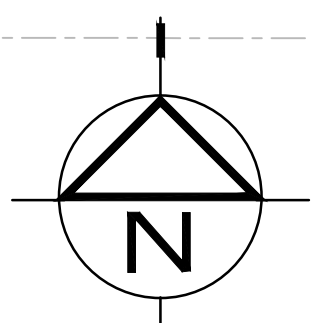
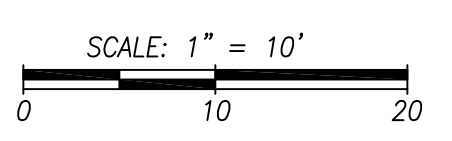


ARVIND'S RETAINING WALLS PLAN



Tyler Home Design ~*~ 17614 NE 29th St - Redmond WA 98052 ~*~ HouseDesign4u@outlook.com or TylerHomeDesign@Gmail.com ~*~ 425-900-7666 or 425-891-5111

DESIGN CRITERIA

- GOVERNING CODE: 2018 IBC/IRC & AMENDMENTS AS ADOPTED BY CITY OF MERCER ISLAND.
- PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT BY ASSOCIATED EARTH SCIENCES, INC. DATED MARCH 10, 2023
 FOUNDATION: SPREAD FOOTING ALLOWABLE BEARING PRESSURE = 2000 PSF
 LATERAL EQUIVALENT FLUID WALL PRESSURES = 35 PCF
 SATURATED LATERAL EQUIVALENT FLUID WALL PRESSURES = 80 PCF
 SEISMIC SURCHARGE PRESSURE = 11 H
 PASSIVE EQUIVALENT FLUID WALL PRESSURES = 200 PCF
 COEFFICIENT OF FRICTION = 0.30

GENERAL CONDITIONS

- THE CONTRACTOR SHALL EXAMINE THE STRUCTURAL DRAWINGS AND SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES HE MAY FIND BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ARCHITECT/ENGINEER SHALL IMMEDIATELY BE NOTIFIED IN WRITING OF ANY DISCREPANCIES.
- ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS SHALL BE BROUGHT TO THE ATTENTION TO HE ARCHITECT AND THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- IN CASE OF CONFLICT NOTES AND DETAILS OF THESE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE "GENERAL NOTES" AND/OR "STANDARD DETAILS".
- WORKING DIMENSIONS SHALL NOT BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THESE DRAWINGS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND THE STRUCTURAL ENGINEER OF ANY CONDITION WHICH IN HIS OPINION MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS TO THE STRUCTURE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS/METHODS AND FOR VERIFYING STRUCTURAL CAPACITY PRIOR TO APPLYING CONSTRUCTION LOADING.
- ALTERNATES FOR SPECIFIED ITEMS MAY BE SUBMITTED TO THE ENGINEER FOR REVIEW. ENGINEER MAY REQUEST PAYMENT FOR REVIEWING THESE SUBMITTALS.
- NOTIFY ENGINEER OF ALL FIELD CHANGES PRIOR TO INSTALLATION.
- ALL CONSTRUCTION SHALL BE DONE WITH MATERIALS, METHODS, AND WORKMANSHIP ACCEPTED AS GOOD PRACTICE BY THE CONSTRUCTION INDUSTRY IN CONFORMANCE TO THE PROVISIONS OF THE "INTERNATIONAL BUILDING CODE" (IBC), AND STANDARDS REFERENCED THEREIN.

CONCRETE

- REFERENCE STANDARDS: ACI 301, ACI 318
- MINIMUM CONCRETE STRENGTH:
 - FOOTINGS AND STEM WALLS 3000 PSI
- MIXING: COMPLY WITH ACI 301 SECTIONS 4 & 5 AND ACI 304. DO NOT EXCEED THE AMOUNT OF WATER SPECIFIED IN THE APPROVED MIX. PROPORTIONS OF AGGREGATE TO CEMENT SHALL BE SUCH AS TO PRODUCE A DENSE WORKABLE MIX WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER.
- PLACING: COMPLY WITH ACI 301. PROVIDE A 3/4 INCH CHAMFER ALL EXPOSED CONCRETE EDGES, UNLESS INDICATED OTHERWISE ON ARCHITECTURAL DRAWINGS.
- SLUMPS: 4" PLUS OR MINUS ONE INCH. DO NOT ADD WATER TO MIX TO INCREASE SLUMP. GREATER SLUMP, ACCELERATED SET, OR HIGH EARLY STRENGTH MAY BE ACHIEVED BY USING APPROVED ADMIXTURES.
- CURING: COMPLY WITH ACI 308, ACI 302 AND ACI 301 SECTION 5. KEEP CONCRETE MOIST FOR SEVEN DAYS MINIMUM.
- JOINTING: PROVIDE ADEQUATE JOINTING TO MINIMIZE EFFECTS OF VOLUME CHANGE. JOINTS SHOWN MY BE ADJUSTED AT CONTRACTOR'S OPTION, WITH PRIOR APPROVAL FROM ENGINEER.
- WEATHER EXTREMES: CONTRACTOR SHALL MAKE APPROPRIATE MODIFICATIONS TO MIXING, TRANSPORTING, PLACING AND CURING PROCEDURES DURING PERIODS OF HOT, COLD OR WINDY WEATHER IN ACCORDANCE WITH ACI 301.
- WATER/CEMENT RATIO: SHALL NOT EXCEED 0.50 BY WEIGHT, TYPICAL.

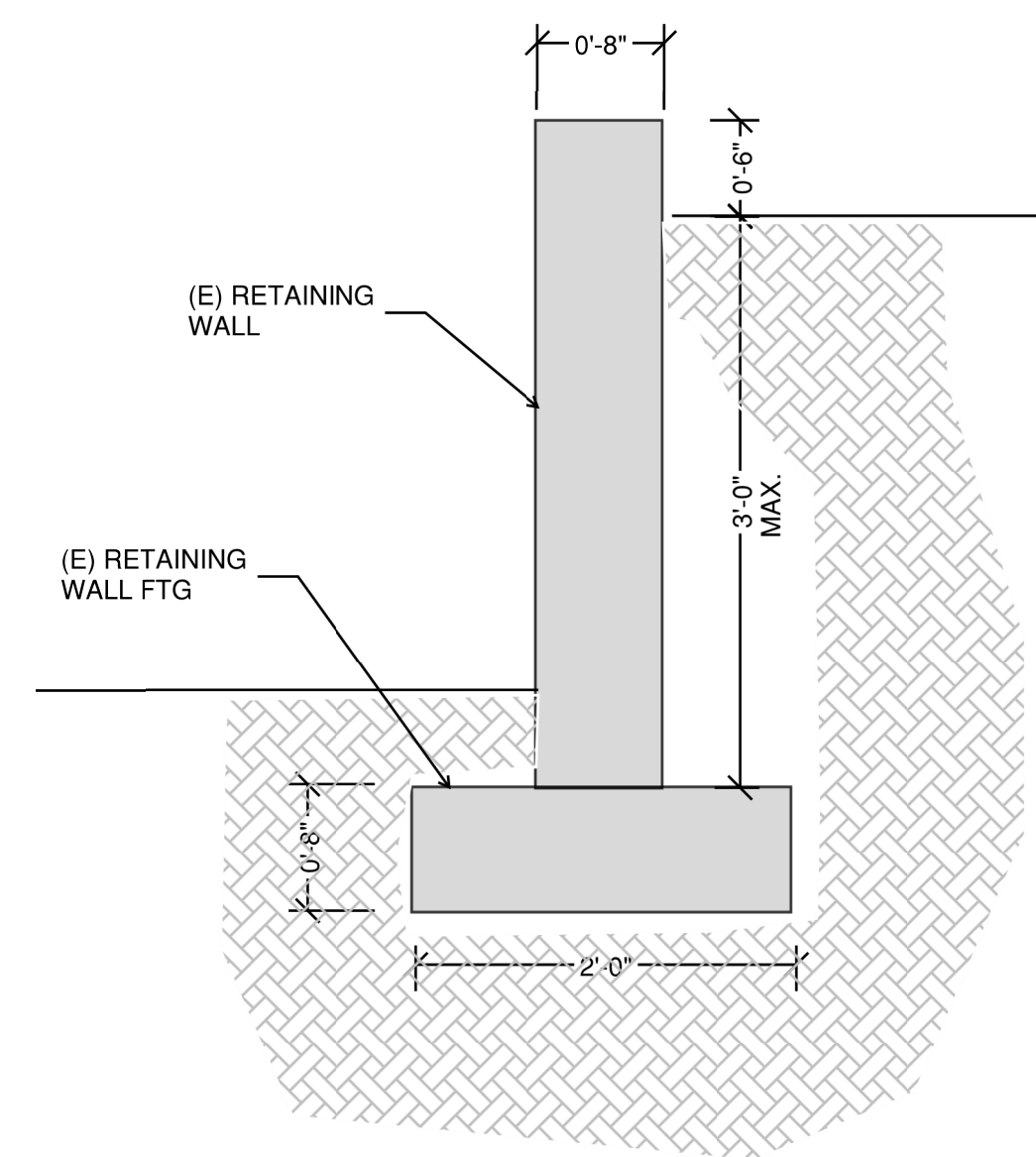
REINFORCING STEEL

- REFERENCE STANDARDS: ACI 301, ACI 318, CRSI "PLACING REINFORCING BARS"
- MATERIALS:
 - REINFORCING BARS: ASTM A615, GRADE 60
- SPICES: LAP CONTINUOUS REINFORCING BARS 48 BAR DIAMETERS, UNLESS NOTED OTHERWISE. PROVIDE CORNER BARS FOR ALL HORIZONTAL REINFORCEMENT.
- CONCRETE COVER:
 - CONCRETE CAST AGAINST EARTH 3"
 - CONCRETE EXPOSED TO WEATHER 2"



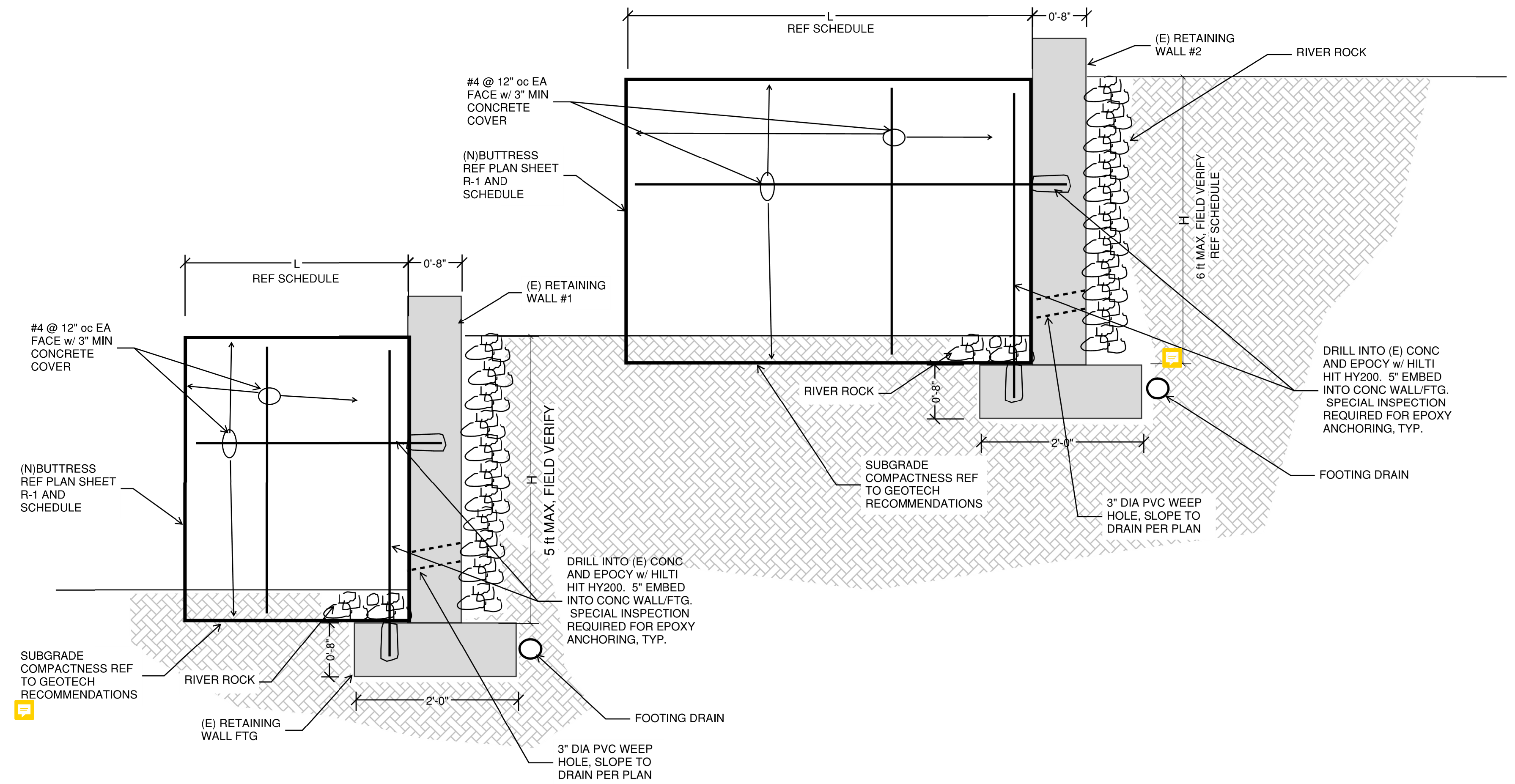
Arvind's Retaining Walls 3655 73rd Ave SE Mercer Island 98040	6-25 2023 DWG R-1
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06/08/23



RETAINING WALL SECTION

A



WALL #1			
RETAINING HEIGHT H (ft)	BUTTRESS LENGTH L (ft)	BUTTRESS THICKNESS t (in)	BUTTRESS SPACING S (ft)
3	2.5	12	30
4	2.5	12	15
5	2.5	12	5

WALL #2			
RETAINING HEIGHT H (ft)	BUTTRESS LENGTH L (ft)	BUTTRESS THICKNESS t (in)	BUTTRESS SPACING S (ft)
3	5	18	30
4	5	18	15
5	5	18	8
6	5	18	5

TABLE NOTES:
 1. FIELD VERIFY EXISTING WALL RETAINING HEIGHT.
 2. ACCEPTABLE TO INTERPOLATE VALUES FROM THE TABLE.
 3. NOTIFY ENGINEER IF RETAINING HEIGHT EXCEED THE VALUE SHOWN IN THE TABLE.

RETAINING WALL SECTION

B

