

TABLE 2304.10.1-FASTENING SCHEDULE 2018 HAWAII BUILDING CODE- ADOPTS IBC 2018 WITH AMENDMENTS			
SR. NO.	DESCRIPTION OF BLDG ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING & LOCATION
1.	BLOCKING BTWN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	3-8d COMMON (2 1/2"x0.131"); OR 3-10d BOX (3"x0.128"); OR 3-3"x0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL
	BLOCKING BTWN RAFTERS OR TRUSS AT THE WALL TOP PLATE, TO RAFTERS OR TRUSS	2-8d COMMON (2 1/2"x0.131") 2-3"x0.131" NAILS 2-3" 14 GAGE STAPLES	EACH END, TOENAIL
	FLAT BLOCKING TO TRUSS AND WEB FILLER	2-16d COMMON (3 1/2"x0.162") 3-3"x0.131" NAILS 3-3" GAGE STAPLES	END NAIL
		16d COMMON (3 1/2"x0.162") 3X14 GAGE STAPLES @6" O.C	FACE NAIL
2.	CEILING JOISTS TO PLATE	3-8d COMMON (2 1/2"x0.131"); OR 3-10d BOX (3"x0.128"); OR 3-3"x0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST, TOENAIL
3.	CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1)	3-16d COMMON (3 1/2"x0.162"); OR 4-10d BOX (3"x0.128"); OR 4-3"x0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
4.	CEILING JOISTS ATTACHED TO PARALLEL RAFTERS (HEEL JOINT) (SEE SECTION 2308.7.3.1, TABLE 2308.7.3.1)	PER TABLE 2308.7.3.1	FACE NAIL
5.	COLLAR TIE TO RAFTER	3-10d COMMON (3"x0.148"); OR 4-10d BOX (3"x0.128"); OR 4-3"x0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
6.	RAFTER OR ROOF TRUSS TO TOP PLATE (SEE SECTION 2308.7.5, TABLE 2308.7.5)	3-10d COMMON (3"x0.148"); OR 3-16d BOX (3"x0.135"); OR 4-10d BOX (3"x0.128"); OR 4-3"x0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
7.	ROOF RAFTER TO RIDGE VALLEY OR HIP RAFTERS, OR ROOF RAFTER TO 2-INCH RIDGE BEAM	3-10d COMMON (3"x0.148"); OR 3-16d BOX (3"x0.135"); OR 4-10d BOX (3"x0.128"); OR 4-3"x0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
		3-10d COMMON (3"x0.148"); OR 3-16d BOX (3"x0.135"); OR 4-10d BOX (3"x0.128"); OR 4-3"x0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
8.	STUD TO STUD (NOT BRACED WALL PANELS)	16d COMMON (3 1/2"x0.162") 10d BOX (3"x0.128"); OR 3"x0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	24" O.C FACE NAIL 16" O.C FACE NAIL
9.	STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (3 1/2"x0.162"); OR	16" O.C FACE NAIL
		16d BOX (3 1/2"x0.135"); OR	12" O.C FACE NAIL
		3"x0.131" NAILS; OR	12" O.C FACE NAIL
		3-3" 14 GAGE STAPLES, 7/16" CROWN	
10.	BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON (3 1/2"x0.162"); OR 16d BOX (3 1/2"x0.135")	16" O.C EACH EDGE, FACE NAIL 12" O.C EACH EDGE, FACE NAIL
11.	CONTINUOUS HEADER TO STUD	4-8d COMMON (2 1/2"x0.131"); OR 4-10d BOX (3"x0.128")	TOENAIL
12.	TOP PLATE TO TOP PLATE	16d COMMON (3 1/2"x0.162"); OR 10d BOX (3"x0.128"); OR 3"x0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C FACE NAIL 12" O.C FACE NAIL
13.	TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d COMMON (3 1/2"x0.162"); OR 12-10d BOX (3"x0.128"); OR 12-3"x0.131" NAILS; OR 12-3" 14 GAGE STAPLES, 7/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MIN 24" LAP SPLICE LENGHT EACH SIDE OF END JOINT)
14.	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2"x0.162"); OR	16" O.C FACE NAIL
		16d BOX (3"x0.135"); OR 3"x0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C FACE NAIL
15.	BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING AT BRACED WALL PANELS	2-16d COMMON (3 1/2"x0.162"); OR 3-16d BOX (3"x0.135"); OR 4-3"x0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C FACE NAIL
16.	STUD TO TOP OR BOTTOM PLATE	4-8d COMMON (2 1/2"x0.131"); OR 4-10d BOX (3"x0.128") 4-3"x0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
		2-16d COMMON (3 1/2"x0.162"); OR 3-10d BOX (3"x0.128"); OR 3-3"x0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL

FOR SI: 1 INCH = 25.4 MM.  
A. NAILS SPACED AT 6 INCHES AT INTERMEDIATE SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX/CASING.  
B. SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).  
C. WHERE A RAFTER IS FASTENED TO AN ADJACENT OF TOENAILS IN THE RAFTER SHALL BE PERMITTED TO BE REDUCED BY ONE NAIL.

APPROVALS	
REVIEWER NAME: _____	REVIEWER NAME: _____
DATE: _____	DATE: _____
<b>PLANNING</b>	<b>PLUMBING</b>
REVIEWER NAME: _____	REVIEWER NAME: _____
DATE: _____	DATE: _____
<b>ENGINEERING</b>	<b>MECHANICAL</b>
REVIEWER NAME: _____	REVIEWER NAME: _____
DATE: _____	DATE: _____
<b>DEM WASTEWATER</b>	<b>FIRE</b>
REVIEWER NAME: _____	REVIEWER NAME: _____
DATE: _____	DATE: _____
<b>DOH WASTEWATER</b>	<b>STRUCTURAL</b>
REVIEWER NAME: _____	REVIEWER NAME: _____
DATE: _____	DATE: _____
<b>DOH FOOD SAFETY</b>	<b>BUILDING</b>
REVIEWER NAME: _____	REVIEWER NAME: _____
DATE: _____	DATE: _____
<b>ELECTRICAL</b>	
REVIEWER NAME: _____	
DATE: _____	

SHEET INDEX	
S0.1	DESIGN CRITERIA & GENERAL NOTES
S1.0	FOUNDATION & ROOF FRAMING PLAN
S2.0	STANDARD DETAILS

TABLE 2304.10.1-FASTENING SCHEDULE - CONTINUED					
DESCRIPTION OF BLDG ELEMENTS		NUMBER AND TYPE OF FASTENER		SPACING & LOCATION	
17.	TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	2-16d COMMON (3"x0.162"); OR 3-10d BOX (3"x0.128"); OR 3-3"x0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN		FACE NAIL	
18.	1" BRACE TO EACH STUD AND PLATE	2-8d COMMON (2 1/2"x0.131"); OR 2-10d BOX (3"x0.128"); OR 2-3"x0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN		FACE NAIL	
19.	1"x6" SHEATHING TO EACH BEARING	2-8d COMMON (2 1/2"x0.131"); OR 2-10d BOX (3"x0.128")		FACE NAIL	
20.	1"x8" AND WIDER SHEATHING TO EACH BEARING	3-8d COMMON (2 1/2"x0.131"); OR 3-10d BOX (3"x0.128")		FACE NAIL	
21.	JOIST TO SILL, TOP PLATE, OR GIRDER	3-8d COMMON (2 1/2"x0.131"); OR 3-10d BOX (3"x0.128"); OR 3-3"x0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN		TOENAIL	
22.	RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d COMMON (2 1/2"x0.131"); OR 10d BOX (3"x0.128"); OR 3"x0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN		6" O.C., TOENAIL	
23.	1"x6" SUBFLOOR OR LESS TO EACH JOIST	2-8d COMMON (2 1/2"x0.131"); OR 2-10d BOX (3"x0.128")		FACE NAIL	
24.	2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON (3"x0.162")		FACE NAIL	
25.	2" PLANKS (PLANK&VEAM-FLOOR&ROOF)	2-16d COMMON (3"x0.162")		EACH BEARING, FACE NAIL	
26.	BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d COMMON (4"x0.192")		32" O.C., FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES	
		10d BOX (3"x0.128"); OR 3"x0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN		24" O.C., FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES	
		AND: 2-20d COMMON (4"x0.192"); OR 3-10d BOX (3"x0.128"); OR 3-3"x0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN		ENDS AND EACH SPLICE, FACE NAIL	
27.	LAGER STRIP SUPPORTING JOISTS OR RAFTERS	3-16d COMMON (3"x0.162"); OR 4-10d BOX (3"x0.128"); OR 4-3"x0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN		EACH JOISTS OR RAFTERS, FACE NAIL	
28.	JOIST TO BAND JOIST OR RIM JOIST	3-16d COMMON (3"x0.162"); OR 4-10d BOX (3"x0.128"); OR 4-3"x0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN		END NAIL	
29.	BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	2-8d COMMON (2 1/2"x0.131"); OR 2-10d BOX (3"x0.128"); OR 2-3"x0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN		EACH NAIL, TOENAIL	
				EDGES (IN)	INTERMEDIATE SUPPORT(IN)
30. 3/8"-12"		6d COMMON OR DEFORMED (2"x0.113") (SUBFLR AND WALL)		6	12
		8d BOX OR DEFORMED (2 1/2"x0.113") (ROOF)		6	12
		2"x0.113" NAIL (SUBFLOOR AND WALL)		6	12
		1 1/2" 16 GAGE STAPLE, 7/16" CROWN (SUBFLR AND WALL)		4	8
31. 19/32"-3/4"		2"x0.113" NAIL (ROOF)		4	8
		1 1/2" 16 GAGE STAPLE, 7/16" CROWN (ROOF)		3	6
		8d COMMON (2 1/2"x0.113"); OR 8d DEFORMED (2"x0.113")		6	12
		2"x0.113" NAIL; OR 6d DEFORMED (2"x0.113")		4	8
32. 7/8"-1 1/4"		10d COMMON (3"x0.148"); OR 8d DEFORMED (2 1/2"x0.131")		6	12
OTHER EXTERIOR WALL SHEATHING					
33. 1/2" FIBERBOARD SHEATHING "B"		1 1/2" GALVANIZED ROOFING NAIL (7/16" HEAD DIA); OR 1 1/4" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN		3	6
34. 1/2" FIBERBOARD SHEATHING "B"		1 3/4" GALVANIZED ROOFING NAIL (7/16" HEAD DIA); OR 1 1/2" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN		3	6
WOOD STRUCTURAL PANELS (WSP), COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING					
35. 3/4" AND LESS		8d COMMON (2 1/2"x0.113"); OR 6d DEFORMED (2"x0.113")		6	12
36. 7/8" - 1"		8d COMMON (2 1/2"x0.113"); OR 8d DEFORMED (2 1/2"x0.113")		6	12
37. 1 1/8" - 1 1/4"		10d COMMON (3"x0.148"); OR 8d DEFORMED (2 1/2"x0.113")		6	12
PANEL SIDING TO FRAMING					
38. 1 1/2" OR LESS		6d CORROSION-RESISTING SIDING (1 7/8"x0.106"); OR 6d CORROSION-RESISTING CASTING (2"x0.131")		6	12
39. 5/8"		8d CORROSION-RESISTING SIDING (2 3/8"x0.128"); OR 8d CORROSION-RESISTING CASTING (2 1/2"x0.113")		6	12
INTERIOR PANELING					
40. 1/4"		4d CASING (1 1/2"x0.080"); OR 4d FINISH (1/2"x0.072")		6	12
41. 3/8"		6d CASING (2"x0.099"); OR 6d FINISH (PANEL SUPPORT AT 24")		6	12

DESIGN CRITERIA:

2018 HAWAII BUILDING CODE PROJECT INFORMATION WITH IBC 2018 AMENDMENTS				
2018 IBC SECTION	ASCE 7-16 SECTION	DESIGN DATA	VALUE	NOTES
1603.1.2	4	ROOF LIVE	20 PSF	"LIVE LOAD PER TBL. 1607.1; REDUCED PER SEC. 1607.11.2
1606	3	ROOF DEAD	18 PSF	PER CALCULATION
1609	26.5.1(FIG 26-5.1B)	BASIC WIND SPEED	122 MPH	HAZARD TOOL - REFERRING TO IBC2018
1613A	11.4.4	SPECTRAL RESPONSE ACCELERATION S <sub>DS</sub>	1.84g	HAZARD TOOL - REFERRING TO IBC2018
1613A	11.4.4	SPECTRAL RESPONSE ACCELERATION S <sub>DI</sub>	1.19g	HAZARD TOOL - REFERRING TO IBC2018
1613A	20	SITE CLASS	D-DEFAULT	ASSUMED

1. THE DESIGN SHALL CONFORM TO THE PROVISIONS OF THE 2018-INTERNATIONAL BUILDING CODE, AND STANDARDS REFERENCED THEREIN.

GENERAL:

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE JOB SITE BEFORE STARTING WORK, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES AND TYPICAL DETAILS IN CASE OF CONFLICT.
- IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS OR DETAILS ON THESE STRUCTURAL DRAWINGS.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH LOCAL STANDARDS AND THE APPLICABLE PROVISIONS OF THE 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE CITY.
- WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, SUCH DETAILS SHALL BE THE SAME AS FOR SIMILAR WORK SHOWN ON THE DRAWINGS.
- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, UNLESS OTHERWISE INDICATED. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND GIN POLES, ETC.. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND HE OR SHE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT CONSTITUTE INSPECTION OF THE ABOVE ITEMS.
- OPENINGS, POCKETS, SLEEVES, BLOCK-OUTS, ETC. SHALL NOT BE PLACED IN SLABS, BEAMS, GIRDERS, COLUMNS, WALLS, FOUNDATIONS, ETC. UNLESS SPECIFICALLY DETAILED ON THESE STRUCTURAL DRAWINGS. THE ENGINEER SHALL BE NOTIFIED WHEN OTHER DRAWINGS SHOW OPENINGS, POCKETS, SLEEVES, BLOCK-OUTS, ETC. THAT ARE NOT SHOWN ON THESE STRUCTURAL DRAWINGS.
- NO PIPES OR DUCTS SHALL BE PLACED IN FOUNDATION UNLESS SPECIFICALLY SHOWN OR NOTED ON THESE STRUCTURAL DRAWINGS. NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, DUCTS, ETC., UNLESS SPECIFICALLY SHOWN.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF DETAILS FOR AVOIDING THE INTERFERENCE OF MATERIALS TO BE EMBEDDED IN CONCRETE INCLUDING BUT NOT LIMITED TO REINFORCING STEEL, MISCELLANEOUS STEEL AND CONDUITS. THIS IS BEST ACCOMPLISHED THROUGH CAREFUL COORDINATION OF SHOP DRAWINGS.
- PRIOR TO BEGINNING EXCAVATION, THE CONTRACTOR SHALL LOCATE EXISTING UTILITY SERVICES IN AREAS TO BE EXCAVATED.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES IN THE WORK AREA AND SHALL REPAIR ANY DAMAGE CAUSED BY HIS OR HER OPERATIONS AT HIS OR HER OWN COST.
- ALL ASTM STANDARDS LISTED HEREIN, SHALL BE OF THE ISSUE LISTED IN THE CURRENT ANNUAL BOOK OF STANDARDS SECTION 00, VOLUME 00.01 OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS.
- CONTRACTOR SHALL VERIFY THE SITE CONDITIONS ARE ACCEPTABLE FOR THE PROPOSED CONSTRUCTION.
- THE SPECIAL INSPECTOR MUST BE APPROVED BY THE CITY.
- THE TESTING LABORATORY MUST BE APPROVED BY THE CITY.

SOILS CONDITION:

- ALL NEW WORK IS DESIGNED USING AN ALLOWABLE SOIL BEARING OF 1500 PSF PER IBC 2018 TABLE 1806.2 SOIL CLASS 5.
- THE STRUCTURE(S) WILL BE LOCATED ENTIRELY ON NATIVE/UNDISTURBED SOIL.
- IF THE BUILDING INSPECTOR SUSPECTS EXPANSIVE SOILS BASED ON OBSERVATION OF THE FOUNDATION EXCAVATION, HE MAY REQUIRE SOIL EXPANSION INDEX TESTS IN ACCORDANCE WITH IBC SEC. 1802.

WOOD NOTES:

- ALL WOOD MEMBERS SHALL BE DOUGLAS FIR/LARCH, CONFORMING TO THE IBC STANDARD 23-1 USING CURRENT WMPA GRADING RULES, UNLESS OTHERWISE NOTED. EACH PIECE OF LUMBER SHALL BE GRADE MARKED.  
HORIZONTAL FRAMING  
MEMBERS: ..... THICKNESS 2" x 3" NO. 2  
ALL OTHER HORIZONTAL  
MEMBERS: NO. 1, U.N.O.  
VERTICAL FRAMING  
MEMBERS: ..... 4x AND 6x POSTS: NO. 1  
ALL OTHER VERTICAL MEMBERS: NO. 2  
STUDS: CONSTRUCTION, U.N.O.
- ALL PLYWOOD SHALL CONFORM TO IBC STANDARD 23-2 AND SHALL BE IDENTIFIED WITH APA GRADE MARK. SEE PLANS FOR THICKNESS.  
ROOF SHEATHING: .....5/8" : STRUCTURAL I (2416)  
OR ICC EQUAL  
FLOOR SHEATHING: .....3/4" : STRUCTURAL I (160)  
OR ICC EQUAL  
WALL SHEATHING: .....1/2" : STRUCTURAL I (240)  
OR ICC EQUAL
- RUN LONG DIMENSION OF PLYWOOD PERPENDICULAR TO FRAMING MEMBERS. NAIL AS INDICATED ON PLANS WITH COMMON WIRE NAILS. PROVIDE 2X OR 3X BLOCKING AT JOINTS PERPENDICULAR TO FRAMING MEMBERS AS INDICATED ON PLAN. ALL FRAMING MEMBERS SHALL BE ON A 4'-0" MODULE TO COINCIDE WITH PLYWOOD PATTERN.
- 2" SOLID BLK SHALL BE PLACED BTWN ALL JISTS AND RAFTERS AT SUPPORTS.
- LAG SCREWS: PREDRILL WITH A BIT SIZE OF 65% OF THE SHANK DIA FOR THE THREADED PORTION. LEAD HOLES SHALL BE SAME LENGTH AS UNTHREADED SHANK AND THE SAME DIA AS THE SHANK. SCREW ALL LAGS INTO PLACE. CUT WASHERS SHALL BE PROVIDED UNDER HEADS WHICH BEAR ON WOOD.
- BOLTS IN WOOD SHALL NOT BE LESS THAN 7 DIA FROM THE END AND 4 DIA FROM THE EDGE UNLESS OTHERWISE DETAILED.
- NO CHECKS OR SPLITS ALLOWED AT AREAS TO BE BOLTED.
- SEE SHEAR WALL SCHED ON DRAWINGS FOR REQUIREMENTS FOR SHEAR WALLS.
- ALL CONNECTORS SHALL BE BY SIMPSON STRONG-TIE COMPANY OR ICC EQUAL.
- DIAPHRAGM (VERTICAL AND HORIZONTAL) SHGT NAILS OR OTHER APPROVED CONNECTORS SHALL BE DRIVEN SO THAT THEIR HEAD OR CROWN IS FLUSH W/ THE SURFACE OF THE SHGT.
- FASTENERS IN P.T. WOOD & FIRE RETARDANT WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.
- WOOD FRAMING MEMBERS, INCLUDING SHGT, RESTING ON EXT FDN WALLS AND ARE LESS THAN 8" FROM EXPOSED EARTH SHALL BE P.T. WOOD.
- ALL DIMENSIONED STRUCTURAL LUMBER SHALL BE S4S DOUGLAS FIR/LARCH (DFL), VISUALLY GRADED IN ACCORDANCE WITH THE WEST COAST LUMBER INSPECTION BUREAU (WCLB) STANDARD NO. 17 GRADING RULES FOR WEST COAST LUMBER 2004, OR THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) WESTERN LUMBER GRADING RULES 2011.
- BEAMS & STRINGERS (B&S), AND POST & TIMBERS (P&T), SHALL BE "ROUGH CUT" DFL, VISUALLY GRADED IN ACCORDANCE WITH WCLB STANDARD NO. 17 GRADING RULES FOR WEST COAST LUMBER 2004.
- SAWN STRUCTURAL LUMBER SHALL BE STAMPED "S-DRY", "KD", OR "KD-HT" WITH A MAXIMUM DELIVERED MOISTURE CONTENT OF 19%.
- FURNISH SAWN STRUCTURAL LUMBER ACCORDING TO THE FOLLOWING STRESS GRADES UNO:

STRUCTURAL LUMBER MEMBER GRADES		
MEMBER SIZE & LOCATION	GRADE	REMARKS
ALL STUDS	NO. 2	-
ALL 4x & LARGER POSTS	NO. 1	-
POSTS & TIMBERS (P&T)	NO. 1	-
2x & 4x BEAMS, JOISTS & RAFTERS	NO. 2	-
BEAMS & STRINGERS (B&S)	NO. 1	-
TOP, SILL/SOLE PLATES	NO. 2	-
STAIR STRINGERS	NO. 2	-
LEDGERS & NAILERS	NO. 2	-
BLOCKING	NO. 2	-
MISCELLANEOUS	NO. 2	-

ABBREVIATIONS

Ø	DIAMETER	(LO)	LOW
		L	ANGLE
AB	ANCHOR BOLT	Ld	BAR DEVELOPMENT LENGTH
ACI	AMERICAN CONCRETE INSTITUTE	Ldh	BAR HOOK DEVELOPMENT LENGTH
ALT	ALTERNATE	LB	POUND
ANCH	ANCHOR	LGR	LEDGER
APA	APA - THE ENGINEERED WOOD ASSOCIATION	LLH	LONG LEG HORIZONTAL
ARCH	ARCHITECT	LLV	LONG LEG VERTICAL
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	LONG	LONGITUDINAL
		LS	BAR SPLICE LENGTH
		LSL	LAMINATED STRAND LUMBER
		LVL	LAMINATED VENEER LUMBER
		LWC	LIGHT WEIGHT CONCRETE
BLDG	BUILDING	MANU	MANUFACTURER
BLKG	BLOCKING	MAS	MASONRY
BM	BEAM	MATL	MATERIAL
BN	BOUNDARY NAIL	MAX	MAXIMUM
BOT	BOTTOM	MECHL	MECHANICAL
BRG	BEARING	MECHL, ELEC'L & PLB'G	
BS	BOTH SIDES	MIN	MINIMUM
BTWN	BETWEEN	MISC	MISCELLANEOUS
C	CHANNEL, CAMBER		
CANT	CANTILEVER(ED)		
CAST	CAST IN PLACE	(N)	NEW
CJP	COMPLETE JOINT PENETRATION	NIC	NOT IN CONTRACT
CJ	CONTROL JOINT, CEILING JOIST	NO	NUMBER
CL	CENTERLINE	N-S	NORTH SOUTH
CLR	CLEAR	NWC	NORMAL WEIGHT CONCRETE
CMU	CONCRETE MASONRY UNIT	NTS	NOT TO SCALE
CO	CONTRACTOR'S OPTION		
COL	COLUMN	OC	ON CENTER
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CONN	CONNECTION		
CONSTR	CONSTRUCTION	OH	OPPOSITE HAND
CONT	CONTINUOUS	OPNG	OPENING
CONTR	CONTRACTOR	OSB	ORIENTED STRAND BOARD
COORD	COORDINATE, COORDINATION		
CTR	CENTER	PAF	POWER ACTUATED FASTENER
CLNG	CEILING	PB	POST BELOW
CP	CONCRETE PIER	PC	PILE CAP
		PCF	POUNDS PER CUBIC FOOT
DBL	DOUBLE	PED	PEDESTAL
DET	DETAIL	PEN	PENETRATION
DF	DOUGLAS FIR LARCH	PJP	PARTIAL JOINT PENETRATION
DIA, Ø	DIAMETER	PL	PLATE
DIM	DIMENSION	PLYWD	PLYWOOD
DIAG	DIAGONAL	PP	PER PLAN
DIAPHR	DIAPHRAGM	PSF	POUNDS PER SQUARE FOOT
DN	DOWN	PSI	POUNDS PER SQUARE INCH
DO	DITTO (REPEAT)	PU	POST UP
DWG	DRAWING	PSL	PARALLEL STRAND LUMBER
DWL	DOWEL	PT	PRESERVATIVE TREATED
(E)	EXISTING	REF	REFERENCE
EA	EACH	REINF	REINFORCING
EF	EACH FACE	REQ'D	REQUIRED
EJ	EXPANSION JOINT	REV	REVISION
ELEC	ELECTRICAL	RJ	ROOF
ELEV	ELEVATION	RJ	ROOF JOIST(S)
EMBED	EMBEDMENT	RO	ROUGH OPENING
ENB	EDGE NAIL, END NAIL	RR	ROOF RAFTER(S)
EQ	EQUAL		
EQUIP	EQUIPMENT	SAD	SEE ARCHITECTURAL DRAWINGS
EW	EACH WAY	SCHED	SCHEDULE
ES	EACH SIDE	SHGT	SHEATHING
EXP	EXPANSION	SIM	SIMILAR
EXT	EXTERIOR	SIMP	SIMPSON STRONGTIE (TM)
		SMS	SHEET METAL SCREW
(F)	FUTURE	SOG	SLAB ON GRADE
FN	FOUNDATION	SPECS	SPECIFICATION(S)
FF	FIELD NAILING	SP	SOUTHERN PINE
FF	FINISHED FLOOR	SQ	SQUARE
FJ	FLOOR JOIST	SS	STAINLESS STEEL
FLR	FLOOR	STAGG	STAGGERED
FOC	FACE OF CONCRETE	STD	STANDARD
FRM	FROM	STIFF	STIFFENER
FRMG	FRAMING	STL	STEEL
FS	FAR SIDE	STRUCT	STRUCTURAL
FT	FOOT, FEET	SUPP	SUPPORT
FTG	FOOTING	SW	SHEARWALL
GLB, GLULAM	GLUED LAMINATED BEAM	T&B	TOP AND BOTTOM
GA	GAUGE, GAGE	T&G	TONGUE AND GROOVE
GALV	GALVANIZED	THK	THICK, THICKNESS
GB	GRADE BEAM	TN	TOE NAIL
GC	GENERAL CONTRACTOR	TOC	TOP OF CONCRETE
GR	GRADE	TOF	TOP OF FOOTING
GYP	GYPSUM BOARD	TOP	TOP OF PLYWOOD, TOP OF PEDESTAL
		TOS	TOP OF STEEL
(H), HORIZ.	HORIZONTAL	TOW	TOP OF WALL
HD	HOLDDOWN	TRANS	TRANSVERSE
HDR	HEADER	TYP	TYPICAL
HK	HOOK		
HGR	HANGER		
HSS	HOLLOW STRUCTURAL STEEL	UNO	UNLESS NOTED OTHERWISE
		(V), VERT	VERTICAL
INFO	INFORMATION	VF	VERIFY IN FIELD
INT	INTERIOR	VP	VAPOR BARRIER
JST	JOIST	(WO)	WHERE OCCURS
JT	JOINT	W/	WITH
		W/O	WITHOUT
K	KIP (1,000#)	WO	WOOD
KP	KING POST	WF	WIDE FLANGE
KS	KING STUD	WP	WORK POINT
		WT	WEIGHT
		WWF	WELDED WIRE FABRIC



FOUNDATION SCHEDULE					
MARK	LENGTH	WIDTH	THICKNESS	REINFORCEMENT	REMARK
TS0.8	CONT	8"	12" MIN	(1)#4 BOTTOM LONGITUDINAL	-
TS1.4	CONT	1'-4"	12" MIN	(2)#4 TOP & BOTTOM LONGITUDINAL	NOTE - 2

NOTES:

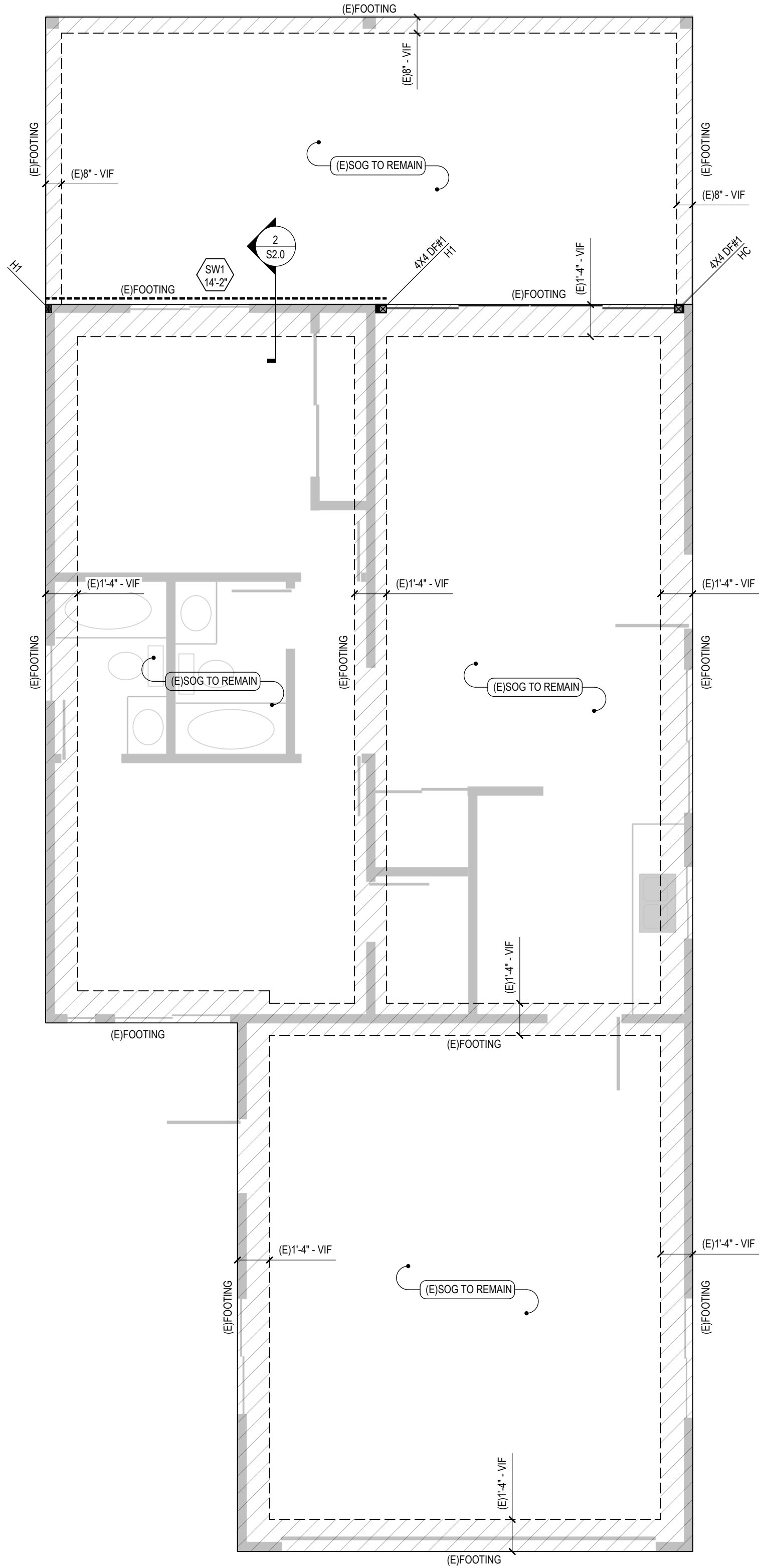
- REFER TO ARCHITECTURAL DRAWING FOR SOG ELEVATION.
- PROVIDE #4 @ 16" OC CLOSED LOOP STIRRUPS.

HOLDOWN SCHEDULE						
MARK	HOLD DOWN ASSEMBLY WITH FASTENERS	ASD TENSION CAPACITY(168)	ANCHOR BOLT	MINIMUM EMBED DEPTH	MINIMUM POST SIZE	REMARK
H1	HDU4-SDS2.5 WITH (10) 1/4" x 2 1/2" SDS	4565	5/8"Ø - HLT-HIT-HY 200 V3 ADHESIVE + HAS-V-36-ASTM F1554 GR.36	9"	3" X 3 1/2"	-
HC	HDU2-SDS2.5 WITH (6) 1/4" X 2 1/2" SDS	3075	5/8"Ø ADHESIVE ANCHOR	6"	-	3/52.0

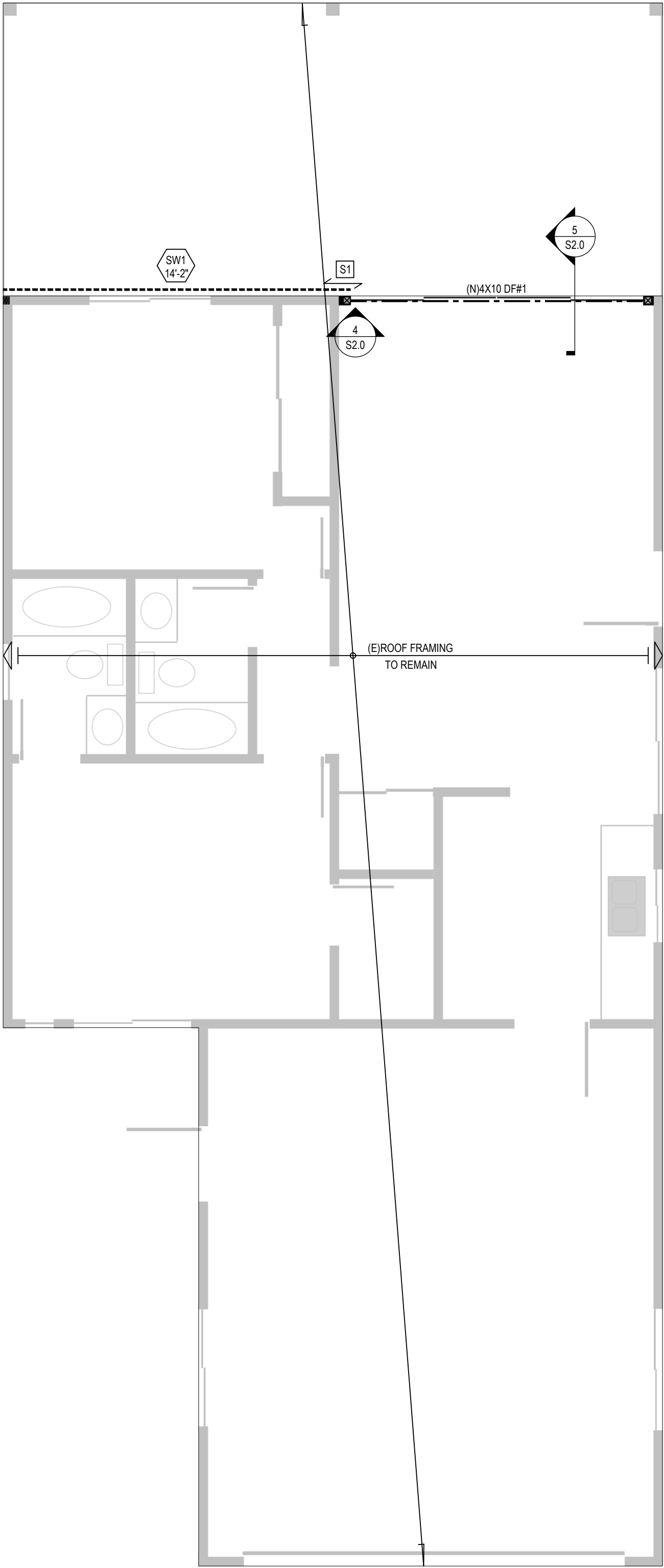
SHEAR WALL SCHEDULE											
TAG	SHEATHING	FASTENER	FASTENER SPACING		FRAMING MEMBER	END POST	GRADE	SHEAR CAPACITY (PLF)	SILL ANCHOR		REMARK
			PANEL EDGE	FIELD					AT FOUNDATION	AT FLOOR	
SW1	15/32" THK STRUCTURAL 1 - ONE SIDE	8d NAIL	4" OC	12" OC	2X @ 16" OC	(2) 2X	DF#2	430	5/8"Ø F1554 GR.36 - 7" MIN EMBED @ 36" OC	SIMPSON LTP4-G @ 36" OC	-

NOTES:

- WOOD SHEATHING PANELS CAN BE INSTALLED VERTICALLY OR HORIZONTALLY. PROVIDE BLOCKING AT ALL EDGES OF SHEATHING. BLOCKING TO BE SAME MATERIAL AS WALL FRAMING. REFER TO 6/S2.0 FOR SHEAR WALL ELEVATION.
- HOLD-DOWNS ARE SIMPSON STRONG-TIE PRODUCTS. PROVIDE SPECIFIED ITEM OR APPROVED EQUIVALENT.
- ATTACHMENT PATTERN LISTED IS TO BE USED AT THE EDGE OF THE SHEATHING PANELS. ADD (2) ROWS OF NAILS TO THE SHEAR WALL END POST.
- THE SHEAR CAPACITIES PER IBC TABLE 2306.3(1)SDPWS-15 TABLE 4.3A WITH ASD REDUCTION FACTOR 2.0.



1 FOUNDATION PLAN  
SCALE: 1/4\"/>



2 ROOF FRAMING PLAN  
SCALE: 1/4\"/>

PLAN NOTES:

- IF ANY SIZES ARE DIFFERENT THAN WHAT IS SHOWN ON DRAWINGS, ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- ALL WOOD FRAMING USED FOR EXTERIOR APPLICATION SHALL BE P.T. WOOD. FASTENERS IN P.T. WOOD & FIRE RETARDANT WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.
- SEE ARCH DWG'S FOR DIMENSIONS NOT SHOWN.
- ALL POSTS SHALL BEAR DIRECTLY ON SILL PLATE, #2-16S TO 8NAILS MIN.
- CENTERLINE OF HOLDOWN ANCHORS SHALL MATCH CENTERLINE OF WALL FRAMING U.N.O.
- WOOD SHALL BE 8" MIN. ABOVE FINISH GRADE. SEC. 1806.1.
- REFER TO 7/S2.0 FOR HC CONNECTOR DETAIL.
- REFER TO 7/S2.0 FOR WOOD POST TO BEAM CONNECTION DETAIL.

LEGEND:	
(E)2X WOODEN STUD WALL	
(N)WOOD POST	
(E)FOOTING	
WOOD BEAM	
STRAP	
(E)ROOF FRAMING	
(E)2X WOODEN STUD WALL	
SHEAR WALL	
LENGTH OF SHEAR WALL	
SHEAR WALL TAG	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Signature: [Signature] 4/30/2026  
Expiration Date of the License

REVISIONS

DRAWING TITLE:  
FOUNDATION & ROOF FRAMING PLAN

PROJECT:  
BRENT & CHERYL STANGE  
RESIDENTIAL ALTERATION

WORK LOCATION:  
76-315 WANA ST 63B, KAILUA KONA, HI 96740  
TNRK (37)-6025-063-0002

DATE: 08/25/2025  
PROJECT NO: 25798  
DRAWN BY: MP  
REVIEWED BY: CDP

S1.0



1 DETAIL - TYP EXTERIOR WALL FOOTING @HOLDOWN Scale: NTS



2 DETAIL - TYP EXTERIOR WALL FOOTING @SILL ANCHOR Scale: NTS



3 DETAIL- COLUMN BASE CONNECTION Scale: NTS



4 DETAIL - TYP BEAM STRAP FLUSH CONNECTIONS Scale: NTS



5 HDR CONNECTION DETAIL Scale: NTS



6 DETAIL - TYP PLYWOOD SHEAR WALL  
NOTE:  
1. SEE SHEAR WALL SCH ON S1.0 FOR MORE INFO. NAILING PER SCHED.



7 TYPICAL DETAIL AT CONTINUOUS BEAM  
NOTE:  
1. USE ECCLUECLR FOR MULTIPLE BEAM TO COLUMN CONNECTIONS OR A COMBINATION OF ECC AND HW AS SHOWN.

REVISIONS				

DRAWING TITLE: STANDARD DETAILS	DATE 08/25/2025
PROJECT: BRENT & CHERYL STANGE RESIDENTIAL ALTERATION	PROJECT NO 25798
WORK LOCATION: 76-315 WANA ST 63B, KAILUA KONA, HI 96740 TNRK (3)7-6-025-063-0002	DRAWN BY MP
	REVIEWED BY CDP
	S2.0