

CITY OF MERCER ISLAND

DEVELOPMENT SERVICES GROUP

9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org



INSPECTION REQUESTS:

online:



voicemail: (206) 275-7730

NOTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO PUBLIC DISCLOSURE AS REQUIRED BY RCW 42.56

CONTACT INFORMATION:

Applicant is to complete the following information.

Applicant Contact information prior to permit issuance: Name, Address, Phone, Email
Applicant Contact information post permit issuance: Name, Address, Phone, Email

REQUIRED SPECIAL INSPECTIONS / STRUCTURAL OBSERVATIONS:

It is the Engineer of Record's responsibility to specify all required Special Inspections or Structural Observation (check items below). The owner is responsible for hiring an approved private Special Inspector for the checked inspections noted below.

STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EOR): Engineer of Record, Company, Phone, General Conformance to Construction Documents, Other

SOILS / GEOTECHNICAL: Special Inspector, Company, Phone, Erosion control measures, Shoring installation and monitoring, Observe and monitor excavation, Verification of soil bearing, Other

REINFORCED CONCRETE: Special Inspector, Company, Phone, Concrete strength, Reinforcing steel and concrete placement, Shotcrete placement, Other

STRUCTURAL STEEL: Special Inspector, Company, Phone, Fabrication and shop welds, Structural steel erection, field welds and bolting, Other

STRUCTURAL MASONRY: Special Inspector, Company, Phone, Mortar strength, Masonry unit strength, Other

WOOD: Special Inspector / Engineer of Record, Company, Phone, Lateral resisting system construction, High strength diaphragm construction, Other

OTHER SPECIAL INSPECTIONS: Special Inspector, Company, Phone, Epoxy grout installations, Expansion anchor installations, Other post installed anchors, Alternative construction methods, Alternative construction materials, Other

DEFERRED SUBMITTALS:

The Applicant is required to select all deferred submittals / shop drawings for submittal to the City for review and approval prior to item fabrication / construction.

Connector plate wood trusses, Metal joist / metal trusses, Premanufactured structures (stairs, etc.), Precast concrete elements, Other, Post tension layout, Exterior cladding, Window wall / curtain wall construction, Other

ENERGY CODE COMPLIANCE INFORMATION:

Indicate where the following information is located in the drawing set. Alternatively, incorporate or include the Residential Energy Code Prescriptive Compliance (RECPC) Form into the drawing set.

Building envelope, Whole house ventilation, Energy Credit Information, RECPC Form Information, Air Leakage Testing, Duct Leakage Testing, Postconstruction Test, Rough-in Test

PROJECT ALERTS:

Construction of the project shall be from approved plans only. No deviation from the approved project plans is allowed without prior approval from the City of Mercer Island. Approved plans must be kept on site and maintained in good condition.

Refer to "Conditions of Permit Approval" provided at permit issuance for required construction rules and regulations, including: Site Considerations, Hours of Work, Construction Vehicle Parking Restrictions, Access Road Requirements, ROW restrictions, Drainage Requirements, Sewer Requirements, Water Service Requirements, Additional Fire Code Requirements, Planning Requirements, Noise Abatement Certification, Tree Requirements

TREE PROTECTION REQUIREMENTS:

Tree protection as shown on approved drawings shall be installed at tree dripline prior to start of any site work and must remain in place throughout the project. No trees shall be cut without a City of Mercer Island tree permit. Replacement trees must be a minimum of six feet tall at installation.

FIRE PROTECTION REQUIREMENTS:

Separate Permits are required for ALL fire protection systems. For more information, see http://www.mercergov.org/Page.asp?NavID=2614

Fire Sprinkler, NFPA 13D, Plus, NFPA 13R, NFPA 13, Monitored Household Fire Alarm per NFPA 72, Monitored Sprinkler, Water Flow Alarm, Other, Approved Fire Code Alternatives: FCA1, FCA2, FCA3, FCA4

WATER SUPPLY REQUIREMENTS:

Fire sprinkler design calculations must be provided prior to determining water supply system requirements. Water Supply system upgrade required, City Installation, Applicant Installation, Required Service Line Size, Required Supply Line Size, Required Meter Size, Abandonment of existing service and meter required at main, Pressure reducing valve required if pressure exceeds 80 psi, Reduced pressure backflow assembly (RPBA) required for all lots with waterfront or non-city water supply, Additional water supply requirements

DRAINAGE REQUIREMENTS:

On site detention system required, On site infiltration system required, As-built Utility drawings required, Full Size drawings required, Direct discharge into the lake, No Storm Water permit required, Connection to public storm drainage conveyance system req'd, Other

SIDE SEWER REQUIREMENTS:

Side sewer requires a backflow preventer when connecting to the lake line or when the elevation of the lowest plumbing fixture is lower than the elevation of the upstream manhole rim or when side sewer is shared with one or more properties. Video tape of existing sewer required (see standard details), New connection, Connect to existing, Disconnect permit required, Reconnect permit required, Other

APPROVED CODE ALTERNATIVES:

Code alternatives must be inspected. Refer to the Inspection Checklist. CA1, CA2

SURVEY REQUIREMENTS (The following survey information must be submitted when checked):

Surveyor shall verify points chosen for height calculations and point verification shall be submitted at the time of City foundation inspection. A property survey may be required to verify setbacks and in some cases buildings must be surveyed onto the lot. The City reserves the right to request an impervious area survey at any time prior to issuance of Certificate of Occupancy.

Surveyor, Building height survey, Building setback survey, Impervious surface survey, Other, MAXIMUM 40 PERCENT ALTERATION INSPECTION: A Building Inspection prior to demolition is required for all legally nonconforming single family dwelling to ensure no more than 40 percent of the dwelling's exterior walls are structurally altered.

GEOTECHNICAL INFORMATION:

Land clearing, grading, filling and foundation work within geologic hazard areas is NOT PERMITTED between October 1 and April 1 without an approved Seasonal Development Limitation Waiver.

Geotechnical Report provided. All construction must comply with the recommendations of the Geotechnical Report. A copy of report and other geotechnical information must be kept on site at all times.

SEASONAL DEVELOPMENT LIMITATION RESTRICTION:

Applies (Geologic Hazard area). Grading not permitted between October 1 through April 1. Waiver approved. Grading and excavation permitted subject to all conditions noted in Seasonal Development Limitation Waiver Permit.

Permit number, Approved by, Date

REQUIRED CONSTRUCTION INSPECTIONS:

It is the applicant's responsibility to contact DSG to schedule ALL inspections appropriate for the project. Request inspections online at www.MyBuildingPermit.com or by calling the Inspection Hotline at (206) 275-7730. Allow at least 24 hours (48 hours for Reinforcing steel) in advance of desired inspection. Be specific as to type of inspection.

Inspector shall initial and date appropriate inspection only if approved. Note: Items marked with an "A" require a separate permit. It is the applicants responsibility to apply for and obtain all City of Mercer Island permits.

INSPECTIONS: (Listed in order of typical sequencing) Pre-construction Meeting to Review Conditions of Permit Approval, Tree protection, Erosion control, Sewer disconnect and cap, Right-of-way use or work / easement, material delivery, etc., Land clearing, grading and demolition, Temporary power, Piling / Shoring / Shotcrete, Footings, setbacks, UFER ground, Foundation walls / concrete columns, Roof and footing drains, Foundation damproofing, Storm drainage, Connections to storm main in ROW, Detention systems, Infiltration systems, Catch basins including oil-water separator tees, Retaining wall drainage, Water Service, Water Supply, Water as-built drawings, Side sewer installation, Connections to side sewer main, Connections to existing side sewer, Driveway / Access road, Underslab electrical / mechanical / plumbing, Underslab insulation / vapor barrier / reinforcing, Underfloor framing, Nailing-Roof sheathing, Nailing-Exterior wall and Shearwall, Rough hydronic installation, Rough electric installation, Rough fire alarm (wiring inspection), Rough plumbing installation (DWV, water), Rough mechanical, Gas Piping, Rough fire sprinkler / hydrostatic and flow (bucket) test, Framing and glazing, Masonry construction (fireplace / walls / veneer / etc.), Insulation installation, Stucco (paper and lath), Shower pan (or tub), Miscellaneous, Code Alternative CA1, Code Alternative CA2, Impact Fees Paid (If applicable)

Final Inspection: Tree Restoration, Final Inspection: Fire protection, including (but not limited to): Sprinkler, Access Road, Fire Code Alternatives (see below), FCA1, FCA2, FCA3, FCA4, Final Inspection: Water supply protection, including (but not limited to): backflow devices for: Waterfront property, Fire / lawn sprinkler, Well water on property, Boiler, Final Inspection: Site and utility: includes landscape, utilities and ROW. Site restoration complete and as-built drawings ready for submittal, Final Inspection: Building, including electrical / mechanical / plumbing. If applicable, provide closeout (summary) letters from Engineer, Special Inspectors, Geotechnical Engineer, and exterior wall cladding inspectors (EIFS).

90 DAY TEMPORARY CERTIFICATE OF OCCUPANCY (TCO):

Applicant option. Additional fees will be required and must be approved prior to occupancy. TCO requires tree plantings be completed.

Approved, Start Date, End Date

ADDITIONAL REQUIRED CITY INSPECTIONS:

Call the appropriate contact to arrange the inspection. Required Inspection(s), Contact, Phone, Scheduling

Impact Fees: If applicable, Impact fees apply and are due prior to Final Inspection or on Date, whichever occurs first. PLAN REVIEW APPROVALS: Not all review disciplines may be required to review the documents.

Building, Planning, Engineering, Tree, Fire

REVISED: JULY 2019

TO BE COMPLETED BY APPLICANT

TO BE COMPLETED BY APPLICANT

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG

TO BE COMPLETED BY DSG



CERTIFICATE OF OCCUPANCY Issued after all required inspections have been performed and approved.

PROJECT NAME: PROJECT ADDRESS:

APPROVED DRAWINGS MUST BE KEPT ON THE BUILDING SITE AT ALL TIMES REVIEWED FOR CODE COMPLIANCE

PERMIT NUMBER

Date

Approved

Date

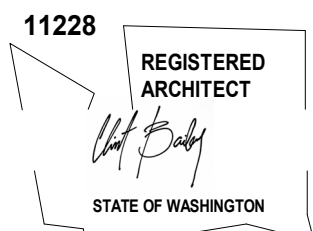
Approved



3D DIMENSIONAL VIEW SHOWS ROUGH DESIGN INTENT ONLY. FOR ALL TECHNICAL DETAILS OR PROJECT SPECIFICS REFER TO ORTHOGRAPHIC DRAWINGS. VIEW FROM REAR YARD

## GENERAL INFORMATION

<b>PROJECT ADDRESS</b>	2420 63RD AVE SE MERCER ISLAND, WA 98040	<b>PROJECT DATA</b>	
<b>ASSESSOR'S PARCEL #</b>	4099500515	<b>SQUARE FOOT SUMMARY</b>	EXISTING (NET CONDITIONED) 1935.31 SF PROPOSED (NET CONDITIONED) 2240.66 SF EXISTING (NET NON-CONDITIONED) 891.29 SF PROPOSED (NET NON-CONDITIONED) 891.29 SF, NO CHANGE PROPOSED TOTAL SF 3131.95 SF
<b>LEGAL DESCRIPTION</b>	LAKE VIEW PLACE EAST SEATTLE PLAT BLOCK: 5 PLAT LOT: 7-B	<b>LOT COVERAGE SUMMARY</b>	EXISTING LOT 6000 SF NET LOT AREA 6000 SF TOTAL PROPOSED COVERAGE 1966.36 SF PROPOSED LOT COVERAGE 32.8% (40% ALLOWED BASED ON LOT 11% LOT SLOPE)
<b>PROJECT DESCRIPTION</b>	REPAIR AND FINISH BASEMENT STAIRS, ADD A SUNROOM AND AN OFFICE, RELOCATE AND RENOVATE THE POWDER ROOM, DEMO THE DECK AND ADD A NEW PATIO.	<b>SETBACKS</b>	SIDE YARD 5' MIN. SUM OF SIDEYARDS SHALL BE 15' FRONT YARD 20' REAR YARD 25'
<b>ZONE</b>	RB 4	<b>OCCUPANCY SUMMARY</b>	EXISTING TYPE R-3 OCCUPANT LOAD SINGLE FAMILY
<b>BUILDING TYPE</b>	SINGLE FAMILY RESIDENCE	<b>ENERGY CODE SUMMARY</b>	CLIMATE ZONE 1 (TABLE 6-1) PRESCRIPTIVE OPTION III UNLIMITED GLAZING GLAZING U-FACTOR (VERTICAL): .30 GLAZING U-FACTOR (OVERHEAD): .50 DOOR U-FACTOR: .20 CEILING: R-49 VALUED CEILING: R-38 WALL ABOVE GRADE: R-21 WALL BELOW GRADE (INT.): R-21 (INT.) OR R-10 (EXT.) SLAB ON GRADE @ BASEMENT: R-10
<b>PROJECT DIRECTORY</b>		<b>HEATING</b>	INSTALLED PER MERCER ISLAND MECHANICAL CODE. WORK TO BE COMPLETED UNDER A SEPARATE PERMIT.
<b>OWNER</b>	GEORGIA MILLER AND TIMOTHY BLOOD 2420 63RD AVE SE MERCER ISLAND, WA 98040	<b>VENTILATION</b>	FANS ON TIMERS, PER PLANS. VOLUME OF REQUIRED OUTDOOR VENTILATION AIR TO BE PROVIDED BASED ON TABLE 403.3 OF THE MERCER ISLAND MECHANICAL CODE.
<b>ARCHITECT</b>	RAIN CITY ARCHITECTURE 206.636.1163 rci@raincityarchitecture.com		* PLUMBING, MECHANICAL, ELECTRICAL WORK TO BE PERMITTED SEPARATELY.
<b>GENERAL CONTRACTOR</b>	TOEPHER CONSTRUCTION		



REVIEWED FOR  
CODE COMPLIANCE  
March 29, 2022

MILLER BLOOD RESIDENCE  
2420 63RD AVE SE  
MERCER ISLAND, WA 98040

## AVERAGE BUILDING HEIGHT CALCULATION

$$\frac{(9'6\frac{1}{4} \times 112'9\frac{1}{2}) + (7'1\frac{1}{4} \times 112'11\frac{1}{2}) + (9'7' \times 113'2\frac{1}{2}) + (12'7\frac{1}{2} \times 114'7\frac{1}{2}) + (12'3' \times 114'8\frac{1}{2}) + (8'7' \times 114'10\frac{1}{2}) + (15'0\frac{1}{2} \times 114'10\frac{1}{2}) + (8'7' \times 114'10\frac{1}{2}) + (14'3' \times 114'8\frac{1}{2}) + (12'7\frac{1}{2} \times 114'8\frac{1}{2}) + (14'4\frac{1}{2} \times 113'0\frac{1}{4}) + (11'10' \times 112'7\frac{1}{4}) + (4'10' \times 112'11\frac{1}{2}) + (13'10\frac{1}{4} \times 112'9\frac{1}{2}) + (10'6' \times 115'3\frac{1}{2}) + (14'3\frac{3}{4} \times 107'11\frac{1}{2})}{(9'6\frac{1}{4} + 7'1\frac{1}{4} + 9'7' + 12'7\frac{1}{2} + 12'3' + 8'7' + 15'0\frac{1}{2} + 8'7' + 14'3' + 12'7\frac{1}{2} + 14'4\frac{1}{2} + 11'10' + 4'10' + 13'10\frac{1}{4} + 10'6' + 14'3\frac{3}{4})} = 20359.01 \text{ SF} \quad \text{--- } 113'5\frac{7}{8} \text{ A.B.E.}$$

$$\frac{20359.01 \text{ SF}}{179'10\frac{1}{2}'} = 113'5\frac{7}{8} \text{ A.B.E.}$$

## LOT SLOPE CALCULATION

122'-3" (HIGHEST POINT) - 109'-11" (LOWEST POINT) = 12'-4"  
HORIZONTAL DISTANCE BETWEEN HIGH AND LOW POINTS = 112'-0 1/2"  
LOT SLOPE = 12'-4" / 112'-0 1/2" = .1100781 = 11%

## HARDSCAPE CALCULATION

GROSS LOT AREA = 6000 SF  
NET LOT AREA = 6000 SF  
EXISTING HARDSCAPE = 706.4  
ADDED HARDSCAPE = 132.97  
REMOVED HARDSCAPE = 241.36 SF  
ALLOWED HARDSCAPE (9% + LEFTOVER LOT COVERAGE) = 540 SF + 433.64 = 973.64 SF  
TOTAL PROPOSED HARDSCAPE = 598.01

## LOT COVERAGE CALCULATION

EXISTING HOUSE = 1391.84 SF  
DRIVE WAY = 205.47 SF  
ADDITION = 422.37 SF  
EXISTING HOUSE REMOVED = -53.32 SF  
TOTAL PROPOSED COVERAGE = 1966.36 SF

GROSS LOT AREA = 6000 SF  
NET LOT AREA = 6000 SF  
ALLOWED COVERAGE (40%) = 2400 SF

## GROSS FLOOR AREA CALCULATION

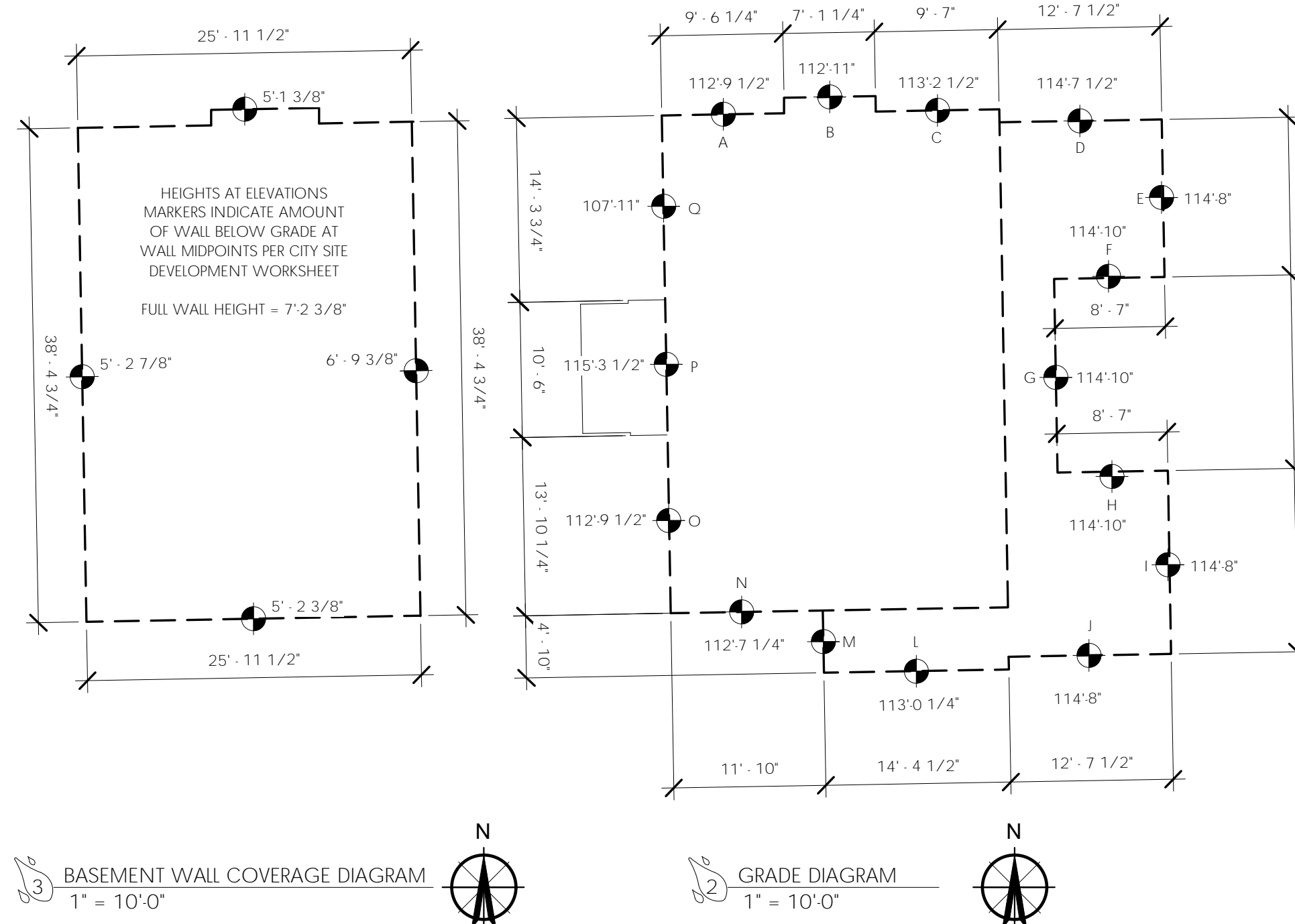
BUILDING AREA	EXISTING BUILDING AREA	NEW ADDITION AREA	TOTAL
UPPER FLOOR	1015 SF	0	1015 SF
MAIN FLOOR	1105.81 SF	336.83 SF	1442.64 SF
BASEMENT AREA	636.33 SF	0	636.33 SF
BASEMENT GARAGE AREA	361.49 SF	0	361.49 SF
EXCLUDED BASEMENT AREA	785.28 SF	0	785.28 SF

BASEMENT EXCLUSION CALC			
WALL	WALL LENGTH	COVERAGE	RESULT
NORTH	25'-11 1/2"	5'-1 3/8" / 7'-2 3/8" = 71.06%	18.45
SOUTH	25'-11 1/2"	5'-2 3/8" / 7'-2 3/8" = 72.2%	18.74
EAST	38'-4 3/4"	6'-9 3/8" / 7'-2 3/8" = 94.2%	36.17
WEST	38'-4 3/4"	5'-2 7/8" / 7'-2 3/8" = 72.79%	27.94
TOTAL	128.71'		101.3

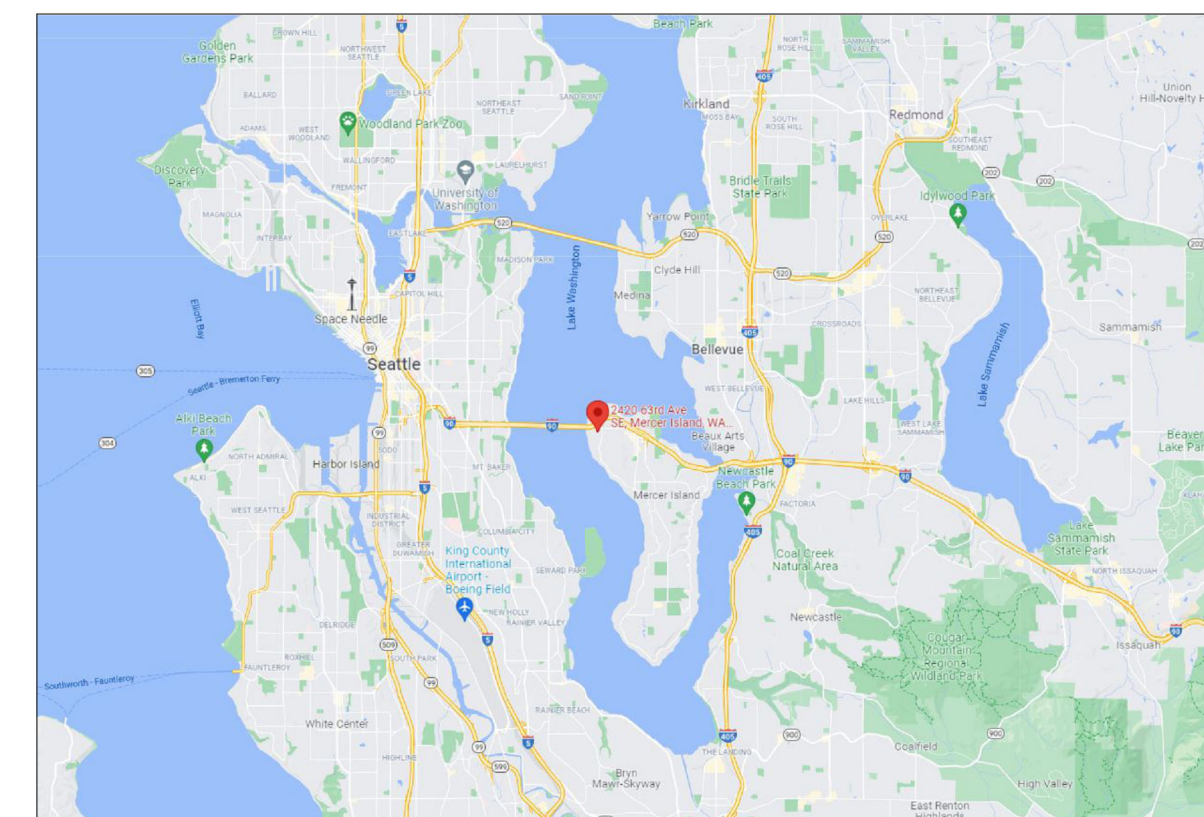
101.3 / 128.71 = 78.7% EXCLUSION  
TOTAL BASEMENT AREA = 997.82 SF  
TOTAL EXCLUDED AREA = 785.28 SF

ALLOWED GROSS FLOOR AREA = 2700 SF (45% OF LOT AREA FOR LOTS UNDER 7500SF)  
PROPOSED GROSS FLOOR AREA = 2670.18 SF (44.5% OF LOT AREA)

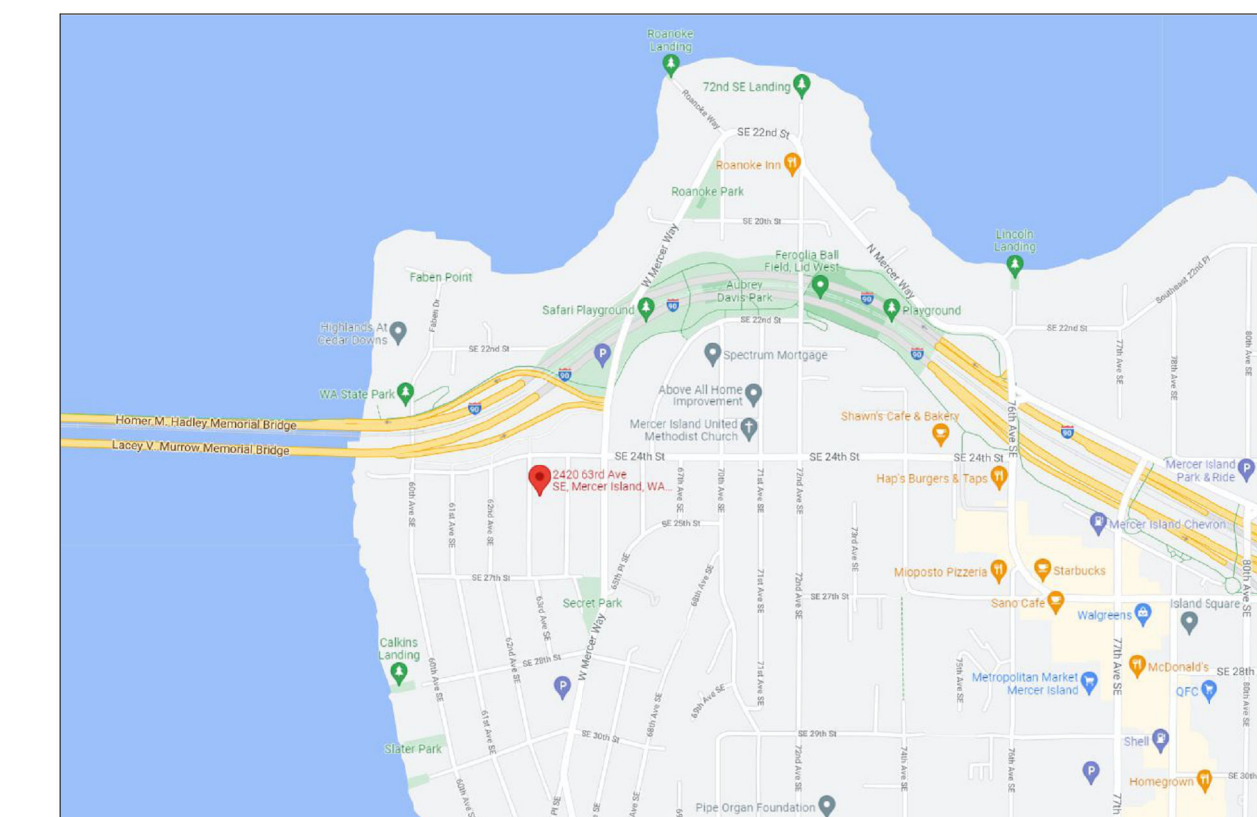


## SHEET INDEX

DISCIPLINE	SHEET NAME	SHEET NUMBER
ARCHITECTURAL	COVERSHEET	A000
	SITE PLAN	A001
	GENERAL NOTES, SYMBOLS, & ABBREV	A002
	DOOR AND WINDOW SCHEDULES AND ENERGY CODE WORKSHEET	A003
	DEMO MAIN FLOOR	D1.0
	UPPER FLOOR AND ROOF PLAN	A201
	EXTERIOR ELEVATIONS	A300
	SECTIONS	A400
	FINISH SCHEDULE	A601
	GENERAL STRUCTURAL NOTES	S1.1
STRUCTURAL	MAIN FLOOR FRAMING AND FOUNDATION PLANS	S2.1
	ROOF AND UPPER FLOOR FRAMING PLAN	S2.2
	TYPICAL CONCRETE DETAILS	S3.1
	TYPICAL CONCRETE DETAILS	S3.2
	TYPICAL WOOD DETAILS	S4.1
	TYPICAL WOOD DETAILS	S4.2



VICINITY PLAN



LOCATION PLAN

COVERSHEET

REVISIONS

Revision 1 Date 1

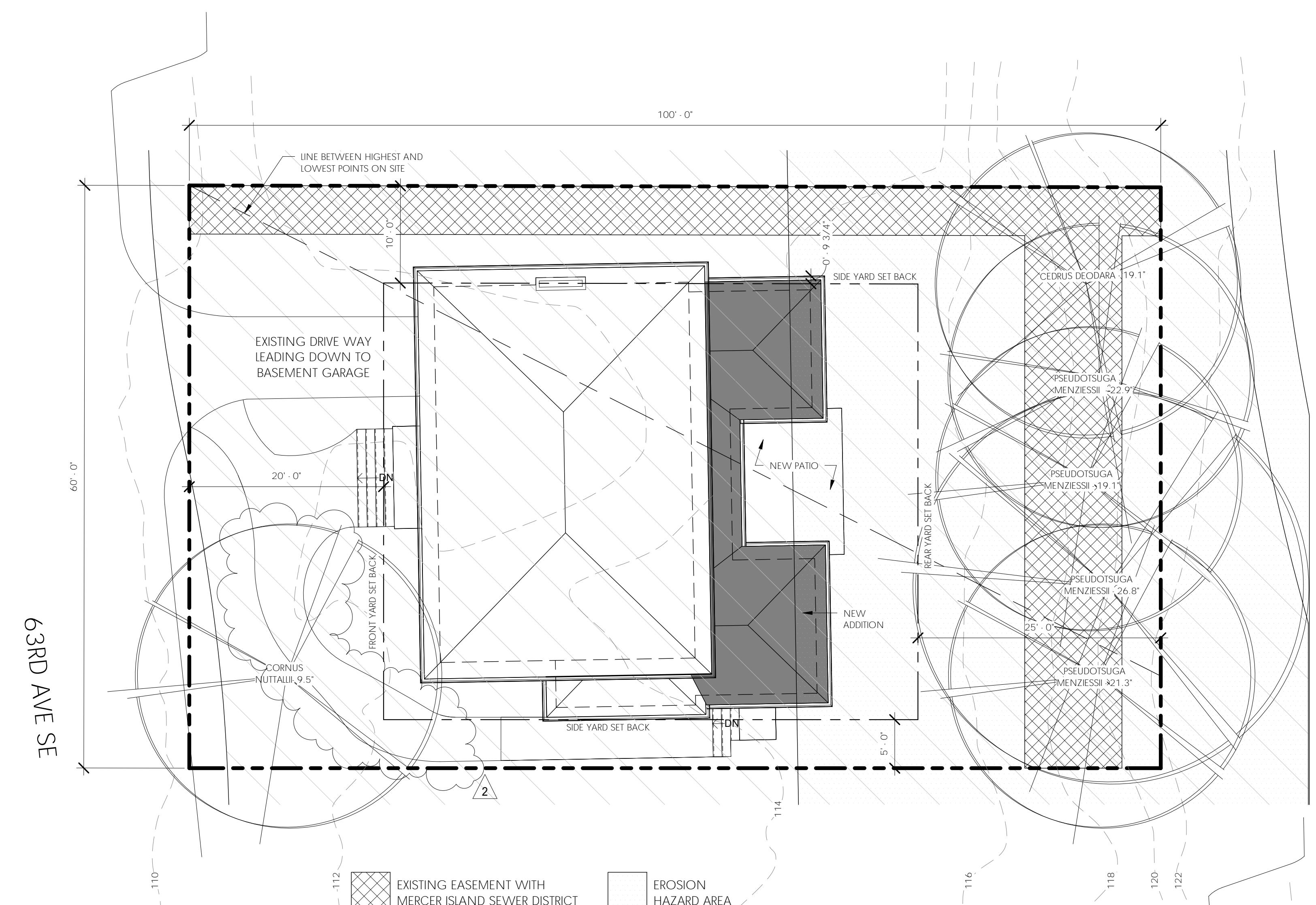
A000

PERMIT SET

3/15/2022  
2:25:26 PM

As indicated

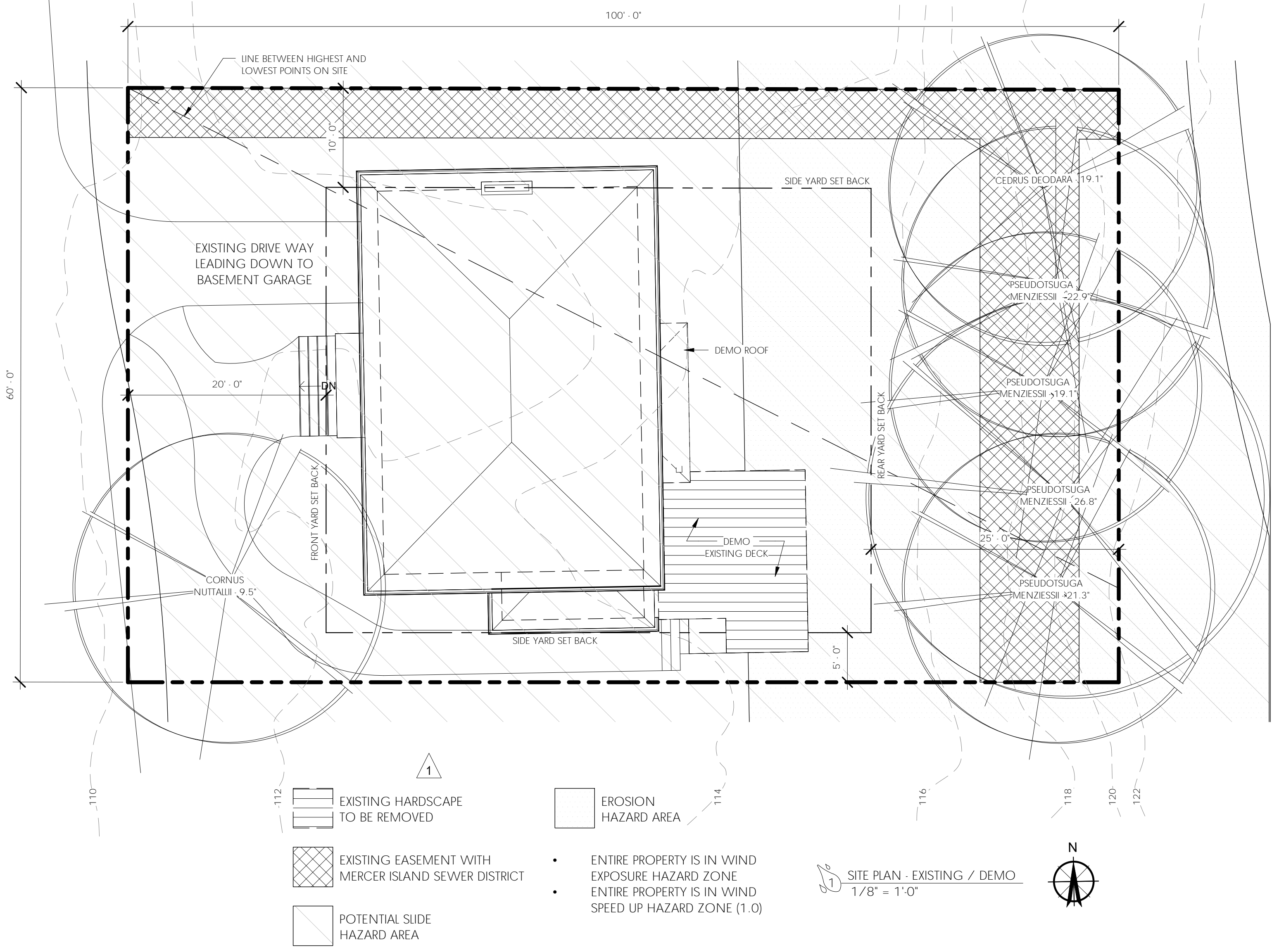




- EXISTING EASEMENT WITH MERCER ISLAND SEWER DISTRICT
  - PROPOSED AREA OF WORK
  - POTENTIAL SLIDE HAZARD AREA
  - EROSION HAZARD AREA
- ENTIRE PROPERTY IS IN WIND EXPOSURE HAZARD ZONE
  - ENTIRE PROPERTY IS IN WIND SPEED UP HAZARD ZONE (1.0)

1/8" = 1'-0"  
SITE PLAN - PROPOSED

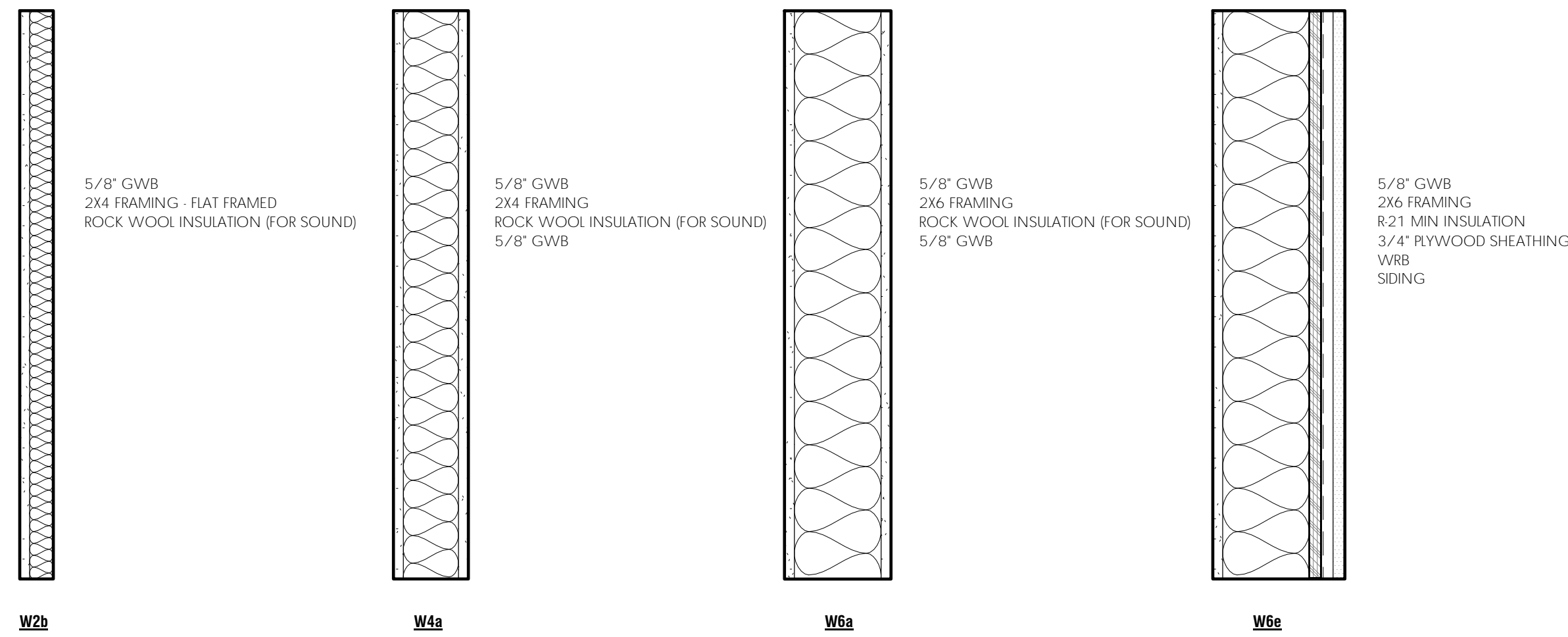
63RD AVE SE



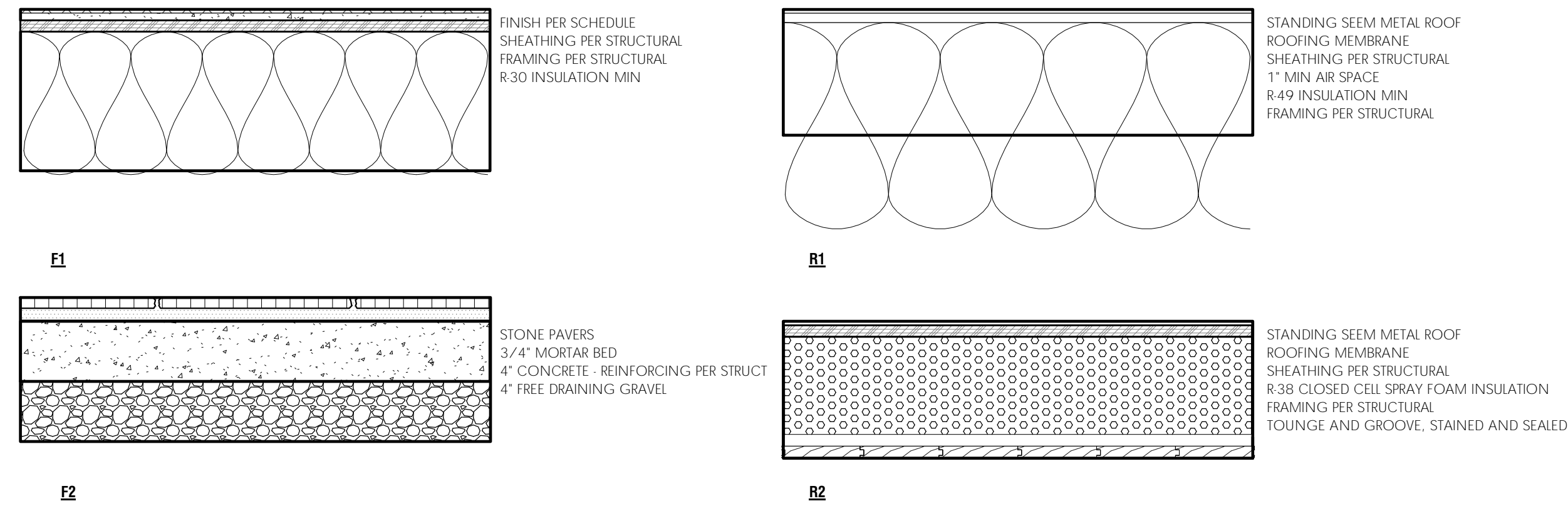
- EXISTING HARDSCAPE TO BE REMOVED
  - EXISTING EASEMENT WITH MERCER ISLAND SEWER DISTRICT
  - POTENTIAL SLIDE HAZARD AREA
  - EROSION HAZARD AREA
- ENTIRE PROPERTY IS IN WIND EXPOSURE HAZARD ZONE
  - ENTIRE PROPERTY IS IN WIND SPEED UP HAZARD ZONE (1.0)

1/8" = 1'-0"  
SITE PLAN - EXISTING / DEMO

VERTICAL ASSEMBLIES



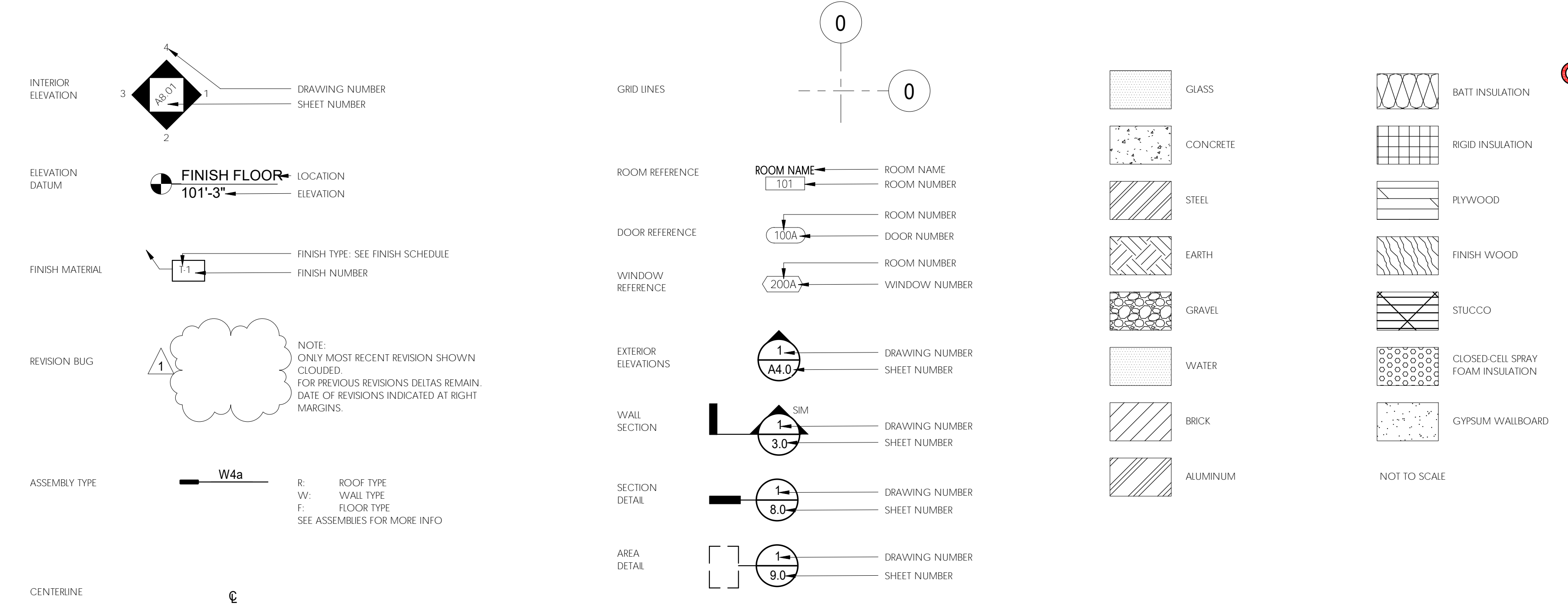
HORIZONTAL ASSEMBLIES



ABBREVIATIONS

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

PROJECT LEGEND



GENERAL NOTES

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

**UTILITIES AND SITE**  
 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 BY THE GEOTECHNICAL ENGINEER AND DRP REPRESENTATIVE 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.

**CONTRACTOR TO PROVIDE 8" OF TOP SOIL MIN AND HYDROSEED GRASS AT ALL IMPACTED AREAS OF SITE UNLESS NOTED OTHERWISE. TOPSOIL AND PLANTINGS MUST MEET ALL LOCAL CODES.**

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

**CONSTRUCTION DOCUMENTS**  
 ALL TRADES SHALL REFER TO THE ARCHITECTURAL DRAWINGS REGARDING LOCATIONS OF WORK TO BE INSTALLED, INCLUDING FRAMING. ANY DISCREPANCY BETWEEN ARCHITECTURAL AND STRUCTURAL SHALL BE REPORTED TO THE ARCHITECT BEFORE AFFECTED WORK CONTINUES.

**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 FINISH. U.N.O. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT. PROVIDE ALL BUCKOUTS, 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.**

**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.**

**WARRANTY**  
 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.

**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.**

**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.

**PERMITTING**  
 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.

**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 AND GENERAL SITE SECURITY UNTIL THE POINT OF 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, REPAIRATION 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, FINISH SCHEDULE, 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 AND DIMPLE DRAINMAT AT ALL WALLS EXPOSED TO EARTH.**

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

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

**ALL INTERIOR WALLS SHALL BE INSULATED WITH SOUND ATTENUATING INSULATION**

**WATER PIPES TO BE INSULATED IN ALL UNHEATED AREAS.**

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

# WHOLE HOUSE VENTILATION CALC

DWELLING UNIT FLOOR AREA (square feet)	NUMBER OF BEDROOMS					
	0 - 1	2 - 3	4 - 5	6 - 7	> 7	
	Airflow in CFM					
< 1,500	30	45	60	75	90	
1,501 - 3,000	45	60	75	90	105	
3,001 - 4,500	60	75	90	105	120	
4,501 - 6,000	75	90	105	120	135	
6,001 - 7,500	90	105	120	135	150	
> 7,500	105	120	135	150	165	

For SF: 1 square foot = 0.0929 m<sup>2</sup>; 1 cubic foot per minute = 0.0004719 m<sup>3</sup>/min

RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT					
	25%	33%	50%	66%	75%	100%
Factor*	4	3	2	1.5	1.3	1.0

PROPOSED CONDITIONED SQUARE FOOTAGE = 2240.66 SF  
 NUMBER OF BEDROOMS = 3  
 AIRFLOW IN CFM REQUIRED FOR CONTINUOUS VENTILATION = 60 CFM  
 RUNTIME PERCENTAGE IN EACH 4 HOUR SEGMENT = 66%  
 FACTOR = 1.5

CALC 60 CFM X 1.5 = 90CFM

HEAT RECOVERY VENTILATOR SYSTEM TO BE INSTALLED TO PROVIDE  
 REQUIRED VENTILATION WITH SENSIBLE HEAT RECOVERY OF .75

## 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		Contract Information	
2420 63RD AVE SE MERCER ISLAND, WA 98040	RAIN CITY ARCHITECTURE DOB#X 116		

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 R402.2 - Fuel Normalization Credits and R402.3 - Energy Credits.

All Climate Zones (Table R402.1.1)		R-Value *	U-Factor *
Fenestration U-Factor **	n/a	0.30	
Single-pane U-Factor **	n/a	0.50	
Glazed Fenestration SHGC ***	n/a	n/a	
Ceiling	49'	0.036	
Wood Frame Wall **	21 in	0.095	
Floor	30	0.029	
Below-Grade Wall **	10/25/21 in + TB	0.042	
Slab ** R-Value & Depth	10, 3 ft	n/a	

\*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 A301.4 shall not be less than the R-value specified in the table.

b. The fenestration U-factor column excludes daylighting.

c. The interior of the basement wall, "10/15/21 + 1/8" shall be permitted to be met with R-15 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5/8" means 5/8 thermal break between floor slab and basement wall.

d. R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.3.1.

e. For single-rafter or joist-vented 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 R-10 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 fire structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.

h. Intermediate framing denotes framing and insulation as described in Section A101.2.2 including standard framing 16 inches on center, 76% of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

Prescriptive Path - Single Family 2018 Washington State Energy Code-R 1

## 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 R402.2 (fuel normalization credits) and Table R402.3 (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 Units: 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 Units: 6 credits
  - All dwelling units that are not included in #1 or #3
- Large Dwelling Units: 7 credits
  - Dwelling units exceeding 1,500 sf of conditioned floor area
  - Additions less than 500 square feet: 1.5 credits
  - All other additions shall meet 2.0 above

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

Summary of Table R402.2		Credits - select ONE heating option		User Notes
Heating Options	Fuel Normalization Descriptions	Credits	select ONE heating option	
1	Combustion heating minimum NAECA*	0.0	<input type="checkbox"/>	
2	Heat pump**	1.0	<input type="checkbox"/>	
3	Electric resistance heat only - furnace or panel	-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"/>	

Summary of Table R402.3		Credits - select ONE energy option from each category*		User Notes
Energy Options	Energy Credit Option Descriptions	Credits	select ONE energy option from each category*	
1.1	High Efficiency HVAC	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	2.0	<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*	High Efficiency HVAC	1.0	<input type="checkbox"/>	
3.2	High Efficiency HVAC	1.0	<input type="checkbox"/>	
3.3*	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*	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"/>	

Prescriptive Path - Single Family 2018 Washington State Energy Code-R 2

## 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 R402.3 (cont.)		Credits - select ONE energy option from each category*		User Notes
Energy Options	Energy Credit Option Descriptions (cont.)	Credits	select ONE energy option from each category*	
5.1*	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*	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/ft<sup>2</sup> (equivalent) of heated floor area or 500 W, whichever is higher, may be installed in the dwelling unit.
  - 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 R402.2 for all requirements and option descriptions.

Prescriptive Path - Single Family 2018 Washington State Energy Code-R 3

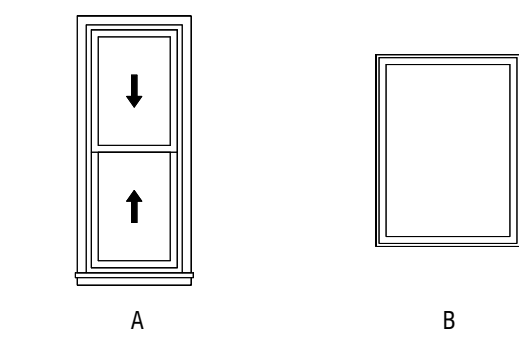
ENERGY CODE SUMMARY

CREDITS REQUIRED: 1.5 (ADDITIONS LESS THAN 500 SF)  
 HEATING OPTIONS: COMBUSTION HEATING MINIMUM NAECA 0.0 CREDITS  
 ENERGY OPTIONS SELECTED: 2.3 AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 1.5 CREDITS

2.3 : COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 1.5 AIR CHANGES PER HOUR MAXIMUM AT 50 PASCALS AND ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1507.3 OF THE INTERNATIONAL RESIDENTIAL CODE OR SECTION 405.8 OF THE INTERNATIONAL MECHANICAL CODE SHALL BE MET WITH A HEAT RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF .75

### WINDOW SCHEDULE

PLAN ID	TYPE	QTY.	WIDTH (ft)	HEIGHT (ft)	HEAD HT	UNIT AREA (sf)	U VALUE	UA	NOTES
12A	A	1	4'-0"	3'-8"	6'-8"	15 SF	0.3	4 SF	1
12B	A	1	2'-11"	5'-2"	6'-8"	15 SF	0.3	5 SF	1
12C	A	1	2'-11"	5'-2"	6'-8"	15 SF	0.3	5 SF	1
13A	A	1	2'-0"	3'-0"	6'-8"	6 SF	0.3	2 SF	1,2
14A	A	1	3'-1"	5'-2"	6'-8"	16 SF	0.3	5 SF	1,2
15A	A	1	2'-9 3/4"	6'-4 1/2"	7'-10 1/2"	18 SF	0.3	5 SF	1
15B	A	1	2'-9 3/4"	6'-4 1/2"	7'-10 1/2"	18 SF	0.3	5 SF	1
15C	A	1	2'-9 3/4"	6'-4 1/2"	7'-10 1/2"	18 SF	0.3	5 SF	1
15D	A	1	2'-9 3/4"	6'-4 1/2"	7'-10 1/2"	18 SF	0.3	5 SF	1
15E	A	1	2'-9 3/4"	6'-4 1/2"	7'-10 1/2"	18 SF	0.3	5 SF	1
15F	A	1	2'-9 3/4"	6'-4 1/2"	7'-10 1/2"	18 SF	0.3	5 SF	1
15G	A	1	2'-9 3/4"	6'-4 1/2"	7'-10 1/2"	18 SF	0.3	5 SF	1
15H	A	1	2'-9 3/4"	6'-4 1/2"	7'-10 1/2"	18 SF	0.3	5 SF	1
17A	B	1	1'-9 31/32"	2'-2 1/2"	7'-1 9/16"	4 SF	0.3	1 SF	3
17B	B	1	3'-7 11/16"	2'-2 1/2"	7'-1 9/16"	8 SF	0.3	2 SF	3
17C	B	1	1'-9 31/32"	2'-2 1/2"	7'-1 9/16"	4 SF	0.3	1 SF	3

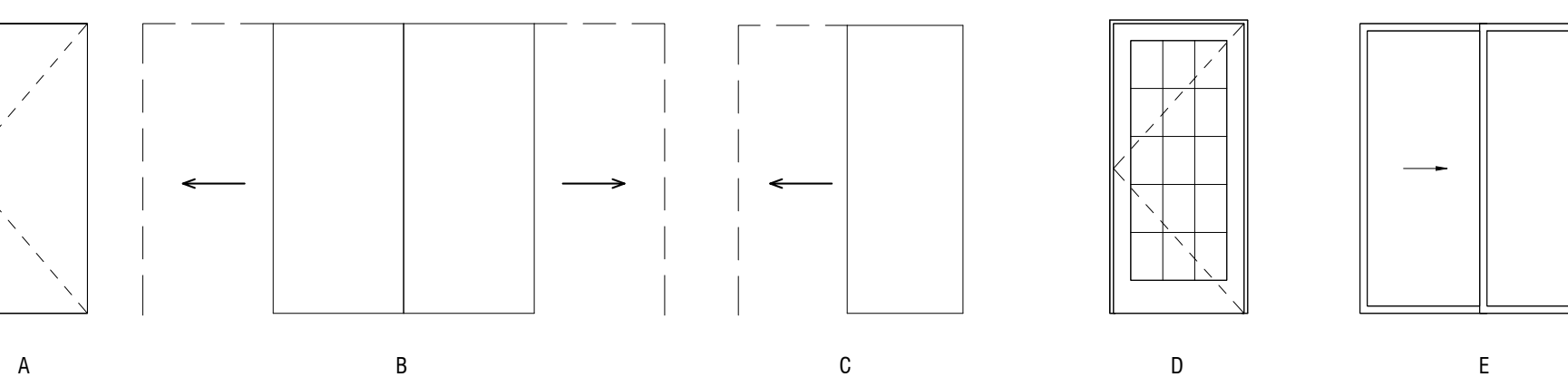


WINDOW TYPES  
1/4" = 1'-0"

### DOOR SCHEDULE

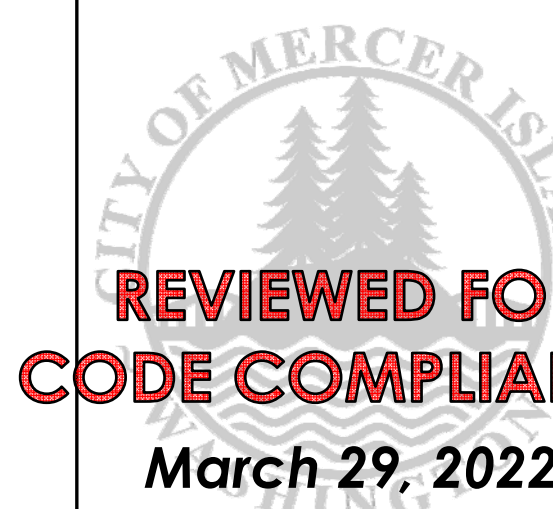
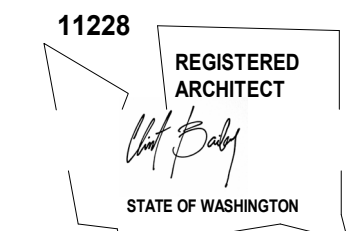
PLAN ID	TYPE	QTY.	WIDTH (ft.)	HEIGHT (ft.)	AREA (sf.)	U VALUE	UA	NOTES
12A	D	1	3'-0"	6'-8"	20 SF	0.3	6 SF	1,2
12B	B	1	6'-0"	6'-8"	40 SF			
13A	C	1	2'-6"	6'-8"	17 SF			
14A	D	1	3'-0"	6'-8"	20 SF	0.3	6 SF	1,2
14B	A	1	3'-0"	6'-11 3/4"	21 SF			
15A	E	1	6'-0"	7'-10 1/2"	47 SF	0.3	14 SF	1,2

- ALL GLAZING IN DOOR TO BE TEMPERED
- ALL EXTERIOR DOOR HEADERS SHALL BE INSULATED WITH A MIN OF R-10 INSULATION



DOOR TYPES  
1/4" = 1'-0"

- ALL WINDOW HEADERS SHALL BE INSULATED WITH A MIN OF R-10 INSULATION
- TEMPERED SAFETY GLAZING REQUIRED
- NEW WINDOW IN EXISTING OPENING, CONTRACTOR TO VERIFY SIZE IN FIELD



**MILLER BLOOD RESIDENCE**  
 2420 63RD AVE SE  
 MERCER ISLAND, WA 98040

DOOR AND WINDOW SCHEDULES AND ENERGY CODE WORKSHEET

REVISIONS

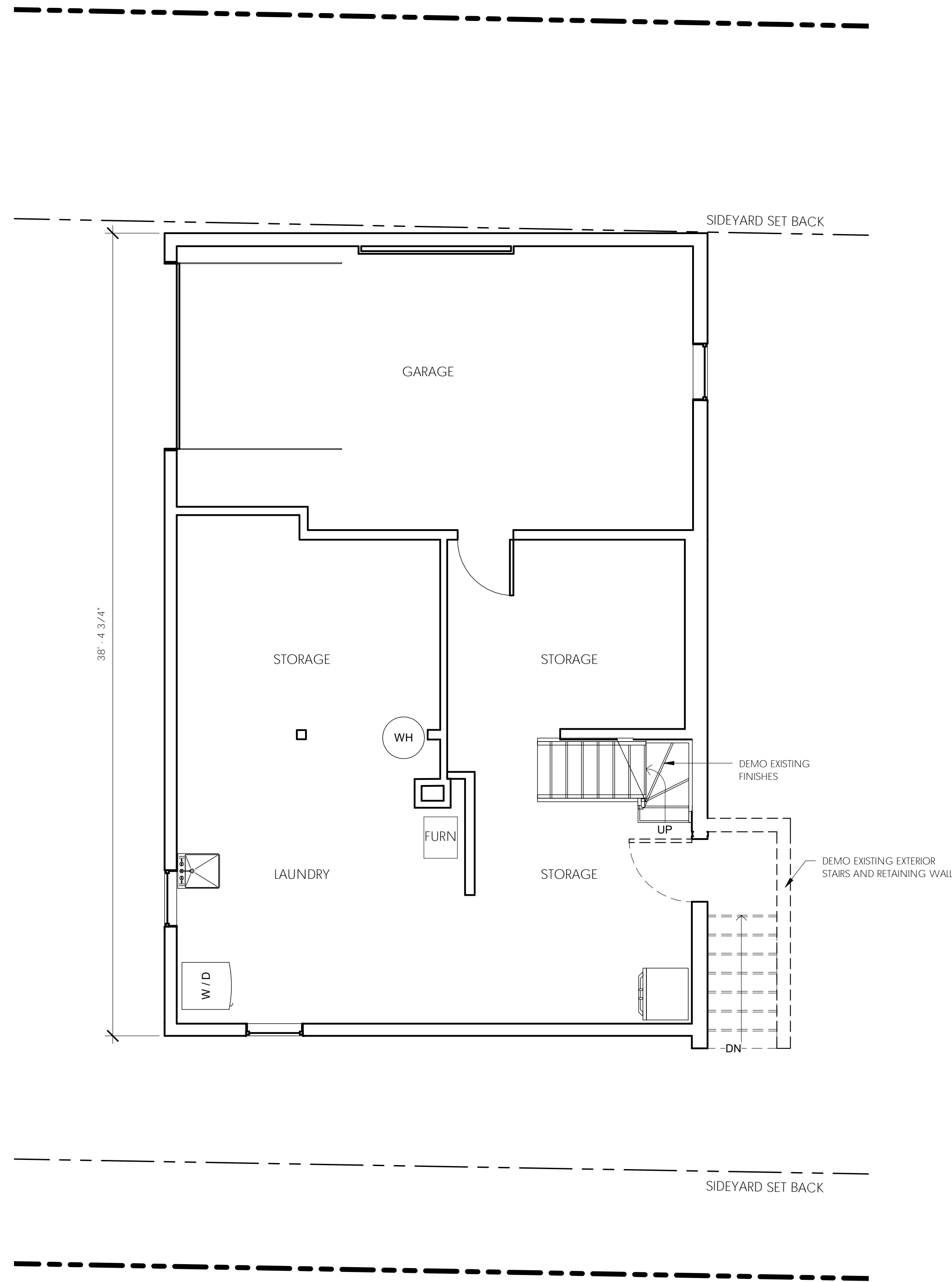
A003

PERMIT SET

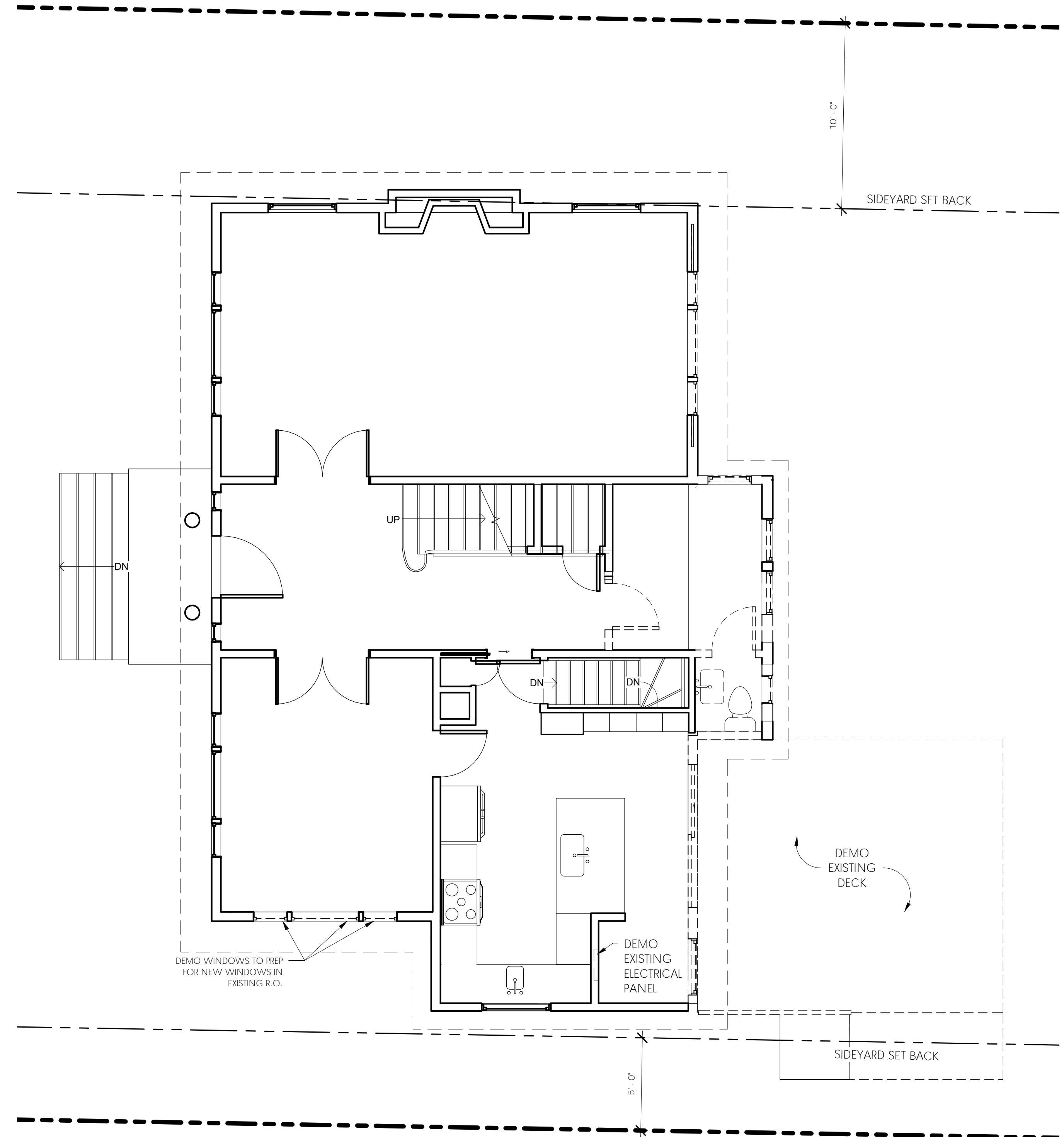
2/23/2022  
2:24:46 PM

1/4" = 1'-0"





1 BASEMENT DEMO  
1/4" = 1'-0"



01 MAIN LEVEL DEMO  
1/4" = 1'-0"

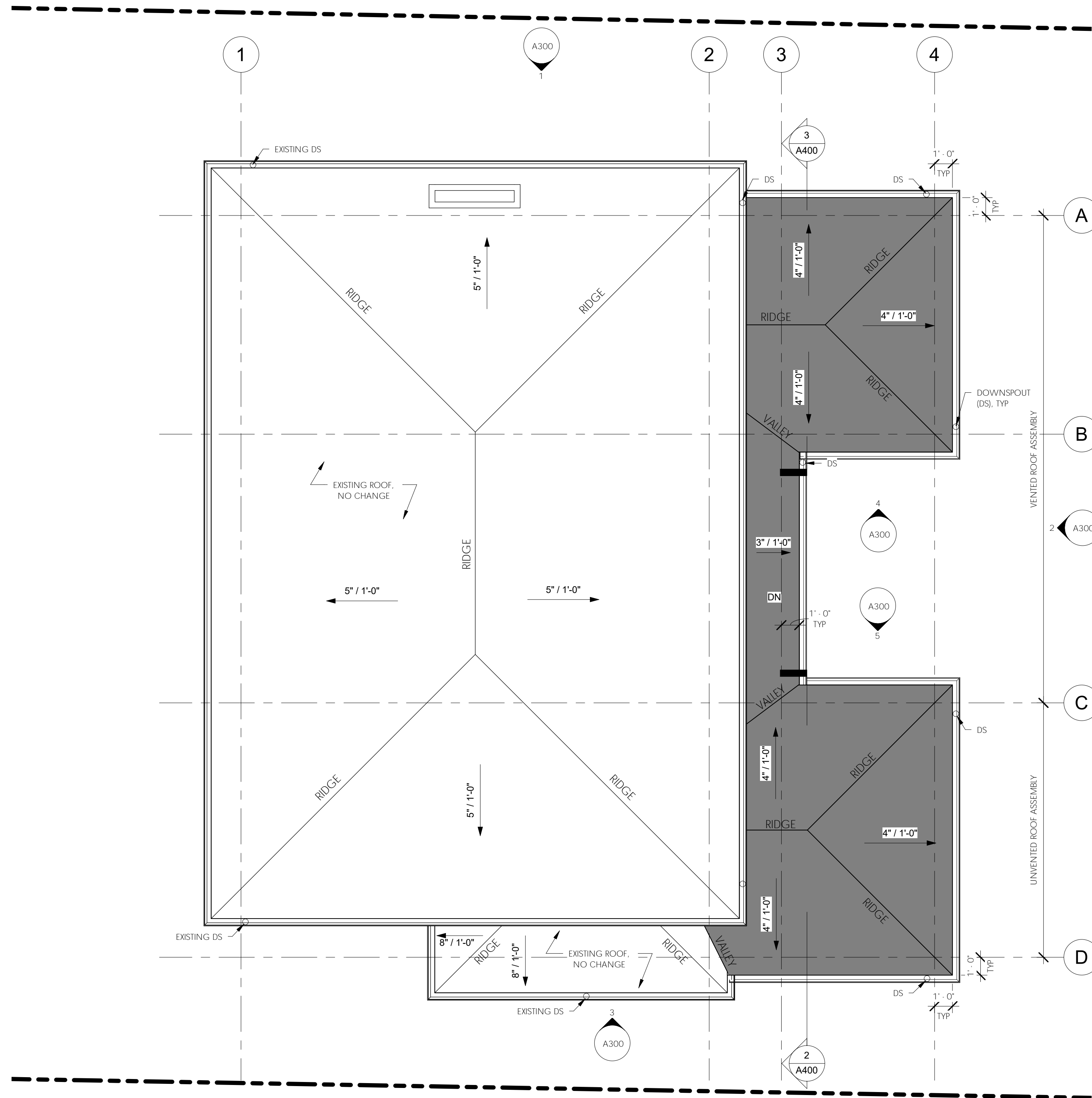
LEGEND

⊙	SMOKE DETECTOR		NEW CONSTRUCTION
⊗	SMOKE/CARBON MONOXIDE DETECTOR		EXISTING TO REMAIN
⊕	FAN - 110 CFM U.N.O.		TO BE REMOVED
			1-HOUR RATED ASSEMBLY

NOTES

- ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF FRAMING AT EXT. FACE OF WALL AND TO FACE OF FINISH (5/8" GWB ASSUMED) AT INT. FACE OF WALL, U.N.O.
- ALL DIMENSIONS AT INTERIOR WALLS TO FACE OF FINISH (5/8" GWB ASSUMED AT EA. SIDE OF WALL), U.N.O.
- ALL DIMENSIONS AT KITCHEN TO EDGE OF COUNTERTOPS, U.N.O.
- ALL NEW WOOD HEADERS SHALL BE (2) 2X8 U.N.O., INSULATE HEADERS TO R-10 MIN

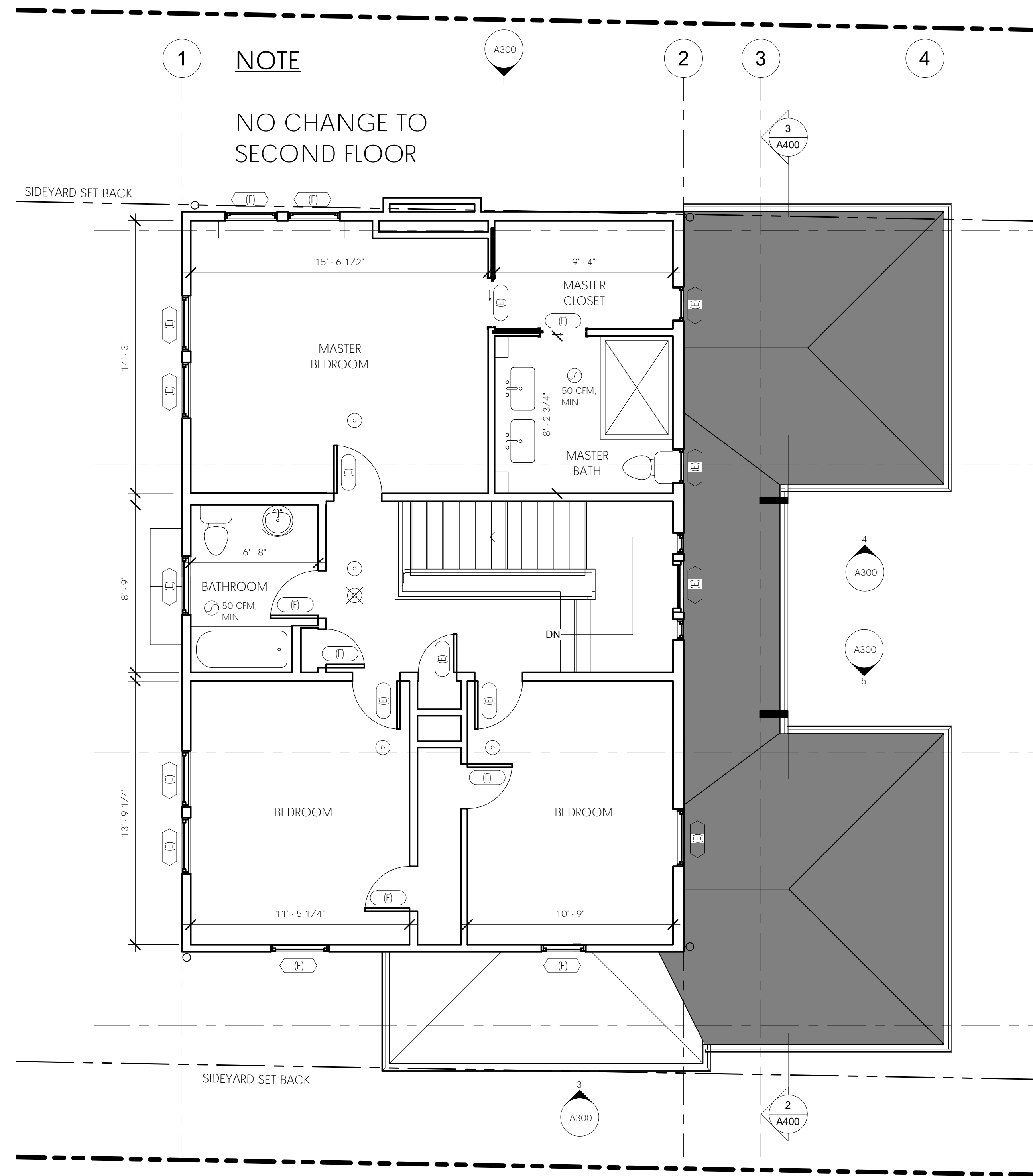




03. ROOF PLAN  
1/4" = 1'-0"

**ROOF VENTILATION CALCULATION**

REQUIRED VENTILATION = 1/150 OF TOTAL AREA, PER R606.2  
 NEW VENTED ROOF AREA = 203.83 SF  
 REQUIRED VENTILATION = 1.36 SF OF VENTILATION  
 PROPOSED VENTILATION = VERA VENT AT ROOF TO WALL CONDITION = 8.5 SQ IN PER LF X 15.5625 LF = 91862 SF  
 COR A VENT RAFT A VENT AT SOFFIT CONDITIONS = 10 SQ IN PER LF X 48.646 LF = 3.38 SF  
 VERA VENT AT RIDGE CONDITIONS = 8.5 SQ IN PER LF X 26.39 LF = 1.56 SF  
**TOTAL PROPOSED VENTILATION = 5.86 SF**



02. UPPER LEVEL  
1/4" = 1'-0"

**NOTE**

NO CHANGE TO SECOND FLOOR

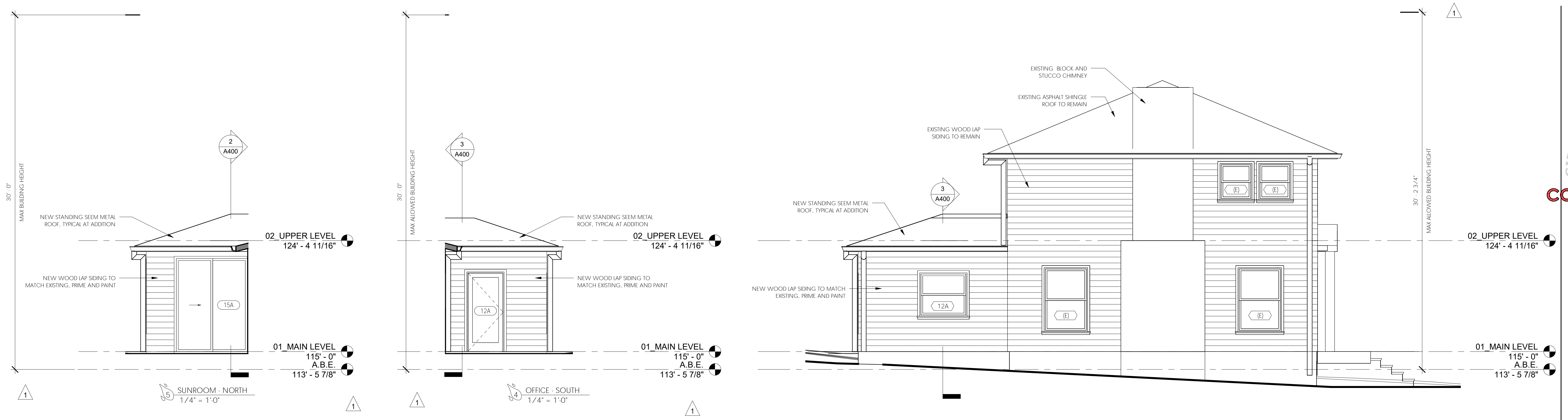
**LEGEND**

- SMOKE DETECTOR
- SMOKE / CARBON MONOXIDE DETECTOR
- FAN - 110 CFM U.N.O.
- NEW CONSTRUCTION
- EXISTING TO REMAIN
- TO BE REMOVED
- 1-HOUR RATED ASSEMBLY

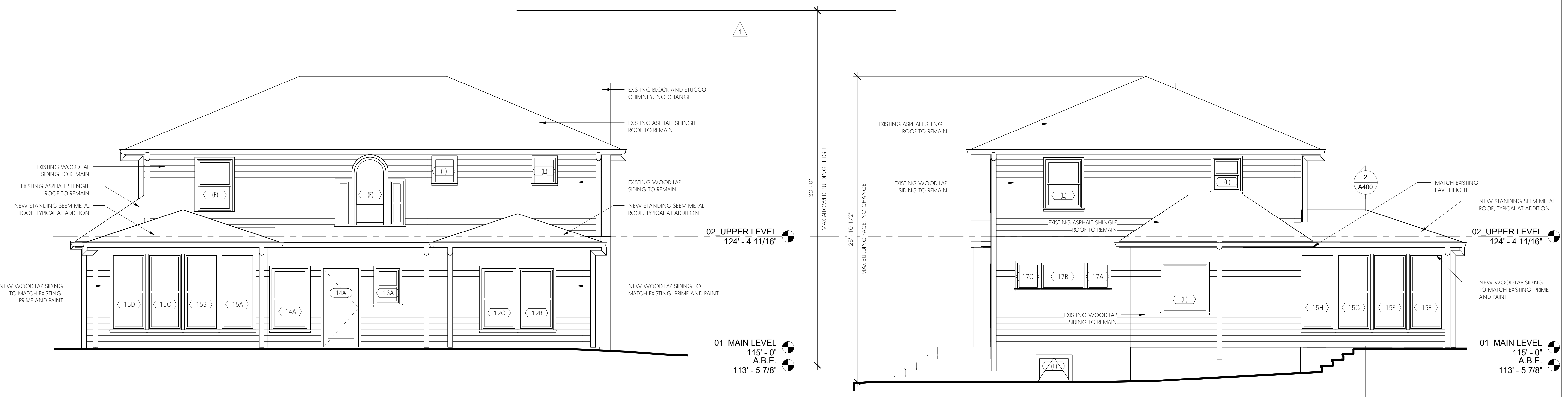
**NOTES**

1. ALL DIMENSIONS AT EXTERIOR WALLS TO FACE OF FRAMING AT EXT. FACE OF WALL AND TO FACE OF FINISH (5/8" GWB ASSUMED) 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. ALL NEW WOOD HEADERS SHALL BE (2) 2X8 U.N.O., INSULATE HEADERS TO R10 MIN



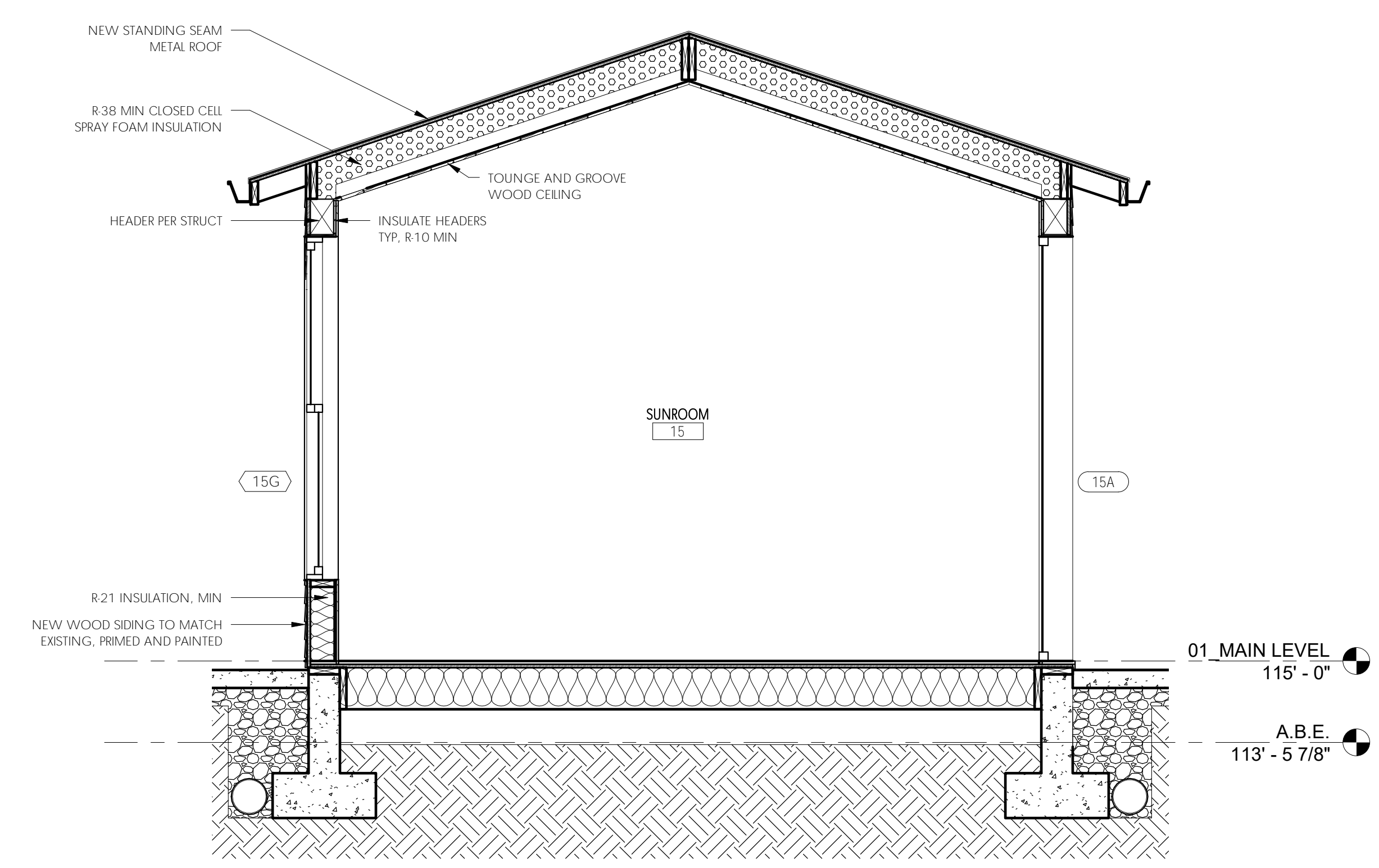


**5** NORTH ELEVATION  
1/4" = 1'-0"

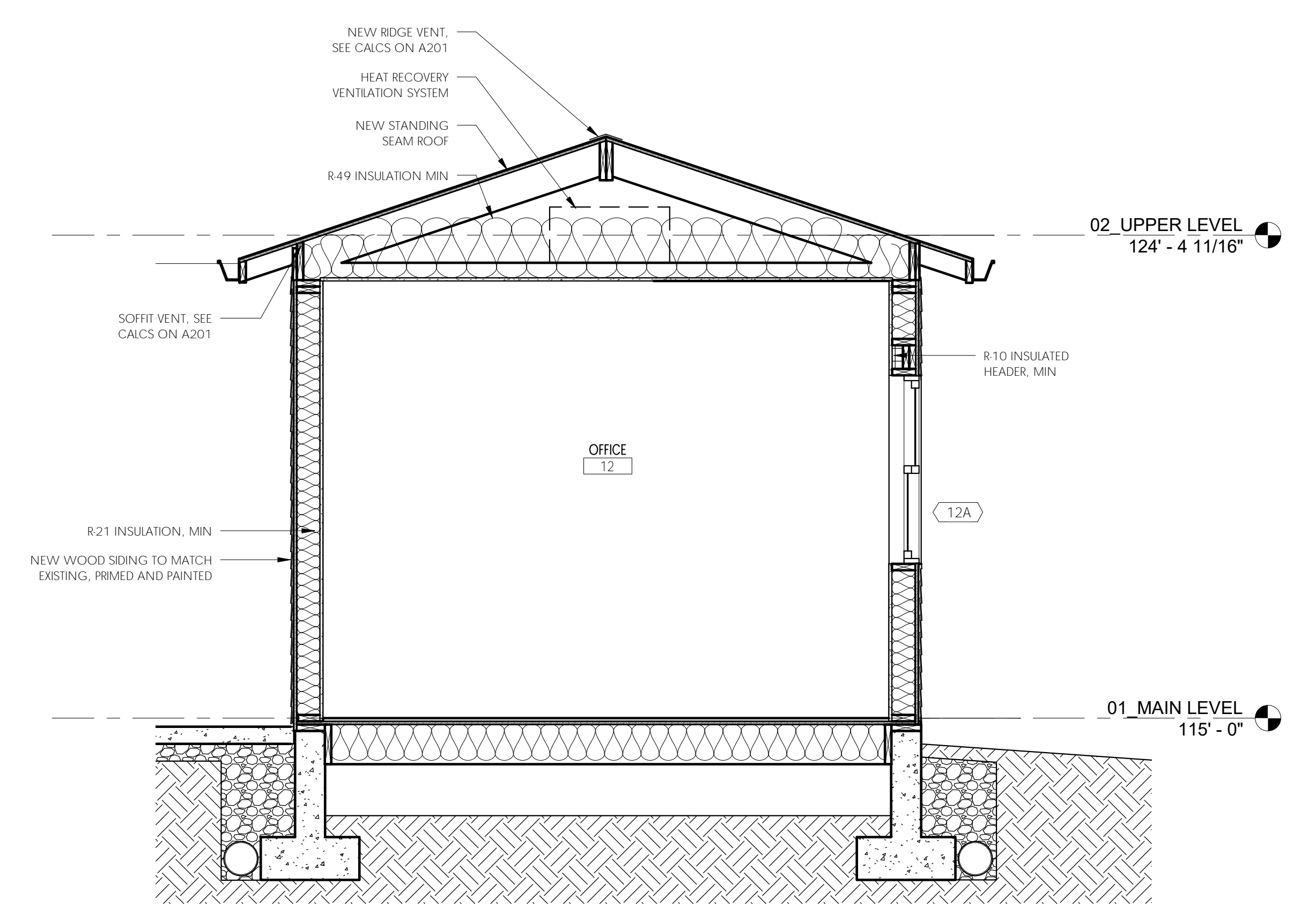


**6** EAST ELEVATION  
1/4" = 1'-0"

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



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



3 OFFICE SECTION  
 1/2" = 1'-0"

MILLER BLOOD RESIDENCE  
 2420 63RD AVE SE  
 MERCER ISLAND, WA 98040

SECTIONS

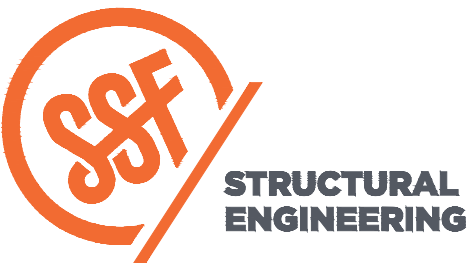
REVISIONS

A400  
 PERMIT SET

2/23/2022  
 2:24:49 PM

As indicated

RAIN  
 CITY ARCHITECTURE



2124 Third Avenue - Suite 100 - Seattle, WA 98101  
P: 206.443.6212  
ssfengineers.com

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

Copyright 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022. All Rights Reserved.



DESIGN:	DMR
DRAWN:	NHD / ABH
CHECKED:	BDM
APPROVED:	BDM

REVISIONS:


DATE:


PROJECT TITLE:

**Miller Blood Residence**  
2420 63rd Ave SE  
Mercer Island, WA 98040

ARCHITECT:

**Rain City Architecture**  
clint@raincityarchitecture.com

PH 206.636.1163

ISSUE:

**PERMIT**

SHEET TITLE:

**General Structural Notes**

SCALE:

DATE: **November 17, 2021**

PROJECT NO: **11947-2021-02**

SHEET NO:

**S1.1**

### General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

#### STEEL

- 26. 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.
- 27. 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.
- 28. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
- 29. 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.
- 30. 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.
- 31. 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.
- 32. 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.

#### CONCRETE

- 15. 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.
- 16. 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.
- 17. 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.
- 18. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 318R-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.

#### WOOD

- 33. 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 WMPA 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
- 34. 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.
- 35. 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

#### RENOVATION

- 12. DEMOLITION: 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. 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.
- 13. 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. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER IF EXISTING CONDITIONS DETERMINED DURING WORK VARY FROM THE EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS.
- 14. CONTRACTOR SHALL CHECK FOR DRY ROT AT ALL AREAS OF NEW WORK. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

#### 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 LIVE LOAD	25 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=20 PSF
WIND	Gcpi=0.18, 100 MPH, RISK CATEGORY II, EXPOSURE "B"
EARTHQUAKE	ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS, SITE CLASS=0,	
Ss=1.40, Sds=1.12, S1=0.49, SD1=0.59, Cs=0.172	
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.

#### GEOTECHNICAL

- 10. 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.
- PILE CAPACITY (COMPRESSION) . . . . . 3T
- SOILS REPORT REFERENCE:
 

FOUNDATION & CRITICAL AREA CONSIDERATIONS	
JN 21452	
2420 63RD AVE SE	
MERCER ISLAND, WA	
- PREPARED BY:
 

GEOTECH CONSULTANTS INC.	ON NOV 11, 2021
--------------------------	-----------------
- 11. PIN PILES SHOWN ON THE PLAN SHALL BE 2" DIAMETER EXTRA-STRONG, GRADE A, GALVANIZED, UNLESS OTHERWISE NOTED. THE MAXIMUM CAPACITY OF 2" PILES SHALL BE 3 TONS. ALL PILES SHALL BE DRIVEN TO REFUSAL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. AS A MINIMUM, PILE REFUSAL SHALL BE DEFINED AS 1 INCH OF PENETRATION IN 60 SECONDS DURING CONTINUOUS DRIVING OF A 90 LB JACK HAMMER UNDER THE FULL WEIGHT AND EFFORT OF THE OPERATOR. PILES USED IN COMMON TO RESIST LATERAL EARTH PRESSURES SHALL HAVE THE ADDITIONAL REQUIREMENT OF BEING EMBEDDED A MINIMUM OF 10 FEET BELOW RETAINED GRADE. THE MAXIMUM PILE ECCENTRICITY SHALL BE 2 INCHES. GEOTECHNICAL SPECIAL INSPECTION SHALL BE SUBJECT TO THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND THE BUILDING DEPARTMENT. SEE PLANS FOR OTHER SIZES AND CRITERIA.

**REVIEWED FOR CODE COMPLIANCE**  
 March 29, 2022

DESIGN: DMR  
 DRAWN: NHD / ABH  
 CHECKED: BDM  
 APPROVED: BDM

REVISIONS:

DPD:

PROJECT TITLE:  
**Miller Blood Residence**  
 2420 63rd Ave SE  
 Mercer Island, WA 98040

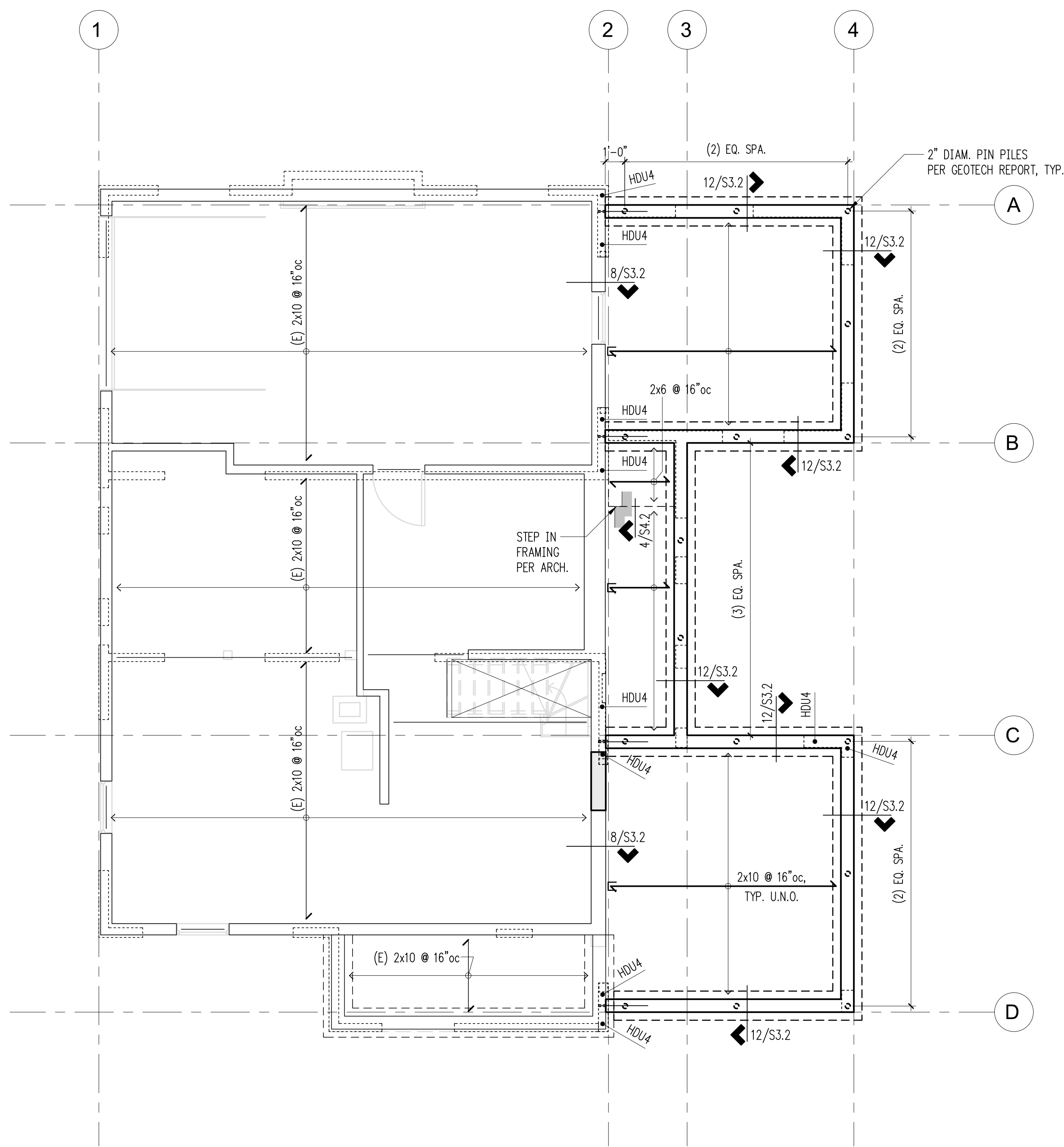
ARCHITECT:  
 Rain City Architecture  
 clint@raincityarchitecture.com  
 PH 206.636.1163

ISSUE:  
**PERMIT**

SHEET TITLE:  
**Main Floor Framing and Foundation Plans**

SCALE: 1/4" = 1'-0" U.N.O.  
 DATE: November 17, 2021  
 PROJECT NO: 11947-2021-02  
 SHEET NO:

**S2.1**



**Main Floor Framing Plan**

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

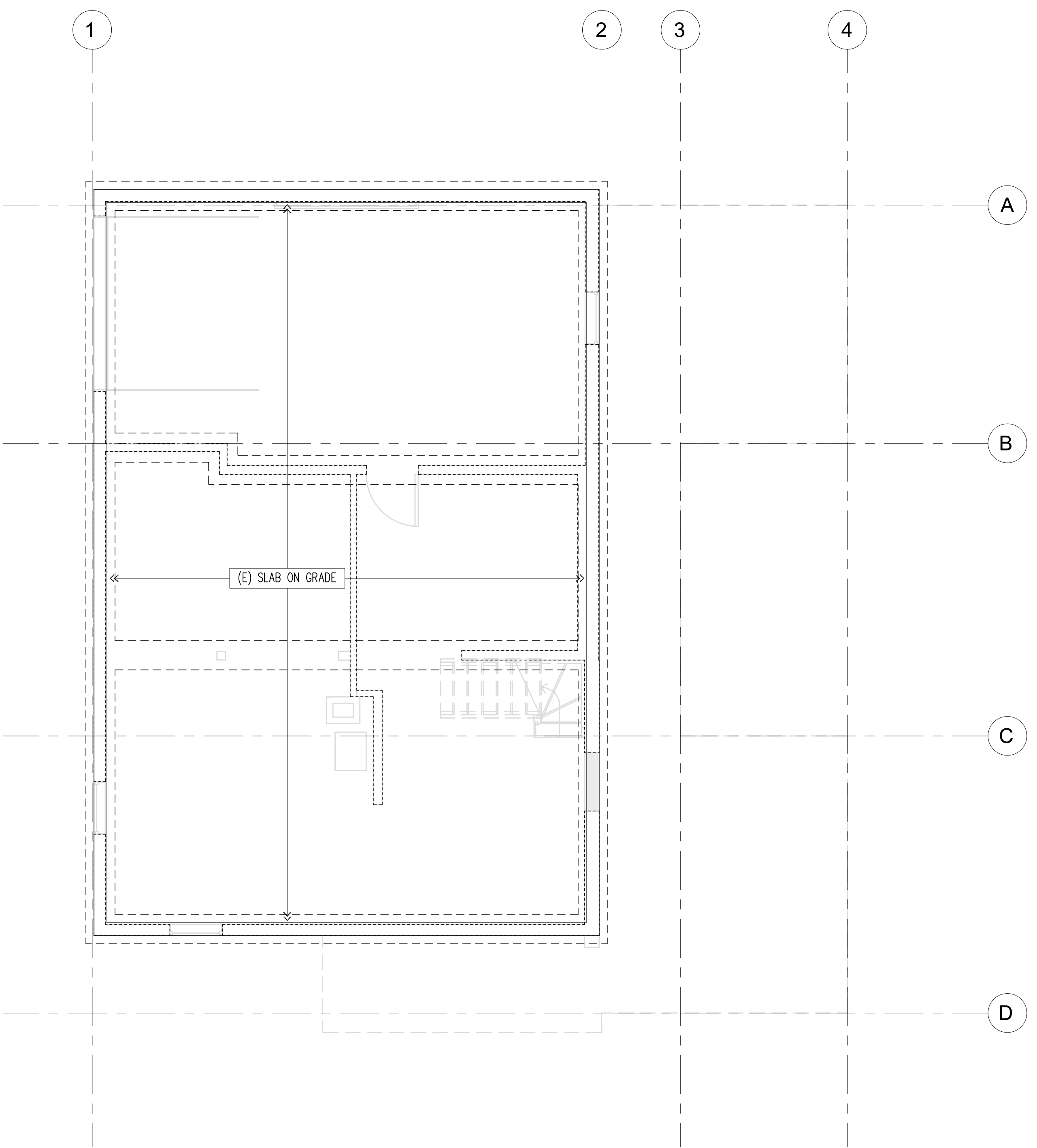


**Plan Notes**

- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- EXISTING FRAMING ON PLANS IS ASSUMED. CONTRACTOR TO VERIFY DIRECTIONS AND EXTENTS. NOTIFY ARCHITECT AND ENGINEER IF DIFFERENT.
- THE BOTTOM OF ALL NEW EXTERIOR FOOTINGS SHALL BE 18" MINIMUM BELOW EXTERIOR GRADE. ALL NEW POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE FULL CONTINUOUS BEARING THROUGH FLOORS TO FOUNDATION.
- TYPICAL NEW 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.
- NAIL NEW FLOOR SHEATHING W/ 8d @ 6" oc AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND @ 12" oc IN FIELD.
- PROVIDE BLOCKING/BRIDGING @ 8'-0" oc IN NEW FLOOR FRAMING
- PROVIDE (2) BEARING STUDS AT EACH END OF ALL NEW HEADERS AND BEAMS OVER 3'-0" IN LENGTH, U.O.N.
- PROVIDE AC, ACE, PC, EPC, LPC, OR LCE COLUMN CAP AND BASE AT ALL NEW BEAM TO COLUMN CONNECTIONS U.O.N.

**Legend**

- NEW STRUCTURAL WALL OR POST BELOW
- NEW STRUCTURAL WALL OR POST ABOVE
- EXISTING STRUCTURAL WALL OR POST ABOVE
- NON-STRUCTURAL WALL BELOW
- EXISTING WALL OR POST BELOW
- EXISTING STEM WALL & FOOTING
- NEW STEM WALL & FOOTING
- SHEARWALL PER 12/S4.1
- SPAN DIRECTION
- EXTENT OF JOISTS
- NEW HEADER/BEAM PER PLAN
- EXISTING HEADER/BEAM
- HOLDOWN PER 12/S3.1
- 2" PIN PILES PER GEOTECH REPORT
- CHANGE IN ELEVATION



**Foundation Plan**

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



**Plan Notes**

- NO WORK THIS LEVEL.
- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- EXISTING FRAMING ON PLANS IS ASSUMED. CONTRACTOR TO VERIFY DIRECTIONS AND EXTENTS. NOTIFY ARCHITECT AND ENGINEER IF DIFFERENT.

**Legend**

- NEW STRUCTURAL WALL OR POST ABOVE
- EXISTING STRUCTURAL WALL OR POST ABOVE
- EXISTING STEM WALL & FOOTING

DESIGN:	DMR
DRAWN:	NHD / ABH
CHECKED:	BDM
APPROVED:	BDM

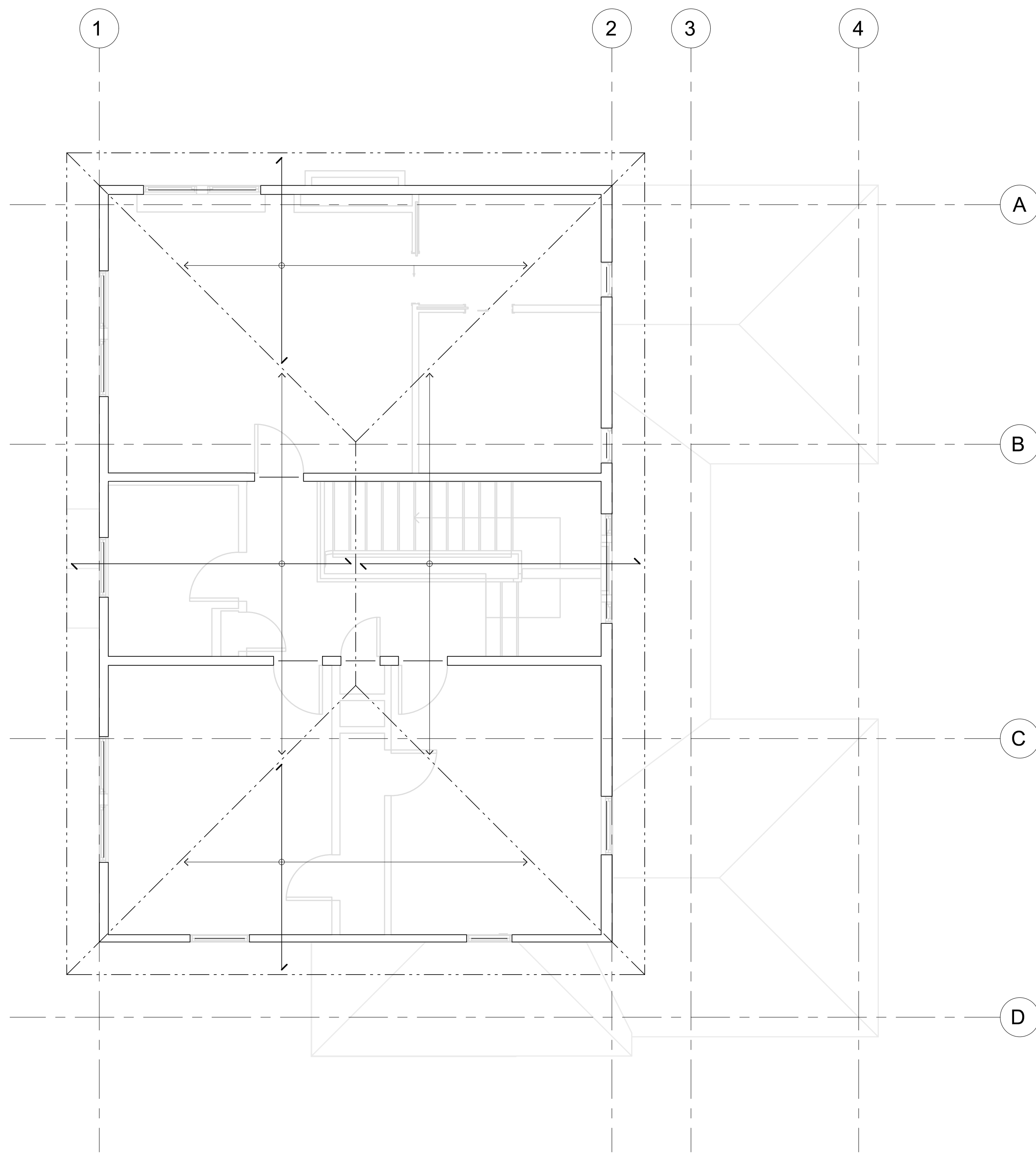
REVISIONS:


PROJECT TITLE:  
**Miller Blood Residence**  
 2420 63rd Ave SE  
 Mercer Island, WA 98040

ARCHITECT:  
**Rain City Architecture**  
 clint@raincityarchitecture.com  
 PH 206.636.1163

ISSUE:  
**PERMIT**

SHEET TITLE:  
**Roof and  
 Upper Floor  
 Framing Plans**  
 SCALE: 1/4" = 1'-0" U.N.O.  
 DATE: November 17, 2021  
 PROJECT NO: 11947-2021-02  
 SHEET NO:



**Roof Framing Plan**

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

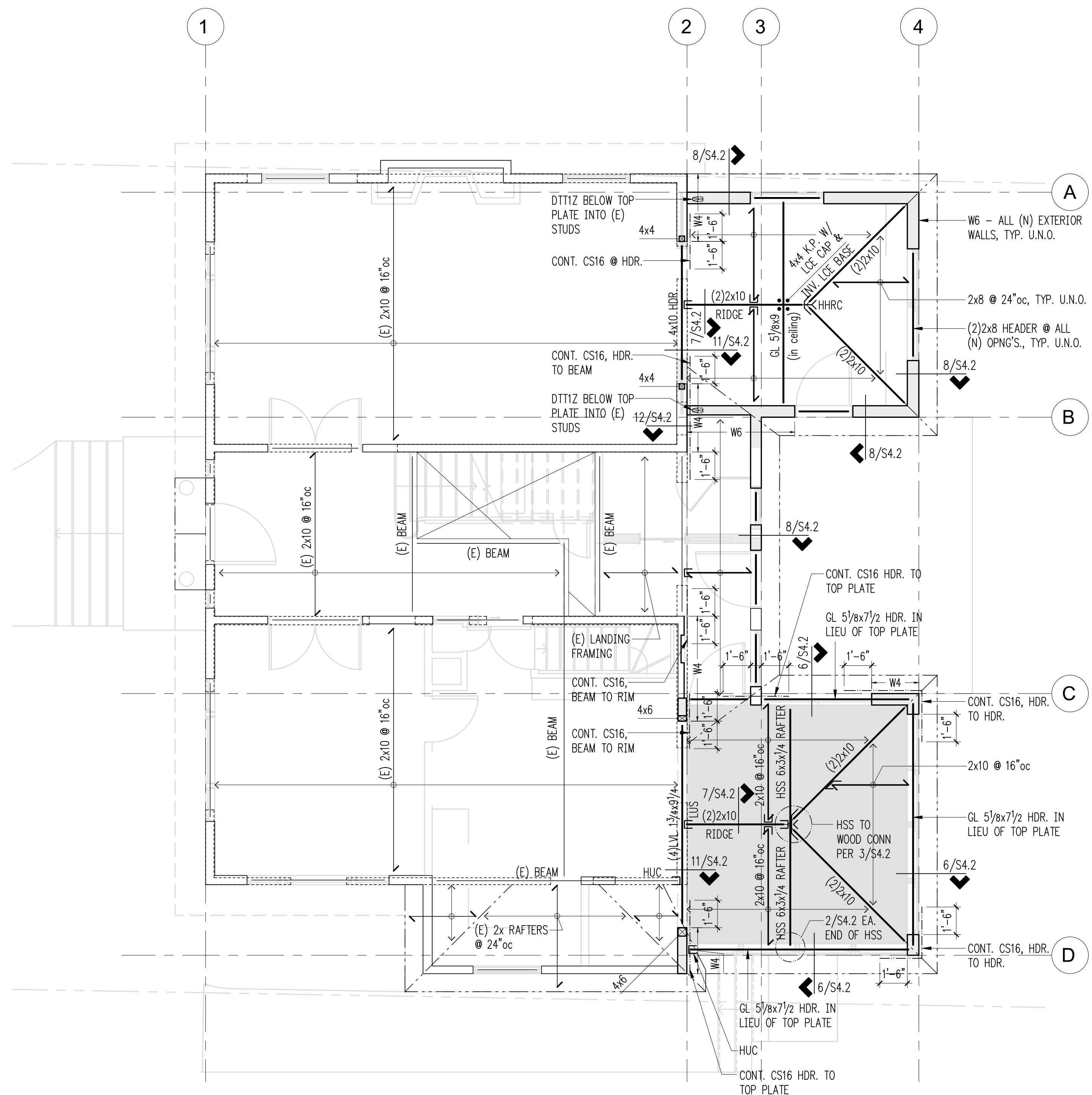


Plan Notes

- NO WORK THIS LEVEL.
- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- EXISTING FRAMING ON PLANS IS ASSUMED. CONTRACTOR TO VERIFY DIRECTIONS AND EXTENTS. NOTIFY ARCHITECT AND ENGINEER IF DIFFERENT.

Legend

- NON-STRUCTURAL WALL BELOW
- EXISTING WALL OR POST BELOW
- SPAN DIRECTION
- EXTENT OF JOISTS
- EXISTING HEADER/BEAM



**Upper Floor/Low Roof Framing Plan**

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

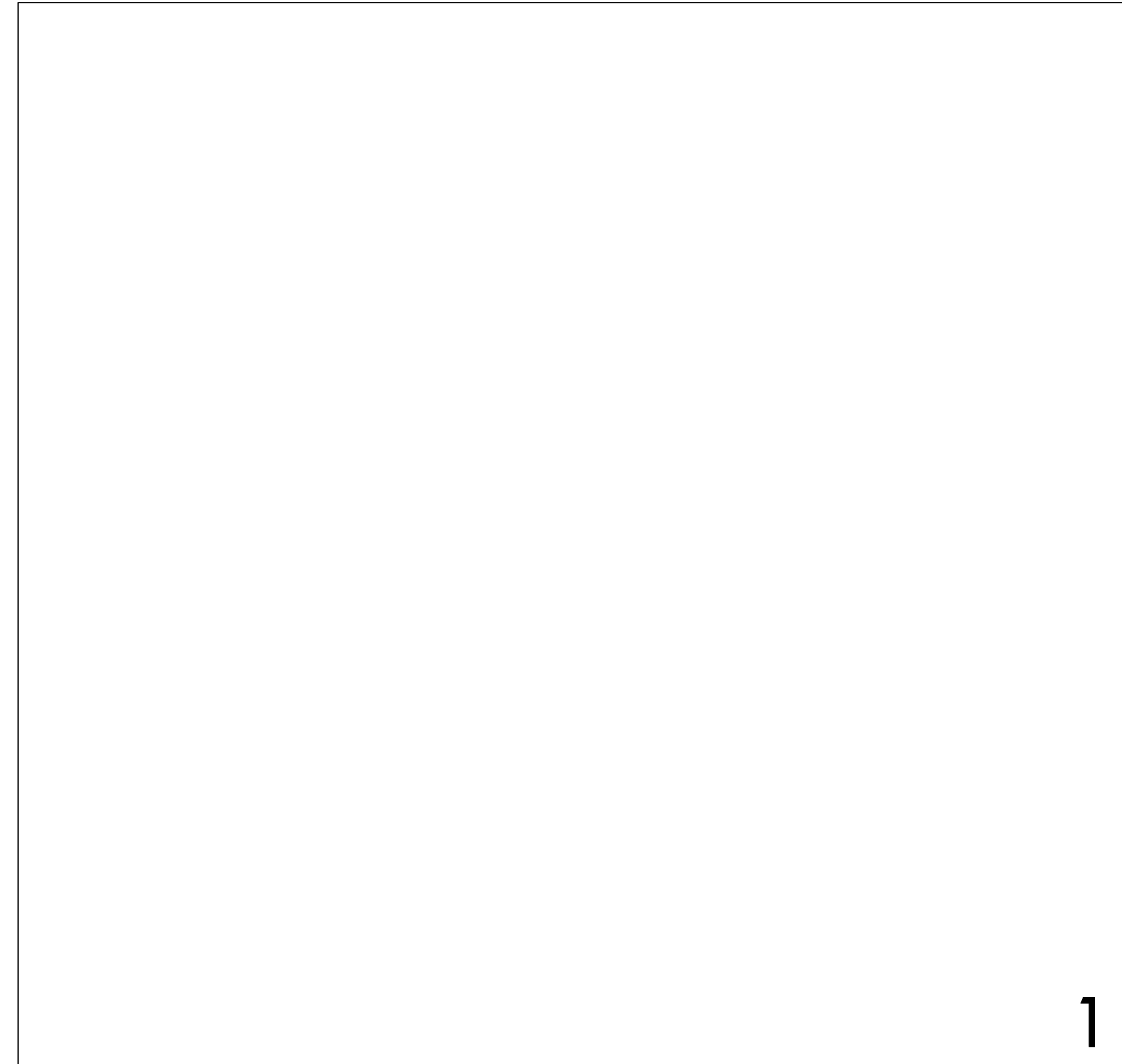


Plan Notes

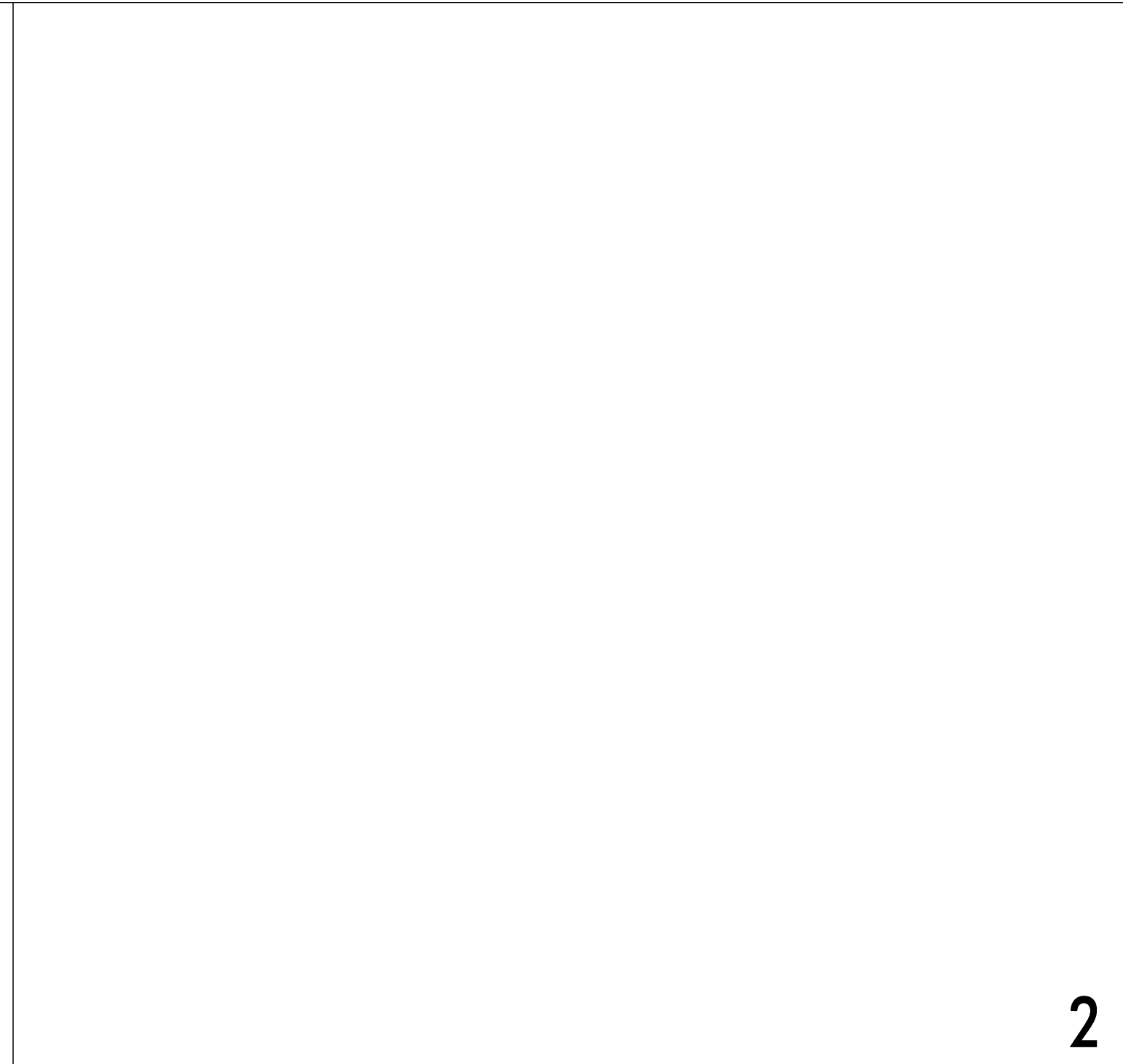
- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
- EXISTING FRAMING ON PLANS IS ASSUMED. CONTRACTOR TO VERIFY DIRECTIONS AND EXTENTS. NOTIFY ARCHITECT AND ENGINEER IF DIFFERENT.
- "W\_" INDICATES NEW PLYWOOD SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE FOR WALL ATTACHMENTS. ALL NEW EXTERIOR WOOD FRAMED WALLS ARE W6, U.O.N.
- ALL NEW WOOD HEADERS SHALL BE (2)2x8, U.O.N.
- PROVIDE (2) BEARING STUDS AT EACH END OF ALL NEW HEADERS AND BEAMS OVER 3'-0" IN LENGTH, U.O.N.
- NEW 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%.
- PROVIDE AC, ACE, PC, EPC, OR LCE COLUMN CAP AND BASE AT ALL NEW BEAM TO COLUMN CONNECTIONS U.O.N.
- TYPICAL NEW 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.
- NAIL NEW ROOF SHEATHING WITH 8d @ 6"oc AT ALL FRAMED PANEL EDGES AND OVER SHEARWALLS, AND @ 12"oc FIELD.
- PROVIDE H1 AT ENDS OF ALL NEW ROOF FRAMING, U.O.N.

Legend

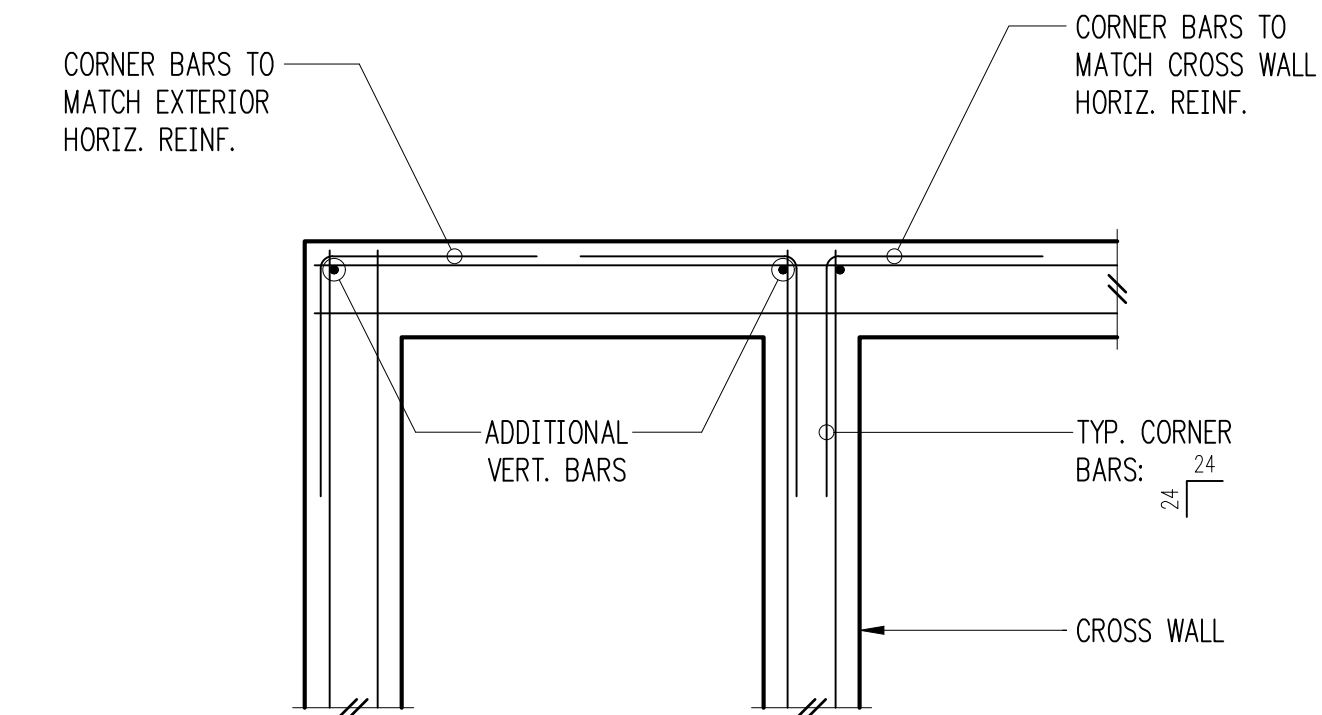
- NEW STRUCTURAL WALL OR POST BELOW
- EXISTING STRUCTURAL WALL OR POST ABOVE
- NON-STRUCTURAL WALL BELOW
- EXISTING WALL OR POST BELOW
- SHEARWALL PER 12/S4.1
- SPAN DIRECTION
- EXTENT OF JOISTS
- NEW HEADER/BEAM PER PLAN
- EXISTING HEADER/BEAM
- BLOCKED ROOF DIAPHRAGM: 2x4 FLAT BLKG. AT ALL PLYWOOD PANEL EDGES. NAIL ALL PLYWOOD PANEL EDGES W/ 8d @ 4"oc & @ 12"oc FIELD



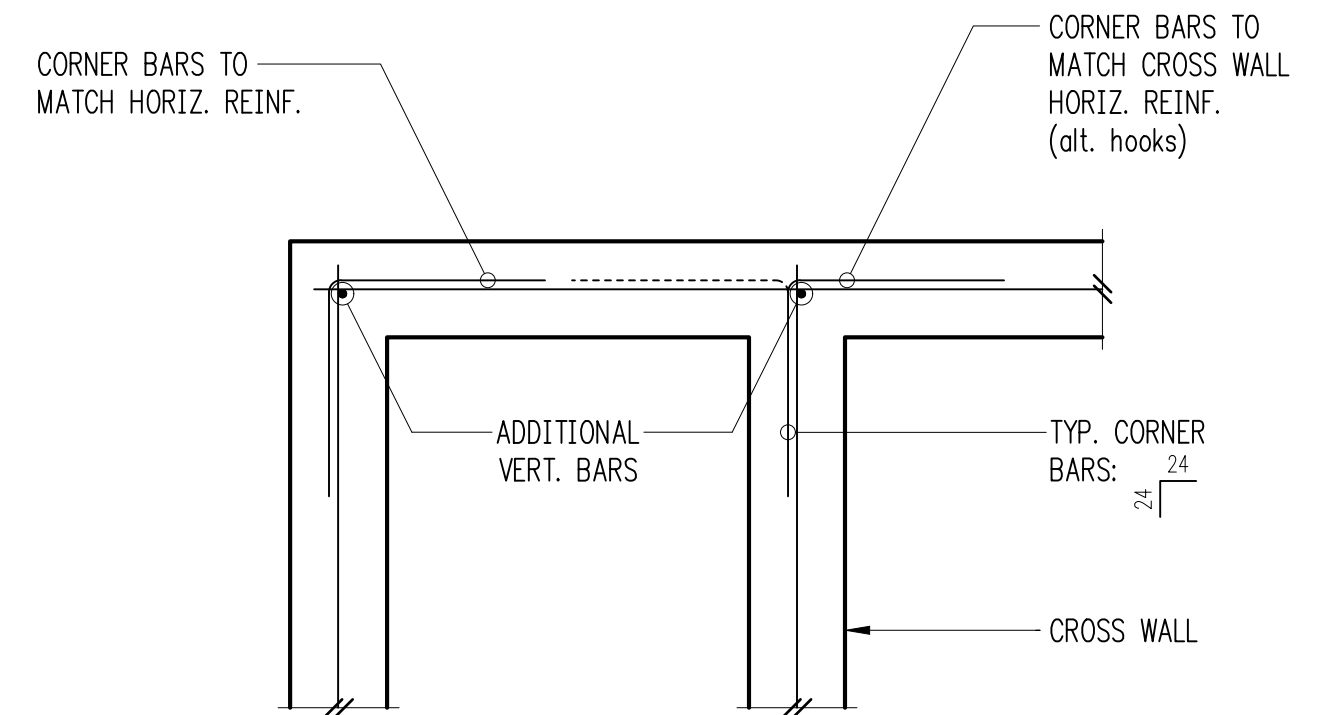
1



2



Double Curtain



Single Curtain

Typical Corner Bars at Concrete Walls and Footings

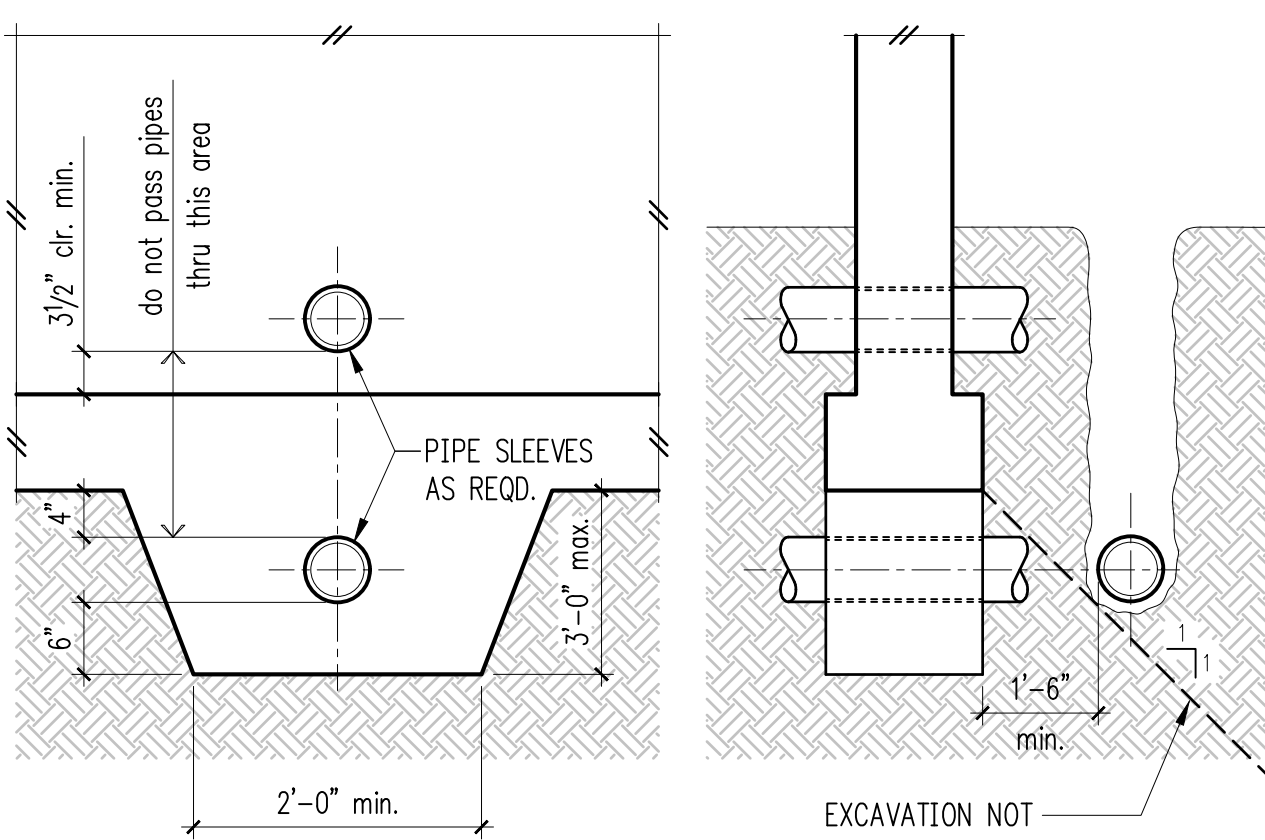
4



5



6



Pipe and Trench Locations

HOLDOWN POST PER SCHEDULE

EDGE NAIL PER SW SCHEDULE

HDU HOLDOWN

FRAMING CONT. WHERE OCCURS

SHEARWALL PER PLAN

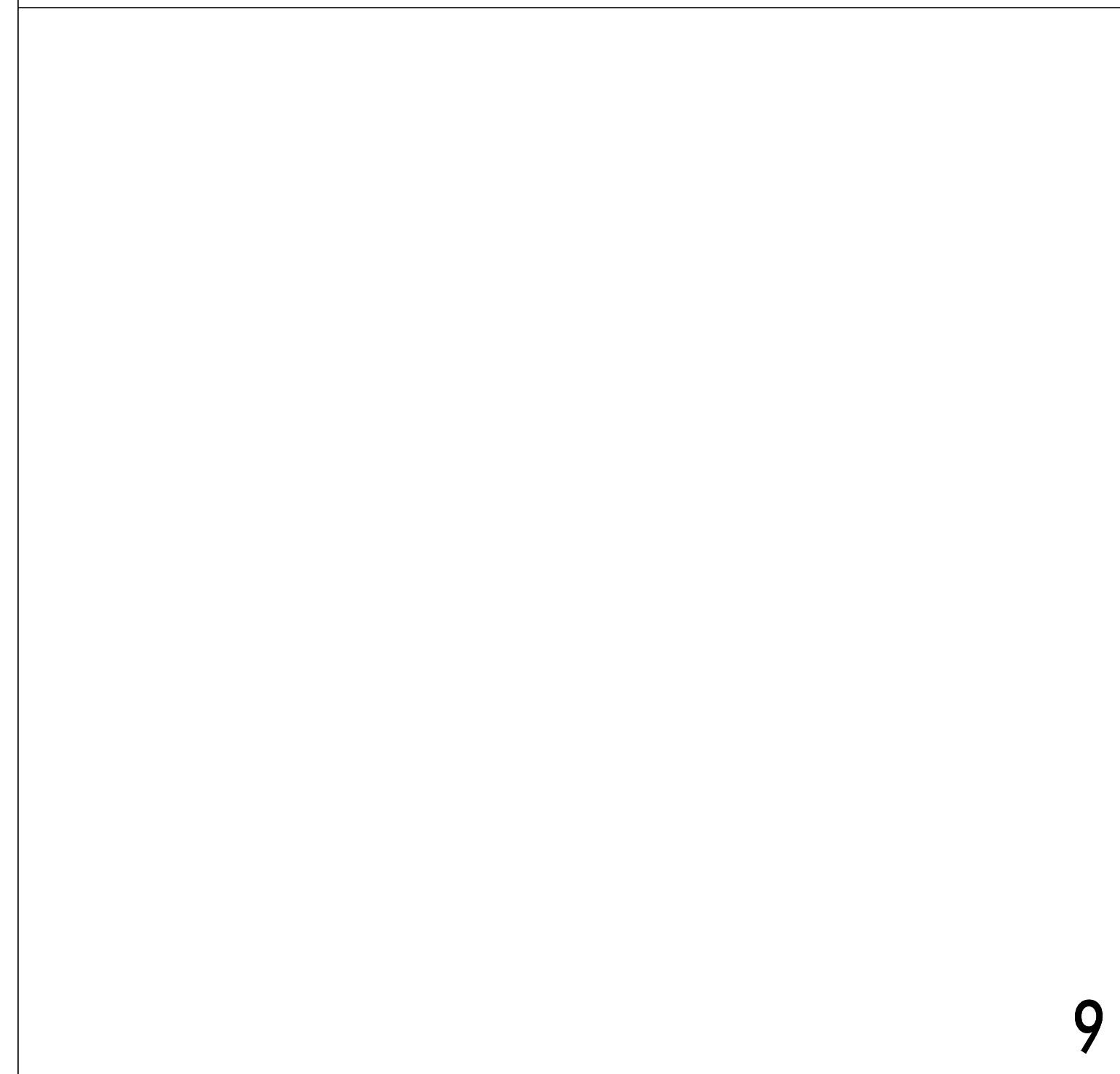
EPOXY EMBED ALL-THREAD PER SCHEDULE

Plan Mark	Screws	Anchor Bolt	A.B. Embed	Holddown Post ①	
				if 2x4	if 2x6
HDU2-SDS2.5	(6)SDS 1/4"x2 1/2"	5/8"Ø	12"	(2) 2x4	(2) 2x6
HDU4-SDS2.5	(10)SDS 1/4"x2 1/2"	5/8"Ø	16"	4x4	4x6
HDU5-SDS2.5	(14)SDS 1/4"x2 1/2"	5/8"Ø	20"	4x6	4x6
HDU8-SDS2.5	(20)SDS 1/4"x2 1/2"	7/8"Ø	24"	4x8	6x6
HDU11-SDS2.5	(30)SDS 1/4"x2 1/2"	1"Ø	24"	4x10	6x6
HDU14-SDS2.5	(36)SDS 1/4"x2 1/2"	1"Ø	24"	4x12	6x8

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

Typical HDU Holddown

8



9

TOP PLATE

TOP SLEEVE WELDED TO PIPE

NOTE: CUT OFF PILE AT APPROPRIATE ELEVATION IN FTG. & HAMMER CAP ONTO TOP OF PILE

PIPE PILE

COUPLING SLEEVE

COUPLING RING

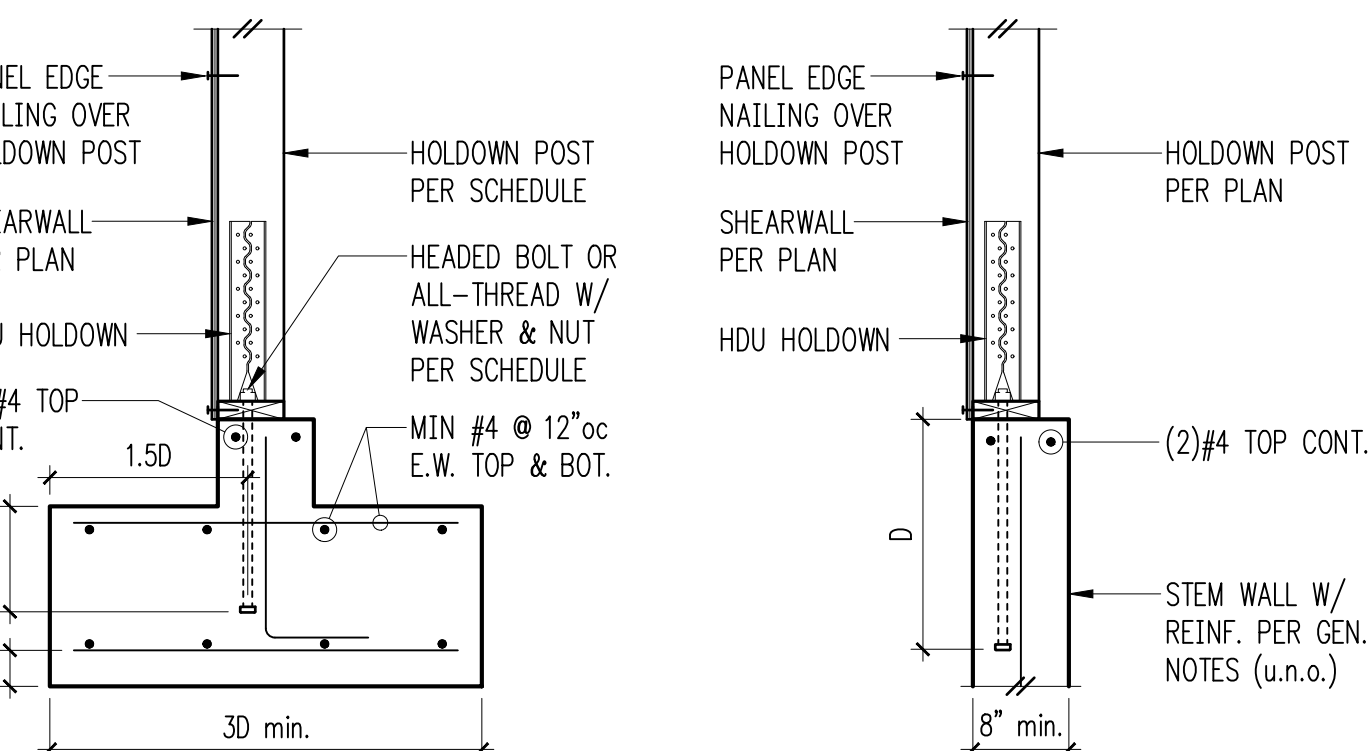
NOTE: SPLICE PIPE PILES BY HAMMERING COUPLER INTO END OF SECTION

PART	PIPE
PIPE	2" Sch 80 Pipe
	2.375" O.D.
TOP PLATE	.375"x4"x4" OR .50"x6"x6" (COMPRESSION FIT TOP PLATE)
TOP SLEEVE	1.5" SCH 40 x 5" ASTM A53 GRADE A PIPE (TOP SLEEVE)
PIPE	2" SCH 80 (.218") ASTM A53 GRADE A PIPE (TYP. 10.5' LENGTHS)
COUPLING SLEEVE	1.5" SCH 80 (.200") x 10" ASTM A53 GRADE A PIPE (COUPLING SLEEVE)
COUPLING RING	2" SCH 80 (.218") x 1.25" ASTM A53 GRADE A PIPE (COUPLING RING)

3" = 1'-0"

Typical Pipe Pile Assembly Schedule

10



Holddown Schedule

Plan Mark	Screws	Anchor Bolt	Min. A.B. Embed (D)		Holddown Post ①	
			Stem Wall	Footing	if 2x4	if 2x6
HDU2-SDS2.5	(6)SDS 1/4"x2 1/2"	5/8"Ø	12"	4"	(2) 2x4	(2) 2x6
HDU4-SDS2.5	(10)SDS 1/4"x2 1/2"	5/8"Ø	18"	6"	4x4	4x6
HDU5-SDS2.5	(14)SDS 1/4"x2 1/2"	5/8"Ø	S87/8x24	7"	4x4	4x6
HDU8-SDS2.5	(20)SDS 1/4"x2 1/2"	7/8"Ø	SSTB28	8"	4x6	6x6
HDU11-SDS2.5	(30)SDS 1/4"x2 1/2"	1"Ø	SB1x30	10"	4x8	6x6
HDU14-SDS2.5	(36)SDS 1/4"x2 1/2"	1"Ø	N/A	12"	4x8	6x6

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

Typical HDU Holddown

12

**REVIEWED FOR  
CODE COMPLIANCE**  
March 29, 2022

DESIGN: DMR  
DRAWN: NHD / ABH  
CHECKED: BDM  
APPROVED: BDM

REVISIONS:

DPD:

PROJECT TITLE:  
**Miller Blood Residence**  
2420 63rd Ave SE  
Mercer Island, WA 98040

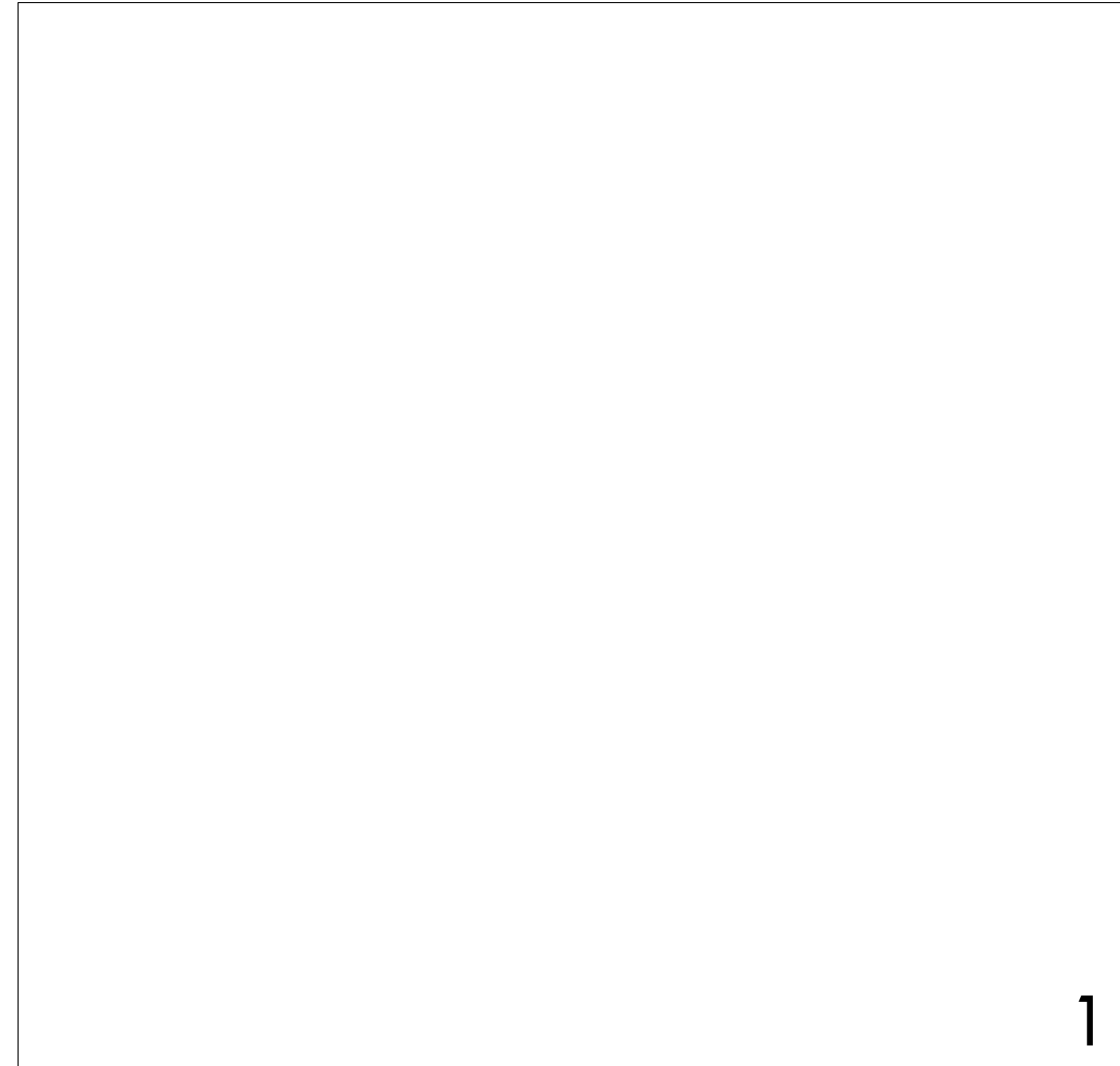
ARCHITECT:  
**Rain City Architecture**  
clint@raincityarchitecture.com  
PH 206.636.1163

ISSUE:  
**PERMIT**

SHEET TITLE:  
**Typical Concrete  
Details**

SCALE: 3/4" = 1'-0" U.N.O.  
DATE: November 17, 2021  
PROJECT NO: 11947-2021-02  
SHEET NO:

**S3.2**



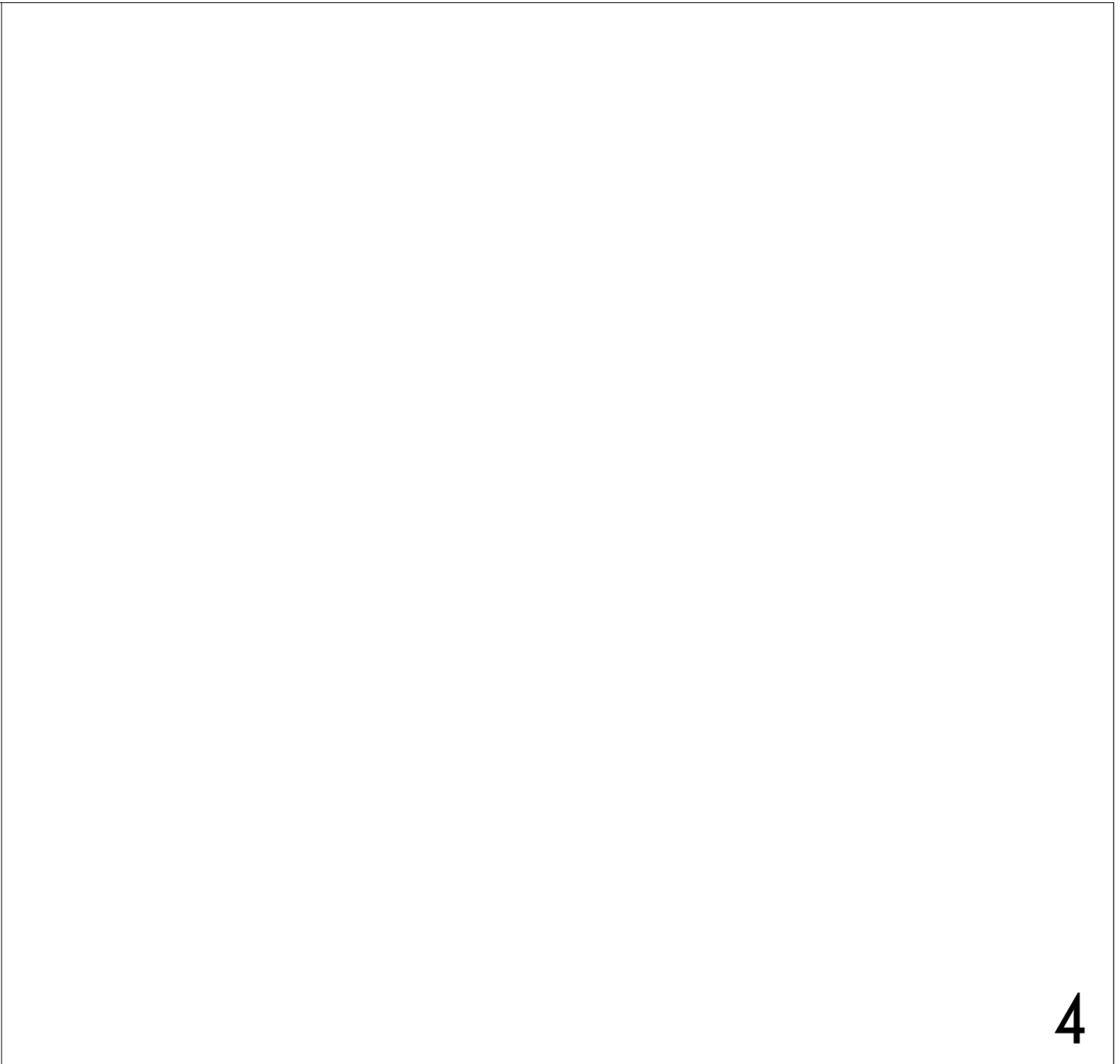
1



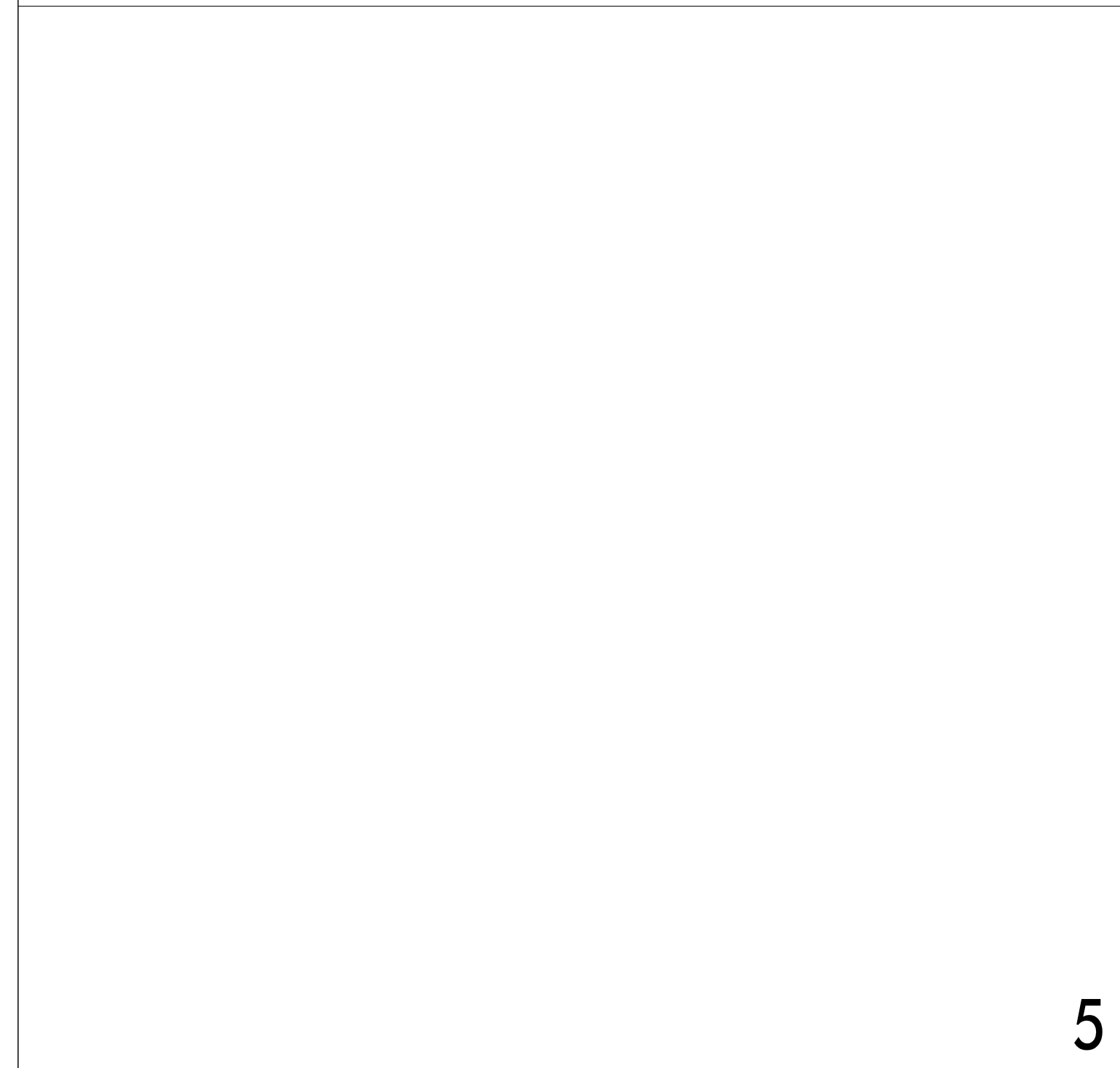
2



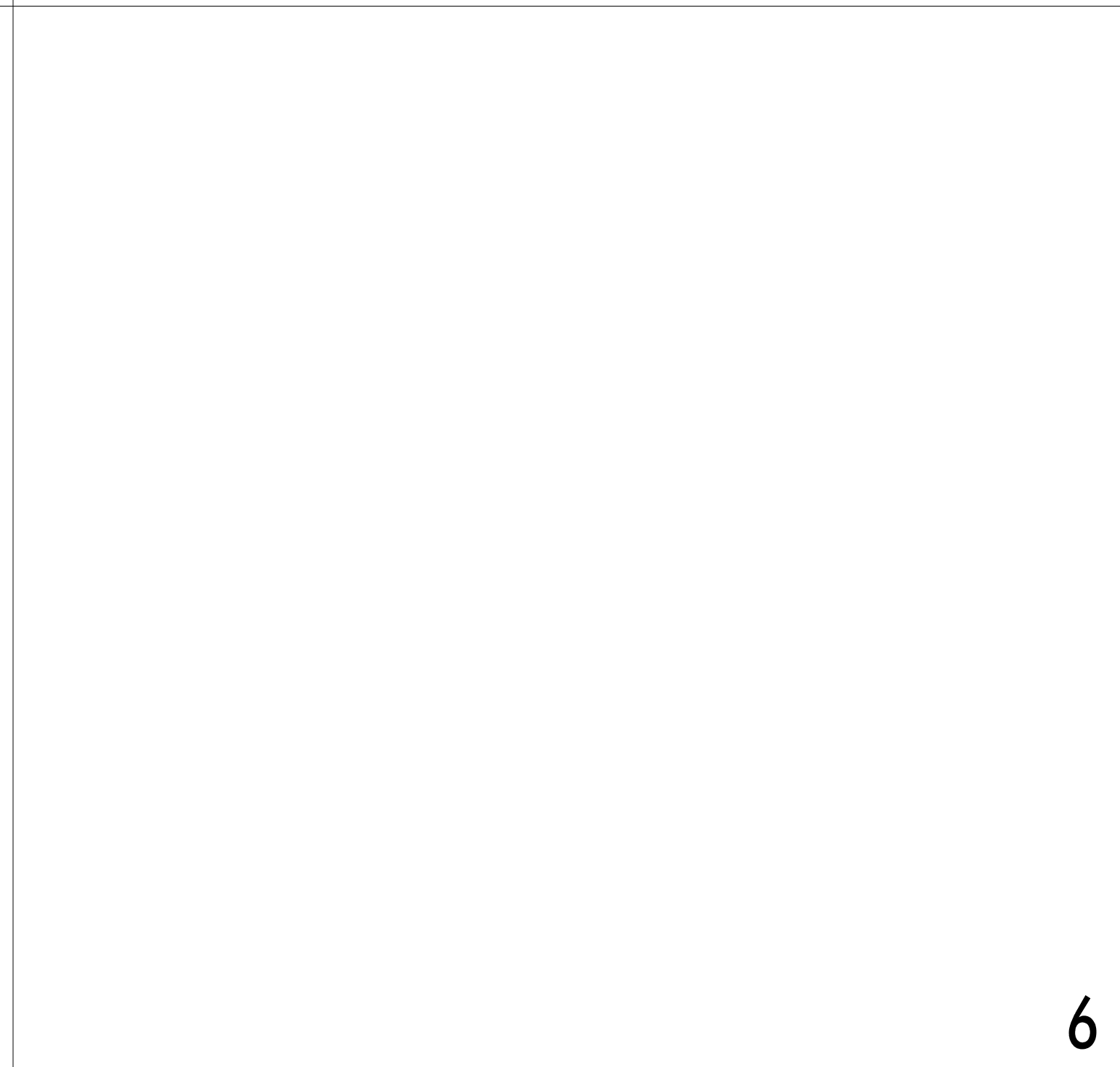
3



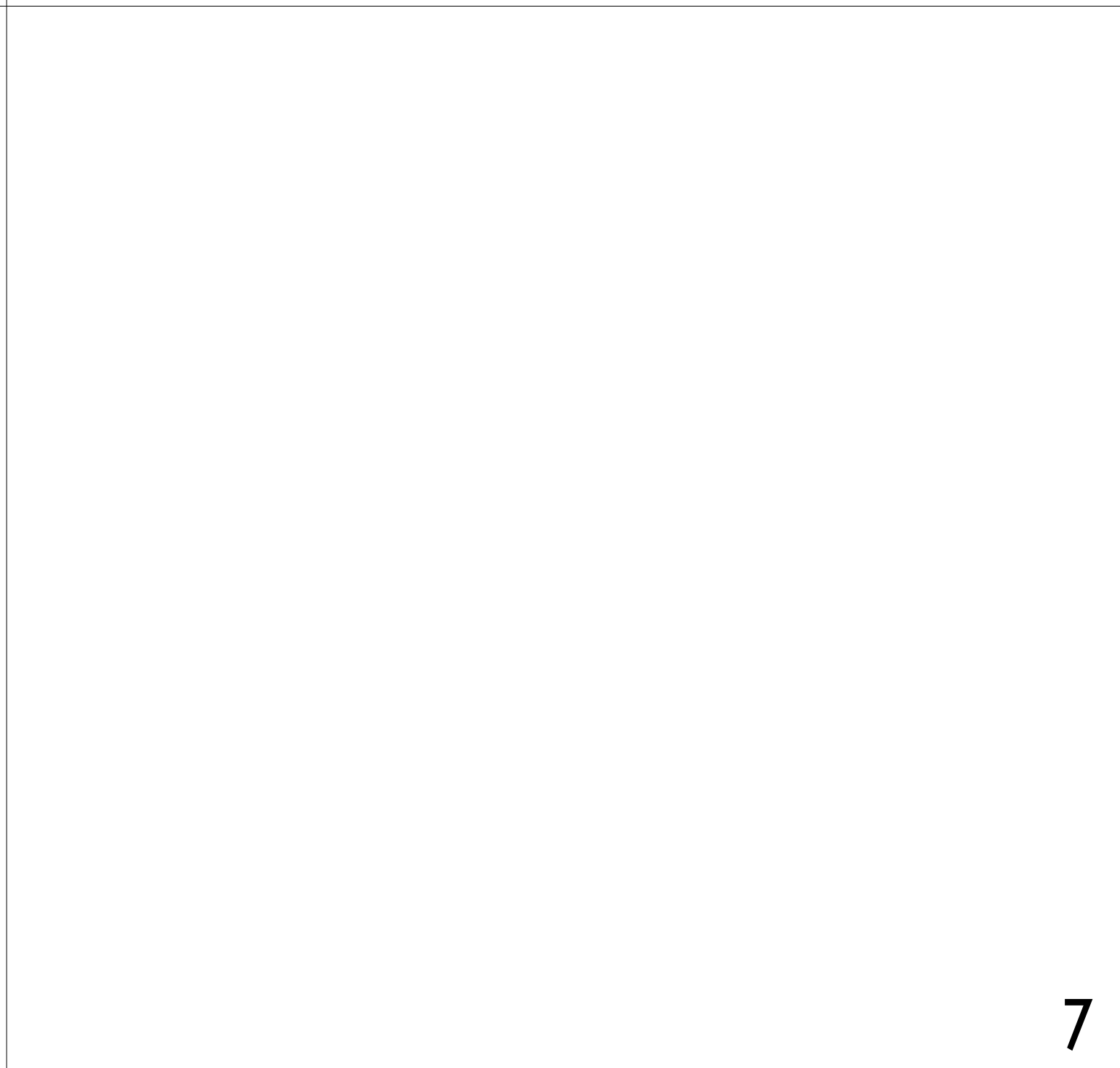
4



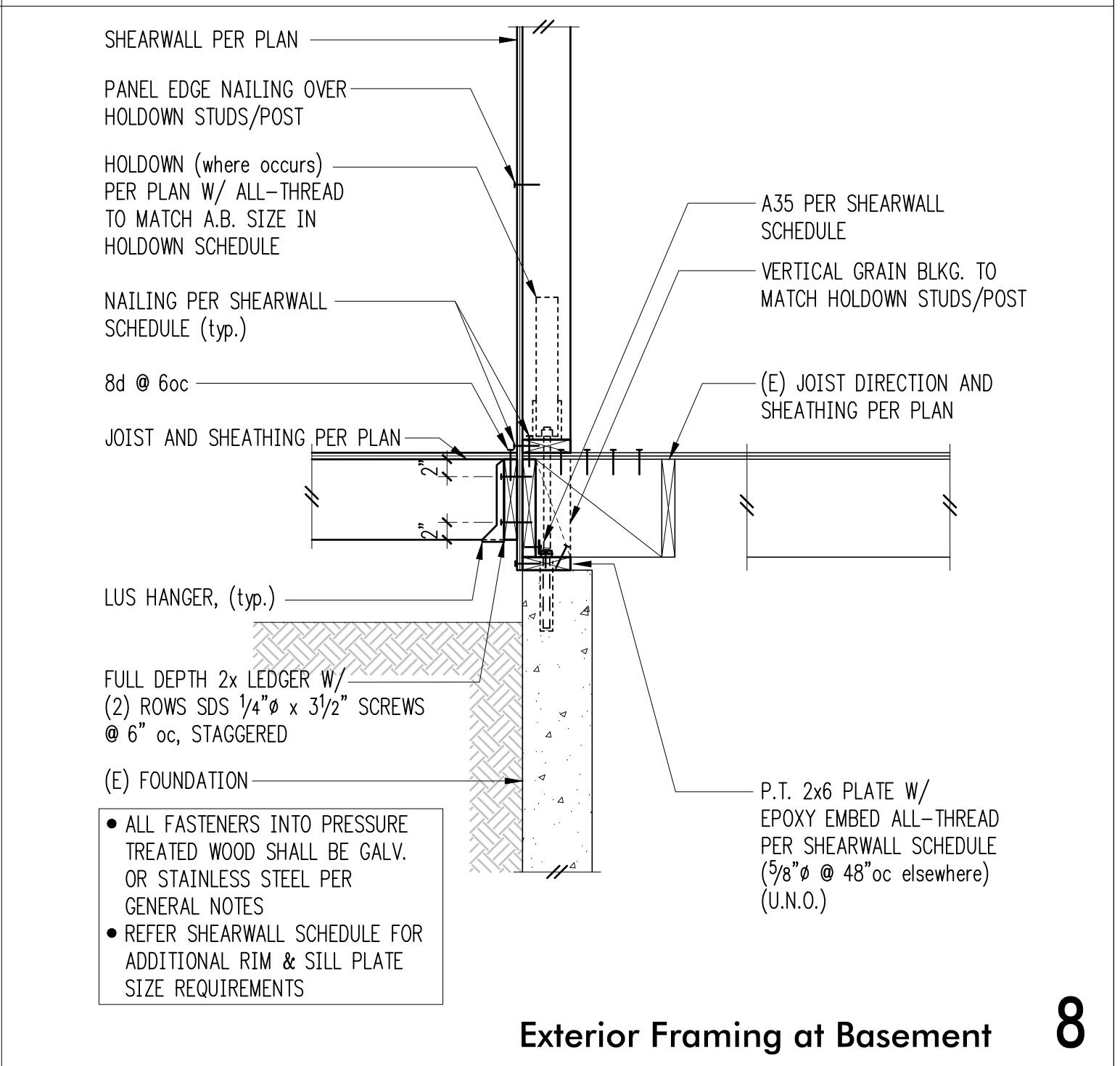
5



6



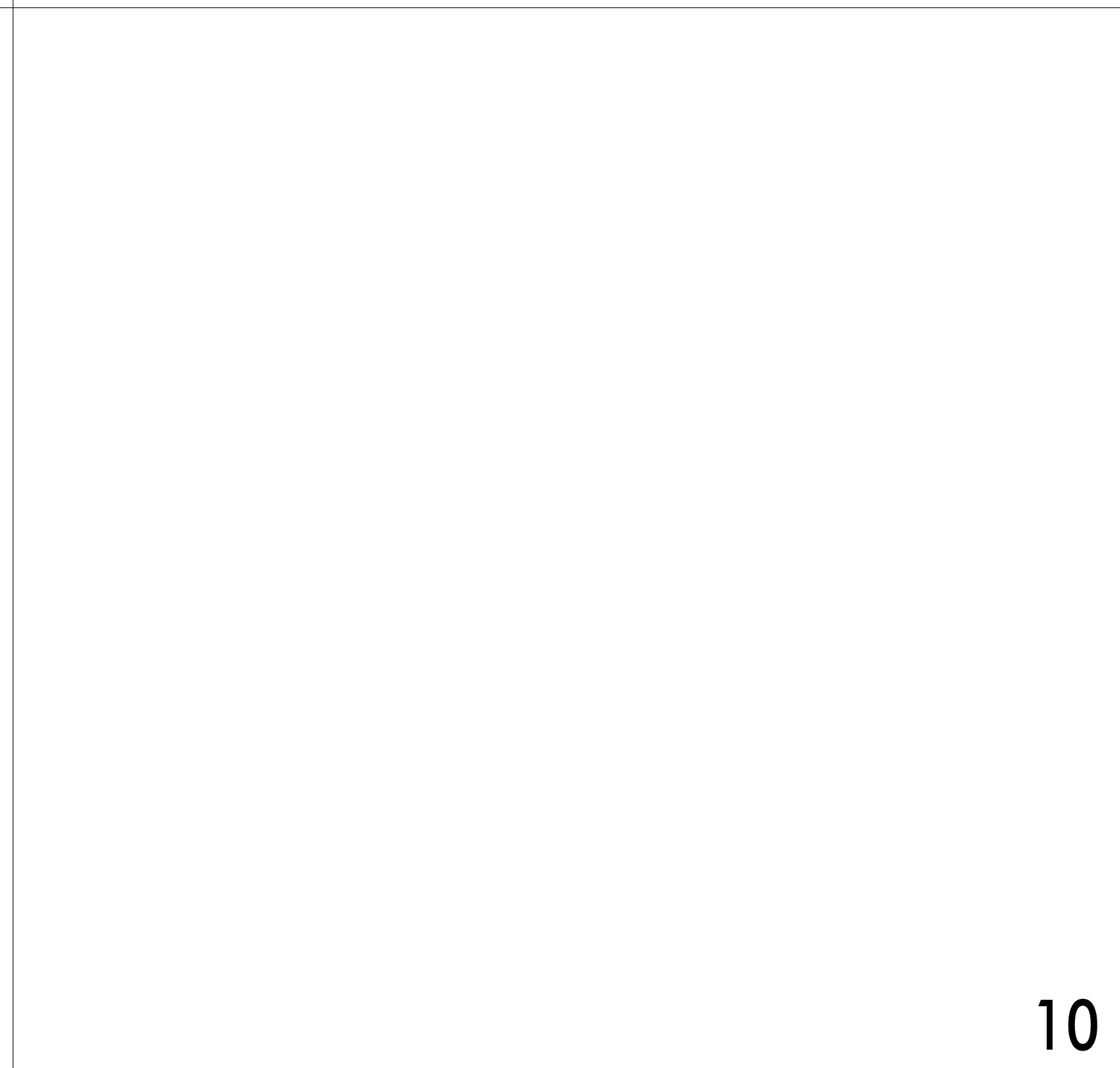
7



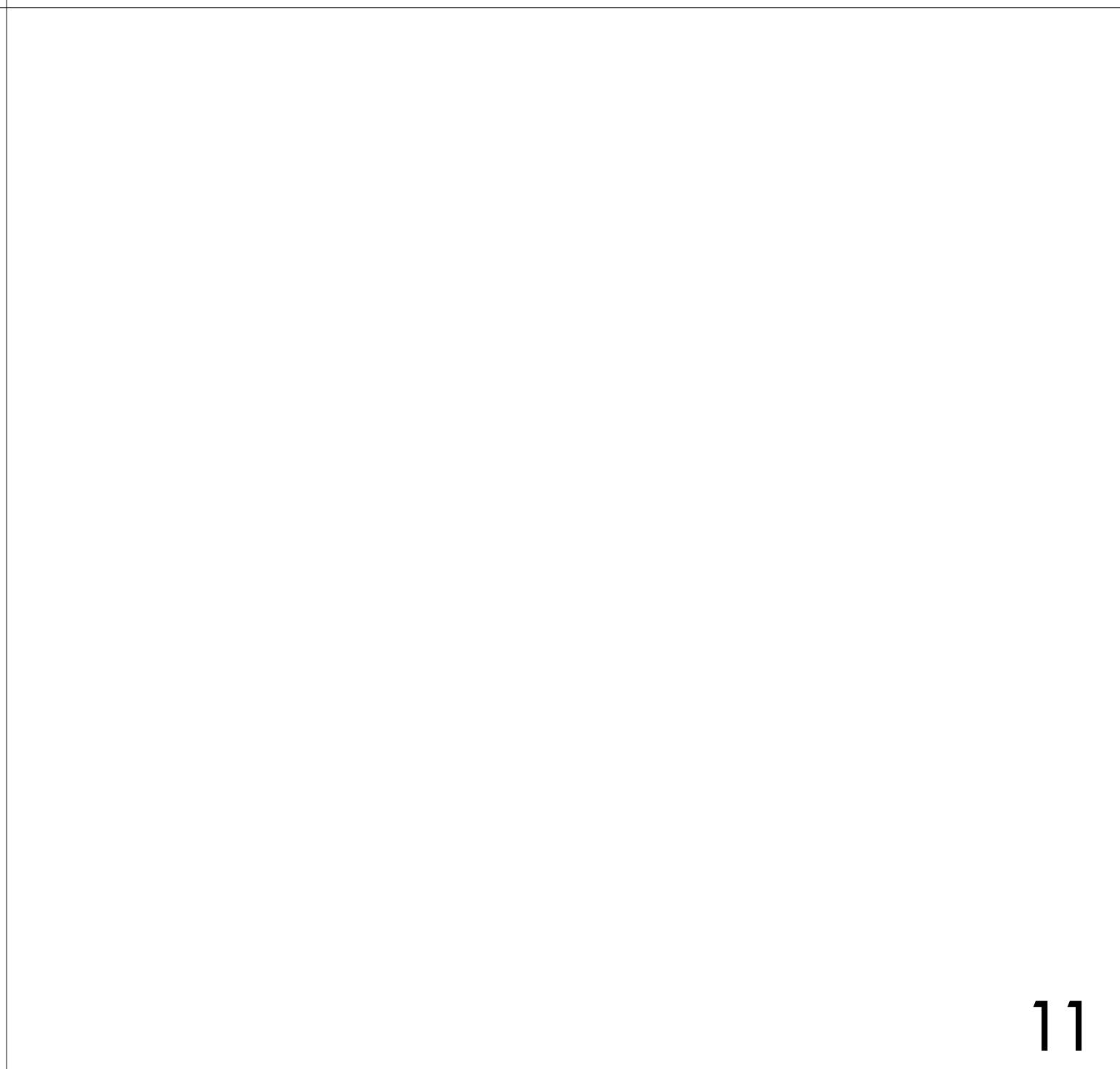
8



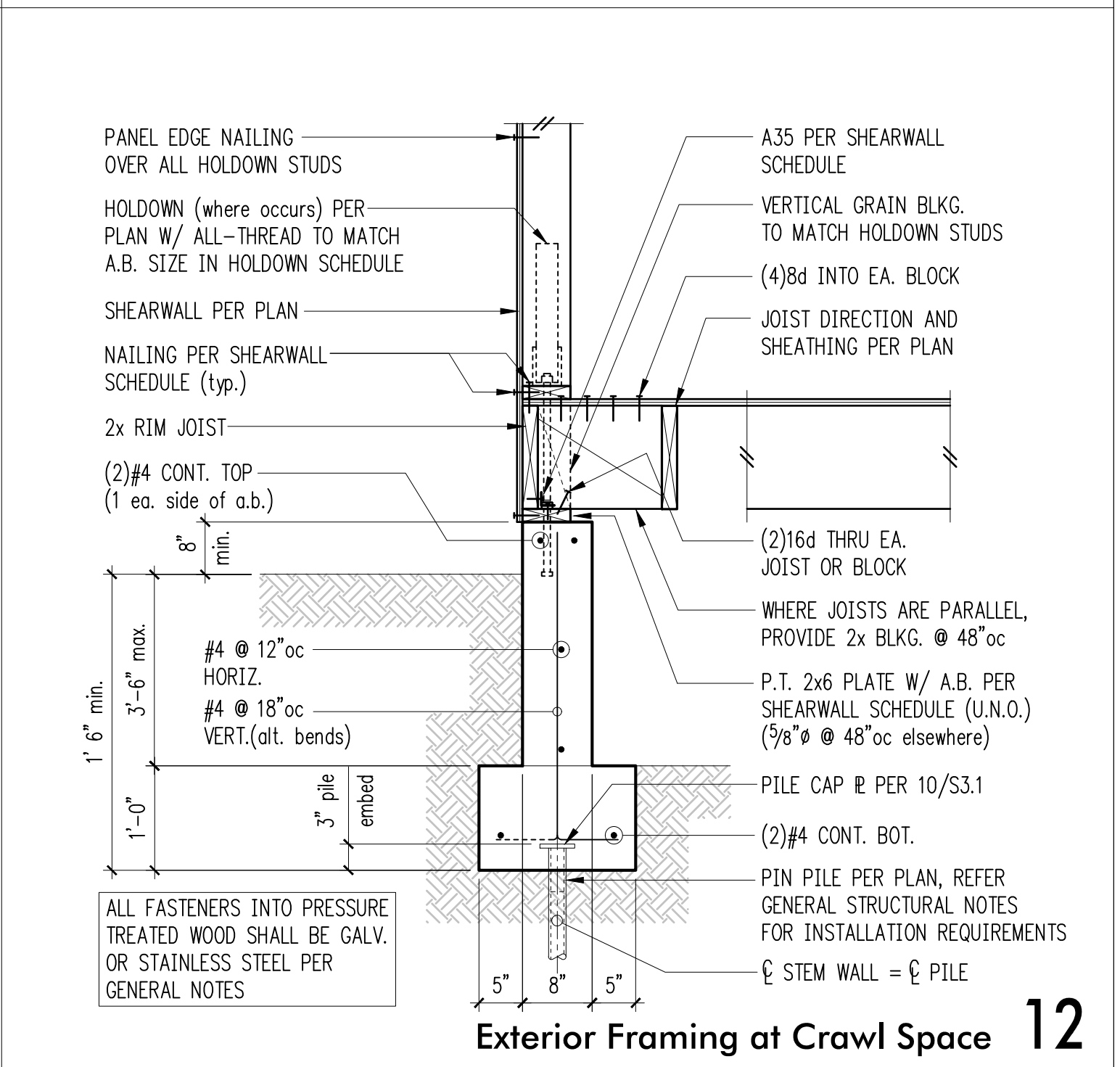
9



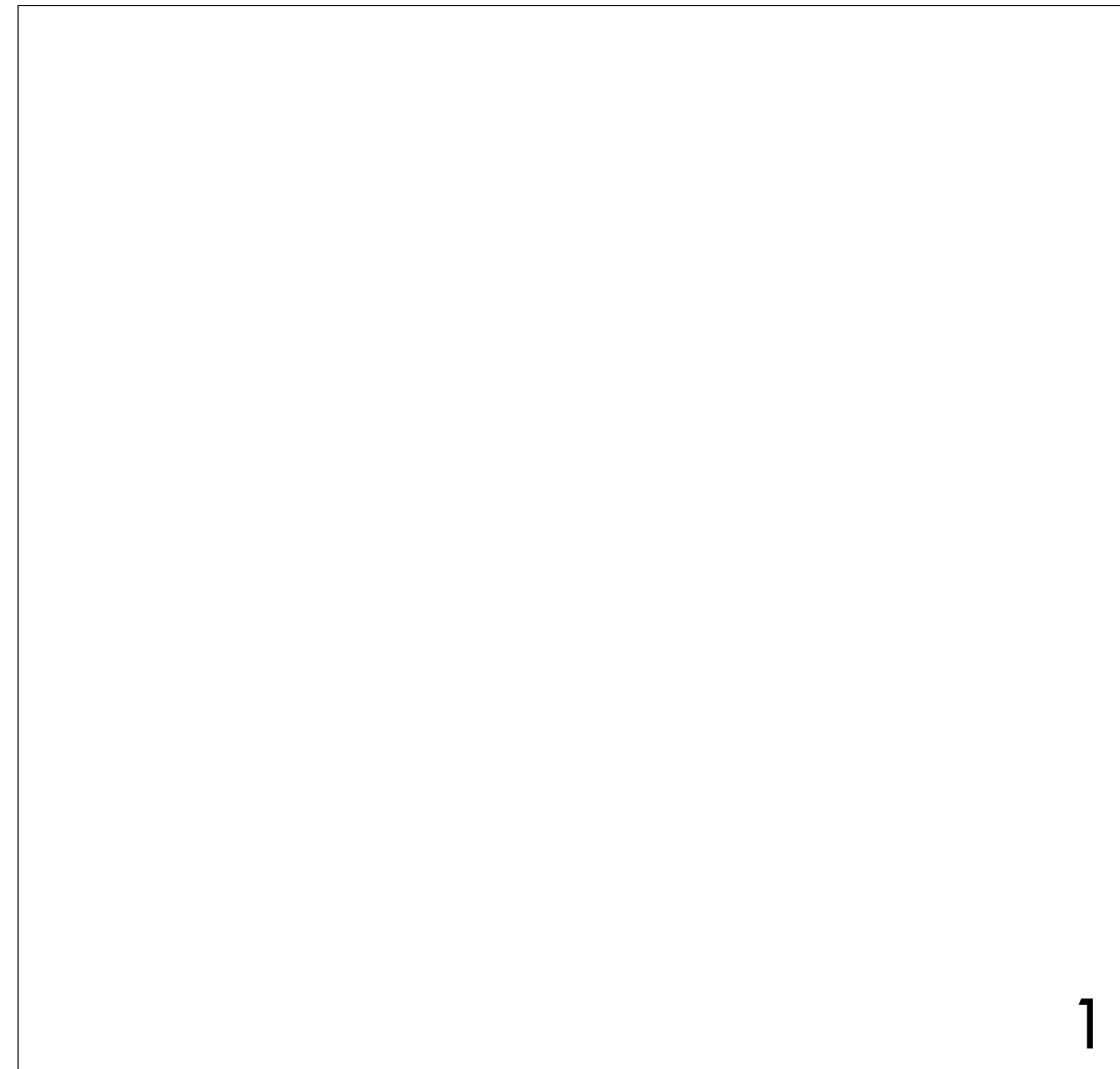
10



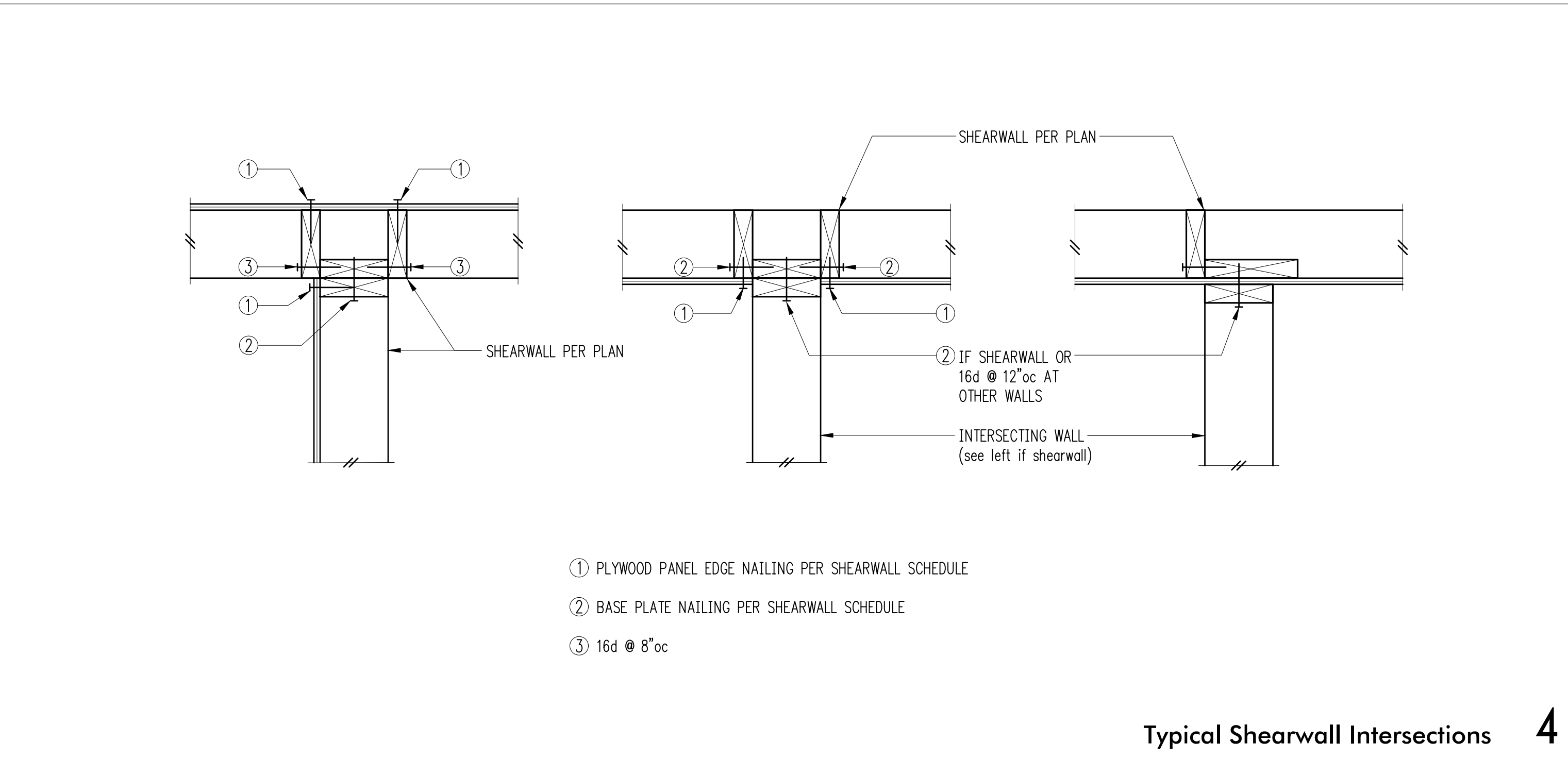
11



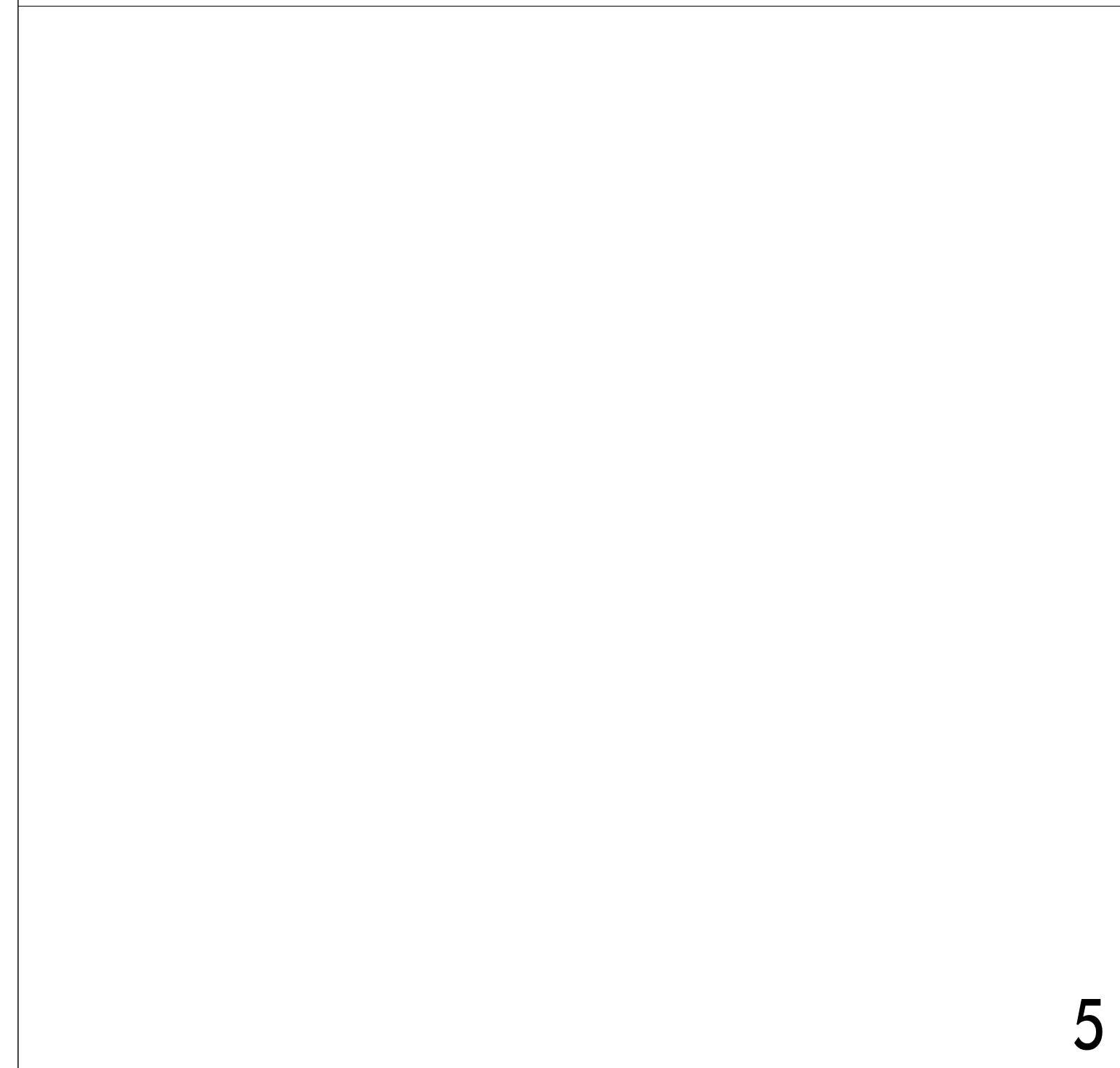
12



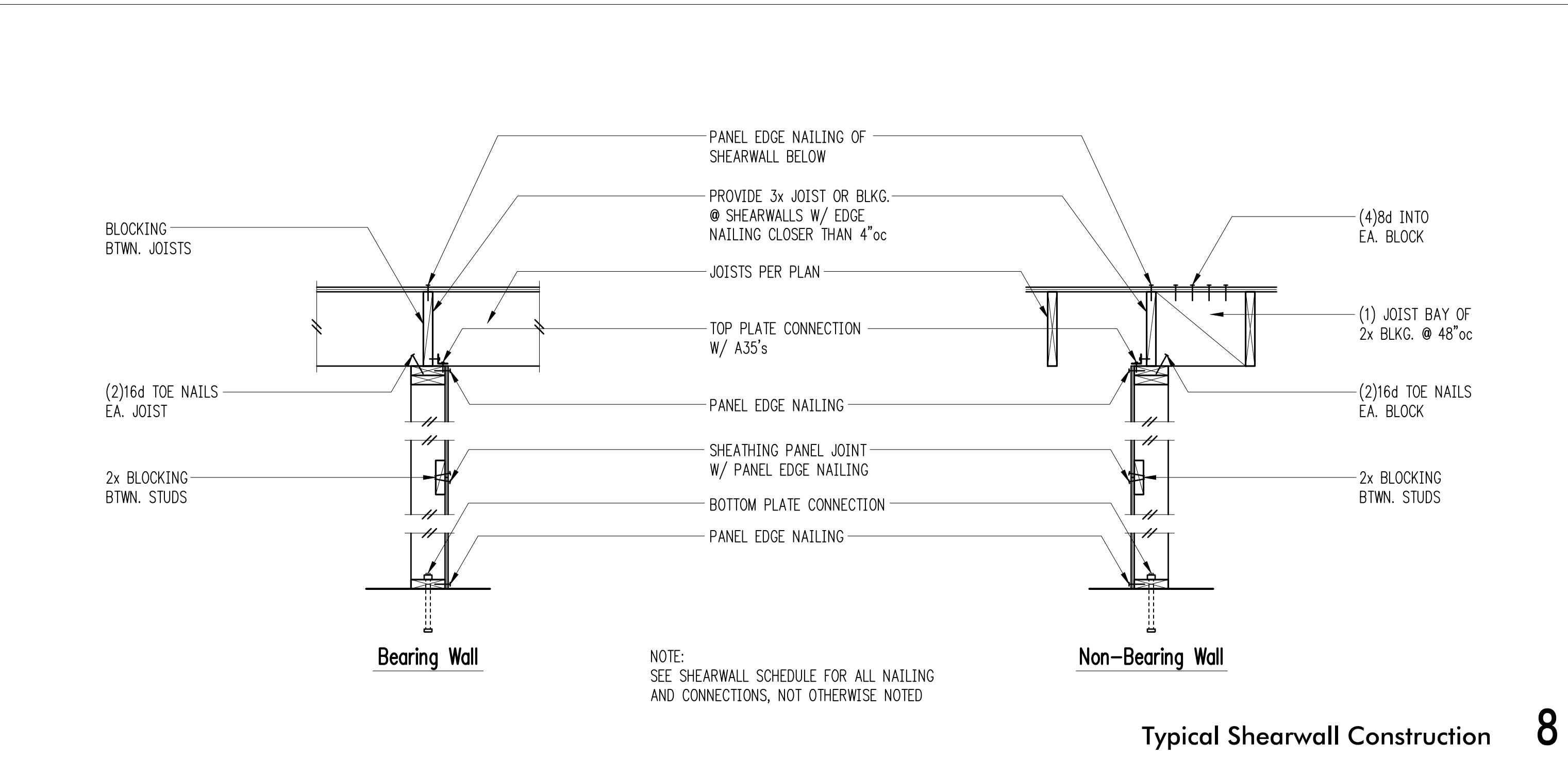
1 Typical Header Support w/2 Bearing Studs 2



Typical Shearwall Intersections 4



5 Typical Top Plate Splice 6



Typical Shearwall Construction 8

5

6

9

10

	A	B	C
PLAN VIEW			
SECTION			
# OF WOOD BMS (LVL)	2-1 3/4"	3-1 3/4"	4-1 3/4"
SDS SCREW SIZE	1/4"x3/2"	1/4"x4/2"	1/4"x6"
# OF SDS SCREWS	3	3	3
SPACING OF SDS SCREWS	16"oc	8"oc	6"oc

NOTES:  
- MIN. SCREW END DISTANCE = 4"

8

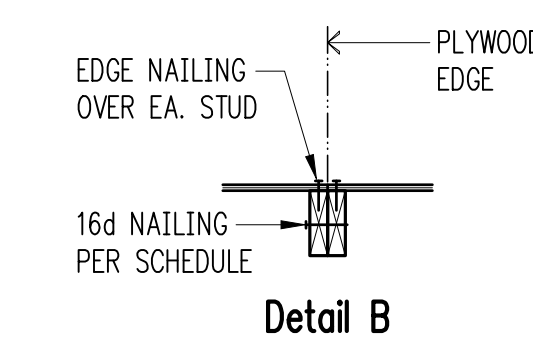
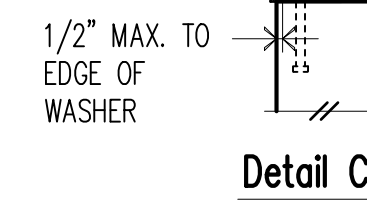
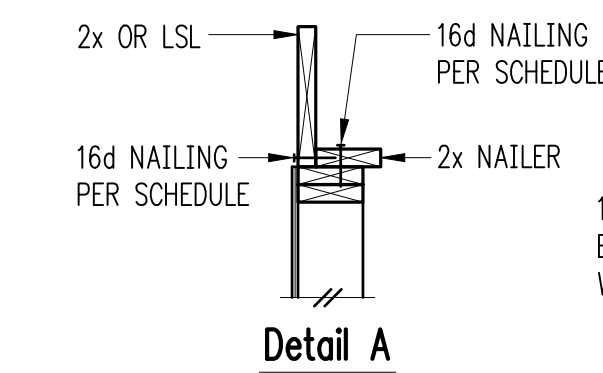
12

9

10

**Shearwall Schedule** ①②③④⑤⑥⑦

Mark	Sheathing	Panel Edge Nailing	Top Plate Connection		Base Plate Connection	
			if TJI	if 2x or LSL	at Wood	at Concrete
W6	15/32" CDX PLYWOOD	8d @ 6"oc	16d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	5/8" A.B. @ 48"oc
W4	15/32" CDX PLYWOOD	8d @ 4"oc	16d @ 4"oc	A35 @ 16"oc	16d @ 4"oc	5/8" A.B. @ 32"oc
W3	15/32" CDX PLYWOOD	8d @ 3"oc	(2)rows 16d @ 4"oc	A35 @ 12"oc	(2)rows 16d @ 6"oc	5/8" A.B. @ 24"oc
W2	15/32" CDX PLYWOOD	8d @ 2"oc	(2)rows 16d @ 4"oc	A35 @ 9"oc	(2)rows 16d @ 4"oc	5/8" A.B. @ 16"oc



Detail B  
PLAN VIEW AT ABUTTING PANEL EDGES OF W3 & W2

- ① BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"oc.
- ② 8d NAILS SHALL BE 0.131"φ x 2 1/2" (common) - 16d NAILS SHALL BE 0.135"φ x 3 1/2" (box)
- 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 TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING.
- ⑥ ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.
- ⑦ 7/16" O.S.B. MAY BE SUBSTITUTED FOR 15/32" CDX.
- ⑧ LTP4's W/ 8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- ⑨ A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- ⑩ STAGGER NAILS IN ROW W/ 1/2" MIN. OFFSET.
- ⑪ MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", STAGGER NAILS 1/2" BETWEEN ROWS, AND MINIMUM RIM OR JOIST 3 1/2" WIDE.
- ⑫ LVL RIMS PERMITTED IN W6 WALLS ONLY

REVISIONS:

NO.	DESCRIPTION

PROJECT TITLE:  
**Miller Blood Residence**  
2420 63rd Ave SE  
Mercer Island, WA 98040

ARCHITECT:  
**Rain City Architecture**  
clint@raincityarchitecture.com  
PH 206.636.1163

ISSUE:  
**PERMIT**

SHEET TITLE:  
**Typical Wood Details**

SCALE:  
3/4" = 1'-0" U.N.O.  
DATE:  
November 17, 2021  
PROJECT NO:  
11947-2021-02  
SHEET NO:



