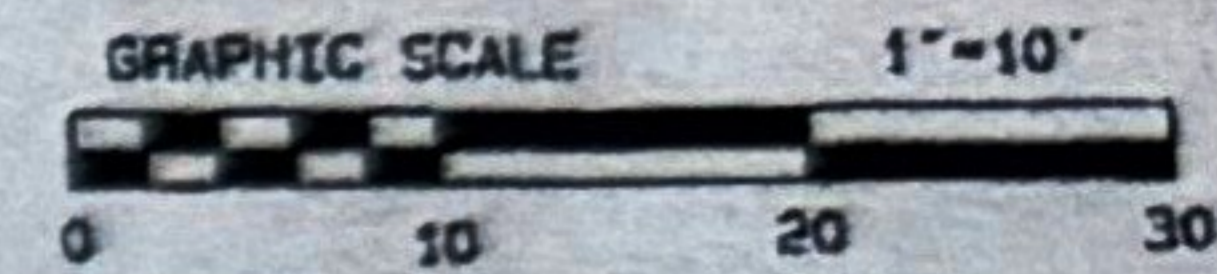


BEARING MERIDIAN:
 PER THE RE-PLAT OF FERN RIDGE, AS RECORDED
 IN VOLUME 12 OF PLATS, PAGE 25, RECORDS OF
 KING COUNTY, WA.
 HELD FOUND REBAR'S PER RC-PLAT

TOPOGRAPHIC & BOUNDARY SURVEY

SE 1/4 OF THE SE 1/4 OF SEC. 31, TWP. 25N., RGE. 5E., W.M.
 CITY OF BELLEVUE, KING COUNTY, WA.



VERTICAL DATUM: ASSUMED

LEGAL DESCRIPTION:

ALL THAT CERTAIN PROPERTY SITUATED IN CITY OF MERCER ISLAND IN THE COUNTY OF KING AND STATE OF WASHINGTON AND BEING DESCRIBED IN A DEED DATED 07/23/2003 AND RECORDED 07/30/2003 IN INSTRUMENT NUMBER 20030730004142 AMONG THE LAND RECORDS OF THE COUNTY AND STATE SET FORTH ABOVE AND REFERENCED AS FOLLOWS:
 LOT 10, AS DELINEATED ON SURVEY ENTITLED "REVISED PLAT OF FERN VILLAGE", RECORDED UNDER RECORDING NUMBER 7911089001, AS APPROVED UNDER FILE NUMBER MI 79-11-39 BY THE CITY OF MERCER ISLAND, A MUNICIPAL CORPORATION, AND RECORDED UNDER RECORDING NUMBER 791108993, BEING A PORTION OF THAT PLAT OF FERN RIDGE, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 102 OF PLATS, PAGES 88 AND 89 IN KING COUNTY, WASHINGTON, TOGETHER WITH AN UNDIVIDED INTEREST IN TRACT A, B, C AND D OF FERN RIDGE IN COMMON WITH THE OTHER OWNERS OF LOTS WITHIN THE SAID FERN RIDGE PLAT. PARCEL ID NUMBER: 2524000100

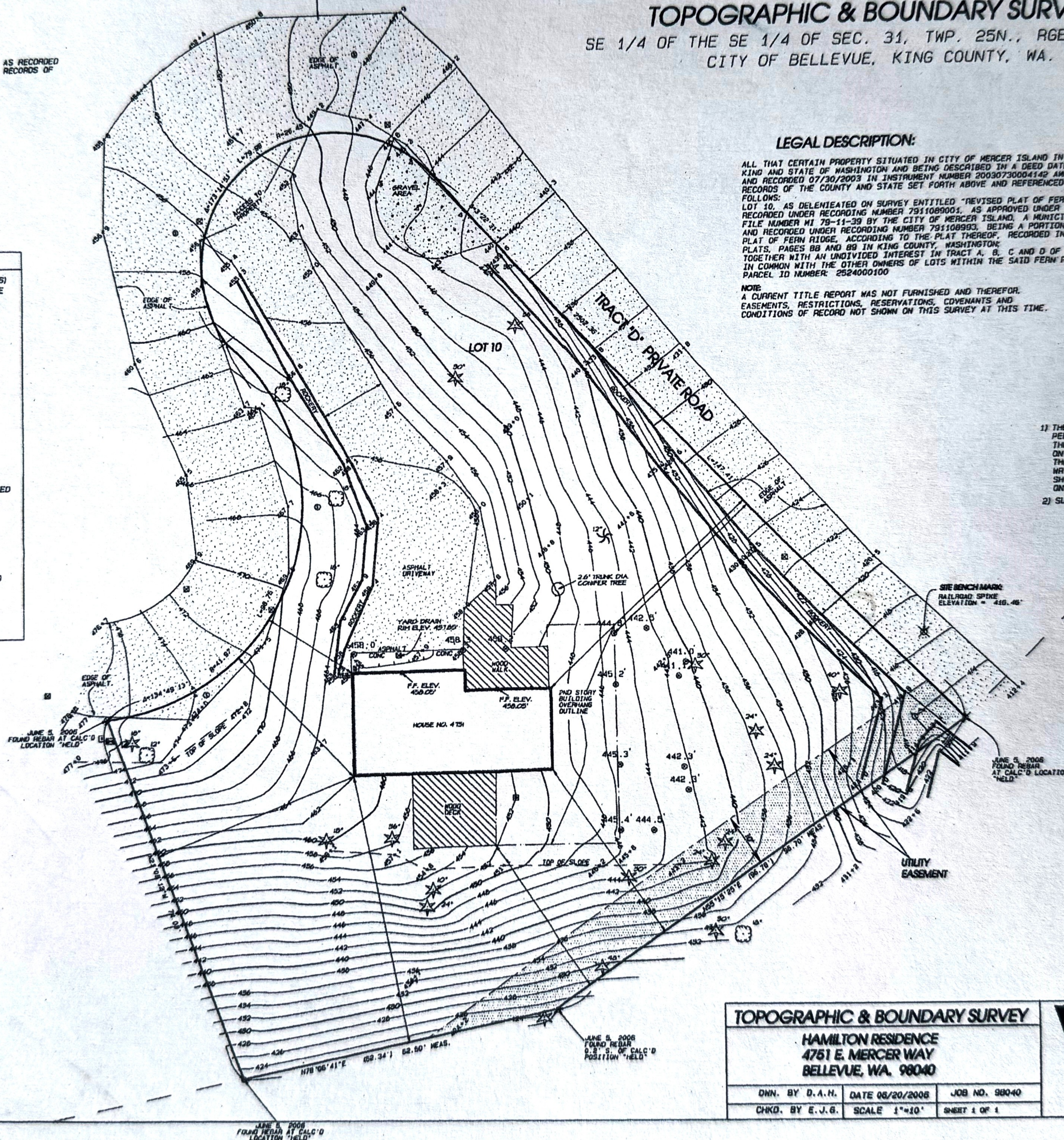
NOTE:
 A CURRENT TITLE REPORT WAS NOT FURNISHED AND THEREFOR, EASEMENTS, RESTRICTIONS, RESERVATIONS, COVENANTS AND CONDITIONS OF RECORD NOT SHOWN ON THIS SURVEY AT THIS TIME.

SURVEYOR'S NOTES:

- 1) THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN JUNE OF 2006. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRIC 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) SUBJECT PROPERTY AREA PER THIS SURVEY IS 16,444 SQ.FT. +/-

LEGEND

- ◆ FOUND MONUMENT IN CASE (06/05/2006)
- SITE BENCH MARK FND RAILROAD SPIKE
- FOUND REBAR AS NOTED
- WATER VALVE
- UTILITY POLE
- CATCH BASIN
- SANITARY SEWER MANHOLE
- POST
- CABLE/TELEVISION RISER
- FINISHED FLOOR ELEVATION
- ELECTRIC METER
- SPOT ELEVATION
- FIRE HYDRANT
- ELECTRIC TRANSFORMER ON CONC
- VAULT "PURPOSE UNKNOWN"
- AIR CONDITIONING UNIT
- ▨ ASPHALT SURFACE
- ▨ RET. WALL
- ▨ GRAVEL SURFACE
- ▨ WOOD SURFACE
- TOP/TOE OF DITCH AS NOTED
- BUILDING LINE
- CENTERLINE OF ROAD
- OVERHEAD WIRES
- ROCKERY
- () RECORD
- CONC CONCRETE
- R-O-W RIGHT-OF-WAY
- DECIDUOUS TREE (NOT SHOWN TO SCALE) TRUNK DIA SHOWN IN INCHES.
- ★ CONIFER TREE (NOT SHOWN TO SCALE) TRUNK DIA SHOWN IN INCHES.
- ✱ GUM TREE (NOT SHOWN TO SCALE) TRUNK DIA SHOWN IN INCHES.



TOPOGRAPHIC & BOUNDARY SURVEY

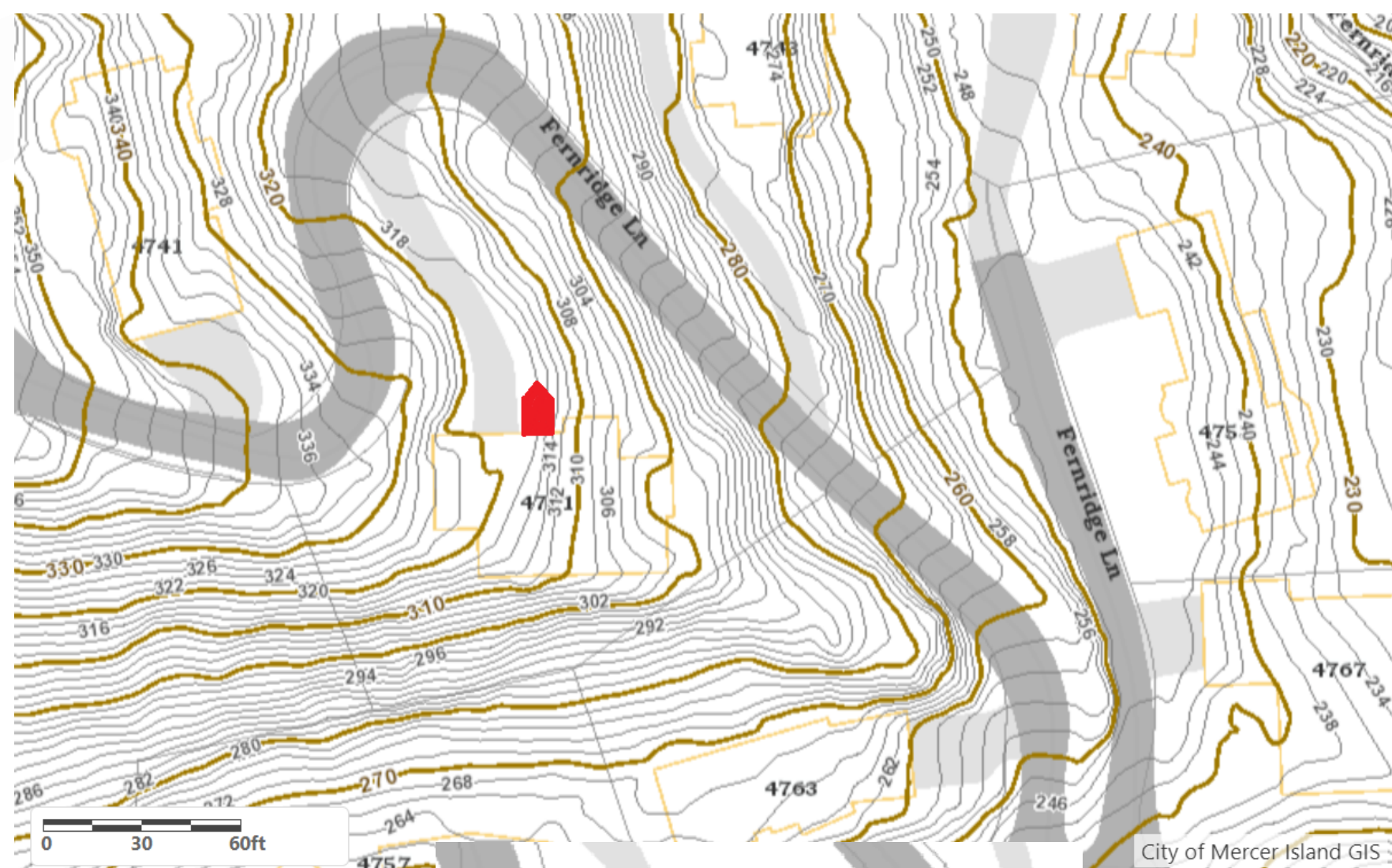
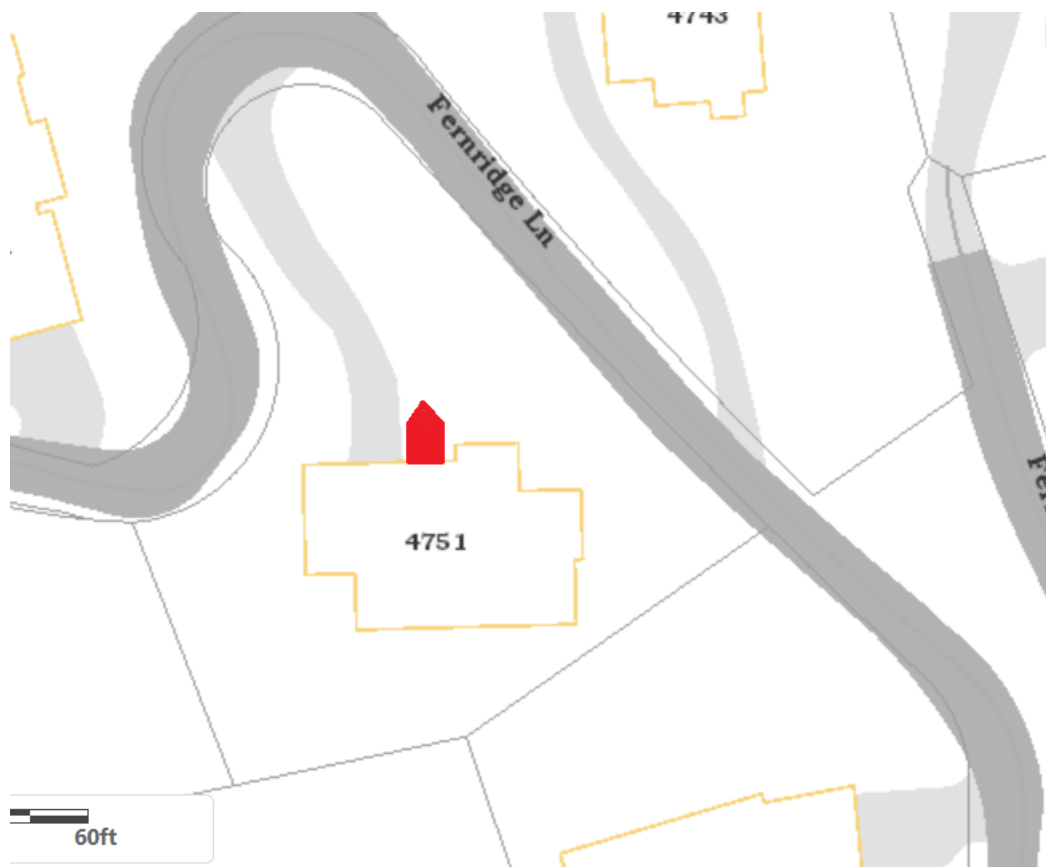
HAMILTON RESIDENCE
 4751 E. MERCER WAY
 BELLEVUE, WA. 98040

DWN. BY D.A.H.	DATE 06/20/2006	JOB NO. 98040
CHKD. BY E.J.G.	SCALE 1"=10'	SHEET 1 OF 1

GeoDimensions

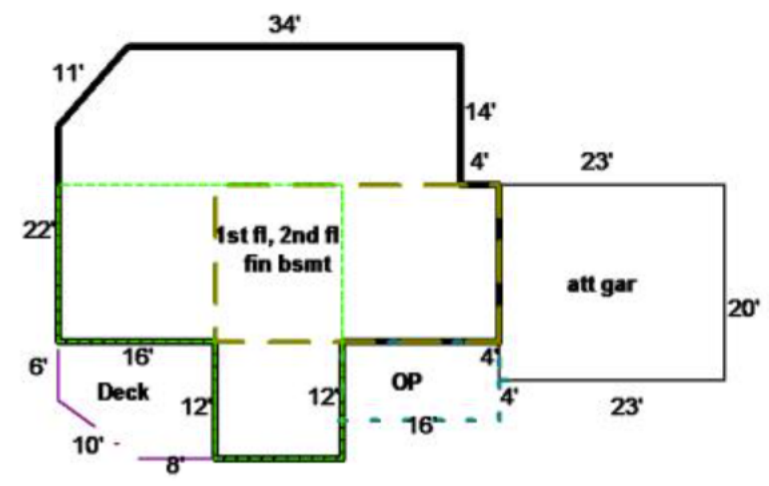
6210 FAIRWAY PLACE SE
 SNOQUALMIE, WA. 98065
 PHONE (425) 458-4488
 FAX (206) 686-2960



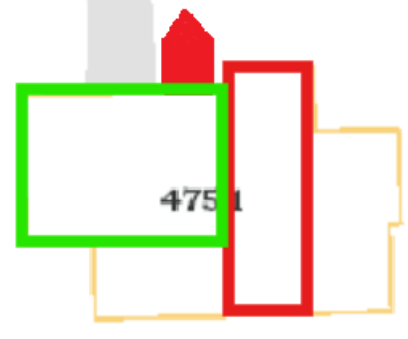


LEGEND
 PARCEL # 252400-0100
 APPRAISER BGEO
 DRAW DATE 7/29/15
 REV DATE Drawn from folio

- FIREPLACE** (
- BSMT 620 sf fin
 - 1ST FL 1422 sf
 - 1/2 FL
 - 2ND FL 464 sf
 - 3RD
 - UNFIN 1/2
 - UNFIN FULL
 - BSMT GAR
 - ATT GAR 460 sf
 - CARPORT
 - OP 128 sf
 - ENC P
 - DECK 168 sf



Zone R-15



Yellow - Roofline
 Green - Foundation
 Red - Proposed ADU

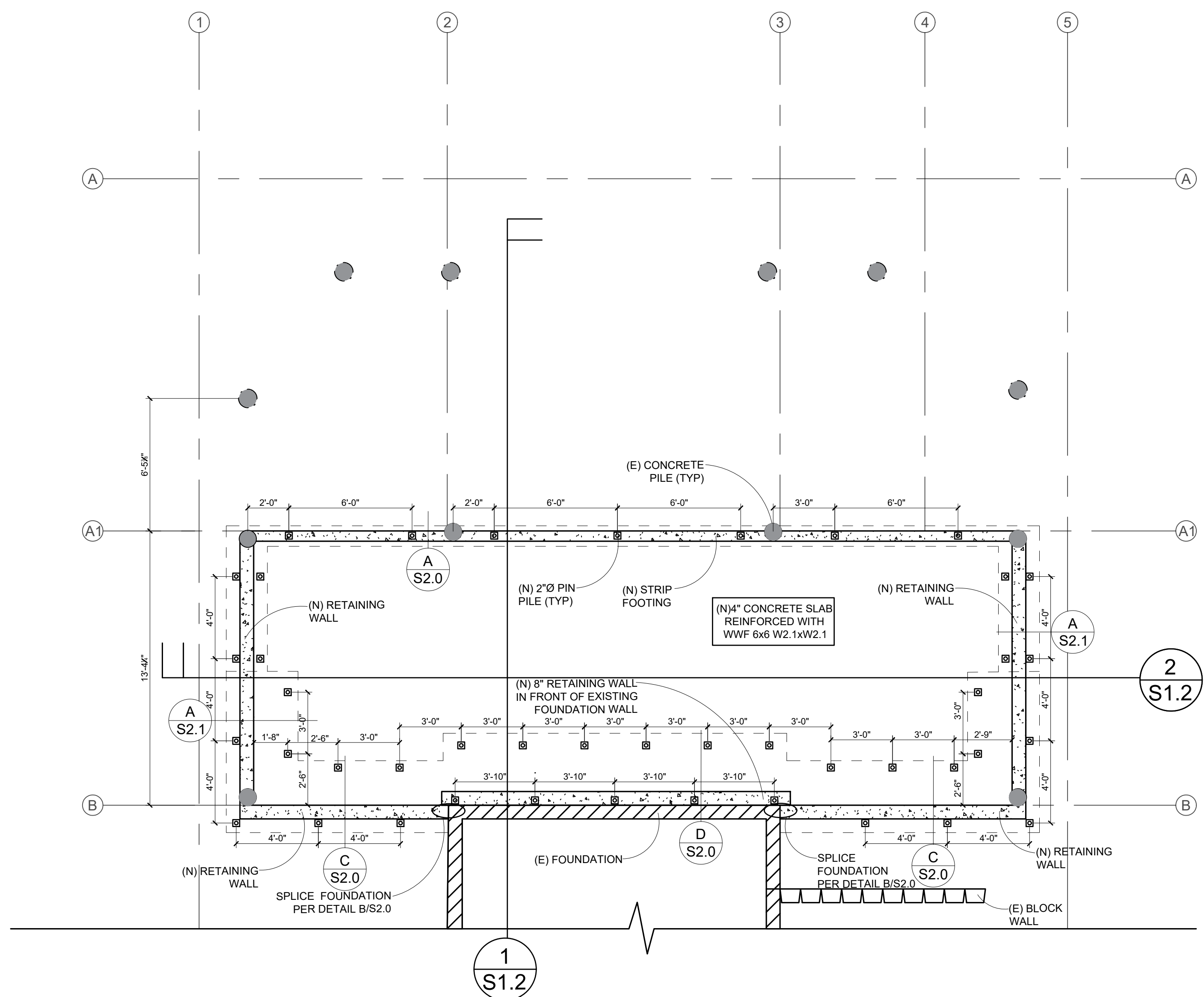
Site Orientation, Detailed Topography, and Assessor's Plan and Measurements, rough Plan of expansion



4751 Fernridge Entrance Remodel / Keith & Georgina Pleas Residence

REVISIONS	
MM/DD/YY	REMARKS
1	
2	
3	
4	
5	

A



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

WALL KEY	
	NEW CONCRETE WALL & FOOTING
	EXISTING CONCRETE WALL & CONCRETE

LEGEND	
	SW X = SHEARWALL PER SCHEDULE ON S2.0
	= HOLD-DOWN PER SCHEDULE ON S2.0
	= DETAIL PER S2.0-S2.1
	= INDICATES BEARING LOCATIONS. ALL COLUMNS TO BE (2) 2x STUDS SPIKED TOGETHER W/ (2) ROWS 10d @ 6" o.c. STAGGERED (U.N.O.)

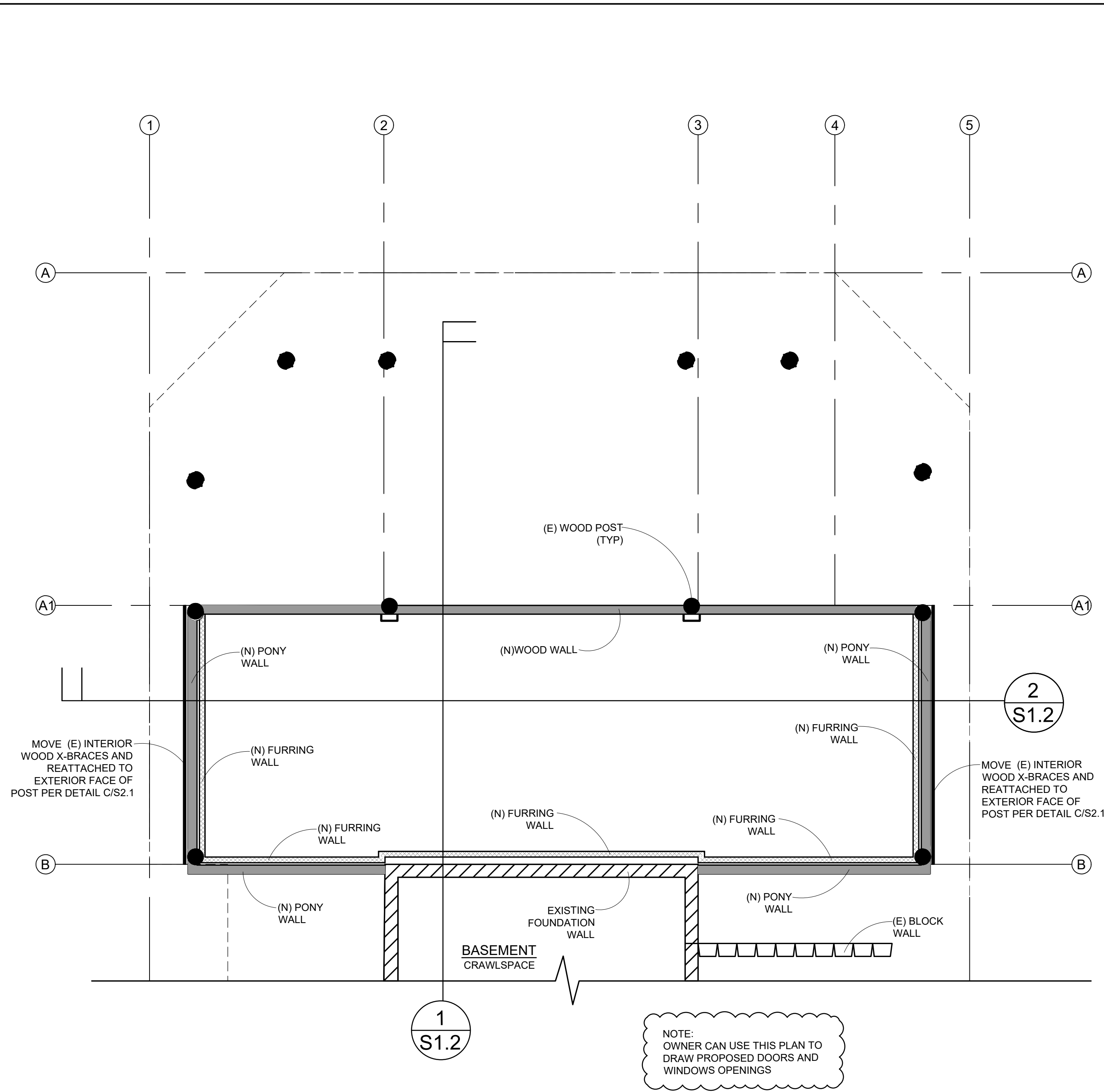
PRELIMINARY REVIEW SET

Pleas Residence
4751 FERNRIDGE LANE MERCER ISLAND
RSD Job# 7455

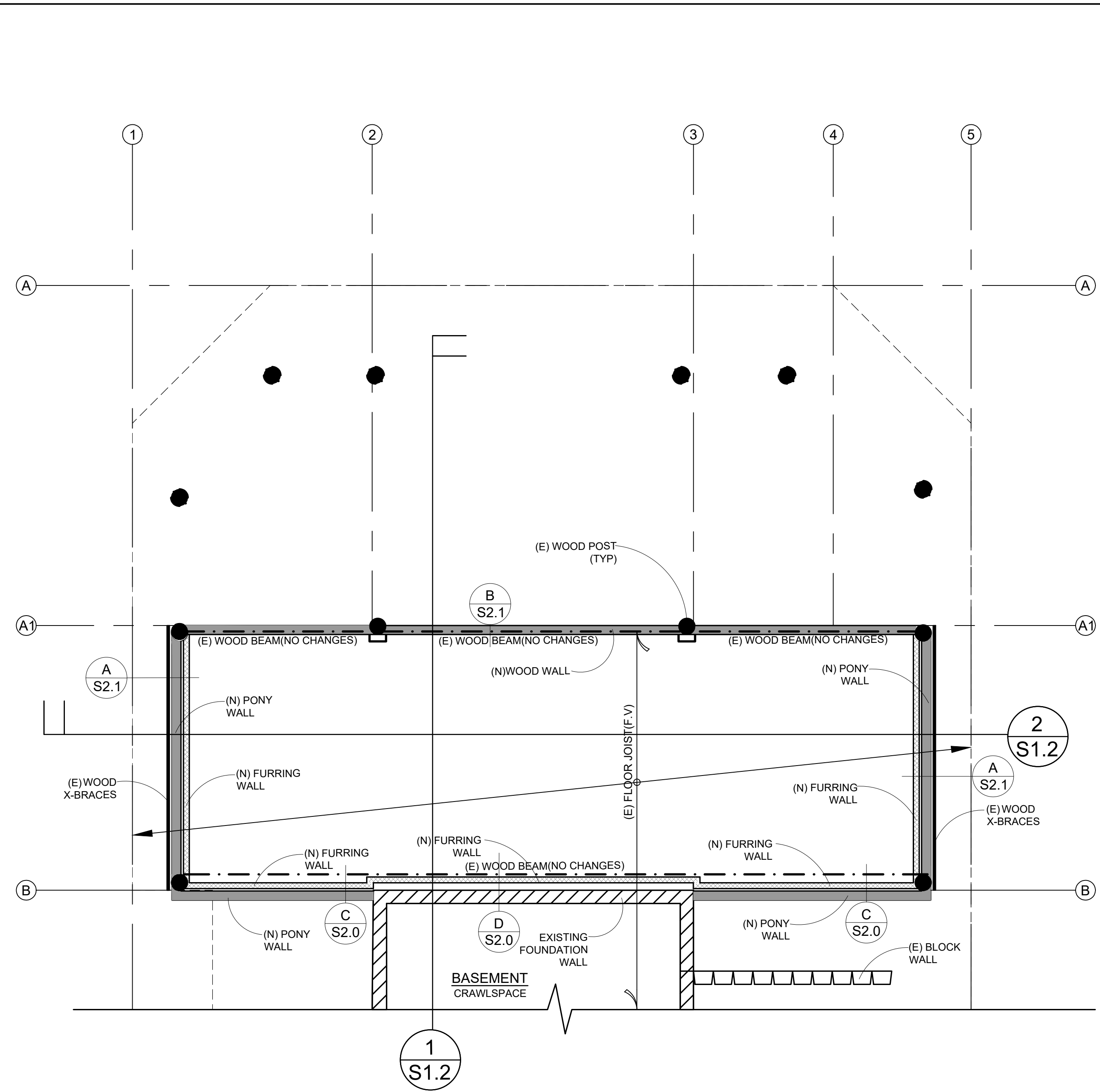
REV.	DATE:	DESCRIPTION

DRAWN BY: E. ILUNGA
DESIGNED BY: K. RYAN
DATE: 9/05/25
JOB # 7455

FOUNDATION PLAN
SHEET:
S1.0



NEW ADU WALL PLAN
SCALE 1/4"=1'-0"



NEW ADU FRAMING PLAN
SCALE 1/4"=1'-0"

WALL KEY	
	NEW WOOD WALL
	EXISTING CONCRETE WALL & CONCRETE
	NEW WOOD FURRING WALL

LEGEND	
	= SHEARWALL PER SCHEDULE ON S2.0
	= HOLDOWN PER SCHEDULE ON S2.0
	= DETAIL PER S2.0-S2.1
	= INDICATES BEARING LOCATIONS. ALL COLUMNS TO BE (2) 2x STUDS SPIKED TOGETHER W/ (2) ROWS 10d @ 6" o.c. STAGGERED (U.N.O.)

REV.	DATE:	DESCRIPTION

DRAWN BY: E. ILUNGA
DESIGNED BY: K. RYAN
DATE: 9/05/25
JOB #: 7455

NEW ADU WALL PLAN
/ NEW ADU FRAMING
PLAN

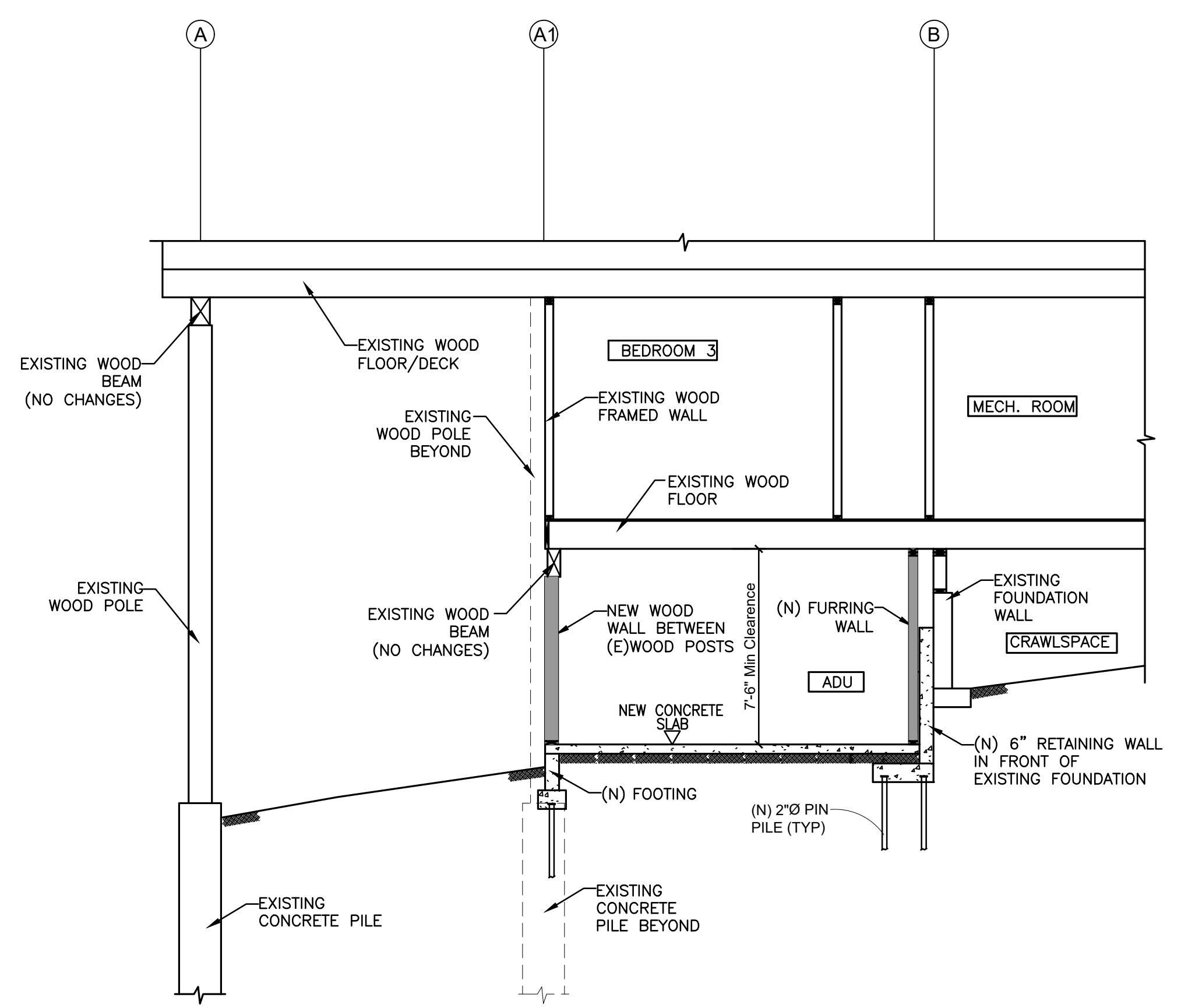
SHEET:
S1.1

PRELIMINARY REVIEW SET
PLEAS RESIDENCE
4751 FERNRIDGE LANE MERCER ISLAND
RSD Job# 7455

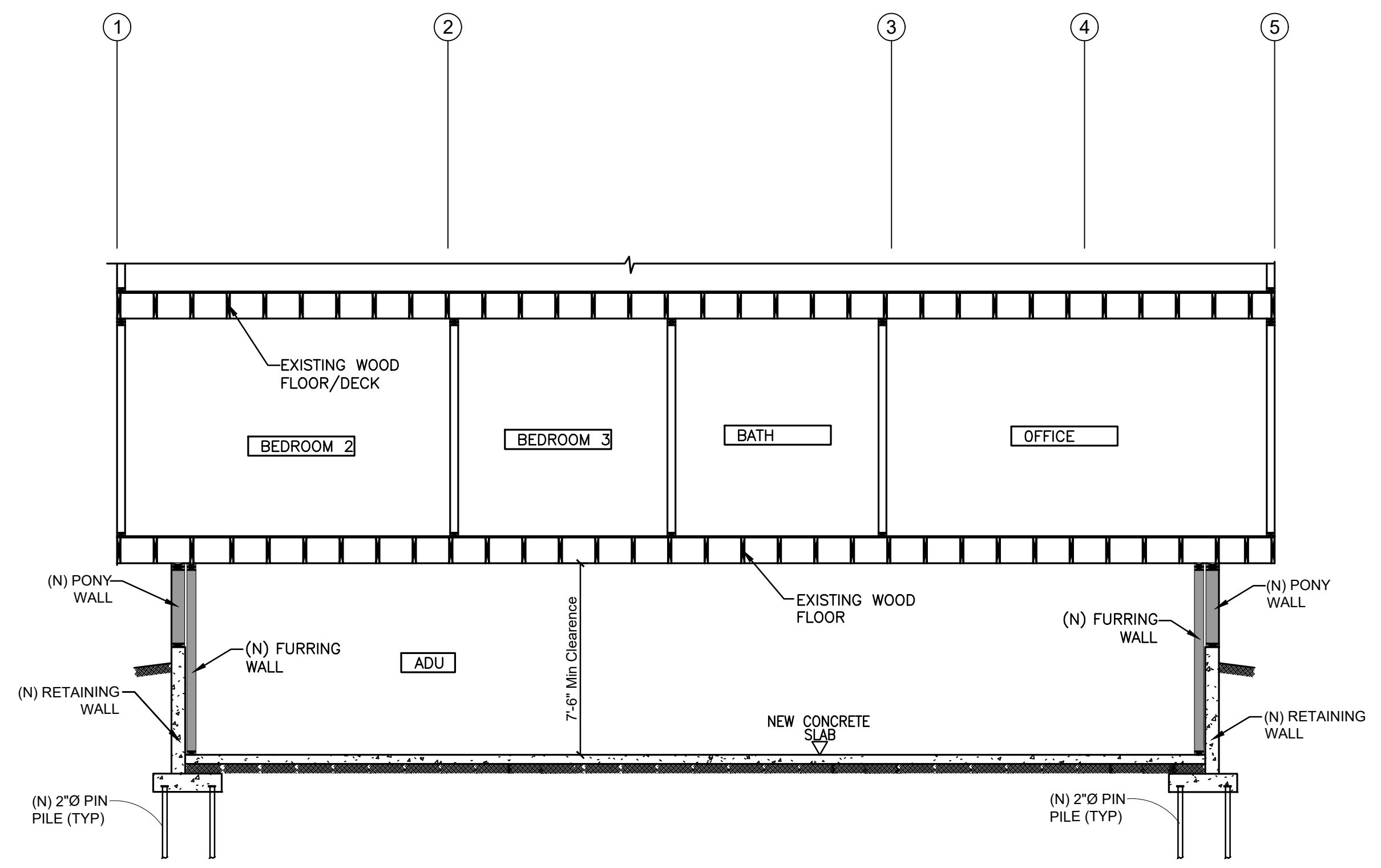
REV.	DATE:	DESCRIPTION

DRAWN BY: E. ILUNGA
DESIGNED BY: K. RYAN
DATE: 9/05/25
JOB #: 7455

SECTIONS
SHEET:
S1.2



1 ADU SECTION EAST-WEST
SCALE 1/2"=1'-0"



2 ADU SECTION NORTH-SOUTH
SCALE 1/2"=1'-0"

STRUCTURAL NOTES

GENERAL:

ALL METHODS, MATERIALS AND WORKMANSHIP ARE TO CONFORM TO THE INTERNATIONAL BUILDING CODE AND STANDARDS, 2021 EDITION (IBC '21), AS AMENDED AND ADOPTED BY THE GOVERNING JURISDICTION.

- THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:
- PROVIDING TEMPORARY SHORING AND BRACING UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN INSTALLED AND CONNECTIONS COMPLETED.
 - FIELD VERIFICATION AND COORDINATION OF ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE WORK.
 - BRINGING TO THE ATTENTION OF THE BUILDING DESIGNER ANY CONFLICTS IN DIMENSIONS, MATERIALS OR NOTES SHOWN ON THE PLANS.
 - INSTALLATION OF PROPRIETARY PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

MATERIALS, MEMBER SIZES, NOTES, ETC. SHOWN ON THESE STRUCTURAL PLANS ARE SPECIFIC FOR THE PROJECT AND TAKE PRECEDENCE OVER ANY CONFLICT WITH THE STRUCTURAL NOTES THAT FOLLOW.

DESIGN CRITERIA:
 FLOOR LIVE LOAD 40 psf (with other live loads in accordance with IBC '21, table 1607.1)
 ROOF SNOW LOAD 25 psf

WIND: V3s= 110 mph / Exp B, Kzt=1

SEISMIC: SEISMIC IMPORTANCE FACTOR I=1
 MAPPED SPECTRAL RESPONSE ACCELERATIONS, SS=159, S1=63
 SITE CLASS=II, SEISMIC DESIGN CATEGORY: D
 SPECTRAL RESPONSE COEFFICIENTS: Sps=1.18 AND Sd1=0.87
 BASIC SEISMIC FORCE RESISTING SYSTEM: WOOD SHEAR WALL
 SEISMIC RESPONSE COEFFICIENT: Cs =0.182
 RESPONSE MODIFICATION FACTOR: R=6.5
 ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

LATERAL EARTH PRESSURES PARAMETERS:

ACTIVE PRESSURE (UNRESTRAINED): 35 psf

PASSIVE PRESSURE (RESTRAINED): 50 psf

SOIL DENSITY : 110 pcf

COEFFICIENT OF FRICTION : 0.35

SEISMIC LATERAL PRESSURE (AT PERMANENT WALL): 10H

PILE FOUNDATION:

2" DIA. PIN PILES (AT NEW FOUNDATION WALLS AND INTERIOR BEARING WALL FOOTINGS):

ALL NEW FOUNDATION FOOTINGS/GRADE BEAMS ARE TO BE CONNECTED TO DEEP FOUNDATION SYSTEM CONSISTING OF 2" DIA. GALVANIZED STEEL PIN PILES. THE PIN PILES SHALL BE INSTALLED PER THE CRITERIA LISTED BELOW AND IN THE SITE SPECIFIC GEOTECHNICAL REPORT PREPARED BY PANSCO, INC. DATED 03/27/25

- ALL PILES SHALL BE 2" DIA. SCHEDULE 40 GALVANIZED PIPE (ASTM A-53 GRADE "A" PIPE).
- PIPES SHALL BE DRIVEN WITH A 90 lbs JACK HAMMER OR 140 lbs RHINO HAMMER, THE FINAL PENETRATION RATE SHALL BE LESS THAN ONE INCH OF PENETRATION FOR 1 MINUTE OF CONTINUOUS DRIVING.
- PIPES SHALL BE DRIVEN IN NOMINAL SECTIONS AND CONNECTED WITH COMPRESSION FITTED SLEEVE COUPLERS.
- PIPES TO HAVE A MINIMUM PENETRATION OF 5 FEET BELOW BOTTOM OF PILE-SUPPORTED FOOTINGS.
- A GEOTECHNICAL ENGINEER OR HIS/HER REPRESENTATIVE SHALL PROVIDE FULL TIME OBSERVATION OF PILE INSTALLATION AND TESTING AS REQUIRED BY THE BUILDING OFFICIAL.
- THE CONTRACTOR AND ON SITE CONSTRUCTION TEAM MUST COMPLY WITH THE RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT PREPARED FOR THIS SITE.
- THE CONTRACTOR AND ON SITE CONSTRUCTION TEAM SHALL MONITOR THE FOUNDATION OF ADJACENT BUILDINGS (IF ANY) DURING PILE INSTALLATION TO ENSURE NO DAMAGE IS DONE.
- THE ANTICIPATED AVERAGE PILE LENGTH TO REACH BEARING SOILS IS APPROXIMATELY 10' TO 15'.

STRUCTURAL CONCRETE:

ALL CONCRETE IS TO BE MIXED, PROPORTIONED, CONVEYED, AND PLACED IN ACCORDANCE WITH IBC '21, IBC '21 STANDARDS AND ACI-301. MINIMUM 28 DAY COMPRESSIVE STRENGTH IS TO BE 1500 psi FOR WEATHERING (2500psi USED FOR DESIGN, SPECIAL INSPECTION NOT REQUIRED) WITH AIR ENTRAINMENT IN ACCORDANCE WITH SECTION 1904.2.1.

REINFORCING STEEL: #4 AND #5 BARS TO BE GRADE 60 DEFORMED BARS PER ASTM A615 WITH DETAILING, FABRICATION AND PLACEMENT PER IBC '21 AND ACI-318.

INTERSECTING CONCRETE WALLS & FOOTINGS ARE TO HAVE #4 CORNER BARS WITH A MINIMUM OF 18" OF EMBEDMENT AND SPACED THE SAME AS THE HORIZONTAL REINFORCEMENT.

PLYWOOD DIAPHRAGMS:

ROOF SHEATHING IS TO BE 1/2" SPAN RATED 24/16 MINIMUM DIRECTLY NAILED TO SUPPORTING RAFTERS WITH 8d COMMON @ 6" o.c. AT ALL EDGES AND 8d COMMON @ 12" o.c. AT ALL INTERMEDIATE SUPPORTS.

FLOOR SHEATHING IS TO BE 3/4" (MIN) 1/8" SPAN RATED 16" O.C. SHEATHING TO BE DIRECTLY GLUED AND NAILED TO SUPPORTING JOIST OR BEAMS WITH 8d COMMON @ 6" O.C. AT ALL EDGES AND 8d COMMON AT 12" O.C. AT ALL INTERMEDIATE SUPPORTS (UNLESS NOTED OTHERWISE)

ALL SHEATHING IS TO BE LAID UP WITH THE FACE GRAIN PERPENDICULAR TO THE SUPPORTS.

METAL CONNECTORS FOR WOOD:

THE MODEL NUMBERS OF METAL CONNECTORS WHERE SPECIFIED ON THE PLANS ARE THOSE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC.

BOLTS ARE TO BE A307 WITH WASHERS AT ALL WOOD SURFACES BENEATH HEAD OR NUT. BOLT HOLES ARE TO BE 1/16" GREATER IN DIAMETER THAN BOLT DIAMETER. NAILS ARE TO BE COMMON WIRE NAILS AND OF QUANTITY, SIZE, LENGTH AND TYPE AS SPECIFIED BY SIMPSON.

WOOD ROOF TRUSSES ARE TO BE CONNECTED TO THE PLATE LINE WITH ONE (1) SIMPSON H1 HURRICANE TIE AT EACH TRUSS BEARING.

NAILS ARE COMMON WIRE.

METAL CONNECTORS IN CONTACT WITH PRESERVATIVE TREATED WOOD ARE TO HAVE A CORROSION PROTECTIVE COATING PER THE RECOMMENDATIONS OF THE PRESERVATIVE TREATED WOOD SUPPLIER AND THE METAL CONNECTOR MANUFACTURER. IF THE NEEDED INFORMATION IS NOT PROVIDED STAINLESS STEEL CONNECTORS ARE RECOMMENDED.

FASTENERS INSTALLED IN PRESERVATIVE TREATED WOOD ARE TO BE HOT DIPPED GALVANIZED, OR STAINLESS STEEL PER IBC 2304.10.5

WOOD FRAMING:

2x LUMBER TO BE HF#2 OR BETTER EXCEPT WALL STUDS MAY BE HF STUD GRADE & SILL PLATES HF#3 WHERE NOT SPECIFIED ON THE PLANS:

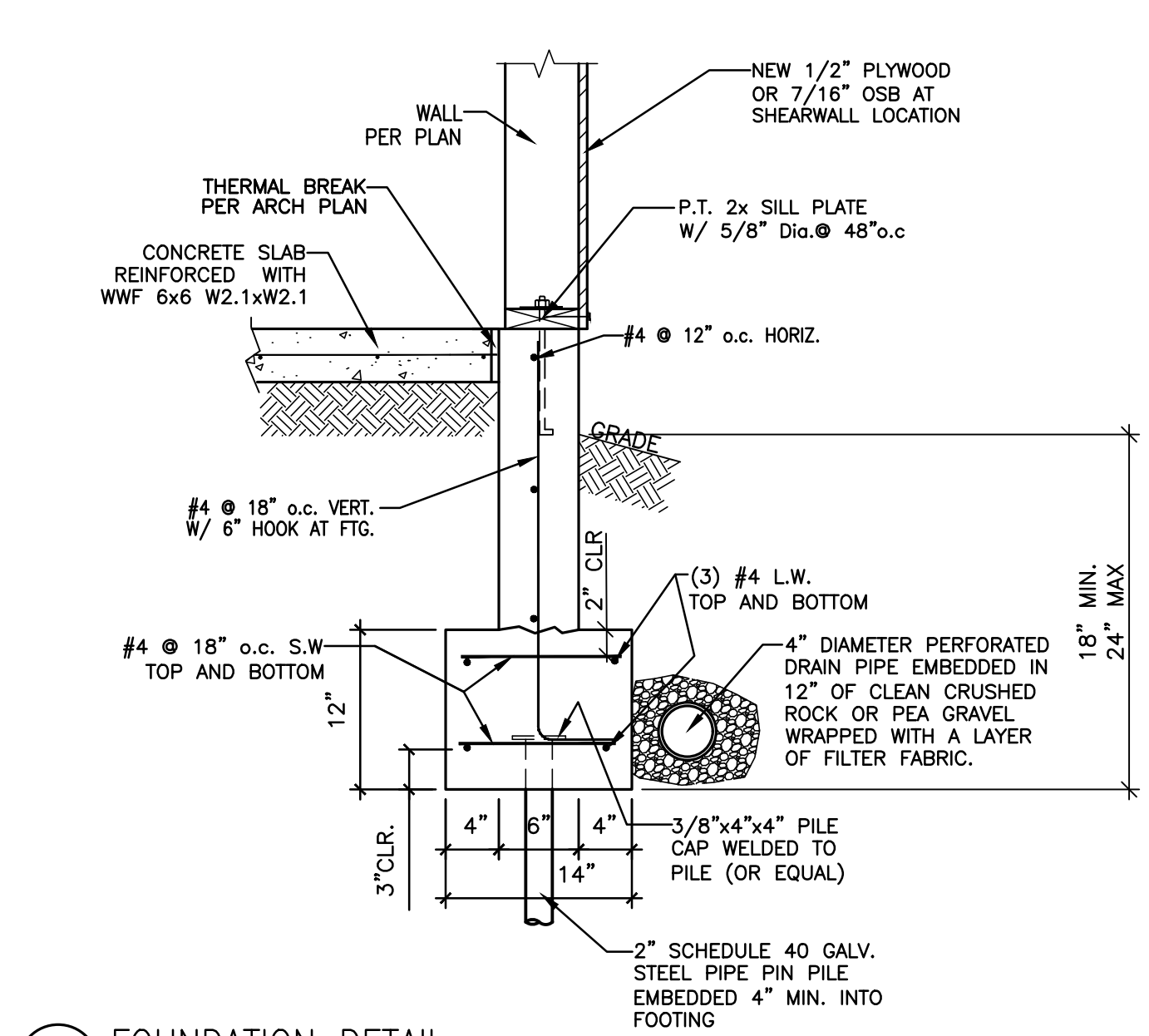
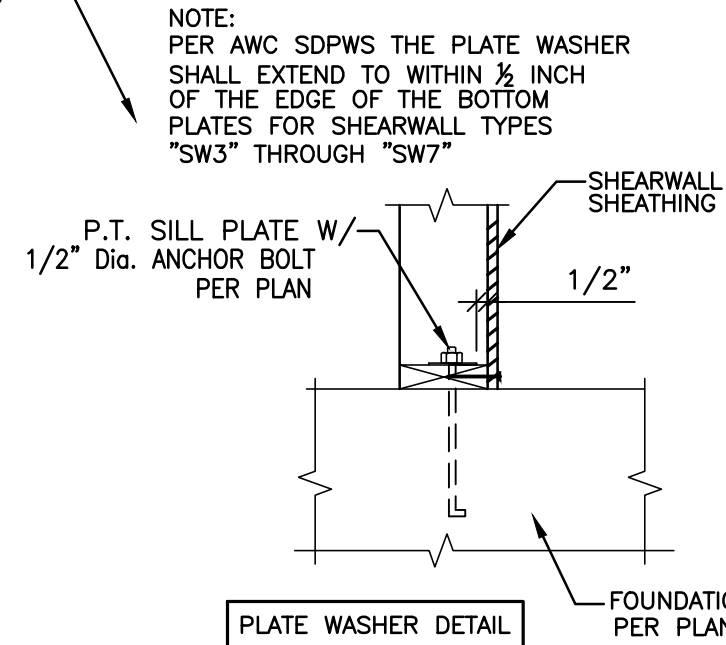
- COLUMNS IN WALLS ARE TO BE (2) 2x STUDS OF THE SAME WIDTH AS THE WALL AND SPIKED TOGETHER WITH 10d @ 12" o.c. (UNLESS NOTED OTHERWISE)
- FLOOR FRAMING PARALLEL TO INTERIOR PARTITIONS IS TO HAVE ONE FLOOR JOIST DIRECTLY BENEATH EACH PARTITION LESS THAN ONE HALF SPAN LENGTH AND TWO JOISTS WHERE PARTITION EXCEEDS ONE HALF THE SPAN LENGTH OF THE JOIST.
- FLOOR JOISTS ARE TO BE BLOCKED AT ALL BEARINGS.
- WALL TOP PLATES ARE TO HAVE STAGGERED SPLICES A MINIMUM OF 4'-0" APART AND SPIKED TOGETHER WITH 10d @ 12" o.c. (UNLESS NOTED OTHERWISE)
- WOOD IN CONTACT WITH THE WEATHER, SOIL, CONCRETE OR MASONRY IS TO BE PRESERVATIVE TREATED.
- ISOLATED COLUMNS ARE TO HAVE "OC" TYPE COLUMN CAPS. COLUMNS IN WALLS ARE TO HAVE "AC", "LPC", OR "PC" TYPE POST CAPS.

STRUCTURAL GLUED LAMINATED TIMBER:

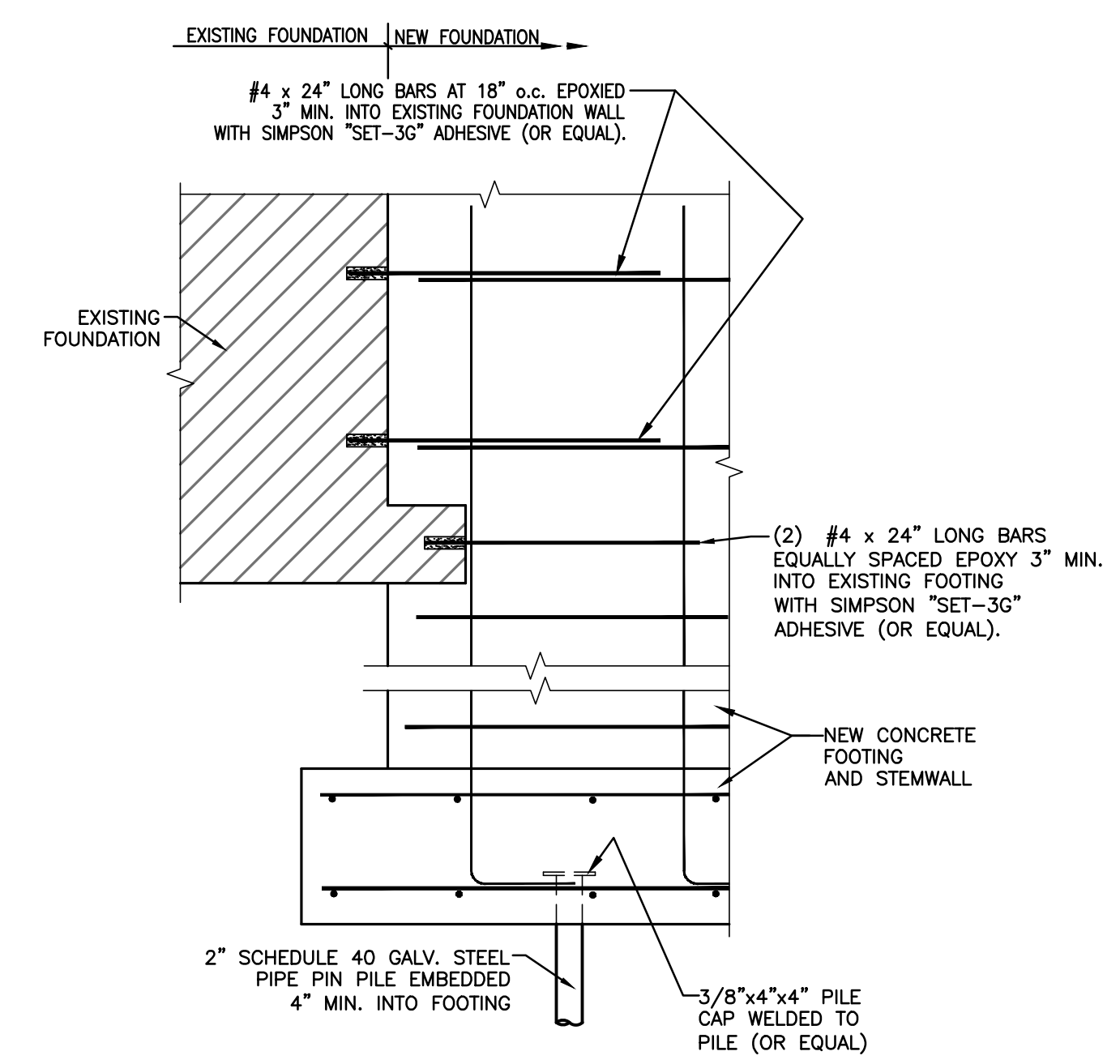
MANUFACTURED BEAMS ARE TO BE OF DOUGLAS FIR AND STRESS GRADE COMBINATION 24F-V4. BEAM CAMBER WHERE REQUIRED IS SHOWN ON THE PLANS.

SHEARWALL SCHEDULE 1,2,3,4,6,7,8,9,10,11,12						
MARK	SHEATHING	SHEATHING EDGE NAILING	BOTTOM PLATE NAILING	REMARKS	ANCHOR BOLTS	ALLOWABLE SHEAR
SW1	15/32" PLYW'D OR 7/16 OSB ONE SIDE	8d @ 6" o.c.	16d @ 8" o.c.		1/2" dia. A.B. @ 48" o.c. WITH 2x SILL PLATE (U.N.O)	230 pif
SW2	15/32" PLYW'D OR 7/16 OSB ONE SIDE	8d @ 4" o.c.	16d @ 5 1/2" o.c.		1/2" dia. A.B. @ 32" o.c. WITH 2x SILL PLATE (U.N.O)	350 pif
SW3	15/32" PLYW'D OR 7/16 OSB ONE SIDE	8d @ 3" o.c.	16d @ 4" o.c.	SEE NOTE 5.	1/2" dia. A.B. @ 16" o.c. WITH 2x SILL PLATE (U.N.O)	450 pif
SW4	15/32" PLYW'D OR 7/16 OSB ONE SIDE	8d @ 2" o.c.	16d @ 3" o.c.	SEE NOTE 5	1/2" dia. A.B. @ 12" o.c. WITH 2x SILL PLATE (U.N.O)	600 pif

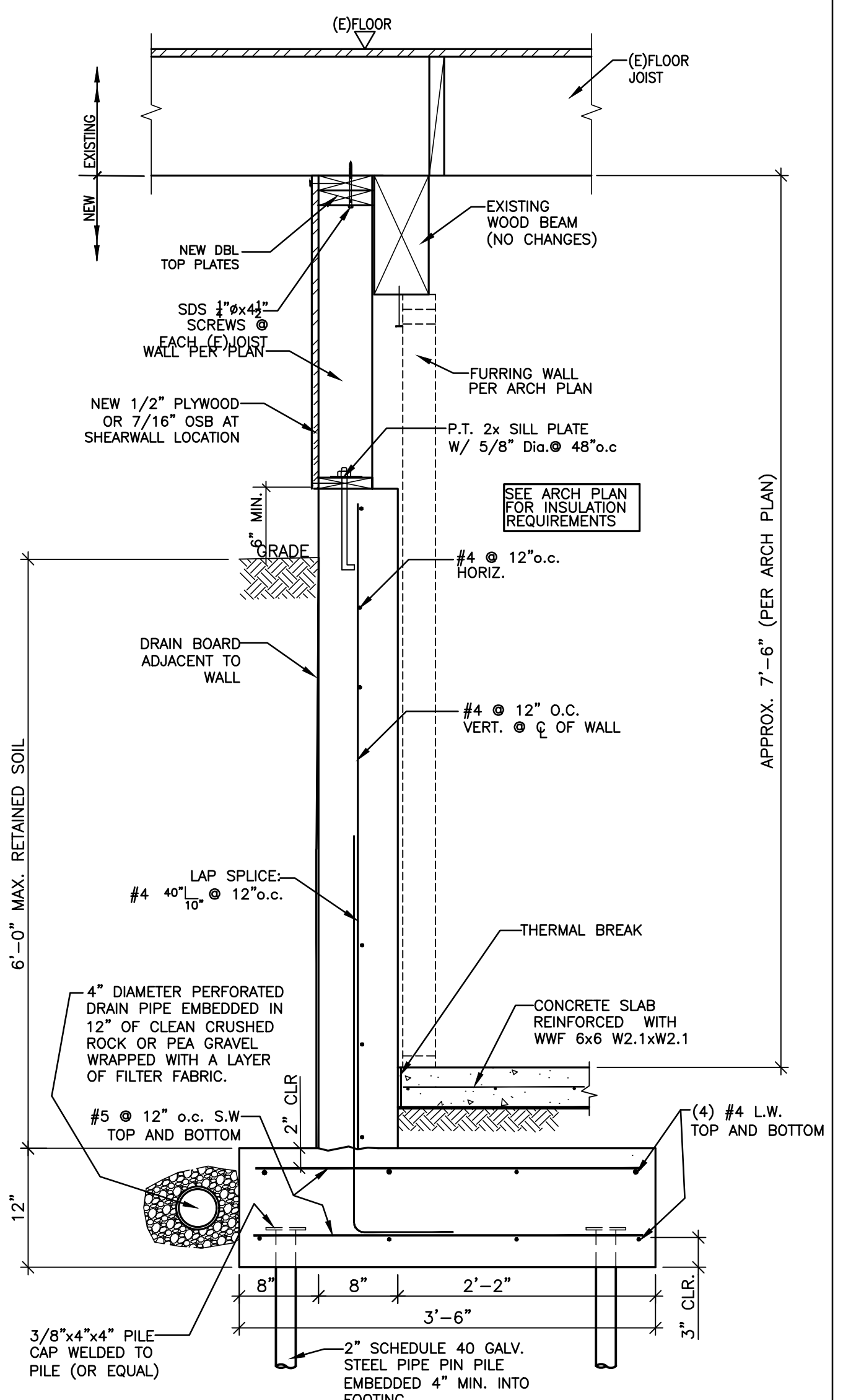
- NOTES:**
- SCHEDULE IS BASED ON 2021 INTERNATIONAL BUILDING CODE FOR WOOD FRAMED WALLS WITH 2x4 (MINIMUM) HEM-FIR STUDS @ 24" o.c.
 - SHEATHING IS TO BE SPAN RATED 24/0 MINIMUM AND MAY BE PLYWOOD OR OSB.
 - SHEATHING THICKNESS MAY BE 15/32", 1/2", OR 7/16".
 - SHEATHING IS TO BE DIRECTLY APPLIED TO STUDS AND ALL EDGES BLOCKED.
 - STUDS ARE TO BE SINGLE 3" NOMINAL OR THICKER (OR 2x STUDS SPIKED TOGETHER WITH 10d AT 4" O.C.) AT ADJOINING PANEL EDGES AND SHEATHING NAILING STAGGERED FOR SW3, AND SW4.
 - ALL NAILS ARE TO BE COMMON WIRE.
 - SHEATHING NAILING AT INTERMEDIATE SUPPORTS IS TO BE 8d @ 12" o.c.
 - SHEATHING NAILS ARE TO BE DRIVEN SO THAT THEIR HEADS ARE FLUSH WITH THE SURFACE OF THE SHEATHING.
 - ANCHOR BOLTS ARE 5/8" dia. @ 48" o.c. WITH 7" MIN. EMBEDMENT (U.N.O). RETROFIT ANCHOR BOLTS TO BE SIMPSON STRONG BOLT 2 (OR EQUAL) w/ 3" MIN. EMBEDMENT.
 - WASHERS TO BE 3" x 3" x 0.229" THICK PLATE WASHERS MINIMUM.
 - THERE SHALL BE A MINIMUM OF 2 ANCHOR BOLTS PER PIECE OF SILL PLATE WITH ONE BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4" FROM END OF EACH PIECE
 - PLATE WASHER EXTENDS TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDES WITH SHEATHING OR OTHER MATERIAL WITH UNIT SHEAR CAPACITY OF 400 PLF OR GREATER FOR WIND OR SEISMIC. (SEE PLATE WASHER DETAIL)



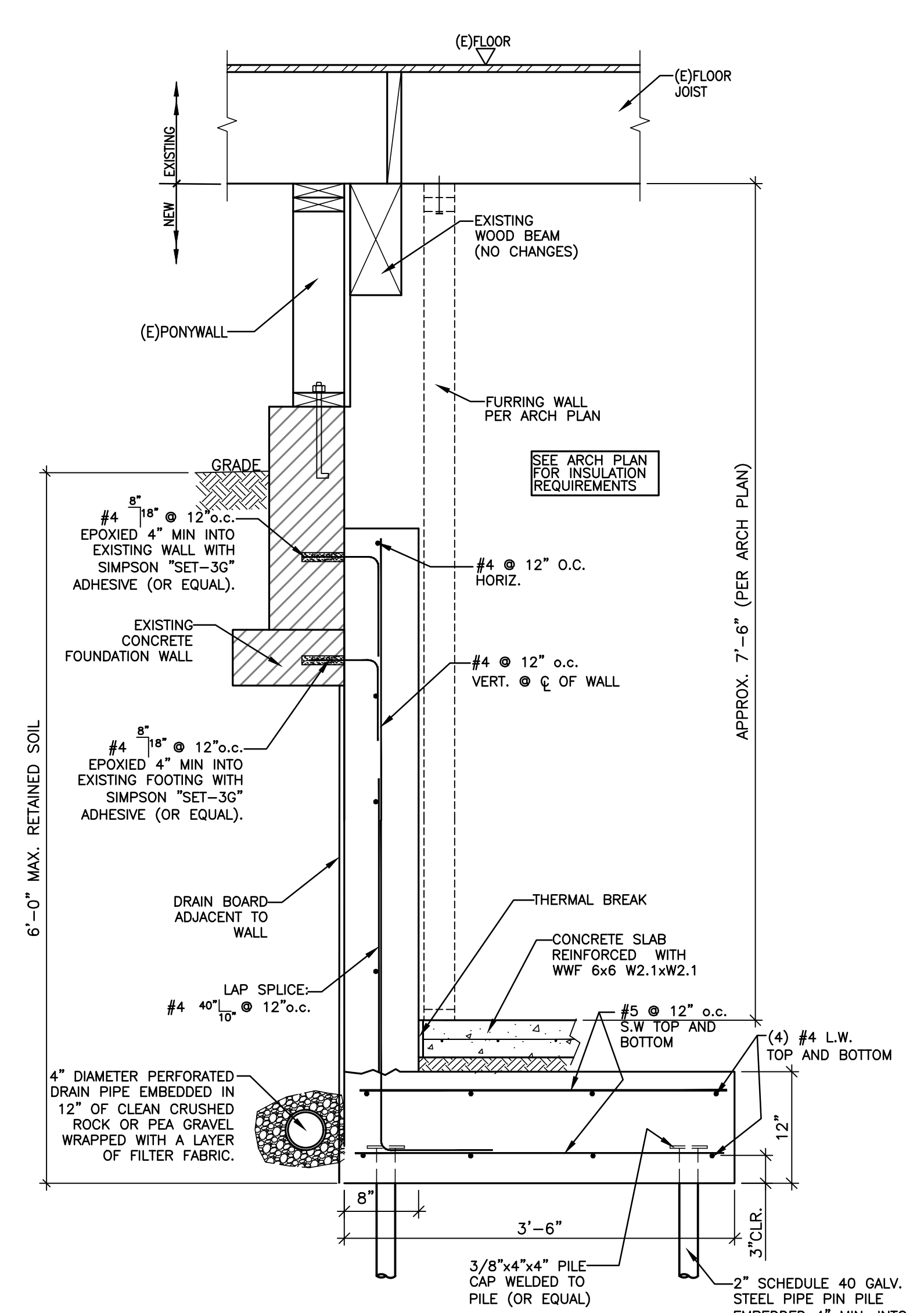
(A) FOUNDATION DETAIL
1"=1'-0"



(B) NEW/EXISTING FOUNDATION CONNECTION DETAILS
1"=1'-0"



(C) RETAINING WALL AT BACK
1"=1'-0"



(D) RETAINING WALL AT BACK
1"=1'-0"

RSD
ENGINEERING AND DESIGN

12810 N.E. 178TH ST. | SUITE 235
WOODINVILLE, WA 98072-5708
(425) 876-9361 | www.rsd-eng.com

PRELIMINARY REVIEW SET

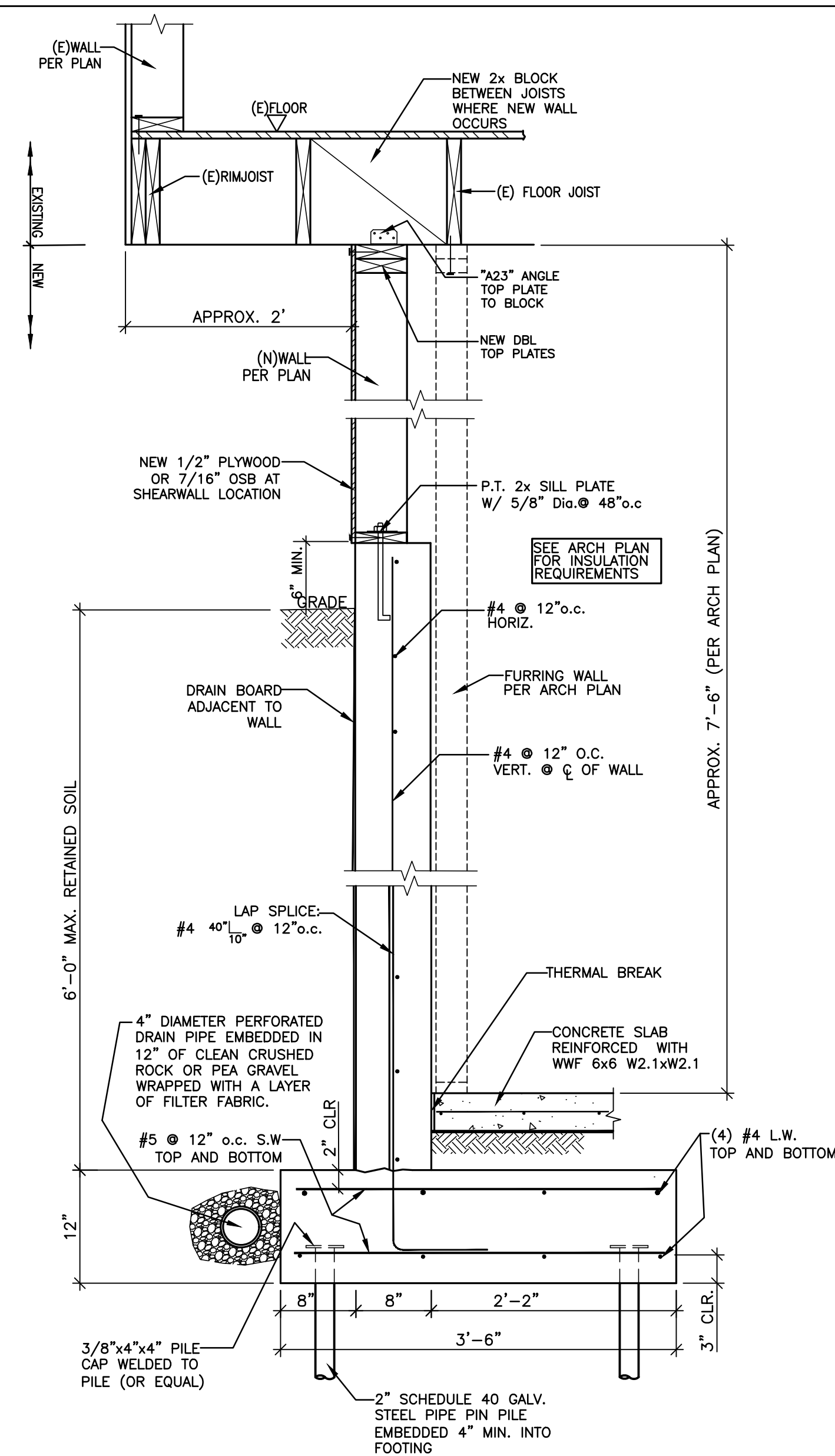
Pleas Residence
4751 FERNRIDGE LANE MERCER ISLAND
RSD Job# 7455

REV.	DATE:	DESCRIPTION

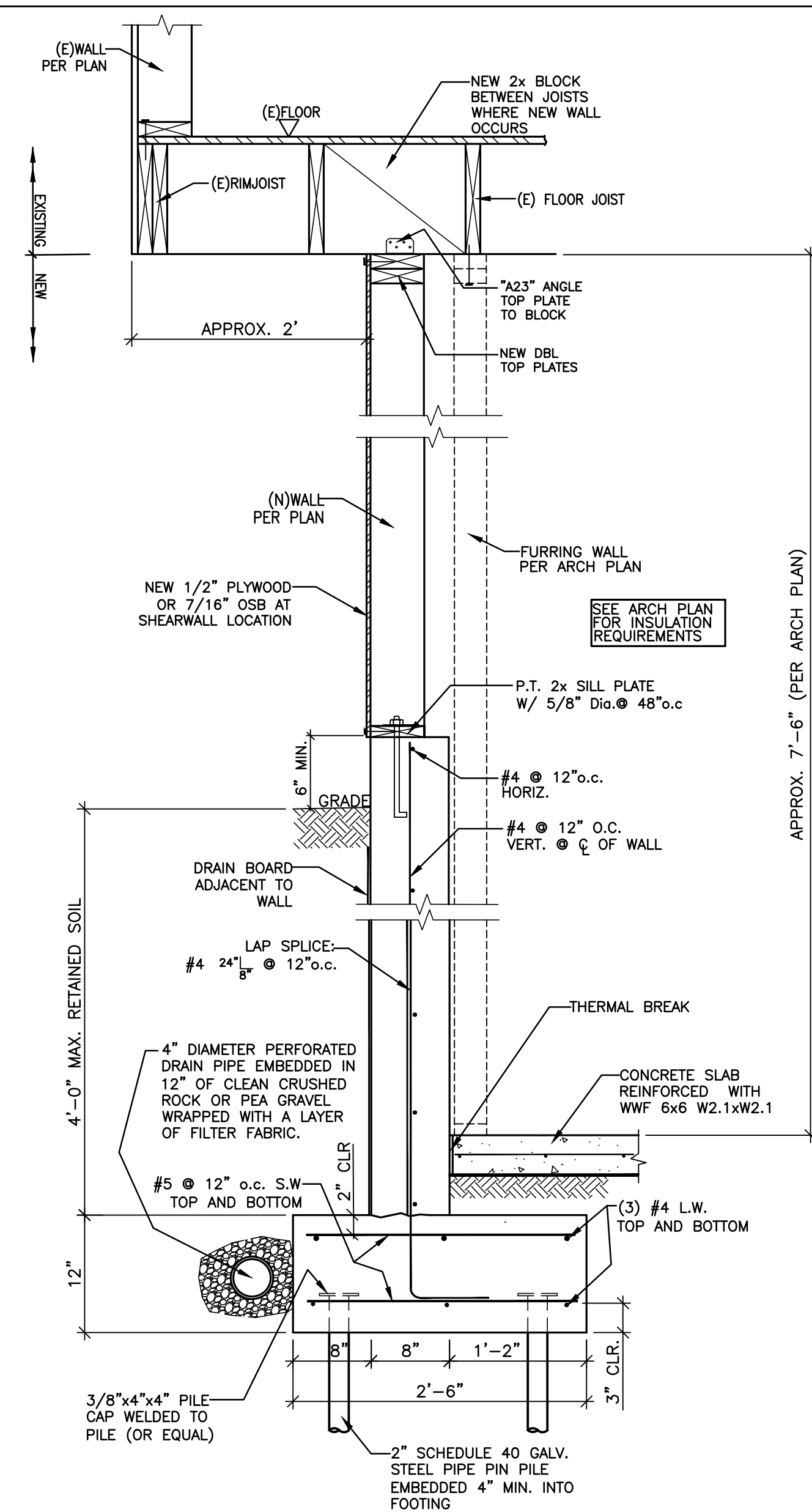
DRAWN BY: E. ILUNGA
 DESIGNED BY: K. RYAN
 DATE: 9/05/25
 JOB #: 7455

STRUCTURAL NOTES & DETAILS

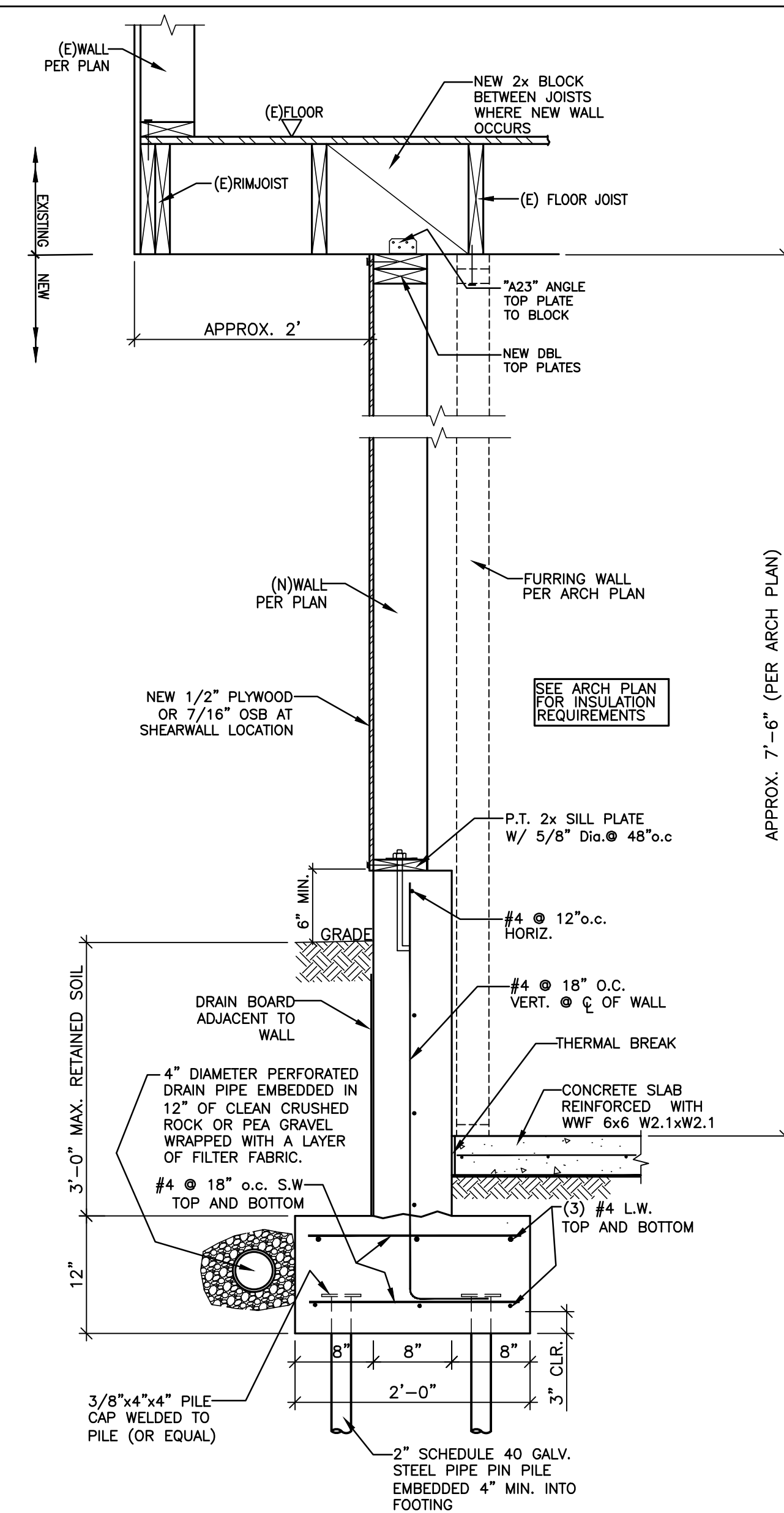
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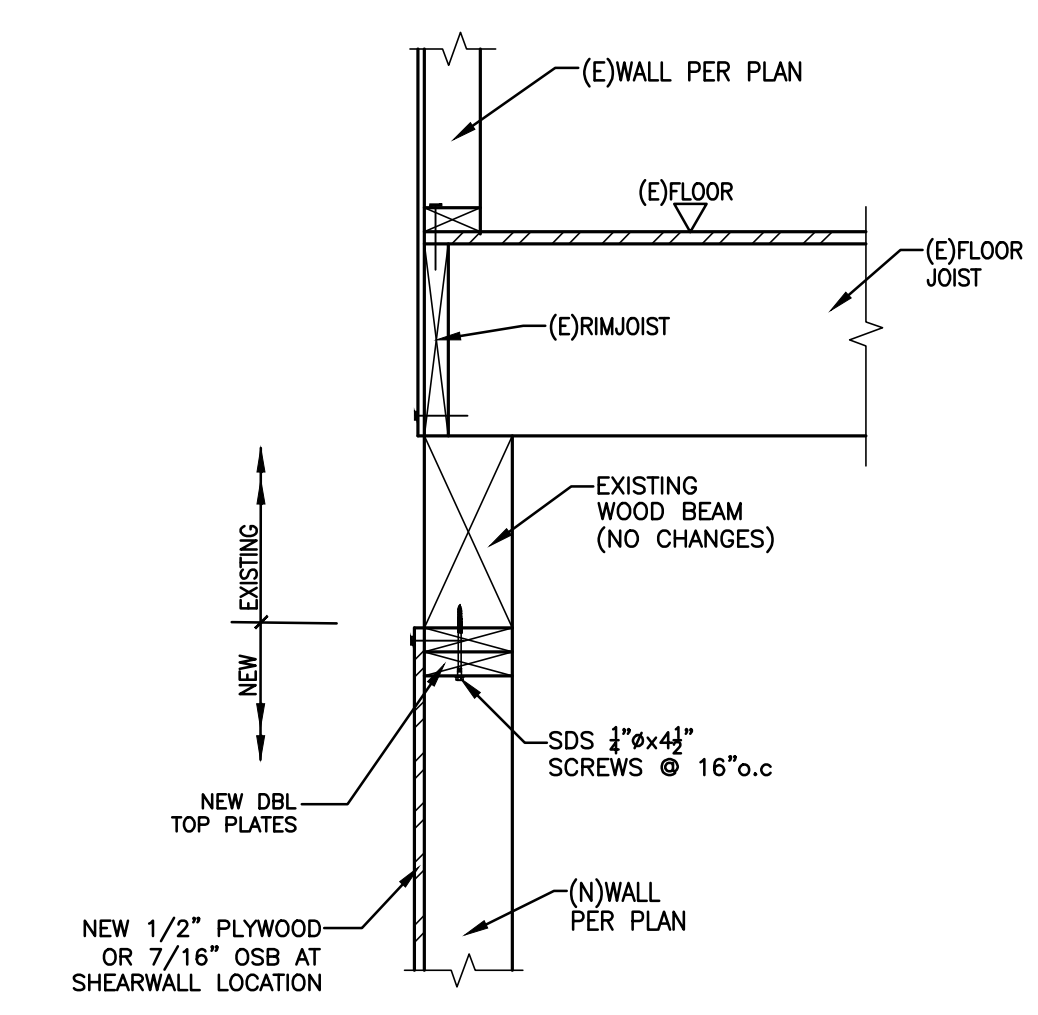
A RETAINING WALL DETAILS AT SIDES(HEIGHT VARIES WITH GRADE)
1"=1'-0"



B NEW WALL FRAMING DETAIL
1"=1'-0"



C BRACE CONNECTION DETAIL(EXTERIOR LOOKING IN)
N.T.S



REV.	DATE	DESCRIPTION

DRAWN BY: E. ILUNGA
DESIGNED BY: K. RYAN
DATE: 9/05/25
JOB #: 7455