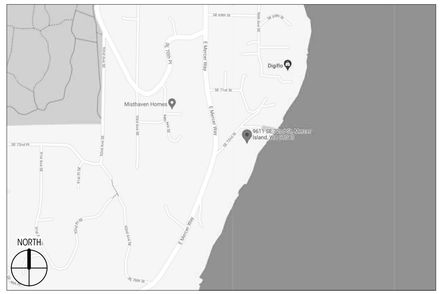
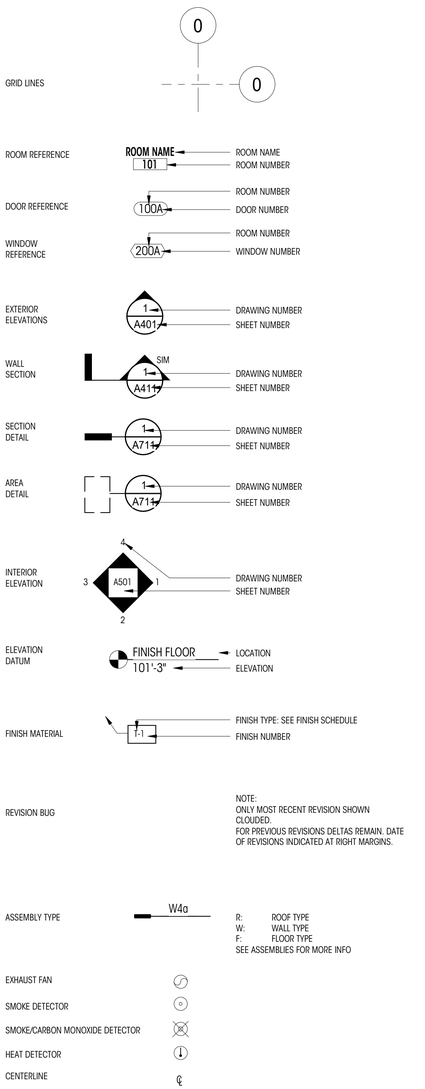
VICINITY PLAN

LOCATION PLAN



SYMBOLS KEY



ABBREVIATIONS

ABV	ABOVE
AFF	ABOVE FINISH FLOOR
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
ALT	ALTERNATE
ARCH	ARCHITECT, ARCHITECTURAL
BLW	BELOW
BSMT	BASEMENT
BTW	BETWEEN
BLD	BUILDING
CAB	CABINET
CALC	CALCULATION
CLG	CEILING
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
DEMO	DEMOLISH
DIA	DIAMETER
DIM	DIMENSION
DW	DISHWASHER
DBL	DOUBLE
EA	EACH
ELEC	ELECTRIC, ELECTRICIAN
ELEV	ELEVATION
ENGR	ENGINEER
EQUIV	EQUIVALENT
EXIST OR (E)	EXISTING
EXT	EXTERIOR
FF	FINISH FLOOR
GALV	GALVANIZED
GWB	GYPSUM WALL BOARD
HDR	HEADER
HT	HEIGHT
HORIZ	HORIZONTAL
INSUL	INSULATION
INT	INTERIOR
LOC	LOCATE, LOCATION
MAX	MAXIMUM
MFR	MANUFACTURER
MECH	MECHANICAL
MTL	METAL
MIN	MINIMUM
NTS	NOT TO SCALE
O.C.	ON CENTER
PLY	PLYWOOD
PRELIM	PRELIMINARY
PT	PRESSURE-TREATED
PL	PROPERTY LINE
REFR	REFRIGERATOR
REINF	REINFORCE, REINFORCING
REQD	REQUIRED
SCHED	SCHEDULE
SW	SHEARWALL
SIM	SIMILAR
SF	SQUARE FOOT
SPECS	SPECIFICATIONS
SSTL	STAINLESS STEEL
STL	STEEL
STRUCT	STRUCTURE, STRUCTURAL
TEMP	TEMPORARY
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
VERT	VERTICAL
WP	WATERPROOF, WEATHERPROOF
WNDW	WINDOW
W/	WITH
W/O	WITHOUT
WD	WOOD

GENERAL NOTES

WORK SHALL BE IN **COMPLIANCE** WITH THE 2018 INTERNATIONAL RESIDENTIAL CODE AS ADOPTED AND MODIFIED BY THE LOCAL JURISDICTIONAL LAND USE CODE, AND ALL OTHER LAWS, CODES, ORDINANCES AND REGULATIONS OF THE COUNTY, STATE, AND FEDERAL JURISDICTIONS. (LATEST EDITION AND AMENDMENTS)

ALL **UNDERGROUND UTILITIES** MUST BE VERIFIED AS TO EXACT LOCATIONS SO AS NO INTERFERENCE BY DISRUPTION WILL BE CAUSED. GENERAL CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITIES BY THE METHODS RECOMMENDED AT THE PRE-CONSTRUCTION SITE MEETING. DAMAGE THAT MAY BE CAUSED BY GENERAL CONTRACTOR OR SUBCONTRACTOR TO ANY OF THE ABOVE MENTIONED SHALL BE REPAIRED BY HIM AND LEFT IN AS GOOD A CONDITION AS EXISTED PRIOR TO DAMAGING.

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE INDENTIFICATION AND REMOVAL OF ALL HAZARDOUS MATERIALS IN COMPLIANCE WITH ALL APPLICABLE CODES AND LAWS PRIOR TO ANY WORK COMMENCING. IN THE EVENT THAT THE OWNER IS ACTING AS THE GENERAL CONTRACTOR, THE OWNER IS RESPONSIBLE FOR THE IDENTIFICATION AND REMOVAL OF ALL HAZARDOUS MATERIALS IN COMPLIANCE WITH ALL APPLICABLE CODES AND LAWS PRIOR TO ANY WORK COMMENCING.

CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL **DIMENSIONS AND JOB CONDITIONS** RELATED TO THIS WORK. ALL DIMENSIONS SHALL BE CONSIDERED "NOMINAL" UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWINGS. USE WRITTEN DIMENSIONS ONLY. DIMENSIONS ON LARGE SCALE DRAWINGS OR DETAILS WILL PREVAIL OVER SMALLER SCALED DRAWINGS. WRITTEN DIMENSIONS ARE DRAWN TO THE FACE OF STUD, U.N.O. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT, PROVIDE ALL BLOCKOUTS, BLOCKING, AND JACKS AS REQUIRED BY THE DRAWINGS AND OTHER TRADES. ANY DISCREPANCY IN DIMENSIONS SHALL BE REPORTED IN WRITING TO THE PROJECT MANAGER/ DESIGNER FOR CLARIFICATION, OR APPROVAL OF MODIFICATION BEFORE COMMENCING WORK. THE RESPONSIBILITY TO THE PROJECT MANAGER/DESIGNER, SHALL REST WITH THE CONTRACTOR OR ANY OTHER PERSON APPROVING SUCH A CHANGE.

ALL **WORKMANSHIP AND MATERIALS** SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF CERTIFICATE OF OCCUPANCY UNLESS SPECIFIED FOR A LONGER PERIOD OF TIME ON SPECIFIED ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING OR REPAIRING HIS OWN DEFECTIVE WORK AS WELL AS PAY ALL COSTS INCIDENTAL THERETO INCLUDING DAMAGE TO OTHER WORK, FURNISHINGS OR EQUIPMENT.

ALL **WARRANTIES OR GUARANTEES** AS TO MATERIALS OR WORKMANSHIP ON OR WITH RESPECT TO THE OWNER'S WORK SHALL BE CONTAINED IN THE CONTRACT OR SUBCONTRACT WHICH SHALL BE SO WRITTEN THAT SUCH GUARANTEE OR WARRANTIES SHALL INSURE TO THE BENEFIT OF OWNER.

INSURANCE: PRIOR TO THE COMMENCEMENT OF WORK THE GENERAL CONTRACTOR SHALL DELIVER TO THE OWNER CERTIFICATES OF INSURANCE FOR BOTH COMPOEHENSIVE GENERAL LIABILITY AND WORKMAN'S COMPENSATION INCLUDING THE TOTAL AMOUNT OF COVERAGE AND CONDITIONS STIPULATED AND AGREED BY BOTH PARTIES.

THE OWNER SHALL BE RESPONSIBLE FOR PAYING FOR THE **BUILDING PERMIT**. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED OR NECESSARY FOR THE COMPLETION OF THE WORK FROM THE RESPECTIVE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE GOVERNING AGENCIES AS REQUIRED FOR SITE INSPECTIONS.

ALL TRADES SHALL REFER TO THE **ARCHITECTURAL DRAWINGS** REGARDING LOCATIONS OF WORK TO BE INSTALLED.

UNLESS OTHERWISE NOTED, PROVIDE ALL MISCELLANEOUS FASTENERS, HARDWARE AND ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION. EVEN THOUGH SUCH ITEMS MAY NOT HAVE BEEN SPECIFICALLY MENTIONED IN THE DRAWINGS AND SPECIFICATIONS, NOTIFY THE ARCHITECT OF ANY REVISIONS OR ADDITIONAL INFORMATION OBTAINED FROM THE MANUFACTURER OF SPECIFIED MATERIALS OR EQUIPMENT WHICH MAY AFFECT THE CONTRACT TIME, COST OR QUALITY OF WORK.

GENERAL CONDITIONS
THE GENERAL CONTRACTOR, ALL SUB-CONTRACTORS AND ALL MAJOR SUPPLIERS SHALL SUBMIT TO THE OWNER WITHIN 30 DAYS AFTER COMPLETION ALL "RELEASE OF LIENS" FOR ALL WORK PERFORMED PRIOR TO FINAL PAYMENT.

PARTIAL LIEN WAIVERS TO BE SUBMITTED WITH MONTHLY REQUISITION.

ALL MANUFACTURERS AND/OR SUPPLIERS SHALL SUBMIT SHOP DRAWINGS AND/OR MATERIAL SAMPLES TO THE DESIGNER/OWNER FOR APPROVAL PRIOR TO FABRICATION.

ALL OF THE GENERAL CONTRACTOR'S EQUIPMENT, SCAFFOLDING HOISTS, ETC., SHALL BE AVAILABLE TO THE OWNER/ DESIGNER AND THEIR STAFF FOR INSPECTION OF ANY AND ALL WORK DURING NORMAL WORKING HOURS.

THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL DELIVERY POINTS, HOISTS LOCATIONS, ACCESS TO AND FROM THE SITE OF THE BUILDING AND UTILITY SERVICES.
BID TO INCLUDE ALL NECESSARY AND REQUIRED PERMITS, LICENSES, FEES, BONDS AND INSURANCE - EVIDENCE OF WHICH MUST BE SUBMITTED TO OWNER/ DESIGNER PRIOR TO ANY CONSTRUCTION.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBCONTRACTORS WORKING AT JOB SITE AND FOR ALL COORDINATION OF WORK.

THE MECHANICAL, PLUMBING AND ELECTRICAL CONTRACTOR SHALL FULLY COORDINATE ALL EQUIPMENT WITH THE OTHER TRADES. THESE CONTRACTORS SHALL BE RESPONSIBLE FOR FINAL HOOK-UP OF ALL EQUIPMENT NOT FURNISHED BY THEM BUT REQUIRING THE SAME FOR FINAL COMPLETION.

GENERAL CONTRACTOR TO BE RESPONSIBLE FOR SECURITY OF ALL MATERIALS AT JOB SITE UNTIL FINAL ACCEPTANCE OF WORK BY OWNER.

ANY SUBCONTRACTOR CUTTING INTO WORK ALREADY COMPLETED, CUTTING CHASES AND TRENCHES FOR THE INTRODUCTION OF HIS WORK AND EQUIPMENT IN THE BUILDING SHALL DO OR PAY FOR ALL BACK FILLING, REPARATION OF WALLS, FLOOR, ETC., DAMAGE BY SUCH A COMPANY. ALL REPAIRS SHALL MATCH EXISTING SURFACES.

CONSTRUCTION SPECIFICATIONS
NO SUBSTITUTIONS ARE ALLOWED FOR MATERIALS WHERE SPECIFIC MANUFACTURERS ARE INDICATED, UNLESS APPROVED BY THE OWNER/ARCHITECT. REQUESTS FOR SUBSTITUTIONS SHALL BE MADE IN WRITING PRIOR TO ORDERING MATERIALS OR COMMENCING WORK. SUCH REQUESTS SHALL INCLUDE THE DATE, SCOPE OF WORK, ANY ADDITIONAL COSTS TO THE OWNER, AND ANY ANTICIPATED DELAYS CAUSED BY SUCH CHANGES.

NO EXTRA WORK OR CHANGE SHALL BE MADE UNLESS A WRITTEN CHANGE ORDER IS SUBMITTED AND SIGNED BY THE OWNER AND ARCHITECT. THE ORDER SHALL STATE THAT THE OWNER HAS AUTHORIZED THE EXTRA WORK OR CHANGE, AND NO CLAIM FOR AN ADDITIONAL SUM SHALL BE VALID UNLESS SO OFFERED AS DESCRIBED ABOVE.

ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.

WOOD SPECIFICATIONS TO CONFORM TO OUTLINE SPECIFICATIONS, STRUCTURAL PLANS, NOTES, AND GENERAL CONDITIONS.

CAULKING AND SEALANTS: INSTALLED SHALL BE GUARANTEED WATERTIGHT. EXTERIOR METAL WORK, INCLUDING WINDOWS AND DOOR FRAMES AND ALL JUNCTIONS BETWEEN MASONRY, CONCRETE AND METAL SHALL BE SEALED WITH NEOPRENE OR POLYURETHANE FILLER AND APPROVED SEALANT COMPOUNDS.

PROVIDE GALVANIC INSULATION BETWEEN ALL DISSIMILAR METALS.

PROVIDE WATERPROOFING MEMBRANE OVER PROTECTIVE BOARD AT ALL WALLS EXPOSED TO EARTH.

ALL PIPING AND CONDUIT UNDER SLAB SHALL BE A MINIMUM OF 2"-0" CLEAR OF UNDERSIDE OF FOOTING.

ALL FINAL SURFACE GRADING SHALL BE COMPLETED TO FACILITATE POSITIVE DRAINAGE AWAY FROM THE BUILDING UNLESS NOTED OTHERWISE.

PROVIDE AND INSTALL INSULATION AT EXTERIOR WALLS, ROOF, FLOOR LOCATIONS AS SHOWN, SPECIFIED AND IN ACCORDANCE WITH ENERGY CODE.

WATER PIPES TO BE INSULATED IN ALL UNHEATED AREAS.

INSULATE ALL ROUGH-IN PLUMBING IN WALLS, FLOORS, AND CEILINGS FOR SOUND TRANSMISSION.

PROJECT DIRECTORY

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ARCHITECT
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ZONING DATA

EXISTING LOT AREA SUMMARY

GROSS LOT AREA	16,175 SF
ACCESS EASEMENTS	0 SF
NET LOT AREA	16,175 SF
LOT SLOPE	56.4' / 263.15' = 21.4%

TREE REMOVAL

(E) TREES TO BE REMOVED	4
(N) TREES TO BE PLANTED AS REPLACEMENT	10

LOT COVERAGE

(N) BUILDING ROOF, GARAGE, AND COVERED DECK	3,206.30 SF
(N) DRIVING SURFACES	1,336.45 SF
(N) TOTAL LOT COVERAGE	**4,542.75 SF = 28.1% OF LOT AREA**
ALLOWABLE LOT COVERAGE = 35%	16,175 SF X 0.35 = 5,661.25 SF

B

EXISTING HARDSCAPE

STAIRS	314 SF
PATIOS/ WALKWAY	767 SF
NEIGHBOR'S ENCROACHING DECK	44 SF
DOCK STEPS/ OVERLAND DOCK	63 SF
SITE WALL	128 SF
ROCKERY	685 SF
TOTAL EXISTING	**2,001 SF = 12.4% OF LOT AREA**

DEMOLISHED HARDSCAPE

STAIRS	314 SF
PATIOS/ WALKWAY	767 SF
SITE WALL	128 SF
ROCKERY	200 SF
TOTAL DEMOLISHED	**1,409 SF**

PROPOSED HARDSCAPE

(E) HARDSCAPE TO REMAIN

NEIGHBOR'S ENCROACHING DECK	44 SF
DOCK STEPS/ OVERLAND DOCK	63 SF
ROCKERY	485 SF
TOTAL TO REMAIN	592 SF

(N) ADDED HARDSCAPE

STAIRS	122.45 SF
WATERPROOF DECK / PATIO / WALKWAY	1,190.31 SF
SITE WALL	149.09 SF
ROCKERY	16 SF
TOTAL ADDED	1,477.85 SF

TOTAL HARDSCAPE (592+1477.85) = **2,069.85 SF = 12.8% OF LOT AREA**
ALLOWABLE HARDSCAPE = 9% 16,175 X 0.09 = 1,455.75 SF

PER MICC 19.02.020.F.3.b.ii, HARDSCAPE IMPROVEMENTS ARE PERMITTED IN THE MAXIMUM LOT COVERAGE AREA
5,661.25 ALLOWABLE LOT COVERAGE SF - 4,542.75 PROPOSED SF = 1,118.5 SF REMAINING
1,118.5 SF + 1,455.75 = **2,574.25 HARDSCAPE SF MAX.**

NO CHANGE TO IMPERVIOUS AT SHORELINE PROPOSED, REFER TO SHEET L1.1, L1.2 AND L2.0

PROPOSED BUILDING AREA SUMMARY (GFA)

PROPOSED LOWER LEVEL	1844.43 SF
PROPOSED LOWER LEVEL BELOW GRADE (EXCLUDED PER MICC CHAPTER 19 APPENDIX B)	(1276.45 SF)
PROPOSED MAIN LEVEL	1691.14 SF
PROPOSED MAIN LEVEL - 200% MODIFIER	229.12 SF
PROPOSED COVERED DECK AREA	91.36 SF
PROPOSED UPPER LEVEL (EXCLUDES STAIR PER MICC 19.02.020.D.2.c)	1376.06 SF
PROPOSED UPPER LEVEL - 150% MODIFIER	173.58 SF
PROPOSED ATTACHED GARAGE	856.05 SF
TOTAL PROPOSED BUILDING AREA (GSF)	4,985.29 SF
ALLOWABLE GROSS FLOOR AREA = 5000 GSF OR 40%, WHICHEVER IS LESS	16,175 SF X 0.40 = 6,470 SF MAX. ALLOWABLE = 5,000 GSF

B

SETBACKS

SIDE YARD	SUM OF THE SIDE YARDS SHALL BE AT LEAST 15' (SEE A100, A300 AND A301 FOR VARIABLE SIDE YARD DEPTHS)
FRONT YARD	20'
SHORELINE	25' FROM THE ORDINARY HIGH WATER MARK

OCCUPANCY SUMMARY

EXISTING TYPE -	R-3
OCCUPANT LOAD -	SINGLE FAMILY

CODE DATA

BUILDING AREA

PROPOSED LOWER LEVEL	1626.61 SF
PROPOSED MAIN LEVEL	1635.91 SF
PROPOSED UPPER LEVEL	1616.41 SF
PROPOSED ATTACHED GARAGE	792.49 SF
PROPOSED COVERED EXTERIOR SPACES	763.81 SF
TOTAL	**6435.23 SF**

B

ENERGY CODE SUMMARY (2018 WSEC, RESIDENTIAL PROVISIONS)
CLIMATE ZONE 4C PER TABLE R301.1
THIS PROJECT QUALIFIES AS A MEDIUM DWELLING UNIT AND WILL USE THE REQUIREMENTS OF A PRESCRIPTIVE PATH, SEE SHEET G001.

HEATING
INSTALLED PER INTERNATIONAL RESIDENTIAL CODE (IRC) AND WASHINGTON STATE ENERGY CODE (WSEC), WORK TO BE COMPLETED UNDER A SEPARATE PERMIT.

VENTILATION
FANS ON TIMERS, PER PLANS. VOLUME OF REQUIRED OUTDOOR VENTILATION AIR TO BE PROVIDED BASED ON SECTION M1505.4 OF THE INTERNATIONAL RESIDENTIAL CODE.
* PLUMBING, MECHANICAL, ELECTRICAL WORK TO BE PERMITTED SEPARATELY.
SEE SHEET G001 - G002 FOR VENTILATION & ENERGY CALCULATIONS.

FIRE PROTECTION
CONTRACTOR TO INSTALL AN NFPA 13R FIRE SPRINKLER SYSTEM PER 2018 IBC SECTION 903.3 AND A MONITORED FIRE ALARM PER NFPA 72 CHAPTER 29. A FIRE CODE ALTERNATE HAS BEEN INCLUDED WITH THE PERMIT SUBMITTAL FOR APPROVAL. FIRE SPRINKLER SYSTEM AND MONITORED FIRE ALARM TO BE PERMITTED SEPARATELY.

LIFE SAFETY
CONTRACTOR TO INSTALL SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EACH FLOOR LEVEL PER IRC SECTION 314.3. SMOKE ALARMS SHALL BE INTERCONNECTED PER IRC SECTION R314.4.
FIRE ALARM SYSTEMS ARE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS.
CONTRACTOR TO INSTALL CARBON MONOXIDE ALARMS OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EACH FLOOR LEVEL PER IRC SECTION 315.3. COMBINATION ALARMS ARE PERMITTED PER IRC SECTION 315.4. CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED PER IRC SECTION R315.5.

B

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SHEET INDEX

GENERAL INFORMATION

PROJECT ADDRESS	9611 SE 72ND STREET MERCER ISLAND, WA 98040
PROJECT NUMBER	TBD
ASSESSOR'S PARCEL #	257950-0040
LEGAL DESCRIPTION	FLOODS LAKE SIDE TRS PARCEL B MERCER ISLAND SHORT PLAT NO 78-3-009 REC NO 7903280701 SD PLAT DAF - ALL LOTS 1-2 & SH LDS ADJ
PROJECT DESCRIPTION	DEMOLITION OF AN EXISTING SINGLE FAMILY RESIDENCE AND NEW CONSTRUCTION OF A SINGLE FAMILY RESIDENCE
ZONE	R-8.4
BUILDING TYPE	SINGLE FAMILY RESIDENCE

GRAPHIC KEY

(NOT TO SCALE)

GLASS
CONCRETE
STEEL
EARTH
GRAVEL
WATER
BRICK
ALUMINUM
BATT INSULATION
RIGID INSULATION
PLYWOOD
FINISH WOOD
STUCCO
SPRAY FOAM INSULATION
GYPSUM WALLBOARD

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8843
REGISTERED ARCHITECT
STATE OF WASHINGTON

HUBER RESIDENCE

9611 SE 72ND ST.
MERCER ISLAND, WA 98040

PERMIT SET

DATE: 9/17/21
SHEET SIZE: D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

DRAWN BY:
CHECKED BY:

COVERSHEET

SCALE: As indicated

G000

WA STATE ENERGY CODE FORMS

2018 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective February 1, 2021)

These requirements apply to all IRC building types, including detached one- and two-family dwellings and multiple single-family dwellings (townhouses).

Project Information	*Contact Information*
Huber Residence	Kate Miller
9611 SE 72nd Stree	kate@brandtdesigninc.com / (206) 239-0850 ext 14

Instructions: This single-family project will use the requirements of the Prescriptive Path below and incorporate the minimum values listed. Based on the size of the structure, the appropriate number of additional credits are checked as chosen by the permit applicant.

Provide all information from the following tables as building permit drawings: Table R402.1 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and 406.3 - Energy Credits.

Authorized Representative Kate Miller — Digitally signed by Kate Miller; DN: cn=Kate Miller, o=Brandt Design Group, ou=Kate Miller, email=kate@brandtdesigninc.com; Date: 2021.09.10 09:11:27 -07'00' — *Date* 09/16/2021

All Climate Zones (Table R402.1.1)

	R-Value [a]	U-Factor [a]
Fenestration U-Factor [b]	n/a	0.30
Skylight U-Factor [b]	n/a	0.50
Glazed Fenestration SHGC [b,e]	n/a	n/a
Ceiling [e]	49 [i]	0.026
Wood Frame Wall [e,h]	21 int	0.056
Floor	30	0.029
Below Grade Wall [c,h]	10/15/21 int + TB	0.042
Slab [d,f] R-Value & Depth	10, 2 ft	n/a

a. *R*-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity that is less than the label or design thickness of the insulation, the compressed *R*-value of the insulation from Appendix Table A101.4 shall not be less than the *R*-value specified in the table.
b. The fenestration *U*-factor column excludes skylights.
c. "10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
d. R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
e. For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
f. R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
g. For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for *climate zone* 5 of ICC 400.
h. Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78% of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

2018 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective February 1, 2021)

Each dwelling unit ***in a residential building*** shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.

1. **Small Dwelling Unit: 3 credits**
   Dwelling units less than 1,500 sf in conditioned floor area with less than 300 sf of fenestration area. Additions to existing building that are greater than 500 sf of heated floor area but less than 1,500 sf.
2. **Medium Dwelling Unit: 6 credits**
   All dwelling units that are not included in #1 or #3
3. **Large Dwelling Unit: 7 credits**
   Dwelling units exceeding 5,000 sf of conditioned floor area
4. **Additions less than 500 square feet: 1.5 credits**
   All other additions shall meet 1-3 above

Before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

Summary of Table R406.2

Heating Options	Fuel Normalization Descriptions	Credits - select ONE heating option		User Notes
1	Combustion heating minimum NAECA[b]	0.0	☐	
2	Heat pump[c]	1.0	☉	
3	Electric resistance heat only - furnace or zonal	-1.0	☐	
4	DHP with zonal electric resistance per option 3.4	0.5	☐	
5	All other heating systems	-1.0	☐	
Energy Options	**Energy Credit Option Descriptions**	**Credits - select ONE energy option from each category [d]**		
1.1	Efficient Building Envelope	0.5	☐	
1.2	Efficient Building Envelope	1.0	☉	
1.3	Efficient Building Envelope	0.5	☐	
1.4	Efficient Building Envelope	1.0	☐	
1.5	Efficient Building Envelope	2.0	☐	
1.6	Efficient Building Envelope	3.0	☐	
1.7	Efficient Building Envelope	0.5	☐	
2.1	Air Leakage Control and Efficient Ventilation	0.5	☐	
2.2	Air Leakage Control and Efficient Ventilation	1.0	☉	
2.3	Air Leakage Control and Efficient Ventilation	1.5	☐	
2.4	Air Leakage Control and Efficient Ventilation	2.0	☐	
3.1[a]	High Efficiency HVAC	1.0	☐	
3.2	High Efficiency HVAC	1.0	☐	
3.3[a]	High Efficiency HVAC	1.5	☐	
3.4	High Efficiency HVAC	1.5	☐	
3.5	High Efficiency HVAC	1.5	☉	
3.6[a]	High Efficiency HVAC	2.0	☐	
4.1	High Efficiency HVAC Distribution System	0.5	☉	
4.2	High Efficiency HVAC Distribution System	1.0	☐	

2018 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective February 1, 2021)

Summary of Table R406.2 (cont.)

Energy Options	Energy Credit Option Descriptions (cont.)	Credits - select ONE energy option from each category [d]		User Notes
5.1[d]	Efficient Water Heating	0.5	☐	
5.2	Efficient Water Heating	0.5	☉	
5.3	Efficient Water Heating	1.0	☐	
5.4	Efficient Water Heating	1.5	☐	
5.5	Efficient Water Heating	2.0	☐	
5.6	Efficient Water Heating	2.5	☐	
6.1[e]	Renewable Electric Energy (3 credits max)	1.0	☐	
7.1	Appliance Package	0.5	☑	
	Total Credits	6.0	CLEAR FORM	

a. An alternative heating source sized at a maximum of 0.5 W/sf (equivalent) of heated floor area or 500 W, whichever is bigger, may be installed in the dwelling unit.
b. Equipment listed in Table C403.3.2(4) or C403.3.2(5)
c. Equipment listed in Table C403.3.2(1) or C403.3.2(2)
d. You cannot select more than one option from any category EXCEPT in category 5. Option 5.1 may be combined with options 5.2 through 5.6. See Table 406.3.
e. 1.0 credit for each 1,200 kWh of electrical generation provided annually, up to 3 credits max. See the complete Table R406.2 for all requirements and option descriptions.

Please print only pages 1 through 3 of this worksheet for submission to your building official.

SEE DOOR & WINDOW SCHEDULE SHEET A600

Window, Skylight and Door Schedule

Project Information	*Contact Information*
9611 SE 72ND ST	KATE MILLER
MERCER ISLAND, WA 98040	BRANDT DESIGN GROUP

	Ref.	U-factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
Exempt Swinging Door (24 sq. ft. max.)								0.0	0.00
Exempt Glazed Fenestration (15 sq. ft. max.)								0.0	0.00

Vertical Fenestration (Windows and doors)

Component Description	Ref.	U-factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
								0.0	0.00
								0.0	0.00
								0.0	0.00

WA STATE ENERGY CODE FORMS

Energy Code Support — Washington State University Extension Energy Program

Duct Leakage Affidavit (New Construction)

Permit #: _____

House address or lot number: _____

City: _____ Zip: _____

Cond. Floor Area (ft²): _____ Source (circle one): Plans Estimated Measured

☐ Duct tightness testing is not required. The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope. Ducts located in crawl spaces do not qualify for this exception.

Air Handler in conditioned space? ☐ yes ☐ no Air Handler present during test? ☐ yes ☐ no

Circle Test Method: Leakage to Outside Total Leakage

Maximum duct leakage:
Post Construction, total duct leakage: (floor area x .04) = _____CFM@25 Pa

Post Construction, leakage to outdoors: (floor area x .04) = _____CFM@25 Pa

Rough-In, total duct leakage with air handler installed: (floor area x .04) = _____CFM@25 Pa

Rough-In, total duct leakage with air handler not installed: (floor area x .03) = _____CFM@25 Pa

Test Result: _____CFM@25Pa

Ring (circle one if applicable): Open 1 2 3

Duct Tester Location: _____ Pressure Tap Location: _____

I certify that these duct leakage rates are accurate and determined using standard duct testing protocol.

Company Name: _____ Technician: _____

Technician Signature: _____

Date: _____

Phone Number: _____

2018 WSEC Residential Energy Compliance Certificate (Effective February 1, 2021)

Property address: _____

Builder/registered design professional name: _____

Builder/reg. design pro. signature: _____

Conditioned floor area: _____ ft² (per building permit)

R-Values (R303.1.1)

Ceiling/Attic: Vaulted R-_____ Floors: Over unconditioned space R-_____
Attic R-_____ Slab-on-grade floor R-_____
Walls: Above grade R-_____ Fully insulated slab? Y/N (Circle one)
Below, int. R-_____ Doors: R-_____, R-_____, R-_____
Below, ext. R-_____

U-Value of Windows, Skylights and Doors (R303.1.1.3)

Average area weighted U-value from Glazing Worksheet Average U- -_____

Fuel Normalization (Tables R406.2) and Energy Credits (Table R406.3)

System Type Number (1 to 5) _____ (Select one)
Energy Credits selected (1 to 7) _____
Fuel Normalization Credit _____ + Total Energy Credits _____ = Total Credits_____

Heating, Cooling and Domestic Hot Water

System	Type (Manufacturer and Model Number)	Efficiency
Heating		
Cooling		
DHW		
Drain water heat recovery		

Onsite Renewable Energy Electric Power System

System type _____ System design capacity _____ kW
Rated annual generation _____ kWh/yr

Appliances	Manufacturer and Model	Energy Star? (Circle one)
Dish washer		Y or N
Refrigerator		Y or N
Washer		Y or N
Dryer	Vented or unvented? If vented, CEF rating _____	Y or N

Gas fireplace / heating stove (Section R402.4.2) Fireplace efficiency (FE) _____
Heating or Decorative? (Circle one)

HVAC System Duct Leakage Testing (R403.3)	Circle one
All ductwork and air handler in conditioned space? (See Option 4.2)	Y or N
All ductwork in unconditioned spaces buried and tested at 3% total leakage, and air handler in conditioned space? (See Option 4.1.)	Y or N
All ductwork & air handler outside conditioned space insulated to minimum R-8?	Y or N
Air handler present at duct leakage test? (Total leakage 4% if yes, 3% if no)	Y or N
HVAC leakage to outside test conducted at final?	Y or N
Do HVAC duct leakage tests include GPS and time stamp verification?	Y or N
HVAC system leakage test calculated design target:	_____ CFM @ 25 Pa
HVAC system leakage test measured results:	_____ CFM @ 25 Pa

Building Leakage Testing (R402.4.1.2)

Dwelling unit leakage test calculated design target: _____ ACH @ 50 Pa
Dwelling unit leakage test, measured results: _____ ACH @ 50 Pa
Whole Building Leakage test (R2 non-corridor only) design target: _____ CFM/sf @ 50 Pa
Whole Building Leakage test (R2 non-corridor only) measured: _____ CFM/sf @ 50 Pa

Do building leakage tests include GPS and time stamp verification? Y or N

Whole House Ventilation System Measured Flow Rates (M1505.4 IRC-WA)	Circle one
Are the system controls correctly labeled?	Y or N
The Whole House Ventilation (WHV) system operation and maintenance (O&M) instructions were provided to the building owner?	Y or N

Provided to: _____ on _____(date)

Whole House Ventilation System Type: (Circle one)
(1) Whole house exhaust fan, location _____
(2) Balanced HRV/ ERV, location _____
For R2 low-rise, serves more than one unit? Y or N
(3) Supply or HRV WHV integral to the air handler. Describe system control sequence of operations or reference to design submittal: _____

Specify run-time: _____ hours per day _____ CFM
WHV calculated design minimum flow rate per plan submittal:
WHV measured min flow rate at commissioning: Exhaust _____CFM, Supply _____CFM
Do WHV flow tests include GPS & time stamp verification? Y or N
HRV/ERV sensible heat recovery efficiency: _____
Commissioning Notes:

Other Mandatory Requirements	Circle one
All other mandatory requirements of WSEC-R have been met?	Y or N

Simple Heating System Size: Washington State

This heating system sizing calculator is based on the Prescriptive Requirements of the 2018 Washington State Energy Code (WSEC) and ACCA Manuals J and S. This tool will calculate heating loads only. ACCA procedures for sizing cooling systems should be used to determine cooling loads.

Please complete the green drop-downs and boxes that are applicable to your project. As you make selections in the drop-downs for each section, some values will be calculated for you. If you do not see the selection you need in the drop-down options, please contact the WSU Energy Program at energycode@energy.wsu.edu or (360) 956-2042 for assistance.

Project Information: 9611 SE 72ND ST, MERCER ISLAND, WA 98040
Contact Information: KATE MILLER, BRANDT DESIGN GROUP

Heating System Type: ○ All Other Systems ◉ Heat Pump

To see detailed instructions for each section, place your cursor on the word "Instructions"

Design Temperature — Instructions: Mercer Island — Design Temperature Difference (ΔT): 45 (ΔT = Indoor (70 degrees) - Outdoor Design Temp)

Area of Building — Conditioned Floor Area — Instructions: Conditioned Floor Area (sq ft): 4,879
Average Ceiling Height — Instructions: Average Ceiling Height (ft): 9.0 — Conditioned Volume: 43,911

		U-Factor	X	Area	=	UA
Glazing and Doors	Instructions: U-0.20	0.200		1,285		257.00
Skylights	Instructions	0.50		0		---
Insulation: Attic	Instructions: R-49	0.026		598		15.55
Single Rafter or Joist Vaulted Ceilings	Instructions: R-38 Vented	0.027		849		22.92
Above Grade Walls (see Figure 1)	Instructions: R-21 Intermediate	0.056		5,752		322.11
Floors	Instructions: R-30	0.029		21		0.61
Below Grade Walls (see Figure 1)	Instructions: R-21 Interior	0.042		1,399		58.76
Slab Below Grade (see Figure 1)	Instructions: R-10 Fully insulated	F-Factor 0.303		Length 189		57.27
Slab on Grade (see Figure 1)	Instructions: No Slab on Grade in this project.	F-Factor ---		Length		UA

Location of Ducts — Instructions: Conditioned Space — Duct Leakage Coefficient: 1.00

Figure 1.

Sum of UA	734.22	
Envelope Heat Load (Sum of UA x ΔT)	33,040	Btu / Hour
Air Leakage Heat Load (Volume x 0.6 x ΔT x 0.018)	21,341	Btu / Hour
Building Design Heat Load (Air leakage + envelope heat loss)	54,381	Btu / Hour
Building and Duct Heat Load (Ducts in unconditioned space: sum of building heat loss x 1.10; Ducts in conditioned space: sum of building heat loss x 1	54,381	Btu / Hour
Maximum Heat Equipment Output (Building and duct heat loss x 1.40 for forced air furnace; Building and duct heat loss x 1.25 for heat pump	67,976	Btu / Hour

B (07/01/13)

NOTE:
MECHANICAL TO BE BIDDER DESIGNED AND WILL BE SUBMITTED AND REVIEWED UNDER A SEPARATE PERMIT.
CONTRACTOR TO COORDINATE ENERGY CODE REQUIREMENTS PER INFORMATION AND NOTES ON SHEETS G001 & G002.
ANY REVISIONS MUST BE COORDINATED WITH THE MERCER ISLAND CPD FOR APPROVAL.

WA STATE VENTILATION REQUIREMENTS

M1505.4 Whole-House Mechanical Ventilation System
Whole-house mechanical ventilation systems shall be designed in accordance with Sections M1505.4.1 through M1505.4.4.

M1505.4.1 System Design
The whole-house ventilation system shall consist of one or more supply fans, one or more exhaust fans, or an ERV/HRV with integral fans, associated ducts and controls. Whole-house mechanical ventilation system with supply and exhaust fans per Sections M1505.4.1.2, M1505.4.1.3, M1505.4.1.4, and M1505.4.1.5. Local exhaust fans are permitted to serve as part of the whole-house ventilation system when provided with the proper controls per Section M1505.4.2. The systems shall be designed and installed to exhaust and/or supply the minimum outdoor airflow rates per Section M1505.4.3 as modified by the whole-house ventilation system coefficients in Section M1504.5.3.1 where applicable. The whole-house ventilation system shall operate continuously at the minimum ventilation rate determined per Section M1505.4.2 unless configured with intermittent off controls per Section M1505.4.3.2.

M1505.4.1.1 Whole-House System Component Requirements
Whole-house ventilation fans must be rated for sound at a maximum of 1.0 sone. This sound rating shall be at a min. of 0.1 in WC static pressure in accordance with HVI procedures specified in IRC M1505.4.1.2 and M1505.4.1.3.

M1505.4.1.4 Balanced Whole-House Ventilation System
A balanced whole-house ventilation system shall include both supply and exhaust fans. The supply and exhaust fans shall have airflow that is within 10% of each other. The tested and balanced total mechanical exhaust airflow rate is within 10% or 5 cfm (0.0024 m3/s), whichever is greater, of the total mechanical supply airflow rate. The flow rate test results shall be submitted and posted in accordance with Section M1505.4.1.7. The exhaust fan shall meet the requirements of Section M1505.4.1.2. The supply fan shall meet the requirements of Section M1505.4.1.3. Balanced ventilation systems with both supply and exhaust fans in a packaged product, such as an ERV/HRV, shall meet the requirements of HVI 920, as applicable. Intermittent dryer exhaust, intermittent range hood exhaust, and intermittent toilet room exhaust airflow rates above the residential dwelling or sleeping unit minimum ventilation rate are exempt from the balanced airflow calculation.

M1505.4.1.5 Furnace Integrated Supply
Systems using space heating and/or cooling air handler fans for outdoor air supply distribution are not permitted.
Exception: Air handler fans shall have multi-speed or variable speed supply airflow control capability with a low speed operation not greater than 25% of the rated supply airflow capacity during ventilation only operation. Outdoor air intake openings must meet the provisions of Sections R303.5 and R303.6 and must include a motorized damper that is activated by the whole-house ventilation system controller. The motorized damper must be controlled to maintain the outdoor airflow intake airflow within 10% of the whole-house mechanical exhaust airflow rate. The flow rate for the outdoor air intake must be tested and verified at the minimum ventilation fan speed and the maximum heating or cooling fan speed. The results of the test shall be submitted and posted in accordance with Section M1505.4.1.7.

M1505.4.2 System Controls
The whole-house mechanical ventilation system shall be provided with controls that comply with the following:
1. The whole-house ventilation system shall be controlled with manual switches, timers or other means that provide for automatic operation of the ventilation system that are readily accessible by the occupant;
2. Whole-house mechanical ventilation system shall be provided with controls that enable manual override off of the system by the occupant during periods of poor outdoor air quality. Controls shall include permanent text or a symbol indicating their function. Recommended control permanent labeling to include text similar to the following: "Leave on unless outdoor air quality is very poor." Manual controls shall be readily accessible by the occupant;
3. Whole-house ventilation systems shall be configured to operate continuously except where intermittent off controls and sizing are provided per Section M1505.4.3.2.

M1505.4.3 Mechanical Ventilation Rate
The whole-house mechanical ventilation system shall provide outdoor air at a continuous rate as determined in accordance with Table M1505.4.3(1) or Equation 15-1.

M1505.4.3.1 Ventilation Quality Adjustment
The minimum whole-house ventilation rate from Section 1505.4.3 shall be adjusted by the system coefficient in Table M1505.4.3(2) based on the system type not meeting the definition of a Balanced Whole-House Ventilation System and/or not meeting the definition of a Distributed Whole-House Ventilation System.

M1505.4.3.2 Intermittent Off Operation
Whole-house mechanical ventilation systems shall be provided with advanced controls that are configured to operate the system with intermittent off operation and shall operate for at least two hours in each four-hour segment. The whole-house ventilation airflow rate determined in accordance with M1505.4.3 as corrected by M1505.4.3.1 is multiplied by the factor determined in accordance with Table M1505.4.3(3).

TABLE M1505.4.3(1)
WHOLE-HOUSE MECHANICAL VENTILATION AIRFLOW RATE

DWELLING UNIT FLOOR AREA (square feet)	NUMBER OF BEDROOMS				
	0 - 1	2	3	4	5 or more
	Airflow in cfm				
< 500	30	30	35	45	50
501 - 1,000	30	35	40	50	55
1,001 — 1,500	30	40	45	55	60
1,501 - 2,000	35	45	50	60	65
2,001 - 2,500	40	50	55	65	70
2,501 - 3,000	45	55	60	70	75
3,001 - 3,500	50	60	65	75	80
3,501 — 4,000	55	65	70	80	85
4,001 — 4,500	60	70	75	85	90
4,501 — 5,000	65	75	80	90	95

For SI: 1 square foot = 0.0929 m^2, 1 cubic foot per minute = 0.0004719 m^3/s.

TABLE M1505.4.3(2)
SYSTEM COEFFICIENT C_{system})

SYSTEM TYPE	DISTRIBUTED	NOT DISTRIBUTED
Balanced	1.0	1.25
Not balanced	1.25	1.5

TABLE M1505.4.3(3)
INTERMITTENT OFF WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS[a,b]

RUN-TIME % IN EACH 4-HOUR SEGMENT	50%	66%	75%	100%
Factor[a]	2	1.5	1.3	1.0

a. For ventilation system run-time values between those given, the factors are permitted to be determined by interpolation.

b. Extrapolation beyond the table is prohibited.

WHOLE HOUSE VENTILATION CALCS

PROPOSED CONDITIONED SF = 4,879 SF
NUMBER OF BEDROOMS = 4
AIRFLOW IN CFM REQUIRED FOR CONTINUOUS VENTILATION = 90 CFM
QUALITY ADJUSTED AIRFLOW VENTILATION RATE = 90 CFM X 1.0* = 90 CFM
RUN TIME PERCENTAGE IN EACH 4 HOUR SEGMENT = 50 %
FACTOR = 2
CALCULATION 90 CFM X 2 = **180 CFM**

B

*NOTE: VENTILATION SYSTEM ASSUMED TO BE BALANCED AND DISTRIBUTED, CONTRACTOR TO VERIFY

M1505.4.3.2 INTERMITTENT OFF OPERATION
WHOLE HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE PROVIDED WITH ADVANCED CONTROLS THAT ARE CONFIGURED TO OPERATE THE SYSTEM WITH INTERMITTENT OFF OPERATION AND SHALL OPERATE FOR A LEAST TWO HOURS IN EACH FOUR-HOUR SEGMENT. THE WHOLE HOUSE VENTILATION AIRFLOW RATE DETERMINED IN ACCORDANCE WITH SECTION M1505.4.3 AS CORRECTED BY SECTION M1505.4.3.1 IS MULTIPLIED BY THE FACTOR DETERMINED IN ACCORDANCE WITH TABLE M1505.4.3(3).

*OUTDOOR AIR INLET DUCT TO BE FIELD LOCATED WITH HVAC SUBCONTRACTOR IN CONJUNTION WITH PLACING EXHAUST DUCTS IN ORDER TO AVOID CONFLICT.

NOTES:
1. CONTRACTOR TO COORDINATE WHOLE-HOUSE VENTILATION SYSTEM WITH WSEC ENERGY CREDITS NOTED ON SHEET G001. UPDATE CALCULATIONS AND COORDINATED APPROVAL WITH THE MERCER ISLAND CPD IF REQUIRED.

GENERAL BUILDING ENVELOPE NOTES:

1. A CONTINUOUS AIR BARRIER SHALL BE INSTALLED IN THE BUILDING ENVELOPE. EXTERIOR THERMAL ENVELOPE CONTAINS A CONTINUOUS AIR BARRIER. BREAKS OR JOINTS IN THE AIR BARRIER SHALL BE SEALED PER WSEC TABLE R402.4.1.1.

2. CAVITY INSULATION INSTALLATION: ALL CAVITIES IN THE THERMAL ENVELOPE TO BE FILLED WITH INSULATION PER THE ABOVE ASSEMBLIES AND WSEC R402.4.1.1.

3. CEILING/ATTIC: THE AIR BARRIER IN ANY DROPPED CEILING/SOFFIT SHALL BE ALIGNED WITH THE INSULATION AND ANY GAPS IN THE AIR BARRIER SEALED. ACCESS OPENINGS, DROP DOWN STAIR OR KNEE WALL DOORS TO UNCONDITIONED ATTIC SPACES SHALL BE SEALED.

4. WALLS: THE JUNCTION OF THE FOUNDATION AND SILL PLATE SHALL BE SEALED. THE JUNCTION OF THE TOP LATE AND THE TOP OF EXTERIOR WALLS SHALL BE SEALED. KNEE WALLS SHALL BE SEALED.

5. WINDOWS/SKYLIGHTS/DOORS: THE SPACE BETWEEN WINDOW/DOOR JAMBS AND FRAMING AND SKYLIGHTS AND FRAMING SHALL BE SEALED.

6. RIM JOISTS: RIM JOISTS SHALL INCLUDE THE AIR BARRIER.

7. FLOORS: THE AIR BARRIER SHALL BE INSTALLED AT ANY EXPOSED EDGE OF INSULATION.

8. CRAWL SPACE WALLS: EXPOSED EARTH IN UNVENTED CRAWL SPACES SHALL BE COVERED WITH A CLASS I, BLACK VAPOR RETARDER WITH OVERLAPPING JOINTS TAPED.

9. SHAFTS/PENETRATIONS: DUCT SHAFTS, UTILITY PENETRATIONS, AND FLUE SHAFTS OPENING TO EXTERIOR OR UNCONDITIONED SPACE SHALL BE SEALED.

10. NARROW CAVITIES: BATTS IN NARROW CAVITIES SHALL BE CUT TO FIT AND INSTALLED TO THE CORRECT DENSITY WITHOUT ANY VOIDS, GAPS OR COMPRESSION OR NARROW CAVITIES SHALL BE FILLED BY INSULATION THAT ON INSTALLATION READILY CONFORMS TO THE AVAILABLE CAVITY SPACE.

11. GARAGE SEPARATION: AIR SEALING SHALL BE PROVIDED BETWEEN THE GARAGE AND CONDITIONED SPACED.

12. RECESSED LIGHTING: RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO THE FINISHED SPACE.

13. PLUMBING AND WIRING: BATT INSULATION SHALL BE CUT NEATLY TO FIT AROUND WIRING AND PLUMBING IN EXTERIOR WALLS. THERE SHALL BE NO VOIDS, GAPS, OR COMPRESSION WHERE CUT TO FIT. INSULATION THAT ON INSTALLATION READY CONFORMS TO AVAILABLE SPACE SHALL EXTEND BEHIND PIPING AND WIRING.

14. SHOWER/TUB ON EXTERIOR WALL: THE AIR BARRIER INSTALLED AT EXTERIOR WALLS ADJACENT TO SHOWERS AND TUBS SHALL SEPARATE THE WALL FROM THE SHOWERS AND TUBS.

15. ELECTRICAL/PHONE BOX ON EXTERIOR WALL: THE AIR BARRIER SHALL BE INSTALLED BEHIND THE ELECTRICAL OR COMMUNICATION BOXES OR AIR SEALED BOXES SHALL BE INSTALLED

16. HVAC REGISTER BOOTS: HVAC SUPPLY AND RETURN REGISTER FOOTS SHALL BE SEALED TO THE SUBFLOOR, WALL COVERING, OR CEILING PENETRATED BY THE BOOT.

17. CONCEALED SPRINKLERS: WHEN REQUIRED TO BE SEALED, CONCEALED FIRE SPRINKLERS SHALL ONLY BE SEALED IN A MANNER THAT IS RECOMMENDED BY THE MANUFACTURER. CAULKING OR OTHER ADHESIVE SEALANTS SHALL NOT BE USED TO FILL VOIDS BETWEEN FORE SPRINKLER COVER PLATES AND WALLS OR CEILINGS.

Brandt Design Group
66 Bell Street
Unit 1
Seattle, WA
98121
206.239.0850
brandtdesigninc.com

8843 REGISTERED ARCHITECT STATE OF WASHINGTON

HUBER RESIDENCE

9611 SE 72ND ST.
MERCER ISLAND, WA 98040

PERMIT SET

DATE:	9/17/21
SHEET SIZE:	D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

DRAWN BY:
CHECKED BY:

LEAKAGE TESTING/ VENTILATION CALCULATIONS

SCALE: 1/4" = 1'-0"

G002

TOPOGRAPHIC & BOUNDARY SURVEY

LEGAL DESCRIPTION

(PER STATUTORY WARRANTY DEED RECORDING# 20160310000923)

PARCEL B, CITY OF MERCER ISLAND SHORT PLAT NUMBER 78-3-009, RECORDED UNDER RECORDING NUMBER 7903280701, RECORDS OF KING COUNTY, WASHINGTON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

N 89°50'54" E BETWEEN FOUND PROPERTY CORNERS ALONG THE SOUTH PROPERTY LINE PER R1.

REFERENCES

R1. CITY OF MERCER ISLAND SP 78-3-009, AFN. 7903280701, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD88 PER CITY OF MERCER ISLAND BENCHMARK #2410
(DB ID: 47054)
ELEV: 92.553

SURVEYOR'S NOTES

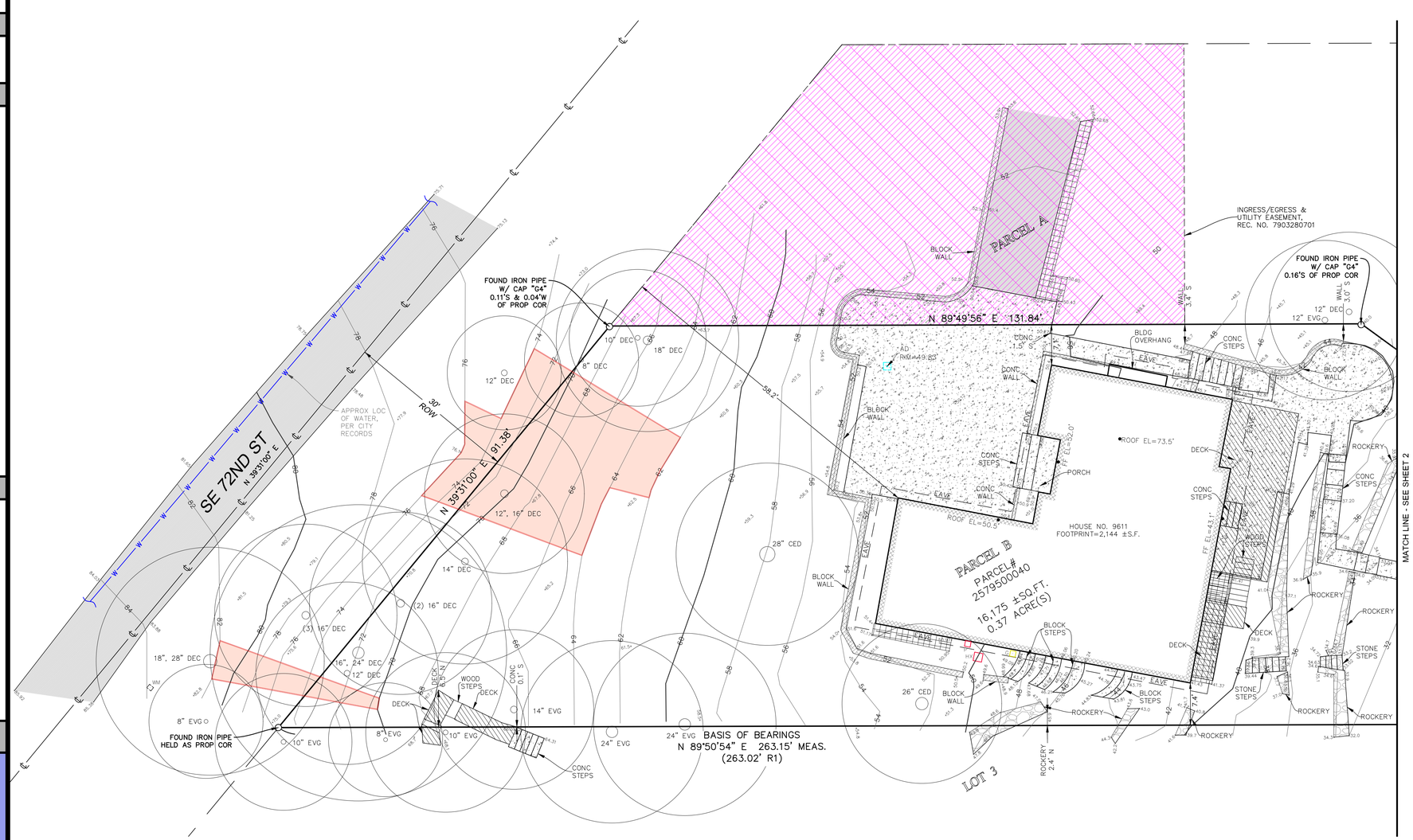
1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN JANUARY OF 2021. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. SUBJECT PROPERTY TAX PARCEL NO. 257950-0040
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 16,175 ±S.F. (0.37 ACRES)
6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
7. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

LEGEND

AD	AREA DRAIN	G	GAS METER
	ASPHALT SURFACE	HB	HOSE BIB RISER
	BUILDING		PAVER SURFACE
	CENTERLINE ROW	PST	POST
	CULVERT PIPE	P	POWER METER
	CONCRETE SURFACE		ROCKERY
	RETAINING WALL	SIZE TYPE	TREE (AS NOTED)
	INGRESS/EGRESS EASEMENT	W	WATER LINE
	DECK	WM	WATER METER
HX	HEAT EXCHANGER		STEEP SLOPE AREA
	REBAR AS NOTED (FOUND)		

VICINITY MAP

N.T.S.



STEEP SLOPE/BUFFER DISCLAIMER:

THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS; AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY, THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.

(IN FEET)
1 INCH = 10 FT.

INDEXING INFORMATION

NW¼NE¼ 1/4 SE 1/4
SECTION: 30
TOWNSHIP: 24N
RANGE: 05E
COUNTY: KING

measure success

TOPOGRAPHIC & BOUNDARY SURVEY
PARCEL NO. 2579300040

HUBER RESIDENCE
9611 SE 72ND ST
MERCER ISLAND, WA 98040

JACOB G. MILLER, 56654, STATE OF WASHINGTON, LAND SURVEYOR, PROFESSIONAL
09/01/21

Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	13043
DATE:	01/25/21
DRAFTED BY:	IDV-DSS
CHECKED BY:	JGM/CSP
SCALE:	1" = 10'

REVISION HISTORY

09/01/21	PER COMMENTS

SHEET NUMBER
1 OF 2

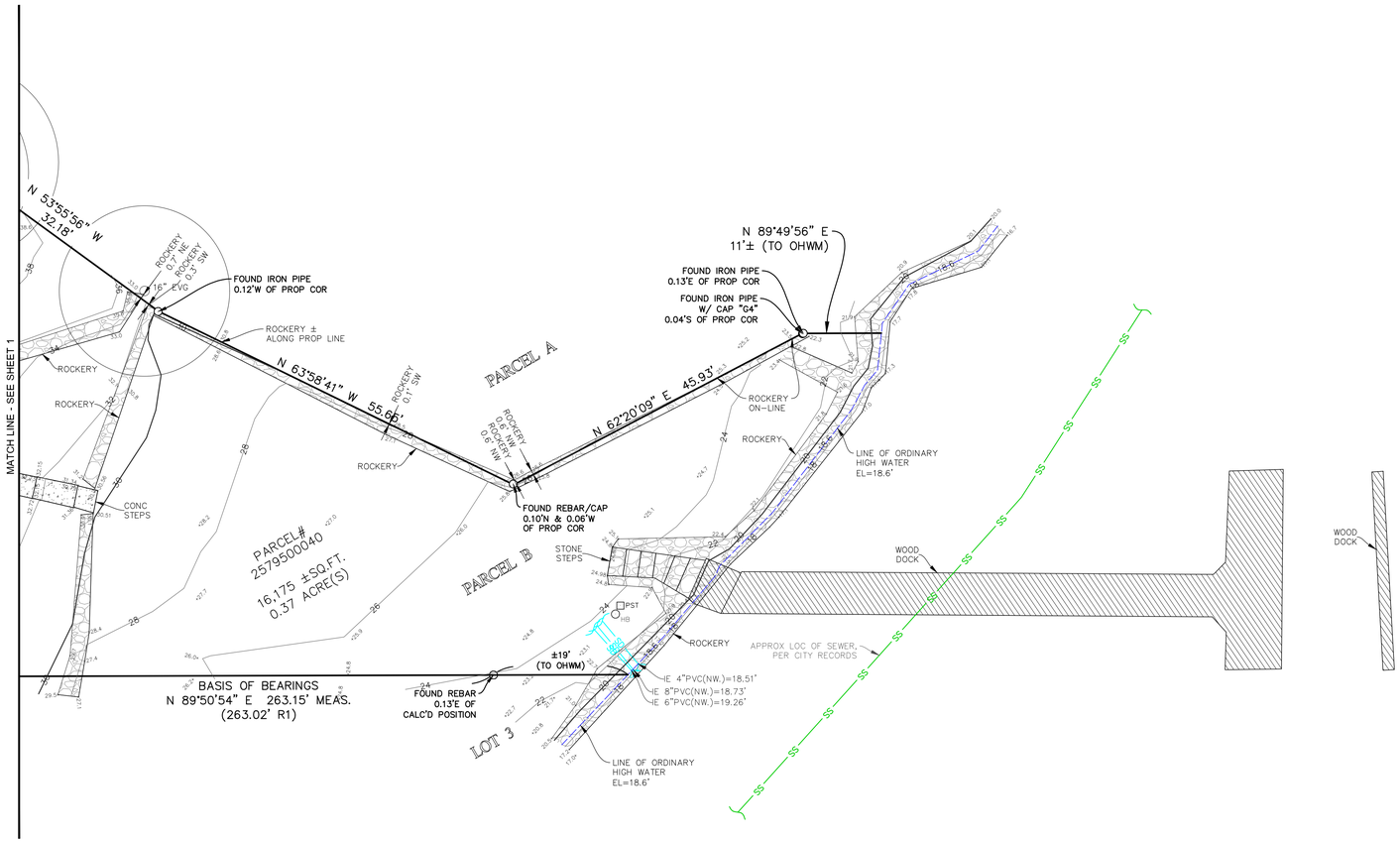
TOPOGRAPHIC & BOUNDARY SURVEY

LEGEND

AREA DRAIN	GAS METER
ASPHALT SURFACE	HOSE BIB RISER
BUILDING	PAVER SURFACE
CENTERLINE ROW	POST
CULVERT PIPE	POWER METER
CONCRETE SURFACE	ROCKERY
RETAINING WALL	TREE (AS NOTED)
INGRESS/EGRESS EASEMENT	WATER LINE
DECK	WATER METER
HEAT EXCHANGER	STEEP SLOPE AREA
REBAR AS NOTED (FOUND)	

10 0 5 10

(IN FEET)
1 INCH = 10 FT.



STEEP SLOPE/BUFFER DISCLAIMER:

THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS; AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY, THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.

measure success

TOPOGRAPHIC & BOUNDARY SURVEY
PARCEL NO. 2579500040

HUBER RESIDENCE
9611 SE 72ND ST
MERCER ISLAND, WA 98040

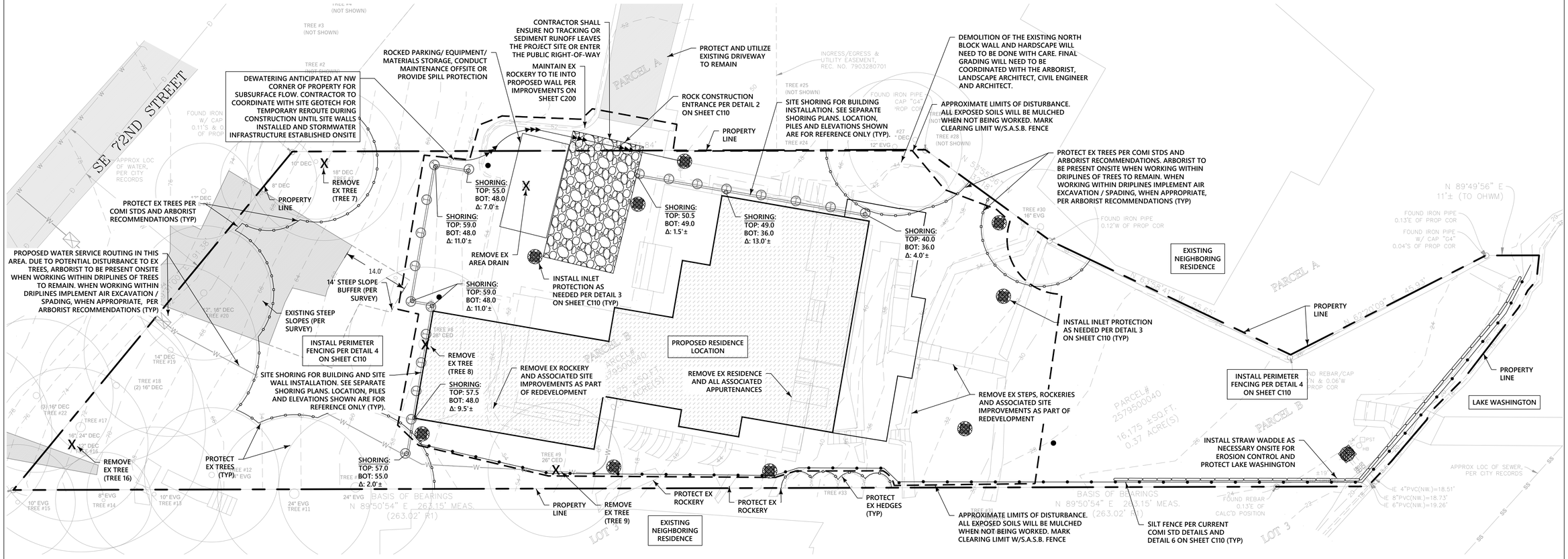
GOODMAN MILLER LAND SURVEYORS — STATE OF WASHINGTON — PROFESSIONAL LAND SURVEYOR

Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	13043
DATE:	01/25/21
DRAFTED BY:	IDV-DSS
CHECKED BY:	JGM/CSP
SCALE:	1"= 10'

REVISION HISTORY	
09/01/21	PER COMMENTS

SHEET NUMBER
2 OF 2



NW/NE 1/4 OF SE 1/4, SECTION 30, TOWNSHIP 24N, RANGE 5E, W.M.

EROSION CONTROL NOTES:

D.8.2 STANDARD ESC PLAN NOTES

THE STANDARD ESC PLAN NOTES MUST BE INCLUDED ON ALL ESC PLANS. AT THE APPLICANT'S DISCRETION, NOTES THAT IN NO WAY APPLY TO THE PROJECT MAY BE OMITTED; HOWEVER, THE REMAINING NOTES MUST NOT BE RENUMBERED. FOR EXAMPLE, IF ESC NOTE #3 WERE OMITTED, THE REMAINING NOTES SHOULD BE NUMBERED 1, 2, 4, 5, 6, ETC.

1. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (SWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) AS DIRECTED BY CITY OF MERCER ISLAND.
7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.
8. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
9. ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH DURING THE DRY SEASON, BI-MONTHLY DURING THE WET SEASON, OR WITHIN TWENTY FOUR (24) HOURS FOLLOWING A STORM EVENT.
11. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
12. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
13. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL
14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.

RECOMMENDED CONSTURCTION SEQUENCE:

A DETAILED CONSTRUCTION SEQUENCE IS NEEDED TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE APPLIED AT THE APPROPRIATE TIMES. A RECOMMENDED CONSTRUCTION SEQUENCE IS PROVIDED BELOW:

1. HOLD AN ONSITE PRE-CONSTRUCTION MEETING.
2. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).
3. FLAG OR FENCE CLEARING LIMITS.
4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.
5. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
7. CONSTRUCT SEDIMENT PONDS AND TRAPS.
8. GRADE AND STABILIZE CONSTRUCTION ROADS.
9. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
11. RELOCATE SURFACE SURFACE WATER CONTROLS OR TESC MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE TESC IS ALWAYS IN ACCORDANCE WITH CITY OF MERCER ISLAND TESC REQUIREMENTS.
12. COVER ALL AREAS THAT WILL BE UN-WORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) OR TWO DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.
13. STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.
14. SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
15. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPS IF APPROPRIATE.

CITY NOTES:

1. ANY CHANGES TO THE APPROVED PLANS REQUIRES CITY APPROVAL THROUGH A REVISION.
2. APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES CAUSED FROM THIS CONSTRUCTION.
3. CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH BASINS/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE FILTER BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED.
4. CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITIES.
5. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.424.5555
6. DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL MUST BE IMPORTED.
7. EROSION CONTROL: ALL "LAND DISTURBING ACTIVITY" IS SUBJECT TO PROVISIONS OF MERCER ISLAND ORDINANCE 95C-118 "STORM WATER MANAGEMENT." SPECIFIC ITEMS TO BE FOLLOWED AT YOUR SITE:
8. PROTECT ADJACENT PROPERTIES FROM ANY INCREASED RUNOFF OR SEDIMENTATION DUE TO THE CONSTRUCTION PROJECT THROUGH THE USE OF APPROPRIATE "BEST MANAGEMENT PRACTICES" (BMP) EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT TRAPS, SEDIMENT PONDS, FILTER FABRIC FENCES, VEGETATIVE BUFFER STRIPS OR BIOENGINEERED SWALES.
9. CONSTRUCTION ACCESS TO THE SITE SHOULD BE LIMITED TO ONE ROUTE. STABILIZE ENTRANCE WITH QUARRY SPALLS TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING THE STORM DRAINS.
10. PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE.
11. ALL EXPOSED SOILS SHALL REMAIN DENUDED FOR NO LONGER THAN SEVEN (7) DAYS AND SHALL BE STABILIZED WITH MULCH, HAY, OR THE APPROPRIATE GROUND COVER. ALL EXPOSED SOILS SHALL BE COVERED IMMEDIATELY DURING ANY RAIN EVENT.
12. INSTALLATION OF CONCRETE DRIVEWAYS, TREES, SHRUBS, IRRIGATION, BOULDERS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY WITHOUT PRIOR APPROVAL, AND AN ENCROACHMENT AGREEMENT AND RIGHT OF WAY PERMIT FROM THE SENIOR DEVELOPMENT ENGINEER.
13. OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF NEW GUTTERS AND DOWNSPOUTS, DRY WELLS, LEVEL SPREADERS OR DOWNSTREAM CONVEYANCE PIPE MAY BE NECESSARY TO MINIMIZE DRAINAGE IMPACT TO YOUR NEIGHBORS. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THIS PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR YOUR DOWNSTREAM DRAINAGE.
14. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
15. REMEMBER: EROSION CONTROL IS YOUR FIRST INSPECTION.
16. ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE.
17. SILENT FENCE: CLEAN AND PROVIDE REGULAR MAINTENANCE OF THE SILT FENCE. THE FENCE IS TO REMAIN VERTICAL AND IS TO FUNCTION PROPERLY THROUGHOUT THE TERM OF THE PROJECT.
18. WORK IN PUBLIC RIGHT OF WAY REQUIRES A RIGHT-OF-WAY USE PERMIT.
19. REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.
20. THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED. ALTERNATELY, A PRESSURE TEST OF THE SIDE SEWER, FROM SEWER MAIN TO POINT OF CONNECTION, MAY BE SUBSTITUTED FOR THE VIDEO INSPECTION.
21. NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST.
22. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
23. THE LIMITS AND EXTENDS OF THE PAVEMENT IN THE PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZE THE PROJECT.

ESC GENERAL NOTE

THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE. ANY SUCH FACILITIES INSTALLED MUST BE MAINTAINED IN PROPER OPERATING CONDITION UNTIL ALL DISTURBED AREAS HAVE BEEN REVEGETATED OR OTHERWISE DEVELOPED AND THE POTENTIAL FOR EROSION ELIMINATED.

CLEARING LIMIT NOTE

ALL SELECTIVE CLEARING, TRENCHING AND OTHER WORK WITHIN THE DRIPLINES OF SIGNIFICANT TREES SHALL BE BY LOW IMPACT/HAND METHODS ONLY AND WORK SHALL BE ADJUSTED AS POSSIBLE TO MINIMIZE ANY DISTURBANCE TO THE SIGNIFICANT AND RETAINED TREES AND PROTECTED UNDERSTORY. CONSTRUCTION MATERIALS AND VEHICLES SHALL NOT BE STORED OUTSIDE THE CLEARING LIMITS.

TREE DRIPLINE NOTE

WORK WITHIN THE DRIPLINE OF TREES TO BE SAVED MUST BE UNDER THE DIRECTION OF A CERTIFIED ARBORIST (TYP.) SEE ALSO CLEARING LIMIT NOTE, THIS SHEET.

EROSION CONTROL DETAILS

SEE SHEET C110

SOIL AMENDMENT NOTES

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON SHEET C110

TREE REMOVAL NOTES

FOR ALL TREE REMOVAL, REFER TO PROJECT ARBORIST REPORT. ALL TREE REMOVALS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY.

SCALE: 1"=10'

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

LEGEND

PROPERTY LINE	— — — —
BUILDING OUTLINE	▨
LIMITS OF DISTURBANCE	– – – –
SILT FENCE	—●—●—
CONSTRUCTION ENTRANCE	▦
INLET PROTECTION	⊗
INTERCEPTOR SWALE	—▶▶▶—
TREE PROTECTION FENCING	—□—□—□—
STRAW WADDLE	⊂⊃⊂⊃
SHORING (SEE SHORING PLANS)	⊖

LATITUDE 48

LATITUDE 48, P.S.
CONTACT: BRADY BERRIMAN
PHONE NUMBER: 206.556.1615

BRADEN JOSEPH BERRIMAN
57383
10/17/2022

HUBER RESIDENCE

9611 SE 72ND ST
MERCER ISLAND, WA 98040

CITY OF MERCER ISLAND

PERMIT SUBMITTAL

SEPTEMBER 16, 2021

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.14.22
B	PLAN CHECK 2	10.17.22

DRAWN BY: BJB
CHECKED BY: CJS

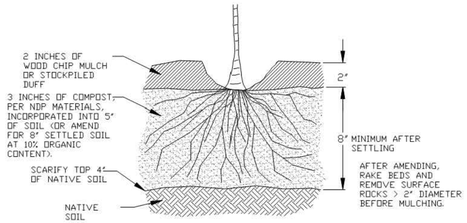
PERMIT SUBMITTAL

TESC PLAN

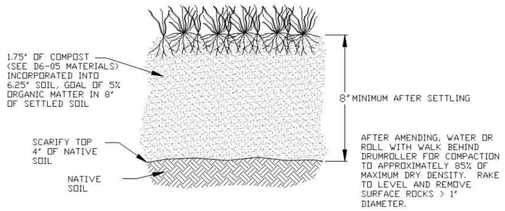
SCALE: AS NOTED

C100

AMENDMENT FOR LANDSCAPED AREAS



SOIL AMENDMENT FOR GRASS OR TURF AREAS



NOTES:

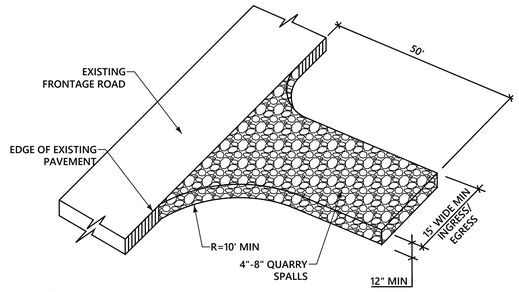
1. AMEND SOILS PER DOE MANUAL, VOL. V, 5.3.1, BMP T5.13, (2012 OR CURRENT) OR WWW.SOILSFORSALMON.ORG.
2. DO NOT AMEND SOILS IN AREAS WITH UNDISTURBED SOIL AND NATIVE VEGETATION.
3. OPTIONAL ALTERNATIVE: STOCKPILE NATIVE TOPSOIL ONSITE, AMEND IF NEEDED, AND REPLACE BEFORE PLANTING.
4. OPTIONAL ALTERNATIVE: IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET REQUIREMENTS.

City of Bellevue — STORM AND SURFACE WATER UTILITY

TITLE: AMENDED SOILS

JANUARY 2021 — NO SCALE — NO. ~~NDP 1~~

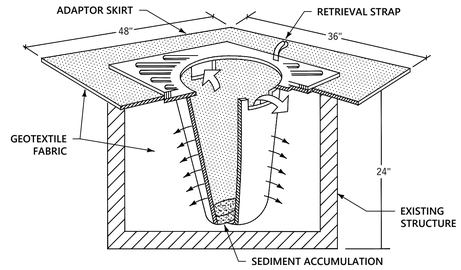
SOIL AMENDMENT 1
NTS



NOTES:

1. MATERIAL SHALL BE QUARRY SPALLS PER WSDOT 2014 STANDARD SPECIFICATION 9-13.6 AND MAY BE TOP-DRESSED WITH 1"-3" ROCK.
2. THE ROCK PAD SHALL BE AT LEAST 12 INCHES THICK AND 100 FEET LONG. WIDTH SHALL BE THE FULL WIDTH OF THE VEHICLE INGRESS AND EGRESS AREA.
3. ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.
4. IF THE PAD DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE WHEELS, THE WHEELS SHALL BE HOSED OFF BEFORE THE VEHICLE ENTERS A PAVED STREET. THE WASHING SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT RETENTION FACILITY OR THROUGH A SILT FENCE.
5. GEOTEXTILE SHALL MEET THE FOLLOWING: GRAB TENSILE STRENGTH 200 PSI MIN. GRAB TENSILE LONGATION 30% MAX. MULLEN BURST STRENGTH 400 PSI MIN. AOS 2-45(U.S. STANDARD SIEVE)

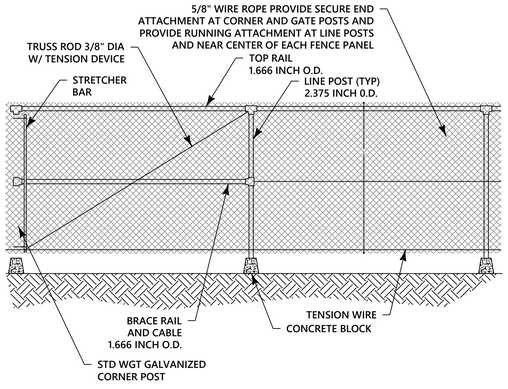
CONSTRUCTION ENTRANCE 2
NTS



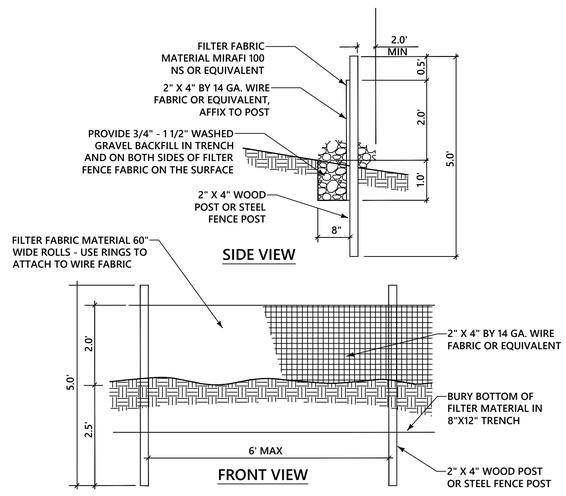
NOTES:

1. FILTERS SHALL BE INSPECTED AFTER EACH STORM EVENT AND CLEANED OR REPLACED WHEN 1/3 FULL
2. INSTALL INLET PROECTION IN ALL NEW STORM STRUCTURES THAT WILL COLLECT STORMWATER AS THEY ARE INSTALLED.

INLET PROTECTION 3
NTS



TEMPORARY CONSTRUCTION FENCING 4
NTS



NOTES:

1. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM SIX-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
2. THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF SIX FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30").
3. A TRENCH SHALL BE EXCAVATED, ROUGHLY EIGHT INCHES WIDE AND TWELVE INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POST TO ALLOW THE FILTER FABRIC TO BE BURIED.
4. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST ONE INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF FOUR INCHES AND SHALL NOT EXTEND MORE THAN THIRTY SIX INCHES ABOVE THE ORIGINAL GROUND SURFACE.
5. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND TWENTY INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN THIRTY SIX INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF STANDARD NOTE (5) APPLYING.
7. THE TRENCH SHALL BE BACKFILL WITH 3/4 INCH MINIMUM DIAMETER WASHED GRAVEL.
8. FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
9. FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
10. CONTRIBUTING LENGTH TO FENCE SHALL NOT BE MORE THAN 100 FEET.
11. DO NOT INSTALL BELOW AN OUTLET PIPE OR WEIR
12. DO NOT DRIVE OVER OR FILL OVER FILTER FABRIC FENCE

SILT FENCE 6
NTS

LATITUDE 48

LATITUDE 48, P.S.
CONTACT: BRADY BERRIMAN
PHONE NUMBER: 206.556.1615

BRADEN JOSEPH BERRIMAN — STATE OF WASHINGTON — 57383 — REGISTERED PROFESSIONAL ENGINEER — 10/17/2022

HUBER RESIDENCE

9611 SE 72ND ST
MERCER ISLAND, WA 98040

CITY OF MERCER ISLAND

PERMIT SUBMITTAL

SEPTEMBER 16, 2021

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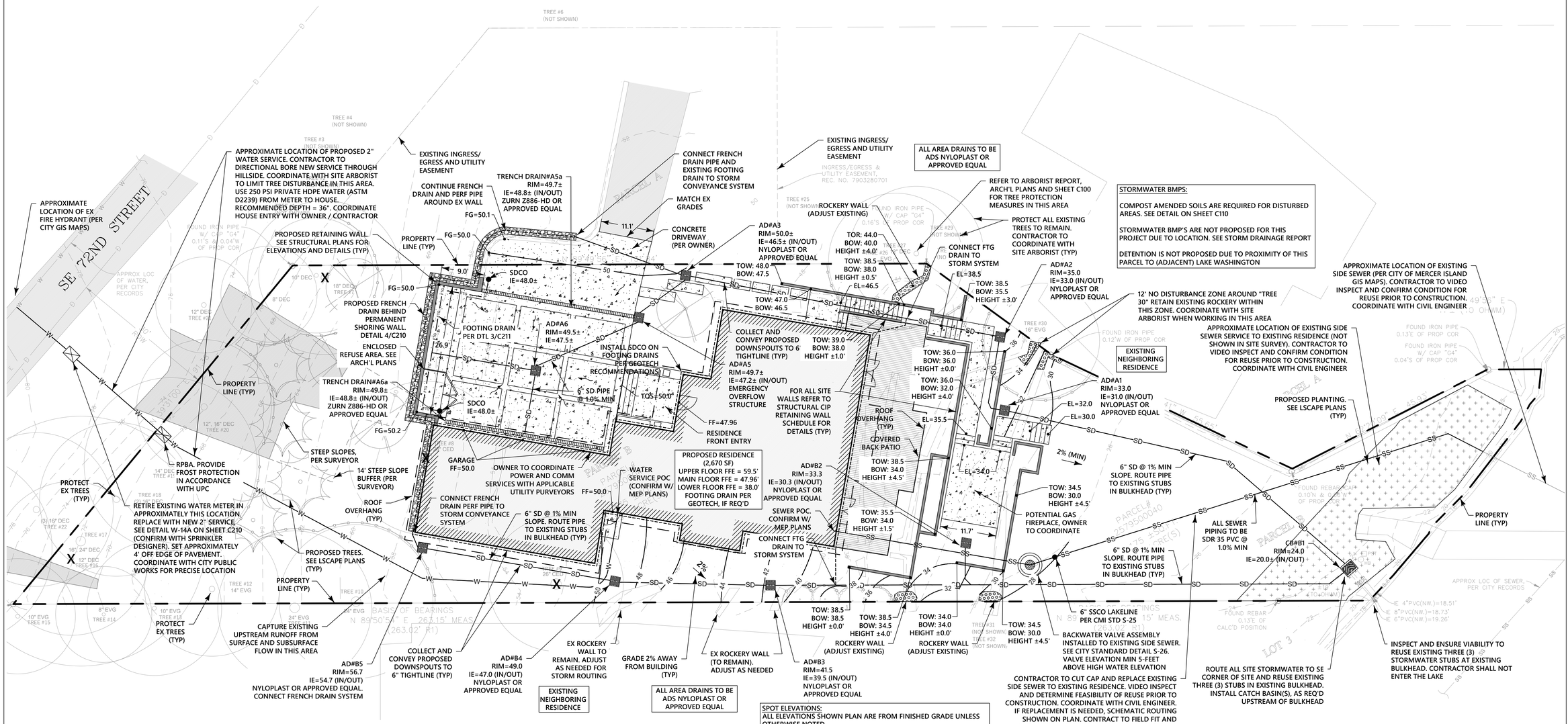
DRAWN BY: BJB
CHECKED BY: CJS

PERMIT SUBMITTAL

TESC DETAILS & NOTES

SCALE: AS NOTED

C110



NW/NE 1/4 OF SE 1/4, SECTION 30, TOWNSHIP 24N, RANGE 5E, W.M.

STORMWATER BMPS:

COMPOST AMENDED SOILS ARE REQUIRED FOR DISTURBED AREAS. SEE DETAIL ON SHEET C110

STORMWATER BMP'S ARE NOT PROPOSED FOR THIS PROJECT DUE TO LOCATION. SEE STORM DRAINAGE REPORT

DETENTION IS NOT PROPOSED DUE TO PROXIMITY OF THIS PARCEL TO (ADJACENT) LAKE WASHINGTON

SPOT ELEVATIONS:
ALL ELEVATIONS SHOWN PLAN ARE FROM FINISHED GRADE UNLESS OTHERWISE NOTED.

WALL ELEVATIONS NOTE:
ALL WALL ELEVATIONS SHOWN ARE MEASURED FROM TOP OF FINISHED GRADE TO TOP OF FINISHED GRADE. ALL RETAINING WALLS GREATER THAN 48" FROM TOP OF FOOTING TO TOP OF RETAINED DIRT SHALL BE PER STRUCTURAL AND REQUIRE A SEPARATE BUILDING PERMIT. CONTRACTOR TO VERIFY ELEVATIONS PER FIELD CONDITIONS AND COORDINATE ANY DISCREPANCIES WITH CIVIL ENGINEER, LANDSCAPE ARCHITECT, STRUCTURAL ENGINEER AND ARCHITECT.

LEGAL DESCRIPTION
(PER STATUTORY WARRANTY DEED RECORDING# 20160310000923)

PARCEL B, CITY OF MERCER ISLAND SHORT PLAT NUMBER 78-3-009, RECORDED UNDER RECORDING NUMBER 7903280701, RECORDS OF KING COUNTY, WASHINGTON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

VERTICAL DATUM:
NAVD88 PER CITY OF MERCER ISLAND BENCHMARK #2410
(DB ID: 47054)
ELEV: 92.553

REFERENCES:
R1. CITY OF MERCER ISLAND SP 78-3-009, AFN. 7903280701, RECORDS OF KING COUNTY, WASHINGTON.

BASIS OF BEARINGS:
N 89°50'54" E BETWEEN FOUND PROPERTY CORNERS ALONG THE SOUTH PROPERTY LINE PER R1.

ENSURE ALL ROOF DOWNSPOUTS INCLUDE AN EMERGENCY OVERFLOW WITH SLASH BLOCKS.

STORM DRAINAGE NOTES:
SEE SHEET C210

UTILITY NOTES:
SEE SHEET C210

FOR ALL WORK WITHIN TREE DRIPLINES, REFER TO SITE ARBORIST REPORT FOR RECOMMENDATIONS AND NECESSARY TREE PROTECTION MEASURES

CONTRACTOR TO COORDINATE WITH SITE GEOTECH AND CONNECT BUILDING FOOTING DRAINS INTO PROPOSED STORM CONVEYANCE SYSTEM

FOR ALL CIP RETAINING WALLS, REFER TO STRUCTURAL PLANS. FOOTING DRAINS (IF REQUIRED) TO TIE INTO SITE CONVEYANCE SYSTEM

SCALE: 1"=10'

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

LEGEND	
PROPERTY LINE	▬▬ ▬ ▬ ▬▬
BUILDING OUTLINE	▨
CONCRETE PAVEMENT	░
DECKING	▤
LANDSCAPING	+ + +
RETAINING WALL	▬
ROCKERY	○○○
CONTOUR	—— 50 ——
STORM PIPE	——SD——SD——
SEWER PIPE	——SS——SS——
WATER PIPE	——W——W——

LATITUDE 48

LATITUDE 48, P.S.
CONTACT: BRADY BERRIMAN
PHONE NUMBER: 206.556.1615

BRADEN JOSEPH BERRIMAN
57383
10/17/2022

HUBER RESIDENCE
9611 SE 72ND ST
MERCER ISLAND, WA 98040

CITY OF MERCER ISLAND

PERMIT SUBMITTAL

SEPTEMBER 16, 2021

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.14.22
B	PLAN CHECK 2	10.17.22

DRAWN BY: BJB
CHECKED BY: CJS

PERMIT SUBMITTAL

CIVIL SITE PLAN

SCALE: AS NOTED

C200

STORM DRAINAGE NOTES:

1. STORM PIPE SHALL BE PVC CONFORMING TO ASTM D-3034 SDR 35 (4" – 15") OR ASTM F679 (18"-27"). BEDDING AND BACKFILL SHALL BE AS SHOWN IN THE STANDARD DETAILS.
2. THE FOOTING DRAINAGE SYSTEM AND THE ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED AND SHALL SEPARATELY CONVEY COLLECTED FLOWS TO THE CONVEYANCE SYSTEM OR TO ON-SITE STORMWATER FACILITIES.
3. PRIOR TO FINAL INSPECTION AND ACCEPTANCE OF STORM DRAINAGE WORK, PIPES AND STORM DRAIN STRUCTURES SHALL BE CLEANED AND FLUSHED. ANY OBSTRUCTIONS TO FLOW WITHIN THE STORM DRAIN SYSTEM, (SUCH AS RUBBLE, MORTAR AND WEDGED DEBRIS), SHALL BE REMOVED AT THE NEAREST STRUCTURE. WASH WATER OF ANY SORT SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM OR SURFACE WATERS.
4. ENDS OF EACH STORM DRAIN STUB AT THE PROPERTY LINE SHALL BE CAPPED AND LOCATED WITH AN 8' LONG 2" X 4" BOARD, EMBEDDED TO THE STUB CAP AND EXTENDING AT LEAST 3 FEET ABOVE GRADE, AND MARKED PERMANENTLY "STORM". A COPPER 12 GA. LOCATE WIRE FIRMLY ATTACHED. THE STUB DEPTH SHALL BE INDICATED ON THE MARKER.
5. ALL GRATES IN ROADWAYS SHALL BE DUCTILE IRON, BOLT-LOCKING, VANED GRATES PER THE STANDARD DETAILS. STRUCTURES IN TRAFFIC LANES OUTSIDE OF THE CURB LINE WHICH DO NOT COLLECT RUNOFF SHALL BE FITTED WITH ROUND, BOLT-LOCKING FRAMES AND SOLID COVERS. OFF-STREET STRUCTURES WHICH DO NOT COLLECT RUNOFF SHALL BE FITTED WITH BOLT-LOCKING SOLID COVERS.
6. VEGETATION/LANDSCAPING IN THE DETENTION POND, BIORETENTION FACILITY, VEGETATED ROOF AND/OR DRAINAGE SWALE(S) ARE AN INTEGRAL PART OF THE RUNOFF TREATMENT SYSTEM FOR THE PROJECT. SUCH DRAINAGE FACILITIES WILL NOT BE ACCEPTED UNTIL PLANTINGS ARE ESTABLISHED.
7. ALL NEW MANHOLES SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES AND SHALL CONFORM TO THE STANDARD DETAILS. ALL NEW CATCH BASINS SHALL CONFORM TO THE STANDARD DETAILS.
8. STORM STUB STATIONS ARE REFERENCED FROM NEAREST DOWNSTREAM MANHOLE/ CATCH BASIN.
9. ALL TESTING AND CONNECTIONS TO EXISTING MAINS SHALL BE DONE IN THE PRESENCE OF THE CITY'S INSPECTOR.
10. ALL PUBLIC STORM DRAINS SHALL BE AIR TESTED AND HAVE A VIDEO INSPECTION PERFORMED PRIOR TO ACCEPTANCE (SEE #17 BELOW). STORM MAIN CONSTRUCTED WITH FLEXIBLE PIPE SHALL BE DEFLECTION TESTED WITH A MANDREL PRIOR TO ACCEPTANCE.
11. STORM STUBS SHALL BE TESTED FOR ACCEPTANCE AT THE SAME TIME THE STORM MAIN IS TESTED.
12. ALL MANHOLES/ CATCH BASINS IN UNPAVED AREAS SHALL INCLUDE A CONCRETE SEAL AROUND ADJUSTMENT RINGS PER STANDARD DETAILS.
13. ALL STORM MAIN EXTENSIONS WITHIN THE PUBLIC RIGHT-OF-WAY OR IN EASEMENTS MUST BE "STAKED" BY A SURVEYOR LICENSED IN WASHINGTON STATE FOR "LINE AND GRADE" AND CUT SHEETS PROVIDED TO THE CITY'S INSPECTOR, PRIOR TO STARTING CONSTRUCTION.
14. STORM DRAINAGE MAINLINES, STUBS AND FITTINGS SHALL BE CONSTRUCTED USING THE SAME PIPE MATERIAL AND MANUFACTURER. CONNECTIONS BETWEEN STUBS AND THE MAINLINE WILL BE MADE WITH A TEE FITTING. TEE FITTING SHALL BE FROM SAME MANUFACTURER AS PIPE. CUT-IN CONNECTIONS ARE ONLY ALLOWED WHEN CONNECTING A NEW STUB TO AN EXISTING MAINLINE.
15. MANHOLES, CATCH BASINS AND VAULTS ARE CONSIDERED TO BE PERMIT-REQUIRED CONFINED SPACES. ENTRY INTO THESE SPACES SHALL BE IN ACCORDANCE WITH CHAPTER 296-809 WAC.
16. PLACEMENT OF SURFACE APPURTENANCES (MH LIDS, VALVE LIDS, ETC.) IN TIRE TRACKS OF TRAFFIC LANES SHALL BE AVOIDED WHENEVER POSSIBLE.
17. THE CONTRACTOR SHALL PERFORM A VIDEO INSPECTION AND PROVIDE A DIGITAL COPY OF THE VIDEO INSPECTION FOR THE CITY'S REVIEW. THE VIDEO SHALL PROVIDE A MINIMUM OF 480 X 640 RESOLUTION AND COVER THE ENTIRE LENGTH OF THE APPLICABLE PIPE. THE CAMERA SHALL BE MOVED THROUGH THE PIPE AT A UNIFORM RATE (≤ 30 FT/MIN), STOPPING WHEN NECESSARY TO ENSURE PROPER DOCUMENTATION OF THE PIPE CONDITION. THE VIDEO SHALL BE TAKEN AFTER INSTALLATION AND CLEANING TO INSURE THAT NO DEFECTS EXIST. THE PROJECT WILL NOT BE ACCEPTED UNTIL ALL DEFECTS HAVE BEEN REPAIRED.
18. NOT USED.
19. ALL CONCRETE STRUCTURES (VAULTS, CATCH BASINS, MANHOLES, OIL/WATER SEPARATORS, ETC.) SHALL BE VACUUM TESTED.
20. MANHOLES, CATCH BASINS AND INLETS IN EASEMENTS SHALL BE CONSTRUCTED TO PROVIDE A STABLE, LEVEL GRADE FOR A MINIMUM RADIUS OF 2.5 FEET AROUND THE CENTER OF THE ACCESS OPENING TO ACCOMMODATE CONFINED SPACE ENTRY EQUIPMENT.
21. TOPS OF MANHOLES/ CATCH BASINS WITHIN PUBLIC RIGHT-OF-WAY SHALL NOT BE ADJUSTED TO FINAL GRADE UNTIL AFTER PAVING.
22. CONTRACTOR SHALL ADJUST ALL MANHOLE/ CATCH BASIN RIMS TO BE FLUSH WITH FINAL FINISHED GRADES, UNLESS OTHERWISE SHOWN.
23. DURING CONSTRUCTION, CONTRACTOR SHALL INSTALL, AT ALL CONNECTIONS TO EXISTING DOWNSTREAM MANHOLES/CATCH BASINS, SCREENS OR PLUGS TO PREVENT FOREIGN MATERIALS FROM ENTERING EXISTING STORM DRAINAGE SYSTEM. SCREENS OR PLUGS SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE CONSTRUCTION AND SHALL BE REMOVED ALONG WITH COLLECTED DEBRIS AT THE TIME OF FINAL INSPECTION AND IN THE PRESENCE OF THE CITY'S INSPECTOR.
24. NOT USED.
25. MINIMUM COVER OVER STORM DRAINAGE PIPE SHALL BE 2 FEET, UNLESS OTHERWISE SHOWN.
26. REDIRECT SHEET FLOW, BLOCK DRAIN INLETS AND/OR CURB OPENINGS IN PAVEMENT AND INSTALL FLOW DIVERSION MEASURES TO PREVENT CONSTRUCTION SILT LADEN RUNOFF AND DEBRIS FROM ENTERING EXCAVATIONS AND FINISH SURFACES FOR BIORETENTION FACILITIES AND PERMEABLE PAVEMENTS.
27. WHERE AMENDED SOILS, BIORETENTION FACILITIES, AND PERMEABLE PAVEMENTS ARE INSTALLED, THESE AREAS SHALL BE PROTECTED AT ALL TIMES FROM BEING OVER-COMPACTED.

UNDERGROUND UTILITY NOTE:

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY SERVICES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPES WHERE CROSSING INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE-CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES PRIOR TO CONSTRUCTION.

GENERAL DRAINAGE NOTES:

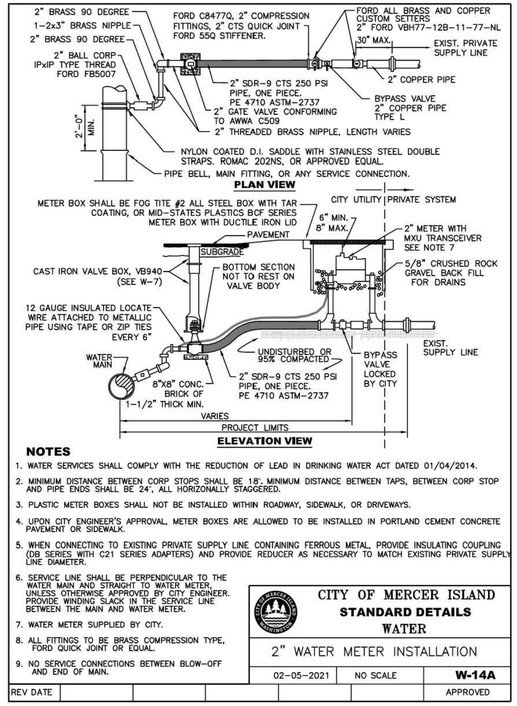
1. ALL STORM LINES AND RETENTION/DETENTION AREAS SHALL BE STAKED FOR GRADE AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK, AND CURRENTLY LICENSED IN THE STATE OF WASHINGTON TO DO SO.
2. ALL PIPE APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT 7-02.3(1) UNLESS OTHERWISE NOTED IN THE PLANS, DETAILS OR PROJECT SPECIFICATIONS. THIS SHALL INCLUDE LEVELING AND COMPACTING THE TRENCH BOTTOM, THE TOP OF THE FOUNDATION MATERIAL, AND ANY REQUIRED PIPE BEDDING TO A UNIFORM GRADE SO THAT THE ENTIRE PIPE IS SUPPORTED BY A UNIFORMLY DENSE UNYIELDING BASE.
3. ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, NOT LOCATED WITHIN A TRAVELED ROADWAY OR SIDEWALK, MUST HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY MUST HAVE SOLID LOCKING LIDS.
4. SOLID LOCKING LIDS MUST BE USED FOR ALL CATCH BASINS NOT LOCATED WITHIN A GUTTER FLOWLINE AND VANED GRATE STYLE COVERS MUST BE USED WITHIN THE GUTTER FLOWLINE.
5. ALL CONVEYANCE PIPE 6-INCHES OR GREATER IN DIAMETER MUST BE ASTM D3034 SDR 35 PVC UNLESS OTHERWISE NOTED IN THE PLANS, DETAILS OR PROJECT SPECIFICATIONS.

RESTORATION NOTES:

1. SURFACE RESTORATION OF EXISTING ASPHALT PAVEMENT SHALL BE AS REQUIRED BY THE RIGHT-OF-WAY USE PERMIT.
2. THE CONTRACTOR SHALL RESTORE THE RIGHT-OF-WAY AND EXISTING PUBLIC STORM DRAINAGE EASEMENT(S) AFTER CONSTRUCTION TO A CONDITION EQUAL OR BETTER THAN CONDITION PRIOR TO ENTRY. THE CONTRACTOR SHALL FURNISH A RELEASED FROM ALL AFFECTED PROPERTY OWNERS AFTER RESTORATION HAS BEEN COMPLETED.

UTILITY NOTES:

1. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE EXCAVATOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HERE ON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. IMMEDIATELY NOTIFY THE RESPONSIBLE PROFESSIONAL ENGINEER IF A CONFLICT EXISTS.
2. CALL 1-800-424-5555, OR 8-1-1, 72 HOURS BEFORE CONSTRUCTION FOR UTILITY LOCATES.
3. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF FIVE FEET (5') HORIZONTAL SEPARATION BETWEEN ALL WATER AND STORM DRAINAGE LINES. ANY CONFLICT SHALL BE REPORTED TO THE UTILITY AND THE RESPONSIBLE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION.
4. AVOID CROSSING WATER OR SEWER MAINS AT HIGHLY ACUTE ANGLES. THE SMALLEST ANGLE MEASURE BETWEEN UTILITIES SHOULD BE 45 DEGREES.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT NO CONFLICTS EXIST BETWEEN STORM DRAINAGE FACILITIES AND PROPOSED OR EXISTING UTILITIES PRIOR TO CONSTRUCTION.
6. AT POINTS WHERE EXISTING THRUST BLOCKING IS FOUND, MINIMUM CLEARANCE BETWEEN CONCRETE BLOCKING AND OTHER BURIED UTILITIES OR STRUCTURES SHALL BE 5 FEET.
7. WHERE A NEW UTILITY LINE CROSSES BELOW AN EXISTING AC MAIN, THE AC PIPE SHALL BE REPLACED WITH DI PIPE TO 3 FEET PAST EACH SIDE OF THE TRENCH AS SHOWN ON STANDARD DETAIL W-8. ALTERNATIVELY, APPROVED IN WRITING BY THE UTILITY, THE TRENCH MAY BE BACKFILLED WITH CONTROLLED DENSITY FILL (CDF, AKA FLOWABLE FILL) FROM BOTTOM OF TRENCH TO BOTTOM OF AC MAIN



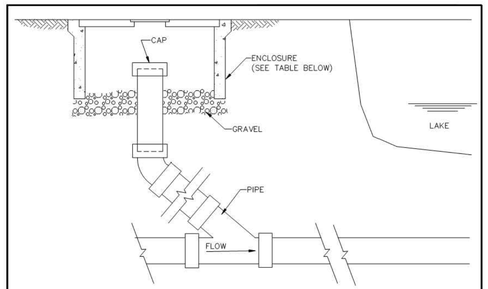
NOTES

1. WATER SERVICES SHALL COMPLY WITH THE REDUCTION OF LEAD IN DRINKING WATER ACT DATED 01/04/2014.
2. MINIMUM DISTANCE BETWEEN CORP STOPS SHALL BE 18". MINIMUM DISTANCE BETWEEN TAPS, BETWEEN CORP STOP AND PIPE ENDS SHALL BE 24". ALL HORIZONALLY STAGGERED.
3. PLASTIC METER BOXES SHALL NOT BE INSTALLED WITHIN ROADWAY, SIDEWALK, OR DRIVEWAYS.
4. UPON CITY ENGINEER'S APPROVAL, METER BOXES ARE ALLOWED TO BE INSTALLED IN PORTLAND CEMENT CONCRETE PAVEMENT OR SIDEWALK.
5. WHEN CONNECTING TO EXISTING PRIVATE SUPPLY LINE CONTAINING FERROUS METAL, PROVIDE INSULATING COUPLING (DB SERIES WITH C21 SERIES ADAPTERS) AND PROVIDE REDUCER AS NECESSARY TO MATCH EXISTING PRIVATE SUPPLY LINE DIAMETER.
6. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATER MAIN AND STRAIGHT TO WATER METER, UNLESS OTHERWISE APPROVED BY CITY ENGINEER. PROVIDE WINDING SLACK IN THE SERVICE LINE BETWEEN THE MAIN AND WATER METER.
7. WATER METER SUPPLIED BY CITY.
8. ALL FITTINGS TO BE BRASS COMPRESSION TYPE, FORD QUICK JOINT OR EQUAL.
9. NO SERVICE CONNECTIONS BETWEEN BLOW–OFF AND END OF MAIN.

CITY OF MERCER ISLAND
STANDARD DETAILS
WATER
2" WATER METER INSTALLATION

REV DATE						02–05–2021	NO SCALE	W-14A
								APPROVED

2" WATER METER 3
NTS



LAKE LINE CLEANOUT

PIPE SIZE	MATERIAL	CAP	ENCLOSURE	COMMENTS
6"	PVC	SIDU MECHANICAL SEWER PLUG	CONC. METER BOX, FOGTITE 1–D	INSTALLATION BELOW HYDRAULIC GRADIENT
6"	PVC	PVC CAP W/O GASKET	CONC. METER BOX, FOGTITE 1–D	INSTALLATION ABOVE HYDRAULIC GRADIENT
6"	DIP	MECHANICAL JOINT CAP	CONC. METER BOX, FOGTITE 1–D	INSTALLATION ABOVE HYDRAULIC GRADIENT
8"	PVC	PVC CAP W/O GASKET	CONC. METER BOX, FOGTITE NO. 2 (CONC. LID W/ ALUM. INS. PLATE)	INSTALLATION ABOVE HYDRAULIC GRADIENT
8"	DIP	MECHANICAL JOINT CAP	CONC. METER BOX, FOGTITE NO. 2 (CONC. LID W/ ALUM. INS. PLATE)	INSTALLATION ABOVE HYDRAULIC GRADIENT

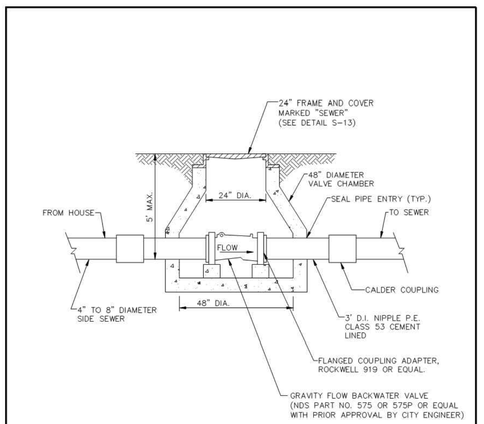
NOTES

1. IF POSSIBLE, CLEANOUT TO BE LOCATED JUST ABOVE HYDRAULIC GRADIENT OF LAKE LINE. CLEANOUT SHOULD ALSO BE LOCATED TO PROVIDE EASY ACCESS FOR INSPECTION AND MAINTENANCE BY THE HOME OWNER.
2. SEE S–23 & S–24 FOR BACK WATER VALVE LOCATION.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
SIDE SEWER CLEANOUT FOR LAKE LINE CONNECTIONS

REV DATE						6–5–2009	NO SCALE	S-25
								APPROVED

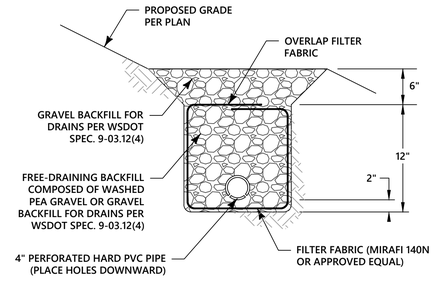
SIDE SEWER CLEANOUT 5
NTS



CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
BACK WATER VALVE ASSEMBLY FOR JOINT USE SIDE SEWER (4" OR 6" DIAMETER)

REV DATE						6–5–2009	NO SCALE	S-26
								APPROVED

SEWER BACKWATER VALVE 6
NTS



FRENCH DRAIN 4
NTS

LATITUDE 48

LATITUDE 48, P.S.
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PHONE NUMBER: 206.556.1615

BRADEN JOSEPH BERRIMAN
STATE OF WASHINGTON
57383
REGISTERED PROFESSIONAL ENGINEER
10/17/2022

HUBER RESIDENCE

9611 SE 72ND ST
MERCER ISLAND, WA 98040

CITY OF MERCER ISLAND

PERMIT SUBMITTAL

SEPTEMBER 16, 2021

REVISIONS

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CHECKED BY: CJS

PERMIT SUBMITTAL

CIVIL SITE DETAILS & NOTES

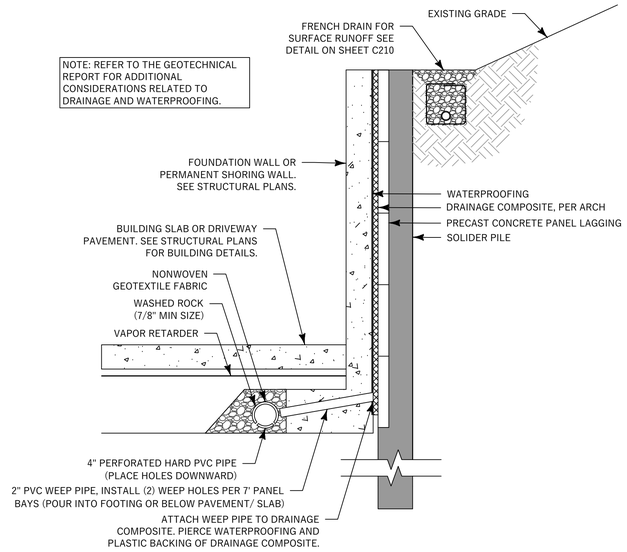
SCALE: AS NOTED

C210

NW/NE 1/4 OF SE 1/4, SECTION 30, TOWNSHIP 24N, RANGE 5E, W.M.

NOT USED 1
NTS

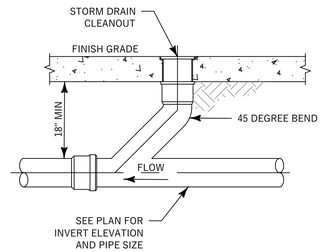
NOT USED 2
NTS



SHORING DRAIN DETAIL 3
NTS

NOT USED 4
NTS

NOT USED 5
NTS



STORM DRAIN CLEANOUT 6
NTS

LATITUDE 48

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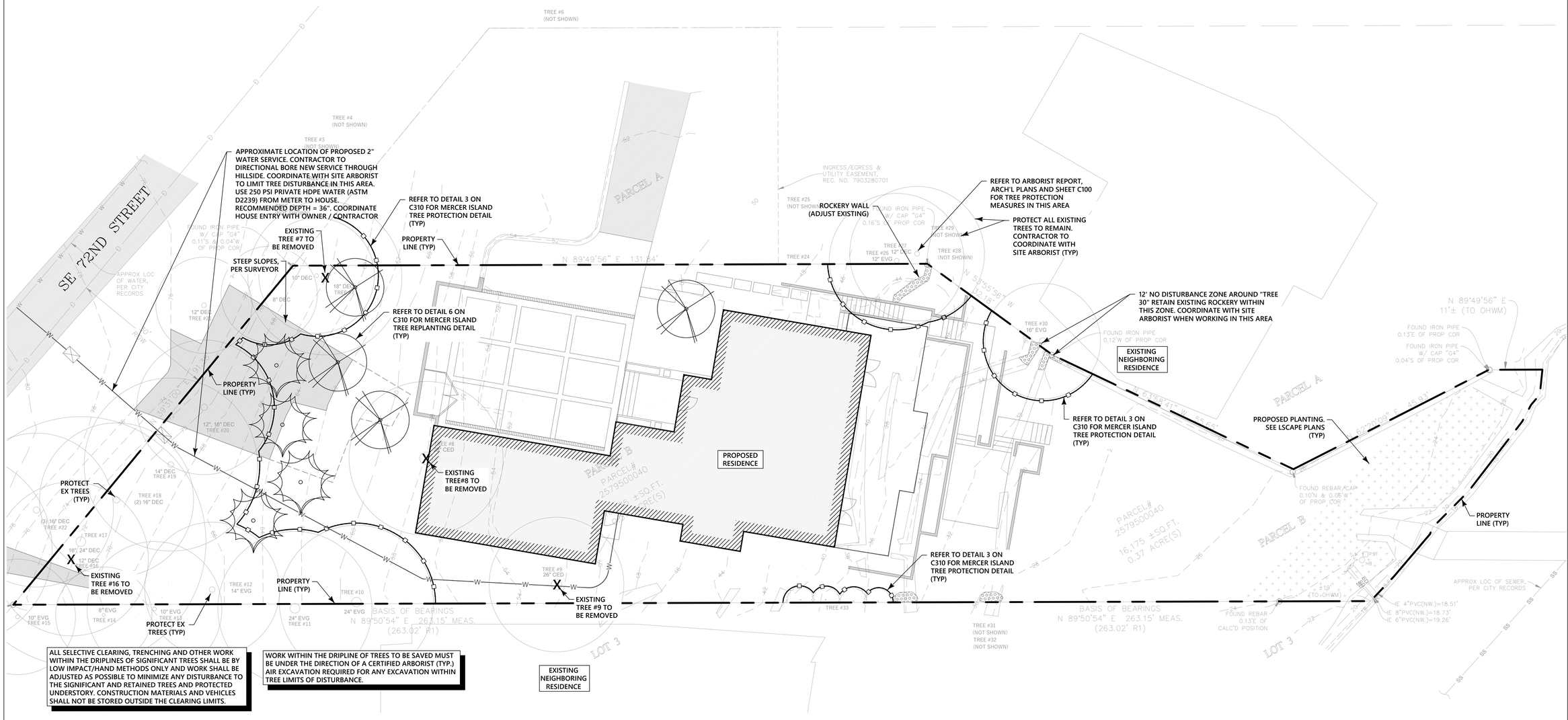
CIVIL SITE DETAILS & NOTES

SCALE: AS NOTED

C211

NW/NE 1/4 OF SE 1/4, SECTION 30, TOWNSHIP 24N, RANGE 5E, W.M.



ALL SELECTIVE CLEARING, TRENCHING AND OTHER WORK WITHIN THE DRIPLINES OF SIGNIFICANT TREES SHALL BE BY LOW IMPACT/HAND METHODS ONLY AND WORK SHALL BE ADJUSTED AS POSSIBLE TO MINIMIZE ANY DISTURBANCE TO THE SIGNIFICANT AND RETAINED TREES AND PROTECTED UNDERSTORY. CONSTRUCTION MATERIALS AND VEHICLES SHALL NOT BE STORED OUTSIDE THE CLEARING LIMITS.

WORK WITHIN THE DRIPLINE OF TREES TO BE SAVED MUST BE UNDER THE DIRECTION OF A CERTIFIED ARBORIST (TYP.) AIR EXCAVATION REQUIRED FOR ANY EXCAVATION WITHIN TREE LIMITS OF DISTURBANCE.

TREE RETENTION SCHEDULE - SEE ARBORIST REPORT

TREE #	OFFSITE	REMAIN	REMOVE	LARGE/ REGULATED >10"	SIZE EXCEPTIONAL > 24"	EXCEPTIONAL	DBH (INCHES)	SPECIES - *SCIENTIFIC NAME*	SPECIES - COMMON NAME	HEALTH	COMMENT	REPLACEMENT
1	X	X		X			9 / 9 / 10 / 10.5	*Acer macrophyllum*	BIG LEAF MAPLE		NOT LOCATED ON SURVEY	
2	X	X		X			3 / 4.5 / 7.5 / 8 / 9.5 / 12	*Acer macrophyllum*	BIG LEAF MAPLE		NOT LOCATED ON SURVEY	
3	X	X		X	X	X	54	*Populus trichocarpa*	BLACK COTTONWOOD		NOT LOCATED ON SURVEY	
4	X	X		X	X	X	28.5 / 36 / 20.5	*Populus trichocarpa*	BLACK COTTONWOOD		NOT LOCATED ON SURVEY	
5	X	X		X	X	X	42	*Populus trichocarpa*	BLACK COTTONWOOD		NOT LOCATED ON SURVEY	
6	X	X		X	X		14 / 21 / 32	*Populus trichocarpa*	BLACK COTTONWOOD		NOT LOCATED ON SURVEY	
7			X	X			8 / 19.5	*Alnus rubra*	RED ALDER		NOT VIABLE SHORT TERM, NO MITIGATION	N/A
8			X	X	X		28	*Thuja plicata*	WESTERN RED CEDAR			3:1
9			X	X	X		24.5	*Thuja plicata*	WESTERN RED CEDAR	FAIR		3:1
10		X		X	X		26	*Cedrus deodora*	DEODAR CEDAR			
11		X		X	X		24	*Cedrus deodora*	DEODAR CEDAR	FAIR		
12		X		X			18.5	*Cedrus deodora*	DEODAR CEDAR	FAIR		
13	X	X		X			10	*Pseudotsuga menziesii*	DOUGLAS FIR			
14	X	X					8	*Cedrus deodora*	DEODAR CEDAR	BELOW AVERAGE		
15	X	X		X			11	*Cupressocyparis leylandii*	LEYLAND CYPRESS	FAIR		
16			X	X			10	*Acer macrophyllum*	BIG LEAF MAPLE		STUMP SPROUT. SEE ARBORIST REPORT	2:1
17		X		X	X		14 / 26	*Acer macrophyllum*	BIG LEAF MAPLE			
18		X		X			18 / 16.5	*Acer macrophyllum*	BIG LEAF MAPLE			
19		X		X			17.5	*Acer macrophyllum*	BIG LEAF MAPLE			
20		X		X			10 / 21.5	*Acer macrophyllum*	BIG LEAF MAPLE			
21	X	X		X			12.5	*Alnus rubra*	RED ALDER	WEAK		
22	X	X		X			12 / 12 / 13	*Acer macrophyllum*	BIG LEAF MAPLE			
23	X	X						*Acer macrophyllum*	BIG LEAF MAPLE	BELOW AVERAGE	GREW OVER OR OUT OF AN OLD STUMP	
24		X						*Thuja occidentalis* (variety unknown) *Cupressocyparis leylandii*	ARBORVITAE LEYLAND CYPRUS	GOOD	MIXED EVERGREEN HEDGE, SEE ARBORIST REPORT NOT LOCATED ON SURVEY	
25	X	X		X			12	*Malus domestica*	APPLE TREE	FAIR	NOT LOCATED ON SURVEY	
26	X	X		X			11.5	*Pinus sylvestris*	SCOTS PINE	BELOW AVERAGE		
27	X	X		X			11	*Pinus sylvestris*	SCOTS PINE	DECENT HEALTH OVERALL		
28	X	X					7.5	*Pinus sylvestris*	SCOTS PINE		DEAD - NOT LOCATED ON SURVEY	
29	X	X		X			14	*Pinus sylvestris*	SCOTS PINE	FAIR	NOT LOCATED ON SURVEY	
30	X	X		X			14	*Pinus thunbergii*	BLACK PINE			
31	X	X		X			11	*Betula pendula*	EUROPEAN BIRCH	BELOW AVERAGE	NOT LOCATED ON SURVEY	
32	X	X		X			10.5	*Betula pendula*	EUROPEAN BIRCH	BELOW AVERAGE	NOT LOCATED ON SURVEY	
33		X						*Cupressocyparis leylandii*	LEYLAND CYPRESS	GOOD	HEDGE - NOT LOCATED ON SURVEY	

TREE REPLACEMENT LEGEND

ACER PALMATUM / JAPANESE MAPLE

CHAMAECYPARIS N. 'PENDULA': WEEPING ALASKA CEDAR

TREE RETENTION CALCULATION

11 ONSITE TREES
30% RETENTION REQUIRED = (3.3) 4 TREES
PROPOSED REMOVAL = 4 TREES
PROPOSED RETAINAGE = 7 TREES (>4 REQUIRED)

TREE REPLACEMENT

TOTAL TREES REQUIRED TO BE REPLACED = 8 TREES
(SEE "REPLACEMENT" IN TABLE TO THE LEFT)
PROPOSED REPLACED = 8 TREES

Call before you Dig 8-1-1 or 1-800-424-5555 (WASHINGTON STATE ONE-CALL)

0 10 20 Feet
SCALE: 1"=10'

LEGEND
- PROPERTY LINE
- BUILDING OUTLINE
- TREE PROTECTION
- REMOVE EX TREE
- NEW TREE. SEE TREE REPLACEMENT LEGEND BELOW AND DETAIL 6 ON SHEET C310

NOTE:

PER MICC 19.02.020(F)(3)(d), THE PROJECT SHALL REMOVE JAPANESE KNOTWOOD (POLYGONUM CUSPIDATUM) AND REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, FROM REQUIRED LANDSCAPING AREAS ESTABLISHED PURSUANT TO SUBSECTION (F)(3)(a) OF THIS SECTION. NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED. PROVIDED, THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.

LATITUDE 48

LATITUDE 48, P.S.
CONTACT: BRADY BERRIMAN
PHONE NUMBER: 206.556.1615

BRADEN JOSEPH BERRIMAN — STATE OF WASHINGTON — 57383 — REGISTERED PROFESSIONAL ENGINEER — 10/17/2022

HUBER RESIDENCE

9611 SE 72ND ST
MERCER ISLAND, WA 98040

CITY OF MERCER ISLAND

PERMIT SUBMITTAL

SEPTEMBER 16, 2021

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.14.22
B	PLAN CHECK 2	10.17.22

DRAWN BY: BJB
CHECKED BY: CJS

PERMIT SUBMITTAL

TREE PLAN

SCALE: AS NOTED

C300

NW/NE 1/4 OF SE 1/4, SECTION 30, TOWNSHIP 24N, RANGE 5E, W.M.

NOT USED 1
NTS

NOT USED 2
NTS

TREE PROTECTION AREA (TPZ)

KEEP OUT!

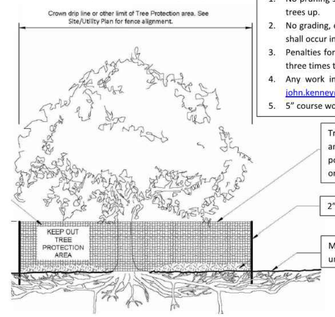
DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees/financial penalties
3. Arborist reports recommending mitigation

Notes

1. No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
2. No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
3. Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
4. Any work in approved TPZ must be with the permission of the City Arborist (206) 275-7713, john.kenney@mercergov.org.
5. 5" course woodchips within the tree protection zone, but not against the tree trunk.

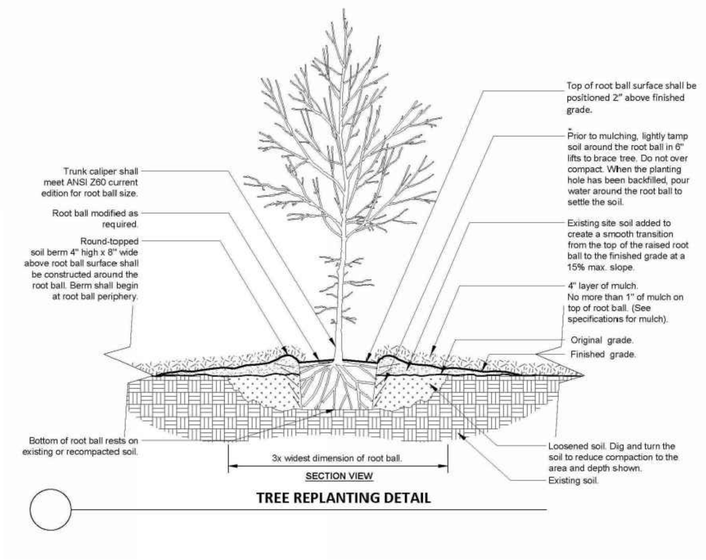


Any Work in the protected area must be with the permission of the City Arborist john.kenney@mercergov.org

MERCER ISLAND TREE PROTECTION 3
NTS

NOT USED 4
NTS

NOT USED 5
NTS



TREE REPLANTING DETAIL

MERCER ISLAND TREE REPLANTING DETAIL 6
NTS

LATITUDE 48

LATITUDE 48, P.S.
CONTACT: BRADY BERRIMAN
PHONE NUMBER: 206.556.1615

BRADEN JOSEPH BERRIMAN
STATE OF WASHINGTON
57383
REGISTERED PROFESSIONAL ENGINEER
10/17/2022

HUBER RESIDENCE

9611 SE 72ND ST
MERCER ISLAND, WA 98040

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A	PLAN CHECK 1	04.14.22
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DRAWN BY: BJB
CHECKED BY: CJS

PERMIT SUBMITTAL

TREE DETAILS & NOTES

SCALE: AS NOTED

C310

General Shoring Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CODE REQUIREMENTS

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2018 EDITION, AND THE LATEST EDITION OF PTI DC-35.1, "RECOMMENDATIONS FOR PRESTRESSED ROCK AND SOIL ANCHORS".

REFERENCE DOCUMENTS

2. TOPOGRAPHIC AND BOUNDARY SURVEY BY:

   TERRANE
   10801 MAIN ST, STE 102
   BELLEVUE, WA 98004
   JOB NUMBER: 13043

3. REPORT ON GEOTECHNICAL INVESTIGATION BY:

   PANGEO INC.
   ON SEPT. 7, 2021
   3213 EASTALVE AVE E, STE B
   SEATTLE, WA 98102
   FILE NO. 21-004

GENERAL REQUIREMENTS

4. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATIONS, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER AND 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.

5. SHOULD ANY DISCREPANCIES BE FOUND IN THE PROJECT DOCUMENTS, THE CONTRACTOR WILL BE DEEMED TO HAVE INCLUDED IN THE PRICE THE MOST EXPENSIVE WAY OF COMPLETING THE WORK, UNLESS PRIOR TO SUBMISSION OF THE PRICE THE CONTRACTOR ASKS FOR A DECISION FROM THE ENGINEER AND ARCHITECT AS TO WHICH SHALL GOVERN.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTOR'S 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.

7. CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF EXISTING STRUCTURES IN THE FIELD AND SHALL NOTIFY THE ENGINEER OF ALL FIELD CHANGES PRIOR TO FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBER.

8. 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.

9. 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 AND NOTES 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. 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.

10. THE FOLLOWING ITEMS SHALL BE SUBMITTED IN WRITING FOR APPROVAL TO THE ENGINEER, ARCHITECT AND OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK OR THE FABRICATION OR INSTALLATION OF ANY STRUCTURAL ITEM. THE CONTRACTOR SHALL RETAIN ALL RESPONSIBILITY FOR MEANS AND METHODS OF CONSTRUCTION.

    SHORING MONITORING PROGRAM: SEE MONITORING SECTION.
    SHORING SEQUENCING PROGRAM
    CONCRETE AND GROUT MIX DESIGN

11. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

    STRUCTURAL STEEL
    MISCELLANEOUS METALS
    TENDONS
    ANCHORS
    REINFORCING STEEL
    GROUTS AND CONCRETES.

    APPROVED SETS OF ALL SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT.

12. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN TWO WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY THE DESIGN TEAM.

    SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS.

13. UTILITY LOCATION: THE UTILITIES INFORMATION SHOWN ON THE PLANS MAY NOT BE COMPLETE. THE SHORING CONTRACTOR SHALL DETERMINE THE HORIZONTAL AND VERTICAL LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRIVING PILES, DRILLING PILE HOLES, TIEBACK ANCHORS, OR CUTTING OR DIGGING IN STREETS OR ALLEYS. THIS INCLUDES CALLING UTILITY LOCATE AT 1-800-424-5555 AND THEN POTHOLING ALL UTILITIES PRIOR TO CONSTRUCTION TO CONFIRM DEPTHS AND LOCATIONS AND TO VERIFY THAT THERE ARE NO CONFLICTS WITH THE PILE AND TIEBACK CROSSING ELEVATIONS. PILES AND TIEBACKS, INCLUDING CONCRETE CASING SHALL MAINTAIN A MINIMUM OF 12" CLEARANCE TO ANY EXISTING UTILITIES TO REMAIN. CONTRACTOR SHALL NOTIFY THE ENGINEER OF CONFLICTS. CONFLICTS SHALL BE RESOLVED IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION.

QUALITY ASSURANCE

14. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1704 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL INSPECTIONS. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS WITHIN TWO WEEKS OF COMPLETION OF EACH PHASE OF WORK. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION IS REQUIRED

STRUCTURAL STEEL FABRICATION AND ERECTION	PER TABLE 1705.2
PRECAST CONCRETE ERECTION	PER TABLE 1705.3
CAST-IN-PLACE DEEP FOUNDATION	PER TABLE 1705.8

1 PERIODIC INSPECTION ALLOWS INSPECTION AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS. CONTINUOUS SPECIAL INSPECTION REQUIRES THAT THE INSPECTOR BE ONSITE AT ALL TIMES THAT WORK REQUIRING SPECIAL INSPECTION IS PERFORMED.

15. INSPECTORS SHALL BRING DEFICIENCIES TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE INSPECTOR SHALL BRING THE UNCORRECTED DEFICIENCY TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER IMMEDIATELY AND PRIOR TO COMPLETION OF THAT PHASE OF WORK.

16. SOILS INSPECTION: INSPECTION BY THE SOILS ENGINEER SHALL BE PERFORMED FOR PILE PLACEMENT AND TIEBACK PLACING AND STRESSING. ALL PREPARED SOIL BEARING SURFACES SHALL BE INSPECTED BY THE SOILS ENGINEER PRIOR TO PLACEMENT OF PILES. SOIL COMPACTION SHALL BE SUPERVISED BY AN APPROVED TESTING LAB. THE GEOTECHNICAL ENGINEER SHALL ALSO ADVISE ON WATER CONTROL AND SLAB ON GRADE CONSTRUCTION.

17. WET WEATHER INSPECTION: A SITE VISIT FROM THE GEOTECHNICAL SPECIAL INSPECTOR SHALL OCCUR DURING EACH DAY OF ACTIVE GRADING AND IN THE EVENT OF SIGNIFICANT RAINFALL WHICH MIGHT COMPROMISE STABILIZATION MEASURES BETWEEN NOVEMBER 1 AND MARCH 31. THE DETERMINATION OF WHAT CONSTITUTES SIGNIFICANT RAINFALL IS SUBJECT TO THE DISCRETION OF THE GEOTECHNICAL SPECIAL INSPECTOR. HOWEVER, AS A MINIMUM STANDARD, THE GEOTECHNICAL SPECIAL INSPECTOR IS REQUIRED TO CONDUCT A SITE VISIT IF MORE THAN ONE HALF INCH OF PRECIPITATION OCCURS ON ANY GIVEN DAY. ANY RECOMMENDATIONS REQUIRED TO MAINTAIN STABILITY OF EXCAVATIONS AND PROPER FUNCTIONING OF THE SEDIMENT/EROSION CONTROL SYSTEM PROVIDED BY THE GEOTECHNICAL SPECIAL INSPECTOR AND DPD PERSONNEL SHALL BE IMPLEMENTED IMMEDIATELY. THE GEOTECHNICAL SPECIAL INSPECTOR SHALL PROVIDE COPIES OF FIELD REPORTS TO DPD SITE DEVELOPMENT SERVICES SECTION NO LATER THAN 48 HOURS AFTER EACH INSPECTION. THE FIELD REPORTS MAY BE FAXED TO (206)233-7902. THE GEOTECHNICAL SPECIAL INSPECTOR SHALL PROVIDE WRITTEN NOTICE THAT THE SITE HAS BEEN STABILIZED FOLLOWING COMPLETION OF GRADING.

SHORING MONITORING

18. A SYSTEMATIC PROGRAM OF MONITORING SHALL BE CONDUCTED DURING THE PROJECT EXECUTION TO DETERMINE THE EFFECT OF CONSTRUCTION ON ADJACENT FACILITIES AND STRUCTURES IN ORDER TO PROTECT THEM FROM DAMAGE. REFER TO REPORT OF GEOTECHNICAL INVESTIGATION FOR RECOMMENDATIONS. FIELD DATA AND MEASUREMENTS ARE TO BE SUBMITTED TO THE STRUCTURAL AND GEOTECHNICAL ENGINEER FOR REVIEW.

19. MONITORING SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR (PLS) LICENSED IN THE STATE OF WASHINGTON.

20. UNLESS OTHERWISE REQUIRED BY THE GEOTECHNICAL ENGINEER, THE MONITORING PROGRAM SHALL INCLUDE A VIDEO OR PHOTOGRAPHIC SURVEY PRIOR TO THE BEGINNING OF THE SHORING INSTALLATION TO DOCUMENT THE CURRENT CONDITIONS OF THE SURROUNDING FEATURES. THE SIZE AND LOCATION OF ANY EXISTING CRACKS IN ADJACENT SLABS, PAVEMENTS OR BUILDINGS SHALL BE MEASURED AND DOCUMENTED. CONTROL POINTS SHALL BE ESTABLISHED AT A DISTANCE WELL AWAY FROM THE WALLS AND SLOPES, AND DEFLECTIONS FROM THE REFERENCE POINTS SHALL BE MEASURED THROUGHOUT CONSTRUCTION BY OPTICAL SURVEY. A MINIMUM OF 3 MONITORING POINTS SHALL BE ESTABLISHED ON NEARBY ADJACENT BUILDINGS. MINIMUM SURVEY FREQUENCY SHALL BE ONCE PER WEEK.

21. SOLDIER PILE MONITORING PROGRAM: FOLLOWING INSTALLATION OF THE SOLDIER PILES, MONITORING POINTS SHALL BE ESTABLISHED ON THE TOP OF THE PILES PRIOR TO PROCEEDING WITH THE EXCAVATION. ONE MONITORING POINT SHALL BE ESTABLISHED FOR EVERY FOUR PILES. THE MONITORING POINTS SHALL BE READ DAILY DURING EXCAVATION OPERATIONS AND TWICE WEEKLY ONCE THE EXCAVATION IS COMPLETED. THE INITIAL READINGS FOR THIS MONITORING SHALL BE TAKEN BEFORE STARTING ANY DEMOLITION OR EXCAVATION ON THE SITE. NOTIFY THE GEOTECHNICAL AND STRUCTURAL ENGINEERS, SHORING DESIGNER, AND THE BUILDING DEPARTMENT (DPD) IF .5" OF MOVEMENT OCCURS BETWEEN TWO CONSECUTIVE READINGS. THE ENGINEERS AND DESIGNERS SHALL DETERMINE THE CAUSE OF DISPLACEMENT AND DEVELOP REMEDIAL MEASURES IF WARRANTED. PLEASE NOTE THAT A MAXIMUM OF 1" HORIZONTAL DISPLACEMENT IS REQUIRED ANYWHERE ON SHORING WALL SURFACES THROUGHOUT THE SHORING WALL SERVICE LIFETIME. CONSTRUCTION SHALL BE SUSPENDED IMMEDIATELY AND REMEDIAL PROCEDURES APPLIED AS LONG AS A DISPLACEMENT READING EXCEEDS 1". IF THE TOTAL MEASURED LATERAL DEFLECTION OF THE PILES EXCEEDS 1", REMEDIAL MEASURES MAY BE REQUIRED.

22. EACH SET OF MONITORING DATA MUST BE PROVIDED TO THE GEOTECHNICAL ENGINEER FOR REVIEW. IT MAY BE NECESSARY TO INSTALL ADDITIONAL MONITORING POINTS IF WARRANTED BY THE DATA. RECOMMENDATIONS WILL BE PROVIDED BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION IF ADDITIONAL MONITORING POINTS BECOME NECESSARY.

23. SURVEY FREQUENCY MAY BE DECREASED AFTER THE SHORING SYSTEM HAS BEEN INSTALLED AND EXCAVATION IS COMPLETE IF THE DATA INDICATES LITTLE OR NO ADDITIONAL MOVEMENT. CHANGE IN THE SURVEY FREQUENCY SHALL BE APPROVED IN WRITING BY THE GEOTECHNICAL ENGINEER AND THE BUILDING DEPARTMENT. SURVEYING MUST CONTINUE UNTIL THE PERMANENT STRUCTURE (INCLUDING FLOOR SLABS AS BRACES) IS COMPLETE TO FINAL AND STREET GRADES.

24. SUBMIT SURVEY DATA, INCLUDING BASELINE READINGS AND EVALUATION OF SHORING PERFORMANCE BY THE GEOTECHNICAL ENGINEER AT LEAST ON A WEEKLY BASIS TO THE BUILDING DEPARTMENT.

GEOTECHNICAL INFORMATION AND CRITERIA

25. INSTALLATION OF SHORING, SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION AND FILLING REQUIREMENTS SHALL CONFORM WITH THE RECOMMENDATIONS CONTAINED IN THE SOILS REPORT AND/OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE SUBSURFACE CHARACTERIZATIONS USED TO DESIGN THE SHORING ARE CONTAINED IN THE SOILS REPORT AS REFERENCED ABOVE.

26. EXCAVATIONS FOR FOUNDATIONS SHALL BE PER PLAN DOWN TO UNDISTURBED NATIVE MATERIAL PER THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS. OVER EXCAVATED AREAS SHALL BE BACKFILLED WITH LEAN CONCRETE OR PER GEOTECHNICAL RECOMMENDATIONS AT THE CONTRACTOR'S EXPENSE. EXCAVATION SLOPES SHALL BE SAFE AND SHALL NOT BE GREATER THAN THE LIMITS SPECIFIED BY LOCAL, STATE, AND NATIONAL SAFETY REGULATIONS. CONTRACTOR SHALL PROTECT CUT SLOPES AS NECESSARY IF CONSTRUCTION OCCURS DURING WET WEATHER, AND SHALL CONTROL AND MANAGE RUNOFF TO MINIMIZE EFFECTS ON CONSTRUCTION.

27. DESIGN SOIL CAPACITIES ARE DETERMINED BY THE GEOTECHNICAL ENGINEER. THE SOIL PRESSURES INDICATED ON THE SOIL PRESSURE DIAGRAM WERE USED FOR DESIGN, IN ADDITION TO THE DEAD AND LIVE LOADS. SEE REPORT OF GEOTECHNICAL INVESTIGATION FOR MORE COMPLETE INFORMATION, INCLUDING RECOMMENDATIONS FOR SHORING IN GENERAL, SHORING MONITORING, EXCAVATION, LAGGING, AND DRAINAGE.

28. SOIL DESIGN PARAMETERS ARE AS FOLLOWS:

LATERAL EARTH PRESSURES	E.F.P.
ACTIVE EARTH PRESSURE (LEVEL BACKFILL)	35 PCF
ACTIVE EARTH PRESSURE (1:1 BACKFILL)	45 PCF
SEISMIC SURCHARGE PRESSURE (UNIFORM LOAD)	6H PSF
PASSIVE EARTH PRESSURE (INCLUDES FS=1.5)	200 PCF
ALLOWABLE BEARING PRESSURE	20 KSF
ALLOWABLE SKIN FRICTION	1.0 KSF

29. SHORING DURATION: BOTH TEMPORARY AND PERMANENT SHORING IS USED. REFER TO THE PLANS FOR PILE TYPE. THE CONSTRUCTION OF THE PERMANENT STRUCTURE SHALL COMMENCE IMMEDIATELY AFTER THE SHORING IS INSTALLED AND THE BULK EXCAVATION IS COMPLETE.

CONCRETE

30. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905, 1906, AND ACI 301. STRENGTHS AT 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS:

f'c (psi)	Minimum Cement Per Cubic Yard	Max. Water Per 94 LB Cement	Use
-----	1-1/2 sacks	-----	pile & tieback lean concrete
3,000	9 sack pumpable mix	-----	pile & tieback structural grout

31. THE MINIMUM AMOUNTS OF CEMENT MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL 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 SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 301. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE PAID BY THE GENERAL CONTRACTOR. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

32. CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD CYLINDER TESTS, UNLESS APPROVED OTHERWISE. REQUIRED ULTIMATE COMPRESSIVE STRENGTH OF STRUCTURAL GROUT SHALL BE REACHED BY 5 DAYS FOR TIEBACKS AND 28 DAYS FOR PILES AND FOUNDATIONS.

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

STEEL

34. STEEL SPECIFICATIONS: DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC MANUAL, AISC 360 AND SECTION 2205 OF THE BUILDING CODE.

35. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER	ASTM SPECIFICATION	FY
WIDE FLANGE SHAPES	A992	50 KSI
OTHER SHAPES, PLATES, AND RODS	A36	36 KSI
CONNECTION BOLTS	A325N BEARING TYPE (SNUG TIGHT)	
HEADED SHEAR STUDS	A108	

36. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT 20 DEGREES F AND 40 FT-LBS AT 70 DEGREES F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

37. UNLESS OTHERWISE REQUIRED BY THE MANUFACTURER, STEEL PROVIDED FOR TEMPORARY SHORING REQUIRES NO CORROSION PROTECTION.

38. STEEL PROVIDED FOR PERMANENT SHORING SHALL BE GALVANIZED OR PAINTED BLACK FOR CORROSION RESISTANCE.

PILE LAGGING AND CONSTRUCTION

39. DEMOLITION: SHORING AND SOIL EXCAVATION SHALL BE DONE SIMULTANEOUSLY.

40. DIMENSIONS AND LOCATION OF EXISTING STRUCTURES SHALL BE VERIFIED PRIOR TO FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBER. NOTIFY ENGINEER ABOUT ANY DISCREPANCIES PRIOR TO FABRICATION.

41. PILE AND ANCHOR HOLES SHALL BE DRILLED WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES AND ANCHORS. THIS MAY INVOLVE CASING THE HOLES OR OTHER METHODS OF PROTECTION FROM CAVING. REFER TO REPORT OF GEOTECHNICAL INVESTIGATION FOR RECOMMENDED HOLE DIGGING PROCEDURE.

42. AUGERCAST PILE PLACEMENT: ALTERNATE PILES SHALL BE PLACED AND COMPLETED SO THAT AT LEAST 24 HOURS IS ALLOWED FOR THE CONCRETE TO SET PRIOR TO DRILLING ADJACENT PILES.

43. STEEL PILE PLACEMENT TOLERANCES:

    1" INSIDE PERPENDICULAR TO SHORING WALL.
    1" OUTSIDE PERPENDICULAR TO SHORING WALL.
    3" LATERALLY.
    1" IN ANY DIRECTION

44. ALL SHORING PILES IN CITY RIGHT-OF-WAY SHALL BE REMOVED A MINIMUM OF 4 FEET BELOW FINISHED GRADE, UPON COMPLETION OF THE PROJECT.

45. LAGGING: CONCRETE LAGGING SHALL BE INSTALLED IN ALL AREAS. VOIDS BETWEEN LAGGING AND SOIL SHALL BE BACKFILLED WITH PEA GRAVEL OR LEAN MIX FILL. DRAINAGE BEHIND THE WALL MUST BE MAINTAINED. IT IS CONTRACTOR'S RESPONSIBILITY TO LIMIT THE AMOUNT OF EXPOSED SOIL WITHOUT LAGGING TO AVOID LOSS OF SOIL. MAXIMUM HEIGHT OF 4 FEET IS RECOMMENDED. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO AVOID GROUND LOSS DURING EXCAVATION.

STRUCTURAL ENGINEERING
2124 Third Avenue - Suite 100 - Seattle, WA 98121
p: 206.443.6212 ssfengineers.com
934 Broadway - Tacoma, WA 98402
p: 253.284.9470 ssfengineers.com

DAN J. SAY — STATE OF WASHINGTON — 23000 — REGISTERED PROFESSIONAL ENGINEER

DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Permit Corrections	Apr. 19, 2022
2	Permit Corrections 2	Nov. 17, 2022

DPD:

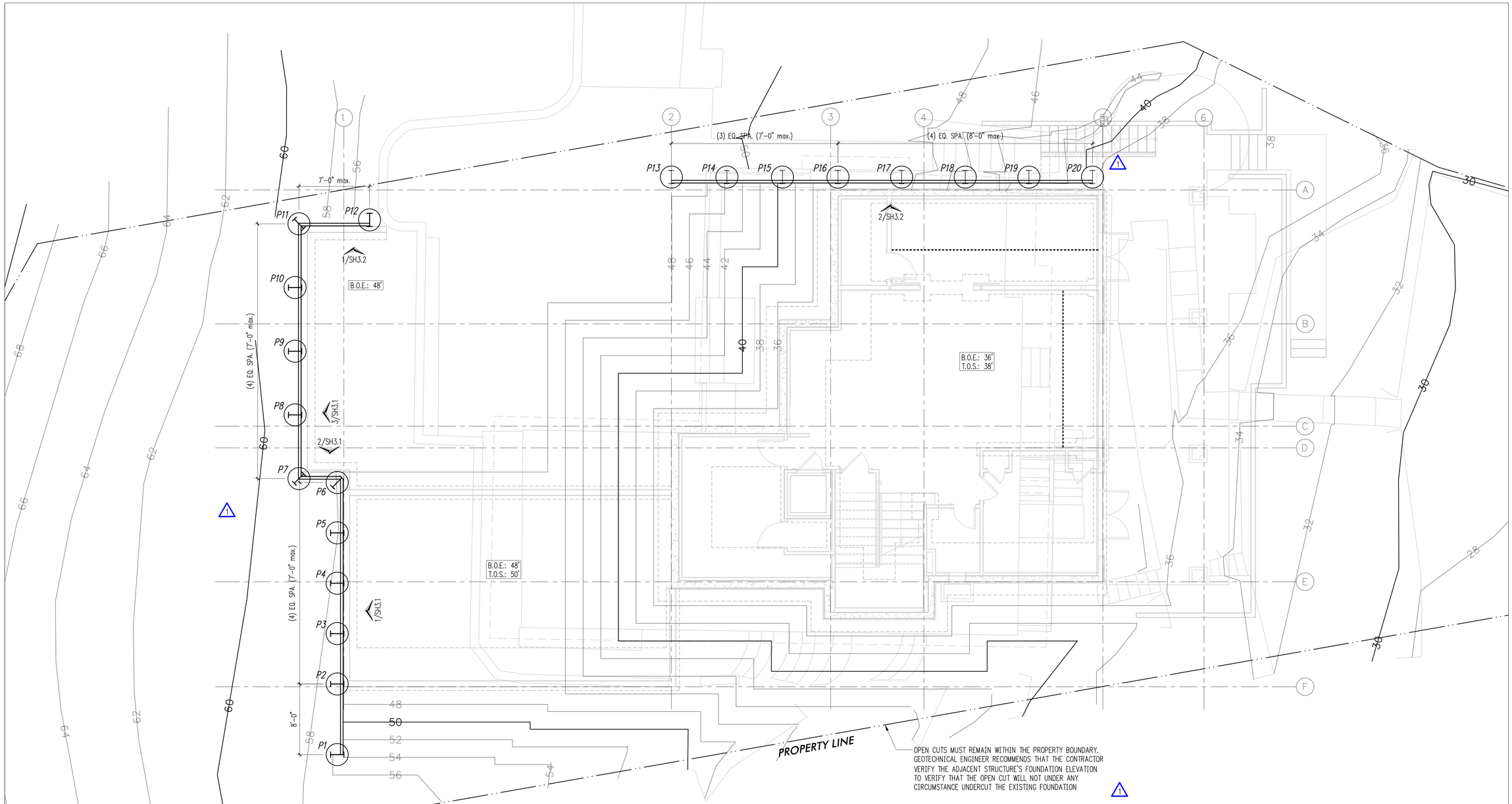
PROJECT TITLE:
Huber Residence
9611 SE 72nd Street
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850
brandtdesigninc.com

ISSUE: PERMIT

SHEET TITLE: General Shoring Notes

SCALE: -
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: SH1.1



Shoring Plan

Scale: 3/16" = 1'-0"

Plan Notes

1. DO NOT SCALE DRAWINGS. DIMENSIONS AND EXISTING ELEVATIONS ARE ESTIMATED AND ARE SHOWN FOR BID PURPOSES. DIMENSIONS AND ELEVATIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
2. REFER TO SHEETS SH3.1 AND SH3.2 FOR SHORING WALL ELEVATIONS.
3. GRADING MUST BE STABILIZED BY OCTOBER 31ST, AN NO EXCAVATION OR FILL PLACEMENT CAN BE PERFORMED BETWEEN OCTOBER 31ST AND APRIL 1ST WITHOUT WRITTEN PERMISSION FROM THE GEOTECHNICAL SPECIAL INSPECTOR.
4. SHORING DESIGN IS BASED ON THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. ACTIVE AND PASSIVE LATERAL EARTH DESIGN CRITERIA FOR PERMANENT SHORING ARE AS INDICATED IN DETAILS 3/SH4.1 AND 4/SH4.1. DESIGN CRITERIA TO BE CONFIRMED BY THE PROJECT GEOTECHNICAL ENGINEER. MAXIMUM ALLOWED PILE DESIGN DEFLECTION = 1".
5. OBSTRUCTIONS MAY BE ENCOUNTERED DURING EXCAVATION AND SHORING/PILE INSTALLATION. NOTIFY ENGINEER OF RECORD IF OBSTRUCTIONS ARE ENCOUNTERED.
6. FOR EACH PILE UTILIZING LEAN CONCRETE, THE REQUIRED VOLUME OF GROUT SHALL BE CALCULATED PRIOR TO AND MONITORED DURING INSTALLATION. GROUT OPERATIONS SHALL BE STOPPED IF THE PUMPED GROUT VOLUME EXCEEDS THE CALCULATED GROUT VOLUME BY 10%.
7. REFER TO THE GENERAL SHORING NOTES ON SHEET SH1.1 FOR ADDITIONAL REQUIREMENTS.

Legend

Px	PILE PER SCHEDULE, 12/SH4.1
B.O.E.	BOTTOM OF EXCAVATION
T.O.S.	TOP OF SLAB

STRUCTURAL ENGINEERING

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934 Broadway - Tacoma, WA 98402
p: 253.284.9470 ssfengineers.com

DAN J. SAY — STATE OF WASHINGTON — 53000 — REGISTERED PROFESSIONAL ENGINEER

DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Permit Corrections	Apr. 19, 2022
2	Permit Corrections 2	Nov. 17, 2022

DPD:

PROJECT TITLE:

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Mercer Island, WA 98040

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Seattle, WA 98121
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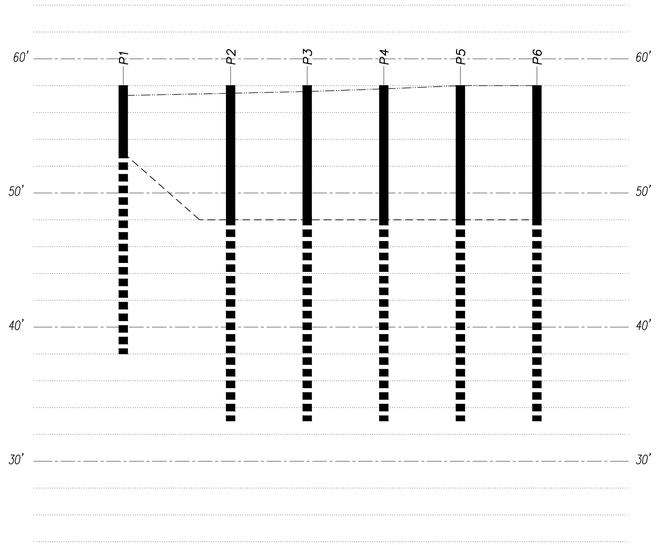
ISSUE: PERMIT

SHEET TITLE: Shoring Plan

SCALE: 3/16" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: SH2.1

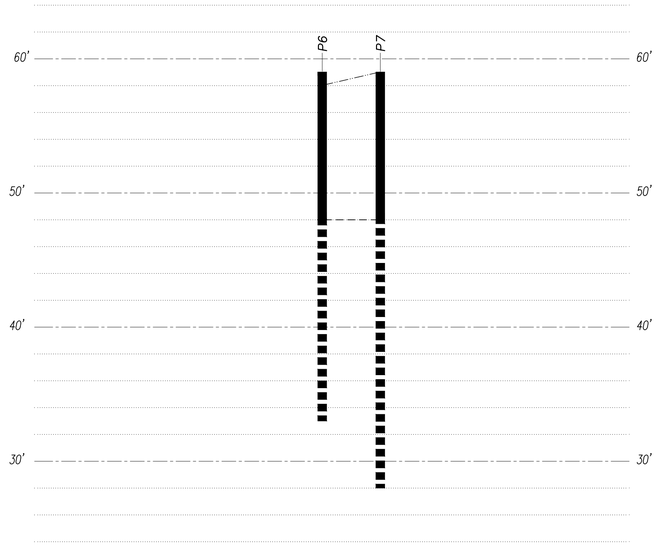


West Shoring Elevation 1

LOOKING WEST
Scale: 3/16" = 1'-0"

Legend

- APPROXIMATE TOP OF GRADE
- BOTTOM OF EXCAVATION
- Px — STEEL PILE PER PLAN/SCHEDULE
- CONCRETE LAGGING

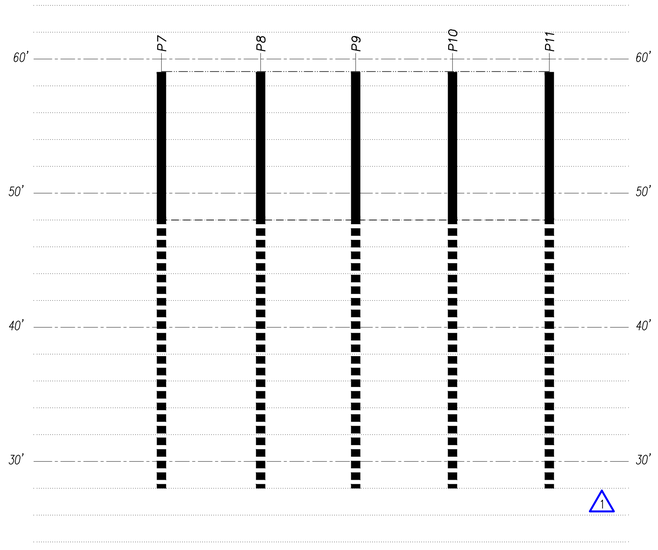


South Shoring Elevation 2

LOOKING SOUTH
Scale: 3/16" = 1'-0"

Legend

- APPROXIMATE TOP OF GRADE
- BOTTOM OF EXCAVATION
- Px — STEEL PILE PER PLAN/SCHEDULE
- CONCRETE LAGGING



West Shoring Elevation 3

LOOKING WEST
Scale: 3/16" = 1'-0"

Legend

- APPROXIMATE TOP OF GRADE
- BOTTOM OF EXCAVATION
- Px — STEEL PILE PER PLAN/SCHEDULE
- CONCRETE LAGGING

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DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

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ARCHITECT:
Brandt Design Group
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Seattle, WA 98121
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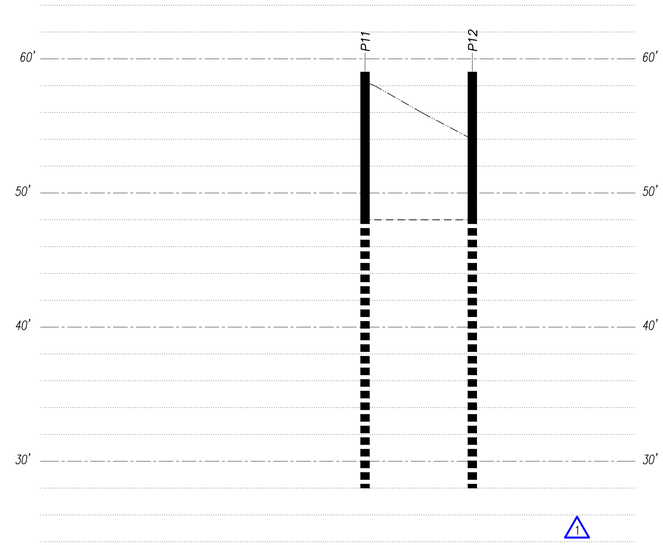
ISSUE:
PERMIT

SHEET TITLE:
Shoring Elevations

SCALE: 3/16" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO:

SH3.1



1

Legend

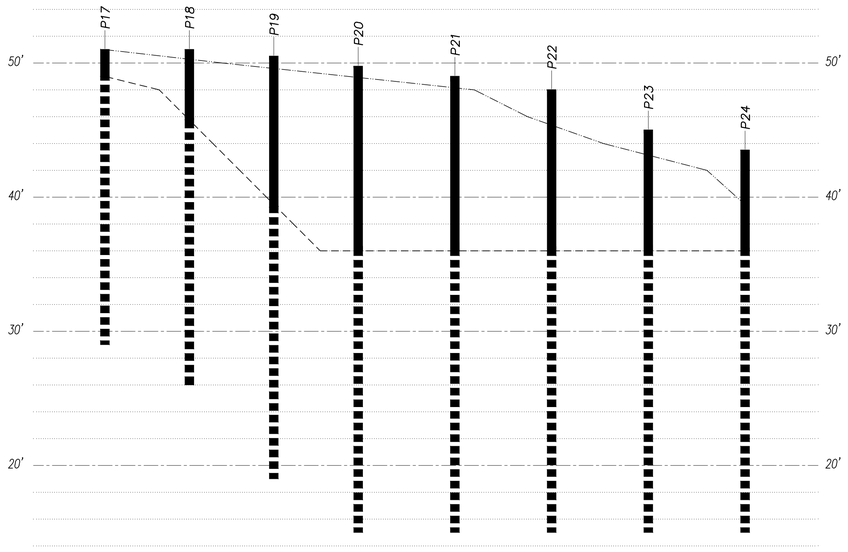
- APPROXIMATE TOP OF GRADE
- BOTTOM OF EXCAVATION
- Px — STEEL PILE PER PLAN/SCHEDULE
- CONCRETE LAGGING

North Shoring Elevation 1

LOOKING NORTH
Scale: 3/16" = 1'-0"

1

1



Legend

- APPROXIMATE TOP OF GRADE
- BOTTOM OF EXCAVATION
- Px — STEEL PILE PER PLAN/SCHEDULE
- CONCRETE LAGGING

North Shoring Elevation 2

LOOKING NORTH
Scale: 3/16" = 1'-0"

1

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DAN J. SAY — STATE OF WASHINGTON — 53000 — REGISTERED PROFESSIONAL ENGINEER

DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

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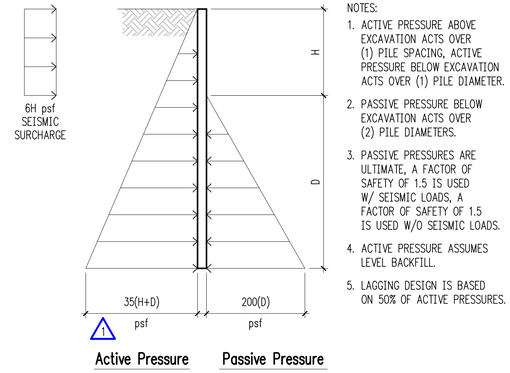
ISSUE: PERMIT

SHEET TITLE: Shoring Elevations

SCALE: 3/16" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: SH3.2

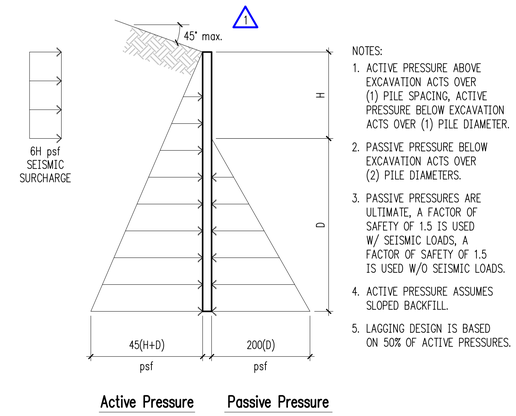
1

2



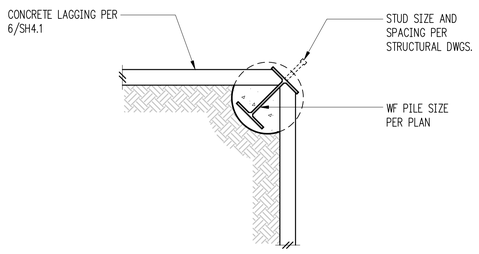
NOTES:
1. ACTIVE PRESSURE ABOVE EXCAVATION ACTS OVER (1) PILE SPACING, ACTIVE PRESSURE BELOW EXCAVATION ACTS OVER (1) PILE DIAMETER.
2. PASSIVE PRESSURE BELOW EXCAVATION ACTS OVER (2) PILE DIAMETERS.
3. PASSIVE PRESSURES ARE ULTIMATE, A FACTOR OF SAFETY OF 1.5 IS USED W/ SEISMIC LOADS, A FACTOR OF SAFETY OF 1.5 IS USED W/O SEISMIC LOADS.
4. ACTIVE PRESSURE ASSUMES LEVEL BACKFILL.
5. LAGGING DESIGN IS BASED ON 50% OF ACTIVE PRESSURES.

Cantilever Pile Diagram 3

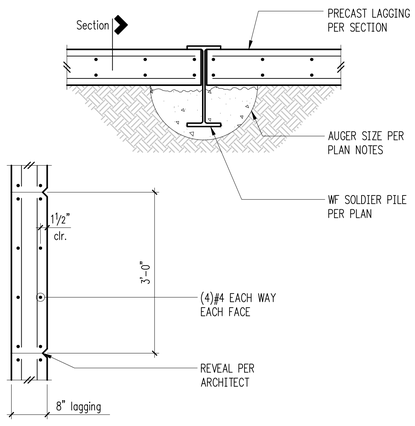


NOTES:
1. ACTIVE PRESSURE ABOVE EXCAVATION ACTS OVER (1) PILE SPACING, ACTIVE PRESSURE BELOW EXCAVATION ACTS OVER (1) PILE DIAMETER.
2. PASSIVE PRESSURE BELOW EXCAVATION ACTS OVER (2) PILE DIAMETERS.
3. PASSIVE PRESSURES ARE ULTIMATE, A FACTOR OF SAFETY OF 1.5 IS USED W/ SEISMIC LOADS, A FACTOR OF SAFETY OF 1.5 IS USED W/O SEISMIC LOADS.
4. ACTIVE PRESSURE ASSUMES SLOPED BACKFILL.
5. LAGGING DESIGN IS BASED ON 50% OF ACTIVE PRESSURES.

Cantilever Pile With Slope Diagram 4



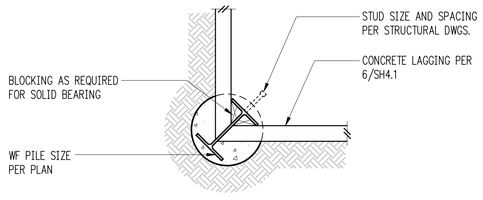
Auger Pile - Outside Corner 5



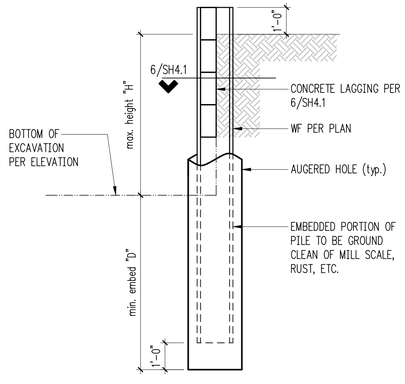
Soldier Pile 6

7

8



Auger Pile - Inside Corner 9



Cantilever Pile 10

11

Pile Schedule

MARK	AUGER DIA. (min.)	WIDE FLANGE SIZE	MAX. HEIGHT H	MIN. EMBED D	TEMP. OR PERM.
P1	30"ø	W14x43	10'-0"	15'-0"	T
P2-P6	30"ø	W14x43	10'-0"	15'-0"	P
P7-P12	30"ø	W16x89	12'-0"	20'-0"	P
P13-P15	30"ø	W16x36	10'-0"	14'-3"	T
P16-P20	30"ø	W18x65	13'-0"	18'-6"	P

1

12

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DYAN J. SAY — STATE OF WASHINGTON — 43000 — REGISTERED PROFESSIONAL ENGINEER

DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Permit Corrections	Apr. 19, 2022
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DPD:

PROJECT TITLE:
Huber Residence
9611 SE 72nd Street
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850
brandtdesigninc.com

ISSUE: PERMIT

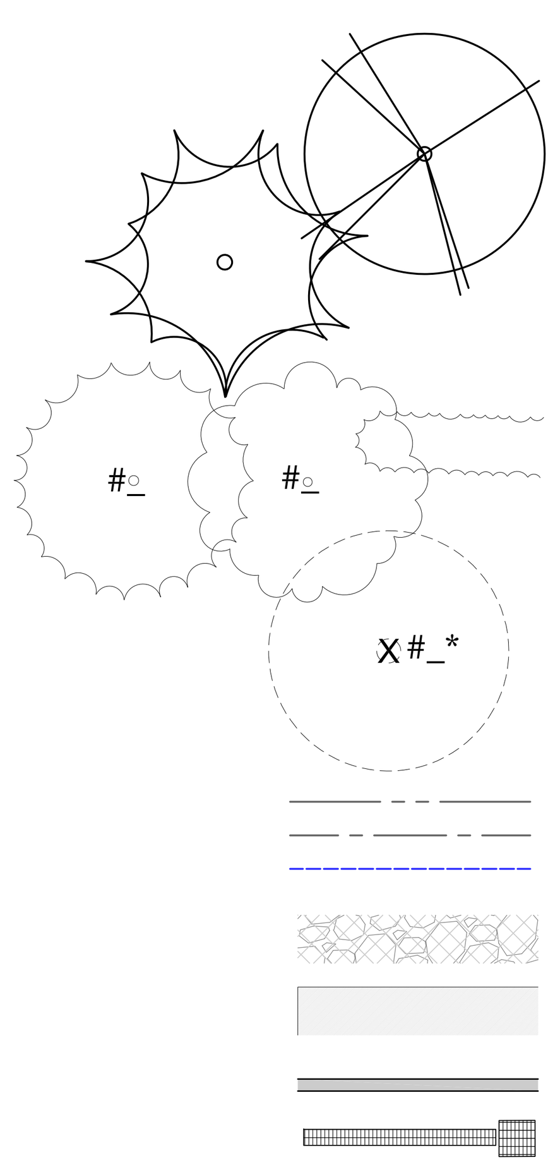
SHEET TITLE: Shoring Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: SH4.1

3 | L 1.1 Detail: Exterior handrails
Scale: ½" = 1'

1 | L 1.1 Site plan: new landscape hardscape features

0 8 16 24 feet



SITE PLAN LEGEND

Replacement Tree *Acer palmatum* / Japanese Maple	4	2" caliper
Replacement Tree *Chamaecyparis n.* 'Pendula' / Weeping Alaska Cedar	4	3' - 4' height

Existing vegetation to remain. See arborist report for tree data. See C100 & AD100 for tree protection.

Trees to be removed: 4. Per Arborist's report: #7 is dual stem 8" & 19.5" DSH (#7 is non-viable short term and per Arborist doesn't require replacement mitigation*), #8 is 28" DSH (3:1 replacement ratio), #9 is 24.5" DSH (3:1 replacement ratio), #16 is 10" DSH (2:1 replacement ratio).

Property Line
Setback Line
Ordinary High Water Line

Rockery to remain

New Landscape Hardscape (patio, stairs, landing, walk). See 2|L1.1 for uncovered hardscape data

New Concrete walls. See Civil plans for grades and Structural plans for details.

New catch basin and strip drain. See Civil plans for storm water control data.

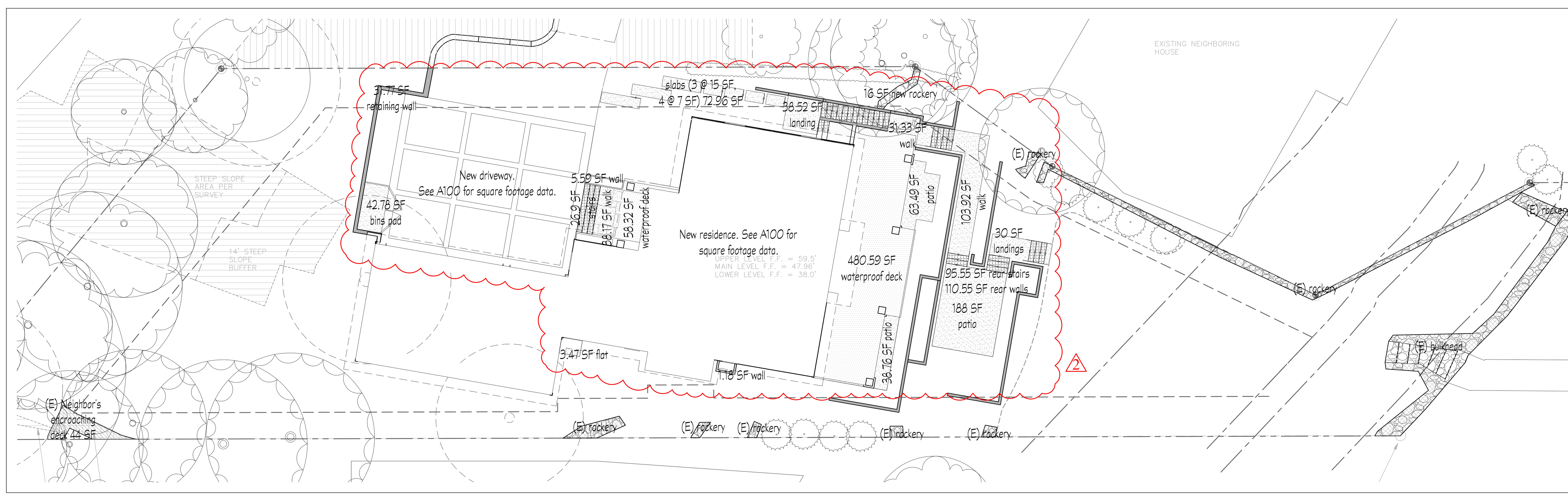
NOTES
* See Arborist report for tree data and recommendations.

EXISTING LOT AREA SUMMARY

16,175 SF lot w/ 21.4% average slope
High point 75' - low point 18.6' = 56.4' / 263.15' between = 21.4% av. slope.
35% lot coverage allowed (house & driving surface) = 5,661.25 SF

NOTES

1. The site plan used to create this drawing was provided by Brandt Design Group Architects. Includes survey 13043-T (rev 09-01-2021) by Terrane. Base drawings have been modified for visual clarity.
2. See 2|L1.1 for Proposed uncovered Hardscape in Landscape area data.
3. See sheets AD100 & A100 for additional project data & square footage calculations.
4. See Civil plans for site protection (TESC), storm water control, and grading data.
5. (19.13.020.a) Legal nonconforming uses and structures may continue.
6. All exterior handrails @ 3'-0" above stair nosings, per IRC R311.7.8.



2 | L 1.1 Proposed Hardscape Square Footage Data
NTS

Proposed Uncovered Hardscape

(E) Hardscape to remain
44 SF (E) neighbor's encroaching deck
63 SF dock steps/overland dock
485 SF (E) rockery & bulkhead
592 SF total to remain

(N) Added Hardscape
122.45 SF stairs
1,190.31 SF flatwork (waterproof deck, walks, landings, patios)
149.09 SF walls
16 SF rockery
1,477.85 SF total added

(592 SF + 1,477.85 SF) = 2,069.85 SF total proposed
2,069.85 / 16,175 x 100 = 12.8% of lot area

Allowed Hardscape*
w/ in 60% landscaping, 9% hardscape allowed: 1,455.75 SF

Per MICC 19.02.020(F)(3)(b)(ii), hardscape improvements are permitted in the maximum lot coverage area.
5,661.25 SF allowed lot coverage - 4,542.75 SF proposed = 1,118.5 SF remaining.
1,118.5 + 1,455.75 = 2,574.25 SF max. hardscape allowed

*for additional project data see Architectural & Civil sheets

SCALE:	PER_DWG
REVISED:	03-25-2022
REVISED: 2	10-17-2022
REVISED:	
REVISED:	
DRAWN BY:	ML
CHECKED BY:	JB
DATE:	09-16-2021

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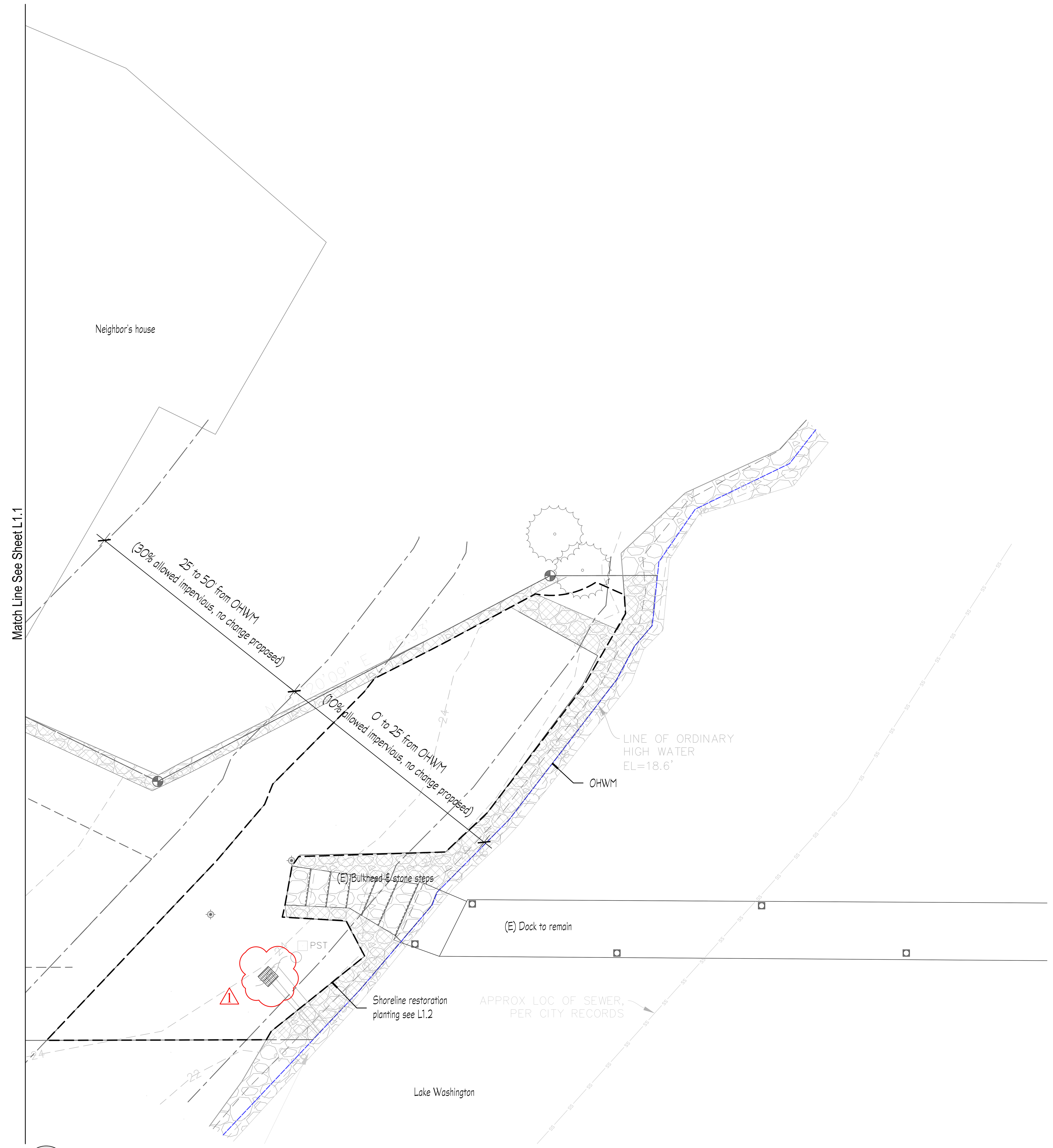
HUBER RESIDENCE

Landscape Plan: Site Plan, page 1 of 2
9611 SE 72nd street, Mercer Island, WA 98040

SHEET
L 1.1



1 | L1.2 Site plan: new landscape hardscape features

0 8 16 24 feet

N

SITE PLAN LEGEND

Replacement Tree *Acer palmatum* / Japanese Maple	4	2" caliper
Replacement Tree *Chamaecyparis n.* 'Pendula' / Weeping Alaska Cedar	4	3' - 4' height

#_ #_

Existing vegetation to remain. See arborist report for tree data. See C100 & AD100 for tree protection.

X #_*

Trees to be removed: 4. Per Arborist's report: #7 is dual stem 8" & 19.5" DSH (#7 is non-viable short terr and per Arborist doesn't require replacement mitigation*), #8 is 28" DSH (3:1 replacement ratio), #9 is 24 DSH (3:1 replacement ratio), #16 is 10" DSH (2:1 replacement ratio).

Property Line
Setback Line
Ordinary High Water Line

Rockery to remain

New Landscape Hardscape (patio, stairs, landing, walk). See 2|L1.1 for uncovered hardscape data

New Concrete walls. See Civil plans for grades and Structural plans for details.

New catch basin and strip drain. See Civil plans for storm water control data.

NOTES

* See Arborist report for tree data and recommendations.

EXISTING LOT AREA SUMMARY

16,175 SF lot w/ 21.4% average slope
High point 75' - low point 18.6' = 56.4' / 263.15' between = 21.4% av. slope.
35% lot coverage allowed (house & driving surface) = 5,661.25 SF

Impervious coverage in the shoreline setbacks
OHWM to 25' (10% allowed)
1449 SF total area (10% = 145 SF allowed)
315 SF existing bulkhead, stone steps, rockery (21.7%. No change proposed).
Non-conforming impervious allowed; created under permit 1406-138

25' to 50' (30% allowed)
1066 SF total area (30% = 320 SF allowed)
36 SF existing rockery (3.4%. No change proposed)

NOTES

1. The site plan used to create this drawing was provided by Brandt Design Group Architects. Includes survey 13043-T (rev 09-01-2021) by Terrane. Base drawings have been modified for visual clarity.
2. See 2|L1.1 for Proposed uncovered Hardscape in Landscape area data.
3. See sheets AD100 & A100 for additional project data & square footage calculations.
4. See Civil plans for site protection (TESC), storm water control, and grading data.
5. (19.13.020.a) Legal nonconforming uses and structures may continue.
6. All exterior handrails @ 3'-0" above stair nosings, per IRC R311.7.8.

SCALE:	PER_DWG
REVISED: 1	03-25-2022
REVISED:	
REVISED:	
REVISED:	
DRAWN BY:	
CHECKED BY:	JB
DATE:	09-16-2021

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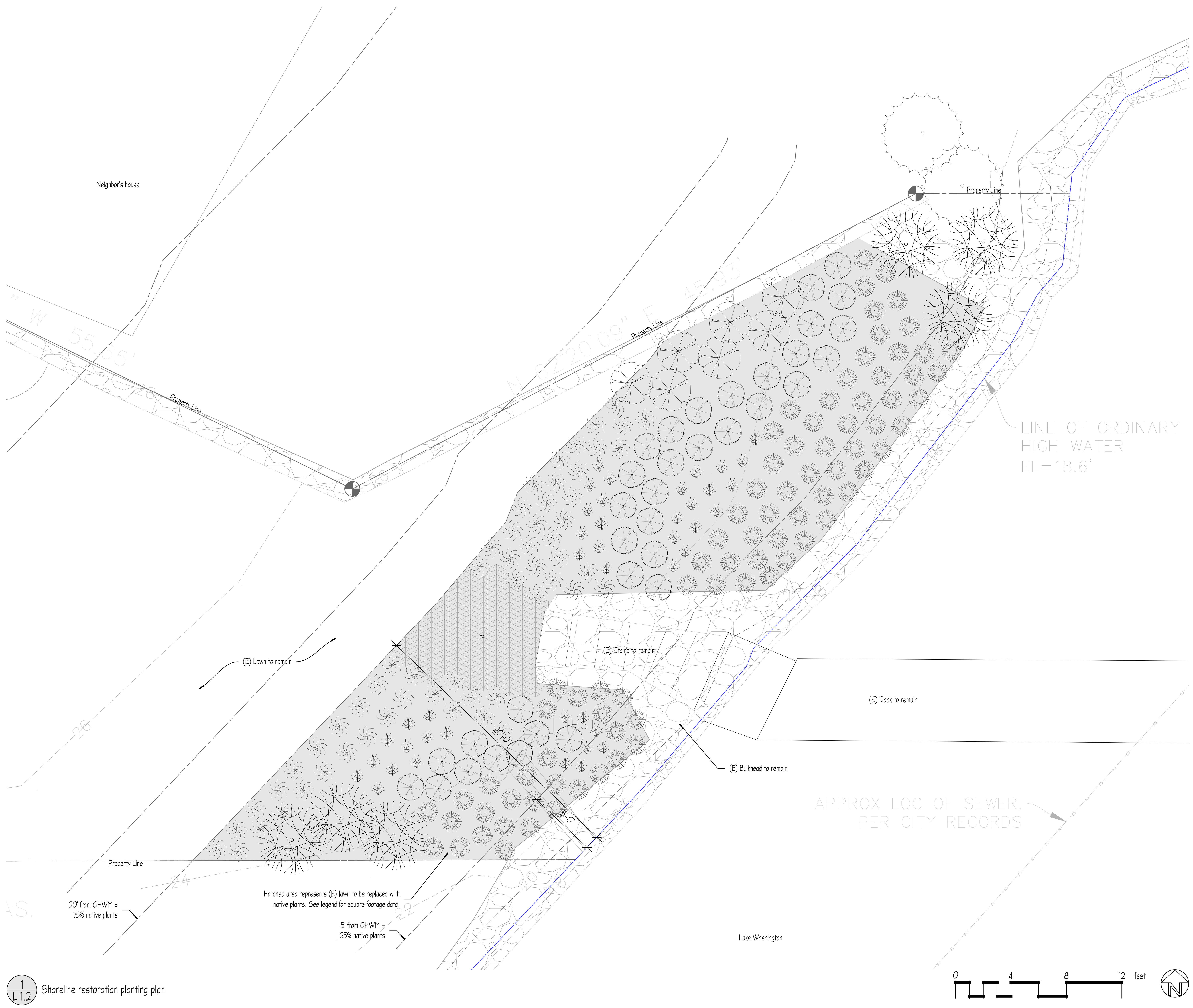
HUBER RESIDENCE

Landscape Plan: Site Plan, page 2 of 2

9611 SE 72nd street, Mercer Island, WA 98040

SHEET

L 1.2



1 / L1.2 Shoreline restoration planting plan

LEGEND (Shoreline Restoration Plants)

Name (Scientific / Common)	Quantity	Size, Notes
Cornus sericea / Red Twig Dogwood	6	5 gallon
Cornus s. 'Kelseyi' / Kelsey's Red Twig Dogwood	35	3 gal.
Symphoricarpos alba / Snowberry	7	3 gal.
Camassia quamash / Common Camas	42	1 gal.
Deschampsia cespitosa / Tufted Hairgrass	82	1 gal.
Elymus mollis / Dune Grass	57	1 gal.
Fragaria chiloensis / Beach Strawberry	36	4" pot, 16" on center
(E) *Picea glauca* 'Conica' / Dwarf Alberta Spruce to remain		

ANNOTATION

- Property Line
- Setback Line
- Ordinary High Water Line
- Contour Line (2' contours)
- (E) Rockery / bulkhead to remain

NOTES

1. The site plan used to create this drawing was provided by Brandt Design Group Architects. Includes survey 13043-T (rev 09-01-2021) by Terrane. Base drawings have been modified for visual clarity.
2. For project data see sheet A100
3. (19.13.020.a) Legal nonconforming uses and structures may continue.
4. Development proposals for a new single-family home shall remove Japanese Knotweed (Polygonum cuspidatum) and regulated Class A, regulated Class B, and regulated Class C weeds identified on the King County Noxious Weed List, as amended, from required landscaping areas established pursuant to subsection 19.02.020(F)(3)(a). New landscaping associated with new single family home shall not incorporate any weeds identified on the King County Noxious Weed List, as amended. Provided, that removal shall not be required if the removal will result in increased slope instability or risk of landslide or erosion.

SQUARE FOOTAGE DATA 19.13.050(K)(4)(i)

5' planting zone = 307 SF total
25% native vegetation coverage = 78 SF required
119 SF proposed*

20' planting zone = 1,209 SF total
75% native vegetation coverage = 902 SF required
926 SF proposed*

875 SF lawn to be removed

*Note:
Assumes some grasses will be planted within the back edge of the bulkhead rockery

SCALE:	PER_DWG
REVISED:	
REVISED:	
REVISED:	
REVISED:	
DRAWN BY:	ML
CHECKED BY:	JB
DATE:	09-16-2021

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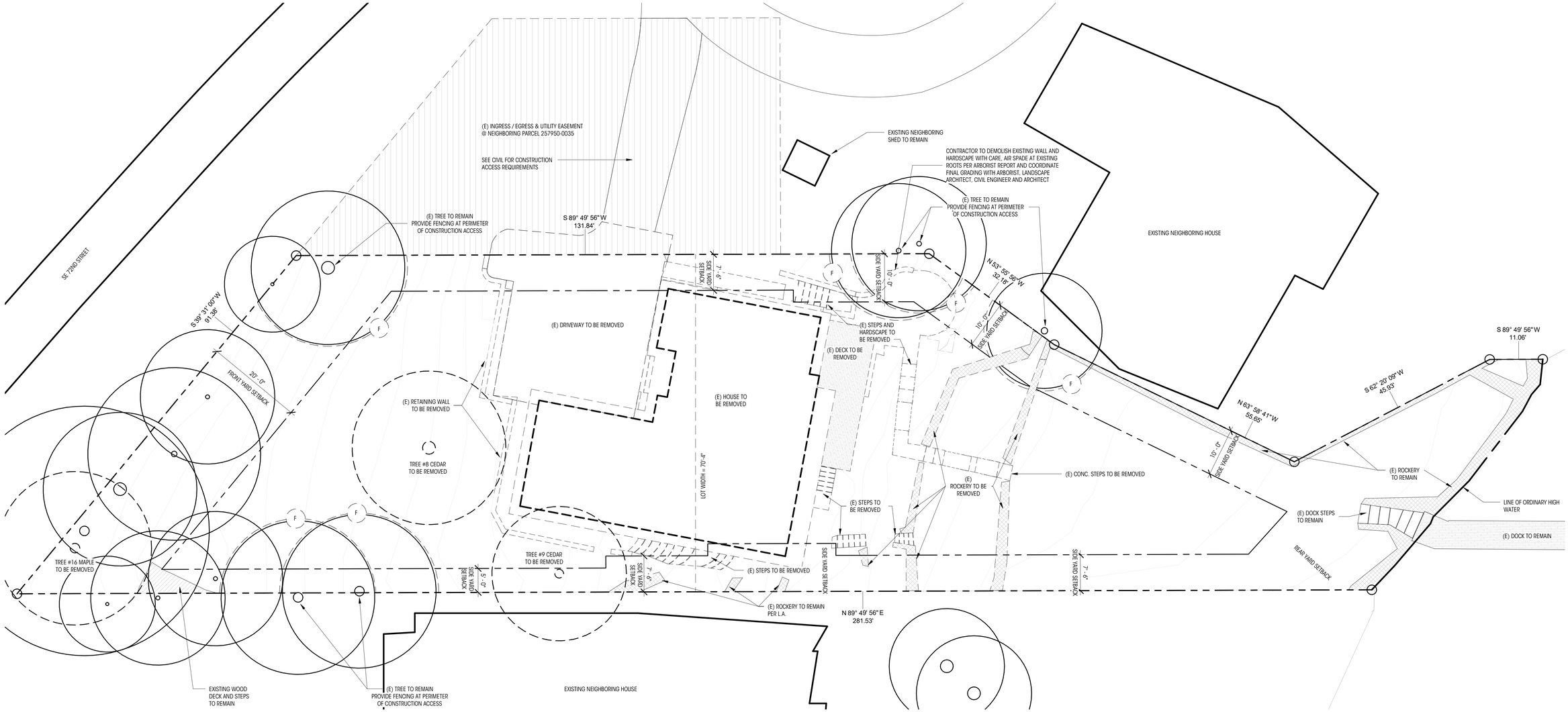
STATE OF WASHINGTON · MICHAL K LEHMANN · LICENSE NO. 1619 EXP. 08-19-2022 · LICENSED LANDSCAPE ARCHITECT

HUBER RESIDENCE

Landscape Plan: Shoreline Restoration Native Planting

9611 SE 72nd street, Mercer Island, WA 98040

SHEET
L 2.0



1 SITE DEMOLITION PLAN
1" = 10'-0"

NORTH

NOTES

1. PROPERTY LINE METES & BOUNDS ARE SHOWN PER TOPOGRAPHIC SURVEY BY TERRANE DATED 01/25/21
2. TREES AND CONTOURS ARE BASED ON TOPOGRAPHIC SURVEY BY TERRANE DATED 01/25/21

SITE DEMOLITION LEGEND

- PROPERTY LINE
- PROPERTY SETBACK LINE
- HOME TO BE REMOVED
- (E) HARDSCAPE TO BE REMOVED
- (E) DECK TO BE REMOVED
- (E) ROCKERY TO BE REMOVED
- (E) TREE TO BE DEMOLISHED
- INGRESS / EGRESS & UTILITY EASEMENT
- TREE PROTECTION FENCE
- (E) HARDSCAPE TO REMAIN
- (E) DOCK TO REMAIN
- (E) ROCKERY TO REMAIN
- (E) TREE TO REMAIN

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8843 REGISTERED ARCHITECT STATE OF WASHINGTON

HUBER RESIDENCE

9611 SE 72ND ST.
MERCER ISLAND, WA 98040

PERMIT SET

DATE: 9/17/21
SHEET SIZE: D (24X36)

REVISIONS

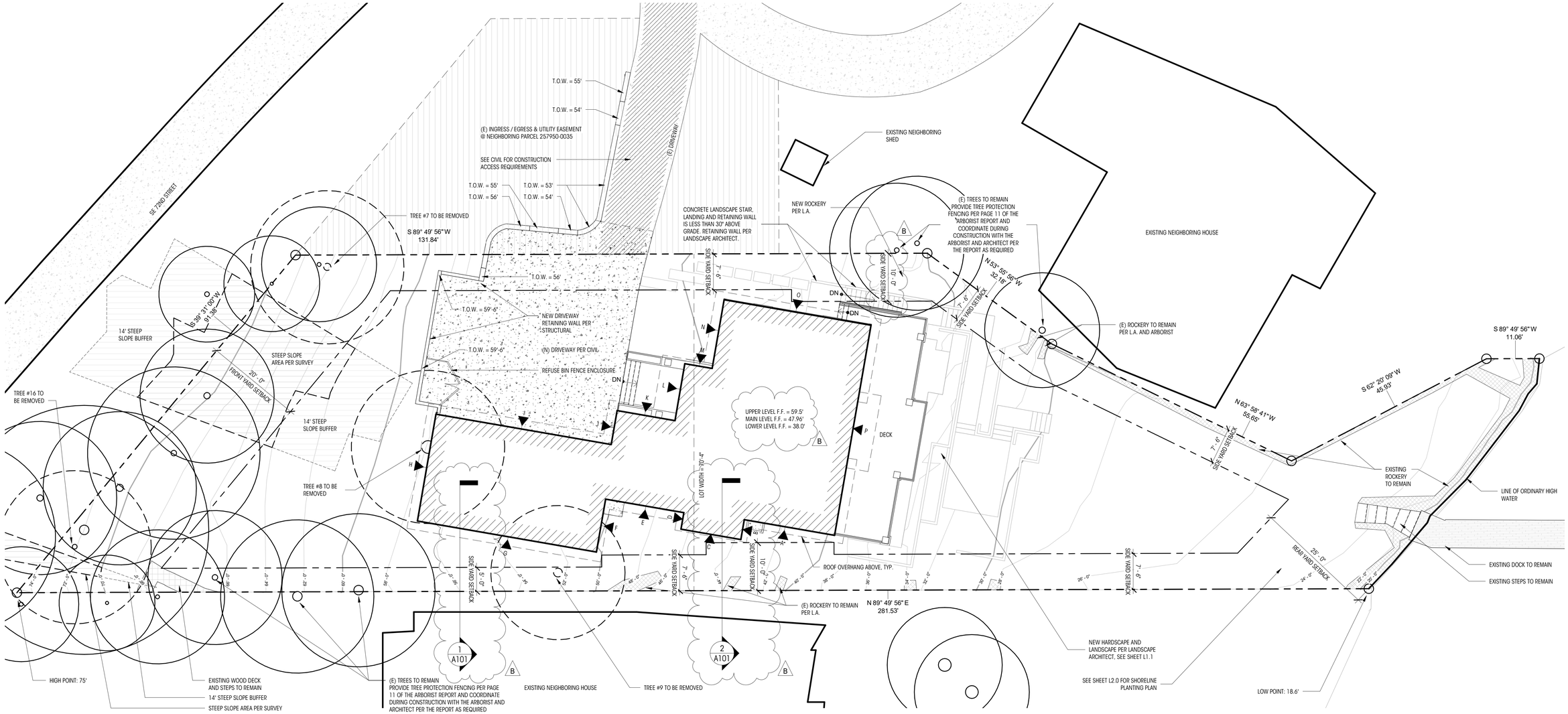
NO.	DESCRIPTION	DATE

DRAWN BY:
CHECKED BY:

SITE DEMOLITION PLAN

SCALE: As indicated

AD100



1 SITE PLAN
1" = 10'-0"

NORTH

NOTES

1. PROPERTY LINE METES & BOUNDS ARE SHOWN PER TOPOGRAPHIC SURVEY BY TERRANE DATED 01/25/21
2. TREES AND CONTOURS ARE BASED ON TOPOGRAPHIC SURVEY BY TERRANE DATED 01/25/21

SITE PLAN LEGEND

- PROPERTY LINE
- SETBACK LINE
- ROOF OVERHANG
- CONTOUR MAJOR
- CONTOUR MINOR
- (E) TREE TO REMAIN
- (E) TREE TO BE REMOVED
- (N) TREE PER L.A.
- (N) HOUSE FOOTPRINT
- (E) ROCKERY
- (E) CONCRETE DRIVE
- (E) PATIO/WALKWAYS
- (E) CONCRETE SITE WALL
- (E) DOCK TO REMAIN
- (E) DECK/STEPS TO REMAIN
- INGRESS / EGRESS & UTILITY EASEMENT
- STEEP SLOPE HAZARD AREA
- STEEP SLOPE BUFFER AREA
- CONSTRUCTION ACCESS
- (N) CONCRETE DRIVE/PAVING
- (N) CONCRETE SITE WALL
- SPOT ELEVATION
- AVERAGE BUILDING ELEVATIONS

ZONING DATA

EXISTING LOT AREA SUMMARY

GROSS LOT AREA	16,175 SF
ACCESS EASEMENTS	0 SF
NET LOT AREA	16,175 SF
LOT SLOPE	56.4' / 263.15' = 21.4%

TREE REMOVAL

(E) TREES TO BE REMOVED	4
(N) TREES TO BE PLANTED AS REPLACEMENT	10

LOT COVERAGE

(N) BUILDING ROOF, GARAGE, AND COVERED DECK	3,206.30 SF
(N) DRIVING SURFACES	1,336.45 SF
(N) TOTAL LOT COVERAGE	**4,542.75 SF = 28.1% OF LOT AREA**
ALLOWABLE LOT COVERAGE = 35%	16,175 SF X 0.35 = 5,661.25 SF

EXISTING HARDSCAPE

STAIRS	314 SF
PATIOS/ WALKWAY	767 SF
NEIGHBOR'S ENCROACHING DECK	44 SF
DOCK STEPS/ OVERLAND DOCK	63 SF
SITE WALL	128 SF
ROCKERY	685 SF
TOTAL EXISTING	**2,001 SF = 12.4% OF LOT AREA**

DEMOLISHED HARDSCAPE

STAIRS	314 SF
PATIOS/ WALKWAY	767 SF
SITE WALL	128 SF
ROCKERY	200 SF
TOTAL DEMOLISHED	**1,409 SF**

PROPOSED HARDSCAPE

(E) HARDSCAPE TO REMAIN

NEIGHBOR'S ENCROACHING DECK	44 SF
DOCK STEPS/ OVERLAND DOCK	63 SF
ROCKERY	485 SF
TOTAL TO REMAIN	592 SF

(N) ADDED HARDSCAPE

STAIRS	122.45 SF
WATERPROOF DECK / PATIO / WALKWAY	1,190.31 SF
SITE WALL	149.09 SF
ROCKERY	16 SF
TOTAL ADDED	1,477.85 SF

TOTAL HARDSCAPE (592+1477.85) = **2,069.85 SF = 12.8% OF LOT AREA**
ALLOWABLE HARDSCAPE = 9% 16,175 X 0.09 = 1,455.75 SF

PER MICC 19.02.020.F.3.b.ii, HARDSCAPE IMPROVEMENTS ARE PERMITTED IN THE MAXIMUM LOT COVERAGE AREA
5,661.25 ALLOWABLE LOT COVERAGE SF - 4,542.75 PROPOSED SF = 1,118.5 SF REMAINING
1,118.5 SF + 1,455.75 = **2,574.25 HARDSCAPE SF MAX.**

NO CHANGE TO IMPERVIOUS AT SHORELINE PROPOSED, REFER TO SHEET L1.1, L1.2 AND L2.0

PROPOSED BUILDING AREA SUMMARY (GFA)

PROPOSED LOWER LEVEL	1844.43 SF
PROPOSED LOWER LEVEL BELOW GRADE (EXCLUDED PER MICC CHAPTER 19 APPENDIX B)	(1276.45 SF)
PROPOSED MAIN LEVEL	1691.14 SF
PROPOSED MAIN LEVEL - 200% MODIFIER	229.12 SF
PROPOSED COVERED DECK AREA	91.36 SF
PROPOSED UPPER LEVEL (EXCLUDES STAIR PER MICC 19.02.020.D.2.c)	1376.06 SF
PROPOSED UPPER LEVEL - 150% MODIFIER	173.58 SF
PROPOSED ATTACHED GARAGE	856.05 SF
TOTAL PROPOSED BUILDING AREA (GSF)	4,985.29 SF
ALLOWABLE GROSS FLOOR AREA = 5000 GSF OR 40%, WHICHEVER IS LESS	16,175 SF X 0.40 = 6,470 SF MAX. ALLOWABLE = 5,000 GSF

AVERAGE BUILDING ELEVATIONS (ABE)

WALL	MIDPOINT EL. (FT.)	WALL LENGTH (FT.)	PRODUCT
A	41' - 8"	19.15'	797.7
B	43' - 9"	3.44'	150.5
C	45' - 0.25"	12.77'	575.0
D	46' - 6.25"	3.44'	159.9
E	48' - 7"	16.52'	802.6
F	50' - 0"	11.19'	559.4
G	52' - 7"	37.75'	1985.0
H	57' - 8.25"	22.65'	1306.4
I	50' - 0"	36.96'	1847.9
J	50' - 0"	7.19'	359.4
K	50' - 0"	12.25'	612.5
L	50' - 0"	12.06'	603.1
M	49' - 4"	5.79'	285.7
N	49' - 7"	15.58'	772.7
O	45' - 10.5"	31.04'	1424.0
P	38' - 0"	46.15'	1753.5
TOTALS		**293.92'**	**13995.5**

AVERAGE GRADE (ABE) 13,995.5 / 293.92'= **47.617'**
MAX ALLOWABLE HEIGHT 30' ABOVE AVERAGE GRADE
MAX HT. EL./MAX BLDG. HT. **77.617'**

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HUBER RESIDENCE

9611 SE 72ND ST.
MERCER ISLAND, WA 98040

PERMIT SET

DATE: 9/17/21
SHEET SIZE: D (24X36)

REVISIONS

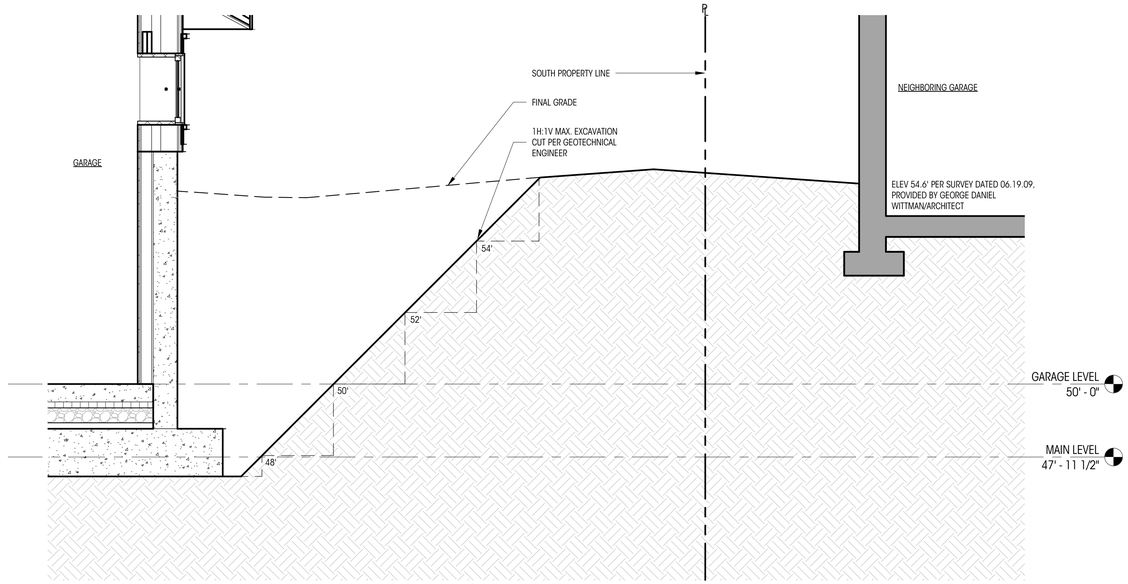
NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

DRAWN BY:
CHECKED BY:

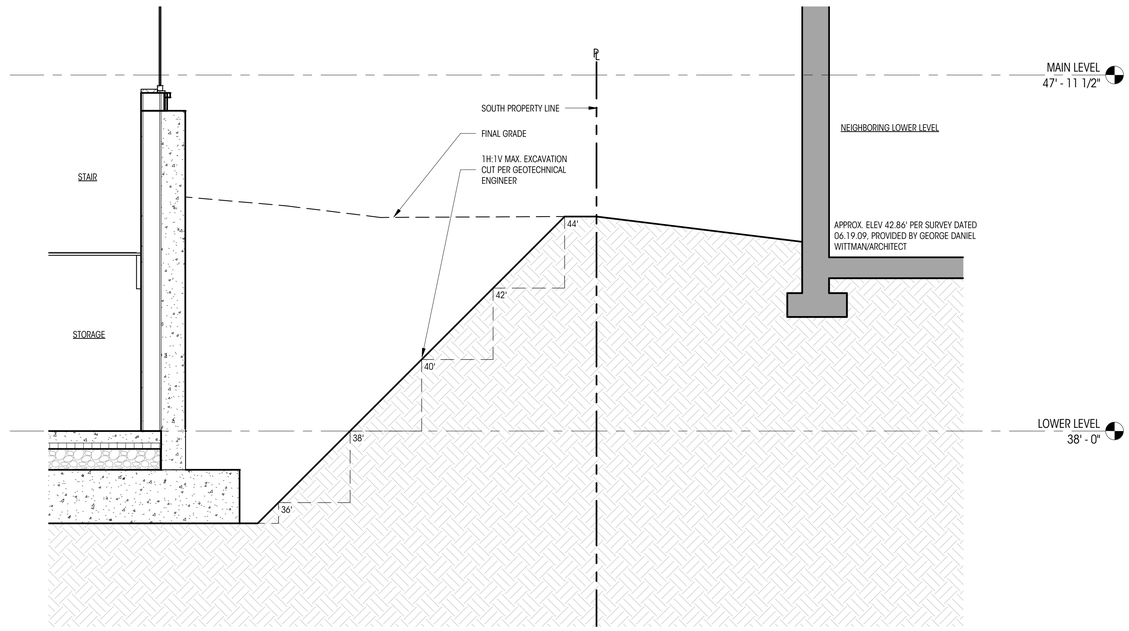
SITE PLAN

SCALE: As indicated

A100



1 DIAGRAMMATIC SHORING SECTION AT GARAGE
1/2" = 1'-0"



2 DIAGRAMMATIC SHORING SECTION AT HOUSE
1/2" = 1'-0"

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SHEET SIZE: D (24X36)

REVISIONS

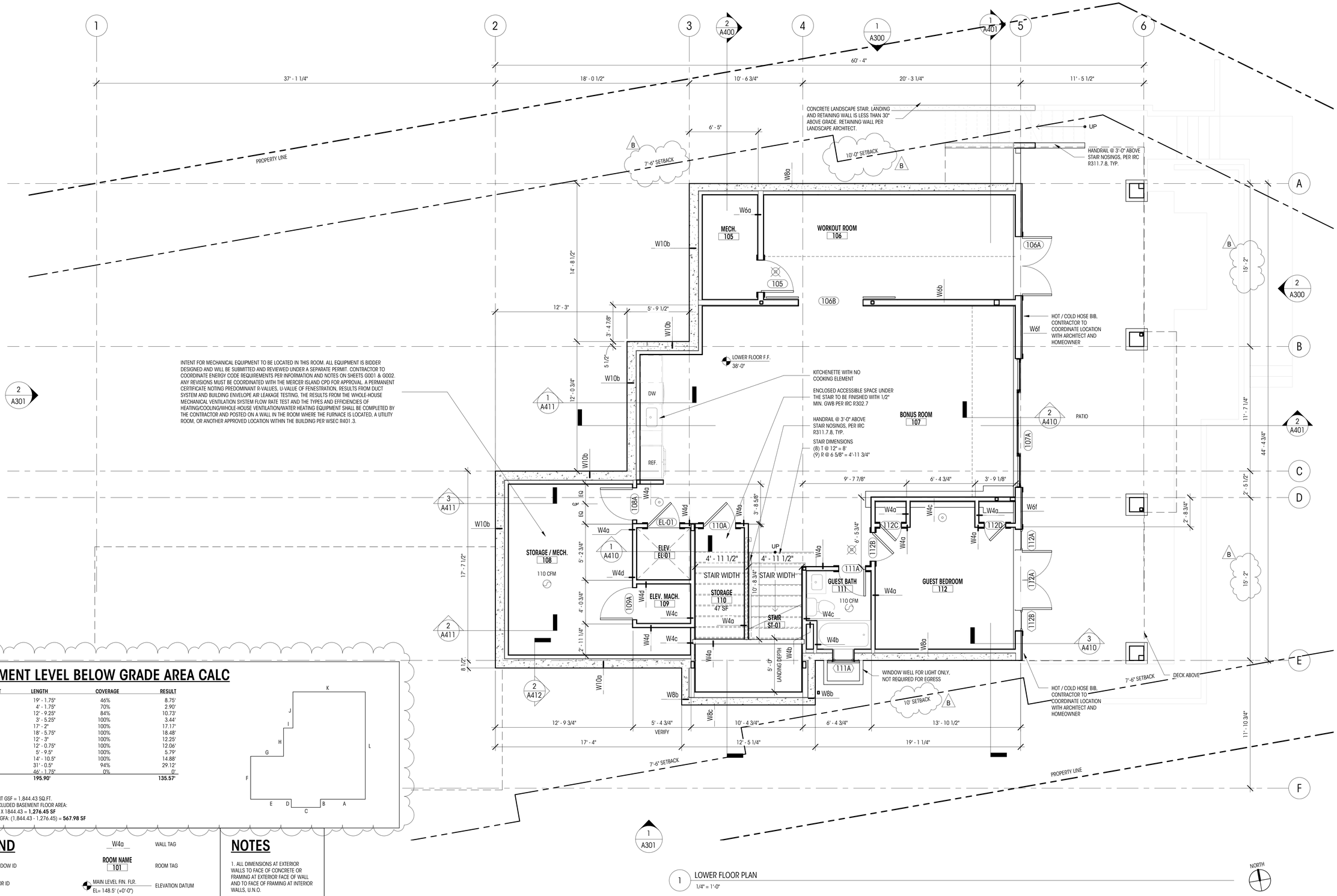
NO.	DESCRIPTION	DATE
B	PLAN CHECK 2	11.07.22

DRAWN BY:
CHECKED BY:

SITE SECTIONS

SCALE: 1/2" = 1'-0"

A101
B



BASEMENT LEVEL BELOW GRADE AREA CALC

WALL SEGMENT	LENGTH	COVERAGE	RESULT
A	19' - 1.75"	46%	8.75'
B	4' - 1.75"	70%	2.90'
C	12' - 9.25"	84%	10.73'
D	3' - 5.25"	100%	3.44'
E	17' - 2"	100%	17.17'
F	18' - 5.75"	100%	18.48'
G	12' - 3"	100%	12.25'
H	12' - 0.75"	100%	12.06'
I	5' - 9.5"	100%	5.79'
J	14' - 10.5"	100%	14.88'
K	31' - 0.5"	94%	29.12'
L	46' - 1.75"	0%	0'
TOTALS	**195.90'**		**135.57'**

TOTAL BASEMENT GSF = 1,844.43 SQ.FT.
PORTION OF EXCLUDED BASEMENT FLOOR AREA:
(135.57/195.9) X 1844.43 = **1,276.45 SF**
NET BASEMENT GFA: (1,844.43 - 1,276.45) = **567.98 SF**

LEGEND

- 200A — WINDOW ID
- 100A — DOOR ID
- 100A — FINISH ID
- SMOKE DETECTOR
- SMOKE/CARBON MONOXIDE DETECTOR
- FAN - 100 CFM U.N.O.
- HEAT DETECTOR
- W4a — WALL TAG
- ROOM NAME 101 — ROOM TAG
- MAIN LEVEL FIN. FLR. EL= 148.5' (+0'-0") — ELEVATION DATUM
- 0 — GRIDLINE
- WALL
- PROPERTY LINE
- SETBACK LINE

NOTES

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF CONCRETE OR FRAMING AT EXTERIOR FACE OF WALL AND TO FACE OF FRAMING AT INTERIOR WALLS, U.N.O.
2. ALL DIMENSIONS AT INTERIOR WALLS TO FACE OF FRAMING, U.N.O.
3. SEE SHEET G002 FOR WHOLE-HOUSE VENTILATION REQUIREMENTS AND CALCULATIONS.
4. ALL INTERIOR AND EXTERIOR STAIR NOSINGS TO MEET IRC R311.7.5.3.
5. ALL HANDRAILS TO MEET IRC R311.7.8.

1 LOWER FLOOR PLAN
1/4" = 1'-0"

NORTH

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NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

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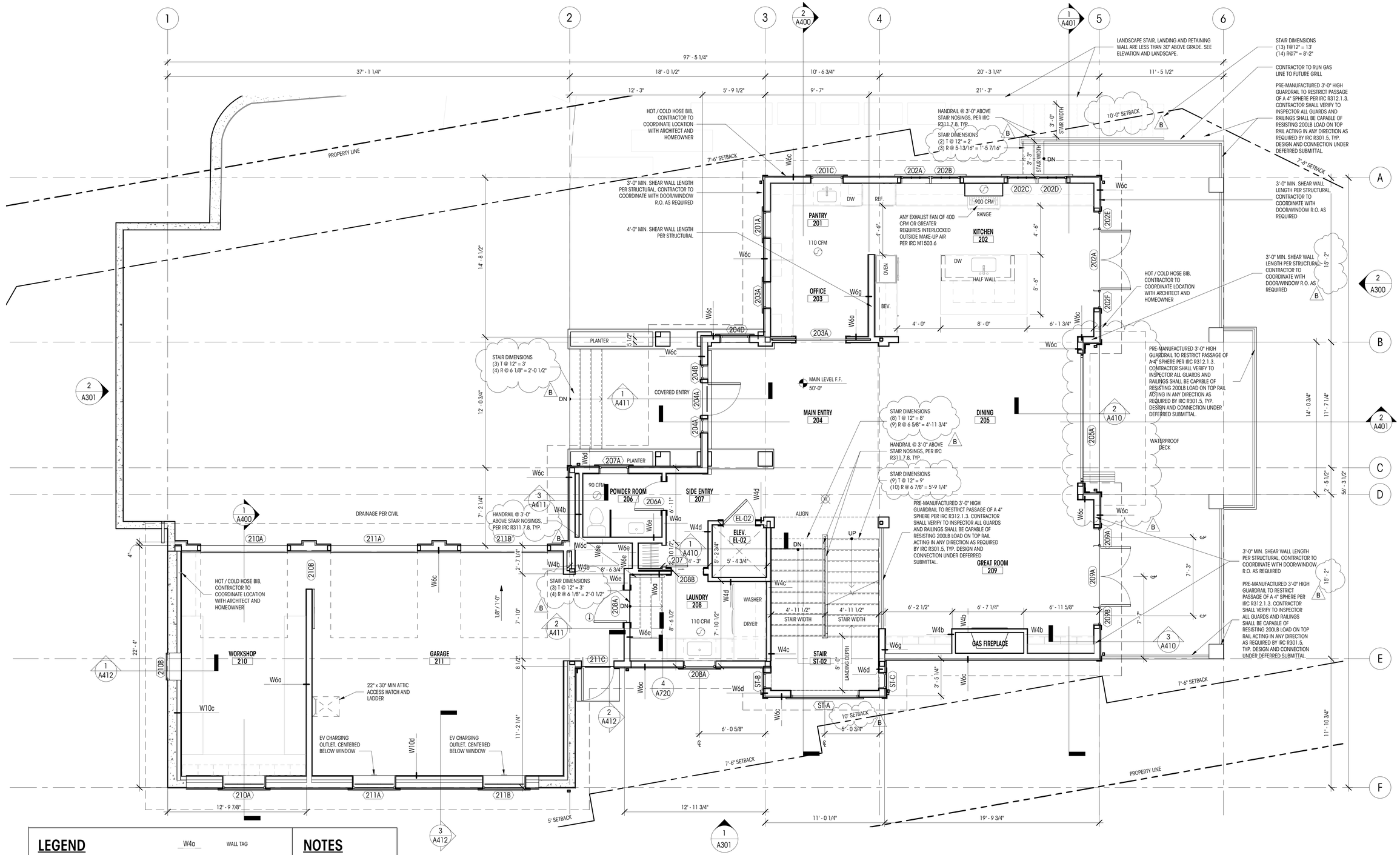
LOWER FLOOR PLAN

SCALE: As indicated

A211



LEGEND

- 200A — WINDOW ID
- 100A — DOOR ID
- 100A — FINISH ID
- SMOKE DETECTOR
- SMOKE/CARBON MONOXIDE DETECTOR
- FAN - 100 CFM U.N.O.
- HEAT DETECTOR
- W4a — WALL TAG
- ROOM NAME 101 — ROOM TAG
- MAIN LEVEL FIN. FLR. EL= 148.5' (+0'-0") — ELEVATION DATUM
- 0 — GRIDLINE
- WALL
- PROPERTY LINE
- SETBACK LINE

NOTES

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF CONCRETE OR FRAMING AT EXTERIOR FACE OF WALL AND TO FACE OF FRAMING AT INTERIOR WALLS, U.N.O.
2. ALL DIMENSIONS AT INTERIOR WALLS TO FACE OF FRAMING, U.N.O.
3. SEE SHEET G002 FOR WHOLE-HOUSE VENTILATION REQUIREMENTS AND CALCULATIONS.
4. ALL INTERIOR AND EXTERIOR STAIR NOSINGS TO MEET IRC R311.7.5.3.
5. ALL HANDRAILS TO MEET IRC R311.7.8.

1 MAIN FLOOR PLAN
1/4" = 1'-0"

NORTH

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SHEET SIZE: D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

DRAWN BY:
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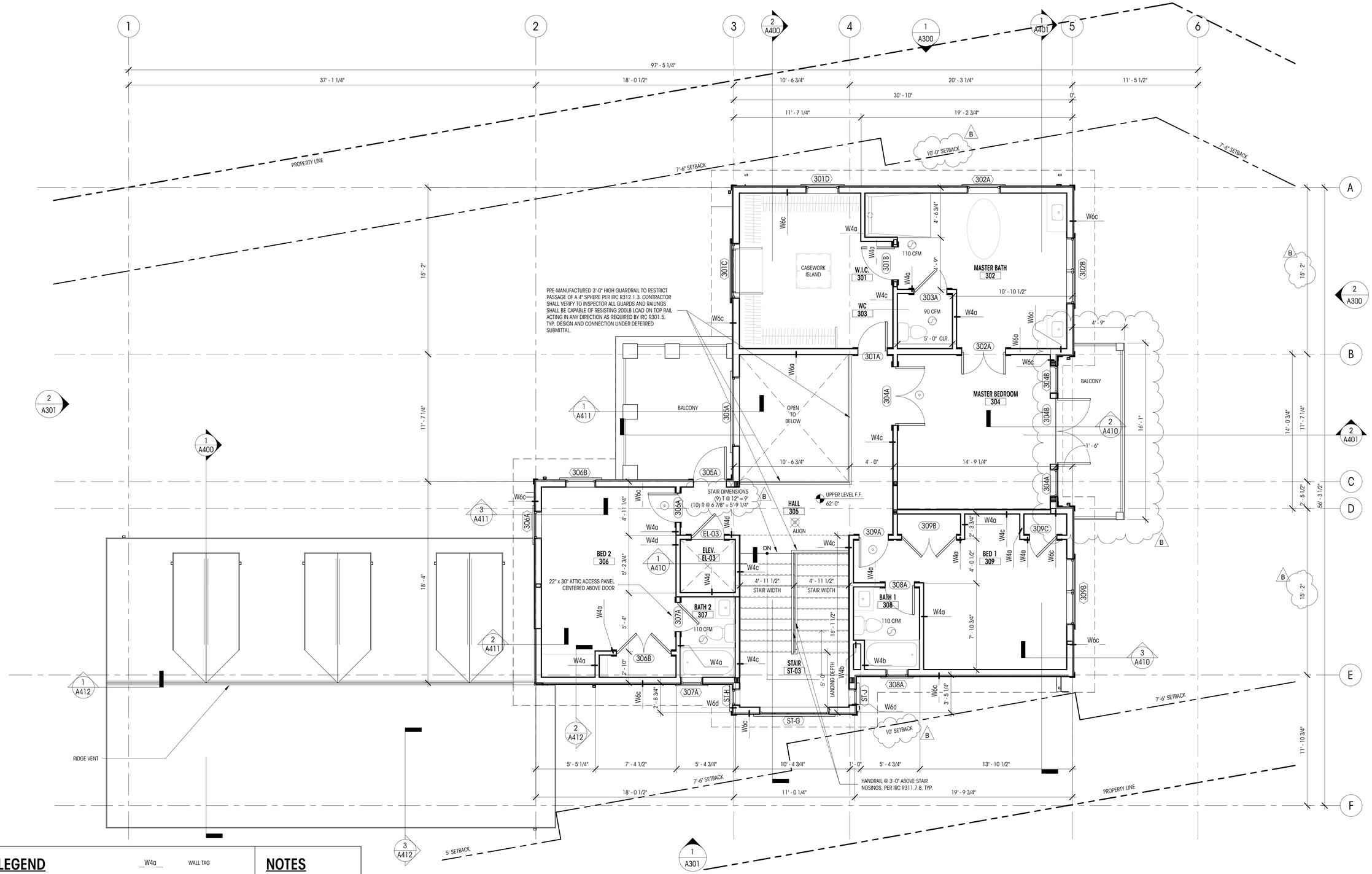
MAIN FLOOR PLAN

SCALE: As indicated

A212



LEGEND

200A	WINDOW ID
100A	DOOR ID
100A	FINISH ID
	SMOKE DETECTOR
	SMOKE/CARBON MONOXIDE DETECTOR
	FAN - 100 CFM U.N.O.
	HEAT DETECTOR
W4a	WALL TAG
ROOM NAME 101	ROOM TAG
MAIN LEVEL FIN. FLR. EL= 148.5' (+0'-0")	ELEVATION DATUM
0	GRIDLINE
	WALL
	PROPERTY LINE
	SETBACK LINE

NOTES

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF CONCRETE OR FRAMING AT EXTERIOR FACE OF WALL AND TO FACE OF FRAMING AT INTERIOR WALLS, U.N.O.
2. ALL DIMENSIONS AT INTERIOR WALLS TO FACE OF FRAMING, U.N.O.
3. SEE SHEET G002 FOR WHOLE-HOUSE VENTILATION REQUIREMENTS AND CALCULATIONS.
4. ALL INTERIOR AND EXTERIOR STAIR NOSINGS TO MEET IRC R311.7.5.3.
5. ALL HANDRAILS TO MEET IRC R311.7.8.

1 UPPER FLOOR PLAN
1/4" = 1'-0"

NORTH

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A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

DRAWN BY:
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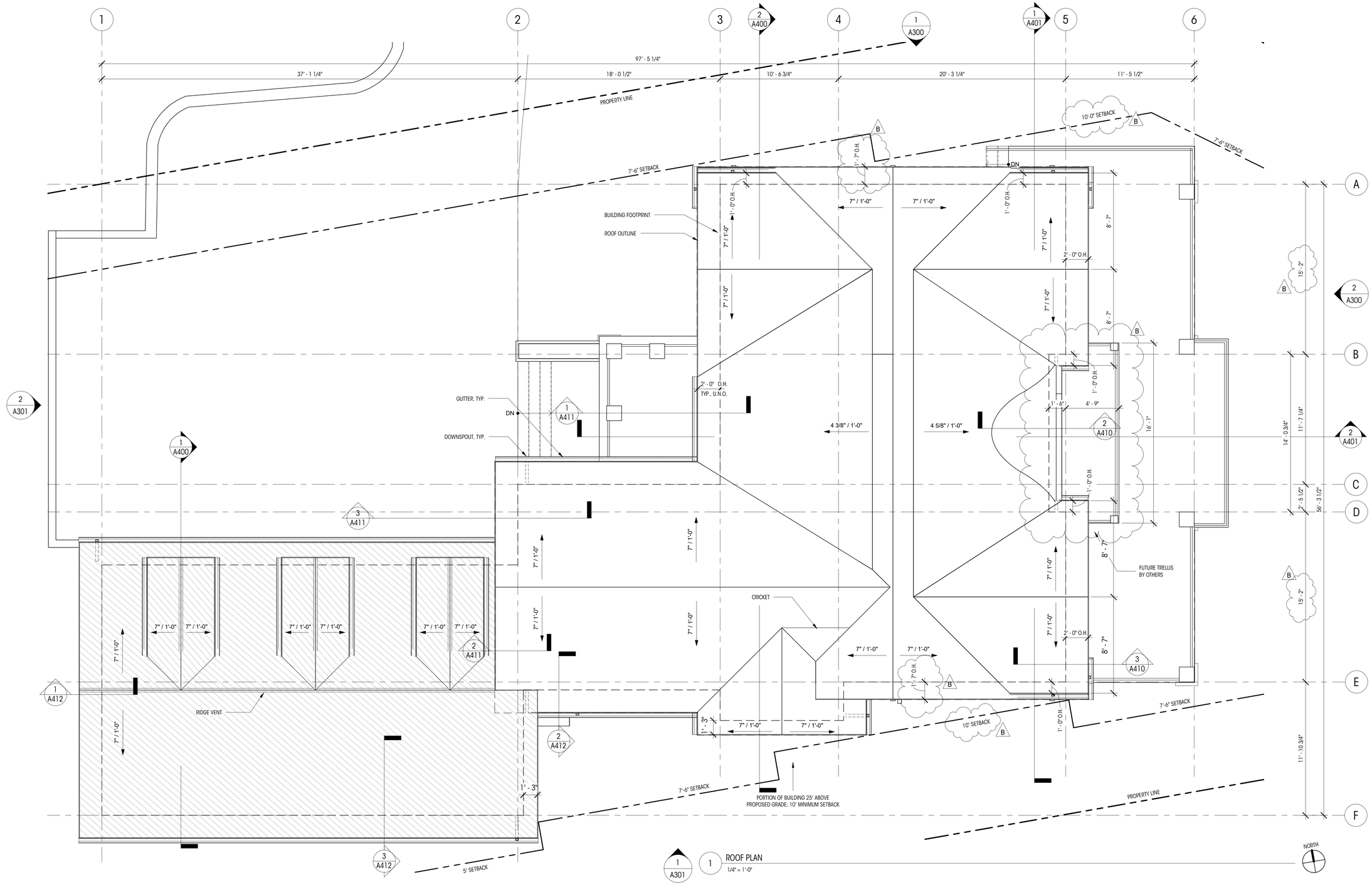
UPPER FLOOR PLAN

SCALE: As indicated

A213



LEGEND

- 4" / 1'-0" — SPOT SLOPE
- 200A — WINDOW ID
- PROPERTY LINE
- SETBACK LINE
- MAIN LEVEL FIN. FLR. EL= 148.5' (+0'-0") — ELEVATION DATUM
- VENTED ROOF
- 0 — GRIDLINE
- NON-VENTED ROOF

NOTES

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF FRAMING AT EXT. FACE OF WALL AND TO CENTERLINE OF FRAMING AT INT. FACE OF WALL, U.N.O.

ROOF VENTILATION CALC

GARAGE ROOF THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED (PER IRC R806).

783.35 SF OF TOTAL AREA TO BE VENTILATED
783.35 / 150 = 5.2 SF = **752 SQ.IN. OF VENTILATION REQUIRED**

3.14 SQ. IN. OF VENTILATION PROVIDED PER 2" HOLES AT EAVE
3.14 SQ. IN. * 6 HOLES PER TRUSS BAY (3 AT NORTH EAVE, 3 AT SOUTH EAVE) = 18.84 SQ. IN.
18.84 SQ. IN. * 18 TRUSS BAYS = **339.12 SQ. IN. OF VENTILATION PROVIDED AT GARAGE EAVES**

3.14 SQ. IN. * 6 HOLES PER DORMER FRAMING BAY (3 AT EAST EAVE, 3 AT WEST EAVE) = 18.84 SQ. IN.
18.84 SQ. IN. * 12 FRAMING BAYS = **226.08 SQ. IN. OF VENTILATION PROVIDED AT GARAGE DORMER EAVES**

1 LINEAR FOOT OF RIDGE VENT = 12 SQ. IN. OF VENTILATION
12 SQ. IN. / LINEAR FOOT * 37 FT OF RIDGE VENT =
444 SQ. IN. OF VENTILATION PROVIDED AT GARAGE RIDGE

12 SQ. IN. / LINEAR FOOT * 33.75 FT OF RIDGE VENT =
405 SQ. IN. OF VENTILATION PROVIDED AT GARAGE DORMER RIDGE

339.12 SQ. IN. + 226.08 SQ. IN. + 444 SQ. IN. + 405 SQ. IN. = **1,414.20 SQ. IN. (9.8 SF) OF VENTILATION PROVIDED**

NOTE: MAIN HOUSE ROOF TO BE UNVENTED, REFER TO ASSEMBLIES ON SHEET A701

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REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

DRAWN BY:
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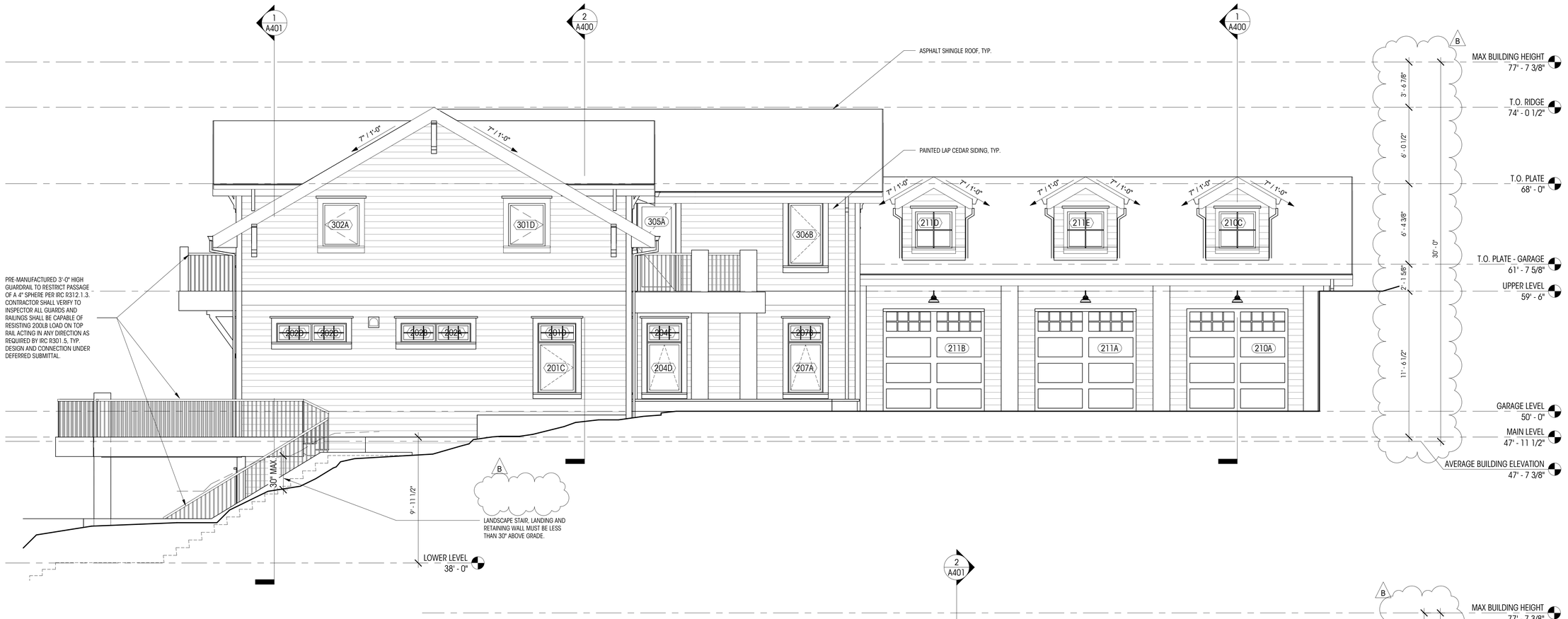
ROOF PLAN

SCALE: As indicated

A214



1 EXTERIOR ELEVATION - NORTH
1/4" = 1'-0"

2 EXTERIOR ELEVATION - EAST (DOWNHILL BUILDING FACADE)
1/4" = 1'-0"

NOTES

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF FRAMING AT EXT. FACE OF WALL AND TO CENTERLINE OF FRAMING AT INT. FACE OF WALL, U.N.O.
2. ALL DIMENSIONS AT INTERIOR WALLS TO FACE OF FINISH (5/8" GWB ASSUMED AT EA. SIDE OF WALL), U.N.O.
3. ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS, U.N.O.
4. THE NORTH, EAST AND SOUTH FACADES AT THE MAIN AND UPPER LEVELS ARE ALL STRUCTURALLY SETBACK FROM THE LOWER LEVEL COMPLYING WITH MICC 19.02.020.E.2.

LEGEND

200A WINDOW ID

100A DOOR ID

0 GRIDLINE

MAIN LEVEL FIN. FLR. EL= 148.5' (+0'-0") ELEVATION DATUM

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REVISIONS

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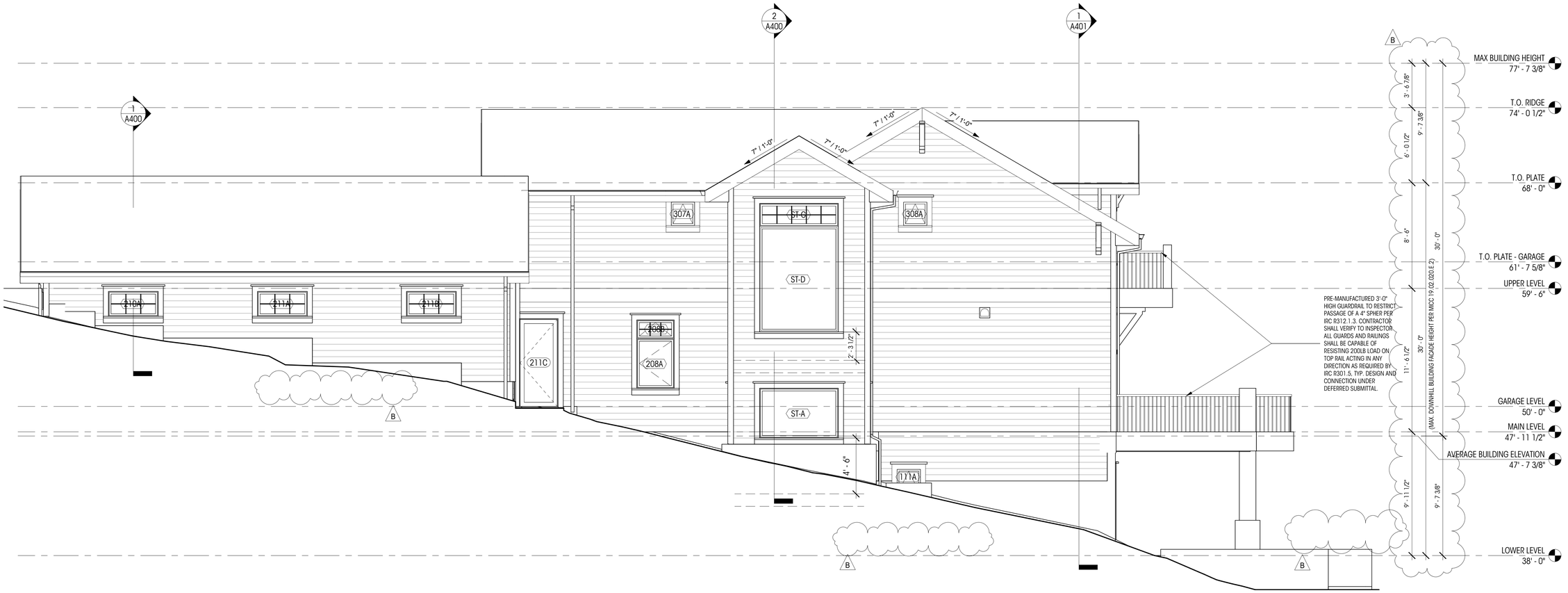
B	PLAN CHECK 2	11.07.22

DRAWN BY:
CHECKED BY:

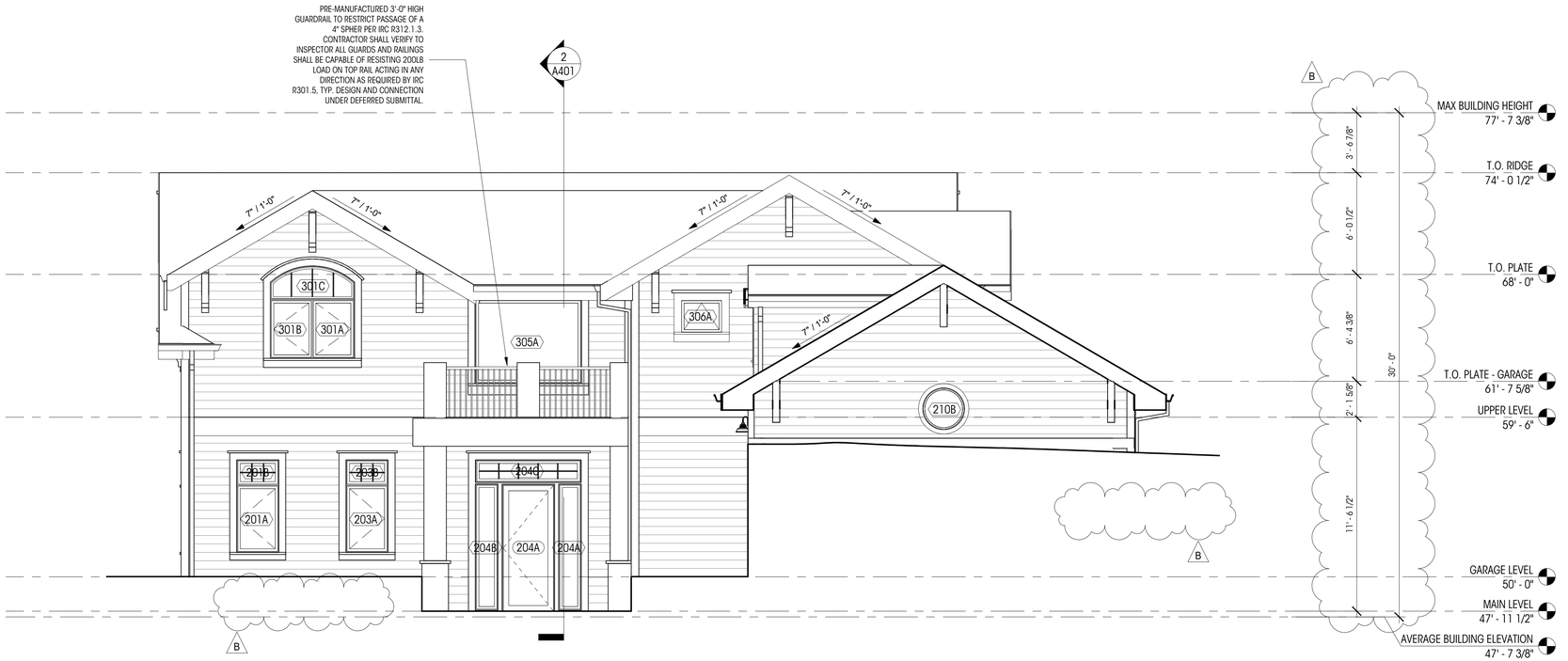
EXTERIOR ELEVATIONS (N & E)

SCALE: As indicated

A300



1 EXTERIOR ELEVATION - SOUTH
1/4" = 1'-0"



2 EXTERIOR ELEVATION - WEST
1/4" = 1'-0"

NOTES

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF FRAMING AT EXT. FACE OF WALL AND TO CENTERLINE OF FRAMING AT INT. FACE OF WALL, U.N.O.

2. ALL DIMENSIONS AT INTERIOR WALLS TO FACE OF FINISH (5/8" GWB ASSUMED AT EA. SIDE OF WALL), U.N.O.

3. ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS, U.N.O.

4. THE NORTH, EAST AND SOUTH FACADES AT THE MAIN AND UPPER LEVELS ARE ALL STRUCTURALLY SETBACK FROM THE LOWER LEVEL COMPLYING WITH MICC 19.02.020.E.2.

LEGEND

200A WINDOW ID

100A DOOR ID

0 GRIDLINE

MAIN LEVEL FIN. FLR. EL= 148.5' (+0'-0") ELEVATION DATUM

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PERMIT SET

DATE: 9/17/21

SHEET SIZE: D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

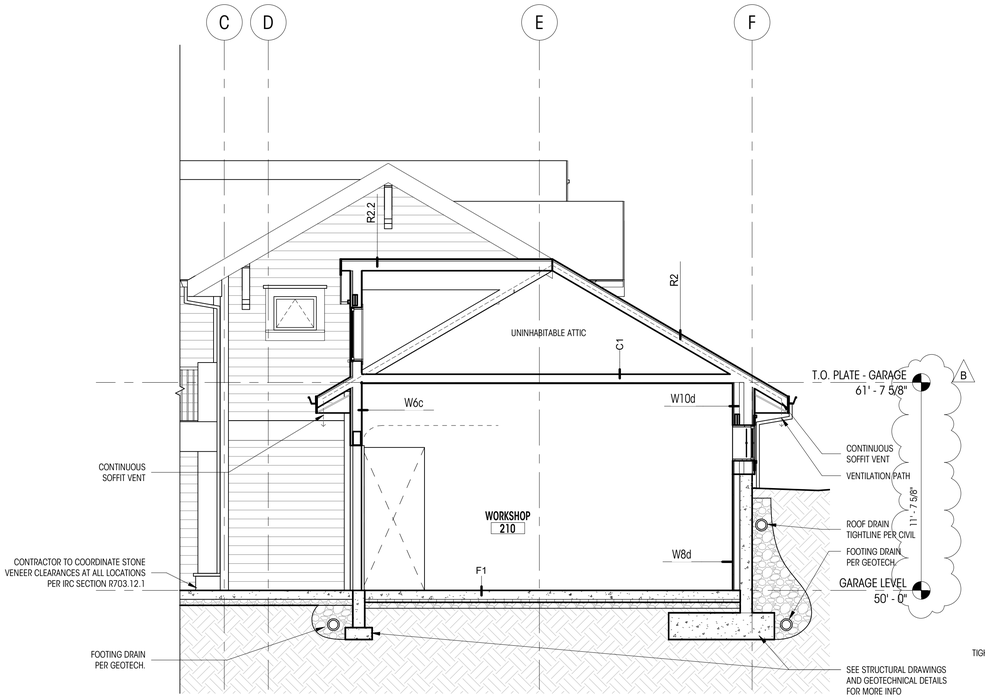
DRAWN BY:

CHECKED BY:

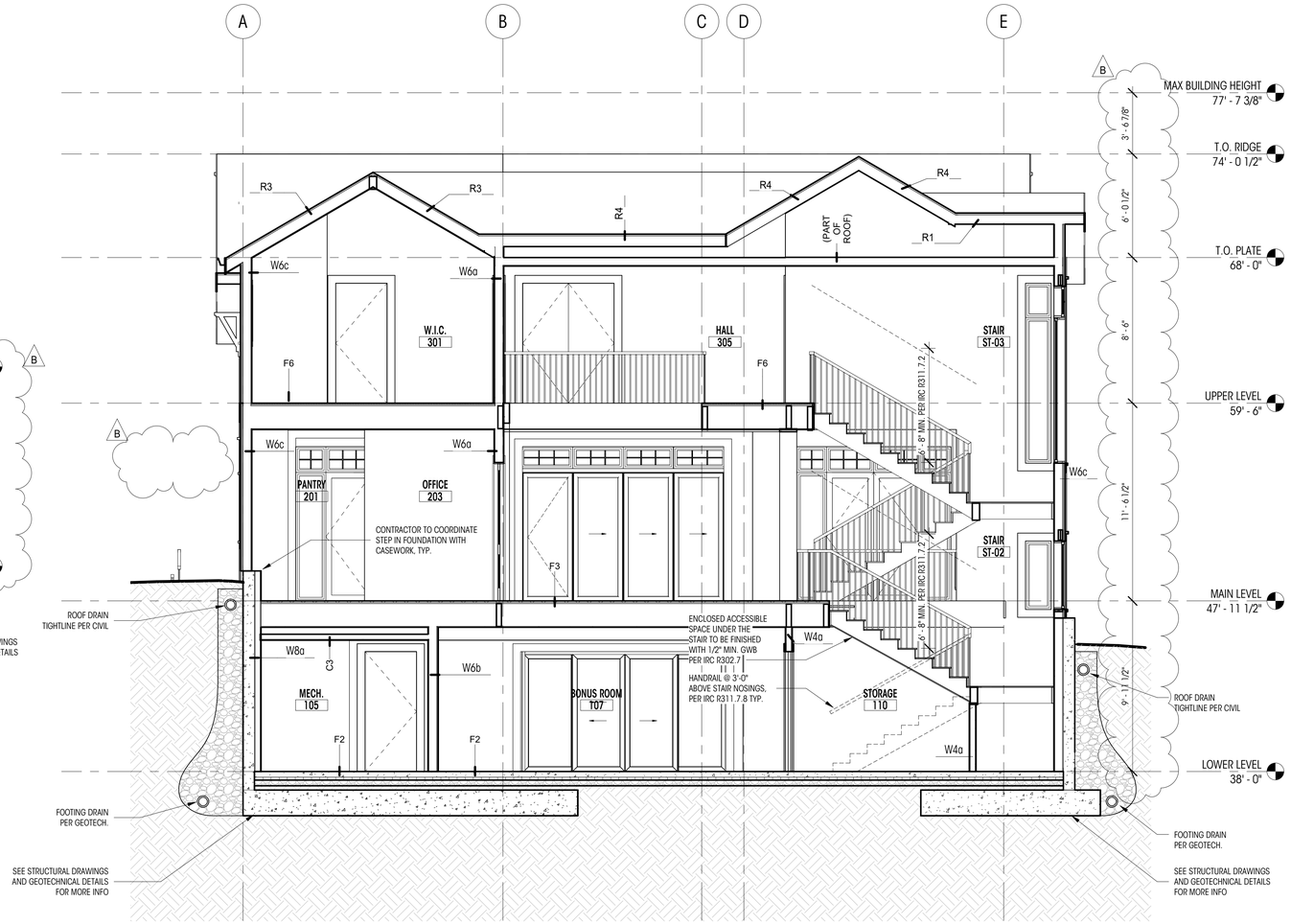
EXTERIOR ELEVATIONS (S & W)

SCALE: As indicated

A301



1 SECTION AA
1/4" = 1'-0"



2 SECTION BB
1/4" = 1'-0"

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REVISIONS

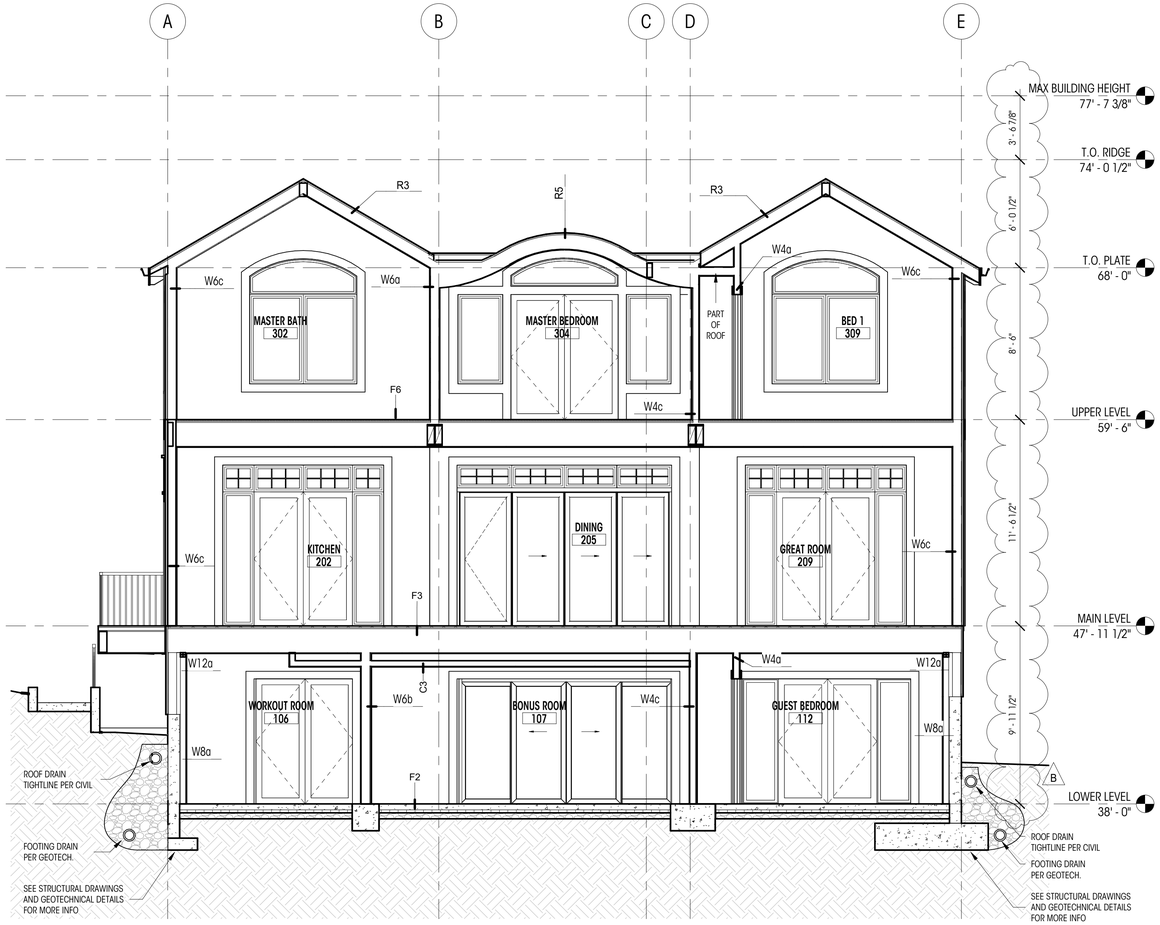
NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

DRAWN BY:
CHECKED BY:

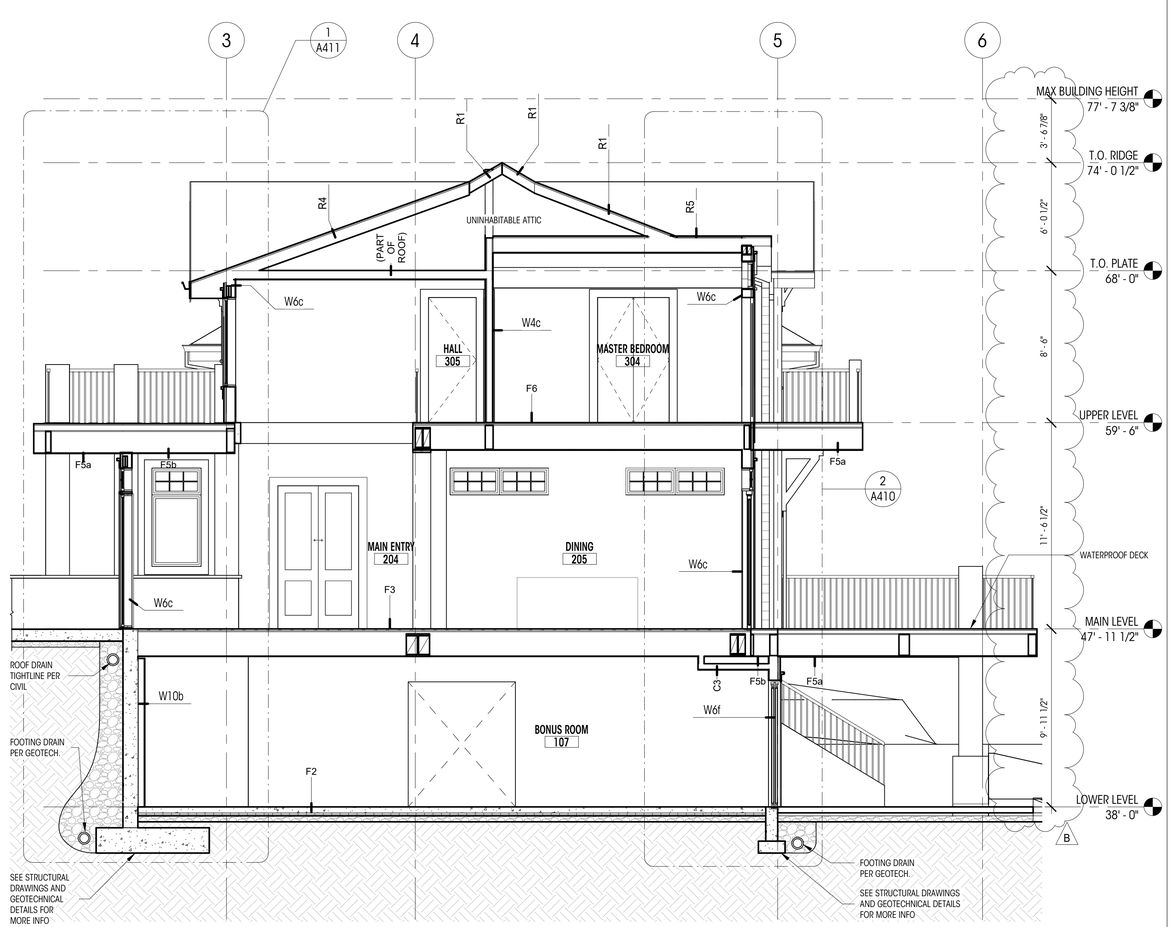
BUILDING SECTIONS

SCALE: 1/4" = 1'-0"

A400



1 SECTION CC
1/4" = 1'-0"



2 SECTION DD
1/4" = 1'-0"

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STATE OF WASHINGTON

HUBER RESIDENCE

9611 SE 72ND ST.
MERCER ISLAND, WA 98040

PERMIT SET

DATE: 9/17/21
SHEET SIZE: D (24X36)

REVISIONS

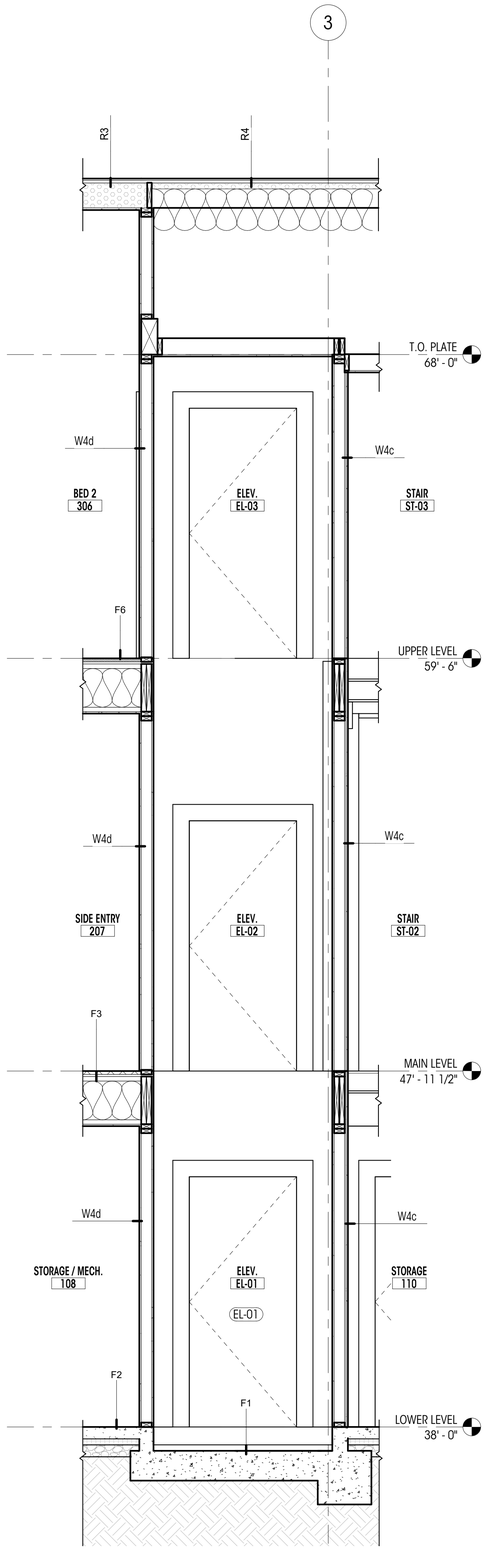
NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

DRAWN BY:
CHECKED BY:

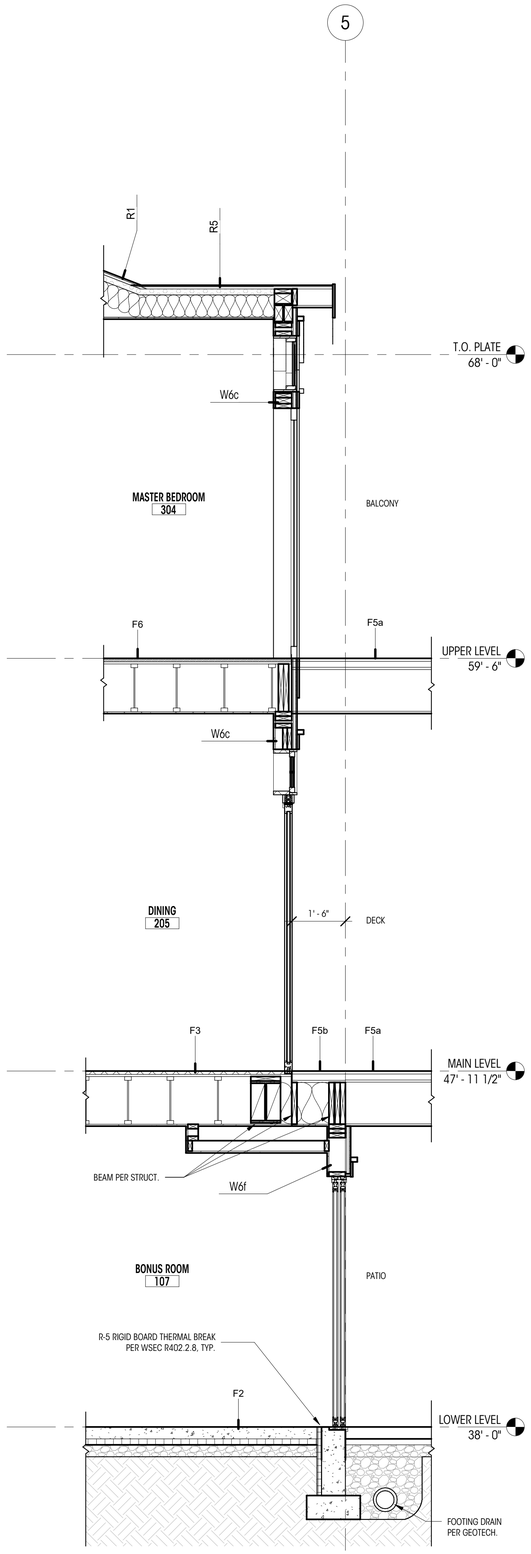
BUILDING SECTIONS

SCALE: 1/4" = 1'-0"

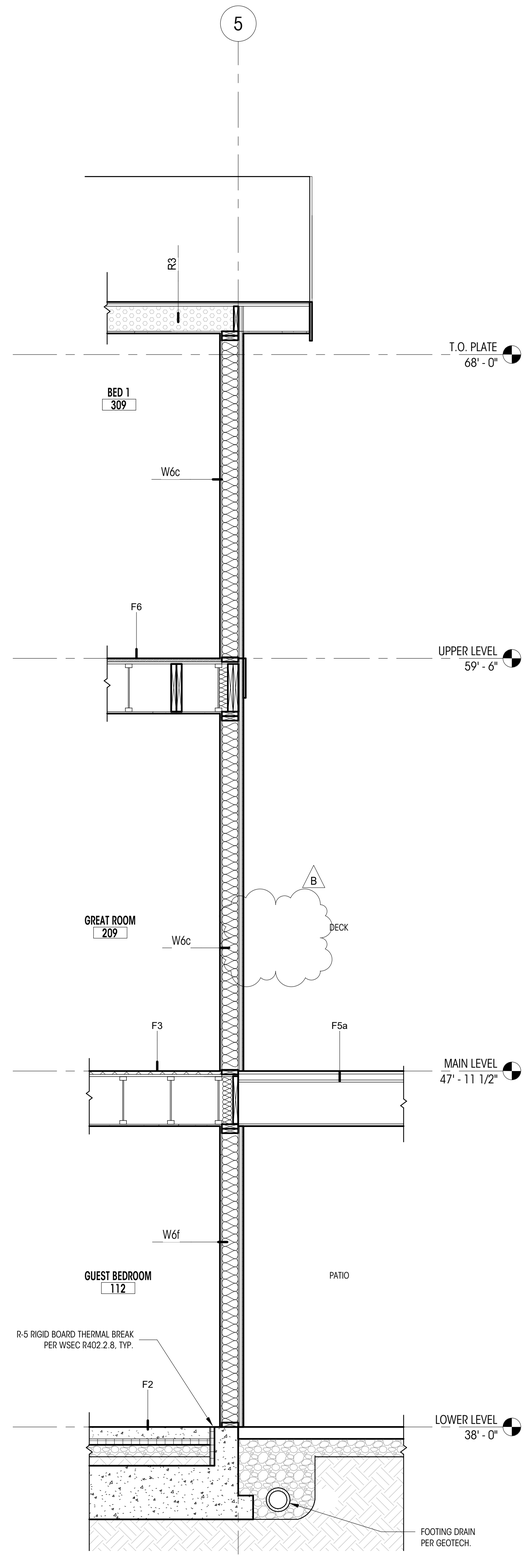
A401



1 WALL SECTION @ ELEVATOR
1/2" = 1'-0"



2 WALL SECTION @ DINING ROOM
1/2" = 1'-0"



3 WALL SECTION @ GREAT ROOM
1/2" = 1'-0"

Brandt
Design Group
66 Bell Street
Unit 1
Seattle, WA
98121
206.239.0850
brandtdesigninc.com

8843
REGISTERED ARCHITECT
STATE OF WASHINGTON

HUBER RESIDENCE

9611 SE 72ND ST.
MERCER ISLAND, WA 98040

PERMIT SET

DATE: 9/17/21
SHEET SIZE: D (24X36)

REVISIONS

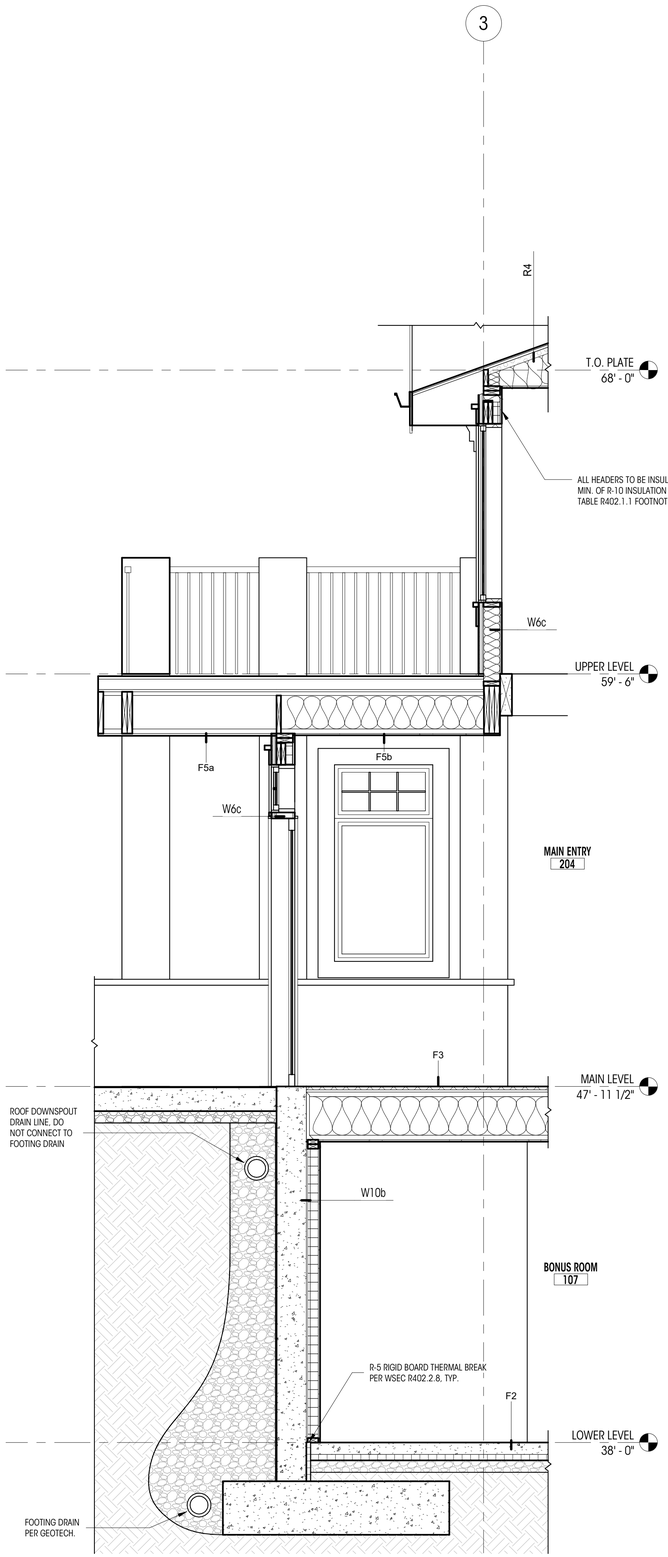
NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

DRAWN BY:
CHECKED BY:

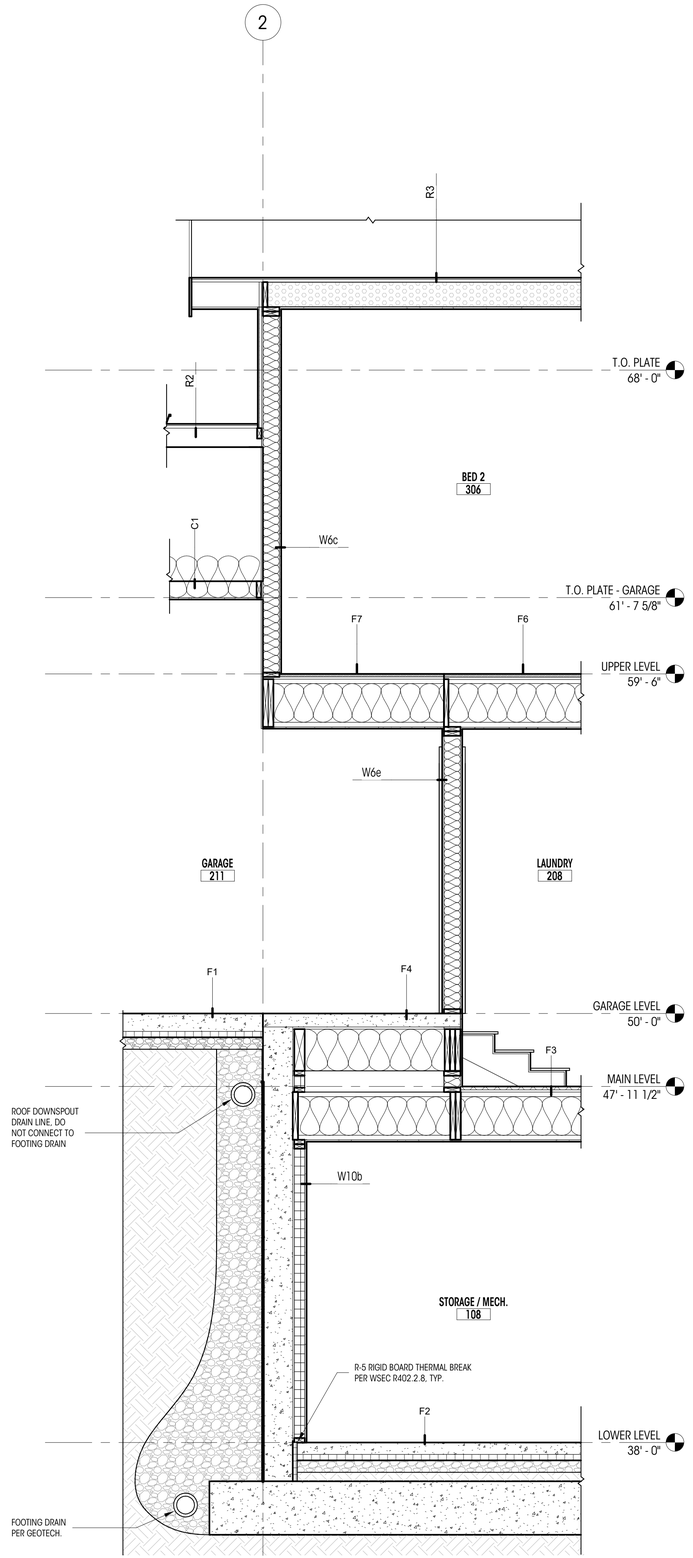
WALL SECTIONS

SCALE: 1/2" = 1'-0"

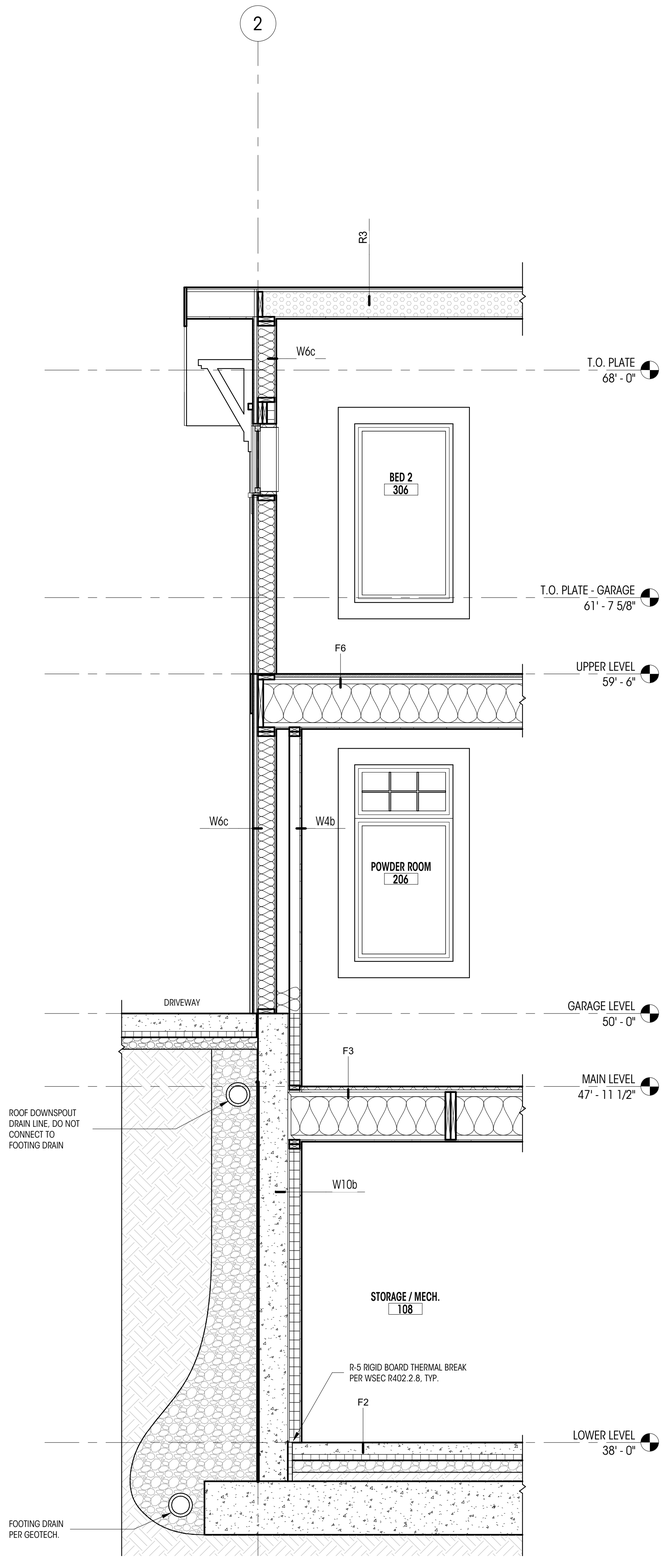
A410



1 WALL SECTION @ MAIN ENTRY
1/2" = 1'-0"



2 WALL SECTION @ GARAGE
1/2" = 1'-0"



3 WALL SECTION @ SIDE ENTRY
1/2" = 1'-0"

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REVISIONS

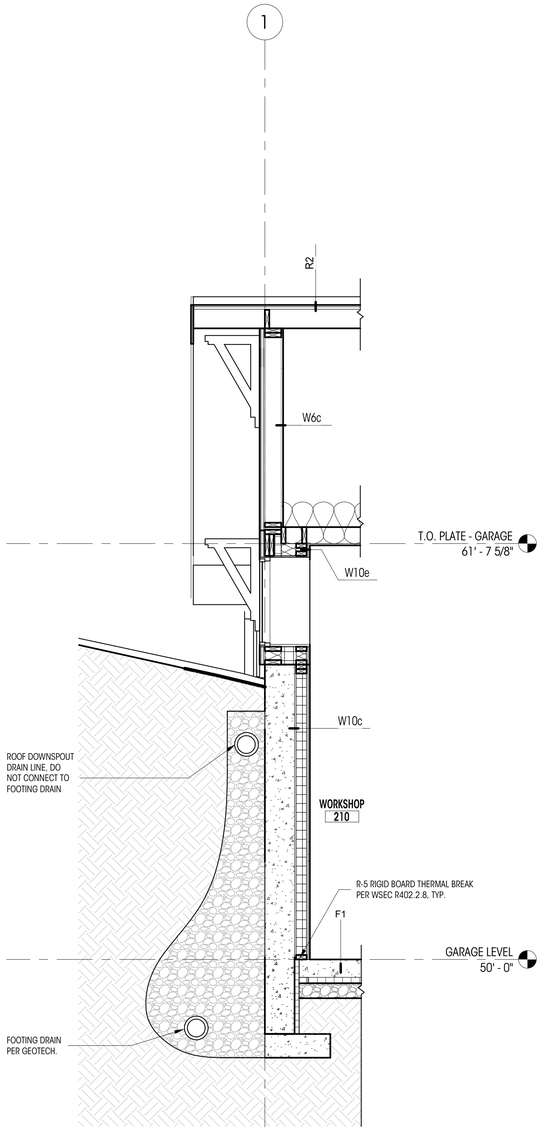
NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22

DRAWN BY:
CHECKED BY:

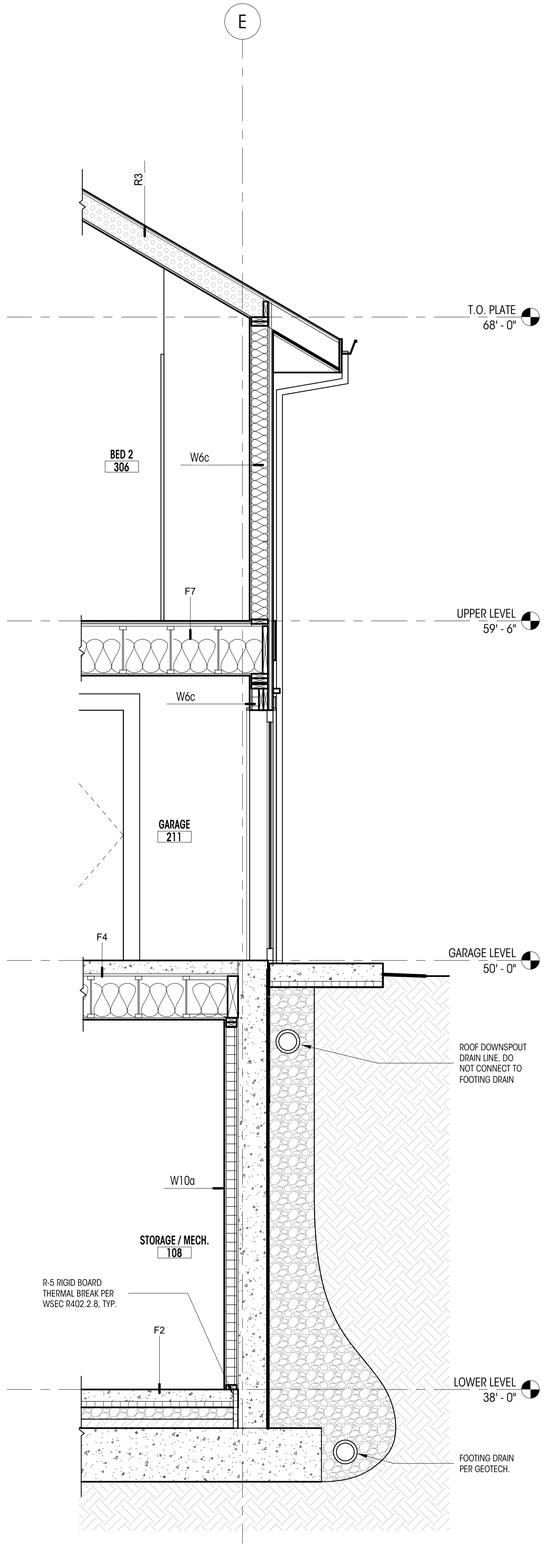
WALL SECTIONS

SCALE: 1/2" = 1'-0"

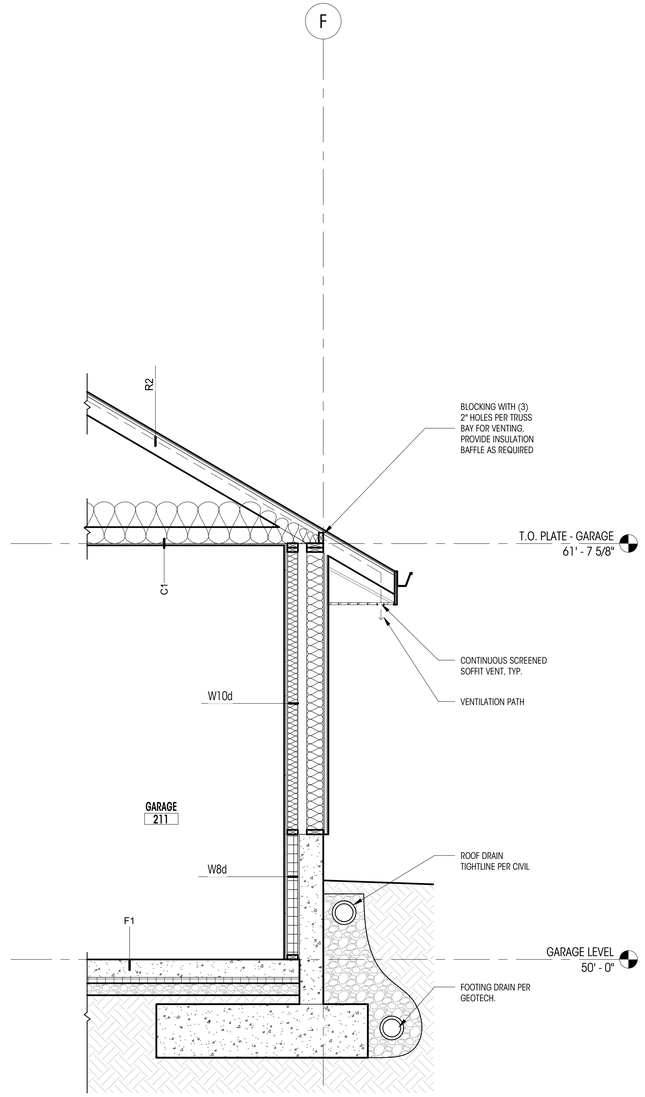
A411



1 WALL SECTION @ WORKSHOP
1/2" = 1'-0"



2 WALL SECTION @ GARAGE MAN DOOR
1/2" = 1'-0"



3 WALL SECTION @ GARAGE EXTERIOR SOUTH WALL
1/2" = 1'-0"

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SHEET SIZE:	D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22

DRAWN BY:
CHECKED BY:

WALL SECTIONS

SCALE: 1/2" = 1'-0"

A412

WINDOW SCHEDULE

PLAN ID	TYPE	WIDTH (ft)	HEIGHT (ft)	HEAD HT	UNIT AREA (sf)	U VALUE	UA	NOTES
111A	J	2' - 0"	2' - 0"	7' - 0"	4 SF	0.2	1 SF	
112A	G	2' - 0"	7' - 0"	7' - 0"	14 SF	0.2	3 SF	2
112B	G	2' - 0"	7' - 0"	7' - 0"	14 SF	0.2	3 SF	2
201A	A	2' - 6"	4' - 0"	7' - 6"	10 SF	0.2	2 SF	
201B	A	2' - 6"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
201C	H	3' - 0"	4' - 0"	7' - 6"	12 SF	0.2	2 SF	
201D	A	3' - 0"	1' - 6"	9' - 0"	5 SF	0.2	1 SF	
202A	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
202B	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
202C	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
202D	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
202E	G	1' - 9"	7' - 6"	7' - 6"	13 SF	0.2	3 SF	2
202F	G	1' - 9"	7' - 6"	7' - 6"	13 SF	0.2	3 SF	2
202G	C	1' - 9"	1' - 6"	9' - 0"	3 SF	0.2	1 SF	
202H	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
202J	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
202K	C	1' - 9"	1' - 6"	9' - 0"	3 SF	0.2	1 SF	
203A	A	2' - 6"	4' - 0"	7' - 6"	10 SF	0.2	2 SF	
203B	A	2' - 6"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
204A	G	1' - 4"	7' - 6"	7' - 6 3/4"	10 SF	0.2	2 SF	2
204B	G	1' - 4"	7' - 6"	7' - 6 3/4"	10 SF	0.2	2 SF	2
204C	E	6' - 3"	1' - 4"	9' - 0"	8 SF	0.2	2 SF	
204D	J	2' - 9"	4' - 0"	7' - 6"	11 SF	0.2	2 SF	
204E	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
205A	A	3' - 0 3/4"	1' - 3 1/4"	9' - 0"	4 SF	0.2	1 SF	
205B	A	2' - 11 1/4"	1' - 3 1/4"	9' - 0"	4 SF	0.2	1 SF	
205C	A	2' - 11 1/4"	1' - 3 1/4"	9' - 0"	4 SF	0.2	1 SF	
205D	A	3' - 0 3/4"	1' - 3 1/4"	9' - 0"	4 SF	0.2	1 SF	
207A	J	2' - 9"	4' - 0"	7' - 6"	11 SF	0.2	2 SF	
207B	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
208A	H	3' - 0"	4' - 0"	7' - 6"	12 SF	0.2	2 SF	
208B	A	3' - 0"	1' - 6"	9' - 0"	5 SF	0.2	1 SF	
209A	G	1' - 9"	7' - 6"	7' - 6"	13 SF	0.2	3 SF	2
209B	G	1' - 9"	7' - 6"	7' - 6"	13 SF	0.2	3 SF	2
209C	C	1' - 9"	1' - 6"	9' - 0"	3 SF	0.2	1 SF	
209D	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
209E	A	2' - 9"	1' - 6"	9' - 0"	4 SF	0.2	1 SF	
209F	C	1' - 9"	1' - 6"	9' - 0"	3 SF	0.2	1 SF	
210A	B	4' - 0"	2' - 0"	9' - 3"	8 SF	0.2	2 SF	2
210B	M	2' - 6"	2' - 6"	11' - 3"	6 SF	0.2	1 SF	
210C	C	3' - 0"	3' - 0"	4' - 2 3/8"	9 SF	0.2	2 SF	
211A	B	4' - 0"	2' - 0"	9' - 3"	8 SF	0.2	2 SF	2
211B	B	4' - 0"	2' - 0"	9' - 3"	8 SF	0.2	2 SF	2
211D	C	3' - 0"	3' - 0"	4' - 2 3/8"	9 SF	0.2	2 SF	

WINDOW SCHEDULE

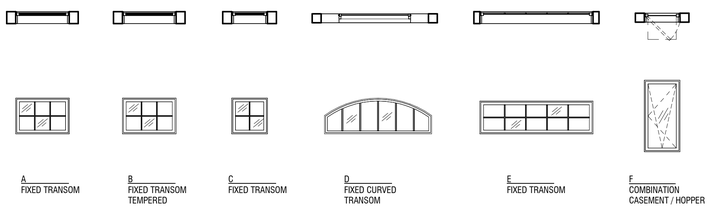
PLAN ID	TYPE	WIDTH (ft)	HEIGHT (ft)	HEAD HT	UNIT AREA (sf)	U VALUE	UA	NOTES
211E	C	3' - 0"	3' - 0"	4' - 2 3/8"	9 SF	0.2	2 SF	
301A	H	2' - 6"	3' - 6"	7' - 0"	9 SF	0.2	2 SF	
301B	H	2' - 6"	3' - 6"	7' - 0"	9 SF	0.2	2 SF	
301C	D	4' - 0"	2' - 0"	9' - 0"	8 SF	0.2	2 SF	
301D	H	3' - 0"	3' - 6"	7' - 0"	11 SF	0.2	2 SF	
302A	H	3' - 0"	3' - 6"	7' - 0"	11 SF	0.2	2 SF	2
302B	H	3' - 0"	5' - 0"	7' - 0"	15 SF	0.2	3 SF	1
302C	H	3' - 0"	5' - 0"	7' - 0"	15 SF	0.2	3 SF	1
302D	D	4' - 0"	2' - 0"	9' - 0"	8 SF	0.2	2 SF	
304A	D	4' - 0"	2' - 0"	11 1/2"	8 SF	0.2	2 SF	
304A	G	2' - 6"	5' - 0"	7' - 0"	13 SF	0.2	3 SF	2
304B	G	2' - 6"	5' - 0"	7' - 0"	13 SF	0.2	3 SF	2
305A	G	6' - 4"	5' - 0"	7' - 0"	32 SF	0.2	6 SF	
306A	J	2' - 6"	2' - 0"	7' - 0"	5 SF	0.2	1 SF	
306B	H	2' - 9"	5' - 0"	7' - 0"	14 SF	0.2	3 SF	1
307A	K	2' - 0"	2' - 0"	7' - 0"	4 SF	0.2	1 SF	
308A	K	2' - 0"	2' - 0"	7' - 0"	4 SF	0.2	1 SF	
309A	H	3' - 0"	5' - 0"	7' - 0"	15 SF	0.2	3 SF	1
309B	H	3' - 0"	5' - 0"	7' - 0"	15 SF	0.2	3 SF	1
309C	D	4' - 0"	2' - 0"	9' - 0"	8 SF	0.2	2 SF	
ST-A	G	6' - 4"	4' - 0"	13' - 5 1/2"	25 SF	0.2	5 SF	
ST-B	G	1' - 6"	4' - 0"	13' - 5 1/2"	6 SF	0.2	1 SF	
ST-C	G	1' - 6"	4' - 0"	13' - 5 1/2"	6 SF	0.2	1 SF	
ST-D	G	6' - 4"	8' - 6"	16' - 6 1/2"	54 SF	0.2	11 SF	2
ST-E	G	1' - 6"	8' - 6"	16' - 6 1/2"	13 SF	0.2	3 SF	2
ST-F	G	1' - 6"	8' - 6"	16' - 6 1/2"	13 SF	0.2	3 SF	2
ST-G	E	6' - 4"	1' - 10"	6' - 10"	12 SF	0.2	2 SF	
ST-H	C	1' - 6"	2' - 0"	7' - 0"	3 SF	0.2	1 SF	
ST-J	C	1' - 6"	2' - 0"	7' - 0"	3 SF	0.2	1 SF	

GENERAL NOTES

- ALL DIMENSIONS SHOWN ARE FINISHED DIMENSIONS, R.O. PER CONTRACTOR.
- CONTRACTOR TO VERIFY ALL SIZES AND DIMENSIONS IN FIELD WITH OWNER BEFORE ORDERING.
- ALL NEW WINDOWS TO BE NFRC CERTIFIED.
- REFER TO PLANS AND ELEVATIONS FOR TAGS, LOCATION, AND OPERATION.
- ALL ELEVATIONS ARE FROM THE EXTERIOR.
- ALL NEW VERTICAL FENESTRATION U-VALUE TO MEET ENERGY COMPLIANCE, SEE SHEET G001.
- PER IBC 8310.2 ALL **EGRESS** OPENINGS SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SF, NET CLEAR HEIGHT OPENING SHALL NOT BE LESS THAN 24" AND THE NET CLEAR WIDTH SHALL BE NOT LESS THAN 20".
  THE WINDOW SILL SHALL HAVE HEIGHT OF NOT MORE THAN 44" ABOVE THE FLOOR
- PER IRC R308.4.3, GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL NEEDS TO BE TEMPERED GLASS / SAFETY GLAZING OF ALL OF THE FOLLOWING CONDITIONS ARE PRESENT:
  - A. THE EXPOSED AREA OF AN INDIVIDUAL PANE IS LARGER THAN 9 SF,
  - B. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE THE FLOOR,
  - C. THE TOP EDGE OF THE GLAZING IS MORE THAN 36 " ABOVE THE FLOOR, AND
  - D. ONE OR MORE WALKING SURFACES ARE WITHING 36", MEASURE HORIZONTALLY IN A STRAIGHT LINE OF THE GLAZING.

SPECIFIC NOTES

1. EGRESS
2. TEMPERED GLASS/SAFETY GLAZING



ARCH - WINDOW TYPES

1/4" = 1'-0"

DOOR SCHEDULE

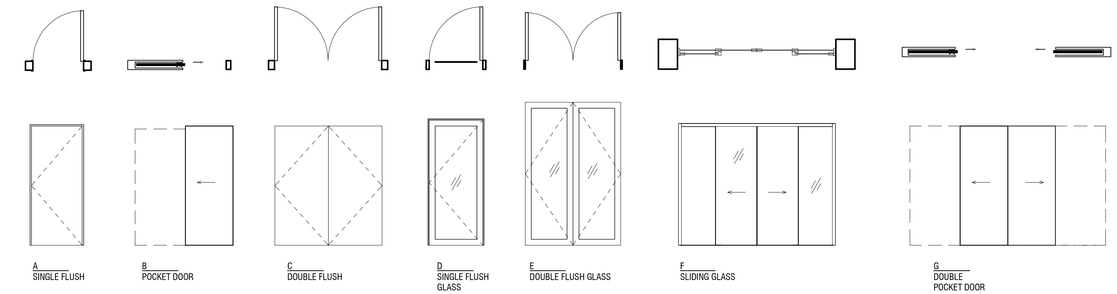
PLAN ID	TYPE	WIDTH (ft.)	HEIGHT (ft.)	AREA (sf.)	U VALUE	UA	NOTES
105	A	3' - 0"	7' - 0"	21 SF			
106A	E	5' - 6"	7' - 0"	39 SF	0.2	8 SF	
106B	K	6' - 0"	7' - 0"	42 SF			
107A	F	12' - 0"	7' - 0"	84 SF			
108A	A	3' - 0"	7' - 0"	21 SF			
109A	A	3' - 0"	7' - 0"	21 SF			
110A	A	3' - 0"	7' - 0"	21 SF			3
111A	A	2' - 6"	7' - 0"	18 SF			
112A	E	5' - 6"	7' - 0"	39 SF	0.2	8 SF	1
112B	A	2' - 8"	7' - 0"	19 SF			
112C	A	2' - 0"	7' - 0"	14 SF			
112D	A	2' - 0"	7' - 0"	14 SF			
202A	E	5' - 6"	7' - 6"	41 SF	0.2	8 SF	
203A	G	4' - 6"	8' - 0"	36 SF			
204A	D	3' - 0"	7' - 6"	23 SF	0.2	5 SF	1
205A	H	12' - 0"	7' - 6"	90 SF	0.2	18 SF	
206A	A	2' - 8"	8' - 0"	21 SF			
207	A	2' - 0"	8' - 0"	16 SF			
208A	A	3' - 0"	7' - 0"	21 SF			2
208B	B	3' - 0"	8' - 0"	24 SF			
209A	E	5' - 6"	7' - 6"	41 SF	0.2	8 SF	
210A	M	8' - 0"	8' - 0"	64 SF			4
210B	J	3' - 6"	8' - 0"	28 SF			
211A	M	8' - 0"	8' - 0"	64 SF			4
211B	M	8' - 0"	8' - 0"	64 SF			4
211C	D	3' - 0"	7' - 0"	21 SF	0.2	4 SF	
301A	A	2' - 8"	7' - 0"	19 SF			
301B	A	3' - 0"	7' - 0"	21 SF			
302A	C	4' - 0"	7' - 0"	28 SF			
303A	A	3' - 0"	7' - 0"	21 SF			
304A	C	5' - 4"	7' - 0"	37 SF			
304B	E	6' - 0"	7' - 0"	42 SF	0.2	8 SF	
305A	D	3' - 0"	7' - 0"	21 SF	0.2	4 SF	
306A	A	2' - 8"	7' - 0"	19 SF			
306B	C	5' - 0"	7' - 0"	35 SF			
307A	A	2' - 8"	7' - 0"	19 SF			
308A	A	2' - 8"	7' - 0"	19 SF			
309A	A	2' - 8"	7' - 0"	19 SF			
309B	C	5' - 0"	7' - 0"	35 SF			
309C	A	2' - 6"	7' - 0"	18 SF			
EL-01	A	3' - 0"	7' - 0"	21 SF			
EL-02	A	3' - 0"	7' - 0"	21 SF			
EL-03	A	3' - 0"	7' - 0"	21 SF			

GENERAL NOTES

- ALL NEW DOORS TO BE NFRC CERTIFIED
- ALL NEW VERTICAL FENESTRATION U-VALUE TO MEET ENERGY COMPLIANCE GUIDELINES, SEE SHEET G001.
- ALL DOORS TO BE SOLID-CORE WOOD VENEER, PANEL TBD.
- ALL GLAZING IN DOORS TO BE TEMPERED / SAFETY GLAZING
- REFER TO PLANS AND ELEVATIONS FOR TAGS, LOCATION, AND OPERATION.

SPECIFIC NOTES

1. EGRESS
2. 20-MINUTE RATED W/ SELF-CLOSURE PER IRC R302.5.1
3. ACCESS DOOR TO UNDER STAIR
4. OVERHEAD DOOR



ARCH - DOOR TYPES

1/4" = 1'-0"

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SHEET SIZE: D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22

DRAWN BY:

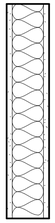
CHECKED BY:

DOOR & WINDOW SCHEDULES & LEGENDS & NOTES

SCALE: 1/4" = 1'-0"

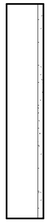
A600

VERTICAL ASSEMBLIES



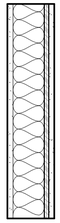
1-HR TYPE-X 5/8" GWB
2X4 FRAMING
SOUND BATT INSULATION
1-HR TYPE-X 5/8" GWB

W4a



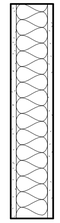
2X4 FRAMING
1-HR TYPE-X 5/8" GWB

W4b



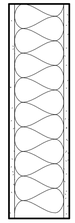
1-HR TYPE-X 5/8" GWB
2X4 FRAMING
SOUND BATT INSULATION
PLYWOOD SHEATHING PER STRUCT
1-HR TYPE-X 5/8" GWB

W4c



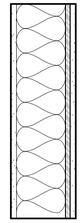
1-HR TYPE-X 5/8" GWB
2X4 FRAMING
SOUND BATT INSULATION
1-HR TYPE-X 5/8" GWB

W4d



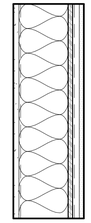
1-HR TYPE-X 5/8" GWB
2X6 FRAMING
SOUND BATT INSULATION
1-HR TYPE-X 5/8" GWB

W6a



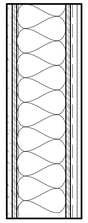
1-HR TYPE-X 5/8" GWB
2X6 FRAMING
SOUND BATT INSULATION
PLYWOOD SHEATHING PER STRUCT
1-HR TYPE-X 5/8" GWB

W6b



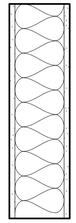
1-HR TYPE-X 5/8" GWB
CLASS I OR II VAPOR RETARDER
PER IRC R702.7
2X6 FRAMING
R-21 MIN INSULATION
1/2" PLYWOOD SHEATHING
WRB
1X VERTICAL FURRING STRIP
SIDING

W5c



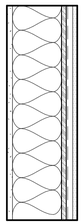
1-HR TYPE-X 5/8" GWB
PLYWOOD SHEATHING PER STRUCT
CLASS I OR II VAPOR RETARDER
PER IRC R702.7
2X6 FRAMING
R-21 MIN INSULATION
1/2" PLYWOOD SHEATHING
WRB
1X VERTICAL FURRING STRIP
SIDING

W5d



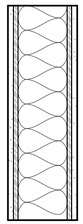
1-HR TYPE-X 5/8" GWB
2X6 FRAMING
R-21 MIN INSULATION
1-HR TYPE-X 5/8" GWB

W6e



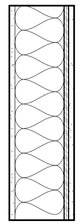
1-HR TYPE-X 5/8" GWB
2X6 FRAMING
R-21 MIN INSULATION
1/2" PLYWOOD SHEATHING
MOISTURE / VAPOR BARRIER PER GC
1X VERTICAL FURRING STRIP
SIDING

W6f



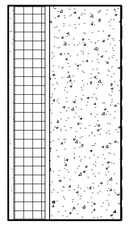
1-HR TYPE-X 5/8" GWB
PLYWOOD SHEATHING PER STRUCT
2X6 FRAMING
SOUND BATT INSULATION
1/2" PLYWOOD SHEATHING
1-HR TYPE-X 5/8" GWB

W6g



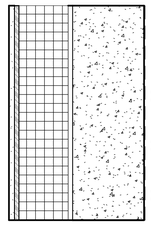
1-HR TYPE-X 5/8" GWB
PLYWOOD SHEATHING PER STRUCT
2X6 FRAMING
R-21 MIN INSULATION
1-HR TYPE-X 5/8" GWB

W6h



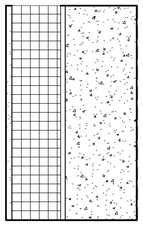
1-HR TYPE-X 5/8" GWB
2X4 FRAMING
R-21 MIN INSULATION
1/2" AIR GAP
8" CAST IN PLACE CONCRETE
DRAINAGE MAT /
WATERPROOFING PER GC

W8a



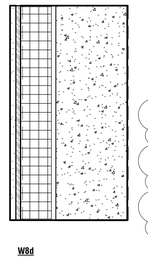
1-HR TYPE-X 5/8" GWB
PLYWOOD SHEATHING PER STRUCT.
2X6 FRAMING
R-21 MIN INSULATION
1/2" AIR GAP
8" CAST IN PLACE CONCRETE
DRAINAGE MAT /
WATERPROOFING PER GC

W8b



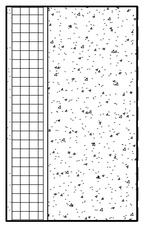
1-HR TYPE-X 5/8" GWB
2X6 FRAMING
R-21 MIN INSULATION
1/2" AIR GAP
8" CAST IN PLACE CONCRETE
DRAINAGE MAT /
WATERPROOFING PER GC

W8c



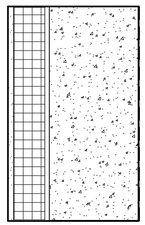
1-HR TYPE-X 5/8" GWB
PLYWOOD SHEATHING PER STRUCT
CLASS I OR II VAPOR RETARDER
PER IRC R702.7
2X4 FRAMING
R-21 MIN INSULATION
1/2" AIR GAP
8" CAST IN PLACE CONCRETE
DRAINAGE MAT /
WATERPROOFING PER GC

W8d



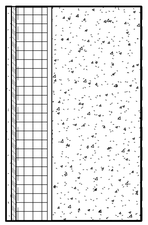
1-HR TYPE-X 5/8" GWB
2X4 FRAMING
R-21 MIN INSULATION
1/2" AIR GAP
10" CAST IN PLACE CONCRETE
DRAINAGE MAT /
WATERPROOFING PER GC

W10a



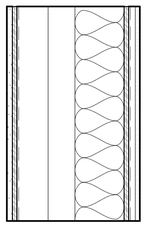
1-HR TYPE-X 5/8" GWB
2X4 FRAMING
R-21 MIN INSULATION
1/2" AIR GAP
10" CAST IN PLACE CONCRETE
DRAINAGE MAT /
WATERPROOFING PER GC

W10b



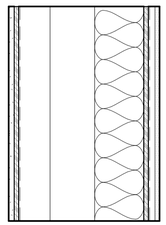
1-HR TYPE-X 5/8" GWB
PLYWOOD SHEATHING PER STRUCT
CLASS I OR II VAPOR RETARDER
PER IRC R702.7
2X4 FRAMING
R-21 MIN INSULATION
1/2" AIR GAP
10" CAST IN PLACE CONCRETE
DRAINAGE MAT /
WATERPROOFING PER GC

W10c



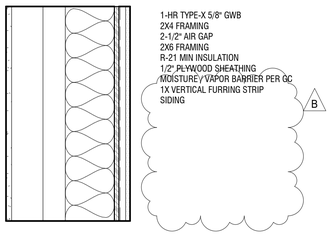
1-HR TYPE-X 5/8" GWB
PLYWOOD SHEATHING PER STRUCT
CLASS I OR II VAPOR RETARDER
PER IRC R702.7
2X4 FRAMING
SOUND BATT INSULATION
3" AIR GAP
2x6 FRAMING
R-21 MIN INSULATION
1/2" PLYWOOD SHEATHING
WRB
1X VERTICAL FURRING STRIP
SIDING

W10d



1-HR TYPE-X 5/8" GWB
1/2" PLYWOOD SHEATHING
CLASS I OR II VAPOR RETARDER
PER IRC R702.7
2X4 FRAMING
SOUND BATT INSULATION
5" AIR GAP
2x6 FRAMING
R-21 MIN INSULATION
1/2" PLYWOOD SHEATHING
WRB
1X VERTICAL FURRING STRIP
SIDING

W10e



1-HR TYPE-X 5/8" GWB
2X4 FRAMING
2-1/2" AIR GAP
2X6 FRAMING
R-21 MIN INSULATION
1/2" PLYWOOD SHEATHING
MOISTURE / VAPOR BARRIER PER GC
1X VERTICAL FURRING STRIP
SIDING

W12a

GENERAL NOTES:

1. 1-HR TYPE-X 5/8" GWB GYPSUM REQUIRED THROUGHOUT TO MEET APPROVED FIRE CODE ALTERNATE.
2. CLASS I OR II VAPOR RETARDERS ARE REQUIRED ON THE INTERIOR SIDE OF FRAME WALLS PER IRC R702.7.
   EXCEPTIONS:
   A. BASEMENT WALLS
   B. BELOW-GRADE PORTIONS OF ANY WALL
   C. CONSTRUCTION WHERE MOSITURE OR ITS FREEZING WILL NOT DAMAGE THE MATERIALS.

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8843
REGISTERED ARCHITECT
STATE OF WASHINGTON

HUBER RESIDENCE

9611 SE 72ND ST.
MERCER ISLAND, WA 98040

PERMIT SET

DATE: 9/17/21

SHEET SIZE: D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22
B	PLAN CHECK 2	11.07.22

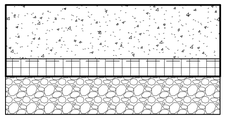
DRAWN BY:
CHECKED BY:

ASSEMBLY DETAILS - VERTICAL

SCALE: 1 1/2" = 1'-0"

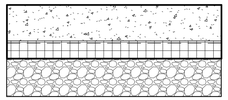
A700

HORIZONTAL ASSEMBLIES



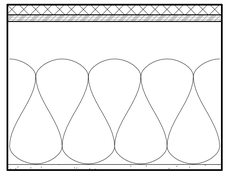
CONCRETE SLAB
(THICKNESS PER STRUCT)
VAPOR BARRIER
R-10 RIGID INSULATION
4" FREE DRAINING MATERIAL

F1



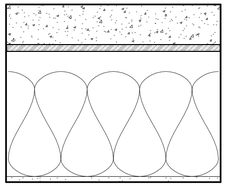
CONCRETE SLAB W/ RADIANT HEATING
(THICKNESS PER STRUCT)
VAPOR BARRIER
R-10 RIGID INSULATION
4" FREE DRAINING MATERIAL

F2



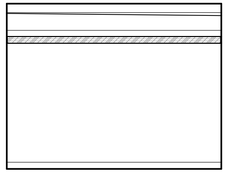
LARGE FORMAT TILE
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
SOUND BATT INSULATION
1-HR TYPE-X 5/8" GWB

F3



CONCRETE SLAB
(THICKNESS PER STRUCT)
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
R-30 MIN. BATT INSULATION
1-HR TYPE-X 5/8" GWB

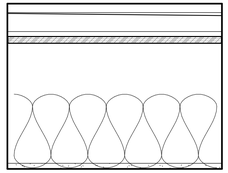
F4



DECKING
RIPPED FURRING, SLOPE 1/8":12"
'DURADECK' OR APPROVED ALTERNATE
MEMBRANE*
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
1X CEDAR T&G STAINED

*WATERPROOFING MUST BE
APPROVED FOR USE AS A WALKING
DECK AND FOR THE INSTALLATION OF
THE DECKING DIRECTLY ON THE
MEMBRANE PER ICC-ES WALKING
DECKS CRITRIA

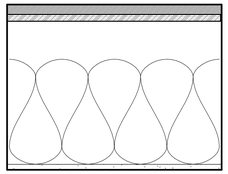
F5a



DECKING
RIPPED FURRING, SLOPE 1/8":12"
'DURADECK' OR APPROVED ALTERNATE
MEMBRANE*
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
R-30 MIN. BATT INSULATION
1-HR TYPE-X 5/8" GWB

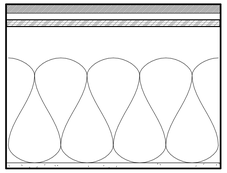
*WATERPROOFING MUST BE
APPROVED FOR USE AS A WALKING
DECK AND FOR THE INSTALLATION OF
THE DECKING DIRECTLY ON THE
MEMBRANE PER ICC-ES WALKING
DECKS CRITRIA

F5b



FINISH FLOOR
(CARPET IN BEDROOMS,
HARDWOOD IN HALLWAYS)
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
SOUND BATT INSULATION
1-HR TYPE-X 5/8" GWB

F6



FINISH FLOOR
(CARPET IN BEDROOMS,
HARDWOOD IN HALLWAYS)
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
R-30 MIN. BATT INSULATION
1-HR TYPE-X 5/8" GWB

F7

2X6 FRAMING
1-HR TYPE-X 5/8" GWB

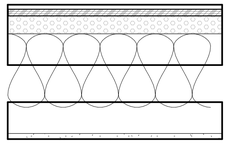
C1

2X6 FRAMING
5/8" GWB

C2

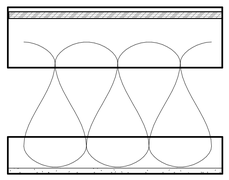
2X4 FRAMING
5/8" GWB

C3



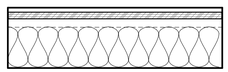
COMPOSITE ROOFING
ROOFING MEMBRANE
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
R-10 MIN AIR IMPERMEABLE CLASS
II VAPOR RETARDER SPRAY FOAM
INSULATION INSTALLED IN DIRECT
CONTACT TO UNDERSIDE OF
SHEATHING AND R-28 MIN AIR
PERMEABLE INSULATION APPLIED
DIRECTLY TO THE UNDERSIDE OF THE
AIR IMPERMEABLE INSULATION IN
ACCORDANCE WITH
R806.5.5.5.1 (5.1.3) TO A TOTAL
OF R-38 MIN
1-HR TYPE-X 5/8" GWB

R1



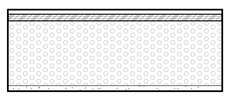
COMPOSITE ROOFING
ROOFING MEMBRANE
PLYWOOD SHEATHING PER STRUCT
PRE-MANUFACTURED TRUSSES PER
TRUSS MANUFACTURER
R-49 MIN INSULATION
(ENSURE 1" AIR GAP FOR VENTILATION)
1-HR TYPE-X 5/8" GWB

R2



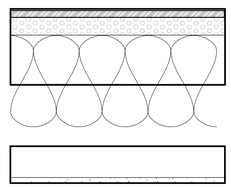
COMPOSITE ROOFING
ROOFING MEMBRANE
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
R-49 MIN INSULATION
(ENSURE 1" AIR GAP FOR VENTILATION)

R2.2



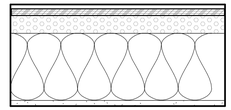
COMPOSITE ROOFING
ROOFING MEMBRANE
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
AIR-IMPERMEABLE CLASS II VAPOR
RETARDER SPRAY FOAM INSULATION
INSTALLED IN DIRECT CONTACT TO
UNDERSIDE OF SHEATHING IN
ACCORDANCE WITH R806.5.5.5.1 (5.1.1)
& R806.5.5.5.3 TO A TOTAL OF R-38 MIN
1-HR TYPE-X 5/8" GWB

R3



COMPOSITE ROOFING
ROOFING MEMBRANE
PLYWOOD SHEATHING PER STRUCT
PRE-MANUFACTURED TRUSSES PER
TRUSS MANUFACTURER
R-10 MIN AIR-IMPERMEABLE
CLASS II VAPOR RETARDER
SPRAY FOAM INSULATION
INSTALLED IN DIRECT CONTACT
TO UNDERSIDE OF SHEATHING
AND R-39 MIN AIR PERMEABLE
INSULATION APPLIED DIRECTLY
TO THE UNDERSIDE OF THE AIR
IMPERMEABLE INSULATION IN
ACCORDANCE WITH
R806.5.5.5.1 (5.1.3) TO A TOTAL
OF R-49 MIN
1-HR TYPE-X 5/8" GWB

R4



COMPOSITE ROOFING
ROOFING MEMBRANE
PLYWOOD SHEATHING PER STRUCT
FRAMING PER STRUCT
R-10 MIN AIR IMPERMEABLE
CLASS II VAPOR RETARDER
SPRAY FOAM INSULATION
INSTALLED IN DIRECT CONTACT
TO UNDERSIDE OF SHEATHING
AND R-28 MIN AIR PERMEABLE
INSULATION APPLIED DIRECTLY
TO THE UNDERSIDE OF THE
AIR IMPERMEABLE INSULATION
IN ACCORDANCE WITH
R806.5.5.5.1 (5.1.3) TO A TOTAL
OF R-38 MIN
1-HR TYPE-X 5/8" GWB

R5

GENERAL NOTE:

1-HR GYPSUM REQUIRED THROUGHOUT TO MEET APPROVED FIRE CODE ALTERNATE.

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8843
REGISTERED ARCHITECT
STATE OF WASHINGTON

HUBER RESIDENCE

9611 SE 72ND ST.
MERCER ISLAND, WA 98040

PERMIT SET

DATE: 9/17/21

SHEET SIZE: D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
A	PLAN CHECK 1	04.05.22

DRAWN BY:
CHECKED BY:

ASSEMBLY DETAILS - HORIZONTAL

SCALE: 1 1/2" = 1'-0"

A701

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 (2018 EDITION).

2. DESIGN LOADING CRITERIA:
   RESIDENTIAL - ONE AND TWO-FAMILY DWELLINGS
   FLOOR LIVE LOAD . . . . 40 PSF
   ROOF
   ROOF LIVE LOAD . . . . 25 PSF
   MISCELLANEOUS LOADS
   DECKS . . . . 1.5 x AREA SERVED
   PHOTOVOLTAIC PANEL SYSTEMS . . . . 5 PSF
   ENVIRONMENTAL LOADS
   RAIN . . . . 1.5 IN/HR
   SNOW . . . . Ce=1.0, Is=1.0, Ct=1.1, Cs=1.0, Pg=25 PSF, Pf=25 PSF
   WIND . . . . GCpi=0.18, 100 MPH, RISK CATEGORY II, EXPOSURE "C" △1
   EARTHQUAKE . . . ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS, SITE CLASS=D,
   Ss=1.45, Sds=1.16, S1=0.50, SD1=0.57, Cs=0.179
   SDC D (DEFAULT), Ie=1.0, R=6.5

3. 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.

4. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTION, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

5. 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.

6. 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".

7. 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.

8. 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.

9. ALL STRUCTURAL SYSTEMS, WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED, SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

10. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

    STRUCTURAL STEEL
    PRE-FABRICATED ASSEMBLIES (INCLUDING PANELIZED SYSTEMS)

11. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN TWO WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

    SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

12. SHOP DRAWINGS OF DESIGN BUILD COMPONENTS INCLUDING CANOPIES, BALCONIES, COLD FORM STEEL FRAMING, TEMPORARY SHORING, CURTAIN WALL SYSTEMS, SKYLIGHT FRAMES, PREFABRICATED STAIR SYSTEMS, EXTERIOR CLADDING, AND PRE-ENGINEERED SYSTEMS SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON. SHOP DRAWINGS SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO REVIEW OF THE ARCHITECT OR ENGINEER OF RECORD FOR GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.

13. DEFERRED SUBMITTALS: SHOP DRAWINGS AND CALCULATIONS OF DEFERRED SUBMITTAL COMPONENTS SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER OF RECORD FOR GENERAL CONFORMANCE. ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE INCLUDED. SHOP DRAWINGS SHALL INCLUDE THE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE BASIC STRUCTURE. DESIGN CALCULATIONS SHALL ACCOMPANY ALL DEFERRED SUBMITTALS. THE ARCHITECT OR CONTRACTOR SHALL FORWARD DEFERRED SUBMITTALS TO THE BUILDING OFFICIAL WHERE REQUIRED.

    DEFERRED SUBMITTAL BUILDING COMPONENTS FOR THIS PROJECT SHALL INCLUDE:

    PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES

GEOTECHNICAL

14. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL AT LEAST 18" BELOW LOWEST 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 SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

    ALLOWABLE SOIL PRESSURE . . . . 3000 PSF
    LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED). . . . . . . 55 PCF/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) . . . . 6H PSF

    SOILS REPORT REFERENCE:
    GEOTECHNICAL ENGINEERING STUDY
    FILE NO. 21-004
    9611 SE 72ND ST
    MERCER ISLAND, WA

    PREPARED BY
    PANGEO ON SEPT. 7, 2021

QUALITY ASSURANCE

15. 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.

STRUCTURAL STEEL FABRICATION AND ERECTION	PER AISC 360
WOOD FRAMING	PER 1705.1.1, 1705.11.1, 1705.12.1
△1 WOOD TRUSSES GREATER THAN 5' DEEP OR 60' LONG	PER 1705.5.2

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.

16. △1 STRUCTURAL OBSERVATION SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 1704.6 OF THE INTERNATIONAL BUILDING CODE FOR THE FOLLOWING BUILDING ELEMENTS:

    LIGHT FRAMED SHEAR WALLS
    HOLDDOWNS
    STRUCTURAL STEEL CONSTRUCTION

    THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD ADEQUATE NOTICE TO SCHEDULE APPROPRIATE SITE VISITS FOR STRUCTURAL OBSERVATION.

    STRUCTURAL OBSERVATION MEANS THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM, FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS, AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY SECTION 110, 1705, OR OTHER SECTIONS OF THE INTERNATIONAL BUILDING CODE.

    THE OWNER SHALL EMPLOY THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, TO PERFORM STRUCTURAL OBSERVATION. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR, CONTRACTOR, AND THE BUILDING OFFICIAL. THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

CONCRETE

17. 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.

18. ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14, TABLE 19.3.2.1 MODERATE EXPOSURE, F1.

19. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, FY = 40,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. SPIRAL REINFORCEMENT SHALL BE DEFORMED WIRE CONFORMING TO ASTM A615, GRADE 60, FY = 60,000 PSI.

20. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315R-18 AND 318-14. 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. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

    NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

21. 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 (#6 BARS OR LARGER) . . . . 2"
    FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER). . 1-1/2"
    COLUMN TIES OR SPIRALS AND BEAM STIRRUPS . . . . 1-1/2"
    SLABS AND WALLS (INT. FACE). . . GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

22. CONCRETE WALL REINFORCING--PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE: △1

6" WALLS	#4 @ 16 HORIZ.	#4 @ 18 VERTICAL	1 CURTAIN
8" WALLS	#4 @ 12 HORIZ.	#4 @ 18 VERTICAL	1 CURTAIN
10" WALLS	#4 @ 18 HORIZ.	#4 @ 18 VERTICAL	2 CURTAINS
12" WALLS	#4 @ 16 HORIZ.	#4 @ 18 VERTICAL	2 CURTAINS

23. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.

24. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

ANCHORAGE

25. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2" WEDGE ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY AND INSTALLED IN STRICT CONFORMANCE TO ICC-ES REPORT NUMBER ESR-3037, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. PERIODIC SPECIAL INSPECTION IS REQUIRED TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, ANCHOR LOCATION, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.

26. CONCRETE SCREW ANCHORS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "TITEN HD" HEAVY DUTY SCREW ANCHOR AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2713 (CONCRETE), NO. ESR-1056 (CMU), INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. SCREW ANCHORS INTO CONCRETE MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION IS REQUIRED.

STEEL

27. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON:

    A. AISC 360-16 AND SECTION 2205.2 OF THE INTERNATIONAL BUILDING CODE.
    B. JUNE 15, 2016 AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AMENDED AS FOLLOWS: AS NOTED IN THE CONTRACT DOCUMENTS, BY THE DELETION OF PARAGRAPH 4.4.1, AND REVISE REFERENCE FROM "STRUCTURAL DESIGN DRAWINGS" TO "CONTRACT DOCUMENTS" IN PARAGRAPH 3.1.
    C. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

28. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, FY = 50 KSI. OTHER ROLLED SHAPES INCLUDING PLATES, SHALL CONFORM TO ASTM A36, FY = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A-53, TYPE E OR S, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE C, FY = 46 KSI (ROUND), FY = 50 KSI (SQUARE AND RECTANGULAR). CONNECTION BOLTS SHALL CONFORM TO ASTM A307.

29. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

30. ALL STEEL EXPOSED TO THE WEATHER OR IN CONTACT WITH GROUND SHALL BE CORROSION PROTECTED BY GALVANIZATION OR PROVIDED WITH EXTERIOR PAINT SYSTEM, UNLESS OTHERWISE NOTED.

31. SHOP PRIME ALL STEEL EXCEPT:

    A. STEEL ENCASED IN CONCRETE.
    B. SURFACES TO BE WELDED.
    C. CONTACT SURFACES AT HIGH-STRENGTH BOLTS.
    D. MEMBERS TO BE GALVANIZED.
    E. MEMBERS WHICH WILL BE CONCEALED BY INTERIOR FINISHES.
    F. SURFACES TO RECEIVE SPRAYED FIREPROOFING.
    G. SURFACES TO RECEIVE OTHER SPECIAL SHOP PRIMERS.

32. ALL A-325N CONNECTION BOLTS NEED ONLY BE TIGHTENED TO A SNUG TIGHT CONDITION, DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH.

33. ALL ANCHORS EMBEDDED IN MASONRY OR CONCRETE SHALL BE A307 HEADED BOLTS OR A36 THREADED ROD WITH AN ASTM 563 HEAVY HEX NUT TACK WELDED ON THE EMBEDDED END.

34. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT -20 DEGREES F AND 40 FT - LBS AT 70 DEGREES F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

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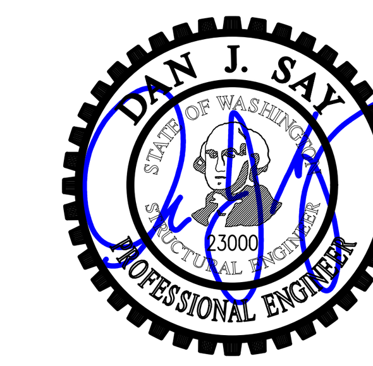

DESIGN:	DMR
DRAWN:	NHD
CHECKED:	BDM
APPROVED:	DJS

REVISIONS:

△1	Permit Corrections	Apr. 19, 2022
△2	Permit Corrections 2	Nov. 17, 2022

DPD:

PROJECT TITLE:
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ISSUE:
PERMIT

SHEET TITLE:
General Structural Notes

SCALE:	-
DATE:	September 14, 2021
PROJECT NO:	01519-2021-06

SHEET NO:
S1.1

General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

WOOD

35. FRAMING LUMBER SHALL BE S-DRY, KD, OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD No. 17, GRADING RULES FOR WEST COAST LUMBER, 2018, OR WWPA STANDARD, WESTERN LUMBER GRADING RULES 2017. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS	(2X & 3X MEMBERS)	HEM-FIR NO. 2 MINIMUM BASE VALUE, Fb = 850 PSI
	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1000 PSI
BEAMS	(INCL. 6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1350 PSI
POSTS	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, Fc = 1350 PSI
	(6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fc = 1000 PSI
STUDS, PLATES & MISC. FRAMING:		DOUGLAS FIR-LARCH NO. 2 OR HEM-FIR NO. 2

36. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv =265 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI.

37. MANUFACTURED LUMBER, PSL, LVL, AND LSL SHOWN ON PLAN ARE BASED PRODUCTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION IN ACCORDANCE WITH ICC-ES REPORT ESR-1387. MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

PSL (2.0E WS)	Fb = 2900 PSI,	E = 2000 KSI,	Fv = 290 PSI
LVL (2.0E-2600FB WS)	Fb = 2600 PSI,	E = 2000 KSI,	Fv = 285 PSI
LSL (1.55E)	Fb = 2325 PSI,	E = 1550 KSI,	Fv = 310 PSI

ALTERNATE MANUFACTURED LUMBER MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE MANUFACTURER'S PRODUCTS SHALL BE COMPATIBLE WITH THE JOIST HANGERS AND OTHER HARDWARE SPECIFIED ON PLANS, OR ALTERNATE HANGERS AND HARDWARE SHALL SUBMITTED FOR REVIEW AND APPROVAL. SUBSTITUTED ITEMS SHALL HAVE ICC-ES REPORT APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES.

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.

38. PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION, IN ACCORDANCE WITH ICC-ES REPORT ESR-1157. ALTERNATE PLYWOOD WEB JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE MANUFACTURER'S PRODUCTS SHALL BE COMPATIBLE WITH THE JOIST HANGERS AND OTHER HARDWARE SPECIFIED ON PLANS, OR ALTERNATE HANGERS AND HARDWARE SHALL SUBMITTED FOR REVIEW AND APPROVAL. SUBSTITUTED ITEMS SHALL HAVE ICC-ES REPORT APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES.

39. PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "NATIONAL DESIGN STANDARD FOR METAL PLATE-CONNECTED WOOD TRUSS CONSTRUCTION, ANSI/TPI 1" BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. LOADING SHALL BE AS FOLLOWS:

TOP CHORD LIVE LOAD	25 PSF
TOP CHORD DEAD LOAD	15 PSF
BOTTOM CHORD DEAD LOAD	5 PSF
TOTAL LOAD	40 PSF
WIND UPLIFT (TOP CHORD)	25 PSF
BOTTOM CHORD LIVE LOAD	10 PSF
(BOTTOM CHORD LIVE LOAD DOES NOT ACT CONCURRENTLY WITH THE ROOF LIVE LOAD)	

WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR EQUAL). SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. SUBMITTED DOCUMENTS SHALL BE SIGNED AND STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON. PROVIDE FOR SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC., SHOWN ON THE DRAWINGS. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS (USE OF GIRDER TRUSSES, JACK TRUSSES, STEP-DOWN TRUSSES, ETC.) SHALL BE DETERMINED BY THE MANUFACTURER UNLESS SPECIFICALLY INDICATED ON THE PLANS. PROVIDE ALL TRUSS TO TRUSS AND TRUSS TO GIRDER TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

40. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1 OR PS 2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

ROOF SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 32/16.

FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24.

WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.

PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

41. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

42. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA UC4B.

43. FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE AS INDICATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE NOTED.

WOOD TREATMENT	CONDITION	PROTECTION
HAS NO AMMONIA CARRIER	INTERIOR DRY	G90 GALVANIZED
CONTAINS AMMONIA CARRIER	INTERIOR DRY	G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653
CONTAINS AMMONIA CARRIER	INTERIOR WET	TYPE 304 OR 316 STAINLESS
CONTAINS AMMONIA CARRIER	EXTERIOR	TYPE 304 OR 316 STAINLESS
AZCA	ANY	TYPE 304 OR 316 STAINLESS

INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR WET, EXTERIOR WET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

44. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.

WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

45. WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
6d	2"	0.113"
8d	2-1/2"	0.131"
10d	3"	0.148"
12d	3-1/4"	0.148"
16d BOX	3-1/2"	0.135"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DEGREES WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.

B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.

46. NOTCHES AND HOLES IN WOOD FRAMING:

A. NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.

B. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.

C. NOTCHES AND HOLES IN MANUFACTURED LUMBER AND PREFABRICATED PLYWOOD WEB JOISTS SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE NOTED.

47. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE, THE AITC "TIMBER CONSTRUCTION MANUAL" AND THE AWC "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

B. WALL FRAMING: REFER ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. UNO. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O.C.. LAP TOP PLATES AT JOINTS A MINIMUM 4'-0" AND NAIL WITH TWELVE 16d NAILS @ 4" O.C. EACH SIDE JOINT.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" ON-CENTER, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" ON-CENTER EMBEDDED 7" MINIMUM, UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @12" ON-CENTER. UNLESS OTHERWISE NOTED, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH NO. 6 X 1-1/4" TYPE S OR W SCREWS @ 8" ON-CENTER. UNLESS INDICATED OTHERWISE, 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS @ 6" ON-CENTER AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS @ 12" ON-CENTER ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.

C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING BETWEEN RAFTERS AND JOISTS AT ALL BEARING POINTS WITH A MINIMUM OF (3) 16d TOE NAILS EACH END. TOE-NAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12" ON-CENTER.

UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6" ON-CENTER WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" ON-CENTER TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d @ 12" ON-CENTER, MINIMUM TWO NAILS PER BLOCK, UNLESS OTHERWISE NOTED.

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DAN J. SAY — STATE OF WASHINGTON — 23000 — REGISTERED PROFESSIONAL ENGINEER

DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Permit Corrections	Apr. 19, 2022
2	Permit Corrections 2	Nov. 17, 2022

DPD:

PROJECT TITLE:
Huber Residence
9611 SE 72nd Street
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
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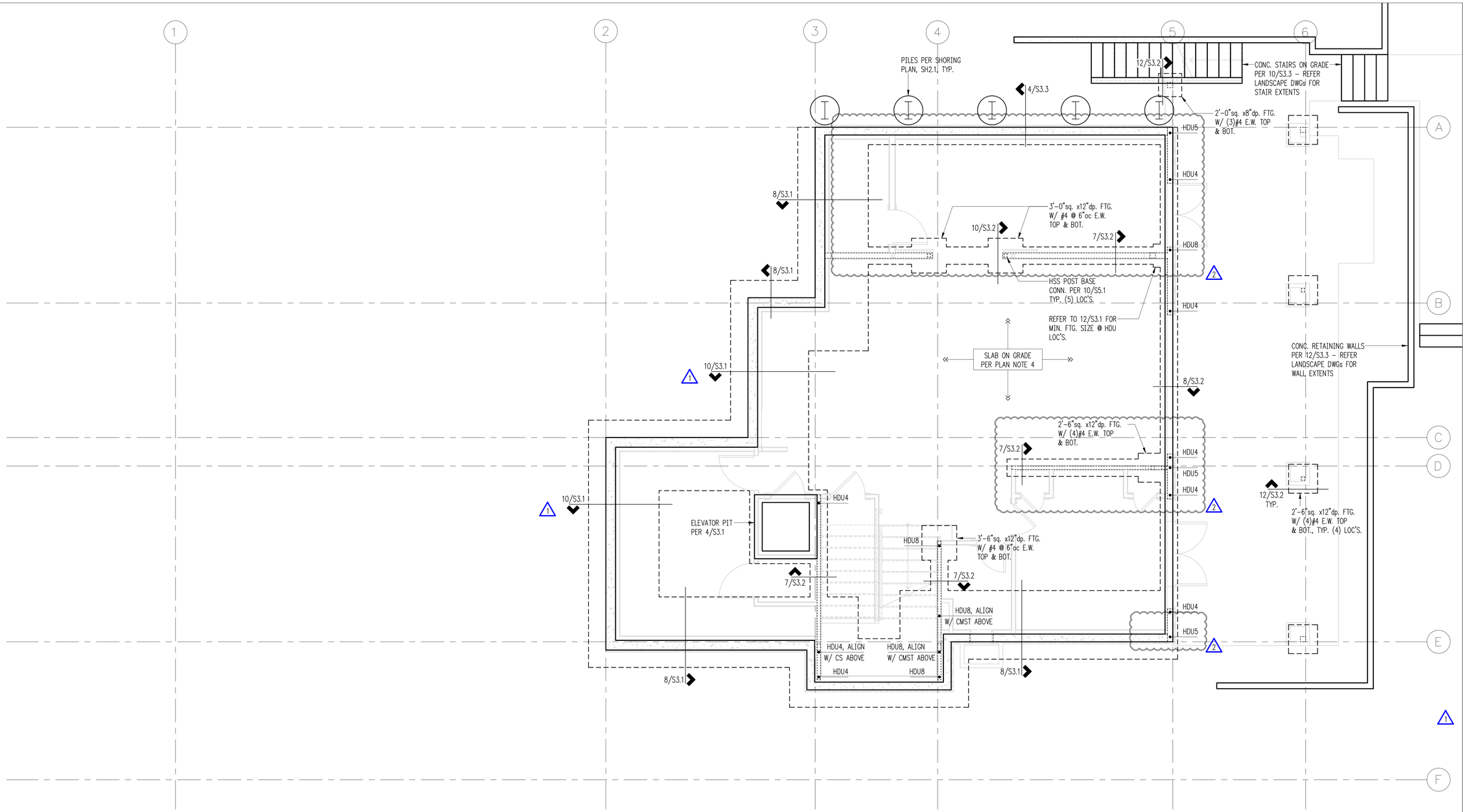
ISSUE: PERMIT

SHEET TITLE: General Structural Notes

SCALE: -
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S1.2



Foundation Plan

Scale: 1/4" = 1'-0"

Plan Notes

1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
2. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
3. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 18" MINIMUM BELOW EXTERIOR GRADE.
4. INTERIOR SLABS ON GRADE SHALL BE 4" MINIMUM THICKNESS. REINFORCE WITH #3 AT 16" O.C. CENTERED IN SLAB. BELOW SLAB PROVIDE A 10-MIL VAPOR BARRIER OVER 6" MINIMUM FREE DRAINING GRAVEL OVER FIRM NATIVE SOILS OR STRUCTURAL FILL.
5. ALL POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE FULL CONTINUOUS BEARING THROUGH FLOORS TO FOUNDATION.

Legend

- STRUCTURAL WALL OR POST ABOVE
- STEM WALL & FOOTING
- HDxx — HOLDOWN PER 10 & 12/S3.1

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DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Permit Corrections	Apr. 19, 2022
2	Permit Corrections 2	Nov. 17, 2022

DPD:

PROJECT TITLE:

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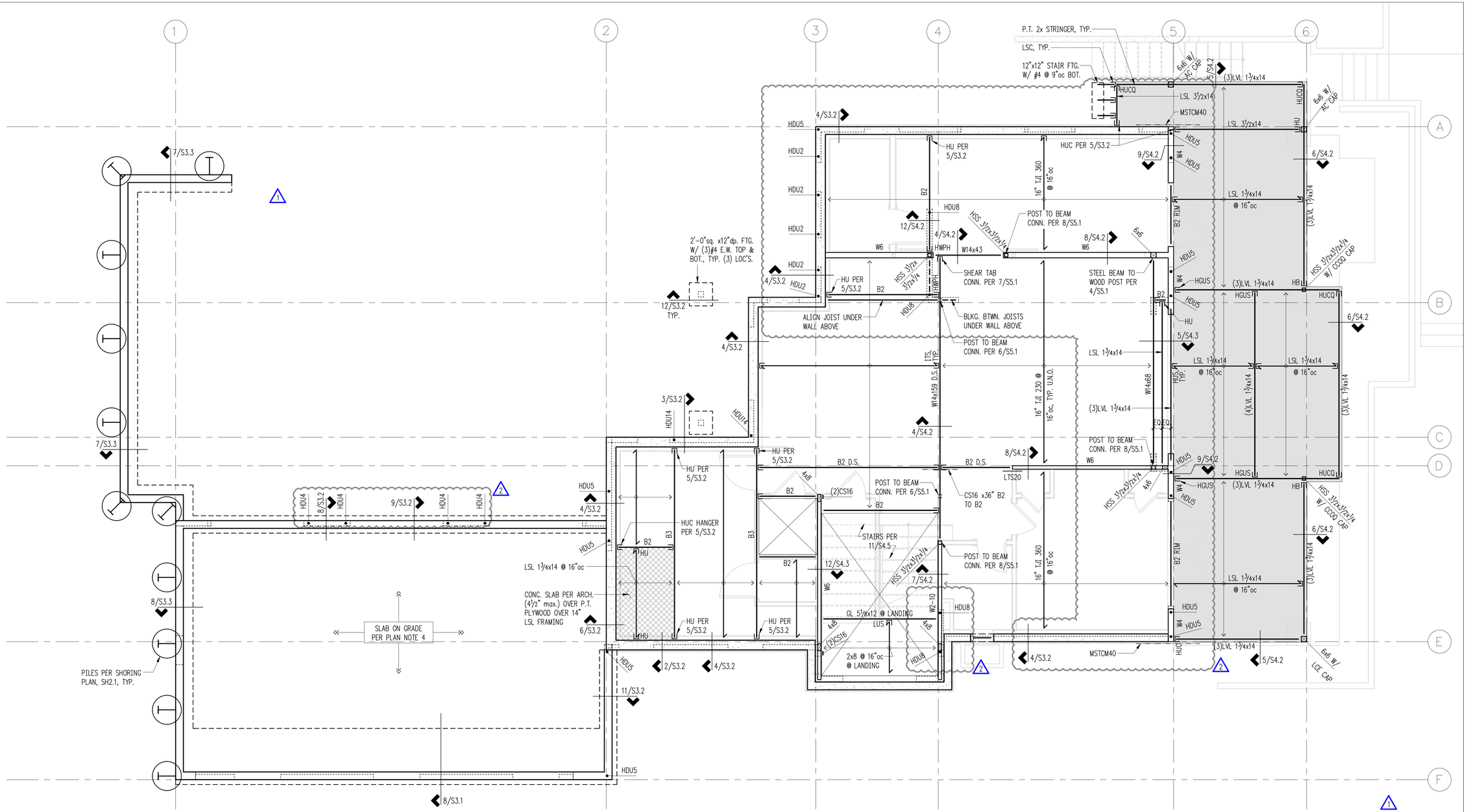
ISSUE: PERMIT

SHEET TITLE: Foundation Plan

SCALE: 1/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S2.1



Main Floor Framing Plan

Scale: 1/4" = 1'-0"

Plan Notes

1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
2. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
3. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 18" MINIMUM BELOW EXTERIOR GRADE.
4. INTERIOR SLABS ON GRADE SHALL BE 4" MINIMUM THICKNESS. REINFORCE WITH #3 AT 16" O.C. CENTERED IN SLAB. BELOW SLAB PROVIDE A 10-MIL VAPOR BARRIER OVER 6" MINIMUM FREE DRAINING GRAVEL OVER FIRM NATIVE SOILS OR STRUCTURAL FILL.
5. ALL POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE FULL CONTINUOUS BEARING THROUGH FLOORS TO FOUNDATION.
6. TYPICAL FLOOR FRAMING CONSISTS OF FLOORING PER ARCHITECT OVER 3/4" T&G APA RATED PLYWOOD OVER JOISTS PER PLAN, FACE GRAIN PERPENDICULAR TO JOISTS, U.O.N.
7. NAIL FLOOR SHEATHING W/ 8D AT 6" OC AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND AT 12" OC IN FIELD.
8. PROVIDE BLOCKING/BRIDGING AT 8'-0" O.C. IN FLOOR FRAMING
9. "W_" INDICATES PLYWOOD SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE FOR WALL ATTACHMENTS. ALL EXTERIOR WOOD FRAMED WALLS ARE W6, U.O.N.
10. ALL WOOD HEADERS SHALL BE (2) 2X8, U.O.N
11. PROVIDE (2) BEARING STUDS AT EACH END OF ALL HEADERS AND BEAMS OVER 3'-0" IN LENGTH, U.O.N.
12. MANUFACTURED LUMBER PRODUCTS (LSL, LVL, PSL, GL) SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%.
13. PROVIDE AC, ACE, PC, EPC, LPC, OR LCE COLUMN CAP AND BASE AT ALL BEAM TO COLUMN CONNECTIONS U.O.N.

Legend

- STRUCTURAL WALL OR POST BELOW
- STRUCTURAL WALL OR POST ABOVE
- NON-STRUCTURAL WALL BELOW
- STEM WALL & FOOTING
- Wx — SHEARWALL PER 12/S4.1
- SPAN DIRECTION
- EXTENT OF JOISTS
- HEADER/BEAM PER PLAN
- HANGER
- Bx — BEAM PER SCHEDULE, THIS SHEET
- D.S. — DRAG STRUT: NAIL W/ 8d @ 3"oc THRU SHEATHING
- CSxx or CMSTxx — HOLDOWN STRAP PER 9/S4.1
- HDxx — HOLDOWN PER 12/S3.1
- BLOCKED FLOOR DIAPHRAGM: 2x4 FLAT BLKG. AT ALL PLYWOOD PANEL EDGES. NAIL ALL PLYWOOD PANEL EDGES W/ 8d @ 4"oc & @ 12"oc FIELD

Beam Schedule

MARK	BEAM	HANGER	BRG. STUDS
B1	LSL 1¾x16	IUS1.81/16	2
B2	LSL 3½x16	MGU3.63-SDS	3
B3	(3)LVL 1¾x16	HGUS5.50/14	4
B4	(4)LVL 1¾x16	HGUS7.25/14	5

NOTE: FOR BUILT-UP BEAM ASSEMBLY, REFER 10/S4.1

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DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:
1 Permit Corrections Apr. 19, 2022
2 Permit Corrections 2 Nov. 17, 2022

DPD:

PROJECT TITLE:
Huber Residence
9611 SE 72nd Street
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ARCHITECT:
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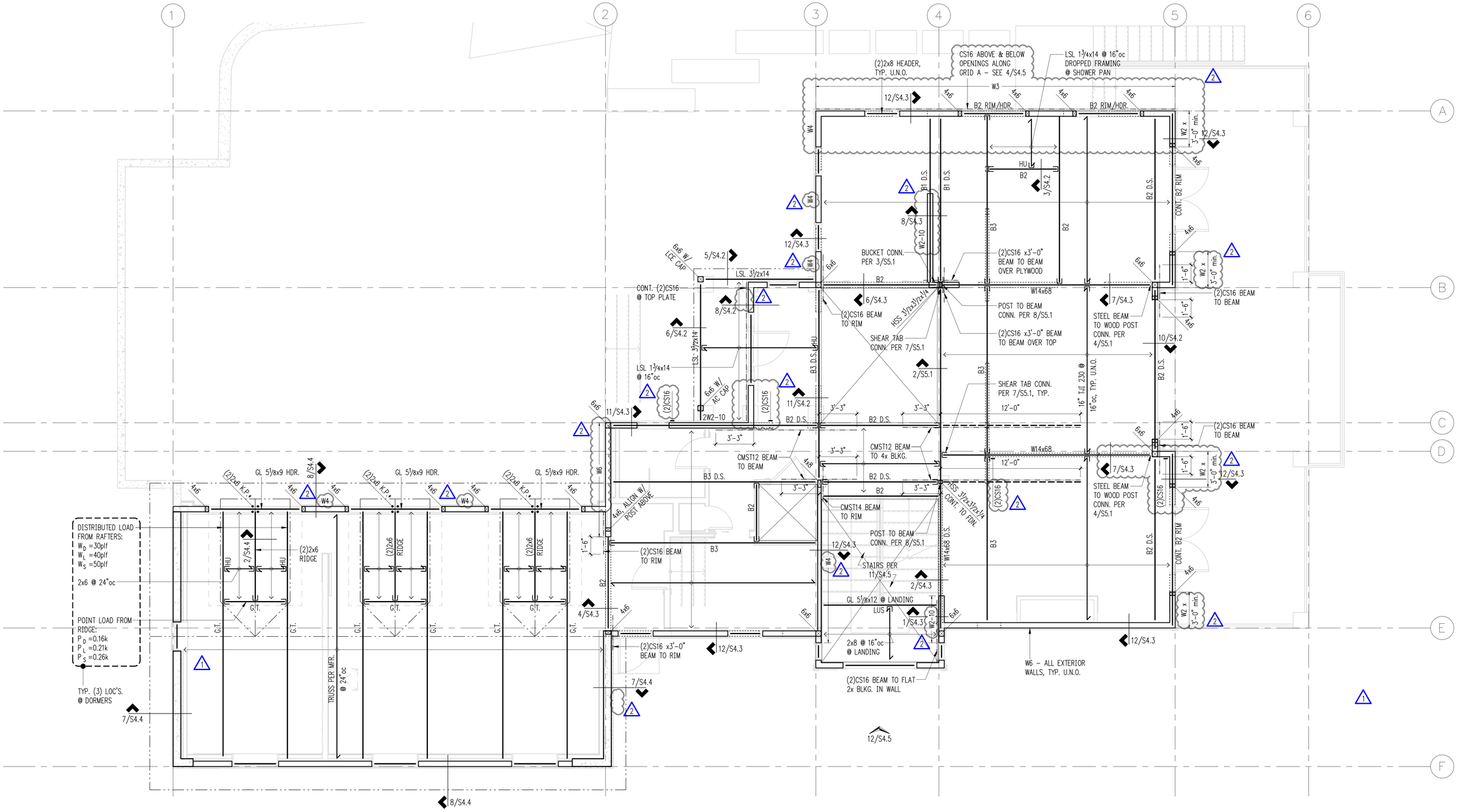
ISSUE: PERMIT

SHEET TITLE: Main Floor Framing Plan

SCALE: 1/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S2.2



Upper Floor Framing Plan

Scale: ¼" = 1'-0"

Plan Notes

1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
2. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
3. ALL POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE FULL CONTINUOUS BEARING THROUGH FLOORS TO FOUNDATION.
4. TYPICAL FLOOR FRAMING CONSISTS OF FLOORING PER ARCHITECT OVER 3/4" T&G APA RATED PLYWOOD OVER JOISTS PER PLAN, FACE GRAIN PERPENDICULAR TO JOISTS, U.O.N.
5. ENTIRE FLOOR DIAPHRAGM TO BE BLOCKED WITH 2X4 BLOCKING AT ALL PLYWOOD PANEL EDGES. NAIL FLOOR SHEATHING W/ 10D AT 2" OC AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND AT 12" OC IN FIELD.
6. PROVIDE BLOCKING/BRIDGING AT 8'-0" O.C. IN FLOOR FRAMING
7. "W_" INDICATES PLYWOOD SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE FOR WALL ATTACHMENTS. ALL EXTERIOR WOOD FRAMED WALLS ARE W6, U.O.N.
8. ALL WOOD HEADERS SHALL BE (2) 2X8, U.O.N
9. PROVIDE (2) BEARING STUDS AT EACH END OF ALL HEADERS AND BEAMS OVER 3'-0" IN LENGTH, U.O.N.
10. MANUFACTURED LUMBER PRODUCTS (LSL, LVL, PSL, GL) SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%.
11. PROVIDE AC, ACE, PC, EPC, LPC, OR LCE COLUMN CAP AND BASE AT ALL BEAM TO COLUMN CONNECTIONS U.O.N.
12. TYPICAL ROOF FRAMING CONSISTS OF ROOFING PER ARCHITECTURAL DRAWINGS OVER 1/2" CDX OR 7/16" O.S.B. APA RATED SHEATHING (EXPOSURE 1), FACE GRAIN PERPENDICULAR TO FRAMING PER PLAN, U.O.N.
13. NAIL ROOF SHEATHING WITH 8D AT 6" O.C. AT ALL FRAMED PANEL EDGES AND OVER SHEARWALLS, AND AT 12" O.C. FIELD.
14. PROVIDE H1 AT ENDS OF ALL ROOF FRAMING, U.O.N.

Legend

	STRUCTURAL WALL OR POST BELOW
	STRUCTURAL WALL OR POST ABOVE
	NON-STRUCTURAL WALL BELOW
Wx	SHEARWALL PER 12/S4.1
	SPAN DIRECTION
	EXTENT OF JOISTS
	HEADER/BEAM PER PLAN
	HANGER
G.T.	GIRDER TRUSS
K.P.*	KING POST PER PLAN W/ LCE CAP & INV. AC BASE
Bx	BEAM PER SCHEDULE, THIS SHEET
D.S.	DRAG STRUT: NAIL W/ 10d @ 2"oc THRU SHEATHING
CSxx	HOLDOWN STRAP PER 9/S4.1
W.C.	WESTERN CEDAR

Beam Schedule

MARK	BEAM	HANGER	BRG. STUDS
B1	LSL 1¾x16	IUS1.81/16	2
B2	LSL 3½x16	MGU3.63-SDS	3
B3	(3)LVL 1¾x16	HGUS5.50/14	4
B4	(4)LVL 1¾x16	HGUS7.25/14	5

NOTE: FOR BUILT-UP BEAM ASSEMBLY, REFER 10/S4.1

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DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Permit Corrections	Apr. 19, 2022
2	Permit Corrections 2	Nov. 17, 2022

DPD:

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ARCHITECT:
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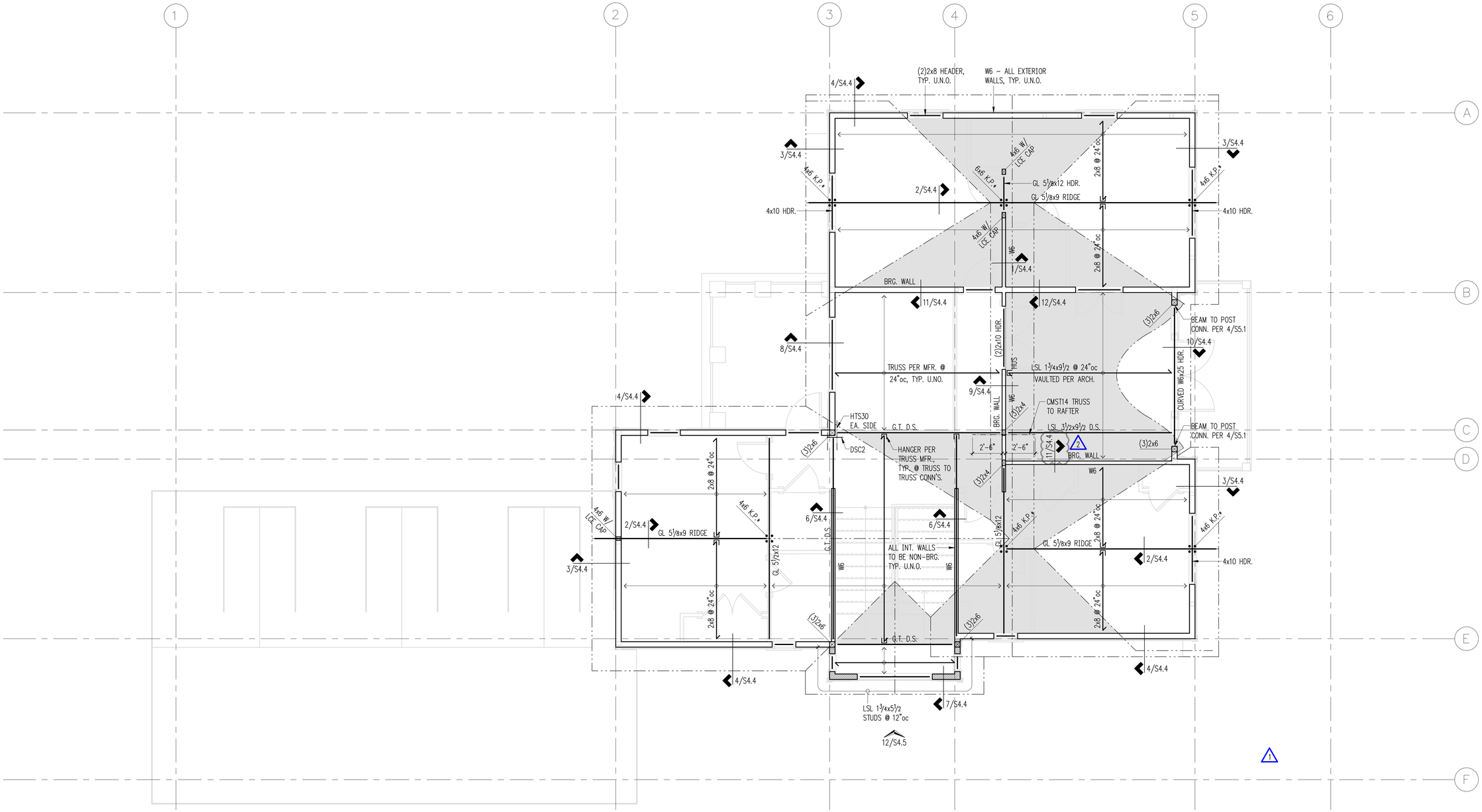
ISSUE: PERMIT

SHEET TITLE: Upper Floor Framing Plan

SCALE: 1/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06

SHEET NO: S2.3



Roof Framing Plan

Scale: 1/4" = 1'-0"

Plan Notes

1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
2. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
3. "W_" INDICATES PLYWOOD SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE FOR WALL ATTACHMENTS. ALL EXTERIOR WOOD FRAMED WALLS ARE W6, U.O.N.
4. ALL WOOD HEADERS SHALL BE (2) 2X8, U.O.N
5. PROVIDE (2) BEARING STUDS AT EACH END OF ALL HEADERS AND BEAMS OVER 3'-0" IN LENGTH, U.O.N.
6. MANUFACTURED LUMBER PRODUCTS (LSL, LVL, PSL, GL) SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%.
7. PROVIDE AC, ACE, PC, EPC, LPC, OR LCE COLUMN CAP AND BASE AT ALL BEAM TO COLUMN CONNECTIONS U.O.N.
8. TYPICAL ROOF FRAMING CONSISTS OF ROOFING PER ARCHITECTURAL DRAWINGS OVER 1/2" CDX OR 7/16" O.S.B. APA RATED SHEATHING (EXPOSURE 1), FACE GRAIN PERPENDICULAR TO FRAMING PER PLAN, U.O.N.
9. NAIL ROOF SHEATHING WITH 8D AT 6" O.C. AT ALL FRAMED PANEL EDGES AND OVER SHEARWALLS, AND AT 12" O.C. FIELD.
10. PROVIDE H1 AT ENDS OF ALL ROOF FRAMING, U.O.N.

Legend

	STRUCTURAL WALL OR POST BELOW
	NON-STRUCTURAL WALL BELOW
Wx	SHEARWALL PER 12/S4.1
	SPAN DIRECTION
	EXTENT OF JOISTS
	HEADER/BEAM PER PLAN
	HANGER
G.T.	GIRDER TRUSS
K.P.*	KING POST PER PLAN W/ LCE CAP & INV. AC BASE
	OVERFRAME W/ 2x6 @ 24"oc. POST DOWN TO FRAMING BELOW @ 4'-0"oc REFER DETAIL 5/S4.4, TYP.
D.S.	DRAG STRUT: NAIL W/ 8d @ 3"oc THRU SHEATHING 1

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DESIGN: DMR
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CHECKED: BDM
APPROVED: DJS

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1	Permit Corrections	Apr. 19, 2022
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DPD:

PROJECT TITLE:

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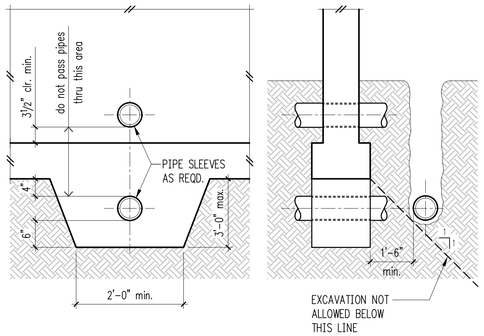
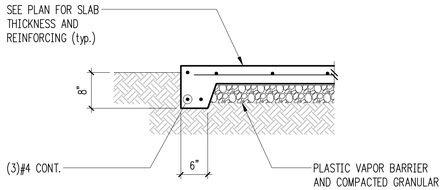
ISSUE: PERMIT

SHEET TITLE: Roof Framing Plan

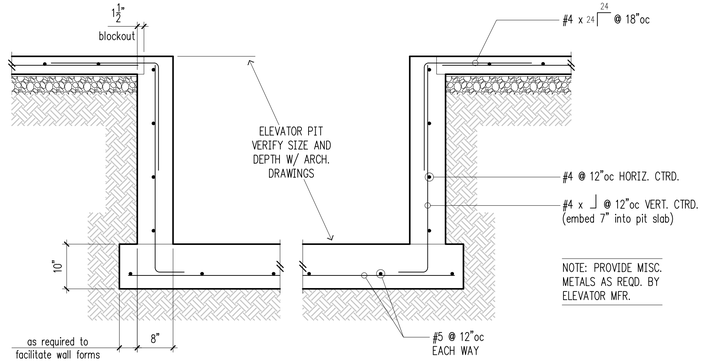
SCALE: 1/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S2.4



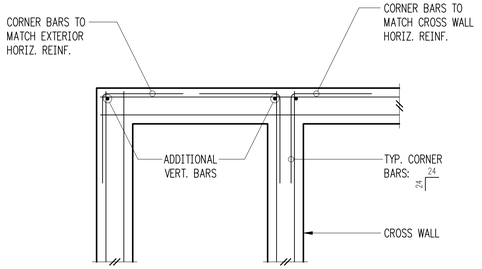
Pipe and Trench Locations 1



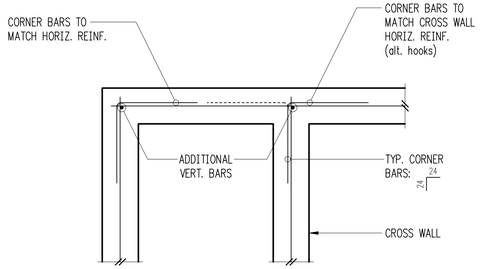
Typical Slab Edge 2



Typical Elevator Pit 4

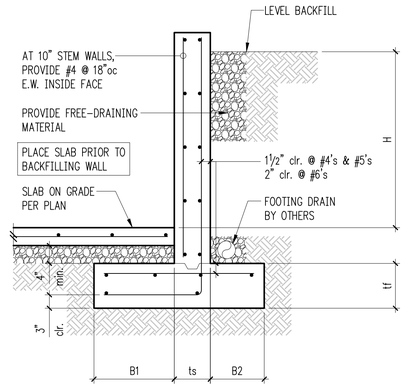


Double Curtain



Single Curtain

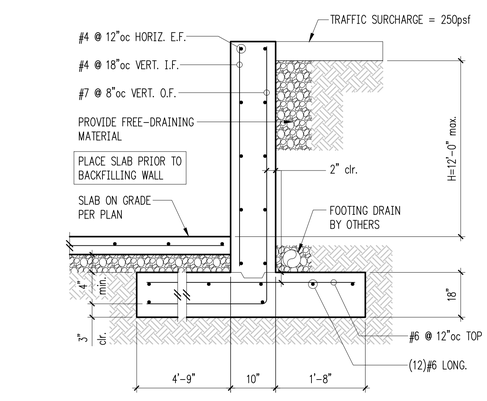
Typical Corner Bars at Concrete Walls and Footings 6



Retaining Wall Schedule W/ Slab

H (ft.)	B1	ts	B2	tf	Stem Reinforcing		Footing Reinforcing	
					Vert.	Horiz.	Top	Longit.
3'-0"	5"	8"	5"	8"	#4 @ 18"oc	#4 @ 12"oc	–	(2)#4
4'-0"	1'-0"	8"	5"	8"	#4 @ 18"oc	#4 @ 12"oc	–	(2)#4
6'-0"	2'-0"	8"	5"	10"	#5 @ 12"oc	#4 @ 12"oc	#5 @ 12"oc	(4)#5
8'-0"	2'-9"	8"	1'-0"	12"	#5 @ 12"oc	#4 @ 12"oc	#5 @ 12"oc	(6)#5
10'-0"	3'-6"	8"	1'-3"	18"	#7 @ 12"oc	#4 @ 12"oc	#6 @ 12"oc	(8)#5
12'-0"	4'-0"	10"	1'-8"	18"	#7 @ 8"oc	#4 @ 12"oc	#6 @ 12"oc	(10)#6

8



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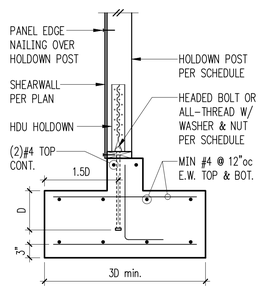
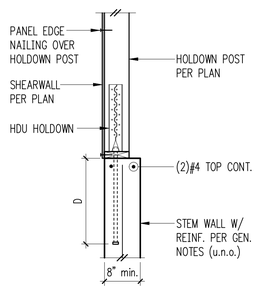


HDU Into Footing Option



HDU Into Stem Wall Option

Holdown Schedule

Plan Mark	Screws	Anchor Bolt	Min. A.B. Embed (D)		Holdown Post ①	
			Stem Wall	Footing	if 2x4	if 2x6
HDU2-SDS2.5	(6)SDS ¼"x2½"	⅝"ø	12"	4"	(2) 2x4	(2) 2x6
HDU4-SDS2.5	(10)SDS ¼"x2½"	⅝"ø	18"	6"	4x4	4x6
HDU5-SDS2.5	(14)SDS ¼"x2½"	⅝"ø	SB⅝x24	7"	4x4	4x6
HDU8-SDS2.5	(20)SDS ¼"x2½"	⅞"ø	SSTB28	8"	4x6	6x6
HDU11-SDS2.5	(30)SDS ¼"x2½"	1"ø	SB1x30	10"	4x8	6x6
HDU14-SDS2.5	(36)SDS ¼"x2½"	1"ø	N/A	12"	4x8	6x6

① MINIMUM SIZE OF POST AT END OF WALL UNLESS OTHERWISE NOTED ON FRAMING PLANS.

Typical HDU Holdown 12

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DYAN J. SAY — STATE OF WASHINGTON — 23000 — REGISTERED PROFESSIONAL ENGINEER

DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Permit Corrections	Apr. 19, 2022
2	Permit Corrections 2	Nov. 17, 2022

DPD:

PROJECT TITLE:
Huber Residence
9611 SE 72nd Street
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
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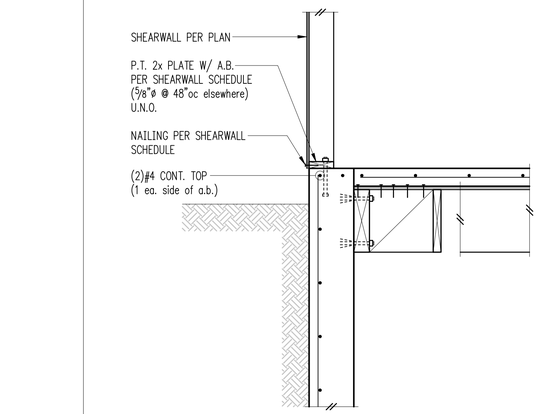
brandtdesigninc.com

ISSUE: PERMIT

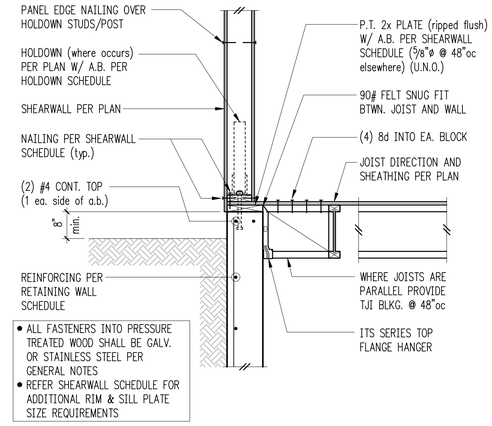
SHEET TITLE: Typical Concrete Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S3.1

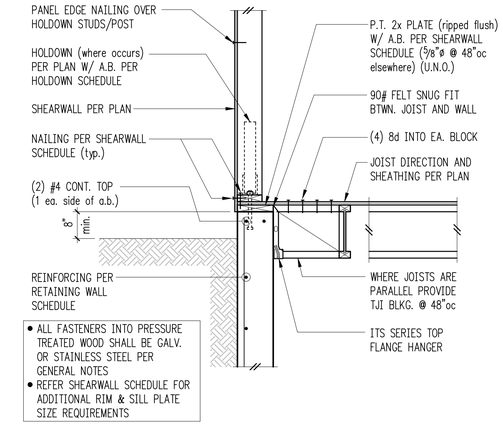


FOR CALLOUTS IN COMMON REFER 6/S3.2

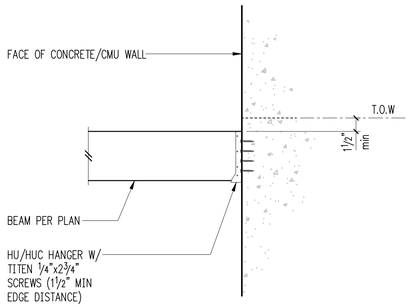
2



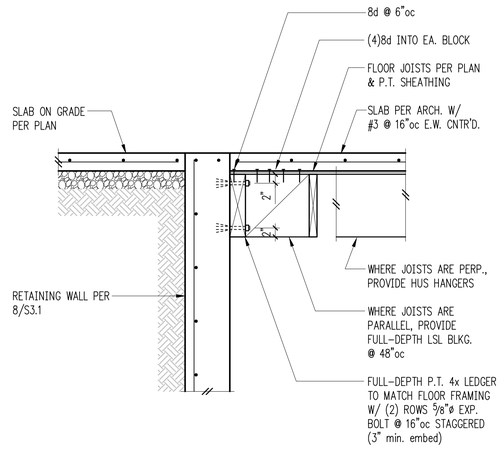
Exterior Framing at Basement (High Grade) 3



Exterior Framing at Basement (High Grade) 4



HU Beam Connection to Concrete Wall 5



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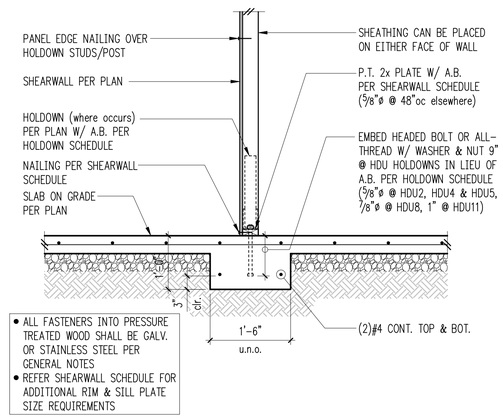
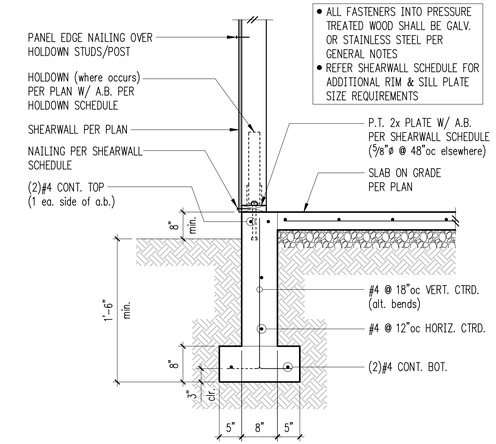
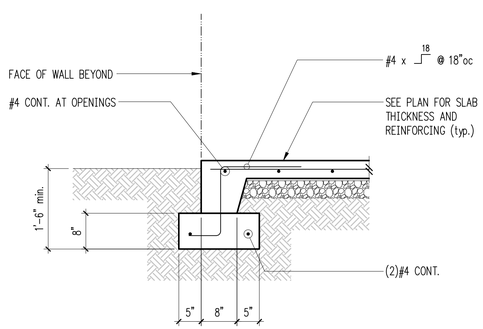


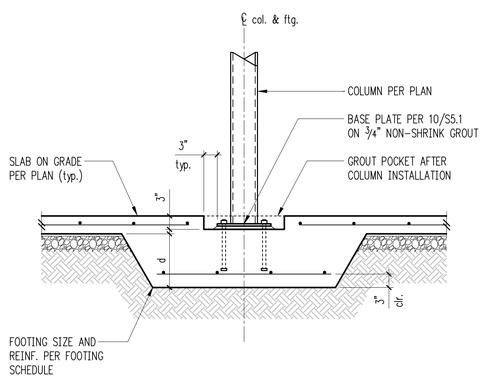
Interior Wall w/ Thickened Slab 7



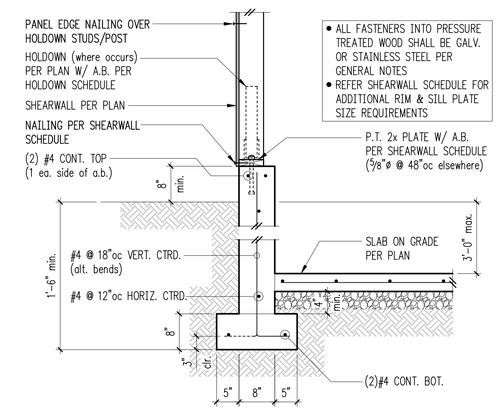
Exterior Wall w/ Slab on Grade 8



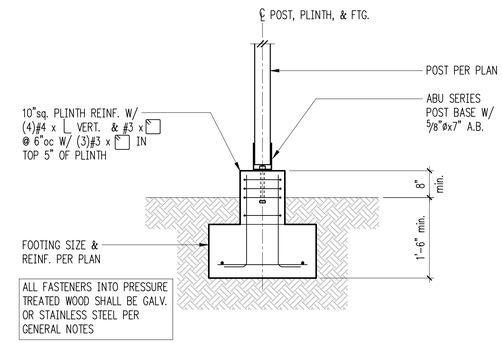
Typical Turned-Down Slab Edge 9



Typical Thickened Interior Footing 10



Exterior Wall w/ Slab on Grade & High Grade 11



Deck or Canopy Post Footing - Square Plinth 12

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DESIGN: DMR
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DPD:

PROJECT TITLE:

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brandtdesigninc.com

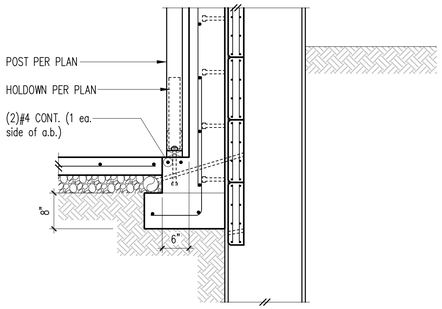
ISSUE: PERMIT

SHEET TITLE: Foundation Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S3.2

1

2



FOR CALLOUTS IN COMMON REFER 8/S3.3

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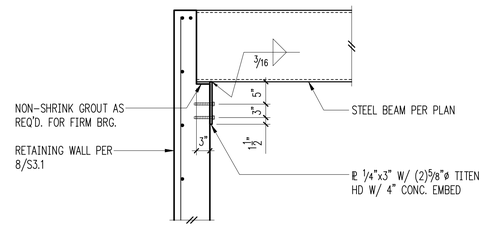

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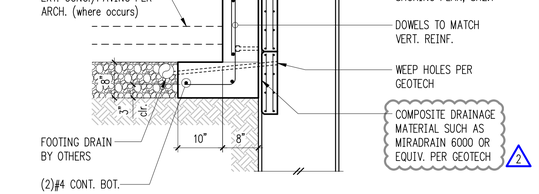

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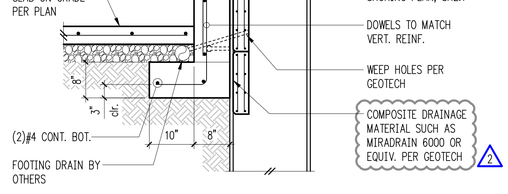

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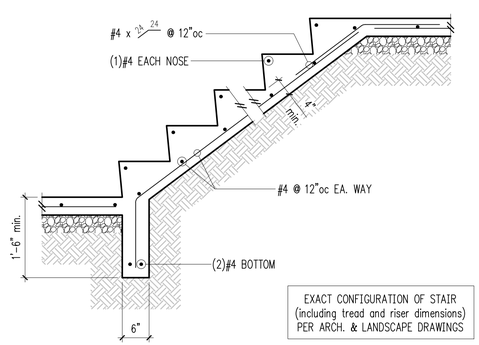
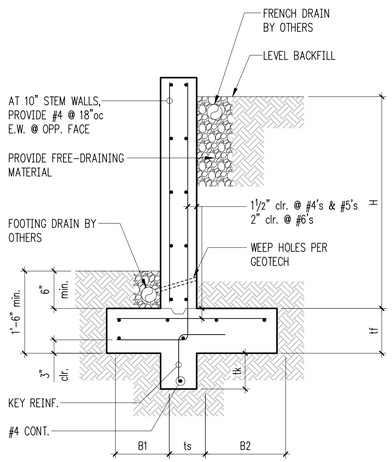


Typical Stair On Grade 10



Retaining Wall Schedule

H (ft.)	B1	ts	B2	tf	Stem Reinforcing		Footing Reinforcing		tk	Key Reinf.
					Vert.	Horiz.	Top	Longit.		
3'–0"	5"	8"	5"	8"	#4 @ 18"oc	#4 @ 12"oc	–	(2)#4	4"	–
4'–0"	5"	8"	1'–0"	8"	#4 @ 18"oc	#4 @ 12"oc	#4 @ 12"oc	(2)#4	6"	#4 @ 12"oc
6'–0"	5"	8"	2'–3"	10"	#4 @ 12"oc	#4 @ 12"oc	#4 @ 12"oc	(4)#4	8"	#4 @ 12"oc
8'–0"	1'–0"	8"	2'–9"	12"	#5 @ 12"oc	#4 @ 12"oc	#5 @ 12"oc	(5)#5	14"	#4 @ 12"oc
10'–0"	1'–9"	8"	3'–9"	18"	#7 @ 12"oc	#4 @ 12"oc	#6 @ 12"oc	(8)#5	14"	#4 @ 12"oc
12'–0"	1'–9"	10"	3'–10"	18"	#7 @ 9"oc	#4 @ 18"oc	#6 @ 12"oc	(9)#5	24"	#4 @ 9"oc

Site Retaining Wall Schedule 12

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DAN J. SAY — STATE OF WASHINGTON — 23000 — REGISTERED PROFESSIONAL ENGINEER

DESIGN: DMR
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SHEET TITLE: Foundation Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S3.3

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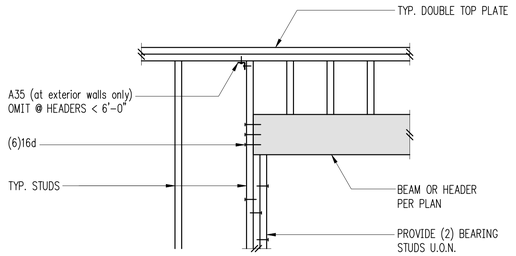
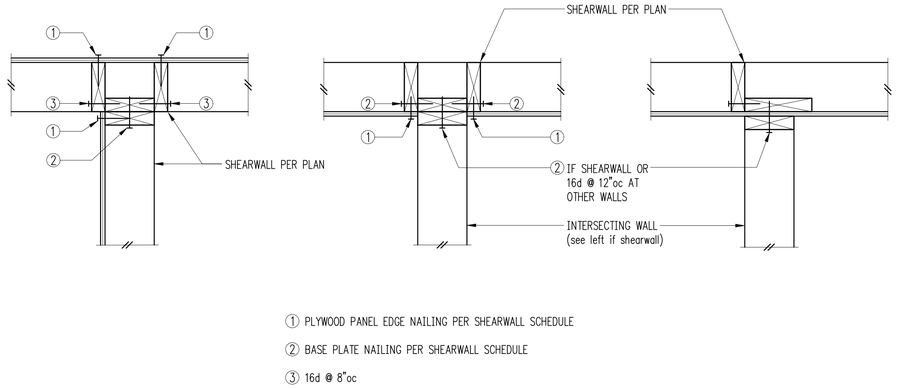


Typical Header Support w/2 Bearing Studs 2

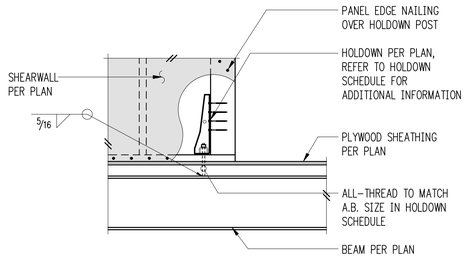


① PLYWOOD PANEL EDGE NAILING PER SHEARWALL SCHEDULE

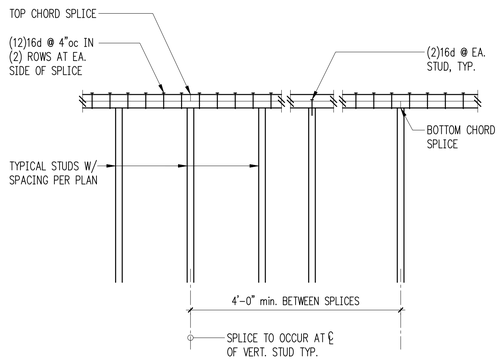
② BASE PLATE NAILING PER SHEARWALL SCHEDULE

③ 16d @ 8"oc

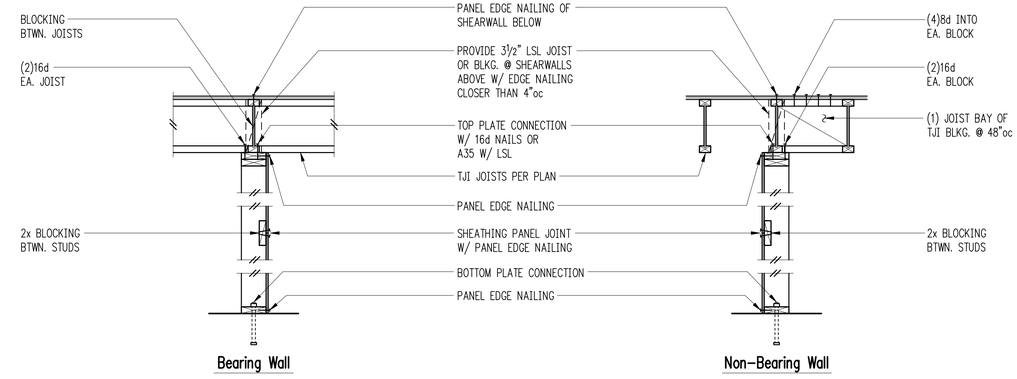
Typical Shearwall Intersections 4



Holdown at WF Beam - HDU 5

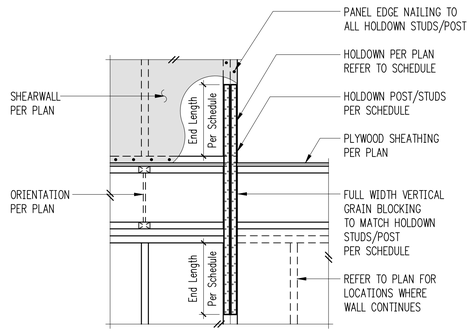


Typical Top Plate Splice 6



NOTE:
SEE SHEARWALL SCHEDULE FOR ALL NAILING
AND CONNECTIONS, NOT OTHERWISE NOTED

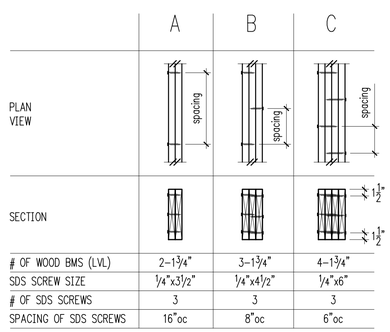
Typical Shearwall Construction 8



Holdown Strap Schedule

Plan Mark	End Length	#Nails Ea. End Length	Holdown Studs/Post	
			if 2x4	if 2x6
CS16	1'-2"	(13) 8d	(1) 2x4	(1) 2x6
CMST14	2'-6"	(33) 10d	4x6	4x6
CMST12	3'-3"	(43) 10d	4x8	6x6

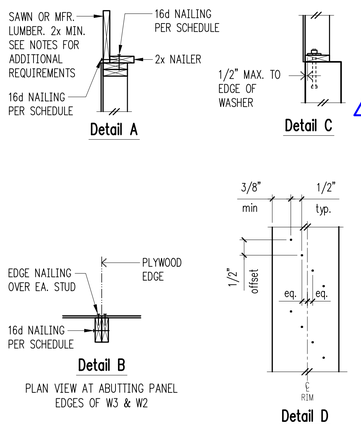
Typical Holdown Schedule 9



	A	B	C
# OF WOOD BMS (LVL)	2-1¾"	3-1¾"	4-1¾"
SDS SCREW SIZE	¼"x3½"	¼"x4½"	¼"x6"
# OF SDS SCREWS	3	3	3
SPACING OF SDS SCREWS	16"oc	8"oc	6"oc

NOTES:
- MIN. SCREW END DISTANCE = 4"

Sistering Schedule for Multi Beams 10



Shearwall Schedule ①②③⑥⑦⑧

Mark	Sheathing	Panel Edge Nailing	Top Plate Connection		Base Plate Connection	
			if TJI	if Wood ⑨	at Wood ⑪⑫	at Concrete
W6	15/32" CDX PLYWOOD	8d @ 6"oc	16d @ 6"oc	A35 @ 24"oc ⑩	16d @ 6"oc	⅝"ø A.B. @ 48"oc
W4	15/32" CDX PLYWOOD	8d @ 4"oc	16d @ 4"oc	A35 @ 16"oc ⑩	(2)rows 16d @ 6"oc	⅝"ø A.B. @ 32"oc
W3 ④	15/32" CDX PLYWOOD	8d @ 3"oc	(2)rows 16d @ 4"oc	A35 @ 12"oc ⑩	(2)rows 16d @ 6"oc	⅝"ø A.B. @ 24"oc
W2 ④	15/32" CDX PLYWOOD	8d @ 2"oc	(2)rows 16d @ 4"oc	A35 @ 9"oc ⑩	(2)rows 16d @ 4"oc ⑬	⅝"ø A.B. @ 16"oc
W2-10 ④	15/32" CDX PLYWOOD	10d @ 2"oc	(2)rows 16d @ 4"oc	A35 @ 9"oc ⑩	(2)rows 16d @ 4"oc ⑬	⅝"ø A.B. @ 16"oc
2W3 ⑤	15/32" CDX PLYWD. EA. SIDE	8d @ 3"oc EA. SIDE	n/a	A35 @ 6"oc	(3)rows 16d @ 4"oc ⑭	⅝"ø A.B. @ 16"oc
2W2 ⑤	15/32" CDX PLYWD. EA. SIDE	8d @ 2"oc EA. SIDE	n/a	HGA10KT @ 8"oc ⑮	(3)rows 16d @ 4"oc ⑭	⅝"ø A.B. @ 12"oc
2W2-10 ⑤	15/32" CDX PLYWD. EA. SIDE	10d @ 2"oc EA. SIDE	n/a	HGA10KT @ 6"oc ⑮	(4)rows 16d @ 4"oc ⑭	⅝"ø A.B. @ 12"oc

① BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"o.c.
② 8d NAILS SHALL BE 0.131"ø x 2 1/2" (common) - 16d NAILS SHALL BE 0.135"ø x 3 1/2" (box) - 10d NAILS SHALL BE 0.148"ø x 3" (common).
③ EMBED ANCHOR BOLTS AT LEAST 7". EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 4" EMBEDMENT. TITEN HD SCREW ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS W/ 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" MIN. PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. SEE DETAIL C.
④ 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.
⑤ 3x FOUNDATION SILL PLATES ARE REQUIRED FOR 2W3 AND 2W2. 3x STUDS ARE REQUIRED AT ABUTTING PANEL EDGES AND PANEL JOINTS SHALL BE OFFSET EACH SIDE OF WALL. STAGGER NAILS AT ADJOINING PANEL EDGES. 3x STUD, MIN., REQUIRED AT END OF SHEARWALL.
⑥ TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SINGLE-SIDED SHEARWALLS. ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING. SEE PLANS AND HOLDOWN SCHEDULE FOR ALTERNATE REQUIREMENTS.
⑦ ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.
⑧ 7/16" O.S.B. MAY BE SUBSTITUTED FOR 15/32" CDX, EXCEPT AT 10d PANEL EDGE NAILING.
⑨ LTP4's (HORIZONTAL ORIENTATION) W/ 8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
⑩ A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
⑪ AT MULTI-ROW NAILING, MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", SEE DETAIL D.
⑫ LVL RIMS PERMITTED AT SINGLE SIDED SHEAR WALLS ONLY.
⑬ PROVIDE (3) ROWS 16d @ 6"oc AT LVL RIMS.
⑭ MINIMUM RIM OR JOIST 3½" WIDE BELOW SHEARWALL.
⑮ HGA10KT TO BE INSTALLED WITH SDS¼x3" SCREWS.

Shearwall Schedule 12

STRUCTURAL ENGINEERING
2124 Third Avenue - Suite 100 - Seattle, WA 98121
p: 206.443.6212 ssfengineers.com
934 Broadway - Tacoma, WA 98402
p: 253.284.9470 ssfengineers.com

DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Permit Corrections	Apr. 19, 2022
2	Permit Corrections 2	Nov. 17, 2022

DPD:

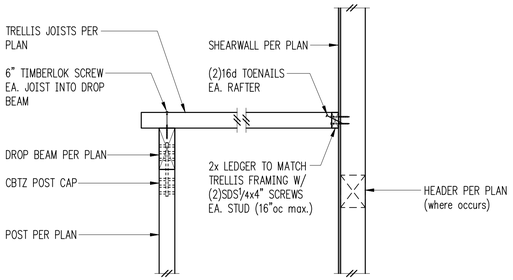
PROJECT TITLE:
Huber Residence
9611 SE 72nd Street
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
PH 206.239.0850
brandtdesigninc.com

ISSUE:
PERMIT

SHEET TITLE:
Typical Wood Framing Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S4.1



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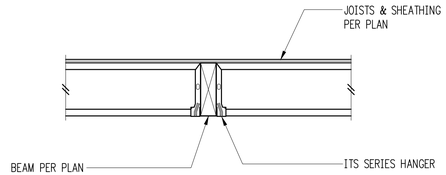
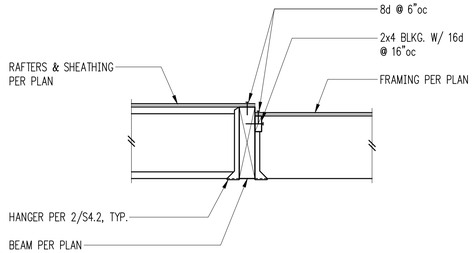


Typical Flush Beam 2



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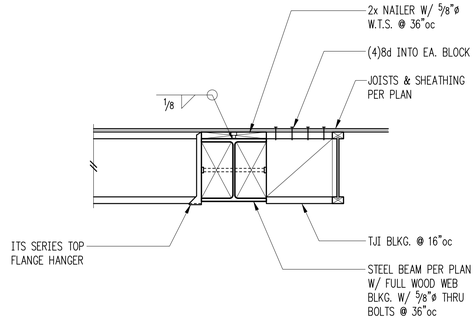

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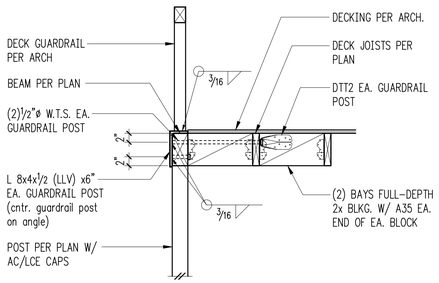
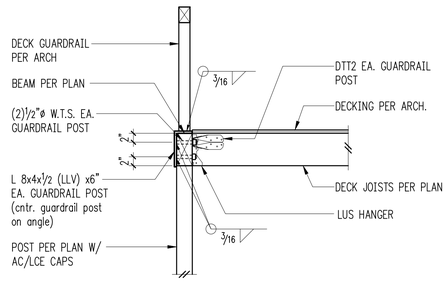
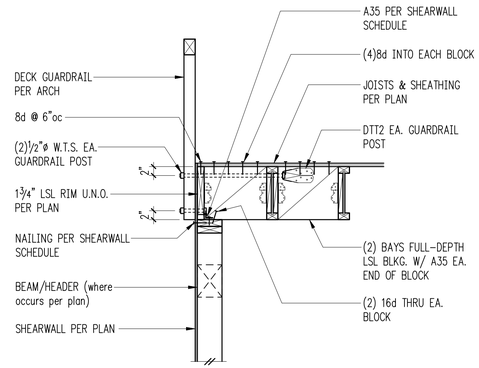


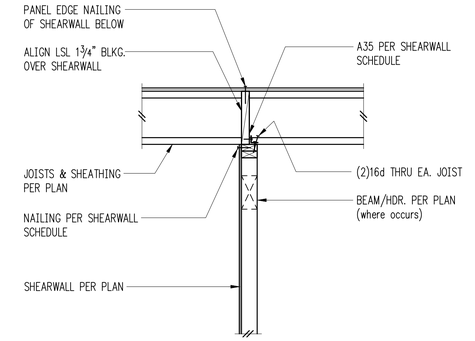
Typical Deck w/ Guardrail 5



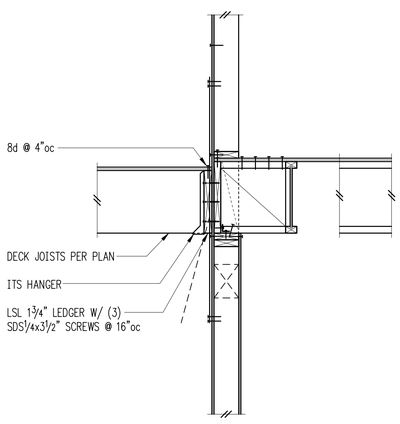
Typical Deck w/ Guardrail 6



Floor Joists Parallel to Exterior Wall 7 ⚠1



Interior Shearwall Below 8



FOR CALLOUTS IN COMMON REFER 10/S4.2 ⚠2 ⚠1

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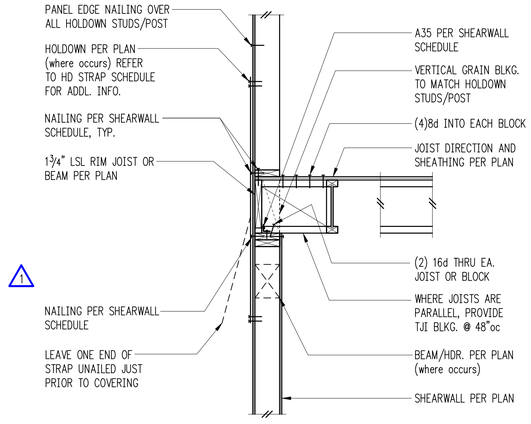

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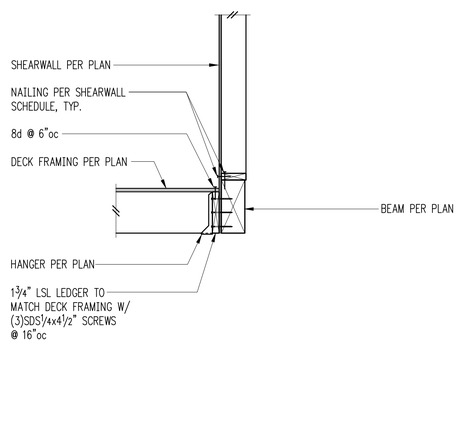
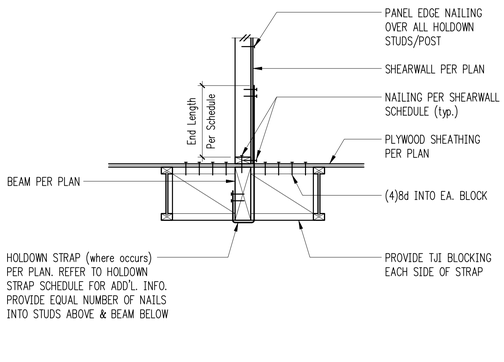
• REFER TO SHEARWALL SCHEDULE FOR ADDITIONAL RIM & SILL PLATE SIZE REQUIREMENTS

Exterior Floor Framing 10



Exterior Floor Framing 11



CS/CMST Holdown at Floor Beam Parallel 12

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DAN J. SAY — STATE OF WASHINGTON — 23000 — REGISTERED PROFESSIONAL ENGINEER

DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

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⚠2	Permit Corrections 2	Nov. 17, 2022

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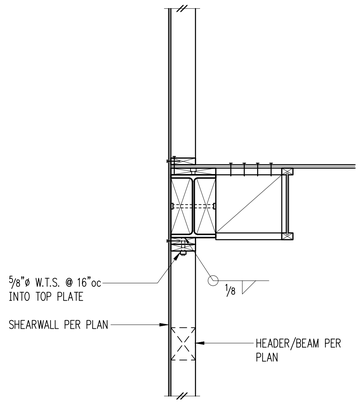
brandtdesigninc.com

ISSUE: PERMIT

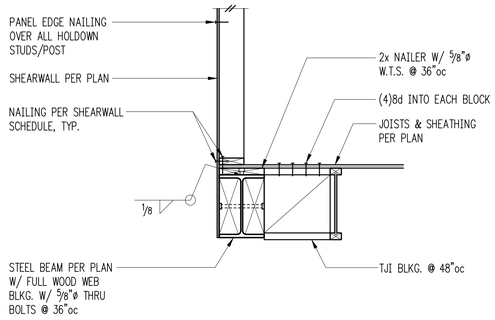
SHEET TITLE: Wood Framing Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S4.2

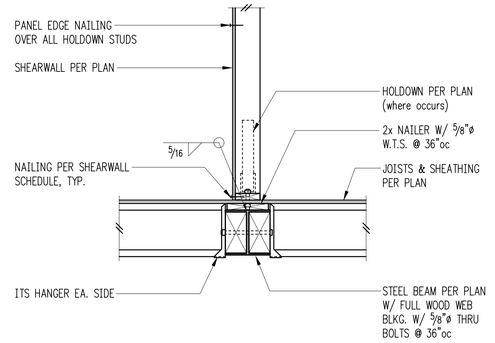


FOR CALLOUTS IN COMMON REFER 2/S4.3

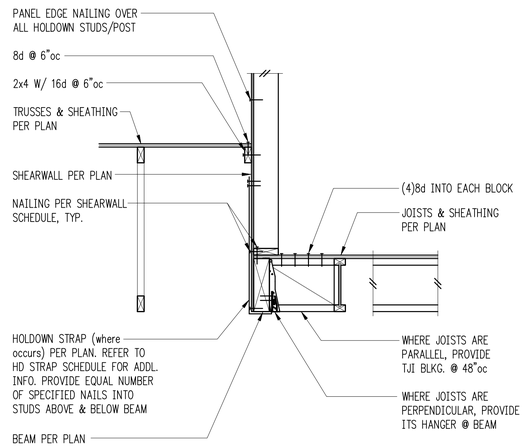
1



Exterior Floor Beam 2



Steel Beam Parallel to Framing 3



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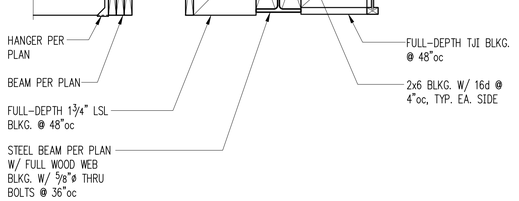

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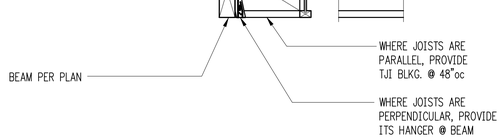
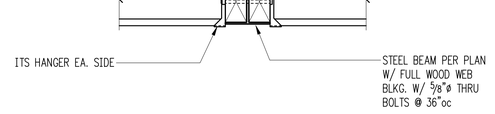
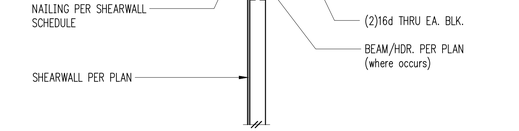


Exterior Floor Beam 6



Steel Beam Perpendicular to Framing 7



Interior Shearwall Below 8

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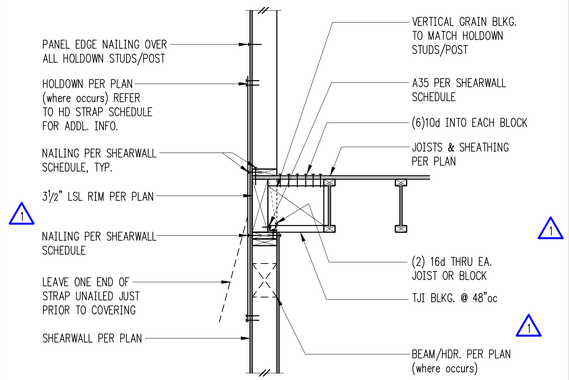
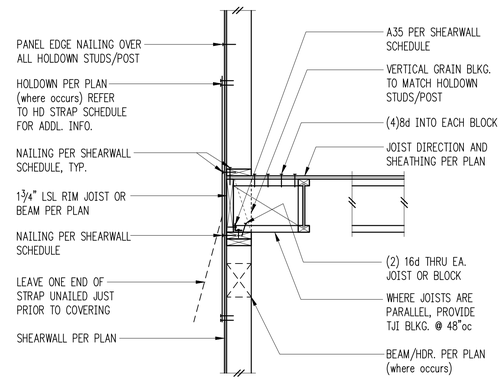


- REFER TO SHEARWALL SCHEDULE FOR ADDITIONAL RIM & SILL PLATE SIZE REQUIREMENTS

Exterior Floor Framing 11



- REFER TO SHEARWALL SCHEDULE FOR ADDITIONAL RIM & SILL PLATE SIZE REQUIREMENTS

Exterior Floor Framing 12

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DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

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DPD:

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Seattle, WA 98121
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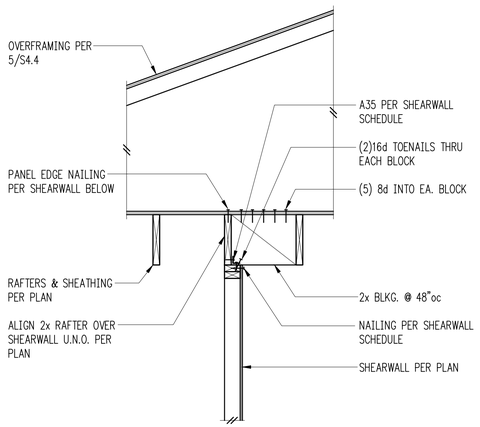
ISSUE: PERMIT

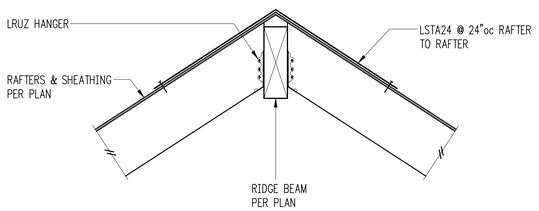
SHEET TITLE: Wood Framing Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06

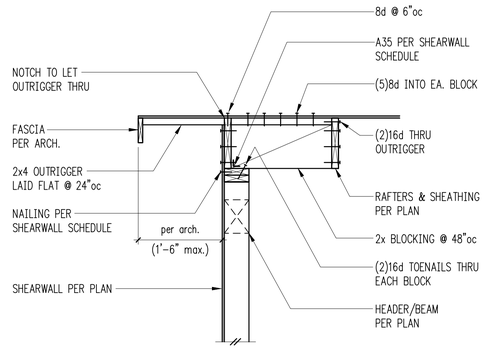
SHEET NO: S4.3



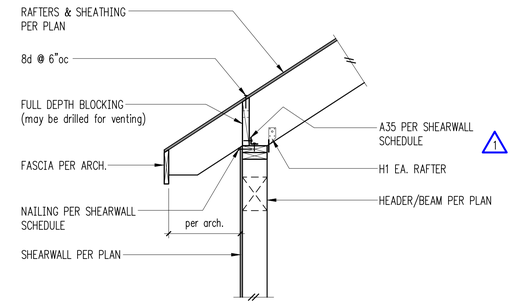
Interior Shearwall Parallel 1



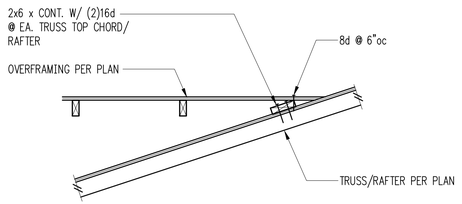
Ridge Beam w/ LRU Hangers 2



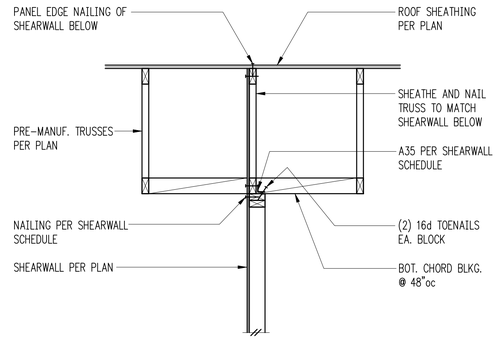
Exterior Non-Bearing Wall 3



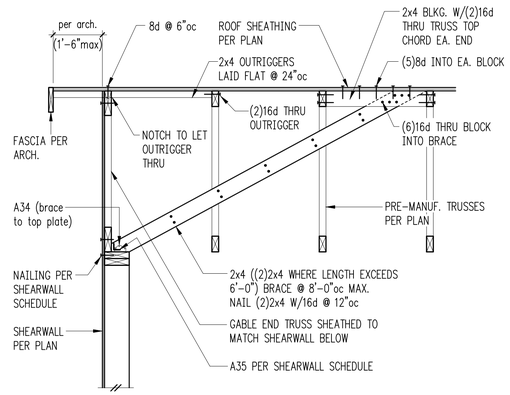
Exterior Bearing Wall 4



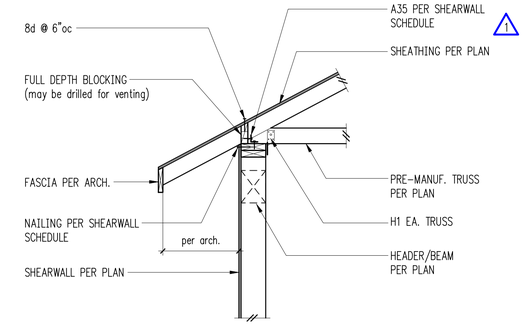
Overframing Connection 5



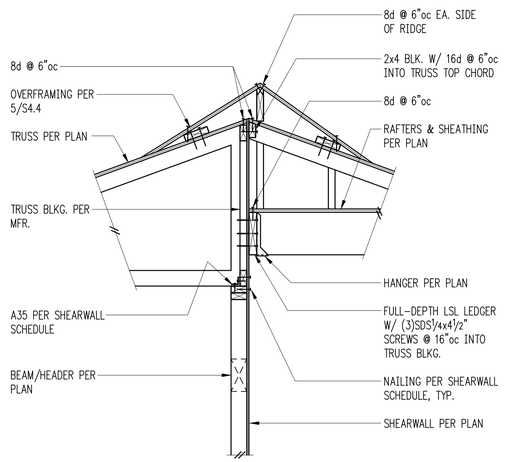
Shearwall Extension Thru Truss Depth (parallel to truss) 6



Exterior Non-Bearing Wall 7



Exterior Bearing Wall 8



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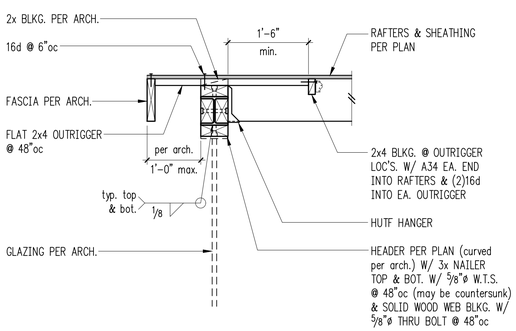

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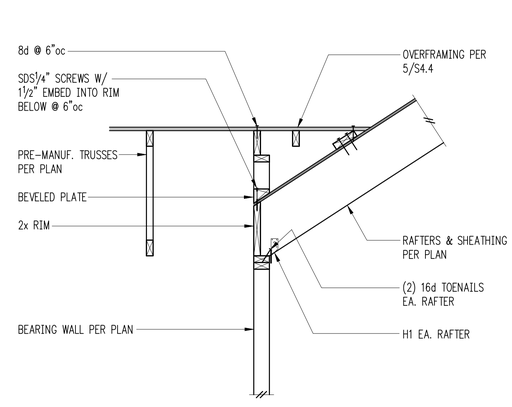

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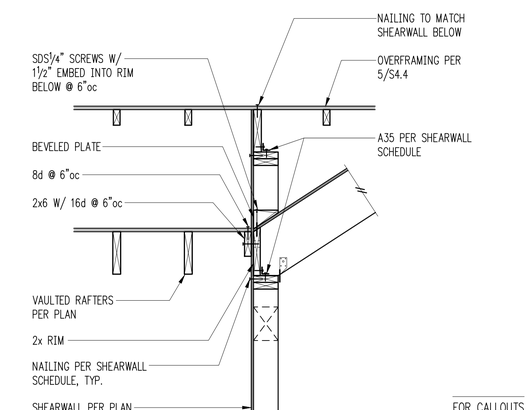

FOR CALLOUTS IN COMMON REFER 4/S4.4

12

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DAN J. SAY — STATE OF WASHINGTON — 23000 — REGISTERED PROFESSIONAL ENGINEER

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ISSUE: PERMIT

SHEET TITLE: Wood Framing Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S4.4

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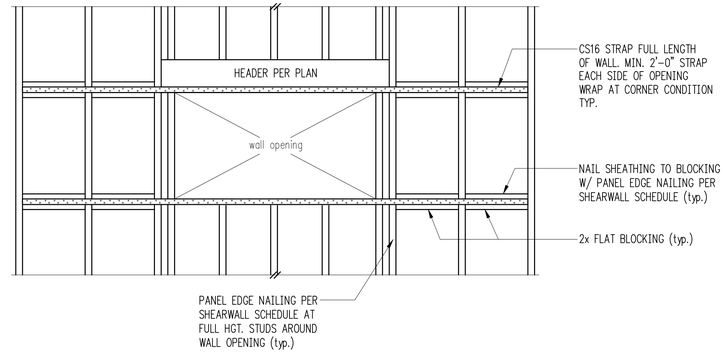

Continuous Straps at Wall Opening (above and below) 2 4

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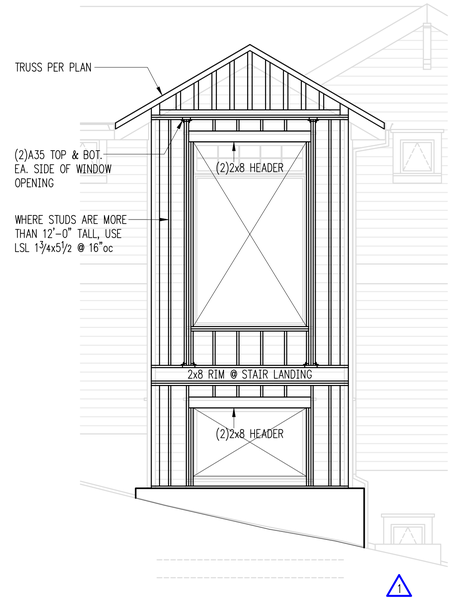
6

7



1/4" = 1'-0" 2 Exterior Elevation - South 12

9

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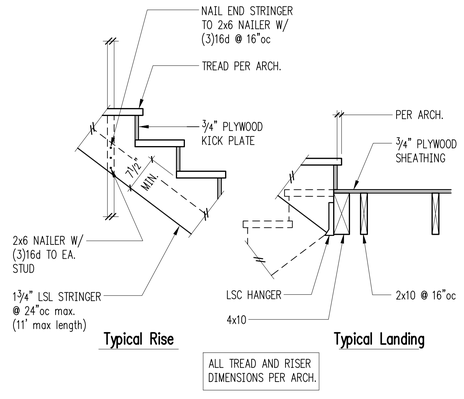

Typical Stair and Landing Detail 1 11

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ISSUE: PERMIT

SHEET TITLE: Wood Framing Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S4.5

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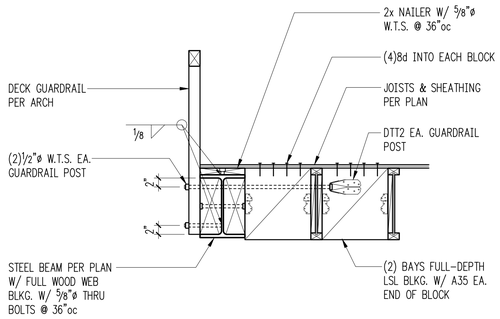

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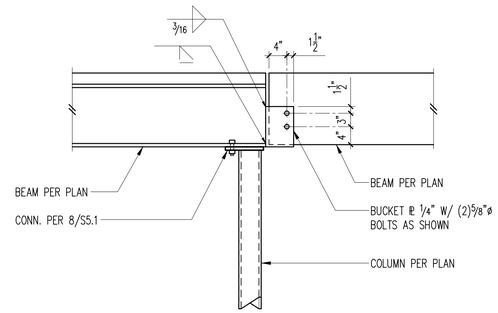
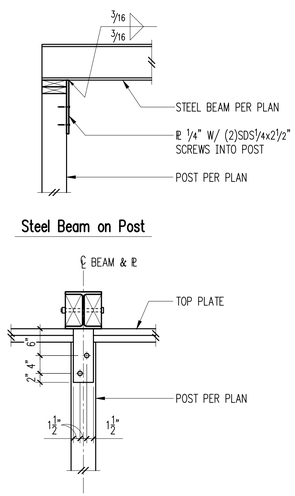


Beam/Plate Connection - Steel/Wood 3



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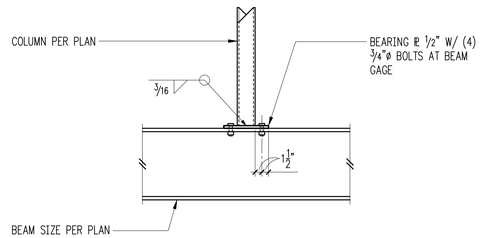
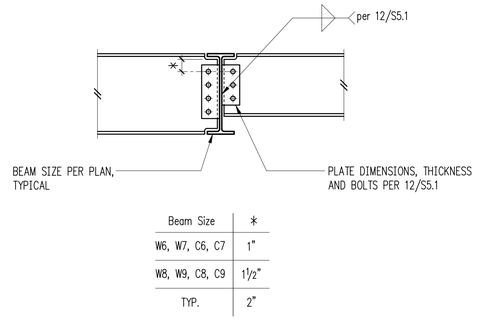


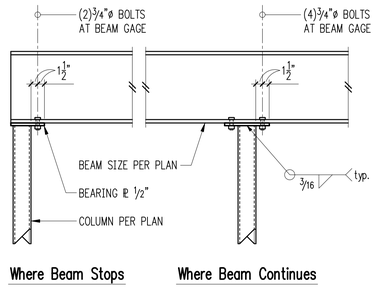
NOTE:
BEARING PLATE THICKNESS SHALL BE 3/4" WHERE DEPTH OF SUPPORTED MEMBER EXCEEDS 24"

Beam Supporting HSS or Pipe Column 6



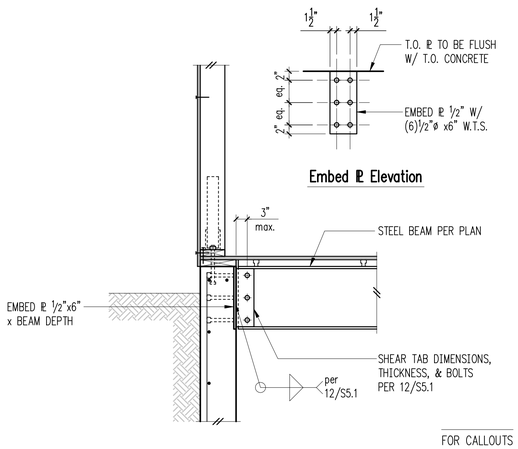
Beam Size	*
W6, W7, C6, C7	1"
W8, W9, C8, C9	1 1/2"
TYP.	2"

Typical Beam to Beam Connection 7



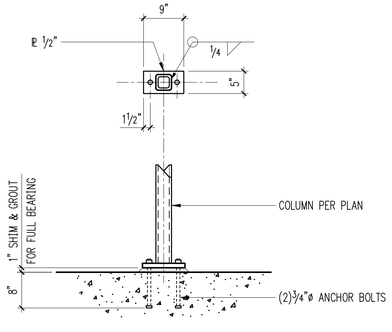
NOTE:
BEARING PLATE THICKNESS SHALL BE 3/4" WHERE DEPTH OF SUPPORTED MEMBER EXCEEDS 24"

Typical Beam Bearing on HSS or Pipe Column 8

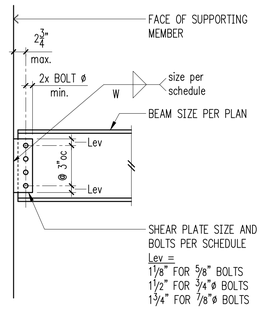


FOR CALLOUTS IN COMMON REFER 4/S3.2

9



Baseplate - HSS Column 10



Shear Plate Schedule

Beam Size	No. of Bolts	Bolt Size	Plate Thickness	Weld Size
C6, W6, MC7	2	5/8"ø @ 2" SPACING	1/4"	3/16"
MC8, MC9, MC10 C7, C8, C9, C10, W8, W10	2	5/8"ø	1/4"	3/16"
C12, C15, MC12, W12	3	3/4"ø	1/4"	3/16"
W14	3	7/8"ø	5/16"	1/4"
W16	4	7/8"ø	5/16"	1/4"

NOTES:
1. STANDARD OR SLOTTED HOLES MAY BE USED.
2. BOLT TYPE A325N.
3. ℄ MATERIAL – A36
4. SEE EXTENDED ℄ DETAIL FOR COLUMN WEB CONNECTIONS.

Typical Single Shear Plate Connection and Schedule 12

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DESIGN: DMR
DRAWN: NHD
CHECKED: BDM
APPROVED: DJS

REVISIONS:

1	Permit Corrections	Apr. 19, 2022
2	Permit Corrections 2	Nov. 17, 2022

DPD:

PROJECT TITLE:
Huber Residence
9611 SE 72nd Street
Mercer Island, WA 98040

ARCHITECT:
Brandt Design Group
66 Bell Street, Unit 1
Seattle, WA 98121
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brandtdesigninc.com

ISSUE: PERMIT

SHEET TITLE: Steel Details

SCALE: 3/4" = 1'-0" U.N.O.
DATE: September 14, 2021
PROJECT NO: 01519-2021-06
SHEET NO: S5.1