ABBREVIATIONS

AB	ANCHOR BOLT	GB	GRADE BEAM	PTDF	PRESSURE TREATED DOUGLAS FIR
ABV	ABOVE	GLB	GLUE LAMINATED BEAM	PT	POINT
AC	AIR CONDITIONING	GR	GRADE	R	RADIUS
ADJ	ADJACENT	HD	HOLD DOWN	RBS	REDUCED BEAM SECTION
ADDL	ADDITIONAL	HDG	HOT-DIP GALVANIZED	RFTR	RAFTER
ALT	ALTERNATE	HDR	HEADER	REF	REFERENCE
ALUM	ALUMINUM	HGR	HANGER	REINF	REINFORCING
ARCH	ARCHITECT	HK	HOOK	REQD	REQUIRED
@	AT	HORIZ	HORIZONTAL	RET	RETAINING
BLDG	BUILDING	HS	HIGH STRENGTH	REV	REVISION
BLK/BLKG	BLOCK/BLOCKING	HSB	HIGH STRENGTH BOLT	RF	ROOF
BLW	BELOW	HSFB	HIGH STRENGTH FRICTION BOLT	RWD	REDWOOD
BM	BEAM	HSG	HIGH STRENGTH GROUT	S	AMERICAN STANDARD BEAM
BN	BOUNDARY NAIL	HSH	HORIZONTAL SLOTTED HOLE	SAD	SEE ARCHITECTURAL DRAWINGS
BOT	BOTTOM	HSS	HOLLOW STRUCTURAL SECTION	SB	SOLID BLOCK
BRG	BEARING	HT	HEIGHT	SC	SLIP CRITICAL
BTWN	BETWEEN	ID	INSIDE DIAMETER	SCBF	SPECIAL CONCENTRIC BRACED FRAME
BU	BUILT-UP	IJ	I SHAPED WOOD BUILT UP TRUSS	SCD	SEE CIVIL DRAWINGS
BYND	BEYOND	INT	INTERIOR	SCHED	SCHEDULE
C	AMERICAN STANDARD CHANNEL	JST	JOIST	SED	SEE ELECTRICAL DRAWINGS
CANT	CANTILEVER	JT	JOINT	SEOR	STRUCTURAL ENGINEER OF RECORD
CB	CARRIAGE BOLT	KP	KING POST	SFRS	SEISMIC FORCE RESISTING SYSTEM
CIP	CAST IN PLACE	Lb or #	POUND(s)	SHTG	SHEATHING
CGL	CERTIFIED GLUED LUMBER	LGMF	LIGHT GAGE METAL PENETRATION FRAMING	SIM	SIMILAR
CJ	CONTROL JOINT	LGMFC	LIGHT GAGE METAL FRAMING CONTRACTOR	SKYLT	SKYLIGHT
℄	CENTERLINE	LL	LIVE LOAD	SMF	SPECIAL MOMENT FRAME
CJP	COMPLETE JOINT PENETRATION	LLH	LONG LEG HORIZONTAL	SMS	SHEET METAL SCREW
CLG	CEILING	LLV	LONG LEG VERTICAL	SMD	SEE MECHANICAL DRAWINGS
CLR	CLEAR	LOC	LOCATION	SOG	SLAB ON GRADE
COL	COLUMN	LS	LAG SCREW	SPCG	SPACING
COLL	COLLECTOR	LSL	LAMINATED STRAND LUMBER	SPD	SEE PLUMBING DRAWINGS
CONC	CONCRETE	LVL	LAMINATED VENEER LUMBER	SPEC	SPECIFICATION
CONN	CONNECTION	MAX	MAXIMUM	SQ	SQUARE
CONT	CONTINUOUS	MB	MACHINE BOLT	SS	SELECT STRUCTURAL or STAINLESS STEEL
COORD	COORDINATE/ COORDINATION	MBM	METAL BUILDING MANUFACTURER	STGR	STAGGERED
CMU	CONCRETE MASONRY UNIT	MC	MISCELLANEOUS CHANNEL	STD	STANDARD
CSK	COUNTERSINK	MECH	MECHANICAL	STIFF	STIFFENER
CW	CUT WASHER	MEZZ	MEZZANINE	STL	STEEL
DBL	DOUBLE	MF	MOMENT FRAME	STRUCT	STRUCTURAL
DCW	DEMAND CRITICAL WELD	MFR	MANUFACTURER	SW	SHEAR WALL
DF	DOUGLAS FIR	MIN	MINIMUM	SYM	SYMMETRICAL
DIA or ⌀	DIAMETER	MISC	MISCELLANEOUS	T&B	TOP AND BOTTOM
DIAG	DIAGONAL	MW	MALLEABLE IRON WASHER	T&G	TONGUE AND GROOVE
DIM	DIMENSION	MTL	METAL	THK	THICK
DJ	DOWEL JOINT	NIC	NOT IN CONTRACT	THRD	THREADED
DL	DEAD LOAD	NO or #	NUMBER	THRU	THROUGH
DN	DOWN	NS	NEAR SIDE	TL	TOTAL LOAD
DO	DITTO	NSG	NON-SHRINK GROUT	TN	TOE NAIL
DWG	DRAWING	NTS	NOT TO SCALE	TOC	TOP OF CONCRETE
DWL	DOWEL	OC	CENTER	TOF	TOP OF FRAMING
EA	EACH	OD	OUTSIDE DIAMETER	TOM	TOP OF MASONRY
EE	EACH END	OH	OPPOSITE HAND	TOP	TOP OF PLYWOOD
EF	EACH FACE	OPNG	OPENING	TOS	TOP OF STEEL
ELEC	ELECTRICAL	OPP	OPPOSITE	TOT	TOTAL
ELEV	ELEVATOR/ELEVATION	OW	OTHERWISE	TU	TILT UP
EMBED	EMBEDMENT	OWT	OPEN WEB TRUSS	TYP	TYPICAL
EQ	EQUAL	℘	PLATE or PROPERTY LINE	UNO	UNLESS NOTED OTHERWISE
EQUIP	EQUIPMENT	PA	POST ABOVE	VERT	VERTICAL
ES	EACH SIDE	PDP	POWDER DRIVEN PINS	VIF	VERIFY IN FIELD
EW	EACH WAY	PEN	PLYWOOD EDGE NAIL	VSH	VERTICAL SLOTTED HOLE
EXIST or (E)	EXISTING	PERP	PERPENDICULAR	W	WIDE FLANGE STEEL BEAM
EXP	EXPANSION	PES	POST ABOVE	W/	WITH
EXT	EXTERIOR	PNL	PANEL	W/O	WITHOUT
FDN	FOUNDATION	PJP	PARTIAL JOINT PENETRATION	WD	WOOD
FIN	FINISH	PSF	POUNDS PER SQUARE FOOT	WHS	WELDED HEADED STUD
FG	FINISH GRADE	PSI	POUNDS PER SQUARE INCH	WLD	WELDED
FLI	FERRULE LOOP INSERT	PSL	PARALLEL STRAND LUMBER	WP	WORK POINT/WATERPROOF
FLR	FLOOR	PTB	PANEL TIE BAR	WS	WOOD SCREW
FN	FACE NAIL			WT	WEIGHT
FOC	FACE OF CONCRETE			WTS	WELDED THREADED STUD
FOM	FACE OF MASONRY			WWR	WELDED WIRE REINFORCEMENT
FOS	FACE OF STUD				
FRMG	FRAMING				
FS	FAR SIDE				
FTG	FOOTING				
GA	GAGE or GAUGE				
GALV	GALVANIZED				

G STRUCTURAL SPECIFICATIONS

1 : 1

CONCRETE CONSTRUCTION

1. CONCRETE SHALL BE HARD ROCK CONCRETE AND MEET THE FOLLOWING REQUIREMENTS:

LOCATION	MIN 28-DAY STRENGTH (PSI)	AGGREGATE SIZE	MAX WATER TO CEMENT RATIO[3]	MIN SACKS CEMENTITIOUS MATERIAL PER CUBIC YARD[3]
STRUCTURAL				
INTERIOR SLAB ON GRADE[3]	3,000 (4,000 AT 56 DAYS)	1"x#4	0.45	6.1
FOUNDATIONS	3,000 (DESIGNED FOR 2,500)	1"x#4	0.53	5.0
NON-STRUCTURAL				
LEAN CONC FOR FTG BACKFILL	-	-	-	3.0
EXTERIOR SLAB ON GRADE (WALKS AND PATIOS)	2,500	1"x#4	0.55	4.5

2. CONCRETE MIX DESIGN AND TESTING SHALL MEET THE REQUIREMENTS OF CBC SECTIONS 1705 AND 1903, ACI 318 CHAPTER 5, AND THESE SPECIFICATIONS. CEMENT TO BE IN ACCORDANCE WITH ASTM C150 TYPE II. AGGREGATE TO MEET ASTM C33. FLY ASH TO MEET ASTM C618 CLASS F.
3. CONCRETE MIX DESIGN FOR INTERIOR SLABS ON GRADE TO HAVE 25% TO 35% CLASS F FLY ASH SUBSTITUTED FOR CEMENT AT A POUND-FOR-POUND RATE. REPLACE 200 POUNDS OF SAND WITH 200 POUNDS ¾"(-) AGGREGATE TO REDUCE TOTAL SAND.
4. *CLASS F FLY ASH MAY BE SUBSTITUTED UP TO 25% FOR CEMENT AT A POUND-FOR-POUND RATE,* UNLESS SPECIFIED OTHERWISE. DO NOT USE FLY ASH IN HIGH EARLY STRENGTH CONCRETE.
5. UNDER SLAB VAPOR RETARDER TO BE ASTM E1745 CLASS A; 15 MILS MINIMUM THICKNESS; 0.01 U.S. PERMS MAXIMUM PERMEANCE. INSTALL PER ASTM E1643 AND MANUFACTURER'S RECOMMENDATIONS. PROVIDE "STEGO WRAP VAPOR BARRIER (15MIL)" OR APPROVED EQUIVALENT. RETARDER SHALL EXTEND TO FOOTINGS BUT NOT TO BOTTOM OF FOOTING OR INTO A COLD JOINT.
6. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 OR A706 GRADE 60. BARS #3 AND SMALLER MAY BE ASTM A615 GRADE 40. STEEL SHALL BE KEPT CLEAN AND FREE OF RUST. SECURELY TIE REBAR IN PLACE PRIOR TO CONCRETE PLACEMENT. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO INSTALLATION. WELDED REINFORCING STEEL SHALL BE ASTM A706 OR A615 MEETING CARBON REQUIREMENTS OF AWS D1.4. WELDING SHALL CONFORM WITH AWS D1.4. WELDED WIRE REINFORCEMENT SHALL CONFORM WITH ASTM A185 AND SHALL BE LAPPED 12" MINIMUM.
7. ANCHOR BOLTS - ASTM F1554 GRADE 36 THREADED ROD WITH DOUBLE NUTS OR ASTM A307 HEADED BOLTS. (NO "J" OR "L" BOLTS EXCEPT AT WOOD SILL PLATES). SECURELY TIE ANCHOR BOLTS IN PLACE PRIOR TO CONCRETE POUR.

   MECHANICAL COUPLERS FOR REINFORCING STEEL TO BE "L-SERIES BAR LOCK" BY DAYTON SUPERIOR (ESR-2495) OR EQUAL COUPLER WITH ICC REPORT, UNO.

8. CONCRETE EXPANSION ANCHORS ARE SIMPSON STRONG BOLT 2 (ESR-3037) OR HILTI KWIK BOLT TZ (ESR-1917). CONCRETE SCREW ANCHORS ARE SIMPSON TITEN HD (ESR-2713) OR HILTI KH-EZ (ESR-3027). CONCRETE EPOXY DOWEL ADHESIVE IS SIMPSON SET-XP (ESR-2508) OR HILTI HIT-RE 500-SD (ESR-2322). CONCRETE INSERTS AND FERRULE LOOP INSERTS ARE BY BURKE CONCRETE
9. COMPANY.

WOOD CONSTRUCTION (CARPENTRY)

1. EACH PIECE OF LUMBER SHALL BEAR THE STAMP OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) OR WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) SHOWING GRADE MARK OR APPROVED EQUAL. BEAMS AND POSTS TO BE FREE OF HEART CENTER (FOHC). OTHER MATERIALS SHALL BE AS SHOWN BELOW:

SAWN LUMBER MEMBER	SPECIES AND MINIMUM GRADE, UNO	F_b (PSI)	F_v (PSI)	E (PSI)
6x POSTS	DOUGLAS FIR - #1	1200	170	$1.6x10^6$
6x BEAMS	DOUGLAS FIR - #1	1350	170	$1.6x10^6$
4x POSTS & BEAMS	DOUGLAS FIR - #1	1000	180	$1.7x10^6$
2x JOISTS, RAFTERS	DOUGLAS FIR - #2	900	180	$1.6x10^6$
℘ MATERIAL	DOUGLAS FIR - #2	900	180	$1.6x10^6$
2x STUDS ≤ 10' HEIGHT	DOUGLAS FIR - #2	700	180	$1.4x10^6$
2x STUDS > 10' HEIGHT	DOUGLAS FIR - #2	900	180	$1.6x10^6$

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT THE MAXIMUM MOISTURE CONTENT OF WOOD AT THE TIME OF INSTALLATION SHALL BE NOT MORE THAN 19%.
3. NAILS TO BE OF COMMON WIRE WHERE NAILING IS SPECIFIED ON THE DRAWINGS. 16d SINKER NAILS 0.148 x 3¼" MAY BE SUBSTITUTED FOR 16d COMMON NAILS UNO. PRE-DRILL NAIL HOLES WHERE WOOD TENDS TO SPLIT. NAILS AS SPECIFIED ON PLANS AND INCLUDING IN PTDF MATERIAL CONTAINING AMMONIA IN EXTERIOR APPLICATIONS SHALL BE TYPE 304 OR 316 STAINLESS STEEL. NAILS USED IN EXTERIOR APPLICATIONS OR IN INTERIOR PTDF SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153.
4. METAL FRAMING CLIPS, HANGERS, ETC. ARE BY SIMPSON STRONG-TIE. NAILING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS WITH A NAIL PROVIDED FOR EACH PUNCHED HOLE UNO. CONNECTORS AS SPECIFIED ON PLANS AND THOSE IN CONTACT WITH PTDF MATERIAL CONTAINING AMMONIA IN EXTERIOR APPLICATIONS SHALL BE TYPE 304 OR 316 STAINLESS STEEL. ALL OTHER CONNECTORS USED IN EXTERIOR APPLICATIONS OR INTERIOR PTDF SHALL BE HDG (MINIMUM 2.0 oz/SQ FT) OR ZMAX (MINIMUM 1.85 oz/SQ FT PER ASTM A653). IN APPLICATIONS WHERE NON-AMMONIA TREATED WOOD IS DRY WHEN INSTALLED AND WILL REMAIN DRY IN-SERVICE A COATING THICKNESS OF 0.9 oz/SQ FT MAY BE USED.
5. WOOD SCREWS SHALL CONFORM TO ANSI/ASME B18.6.1. PROVIDE PILOT HOLE 70% OF DIAMETER OF SCREW SHANK WHERE FASTENING HARDWOOD TIMBER SPECIES OR WHERE WOOD TENDS TO SPLIT. MINIMUM PENETRATION IS (10) DIAMETERS, UNO.
6. BOLTS SHALL BE UNFINISHED MACHINE BOLTS PER ASTM A307. NUTS SHALL BE PER ASTM A563 AND OF STANDARD SIZE UNLESS NOTED OTHERWISE. LENGTH OF BOLTS SHALL BE SUCH THAT THE BOLT PROJECTION IS NOT LESS THAN 1/16" NOR MORE THAN ½" PAST END OF NUT. BOLT HOLES IN WOOD SHALL BE 1/32" LARGER THAN BOLT SIZES (UNO). PROVIDE STANDARD CUT WASHERS UNDER HEAD AND NUT WHERE BOLT HEADS WOULD BEAR ON WOOD. USE MALLEABLE IRON WASHERS WHERE EXPOSED TO VIEW OR NOTED. NUTS SHALL BE TIGHTENED WHEN PLACED AND RETIGHTENED BEFORE CLOSING IN OF WALLS OR OTHER CONSTRUCTION. DO NOT CRUSH WOOD WHEN TIGHTENING. BOLTS AS SPECIFIED ON PLANS AND THOSE IN CONTACT WITH PTDF MATERIAL CONTAINING AMMONIA IN EXTERIOR APPLICATIONS SHALL BE TYPE 304 OR 316 STAINLESS STEEL. ALL OTHER BOLTS USED IN EXTERIOR APPLICATIONS SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153.
7. WOOD AGAINST CMU OR CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR (PTDF) PER AWPA STANDARD U1. "USE CATEGORY" UC2 AT INTERIOR. "USE CATEGORY" UC3B AT EXTERIOR (NO GROUND CONTACT).
8. DECKING MATERIAL AND FRAMING EXPOSED TO WEATHER TO BE PTDF AWPA "USE CATEGORY" UC3B OR REDWOOD, SAD.
9. WOOD ADHESIVE SHALL BE WATER-PROOF, CARTRIDGE DISPENSED, MEETING APA PRODUCT SPECIFICATION AFG-01 OR ASTM D3498. LOCTITE "PL PREMIUM" OR EQUAL. FOR USE AT SUBFLOOR SHEATHING AND WHERE SPECIFICALLY NOTED FOR USE ON DRAWINGS.

PLYWOOD/ORIENTED STRAND BOARD (OSB) SHEATHING

1. STRUCTURAL SHEATHING SHALL CONFORM TO PRODUCT STANDARD PS-1 OR PS-2. ALL PANELS SHALL HAVE AN EXTERIOR EXPOSURE RATING AND BEAR THE TRADEMARK OF THE ENGINEERED WOOD ASSOCIATION (APA) OR OTHER QUALIFIED AGENCY. SHEATHING SHEETS SHALL BE SPLICED ALONG CENTERLINE OF FRAMING MEMBER WITH NAILING SPACED NOT LESS THAN ¾" FROM EDGE OF SHEETS. MACHINE-PLACED NAILING AND NAILS TO BE APPROVED BY THE ENGINEER PRIOR TO USE. SHEATHING NAILS OF COMMON WIRE WITH FULL ROUND HEADS ARE REQUIRED.
2. OSB WITH EQUIVALENT THICKNESS AND SPAN RATING MAY BE USED IN LIEU OF PLYWOOD CALLED OUT. ALL OSB SHALL CONFORM TO PS-2.

GLUED-LAMINATED BEAMS

1. ALL GLUED-LAMINATED MEMBERS UNO SHALL BE DOUGLAS FIR, COMBINATION 24F-V4 FOR SIMPLE SPANS; COMBINATION 24F-V8 FOR CONTINUOUS BEAMS AND CANTILEVERS; COMBINATION 3 FOR POSTS AND TRUSS MEMBERS. WHERE NOTED PER PLAN, PROVIDE ALASKAN YELLOW CEDAR (AYC) OR PORT ORFORD CEDAR (POC), COMBINATION 20F-V12 AYC OR 22F-V/POC2 FOR SIMPLE SPANS; COMBINATION 20F-V13 AYC OR 22F-V/POC1 FOR CONTINUOUS BEAMS AND CANTILEVERS; COMBINATION 71 AYC OR 75 POC FOR POSTS AND TRUSS MEMBERS. APPEARANCE TO BE INDUSTRIAL UNLESS NOTED OTHERWISE (SEE ARCHITECTURAL DRAWINGS), MANUFACTURED WITH EXTERIOR GLUE CONFORMING TO CBC SECTION 2303.
2. SUBMIT SHOP DRAWINGS TO ARCHITECT AND ENGINEER FOR REVIEW PRIOR TO FABRICATION. PROVIDE ANSI/AITC CERTIFICATE OF INSPECTION OR EQUIVALENT TO ARCHITECT AND BUILDING DEPARTMENT PRIOR TO ERECTION.

PARALLEL STRAND LUMBER (PSL)

1. PSL SHALL CONFORM TO THE FOLLOWING MINIMUM PROPERTIES:
   E = $2.0x10^6$ PSI
   F_b = 2,900 PSI
   F_c = 2,900 PSI (PARALLEL)
   F_v = 290 PSI

H MATERIAL DATA

CONCRETE 28-DAY ULTIMATE COMPRESSIVE STRENGTH:
F'_c = 3,000 PSI FOUNDATIONS (DESIGNED FOR 2,500 PSI)

REINFORCING STEEL YIELD STRENGTH:
F_y = 40,000 PSI AT #3 AND SMALLER
F_y = 60,000 PSI AT #4 AND LARGER

FASTENERS:
MACHINE BOLTS SHALL BE ASTM A307
HIGH STRENGTH BOLTS SHALL BE ASTM A325 UNO
ANCHOR RODS SHALL BE ASTM F1554 GR 36 UNO
ARC-WELDING ELECTRODES SHALL BE E70

WOOD BASE DESIGN STRESSES (UNO):

SAWN LUMBER MEMBER	SPECIES AND MINIMUM GRADE, UNO	F_b (PSI)	F_v (PSI)	E (PSI)
6x POSTS	DOUGLAS FIR - #1	1200	170	$1.6x10^6$
6x BEAMS	DOUGLAS FIR - #1	1350	170	$1.6x10^6$
4x POSTS & BEAMS	DOUGLAS FIR - #1	1000	180	$1.7x10^6$
2x JOISTS, RAFTERS	DOUGLAS FIR - #1	900	180	$1.7x10^6$
℘ MATERIAL	DOUGLAS FIR - #2	900	180	$1.6x10^6$
2x STUDS	DOUGLAS FIR - #2	900	180	$1.6x10^6$

GLUE-LAMINATED WOOD DESIGN STRESSES:

MANUFACTURED WOOD PRODUCTS:

FOR METAL CONNECTOR DESIGNATION REFER TO SIMPSON STRONG-TIE PER SPECIFICATIONS.

E WOOD FRAMING NOTES

1. HEADERS, BEAMS, POSTS, AND ETC., ARE PER **7/S1.2** WHERE NOT NOTED ON PLAN AND DETAILS. WALLS AT SEISMIC SEPARATIONS SHALL BE CONSIDERED EXTERIOR WALLS.
2. ALL BEAMS AND JOISTS (EXCLUDING I JOISTS) SHALL BE SEAT CUT FOR FULL UNIFORM BEARING AT SUPPORTS, INCLUDING BEAM SEATS AND COLUMN CAPS.
3. TYPICAL SHEATHING:
   A. (E) FLAT ROOF SHEATHING (SLOPE 2:12 OR LESS): 15/32" T&G APA RATED SHEATHING (40/20) EXP 1 WITH 8d @ 6"oc EDGES (PEN) AND 12"oc FIELD UNO ON PLANS. LAY PERPENDICULAR TO FRAMING MEMBERS, BLOCK EDGES WITH 2x4 LAID FLAT WHERE NOTED ON THE PLANS AND DETAILS.
4. ALL (E) SHEATHING SHEETS HAVE ⅛" GAP AT ALL EDGES & JOINTS.
5. ALL NAILS SHALL BE COMMON WIRE FULL ROUND HEAD NAILS. MACHINE-DRIVEN NAILS MEETING SIZE REQUIREMENTS ARE ACCEPTABLE. NAIL MUST NOT BE OVERDRIVEN. SEE **15/S1.2** FOR SHEATHING NAILING REQUIREMENTS. ALL NAILING NOT NOTED OR DETAILED OTHERWISE SHALL BE PER **14/S1.2**. NAIL LENGTH TO BE SUFFICIENT TO MEET CBC PENETRATION REQUIREMENTS. NAILS INTO PRESSURE TREATED MATERIAL TO BE HOT DIP GALVANIZED.

WIRE NAIL	MINIMUM SHANK DIAMETER	MINIMUM NAIL LENGTH	TYPICAL NAIL APPLICATION, UNO
16d COMMON	0.162"	3½"	FRAMING
16d SINKER	0.148"	3¼"	FRAMING
10d COMMON	0.148"	3"	FRAMING
10d COMMON	0.148"	2½"	SHEATHING
8d COMMON	0.131"	2½"	SHEATHING

6. SPLICE DOUBLE TOP PLATES PER **1/S1.2** UNO ON PLANS AND DETAILS.
7. STUD WALLS ARE:
   A. EXTERIOR STUD WALLS ARE 2x4 @ 16"oc UNO.
   B. INTERIOR BEARING AND SHEARWALLS ARE 2x4 @ 16"oc UNO.
   C. FOR OTHER INTERIOR WALLS SAD.
   D. COORDINATE STUD AND PLATE SIZES WITH THE REQUIREMENTS OF THE SHEARWALL SCHEDULE ON **F/S0.1**.
8. WOOD POST SIZES ARE TO MATCH BEAM AND STUD WIDTH, UNO. PEN PER **F/S0.1** TO POSTS AT ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS. POSTS AT HOLDOWNS TO BE FULL HEIGHT.
9. ALL MECHANICAL SUPPLY AND RETURN OPENINGS TO BE BETWEEN FRAMING UNO.
10. JOISTS AND RAFTERS ARE PER PLAN, WITH "LU" HANGERS AT FLUSH BEAMS UNO (USE "HU" HANGERS AT SKEWED AND/OR SLOPED CONDITIONS) . HANGER SIZE TO BE CORRECT FULL SIZE FOR JOIST SIZE (I.E. LU210 FOR 2x10). HANGERS FOR PANELIZED ROOF CONSTRUCTION ARE PER PLAN.
11. *PROVIDE ADDITIONAL JOIST BELOW ALL OR ADJACENT TO NON-STRUCTURAL WALLS* PARALLEL TO FRAMING, UNO.
12. ROUND HOLES IN STEEL PLATES TO BE 1/16" OVERSIZE. SLOTTED HOLES IN STEEL PLATES SHALL BE 1/16" WIDER THAN THE BOLT DIAMETER AND HAVE A LENGTH OF 2 TIMES THE BOLT DIAMETER. THE DIRECTION OF THE SLOTTED LENGTH IS INDICATED ON THE DETAILS (VSH OR HSH). INSTALL BOLT AT THE CENTER LINE OF THE HOLE. BOLT HOLES IN WOOD SHALL BE ROUND AND 1/32" OVERSIZE. CUT OFF BOLT THREADED END FLUSH WITH NUT WHEN REQUIRED BY FINISHES AND 1" MAXIMUM FROM NUT OTHERWISE. PROVIDE STANDARD CUT WASHERS UNDER HEAD AND NUT WHERE BOLT BEARS ON WOOD. USE PLATE OR MALLEABLE IRON WASHERS AT EXPOSED CONDITIONS OR AS INDICATED.
13. ALL BOLTED OR NAILED STRAP CONNECTIONS SHALL HAVE AN EQUAL NUMBER OF BOLTS OR NAILS EACH SIDE OF THE SPLICE JOINT. THE FIRST BOLT OR NAIL FROM EACH SIDE OF THE SPLICED OR STRAPPED MEMBER SHALL BE EQUIDISTANT FROM THE SPLICE. STRAPS USING 16d NAILS ON 2x MATERIAL TO BE INSTALLED ON THE 1½" EDGE OF THE MEMBER.
14. THE CONTRACTOR SHALL VERIFY THAT THE MOISTURE CONTENT OF ALL FRAMING LUMBER AND SHEATHING MEET THE REQUIREMENTS OF THE SPECIFICATIONS AT THE TIME OF INSTALLATION AND AT CLOSE-IN. THE CONTRACTOR SHALL PROVIDE ALLOWANCE FOR DIFFERENTIAL SHRINKAGE BETWEEN FLOORS, ETC.
15. VENTING IS REQUIRED IN ENCLOSED FRAMING AREAS, SAD. DRILL BLOCKING AND LEDGERS AND PROVIDE SKIP BLOCKING AS DETAILED.
16. SAD FOR CEILING INFO. WHERE REQUIRED PROVIDE CEILING JOISTS PER **13/S1.2**, UNO.

F EXISTING CONSTRUCTION NOTES

1. ORIGINAL CONSTRUCTION DRAWINGS WERE NOT AVAILABLE FOR REVIEW AT THE TIME THESE DOCUMENTS WERE PREPARED. EXISTING BUILDING CONDITIONS SHOWN ARE ASSUMED BASED ON INFORMATION PROVIDED BY OTHERS AND ASSUMPTIONS BASED ON PROBABLE CONSTRUCTION METHODS. ACTUAL FIELD CONDITIONS MAY VARY
2. ALL WORK NOT INDICATED AS EXISTING (E) SHALL BE ASSUMED TO BE NEW (N).
3. ANY REMOVAL, CUTTING, DRILLING, ETC OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE. SMALL TOOLS SHALL BE USED IN ORDER NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE STRUCTURE. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL ELEMENTS NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE ARCHITECT/ENGINEER SHALL BE IMMEDIATELY NOTIFIED AND PRIOR APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OF THE MEMBERS.
4. DO NOT OVER CUT EXISTING WOOD, CONCRETE, MASONRY OR OTHER WORK TO REMAIN. CUTS SHALL BE MADE NEATLY TO A CORNER, THEN ALTERNATE MEANS SHALL BE USED TO REMOVE REMAINING MATERIAL. CONTRACTOR IS RESPONSIBLE FOR REPAIR/REPLACEMENT OF OVER CUT MATERIAL AS DIRECTED BY THE ARCHITECT AND/OR ENGINEER.
5. EXISTING DAMAGED STRUCTURAL MEMBERS WHICH ARE UNCOVERED SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND REPAIR.
6. *REMODELING REQUIRES ASSUMPTIONS* BE MADE REGARDING EXISTING CONDITIONS WHICH MAY NOT BE VERIFIABLE WITHOUT DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE STRUCTURE. THIS ANALYSIS DOES NOT MAKE ANY GUARANTEE TO THE ADEQUACY OF THE STRUCTURAL DESIGN OF THE EXISTING BUILDING NOT SPECIFICALLY ADDRESSED IN THE STRUCTURAL CALCULATIONS. ZFA SHALL NOT BE RESPONSIBLE FOR UNSATISFACTORY PERFORMANCE OF EXISTING PORTIONS OF THE STRUCTURE NOT SPECIFICALLY ADDRESSED IN THE CONSTRUCTION DOCUMENTS.
7. DIFFERENTIAL SETTLEMENT BETWEEN NEW AND EXISTING CONSTRUCTION AT REMODEL OR ADDITION FOUNDATION INTERFACES CAN BE EXPECTED. ZFA SHALL NOT BE RESPONSIBLE FOR UNSATISFACTORY PERFORMANCE RESULTING FROM THESE CONDITIONS.

A DESIGN CRITERIA

DESIGN CRITERIA: 2016 CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2 (CBC)
FLOOR LIVE LOAD: 40 PSF
ROOF LIVE LOAD: 20 PSF (REDUCIBLE)
RISK CATEGORY: II
WIND DATA: ULTIMATE WIND SPEED (3 SEC GUST) IN MPH: 110
WIND EXPOSURE: C
INTERNAL WIND PRESSURE COEFFICIENT (GCPI) = ±0.18

EARTHQUAKE DATA: SEISMIC IMPORTANCE FACTOR, I_e: 1.0
MAPPED SPECTRAL RESPONSE ACCELERATIONS: S_S = 1.515; S_1 = .689
SITE CLASS: D
SPECTRAL RESPONSE COEFFICIENTS: S_{DS} = 1.010 ; S_{D1} = .689
SEISMIC DESIGN CATEGORY: D
SEISMIC FORCE RESISTING SYSTEM(S): ORDINARY MASONRY WALLS
RESPONSE MODIFICATION FACTOR(S): R = 2.0
ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE

B GENERAL NOTES

1. REFER TO SHEETS S1.1, **S1.2** , AND S1.3 FOR STANDARD DETAILS OF CONSTRUCTION. REFER TO THE PROJECT SPECIFICATIONS FOR MATERIALS AND METHODS.
2. BUILDING DIMENSIONS SHOWN ARE FOR GENERAL REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS (SAD) FOR ALL ACTUAL BUILDING DIMENSIONS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER SO CLARIFICATION CAN BE MADE PRIOR TO COMMENCING WORK. ALL DIMENSIONS RELATED TO EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AND SUBMITTED IN WRITING TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

   STRUCTURAL DRAWINGS SHALL NOT BE SCALED. ALL DIMENSIONS AND FIT SHALL
3. BE DETERMINED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORK.

   DETAILS NOT FULLY OR SPECIFICALLY SHOWN SHALL BE OF SAME NATURE AS OTHER SIMILAR CONDITIONS.

4. STRUCTURAL OBSERVATION PER CBC SECTION 1704.5 IS NOT REQUIRED. NOTIFY ZFA FOR GENERAL REVIEW OF:
   - MINIMUM FOOTING SIZE AND REINFORCING STEEL
5. - RETAINING WALLS AND REINFORCING.
   - WOOD SHEAR WALLS, SHEAR PANELS AND FLOOR/ROOF DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORAGE AND OTHER FASTENING TO

   OTHER COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM.

   NOTIFY ZFA FOR REVIEW PRIOR TO COVERING ABOVE LISTED WORK. PROVIDE 2
6. WORKING DAYS MINIMUM SCHEDULING NOTICE PRIOR TO REVIEW DATE.

C FOUNDATION NOTES

1. FOUNDATION DESIGN PRESSURES ARE PER CBC SECTION 1806.2:

   SHALLOW FOOTINGS:
   DL + LL = 1,500 PSF
   DL + LL + LATERAL = 2,000 PSF

2. ALL SOILS WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE REQUIREMENTS OF CHAPTER 18 OF THE CBC. ALL FOUNDATIONS SHALL BEAR ON FIRM, UNDISTURBED, NATIVE SOILS AT OR EXCEEDING DEPTHS SHOWN ON THE DRAWINGS. INCREASE FILL AND OR FOOTING DEPTH AS REQUIRED. ALL FOOTING EXCAVATIONS SHALL BE AS NEAT AS PRACTICABLE. MAXIMUM OVER EXCAVATION IN WIDTH SHALL BE LESS THAN 12 INCHES OR 25% OF FOOTING WIDTH, WHICH EVER IS LESS. 6 INCHES MAXIMUM PER SIDE. LARGER OVER-EXCAVATIONS IN WIDTH SHALL BE FILLED WITH ADDITIONAL REINFORCED CONCRETE AS DIRECTED BY THE ENGINEER. OR FORMWORK SHALL BE PROVIDED. OVER-EXCAVATIONS IN DEPTH MAY BE FILLED WITH LEAN CONCRETE OR COMPACTED APPROVED BACKFILL. ALL LOOSE SOILS SHALL BE REMOVED FROM EXCAVATIONS PRIOR TO PLACEMENT OF REINFORCING OR CONCRETE.

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TENANT IMPROVEMENT

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