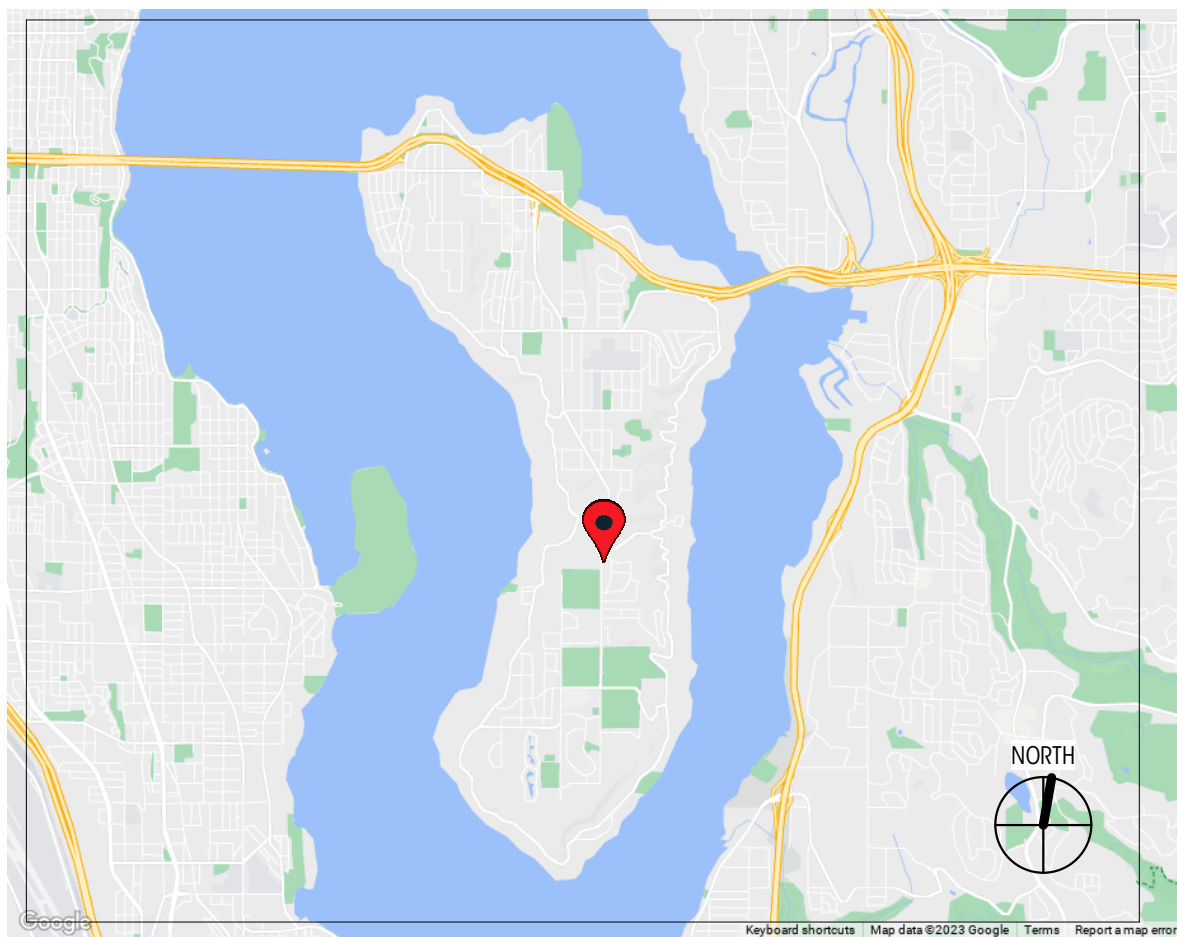
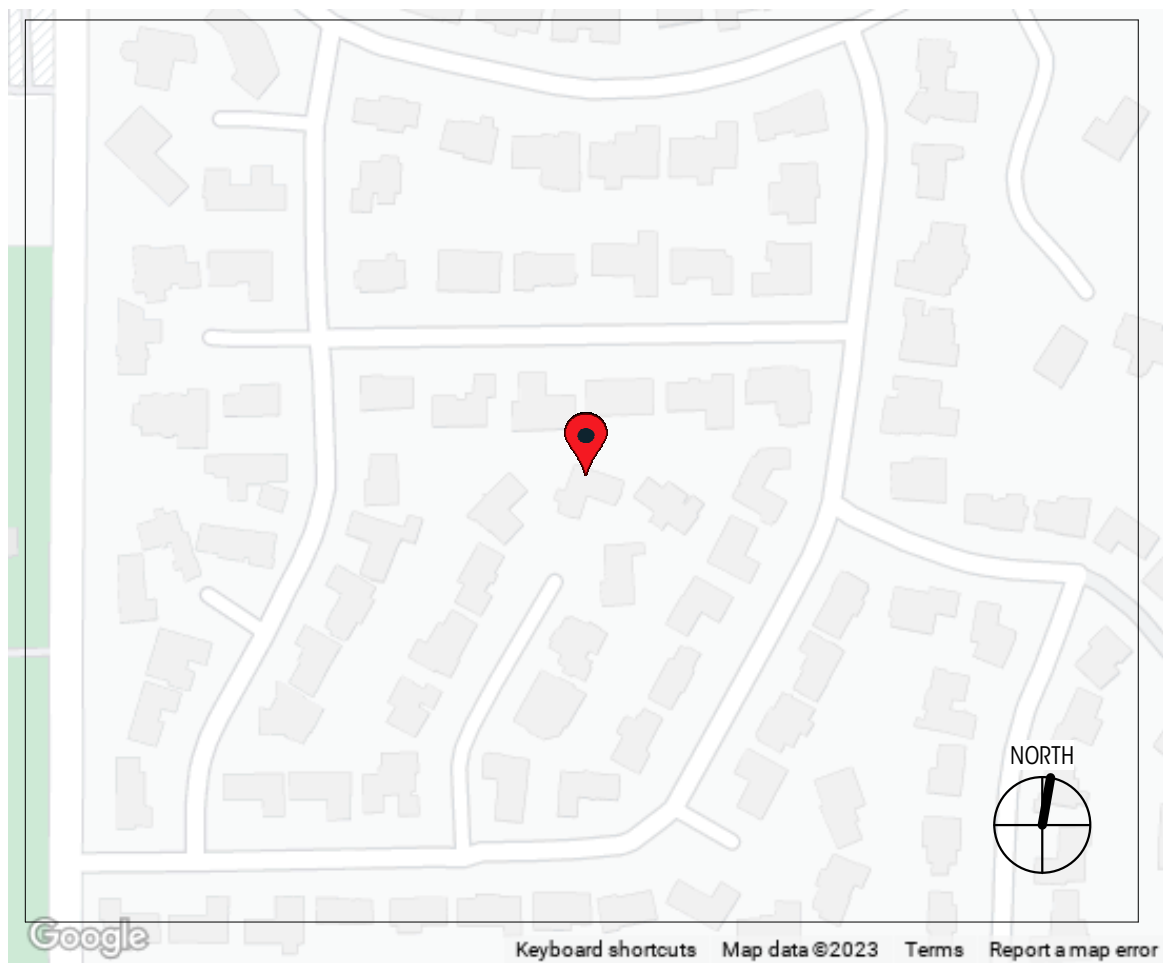


VICINITY PLAN



LOCATION PLAN



GENERAL NOTES

ALL WORK SHALL BE IN COMPLIANCE WITH THE 2018 INTERNATIONAL RESIDENTIAL CODE AS ADOPTED AND MODIFIED BY THE CITY OF MERCER ISLAND, MERCER ISLAND CITY 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 IDENTIFICATION 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.

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 COMPREHENSIVE 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.

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 THE WASHINGTON STATE ENERGY CODE.

WATER PIPES TO BE INSULATED IN ALL UNHEATED AREAS.

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

GRAPHIC KEY

(NOT TO SCALE)

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

PROJECT DATA

EXISTING LOT AREA SUMMARY	
GROSS LOT AREA	11,738 SF (PER SURVEY)
ACCESS EASEMENTS	N/A
NET LOT AREA	11,738 SF
LOT SLOPE	(354.6' - 348.0') / 146' = 4.5%
TREE REMOVAL	
NO TREE REMOVAL PROPOSED. SEE SITE PLANS FOR (E) TREE LOCATIONS.	
TREE RETENTION NOT REQUIRED FOR ADDITION RESULTING IN LESS THAN 500 SF GFA ON LOT EQUAL TO OR GREATER THAN 6,000 SF. (19.10.060.A.1.a)	
EXISTING LOT COVERAGE	
(E) RESIDENCE AND OVERHANGS	2804 SF
(E) COVERED PATIO	212 SF
(E) ATTACHED SHED AND OVERHANGS	126 SF
(E) DETACHED SHED AND OVERHANGS	91 SF
(E) DRIVING SURFACES	319 SF
(E) TOTAL LOT COVERAGE	3,552 SF = 30.2% OF LOT AREA
PROPOSED LOT COVERAGE	
(E) RESIDENCE AND OVERHANGS	2804 SF (NO CHANGE)
(N) ADDITION AND OVERHANGS	331 SF
(E) COVERED PATIO	212 SF (NO CHANGE)
(E) ATTACHED SHED AND OVERHANGS	126 SF (NO CHANGE)
(E) DETACHED SHED AND OVERHANGS	91 SF (NO CHANGE)
(E) DRIVING SURFACES	319 SF (NO CHANGE)
TOTAL LOT COVERAGE	3,883 SF = 33.1% OF LOT AREA
ALLOWABLE LOT COVERAGE (19.02.020.F.3.a)	4,695 SF (40% LOT AREA)

EXISTING HARDSCAPE (PER SURVEY)	
ROCKERIES	206 SF
PATIOS/WALKWAY	565 SF
SITE WALLS	210 SF
GRAVEL	928 SF
TOTAL EXISTING ALLOWABLE HARDSCAPE (19.02.020.F.3.b)	1,909 SF = 16.3% OF LOT AREA
EXISTING TOTAL HARDSCAPE & LOT COVERAGE	16.3% + 30.2% = 46.5% EXISTING CONFORMING (49% LOT AREA ALLOWABLE)
DEMOLISHED HARDSCAPE	
PATIOS/WALKWAYS	125 SF
TOTAL DEMOLISHED	125 SF

PROPOSED HARDSCAPE (NO NEW HARDSCAPE PROPOSED)	
(E) HARDSCAPE	1,909 SF
(E) HARDSCAPE TO BE DEMOLISHED	125 SF
TOTAL HARDSCAPE	1,784 SF = 15.2% OF LOT AREA
ALLOWED (9% OF LOT AREA)	11,738 SF * 9% = 1,056 SF
REMAINING LOT COVERAGE (PER MICC 19.02.020.F.3.b.ii)	4,695 SF - 3,883 SF = 812 SF
TOTAL ALLOWABLE HARDSCAPE	1,056 SF + 812 SF = 1,868 SF

EXISTING BUILDING AREA SUMMARY (GFA)	
(E) MAIN LEVEL	1,712 SF
(E) ATTACHED STORAGE CLOSET	43 SF
(E) ATTACHED GARAGE	490 SF
TOTAL EXISTING BUILDING AREA (GSF)	2,245 SF
EXISTING FLOOR AREA RATIO:	2,245/11,738 = 19.1% OF LOT AREA

EXISTING DETACHED SHED <120SF (91SF) IS NOT INCLUDED IN GFA AREA PER MICC 19.16.010(1.b)

PROPOSED BUILDING AREA SUMMARY (GFA)	
(E) MAIN LEVEL	1,712 SF
(N) PROPOSED ADDITION	340 SF
(E) ATTACHED STORAGE CLOSET	43 SF
(E) ATTACHED GARAGE	490 SF
TOTAL PROPOSED BUILDING AREA (GSF)	2,585 SF
PROPOSED FLOOR AREA RATIO:	2,585/11,738 = 22.0% OF LOT AREA
40% ALLOWABLE GROSS FLOOR AREA:	11,738 SF * 40% = 4,695 SF

SETBACKS	
SIDE YARD	17'-9" TOTAL
(E) MAIN LEVEL	17% OF 104'-4" = 17'-9"
SEE A102 SUM OF SIDE YARDS SHALL EQUAL 17% OF LOT WIDTH	
MINIMUM SIDE YARD SHALL BE 33% OF AGGREGATE SIDE YARD TOTAL WIDTH	33% OF 17'-9" = 5'-10 1/2"

FRONT YARD	20'
REAR YARD	25'
FOR IRREGULAR LOT REAR YARD SETBACK DRAWN FROM 10' LINE PARALLEL TO LINE DRAWN AT FRONT LOT LINE CONNECTING SIDE YARD LOT LINES. PER MICC 19.02.020.C.2.b	

OCCUPANCY SUMMARY	
EXISTING TYPE	R-3
OCCUPANT LOAD	SINGLE FAMILY

ENERGY CODE SUMMARY 2018 WASHINGTON ENERGY CODE (RESIDENTIAL PROVISIONS)	
CLIMATE ZONE 4C PER TABLE R301.1	
PRESCRIPTIVE THERMAL ENVELOPE PER TABLE R402.1	
(E) GAS FURNACE WITH AC, HEATING OPTION 1 TO REMAIN	

ADDITION OF LESS THAN 500SF REQUIRES 1.5 CREDITS FOR VSEC 406.2 AND 406.3	
HIGH EFFICIENCY HVAC EQUIPMENT OPTION 3.2 (1 CREDIT)	
AIR SOURCED DUCTED HEAT PUMP, MINIMUM HSPF 9.5	
EFFICIENT WATER HEATING OPTION 5.2 (.5 CREDIT)	
NEW .80 UEF TANKLESS GAS HWH (WITH RECIRCULATION PUMP)	

FENESTRATION U-FACTOR (VERTICAL):	.30
SKYLIGHT U-FACTOR (OVERHEAD):	.50
CEILING:	R-49
VAULTED CEILING:	R-38
WALL ABOVE GRADE:	R-21
WALL BELOW GRADE (INT.):	R-21 (INT.) OR R-10 (EXT.)
FLOOR ABOVE GRADE:	R-30
SLAB ON GRADE @ BASEMENT:	R-10

INSULATION UPGRADES	
PER VSEC R503.1.1(2), EXISTING CEILING, WALL OR FLOOR CAVITIES EXPOSED DURING THE CONSTRUCTION PROVIDED THAT THESE CAVITIES ARE FILLED WITH INSULATION. 2x4 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-15 AND 2x6 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-21.	

LIFE SAFETY UPGRADES	
CONTRACTOR TO INSTALL CARBON MONOXIDE ALARMS OUTSIDE OF EACH BEDROOM IN THE IMMEDIATE VICINITY ON EACH FLOOR LEVEL PER IRC SECTION 315.3. SEE PLANS.	
CONTRACTOR TO INSTALL SMOKE ALARMS OUTSIDE OF EACH BEDROOM IN THE IMMEDIATE VICINITY ON EACH FLOOR LEVEL PER IRC SECTION 314.2.2. SEE PLANS.	
FIRE ALARM SYSTEMS ARE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS.	

HEATING	
INSTALLED PER INTERNATIONAL MECHANICAL CODE. 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 TABLE 403.8.5.1 OF THE INTERNATIONAL MECHANICAL CODE.	
* PLUMBING, MECHANICAL, ELECTRICAL WORK TO BE PERMITTED SEPARATELY. SEE SHEET G002 FOR VENTILATION & ENERGY CALCULATIONS.	

FIRE DEPARTMENT NOTES	
PROJECT TO BE EQUIPPED WITH A NFPA-72 HOUSEHOLD MONITORED SMOKE ALARM SYSTEM. SYSTEM TO BE PERMITTED SEPARATELY. PERMIT TO BE OBTAINED AND SYSTEM INSTALLED AND INSPECTED PRIOR TO FINAL OCCUPANCY.	

PARKING (MICC 19.02.020.G.2.b)	
FOR SINGLE FAMILY RESIDENCE LESS THAN 3,000 SF GFA (2) SPACES SHALL BE PROVIDED, ATLEAST (1) COVERED (2) SPACES PROVIDED IN EXISTING ATTACHED GARAGE.	

STORMWATER CODE (MICC 15.09.050)	
A STORM WATER DRAINAGE REVIEW IS REQUIRED FOR PROJECTS THAT:	

1. RESULT IN 2,000 SQUARE FEET, OR GREATER, OF NEW PLUS REPLACED HARD SURFACE AREA, OR
2. HAVE A LAND DISTURBING ACTIVITY OF 7,000 SQUARE FEET OR GREATER, OR
3. RESULT IN A NET INCREASE OF IMPERVIOUS SURFACE OF 500 SQUARE FEET OR GREATER.

PROPOSED NEW / REPLACED IMPERVIOUS SURFACES IS 331SF, STORMWATER REVIEW NOT REQUIRED

GENERAL INFORMATION

PROJECT ADDRESS	5601 90th Ave SE MERCER ISLAND, WA 98040
PROJECT NUMBER	TBD
ASSESSOR'S PARCEL #	2287000280
LEGAL DESCRIPTION	EL DORADO ESTATES ADD Plat Block: Plat Lot: 28
PROJECT DESCRIPTION	340 sf ADDITION TO, AND INTERIOR REMODEL OF, AN EXISTING SINGLE FAMILY RESIDENCE
ZONE	R-9.6
BUILDING TYPE	SINGLE FAMILY RESIDENCE

PROJECT DIRECTORY

OWNER	MATT & LINDSEY BUCHANAN 5601 90th Ave SE MERCER ISLAND, WA 98040
ARCHITECT	COLIN BRANDT BRANDT DESIGN GROUP 66 BELL ST., UNIT 1 SEATTLE, WA 98121 206.239.0850 colin@brandtdesigninc.com
OWNER'S AGENT/CONTACT	RICKY LYMAN BRANDT DESIGN GROUP 66 BELL ST., UNIT 1 SEATTLE, WA 98121 206.239.0850 ricky@brandtdesigninc.com

GENERAL CONTRACTOR	TOM GALLAGER Galagher Co. LLC 3010 77th Ave SE, SUITE 202 MERCER ISLAND, WA 98040 206-232-1600 tom@galagherco.net
STRUCTURAL ENGINEER	TODD VALENTINE HARRIOTT VALENTINE ENGINEERS INC. 1932 FIRST AVENUE, SUITE 720 SEATTLE, WA 98101 206.624.4760 tvallentine@harrriottvalentine.com

SHEET INDEX

SHEET NUMBER	SHEET NAME
GENERAL	
G000	COVERSHEET
G001	ENERGY CODE / VENTILATION CALCULATIONS
SURVEY	
S-1	SURVEY
ARCHITECTURAL DEMOLITION	
AD101	SITE DEMOLITION PLAN
AD102	PROPOSED LOT COVERAGE & HARDSCAPE SITE PLAN
AD211	MAIN FLOOR DEMOLITION PLAN
AD212	ROOF DEMOLITION PLAN

ARCHITECTURAL	
A101	SITE PLAN
A102	PROPOSED LOT COVERAGE & HARDSCAPE SITE PLAN
A211	MAIN FLOOR PLAN
A212	ROOF PLAN
A301	EXTERIOR ELEVATIONS (N & E)
A302	EXTERIOR ELEVATIONS (S & W)
A401	BUILDING SECTIONS
A411	WALL SECTIONS
A601	DOOR / WINDOW SCHEDULES, LEGEND, & NOTES
A701	ASSEMBLY DETAILS

STRUCTURAL	
S1.0	GENERAL STRUCTURAL NOTES
S2.0	FLOOR FRAMING AND FOUNDATION PLAN
S2.1	ROOF FRAMING PLAN
S3.0	STRUCTURAL DETAILS
S4.0	STRUCTURAL DETAILS

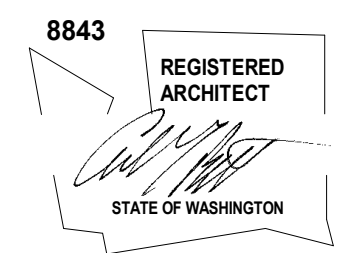
Brandt

Design Group

66 Bell Street
Unit 1
Seattle, WA
98121

206.239.0850

brandtdesigninc.com



BUCHANAN RESIDENCE

5601 90th Ave SE
Mercer Island, WA 98040

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PERMIT SUBMITAL SET

DATE: 12.7.2023

SHEET SIZE: D (24X36)

REVISIONS

NO. DESCRIPTION DATE

DRAWN BY: RL
CHECKED BY: KM

COVERSHEET

SCALE: As indicated

G000

DEDICATED
APPROVAL
STAMP

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
Buchanan Addition 5601 90th AVE SE	Ricky Lyman - Brandt Design Group ricky@brandtdesigninc.com

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: _____ Date: _____

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,c}	n/a	n/a
Ceiling ^e	49 ^j	0.026
Wood Frame Wall ^{k,h}	21 int	0.056
Floor	30	0.029
Below Grade Wall ^{k,h}	10/15/21 int + TB	0.042
Slab ^{k,i} R-Value & Depth	10, 2 ft	n/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.

a The fenestration U-factor column excludes skylights.

b "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.

c R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.

d 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.

e 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.

f For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.

g 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.

- 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.
- Medium Dwelling Unit: 6 credits**
All dwelling units that are not included in #1 or #3
- Large Dwelling Unit: 7 credits**
Dwelling units exceeding 5,000 sf of conditioned floor area
- 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 NAEC ^a	0.0	<input type="checkbox"/>
2	Heat pump ^f	1.0	<input type="checkbox"/>
3	Electric resistance heat only - furnace or zonal	-1.0	<input type="checkbox"/>
4	DHP with zonal electric resistance per option 3.4	0.5	<input type="checkbox"/>
5	All other heating systems	-1.0	<input type="checkbox"/>

Energy Options	Energy Credit Option Descriptions	Credits - select ONE energy option from each category ^g	User Notes
1.1	Efficient Building Envelope	0.5	<input type="checkbox"/>
1.2	Efficient Building Envelope	1.0	<input type="checkbox"/>
1.3	Efficient Building Envelope	0.5	<input type="checkbox"/>
1.4	Efficient Building Envelope	1.0	<input type="checkbox"/>
1.5	Efficient Building Envelope	2.0	<input type="checkbox"/>
1.6	Efficient Building Envelope	3.0	<input type="checkbox"/>
1.7	Efficient Building Envelope	0.5	<input type="checkbox"/>
2.1	Air Leakage Control and Efficient Ventilation	0.5	<input type="checkbox"/>
2.2	Air Leakage Control and Efficient Ventilation	1.0	<input type="checkbox"/>
2.3	Air Leakage Control and Efficient Ventilation	1.5	<input type="checkbox"/>
2.4	Air Leakage Control and Efficient Ventilation	2.0	<input type="checkbox"/>
3.1 ^h	High Efficiency HVAC	1.0	<input type="checkbox"/>
3.2	High Efficiency HVAC	1.0	<input type="checkbox"/>
3.3 ^h	High Efficiency HVAC	1.5	<input type="checkbox"/>
3.4	High Efficiency HVAC	1.5	<input type="checkbox"/>
3.5	High Efficiency HVAC	1.5	<input type="checkbox"/>
3.6 ^h	High Efficiency HVAC	2.0	<input type="checkbox"/>
4.1	High Efficiency HVAC Distribution System	0.5	<input type="checkbox"/>
4.2	High Efficiency HVAC Distribution System	1.0	<input type="checkbox"/>

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 ⁱ	User Notes
5.1 ⁱ	Efficient Water Heating	0.5	<input type="checkbox"/>
5.2	Efficient Water Heating	0.5	<input type="checkbox"/>
5.3	Efficient Water Heating	1.0	<input type="checkbox"/>
5.4	Efficient Water Heating	1.5	<input type="checkbox"/>
5.5	Efficient Water Heating	2.0	<input type="checkbox"/>
5.6	Efficient Water Heating	2.5	<input type="checkbox"/>
6.1 ⁱ	Renewable Electric Energy (3 credits max)	1.0	<input type="checkbox"/>
7.1	Appliance Package	0.5	<input type="checkbox"/>
Total Credits		1.5	CLEAR FORM

- 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.
- Equipment listed in Table C403.3.2(4) or C403.3.2(5)
- Equipment listed in Table C403.3.2(1) or C403.3.2(2)
- 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.
- 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.



Duct Leakage Test Results (Existing Construction)

Permit #: _____

House address or lot number: _____

City: _____ Zip: _____

Cond. Floor Area (ft²): _____

Duct tightness testing is not required for this residence per exceptions listed at the end of this document

Test Result: _____ CFM@25Pa

Ring (circle one): 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: _____

Duct Testing Technician: _____

Technician Signature: _____ Date: _____

Phone Number: _____

Washington State Energy Code Reference:
R101.4.3.1 Mechanical Systems: When a space-conditioning system is altered by the installation or replacement of space-conditioning equipment (including replacement of the air handler, outdoor condensing unit of a split system air conditioner or heat pump, cooling or heating coil, or the furnace heat exchanger), the duct system that is connected to the new or replacement space-conditioning equipment shall be tested as specified in RS-33. The test results shall be provided to the building official and the homeowner.

- Exceptions:**
- Duct systems that are documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in RS-33.
 - Ducts with less than 40 linear feet in unconditioned spaces.
 - Existing duct systems constructed, insulated or sealed with asbestos.
 - Additions of less than 750 square feet.

EQUIPMENT SIZING FORM

PROJECT TO UTILIZE EXISTING HVAC SYSTEM TO SUPPLY THE EXISTING FOOTPRINT. PROPOSED ADDITION SUPPLIED BY SEPARATE, NEW, SYSTEM.
SEE SHEET A601 FOR GLAZING SCHEDULE

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	Contact Information
5601 90th Ave SE Mercer Island, WA 98040	Ricky Lyman 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: _____
Design Temperature Difference (ΔT) 45
ΔT = Indoor (70 degrees) - Outdoor Design Temp

Area of Building
Conditioned Floor Area 319

Average Ceiling Height
Instructions: _____
Average Ceiling Height (ft) 7.8
Conditioned Volume 2,472

Glazing and Doors
Instructions: _____
U-Factor X Area = UA
U 0.30 X 46 = 13.80

Skylights
Instructions: _____
U-Factor X Area = UA
0.50 X 0 = --

Attic
Instructions: _____
U-Factor X Area = UA
No selection X 0 = --

Single Rafter or Joist Vaulted Ceilings
Instructions: _____
U-Factor X Area = UA
R-38 Vented X 319 = 8.81

Above Grade Walls (see Figure 1)
Instructions: _____
U-Factor X Area = UA
R-21 Intermediate X 362 = 20.27

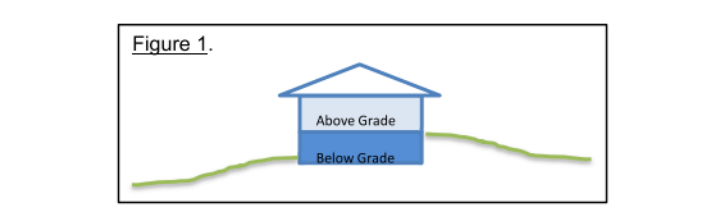
Floors
Instructions: _____
U-Factor X Area = UA
R-30 X 319 = 9.25

Below Grade Walls (see Figure 1)
Instructions: _____
U-Factor X Area = UA
No selection X 0 = --

Slab Below Grade (see Figure 1)
Instructions: _____
F-Factor X Length = UA
0.000 X 0 = --

Slab on Grade (see Figure 1)
Instructions: _____
F-Factor X Length = UA
-- X 0 = --

Location of Ducts
Instructions: _____
Unconditioned Space
Duct Leakage Coefficient 1.10



Sum of UA	51.94
Envelope Heat Load	2,337 Btu / Hour
Sum of UA x ΔT	
Air Leakage Heat Load	1,202 Btu / Hour
Volume x 0.6 x ΔT x 0.018	
Building Design Heat Load	3,539 Btu / Hour
Air leakage + envelope heat loss	
Building and Duct Heat Load	3,892 Btu / Hour
Ducts in unconditioned space: sum of building heat loss x 1.10	
Ducts in conditioned space: sum of building heat loss x 1	
Maximum Heat Equipment Output	4,866 Btu / Hour
Building and duct heat loss x 1.40 for forced air furnace	
Building and duct heat loss x 1.25 for heat pump	

WHOLE HOUSE VENTILATION CALCS

TABLE M1505.4.3(1)

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

TABLE M1505.4.3(3)

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

PROPOSED CONDITIONED SF = 1,946
NUMBER OF BEDROOMS = 4
AIRFLOW IN CF REQUIRED FOR CONTINUOUS VENTILATION = 60 (per M1505.4.3(1))
RUN TIME PERCENTAGE IN EACH 4 HOUR SEGMENT = 50%
FACTOR = 2

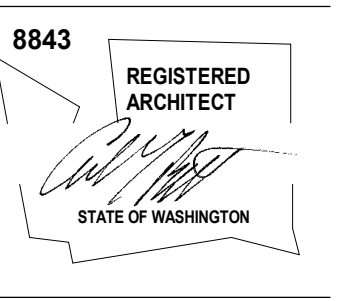
CALC 60 CFM X 2 = 120 CFM
(N) 120 CFM EXHAUST FAN IN LAUNDRY 110 TO PROVIDE WHOLE HOUSE VENTILATION REQUIREMENT WITH PROGRAMMABLE CONTROLS LOCATED WITHIN THAT ROOM.

Brandt

Design Group

66 Bell Street
Unit 1
Seattle, WA
98121

206.239.0850
brandtdesigninc.com



BUCHANAN RESIDENCE
 5601 90th Ave SE
 Mercer Island, WA 98040
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PERMIT SUBMITAL SET

DATE: 12.7.2023
SHEET SIZE: D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
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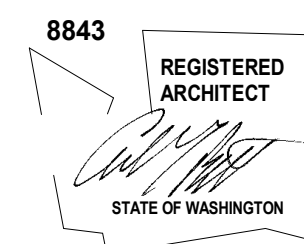
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ENERGY CODE / VENTILATION CALCULATIONS

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

G001

DEDICATED APPROVAL STAMP



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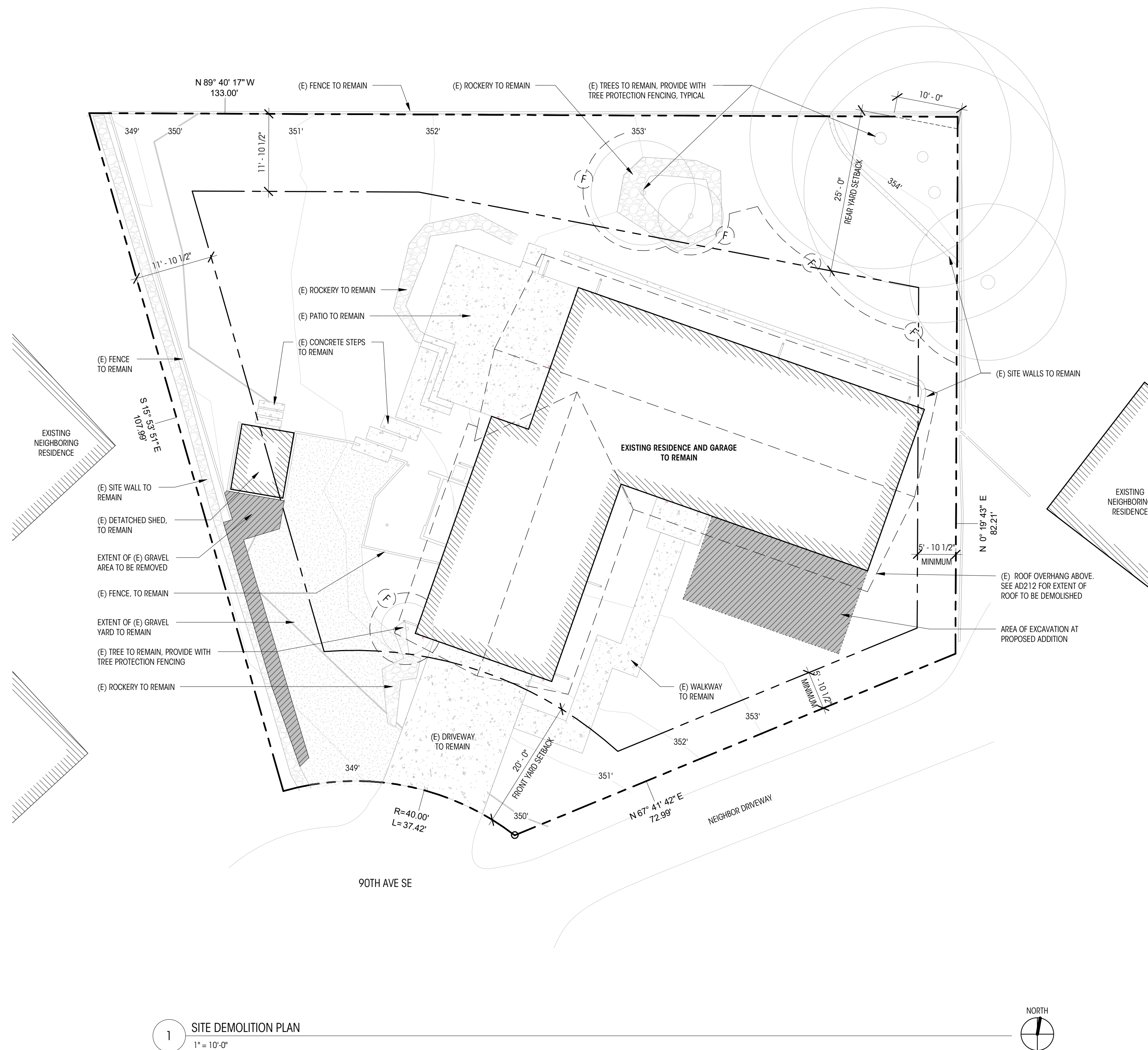
DRAWN BY: RL
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SITE DEMOLITION PLAN

SCALE: 1" = 10'-0"

AD101

DEDICATED
APPROVAL
STAMP



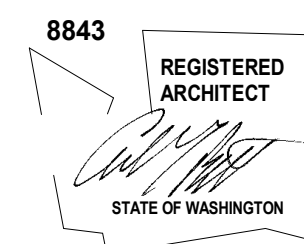
1 SITE DEMOLITION PLAN
1" = 10'-0"

SITE PLAN DEMOLITION LEGEND

	PROPERTY LINE		CONTOUR MAJOR		(E) TREE TO REMAIN
	SETBACK LINE		CONTOUR MINOR		(E) TREE TO BE REPLACED
	ROOF OVERHANG		(E) HOUSE FOOTPRINT		
	TREE PROTECTION FENCE		(E) PATIO / WALKWAYS / CONCRETE DRIVE / PAVING		
	(E) SITE WALL		(E) GRAVEL		
			(E) SITE ELEMENTS TO BE DEMOLISHED		

NOTES

- ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O.
- SEE AD211 AND AD212 FOR ADDITIONAL DEMOLITION RELATED INFORMATION.
- PROPERTY LINE METES & BOUNDS ARE SHOWN PER TOPOGRAPHIC SURVEY BY TERRANE DATED 11/03/2022
- TREES AND CONTOURS ARE BASED ON TOPOGRAPHIC SURVEY BY TERRANE DATED 11/03/2022



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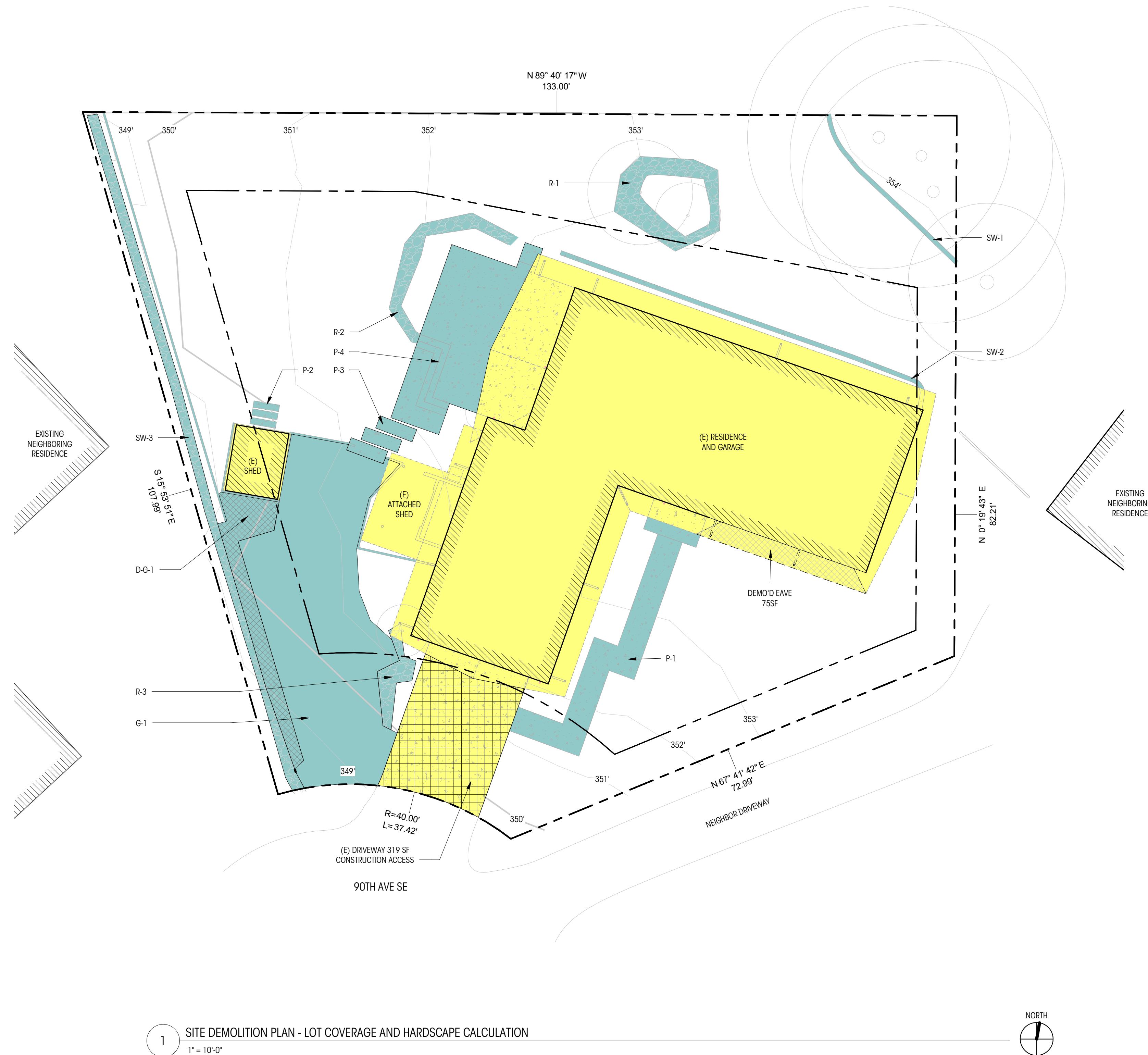
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**DEMOLITION LOT
COVERAGE &
HARDSCAPE SITE PLAN**

SCALE: 1" = 10'-0"

AD102

DEDICATED
APPROVAL
STAMP



1 SITE DEMOLITION PLAN - LOT COVERAGE AND HARDSCAPE CALCULATION
1" = 10'-0"

CALCULATIONS

EXISTING LOT COVERAGE (INCLUDING COVERAGE TO BE DEMOLISHED)

(E) RESIDENCE AND OVERHANGS	3,016 SF
(E) ATTACHED SHED ROOF	126 SF
(E) DETACHED SHED ROOF	91 SF
(E) DRIVING SURFACES	319 SF
TOTAL	3,552 SF

LOT COVERAGE TO BE DEMOLISHED / REPLACED

(E) ROOF, GARAGE, AND OVERHANGS	75 SF
TOTAL	75 SF

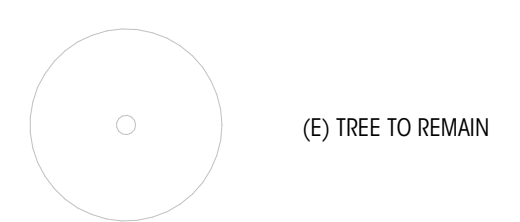
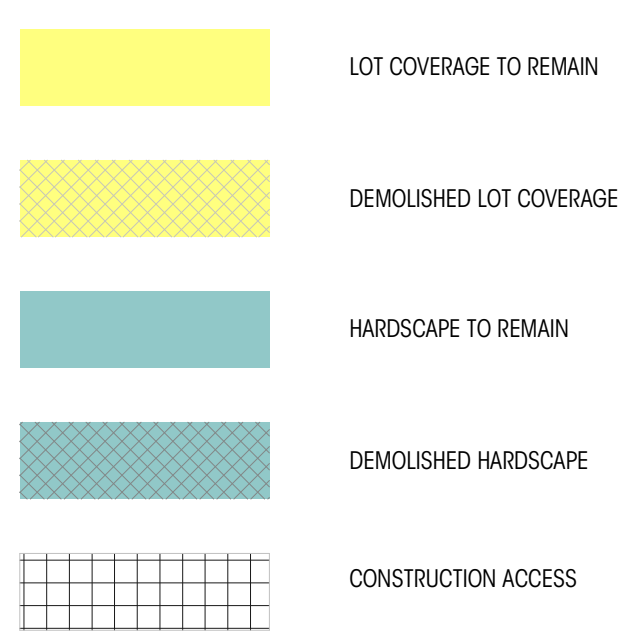
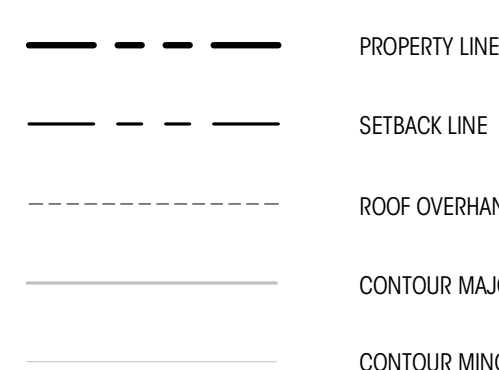
HARDSCAPE TO REMAIN

PATIOS / WALKWAYS	
P-1	203 SF
P-2	12 SF
P-3	36 SF
P-4	314 SF
ROCKERIES	
R-1	104 SF
R-2	68 SF
R-3	34 SF
SITE WALLS	
SW-1	20 SF
SW-2	39 SF
SW-3	151 SF
GRAVEL	
G-1	803 SF
TOTAL	1,784 SF

HARDSCAPE TO BE DEMOLISHED

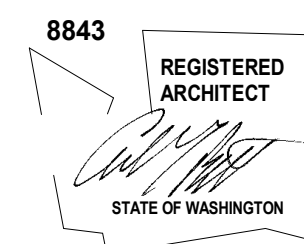
PATIOS / WALKWAYS	
D-G-1	125 SF
TOTAL	125 SF

LEGEND



NOTES

- ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O.
- PROPERTY LINE METES & BOUNDS ARE SHOWN PER TOPOGRAPHIC SURVEY BY TERRANE DATED 11/03/2022
- TREES AND CONTOURS ARE BASED ON TOPOGRAPHIC SURVEY BY TERRANE DATED 11/03/2022



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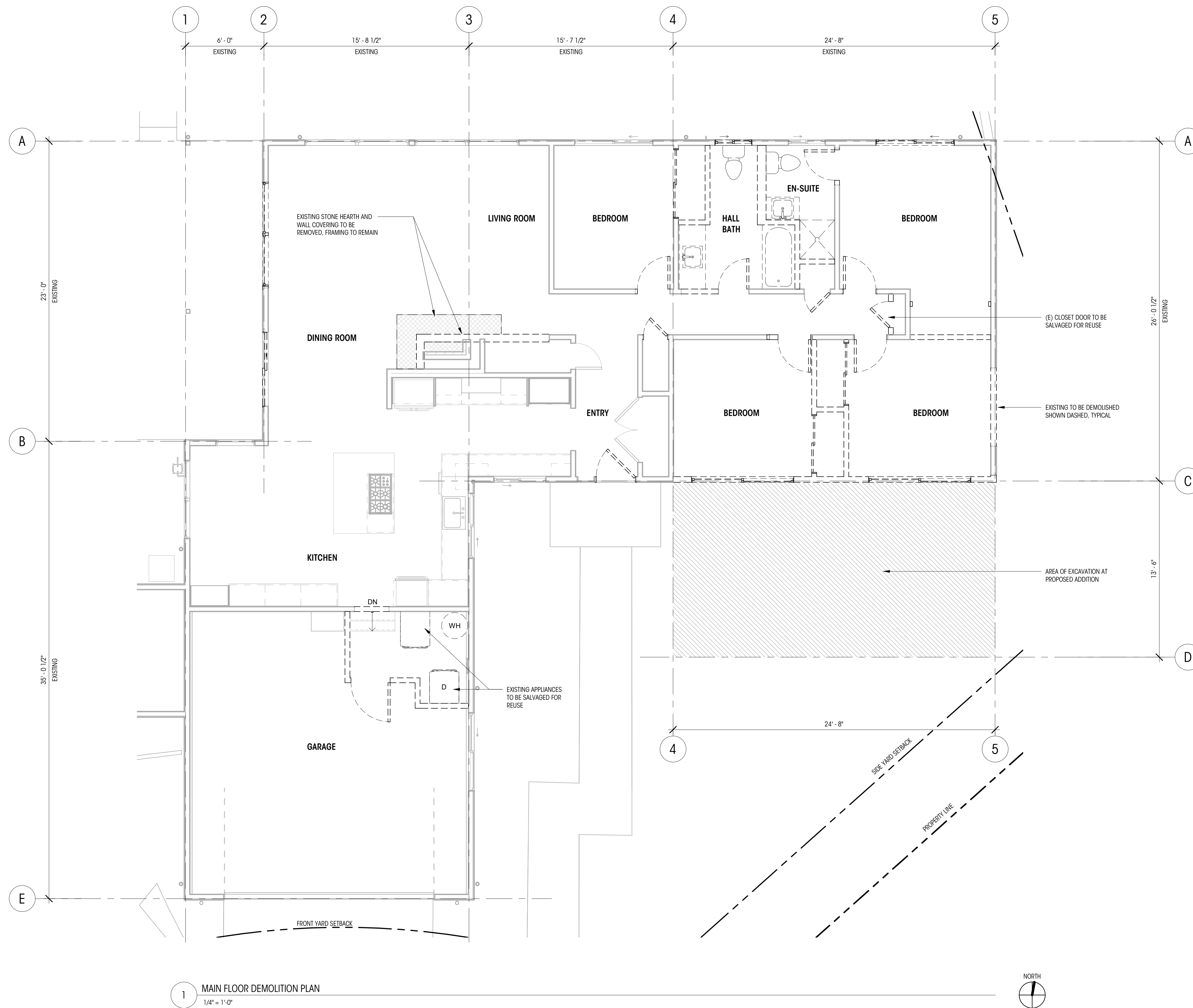
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CHECKED BY: KM

**MAIN FLOOR
DEMOLITION PLAN**

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

AD211

DEDICATED
APPROVAL
STAMP

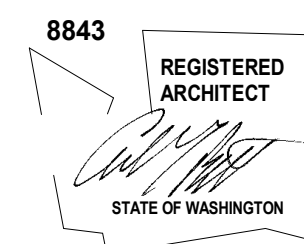


LEGEND

- 0 GRIDLINE
- WALL TO BE REMOVED
- WALL TO REMAIN
- PROPERTY LINE
- SETBACK LINE
- ▨ FLOOR TO BE REMOVED

NOTES

1. ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O. ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS, U.N.O.
2. CONTRACTOR RESPONSIBLE FOR COORDINATING DEMOLITION SCOPE WITH ALL OTHER ASPECTS OF DESIGN SHOWN WITHIN THIS DRAWING SET.
3. ALL DIMENSIONS ASSOCIATED WITH (E) CONSTRUCTION ARE ASSUMED. CONTRACTOR TO VERIFY ALL DIMS IN FIELD AND CONTACT ARCHITECT WITH ANY DISCREPANCIES PRIOR TO CONSTRUCTION
4. CONTRACTOR TO ENSURE ADEQUATE STRUCTURAL SUPPORTS ARE IN PLACE WHEN REMOVING EXISTING STRUCTURAL ELEMENTS. QUESTIONS REGARDING THE MEANS AND METHODS OF THOSE SUPPORTS SHOULD BE DIRECTED TOWARD THE STRUCTURAL ENGINEER



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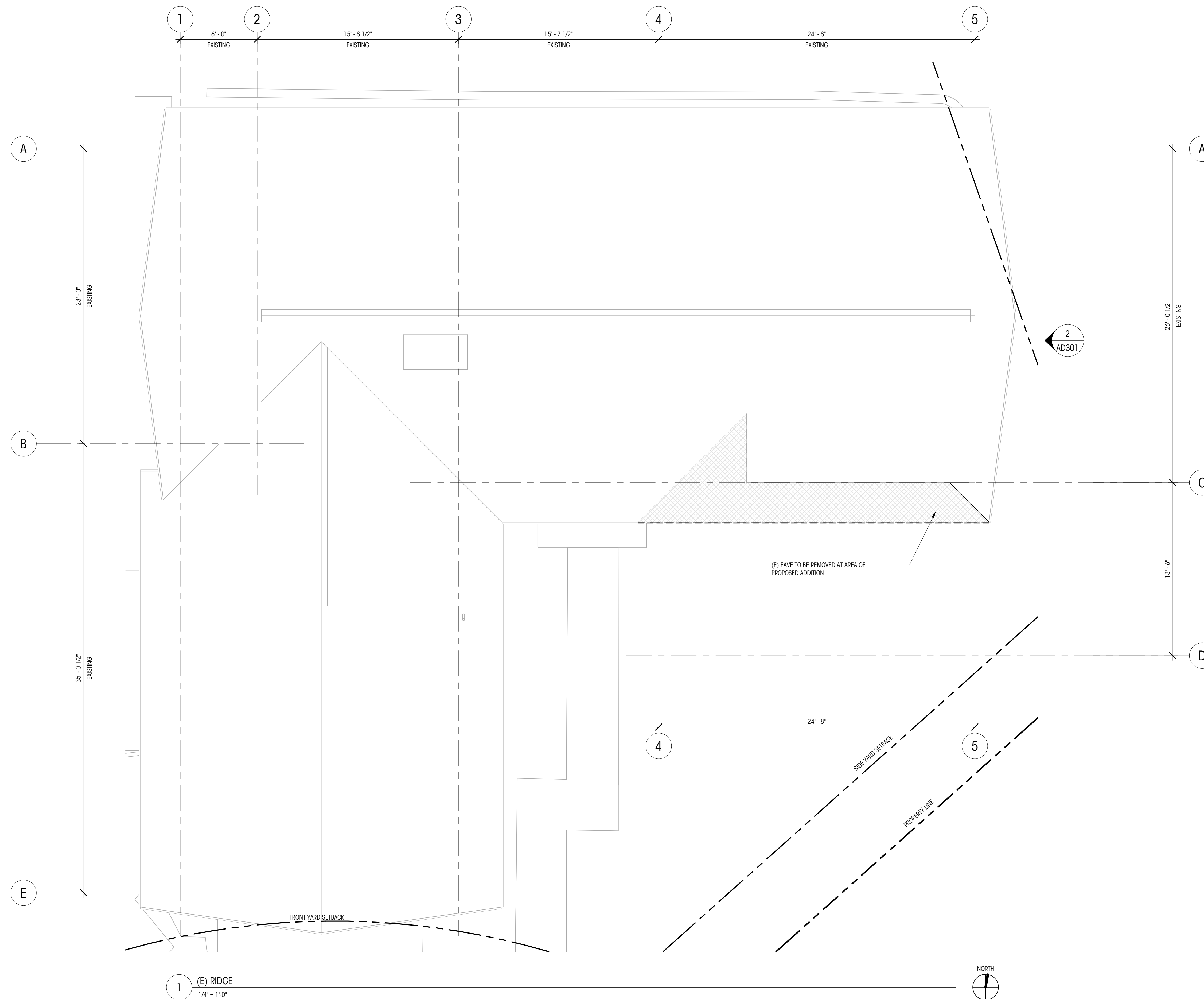
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ROOF DEMOLITION PLAN

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

AD212

DEDICATED
APPROVAL
STAMP



1 (E) RIDGE
1/4" = 1'-0"

LEGEND		NOTES	
	MAIN FLOOR F.F. 48' - 5" ELEVATION DATUM		ROOF AREA TO BE REMOVED
	GRIDLINE		EXISTING ROOF TO REMAIN
			EXISTING WALL TO REMAIN

- ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O.
- CONTRACTOR RESPONSIBLE FOR COORDINATING DEMOLITION SCOPE WITH ALL OTHER ASPECTS OF DESIGN SHOWN WITHIN THIS DRAWING SET.
- ALL DIMENSIONS ASSOCIATED WITH (E) CONSTRUCTION ARE ASSUMED. CONTRACTOR TO VERIFY ALL DIMS IN FIELD AND CONTACT ARCHITECT WITH ANY DISCREPANCIES PRIOR TO CONSTRUCTION
- CONTRACTOR TO ENSURE ADEQUATE STRUCTURAL SUPPORTS ARE IN PLACE WHEN REMOVING EXISTING STRUCTURAL ELEMENTS. QUESTIONS REGARDING THE MEANS AND METHODS OF THOSE SUPPORTS SHOULD BE DIRECTED TOWARD THE STRUCTURAL ENGINEER

PROJECT DATA

EXISTING LOT AREA SUMMARY

GROSS LOT AREA	11,738 SF (PER SURVEY)
ACCESS EASEMENTS	N/A
NET LOT AREA	11,738 SF
LOT SLOPE	(354.6' - 348.0') / 146' = 4.5%

TREE REMOVAL
NO TREE REMOVAL PROPOSED. SEE SITE PLANS FOR (E) TREE LOCATIONS.
TREE RETENTION NOT REQUIRED FOR ADDITION RESULTING IN LESS THAN 500 SF GFA ON LOT EQUAL TO OR GREATER THAN 6,000 SF. (19.10.060.A.1.a)

EXISTING LOT COVERAGE

(E) RESIDENCE AND OVERHANGS	2804 SF
(E) COVERED PATIO	212 SF
(E) ATTACHED SHED AND OVERHANGS	126 SF
(E) DETACHED SHED AND OVERHANGS	91 SF
(E) DRIVING SURFACES	319 SF
(E) TOTAL LOT COVERAGE	3,552 SF = 30.2% OF LOT AREA

PROPOSED LOT COVERAGE

(E) RESIDENCE AND OVERHANGS	2804 SF (NO CHANGE)
(N) ADDITION AND OVERHANGS	331 SF
(E) COVERED PATIO	212 SF (NO CHANGE)
(E) ATTACHED SHED AND OVERHANGS	126 SF (NO CHANGE)
(E) DETACHED SHED AND OVERHANGS	91 SF (NO CHANGE)
(E) DRIVING SURFACES	319 SF (NO CHANGE)
TOTAL LOT COVERAGE	3,883 SF = 33.1% OF LOT AREA
ALLOWABLE LOT COVERAGE (19.02.020.F.3.a)	4,695 SF (40% LOT AREA)

EXISTING HARDSCAPE (PER SURVEY)

ROCKERIES	206 SF
PATIOS/WALKWAY	565 SF
SITE WALLS	210 SF
GRAVEL	928 SF
TOTAL EXISTING	1,909 SF = 16.3% OF LOT AREA
ALLOWABLE HARDSCAPE (19.02.020.F.3.b)	1,056 SF (9% OF LOT AREA)
EXISTING TOTAL HARDSCAPE & LOT COVERAGE	16.3% + 30.2% = 46.5% EXISTING CONFORMING (49% LOT AREA ALLOWABLE)

DEMOLISHED HARDSCAPE

PATIOS/WALKWAYS	125 SF
TOTAL DEMOLISHED	125 SF

PROPOSED HARDSCAPE (NO NEW HARDSCAPE PROPOSED)

(E) HARDSCAPE	1,909 SF
(E) HARDSCAPE TO BE DEMOLISHED	125 SF
TOTAL HARDSCAPE	1,784 SF = 15.2% OF LOT AREA
ALLOWED (9% OF LOT AREA)	11,738 SF * 9% = 1,056 SF
REMAINING LOT COVERAGE (PER MICC 19.02.020.F.3.b.ii)	4,695 SF - 3,883 SF = 812 SF
TOTAL ALLOWABLE HARDSCAPE	1,056 SF + 812 SF = 1,868 SF

EXISTING BUILDING AREA SUMMARY (GFA)

(E) MAIN LEVEL	1,712 SF
(E) ATTACHED STORAGE CLOSET	43 SF
(E) ATTACHED GARAGE	490 SF
TOTAL EXISTING BUILDING AREA (GSF)	2,245 SF
EXISTING FLOOR AREA RATIO:	2,245/11,738 = 19.1% OF LOT AREA

EXISTING DETACHED SHED <120SF (91SF) IS NOT INCLUDED IN GFA AREA PER MICC 19.16.010(1.b)

PROPOSED BUILDING AREA SUMMARY (GFA)

(E) MAIN LEVEL	1,712 SF
(N) PROPOSED ADDITION	340 SF
(E) ATTACHED STORAGE CLOSET	43 SF
(E) ATTACHED GARAGE	490 SF
TOTAL PROPOSED BUILDING AREA (GSF)	2,585 SF
PROPOSED FLOOR AREA RATIO:	2,585/11,738 = 22.0% OF LOT AREA
40% ALLOWABLE GROSS FLOOR AREA:	11,738 SF x 40% = 4,695 SF

SETBACKS

SIDE YARD	17'-9" TOTAL
SITE WIDTH DETERMINED BY LOT CIRCLE PER MICC 19.16.010.L	17% OF 104'-4" = 17'-9"
SEE A102 SUM OF SIDE YARDS SHALL EQUAL 17% OF LOT WIDTH	
MINIMUM SIDE YARD SHALL BE 33% OF AGGREGATE SIDE YARD TOTAL WIDTH	33% OF 17'-9" = 5'-10 1/2"
FRONT YARD	20'
REAR YARD	25'

FOR IRREGULAR LOT REAR YARD SETBACK DRAWN FROM 10' LINE PARALLEL TO LINE DRAWN AT FRONT LOT LINE CONNECTING SIDE YARD LOT LINES. PER MICC 19.02.020.C.2.b

OCCUPANCY SUMMARY

EXISTING TYPE	R-3
OCCUPANT LOAD	SINGLE FAMILY

ENERGY CODE SUMMARY 2018 WASHINGTON ENERGY CODE (RESIDENTIAL PROVISIONS)
CLIMATE ZONE 4C PER TABLE R301.1
PRESCRIPTIVE THERMAL ENVELOPE PER TABLE R402.1.1
(E) GAS FURNACE WITH AC, HEATING OPTION 1 TO REMAIN

ADDITION OF LESS THAN 500SF REQUIRES 1.5 CREDITS FOR WSEC 406.2 AND 406.3
HIGH EFFICIENCY HVAC EQUIPMENT OPTION 3.2 (1 CREDIT)
AIR SOURCED DUCTED HEAT PUMP, MINIMUM HSPF 9.5
EFFICIENT WATER HEATING OPTION 5.2 (.5 CREDIT)
NEW .80 UEF TANLESS GAS HWY (WITH RECIRCULATION PUMP)

FENESTRATION U-FACTOR (VERTICAL):	.30
SKYLIGHT U-FACTOR (OVERHEAD):	.50
CEILING:	R-49
VAULTED CEILING:	R-38
WALL ABOVE GRADE:	R-21
WALL BELOW GRADE (INT.):	R-21 (INT.) OR R-10 (EXT.)
FLOOR ABOVE GRADE:	R-30
SLAB ON GRADE @ BASEMENT:	R-10

INSULATION UPGRADES
PER WSEC R503.1.1(2), EXISTING CEILING, WALL OR FLOOR CAVITIES EXPOSED DURING THE CONSTRUCTION PROVIDED THAT THESE CAVITIES ARE FILLED WITH INSULATION. 2x4 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-15 AND 2x6 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-21.

LIFE SAFETY UPGRADES
CONTRACTOR TO INSTALL CARBON MONOXIDE ALARMS OUTSIDE OF EACH BEDROOM IN THE IMMEDIATE VICINITY ON EACH FLOOR LEVEL PER IRC SECTION 315.3. SEE PLANS.
CONTRACTOR TO INSTALL SMOKE ALARMS OUTSIDE OF EACH BEDROOM IN THE IMMEDIATE VICINITY ON EACH FLOOR LEVEL PER IRC SECTION 314.2.2. SEE PLANS.
FIRE ALARM SYSTEMS ARE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS.

HEATING
INSTALLED PER INTERNATIONAL MECHANICAL CODE. 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 TABLE 403.8.5.1 OF THE INTERNATIONAL MECHANICAL CODE.
* PLUMBING, MECHANICAL, ELECTRICAL WORK TO BE PERMITTED SEPARATELY.
SEE SHEET G002 FOR VENTILATION & ENERGY CALCULATIONS.

FIRE DEPARTMENT NOTES
PROJECT TO BE EQUIPPED WITH A NFPA-72 HOUSEHOLD MONITORED SMOKE ALARM SYSTEM.
SYSTEM TO BE PERMITTED SEPARATELY. PERMIT TO BE OBTAINED AND SYSTEM INSTALLED AND INSPECTED PRIOR TO FINAL OCCUPANCY.

PARKING (MICC 19.02.020.G.2.b)
FOR SINGLE FAMILY RESIDENCE LESS THAN 3,000 SF GFA (2) SPACES SHALL BE PROVIDED, ATLEAST (1) COVERED (2) SPACES PROVIDED IN EXISTING ATTACHED GARAGE.

STORMWATER CODE (MICC 15.09.050)
A STORM WATER DRAINAGE REVIEW IS REQUIRED FOR PROJECTS THAT:

1. RESULT IN 2,000 SQUARE FEET, OR GREATER, OF NEW PLUS REPLACED HARD SURFACE AREA, OR
2. HAVE A LAND DISTURBING ACTIVITY OF 7,000 SQUARE FEET OR GREATER, OR
3. RESULT IN A NET INCREASE OF IMPERVIOUS SURFACE OF 500 SQUARE FEET OR GREATER.

PROPOSED NEW / REPLACED IMPERVIOUS SURFACES IS 331 SF. STORMWATER REVIEW NOT REQUIRED

TREE INVENTORY

ALL EXISTING TREES TO REMAIN, NO TREE REMOVAL PROPOSED

TREE #	SPECIES	DHB (INCHES)	EXCEPTIONAL	LARGE/REGULATED	RIGHT OF WAY
1	DECIDUOUS	22	NO	NO	NO
2	DECIDUOUS	20	NO	NO	NO
3	DECIDUOUS	22	NO	NO	NO
4	DECIDUOUS	5	NO	NO	NO
5	MAPLE	5	NO	NO	NO
6	MAPLE	4.3.3 (MULTITRUNK)	NO	NO	NO

STRUCTURAL ALTERATIONS CALCULATIONS

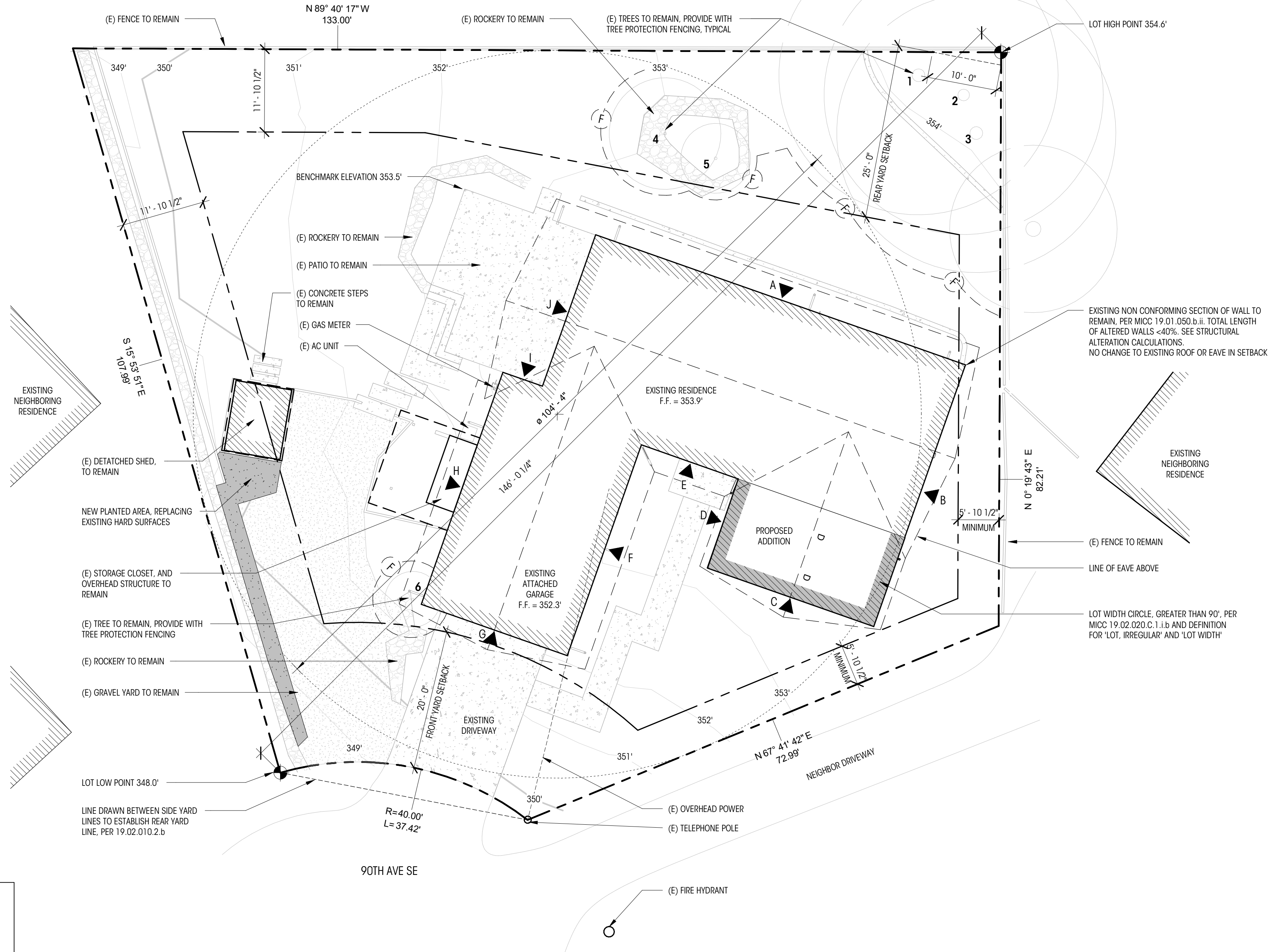
EXISTING SINGLE-FAMILY STRUCTURE

MAIN FLOOR STRUCTURAL ALTERATION RATIO	
(E) MAIN FLOOR PERIMETER	240.8 LF
(E) MAIN FLOOR WALLS TO BE STRUCTURALLY ALTERED	25.3 LF
RATIO CALCULATION	25.3 LF / 240.3 LF = 10.5%

LEGEND

	PROPERTY LINE		(E) HOUSE FOOTPRINT
	SETBACK LINE		(N) HOUSE FOOTPRINT
	ROOF OVERHANG		(E) PATIO / WALKWAYS / CONCRETE DRIVE / PAVING
	TREE PROTECTION FENCE		(E) PATIO / WALKWAYS / CONCRETE DRIVE / PAVING
	(E) SITE WALL		(N) PLANTED AREA
	(N) SITE WALL		
	CONTOUR MAJOR		
	CONTOUR MINOR		

1 SITE PLAN
1" = 10'-0"

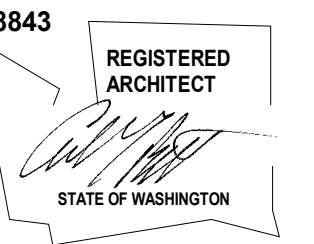


NOTES

1. ALL PROPERTY LINE METES & BOUNDS, TREES, CONTOURS, AND BUILDING LOCATIONS ARE PER TOPOGRAPHIC SURVEY BY TERRACE DATED 11/03/2022.
2. ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O.
3. ITEMS NOT SPECIFICALLY REFERENCED ARE EXISTING TO REMAIN, TYPICAL. SEE AD101 FOR SITE DEMO PLAN

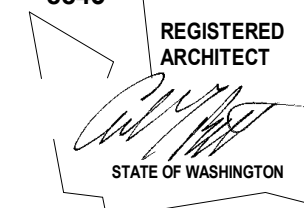
AVERAGE BUILDING ELEVATION (ABE)

WALL	MIDPOINT EL. (FT.)	WALL LENGTH (FT.)	PRODUCT
A	353.2'	56.21'	19,853.4
B	353.4'	39.75'	14,047.6
C	353.1'	25.33'	8,944.0
D	353.4'	13.50'	4,770.9
E	353.4'	14.67'	5,184.4
F	353.0'	32.00'	11,296.0
G	352.0'	22.21'	7,811.9
H	351.9'	35.25'	12,404.5
I	353.8'	6.00'	2,122.8
J	353.8'	23.00'	8,137.4
TOTALS		267.92'	94,578.9
AVERAGE GRADE (ABE)		94,578.9 / 267.92' =	353.0'
MAXIMUM ALLOWABLE HEIGHT		30' ABOVE ABE	383.0'
MAXIMUM BUILDING HEIGHT / ELEVATION			383.0'



REVISIONS

NO.	DESCRIPTION	DATE
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SHEET SIZE: D (24X36)

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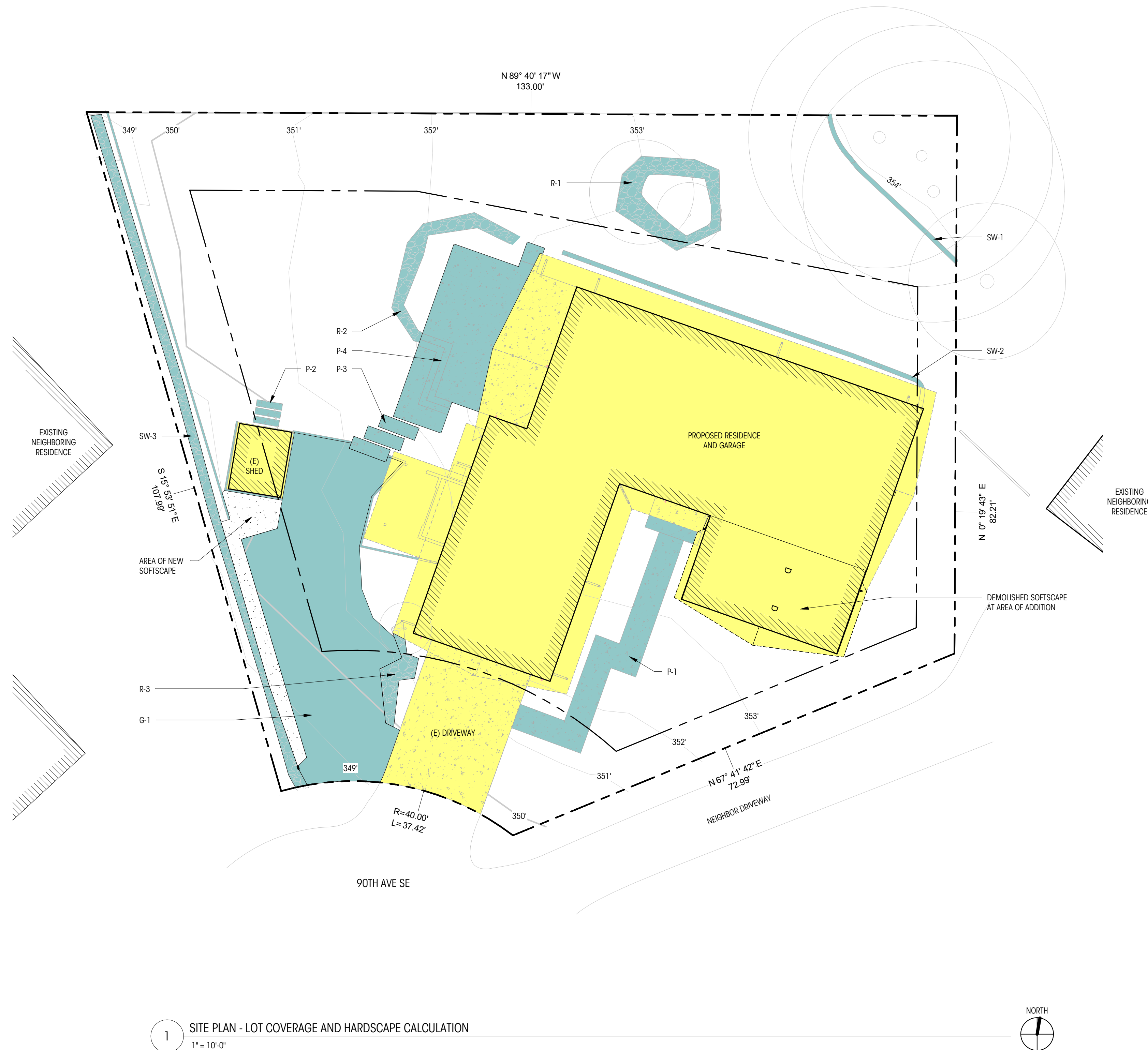
DRAWN BY: RL
CHECKED BY: KM

PROPOSED LOT COVERAGE & HARDSCAPE SITE PLAN

SCALE: 1" = 10'-0"

A102

DEDICATED APPROVAL STAMP



1 SITE PLAN - LOT COVERAGE AND HARDSCAPE CALCULATION
1" = 10'-0"

CALCULATIONS

PROPOSED LOT COVERAGE	
(E) RESIDENCE AND OVERHANGS	3016 SF
(N) ADDITION AND OVERHANGS	331 SF
(E) ATTACHED SHED AND OVERHANGS	126 SF (NO CHANGE)
(E) DETACHED SHED AND OVERHANGS	91 SF (NO CHANGE)
(E) DRIVING SURFACES	319 SF (NO CHANGE)
TOTAL LOT COVERAGE	3,883 SF = 33.1% OF LOT AREA
ALLOWABLE LOT COVERAGE (19.02.020.F.3.a)	4,695 SF (40% LOT AREA)

HARDSCAPE TO REMAIN (PER SURVEY) NO NEW HARDSCAPE PROPOSED

PATIOS / WALKWAYS	
P-1	203 SF
P-2	12 SF
P-3	36 SF
P-4	314 SF
ROCKERIES	
R-1	104 SF
R-2	68 SF
R-3	34 SF
SITE WALLS	
SW-1	20 SF
SW-2	39 SF
SW-3	151 SF
GRAVEL	
G-1	803 SF
TOTAL	1,784 SF

ALLOWED (9% OF LOT AREA)	11,738 SF * 9% = 1,056 SF
REMAINING LOT COVERAGE (PER MIC19.02.020.F.3.b.ii)	4,695 SF - 3,883 SF = 812 SF
TOTAL ALLOWABLE HARDSCAPE	1,056 SF + 812 SF = 1,868 SF

LANDSCAPE

PROPOSED SOFTSCAPE	
(E) SOFTSCAPE	6,307 SF
DEMOLISHED SOFTSCAPE	- 406 SF
(N) SOFTSCAPE	126 SF
TOTAL	6,026 SF PROPOSED
60% OF LOT AREA - 9% OF LOT AREA = 51%	6,026 SF / 11,738 SF = 51.3% OF LOT AREA
REQUIRED SOFTSCAPE	60% OF LOT AREA - 9% OF LOT AREA = 51%
	51% * 11,738 = 5,986 SF MINIMUM

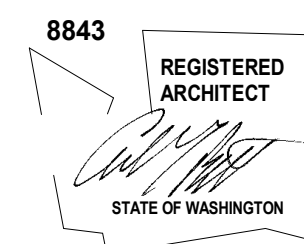
LEGEND

- PROPERTY LINE
- SETBACK LINE
- ROOF OVERHANG
- TREE PROTECTION FENCE
- CONTOUR MAJOR
- CONTOUR MINOR

- PROPOSED LOT COVERAGE AREA
- PROPOSED HARDSCAPE AREA
- (E) TREE TO REMAIN

NOTES

1. ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O.
2. PROPERTY LINE METES & BOUNDS ARE SHOWN PER TOPOGRAPHIC SURVEY BY TERRANE DATED 11/03/2022
3. TREES AND CONTOURS ARE BASED ON TOPOGRAPHIC SURVEY BY TERRANE DATED 11/03/2022
4. SEE SHEET A101 FOR COMPLETE SITE PLAN



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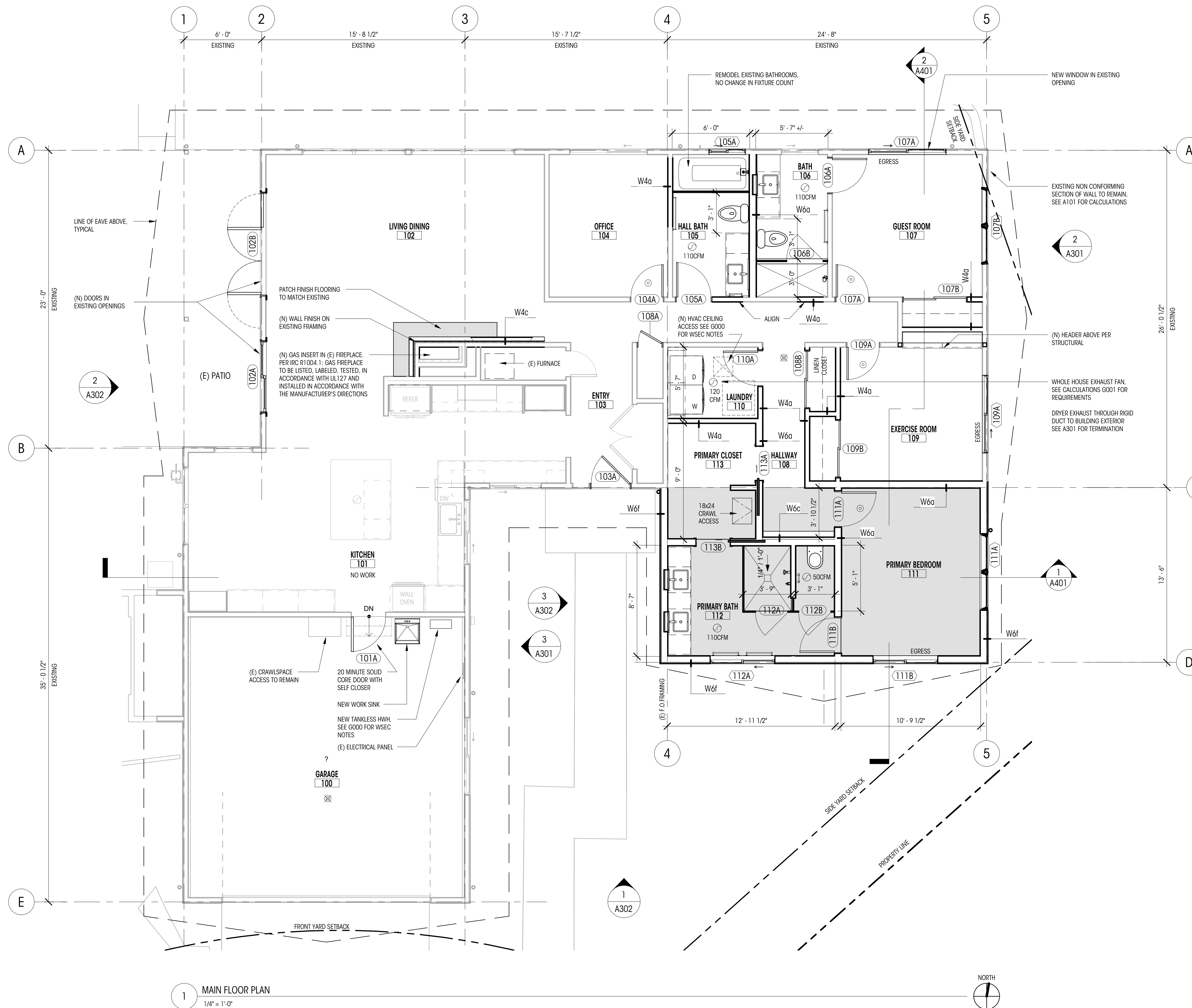
DRAWN BY: RL
CHECKED BY: KM

MAIN FLOOR PLAN

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

A211

DEDICATED
APPROVAL
STAMP



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

LEGEND		NOTES	
200A	WINDOW ID		NEW WALL
100A	DOOR ID		WALL TO REMAIN
100A	FINISH ID		PROPERTY LINE
101	ROOM NAME		SETBACK LINE
	ROOM ID		ROOF OVERHANG ABOVE
	ASSEMBLY ID		NEW FLOOR
0	GRIDLINE		SMOKE DETECTOR
1	SMOKE DETECTOR		SMOKE/CARBON MONOXIDE DETECTOR
2	SMOKE/CARBON MONOXIDE DETECTOR		FAN - 100 CFM U.N.O.
3	FAN - 100 CFM U.N.O.		

CRAWLSPACE VENTILATION CALC

(E) VENTED CRAWLSPACE TO REMAIN AT EXISTING FOOTPRINT. NO CHANGES.

(N) CRAWLSPACE TO BE UNVENTED PER R408.3

GROUND SURFACE TO BE COVERED WITH APPROVED CLASS 1 VAPOR RETARDER MATERIAL. JOINTS LAPPED BY 6" AND SEALED. EDGES OF THE VAPOR RETARDER SHALL EXTEND AT LEAST 6" UP THE STEM WALL.

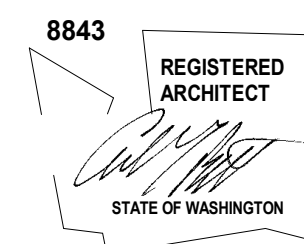
NO RADON SYSTEM REQUIRED. PROJECT IS NOT WITHIN COUNTY IDENTIFIED IN TABLE AF101

CONTINUOUSLY OPERATED MECHANICAL EXHAUST VENTILATION TO BE PROVIDED AT A RATE EQUAL TO 1 CFM / 50 SF OF CRAWLSPACE FLOOR AREA. EXHAUST SHALL TERMINATE TO THE EXTERIOR.

315 SF / 50 SF = 7 CFM EXHAUST VENTILATION REQUIRED

NOTES

- ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O.
- ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS, U.N.O.
- ALL INTERIOR DOOR SWING-SIDE JAMBS ARE 4" FROM ADJACENT WALL, U.N.O.
- SEE RCP FOR SMOKE / CARBON MONOXIDE DETECTOR AND EXHAUST FAN LOCATIONS
- ALL NEW WALLS TYPE W4A UNLESS NOTED OTHERWISE
- ALL DIMENSIONS ASSOCIATED WITH (E) CONSTRUCTION ARE ASSUMED. CONTRACTOR TO VERIFY ALL DIMS IN FIELD AND CONTACT ARCHITECT WITH ANY DISCREPANCIES PRIOR TO CONSTRUCTION
- CONTRACTOR TO VERIFY CARBON MONOXIDE ALARMS ARE OUTSIDE OF EACH BEDROOM IN THE IMMEDIATE VICINITY ON EACH FLOOR LEVEL PER IRC SECTION 315.3.
- CONTRACTOR TO VERIFY SMOKE ALARMS ARE OUTSIDE OF EACH BEDROOM IN THE IMMEDIATE VICINITY ON EACH FLOOR LEVEL PER IRC SECTION 314.2.2.
- FLOOR, CEILING, AND WALL ASSEMBLIES ARE LISTED ON SHEETS A701.



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NO.	DESCRIPTION	DATE

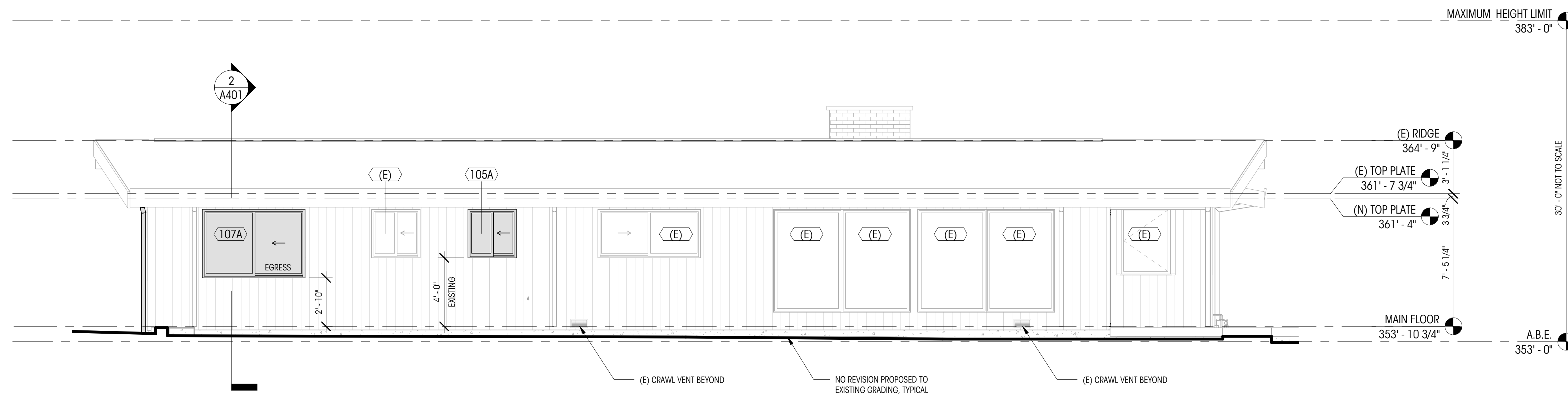
DRAWN BY: RL
CHECKED BY: KM

EXTERIOR ELEVATIONS
(N & E)

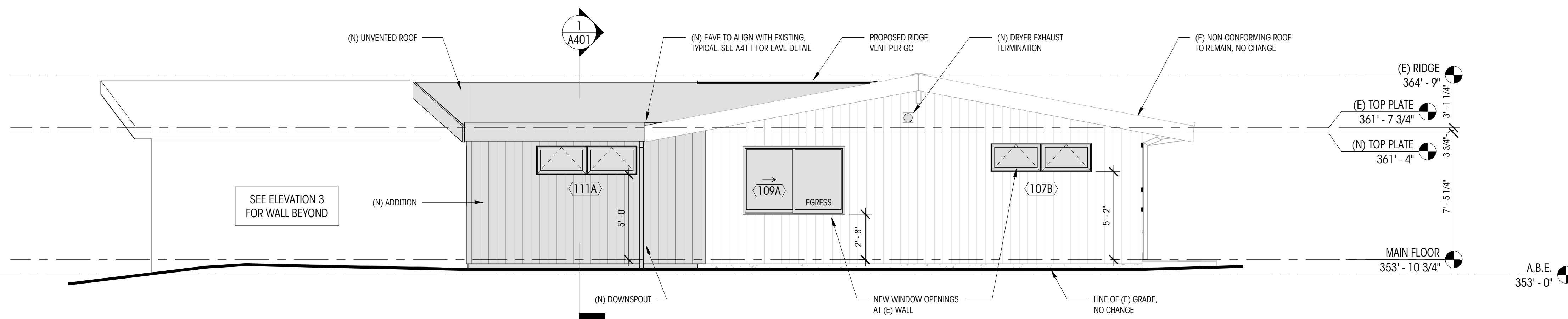
SCALE: 1/4" = 1'-0"

A301

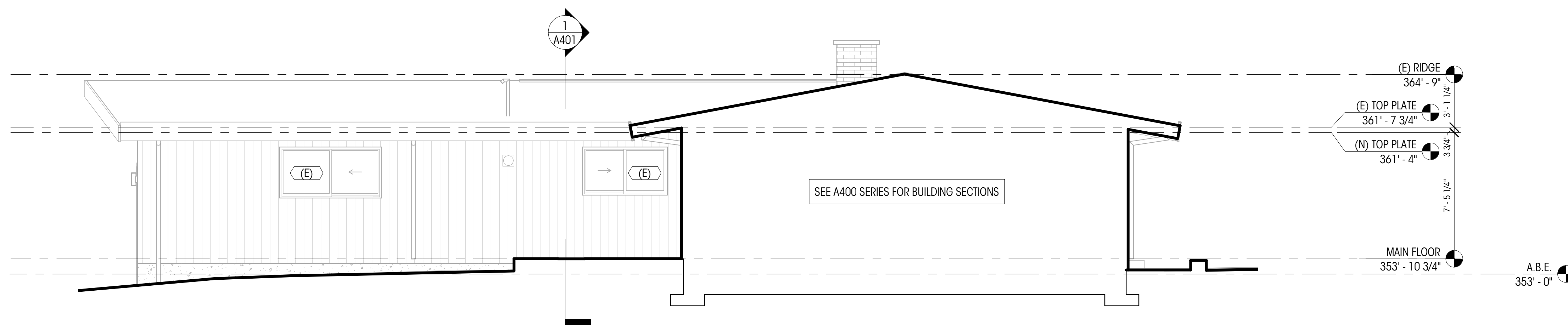
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APPROVAL
STAMP



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



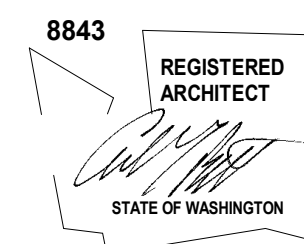
2 EXTERIOR ELEVATION - EAST (ADDITION)
1/4" = 1'-0"



3 EXTERIOR ELEVATION - EAST
1/4" = 1'-0"

LEGEND		NOTES	
	WINDOW ID (E) AT EXISTING TO REMAIN		NEW CONSTRUCTION ELEMENT
	DOOR ID (E) AT EXISTING TO REMAIN		EXISTING ELEMENT TO REMAIN
			LEVEL NAME ELEVATION DATUM

1. ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O.
2. ALL DIMENSIONS ASSOCIATED WITH (E) CONSTRUCTION ARE ASSUMED. CONTRACTOR TO VERIFY ALL DIMS IN FIELD AND CONTACT ARCHITECT WITH ANY DISCREPANCIES PRIOR TO CONSTRUCTION



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REVISIONS

NO.	DESCRIPTION	DATE

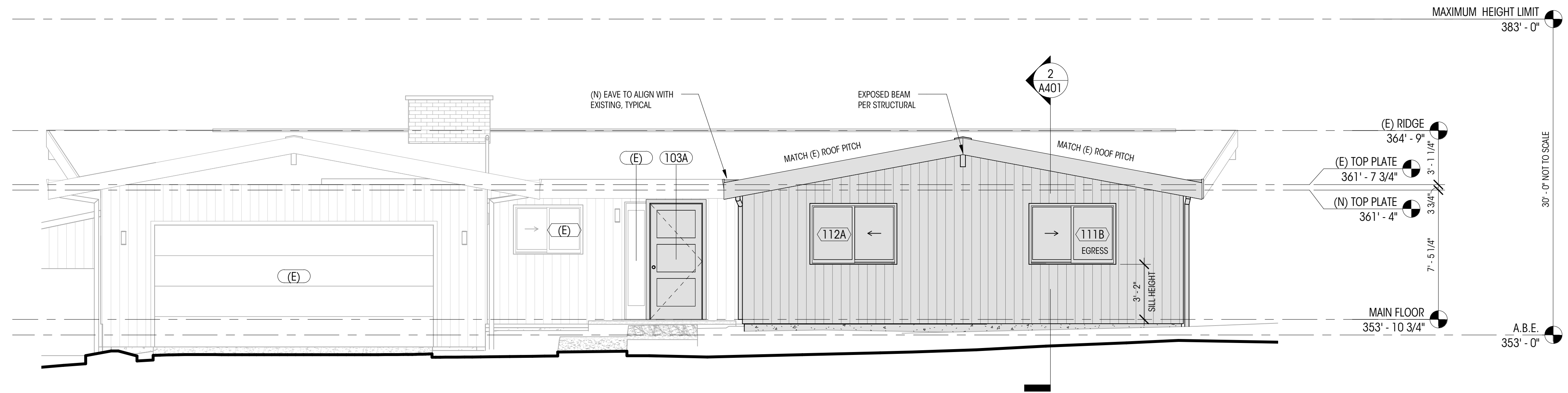
DRAWN BY: RL
CHECKED BY: KM

EXTERIOR ELEVATIONS
(S & W)

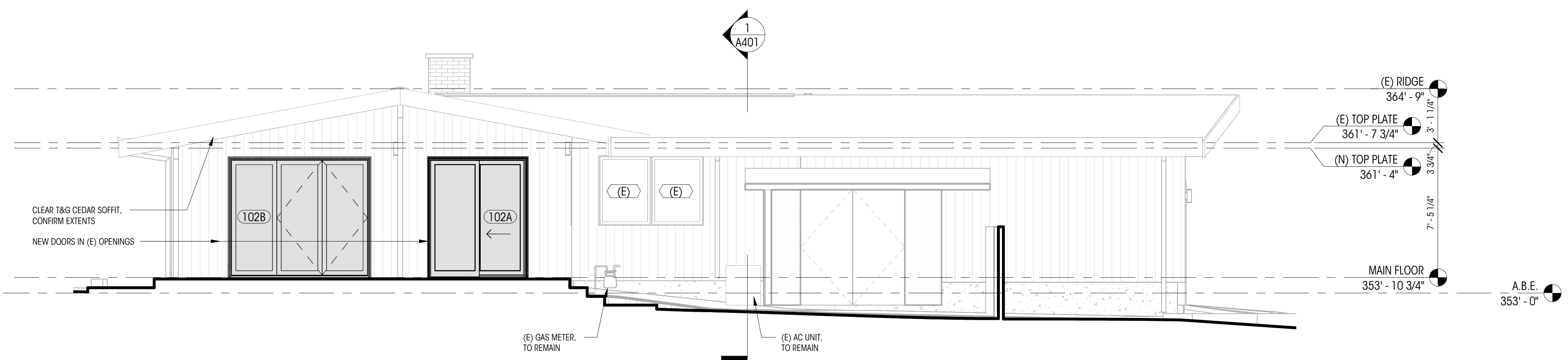
SCALE: 1/4" = 1'-0"

A302

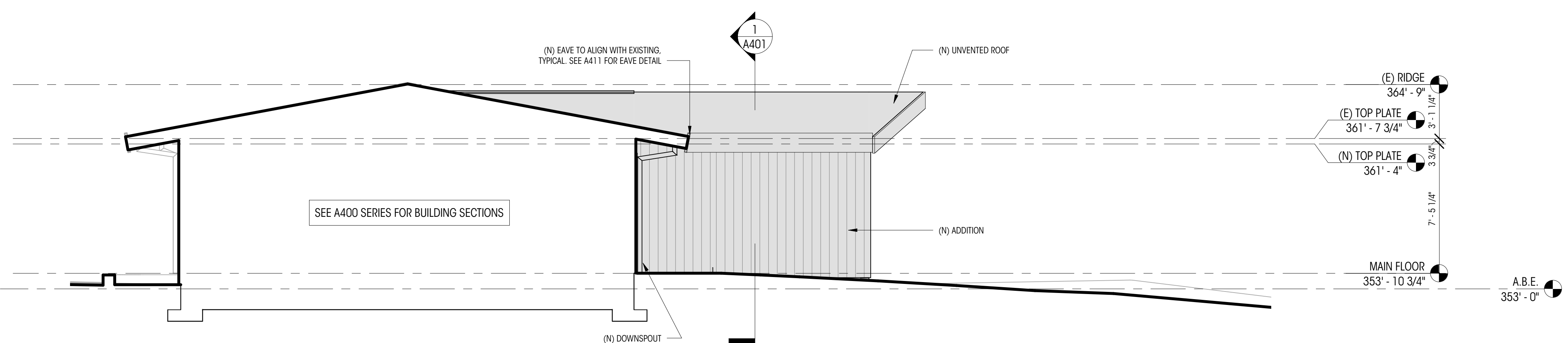
DEDICATED
APPROVAL
STAMP



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



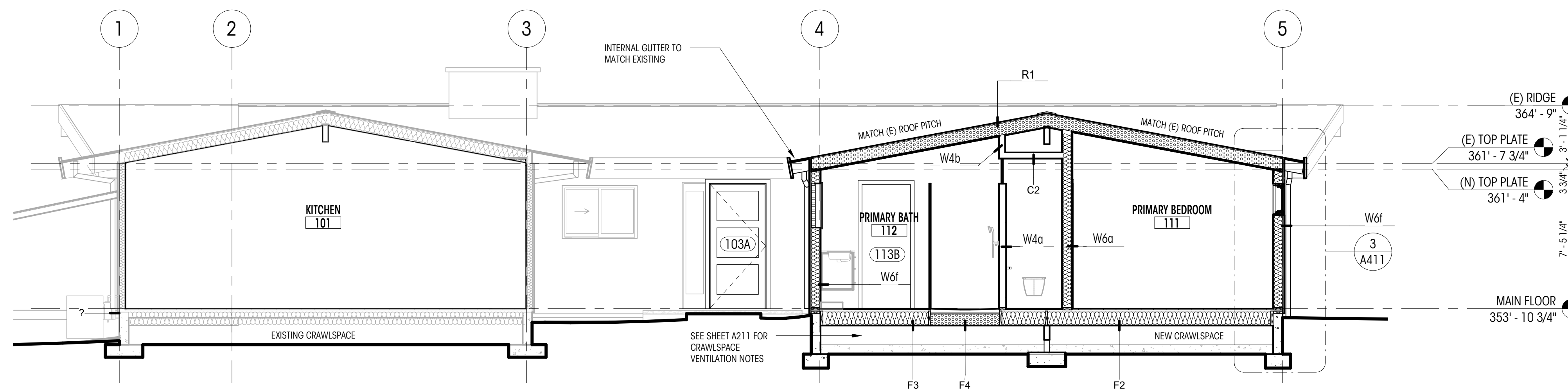
2 WEST ELEVATION
1/4" = 1'-0"



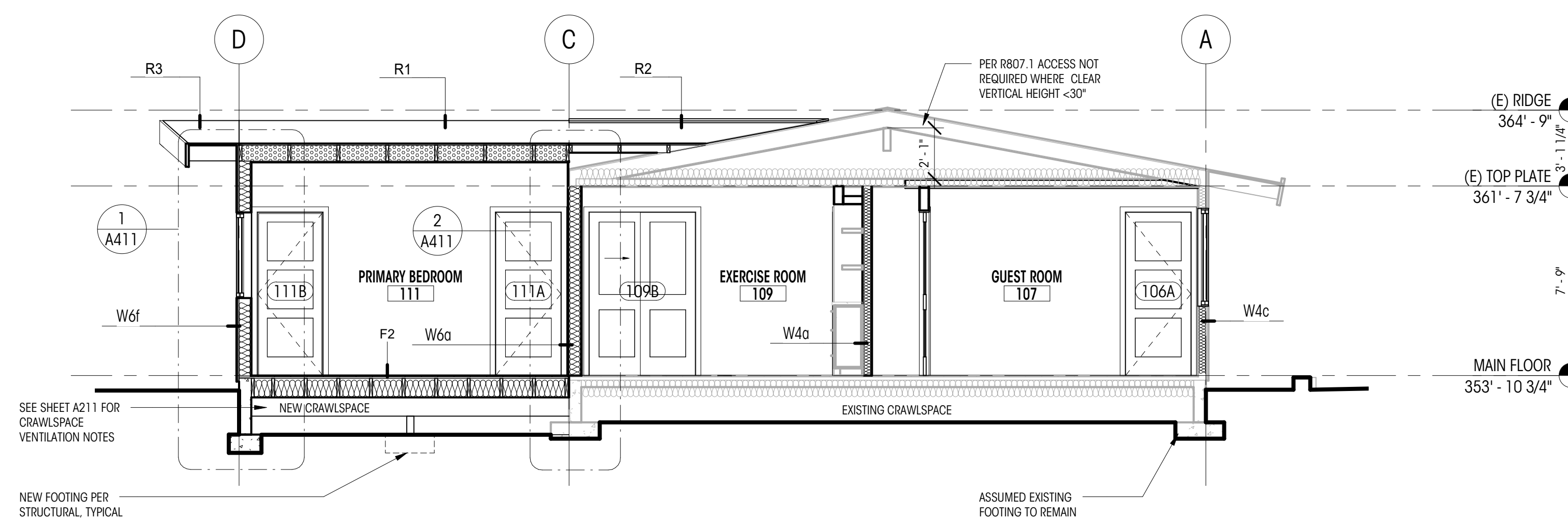
3 WEST ELEVATION - ADDITION
1/4" = 1'-0"

LEGEND		NOTES	
	WINDOW ID (E) AT EXISTING TO REMAIN		NEW CONSTRUCTION ELEMENT
	DOOR ID (E) AT EXISTING TO REMAIN		EXISTING ELEMENT TO REMAIN
	LEVEL NAME ELEVATION		ELEVATION DATUM

1. ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O.
2. ALL DIMENSIONS ASSOCIATED WITH (E) CONSTRUCTION ARE ASSUMED. CONTRACTOR TO VERIFY ALL DIMS IN FIELD AND CONTACT ARCHITECT WITH ANY DISCREPANCIES PRIOR TO CONSTRUCTION



1 LONGITUDINAL SECTION A
1/4" = 1'-0"



2 TRANSVERSE SECTION A
1/4" = 1'-0"

NOTES

- ALL DIMENSIONS AT WALLS TO FACE OF FRAMING, OR FACE OF CONCRETE, U.N.O.
- ALL DIMENSIONS ASSOCIATED WITH (E) CONSTRUCTION ARE ASSUMED. CONTRACTOR TO VERIFY ALL DIMS IN FIELD AND CONTACT ARCHITECT WITH ANY DISCREPANCIES PRIOR TO CONSTRUCTION
- FLOOR, WALL, AND CEILING ASSEMBLIES ARE LISTED ON SHEET A701

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SHEET SIZE: D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE

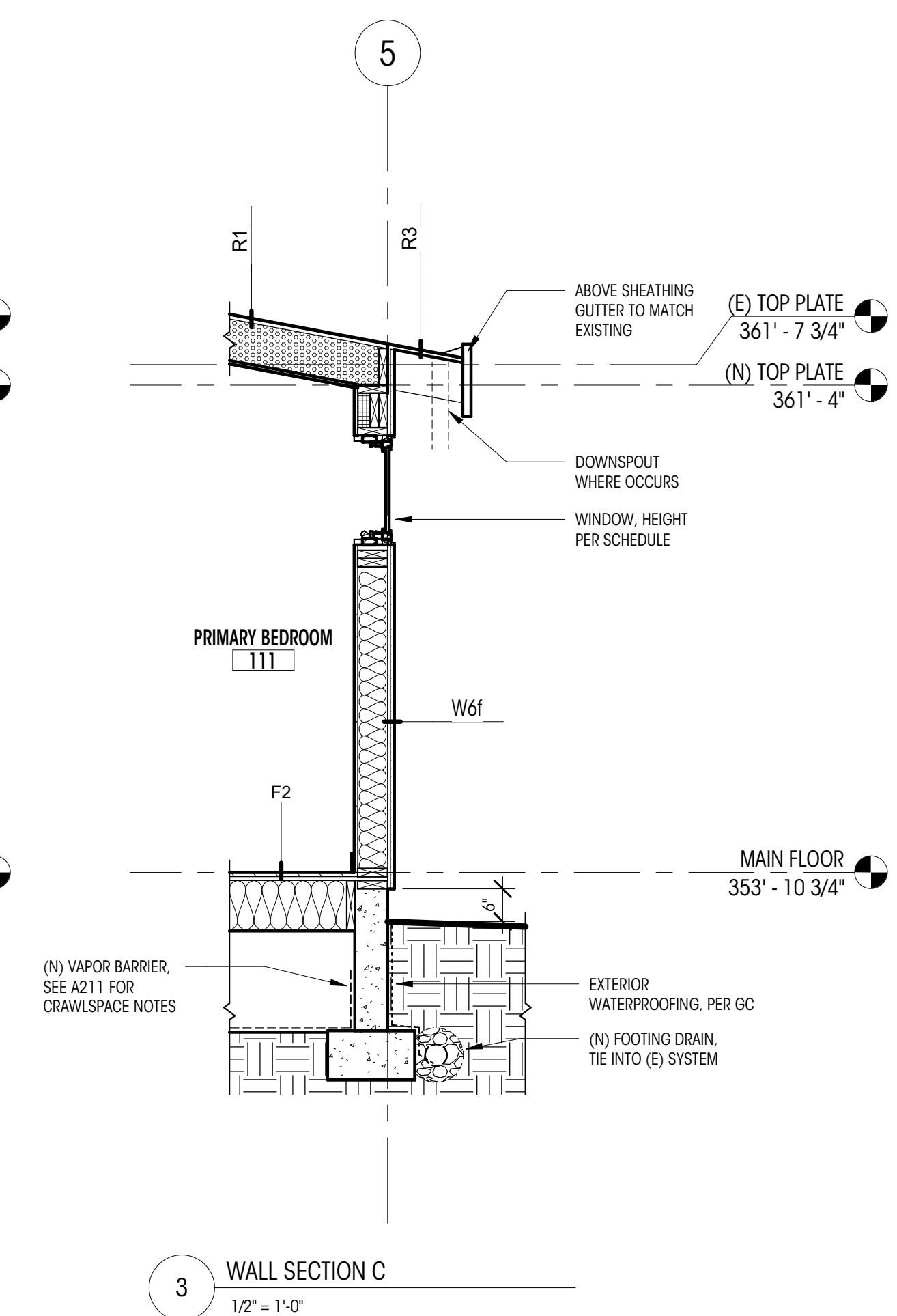
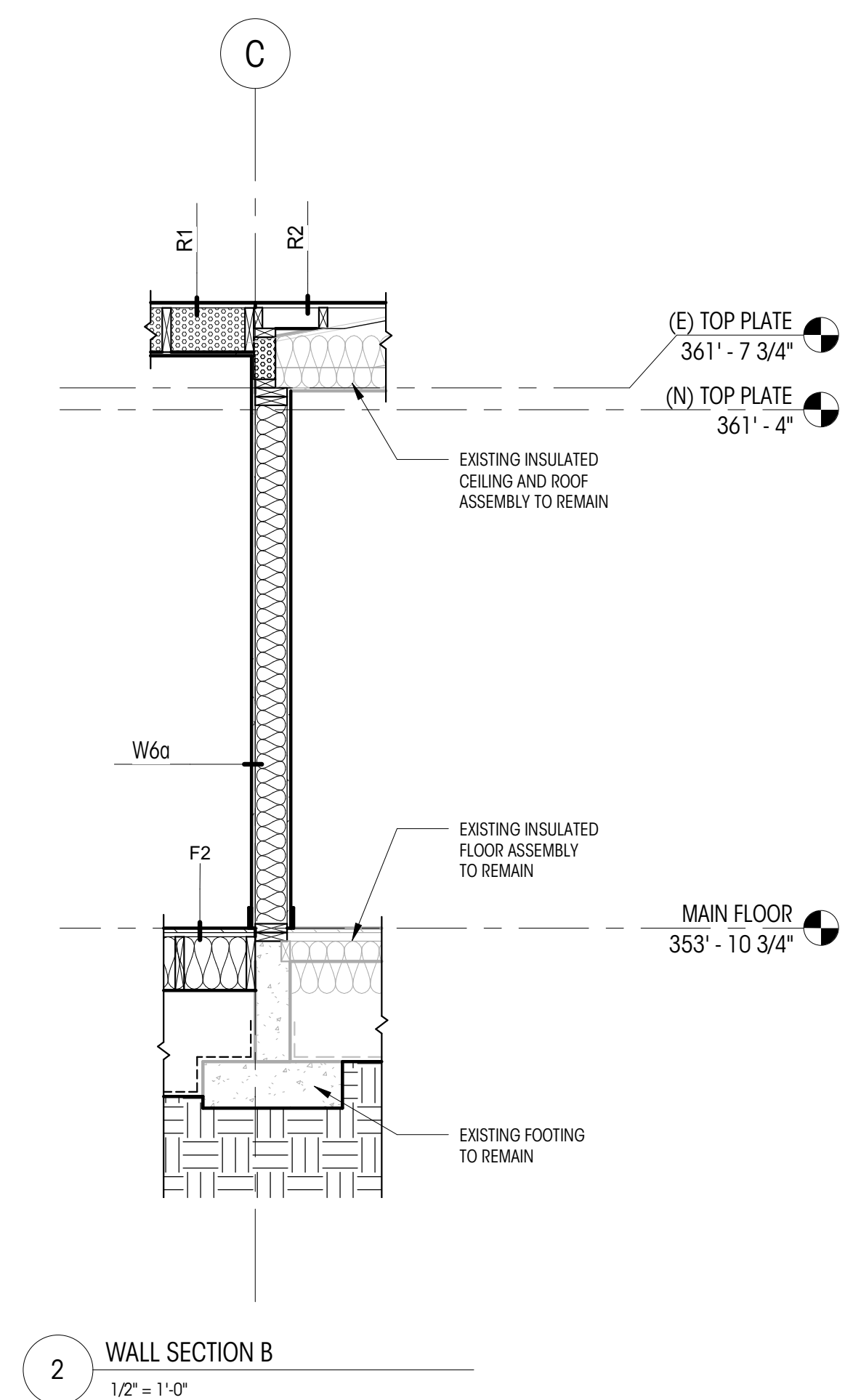
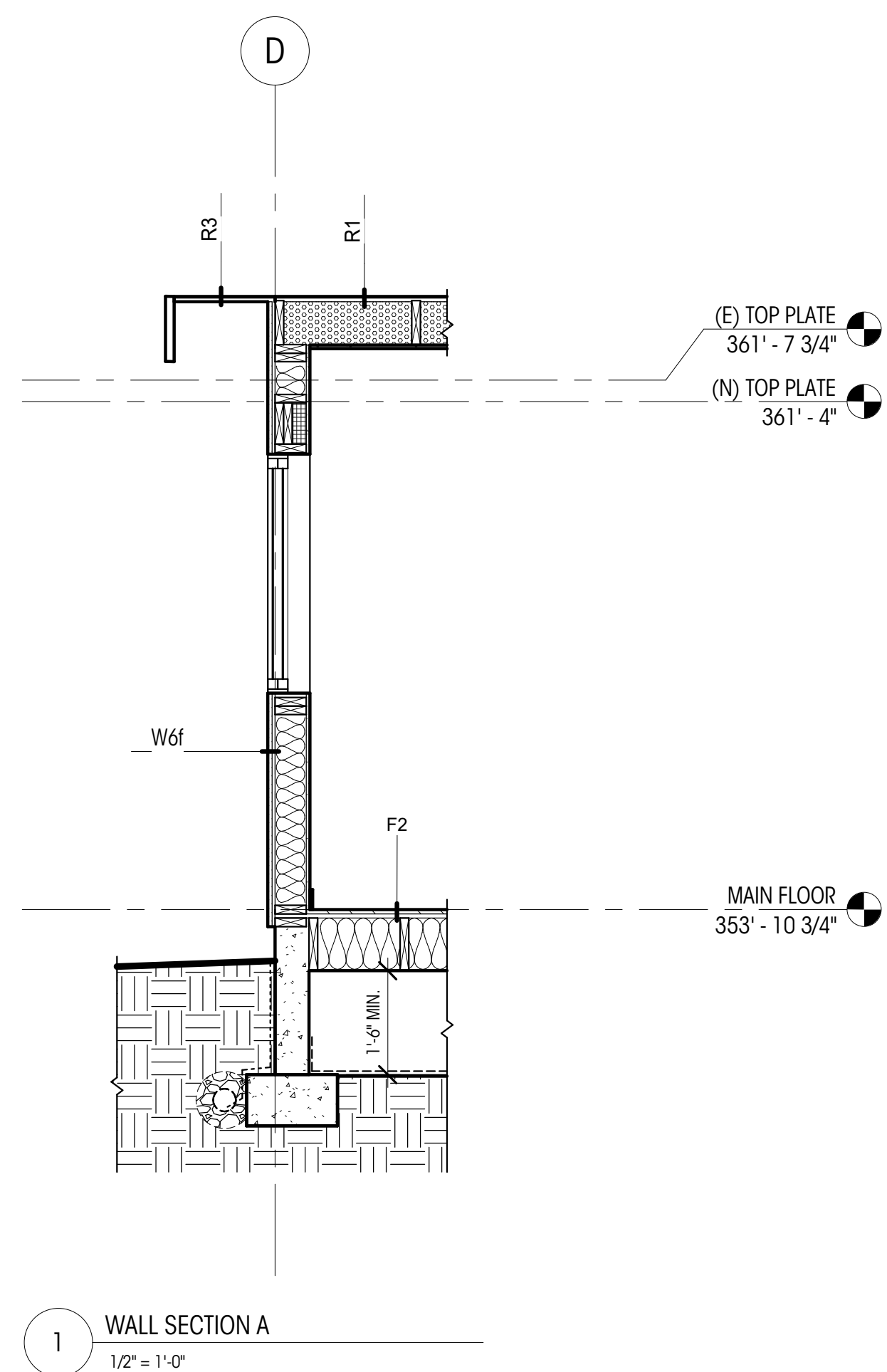
DRAWN BY: RL
CHECKED BY: KM

WALL SECTIONS

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

A411

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WINDOW SCHEDULE

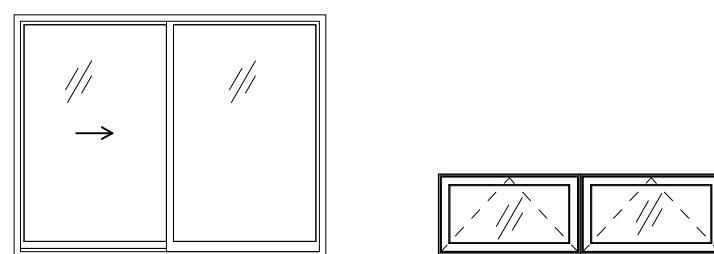
PLAN ID	ROOM NAME	TYPE	WIDTH (ft)	HEIGHT (ft)	HEAD HT	UNIT AREA (sf)	U VALUE	UA	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	SAFETY GLAZING	EGRESS	NOTES
105A	HALL BATH	A	2'-10"	2'-10"	6'-10"	8 SF						●	●	1
107A	GUEST ROOM	A	6'-0"	4'-0"	6'-10"	24 SF	0.3	7 SF					●	
107B	GUEST ROOM	B	5'-11 1/8"	1'-8"	6'-10"	10 SF	0.3	3 SF					●	
109A	EXERCISE ROOM	A	6'-0"	4'-0"	6'-8"	24 SF	0.3	7 SF					●	
111A	PRIMARY BEDROOM	B	5'-11 1/8"	1'-8"	6'-8"	10 SF	0.3	3 SF					●	
111B	PRIMARY BEDROOM	A	5'-0"	3'-6"	6'-8"	18 SF	0.3	5 SF					●	
112A	PRIMARY BATH	A	5'-0"	3'-6"	6'-8"	18 SF	0.3	5 SF				●	●	1

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 IRC R310.2 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 IN THE FOLLOWING HAZARDOUS LOCATIONS:
 - THE EXPOSED AREA OF AN INDIVIDUAL PANE IS LARGER THAN 9 SF.
 - THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE THE FLOOR.
 - THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR, AND
 - ONE OR MORE WALKING SURFACES ARE WITHIN 36". MEASURE HORIZONTALLY IN A STRAIGHT LINE OF THE GLAZING.

SPECIFIC NOTES

- FROSTED / OPAQUE GLAZING



A
SLIDING, DOUBLE

B
AWNING, DOUBLE

ARCH - WINDOW TYPES

1/4" = 1'-0"

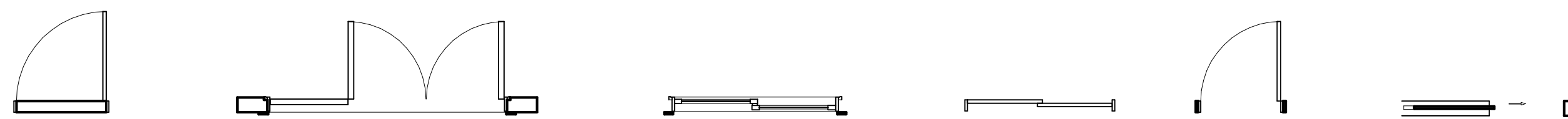
DOOR SCHEDULE

PLAN ID	ROOM NAME	TYPE	WIDTH (ft.)	HEIGHT (ft.)	AREA (sf.)	U VALUE	UA	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	EGRESS	CLOSER	RATED	NOTES
101A	GARAGE	E	2'-8"	6'-8"	18 SF							●	●	
102A	LIVING DINING	C	5'-6 5/8"	6'-10"	38 SF	0.3	11 SF							
102B	LIVING DINING	B	8'-0"	6'-10"	55 SF	0.3	16 SF							
103A	ENTRY	A	3'-0"	6'-8"	20 SF	0	0 SF				●			WSEC R402.3.4 OPAQUE DOOR EXEMPTION FOR ENTRY DOOR
104A	OFFICE	E	2'-6"	6'-8"	17 SF									
105A	HALL BATH	E	2'-8"	6'-8"	18 SF									
106A	BATH	E	2'-8"	6'-8"	18 SF									
106B	BATH	SHOWER GLASS	2'-9 7/8"	6'-8"	19 SF									
107A	GUEST ROOM	E	2'-6"	6'-8"	17 SF									
107B	GUEST ROOM	D	4'-10"	6'-8"	32 SF									
108A	HALLWAY	E	1'-10"	6'-8"	12 SF									
108B	HALLWAY	D	4'-4"	6'-8"	29 SF									
109A	EXERCISE ROOM	E	2'-6"	6'-8"	17 SF									
109B	EXERCISE ROOM	D	4'-4"	6'-8"	29 SF									
110A	LAUNDRY	E	2'-8"	6'-8"	18 SF									
111A	PRIMARY BEDROOM	E	2'-8"	6'-8"	18 SF									
111B	PRIMARY BEDROOM	E	2'-8"	6'-8"	18 SF									
112A	PRIMARY BATH	SHOWER GLASS	2'-6"	6'-8"	17 SF									
112B	PRIMARY BATH	SHOWER GLASS	2'-6"	6'-8"	17 SF									
113A	PRIMARY CLOSET	F	2'-8"	6'-8"	18 SF									
113B	PRIMARY CLOSET	F	2'-8"	6'-8"	18 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 DOORS TO BE NFRC CERTIFIED.
- ALL NEW VERTICAL FENESTRATION U-VALUE TO MEET ENERGY COMPLIANCE. SEE SHEET G001.
- ALL DOORS TO BE FLAT 3 PANEL UNO
- ALL GLAZED DOORS TO RECEIVE TEMPERED / SAFETY GLAZING

SPECIFIC NOTES



A
EXTERIOR (3) PANEL

B
EXTERIOR TRIPLE PANEL OUTSWING

C
EXTERIOR SLIDING

D
INTERIOR BYPASS

E
INTERIOR (3) PANEL

F
INTERIOR POCKET

ARCH - DOOR TYPES

1/4" = 1'-0"

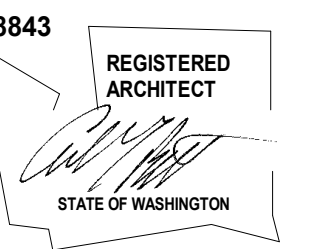
Brandt

Design Group

66 Bell Street
Unit 1
Seattle, WA
98121

206.239.0850

brandtdesigninc.com



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DATE: 12.7.2023

SHEET SIZE: D (24X36)

REVISIONS

NO. DESCRIPTION DATE

DRAWN BY: RL
CHECKED BY: KM

DOOR / WINDOW
SCHEDULES, LEGEND, &
NOTES

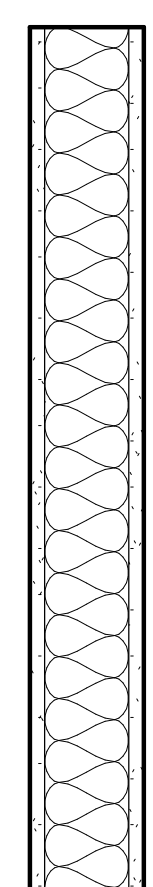
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A601

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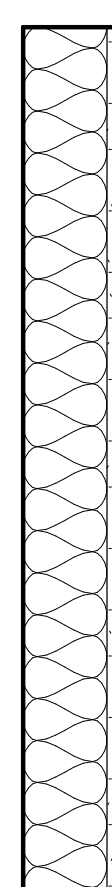
VERTICAL ASSEMBLIES



(N) 5/8" GWB
(N) 2x4 FRAMING
(N) ROCK WOOL INSULATION (FOR SOUND)
(N) 5/8" GWB

NOTES:
1. AT BATHROOM AND WET LOCATIONS,
USE 5/8" WATER RESISTANT GWB OR
GLASS-MAT

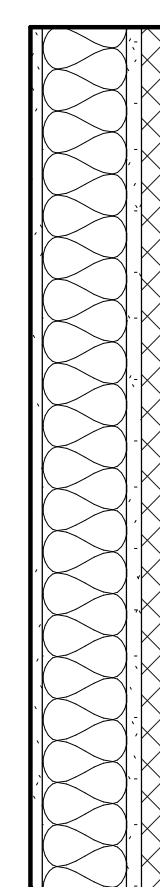
W4a



(N) 2x4 FRAMING
(N) ROCK WOOL INSULATION (FOR SOUND)
(N) 5/8" GWB

NOTES:
1. AT BATHROOM AND WET LOCATIONS,
USE 5/8" WATER RESISTANT GWB OR
GLASS-MAT

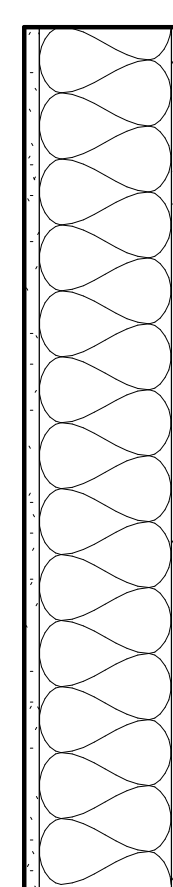
W4b



(E) 5/8" GWB TO REMAIN
(E) 2x4 FRAMING TO REMAIN
(N) ROCK WOOL INSULATION (FOR SOUND)
(N) UNDERLAYMENT
(N) STONE CLADDING

NOTES:
1. INTERIOR FACE GWB AND ROCK WOOL
ONLY REQUIRED AT FURNACE ROOM

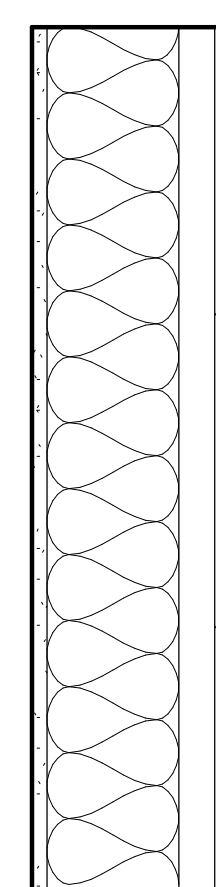
W4c



(N) 5/8" GWB
(N) 2x6 FRAMING
(N) ROCK WOOL INSULATION (FOR SOUND)
(N) 5/8" GWB

NOTES:
1. AT BATHROOM AND WET LOCATIONS,
USE 5/8" WATER RESISTANT GWB OR
GLASS-MAT

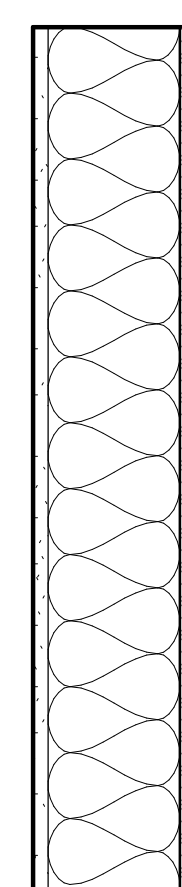
W6a



(N) 5/8" GWB
(N) 2x6 FRAMING
(N) ROCK WOOL INSULATION (FOR SOUND)
(N) 2x2 FURRING
(N) 5/8" GWB

NOTES:
1. AT BATHROOM AND WET LOCATIONS,
USE 5/8" WATER RESISTANT GWB OR
GLASS-MAT

W6c

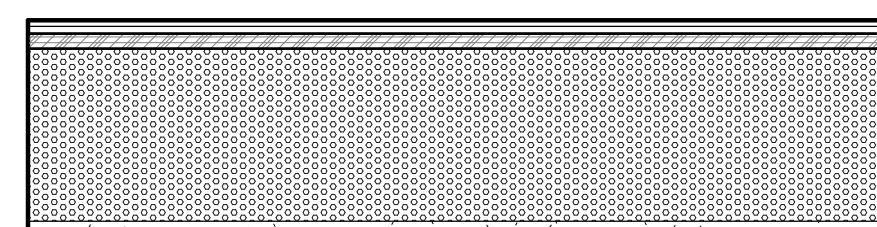


(N) 5/8" GWB
(N) 2x6 FRAMING
(N) BATT INSULATION, R-21 MIN.
(N) PLYWOOD SHEATHING, PER STRUCTURAL
(N) WRB PER GC
(N) SIDING

NOTES:
1. AT BATHROOM AND WET LOCATIONS,
USE 5/8" WATER RESISTANT GWB OR
GLASS-MAT

W6f

HORIZONTAL ASSEMBLIES



(N) ROOFING TO MATCH EXISTING
(N) ROOFING MEMBRANE, PER GC
(N) SHEATHING PER STRUCTURAL
(N) SPRAY FOAM INSULATION, R-38 MIN.
(N) FRAMING PER STRUCTURAL
(N) 5/8" GWB

R1



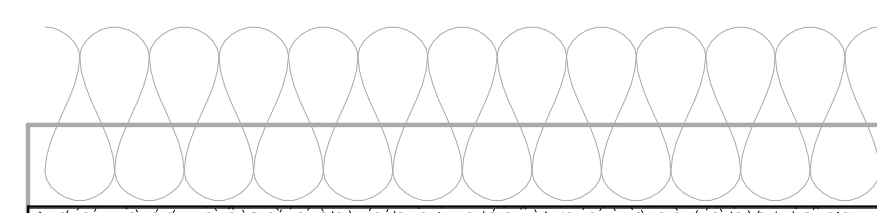
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(N) ROOFING MEMBRANE, PER GC
(N) SHEATHING PER STRUCTURAL
(N) FRAMING PER STRUCTURAL

R2



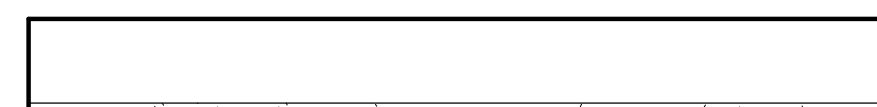
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(N) ROOFING MEMBRANE, PER GC
(N) SHEATHING PER STRUCTURAL
(N) FINISH SOFFIT T.B.D.

R3



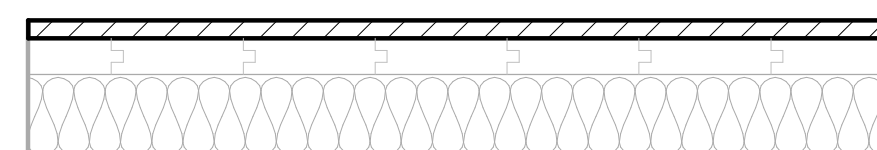
(E) BATT INSULATION, R-49
(E) FRAMING
(N) 5/8" GWB

C1



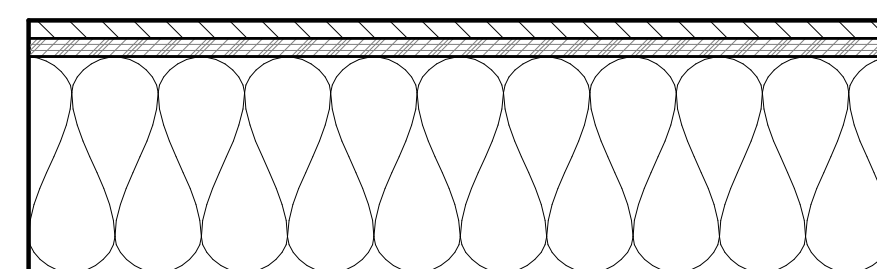
(N) FRAMING PER STRUCTURAL
(N) 5/8" GWB

C2



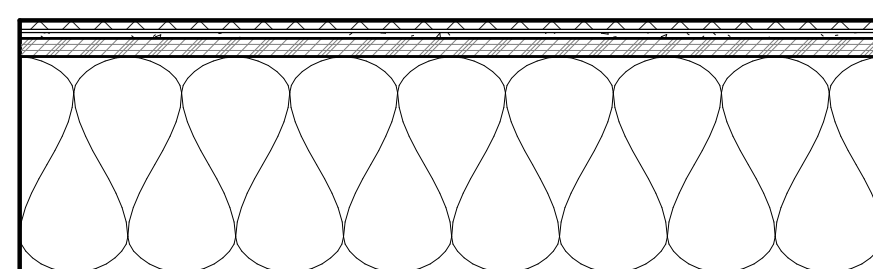
(N) FINISH FLOORING
(E) 2x DECKING
(E) BATT INSULATION
(E) FRAMING

F1



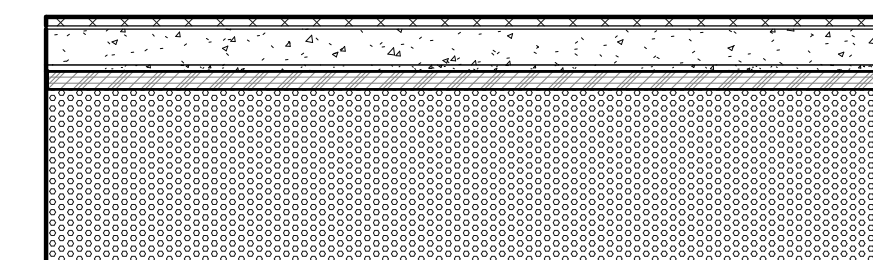
(N) FINISH FLOORING
(N) SHEATHING PER STRUCTURAL
(N) BATT INSULATION, R-30 MIN.
(N) FRAMING PER STRUCTURAL

F2



(N) TILE FLOORING
(N) UNDERLAYMENT, PER GC
(N) SHEATHING PER STRUCTURAL
(N) BATT INSULATION, R-30 MIN.
(N) FRAMING PER STRUCTURAL

F3



(N) TILE FLOORING
(N) MORTAR BED
(N) UNDERLAYMENT, PER GC
(N) SHEATHING PER STRUCTURAL
(N) SPRAY FOAM INSULATION, R-30 MIN.
(N) FRAMING PER STRUCTURAL

F4

BUCHANAN RESIDENCE

5601 90th Ave SE
Mercer Island, WA 98040

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PERMIT SUBMITAL SET

DATE: 12.7.2023

SHEET SIZE: D (24X36)

REVISIONS

NO.	DESCRIPTION	DATE
-----	-------------	------

DRAWN BY: RL
CHECKED BY: KM

ASSEMBLY DETAILS

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

A701

DEDICATED
APPROVAL
STAMP

GENERAL STRUCTURAL NOTES
(THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE PLANS)

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE INTERNATIONAL BUILDING CODE (2018 EDITION).

2. DESIGN LOADING CRITERIA:

FLOOR LIVE LOAD (RESIDENTIAL). 40 PSF
ROOF SNOW LOAD (Pf). 25 PSF

WIND:
BASIC WIND SPEED (3-SECOND GUST) 110 MPH
WIND IMPORTANCE FACTOR (Iw). 1.0
WIND EXPOSURE B
TOPOGRAPHICAL FACTOR (Kzt). 1.3

EARTHQUAKE:
LAT. / LONG. 47.552 / -122.219
SEISMIC IMPORTANCE FACTOR (Ie) 1.0
SEISMIC USE GROUP. I
MAPPED SPECTRAL RESPONSE (Ss/S1) 1.61g/0.63g
SPECTRAL RESPONSE COEF. (SDS/SD1). 1.19g/0.87g
SEISMIC FORCE RESISTING SYSTEM. PLYWOOD SHEAR WALLS
DESIGN BASE SHEAR. 7.14k
SEISMIC RESPONSE COEFFICIENT (Cs) 0.149
SEISMIC DESIGN CATEGORY D
RESPONSE MODIFICATION FACTOR (R). 6.5
ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCE

REFERENCE: USGS NATIONAL SEISMIC HAZARD MAPPING PROJECT, 2008 DATA

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

4. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION. THE CONTRACTOR SHALL BRING ALL CONFLICTS AND DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER.

5. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. EXISTING REINFORCING SHALL BE RETAINED UNDAMAGED WHERE NOTED ON THE PLANS. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF. ALL NEW OPENINGS THROUGH EXISTING CONCRETE OR MASONRY WALLS, SLABS AND BEAMS SHALL BE ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE.

6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE 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 OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

8. SPECIAL INSPECTION OF EPOXY GROUTED INSTALLATIONS SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS 109 AND 1704 OF THE INTERNATIONAL BUILDING CODE AND THE PROJECT SPECIFICATIONS 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.

GEOTECHNICAL

9. FOUNDATION NOTES: ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED AND THEREFORE MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH AT LEAST 18" BELOW ADJACENT FINISHED GRADE. UNLESS NOTED OTHERWISE, FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS ABOVE. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE.

ALLOWABLE SOIL PRESSURE 2,000 PSF
LATERAL EARTH PRESSURE 35 PCF

CONCRETE

10. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905 AND ACI 301. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF F' C = 2,500 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.

THE MINIMUM AMOUNTS OF CEMENT AND MAXIMUM AMOUNTS OF WATER 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 CONCRETE 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 IBC 1905.1.3. 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.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH TABLE 19.3.2.1 OF THE ACI 318.

11. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 40, FY = 40,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.

12. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 318. LAP ALL CONTINUOUS REINFORCEMENT 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

13. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
A. FOOTINGS AND OTHER UNFORMED SURFACES, EARTH FACE . . . 3"
B. ALL OTHER SURFACES 1 1/2"

14. 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).

WOOD

15. FRAMING LUMBER SHALL BE KILN DRIED OR MC-15, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17, LATEST EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS: (2X MEMBERS) HEM-FIR NO. 2
MINIMUM BASE VALUE, FB = 850 PSI
(3X & 4X MEMBERS) DOUGLAS FIR NO. 1
MINIMUM BASE VALUE, FB = 1000 PSI

STRUCTURAL LIGHT FRAMING: DOUGLAS FIR NO. 2
(INCL. 3X AND 4X POSTS) MINIMUM BASE VALUE, FB = 900 PSI

BEAMS AND STRINGERS: DOUGLAS FIR NO. 1
(INCL. 6X AND LARGER) MINIMUM BASE VALUE, FB = 1350 PSI

POSTS AND TIMBERS: DOUGLAS FIR NO. 1
(6X6 AND LARGER) MINIMUM BASE VALUE, FC = 1000 PSI

STUDS, PLATES & MISC. FRAMING: DOUGLAS FIR OR HEM-FIR STANDARD GRADE

2X6 STUDS AND PLATES: HEM-FIR NO. 3/ STUD GRADE

2X AND 3X T & G DECKING HEM-FIR COMMERCIAL DEX,
MINIMUM BASE VALUE, FB = 1350 PSI

16. ENGINEERED LUMBER MEMBERS SHALL BE MANUFACTURED UNDER A PROCESS BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPROPRIATE NER REPORT AND GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER.

PSL FB = 2900 PSI E = 2000 KSI FV = 290 PSI NER-292
LSL FB = 2250 PSI E = 1500 KSI FV = 285 PSI NER-481
LVL FB = 2600 PSI E = 1800 KSI FV = 285 PSI NER-126

DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

ALL PROPOSED HOLE SIZES AND LOCATIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL TWO WORKING DAYS PRIOR TO DRILLING HOLES.

17. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH APA STANDARDS. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND SPAN RATING MAY BE USED IN LIEU OF PLYWOOD.

A. ROOF SHEATHING SHALL BE 1/2" (NOM.) WITH SPAN RATING 24/0.
B. FLOOR SHEATHING SHALL BE 3/4" (NOM.) WITH SPAN RATING 40/20.
C. WALL SHEATHING SHALL BE 1/2" (NOM.) WITH SPAN RATING 24/0.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING.

18. 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. ALL WOOD EXPOSED TO WEATHER WITHOUT THE ADEQUATE PROTECTION OF A ROOF OR EAVE SHALL BE AN APPROVED WOOD OF NATURAL RESISTANCE TO DECAY OR PRESSURE TREATED. SUCH MEMBERS INCLUDE HORIZONTAL MEMBERS SUCH AS GIRDERS, JOISTS, AND DECKING; OR VERTICAL MEMBERS SUCH AS POSTS, POLES, AND COLUMNS.

19. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR MOST RECENT CATALOG. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. HANGERS IN DIRECT CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE EITHER STAINLESS STEEL (SST300), POST HOT-DIPPED GALVANIZED(HDG) OR GALVANIZED WITH A MINIMUM OF 1.85OZ ZINC PER SQUARE INCH (ZMAX). UNLESS NOTED OTHERWISE, ALL LUMBER JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS, AND ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITT" OR "IUT" SERIES JOIST HANGERS.

20. NAILS - 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	3-1/2"	0.162"

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 SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

21. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN:

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TABLE 2304.10.1 OF THE INTERNATIONAL BUILDING CODE. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

B. WALL FRAMING: ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2X4 STUDS @ 16" O.C. AT INTERIOR WALLS AND 2X6 @ 16" O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS. 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. 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 AT 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE SIX 16D NAILS AT 4" O.C. EACH SIDE OF JOINT. ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16D NAILS AT 12" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS (WITH 7" MINIMUM EMBEDMENT) @ 4'-0" O.C. UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH 16D @ 12" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES NAILED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH NAILS AT 7" O.C. USE 5D COOLER NAILS FOR 1/2" GWB AND 6D COOLER NAILS FOR 5/8" GWB. WHEN NOT OTHERWISE NOTED, PROVIDE 1/2" (NOM.) APA RATED SHEATHING (SPAN RATING 24/0) ON EXTERIOR SURFACES NAILED AT ALL PANEL EDGES (BLOCK UNSUPPORTED EDGES), TOP AND BOTTOM PLATES WITH 8D @ 6" O.C. AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8D @ 12" O.C. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS.

C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL JOISTS TO SUPPORTS WITH TWO 16D NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH METAL JOIST HANGERS IN ACCORDANCE WITH TIMBER CONNECTOR NOTE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 16D @ 12" O.C. STAGGERED. UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH STRENGTH AXIS PERPENDICULAR TO SUPPORTS AND NAILED WITH 8D NAILS @ 6" O.C. TO FRAMED PANEL EDGES AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" O.C. TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF ALL ROOF AND FLOOR SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16D @ 12" O.C. UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.

HV

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11/17/23

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Issue Date	Issue Description
11/17/2023	Permit

Building Department Approval

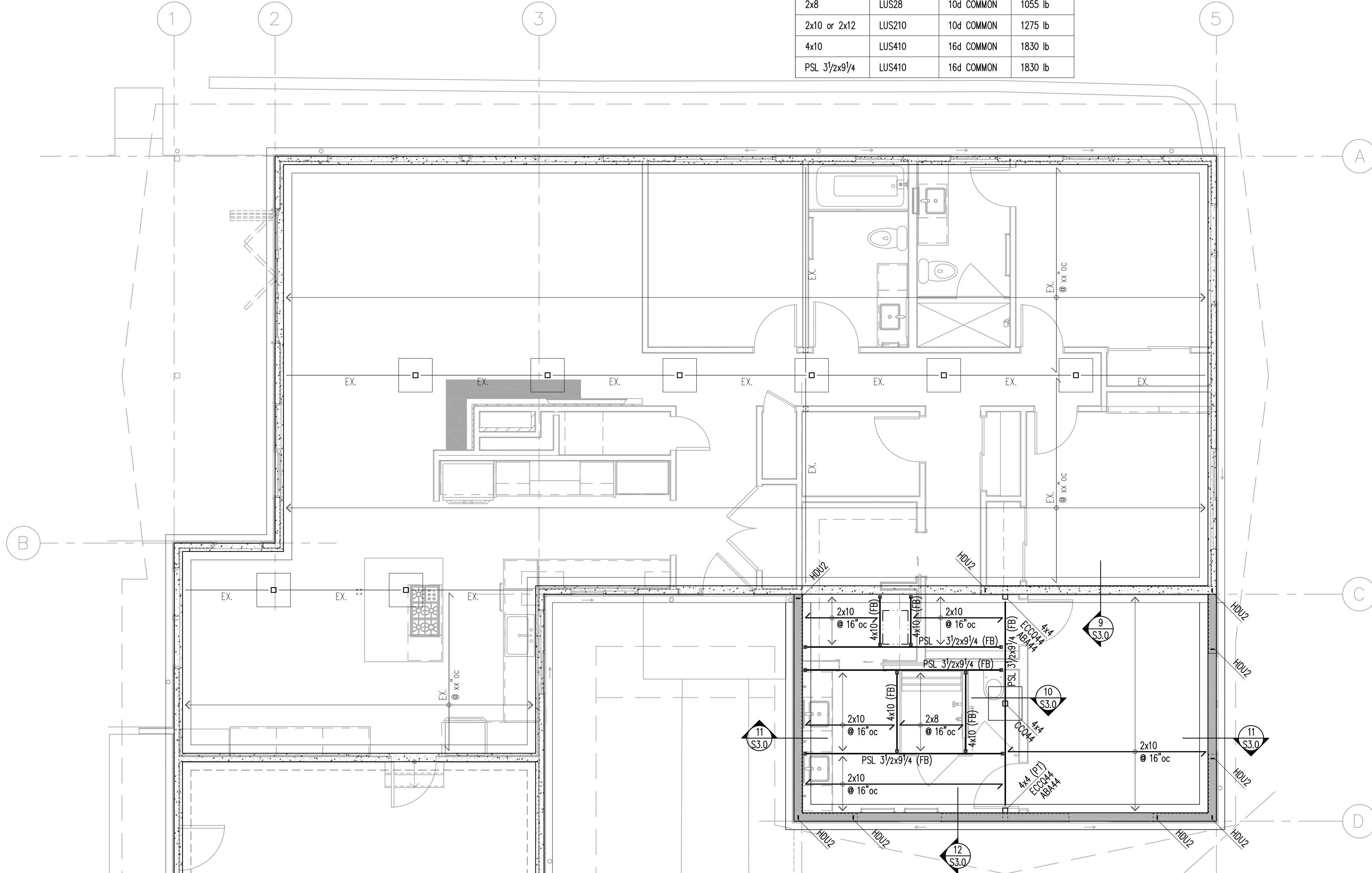
Drawing Title:
GENERAL STRUCTURAL NOTES

Drawing Number

S1.0

BUCHANAN RESIDENCE

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x8	LUS28	10d COMMON	1055 lb
2x10 or 2x12	LUS210	10d COMMON	1275 lb
4x10	LUS410	16d COMMON	1830 lb
PSL 3/2x9/4	LUS410	16d COMMON	1830 lb



3/4" = 1'-0" 2

3/4" = 1'-0" 3

3/4" = 1'-0" 4

FOUNDATION PLAN NOTES

- WHERE NEW CONCRETE WALLS OR FOOTING ABUT EX. CONCRETE, PROVIDE DOWELS #4 x 2'-0" TO MATCH HORIZ. REINFORCING, EMBED 5" IN EPOXY GROUT.
- SEE 10/S4.0 FOR TYPICAL HOLDDOWN REQUIREMENTS AT CONCRETE WALLS AND FOOTINGS.
- AT CORNERS OF CONCRETE FOOTINGS AND STEM WALLS PROVIDE CORNER REINFORCING PER 5/S3.0

FRAMING PLAN NOTES

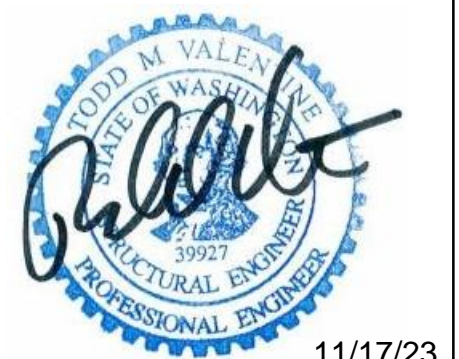
- SW... INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
- COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
- AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.

LEGEND

- SPAN
- EXTENT
- SECTION DETAIL
- (FB) FLUSH BEAM
- COLUMN ABOVE
- COLUMN BELOW
- NEW STRUCTURAL WALL
- EXISTING STRUCTURAL WALL
- NEW CONCRETE WALL
- EXISTING CONCRETE WALL
- ALL-THREAD HOLDDOWN AT END OF SHEARWALL ABOVE

1 S2.0 MAIN FLOOR FRAMING & FOUNDATION PLAN
scale: 1/4" = 1'-0"

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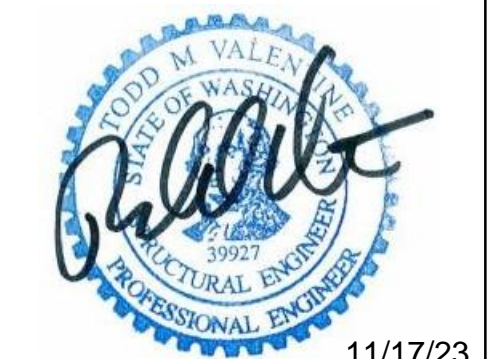
Building Department Approval



Drawing Title
FLOOR FRAMING AND FOUNDATION PLAN

Drawing Number
S2.0

BUCHANAN RESIDENCE



11/17/23

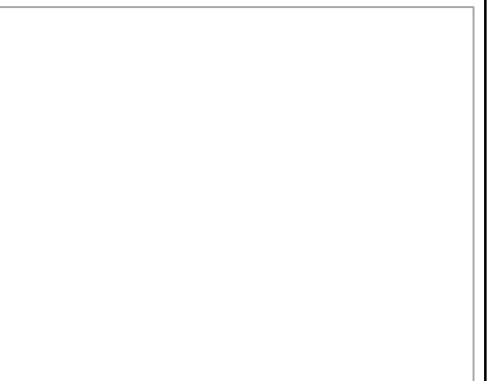
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 Brandt Design Group
 66 Bell Street, Unit 1
 Seattle, WA 98121

Project
Buchanan Residence
 5601 90th Ave SE
 Mercer Island, WA 98040

Issue Date	Issue Description
11/17/2023	Permit

Building Department Approval



Drawing Title:
ROOF FRAMING PLAN

Drawing Number

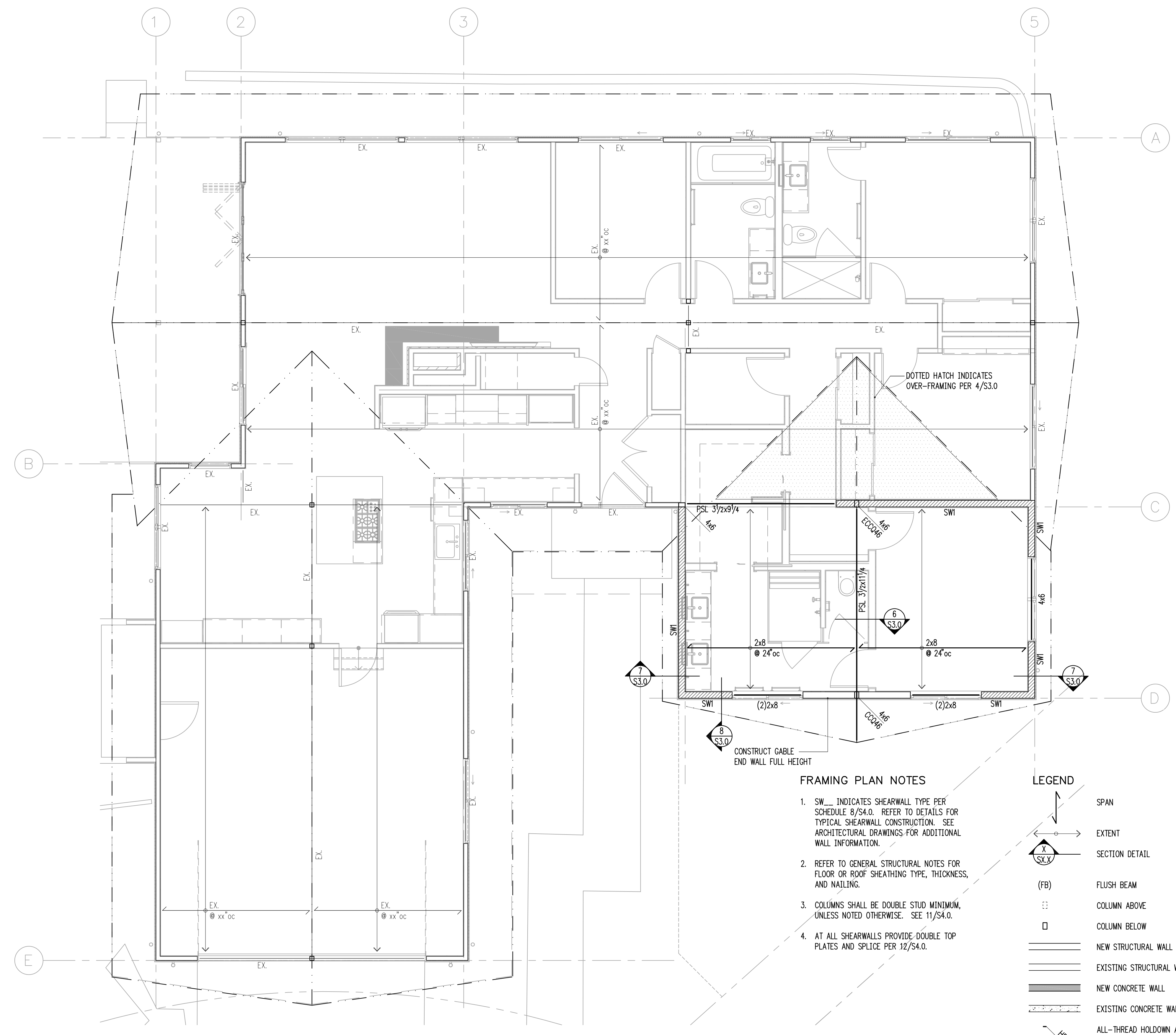
S2.1

BUCHANAN RESIDENCE

3/4" = 1'-0" 2

3/4" = 1'-0" 3

3/4" = 1'-0" 4



FRAMING PLAN NOTES

1. SW... INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
2. REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
3. COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
4. AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.

LEGEND

- SPAN
- EXTENT
- SECTION DETAIL
- FLUSH BEAM
- COLUMN ABOVE
- COLUMN BELOW
- NEW STRUCTURAL WALL
- EXISTING STRUCTURAL WALL
- NEW CONCRETE WALL
- EXISTING CONCRETE WALL
- ALL-THREAD HOLDDOWN AT END OF SHEARWALL ABOVE

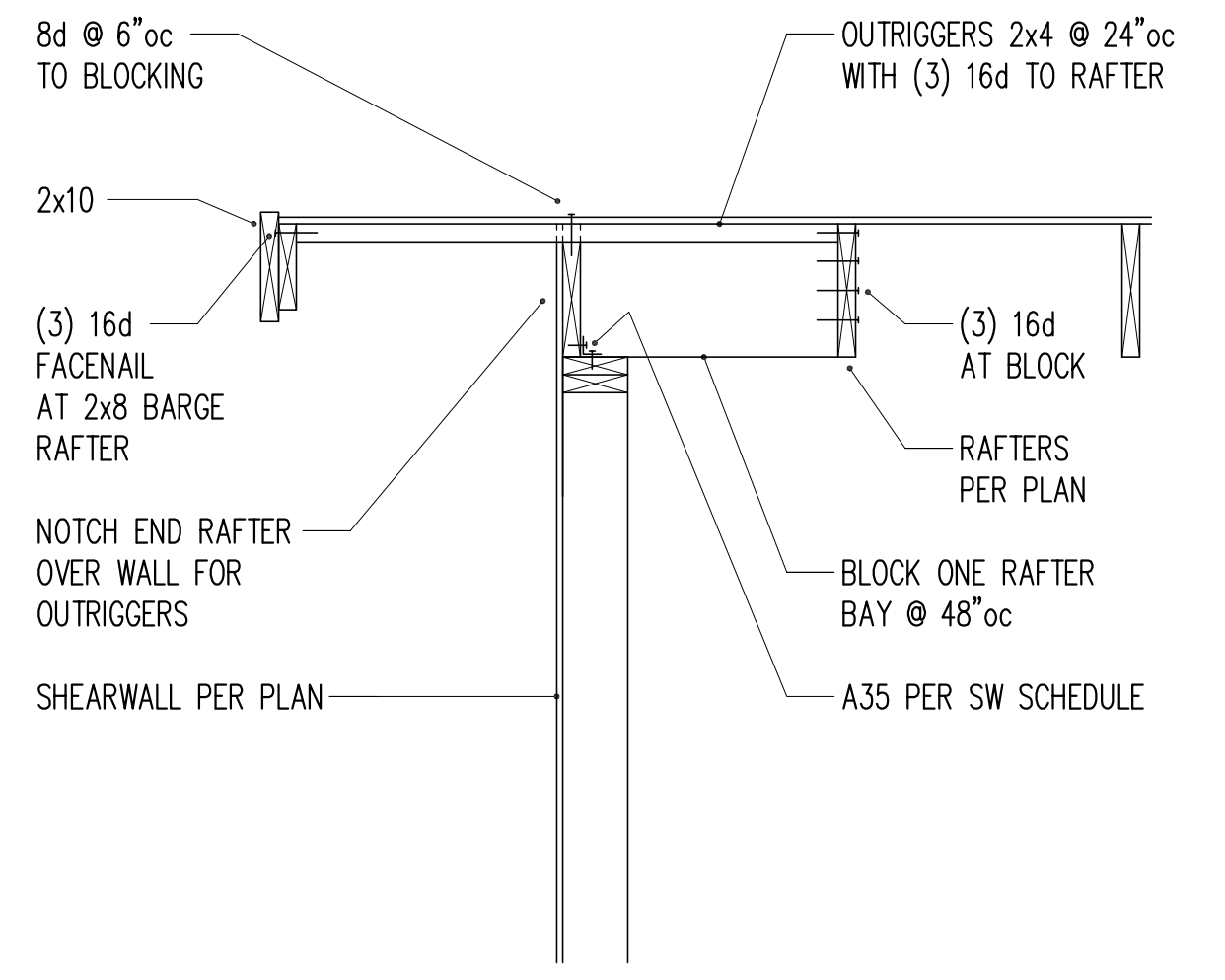
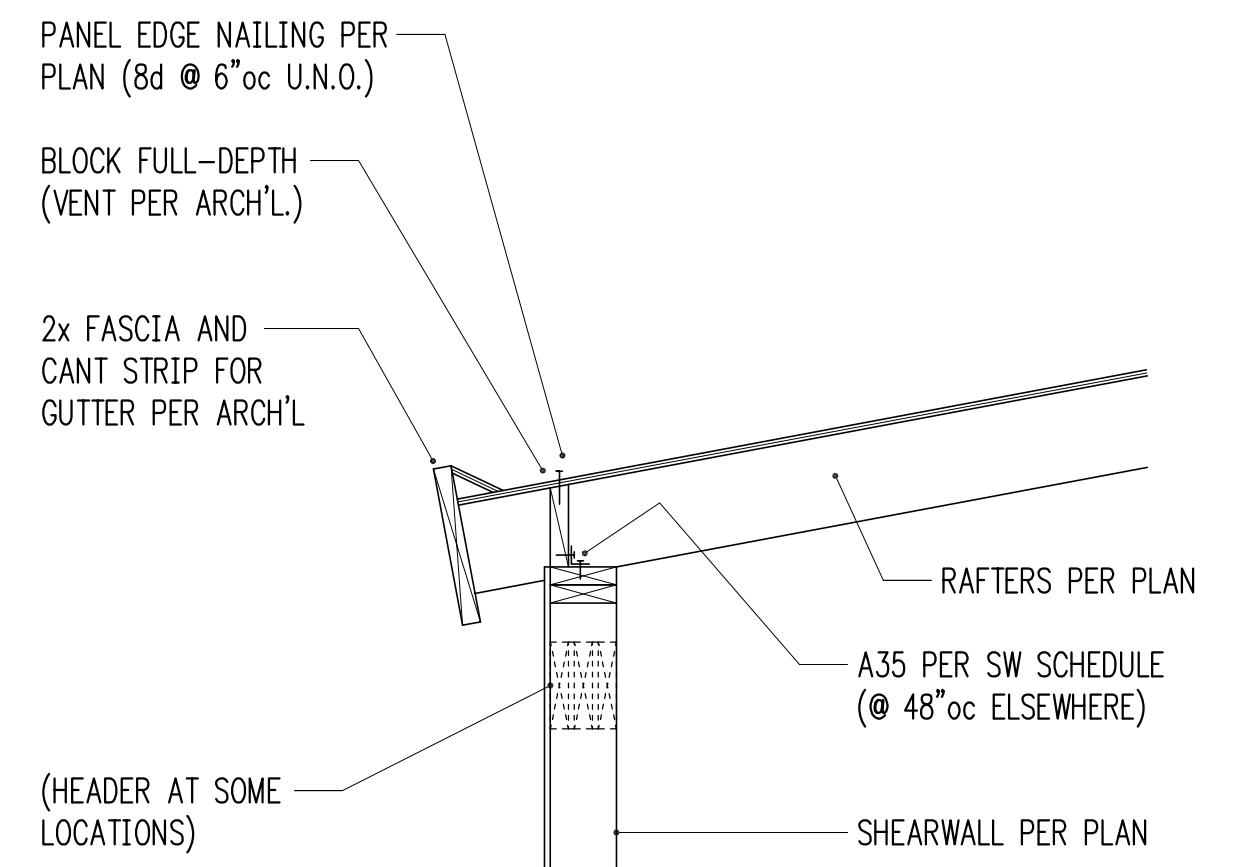
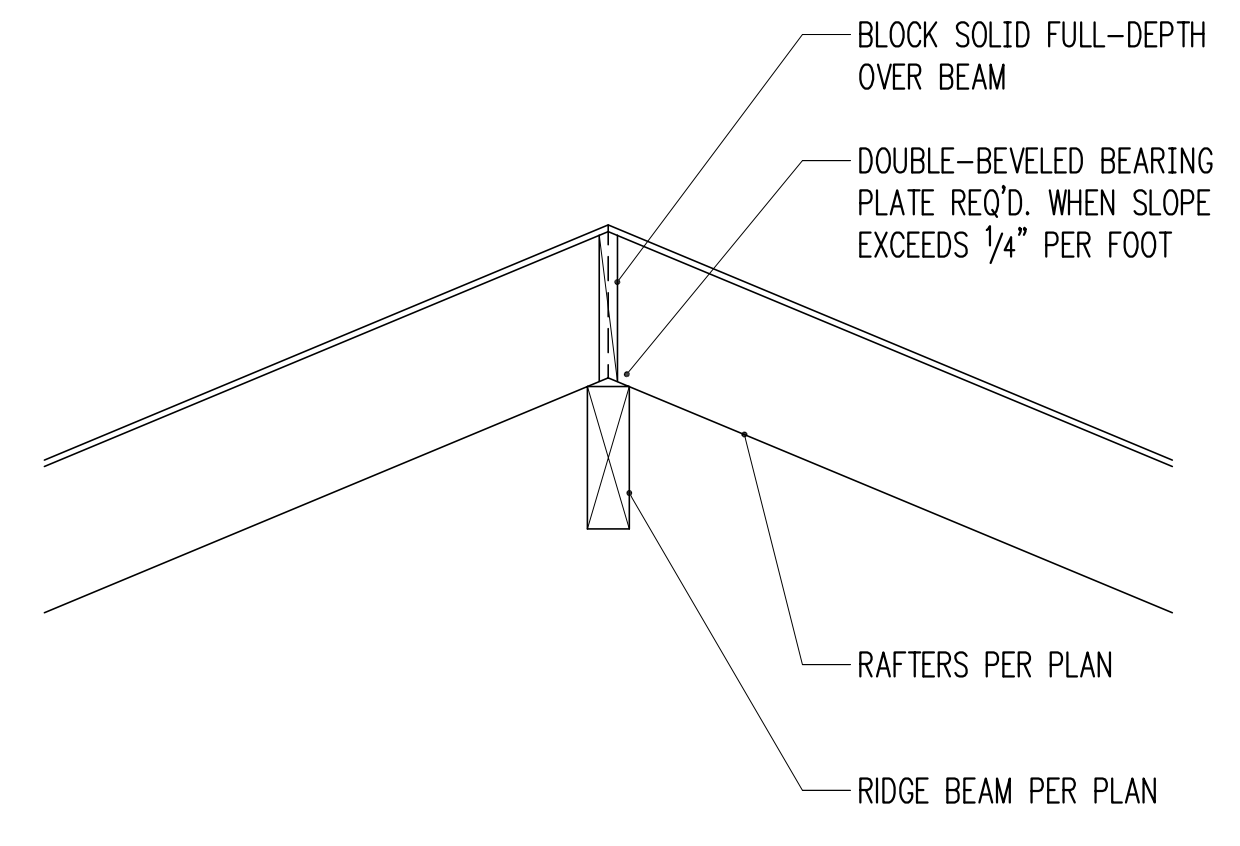
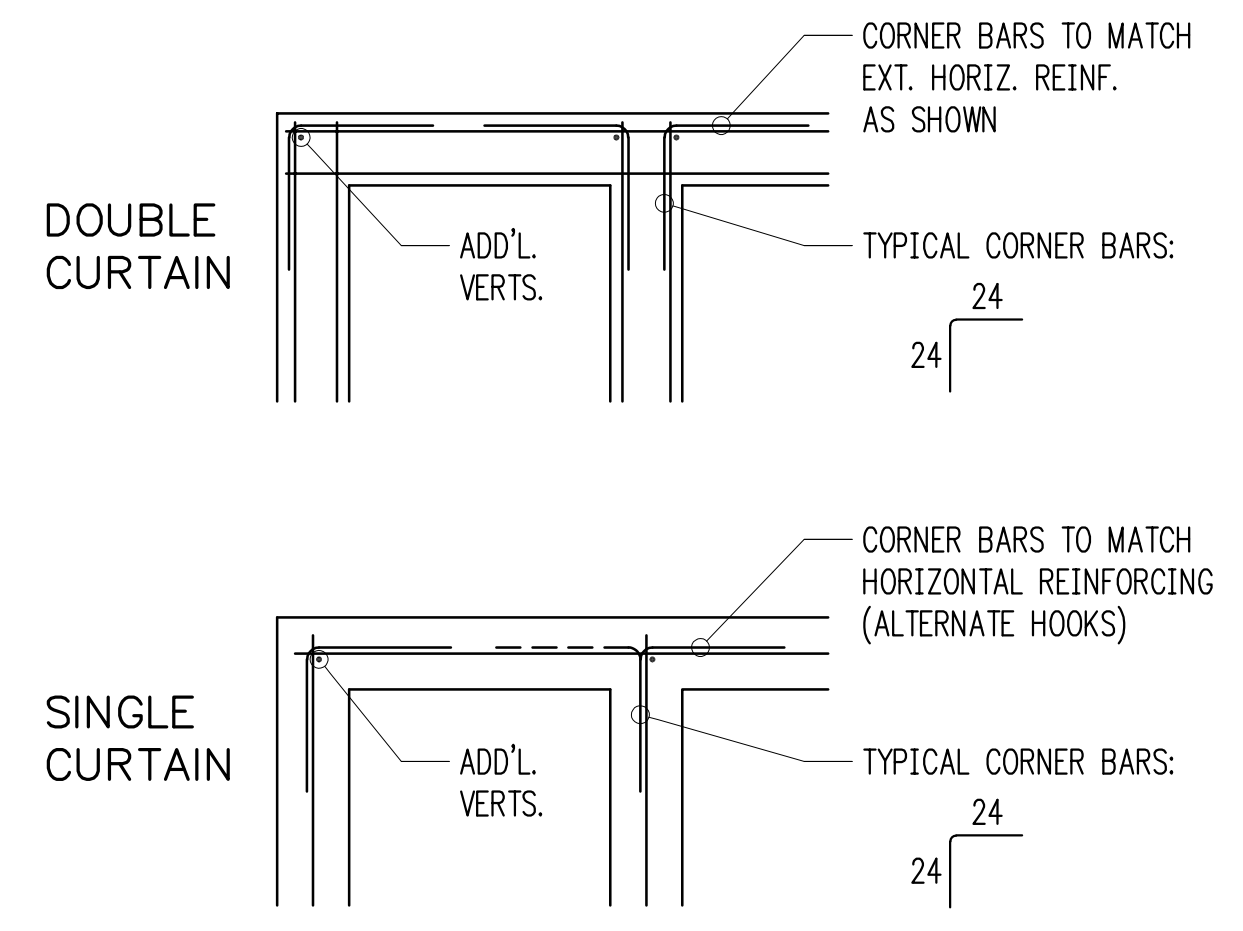
1
S2.1
 ROOF FRAMING PLAN (MAIN WALLS)
 scale: 1/4" = 1'-0"

3/4" = 1'-0" 1

3/4" = 1'-0" 2

3/4" = 1'-0" 3

3/8" = 1'-0" 4

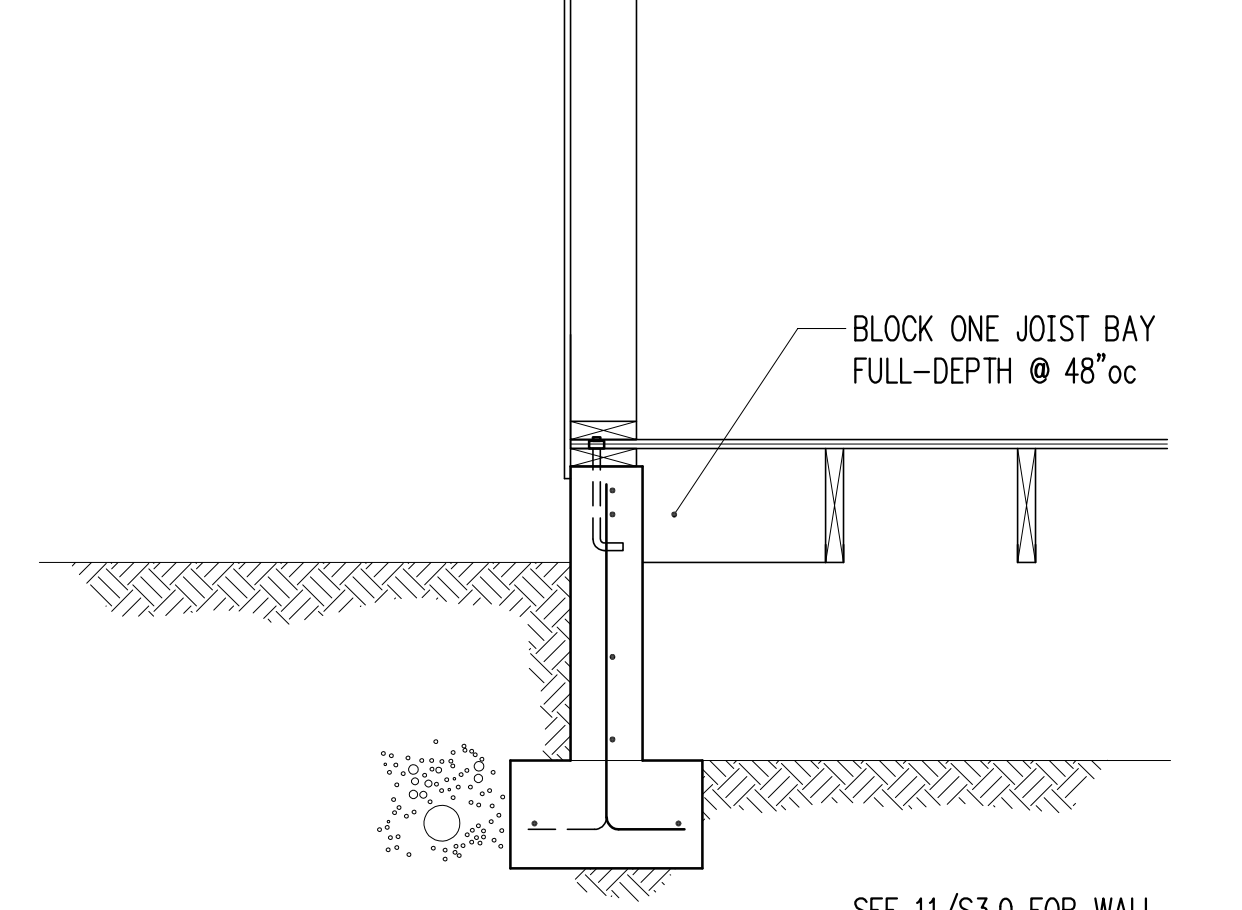
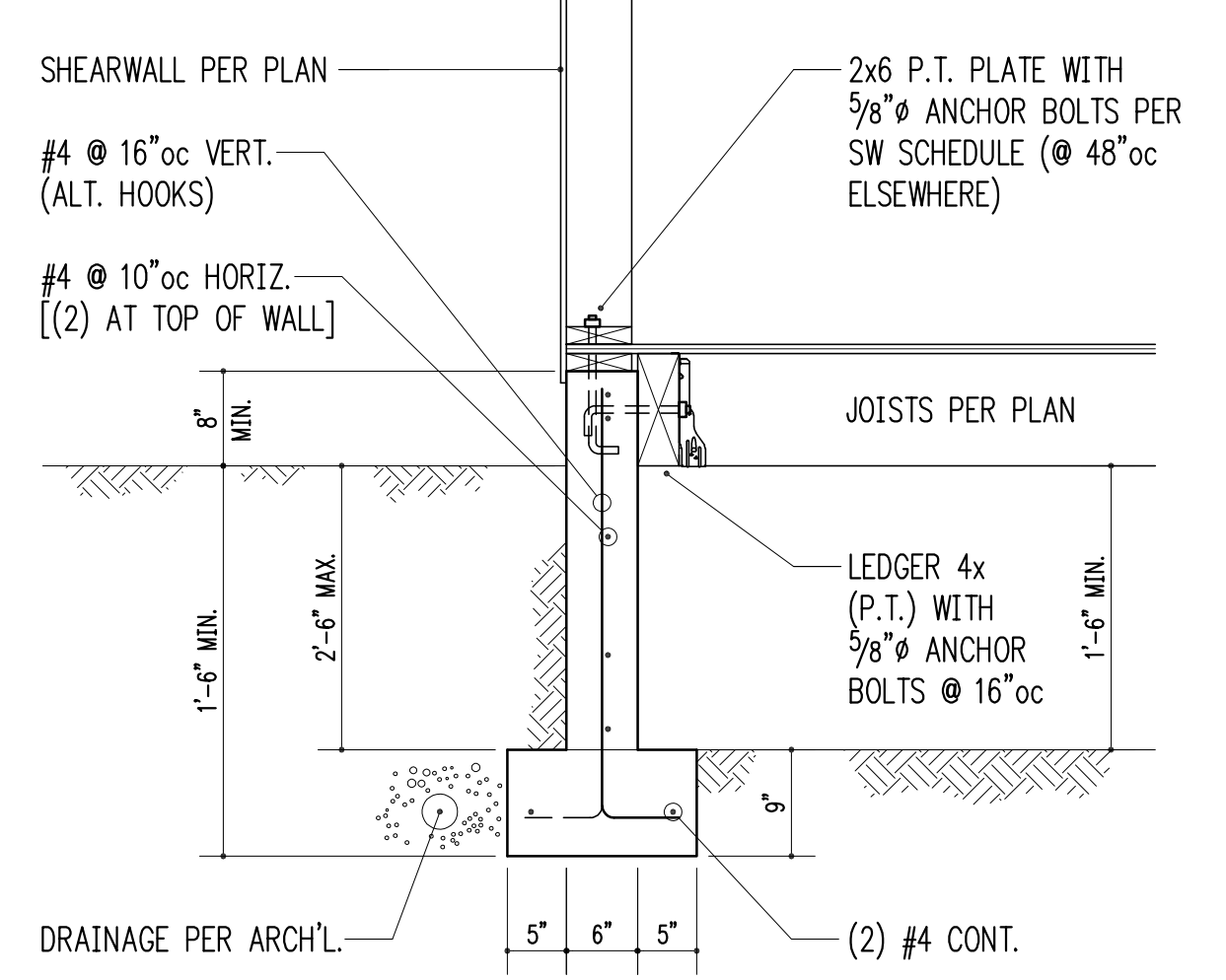
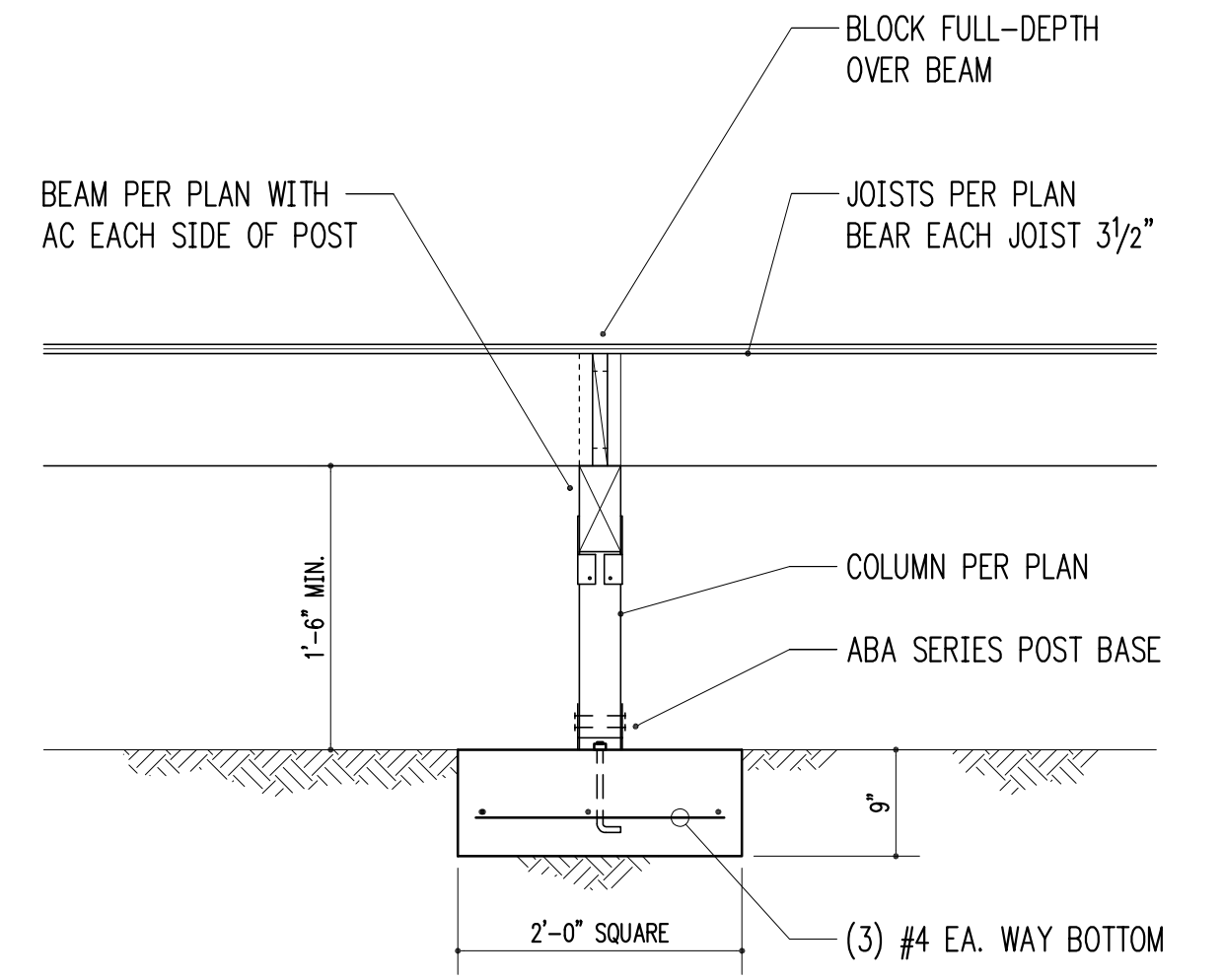
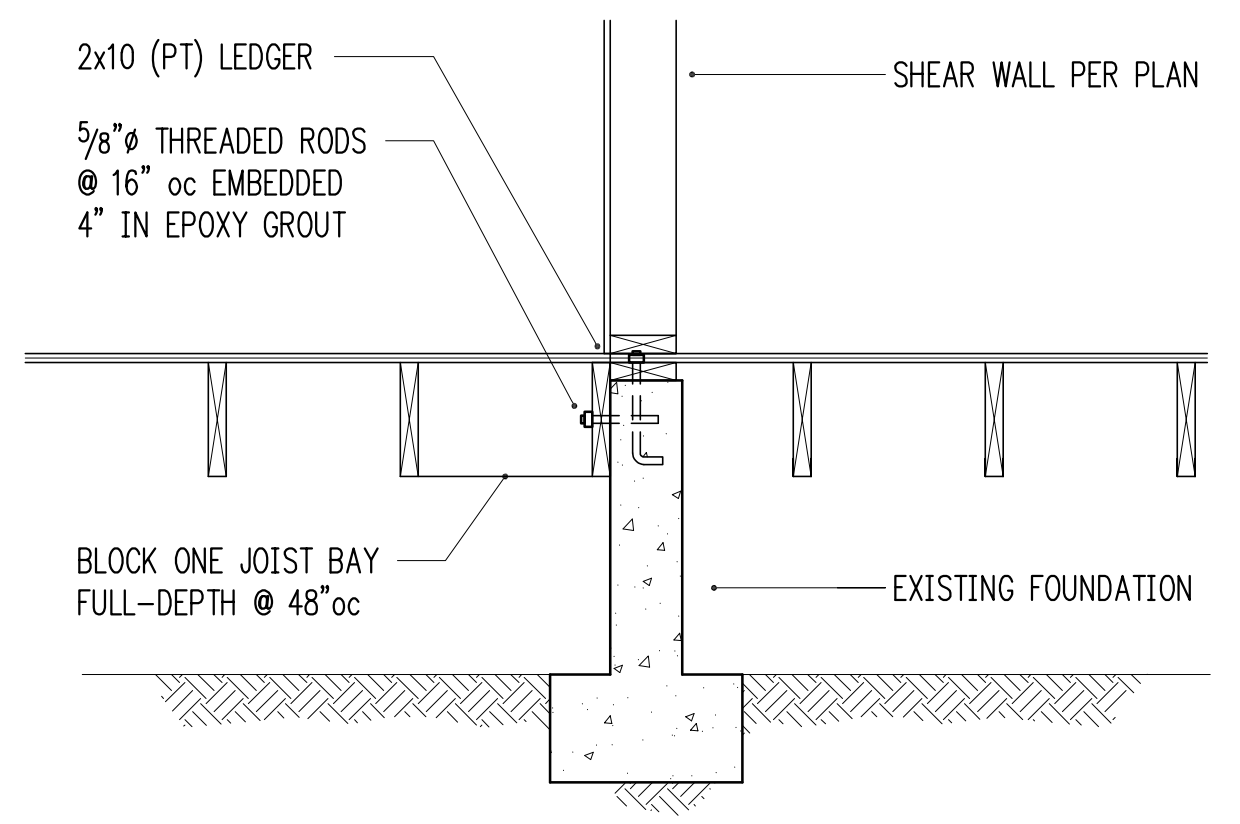


TYPICAL CORNER BARS AT CONCRETE WALLS
 3/4" = 1'-0" 5

3/4" = 1'-0" 6

3/4" = 1'-0" 7

3/4" = 1'-0" 8



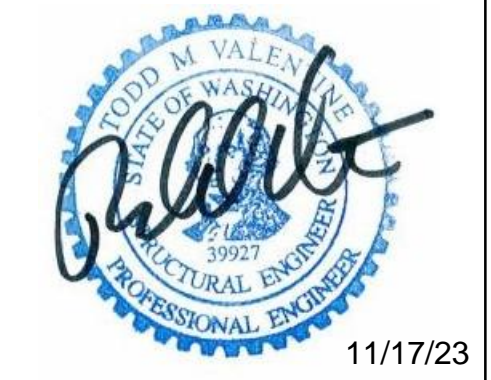
3/4" = 1'-0" 9

3/4" = 1'-0" 10

3/4" = 1'-0" 11

3/4" = 1'-0" 12

SEE 11/S3.0 FOR WALL AND FOOTING CALLOUTS



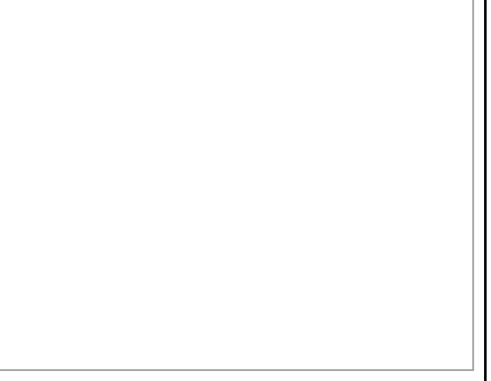
11/17/23
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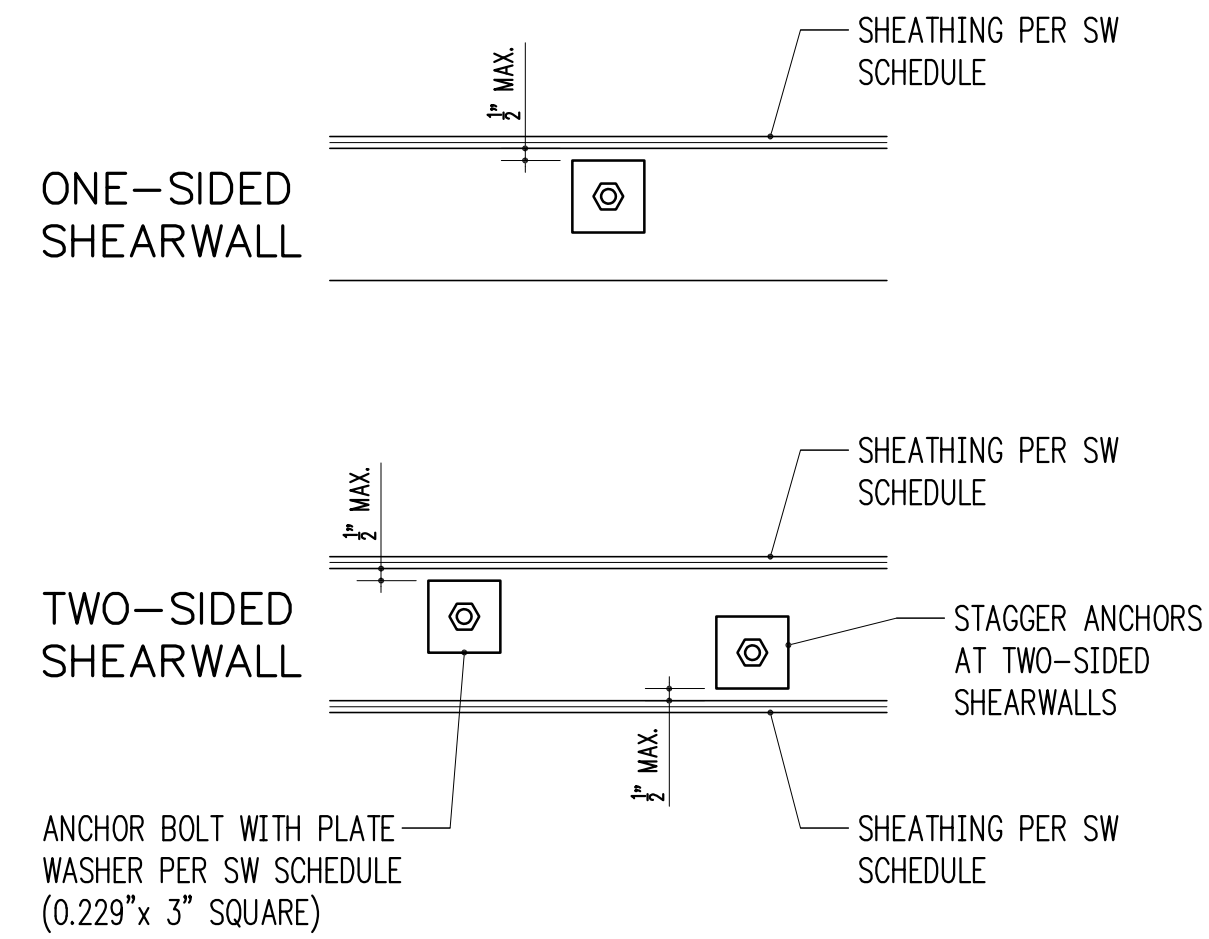


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STRUCTURAL DETAILS

Drawing Number

S3.0

BUCHANAN RESIDENCE



TYPICAL SHEARWALL ANCHOR BOLT PLACEMENT

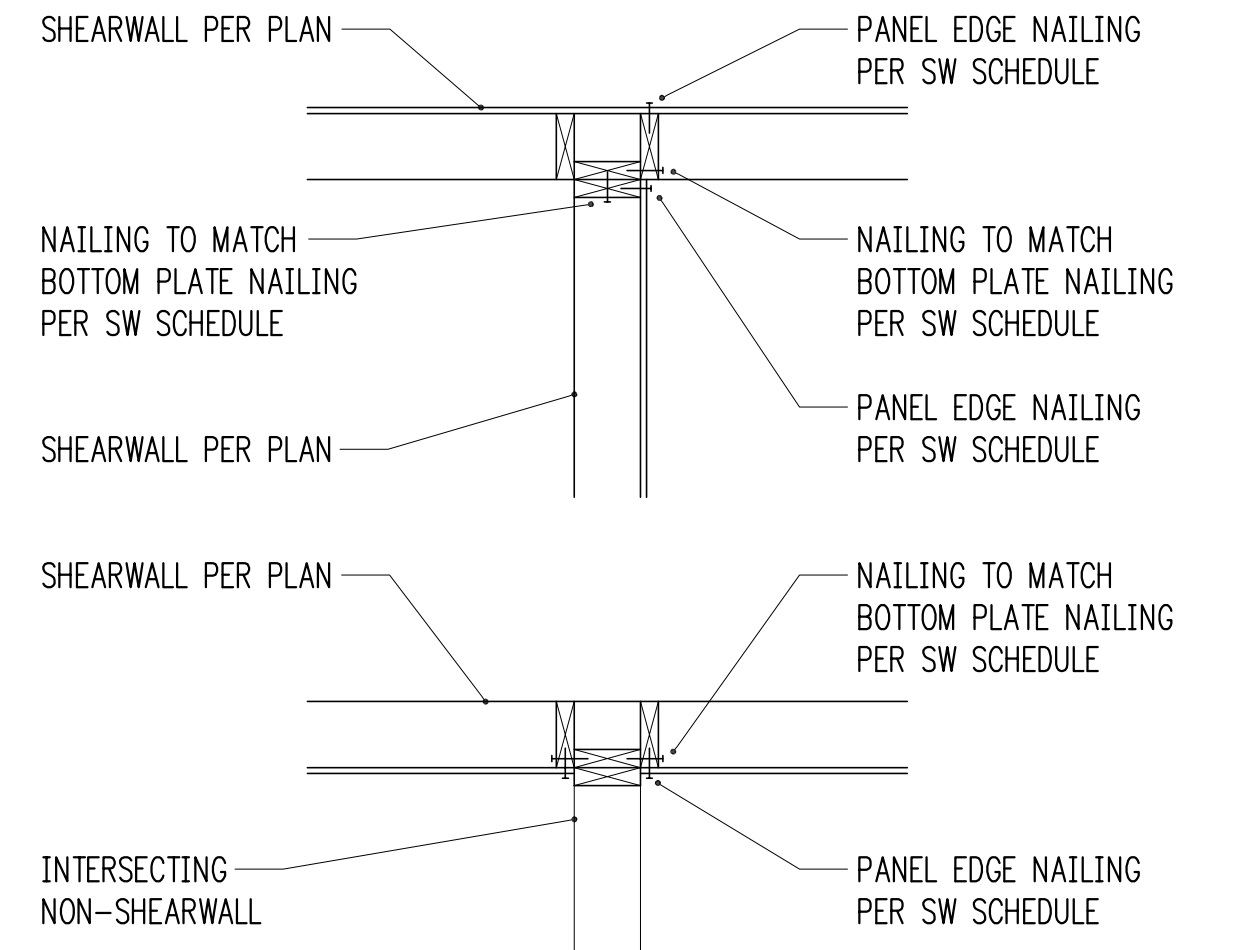
3/4" = 1'-0" 1

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

SHEARWALL SCHEDULE (NOT ALL USED ON PLANS)

MARK	SHEATHING ¹	STUDS AT ABUTTING PANEL EDGES ²	PANEL EDGE NAILING ^{3,4}	RIM JOIST OR BLOCKING TO TOP PLATE		BOTTOM PLATE ATTACHMENT		
				SOLID RIM	TJI RIM	BOTTOM PLATE TO RIM JOIST BELOW ⁴	ANCHOR BOLT TO CONCRETE ⁵	SILL PLATE AT FOUND.
SW1	15/32" CDX PLYWOOD	2x	8d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	16d @ 6"oc	5/8" @ 48"oc	2x
SW2	15/32" CDX PLYWOOD	2x	8d @ 4"oc	A35 @ 15"oc	16d @ 4"oc	16d @ 4"oc	5/8" @ 32"oc	2x
SW3	15/32" CDX PLYWOOD	3x	8d @ 3"oc	A35 @ 12"oc	N/A - USE SOLID RIM	16d @ 3"oc	5/8" @ 16"oc	2x
SW4	15/32" CDX PLYWOOD	3x	8d @ 2"oc	A35 @ 9"oc	N/A - USE SOLID RIM	16d @ 2"oc	5/8" @ 12"oc	2x
SW5	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 3"oc	A35 @ 6"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 3"oc	5/8" @ 12"oc	3x
SW6	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 2"oc	A35 @ 4 1/2"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 2"oc	5/8" @ 12"oc	3x

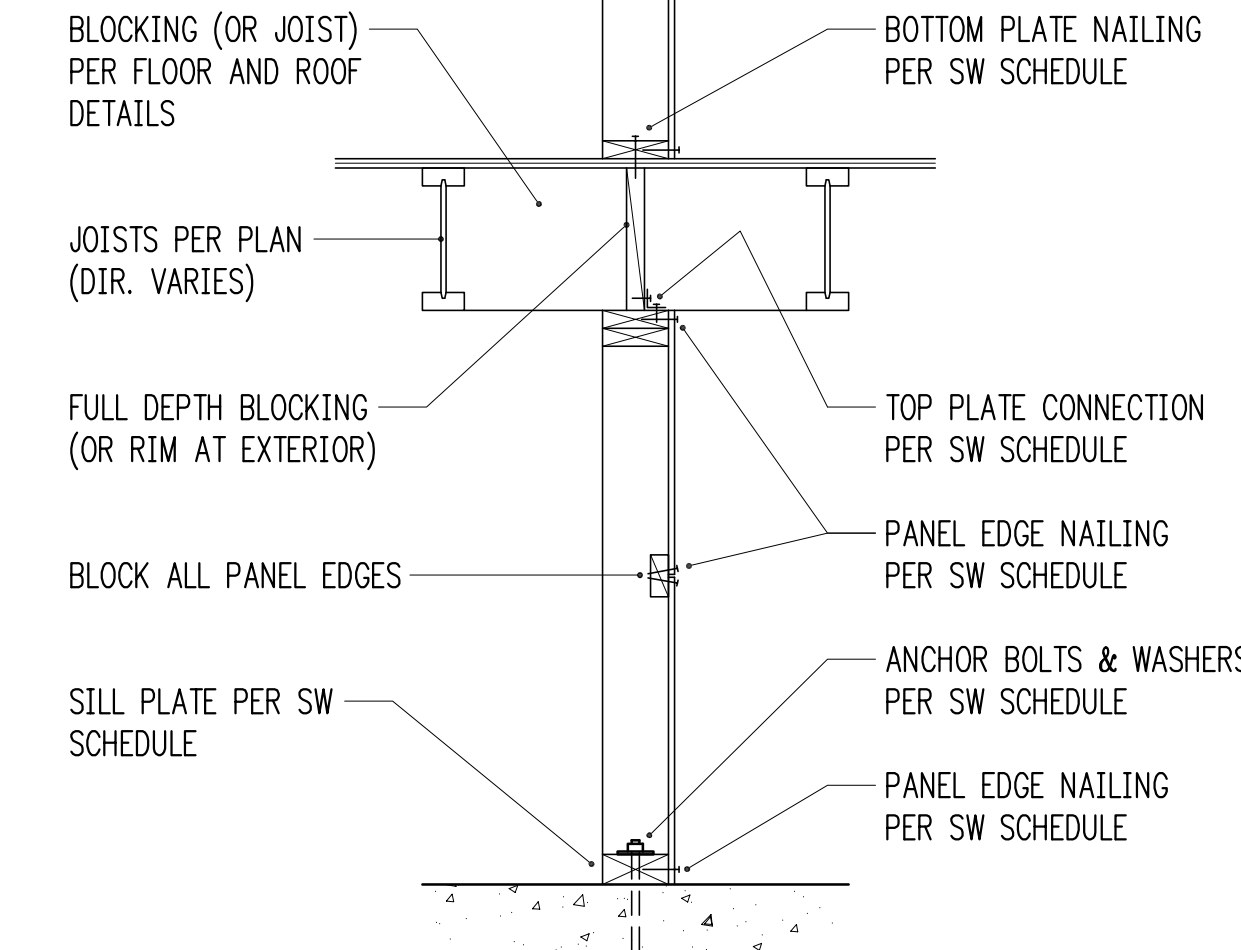
- WALL SHEATHING SHALL CONSIST OF APA RATED PLYWOOD WITH SPAN RATING 24/0. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF PANELS. 7/16" APA RATED SHEATHING (OSB) MAY BE USED IN PLACE OF 15/32" CDX.
- STUDS AT ABUTTING PANEL EDGES MAY CONSIST OF (2)2x STUDS IN PLACE OF 3x STUDS - NAIL (2)2x STUDS TOGETHER WITH BOTTOM PLATE ATTACHMENT NAILING.
- BLOCK ALL PANEL EDGES W/ 2x4 FLAT, ATTACH W/ PANEL EDGE NAILING. TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS. END STUDS SHALL RECEIVE PANEL EDGE NAILING. INTERMEDIATE STUDS SHALL BE 2x STUDS. NAIL SHEATHING TO INTERMEDIATE FRAMING MEMBERS WITH 8d @ 12"oc.
- 8d NAILS SHALL BE 0.131" DIAMETER x 2 1/2" (COMMON). 16d NAILS SHALL BE 0.135" DIAMETER x 3 1/2" (BOX).
- ANCHORS TO CONCRETE SHALL CONSIST OF CAST-IN-PLACE ANCHOR BOLTS, EXPANSION BOLTS, EPOXY GROUTED ALL-THREADS, OR TITEN HD HEAVY DUTY SCREW ANCHORS. CAST-IN-PLACE ANCHOR BOLTS HAVE A 7" EMBED AND SHALL BE J-BOLTS OR SHALL HAVE A HEX NUT AT THE BOTTOM END. EXPANSION BOLTS SHALL HAVE 5" EMBED AND SHALL NOT BE USED AT STEM WALL LOCATIONS WITH EDGE DISTANCE LESS THAN 5" (INSTEAD, USE EPOXY GROUTED ALL-THREADS OR TITEN HD ANCHORS). EPOXY GROUTED ANCHORS SHALL HAVE 5" EMBED AND 2 1/2" MIN. EDGE DISTANCE. TITEN HD ANCHORS SHALL HAVE 3 1/2" EMBED AND 1 3/4" MIN. EDGE DISTANCE. AT ALL ANCHOR BOLTS, PROVIDE STEEL PLATE WASHERS THAT ARE A MINIMUM OF 0.229" (3 GAUGE) x 3" x 3" (SIMPSON BP98-3 OR SIMILAR). PLACE BOLTS PER ANCHOR BOLT PLACEMENT DETAIL.



TYPICAL SHEARWALL INTERSECTIONS

3/4" = 1'-0" 5

3/4" = 1'-0" 6



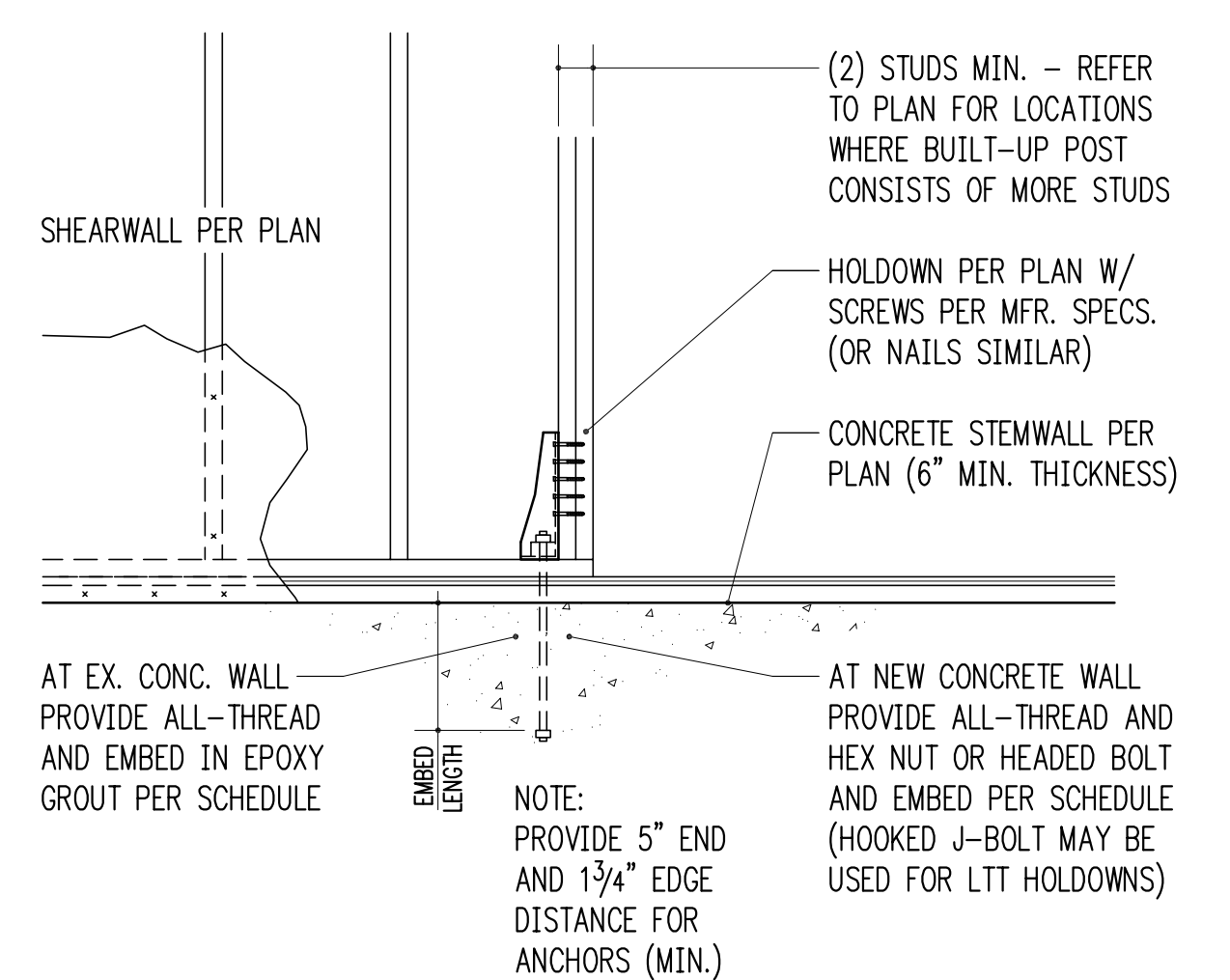
TYPICAL SHEARWALL SECTION

3/4" = 1'-0" 8

HOLDOWN SCHEDULE (NOT ALL USED ON PLANS)

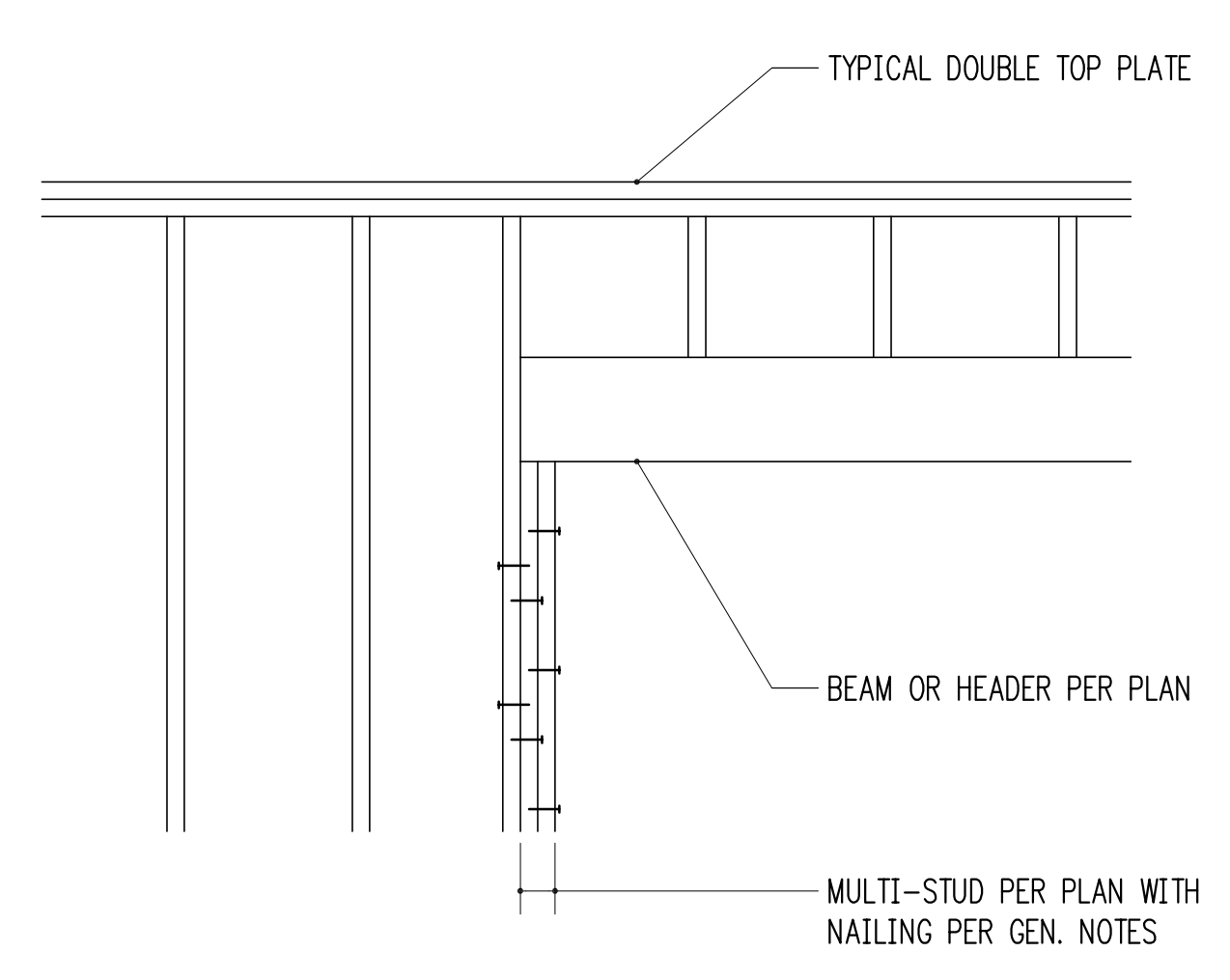
MARK	FASTENERS TO STUDS ¹	ANCHOR DIA. ²	EMBEDMENT LENGTH		SSTB ⁵
			EPOXY ³	CAST-IN ⁴	
HDU2	(6) 1/4" x 2 1/2" SCREWS	5/8"	12"	11"	SSTB16

- 10d AND 12d DIAMETER = 0.148"; 16d DIAMETER = 0.162". SCREWS SHALL BE SIMPSON "SDS" TYPE SCREWS, INSTALL PER SIMPSON RECOMMENDATIONS.
- PROVIDE A36 OR A307 ALL-THREAD AT EPOXY AND CAST-IN ANCHORS.
- PROVIDE SIMPSON "SET-XP" EPOXY PER GENERAL STRUCTURAL NOTES. SPECIAL INSPECTION IS REQUIRED.
- AT CAST-IN ANCHORS PROVIDE HEAVY HEX NUT AT BOTTOM OF ALL-THREAD. HOOKED J-BOLT MAY BE USED FOR LTT HOLDOWNS.
- AT 3x SILL PLATES, PROVIDE LONGER SSTBL MODELS.



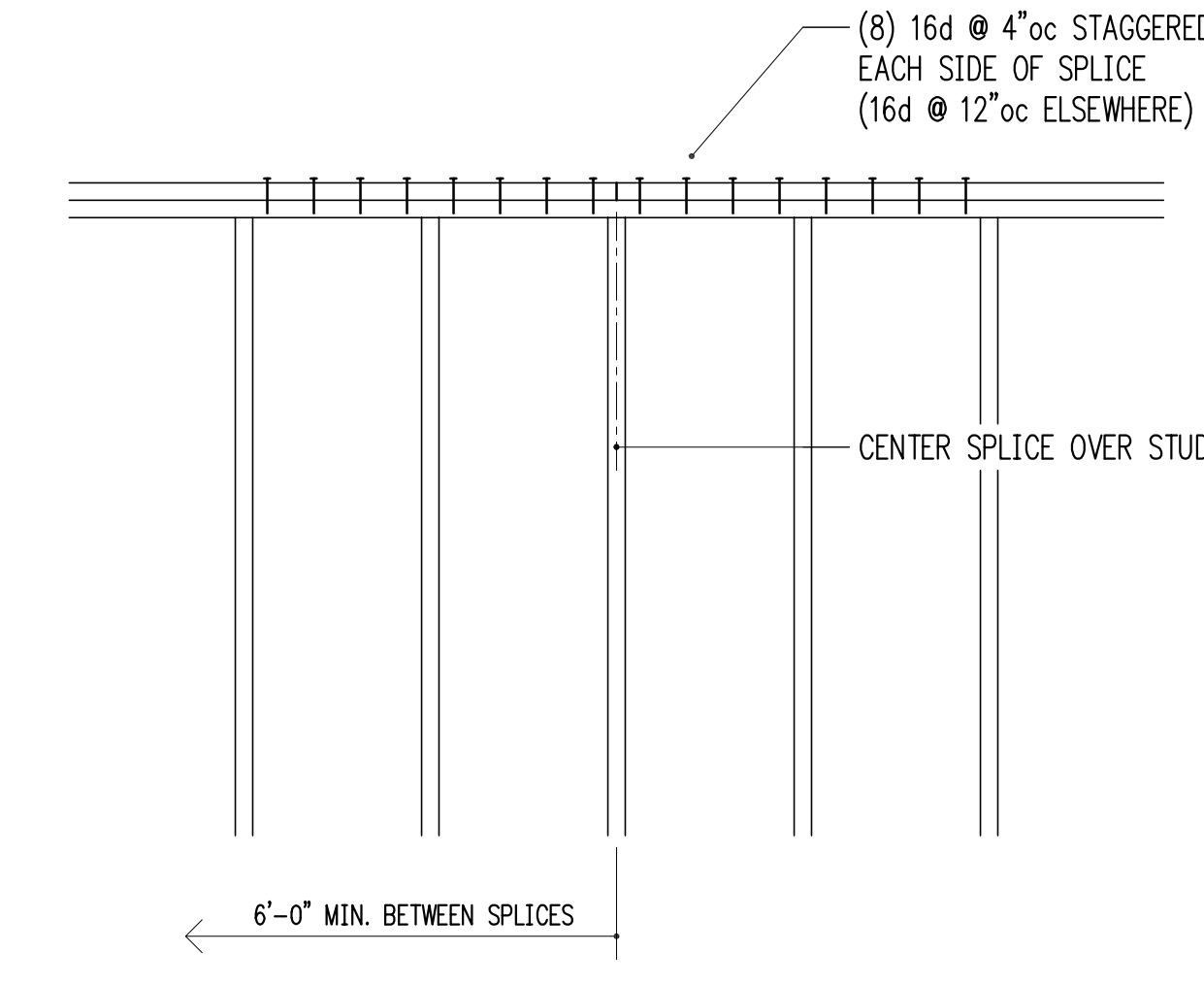
TYPICAL HOLDOWN AT CONCRETE

3/4" = 1'-0" 10



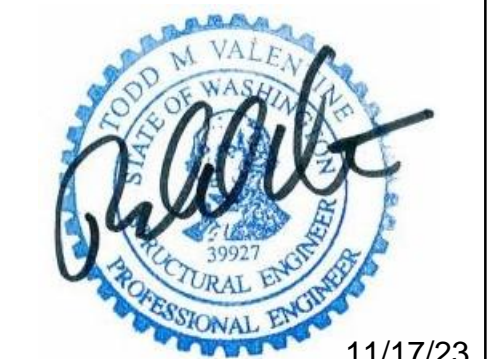
TYPICAL MULTIPLE-STUD POST CONSTRUCTION

3/4" = 1'-0" 11



TYPICAL TOP PLATE SPLICE CONSTRUCTION

3/4" = 1'-0" 12



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