

ACCESSORY DWELLING UNIT - STUDIO

PROJECT DATA:

PROJECT:
 OWNER: _____
 ADDRESS: _____
 APN NUMBER: _____
 STORIES: 1
 FIRE SPRINKLERS: YES/NO
 SQUARE FOOTAGE: 435 SQ. FT.
 TYPE OF CONSTRUCTION: V-B
 OCCUPANCY GROUP: R-3
 ZONING : _____
 CLIMATE ZONE: 3
 EXPOSURE CATEGORY: B
 SEISMIC DESIGN CATEGORY (D₀, D₁, D₂)

GENERAL NOTES

1. The Contractor shall provide adequate stays and bracing of all framing until all elements of design have been incorporated in the project.
2. Contractor shall field verify all dimensions prior to commencing with new work.
3. Work under this permit does not require Special Inspection or structural observation.
4. If applicable fire walls should be provided and shall comply with section R302.
5. Location of HVAC subject to field inspection.
6. HERS Verification required for the HVAC Cooling, HVAC Distribution, & HVAC Fan Systems per T24 Energy Calculation Documentation. Provide completed CalCerts Project Summary Report (PSR) as evidence of Third Party Verification (HERS) to Building Inspector prior to final inspection.

SITE PLAN NOTES AND REQUIREMENTS

- **Applicant shall provide a site plan for property showing the location of the proposed ADU.**
- Location of the ADU shall comply with all setback and Fire Separation Distance requirements of OMC Titles 15 and 17.
- Site Plan shall be drawn to scale. Site slope shall not exceed 10%.
- Plans are based on 5' minimum Fire Separation Distance.

APPLICABLE BUILDING CODES:

2019 CALIFORNIA BUILDING CODE (CBC)
 2019 CALIFORNIA RESIDENTIAL CODE (CRC)
 2019 CALIFORNIA PLUMBING CODE (CPC)
 2019 CALIFORNIA MECHANICAL CODE (CMC)
 2019 CALIFORNIA ELECTRIC CODE (CEC)
 2019 CALIFORNIA EXISTING BUILDING CODE (CEBC)
 2019 CALIFORNIA ENERGY CODE
 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
 2019 CALIFORNIA FIRE CODE
 OAKLAND MUNICIPAL CODE TITLES 15 and 17

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BUILDING STAMP

PLANNING STAMP

COVER PAGE

OWNER'S NAME:

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CALIFORNIA MECHANICAL CODE NOTES

EXHAUST SYSTEMS

1. Exhaust ducts shall terminate outside the building and be equipped with back draft dampers. (CMC Section 504.1)
2. Kitchen range ventilation ducts shall be metal with smooth interior surfaces. (CMC Section 504.3)
3. The clothes dryer shall be exhausted using approved 4" Ø min ducting. The ducting shall not exceed 14' with a maximum of 2-90° elbows, unless permitted by manufacturer instructions and the local jurisdiction. (CMC Section 504.4)
4. No HVAC or water heater vents shall terminate less than 4'-0" below or to the side, or less than 1'-0" above any door or operable window. (CMC Section 802.8.1)

VENTILATION (Per CMC Section 402 & ASHRAE 62.2)

5. Kitchen - 100 cfm (On Demand), 1 SONE, 5" Ø min duct
6. Bathroom - 50 cfm (On Demand), 1 SONE, 4" Ø min duct
Whole House - Per plans
Indoor Air Quality Fan - Per plans

APPLIANCES

7. Appliances installed in attics shall be accessible through an opening and passageway at least as large as the largest component of the appliance and not less than 22" X 30" with minimum 30" headroom clearance. The appliance shall be located within 20' of the passageway access when attic has less than 6' headroom. Passageway shall be unobstructed and shall have solid flooring not less than 24" wide from the entrance to the appliance. A permanent 120-volt receptacle outlet and lighting fixture shall be located at the entrance to the passageway. (CMC 304.4, CPC 509.4)

CALIFORNIA RESIDENTIAL CODE NOTES

WINDOWS

1. All new or replaced windows shall be dual glazed with low-E glass. Do not remove NFRC stickers from glazing prior to approved inspection. Bedroom windows shall have a minimum net clear escape opening of 5.7 SF with a minimum net clear opening height of 24" and minimum net clear opening width of 20". The window opening bottom edge shall not be more than 44" above the floor. (CRC Section R310)
2. The Contractor shall provide safety glazing for all conditions deemed a "hazardous location" per CRC Section R308.4.

BATHROOMS

3. Wall finishes at shower/ bathtub enclosures shall consist of a non-absorbent surface and extend up to six feet above finish floor per CRC R307.2. "Green Board" is not acceptable in shower/ bathtub enclosures. Acceptable tile based materials at shower/ bathtub enclosures include fiber cement, fiber mat reinforced concrete, glass mat gypsum backers, or fiber reinforced gypsum backers. (CRC Section R702.4.2)

CALIFORNIA ENERGY CODE NOTES

NEW CONSTRUCTION

1. Mandatory measures of section 150 shall apply only to and/or within the specific area of the addition or alteration. (Energy Code Section 150.2) MANDATORY MEASURES (Energy Code Sections 110 & 150)
2. MANDATORY REQUIREMENTS TO LIMIT AIR LEAKAGE (Energy Code Section 110.7) - All joist penetrations, and other openings in the building envelope that are potential source for air leakage shall be caulked, gasketed, weather-stripped or otherwise sealed to limit infiltration & exfiltration.
3. PHOTOVOLTAIC REQUIREMENTS
All low-rise residential buildings shall have a photovoltaic (PV) system meeting the minimum requirements as specified in Joint Appendix JA11, with annual electrical output equal to or greater than the dwelling's annual electrical usage as determined by Equation 150.1-C
4. PIPE INSULATION - (Energy Code Section 150 (j)) Hot water pipe insulation shall have a minimum wall thickness of not less than the diameter of the pipe for a pipe up to 2" diameter. Insulate all pipes used to circulate hot water to kitchen fixtures, to a storage tank or between storage tanks. Insulate the first 5' of piping from the water heater.
5. LIGHTING - (Energy Code Section 150 (k))
 - a. Efficacy - All installed luminaires shall be high-efficacy in accordance w/Table 150.0- A
 - b. Recessed downlight luminaires in ceilings - All assemblies shall be IC rated, AT rated, sealed, and comply w/ Joint Appendix JA8. Recessed assemblies shall not contain screw base sockets.
 - c. Interior lighting, Switching Devices & Controls - Dimmers or vacancy sensors shall control all luminaires required to have a light source compliant w/ Joint Appendix JA8. (Closets less than 70sf & hallways do not require dimmers or vacancy sensors). At least one luminaire in a bathrooms, garages, laundry rooms, and utility rooms shall be controlled by an occupant or vacancy sensor.
 - d. Residential Outdoor Lighting - All fixtures shall be controlled by either photocell & motion sensor, photocontrol & automatic time switch, astronomical time clock, or EMCS.
6. HVAC - See Title 24 Energy Calculation Documentation
7. VENTILATION - (Energy Code Section 150(o)) All dwelling units shall meet the requirements of ASHRAE 62.2 SEE CALIFORNIA MECHANICAL NOTES.

CALGREEN CODE NOTES

MANDATORY MEASURES (CALGREEN CH 4)

1. INDOOR WATER USE - (CALGreen Section 4.303) All new plumbing fixtures, or fixtures part of an addition or alteration shall comply with the following mandatory allowable flow rates.

FIXTURE TYPE	MANDATORY FLOW RATE FOR NEW "WATER CONSERVING" FIXTURES
SHOWERHEADS	1.8 GPM @ 80 PSI
LAVATORY FAUCETS	1.2 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PPSI
GRAVITY TANK TYPE WATER CLOSETS	1.28 GAL/ FLUSH

- A. When single shower fixtures are served by more than one shower-head, the combined flow rate of all the showerheads shall not exceed the maximum flow rates specified.
3. ENHANCED DURABILITY AND REDUCED MAINTENANCE - (CALGreen 4.406) Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls, shall be protected against the passage of rodents by closing such opening with cement mortar, concrete masonry or similar method acceptable to the building official.
 4. POLLUTANT CONTROL - (CAL Green Section 4.504) At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other approved method to reduce the amount of water, dust and debris, which may enter the system.
 5. INTERIOR MOISTURE CONTROL - (CALGreen Section 4.505) Building materials with visible signs of moisture damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content per CALGreen Section 4.505.3. Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturer's drying recommendations prior to enclosure. Concrete slab foundations required to have a vapor retarder and capillary break.
 6. INDOOR AIR QUALITY - (CALGreen Section 4.506) Each bathroom shall be mechanically ventilated with ENERGY STAR compliant fan. The fan shall be controlled by a humidity control and ducted outside the building. The humidity control shall be capable of adjustment between a relative humidity range of 50 to 80 percent. A humidity control may utilized manual or automatic means of adjustment. A humidity control may be a separate components to the exhaust fan and is not required to be integral.
 7. ENVIRONMENTAL COMFORT - (CALGreen Section 4.507) Perform residential load calculations using ANSI/ACCA 2 Manual J approved methods or software. Size ducting in accordance with ANSI/ACCA 1 Manual D. Select cooling equipment according to ANSI/ACCA 3 Manual S.

GENERAL NOTES

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CALIFORNIA PLUMBING CODE NOTES

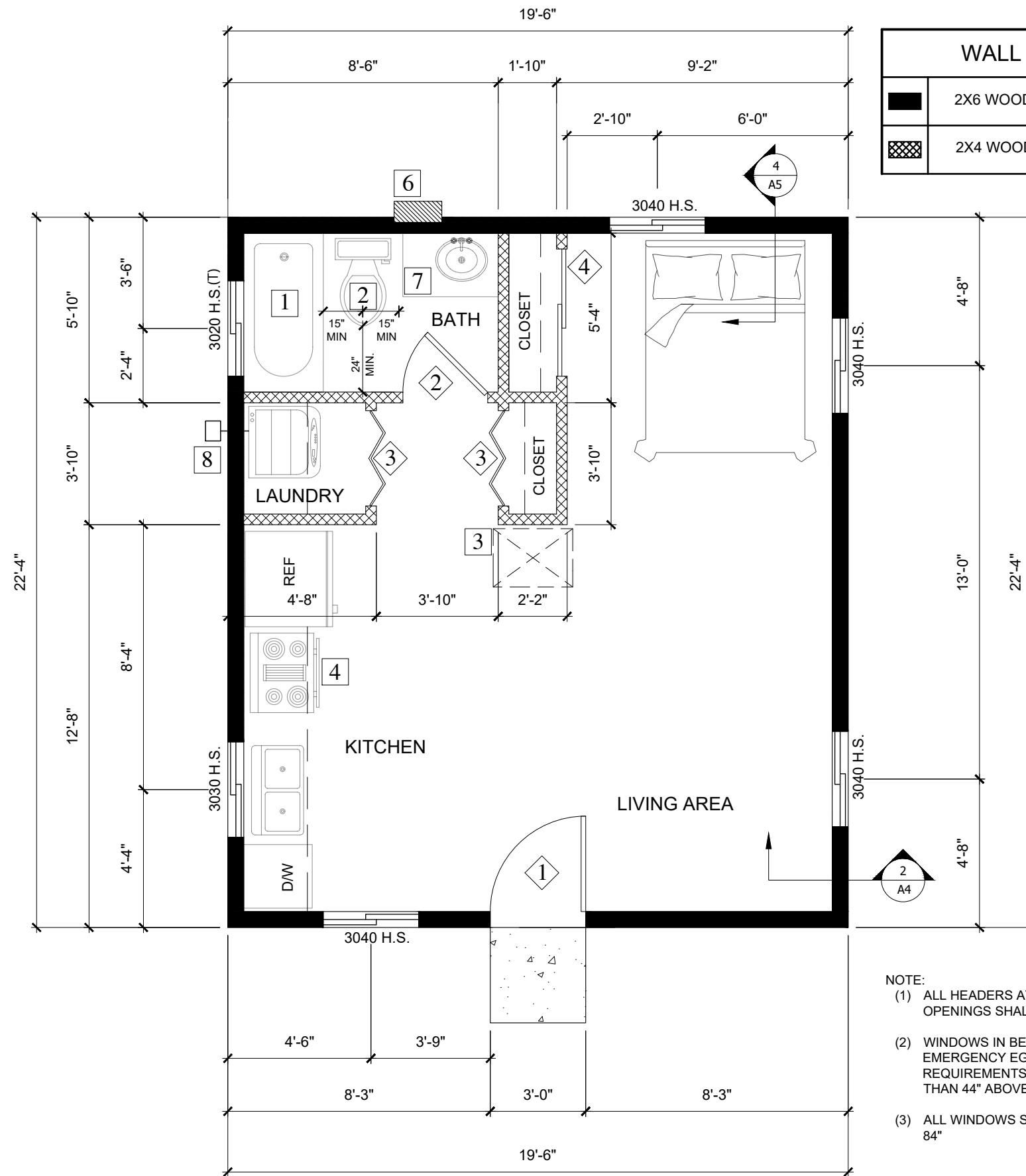
1. Provide a back flow prevention device at all hose bibs and water supply lines. (CPC 603.3)
2. Showers and shower/ tub combinations shall have individual control valves of the pressure balance, thermostatic or combination pressure balance/thermostatic mixing valve type. Provide temperature regulation to limit hot water temperature to 120°F. The water heater thermostat shall not be considered appropriate means. (CPC 408.3)
3. No Domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwasher air gap fitting on the discharge side of the dishwashing machine. Listed air gaps shall be installed with the flood-level (FL) making at or above the flood level of the sink or drainboard, whichever is higher. (CPC 807.3)
4. Water closet stool shall be located minimum 15" from its center to any side wall or obstruction (minimum 30" clear space in width) and have a clear space in front of the water closet stool not less than 24". (CPC 402.5)

WALL LEGEND

	2X6 WOOD STUDS @16" O.C.
	2X4 WOOD STUDS @16" O.C.

GENERAL NOTES

1. USE 'DUROCK', 'WONDERBOARD', OR AN APPROVED EQUAL BEHIND GLUED-ON TILE IN TUB, BATH, OR SHOWER AREAS.
2. SEPARATE SEWER LATERAL PERMIT AND INSPECTIONS REQUIRED FROM DOT PRIOR TO CONNECTING.



NOTE:

- (1) ALL HEADERS AT EXTERIOR DOOR AND WINDOW OPENINGS SHALL BE 4X8 D.F. #2 MIN.
- (2) WINDOWS IN BEDROOMS THAT ARE A PART OF EMERGENCY EGRESS ESCAPE RESCUE OPENING REQUIREMENTS SHALL HAVE A SILL HEIGHT NO MORE THAN 44" ABOVE FINISHED FLOOR.
- (3) ALL WINDOWS SHALL HAVE A MAX. WINDOW HEIGHT OF 84"

DOOR AND FRAME SCHEDULE

SYMBOL	SIZE			
	WD	HGT	THK	STYLE
1	3'-0"	6'-8"	1 3/4"	L.H.
2	2'-8"	6'-8"	1 3/8"	L.H.
3	3'-0"	6'-8"	1 3/8"	BIFOLD
4	4'-0"	6'-8"	1 3/8"	SLIDER

FLOOR PLAN LEGEND

1	60" X 30" TUB/SHOWER UNIT SHOWER HEAD 1.8 GPM
2	TOILET 1.28 GPM
3	22"X30" ATTIC ACCESS PANEL
4	RANGE W/ HOOD ABOVE
5	NOT USED
6	EXTERIOR WATER HEATER
7	LAVATORIES 1.2 GPM
8	EXHAUST FOR DRYER

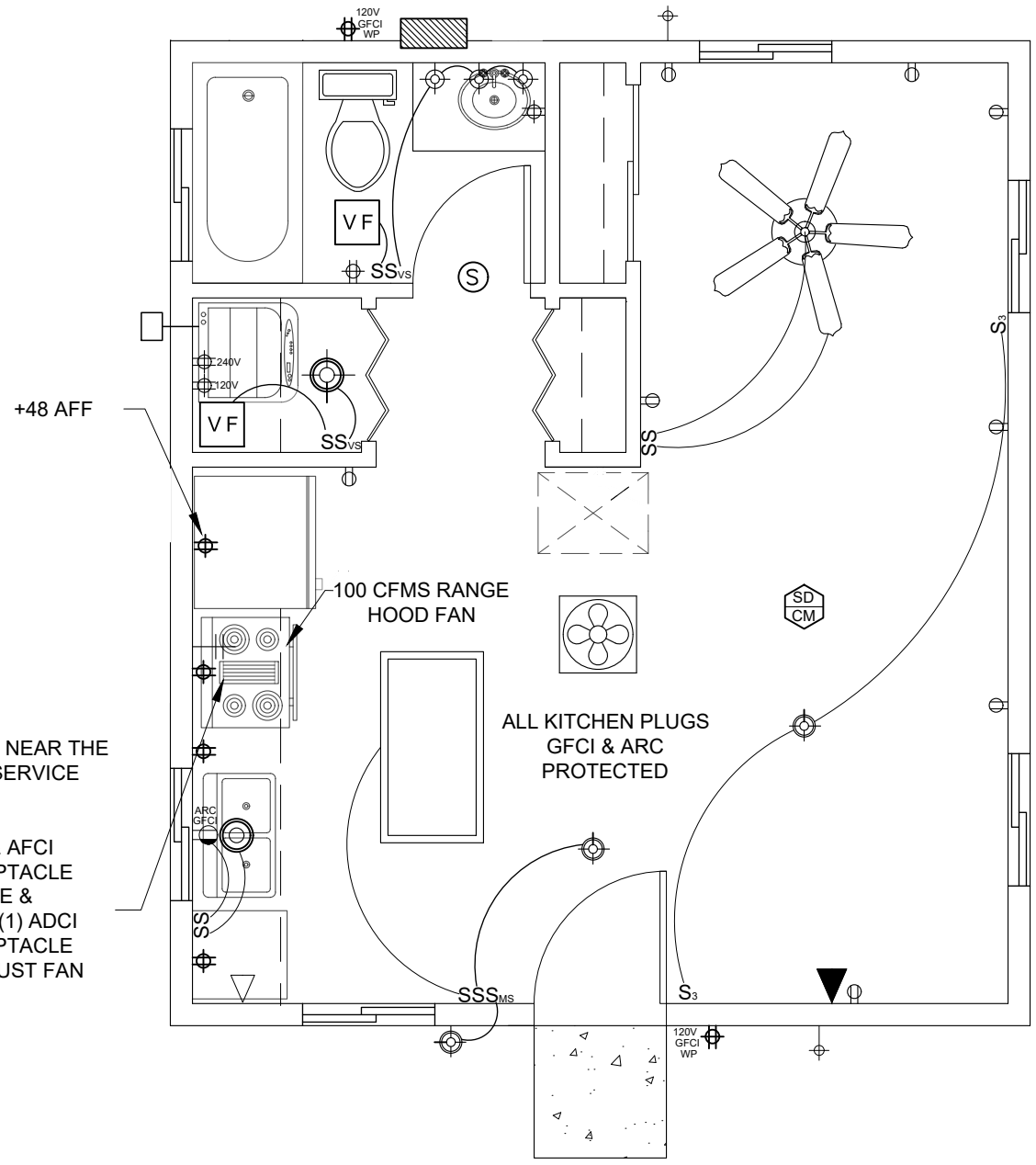
FLOOR PLAN

SCALE 1/4" = 1'-0"

CALIFORNIA ELECTRICAL CODE NOTES

- GROUNDING**
- Provide UFER ground located at main service panel per CEC Article 250.50.
- CIRCUITS**
- Provide two minimum separate amp circuit to kitchen appliances. (CEC Article 220.52 (A)).
 - Provide one minimum 20 amp circuit to laundry appliances. (CEC Article 220.52 (B)).
 - At least one bathroom receptacle outlet supplied by at least one 20-amp branch circuit shall be located within 3' of the at the basin edge. Such circuits shall have no other outlets. (CEC Article 210.52 (D))
 - The following receptacles shall be GFCI protected (CEC Article 210.8):
 - Bathrooms
 - Garages
 - Outdoors
 - Kitchens- where the receptacles are installed to serve the countertop
 - Within 6' of sink basins
 - Laundry Rooms
 - All branch circuits that supply 120-volt, single phase, and 15 and 20 amp outlets installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, dens, bedrooms, closets, hallways, and laundry areas shall be protected by a listed arc-fault circuit interrupter. (CEC Article 210.12)
- RECEPTACLES**
- Receptacle outlets 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, including any wall space 2 feet more in width. (CEC Article 210-52(A))
 - All 120-volt, 15 and 20 amp receptacles shall be listed tamper resistant. (CEC Article 406.12)
 - Clothes closet light fixtures shall be listed and installed in accordance with their listing (CEC Article 410.16)
 - At least one 120-volt weather-proof receptacle should be located at the front & back at no more than 6.5' above grade
- LIGHTING**
- See CALIFORNIA ENERGY CODE NOTES
- FIRE PROTECTION REQUIREMENTS**
- Install combination smoke detector/ carbon monoxide alarms in dwelling units and sleeping units within which fuel-burning appliances are installed and in dwelling units that have attached garages. Alarms shall be interconnected such that activation of one alarm will activate all alarms within the unit.(CRC Section R315.2)
- MISCELLANEOUS**
- Ceiling fans shall not be supported by standard outlet boxes. Ceiling fan support boxes shall be listed accordingly. (CEC Article 314.27 (C))
 - Provide a minimum 30" wide by 36" deep by 6 1/2" high illuminated clear working area shall be provided in front of each panel.

GENERAL NOTES
 1. ALL HVAC EQUIPMENT AND WATER HEATERS TO COMPLY WITH APPROVED ENERGY CALCULATIONS FOR TYPE AND EFFICIENCY.



PROVIDE LIGHTING NEAR THE VICINITY OF MAIN SERVICE PANEL

PROVIDE (1) GFCI & AFCI PROTECTED RECEPTACLE OUTLET FOR RANGE & DISHWASHER AND (1) ADCI PROTECTED RECEPTACLE OUTLET FOR EXHAUST FAN

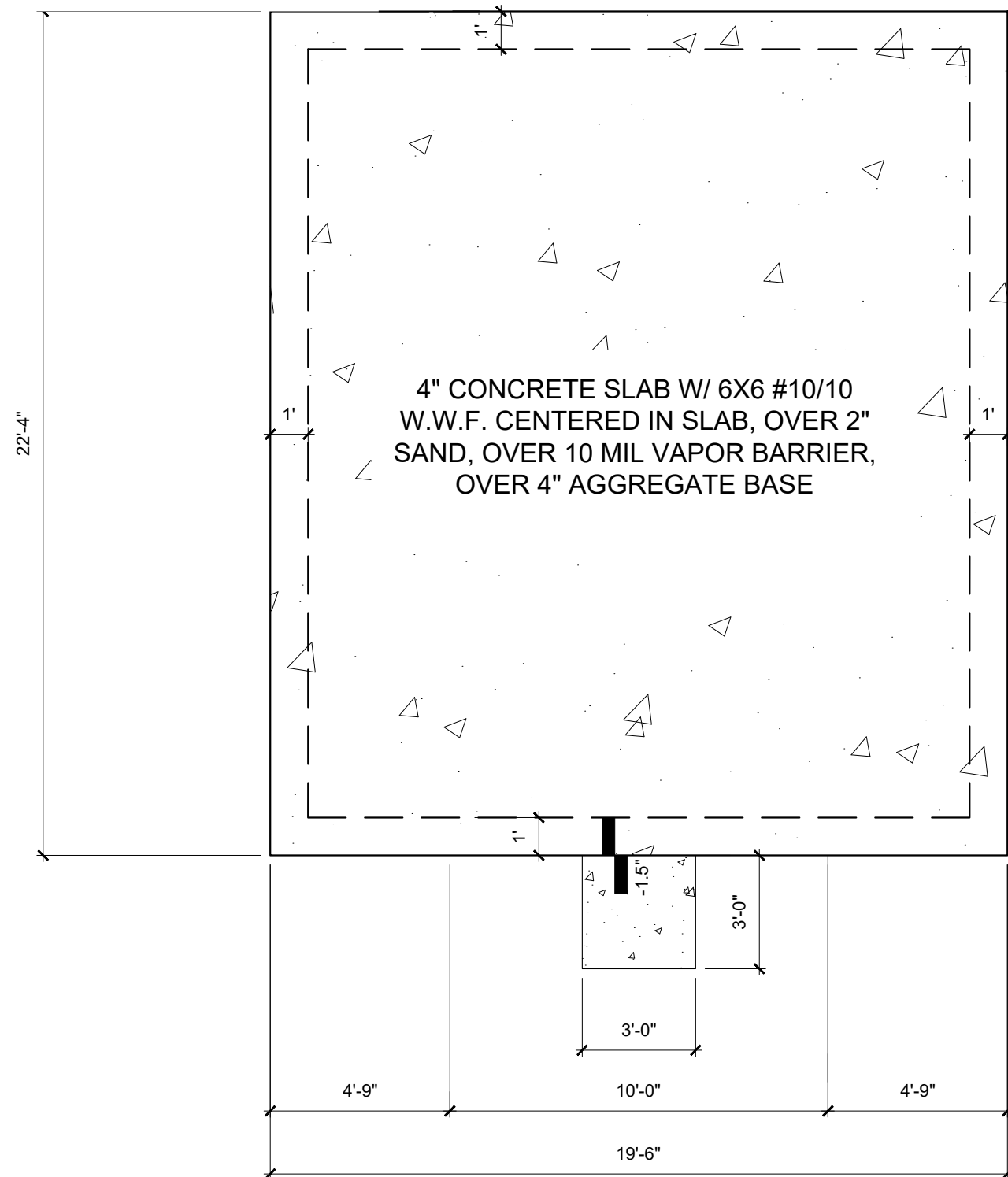
ELECTRICAL KEY

	CEILING FAN WITH HIGH EFFICACY LIGHT FIXTURE
S	SINGLE WALL SWITCH
S _{vs}	WALL SWITCH WITH VACANCY SENSOR
S _{ms}	WALL SWITCH EQUIPPED WITH A MOTION SENSOR AND PHOTOCONTROL
S ₂	TWO-WAY SWITCH
	TELEPHONE JACK
	TELEVISION JACK
	GAS
	HOSE BIB (LOCATE IN FIELD)
	2' X 4' LED PANEL
	RECESSED LIGHT / BULB OR EXTERIOR LIGHT
	HIGH EFFICACY LIGHTING. IF OUTDOORS OR ABOVE A SHOWER/TUB IT MUST BE LISTED FOR WET OR DAMP LOCATIONS.
	WHOLE HOUSE FAN MIN. 653 CFMS
VF	VENT FAN (MIN 50 CFM EQUIPT WITH HUMIDISTAT & ENERGY STAR COMPLIANT)
	SWITCH CONTROLLED RECEPTACLE OUTLET
	110V DUPLEX RECEPTACLE OUTLET (ARC FAULT PROTECTED)
	110V DUPLEX OUTLET ABOVE COUNTER HT. (GFCI & ARC FAULT PROTECTED)
	120V DUPLEX OUTLET ABOVE GRADE (WP & GFCI PROTECTED)
	COMBO UNIT SMOKE & CO2
S	SMOKE DETECTORS (CARBON MONOXIDE DETECTOR NOTED)

NOTE: ALL RECEPTACLE OUTLETS SHALL BE TAMPER RESISTANT

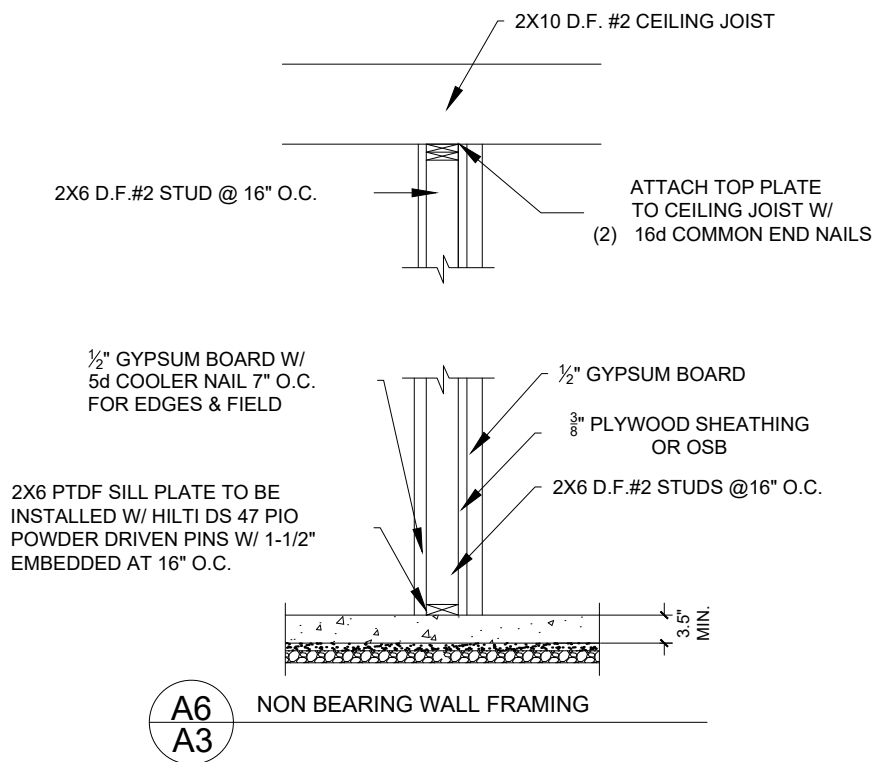
ELECTRICAL PLAN

SCALE 1/4" = 1'-0"



FOUNDATION NOTES:

CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT 28 DAYS. (R402.2)



FOUNDATION PLAN

SCALE $\frac{1}{4}" = 1'-0"$

FOUNDATION PLAN

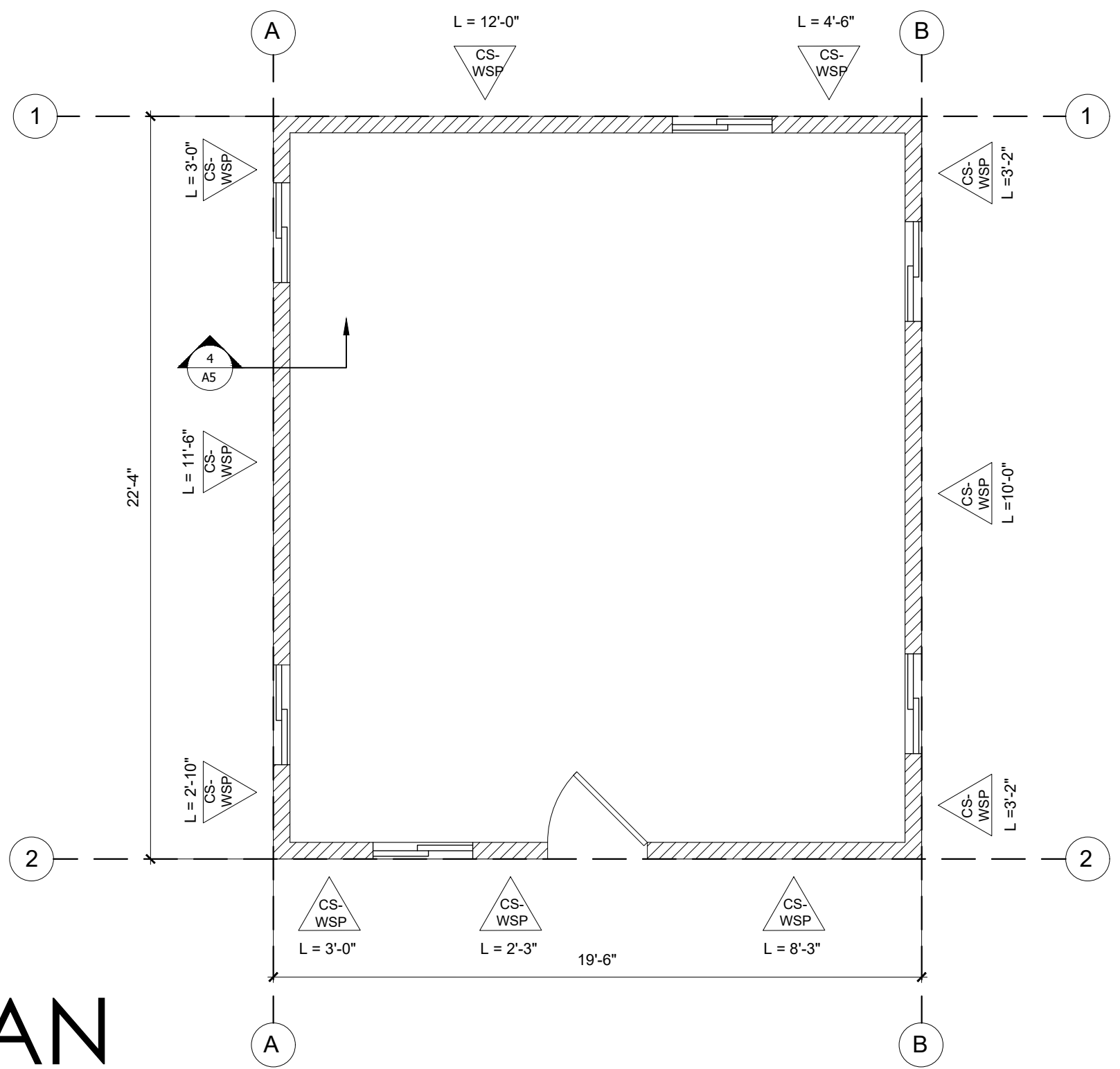
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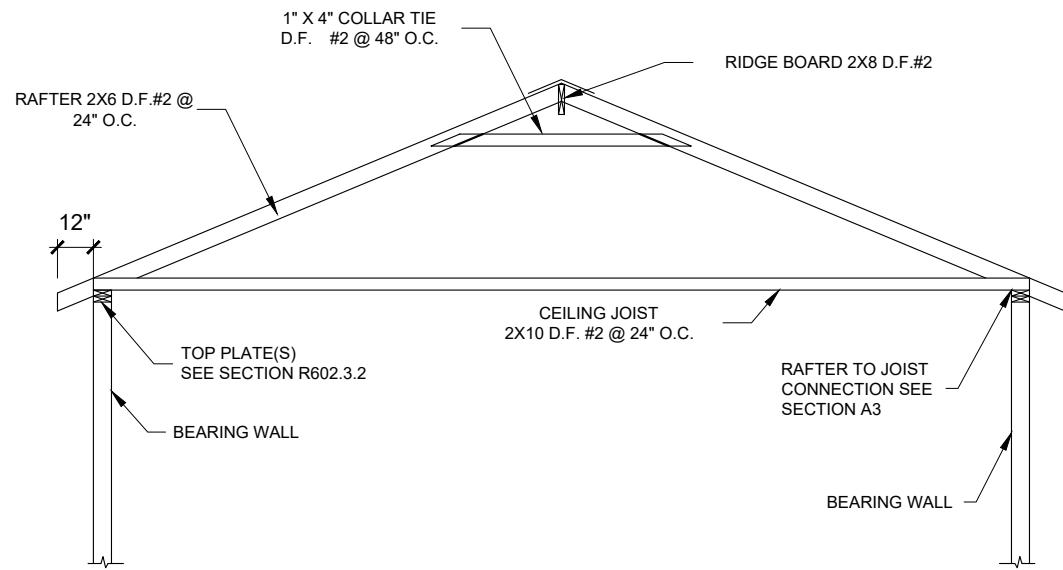
BRACED WALL PANEL SCHEDULE								
BWL	METHOD	MATERIAL MIN. & THICKNESS	BWL LENGTH	BWL SPACING	WALL HEIGHT	ADJUSTMENT FACTOR	REQUIRED LENGTH	PROVIDED LENGTH
1	CS-WSP	3/8" OSB	19.5'	22.33'	8'	1.0	4.3'	16.5'
2	CS-WSP	3/8" OSB	19.5'	22.33'	8'	1.0	4.3'	13.5'
A	CS-WSP	3/8" OSB	22.33'	19.5'	8'	1.0	6.33'	17.33'
B	CS-WSP	3/8" OSB	22.33'	19.5'	8'	1.0	6.33'	16.33'

BRACED WALL PANEL SCHEDULE				
METHOD	MINIMUM THICKNESS	FASTENERS	EDGE	FIELD
CS-WSP	1/2" OSB	EXTERIOR SHEATHING PER TABLE 602.3(3)	6" O.C.	12" O.C.
		INTERIOR SHEATHING PER TABLE 602.3(1) OR 602.3(2)		



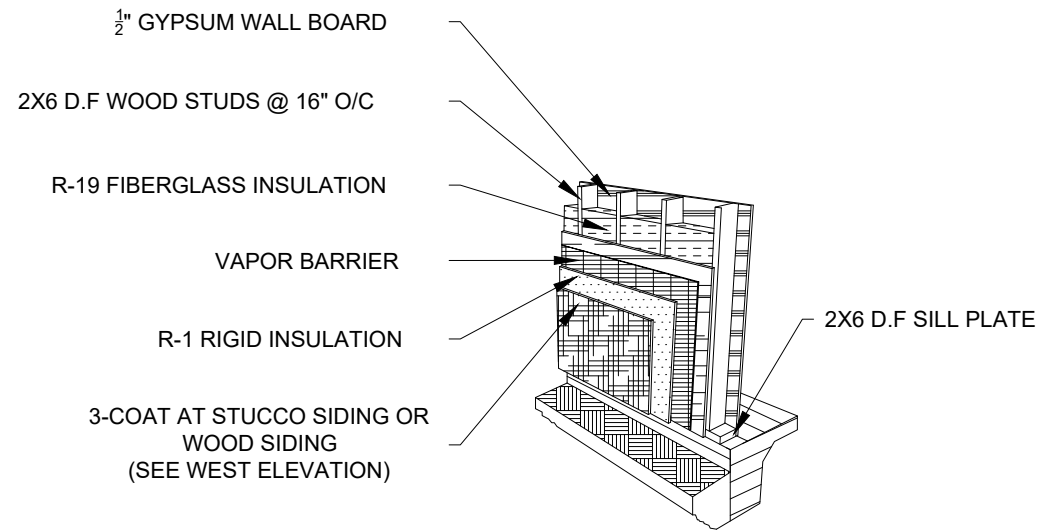
BRACED WALL PLAN

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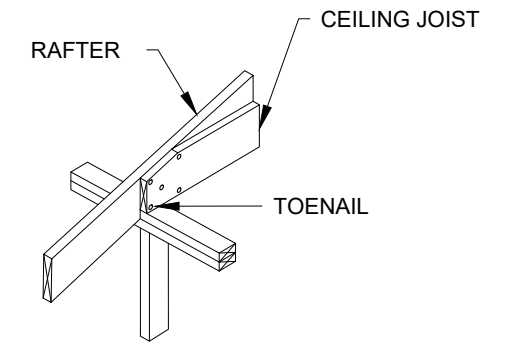


1
A5 BRACED RAFTER CONSTRUCTION

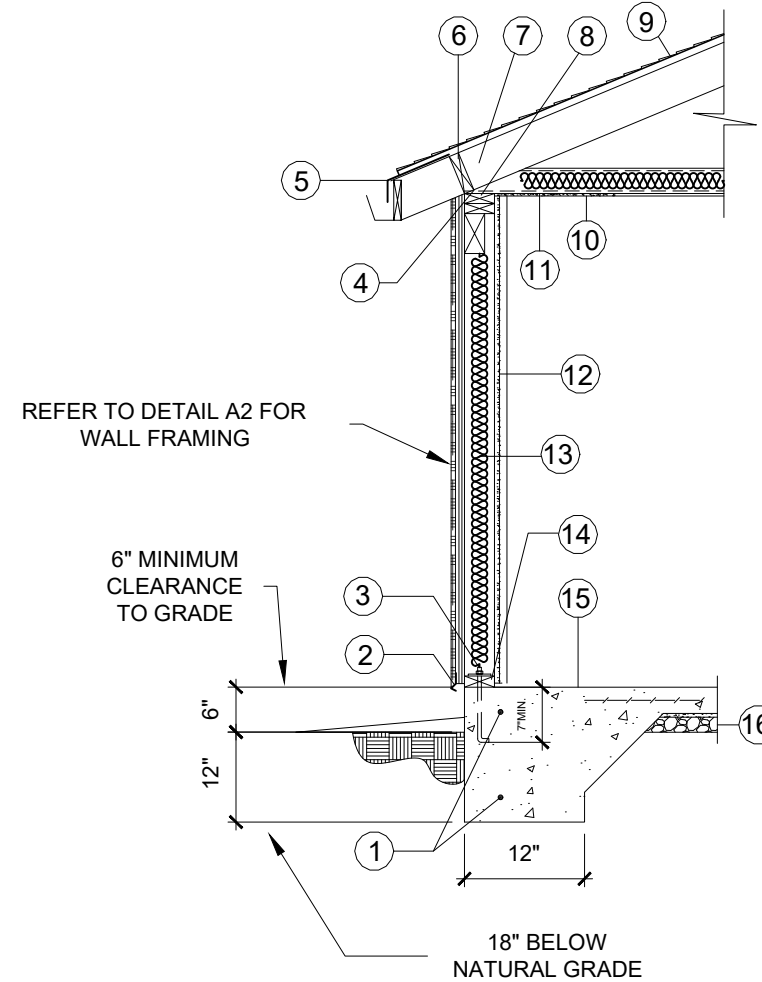
1. 1 #4 TOP & BOTTOM CONT. 24" OVERLAP AT ALL SPLICES.
2. WEEP SCREED 26 GAUGE GALVANIZED
3. 5/8" DIA. X 10" ANCHOR BOLT W/ 3" X 3" X 1/4" SQUARE WASHER, TYP.
4. SIMPSON A-35 @ 24" O.C.
5. DRIP EDGE
6. 2X6 D.F. #2 BLOCKING W/ 8d NAILS @ 6" O.C
7. RAFTERS 2X6 @ 24" O.C. OR PRE MANUFACTURED TRUSSES WITH R-19 INSULATION
8. DOUBLE TOP PLATE (MIN. 48" SPLICE) WITH 12 (16D) NAILS @ EACH SIDE OF SPLICE
9. ROOF SHEATHING (SEE ROOF PLAN)
10. 5/8" GYPSUM BOARD APPLIED PERPENDICULAR @ CEILING
11. BOTTOM TRUSS CORD OR CEILING JOIST
12. INTERIOR WALL FINISH- 1/2" GYPSUM BOARD APPLIED PERPENDICULAR
13. R-19 IN STUD CAVITY
14. 2X6 D.F. #2 BOTTOM PLATE (PRESSURE-TREATED WHEN IN CONTACT WITH CONCRETE) WITH 5/8" X 10" ANCHOR BOLT @ 4' O.C. MAX (MIN. TWO BOLTS PER SILL SECTION)
15. 4" CONCRETE SLAB 2,500 PSI MINIMUM REINFORCED WITH A MINIMUM OF 6X6 #10 GAUGE WELDED WIRE REINFORCING MESH CENTERED IN SLAB OVER 10MIL VAPOR BARRIER, OVER 2" SAND, OVER 4" AGGREGATE BASE
16. 4" SAND/ GRAVEL MIN.



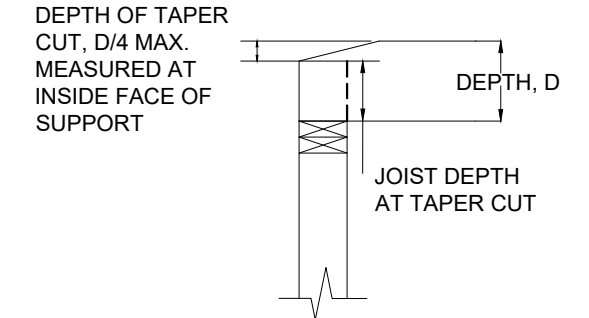
2
A5 EXTERIOR WALL FRAMING



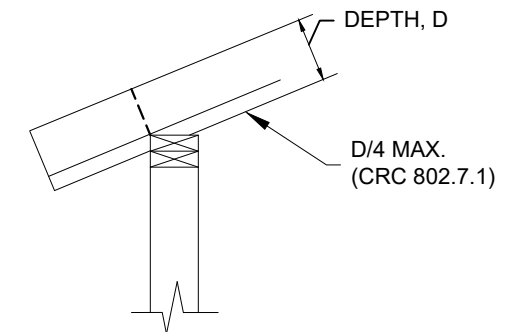
3
A5 CEILING JOIST TAPER CUT



4
A5 SLAB-FLOOR CONSTRUCTION FOOTING



3.1
A5 CEILING JOIST TAPER CUT



3.2
A5 RAFTER NOTCH

DETAILS

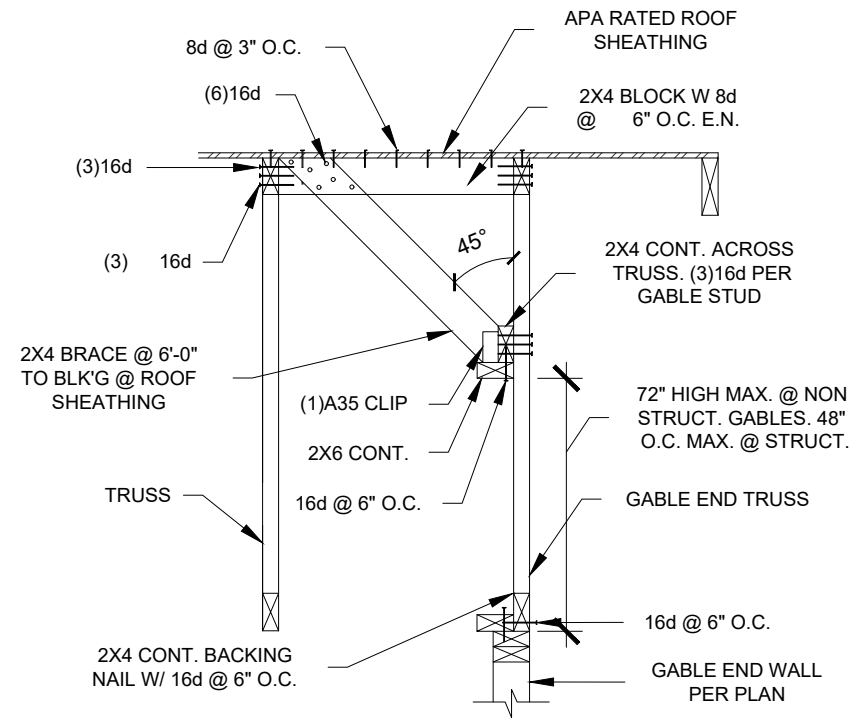
SCALE 1/4" = 1'-0"

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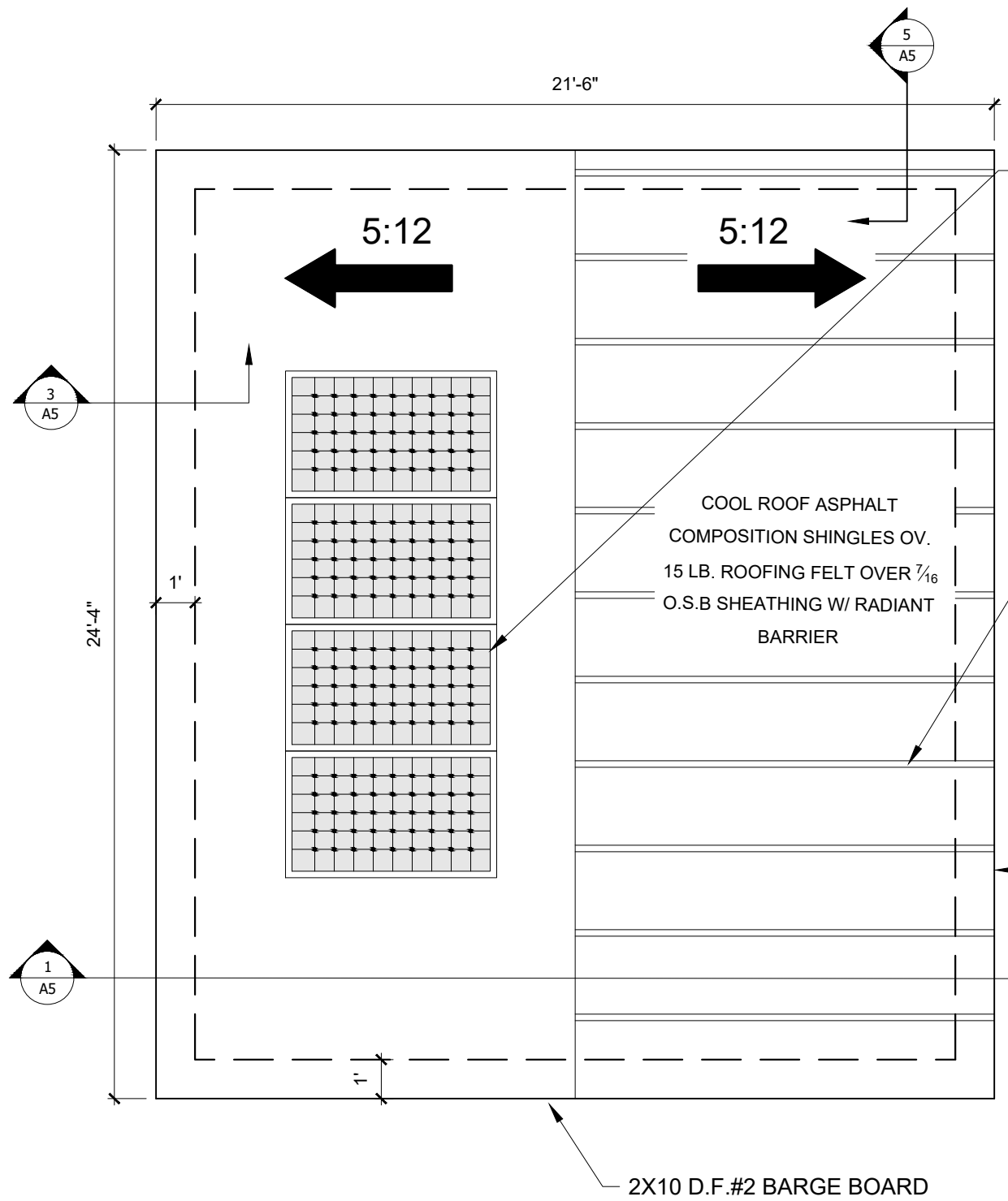


5
A6
GABLE END DETAIL

ATTIC VENT CALCULATIONS			
TYPE	SIZE	QUANTITY	TOTAL NET FREE AREA
GABLE VENT	12" X 18"	2	98 SQ IN
EAVE	14" X 6"	4	352 SQ IN

CALCULATION: (ADU SQUARE FOOTAGE)/300 X 144
 (435/150) = 2.9 SQ FT.
 2.9 X 144 = 417.6 SQ IN.

NOTE: EVENLY DISTRIBUTE EAVE VENTS



PLACE SOLAR PANELS
 IN MOST OPTIMAL POSITION
 2.09 KWdc

NEW ROOF:
 W/ RADIANT BARRIER SHEATHING

COOL ROOF SHINGLES

R-8 DUCT INSULATION

NEW WINDOWS:
 U-FACTOR: 0.3

2X6 D.F. #2 RAFTERS @24" ON CENTER W/ 2X8
 RIDGE BOARD, W/ 1X4 COLLAR TIES
 CONNECTED IN THE UPPER TIER OF THE ATTIC
 @48" ON CENTER MINIMUM

CEILING JOISTS 2X10 D.F. #2 @ 24" O.C.

OPTION: PRE-MANUFACTURED ROOF
 TRUSSES @ 24" O.C. (TRUSS CALCS
 REQUIRED)

2X10 D.F.#2 FACIA BD. W/
 OPTIONAL GUTTER & DOWNSPOUTS

ROOF PLAN

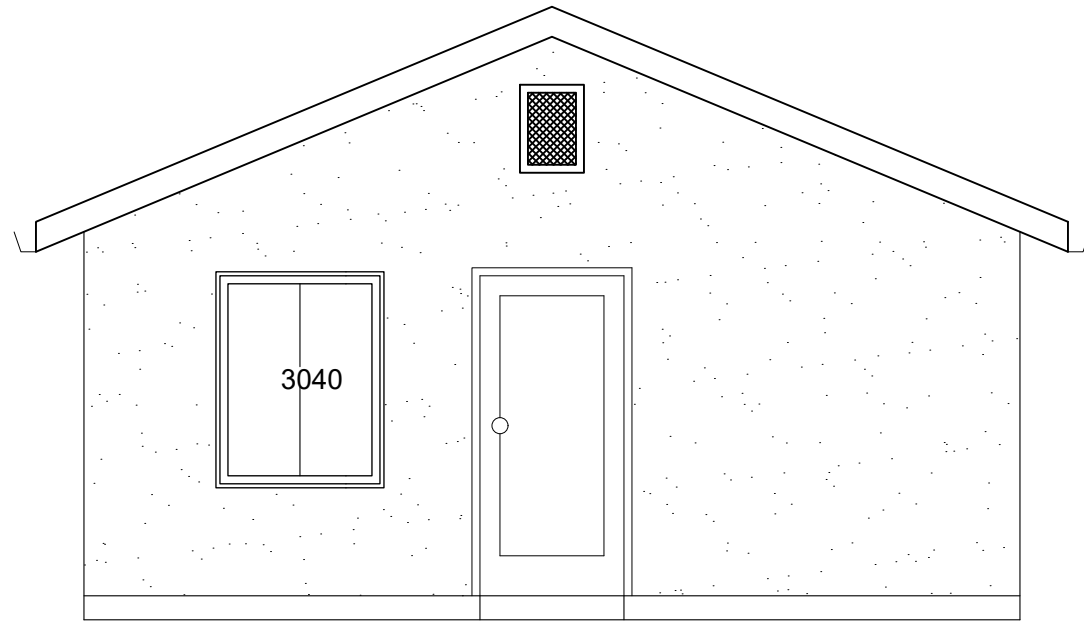
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ROOF PLAN

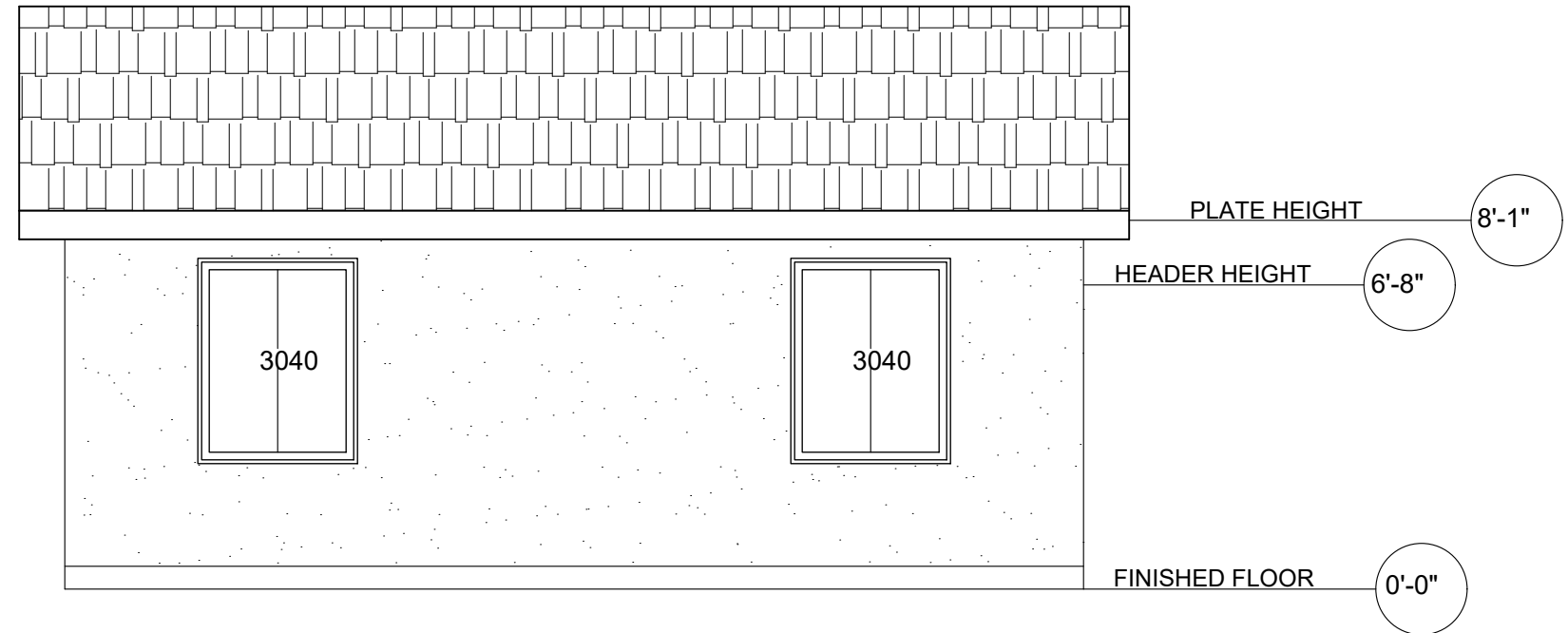
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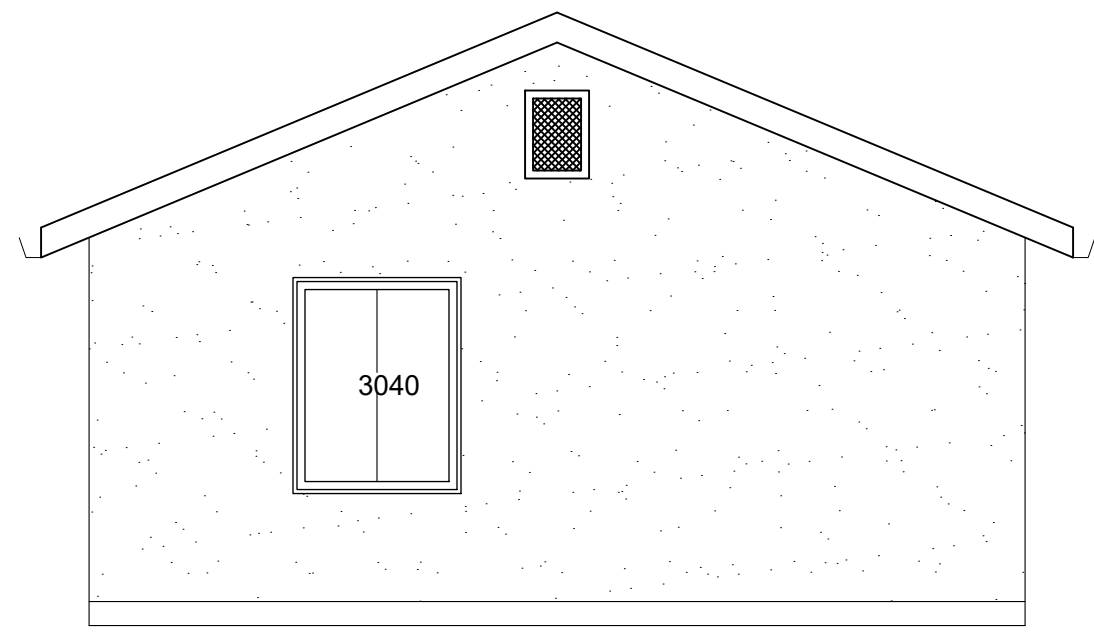
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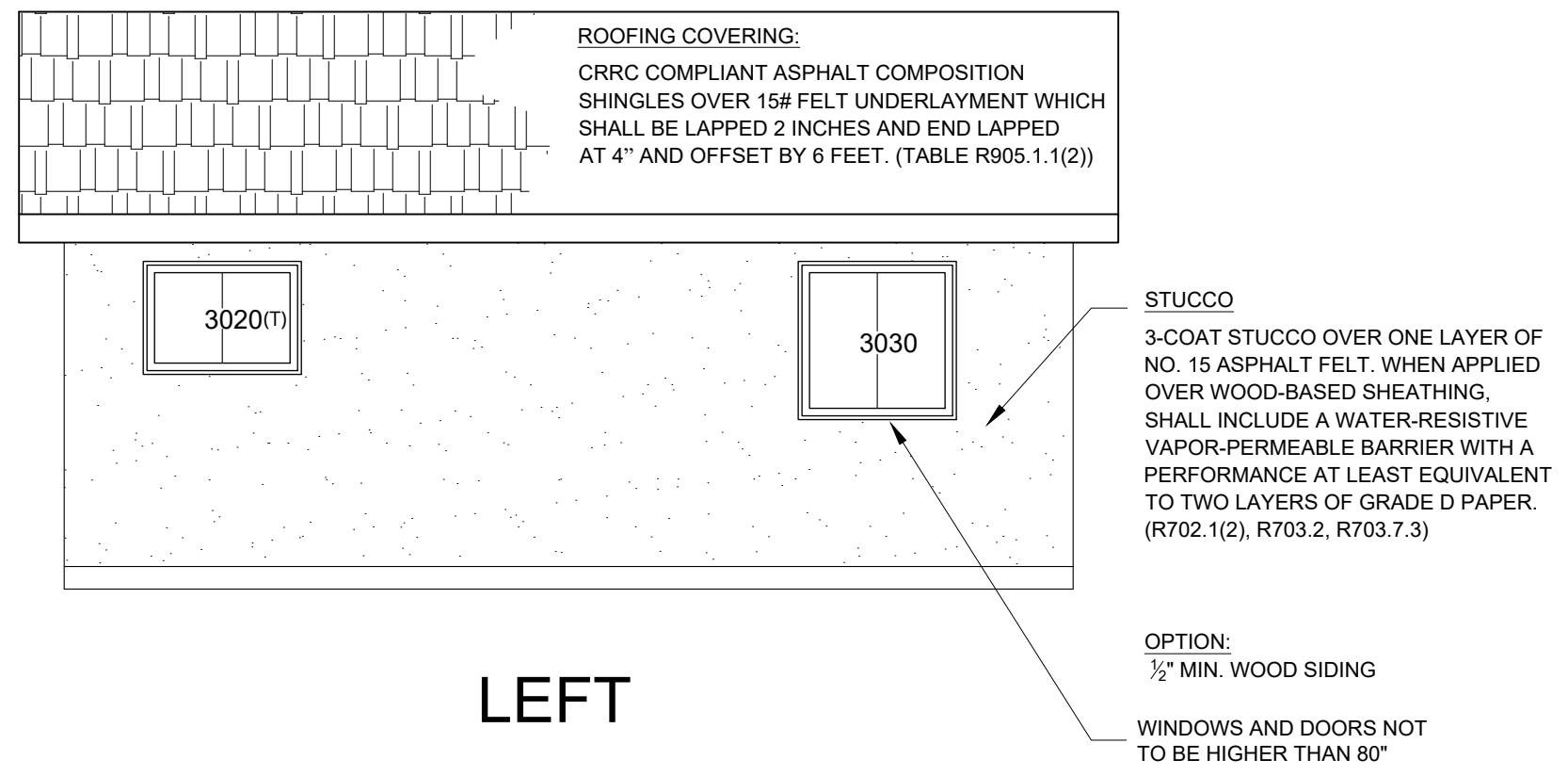
FRONT



RIGHT



BACK



LEFT

ELEVATIONS

1/4" = 1'-0"

ELEVATIONS

OWNER'S NAME:
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