

PROJECT DIRECTORY

OWNER
SERGIO PRASLIN JR.
10149 GALENA AVE.,
MONTCLAIR, CA 91763

DESIGNER

B-A-ENGINEERING & CONSULTING
4000 BARRANCA PKWY #250
IRVINE, CA 92604

STRUCTURAL ENGINEER

B-A-ENGINEERING & CONSULTING
4000 BARRANCA PKWY #250
IRVINE, CA 92604

SCOPE OF WORK

PROPOSING
CONVERTING ATTACHED EXISTING 634s.f. GARAGE TO ADU
W/2-BEDROOMS, A BATHROOM , KITCHEN & LIVING ROOM

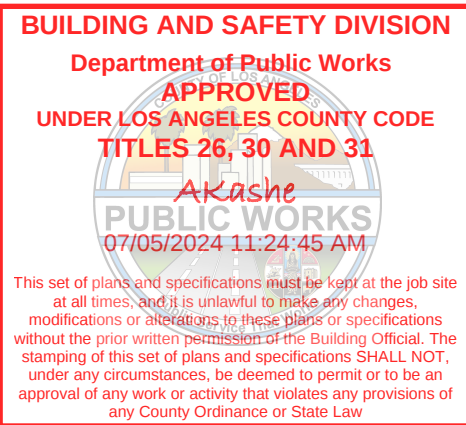
Existing 1978 s.f. SINGLE FAMILY RESIDENCE
GARAGE AREA OF 634s.f. CONVERTED TO LIVING
LOT AREA = 7200 s.f.
LIVING AREA= 1978+634 =2612s.f.
NEW TOTAL LIVING AREA= 2612 s.f.
LOT COVERAGE = $\frac{2612}{7200} = 0.36 = 36\% < 50\%$

PROPERTY DESCRIPTION

TRACT #: 20941
LOT: 96
EASEMENT: NONE
OAK TREE/ OVERHANG : NONE
NO SERVICE DROP/TRANSFORMER/GUY WIRE/SERVICE POLE WITHIN 10ft OF CONSTRUCTION.

BUILDING DATA

SINGLE FAMILY RESIDENCE
OCCUPANCY GROUP R3
CONSTRUCTION TYPE V-B
FIRE SPRINKLER NONE
NON HILLSIDE PROPERTY
NO SWIMMING POOL AT PROPERTY
NO ROOF TOP MECHANICAL EQUIPMENT.
2022 CALIFORNIA BUILDING CODE (CBC)
2022 CALIFORNIA MECHANICAL CODE (CMC)
2022 CALIFORNIA RESIDENTIAL CODE (CRC)
2022 CALIFORNIA PLUMBING CODE (CPC)
2022 CALIFORNIA ELECTRIC CODE (CEC)
2022 CALIFORNIA FIRE CODE (CFC)
2022 NATIONAL DESIGN SPECIFICATION (NDS)
2022 CALIFORNIA ENERGY
2022 CALIFORNIA GREEN BUILDING STANDARDS (GBC)
2023 LA COUNTY AMENDMENTS

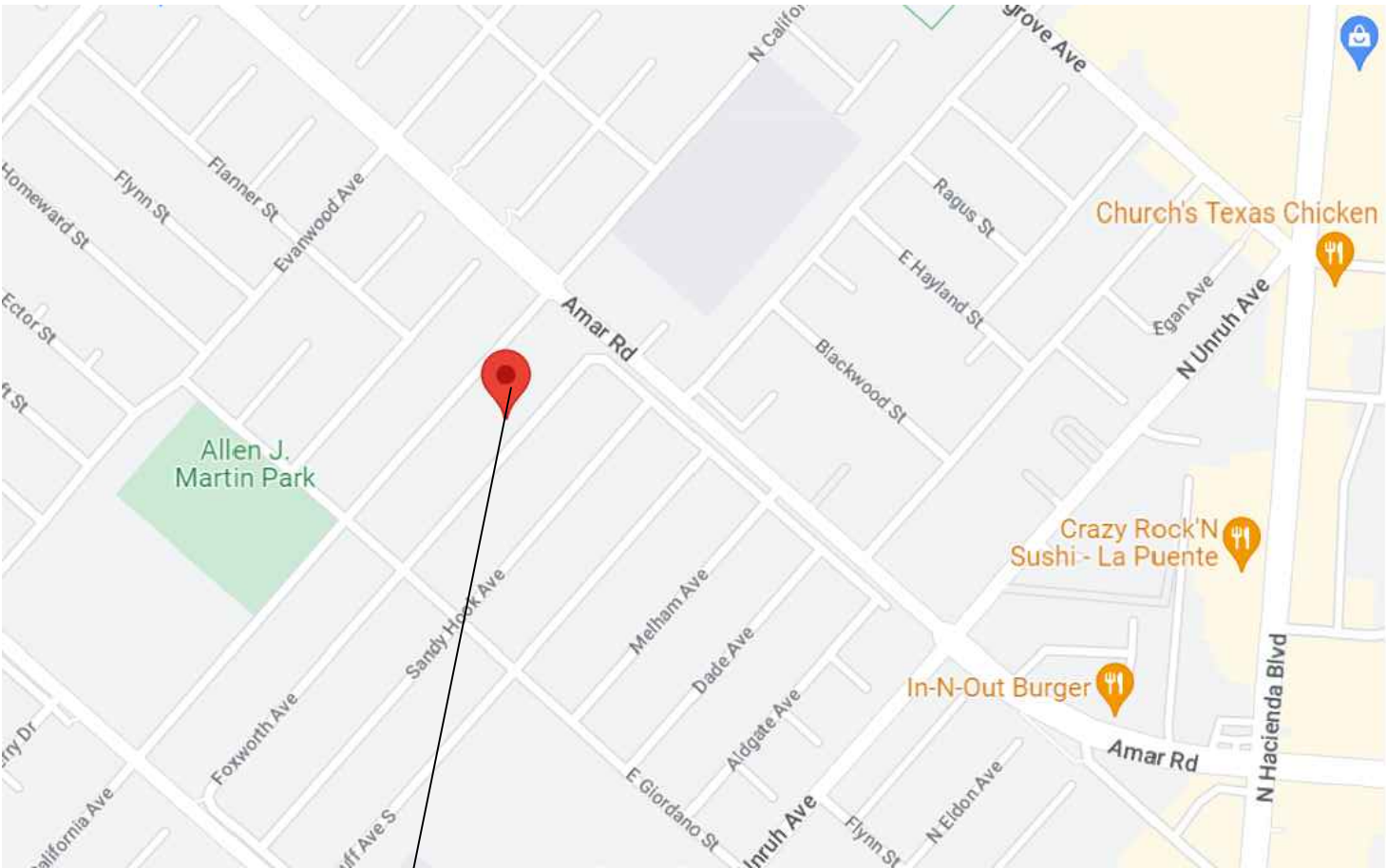


CONVERT (E) 634 SQ FT ATTACHED GARAGE TO ADU (2 BEDROOM, 1 BATHROOM, KITCHEN, AND LIVING ROOM)

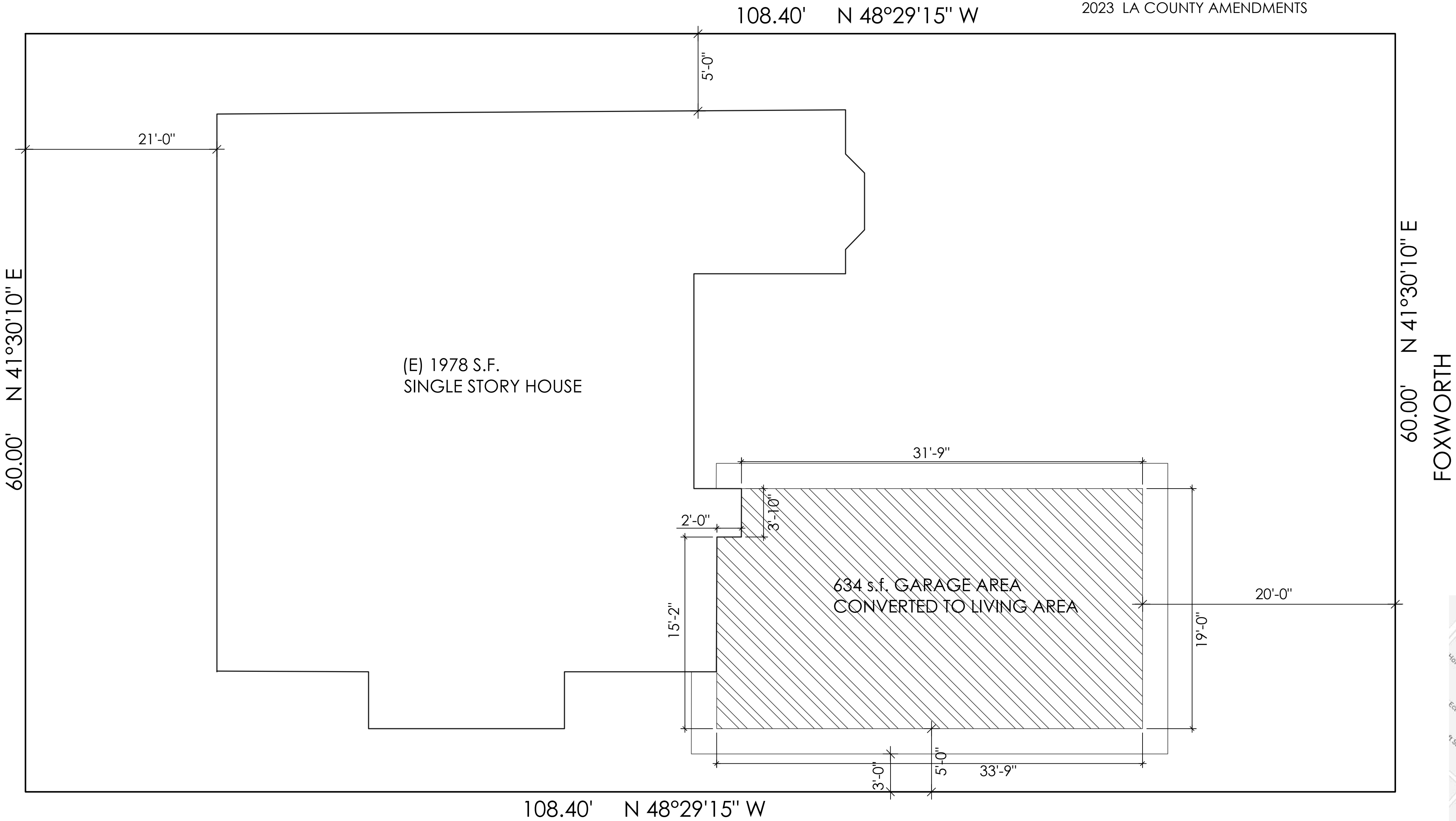
SPECIAL INSPECTION
REQUIRED

SHEET INDEX

- SP SITE PLAN
A1.0 FLOOR PLAN
A2.0 ELEVATIONS
A3.1 SECTIONS
A3.2 ROOF PLAN
A4.0 WINDOW/DOOR SCHEDULE
E-1 ELECTRICAL PLAN
AN1 ARCHITECTURAL NOTES
AN2 ARCHITECTURAL NOTES
AD1 ARCHITECTURAL DETAILS
AD2 ARCHITECTURAL DETAILS
AD3 ARCHITECTURAL DETAILS
T24-1 TITLE-24
T24-2 TITLE-24
SN STRUCTURAL NOTES
S-1 ROOF FRAMING PLAN
SD1 STRUCTURAL DETAILS



APPROX. LOCATION
OF JOB SITE

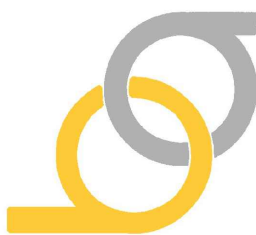


SITE PLAN

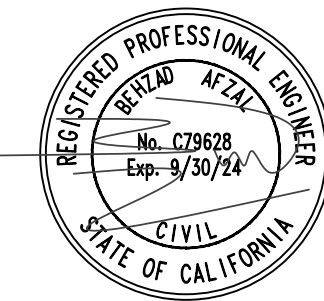
SCALE: 3/16" = 1'-0"

B.A. ENGINEERING
& CONSULTING.

4000 BARRANCA PKWY #250, IRVINE, CA 92604



The plans and contents herein are the property of B.A. Engineering. Any copying, reproduction or redistribution is expressly prohibited without prior consent of the B.A. Engineering.



PROJECT: REMODEL (E) S.F.R.
829 FOXWORTH AVE.,
LA PUENTE, CA 91744

SHEET: SITE PLAN

DATE: 3/23/23

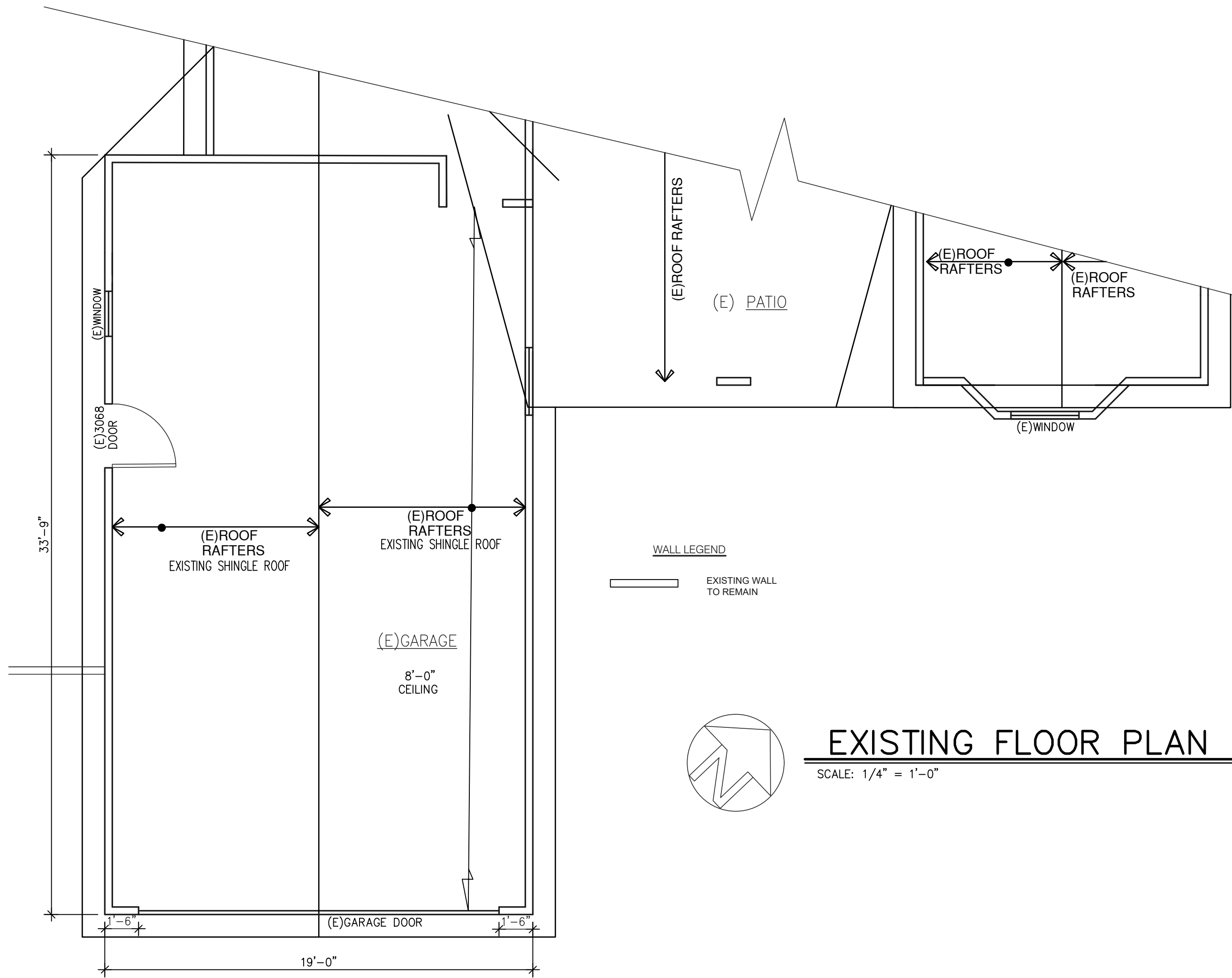
DRAWN: JR

PROJECT NO:

303-23

SHEET NO.

SP

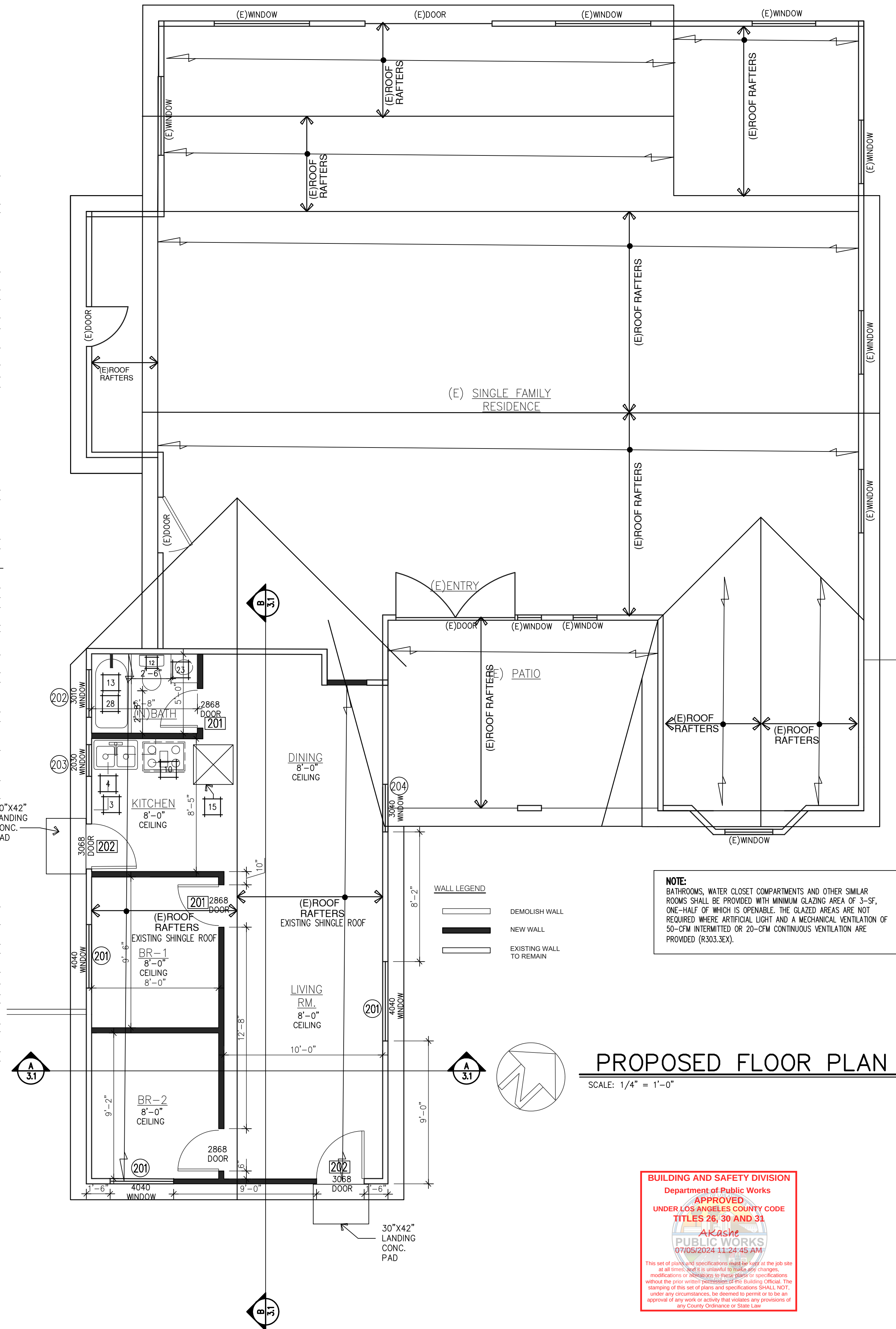


EXISTING FLOOR PLAN

SCALE: 1/4" = 1'-0"

FLOOR PLAN NOTES

- SINK WITH GARBAGE DISPOSAL. VERIFY DIM. WITH MANUF. SPECS.
- REFRIGERATOR SPACE. PROVIDE PLUMBING FOR ICE MAKER CREASED IN WALL.
- BASE CABINETS.
- UPPER CABINETS.
- SLIDE-IN RANGE / OVEN COMBINATION.
- OPTIONAL MICROWAVE WITH BUILT-IN VENTED HOOD WITH LIGHT AND FAN.
- DISHWASHER. PROVIDE SURFACE MOUNT AIR GAP.
- GRANITE COUNTER COLOR/TYPE BY OWNER.
- FIRE SEPARATION BETWEEN HOUSE AND GARAGE WALLS. PROVIDE (1) LAYER OF 5/8" TYPE 'X' GYP. BD. (CBC 302.4 AND TABLE 7B).
- SLIDE-IN RANGE WITH HOOD, LIGHT & FAN. VENT TO OUTSIDE THRU ROOF.
- LINE OF FLOOR / WALL ABV.
- WATER CLOSET 1.28 GPF.
- SINGLE SHOWERHEAD 2.0 GPM AT 80PSI.
- MULTIPLE SHOWERHEADS 2.0 GPM AT 80PSI FOR ALL COMBINED SHOWERS.
- 30"X30" ATTIC ACCESS (CMC 908.0).
- F.A.U. IN ATTIC SEE DETAIL 5/AD3. REFER TO MECHANICAL PLAN.
- LAVATORY FAUCETS 1.2 GPM AT 60PSI.
- A/C CONDENSER UNIT ON CONCRETE PAD. REFER TO SPECS, ELECTRICAL, AND MECHANICAL PLANS FOR REQUIREMENTS AND CLEARANCES.
- CONCRETE GARAGE SLAB PER STRUCTURAL PLAN.
- LINEN / STORAGE.
- 50 GAL. WATER HEATER ON A 18" HIGH PLATFORM WITH SEISMIC STRAPS AND VENT TO OUTSIDE COMBUSTION AIR PER UMC CHAPTER 7.
- SHELVES. REFER TO PLAN FOR QUANTITY.
- LAVATORY / PEDESTAL SINK.
- TOWEL BAR. PROVIDE 2X SOLID BACKING AT 40" A.F.F.
- RECESSED MEDICINE CABINET (MIRRORED).
- TOILET PAPER HOLDER. PROVIDE 2X SOLID BACKING AT 24" A.F.F.
- PROVIDE "SMITTY PAN" WITH DRAIN BELOW CONC. PAD.
- TUB / SHOWER COMBINATION W/ WAINSCOT TO 72" ABOVE DRAIN WITH CURTAIN ROD. CONTROL VALVES SHOULD BE PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES PER CPC 4200.
- DRYER VENT PER CMC 504.3.2.1
- SHELF & POLE.
- SHATTERPROOF (TEMPERED) GLASS SHOWER ENCLOSURE.
- HOUSE TO GARAGE DOOR SEPARATION. PROVIDE 1-3/8" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR W/ SELF CLOSURE AND TIGHT FITTING.
- CONCRETE FILLED 3" STANDARD PIPE. LOCATE PER SLAB DIMENSIONAL PLAN.
- LINE OF WALL / FLOOR BELOW.
- KITCHEN FAUCETS 1.8 GPM AT 60PSI.



PROPOSED FLOOR PLAN

SCALE: 1/4" = 1'-0"

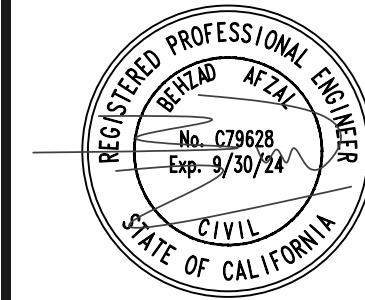
NOTE:
BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH MINIMUM GLAZING AREA OF 3-SF, ONE-HALF OF WHICH IS OPENABLE. THE GLAZED AREAS ARE NOT REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION OF 50-CFM INTERMITTENT OR 20-CFM CONTINUOUS VENTILATION ARE PROVIDED (R303.3EX).



**B.A. ENGINEERING
& CONSULTING.**

4000 BARRANCA PKWY #250, IRVINE, CA 92604

The plans and contents herein are the property of B.A. Engineering. Any copying, reproduction or redistribution is expressly prohibited without prior consent of the B.A. Engineering.



PROJECT: **REMODEL (E) S.F.R.**
829 FOXWORTH AVE.,
LA PUENTE, CA 91744

DATE: 3/23/23

DRAWN: JR

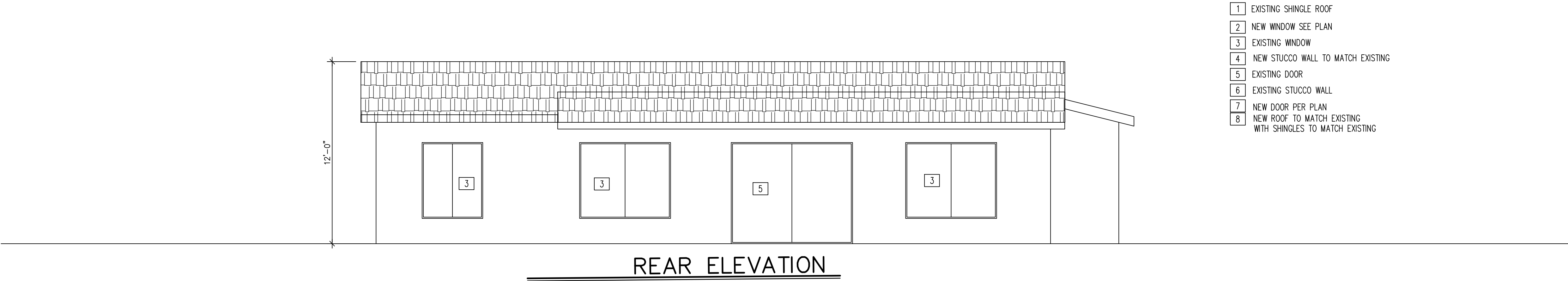
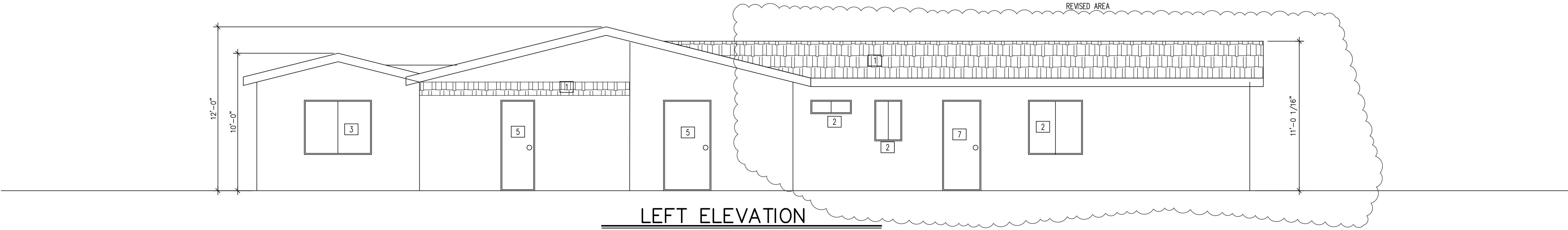
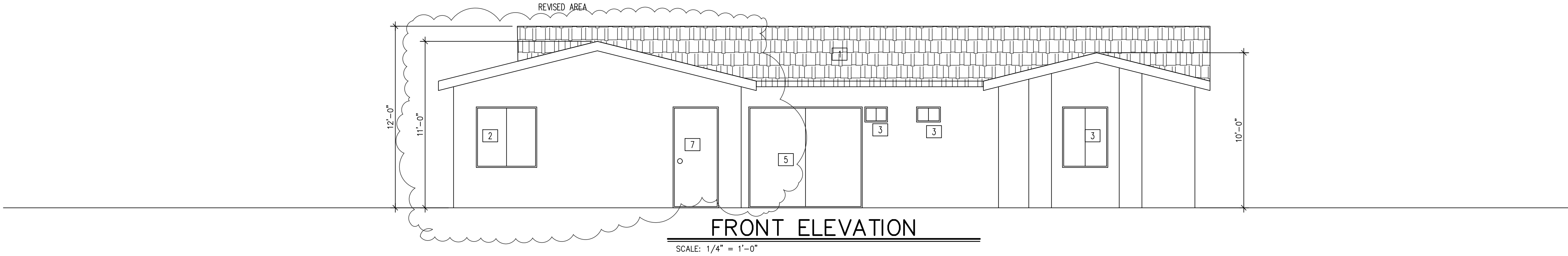
PROJECT NO:

303-23

SHEET NO.

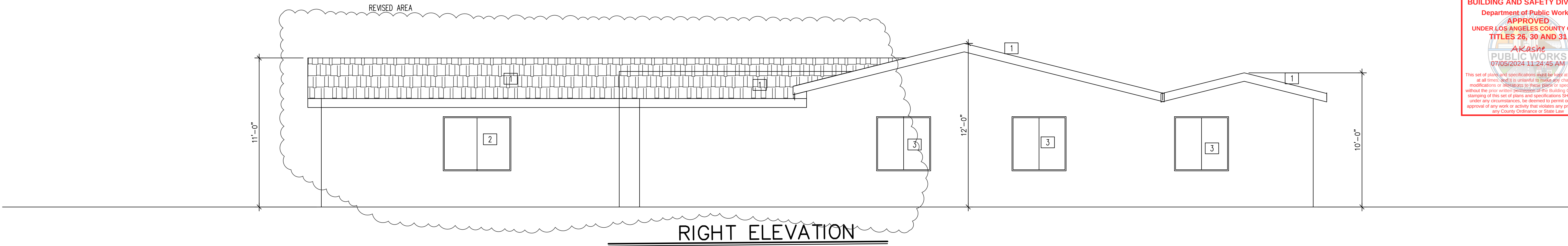
A1.0

FLOOR PLAN



KEYNOTES

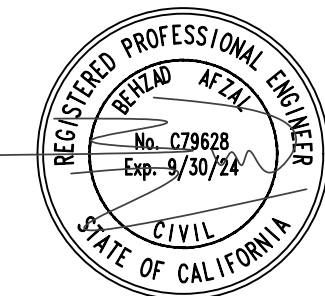
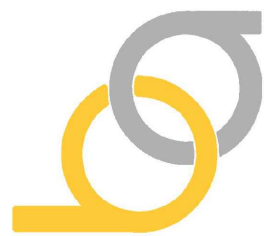
- EXISTING SHINGLE ROOF
- NEW WINDOW SEE PLAN
- EXISTING WINDOW
- NEW STUCCO WALL TO MATCH EXISTING
- EXISTING DOOR
- EXISTING STUCCO WALL
- NEW DOOR PER PLAN
- NEW ROOF TO MATCH EXISTING WITH SHINGLES TO MATCH EXISTING



B.A. ENGINEERING
& CONSULTING.

4000 BARRANCA PKWY #250, IRVINE, CA 92604

The plans and contents herein are the property of B.A. Engineering. Any copying, reproduction or redistribution is expressly prohibited without prior consent of the B.A. Engineering.



PROJECT: REMODEL (E) S.F.R.
829 FOXWORTH AVE.,
LA PUENTE, CA 91744

ELEVATIONS

DATE: 3/23/23

DRAWN: JR

PROJECT NO:

303-23

SHEET NO.

A2.0

SECTION NOTES

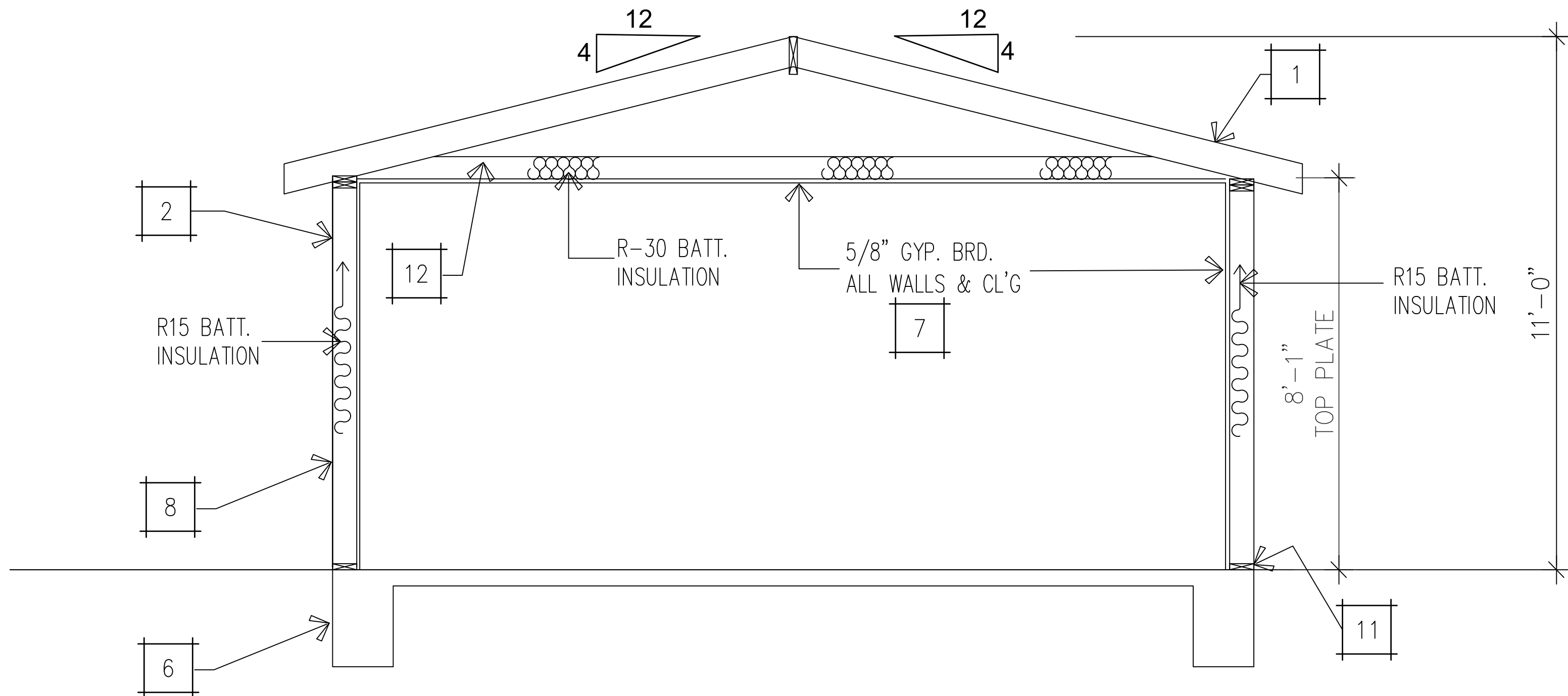
- (E)ROOF FRAMING
- TYP. 2X4 STANDARD EXTERIOR STUD WALL.
- HEADER — SEE STRUCTURAL PLAN.
- BEAM — SEE STRUCTURAL PLAN.
- FLOOR JOIST SYSTEM — SEE STRUCTURAL PLANS FOR SIZE.
- FOUNDATION SYSTEM SEE STRUCTURAL FOUNDATION FOR SPECS.
- 5/8"TYPE 'X' GYP. BD. ON CEILING AND WALLS AT USEABLE SPACE UNDER STAIRS (CBC 1003.3.3.9).
- R-15 INSULATION AT EXTERIOR WALLS U.N.O.
- 2X-SOLE PLATE TYP. AT 2ND FLOOR. U.N.O.
- R-30 INSULATION AT FLOOR U.N.O.
- 2X P.T.D.F. SILL PLATE TYP. AT 1ST FLOOR TO FOUNDATION.
- 2X6 CEILING JOISTS AT 12"O.C. U.N.O.
- EXISTING ROOF RAFTERS.
- EXISTING CEILING

INSULATION

- REFER TO ENERGY (T-24) PLANS FOR INSULATION OF EXTERIOR WALLS, CEILING, VAULTED CEILING, BETWEEN ATTIC AND LIVING SPACE.

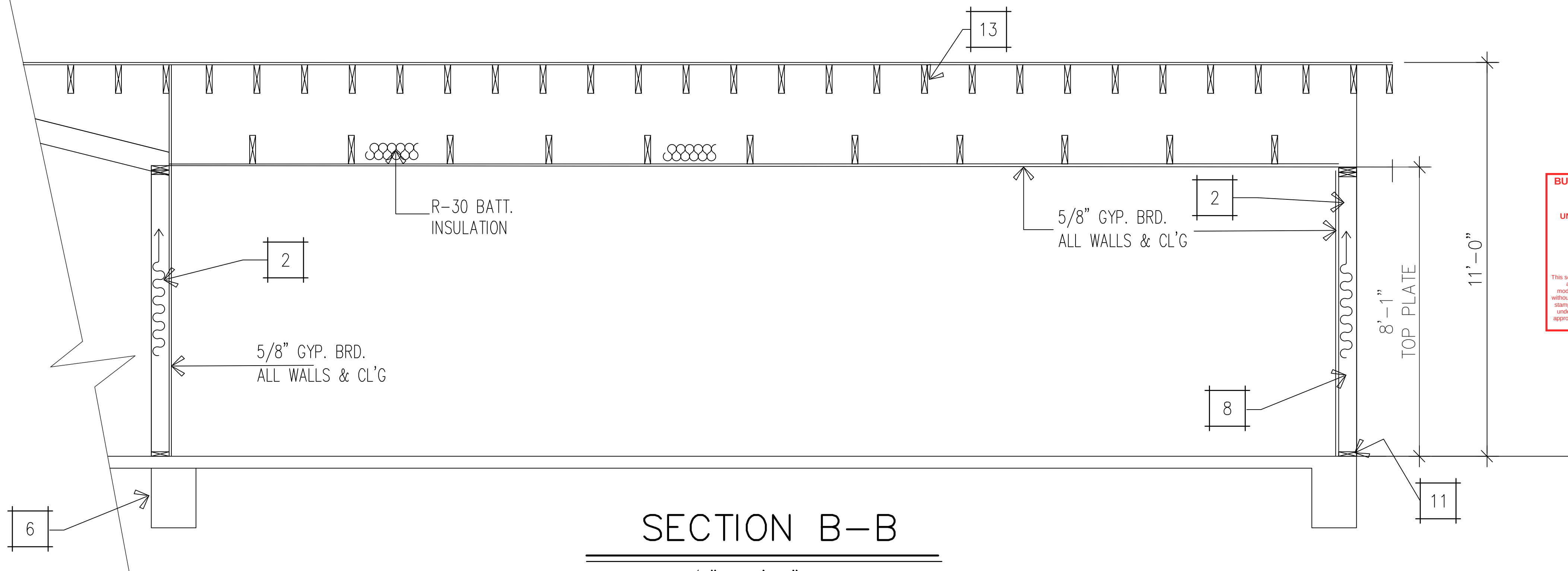
INTERIOR MATERIALS

- TYPICAL WALLS AND CEILING 1/2"GYP. BRD. (5/8" GYP. BRD. AT CEILING IF FRAMING IS GREATER THAN 16"o.c.) U.N.O.
- AT WET AREAS 1/2" MOISTURE RESISTANT GYP. BRD. AS RECOMMENDED BY CONTRACTOR.



SECTION A-A

SCALE: 1/2" = 1'-0"



SECTION B-B

SCALE: 1/2" = 1'-0"

SECTION NOTES

PROVIDE 1/2" MINIMUM CLEARANCE BETWEEN TOP PLATE OF INTERIOR PARTITIONS AND BOTTOM OF JOISTS.

PROVIDE FIRE STOPS AT THE FOLLOWING LOCATIONS

- IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AT THE CEILING AND FLOOR LEVELS, AND AT 10'-0" INTERVALS ALONG THE LENGTH OF THE WALL.
- AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERT. AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, AND COVE CEILINGS.
- IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN AND BETWEEN STUDS ALONG AND IN LINE WITH THE RUN OF STAIRS IF THE WALLS UNDER THE STAIR ARE UNFINISHED.
- IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMEYS, FIREPLACES AND SIMILAR OPENINGS WHICH AFFORD A PASSAGE FOR FIRE AT CEILING AND FLOOR LEVELS WITH NONCOMBUSTIBLE MATERIALS.
- PROVIDE INSULATION DEFLECTORS AT ALL EAVES WHERE FIREPLACES AND SIMILAR OPENINGS WHICH AFFORD A EAVE VENTS ARE REQUIRED, TYPICAL

INSULATION VALUES

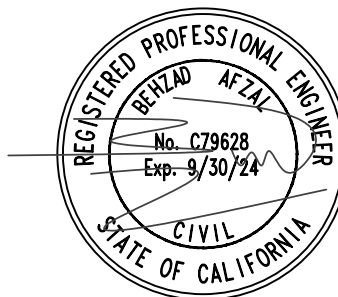
EXTERIOR 2x4 WALLS:	R-15
EXTERIOR 2x6 WALLS:	R-15
FLOOR OVER GARAGE:	R-19
CEILING AT F.A.U.:	R-19
CEILING VAULT & FLAT:	R-30



**B.A. ENGINEERING
& CONSULTING.**

4000 BARRANCA PKWY #250, IRVINE, CA 92604

The plans and contents herein are the property of B.A. Engineering. Any copying, reproduction or redistribution is expressly prohibited without prior consent of the B.A. Engineering.



PROJECT: **REMODEL (E) S.F.R.**
829 FOXWORTH AVE.,
LA PUENTE, CA 91744

SHEET: **SECTIONS**

DATE: 7/1/24

DRAWN: JR

PROJECT NO:

303-23

SHEET NO.

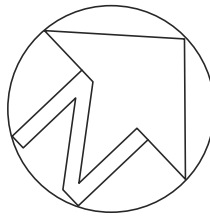
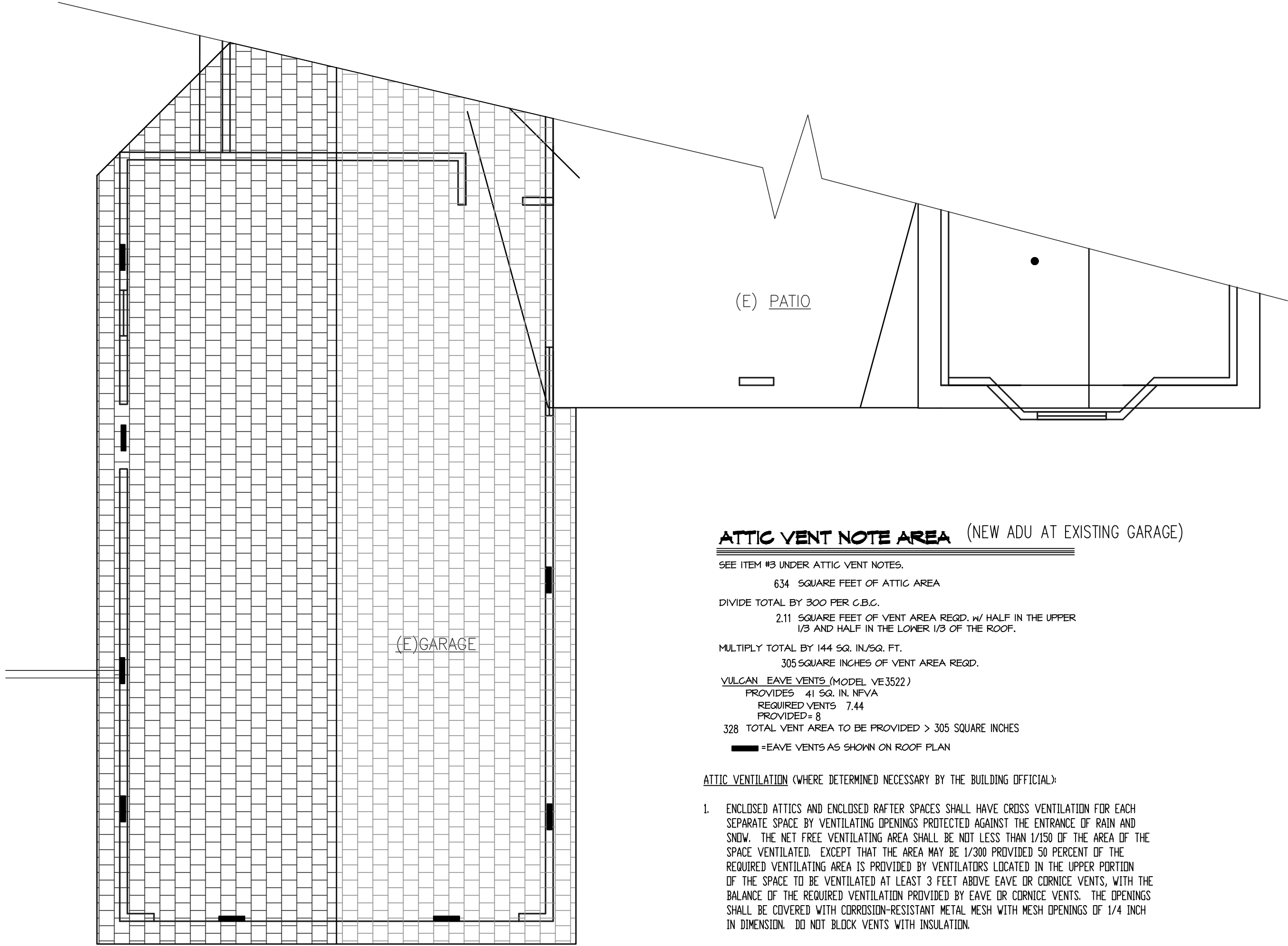
A3.1

NOTES

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT THE HOUSE ENTIRELY WITHIN THE BUILDING ENVELOPE AS SHOWN AND NOTED IN THESE PLANS.
- IF FORCED AIR FURNACES ARE TO BE LOCATED IN THE ATTIC, THEY MUST BE POSITIONED IN SUCH A MANNER THAT THE REQUIRED DISTANCE FROM THE VENT OUTLET TO THE TOP OF THE FLUE CAP IS WITHIN THE ATTIC, ALLOWING THE EXTERIOR HEIGHT OF THE FLUE CAP ABOVE THE FINISHED ROOFING TO BE THE MINIMUM ALLOWED BY CODE.
- ALL PLUMBING & MECHANICAL VENTS MUST BE CONSOLIDATED AND LOCATED IN AREAS THAT MINIMIZE THEIR VISIBILITY. VENTS MUST BE AS LOW IN HEIGHT AS ALLOWED BY CODE AND COMPLY WITH THE DESIGN GUIDELINES. TOP OF VENTS MUST NOT BE HIGHER THAN ADJACENT RIDGE.
- AT PLYWOOD-DECKED ROOFS, PROVIDE MINIMUM 11 GAUGE, LARGE HEADED, NON CORROSIVE BOX NAILS OF SUFFICIENT LENGTH TO PENETRATE 1/2" TO 3/4" INTO THE DECK.
- PROVIDE WATERPROOF MEMBRANE OVER RIDGE BOARDS, BENEATH ALL VALLEY FLASHINGS, SHEET METAL CRICKETS, AND ENCLOSED TROUGH DRAINS OR GUTTERS.
- DECK DRAINS SHALL BE CONNECTED TO SITE AREA DRAIN SYSTEM.
- CHASE TERMINATIONS SHALL BE PAINTED FLAT BLACK AND SCREENED WITH A GRILL OF 1" X 8" FLAT COPPER BARS SPACED DENSELY ENOUGH TO SHIELD THE CHASE TERMINATION FROM VIEW.
- DECORATIVE SHROUDS SHALL BE UNFINISHED SHEET COPPER.
- MECHANICAL EQUIPMENT OF ANY TYPE IS NOT PERMITTED ON ANY EXTERIOR SURFACE OF THE BUILDING.
- VENT HOOD FROM KITCHEN RANGE TO TERMINATE IN A HOODED COPPER VENT WITH SCREEN MAX. 6' ABOVE ROOF SHEATHING.
- THE KITCHEN EXHAUST FAN SHALL BE LOCATED WITHIN THE KITCHEN VENT HOOD OR CEILING. NO MECHANICAL EQUIPMENT IS PERMITTED ON THE EXTERIOR SURFACE OF THE BUILDING.
- PROVIDE CLASS "A" ROOF WITH FIRESTOP TO PREVENT ENTRUSSION OF FLAMES & EMBERS OR 1 LAYER OF NO. 12 ASTM CAP SHEET.
- ALL RIDGE ELEVATIONS ARE TAKEN AT TOP OF FINISH MATERIAL (E.G. ROOF TILES) - TYPICAL.
- ROOFING MANUFACTURER TO PROVIDE SAMPLES OF COLORS AT JOB SITE FOR OWNER AND E.T.A. APPROVAL PRIOR TO ORDERING OF MATERIALS.
- PROVIDE FLASHINGS AT ALL ROOF & WALL INTERSECTIONS.
- PROVIDE VALLEY FLASHINGS & FIREPLACE FLASHING NOT LESS THAN 26 GALVANIZED-SHEET-GAUGE METAL OVER NO. 12 ASTM CAP SHEET, PER SEC'S, 1503.2, 1507.3.4, 1507.5.6, 1507.1.6, 1507.1.7 & 1507.4.0.
- ROOF GUTTERS SHALL BE PROVIDED WITH THE MEANS TO PREVENT ACCUMULATION OF LEAVES & DEBRIS.
- PROVIDE ELASTOMERIC WATERPROOF DECK COATING, DRAINAGE BOARD, & FULLY ADHERED WATERPROOF MEMBRANE, & DECK SUBSTRATE & RIPPED DECK JOIST PER STRUCT. DINGS, PER SEC. 2304.1.5.
- PROVIDE ELASTOMERIC WATERPROOF ON EXTERIOR DECKS, BALCONIES & STAIRWAYS, PER SEC. 2304.1.5.
- SEE GENERAL NOTES & SPECIFICATIONS FOR ADDITIONAL FRAMING & MATERIALS NOTES.
- RADIANT FOIL BARRIERS ARE REQUIRED @ ROOF & CONDITIONED SPACE. ATTIC GABLE ENDS IN ALL NEW CONSTRUCTIONS AND TO BE ATTACHED TO THE UNDERSIDE OF ROOF DECKING.
- TO ROOF CONTRACTOR / TRUSS MANUFACTURER: REFER TO ELEVATIONS & DETAILS FOR ANY RECESSES AT WALLS.
- ROOF AND DECK AREA DRAINS TO BE DESIGNED FOR RAINFALL PER TABLE 11-1 (CFC 1105).
- OVERFLOW DRAINS SHALL HAVE SEPARATE INDEPENDENT PIPING AND HAVE AN INLET FLOW LINE LOCATED 2" ABOVE THE LOW POINT OF THE ROOF. OVERFLOW SCUPPERS SHALL HAVE AN AREA 3 TIMES THE ROOF DRAIN, A MINIMUM OPENING HEIGHT OF 4", AND HAVE AN INLET FLOW LINE LOCATED 2" ABOVE THE LOW POINT OF THE ROOF. (CFC R403.4.1)

ATTIC VENT NOTES

- ROOF ATTIC VENTS MUST BE WELL HIDDEN FROM NEIGHBORING VIEWS AND THE STREET. CONCEALED ROOF VENTS ARE PREFERRED.
- ROOF VENTS TO BE COLORED TO MATCH ROOFING MATERIAL.
- (CFC) 1203.2 ATTIC SPACES, ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF FRAMING MEMBERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATION OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN AND SMOKE BLOCKING AND BRIDGING SHALL BE ARRANGED SO AS NOT TO INTERFERE WITH THE MOVEMENT OF AIR. AN AIRSPACE OF NOT LESS THAN 1 INCH (25 MM) SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING. THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/50TH OF THE AREA OF THE SPACE VENTILATED.
EXCEPTIONS:
 - THE NET FREE CROSS-VENTILATION AREA SHALL BE PERMITTED TO BE REDUCED TO 1/500 PROVIDED THAT NOT LESS THAN 50 PERCENT AND NOT MORE THAN 80 PERCENT OF THE REQUIRED VENTILATING AREA PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET (914 MM) ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS.
 - THE NET FREE CROSS-VENTILATION AREA SHALL BE PERMITTED TO BE REDUCED TO 1/500 WHERE A CLASS I OR II VAPOR BARRIER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
 - ATTIC VENTILATION SHALL NOT BE REQUIRED WHEN DETERMINED NOT NECESSARY BY THE BUILDING OFFICIAL DUE TO ATMOSPHERIC OR CLIMATIC CONDITIONS.
- (CFC R321.6.1) VENTILATION OPENINGS FOR ENCLOSED ATTICS, ENCLOSED EAVE SOFFIT SPACES, ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND UNDERFLOOR VENTILATION SHALL BE IN ACCORDANCE WITH CBC SECTION 1203 AND CRC SECTIONS R321.6.1 THROUGH R321.6.3 TO RESIST BUILDING IGNITION FROM THE INTRUSION OF BURNING EMBERS AND FLAME THROUGH THE VENTILATION OPENING.
- (CFC R321.6.2) ATTIC VENTILATION OPENINGS SHALL BE FULLY COVERED WITH NONCOMBUSTIBLE AND CORROSION RESISTANT METAL MESH VENTS, OTHER MATERIALS OR OTHER DEVICES WITH THE DIMENSIONS OF THE OPENINGS THEREIN SHALL BE A MINIMUM OF 1/16-INCH (1.6mm) & SHALL NOT EXCEED 1/8-INCH (3.2mm).
- PROVIDE COMBUSTION AIR VENTS IN THE ATTIC TO BE IN ADDITION TO THE REQUIRED ATTIC VENTING. SIZE PER MECHANICAL CODE OR BASED ON PRODUCT LISTING.



ROOF LAYOUT

SCALE: 1/4" = 1'-0"

ATTIC VENT NOTE AREA (NEW ADU AT EXISTING GARAGE)

SEE ITEM #3 UNDER ATTIC VENT NOTES.

634 SQUARE FEET OF ATTIC AREA

DIVIDE TOTAL BY 300 PER C.B.C.

2.11 SQUARE FEET OF VENT AREA REQ'D, w/ HALF IN THE UPPER 1/3 AND HALF IN THE LOWER 1/3 OF THE ROOF.

MULTIPLY TOTAL BY 144 SQ. IN./SQ. FT.

305 SQUARE INCHES OF VENT AREA REQ'D.

VULCAN EAVE VENTS (MODEL VE3522) PROVIDES 41 SQ. IN. EVA REQUIRED VENTS 7.44 PROVIDED > 8

328 TOTAL VENT AREA TO BE PROVIDED > 305 SQUARE INCHES

■ =EAVE VENTS AS SHOWN ON ROOF PLAN

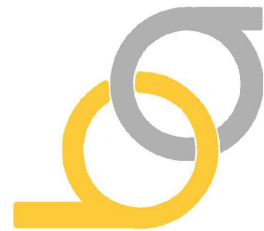
ATTIC VENTILATION (WHERE DETERMINED NECESSARY BY THE BUILDING OFFICIAL):

- ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN AND SNOW. THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED. EXCEPT THAT THE AREA MAY BE 1/300 PROVIDED 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVE OR CORNICE VENTS, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. THE OPENINGS SHALL BE COVERED WITH CORROSION-RESISTANT METAL MESH WITH MESH OPENINGS OF 1/4 INCH IN DIMENSION. DO NOT BLOCK VENTS WITH INSULATION.

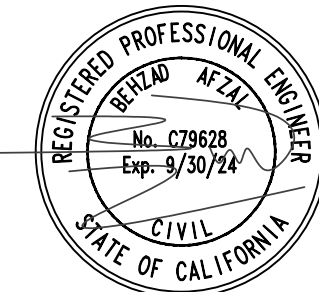


B.A. ENGINEERING & CONSULTING.

4000 BARRANCA PKWY #250, IRVINE, CA 92604



The plans and contents herein are the property of B.A. Engineering. Any copying, reproduction or redistribution is expressly prohibited without prior consent of the B.A. Engineering.



PROJECT: **REMODEL (E) S.F.R.**
829 FOXWORTH AVE.,
LA PUENTE, CA 91744

ROOF PLAN

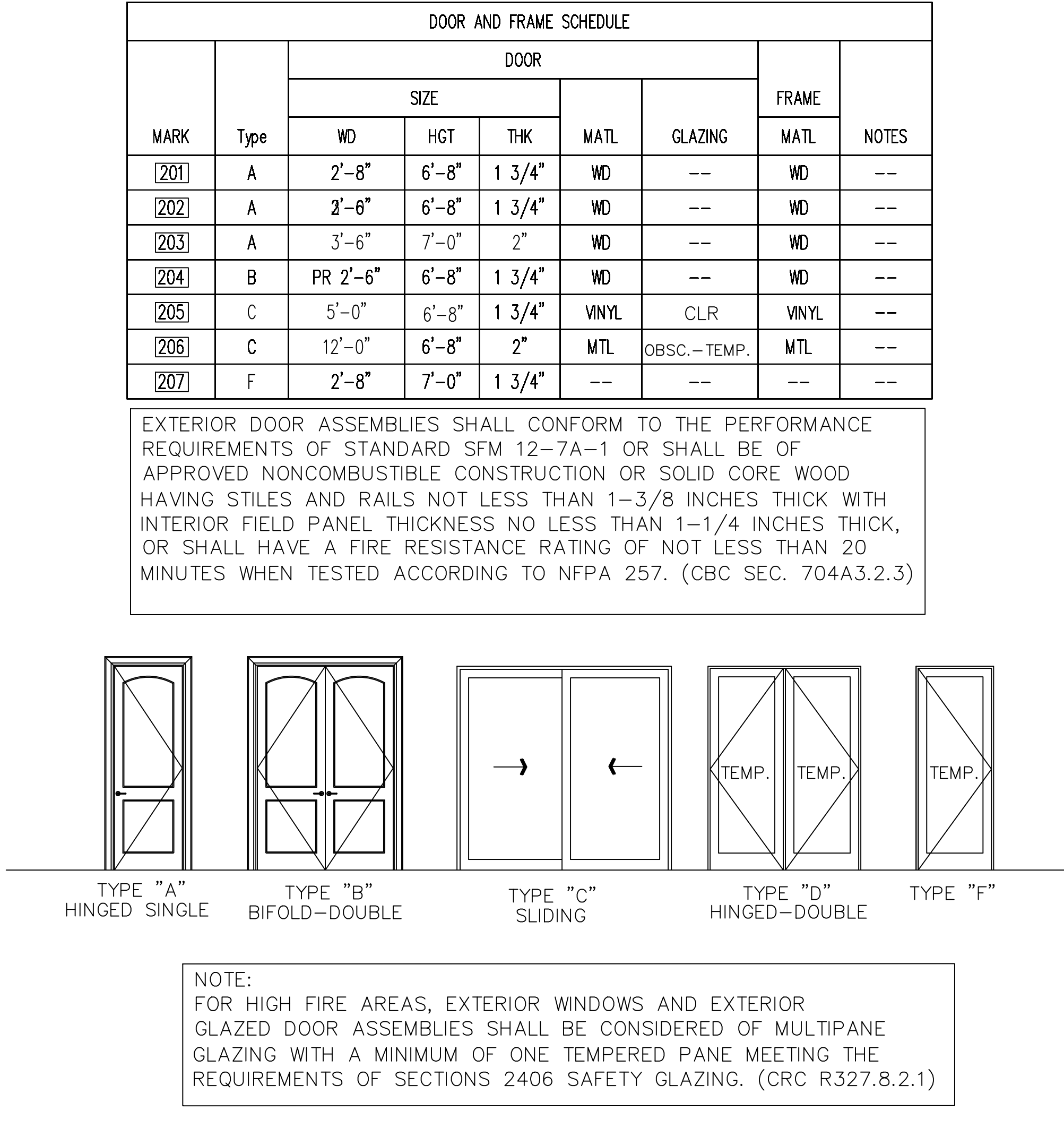
DATE: 3/23/23

DRAWN: JR

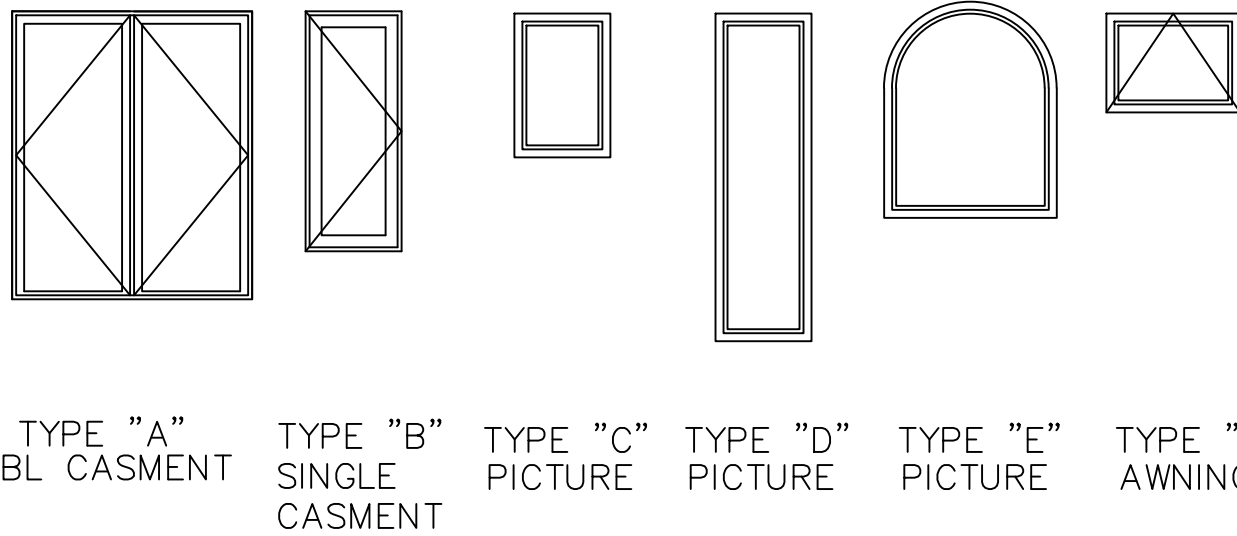
PROJECT NO:
303-23

SHEET NO.

A3.2



WINDOW SCHEDULE								
MARK	Type	SIZE		GLAZING	MATERIAL	U-FACTOR	SHGC	U-FACTOR SOURCE
		WIDTH	HEIGHT					
(201)	A	4'-0"	4'-0"	TEMP.	VINYL	0.30	0.23	NFRC
(202)	F	3'-0"	1'-0"	TEMP.	VINYL	0.30	0.23	NFRC
(203)	A	2'-0"	3'-0"	TEMP.	VINYL	0.30	0.23	NFRC
(204)	A	3'-0"	4'-0"	TEMP.	VINYL	0.30	0.23	NFRC



BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLES 26, 30 AND 31
A.Kashe
07/05/2024 11:24:45 AM

This set of plans and specifications must be **kept at the job site at all times**; it is **unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official**. The stamping of this set of plans and specifications **SHALL NOT**, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law



UTILITY LEGEND

SURFACE MOUNTED CEILING FAN W/ LIGHT FIXTURE.

RECESSED LIGHT FIXTURE.

H.F. HANGING LIGHT FIXTURE.

V.P. RECESSED LIGHT FIXTURE W/ VAPORPROOF LENS COVER.

WALL MOUNTED LIGHT FIXTURE.

W/ A MOTION SENSOR AND PHOTOCELL OR PHOTO CONTROL AND AUTOMATIC TIME SWITCH CONTROL. ASTRONOMICAL TIME CLOCK OR ENERGY MANAGEMENT CONTROL SYSTEM. SURFACE MOUNTED FLOURESCENT FIXTURE / UNDER CABINET LIGHT FIXTURE.

ENERGY STAR COMPLAINT EXHAUST FAN WITH HUMIDISTAT, 3-SONE SOUND RATED, SEPARATELY SWITCH CONTROLLED. MINIMUM 50 CFM, DUCTED TO TERMINATE OUTSIDE THE BUILDING.

120V DUPLEX CONVENIENCE RECEPTACLE.

240V SINGLE CONVENIENCE RECEPTACLE.

120V DUPLEX CONVENIENCE RECEPTACLE, SWITCH CONTROLLED, 1/2 HOT.

120V DUPLEX CONVENIENCE RECEPTACLE BELOW (INCL. INSIDE CABINET OR ABOVE AT CEILING).

120V GROUND FAULT CIRCUIT-INTERRUPTER (GFCI) DUPLEX CONVENIENCE RECEPTACLE.

W.P. 120V WEATHERPROOF G.F.C.I. DUPLEX CONVENIENCE RECEPTACLE.

DEDICATED COMPUTER OUTLET.

SINGLE POLE LIGHT SWITCH.

THREE-WAY LIGHT SWITCH.

SINGLE POLE LIGHT SWITCH W/ DIMMER CONTROL.

PH. TELEPHONE JACK.

T.V. TELEVISION ANTENNA / CABLE JACK.

D.M. DEDICATED MODEM LINE

PUSH BUTTON FOR DOOR CHIMES.

DOOR CHIMES.

THERMOSTAT, VERIFY LOCATION WITH HEATING AND AC LAYOUT.

JUNCTION BOX, WITH COVER OR ADAPTOR AS REQUIRED.

S SMOKE DETECTOR, SEE NOTE #1 ABOVE. UL-217 RATED.

A LIGHTED ADDRESS SIGN (VISIBLE FROM STREET) (LINE VOLTAGE) TIED TO PHOTOCELL.

SECURITY SYSTEM MASTER UNIT.

HB HOSE BIB (HB).

HB/SOV HOSE BIB WITH SHUT OFF VALVE (HB/SOV).

FG FUEL GAS OUTLET (FG).

KEY LOOSE KEY VALVE (KEY).

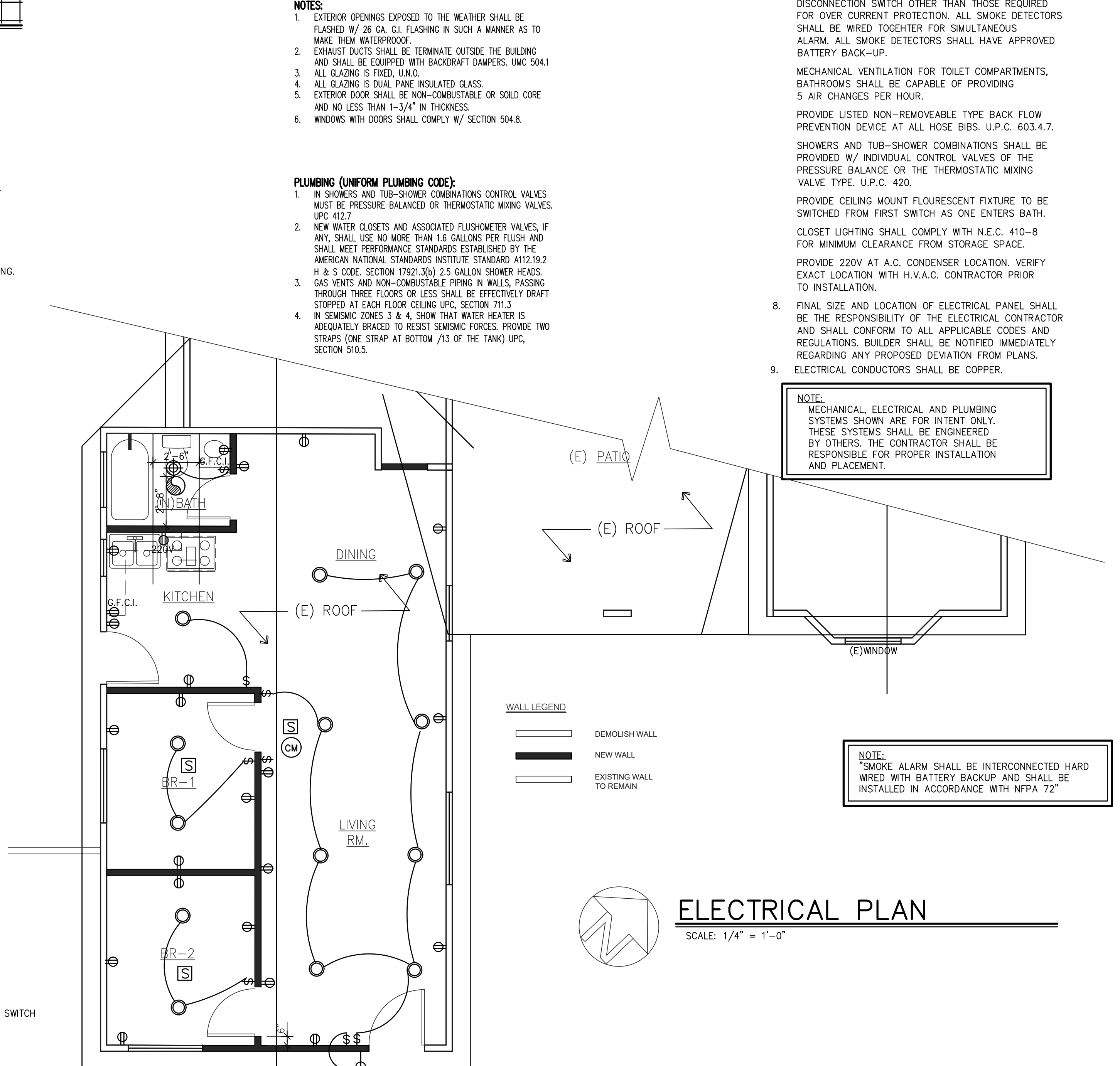
WATER STUB OUT FOR ICE MAKER.

CM CARBON MONOXIDE ALARM, INTERCONNECTED AND HARDWIRED. UL 2034/2075 RATED.

EV ELECTRICAL VEHICLE CHARGER.

OCCUPANCY/VACANCY SENSOR WITH MANUAL ON AUTO OFF SWITCH

A.F.C.I. ARC FAULT CIRCUIT INTERRUPTER



BUILDING AND SAFETY DIVISION

Department of Public Works

APPROVED

UNDER LOS ANGELES COUNTY CODE

TITLES 26, 30 AND 31

AKASH

PUBLIC WORKS

07/05/2024 11:24:45 AM

This set of plans and specifications shall be valid at the job site as at times left is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written consent of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

- NOTES:
1. SYSTEMS USING GAS OR PROPANE FURNACE TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING TO BE HEAT PUMP SPACE HEATER READY PER CEC SECTION 150.0(i):

a. A DEDICATED 240 VOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE FURNACE AND ACCESSIBLE TO THE FURNACE WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 30amp MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY". ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH CALIFORNIA ELECTRICAL CODE.

b. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR HEAT PUMP SPACE HEATER INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS " FOR FUTURE 240V USE."

2. SYSTEMS USING GAS OR PROPANE COOKTOP TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING TO BE ELECTRIC COOKTOP READY PER CEC SECTION 150.0(u):

a. A DEDICATED 240 VOLTS BRANCH CIRCUIT WIT-RING SHALL BE INSTALLED WITHIN 3 FEET FROM THE COOKTOP AND ACCESSIBLE TO THE COOKTOP WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 30amp MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY." ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.

b. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR THE FUTURE ELECTRICAL COOKTOP INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS "FOR FUTURE 240V USE."

3. CLOTHES DRYER LOCATIONS WITH GAS OR PROPANE PLUMBING TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING TO BE ELECTRIC CLOTHES DRYER READY PER CEC SECTION 150.0(v):

a. A DEDICATED 240 VOLT BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITHIN 3 FEET FROM THE CLOTHES DRYER LOCATION AND ACCESSIBLE TO THE CLOTHES DRYER LOCATION WITH NO OBSTRUCTIONS. THE BRANCH CIRCUIT CONDUCTORS SHALL BE RATED AT 30 amps MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY." ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE.

b. THEN MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE ELECTRIC CLOTHES DRYER INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS " FOR FUTURE 240V USE." ALL GLAZING IS FIXED, U.N.O.

4. A LOCAL MECHANICAL EXHAUST SYSTEM SHALL BE INSTALLED IN EACH KITCHEN AND BATHROOM IN ACCORDANCE WITH CEC SECTION 150.0(j)(6). THE FOLLOWING NEEDS SPECIFIC NOTES OR DETAILS ON PLANS TO DEMONSTRATE COMPLIANCE (GENERAL NOTES WILL NOT SUFFICE):

a. NONENCLOSED KITCHENS SHALL HAVE DEMAND CONTROLLED MECHANICAL EXHAUST SHALL COMPLY WITH SECTION 150.0(c) 10(i).

b. ENCLOSED KITCHENS AND BATHROOMS MAY BE PROVIDED WITH EITHER A DEMAND CONTROLLED EXHAUST OR CONTINUOUS MECHANICAL EXHAUST. SPECIFY WHICH WILL BE PROVIDED ON PLAN.

5. WHERE DEMAND CONTROLLED MECHANICAL EXHAUST IS PROVIDED IN THE KITCHEN OR BATHROOMS, USE CEC TABLE 150.0(e) AND TABLE 150.0-6 TO SIZE THE AIRFLOW RATE, CLEARLY INDICATED THE REQUIRED AIRFLOW RATE ON THE PLANS BASED ON THE TABLES. GENERAL NOTES WILL NOT SUFFICE TO ADDRESS THIS CODE REQUIREMENT. GLAZING IS DUAL PANE INSULATED GLASS.

6. FOR RESIDENTIAL ENERGY WATER HEATING, SYSTEMS USING GAS OR PROPANE WATER HEATERS SHALL DESIGNATE A 2.5 FEET BY 2.5 FEET AND 7 FOOT TALL SPACE AVAILABLE FOR THE FUTURE INSTALLATION OF A HEAT PUMP WATER HEATER. CLEARLY DETAIL THE SPACE ON PLAN [Cec 150.0(n)]

7. IF THE DESIGNATED SPACE FOR THE RESIDENTIAL ENERGY WATER HEATING SYSTEM IS WITHIN 3 FEET FROM THE WATER, THEN THIS SPACE SHALL INCLUDE THE FOLLOWING PER CEC SECTION 150.0(n)(A) SPACE SHALL INCLUDE THE FOLLOWING PER CEC SECTION 150.0(n)(A):

a. A DEDICATED 125 VOLTS, 20AMP ELECTRICAL RECEPTACLE THAT IS CONNECTED TO THE ELECTRIC PANEL WITH A 10 VOLTS 3 CONDUCTOR, 10AWG COPPER BRANCH CIRCUIT, WITHIN 3 FEET FROM WATER HEATER AND ACCESSIBLE TO THE WATER HEATER WITH NO OBSTRUCTIONS; AND

b. BOTH ENDS OF THE UNUSED CONDUCTOR SHALL BE LABELED WITH THE WORD "SPARE" AND BE ELECTRICALLY ISOLATED; AND

c. A RESERVED SINGLE POLE CIRCUIT BREAKER SPACE IN THE ELECTRICAL PANEL ADJACENT TO THE CIRCUIT BREAKER FOR THE BRANCH CIRCUIT IN A ABOVE AND LABELED WITH THE WORDS "FUTURE 240V USE"; AND

d. A CONDENSATE DRAIN THAT IS NO MORE THAN 2 INCHES HIGHER THAN THE BASE OF Y=THE INSTALLED WATER HESTER, AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE.

8. IF THE DESIGNATED SPACE FOR THE RESIDENTIAL ENERGY WATER HEATING SYSTEM IS MORE THAN 3 FEET FROM THE WATER HEATER, THEN THIS SPACE SHALL INCLUDE THE FOLLOWING PER CEC SECTION 150.0(n)(B):

a. A DEDICATED 240 VOLT BRANCH CIRCUIT SHALL BE INSTALLED WITHIN 3 FEET FRO THE DESIGNATED SPACE. THE BRANCH CIRCUIT SHALL BE RATED AT 30 AMPS MINIMUM. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY"; AND

b. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATIONS OF A DOUBLE POLE CIRCUIT BREAKER FOR THE FUTURE HPWH INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS " FOR FUTURE 240V USE"; AND

c. EITHER A DEDICATED COLD WATER SUPPLY, OR THE COLD WATER SUPPLY SHALL PASS THE DESIGNATED HPWH LOCATION JUST BEFORE REACHING THE GAS OR PROPANE WATER HEATER; AND

d. THE HOT WATER SUPPLY PIPE COMING OUT OF THE GAS OR PROPANE WATER HEATER SHALL BE ROUTED FIRST THROUGH THE DESIGNATED HPWH LOCATION BEFORE SERVING ANY FUTURES AND

e. THE HOT AND COLD WATER PIPING AT THE DESIGNATED HPWH LOCATION SHALL BE EXPOSED AND READILY ACCESSIBLE FOR FUTURE INSTALLATION OF AN HPWH; AND

f. A CONDENSATE DRAIN THAT IS NO MORE THAN 2 INCHES HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER, AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE.
- B.A. ENGINEERING & CONSULTING.
-
-
- PROJECT: REMODEL (E) S.F.F.R. 829 FOXWORTH AVE., LA PUENTE, CA 91744
- SHEET: ELECTRICAL PLAN
- DATE: 3/23/23
- DRAWN: JR
- PROJECT NO:
- 303-23
- SHEET NO.
- E-1

CARPENTRY

FIREBLOCKS AND DRAFT STOPS

1. IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING AND DRAFTSTOPPING SHALL BE INSTALLED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND SHALL FORM AN EFFECTIVE BARRIER BETWEEN FLOORS, BETWEEN A TOP STORY AND ROOF OR ATTIC SPACE, AND SHALL SUBDIVIDE ATTIC SPACES, CONCEALED ROOF SPACES AND FLOOR-CEILING ASSEMBLIES. THE INTEGRITY OF ALL FIREBLOCKS AND DRAFT STOPS SHALL BE MAINTAINED.

2. FIREBLOCKS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS:
- A. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS AND AT 10-FOOT INTERVALS BOTH VERTICAL AND HORIZONTAL. EXCEPTED FIRE BLOCKS MAY BE OMITTED AT FLOOR AND CEILING LEVELS WHEN APPROVED SMOKE-ACTUATED FIRE DAMPERS ARE INSTALLED AT THESE LEVELS.
- B. AT ALL INTERSECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SKEFFTS, DROP CEILINGS AND COVE CEILINGS.
- C. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN AND BETWEEN STUDS ALONG AND IN LINE WITH THE RUN OF STAIRS IF THE WALLS UNDER THE STAIRS ARE UNFINISHED.
- D. IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES AND SIMILAR OPENINGS WHICH AFFORD A PASSAGE FOR FIRE AT CEILING AND FLOOR LEVELS, WITH NONCOMBUSTIBLE MATERIALS.
- E. AT OPENINGS BETWEEN ATTIC SPACES AND CHIMNEY CHASES FOR FACTORY BUILT CHIMNEYS.

3. FIRE BLOCK CONSTRUCTION EXCEPT AS PROVIDED IN ITEM D ABOVE, FIREBLOCKING SHALL CONSIST OF 2 INCHES NOMINAL LUMBER OR TWO THICKNESSES OF 1 INCH NOMINAL LUMBER WITH BROKEN LAP JOINTS OR ONE THICKNESS OF 23/32 INCH WOOD STRUCTURAL PANEL WITH JOINTS BACKED BY 23/32 INCH WOOD STRUCTURAL PANEL, OR ONE THICKNESS OF 3/4 INCH TYPE 2-M PARTICLE BOARD WITH JOINTS BACKED BY 3/4 INCH TYPE 2-M PARTICLE BOARD.

4. FIRE BLOCKS MAY ALSO BE OF GYPSUM BOARD, GLASS FIBER, MINERAL FIBER OR OTHER APPROVED MATERIALS SECURELY FASTENED IN PLACE.

5. WALLS HAVING PARALLEL OR STAGGERED STUDS FOR SOUND TRANSMISSION CONTROL SHALL HAVE FIRE BLOCKS OF MINERAL FIBER, GLASS FIBER, OR OTHER APPROVED NONRIGID MATERIAL.

6. DRAFT STOPS, WHERE REQUIRED SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS:
- A. FLOOR-CEILING ASSEMBLIES.
- 1) SINGLE-FAMILY DWELLING: WHEN THERE IS USABLE SPACE ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR-CEILING ASSEMBLY IN A SINGLE-FAMILY DWELLING, DRAFT STOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 100 SQUARE FEET. DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS.
- 2) TWO OR MORE DWELLING UNITS: DRAFT STOPS SHALL BE INSTALLED IN FLOOR-CEILING ASSEMBLIES OF BUILDINGS HAVING MORE THAN ONE DWELLING UNIT. SUCH DRAFT STOPS SHALL BE IN LINE WITH WALLS SEPARATING INDIVIDUAL DWELLING UNITS AND FROM OTHER AREAS. DRAFT STOPS SHALL BE INSTALLED IN THE ATTICS, HANGARS, OVERHANGS, FALSE FRONTS SET OUT FROM WALLS AND SIMILAR CONCEALED SPACES OF BUILDINGS CONTAINING MORE THAN ONE DWELLING UNIT.

7. DRAFT STOP CONSTRUCTION: DRAFTSTOPPING MATERIALS SHALL NOT BE LESS THAN 1/2 INCH GYPSUM BOARD, 3/8 INCH WOOD STRUCTURAL PANEL, TYPE 2-M PARTICLE BOARD OR OTHER APPROVED MATERIALS ADEQUATELY SUPPORTED.

8. TEMPORARY WALL BRACING FRAMER IS RESPONSIBLE FOR INSTALLING TEMPORARY WALL BRACING TO ADEQUATELY SUPPORT FRAMING DURING CONSTRUCTION. THIS BRACING TO REMAIN IN PLACE UNTIL STRUCTURAL INTEGRITY HAS BEEN ACHIEVED.

THERMAL AND MOISTURE PROTECTION

FLASHING AND COUNTERFLASHING

1. EXTERIOR OPENINGS EXPOSED TO THE WEATHER SHALL BE FLASHED IN SUCH A MANNER AS TO MAKE THEM WEATHERPROOF. FLASHING AND COUNTERFLASHING SHALL BE PROVIDED AT THE JUNCTION OF THE ROOF AND VERTICAL SURFACES (WALLS, ETC.).

2. ALL PARAPETS SHALL BE PROVIDED WITH COPING OF APPROVED MATERIALS. ALL FLASHING, COUNTERFLASHING AND COPING, WHEN OF METAL, SHALL BE OF NOT LESS THAN NO. 26 U.S. GAUGE CORROSION-RESISTANT METAL.

3. ROOF VALLEY FLASHINGS SHALL BE PROVIDED FOR SHINGLES AS FOLLOWS:
- WOOD SHINGLES AND WOOD SHAKES: THE ROOF VALLEY FLASHING SHALL BE PROVIDED OF NOT LESS THAN NO. 28 GALVANIZED SHEET GAUGE CORROSION-RESISTANT METAL APPLIED OVER AN UNDERLAYMENT OF NOT LESS THAN 30 POUND BUILDING PAPER. THE METAL SHALL EXTEND AT LEAST 12 INCHES FROM THE CENTER LINE EACH WAY FOR WOOD SHINGLES AND 12 INCHES FROM THE CENTER LINE EACH WAY FOR WOOD SHAKES. SECTIONS OF FLASHING SHALL HAVE AN OVERLAP OF NOT LESS THAN 4 INCHES.
- ASPHALT SHINGLES: THE ROOF VALLEY FLASHING SHALL BE THE SAME AS REQUIRED FOR WOOD SHINGLES OR SHALL BE OF LACED ASPHALT SHINGLES APPLIED IN AN APPROVED MANNER WITH AN UNDERLAYMENT OF NOT LESS THAN TYPE IS FELT EXTENDING 18 INCHES FROM THE CENTER LINE EACH WAY, OR SHALL BE OF TWO LAYERS OF 90 POUND MINERAL SURFACED CAP SHEET CEMENTED TOGETHER WITH THE BOTTOM LAYER NOT LESS THAN 12 INCHES WIDE LAID FACE DOWN AND THE TOP LAYER NOT LESS THAN 24 INCHES WIDE LAID FACE UP.
- SLATE SHINGLES, CLAY AND CONCRETE TILES: THE ROOF VALLEY FLASHING SHALL BE PROVIDED OF NOT LESS THAN NO. 28 GALVANIZED SHEET GAUGE CORROSION-RESISTANT METAL APPLIED OVER AN UNDERLAYMENT OF NOT LESS THAN 30 POUND BUILDING PAPER. THE METAL SHALL EXTEND AT LEAST 12 INCHES FROM THE CENTERLINE EACH WAY AND SHALL HAVE A SPLASH DIVERTER RIB NOT LESS THAN 1 INCH HIGH AT THE FLOW LINE FORMED AS PART OF THE FLASHING. SECTIONS OF FLASHING SHALL HAVE AN END LAP OF NOT LESS THAN 4 INCHES.

4. FLASH AND COUNTERFLASH AT ALL ROOF TO WALL CONDITIONS. GL FLASH AND CAULK WOOD BEAMS AND OUTLEADERS PROJECTED THROUGH EXTERIOR WALLS OR ROOF SURFACES.

5. WHERE EXPOSED TO WEATHER, FLASH ALL HORIZONTAL WOOD TRIM BUTTING TO EXTERIOR FINISH.

SKYLIGHTS

1. SKYLIGHTS ARE TO BE CONSTRUCTED AND INSTALLED AS PER MANUFACTURERS SPECIFICATIONS AND C.B.C. SECTION 2409.

WATERPROOFING WEATHER-EXPOSED AREAS

1. BALCONIES, LANDINGS, EXTERIOR STAIRWAYS, OCCUPIED ROOFS AND SIMILAR SURFACES EXPOSED TO THE WEATHER AND SEALED UNDERNEATH SHALL BE WATERPROOFED AND SLOPED A MINIMUM OF 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2% SLOPE) FOR DRAINAGE.

DAMP-PROOFING FOUNDATION WALLS

1. UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL, FOUNDATION WALLS ENCLUSING A BASEMENT BELOW FINISHED GRADE SHALL BE DAMPROOFED OUTSIDE BY APPROVED METHODS AND MATERIALS.

INSULATION

1. FOR CALIFORNIA PROJECTS, SEE ENERGY COMPLIANCE SHEET FOR CALIFORNIA ENERGY TITLE 24 REQUIREMENTS. FOR NON-CALIFORNIA PROJECTS, SEE ENERGY COMPLIANCE SHEET FOR MODEL ENERGY CODE REQUIREMENTS.

2. THE FOLLOWING OPENINGS IN THE BUILDING ENVELOPE MUST BE CAULKED, SEALED OR WEATHER STRIPPED:
- EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, BETWEEN WALL PANELS, WALL SOLE PLATES AND FLOORS;
- OPENINGS FOR PLUMBING, ELECTRICAL AND GAS LINES IN EXTERIOR AND INTERIOR WALLS, CEILINGS AND FLOORS;
- OPENINGS IN THE ATTIC FLOOR (SUCH AS WHERE CEILING PANELS MEET INTERIOR AND EXTERIOR WALLS AND MASONRY FIREPLACES); AND
- ALL OTHER SUCH OPENING IN THE BUILDING ENVELOPE.
- ALTERNATIVE APPROVED TECHNIQUES MAY BE USED TO MEET THE STANDARD CAULKING REQUIREMENTS FOR EXTERIOR WALLS, INCLUDING BUT NOT LIMITED TO, CONTINUOUS STUCCO, CAULKING OR TAPING OF ALL JOINTS BETWEEN WALL COMPONENTS (E.G., BETWEEN SLEETS IN WOOD SLAT WALLS), BUILDING WRAPS, OR RIGID WALL INSULATION.

3. BUILDER AND INSULATION INSTALLER ARE TO PROVIDE A CERTIFICATE OF INSULATION AND POST IN THE BUILDING IN A CONSPICUOUS LOCATION.

4. SEE PLANS FOR PARTY WALL CONDITIONS.

THERMAL AND MOISTURE PROTECTION

EXTERIOR WALL COVERINGS

WEATHER RESISTIVE BARRIER

1. PROVIDE ONE (1) LAYER 60 MINUTE GRADE "D" PAPER MINIMUM UNDER ALL EXTERIOR FINISHES. (2 LAYERS OVER WOOD BASE SHEATHING BEHIND EXTERIOR PLASTER.)

MATERIALS

1. ALL EXTERIOR MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE CALIFORNIA BUILDING CODE AND LOCAL CODES.
2. SIDING: SOLID WOOD SIDING SHALL HAVE AN AVERAGE THICKNESS OF 3/8 INCH UNLESS PLACED OVER SHEATHING PERMITTED BY U.B.C. SIDING PATTERNS KNOWN AS RUSTIC, DROP SIDING OR SHIP LAP SHALL HAVE AN AVERAGE THICKNESS IN PLACE OF NOT LESS THAN 19/32 INCH AND SHALL HAVE A MINIMUM THICKNESS OF NOT LESS THAN 3/8 INCH. BEVEL SIDING SHALL HAVE A MINIMUM THICKNESS MEASURED AT THE BUTT SECTION OF NOT LESS THAN 7/16 INCH AND A TIP THICKNESS OF NOT LESS THAN 3/16 INCH. ALL WEATHERBOARDING OR SIDING SHALL BE SECURELY NAILED TO EACH STUD WITH NOT LESS THAN ONE NAIL OR 15/32 INCH WOOD STRUCTURAL PANEL SHEATHING OR 1/2 INCH PARTICLEBOARD SHEATHING WITH NOT LESS THAN ONE LINE OF NAILS SPACED NOT MORE THAN 24 INCHES ON CENTER IN EACH PIECE OF THE WEATHERBOARDING OR SIDING.

3. WHERE HARDBOARD SIDING IS USED FOR COVERING THE OUTSIDE OF EXTERIOR WALLS, IT SHALL CONFORM TO THE CURRENT EDITION OF THE CALIFORNIA BUILDING CODE AND LOCAL CODES. LAP SIDING SHALL BE INSTALLED HORIZONTALLY AND APPLIED TO SHEATHED OR UNWEATHED WALLS. CORNER BRACING SHALL BE INSTALLED TO CONFORM WITH C.B.C. REQUIREMENTS. A WEATHER RESISTIVE BARRIER (GRADE "D" PAPER) SHALL BE INSTALLED UNDER LAP SIDING. ALL FASTENERS USED FOR THE ATTACHMENT OF SIDING SHALL BE OF A CORROSION-RESISTANT TYPE. NAIL SIZE AND SPACING SHALL MEET C.B.C. REQUIREMENTS AND SHALL PENETRATE FRAMING 1 1/2 INCHES. LAP SIDING SHALL OVERLAP 1 INCH MINIMUM AND BE NAILED THROUGH BOTH COURSES AND INTO FRAMING MEMBERS WITH NAILS LOCATED 1/2 INCH FROM BOTTOM OF THE OVERLAPPED COURSE, OR TO MANUFACTURERS SPECIFICATIONS.

4. VINYL SIDING MAY BE INSTALLED ON EXTERIOR WALLS ACCORDING TO THE REQUIREMENTS OF C.B.C. SECTION 1404 AND SHALL BE SECURED TO THE BUILDING SO AS TO PROVIDE WEATHER PROTECTION FOR THE EXTERIOR WALLS.

ROOFING MATERIALS

SHAKES

1. EACH BUNDLE OF WOOD SHAKES FOR ROOFS SHALL BE OF WESTERN RED CEDAR OR REDWOOD AND SHALL BEAR THE LABEL OF AN APPROVED INSPECTION BUREAU OR AGENCY CERTIFYING COMPLIANCE WITH C.B.C. STANDARDS AND LOCAL CODES.
2. SHAKES SHALL BE LAID WITH A SIDE LAP OF NOT LESS THAN 1 1/2 INCHES BETWEEN JOINTS IN ADJACENT COURSES. SPACING BETWEEN SHAKES SHALL BE NOT LESS THAN 3/8 INCH OR MORE THAN 5/8 INCH, EXCEPT FOR PRESERVATIVE-TREATED WOOD SHAKES, WHICH SHALL HAVE A SPACING OF NOT LESS THAN 1/4 INCH OR MORE THAN 3/8 INCH.
3. EACH WOOD SHAKE SHALL BE FASTENED TO THE SHEATHING WITH TWO NAILS ONLY. THE STARTER COURSE AT THE EAVES SHALL BE DOUBLED.

4. SHAKES SHALL BE LAID WITH NOT LESS THAN 18-INCH WIDE INTERLAYMENT OF NOT LESS THAN TYPE 30 FELT SHINGLED BETWEEN EACH COURSE IN SUCH A MANNER THAT NO FELT IS EXPOSED TO THE WEATHER BELOW THE SHAKE BUTTS AND IN THE KEYS (BETWEEN THE SHAKES).

5. SHAKES INSTALLED ON A ROOF HAVING A SLOPE LESS THAN 4-INCHES TO 12-INCHES SHALL BE INSTALLED OVER AN UNDERLAY OF NOT LESS THAN TYPE 30 FELT, APPLIED WITH 20 POUNDS OF HOT ASPHALT FOR SOLID MOPPING (60 POUNDS FOR SPOT OR STRIP-MOPPING OR NOT LESS THAN TWO GALLONS OF COLD BITUMINOUS COMPOUND IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED SPECIFICATIONS, OR 30 POUNDS OF HOT COAT TAR PITCH PER ROOF ROOFING SQUARE. BASE SHEETS SHALL BE NAILED, USING NOT LESS THAN ONE NAIL PER EACH 1-1/3 SQUARE FEET WITH NAILS OF THE TYPE REQUIRED BY THE MANUFACTURER FOR THE TYPE OF DECK.

6. NAILS FOR WOOD SHAKES SHALL BE NOT LESS THAN 13 GAUGE, 7/32 INCH CORROSION-RESISTANT AND SHALL BE LONG ENOUGH TO PENETRATE INTO THE SHEATHING 3/4 INCH, OR THROUGH THE THICKNESS OF THE SHEATHING, WHICHEVER IS LESS.

7. WEATHER EXPOSURES SHALL NOT EXCEED THOSE SET FORTH IN THE TABLE BELOW. HIP AND RIDGE WEATHER EXPOSURES SHALL NOT EXCEED THOSE PERMITTED FOR THE FIELD OF THE ROOF.

NO. 1 WOOD SHAKES	24 INCH	7-1/2"
	18 INCH	10"
NO. 2 TAPERSAWN WOOD SHAKES	18 INCH	5-1/2"
	25-INCH	7-1/2"

ASPHALT COMPOSITION SHINGLES

1. ASPHALT COMPOSITION SHINGLES TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS AND C.B.C. TABLE 15-B-1. WEIGHT, COLOR, AND MATERIAL TO BE APPROVED BY ARCHITECT AND/OR OWNER.

CLAY TILE/CONCRETE TILE

1. ROOF TILE BY MINOR LIFETIME, OR APPROVED EQUAL.
2. ROOF TILE SHALL BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS AND C.B.C. TABLES 15-B-1 AND 15-B-2. COLOR AND SHAPE TO BE APPROVED BY ARCHITECT AND/OR OWNER.
3. PROVIDE NAILING AND WIND CLIPS PER MANUFACTURER'S PUBLISHED INSTALLATION PROCEDURES.

BUILT-UP ROOFING MATERIALS

1. EACH PACKAGE OF FELTS, CEMENTS, AND BASE-, PLY-COMBINATION OR CAP SHEETS SHALL BEAR THE LABEL OF AN APPROVED TESTING LABORATORY HAVING A SERVICE FOR THE INSPECTION OF MATERIAL AND FINISHED PRODUCTS DURING MANUFACTURE FOR SUCH BUILT-UP ROOFING MATERIAL.
2. BUILT-UP ROOFING SHALL BE APPLIED TO SOLID ROOF SHEATHINGS AS SPECIFIED IN DIVISION 6 OF THESE GENERAL NOTES.
3. BASE SHEETS SHALL BE NAILED, USING NOT LESS THAN ONE NAIL PER EACH 1-1/3 SQUARE FOOT WITH NAILS OF THE TYPE REQUIRED BY THE MANUFACTURER FOR THE TYPE OF DECK. SUCCESSIVE LAYERS SHALL BE CEMENTED TO THE BASE SHEETS USING 20 POUNDS OF HOT ASPHALT FOR SOLID MOPPING (60 POUNDS FOR SPOT OR STRIP-MOPPING, OR NOT LESS THAN TWO GALLONS OF COLD BITUMINOUS COMPOUND IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED SPECIFICATIONS, OR 30 POUNDS OF HOT COAT TAR PITCH PER ROOFING SQUARE.
4. MINERAL AGGREGATE SURFACED ROOFS SHALL BE SURFACED WITH NOT LESS THAN 60 POUNDS OF HOT ASPHALT OR OTHER CEMENTING MATERIAL IN WHICH IS EMBEDDED NOT LESS THAN 400 POINTS OF GRAVEL OR OTHER APPROVED SURFACING MATERIAL OR 300 POUNDS OF CRUSHED SLAG PER ROOFING SQUARE. COLOR TO BE APPROVED BY ARCHITECT.
5. CAP SHEETS SHALL BE CEMENTED TO THE BASE SHEETS USING NOT LESS CEMENTING MATERIAL THAN THAT SPECIFIED FOR SOLIDLY CEMENTED BASE SHEETS.



THERMAL AND MOISTURE PROTECTION

MEMBRANE WATER RESISTIVE BARRIER

1. MEMBRANE "WATERPROOFING" SHALL BE INSTALLED TO PREPARED SURFACES BY SKILLED AND QUALIFIED MECHANICS AND SHALL CONFORM TO THE FOLLOWING:

MATERIALS

ASPHALT PRIMER	CONFORM TO ASTM D 41	
ASPHALT EMULSION	CONFORM TO ASTM D 1197, FLINTKITE C-13 OR EQUAL	15 lbs.
GLASS CLOTH	CONFORM TO F.S. HH-C-4668, FLINTKITE "YELLOW JACKET" OR EQUAL	30 lbs.
PROTECTION COURSE	CONFORM TO F.S. HH-I-5566, FLINTKITE "FLINTGLAS" OR MINIMUM 3/8" THICK GYPSUM BOARD.	1 lbs.
SUMMARY OF MATERIALS PER 100 SQUARE FEET:		30 lbs.
ASPHALT EMULSION PRIMER (1-1/2 GALLONS)		30 lbs.
FIRST COURSE C-13-E (3 GALLONS)		1 lbs.
SECOND COURSE GLASS FABRIC		30 lbs.
THIRD COURSE C-13-E		30 lbs.
FOURTH COURSE C-13-E (3 GALLONS)		30 lbs.
APPROXIMATE TOTAL WEIGHT (WET)		106 lbs.

BALCONY AND DECK COATING

1. ELASTOMERIC OR MEMBRANE DECK COATINGS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. COLOR AND FINISH AND DETAILING TO BE APPROVED BY ARCHITECT AND/OR OWNER.

EXTERIOR DECKS

1. DECKS, BALCONIES, LANDINGS, EXTERIOR STAIRWAYS AND SIMILAR SURFACES EXPOSED TO THE WEATHER AND SEALED UNDERNEATH SHALL BE WATERPROOFED.
2. ALL EXTERIOR DECKS AND BALCONIES EXPOSED TO WEATHER SHALL BE CONSTRUCTED WITH SUFFICIENT SLOPE (MINIMUM 1/4" PER FOOT) TO ENSURE ADEQUATE DRAINAGE.
3. UNLESS DESIGNED TO DRAIN OVER DECK EDGES, DRAINS AND OVERFLOWS OF ADEQUATE SIZE SHALL BE INSTALLED AT THE LOW POINTS OF THE DECK.
4. PROVIDE MINIMUM 2" (MIN) DROP FROM FINISHED INTERIOR FLOOR TO THE HIGHEST FLOOR LEVEL IN ANY ADJUTING DECK OR BALCONY.

UNDERLAYMENT

1. CONTRACTOR TO PROVIDE A MINIMUM OF ONE LAYER OF TYPE IS FELT UNDER ROOFING MATERIAL. LAP MINIMUM OF 2" HORIZONTALLY OR 4" VERTICALLY FOR SLOPES GREATER THAN 4 UNITS TO 12 UNITS.
2. SECURE UNDERLAYMENT TO SHEATHING WITH CORROSION-RESISTANT NAILS, MINIMUM 12 GAGE 3/8 INCH HEAD, OR APPROVED CORROSION-RESISTANT STAPLES, MINIMUM 16 GAGE 15/16 INCH CROWN WIDTH. FASTENERS SHALL BE LONG ENOUGH TO PENETRATE INTO SHEATHING 3/4 INCH OR THROUGH THE THICKNESS OF THE SHEATHING, WHICHEVER IS LESS. PROVIDE A MINIMUM OF 4 FASTENERS PER EACH 36 INCH TO 40 INCH STRIP.
3. UNDERLAYMENT TO MEET C.B.C. STANDARD 15-6.

DOORS AND WINDOWS

WINDOWS AND DOORS

1. FLOOR PLANS FOR SIZE AND TYPE. COLOR SHALL BE AS APPROVED BY ARCHITECT/OWNER.
2. ALUMINUM SURFACES TO BE PLACED IN CONTACT WITH WOOD, CONCRETE OR MASONRY CONSTRUCTION, EXCEPT WHERE THE ALUMINUM IS TO BE EMBEDDED IN CONCRETE, SHALL BE GIVEN A HEAVY COAT OF AN ALKALI-RESISTANT BITUMINOUS PAINT BEFORE INSTALLATION. THE BITUMINOUS PAINT USED SHALL MEET THE REQUIREMENTS OF UNITED STATES MILITARY SPECIFICATION MIL-P-6883. THE PAINT SHALL BE APPLIED AS IT IS RECEIVED FROM THE MANUFACTURER WITHOUT THE ADDITION OF ANY THINNER.
3. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE ORDINARILY NEED NOT BE PAINTED UNLESS CORROSIVE COMPONENTS ARE ADDED TO THE CONCRETE OR IT IS TO BE SUBJECTED FOR EXTENDED PERIODS TO EXTREMELY CORROSIVE CONDITIONS. IN SUCH CASES, ALUMINUM SURFACES SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-64S OR EQUIVALENT, OR SHALL BE WRAPPED WITH A SUITABLE PLASTIC TAPE APPLIED IN SUCH A MANNER AS TO PROVIDE ADEQUATE PROTECTION AT THE OVERLAP.

GARAGE DOORS

1. SPRING MUST BE CONTAINED WITH A RESTRAINT DEVICE TO ANCHOR THE SPRING OR ANY PART THEREOF IN THE EVENT IT FRACTURES. BOTH THE SPRING AND THE RESTRAINT DEVICES MUST BE IDENTIFIED AS CONFORMING TO THE REQUIREMENTS OF THE CALIFORNIA ADMINISTRATIVE CODE, TITLE 24, PART 2.

2. ALL GARAGE DOOR OPENERS REQUIRE THE INCLUSION OF A PHOTO-ELECTRIC SENSOR, EDGE SENSOR, OR SOME OTHER SIMILAR DEVICE FOR REMOTE OPERATION.

GLASS AND GLAZING (SAFETY GLAZING)

1. GLAZING INSTALLED IN HAZARDOUS LOCATIONS, SUBJECT TO HUMAN IMPACT SHALL COMPLY WITH SECTION 2406 OF THE LATEST EDITION OF THE C.B.C. (SAFETY GLASS) AND LOCAL CODES. THE FOLLOWING ARE CONSIDERED HAZARDOUS LOCATIONS FOR THE PURPOSE OF GLAZING:
- A. GLAZING IN ENTRANCE AND EXIT DOORS.
- B. GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOOR ASSEMBLIES AND PANELS IN SWINGING DOORS OTHER THAN WARDROBE DOORS.
- C. GLAZING IN STORM DOORS.
- D. GLAZING IN ALL UNFAMED SWINGING DOORS.
- E. GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOLDS, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS, GLAZING IN ANY PORTION OF A BUILDING WALL ENCLUSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THEN 60 INCHES ABOVE A STANDING SURFACE AND DRAIN INLET.
- F. GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24 INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THEN 60 INCHES ABOVE THE WALKING SURFACE.
- G. GLAZING IN FIXED PANELS WHICH HAVE A GLAZED AREA IN EXCESS OF 9 SQUARE FEET AND THE LOWEST EDGE IS LESS THEN 18" ABOVE THE FINISHED FLOOR LEVEL OR WALKING SURFACE WITHIN 36" OF SUCH GLAZING. IN LIEU OF SAFETY GLAZING, SUCH GLAZED PANELS MAY BE PROTECTED WITH A HORIZONTAL MEMBER NOT LESS THAN 1 1/2 INCHES IN WIDTH WHEN LOCATED BETWEEN 24 AND 36 INCHES ABOVE THE WALKING SURFACE.
- H. GLAZING IN THE RAILING REGARDLESS OF HEIGHT ABOVE A WALKING SURFACE, THIS INCLUDES STRUCTURAL BALUSTER PANELS AND NON-STRUCTURAL IN-FILL PANELS.
- I. GLAZING IN WALLS AND FENCES USED AS THE BARRIER FOR INDOOR AND OUTDOOR SWIMMING POOLS AND SPAS WHEN ALL OF THE FOLLOWING CONDITIONS ARE PRESENT:
- 1) THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE POB SIDE OF THE GLAZING.
- 2) THE GLAZING IS WITHIN 5 FEET OF A SWIMMING POOL OR SPA DECK AREA.
- 3) GLAZING IN WALLS ENCLUSING A STAIRWAY LANDINGS OR WITHIN 5 FEET OF THE BOTTOM AND TOP OF STAIRWAYS WHERE THE BOTTOM EDGE OF THE GLASS IS LESS THAN 60 INCHES ABOVE A WALKING SURFACE.
2. GLAZING IN WARDROBE DOORS SHALL MEET THE IMPACT TEST REQUIREMENTS FOR SAFETY GLAZING AS SET FORTH IN C.B.C. STANDARD NO. 24-2, PART II. UNLIMITED GLASS SHALL BE ALSO MEET THE BOLL TEST REQUIREMENTS OF THE SAME STANDARD. MIRROR PANELS SHALL BE SAFETY GLAZED TO CONFORM WITH ANSI Z97.1.
3. HINGED SHOWER DOORS SHALL OPEN OUTWARD.

DIVISION 8 – DOORS AND WINDOWS

WEATHER STRIPPING

1. ALL SLIDING, SWINGING DOORS AND WINDOWS OPENING TO THE EXTERIOR OR TO UNCONDITIONED AREAS SHALL BE FULLY WEATHER STRIPPED, GASKETED OR OTHERWISE TREATED TO LIMIT AIR INFILTRATION.
2. ALL MANUFACTURED WINDOWS AND SLIDING GLASS DOORS SHALL MEET THE AIR INFILTRATION STANDARDS OF THE CURRENT AMERICAN NATIONAL STANDARDS INSTITUTE A.S.T.M. E283-73 WITH A PRESSURE DIFFERENTIAL OF 157 POUNDS PER SQUARE FOOT AND SHALL BE CERTIFIED AND LABELED.

EXITS AND EMERGENCY ESCAPES

1. BASEMENTS IN DWELLING UNITS AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR DOOR APPROVED FOR EMERGENCY ESCAPE OR RESCUE WHICH SHALL OPEN DIRECTLY INTO A PUBLIC STREET, PUBLIC ALLEY, YARD OR EXIT COURT. THE UNITS SHALL BE OPERABLE FROM THE INSIDE TO PROVIDE A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS.
2. ALL ESCAPE OR RESCUE WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENABLE AREA OF 5.7 SQUARE FEET. THE MINIMUM NET CLEAR OPENABLE HEIGHT DIMENSION SHALL BE 24 INCHES. THE MINIMUM NET CLEAR OPENABLE WIDTH DIMENSION SHALL BE 20 INCHES. WHEN WINDOWS ARE PROVIDED AS A MEANS OF ESCAPE OR RESCUE THEY SHALL HAVE A FINISHED SILL HEIGHT NOT MORE THAN 44 INCHES ABOVE THE FLOOR.

FINISHES

GYPSUM BOARD

1. ALL GYPSUM BOARD SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE CURRENT EDITION OF THE C.B.C. AND LOCAL CODES.
2. GYPSUM BOARD SHALL NOT BE INSTALLED UNTIL WEATHER PROTECTION FOR INSTALLATION IS PROVIDED.
3. ALL EDGES AND ENDS OF GYPSUM BOARD SHALL OCCUR ON THE FRAMING MEMBERS, EXCEPT THOSE EDGES AND ENDS WHICH ARE PERPENDICULAR TO THE FRAMING MEMBERS. ALL EDGES AND ENDS OF GYPSUM BOARD SHALL BE IN MODERATE CONTACT EXCEPT IN CONCEALED SPACES WHERE FIRE-RESISTIVE CONSTRUCTION OR DIAPHRAGM ACTION IS NOT REQUIRED.
4. THE SIZE AND SPACING OF FASTENERS SHALL COMPLY WITH THE CURRENT EDITION OF THE C.B.C. AND LOCAL CODES. FASTENERS SHALL BE SPACED NOT LESS THAN 3/8-INCH FROM EDGES AND ENDS OF GYPSUM WALLBOARD. FASTENERS AT THE TOP AND BOTTOM PLATES OF VERTICAL ASSEMBLY, OR THE EDGES AND ENDS OF HORIZONTAL ASSEMBLIES PERPENDICULAR TO SUPPORTS AND AT THE WALL LINE MAY BE OMITTED EXCEPT ON SHEAR-RESISTING ELEMENTS OR FIRE-RESISTIVE ASSEMBLIES. FASTENERS SHALL BE INSTALLED IN SUCH A MANNER AS NOT TO FRACTURE THE FACE PAPER WITH THE FASTENER HEAD.

RESAWN AND ROUGHSAW LUMBER

1. ALL ROUGHSAW AND RESAWN SURFACES TO RECEIVE STAIN AND FINISH TO BE APPROVED BY ARCHITECT.
2. DO NOT PRIME UNLESS NOTED ON PLANS.

FLOORING, COUNTERTOPS AND PAINTING

1. SEE FINISH SCHEDULES. COLOR AND MATERIAL TO BE APPROVED BY ARCHITECT.
2. INSTALLATION OF GROUTED TILE FLOORING IS NOT RECOMMENDED OVER WOOD FRAMED FLOOR SYSTEMS.

EXTERIOR LATH

1. ALL LATH AND LATH ATTACHMENTS SHALL BE OF CORROSION-RESISTANT MATERIAL.
2. BACKING OR A LATH SHALL PROVIDE SUFFICIENT RIGIDITY TO PERMIT PLASTER APPLICATION.
3. WHERE LATH ON VERTICAL SURFACES EXTENDS BETWEEN RAFTERS OR OTHER SIMILAR PROJECTING MEMBERS, SOLID BACKING SHALL BE INSTALLED TO PROVIDE SUPPORT FOR LATH AND ATTACHMENTS.
4. GYPSUM LATH OR GYPSUM BOARD SHALL NOT BE USED, EXCEPT THAT ON HORIZONTAL SUPPORTS OF CEILINGS AT ROOF SOFFITS IT MAY BE USED AS BACKING FOR METAL LATH OR WIRE FABRIC LATH AND CEMENT PLASTER.
5. BACKING IS NOT REQUIRED UNDER METAL LATH OR PAPERBACKED WIRE FABRIC LATH.
6. WEATHER-RESISTITIVE BARRIERS SHALL BE INSTALLED AS REQUIRED IN SECTION 1402A1 AND, WHEN APPLIED OVER WOOD BASE SHEATHING, SHALL INCLUDE TWO LAYERS OF GRADE D PAPER.
7. WHERE EXTERIOR LATH IS ATTACHED TO HORIZONTAL WOOD SUPPORTS, EITHER OF THE FOLLOWING ATTACHMENTS SHALL BE USED IN ADDITION TO THE METHODS OF ATTACHMENT SET FORTH IN TABLE 25A-C:
- A. SECURE LATH TO ALTERNATE SUPPORTS WITH TIES CONSISTING OF A DOUBLE STRAND OF NO. 18 V & M GAGE GALVANIZED ANNEALED WIRE AT ONE EDGE OF EACH SHEET OF LATH. WIRE TIES SHALL BE INSTALLED NOT LESS THAN 3 INCHES BACK FROM THE EDGE OF EACH SHEET AND SHALL BE LAPPED AROUND STRIPPING, OR ATTACHED TO AN 84 COMMON NAIL DRIVEN INTO EACH SIDE OF THE JOIST 2 INCHES ABOVE THE BOTTOM OF THE JOIST OR TO EACH END OF A 164 COMMON WIRE NAIL DRIVEN HORIZONTALLY THROUGH THE JOIST 2 INCHES ABOVE THE BOTTOM OF THE JOIST AND THE ENDS OF THE WIRE SECURED TOGETHER WITH THREE TWISTS OF THE WIRE.
- B. SECURE LATH TO EACH SUPPORT WITH 1/2-INCH-WIDE, 1 1/2-INCH-LONG, NO. 9 V & M GAGE RING SHANK, HECK STAPLE PLACED AROUND A 104 COMMON NAIL LAID FLAT UNDER THE SURFACE OF THE LATH NOT MORE THAN 3 INCHES FROM THE EDGE OF EACH SHEET. SUCH STAPLES MAY BE PLACED OVER RISERS OF 3/8-INCH RIB LATH OR OVER BACK WIRE OF WELDED WIRE FABRIC OR OTHER APPROVED LATH, OMITTING THE 104 NAILS.

8. A WEEP SCREED SHALL BE PROVIDED AT THE FOUNDATION PLATE LINE ON ALL EXTERIOR STUD WALLS. THE SCREED SHALL BE OF A TYPE WHICH WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE WEATHER-RESISTANT BARRIER AND EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE SCREED.
9. WHERE NO EXTERNAL CORNER REINFORCEMENT IS USED, LATH SHALL BE FURRED OUT AND CARRIED AROUND CORNERS AT LEAST ONE SUPPORT ON FRAME CONSTRUCTION.
10. A MINIMUM 0.019-INCH (NO. 26 GALVANIZED SHEET GAGE), CORROSION-RESISTANT WEEP SCREED WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3 1/2 INCHES SHALL BE PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON ALL EXTERIOR STUD WALLS. THE SCREED SHALL BE PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE PAVED AREAS AND SHALL BE OF A TYPE WHICH WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE WEATHER-RESISTIVE BARRIER SHALL LAP THE ATTACHMENT FLANGE, AND THE EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE SCREED.

11. TWO LAYERS OF GRADE D PAPER ARE REQUIRED UNDER STUCCO APPLIED OVER WOOD SHEATHING (SHEAR WALLS).

COLOR COAT

1. COLOR AND FINISH TO BE APPROVED BY THE OWNER AND/OR ARCHITECT.
2. ALL EXTERIOR STUCCO COLOR COAT SHALL BE MANUFACTURED BY LA HABRA STUCCO OR APPROVED EQUAL AND BE THE COLOR, FINISH AND GRADATION AS SHOWN ON THE PLANS.

FINISHES (CONTINUED)

JOB PROCEDURE

1. CONDITION OF SURFACE:
- A. HAND APPLICATION OVER PORTLAND CEMENT: PRIOR TO APPLICATION OF EXTERIOR COLOR COAT FINISH THE BASE COAT SHALL BE SPRAYED WITH CLEAN WATER TO CONTROL AND EQUALIZE SUCTION.
- B. MACHINE APPLICATION OVER PORTLAND CEMENT: IT IS NOT NECESSARY TO DAMPEN THE BASE COAT BEFORE APPLICATION OF THE EXTERIOR FINISH BY MACHINE.
2. MIXING EXTERIOR STUCCO COLOR POST SHALL BE POWER MIXED WITH CLEAN WATER FOR AT LEAST 15 MINUTES, AND SHALL BE USED WITHIN TWO HOURS AFTER MIXING.
3. APPLICATION COLOR COAT SHALL BE APPROXIMATELY 1/8 THICK.
- A. HAND APPLICATION: APPLY USING TRIVEL SPREAD ON AN EVEN COAT THEN RUBBER FLOAT (SAND FINISH) OR TEXTURE TO DESIRED FINISH.
- B. MACHINE APPLICATION: SPRAY FIRST COAT OVER THE DRY SURFACE AND COVER BASE COAT COMPLETELY. AFTER FIRST COAT HAS DRIED, SPRAY SECOND COAT TO THE DESIRED FINISH. DURING PERIODS OF HIGH HUMIDITY IT IS RECOMMENDED THAT ONE FULL DAY BE ALLOWED BETWEEN COATS. LA HABRA EXTERIOR STUCCO COLOR COAT WILL NORMALLY DRY AND SET THE SAME DAY. ALLOW 28 DAYS FOR CURING.
4. COLOR AND PERFORMANCE MAY BE AFFECTED BY THE ADDITION OF FIELD ADDITIVES.

1. COAT STUCCO

1. COLOR AND FINISH TO BE APPROVED BY THE OWNER AND/OR ARCHITECT.
2. LA HABRA WALL, EXTERIOR WALL COATING AND INSULATION SYSTEM, LA HABRA PRODUCTS, INC. 1631 WEST LINCOLN AVENUE, ANAHEIM, CALIFORNIA 92803 OR EQUIVALENT.
3. DESCRIPTION: GENERAL: THE LA HABRA WALL "EXTERIOR WALL COATING AND INSULATION SYSTEM" IS A SPECIAL MIXTURE OF GLASS FIBER AND PORTLAND CEMENT PLASTER REINFORCED WITH WIRE FABRIC LATH AND APPLIED TO SUBSTRATES OF EXPANDED OR EXTRUDED POLYSTYRENE RIDGED FUR BOARD, FIBERBOARD, PLYWOOD OR GYPSUM SHEATHING. THE SYSTEM MAY BE INSTALLED ON EXTERIOR WALLS OF WOOD STUDS. PAINT OR AN ARCHITECTURAL FINISH MAY BE APPLIED OVER THE LA HABRA WALL SYSTEM IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. MATERIALS: LA HABRA WALL REINFORCED CEMENT PLASTER. THE CEMENT PLASTER IS A FACTORY PREPARED MIX CONSISTING OF PORTLAND CEMENT, PROPRIETARY CHEMICAL ADDITIVES AND TREATED ALKALI-RESISTANT GLASS FIBERS. THE LA HABRA WALL CONCENTRATE IS PACKAGED IN 80 POUND BAGS AND 200 TO 240 POUNDS OF WASHED PLASTER SAND. APPROXIMATELY 5 4 GALLONS OF WATER AND OPTIONAL COLOR ADDITIVE ARE ADDED IN THE FIELD

FINISHES (CONTINUED)

2 COAT STUCCO (CONTINUED)

4. NOMINAL 1/4-INCH-THICK EXTRUDED POLYSTYRENE FOAM PLASTIC IDENTIFIED AS FOME-COR IN EVALUATION REPORT NO. 3333.
5. WIRE FABRIC LATH: MINIMUM NO.20 GAGE, 1-INCH GALVANIZED STEEL WOVEN-WIRE FABRIC. LATH MUST BE SELF-FURRING OR FURRED WHEN APPLIED OVER ALL SUBSTRATES EXCEPT UNBACKED POLYSTYRENE BOARD. SELF-FURRING LATH FOR CEILINGS MUST COMPLY WITH THE FOLLOWING REQUIREMENTS:
6. THE MAXIMUM TOTAL COATING THICKNESS IS 1/2 INCH.
7. FURRING CRUMPS MUST BE PROVIDED AT MAXIMUM 6 INCH INTERVALS EACH WAY. THE CRUMPS MUST FUR THE BODY OF THE LATH 7/8 INCH MINIMUM FROM THE SUBSTRATE AFTER INSTALLATION.
8. METAL LATH COMPLIES WITH TABLE NO. 47-B OF THE CODE, FURRING AND SELF-FURRING REQUIREMENTS ARE AS SET FORTH FOR WIRE FABRIC LATH.
9. GYPSUM SHEATHING BOARD: WATER-RESISTANT CORE GYPSUM SHEATHING COMPLYING WITH ASTM C 79.
10. FIBERBOARD: MINIMUM 1/2-INCH-THICK ASPHALT-IMPREGNATED FIBER BOARD COMPLYING WITH ANSI/AAMA 49441 AS A REGULAR DENSITY SHEATHING.
11. PLYWOOD: MINIMUM 5/16-INCH-THICK PLYWOOD WITH EXTERIOR GLUE FOR STUDS SPACED 16 INCHES ON CENTER AND MINIMUM 3/8-INCH-THICK PLYWOOD WITH EXTERIOR GLUE FOR STUDS SPACED 24 INCHES ON CENTER. PLYWOOD COMPLIES WITH C.B.C. STANDARD N225-9.
12. CAULKING: ACRYLIC LATEX CAULKING MATERIAL COMPLYING WITH A.S.T.M. C 834.
13. WEATHER-RESISTIVE BARRIER: MINIMUM GRADE D WRFT BUILDING PAPER COMPLYING WITH C.B.C. STANDARD NO. 17-1 OR ASPHALT-SATURATED BAG FELT COMPLYING WITH UNDERLATHERS LABORATORIES INC. STANDARD 55-A. THE WEATHER-RESISTIVE BARRIER IS REQUIRED UNDER THE EPS BOARD. FOME-COR IS EQUIVALENT TO GRADE C OR GRADE D BUILDING PAPER WHEN INSTALLED OVER SHEATHING IN ACCORDANCE WITH SECTION 1708a(6) OF THE CODE. APPLICATION OF THE BARRIER COMPLIES WITH SECTION 1708a(6) OF THE CODE.
14. FIBERS: TYPE E GLASS FIBERS, 1/2 INCH LONG, IN MIXTURE TO PREVENT SAGGING OF FIREWALL DURING APPLICATION.
15. ADMIXTURES: PROPRIETARY ADMIXTURES IMPROVING PROPERTIES IN BONDING, IMPACT RESISTANCE, STRENGTH, FREEZE-THAW CYCLING AND WATER RETENTION.
16. MISCELLANEOUS: ALL TRIM, SCREEDS AND CORNER REINFORCEMENT MUST BE GALVANIZED STEEL OR APPROVED PLASTIC.
17. INSTALLATION: THE EXTERIOR CEMENTITIOUS COATING IS APPLIED BY HAND TRAVELING OR MACHINE SPRAYING IN ONE OR TWO COATS TO A MINIMUM 3/8-INCH THICKNESS. THE LATH MUST BE EMBEDDED IN THE MINIMUM COATING THICKNESS AND THEREFORE CANNOT BE EXPOSED. FINISH COAT, IF REQUIRED, MUST BE APPLIED WITHIN 72 HOURS AFTER THE BASE COAT UNLESS THE LATTER IS SPRAYED/BRUSHED WITH AN APPROVED ACRYLIC-BONDING ADHESIVE, OR A BONDING TREATMENT IS ADDED TO THE FINISH COAT STUCCO MIX PRIOR TO THE FINISH COAT APPLICATION. FASTENERS FOR LATH MUST PENETRATE 1 INCH MINIMUM INTO WOOD STUDS. THE COATING IS APPLIED AT AMBIENT AIR TEMPERATURES RANGING FROM 40 DEGREES TO 120 DEGREES, BY APPLICATORS APPROVED BY EXPO STUCCO PRODUCTS. THE WEATHER-RESISTIVE BARRIER MUST BE APPLIED AS SET FORTH IN SECTION II C 7. AN INSTALLATION MUST BE ON THE JOBSITE WITH THE NAME OF THE APPLICATOR AND THE PRODUCT TO BE USED BEFORE ANY WEATHER-RESISTIVE BARRIER OR EXTERIOR SHEATHING IS INSTALLED.
18. APPLICATION OVER OPEN FRAMING:
19. EPS INSULATION BOARD: THE WEATHER-RESISTIVE BARRIER IS PLACED OVER OPEN WOOD STUDS SPACED 24 INCH ON CENTER MAXIMUM.
20. THE EPS BOARD DESCRIBED IN SECTION II B 3 IS THEN PLACED HORIZONTALLY WITH TONGUES FACED UPWARDS AND IS TEMPORARILY HELD IN PLACE WITH GALVANIZED STAPLES OR ROOFING NAILS. VERTICAL BUTT JOINTS MUST BE STAGGERED A MINIMUM OF ONE STUD SPACE FROM ADJACENT CORNERS AND OCCUR DIRECTLY OVER STUDS. THE LATH IS THEN APPLIED TIGHTLY OVER THE POLYSTYRENE BOARD AND FASTENED THROUGH THE BOARD TO WOOD STUDS USING NO. 11 GAGE GALVANIZED ROOFING NAILS WITH A 3/8-INCH-DIAMETER HEAD OR NO. 16 GAGE GALVANIZED STAPLES, SPACED 4 INCHES ON CENTER TO STUDS AND PLATES WITH A MINIMUM 1 INCH PENETRATION. STAPLES MUST HAVE A MINIMUM CROWN WIDTH OF 1 1/2 INCHES. STAPLING IS PERMITTED ONLY IN GROUP II WOOD SPECIES. CARE MUST BE TAKEN TO AVOID OVERDRIVING FASTENERS. THE LATH IS APPLIED WITH 1 1/2 INCH END AND SIDE LAPS. APPLICATION TO MINIMUM NO. 20 GAGE 1/2-INCH-THICK GAGE STEEL STUDS IS SIMILAR EXCEPT LATH IS FASTENED TO STUDS WITH MINIMUM 1 1/2 INCH LONG NO.17 PANHEAD SIZE SCREWS SPACED 6 INCHES ON CENTER TO STUDS AND TRACKS, WITH A MINIMUM 1/4 INCH PENETRATION THROUGH STEEL. STEEL STUD SPACING IS 24 INCHES ON CENTER MAXIMUM. BALANCE OF CONSTRUCTION IS AS DESCRIBED ELSEWHERE IN THIS REPORT, EXCEPT LATH MUST HAVE 2 INCH END AND SIDE LAPS. WALL BRACING IN ACCORDANCE WITH C.B.C. SECTION 2517(g)(3) OF THE CODE OR ACCEPTABLE ALTERNATE IS REQUIRED. OUTSIDE WALL CORNERS AND PARAPET CORNERS ARE COVERED WITH METAL CORNER REINFORCEMENT. DEEP SCREWS ARE INSTALLED AT THE BOTTOM OF THE WALL IN ACCORDANCE WITH SECTION 4706(g) OF THE CODE. GALVANIZED STEEL 1 3/8 INCH I-SHAPED TRIM PIECES ARE INSTALLED AT OTHER AREAS WHERE FOAM IS EXPOSED. AT WINDOWS AND DOORS, BUTTING J-TIM METAL EDGES MUST BE CAULKED. HOLES FOR HOSE BIBBS, ELECTRICAL PANELS AND OTHER PENETRATIONS OF SUBSTRATE SURFACES EXCEPT THOSE CAUSED BY FASTENERS MUST ALSO BE CAULKED. THE COATING IS APPLIED AFTER CAULKING AS DESCRIBED IN SECTION II C 1.
21. FOME-COR BOARD: THE FOME-COR BOARD IS APPLIED IN ACCORDANCE WITH EVALUATION REPORT NO.3325 TO STUDS 16 INCHES ON CENTER MAXIMUM, FOLLOWED BY 1 1/2 INCH BY NO.17 GAGE WOVEN LATH LAPPED 2 INCHES. THE LATH IS FOLLOWED THROUGH THE FOME-COR TO THE STUDS WITH NO. 16 GAGE STAPLES. 1 INCH CROWN, OF SUFFICIENT LEG LENGTH TO PENETRATE STUDS 1 INCH MINIMUM. THE EXPO FIREWALL IS APPLIED AS DESCRIBED IN SECTION II C-1 TO A MINIMUM OF 5/8 INCH THICKNESS. ADDITIONAL INSTALLATION REQUIREMENTS ARE AS NOTED IN SECTION II C 2 (a).
22. APPLICATION OVER SOLID BACKING:
- A. FIBERBOARD: MINIMUM 1/2 INCH THICK FIBERBOARD SHEATHING INSTALLED DIRECTLY OVER WOOD STUDS SPACED 24 INCHES ON CENTER MAXIMUM. THE FIBERBOARD IS TEMPORARILY HELD IN PLACE WITH CORROSION-RESISTANT STAPLES OR ROOFING NAILS. A WEATHER RESISTIVE BARRIER OF TWO LAYERS OF GRADE D BUILDING PAPER IS APPLIED OVER THE FIBERBOARD PRIOR TO THE LATH OR OPTIMAL INSULATION BOARD. THE LATH IS ATTACHED TO STUDS THROUGH THE SHEATHING WITH FASTENERS AND SPACING DESCRIBED FOR INSULATION BOARD IN PART II C 2. IN THIS REPORT OR TABLE N225-9 OF THE CODE, WHICHEVER IS MORE RESTRICTIVE, THE SYSTEM MAY ALSO BE APPLIED OVER MINIMUM NO. 20 GAGE 0.036 INCH THICK STUDS SPACED 24 INCHES ON CENTER, MAXIMUM. THE LATH IS APPLIED OVER THE WEATHER RESISTIVE BARRIER AND THE FIBERBOARD SHEATHING AS SET FORTH IN SECTION II C 2. AS AN OPTION THE FOME-COR BOARD MAY BE APPLIED OVER THE FIBERBOARD PRIOR TO LATH INSTALLATION. ONE LAYER OF FOME-COR MAY BE SUBSTITUTED FOR ONE LAYER OF GRADE D PAPER. A SECOND LAYER OF GRADE D PAPER IS STILL REQUIRED. ALL WALLS MUST BE BRACED IN ACCORDANCE WITH THE CODE. EXPOSED SHEATHING EDGES ARE PROTECTED WITH SCREEDS. HOLES IN THE SUBSTRATE SURFACES ARE CAULKED AND COATING APPLIED AS DESCRIBED IN SECTION II C 1.
- B. GYPSUM SHEATHING: MINIMUM 1/2 INCH THICK WATER-RESISTANT CORE GYPSUM SHEATHING MAY BE INSTALLED DIRECTLY ON WOOD STUDS IN A MANNER SIMILAR TO FIBERBOARD. GYPSUM SHEATHING IS FASTENED IN ACCORDANCE WITH TABLE NO.47-G OF THE CODE. A WEATHER-RESISTIVE BARRIER IS REQUIRED OVER THE GYPSUM SHEATHING PRIOR TO INSTALLATION OF THE METAL LATH AS DESCRIBED IN SECTION II C 2. THE SYSTEM MAY ALSO BE APPLIED TO NO. 20 GAGE 0.036 INCH THICK STEEL SLUGS SPACED 24 INCHES ON CENTER, MAXIMUM. THE LATH IS APPLIED AS SET FORTH IN SECTION II C 2. AS AN OPTION FOME-COR INSULATION BOARD MAY BE INSTALLED OVER THE GYPSUM SHEATHING PRIOR TO LATH INSTALLATION. THE FOME-COR MAY SUBSTITUTE FOR THE WEATHER BARRIER.
- C. PLYWOOD: PLYWOOD IS APPLIED DIRECTLY TO WOOD STUDS UNDER CONDITIONS AS SET FORTH IN SECTION II B 8 OF THIS REPORT AND TABLE NO. 25-A-14 OF THE CODE. THE WEATHER-RESISTIVE BARRIER WIRE FABRIC LATH, AND COATING ARE APPLIED AS DESCRIBED FOR FIBERBOARD. THE SYSTEM MAY ALSO BE INSTALLED ON PLYWOOD TO NO. 20 GAGE 0.036 INCH THICK STEEL STUDS SPACED 24 INCHES ON CENTER MAXIMUM. THE LATH IS APPLIED OVER THE PLYWOOD AS SET FORTH IN SECTION II C 2. ONE LAYER OF FOME-COR INSULATION BOARD MAY BE APPLIED OVER THE PLYWOOD PRIOR TO LATH INSTALLATION IN LIEU OF ONE LAYER GRADE D PAPER.

FINISHES (CONTINUED)

2 COAT STUCCO (CONTINUED)

23. ONE HOUR FIRE-RESISTIVE ASSEMBLY:
- A. INTERIOR FACE: ONE LAYER OF 5/8 INCH THICK TYPE X GYPSUM WALLBOARD. WATER-RESISTANT BACKER BOARD OR VENEER BASE IS APPLIED PARALLEL OR AT RIGHT ANGLES TO THE INTERIOR FACE OR 2 BY 4 WOOD STUDS SPACED 24 INCHES ON CENTER MAXIMUM. THE WALL BOARD IS ATTACHED WITH 6d COATED NAILS 1 7/8 INCHES LONG WITH A 1/4 INCH DIAMETER HEAD, AT 7 INCHES ON CENTER TO STUDS, PLATES AND BLOCKING. ALL WALLBOARD JOINTS MUST BE BACKED WITH MINIMUM 2 BY 4 WOOD FRAMING, TAPED AND TREATED, WITH JOINT COMPOUND. FASTENER HEADS ARE ALSO TREATED WITH JOINT COMPOUND.
- B. EXTERIOR FACE: ONE LAYER OF MINIMUM 5/8 INCH THICK TYPE X WATER RESISTANT CORE-TREATED GYPSUM SHEATHING 48 INCHES WIDE IS APPLIED PARALLEL TO STUDS WITH NO. 11 GAGE GALVANIZED ROOFING NAILS 1 3/4 INCHES LONG WITH 7/16 INCH OR 1/2 INCH DIAMETER HEADS AT 4 INCHES ON CENTER BOARD EDGES AND 7 INCHES ON CENTER AT INTERMEDIATE STUDS. THE SHEATHING IS NAILED TO TOP AND BOTTOM PLATES AT 7 INCHES ON CENTER. A WEATHER-RESISTIVE BARRIER IS REQUIRED OVER THE SHEATHING. THE LATH AND WALL COATINGS ARE THEN APPLIED AS DESCRIBED IN SECTION II C 3(a).
- C. INTERIOR FACE: TYPE X GYPSUM WALLBOARD, 5/8 INCH THICK, IS APPLIED HORIZONTALITY TO THE INTERIOR FACE OF MINIMUM 2 BY 4 WOOD STUDS SPACED SIXTEEN INCHES ON CENTER, MAXIMUM. THE WALLBOARD IS ATTACHED TO THE STUDS WITH 5d GYPSUM WALLBOARD NAILS AT 6 INCHES ON CENTER ALONG PLATES AND STUDS, AT BOARD EDGES AND INTERMEDIATE LOCATIONS. THE GYPSUM WALLBOARD JOINTS AND FASTENER HEADS ARE TREATED WITH JOINT COMPOUND. MINIMUM R-13 ROCK WOOL INSULATION BATTS, 3 5/8 INCHES THICK, ARE FITTED BETWEEN AND FASTENED TO STUDS. ALL WALLBOARD JOINTS MUST BE BACKED BY 4 WOOD FRAMING, TAPED AND TREATED WITH JOINT COMPOUND. FASTENER HEADS ARE TREATED WITH JOINT COMPOUND.
- D. EXTERIOR FACE: POLYSTYRENE BOARD, 1 INCH THICK, 15 PCF DENSITY IS APPLIED TO STUDS AND TEMPORARILY FASTENED AS DESCRIBED IN PART II C 2. ONE INCH BY NO. 20 GAGE WIRE LATH IS THEN APPLIED OVER FOAM PLASTIC AND FASTENED WITH NO. 11 GAGE GALVANIZED NAILS, 2 INCHES LONG, WITH 3/8 INCH DIAMETER HEADS, WALL SPACING IS 6 INCHES ON CENTER TO STUDS AND PLATES. LATH IS LAPPED 2 INCHES MINIMUM. THE EXPO FIREWALL IS APPLIED AS SET FORTH IN PART II C 1.
24. NONCOMBUSTIBLE CONSTRUCTION: THE EXPO FIREWALL SYSTEM MAY BE INSTALLED ON WALLS REQUIRED TO BE OF NONCOMBUSTIBLE CONSTRUCTION WHEN CONSTRUCTED IN ACCORDANCE WITH SUBSECTION I OR 2.
- A. SYSTEM IS APPLIED OVER GYPSUM SHEATHING SUBSTRATES ON STEEL FRAMING. NO FOAM PLASTIC IS PERMITTED.
- B. EXTERIOR FINISH: ONE LAYER OF 5/8 INCH THICK TYPE X GYPSUM WALLBOARD COMPLYING WITH A.S.T.M. C 36 IS APPLIED VERTICALLY TO STEEL FRAMING WITH ALL EDGES BLOCKED. FASTENERS ARE NO. 8 BY 1 1/4 INCH LONG BUCKLEHEAD WALL SPACING IS 8 INCHES ON CENTER ON CENTER AND INTERMEDIATE LOCATIONS AT 12 INCHES ON CENTER. ALL JOINTS ARE TAPED AND TREATED WITH JOINT COMPOUND. INTERMEDIATE FASTENERS ARE TREATED WITH COMPOUND.
- C. STUCCO SYSTEM: STUCCO SYSTEM INCLUDES APPLICATION OF ONE LAYER OF PYRO-CURE 600 VAPOR RETARDER MANUFACTURED BY FORTITEXTER CORPORATION. PYRO-CURE VAPOR RETARDER HAS A MAXIMUM FLAME SPREAD OF 25, A MAXIMUM SMOKE-DEVELOPED RATING OF 30 AND QUALITIES AS A TYPE 1, GRADE A WEATHER RESISTIVE BARRIER IN ACCORDANCE WITH U.S.C. STANDARDS NO. 17-1. THE VAPOR RETARDER IS INSTALLED OVER THE SHEATHING IN ACCORDANCE WITH SECTION 1708a(6) OF THE U.S.C. EXPOSED POLYSTYRENE INSULATION BOARD WITH A MINIMUM 15-POUND-PER-CUBIC-FOOT DENSITY IS INSTALLED HORIZONTALLY IN RUNNING BOND TO THE SHEATHING. REINFORCEMENT CONSISTS OF 1 INCH BY 20 GAGE GALVANIZED STEEL, SELF-FURRING WOVEN-WIRE FABRIC LATH. THE LATH, INSULATION BOARD, AND VAPOR RETARDER ARE POSITIVELY FASTENED TO THE STEEL FRAMING USING NO. 8 BY 2 INCH LONG LATH WATERHEAD SELF-DRILLING SCREWS SPACED AT 8 INCHES ON CENTER TO ALL FRAMING MEMBERS. THE STUCCO IS APPLIED AT A 3/8 INCH MINIMUM THICKNESS IN ACCORDANCE WITH SECTION II C OF THIS REPORT.
25. MISCELLANEOUS:
- A. INSPECTION REQUIREMENTS: BUILDING DEPARTMENT INSPECTION IS REQUIRED ON LATH INSTALLATION PRIOR TO APPLICATION OF THE COATING AS NOTED IN SECTION 3056(a) OF THE CODE.
- B. CONTROL JOINTS: CONTROL JOINTS MUST BE INSTALLED AS SPECIFIED BY THE ARCHITECT, DESIGNER, BUILDER OR EXTERIOR, IN THAT ORDER. IN THE ABSENCE OF DETAILS, CONVENTIONAL THREE-COAT PLASTERING DETAILS MUST BE USED.
- C. CURING: MOISTURE CURING BY FOGGING THE FINISHED WALL LIGHTLY WITH WATER IS REQUIRED FOR A MINIMUM OF 24 HOURS AFTER COATING APPLICATION.
- D. SOFFITS: THE SYSTEM MAY BE APPLIED TO SOFFITS, PROVIDED THE COATING IS APPLIED OVER METAL LATH COMPLYING WITH TABLE NO. 47-B OF THE CODE IN LIEU OF WIRE FABRIC LATH. METAL LATH FASTENING MUST COMPLY WITH TABLE NO. 47-C, EXCEPT THE LENGTH MUST BE INCREASED BY THE THICKNESS OF ANY SUBSTRATE.
- E. SILLS: THE SYSTEM MAY BE APPLIED TO SILLS, AT LOCATIONS SUCH AS WINDOWS AND OTHER SIMILAR AREAS. SILL DEPTHS 6 INCHES OR LESS, MAY HAVE THE COATING AND LATH APPLIED TO ANY SUBSTRATE PERMITTED IN THIS REPORT. PROVIDED THE COATING, LATH, WEATHER-RESISTIVE BARRIER AND SUBSTRATE ARE INSTALLED IN ACCORDANCE WITH THE APPROPRIATE SECTION OF THIS REPORT. SILL DEPTHS EXCEEDING 6 INCHES MUST HAVE SUBSTRATES OF SOLID WOOD OR PLYWOOD. THE SUBSTRATE IS FASTENED IN ACCORDANCE WITH TABLE N225-9 OF THE CODE, OVER WHICH A DOUBLE LAYER OF A COMPLYING WEATHER-RESISTIVE BARRIER IS APPLIED. THE COATING, LATH, AND OPTIONAL EPS BOARD ARE APPLIED IN ACCORDANCE WITH SECTION II C 2 OF THIS REPORT.
- F. IDENTIFICATION: THE FACTORY-PREPARED MIX IS DELIVERED TO THE JOBSITE IN WATER-RESISTANT BAGS WITH LABELS BEARING THE FOLLOWING INFORMATION:
- NAME AND ADDRESS OF MANUFACTURER AND EVALUATION REPORT NUMBER.
 - IDENTIFICATION OF COMPONENTS.
 - WEIGHT OF PACKAGED MIX.
 - STORAGE INSTRUCTIONS.
 - MAXIMUM AMOUNT OF WATER AND OTHER COMPONENTS THAT MAY BE ADDED AND CONDITIONS THAT MUST BE CONSIDERED IN DETERMINING ACTUAL AMOUNT ADDED.
 - CURING INSTRUCTIONS.
 - POLYSTYRENE FOAM PLASTIC INSULATION BOARDS ARE IDENTIFIED IN ACCORDANCE WITH THEIR RESPECTIVE I.C.B.O. ES OR NES EVALUATION REPORTS. ADDITIONALLY, THE BOARD DENSITY MUST BE NOTED. WHEN USED IN WALLS REQUIRED TO BE NONCOMBUSTIBLE CONSTRUCTION, EACH BOARD ALONG ONE EDGE, AND ONE BOARD ON EACH RUMBLE ON BOTH FACES MUST IDENTIFY THE FOAM PLASTIC EVALUATION REPORT NUMBER, EXPO FIREWALL AND EVALUATION REPORT NO. 4368.
26. EVIDENCE: SUBMITTED DATA IN ACCORDANCE WITH THE I.C.B.O. ES ACCEPTANCE CRITERIA FOR CEMENTITIOUS EXTERIOR WALL COATINGS DATED APRIL 1994.

3 COAT STUCCO

1. COLOR AND FINISH TO BE APPROVED BY THE OWNER AND/OR ARCHITECT.
2. PLASTERING WITH CEMENT PLASTER SHALL NOT BE LESS THAN THREE COATS WHEN APPLIED OVER METAL LATH OR WIRE FABRIC LATH AND SHALL NOT BE LESS THAN TWO COATS WHEN APPLIED OVER MASDRY, CONCRETE OR GYPSUM BACKING AS SPECIFIED IN SECTION 2506A.3. IF PLASTER SURFACE IS COMPLETELY COVERED BY VENEER OR OTHER FACING MATERIAL, OR IS COMPLETELY CONCEALED BY ANOTHER WALL, PLASTER APPLICATION NEED BE ONLY TWO COATS, PROVIDED THE TOTAL THICKNESS IS AS SET FORTH IN TABLE 25A-17 OF THE CURRENT EDITION OF THE C.B.C.
3. ON WOOD-FRAME OR METAL STUD CONSTRUCTION WITH AN ON-GRADE CONCRETE FLOOR SLAB SYSTEM, EXTERIOR PLASTER SHALL BE APPLIED IN SUCH A MANNER AS TO COVER, BUT NOT EXTEND BELOW, LATH AND PAPER.

FINISHES (CONTINUED)

3 COAT STUCCO (CONTINUED)

4. ONLY APPROVED PLASTICITY AGENTS AND APPROVED AMOUNTS THEREOF MAY BE ADDED TO PORTLAND CEMENT, HYDRATED LIME OR THE EQUIVALENT AMOUNT OF LIME PUTTY USED AS A PLASTICIZERS MAY BE ADDED TO CEMENT PLASTER OR CEMENT AND LIME PLASTER IN AN AMOUNT NOT TO EXCEED THAT SET FORTH IN TABLE 25A-17.
5. THE BASE COAT SHALL BE APPLIED WITH SUFFICIENT MATERIAL AND PRESSURE TO FILL SOLIDLY ALL OPENINGS IN THE LATH. THE SURFACE SHALL BE SCORED HORIZONTALLY SUFFICIENTLY ROUGH TO PROVIDE ADEQUATE BOND TO RECEIVE THE SECOND COAT. THE SECOND COAT SHALL BE BROUGHT OUT TO PROPER THICKNESS. RODDED AND FLOATED SUFFICIENTLY ROUGH TO PROVIDE ADEQUATE BOND FOR THE FINISH COAT. THE SECOND COAT SHALL HAVE NO VARIATION GREATER THAN 1/4 INCH IN ANY DIRECTION UNDER A 5-FEET STRAIGHT EDGE.
6. PORTLAND CEMENT BASED PLASTER SHALL NOT BE APPLIED TO FROZEN BASE OR THOSE BASES CONTAINING FRIST. PLASTER MIXES SHALL NOT CONTAIN INGREDIENTS. PLASTER COATS SHALL BE PROTECTED FROM FREEZING FOR A PERIOD OF NOT LESS THAN 24 HOURS AFTER SET HAS OCCURRED.
7. CURING AND INTERVAL, FIRST AND SECOND COATS OF PLASTER SHALL BE APPLIED AND MOIST CURED AS SET FORTH IN TABLE 25A-17 OF THE CURRENT EDITION OF THE C.B.C.
8. FINISH COATS SHALL BE PROPORTIONED AND MIXED IN AN APPROVED MANNER AND IN ACCORDANCE WITH TABLE 25A-17 OF THE CURRENT EDITION OF THE C.B.C.
9. CEMENT PLASTER FINISH COATS SHALL BE APPLIED OVER BASE COATS WHICH HAVE BEEN IN PLACE FOR THE TIME PERIODS SET FORTH IN TABLE 25 A-17 OF THE CURRENT EDITION OF THE C.B.C. THE THIRD OR FINISH COAT SHALL BE APPLIED WITH SUFFICIENT MATERIAL AND PRESSURE TO BOND TO AND TO COVER THE BROWN COAT AND SHALL BE OF SUFFICIENT THICKNESS TO CONCEAL THE BROWN COAT.
10. FIBERGLASS REINFORCED STUCCO EXPO FIREWALL: GLASS FIBER REINFORCED STUCCO USING FACTORY PREPARED MIXTURE OF TYPE I OR TYPE II PORTLAND CEMENT COMPLYING WITH U.S.C. STANDARD N26-1, TYPE E GLASS FIBERS, AND ANSI PROPRIETARY ADDITIVES. THE MIXTURE IS IN KITCHEN AND DINING AREAS. FOUR AND ONE-HALF TO SIX GALLONS OF WATER AND 20 POUNDS OF SAND ARE ADDED TO EACH BAG IN THE FIELD AND MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

MECHANICAL & PLUMBING

INSTALLATION INSTRUCTIONS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT SHALL BE PROVIDED TO THE FIELD INSPECTOR AT THE TIME OF INSPECTION

WATER PIPING

1. COPPER TUBE FOR WATER PIPING SHALL HAVE A WEIGHT OF NOT LESS THAN THAT OF COPPER WATER TUBE TYPE L. EXCEPTION TYPE M COPPER TUBING MAY BE USED FOR WATER PIPING WHEN PIPING IS ABOVE GROUND, AS PER C.P.C. STANDARDS.
2. POLYETHYLENE PIPING SHALL MEET OR EXCEED SPECIFICATIONS AS A PB 2110 MATERIAL, PER ASTM D-2580, ASTM D-2652, ASTM D-2666, ASTM D-3000, ASTM 3309, ANSI A-8192, C.S.A. B377-4-1977, C.S.A. B378-4-1977, AND SHALL BE OF PIPING MATERIAL AND INSTALLATION SUITABLE FOR ITS INTENDED USE.
3. NO WATER, SOIL OR WASTE PIPE SHALL BE INSTALLED OR PERMITTED OUTSIDE OF A BUILDING OR IN AN EXTERIOR WALL, UNLESS, WHERE NECESSARY, ADEQUATE PROVISION IS MADE TO PROTECT SUCH PIPE FROM FREEZING.
4. PIPING SUBJECT TO UNDOE CORROSION, EROSION OR MECHANICAL DAMAGE SHALL BE PROTECTED IN AN APPROVED MANNER.
5. INSTALL A NON-REMOVABLE BACKFLOW PREVENTION DEVICE ON ALL EXTERIOR HOSE BIBBS, PER C.P.C. 683.
6. WATER CLOSETS SHALL BE A MAXIMUM 16 GALLONS PER FLUSH, PER C.P.C. 492.
7. SHOWERS AND TUB/SHOWERS SHALL BE PROVIDED WITH PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE CONTROLS, PER C.P.C. 420.
- a. SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF 2.5 GPM, PER CALIFORNIA ENERGY COMMISSION.
8. MAXIMUM FLOW RATES FOR LAUNDRY AND SINK FAUCETS SHALL 2.2 GPM AS SET BY THE CALIFORNIA ENERGY COMMISSION.

WATER HEATER

1. WATER HEATER SHALL BE STRAPPED FOR LATERAL SUPPORT.
2. WATER HEATER TO BE PROVIDED WITH TEMPERATURE AND PRESSURE RELIEF VALVE HAVING A FULL-SIZED BRASS OR GALVANIZED STEEL OR BRASS-BROWN COPPER TO OUTSIDE OF BUILDING WITH END OF PIPE NOT MORE THAN 2 FEET AND NOT LESS THAN 6" ABOVE THE GRADE, POINTING DOWNWARD, THE TERMINAL END BEING UNTHREADED, PER C.P.C.

GAS PIPING

1. ALL PIPE USED FOR THE INSTALLATION OF ANY GAS PIPING SHALL BE STANDARD WEIGHT WROUGHT IRON OR STEEL, GALVANIZED OR BLACK, YELLOW BRASS CONTAINING NOT MORE THAN SEVENTY-FIVE (75) PERCENT COPPER, OR INTERNALLY TINNED OR EQUIVALENTLY TREATED COPPER PIPE OF IRON PIPE SIZE.
2. ALL FITTINGS USED IN CONNECTION WITH THE ABOVE PIPING SHALL BE OF MALLEABLE IRON OR YELLOW BRASS, CONTAINING NOT MORE THAN SEVENTY-FIVE (75) PERCENT COPPER.
3. NO GAS PIPING SHALL BE INSTALLED IN OR ON THE GROUND, UNDER ANY BUILDING OR STRUCTURE, ALL EXPOSED GAS PIPING SHALL BE KEPT AT LEAST SIX (6) INCHES ABOVE GRADE OR STRUCTURE, PER C.P.C. SECTION 1211.

WASTE PIPING

1. ALL WASTE PIPING WHICH PENETRATES WALLS CONSTRUCTED WITH 1 HOUR FIRE-RESISTIVE MATERIALS SHALL BE CAST IRON OR OTHER NON-COMBUSTIBLE PIPING MATERIAL APPROVED BY THE LATEST EDITION OF THE UNIFORM BUILDING CODE, AND STATE AND LOCAL CODES.
2. RAPID FIT WASTE AND OVERFLOW FITTINGS SHALL BE USED IN LIEU OF ACCESS PANEL AS PER IAPMO FILE NO. 966.

COMBUSTION AIR VENTS

1. COMBUSTION AIR VENTS AND DUCTS SHALL BE PROVIDED WITH MINIMUM UNOBSTRUCTED COMBUSTION AIR OPENINGS AS REQUIRED BY UAC.

DOOR VENTS

1. DRYER VENT TO OUTSIDE AIR PER MANUFACTURER'S SPECIFICATIONS AND LOCAL JURISDICTIONAL REQUIREMENTS.

FIREPLACES

1. FIREPLACES WITH GAS LOG LIGHTERS ARE REQUIRED TO HAVE THE FLUE DAMPER PERMANENTLY FIXED IN THE OPEN POSITION AND FIREPLACES WITH L.P. LOG LIGHTERS ARE TO HAVE NO PIT OR SUMP CONFIGURATIONS.

FAN/BLVAC

1. SEISMIC ANCHORAGE FOR THE FAN/BLVAC SHALL INCLUDE ANCHORS OR STRAPS AT POINTS SPECIFIED BY THE MANUFACTURER'S INSTALLATION GUIDE, PER CMC 304.4

ELECTRICAL

INSTALLATION INSTRUCTIONS FOR ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED TO THE FIELD INSPECTOR AT THE TIME OF INSPECTION

MATERIALS

1. ALUMINUM WIRE SHALL NOT BE USED IN ELECTRICAL WIRING WITHIN THE DWELLING UNIT.

WORKMANSHIP

1. ALL WORK SHALL BE IN ACCORDANCE WITH ALL CODES, RULES AND REGULATIONS OF GOVERNING AGENCIES AND SHALL COMPLY WITH THE REQUIREMENTS OF THE SERVING POWER AND TELEPHONE COMPANIES.

INSTALLATION

1. ALL EQUIPMENT INSTALLED OUTDOORS AND EXPOSED TO WEATHER SHALL BE "WEATHER-PROOF".
2. RECEPTACLES IN KITCHEN AND BATHROOM SHALL BE INSTALLED ABOVE WORK TOP UNLESS OTHERWISE NOTED ON PLANS.
3. RECEPTACLES SHALL BE INSTALLED VERTICALLY AT 12" (APPROX) ABOVE FLOOR.
4. WALL SWITCHES ARE TO BE MOUNTED AT 42" ABOVE THE FLOOR, UNLESS NOTED OTHERWISE BY THE ARCHITECT.
5. PROVIDE TWO 20 AMPERE SMALL APPLIANCE CIRCUITS AT THE KITCHEN, DINING ROOM AND BREAKFAST AREAS.
6. PROVIDE A SEPARATE 20 AMPERE LAUNDRY CIRCUIT.
7. PROVIDE GROUND FAULT CIRCUIT INTERRUPTER (GFI) PROTECTION AT ALL BATHROOMS, POWDER ROOMS, OUTDOOR RECEPTACLES, GARAGES AND KITCHEN COUNTERTOPS.
8. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET, MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE.
9. IN KITCHEN AND DINING AREAS, A RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH COUNTER SPACE WIDER THAN 12 INCHES AND SO THAT NO POINT ALONG THE WALL LINE IS MORE THAN 24 INCHES FROM A RECEPTACLE IN THAT SPACE.
10. A RECEPTACLE OUTLET SHALL BE INSTALLED IN ANY USABLE WALL SPACE 2 FEET OR MORE IN WIDTH.
11. PROVIDE TWO METHODS OF ELECTRICAL GROUNDING:
- CLAMP AT HOSE BIBB.
 - ONE ADDITIONAL #4 BAR-20" LONG IN FOOTING AT ELECTRICAL METER LOCATION FOR UFFER GROUND.
12. AFCI TO BE INSTALLED IN ALL BEDROOMS, PER C.E.C. 210-12

SMOKE DETECTORS

1. POWER SOURCE: IN NEW CONSTRUCTION, REQUIRED SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHEN SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND SHALL BE EQUIPPED WITH A BATTERY BACKUP. THE DETECTOR SHALL EMIT A SIGNAL WHEN THE BATTERIES ARE LOW. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION.
2. LOCATION WITHIN DWELLING UNITS: IN DWELLING UNITS, A DETECTOR SHALL BE INSTALLED IN EACH SLEEPING ROOM AND AT A POINT CENTRALLY LOCATED IN THE CORRIDOR OR AREA GIVING ACCESS TO EACH SEPARATE SLEEPING AREA. WHEN THE DWELLING UNIT HAS MORE THAN ONE STORY AND IN DWELLINGS WITH BASEMENTS, A DETECTOR SHALL BE INSTALLED IN EACH STORY AND IN THE BASEMENT. IN DWELLING UNITS WHERE A STORY OR BASEMENT IS SPLIT INTO TWO OR MORE LEVELS, THE SMOKE DETECTOR SHALL BE INSTALLED ON THE UPPER LEVEL, EXCEPT THAT WHEN THE LOWER LEVEL CONTAINS A SLEEPING AREA, A DETECTOR SHALL BE INSTALLED ON EACH LEVEL. WHEN SLEEPING ROOMS ARE ON AN UPPER LEVEL, THE DETECTOR SHALL BE PLACED AT THE CEILING OF THE UPPER LEVEL IN CLOSE PROXIMITY TO THE STAIRWAY IN DWELLING UNITS WHERE THE CEILING HEIGHT OF A ROOM OPEN TO THE HALLWAY SERVING THE BEDROOMS EXCEEDS THAT OF THE HALLWAY BY 24 INCHES OR MORE. SMOKE DETECTORS SHALL BE INSTALLED IN THE HALLWAY AND IN THE ADJACENT ROOM. DETECTORS SHALL SOUND AN ALARM AUDIBLE IN ALL SLEEPING AREAS OF THE DWELLING UNIT IN WHICH THEY ARE LOCATED.
3. LOCATION IN EFFICIENCY DWELLING UNITS, CONGREGATE RESIDENCES AND HOTELS: IN EFFICIENCY DWELLING UNITS, HOTEL SUITES AND IN HOTEL AND CONGREGATE RESIDENCE SLEEPING ROOMS, DETECTORS SHALL BE LOCATED ON THE CEILING OR WALL OF THE MAIN ROOM OR EACH SLEEPING ROOM. WHEN SLEEPING ROOMS WITHIN AN EFFICIENCY DWELLING UNIT OR HOTEL SUITE ARE ON AN UPPER LEVEL, THE DETECTOR SHALL BE PLACED AT THE CEILING OF THE UPPER LEVEL IN CLOSE PROXIMITY TO THE STAIRWAY. WHEN ACTIVATED, THE DETECTOR SHALL SOUND AN ALARM AUDIBLE WITHIN THE SLEEPING AREA OF THE DWELLING UNIT OR CONGREGATE RESIDENCE HOTEL SUITE OR SLEEPING ROOM IN WHICH IT IS LOCATED.

MISCELLANEOUS

SECURITY REQUIREMENTS

1. ALL SLIDING WINDOWS SHALL HAVE SAFETY LOCKS.
2. WINDOWS AND DOOR LIGHTS SHALL BE OF TEMPERED GLASS AS REQUIRED BY C.B.C. STATE AND LOCAL CODES (SEE DIVISION 8).

EXTERIOR DOORS

1. EXTERIOR DOORS AND DOORS LEADING FROM GARAGE AREAS INTO PRIVATE RESIDENCES AND MULTIPLE DWELLING RESIDENCES SHALL BE OF SOLID CORE CONSTRUCTION AND SHALL BE NO LESS THAN 1 3/8" IN THICKNESS.
2. EXTERIOR DOORS AND DOORS LEADING FROM GARAGE AREAS INTO PRIVATE OR MULTIPLE DWELLING RESIDENCES(S) SHALL HAVE A DEADLOCKING LATCH DEVICE WITH A MINIMUM THROW OF ONE-HALF INCH AND A DEADBOLT LOCK WITH A CYLINDER GUARD, HARDENED STEEL INSERT WITH A MINIMUM THROW OF ONE INCH. BOTH LOCKING MECHANISMS SHALL BE INTERCONNECTED SO THAT BOTH MAY BE DISENGAGED BY TURNING THE DOOR KNOB FROM THE INSIDE.
3. A INTERVIEWER OR PEEP HOLE SHALL BE PROVIDED ON THE FRONT DOOR OF EACH INDIVIDUAL RESIDENCE.
4. EXTERIOR DOORS SWINGING OUT SHALL HAVE NON-REMOVABLE HINGES.
5. IN-SWINGING EXTERIOR DOOR STOPS SHALL BE OF ONE PIECE CONSTRUCTION.
6. JAMBS FOR ALL DOORS SHALL BE SO CONSTRUCTED OR PROTECTED SO AS TO PREVENT VIOLATION OF THE FUNCTION OF THE STRIKE PLATE FROM THE OUTSIDE.
7. THE INACTIVE LEAF OF A PAIR OF DOORS OR UPPER LEAF OF A DUTCH DOOR SHALL HAVE A DEADBOLT, NOT KEY OPERATED, OR HARDENED DEADBOLT TOP AND BOTTOM WITH 1" EMBEDMENT.
8. PROTECTING JOINTS REQUIRE GUARD.
9. EQUIP FRONT AND REAR DOOR WITH DEADBOLTS AND DEADLOCKING LATCHES.
10. DEADBOLTS SHALL CONTAIN HARDENED INSERTS OR EQUIVALENT.
11. OVERHEAD AND SECTIONAL GARAGE DOORS SHALL BE SECURED WITH A CYLINDER LOCK, PAD WITH A HARDENED STEEL SHACKLE, METAL SLIDE BAR BOLT OR EQUIVALENT WHEN NOT OTHERWISE LOCKED BY ELECTRICAL POWER OPERATION.

BUILDING ACCESSIBILITY

1. BUILDINGS OR PORTIONS OF BUILDINGS WHICH ARE REQUIRED TO BE ACCESSIBLE TO THE PHYSICALLY DISABLED SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CALIFORNIA BUILDING CODE, APPLICABLE EDITION AND/OR LOCAL CODES OR OTHER AUTHORITY HAVING JURISDICTION. IF APPLICABLE, REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

AB. ABOVE
ACOUS. ACOUSTICAL
A/C. AIR CONDITIONING
A.D. AREA DRAIN
ADH. ADHESIVE
ADJ. ADJUSTABLE
A.F.F. ABOVE FINISH FLOOD
AGGR. AGGREGATE
AL. ALUMINUM
ALT. ALTERNATE
ANOD. ANODIZED
A.P. ACCESS PANEL
APPROX. APPROXIMATELY
ARCH. ARCHITECTURAL
ASPH. ASPHALT
AUTO. AUTOMATIC

BA. BATH
BD. BOARD
BITUM. BITUMINOUS
BLDG. BUILDING
BLK. BLOCK
BLKS. BLOCKING
BM. BEAM
BOT. BOTTOM
BDRM. BEDROOM
BP. BI-PASS

CAB. CABINET
C.B.C. CALIFORNIA BUILDING CODE
CEM. CEMENT
C.G. CORNER GUARD
CHG. CHANGE
C.I. CAST IRON
C.J. CEILING JOIST
CLG. CEILING
CLK'G. CAULKING
CL. CLOSET
CLR. CLEAR
CNTR. COUNTER
COL. COLUMN
COMP. COMPOSITION
CONC. CONCRETE
COND. CONDITION
CONT. CONTINUOUS
CONTR. CONTRACTOR
COVD. COVERED
CPT. CARPET
CTSK. COUNTERSUNK
CTR. CENTER
CT. CEMENT TILE

DBL. DOUBLE
DEPT. DEPARTMENT
DET. DETAIL
D.F. DOUGLAS FIR
DIA. DIAMETER
DIAG. DIAGONAL
DIM. DIMENSION
DISP. DISPOSER
DN. DOWN
D.O. DOOR OPENING
DR. DOOR
D.S. DOWN SPOUT
DW. DISHWASHER
D.D. DRAWER/DEPTH
DECOR. DECORATIVE

E. EAST, ENTRY
EA. EACH
E.J. EXPANSION JOINT
E.L. ELEVATOR
ELEC. ELECTRIC
ELEV. ELEVATION
EMER. EMERGENCY
ENCL. ENCLOSURE
E.P. ELECTRICAL PANEL
EQ. EQUAL
EQUIP. EQUIPMENT
EXT. EXISTING
EXH. EXHAUST
EXP. EXPANSION
EXPO. EXPOSED
EXT. EXTERIOR

F. FORCE
FAU. FIXED FAIR UNIT
F.A. FIRE ALARM
F.C.G. FLOOR CLEAN OUT
F.D. FLOOR DRAIN
FDN. FOUNDATION
F.F. FINISH FLOOR
F.G. FIXED GLASS
FIX. FIXTURE
FIN. FINISH
FLASH. FLASHING
FLR. FLOOR
FLUOR. FLUORESCENT
F.O.C. FACE OF CONCRETE
F.O.F. FACE OF FINISH
F.O.S. FACE OF STUD
F.O.M. FACE OF MASONRY
FP. FIREPLACE
FT. FOOT, FEET
FTG. FOOTING
FURR. FURRING
FURN. FURNISHED
FR. FRENCH

GA. GAUGE
GALV. GALVANIZED
GEN. GENERAL
G.F.I. GROUND FAULT
CIRCUIT INTERRUPTER
G.I. GALVANIZED IRON
GL. GLASS
GND. GROUND
GR. GRADE
GY. GYPSUM

H.B. HOSE BIB
H.C. HOLLOW CORE
HDR. HEADER
HMD. HARDWOOD
HWR. HARDWARE
HGT. HEIGHT
H.M. HOLLOW METAL
HORIZ. HORIZONTAL
HR. HOUR
HVAC. HEATING VENTING
AND AIR CONDITIONING

I.D. INSIDE DIAMETER
IN. INCH
INSUL. INSULATION
INT. INTERIOR
INV. INVERTED
ICBO. INTERNATIONAL CONFERENCE
BUILDING OFFICIALS

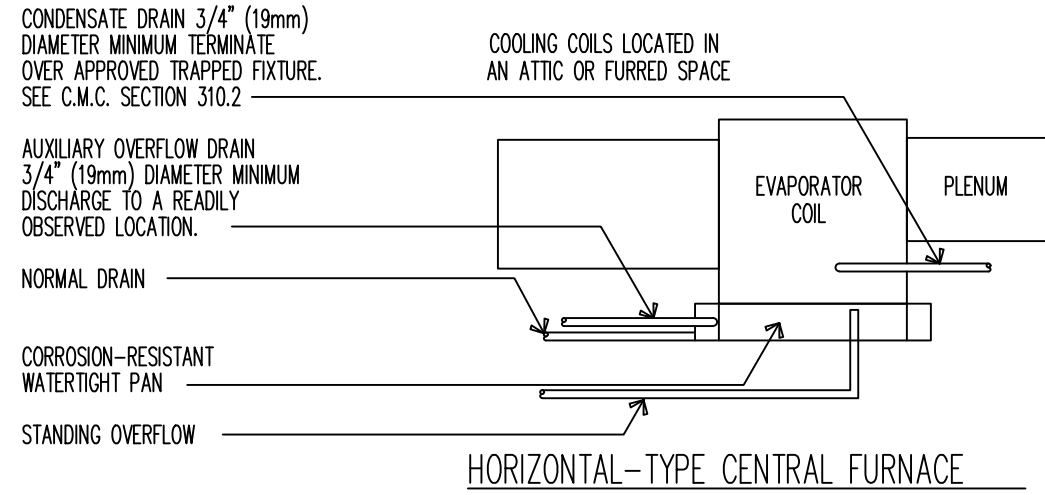
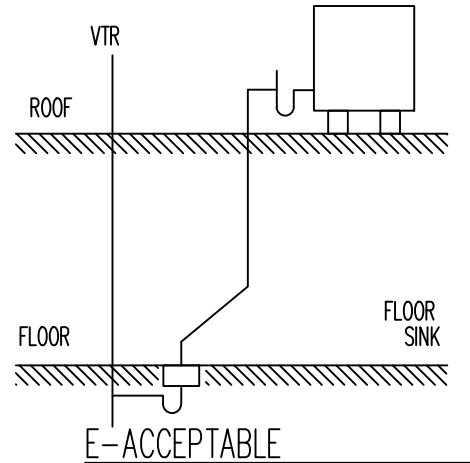
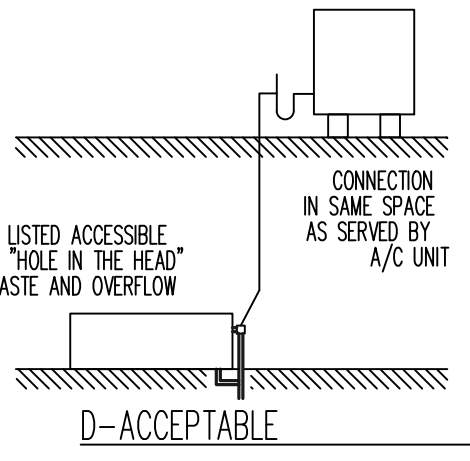
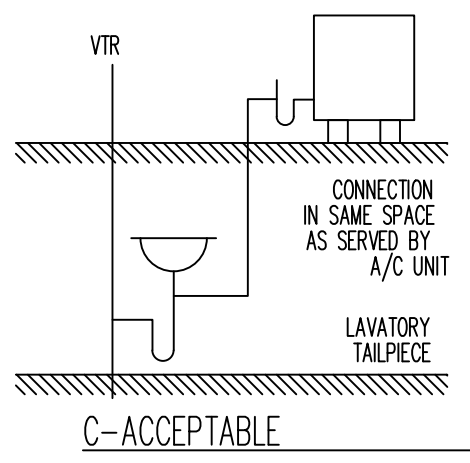
ABBREVIATIONS

JAN. JANITOR
JT. JOINT
JST. JOIST
KIT. KITCHEN
LAM. LAMINATE
LAV. LAVATORY
LIN. LINEN
LT. LIGHT
MAINT. MAINTENANCE
MAS. MASONRY
MAT. MATERIAL
MAX. MAXIMUM
M.C. MEDICINE CABINET
MECH. MECHANICAL
MTL. METAL
MEZZ. MEZZANINE
MFR. MANUFACTURER
MIN. MINIMUM
MIR. MIRROR
MISC. MISCELLANEOUS
M.O. MASONRY OPENING
MTD. MOUNTED
MUL. MULLION

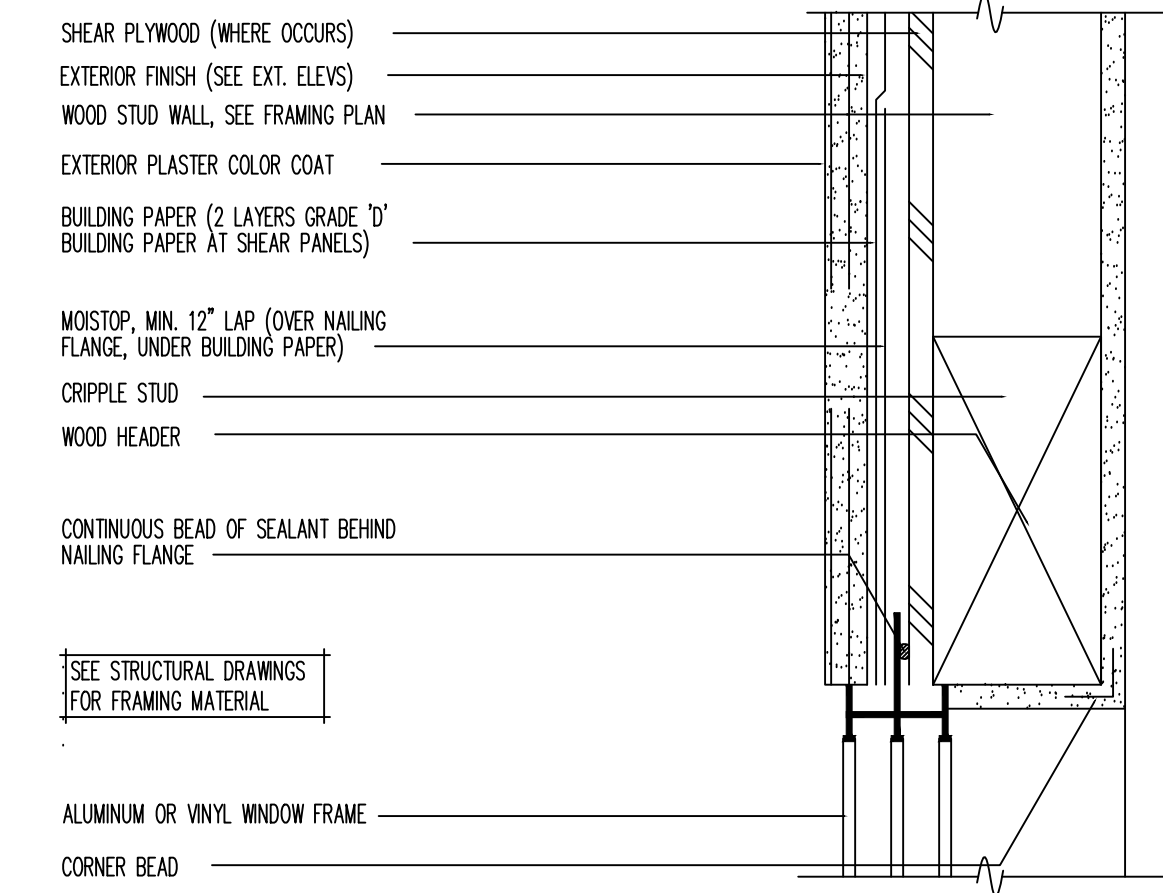
N. NORTH
N.I.C. NOT IN CONTRACT
NO. NUMBER
NOM. NOMINAL
N.T.S. NOT TO SCALE
O/ OVER
O.A. OVERALL
OBS. OBSCURE
O.C. ON CENTER
O.D. OUTSIDE DIAMETER (DIM.)
O.F.D. OVERFLOW DRAIN
OPENG. OPENING
OPT. OPTION
OPT. OPTIC/OPTIONAL

PAN. PANTRY
PART. PARTITION
PH. TELEPHONE
PL. PLATE
P.LAM. PLASTIC LAMINATE
PLAS. PLASTER
PLUMB. PLUMBING
PLYWD. PLYWOOD
PNT. (PAINTED)
PR. PAIR
PROST. PIRE CAST
PROJ. PROJECTION
PT. POINT

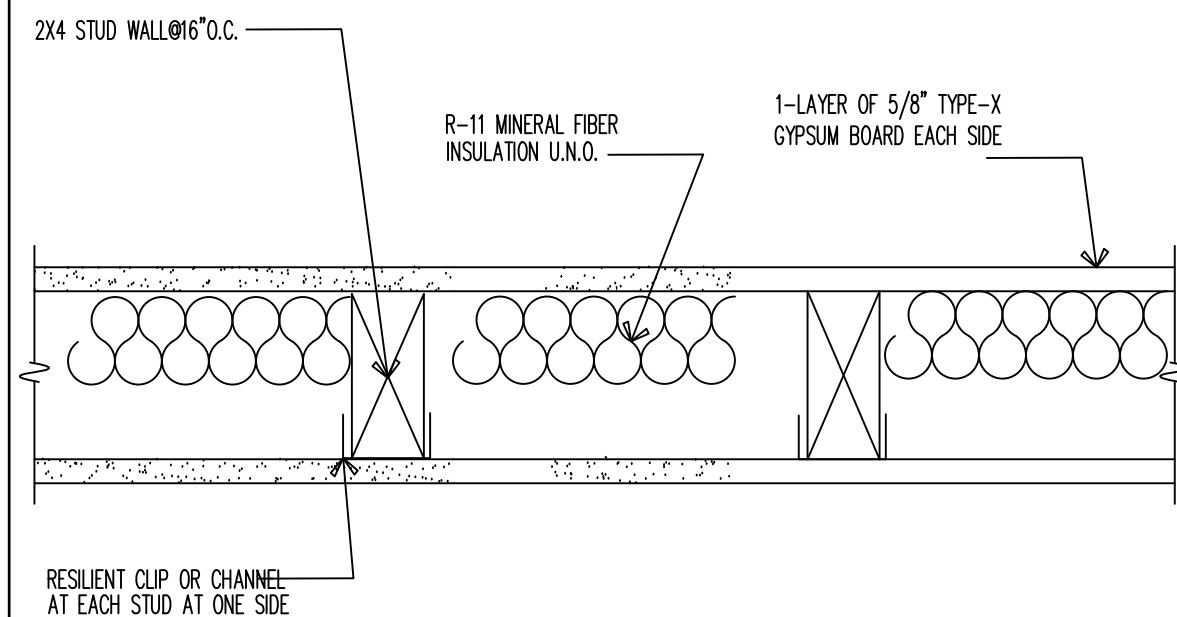
R. RISER
R.A. RETURN AIR
RAD. RADIUS
R.D. ROOF DRAIN
RECT. RECEPTACLE
RECT. RECTANGULAR
REF. REFERENCE
REG. REGISTER
REIN. REINFORCEMENT
REQ. REQUIRED
RESIL. RESILIENT
RM. ROOM
R.O. ROUGH OPENING
RWD. REDWOOD
R&S. ROD AND SHELFL



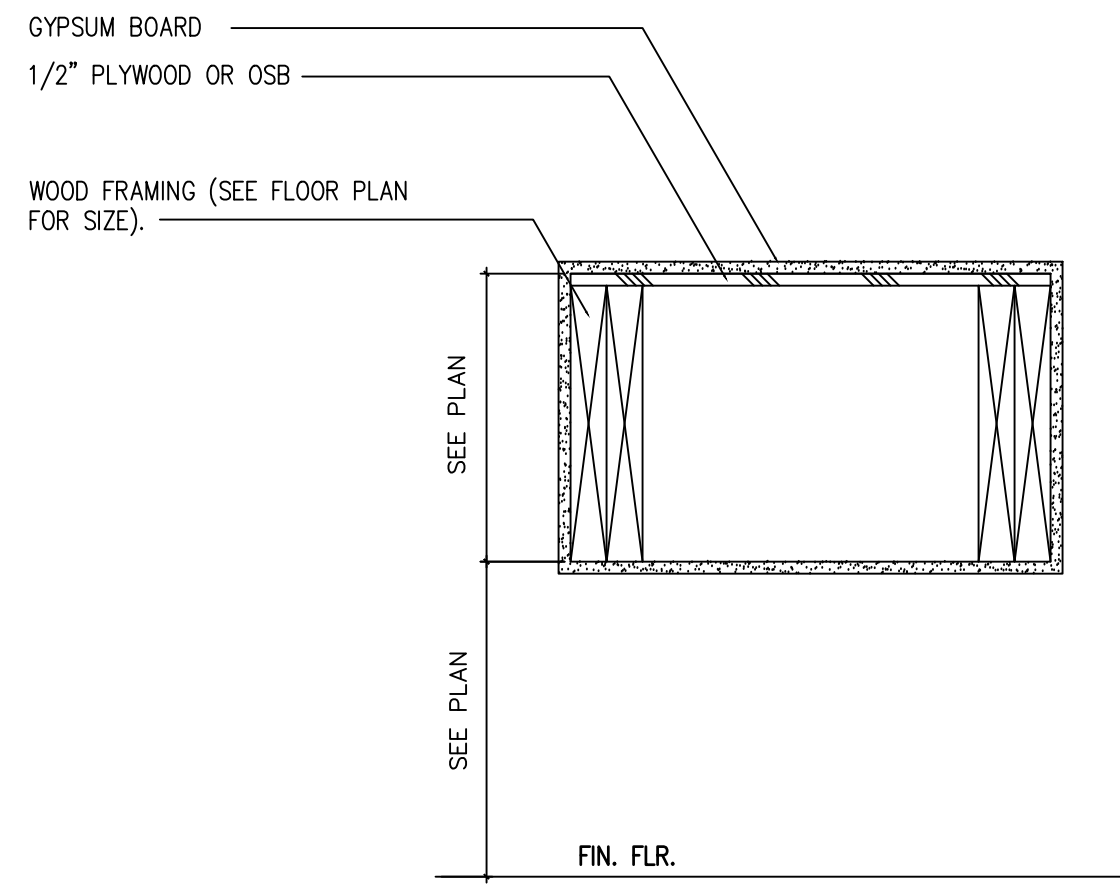
17 CONDENSATE DRAINS AND OVERFLOW PAN



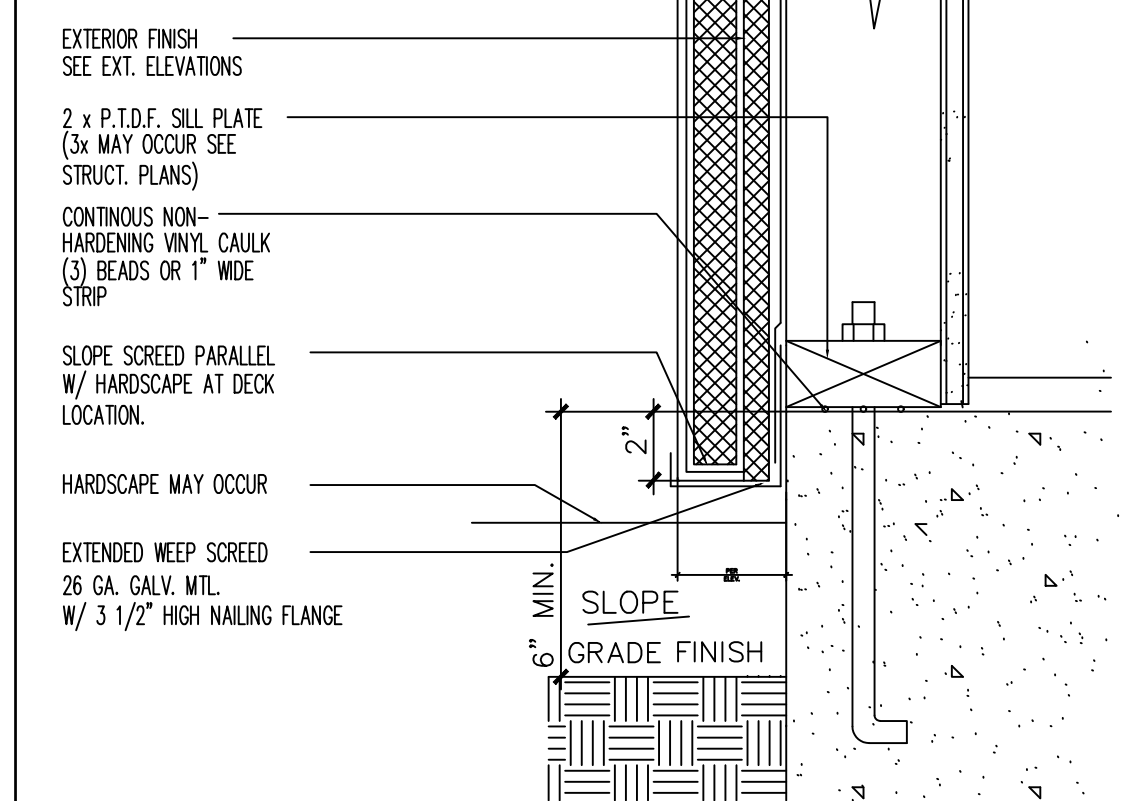
13 WOOD HEAD



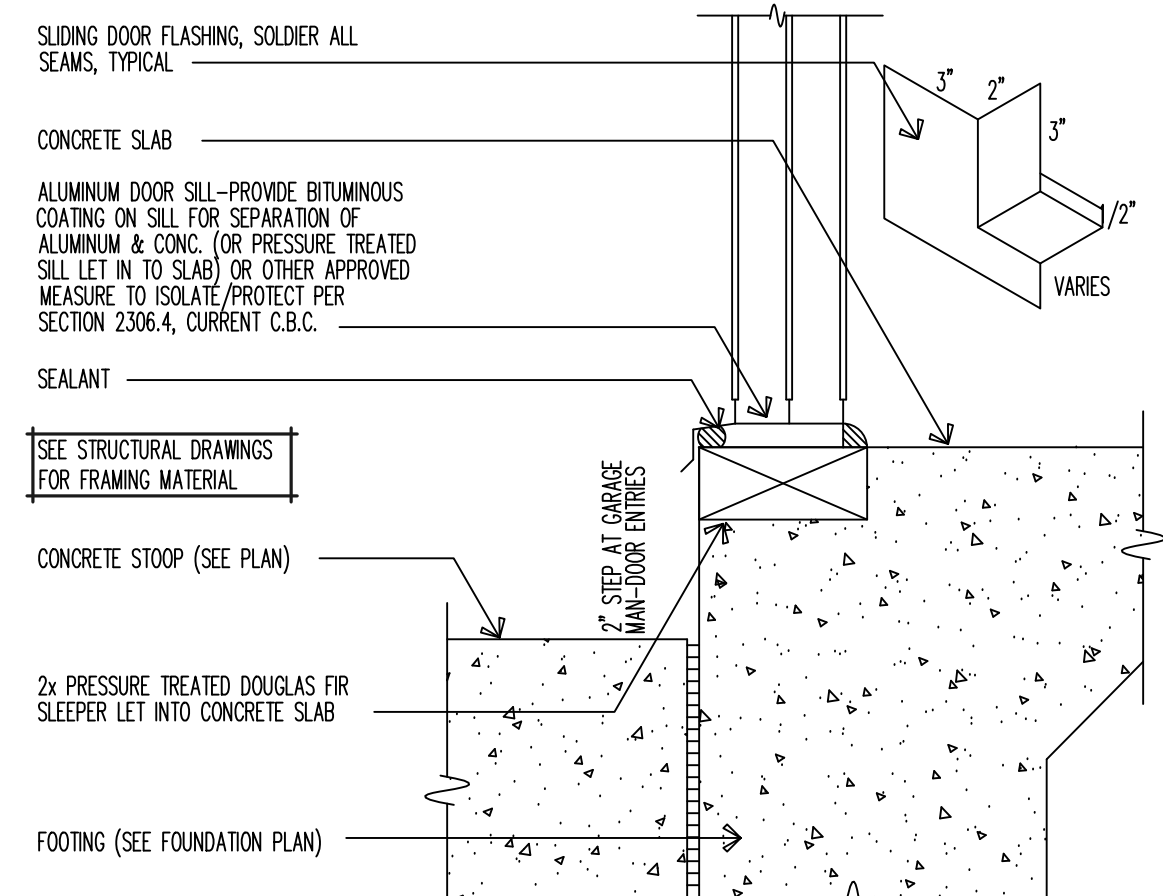
9 1-HOUR FIRE RATED WALL



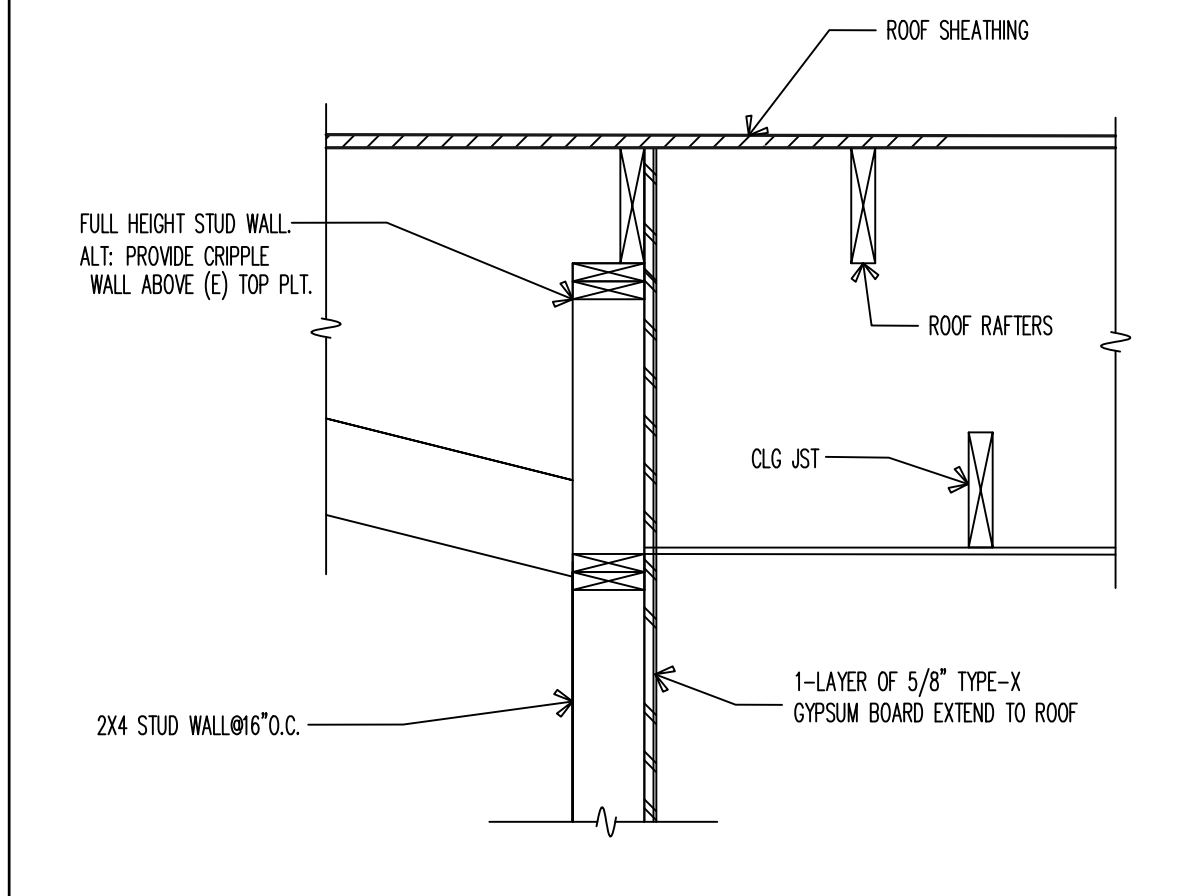
5 SOFFIT/POTSHEFF



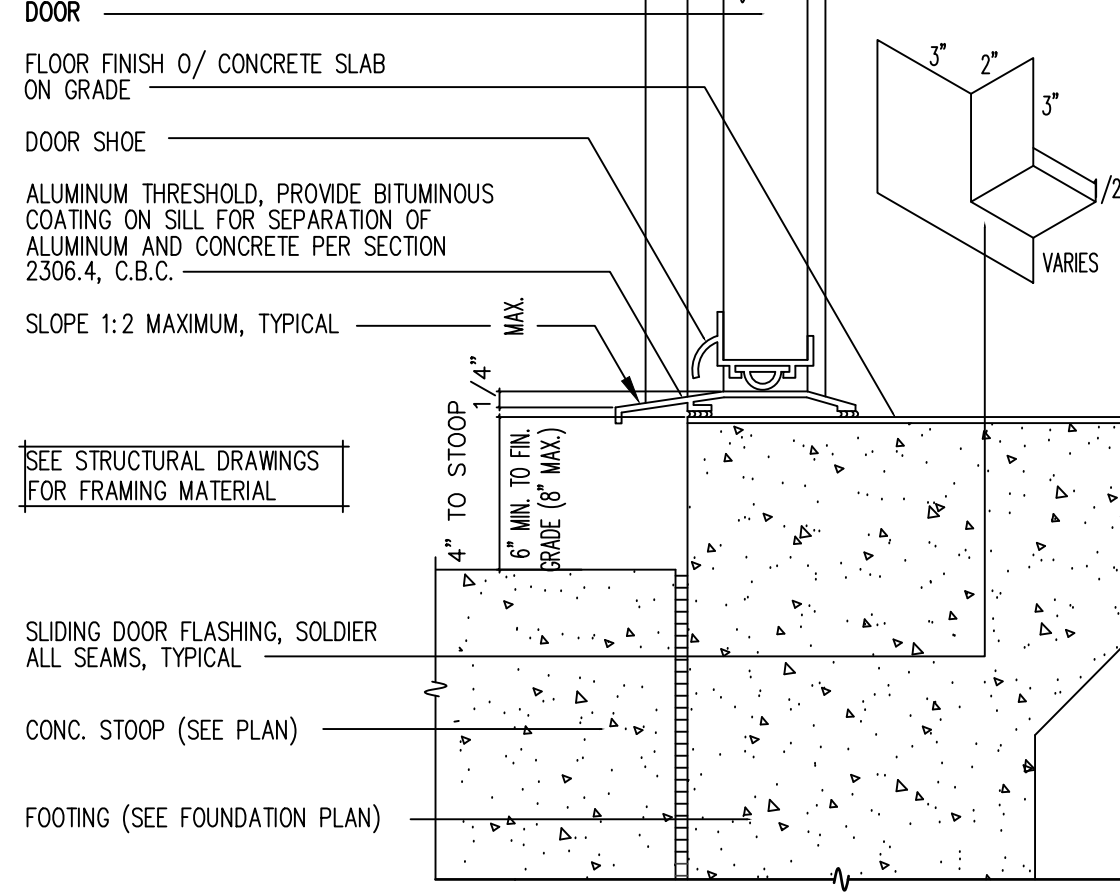
1 FURRED OUT STUCCO SCREED



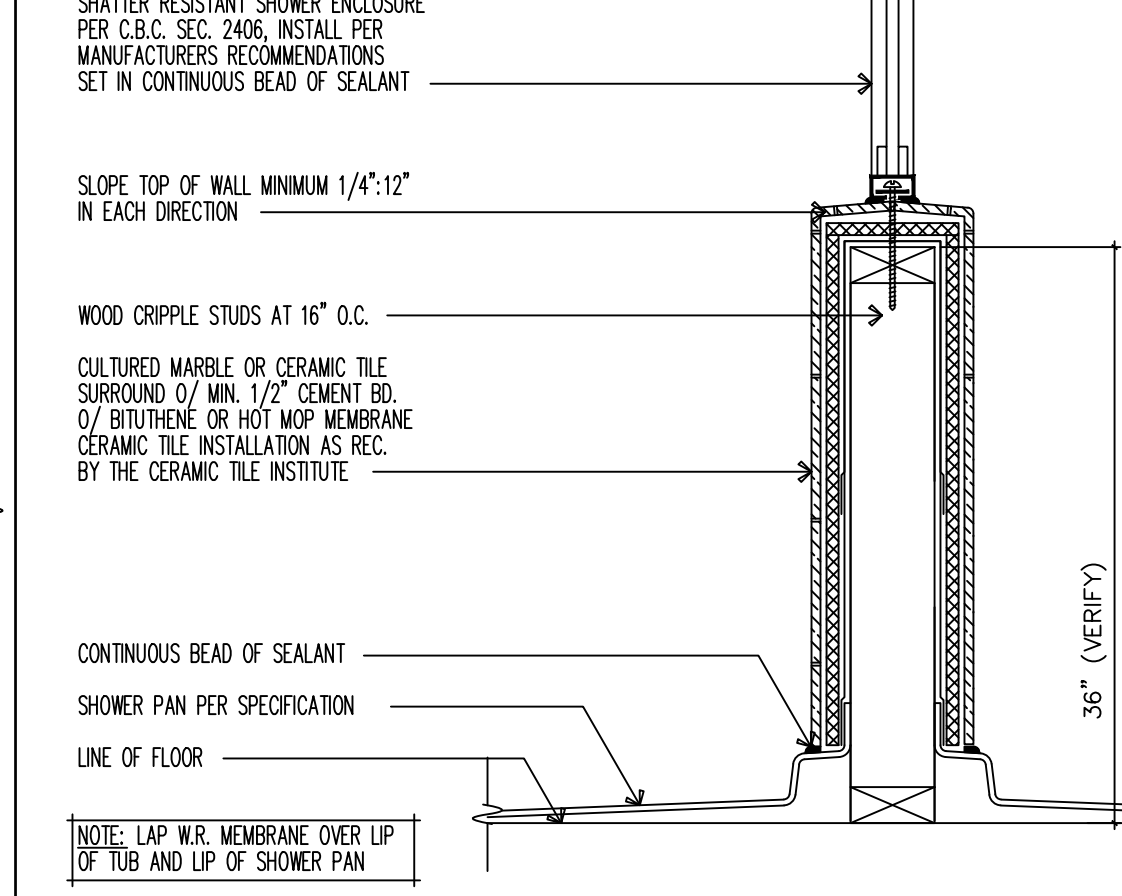
14 THRESHOLD



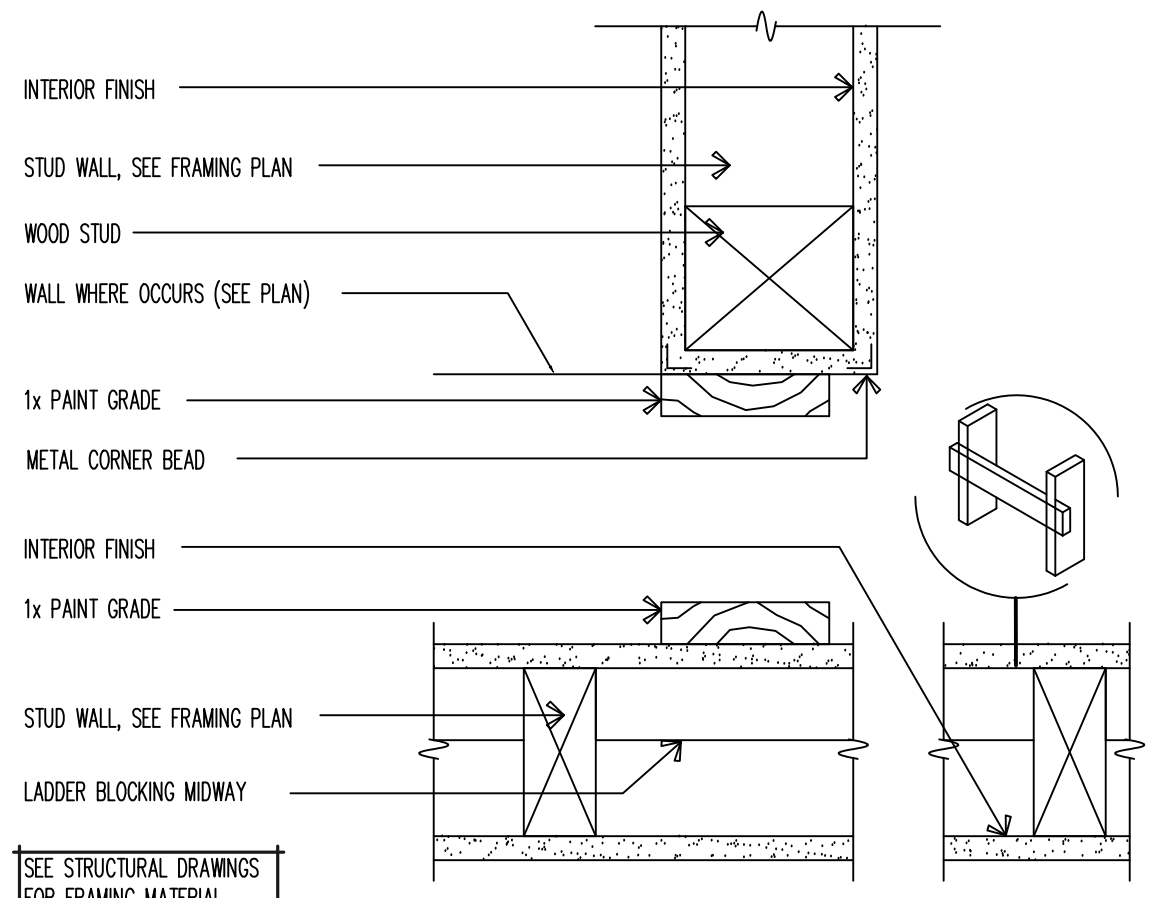
10



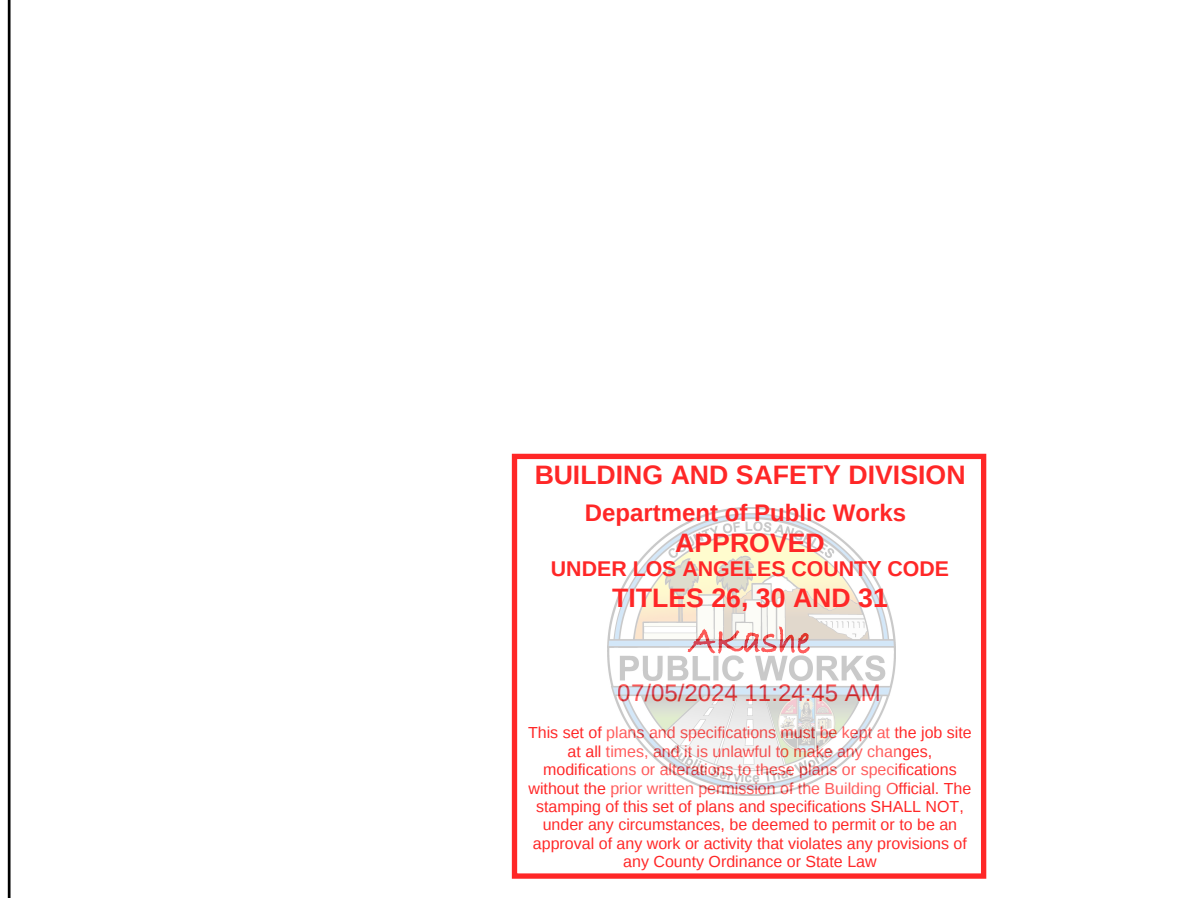
6 SWING DOOR THRESHOLD



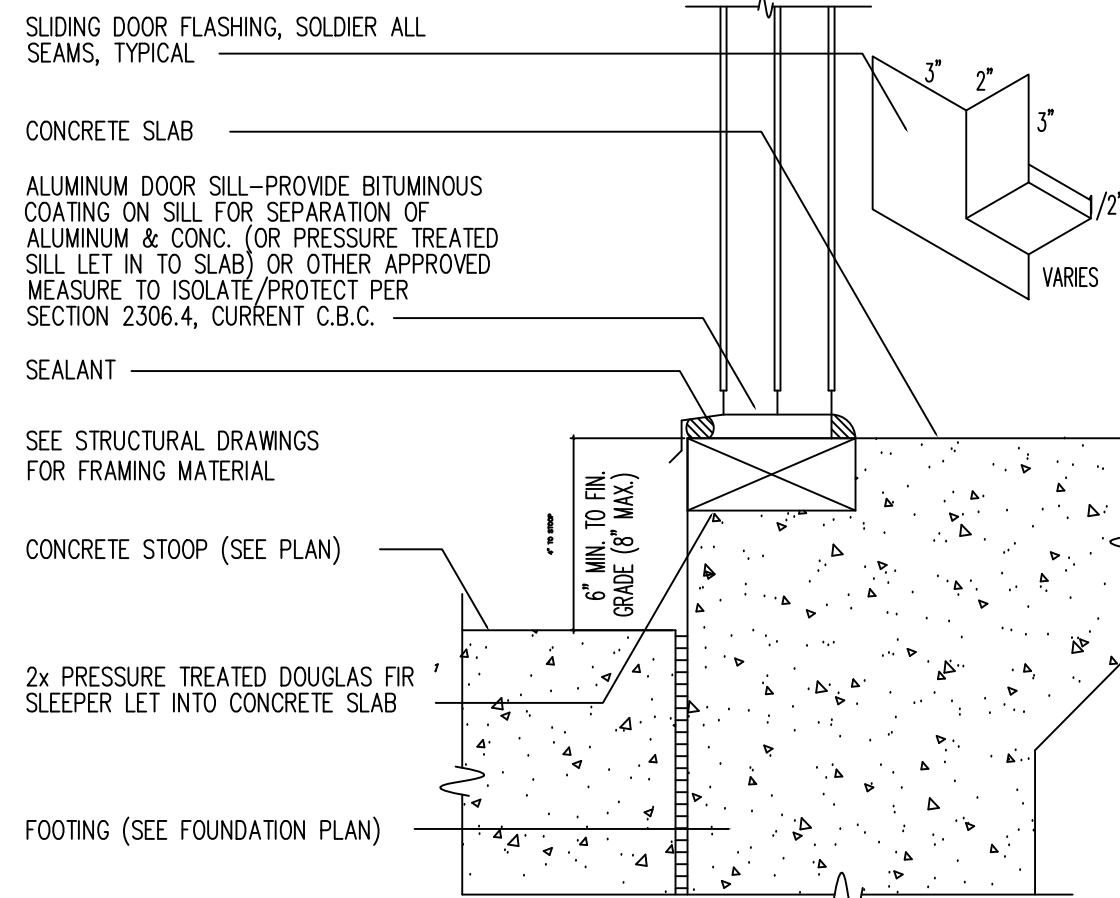
2 NON-SELF RIMMING TUB & SHOWER



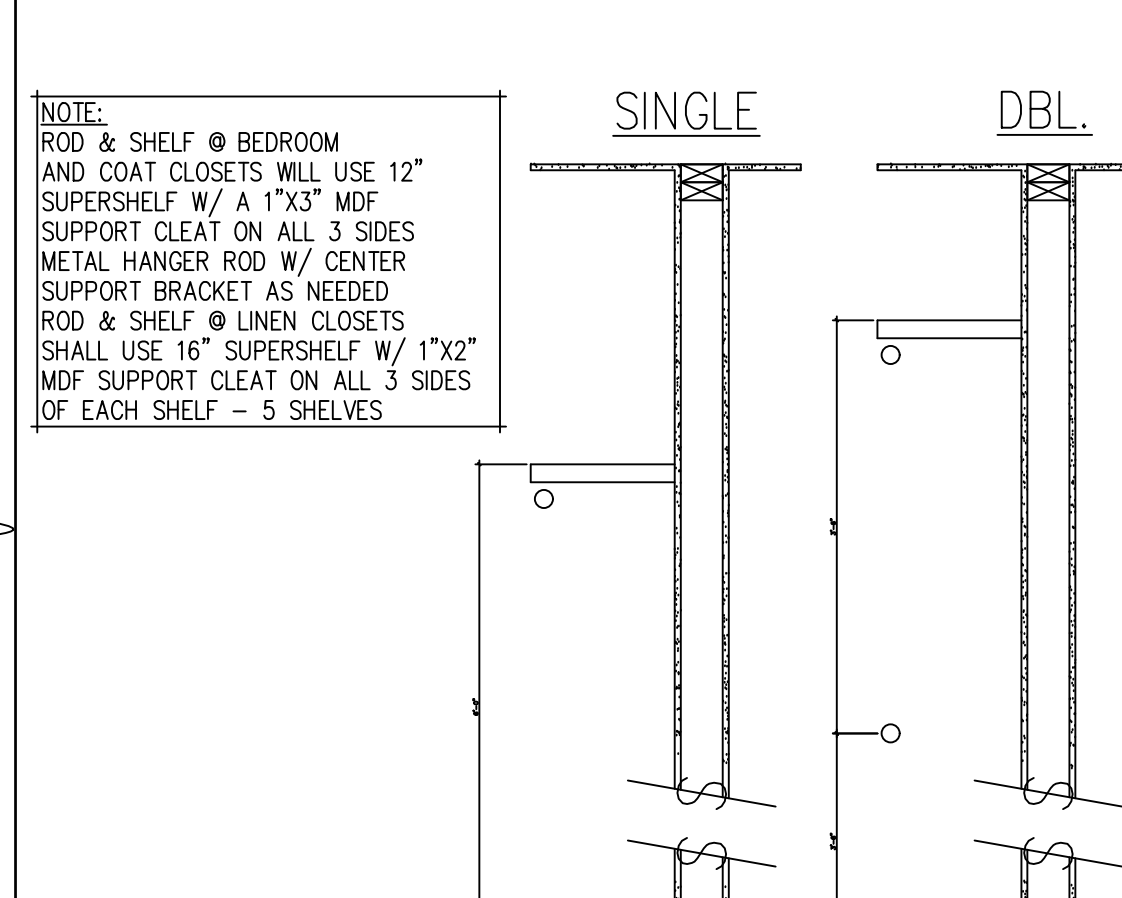
15 WOOD FRAME



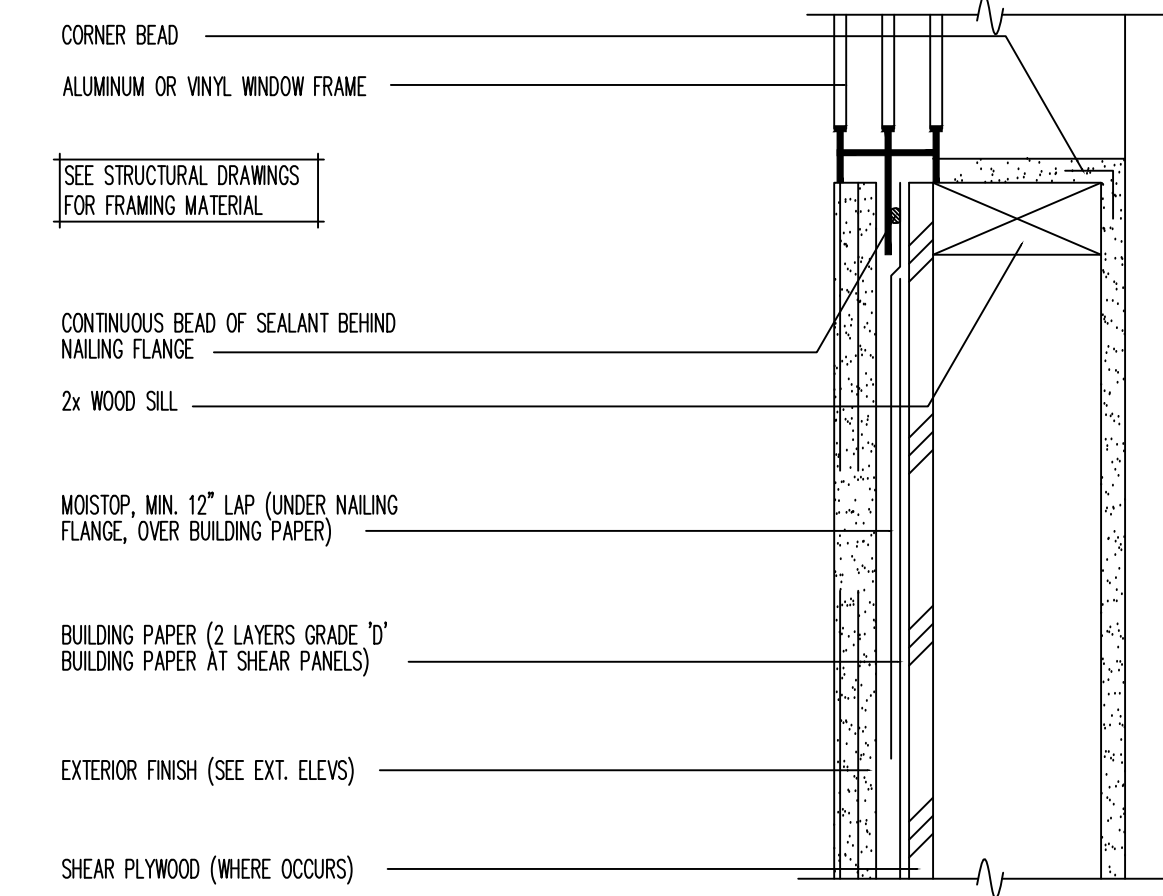
11



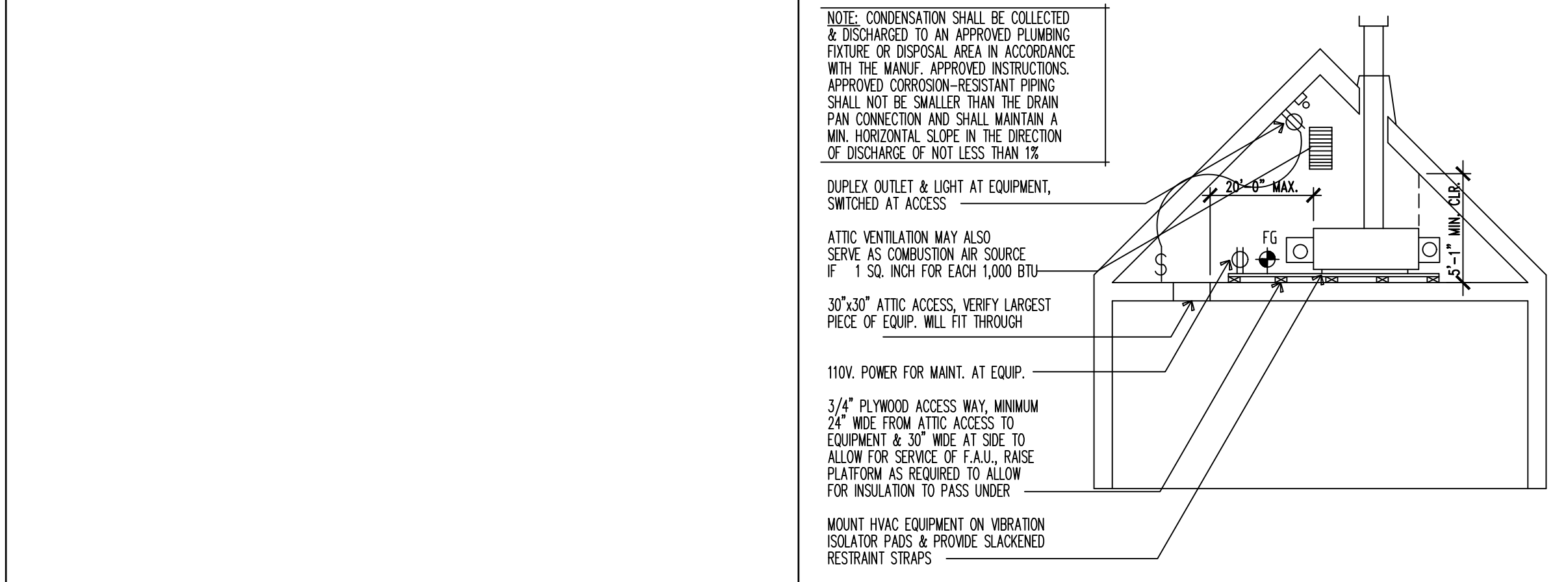
7 SLIDING DOOR THRESHOLD



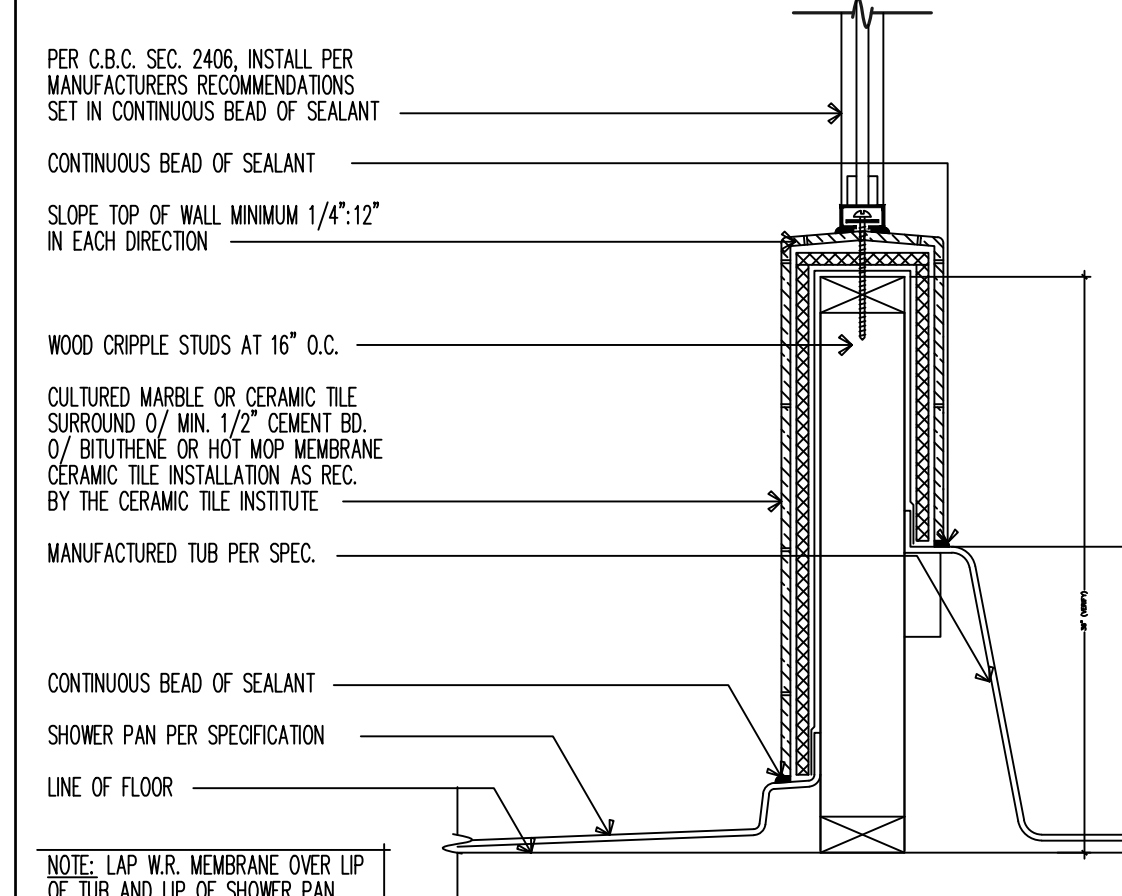
3 CLOSET ROD AND SHELF HEIGHT



16 WINDOW SILL



8 F.A.U. IN ATTIC



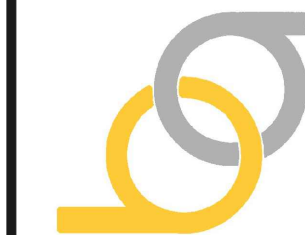
4 NON-SELF RIMMING TUB & SHOWER

REVISITONS:	ISSUED FOR:	OWNERS APPROVAL:	PLAN CHECK:	PERMITTED:	FIRST BDR:

B.A. ENGINEERING & CONSULTING.

4000 BARRANCA PKWY #250, IRVINE, CA 92604

The plans and contents herein are the property of B.A. Engineering. No part of these plans may be reproduced or used in any manner without express prior consent of the B.A. Engineering.



PROJECT: REMODEL (E) S.F.R. 829 FOXWORTH AVE., LA PUENTE, CA 91744

DATE: 3/23/23

DRAWN: JR

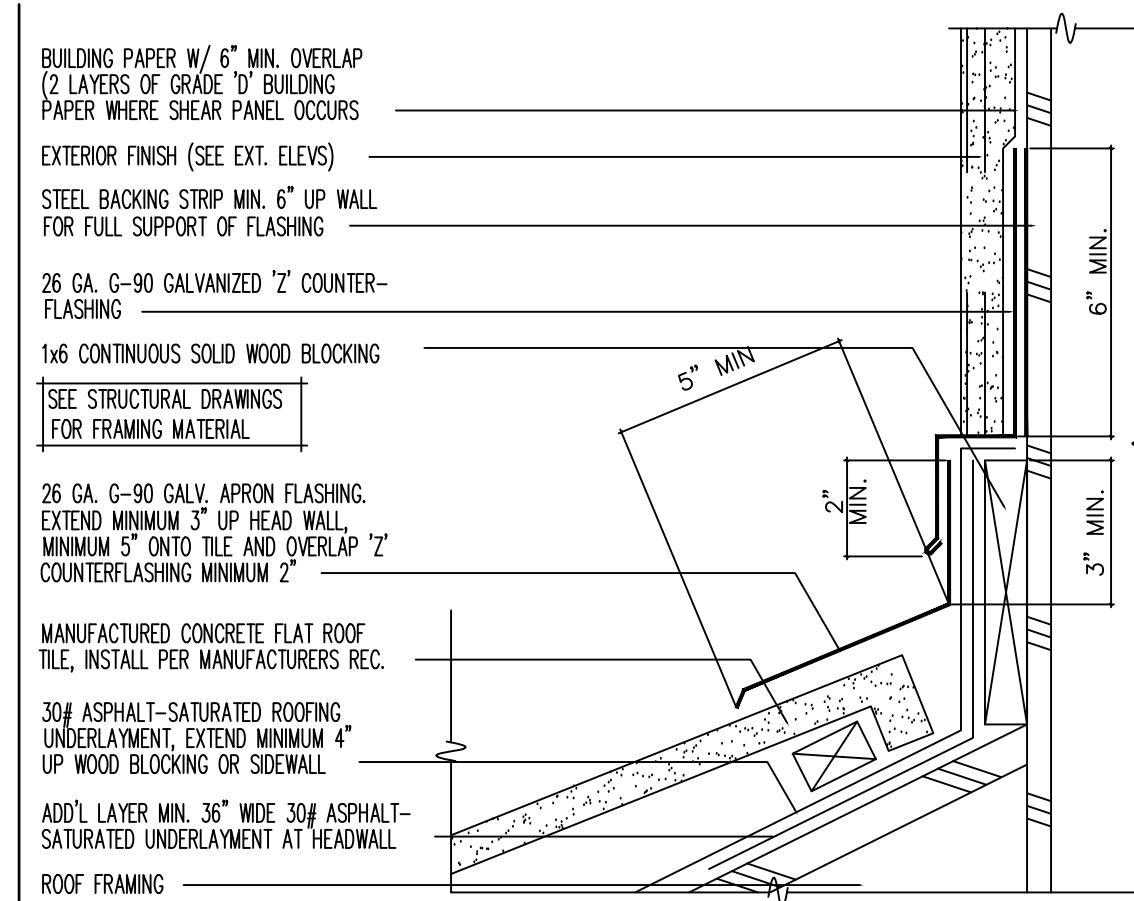
PROJECT NO:

303-23

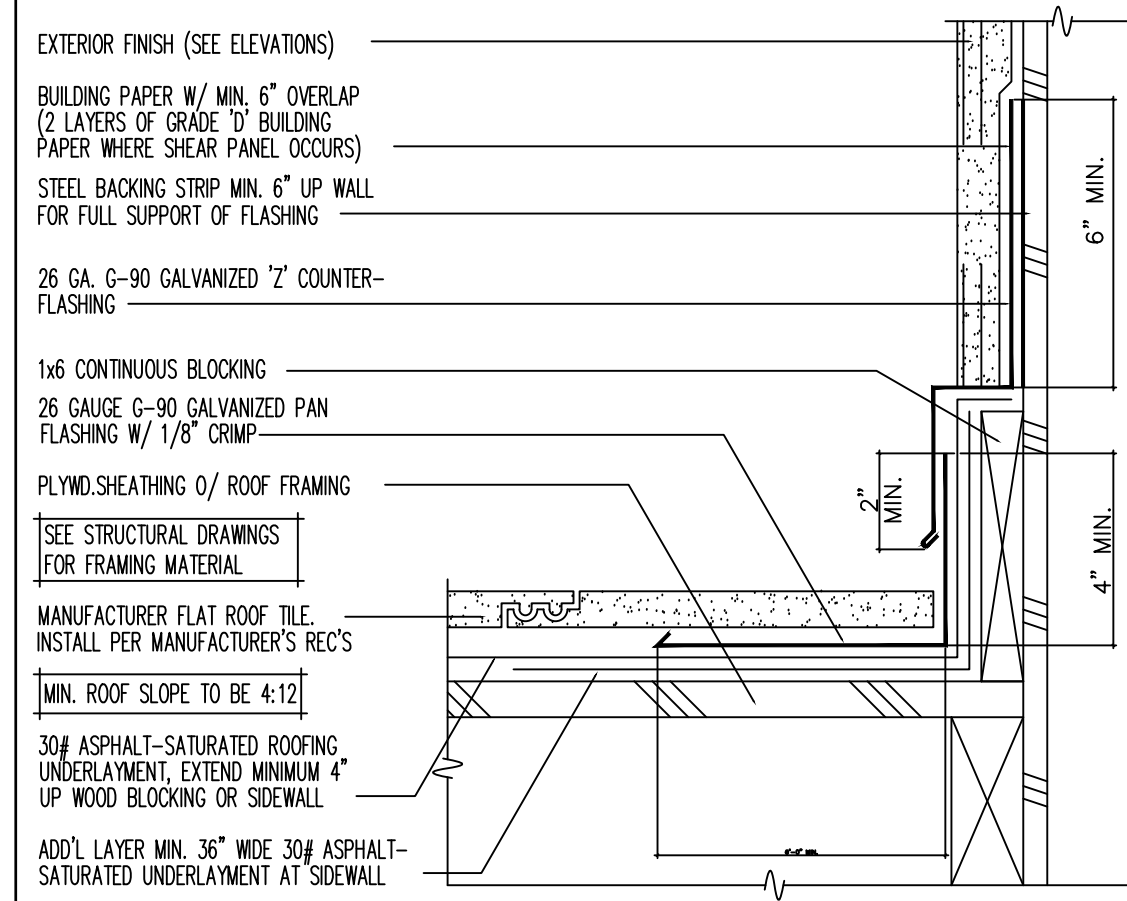
SHEET NO.

AD1

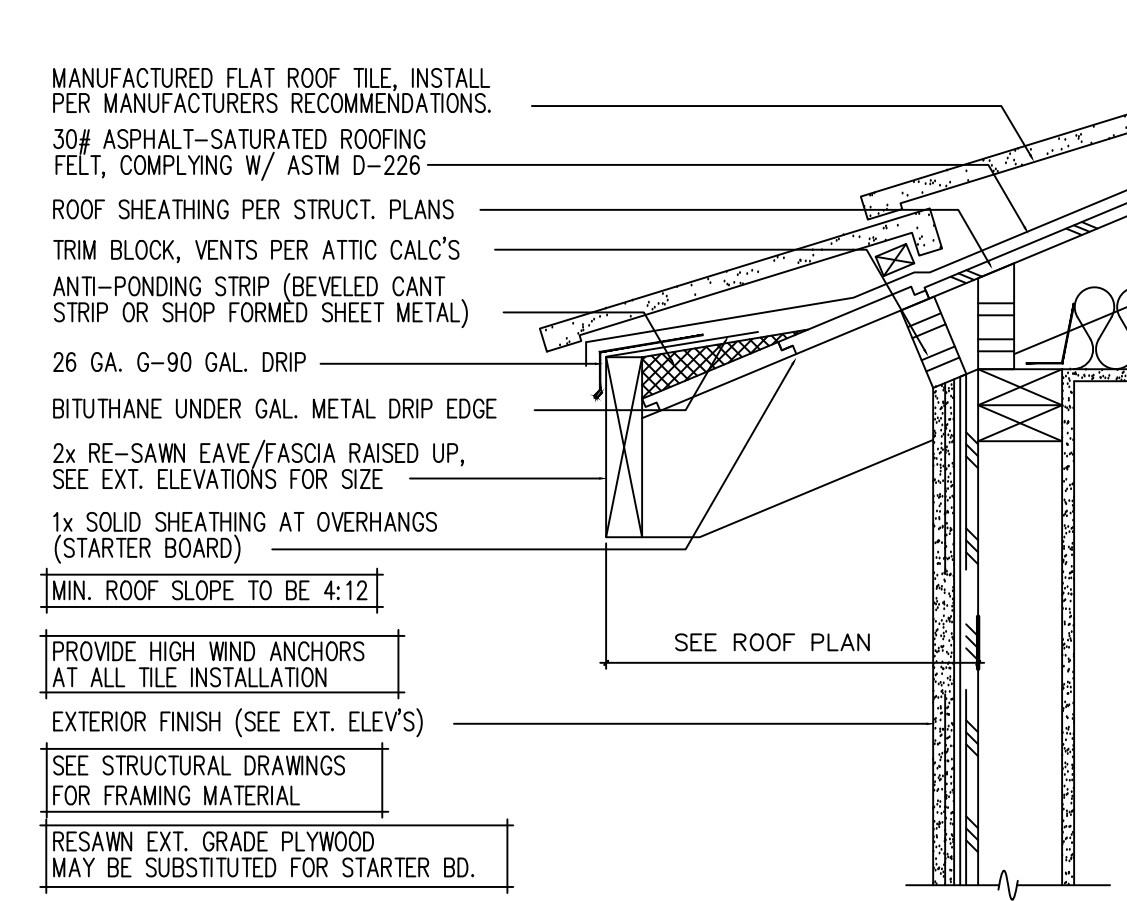
ARCHITECTURAL DETAILS



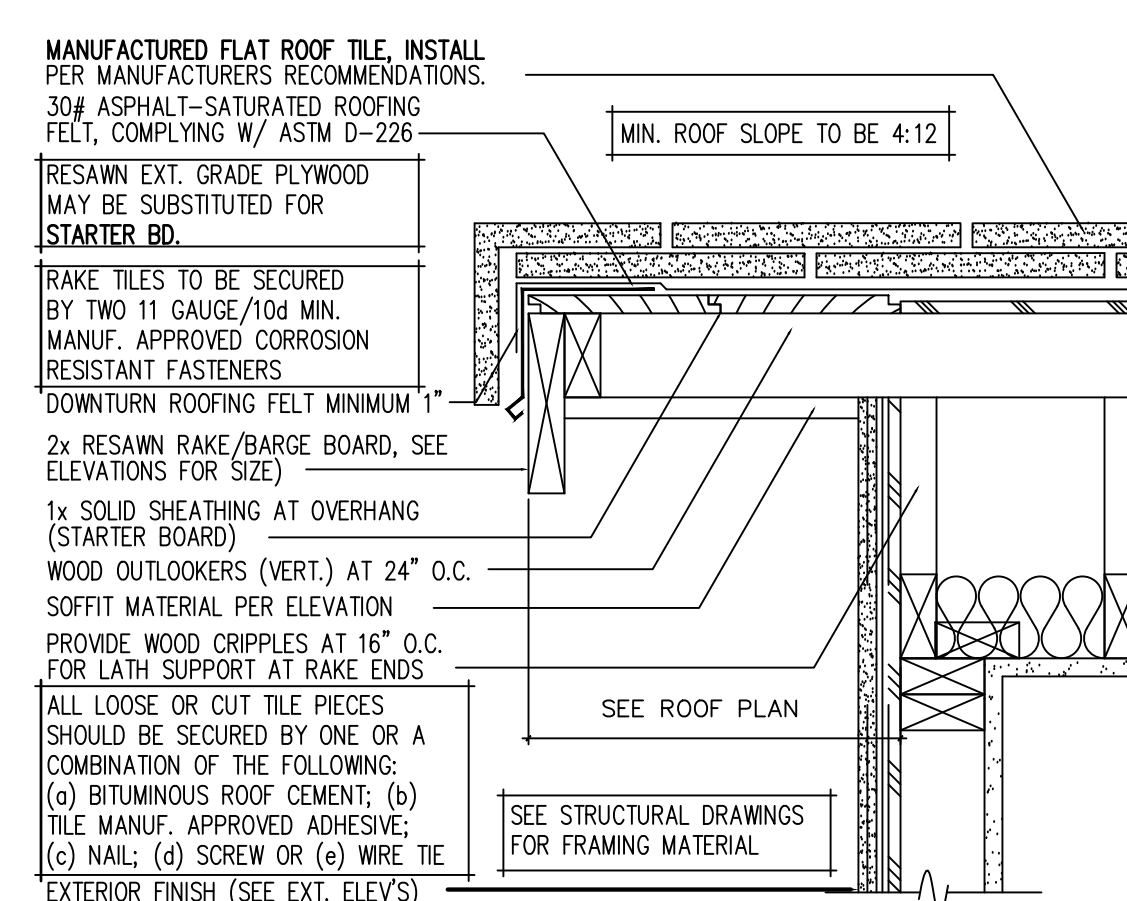
13 FLASHING AT HEAD WALL / STUCCO



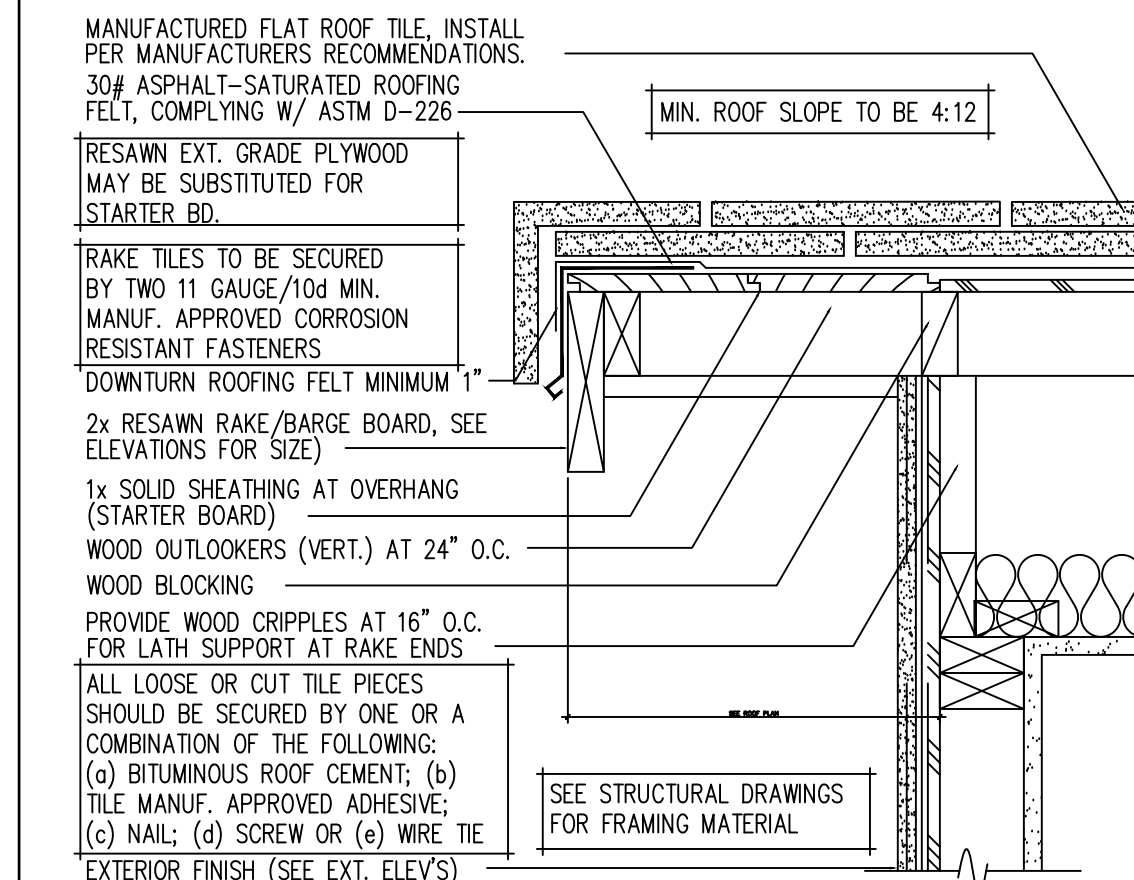
9 FLASHING AT SIDE WALL W/STUCCO



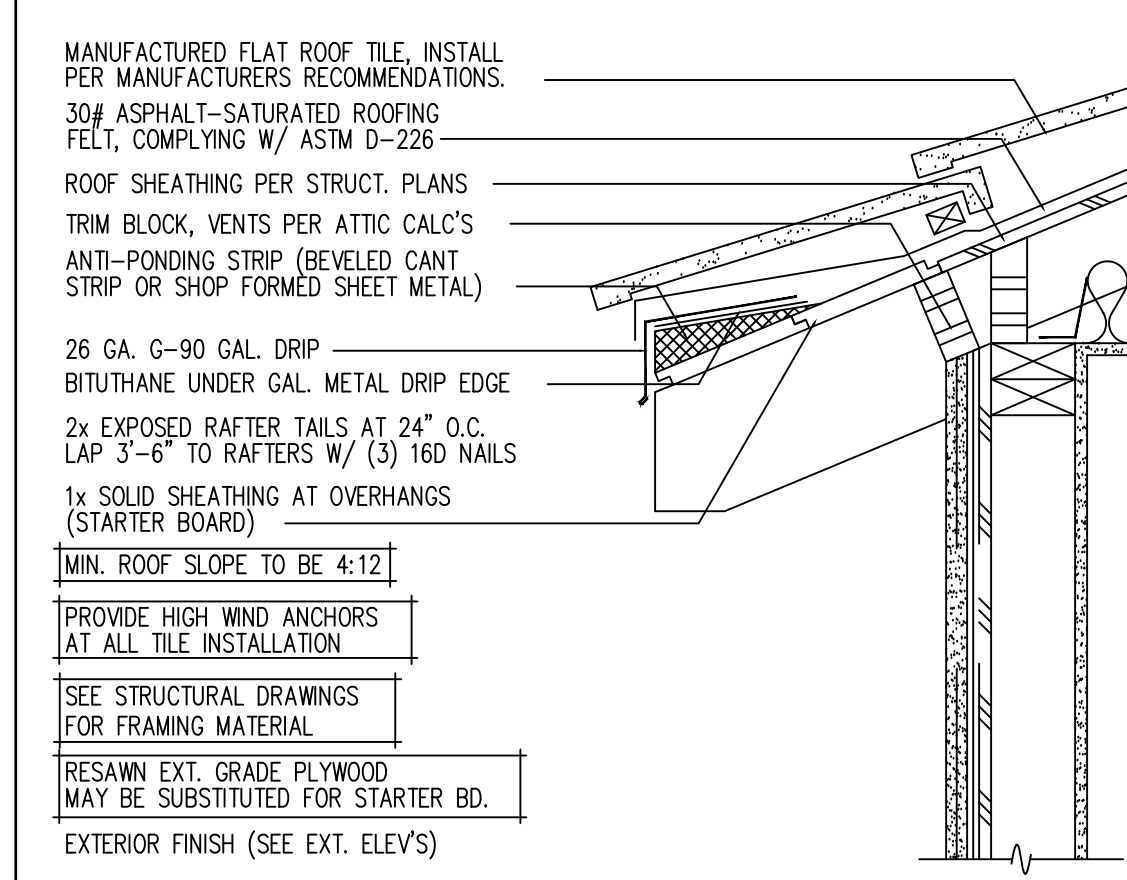
5 EAVE



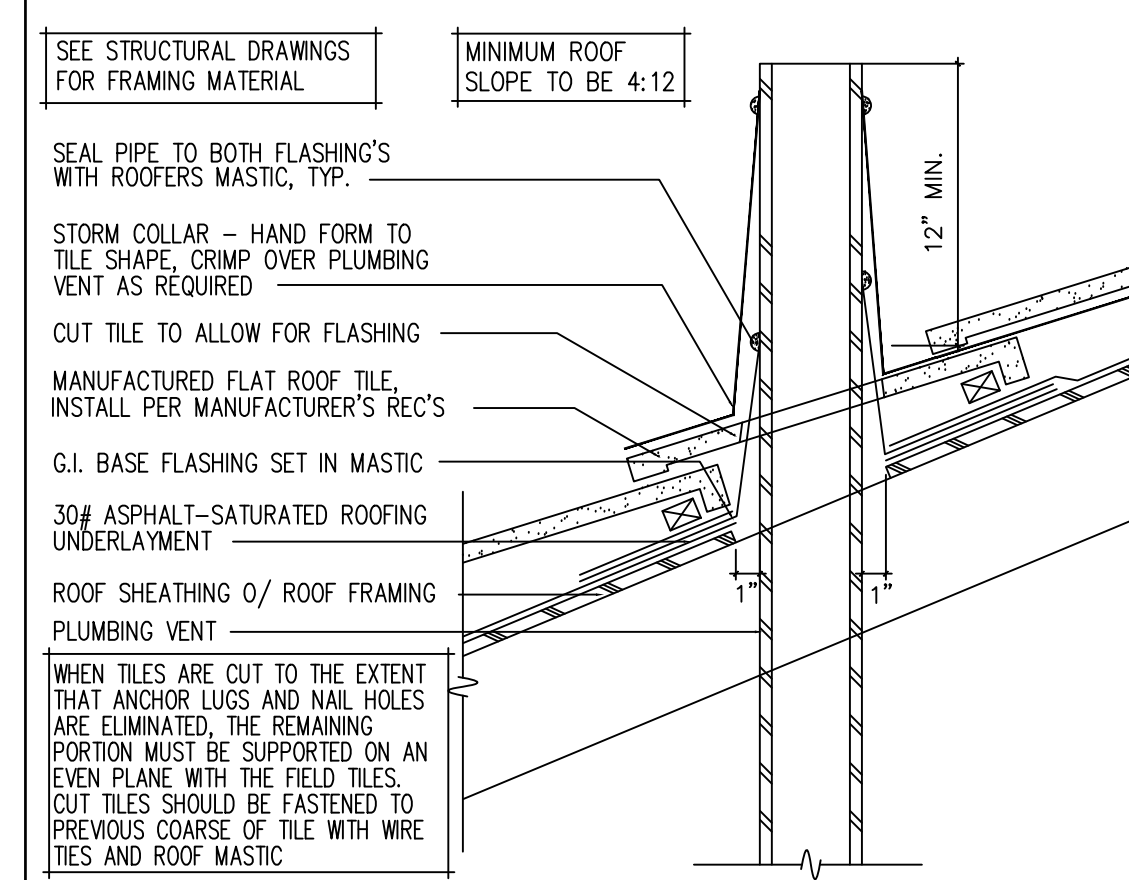
1 RAKE



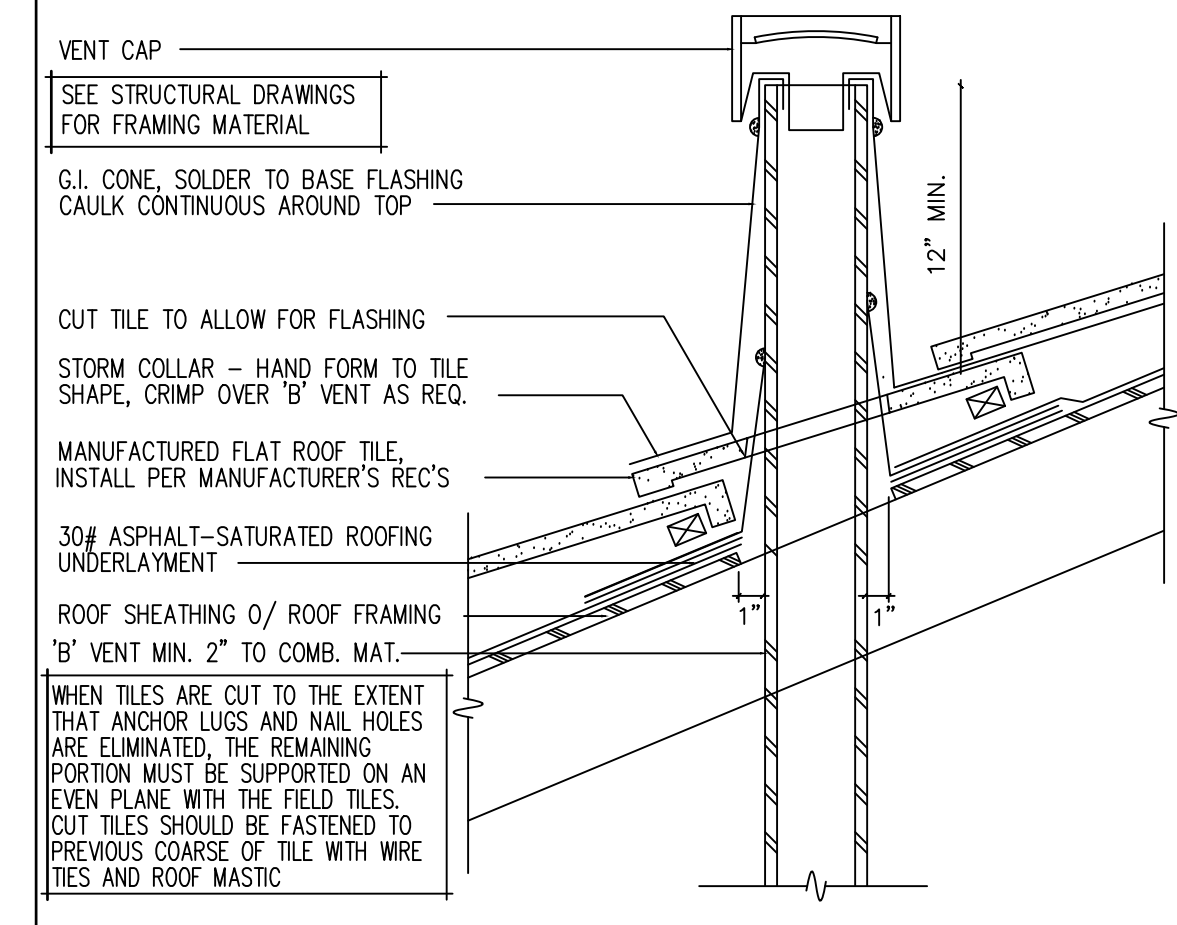
14 RAKE WITH EXPOSED RAFTER TAILS



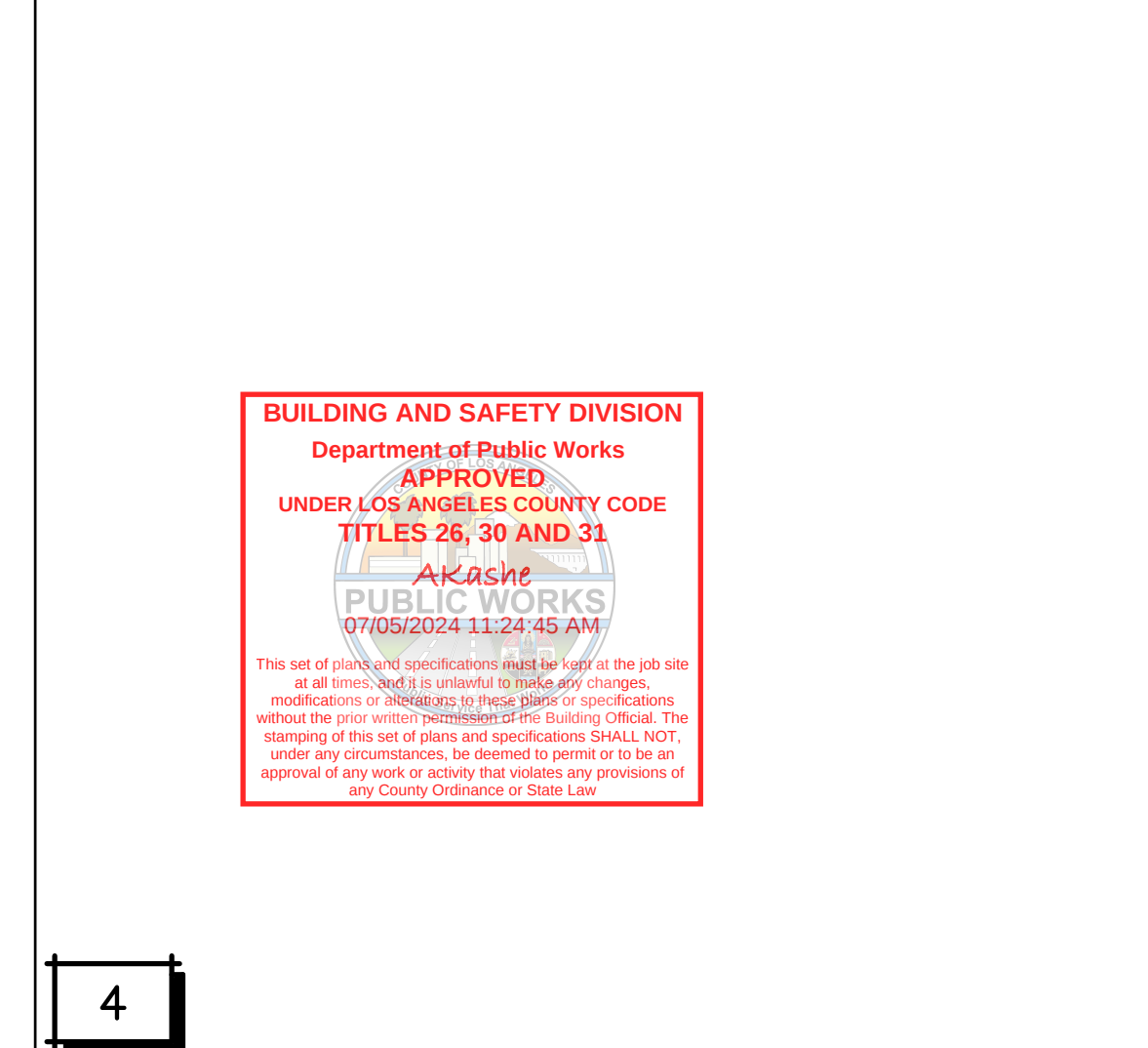
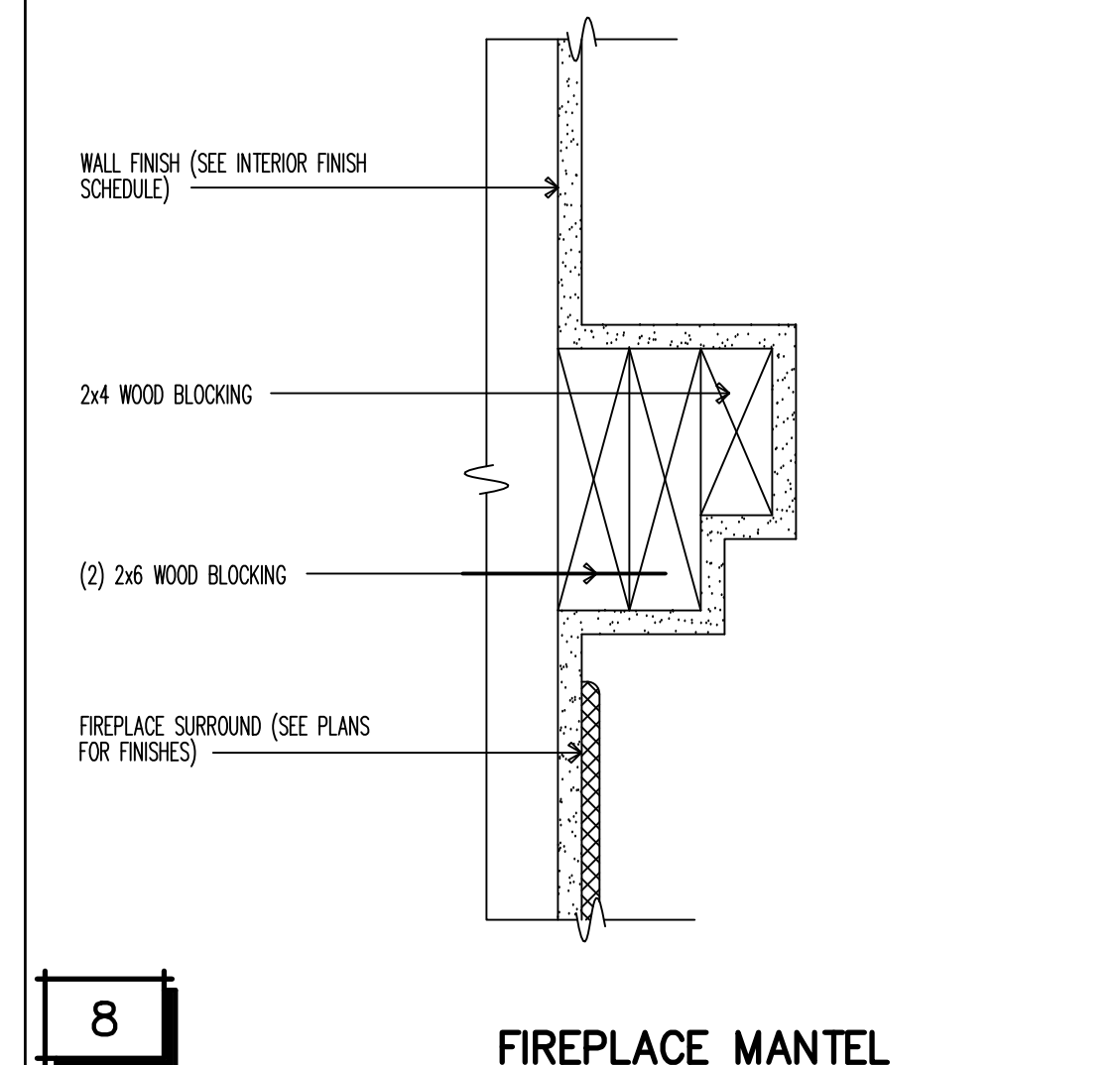
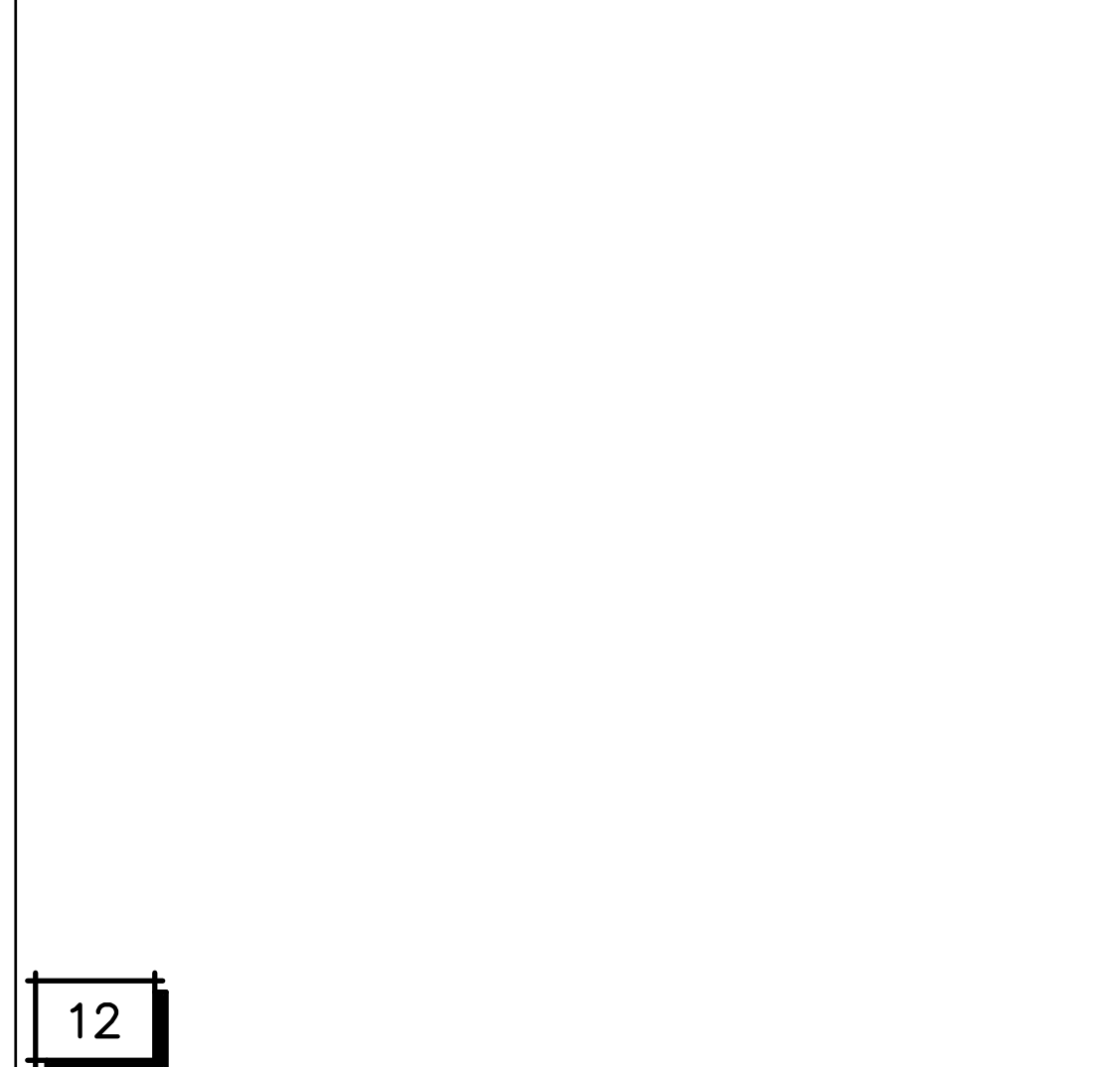
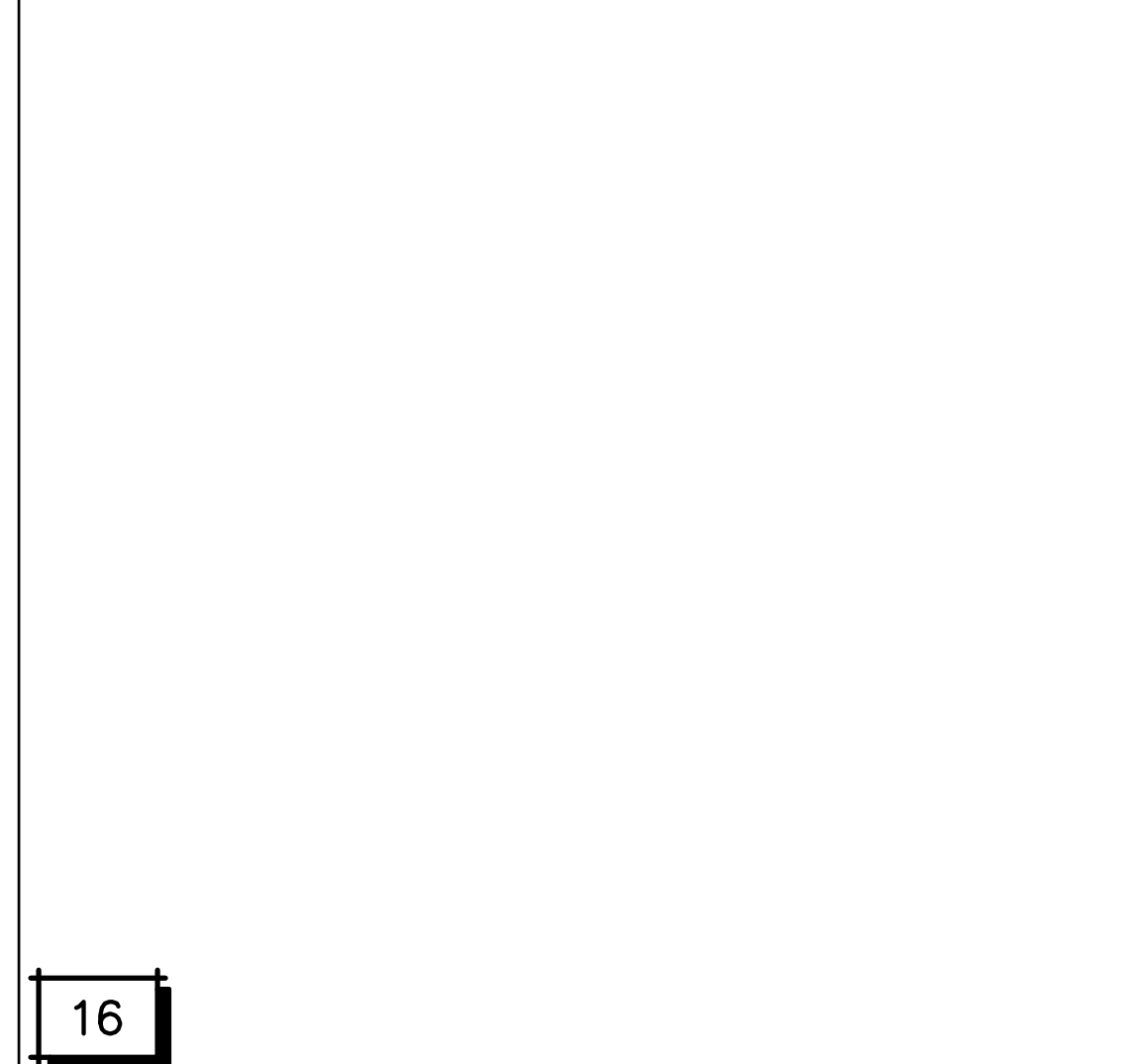
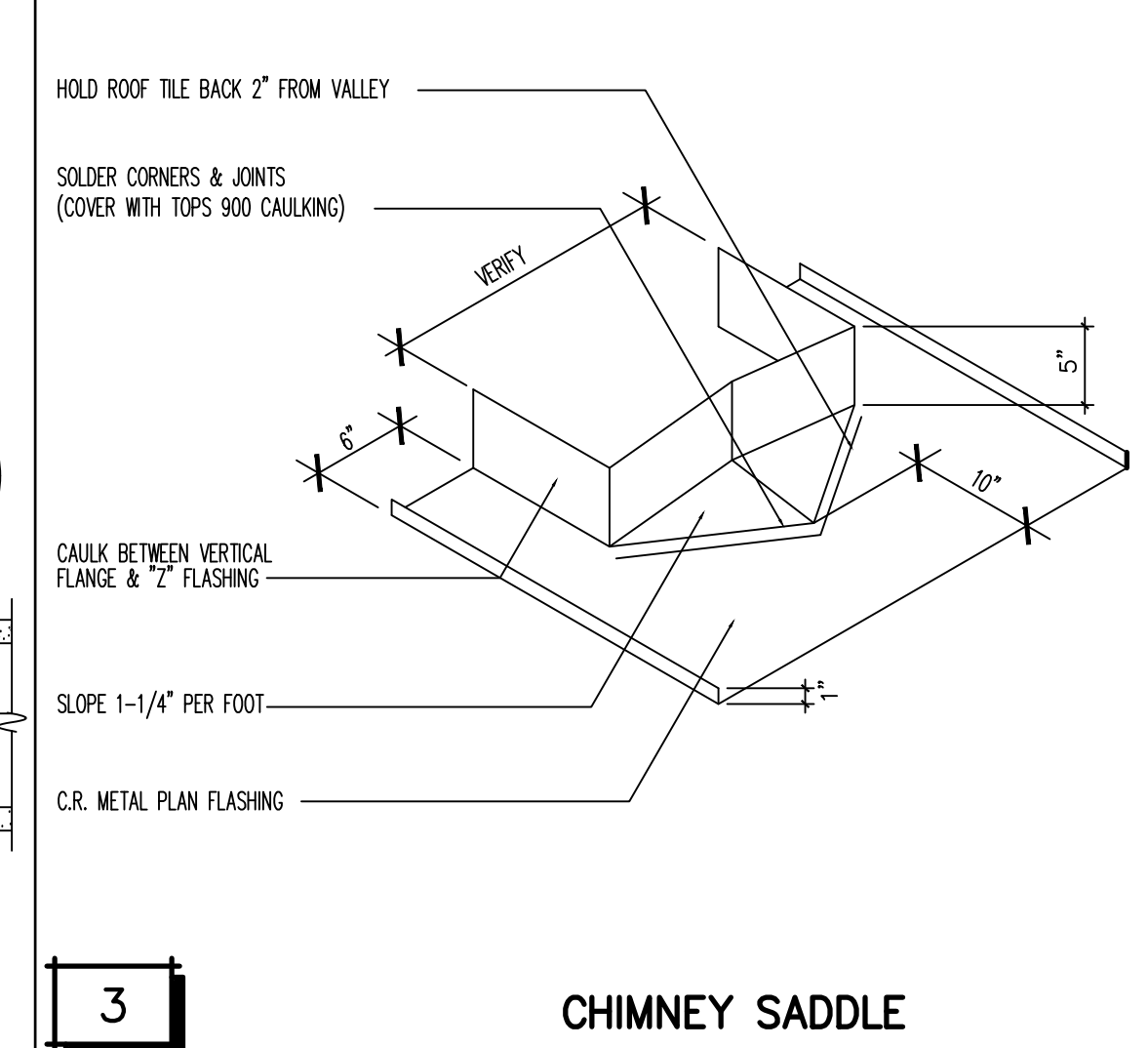
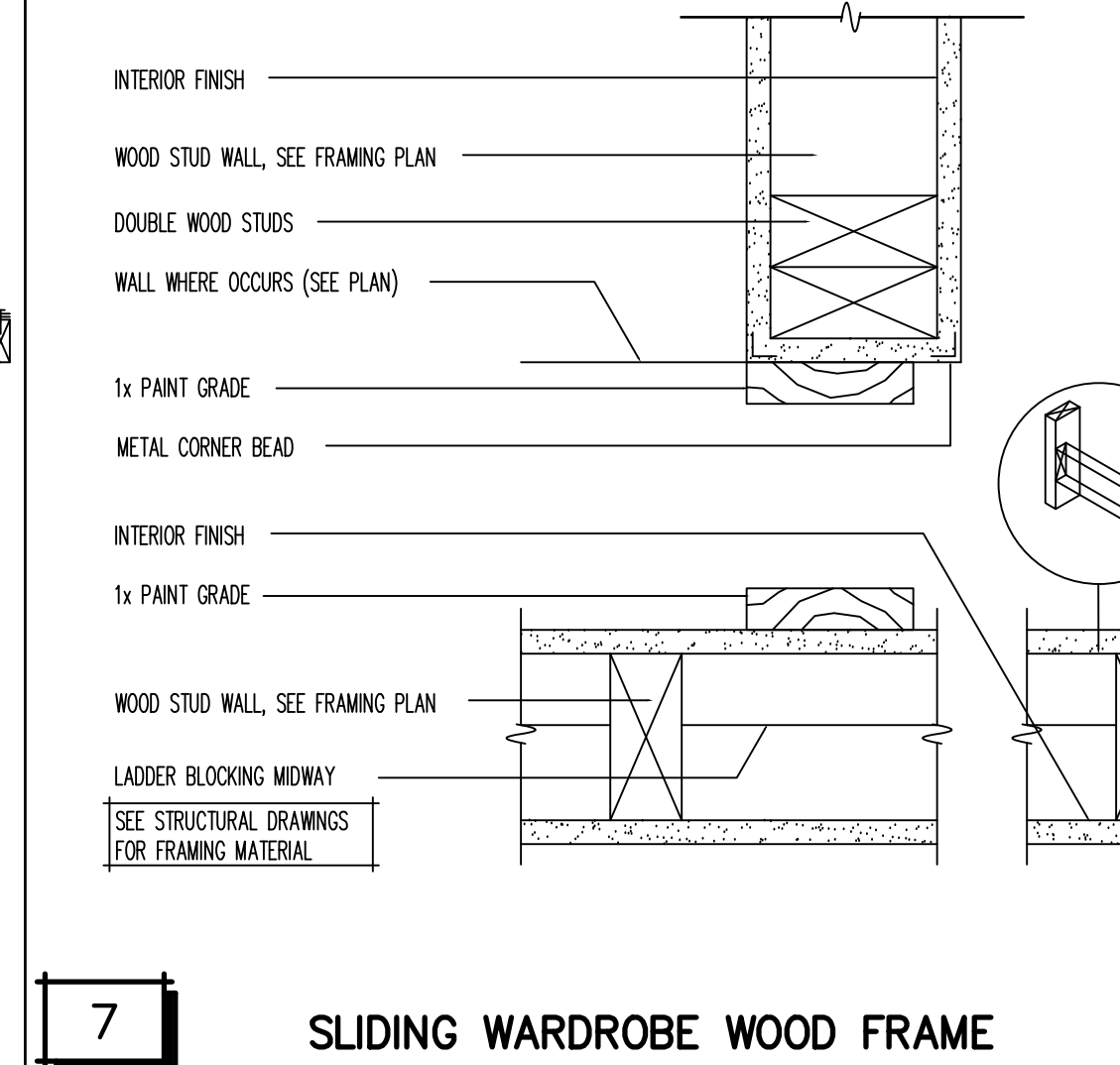
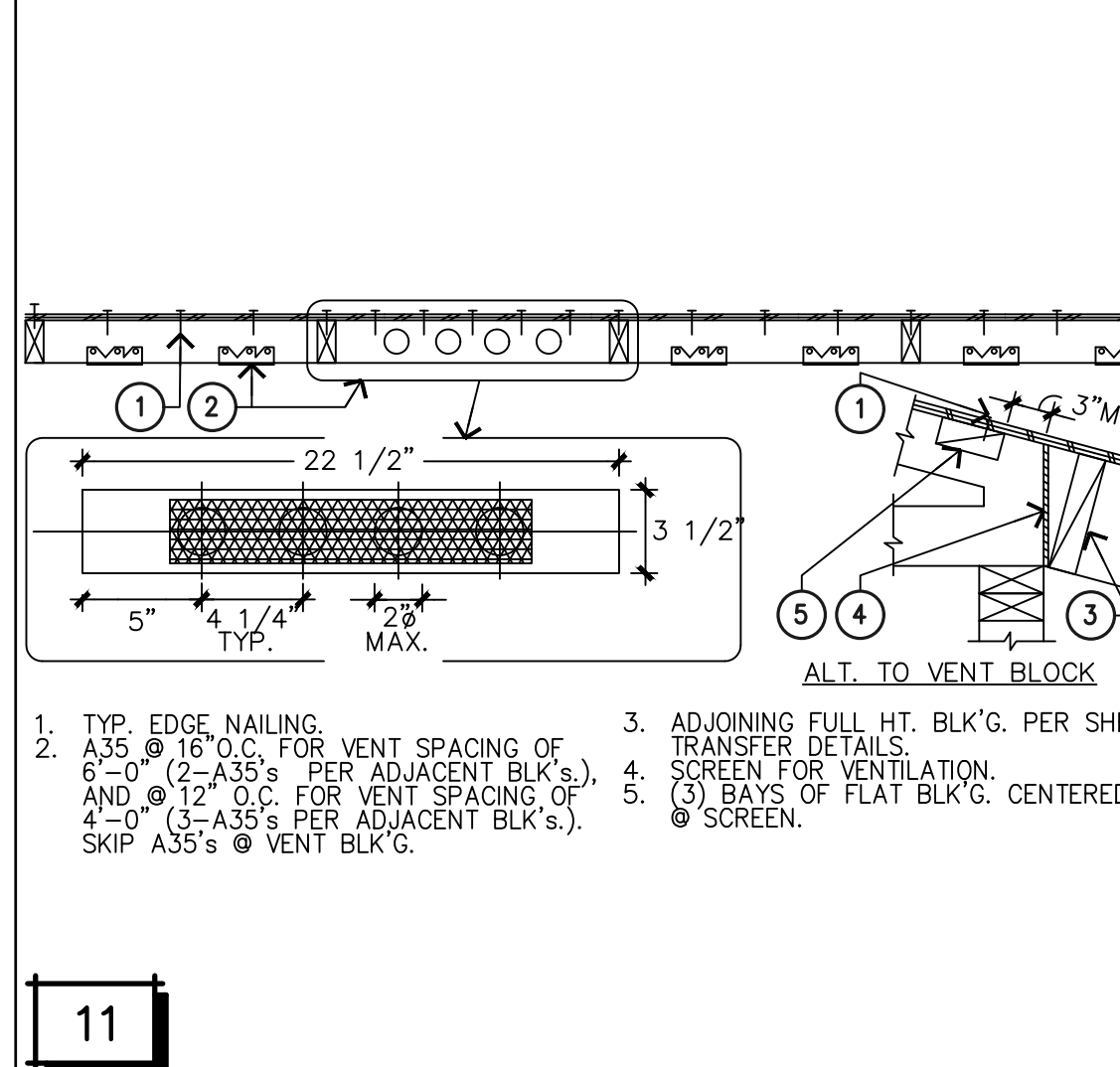
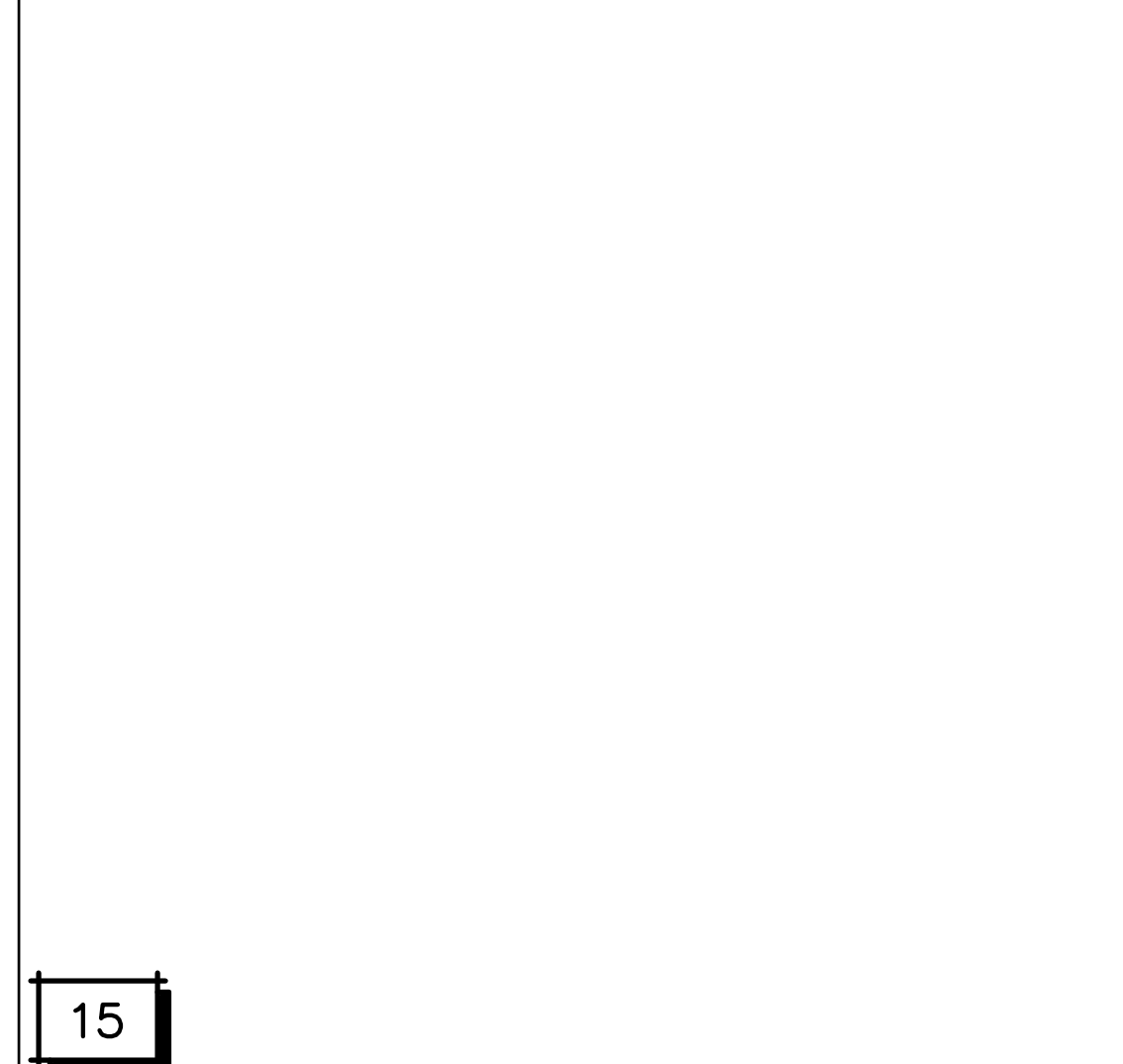
10 EAVE W/ EXPOSED RAFTER TAILS

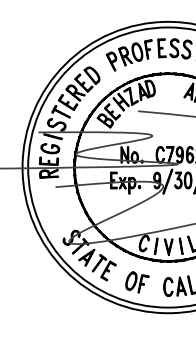


6 PLUMBING VENT THRU ROOF



2 "B" VENT FLASHING AT ROOF



REVISIONS:	
ISSUED FOR: OWNER'S APPROVAL PLAN CHECK: PERMITTED: FIRST BID:	
 B.A. ENGINEERING & CONSULTING. 4000 BARRANCA PKWY #250, IRVINE, CA 92604 The plans and contents herein are the property of B.A. Engineering, copying, reproduction or distribution is expressly prohibited without prior consent of the B.A. Engineering.	
	
PROJECT: REMODEL (E) S.F.R. 829 FOXWORTH AVE., LA PUENTE, CA 91744	SHEET: ARCHITECTURAL DETAILS
DATE: 3/23/23	
DRAWN: JR	
PROJECT NO: 303-23	
SHEET NO. AD2	

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: GARAGE TO BE CONVERTED INTO A.D.U.
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-08-27T16:40:56-07:00
Input File Name: Q23-1179.rbd22x

CF1R-PRF-01E
(Page 1 of 10)

GENERAL INFORMATION									
01	Project Name	GARAGE TO BE CONVERTED INTO A.D.U.							
02	Run Title	Title 24 Analysis							
03	Project Location	829 FOXWORTH AVE.							
04	City	LA PUENTE			05	Standards Version	2022		
06	Zip code	91744			07	Software Version	EnergyPro 9.2		
08	Climate Zone	3			09	Front Orientation (deg/ Cardinal)	135		
10	Building Type	Single family			11	Number of Dwelling Units	1		
12	Project Scope	Newly Constructed Addition			13	Number of Bedrooms	6		
14	Addition Cond. Floor Area (ft ²)	634			15	Number of Stories	1		
16	Existing Cond. Floor Area (ft ²)	1978			17	Fenestration Average U-factor	0.3		
18	Total Cond. Floor Area (ft ²)	2612			19	Glazing Percentage (%)	8.99%		
20	ADU Bedroom Count	2			21	ADU Conditioned Floor Area	634		
22	Fuel Type	Natural gas			23	Occupancy U	No		

ADDITION ALONE - Project Analysis Parameters					
01	02	03	04	05	06
Existing Area (excl. new addition) (ft ²)	Addition Area (excl. existing) (ft ²)	Total Area (ft ²)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms
1978	634	2612	4	2	6

ADDITION ALONE - ACCESSORY DWELLING UNIT (ADU) PROJECT ANALYSIS PARAMETERS							
01	02	03	04	05	06	07	08
Zone Name	Existing Area (excl. new addition) (ft ²)	ADU Area (excl. existing) (ft ²)	Total Area (ft ²)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms	Attached vs. Detached
FLOOR PLAN	1978	634	2612	4	2	6	Attached

Registration Number: 423-P010155809A-000-000-0000000-0000
NOTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this document.
CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time: 08/27/2023 16:45
Report Version: 2022.0.000
Schema Version: rev 20220901

HERS Provider: CHEERS
Report Generated: 2023-08-27 16:41:00

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: GARAGE TO BE CONVERTED INTO A.D.U.
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-08-27T16:40:56-07:00
Input File Name: Q23-1179.rbd22x

CF1R-PRF-01E
(Page 4 of 10)

ENERGY USE INTENSITY				
	Standard Design (kBtu/ft ² - yr)	Proposed Design (kBtu/ft ² - yr)	Compliance Margin (kBtu/ft ² - yr)	Margin Percentage
Gross EU1	39.76	38.81	0.95	2.39
Net EU2	39.76	38.81	0.95	2.39

Notes
1. Gross EU1 is Energy Use Total (not including PV) / Total Building Area.
2. Net EU1 is Energy Use Total (including PV) / Total Building Area.

REQUIRED SPECIAL FEATURES	
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.	
* Insulation below roof deck	

HERS FEATURE SUMMARY	
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry	
* Quality Insulation Installation (QII) * Indoor air quality ventilation * Kitchen range hood * Minimum Airflow * Verified Refrigerant Charge * Fan Efficacy Watts/CFM * Duct leakage testing * Verified Duct Design	

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft ²)	Avg. Ceiling Height	Water Heating System 1	Status
FLOOR PLAN	Conditioned	GARAGE TO BE CONVERTED IN1	634	8	DHW Sys 1	New

Registration Number: 423-P010155809A-000-000-0000000-0000
NOTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this document.
CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time: 08/27/2023 16:45
Report Version: 2022.0.000
Schema Version: rev 20220901

HERS Provider: CHEERS
Report Generated: 2023-08-27 16:41:00

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: GARAGE TO BE CONVERTED INTO A.D.U.
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-08-27T16:40:56-07:00
Input File Name: Q23-1179.rbd22x

CF1R-PRF-01E
(Page 7 of 10)

WATER HEATING SYSTEMS								
01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a	DHW Heater 1 (1)

WATER HEATERS												
01	02	03	04	05	06	07	08	09	10	11	12	13
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Heating Efficiency Type	Efficiency	Rated Input Type	Input Rating or Pilot	Tank Insulation R-value (In/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	Tank Location
DHW Heater 1	Gas	Consumer Instantaneo us	1	0	UEF	0.95	Btu/Hr	200000	0	n/a	n/a	

WATER HEATING - HERS VERIFICATION						
01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required

SPACE CONDITIONING SYSTEMS								
01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
GARAGE TO BE CONVERTED IN1	Heating and cooling system other	Heating Component 1	1	Cooling Component 1	1	HVAC Fan 1	Air Distribution System 1	Setback

Registration Number: 423-P010155809A-000-000-0000000-0000
NOTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this document.
CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time: 08/27/2023 16:45
Report Version: 2022.0.000
Schema Version: rev 20220901

HERS Provider: CHEERS
Report Generated: 2023-08-27 16:41:00

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: GARAGE TO BE CONVERTED INTO A.D.U.
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-08-27T16:40:56-07:00
Input File Name: Q23-1179.rbd22x

CF1R-PRF-01E
(Page 2 of 10)

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more Special Features shown below



Registration Number: 423-P010155809A-000-000-0000000-0000
NOTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this document.
CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time: 08/27/2023 16:45
Report Version: 2022.0.000
Schema Version: rev 20220901

HERS Provider: CHEERS
Report Generated: 2023-08-27 16:41:00

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: GARAGE TO BE CONVERTED INTO A.D.U.
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-08-27T16:40:56-07:00
Input File Name: Q23-1179.rbd22x

CF1R-PRF-01E
(Page 5 of 10)

OPAQUE SURFACES									
01	02	03	04	05	06	07	08	09	10
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft ²)	Window and Door Area (ft ²)	Tilt (deg)	Wall Exceptions	Status
NORTHWEST WALL	FLOOR PLAN	R-15 Wall	315	Back	152	0	90	none	New
SOUTHEAST WALL	FLOOR PLAN	R-15 Wall	135	Front	152	16	90	none	New
SOUTHWEST WALL	FLOOR PLAN	R-15 Wall	225	Left	268	25	90	none	New
NORTHEAST WALL	FLOOR PLAN	R-15 Wall	45	Right	268	16	90	none	New
R-30 Roof	FLOOR PLAN	R-30 Roof Attic	n/a	n/a	634	n/a	n/a		New

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic FLOOR PLAN	Attic Roof/FLOOR PLAN	Ventilated	4	0.1	0.85	No	No

FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft ²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
WINDOWS	Window	SOUTHEAST WALL	Front	135			1	16	0.3	NFRC	0.23	NFRC	Bug Screen
WINDOWS 2	Window	SOUTHWEST WALL	Left	225			1	25	0.3	NFRC	0.23	NFRC	Bug Screen
WINDOWS 3	Window	NORTHEAST WALL	Right	45			1	16	0.3	NFRC	0.23	NFRC	Bug Screen

Registration Number: 423-P010155809A-000-000-0000000-0000
NOTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this document.
CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time: 08/27/2023 16:45
Report Version: 2022.0.000
Schema Version: rev 20220901

HERS Provider: CHEERS
Report Generated: 2023-08-27 16:41:00

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: GARAGE TO BE CONVERTED INTO A.D.U.
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-08-27T16:40:56-07:00
Input File Name: Q23-1179.rbd22x

CF1R-PRF-01E
(Page 7 of 10)

WATER HEATING SYSTEMS								
01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a	DHW Heater 1 (1)

WATER HEATERS												
01	02	03	04	05	06	07	08	09	10	11	12	13
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Heating Efficiency Type	Efficiency	Rated Input Type	Input Rating or Pilot	Tank Insulation R-value (In/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	Tank Location
DHW Heater 1	Gas	Consumer Instantaneo us	1	0	UEF	0.95	Btu/Hr	200000	0	n/a	n/a	

WATER HEATING - HERS VERIFICATION						
01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required

SPACE CONDITIONING SYSTEMS								
01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
GARAGE TO BE CONVERTED IN1	Heating and cooling system other	Heating Component 1	1	Cooling Component 1	1	HVAC Fan 1	Air Distribution System 1	Setback

Registration Number: 423-P010155809A-000-000-0000000-0000
NOTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this document.
CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time: 08/27/2023 16:45
Report Version: 2022.0.000
Schema Version: rev 20220901

HERS Provider: CHEERS
Report Generated: 2023-08-27 16:41:00

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: GARAGE TO BE CONVERTED INTO A.D.U.
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-08-27T16:40:56-07:00
Input File Name: Q23-1179.rbd22x

CF1R-PRF-01E
(Page 3 of 10)

ENERGY USE SUMMARY						
Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft ² - yr)	Standard Design TDV Energy (EDR2) (kTOV/ft ² - yr)	Proposed Design Source Energy (EDR1) (kBtu/ft ² - yr)	Proposed Design TDV Energy (EDR2) (kTOV/ft ² - yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	0	6.12	0	9.81	0	-3.69
Space Cooling	0	34.85	0	32.62	0	2.23
IAQ Ventilation	0	5.34	0	5.34	0	0
Water Heating	0	52.27	0	46.33	0	5.94
Self Utilization/Flexibility Credit						
Efficiency Compliance Total	0	98.58	0	94.1	0	4.48
Photovoltaics		0		0		
Battery				0		
Flexibility						
Indoor Lighting	0	6.3	0	6.3		
Appl. & Cooking	0	54.42	0	54.31		
Plug Loads	0	72.87	0	72.87		
Outdoor Lighting	0	6.64	0	6.64		
TOTAL COMPLIANCE	0	238.81	0	234.22		

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
Project Name: GARAGE TO BE CONVERTED INTO A.D.U.
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-08-27T16:40:56-07:00
Input File Name: Q23-1179.rbd22x

CF1R-PRF-01E
(Page 6 of 10)

SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft ²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Covered Slab	FLOOR PLAN	634	105	none	0	80%	No

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
Attic RoofFLOOR PLAN	Attic Roofs	Wood Framed Ceiling	2x6 @ 24 in. O. C.	R-19	None / 0	0.055	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x6
R-30 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x6 @ 16 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-15.7 Insul. Cavity / Frame: R-14.3 / 2x6 Inside Finish: Gypsum Board

GENERAL REQUIREMENTS

1. Work performed shall comply with the following:
2. These General Requirements unless otherwise noted on plans or specifications.
3. Building Code – CBC 2019
4. All applicable local, State and Federal Codes, Ordinances, Laws, regulations and Protective Covenants governing the site of work.
5. Standard Specifications of ASTM as noted herein and as required by the Building Code.
6. All work need to be performed by qualified and experience contractors familiar with this type of project.
7. In case of conflict, the more stringent requirement shall govern.
8. On site Verification of all dimensions and conditions shall be the responsibility of the contractor and sub-contractors. Noted dimensions take precedent over scale of drawings.
9. Engineer or architect of record is to be notified immediately by the contractor should any question arise or any discrepancies be found pertaining to the working drawings and/or specifications.
10. No deviations from these requirements and structural details shall be made without the written approval of Engineer of Record. Approval by the inspector does not constitute authority to deviate from plans or specifications.

11. The design, adequacy, and safety of erection bracing, shoring, temporary supports, etc., is the sole responsibility of the contractor, and has not been considered by the architect or engineer. The contractor is responsible for the stability of the structure prior to the application of all shear walls, roof and floor diaphragms, and finish materials. The contractor shall provide the necessary bracing to provide stability prior to the application of the aforementioned materials. Observation visits to the site by the architect or engineer of record shall not imply the assumption of any responsibility in this regard. The builder has requested, contracted with and is compensating Engineer of Record for the limited services of providing the minimum structural drawings required, when combined with the other builders consultants drawings, to obtain a building permit for this project. These drawings are not intended to, nor do they, detail all conditions, identify all materials, or define or limit the scope of work required to complete the project. The builder has requested, accepts, and represents that he will select all materials and manufacturers, qualify and select all and installers, direct all ways and means of construction, and provide all subcontractors additional information, above and beyond these drawings, required to complete the project in conformance with all governing agencies and the work will meet or exceed accepted industry standards.

12. Special inspection per Building Code chapter–17 required & applies to the types of work indicated on plans or details.

13. Upon completion of above by the engineer & prior to start of construction, contractor is responsible to check all dimensions, coordinate with the work of architectural, mechanical & other trades to ensure compliance with his/her requirements.

DESIGN CRITERIA

1. DESIGN LOADS:
- Roof Load
Dead Load=14psf
Live Load =20 psf
Total Load=34psf
- Exterior Wall Dead Load= 15psf
Interior Wall Dead Load= 10psf
2. SEISMIC FACTORS (EQUIVALENT FORCE METHOD)
- Ss=1.712g SMS=2.054g SDS=1.369g
S1=0.616g SM1=0.924g SD1=0.616g
Fv=1.2 I=1 p=1.3
Fv=1.5 R=6.5
3. WIND LOAD (ANALYTICAL DESIGN METHOD)
- Wind Speed: 110
Wind Exposure: C
4. Soils Bearing Capacity = 1000psf.

REINFORCED CONCRETE

- GENERAL
1. All reinforced concrete materials and construction shall conform to Building Code, chapter 19.
- MATERIALS
2. Cement shall conform to Section 1903 of Building Code and shall correspond to that on which the selection of concrete proportions were based.
3. Concrete aggregates shall conform to Building Code Section 1903A.6
4. Reinforcing steel shall conform to ASTM A615, Grade 40 for sizes #3 and #4 and grade 60 for sizes #5 and larger. Dowels shall be equal in size and spacing.
5. Refer to section 1904 of Building Code for special exposure conditions as required by soils engineer & see corrosion engineer's recommendations for concrete exposed to corrosion.
- STRENGTH
6. Min. f'c = 2,500 psi, 28 days and max water/cement ratio of .45.
7. Special inspection is required for concrete with f'c > 2500 psi.
8. All reinforcing, dowels, holdowns, and other inserts shall be secured in position and approved by the local building official prior to the pouring of any concrete.
9. Min. concrete cover for reinforcing:
- a- Concrete, placed against earth not formed – 3"
 - b- Concrete formed or troweled – 2"
 - c- Walls and curbs – 1 1/2"
 - d- Slab on grade – at center

STRUCTURAL WOOD

MINIMUM QUALITY

1. All structural wood shall be of Douglas Fir Larch species, (19% maximum moisture content at the time of construction U.N.O.).
2. All machine bolts shall conform to ASTM A307. Holes for bolts should be drilled 1/16" larger than bolt diameter.
3. Round washers shall be used on all bolts and should conform with ANSI/ASTM B 18.22.1. Use min. 1 3/8" Ø x 5/64" thick washer for 1/2"Ø bolt, 1 3/4" Ø x9/64 thick for 5/8" & 2 1/2" Ø x 11/64" for 1"Ø bolt. U.N.O.
4. Square washers shall be mild steel. Use min. 3" sq. x 0.225" thick washers for 5/8" Ø bolts, 3 1/2" sq. x 3/8" thick washers for 1"Ø bolts. U.N.O.
5. All nails shall be sinker nails and staggered unless otherwise noted.
6. Adhesive used to attach floor sheathing to framing elements shall conform with APA specification AFG–01.
7. Manufactured hardware specified on the drawings are to be Simpson Strong Tie (Unless specifically authorized in writing by Engineer of Record. Alternate equivalent hardware by USP could be used in lieu of Simpson hardware. Refer to manufacturer's catalog for installation & handling of the product.
8. Fasteners specified on the drawings may be colored using manufacturer's brands that utilize the color code system. Follow all code and
9. Follow all codes and Manufacturer's requirements/recommendations for for installation & handling of the products.

FRAMING

10. All framing, bracing, nailing, notching, drilling or boring shall be in accordance with Building Code. Unless more stringent requirements are specified or required by the local Jurisdiction.
11. Fabrication and handling of Glue–lam beams shall be per ANSI/AITC A 190.1 standard beams to bear legible APA–ENS or AITC grade stand. An APA–EWS CRAN AITC Certificate of conformance for glued–laminated members should be submitted to the field inspector prior to installation. And should have minimum 2400 psi flexural stress, DF/DF–V4 with standard camber (U.N.O.) All beams shall be fabricated using waterproof glue.
12. Fasteners for preservative–treated and fire–retardand treated wood shall be of hot dipped zinc–coated galvanized steel coated weight in accordance with the ASTM A153. Fasteners other than nails, wood screws & LAG screws shall be permitted to be of mechanically deposited zinc coated steel with coating weight in accordance with ASTM B695, class 55
- Where approved by Building official sill plates & other framing members in contact with concrete or masonry can be D.O.T Borate pressure treated. As an alternative TJI timberstrand LSL Borate treated plates (ICC ESR–1387) can be used or a layer of 22 gauge sheet steel metal between the sill plate & concrete/ masonry can be applied. All hardware & fasteners in contact with Borate treated wood shall be with min. G90 galvanization.

13. Stud walls perpendicular to a concrete or masonry wall shall be bolted to the concrete or masonry wall with 5/8" diameter x 8" A307 bolts at top, mid–height and bott.
14. Structural information shown on framing plans is for the main structural elements Non–structural elements shall be constructed per approved code requirements
15. Conventional construction requirements of chapter 23 for light framed construction should be followed as required.
16. Weight of the roof is considered as 18psf (Flat roof) and 20psf (sloped roof). If roofing material exceeds this load, the framing contractor should notify engineer of record in writing prior to construction.
17. Top plates of all wood stud bearing and exterior walls to consist of (2) 2X's the same width as the studs U.N.O. Top plates shall lap a minimum of 48" and be spliced with not less than 6–16d nails spaced not more than 12" on center(UN.O.) Alternate use ST22.
18. All shear panels shall have continuous sheathing material from one end to the other and from plate to plate as specified on the drawings. Contractor shall coordinate framing such that continuity of shear panels is assured.
19. All ledgers shall be spaced with ST22 strap, unless noted otherwise.
20. All shear transfer nailing shall be per drawings, and contractor shall provide proper notification for inspections to review the same.
21. Provide posts at lower floor under post or multiple studs above. Provide full width and depth compression block between floors at such locations.
22. All joint hangers shall be Simpson U hanger, all beam hangers shall be Simpson HU hangers U.N.O. on plan or detail. Follow manufacturer's recommendations for installation.
23. If a double sill plate is used at light–weight concrete flooring, then the framing contractor shall apply sill plate nailing to both sill plates, at 16" o.c. max. or as specified per schedule.
24. Balloon framed walls (non–bearing) stud heights:
- 2x4's @ 16" o.c. maximum 14'–0" height
 - 2x6's @ 16" o.c. maximum 20'–0" height
 - No multiples of 2x4's are allowed to span more than 14'–0" bearing walls exceeding 10'–0" must be designed case by case.
25. Headers: Use 4X4 for openings less than 16" at bearing walls without point loads. For non–bearing walls use 4x4 for openings up to 6'–0" max. Use 4x6 for openings up to 8'–0" max. Use 4x8 for openings up to 12'–0" max. U.N.O. noted on the plans (2–2x on edge can be substituted for 4x members).
26. Approved end–jointed lumber may be used interchangeably with solid sawn members of the same species and grade for buildings up to 2–story. When finger jointed lumber is marked "stud use only" or "vert use only" such lumber shall be limited to use for studs only. All finger jointed lumber should bear a certified finger jointed lumber grade stamp.

LAMINATED VENEER LUMBER & PARALLEL STRAND

1. MANUFACTURED LAMINATED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER SHALL BE ONE OF THE FOLLOWING. ALTERNATE TO THE PLAN CALLOUTS MAY BE USED ONLY PER THE MANUFACTURE'S SPECIFICATIONS BELOW
- A) TRUSS–JOIST MACMILLIAN PRODUCTS, BOISE, IDAHO – SEE THE FOLLOWING
- ICBO, NRI AND OTHER RELATED REPORTS:
- PARALLAM PSL PRODUCT– ICC ESR 1387, LA RR 25202
- | SIZE NOTED ON PLANS | GRADE & GRADE MARK | Fb | Fv | E |
|--------------------------------|--------------------|---------|---------------|-----|
| 2–11/16 INCH WIDE PARALLAM PSL | 2900 psi | 290 psi | 2,000,000 psi | 12" |
| 3–1/2 INCH WIDE PARALLAM PSL | 2900 psi | 290 psi | 2,000,000 psi | 12" |
| 5–1/4 INCH WIDE PARALLAM PSL | 2900 psi | 290 psi | 2,000,000 psi | 12" |
| 7 INCH WIDE PARALLAM PSL | 2900 psi | 290 psi | 2,000,000 psi | 12" |
1. LUMBER GRADES
- 6x & 8x posts/beams/headers: #1 DFL
- 4x beams and headers: #2 DFL
- 2x joists/rafters: #2 DFL
- Sluds: D.F.L. Stud Grade (up to 9'–0"). D.F.L. #2 (higher than 9'–0")
- Top plates: D.F.L. construction grade,#2 or better.
- Mud sills: refer to note #12 (Structural Wood)

NAILING SCHEDULE (2016 CBC TABLE 2304.10.1)

CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOENAIL	3–8d
2. BRIDGING TO JOIST, TOENAIL EACH END	2–8d
3. 1" X 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2–8d
4. WIDER THAN 1" X 6" SUBFLOOR TO EACH JOIST, FACE NAIL	3–8d
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2–16d
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d AT 16" O.C.
SOLE PLATE TO JOIST, AT BRACED WALL PANE	(3) 16d PER 16"
7. TOP PLATE TO STUD, END NAIL	2–16d
8. STUD TO SOLE PLATE	4–8d, TOENAIL OR 2–16d, END NAIL
9. DOUBLE STUDS, FACE NAIL	16d AT 24" O.C.
10. DOUBLED TOP PLATES, FACE NAIL	16d AT 16" O.C.
DOUBLE TOP PLATES, LAP SPLIC	8–16d
11. BLOCKING BETWEEN JOIST OR RAFTERS TO TOP PLATE, TOENAIL	3–8d
12. RIM JOIST TO TOP PLATE, TOE NAIL	8d AT 6" O.C.
13. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2–16d
14. CONTINUOUS HEADER, TWO PIECES	16d AT 16" O.C. ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOENAIL	3–8d
16. CONTINUOUS HEADER TO STUD, TOENAIL	4–8d
17. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3–16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3–16d
19. RAFTER TO PLATE, TOENAIL	3–8d
20. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL	2–8d
23. BUILT–UP CORNER STUDS	16d AT 24" O.C.
24. BUILT–UP GIRDER AND BEAMS	20d AT 32" O.C. AT TOP AND BOTTOM AND STAGGERED 2–20d AT ENDS AND AT EACH SPLICE
25. 2" PLANKS	2–16d AT EACH BEARING
26. BLOCKING BETWEEN CEILING JST, RAFTERS TO TOP PLATE/FRAMING	3–8d
27. BLOCKING BETWEEN RAFTERS.	2–8d
28. ROOF RAFTER/TRUSS TO TOP PLATE, TOE NAIL	3–10d
29. ROOF RAFTER TO RIDGE VALLEY, END FACE.	2–16d
30. ROOF RAFTER TO RIDGE BEAM, TOE NAIL	3–16d
31. STUD TO STUD AT BRACED WALL PANELS, FACE NAIL	16d@16"o.c.
32. CONT. HEADER TO STUD, TOENAIL	4–8d
33. TOP PLATE TO TOP PLATE, FACE JOINTS.	16d@16"o.c.
34. TOP PLATE TO TOP PLATE AT END JOINTS, FACE NAIL	8–16d
35. BOTTOM PLATE TO JST/ RIM JST/ BLK'G FACE NAIL	16d@16"o.c.
36. BOTTOM PLATE TO JST/RIM JST/BLK'G AT BRACED WALLS FACE NAIL	2–16d@12"o.c.
34. STUD TO TOP/ BOTTOM PLATE TOENAIL	4–8d
35. TOP/BOTTOM PLATE TO STUD END NAIL	2–16d
36. TOP PLATES, LAPS AT CORNER AND INTERSECTIONS. FACE NAIL	2–16d
37. BRIDGING OR BLOCKING TO . EACH END, TOENAIL	3–16d
37. BRIDGING OR BLOCKING TO . EACH END, TOENAIL	3–16d

* NOTE: COMMON NAILS SHALL BE USED (U.N.O.)

STRUCTURAL STEEL

GENERAL

1. All structural steel materials and construction shall conform to the requirements specified in Building Code, Chapter 22 & Reference.
- MATERIALS
2. Steel shall be primed with a rust resistance primer & should conform to ASTM A36 (fy=36 ksi) as a minimum, unless otherwise noted, All W shapes to be ASTM A992. (fy=50 ksi)
3. Steel pipe shall conform to ASTM A53, Grade B (Fy=36 ksi).
4. Structural tubing shall conform, to ASTM A500, Grade B (Fy=46 KSI).
5. All structural welding procedures and materials shall conform to Building Code chapter 19 of CBC 2013. All welding shall be by the shield metal arc welding process or the submerged arc welding process using E70XX–low hydrogen electrodes, unless otherwise noted.
6. All bolts for connections of steel members shall conform to Building Code, Chapter 19 & ASTM A325N, unless otherwise noted. Holes for bolts should be drilled or punched & shall be 1/16" larger than bolt diameter.

WELDS

7. All shop welding and fabrication must be done in a shop certified by AISC Quality Certification Program and approved by the Building Official. All field welding must be performed by a certified welder and a special inspector shall continuously inspect of structural field welding. Both shall be approved by the Building Official.
8. When welds from web doubler plates or continuity plates occur in the 'k'-area' of rolled steel columns, the 'k'-area' adjacent to the welds shall be inspected after fabrication by using approved nondestructive methods conforming to AWS–D1.1.
9. All NDT inspector shall be qualified as an ASNT Level II certified technician.
10. All filler (weld) metal shall have minimum CVN of 20 ft–lbs @ –20' F and 40 ft–lbs @ 70' F.
11. The contractor shall submit all Welding Procedure Specifications (WPSs) to be used by contractor on the project. For WPSs that are not pre qualified per AWS D1.1, the Supporting Procedure Qualification Record (PQR) shall also be submitted with the WPS. The contractor shall also submit the manufacturer's product data sheets for all welding material to be used. The data sheets shall describe the product, limitations of use, recommended welding parameters, and storage and exposure requirements, including baking and reworking, if applicable. Welding Procedure Specifications (WPSs) shall be categorized by and specify the following items:
- Steel specifications and grades to be welded,
 - Thickness range of material to be joined,
 - Type of joint,
 - Type of weld (groove, fillet, plug, slot),
 - Size of weld, and
 - Position of welding.
- Deviation from the preceding procedures may be made, provided the contractor submits in writing an alternate sequence that is approved by the Engineer and Building Official prior to fabrication.

CEILING JOISTS

Use this span table for ceiling joists given the following conditions, unless noted otherwise on plan

a. dead load = 6.0 psf

b. live load = 10.0 psf

c. total deflection = L/240

d. with ceiling drywall

e. use #2 Douglas Fir Larch

SIZE	SPACING	MAX. SPAN
2x4	12" 16" 24"	10'–6" 9'–7" 8'–4"
2x6	12" 16" 24"	16'–7" 15'–1" 13'–2"
2x8	12" 16" 24"	21'–11" 19'–11" 17'–4"
2x10	12" 16" 24"	29'–6" 25'–6" 19'–5"

FOUNDATION

1. All continuous exterior footings to have 5/8"dia. x min. 12" anchor bolts, min. 7' embedment into concrete at 48" O.C unless noted otherwise on plans. One anchor bolt should be located max. 12' away and min. 4 1/2" from the end of the sill plates, min. (2) A.B.s per sill plate/shear panel.
- 1a. Anchor bolts at shear walls shall be installed with face washers of min. 3"X3" 0.225" thick between sill plate and nut. For Anchor bolts at non–shear walls standard plate washers can be used.
- 1b. The hole in the plate washer is permitted to be diagonally slotted with a width of up to 1/16 inch larger than the bolt diameter and a slot length between the plate washer and the nut.
2. For interior non–shear walls use Simpson PHN series 0.1456 pins with a penetration of 5/16" into slab at 16" O.C. to be installed in accordance with ICC–ER–4546. All use Hilti X DNI 0.145" Ø pins per ICC–ER–1290 & ESR 1663. Actual slab thickness to be minimum 4". All interior shear walls to have A.B.s per shear wall schedule.
3. All holdowns and post caps to be installed according to post current Simpson strong tie specifications and requirements of ICC–ER reports; shall be tied in place prior to foundation inspection. Dimensions are not furnished to Simpson holdowns. It is the responsibility of the contractor's superintendent, the framing contractor and the concrete contractor to locate these anchors in the exact location. Refer to details for proper installation.
4. Provide #3 X 24" dowel at 24" o.c. and 12" from the corner at all concrete stoops and porches.
5. Provide min. (1) #4 reinforcing for electrical ground, location to be verified with the electrical contractor.
6. Verify min. foundation depth, width, reinforcing steel and additional expansive soil requirements with valid soils report and if more stringent, they shall supersede the above minimum requirement.
7. Admixtures in concrete mix, containing calcium chlorides shall not be used.
8. Footings shall be examined and certified in writing by the project soil/geology engineer prior to inspection and placement of concrete.
9. Concrete shall be to the strength and slump as specified per structural design and consist of Portland cement ASTM C–150 type I per soils engineer's recommendations and Building Code section 1904.3 (ACI 318 section 4.3) when concrete is exposed to sulfate containing solutions and aggregates per ASTM C–33, water to be clean and potable.
- 10.Placement shall be in one continuous operation unless otherwise specified and slab surface shall be cured with hants compound or equal or other methods in accordance with good construction practices at contractor's option.
- 11.Contractor shall dampen slab underlayment of sand/membrane just prior to concrete placement to assist uniform concrete curing. Slabs must not be poured during or immediately after rainstorms. The specified sand over issueshould not be saturated at the time of the concrete pour. Any free water trapped in the sand layer must be removed prior to concrete placement.
- 12.The bottoms of footing excavations shall be level, clean and free of loose material or water when concrete is placed. Over excavation shall be filled with concrete or properly composted fill that has been tested and approved by the soils engineer. Back fill shall not be placed until supporting foundations, walls and slab have attained sufficient strength to support lateral soil pressure.
- 14.Concrete placement shall be monolithic in one continuous operation uniformly placed and must be vibrated and well consolidated unless shown otherwise on plans. For concrete pour (non–mono pour) is defined by ACI as to when 1st. & 2nd. pour can not be vibrated together), use #4 dowels at 24" o.c. min. 18" into slab and 12" into 1st. pour.
- 15.Floor slab shall be poured level to 1/8" in 10'.
- 16.Requirements for pre–saturation of subgrade soils and daylight setback of exterior footings from any descending slope shall comply with soil report recommendations.
- 17.Finish grade around the perimeter of slab shall be constructed such that rain and irrigation water is drained away from the slab.
- 18.All site and pad preparation, such as but not limited to shading compacting of the fill, pre–saturation, and concrete slab base preparation, shall be performed in accordance with the soil engineer's recommendation and soil report.
- 19.Foundation drawings prepared by Engineer of Record reflect the structural requirements, refer to architectural plans for dimensions depressions, slope shelves patios, stoops and porches not shown. Accuracy of the dimensions and final fit of the building shall be reviewed by the architect and the contractor prior to construction.
- 20.Waiting period for concrete slabs–on–grade prior to start of construction as follows:
- a. Do not walk on slab until 24 hours after concrete has been poured.
 - b. Begin wall framing 4–5 days after concrete poured.
 - c. Begin roof/floor framing 7–10 days after concrete poured.
 - d. Do not load roof prior to 14 days after concrete poured.
- 21.No pipes or conduits shall extend under isolated column footing or under continuous wall footings unless specifically detailed or approved by the architect and structural engineer and the building official.
- 22.The contractor shall arrange for observation of the work by the soils engineer, following are requirements of the soils engineer:
- a. All footing excavations shall be inspected and certified in compliance with the soils report by the soil engineer prior to placing of concrete or steel.
 - b. Soil conditions, including compacting and moisture content, shall be inspected and certified in compliance with the soil report by the soils engineer prior to placing of concrete or steel.
 - c. A certificate of compliance shall be submitted to the building official prior to his foundation inspection and to the architect and structural engineer.
- 23.Prior to the contractor requesting a Building Department foundation inspection, the soil engineer shall advise the building official in writing that:
- a. The building pad was prepared in accordance with the soil report.
 - b. The utility trenches have been properly backfilled and compacted
 - c. The foundation, excavations, the soils expansive characteristics and bearing capacity conform to the soils report.

TYPICAL FLOOR SHEATHING:

3/4" APA rated Structural–1 Rated OSB T&G with min. panel index of 48/24.

Refer to NER 108 for installation and conditions of use

B.N.:10d common nails at 6" o.c.

E.N.:10d common nails at 6" o.c.

F.N.:10d common nails at 12" o.c.

Use ring or screw shank nails and glue sheathing to framing using adhesives meeting APA specification AFG–01 or ASTM D3498. Apply glue in accordance with manufacturer's recommendations.

As an alternate to 10d common nails the following fasteners can be used:

Grabber plywood screws (ICC–ER–2280), or Simpson Strong–tie quick drive screws (ICC–ER–5053), min 2" long @ 6" o.c. B.S., @ 6" o.c. E.S. and 12 o.c. F.S.

TYPICAL ROOF SHEATHING:

15/32" APA rated Structural–1 Rated OSB with a min. panel index of 32/16. refer to NER 108 for installation and conditions of use.

B.N.:10d common nail at 6" o.c.

E.N.:10d common nail at 6" o.c.

F.N.:10d common nail at 12" o.c.

*Note: All structural rated panels must be stamped by one of the following approved agencies, APA, PFS/TECO or Pittsburg.

ABBREVIATIONS:

A/O	AROUND OPENING
B.N.	BOUNDARY NAILING.
C–TM	CONNECTION BY TRUSS MANUFACTURER
D.S.	DRAG STRUT w/E.N.
D.D.S.	DBL DRAG STRUT w/E.N.
D.T.	DRAG TRUSS
E.N.	EDGE NAILING.
FL BM.	FLUSH BEAM.
F.H.T.R.	FULL HEIGHT TO ROOF
GL	GANG–LAM LVL 1.8 E
G.T.	GIRDER TRUSS
HGR.	HANGER.
K.P.	KING POST.
L.O.B.	LINE OF BLOCKING w/E.N.
LSL	TIMBERSTRAND 1.55E
M.S.B.	MULTIPLE STUD BEARING
PSL	PARALLAM 2.0E
P.A.	POST ABOVE
P.L.	POINT LOAD ABOVE
S.B.	SOLID BLOCK
T.	TRIMMER.

DEFERRED APPROVAL

1. Elements of structure that are marked "by others" shall be excluded from this work permit.
2. General contractor shall first submit separate drawings for the above elements to the FOR for their review and if approved, then submit to the building officials for their review and approval.
3. City approval shall be obtained prior to installation of element subjected to deferred approval.

SPECIAL INSPECTION TABLE DIAPHRAGM & SHEAR WALLS

INSPECTION TASK	NOT APPLICABLE	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA CBC/IBC SECTION
		Continuous	Periodically	
Horizontal wood diaphragms with edge nail spacing equal to or closer than 4" o.c.			✓	Sec. 1705.11.2
Shear walls with edge screws spacing equal to or closer than 4" o.c.			✓	
Sill nail types, size and spacing.			✓	
Anchor bolt sizes & spacing.			✓	Sec. 1705.11.2
Holddown types & their connections to shear walls & foundation/framing			✓	
Wall end post sizes.			✓	
Shear transfer connector types & spacing. Drag strut connections to shear walls.			✓	



SHEET INDEX

- SN – Structural Notes & Specifications.
- S–1 – Foundation & Roof Framing Plan.

REVISIONS:

11-08-21

WELDING REPT. CORRECTIONS

ISSUED FOR:

OWNER'S APPROVAL:

PLAN CHECK:

PERMITTED:

FIRST BID:

B.A. ENGINEERING & CONSULTING.

4000 BARRANCA PKWY #250, IRVINE, CA 92604

The plans and contents herein are the property of B.A. Engineering. Any copying, reproduction or redistribution is expressly prohibited without prior consent of the B.A. Engineering.

PROJECT:

REMODEL (E) S.F.R. 829 FOXWORTH AVE., LA PUENTE, CA 91744

SHEET:

STRUCTURAL NOTES

DATE:

3/23/23

DRAWN:

JR

PROJECT NO:

303-23

SHEET NO.

SN

1 of 2

SHEAR WALL SCHEDULE

2022 CALIFORNIA BUILDING CODE (3)									
SHEAR PANEL TYPE	SHEATHING (S)	EDGE (E) NAILING (COMMON)	FIELD NAILING (COMMON)	SHEAR CAPACITY (PLF)	SILL CONNECTION 16d SINKER	FRAMING CLIPS A35's,LS50's OR LTP4's(7)	CLIPS	ANCHOR BOLT SPACING	
10	3/8" APA Rated	8d's @6"o.c.	8d's @12"o.c.	165	6"o.c.	16"o.c.	16"o.c.	5/8"ØX12"Ø48"o.c.	
11	3/8" APA Rated	8d's @4"o.c.	8d's @12"o.c.	255	4"o.c.	12"o.c.	12"o.c.	5/8"ØX12"Ø32"o.c.	
12	3/8" APA Rated	8d's @3"o.c.	8d's @12"o.c.	380	3"o.c.	8"o.c.	8"o.c.	5/8"ØX12"Ø24"o.c.	
13	15/32" STRUCT-1 4-PLY	8d's @2"o.c.	8d's @12"o.c.	500	2"o.c.	6"o.c.	6"o.c.	5/8"ØX12"Ø24"o.c. w/3x SILL PLATE	
14	15/32" STRUCT-1 4-PLY	10d's @2"o.c.	10d's @12"o.c.	650	2-ROWS STAGG @2"o.c.	5"o.c.	5"o.c.	5/8"ØX12"Ø12"o.c. w/3x SILL PLATE	

FOOTNOTES:

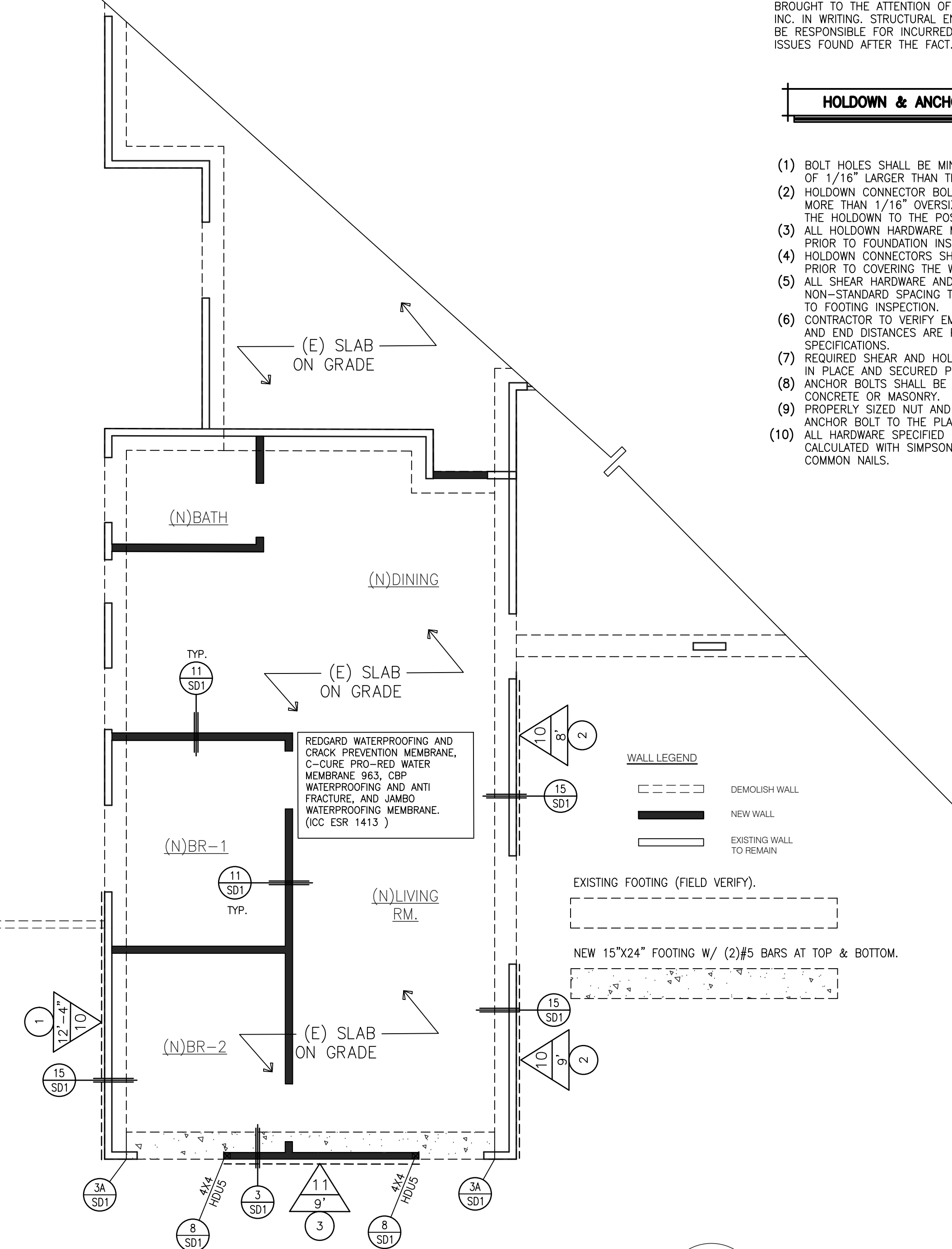
- (1) SHEATHING PANEL JOINT AND SILL PLATE NAILING SHOULD BE STAGGERED.
- (2) PROVIDE 3" MINIMUM FRAMING AT ADJOINING PANELS.
- (3) MAXIMUM STUD SPACING AT 16"o.c.
- (4) PERIODIC SPECIAL INSPECTION REQUIRED.
- (5) PROVIDE 3" MINIMUM FRAMING AT ADJOINING PANELS.
- (6) MAXIMUM CLIP SPACING AT HARDY PANELS AND SIMPSON STRONG WALLS SHOULD 6"o.c.
- (7) U.N.O. ON THE PLANS/DETAILS.
- (8) SHEATHING CONFORMS TO DOC PS-1 OR DOC PS-2 STANDARDS.

GENERAL NOTES

- (1) CONTRACTOR SHALL REVIEW ALL SPECIFICATIONS ON SHEET SN PRIOR TO CONSTRUCTION.
- (2) REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS NOT SHOWN. ACCURACY OF THE DIMENSIONS & FINAL FIT OF OF BUILDING SHALL BE REVIEWED BY THE ARCHITECT AND THE CONTRACTOR PRIOR TO CONSTRUCTION.
- (3) REFER TO SN SHEET FOR SPECIAL INSPECTION REQUIREMENTS
- (4) THE CONTRACTOR SHALL REVIEW STRUCTURAL DWGS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF STRUCTURAL ENGINEER INC. IN WRITING. STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR INCURRED COST RELATED TO ISSUES FOUND AFTER THE FACT.

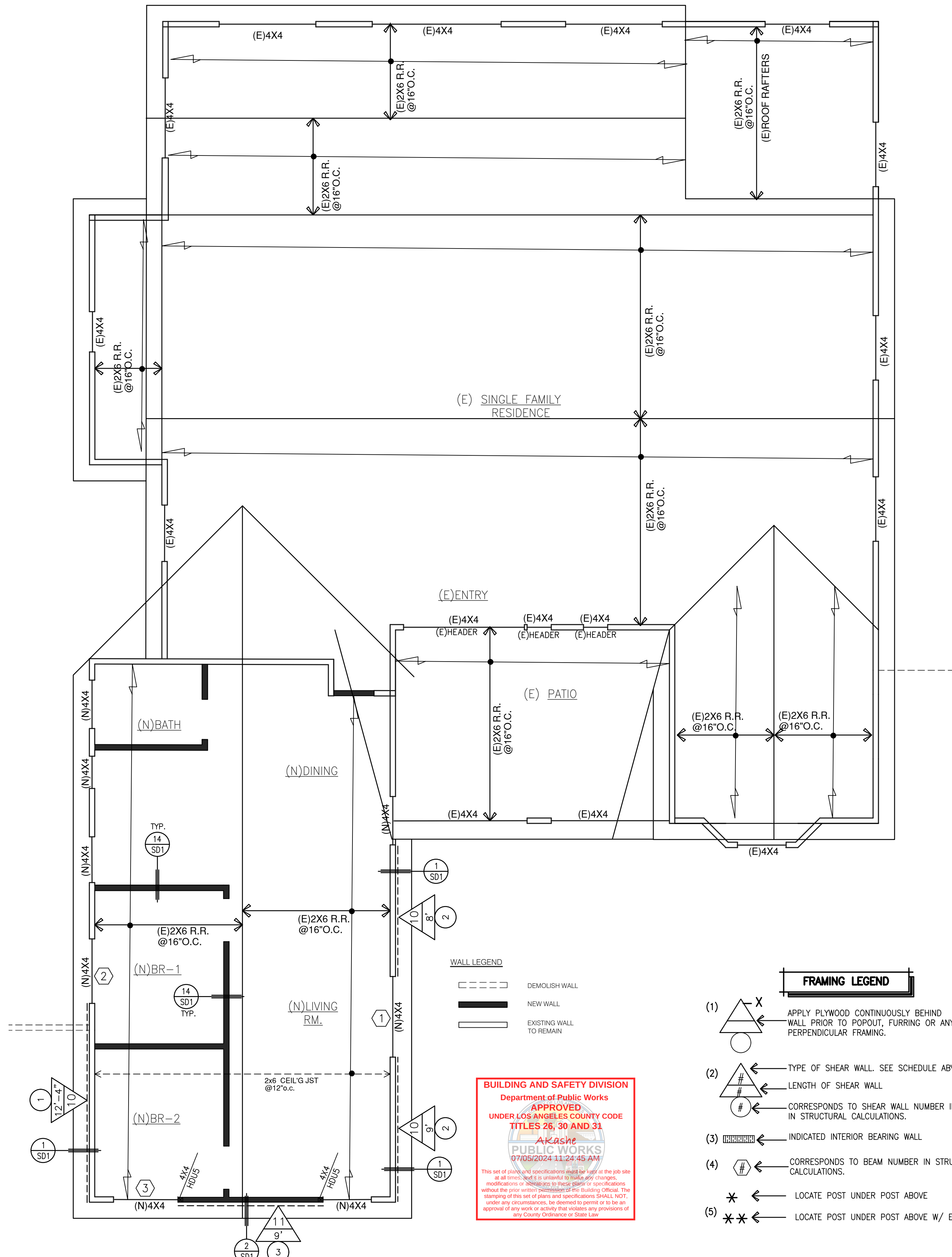
HOLDOWN & ANCHOR REQUIREMENTS

- (1) BOLT HOLES SHALL BE MINIMUM OF 1/32" TO A MAX. OF 1/16" LARGER THAN THE BOLTS DIAMETER.
- (2) HOLDOWN CONNECTOR BOLT HOLES SHALL NOT BE MORE THAN 1/16" OVERSIZED AT THE CONNECTOR OF THE HOLDOWN TO THE POST.
- (3) ALL HOLDOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
- (4) HOLDOWN CONNECTORS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
- (5) ALL SHEAR HARDWARE AND ANCHOR BOLTS WITH NON-STANDARD SPACING TO BE TIED IN PLACE PRIOR TO FOOTING INSPECTION.
- (6) CONTRACTOR TO VERIFY EMBEDMENT DISTANCE, EDGE AND END DISTANCES ARE PER PLAN AND MANUFACTURER'S SPECIFICATIONS.
- (7) REQUIRED SHEAR AND HOLDOWN HARDWARE SHALL BE IN PLACE AND SECURED PRIOR TO FOUNDATION INSPECTION
- (8) ANCHOR BOLTS SHALL BE EMBEDDED AT LEAST 7" INTO CONCRETE OR MASONRY.
- (9) PROPERLY SIZED NUT AND WASHER SHALL BE TIGHTENED EA. ANCHOR BOLT TO THE PLATE.
- (10) ALL HARDWARE SPECIFIED ON THIS PLAN HAVE BEEN CALCULATED WITH SIMPSON STRONG -TIE VALUES WITH COMMON NAILS.



(E) FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

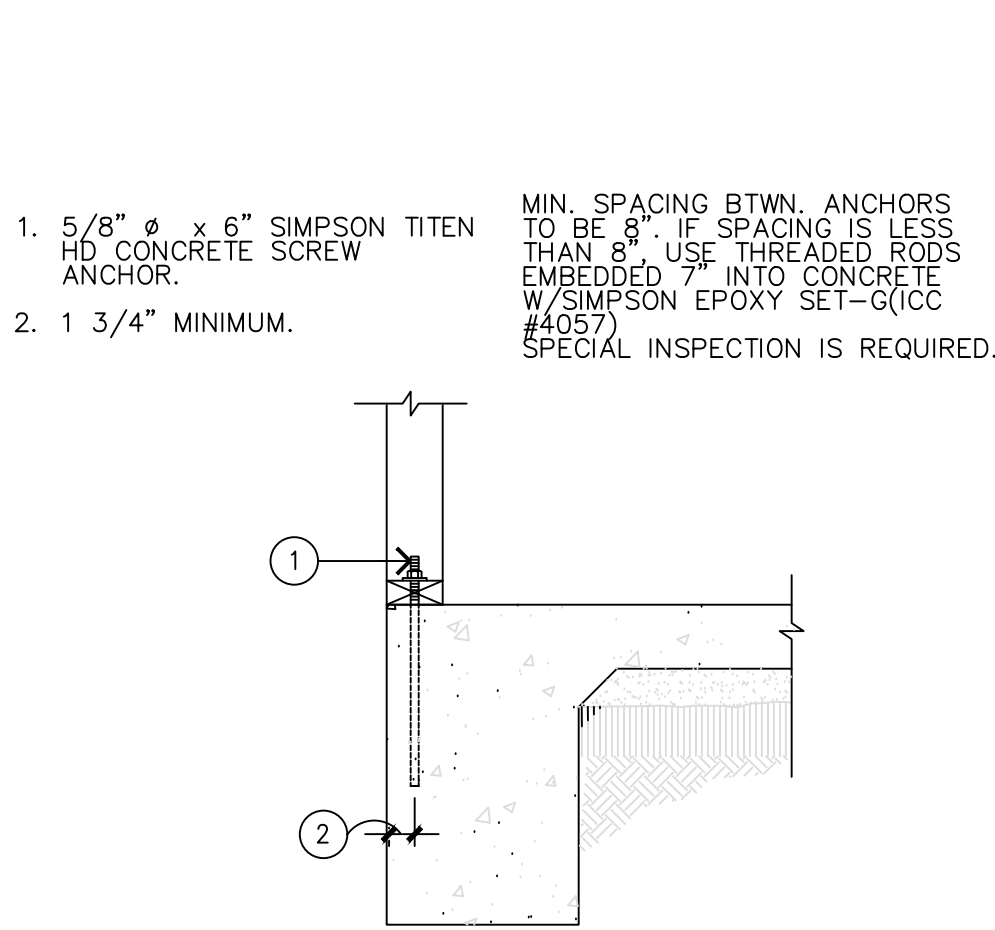


19

20

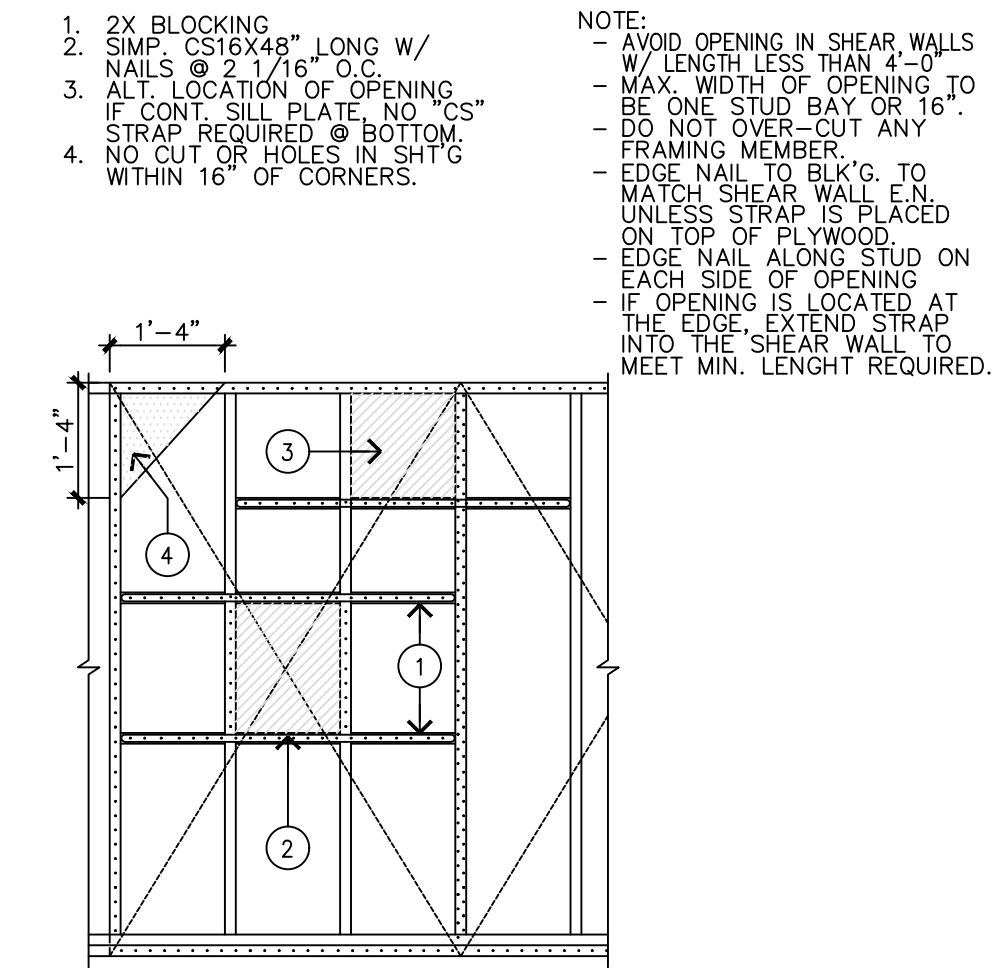
21

22



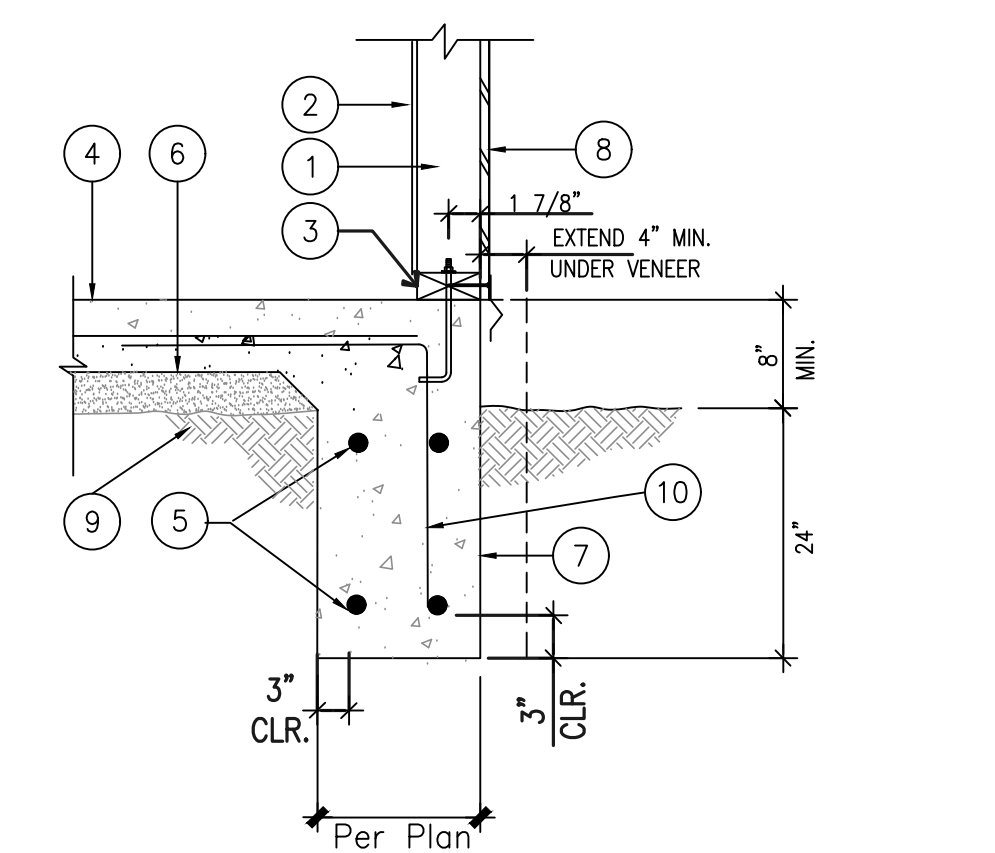
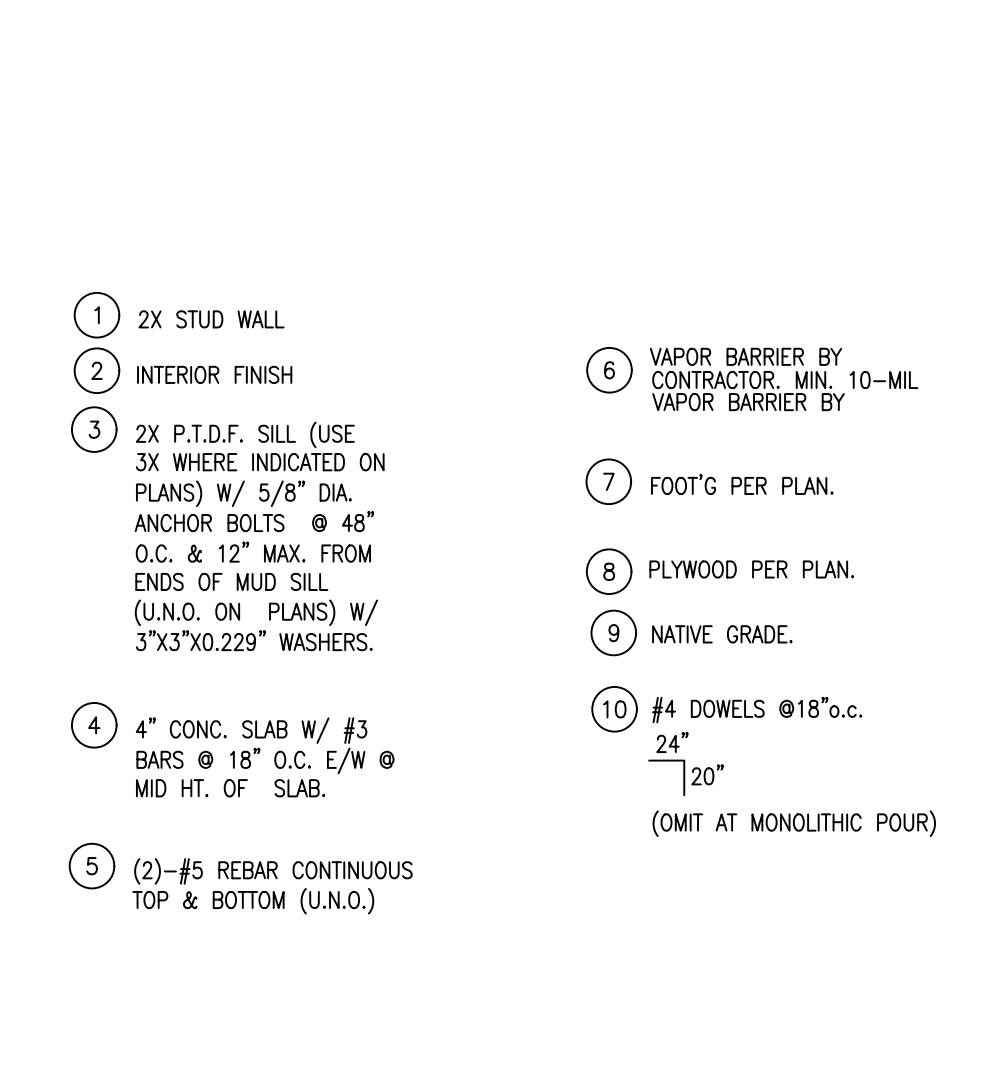
15

FIX FOR MISSING ANCHOR BOLT



16

OPENING AT SHEAR WALL



18

TYPICAL EXTERIOR FOOTING

