



# SHEET INDEX

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- SD.01 FOUNDATION DETAILS

# PROJECT DATA

**PARCEL #:** 866140-0040

**SITE ADDRESS:** 5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040

**OWNER:** ROGER & NANCY MACPHERSON

**DESIGNER & BUILDER:** MACPHERSON CONSTRUCTION & DESIGN, LLC  
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**STRUCTURAL ENGINEER:** MULHERN & KULP  
RESIDENTIAL STRUCTURAL ENGINEERING  
CONTACT: NICK J. MARTIGNETTI, PE, SE  
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**GEOTECH ENGINEER:** COBALT GEOSCIENCES, LLC  
CONTACT: PHIL HABERMAN, PE, LG, LEG  
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# JURISDICTION/CODES

**LEAD AGENCY:** CITY OF MERCER ISLAND  
DEVELOPMENT SERVICES - BUILDING & PLANNING  
9611 SE 36th ST, MERCER ISLAND, WA 98040  
PH: 206.275.7605

**BUILDING CODE:** 2021 (IRC)  
MERCER ISLAND MUNICIPAL CODE - CH. 19

**ENERGY CODE:** 2021 WASHINGTON STATE ENERGY CODE (WSEC)

**CLIMATE ZONE:** MARINE 4 (KING COUNTY)

**SEISMIC DESIGN CATEGORY:** D

**BASIC WIND SPEED:** 110 MPH

**MINIMUM SNOW LOAD:** 25 LB/SF

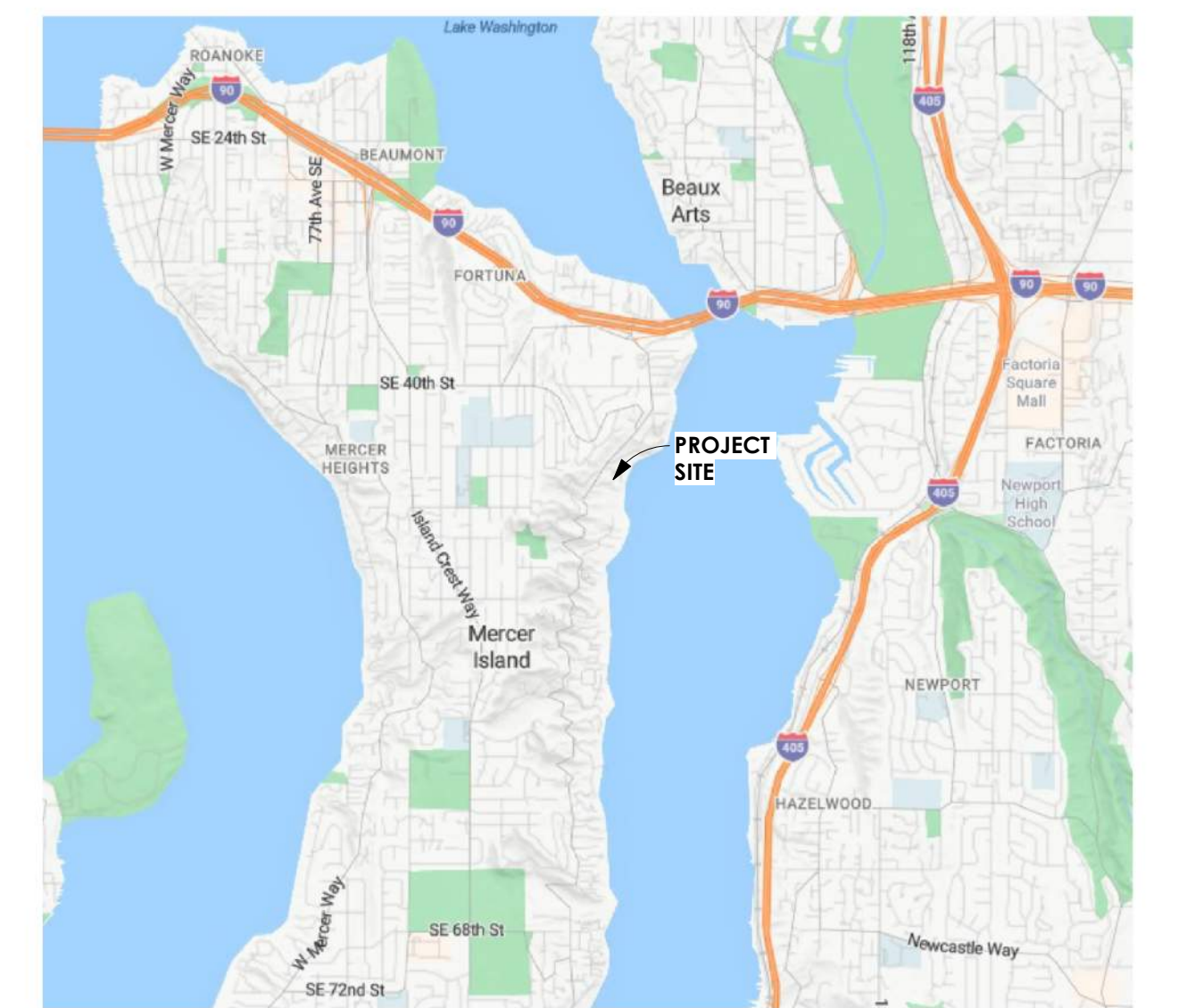
# PROJECT INFO.

**DESCRIPTION:** PARTIAL DEMOLITION OF AN EXISTING 2-STORY HOUSE. REMODEL OF EXISTING HOUSE, NEW MECHANICAL SYSTEMS, NEW ELECTRICAL, PLUMBING AS NECESSARY FOR REMODEL SCOPE.

**REFER TO SITE PLAN A1.0 FOR FLOOR AREA CALC.**

**SEPARATE TI PERMITS TO BE OBTAINED FOR ANY MODIFICATION TO THE FIRE ALARM SYSTEM AND/OR FIRE SPRINKLER SYSTEM.**

# VICINITY MAP



# ENERGY REQ'S:

**NEW CONDITIONED AREAS:** SEE REQUIREMENTS ON SHEET A0.2

**EXISTING CONDITIONED AREAS:** IF EXISTING CAVITIES ARE EXPOSED, THE FOLLOWING INSULATION IS REQUIRED.

**WALLS:** R-21 (2x6 WALLS)  
R-15 (2x4 WALLS)

**FLOORS:** R-30  
FULL DEPTH + 1" AIR GAP (VAULTED)

**ROOFS/CEILINGS:** R-49 (FLAT)

**WINDOWS AND DOORS:** U-FACTOR ≤ 0.30

**HVAC SYSTEMS (IF REPLACED):** SYSTEM MUST MEET CURRENT ENERGY CODE REQ'S AND DUCTS TESTED (R403)

**HOT WATER SYSTEM:** NEW WATER HEATING EQUIPMENT MUST MEET CURRENT ENERGY CODE REQ'S (R403.5)

**LIGHT FIXTURES:** 90% OF ALL LAMPS MUST BE HIGH EFFICACY (R404.1)

SCALE THIS DRAWING, IN FEET

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48



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**MACPHERSON RESIDENCE**  
5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040  
**COVER SHEET**

DATE	REV.	BY	DESCRIPTION	SHEET NUMBER
4/1/25		DAN	PERMIT SUBMITTAL	<b>A0.0</b>
	△			
	△			
	△			
	△			

**ABBREVIATIONS**

&	AND	KIT	KITCHEN
@	ANGLE	LAM	LAMINATE
▲	AT	LAV	LAVATORY
○	CENTERLINE	LF	LINEAR FEET
⊙	DIAMETER	LT	LIGHT
⊥	PERPENDICULAR	MNFR	MANUFACTURER
⊃	POUND OR NUMBER	MATL	MATERIAL
#	EXISTING	MAX	MAXIMUM
(E)	ADDITIONAL	MECH	MECHANICAL
ADD	AREA DRAIN	MEMB	MEMBRANE
A.D	ADJUSTABLE/ADJACENT	MTL	METAL
ADJ	ALUMINUM	MIN	MINIMUM
ALUM	APPROXIMATE	MIR	MIRROR
APPROX	ARCHITECTURAL	MISC	MISCELLANEOUS
ARCH	ASPHALT	MO	MASONRY OPENING
ASPH	ANCHOR BOLT	MTD	MOUNTED
AB	ALTERNATE	MUL	MULLION
ALT	BOARD	N	NORTH
BD	BUILDING	NO	NUMBER
BLDG	BLOCKING	NOM	NOMINAL
BKG	BEAM	NTS	NOT TO SCALE
BM	BOTTOM	OH	OVERHEAD
BOT	BOTTOM OF WALL	OA	OVERALL
BOW	BASEMENT	OBS	OBSCURE
BSMT	CABINET	OC	ON CENTER
CAB	CATCH BASIN	OD	OUTSIDE DIAMETER
CB	CEMENT	OPNG	OPENING
CEM	CERAMIC	OPPS	OPPOSITE
CER	CAST IRON	PL	PLATE
CJ	CONSTRUCTION JOINT	PLAS	PLASTER
CL	CEILING	PLYWD	PLYWOOD
CLG	CLOSET	PR	PAIR
CLR	CLEAR	PT	PAINT
COL	COLUMN	PVMT	PAVEMENT
CONC	CONCRETE	PROJ	PROJECTOR, PROJECTION
CONN	CONNECTION	QT	QUARRY TILE
CNN	CERAMIC TILE	RE	REFER TO
CTR	CENTER	R	RISER OR RADIUS
CMU	CONCRETE MASONRY UNIT	RD	ROOF DRAIN
DOUB	DOUBLE	REF	REFRIGERATOR
DEPT	DEPARTMENT	REIN	REINFORCED
DFT	DETAIL	REQD	REQUIRED
DIA	DIAMETER	RM	ROOM
DIM	DIMENSION	RO	ROUGH OPENING
DN	DOWN	REV	REVISED OR REVISION
DR	DOOR	S	SOUTH
DS	DOWNSPOUT	SC	SOLID CORE
DWG	DRAWING	SCHED	SCHEDULE
E	EAST	SF	SQUARE FEET
EA	EACH	SMD	SMOKE DETECTOR
EJ	EXPANSION JOINT	SECT	SECTION
ELEC	ELECTRICAL	SH	SHIELF
ELEV	ELEVATOR/ELEVATION	SHWR	SHOWER
ENCL	ENCLOSURE	SH	SHEET
EQ	EQUAL	SIM	SIMILAR
EQUIP	EQUIPMENT	SPEC	SPECIFICATION
(E)	EXISTING	SQ	SQUARE
EXP	EXPANSION	SST	STAINLESS STEEL
EXT	EXTERIOR	SS	SERVICE SINK
FA	FIRE ALARM	STD	STANDARD
FD	FLOOR DRAIN	STL	STEEL
FNDN	FOUNDATION	STOR	STORAGE
FIN	FINISH	STRUCT	STRUCTURE OR STRUCTURAL
FLR	FLOOR	SUSP	SUSPENDED
FLASH	FLASHING	SYM	SYMMETRICAL
FOC	FACE OF CONCRETE	T	TREAD
FOF	FACE OF FINISH	TEL	TELEPHONE
FOS	FACE OF STUDS	TER	TERRAZZO
FT	FOOT OR FEET	T&G	TONGUE & GROOVE
FTG	FOOTING	TOP OF	TOP OF
FURR	FURRING	TOW	TOP OF WALL
GA	GAUGE	TV	TELEVISION
GALV	GALVANIZED	TYP	TYPICAL
GL	GLASS	UNF	UNFINISHED
GND	GROUND	UNO	UNLESS NOTED OTHERWISE
GR	GRADE	VEST	VESTIBULE
GWB	GYPNUM WALL BOARD	W	WITH
GLU-LAM	GLUE LAMINATED	WC	WALLCOVERING
GSF	GROSS SQUARE FEET	WD	WOOD
HB	HOSE BIBB	W/O	WITHOUT
HC	HOLLOW CORE	WP	WATERPROOF
HDWD	HARDWOOD	WSCT	WAINSCOT
HDW	HOLLOW METAL	WT	WEIGHT
HM	HORIZONTAL	W/D	WASHER/DRYER
HORIZ	HORIZONTAL	W/H	WATER HEATER
HT	HEIGHT		
HVAC	HEATING, VENTILATION & AIR CONDITIONING		
ID	INSIDE DIAMETER		
INSUL	INSULATION		
INT	INTERIOR		
JT	JOINT		

**GENERAL NOTES**

**GENERAL:**

THESE DRAWINGS ARE THE PROPERTY OF MacPherson Construction & Design AND MAY BE REPRODUCED ONLY WITH THE WRITTEN PERMISSION OF MacPherson Construction & Design. AUTHORIZED REPRODUCTIONS MUST BEAR THE NAME OF MacPherson Construction & Design. THESE DRAWINGS ARE FULLY PROTECTED BY FEDERAL AND STATE COPYRIGHT LAWS.

**CODES:**  
ALL CONSTRUCTION SHALL CONFORM TO THE THE LATEST ADOPTED VERSION OF THE INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY THE STATE OF WASHINGTON AND BE IN ACCORDANCE WITH ALL WASHINGTON STATE LAWS, REGULATIONS AND VARIOUS CODES IMPOSED BY LOCAL AUTHORITIES. ENERGY CODE REQUIREMENTS SHALL CONFORM TO THE THE LATEST ADOPTED VERSION OF THE WASHINGTON STATE ENERGY CODE (WSEC).

DO NOT SCALE DRAWINGS OR DETAILS - USE DIMENSIONS SHOWN.  
 • DIMENSIONS SHOWN ON THE PLANS ARE TO FACE OF FRAMING OR CONCRETE, OR TO THE CENTERLINE OF COLUMNS UNLESS NOTED OTHERWISE.  
 • CHECK DETAILS FOR LOCATION OF ALL ITEMS NOT DIMENSIONED ON THE PLANS.  
 • DOORS AND CASED OPENINGS WITHOUT DIMENSIONS ARE TO BE 4 1/2" FROM FACE OF ADJACENT WALL OR CENTERED BETWEEN WALLS, UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK. ANY CONFLICTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT. VERIFY FIELD CONDITIONS PRIOR TO COMMENCEMENT OF EACH PORTION OF THE WORK.

THE CONTRACTOR SHALL COORDINATE THE LOCATION OF MECHANICAL WORK, ELECTRICAL WORK, AND OTHER SUBCONTRACTOR WORK TO ENSURE COMPLIANCE WITH THE DRAWINGS, SPECIFICATIONS AND ALL CODES. CONTACT THE ARCHITECT FOR RESOLUTION OF ALL DISCREPANCIES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL COORDINATE FRAMING LAYOUT WITH MECHANICAL, PLUMBING AND ELECTRICAL SUB-CONTRACTORS.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND STRUCTURAL MEMBER SIZES PRIOR TO CONSTRUCTION. INFORM THE ARCHITECT OF ANY DISCREPANCIES IN THE DRAWINGS OR INCONSISTENCIES WITH THE CODES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL COORDINATE ALL CHANGES WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO FABRICATION OR CONSTRUCTION.

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

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

**ATTICS:**

• ACCESS: PROVIDE READILY ACCESSIBLE ATTIC ACCESS, MINIMUM 22" X 30" WITH MINIMUM 30" UNOBSTRUCTED HEADROOM IN ATTIC. IRC R807.1.

• DRAFT STOPS: INSTALL WHERE REQUIRED, PER IRC R302.12.

• VENTILATION: PROVIDE ATTIC VENTILATION USING CONTINUOUS RIDGE VENT AND VENTED BIRDBLOCKING, TYPICAL. AT CLOSED SOFFITS PROVIDE CONTINUOUS 21/4" VENT SLOT. (SEE DETAIL) THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED, EXCEPT THAT THE AREA MAY BE 1/300, PROVIDED AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVES OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVES OR CORNICE VENTS. IRC R806.

SEE INSULATION REQUIREMENTS FOR ROOFS IN THE **ENERGY** SECTION.

**BATHROOMS:**

ALL TUB AND SHOWER STALLS SHALL HAVE FIREBLOCKING BETWEEN STUDS.  
HINGED SHOWER DOORS SHALL OPEN OUTWARD.

ALL GLAZING USED FOR DOORS OR ENCLOSURES IN BATHROOMS SHALL BE SAFETY GLAZING. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING A SHOWER OR BATHTUB WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 40 INCHES ABOVE THE STANDING SURFACE AND DRAIN INLET SHALL BE SAFETY GLAZING. IRC R308.4.

SHOWER STALL WALLS SHALL BE FINISHED WITH A NONABSORBENT SURFACE TO A MINIMUM OF HEIGHT OF 72 INCHES ABOVE THE FLOOR. IRC R307.2. RUN CEMENT BACKER BOARD TO CEILING, TYPICAL.

WATERCLOSETS SHALL HAVE MIN. 30" CLEAR WIDTH AND MIN. 21" FRONT CLEARANCE. IRC R307.1.

SEE **ENERGY** SECTION BELOW FOR WATER FLOW REQUIREMENTS.

**CEILING HEIGHTS:**

HABITABLE SPACE SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0". NOT MORE THAN 50% OF REQUIRED FLOOR AREA OF A SPACE IS PERMITTED TO HAVE A SLOPED CEILING LESS THAN 7'-0" IN HEIGHT WITH NO PORTION LOWER THAN 5'-0". BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 6'-8" OVER AND IN FRONT OF THE FIXTURES. IRC R305.

**CLEARING & GRADING (I.T.E.S.C. MEASURES)**

ALL CLEARING AND GRADING MUST BE IN ACCORDANCE WITH LOCAL JURISDICTION CLEARING AND GRADING EROSION CONTROL STANDARDS, DEVELOPMENT STANDARDS, LAND USE CODE, PERMIT CONDITIONS, AND ALL OTHER APPLICABLE CODES, ORDINANCES AND STANDARDS. THE DESIGN ELEMENTS WITH THESE PLANS HAVE BEEN REVIEWED TO THESE REQUIREMENTS. ANY VARIANCE FROM THE ADOPTED EROSION CONTROL STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE LOCAL JURISDICTION PRIOR TO CONSTRUCTION.

A COPY OF THE APPROVED PLANS MUST BE ON-SITE WHENEVER CONSTRUCTION IS IN PROGRESS. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION.

ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD, THEREFORE, BE CONSIDERED ONLY APPROXIMATE AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE WORK.

FINAL SITE DRAINAGE MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT A MINIMUM SLOPE OF 6 INCHES WITHIN THE FIRST 10 FEET. IRC R401.3.

**CRAWL SPACES:**

• ACCESS: THROUGH FLOOR ACCESS SHALL BE A MINIMUM OF 18 X 24 INCHES. PROVIDE 18" MINIMUM. IRC R408.4.

• FRAMING: ALL WOOD IN CONTACT WITH CONCRETE, CMU OR WITHIN 8" OF SOILS SHALL BE PRESSURE TREATED WOOD IN COMPLIANCE WITH IRC R317.1. ALL METAL FRAMING CONNECTORS AND FASTENERS USED WITH PRESSURE TREATED LUMBER SHALL BE CERTIFIED FOR USE WITH THE TREATED MATERIAL. IRC 317.3.

• VENTILATION: UNDER-FLOOR AREAS SHALL BE VENTILATED BY AN APPROVED MECHANICAL MEANS OR BY OPENINGS THROUGH EXTERIOR FOUNDATION WALLS. THE MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQ. FT. FOR EACH 150 SQ. FT. OF UNDER-FLOOR SPACE AREA. THE REQUIRED AREA OF SUCH OPENINGS SHALL BE APPROXIMATELY EQUALLY DISTRIBUTED ALONG THE LENGTH OF AT LEAST TWO OPPOSITE SIDES. ONE VENTILATING OPENING SHALL BE WITHIN 3 FEET OF EACH CORNER. IRC R408.

• VAPOR BARRIER: MIN. 10 MIL. POLYETHYLENE (OR EQUIVALENT) SHALL BE INSTALLED IN ALL CRAWL SPACES, JOINTS LAPPED 12". EXTEND UP FOUNDATION WALL AND SECURE TO SILL PLATE WHEREVER PRACTICAL.

SEE INSULATION REQUIREMENTS FOR WALLS IN THE **ENERGY** SECTION.

**DECKS & EXTERIOR STAIRWAYS:**

WOODEN STRUCTURAL SUPPORTS AND MEMBERS THAT ARE EXPOSED TO WEATHER WITHOUT PROTECTION FROM A ROOF, EAVE, OVERHANG OR OTHER COVERING THAT WOULD PREVENT MOISTURE OR WATER ACCUMULATION ON THE MEMBER SURFACE SHALL BE PRESSURE TREATED OR CEDAR LUMBER. IRC R317.1

ALL METAL FRAMING CONNECTORS AND FASTENERS USED WITH PRESSURE TREATED LUMBER SHALL BE CERTIFIED FOR USE WITH THE TREATED MATERIAL. IRC 317.3.

**ENERGY:**

ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ADOPTED VERSION OF THE INTERNATIONAL RESIDENTIAL CODE (IRC) AND THE WASHINGTON STATE ENERGY CODE (WSEC). VERIFY ALL CONDITIONS BEFORE PROCEEDING WITH WORK.

METHOD OF COMPLIANCE - PRESCRIPTIVE METHOD FOR GROUP R OCCUPANCY, CLIMATE ZONE 4C (WSEC) TABLE R301.1

ALL INSULATION MATERIALS, INCLUDING FACING AND VAPOR BARRIERS, SHALL HAVE A FLAME SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DENSITY RATING NOT TO EXCEED 450.

INSULATION VALUES BELOW PER (WSEC) TABLE R402.1.1. VALUES MAY CHANGE BASED ON PROJECT-SPECIFIC ENERGY CREDIT OPTIONS - REFER TO PLAN NOTES.

• WALLS: (R-20 + 5 CONTINUOUS OR R-13 + 10 CONTINUOUS) AT EXTERIOR WALLS

• ROOF & CEILING: (R-49) IN ATTIC AND CEILING SPACES, (R-38) FOR SINGLE RAFTER - OR JOIST-VAULTED CEILINGS, MAINTAIN A 1" MIN. AIR GAP BETWEEN TOP OF INSULATION AND BOTTOM OF SHEATHING FOR VENTING (WAC 51-50-1203). VENTING MUST OCCUR IN EACH JOIST SPACE. WHERE CONTINUOUS VENTING WITHIN A JOIST SPACE IS INTERRUPTED BY A HEADER (I.E. SKYLIGHT OR AT HIP END), PROVIDE (2) 1 1/2" VENTING HOLES AT THE TOP OF THE RAFTER AT THE HEADER TO ALLOW FOR CONTINUAL THROUGH-VENTING INTO THE NEXT JOIST SPACE. AT VENTED CEILINGS/ATTICS INSTALL BARRIES AT EAVE AND/OR SOFFIT VENTS TO MAINTAIN 1" MIN. OF VENTILATION ABOVE INSULATION. EXTEND BARRIES 6" VERTICALLY ABOVE BATT INSULATION AND 12" VERTICALLY ABOVE LOOSE-FILL INSULATION. WEATHERSTRIP AND INSULATE ATTIC ACCESS DOORS AND PANELS TO THE R-VALUE OF THE SURROUNDING SURFACES.

• FLOORS: (R-30 MIN. OR R-38 FOR ENERGY CREDIT 1.3) WEATHERSTRIP AND INSULATE CRAWL SPACE ACCESS DOORS AND PANELS TO THE R-VALUE OF THE SURROUNDING SURFACES. WSEC R402.2.7

• SLAB ON GRADE: (R-10) AT THE PERIMETER AND UNDER ENTIRE SLAB, INCLUDING BELOW GRADE SLABS.

• SLAB BELOW GRADE: (R-10) AT THE PERIMETER AND UNDER ENTIRE SLAB, INCLUDING BELOW GRADE SLABS.

• VAPOR RETARDERS (MARINE 4 CLIMATE ZONE): SHALL BE INSTALLED ON THE INTERIOR SIDE OF FRAMED WALLS. FLOORS SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL HAVE MIN. 4 MIL POLYETHYLENE OR KRAFT FACED MATERIAL. ROOF/CEILING ASSEMBLIES WHERE THE VENTILATION SPACE ABOVE THE INSULATION IS LESS THAN AN AVERAGE OF 12 INCHES SHALL BE PROVIDED WITH A VAPOR RETARDER. WALLS SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL HAVE A VAPOR RETARDER INSTALLED. FACED BATT INSULATION SHALL BE FACE STAPLED. A GROUND COVER OF MIN. 6 MIL BLACK POLYETHYLENE SHALL BE LAID OVER THE GROUND WITHIN CRAWL SPACES W/ JOINTS LAPPED MIN. 12". IRC R702.7

• CAULKING & SEALANTS: EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES; OPENINGS BETWEEN WALLS AND FOUNDATION; OPENINGS BETWEEN ROOF AND WALL PANELS. OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH WALLS, FLOORS & ROOFS; AND ALL OTHER OPENINGS IN THE EXTERIOR BUILDING ENVELOPE SHALL BE SEALED. CAULKED, GASKETED OR WEATHERSTRIPPED. IRC R702.7 & R703

• WINDOWS AND DOORS: WINDOWS & GLAZED DOORS SHALL HAVE A MAXIMUM U-FACTOR OF .30 AND SKYLIGHTS SHALL HAVE A MAXIMUM U-FACTOR OF .50. U-FACTORS SHALL BE IN ACCORDANCE WITH WSEC TABLE R402.1.2

• DUCTWORK: INSULATE HEATING DUCTS IN UNCONDITIONED SPACES TO R-8 MINIMUM. DUCTWORK SEAMS & JOINTS SHALL BE TAPED, SEALED AND FASTENED WITH A MINIMUM NUMBER OF FASTENERS. (IRC) N1103.3.1 & M1601.3

• PIPING: INSULATE NON-CIRCULATING HOT AND COLD WATER PIPES IN UNCONDITIONED SPACES TO R-3 MINIMUM. (IRC) P2603

• WATER FLOW: FLOW RATES FOR PLUMBING FIXTURES SHALL COMPLY WITH WAC 51-56 SECTION 402. TOILETS @ 1.6 GALLONS PER FLUSH MAXIMUM; SHOWERS, TUBS AND LAVATORIES @ 2.5 GPM, MAXIMUM.

• HVAC SYSTEM SIZING: HEATING AND COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA MANUAL J OR OTHER APPROVED HEATING AND COOLING CALCULATION METHODOLOGIES. (WSEC) CHAPTER R403.6

**EGRESS:**

BASEMENTS, HABITABLE ATTICS, AND ALL SLEEPING ROOMS SHALL HAVE AN EMERGENCY ESCAPE OPENING WITH A MINIMUM NET CLEAR OPENING OF 5.7 sf. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 24" & MINIMUM NET CLEAR OPENING WIDTH OF 20" AND A FINISHED SILL HEIGHT NOT MORE THAN 44" ABOVE THE FLOOR. ALL EMERGENCY ESCAPE OPENINGS SHALL FULLY COMPLY WITH IRC R310 & R311.

EVERY EXTERIOR EXIT DOOR SHALL HAVE A LANDING ON EACH SIDE. MAXIMUM STEP AT THRESHOLD SHALL BE 1/2". IRC R311.3.

**EXTERIOR FINISHES:**

• WALLS: EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN IRC SECTION 703.8. THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED AND CONSTRUCTED IN SUCH A MANNER AS TO PREVENT THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTIVE BARRIER BEHIND THE EXTERIOR VENEER AS REQUIRED BY IRC SECTION 703.2.

• UNDERLAYMENT: APPLY TWO (2) LAYERS OF 60 MIN. BUILDING PAPER OVER SHEATHING PRIOR TO INSTALLATION OF WINDOWS, WRAP INTO OPENINGS. AFTER INSTALLATION OF WINDOWS, APPLY SELF-ADHESIVE 'BLUESKIN' PER MANUFACTURER'S INSTRUCTIONS.

• FLASHING: INSTALL FLASHINGS IN ACCORDANCE WITH IRC R703.8. VERTICAL LEG OF FLASHING SHALL BE 4" MIN. 'KICK-OUT' FLASHING TO GUTTERS SHALL EXTEND 3" MIN. BEYOND WALL.

• ADHERED STONE VENEER: USE PRESSURE-TREATED SHEATHING BEHIND ADHERED STONE VENEER, TYP. APPLY ADHERED STONE VENEER OVER UNDERLAYMENT PER MANUFACTURER'S RECOMMENDATION. DO NOT BACKFILL OR POUR CONCRETE AGAINST STONE VENEER.

• CEMENT STUCCO: APPLY IN ACCORDANCE WITH IRC R703.6. OVER UNDERLAYMENT PROVIDE FOR DRAINAGE ACCORDING TO MANUFACTURER'S RECOMMENDATION. DO NOT BACKFILL OR POUR CONCRETE AGAINST STUCCO.

• EXTERIOR INSULATION & FINISH SYSTEM (EIFS): INSTALL OVER UNDERLAYMENT IN ACCORDANCE WITH IRC R703.9.

• FIBER CEMENT SIDING: INSTALL OVER UNDERLAYMENT IN ACCORDANCE WITH IRC R703.10.

• WOOD SHINGLES: INSTALL OVER UNDERLAYMENT IN ACCORDANCE WITH IRC R703.5.

• WOOD SIDING: INSTALL OVER UNDERLAYMENT IN ACCORDANCE WITH IRC R703.3.

**FIRE PROTECTION:**

PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM AND AT A CENTRAL LOCATION IN CORRIDOR OR AREA ACCESSING GARAGE AREA AS WELL AS ONE ON EACH STORY. SMOKE ALARMS ARE TO RECEIVE PRIMARY POWER FROM BUILDING WIRING WITH A BATTERY BACKUP. SMOKE DETECTORS SHOULD SOUND AN ALARM AUDIBLE IN ALL SLEEPING ROOMS. IRC R314.

ALL HEAT DETECTORS, SMOKE ALARMS, AND CARBON MONOXIDE ALARMS SHALL BE LISTED IN ACCORDANCE WITH THEIR USE. SMOKE DETECTOR POWER SOURCES TO BE INSTALLED IN ACCORDANCE WITH NFPA 72 & IRC R314. ALL ALARM DEVICES SHALL BE INTERCONNECTED PER IRC R314.4.

AT GARAGES, A HEAT DETECTOR OR HEAT ALARM SHALL BE INSTALLED THAT ARE ATTACHED TO OR LOCATED UNDER NEW AND EXISTING DWELLINGS, HEAT DETECTORS AND HEAT ALARMS SHALL BE INSTALLED IN A CENTRAL LOCATION AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. GARAGE SEPARATION REQUIREMENTS INCLUDE 5/8" TYPE X BETWEEN GARAGE AND HABITABLE SPACE ABOVE, 1/2" BETWEEN GARAGE AND HABITABLE SPACE ON GARAGE SIDE OF WALLS.

AUTOMATIC FIRE SPRINKLERS SHALL BE PROVIDED IN ACCORDANCE WITH NFPA AND LOCAL FIRE DEPARTMENT REQUIREMENTS.

INSTALL FIREBLOCKING PER IRC R302.11.

INSTALL DRAFTSTOPPING PER IRC R302.12.

**FIREPLACES:**

MASONRY FIREPLACES, BARBECUES, SMOKE CHAMBERS & FIREPLACE CHIMNEYS SHALL BE CONSTRUCTED OF MASONRY OR REINFORCED CONCRETE IN ACCORDANCE WITH IRC CHAPTER 10.

FACTORY-BUILT FIREPLACES & CHIMNEYS SHALL BE LISTED, LABELED, & INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING, & TESTED IN ACCORDANCE WITH UL 127. IRC R1004.

FACTORY-BUILT FIREPLACES SHALL BE VENTED IN ACCORDANCE WITH IRC G2425.

FACTORY-BUILT FIREPLACES OR WOOD STOVES SHALL BEAR THE STAMP OF THE TESTING LAB & BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. MANUFACTURER'S INSTRUCTIONS SHALL BE ON SITE AT TIME OF INSPECTION.

**GARAGES:**

DOORS BETWEEN GARAGE AND DWELLING SHALL SOUND WOOD DOORS NOT LESS THAN 1 3/8" THICK OR 20-MIN FIRE RATED, EQUIPPED WITH A SELF-CLOSING DEVICE. THERE SHALL BE NO OPENINGS BETWEEN GARAGE AND ROOMS USED FOR SLEEPING PURPOSES. IRC R302.5.1

THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GYPSUM BOARD APPLIED TO THE GARAGE SIDE. GARAGES BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN 5/8" TYPE X GYPSUM BOARD OR EQUIVALENT. WHERE THE SEPARATION IS A FLOOR/CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2" GYPSUM BOARD OR EQUIVALENT. GARAGES LOCATED LESS THAN 3 FEET FROM A DWELLING UNIT ON THE SAME LOT SHALL BE PROTECTED BY NOT LESS THAN 1/2" GYPSUM BOARD APPLIED TO THE INTERIOR SIDE OF EXTERIOR WALLS THAT ARE WITHIN THIS AREA. OPENINGS IN THESE WALLS SHALL BE REGULATED BY SECTION IRC R302.6. THIS PROVISION DOES NOT APPLY TO GARAGE WALLS THAT ARE PERPENDICULAR TO THE ADJACENT DWELLING UNIT WALL.

GARAGE FLOOR SHALL BE SMOOTH TROWLED CONCRETE AND SLOPE TOWARD THE VEHICLE DOORWAY OR A FLOOR DRAIN. GARAGE SLAB SHALL RECEIVE CONCRETE SEALER.

GAS FIRED HEATING AND/OR COOLING EQUIPMENT LOCATED IN GARAGE SHALL BE INSTALLED A MINIMUM OF 6" ABOVE THE FLOOR AND WITH PILOTS AND BURNERS AT LEAST 18" ABOVE THE FLOOR LEVEL. IRC G2408.2 & IRC G2408.3.

APPLIANCES LOCATED WITHIN A GARAGE OR CARPORT SHALL BE PROTECTED FROM IMPACT BY AUTOMOBILES. IRC M1505.4 & RCW 19.27.031

DUCT PENETRATIONS BETWEEN THE GARAGE AND OCCUPIED AREAS SHALL BE MINIMUM 26 GA. STEEL IN ACCORDANCE WITH IRC R302.5.2.

**GAS APPLIANCES:**

HEATING SYSTEM SHALL BE CAPABLE OF MAINTAINING 70°F AT 3 FEET ABOVE FLOOR IN HABITABLE ROOMS WHEN OUTSIDE TEMP. IS AS SHOWN IN (WSEC) SECTION 302.

FUEL BURNING EQUIPMENT LOCATED WITHIN THE BUILDING ENVELOPE SHALL OBTAIN COMBUSTION AIR FROM OUTDOORS PER (IRC) G2407.6. DO NOT USE CRAWL SPACE AIR!

EVERY APPLIANCE DESIGNED TO BE VENTED SHALL BE CONNECTED TO A VENTING SYSTEM PER (IRC) G2407.

**GAS APPLIANCES CONT...**

PROVIDE READILY ACCESSIBLE AUTOMATIC OR MANUAL SHUT-OFF SWITCH & THERMOSTAT. PROVIDE AT LEAST ONE THERMOSTAT FOR REGULATING SPACE TEMPERATURES FOR EACH HEATING/COOLING UNIT.

GAS APPLIANCES SHALL BE INSTALLED AND SECURELY FASTENED IN PLACE IN ACCORDANCE WITH (IRC) G2404 & (IRC) M1307.2.

PROVIDE CLEARANCE FROM COMBUSTIBLE MATERIALS PER (IRC) G2408.5.

SEE GARAGE SECTION ABOVE FOR ADDITIONAL REQUIREMENTS FOR GAS APPLIANCES LOCATED IN GARAGES.

SEE **FIREPLACES** SECTION ABOVE FOR ADDITIONAL INFORMATION REGARDING GAS FIREPLACES.

**GLAZING:**

ALL GLASS AND GLAZING IS TO BE IN COMPLIANCE WITH (IRC) R308 AND THE WASHINGTON STATE SAFETY GLASS LAW.

GLAZING IN HAZARDOUS LOCATIONS SUCH AS GLASS ON DOORS, GLAZING WITHIN 24" ON EITHER

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

SCALE THIS DRAWING, IN FEET



Permit#		
Address or Lot & Block	5320 BUTTERWORTH RD.	
City	Mercer Island	Zip 98040

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

Instructions: This single-family project uses the requirements of the Prescriptive Path below to incorporate the minimum values listed. Based on the conditioned floor area of the structure, the number of required additional credits must be selected by the permit applicant.

Provide all information from the following tables in building permit drawings: Table R402.1.2 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and R406.3 Energy Credits.

Authorized Representative Signature	<i>Dalton</i>	Date	3/21/2025
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All Climate Zones Table 402.1.3		
	R-Value <sup>a</sup>	U-Factor <sup>a</sup>
Fenestration U-Factor <sup>b,1</sup>	n/a	0.30
Skylight U-Factor <sup>b</sup>	n/a	0.50
Ceiling <sup>c</sup>	60	n/a
Wood Frame Wall <sup>d,1</sup>	20+5 or 13+10	n/a
Floor	30	n/a
Below Grade Wall <sup>e,h</sup>	10/15/21 int + 5Tb	n/a
Slab <sup>d,1</sup> R-Value & Depth	10, 4 ft	n/a
<sup>a</sup> R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which 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. <sup>b</sup> The fenestration U-factor column excludes skylights. <sup>c</sup> "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. <sup>d</sup> R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1. <sup>e</sup> For single rafter- or joist-raftered ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall. <sup>f</sup> 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. <sup>g</sup> For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400. <sup>h</sup> Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation. <sup>i</sup> The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, "R13+10" means R-13 cavity insulation plus R-10 continuous insulation. <sup>j</sup> A maximum U-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the International Residential Code.		

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: ..... 5.0 credits  
Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building greater than 500 square feet of heated floor area but less than 1500 square feet.
- Medium Dwelling Unit: ..... 8.0 credits  
All dwelling units that are not included in #1, #3 or #4
- Large Dwelling Unit: ..... 9.0 credits  
Dwelling units exceeding 5000 square feet of conditioned floor area.
- Dwelling units serving Group R-2 occupancies: ..... 6.5 credits  
Section R401.1 and residential building Section R202 for Group R-2.
- Additions 150 square feet to 500 square feet: ..... 2.0 credits

The drawings included with the building permit application shall identify which options have been selected and the point value of each option, regardless of whether separate mechanical, plumbing, electrical, or other permits are utilized for the project

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

Table R406.2 ENERGY EQUALIZATION CREDITS		
System Type	Description of Primary Heating Source	Credits - select ONE system type
1	For combustion heating equipment meeting minimum federal efficiency standards for the equipment listed in Table C403.3.2(5) or C403.3.2(6)	0 <input type="checkbox"/>
2	For an initial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) and supplemental heating provided by electric resistance or a combustion furnace meeting minimum standards listed in Table C403.3.2(5)b found in the 2021 WSEC - COMMERCIAL ENERGY CODE	1.5 <input type="checkbox"/>
3	For heating system based on electric resistance only (either forced air or Zonal)	0.5 <input type="checkbox"/>
4 <sup>f</sup>	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) or Air to water heat pump units that are configured to provide both heating and cooling and are rated in accordance with AHRI 550/590	3.0 <input checked="" type="checkbox"/>
5	For heating system based on electric resistance with: 1. Inverter-driven ductless mini-split heat pump system installed in the largest zone in the dwelling, or 2. With 2kW or less total installed heating capacity per dwelling	2.0 <input type="checkbox"/>

- See Section R401.1 and residential building in Section R202 for Group R-2 scope.
- The gas back-up furnace will operate as fan-only when the heat pump is operating. The heat pump shall operate at all temperatures above 38°F (3.3°C) (or lower). Below that "changeover" temperature, the heat pump would not operate to provide space heating. The gas furnace provides heating below 38°F (3.3°C) (or lower).
- Additional points for the HVAC system are included in Table R406.3.

Summary of Table R406.3			
Options	Energy Credit Option Descriptions	Credits - limited to one energy option from each category <sup>f</sup>	Comments:
1.1	Efficient Building Envelope	0.5 <input type="checkbox"/>	
1.2	Efficient Building Envelope	1.0 <input type="checkbox"/>	U Value 0.28
1.3	Efficient Building Envelope	1.5 <input type="checkbox"/>	
1.4	Efficient Building Envelope	2.5 <input type="checkbox"/>	
2.1	Air Leakage Control and Efficient Ventilation	1.0 <input type="checkbox"/>	
2.2	Air Leakage Control and Efficient Ventilation	1.5 <input type="checkbox"/>	
2.3	Air Leakage Control and Efficient Ventilation	2.0 <input type="checkbox"/>	
3.1 <sup>a</sup>	High Efficiency HVAC	1.0 <input type="checkbox"/>	
3.2 <sup>a</sup>	High Efficiency HVAC	0.5 <input type="checkbox"/>	
3.3 <sup>a,d</sup>	High Efficiency HVAC	0.5 <input type="checkbox"/>	
3.4 <sup>a,d</sup>	High Efficiency HVAC	1.5 <input type="checkbox"/>	
3.5 <sup>d</sup>	High Efficiency HVAC	1.5 <input type="checkbox"/>	
3.6 <sup>a</sup>	High Efficiency HVAC	1.0 <input type="checkbox"/>	Centrally ducted air source cold climate heat pump, min 10 HPSE
3.7 <sup>a,d</sup>	High Efficiency HVAC	2.0 <input type="checkbox"/>	
3.8 <sup>a,d</sup>	High Efficiency HVAC	1.0 <input type="checkbox"/>	
3.9	High Efficiency HVAC	1.5 <input type="checkbox"/>	
3.10 <sup>f</sup>	High Efficiency HVAC	2.5 <input type="checkbox"/>	
3.11 <sup>c</sup>	High Efficiency HVAC	0.5 <input type="checkbox"/>	
4.1	High Efficiency HVAC Distribution System	0.5 <input type="checkbox"/>	
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	0.5 <input type="checkbox"/>	
5.4	Efficient Water Heating	1.0 <input checked="" type="checkbox"/>	Energy Star rated gas or propane water heater, min UEF 0.91
5.5	Efficient Water Heating	1.5 <input type="checkbox"/>	
5.6	Efficient Water Heating	2.0 <input type="checkbox"/>	
5.7	Efficient Water Heating	2.5 <input type="checkbox"/>	
5.8	Efficient Water Heating	2.5 <input type="checkbox"/>	
6.1	Renewable Electric Energy (4.5 credits max)	0.5-4.5 <input checked="" type="checkbox"/>	Solar panels
7.1	Appliance Package	0.5 <input type="checkbox"/>	
<b>Total Credits</b>		<b>9.0</b>	<a href="#">Calculate Total</a>

- An alternative heating source sized at a maximum of 0.5 Watts/ft<sup>2</sup> (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.
- See Section R401.1 and residential building in Section R202 for Group R-2 scope.
- Option 3.11 can only be taken with Options 3.1 and 3.3. To qualify to claim Option 3.11 with 3.3, the system shall be a 1-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.
- This option may only be claimed if serving System Type 4 or 5 from Table R406.2.
- Primary living areas include living, dining, kitchen, family rooms, and similar areas.
- Option 3.10 may only be taken with Efficient Water Heating Options 5.1 or 5.2. Equipment sizing for space heating shall be calculated as provided in Section R403.7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with approved manufacturer's specifications or guidance. Supplementary heat for water heating system shall be in accordance with Section R403.5.7.

**MacPherson**  
Construction & Design  
22605 SE 56th St Suite 140, Issaquah, WA 98029  
PH. 425.391.3333 FAX 425.557.2841

# MACPHERSON RESIDENCE

5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040

ENERGY COMPLIANCE

DATE	REV.	BY	DESCRIPTION
4/1/25		DAN	PERMIT SUBMITTAL
	△		
	△		
	△		
	△		

SHEET NUMBER

**A0.2**

**ALTA/NSPS LAND TITLE SURVEY**  
**LOCATED IN THE S.E. 1/4, OF THE N.E. 1/4,**  
**OF SECTION 19, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M.,**  
**KING COUNTY, WASHINGTON**

**SCHEDULE B, PART 2, EXCEPTIONS:**

(PER CHICAGO TITLE COMPANY OF WASHINGTON, COMMITMENT NO. 0246999--ETU COMMITMENT - THIRD, DATED JANUARY 11, 2024)

**SPECIAL EXCEPTIONS:**

1. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: MERCER ISLAND SEWER DISTRICT, A MUNICIPAL CORPORATION  
 PURPOSE: SEWER PIPELINE AND ALL NECESSARY APPURTENANCES  
 RECORDING DATE: JUNE 19, 1964  
 RECORDING NO.: 5750989  
 RECORDING DATE: JULY 8, 1964  
 RECORDING NO.: 5758750  
 AFFECTS: A PORTION OF SHORELANDS LYING WITHIN STRIP OF LAND 10 FEET IN WIDTH

(EASEMENT(S) ARE DEPICTED HEREON IN AN APPROXIMATE LOCATION, WITHIN THE SHORELANDS)

2. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SHOWN IN THE DOCUMENT:

RECORDING DATE: APRIL 23, 1965  
 RECORDING NO.: 5870467  
 PURPOSE: STORM DRAINAGE AND UTILITIES  
 AFFECTS: WESTERLY TO FEET OF LOT 3, TRACT A, AND OTHER PROPERTY ADJOINING BUTTERWORTH ROAD

(EASEMENT(S) ARE DEPICTED HEREON)

3. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: CITY OF MERCER ISLAND  
 PURPOSE: UNDERGROUND STORM DRAIN RECORDING  
 DATE: APRIL 23, 1965  
 RECORDING NO.: 5870467  
 AFFECTS: THE NORTH 10 FEET OF LOT 1 AND ALL OF TRACT A

(EASEMENT(S) ARE DEPICTED HEREON)

4. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: MERCER ISLAND SEWER DISTRICT, A MUNICIPAL CORPORATION  
 PURPOSE: UNDERGROUND RIGID CONDUITS  
 RECORDING DATE: MAY 12, 1965  
 RECORDING NO.: 5878038  
 AFFECTS: PORTION OF TRACT A

(EASEMENT IS DEPICTED HEREON)

5. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SHOWN IN THE DOCUMENT

RECORDING DATE: SEPTEMBER 11, 1996  
 RECORDING NO.: 9609110173  
 PURPOSE: INGRESS AND EGRESS  
 AFFECTS: PORTION OF LOT 4 DESCRIBED AS FOLLOWS:  
 BEGINNING AT THE MOST WESTERLY CORNER OF SAID LOT 4, THEN SOUTH 22°26'49" EAST ALONG THE WESTERLY LINE OF SAID LOT 4 A DISTANCE OF 23.56 FEET; THENCE SOUTH 7°10'02" EAST ALONG THE SOUTHERLY LINE OF SAID LOT 4 A DISTANCE OF 35.00 FEET; THENCE NORTH 53°05'50" WEST A DISTANCE OF 53.14 FEET TO THE POINT OF BEGINNING.

(EASEMENT IS DEPICTED HEREON)

6. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: CITY OF MERCER ISLAND  
 PURPOSE: PUBLIC STORM DRAINAGE  
 RECORDING DATE: DECEMBER 29, 2000  
 RECORDING NO.: 20001229000271  
 AFFECTS: SOUTHEASTERLY PORTION OF SAID PREMISES

(EASEMENT IS DEPICTED HEREON, SEE NOTE)

7. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SHOWN IN THE DOCUMENT

RECORDING DATE: AUGUST 15, 2002  
 RECORDING NO.: 20020815001275  
 PURPOSE: UTILITIES TOGETHER WITH MAINTENANCE THEREOF  
 AFFECTS: SOUTHERLY PORTION OF SAID PREMISES

(EASEMENT(S) ARE DEPICTED HEREON)

8. COVENANTS, CONDITIONS, RESTRICTIONS, RECITALS, RESERVATIONS, EASEMENTS, EASEMENT PROVISIONS, ENCROACHMENTS, DEDICATIONS, BUILDING SETBACK LINES, NOTES, STATEMENTS, AND OTHER MATTERS, IF ANY, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH ON MERCER ISLAND BOUNDARY LINE REVISION NO. M.I. 92-09-43.

RECORDING NO: 9212299014

(EASEMENT IS DEPICTED HEREON)

9. COVENANTS, CONDITIONS, RESTRICTIONS, RECITALS, RESERVATIONS, EASEMENTS, EASEMENT PROVISIONS, ENCROACHMENTS, DEDICATIONS, BUILDING SETBACK LINES, NOTES, STATEMENTS, AND OTHER MATTERS, IF ANY, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH ON THE BOUNDARY LINE ADJUSTMENT NO. 94-0467.

RECORDING NO: 9606139004

(EASEMENT(S) ARE DEPICTED HEREON)

10. EXCEPTIONS AND RESERVATIONS CONTAINED IN DEED WHEREBY THE GRANTOR EXCEPTS AND RESERVES ALL OIL, GASES, COAL, ORES, MINERALS, FOSSILS, ETC., AND THE RIGHT OF ENTRY FOR OPENING, DEVELOPING AND WORKING THE SAME AND PROVIDING THAT SUCH RIGHTS SHALL NOT BE EXERCISED UNTIL PROVISION HAS BEEN MADE FOR FULL PAYMENT OF ALL DAMAGES SUSTAINED BY REASON OF SUCH ENTRY

GRANTOR: STATE OF WASHINGTON  
 RECORDING NO.: 1579699

RIGHT OF THE STATE OF WASHINGTON OR ITS SUCCESSORS, SUBJECT TO PAYMENT OF COMPENSATION, TO ACQUIRE RIGHTS OF WAY FOR PRIVATE RAILROADS, SKID ROADS, FLUMES, CANALS, WATER COURSES OR OTHER EASEMENTS FOR TRANSPORTING AND MOVING TIMBER, STONE, MINERALS AND OTHER PRODUCTS FROM THIS AND OTHER LAND, AS RESERVED IN ABOVE-REFERENCED DEED.

AFFECTS: SECOND CLASS SHORELANDS

11. COVENANTS, CONDITIONS, RESTRICTIONS, LIABILITY FOR ASSESSMENTS, AND EASEMENTS BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, SOURCE OF INCOME, GENDER, GENDER IDENTITY, GENDER EXPRESSION, MEDICAL CONDITION OR GENETIC INFORMATION, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DOCUMENT

RECORDING DATE: APRIL 23, 1965  
 RECORDING NO.: 5870467

(EASEMENTS ARE DEPICTED HEREON)

12. AGREEMENT, AND THE TERMS AND CONDITIONS THEREOF:

RECORDING DATE: DECEMBER 8, 1955  
 RECORDING NO.: 4641177  
 REGARDING: ESTABLISHING THE NORTH BOUNDARY LINE OF SECOND CLASS SHORELANDS ADJOINING LOT 1

(AGREEMENT NOTE IS DEPICTED HEREON)

**SCHEDULE B, PART 2, EXCEPTIONS (CONTINUED):**

13. AGREEMENT, AND THE TERMS AND CONDITIONS THEREOF:

RECORDING DATE: AUGUST 4, 1977  
 RECORDING NO.: 7708040844  
 REGARDING: THE BUILDING AND MAINTENANCE OF A DOCK ON THE SECOND CLASS SHORELANDS

(AGREEMENT NOTE IS DEPICTED HEREON)

14. AGREEMENT TO REMOVE AND REPLACE ENCROACHMENTS WITHIN PUBLIC RIGHT-OF-WAY, AND THE TERMS AND CONDITIONS THEREOF:

RECORDING DATE: NOVEMBER 25, 1997  
 RECORDING NO.: 9711251057

(IT IS UNCLEAR FROM THE DOCUMENT IF ANY ENCROACHMENTS HAVE BEEN OR WILL BE REMOVED UPON CITY NOTICE)

15. ANY QUESTION THAT MAY ARISE DUE TO SHIFTING AND CHANGING IN THE COURSE, BOUNDARIES OR HIGH WATER LINE OF LAKE WASHINGTON.

16. RIGHTS OF THE STATE OF WASHINGTON IN AND TO THAT PORTION, IF ANY, OF THE LAND WHICH LIES BELOW THE LINE OF ORDINARY HIGH WATER OF LAKE WASHINGTON.

17. ANY PROHIBITION OR LIMITATION OF USE, OCCUPANCY OR IMPROVEMENT OF THE LAND RESULTING FROM THE RIGHTS OF THE PUBLIC OR RIPARIAN OWNERS TO USE ANY PORTION WHICH IS NOW OR WAS FORMERLY COVERED BY WATER.

18. PARAMOUNT RIGHTS AND EASEMENTS IN FAVOR OF THE UNITED STATES FOR COMMERCE, NAVIGATION, FISHERIES AND THE PRODUCTION OF POWER.

19. RESERVATIONS AND EXCEPTIONS IN UNITED STATES PATENTS OR IN ACTS AUTHORIZING THE ISSUANCE THEREOF; INDIAN TREATY OR ABORIGINAL RIGHTS.

24. ANY RIGHTS, INTERESTS OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING MATTERS DISCLOSED BY AN INSPECTION AND BY SURVEY PREPARED BY M.W. MARSHALL DATED OCTOBER 5, 1992, UNDER JOB NO. 1260-E:

A) QUESTION OF THE LOCATION OF A HEDGE AND A CHAIN LINK FENCE ALONG A PORTION OF THE NORTH BOUNDARY LINE THAT DO NOT CONFORM TO THE PROPERTY LINE;

B) QUESTION OF THE LOCATION OF PLANTINGS ALONG THE WEST LINE OF THE PROPERTY THAT DO NOT CONFORM TO THE PROPERTY LINE;

C) QUESTION OF THE LOCATION OF PLANTINGS AND VEGETATION ALONG THE SOUTH LINE OF THE PROPERTY THAT DO NOT CONFORM TO THE PROPERTY LINE.

**NOTES:**

- MONUMENTS VISITED ON 03/15/2024.
- THIS SURVEY WAS PERFORMED ON THE GROUND BETWEEN THE DATES OF 02/12/24 AND 03/15/2024 UNDER THE GUIDELINES OF THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS AS ADOPTED BY ALTA AND NSPS.
- NO EVIDENCE OF CEMETARIES, BURIAL GROUNDS OR LAKES BORDER OR RUN THROUGH THESE PREMISES. AN EXISTING STREAM WITH SMALL MAN-MADE PONDS BORDERS THE SOUTHERN BOUNDARY HEREON AND IS DEPICTED.
- UTILITIES LOCATED AND MAPPED BY DIRECT FIELD OBSERVATIONS AND UTILITY COMPANY MARKED LOCATIONS. UTILITIES LOCATED AND MARKED THE WEEK OF MARCH 11, 2024 BY MT. VIEW LOCATING SERVICES.
- NO EVIDENCE OF ANY RECENT EARTH WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS WERE OBSERVED DURING THIS SURVEY.
- NO PROPOSED CHANGES IN STREET RIGHT-OF-WAY LINES OR EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS OBSERVED DURING THIS SURVEY.
- NO WETLANDS MARKERS WERE FOUND DURING THIS SURVEY.
- THE REVISED PROPERTY AREA AS SHOWN ON THE ROSA LINE REVISION (RLR) EQUALS 83,107 SQ. FT., EXCLUSIVE OF EASEMENT FOR INGRESS & EGRESS. OUR CALCULATED AREA EQUALS 83,106 SQ. FT. THESE AREAS ARE TO THE ROCK SEAWALL (HIGH WATER LINE) AS DEPICTED ON THE REVISION. AS-BUILT LOCATIONS OF THE CURRENT ROCK SEAWALL DIFFER SLIGHTLY FROM THE 1996 REVISION. PROPERTY AREAS TO THE APPROXIMATE CURRENT FACE OF SEAWALL ARE AS FOLLOWS: 83,640 SQ. FT. (INCLUDING EASEMENT) AND 83,320 SQ. FT. EXCLUDING EASEMENT.
- THE SEAWALL LOCATION WAS SURVEYED AND MEASURED ON FEB. 12, 2024. IT WAS MEASURED AT THE APPROXIMATE FACE (WATER SIDE) OF 2-MAN OR LARGER ROCKS AT POINTS OF ANGLE OR END POINTS. THESE MEASURED POINTS ARE ARBITRARY AS ROCK FACES ARE NOT ALIGNED IN CONTINUOUSLY STRAIGHT SECTIONS AND CONTAIN UNEVEN SURFACES. THE FACE OF SEAWALL IS SUBJECT TO CHANGE DUE TO NATURAL CAUSES. ACTUAL OWNERSHIP LINES EXTEND TO THE LIMITS OF SECOND CLASS SHORELANDS ADJOINING. NO ATTEMPT WAS MADE TO SURVEY THESE LIMITS.

**REFERENCE SURVEYS:**

- PLAT OF TONJA ESTATES, VOL. 77, PAGE 64, KING COUNTY, WA.
- ROSA LINE REVISION, CITY OF MERCER ISLAND FILE NO. 94-0467, REC. NO. 9606139004
- FELTIS-EYRING BOUNDARY LINE REVISION, MERCER ISLAND FILE NO. M.I. 92-09-43, REC. NO. 9212299014

**LEGEND:**

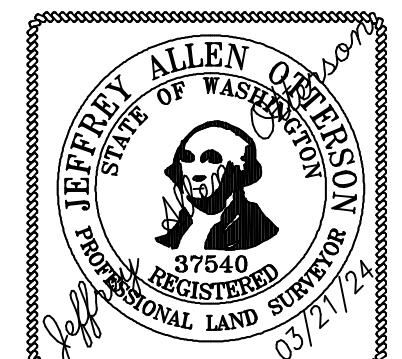
- FOUND CONCRETE MONUMENT IN CASE W/ 3/8" BRASS PLUG & PUNCH
- SET 1/2" REBAR & CAP "CASCADE LS 37540"
- FOUND REBAR & CAP OR IRON PIPE & CAP AS DESCRIBED
- SET OR FOUND NAIL & WASHER AS DESCRIBED
- CATCH BASIN
- AREA DRAIN
- SANITARY SEWER MANHOLE
- GAS VALVE
- GAS METER
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- WATER HOT BOX
- WATER FAUCET
- TELEPHONE OR COMM RISER
- PT POWER TRANSFORMER
- PV POWER VAULT
- ELECTRIC BOX
- UTILITY POLE
- GUY ANCHOR
- MAIL BOX
- CONIFER TREE
- LEYLAND CYPRESS IN ROW
- DECIDUOUS TREE
- OVERHEAD ELECTRICAL AND/OR COMM LINES
- UNDERGROUND ELECTRICAL LINES
- UNDERGROUND GAS MAIN
- UNDERGROUND COMM LINES
- SANITARY SEWER MAIN
- UNDERGROUND WATER MAIN
- IRON FENCE ON CONC. FOOTING
- CHAIN LINK FENCE
- ROCKERY
- (P) PLAT OF TONJA ESTATES
- (RLR) ROSA LINE REVISION REC. NO. 9606139004
- CLF CHAIN LINK FENCE
- G GATE
- CP CONCRETE PILLAR
- EA EDGE OF PAVEMENT
- EC EXTRUDED CURB
- APP APPLE
- CW COTTONWOOD
- MAG MAGNOLIA
- SPR SPRUCE
- K KATSURA
- C CEDAR
- F FIR
- PE PAULOWNIA/EMPRESS
- CC CHINESE CATALPA
- DT DECIDUOUS TREE
- M MAPLE
- JS JAPANESE STEWARTIA
- P PINE
- L LAUREL
- J JUNIPER
- B BIRCH
- PC PHOTINIA CV.
- 26.30 SPOT ELEVATION
- (A) PROPERTY CORNER NOTE
- (I) EXCEPTION REFERENCE NO. PER SCHEDULE B
- AREAS OF GRAVEL
- AREAS OF STONE PAVERS
- AREAS OF CONCRETE
- AREAS OF CONCRETE PAVERS

**ALTA/NSPS LAND TITLE SURVEY CERTIFICATION**

TO ROGER MACPHERSON RESIDENTIAL TRUST AND NANCY MACPHERSON RESIDENTIAL TRUST AND TO CHICAGO TITLE COMPANY OF WASHINGTON:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 4 AND 5 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 15, 2024.

DATE OF PLAT MAP: 03/21/24  
 NAME: Jeffrey Allen Otterson  
 REGISTRATION NO. 37540

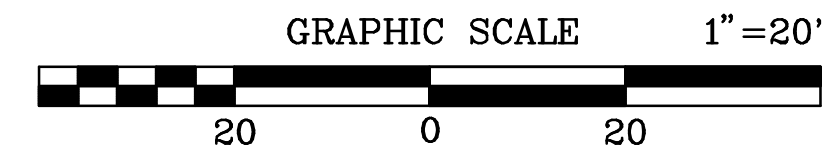


**CASCADE LAND SURVEYING**  
 Complete Land Surveying Services  
 16009 AP TUBBS RD E, BUCKLEY, WA 98321  
 PHONE: (253) 820-4016  
 Email: jeff@cascadelands.com  
 CHECKED BY: JAO  
 SCALE: N/A

**ALTA/NSPS LAND TITLE SURVEY**  
**FOR: MACPHERSON RESIDENTIAL TRUST**  
**5930 BUTTERWORTH ROAD**  
**MERCER ISLAND, WA 98040**

**SURVEYOR'S CERTIFICATE**  
 THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF ROGER MACPHERSON RESIDENTIAL TRUST AND NANCY MACPHERSON RESIDENTIAL TRUST  
 Jeffrey Allen Otterson  
 P.L.S. CERTIFICATE NO. 37540





**BASIS OF BEARINGS:**

THE CENTERLINE OF BUTTERWORTH ROAD, BEING NORTH 20°10'45" EAST PER THE PLAT OF TONJA ESTATES, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 77 OF PLATS, PAGE 64, IN KING COUNTY, WASHINGTON.

**VERTICAL DATUM:**

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

**BENCHMARK:**

LAKE WASHINGTON WATER SURFACE ELEVATION PER U.S. ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT, WATER MANAGEMENT, ELEVATION = 17.17 NAVD 88 ON MARCH 1, 2024 AT 10:30 A.M.

**CONTOUR INTERVAL:**

2 FEET

**LEGAL DESCRIPTION:**

(PER CHICAGO TITLE COMPANY OF WASHINGTON COMMITMENT NO. 0246999-ETU, THIRD, DATED JANUARY 11, 2024)

LOTS 3 AND 4, TONJA ESTATES, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 77 OF PLATS, PAGE 64, IN KING COUNTY, WASHINGTON.

EXCEPT THAT PORTION OF SAID LOT 3, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 3;

THENCE SOUTH 01°35'04" WEST ALONG THE EASTERLY LINE OF LOT 3 A DISTANCE OF 75.31 FEET;

THENCE NORTH 10°03'02" WEST A DISTANCE OF 74.73 FEET;

THENCE NORTH 76°21'57" WEST A DISTANCE OF 10.15 FEET, MORE OR LESS, TO THE NORTH LINE OF SAID LOT 3;

THENCE SOUTH 88°24'56" EAST ALONG SAID NORTH LINE 25.00 FEET TO THE POINT OF BEGINNING, AND THE END OF THIS EXCEPTION;

TOGETHER WITH AN UNDIVIDED 1/7TH INTEREST IN LOT 1 OF SAID PLAT; AND

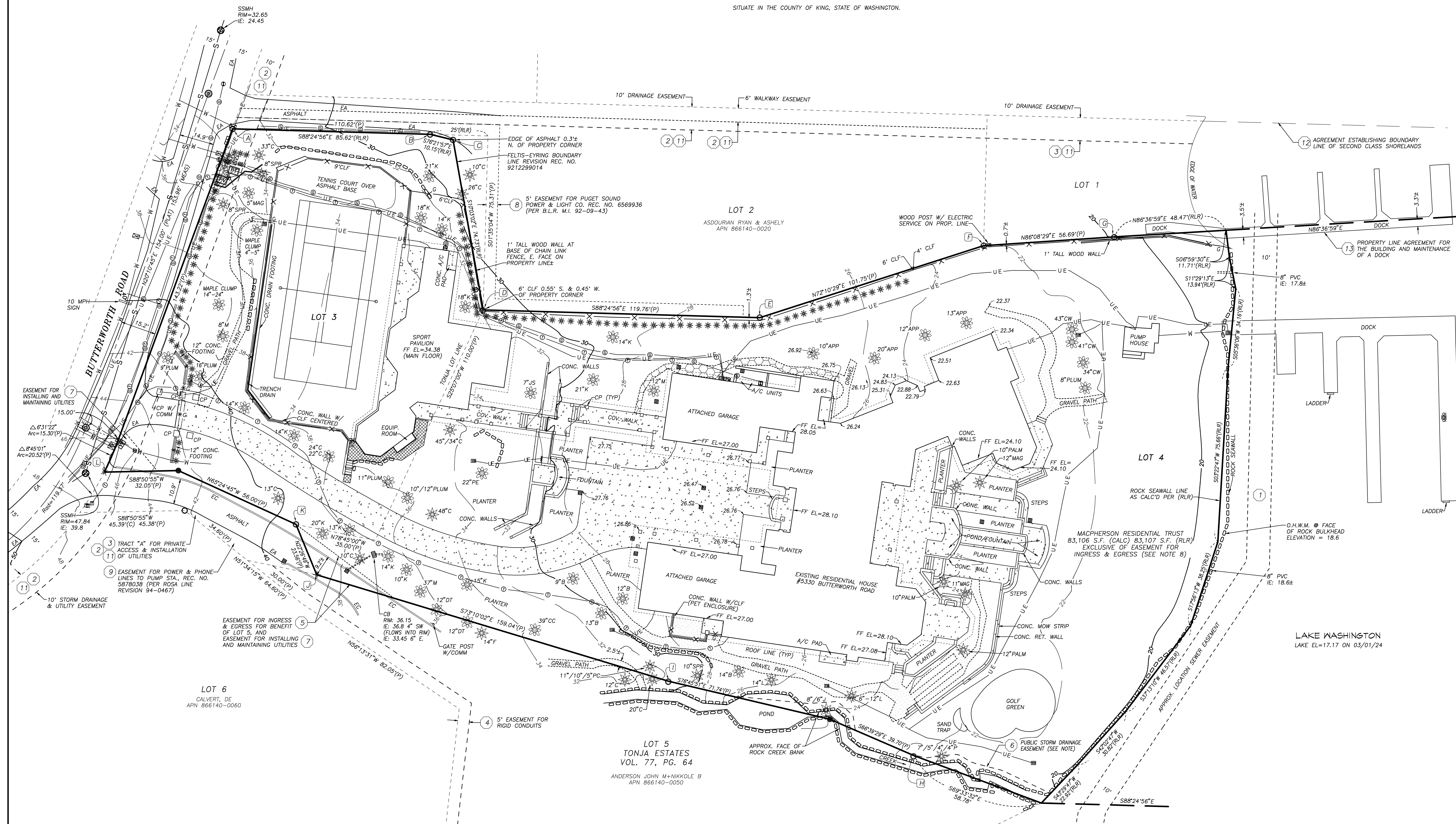
TOGETHER WITH AN UNDIVIDED 1/2 INTEREST IN TRACT A OF SAID PLAT;

(ALSO KNOWN AS THE ROSA LINE REVISION, CITY OF MERCER ISLAND FILE NO. 94-0467, RECORDED UNDER RECORDING NUMBER 9606139004).

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

**FOUND/SET PROPERTY CORNER LEGEND:**

- (A) FOUND 3/4" IRON PIPE & CAP "LS 20764" S49°E 0.09'
- (B) FOUND 3/4" IRON PIPE & CAP W/TACK "LS 20764" S38°W 0.09'
- (C) FOUND 1/2" REBAR & CAP "TERRANE 15025 56664 52088 57176"
- (D) FOUND 3/4" IRON PIPE & CAP W/TACK "LS 20764" S26°W 0.16'
- (E) FOUND 1/2" REBAR & CAP "TERRANE 15025 56664 52088 57176"
- (F) FOUND 3/4" IRON PIPE & CAP W/TACK "LS 20764" S51°E 0.08'
- (G) FOUND 3/4" IRON PIPE & CAP W/TACK "LS 20764" S4°W 0.17'
- (H) FOUND 3/4" IRON PIPE & CAP W/TACK "LS 20764" S34°W 0.41'
- (J) FOUND 3/4" IRON PIPE & CAP W/TACK "LS 20764" S22°W 0.22'
- (V) FOUND MAG NAIL & WASHER "37427" N49°E 0.09'
- (K) FOUND 1/2" REBAR & CAP "TRIAD ASSOC 19620 22335 21402 18094"
- (L) SET MAG NAIL & I.D. WASHER "LS 37540"

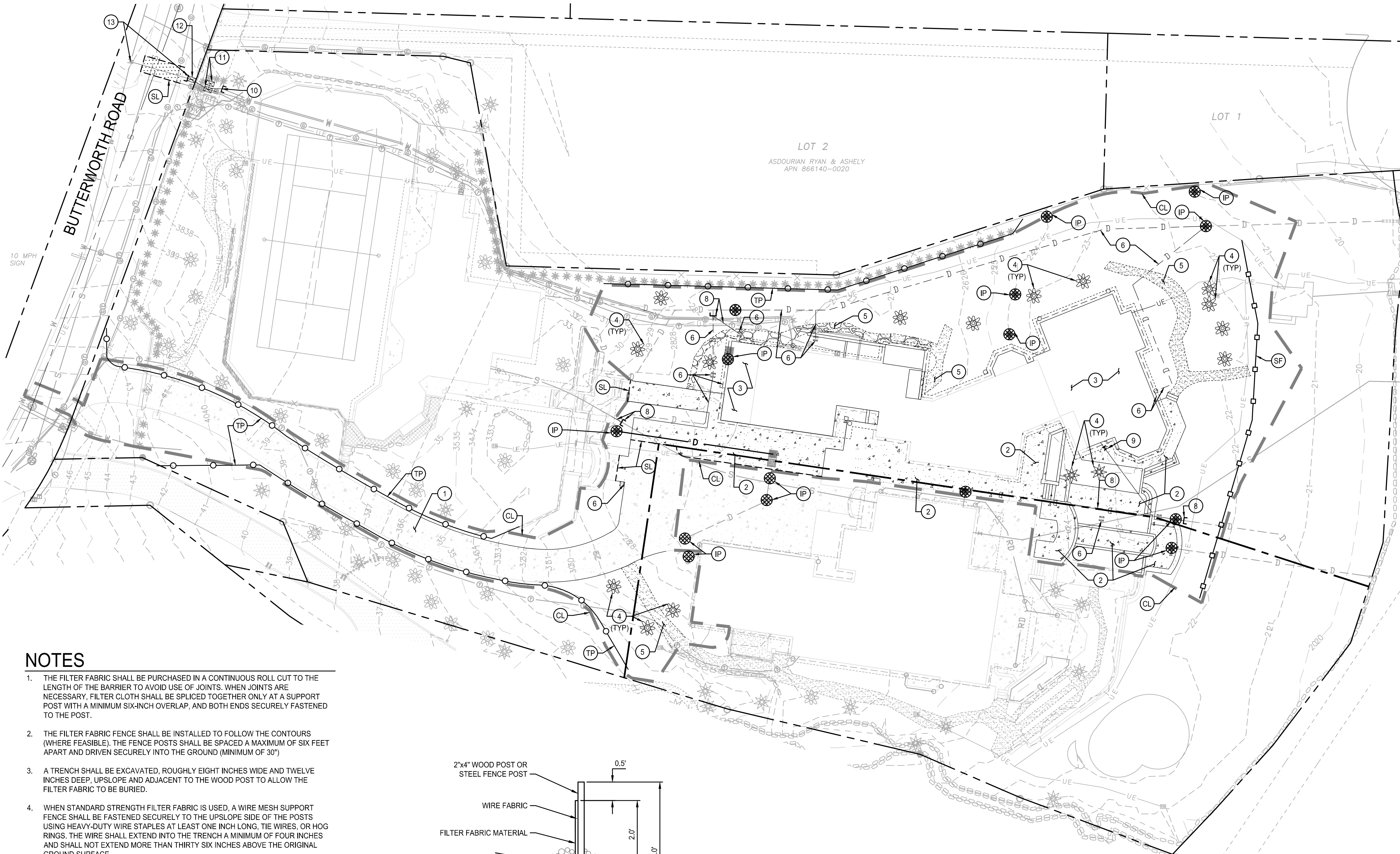


**SURVEYOR'S CERTIFICATE**  
 THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF ROGER MACPHERSON RESIDENTIAL TRUST IN AND NANCY MACPHERSON RESIDENTIAL TRUST  
 Jeffrey Allen Otterson  
 P.L.S. CERTIFICATE NO. 37540



**ALTA/NSPS LAND TITLE SURVEY**  
**FOR: MACPHERSON RESIDENTIAL TRUST**  
**5330 BUTTERWORTH ROAD**  
**MERCER ISLAND, WA 98040**

**CASCADE LAND SURVEYING**  
 Complete Land Surveying Services  
 16009 AP TUBBS RD E, BUCKLEY, WA 98321  
 PHONE: (253) 820-4016  
 Email: jeff@cascadelands.com  
 CHECKED BY: JAO  
 SCALE: 1" = 20'  
 DRAWN BY: JAO  
 JOB NO.: 2024-003  
 DATE: Thu., Mar. 21, 2024  
 SHEET: 2 OF 2



**LEGEND**

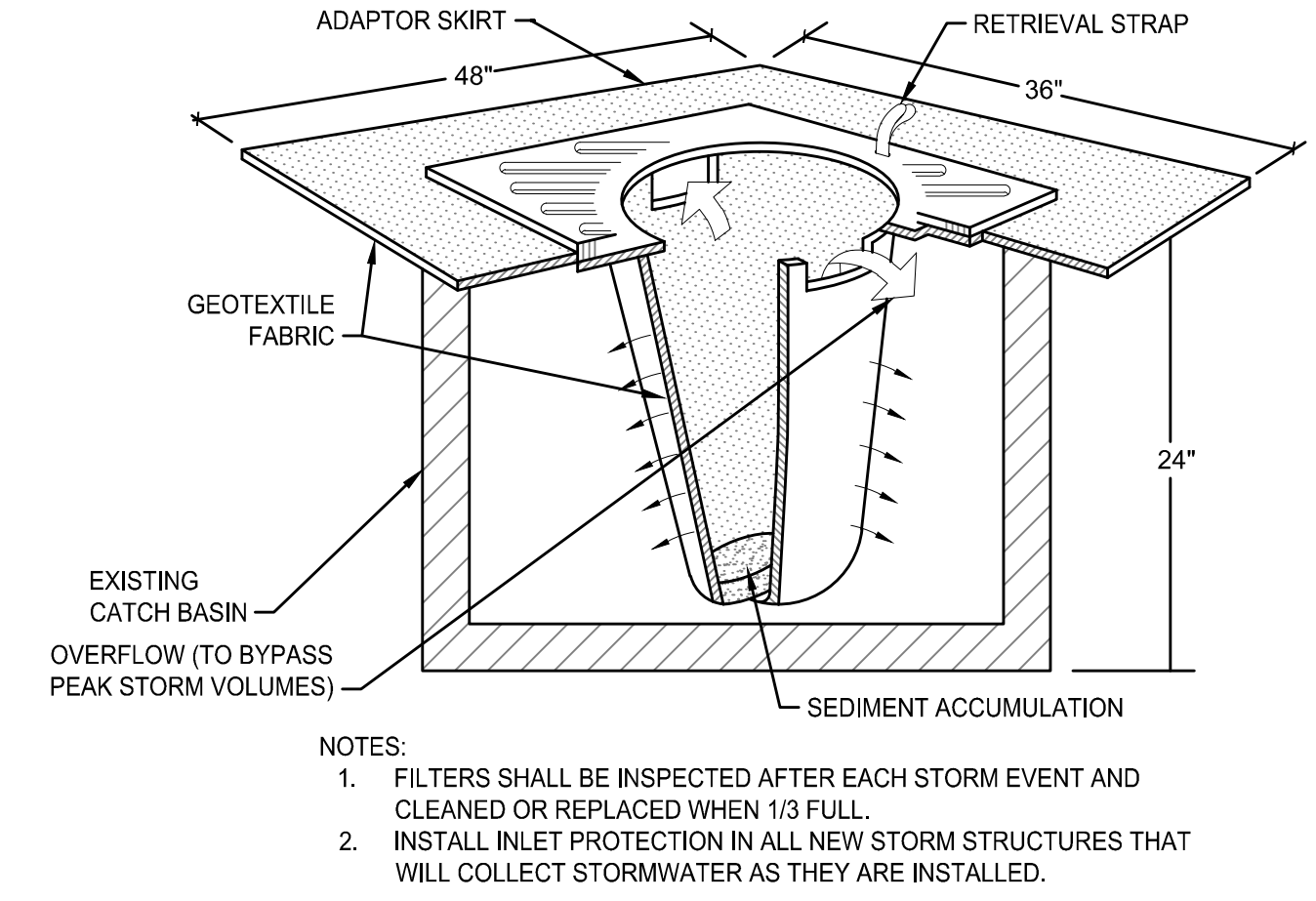
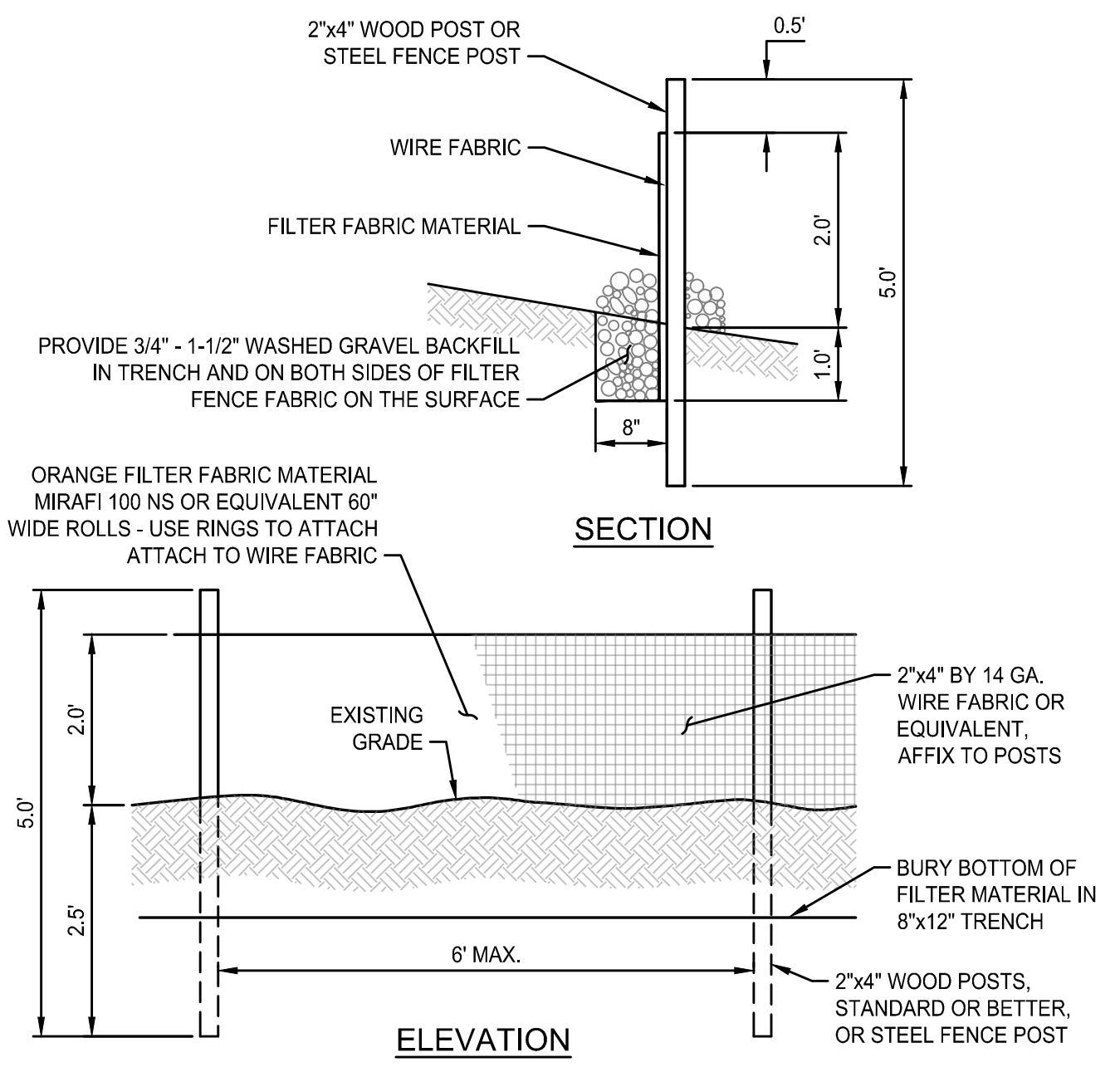
- RIGHT-OF-WAY / PROPERTY LINE
- LOT LINE
- CL — CLEARING / PROJECT LIMITS
- ▨ — REMOVE EXISTING ASPHALT
- ▩ — REMOVE EXISTING CONCRETE
- SF — SILT FENCE (1 C1.0)
- IP — INLET PROTECTION (2 C1.0)
- SL — SAWCUT LINE
- TREE PROTECTION FENCE
- ★ — REMOVE EXISTING TREE
- ★ — EXISTING TREE TO REMAIN
- - - 100 — EXISTING MAJOR CONTOURS
- - - 101 — EXISTING MINOR CONTOURS
- 101 — PROPOSED MINOR CONTOUR
- 100 — PROPOSED MAJOR CONTOUR

**KEYNOTES**

- 1 UTILIZE EXISTING DRIVEWAY AS CONSTRUCTION ENTRANCE
- 2 REMOVE EXISTING CEMENT CONCRETE.
- 3 REMOVE EXISTING BUILDING AND OVERHANG. REFER TO ARCHITECTURAL PLANS FOR EXTENTS OF DEMOLITION.
- 4 REMOVE EXISTING TREE.
- 5 REMOVE EXISTING ROCKERY/GRAVEL PATH.
- 6 REMOVE EXISTING UTILITY.
- 7 PRESERVE AND PROTECT EXISTING BUILDING.
- 8 REMOVE PORTION OF EXISTING UTILITY AND CAP IN PLACE.
- 9 REMOVE AND RELOCATE EXISTING UTILITY CONNECTION PER PLANS.
- 10 CUT AND CAP EXISTING 2" FIRE LINE.
- 11 REMOVE EXISTING 2" FIRE SUPPRESSION DOUBLE CHECK VALVE AND 5/8" METER LOOP. RECONNECT EXISTING WATER SERVICE LINE TO PROPOSED 1" WATER METER.
- 12 REMOVE EXISTING 2" METER.
- 13 CAP AND ABANDON EXISTING WATER SERVICE LINE AT REMOVED METER TO CITY WATER MAIN.

**NOTES**

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



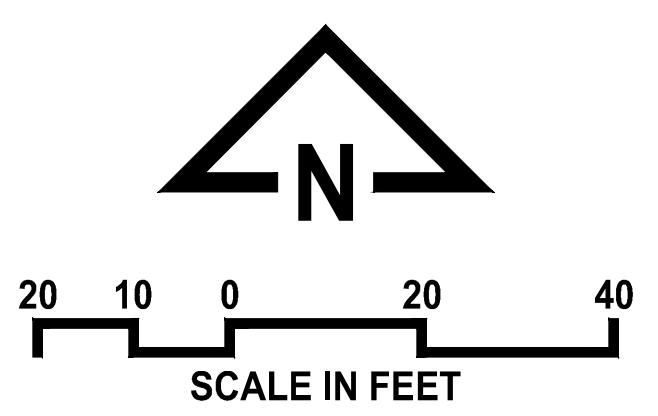
- NOTES:**
- 1. FILTERS SHALL BE INSPECTED AFTER EACH STORM EVENT AND CLEANED OR REPLACED WHEN 1/3 FULL.
  - 2. INSTALL INLET PROTECTION IN ALL NEW STORM STRUCTURES THAT WILL COLLECT STORMWATER AS THEY ARE INSTALLED.

**1 SILT FENCE**  
NOT TO SCALE

**2 INLET PROTECTION**  
NOT TO SCALE

CONTRACTOR SHALL FURNISH, INSTALL, ADJUST, AND MAINTAIN TEMPORARY 6 FOOT CHAINLINK SECURITY FENCE AT SITE PERIMETER FOR ENTIRE DURATION OF PROJECT. SECURITY FENCE SHALL INCLUDE, BUT IS NOT NECESSARILY LIMITED TO, CHAINLINK FABRIC, RAILS, POSTS, GATES, LOCKS, AND BRACES.

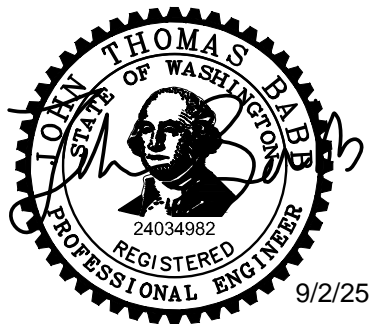
**CLEARING LIMITS NOTE**  
THE CLEARING LIMITS SHOWN MAY NEED TO BE ADJUSTED TO PERFORM THE WORK. CONTRACTOR IS RESPONSIBLE FOR REVIEWING LIMITS AND CONFIRMING SILT FENCE LOCATION PRIOR TO WORK. ANY ADJUSTMENTS SHALL BE AT THE COST OF THE CONTRACTOR.



**MACPHERSON RESIDENCE**  
5320 BUTTERWORTH RD  
MERCER ISLAND, WA 98040

PERMIT SET

**ETHOS CIVIL**  
Engineering | Entitlement | Project Management  
ethoscivil.com info@ethoscivil.com 253.414.1989



DESIGNED	AMB
CHECKED	JTB
DRAWN	AMB
CHECKED	JTB

#	DATE	DESCRIPTION

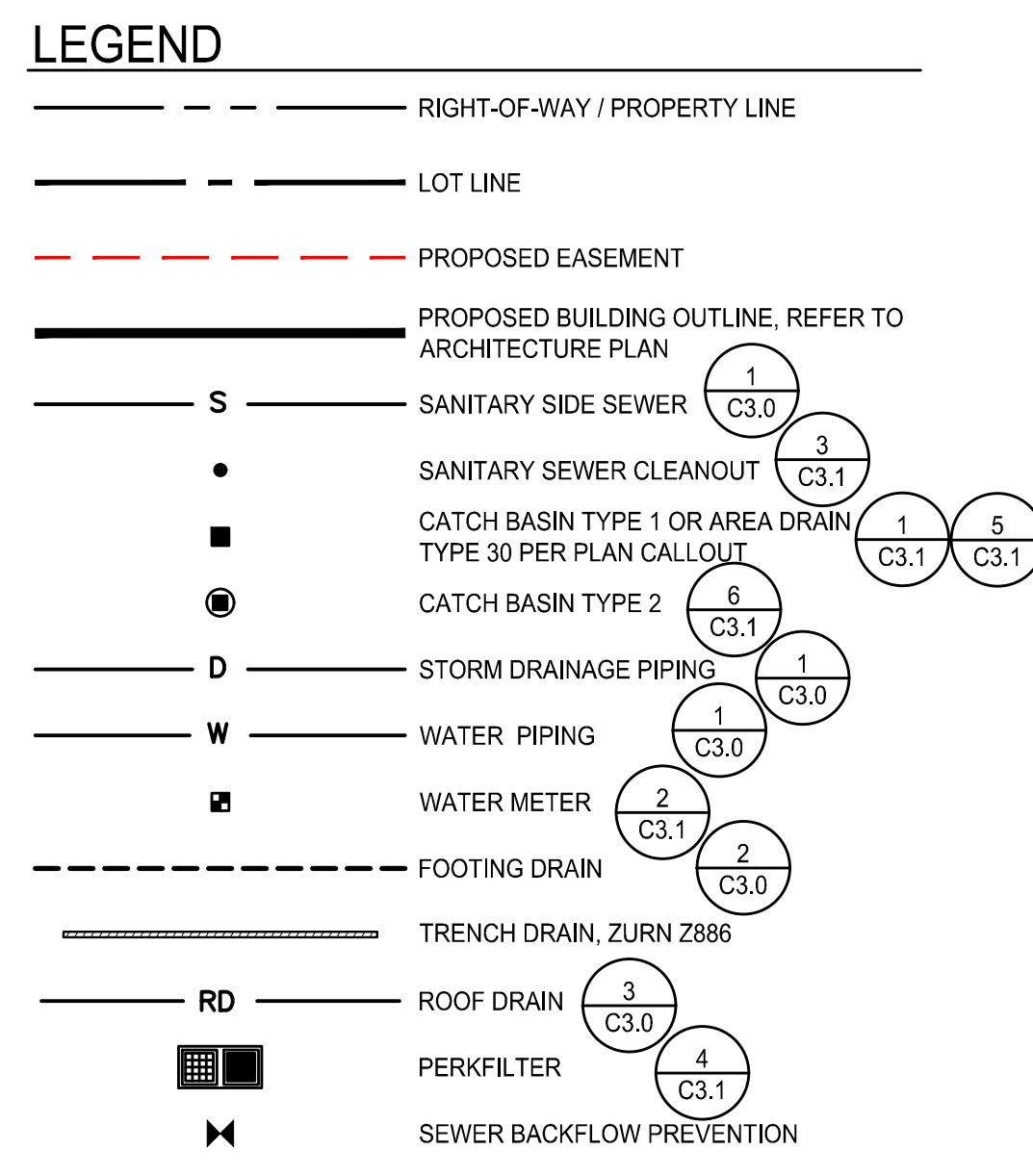
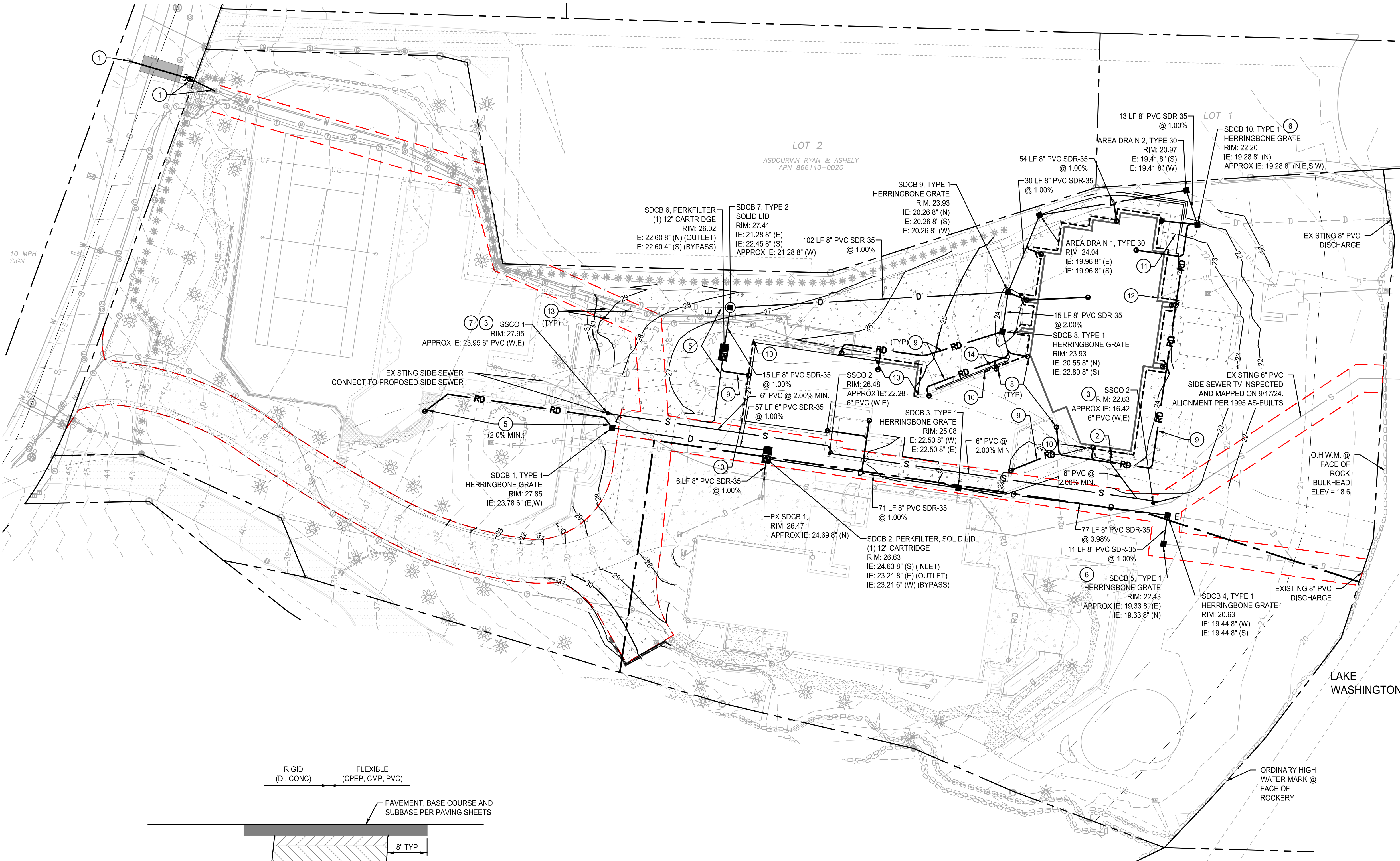
24004  
09/02/2025  
**TESC AND DEMOLITION**

**C1.0**

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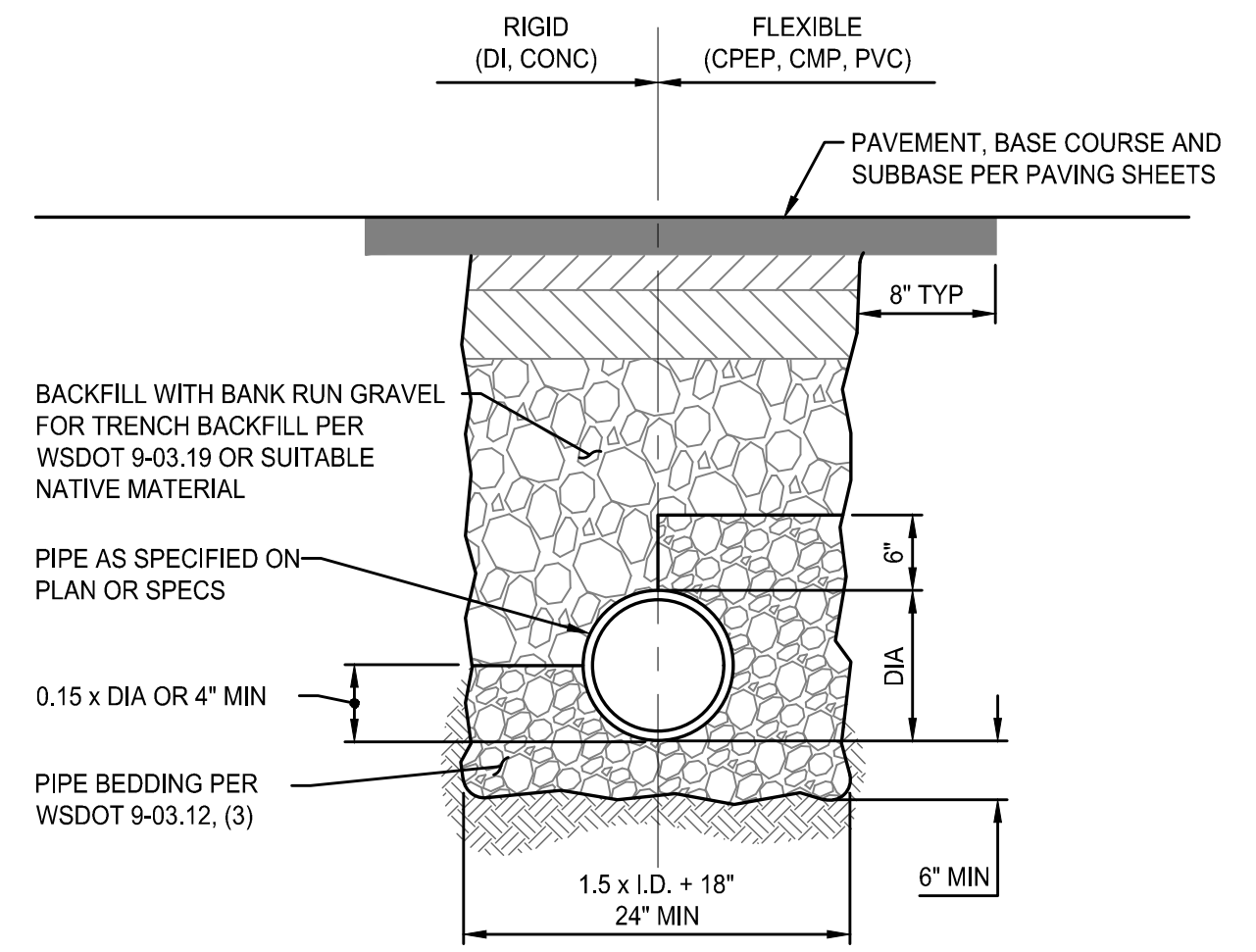
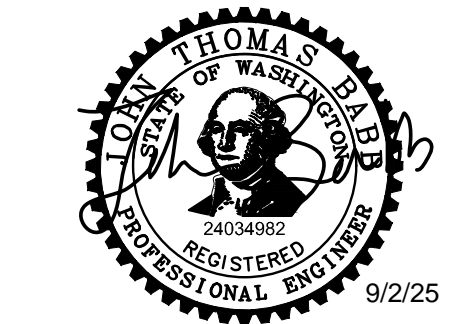


- ### KEYNOTES
- 1 PROVIDE NEW 1" WATER SERVICE AND METER (SIZE AS REQUIRED AND LOCATED NEXT TO ABANDONED EXISTING WATER SERVICE CONNECTION TO CITY WATER MAIN). CONNECT TO EXISTING CITY WATER MAIN AND RPBA.
  - 2 PROVIDE SEWER BACKFLOW PREVENTION VALVE.
  - 3 CONNECTION TO EXISTING SEWER SERVICE LINE. POTHOLE TO LOCATE EXACT LOCATION AND DEPTH OF EXISTING LINE.
  - 4 NOT USED.
  - 5 CONNECT EXISTING SPORTS PAVILION STORM DRAIN LINES TO PROPOSED STORM SYSTEM.
  - 6 LOCATE AND CONNECT TO EXISTING 8" PVC DRAINAGE PIPE.
  - 7 CONNECT TO EXISTING SEWER SERVICE LINE TO MAINTAIN SEWER SERVICE FOR SPORTS PAVILION.
  - 8 DOWNSPOUT, TYP. REFER TO ARCHITECTURAL DRAWINGS.
  - 9 ROOF DRAIN LINE, 4" PVC SDR-35 @ 2.0% MIN.
  - 10 CONNECT TO EXISTING FOOTING DRAIN, APPROX IE: 23.37.
  - 11 4" PVC FOOTING DRAIN TIGHTLINE @ 2.00% MIN.
  - 12 RECONNECT POWER LINE TO PROPOSED BUILDING EXPANSION.
  - 13 PROTECT EXISTING UTILITIES.
  - 14 PROVIDE 27 LF ZURN Z886 TRENCH DRAIN WITH CAST IRON GATE. 4" PVC DRAIN LINE TO PROPOSED CATCH BASIN @ 1.00% MIN.

**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD  
 MERCER ISLAND, WA 98040

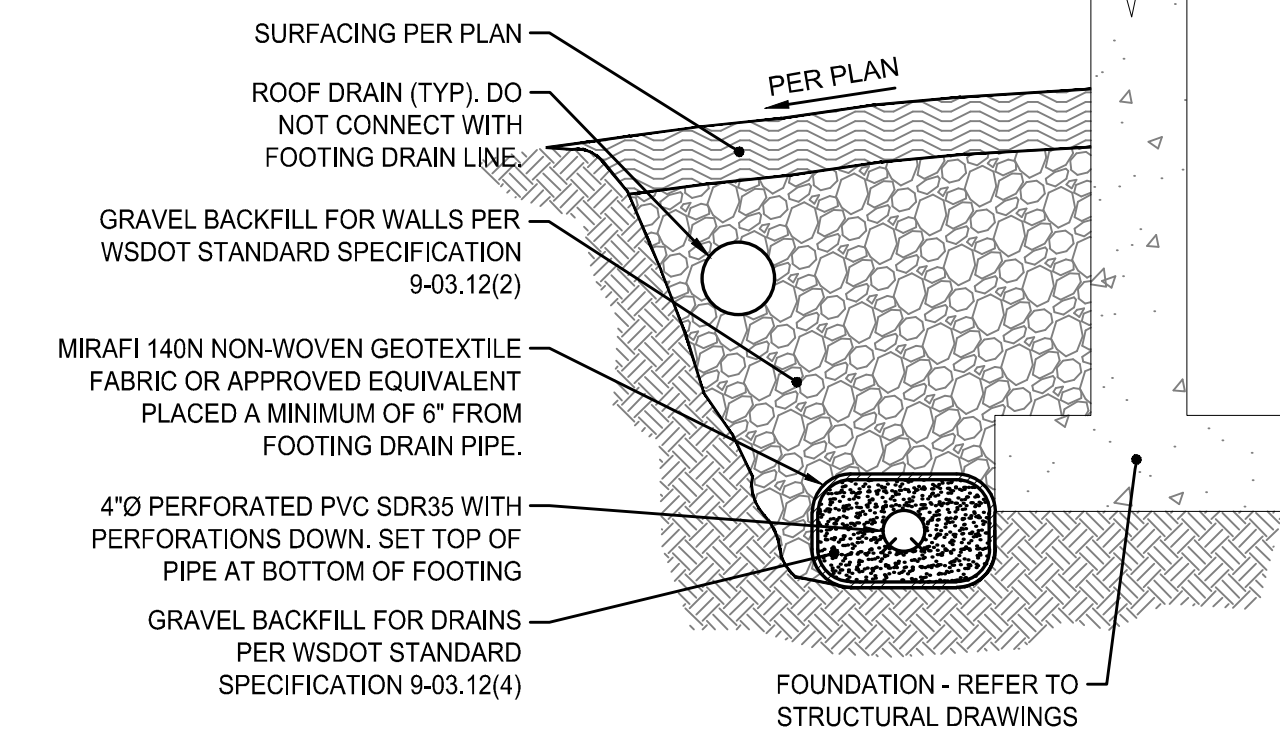
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 ethoscivil.com info@ethoscivil.com 253.414.1989

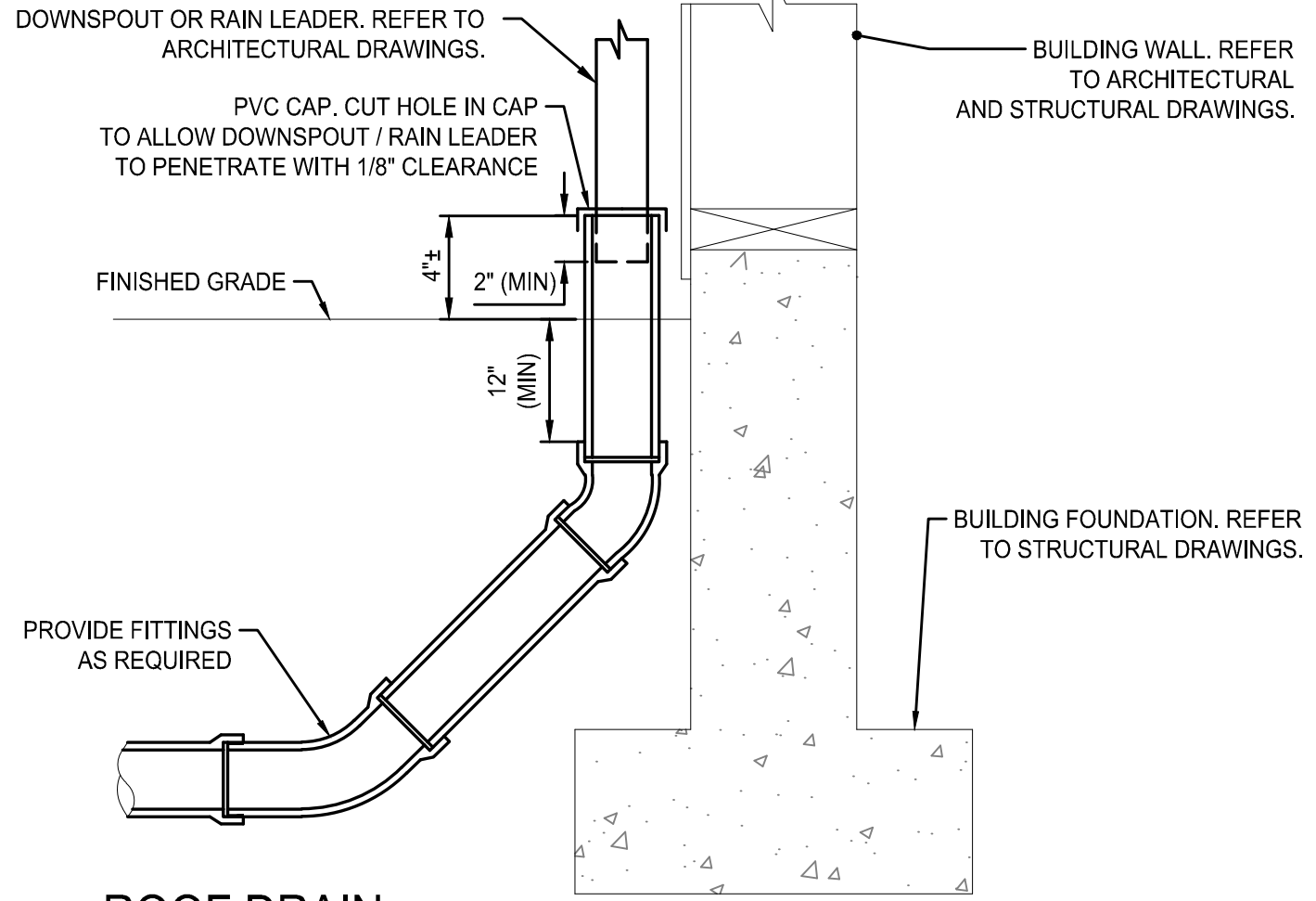


- NOTES:**
1. BACKFILL MATERIAL SHALL NOT HAVE ROCKS OR PARTICLES LARGER THAN 1" WITHIN 12" OF THE PIPE. BACKFILL MATERIAL SHALL BE PLACED IN 8" MAXIMUM LOOSE LIFTS AND COMPACTED TO 95% MAXIMUM DRY DENSITY PER MODIFIED PROCTOR TEST (ASTM D-1557).
  2. CONSTRUCT ALL STORM AND ROOF DRAINS IN CONFORMANCE WITH THIS DETAIL UNLESS NOTED OTHERWISE ON THE PLANS.
  3. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.
  4. IF ORGANIC MATERIAL IS ENCOUNTERED DURING UTILITY EXCAVATION, OVEREXCAVATE TRENCH TO INCREASE PIPE BEDDING DEPTH TO 18" OR MORE AS REQUIRED TO COMPACT BEDDING TO FIRM AND UNYIELDING CONDITION.

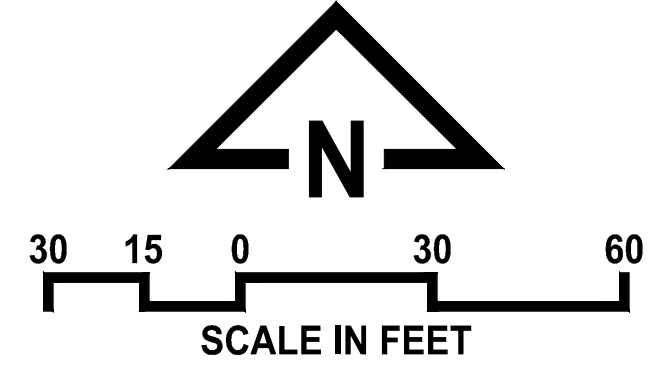
1 TRENCH SECTION  
NOT TO SCALE



2 FOOTING DRAIN  
NOT TO SCALE



3 ROOF DRAIN  
NOT TO SCALE



#	DATE	DESCRIPTION

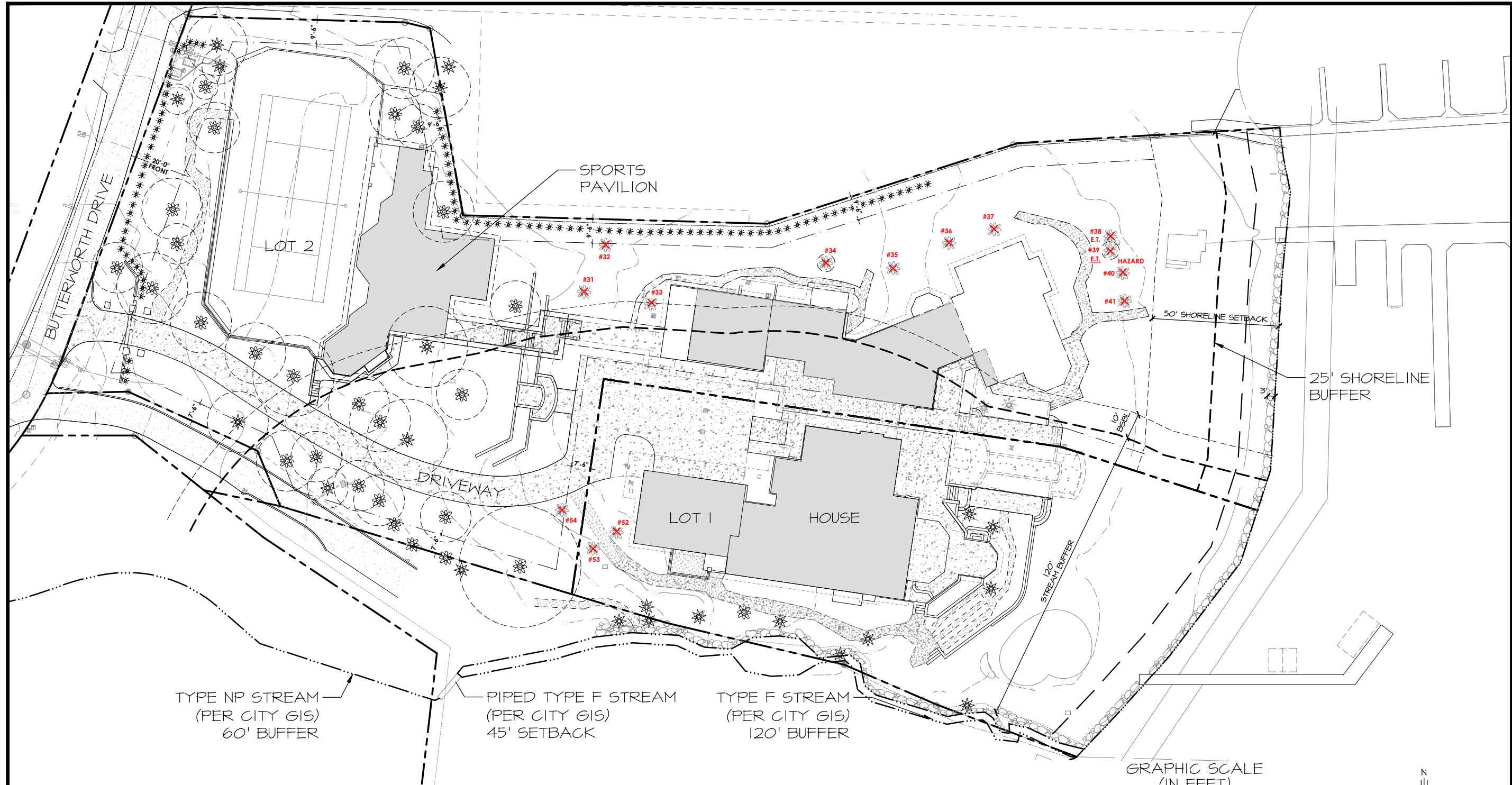
24004  
09/02/2025

UTILITY PLAN

C3.0

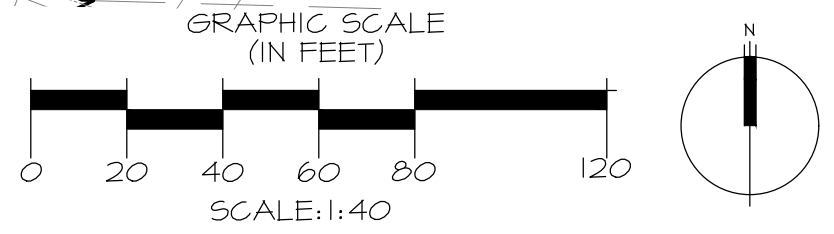






**PLAN LEGEND**

- — — — — PROPERTY LINE
- · · · · · STREAM / O.H.W.M. LOCATION
- - - - - STREAM / SHORELINE BUFFER
- - - - - 10' STRUCTURE SETBACK
- - - - - 10' SHORELINE BUFFER
- \* TREES TO BE REMOVED PER ARBORIST REPORT



**NOTES**

1. BASE INFORMATION PROVIDED BY CASCADE LAND SURVEYING, 16009 AP TUBBS RD E, BUCKLEY, WA 98321. 253.820.4016, JEFF@CASCADELS.COM.

PROJECT	7341
DRAWN	KV
SCALE	AS NOTED
DATE	6-2-25
REVISED	6-4-25

FIGURE 1: EXISTING CONDITIONS  
 BUTTERWORTH BLA  
 5320 AND 5330 BUTTERWORTH ROAD  
 MERCER ISLAND, WASHINGTON  
 PARCEL 866140-0040 AND -0045



**Altmann Oliver Associates, LLC**  
 Environmental Planning & Landscape Architecture  
 PO Box 578 - Camanion, WA 98014 - 425.333.4535 - altoliver.com

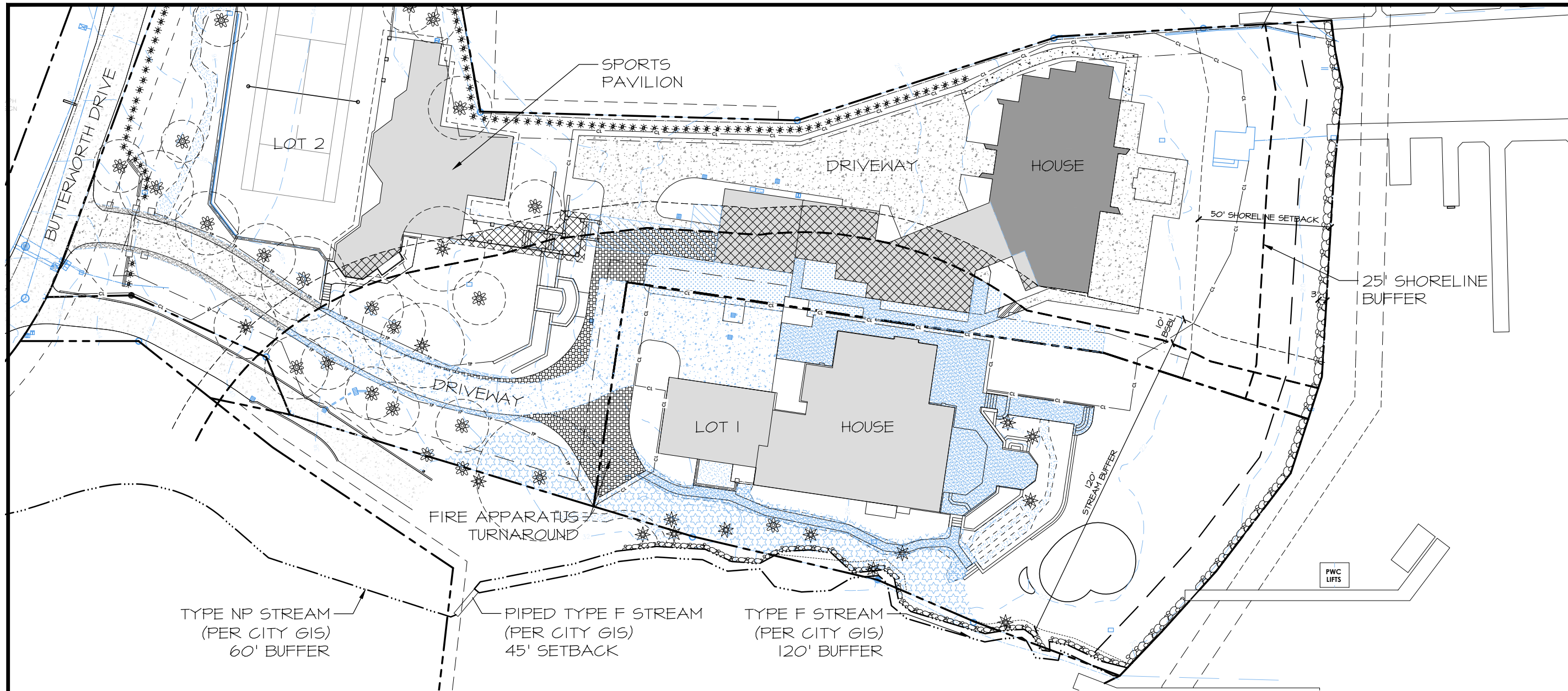


FIGURE 2: STREAM BUFFER MITIGATION PLAN  
 BUTTERWORTH BLA  
 5320 AND 5330 BUTTERWORTH ROAD  
 MERCER ISLAND, WASHINGTON  
 PARCEL 866140-0040 AND -0045

**STREAM BUFFER / SETBACK IMPACTS**

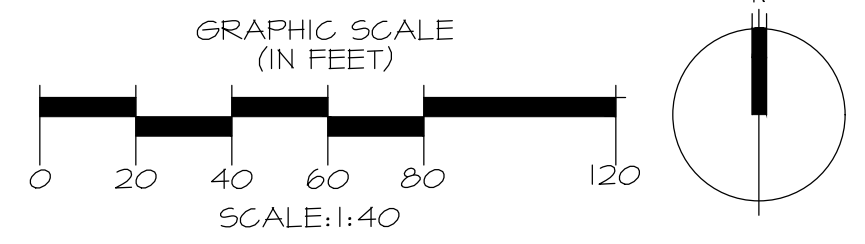
EXISTING IMPERVIOUS TO REMAIN	
STRUCTURE	3,675 SF
DRIVEWAY	3,555 SF
SIDEWALKS, PATHS, SHOULDERS	3,389 SF
<b>TOTAL EXISTING IMPERVIOUS:</b>	<b>10,619 SF</b>
REMOVED IMPERVIOUS	
STRUCTURE	685 SF
SIDEWALKS, PATHS, MISC	2,020 SF
<b>TOTAL REMOVED IMPERVIOUS:</b>	<b>2,705 SF</b>

NEW IMPERVIOUS	
DRIVEWAY AND HAMMERHEAD	1,790 SF
SIDEWALKS, PATHS, MISC	33 SF
<b>TOTAL NEW IMPERVIOUS:</b>	<b>1,823 SF</b>

NOTE: AREAS ARE MEASURED WITHIN THE LIMITS OF THE STREAM BUFFER/SETBACK. ALL AREAS OUTSIDE BUFFER/SETBACK ARE EXCLUDED.  
 IMPERVIOUS DECREASE IN BUFFER/SETBACK = 822 SF

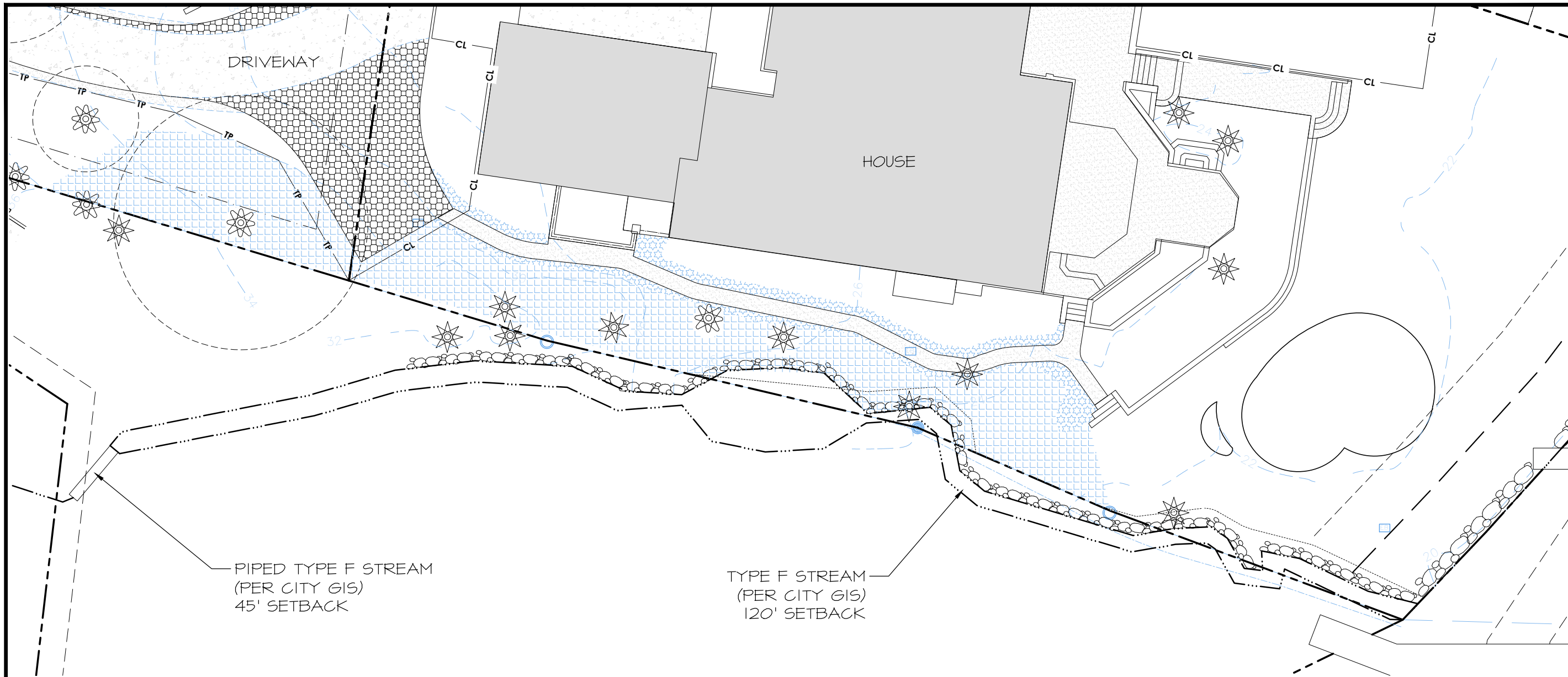
**MITIGATION LEGEND**

STREAM BUFFER ENHANCEMENT	2,860 SF
---------------------------	----------



**NOTES**

- BASE INFORMATION PROVIDED BY CASCADE LAND SURVEYING, 16009 AP TUBBS RD E, BUCKLEY, WA 98321. 253.820.4016, JEFF@CASCADELS.COM.



PROJECT	7341
DRAWN	KV
SCALE	AS NOTED
DATE	6-2-25
REVISED	6-4-25

3/6

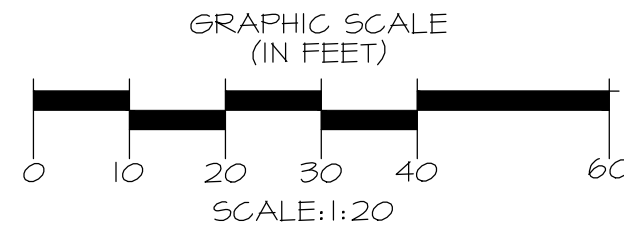
FIGURE 3: PLANTING PLAN - STREAM BUFFER ENHANCEMENT  
 BUTTERWORTH BLA  
 5320 AND 5330 BUTTERWORTH ROAD  
 MERCER ISLAND, WASHINGTON  
 PARCEL 866140-0040 AND -0045

### PLANT SCHEDULE FOR STREAM BUFFER - AREA 1

#### GROUND COVER

KEY	SCIENTIFIC NAME	COMMON NAME	DENSITY	QTY	SIZE (MIN.)	NOTES
	FRAGARIA CHILOENSIS	BEACH STRAWBERRY	2' O.C.	125	1 GAL.	FULL & BUSHY
	POLYSTICHUM MUNITUM	SWORD FERN*	3' O.C.	155	1 GAL.	FULL & BUSHY

\* PLANT SWORD FERN AT 3' SPACING AROUND EXISTING NATIVE GROUND COVER FOR A TOTAL OF ~50% OF THE AREA.

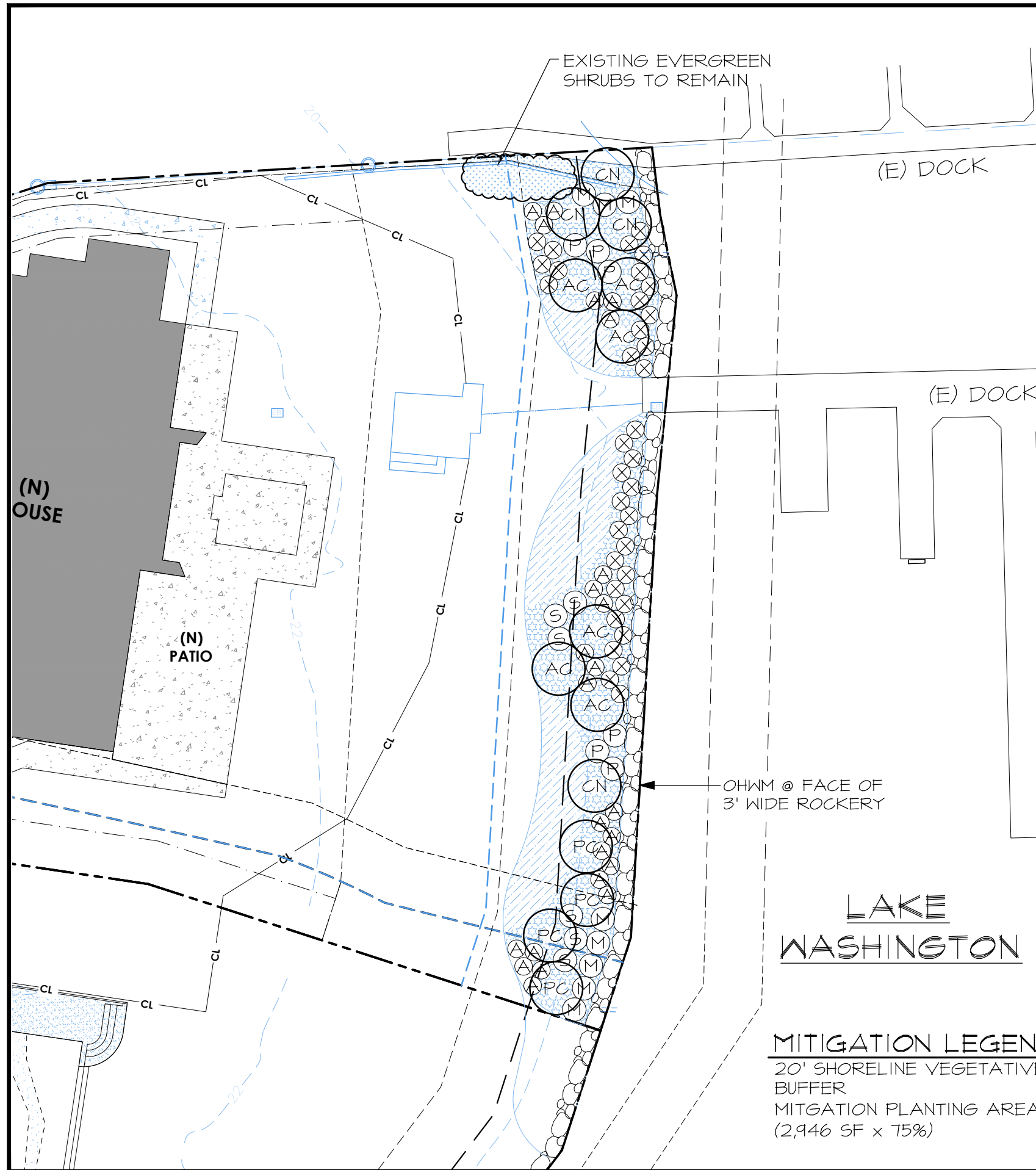


#### NOTES

- BASE INFORMATION PROVIDED BY CASCADE LAND SURVEYING, 16009 AP TUBBS RD E, BUCKLEY, WA 98321. 253.820.4016, JEFF@CASCADELS.COM.



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 Environmental Planning & Landscape Architecture  
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### PLAN LEGEND

- PROPERTY LINE
- ..... LAKE WASHINGTON O.H.W.M. LOCATION - 25' SHORELINE BUFFER - 50' BSBL
- 20' SHORELINE VEGETATIVE BUFFER
- 25' SHORELINE BUFFER
- 50' SHORELINE STRUCTURE SETBACK
- 10' SHORELINE BUFFER

### PLANT SCHEDULE FOR SHORELINE - AREA 2

#### TREES

KEY	SCIENTIFIC NAME	COMMON NAME	QTY
AC	ACER CIRCINATUM	VINE MAPLE	6
CN	CORNUS NUTTALLII	PACIFIC DOGWOOD	4
PC	PINUS CONTORTA	SHORE PINE	4

#### SHRUBS

KEY	SCIENTIFIC NAME	COMMON NAME	QTY
S	AMELANCHIER ALNIFOLIA	SERVICEBERRY	6
M	MORELLA CALIFORNICA	PACIFIC WAX MYRTLE	8
P	PHILADELPHUS LEWISII	MOCK ORANGE	6
X	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	35

#### GROUNDCOVER

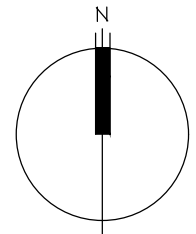
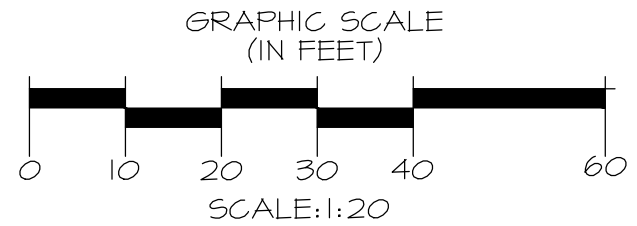
KEY	SCIENTIFIC NAME	COMMON NAME	QTY
A	ATHYRIUM FILIX-FEMINA	LADY FERN	24
	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION GRAMA GRASS	188
	FRAGARIA CHILOENSIS	COASTAL STRAWBERRY	242

### MITIGATION LEGEND

- 20' SHORELINE VEGETATIVE BUFFER 2,946 SF
- MITIGATION PLANTING AREA 2,210 SF (2,946 SF x 75%)

### NOTES

1. BASE INFORMATION PROVIDED BY CASCADE LAND SURVEYING, 16009 AP TUBBS RD E, BUCKLEY, WA 98321. 253.820.4016, JEFF@CASCADELS.COM.



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FIGURE 4: PLANTING PLAN - SHORELINE BUFFER ENHANCEMENT  
 BUTTERWORTH BLA  
 5320 AND 5330 BUTTERWORTH ROAD  
 MERCER ISLAND, WASHINGTON  
 PARCEL 866140-0040 AND -0045

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# PLANT SCHEDULE

## TREES

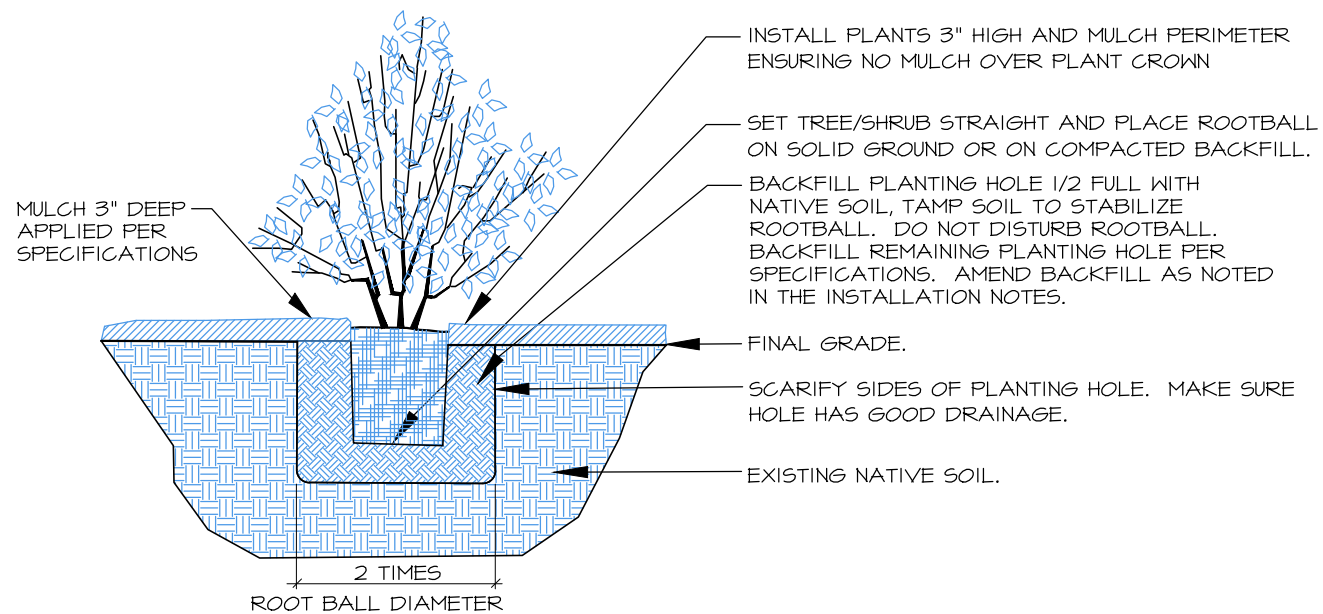
KEY	SCIENTIFIC NAME	COMMON NAME	DENSITY	AREA 1	AREA 2	SIZE (MIN.)	NOTES
				QTY	QTY		
AC	ACER CIRCINATUM	VINE MAPLE	9' O.C.		6	2 GAL.	MULTI-TRUNK (3 MIN.)
CN	CORNUS NUTTALLII	PACIFIC DOGWOOD	9' O.C.		4	2 GAL.	SINGLE TRUNK
PC	PINUS CONTORTA	SHORE PINE	9' O.C.		4	2 GAL.	FULL & BUSHY

## SHRUBS

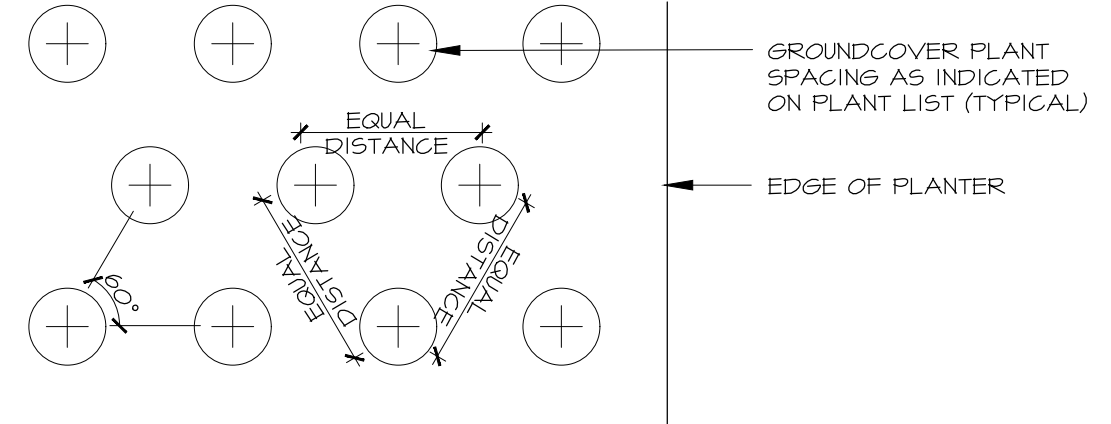
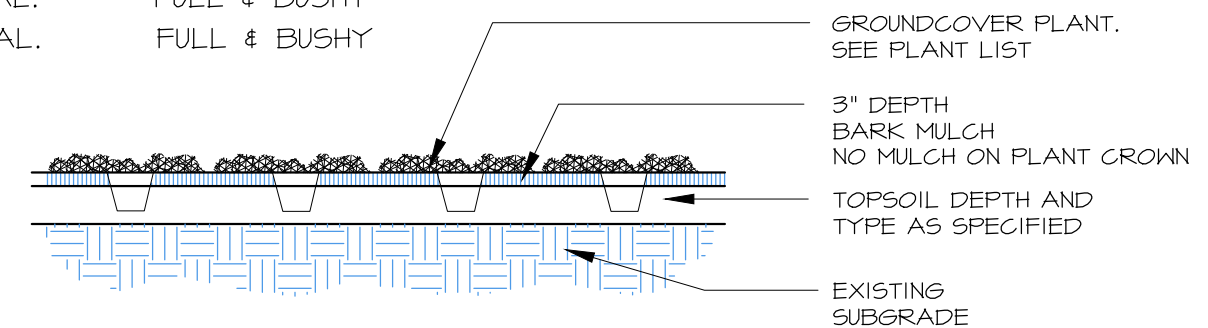
KEY	SCIENTIFIC NAME	COMMON NAME	DENSITY	AREA 1	AREA 2	SIZE (MIN.)	NOTES
				QTY	QTY		
S	AMELANCHIER ALNIFOLIA	SERVICEBERRY	4' O.C.		6	1 GAL.	MULTI-CANE (3 MIN.)
M	MORELLA CALIFORNICA	PACIFIC WAX MYRTLE	4' O.C.		8	1 GAL.	MULTI-CANE (3 MIN.)
P	PHILADELPHUS LEWISII	MOCK ORANGE	4' O.C.		6	1 GAL.	FULL & BUSHY
X	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	3' O.C.		35	1 GAL.	FULL & BUSHY

## PERENNIALS & GROUNDCOVER

KEY	SCIENTIFIC NAME	COMMON NAME	DENSITY	AREA 1	AREA 2	SIZE (MIN.)	NOTES
				QTY	QTY		
A	ATHYRIUM FILIX- FEMINA	LADY FERN	2' O.C.		24	1 GAL.	FULL & BUSHY
	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLONDE AMBITION GRAMA GRASS	2' O.C.		188	1 GAL.	FULL & BUSHY
	FRAGARIA CHILOENSIS	COASTAL STRAWBERRY	2' O.C.	125	242	1 GAL.	FULL & BUSHY
	POLYSTICHUM MUNITUM	SWORD FERN	3' O.C.	155		1 GAL.	FULL & BUSHY



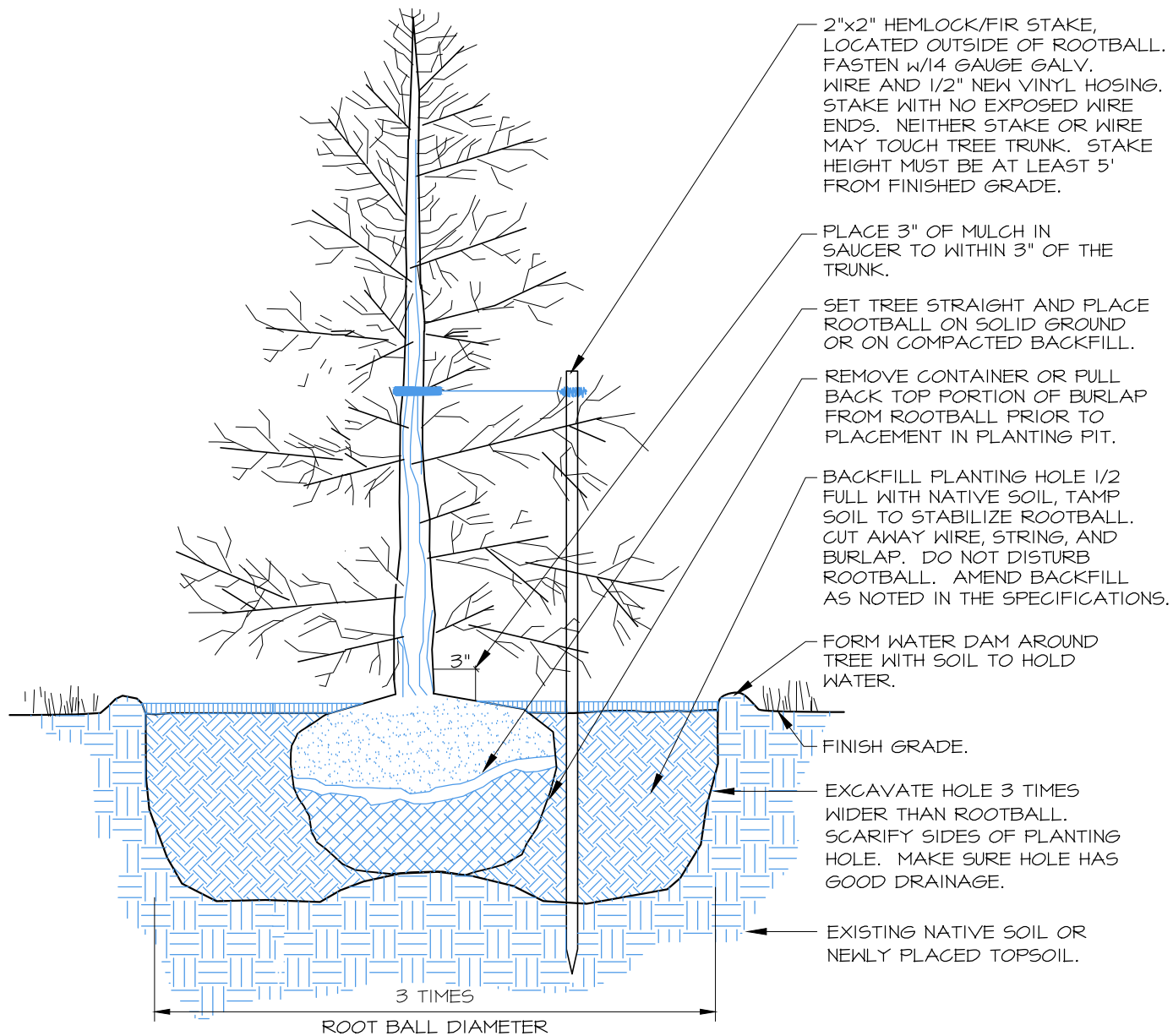
**1** CONTAINER TREE/SHRUB PLANTING DETAIL (TYP.)  
SCALE: NTS



**2** GROUNDCOVER PLANTING DETAIL (TYP.)  
SCALE: NTS

DRAWN	PROJECT
KV	7341
SCALE	AS NOTED
DATE	5/6
REVISION	6-2-25
	6-4-25

FIGURE 5: PLANTING SCHEDULE & DETAILS  
BUTTERWORTH BLA  
5320 AND 5330 BUTTERWORTH ROAD  
MERCER ISLAND, WASHINGTON  
PARCEL 866140-0040 AND -0045



**B&B EVERGREEN TREE PLANTING (TYP.)**  
SCALE: NTS

**SPECIFICATIONS**

- PRIOR TO PLANTING, ALL NON-ORGANIC DEBRIS AND NON-NATIVE, INVASIVE VEGETATION SHALL BE HAND-REMOVED AND EXPORTED OFF SITE. IRRIGATION SHALL BE ADJUSTED TO COVER MITIGATION AREA. ALL LAWN IN THE SHORELINE BUFFER ENHANCEMENT PLANTING SHALL BE REMOVED WITH A SOD STRIPPER.
- PRIOR TO PLANTING, ALL NON-NATURAL MATERIALS SHALL BE REMOVED (GRAVEL, ROCK, CONCRETE) FROM EXISTING DEVELOPED AREAS AND YARD. A 6" LIFT OF IMPORTED CEDAR GROVE 3-WAY TOPSOIL SHALL BE PLACED AND TILLED INTO THE TOP 6" OF SUBGRADE PRIOR TO PLANTING.
- IMPORTED CEDAR GROVE 3-WAY TOPSOIL SHALL BE PLACED IN THE NON-GRADED AREAS AFTER WEED REMOVAL TO PRE-REMOVED GRADES PRIOR TO PLANTING AND MULCHING.
- ALL PLANTS SHOULD BE INSTALLED BETWEEN DECEMBER 1ST AND MARCH 15TH.
- ALL PLANTS SHALL BE PIT-PLANTED IN PLANTING PITS EXCAVATED 2X THE DIAMETER OF THE PLANT. PITS SHALL BE BACKFILLED WITH A 30/70 MIX OF STEERCO TO NATIVE SOIL. PLANTS SHALL BE INSTALLED 2" HIGH AND SURFACED MULCHED TO A DEPTH OF 3" WITH WOOD CHIPS PLACED CONTINUOUSLY THROUGHOUT THE PLANTING BED.
- ALL PLANTS SHALL BE NURSERY GROWN (IN W. WA OR OR.) FOR AT LEAST 1 YEAR FROM PURCHASE DATE, FREE FROM DISEASE OR PESTS, WELL-ROOTED, BUT NOT ROOT-BOUND AND TRUE TO SPECIES.
- LANDSCAPE CONTRACTOR TO INSTALL DRIP OR LOW-FLOW IRRIGATION SYSTEM CAPABLE OF HEAD TO HEAD COVERAGE OF ALL PLANTINGS.
- ALL PLANTINGS SHALL BE IRRIGATED AT A RATE OF 1/2" OF FLOW 2-3 TIMES WEEKLY, FROM JUNE 15-OCT 15 THE FIRST YEAR AFTER PLANTING. THE SECOND YEAR, FLOW SHOULD BE REDUCED TO PROVIDE 1/2" OF FLOW 1-2 TIMES WEEKLY FROM JULY 1-SEPT 30. THE SYSTEM CAN BE REMOVED AFTER 3 YEARS.
- UPON APPROVAL OF PLANTING INSTALLATION BY AOA, MERCER ISLAND WILL BE NOTIFIED TO CONDUCT A SITE REVIEW FOR FINAL APPROVAL OF CONSTRUCTION.
- MAINTENANCE SHALL BE IMPLEMENTED ON A REGULAR BASIS ACCORDING TO THE SCHEDULE BELOW.

ANNUAL MAINTENANCE SCHEDULE

MAINTENANCE ITEM	J	F	M	A	M	J	J	A	S	O	N	D
WEED CONTROL			1		1		1			1		
GENERAL MAINT.			1		1		1			1		
WATERING - YEAR 1						4	8	8	8	4		
WATERING - YEAR 2							4	4	4			

1-8 = NUMBER OF TIMES TASK SHALL BE PERFORMED PER MONTH.

MAINTENANCE WILL INCLUDE:

- REMOVAL OF NON-NATIVE PLANTS, BY HAND, AS LISTED ABOVE.
- CONTINUED APPLICATION OF IRRIGATION, AS NOTED ABOVE.
- REMOVAL OF PEST INFESTATIONS, LIKE TENT CATERPILLAR AND SPRUCE APHID.
- THINNING OF RED ALDER AND MOWING OF TALL GRASSES, AS DIRECTED BY AOA TO ENSURE SURVIVAL OF PLANTED SPECIES.

PROJECT 7341  
DRAWN KJV  
SCALE AS NOTED  
DATE 6-2-25  
REVISED 6-4-25

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FIGURE 6: PLANTING DETAIL & SPECIFICATIONS  
BUTTERWORTH BLA  
5320 AND 5330 BUTTERWORTH ROAD  
MERCER ISLAND, WASHINGTON  
PARCEL 866140-0040 AND -0045

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7341-MIT-6-4-25.dwg

# TREE RETENTION (MICC 19.10.060)

- THE FOLLOWING TREES SHALL BE PRIORITIZED FOR RETENTION:**
- EXCEPTIONAL TREES;
  - TREES WITH A DIAMETER OF MORE THAN 24 INCHES;
  - TREES THAT HAVE A GREATER LIKELIHOOD OF LONGEVITY; AND
  - TREES THAT ARE PART OF A HEALTHY GROVE.

**DEFINITION OF EXCEPTIONAL TREE (MICC 19.10.16):**  
A TREE OR GROUP OF TREES THAT BECAUSE OF ITS UNIQUE HISTORICAL, ECOLOGICAL, OR AESTHETIC VALUE CONSTITUTES AN IMPORTANT COMMUNITY RESOURCE. AN EXCEPTIONAL TREE IS A TREE THAT IS RARE OR EXCEPTIONAL BY VIRTUE OF ITS SIZE, SPECIES, CONDITION, CULTURAL/HISTORIC IMPORTANCE, AGE, AND/OR CONTRIBUTION AS PART OF A TREE GROVE. TREES WITH A DIAMETER OF MORE THAN 36 INCHES, OR WITH A DIAMETER THAT IS EQUAL TO OR GREATER THAN THE DIAMETER LISTED IN THE EXCEPTIONAL TREE TABLE, ARE CONSIDERED EXCEPTIONAL TREES.

REGULATED TREES (TREES 10" OR GREATER)	35 EXISTING TREES
<b>REQUIRED RETENTION</b>	<b>10 TREES (30%)</b>
<b>PROPOSED RETENTION (8 REMOVED)</b>	<b>26 TREES (77%)</b>
<b>TREE REPLACEMENT (MICC 19.10.070)</b>	<b>REPL. RATIO</b>
• <10"	1 TREE
• 10" - 24"	2 TREES
• 24" - 36"	3 TREES
• >36" OR EXCEPTIONAL TREES	*6 TREES
<b>TOTAL REPLACEMENTS (2504-064)</b>	<b>10 TREES</b>
<b>*TOTAL REPLACEMENTS (2503-110)</b>	<b>15 TREES</b>

NOTE - SEE TREE INVENTORY & REPLACEMENT FORM FOR ADD'L INFO

- REPLANTING REQUIREMENTS:**
- 50% OF THE TREES NEED TO BE PACIFIC NORTHWEST NATIVE, PER THE KING COUNTY NATIVE PLANT GUIDE FOR WESTERN WASHINGTON.
  - REPLACEMENT TREES NEED TO BE AT LEAST 10' APART FROM EACH OTHER, STRUCTURES, FENCES AND UTILITIES.
  - CONIFERS SHALL BE AT LEAST 6 TALL.
  - DECIDUOUS TREES SHALL BE AT LEAST 1.5" CALIPER.
  - IF REQUESTED AND YOU CAN SHOW NO ROOM EXISTS ON SITE FOR ALL THE TREES, THE REMAINDER CAN BE A FEE IN LIEU IF REQUESTED.
  - A TREE WATERING PLAN MUST BE IMPLEMENTED TO ENSURE THE TREES SURVIVE LONG TERM.

- LEGEND**
- TPZ TREE PROTECTION FENCING (PER ARBORIST REPORT)
  - CL CLEARING LIMITS (PER CIVIL PLANS)
  - X DEAD, SICK, DYING TREE, PROPOSED FOR REMOVAL
  - X REGULATED TREE, PROPOSED FOR REMOVAL
  - RT REPLACEMENT TREES UNDER THIS PERMIT (10 TOTAL)
  - RT REPLACEMENT TREES FOR PERMIT 2503-110 (15 TOTAL)
- NOTE: FOR TREE REPLACEMENT CRITERIA, REFER TO MICC 19.10.070 (ALSO NOTED ABOVE UNDER REPLACEMENT REGS.)

# TREE PROTECTION AREA (TPZ)

## KEEP OUT!

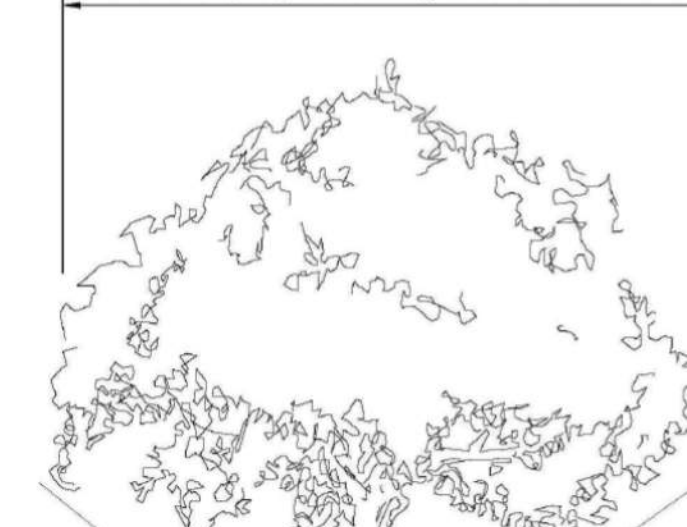
DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

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

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

### Notes

- No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
- No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
- Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
- Any work in approved TPZ must be with the permission of the Land Use and Planning Division at [landuse.planning@mercergov.org](mailto:landuse.planning@mercergov.org)
- 5" course woodchips within the tree protection zone, but not against the tree trunk.



Tree protection fence: 4-6" chain link fence, solidly anchored into the ground, or if authorized High-density polyethylene fencing with 3.5" x 15" openings; color orange. Steel posts installed at 8' o.c.

2" x 6" steel posts or approved equal

Maintain existing grade with the tree protection fence unless otherwise indication on the plans

Any Work in the protected area must be with the permission of the Land Use and Planning Division at [landuse.planning@mercergov.org](mailto:landuse.planning@mercergov.org)



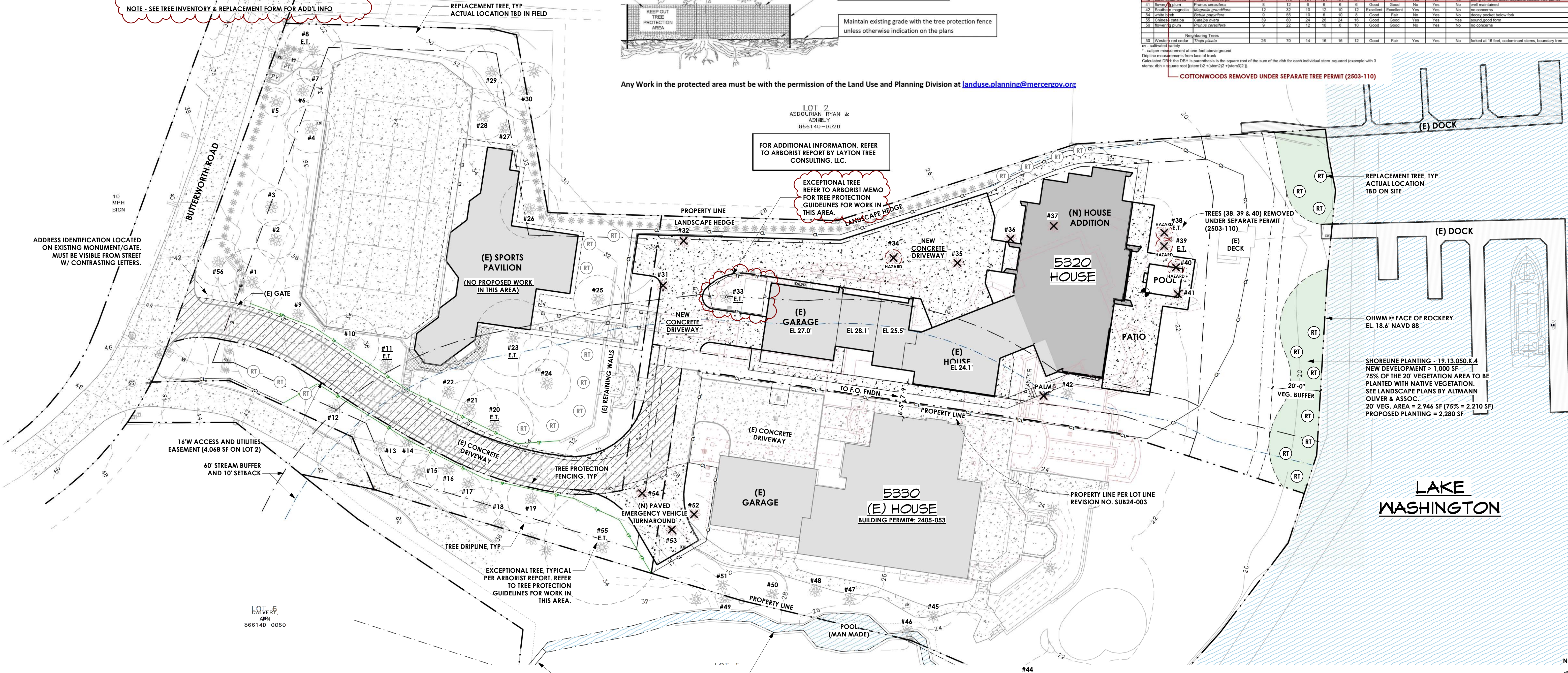
Layton Tree Consulting LLC  
For: MacPherson Construction  
Site: 5320 Butterworth RD - Mercer Island  
Tree Summary Table  
Date: 9/30/25

Tree #	Species	Species	Species	Height	Diameter	Health	Structural	Regulated	Visible	Exceptional	Comments	Propose			
Tag #	Common Name	Scientific Name	DBH (inches)	(feet)	(inches)	Condition	Condition	Yes/No	Yes/No	Yes/No					
1	Broussard alder	Fraxinus corymbosa	18	40	12	18	18	6	Good	Yes	No	lean, asymmetric canopy east	Retain		
2	Japanese maple	Acer palmatum	8	26	8	6	14	8	Good	No	No	no concerns	Retain		
3	Japanese maple	Acer palmatum	14	24	90	32	19	24	Fair	Yes	No	large cluster, extensive soil rot fungus	Retain		
4	Japanese maple	Acer palmatum	5.5	4 (6)	18	12	10	12	6	Good	No	No	no concerns	Retain	
5	Redwood	Sequoia sempervirens	8	45	4	6	6	6	Good	No	No	no concerns	Retain		
6	Southern magnolia	Magnolia grandiflora	5	20	4	4	4	2	Good	Fair	No	lean, asymmetric canopy east	Retain		
7	Western red cedar	Thuja alata	11	30	10	10	10	10	Good	Yes	Yes	natural lean west	Retain		
8	Western red cedar	Thuja alata	33	75	14	10	18	12	Good	Yes	Yes	no concerns	Retain		
9	Katsura	Corethrocyte japonicum	14	26	10	18	12	6	Good	Fair	Yes	not broken top	Retain		
10	Katsura	Corethrocyte japonicum	14	45	12	12	6	10	Good	Fair	Yes	broken top	Retain		
11	Western red cedar	Thuja alata	24	22 (25)	70	18	18	14	Excellent	Good	Yes	Yes	trunks fork at root crown	Retain	
12	Alaska cedar	Chamaecyparis nootkatensis	13	30	12	14	12	8	Excellent	Excellent	Yes	Yes	no concerns	Retain	
13	Katsura	Corethrocyte japonicum	20	45	18	10	8	14	Good	Fair	Yes	Yes	trunk forks at 5 feet, crown reduced	Retain	
14	Katsura	Corethrocyte japonicum	13	30	12	14	12	8	Fair	Fair	Yes	No	suggested, crown reduced	Retain	
15	Alaska cedar	Chamaecyparis nootkatensis	10	45	8	8	8	8	Excellent	Fair	Yes	No	forked at 10 feet, codominant stems	Retain	
16	Katsura	Corethrocyte japonicum	14	40	12	10	8	6	Good	Fair	Yes	Yes	forked top, crown reduced	Retain	
17	Katsura	Corethrocyte japonicum	10	40	10	10	6	6	Good	Yes	Yes	No	no concerns	Retain	
18	Japanese maple	Acer palmatum	37	65	12	18	20	4	Fair	Fair	Yes	No	extensive soil rot fungus	Retain	
19	Katsura	Corethrocyte japonicum	15	40	12	6	6	6	Good	Yes	Yes	No	crown reduced	Retain	
20	Western red cedar	Thuja alata	49	80	12	18	20	10	Good	Fair	Yes	Yes	significant trunk decay, forked top, slight lean south	Retain	
21	Broussard alder	Fraxinus corymbosa	10	31 (30)	40	14	12	18	10	Good	Fair	Yes	No	forked at 4 feet, codominant stems	Retain
22	Broussard alder	Fraxinus corymbosa	11	45	12	10	4	12	Good	Fair	Yes	Yes	forked at 10 feet, codominant stems	Retain	
23	Western red cedar	Thuja alata	45	58 (50)	100	18	10	22	18	Good	Good	Yes	Yes	close to building, bridge structural spans	Retain
24	Japanese maple	Acer palmatum	12	30	10	8	10	8	Good	Fair	Yes	No	lean, asymmetric canopy east, some trunk decay	Retain	
25	Japanese maple	Acer palmatum	7	38	10	8	10	8	Good	Good	No	Yes	no concerns	Retain	
26	Katsura	Corethrocyte japonicum	19	55	14	12	14	14	Good	Fair	Yes	Yes	forked top, weak attachment, not crown reduced	Retain	
27	Katsura	Corethrocyte japonicum	14	55	10	12	8	12	Good	Fair	Yes	Yes	forked top, weak attachment, not crown reduced	Retain	
28	Katsura	Corethrocyte japonicum	18	55	10	10	10	10	Good	Yes	Yes	No	no concerns	Retain	
29	Katsura	Corethrocyte japonicum	21	55	18	6	14	14	Good	Good	Yes	Yes	natural lean, asymmetric canopy north	Retain	
30	Katsura	Corethrocyte japonicum	11	45	12	12	12	10	Good	Good	Yes	Yes	crown reduced to past	Remove	
31	Katsura	Corethrocyte japonicum	14	45	12	12	12	10	Good	Good	Yes	Yes	no concerns	Remove	
32	Japanese maple	Acer palmatum	15	22	14	10	8	10	Good	Good	Yes	Yes	close to building, well maintained	Retain	
33	Apple	Malus domestica	10	10	4	4	4	4	Good	Fair	No	No	extensive basal decay, falling over	Remove	
34	Apple	Malus domestica	10	10	10	10	10	10	Good	Good	Yes	No	well maintained	Remove	
35	Apple	Malus domestica	10	10	10	10	10	10	Good	Good	Yes	No	well maintained	Remove	
36	Apple	Malus domestica	10	10	10	10	10	10	Good	Good	Yes	No	well maintained	Remove	
37	Apple	Malus domestica	10	10	10	10	10	10	Good	Good	Yes	No	well maintained	Remove	
38	Black cottonwood	Populus trichocarpa	41	135	NA	NA	NA	NA	Fair	Fair	No	Yes	being removed under separate hazard tree permit	NA	
39	Black cottonwood	Populus trichocarpa	41	135	NA	NA	NA	NA	Fair	Fair	No	Yes	being removed under separate hazard tree permit	NA	
40	Black cottonwood	Populus trichocarpa	34	110	NA	NA	NA	NA	Fair	Fair	No	Yes	being removed under separate hazard tree permit	NA	
41	Broussard alder	Fraxinus corymbosa	8	52	3	6	6	6	Good	No	No	No	well maintained	Remove	
42	Southern magnolia	Magnolia grandiflora	12	32	10	12	10	12	Excellent	Excellent	Yes	Yes	no concerns	Retain	
43	Redwood	Sequoia sempervirens	8	45	10	6	10	8	Good	Fair	No	No	strong pocket below fork	Remove	
44	Chinese catalpa	Catalpa ovata	39	60	24	28	24	18	Good	Good	Yes	Yes	round good form	Retain	
45	Broussard alder	Fraxinus corymbosa	8	22	12	10	8	10	Good	No	No	No	no concerns	Retain	
46	Western red cedar	Thuja alata	28	70	14	18	18	12	Good	Fair	Yes	No	forked at 10 feet, codominant stems, boundary line	Protect	

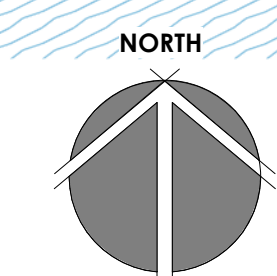
Scale 1" = 20'-0" FEET

COTTONWOODS REMOVED UNDER SEPARATE PERMIT (2503-110)

SCALE THIS DRAWING, IN FEET



# TREE PROTECTION PLAN



**MacPherson**  
Construction & Design  
22605 SE 56th St Suite 140, Issaquah, WA 98029  
PH. 425.391.3333 FAX 425.557.2841

**MACPHERSON RESIDENCE**  
5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040  
TREE SITE PLAN

DATE	REV.	BY	DESCRIPTION
4/1/25		DAN	PERMIT SUBMITTAL
8/6/25	3	DAN	PERMIT RESPONSE 2
9/30/25	4	DAN	PERMIT RESPONSE 3

SHEET NUMBER  
**A1.0**

## DEMOLITION NOTES

### REMOVAL OF EXISTING STRUCTURES:

ANY EXISTING STRUCTURE IDENTIFIED ON THE PLAN FOR DEMOLITION, IS TO BE COMPLETELY DEMOLISHED DOWN TO THE FOUNDATION. THIS INCLUDES, BUT IS NOT LIMITED TO, ALL WALLS, ROOFING, FLOORS, FIXTURES, AND UTILITIES WITHIN THE DESIGNATED DEMOLITION AREA. ALL DEBRIS, INCLUDING CONSTRUCTION MATERIALS, WASTE, AND HAZARDOUS SUBSTANCES, MUST BE PROPERLY REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS AND ENVIRONMENTAL GUIDELINES.

### PROTECTION OF ADJACENT STRUCTURES AND AREAS:

PRIOR TO DEMOLITION, ENSURE THAT ALL ADJACENT STRUCTURES AND AREAS NOT DESIGNATED FOR DEMOLITION ARE ADEQUATELY PROTECTED TO PREVENT ANY DAMAGE. ERECT TEMPORARY BARRIERS AND SAFETY FENCING AS NEEDED TO SECURE THE DEMOLITION SITE AND PROTECT WORKERS.

### UTILITY DISCONNECTIONS AND SAFETY MEASURES:

ALL UTILITIES (ELECTRICAL, GAS, WATER, SEWAGE, ETC.) MUST BE SAFELY DISCONNECTED OR CAPPED OFF BEFORE THE COMMENCEMENT OF DEMOLITION WORK. FOLLOW ALL SAFETY PROTOCOLS AND GUIDELINES AS PER OSHA AND LOCAL SAFETY STANDARDS TO ENSURE A SAFE DEMOLITION PROCESS.

### SITE RESTORATION:

UPON COMPLETION OF DEMOLITION, THE SITE MUST BE CLEARED OF ALL DEBRIS AND WASTE MATERIALS. THE SITE MUST BE GRADED AS NECESSARY AND RESTORED TO MATCH THE EXISTING SURROUNDINGS, INCLUDING ANY LANDSCAPING FEATURES. THIS INCLUDES ENSURING PROPER DRAINAGE AND PREVENTING EROSION BY STABILIZING THE SOIL.

## HARDSCAPE

DESCRIPTION: THE SOLID, HARD, ELEMENTS OR STRUCTURES THAT ARE INCORPORATED INTO LANDSCAPING. THE HARDSCAPE INCLUDES, BUT IS NOT LIMITED TO, STRUCTURES, PAVED AREAS, STAIRS, WALKWAYS, DECKS, PATIOS, ROCKERIES AND RETAINING WALLS, AND SIMILAR CONSTRUCTED ELEMENTS THAT DO NOT HAVE A ROOF. BUILDINGS, ROOFS AND DRIVEWAY EXCLUDED.

NET LOT AREA 59,029 SF  
UNUSED LOT COVERAGE 3,135 SF  
9% OF LOT AREA 5,313 SF  
ALLOWED HARDSCAPE 8,448 SF

### EXISTING HARDSCAPE

TENNIS COURT 6,171 SF  
PATIOS & DECKS (UNCOVERED) 1,023 SF  
WALKWAYS, STAIRS, WALLS 1,458 SF  
TOTAL 8,652 SF

### REMOVED HARDSCAPE

1,778 SF

### NEW HARDSCAPE

PATIOS (UNCOVERED) 882 SF  
WALKWAYS, STAIRS, WALLS 880 SF  
TOTAL 1,762 SF

TOTAL PROJECT HARDSCAPE 8,348 SF (14.1%)

NOTE: EXISTING HARDSCAPE IS LEGALLY NON-CONFORMING. PROJECT PROPOSES A NET DECREASE IN HARDSCAPE.

## LOT COVERAGE

DESCRIPTION: TOTAL AREA OF A LOT THAT MAY BE COVERED BY A COMBINATION OF THE BUILDINGS AND VEHICULAR DRIVING SURFACES. BASED ON NET LOT AREA.

NET LOT AREA 59,029 SF  
ALLOWED LOT COVERAGE (40%) 23,812 SF

### EXISTING LOT COVERAGE

MAIN STRUCTURE (ROOF) 5,930 SF  
ACCESSORY BUILDING (ROOF) 4,684 SF  
VEHICULAR USE (DRIVEWAY, & PARKING) 3,170 SF  
COVERED PATIOS 0 SF  
TOTAL 14,084 SF

### REMOVED LOT COVERAGE

MAIN STRUCTURE (ROOF) 2,806 SF  
ACCESSORY BUILDING (ROOF) 430 SF  
VEHICULAR USE (DRIVEWAY, & PARKING) 301 SF  
COVERED PATIOS 0 SF  
TOTAL 3,537 SF

### NEW LOT COVERAGE

MAIN STRUCTURE (ROOF) 3,520 SF  
ACCESSORY BUILDING (ROOF) 0 SF  
VEHICULAR USE (DRIVEWAY, & PARKING) 5,960 SF  
COVERED PATIOS 750 SF  
TOTAL 10,230 SF

### TOTAL PROJECT LOT COVERAGE

20,477 SF (34.7%)

### UNUSED LOT COVERAGE

3,135 SF

## GROSS FLOOR AREA

DESCRIPTION: TOTAL SQUARE FOOTAGE OF FLOOR AREA, BOUNDED BY THE EXTERIOR FACES OF THE BUILDING.

### EXISTING FLOOR AREA:

MAIN 3,995 SF  
UPPER 1,225 SF  
GARAGE 1,130 SF  
SPORTS PAVILION (ACCY. BLDG.) 2,480 SF  
MODIFIER (12'-14" = 150%) 0 SF  
MODIFIER (14'-16" = 200%) 0 SF  
TOTAL 8,830 SF

### REMOVED FLOOR AREA:

MAIN 1,905 SF  
UPPER 1,170 SF  
GARAGE 305 SF  
MODIFIER (12'-14" = 150%) 0 SF  
MODIFIER (14'-16" = 200%) 0 SF  
TOTAL 2,380 SF

### NEW/ADDITION FLOOR AREA:

MAIN 3,148 SF  
UPPER 1,468 SF  
DECKS (COVERED) 250 SF  
GARAGE 0 SF  
MODIFIER (12'-14" = 150%) 514 SF  
MODIFIER (14'-16" = 200%) 65 SF  
TOTAL 5,445 SF

TOTAL PROPOSED AREA: 11,895 SF (21.2%)

## PROJECT NARRATIVE

GENERAL DESCRIPTION: THIS PROJECT PROPOSES TO DEMOLISH A PORTION OF EXISTING HOUSE & GARAGE, THEN REMODEL THE EXISTING HOUSE AND EXPAND TO THE NORTHWEST.

DEMOLITION: INCLUDES REMOVING A PORTION OF THE EXISTING GARAGE, AN EXISTING TRELLIS, ROOF SUPPORT COLUMNS AND ROOF OVERHANGS, AND A LARGE PORTION OF THE EXISTING HOUSE.

NEW CONSTRUCTION: EXPANSION OF THE EXISTING LOWER AND UPPER FLOORS, A NEW COVERED PATIO AND DRIVEWAY.

## BUILDING HEIGHT

30' MAX FROM AVERAGE BUILDING ELEVATION (ABE)  
30' MAX FROM TOP OF PLATE ON DOWNHILL SLOPE

NOTE: SEE SHEET A3.0 - EAST ELEVATION FOR HEIGHT COMPLIANCE

## LOT ZONING

(MICC 19.02.020)

### LOT ZONING:

R-15

### GROSS LOT AREA:

59,029 sf (PER SURVEY)

### NET LOT AREA:

59,029 sf (ACCESS EASEMENT & DRIVEWAY IS SHARED)

### MAX LOT COVERAGE:

23,612 sf MAX 40% (<15% LOT SLOPE) = (IMPERVIOUS SURFACES)

### GROSS FLOOR AREA:

12,000 SF OR 40% LOT AREA (WHICHEVER IS LESS)

### MAX BUILDING HEIGHT:

30' (FROM AVG. BLDG. ELEV.)  
30' MAX TO PLATE ON DOWNHILL SLOPE  
5.4% (46.0' HIGH) - 19.0' (LOW) / 496' (DISTANCE)

### SETBACKS/YARDS

#### FRONT YARD:

20'-0" MIN

#### SHORELINE:

25'-0" BUFFER FROM OHWM  
25'-0" SETBACK

#### SIDE YARD

17'-0" COMBINED (100' WIDE x 17%)

#### LOT WIDTH > 90'

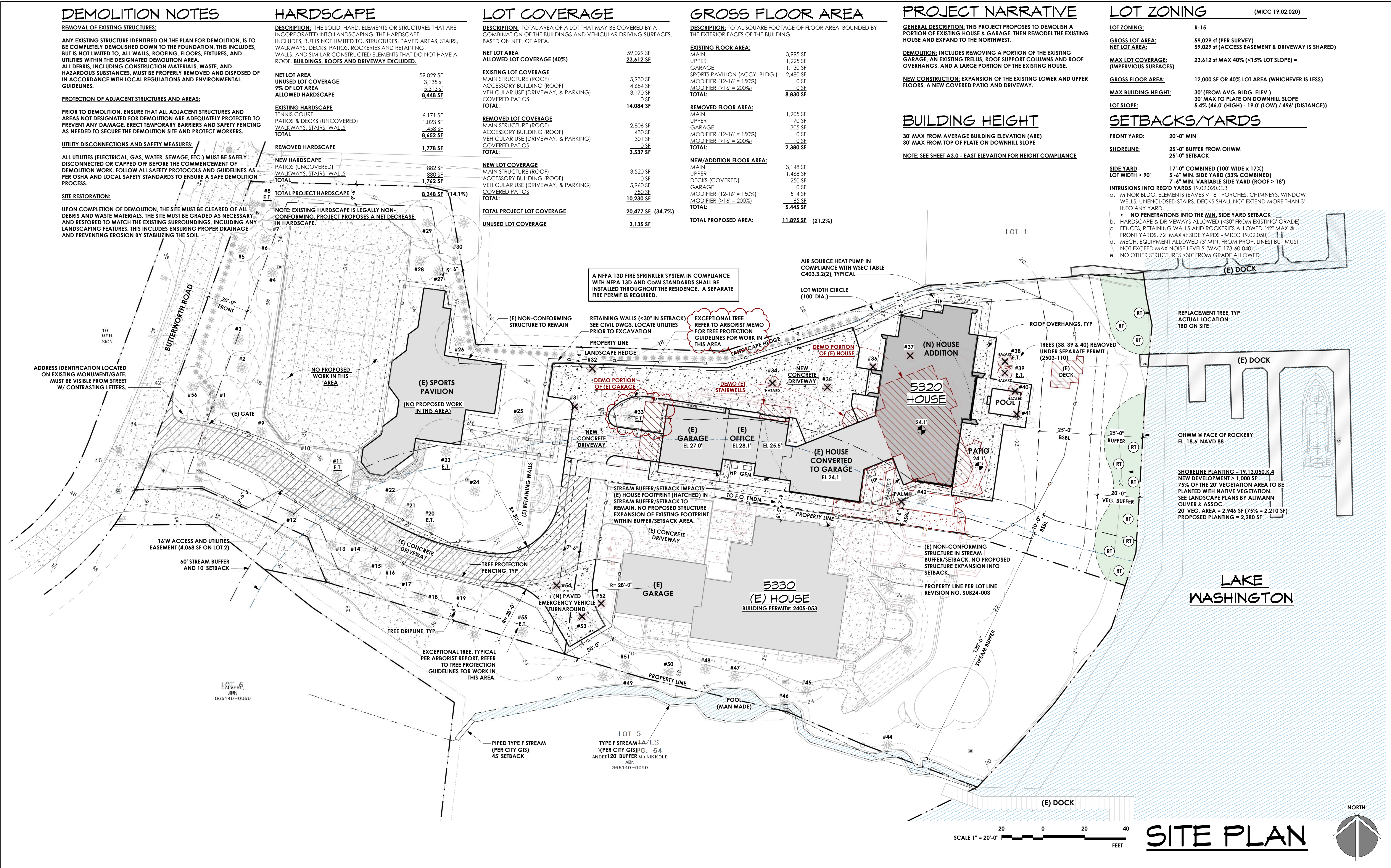
5'-4" MIN. SIDE YARD (33% COMBINED)  
7'-4" MIN. VARIABLE SIDE YARD (ROOF > 18')

#### INTRUSIONS INTO REQ'D YARDS 19.02.020.C.3

- MINOR BLDG. ELEMENTS (EAVES < 18", PORCHES, CHIMNEYS, WINDOW WELLS, UNENCLOSED STAIRS, DECKS SHALL NOT EXTEND MORE THAN 3' INTO ANY YARD)
- NO PENETRATIONS INTO THE MIN. SIDE YARD SETBACK
- HARDSCAPE & DRIVEWAYS ALLOWED (<30' FROM EXISTING GRADE)
- FENCES, RETAINING WALLS AND ROCKERIES ALLOWED (42" MAX @ FRONT YARDS, 72" MAX @ SIDE YARDS - MICC 19.02.050)
- MECH. EQUIPMENT ALLOWED (3' MIN. FROM PROP. LINES) BUT MUST NOT EXCEED MAX NOISE LEVELS (WAC 173-60-040)
- NO OTHER STRUCTURES >30' FROM GRADE ALLOWED

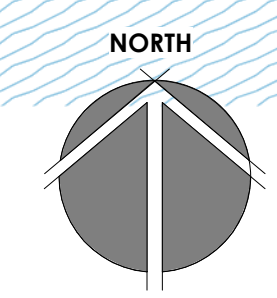
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# SITE PLAN

SCALE 1" = 20'-0" FEET



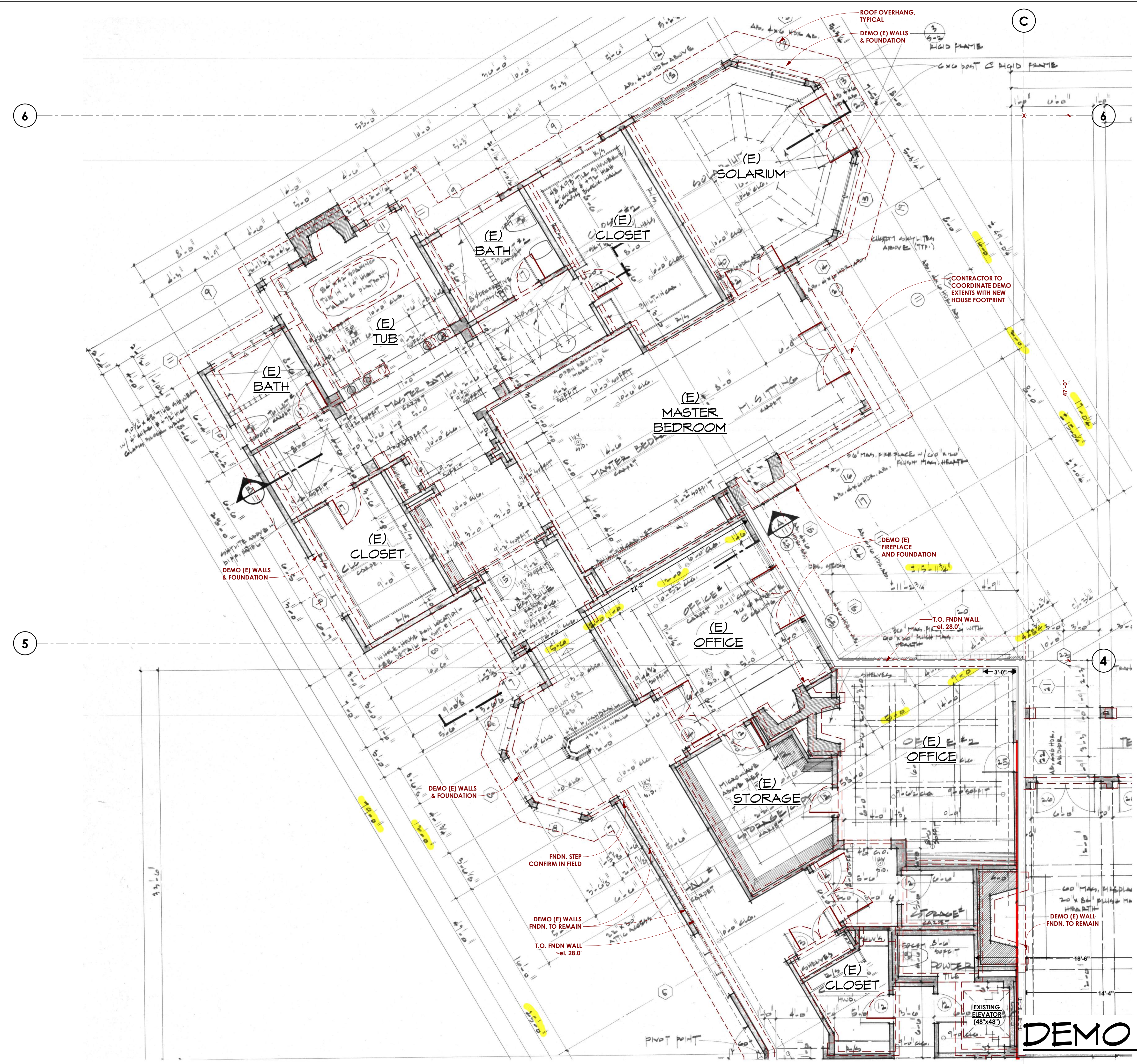
**MacPherson**  
Construction & Design  
22605 SE 56th St Suite 140, Issaquah, WA 98029  
PH. 425.391.3333 FAX 425.557.2841

**MACPHERSON RESIDENCE**  
5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040  
**SITE PLAN**

DATE	REV.	BY	DESCRIPTION
4/1/25		DAN	PERMIT SUBMITTAL
8/6/25	3	DAN	PERMIT RESPONSE 2
9/30/25	4	DAN	PERMIT RESPONSE 3

SHEET NUMBER  
**A1.1**

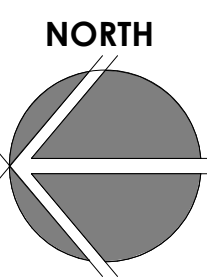
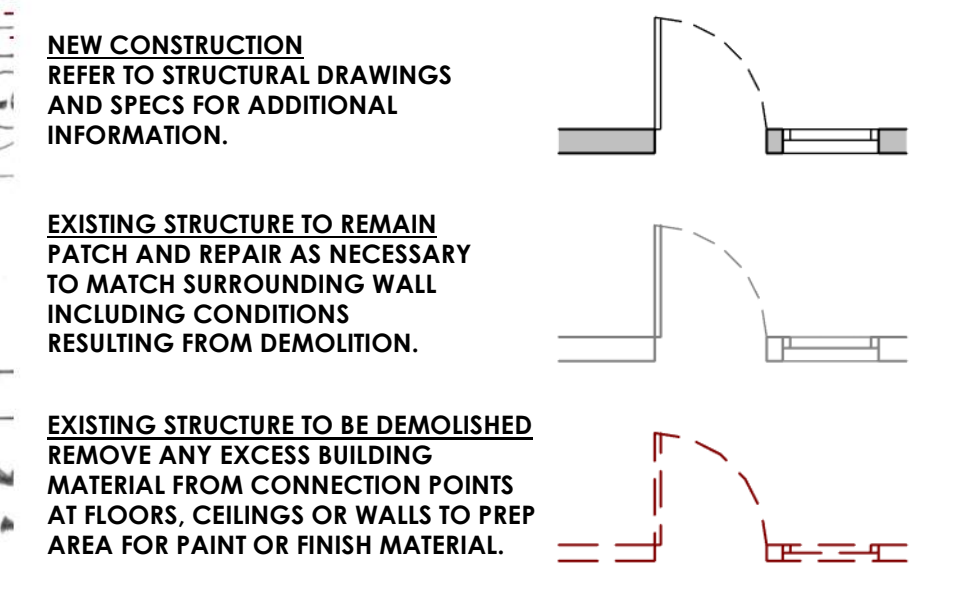
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**GENERAL DEMO NOTES**

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND OWNER.
2. THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND REMOVE ALL MECHANICAL ELECTRICAL AND MISC. EQUIPMENT AS REQUIRED TO COMPLETE THE NEW WORK.
3. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY STRUCTURAL BRACING AS REQUIRED DURING DEMOLITION AND CONSTRUCTION.
4. PRIOR TO ANY DEMOLITION, EXISTING CONSTRUCTION SCHEDULED TO REMAIN SHOULD BE PROTECTED FROM DAMAGE TO THE EXTENT FEASIBLE. ANY PORTION OF THE PROJECT TO REMAIN WHICH IS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED TO MATCH EXISTING CONDITION.
5. DOORS, WINDOWS, CABINETS, APPLIANCES AND ANY OTHER MISC. ITEMS PART OF DEMO SCOPE ARE TO BE SALVAGED UNLESS OTHERWISE CONFIRMED BY OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SECURE, DRY STORAGE FOR OWNER RETAINED ITEMS.

**CONSTRUCTION LEGEND**



**DEMO PLAN - MAIN**

1/4" = 1'-0"

EXISTING FLOOR ELEVATIONS  
MAIN FLR = 28.1'  
GARAGE FLR = 27.0'

DATE	REV.	BY	DESCRIPTION
4/1/25	<<<<<	DAN	PERMIT SUBMITTAL

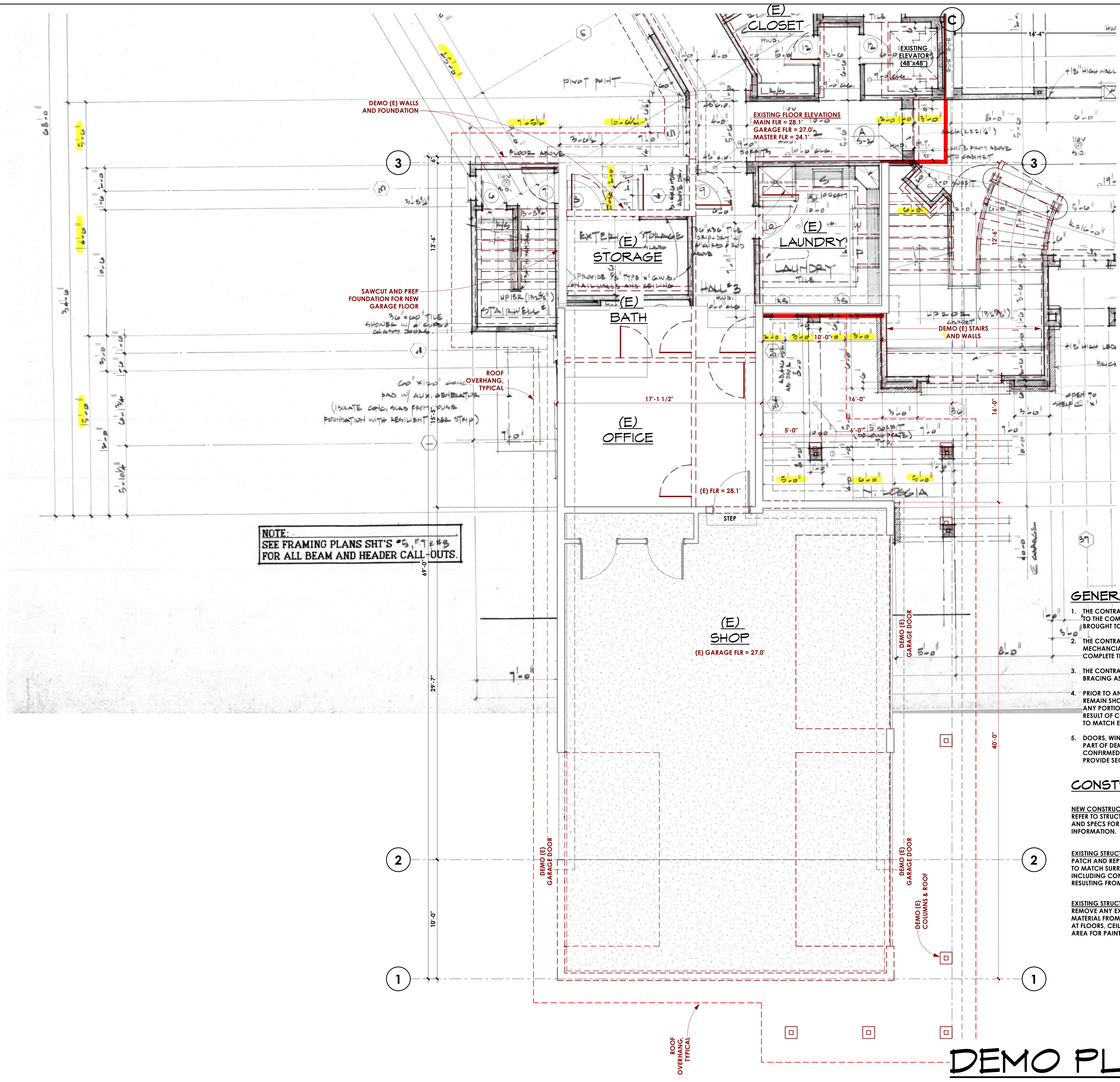
**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040  
**DEMO PLAN - MAIN**

**MacPherson**  
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 PH. 425.391.3333 FAX 425.557.2841

SHEET NUMBER  
**A2.0a**

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SCALE THIS DRAWING, IN FEET



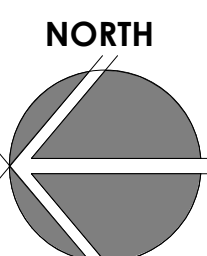
**NOTE:**  
SEE FRAMING PLANS SHT'S #5, #7 & #8  
FOR ALL BEAM AND HEADER CALL-OUTS.

**GENERAL DEMO NOTES**

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**CONSTRUCTION LEGEND**

- NEW CONSTRUCTION  
REFER TO STRUCTURAL DRAWINGS AND SPECS FOR ADDITIONAL INFORMATION.
- EXISTING STRUCTURE TO REMAIN  
PATCH AND REPAIR AS NECESSARY TO MATCH SURROUNDING WALL INCLUDING CONDITIONS RESULTING FROM DEMOLITION.
- EXISTING STRUCTURE TO BE DEMOLISHED  
REMOVE ANY EXCESS BUILDING MATERIAL FROM CONNECTION POINTS AT FLOORS, CEILINGS OR WALLS TO PREP AREA FOR PAINT OR FINISH MATERIAL.



**DEMO PLAN - MAIN**

1/4" = 1'-0"

2" FULL SCALE

DATE	REV.	BY	DESCRIPTION
4/1/25	1	DAN	PERMIT SUBMITTAL

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MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040  
**DEMO PLAN - MAIN**

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SHEET NUMBER  
**A2.0b**

**MECHANICAL NOTES:**

- PROVIDE 6" DIAMETER FRESH AIR INTAKE FROM OUTSIDE TO RETURN AIR PLENUM AT FURNACE WITH MOTORIZED FLOW DAMPERS.
  - PROVIDE DUCTED COMBUSTION AIR FOR GAS BURNERS AS REQ'D.
  - PROVIDE THERMAL EXPANSION TANK AT WATER HEATER, IF REQ'D.
  - STRAP WATER HEATER TO FRAMING TOP & BOTTOM PER UPC.
  - PROVIDE PRESSURE RELIEF LINE PLUMBED DIRECT TO OUTSIDE OR APPROVED DRAIN LOCATION.
  - IF RANGE HOOD IS GREATER THAN 400 CFM AN AUTOMATIC MECHANICAL DAMPER SHALL BE INTEGRATED INTO THE WHOLE HOUSE FAN SYSTEM TO PROVIDE MAKEUP AIR AT THE SAME RATE AS THE EXHAUST FAN.
- ENERGY CODE REQUIREMENTS:**  
 MAXIMUM HEATING OUTPUT = XXX XXX BTU/HR  
 PROVIDE AIR SOURCE HEAT PUMP WITH MIN. HSPF = 11  
 PROVIDE HIGH EFFICIENCY GAS HOT WATER HEATER WITH MIN. UEF = .91

**WINDOW & DOOR LEGEND**

- AWN:** AWNING  
**CSMT:** CASEMENT  
**FG:** FULL GLASS  
**OB:** OBSCURE GLAZING  
**OVDH:** OVERHEAD GARAGE DOOR  
**OXXO:** FUNCTION ON SLIDERS (X=OPERABLE)  
**PKT:** PICTURE  
**POCKET:** POCKET  
**PVT:** PIVOT SWING  
**SDT:** DOOR SIDELIGHT  
**SG:** SAFETY GLAZING  
**SLD:** HORIZONTAL SLIDER  
**TRANS:** TRANSOM ABOVE  
**20 MIN:** 20 MIN. FIRE RATING
- NOTES:**  
 1. U-VALUE: REFER TO GENERAL NOTES ENERGY SECTION FOR MIN. VALUES, AND COVER SHEET ENERGY NOTES FOR CREDIT OPTIONS.  
 2. WINDOWS ARE TYPICALLY CENTERED IN EXT. WALL UNLESS DIMENSIONED OTHERWISE.  
 3. DOOR HINGE JAMB TO BE 4 1/2" FROM ADJACENT WALL UNLESS NOTED OTHERWISE.  
 4. SET EXTERIOR DOORS PRIOR TO SETTING WINDOWS. ALIGN INSIDE LINERS TO MATCH FINISH CASING. WINDOW R.O. SHOULD BE 3/4" LOWER THAN DOOR R.O. (VERIFY W/ MANUFACTURER)  
 5. PROVIDE SAFETY GLAZING AT ALL LOCATIONS REQUIRED BY CODE (IRC R308.4)  
 6. PROVIDE SAFETY GLASS SHOWER ENCLOSURE & DOORS, TYP.

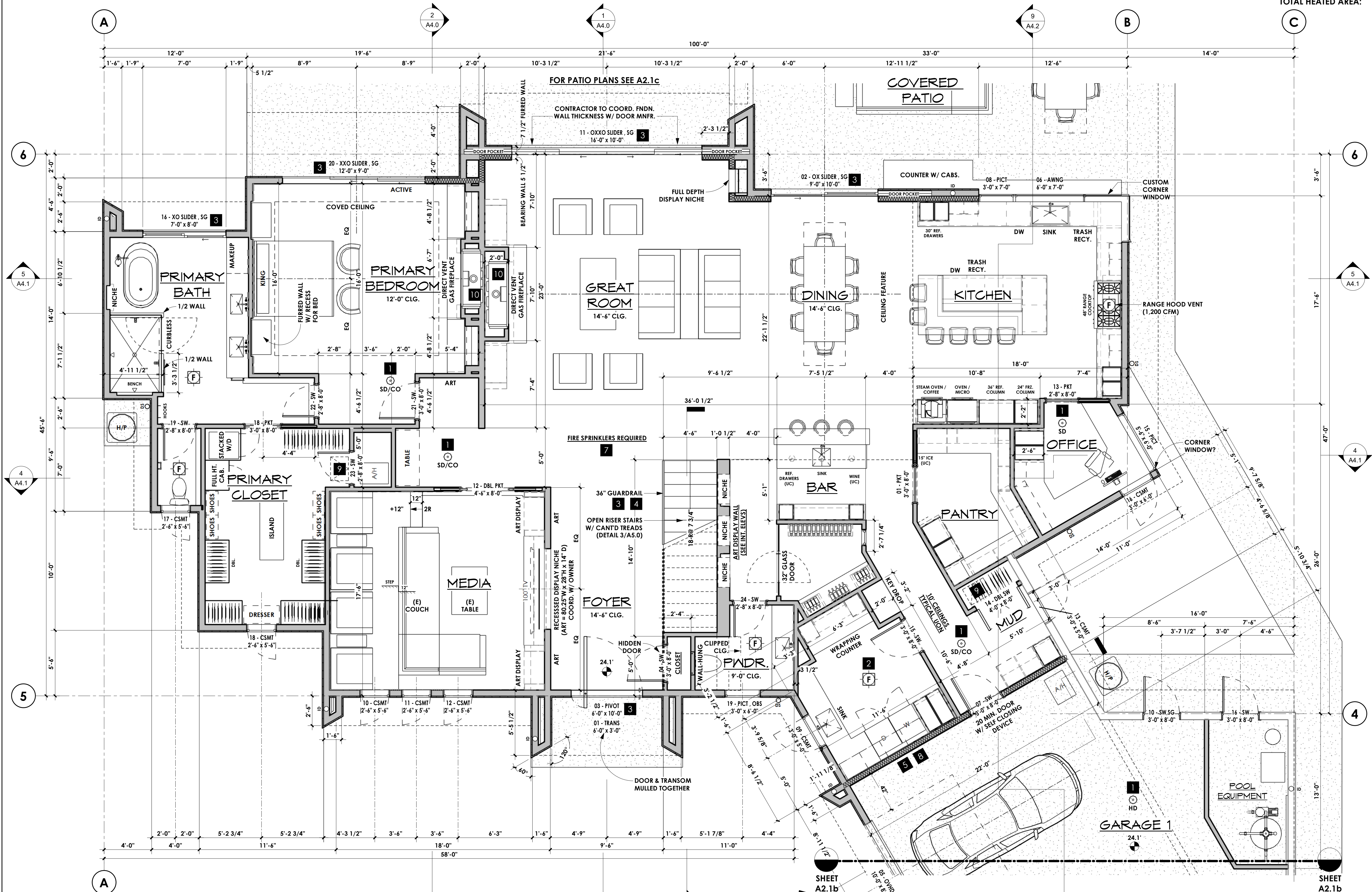
**KEY NOTES:**

- NOTE: ALL KEY NOTES MAY NOT APPLY
1. INSTALL HEAT, SMOKE AND CARBON MONOXIDE DETECTORS. PER GENERAL NOTES, FIRE PROTECTION.
  2. INSTALL WHOLE HOUSE FAN PER GENERAL NOTES, VENTILATION & LIGHTING.
  3. PROVIDE SAFETY GLAZING PER GENERAL NOTES, GLAZING.
  4. INSTALL GUARDRAILS & HANDRAIL PER GENERAL NOTES, STAIRS.
  5. PROVIDE FIRE SEPARATION BETWEEN HOUSE & GARAGE. PER GENERAL NOTES, GARAGES.
  6. INSTALL DECKS & STAIRS PER GENERAL NOTES DECKS & STAIRWAYS.
  7. INSTALL RESIDENTIAL FIRE SPRINKLER SYSTEM PER GENERAL NOTES, FIRE PROTECTION.
  8. PROVIDE INSULATION IN WALLS BETWEEN HEATED & UN-HEATED AREAS, PER GENERAL NOTES, ENERGY.
  9. CRAWL SPACE ACCESS: 18"x24" PER GENERAL NOTES, CRAWL SPACES.
  10. ZERO CLEARANCE DIRECT VENT GAS FIREPLACE PER GENERAL NOTES, FIREPLACES.

**FLOOR AREAS**

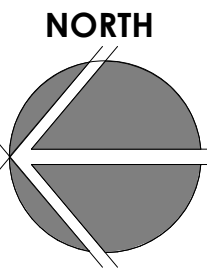
LEVEL	DESCRIPTION	AREA	HEATED
MAIN FLOOR	FLOOR AREA	3,428 SF	YES
MAIN FLOOR	GUEST STAIRS	124 SF	YES
MAIN FLOOR	SHOP	1,112 SF	
MAIN FLOOR	GARAGE 1	1,068 SF	
MAIN FLOOR	GARAGE 2	293 SF	
UPPER FLOOR	FLOOR AREA	2,571 SF	YES
<b>GROSS BUILDING AREA</b>		<b>8,596 SF</b>	
<b>TOTAL HEATED AREA:</b>		<b>6,123 SF</b>	

SCALE THIS DRAWING, IN FEET



**FLOOR PLAN - MAIN**

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



2" @ FULL SCALE

DATE	REV.	DESCRIPTION
4/1/25	1	PERMIT SUBMITTAL 2
8/6/25		PERMIT SUBMITTAL 2

**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040  
**FLOOR PLAN - MAIN**

**MacPherson**  
 Construction & Design  
 22605 SE 54th St Suite 140, Issaquah, WA 98029  
 PH. 425.391.3333 FAX 425.557.2841

SHEET NUMBER  
**A2.1a**

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

SCALE THIS DRAWING, IN FEET

**MECHANICAL NOTES:**

- PROVIDE 6" DIAMETER FRESH AIR INTAKE FROM OUTSIDE TO RETURN AIR PLENUM AT FURNACE WITH MOTORIZED FLOW DAMPERS.
  - PROVIDE DUCTED COMBUSTION AIR FOR GAS BURNERS AS REQ'D.
  - PROVIDE THERMAL EXPANSION TANK AT WATER HEATER, IF REQ'D.
  - STRAP WATER HEATER TO FRAMING TOP & BOTTOM PER UPC.
  - PROVIDE PRESSURE RELIEF LINE PLUMBED DIRECT TO OUTSIDE OR APPROVED DRAIN LOCATION.
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- ENERGY CODE REQUIREMENTS:**  
 MAXIMUM HEATING OUTPUT = XX,XXX BTU/HR  
 PROVIDE AIR SOURCE HEAT PUMP WITH MIN. HSPF = 11  
 PROVIDE HIGH EFFICIENCY GAS HOT WATER HEATER WITH MIN. UEF = .91

**KEY NOTES:** NOTE: ALL KEY NOTES MAY NOT APPLY

- |   |   |
|---|---|
| <b>1</b> INSTALL HEAT, SMOKE AND CARBON MONOXIDE DETECTORS. PER GENERAL NOTES, FIRE PROTECTION. | <b>6</b> INSTALL DECKS & STAIRS PER GENERAL NOTES DECKS & STAIRWAYS.                              |
| <b>2</b> INSTALL WHOLE HOUSE FAN PER GENERAL NOTES, VENTILATION & LIGHTING.                     | <b>7</b> INSTALL RESIDENTIAL FIRE SPRINKLER SYSTEM PER GENERAL NOTES, FIRE PROTECTION.            |
| <b>3</b> PROVIDE SAFETY GLAZING PER GENERAL NOTES, GLAZING.                                     | <b>8</b> PROVIDE INSULATION IN WALLS BETWEEN HEATED & UN-HEATED AREAS. PER GENERAL NOTES, ENERGY. |
| <b>4</b> INSTALL GUARDRAILS & HANDRAIL PER GENERAL NOTES, STAIRS.                               | <b>9</b> CRAWL SPACE ACCESS: 18"x24" PER GENERAL NOTES, CRAWL SPACES.                             |
| <b>5</b> PROVIDE FIRE SEPARATION BETWEEN HOUSE & GARAGE. PER GENERAL NOTES, GARAGES.            | <b>10</b> ZERO CLEARANCE DIRECT VENT GAS FIREPLACE PER GENERAL NOTES, FIREPLACES.                 |

**CRAWL SPACE VENTILATION:**

REQUIREMENTS: PROVIDE CRAWL SPACE VENTILATION AT 1sf / 300sf OF CRAWL SPACE AREA (PER WAC 51-51-0408)

- CRAWL SPACE AREA: 260 SF
  - TOTAL VENTING REQ'D: 86 SF (260 SF / 300)
  - TYPICAL VENT SIZE: 8" x 16" (73sf / .5sf)
  - TOTAL VENTS REQ'D: 2 VENTS (.86 / .5sf)
- NOTE: ACTUAL VENT LAYOUT TO BE DETERMINED IN FIELD.

LEVEL	DESCRIPTION	AREA	HEATED
MAIN FLOOR	FLOOR AREA	3,428 SF	YES
MAIN FLOOR	GUEST STAIRS	124 SF	YES
MAIN FLOOR	SHOP	1,112 SF	
MAIN FLOOR	GARAGE 1	1,068 SF	
MAIN FLOOR	GARAGE 2	293 SF	
UPPER FLOOR	FLOOR AREA	2,571 SF	YES
<b>GROSS BUILDING AREA</b>		<b>8,596 SF</b>	
<b>TOTAL HEATED AREA:</b>		<b>6,123 SF</b>	

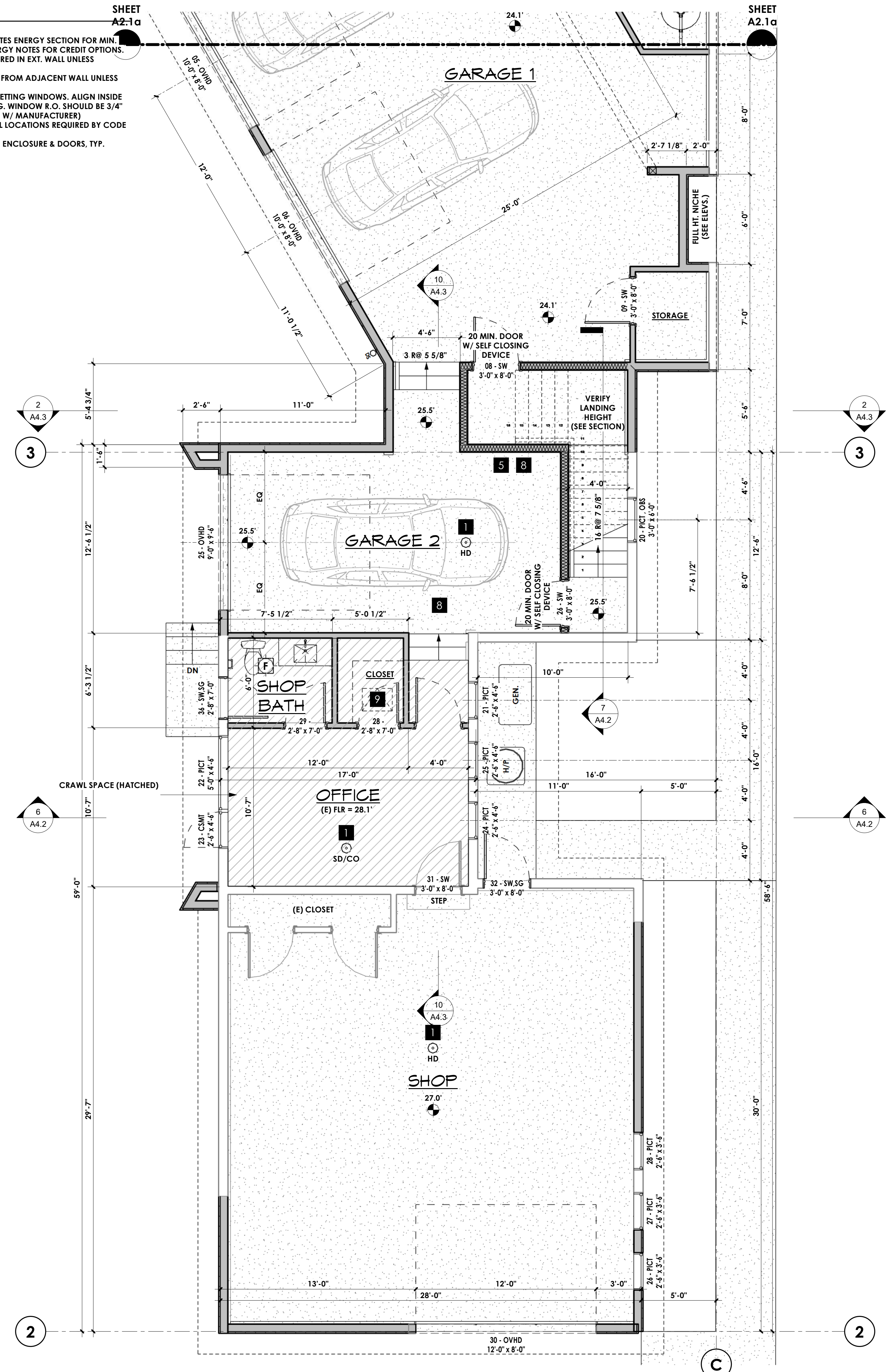
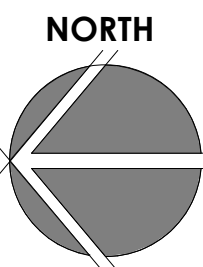
**WINDOW & DOOR LEGEND**

- |         |                                  |
|---------|----------------------------------|
| AWN:    | AWNING                           |
| CSMT:   | CASEMENT                         |
| FG:     | FULL GLASS                       |
| OBS:    | OBSOLETE GLAZING                 |
| OVHD:   | OVERHEAD GARAGE DOOR             |
| OXXO:   | FUNCTION ON SLIDERS (X=OPERABLE) |
| PICT:   | PICTURE                          |
| PKT:    | POCKET                           |
| PVT:    | PIVOT SWING                      |
| SDLT:   | DOOR SIDELIGHT                   |
| SG:     | SAFETY GLAZING                   |
| SLD:    | HORIZONTAL SLIDER                |
| TRANS:  | TRANSOM ABOVE                    |
| 20 MIN: | 20 MIN. FIRE RATING              |

- NOTES:**
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  5. PROVIDE SAFETY GLAZING AT ALL LOCATIONS REQUIRED BY CODE (IRC R308.4)
  6. PROVIDE SAFETY GLASS SHOWER ENCLOSURE & DOORS, TYP.

**FLOOR PLAN - MAIN**

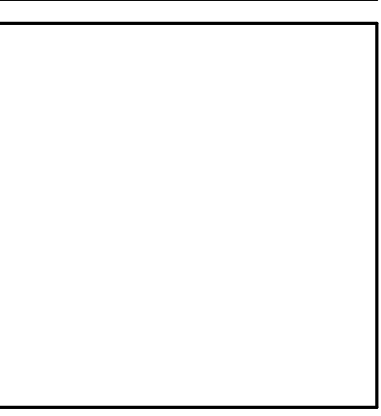
SCALE: 1/4" = 1'-0"



2" @ FULL SCALE

DATE	REV.	BY	DESCRIPTION
4/1/25	1	DAN	PERMIT SUBMITTAL
8/6/25		DAN	PERMIT SUBMITTAL 2

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**FLOOR PLAN - MAIN**

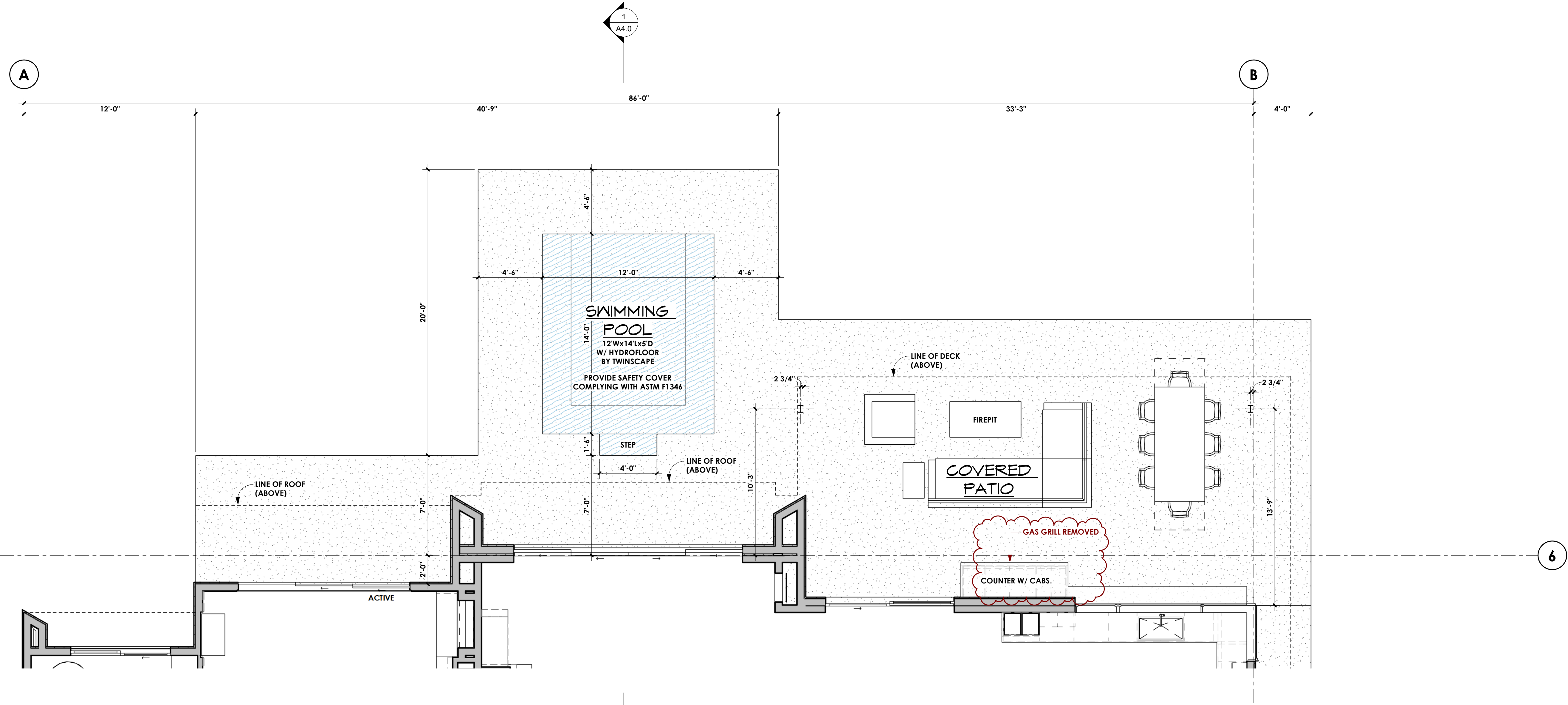


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SHEET NUMBER  
**A2.1b**

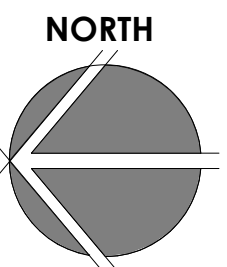
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SCALE THIS DRAWING, IN FEET



# OUTDOOR PATIO PLAN

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



2" @ FULL SCALE

DATE	REV.	BY	DESCRIPTION
4/17/25	1	DAN	PERMIT SUBMITTAL
8/6/25	2	DAN	PERMIT SUBMITTAL 2
9/9/25	3	DAN	PERMIT SUBMITTAL 3

## MACPHERSON RESIDENCE

5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040

### OUTDOOR PATIO PLAN

**MacPherson**  
Construction & Design

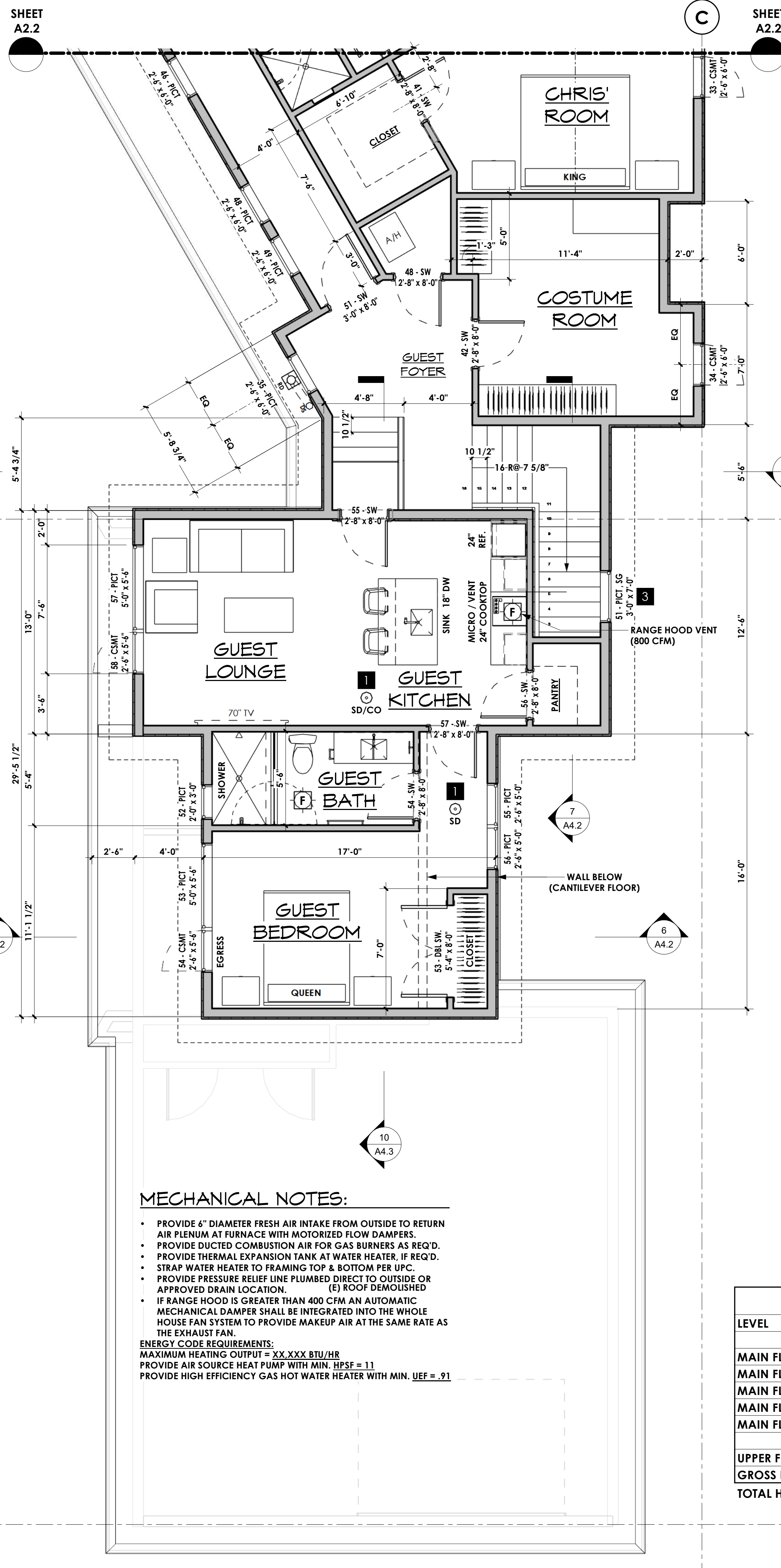
22605 SE 56th St Suite 140, Issaquah, WA 98029  
PH. 425.391.3333 FAX 425.557.2841

SHEET NUMBER

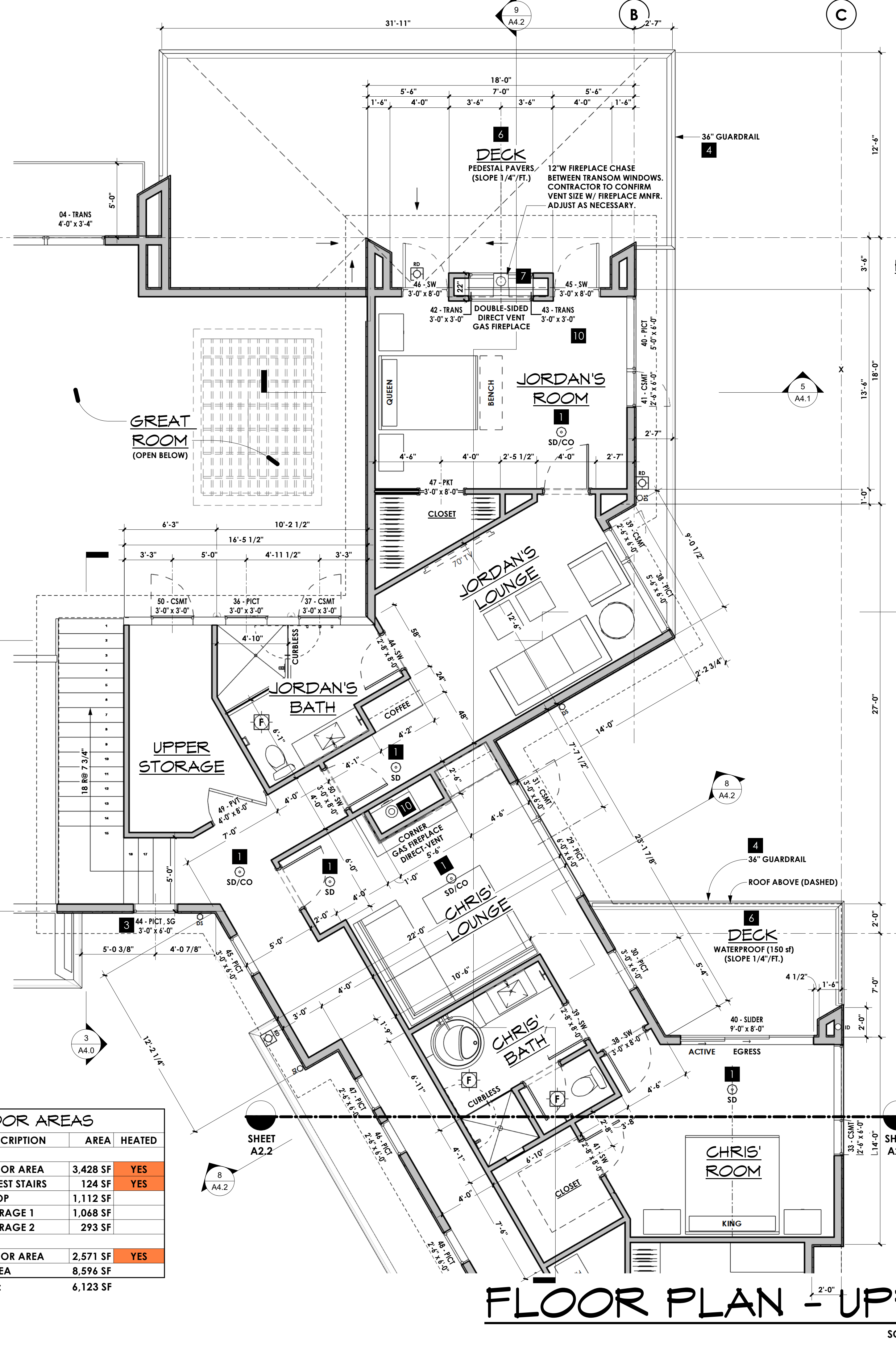
**A2.1c**

SCALE THIS DRAWING, IN FEET

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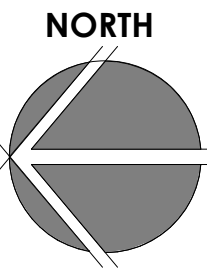


FLOOR AREAS			
LEVEL	DESCRIPTION	AREA	HEATED
MAIN FLOOR	FLOOR AREA	3,428 SF	YES
MAIN FLOOR	GUEST STAIRS	124 SF	YES
MAIN FLOOR	SHOP	1,112 SF	
MAIN FLOOR	GARAGE 1	1,068 SF	
MAIN FLOOR	GARAGE 2	293 SF	
UPPER FLOOR	FLOOR AREA	2,571 SF	YES
GROSS BUILDING AREA		8,596 SF	
TOTAL HEATED AREA:		6,123 SF	



- KEY NOTES:**
- INSTALL HEAT, SMOKE AND CARBON MONOXIDE DETECTORS. PER GENERAL NOTES, FIRE PROTECTION.
  - INSTALL WHOLE HOUSE FAN. PER GENERAL NOTES, VENTILATION & LIGHTING.
  - PROVIDE SAFETY GLAZING PER GENERAL NOTES, GLAZING.
  - INSTALL GUARDRAILS & HANDRAIL PER GENERAL NOTES, STAIRS.
  - PROVIDE FIRE SEPARATION BETWEEN HOUSE & GARAGE. PER GENERAL NOTES, GARAGES.
  - INSTALL DECKS & STAIRS. PER GENERAL NOTES DECKS & EXTERIOR STAIRWAYS.
  - INSTALL RESIDENTIAL FIRE SPRINKLER SYSTEM. PER GENERAL NOTES, FIRE PROTECTION.
  - PROVIDE INSULATION IN WALLS BETWEEN HEATED & UN-HEATED AREAS. PER GENERAL NOTES, ENERGY.
  - CRAWL SPACE ACCESS: 18"x24" PER GENERAL NOTES, CRAWL SPACES.
  - ZERO CLEARANCE DIRECT VENT GAS FIREPLACE. PER GENERAL NOTES, FIREPLACES.

**FLOOR PLAN - UPPER**



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

2" @ FULL SCALE

REV.	DATE	BY	DESCRIPTION
1	4/1/25	DAN	PERMIT SUBMITTAL
2	8/6/25	DAN	PERMIT SUBMITTAL 2

**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040

**FLOOR PLAN - UPPER**

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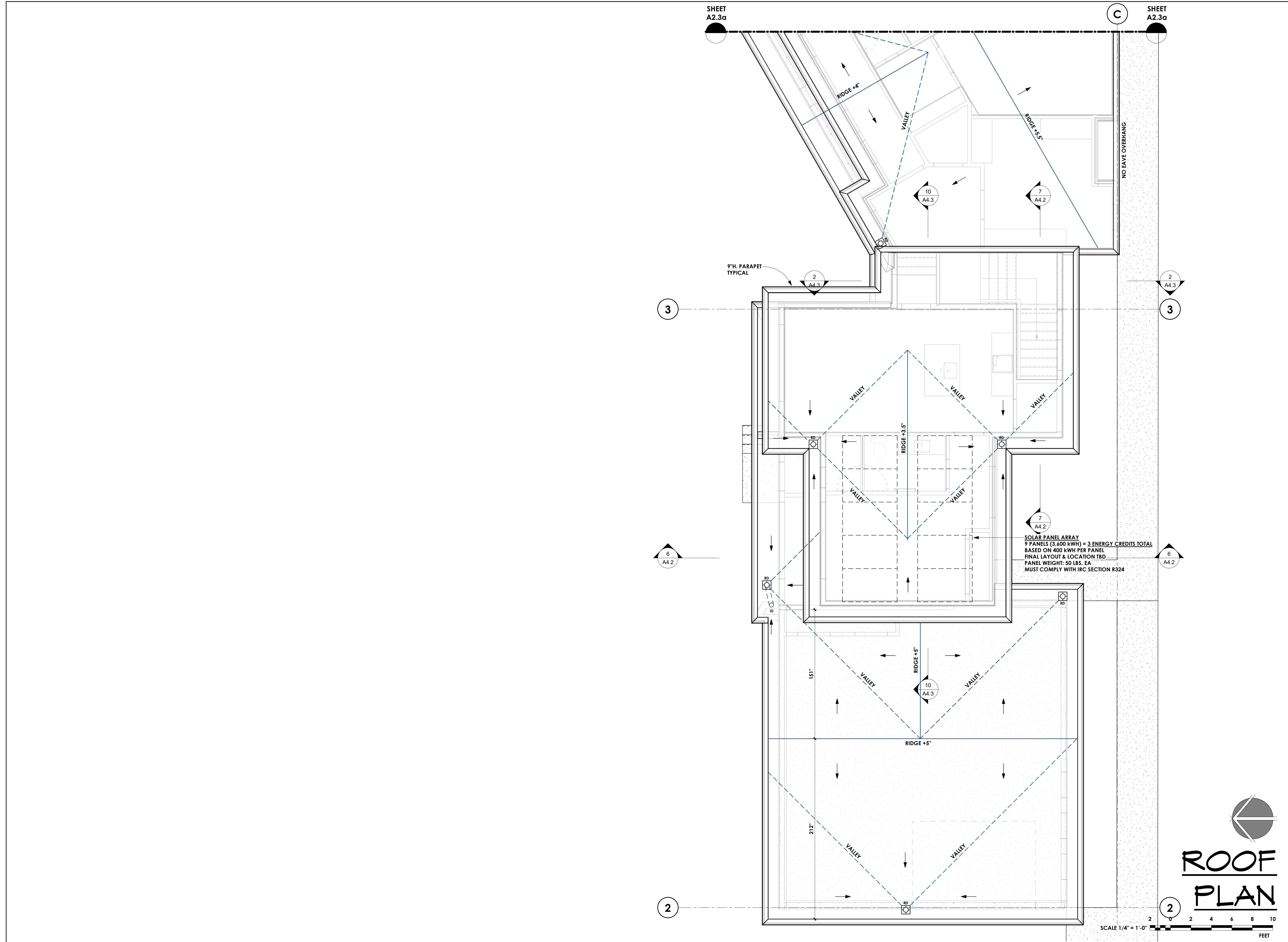
SHEET NUMBER  
**A2.2**

9/10/2025 10:07:48 AM



0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

SCALE THIS DRAWING, IN FEET



**SOLAR PANEL ARRAY**  
 9 PANELS (3,600 KWH) = 3 ENERGY CREDITS TOTAL  
 BASED ON 400 KWH PER PANEL  
 FINAL LAYOUT & LOCATION TBD  
 PANEL WEIGHT: 50 LBS. EA  
 MUST COMPLY WITH IRC SECTION R324

**ROOF PLAN**

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

SHEET A2.3a

SHEET A2.3a

DATE	REV.	BY	DESCRIPTION
4/1/25	1	DAN	PERMIT SUBMITTAL
	2		
	3		
	4		
	5		

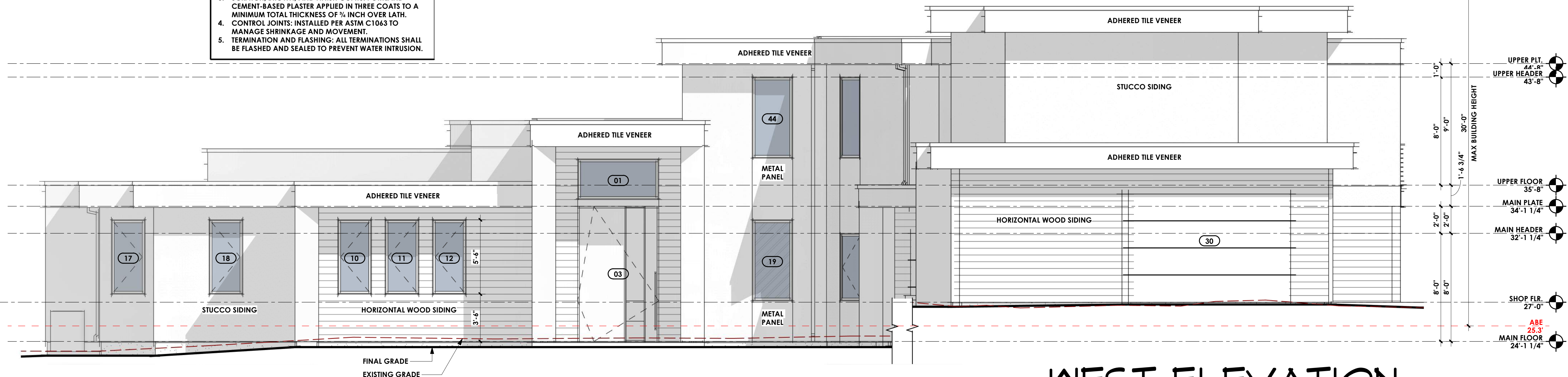
**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040  
**ROOF PLAN**

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SHEET NUMBER  
**A2.3b**

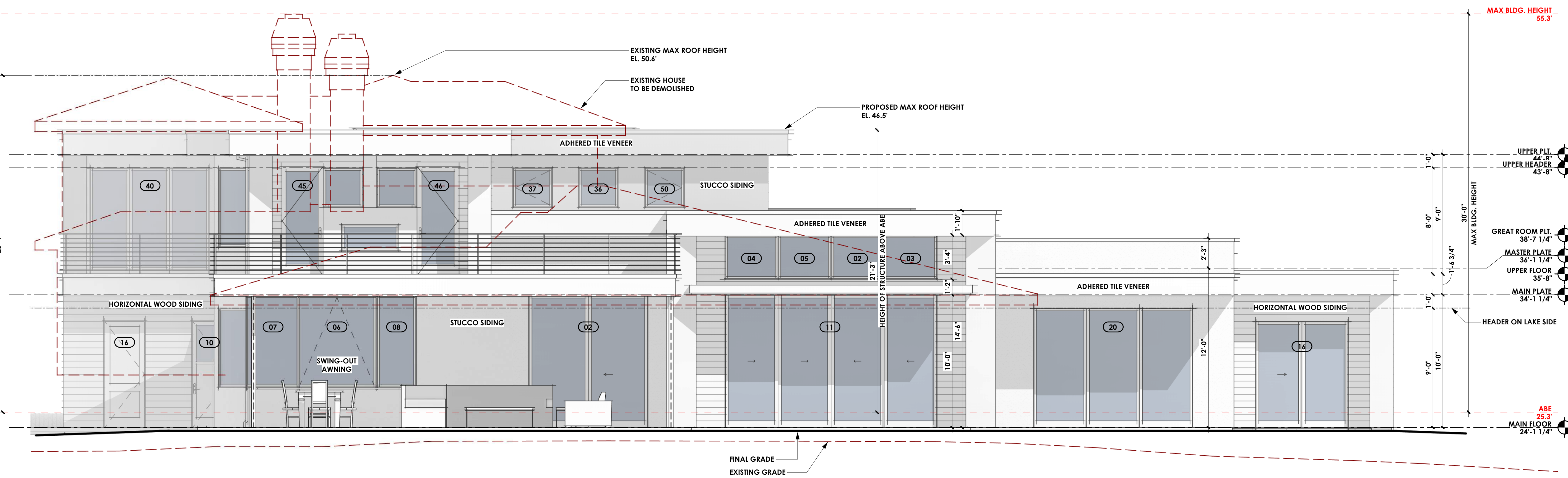
NOTE:  
FOR ADDITIONAL INFORMATION,  
SEE GENERAL NOTES AND  
STRUCTURAL DRAWINGS

- STUCCO ASSEMBLY - GENERAL NOTES (IRC R703.7)**
1. WATER-RESISTIVE BARRIER (WRB): ONE LAYER OF WRB WITH A DRAINAGE MAT.
  2. LATH: CORROSION-RESISTANT METAL LATH ATTACHED PER ASTM C1063, SPACED PER CODE AND FASTENED TO FRAMING OR FURRING.
  3. SCRATCH, BROWN, AND FINISH COATS: PORTLAND CEMENT-BASED PLASTER APPLIED IN THREE COATS TO A MINIMUM TOTAL THICKNESS OF 3/4" INCH OVER LATH.
  4. CONTROL JOINTS: INSTALLED PER ASTM C1063 TO MANAGE SHRINKAGE AND MOVEMENT.
  5. TERMINATION AND FLASHING: ALL TERMINATIONS SHALL BE FLASHED AND SEALED TO PREVENT WATER INTRUSION.



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

SCALE THIS DRAWING, IN FEET  
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48



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

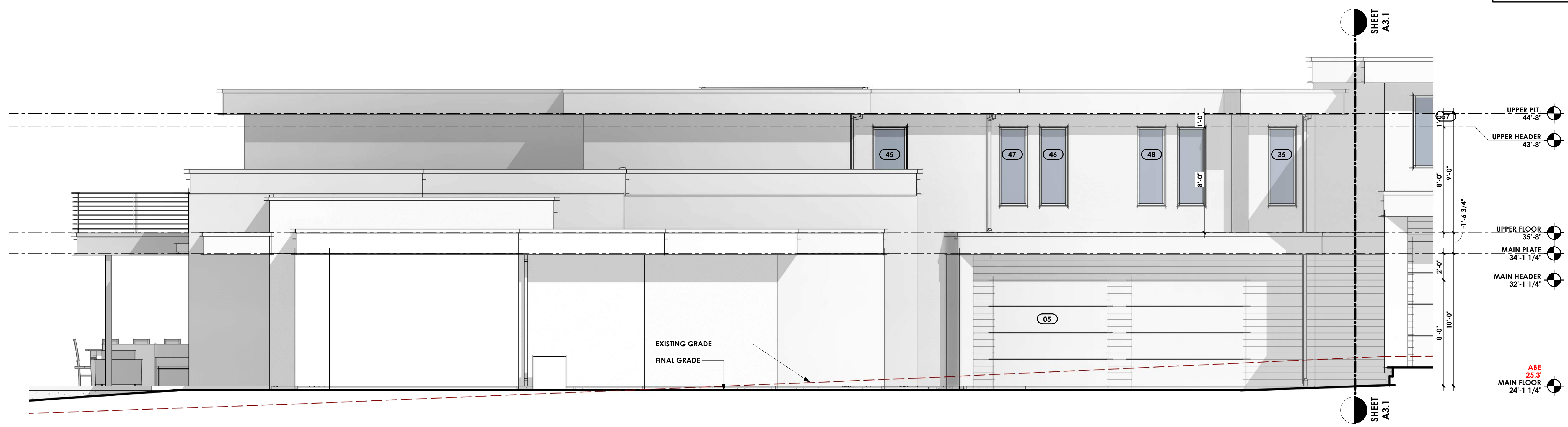
DATE	REV.	BY	DESCRIPTION
4/1/25	1	DAN	PERMIT SUBMITTAL
8/6/25		DAN	PERMIT SUBMITTAL 2

**MACPHERSON RESIDENCE**  
5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040  
**EXTERIOR ELEVATIONS**

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SHEET NUMBER  
**A3.0**

NOTE:  
FOR ADDITIONAL INFORMATION,  
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STRUCTURAL DRAWINGS



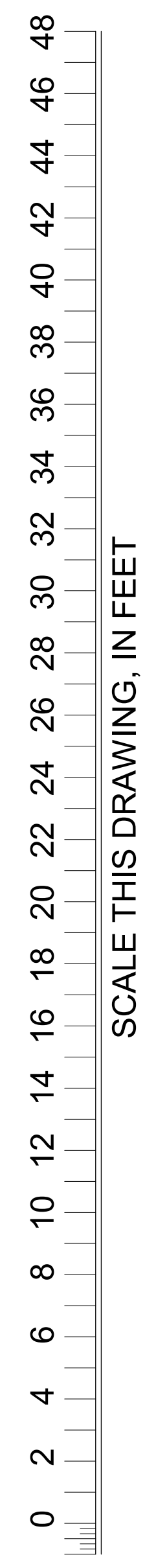
# NORTH ELEVATION

1/4" = 1'-0"



# NORTH ELEVATION

1/4" = 1'-0"

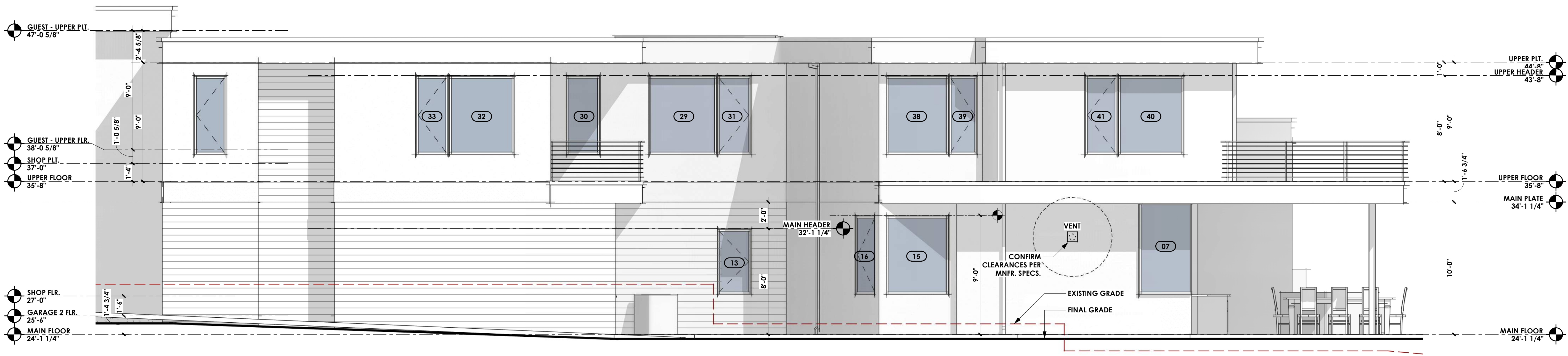


REV.	DATE	BY	DESCRIPTION
1	4/1/25	DAN	PERMIT SUBMITTAL
	8/6/25	DAN	PERMIT SUBMITTAL 2

**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040  
**EXTERIOR ELEVATIONS**

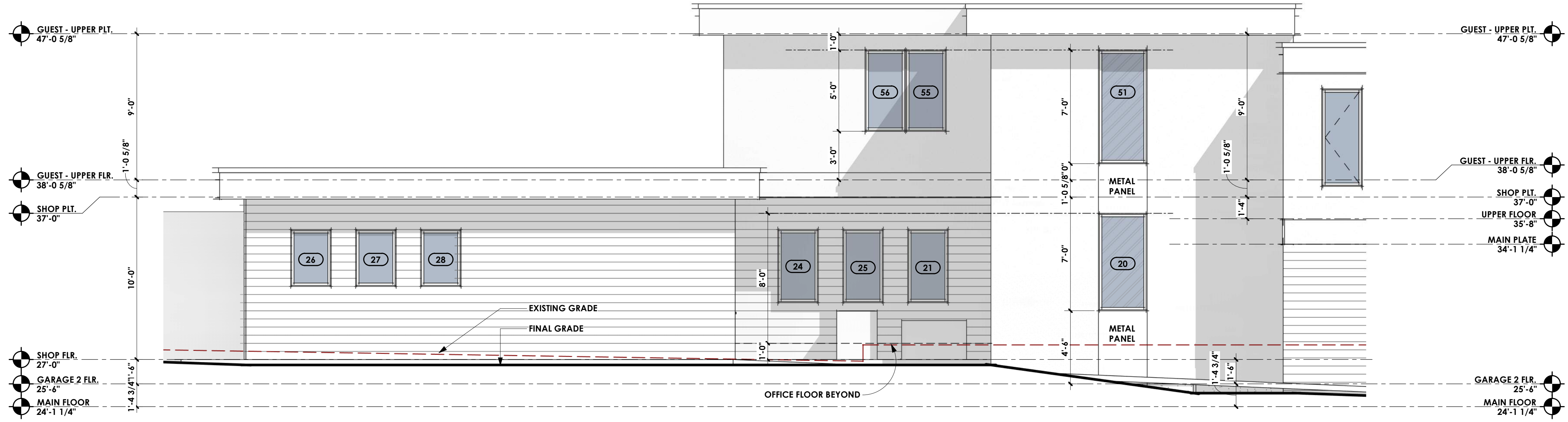
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SHEET NUMBER  
**A3.1**



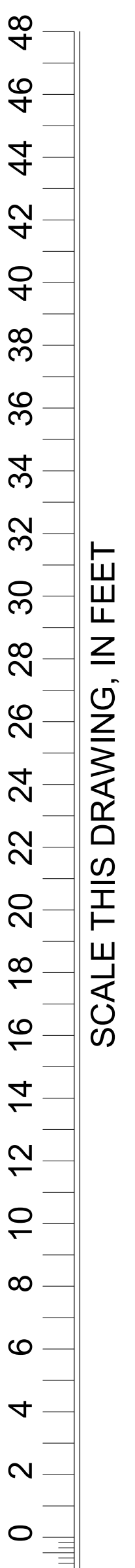
# SOUTH ELEVATION

1/4" = 1'-0"



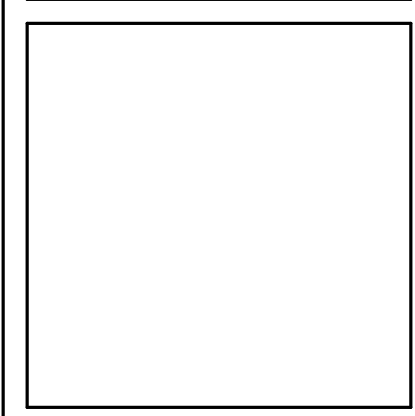
# SOUTH ELEVATION

1/4" = 1'-0"



REV.	DATE	BY	DESCRIPTION
1	4/1/25	DAN	PERMIT SUBMITTAL
	8/6/25	DAN	PERMIT SUBMITTAL 2

**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040  
**EXTERIOR ELEVATIONS**

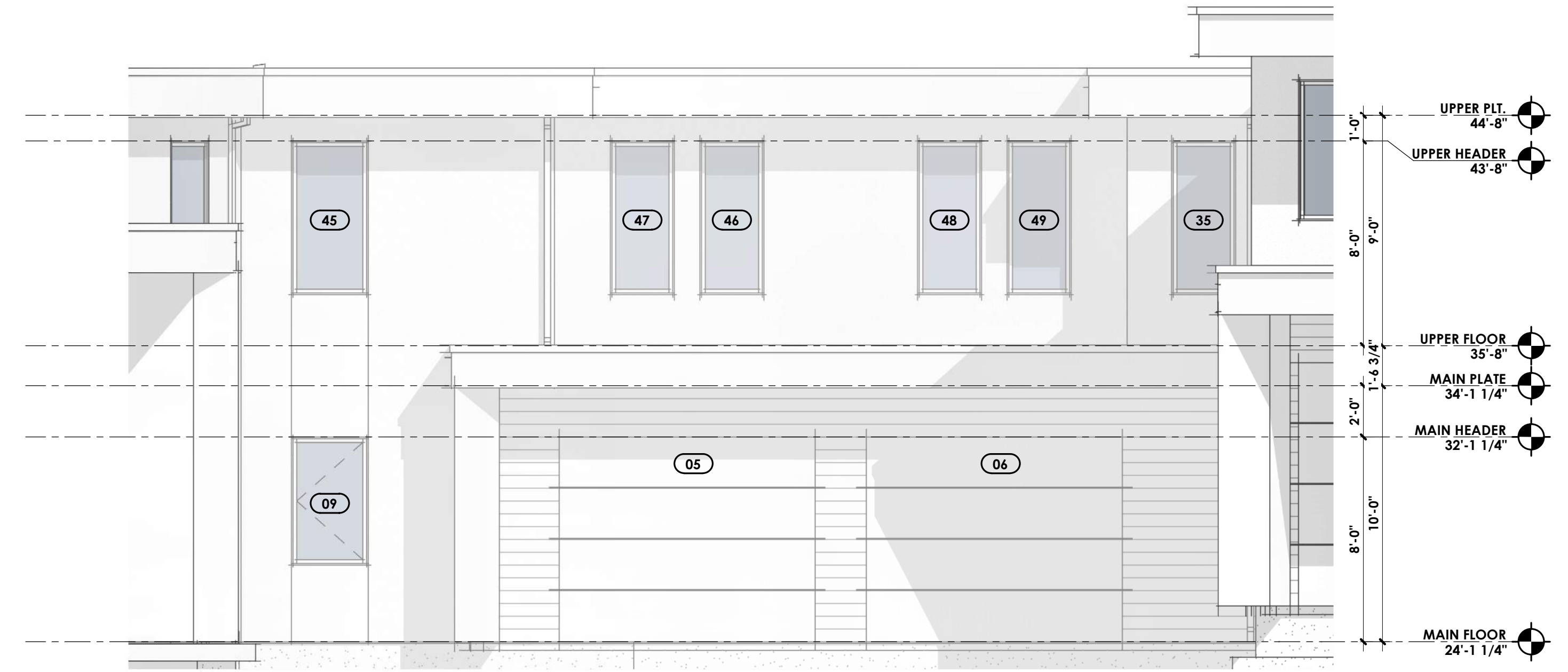


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SHEET NUMBER  
**A3.2**

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

SCALE THIS DRAWING, IN FEET



**NORTH ELEVATION - GARAGE**

1/4" = 1'-0"

2" @ FULL SCALE

DATE	REV.	BY	DESCRIPTION
4/1/25	<<	DAN	PERMIT SUBMITTAL
	<<		
	<<		
	<<		

**MACPHERSON RESIDENCE**

5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040

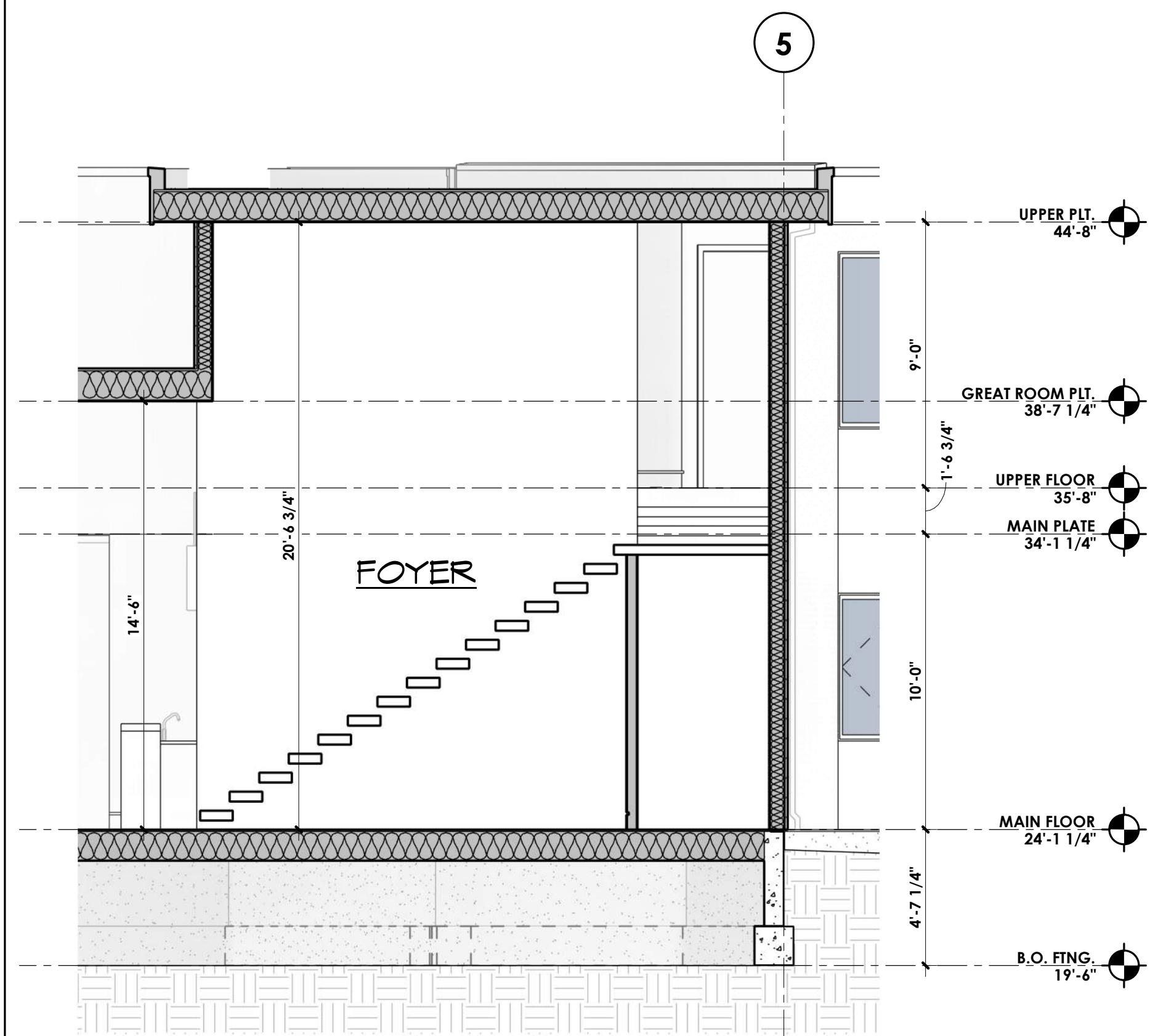
**EXTERIOR ELEVATIONS**

**MacPherson**  
Construction & Design

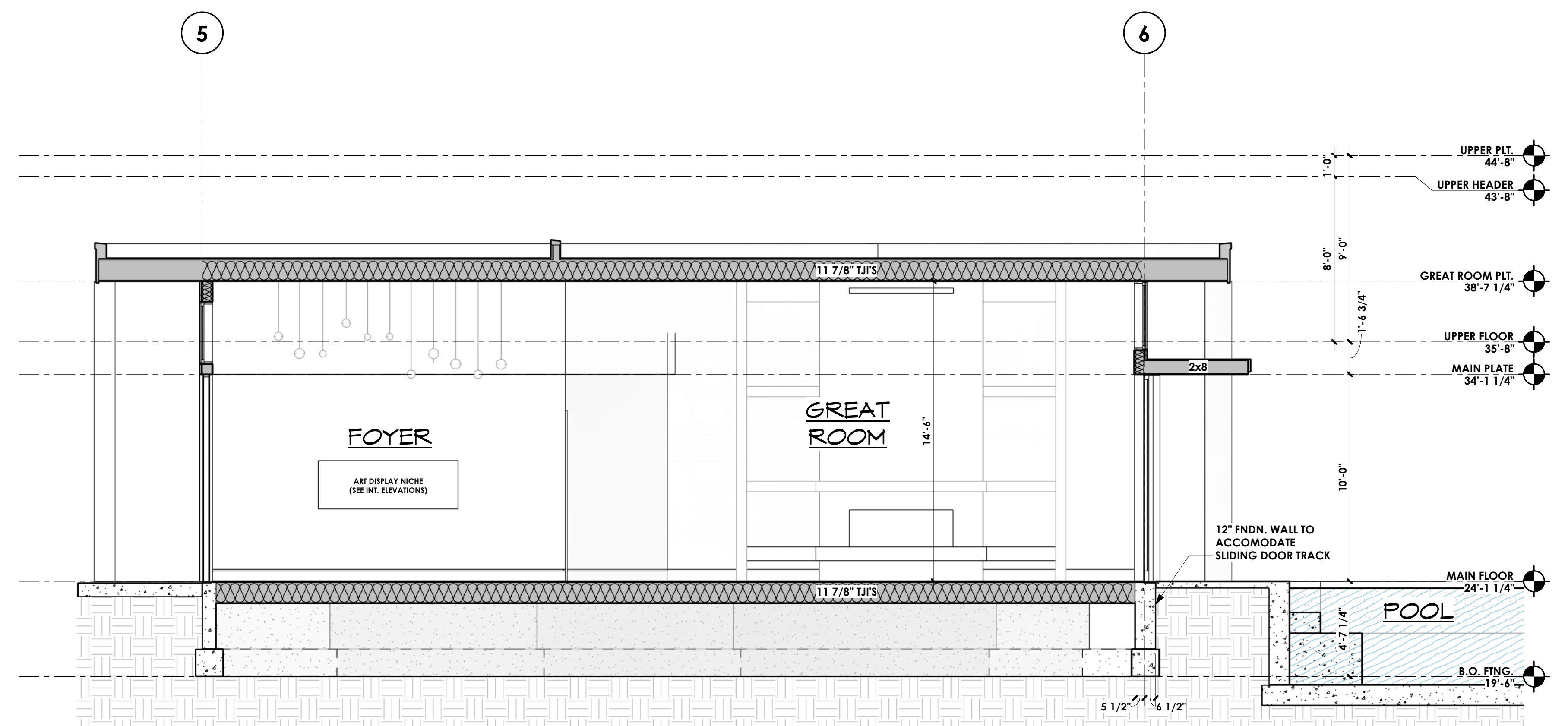
22605 SE 56th St Suite 140, Issaquah, WA 98029  
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SHEET NUMBER

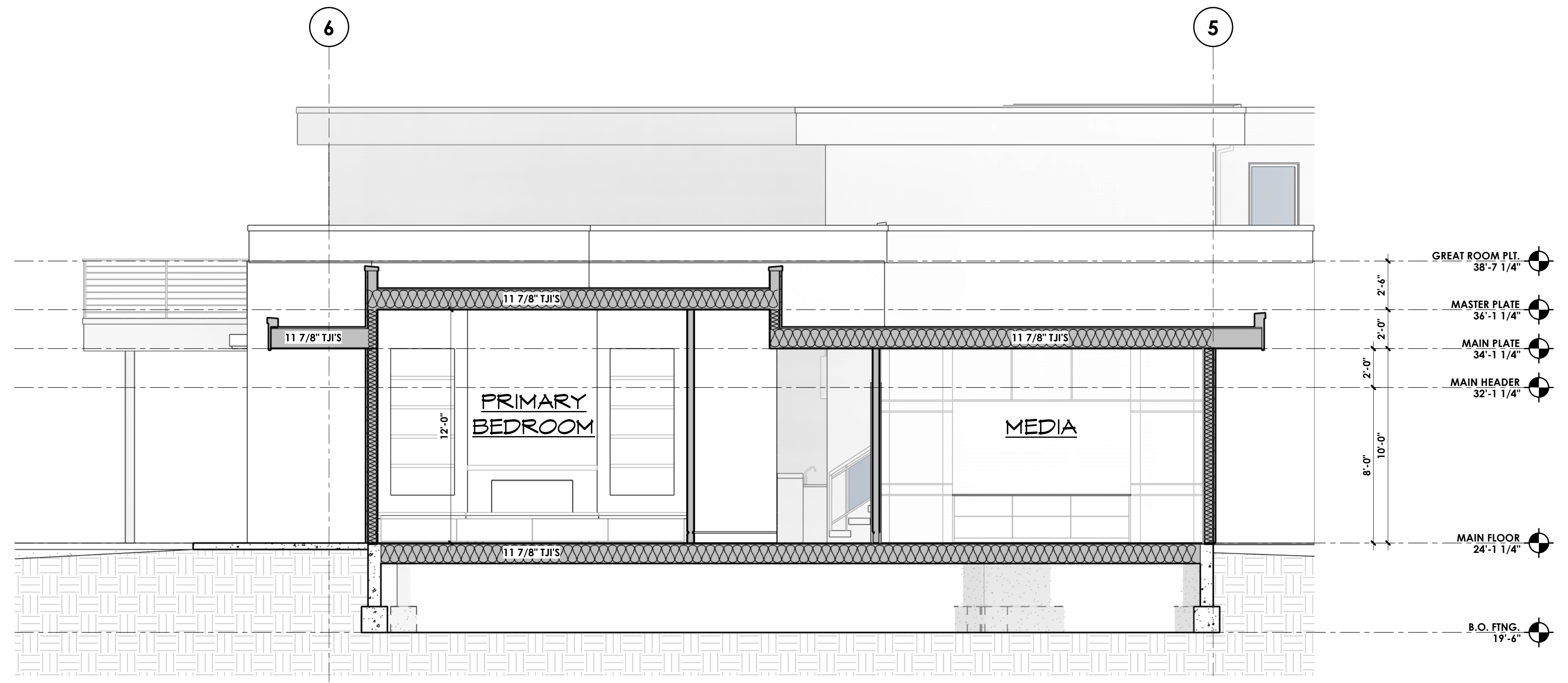
**A3.3**



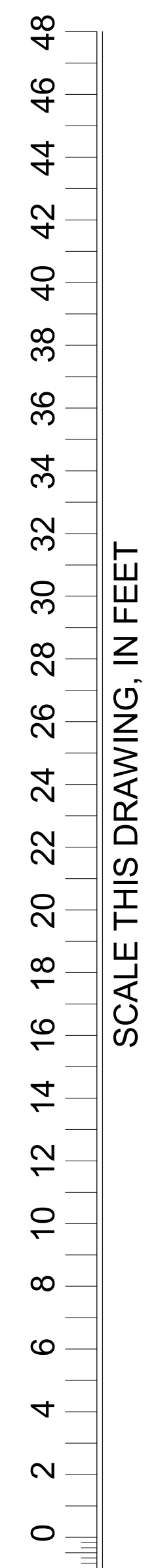
**SECTION 3**  
1/4" = 1'-0"



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



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



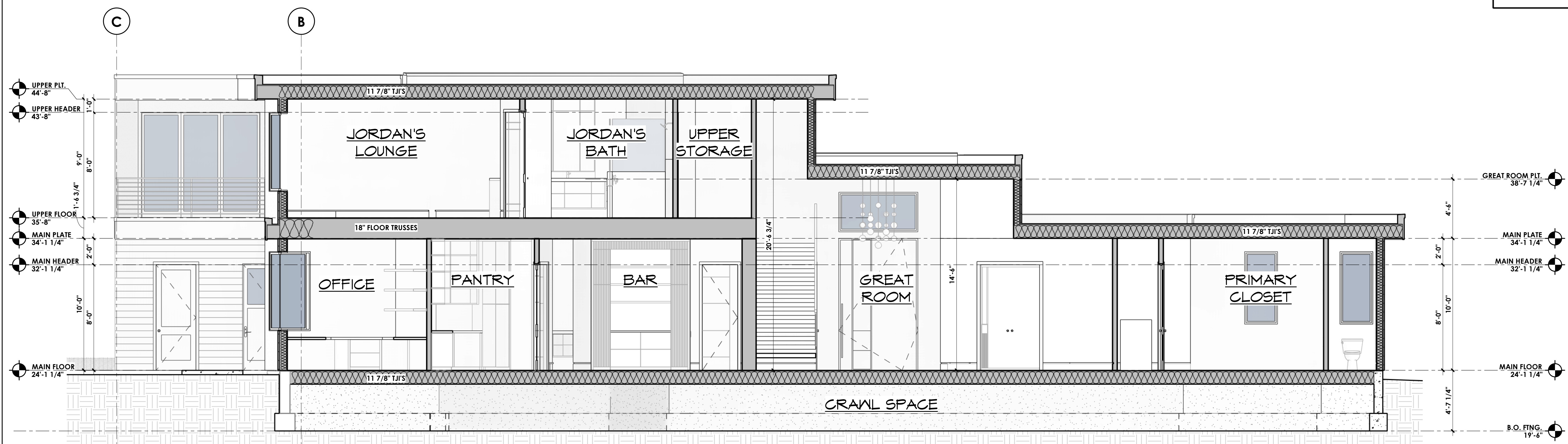
REV.	DATE	DESCRIPTION
1	4/1/25	PERMIT SUBMITTAL

**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040  
**BUILDING SECTIONS**

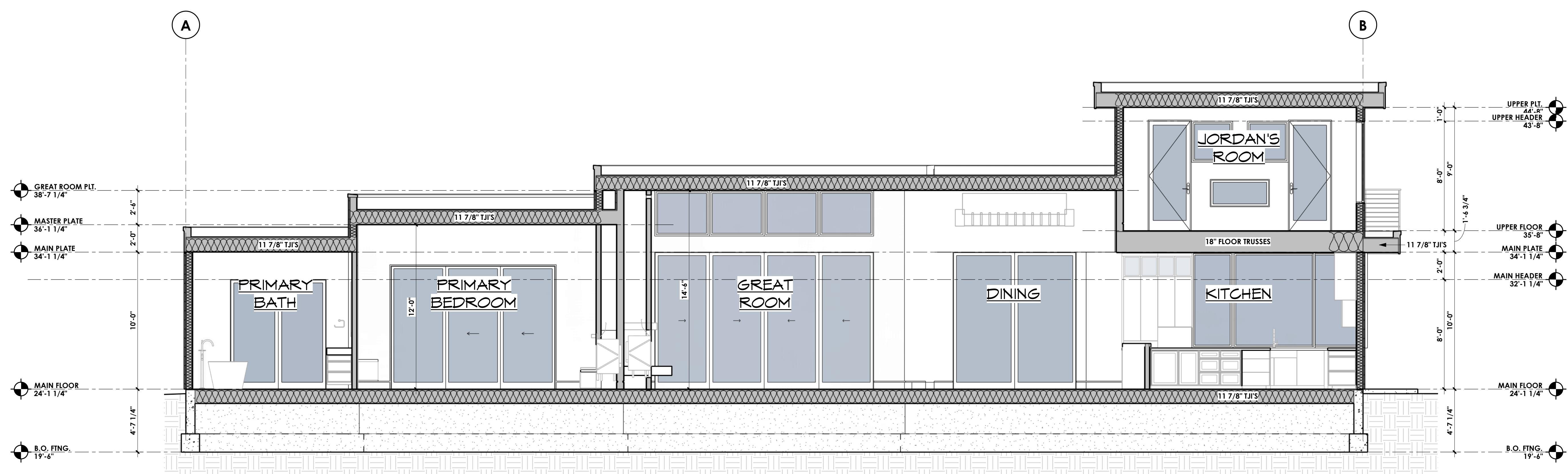
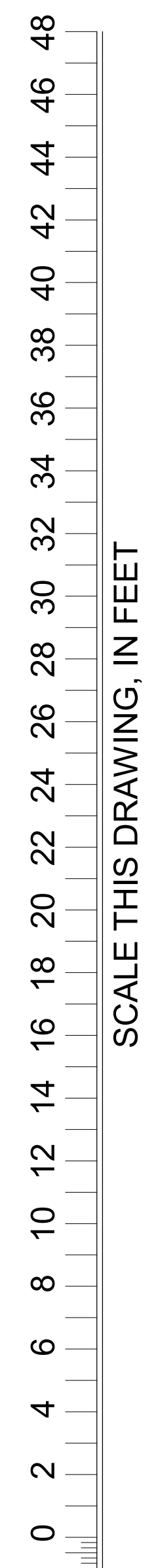
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SHEET NUMBER  
**A4.0**

NOTE:  
FOR ADDITIONAL INFORMATION,  
SEE GENERAL NOTES AND  
STRUCTURAL DRAWINGS



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



**SECTION 5**  
1/4" = 1'-0"

REV.	DATE	DESCRIPTION
1	4/1/25	PERMIT SUBMITTAL

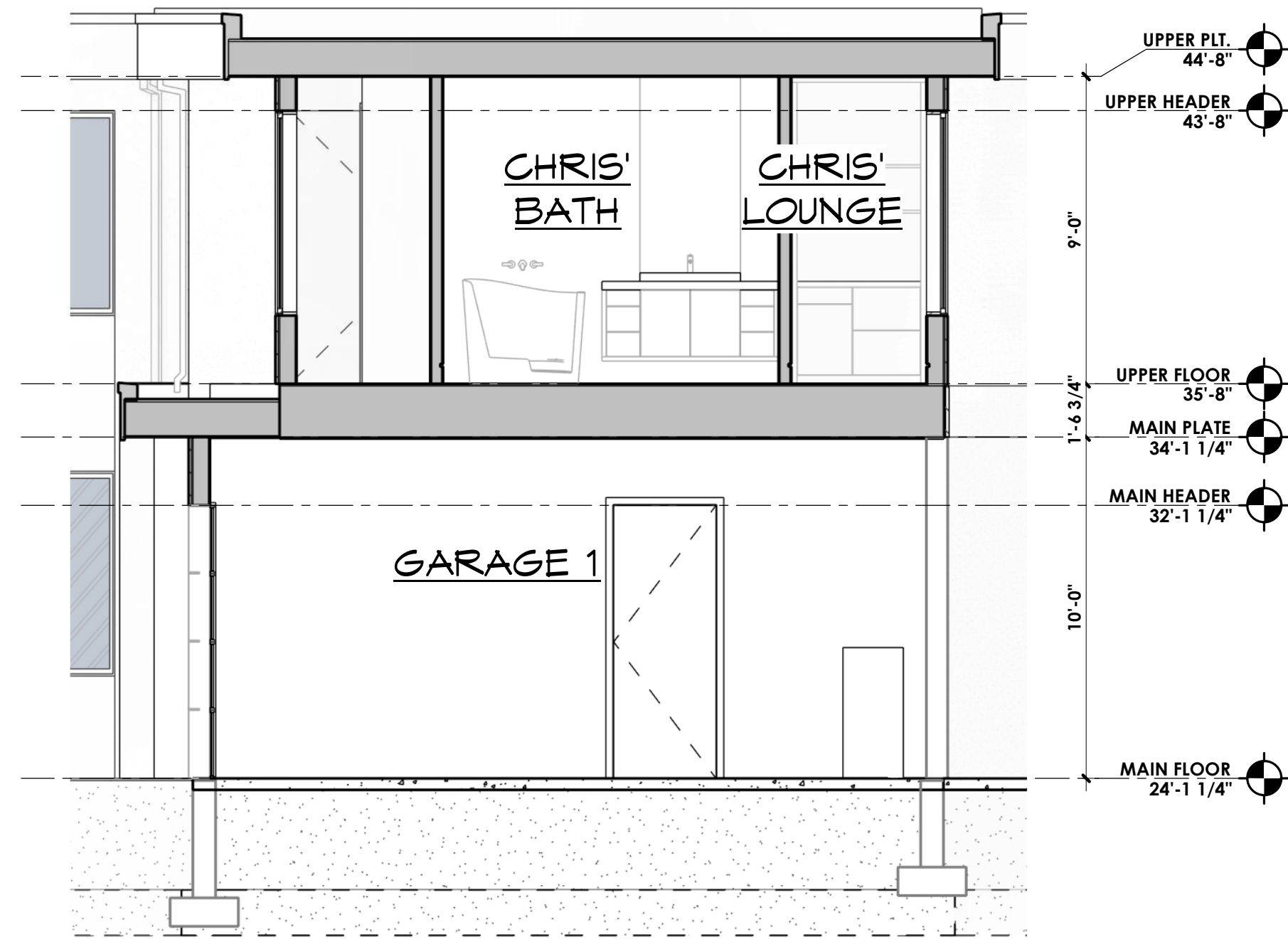
**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040  
**BUILDING SECTIONS**

**MacPherson**  
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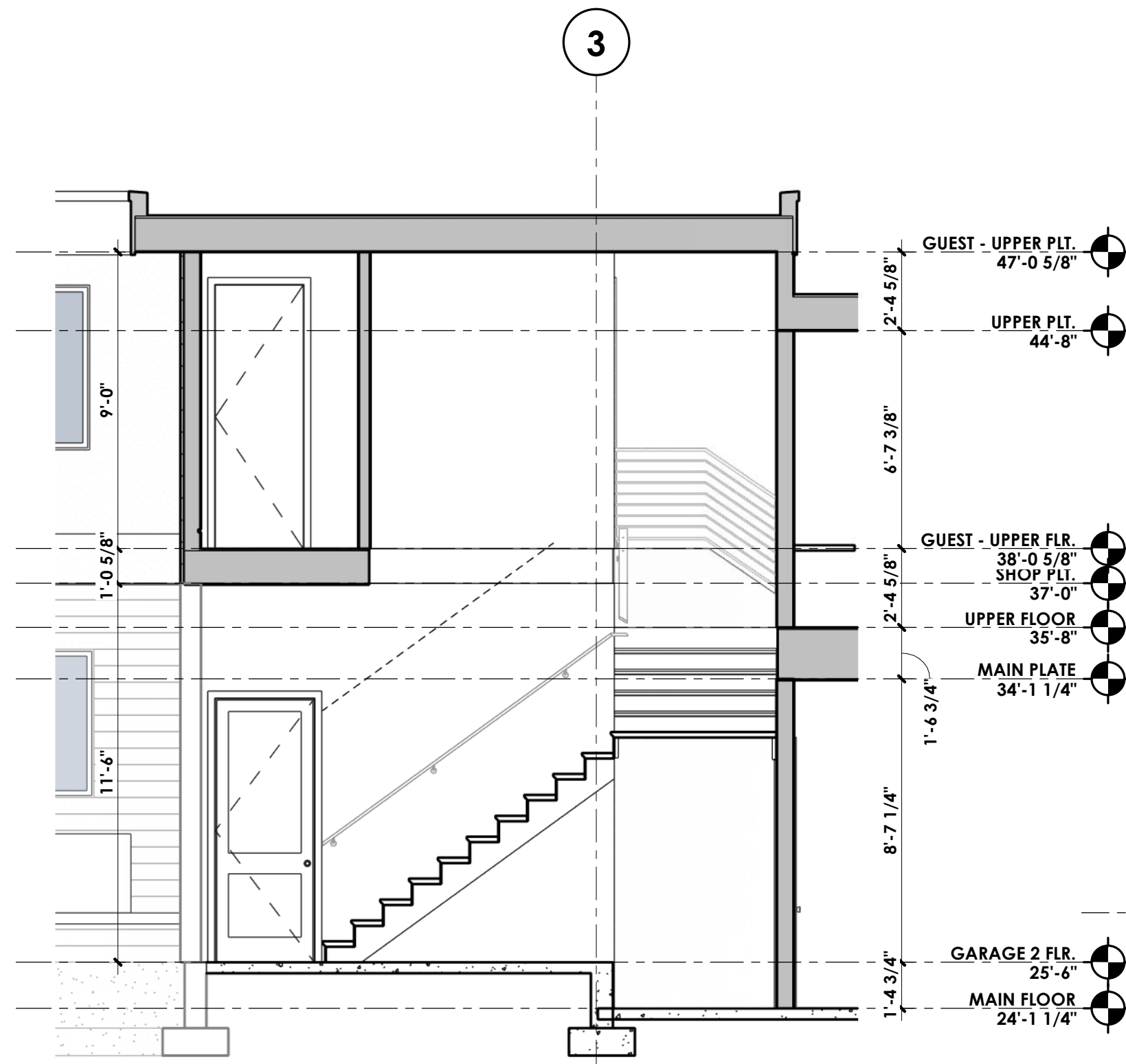
SHEET NUMBER  
**A4.1**

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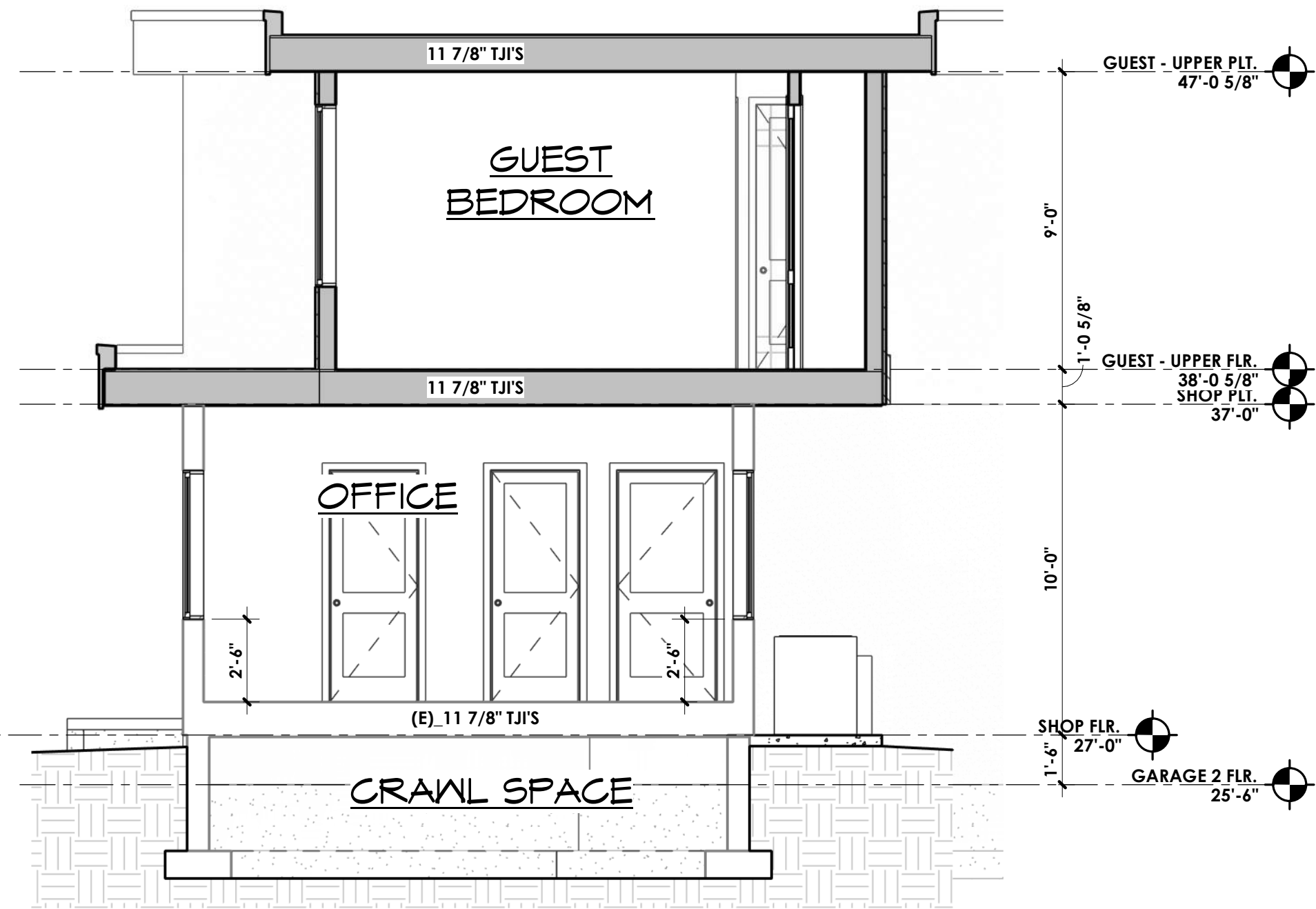
SCALE THIS DRAWING, IN FEET



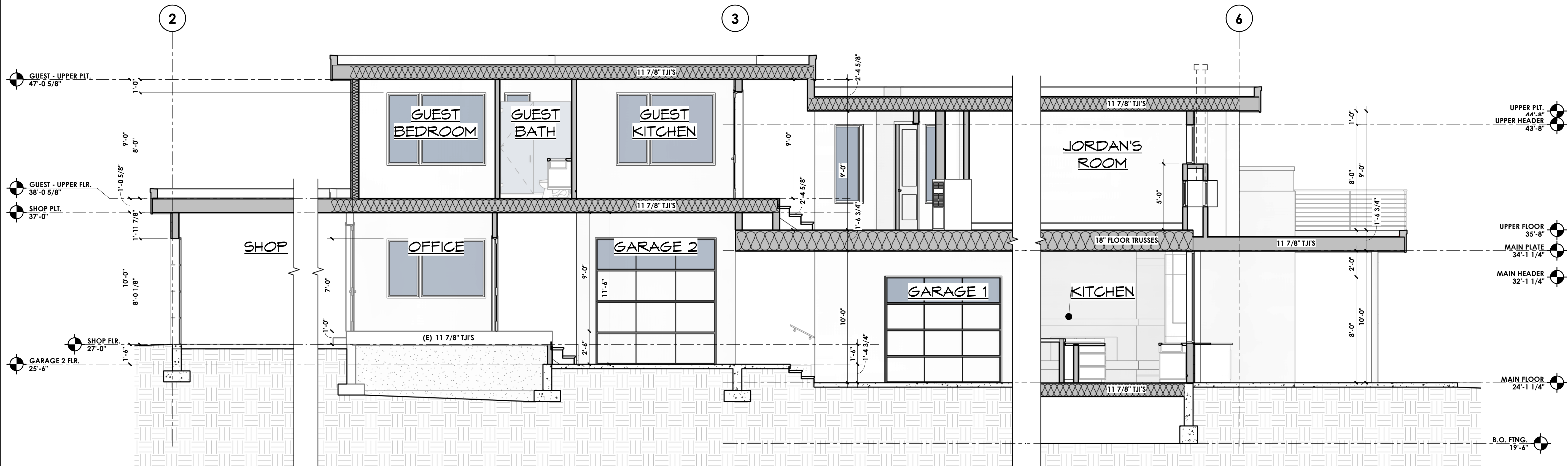
**SECTION 8**  
1/4" = 1'-0"



**SECTION 7**  
1/4" = 1'-0"



**SECTION 6**  
1/4" = 1'-0"



**SECTION 9**  
1/4" = 1'-0"

REV.	DATE	DESCRIPTION
1	4/1/25	PERMIT SUBMITTAL

**MACPHERSON RESIDENCE**

5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040

**BUILDING SECTIONS**

**MacPherson**  
Construction & Design

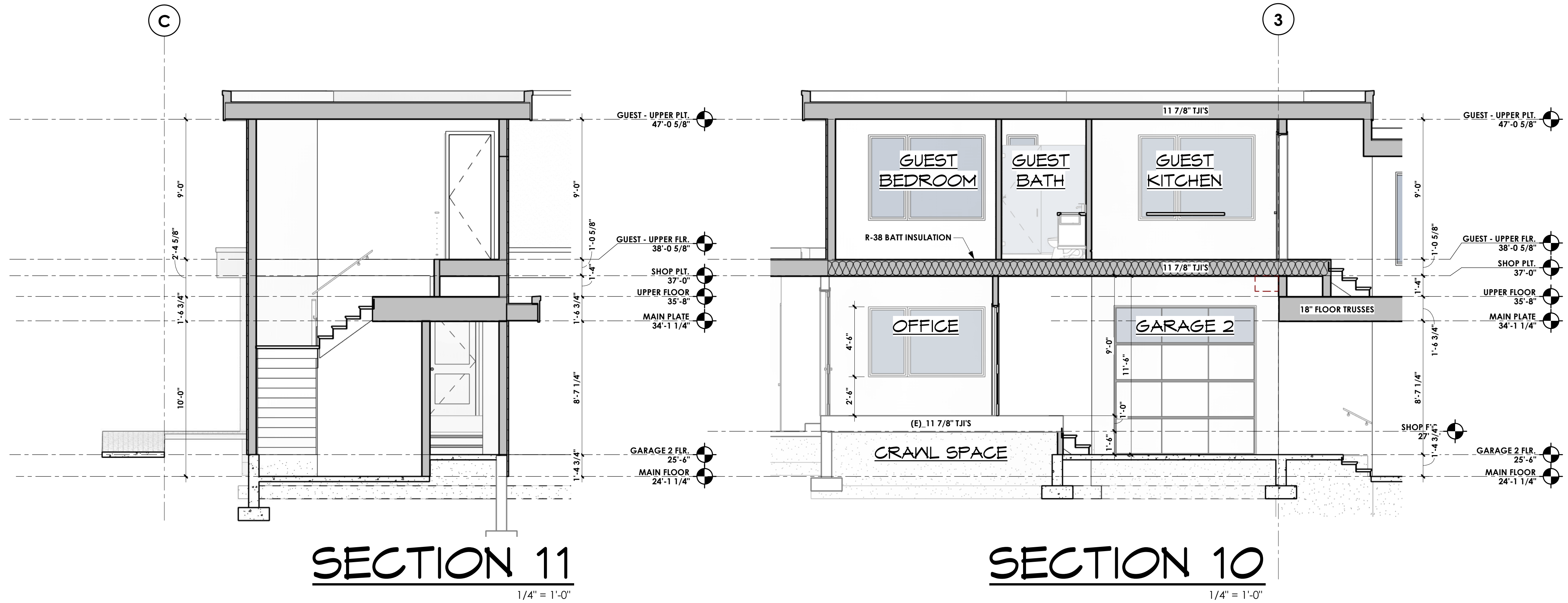
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SHEET NUMBER

**A4.2**

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SCALE THIS DRAWING, IN FEET

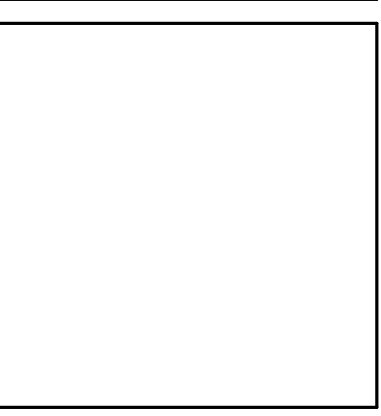


**SECTION 11**  
1/4" = 1'-0"

**SECTION 10**  
1/4" = 1'-0"

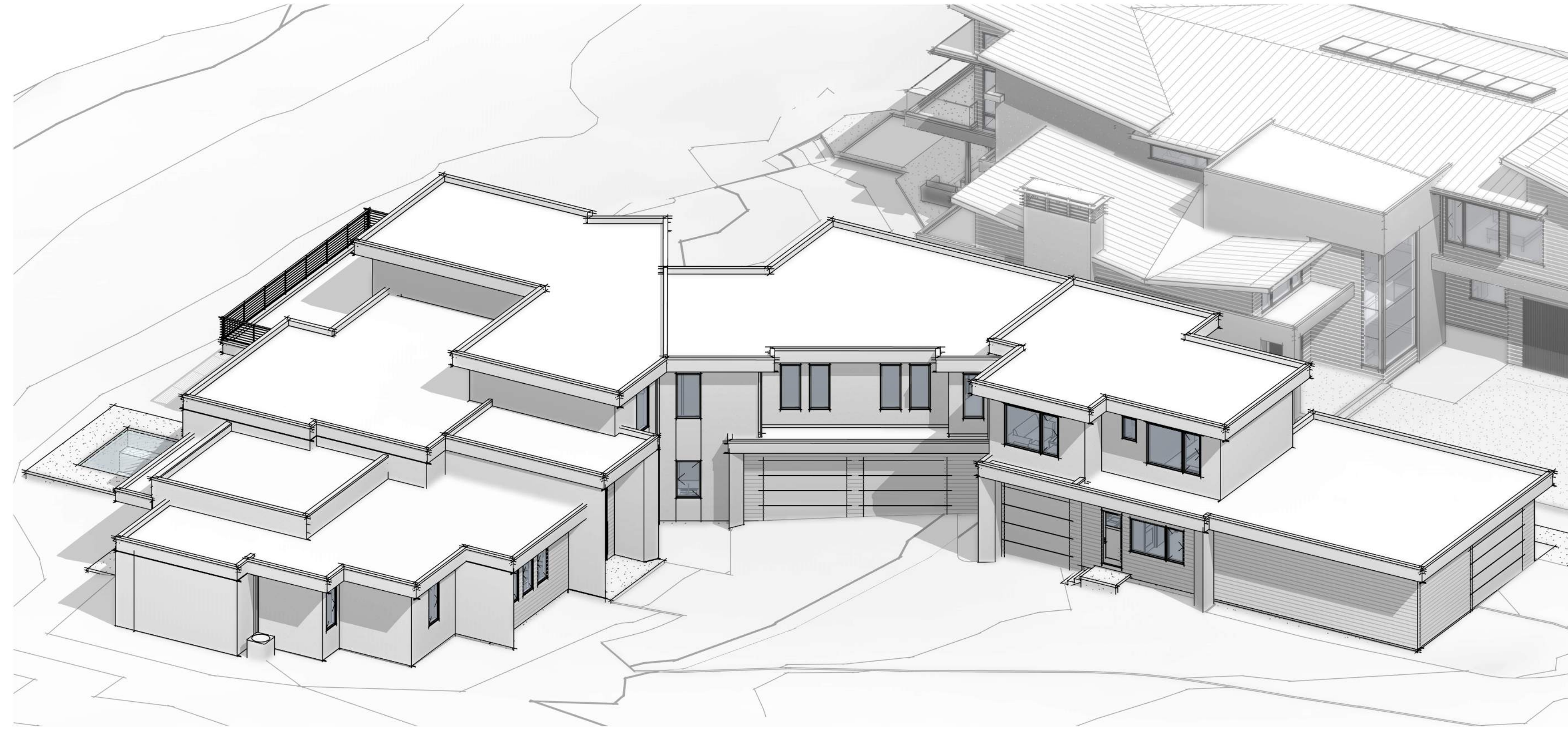
DATE	REV.	BY	DESCRIPTION
4/1/25	1	DAN	PERMIT SUBMITTAL
8/6/25		DAN	PERMIT SUBMITTAL 2

**MACPHERSON RESIDENCE**  
5320 BUTTERWORTH RD.  
MERCER ISLAND, WA 98040  
PARCEL #: 866140-0040  
**BUILDING SECTIONS**



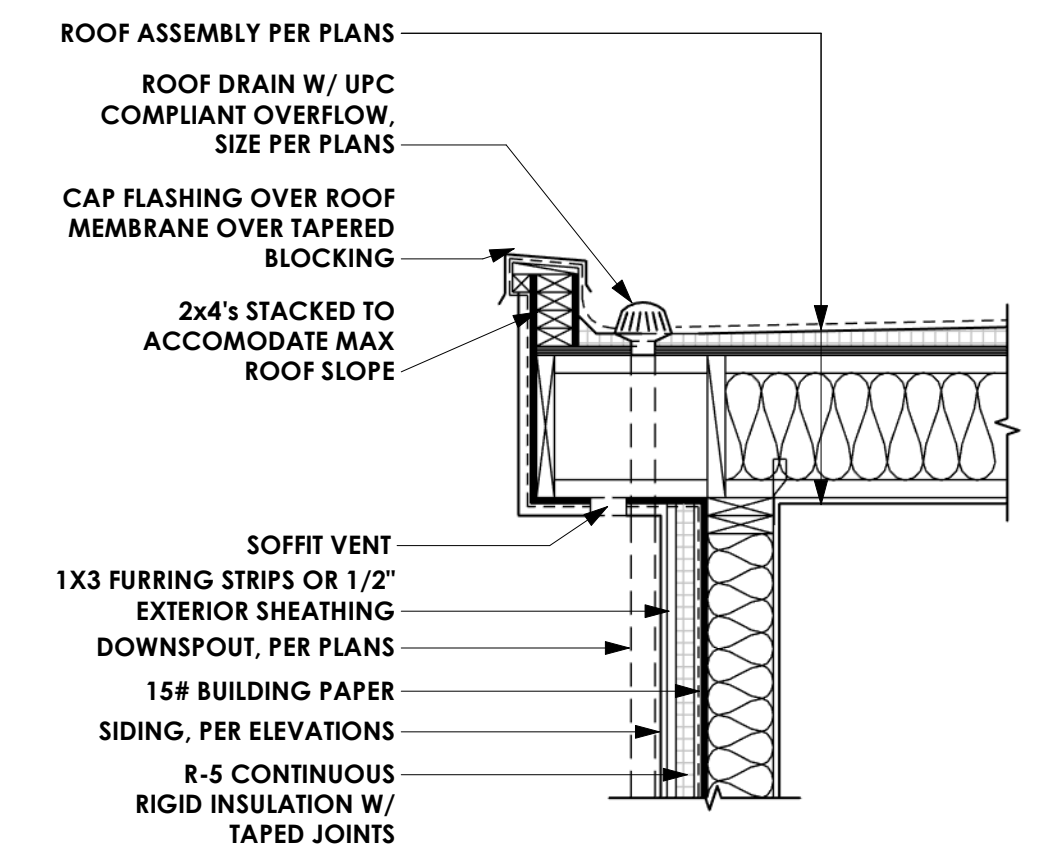
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SHEET NUMBER  
**A4.3**

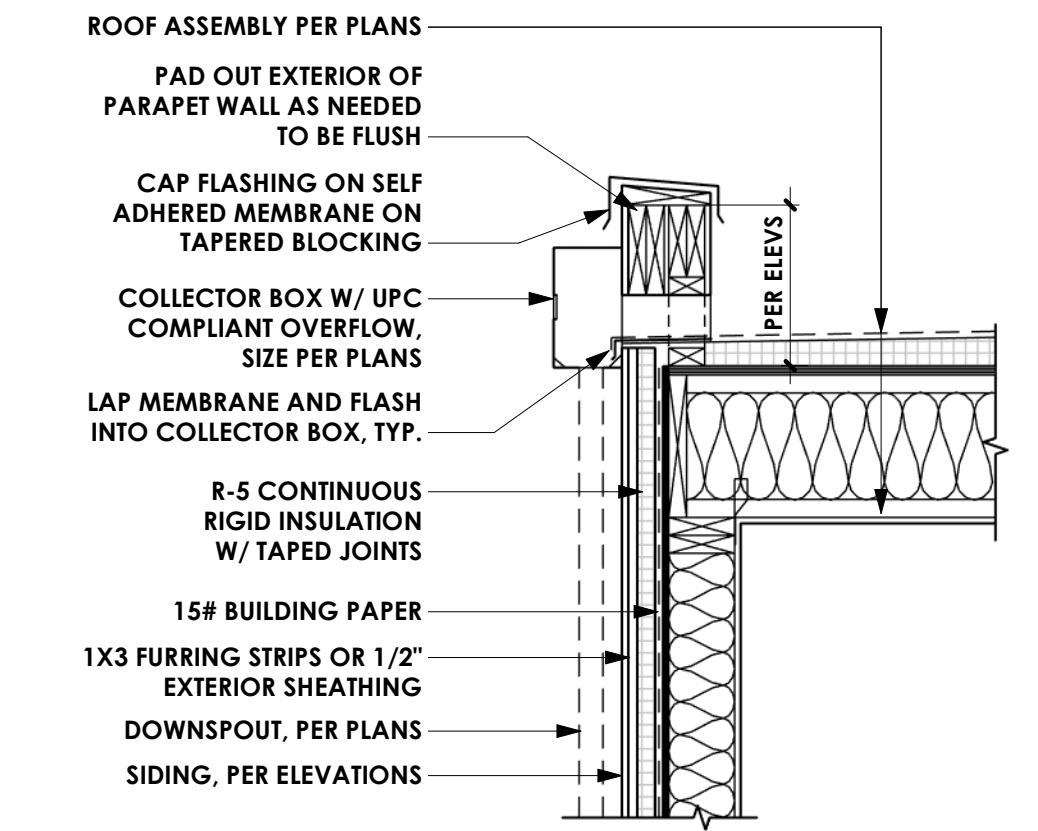


SCALE THIS DRAWING, IN FEET

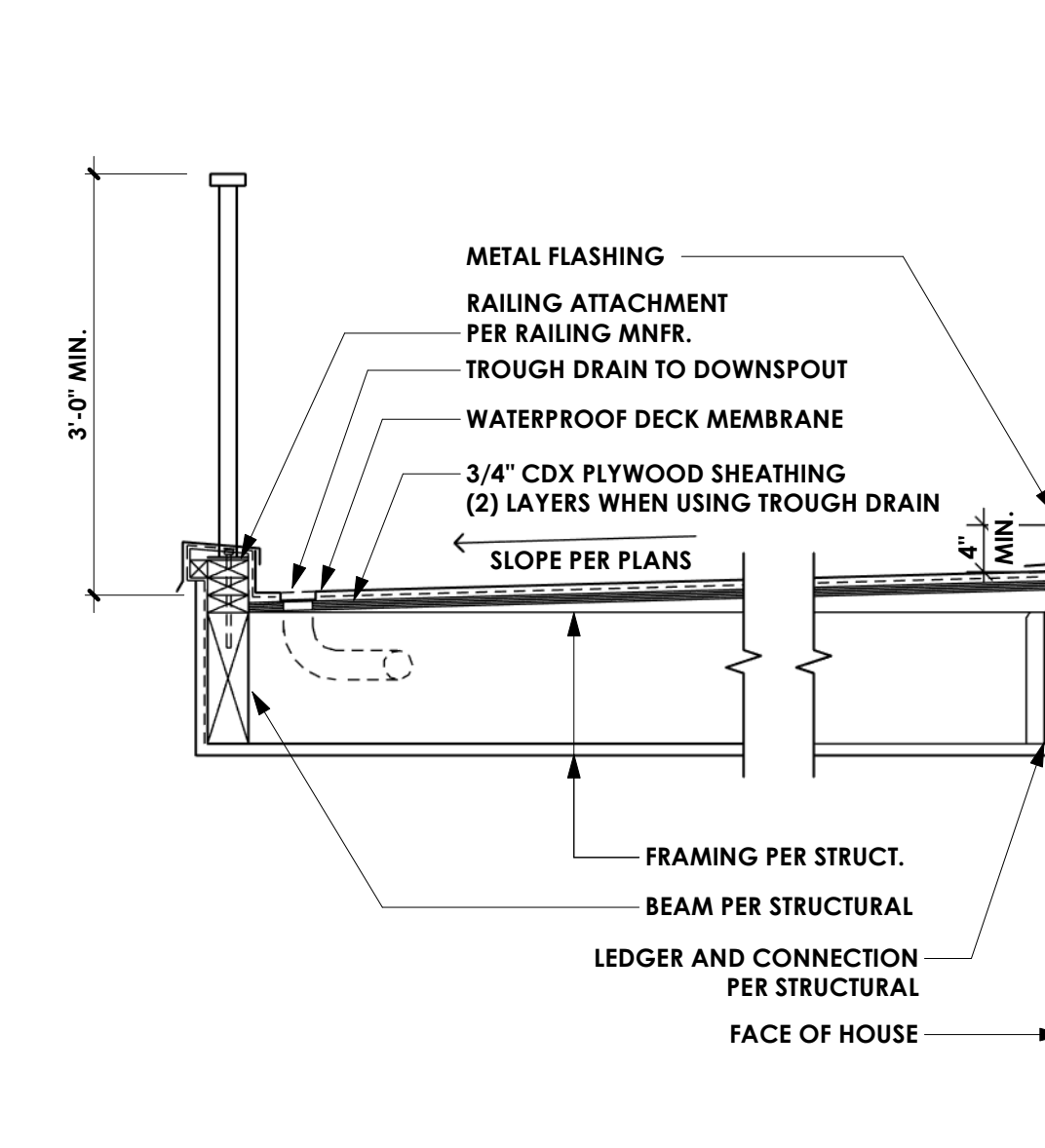
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48



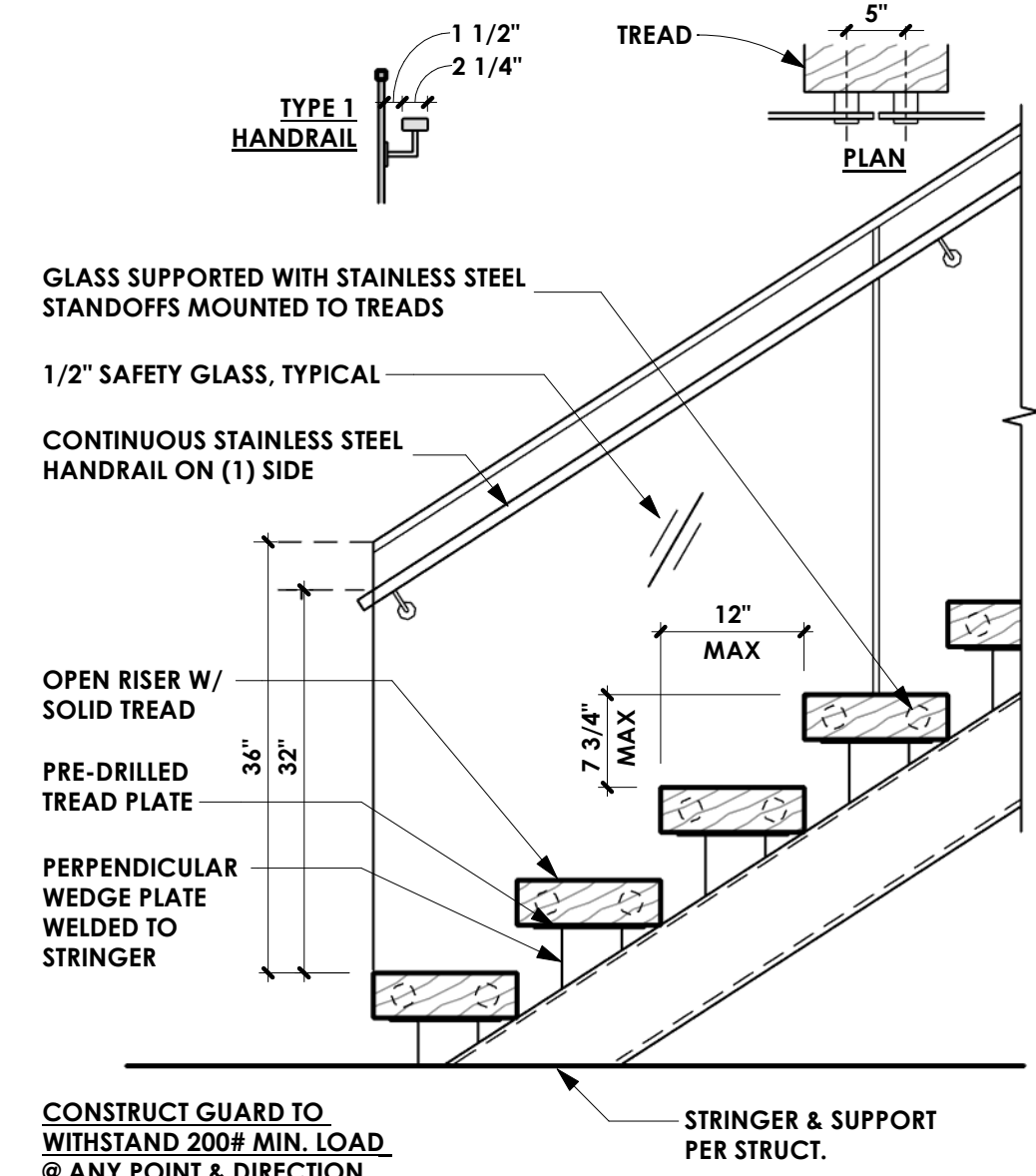
**6 FLAT ROOF - OVERHANG UNVENTED** SCALE: 3/4" = 1'-0"



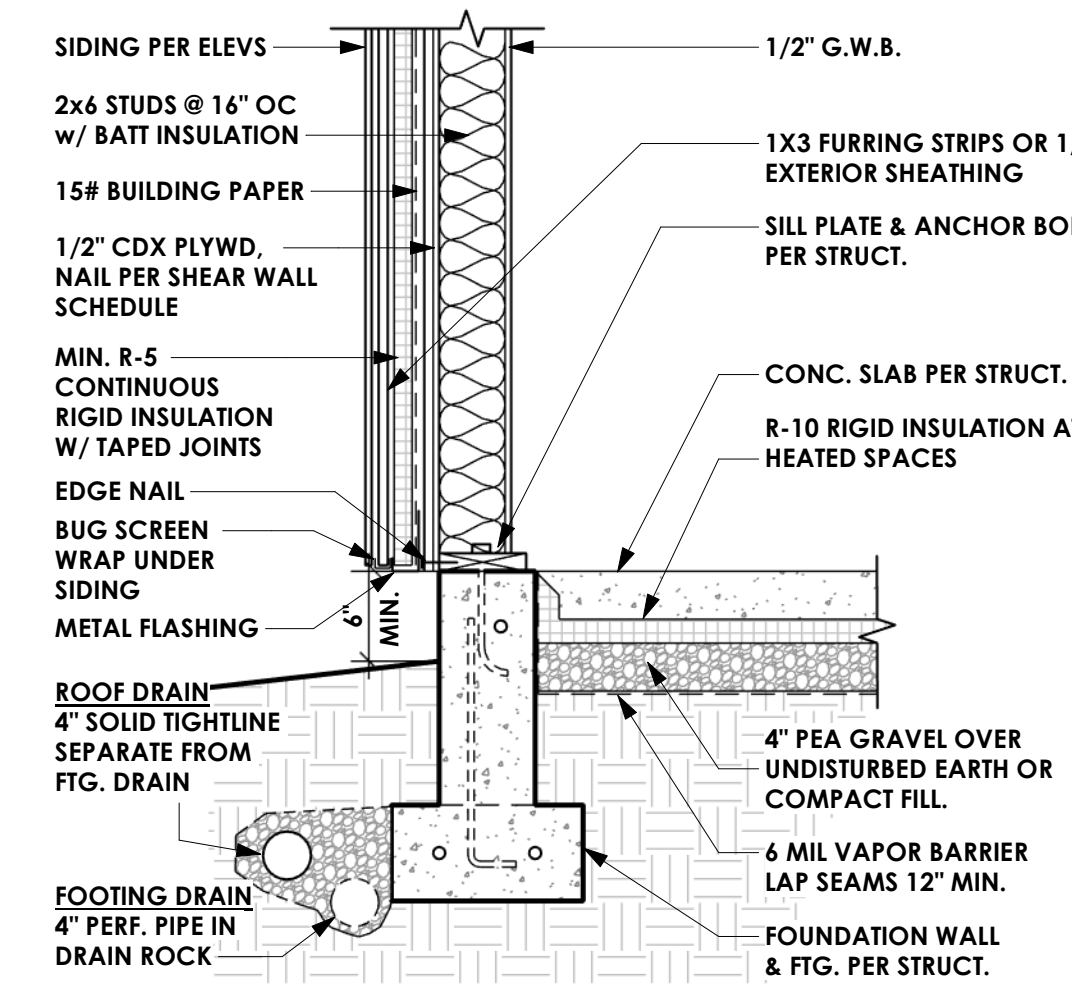
**5 FLAT ROOF - NO OVERHANG UNVENTED** SCALE: 3/4" = 1'-0"



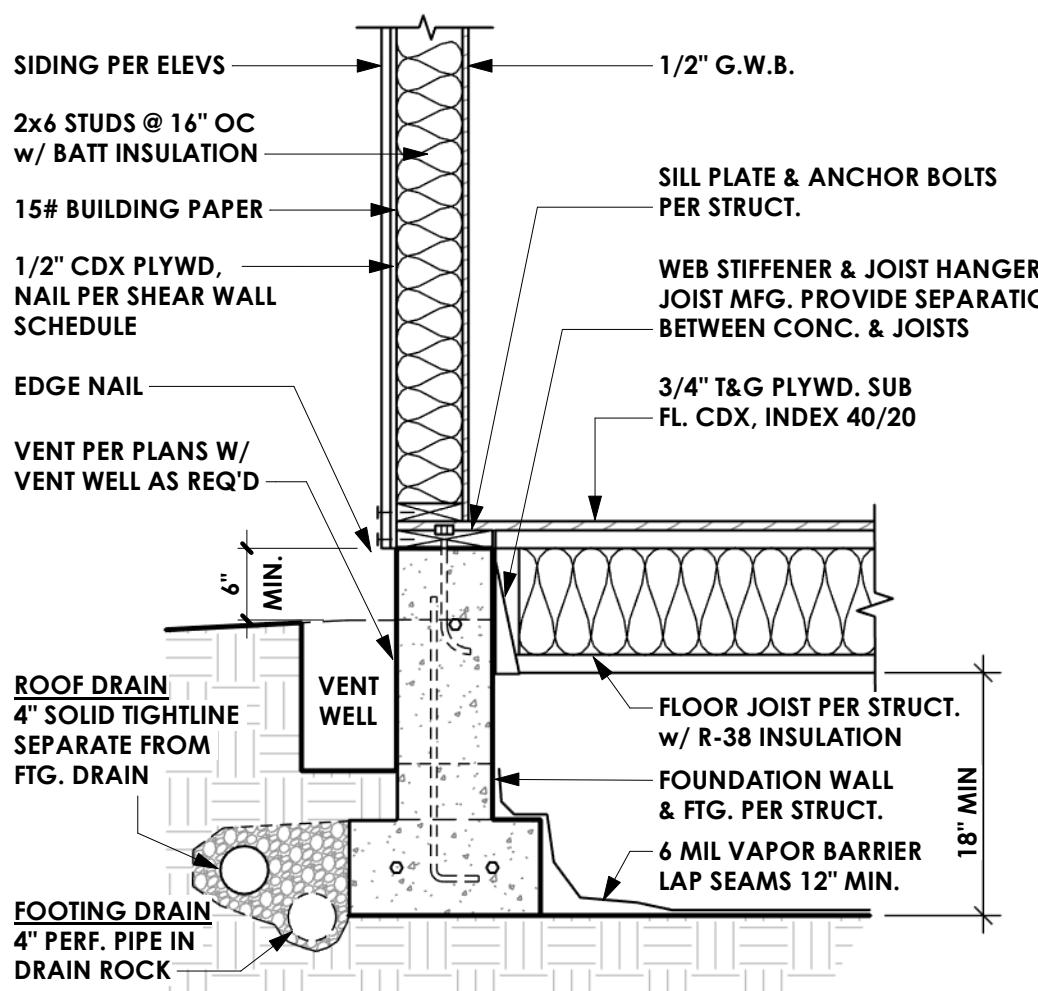
**4 TYP WATERPROOF DECK (w/ CURB)** SCALE: 3/4" = 1'-0"



**3 TYP OPEN RISER STAIR** SCALE: 3/4" = 1'-0"



**2 TYP FOUNDATION @ SLAB ON GRADE** SCALE: 3/4" = 1'-0"



**1 TYP FOUNDATION @ CRAWL SPACE** SCALE: 3/4" = 1'-0"

**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040  
**ARCHITECTURAL DETAILS**

**MacPherson**  
 Construction & Design  
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DATE	REV.	BY	DESCRIPTION
4/1/25		DAN	PERMIT SUBMITTAL

SHEET NUMBER  
**A5.0**

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

SCALE THIS DRAWING, IN FEET

### WINDOW SCHEDULE

LEVEL	ROOM	MARK	OPERATION	WIDTH	HEIGHT	AREA	SILL HT.	HEAD HT.	COMMENTS
MAIN FLOOR	FOYER	01	TRANS	6'-0"	3'-0"	18 SF	10'-6"	13'-6"	
MAIN FLOOR	GREAT ROOM	02	TRANS	4'-0"	3'-4"	13 SF	11'-2"	14'-6"	
MAIN FLOOR	GREAT ROOM	03	TRANS	4'-0"	3'-4"	13 SF	11'-2"	14'-6"	
MAIN FLOOR	GREAT ROOM	04	TRANS	4'-0"	3'-4"	13 SF	11'-2"	14'-6"	
MAIN FLOOR	GREAT ROOM	05	TRANS	4'-0"	3'-4"	13 SF	11'-2"	14'-6"	
MAIN FLOOR	KITCHEN	06	AWNG	6'-0"	7'-0"	42 SF	3'-0"	10'-0"	
MAIN FLOOR	KITCHEN	07		4'-0 1/4"	7'-0"	28 SF	3'-0"	10'-0"	
MAIN FLOOR	KITCHEN	08	PICT	3'-0"	7'-0"	21 SF	3'-0"	10'-0"	
MAIN FLOOR	LAUNDRY	09	CSMT	3'-0"	5'-0"	15 SF	3'-0"	8'-0"	
MAIN FLOOR	MEDIA	10	CSMT	2'-6"	5'-6"	14 SF	3'-6"	9'-0"	
MAIN FLOOR	MEDIA	11	CSMT	2'-6"	5'-6"	14 SF	3'-6"	9'-0"	
MAIN FLOOR	MEDIA	12	CSMT	2'-6"	5'-6"	14 SF	3'-6"	9'-0"	
MAIN FLOOR	MUD	13	CSMT	3'-0"	5'-0"	15 SF	3'-0"	8'-0"	
MAIN FLOOR	MUD	14	PICT	1'-4"	8'-0"	11 SF	0"	8'-0"	
MAIN FLOOR	OFFICE	15	PICT	5'-6"	6'-0"	33 SF	3'-0"	9'-0"	
MAIN FLOOR	OFFICE	16	CSMT	3'-0"	6'-0"	18 SF	3'-0"	9'-0"	
MAIN FLOOR	PRIMARY BATH	17	CSMT	2'-6"	5'-6"	14 SF	3'-6"	9'-0"	
MAIN FLOOR	PRIMARY CLOSET	18	CSMT	2'-6"	5'-6"	14 SF	3'-6"	9'-0"	
MAIN FLOOR	PWDR.	19	PICT	3'-0"	6'-0"	18 SF	3'-0"	9'-0"	OBS
GARAGE 2 FLR.									
		20	PICT	3'-0"	6'-0"	18 SF	4'-6"	10'-6"	OBS
SHOP FLR.									
SHOP FLR.	GARAGE 2	21	PICT	2'-6"	4'-6"	11 SF	3'-6"	8'-0"	
SHOP FLR.	OFFICE	22	PICT	5'-0"	4'-6"	23 SF	3'-6"	8'-0"	
SHOP FLR.	OFFICE	23	CSMT	2'-6"	4'-6"	11 SF	3'-6"	8'-0"	
SHOP FLR.	OFFICE	24	PICT	2'-6"	4'-6"	11 SF	3'-6"	8'-0"	
SHOP FLR.	OFFICE	25	PICT	2'-6"	4'-6"	11 SF	3'-6"	8'-0"	
SHOP FLR.	SHOP	26	PICT	2'-6"	3'-6"	9 SF	4'-6"	8'-0"	
SHOP FLR.	SHOP	27	PICT	2'-6"	3'-6"	9 SF	4'-6"	8'-0"	
SHOP FLR.	SHOP	28	PICT	2'-6"	3'-6"	9 SF	4'-6"	8'-0"	
UPPER FLOOR									
UPPER FLOOR	CHRIS' LOUNGE	29	PICT	6'-0"	6'-0"	36 SF	2'-0"	8'-0"	
UPPER FLOOR	CHRIS' LOUNGE	30	PICT	3'-0"	6'-0"	18 SF	2'-0"	8'-0"	
UPPER FLOOR	CHRIS' LOUNGE	31	CSMT	3'-0"	6'-0"	18 SF	2'-0"	8'-0"	
UPPER FLOOR	CHRIS' ROOM	32	PICT	5'-0"	6'-0"	30 SF	2'-0"	8'-0"	
UPPER FLOOR	CHRIS' ROOM	33	CSMT	2'-6"	6'-0"	15 SF	2'-0"	8'-0"	
UPPER FLOOR	COSTUME ROOM	34	CSMT	2'-6"	6'-0"	15 SF	2'-0"	8'-0"	
UPPER FLOOR	GUEST FOYER	35	PICT	2'-6"	6'-0"	15 SF	2'-0"	8'-0"	
UPPER FLOOR	JORDAN'S BATH	36	PICT	3'-0"	3'-0"	9 SF	5'-0"	8'-0"	
UPPER FLOOR	JORDAN'S BATH	37	CSMT	3'-0"	3'-0"	9 SF	5'-0"	8'-0"	
UPPER FLOOR	JORDAN'S LOUNGE	38	PICT	5'-6"	6'-0"	33 SF	2'-0"	8'-0"	
UPPER FLOOR	JORDAN'S LOUNGE	39	CSMT	2'-6"	6'-0"	15 SF	2'-0"	8'-0"	
UPPER FLOOR	JORDAN'S ROOM	40	PICT	5'-0"	6'-0"	30 SF	2'-0"	8'-0"	
UPPER FLOOR	JORDAN'S ROOM	41	CSMT	2'-6"	6'-0"	15 SF	2'-0"	8'-0"	
UPPER FLOOR	JORDAN'S ROOM	42	TRANS	3'-0"	3'-0"	9 SF	5'-0"	8'-0"	
UPPER FLOOR	JORDAN'S ROOM	43	TRANS	3'-0"	3'-0"	9 SF	5'-0"	8'-0"	
UPPER FLOOR	JORDAN'S ROOM	00	PICT	4'-4"	2'-0"	9 SF	1'-9"	3'-9"	NOT A WINDOW
UPPER FLOOR	JORDAN'S ROOM	00	PICT	4'-4"	2'-0"	9 SF	1'-9"	3'-9"	NOT A WINDOW
UPPER FLOOR	UPPER HALL	44	PICT	3'-0"	6'-0"	18 SF	2'-0"	8'-0"	SG
UPPER FLOOR	UPPER HALL	45	PICT	3'-0"	6'-0"	18 SF	2'-0"	8'-0"	
UPPER FLOOR	UPPER HALL	46	PICT	2'-6"	6'-0"	15 SF	2'-0"	8'-0"	
UPPER FLOOR	UPPER HALL	47	PICT	2'-6"	6'-0"	15 SF	2'-0"	8'-0"	
UPPER FLOOR	UPPER HALL	48	PICT	2'-6"	6'-0"	15 SF	2'-0"	8'-0"	
UPPER FLOOR	UPPER HALL	49	PICT	2'-6"	6'-0"	15 SF	2'-0"	8'-0"	
UPPER FLOOR	UPPER STORAGE	50	CSMT	3'-0"	3'-0"	9 SF	5'-0"	8'-0"	
GUEST - UPPER FLR.									
GUEST - UPPER FLR.		51	PICT	3'-0"	7'-0"	21 SF	1'-0"	8'-0"	SG
GUEST - UPPER FLR.	GUEST BATH	52	PICT	2'-0"	3'-0"	6 SF	5'-0"	8'-0"	
GUEST - UPPER FLR.	GUEST BEDROOM	53	PICT	5'-0"	5'-6"	28 SF	2'-6"	8'-0"	
GUEST - UPPER FLR.	GUEST BEDROOM	54	CSMT	2'-6"	5'-6"	14 SF	2'-6"	8'-0"	
GUEST - UPPER FLR.	GUEST BEDROOM	55	PICT	2'-6"	5'-0"	13 SF	3'-0"	8'-0"	
GUEST - UPPER FLR.	GUEST BEDROOM	56	PICT	2'-6"	5'-0"	13 SF	3'-0"	8'-0"	
GUEST - UPPER FLR.	GUEST LOUNGE	57	PICT	5'-0"	5'-6"	28 SF	2'-6"	8'-0"	
GUEST - UPPER FLR.	GUEST LOUNGE	58	CSMT	2'-6"	5'-6"	14 SF	2'-6"	8'-0"	
TOTAL WINDOWS: 60						985 SF			

### DOOR SCHEDULE

LEVEL	ROOM	MARK	OPERATION	WIDTH	HEIGHT	AREA	FIRE RATING	COMMENTS
MAIN FLOOR	BAR	01	PKT	3'-0"	8'-0"	24 SF		
MAIN FLOOR	DINING	02	OX SLIDER	9'-0"	10'-0"	90 SF	SG	
MAIN FLOOR	FOYER	03	PIVOT	6'-0"	10'-0"	60 SF		
MAIN FLOOR	FOYER	04	SW	3'-0"	8'-0"	24 SF		
MAIN FLOOR	GARAGE 1	05	OVHD	10'-0"	8'-0"	80 SF		
MAIN FLOOR	GARAGE 1	06	OVHD	10'-0"	8'-0"	80 SF		
MAIN FLOOR	GARAGE 1	07	SW	3'-0"	8'-0"	24 SF		
MAIN FLOOR	GARAGE 1	08	SW	3'-0"	8'-0"	24 SF		
MAIN FLOOR	GARAGE 1	09	SW	3'-0"	8'-0"	24 SF		
MAIN FLOOR	GARAGE 1	10	SW.SG	3'-0"	8'-0"	24 SF		
MAIN FLOOR	GREAT ROOM	11	OXXO SLIDER	16'-0"	10'-0"	160 SF	SG	
MAIN FLOOR	GREAT ROOM	12	DBL. PKT	4'-6"	8'-0"	36 SF		
MAIN FLOOR	KITCHEN	13	PKT	2'-8"	8'-0"	21 SF		
MAIN FLOOR	MUD	14	DBL SW	4'-0"	8'-0"	32 SF		
MAIN FLOOR	MUD	15	SW	3'-0"	8'-0"	24 SF		
MAIN FLOOR	POOL EQUIPMENT	16	SW	3'-0"	8'-0"	24 SF		
MAIN FLOOR	PRIMARY BATH	16	XO SLIDER	7'-0"	8'-0"	56 SF	SG	
MAIN FLOOR	PRIMARY BATH	18	PKT	3'-0"	8'-0"	24 SF		
MAIN FLOOR	PRIMARY BATH	19	SW	2'-8"	8'-0"	21 SF		
MAIN FLOOR	PRIMARY BEDROOM	20	XXO SLIDER	12'-0"	9'-0"	108 SF	SG	
MAIN FLOOR	PRIMARY BEDROOM	21	SW	3'-0"	8'-0"	24 SF		
MAIN FLOOR	PRIMARY BEDROOM	22	SW	2'-8"	8'-0"	21 SF		
MAIN FLOOR	PRIMARY CLOSET	23	SW	2'-8"	8'-0"	21 SF		
MAIN FLOOR	PWDR.	24	SW	2'-8"	8'-0"	21 SF		
GARAGE 2 FLR.								
GARAGE 2 FLR.	GARAGE 2	25	OVHD	9'-0"	9'-6"	86 SF		
GARAGE 2 FLR.	GARAGE 2	26	SW	3'-0"	8'-0"	24 SF		
SHOP FLR.								
SHOP FLR.	GARAGE 2	27		3'-0"	8'-0"	24 SF		
SHOP FLR.	OFFICE	28		2'-8"	8'-0"	21 SF		
SHOP FLR.	OFFICE	29		2'-8"	8'-0"	21 SF		
SHOP FLR.	SHOP	30	OVHD	12'-0"	8'-0 1/8"	96 SF		
SHOP FLR.	SHOP	31	SW	3'-0"	9'-0"	27 SF		
SHOP FLR.	SHOP	32	SW.SG	3'-0"	8'-0"	24 SF		
SHOP FLR.	SHOP	34	SW	3'-0"	8'-0"	24 SF		
SHOP FLR.	SHOP	35	SW	3'-0"	8'-0"	24 SF		
SHOP FLR.	SHOP BATH	36	SW.SG	2'-8"	8'-0"	21 SF		
UPPER FLOOR								
UPPER FLOOR	CHRIS' BATH	37	SW	2'-8"	8'-0"	21 SF		
UPPER FLOOR	CHRIS' LOUNGE	38	SW	3'-0"	8'-0"	24 SF		
UPPER FLOOR	CHRIS' LOUNGE	39	SW	2'-8"	8'-0"	21 SF		
UPPER FLOOR	CHRIS' ROOM	40	SLIDER	9'-0"	8'-0"	72 SF		
UPPER FLOOR	CHRIS' ROOM	41	SW	2'-8"	8'-0"	21 SF		
UPPER FLOOR	GUEST FOYER	42	SW	2'-8"	8'-0"	21 SF		
UPPER FLOOR	JORDAN'S LOUNGE	43	SW	3'-0"	8'-0"	24 SF		
UPPER FLOOR	JORDAN'S LOUNGE	44	SW	2'-8"	8'-0"	21 SF		
UPPER FLOOR	JORDAN'S ROOM	45	SW	3'-0"	8'-0"	24 SF		
UPPER FLOOR	JORDAN'S ROOM	46	SW	3'-0"	8'-0"	24 SF		
UPPER FLOOR	JORDAN'S ROOM	47	PKT	3'-0"	8'-0"	24 SF		
UPPER FLOOR	MECH.	48	SW	2'-8"	8'-0"	21 SF		
UPPER FLOOR	UPPER HALL	49	PVT	4'-0"	8'-0"	32 SF		
UPPER FLOOR	UPPER HALL	50	SW	3'-0"	8'-0"	24 SF		
UPPER FLOOR	UPPER HALL	51	SW	3'-0"	8'-0"	24 SF		
UPPER FLOOR	UPPER HALL	52	SW	3'-0"	8'-0"	24 SF		
GUEST - UPPER FLR.								
GUEST - UPPER FLR.	GUEST BEDROOM	53	DBL SW.	5'-4"	8'-0"	43 SF		
GUEST - UPPER FLR.	GUEST BEDROOM	54	SW	2'-8"	8'-0"	21 SF		
GUEST - UPPER FLR.	GUEST KITCHEN	56	SW	2'-8"	8'-0"	21 SF		
GUEST - UPPER FLR.	GUEST KITCHEN	57	SW	2'-8"	8'-0"	21 SF		
GRAND TOTAL: 56						1,993 SF		

### WINDOW & DOOR LEGEND

AWN:	AWNING	OXXO:	FUNCTION ON SLIDERS (X=OPERABLE)
BARN:	BARN DOOR	PICT:	PICTURE
C-P-C:	CASEMENT, PICTURE, CASEMENT	PKT:	POCKET
CSMT:	CASEMENT	PVT:	PIVOT SWING
DUTCH:	2-PANEL DUTCH DOOR	SDLT:	DOOR SIDELIGHT
FLD:	FOLDING DOOR	SG:	SAFETY GLAZING
FG:	FULL GLASS	SLD:	HORIZONTAL SLIDER
OBS:	OBSCURE GLAZING	TRANS:	TRANSOM ABOVE
OVHD:	OVERHEAD GARAGE DOOR	20 MIN:	20 MIN. FIRE RATING

### NOTES:

- U-VALUE: MIN. 0.25 PER WSEC ENERGY CREDIT OPTION 1.2.
- WINDOWS ARE TYPICALLY CENTERED IN EXT. WALL UNLESS DIMENSIONED OTHERWISE.
- DOOR HINGE JAMB TO BE 4 1/2" FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
- SET EXTERIOR DOORS PRIOR TO SETTING WINDOWS. ALIGN INSIDE LINERS TO MATCH FINISH CASING. WINDOW R.O. SHOULD BE 3/4" LOWER THAN DOOR R.O. (VERIFY W/ MANUFACTURER)
- PROVIDE SAFETY GLAZING AT ALL LOCATIONS REQUIRED BY CODE (IRC R308.4)
- PROVIDE SAFETY GLASS SHOWER ENCLOSURE & DOORS, TYP.

DATE	REV.	BY	DESCRIPTION
4/1/25	1	DAN	PERMIT SUBMITTAL
8/6/25		DAN	PERMIT SUBMITTAL 2

**MACPHERSON RESIDENCE**  
 5320 BUTTERWORTH RD.  
 MERCER ISLAND, WA 98040  
 PARCEL #: 866140-0040  
**DOOR & WINDOW SCHEDULES**

**MacPherson**  
 Construction & Design  
 22605 SE 56th St Suite 140, Issaquah, WA 98029  
 PH. 425.391.3333 FAX 425.557.2841

SHEET NUMBER  
**A6.0**

PILE STRUCTURAL NOTES	
GRADE BEAM ON PIPE PILING:	
<ul style="list-style-type: none"> <li>PILES SHALL BE INSTALLED TO SUPPORT DESIGN LOAD OF 10- TONS/PILE MINIMUM (SAFE LOAD).</li> <li>4" MIN. DIA. SCHEDULE 40, GALVANIZED, ASTM A-53 GRADE "A" PIPE PILES.</li> <li>BATTERED PILES SHALL BE INSTALLED TO SUPPORT ALLOWABLE 5 KIP/PILE LATERAL LOAD APPLIED TO TOP OF PILE</li> <li>INDICATES LOCATION OF PILE ON PLAN; PILE SHALL BE LOCATED AT CENTER OF FOOTING U.N.O.</li> <li>INDICATES LOCATION OF BATTERED PILE ON PLAN; TOP OF PILE SHALL BE LOCATED AT CENTER OF FOOTING U.N.O.; TIP OF PILE GRAPHIC INDICATES DIRECTION OF PILE TO BE BATTERED; PILE TO BE BATTERED 4V:H.</li> <li>PIILING CONTRACTOR SHALL CONFIRM THE PILES, ARE ADEQUATE BY TESTING A MINIMUM 3% OF PILES (3 MINIMUM). TEST PILES MUST BE TESTED TO 200% OF THE DESIGN CAPACITY IN ACCORDANCE WITH ASTM STANDARD D 1143-81 FOR PILES UNDER STATIC AXIAL COMPRESSIVE LOAD. USE OF THE QUICK LOAD TEST METHOD IN THE STANDARD IS THE MINIMUM REQUIRED.</li> <li>PILES SHALL BE DRIVEN TO REFUSAL (25-50' ANTICIPATED) WITH A MINIMUM 850-LB HYDRAULIC HAMMER AND REFUSAL OF 16 SECONDS PER INCH FOR 3 CONSECUTIVE INCHES. FOR A 2000-LB HYDRAULIC HAMMER REFUSAL IS 4 SECONDS PER INCH FOR 3 CONSECUTIVE INCHES. GEOTECH TO COORDINATE THE DRIVING CRITERIA BASED ON THE ACTUAL HAMMER SIZE SELECTED BY THE CONTRACTOR.</li> <li>PILES SHALL BE DRIVEN IN NOMINAL SECTIONS AND CONNECTED WITH COMPRESSION FITTED COUPLERS. DO NOT WELD PIPE JOINTS TOGETHER.</li> <li>GEOTECH OF RECORD OR HIS/HER REPRESENTATIVE SHALL BE PRESENT TO OBSERVE PIN PILE INSTALLATION &amp; LOAD TEST.</li> </ul>	

BASEMENT SLAB	
4" CONC. SLAB ON 10 MIL VAPOR BARRIER ON 4" MIN. GRANULAR FILL ON 45% COMPACTED FILL/VIRGIN SOIL	
GARAGE SLAB	
4" CONC. SLAB ON 4" MIN. GRANULAR FILL ON 45% COMPACTED FILL/VIRGIN SOIL	
PORCH SLAB	
4" CONC. SLAB ON GRADE ON 4" MIN. GRANULAR FILL ON 45% COMPACTED FILL/VIRGIN SOIL	

GENERAL STRUCTURAL NOTES	
FOUNDATION	
<ul style="list-style-type: none"> <li>DESIGN IS BASED ON 2021 INTERNATIONAL RESIDENTIAL CODE &amp; 2021 INTERNATIONAL EXISTING BUILDING CODE.</li> <li>DESIGN LOADS: SOIL: CONSULT REPORT BY COBALT GEOSCIENCES, LLC DATED 5/21/24 (UPDATED 12/1/2025)</li> <li>CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS IN 28 DAYS U.N.O.:</li> <li>ft<sub>c</sub> = 2500 psi ..... FOUNDATION WALLS*</li> <li>2500 psi ..... FOOTINGS*</li> <li>3000 psi ..... GRADE BEAMS</li> <li>2500 psi ..... INTERIOR SLABS ON GRADE</li> <li>3500 psi ..... GARAGE &amp; EXT. SLABS ON GRADE</li> <li>ft<sub>y</sub> = 60000 psi</li> <li>* UTILIZE 5% SACK 2500 PSI CONCRETE MIXES THAT ARE EQUIVALENT TO 3000 PSI CONCRETE FOR WEATHERING POTENTIAL</li> <li>ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 1% AIR ENTRAINMENT.</li> <li>FOUNDATION WALL DESIGN IS BASED ON BACKFILL SOIL PRESSURE OF 5% FC/F AT REST, 35% FC/F ACTIVE &amp; 7% SEISMIC SURCHARGE.</li> <li>TYPICAL REINFORCEMENT DETAILS: LAP ALL REBAR 24" MIN, BEND BARS AND LAP AT CORNERS PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT; PROVIDE 3" MINIMUM COVER AT THE BOTTOM BARS AND 1 1/2" COVER AT THE SIDES.</li> <li>FOUNDATION WALLS SHALL BE BRACED PRIOR TO BACKFILLING, BY EITHER ADEQUATE TEMPORARY BRACING OR INSTALLATION OF FIRST FLOOR DECK.</li> <li>ALL FOOTINGS SHALL BEAR BELOW FROST LINE. CONSULT SOILS REPORT LOCAL MUNICIPALITY FOR MINIMUM DEPTH BELOW GRADE.</li> <li>FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 45% COMPACTED FILL.</li> <li>PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP. (15'-0" O.C.)</li> <li>FASTEN SILL PLATES TO FOUNDATION WALLS WITH 3/8" DIA. ANCHOR BOLTS W/ MIN. 3"x3"x1/4" PLATE WASHERS (EDGE OF WASHER TO BE LOCATED WITHIN 1/2" OF EXTERIOR EDGE OF SILL PLATE) PROVIDE A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAXIMUM FROM PLATE ENDS U.N.O. (SEE END DETAILS).</li> <li>ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W/ CONCRETE OR MASONRY FOUNDATION SHALL BE PRESERVATIVE TREATED HEM FIR #2.</li> <li>ARCH/BUILDER TO VERIFY ALL DIMENSIONS</li> </ul>	

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
▶ HD-1	SIMPSON 5THD14 (R/J) HOLD-DOWN
▶ HD-2	SIMPSON HTTS HOLD-DOWN (SEE DETAIL B FOR SPECIFICATIONS)
▶ HD-5	SIMPSON CS16 STRAP TIE (14" END LENGTH)
▶ HD-7	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

MEANS & METHODS NOTES	
<p>THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACINGS, GUTS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.</p> <p>STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO, FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.</p>	

ADDITIONAL NOTES FOR TRUSS & I-JOIST MANUFACTURER	
<p>ROOF TRUSS, FLOOR TRUSS AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DIFFERENTIAL DEFLECTION CRITERIA BELOW, UNLESS NOTED OTHERWISE ON PLAN. MULHERN &amp; KULP CANNOT BE HELD RESPONSIBLE FOR ANY STRUCTURAL ISSUES RELATED TO ANY BUILDING COMPONENT IF COMPONENT SHOP DRAWINGS ARE NOT SUBMITTED TO MKF FOR REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION.</p> <p>TRUSSES SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES OR GIRDER TRUSSES DOES NOT EXCEED THE FOLLOWING:</p> <p>A. ROOF TRUSSES: 1/4" DEAD LOAD</p> <p>B. FLOOR TRUSSES, ATTIC TRUSSES, &amp; I-JOISTS: 1/8" DEAD LOAD</p> <p>C. FLOOR TRUSSES &amp; ATTIC TRUSSES ADJACENT TO FLOOR FRAMING BY OTHERS: LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAD LOAD, (NOT DIFFERENTIAL DEFLECTION)</p>	


LOADING AND DESIGN PARAMETERS	
GRAVITY DESIGN LOADS:	
DEAD LOAD (PSF):	
ROOF:	
ROOF RAFTERS/JOISTS :	10
FLOOR TRUSSES :	15
FLOOR JOISTS :	10
DECK JOISTS :	10
TILE FLOORS :	10
LIVE LOAD (PSF):	
ROOF:	
RESIDENTIAL LIVING AREAS :	20
RESIDENTIAL SLEEPING AREAS :	40
RESIDENTIAL WOOD DECKS:	30
GARAGE :	60
	50
SNOW LOAD:	
GROUND SNOW LOAD (P) (PSF) :	25
ROOF SNOW LOAD (P) (PSF) :	25
SNOW EXPOSURE FACTOR (Ce) :	0.4
SNOW LOAD IMPORTANCE FACTOR (I) :	1.0
THERMAL FACTOR (Ct) :	1.2
LATERAL DESIGN LOADS:	
WIND LOAD: (IBC 1609)	
SPEED (V) (MPH) :	100
WIND RISK CATEGORY :	II
IMPORTANCE FACTOR (I) :	1.0
EXPOSURE CATEGORY :	C
INTERNAL PRESSURE COEFF. (GCp) :	±0.18
TOPOGRAPHIC FACTOR (Kzt) :	1.0
SEISMIC LOAD: (IBC 1615)	
SEISMIC RISK CATEGORY :	II
SEISMIC IMPORTANCE FACTOR (I) :	1.0
MAPPED SPECTRAL RESPONSE:	
5% L4ST	5s: 0.499
SITE CLASS:	F
SPECTRAL RESPONSE COEFF. :	
5% L2S	5s: 0.499
SEISMIC DESIGN CATEGORY:	D
BASIC SEISMIC-FORCE-RESISTING SYS.:	
LIGHT FRAMED WALLS	
WOOD STRUCTURAL PANELS	
ULTIMATE BASE SHEAR:	
TRANS: 30k	LONG: 30k
SEISMIC RESPONSE COEFF. (Ca) :	
TRANS: 0.199	LONG: 0.199
RESPONSE MODIFICATION FACTOR (R) :	
WOOD STRUCTURAL PANELS:	
TRANS: 6.5	LONG: 6.5
PROCEDURE USED:	
EQUIVALENT LATERAL FORCE	

DEMOLITION/RENOVATION NOTES	
<ul style="list-style-type: none"> <li>FRAMING AND FOUNDATION PLANS HAVE BEEN DESIGNED TO BE STRUCTURALLY SOUND UPON COMPLETION OF THE WORK. THE MEANS AND METHODS OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR (UNLESS SPECIFICALLY NOTED ON PLANS).</li> <li>DURING DEMOLITION AND CONSTRUCTION IT IS THE BUILDER/CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE TEMPORARY SHORING/BRACING OF EXISTING ELEMENTS INTENDED TO REMAIN.</li> <li>THE STRUCTURAL PLANS HAVE BEEN PREPARED WITH EXISTING FRAMING/FOUNDATION ASSUMPTIONS AS NOTED ON THE PLANS. IT IS THE BUILDER/CONTRACTOR'S RESPONSIBILITY TO CONTACT MK STRUCTURAL ENGINEERING IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS DEPICTED ON THE CONSTRUCTION DOCUMENTS.</li> </ul>	

LATERAL BRACING NOTES	
THIS HOME HAS BEEN ENGINEERED TO RESIST LATERAL FORCES RESULTING FROM: 100 MPH WIND SPEED, EXP. C (ASCE 7-16 WIND MAP, PER IRC R301.2.1.1) RISK CAT. 2 & SEISMIC CAT. D2.	
100 MPH WIND IN 2021 IRC MAP	
ENGINEERED DESIGN WAS COMPLETED PER 2021 IBC (SECTION 1609 & 1613) & ASCE 7-16, AS PERMITTED BY R301.3 OF THE 2021 IRC. ACCORDINGLY, THIS HOME, AS DOCUMENTED AND DETAILED HEREWITH, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES, AND DOES NOT NEED TO CONFORM TO THE PRESCRIPTIVE PROVISIONS OF R602.10.	
STANDARD EXTERIOR WALL SHEATHING SPECIFICATIONS (INTERIOR WALL SPECIFICATION WHERE NOTED ON PLANS)	
<ul style="list-style-type: none"> <li>1/2" OSB OR 1/2" PLYWOOD:</li> </ul> <p>FASTEN SHEATHING W/ 2 1/2"x0.131" NAILS @ 6" O.C. AT ALL SUPPORTED PANEL EDGES AND 12" O.C. IN THE PANEL FIELD. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE. ALL EXTERIOR WALLS SHALL BE CONSTRUCTED PER THIS SPECIFICATION U.N.O. ON PLANS.</p>	
3" O.C. EDGE NAILING (WHERE NOTED ON PLANS)	
<ul style="list-style-type: none"> <li>1/2" OSB OR 1/2" PLYWOOD:</li> </ul> <p>ONLY AT LOCATIONS INDICATED ON PLANS - SHEATH PANEL WITH 1/2" OSB. FASTEN SHEATHING W/ 2 1/2"x0.131" NAILS @ 3" O.C. AT EDGES AND 12" O.C. AT CENTER. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE AND 3" O.C. FASTENING.</p>	
NOTES:	
<ol style="list-style-type: none"> <li>LATERAL ANALYSIS ASSUMES STUD SPACING @ 16" O.C.</li> <li>ALL SHEAR WALLS SHALL HAVE DOUBLE TOP PLATES FASTENED TOGETHER W/ 3"x0.131" NAILS @ 8" O.C. USE (12) 3"x0.131" NAILS AT EACH LAP SPlice, (6) EACH SIDE OF JOINT (TYP. U.N.O.)</li> <li>ALL EXTERIOR WALLS ARE CONTINUOUSLY SHEATHED.</li> <li>ALL INTERIOR SHEAR WALLS AND EXTERIOR WALLS ARE SHEATHED ABOVE AND BELOW OPENINGS.</li> </ol>	

LEGEND	
○	INTERIOR BEARING WALL
□	BEARING WALL ABOVE (B.W.A.), OR SHEARWALL ABOVE (S.W.A.)
—	BEAM / HEADER
▬	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL W/ 3" O.C. EDGE NAILING
⋯	AREA OF OVERFRAMING
⌊	LOCATION OF DEPRESSSED SHOWER TRUSS MANIF. TO COORDINATE TRUSS PROFILE & ASSEMBLY DEAD LOAD W/ ARCH ASSEMBLY
JL	METAL HANGER
*	INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
▶	INDICATES HOLD-DOWN.

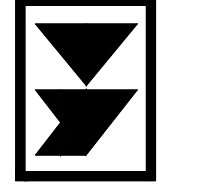
GENERAL STRUCTURAL NOTES	
DESIGN PARAMETERS	
<ul style="list-style-type: none"> <li>DESIGN IS BASED ON 2021 INTERNATIONAL RESIDENTIAL CODE &amp; 2021 INTERNATIONAL EXISTING BUILDING CODE.</li> <li>WOOD FRAME ENGINEERING IS BASED ON NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - LATEST EDITION.</li> </ul>	
GENERAL FRAMING	
<ul style="list-style-type: none"> <li>EXTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (W/ DOUBLE TOP PLATE) HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, U.N.O.</li> <li>INTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (W/ DOUBLE TOP PLATE) HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, U.N.O.</li> <li>ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x "STUD" GRADE MEMBERS SPACED @ 24" O.C. (MAX.)</li> <li>ALL WALLS TALLER THEN TYP. PLATE HEIGHT SHALL BE CONSIDERED BALLOON FRAMED &amp; SHALL BE CONSTRUCTED FROM FLOOR TO UNDERSIDE OF FRAMING AT NEXT LEVEL. B.F. WALLS SHALL BE 2x6 HEM FIR (HF) #2 GRADE LUMBER, OR BETTER, U.N.O.</li> <li>ALL SHEATHING AND LEDGERS ARE TO BE DIRECTLY APPLIED AND FASTENED TO FRAMING. DO NOT PROVIDE CONTINUOUS INSULATION BETWEEN FRAMING AND SHEATHING/LEDGERS.</li> <li>ALL HEADERS SHALL BE SUPPORTED BY (1)2x JACK STUD &amp; (1)2x KING STUD, MINIMUM.</li> <li>THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, U.N.O.</li> <li>BUILT-UP POSTS SHALL BE 2x4 OR 2x6 HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, U.N.O. &amp; SOLID WOOD COLLING SHALL BE SPRUCE PINE FIR (SPF) #2 GRADE LUMBER, OR BETTER, U.N.O.</li> <li>ALL 2x6 AND LARGER SOLID SAWN BEAMS/HEADERS SHALL BE HEM FIR #2 (HF #2) OR BETTER. ALL 4x6 AND LARGER SOLID SAWN LUMBER SHALL BE DOUG FIR #2 (DF #2) OR BETTER.</li> <li>ALL FRAMING LUMBER SHALL BE KILN DRIED TO 15% MC (KD-15).</li> <li>ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN GENERAL NOTES, IN DETAILS, OR ON PLANS. ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGERS NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS.</li> <li>FASTEN ALL BEAMS TO COLUMNS, OR FLUSH BEAMS TO SUPPORTING BEAMS, W/ (4) 3"x0.131" TOENAILS (MIN), TYP. U.N.O.</li> <li>PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS &amp; HOLD-DOWNS CONTIGUOUS TO FOUNDATION/BEARING, BLOCKING TO MATCH POST ABOVE.</li> <li>ENGINEERED LUMBER TO MEET OR EXCEED THE FOLLOWING: <ul style="list-style-type: none"> <li>LSL MEMBERS - Fb:2325 Psl; Fv:310 Psl; E:1.5x10<sup>10</sup> Psl</li> <li>LVL MEMBERS - Fb:2600 Psl; Fv:285 Psl; E:2.0x10<sup>10</sup> Psl</li> <li>GLB MEMBERS - Fb:(1)2400 Psl; Fv:(1)850 Psl; Fv:265 Psl; E:1.8x10<sup>10</sup> Psl; DF:DF; 24F-V4 (U.N.O)</li> </ul> </li> <li>ENGINEERED LUMBER POSTS TO MEET OR EXCEED THE FOLLOWING: <ul style="list-style-type: none"> <li>LVL MEMBERS - Fb:2400 Psl; Fc:1-2500 Psl; E:1.8x10<sup>10</sup> Psl</li> </ul> </li> <li>FACE NAIL MULTI-PLY 2x BEAMS &amp; HEADERS W/ 3-ROWS OF 3"x0.131" NAILS (MIN) @ 12" O.C. STAGGERED. APPLY NAILING FROM BOTH FACES @ 3-PLY OR MORE CONDITIONS. UTILIZE 2 ROWS OF NAILS FOR 2x6 &amp; 2x8 MEMBERS.</li> <li>TRUSS SHOP DWGS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF PROPOSED CONSTRUCTION SHALL BE SUBMITTED TO BUILDING DESIGNER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY IN ACCORDANCE WITH TPI-1 2.3.2.3 &amp; 2.3.4.3.</li> <li>REFER TO IRC FASTENING SCHEDULE TABLE R602.3(1) FOR ALL CONNECTIONS, TYP. U.N.O.</li> <li>BUILDER RESPONSIBLE TO DETERMINE CORROSION-RESISTANCE REQUIREMENTS AND COMPATIBILITY OF HARDWARE, FASTENERS AND CONNECTORS FOR ENVIRONMENTAL EXPOSURE AND IN CONTACT W/ PRESERVATIVE-TREATED WOOD OF ACTUAL FINAL CONDITIONS AND SOURCED MATERIALS. CONTACT LUMBER &amp; HARDWARE SUPPLIERS TO COORD. IN THE ABSENCE OF MANUFACTURER'S RECOMMENDATIONS, NOT LESS THAN ASTM A653 &amp; ASTM A153, TYPE G405 ZINC-COATED GALVANIZED STEEL, OR EQUIVALENT, SHALL BE USED.</li> </ul>	
FLOOR FRAMING	
<ul style="list-style-type: none"> <li>I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANIF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA AND SHALL RUN CONTINUOUS OVER SUPPORTS WHEREVER POSSIBLE. ALL LOADS SHOWN ON PLAN FOR MANIF. DESIGNS ARE 450 LEVEL LOADS U.N.O. EXCLUDES STONE/MARBLE OR NET BED CONSTRUCTED FLOORS - CONTACT MKF FOR EXCLUDED DESIGNS).</li> <li>ALL METAL I-JOIST/TRUSS HANGERS SHALL BE SPECIFIED BY I-JOIST/TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED.</li> <li>2x FLOOR JOISTS HAVE BEEN DESIGNED TO MEET OR EXCEED L/360 LIVE LOAD DEFLECTION CRITERIA.</li> <li>TYPICAL 2x JOIST HANGERS (U.N.O. ON PLANS): SINGLE PLY: SIMPSON LUS28 DOUBLES: SIMPSON LUS28-2</li> <li>FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED "STUD-I-FLOOR" 24" O.C. EXPOSURE 1 (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W/ GLUE AND 2 1/2" x 0.131" NAILS @ 6" O.C. @ PANEL EDGES @ 12" O.C. FIELD.</li> <li>ALL FLUSH CONNECTIONS SHALL BE CONNECTED WITH HANGER APPROPRIATE FOR MEMBER SIZE U.N.O.</li> <li>FASTEN HANGERS TO SINGLE PLY FLUSH BEAMS W/ 1/2" LONG NAILS.</li> </ul>	
ROOF FRAMING	
<ul style="list-style-type: none"> <li>FASTEN EACH ROOF RAFTER TO TOP PLATE WITH (1) SIMPSON H25T CLIP. PROVIDE (2) SIMPSON H25T CLIPS AT FLUSH BEAMS IN THE ROOF - AT ALL BEARING POINTS.</li> <li>ROOF SHEATHING SHALL BE 7/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE 1 (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS W/ 2 1/2" x 0.131" NAILS @ 6" O.C. AT PANEL EDGES @ 6" O.C. AT INTERMEDIATE SUPPORTS. ROOF SHEATHING SHALL EXTEND BELOW ALL INSTANCES OF OVERFRAMING. BLOCKING SHALL BE INSTALLED AS REQUIRED TO LIMIT ROOF SHEATHING SPANS TO 24" MAX.</li> <li>ALL METAL HANGERS SHALL BE SPECIFIED BY THE TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED.</li> <li>ROOF TRUSS SHOP DRAWINGS &amp; CALCULATIONS SHALL BE DESIGNED FOR UNBALANCED SNOW LOADING PER ASCE 7-16, SECTION 7.6.</li> <li>ERECT AND INSTALL ROOF TRUSSES PER NTCA &amp; TPI'S BC51 I-08 "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING &amp; BRACING OF METAL PLATE CONNECTED WOOD TRUSSES."</li> <li>FASTEN OVER-FRAMED TRUSS SETS TO TRUSSES BELOW W/ (2) 3"x0.131" TOENAILS AT EA. TRUSS.</li> <li>FASTEN ALL INTERIOR NON-BEARING PARTITION WALLS TO TRUSS BOTTOM CHORD ABOVE WITH SIMPSON STC CLIPS AT 24" O.C. MAX. PROVIDE BLOCKING BETWEEN THE TRUSS BOTTOM CHORDS AS REQUIRED FOR THE PARALLEL CONDITIONS.</li> </ul>	



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56478  
PROFESSIONAL ENGINEER  
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issue date: 03-27-25

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12/16/25	BFD

**MACPHERSON CONSTRUCTION**

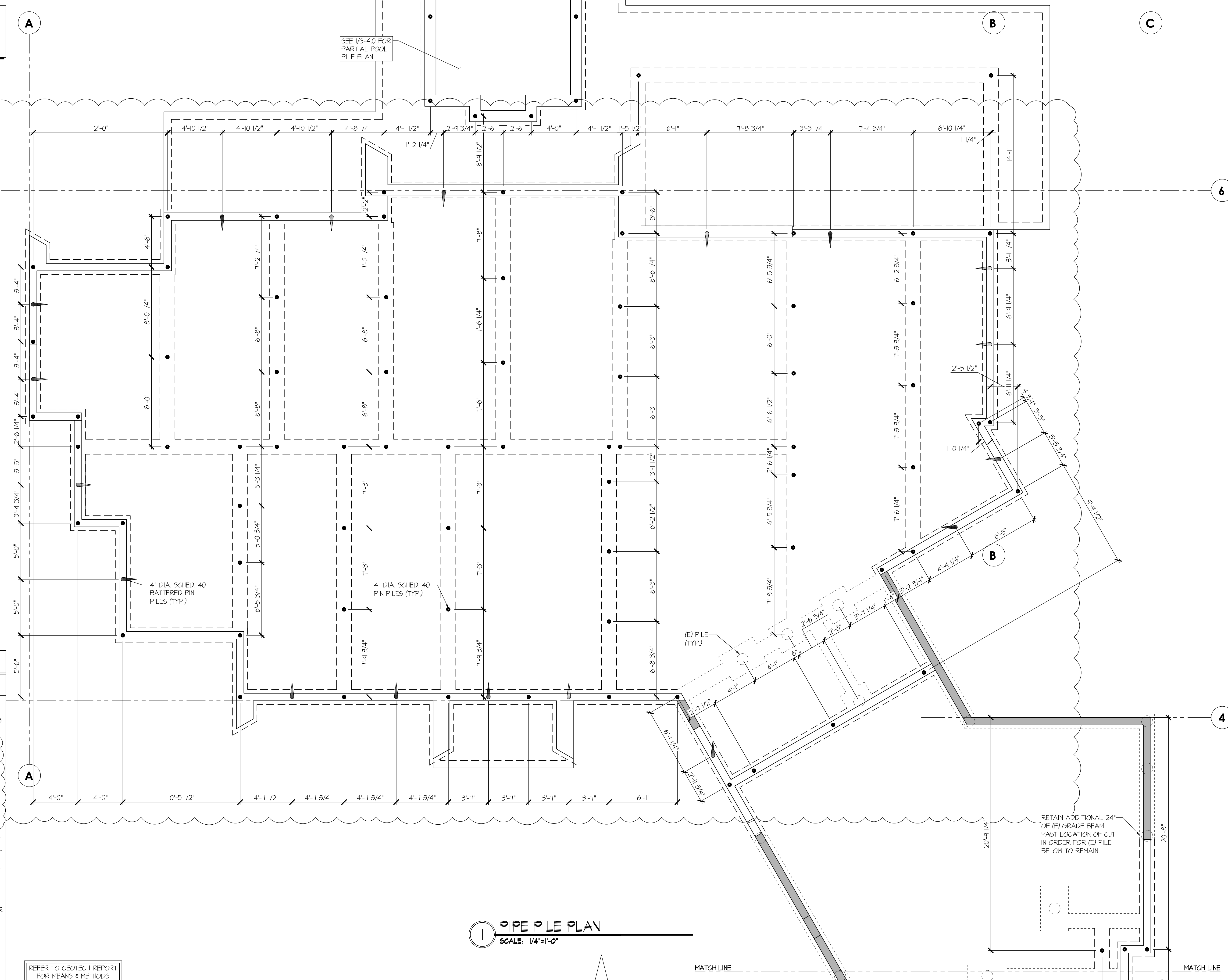
**STRUCTURAL NOTES**

**5320 BUTTERWORTH RD**  
**NORTH LOT**  
**MERCER ISLAND, WASHINGTON**

sheet: **S-O-O**

REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL  
NOTES & SCHEDULES

SEE 1/5-4.0 FOR  
PARTIAL POOL  
PILE PLAN

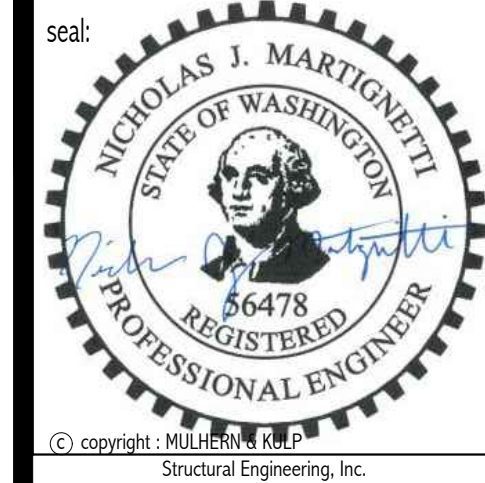


**PILE STRUCTURAL NOTES**

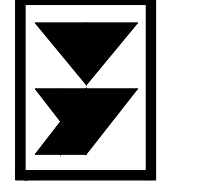
**GRADE BEAM ON PIPE PILING:**

- PILES SHALL BE INSTALLED TO SUPPORT DESIGN LOAD OF 10- TONS/PILE MINIMUM (SAFE LOAD), - 4" MIN. DIA., SCHEDULE 40, GALVANIZED, ASTM A-53 GRADE "A" PIPE PILES
- BATTERED PILES SHALL BE INSTALLED TO SUPPORT ALLOWABLE 5 KIP/PILE LATERAL LOAD APPLIED TO TOP OF PILE
- INDICATES LOCATION OF PILE ON PLAN; PILE SHALL BE LOCATED AT CENTER OF FOOTING U.N.O.
- INDICATES LOCATION OF BATTERED PILE ON PLAN; TOP OF PILE SHALL BE LOCATED AT CENTER OF FOOTING U.N.O.; TIP OF PILE GRAPHIC INDICATES DIRECTION OF PILE TO BE BATTERED; PILE TO BE BATTERED 4V:1H
- PILING CONTRACTOR SHALL CONFIRM THE PILES ARE ADEQUATE BY TESTING A MINIMUM 3% OF PILES (3 MINIMUM). TEST PILES MUST BE TESTED TO 200% OF THE DESIGN CAPACITY IN ACCORDANCE WITH ASTM STANDARD D 1143-01 FOR PILES UNDER STATIC AXIAL COMPRESSIVE LOAD. USE OF THE QUICK LOAD TEST METHOD IN THE STANDARD IS THE MINIMUM REQUIRED.
- PILES SHALL BE DRIVEN TO REFUSAL (25-50' ANTICIPATED) WITH A MINIMUM 850-LB HYDRAULIC HAMMER AND REFUSAL OF 16 SECONDS PER INCH FOR 3 CONSECUTIVE INCHES. FOR A 2000-LB HYDRAULIC HAMMER REFUSAL IS 4 SECONDS PER INCH FOR 3 CONSECUTIVE INCHES. GEOTECH TO COORDINATE THE DRIVING CRITERIA BASED ON THE ACTUAL HAMMER SIZE SELECTED BY THE CONTRACTOR.
- PILES SHALL BE DRIVEN IN NOMINAL SECTIONS AND CONNECTED WITH COMPRESSION FITTED COUPLERS. DO NOT WELD PIPE JOINTS TOGETHER.
- GEOTECH OF RECORD OR HIS/HER REPRESENTATIVE SHALL BE PRESENT TO OBSERVE PIN PILE INSTALLATION & LOAD TEST.

REFER TO GEOTECH REPORT  
FOR MEANS & METHODS  
INSTRUCTIONS AS WELL AS  
ADJACENT SITE MONITORING  
REQUIREMENTS



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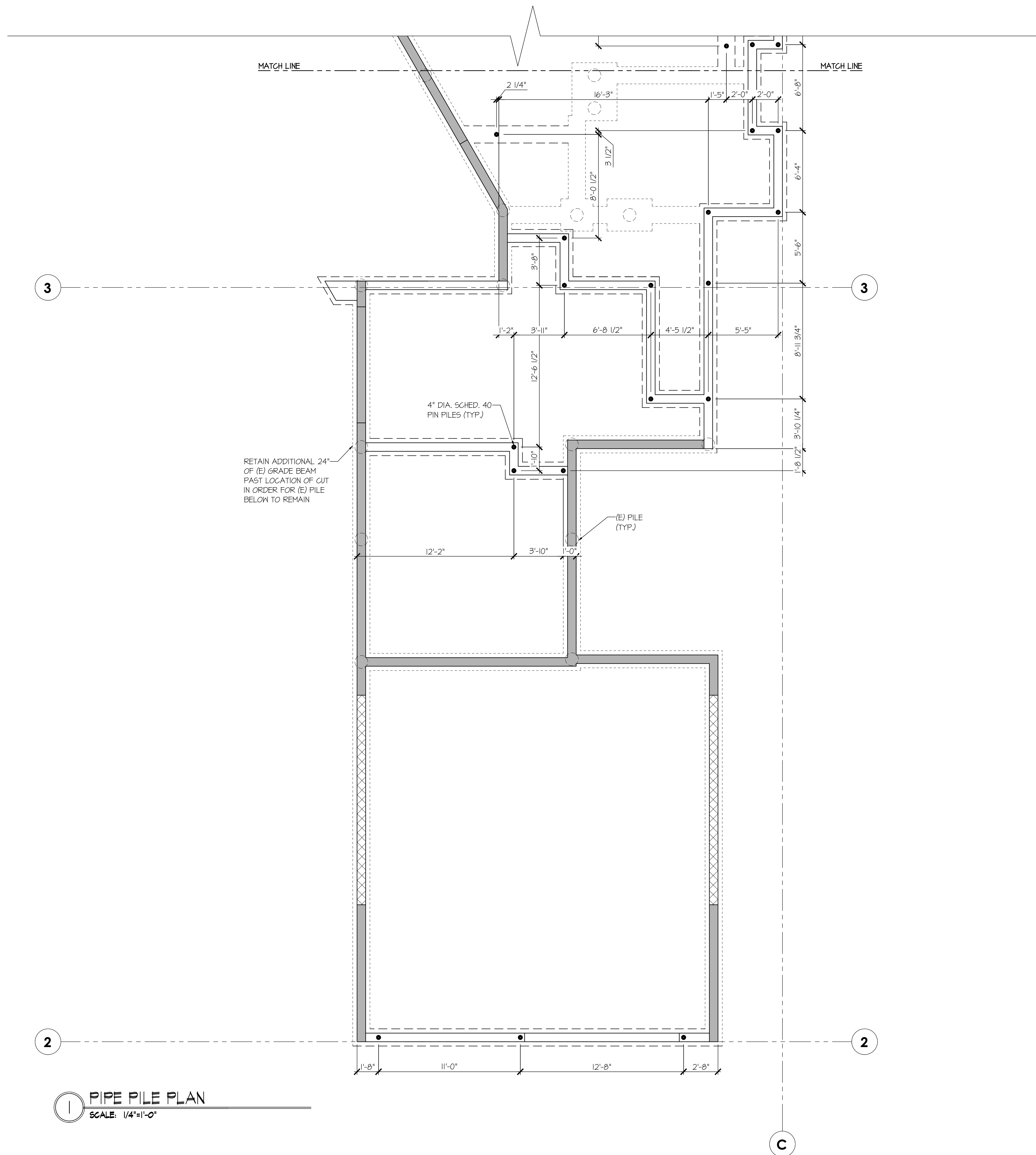
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date:	initial:
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04/30/25	BFD
12/16/25	BFD
	BFD

**MACPHERSON  
CONSTRUCTION**

**PIPE PILE PLAN**  
**5320 BUTTERWORTH RD**  
**NORTH LOT**  
MERCER ISLAND, WASHINGTON

sheet:  
**S-0.1A**

REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL  
NOTES & SCHEDULES



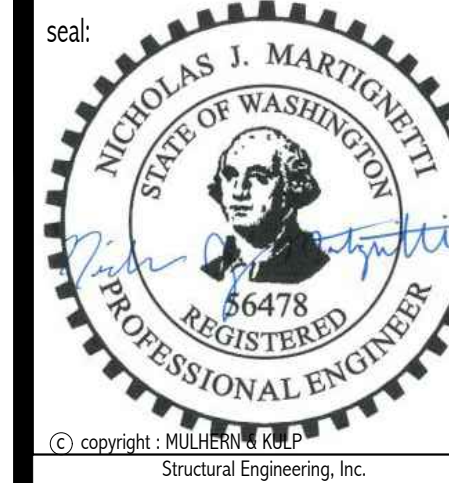
1 PIPE PILE PLAN  
SCALE: 1/4"=1'-0"

**PILE STRUCTURAL NOTES**

GRADE BEAM ON PIPE PILING:

- PILES SHALL BE INSTALLED TO SUPPORT DESIGN LOAD OF 10- TONS/PILE MINIMUM (SAFE LOAD).  
- 4" MIN. DIA., SCHEDULE 40, GALVANIZED, ASTM A-53 GRADE "A" PIPE PILES
- BATTERED PILES SHALL BE INSTALLED TO SUPPORT ALLOWABLE 5 KIP/PILE LATERAL LOAD APPLIED TO TOP OF PILE
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REFER TO GEOTECH REPORT FOR MEANS & METHODS INSTRUCTIONS AS WELL AS ADJACENT SITE MONITORING REQUIREMENTS



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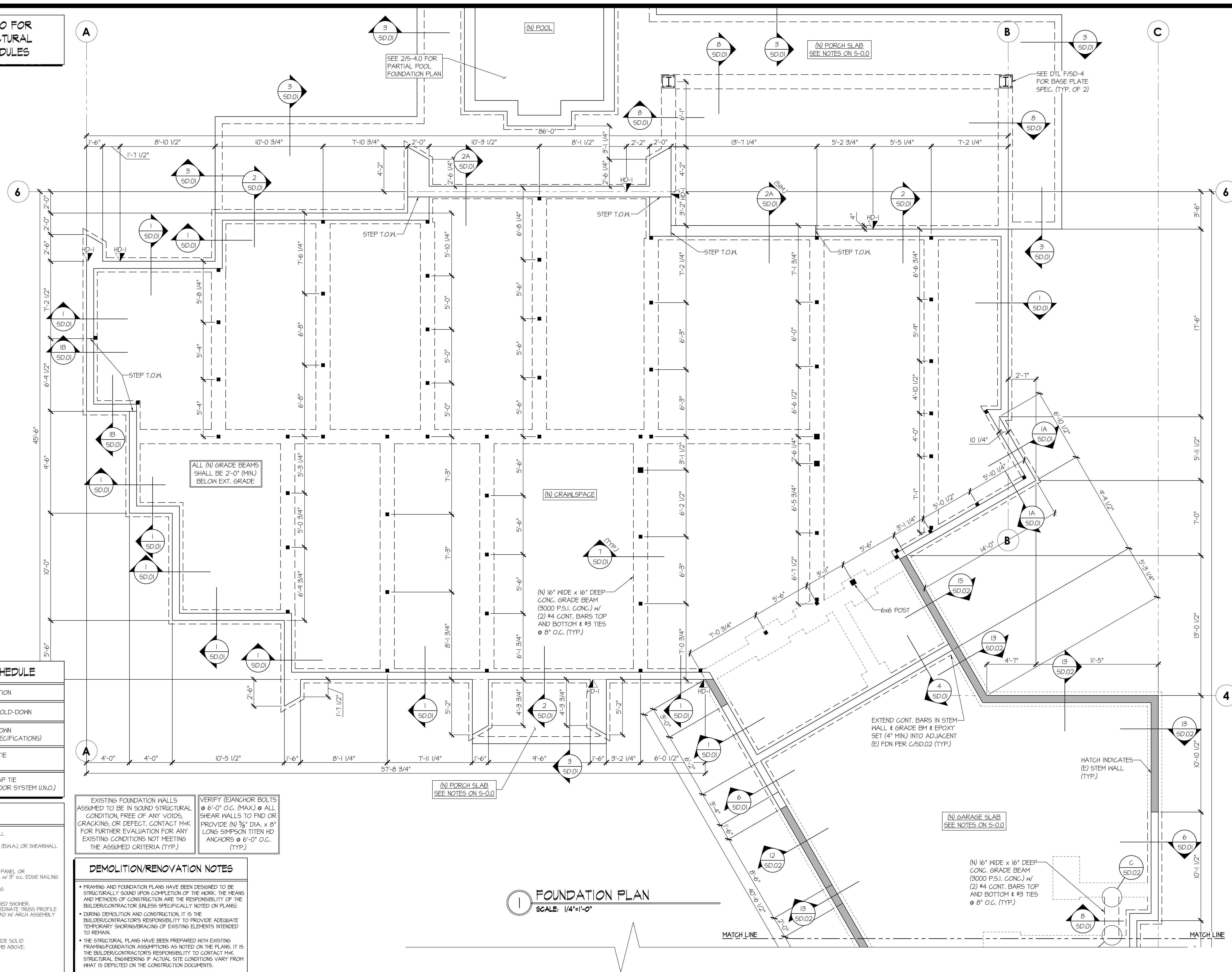
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date:	initial:
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ARCH REVISIONS + PLAN REVIEW	BFD
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PLAN REVIEW	BFD
12/16/25	BFD
PLAN REVIEW	BFD

MACPHERSON  
CONSTRUCTION

PIPE PILE PLAN  
5320 BUTTERWORTH RD  
NORTH LOT  
MERCER ISLAND, WASHINGTON

sheet:  
**S-0.1B**

REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL  
NOTES & SCHEDULES



ALL (N) GRADE BEAMS  
SHALL BE 2'-0" (MIN.)  
BELOW EXT. GRADE

(N) 16" WIDE x 16" DEEP  
CONC. GRADE BEAM  
(3000 P.S.I. CONC.) w/  
(2) #4 CONT. BARS TOP  
AND BOTTOM & #3 TIES  
@ 8" O.C. (TYP.)

(N) PORCH SLAB  
SEE NOTES ON S-0.0

(N) GARAGE SLAB  
SEE NOTES ON S-0.0

(N) 16" WIDE x 16" DEEP  
CONC. GRADE BEAM  
(3000 P.S.I. CONC.) w/  
(2) #4 CONT. BARS TOP  
AND BOTTOM & #3 TIES  
@ 8" O.C. (TYP.)

**HOLD-DOWN SCHEDULE**

SYMBOL	SPECIFICATION
▶ HD-1	SIMPSON STD1/4 (R/J) HOLD-DOWN
▶ HD-2	SIMPSON HT15 HOLD-DOWN (SEE DETAIL B FOR SPECIFICATIONS)
▶ HD-5	SIMPSON CS16 STRAP TIE (14" END LENGTH)
▶ HD-7	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

**LEGEND**

- ▬ INTERIOR BEARING WALL
- ▬ BEARING WALL ABOVE (B.W.A.) OR SHEARWALL ABOVE (S.W.A.)
- ▬ BEAM / HEADER
- ▬ INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
- ▬ AREA OF OVERFRAMING
- ▬ LOCATION OF DEPRESSED SHOWER, TRUSS MANIF. TO COORDINATE TRUSS PROFILE & ASSEMBLY DEAD LOAD BY ARCH ASSEMBLY
- J/L METAL HANGER
- \* INDICATES POST ABOVE, PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- ▶ INDICATES HOLD-DOWN.

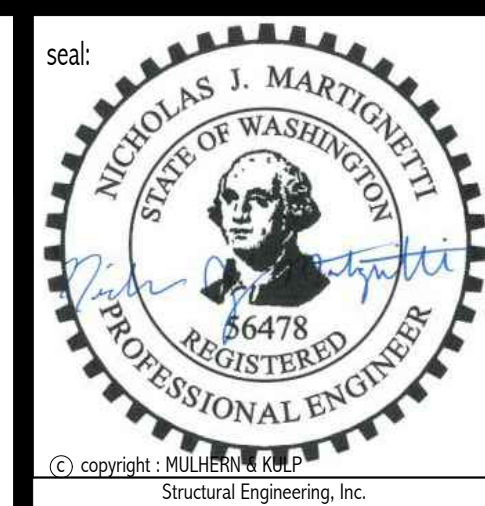
EXISTING FOUNDATION WALLS ASSUMED TO BE IN SOUND STRUCTURAL CONDITION, FREE OF ANY VOIDS, CRACKING, OR DEFECT. CONTACT MKK FOR FURTHER EVALUATION FOR ANY EXISTING CONDITIONS NOT MEETING THE ASSUMED CRITERIA (TYP.)

VERIFY (E) ANCHOR BOLTS @ 6'-0" O.C. (MAX.) @ ALL SHEAR WALLS TO FND OR PROVIDE (N) 3/8" DIA. x 8" LONG SIMPSON TITEN HD ANCHORS @ 6'-0" O.C. (TYP.)

**DEMOLITION/RENOVATION NOTES**

- FRAMING AND FOUNDATION PLANS HAVE BEEN DESIGNED TO BE STRUCTURALLY SOUND UPON COMPLETION OF THE WORK. THE MEANS AND METHODS OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR (UNLESS SPECIFICALLY NOTED ON PLANS).
- DURING DEMOLITION AND CONSTRUCTION, IT IS THE BUILDER/CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE TEMPORARY SHORING/BRACING OF EXISTING ELEMENTS INTENDED TO REMAIN.
- THE STRUCTURAL PLANS HAVE BEEN PREPARED WITH EXISTING FRAMING/FOUNDATION ASSUMPTIONS AS NOTED ON THE PLANS. IT IS THE BUILDER/CONTRACTOR'S RESPONSIBILITY TO CONTACT MKK STRUCTURAL ENGINEERING IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS DEPICTED ON THE CONSTRUCTION DOCUMENTS.

**FOUNDATION PLAN**  
SCALE: 1/4"=1'-0"



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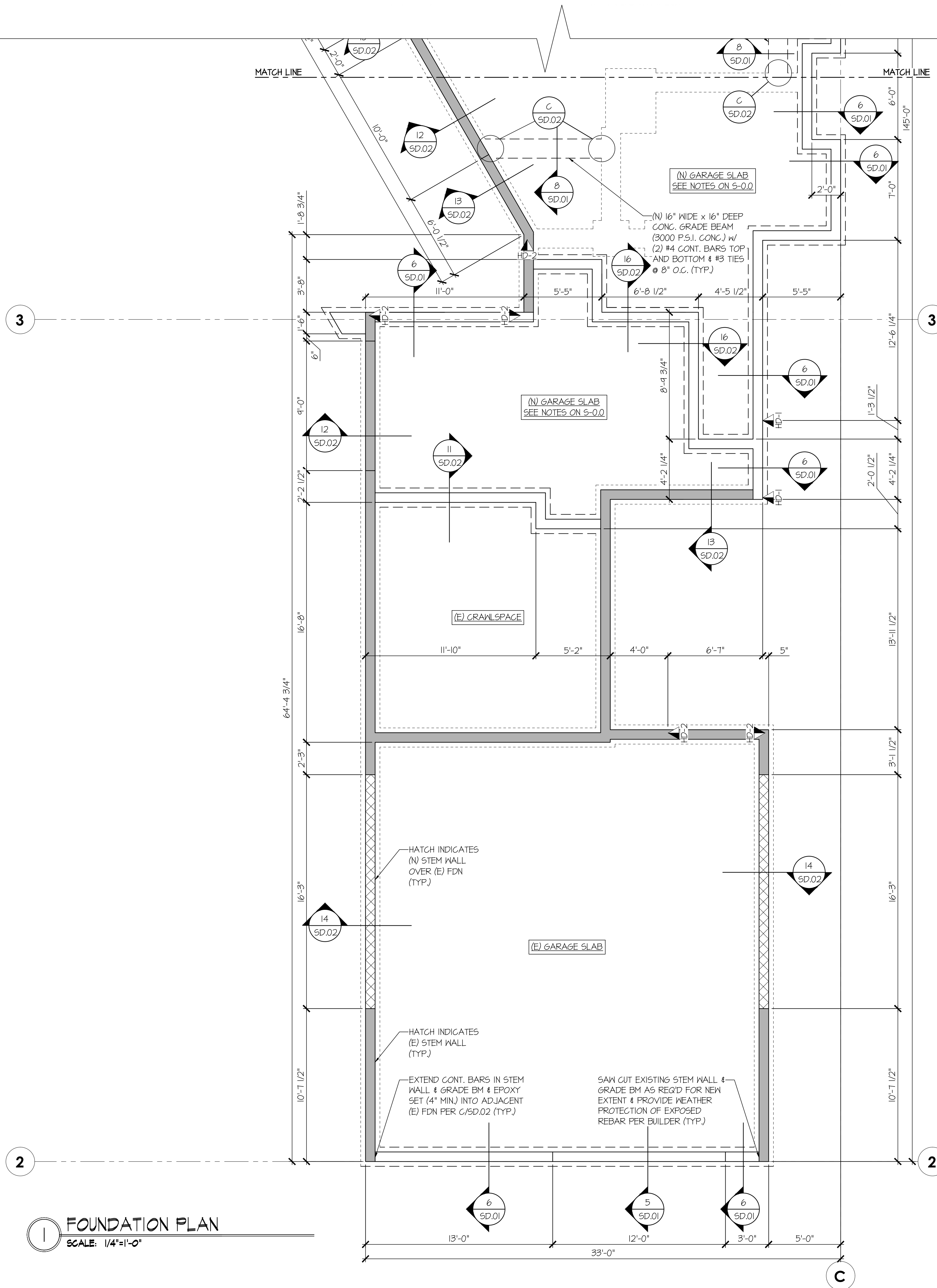
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**MACPHERSON  
CONSTRUCTION**

**FOUNDATION PLAN**  
**5320 BUTTERWORTH RD**  
**NORTH LOT**  
MERCER ISLAND, WASHINGTON

sheet:  
**S-1.0A**

REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL  
NOTES & SCHEDULES



**FOUNDATION PLAN**  
SCALE: 1/4"=1'-0"

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
	SIMPSON STHD14 (RJ) HOLD-DOWN
	SIMPSON HTT5 HOLD-DOWN (SEE DETAIL B FOR SPECIFICATIONS)
	SIMPSON CS16 STRAP TIE (14" END LENGTH)
	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

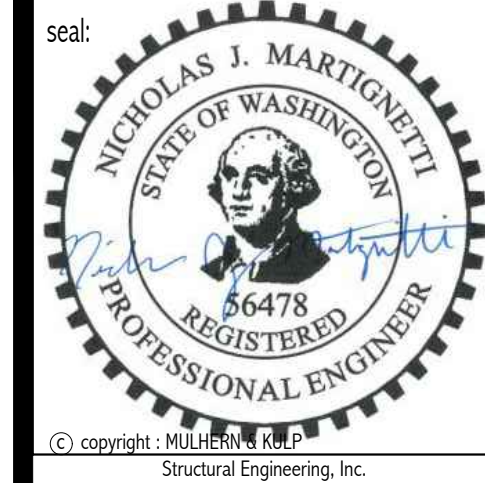
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	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" O.C. EDGE NAILING
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	* INDICATES POST ABOVE, PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
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EXISTING FOUNDATION WALLS ASSUMED TO BE IN SOUND STRUCTURAL CONDITION, FREE OF ANY VOIDS, CRACKING, OR DEFECT. CONTACT M&K FOR FURTHER EVALUATION FOR ANY EXISTING CONDITIONS NOT MEETING THE ASSUMED CRITERIA (TYP.)

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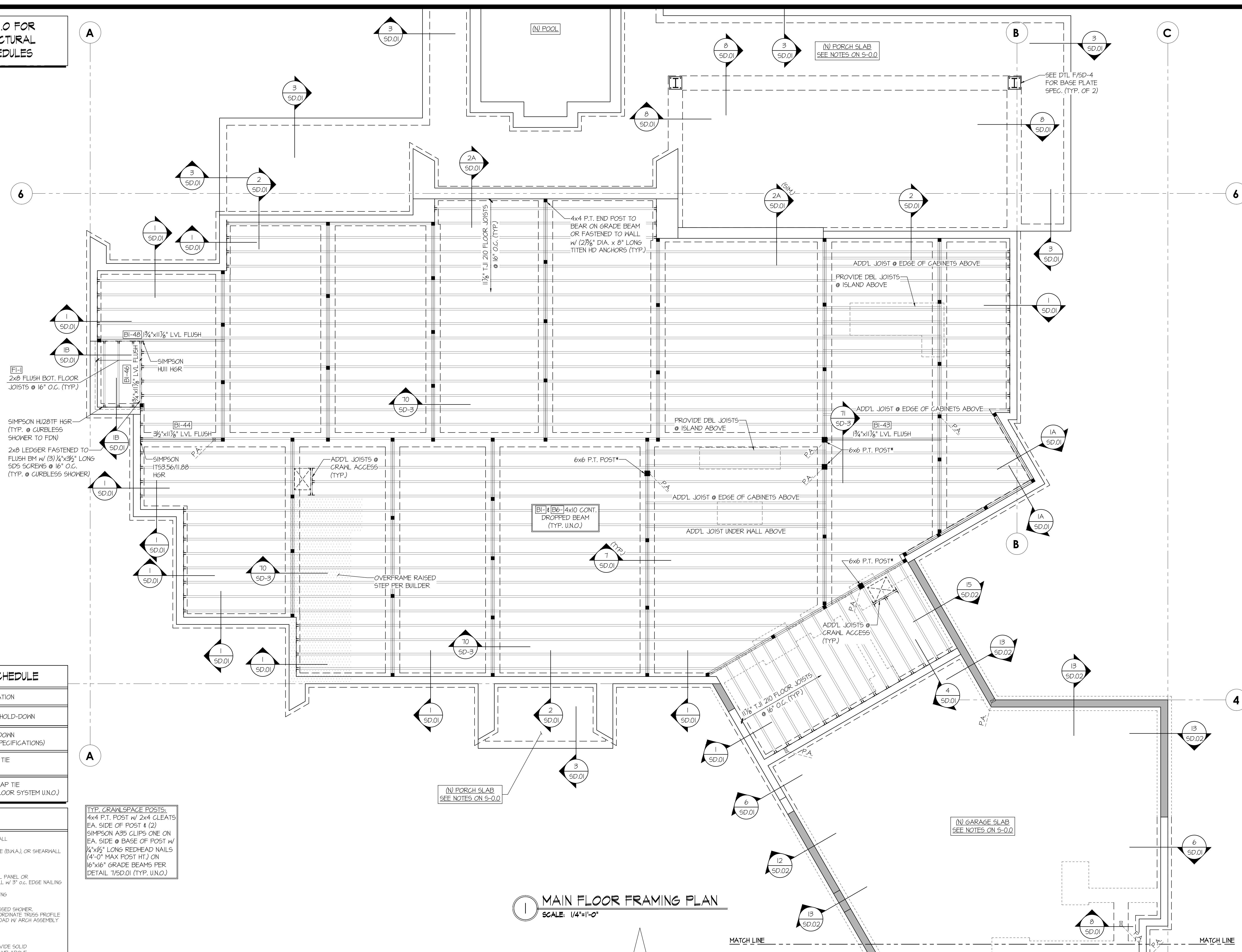
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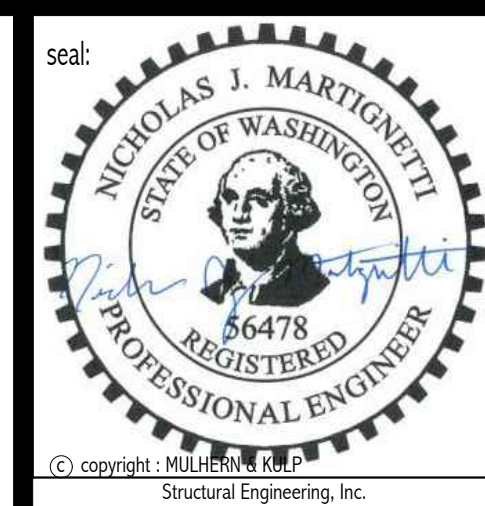


**1 MAIN FLOOR FRAMING PLAN**  
SCALE: 1/4"=1'-0"

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
▶	HD-1 SIMPSON STD1/4 (RJ) HOLD-DOWN
▶	HD-2 SIMPSON HT15 HOLD-DOWN (SEE DETAIL B FOR SPECIFICATIONS)
▶	HD-5 SIMPSON CS16 STRAP TIE (14" END LENGTH)
▶	HD-7 SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

LEGEND	
▬	INTERIOR BEARING WALL
▬	BEARING WALL ABOVE (B/W/A), OR SHEARWALL ABOVE (S/W/A)
▬	BEAM / HEADER
▬	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
▬	AREA OF OVERFRAMING
▬	LOCATION OF DEPRESSED SHOWER, TRUSS MANIF. TO COORDINATE TRUSS PROFILE & ASSEMBLY DEAD LOAD w/ ARCH ASSEMBLY
JL	METAL HANGER
*	INDICATES POST ABOVE, PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
▶	INDICATES HOLD-DOWN

TYP. CRAWLSPACE POSTS:  
4x4 P.T. POST w/ 2x4 CLEATS  
EA. SIDE OF POST & (2)  
SIMPSON A35 CLIPS ONE ON  
EA. SIDE @ BASE OF POST w/  
1/4"x1/2" LONG REDHEAD NAILS  
(4'-0" MAX POST HT.) ON  
16"x16" GRADE BEAMS PER  
DETAIL T/SD.01 (TYP. U.N.O.)



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M&K project number:  
**306-25001**

project mgr: NJM  
drawn by: BFD  
issue date: 03-27-25

REVISIONS:

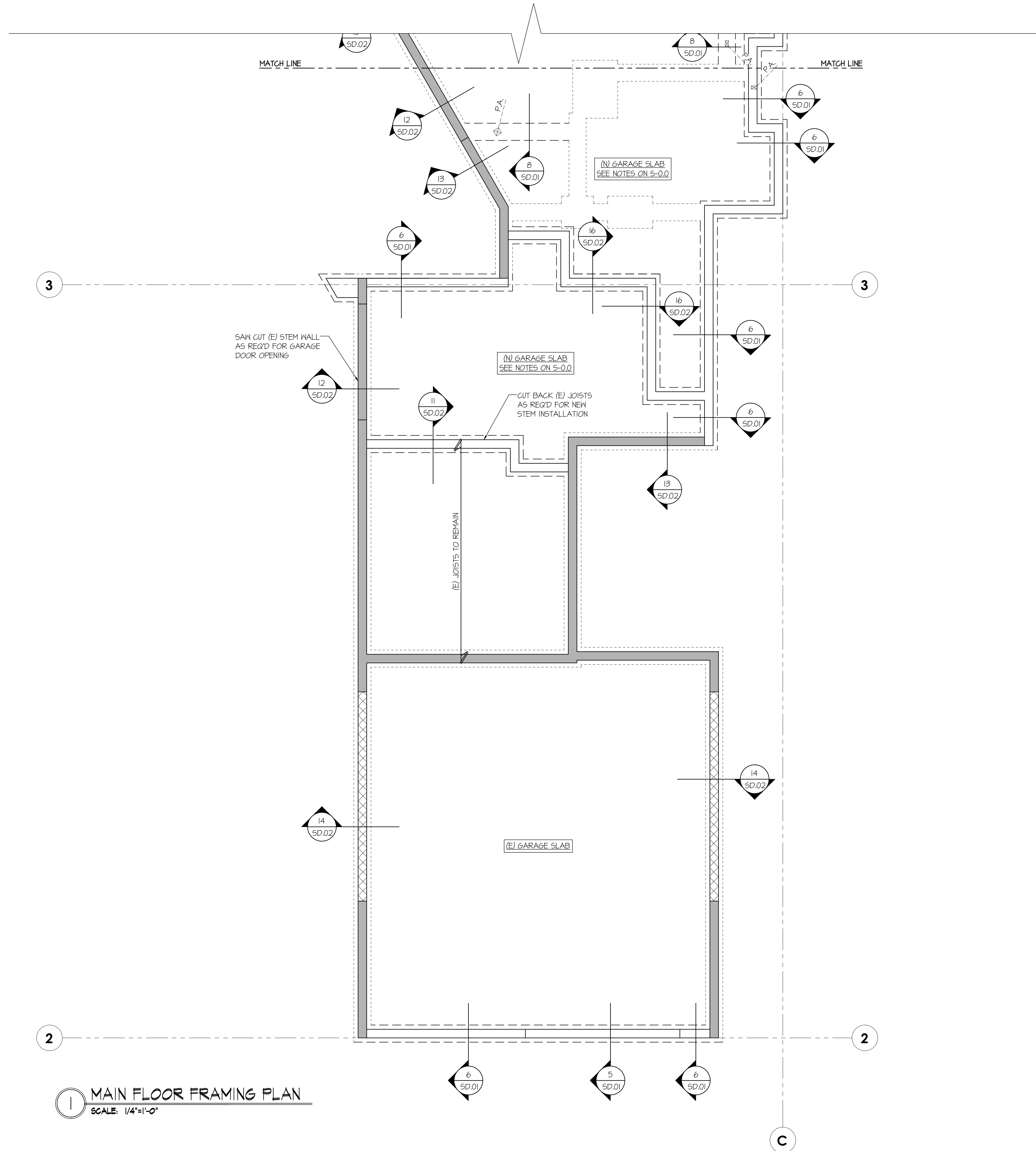
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ARCH REVISION & PLAN REVIEW	
04/30/25	BFD
PLAN REVIEW	
12/16/25	BFD
PLAN REVIEW	

**MACPHERSON  
CONSTRUCTION**

**MAIN FLR FRAMING PLAN**  
**5320 BUTTERWORTH RD**  
**NORTH LOT**  
MERCER ISLAND, WASHINGTON

sheet:  
**S-1.1A**

REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL  
NOTES & SCHEDULES



HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
	SIMPSON 5THD14 (R/J) HOLD-DOWN
	SIMPSON HT15 HOLD-DOWN (SEE DETAIL B FOR SPECIFICATIONS)
	SIMPSON CS16 STRAP TIE (14" END LENGTH)
	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

LEGEND	
	INTERIOR BEARING WALL
	BEARING WALL ABOVE (B/W.A.) OR SHEARWALL ABOVE (S/W.A.)
	BEAM / HEADER
	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
	AREA OF OVERFRAMING
	LOCATION OF DEPRESSED SHOWER, TRUSS MANIF. TO COORDINATE TRUSS PROFILE & ASSEMBLY DEAD LOAD W/ ARCH ASSEMBLY
	J.L. METAL HANGER
	* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
	INDICATES HOLD-DOWN

TYP. CRAWLSPACE POSTS:  
4x4 P.T. POST w/ 2x4 CLEATS  
EA. SIDE OF POST & (2)  
SIMPSON A35 CLIPS ONE ON  
EA. SIDE @ BASE OF POST w/  
1/4"x1/2" LONG REDHEAD NAILS  
(4"-0" MAX POST HT.) ON  
16"x16" @RADE BEAMS PER  
DETAIL T/SD.01 (TYP. U.N.O.)

1 MAIN FLOOR FRAMING PLAN  
SCALE: 1/4"=1'-0"



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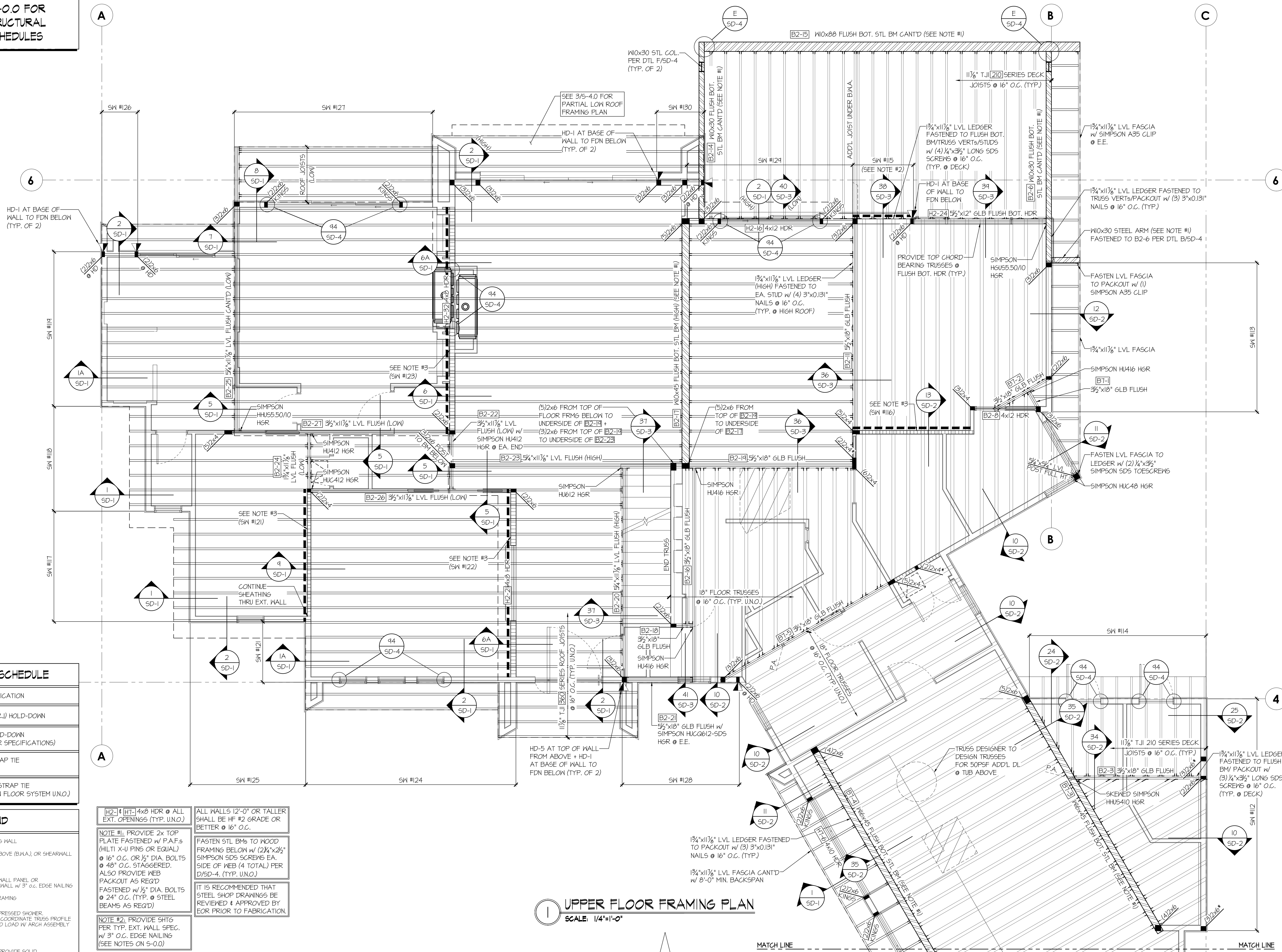
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PLAN REVIEW	BFD
12/16/25	BFD
PLAN REVIEW	BFD

MACPHERSON  
CONSTRUCTION

MAIN FLR FRAMING PLAN  
5320 BUTTERWORTH RD  
NORTH LOT  
MERCER ISLAND, WASHINGTON

sheet:  
**S-1.1B**

REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL  
NOTES & SCHEDULES

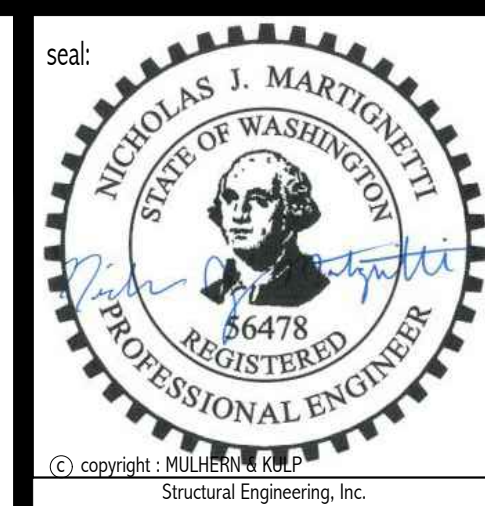


1 UPPER FLOOR FRAMING PLAN  
SCALE: 1/4"=1'-0"

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
	SIMPSON STD1/4 (R/J) HOLD-DOWN
	SIMPSON HT15 HOLD-DOWN (SEE DETAIL B FOR SPECIFICATIONS)
	SIMPSON CS16 STRAP TIE (14" END LENGTH)
	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

LEGEND	
	INTERIOR BEARING WALL
	BEARING WALL ABOVE (B.W.A.) OR SHEARWALL ABOVE (S.W.A.)
	BEAM / HEADER
	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
	AREA OF OVERFRAMING
	LOCATION OF DEPRESSED SHOWER, TRUSS MANIF. TO COORDINATE TRUSS PROFILE & ASSEMBLY DEAD LOAD W/ ARCH ASSEMBLY
	J/L METAL HANGER
	* INDICATES POST ABOVE, PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
	INDICATES HOLD-DOWN

[H2-1] 4x8 HDR @ ALL EXT. OPENINGS (TYP. U.N.O.)  
 ALL WALLS 12'-0" OR TALLER SHALL BE HF #2 GRADE OR BETTER @ 16" O.C.  
 FASTEN STL BMS TO WOOD FRAMING BELOW w/ (2) 1/4"x2 1/2" SIMPSON SDS SCREWS EA. SIDE OF WEB (4 TOTAL) PER D/SD-4. (TYP. U.N.O.)  
 IT IS RECOMMENDED THAT STEEL SHOP DRAWINGS BE REVIEWED & APPROVED BY EOR PRIOR TO FABRICATION.  
 NOTE #1: PROVIDE 2x TOP PLATE FASTENED w/ P.A.F.s (HILTI X-U PINS OR EQUAL) @ 16" O.C. OR 1/2" DIA. BOLTS @ 48" O.C. STAGGERED. ALSO PROVIDE WEB PACKOUT AS REQ'D FASTENED w/ 1/2" DIA. BOLTS @ 24" O.C. (TYP. @ STEEL BEAMS AS REQ'D)  
 NOTE #2: PROVIDE SHTG PER TYP. EXT. WALL SPEC. w/ 3" O.C. EDGE NAILING (SEE NOTES ON S-0.0)  
 NOTE #3: PROVIDE SHTG PER TYP. EXT. WALL SPEC. (SEE NOTES ON S-0.0)



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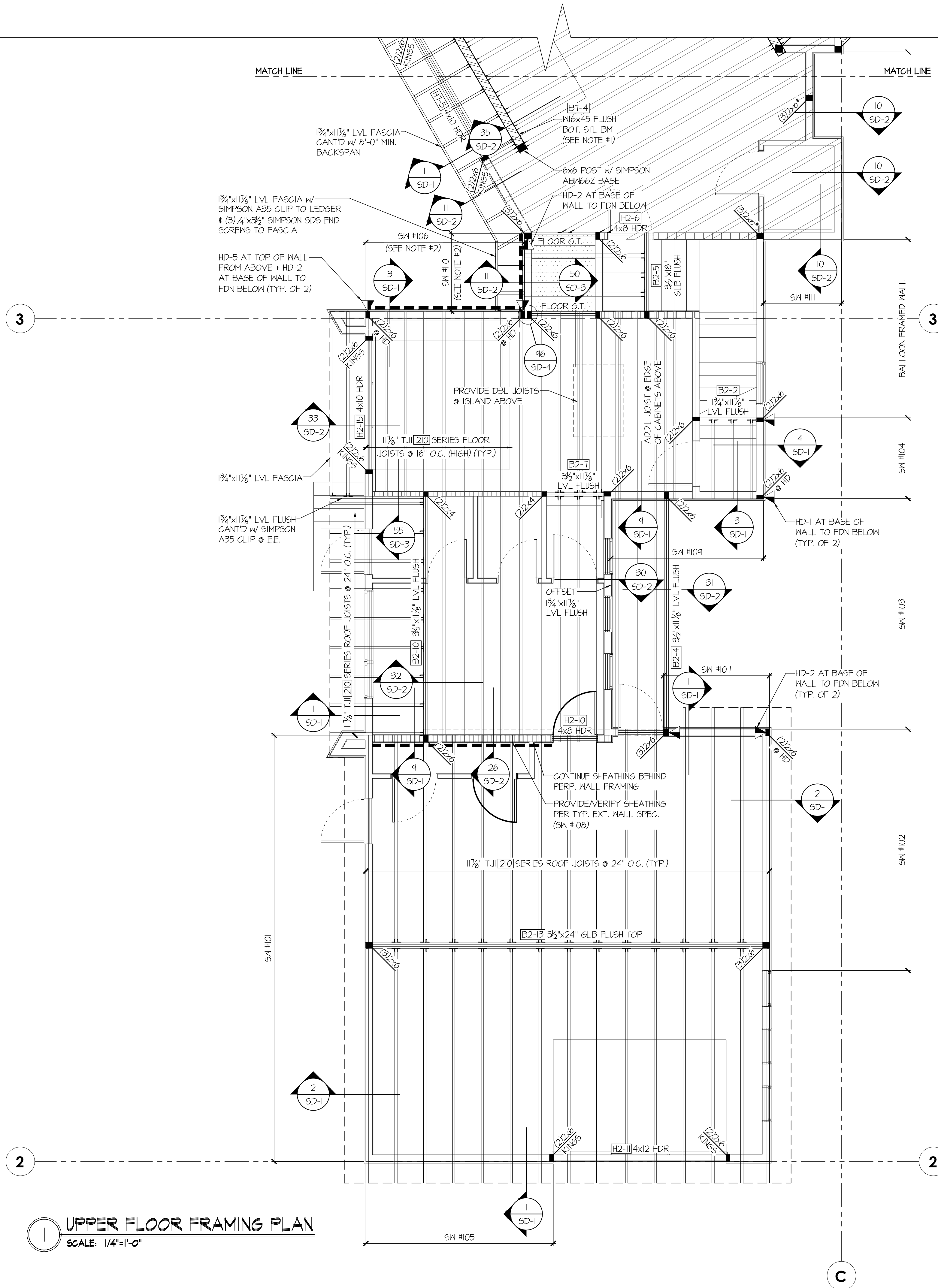
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**306-25001**  
 project mgr: NJM  
 draw by: BFD  
 issue date: 03-27-25  
 REVISIONS:  
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 01/30/25 BFD  
 04/30/25 BFD  
 12/16/25 BFD

**MACPHERSON CONSTRUCTION**

**UPPER FLR FRAMING PLAN**  
**5320 BUTTERWORTH RD**  
**NORTH LOT**  
 MERCER ISLAND, WASHINGTON

sheet:  
**S-2.0A**

REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL  
NOTES & SCHEDULES



UPPER FLOOR FRAMING PLAN  
SCALE: 1/4"=1'-0"

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
▶	HD-1 SIMPSON STD1/4 (RJ) HOLD-DOWN
▶	HD-2 SIMPSON HT15 HOLD-DOWN (SEE DETAIL B FOR SPECIFICATIONS)
▶	HD-5 SIMPSON CS16 STRAP TIE (14" END LENGTH)
▶	HD-7 SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

LEGEND	
▬	INTERIOR BEARING WALL
▬	BEARING WALL ABOVE (B.W.A.) OR SHEARWALL ABOVE (S.W.A.)
▬	BEAM / HEADER
▬	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
▬	AREA OF OVERFRAMING
▬	LOCATION OF DEPRESSIONED SHOWER TRUSS MANIF. TO COORDINATE TRUSS PROFILE & ASSEMBLY DEAD LOAD W/ ARCH ASSEMBLY
JL	METAL HANGER
*	INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
▶	INDICATES HOLD-DOWN

[H2-4] [H1-] 4x8 HDR @ ALL EXT. OPENINGS (TYP. U.N.O.)

NOTE #1: PROVIDE 2x TOP PLATE FASTENED w/ P.A.F.s (HILTI X-U PINS OR EQUAL) @ 16" O.C. OR 1/2" DIA. BOLTS @ 48" O.C. STAGGERED. ALSO PROVIDE WEB PACKOUT AS REQ'D FASTENED w/ 1/2" DIA. BOLTS @ 24" O.C. (TYP. @ STEEL BEAMS AS REQ'D)

NOTE #2: PROVIDE SHTG PER TYP. EXT. WALL SPEC. w/ 3" O.C. EDGE NAILING (SEE NOTES ON S-0.0)

NOTE #3: PROVIDE SHTG PER TYP. EXT. WALL SPEC. (SEE NOTES ON S-0.0)

ALL WALLS 12'-0" OR TALLER SHALL BE HF #2 GRADE OR BETTER @ 16" O.C.

FASTEN STL BMS TO WOOD FRAMING BELOW w/ (2 1/4"x2 1/2" SIMPSON SDS SCREWS EA. SIDE OF WEB (4 TOTAL) PER D/SD-4. (TYP. U.N.O.)

IT IS RECOMMENDED THAT STEEL SHOP DRAWINGS BE REVIEWED & APPROVED BY EOR PRIOR TO FABRICATION.



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M&K project number:  
306-25001

project mgr: NJM  
drawn by: BFD  
issue date: 03-27-25

REVISIONS:

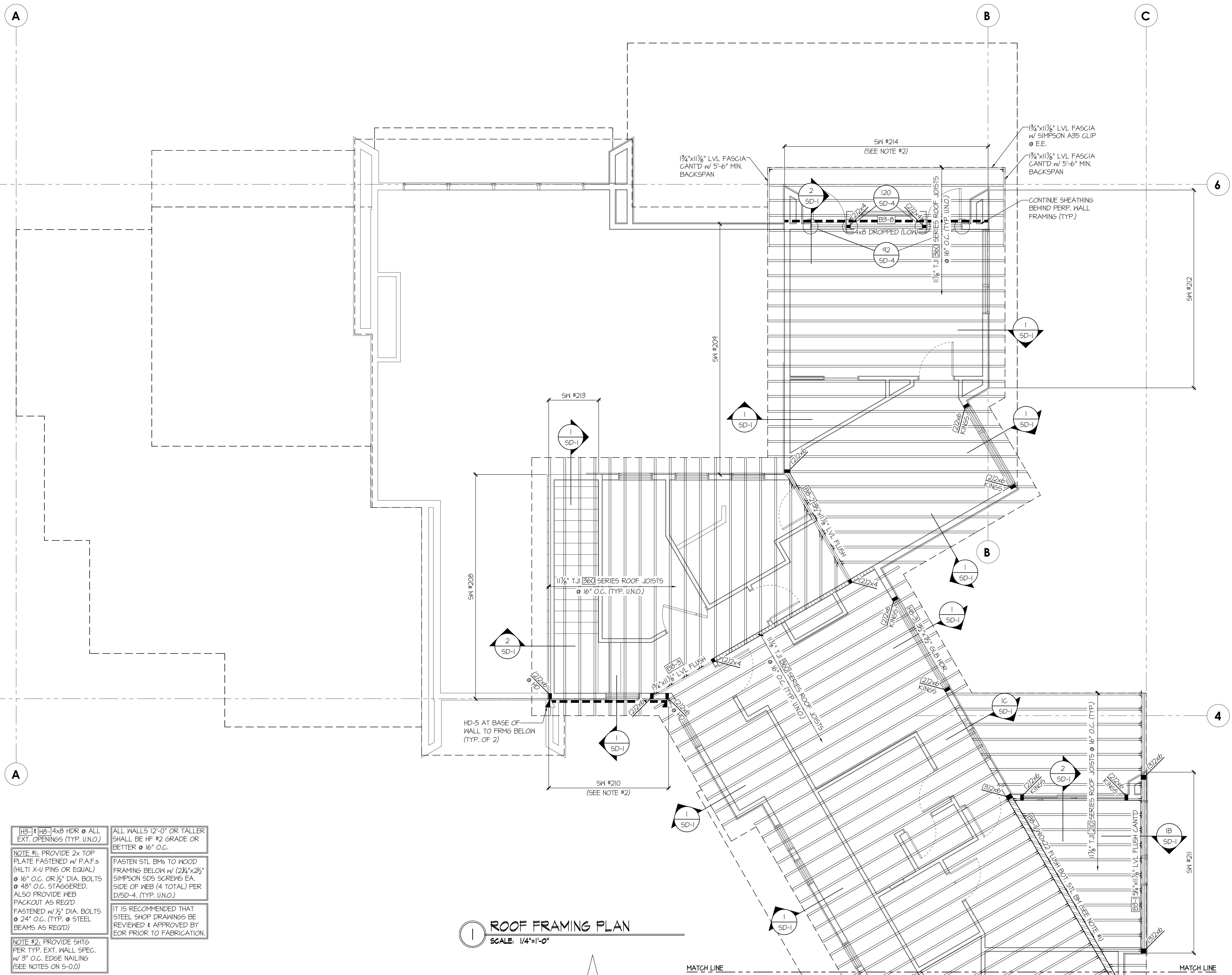
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12/16/25	BFD

MACPHERSON  
CONSTRUCTION

UPPER FLR FRAMING PLAN  
5320 BUTTERWORTH RD  
NORTH LOT  
MERCER ISLAND, WASHINGTON

sheet:  
**S-2.0B**

REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL  
NOTES & SCHEDULES



**ROOF FRAMING PLAN**  
SCALE: 1/4"=1'-0"

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
	SIMPSON STD1/4 (R/J) HOLD-DOWN
	SIMPSON HT15 HOLD-DOWN (SEE DETAIL B FOR SPECIFICATIONS)
	SIMPSON CS16 STRAP TIE (14" END LENGTH)
	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM U.N.O.)

LEGEND	
	INTERIOR BEARING WALL
	BEARING WALL ABOVE (B.W.A.) OR SHEARWALL ABOVE (S.W.A.)
	BEAM / HEADER
	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
	AREA OF OVERFRAMING
	LOCATION OF DEPRESSIONED SHOWER, TRUSS MANIF. TO COORDINATE TRUSS PROFILE & ASSEMBLY DEAD LOAD w/ ARCH ASSEMBLY
	J.L. METAL HANGER
	* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
	INDICATES HOLD-DOWN.

**NOTE #1:** PROVIDE 2x TOP PLATE FASTENED w/ P.A.F.s (HILTI X-U PINS OR EQUAL) @ 16" O.C. OR 1/2" DIA. BOLTS @ 48" O.C. STAGGERED. ALSO PROVIDE WEB PACKOUT AS REQ'D FASTENED w/ 1/2" DIA. BOLTS @ 24" O.C. (TYP. @ STEEL BEAMS AS REQ'D)

**NOTE #2:** PROVIDE SHTG PER TYP. EXT. WALL SPEC. w/ 3" O.C. EDGE NAILING (SEE NOTES ON S-0.0)

ALL WALLS 12'-0" OR TALLER SHALL BE HF #2 GRADE OR BETTER @ 16" O.C.

FASTEN STL BMS TO WOOD FRAMING BELOW w/ (2 1/4"x2 1/2" SIMPSON SDS SCREWS EA. SIDE OF WEB (4 TOTAL) PER D/SD-4. (TYP. U.N.O.)

IT IS RECOMMENDED THAT STEEL SHOP DRAWINGS BE REVIEWED & APPROVED BY EOR PRIOR TO FABRICATION.



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M&K project number:  
**306-25001**

project mgr: **NJM**  
drawn by: **BFD**  
issue date: **03-27-25**

REVISIONS:

date:	initial:
01/30/25	BFD
ARCH REVISIONS & PLAN REVIEW	BFD
04/30/25	BFD
PLAN REVIEW	BFD
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PLAN REVIEW	BFD

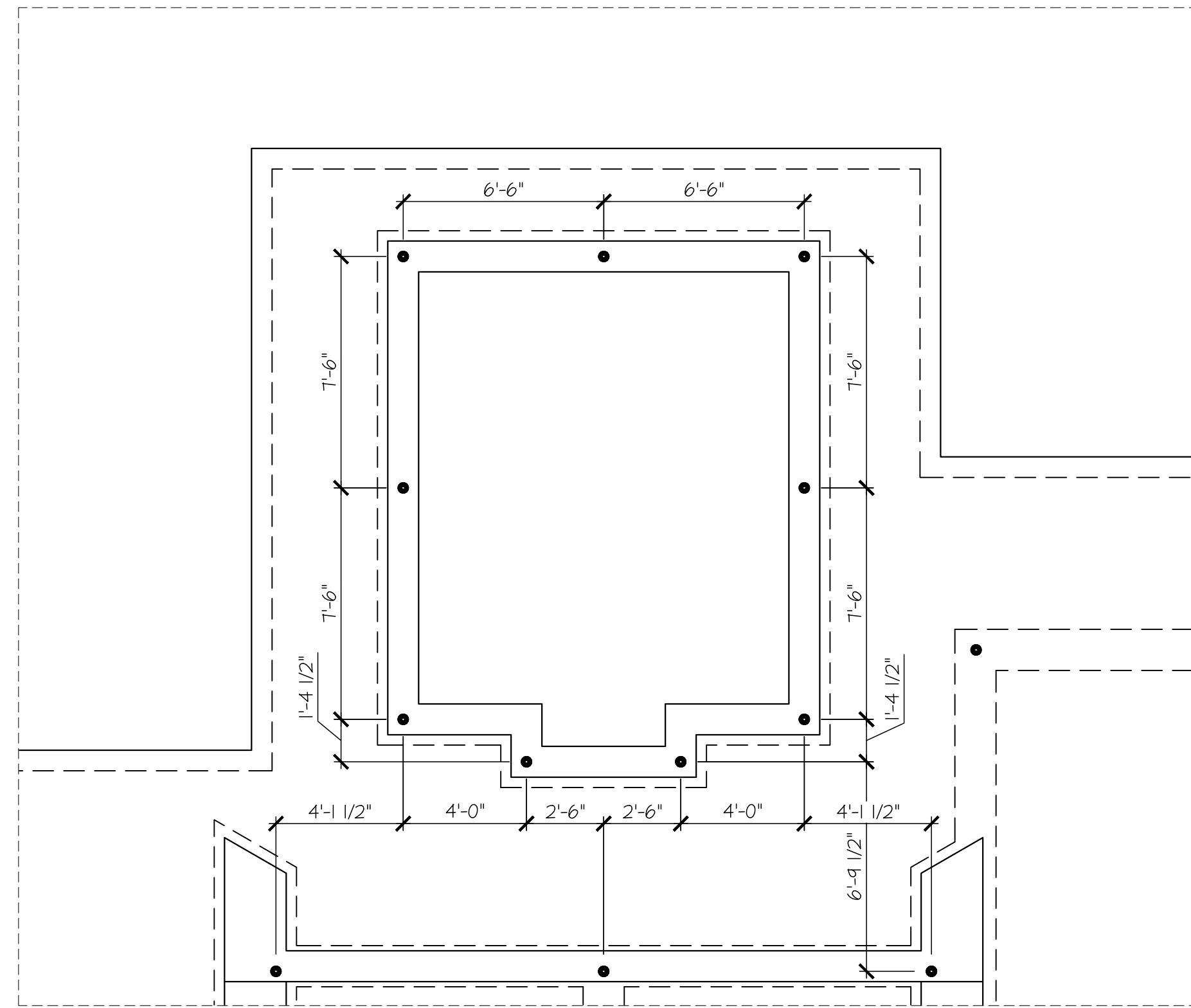
**MACPHERSON  
CONSTRUCTION**

**ROOF FRAMING PLAN**  
**5320 BUTTERWORTH RD**  
**NORTH LOT**  
MERCER ISLAND, WASHINGTON

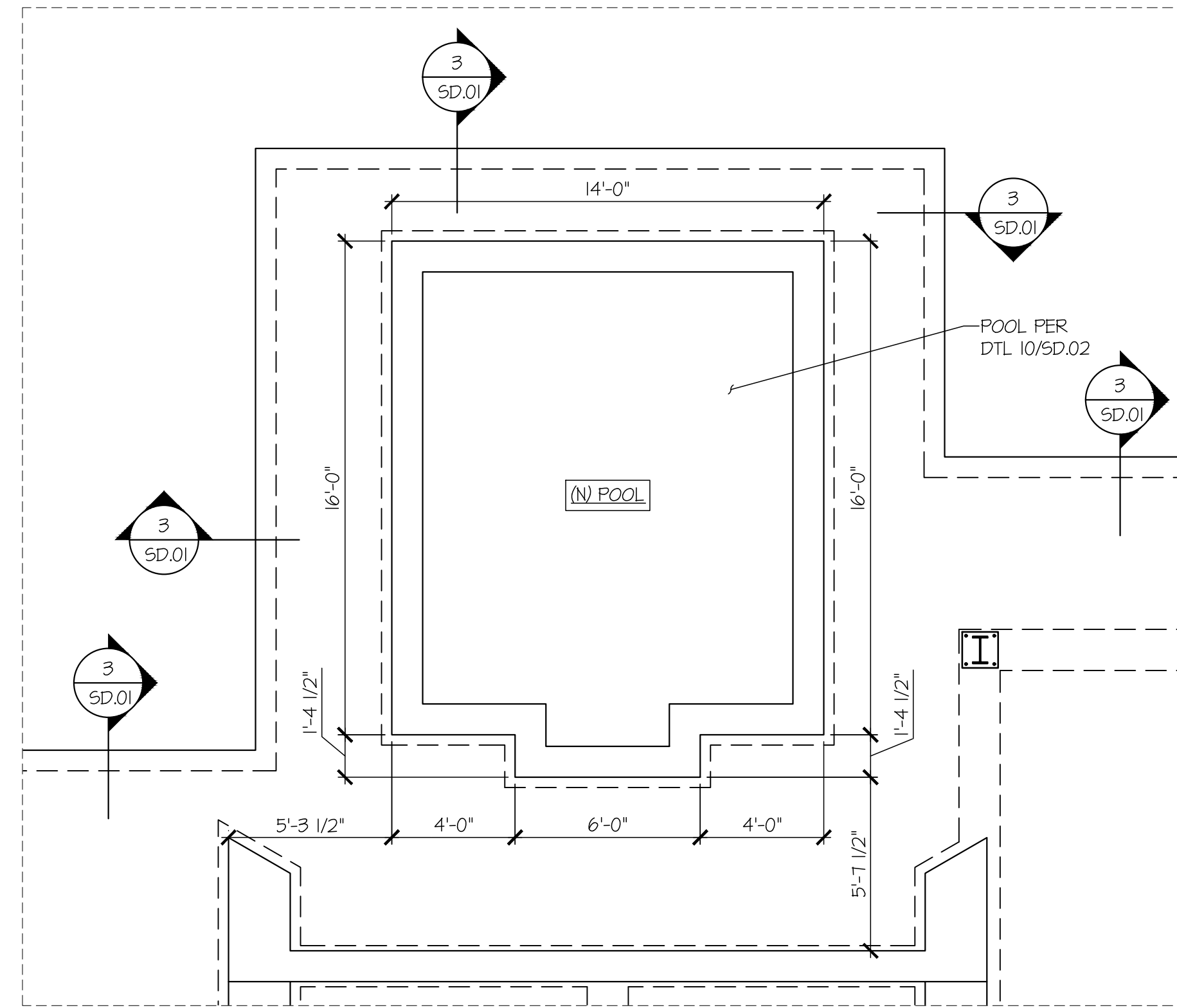
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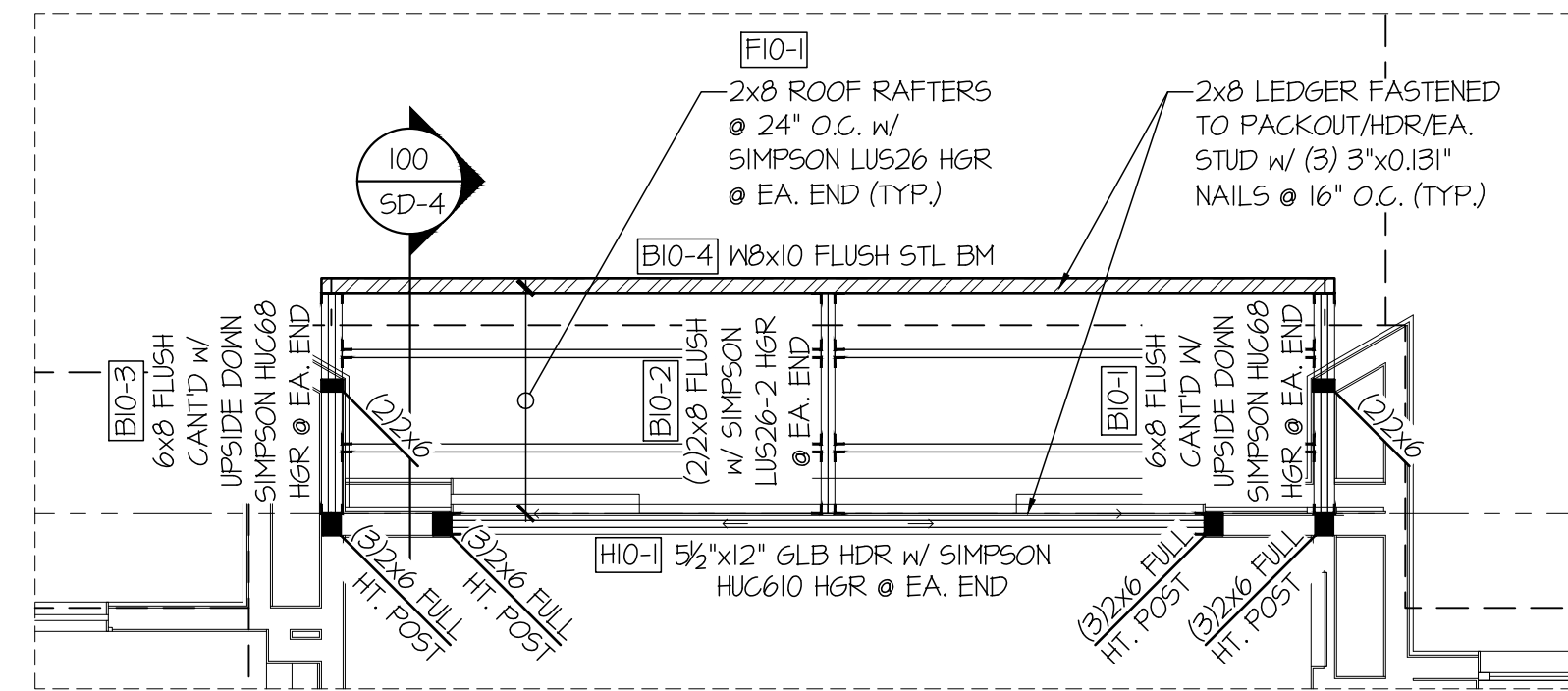
REFER TO S-0.0 FOR  
TYPICAL STRUCTURAL  
NOTES & SCHEDULES



1 POOL PILE PLAN  
SCALE: 1/4"=1'-0"



2 POOL FOUNDATION PLAN  
SCALE: 1/4"=1'-0"



3 REAR AWNING FRAMING PLAN  
SCALE: 1/4"=1'-0"

LEGEND

- [Symbol] INTERIOR BEARING WALL
- [Symbol] BEARING WALL ABOVE (B/W/A) OR SHEARWALL ABOVE (S/W/A)
- [Symbol] BEAM / HEADER
- [Symbol] INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
- [Symbol] AREA OF OVERFRAMING
- [Symbol] LOCATION OF DEPRESSED SHOWER TRUSS MANIF. TO COORDINATE TRUSS PROFILE & ASSEMBLY DEAD LOAD W/ ARCH ASSEMBLY
- JL METAL HANGER
- \* INDICATES POST ABOVE, PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- ▶ INDICATES HOLD/DOWN.



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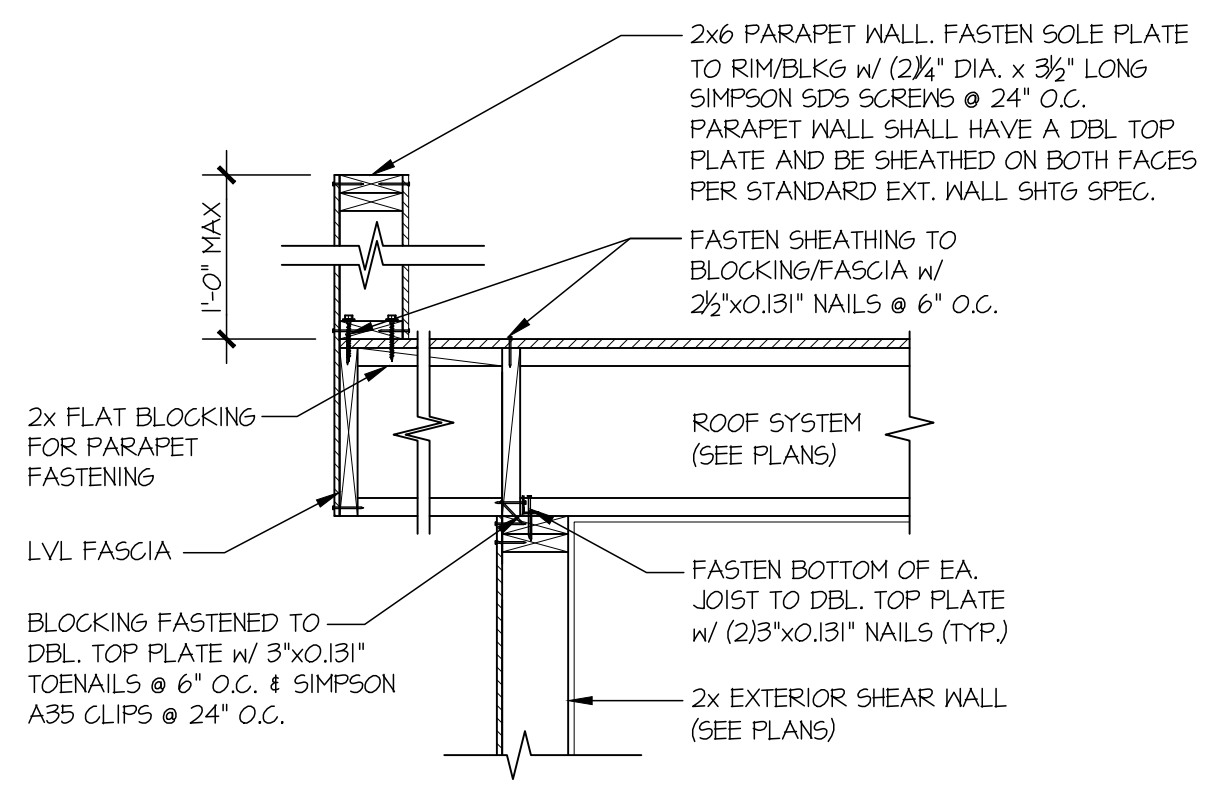
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drawn by: BFD  
issue date: 03-27-25

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PLAN REVIEW	BFD
12/16/25	BFD
PLAN REVIEW	BFD

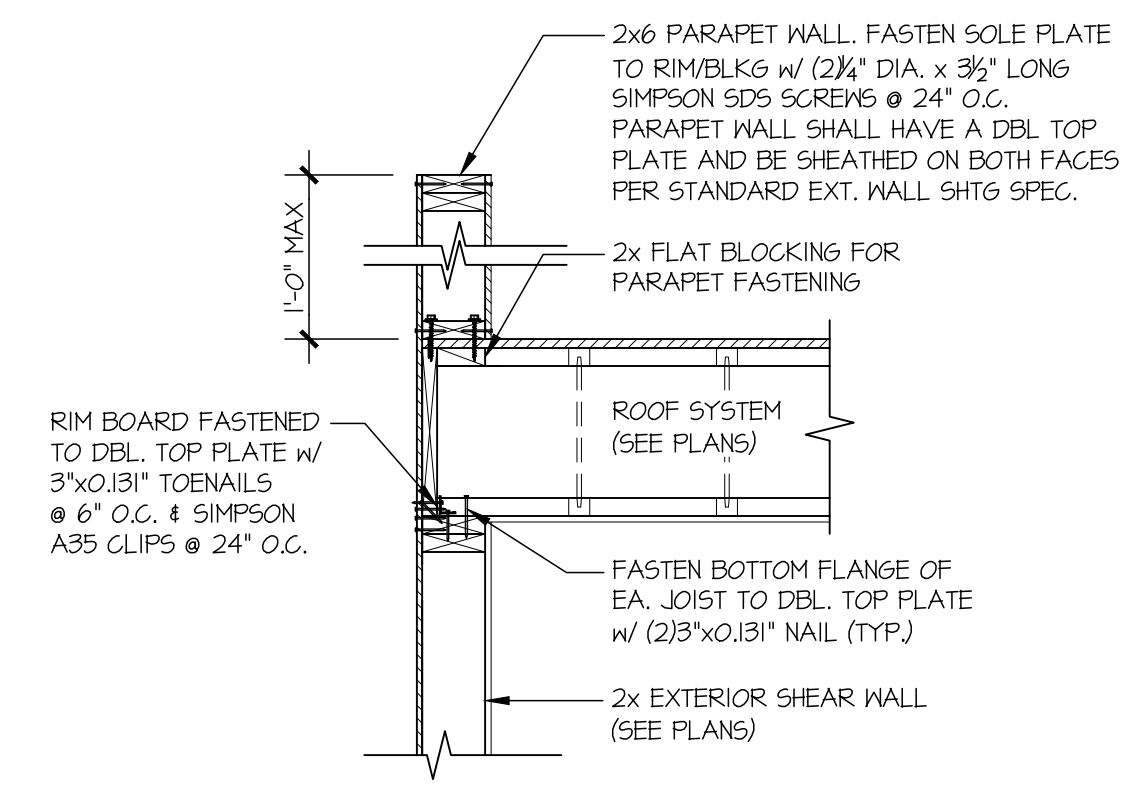
MACPHERSON  
CONSTRUCTION

AWNING & POOL PLANS  
5320 BUTTERWORTH RD  
NORTH LOT  
MERCER ISLAND, WASHINGTON

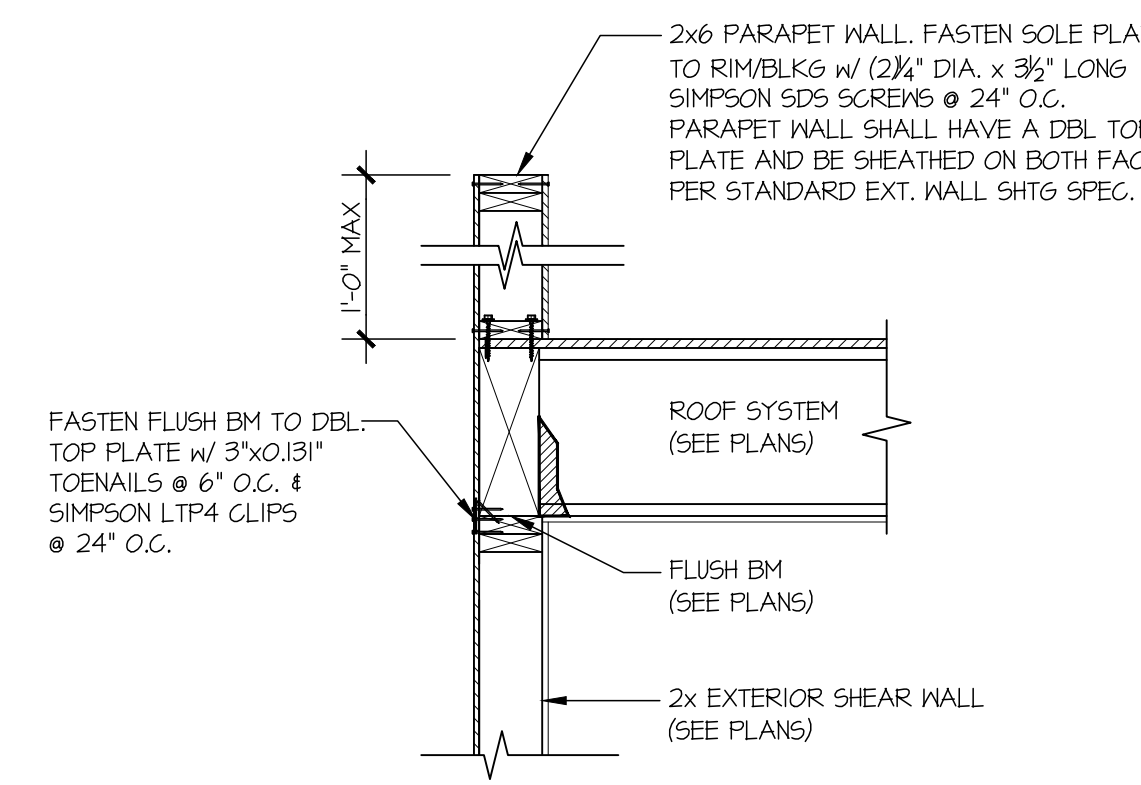
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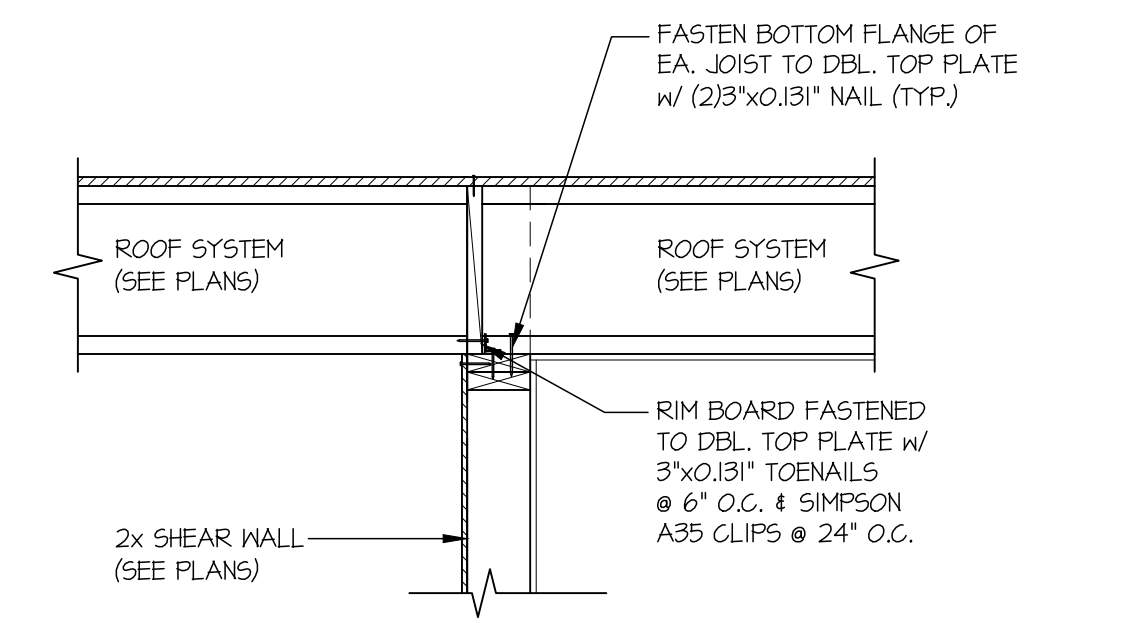
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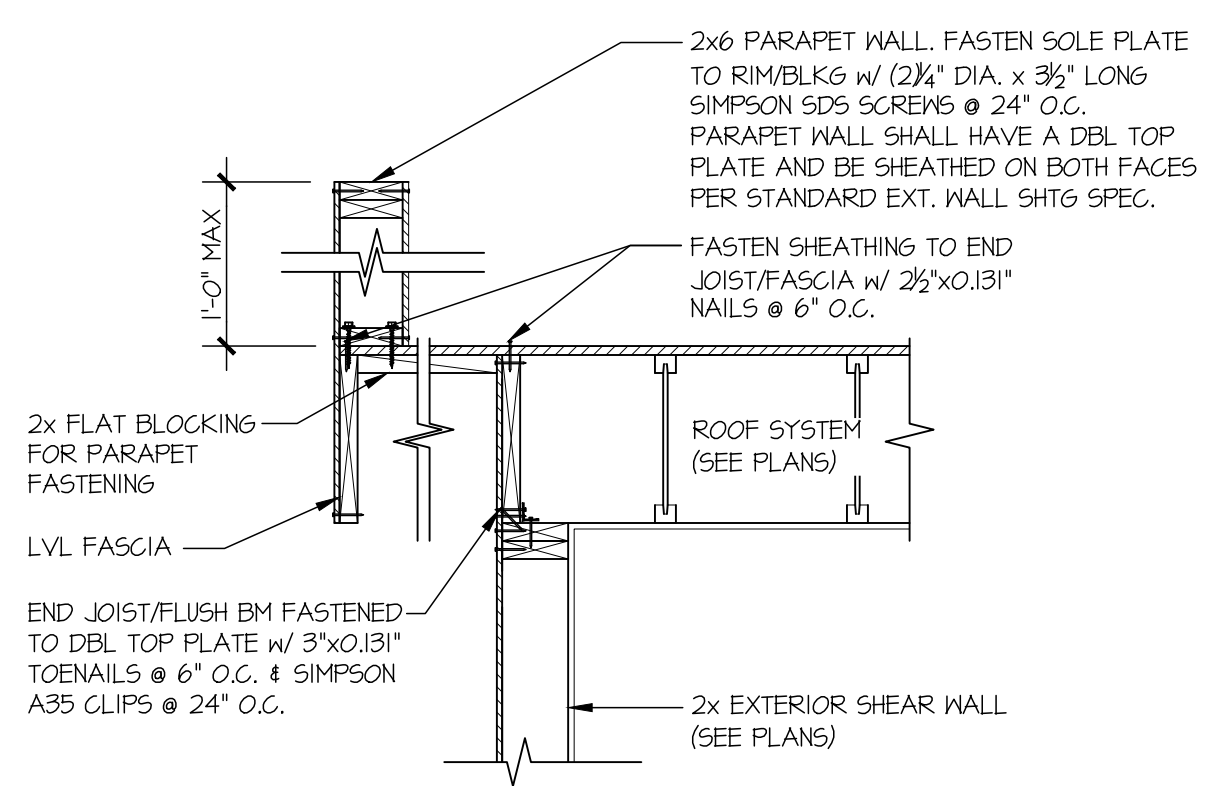
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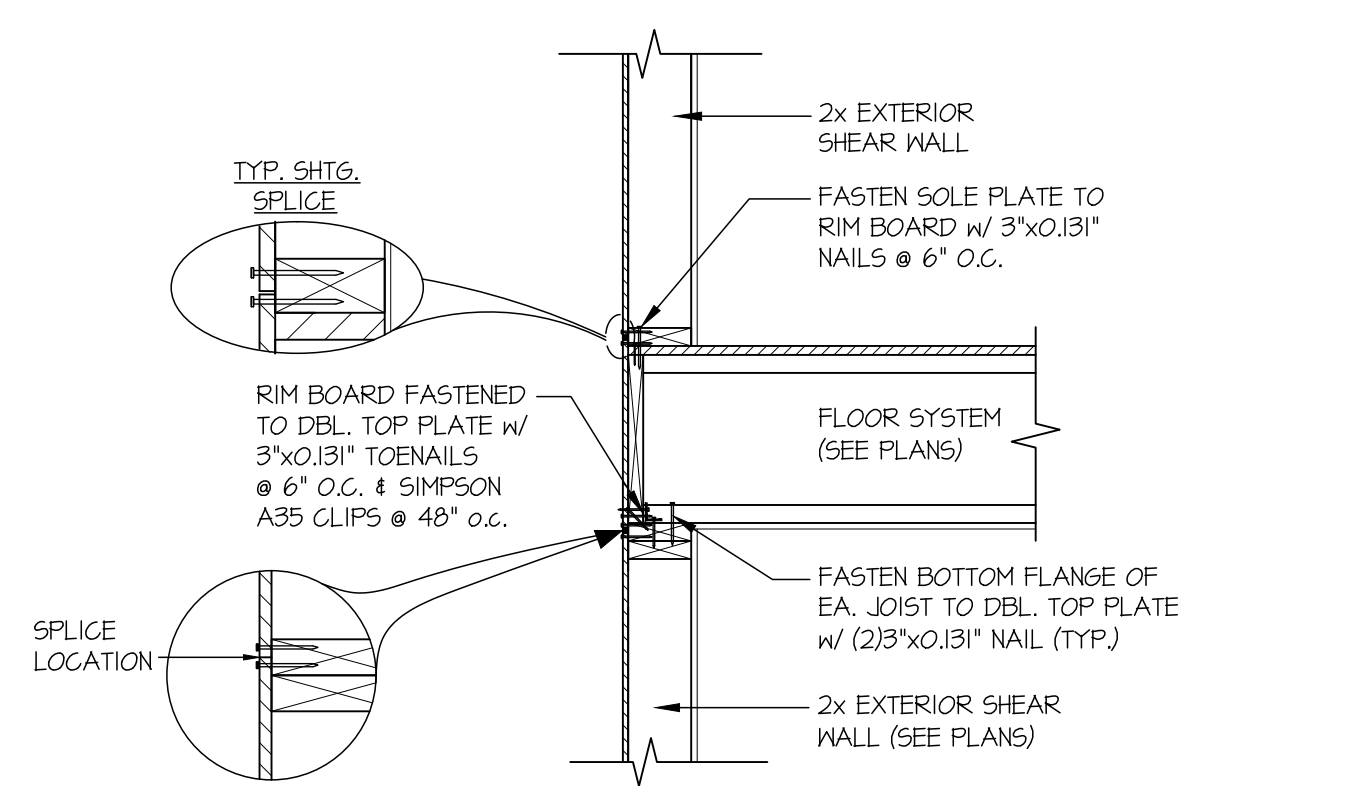
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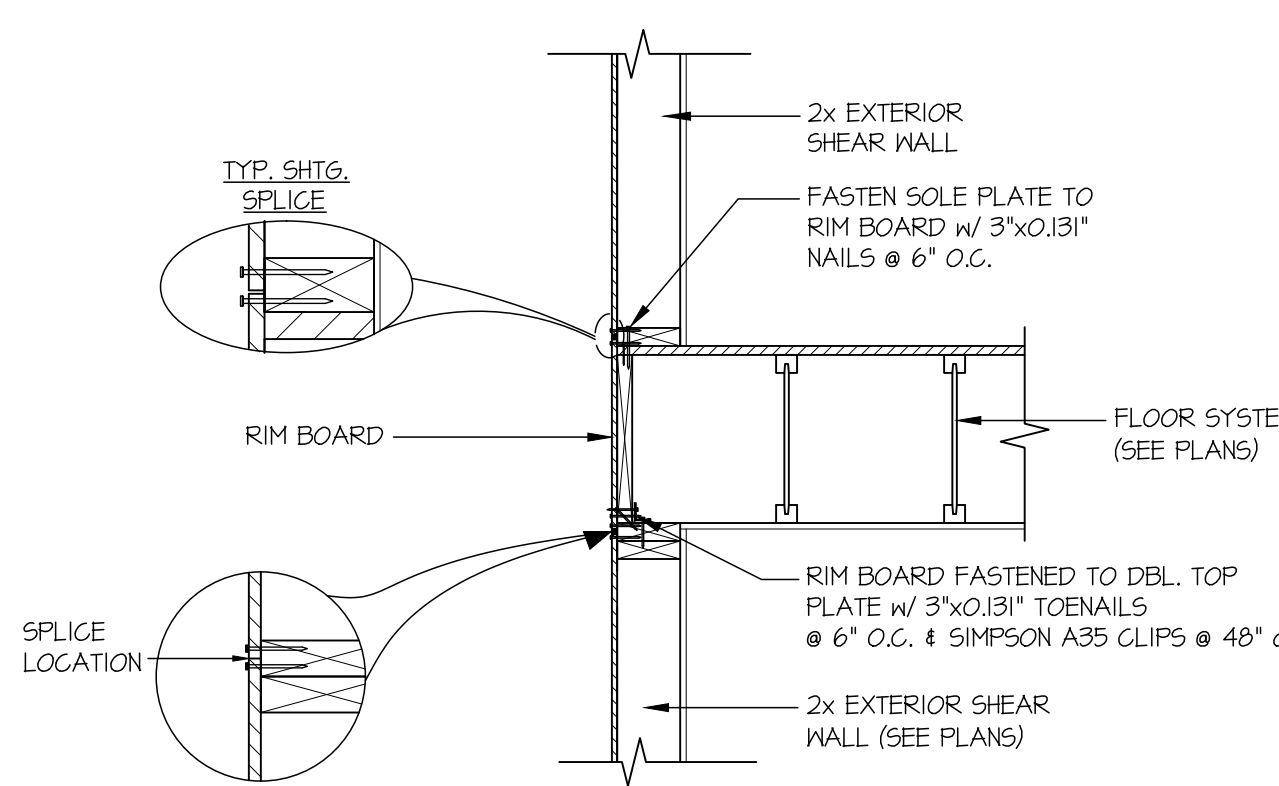
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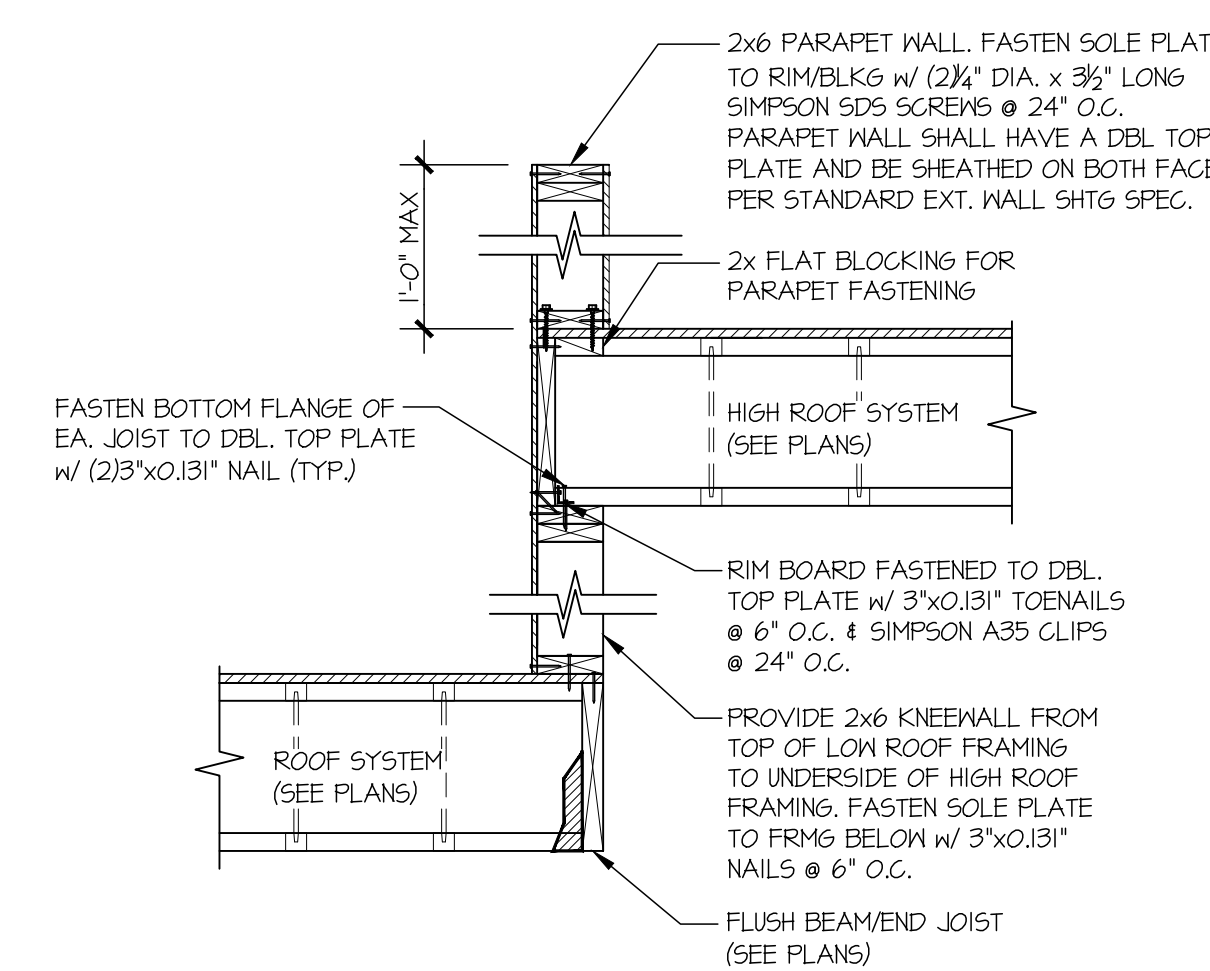
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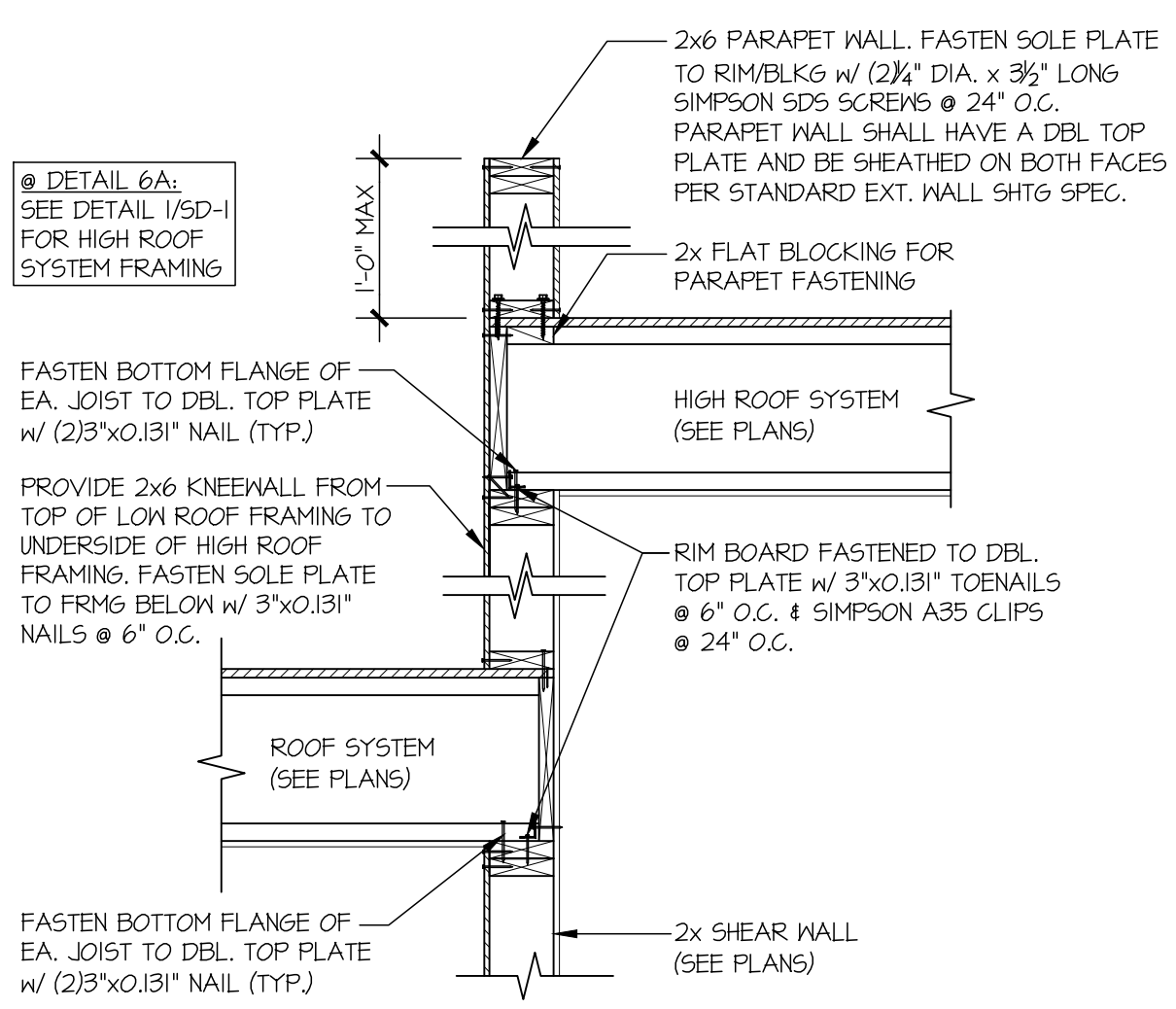
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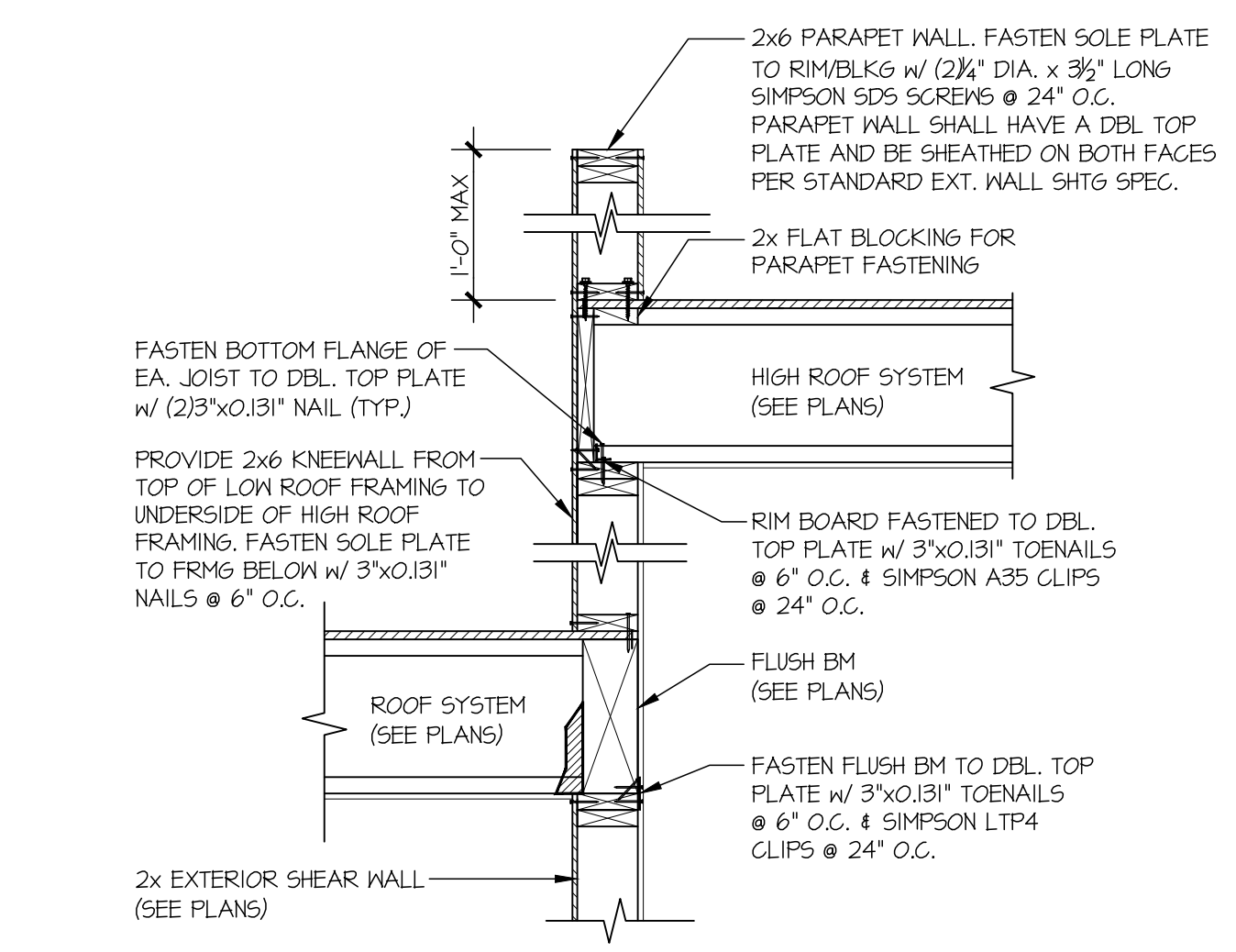
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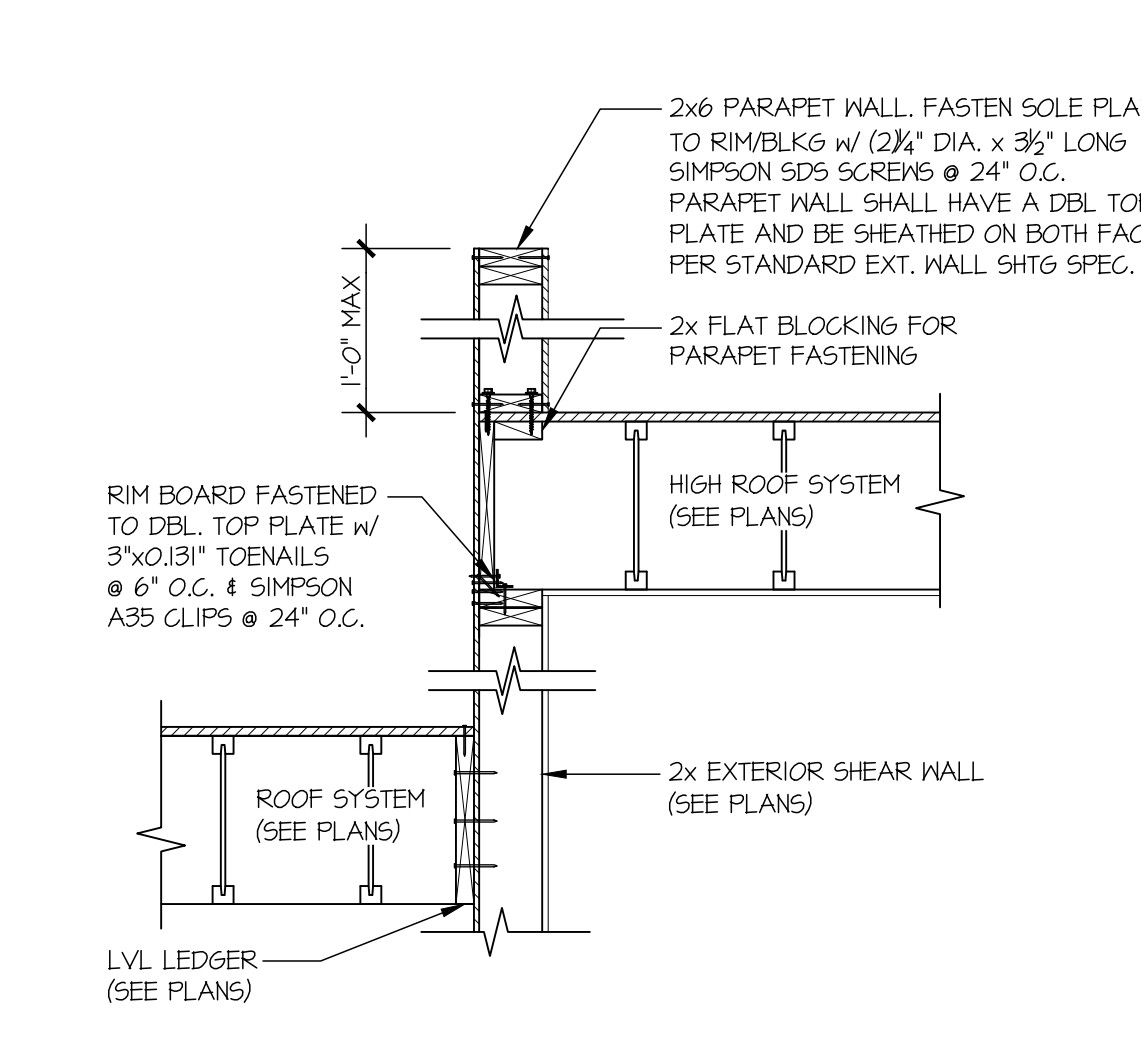
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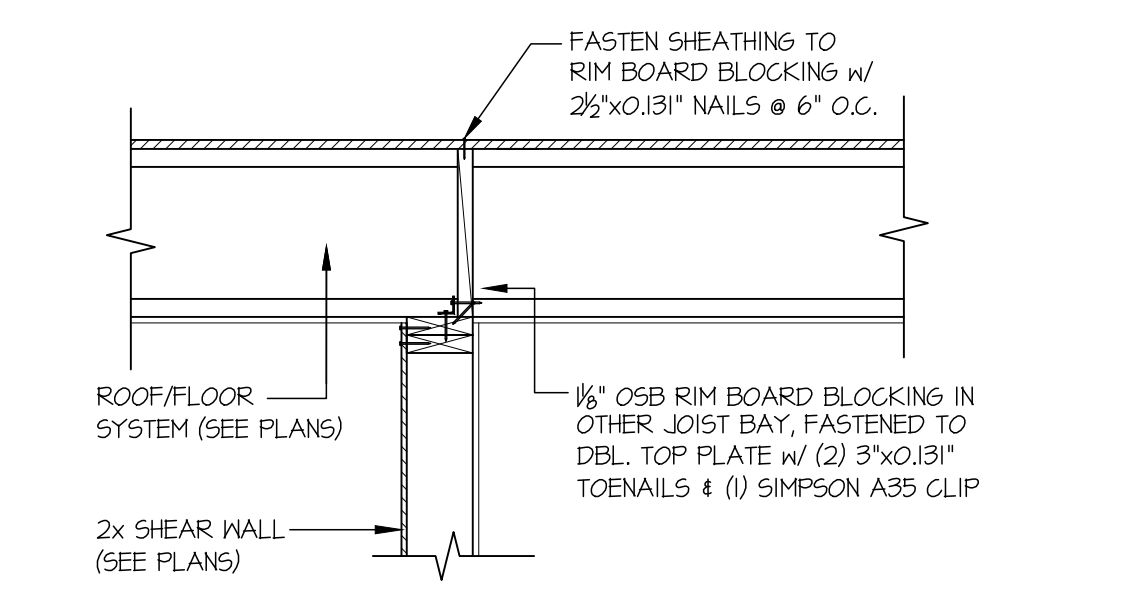
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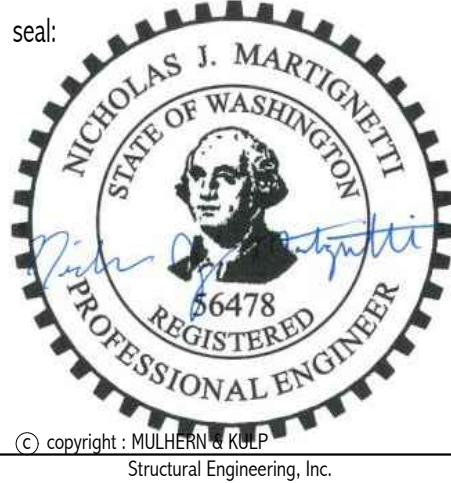
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SECTION 8  
SCALE: 3/4"=1'-0"



SECTION 9  
SCALE: 3/4"=1'-0"



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M&K project number: 306-25001

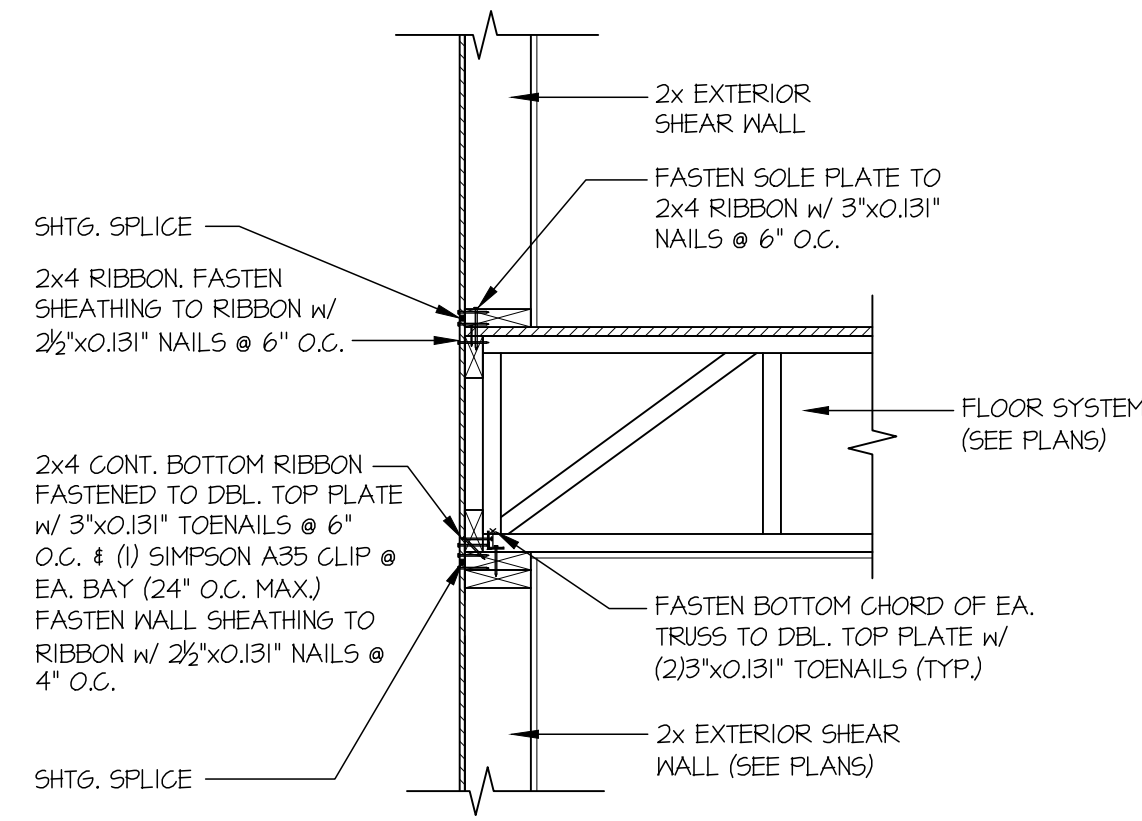
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drawn by: BFD  
issue date: 03-27-25

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04/30/25	PLAN REVIEW	BFD
12/16/25	PLAN REVIEW	BFD

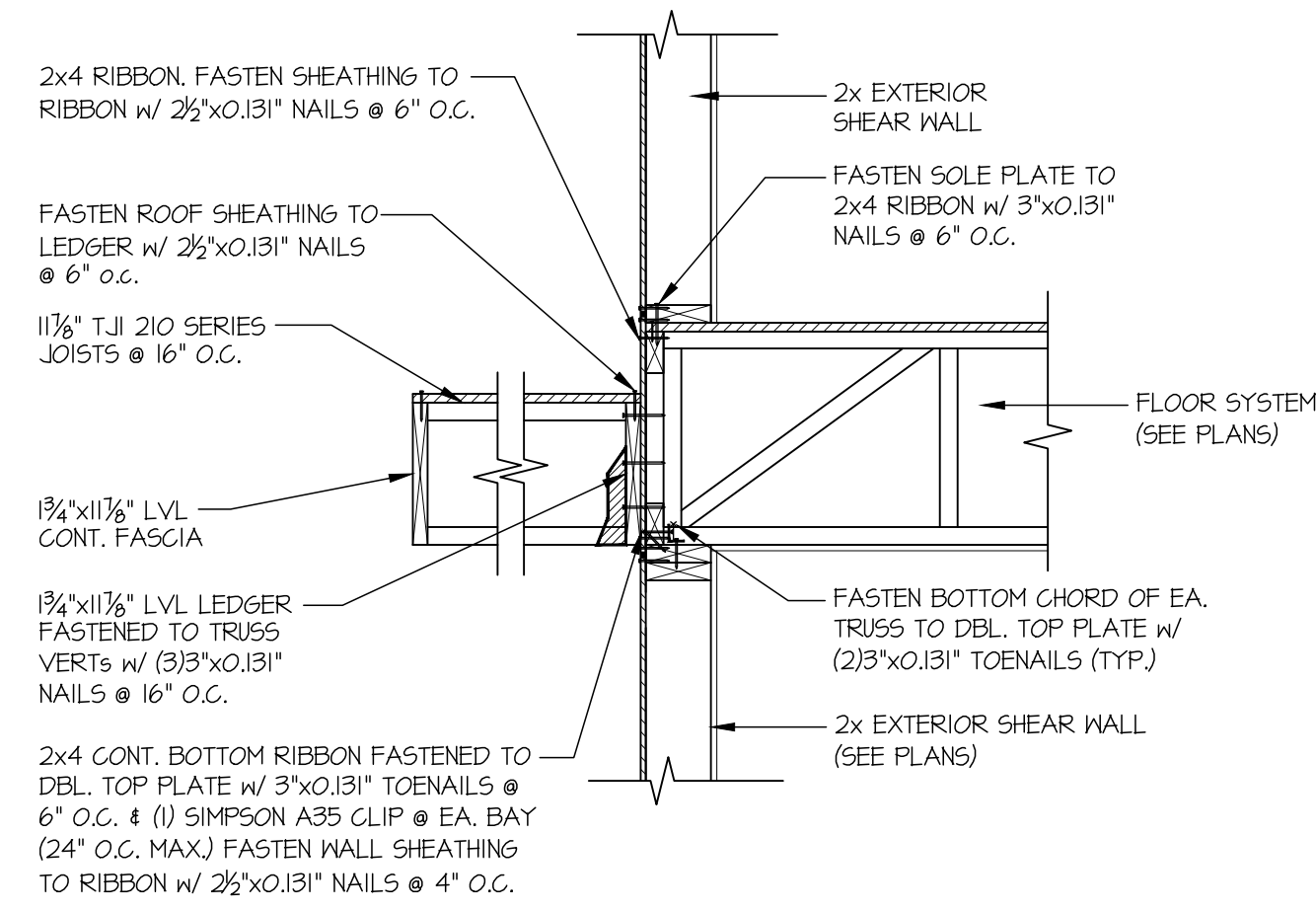
**MACPHERSON CONSTRUCTION**

**STRUCTURAL DETAILS**  
5320 BUTTERWORTH RD  
NORTH LOT  
MERCER ISLAND, WASHINGTON

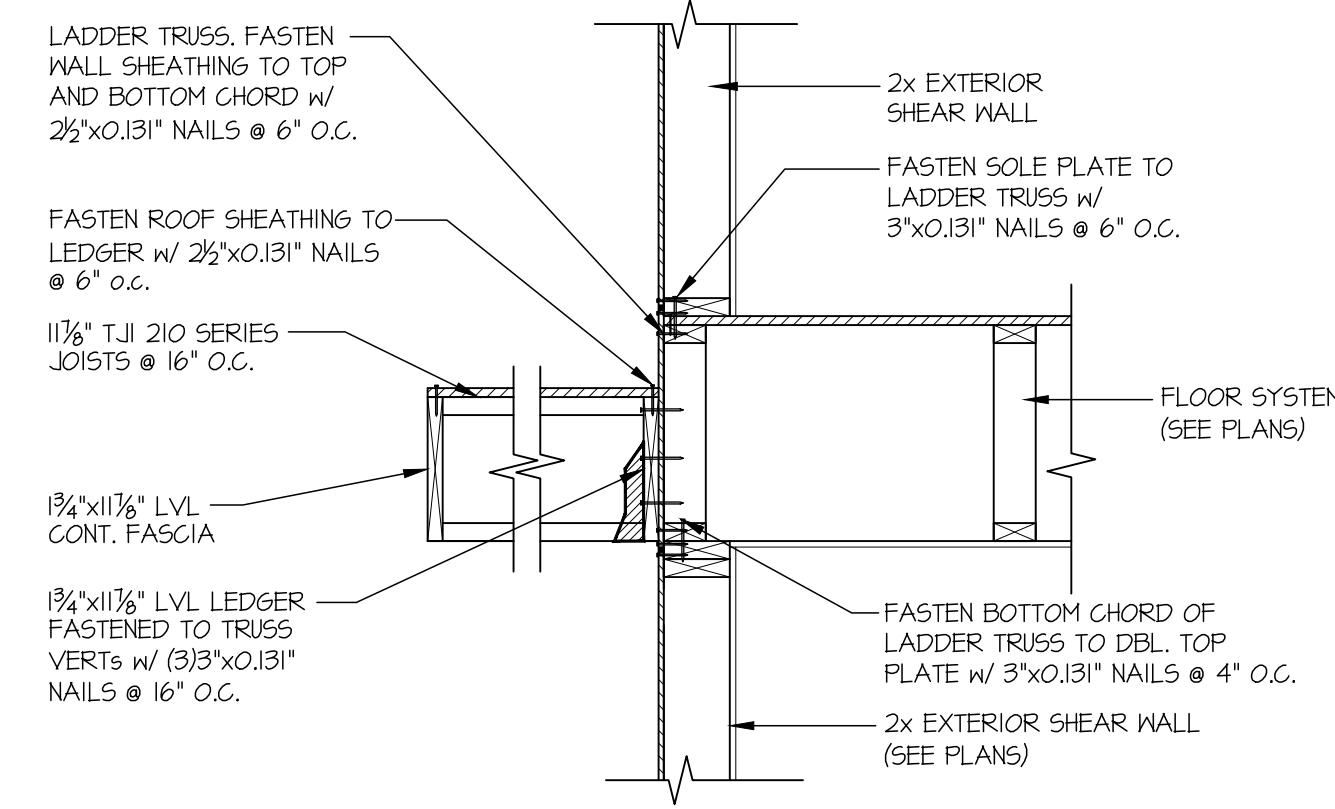
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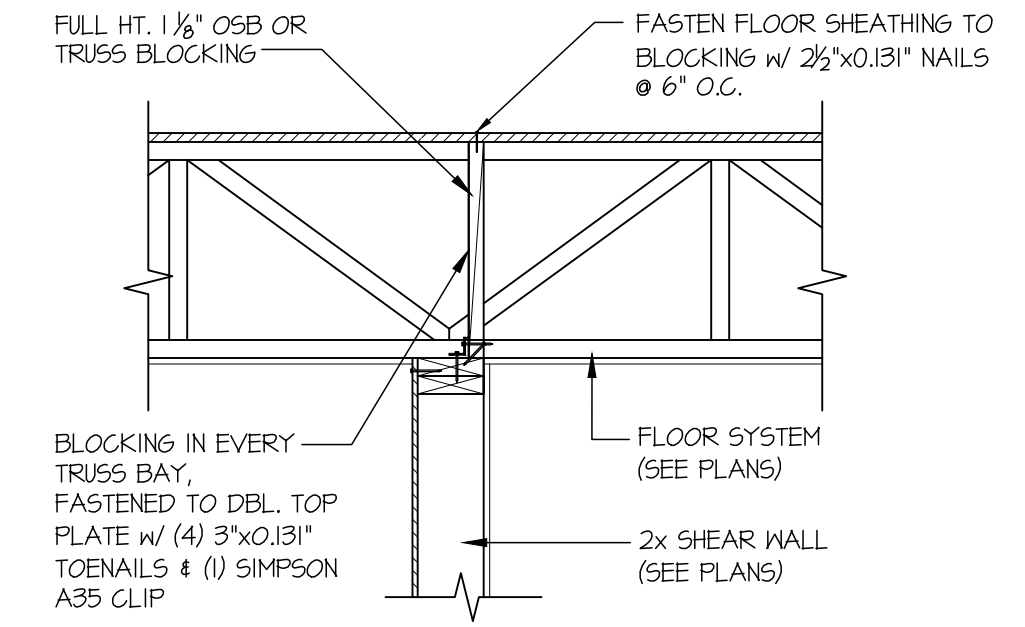
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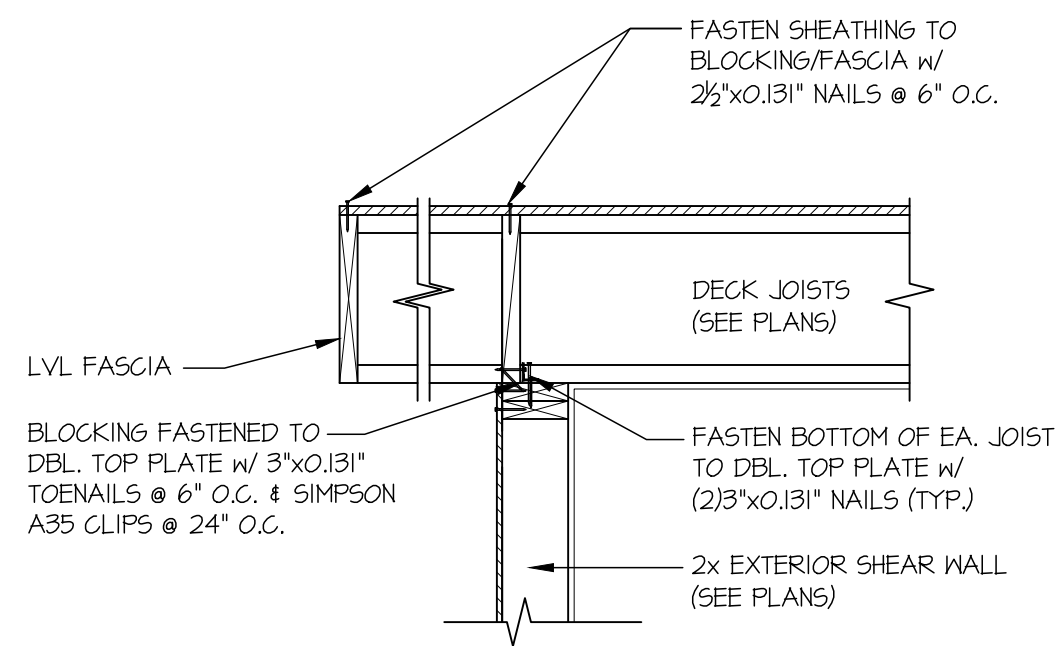
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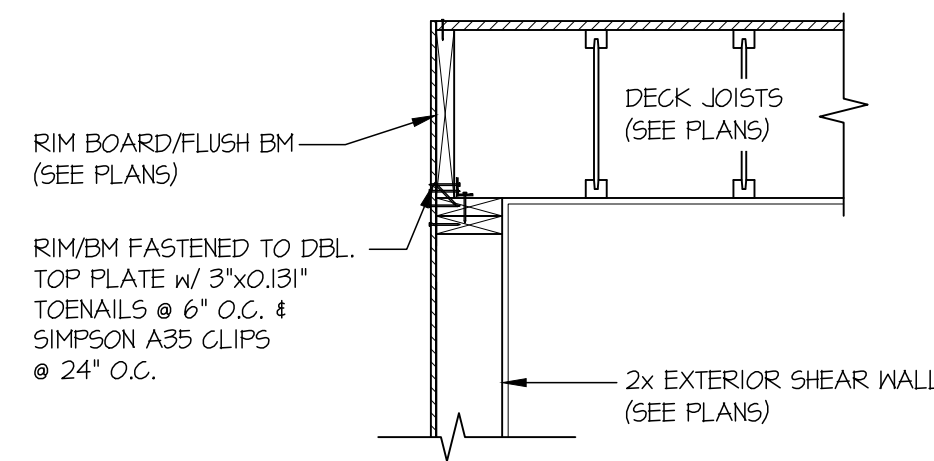
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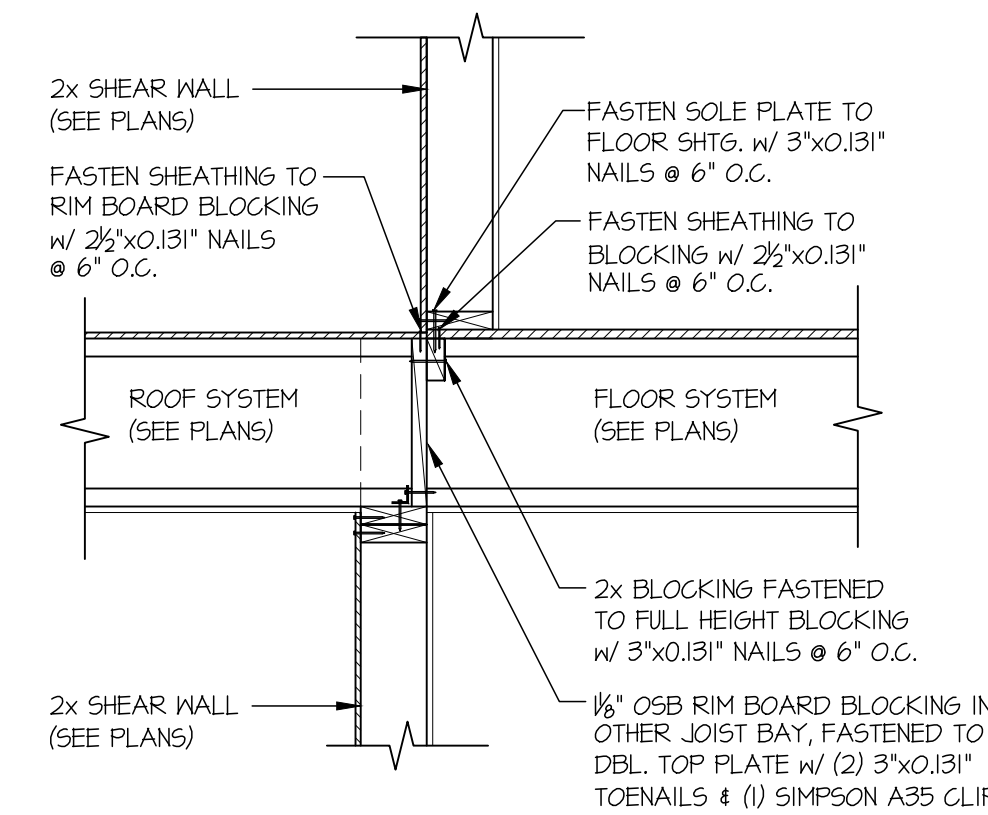
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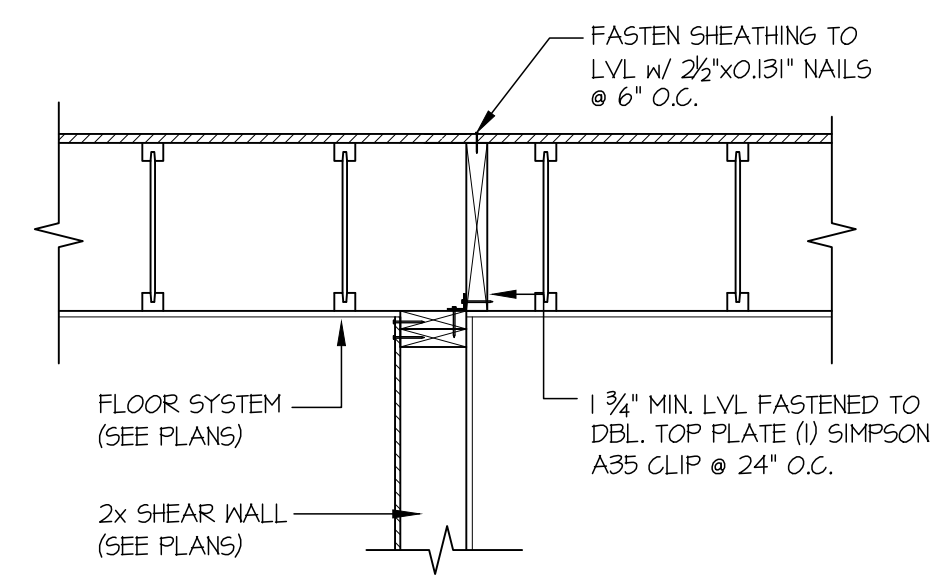
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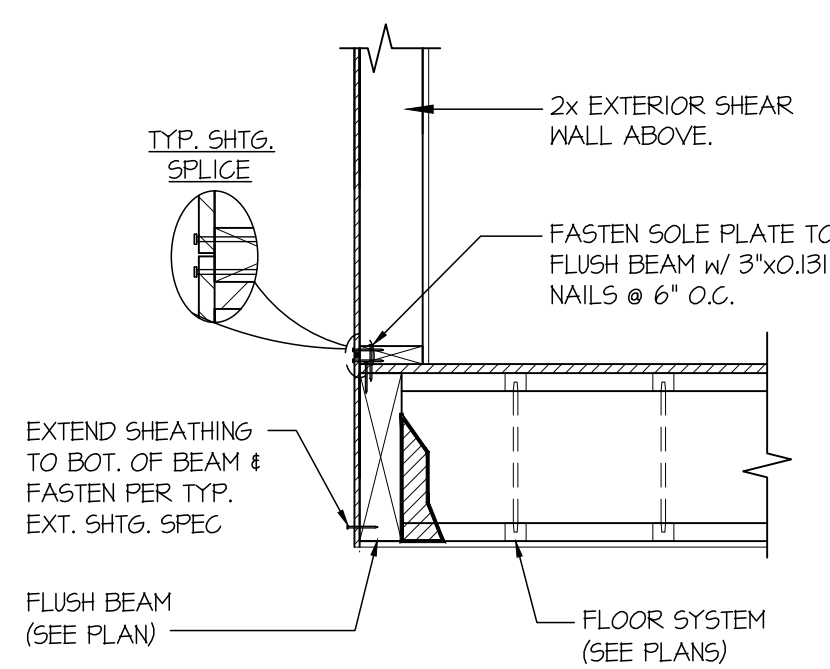
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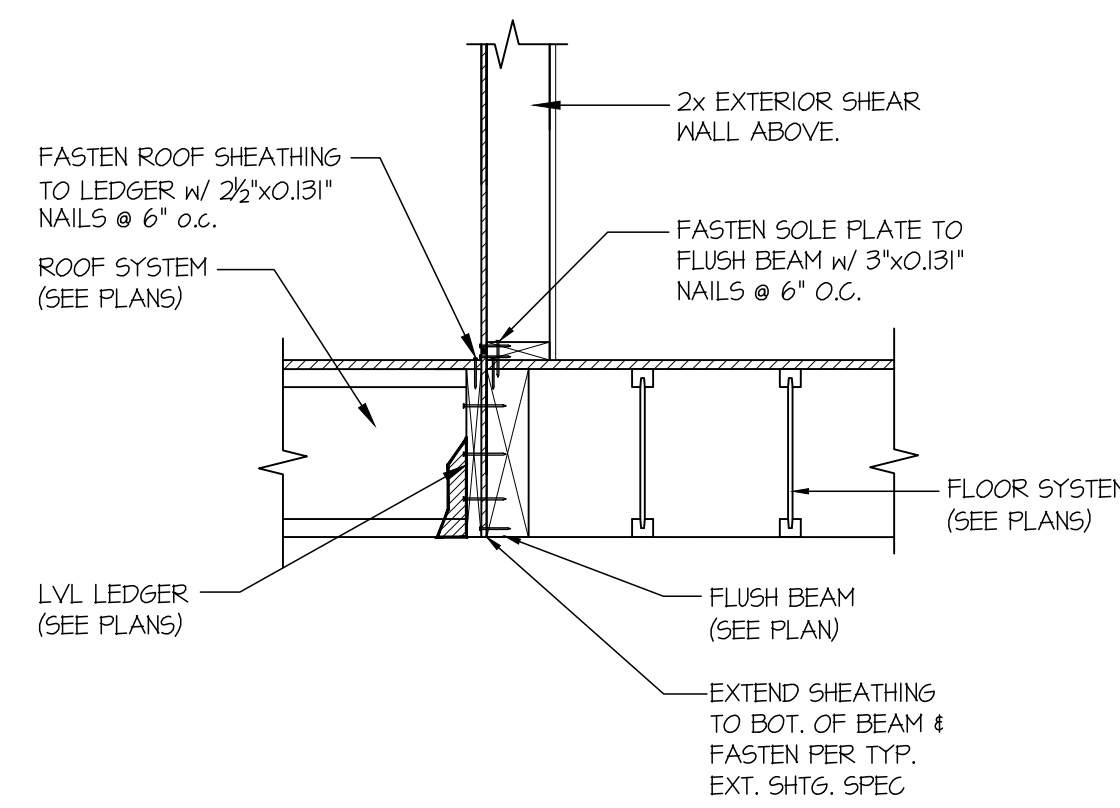
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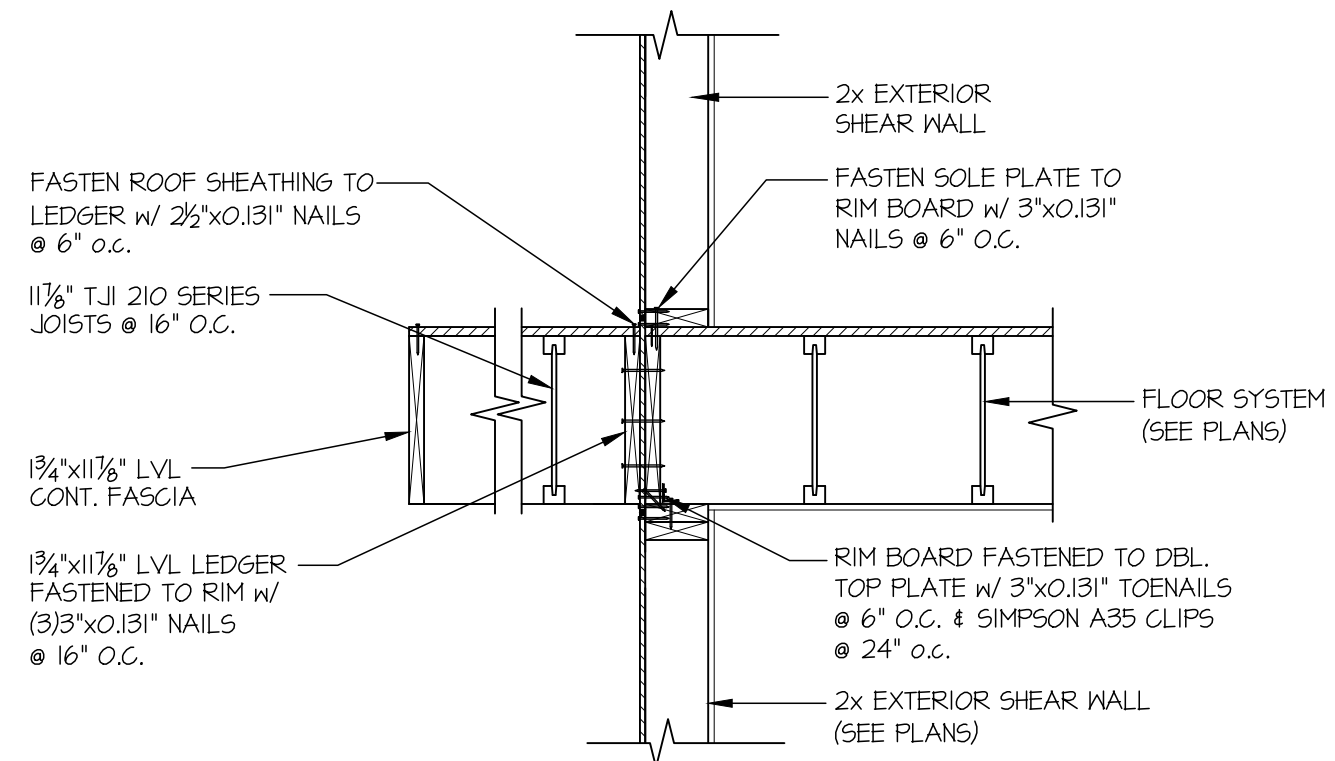
30 SECTION  
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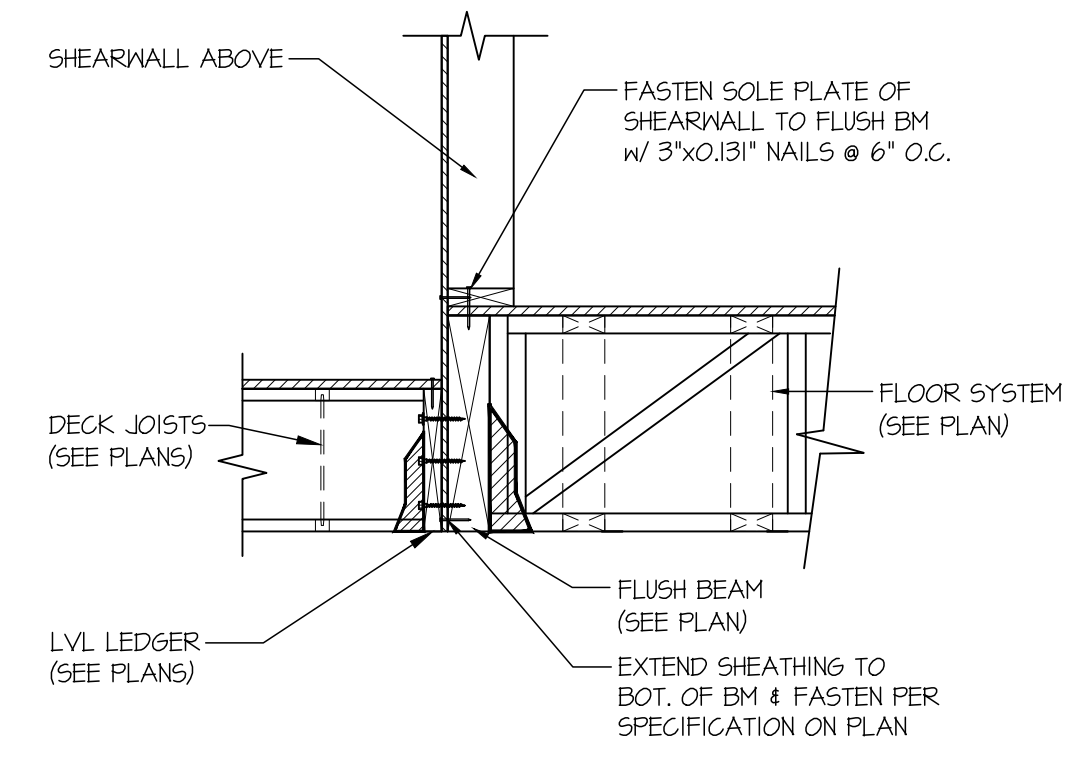
31 SECTION  
SCALE: 3/4"=1'-0"



32 SECTION  
SCALE: 3/4"=1'-0"



33 SECTION  
SCALE: 3/4"=1'-0"



34 SECTION  
SCALE: 3/4"=1'-0"



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M&K project number:  
306-25001  
project mgr: NJM  
drawn by: BFD  
issue date: 03-27-25

REVISIONS:	
date:	initial:
01/30/25	BFD
ARCH REVISIONS + PLAN REVIEW	
04/30/25	BFD
PLAN REVIEW	
12/16/25	BFD
PLAN REVIEW	

MACPHERSON  
CONSTRUCTION

STRUCTURAL DETAILS  
5320 BUTTERWORTH RD  
NORTH LOT  
MERCER ISLAND, WASHINGTON



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M&K project number:  
**306-25001**

project mgr: **NJM**  
drawn by: **BFD**  
issue date: **03-27-25**

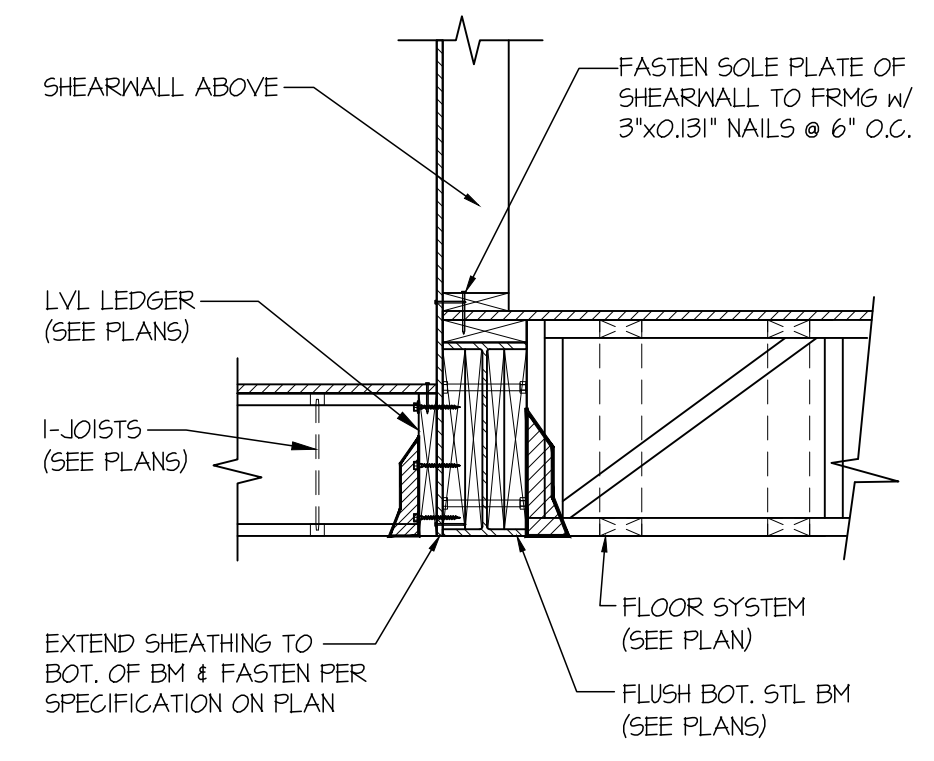
REVISIONS:

date:	initial:
01/30/25	BFD
ARCH REVISIONS + PLAN REVIEW	
04/30/25	BFD
PLAN REVIEW	
12/16/25	BFD
PLAN REVIEW	

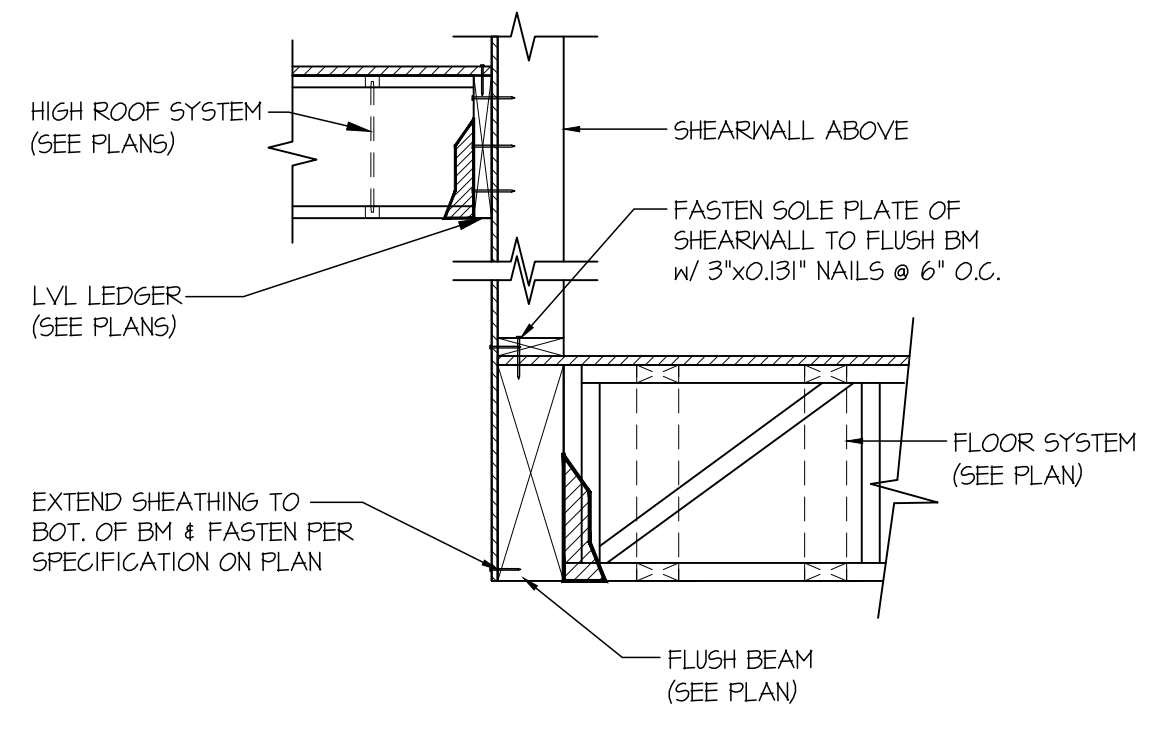
**MACPHERSON  
CONSTRUCTION**

**STRUCTURAL DETAILS**  
**5320 BUTTERWORTH RD**  
**NORTH LOT**  
**MERCER ISLAND, WASHINGTON**

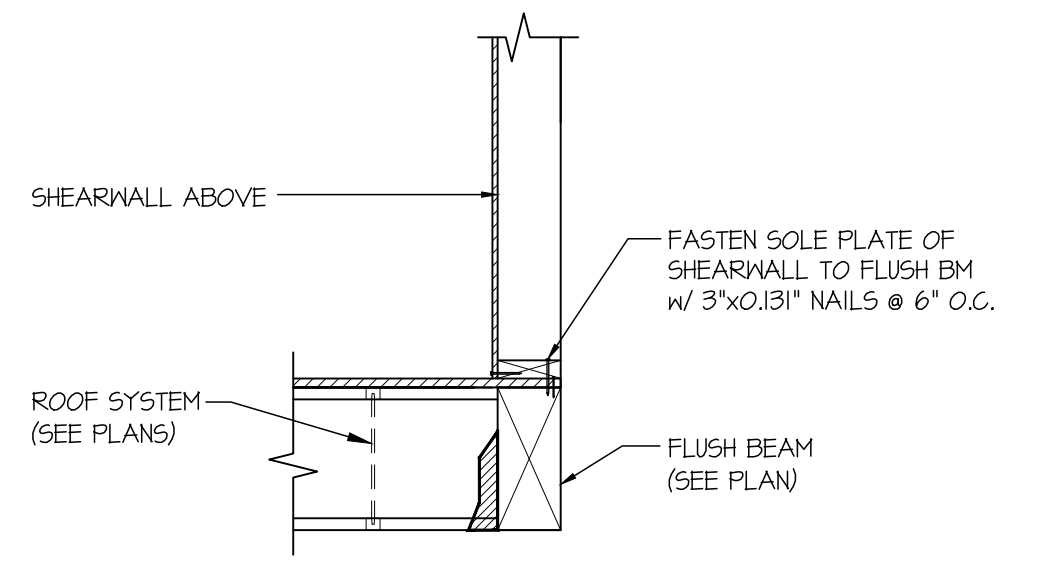
sheet:  
**SD-3**



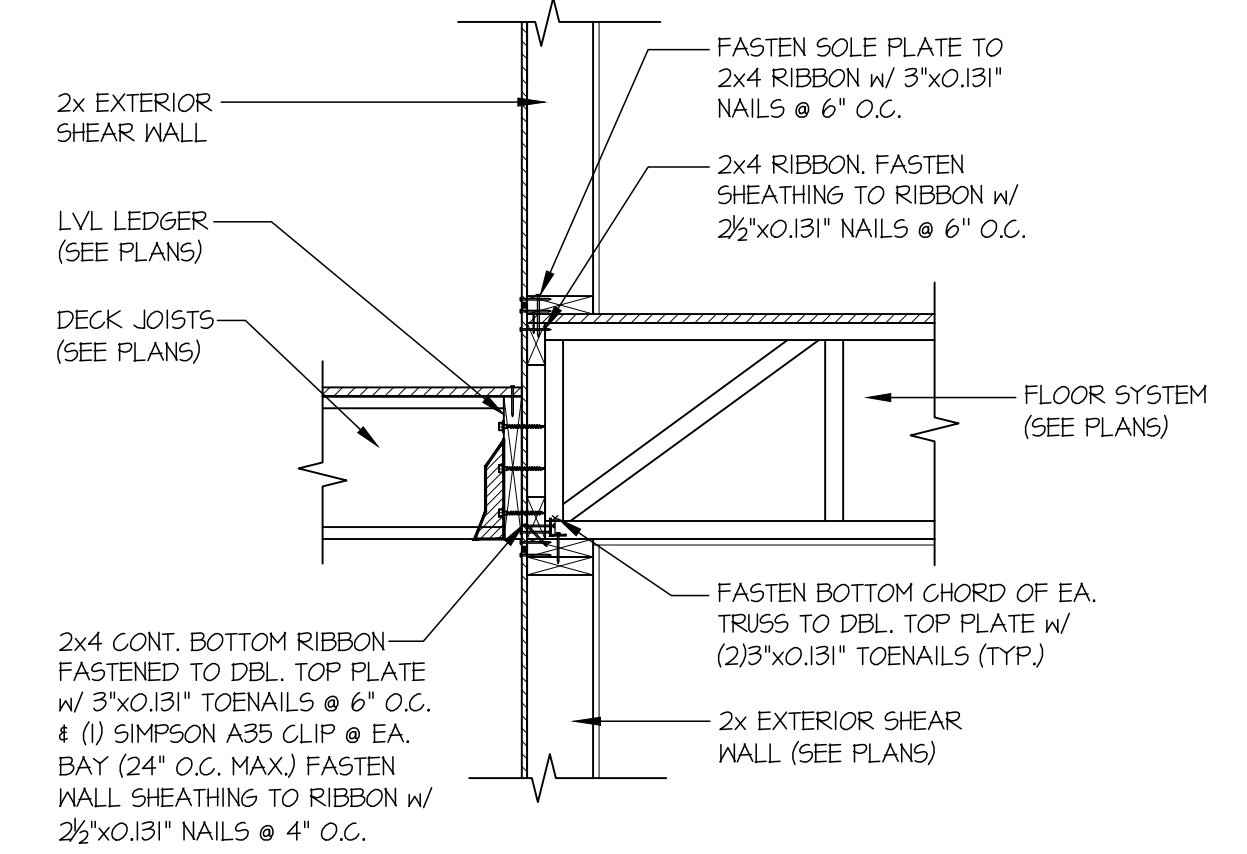
**35 SECTION**  
SCALE: 3/4"=1'-0"



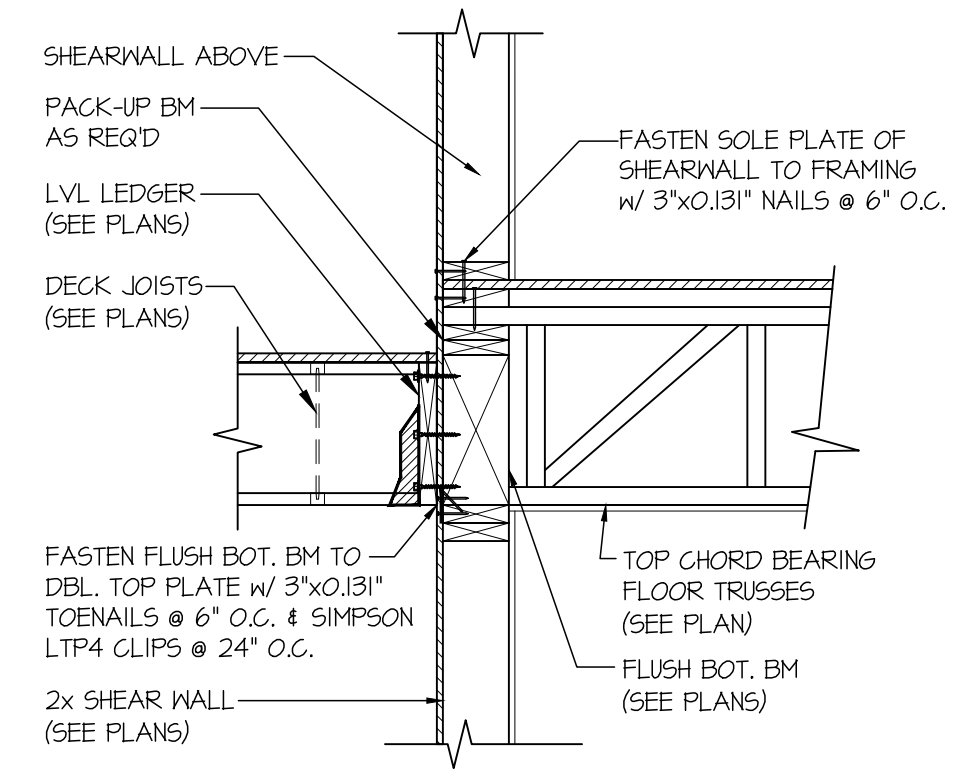
**36 SECTION**  
SCALE: 3/4"=1'-0"



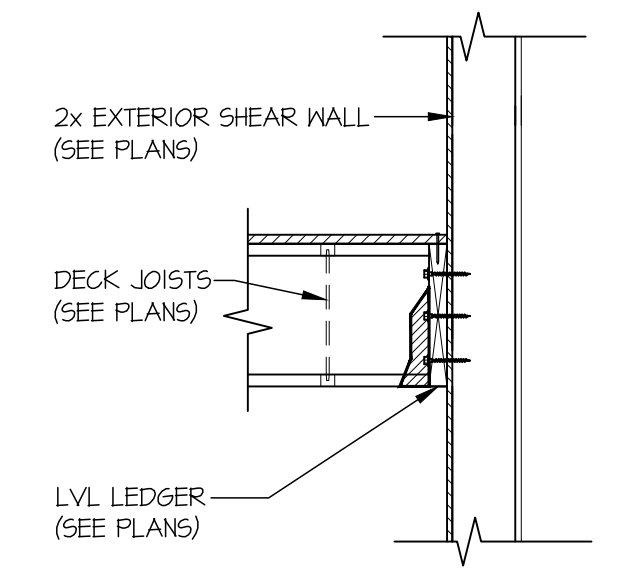
**37 SECTION**  
SCALE: 3/4"=1'-0"



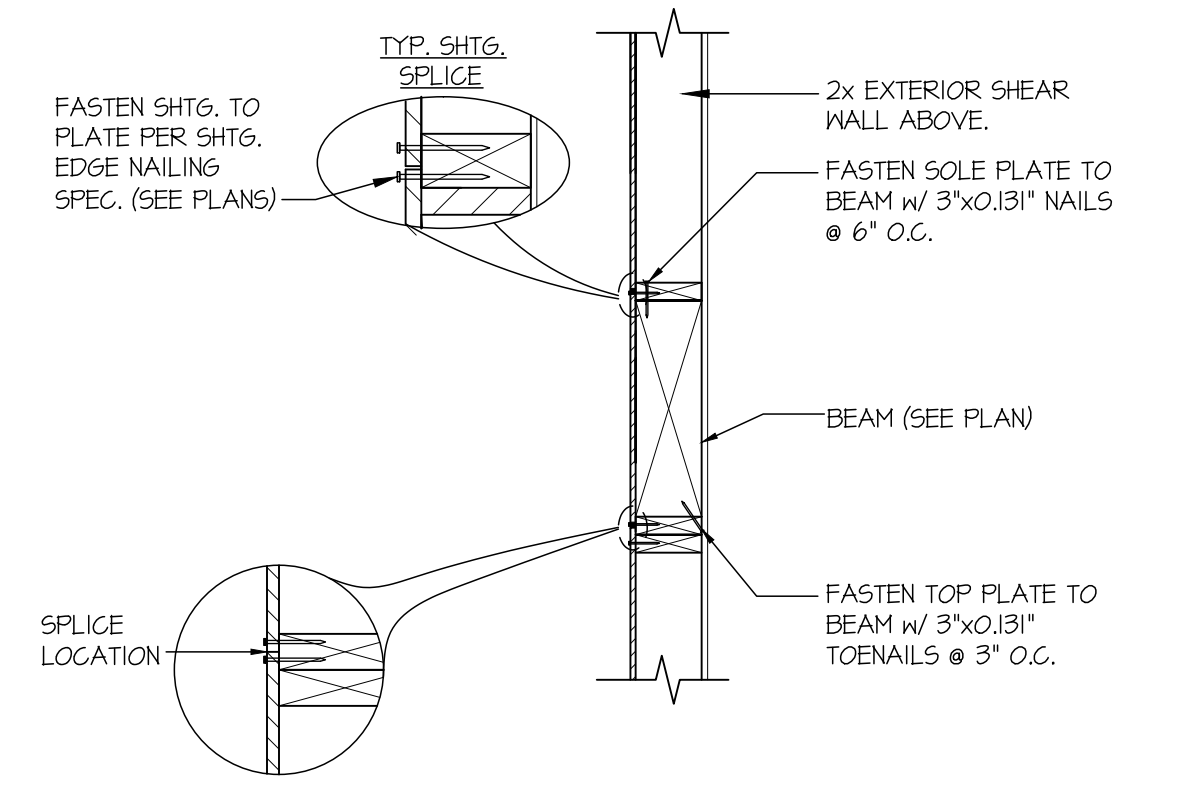
**38 SECTION**  
SCALE: 3/4"=1'-0"



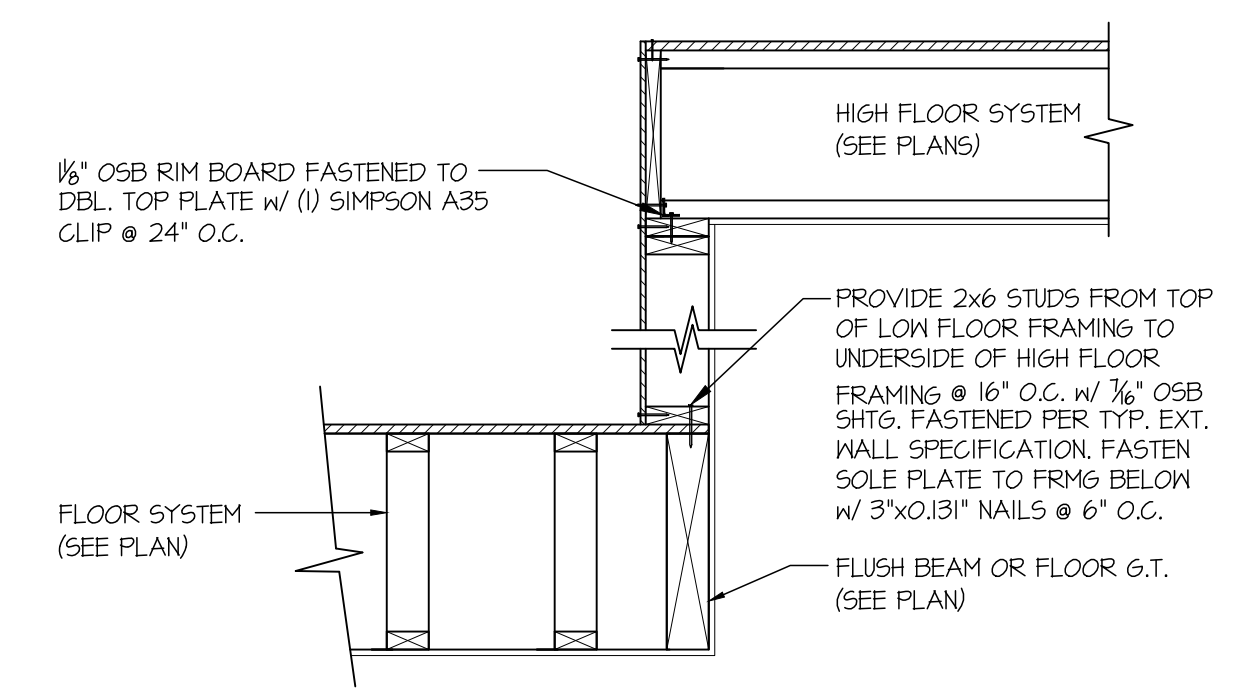
**39 SECTION**  
SCALE: 3/4"=1'-0"



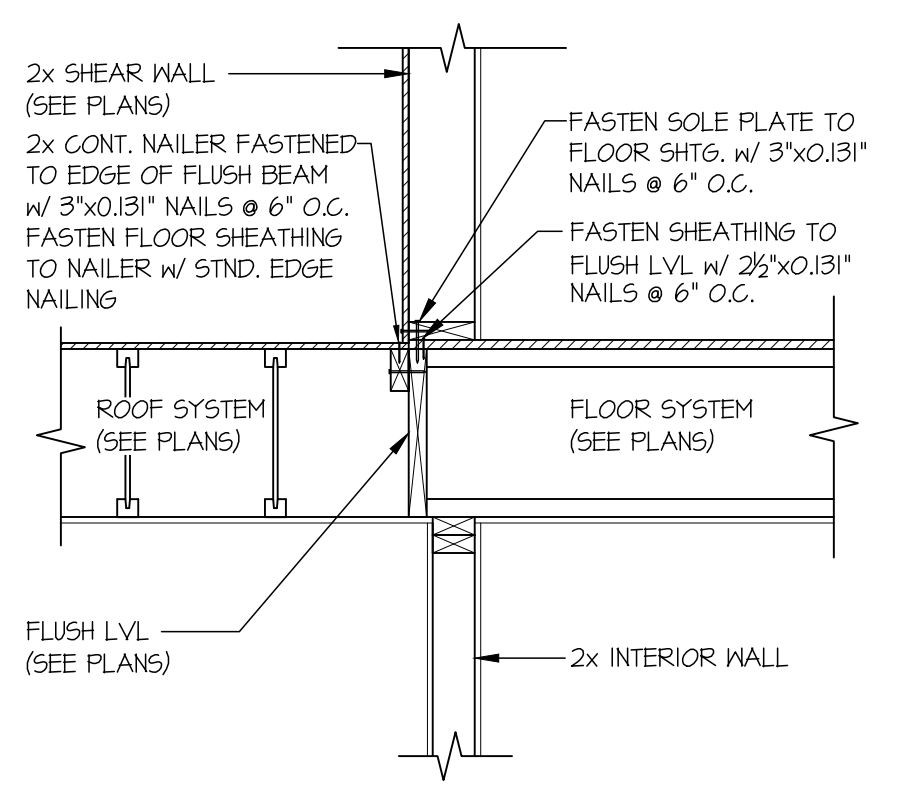
**40 SECTION**  
SCALE: 3/4"=1'-0"



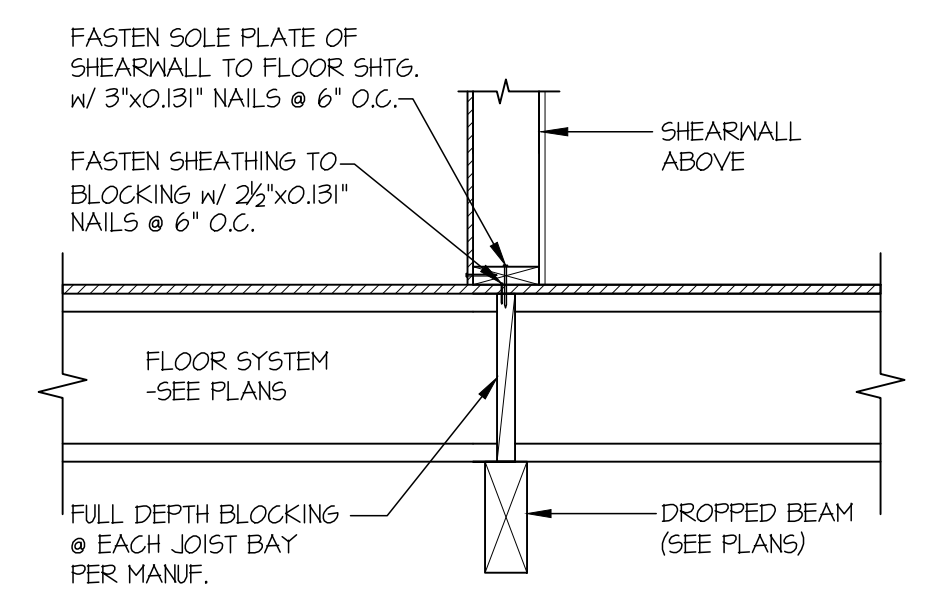
**41 SECTION**  
SCALE: 3/4"=1'-0"



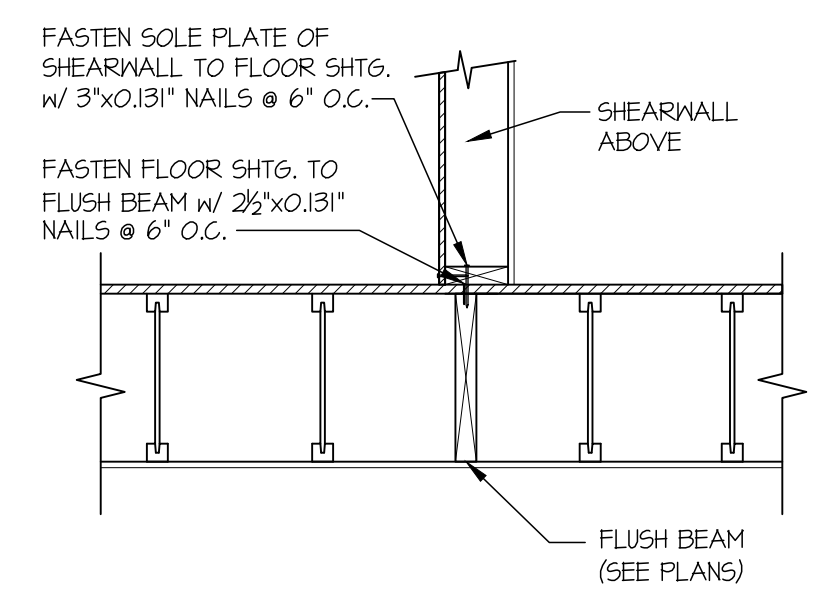
**50 SECTION**  
SCALE: 3/4"=1'-0"



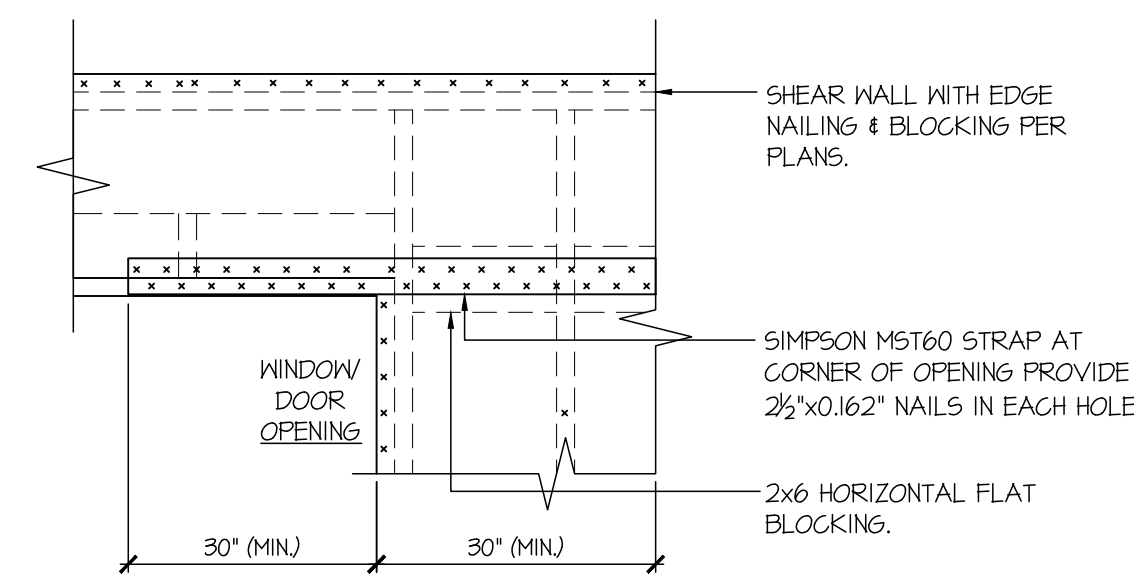
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**70 SECTION**  
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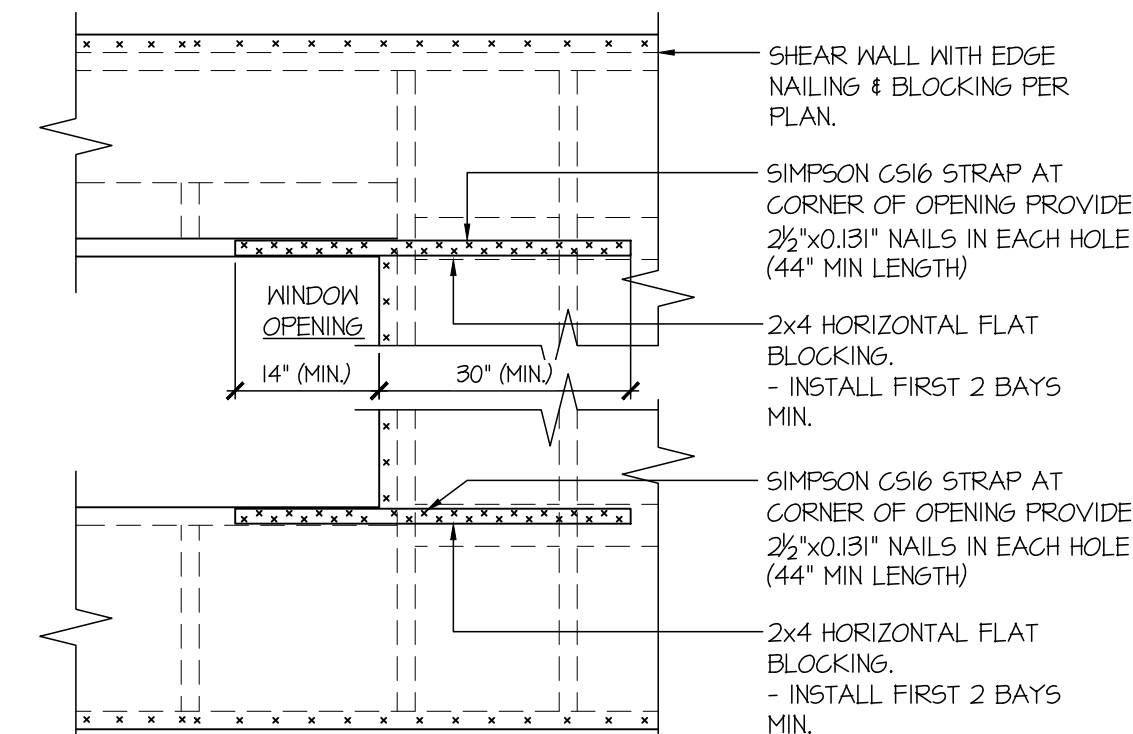


**71 SECTION**  
SCALE: 3/4"=1'-0"



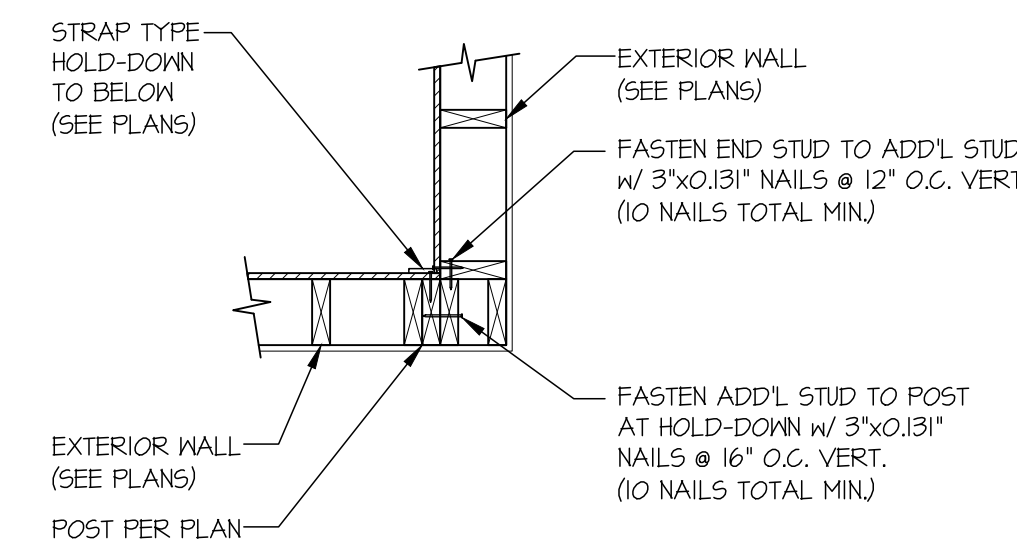
- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS

92 SECTION  
SCALE: 3/4"=1'-0"

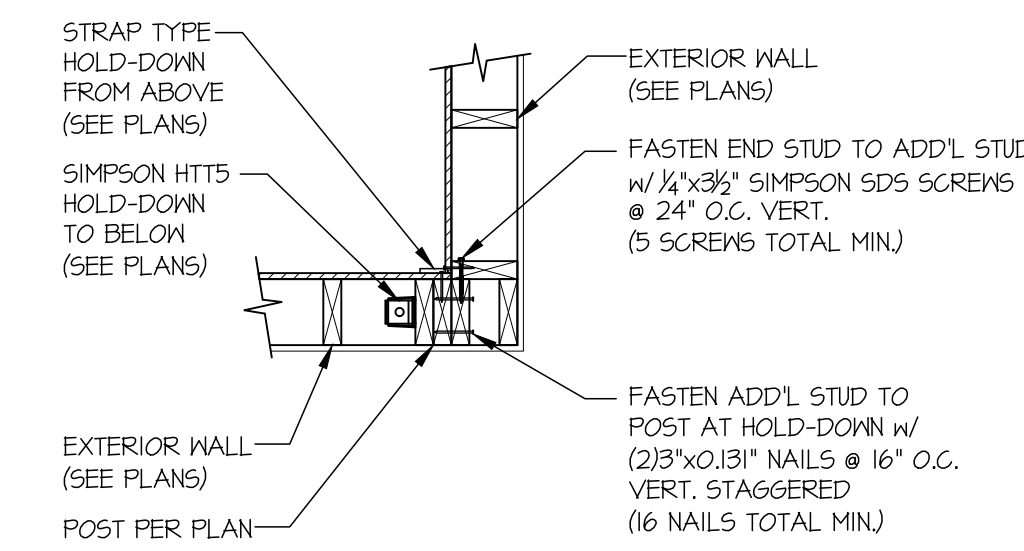


- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS
- IF MIN LENGTH IS NOT PROVIDED RUN STRAP TO END OF WALL

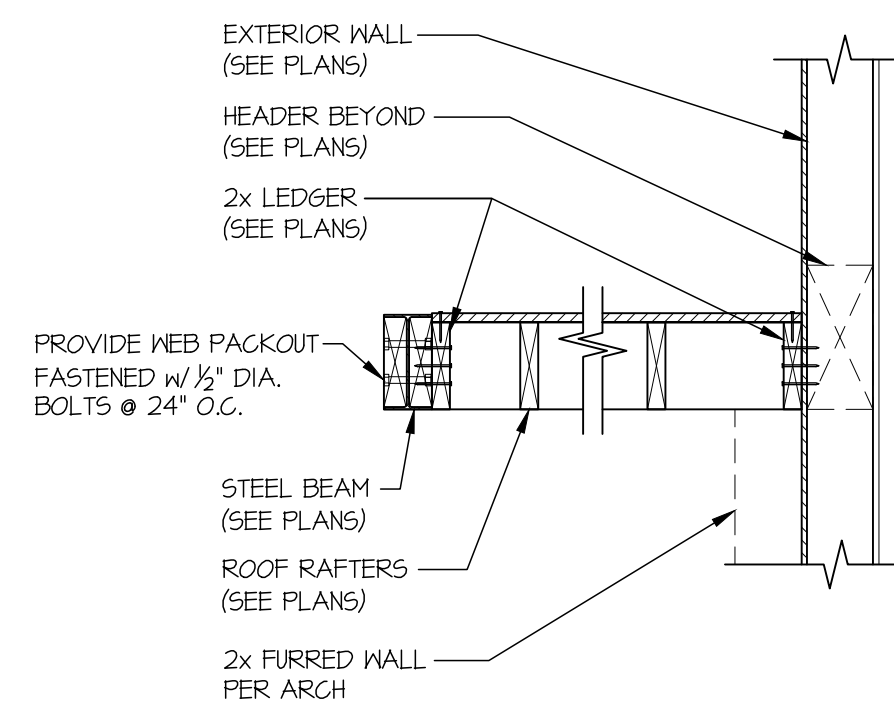
94 SECTION  
SCALE: 3/4"=1'-0"



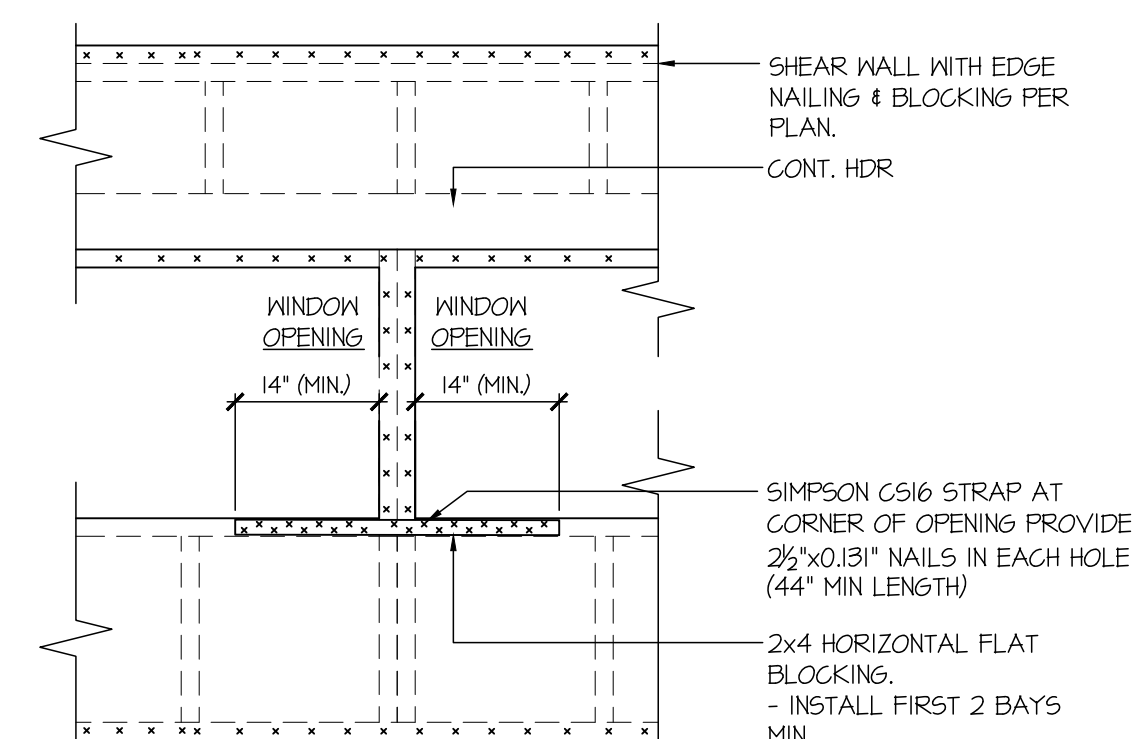
95 SECTION  
SCALE: 3/4"=1'-0"



96 SECTION  
SCALE: 3/4"=1'-0"

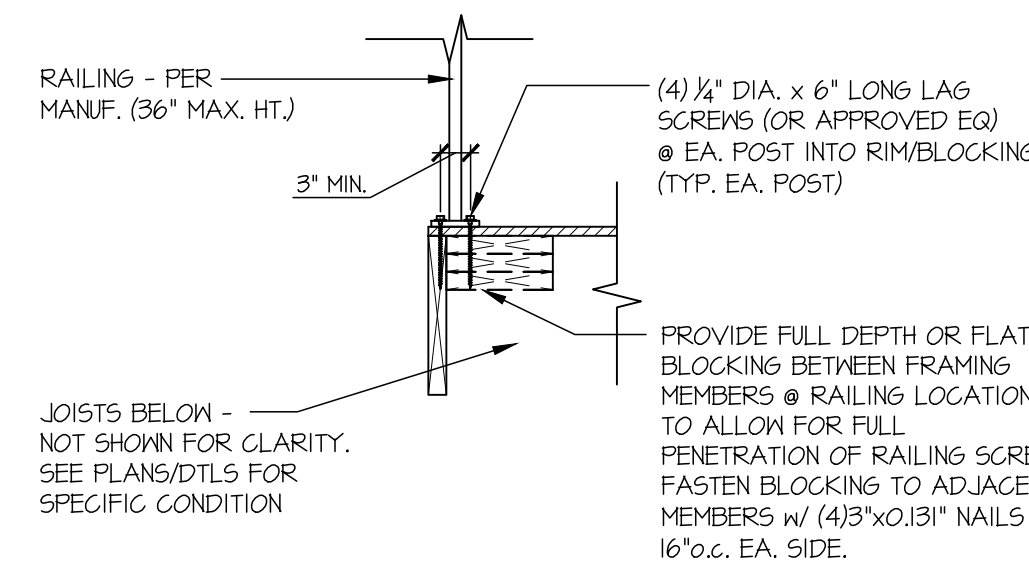


98 SECTION  
SCALE: 3/4"=1'-0"

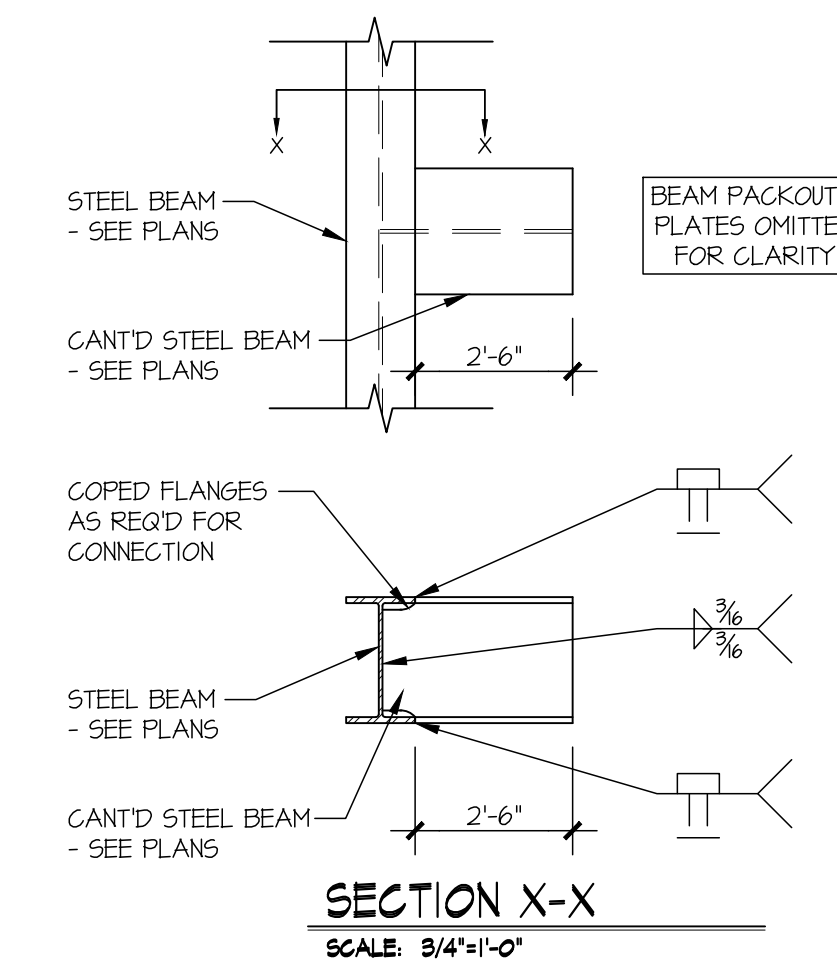


- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS
- IF MIN LENGTH IS NOT PROVIDED RUN STRAP TO END OF WALL

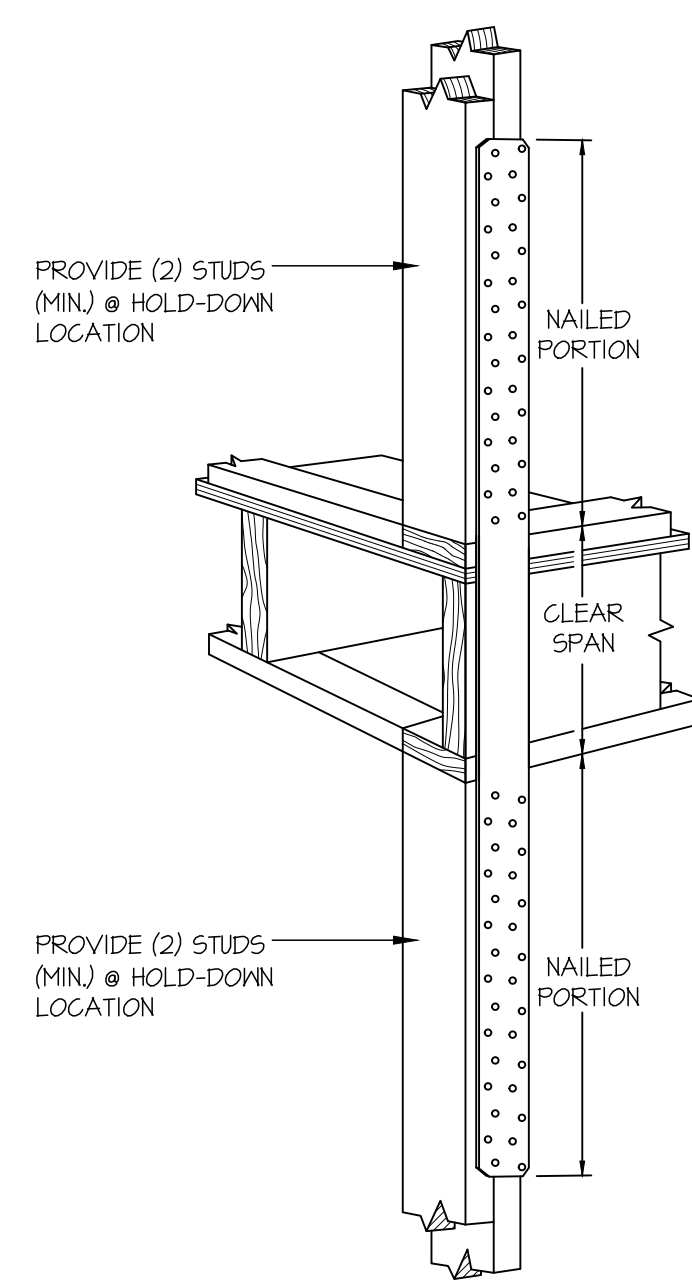
94 SECTION  
SCALE: 3/4"=1'-0"



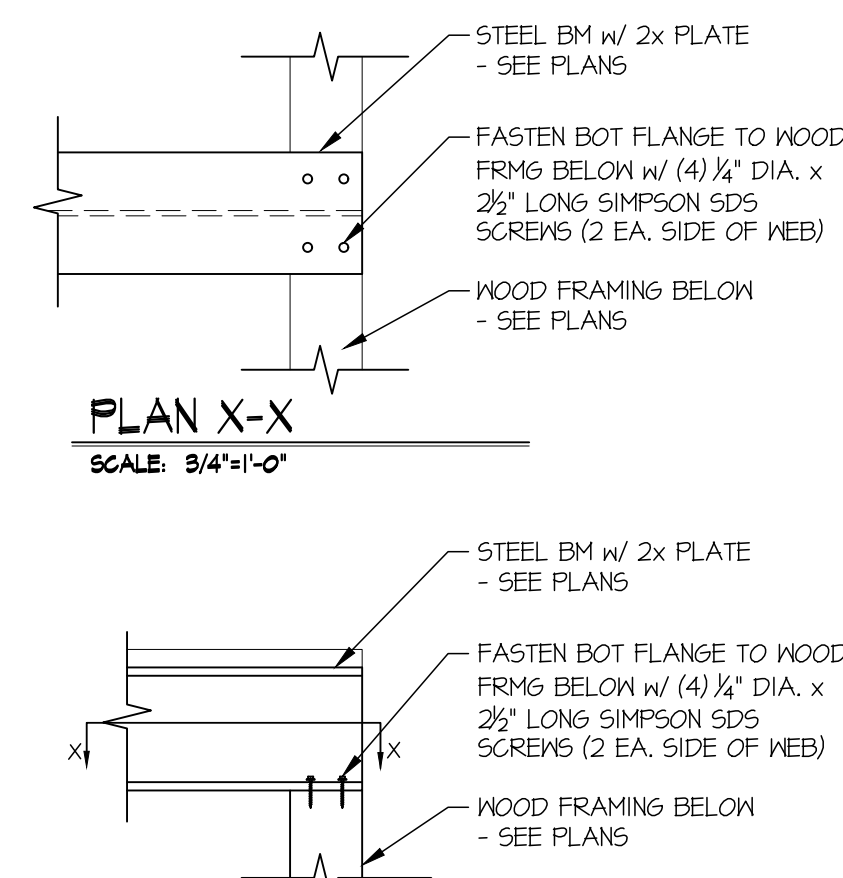
A TYP. RAILING CONNECTION  
SCALE: 3/4"=1'-0" WOOD FRMg BELOW



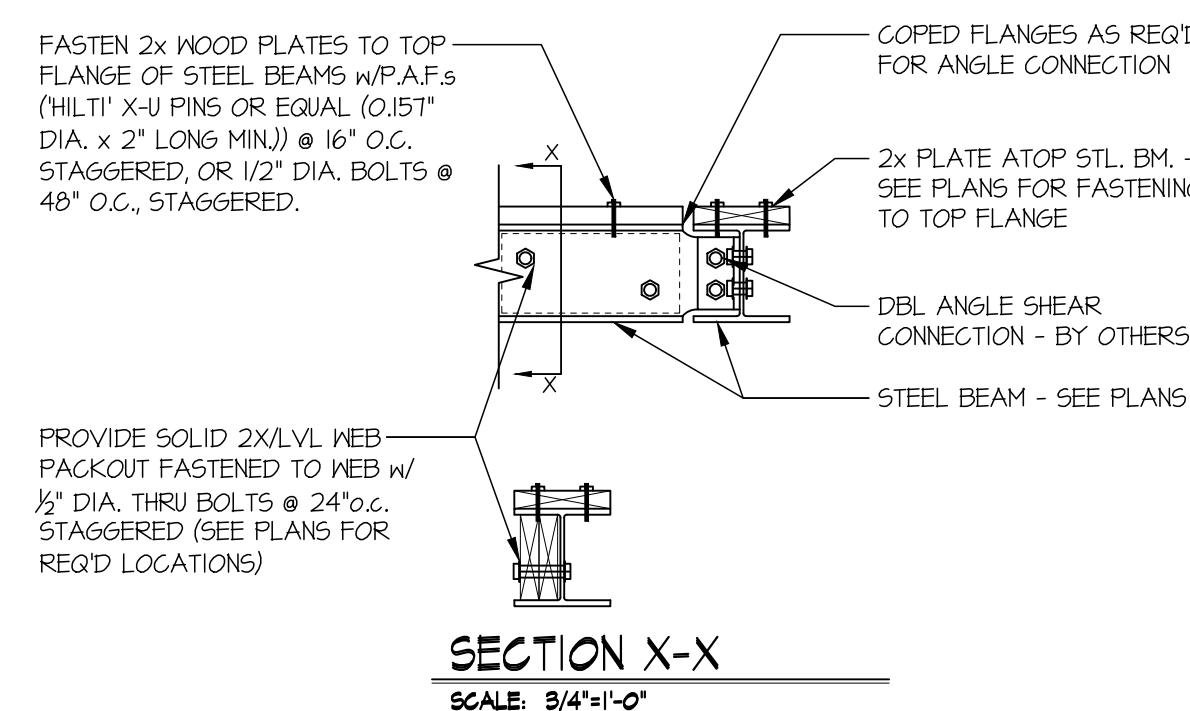
B SECTION  
SCALE: 3/4"=1'-0"



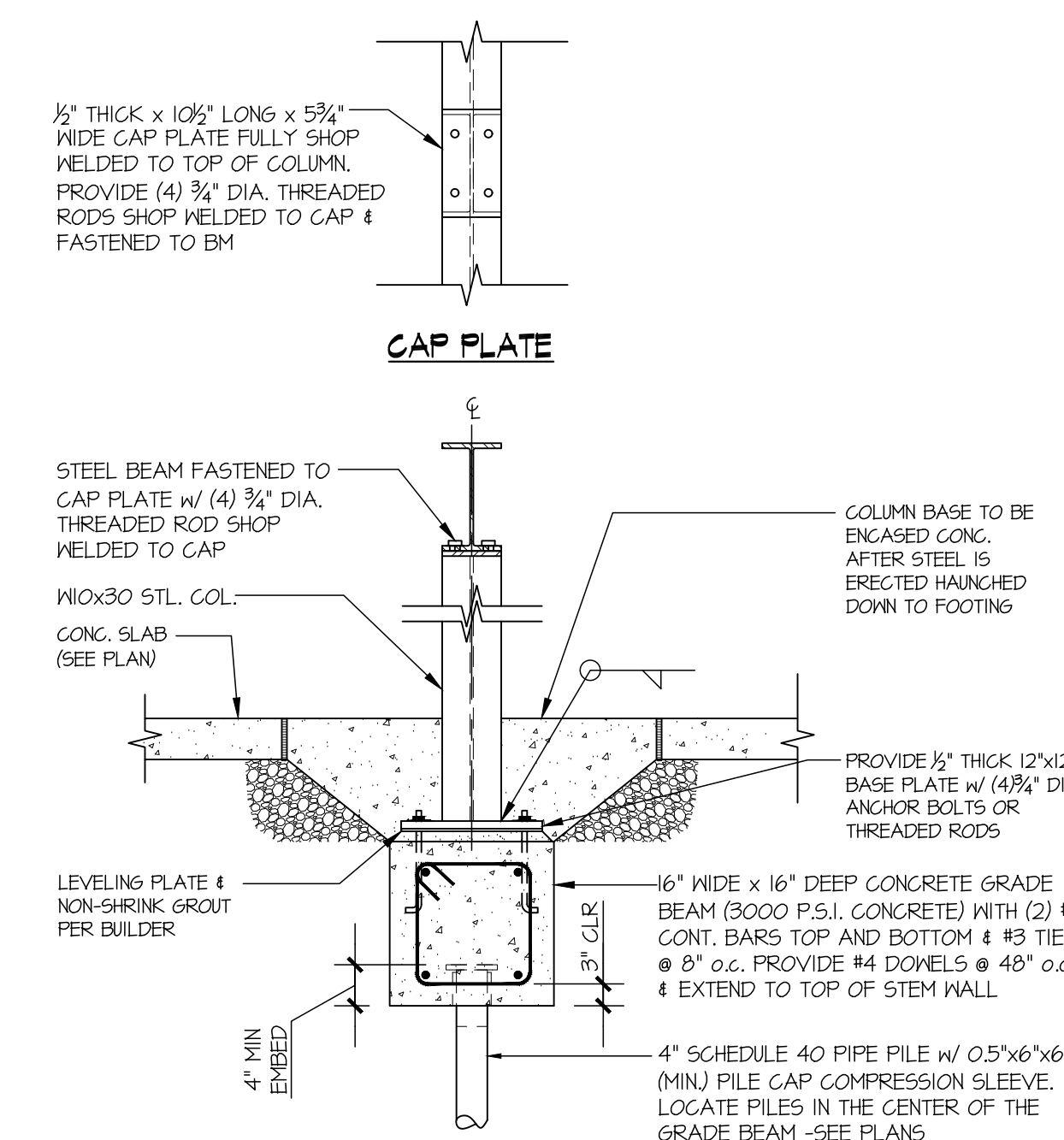
C TYPICAL HOLD-DOWN INSTALLATION  
NOT TO SCALE  
SIMPSON STRAP HD @ FLOOR FRAMING



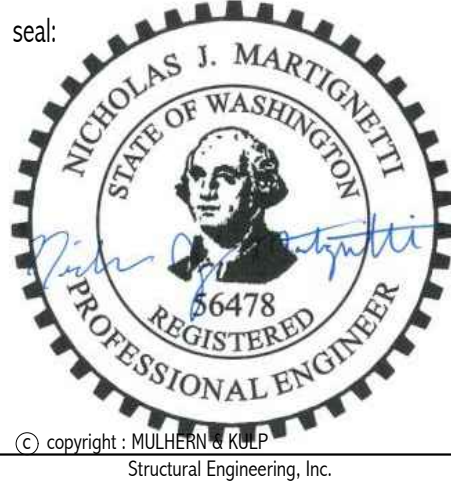
D STL BM TO WOOD FRMG CONNECTION  
SCALE: 3/4"=1'-0"



E DOUBLE ANGLE STEEL CONNECTION  
SCALE: 3/4"=1'-0"



F STL COL CONNECTION  
SCALE: 3/4"=1'-0"



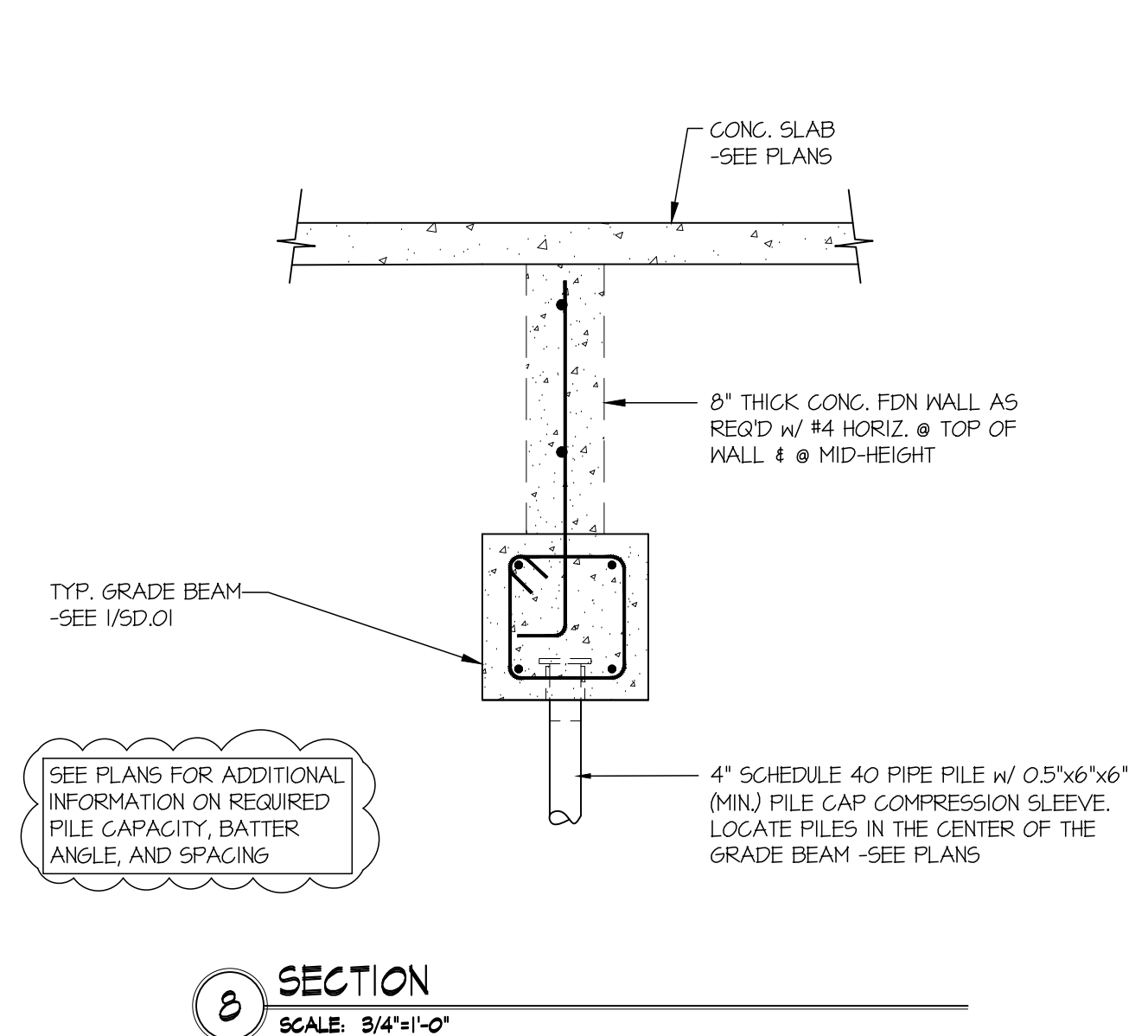
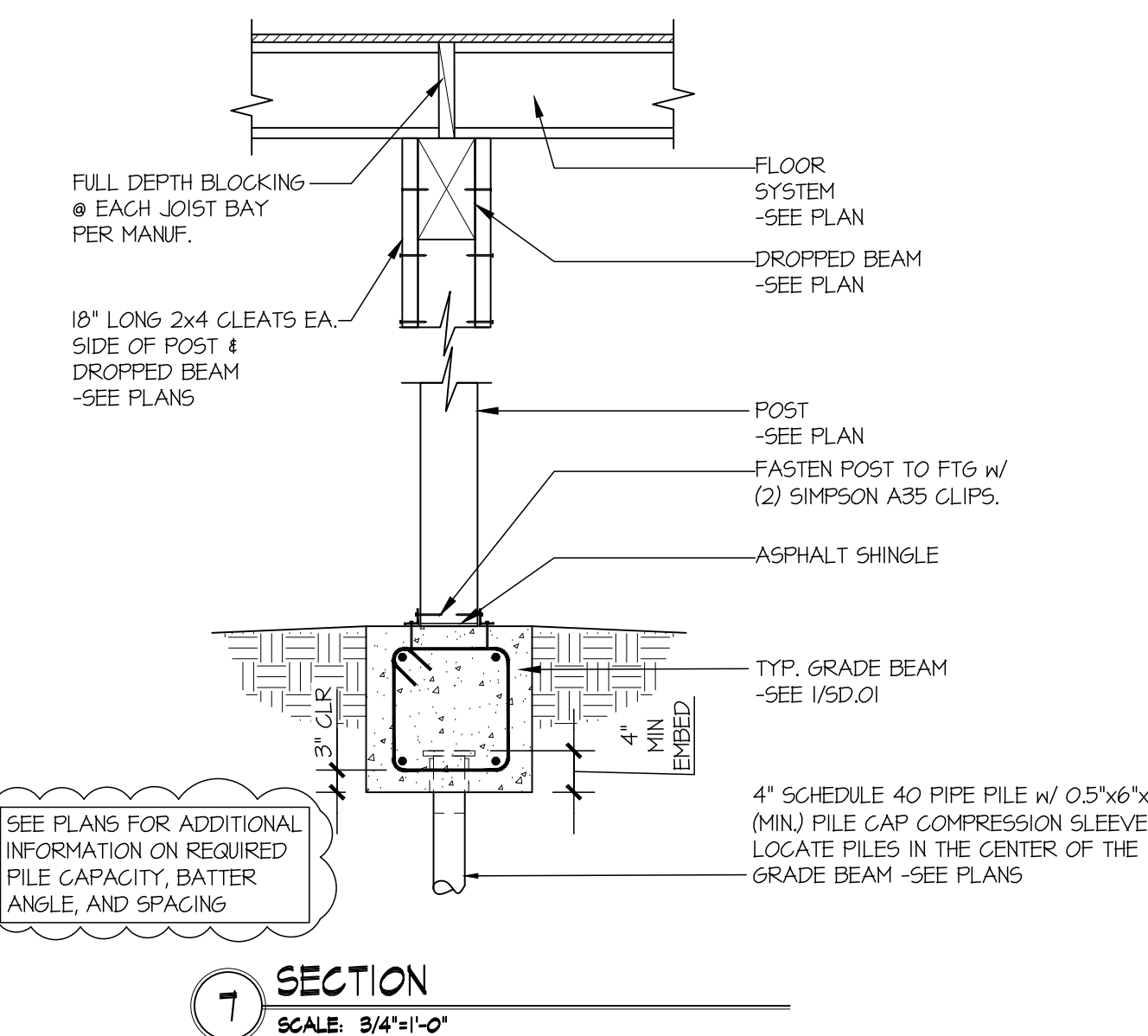
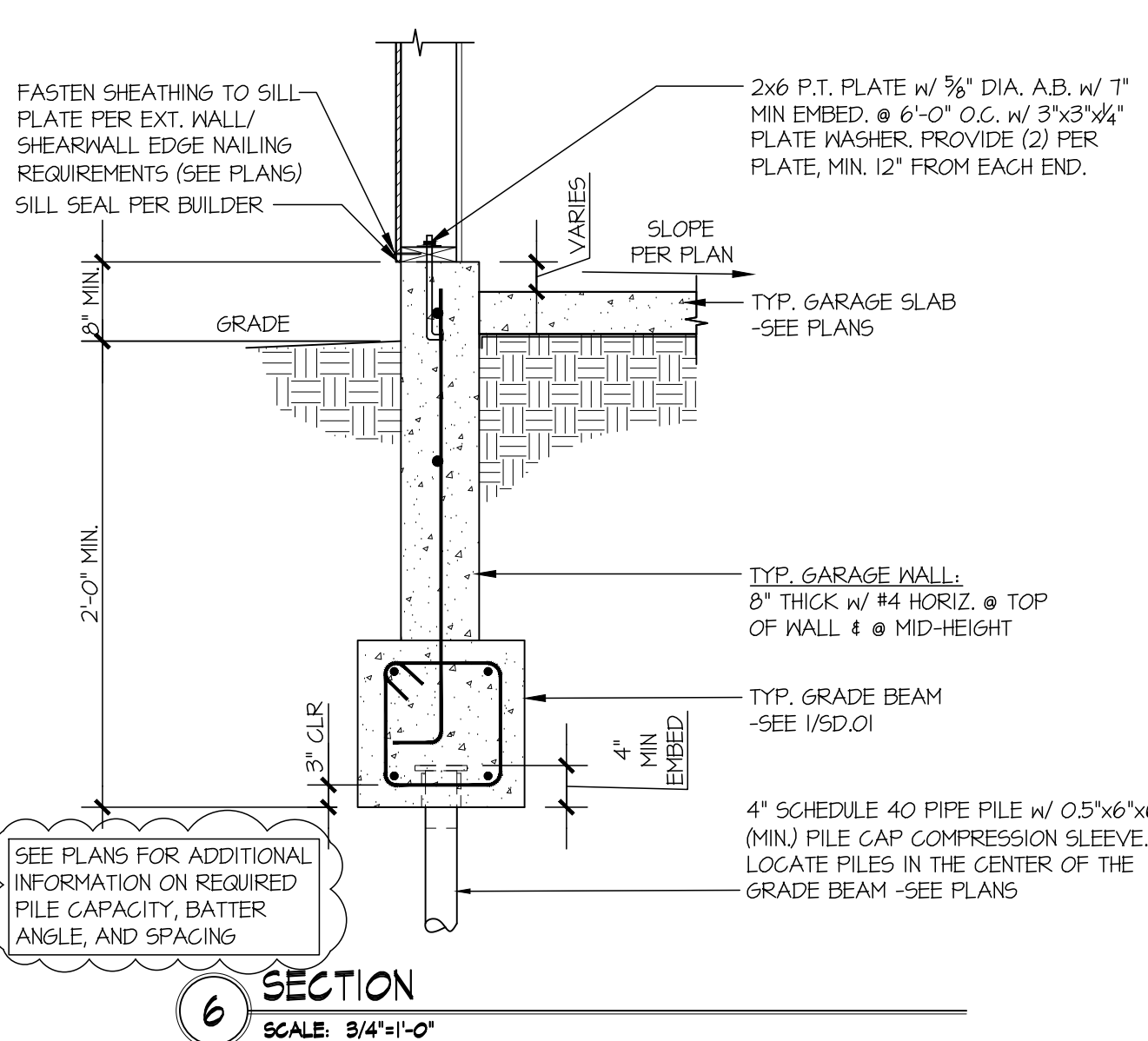
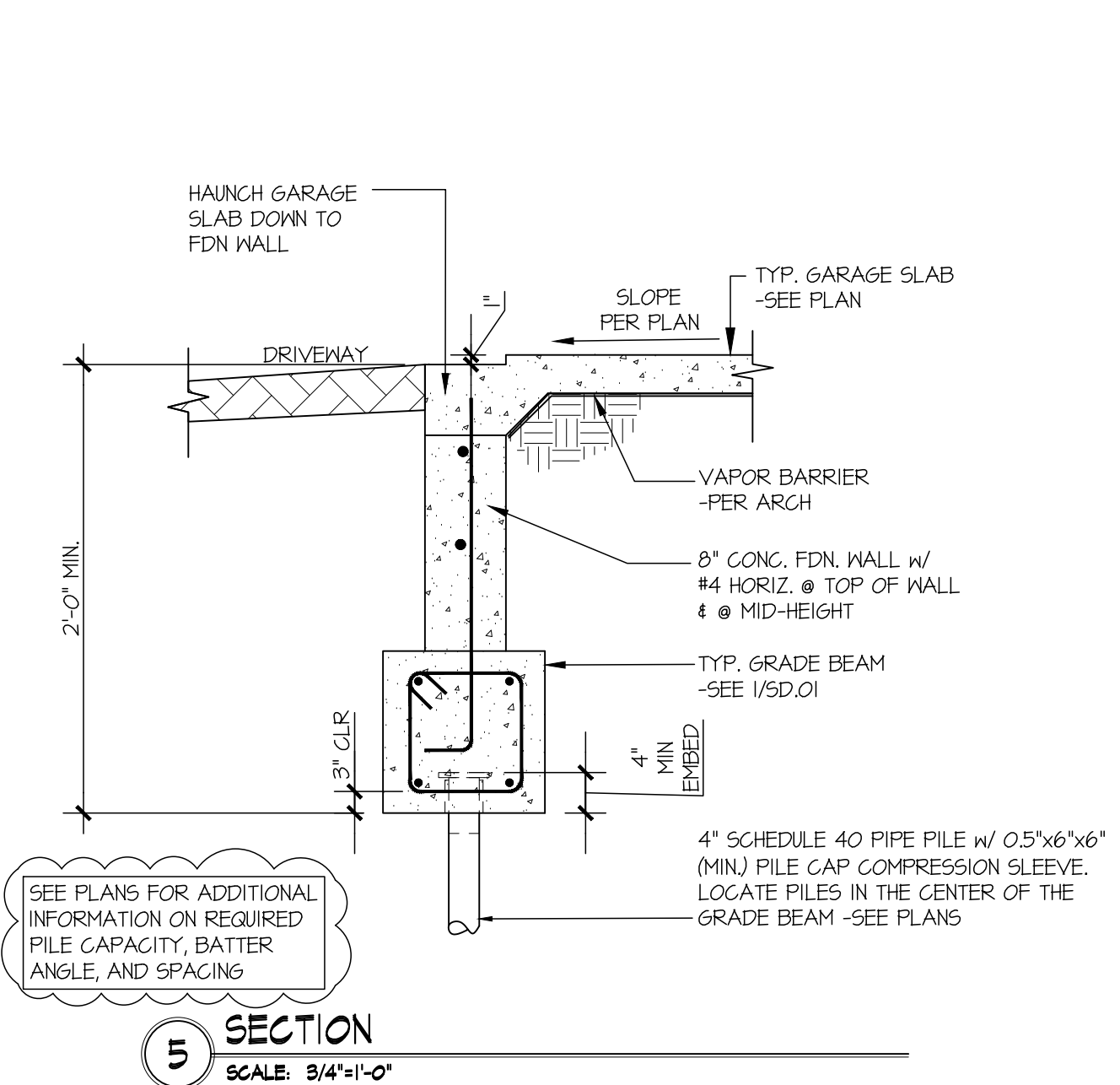
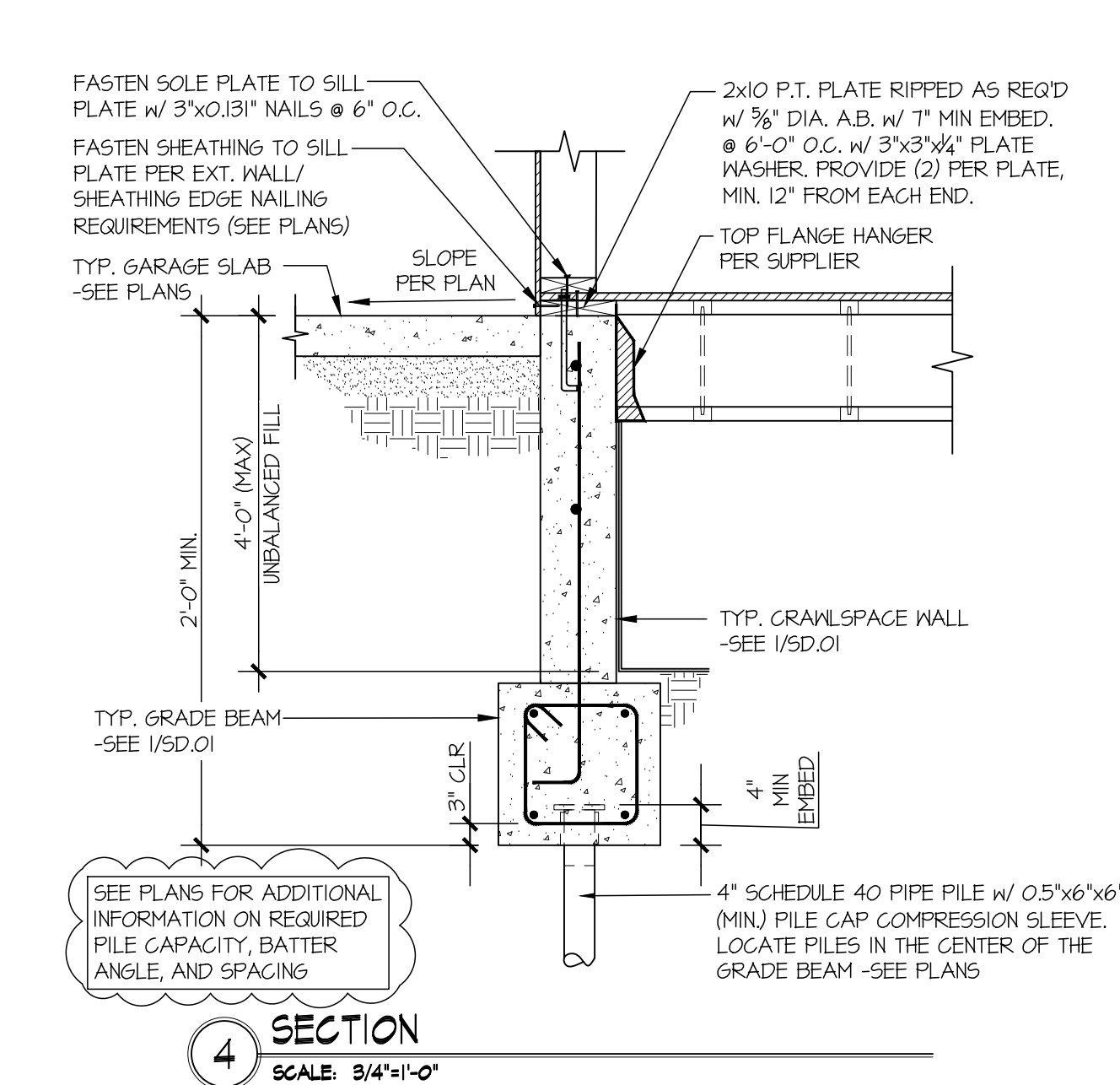
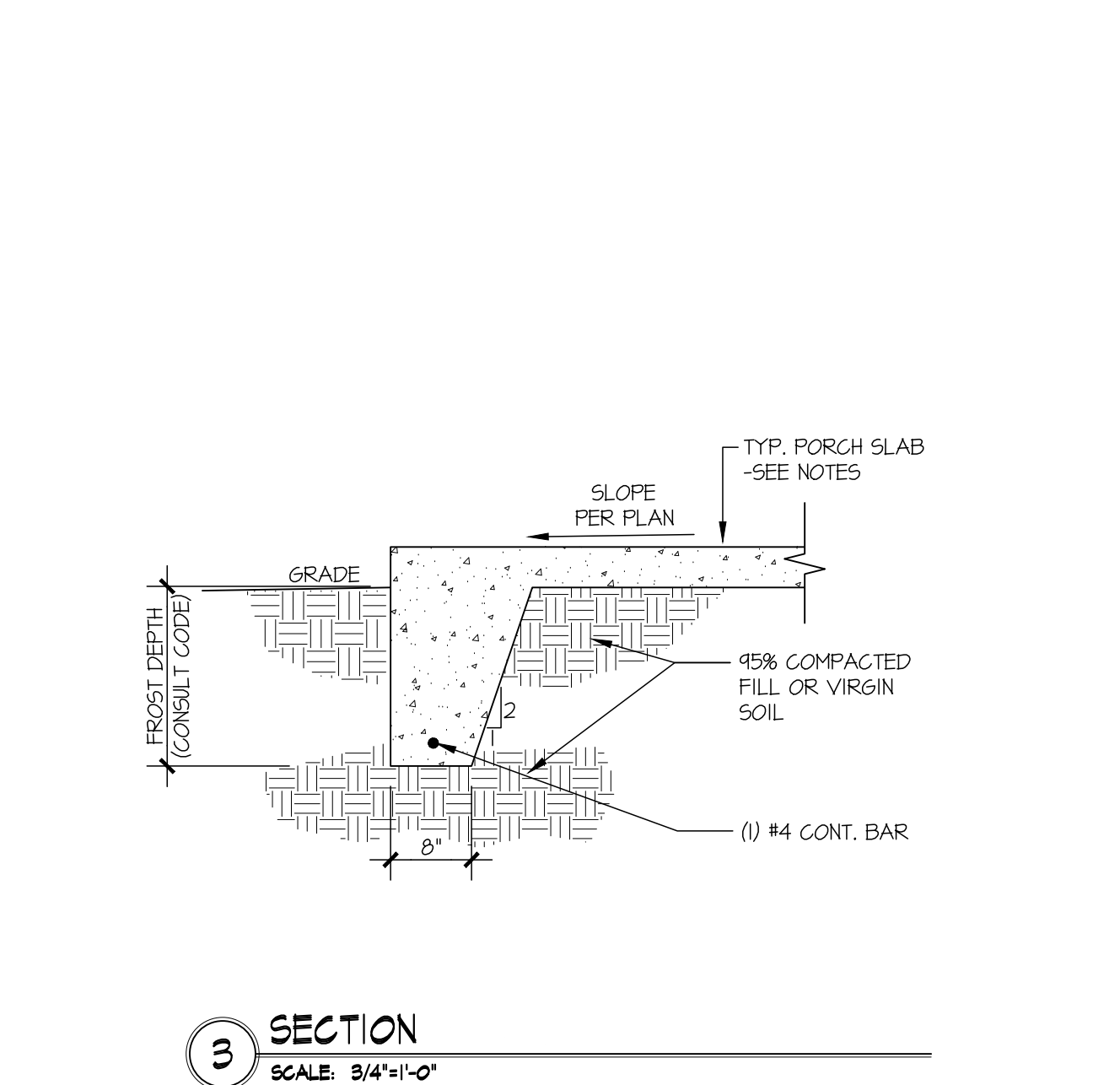
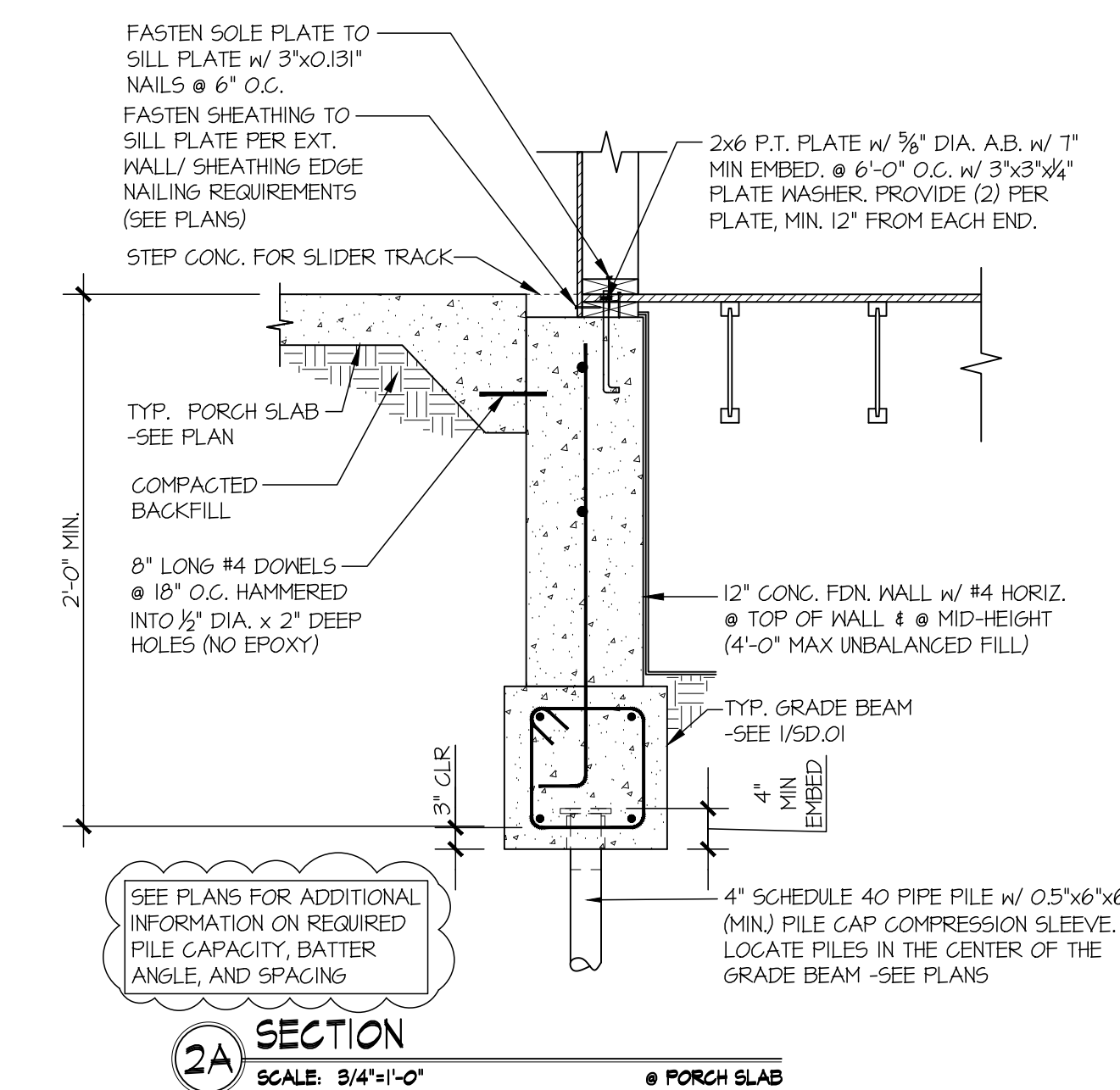
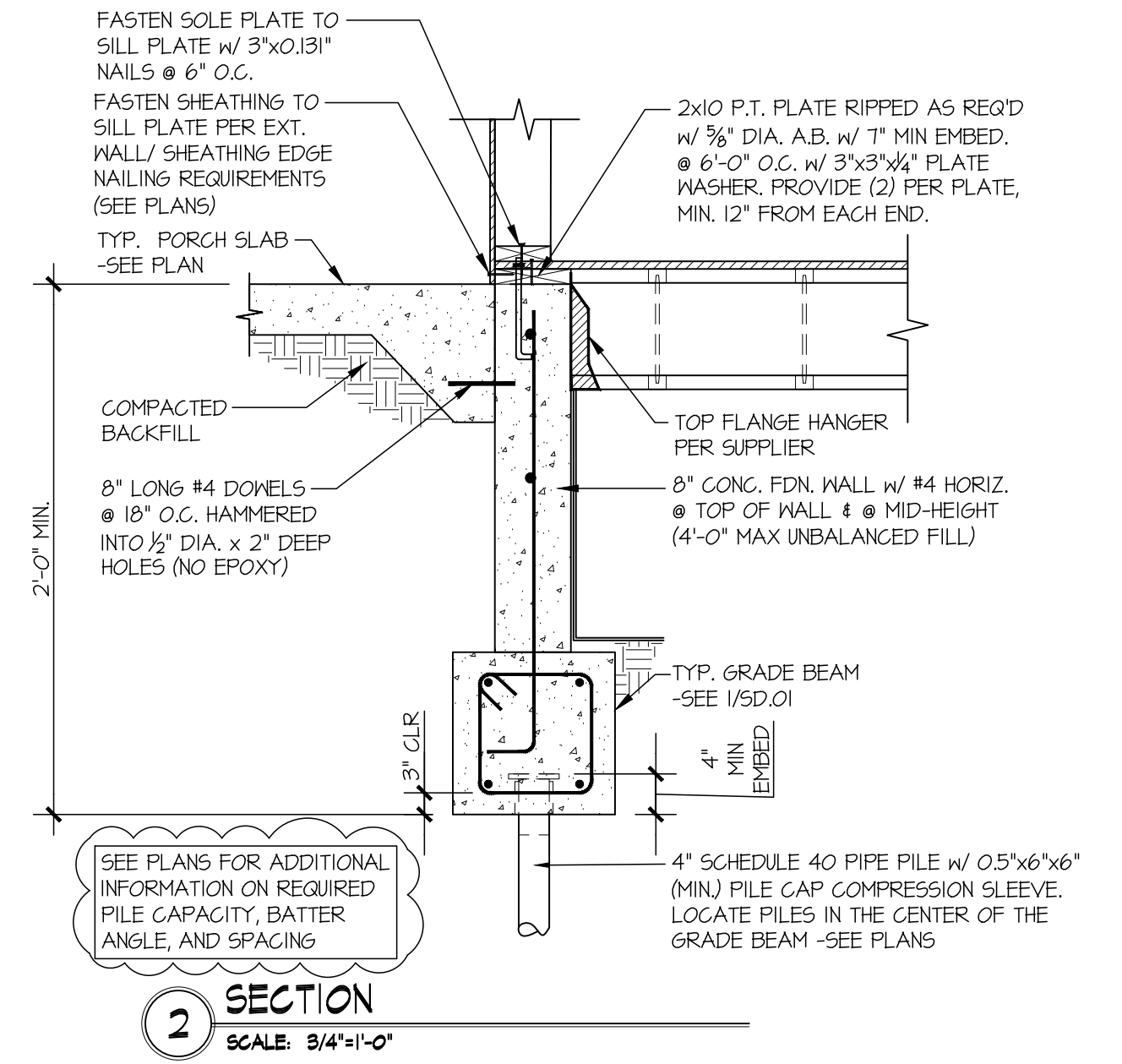
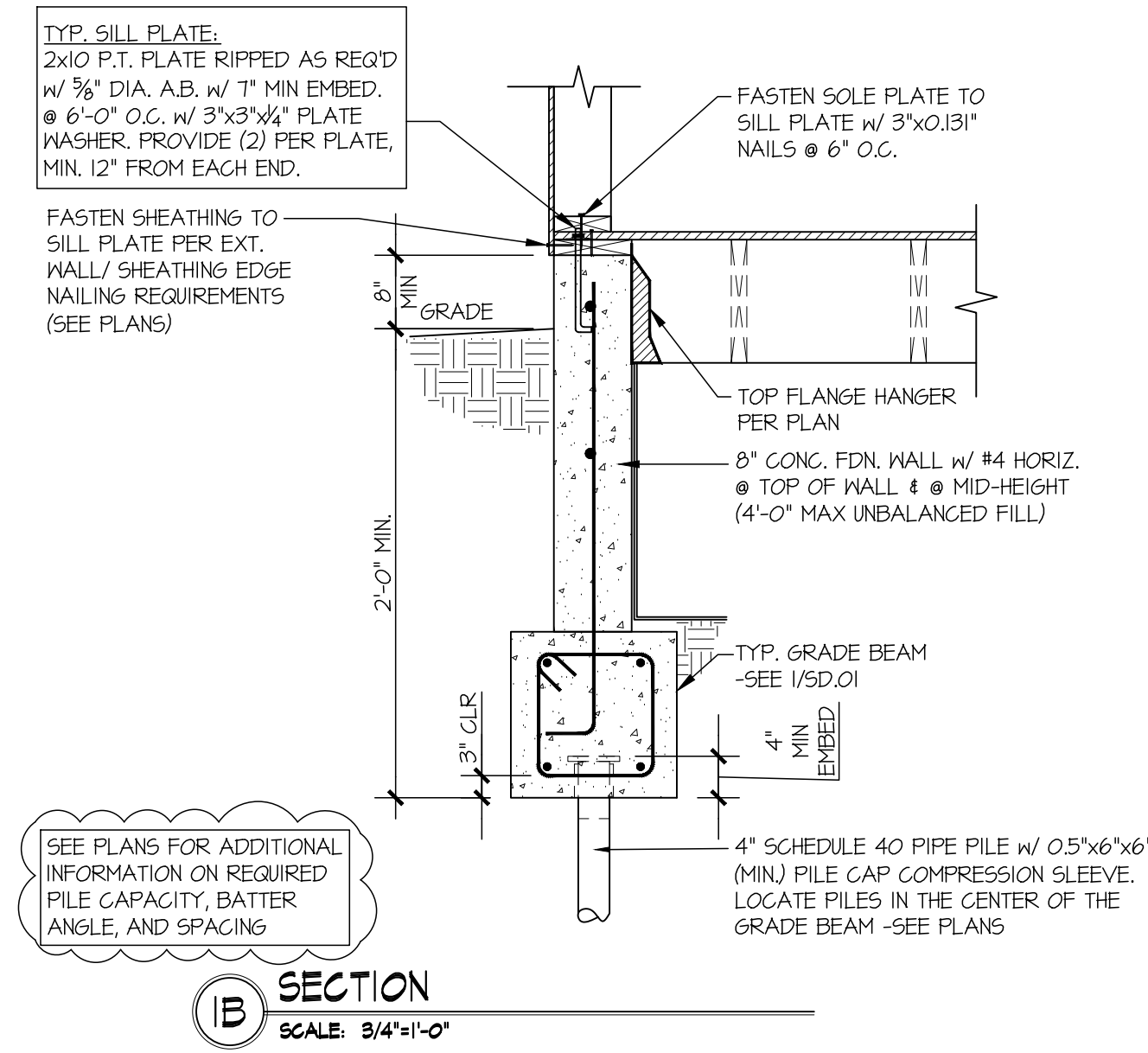
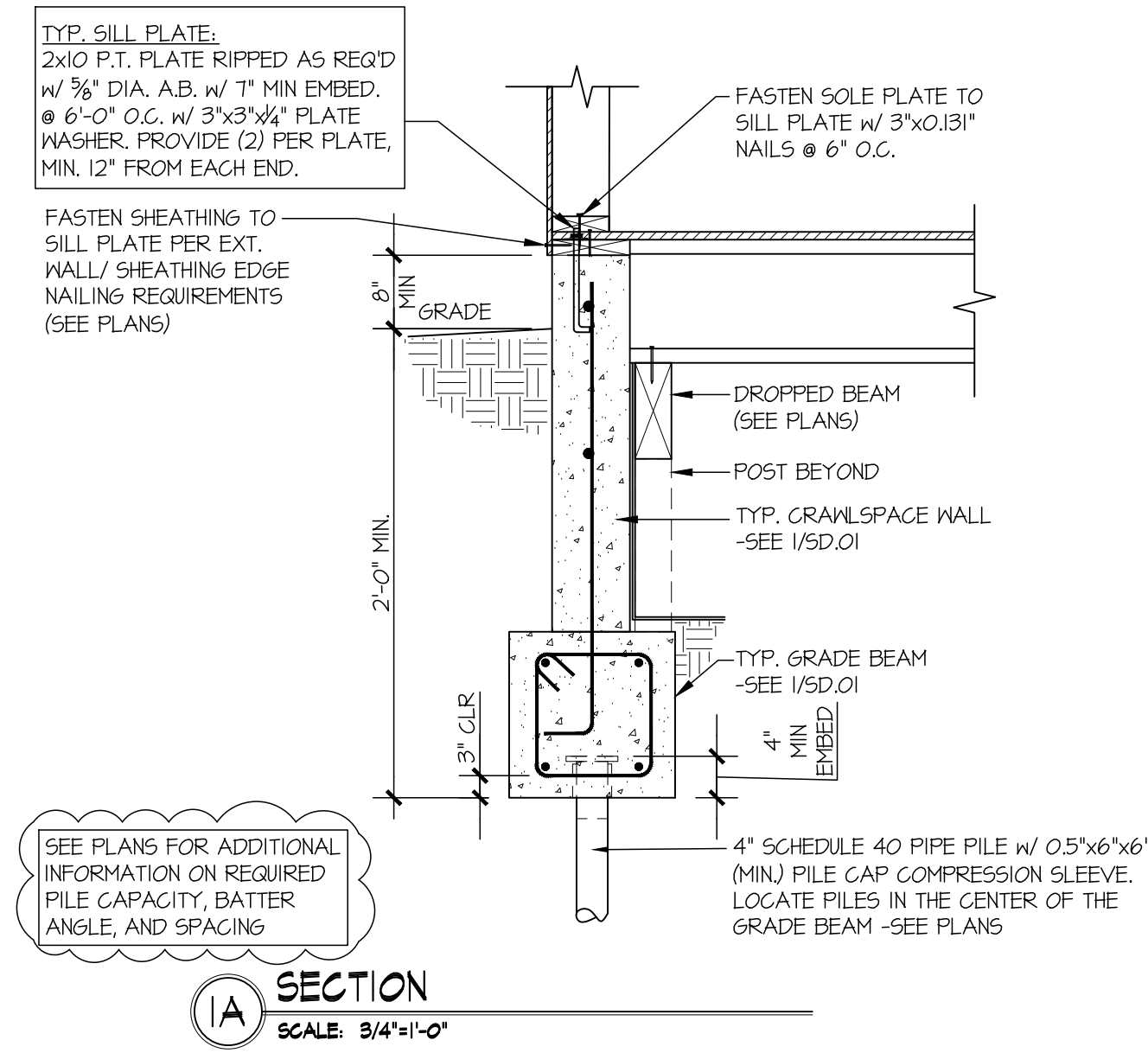
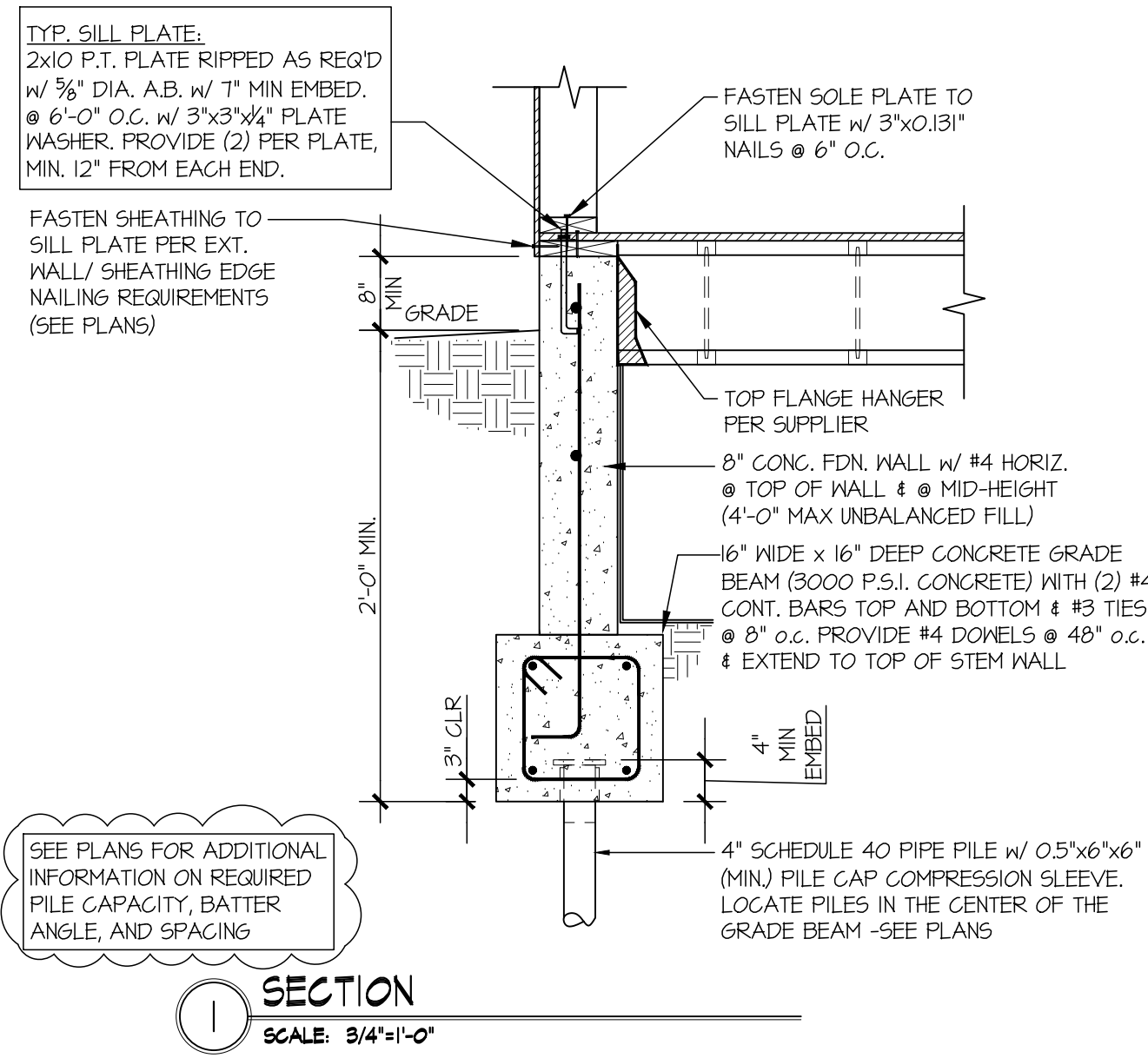
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ARCH REVISIONS & PLAN REVIEW	
04/30/25	BFD
PLAN REVIEW	
12/16/25	BFD
PLAN REVIEW	

MACPHERSON  
CONSTRUCTION

STRUCTURAL DETAILS  
5320 BUTTERWORTH RD  
NORTH LOT  
MERCER ISLAND, WASHINGTON



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**306-25001**

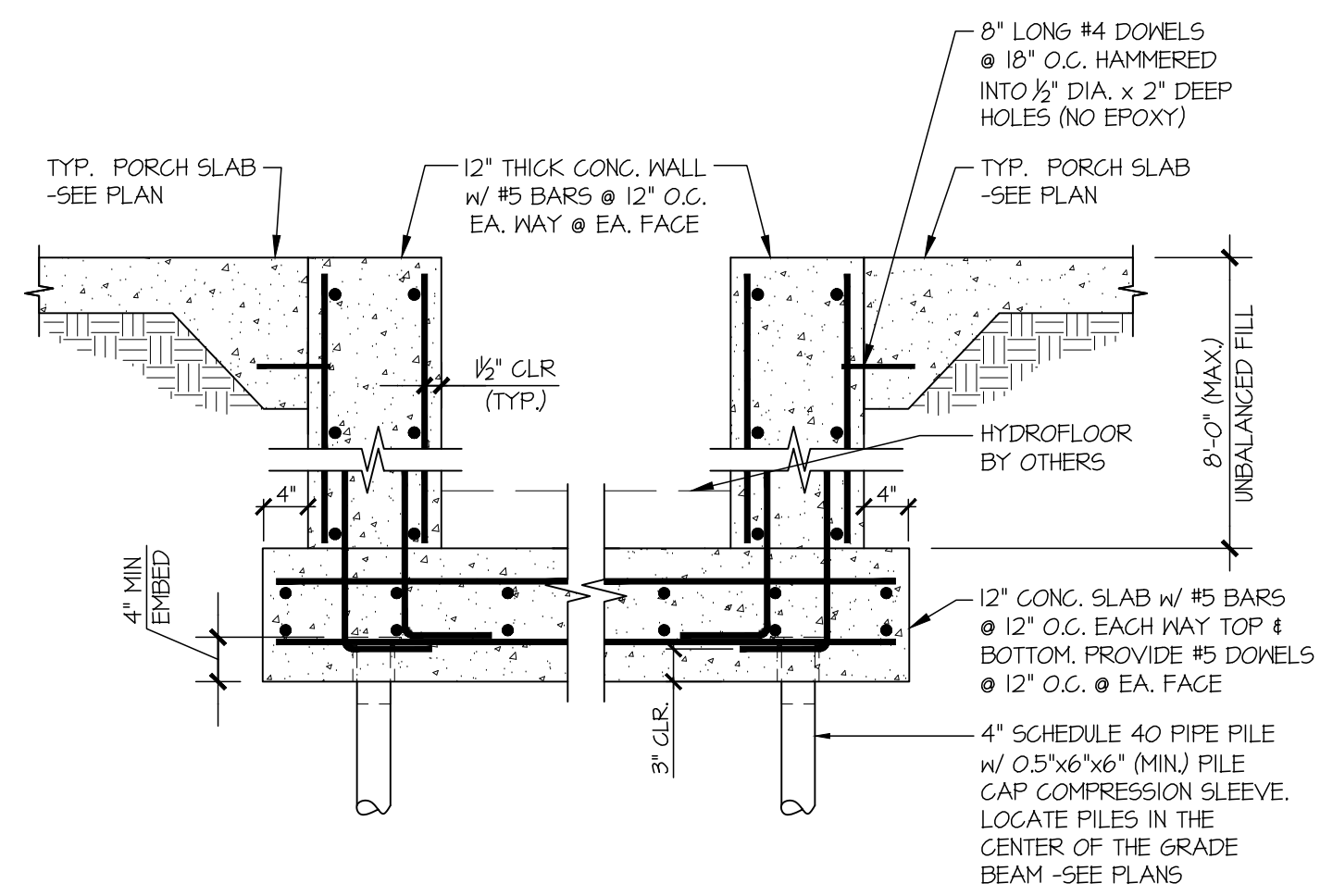
project mgr: NJM  
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date:	initial:
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PLAN REVIEW	
12/16/25	BFD
PLAN REVIEW	

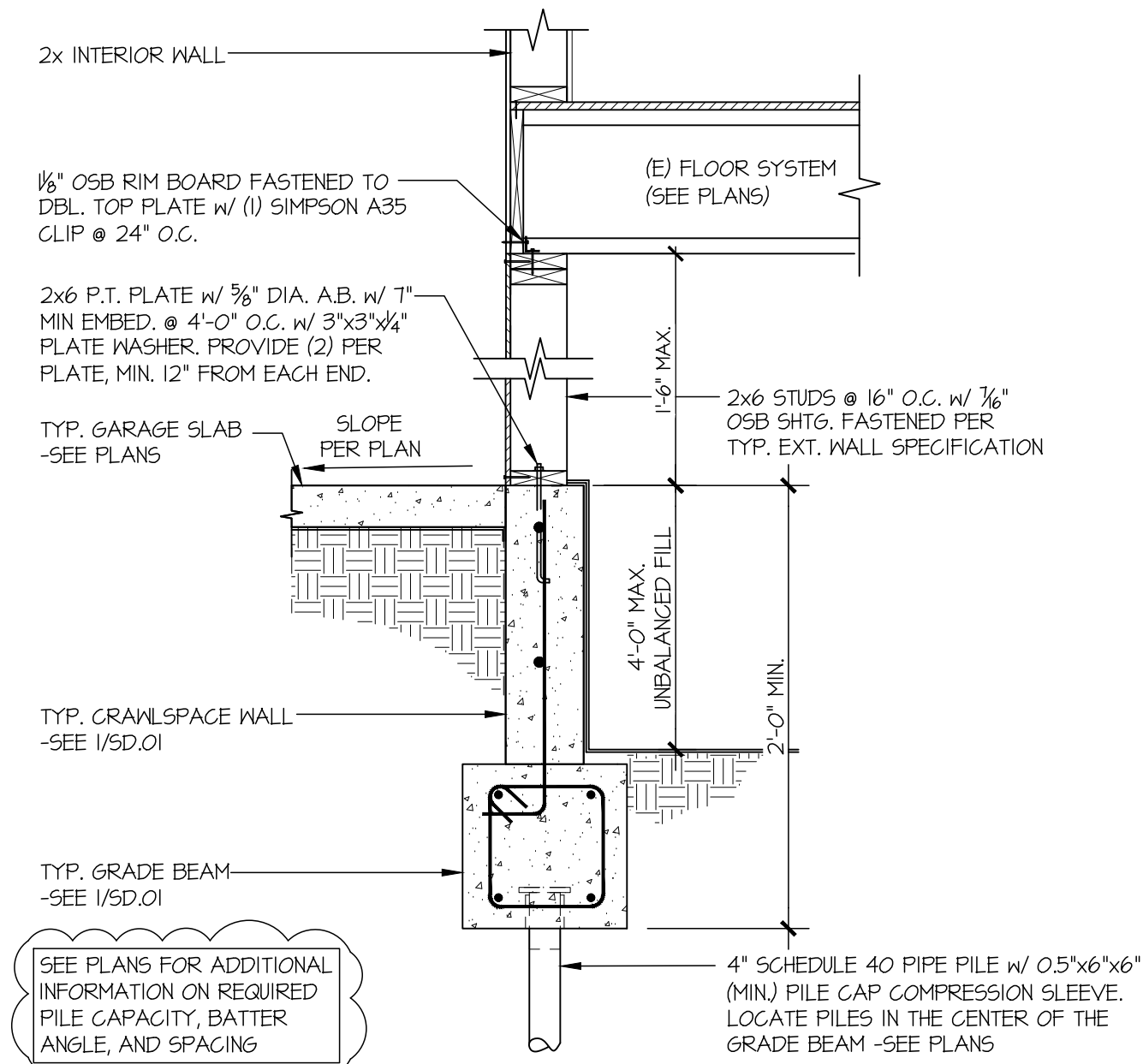
**MACPHERSON**  
**CONSTRUCTION**

**FOUNDATION DETAILS**  
**5320 BUTTERWORTH RD**  
**NORTH LOT**  
**MERCER ISLAND, WASHINGTON**

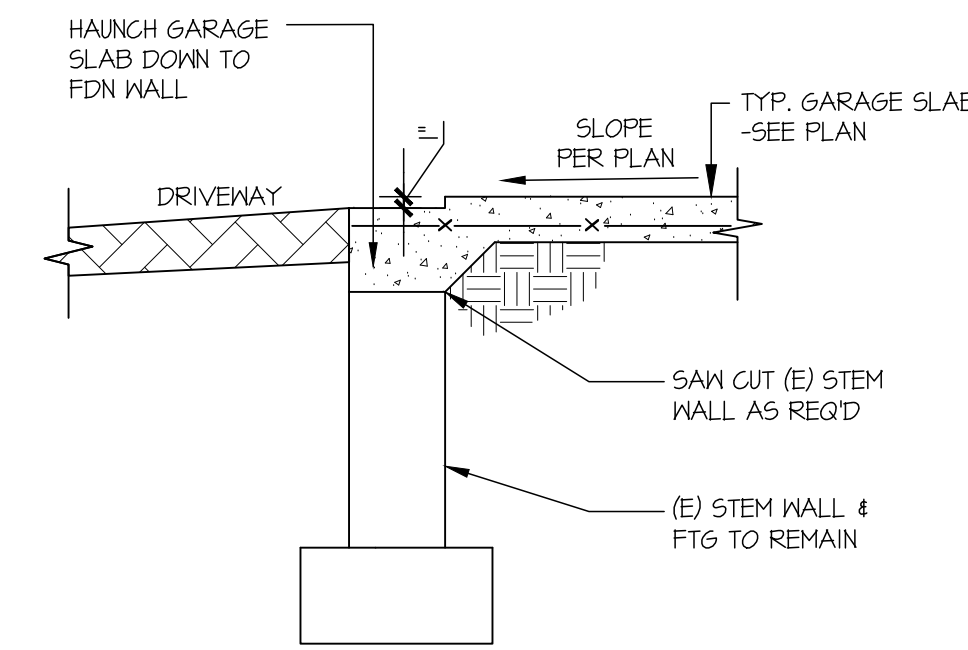
sheet:  
**SD.01**



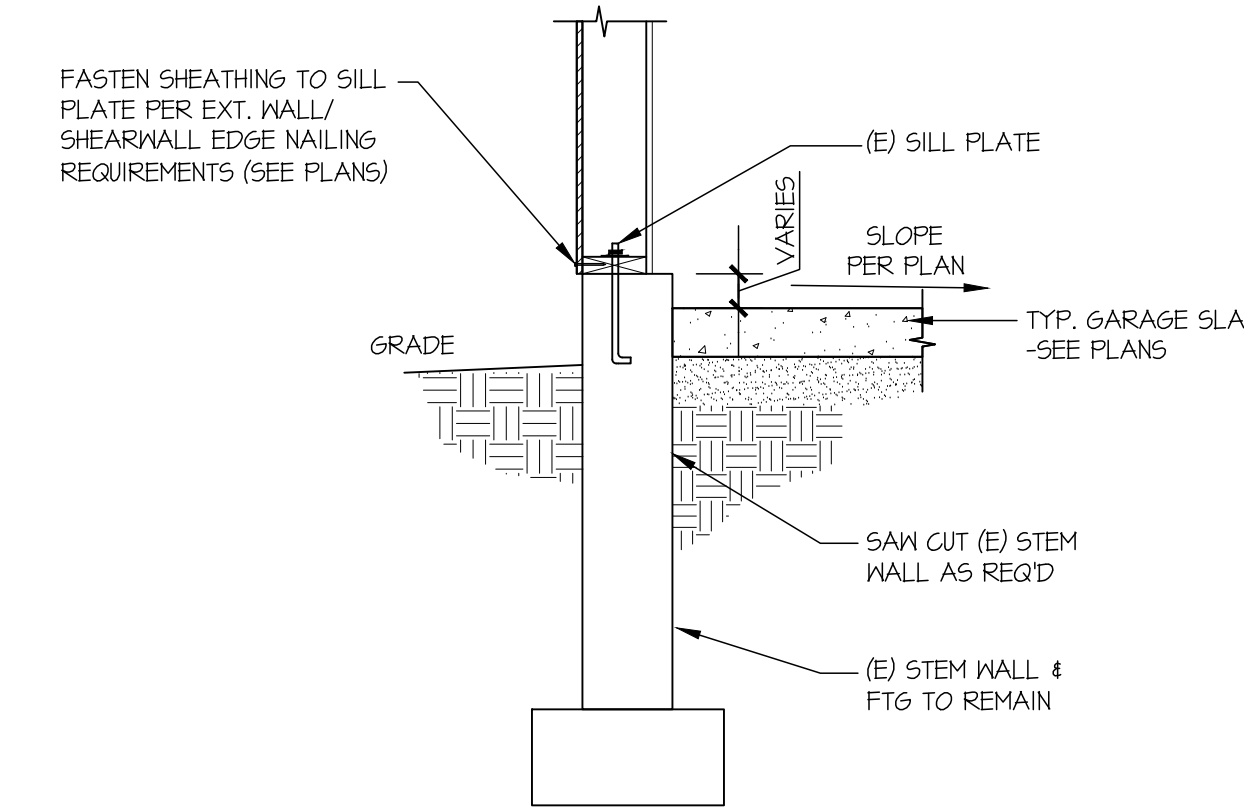
10 SECTION  
SCALE: 3/4"=1'-0"



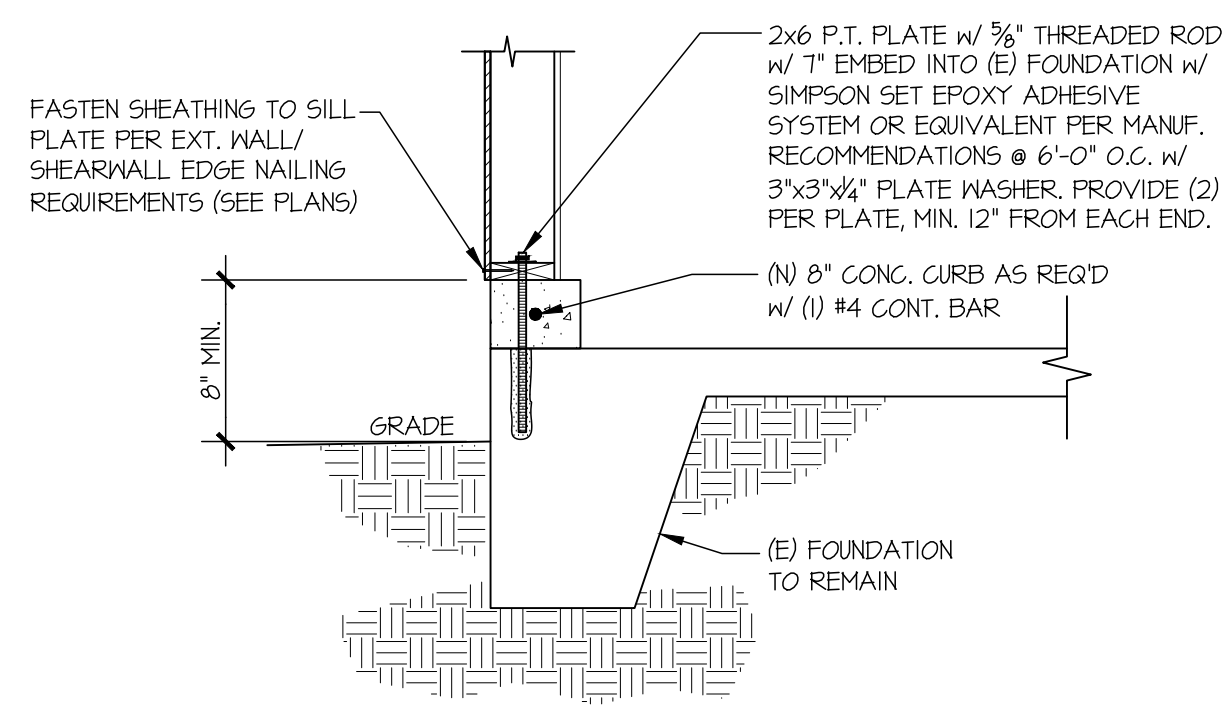
11 SECTION  
SCALE: 3/4"=1'-0"



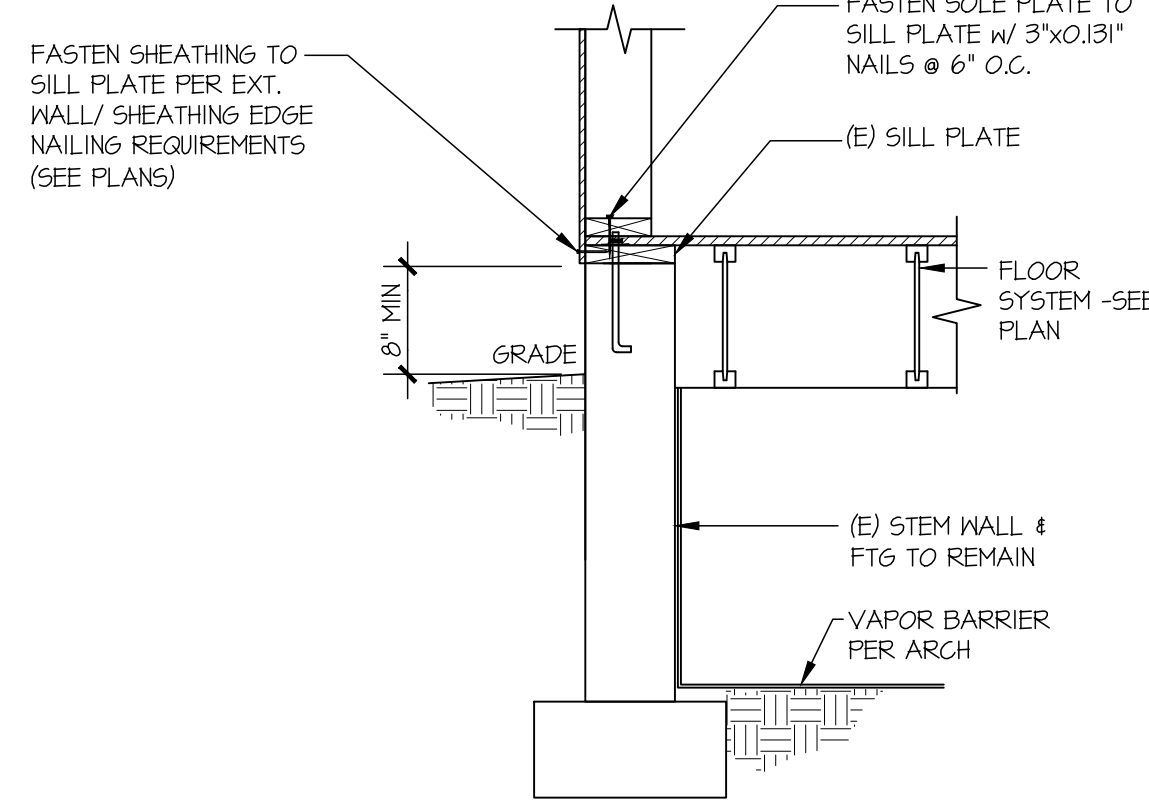
12 SECTION  
SCALE: 3/4"=1'-0"



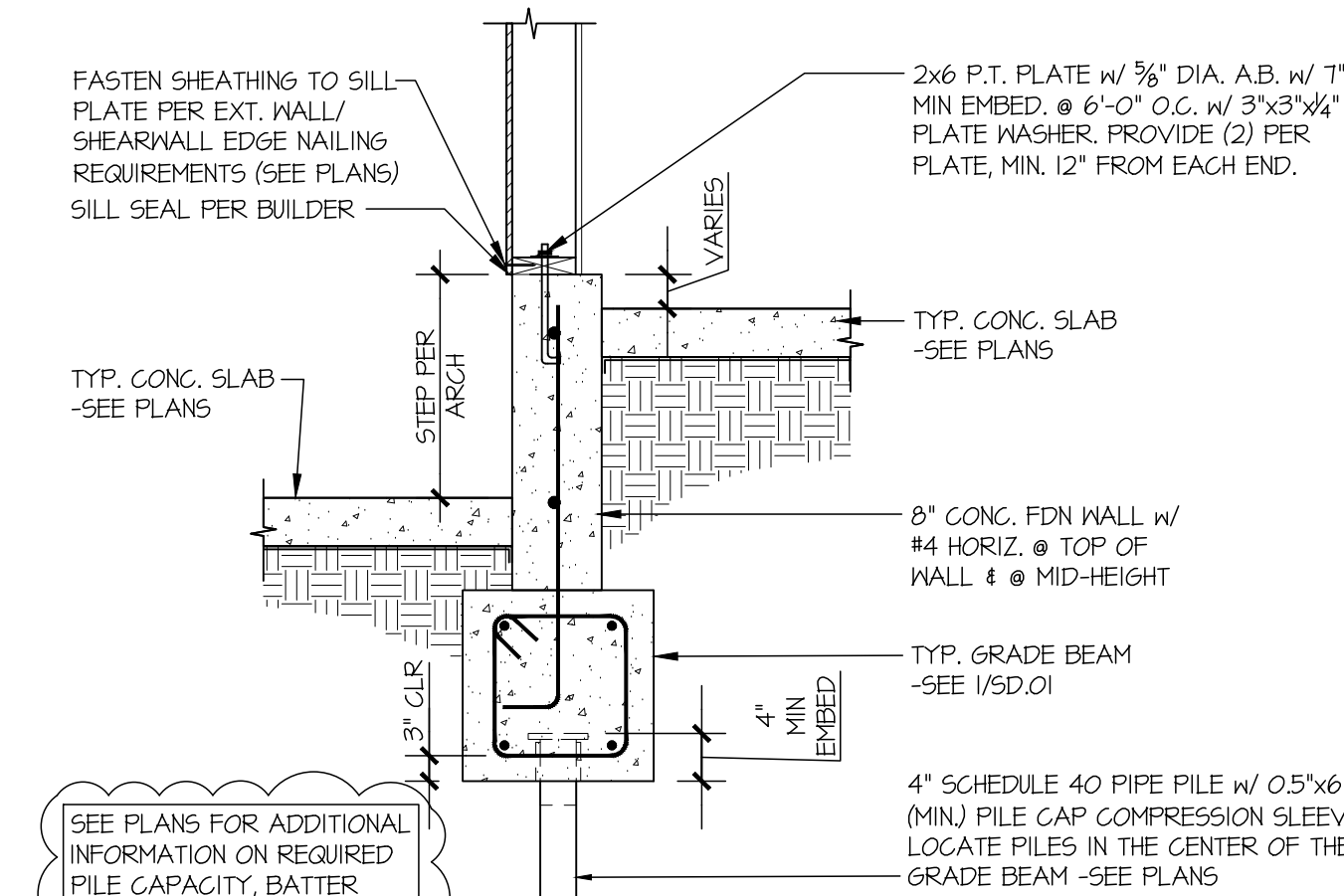
13 SECTION  
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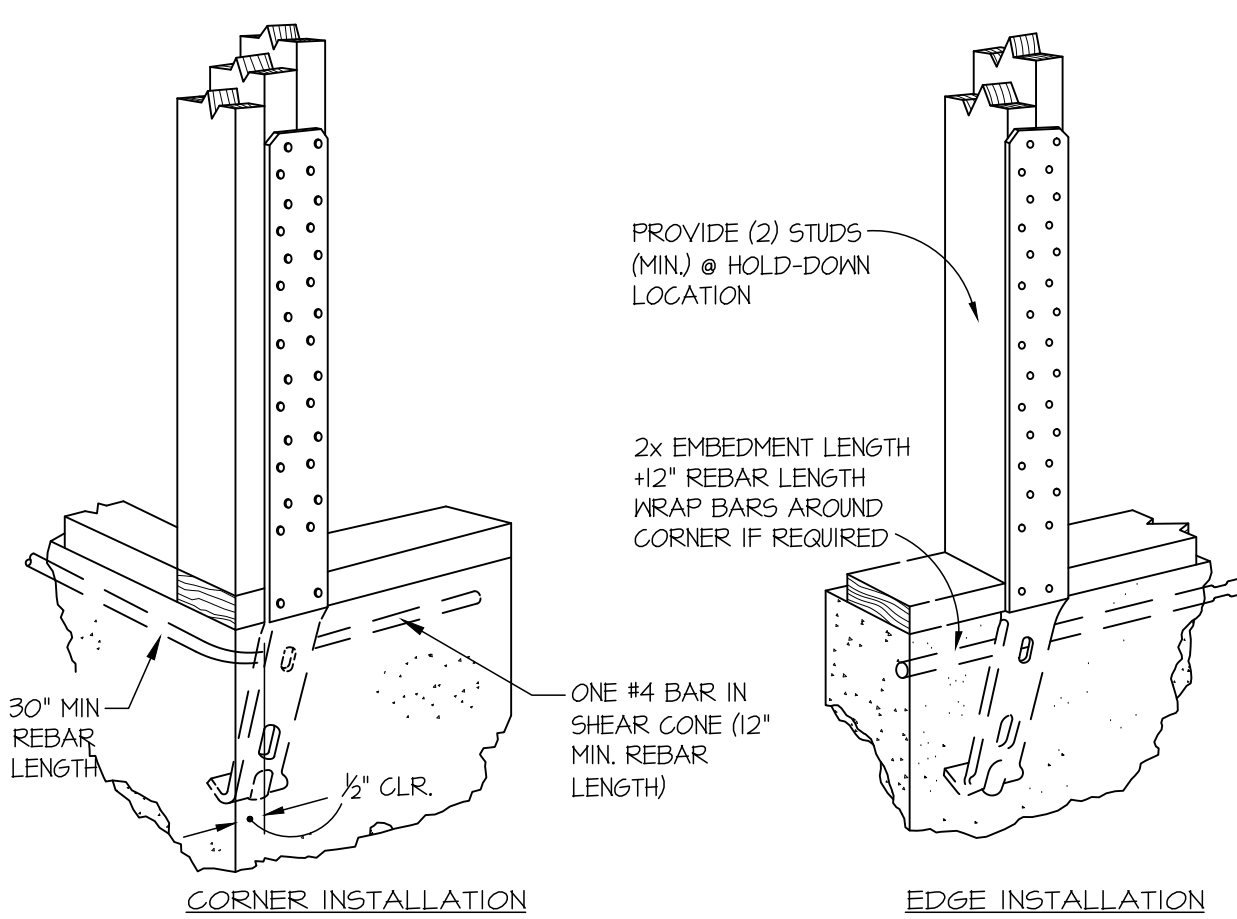
14 SECTION  
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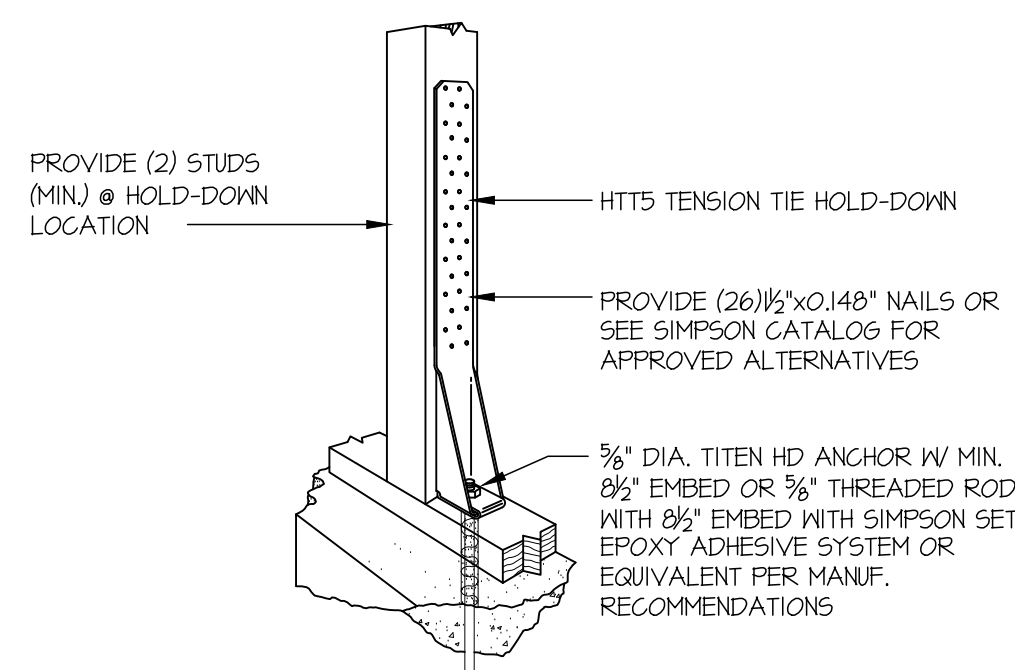
15 SECTION  
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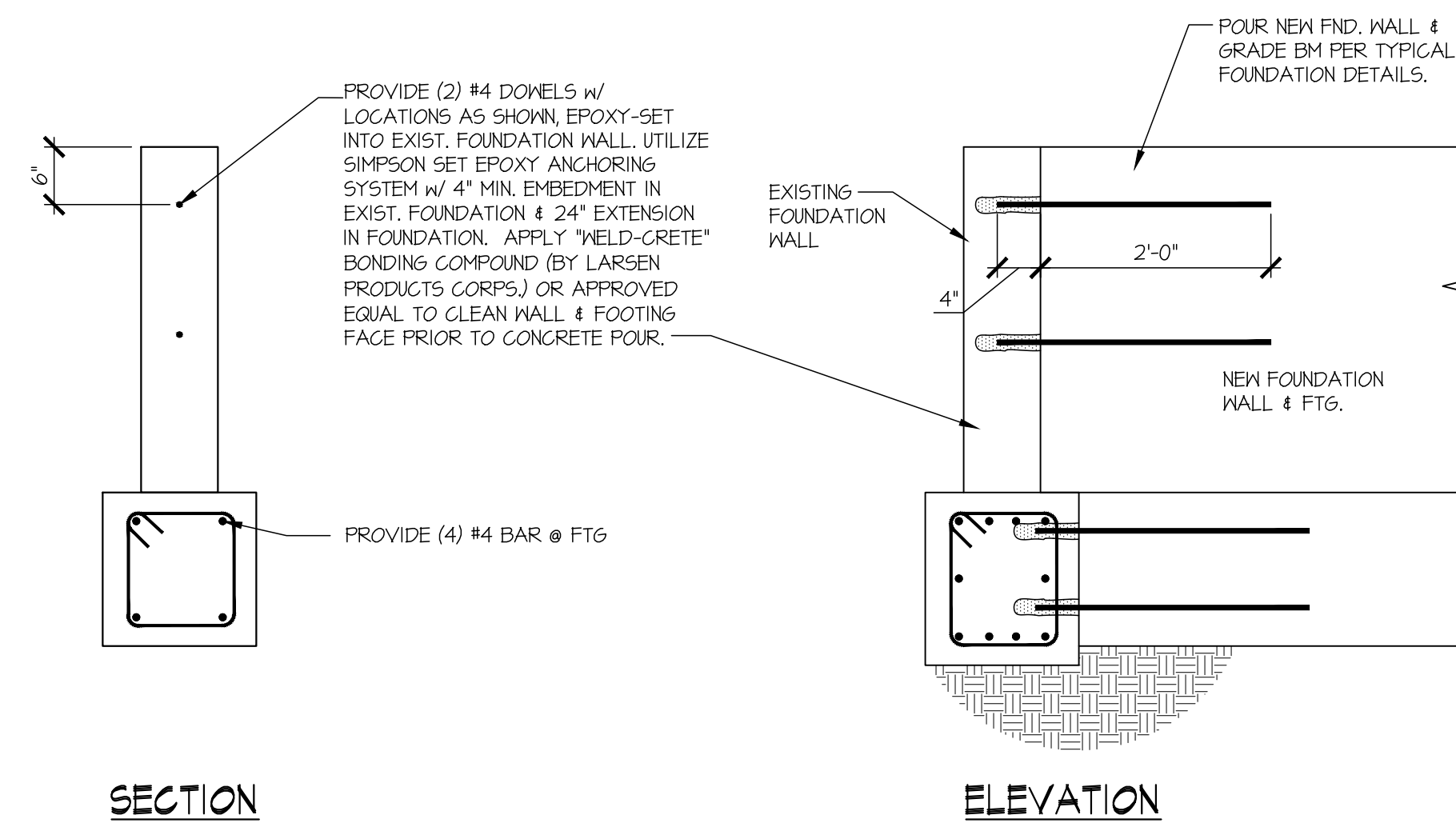
16 SECTION  
SCALE: 3/4"=1'-0"



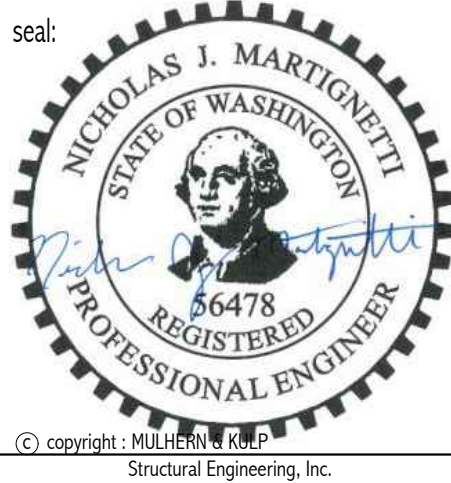
A TYPICAL HOLD-DOWN INSTALLATION  
NOT TO SCALE



B TYPICAL HOLD-DOWN  
NOT TO SCALE



C TYPICAL (N) TO (E) FOUNDATION DETAIL  
SCALE: 3/4"=1'-0"



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PLAN REVIEW	

MACPHERSON  
CONSTRUCTION

FOUNDATION DETAILS  
5320 BUTTERWORTH RD  
NORTH LOT  
MERCER ISLAND, WASHINGTON

sheet:  
**SD.02**