



September 16th, 2022

G-5514

Mr. Jesse Tam
Phone: (206) 948-9902
Email: jesset28@aol.com

Subject: **Addendum to -
Geotechnical Engineering Investigation & Soil Infiltration Evaluation
Proposed Short-Plat
4833 – 90th Ave SE
Mercer Island, Washington**

Reference: **“Geotechnical Engineering Investigation & Soil Infiltration Evaluation,
Proposed Short-Plat, 4833 – 90th Ave SE, Mercer Island, Washington,” GEO
Group Northwest, Inc., G-5514, February 18th, 2022.**

Dear Mr. Tam:

We reviewed the Preliminary Grading and Utilities Plan for the project. The plan was prepared by Pacific Land Engineering, LLC and is attached to this letter. Based on our review, we understand that a stormwater detention vault is proposed in the central-east portion of the property. The stormwater vault as proposed will discharge westerly to the City stormwater utility along the Island Crest Way east right-of-way. Construction of the stormwater facility will require excavations within the steep slope area at the west side of the site and adjacent City right-of-way. Our geotechnical recommendations regarding the construction of the proposed stormwater facility are provided in the following sections to this report.

Excavation Recommendations

Stormwater Vault

Based on the proposed configuration we estimate that excavations necessary for the vault construction will reach depths of up to approximately 15 feet below grade. Temporary excavations into the very dense, glacial till soils for construction of the stormwater vault and

storm drain to the utility can be completed at near vertical inclinations as recommended in our geotechnical report. Approximately 1 to 2 feet of weathered soils at the surface may need to be sloped at 1H:1V, if present. During the installation of the stormwater vault, the excavation walls should be draped with plastic sheeting to protect workers from loose gravel, if present.

Stormwater Drain to Utility

Excavation into the steep slope region at the west property line and adjacent right-of-way will be required to complete the stormwater tie-in to the City utility. Based on the results of our geotechnical investigation, the slope is underlain with cemented glacial till soils. In our opinion, excavation trenching into the slope for the stormwater tie-in can be completed at near vertical inclinations without destabilizing the slope. For worker protection, the excavated trenches should be shored with trench boxing or equivalent.

Sincerely,

GEO GROUP NORTHWEST, INC.



Garrett Dean, G.I.T.
Staff Engineering Geologist

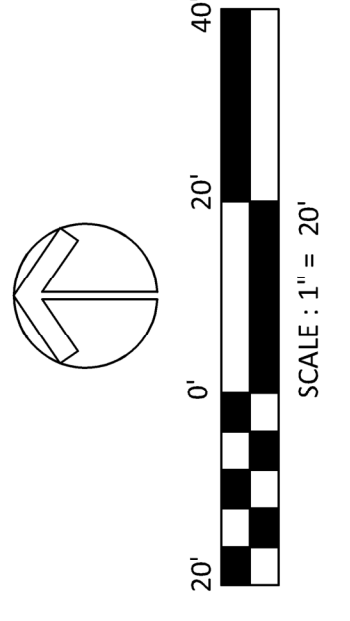
William Chang, P.E.
Principal Engineer

Attachment:

“Preliminary Grading and Utilities Plan,” Project 4833 MI_4 – Lot Short Plat, Sheet No. C-6.0,
Prepared by Pacific Land Engineering

SEC. 19, T.24N., R.5E., W.M.

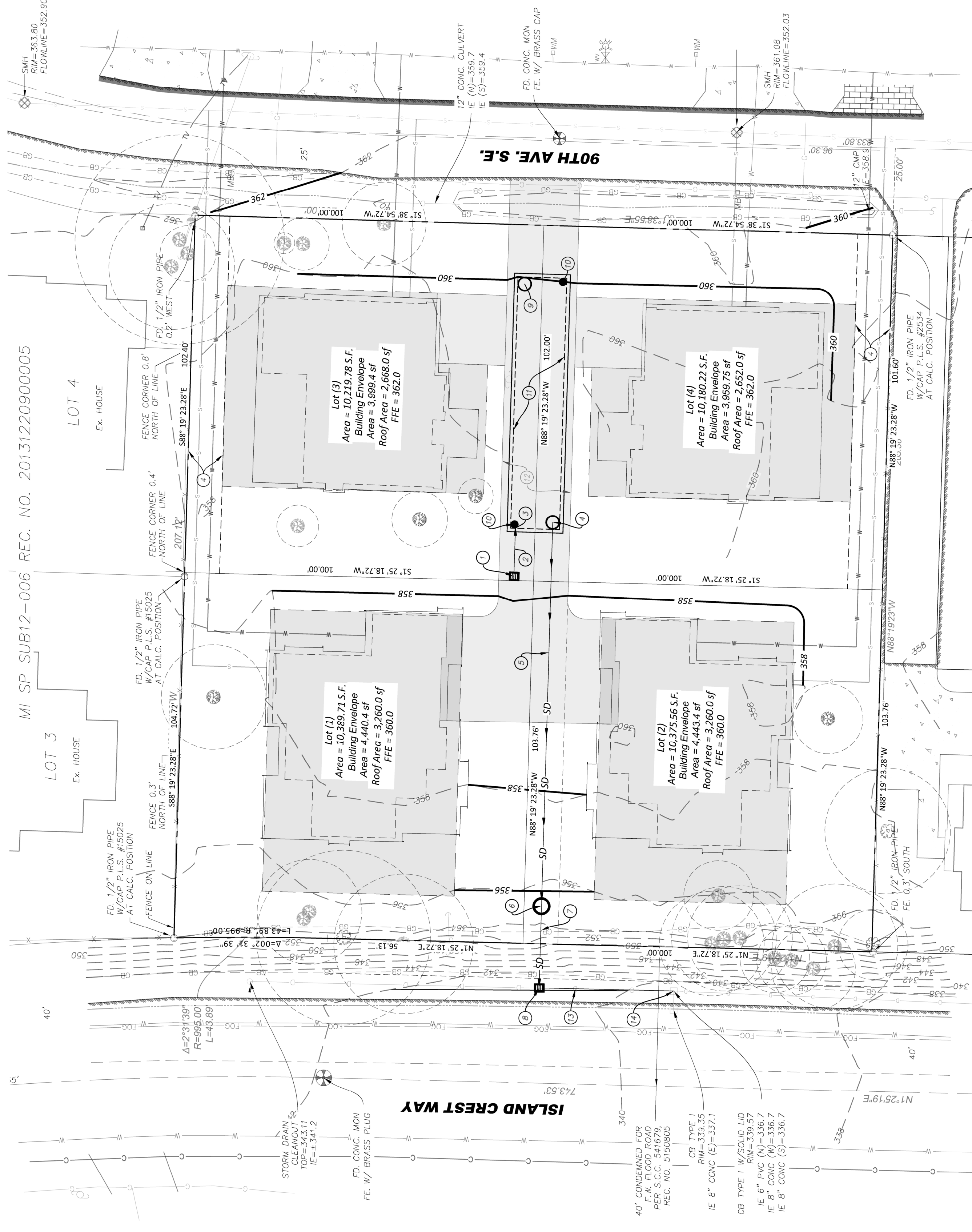
MI SP SUB12-006 REC. NO. 20131220900005



LEGEND:

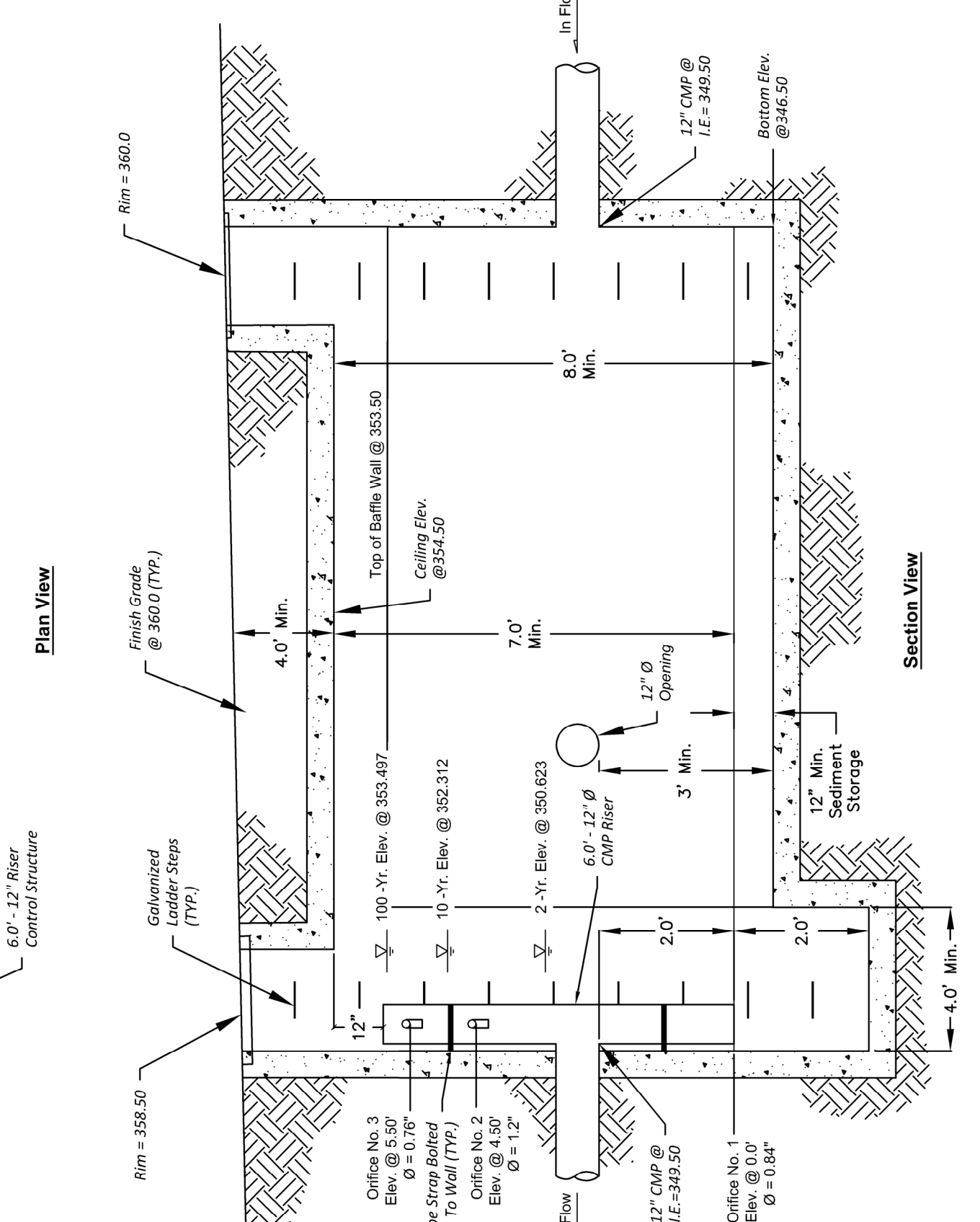
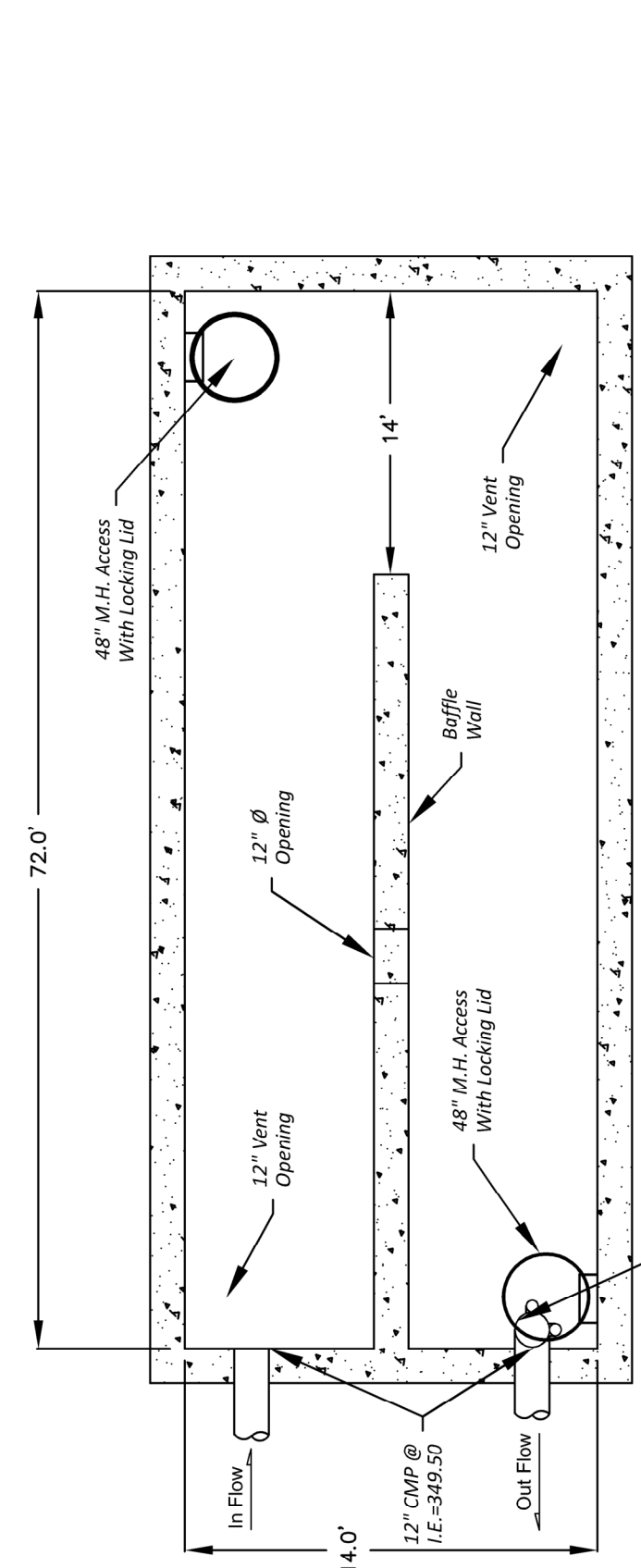
- = POWER POLE
- = GUY ANCHOR
- = OVERHEAD POWER
- = FIRE HYDRANT
- = WATER VALVE
- = WATER METER
- = WATER LINE (PAINTED LOCATION)
- = UNDERGROUND COMMUNICATION (PAINTED LOCATION)
- = UNDERGROUND TELEVISION (PAINTED LOCATION)
- = UNDERGROUND GAS LINE (PAINTED LOCATION)
- = SEWER MANHOLE
- = SEWER LINE
- = MAIL BOX
- = EVERGREEN TREE
- = DECIDUOUS TREE
- = WOOD BOARD FENCE LINE
- = FOOTLINE (LANE STRIPE)
- = DITCH LINE
- = GRADE BREAK
- = EDGE OF PAVEMENT/CURB LINE
- = CONCRETE
- = CONCRETE PAVERS
- = GRAVEL
- = TBM = 600 SPIKE IN POWER POLE
ELEV = 361.47 (NAVD 1988)

- 1 48" Type - II CB W/Locking Grate
Rim = 357.75
I.E. = 350.20 - 12" Ø, E
- 2 14" - 12" Ø HDPE @ 5%
- 3 12" Ø HDPE
Rim = 349.50
I.E. = 349.50
- 4 48" Ø Locking Lid Marked Drain
Rim = 358.50
I.E. = 349.50
- 5 110" - 12" Ø HDPE @ 10%
- 6 52" Type I' SDMH W/ Locking Lid Marked Drain
Rim = 355.0
I.E. = 338.50
12" HDPE, E & W
- 7 24" 20" - 12" Ø HDPE @ 3.1%
- 8 Type - I CB W/Locking Grate
Rim = 340.75
I.E. = 337.75
New 12" Ø, E & S
Remove Ex. 6" Ø, S
- 9 48" Ø Locking Lid Marked Drain
Rim = 360.0
I.E. = 349.50
- 10 12" Ø Vent Opening
W/Locking Cover.
- 11 Underground Storm Water Detention Vault
72" Long X 14" Wide X 8' Deep. See Detail Hereon.
- 12 20' Wide Paved Private Access Road
See Detail Hereon.
- 13 Remove existing 8" Storm Pipe, and Install New
38.6 LF - 12" CMP @ 2.7%
- 14 Connect New 12" CMP to Existing CB
I.E. = 336.70 - N

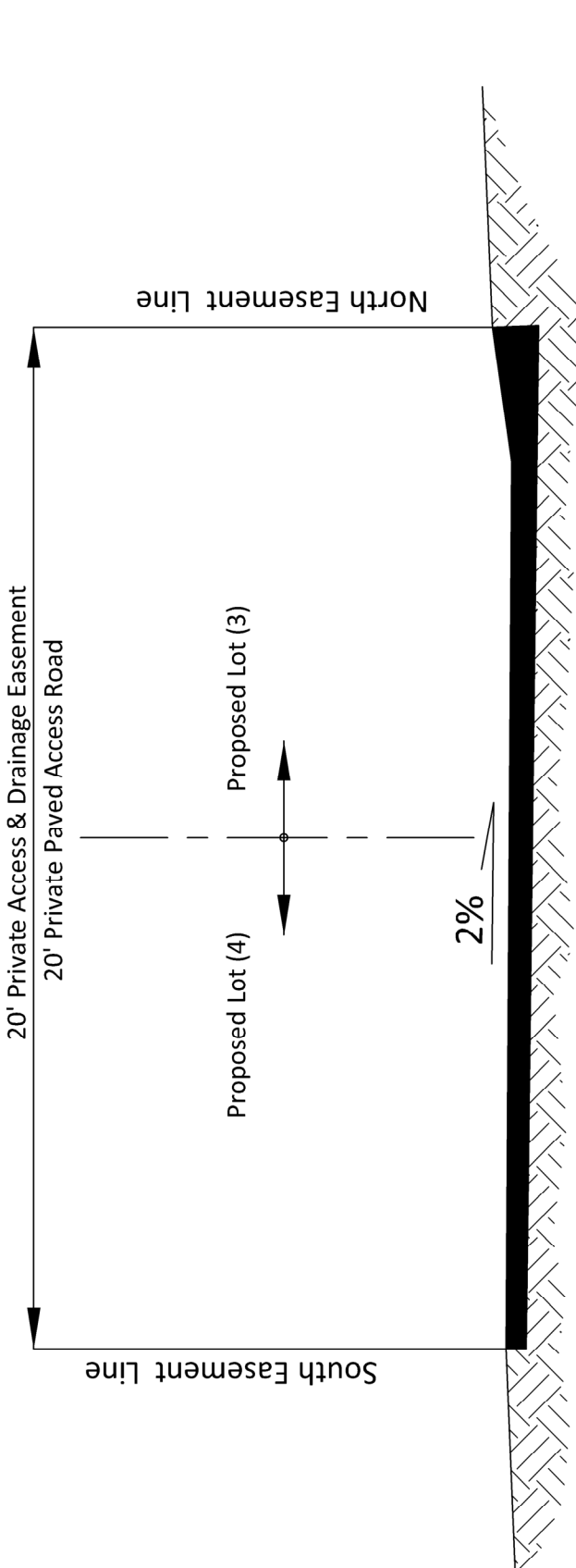


Preliminary Cut/Fill Summary

Surface	Cut Factor	Fill Factor	Cut	Fill	Net
Surface 3	1.000	1.000	1,184.0 Sq. Ft.	530.0 Cu. Yd.	1,200.0 Cu. Yd.
Totals			1,184.0 Sq. Ft.	530.0 Cu. Yd.	1,200.0 Cu. Yd.



Concrete Detention Vault With Control Structure



20' Wide Private Access Road

N.T.S.

Revisions

No.	Date	By

Project 4833 MI - 4 - Lot Short Plat

Preliminary Grading and Utilities Plan

Plan Plotted For:
Initial Submittal

PACIFIC LAND ENGINEERING

Civil Engineering, Development Services, Land Use Consulting
Bellevue, WA - www.pacificland.com
info@pacificland.com (425) 615-6160

REGISTERED PROFESSIONAL ENGINEER
WASHINGTON STATE
No. 36054

DWG: 10/01/2022
STAMP IS NOT VALID
UNLESS SIGNED AND DATED

Job Number: 220520 - PLE - 2211
DWG Date: 10/01/2022

Sheet No. C-6.0 OF C-X.0

