Development Services

From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201
More Contact Info (http://www.portlandoregon.gov//bds/article/519984)

APPEAL SUMMARY

Status: Hold for Additional Information

Appeal ID: 24369	**Project Address:** 3132 SE 31st Ave
Hearing Date: 11/25/20	**Appellant Name:** Bjorn Larson
Case No.: B-006	**Appellant Phone:** 503.347.6218
Appeal Type: Building	**Plans Examiner/Inspector:** Hend Barghouti
Project Type: residential	**Stories:** 2 **Occupancy:** R-3 **Construction Type:** V-B
Building/Business Name:	**Fire Sprinklers:** No
Appeal Involves: Alteration of an existing structure,Addition to an existing structure	**LUR or Permit Application No.:** 20-120387-RS
Plan Submitted Option: pdf [File 1] [File 2]	**Proposed use:** ADU

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	R302.1 and R302.3
Requires	R302.1 Exterior Walls compliance with Table R302.1 and 302.3
Code Modification or Alternate Requested	To build a deck and stairs servicing an attached ADU that would employ heavy timber construction ONLY for the portion of the deck/stairs that falls within the 3ft minimum separation requiring fire rating.
Proposed Design	The proposed construction would follow construction elements outlined in the structural set of plans detailed by the engineer. In addition we propose modified heavy timber construction for the stairs and landing. This portion of the deck/stairs construction falls within the 3 foot separation guideline that require fire rating. Please see R302.2.1.2 number 3, quoted here: In the case where a porch or deck is within 3 feet (914 mm) of a common property line and there is no adjacent porch or deck within 3 feet of the common property line, the porch or deck shall be either noncombustible or heavy timber construction (see Figure R302.2.1.2). Heavy timber porch components supporting only the dead load of the porch or deck and the live load listed in Table R301.5 shall be constructed using the following: Supporting posts for porches and decks shall be a minimum of 6-inch (153 mm) nominal thickness. Joists or beams supporting porches and decks shall be a minimum of 4-inch (102 mm) nominal thickness. Decking on porches and decks shall be a minimum of 2-inch (51 mm) nominal thickness.
Reason for alternative	In reading through ORSC 302 it seems that the largest concern for Life-Safety is with fire rating the interior side of the walls common to both dwellings. The proposed construction of this ADU has these fire rating assemblies in place. The exterior however, is less clear since the proposed ADU is not a "townhouse" with a specific property line. Furthermore the ADU is proposed as a 2nd story

addition over an existing garage which is part of the existing dwelling but where the least amount of "dwelling" occurs. Finally, from a practical standpoint, the small and open square footage of the ADU lends itself to an "obvious" path of egress.

Taking into consideration these particulars we believe the intent of the code under appeal is maintained.

APPEAL DECISION

Alternate 1 hour assembly for heavy timber A.D.U. deck and stairs: Hold for additional information. Appellant may contact John Butler (503 865-6427) or e-mail at John.Butler@portlandoregon.gov with questions.

Additional information is submitted as a no fee reconsideration, following the same submittal process and using the same appeals form as the original appeal. Indicate at the beginning of the appeal form that you are filing a reconsideration and include the original assigned Appeal ID number. The reconsideration will receive a new appeal number.
Include the original attachments and appeal language. Provide new text with only that information that is specific to the reconsideration in a separate paragraph(s) clearly identified as "Reconsideration Text" with any new attachments also referenced. No additional fee is required.

GENERAL NOTES

1. [CONFORMANCE] ALL CONSTRUCTION SHALL CONFORM TO CURRENT GOVERNING CODES, AMENDMENTS, RULES, REGULATIONS, ORDINANCES, LAWS, ORDERS, APPROVALS, ETC THAT ARE REQUIRED BY APPLICABLE PUBLIC AUTHORITIES. IN THE EVENT OF CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.
2. [CONDITIONS] THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CHECKING CONTRACT DOCUMENTS, FIELD CONDITIONS, AND DIMENSIONS FOR ACCURACY AND CONFIRMING THAT THE WORK CAN BE BUILT OR DEMOLISHED AS SHOWN BEFORE PROCEEDING WITH WORK. IF THERE ARE QUESTIONS REGARDING THESE DRAWINGS OR OTHER COORDINATION QUESTIONS, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE EOR BEFORE PROCEEDING WITH THE WORK IN QUESTION OR RELATED TO WORK.
3. [OMISSIONS] ANY ERRORS, OMISSIONS, OR CONFLICTS FOUND IN VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE EOR BEFORE PROCEEDING WITH THE WORK.
4. [COPYRIGHT] ALL IDEAS, DESIGNS, OR PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND ARE THE PROPERTY OF FRAMEWORK ENGINEERING - AND WERE CREATED, EVOLVED AND DEVELOPED FOR USE ON, AND IN CONNECTION WITH, THE SPECIFIED PROJECT. NONE OF THESE IDEAS, DESIGNS, OR PLANS SHALL BE USED BY ANY PERSON FOR ANY PURPOSE WITHOUT THE WRITTEN PERMISSION OF DUSTIN MUHN, PE OR JOHN VOEKEL, PE.
5. [DEMOLITION] PORTIONS OF STRUCTURE INDICATED AS DEMO ARE COORDINATED WITH ARCHITECTURAL DRAWINGS. WHERE FIELD CONDITIONS INDICATE DAMAGE, ROT, OR WEAR -- OR WHERE THE CONTRACTOR WOULD LIKE AN ALTERNATE CONSTRUCTION APPROACH THAT INCREASES THE SCOPE OF DEMOLITION, IT IS THEIR RESPONSIBILITY TO DOCUMENT ANY SUCH DAMAGE AND/OR CONDITION OF EXISTING CONDITIONS AS WELL AS CONTACTING CITY INSPECTORS TO VERIFY AND APPROVE REMOVAL OF ANY AND ALL MATERIALS.
6. [ROOM NAMES] ROOMS LABELED IN STRUCTURAL DRAWINGS DO NOT INDICATE LEGALITY OF UNITS, BATHROOMS, KITCHENS, OR LIVING SPACE. SEE ARCHITECTURAL DRAWINGS.
7. [SUPPLIERS] SUBSTITUTIONS OFFERED BY LUMBER YARD AND OTHER SUPPLIERS MUST BE VERIFIED BY EOR. NOT ALL PRODUCT TABLES CAPTURE THE DESIGN CRITERIA USED IN STRUCTURAL DRAWINGS, AND SUPPLIERS ARE USUALLY NOT LICENSED ENGINEERS. USING UNVERIFIED SUBSTITUTIONS MAY RESULT IN CONTRACTOR REMOVING INSTALLED PRODUCTS.

FOUNDATION NOTES

1. [DIMENSIONS] DO NOT SCALE DRAWINGS. VERIFY THAT STRUCTURAL DIMENSIONS CONFORM TO ARCHITECTURAL REQUIREMENTS. CONTACT EOR WHERE CONFLICT OCCURS.
2. [STRENGTH] MINIMUM COMPRESSIVE CONCRETE STRENGTH = 3000 PSI & REQUIRES SPECIAL INSPECTION OF CORE SAMPLES FOR STRENGTH VERIFICATION, UON.
3. [MIX] CONCRETE SHALL BE HARD ROCK CONCRETE, USING PORTLAND CEMENT TYPE I OR II LOW ALKALINE AND SHALL ATTAIN ULTIMATE COMPRESSIVE STRENGTH WITHIN 28 DAYS. MAXIMUM CEMENT CONTENT = 6 SACKS/CU YD. MAXIMUM SLUMP = 4".
4. [WET TRENCHES] DO NOT ALLOW WATER TO STAND IN TRENCHES. IF BOTTOMS OF TRENCHES BECOME SOFTENED DUE TO RAIN OR OTHER WATER BEFORE CONCRETE IS CAST, EXCAVATE SOFTENED MATERIAL AND REPLACE WITH PROPERLY COMPACTED BACKFILL OR CONCRETE AT NO COST TO THE OWNER.
7. [INSPECTION] ALL EXCAVATION FORMS AND REINFORCING ARE TO BE INSPECTED BY THE LOCAL BUILDING INSPECTOR BEFORE PLACING CONCRETE.
8. [PLAIN CONCRETE] PLAIN CONCRETE (CONCRETE WITH MINIMAL OR NO REBAR) IS NOT PERMITTED. INSTALL BOLTS, ANCHORS, AND REINFORCING AND SECURELY TIE PRIOR TO PLACING CONCRETE.
9. [BATCHING] NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACING.
10. [EMBEDDED PIPES] CONDUIT OR PIPES WITHIN CONCRETE SHALL NOT EXCEED 30% OF MEMBER THICKNESS, SHALL BE SPACED AT LEAST 4 DIAMETER APART, AND MAY NOT OCCUR WITHIN ONE MEMBER THICKNESS FROM EDGE.
11. [REBAR MATERIAL] ALL REINFORCING STEEL BAR SHALL CONFORM WITH THE STANDARD SPECIFICATIONS FOR DEFORMED BILLET STEEL FOR CONCRETE REINFORCEMENT. ASTM A615 AND ASTM A706. BARS #3,#4 SHALL BE GRADE 40 OR HIGHER. BARS #5 AND LARGER SHALL BE GRADE 60.
12. [REBAR CHAIRS] SUITABLE DEVICES (BRICKS, CHAIRS, STANDS, ANCHORMATES, DOBIES) SHALL BE USED TO HOLD REINFORCEMENT IN ITS TRUE HORIZONTAL AND VERTICAL POSITIONS. THESE DEVICES SHALL BE SUFFICIENTLY RIGID AND NUMEROUS TO PREVENT DISPLACEMENT OF THE REINFORCEMENT DURING THE PLACEMENT OF CONCRETE.
13. [ANCHOR BOLTS] ALL ANCHOR BOLTS SHALL BE A307 STEEL, $\frac{5}{8}$" DIAMETER, AND HAVE 7" MINIMUM EMBEDMENT. 3" x 3" x 0.229" WASHERS SHALL BE USED AT EACH LOCATION. ANCHOR BOLTS MAY BE SUBSTITUTED BY EPOXY ANCHORS OF EQUAL DIAMETER AND EMBEDMENT USING SIMPSON SET 3G EPOXY. SEE CONCRETE DETAILS FOR ANCHOR BOLT SUBSTITUTION OPTIONS & DETAILS. EXPANSION ANCHORS ARE NOT ACCEPTABLE.
14. [DIFFERENTIAL SETTLEMENT] FOOTING DESIGN EXECUTED CONSIDERING GOOD AND STABLE SOIL. FOR DIFFERENTIAL SETTLEMENT, CONSULT SOILS ENGINEER. FRAMEWORK ENGINEERING SHALL BE HELD HARMLESS AND INDEMNIFIED FOR ANY ARCHITECTURAL OR STRUCTURAL DAMAGES DUE TO DIFFERENTIAL FOUNDATION SETTLEMENT.
15. [EXISTING CONDITIONS] IF FIELD CONDITIONS DIFFER FROM SPECIFIED IN THIS PLAN, CONTRACTOR SHALL NOTIFY EOR TO CONSIDER STRUCTURAL CONSEQUENCES OR POTENTIAL REVISIONS.
16. [SHORING] CONTRACTOR RESPONSIBLE FOR SHORING DURING CONSTRUCTION AND/OR ENGAGEMENT OF A SHORING ENGINEER, WHERE REQUIRED. THE CONTRACTOR SHOULD BE RESPONSIBLE FOR ALL TEMPORARY EXCAVATIONS, SLOPES AND TRENCHES AT THE SITE AND DESIGN AND CONSTRUCTION OF ANY REQUIRED SHORING. SHORING AND BRACING SHOULD BE PROVIDED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS, INCLUDING THE CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS.
17. [SOILS] FOUNDATION SIZES, DEPTHS, AND REINFORCEMENT ARE AS RECOMMENDED WITH THE OWNER SOILS REPORT. GEOLOGICAL ENGINEER TO PROVIDE FOUNDATION INSPECTIONS AND OBSERVATIONS AS OUTLINED IN LATEST SOILS REPORT. CONTRACTOR SHALL CONTACT GEOLOGICAL ENGINEER WITH REASONABLE LEAD TIME TO ALLOW REVIEW OF FORMWORK, EXCAVATION, SUB-GRADES, AND PREPARED SOIL BEARING SURFACES PRIOR TO PLACEMENT OF FOUNDATION REINFORCING STEEL AND CONCRETE. ASSUMED VALUES SHALL BE FIELD VERIFIED BY THE THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
18. [EPOXY] CONCRETE SHALL BE AGED TO A MINIMUM OF 21 DAYS BEFORE DRILLING AND INSTALLING EPOXY IS ALLOWED. EPOXY SHALL BE SIMPSON SET 3G UON

FRAMING NOTES

1. [DIMENSIONS] DO NOT SCALE DRAWINGS. VERIFY THAT STRUCTURAL DIMENSIONS CONFORM TO ARCHITECTURAL REQUIREMENTS. SHEARWALL LENGTHS NOTED ARE MINIMUM. CONTACT EOR WHERE CONFLICT OCCURS.
2. [FRAMING] ALL CONSTRUCTION SHALL COMPLY WITH THE STANDARDS OF THE QUALITY REQUIREMENTS OF THE NATIONAL DESIGN STANDARD (NDS) AND CODES LISTED UNDER 'APPLICABLE CODES', THIS SHEET.
3. [GRADES] ALL STUDS, PLATES SHALL BE DOUGLAS FIR #2 OR BETTER; ALL JOISTS, RAFTERS, POSTS, AND BEAMS SHALL BE DOUGLAS FIR #1 OR BETTER; ALL FRAMING EXPOSED TO WEATHER OR TOUCHING CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR, REDWOOD SELECT, IPE, CEDAR, MANUFACTURED DECKING, OR OTHER WEATHER-PROTECTED SPECIES. REFER TO ARCHITECTURAL OR LANDSCAPE DRAWINGS.
4. [MOISTURE CONTENT] ALL LUMBER SHALL HAVE A MOISTURE CONTENT OF 19% OR LESS PRIOR TO PLACEMENT.
5. [NAILING] ALL FASTENERS IN CONTACT WITH PRESSURE TREATED AND FIRE RETARDANT TREATED LUMBER, OR PERMANENTLY EXPOSED TO WEATHER SHALL BE HOT-DIPPED, ZINC-COATED, GALVANIZED, OR STAINLESS STEEL, IN ACCORDANCE WITH CODES LISTED UNDER 'APPLICABLE CODES', THIS SHEET.
6. [JOISTS] PLACE JOISTS MEMBERS WITH CROWN UP. DOUBLE ALL JOISTS UNDER PARALLEL PARTITIONS, UON. GLUE ALL JOISTS TO UNDERSIDE OF SHEATHING.
7. [CONNECTORS] ALL CONNECTORS AND HARDWARE NOT SPECIFIED SHALL BE SIMPSON STRONG-TIE, INC. WITHOUT EXCEPTIONS. IF PRODUCT CANNOT BE FOUND, CONSULT EOR OR LOCAL SIMPSON DISTRIBUTION REPRESENTATIVE.
8. [DRILLED HOLES] THE DIAMETER OF BORED HOLES FOR MACHINED BOLTS SHALL NOT BE LARGER THAN THE SPECIFIED BOLT SIZE PLUS $\frac{1}{16}$" AND SHALL USE WASHERS. IT IS RECOMMENDED THAT THE INSTALLER USE A DRILLING GUIDE FOR MEMBERS THICKER THAN 4" FOR STRAIGHTER, TRUER BORED HOLES.
9. [POSTS AND BEAMS] ALL BEAMS SHALL BEAR ON POSTS HAVING A WIDTH TO MATCH WIDTH OF BEAM. POSTS SUPPORTING MANUFACTURED LUMBER PRODUCTS (PSL, LVL, GLULAM) SHALL HAVE SIMPSON POST CAPS OR HANGERS AND POST BASES, UON.
10. [SILL PLATES] SILLS ON CONCRETE SHALL BE 3x PRESSURE TREATED DOUGLAS FIR. SILLS SHALL BE FASTENED TO THE CONCRETE WITH A MINIMUM OF TWO ANCHOR BOLTS PER PIECE SPACED NO MORE THAN 4' O.C. AND NO ANCHOR BOLTS LESS THAN 9" FROM THE END OF A PIECE.
11. [MANUFACTURED LUMBER] ENGINEERED LUMBER SHALL BE MANUFACTURED BY WEYERHAUSER, REDBUILT, OR AN APPROVED EQUIVALENT. ALL MANUFACTURER RESTRICTIONS APPLY.
12. [LVL STRENGTH] Fb = 2600 PSI, Fc = 750 PSI, Fv = 285 PSI, E = 1,900,000 PSI
13. [PSL STRENGTH] Fb = 2900 PSI, Fc = 750 PSI, Fv = 290 PSI, E = 2,000,000 PSI
14. [LSL STRENGTH] Fb = 1700 PSI, Fc = 680 PSI, Fv = 400 PSI, E = 1,550,000 PSI
15. [TJI STRENGTH] VARIES. SEE PLANS.
16. [WALLS] ALL WALLS ARE 2x STUDS @ 16" O.C. THICKNESS PER PLAN.

SHEATHING NOTES

1. [DIMENSIONS] DO NOT SCALE DRAWINGS. VERIFY THAT STRUCTURAL DIMENSIONS CONFORM TO ARCHITECTURAL REQUIREMENTS. SHEARWALL LENGTHS NOTED ARE MINIMUM. CONTACT EOR WHERE CONFLICT OCCURS.
2. ALL WOOD STRUCTURAL PANELS SHALL BE MARKED WITH APPROPRIATE TRADEMARK OF APA AND MEET ALL CORRESPONDING CRITERIA.
3. [DIRECTION HORIZ.] WOOD STRUCTURAL PANELS AT FLOORS AND ROOFS SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS AND RAFTERS, UON.
4. [DIRECTION VERT.] WOOD STRUCTURAL PANELS AT WALLS SHALL BE LAID WITH LONG DIRECTION VERTICAL. BLOCK ALL EDGES. MINIMUM DIMENSION =24".
5. [FLOOR] UON, FLOOR SHEATHING SHALL BE T&G $\frac{3}{4}$" THICK WITH SPAN RATING 48/20, EXPOSURE I WITH 10D NAILS @ 12" O.C FIELD NAILING, @ 6" O.C. EDGE NAILING, AND @ 3" O.C. BOUNDARY NAILING. CONTRACTOR MAY OMIT T&G WHERE EDGES ARE BLOCKED.
6. [ROOF] UON, ROOF SHEATHING SHALL BE $\frac{15}{32}$" THICK WITH SPAN RATING 32/16, EXPOSURE I OR 5-PLY T&G WITH 10D NAILS @ 12" O.C FIELD NAILING, @ 6" O.C. EDGE NAILING, AND @ 3" O.C. BOUNDARY NAILING. PROVIDE PLY CLIPS BETWEEN JOINTS WHERE PANELS ARE NOT BLOCKED.
7. [GAP] ALL SHEATHING PANELS SHALL BE INSTALLED SUCH THAT THERE IS AN $\frac{1}{8}$" GAP BETWEEN PANEL EDGES TO ALLOW FOR SWELLING AND/OR EXPANSION.

SPECIAL INSPECTION & STRUCTURAL OBSERVATION NOTES

1. [REQUIRED] PURSUANT OF 2019 OSSC, SECTIONS 1704, 1707, AND 1708, SPECIAL INSPECTIONS ARE REQUIRED TO BE PERFORMED BY A THIRD PARTY WITNESSING AGENCY.
2. [RESPONSIBILITY] CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING INSPECTIONS AND OBSERVATIONS WITH APPROPRIATE NOTICE AND FOR ENSURING THAT THE WORK IS SATISFACTORY TO BE APPROVED.
3. [DISCIPLINES] INSPECTIONS & OBSERVATIONS LISTED ON THIS DRAWING SET ARE RELATED TO STRUCTURAL FEATURES OF THE PROJECT. THE WORK OF OTHER DISCIPLINES MAY REQUIRE TESTING AND INSPECTION THAT IS ADDITIONAL AND NOT LISTED ON STRUCTURAL SHEETS.

REQUIRED STRUCTURAL OBSERVATIONS

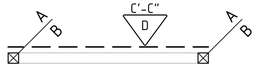
LIST OF REQUIRED STRUCTURAL OBSERVATIONS TO BE PERFORMED BY FRAMEWORK ENGINEERING. THIS REVIEW SHALL NOT BE CONSTRUED AS SPECIAL INSPECTION. ALLOW 3 BUSINESS DAYS NOTICE TO EOR.

1. [FOUNDATION] REBAR PLACEMENT, ANCHOR BOLT PLACEMENT, AND CAST-IN ANCHORAGE PLACEMENT PRIOR TO POURING CONCRETE; FORMWORK DIMENSIONS.
2. [FRAMING CONNECTIONS] POSTS, BEAMS, AND POST/BEAM CONNECTIONS; PRIOR TO CONCEALMENT BY DRYWALL OR INTERIOR FINISHES.
3. [LATERAL CONNECTIONS] HOLDOWNS, COLLECTORS, STRAPS, TIES AND DRAG STRUTS
4. [SHEAR NAILING] NAIL SPACING, NAIL HEAD PENETRATION, DISCONTINUITIES
5. [EPOXY] INSTALLATION OF HOLD-DOWN ANCHORS

ABBREVIATIONS

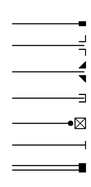
AB	ANCHOR BOLT	INT	INTERIOR
ALT	ALTERNATE	KSI	KIPS PER SQUARE INCH
ARCH	ARCHITECTURAL	LBS	POUNDS
ASD	ALLOWABLE STRESS DESIGN	LDGR	LEDGER
AWC	AMERICAN WOOD COUNCIL	LL	LIVE LOAD
BLK'G	BLOCKING	LSL	LAMINATED STRAND LUMBER
BRG	BEARING	LVL	LAMINATED VENEER LUMBER
BTWN	BETWEEN	MECH	MECHANICAL
CALC	CALCULATIONS	MISC	MISCELLANEOUS
CANT	CANTILEVER	NTS	NOT TO SCALE
CIP	CAST IN PLACE	OC	ON CENTER
CJ	CONTROL JOINT	O-O	OUT TO OUT
CMU	CONCRETE MASONRY UNIT	OSB	ORIENTED STRAND BOARD
COL	COLUMN	PFA	POST FROM ABOVE
COLL	COLLECTOR	PLY	PLYWOOD
CON	CONCRETE	PSI	POUNDS PER SQUARE INCH
CONT	CONTINUOUS	PSL	PARALLEL STRAND LUMBER
CP	COMPLETE PENETRATION	PT	PRESSURE TREATED
DBL	DOUBLE	REBAR	REINFORCEMENT BAR
DEMO	DEMOLITION	SAD	SEE ARCHITECTURAL DRAWING
DF	DOUGLAS FIR	SDS	STRONG-DRIVE WOOD SCREW
DF#1	DOUGLAS FIR GRADE 1	SHTG	SHEATHING
DF#2	DOUGLAS FIR GRADE 2	SMF	SPECIAL MOMENT FRAME
DIA	DIAMETER	SOG	SLAB ON GRADE
DIAG	DIAGONAL	SPEC	SPECIFIED
DL	DEAD LOAD	SS	STAINLESS STEEL
EN	EDGE NAILING	SST	SIMPSON STRONG-TIE
EOR	ENGINEER OF RECORD	SSW	STEEL STRONG-WALL (SIMPSON)
EQ	EQUAL	STAG'D	STAGGERED
EXP	EXPANSION	STD	STANDARD
EXT	EXTERIOR	SWS	SHEAR WALL SCHEDULE
FN	FIELD NAILING	SYM	SYMMETRIC
FOUN	FOUNDATION	T&B	TOP AND BOTTOM
FT	FOOT	T&G	TONGUE AND GROOVE
GA	GAUGE	TJI	TRUSS JOIST I-JOIST
GALV	GALVANIZED	TN	TOE NAIL
GEO	GEOLOGICAL	TP	TOP PLATE
GYP	GYPSUM BOARD	TYP	TYPICAL
HDR	HEADER	UON	UNLESS OTHERWISE NOTED
HGR	HANGER	VIF	VERIFIED IN FIELD
HT	HEIGHT	W/	WITH
HVAC	HEATING VENT & AIR COND.	WSW	WOOD STRONG-WALL
ICC	INTERNATIONAL CODE COUNCIL		

SYMBOLS LEGEND



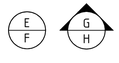
SHEAR WALL TAG
A = POST SIZE & HARDWARE AT TOP OF POST
B = HARDWARE AT BOTTOM OF POST
C = SHEARWALL WIDTH, MEASURED TO OUTSIDE OF POSTS
("P" INDICATES THAT SHEARWALL IS PERFORATED)
D = SHEARWALL TYPE (SEE SWS)

SPANNING MEMBER TAGS



STRONG-WALL TAG

DETAIL TAG / ELEVATION TAG
E = SECTIONAL DETAIL NUMBER
F = DETAIL SHEET NUMBER
G = ELEVATIONAL DETAIL NUMBER
H = DETAIL SHEET NUMBER



POST & ANCHOR TAG
I = ANCHORAGE TYPE (SEE PLAN FOR SCHEDULE)
J = POST SIZE
K = HARDWARE AT TOP OF POST
L = HARDWARE AT BOTTOM OF POST

2ND STORY ADDITION

3132 SE 31ST AVE
PORTLAND, OR 97202
APN R298906

PROJECT PARTICIPANTS

STRUCTURAL ENGINEER	OWNER(S)	CONTRACTOR	DESIGNER
FRAMEWORK ENGINEERING 107 SE WASHINGTON ST, SUITE 545 PORTLAND, OR FRAMEWORKENG.COM 503.345.3075	BJORN LARSON 3132 SE 31ST AVE PORTLAND, OR 97202	OWNER/BUILDER	BJORN LARSON 3132 SE 31ST AVE PORTLAND, OR 97202

SCOPE OF WORK

THE PROJECT SCOPE INCLUDES A VERTICAL ADDITION ABOVE A PORTION OF AN (E) SINGLE STORY WOOD FRAME STRUCTURE.

THE STRUCTURAL SCOPE INCLUDES: [1] ANALYSIS AND REDESIGN OF GRAVITY LOAD PATHS THROUGH THE (E) STRUCTURE; [2] ANALYSIS OF LATERAL LOADS PATHS TO DETERMINE WHERE SEISMIC STRENGTHENING IS NECESSARY; [3] DESIGN OF A (N) CONCRETE FOOTINGS AS REQUIRED BY THE NEW LOAD PATHS; [4] DESIGN OF A WRAP AROUND EXTERIOR DECK AND STAIR; [5] RE-LOCATION OF (E) BLAZERS BASKETBALL HOOP.

PARTICULAR ATTENTION AND DETAILING WILL BE PAID TO HOW THE (E) STRUCTURE IS TIED TOGETHER WITH ANY (N) FRAMING; AND THE RESOLVING ANY NEW LOAD PATHS CREATED BY THE VERTICAL ADDITION.

DRAWING INDEX

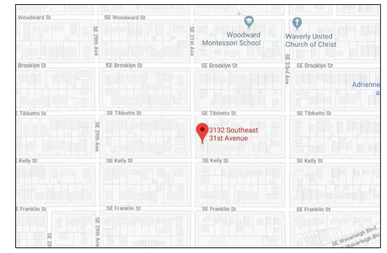
APPLICABLE CODES

2016 - ASCE 7 MINIMUM BUILDING LOADS
2019 - OREGON STRUCTURAL SPECIALTY CODE
APPLICABLE PORTLAND BUILDING CODES
2015 - NATIONAL DESIGN STANDARD / SDPWS
2011 - ACI-318

DESIGN PARAMETERS

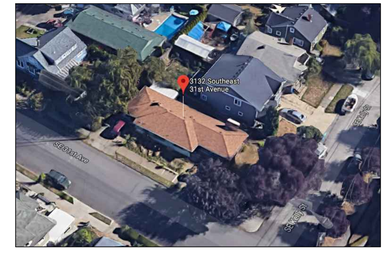
LOAD ASSUMPTIONS	
ROOF LOAD (DL, LL)	15 PSF, 20 PSF
FLOOR LOAD (DL, LL)	15 PSF, 40 PSF
DECK LOAD (DL, LL)	15 PSF, 60 PSF
SNOW LOAD (LL)	25 PSF
RAIN LOAD (LL)	NOT CONSIDERED
GUARDRAILS	50PLF OR 200 LB
SITE AND SOIL	
RISK / OCCUPANCY CATEGORY	II
SOIL TYPE	D
SEISMIC DESIGN CATEGORY	D
SEISMIC PARAMETERS	
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
SEISMIC RESISTANT SYSTEM	WOOD SHEARWALLS
DIAPHRAGM FLEXIBILITY	FLEXIBLE
SITE LATITUDE	45.5000 °N
SITE LONGITUDE	122.6333 °W
SDS	0.724 g
SD1	0.441 g
S1	0.418
DESIGN COEFFICIENTS, R	6.5
OVERSTRENGTH FACTOR, W	3
DEFLECTION AMPLIFICATION FACTOR, CD	4
REDUNDANCY FACTOR, P	1
IMPORTANCE FACTOR, IE	1
CS	0.1114
ALLOWABLE STORY DRIFT	0.025
WIND PARAMETERS	
ENCLOSURE CLASSIFICATION	ENCLOSED
BASIC WIND SPEED (MPH)	110
WIND DIRECTIONALITY FACTOR	0.85
EXPOSURE CATEGORY	B
TOPOGRAPHIC FACTOR	1
GUST EFFECT FACTOR	DOES NOT APPLY
SURFACE ROUGHNESS CATEGORY	B
SOIL STRENGTH	
ALLOWABLE SOIL BEARING PRESSURE	1500 PSF
LATERAL BEARING PRESSURE	100 PCF
COHESION	130 PCF
COEFFICIENT OF FRICTION	-
PASSIVE SOIL PRESSURE	-
ACTIVE SOIL PRESSURE	-

VICINITY MAP



STREET VIEW

AERIAL VIEW



FRAMEWORK ENGINEERING
WWW.FRAMEWORKENG.COM
107 SE WASHINGTON ST
PORTLAND, OR 97214
503 345-3075
136 BAKER ST
SAN FRANCISCO, CA 94103
415 604-3876

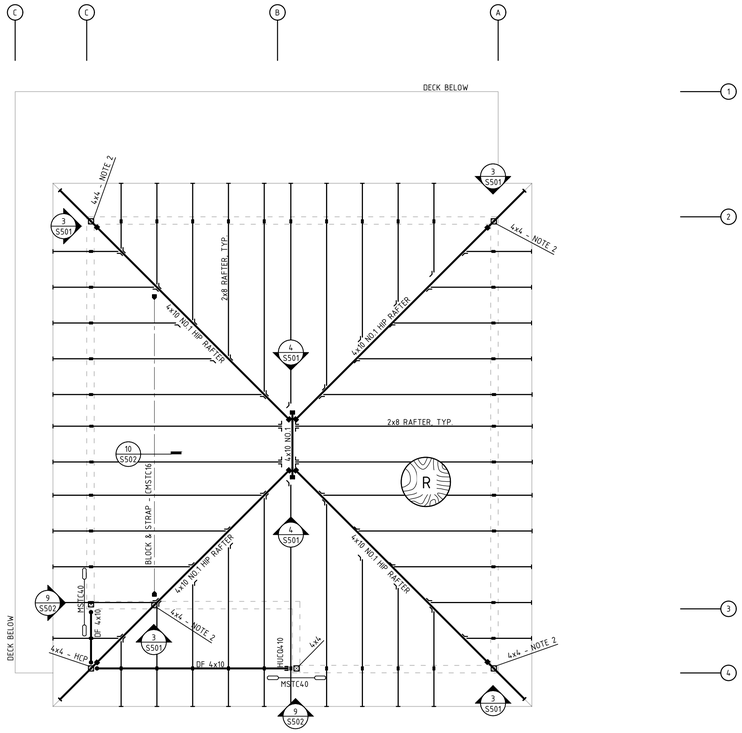
REGISTERED PROFESSIONAL ENGINEER
OREGON
80078
JOHN VOEKEL
RENEWS: JUNE 30, 20 20

2ND STORY ADDITION
3132 SE 31ST AVE
PORTLAND, OR 97202
APN R298906

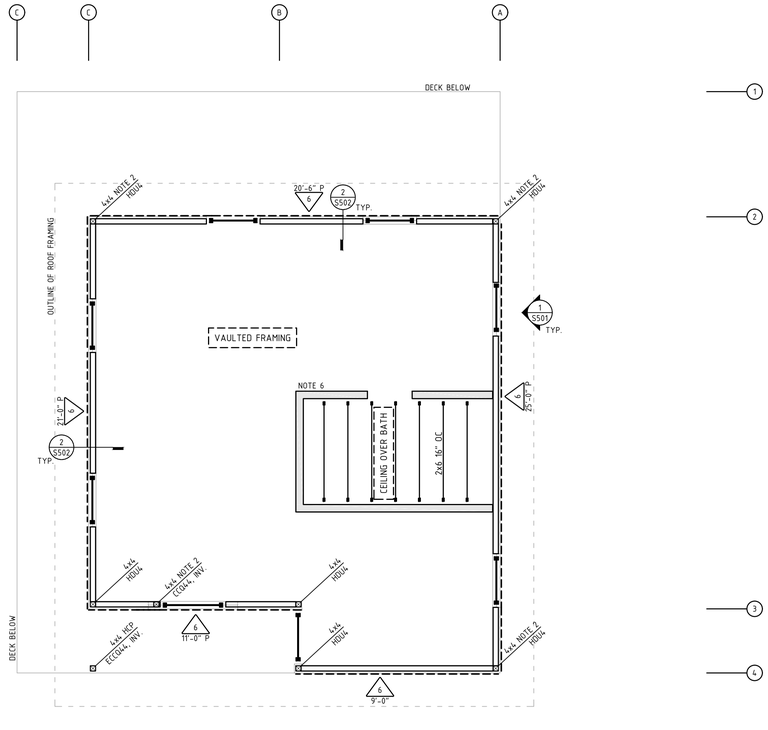
JOB NUMBER	R19-028
PREPARED BY	JV
REVIEWED BY	DM
PERMIT SET	31 JAN 2020

GENERAL NOTES

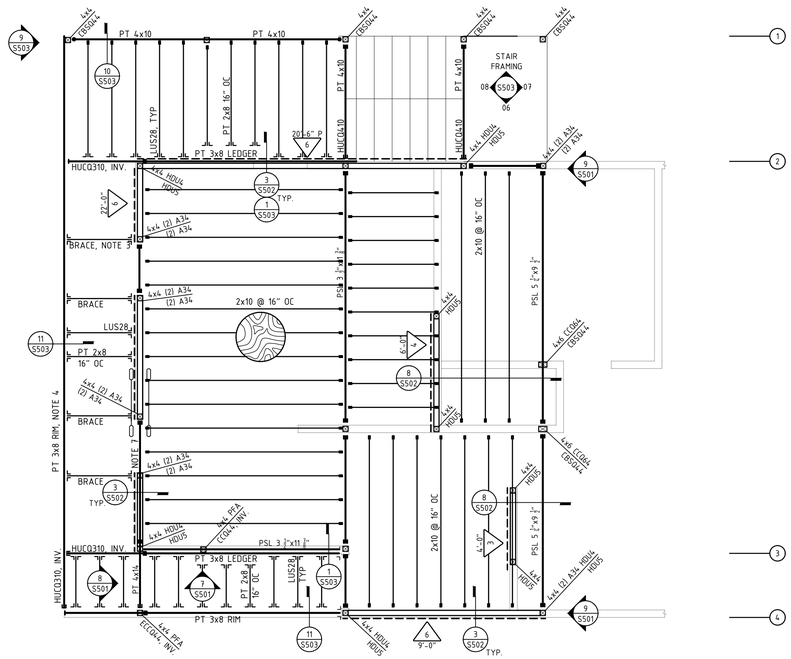
S000



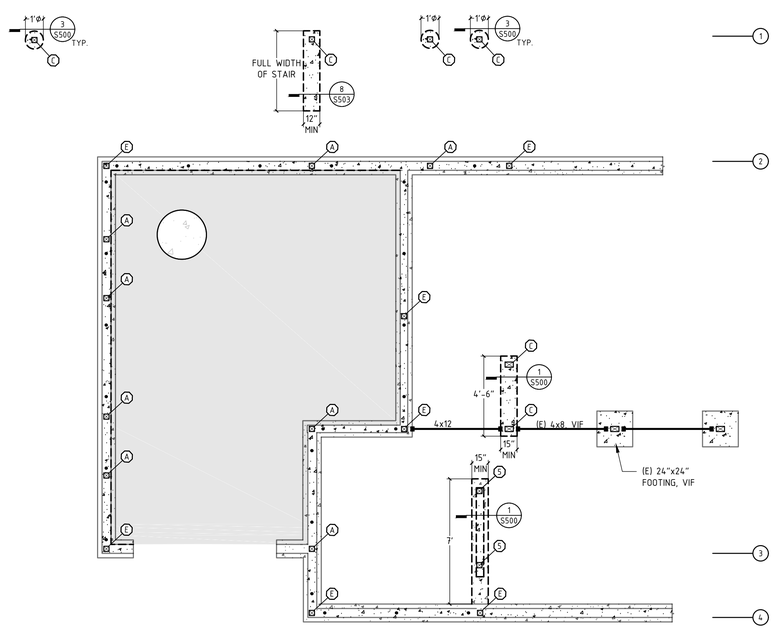
1 ROOF FRAMING
PLAN — 1/4" = 1'



2 2nd FLOOR WALL FRAMING
PLAN — 1/4" = 1'



3 2nd FLOOR FRAMING
PLAN — 1/4" = 1'



4 FOUNDATION PLAN
PLAN — 1/4" = 1'

FRAMING LEGEND

- DEMO WALL. SEE GENERAL NOTE 5, S000
- SHEAR WALL — 1/S502
- NEW FRAMED WALL 2x4 or 2x6 @ 16" O.C. TYP SAD FOR WALL WIDTH — 1/S501
- (N) ANCHOR BOLTS ADDED TO (E) WALL. DO NOT SCALE — A,E/S502
- TYP HEADER, UON — 1/S501

DIAPHRAGM SCHEDULE

- 7/16" STRUCT I PLY, FULLY BLOCKED, USE 10d COMMON NAILS: 3" BOUNDARY NAILING, 6" EDGE NAILING, 12" FIELD NAILING — C/S502
- 1/2" STRUCT I PLY, FULLY BLOCKED, USE 10d COMMON NAILS: 3" BOUNDARY NAILING, 6" EDGE NAILING, 12" FIELD NAILING — C/S502

ANCHORAGE SCHEDULE

		DETAIL
S	SIMPSON SB5/8x24 W/ 18" MIN EMBEDMENT DO NOT USE SSTB ANCHORS	6,7/S502
A	POST OK TO BEAR DIRECTLY ON SILL ATTACH W/ (2) A34	
C	SIMPSON CBSQ TO MATCH POST	3/S500
E	SET XP EPOXY, 8" MIN EMBEDMENT USE 5/8" A.T. ROD FOR HDU2, HDU4, HDU5 USE 7/8" A.T. ROD FOR HDU8 (REQUIRES SPECIAL INSPECTION)	2/S500

CONCRETE LEGEND, f'c = 3000 psi

- NEW FOUNDATION CURB / STEM OCCURS ABOVE GRADE
- EXISTING FOUNDATION FOOTING OCCURS BELOW GRADE
- EXISTING SLAB ON GRADE

SHEET NOTES

1. 1 3/4"x5 1/2" LVL DOUBLE TOP PLATE
2. SEE DET 3 / S501 FOR CONNECTION OF HIP RAFTER TO TO PLATE
3. SEE DET 4 / S503 FOR CNX OF BRACE TO DECK & WALL
4. FOR DECK BRACING: SEE DET 5 / S503
5. OK TO SPLICE RIM AT EITHER OF THE CENTRAL BRACES
6. ALIGN FLOOR JOISTS BELOW LONG. WALLS AND DOUBLE TO ADD STIFFNESS TO THE FLOOR
7. MINIMUM BACK SPAN = 7'. STRAP TO TOP PLATE W/ (2) MSTC40

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PORTLAND, OR 97214
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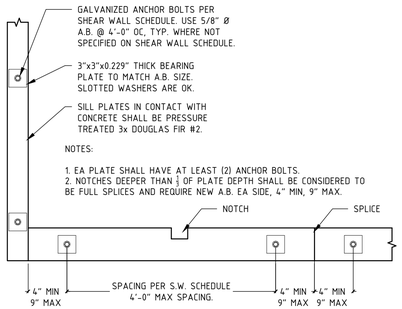
REGISTERED PROFESSIONAL ENGINEER — 90078 — OREGON — JOHN VOEKLER — RENEWS: JUNE 30, 20 20

2ND STORY ADDITION
3132 SE 31ST AVE
PORTLAND, OR 97202
APN R298906

JOB NUMBER	R19-028
PREPARED BY	JV
REVIEWED BY	DM
PERMIT SET	31 JAN 2020

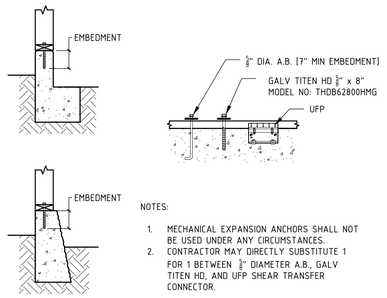
FRAMING PLANS

S100



A ANCHOR BOLT RESTRICTIONS & REQUIREMENTS

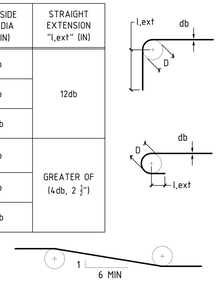
PLAN 1/2" = 1'



E SILL PLATE ANCHORAGE

SECTION AND ELEVATION 1/2" = 1'

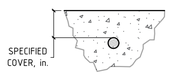
BEND	BAR SIZE "db"	MIN. INSIDE BEND DIA "D" (IN)	STRAIGHT EXTENSION "l_ext" (IN)
90-DEGREE HOOK	#3 - #8	6db	12db
	#9 - #11	8db	
	#14 - #18	10db	
180-DEGREE HOOK	#3 - #8	6db	GREATER OF (4db, 2 ½")
	#9 - #11	8db	
	#14 - #18	10db	



B STANDARD REINFORCEMENT BENDS - LONGITUDINAL

ACI 318-14 TABLE 25.3.1

CONCRETE EXPOSURE	MEMBER	REINFORCEMENT SIZE	SPECIFIED COVER, in.
CONTACT WITH GROUND	ALL	ALL	3 in.
EXPOSED TO WEATHER	ALL	#6 - #18	2 in.
		#3 - #5	1 ½ in.
INTERIOR CONDITION	SLABS, JOISTS, WALLS	#14 - #18	1 ½ in.
		#3 - #11	¾ in.
	BEAMS, COLUMNS, PEDESTALS, TENSION TIES	ALL	1 ½ in.

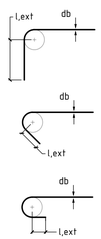


SPECIFIED COVER REFERS TO THE DISTANCE BETWEEN FACE OF CONCRETE AND OUTSIDE OF BAR DIAMETER

F CLEAR COVER FOR CONCRETE REINFORCEMENT

ACI 318-14 TABLE 20.6.1.3.1

BEND	BAR SIZE "db"	MIN. INSIDE BEND DIA "D" (IN)	STRAIGHT EXTENSION "l_ext" (IN)
90-DEGREE HOOK	#3 - #5	4db	GREATER OF (6db, 3")
	#6 - #8	6db	12db
135-DEGREE HOOK	#3 - #5	4db	GREATER OF (6db, 3")
	#6 - #8	6db	
180-DEGREE HOOK	#3 - #5	4db	GREATER OF (4db, 2 ½")
	#6 - #8	6db	

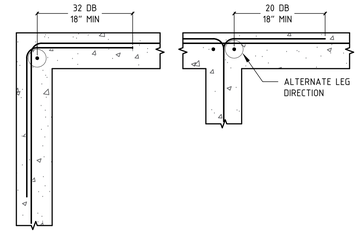


NOTES:

1. ALL BENDS SHALL BE MADE COLD.
2. #14 AND #18 BARS SHALL BE BEND TESTED AND LAB APPROVED.
3. DO NOT BEND BARS ALREADY CAST IN CONCRETE.
4. 135-DEGREE HOOKS NOT PERMITTED FOR LONG. BARS.

C STANDARD REINFORCEMENT BENDS - STIRRUPS & TIES

ACI 318-14 TABLE 25.3.2

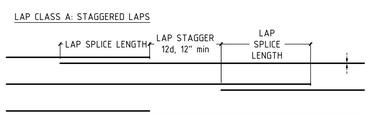


G TYPICAL SINGLE CURTAIN REINFORCEMENT OVERLAP

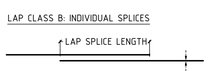
SECTION 1/2" = 1'

WALL AND FOOTING LAP SPLICE SCHEDULE: GRADE 60											
CONCRETE STRENGTH f'c	LAP CLASS	REBAR SIZE "d"									
		#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
		LAP SPLICE LENGTH, INCHES									
3000	A	12	15	22	27	33	48	55	62	70	77
	B	15	19	29	36	43	62	74	80	90	100

LAP CLASS A: STAGGERED LAPS



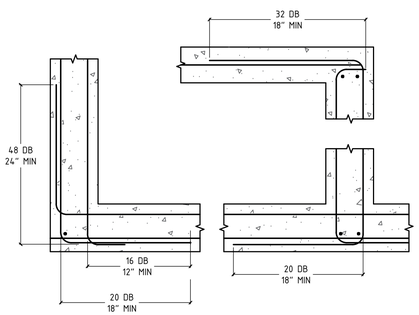
LAP CLASS B: INDIVIDUAL SPLICES



NOTES:

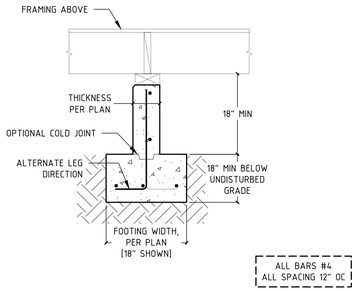
1. #14 AND #18 BARS MAY NOT BE LAPPED, UON

D STANDARD REINFORCEMENT LAP SPLICES



H TYPICAL DOUBLE CURTAIN REINFORCEMENT OVERLAP

SECTION 1/2" = 1'



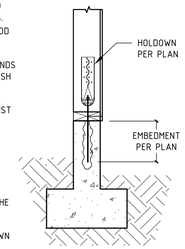
1 TYPICAL INTERIOR FOOTING

SECTION 3/4" = 1'

EPOXY INSTALLATION INSTRUCTIONS

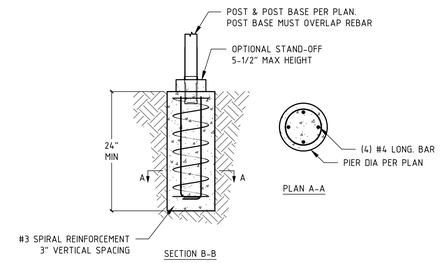
USE SIMPSON SET 3G EPOXY; CODE REPORT ICC-ES ESR 4057 [REQUIRES SPECIAL INSPECTION]

1. [DRILL] DRILL ALL HOLES WITH ROTARY DRILL (NO IMPACT TOOLS) TO DEPTHS CALLED FOR ON PLANS. HOLE DIAMETER SHALL BE ⅛" LARGER THAN THE ROD OR BAR DIAMETER, UON.
2. [BLOW-BRUSH-BLOW] BLOW HOLE FOR FOUR SECONDS WITH 80PSI TOOL TO FULL DEPTH OF HOLE -- BRUSH WITH CLEAN NYLON BRUSH FOR 4 CYCLES. BRUSH SHOULD PROVIDE RESISTANCE TO INSERTION. IF NO RESISTANCE IS FELT, THE BRUSH IS WORN AND MUST BE REPLACED. -- REPEAT "BLOW".
3. [FILL] FILL HOLD ⅔ TO ¾ FULL, STARTING FROM BOTTOM OF HOLE TO PREVENT AIR POCKETS. WITHDRAW NOZZLE AS HOLE FILLS UP.
4. [INSERT] INSERT CLEAN, OIL-FREE THREADED ROD, TURNING SLOWLY UNTIL THE ANCHOR CONTACTS THE BOTTOM OF THE HOLE.
5. [CURE] ALLOW 7 DAYS BEFORE TIGHTENING HOLDOWN BOLTS



2 EPOXY ANCHORAGE DETAIL

SECTION 3/4" = 1'



3 CIRCULAR ISOLATED FOOTING

SECTION & PLAN 1/2" = 1'

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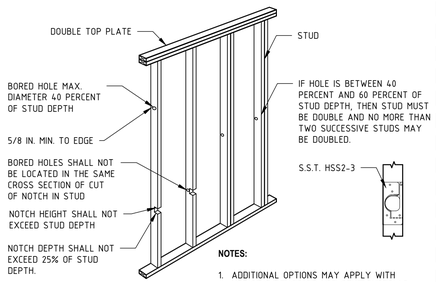
JOB NUMBER	R19-028
PREPARED BY	JV
REVIEWED BY	DM
PERMIT SET	31 JAN 2020

CONCRETE DETAILS

S500

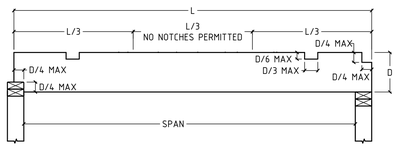


NOTES:

1. ADDITIONAL OPTIONS MAY APPLY WITH USE OF S.S.T. SS OR HSS STUD SHOES AS PER MANUFACTURE LITERATURE.
2. FOR ALL OTHER CASES NOT SHOWN, CONTACT E.O.R.

A ALLOWABLE STUD NOTCHING

PERSPECTIVE — NO SCALE

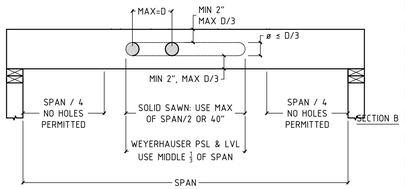


NOTES:

1. NO NOTCHING PERMITTED ON THE BOTTOM OF THE BEAM, NEAR INTERIOR SUPPORT OF MULTI-SPAN BEAM, OR IN MEMBERS WITH DEPTH LESS THAN 5 ½".
2. NO HOLES OR NOTCHES ON GLULAM BEAMS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD.
3. FOR MANUFACTURED LUMBER, SEE MANUFACTURER'S INSTRUCTIONS FOR ALLOWABLE HOLES IN WEBS. SEE STRUCTURAL NOTES FOR LITERATURE.
4. FOR ALL OTHER CASES NOT SHOWN, CONTACT E.O.R.

B ALLOWABLE SOLID SAWN BEAM NOTCHING

SECTION — 1/2" = 1'



NOTES:

1. NO NOTCHING PERMITTED ON THE BOTTOM OF THE BEAM, NEAR INTERIOR SUPPORT OF MULTI-SPAN BEAM, OR IN MEMBERS WITH DEPTH LESS THAN 5 ½".
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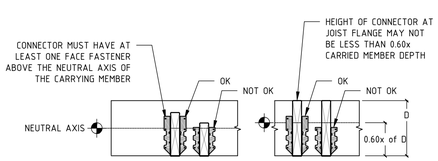
4. FOR ALL OTHER CASES NOT SHOWN, CONTACT E.O.R.

C ALLOWABLE SOLID SAWN BEAM HOLES

SECTION — 1/2" = 1'

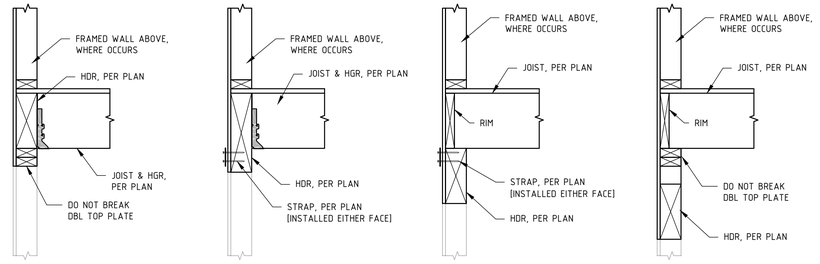


NOTES:

1. ALL HANGERS SHALL BE BY SIMPSON MANUFACTURING COMPANY. NO EXCEPTIONS.
2. INSTALLER TO FOLLOW ALL RESTRICTIONS AND INSTALLATION GUIDELINES BY STRONGTIE.COM AND BY WOOD CONSTRUCTION CONNECTORS CATALOG. WHERE SIMPSON LITERATURE CONFLICTS WITH E.O.R. SPECIFICATION, INSTALLER TO CONTACT E.O.R. FOR CLARIFICATION. FOR CONDITIONS NOT SHOWN, INSTALLER TO CONTACT E.O.R.
3. WHERE CONNECTOR IS IN CONTACT WITH PRESSURE TREATED MATERIAL OR IS USED IN AN EXTERIOR APPLICATION, COATING SHALL ALWAYS BE STAINLESS STEEL OR HDG, WITH FASTENERS TO MATCH.

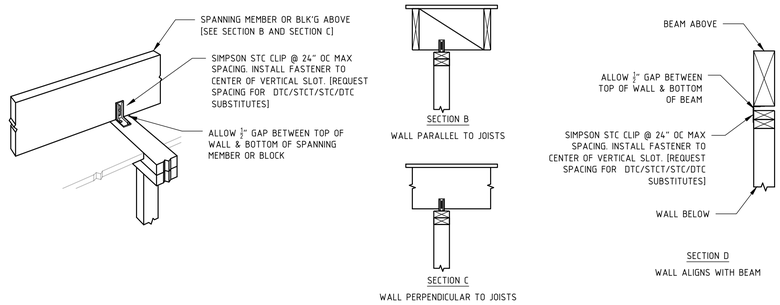
D TYPICAL JOIST TO BEAM CONNECTION

ELEVATION — 1" = 1'



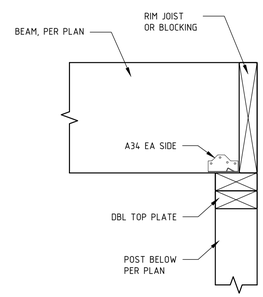
5 TYPICAL HEADER FRAMING AT EXTERIOR WALL

SECTIONS — 1" = 1'



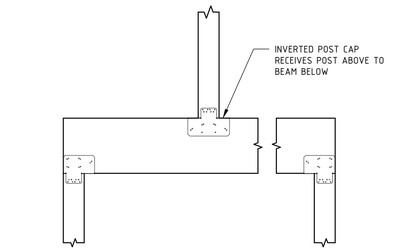
6 TYPICAL PARTITION WALL FRAMING AT TOP PLATE

SECTIONS & PERSPECTIVE — NO SCALE



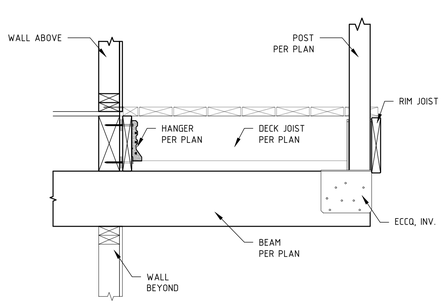
9 TYPICAL BEAM AT WALL

SECTION — 1" = 1'



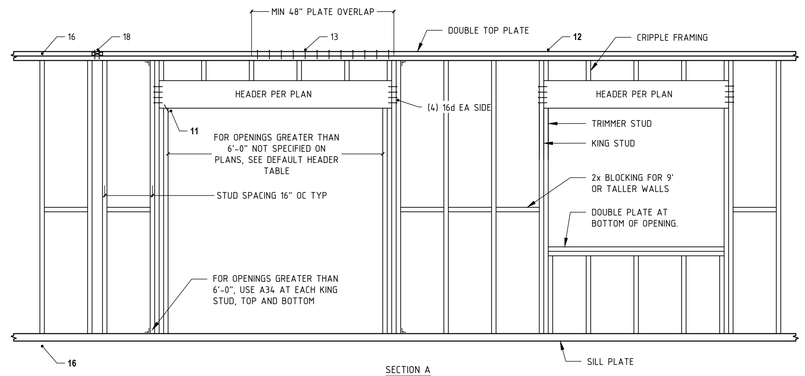
7 TYPICAL POST TO BEAM OPTIONS

ELEVATION — 1" = 1'



8 TYPICAL POST TO BEAM OPTIONS

ELEVATION — 1" = 1'



IBC 2015 - TABLE 2304.10.1
MINIMUM FASTENING SCHEDULE

TAG	CONNECTION	8d common 0.131" x 3"	10d common 0.148" x 3"	16d common 0.162" x 3-1/2"	LOCATION
8	Stud to Stud	16" OC	16" OC	24" OC	Face nail
9	Stud to Intersecting Stud	12" OC	–	16" OC	Face nail
11	Continuous header to Stud	4	4	–	Toenail
12	Top plate to Top plate	12" OC	12" OC	16" OC	Face nail
13	Top plate Splice	24	24	16	Face nail
16	Stud to Plate	4	4	–	Toenail
		3	3	2	End nail
18	Top plates, laps at Intersections	3	3	2	Face nail

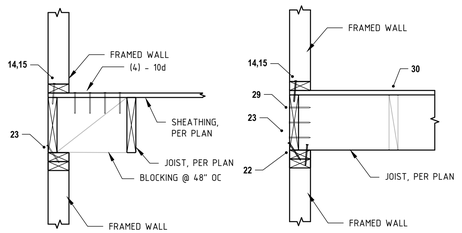
DEFAULT HEADER SCHEDULE
WHERE NOT SPECIFIED ON PLANS

SPAN	HEADER x4 WALLS	HEADER x6 WALLS	TRIMMER STUDS	KING STUDS
W<5'-0"	4x8	6x6	1	1
5'-0"<W<7'-0"	4x10	6x8	2	2
7'-0"<W<10'-0"	4x12	6x10	3	2

1. GRADE IS DF #2 OR BETTER.
2. FOR SPANS GREATER THAN 10'-0", CONTACT EOR
3. DEFAULT HEADER TABLE FOR UNMARKED, TYPICAL HEADERS. NOT FOR USE UNDER LOAD BEARING WALLS OR POSTS.

1 TYPICAL WALL FRAMING WITH OPENINGS

SECTION & PLAN — 1/2" = 1'

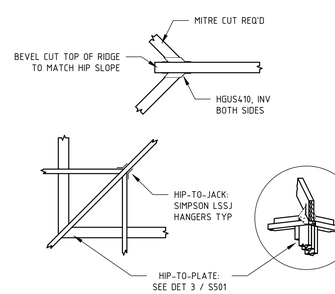


IBC 2015 - TABLE 2304.10.1
MINIMUM FASTENING SCHEDULE

TAG	CONNECTION	10d common 0.148" x 3"	16d common 0.162" x 3-1/2"	LOCATION
14	Bottom plate to Rim (Unbraced)	–	16" OC	Face nail
15	Bottom plate to Rim (Braced)	–	2	Face nail
22	Joist to Top Plate	3	–	Toenail
23	Rim to Top Plate	–	6" OC	Toenail
29	Joist to Rim	4	3	End nail
30	Blocking to Joist	2	–	Ea end, Toenail
31	Sheathing to Blocking	4	4	Face nail
32	Joist Splice Over Wall	4	–	Face nail

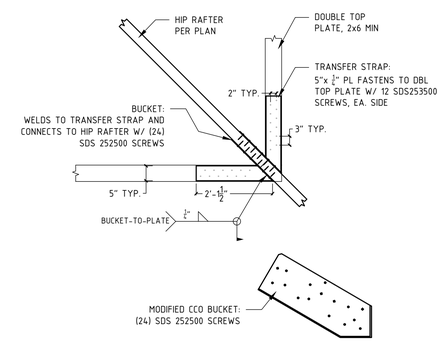
2 TYPICAL FLOOR FRAMING

SECTIONS — 1" = 1'



4 HIP CONNECTIONS TO RIDGE

PLAN — 1/2" = 1'



3 HIP RAFTER TO TOP PLATE CONNECTION

ELEVATION — 1/2" = 1'

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REGISTERED PROFESSIONAL ENGINEER — 80078 — OREGON — JOHN VOSBEIGH — RENEWS: JUNE 30, 20 20

2ND STORY ADDITION

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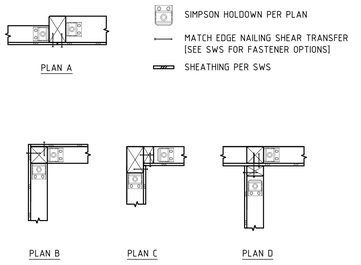
PERMIT SET	31 JAN 2020

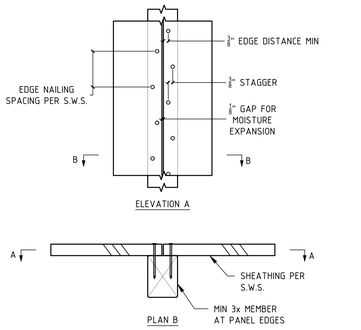
FRAMING DETAILS

S501



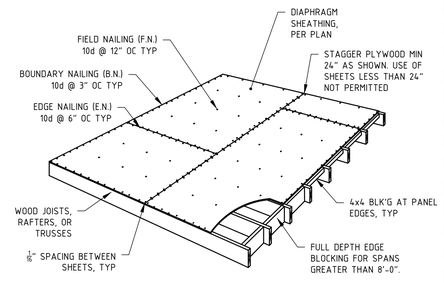
A SHEARWALL INTERSECTIONS

PLANS — NO SCALE



B SHEARWALL NAILNG

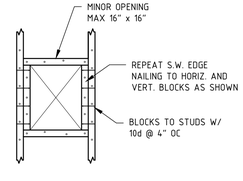
ELEVATION AND PLAN — NO SCALE



NOTES:
1. PLYWOOD DIAPHRAGM IS BLOCKED, UON.
2. GLUE SURFACE OF PLYWOOD TO TOP OF JOISTS AND BLOCKS BEFORE NAILING
3. ORIENT PLYWOOD WITH FACE GRAIN PERP TO FRAMING MEMBERS.
4. SEE PLANS FOR PLYWOOD NAILING AND BLOCKING SPECIFICATIONS.

C DIAPHRAGM NAILING

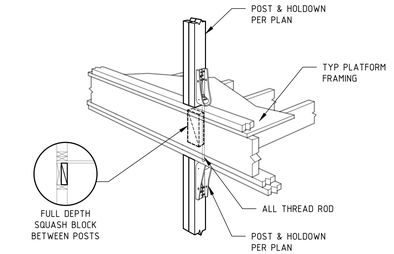
PERSPECTIVE — NO SCALE



NOTES:
1. WIDTH OF OPENING NO GREATER THAN 15% SHEAR WALL HEIGHT
2. LENGTH OF OPENING NO GREATER THAN 15% OF SHEAR WALL LENGTH
3. DISTANCE FROM SHEAR WALL EDGE TO THE NEAREST OPENING EDGE IS A MINIMUM OF 3 TIMES THE OPENING DIMENSION IN THE GIVEN DIRECTION
4. THE SHEAR WALL PORTION BETWEEN THE OPENING AND THE SHEARWALL EDGE SATISFIES ASPECT RATIO REQUIREMENTS ON ALL SIDES OF THE OPENING

D MINOR SHEARWALL OPENINGS

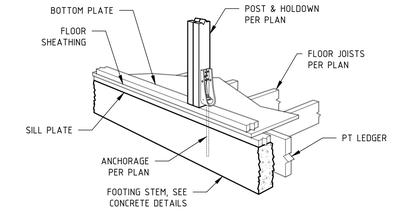
ELEVATION — NO SCALE



NOTE: EXTERIOR SHEATHING NOT SHOWN FOR CLARITY

5 TYPICAL HOLDOWN TRANSFER FLOOR-TO-FLOOR

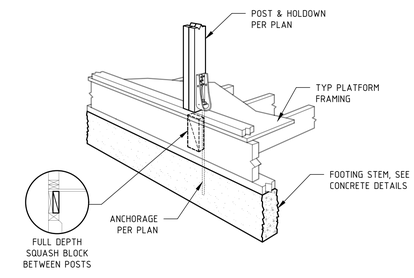
PERSPECTIVE — NO SCALE



NOTE: EXTERIOR SHEATHING NOT SHOWN FOR CLARITY

6 HOLDOWN TRANSFER AT STEMWALL - NO FLOOR FRAMING

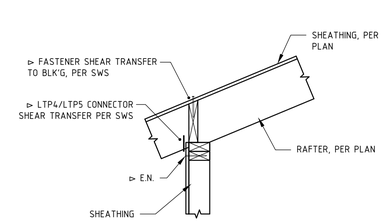
PERSPECTIVE — NO SCALE



NOTE: EXTERIOR SHEATHING NOT SHOWN FOR CLARITY

7 HOLDOWN TRANSFER AT STEMWALL - THROUGH FLOOR

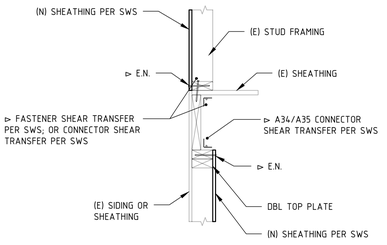
PERSPECTIVE — NO SCALE



SECTION A: RAFTER TAIL
"⊳" DENOTES SHEAR TRANSFER

2 SHEAR TRANSFER AT ROOF

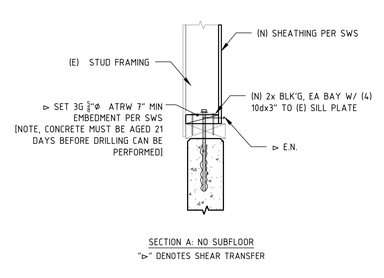
SECTION — 1" = 1'



SECTION B: EXTERIOR WALL SECTION
"⊳" DENOTES SHEAR TRANSFER

3 SHEAR TRANSFER AT EXISTING FLOOR

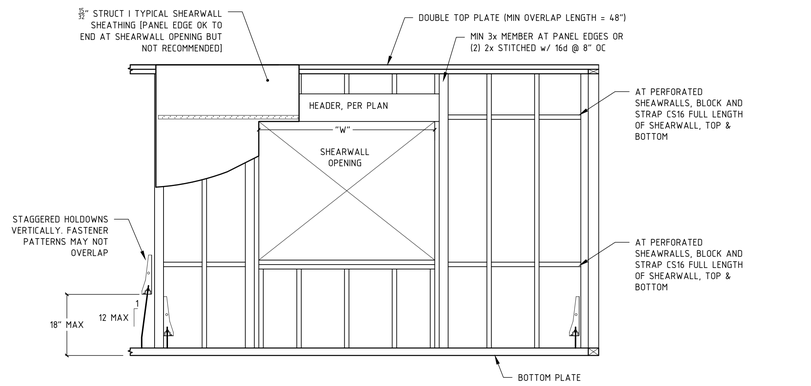
SECTIONS — 1" = 1'



SECTION A: NO SUBFLOOR
"⊳" DENOTES SHEAR TRANSFER

4 RETROFIT SHEAR TRANSFER

SECTION — 1" = 1'

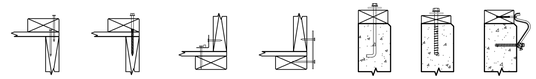


SHEARWALL NOTES

1. SHEARWALL LENGTH DEPICTED IN PLANS IS MEASURED FROM OUTSIDE OF FRAMING TO OUTSIDE OF FRAMING. "EFFECTIVE" SHEARWALL LENGTH USED IN CALCULATIONS IS MEASURED FROM CENTER OF HOLDOWN ANCHOR TO OUTSIDE OF OPPOSITE FRAMING.
2. MIN PANEL WIDTH = 16". MIN SHEARWALL WIDTH = 24".
3. SHEARWALLS MUST EXTEND FROM SILL PLATE TO ROOF OR 2ND FLOOR SHEATHING ABOVE. USE SHEAR MATERIAL, BLOCKS, OR OTHER STRUCTURAL ELEMENTS TO PROVIDE POSITIVE CONNECTION BETWEEN DIAPHRAGM SHEATHING & WALLS.
4. SHEAR PLYWOOD MUST BE EDGE NAILED AND BLOCKED AT ALL EDGES.
5. SHEAR MATERIAL USED FOR SHEARWALLS SHALL BE APA RATED STRUCTURAL I PLYWOOD OR OSB SHEATHING, EXPOSURE I.
6. NAILS SHALL BE COMMON. SILL NAILS SHALL BE COMMON NAILS. POWDER ACTUATED FASTENERS ARE NOT PERMITTED ON EXTERIOR OR SHEAR WALLS.
7. PLYWOOD JOINT AND SILL PLATE NAILING SHALL BE SPACED PER SHEARWALL SCHEDULE AND STAGGERED. SUBFLOOR EDGE NAILING AND SILL NAILING TO BE NAILED INDEPENDENTLY.
8. SHEARWALL SHEATHING SHALL BE NAILED TO NEW OR EXISTING WOOD FRAMING.
9. NEW CONSTRUCTION MAXIMUM STUD SPACING IS 16" OC IF EXISTING FRAMING IS NOT SPACED AT 16" OC, CONTRACTOR SHALL ALERT EOR. STUDS AT ALL EDGES SHALL BE 3x OR 2-PLY 2x
10. HOLDOWN POSTS ARE SPECIFIED ON PLANS AS 4x4 OR LARGER. CONTRACTOR MAY ONLY SUBSTITUTE WITH MULTI-PLY MEMBERS AS SUBSTITUTE WITH EOR PERMISSION.
11. DO NOT USE BOLTED HOLDOWNS. FOR MULTI-STORY SHEARWALLS, HOLDOWNS ARE SPECIFIED AT TOP OF LOWER FLOOR SHEARWALL. IF NOT SPECIFIED, USE SIMILAR HOLDOWN (OR STRONGER) FOR CONTINUOUS LOAD PATH.

ANCHORAGE OPTIONS

1 FOR 1 DIRECT SUBSTITUTIONS BETWEEN STANDARD ¾" A.B., GALV TITEN HD, AND UFP SHEAR TRANSFER



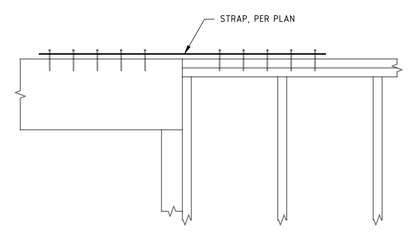
SHEARWALL SCHEDULE

SHEARWALL TYPE[4]	ALLOWABLE SHEAR (SEISMIC) (PLF)	PLYWOOD THICKNESS	NAIL TYPE	EDGE NAIL SPACING (12"OC FN)	A. FASTENER SHEAR TRANSFER OPTIONS			B. CONNECTOR SHEAR[2] TRANSFER OPTIONS				C. FOUNDATION ANCHORAGE SHEAR[3] TRANSFER OPTIONS			
					10d common 16d sinker 16d common	SIMPSON[1] SDS ¼"x4 ½"	SIMPSON[1] SDWS22400	A34	A35	LTP4	LTP5	3x SILL 5/8" A.B.	2x SILL 5/8" A.B.	SIMPSON URFP	SIMPSON FRFP
6	340	15/32" Structural I	10d common 0.148"x3"	6"OC	4"OC	10"OC	16"OC	18"OC	24"OC	20"OC	18"OC	48"OC	48"OC	48"OC	48"OC
4	510			4"OC	3"OC	7"OC	10"OC	12"OC	16"OC	14"OC	12"OC	42"OC	32"OC	32"OC	42"OC
3	665			3"OC	2"OC	5"OC	8"OC	9"OC	12"OC	10"OC	9"OC	32"OC	not allowed	26"OC	32"OC
2	870			2"OC	not allowed	4"OC	6"OC	6"OC	9"OC	8"OC	6"OC	24"OC	not allowed	20"OC	24"OC

TABLE NOTES:
1. RIM MAY BE DF, SP, SPF, HF, 1 ¾" LVL, OR 1 ¾" LSL
2. MAY USE 10d 0.148"x1 ½", 10d 0.148"x2 ½", 10d 0.148"x3", SD9112, SD9212, SD10112, OR SD10212 FASTENERS
3. ⅝" A.B. MAY BE A307 STANDARD ANCHOR BOLT WITH 7" MIN EMBEDMENT OR SIMPSON TITEN HD WITH 4" MIN EMBEDMENT. BOTH CASES REQUIRE 3"x3"x0.229" WASHERS.
4. FOR TYPE 3 AND TYPE 2 SHEARWALLS, STUDS AT EDGE NAILING REQUIRE MIN 3x NOMINAL THICKNESS LUMBER [4x NOMINAL THICKNESS LUMBER RECOMMENDED FOR TYPE 2]

1 SHEARWALL FRAMING

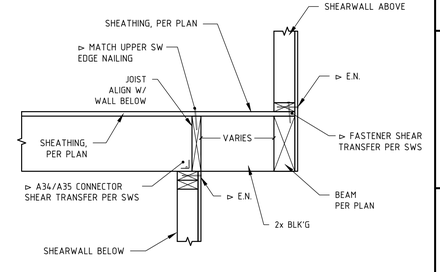
ELEVATION — 1/2" = 1'



NOTE: SURROUNDING FRAMING NOT SHOWN, FOR CLARITY

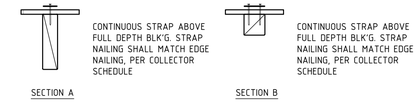
9 STRAP CONNECTION

SECTION — 1/2" = 1'



8 CANTILEVER SHEAR TRANSFER

SECTION — 1" = 1'



10 TYPICAL BLOCK & STRAP COLLECTOR

SECTION — 1" = 1'

FRAMEWORK ENGINEERING
WWW.FRAMEWORKENG.COM
136 BAKER ST
SAN FRANCISCO, CA 94103
415 604-3876
107 SE WASHINGTON ST
PORTLAND, OR 97214
503 343-3095

REGISTERED PROFESSIONAL ENGINEER — 80078 — OREGON — JOHN VOSBEIN — RENEWS: JUNE 30, 20 20

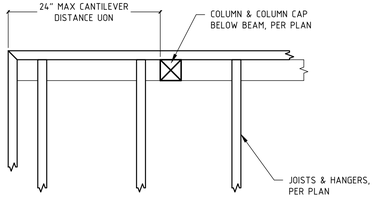
2ND STORY ADDITION

3132 SE 31ST AVE
PORTLAND, OR 97202
APN R298906

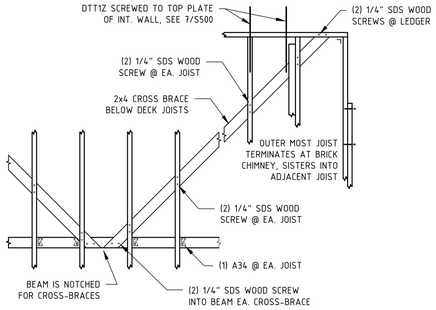
JOB NUMBER	R19-028
PREPARED BY	JV
REVIEWED BY	DM
PERMIT SET	31 JAN 2020

LATERAL DETAILS

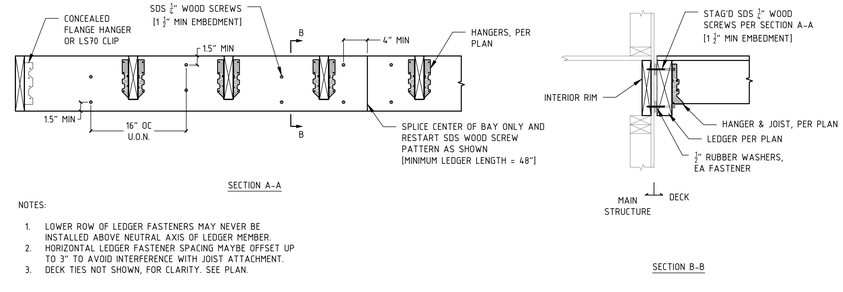
S502



9 TYPICAL DECK FRAMING
PLAN 1" = 1'



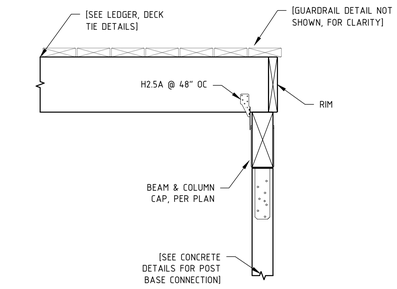
5 DECK CROSS BRACE
PLAN 1/2" = 1'



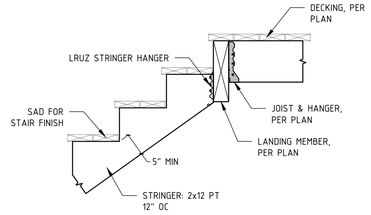
NOTES:

1. LOWER ROW OF LEDGER FASTENERS MAY NEVER BE INSTALLED ABOVE NEUTRAL AXIS OF LEDGER MEMBER.
2. HORIZONTAL LEDGER FASTENER SPACING MAYBE OFFSET UP TO 3" TO AVOID INTERFERENCE WITH JOIST ATTACHMENT.
3. DECK TIES NOT SHOWN, FOR CLARITY. SEE PLAN.

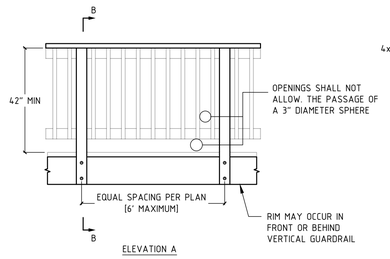
1 TYPICAL LEDGER AT RIM
ELEVATION & SECTION 1" = 1'

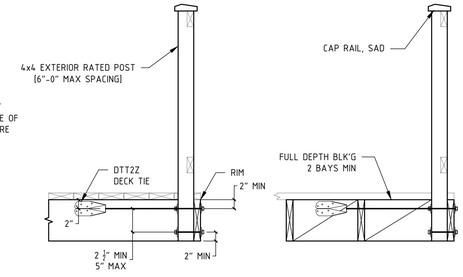


10 TYPICAL DECK FRAMING
SECTIONS 1" = 1'

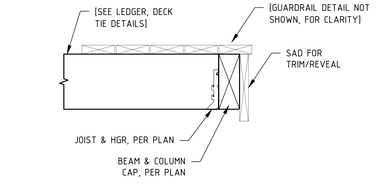


6 TYPICAL DECK STAIR LANDING
SECTION 3/4" = 1'

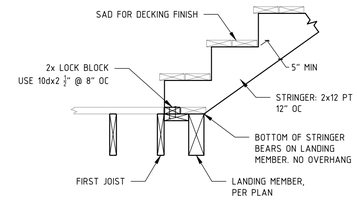




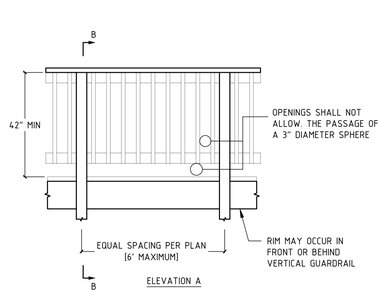
2 TYPICAL DECK GUARDRAIL
ELEVATION & SECTIONS 3/4" = 1'

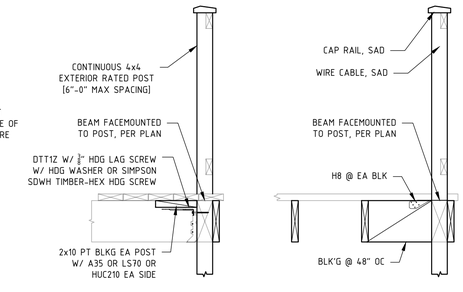


11 TYPICAL DECK FRAMING
SECTIONS 1" = 1'

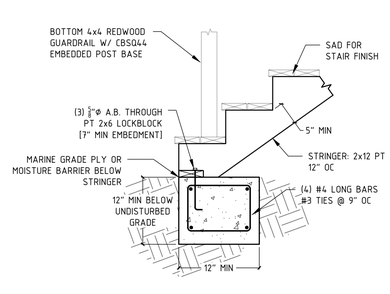


7 TYPICAL DECK STAIR LANDING
SECTION 3/4" = 1'

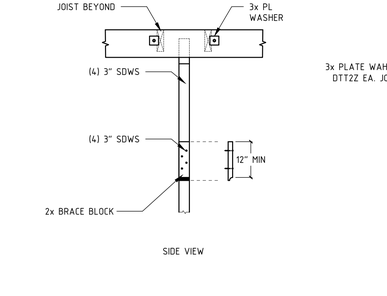


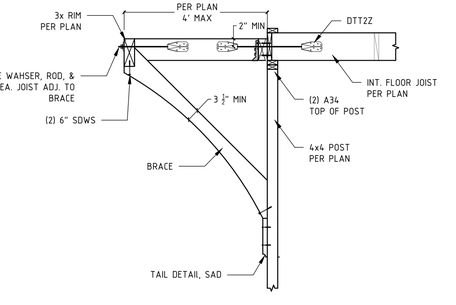


3 CONTINUOUS POST GUARDRAIL
ELEVATION & SECTIONS 3/4" = 1'



8 STAIR LANDING
SECTION 3/4" = 1'





4 DECK BRACE
ELEVATION NO SCALE

FRAMEWORK ENGINEERING
WWW.FRAMEWORKENG.COM
136 BAKER ST
SAN FRANCISCO, CA 94103
415 604-3876
107 SE WASHINGTON ST
PORTLAND, OR 97214
503 343-3075

REGISTERED PROFESSIONAL ENGINEER
80078
OREGON
JOHN VOEKEL
RENEWS: JUNE 30, 20 20

2ND STORY ADDITION

3132 SE 31ST AVE
PORTLAND, OR 97202
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JOB NUMBER	R19-028
PREPARED BY	JV
REVIEWED BY	DM
PERMIT SET	31 JAN 2020

DECK DETAILS

S503