General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (2021 EDITION).

2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATION, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.

3. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

5. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".

6. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED OR REQUEST ADDITIONAL INFORMATION. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

QUALITY ASSURANCE

7. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1705 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION IS REQUIRED UNLESS NOTED OTHERWISE.

CONCRETE CONSTRUCTION	PER TABLE 1705.3
SOIL CONDITIONS, FILL PLACEMENT, AND DENSITY	PER TABLE 1705.6

PERIODIC INSPECTION: INSPECTION SHALL BE PERFORMED AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS.

CONTINUOUS INSPECTION: INSPECTOR SHALL BE ONSITE AND OBSERVE THE WORK REQUIRING INSPECTION AT ALL TIMES THAT WORK IS PERFORMED.

GEOTECHNICAL

8. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BE FOUNDED ON SUITABLE NATIVE SOILS OR ON STRUCTURAL FILL PLACED OVER SUCH SOILS AS DESCRIBED IN THE GEOTECHNICAL REPORT. FOOTINGS SHALL BE BURIED A MINIMUM OF 18" BELOW ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND GEOTECHNICAL ENGINEER. ALL RETAINING WALLS SHALL BE PROVIDED WITH A FOOTING DRAIN AT THE BASE OF THE FOOTING ELEVATION AND LINED WITH A DRAINAGE BLANKET OF WASHED GRAVEL AS DESCRIBED IN THE GEOTECHNICAL REPORT.

ALLOWABLE SOIL PRESSURE (NATIVE SOILS OR STRUCTURAL FILL). . . 2500/2000 PSF
LATERAL EARTH PRESSURE (UNRESTRAINED). . . . . 35 PCF
ALLOWABLE PASSIVE EARTH PRESSURE (FS OF 1.5 INCLUDED). . . . . 200 PCF
COEFFICIENT OF FRICTION (FS OF 1.5 INCLUDED) 0.3
SEISMIC SURCHARGE PRESSURE (UNIFORM LOAD, ACTIVE). . . . . 11H PSF

GEOTECHNICAL REPORT REFERENCE:
SUBSURFACE EXPLORATION, GEOLOGIC HAZARD, AND GEOTECHNICAL ENGINEERING REPORT, ARVIND RESIDENCE, PREPARED BY ASSOCIATED EARTH SCIENCES, INC., PROJECT No. 20220409E001, DATED MARCH 10, 2023

RENOVATION

9. DEMOLITION: CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED IN A MANNER SUITABLE TO THE WORK SEQUENCES. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE.

CONCRETE

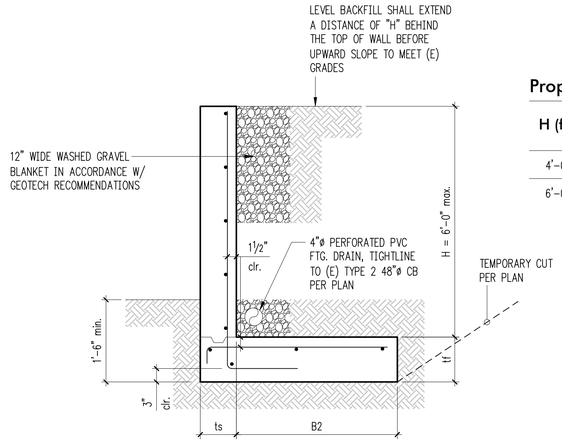
10. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 3,000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC. DESIGN STRENGTH IS f'c = 2,500 PSI.

11. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI

12. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315R-18 AND 318-19. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM.
NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

13. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH . . . . . 3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER). . 1-1/2"

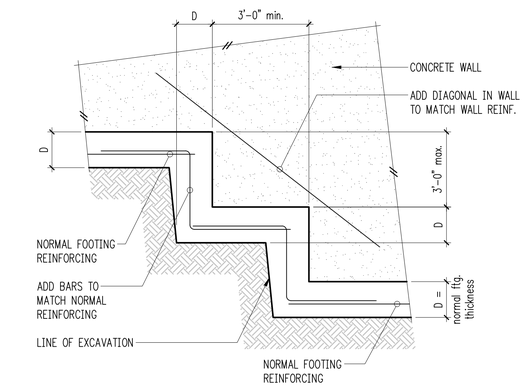


Property Line Retaining Wall Schedule

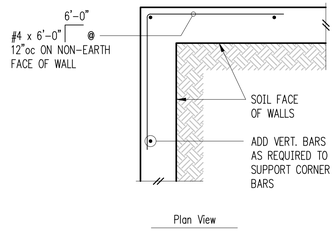
H (ft.)	B2	ts	tf	Stem Reinforcing		Footing Reinforcing	
				Vert.	Horiz.	Top	Longit.
4'-0"	1'-8"	8"	10"	#4 @ 12"oc	#4 @ 12"oc	#5 @ 12"oc	(3)#4
6'-0"	3'-0"	8"	10"	#4 @ 12"oc	#4 @ 12"oc	#5 @ 12"oc	(3)#5

2,000 PSF ALLOWABLE BEARING PRESSURE USED FOR THE WALL DESIGN, GEOTECH TO FIELD VERIFY DURING CONSTRUCTION

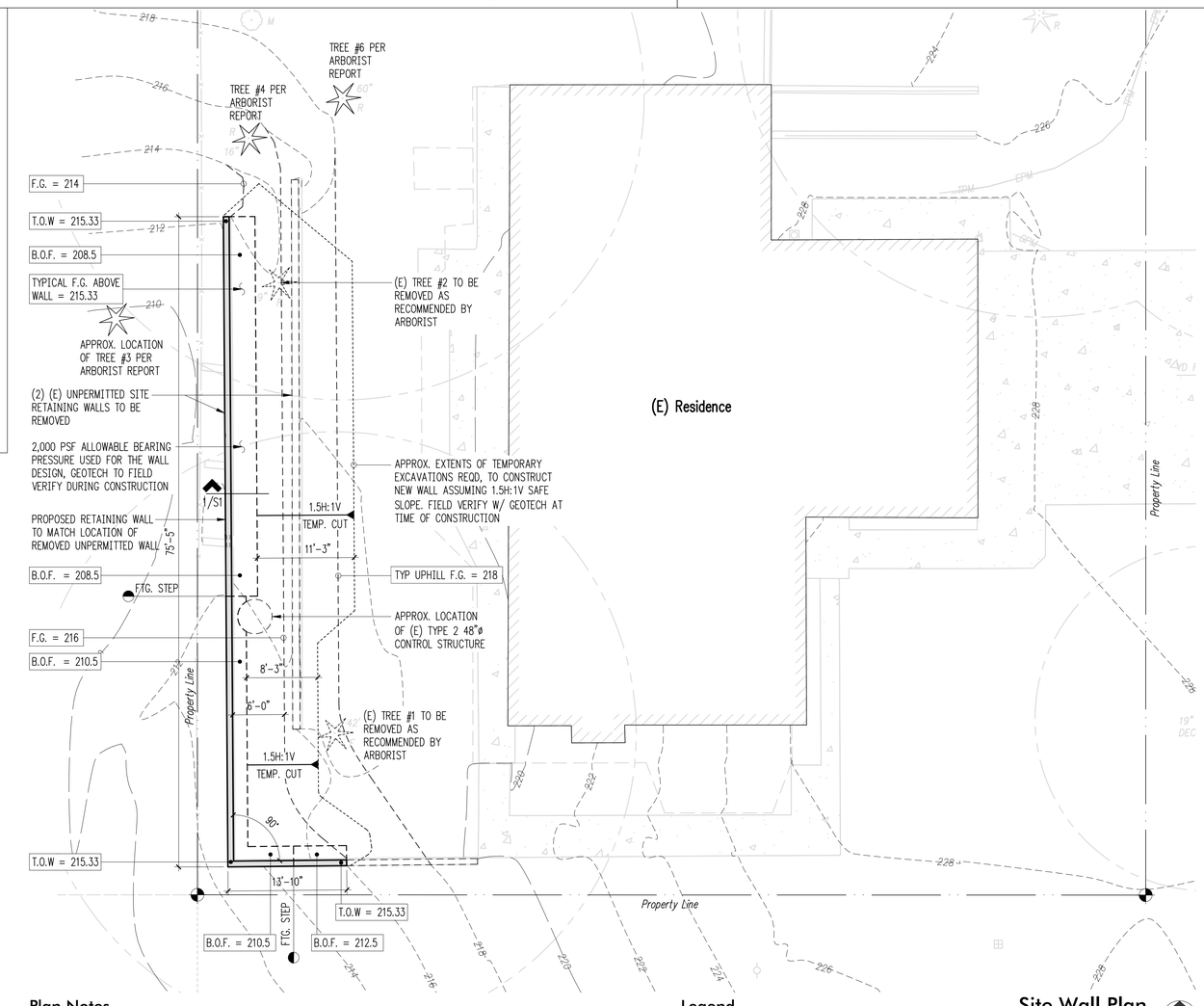
Not to Scale
Property Line Retaining Wall Schedule 1



Not to Scale
Typical Stepped Footing 2



Not to Scale
Additional Reinforcement at Retaining Walls 3



Plan Notes

1. FOOTING ELEVATIONS AND STEP LOCATIONS SHOWN ON PLAN ARE APPROXIMATE. FINAL ELEVATIONS SHALL BE DETERMINED BY THE CONTRACTOR BASED ON THE PERMITTED CIVIL DRAWINGS AND EXISTING GRADES IN THE FIELD DURING CONSTRUCTION. MINIMUM DEPTHS TO BOTTOM OF FOOTING AND COVER DEPTHS OVER TOP OF FOOTING SHALL BE MAINTAINED IN ACCORDANCE WITH STRUCTURAL DETAILS AND GEOTECHNICAL RECOMMENDATIONS. ALL FOOTINGS SHALL BEAR ON DENSE UNDISTURBED SOIL OR STRUCTURAL FILL PER GEOTECHNICAL RECOMMENDATIONS. ALLOWABLE BEARING PRESSURES SHALL BE VERIFIED PRIOR TO CONSTRUCTION.

2. BACKFILL MAY BE PLACED AGAINST THE WALLS 7-DAYS AFTER THE WALL HAVE BEEN POURED. BACKFILL MAY BE PLACED PRIOR TO 7-DAYS IF CONCRETE CYLINDER BREAKS INDICATE A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 3,000 PSI.

Legend

	CONCRETE SITE WALL
B.O.F.	BOTTOM OF FOOTING ELEVATION
T.O.W	TOP OF WALL ELEVATION
F.G.	FINAL GRADE

Site Wall Plan
Scale: 1/8" = 1'-0"

SSF STRUCTURAL ENGINEERING
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BRYAN ANDERSON — STATE OF WASHINGTON — 46337 — REGISTERED PROFESSIONAL ENGINEER
04/26/24

DRAWN: RJ
DESIGN: ETC
CHECKED: RJA
APPROVED: RJA

REVISIONS:

JURISDICTIONAL APPROVAL STAMP:

PROJECT TITLE:
Site Improvement
Arvind Residence
3655 73rd Ave SE
Mercer Island, WA 98040

CLIENT:
Anand Arvind
3655 73rd Ave SE
Mercer Island, WA 98040

ISSUE:
Permit

SHEET TITLE:
General Structural Notes, Site Wall Plan & Details

SCALE: 1/8" = 1'-0" U.N.O.
DATE: April 26, 2024
PROJECT NO: 13271-2023-01
SHEET NO: S1