

BUILD STUFF

BUILD STUFF LLC
206-771-5014
diego@buildstuffstudios.com

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:

PERMIT DRAWINGS SET

Project Owner:

RODOLFO HERNANDEZ &
SHANNON MCINTYRE

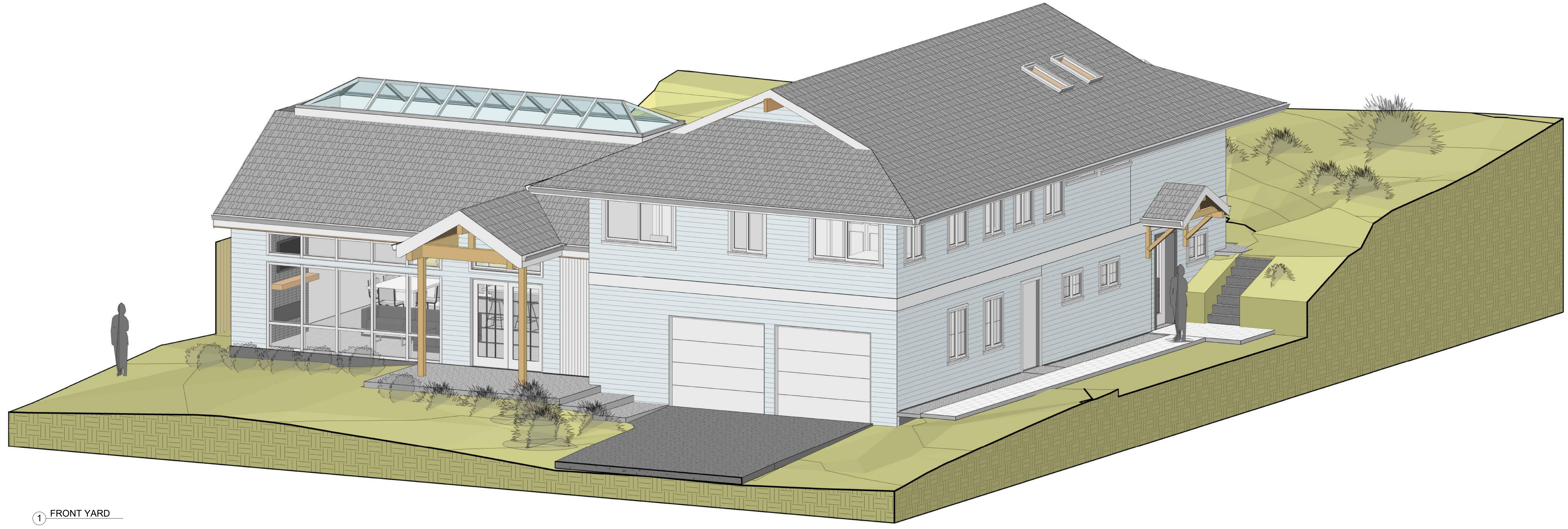
Record #: PRE23-023

Date: 01/29/24

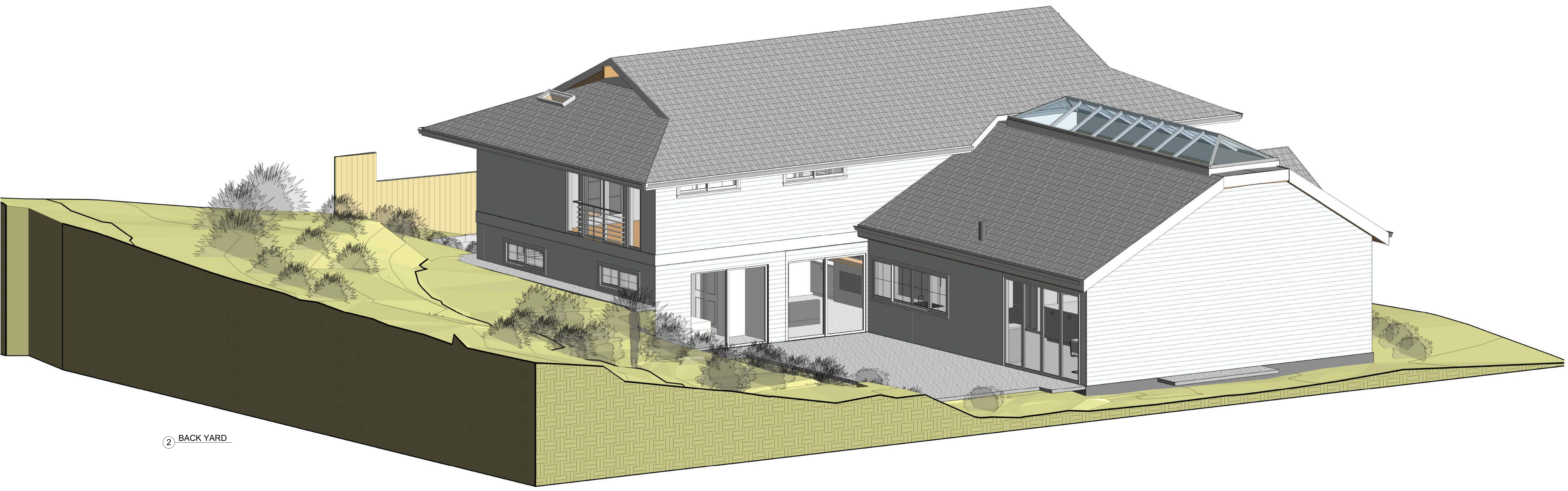
PROPOSED 3D AXON

A001

Scale:



① FRONT YARD



② BACK YARD

TOPOGRAPHIC & BOUNDARY SURVEY

LEGAL DESCRIPTION

LOT 10, BLOCK 1, MERCER TERRACE, ACCORDING TO THE PLAT RECORDED IN VOLUME 72 OF PLATS, PAGE 86, IN KING COUNTY, WASHINGTON.

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

ACCEPTED THE BEARING OF N 32°22'39" W, BETWEEN MONUMENTS FOUND ALONG THE CENTERLINE OF MERCER TERRACE DR, PER REFERENCE NO. 1.

REFERENCES

R1. MERCER TERRACE, VOL. 72 OF PLATS, PG. 86, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD 88 PER CITY OF MERCER ISLAND BENCHMARK NO. 2332 DESCRIPTION: 3/4" COPPER PLUG IN CONC IN CASE LOCATION: MERCER TERRACE DR, OPP HSE #7449 ELEVATION: 250.006'

SURVEYOR'S NOTES

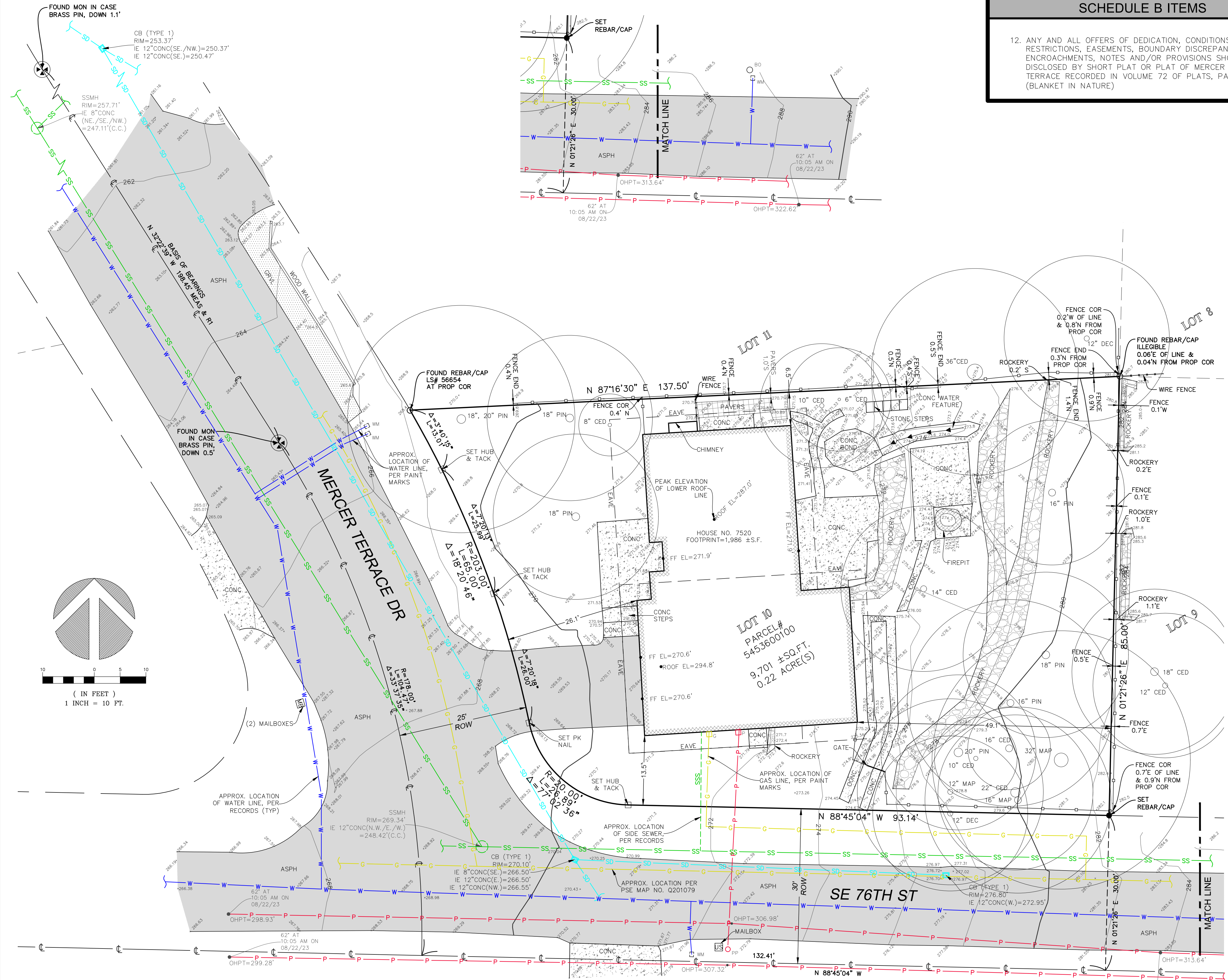
1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN AUGUST OF 2023. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. SUBJECT PROPERTY TAX PARCEL NO. 545360-0100
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 9,701 ±S.F. (0.22 ACRES)
6. ALL TITLE INFORMATION SHOWN ON THIS MAP HAS BEEN EXTRACTED FROM FIRST AMERICAN TITLE INSURANCE COMPANY'S "COMMITMENT", ORDER NO. 4209-4091530, DATED JULY 31, 2023. IN PREPARING THIS MAP, TERRANE, INC. HAS CONDUCTED NO INDEPENDENT TITLE SEARCH NOR IS TERRANE, INC. AWARE OF ANY TITLE ISSUES AFFECTING THE SURVEYED PROPERTY OTHER THAN THOSE SHOWN ON THE MAP AND DISCLOSED BY THE REFERENCED "COMMITMENT". TERRANE, INC. HAS RELIED WHOLLY ON FIRST AMERICAN TITLE INSURANCE COMPANY'S REPRESENTATIONS OF THE TITLE'S CONDITION TO PREPARE THIS SURVEY AND TERRANE, INC. QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.
7. EXISTING STRUCTURE(S) LOCATION AND DIMENSIONS ARE MEASURED FROM THE FACE OF THE SIDING UNLESS OTHERWISE NOTED.
8. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 3-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

LEGEND

- | | | | |
|--|---------------------------|--|-----------------------------|
| | ASPHALT SURFACE | | OHPT TRANSMISSION ELEVATION |
| | BLOW OFF | | PAVER SURFACE |
| | BUILDING | | POWER METER |
| | CENTERLINE ROW | | POWER (OVERHEAD) |
| | CONCRETE SURFACE | | POWER POLE |
| | DITCH (FLOWLINE) | | REBAR & CAP (SET) |
| | FENCE LINE (CHAIN LINK) | | REBAR AS NOTED (FOUND) |
| | FENCE LINE (WOOD) | | RETAINING WALL |
| | GAS LINE | | ROCKERY |
| | GAS METER | | SEWER LINE |
| | GRAVEL SURFACE | | SEWER MANHOLE |
| | INLET (TYPE 1) | | STORM DRAIN LINE |
| | LINESTAKES (AS NOTED) | | TREE (AS NOTED) |
| | MAILBOX (RESIDENTIAL) | | WATER LINE |
| | MAILBOX (US POSTAL) | | WATER METER |
| | MONUMENT (IN CASE, FOUND) | | |

VICINITY MAP

N.T.S.



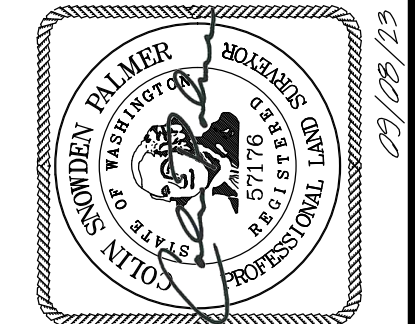
STEEP SLOPE/BUFFER DISCLAIMER:
THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY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

INDEXING INFORMATION	
NW 1/4	SE 1/4
SECTION: 25	
TOWNSHIP: 24N	
RANGE: 04E, W.M.	
COUNTY: KING	

SCHEDULE B ITEMS
12. ANY AND ALL OFFERS OF DEDICATION, CONDITIONS, RESTRICTIONS, EASEMENTS, BOUNDARY DISCREPANCIES OR ENCROACHMENTS, NOTES AND/OR PROVISIONS SHOWN OR DISCLOSED BY SHORT PLAT OR PLAT OF MERCER TERRACE RECORDED IN VOLUME 72 OF PLATS, PAGE(S) 86. (BLANKET IN NATURE)

TOPOGRAPHIC & BOUNDARY SURVEY
PARCEL NO. 5453600100

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND, WA 98040

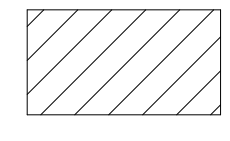

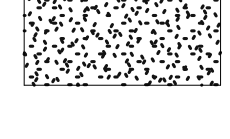
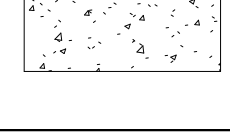
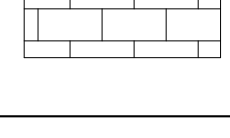


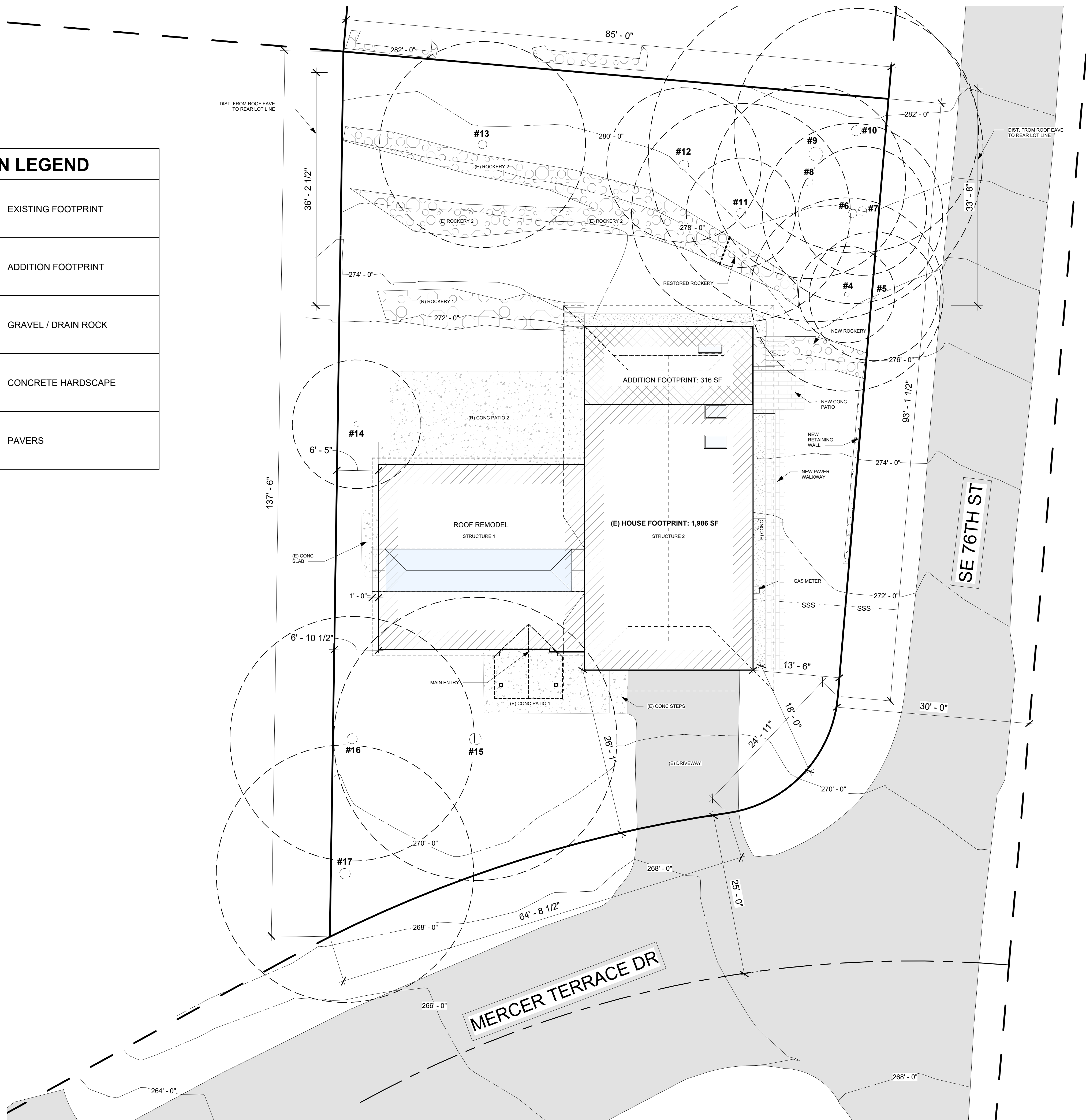
TERRANE

10801 Main Street, Suite 102
Bellevue, WA 98004
p: 425-458-4488 | e: info@terrane.net

JOB NUMBER:	231287
DATE:	09/01/23
DRAFTED BY:	IDV / RPM
CHECKED BY:	CSP / TLR
SCALE:	1" = 10'
REVISION HISTORY	
SHEET NUMBER	
1 OF 1	

We are the measure | terrane.net

SITE PLAN LEGEND	
	EXISTING FOOTPRINT
	ADDITION FOOTPRINT
	GRAVEL / DRAIN ROCK
	CONCRETE HARDSCAPE
	PAVERS



PROJECT DATA:

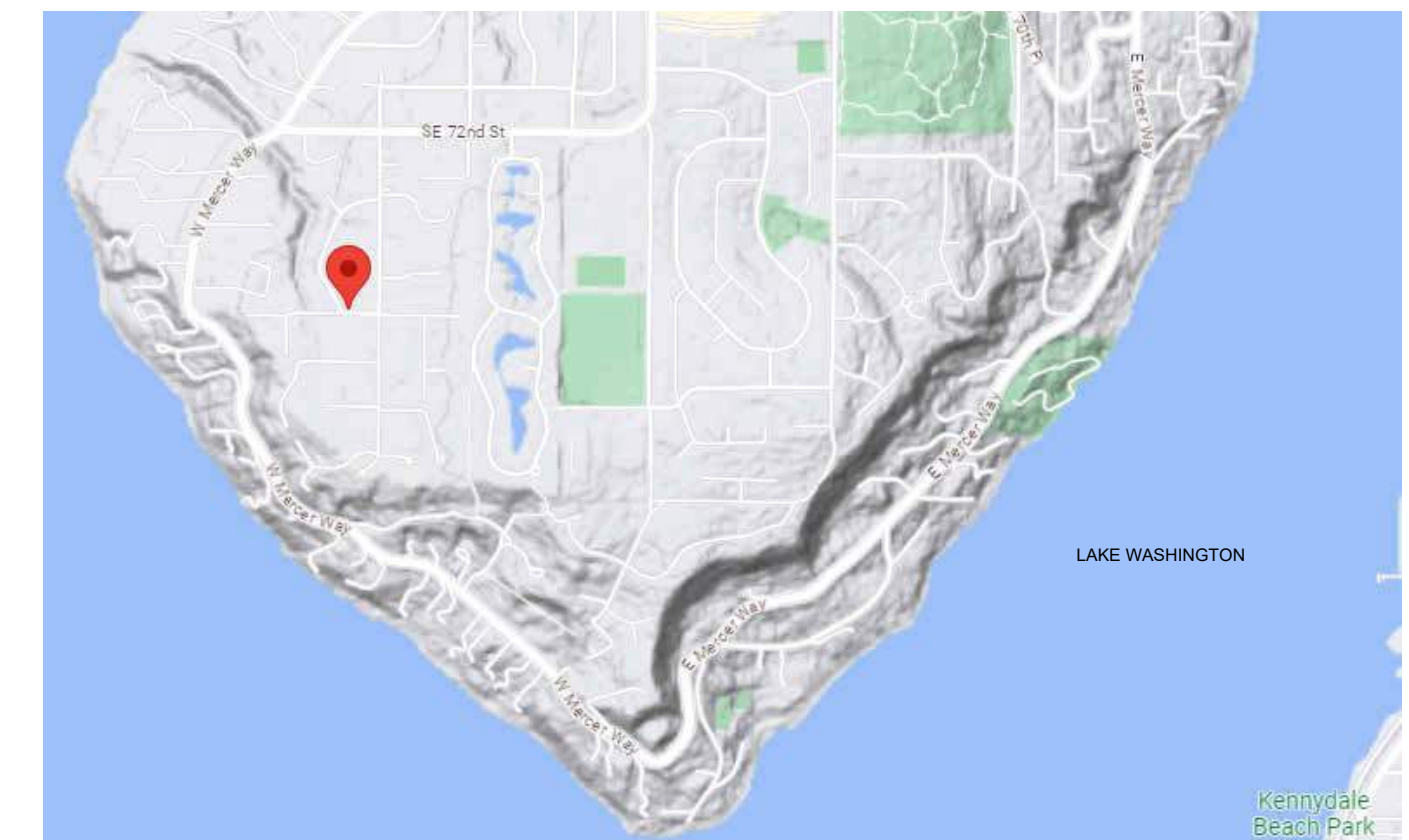
- PROJECT ADDRESS:** 7520 MERCER TERRACE DR, MERCER ISLAND WA, 98040
- PARCEL #:** 545360-0100
- LEGAL DESCRIPTION:** MERCER TERRACE ADD PLAT BLOCK: 1 PLAT LOT: 10
- NET LOT AREA:** 9,701 SF
- ZONE:** R-9.6 SINGLE FAMILY RESIDENTIAL
- PRESENT USE:** SINGLE FAMILY RESIDENTIAL
- YEAR BUILT:** 1965
- BUILDING AREA:** 1,986 SF
- SITE SLOPE:** 12.05 %
- GENERAL DEVELOPMENT STANDARDS:** FRONT SETBACK: 20'-0" SIDE SETBACK: 15'-0" SUM, MINIMUM 5'-0" EACH SIDE REAR SETBACK: 25'-0" HEIGHT LIMIT: 30'-0" TO HIGHEST POINT OF ROOF EXISTING BUILDING HEIGHT = 25'
- ALLOWABLE LOT COVERAGE** (FOR LOTS < 15 % SLOPE - MAX 40% OF LOT AREA) LOT AREA: 9,701 SF ALLOWED LOT COVERAGE: 3,880 SF
- REFER TO SITE CALCULATION SHEETS A101.1 - A101.4 FOR LOT COVERAGE, HARDSCAPE, GROSS FLOOR AREA, AND AVERAGE BUILDING ELEVATION CALCULATIONS.

PROJECT DESCRIPTION:

SCOPE: ROOF REMODEL & ADDITION W/ ADU

PROJECT NARRATIVE: THE SCOPE OF WORK INCLUDES A ROOF REMODEL OF EXISTING "STRUCTURE 1" AND AN ADDITION OF 316 SF TO "STRUCTURE 2" WITH PROPOSED INTERIOR MODIFICATIONS TO LEVEL 1 AND LEVEL 2 OF THE HOUSE. REFER TO PLANS FOR LABELS OF "STRUCTURE 1" AND "STRUCTURE 2". THESE LABELS SPLIT UP THE HOUSE INTO 2 SECTIONS DIFFERENTIATING BETWEEN THE SINGLE-STORY AND THE DOUBLE-STORY STRUCTURE.

REMODEL OF THE LOWER ROOF LINE AND 2-STORY ADDITION WITH ADU. THE ROOF REMODEL ENTAILS A COMPLETE DEMO OF THE EXISTING LOWER ROOF LINE AND RECONSTRUCTION MAINTAINING THE EXISTING FOOTPRINT WITH A NEW DESIGN. THE ADDITION IS 632 SF OF CONDITIONED GROSS FLOOR AREA AND 316 SF TOTAL LOT COVERAGE. 316 SF ADU ON LEVEL 1 AND 316 SF ADDITION TO THE EXISTING PRIMARY BEDROOM ON LEVEL 2. THE PROPOSED ADDITION IS IN A GEO-HAZARD AREA ON THE SITE. THE PROPOSAL INCLUDES MINOR MODIFICATIONS TO HARDSCAPE AREAS AND INTERIOR SPACES. MODIFICATIONS/NEW INTERIOR PARTITION WALLS, PLUMBING FIXTURES, APPLIANCES, AND WINDOWS.



VICINITY MAP

NOT TO SCALE

BUILD STUFF

BUILD STUFF LLC
206-771-5014
diego@buildstuffstudios.com

REVISION TABLE	
Revision #	Date

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:

PERMIT DRAWINGS SET

Project Owner:

RODOLFO HERNANDEZ & SHANNON MCINTYRE

Record #: PRE23-023

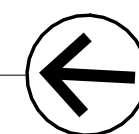
Date: 01/29/24

SITE PLAN

A100

Scale: As indicated

1 Site
1/8" = 1'-0"



BUILD STUFF

BUILD STUFF LLC
206-771-5014
diego@buildstuffstudios.com

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

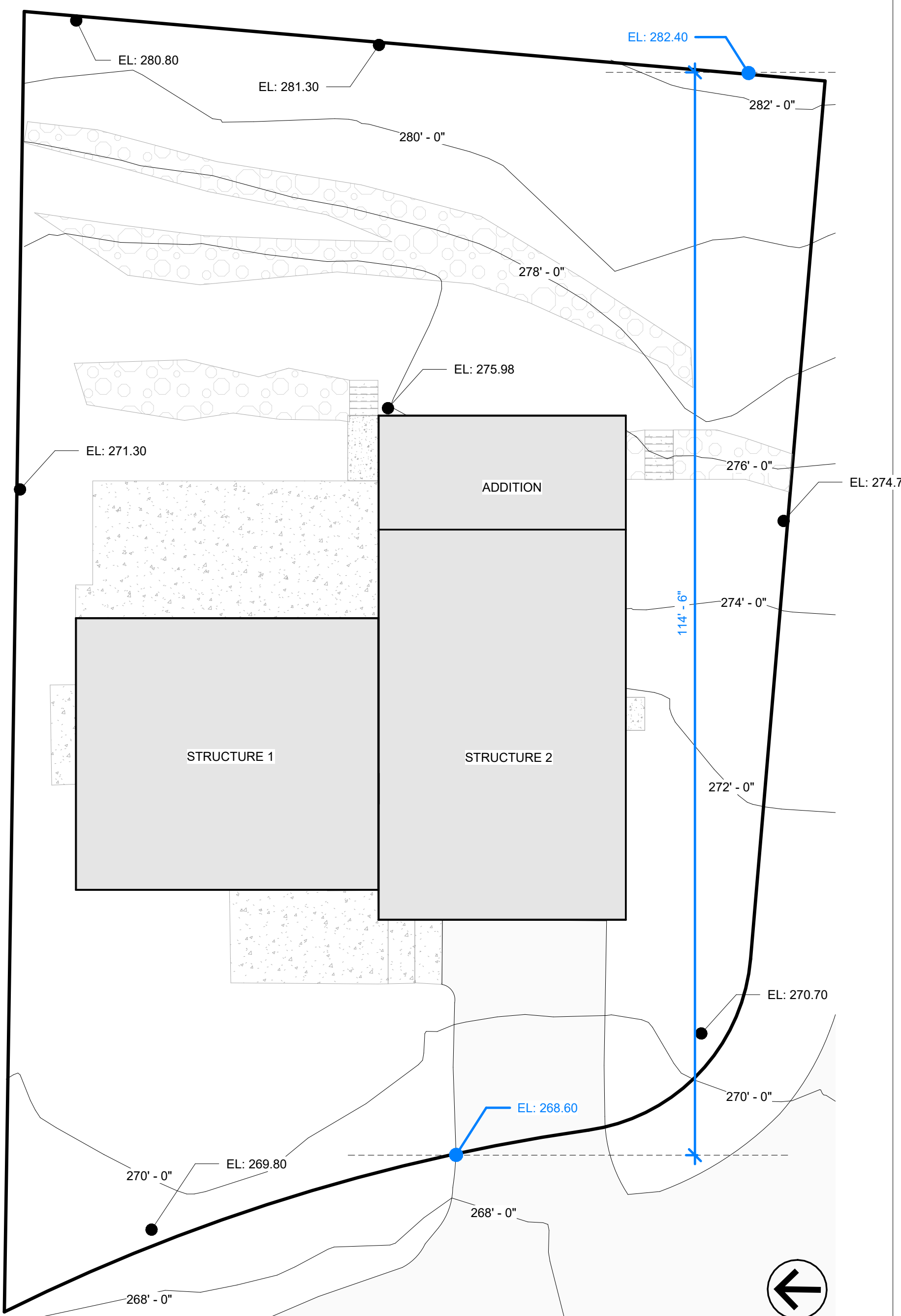
Project Owner:
RODOLFO HERNANDEZ &
SHANNON MCINTYRE

Record #: PRE23-023
Date: 01/29/24

**SLOPE / ABE / GFA
CALCULATIONS**

A100.1

Scale: As indicated



3 SITE SLOPE CALCULATION
1" = 10'-0"

SITE SLOPE CALCULATION

ELEVATION POINTS REFERENCED FROM SITE SURVEY ATTACHED TO THIS PLAN SET

HIGHEST ELEVATION POINT OF LOT: **282.40 FT**

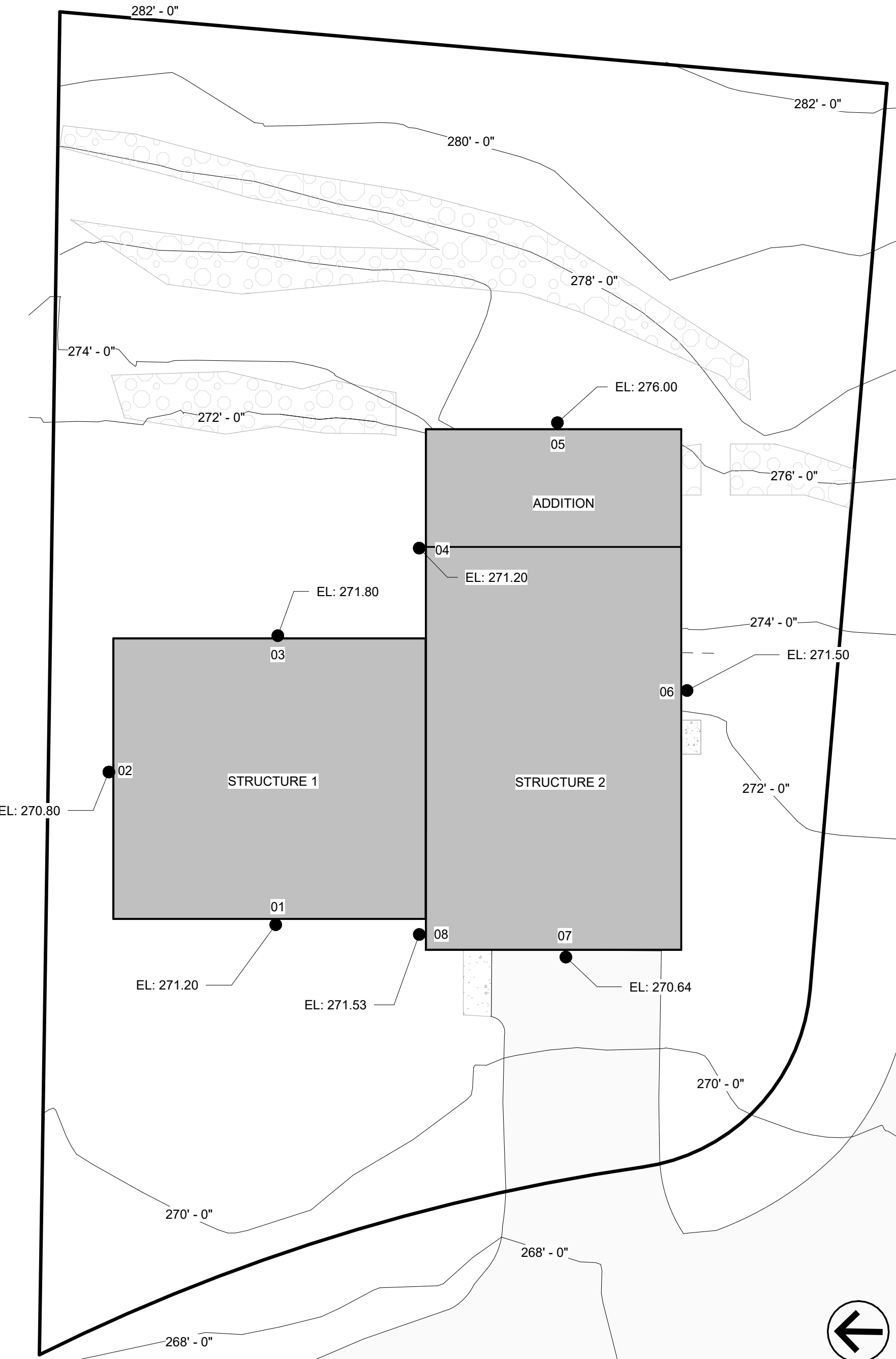
LOWEST ELEVATION POINT OF LOT: **268.60 FT**

ELEVATION DIFFERENCE: **13.80 FT**

HORIZONTAL DISTANCE BETWEEN HIGH AND LOW POINTS: **114.50 FT**

LOT SLOPE = ELEVATION DIFFERENCE / HORIZONTAL DISTANCE X 100

LOT SLOPE = **12.05%**
(13.80 / 114.50) * 100



2 ABE CALCULATIONS
1" = 10'-0"

ABE CALCULATIONS

WALL	MIDPOINT ELEVATION	WALL LENGTH	ME x WL
01	271.20	32.00	8678.40
02	270.80	28.75	7785.50
03	271.80	32.00	8697.60
04	271.20	21.42	5809.10
05	276.00	26.17	7222.92
06	271.50	53.33	14479.10
07	270.64	26.17	7082.65
08	271.53	3.17	860.75
TOTAL	2174.67	223.01	60616.02

TOTAL MIDPOINT ELEVATION * WALL LENGTH: 60616.02
TOTAL LENGTH OF WALLS: 223.01

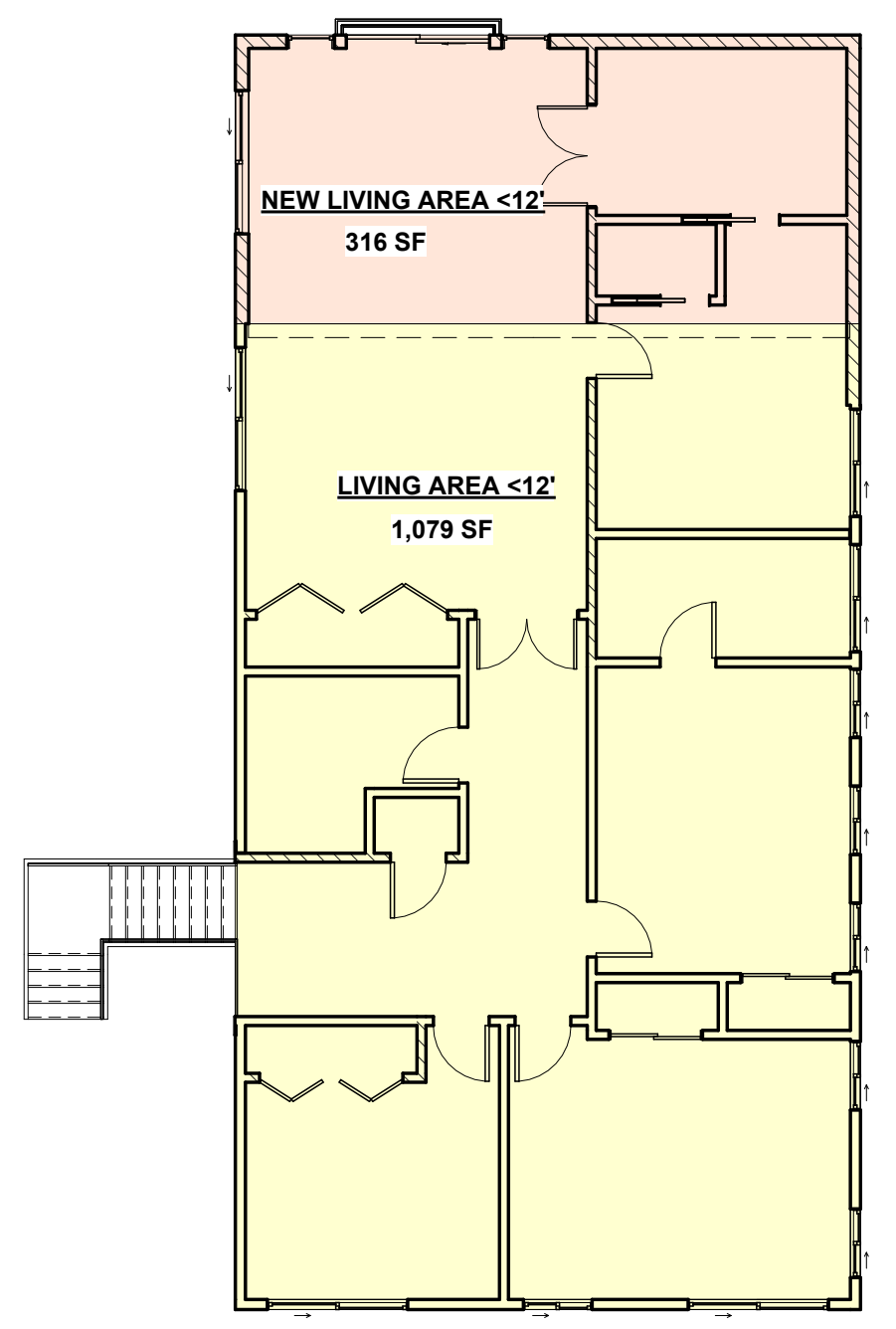
AVERAGE BUILDING ELEVATION (ABE) **271.81**

FT-IN 271' - 9 3/4"

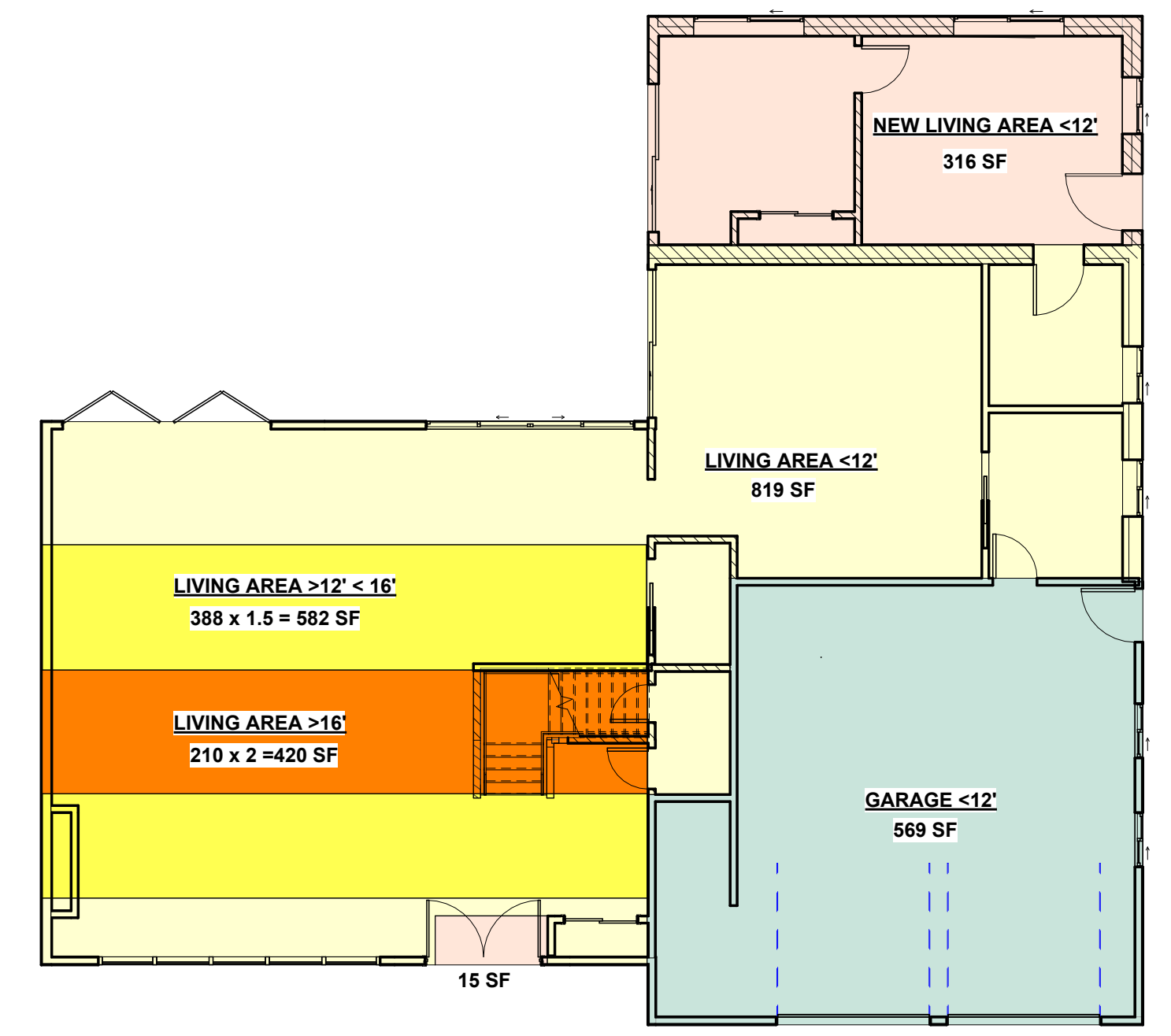
GROSS FLOOR AREA

	EXISTING LIVING AREA < 12'
	EXISTING LIVING AREA > 12' < 16'
	EXISTING LIVING AREA > 16'
	EXISTING GARAGE < 12'
	NEW LIVING AREA < 12'

4 LEVEL 2 - GFA
1/8" = 1'-0"



1 LEVEL 1 - GFA
1/8" = 1'-0"



ALLOWABLE GFA:

NET LOT AREA: 9,701 SF

GROSS FLOOR AREA: (40% OF NET LOT AREA):
ALLOWABLE GROSS FLOOR AREA: **3,880 SF**
PER MICC 19.02.020.D.1

ALLOWABLE INCREASE OF GROSS FLOOR AREA W/ADU:
PER MICC 19.02.020.D.3.b
LESSER OF FIVE PERCENTAGE POINTS OR THE ACTUAL FLOOR AREA OF THE PROPOSED ACCESSORY DWELLING UNIT
ALLOWABLE GROSS FLOOR AREA (45%): **4,365 SF**
ALLOWABLE GROSS FLOOR AREA (40% + ADU SF): **4,196 SF**

PROVIDED:
I. THE LOT WILL CONTAIN AN ACCESSORY DWELLING UNIT ASSOCIATED WITH THE APPLICATION FOR A NEW OR REMODELED SINGLE-FAMILY HOME; AND
II. THE TOTAL GROSS FLOOR AREA SHALL NOT EXCEED 4,500 SQUARE FEET OR 45 PERCENT OF THE LOT AREA, WHICHEVER IS LESS.

GFA CALCULATION HEIGHT MODIFIERS:
< 12' = 100% GFA MODIFIER
> 12' < 16' = 150% GFA MODIFIER
> 16' = 200% GFA MODIFIER

GFA CALCULATIONS:

LEVEL 1:	2,720 SF
EXISTING LIVING AREA < 12'	819 SF
EXISTING GARAGE < 12'	569 SF
EXISTING LIVING AREA > 12' < 16'	582 SF
EXISTING LIVING AREA > 16'	420 SF
NEW LIVING AREA (ADU) < 12'	316 SF
NEW LIVING AREA < 12'	15 SF

LEVEL 2:	1,395 SF
EXISTING LIVING AREA < 12'	1,079 SF
NEW LIVING AREA < 12'	316 SF

GRAND TOTAL **4,116 SF**

LOT COVERAGE CALCULATIONS

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ &
SHANNON MCINTYRE

Record #: PRE23-023
Date: 01/29/24

LOT COVERAGE CALCULATIONS

A100.2

Scale: As indicated

ALLOWABLE LOT COVERAGE
(FOR LOTS <15% SLOPE - MAX 40% OF LOT AREA)
GROSS LOT AREA: 9,701 SF
NET LOT AREA (B): 9,701 SF
ALLOWABLE LOT COVERAGE AREA: 3,880 SF

TOTAL EXISTING LOT COVERAGE AREA: (E5)
(E) ROOF STRUCTURE 1: 1,223 SF
(E) ROOF STRUCTURE 2: 1,560 SF

(E) MAIN STRUCTURE ROOF AREA: 2,783 SF
(E) DRIVEWAY: 326 SF
TOTAL: 3,109 SF

TOTAL LOT COVERAGE AREA REMOVED: (F)
(E) ROOF STRUCTURE 1: 1,223 SF
(E) ROOF STRUCTURE 2: 327 SF
(E) ROOF STRUCTURE 2: 38 SF

TOTAL: 1,588 SF

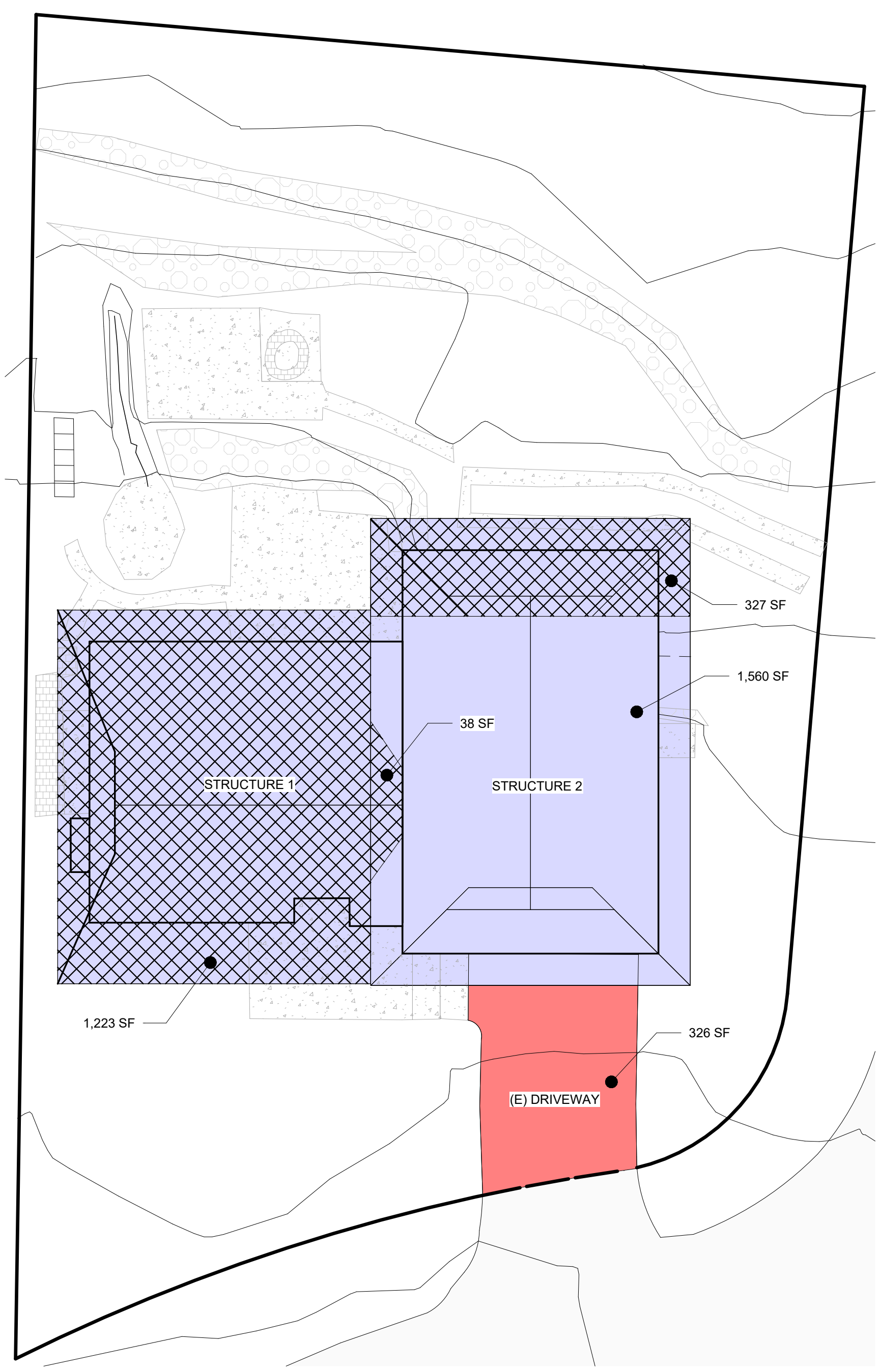
TOTAL NEW/REPLACED LOT COVERAGE: (I5)
(R) ROOF STRUCTURE 1: 1,024 SF
(R) ROOF STRUCTURE 2: 327 SF
(N) ROOF STRUCTURE 2: 396 SF

NEW MAIN STRUCTURE ROOF AREA:
TOTAL: 1,747 SF

TOTAL PROJECT LOT COVERAGE AREA: (E5 - F) + I5
(3,109 - 1,588) + 1,747
TOTAL: 3,268 SF

PROPOSED LOT COVERAGE % : (J/B) X100
(3,268 / 9,701) X 100
= 33.69 %

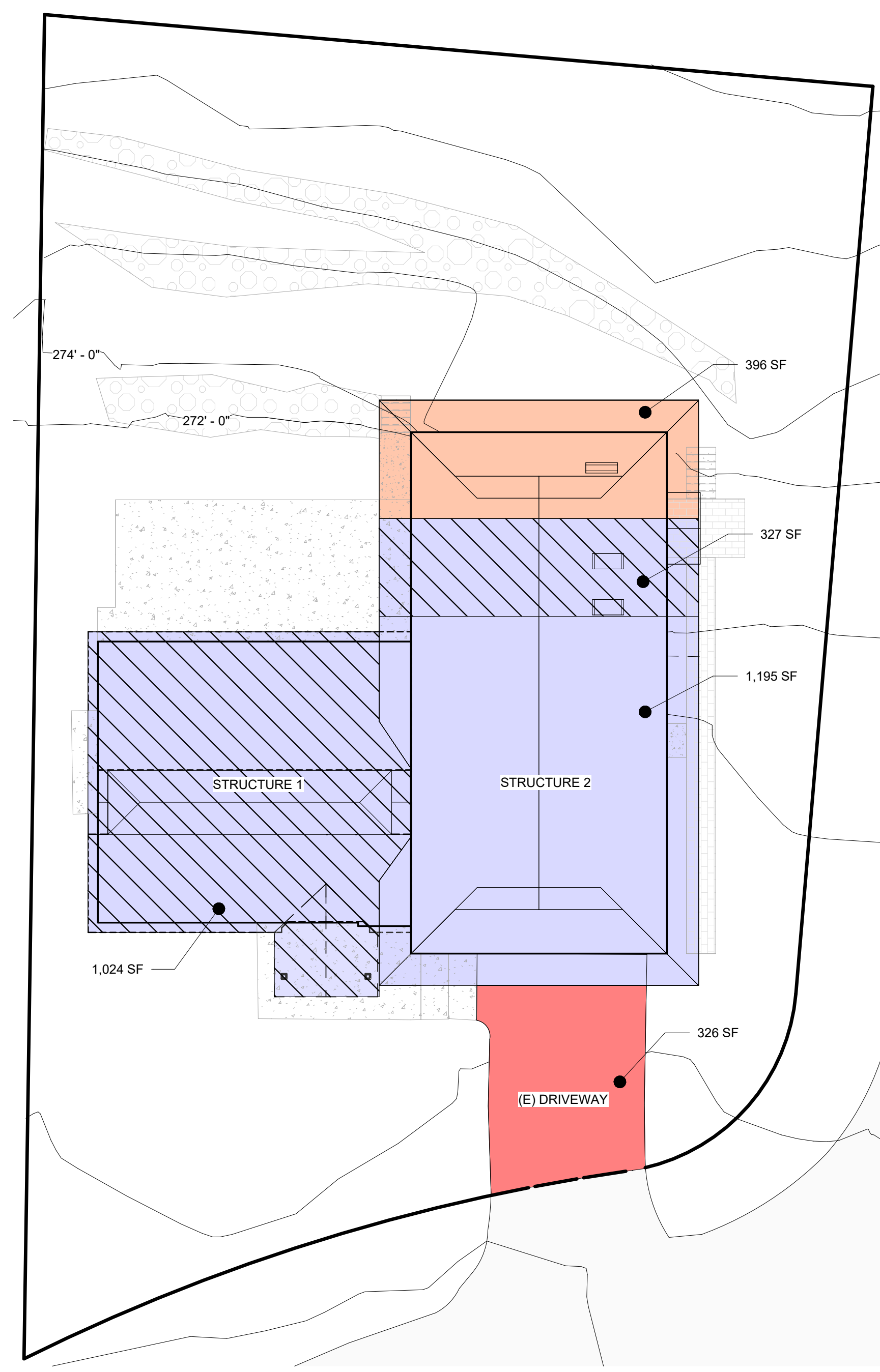
REMAINING ALLOWABLE LOT COVERAGE:
ALLOWED LOT COVERAGE (-) PROPOSED LOT COVERAGE
3,880 - 3,268 = **612 SF**



1 EXISTING - LOT COVERAGE
1" = 10'-0"

(E) - EXISTING
(R) - REPLACED
(N) - NEW

LOT COVERAGE	
	EXISTING ROOF AREA TO REMAIN
	DEMO (E) LOT COVERAGE
	REPLACED EXISTING ROOF AREA
	NEW ROOF AREA
	VEHICULAR USE AREA TO REMAIN



2 PROPOSED - LOT COVERAGE
1" = 10'-0"

HARDSCAPE CALCULATIONS

HARDSCAPE CALCULATIONS (MAX 9% OF LOT AREA)
ALLOWABLE HARDSCAPE 9%: **873 SF**
AREA BORROWED FROM LOT COVERAGE: **612 SF**
TOTAL ALLOWED LOT COVERAGE SF: **1,484 SF**
TOTAL ALLOWED LOT COVERAGE %: **15.3 %**

EXISTING HARDSCAPE AREA: (E) EXISTING ROOFLINE
(E) CONC PATIO 1: 58 SF
(E) CONC PATIO 2: 199 SF
(E) CONC PATIO 3: 225 SF
(E) CONC WALKWAY 1: 97 SF
(E) CONC WALKWAY 2: 23 SF
(E) PAVER WALKWAY: 33 SF
(E) CONC STEPS: 20 SF
(E) STONE STEPS: 16 SF
(E) ROCKERY 1: 130 SF
(E) ROCKERY 2: 528 SF
(E) CONC POND: 66 SF

TOTAL EXISTING HARDSCAPE AREA: (F7)
UNCOVERED PATIOS: 482 SF
WALKWAYS: 153 SF
STAIRS / STEPS: 36 SF
ROCKERIES & RETAINING WALLS: 658 SF
OTHER - (CONC POND): 66 SF
TOTAL: **1,395 SF**

REMOVED HARDSCAPE:
(E) CONC PATIO 3: 225 SF
(E) CONC PATIO 2: 199 SF
(E) CONC WALKWAY 1: 97 SF
(E) CONC WALKWAY 2: 23 SF
(E) PAVER WALKWAY: 33 SF
(E) STONE STEPS: 16 SF
(E) ROCKERY 1: 130 SF
(E) ROCKERY 2: 86 SF
(E) CONC POND: 66 SF

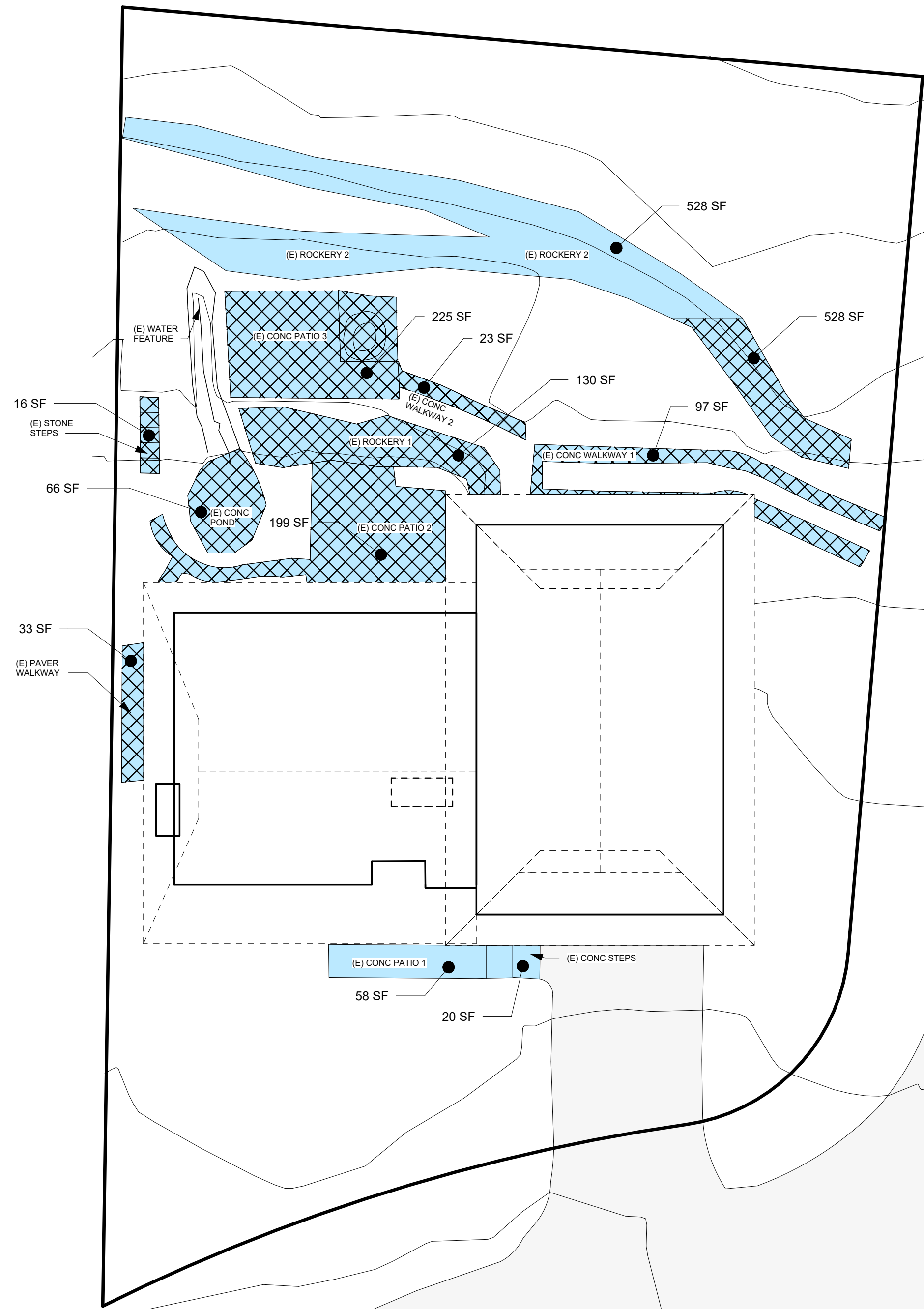
TOTAL HARDSCAPE AREA REMOVED: (G)
UNCOVERED PATIOS: 424 SF
WALKWAYS: 153 SF
STAIRS / STEPS: 16 SF
ROCKERIES & RETAINING WALLS: 216 SF
OTHER - (CONC POND): 66 SF
TOTAL: **875 SF**

NEW/REPLACED HARDSCAPE: (H7) W/ UPDATED ROOFLINE
(R) CONC PATIO 2: 366 SF
(N) CONC PATIO: 28 SF
(N) PAVER WALKWAY: 71 SF
(N) STONE STEPS: 9 SF
(R) ROCKERY 1: 145 SF
(R) ROCKERY 2: 31 SF
(N) ROCKERY: 59 SF
(N) RETAINING WALL: 18 SF
(EU) (UNCOVERED CONC SLAB): 17 SF

TOTAL NEW/REPLACED HARDSCAPE: (H7)
UNCOVERED PATIOS: 394 SF
WALKWAYS: 71 SF
STAIRS / STEPS: 9 SF
ROCKERIES & RETAINING WALLS: 253 SF
OTHER - (UNCOVERED CONC SLAB): 17 SF
TOTAL: **744 SF**

TOTAL PROJECT HARDSCAPE AREA: (F7 - G) + H7
(1,395 - 875) + 744
TOTAL: **1,264 SF**

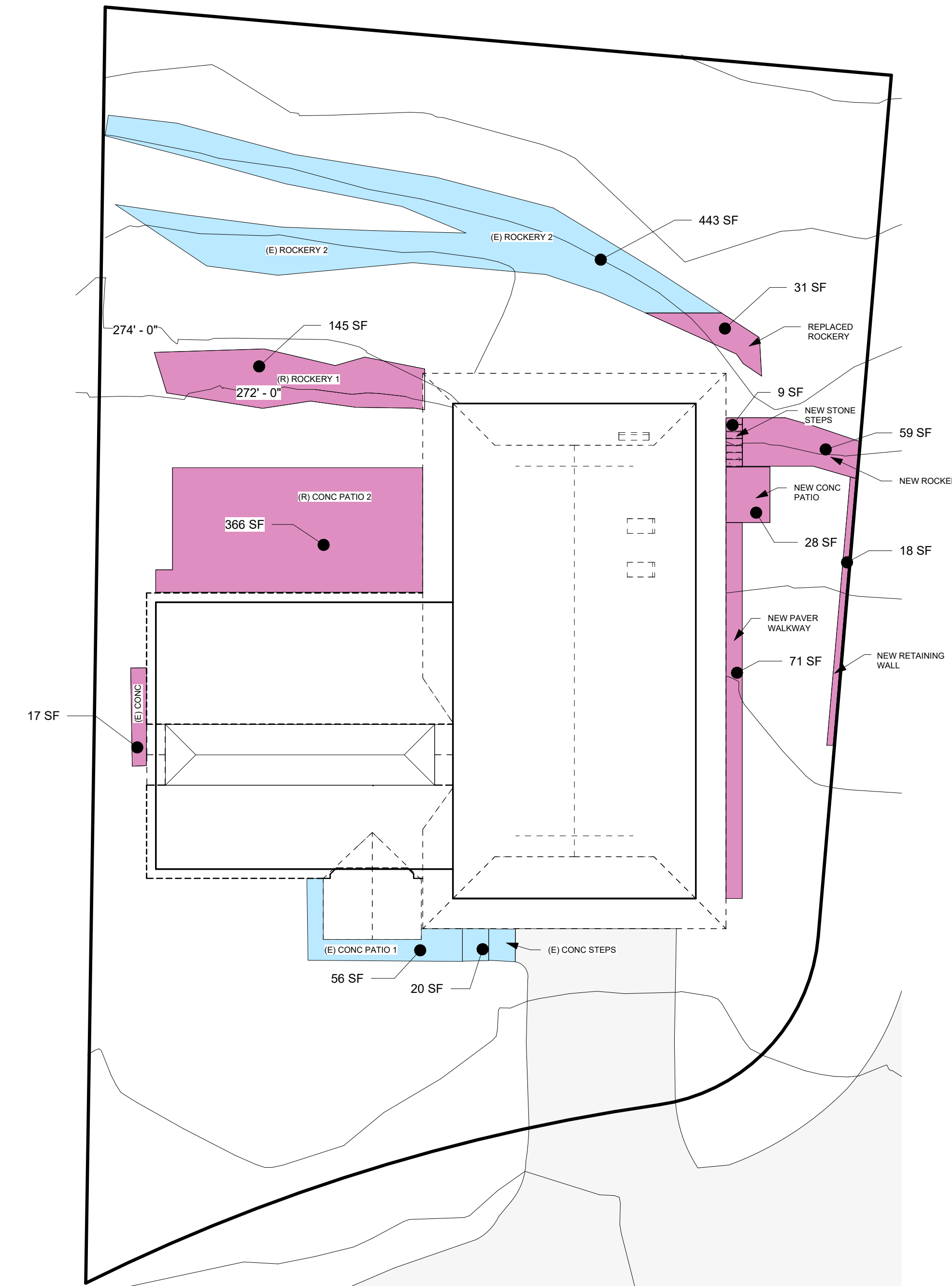
PROPOSED HARDSCAPE % : (J/B) X100
(1,264 / 9,701) X 100
= **13.02 %**



1 EXISTING - HARDSCAPE
1" = 10'-0"

(E) - EXISTING
(R) - REPLACED
(N) - NEW
(EU) - EXISTING UNCOVERED

HARDSCAPE	
	EXISTING HARDSCAPE TO REMAIN
	DEMO (E) HARDSCAPE
	NEW/REPLACED HARDSCAPE UNCOVERED HARDSCAPE UNDER NEW ROOF OVERHANGS



2 PROPOSED - HARDSCAPE
1" = 10'-0"

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ & SHANNON MCINTYRE

Record #: PRE23-023
Date: 01/29/24

HARDSCAPE CALCULATIONS

A100.3

Scale: As indicated

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ &
SHANNON MCINTYRE

Record #: PRE23-023
Date: 01/29/24

**STORMWATER
CALCULATIONS**

A100.4

Scale: As indicated

STORM WATER CALCULATIONS

NET INCREASE IMPERVIOUS SURFACE: (<500 SF)

EXISTING: W/ EXISTING ROOFLINE

EXISTING LOT COVERAGE: **3,109 SF**
EXISTING HARDSCAPE: **1,395 SF**

TOTAL: **4,504 SF**

PROPOSED: W/ REPLACED ROOFLINE

PROPOSED LOT COVERAGE: **3,268 SF**
PROPOSED HARDSCAPE: **1,264 SF**

TOTAL: **4,532 SF**

NET IMPERVIOUS SURFACE CALCULATION:


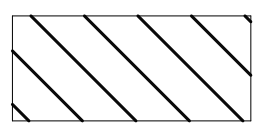
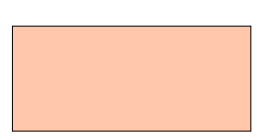
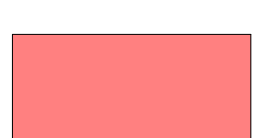



= PROPOSED (-) EXISTING:
4,532 - 4,504 = **28 SF**

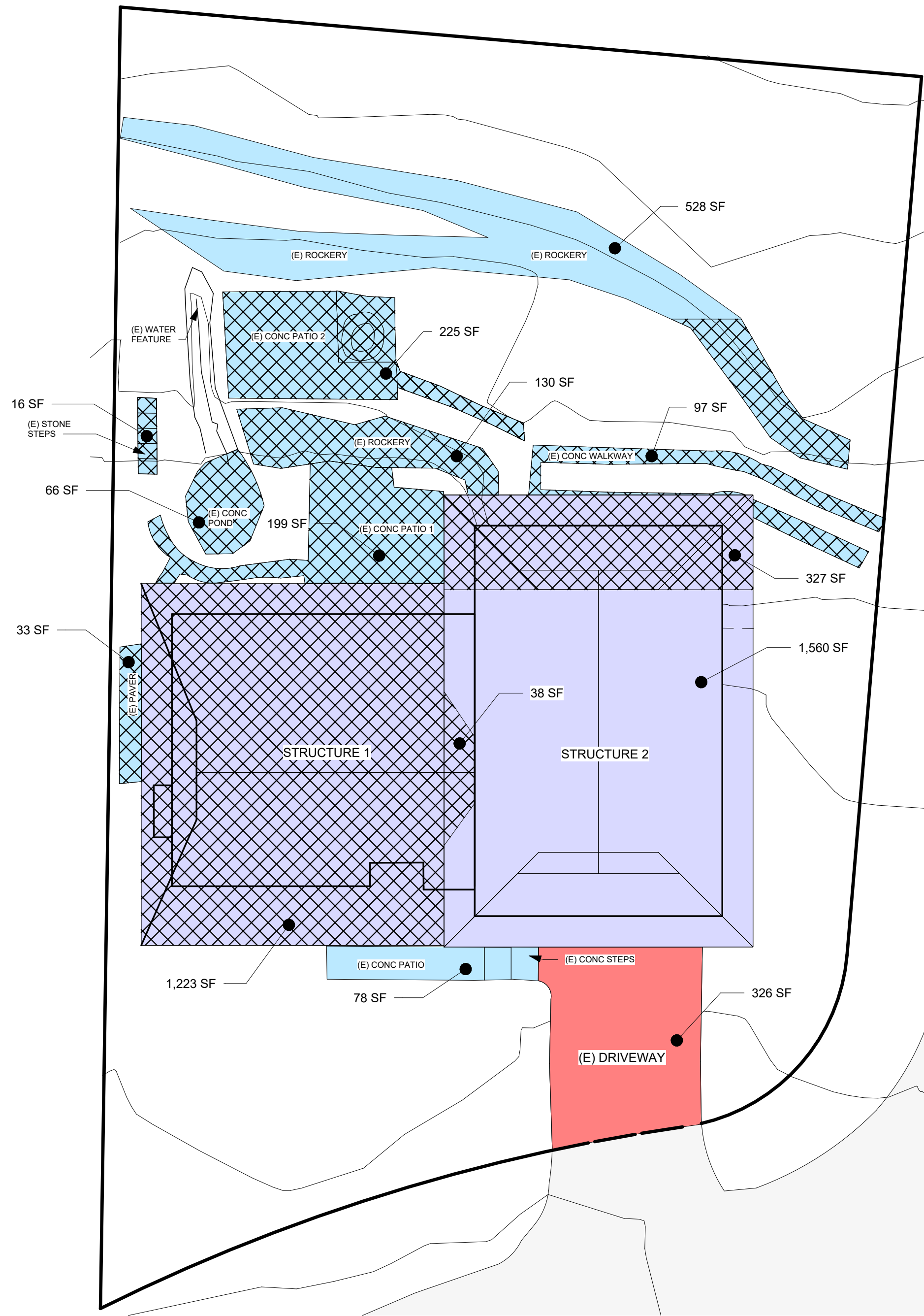
NEW / REPLACED HARD SURFACE AREA: (<2,000 SF)

NEW/REPLACED HARDSCAPE: **744 SF**

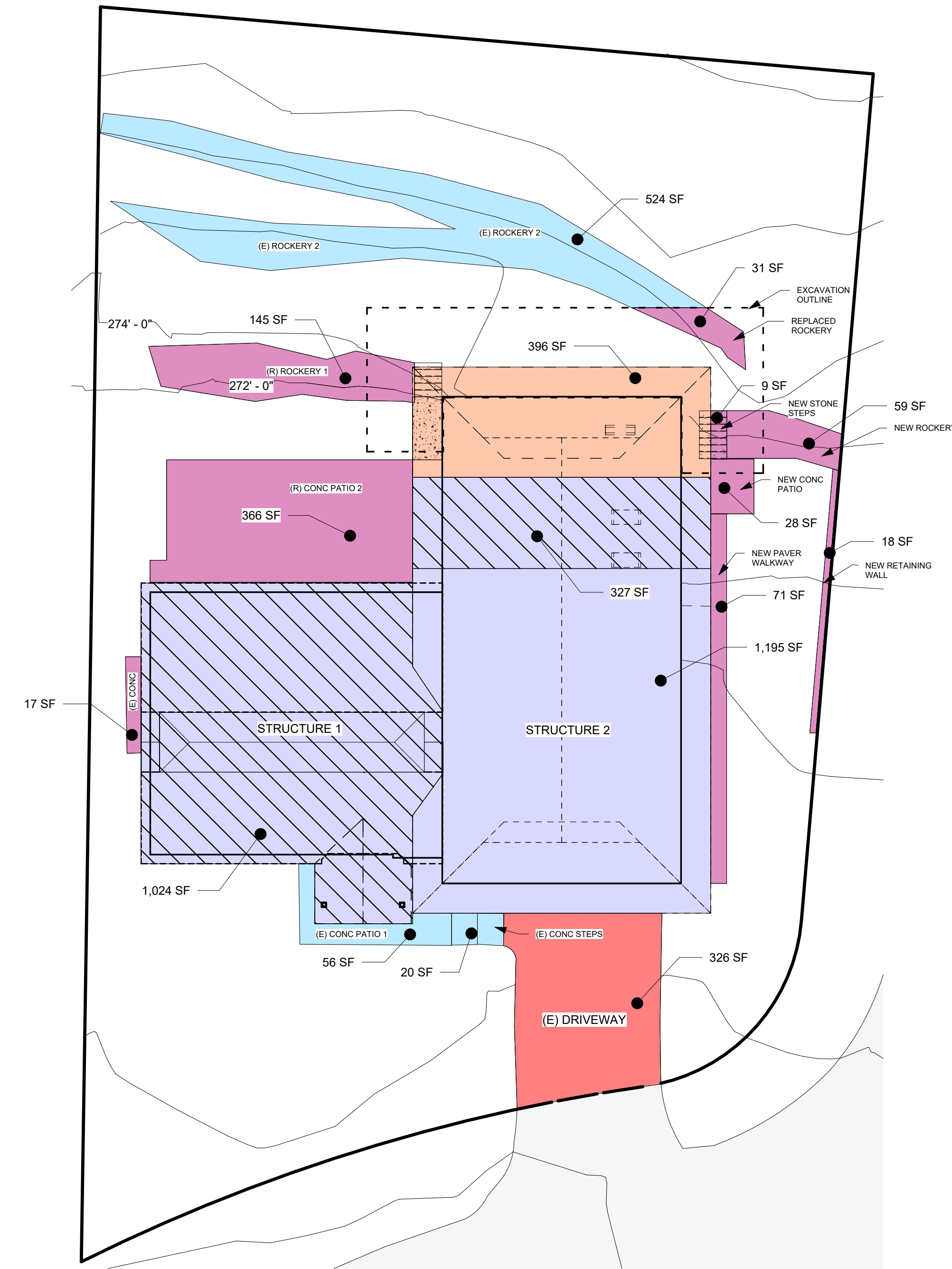
NEW LOT COVERAGE- ROOF AREA: **396 SF**
REPLACED ROOF AREA OVER EXISTING HABITABLE FLOOR SPACE SHALL BE EXEMPT FROM THIS TOTAL NEW/REPLACED HARD SURFACE CALCULATION.

TOTAL: **1,139 SF**

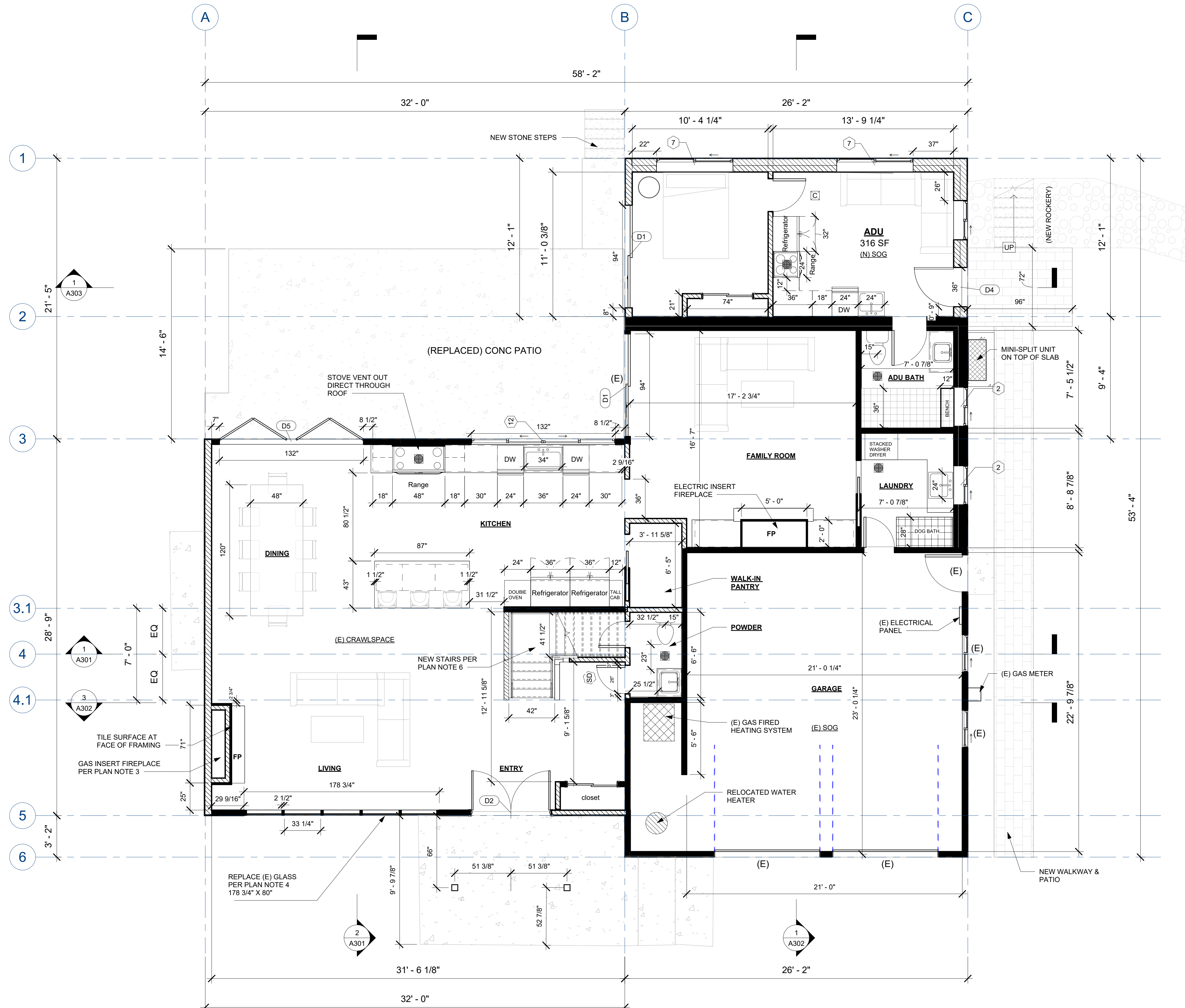
HARD SURFACES	
	EXISTING ROOF AREA TO REMAIN
	REPLACED EXISTING ROOF AREA
	NEW ROOF AREA
	EXISTING VEHICULAR USE TO REMAIN
	EXISTING HARDSCAPE TO REMAIN
	DEMO (E) LOT COVERAGE & HARDSCAPE
	NEW/REPLACED HARDSCAPE UNCOVERED HARDSCAPE UNDER NEW ROOF OVERHANGS



② EXISTING - IMPERVIOUS SURFACE
1" = 10'-0"



① PROPOSED - IMPERVIOUS SURFACE
1" = 10'-0"



PLAN NOTES:

- CONTRACTOR TO VERIFY MEASUREMENTS OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION. DIMENSIONS SUBJECT TO CONVENTIONAL TOLERANCES.
- REFER TO ELEVATIONS FOR WINDOW AND EXTERIOR DOOR SCHEDULES INCLUDING UNIT SIZE.
- GAS INSERT FIREPLACE. VERIFY REQUIRED FRAMING WIDTH, HEIGHT, AND DEPTH PER MANUFACTURER SPECIFICATIONS. REPLACE (E) GLASS PANELS IN (E) FRAME - CONTRACTOR TO VERIFY GLASS PANEL DIMENSION FOR REPLACEMENT.
- STAIR DIMENSIONS PER IRC R311.7, MAIN INTERIOR STAIR SHALL BE REBUILT AND NEW GUARDS WILL BE INSTALLED TO COMPLY WITH IRC R312.
- AIR EXHAUST OPENINGS SHALL TERMINATE NOT LESS THAN 3 FEET FROM OPERABLE AND NONOPERABLE OPENINGS INTO THE BUILDING AND 10 FEET FROM MECHANICAL AIR INTAKES EXCEPT WHERE THE OPENING IS LOCATED 3 FEET ABOVE THE AIR INTAKE.
- PROVIDE FIREBLOCKING FROM THE WALL TOP PLATE TO THE UNDERSIDE OF THE ROOF SHEATHING.

ENERGY & FUEL NORMALIZATION CREDITS:
2018 WASHINGTON STATE ENERGY CODE - RESIDENTIAL

CREDITS REQUIRED
SMALL DWELLING UNIT: 3.0 CREDITS REQUIRED

PROPOSED:
HEATING OPTIONS:
DHP WITH ZONAL ELECTRIC RESISTANCE (4) PER OPT. (3.4) : .5 CREDITS
ENERGY OPTIONS:
EFFICIENT BUILDING ENVELOPE OPTION (1.4) : 1.0 CREDITS
HIGH EFFICIENCY HVAC OPTION (3.4) : 1.5 CREDITS

CREDIT OPTION (1.4): EFFICIENT BUILDING ENVELOPE
PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.1 WITH THE FOLLOWING MODIFICATIONS:

VERTICAL FENESTRATION = U-FACTOR: (.25)
WALLS - R-21 + R-4 CI
FLOORS - R-38
BASEMENT WALL: R-21 INT + R-5 CI
SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB
BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB OR COMPLIANCE BASED ON SECTION R402.1.4: REDUCE THE TOAL CONDUCTIVE UA BY 30%

CREDIT OPTION (3.4): DUCTLESS MINI SPLIT SYSTEM SPECS

DUCTLESS MINI HEAT SPLIT SYSTEM
HEATING SEASONAL PERFORMANCE FACTOR: 11.5 HSPF
MODEL: BLUERIDGE BMM5519-9C-9C-12C-18C
HEATING CAPACITY: 55,000 BTU (4.5 TON)
ENERGY EFFICIENCY RATIO: 10.5 EER
SEER: 19.0 SEER
ZONES: 5

WHOLE HOUSE VENTILATION:
CALCULATION PER TABLE M1505.4.3(1)

PROPOSED ADDITION CONDITIONED SF: 632 SF
NUMBER OF BEDROOMS: 2
VENTILATION AIRFLOW RATE (CFM): 35 CFM

WHOLE HOUSE VENTILATION: 35 CFM CONTINUOUSLY

FLOOR PLAN LEGEND		
SYMBOL	DESCRIPTION	NOTES
	EXISTING WALL	2X4 STUD @ 16" O.C. (EXT. U.N.O) 2X4 STUD @ 16" O.C. (INT. U.N.O) 8" CONCRETE WALL (EXT.)
	NEW WALL	2X6 STUD @ 16" O.C. (EXT. U.N.O) 2X4 STUD @ 16" O.C. (INT. U.N.O)
	DEMO WALL	2X4 STUD @ 16" O.C. (EXT. U.N.O) 2X4 STUD @ 16" O.C. (INT. U.N.O)

SYMBOLS LEGEND	
SYMBOL	DESCRIPTION
	FAN MIN 50 CFM, BATH, TOILET ROOM & LAUNDRY FAN MIN 100 CFM, KITCHEN
	COMBINED CARBON MONOXIDE DETECTOR & SMOKE DETECTORS
	SMOKE DETECTOR INTERCONNECTED AND HARDWIRED W/ BATTERY BACKUP
	CARBON MONOXIDE DETECTOR, INTERCONNECTED AND HARDWIRED W/BATTERY BACKUP
	WHOLE HOUSE VENTILATION 35 CFM CONTINUOUSLY

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ &
SHANNON MCINTYRE

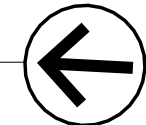
Record #: PRE23-023
Date: 01/29/24

PROPOSED LEVEL 1

A102

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

1 LEVEL 1
1/4" = 1'-0"



BUILD STUFF

BUILD STUFF LLC
206-771-5014
diego@buildstuffstudios.com

REVISION TABLE	
Revision #	Date

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:

PERMIT DRAWINGS SET

Project Owner:

RODOLFO HERNANDEZ &
SHANNON MCINTYRE

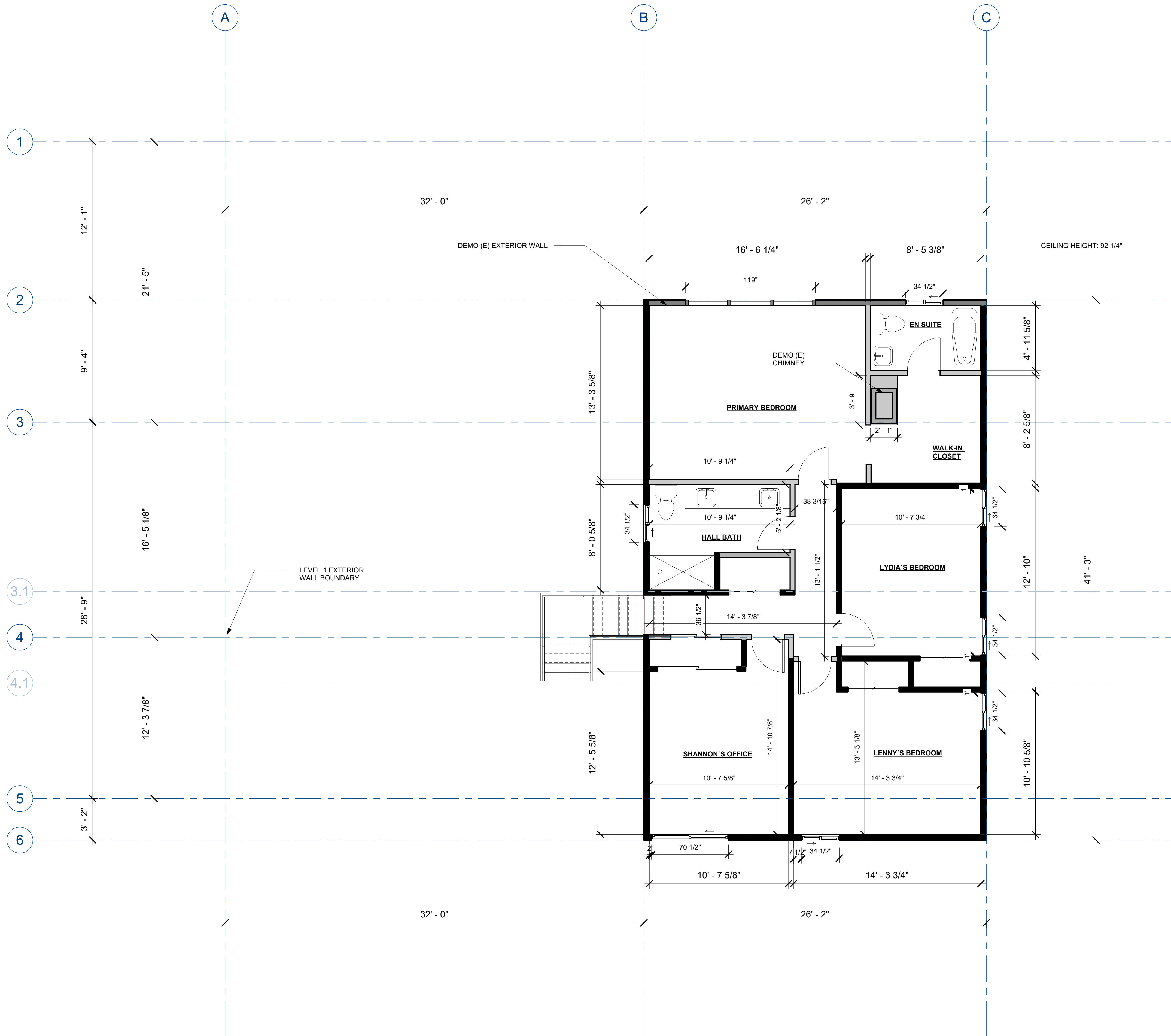
Record #: PRE23-023

Date: 01/29/24

DEMO LEVEL 2

A103

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



DEMO PLAN NOTES:

1. CONTRACTOR TO VERIFY MEASUREMENTS OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. REFER TO ELEVATIONS FOR WINDOW AND EXTERIOR DOOR SCHEDULES.
3. DEMO ALL EXISTING BRICK FIREPLACES.
4. DEMOLITION: ITEMS INDICATED ON PLANS TO BE DEMOLISHED, SHALL BE COMPLETELY REMOVED AND DISPOSED UNLESS NOTED OTHERWISE. CONTRACTOR/OWNER RESPONSIBLE FOR REVIEW OF THE HAZARDOUS MATERIALS ABATEMENT, REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS IF APPLICABLE FOR CUTTING AND PATCHING WORK.

EXISTING CONDITION NOTES:

1. (E) EXTERIOR WALLS: 2X4 STUD @16" O.C. 8" CONCRETE FOUNDATION WALLS WITH FOOTINGS.
2. (E) FLOOR STRUCTURE: WOOD FRAMED CRAWLSPACE FLOOR AT MAIN LEVEL, SLAB ON GRADE AT GARAGE, AND WOOD FRAMED FLOOR AT SECOND LEVEL.
3. (E) ROOF STRUCTURE: SITE-CUT ROOF TRUSSES.
4. (E) HEATING: CENTRAL FORCED AIR HEATING - NATURAL GAS - PUBLIC SUPPLY, GAS METER.
5. (E) HOT WATER UNIT: GAS FUELED.
6. (E) ATTIC: VENTED THROUGH SOFFIT AND ROOF VENTS.

STRUCTURAL ALTERATION CALCULATION:

PER MICC 19.01.050 (D)(1)(b)(iii)

PERCENTAGE OF EXTERIOR WALLS ALTERED =

(SUM OF THE LENGTH OF EXISTING EXTERIOR WALLS TO BE STRUCTURALLY ALTERED) ÷ (SUM OF THE LENGTH OF EXISTING EXTERIOR WALLS)

(45.4 FEET) ÷ (204.21 FEET) = **22%**

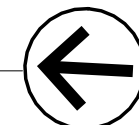
(A) THE "SUM OF THE LENGTH OF EXISTING EXTERIOR WALLS TO BE STRUCTURALLY ALTERED" IS THE SUM OF EACH WALL SEGMENT THAT IS COMPLETELY DEMOLISHED.

(B) THE "SUM OF THE LENGTH OF EXTERIOR WALLS" IS THE SUM OF THE LENGTHS OF EACH EXTERIOR WALL SEGMENT OF A STRUCTURE OR BUILDING.

FLOOR PLAN LEGEND

SYMBOL	DESCRIPTION	NOTES
	EXISTING WALL	2X4 STUD @ 16" O.C. (EXT. U.N.O) 2X4 STUD @ 16" O.C. (INT. U.N.O) 8" CONCRETE WALL (EXT.)
	NEW WALL	2X6 STUD @ 16" O.C. (EXT. U.N.O) 2X4 STUD @ 16" O.C. (INT. U.N.O)
	DEMO WALL	2X4 STUD @ 16" O.C. (EXT. U.N.O) 2X4 STUD @ 16" O.C. (INT. U.N.O)

1 LEVEL 2 - DEMO
1/4" = 1'-0"





PLAN NOTES:

- CONTRACTOR TO VERIFY MEASUREMENTS OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION. DIMENSIONS SUBJECT TO CONVENTIONAL TOLERANCES.
- REFER TO ELEVATIONS FOR WINDOW AND EXTERIOR DOOR SCHEDULES INCLUDING UNIT SIZE.
- GAS INSERT FIREPLACE, VERIFY REQUIRED FRAMING WIDTH, HEIGHT, AND DEPTH PER MANUFACTURER SPECIFICATIONS. REPLACE (E) GLASS PANELS IN (E) FRAME - CONTRACTOR TO VERIFY GLASS PANEL DIMENSION FOR REPLACEMENT.
- STAIR DIMENSIONS PER IRC R311.7, MAIN INTERIOR STAIR SHALL BE REBUILT AND NEW GUARDS WILL BE INSTALLED TO COMPLY WITH IRC R312.
- AIR EXHAUST OPENINGS SHALL TERMINATE NOT LESS THAN 3 FEET FROM OPERABLE AND NONOPERABLE OPENINGS INTO THE BUILDING AND 10 FEET FROM MECHANICAL AIR INTAKES EXCEPT WHERE THE OPENING IS LOCATED 3 FEET ABOVE THE AIR INTAKE.
- PROVIDE FIREBLOCKING FROM THE WALL TOP PLATE TO THE UNDERSIDE OF THE ROOF SHEATHING.

WHOLE HOUSE VENTILATION:

CALCULATION PER TABLE M1505.4.3(1)

PROPOSED ADDITION CONDITIONED SF: 632 SF
NUMBER OF BEDROOMS: 2
VENTILATION AIRFLOW RATE (CFM): 35 CFM

WHOLE HOUSE VENTILATION: 35 CFM CONTINUOUSLY

FLOOR PLAN LEGEND

SYMBOL	DESCRIPTION	NOTES
	EXISTING WALL	2X4 STUD @ 16" O.C. (EXT. U.N.O) 2X4 STUD @ 16" O.C. (INT. U.N.O) 8" CONCRETE WALL (EXT.)
	NEW WALL	2X6 STUD @ 16" O.C. (EXT. U.N.O) 2X4 STUD @ 16" O.C. (INT. U.N.O)
	DEMO WALL	2X4 STUD @ 16" O.C. (EXT. U.N.O) 2X4 STUD @ 16" O.C. (INT. U.N.O)

SYMBOLS LEGEND

SYMBOL	DESCRIPTION
	FAN MIN 50 CFM, BATH, TOILET ROOM & LAUNDRY FAN MIN 100 CFM, KITCHEN
	COMBINED CARBON MONOXIDE DETECTOR & SMOKE DETECTORS
	SMOKE DETECTOR INTERCONNECTED AND HARDWIRED W/ BATTERY BACKUP
	CARBON MONOXIDE DETECTOR, INTERCONNECTED AND HARDWIRED W/BATTERY BACKUP
	WHOLE HOUSE VENTILATION 35 CFM CONTINUOUSLY

REVISION TABLE	
Revision #	Date

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:

PERMIT DRAWINGS SET

Project Owner:

RODOLFO HERNANDEZ &
SHANNON MCINTYRE

Record #: PRE23-023

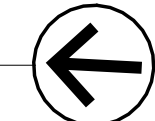
Date: 01/29/24

PROPOSED LEVEL 2

A104

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

1 LEVEL 2
1/4" = 1'-0"



REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ &
SHANNON MCINTYRE

Record #: PRE23-023
Date: 01/29/24

DEMO ROOF PLAN

A105

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

PLAN NOTES:

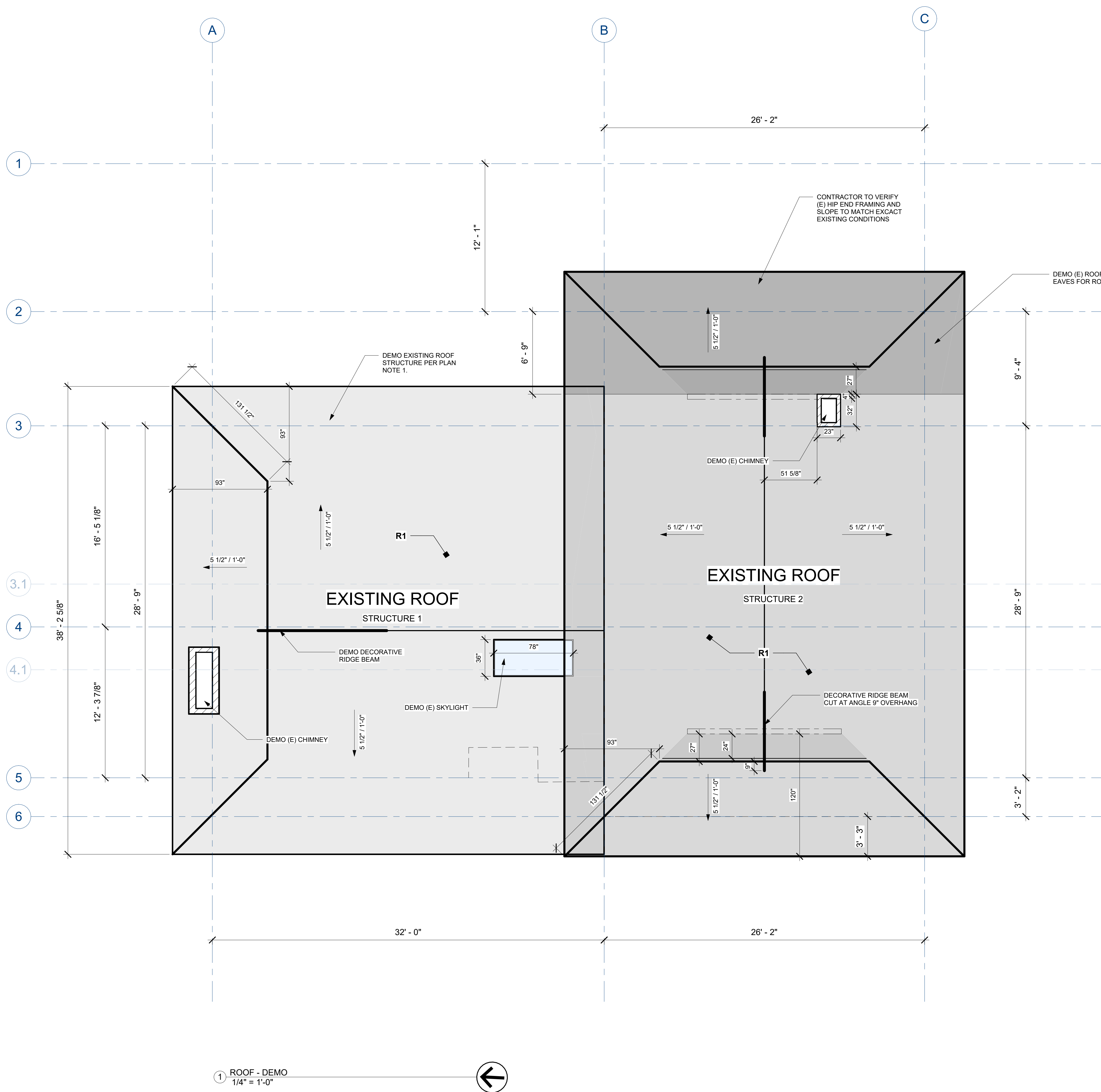
1. DEMO EXISTING ROOF OF MAIN LEVEL STRUCTURE. SPECIAL PRECAUTIONS MUST BE TAKEN WHEN CLIPPING EXISTING DUCTWORK AND ELECTRICAL WIRES DURING DEMOLITION.
2. EXISTING END HIP ROOF TO BE VERIFIED ON-SITE TO MATCH EXACT EXISTING CONDITIONS ONCE ROOFING MATERIAL HAS BEEN REMOVED AND EXISTING STRUCTURE IS EXPOSED.
3. DEMOLITION: ITEMS INDICATED ON PLANS TO BE DEMOLISHED, SHALL BE COMPLETELY REMOVED AND DISPOSED UNLESS NOTED OTHERWISE. CONTRACTOR/OWNER RESPONSIBLE FOR REVIEW OF THE HAZARDOUS MATERIALS ABATEMENT, REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS IF APPLICABLE FOR CUTTING AND PATCHING WORK.

EXISTING CONDITION NOTES:

1. (E) EXTERIOR WALLS: 2X4 STUD @16" O.C.
2. 8" CONCRETE FOUNDATION WALLS WITH FOOTINGS.
3. (E) FLOOR STRUCTURE: WOOD FRAMED CRAWLSPACE FLOOR AT MAIN LEVEL, SLAB ON GRADE AT GARAGE, AND WOOD FRAMED FLOOR AT SECOND LEVEL.
4. (E) ROOF STRUCTURE: SITE-CUT ROOF TRUSSES.
5. (E) HEATING: CENTRAL FORCED AIR HEATING - NATURAL GAS - PUBLIC SUPPLY, GAS METER.
6. (E) HOT WATER UNIT: GAS FUELED.
7. (E) ATTIC: VENTED THROUGH SOFFIT AND ROOF VENTS.

ROOF ASSEMBLIES

TYPE	RATING	ASSEMBLY
R1 - (E)	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING -SITE-CUT TRUSSES -BATT INSULATION, 1/2" GWB CEILING
R2	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING PER SRTUCT. -2 X 12 RAFTERS PER SRTUCT. -10-1/4" HIGH PERFORM. BATT INSULATION R-38, 1/2" GWB CEILING
R3	0-HR	-TPO, ICE AND WATER BARRIER, SHEATHING PER SRTUCT. -2 X 12 RAFTERS PER STRUCT. -10-1/4" HP BATT INSULATION R-38, 1/2" GWB CEILING
R4	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING PER STRUCT. -PREFABRICATED TRUSSES PER STRUCT. -BATT INSULATION MIN R-49, 1/2" GWB CEILING



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

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status: PERMIT DRAWINGS SET

Project Owner: RODOLFO HERNANDEZ & SHANNON MCINTYRE

Record #: PRE23-023

Date: 01/29/24

PROPOSED ROOF PLAN

A106

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

PLAN NOTES:

- STRUCTURAL SPECIFICATIONS PER STRUCTURAL PLANS.
- THERMOSET SINGLE-PLY MEMBRANE ROOFS SHALL HAVE A DESIGN SLOPE OF NOT LESS THAN ONE-FOURTH UNIT VERTICAL IN 12 UNITS HORIZONTAL (2-PERCENT SLOPE) FOR DRAINAGE
- CEILINGS VAULTED - SINGLE RAFTER MUST HAVE A MIN INSULATION VALUE OF R38 WITH THE FULL INSULATION DEPTH EXTENDING OVER THE TOP PLATE OF THE EXTERIOR WALL.
- CEILINGS W/ ATTICS MINIMUM INSULATION VALUE OF R-49. PROVIDE FIREBLOCKING FROM THE WALL TOP PLATE TO THE UNDERSIDE OF THE ROOF SHEATHING.
- ROOF PITCH PER PLAN UNLESS NOTED OTHERWISE.

SKYLIGHTS AND SLOPED GLAZING (PER IRC R308.6)

R308.6.2 MATERIALS: MORE THAN 12 FEET ABOVE A WALKING SURFACE THE INTERLAYER THICKNESS SHALL BE NOT LESS THAN: LAMINATED GLASS WITH POLYVINYL BUTYRAL INTERLAYER THICKNESS NOT LESS THAN 0.030 INCH (0.76 MM).

CURBS FOR SKYLIGHTS (PER IRC R308.6.8)

UNIT SKYLIGHTS INSTALLED IN A ROOF WITH A PITCH OF LESS THAN THREE UNITS VERTICAL IN 12 UNITS HORIZONTAL (25-PERCENT SLOPE) SHALL BE MOUNTED ON A CURB EXTENDING NOT LESS THAN 4 INCHES ABOVE THE PLANE OF THE ROOF, UNLESS SPECIFIED IN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

UNIT SKYLIGHTS TESTING AND LABELING (PER IRC R308.6.9)

SHALL BE TESTED BY AN APPROVED INDEPENDENT LABORATORY, AND BEAR A LABEL IDENTIFYING MANUFACTURER, PERFORMANCE GRADE RATING AND APPROVED INSPECTION AGENCY TO INDICATE COMPLIANCE WITH THE REQUIREMENTS OF AAMA/WDMA/CSA 1011/S.2/A440.

THERMOSET SINGLE-PLY ROOFING (PER IRC R905.12)

INSTALLATION OF THERMOSET SINGLE-PLY ROOFING SHALL COMPLY WITH THE PROVISIONS OF THIS SECTION. SHALL HAVE A DESIGN SLOPE OF MINIMUM ONE-FOURTH UNIT VERTICAL IN 12 UNITS HORIZONTAL (2-PERCENT SLOPE) FOR DRAINAGE. R905.12.3 APPLICATION: THERMOSET SINGLE-PLY ROOFS SHALL BE INSTALLED IN ACCORDANCE WITH THIS CHAPTER AND THE MANUFACTURER'S INSTRUCTIONS.

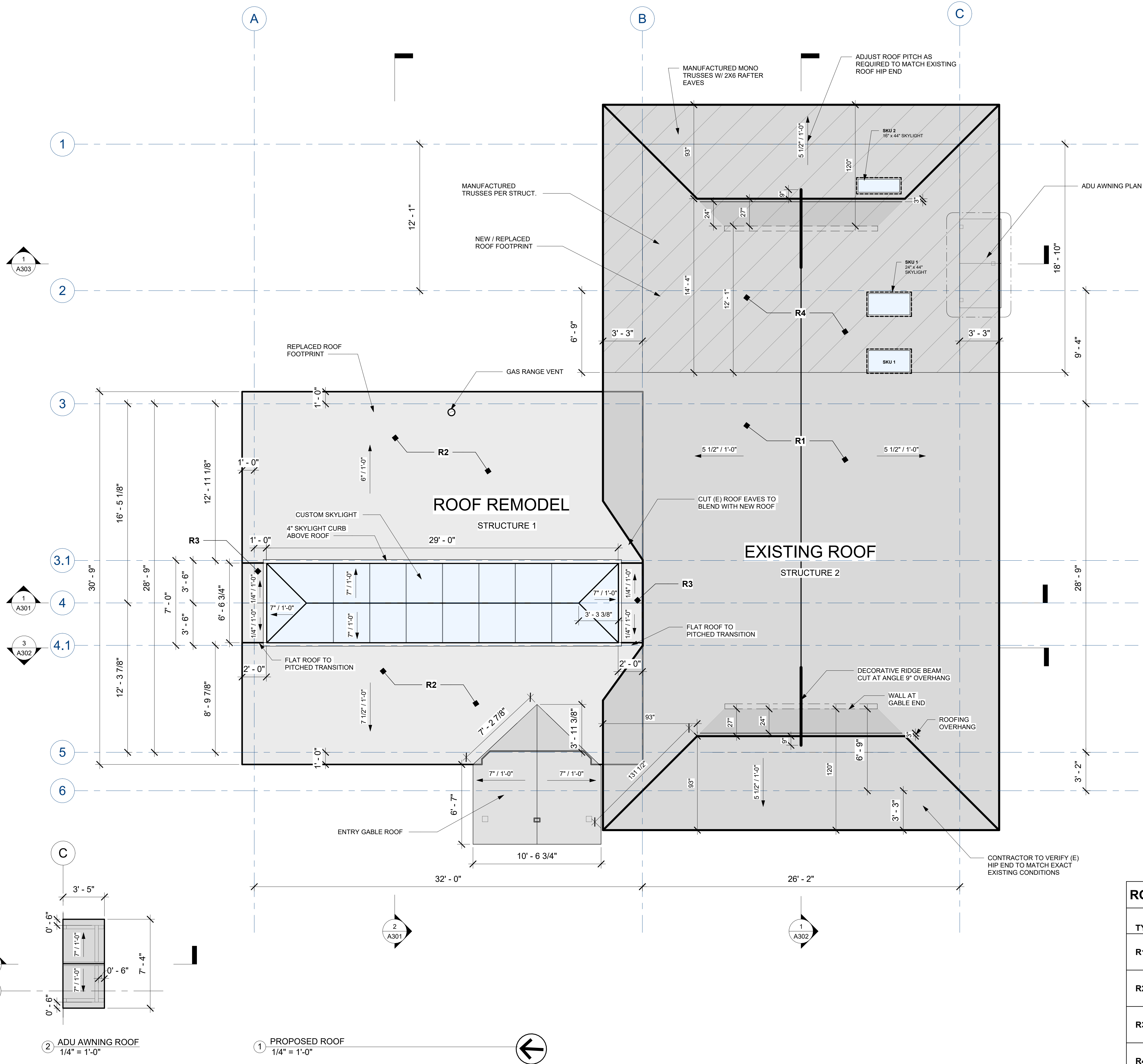
ROOF VENTILATION CALCULATIONS: (PER IRC R806)

ATTIC VENTILATION REQUIRED:
1 SF OF VENTILATION AREA FOR EACH 300 SF OF ATTIC AREA.
EXISTING VENTED ATTIC: VENTED THROUGH SOFFIT AND ROOF VENTS.

NEW VENTED ATTIC AREA: 493 SQ.FT
493 / 300 = 1.6 SQ.FT OF NFVA

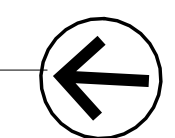
50% INTAKE		50% OUTLET	
REQUIRED INTAKE (SQ.FT)	0.8	REQUIRED OUTLET (SQ.FT)	0.8
SQ.IN PER (SQ.FT)	144	SQ.IN PER (SQ.FT)	144
REQUIRED INTAKE (SQ.IN)	115.2	REQUIRED OUTLET (SQ.IN)	115.2
LINEAR FT OF INTAKE	63.8	LINEAR FT OF OUTLET	12.1
INTAKE VENT SQ.IN PER LINEAR FT	1.8	OUTLET VENT SQ.IN PER LINEAR FT	9.5
INTAKE VENT SPECS: COR-A-VENT SOFFIT VENT R5-400 18.75 SQ.IN NFVA/LF OR SIMILAR		OUTLET VENT SPECS: COR-A-VENT RIDGE VENT V-300 13.5 SQ.IN NFVA/LF OR SIMILAR	

ROOF ASSEMBLIES		
TYPE	RATING	ASSEMBLY
R1 - (E)	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING -SITE-CUT TRUSSES -BATT INSULATION, 1/2" GWB CEILING
R2	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING PER SRUCT. -2 X 12 RAFTERS PER SRUCT. -10-1/4" HIGH PERFORM. BATT INSULATION R-38, 1/2" GWB CEILING
R3	0-HR	-TPO, ICE AND WATER BARRIER, SHEATHING PER SRUCT. -2 X 12 RAFTERS PER SRUCT. -10-1/4" HP BATT INSULATION R-38, 1/2" GWB CEILING
R4	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING PER STRUCT. -PREFABRICATED TRUSSES PER STRUCT. -BATT INSULATION MIN R-49, 1/2" GWB CEILING

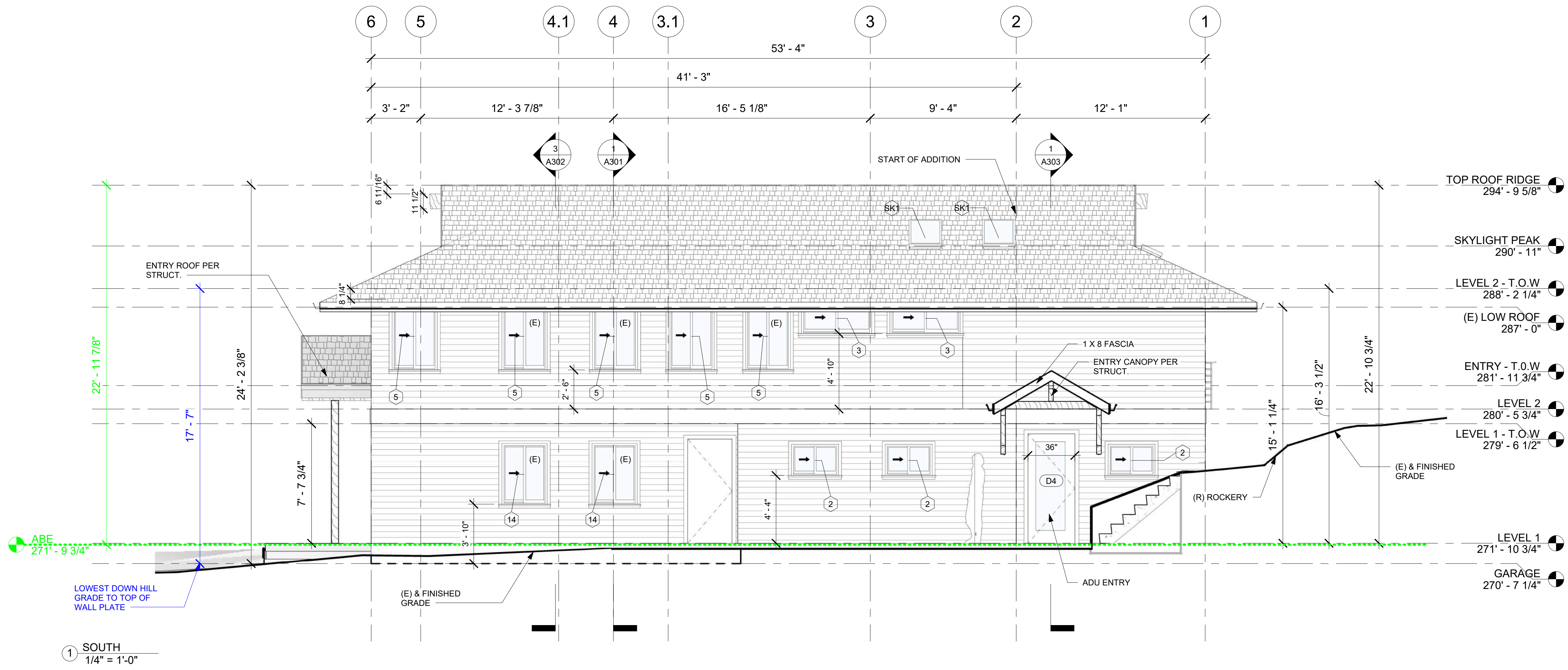


2 ADU AWNING ROOF
1/4" = 1'-0"

1 PROPOSED ROOF
1/4" = 1'-0"



REVISION TABLE	
Revision #	Revision Description



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

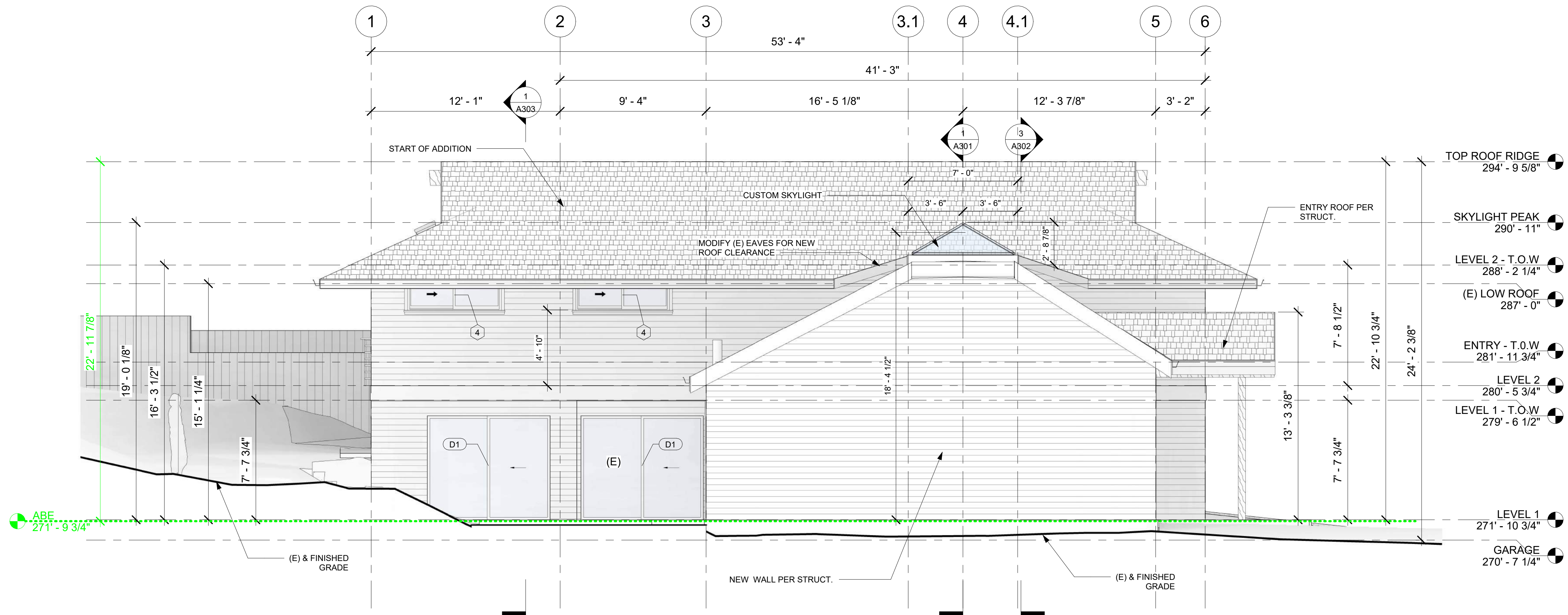
- WINDOW AND DOOR NOTES:**
- ALL FENESTRATION TO BE NFRC-CERTIFIED.
 - CONTRACTOR TO VERIFY (E) WINDOW ROUGH OPENING MEASUREMENTS PRIOR TO PROCURMENT. VERIFY ROUGH OPENING DIMENSIONS AND FINISH REQUIREMENTS OF NEW WINDOWS.
 - HEADER SIZING PER STRUCTURAL PLANS.
 - REPLACE ALL EXISTING WINDOWS WITH UPDATED WINDOWS, IN EXISTING ROUGH OPENING U.N.O
 - (E) - REPLACE ALL EXISTING WINDOWS WITH U-FACTOR OF .25
 - WINDOWS AT ADDITION TO HAVE A U-FACTOR OF .38 PER ENERGY CODE CREDIT OPTION 1.4
 - THE ADDITION'S SIDING, ROOFING, & ARCHITECTURAL DETAILS TO MATCH EXISTING CONDITIONS.
 - AN AREA-WEIGHTED AVERAGE OF FENESTRATION PRODUCTS SHALL BE PERMITTED TO SATISFY THE U-FACTOR REQUIREMENTS PER R402.3.1.
 - SAFETY GLAZING SHALL BE PROVIDED ON ALL WINDOWS AND GLAZED DOORS AT HAZARDOUS LOCATIONS PER SRC 308.4 (IRC R310); EGRESS WINDOWS TO PROVIDE 5.7 SF MINIMUM NET OPENING; 20" MINIMUM CLEAR WIDTH; 24" MINIMUM CLEAR HEIGHT; SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT USE OF KEYS OR TOOLS.
 - OPERABLE WINDOW IN HABITABLE SPACE TO PROVIDE A MINIMUM OF 12 SQUARE INCHES OF NET FREE AREA OF OPENING.

ELEVATION LEGEND

SYMBOL	DESCRIPTION	NOTES
	(E) 4.5" CEDAR LAP SIDING	MATCH (E) SIDING AT ADDITION & NEW EXT. WALLS
	3" WOOD SLAT SIDING	NEW AT ENTRY ACCENT WALL
	(E) ASPHALT ROOF SHINGLES	MATCH EXISTING SHINGLES AT NEW & REPLACED ROOF

Window Schedule			
Type Mark	Type	Width	Height
2	36"x24"	3'-0"	2'-0"
3	54" x 24"	4'-6"	2'-0"
4	72" x 24"	6'-0"	2'-0"
5	34.5" x 52.5"	2'-10 1/2"	4'-4 1/2"
7	70"x22"	5'-10"	1'-10"
10	24" x 84"	2'-0"	7'-0"
11	36" x 48"	3'-0"	4'-0"
12	132" x 40"	11'-0"	3'-4"
14	34.5" x 46.5"	2'-10 1/2"	3'-10 1/2"
15	70.5" x 52.5"	5'-10 1/2"	4'-4 1/2"
16	72" x 18"	6'-0"	1'-6"
SK1	44" x 24"	3'-8"	2'-0"
SK2	44" x 16"	3'-8"	1'-4"

Exterior Door Schedule			
Type Mark	Type	Width	Height
D1	Exterior Double Sliding Door 94" x 80"	7'-10"	6'-8"
D2	Exterior Double Front Entry Door 72" x 80"	6'-0"	6'-8"
D3	Exterior Double Sliding Door 72" x 82"	6'-0"	6'-10"
D4	Exterior Single Entry Door 36" X 84"	3'-0"	7'-0"
D5	Bifold Door Full Glass 132" x 90"	11'-0"	7'-6"



2 NORTH
1/4" = 1'-0"

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ & SHANNON MCINTYRE

Record #: PRE23-023
Date: 01/29/24

N-S ELEVATIONS

A201

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

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ &
SHANNON MCINTYRE

Record #: PRE23-023
Date: 01/29/24

W-E ELEVATIONS

A202

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

- WINDOW AND DOOR NOTES:**
- ALL FENESTRATION TO BE NFRC-CERTIFIED.
 - CONTRACTOR TO VERIFY (E) WINDOW ROUGH OPENING MEASUREMENTS PRIOR TO PROCURMENT. VERIFY ROUGH OPENING DIMENSIONS AND FINISH REQUIREMENTS OF NEW WINDOWS.
 - HEADER SIZING PER STRUCTURAL PLANS.
 - REPLACE ALL EXISTING WINDOWS WITH UPDATED WINDOWS, IN EXISTING ROUGH OPENING U.N.O
 - (E) - REPLACE ALL EXISTING WINDOWS WITH U-FACTOR OF .25
 - WINDOWS AT ADDITION TO HAVE A U-FACTOR OF .38 PER ENERGY CODE CREDIT OPTION 1.4
 - THE ADDITION'S SIDING, ROOFING, & ARCHITECTURAL DETAILS TO MATCH EXISTING CONDITIONS.
 - AN AREA-WEIGHTED AVERAGE OF FENESTRATION PRODUCTS SHALL BE PERMITTED TO SATISFY THE U-FACTOR REQUIREMENTS PER R402.3.1.
 - SAFETY GLAZING SHALL BE PROVIDED ON ALL WINDOWS AND GLAZED DOORS AT HAZARDOUS LOCATIONS PER SRC 308.4 (IRC R310); EGRESS WINDOWS TO PROVIDE 5.7 SF MINIMUM NET OPENING; 20" MINIMUM CLEAR WIDTH; 24" MINIMUM CLEAR HEIGHT; SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT USE OF KEYS OR TOOLS.
 - OPERABLE WINDOW IN HABITABLE SPACE TO PROVIDE A MINIMUM OF 12 SQUARE INCHES OF NET FREE AREA OF OPENING.

ELEVATION LEGEND

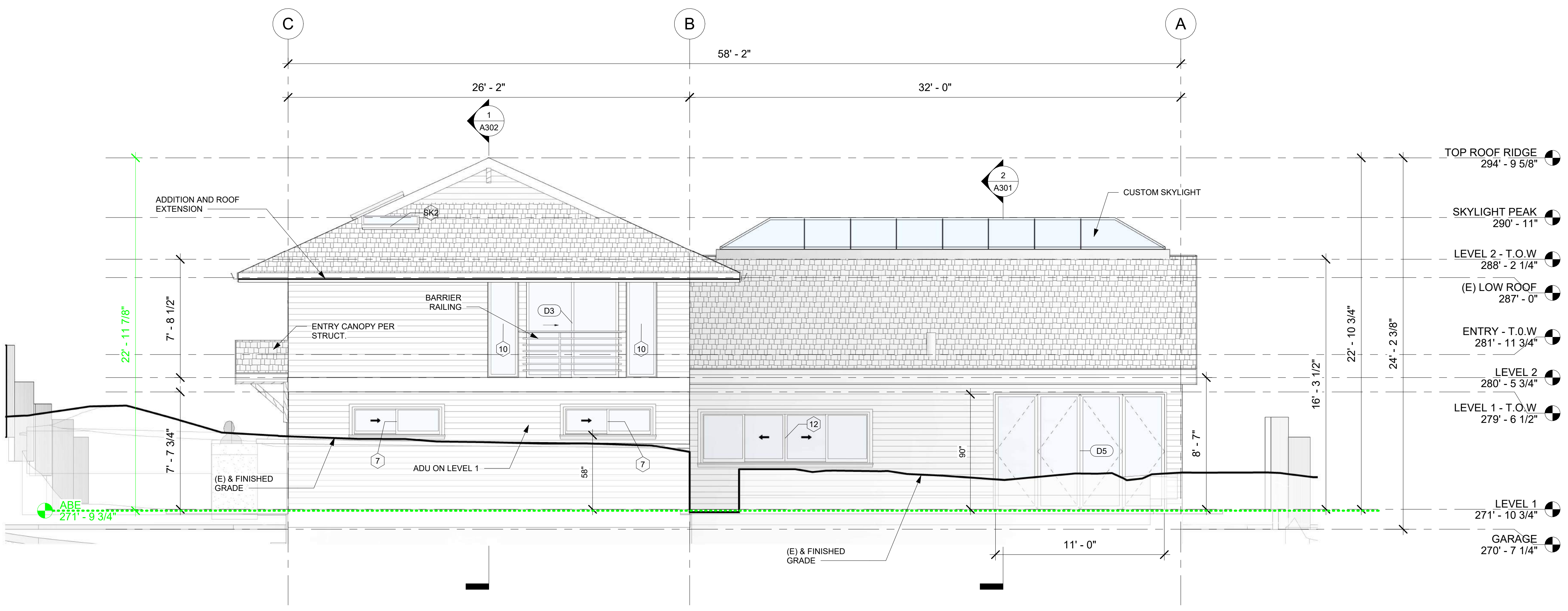
SYMBOL	DESCRIPTION	NOTES
	(E) 4.5" CEDAR LAP SIDING	MATCH (E) SIDING AT ADDITION & NEW EXT. WALLS
	3" WOOD SLAT SIDING	NEW AT ENTRY ACCENT WALL
	(E) ASPHALT ROOF SHINGLES	MATCH EXISTING SHINGLES AT NEW & REPLACED ROOF

Window Schedule

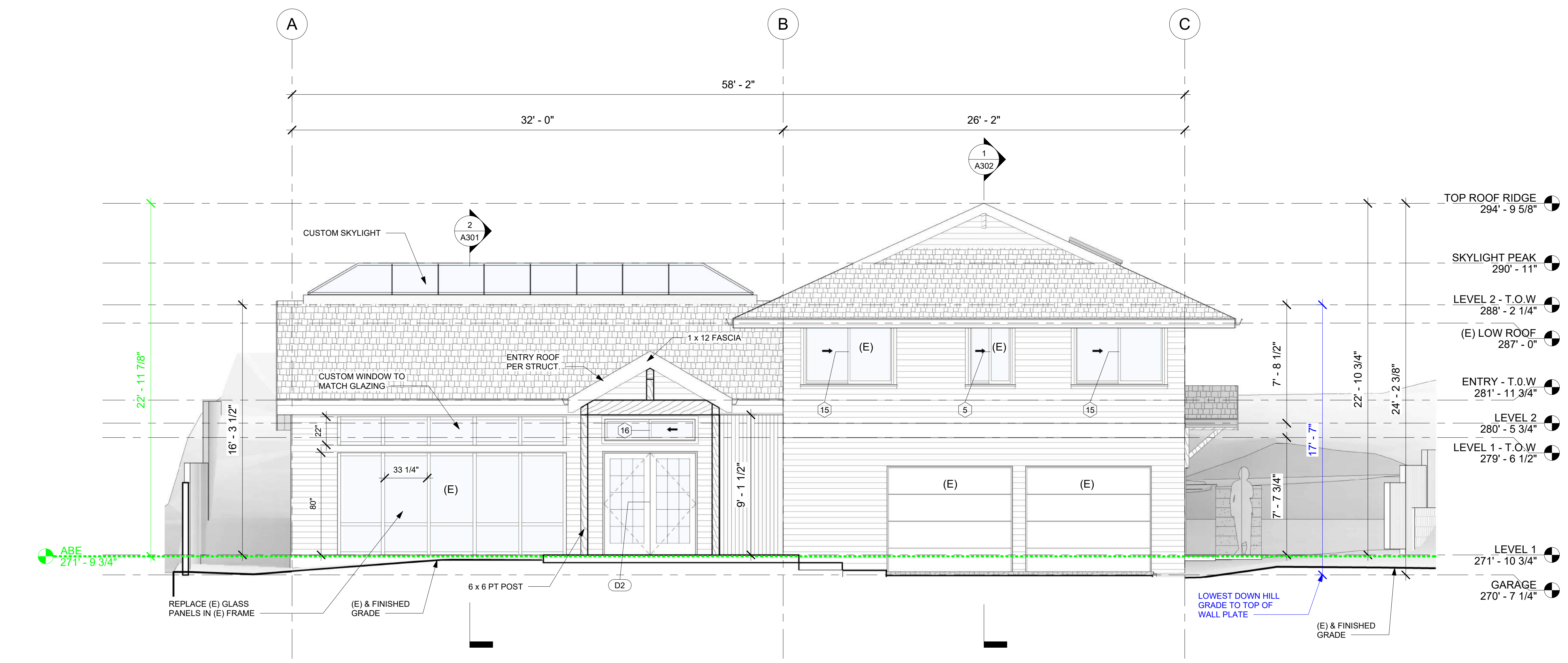
Type Mark	Type	Width	Height
2	36"x24"	3' - 0"	2' - 0"
3	54" x 24"	4' - 6"	2' - 0"
4	72" x 24"	6' - 0"	2' - 0"
5	34.5" x 52.5"	2' - 10 1/2"	4' - 4 1/2"
7	70"x22"	5' - 10"	1' - 10"
10	24" x 84"	2' - 0"	7' - 0"
11	36" x 48"	3' - 0"	4' - 0"
12	132" x 40"	11' - 0"	3' - 4"
14	34.5" x 46.5"	2' - 10 1/2"	3' - 10 1/2"
15	70.5" x 52.5"	5' - 10 1/2"	4' - 4 1/2"
16	72" x 18"	6' - 0"	1' - 6"
SK1	44" x 24"	3' - 8"	2' - 0"
SK2	44" x 16"	3' - 8"	1' - 4"

Exterior Door Schedule

Type Mark	Type	Width	Height
D1	Exterior Double Sliding Door 94" x 80"	7' - 10"	6' - 8"
D2	Exterior Double Front Entry Door 72" x 80"	6' - 0"	6' - 8"
D3	Exterior Double Sliding Door 72" x 82"	6' - 0"	6' - 10"
D4	Exterior Single Entry Door 36" X 84"	3' - 0"	7' - 0"
D5	Bifold Door Full Glass 132" x 90"	11' - 0"	7' - 6"



2 EAST
1/4" = 1'-0"



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

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ &
SHANNON MCINTYRE

Record #: PRE23-023
Date: 01/29/24

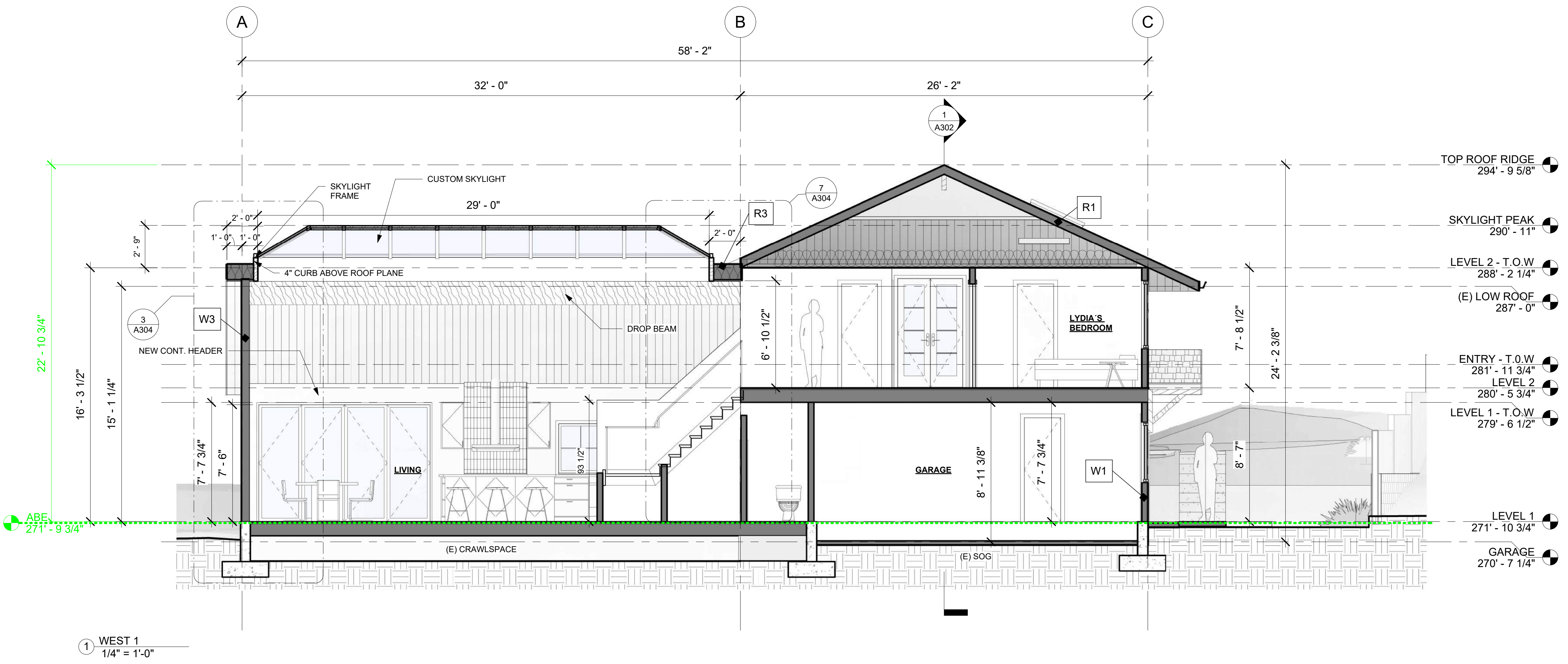
BUILDING SECTIONS
1

A301

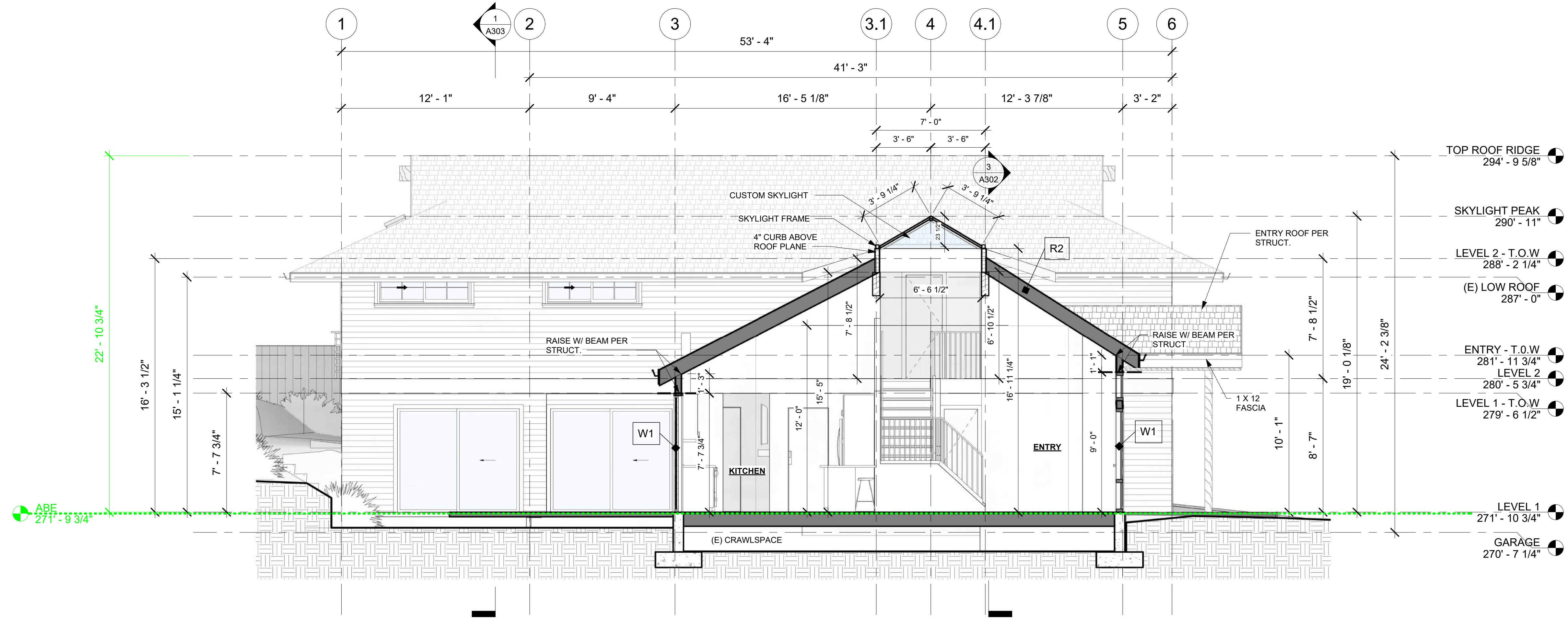
Scale: 1/4" = 1'-0"

SECTION NOTES:

- REFER TO STRUCTURAL PLANS FOR STRUCTURAL SPECIFICATIONS.
- REFER TO PROPOSED FLOOR AND ROOF PLANS FOR WALL AND ROOF ASSEMBLIES.
- REFER TO ELEVATIONS FOR WINDOW AND EXTERIOR DOOR SCHEDULES.



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



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

SECTION NOTES:

1. REFER TO STRUCTURAL PLANS FOR STRUCTURAL SPECIFICATIONS.
2. REFER TO PROPOSED FLOOR AND ROOF PLANS FOR WALL AND ROOF ASSEMBLIES.
3. REFER TO ELEVATIONS FOR WINDOW AND EXTERIOR DOOR SCHEDULES.

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:

PERMIT DRAWINGS SET

Project Owner:

RODOLFO HERNANDEZ &
SHANNON MCINTYRE

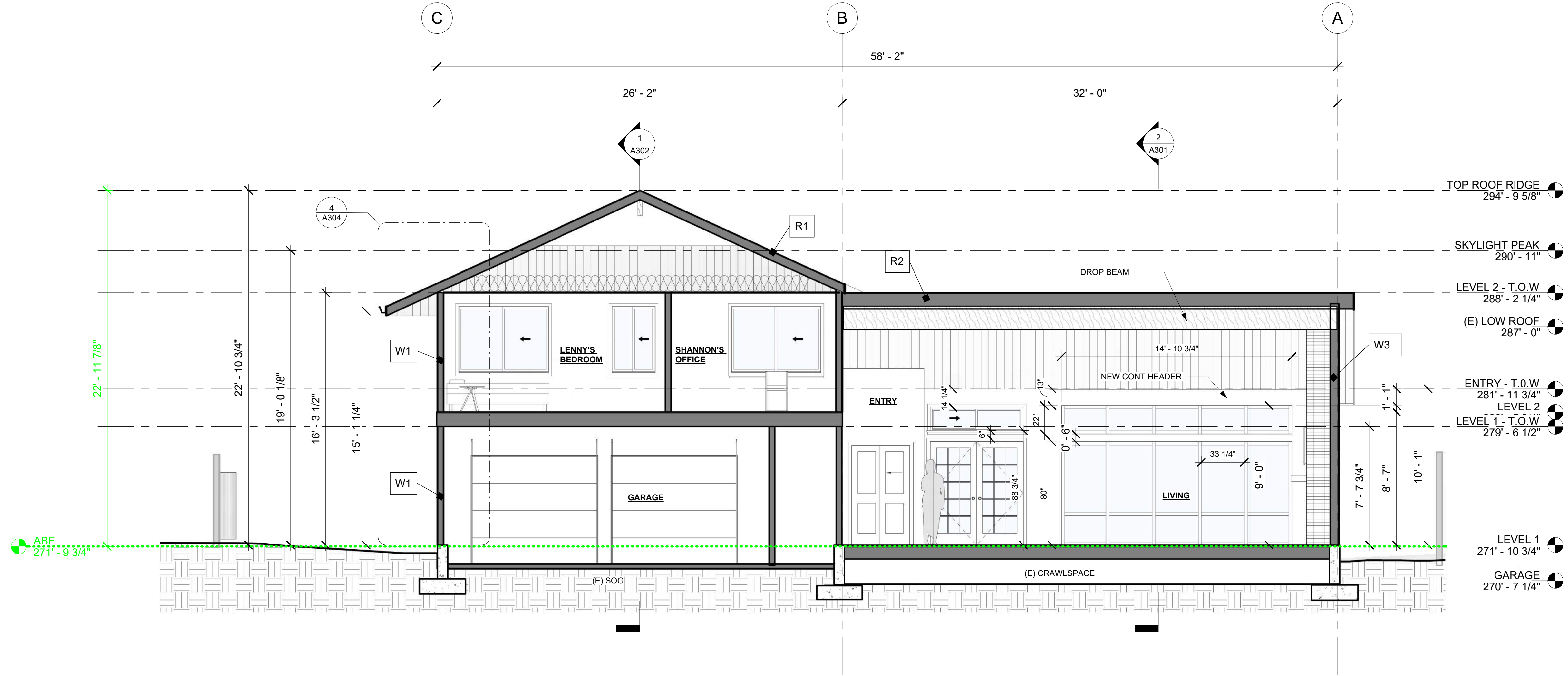
Record #: PRE23-023

Date: 01/29/24

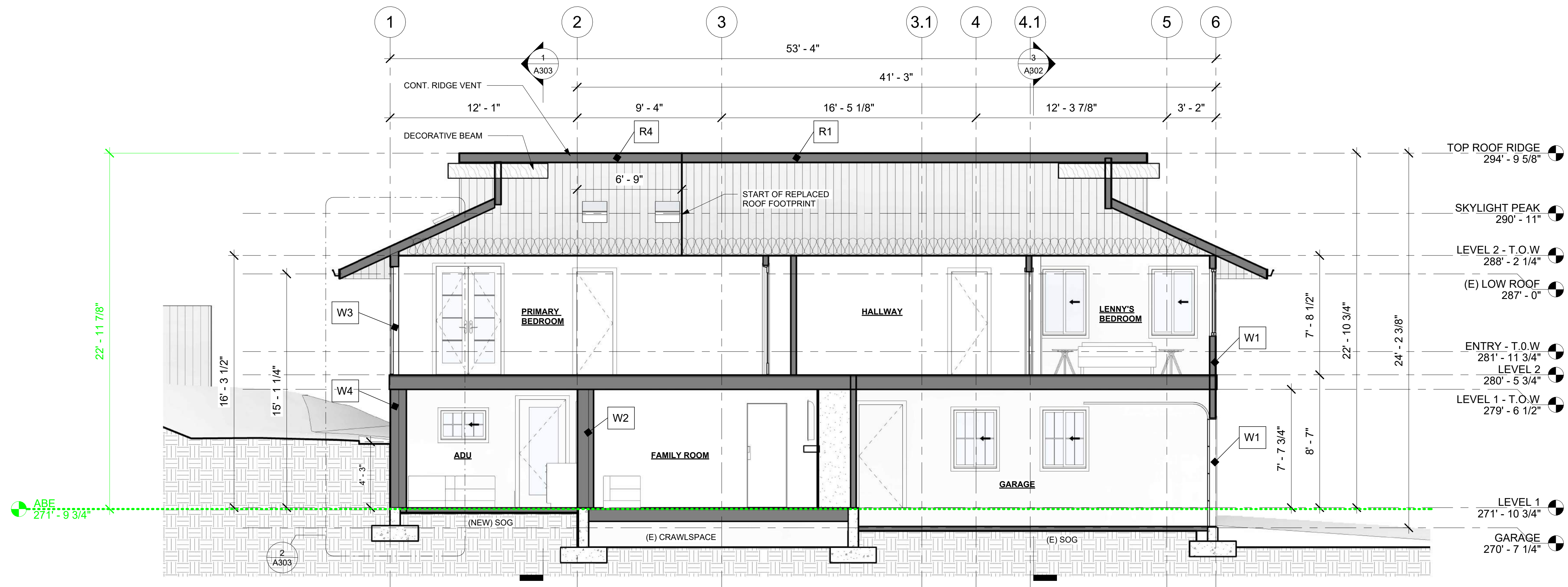
BUILDING SECTIONS
2

A302

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



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



1 SOUTH 3
1/4" = 1'-0"

BUILD STUFF

BUILD STUFF LLC
206-771-5014
diego@buildstuffstudios.com

Revision #	Revision Description	
	Date	

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ &
SHANNON MCINTYRE

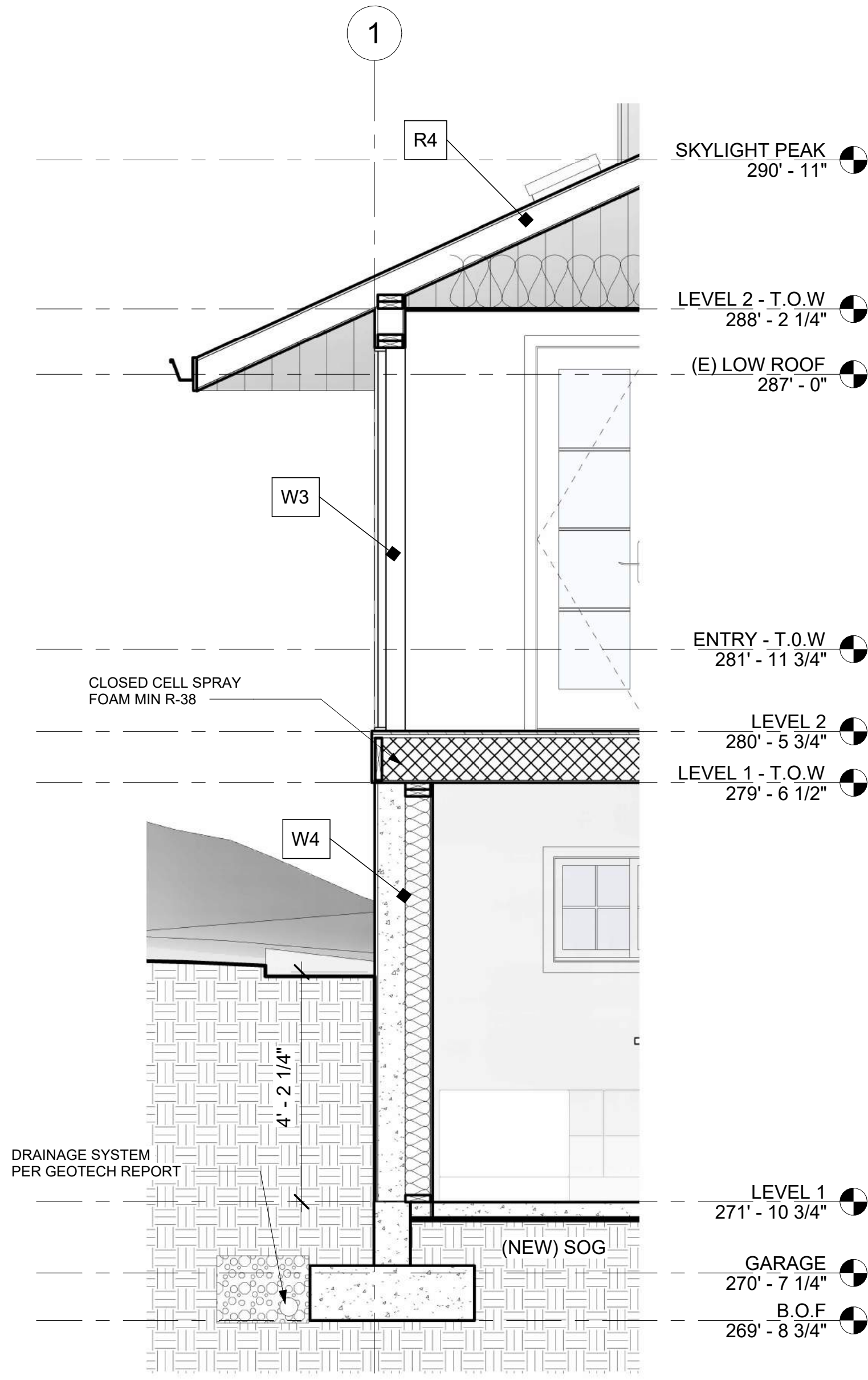
Record #:
PRE23-023

Date:
01/29/24

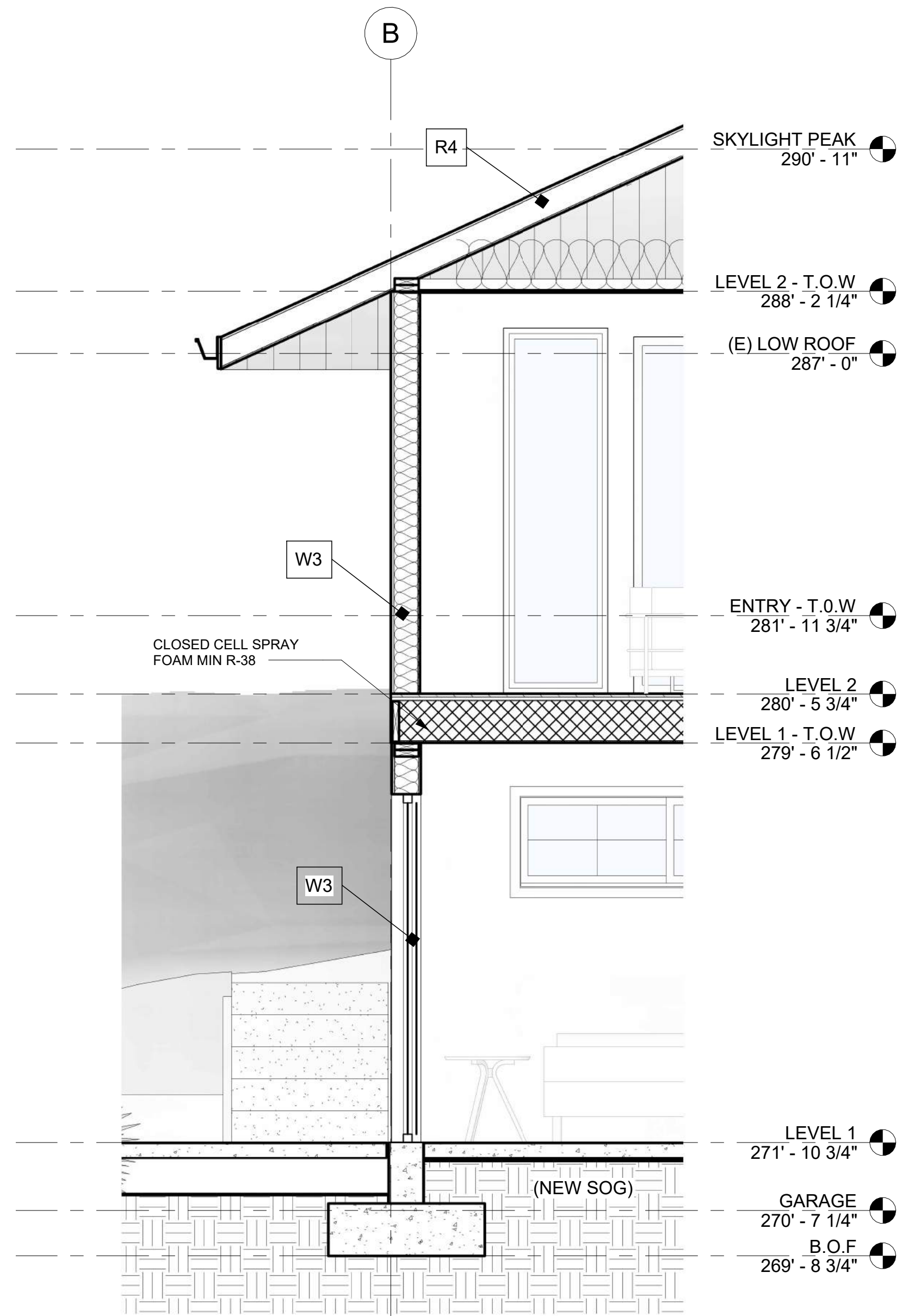
**ADDITION SECTION &
DETAILS**

A303

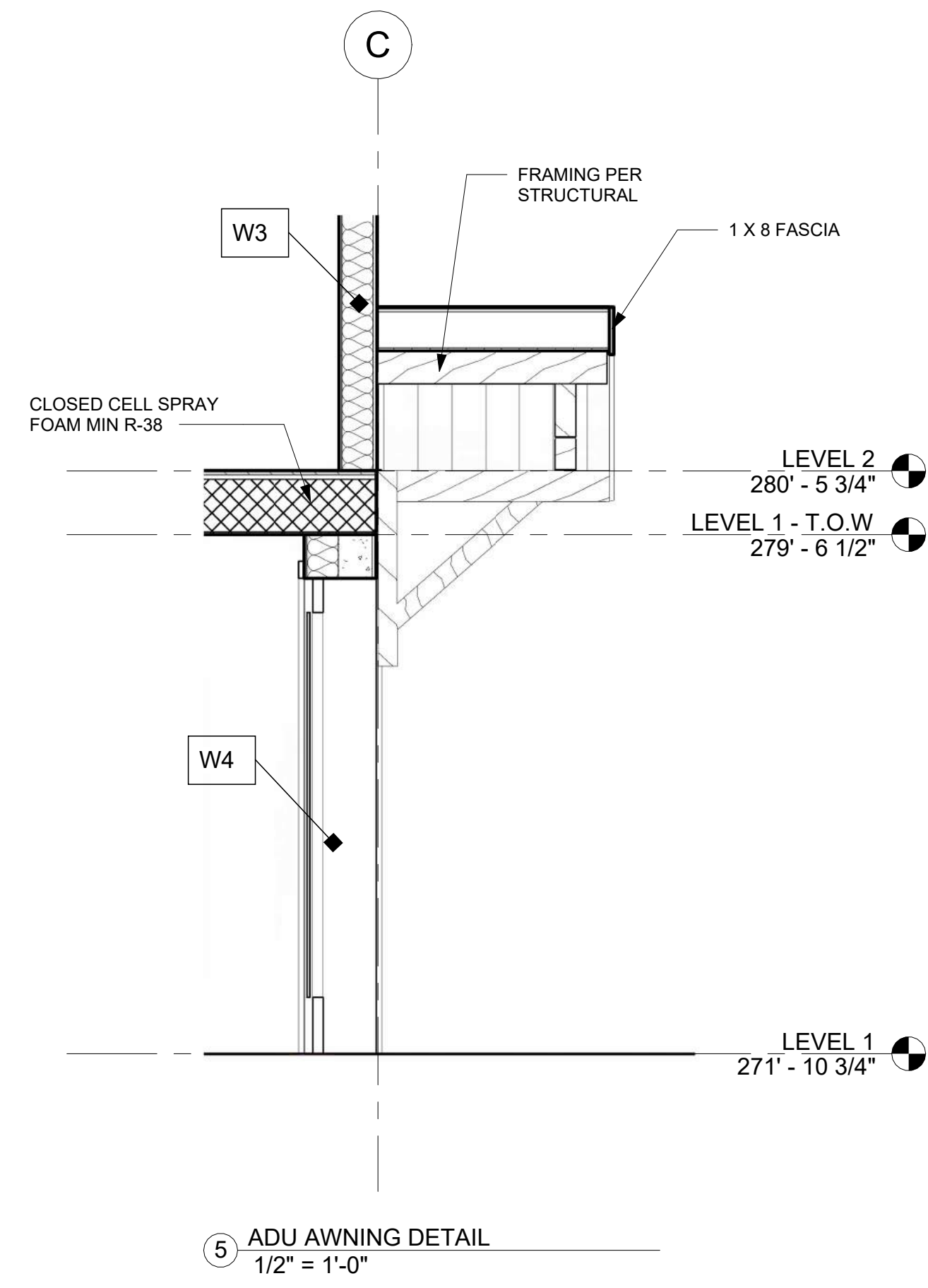
Scale: As indicated



2) ADDITION EAST WALL
1/2" = 1'-0"



4) ADDITION NORTH WALL
1/2" = 1'-0"



5) ADU AWNING DETAIL
1/2" = 1'-0"

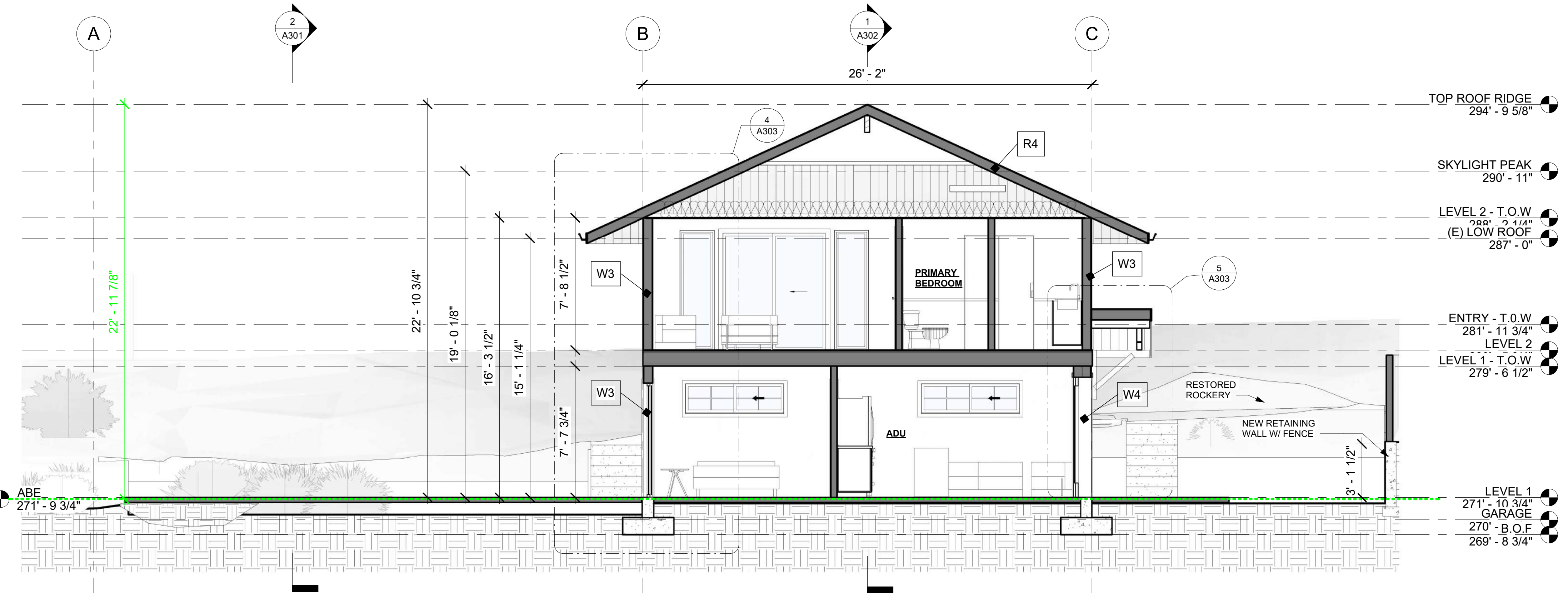
SECTION NOTES:

- REFER TO STRUCTURAL PLANS FOR STRUCTURAL SPECIFICATIONS.
- REFER TO PROPOSED FLOOR AND ROOF PLANS FOR WALL AND ROOF ASSEMBLIES.
- REFER TO ELEVATIONS FOR WINDOW AND EXTERIOR DOOR SCHEDULES.

FLOOR INSULATION AT ADDITION:

PER ENERGY CREDIT OPTION (1.4)
FLOORS - MIN R-38 ISULATION

ACHIEVE REQUIRED R-VALUE IN 2 X 10
FLOOR FRAMING CAVITY WITH CLOSED CELL
FOAM INSULATION.



1) WEST 4
1/4" = 1'-0"

WALL ASSEMBLIES

TYPE	RATING	ASSEMBLY
W1 - (E)	0-HR	-CEDAR 4.5" HORIZ. SIDING, UNDERLAYMENT, SHEATHING -2X4 @ 16" O.C. -BATT INSULATION, 1/2" GWB
W2 - (E)	0-HR	-CEDAR 4.5" HORIZ. SIDING, UNDERLAYMENT, SHEATHING -2X4 @ 16" O.C., 8" CONCRETE RETAINING WALL -BATT INSULATION, 1/2" GWB
W3	0-HR	-CEDAR 4.5" HORIZ. SIDING, UNDERLAYMENT, SHEATHING PER STRUCT. -2X6 @ 16" O.C. -BATT INSULATION MIN R-21, 1/2" GWB
W4	0-HR	-CEDAR 4.5" HORIZ. SIDING, UNDERLAYMENT, SHEATHING PER STRUCT. -2X6 @ 16" O.C., 6" CONCRETE RETAINING WALL -BATT INSULATION MIN R-21, 1/2" GWB

ROOF ASSEMBLIES

TYPE	RATING	ASSEMBLY
R1 - (E)	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING -SITE-CUT TRUSSES -BATT INSULATION, 1/2" GWB CEILING
R2	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING PER STRUCT. -2 X 12 RAFTERS PER STRUCT. -10-1/4" HIGH PERFORM. BATT INSULATION R-38, 1/2" GWB CEILING
R3	0-HR	-TPO, ICE AND WATER BARRIER, SHEATHING PER STRUCT. -2 X 12 RAFTERS PER STRUCT. -10-1/4" HP BATT INSULATION R-38, 1/2" GWB CEILING
R4	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING PER STRUCT. -PREFABRICATED TRUSSES PER STRUCT. -BATT INSULATION MIN R-49, 1/2" GWB CEILING

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:

PERMIT DRAWINGS SET

Project Owner:

RODOLFO HERNANDEZ &
SHANNON MCINTYRE

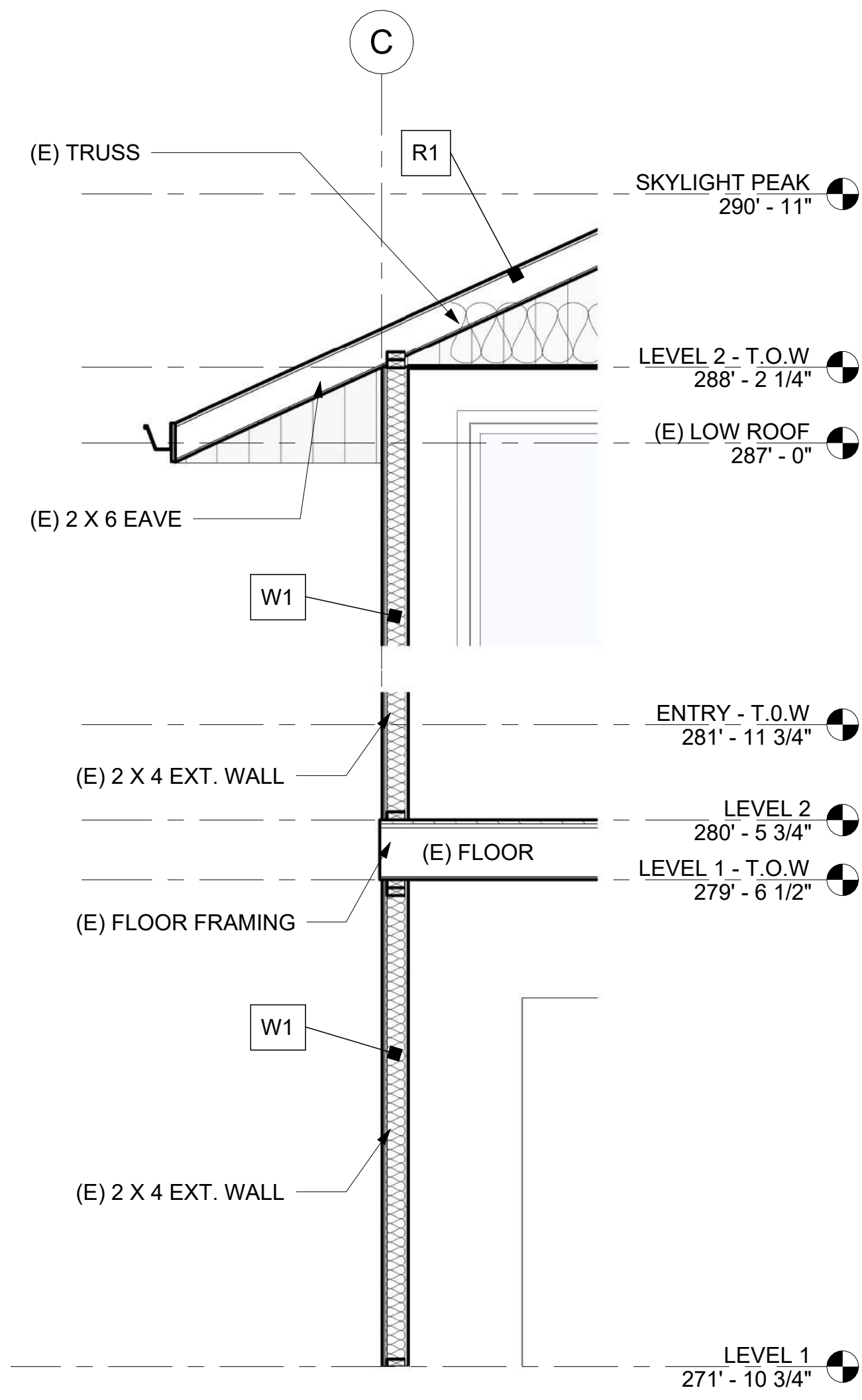
Record #: PRE23-023

Date: 01/29/24

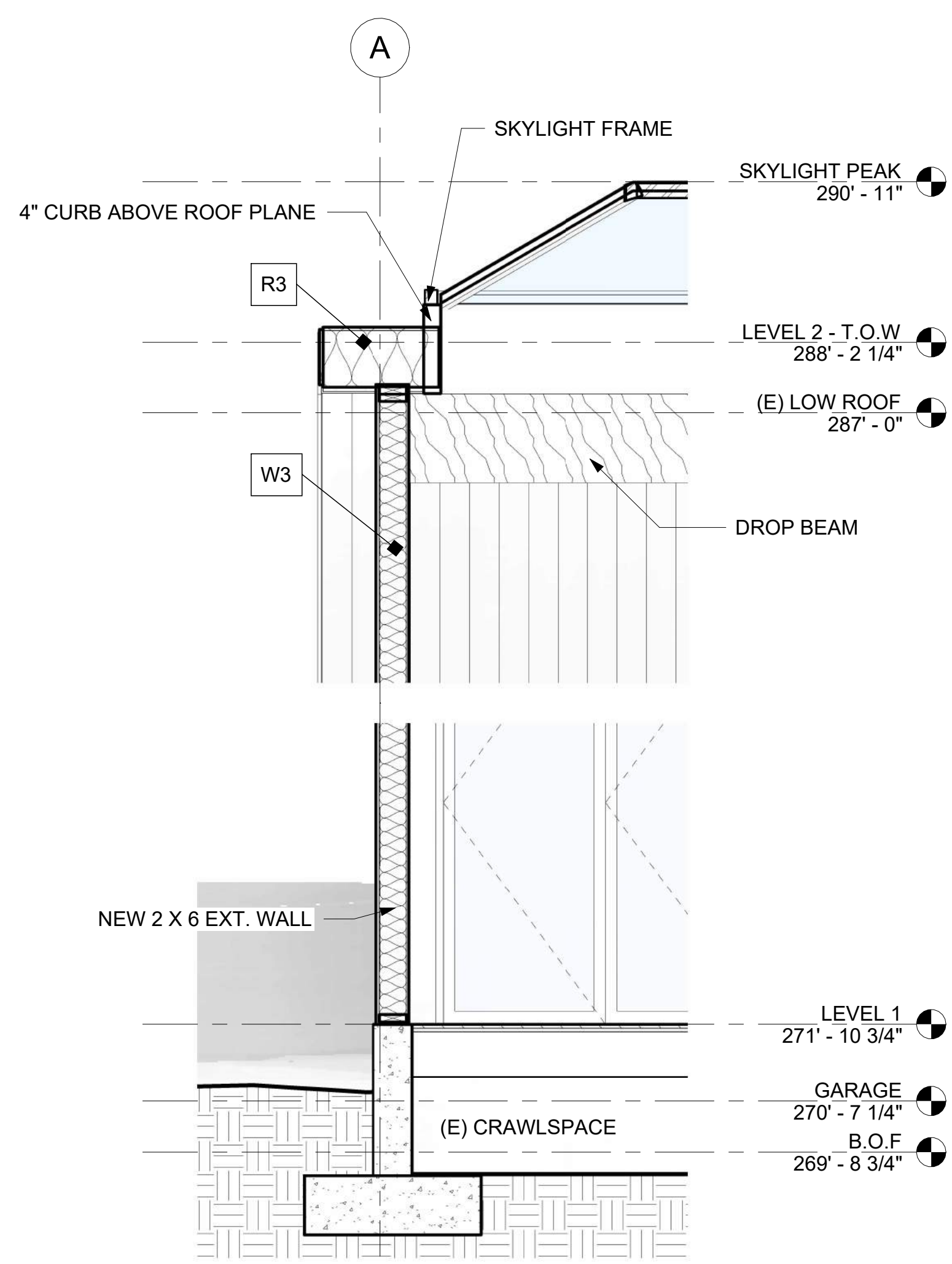
SECTION DETAILS

A304

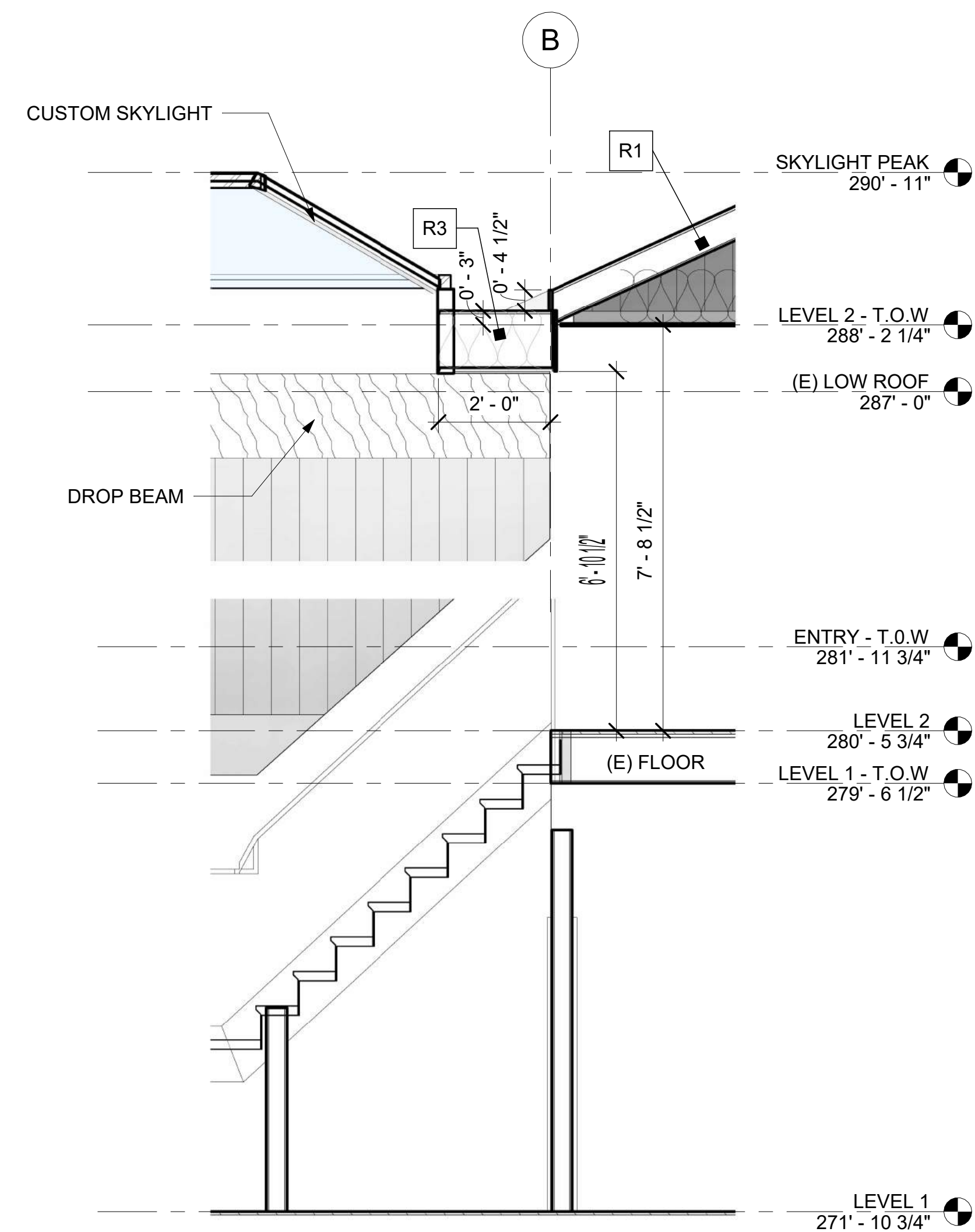
Scale: 1/2" = 1'-0"



④ (E) TYP. EXT 2-STORY WALL
1/2" = 1'-0"



③ NEW 2 X 6 WALL @ MAIN LEVEL
1/2" = 1'-0"



⑦ NEW ROOF & (E) ROOF INTERSECTION
1/2" = 1'-0"

WALL ASSEMBLIES

TYPE	RATING	ASSEMBLY
W1 - (E)	0-HR	-CEDAR 4.5" HORIZ. SIDING, UNDERLAYMENT, SHEATHING -2X4 @ 16" O.C. -BATT INSULATION, 1/2" GWB
W2 - (E)	0-HR	-CEDAR 4.5" HORIZ. SIDING, UNDERLAYMENT, SHEATHING -2X4 @ 16" O.C., 8" CONCRETE RETAINING WALL -BATT INSULATION, 1/2" GWB
W3	0-HR	-CEDAR 4.5" HORIZ. SIDING, UNDERLAYMENT, SHEATHING PER STRUCT. -2X6 @ 16" O.C. -BATT INSULATION MIN R-21, 1/2" GWB
W4	0-HR	-CEDAR 4.5" HORIZ. SIDING, UNDERLAYMENT, SHEATHING PER STRUCT. -2X6 @ 16" O.C., 6" CONCRETE RETAINING WALL -BATT INSULATION MIN R-21, 1/2" GWB

ROOF ASSEMBLIES

TYPE	RATING	ASSEMBLY
R1 - (E)	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING -SITE-CUT TRUSSES -BATT INSULATION, 1/2" GWB CEILING
R2	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING PER STRUCT. -2 X 12 RAFTERS PER STRUCT. -10-1/4" HIGH PERFORM. BATT INSULATION R-38, 1/2" GWB CEILING
R3	0-HR	-TPO, ICE AND WATER BARRIER, SHEATHING PER STRUCT. -2 X 12 RAFTERS PER STRUCT. -10-1/4" HP BATT INSULATION R-38, 1/2" GWB CEILING
R4	0-HR	-ASPHALT SHINGLES, UNDERLAYMENT, SHEATHING PER STRUCT. -PREFABRICATED TRUSSES PER STRUCT. -BATT INSULATION MIN R-49, 1/2" GWB CEILING

TYP VENTED ROOF ASSEMBLY:

- ROOFING PER ROOF ASSEMBLY TYPE
- 30 LB BUILDING PAPER
- SHEATHING PER STRUCTURAL
- TRUSSES PER STRUCTURAL
- MIN 1" VENT SPACE (2" IF POSSIBLE), BAFFLES WHERE NEEDED
- R49 BATT OR CELLULOSE INSULATION
- KRAFT FACE CLASS 2 VAPOR RETARDER
- 1/2" GWB

TYP UNVENTED ROOF ASSEMBLY:

- ROOFING PER ROOF ASSEMBLY TYPE
- 30 LB BUILDING PAPER
- SHEATHING PER STRUCTURAL
- RAFTERS PER STRUCTURAL
- R38 INSULATION/ CLASS II VAPOR RETARDER APPLIED DIRECTLY TO UNDERSIDE OF STRUCTURAL SHEATHING
- 1/2" GWB W/ CLASS 3 PVA PRIMER

BUILD STUFF

BUILD STUFF LLC
206-771-5014
diego@buildstuffstudios.com

REVISION TABLE	
Revision #	Revision Description

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:

PERMIT DRAWINGS SET

Project Owner:

RODOLFO HERNANDEZ &
SHANNON MCINTYRE

Record #: PRE23-023

Date: 01/29/24

**TREE RETENTION &
SITE DEMO PLAN**

L102

Scale: 1/8" = 1'-0"

PLAN NOTES:

- TREE RETENTION PLAN PER ARBORIST REPORT DATED 11/10/2023 REFER TO REPORT FOR INFORMATION ON TREE PROTECTION PLAN AND SPECIFICATIONS. OUTLINE OF TREES SHOWN IN PLAN REPRESENTS RECOMMENDED LIMIT OF DISTURBANCE SHOWN ON TREE INVENTORY TABLE PROVIDED IN ARBORIST REPORT. INTERIOR CRITICAL ROOT ZONE DRAWN FOR TREES TO BE RETAINED AND MONITORED DURING CONSTRUCTION.
- PER GEOTECH REPORT DATED 08/22/23 - TEMPORARY EXCAVATIONS DEEPER THAN 3 FEET SHOULD BE SLOPED NO STEEPER THAN 1.5H:1V (HORIZONTAL:VERTICAL) IN LOOSE NATIVE SOILS AND FILL AND 1H:1V IN MEDIUM DENSE NATIVE SOILS. IF AN EXCAVATION IS SUBJECT TO HEAVY VIBRATION OR SURCHARGE LOADS, WE RECOMMEND THAT THE EXCAVATIONS BE SLOPED NO STEEPER THAN 2H:1V, WHERE ROOM PERMIT
- TEMPORARY CUTS SHOULD BE IN ACCORDANCE WITH THE WASHINGTON ADMINISTRATIVE CODE (WAC) PART N.
- EXCAVATION CUT DEPTHS ARE BASED ON ELEVATION POINTS SHOWN IN THE ABE DIAGRAM ON SHEET A100.1 AND DEPTH TO THE BOTTOM OF FOUNDATION FOOTINGS PER STRUCTURAL PLANS.

Client: McIntyre
Assignment: Tree Protection Plan
7520 Mercer Terrace Drive
Inventory Date: 10/11/2023
Report Date: 11/10/2023

Tree Tag	Common Name	Botanical Name	DSH*	Dripline**	Health	Recommended Limits of Disturbance (RLOD) (feet)
1	Sawara cypress	<i>Chamaecyparis pisifera 'Filifera'</i>	13	13	Good	tree within footprint of addition, REMOVE
2	Douglas-fir	<i>Pseudotsuga menziesii</i>	20	20	Good	encroachment into CRZ exceeds allowable threshold, REMOVE
3	Western reccedar	<i>Thuja plicata</i>	9	6	Poor	encroachment into CRZ exceeds allowable threshold, REMOVE
4	Bigleaf maple	<i>Acer macrophyllum</i>	9	18	Fair	18 on sides N, E, and S; 7 on W side
5	English hawthorn	<i>Crataegus laevigata</i>	9.5	13	Good	10
6	Western reccedar	<i>Thuja plicata</i>	16	9	Good	14
7	Bigleaf maple	<i>Acer macrophyllum</i>	16	10	Fair	10
8	Western reccedar	<i>Thuja plicata</i>	15	8	Good	15
9	Bigleaf maple	<i>Acer macrophyllum</i>	26	15	Fair	26
10	Western reccedar	<i>Thuja plicata</i>	19	6	Good	19
11	Douglas-fir	<i>Pseudotsuga menziesii</i>	17	20	Good	20 on sides E, S and W; 8 on NW side
12	Douglas-fir	<i>Pseudotsuga menziesii</i>	18	12	Good	12
13	Noble fir	<i>Abies procera</i>	16	12	Good	16
14	Sawara cypress	<i>Chamaecyparis pisifera 'Filifera'</i>	10	8	Good	10
15	Blue Atlas Cedar	<i>Cedrus atlantica 'Glauc'</i>	22	25	Good	22
16	Austrian pine	<i>Pinus nigra</i>	19	14	Good	19
17	Deodar cedar	<i>Cedrus deodara</i>	20	18	Good	20

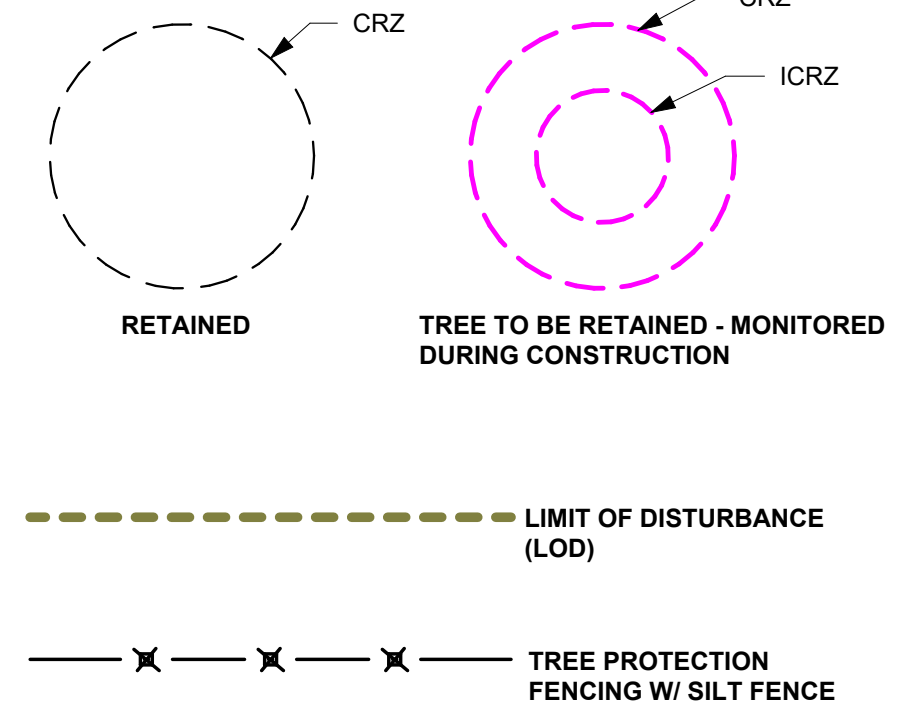
*DSH is Diameter at Standard Height (inches)

**Dripline was measured from the center of the trunk to the outermost limits of the canopy on the side of construction (feet).

TREE TRUNK SYMBOLS

- #15 ○ EXISTING TREE TO BE RETAINED <24"
- #9 ○ EXISTING TREE TO BE RETAINED >24"
- #2 ✕ EXISTING TREE TO BE REMOVED

TREE OUTLINE SYMBOLS



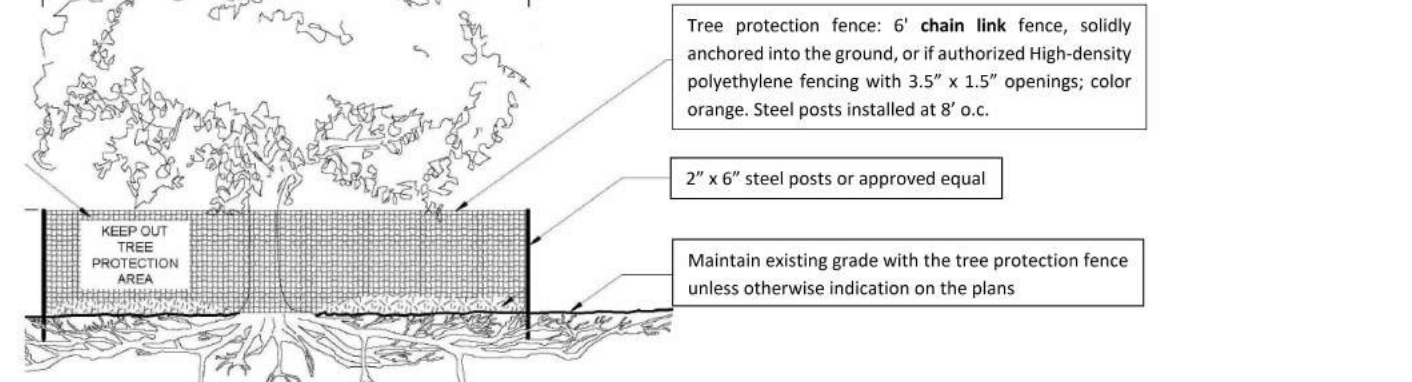
TREE PROTECTION AREA (TPZ)

KEEP OUT!

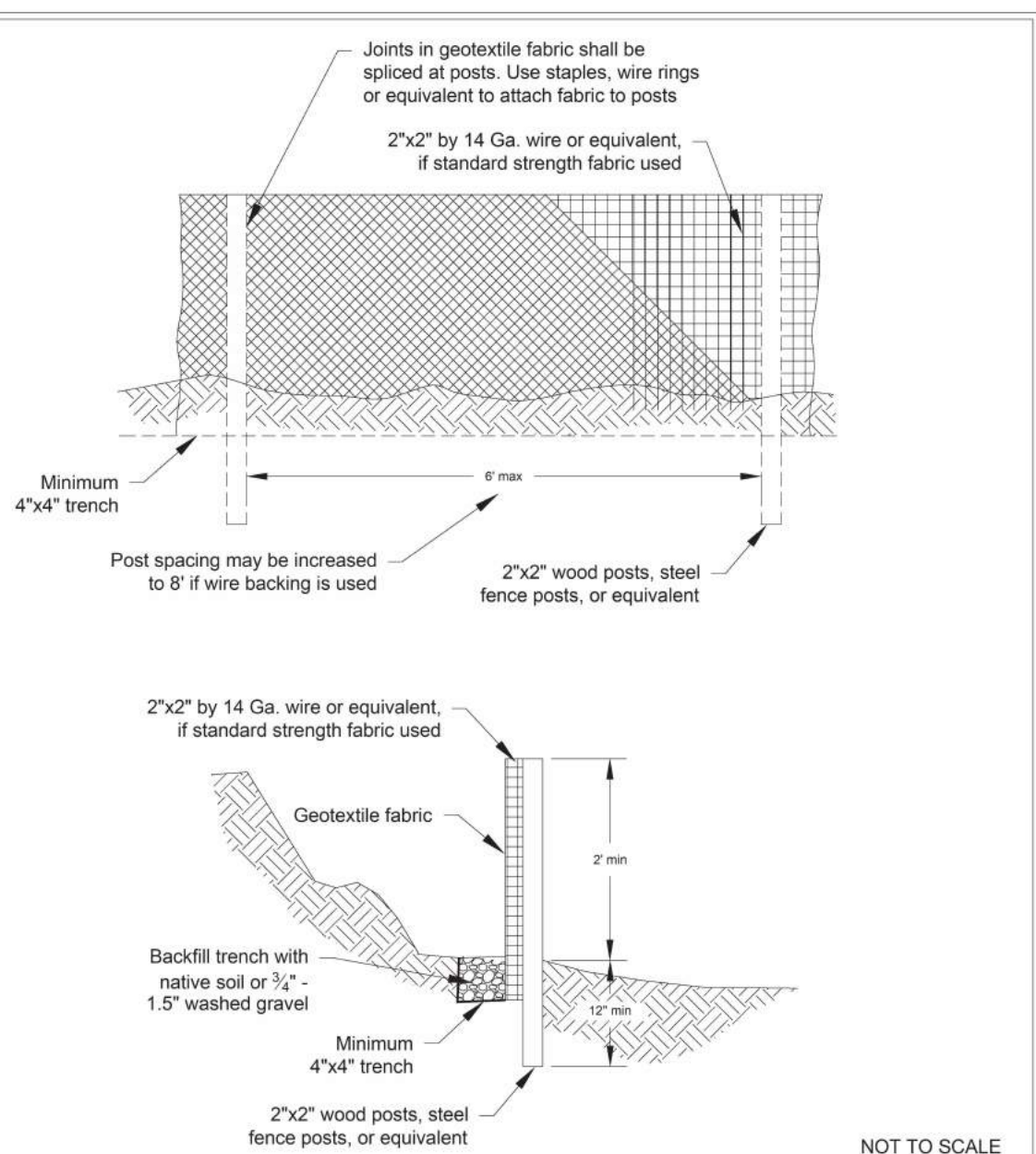
DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

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

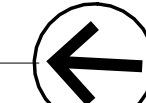
- Correction Notices or Stop Work Orders until compliance is achieved
- RE Inspection Fees/financial penalties
- Arborist reports recommending mitigation

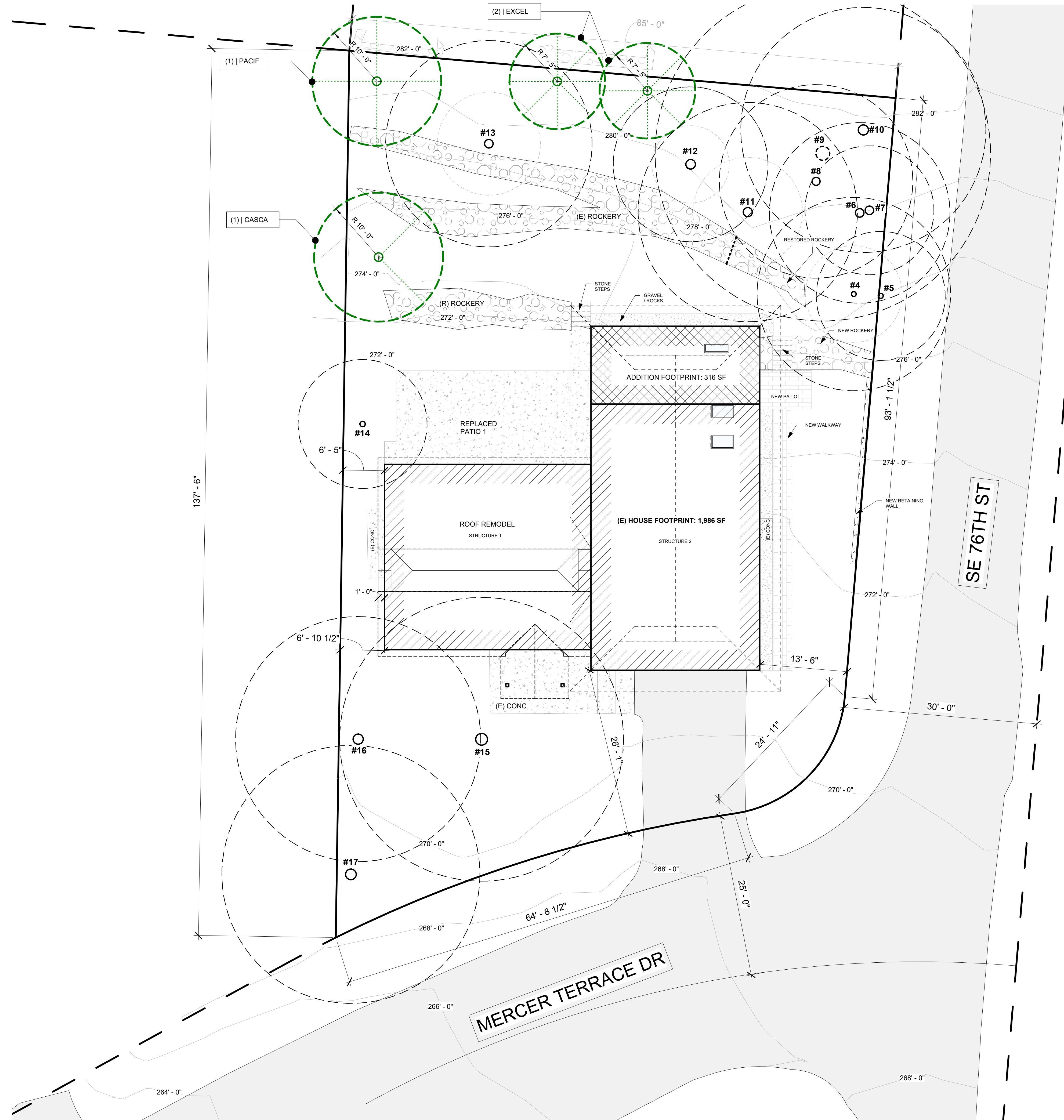


Any Work in the protected area must be with the permission of the City Arborist john.kenney@mercergov.org



Silt Fence
Revised June 2016
Please see <http://www.ecy.wa.gov/copyright.html> for copyright notice including permissions, limitation of liability, and disclaimer.



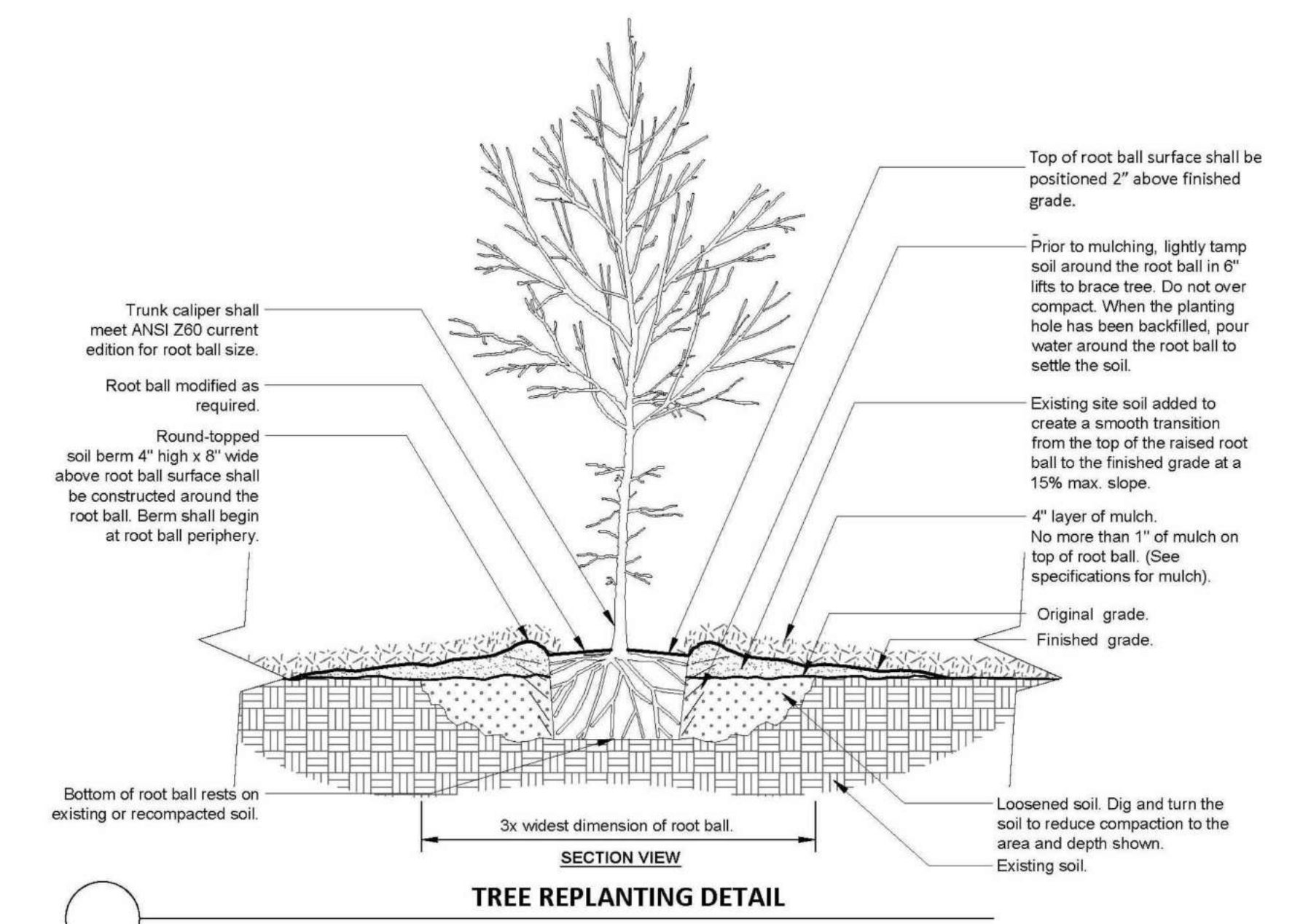
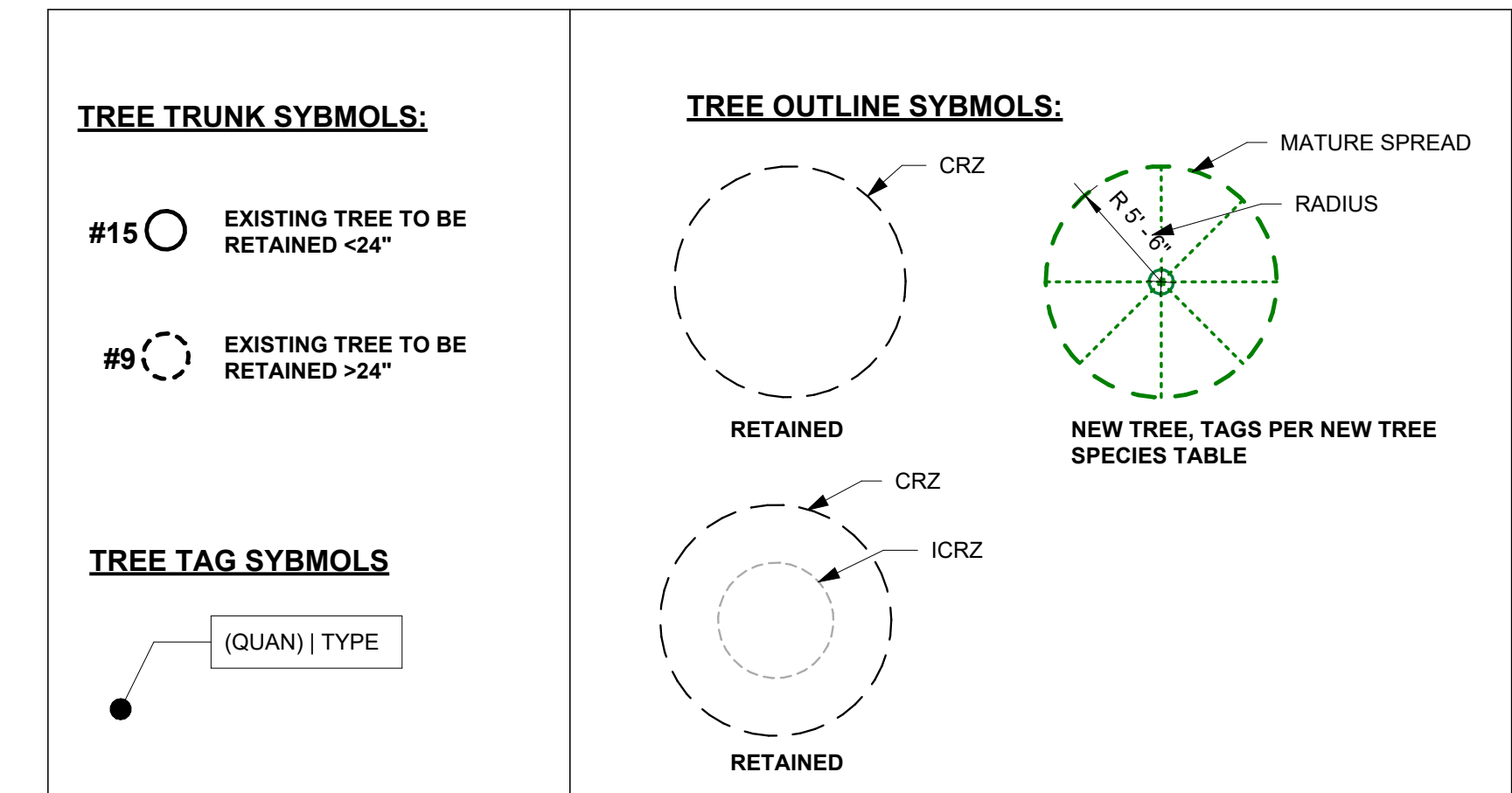


PLAN NOTES:

1. TREE RETENTION PLAN PER ARBORIST REPORT DATED 11/10/2023 REFER TO REPORT FOR INFORMATION ON TREE PROTECTION PLAN AND SPECIFICATIONS. OUTLINE OF TREES SHOWN IN PLAN REPRESENTS RECOMMENDED LIMIT OF DISTURBANCE SHOWN ON TREE INVENTORY TABLE PROVIDED IN ARBORIST REPORT. INTERIOR CRITICAL ROOT ZONE DRAWN FOR TREES TO BE RETAINED AND MONITORED DURING CONSTRUCTION.
2. PER GEOTECH REPORT DATED 08/22/23 - TEMPORARY EXCAVATIONS DEEPER THAN 3 FEET SHOULD BE SLOPED NO STEEPER THAN 1.5H:1V (HORIZONTAL:VERTICAL) IN LOOSE NATIVE SOILS AND FILL AND 1H:1V IN MEDIUM DENSE NATIVE SOILS. IF AN EXCAVATION IS SUBJECT TO HEAVY VIBRATION OR SURCHARGE LOADS, WE RECOMMEND THAT THE EXCAVATIONS BE SLOPED NO STEEPER THAN 2H:1V, WHERE ROOM PERMIT
3. TEMPORARY CUTS SHOULD BE IN ACCORDANCE WITH THE WASHINGTON ADMINISTRATIVE CODE (WAC) PART N.
4. EXCAVATION CUT DEPTHS ARE BASED ON ELEVATION POINTS SHOWN IN THE ABE DIAGRAM ON SHEET A100.1 AND DEPTH TO THE BOTTOM OF FOUNDATION FOOTINGS PER STRUCTURAL PLANS.

NEW TREES: SPECIES TABLE

QUAN.	SYMBOL	SPECIES NAME	MATURE SPREAD
1	PACIF	PACIFIC YEW, TAXUS BREVIFOLIA	20 FEET
2	EXCEL	EXCELSA WESTERN RED CEDAR	15 FEET
1	CASCA	CASCARA RHAMNUS PURSHIANA	20 FEET



BUILD STUFF

BUILD STUFF LLC
206-771-5014
diego@buildstuffstudios.com

REVISION TABLE	
Revision #	Date

HERNANDEZ RESIDENCE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Project Status:
PERMIT DRAWINGS SET

Project Owner:
RODOLFO HERNANDEZ & SHANNON MCINTYRE

Record #:
PRE23-023

Date:
01/29/24

TREE REPLACEMENT PLAN

L103

Scale: 1/8" = 1'-0"



Consulting Structural Engineering Services
 6311 17th Ave NE, Seattle, WA 98115
 Phone: 206-527-1288
 Email: john@cses-engineering.com

MACINTYRE
 7520 MERCER TERRACE DR
 MERCER ISLAND WA, 98040

Revisions:

Date:
 01-26-24

Sheet:

S-1

Structural Notes:

Applicable Codes and Standards:

2018 International Building Code (IBC) and other applicable local building codes.
 ASCE/SEI 7-16 - "Minimum Design Loads for Buildings and Other Structures"
 2018 NDS for wood structures.
 American Wood Preservers Bureau - AWPB Standards for Pressure Treated Material.
 American Concrete Institute - ACI 315, ACI 318, ACI 301, ACI 307.

Structural design shall be in accordance with the latest edition of above codes and standards. Contractor shall comply with the latest edition of all applicable codes and standards.

Special Inspections:

Special Inspections are required for:
 Epoxy Grouted Anchor Bolt Installation

Design Loads:

Live load:	roof	25 psf (snow)
	floors	40 psf
Dead load:	as required	15 psf

Wind load: Basic wind speed 110 mph, exposure B, KzT=1.0
 Building Category: Enclosed, Wind Important Factor Iw = 1.0
 Refer to calculation page L1 for design wind forces.
 Internal pressure 5 psf. Components and cladding design per 1609.6.4.4.1

Seismic loading per IBC Section 1613, Site Class D.

The basic structural type is a bearing wall system with light framed walls with shear panels. Rw = 6.5 (wood structural panels), soil type D.
 Seismic importance factor I.0, Seismic Use Group I
 Design and Analysis by Simplified Design Procedure
 Peak Ground Accelerations (PGA) based on USGS Hazards Program, by lat/long.
 PGA 1 sec = .508 PGA .2 sec = 1.472
 Seismic base shear = 0.181 * Dead Load

Foundations:

Soil parameters (assumed): Vertical allowable soil pressure: 2,000 psf
 All soil conditions are to be field verified during construction. Footings shall bear on firm natural soils or on structural fill placed over firm natural soils, and inspected in place. Footings shall extend 18 inches minimum below adjacent exterior finished grade and shall extend 12 inches minimum below existing interior grade unless otherwise noted on plans. Structural fill shall be placed in 12-inch maximum horizontal lifts (loose thickness) and compacted to 90 percent of maximum dry density in accordance with ASTM D-1557. Imported structural fill shall be granular material containing no more than 5 percent fines, passing no. 200 sieve. Structural fill in place shall be tested by a licensed soil engineer or approved by the building inspector.

Drainage behind the concrete walls shall be provided conforming to the construction details.

Cast in Place Concrete:

Concrete shall attain a minimum compressive strength of 2,500 psi at 28 days (5-1/2 sack mix). An alternate mix provided by the concrete supplier and pre-approved by the building department is acceptable. Reinforcing steel shall conform to ASTM A-615, Grade 60 (Fy=60,000 psi) for all bars. Provide all wall and footing horizontal bars with 2'-0" x 2'-0" corner bars of the same size at all corners and wall intersections. Minimum lap splice 48 bar diameters.

Concrete protection for reinforcement shall be:

Concrete exposed to earth or weather	1.5" (#5 & smaller) 2" (#6 & larger)
Concrete cast against earth	3"
Slabs	0.75"

Bolts:

Anchor bolts shall conform to F1554. All other bolts shall conform to ASTM A307.
 Minimum anchor bolt size and spacing shall be 1/2" diameter bolts @ 6' o.c. Shear wall anchor bolts per the shear wall schedule.

For cast-in-place anchors, provide 7" minimum embedment into the new concrete foundation.
 For retrofitted anchors, provide 5" minimum embedment into the existing concrete foundation. Epoxy grout with Simpson SET epoxy.
 Provide 3"x3" square x 0.229" thick bolt washers where anchor bolts connect the sill plate to the concrete foundation.

Wood Framing Specifications:

All sill plates and other wood framing which is in contact with concrete or masonry must be preservative-treated in accordance with AWP A U1 and M4 standards. For anchor bolts connecting wood sill plates to concrete or masonry, provide galvanized steel washers and nuts on top of the sill, minimum washer size 3" x 3" x 1/4" thick.

Where toenails are used for stud wall construction, a minimum of (2) toenails at top and bottom of each stud shall be provided. Toenails shall be 16d nails driven at approximately a 45 degree angle, with a minimum of 1-1/2" of the nail shank shall be embedded in both the stud and the plate. End nails driven through the plate and into the stud end grain are not permitted. Simpson A34 clips at top and bottom of each stud are permitted where correct toenailing is not provided.

Wherever joists bear on a wall or beam, either a continuous rim joist or solid wood blocking must be provided. Blocking shall be connected to the joists with A35 angles at each end. Individual blocks may be omitted to allow for ducting or other openings. Consult with the engineer of record if more than 25% of the blocking is omitted.

Where a post aligns with a header on the floor below, provide full depth blocking through the floor framing and a full sized post above the header in the wall below
 Unless noted otherwise, the following grades and species shall be used for structural lumber:

2x joists	Hem-Fir #2
2x, 3x, and 4x studs	DF/L standard for plywood or WSP shear walls
	Hem-Fir standard for other walls
4x and 6x beams	DF-L #2
Glu-lam lumber	24F-V4 for simple span beams, 24F-V8 for cantilever beams

All framing connections shall be per Table 2304.10.1 of the IBC, unless otherwise noted.

Preservative-Treated Wood and Fasteners:

All wood in contact with concrete or masonry shall be preservative-treated, in accordance with AWP A U1 and M4 standards.

All fasteners installed in preservative-treated wood shall be hotdipped zinc-coated galvanized with a minimum coating weight complying with ASTM A 153.

Fasteners other than nails and timber rivets are permitted to be mechanically deposited zinc-coated with coating weights complying with ASTM B 695, Class 55 minimum. Plain carbon steel fasteners in wood preservative-treated with SBX/DOT or zinc borate are not required to be galvanized.

Plywood Thickness, Grade, and Nailing:

Install plywood sheets with face grain perpendicular to framing. Stagger joints in adjacent sheets. If not otherwise noted, use nailing schedule, Table 2304.6.1 of the IBC.

Manufactured Trusses:

Manufactured trusses specified on the plans are prefabricated products manufactured by a truss manufacturer. The contractor shall submit shop drawings and stamped structural design calculations for review. The manufacturer's installation instructions shall be available on the job site at the time of inspection. Truss design and shop drawings shall include location and weight of all equipment being supported by these trusses.

The truss live loading shall be per IRC Section 301.5 and Table 301.5, especially noting footnotes b and g.

The truss design shall be per IRC Sections 502.11.1 and 802.10.2, especially indicating the truss design and manufacturing shall be per ANSI/TPI 1.

The truss temporary and permanent bracing shall be per IRC Sections 502.11.2 and 802.10.3 as well as the Truss Plate Institute's Building Component Safety Information.

Truss alterations shall not occur unless the approval of a design professional as indicated in IRC Sections 502.11.3 and 802.10.4.

Metal Framing Connectors:

Unless otherwise noted: Metal framing connectors shall be manufactured by the Simpson company, or approved equal. Unless noted otherwise, use U-series joist hangers to match joist size (e.g., U210 for 2x10 joist). Provide H1 or H2.5 hurricane ties, or other connectors with similar capacity, at every roof joist or truss, and H6 or H7 at ends of roof beams and girder trusses. Where supported by wood posts, wood beams shall be connected to the tops of the posts using Simpson AC, PCZ or EPCZ post caps, and to the bottoms of the posts bearing on wood framing using Simpson AC connectors or A35 clips. Where supported by perpendicular beams, wood beams shall be connected by HU-series face mount beam hangers. Provide Simpson AB or PB post bases to connect posts to concrete foundations. Unless otherwise specified, the maximum number of nails or screws should always be installed on any connector.

Bearing Walls:

All walls supported by continuous concrete footings shall be connected to the foundation per 2018 IRC section 403.1.6. 1/2" diameter anchor bolts shall be provided at 4' o.c., or two per wall segment, minimum. Anchor bolts shall penetrate 7" into the concrete foundation.

Connection of New Foundation to Existing, Note NF:

At each location where the new concrete foundation abuts the existing foundation, connect the new to the existing using minimum (3) #4 by 18" long rebar dowels, epoxy grouted into 5/8" diameter by 5" deep holes drilled into the existing foundation. Each dowel shall be no closer than 3" to any edge or corner of concrete. Minimum spacing between dowels shall be 6". For concrete wall intersections longer than 3'-0" in any direction, additional dowels shall be located at 12" o.c. for the full height or length of the new foundation concrete.

Contact the engineer (prior to construction) for evaluation and approval of the existing foundation system, if there are any significant cracks in the existing foundation within 6 feet of the new foundation, or if there is any indication that the existing foundation is in poor condition, including visible rock pockets, non-uniform concrete, spalling, noticeable settlement of the existing footing, or other distress.

Roof Over Framing Note, Note OF:

The new roof area shown in dashed lines consists of new roof framing constructed over the existing roof framing below. The over built framing shall be constructed in such a way as to distribute the roof loads from the new framing uniformly to the existing roof structure (for example, no new concentrated loads, such as from a beam, shall be added to the existing roof structure). This equal distribution may be accomplished by constructing the new overbuild roof using framed 2x4 cripple walls spaced at 2 feet on center, located on top of and perpendicular to the existing roof sheathing supported by the existing roof framing. No sheathing is required for these cripple walls.

The new cripple walls and roof rafters (spanning 2 feet, perpendicular to the cripple walls) may be constructed using 2x4 lumber, stud grade at minimum. The new plates shall be nailed to each existing rafter with (2) 16d nails minimum. New roof sheathing shall be per the diaphragm schedule.

A new 2x_ plate shall be constructed along the new valley lines, and nailed to each existing rafter, along its entire length, with (2) 16d nails per existing rafter.

If desired, an alternate method for distributing the loads may be submitted to the structural engineer of record, for review and approval prior to construction.

Hold Down Notes

Convention for showing shear walls and hold downs: Shear walls are shown on the framing plan for the floor above. (For example, first floor shear walls will be shown on the second floor framing plan, and the shear walls for the topmost floor will be shown on the roof framing plan.) Hold downs are located at the bottom of that shear wall, and connect the end of the shear wall to wall framing or a structural beam located in the floor below the shear wall. Contact the engineer of record for clarification if needed.

Hold downs for each floor must be continuously connected to hold downs on the floor below (or to other intermediate wood framing where so indicated), until they are finally connected to the concrete foundation.

Hold downs shall be installed so as to be as far apart as is reasonable. Hold downs may be located on either the near side or the far side of the post or double stud to which they are attached. In no case shall a hold down bolt be located farther than 6" from the end of the shear wall, except with prior written approval of the engineer. Refer to the latest edition of the Simpson Catalog for details.

Where multiple studs are called out at a hold down, nail studs together with (2) 16d nails at 8" o.c. or 1/4" x 3" Simpson SDS Screws at 12" o.c.

Where a hold down post lands on a rim joist, provide full depth vertically oriented blocking under the post.

Strap Hold Downs:

Provide a vertically oriented strap hold down consisting of one or two of the Simpson vertical strap ties listed below, connecting the end stud or post of the shear wall indicated to new or existing studs in the wall framing below, or to a wood beam supporting the shear wall, where applicable. Straps shall be installed so that the minimum end length is provided to both connected posts or studs. Where a strap is connected to a beam below, the strap shall be wrapped around the beam until the minimum end length is reached.

See Strap Hold Down Typical Detail.

CMSTC16 denotes a Simpson CMSTC16 strap, with a minim end length of 25", and (29) 16d sinker nails each end.

Rod Hold Downs:

HDUx denotes a Simpson HDU(2.4,5.8,or 11)-SDS2.5 hold down. For hold down bolts at existing concrete foundations, use the following bolts:

For HDU2.4.5: 5/8" diameter A307 threaded steel rod may be used, which shall be epoxy grouted into a 3/4" diameter hole with a minimum embedment of 10". See Retrofit HDU Typical Detail.

For hold downs at new concrete foundations, provide the following bolts.

For HDU8: Simpson SB7/8x24 may be used, installed per the most recent edition of the Simpson Strong-Tie Literature.

Where the hold down is too high off of the concrete foundation to adequately connect to the specified anchor, A 7/8" diameter threaded rod and ASTM A194-2H coupler connecting to the specified anchor may be used.

Special Note:

All holes for hold down bolts which are installed into existing foundations must be inspected during the installation of the hold down. Either the building inspector, the structural engineer of record, or the special inspection agency must perform the inspection and approve it before the bolts may be epoxy grouted into the holes. The epoxy grout used must be Simpson SET-XP unless otherwise noted by the engineer of record.

For drilled holes into existing concrete, no less than 2" must be provided between the edge of the hole and the face of concrete. The Engineer of Record or Special Inspector must witness the installation of hold down bolts, including cleaning the holes with compressed air and a wire brush before the anchor is installed. The hole shall be filled with enough epoxy that when the anchor is inserted, the epoxy rises to the top of the concrete. Care shall be taken that no air bubbles persist in the epoxy.

The contractor must verify that the existing foundation stem wall is uncracked and continuous, and is sound and in good condition, within 5 feet of any retrofitted shear wall or hold down, in any direction, except with prior written approval of the engineer. The existing concrete foundation stem wall shall be at least 6" thick and 2'-6" in height. The concrete shall be of good quality, hard and uniform, with appropriate aggregate type, size and distribution, and with no visible rock pockets or other similar deficiencies.

Any existing cracks located within 10' of any hold down must be completely filled with an appropriate epoxy based concrete repair product. The product to be used shall be approved in writing by the engineer prior to filling the cracks.

Contact the engineer of record prior to proceeding if any of these requirements are not met, or if the installation of the hold downs results in any visible damage to the existing foundation.

SHEAR WALL SCHEDULE							
(Lumber for shear walls is HF#2 or better, unless otherwise noted.)							
Type	Material	Edge Nailing	Field Nailing	A.B. Size/Spacing	Plate Nailing	A35 Plates Spacing	Shear Capacity
SW2	15/32" WSP one side	8d @ 4"	8d @ 12"	1/2"Ø @ 32"	(2) 16d @ 6"	2x_ 16"	350 plf
SW3	15/32" WSP one side	10d @ 3"	10d @ 12"	5/8"Ø @ 24"	(2) 16d @ 4"	3x_ 12"	550 plf
SW3X	15/32" WSP one side	10d @ 2"	10d @ 12"	5/8"Ø @ 24"	5/8"Ø x 8" Lag @ 24"	3x_ 9"	710 plf
SW5	15/32" WSP two sides	8d @ 3"	8d @ 12"	5/8"Ø @ 16"	5/8"Ø x 8" Lag @ 16"	3x_ 8"	910 plf

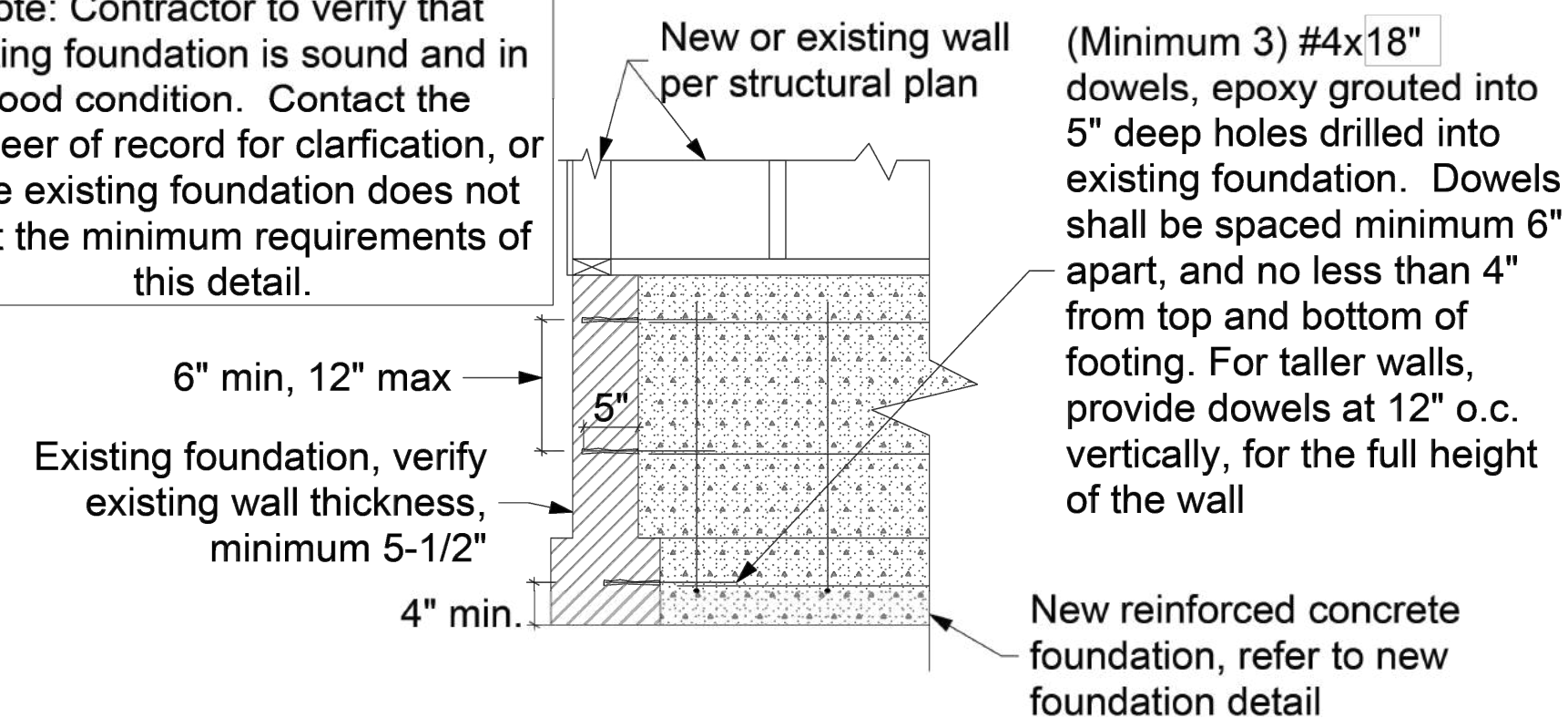
For shear wall callouts on the Structural Framing Plans: SW x (y') denotes a shear wall type "x" with a minimum length of "y" feet. See Exterior Shear Wall Typical Detail.

- For SW3 and greater, studs, plates, and blocking where two WSP panels abut shall have a minimum 3" nominal thickness. Double 2x_ members may be used for studs if the members are connected by plate nailing. Note 10d nails at WSP panel edges.
- For shear walls with 2 layers of sheathing: Both layers of the sheathing may be installed on the same side of the shear wall, provided the joints between sheathing panels for the two layers are offset. End studs, studs at panel joints, and top and bottom plates must be 3x_ or thicker lumber. Nails should be staggered evenly in rows so that no two nails are closer than 1-1/2" apart. Top and bottom plates may be 2x_ lumber if the sheathing extends up or down past the plates to a continuous rim joist, and is nailed there.
- "WSP" refers to "Wood Structural Panel", either plywood or other wood materials.
- Provide double stud minimum at both ends of all shear walls.
- At the roof or top level of any shear wall, "A35 spacing", and all other relevant connector specifications, apply to assemblies at both the top and bottom of the shear wall. At lower levels, apply to the bottom of the wall only.
- Provide floor diaphragm edge nailing per diaphragm schedule through floor plywood into blocking, parallel joist framing, or top plates (whichever applies) of all shear walls.
- Provide 3x_ plates, and 4x_ rim joists, minimum, where lag screws are specified for plate nailing.
- Where shear wall edge nails are spaced closer than 3" o.c., or spaced 3" o.c. with 10d nails, foundation sill plates and all framing members receiving edge nailing from abutting panels shall not be less than a single 3x_ member.
- Where panels are applied on the same face of a wall and nail spacing is less than 6 inches o.c. on either side, panel joints shall be offset horizontally and vertically to fall on different framing members, or all framing supporting panel edges shall consist of 3 inch nominal or thicker members and the position of nails on each side shall be staggered vertically.
- Provide 4x_ or double 2x_ framing where A35 angles are used on both sides of one piece of wood.
- Where a shear wall terminates above the foundation level (no shear wall below), provide minimum 4x_ blocking or double joist framing (as applicable) below the shear wall. "K" Plate nailing per this schedule shall be nailed into this blocking at the bottom of the shear wall.
- Shear wall nails shall be placed no closer than 3/8" from a panel edge or perpendicular face of stud.
- Maximum spacing between nails shall not exceed 12".
- Shear wall nailing shall be common or galvanized box nails, unless lag screws are noted. Galvanized nails shall be hot dipped or tumbled.
- Lag screw plate connectors shall penetrate 3.5" minimum, and plates or beams receiving lag screws shall have a minimum width of 3.5".
- Where hold downs are specified, the shear wall bolt shall be located within 6 inches of the end of the shear wall, unless otherwise approved by the engineer of record. Minimum end studs shall be as specified in the most recent Simpson catalog.
- Shear wall edge nailing through shear wall sheathing shall be provided into all studs attached to a hold down.
- Retrofit anchor bolts shall have a minimum embedment of 5" into the concrete foundation.
- Cast in place anchor bolts shall have a minimum embedment of 7" into the concrete foundation.
- For SW3 and greater, foundation anchor bolt plate washers shall extend to within 1/2" of the edge of the sheathing.
- Plate nails shall be nailed into a solid wood rim joist.
- 2x_ plates may be substituted for 3x_ plates if panels are nailed with edge nailing directly to the rim joist.
- Where 3x_ plates are used, (2) 20d common nails must be used instead of (2) 16d common nails to connect studs to the bottom plate.
- For SW3 and greater at existing walls, Retrofit High Strength Shear Wall Typical Detail may be used.
- Where Roof ventilation is required over a shear wall, see roof ventilation detail.

Diaphragm Schedule					
(Lumber for diaphragm construction is HF#2 or better, unless otherwise noted.)					
Type	Material	Edge Nailing	Field Nailing	Edge Blocking	Remarks
Roof	15/32" CDX 24/0	8d @ 6" o.c.	8d @ 12" o.c.	no	Minimum Standard
Floor	23/32" CDX 48/24	8d @ 6" o.c.	8d @ 12" o.c.	no	Minimum Standard

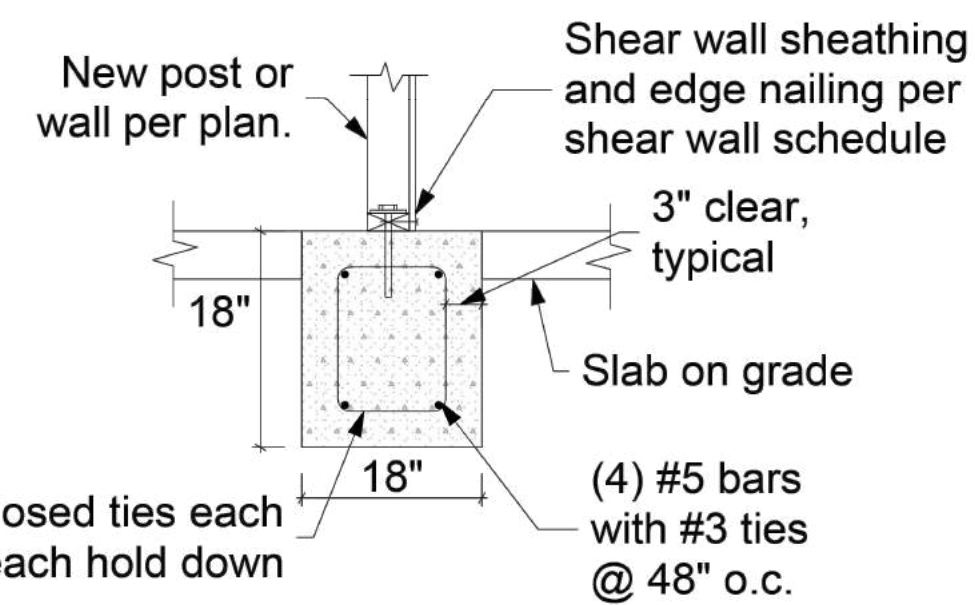
- "WSP" refers to "Wood Structural Panel", either plywood or other wood materials.
- Rim joists at exterior walls shall be continuous for tension. At rim joist splice locations, provide (2) CS16 horizontal straps, minimum 24"
- Where roof or floor framing is cantilevered over an exterior wall below, provide solid blocking with Diaphragm edge nailing between joists.
- This is the minimum required diaphragm construction. Where otherwise noted on the plans, additional blocking or nailing may be required.

Note: Contractor to verify that existing foundation is sound and in good condition. Contact the engineer of record for clarification, or if the existing foundation does not meet the minimum requirements of this detail.



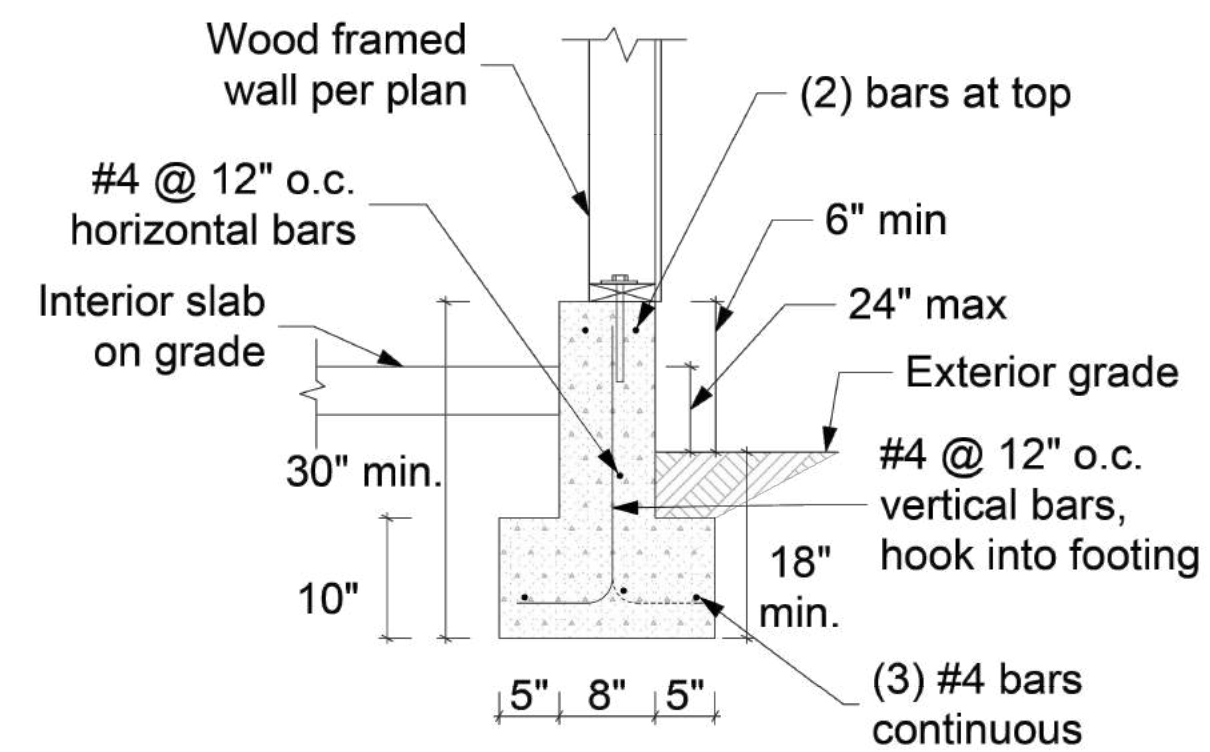
NF New Foundation to Existing Detail

Scale: 3/4" = 1'-0"



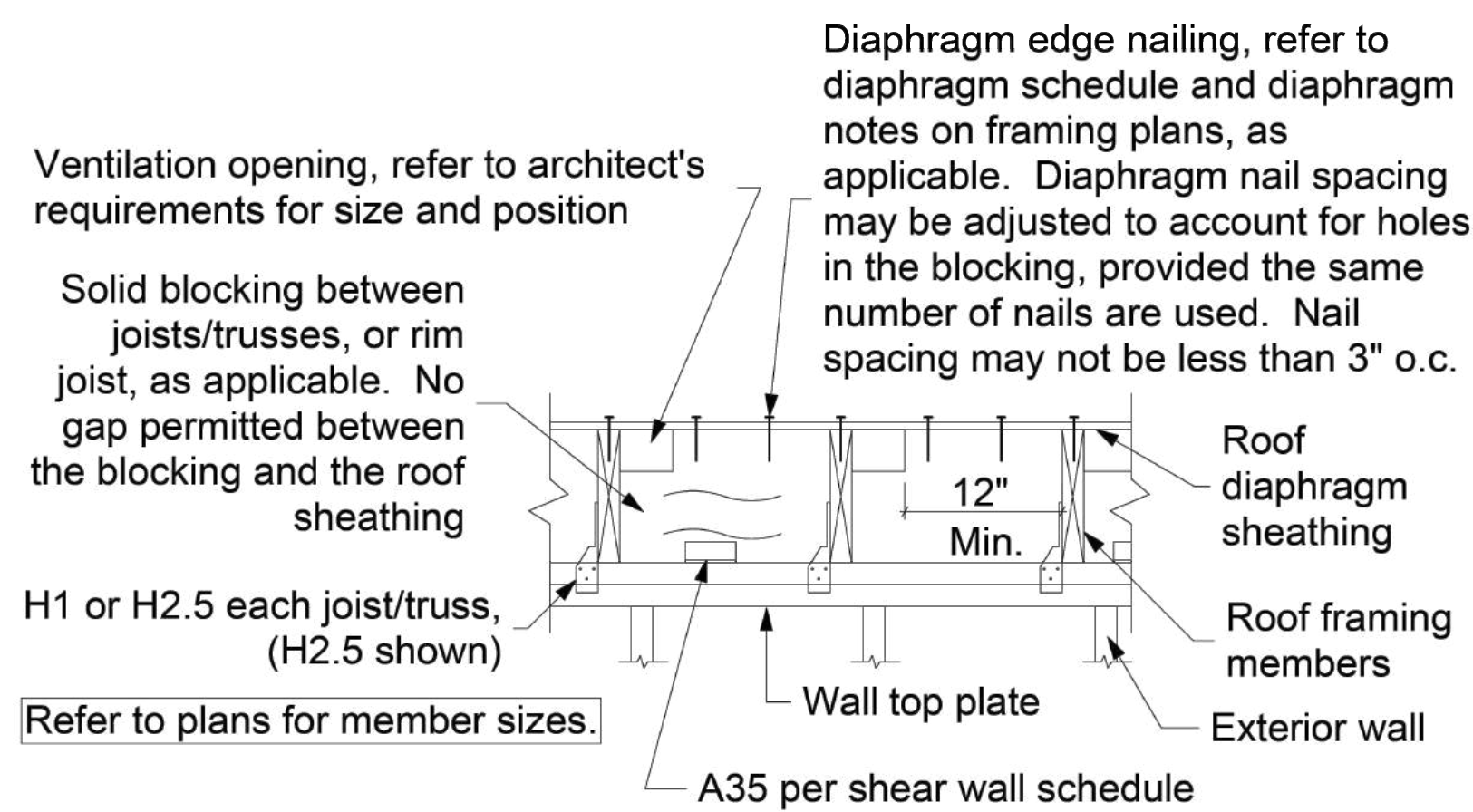
F1 Interior Footing Detail

Scale: 3/4" = 1'-0"



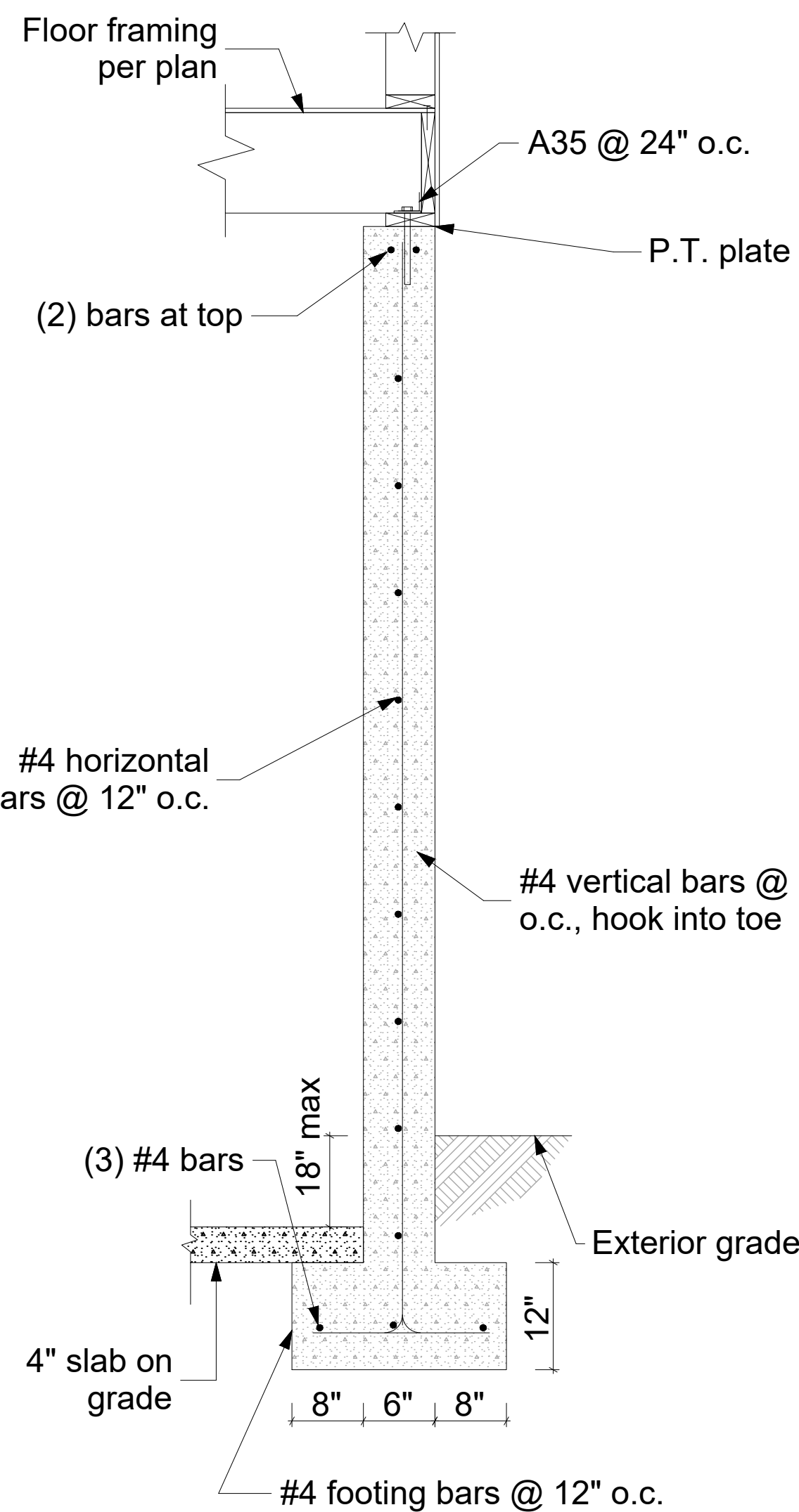
F3 Exterior Footing With Slab Detail

Scale: 3/4" = 1'-0"



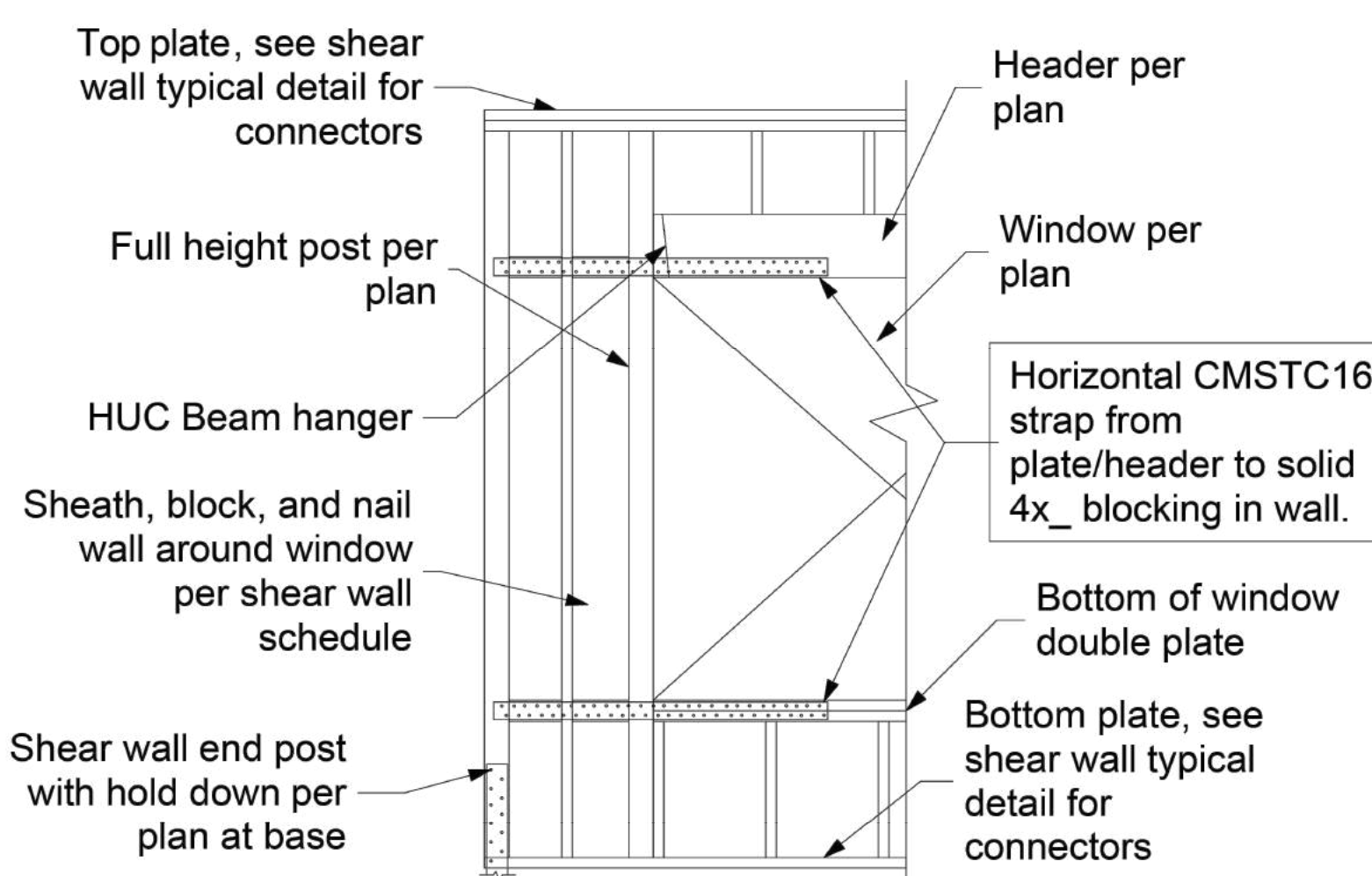
R1 Roof Ventilation Typical Detail

Scale: 1" = 1'-0"



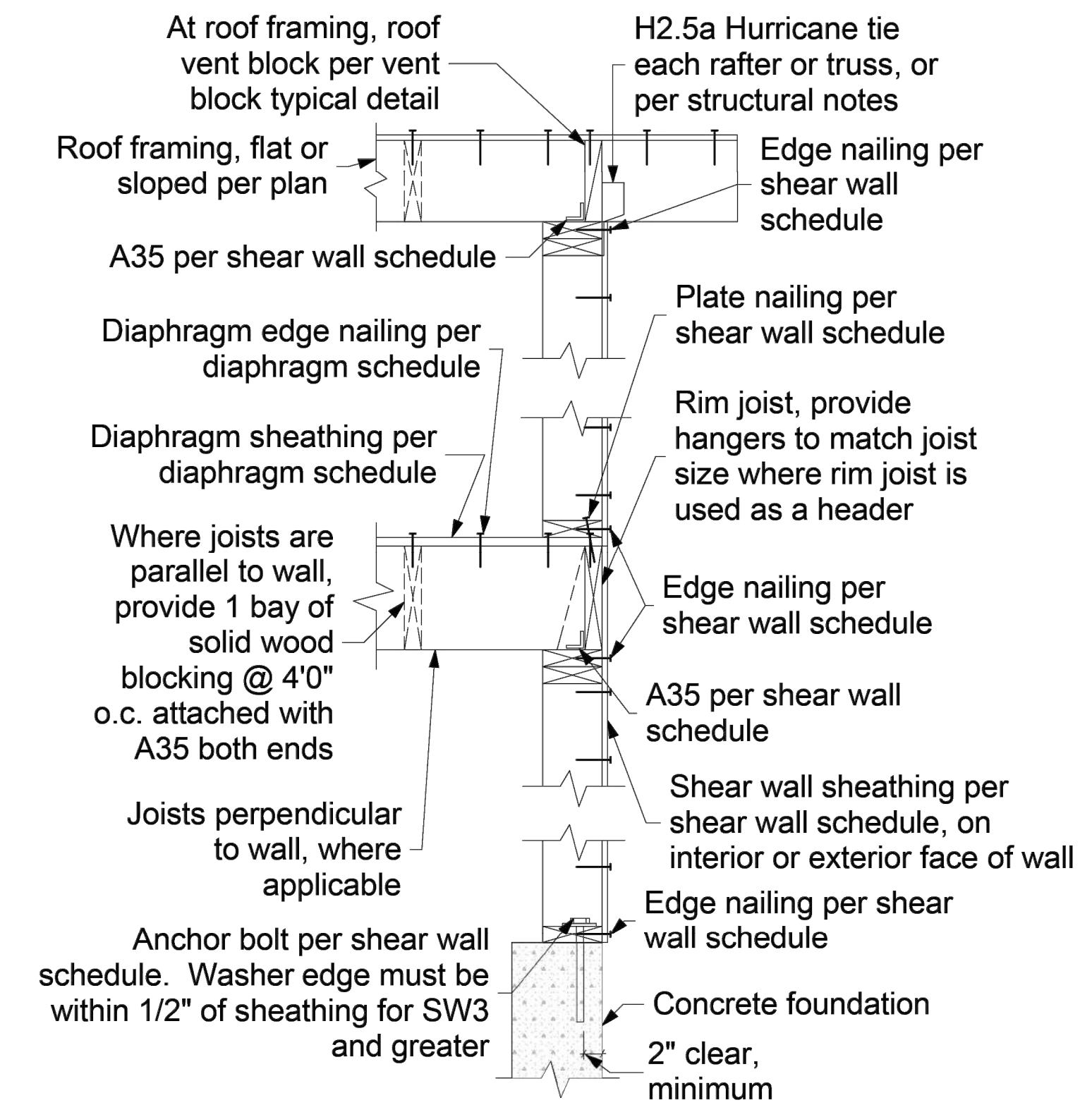
F2 Concrete Basement Wall Detail

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



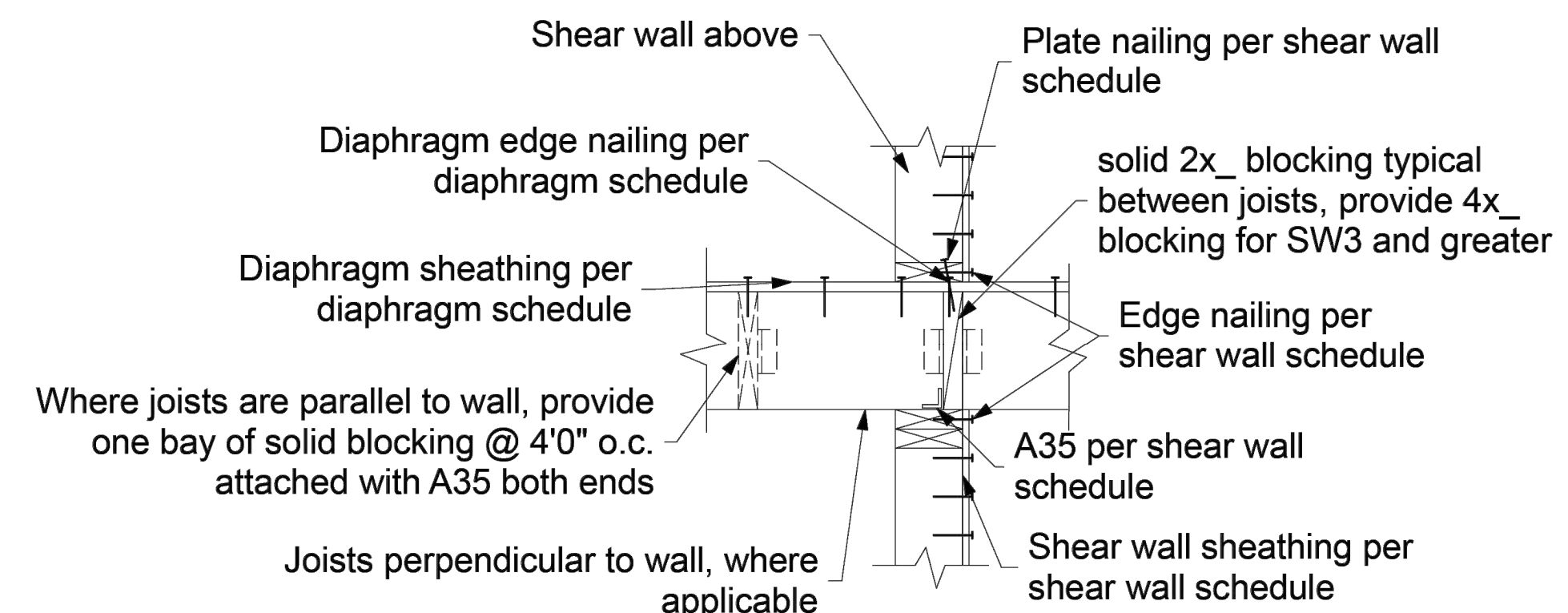
SW1 Shear Wall Around Opening Detail

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



SW2 Exterior Shear Wall Typical Detail

Scale: 1" = 1'-0"



SW3 Interior Shear Wall Typical Detail

Scale: 1" = 1'-0"



Consulting Structural Engineering Services
6311 17th Ave NE, Seattle, WA 98115
Phone: 206-527-1288
Email: john@cses-engineering.com

MACINTYRE
7520 MERCER TERRACE DR
MERCER ISLAND WA, 98040

Revisions:

Date:
01-26-24

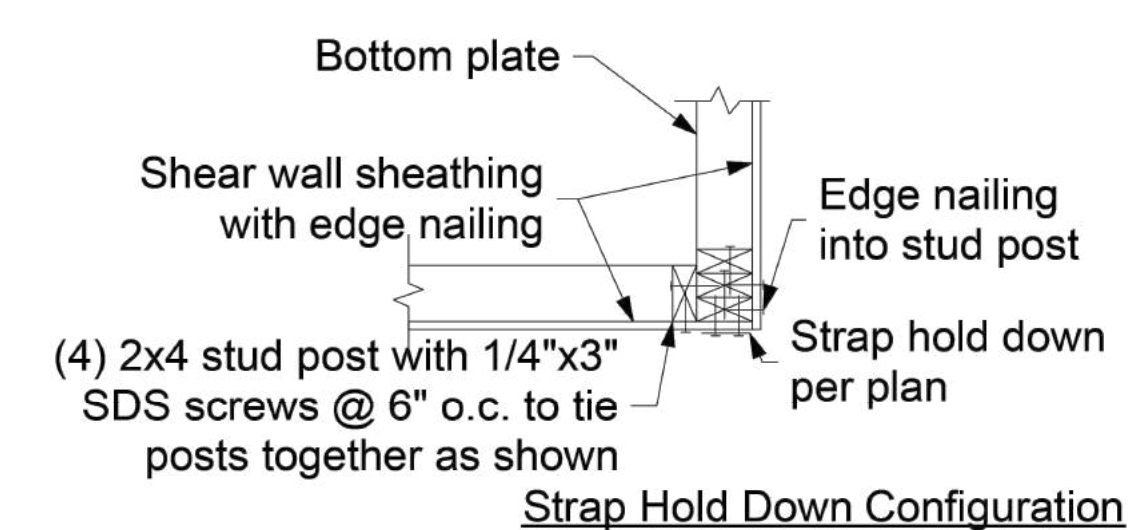
Sheet:

S-2

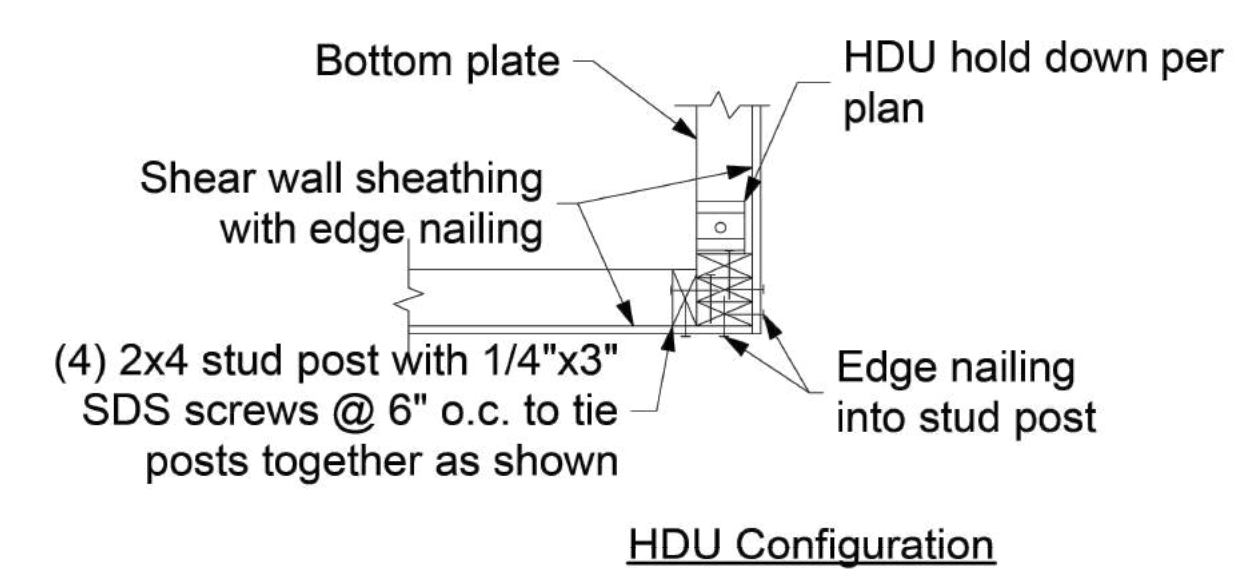


Consulting Structural Engineering Services
 6311 17th Ave NE, Seattle, WA 98115
 Phone: 206-527-1288
 Email: john@cse-engineering.com

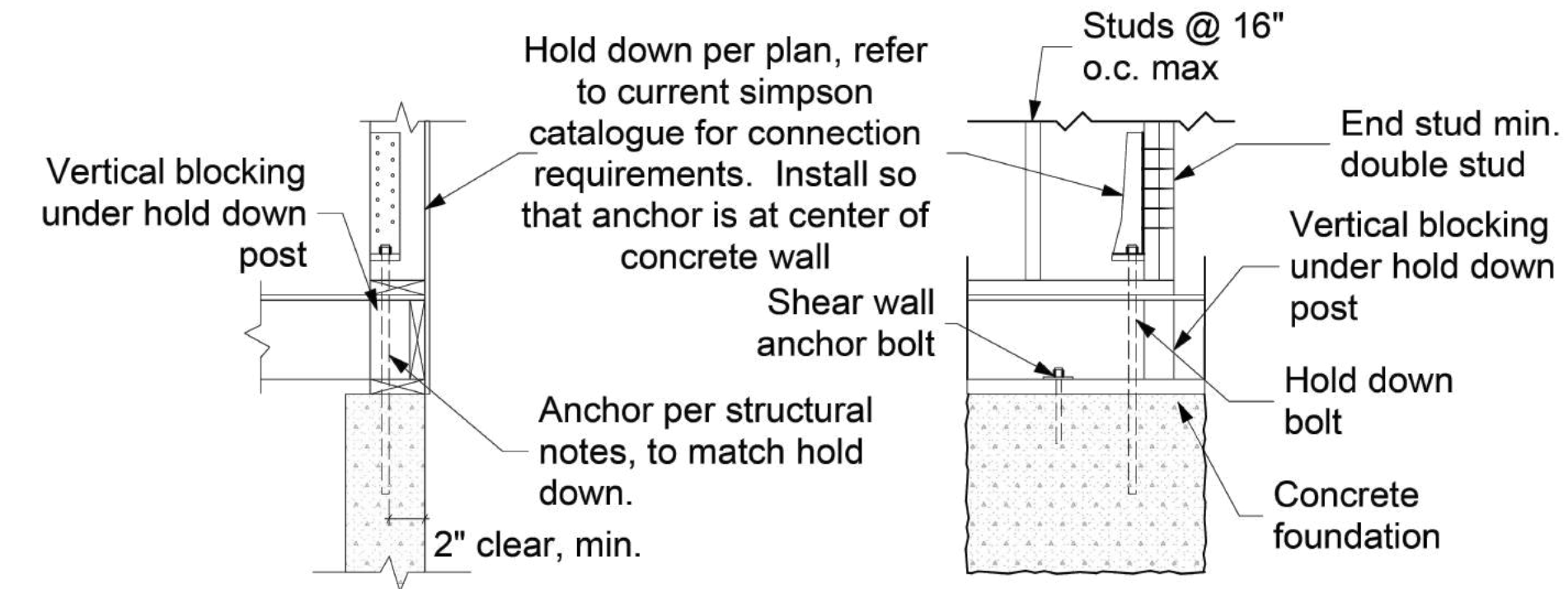
MACINTYRE
 7520 MERCER TERRACE DR
 MERCER ISLAND WA, 98040



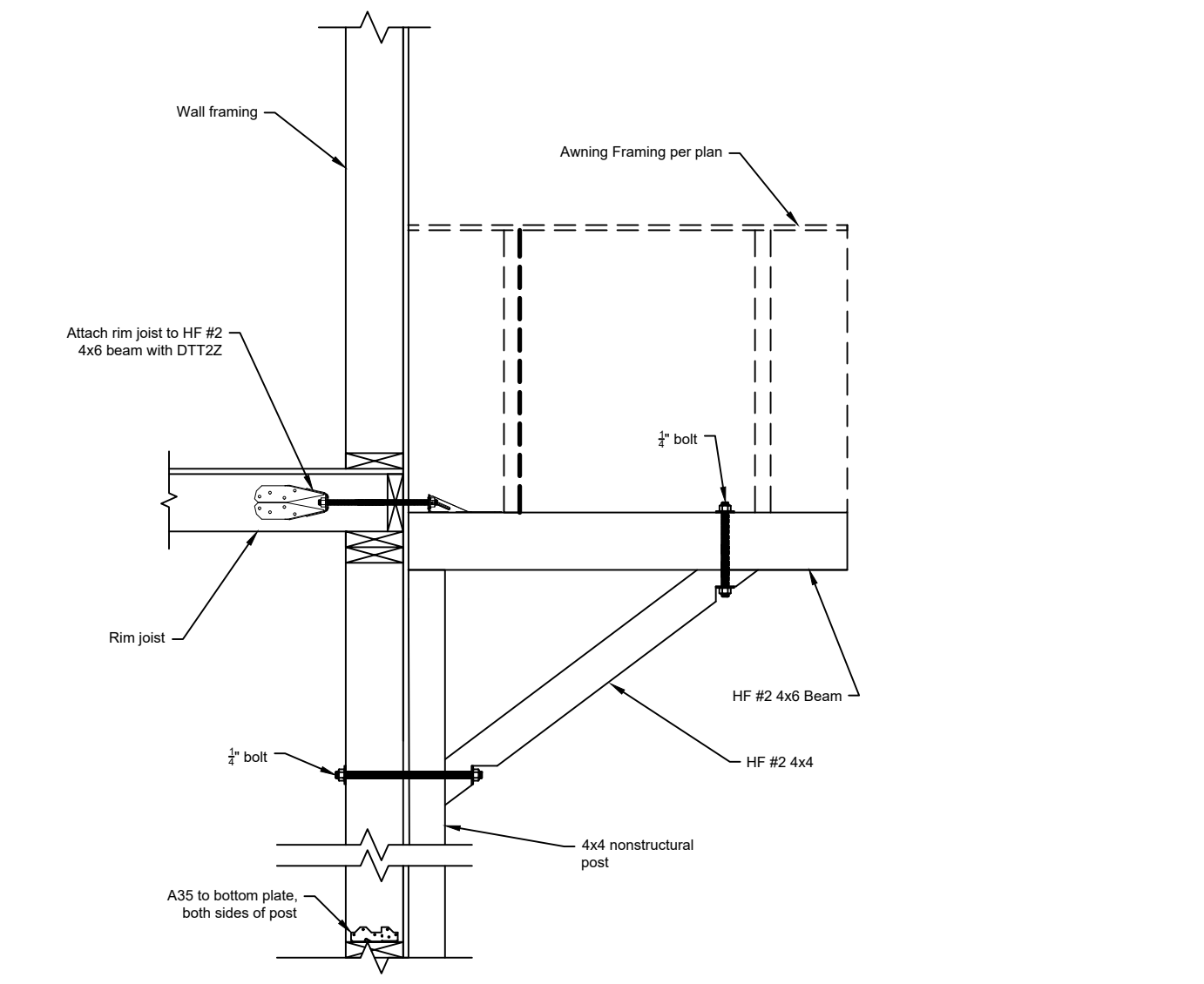
H1 Corner Hold Down Detail
 Scale: 1" = 1'-0"



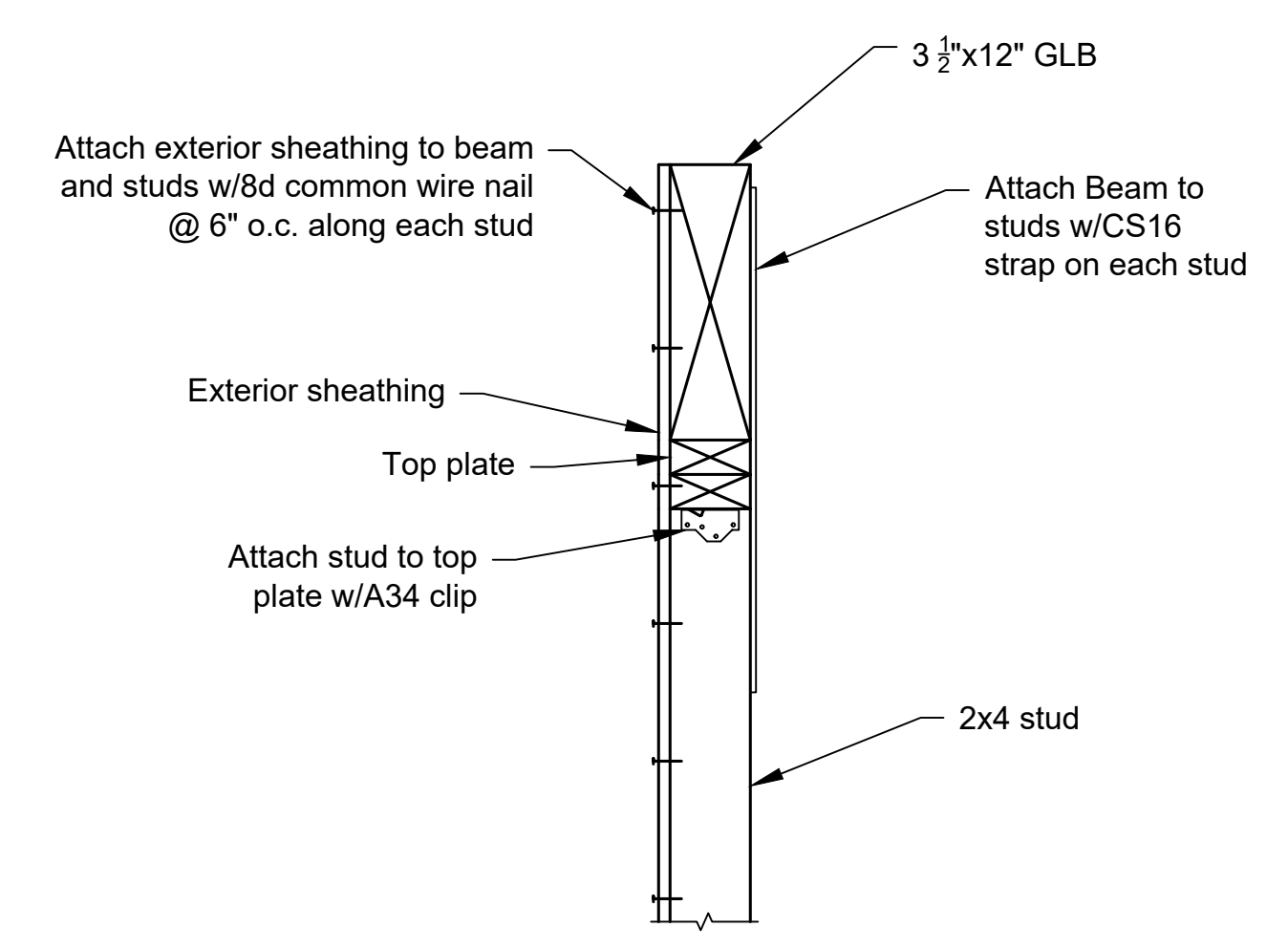
H2 Strap Hold Down Typical Detail
 Scale: 3/4" = 1'-0"



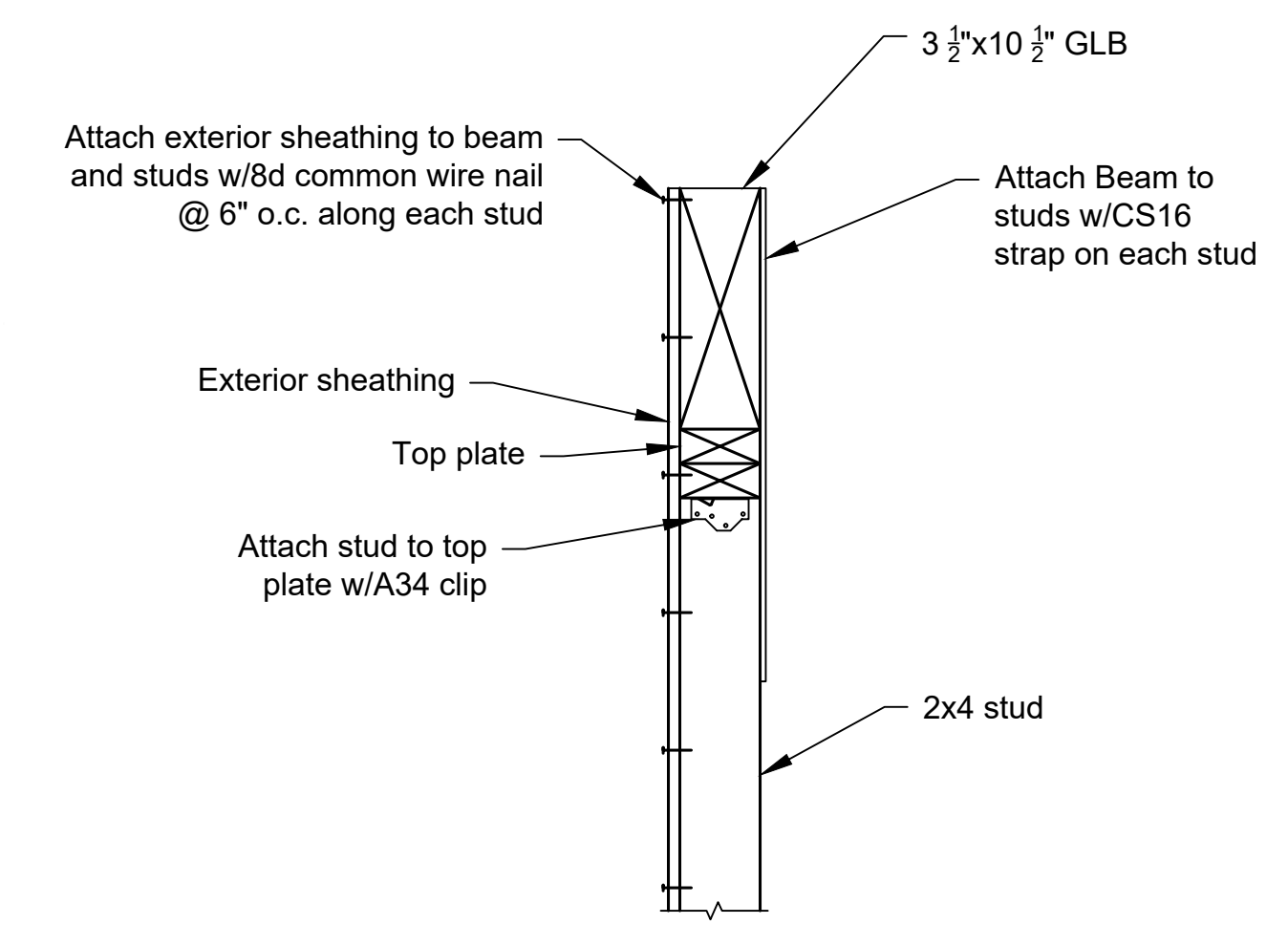
H3 Retrofit HDU Typical Detail
 Scale: 3/4" = 1'-0"



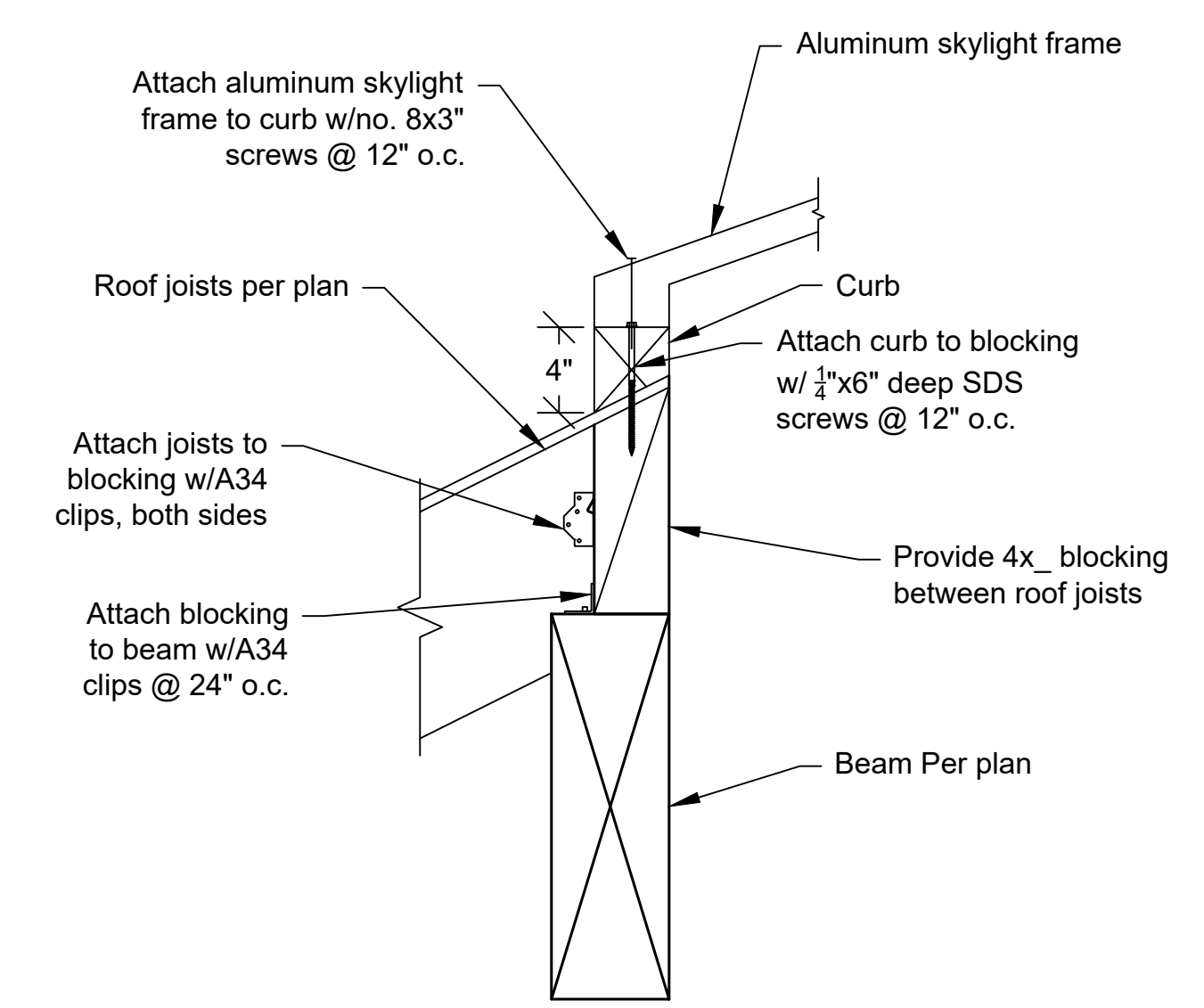
A1 Awning Connection Detail
 Scale: 3/4" = 1'-0"



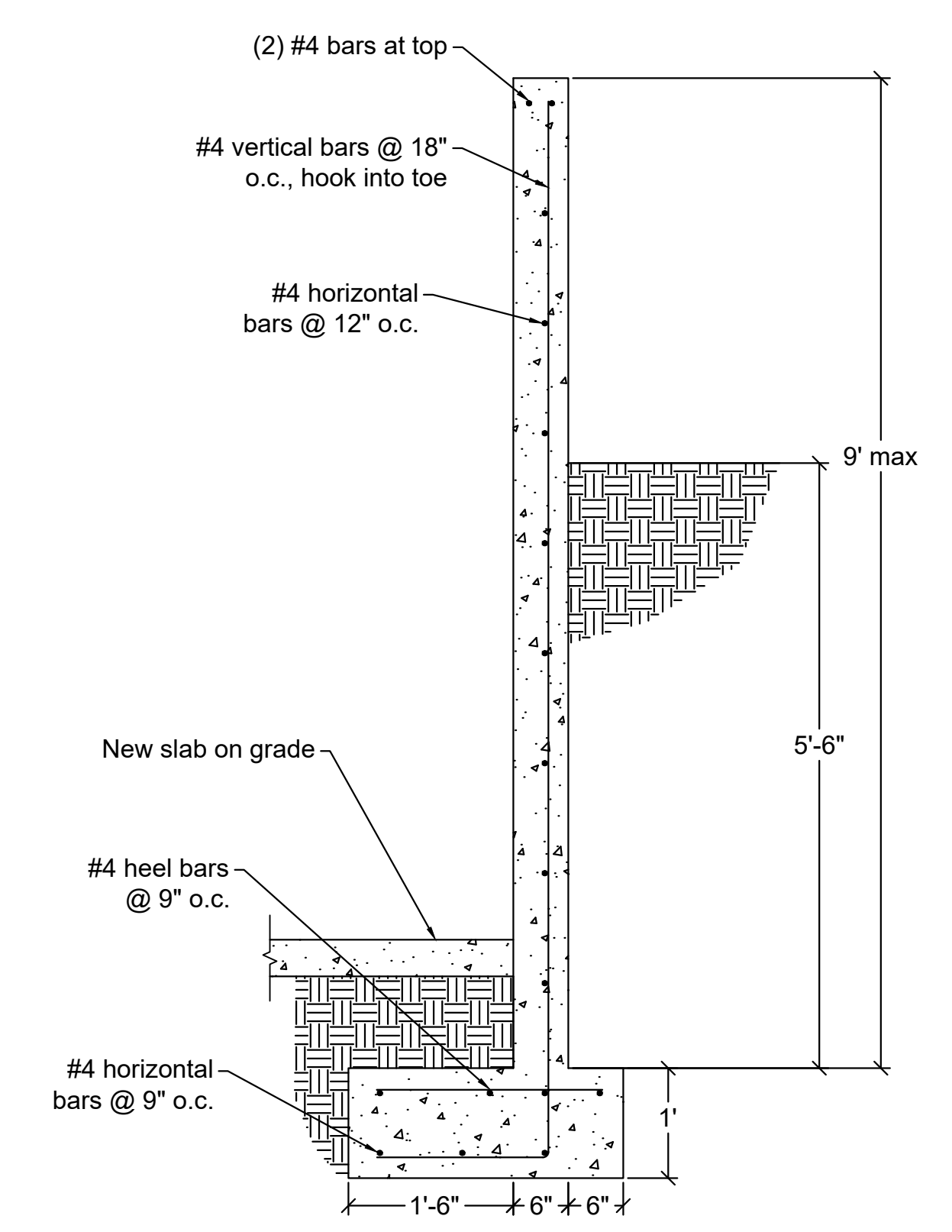
W1 East Wall Beam to Stud Connection
 Scale: 1-1/2" = 1'-0"



W2 West Wall Beam to Stud Connection
 Scale: 1-1/2" = 1'-0"



L1 Skylight Frame to Roof Framing Connection Detail
 Scale: 1-1/2" = 1'-0"



F4 East Retaining Wall Detail
 Scale: 3/4" = 1'-0"

Revisions:

Date:
 01-26-24

Sheet:

S-3

