

GENERAL NOTES

1. ALL CONSTRUCTION, INCLUDING MATERIAL AND WORKMANSHIP, SHALL CONFORM TO THE PROVISIONS OF THE 2025 EDITION OF THE "CALIFORNIA BUILDING CODE" (CBC) WITH THE GOVERNING AGENCY AMENDMENTS, AND STANDARDS REFERENCED THEREIN, WHERE EVER CODE OR CALIFORNIA BUILDING CODE (CBC) IS REFERENCED IN THE FOLLOWING GENERAL NOTES OR OTHER NOTE. SECTIONS, IT SHALL IMPLY THE CBC CODE WITH GOVERNING AGENCY AMENDMENTS.

ALL ASTM STANDARDS LISTED HEREIN, SHALL BE CURRENT AND COMPLIANT TO 2025 CBC, CHAPTER 35.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE DESIGNER AND STRUCTURAL ENGINEER SHALL IMMEDIATELY BE NOTIFIED, IN WRITING, OF ANY DISCREPANCIES.

4. ALL OMISSIONS AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE FIELD INSPECTOR, AND A SOLUTION GIVEN BY THE DESIGNER AND STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH ANY WORK AFFECTED BY THE CONFLICT OR OMISSION.

5. IN CASE OF CONFLICT, NOTES AND DETAILS OF THESE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE "GENERAL NOTES" AND/OR "STANDARD DETAILS". TYPICAL DETAILS SHALL BE USED WHENEVER APPLICABLE.

6. IF A SPECIFIC DETAIL IS NOT SHOWN FOR ANY PART OF THE WORK, THE CONSTRUCTION SHALL BE THE SAME AS FOR SIMILAR WORK.

7. WORKING DIMENSIONS SHALL NOT BE SCALED FROM PLANS, SECTIONS OR DETAILS ON THESE STRUCTURAL DRAWINGS.

8. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE ERECTION SHORING AND BRACING AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION.

9. PIPES, DUCTS, SLEEVES, OPENINGS, POCKETS, CHASES, BLOCK-OUTS, ETC., SHALL NOT BE PLACED IN SLABS, BEAMS, GIRDERS, COLUMNS, WALLS, FOUNDATIONS, ETC., NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR SUCH ITEMS, UNLESS SPECIFICALLY DETAILED ON THESE STRUCTURAL DRAWINGS. (IF ANY PIPES, DUCTS, ETC., DO OCCUR, THAT ARE NOT SHOWN ON THESE STRUCTURAL DRAWINGS, THE CONTRACTOR AND STRUCTURAL ENGINEER SHALL BE NOTIFIED.) SEE PARAGRAPH 4, ABOVE.

ANCHOR BOLTS OR INSERTS FOR EQUIPMENT ANCHORAGE OR INSTALLATION SHALL BE DESIGNED FOR SEISMIC CATEGORY D BY A CIVIL ENGINEER OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA AND SHALL BE SHOWN ON THE MECHANICAL OR ELECTRICAL SHOP DRAWINGS.

11. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE STRUCTURAL ENGINEER FREE AND HARMLESS FROM ALL CLAIMS, DEMANDS AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE STRUCTURAL ENGINEER.

IF ANY SUBSTITUTION IS PROPOSED BY THE CONTRACTOR, NEW CALCULATIONS MAY HAVE TO BE PREPARED, THE DETAILS MAY HAVE TO BE ALTERED, AND NEW DRAWINGS MAY HAVE TO BE SUBMITTED TO THE BUILDING DEPARTMENT. THE CONTRACTOR SHALL PAY THE STRUCTURAL ENGINEER'S FEES TO ALTER THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO PROCESS THE REVISED PLANS REFLECTING ALL SUBSTITUTIONS THROUGH THE APPROPRIATE OFFICE OF ALL GOVERNING AGENCIES.

WOOD NOTES

1. SAWN WOOD MEMBERS SHALL BE DOUGLAS FIR-LARCH (U.N.O.), CONFORM TO THE "CALIFORNIA BUILDING CODE" (CBC) SEC. 2303, AND NDS 2018 AND SHALL BE GRADE MARKED BY AN ACCREDITATION BODY THAT COMPLIES WITH DOC PS 20 OR EQUIVALENT.

2. WOOD GRADES, U.N.O., SHALL BE AS FOLLOWS:

MEMBERS	GRADE	CONSTRUCTION
WALLS 2 X 4 (8'-0")		#2
WALLS 2 X 4 (8'-1" TO 12'-0")		#2
WALLS 2 X 4 (12'-0" TO 16'-0")		#2
STRUCTURAL JOISTS AND PLANKS (2x)		#2
BEAMS (4x)		#2
BEAMS (6x) AND STRINGERS		#1
POSTS AND TIMBERS		#1
TOP PLATE		MATCH WALL MEMBERS

3. ALL WOOD THAT REST ON EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" FROM EXPOSED EARTH, ALL WOOD ATTACHED DIRECTLY TO INTERIOR OR EXTERIOR MASONRY OR CONCRETE WALLS BELOW GRADE, AND ALL WOOD SLEEPERS AND SILLS ON CONCRETE THAT IS IN DIRECT CONTACT WITH EARTH SHALL BE PRESERVATIVE-TREATED DOUGLAS FIR.

4. ALL SILLS OR PLATES BEARING ON CONCRETE OR MASONRY SHALL HAVE ANCHOR BOLTS.

- EMBEDDED AT LEAST 7" INTO CONCRETE OR MASONRY.
- SPACED NOT MORE THAN 6" APART.
- PLACED A MIN. OF 4" AND A MAX. OF 12" FROM EACH END. A MINIMUM OF TWO BOLTS PER PIECE.
- E. SIZE AND SPACED AS SHOWN ON THE DRAWINGS.

5. WOOD STRUCTURAL PANELS SHALL CONFORM TO THE "CALIFORNIA BUILDING CODE" (CBC) SEC. 2303, AND SHALL CONFORM TO THE REQUIREMENTS FOR THEIR TYPE IN DOC PS 1 OR PS2. EACH PANEL SHALL BE IDENTIFIED FOR GRADE AND GLUE TYPE BY THE TRADEMARKS OF AN APPROVED TESTING AND GRADING AGENCY. WOOD STRUCTURAL PANELS THAT ARE PERMANENTLY EXPOSED IN OUTDOOR APPLICATIONS SHALL BE OF EXTERIOR TYPE (U.N.O.). ALL WOOD STRUCTURAL PANELS SHALL BE OF THE FOLLOWING GRADES AND PANEL IDENTIFICATION INDEXES (U.N.O. ON DRAWINGS):

USE	GRADE	IDENTIFICATION INDEX
ROOF SHEATHING	OSB	240
FLOOR SHEATHING	APA	49/24
SHEAR PANEL	OSB (U.N.O.)	240

6. GLUED-LAMINATED TIMBERS SHALL BE MANUFACTURED AND IDENTIFIED AS REQUIRED IN ATC A190.1 AND ASTM D 3737, USING DOUGLAS FIR INDUSTRIAL APPEARANCE GRADE WOOD AND EXTERIOR GLUE WITH INTENDED DRY USE CONDITION AND USE SHALL BE AS FOLLOWS:

COMBINATION NO.	USE
24F-V4	SIMPLE SPANS
24F-V8	CANTILEVERS

7. FRAMING ANCHORS, POST CAPS, COLUMN BASES, AND OTHER CONNECTORS SPECIFIED ON DRAWINGS SHALL BE AS MANUFACTURED BY "SIMPSON COMPANY" OR AN ENGINEER-APPROVED EQUAL.

8. BARS, PLATES, UNHEADED BOLTS, WASHERS AND DRIFT BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36.

9. BOLTS SHALL CONFORM TO ASTM A307. BOLTS IN PRESSURE TREATED WOOD SHALL BE HOT DIPPED ZINC-COATED GALVANIZED STEEL PER ASTM A 153 OR MECHANICALLY DEPOSITED ZINC COATING WITH WEIGHTS PER ASTM B 695, CLASS 55.

10. NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A563, GRADE A.

11. ALL BOLT HEADS, NUTS, AND LAG SCREWS BEARING ON WOOD SHALL HAVE CUT WASHERS UNLESS NOTED.

12. BOLT HOLES SHALL BE DRILLED A MAXIMUM OF 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER. BOLT HOLES SHALL BE ACCURATELY ALIGNED AND NOT FORCIBLY DRIVEN.

13. SPECIAL CONNECTORS FOR CONNECTING WOOD OR GLUED LAMINATED TIMBER SHALL BE FABRICATED FROM STEEL CONFORMING TO ASTM A36. WELDS SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1-15.

WOOD NOTES (cont.)

14. DIAPHRAGM NAILING SHALL CONFORM TO CBC WITH NOMENCLATURE DEFINED AS FOLLOWS:

BN =	NAILING AT DIAPHRAGM BOUNDARIES, CONTINUOUS PANEL EDGES, AND AT EDGES OF OPENING.
EN =	EDGE NAILING
FN =	FIELD NAILING

15. WHERE DIAPHRAGM BLOCKING IS SPECIFIED, USE 2 X 4 FLAT BLOCKING (WITH "Z" CLIPS), (U.N.O.)

16. SIMPLE SPAN WOOD MEMBERS, NOT SHOP CAMBERED, SHALL BE ERECTED WITH THE NATURAL CAMBER UP. FOR CANTILEVERED WOOD MEMBERS, CONSULT WITH ENGINEER.

17. LEAD HOLES FOR LAG SCREWS IN WOOD SHALL BE BORED AS FOLLOWS:

FOR SHANK:	SAME DIAMETER AND LENGTH AS UNTHREADED SHANK
FOR THREADED PORTION:	60% TO 75% OF SHANK DIAMETER & LENGTH EQUAL TO THE THREADED PORTION.

18. SPECIAL PROVISIONS FOR SHEAR WALLS WITH PLYWOOD ON BOTH SIDES WHERE SPECIFICALLY INDICATED ON PLANS

- SILL PLATE SHALL BE 3x6 P.T.D.F.
- ALL STUDS AND BLOCKING AT PANEL EDGES SHALL BE 4x6.
- ALL OTHER INTERMEDIATE STUDS SHALL BE 3x6 @ 16" O.C.
- END POSTS SHALL BE AS SPECIFIED ON THE DRAWINGS.
- BOTH VERTICAL AND HORIZONTAL INTERIOR PANEL JOINTS ON OPPOSITE SIDES OF THE WALL SHALL BE STAGGERED.
- THE PLYWOOD ON ONE SIDE MUST BE NAILED BEFORE THE FRAME INSPECTION. THE PLYWOOD ON THE OTHER SIDE MUST BE INSTALLED AND INSPECTED PRIOR TO INSTALLATION OF WALL SURFACE COVERING.
- NO PENETRATIONS OR NOTCHES ARE PERMITTED OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS.

19. PROVIDE DOUBLE STUD TO SUPPORT ALL BEAMS UNLESS POSTS ARE SPECIFIED.

20. DOUBLE BLOCK UNDER ALL POSTS.

21. DOUBLE JOIST UNDER ALL PARALLEL PARTITIONS U.N.O.

22. TOP PLATES OF ALL WOOD STUD WALLS SHALL BE 2 X 2 (SAME WIDTH AS STUDS), LAP 48" (MIN.), WITH AT LEAST 36-16d NAILS AT EACH SIDE OF LAP AND NOT MORE THAN 12" BETWEEN.

23. CUTTING, NOTCHING, OR DRILLING OF BEAMS OR JOISTS SHALL BE PERMITTED ONLY AS DETAILED AND/OR APPROVED BY THE ENGINEER.

24. MOISTURE CONTENT OF WOOD AT TIME OF PLACEMENT SHALL NOT EXCEED 19%.

25. PROVIDE "MTC28" STRAPS ACROSS ALL DISCONTINUOUS TOP PLATES.

26. THE NUMBER AND SIZE OF FASTENERS CONNECTING WOOD MEMBERS SHALL NOT BE LESS THAN THE FOLLOWING TABLE.

FASTENING SCHEDULE (TABLE 2304.10.2)			
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			
Item	DESCRIPTION OF BUILDING ELEMENT(S)	NUMBER & TYPE OF FASTENER ^{a,b,c}	SPACING OF FASTENERS
ROOF			
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2-12"x0.135")	--
2	Ceiling joists to plate, toe nail	3-8d (2-12"x0.135")	--
3	Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d	--
4	Collar tie rafter, face nail or 1-1/4"x20 gage ridge strip	3-10d (3"x0.128")	--
5	Rafter to plate, toe nail	2-16d (3-12"x0.135")	--
6	Roof rafters to ridge, valley or hip rafters	4-16d (3-12"x0.135")	--
7	Roof rafter to ridge, valley or hip rafters	3-16d (3-12"x0.135")	--
WALL			
7	Build-up corner studs	10d (3"x0.128")	24" o.c.
8	Build-up header, two pieces with 1/2" spacer	16d (3-12"x0.135")	16" o.c. along edge
9	Continued header, two pieces	16d (3-12"x0.135")	16" o.c. along edge
10	Continuous header to stud, toe nail	4-8d (2-12"x0.135")	--
11	Double studs, toe nail	10d (3"x0.128")	24" o.c.
12	Double top plates, face nail	10d (3"x0.128")	24" o.c.
13	Double top plates, minimum 48" offset of end joints, face nail in lap	8-16d (3-12"x0.135")	--
14	Side plate to post or blocking, face nail	16d (3-12"x0.135")	16" o.c.
15	Side plate to post or blocking at braced wall panels	3-16d (3-12"x0.135")	16" o.c.
16	Stud to sole plate, toe nail	3-8d (2-12"x0.135") or 2-16d (3-12"x0.135")	--
17	Top or sole plate to stud, end nail	2-16d (3-12"x0.135")	--
18	Top plates, laps at corners and intersections, face nail	2-10d (3"x0.128")	--
19	1" brace to each stud and plate, face nail	2-8d (2-12"x0.135") 2 staples 1-3/4"	--
20	1"x6" sheathing to each bearing, face nail	2-8d (2-12"x0.135") 2 staples 1-3/4"	--
21	1"x8" sheathing to each bearing, face nail	2-8d (2-12"x0.135") 3 staples 1-3/4"	--
22	Wider than 1"x8" sheathing to each bearing, face nail	3-8d (2-12"x0.135") 4 staples 1-3/4"	--
FLOOR			
23	Joist to sill or girder, toe nail	3-8d (2-12"x0.135")	--
24	1"x6" subfloor or less to each joist, face nail	2-8d (2-12"x0.135")	--
25	2" subfloor to joist or girder, blind and face nail	2-16d (3-12"x0.135")	--
26	Rim joist to plate, toe nail (roof application also)	8d (2-12"x0.135")	6" o.c.
27	2" planks (joist to plank - floor and roof)	2-16d (3-12"x0.135")	At each bearing
28	Build-up girders and beams, 2-inch lumber layers	10d (3"x0.128")	Nail each layer: 32" o.c. at top and bottom and staggered. Two nails at ends and all each splice
29	Ledge strip supporting joists or rafters	3-16d (3-12"x0.135")	--

Item	Description of Building Materials	Description of Fasteners ^{a,b,c}	Edges (inches)	Intermediate supports (inches) ^d
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particle board wall sheathing to framing				
30	3/8" - 1/2"	8d common (2-12"x0.135") nail (subfloor, wall) 8d common (2-12"x0.135") nail (roof)	6	12"
31	5/16" - 1/2"	8d common (2-12"x0.135") nail (subfloor, wall) 8d common (2-12"x0.135") nail (roof)	7	12"
32	1/2" - 1"	8d common nail (2-12"x0.135")	8	12"
33	1-1/8" - 1-1/4"	10d common (3"x0.148") nail or 8d (2-12"x0.135") deformed nail	9	12"
Other wall sheathing				
34	1/2" structural cellulose fiberboard sheathing	1/2" galvanized roofing nail, 7/16" crown or 1" crown staple 16ga. - 1-1/4" long	3	6
35	25/32" structural cellulose fiberboard sheathing	1-3/4" galvanized roofing nail, 7/16" crown or 1" crown staple 16ga. - 1-1/2" long	3	6
36	1/2" gypsum sheathing	1-1/2" galvanized roofing nail, staple galvanized, 1-1/2" long, 1-1/4" screws, Type W or S	7	7
37	5/8" gypsum sheathing	1-3/4" galvanized roofing nail, staple galvanized, 1-5/8" long, 1-1/4" screws, Type W or S	7	7
Wood structural panels, combination subfloor underlayment to framing				
38	3/4" and less	6d deformed (2-12"x0.127") nail or 8d common (2-12"x0.135") nail	6	12
39	7/8" - 1"	8d common (2-12"x0.135") nail or 8d deformed (2-12"x0.127") nail	6	12
40	1-1/8" - 1-1/4"	10d common (3"x0.148") nail or 8d deformed (2-12"x0.127") nail	6	12

- a. All nails are smooth-conform, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown. 50ksi for shank diameter of 0.132 inch (50d common nail), 50ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, 100ksi for shank diameter of 0.142 inch or less.
- b. Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown with.
- c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
- d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.
- e. Spacing of fasteners not included in this table shall be based on Table S602.3(2).
- f. For regions having basic wind speed of 110 mph or greater, 8d deformed (2-12"x0.127") nails shall be used for attaching plywood and wood structural panel roof sheathing to framing within minimum 48-inch distance from gable end walls, if mean roof height is more than 25 feet, up to 35 feet maximum.
- g. For regions having basic wind speed of 100 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall and framing shall be spaced 6 inches on center. When basic wind speed is greater than 100 mph, nails for attaching wood structural panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from ridges, eaves and gable end walls, and 4 inches on center to gable end wall framing.
- h. Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with CA 253. Fiberboard sheathing shall conform to ASTM C 208.
- i. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.

STRUCTURAL STEEL NOTES

1. THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH AISC 360-16.

2. ALL STRUCTURAL STEEL TO BE THE FOLLOWING:

W SHAPES:	ASTM A992, Fy = 50ksi
HSS SHAPES (RECTANGULAR)	ASTM A500 GRADE B, Fy = 46ksi
HSS SHAPES (ROUND):	ASTM A500, GRADE B, Fy = 42ksi
PIPE SHAPES:	ASTM A53, GRADE B, Fy = 55ksi
ALL OTHER STEEL:	ASTM A36, Fy = 36 ksi

3. ALL STRUCTURAL WELDS TO BE THE FOLLOWING:

E70 SERIES-TYP.

E90 SERIES FOR A615 GRADE 60 REINFORCING BARS

4. ALL STRUCTURAL WELDING SHALL BE DONE IN AN APPROVED FABRICATING SHOP. IN ABSENCE OF AN APPROVED FABRICATING SHOP, STRUCTURAL WELDING SHALL BE DONE UNDER THE SUPERVISION OF A CERTIFIED SPECIAL INSPECTOR. (CBC 1705.2.2)

5. FIELD WELDING TO HAVE CONTINUOUS SPECIAL INSPECTION.

REINFORCING STEEL NOTES

1. BAR REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615. THE FOLLOWING GRADES SHALL BE USED:

GRADE 40 -	#3 AND SMALLER
GRADE 60 -	#4 AND LARGER

2. DETAILS OF REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-19 CH. 7 AND OTHER SECTIONS ACCORDING TO APPLIC.

3. LAPS AT BAR SPLICES IN CONC. CONSTRUCTION SHALL BE AS FOLLOWS:

BAR SIZE	TOP BARS (CLASS B)		OTHER THAN TOP BARS (CLASS B)	
	f _c = 2500	f _c = 3000	f _c = 2500	f _c = 3000
#5	30	27	24	21
#6	35	33	28	25
#7	40	38	32	29
#8	45	43	36	33

4. LAPS AT BAR SPLICES IN MASONRY CONSTRUCTION SHALL BE 48 BAR DIAMETERS BUT NOT LESS THAN 2'-0".

5. VERTICAL REINFORCEMENT SHALL BE TIED OR OTHERWISE FIXED IN POSITION AT THE TOP AND BOTTOM AND AT INTERMEDIATE LOCATIONS, SPACED NOT GREATER THAN 48" O.C..

6. WELDED STEEL WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A185. 12" LAPS OF WELDED STEEL WIRE FABRIC AT SPLICES ARE REQ'D.

7. WALLS, PILASTERS, AND COLUMNS SHALL BE DOWELED TO THE SUPPORTING FOOTINGS WITH REINFORCEMENT OF THE SAME SIZE, GRADE AND AT THE SAME SPACING AS THE VERTICAL REINFORCEMENT IN THE WALLS, PILASTERS, OR COLUMNS (U.N.O.)

8. BAR SUPPORTS SHALL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF "BAR SUPPORT SPECIFICATIONS" AS CONTAINED IN THE LATEST EDITION OF THE "MANUAL OF STANDARD PRACTICE" BY THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).

9. REINFORCING STEEL DETAILING, BENDING AND PLACING SHALL BE IN ACCORDANCE WITH THE "CONCRETE REINFORCING STEEL INSTITUTE 'MANUAL OF STANDARD PRACTICE', LATEST EDITION.

10. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE BEFORE PLACING CONCRETE OR GROUT.

11. WELDING OF REINFORCING BARS SHALL CONFORM TO "STRUCTURAL WELDING CODE-REINFORCING STEEL", ANSI/AWS D14.4 OF THE A.W.S.

12. WELDING OF ALL REINFORCING STEEL TO STRUCTURAL STEEL SHALL BE LIMITED TO THOSE AREAS SPECIFICALLY SHOWN ON THE PLANS. ANY OTHER WELDING SHALL REQUIRE THE APPROVAL OF THE GOVERNING AGENCY, FIELD INSPECTOR, AND STRUCTURAL ENGINEER.

13. WELDING OF CROSSING BARS AND TACK WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED.

14. ALL WELDS SHALL, IN ADDITION, TO ALL THE SPECIFICATIONS LISTED ABOVE, COMPLY WITH THE REQUIREMENTS OF THE 14th EDITION OF THE "STEEL CONSTRUCTION MANUAL" AS PUBLISHED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

DESIGN CRITERIA

VERTICAL		(CBC 2025)	
ROOF DL =	20 PSF	FLOOR DL =	N/A
ROOF LL =	20 PSF	FLOOR LL =	N/A
DECK DL =	N/A	EXT. WALL DL =	14 PSF
DECK LL =	N/A	INT. WALL DL =	10 PSF
SEISMIC		(EQV. LATERAL FORCE PROCEDURE)	
SEISMIC DESIGN CAT. = "D"		SITE CLASSIFICATION = "D" (DEFAULT)	
LFRS TYPE = BEARING WALL		IMPORTANCE FACTOR = 1.00 RISK CATEGORY: II	
R = 6.5 (WOOD SHEAR WALL)	C(s) = 0.132	OMEGA = 2.50	
S(s) = 1.50	F(s) = 1.20	S(ds) = 1.20	
S(1) = 0.60	F(1) = 1.70	S(d1) = 0.68	
WIND			
(ASCE 7-16, SECTION 28; ENVELOPE PROCEDURE)			
ULT. WIND SPEED = 96 MPH NOMINAL WIND VELOCITY = 85 MPH		IMPORTANCE FACTOR = 1.00	
WIND EXPOSURE = C		INT. PRESSURE COEFF. = 0.18	
K _z = 1.0 TOPOGRAPHIC FACTOR		K _d = 0.85 DIRECTIONALITY FACTOR	
C&C PRESSURE = XX		RISK CATEGORY: II	
SOIL			
ACTIVE PRESSURE (LEVEL) = N/A		PASSIVE PRESSURE = XX	
ACTIVE PRESSURE (SLOPE) = N/A		COEFF. OF FRICTION = XX	
ACTIVE PRESSURE (REST.) = N/A		SOIL BEARING PRESSURE = 1,500 PSF	
THE FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL INVESTIGATION AND SOIL REPORT AS SUBMITTED BY:			
PER : N/A			
PROJECT NO. : N/A			
DATE : N/A			

MASONRY NOTES

1. MASONRY UNITS SHALL CONFORM TO ASTM C90 HOLLOW CORE, NORMAL WEIGHT, f_m = 1500 psi (U.N.O.). ALL UNITS SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH ASTM C140.

2. MORTAR SHALL BE TYPE 'S' AND CONFORM TO ASTM C270 AND TABLE SC-1 AND SC-2 OF TMS 402-16. THE MINIMUM STRENGTH SHALL BE 1,800 psi AT 28 DAYS. THE BED JOINTS SHALL NOT EXCEED 1/2" THICK.

3. GROUT SHALL CONFORM WITH ARTICLE 2.2 OF TMS 402-16. THE COMPRESSIVE STRENGTH OF GROUT SHALL BE DETERMINED IN ACCORDANCE WITH ASTM C1019. WHEN THE GROUT CONFORMS TO ASTM C476, THE GROUT SHALL BE SPECIFIED BY PROPORTION REQUIREMENTS OR PROPERTY REQUIREMENTS. THE MINIMUM STRENGTH SHALL BE 2,000 psi AT 28 DAYS.

4. PORTLAND CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C150. BLENDED CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C595. MASONRY CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C91. MORTAR CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1329.

5. COARSE AGGREGATE SHALL CONFORM TO ASTM C404. COARSE AGGREGATE SHALL BE PEA GRAVEL.

CERTIFICATION REPORT(S) HAVE TO BE PROVIDED FOR REINFORCED CONCRETE OR CONCRETE MASONRY UNIT (CMU) ELEMENTS PER THE FOLLOWING:

A. EACH REPORT SHALL INCLUDE:

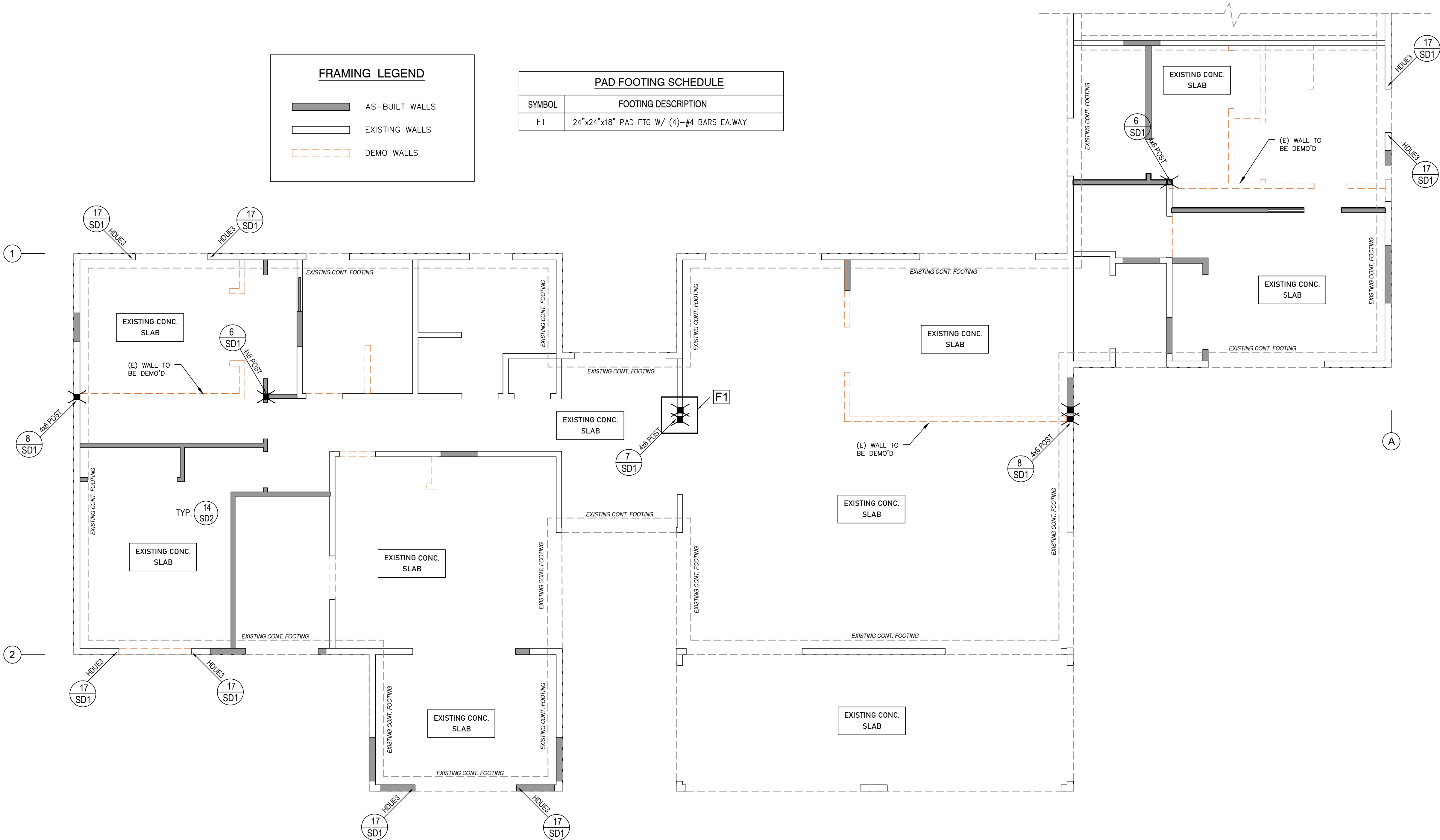
1. TEST RESULTS, PHOTOS, AND OTHER EVIDENCE SUPPORTING CERTIFICATION. SPECIFY MEASURES/TEST PERFORMED FOR CERTIFICATION WITH HIDDEN CONSTRUCTION VERIFIED BY TESTING AND/OR DESTRUCTIVE EXAMINATION.

2. EACH REPORT SHALL INDICATE CERTIFYING PARTIES HAVE VISITED JOB SITE AND LIST DATE(S) OF JOB-SITE VISIT(S)

3. EACH REPORT SHALL INCLUDE STATEMENT CONFIRMING THE AS-BUILT CONSTRUCTION COMPLIES WITH THE CODE(S) APPLICABLE TO THE PROJECT AND MATCHES THE CONSTRUCTION DETAILED ON THE SUBMITTED BUILDING PLANS

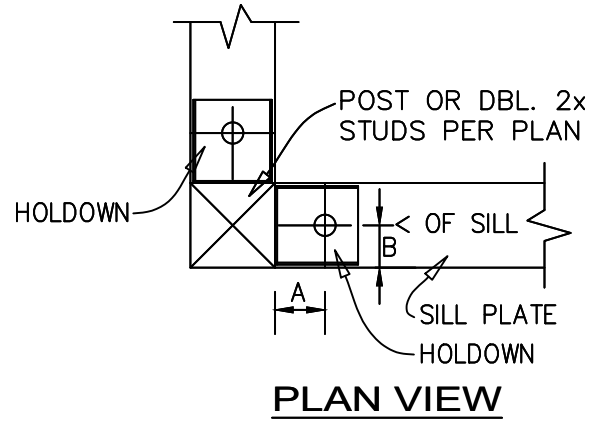
4. EACH REPORT SHALL INDICATE IF MITIGATION AND/OR REPAIRS ARE NEEDED TO ACHIEVE COMPLIANCE. SPECIFY AND DETAIL ON PLANS SUCH MITIGATION AND/OR REPAIRS

B. REPORT(S) SHALL BE PRODUCED, SIGNED, AND STAMPED BY CALIFORNIA-LICENSED CIVIL ENGINEER, STRUCTURAL ENGINEER, OR ARCHITECT



FOUNDATION PLAN
SCALE: 1/4" = 1'

NOTE:
SPECIAL INSPECTION REQUIRED.
SEE SPECIAL INSPECTION FORM ON GN SHEET



HOLDOWN SCHEDULE

HOLDOWN	ASTM F 1554 G36 (U.N.O.)		
	ANCHOR	EDGE (IN.)	LOADS
1	DBL. 2x STUDS W/ HDUE3	SSTB16 (12 7/8" EMB.)	2 3/4" 3790#
2	DBL. 2x STUDS W/ HDUE5	SSTB20 (16 7/8" EMB.)	2 3/4" 5375#
3	4x6 POST W/ HDUE7	SSTB24 (20 7/8" EMB.)	2 3/4" 7015#
4	4x6 POST W/ HDUE9	SSTB28 (24 7/8" EMB.)	2 3/4" 9390#
5	6x6 POST W/ HDUE13	SB1x30 (24 7/8" EMB.)	2 3/4" 12950#
6	6x6 POST W/ HDUE17	SB1x30 (24 7/8" EMB.)	2 3/4" 17685#
7	PREFAB. SHEARWALL	PER PLAN	

FOUNDATION NOTES

- CONTRACTOR SHALL VERIFY FOUNDATION DIMENSIONS WITH FLOOR PLAN DIMENSIONS AND REPORT ANY DISCREPANCIES TO ARCHITECT PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WITH OTHER TRADES ALL REQUIREMENTS FOR THEIR MATERIALS TO BE INSTALLED UNDER/N. SLAB.
- VERIFY LOCATIONS OF ALL HOLDDOWNS WITH FRAMING PLANS & FRAMING CONTRACTOR PRIOR TO INSTALLATION.
- MATERIAL SUBSTITUTION NOTE:**
NO MATERIALS SHALL BE SUBSTITUTED WITHOUT THE ARCHITECT'S WRITTEN APPROVAL.
- N/A
- ELECTRICAL GROUND NOTE:**
NOTE: PROVIDE UFER OR OTHER APPROVED ELECTRICAL GROUND SYSTEM PER NEC, ARTICLE 250-81.
- A CONCRETE ENCASED GROUND ELECTRODE (UFER) IS REQUIRED. THE ELECTRODE SHALL BE EITHER 20" MAXIMUM OF NO. 4 REBAR, NO. 4 BARE SOLID COPPER WIRE, OR 3/4" RIGID GALVANIZED CONDUIT INSTALLED THREE (3") INCHES OFF THE BOTTOM OF THE FOOTING AND ENCASED IN THREE INCHES (3") MINIMUM OF CONCRETE. ALTERNATE METHODS MUST BE APPROVED BY THE LOCAL BUILDING DEPARTMENT.
- IT IS RECOMMENDED BY THE ARCHITECT TO RUN ALL WATER LINES ABOVE SLAB (BOTH HOT AND COLD LINES). SEE DETAIL.
- PLUMBING AND ELECTRICAL TRENCHES UNDER THE SLAB SHALL BE BACKFILLED WITH SAND AND COMPACTED BY MECHANICAL TAMPING.
- N/A
- PRIOR TO THE FOUNDATION INSPECTION, A REGISTERED SOILS ENGINEER SHALL BE REQUIRED TO TEST THE SOIL AT THE BOTTOM OF THE FOUNDATION EXCAVATION AND SUBMIT A CERTIFICATE TO THE BUILDING OFFICIAL JUSTIFYING THE BEARING VALUE AND COMPETENCE OF THE SOIL ACCORDING TO THE DESIGN VALUE USED IN LIEU OF REQUIRING A SOILS REPORT PRIOR TO PLACEMENT OF REINFORCEMENT STEEL.
- N/A
- N/A
- SOIL PRESATURATION NOTE:**
PRIOR TO PLACING CONCRETE, SUB-GRADE SOILS BELOW ALL CONCRETE FLOOR SLABS SHALL BE RE-MOISTURIZED TO 90% OF OPTIMUM MOISTURE TO A DEPTH OF 18 INCHES IMMEDIATELY PRIOR TO PLACEMENT OF THE MOISTURE BARRIER OR POURING OF CONCRETE.
- SOIL BEARING VALUE AT 1500 PSF CODE MIN.
- FOUNDATION CONSTRUCTION NOTE:**
FOUNDATION CONSTRUCTION MAY BE OF TWO-POUR CONFIGURATION. HOWEVER, IF CONTRACTOR OPTS TO UTILIZE A TWO-POUR FOUNDATION THE FOUNDATION SHALL BE FORMED SO AS TO CREATE A 'CURB' CONDITION @ ALL PERIMETER AND STEP BREAK LOCATIONS THEREBY ASSURING A MONOLITHIC CONDITION FOR HOLDDOWNS, STRAPS AND ANCHOR BOLTS.
- ALL BAR REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 (fy=60ksi) U.O.N. BENDING AND PLACING SHALL BE IN ACCORDANCE WITH CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE" LATEST EDITION.
- ALL HARDWARE (ANCHOR BOLTS, HOLDDOWNS, STRAPS, ETC.) SHALL BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION. ARCHITECT SHALL BE NOTIFIED AND MUST INSPECT PLACEMENT PRIOR TO POURING FOUNDATION OR SLAB.
- FOUNDATION PLATE BOLTING:** PROVIDE 5/8" x 14" A307 ANCHOR BOLTS, EMBEDDED 9" MINIMUM INTO CONCRETE. THERE SHALL BE A MINIMUM OF TWO (2) BOLTS PER PLATE, WITH ONE (1) BOLT LOCATED WITHIN 12" OF END, AND SPACED 6'-0" O.C. UNLESS OTHERWISE NOTED.
- ANCHOR BOLT NOTE:**
PROVIDE 3"x3"x0.229" THICK WASHER PLATES AT ALL ANCHOR BOLTS.
- VAPOR BARRIER MATERIAL SHALL BE POLYETHYLENE FILM (VISQUEEN OR EQUIVALENT) AND SHALL BE PLACED UNDER ALL HOUSE SLABS AND UNDER GARAGE SLABS WHERE NOTED ON PLANS WITH SIX INCH (6") MINIMUM SEALED LAP SPLICES.
- ALL SLABS, STEPS, ETC. SHALL BE STEEL TROWELED AND PROTECTED FROM HARM DURING CONSTRUCTION. SLAB FINISH SHALL HAVE A MAXIMUM FINISHED TOLERANCE OF ONE-EIGHT INCH IN TEN FEET (1/8" IN 10'-0").
- POSTS ON CONCRETE FLOORS EXPOSED TO WEATHER OR IN BASEMENTS SHALL BE SUPPORTED BY CON-CRETE PIERS OR METAL PEDESTALS AT LEAST 6" ABOVE GROUND OR 1" ABOVE FLOOR.
- WHERE FRAMING LUMBER IS IN CONTACT WITH, OR LESS THAN 1 1/2" FROM CONCRETE, USE FOUNDATION GRADE REDWOOD OR PRESSURE TREATED DOUGLAS FIR.
- PROVIDE 1/16" THICK (MINIMUM) METAL CORROSION-RESISTANT BASE PLATE FOR UNTREATED WOOD POSTS IN CONTACT WITH ALL CONCRETE.
- FASTENERS IN PRESERVATIVE-TREATED WOOD (I.E. ANCHOR BOLTS, NAILS, SCREWS, ETC.) SHALL BE APPROVED SILICON BRONZE OR COPPER, STAINLESS STEEL, OR HOT-DIPPED ZINC-COATED STEEL. (CBC 2304.9.2.1)
- PROVIDE STUCCO BASE SCREED (SEC. 4706E.)
- HOLD-DOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING

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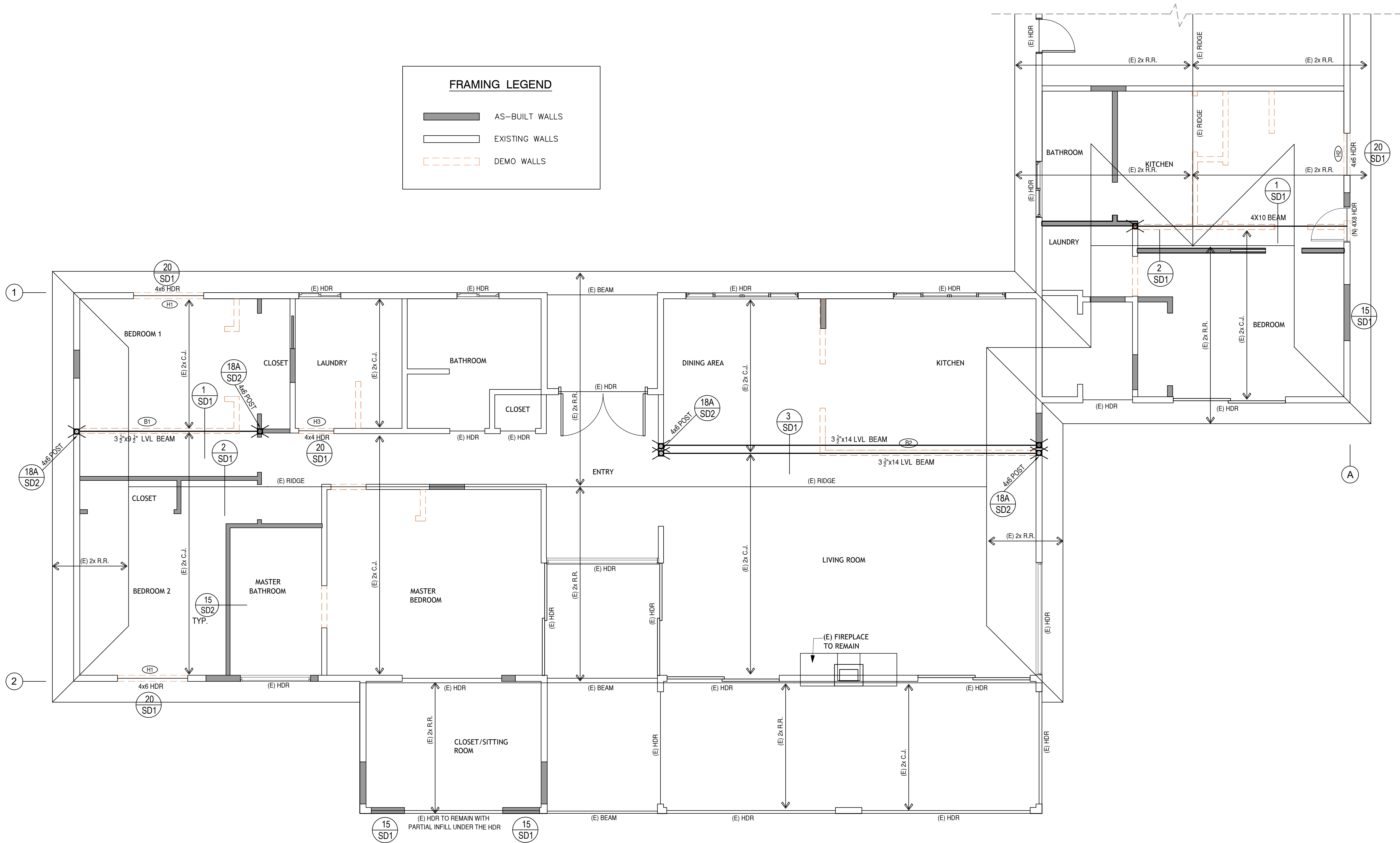
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FOUNDATION PLAN

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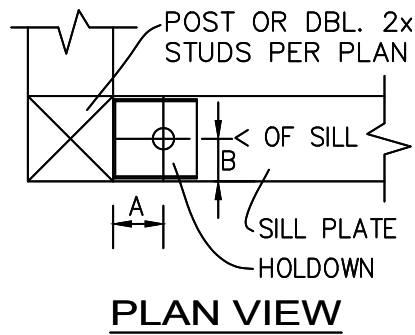


ROOF FRAMING PLAN
SCALE: 1/4" = 1'

FRAMING NOTES

1. **ROOF SHEATHING** SHALL BE:
3/4" APA PLYWOOD OR ORIENTED STRAND BOARDS WITH 24"/16" SPAN RATING. UNBLOCKED = 8d COMMON NAILS @ 6" o.c. AT ALL EDGES, 12" OC FIELD. MINIMUM PENETRATION IS 1 1/8" INTO FRAMING. B.N. APPLIES TO ALL SUPPORTED PLYWOOD EDGES AT:
PLYWOOD EDGES, PERIMETER WALLS, & SHEARWALLS.
2. **FLOOR SHEATHING** SHALL BE:
3/4" APA RATED STURDI-I-FLOOR, T&G, 24" o.c. SPAN RATING, EXPOSURE 1 10d COMMON NAILS @ 6" o.c. B.N., 10d COMMON NAILS @ 12" o.c. F.N., B.N. APPLIES TO ALL SUPPORTED PLYWOOD EDGES AT:
PLYWOOD EDGES, PERIMETER WALLS, & SHEARWALLS.
3. **DECK SHEATHING** SHALL BE:
3/4" APA RATED STURDI-I-FLOOR, T&G, 24" o.c. SPAN RATING, EXPOSURE 1 10d COMMON NAILS @ 6" o.c. B.N., 10d COMMON NAILS @ 12" o.c. F.N., B.N. APPLIES TO ALL SUPPORTED PLYWOOD EDGES AT:
PLYWOOD EDGES, PERIMETER WALLS, & SHEARWALLS.
4. TJI JOISTS (ESR-1153), TIMBERSTRANDS, AND PARALLAMS (ESR-1387) MANUFACTURER SHALL BE "TRUSS JOIST MACMILLAN" OR EQUIVALENT.
5. A CERTIFICATE OF CONFORMANCE IS REQUIRED PRIOR TO FRAMING INSPECTION FOR ALL PARALLEL STRANDED LUMBER.
6. DO NOT CUT, NOTCH, DRILL, BORE, SHAPE, TAPER OR FOR ANY REASONS MODIFY PRE-ENGINEERED / MANUFACTURED STRUCTURAL ELEMENTS SUCH AS GLUED-LAMINATED MEMBERS, PARALLAMS, MICROLAMBS, I-JOISTS, LIGHT GAUGE METAL MEMBERS AND OTHER SIMILAR TIMBER OR STEEL PRODUCTS UNLESS SUCH MODIFICATIONS ARE WITHIN THE WRITTEN PARAMETERS SET FORTH BY THE MANUFACTURER OF THAT PRODUCT OR A LETTER OF CERTIFICATION FROM THE MANUFACTURER'S ENGINEER WITH DETAIL SIGNED AND STAMPED IS ISSUED AND AUTHORIZED BY THE PROJECT ENGINEER OF RECORD AND APPROVED BY THE CITY OF GOVERNING BUILDING OFFICIAL.
7. USE SIMPSON "LU" HANGERS TYPICALLY FOR ALL DECK JOIST & OTHER DIMENSIONAL LUMBER, U.N.O.
8. USE SIMPSON "IUS" HANGERS WHERE TJI FLOOR JOIST ARE UTILIZED, U.N.O.
9. BEAMS BEARING ON TOP PLATES SHALL HAVE A SIMPSON 'A34' EACH SIDE (U.N.O.). ALIGN DBL 2x STUDS (U.N.O.) BELOW. NAIL TOGETHER WITH 16d @ 16" o.c.
10. ALL POSTS TO TOP PLATE AND SILL PLATE CONNECTIONS SHALL BE SIMPSON 'A34' U.N.O.
11. PROVIDE 'MSTC28' STRAP ACROSS ALL DISCONTINUOUS DBL. TOP PLATES.
12. PROVIDE DOUBLE JOISTS @ SIDES & ENDS OF ALL OPENINGS. (U.N.O.) NAIL TOGETHER WITH 16d @ 12" o.c. (TYP.)
13. PROVIDE DBL. JOISTS BELOW ALL INTERIOR WALLS 8'-0" OR GREATER IN LENGTH. PROVIDE BLOCKING @ 1/3 SPANS.
14. ALL SHEAR PANEL SHALL BE APPLIED DIRECTLY TO STUDS PRIOR TO INSTALLATION OF DECORATIVE POP-OUTS AND TRIM.
15. FRAMING MEMBERS OR BLOCKING SHALL BE PROVIDED AT THE EDGES OF ALL SHEETS IN PLYWOOD SHEARWALLS.
16. ALL PLYWOOD EDGES OF FLOOR/DECK DIAPHRAGMS SHALL BE SUPPORTED BY 2x OR WIDER FRAMING ELEMENTS.
17. PROVIDE MULTIPLE STUDS UNDER BEAMS OR TRUSSES TO MATCH WIDTH OF SUPPORTED MEMBER, TYP. STUDS SHALL BE CONTINUED IN LOWER FLOORS AND/OR CRAWL SPACE TO FOOTING, TYP.
18. PROVIDE SOLID BLOCKING UNDER POSTS AND MULTIPLE STUDS TO TRANSFER LOADS TO POSTS/STUDS BELOW.
19. **NOTE:**
ANY PLUMBING DRAINPIPE OR VENT PIPE CUT THROUGH A STUD WALL SHALL BE 2x6 STUD WALL OR TWO 2x4 WALLS WITH PLYWOOD SHEAR PANEL ON NON-PLUMBING WALL.

NOTE:
SPECIAL INSPECTION REQUIRED.
SEE SPECIAL INSPECTION FORM ON GN SHEET



PLAN VIEW

STRAP PER PLAN	FASTENERS @ EACH END	
4x6 POST W/ CMSTC16	(30) 16d SINKER NAILS (50 TOTAL)	4585#
6x6 POST W/ CMSTC14	(38) 16d SINKER NAILS (76 TOTAL)	6490#
2)4X6 POST W/ 2-CMSTC14	(26) 16d SINKER NAILS (52 TOTAL)	9440#

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ROOF FRAMING PLAN

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TYPICAL SHEAR WALL ELEVATION, UON	1	PANEL NAILING FOR WALL, FLOOR AND ROOF	2	TYPICAL TOP PLATE SPLICE DETAILS, UON	3	TOP PLATE REINFORCEMENT AT DISCONTINUITIES	5
	6		7		8		10
	11		12		13		15
	16		17		18		20

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MOHAMMAD RAHMAN

C69263

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CONSTRUCTION DETAILS

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