURVEYS, INC. 425.512.7099.
- THE DEVELOPER, CONTRACTOR AND PROJECT ENGINEER ARE RESPONSIBLE FOR WATER QUALITY AS DETERMINED BY THE MONITORING PROGRAM ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER IS JOSEPH SMEBY 425-903-4852.
- PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE DEPARTMENT OF PUBLIC WORKS AT 425-377-3222 TO SCHEDULE A PRECONSTRUCTION CONFERENCE. ENGINEERED AS-BUILT DRAWINGS IN ACCORDANCE WITH THE CURRENT ADOPTED INTERNATIONAL BUILDING CODE SHALL BE REQUIRED PRIOR TO SITE APPROVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR UTILITY, ROAD, AND RIGHT-OF-WAY CONSTRUCTION, AND STORMWATER. THE CONTRACTOR FOR THIS PROJECT IS _____ CONTACT PERSON IS _____ PHONE _____ MOBILE PHONE _____ EMERGENCY PHONE _____
- THE CONSTRUCTION STORMWATER POLLUTION PREVENTION (SWPP) FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED SWPPP PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. SEDIMENT LADEN WATERS SHALL NOT ENTER THE NATURAL DRAINAGE SYSTEM.

ROW RESTORATION GENERAL NOTES

- AT THE ENGINEER'S DISCRETION, PRIOR TO COMMENCING ANY CONSTRUCTION, PHOTOGRAPHS DEPICTING PRE-EXISTING ROADWAY CONDITIONS WILL BE REQUIRED EVERY 50 FEET IN PAVED AREAS OR ANY OTHER LOCATION AS SPECIFIED BY THE ENGINEER.
- SIGNING, FLAGGING AND TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THESE STANDARDS, THE WSDOT TRAFFIC MANUAL AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ONE LANE OF TRAFFIC SHALL REMAIN OPEN AT ALL TIMES, ATTENDED BY FLAGMEN AND APPROPRIATE CONSTRUCTION SIGNING PROVIDED. THE ROAD SHALL BE RESTORED TO TWO-WAY TRAFFIC AT THE END OF EACH WORKING DAY. APPLICATIONS FOR TOTAL ROAD CLOSURES MUST BE FILED WITH THE CITY PUBLIC WORKS AT LEAST 5 DAYS PRIOR TO THE ANTICIPATED CLOSURE.
- EXISTING DRAINAGE DITCHES, CULVERTS, ETC., SHALL BE KEPT CLEAN AT ALL TIMES. TEMPORARY DIVERSION OF ANY DRAINAGE SYSTEM WILL NOT BE PERMITTED WITHOUT THE CONSENT OF THE ENGINEER. ANY DRAINAGE CULVERT, CATCHBASIN, MANHOLE OR OTHER DRAINAGE STRUCTURE DISTURBED BY EXCAVATION SHALL BE REPLACED WITH NEW MATERIAL OR REPAIRED TO THE SATISFACTION OF THE ENGINEER. TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES SHALL BE EMPLOYED TO PROTECT ADJACENT PROPERTY AND STORM DRAINAGE FACILITIES.
- GRAVEL SHOULDERS DISTURBED BY EXCAVATION SHALL BE SHAPED TO CITY STANDARDS AND PROVIDED WITH A MINIMUM OF 6 INCHES COMPACTED CRUSHED SURFACING TOP COURSE.
- IF IN THE OPINION OF THE ENGINEER, WEATHER CONDITIONS DETERIORATE TO THE POINT WHERE THE TRAVELED ROADWAYS ARE UNSAFE FOR THE PUBLIC OR DETRIMENTAL TO THE RESTORATION OF THE ROADWAY, EXCAVATION SHALL CEASE IMMEDIATELY AND CLEANUP SHALL BE PROMPTLY ACCOMPLISHED.
- ALL PIPE OR OTHER MATERIAL STORED ALONG CITY RIGHT-OF-WAY MUST BE PLACED AT A SAFE DISTANCE FROM THE TRAVELED ROADWAY IN SUCH A MANNER AS TO AVOID FALLING ONTO THE ROADWAY.
- NO EXCESS OR UNSUITABLE MATERIAL SHALL BE WASTED ON CITY RIGHT-OF-WAY. ANY SUCH MATERIAL DUMPED ON PRIVATE PROPERTY MAY REQUIRE A GRADING PERMIT. VERIFICATION WITH SNOHOMISH COUNTY PLANNING & DEVELOPMENT SERVICES IS REQUIRED.
- STREET SURFACES SHALL BE CLEANED AT THE END OF EACH DAY'S OPERATION WITH A POWER BROOM OR OTHER APPROVED MEANS.
- NO OPEN CUT CROSSING OF COUNTY ROADS OR STREETS SHALL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER.
- MAXIMUM AMOUNT OF OPEN TRENCH IN ROADS SHALL BE 400 LINEAL FEET. AT THE END OF EACH DAY, ALL DITCHES MUST BE BACKFILLED OR COVERED WITH STEEL PLATES AND BARRICADED WITH FLASHING WARNING LIGHTS TO PREVENT PEOPLE OR ANIMALS FROM FALLING INTO THE TRENCH. STEEL PLATES SHALL NOT BE ALLOWED ON PAVED SURFACES.
- FINAL CLEANUP INCLUDING COMPLETE RESTORATION OF SHOULDERS, CLEANING OF DITCHES, CULVERTS AND CATCHBASINS, AND REMOVAL OF LOOSE MATERIAL FROM BACK SLOPES OF DITCHES SHALL NOT EXCEED 1500 L.F. BEHIND EXCAVATING OPERATIONS OR AS REQUIRED BY THE ENGINEER.

- NON COMPLIANCE WITH THE REQUIREMENTS FOR; EROSION CONTROLS, WATER QUALITY AND CLEARING LIMITS MAY RESULT IN REVOCATION OF PROJECT PERMITS, PLAN APPROVAL AND BOND FORECLOSURES.
- TRENCH BACKFILL OF NEW UTILITIES AND STORM DRAINAGE FACILITIES SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (MODIFIED PROCTOR) UNDER ROADWAYS AND 90% MAXIMUM DENSITY (MODIFIED PROCTOR) OFF ROADWAYS. COMPACTION SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 7-08.3(3) AND 2-03.3(14)C - METHOD B AS DEFINED IN THE CURRENT EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
- THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. LOCATION OF UTILITIES SHOWN ON CONSTRUCTION PLANS ARE BASED ON BEST RECORDS AVAILABLE AND ARE SUBJECT TO VARIATION. FOR ASSISTANCE IN UTILITY LOCATION, CALL 1-800-424-5555.
- PRIOR TO CONSTRUCTION, THE OWNER AND/OR CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE PUBLIC WORKS DIRECTOR OR DESIGNEE WHEN CONFLICTS EXIST BETWEEN THE PLANS AND FIELD CONDITIONS. CONFLICTS SHALL BE RESOLVED (INCLUDING PLAN AND PROFILE REVISIONS) AND RESUBMITTED FOR APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR SHALL KEEP TWO SETS OF PLANS ON SITE AT ALL TIMES FOR RECORDING AS-BUILT INFORMATION; ONE SET SHALL BE SUBMITTED TO THE PROJECT ENGINEER, AND ONE SET SHALL BE SUBMITTED TO THE PUBLIC WORKS DIRECTOR OR DESIGNEE AT COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE OF WORK.
- A GRADING PERMIT ISSUED PURSUANT TO THE CURRENT ADOPTED INTERNATIONAL BUILDING CODE, AND APPROVAL OF THE TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE OBTAINED FROM THE PLANNING AND LAND USE DEPARTMENT PRIOR TO ANY ON-SITE GRADING WORK NOT EXPRESSLY EXEMPT BY THE CURRENT ADOPTED INTERNATIONAL BUILDING CODE.
- PRIOR TO COMMENCEMENT OF FRAMING, FINAL DRAINAGE INSPECTION AND APPROVAL OF THE ROOF LEADER AND POSITIVE FOOTING SYSTEMS SHALL BE COMPLETED BY THE BUILDING DEPARTMENT. CALL 425-377-3223 TO SCHEDULE THE INSPECTION.

SITE GRADING AND SWPPP NOTES

- NONCOMPLIANCE WITH THE EROSION CONTROL REQUIREMENTS, WATER QUALITY REQUIREMENTS, LSCM 14.44, 14.64, AND CLEARING LIMITS VIOLATIONS MAY RESULT IN REVOCATION OF PROJECT PERMITS AND PLAN APPROVAL AND BOND FORECLOSURES.
 - PRIOR TO ANY SITE CONSTRUCTION, INCLUDING CLEARING, LOGGING OR GRADING, THE SITE CLEARING LIMITS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR (OR PROJECT ENGINEER) AS REQUIRED BY THESE PLANS. THE PROJECT SURVEYOR'S NAME AND PHONE NUMBER IS PACIFIC COAST SURVEYS, INC. 425.512.7099.
 - DEVELOPER (OR PROJECT ENGINEER) IS RESPONSIBLE FOR WATER QUALITY AS DETERMINED BY THE MONITORING PROGRAM ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER IS JOSEPH SMEBY 425-903-4852.
 - THE CONSTRUCTION STORMWATER POLLUTION PREVENTION FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED SWPPP PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING. AN INSPECTION BY THE CITY OF THESE FACILITIES SHALL BE ARRANGED FOR BY THE CONTRACTOR PRIOR TO ANY GRADING. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
 - ALL SITE WORK MUST BE PERFORMED IN ACCORDANCE WITH THE CURRENT CITY ADOPTED INTERNATIONAL BUILDING CODE.
 - ALL EARTH WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARDS. PRECONSTRUCTION SOILS INVESTIGATION MAY BE REQUIRED TO EVALUATE SOILS STABILITY.
 - IF CUT AND FILL SLOPES EXCEED A MAXIMUM OF TWO FEET HORIZONTAL TO ONE FOOT VERTICAL, A ROCK OR CONCRETE RETAINING WALL MAY BE REQUIRED. ALL ROCK RETAINING WALLS GREATER THAN FOUR (4) FEET IN HEIGHT ARE TO BE DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER EXPERIENCED IN SOIL MECHANICS.
 - STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND ADEQUATELY PROTECTED BY TEMPORARY SEEDING AND MULCHING. HYDROSEEDING IS PREFERRED.
 - ALL STRUCTURAL FILLS SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY IN THE UPPER 4 FEET & 90% MAXIMUM DENSITY BELOW 4 FEET AS DETERMINED BY MODIFIED PROCTOR.
 - PRIOR TO ANY SITE WORK PERTAINING TO DRAINAGE, THE CONTRACTOR SHALL CONTACT THE CONSTRUCTION INSPECTION DIVISION OF PUBLIC WORKS DEPARTMENT AT 360-377-3222 TO SCHEDULE A PRECONSTRUCTION CONFERENCE.
 - CONSTRUCTION STORMWATER POLLUTION PREVENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE WORK. (SEE ATTACHED DETAILED DRAINAGE PLAN).
 - THE SURFACE OF ALL SLOPES SHALL BE COMPACTED. THIS MAY BE ACCOMPLISHED BY OVER-BUILDING THE SLOPES, THEN CUTTING BACK TO FINAL GRADES; OR BY COMPACTING EACH LIFT AS THE SLOPE IS BEING CONSTRUCTED. ALL SLOPES SHALL BE COMPACTED BY THE END OF EACH WORKING DAY.
 - UPON COMPLETION OF WORK, FINAL REPORTS MUST BE SUBMITTED TO THE CITY IN CONFORMANCE WITH THE CURRENT CITY ADOPTED INTERNATIONAL BUILDING CODE.

STORM DRAINAGE NOTES

- PRIOR TO ANY SITE WORK, INCLUDING DRAINAGE, THE CONTRACTOR SHALL CONTACT THE CITY OF LAKE STEVENS PUBLIC WORKS DEPARTMENT AT 425-377-3222 TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE.
- ALL PIPE SHALL BE PLACED ON STABLE EARTH. IF, IN THE OPINION OF THE CITY INSPECTOR, THE EXISTING TRENCH FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACKFILLED WITH GRAVEL BEDDING TO SUPPORT THE PIPE.
- BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE OR PIPE-ARCH IN 6" AVERAGE DEPTH LOOSE LIFTS. MAXIMUM LIFT DEPTH SHALL NOT EXCEED 9". EACH LIFT SHALL BE THOROUGHLY COMPACTED. COMPACTED LIFTS MUST EXTEND AT LEAST ONE PIPE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. BACKFILL OVER THE PIPE SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 7-04.3(3) AND 2-03.2(14)C - METHOD B AND C OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
- ALL GRATES LOCATED IN THE GUTTER FLOW LINE (INLET AND CATCH BASIN) SHALL BE DEPRESSED 0.1 FEET BELOW PAVEMENT LEVEL.
- ALL CATCH BASINS TO BE TYPE I UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DIRECTOR OR DESIGNEE OR DESIGNATED REPRESENTATIVE. THE USE AND INSTALLATION OF INLETS IS NOT ENCOURAGED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET AND CATCH BASIN FRAMES AND GRATES TO GRADE JUST PRIOR TO CURB INSTALLATION AND/OR PAVING.
- ALL CATCH BASINS WITH A DEPTH OF 5 FEET OR GREATER TO THE FLOW LINE SHALL BE TYPE II CATCH BASINS.
- VANED GRATES ARE REQUIRED ON ALL STORM STRUCTURES WHERE THE ROADWAY PROFILE GRADE IS GREATER THAN 3%. ALL CATCH BASINS AND MANHOLES SHALL HAVE LOCKING LIDS. ROLLED GRATES ARE NOT APPROVED FOR USE OUTSIDE OF THE CITY RIGHT-OF-WAY OR FOR USE WITH TYPE II MANHOLES.
- POLYPROPYLENE SAFETY STEPS AND LADDER STEPS SHALL BE PROVIDED IN ALL MANHOLES AND SHALL BE POSITIONED CORRECTLY WITH THE BOLT AREAS ON THE RIM.
- CATCH BASIN FRAMES AND GRATES SHALL BE OLYMPIC FOUNDRY MODEL SM60, SM52, OR SM44, LOCKING TYPE OR EQUIVALENT. MODEL SM52 SHALL BE REFERRED TO AS A "THROUGH CURB INLET" ON THE PLANS; MODEL SM44 SHALL BE REFERRED TO AS A "ROLLED GRATE INLET" ON THE PLANS.
- DETENTION PONDS WITH SIDE SLOPES STEEPER THAN 3:1 OR WITH A MAXIMUM WATER DEPTH GREATER THAN 3 FEET SHALL REQUIRE A POWDER OR VINYL COATED CHAIN LINK PERIMETER FENCE PER STANDARD PLANS 6-110 & 6-120. SIDE SLOPE AVERAGING SHALL NOT BE ALLOWED. ALL INLET AND OUTFALL PIPES SHALL HAVE A TRASH RACK INSTALLED AND A MORTARED RIPRAP HEADWALL. REFER TO STORM DRAINAGE NOTE 18.
- PRIOR TO SIDEWALK CONSTRUCTION, LOT DRAINAGE SYSTEMS, STUB-OUTS AND ANY BEHIND SIDEWALK DRAINS MUST BE INSTALLED AS REQUIRED. PIPE SHALL BE PVC 3034, OR SDR-35, STUB-OUTS SHALL BE MARKED WITH A 2" X 4" WITH 3 FEET VISIBLE ABOVE GRADE AND MARKED "STORM". LOCATIONS OF THESE INSTALLATIONS SHALL BE SHOWN ON THE AS-BUILT CONSTRUCTION PLANS SUBMITTED TO THE CITY.
- STORM WATER RETENTION/DETENTION FACILITIES, STORM DRAINAGE PIPE AND CATCH BASINS SHALL BE FLUSHED AND CLEANED BY THE DEVELOPER PRIOR TO CITY OF LAKE STEVENS FINAL ACCEPTANCE OF THE PROJECT AND UPON COMMENCEMENT AND COMPLETION OF THE 2 YEAR WARRANTY PERIOD FOR THE STORM DRAINAGE SYSTEM.
- UNLESS OTHERWISE NOTED, ALL STORM SEWER PIPE SHALL BE NON-REINFORCED CONCRETE (CP), ASTM C-14; REINFORCED CONCRETE (RCP) FOR CONCRETE PIPE DIAMETERS 24" OR GREATER, ASTM C-76; OR CORRUGATED METAL (CMP). CMP TO BE IS TO BE GALVANIZED STEEL WITH TREATMENT I ASPHALT COATING OR BETTER, CORRUGATED ALUMINUM, OR AASHTO M274-70 ALUMINIZED STEEL. ALL PIPES SHALL BE INSTALLED WITH RUBBER GASKETS AS PER MANUFACTURER'S RECOMMENDATIONS.

COVERAGE REQUIREMENTS FOR 12" DIAMETER PIPE:

- BACKFILL OVER PIPE LESS THAN 12" REQUIRES RCP CLASS IV. BACKFILL OVER PIPE LESS THAN 24" REQUIRES RCP MINIMUM. BACKFILL OVER PIPE GREATER THAN 24" REQUIRES 16 GAGE CMP MINIMUM.
15. CORRUGATED POLYETHYLENE PIPE (CPP):
- ALL PIPE SHALL BE SMOOTH INTERIOR. CPP SHALL BE DOUBLE-WALLED. ALL PIPE SHALL MEET AASHTO AND ASTM SPECIFICATIONS.
 - UPON REQUEST BY THE CITY INSPECTOR, ALL PIPE RUNS SHALL PASS THE LOW PRESSURE AIR TEST REQUIREMENTS OF SECTION 7-04.3(1) E & F OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION. PIPE RUNS SHALL BE TESTED WITH PIPE LOADED AND COMPACTED TO FINISH GRADE.
 - UPON REQUEST BY THE CITY INSPECTOR, PIPE SHALL BE SUBJECT TO MANDREL TESTING (MANDREL SIZE = 90% OF NOMINAL PIPE DIAMETER).
 - PIPE SHALL BE STORED ON SITE IN SHIPPING BUNKS ON A FLAT LEVEL SURFACE. THIS REQUIREMENT WILL BE STRICTLY ENFORCED; FAILURE TO COMPLY MAY RESULT IN REJECTION OF THE PIPE AND/OR FUTURE RESTRICTION ON USE OF MATERIAL.
 - MINIMUM DEPTH OF COVER SHALL BE 2 FEET.
 - COUPLINGS SHALL BE INTEGRAL BELL AND SPIGOT OR DOUBLE BELL SEPARATE COUPLINGS. SPLIT COUPLINGS WILL NOT BE ALLOWED.
 - BACKFILL SHALL COMPLY WITH SECTION 7-08.3(3) OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION MODIFIED AS FOLLOWS: "THE MATERIAL USED FOR BACKFILLING AROUND AND TO A POINT 1 FOOT ABOVE THE TOP OF THE PIPE SHALL BE CLEAN EARTH OR SAND, FREE FROM CLAY. ANY GRAVEL OR STONES INCLUDED IN THE BACKFILL SHALL PASS THROUGH A 1 INCH SIEVE."
 - ALL NON-PERFORATED METAL PIPE SHALL HAVE NEOPRENE GASKETS AT THE JOINTS. O-RING GASKETS MAY BE USED FOR TYPE-F COUPLING BAND.
 - CULVERT ENDS SHALL BE BEVELED TO MATCH SIDE SLOPES. FIELD CUTTING OF CULVERT ENDS IS PERMITTED WHEN APPROVED BY THE PUBLIC WORKS DIRECTOR OR DESIGNEE OR DESIGNATED REPRESENTATIVE.
 - ALL FIELD CUT CULVERT PIPE SHALL BE TREATED AS REQUIRED IN THE STANDARD SPECIFICATIONS OR GENERAL SPECIAL PROVISIONS.

BY	DESCRIPTION	DATE



NOTES

2707 WETMORE AVE.
EVERETT, WA 98201
1-425-903-4852
1-425-259-1958



MATTSON HILL SP
CITY OF LAKE STEVENS, WASHINGTON
PORTION OF SECTION 8, TOWNSHIP 29 NORTH, RANGE 6 EAST, W.M.

PROJ. NO.	DATE	SCALE	DRAWING NO.
23-1018	1/31/2025	1" = 50'	17 OF 20

PFN: LUA2022-0071

**CITY OF LAKE STEVENS
CONSTRUCTION DRAWING REVIEW ACKNOWLEDGMENT**

THIS PLAN SHEET HAS BEEN REVIEWED AND EVALUATED FOR GENERAL COMPLIANCE WITH THE APPLICABLE CITY OF LAKE STEVENS CODES AND ORDINANCES. CONFORMANCE OF THIS DESIGN WITH ALL APPLICABLE LAWS AND REGULATIONS IS THE FULL AND COMPLETE RESPONSIBILITY OF THE LICENSED DESIGN ENGINEER, WHOSE STAMP AND SIGNATURE APPEAR ON THIS SHEET. ACKNOWLEDGMENT OF CONSTRUCTION DRAWING REVIEW DOES NOT IMPLY CITY APPROVAL FOR CONSTRUCTION ACTIVITIES THAT REQUIRE OTHER COUNTY, STATE OR FEDERAL PERMIT REVIEW AND APPROVAL. THE PROPERTY OWNER AND LICENSED DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE ACQUISITION AND COMPLIANCE OF ALL APPLICABLE PERMITS OR AUTHORIZATIONS THAT MAY INCLUDE, BUT ARE NOT LIMITED TO, WDFW HYDRAULIC PROJECT APPROVAL (HPA), WASHINGTON STATE ECOLOGY'S NOTICE OF INTENT (NOI), NPDES CONSTRUCTION STORMWATER GENERAL PERMIT, ALL U.S. ARMY CORPS OF ENGINEERS HILL PERMITS, AND THE REQUIREMENTS OF THE ENDANGERED SPECIES ACT.

NOTE:
CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.

BY: Kimberly Klinkera
CITY ENGINEER/PUBLIC WORKS DIRECTOR



Know what's below.
Call two business days before you dig.

STRUCTURAL NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

CODE

ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION, SPECIFICATIONS AND STANDARDS WHERE REFERENCED ON THE DRAWINGS ARE TO BE THE LATEST EDITION.

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE REQUIRED AS INDICATED IN THE FOLLOWING TABLE. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK IN ACCORDANCE WITH SECTION 1704.4 OF THE IBC.

FREQUENCY AND DISTRIBUTION OF REPORTS - INSPECTION REPORTS SHALL BE PROVIDED FOR EACH DAY ON SITE BY SPECIAL INSPECTOR. STRUCTURAL OBSERVATION REPORTS SHALL BE PROVIDED AFTER EACH OBSERVATION. REPORTS SHALL BE DISTRIBUTED TO THE CONTRACTOR, ARCHITECT, ENGINEER AND BUILDING OFFICIAL.

SPECIAL INSPECTION

OPERATION	CONT	PERIODIC	REMARKS
SOILS			
EXCAVATION & FILL & COMPACTION & DRAINAGE		X	GEOTECH ENGINEER
FOUNDATION BEARING CAPACITY VERIFICATION		X	
CONCRETE			
CONCRETE TEST SPECIMENS	X		
ADHESIVE ANCHORS	X		IF USED

NOTE: ALL ITEMS MARKED WITH AN "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17. SPECIAL INSPECTION SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING OFFICIAL SHALL BE FURNISHED WITH COPIES OF ALL RESULTS. ANY INSPECTION FAILING TO MEET THE PROJECT SPECIFICATIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE DESIGN TEAM.

SHOP DRAWINGS

SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION:

1. CONCRETE MIX DESIGN
2. REBAR

SHOP DRAWINGS SHALL BE REVIEWED, REVISED AS REQUIRED FOR FIELD CONDITIONS, AND DATE STAMPED BY THE CONTRACTOR PRIOR TO REVIEW BY THE ENGINEER. CONTRACTOR SHALL PROVIDE (3) SETS OF SHOP DRAWINGS FOR ENGINEER'S REVIEW. ALLOW TWO WEEKS FOR SHOP DRAWING APPROVAL BY ENGINEER.

ENGINEER'S SHOP DRAWING REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AND CONTRACT DOCUMENTS. MARKINGS OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLIANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR REMAINS RESPONSIBLE FOR DETAILS AND ACCURACY, FOR CONFORMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FOR SELECTING FABRICATION PROCESSES, FOR TECHNIQUES OF ASSEMBLY, AND FOR PERFORMING THE WORK IN A SAFE MANNER.

ENGINEER'S SHOP DRAWING REVIEW OF STRUCTURAL COMPONENTS DESIGNED BY OTHERS IS FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL CONNECTIONS TO THE BASIC STRUCTURE. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF THE LOADS IMPOSED ON THE BASIC STRUCTURE AND SHALL BE STAMPED & SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT.

FABRICATION SHALL BEGIN ONLY AFTER SHOP DRAWINGS BEARING THE STAMP AND SIGNATURE OF THE PROJECT ARCHITECT, ENGINEER OF RECORD, AND CONTRACTOR HAVE BEEN RECEIVED.

FOUNDATIONS: SPREAD FOOTINGS

SOILS REPORT: PREPARED BY: GEO GROUP NORTHWEST, INC.
 DATED: 03/22/17
 REPORT NO: G-4294

ALLOWABLE SOIL PRESSURE: 2000 PSF

LATERAL EARTH PRESSURE:

UNRESTRAINED: 35 PCF + ANY APPLICABLE SURCHARGE
 PASSIVE: 250 PCF
 COEFFICIENT OF FRICTION: 0.35
 SEISMIC: 6H

FOOTINGS SHALL BEAR ON FIRM UNDISTURBED EARTH OR 12" OF COMPACTED STRUCTURAL FILL AS REQUIRED AND AT LEAST 18" BELOW ADJACENT EXTERIOR GRADE. ANY FOOTING ELEVATIONS SHOWN IN THE DRAWINGS REPRESENT MINIMUM DEPTHS AND ARE FOR BIDDING ONLY. ACTUAL FOOTING ELEVATIONS ARE SUBJECT TO SITE CONDITIONS AND MUST THEREFORE BE ESTABLISHED BY THE CONTRACTOR.

IMPORTED STRUCTURAL FILL AND BACKFILL MATERIAL SHOULD CONSIST OF CLEAN, WELL GRADED GRANULAR MATERIAL FREE OF DEBRIS OR ORGANICS WITH A MAXIMUM PARTICLE DIAMETER OF THREE INCHES AND NO MORE THAN 5% FINES (PASSING THE #200 SIEVE).

FILL AND BACKFILL MATERIAL SHOULD BE PLACED IN LEVEL LIFTS NOT EXCEEDING EIGHT (8") INCHES IN LOOSE THICKNESS AND COMPACTED TO A MINIMUM OF 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM TEST METHOD D1557.

BACKFILL BEHIND ALL RETAINING WALLS WITH WELL-DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE. PROVIDE DAMPPROOFING AT EXTERIOR FACE OF ALL FOUNDATION WALLS EXPOSED TO EARTH.

EXCAVATIONS AND DRAINAGE INSTALLATION SHALL BE OBSERVED BY A SOILS ENGINEER RETAINED BY THE OWNER. IF EXCAVATION SHOWS SOIL CONDITIONS TO BE OTHER THAN THOSE ASSUMED ABOVE NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

CONCRETE

ALL CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED, AND PLACED IN ACCORDANCE WITH CHAPTER 26 OF ACI 318 AND THE AMERICAN CONCRETE INSTITUTE'S SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301).

ALL CONCRETE SHALL BE STONE-AGGREGATE CONCRETE HAVING A UNIT WEIGHT OF APPROXIMATELY 150 POUNDS PER CUBIC FOOT.

CONCRETE STRENGTHS AT 28 DAYS (F_c) AND MIX CRITERIA SHALL BE AS FOLLOWS:

TYPE OF CONSTRUCTION	F _c	MAXIMUM WATER/CEMENT RATIO	MIN. CEMENT CONTENT PER CUBIC YARD	MAXIMUM SHRINKAGE STRAIN
FOOTINGS	4000 PSI	0.50	5 1/2 SACK	N/A
WALLS	4000 PSI	0.50	5 1/2 SACK	N/A

THE MINIMUM AMOUNT OF CEMENT LISTED ABOVE MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER, AND ADMIXTURES AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD, AND SUBSTITUTING STRENGTH DATA IN ACCORDANCE WITH CHAPTER 26 OF ACI 318.

ALL CONCRETE EXPOSED TO WEATHER OR TO FREEZING TEMPERATURES SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 318 TABLE 19.3.3.1 FOR MODERATE EXPOSURE CLASS FL.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A615, AND SHALL BE GRADE 60 (F_y = 60,000 PSI), UNLESS NOTED OTHERWISE. GRADE 60 REINFORCING BARS INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING COMPLYING WITH ASTM A615 MAY BE WELDED IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN AWS D1.4 ARE SUBMITTED.

REINFORCING STEEL SHALL BE DETAILED INCLUDING HOOKS AND BENDS IN ACCORDANCE WITH ACI 318-18 AND ACI 308. LATEST EDITIONS. UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE PER SCHEDULE.

REINFORCING SHALL BE PLACED AND ADEQUATELY SUPPORTED PRIOR TO PLACING CONCRETE. WET-SETTING EMBEDDED ITEMS IS NOT ALLOWED WITHOUT PRIOR ENGINEER APPROVAL. BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. REFER TO CHAPTER 25 OF ACI 318 FOR OTHER REINFORCING STEEL REQUIREMENTS.

MINIMUM LAPS AND EMBEDMENT

UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE AS TABULATED BELOW:

BAR SIZE	F _c = 4000 PSI					
	DEVELOPMENT LENGTH			LAP SPLICE		
	TENSION	COMPRESSION		TENSION	COMPRESSION	
#3	19	15	8	24	29	12
#4	25	19	10	33	25	15
#5	31	24	12	41	31	19
#6	37	29	15	49	37	23
#7	54	42	17	71	54	27
#8	62	48	19	81	62	30

NOTE:
 1. ALL LENGTHS ARE IN INCHES.
 2. ALL LAP SPLICES ARE CLASS B.
 3. "TOP BARS" ARE HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

CONCRETE COVER ON REINFORCING

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"

CONCRETE EXPOSED TO EARTH AND WEATHER:
 #6 BARS AND LARGER: 2"
 #5 BARS AND SMALLER: 1 1/2"

CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
 SLABS, WALLS AND JOISTS: 3/4"
 COLUMN TIES OR SPIRALS AND BEAM STIRRUPS: 1 1/2"

CONCRETE GENERAL NOTES

VERTICAL BARS SHALL START FROM TOP OF FOOTING. HORIZONTAL BARS SHALL START A DISTANCE OF 1/2 THE NORMAL BAR SPACING FROM TOP OF FOOTING AND TOP OF FRAMED SLABS. IN ADDITION, THERE SHALL BE A HORIZONTAL BAR AT A MAXIMUM OF 3" FROM TOP OF WALL AND BOTTOM OF FRAMED SLABS.

PROVIDE CORNER BARS TO MATCH THE HORIZONTAL REINFORCING WITH TENSION LAP SPLICE AT EACH SIDE PER TABLE, OR BEND ONE SIDE OVER TO PROVIDE TENSION LAP.

ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND PROPERLY PREPARED IMMEDIATELY PRIOR TO POURING OF CONCRETE. DOWEL STEEL SHALL BE THE SAME SIZE AND SPACING AS MAIN REINFORCING DETAILED BEYOND JOINT.

BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES. PROVIDE 3/4" CHAMFER AT ALL CORNERS EXCEPT AS NOTED.

GENERAL

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL, CIVIL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS FOR COMPATIBILITY BEFORE PROCEEDING. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING.

CONTRACTOR TO SEE ARCHITECTURAL, CIVIL, ELECTRICAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF PIPE, VENT, DUCT AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THESE DRAWINGS.

CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION STABILITY AND TEMPORARY SHORING AS NECESSARY UNTIL PERMANENT SUPPORT AND STIFFENING ARE INSTALLED.

CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

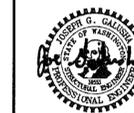
DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF A SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

LEGEND			
DEFINITION	SYMBOL	DEFINITION	SYMBOL
DIRECTION OF FRAMING		NATIVE SOIL	
EXTENT OF FRAMING		GRANULAR FILL	
COLUMNS		STRUCTURAL STEEL	
COLUMN BEARING ON BEAM		RATED SHEATHING	
BEAM CONTINUOUS OVER SUPPORT		SHEAR WALL (SEE SCHEDULE)	SWX
CONCRETE WALL		COLUMN MARK (SEE SCHEDULE)	
BEARING STUD WALL		FOOTING MARK (SEE SCHEDULE)	
NON-BEARING STUD WALL		HOLDOWN MARK (SEE SCHEDULE)	
BEARING STUD SHEAR WALL		HANGER MARK (SEE SCHEDULE)	
NON-BEARING STUD SHEAR WALL		FLAG NOTE (SEE PLAN NOTES)	
CMU WALL		STEEL MOMENT FRAME CONN.	

ABBREVIATIONS			
(A)	ABOVE	GLB	GLUE-LAMINATED BEAM
AB	ANCHOR BOLT	HORIZ	HORIZONTAL
ALT	ALTERNATE	KP	KING POST
ARCH	ARCHITECT	KSI	KIPS PER SQUARE INCH
(B)	BELOW	L	ANGLE
BD	BAR DIAMETER	MECH	MECHANICAL
BLKG	BLOCKING	MF	MOMENT FRAME
BM	BEAM	MTL	METAL
BOT	BOTTOM	NS	NEAR SIDE
BRNG	BEARING	OC	ON CENTER
BTWN	BETWEEN	OPP	OPPOSITE
CJP	COMPLETE JOINT PENETRATION	PL	PLATE
CLR	CLEAR	PLCS	PLACES
CMU	CONCRETE MASONRY UNIT	PSI	POUNDS PER SQUARE INCH
COL	COLUMN	PSF	POUNDS PER SQUARE FOOT
CONC	CONCRETE	P/T	POST TENSIONED
CONN	CONNECTION	PT	PRESSURE TREATED
CONT	CONTINUOUS	REINF	REINFORCING
COORD	COORDINATE	REQD	REQUIRED
DBL	DOUBLE	SCHED	SCHEDULE
DET	DETAIL	SIM	SIMILAR
DNM	DIAMETER	SG	SLAB ON GRADE
DNM	DIMENSION	STD	STANDARD
DIR	DIRECTION	STIFF	STIFFENER
EA	EACH	STL	STEEL
ELEV	ELEVATION	SYMM	SYMMETRICAL
ES	EACH SIDE	SW	SHEARWALL
EX	EXISTING	TOC	TOP OF CONCRETE
EXP	EXPANSION	TOS	TOP OF STEEL
FLR	FLOOR	TOW	TOP OF WALL
FDN	FOUNDATION	TYP	TYPICAL
FTG	FOOTING	UNO	UNLESS NOTED OTHERWISE
FS	FAR SIDE	VERT	VERTICAL
GC	GENERAL CONTRACTOR	WF	WIDE FLANGE



250 4TH AVE. S., SUITE 200
 EDMONDS, WASHINGTON 98020
 PHONE (425) 778-8500
 FAX (425) 778-5556



01/25/22

DATE: 10/13/22
 MARK: 07/25/23
 DESCRIPTION: SUBMITTAL PERMIT RESUBMITTAL

DESIGN: OCC
 DRAWN: JEG
 CHECK: JGG
 JOB NO: 2227B.10
 DATE: 10/13/22

MATTSON HILLS SITE RETAINING WALLS
 15XX 118TH AVE. NE
 LAKE STEVENS, WA 98258

STRUCTURAL NOTES

SHEET:

S1.1

