

**FLOOR PLAN NOTES**

1. EXTERIOR WALLS WITHIN 3 FEET OF PROPERTY LINE (SPRINKLERS) OR 5 FEET OF PROPERTY LINE (WITHOUT SPRINKLERS) REQUIRE 1-HOUR FIRE RATING FOR EXPOSURE TO BOTH SIDES
2. PROJECTIONS:
  - PROHIBITED WITHIN 2 FEET OF PROPERTY LINE
  - 1-HOUR FIRE RATING ON THE UNDERSIDE WITHIN 3FT OF PROPERTY LINE (SPRINKLERS)
  - 1-HOUR FIRE RATING ON THE UNDERSIDE WITHIN 5FT OF PROPERTY LINE (WITHOUT SPRINKLERS)
3. OPENINGS:
  - PROHIBITED WITHIN 3FT OF PROPERTY LINE
  - MAXIMUM 25% OF WALL AREA WITHIN 5 FEET OF PROPERTY LINE (WITHOUT SPRINKLERS)
4. PENETRATIONS:
  - 1-HOUR FIRE-RATED PENETRATIONS OF WALLS WITHIN 3FT OF PROPERTY LINE (SPRINKLERS)
  - 1-HOUR FIRE-RATED PENETRATIONS OF WALLS WITHIN 5FT OF PROPERTY LINE (WITHOUT SPRINKLERS)
5. CONCRETE LANDING WITH MIN 36" DEPTH AND A MAXIMUM OF 1-1/2" LOWER THAN TOP OF DOOR THRESHOLD

**AZTEC DRAFTING & DESIGN**  
 9119 JAMACHA RD, SUITE 115  
 SPRING VALLEY, CA 91977  
 CELL: 619-414-8508

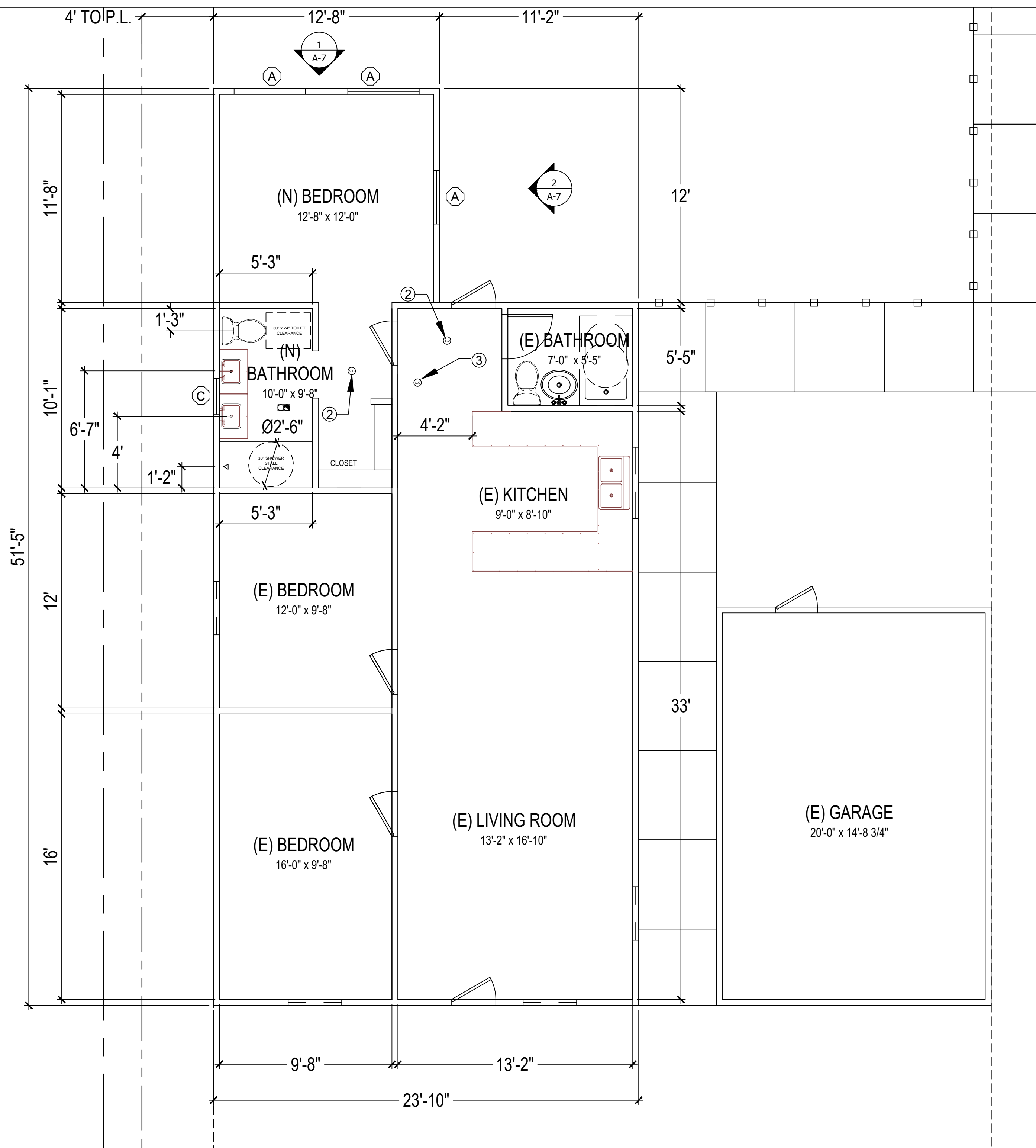
DRAWINGS PROVIDED BY:  
**AZTEC DRAFTING & DESIGN**  
 9119 JAMACHA RD, SUITE 115  
 SPRING VALLEY, CA 91977  
 CELL: 619-414-8508  
 EMAIL: LEON@AZTECDRAFTING.COM

**JUAN MANUEL DIARTE**  
 DETACH ADDITIONAL DWELLING UNIT  
 1523 E 14th St, NATIONAL CITY CA 91950  
 APN: 557-342-09-00  
 UTILITY: SDG&E  
 AJH: NATIONAL CITY

**EXISTING FLOOR PLAN**

REVISION		
0	-	02/14/22
PROJECT NO. P013		
SHEET NO. A-1		

**EXISTING FLOOR PLAN**  
 1/4" = 1'-0"



**FLOOR PLAN NOTES**

- EXTERIOR WALLS WITHIN 3 FEET OF PROPERTY LINE (SPRINKLERS) OR 5 FEET OF PROPERTY LINE (WITHOUT SPRINKLERS) REQUIRE 1-HOUR FIRE RATING FOR EXPOSURE TO BOTH SIDES
- PROJECTIONS:
  - PROHIBITED WITHIN 2 FEET OF PROPERTY LINE
  - 1-HOUR FIRE RATING ON THE UNDERSIDE WITHIN 3FT OF PROPERTY LINE (SPRINKLERS)
  - 1-HOUR FIRE RATING ON THE UNDERSIDE WITHIN 5FT OF PROPERTY LINE (WITHOUT SPRINKLERS)
- OPENINGS:
  - PROHIBITED WITHIN 3FT OF PROPERTY LINE
  - MAXIMUM 25% OF WALL AREA WITHIN 5 FEET OF PROPERTY LINE (WITHOUT SPRINKLERS)
- PENETRATIONS:
  - 1-HOUR FIRE-RATED PENETRATIONS OF WALLS WITHIN 3FT OF PROPERTY LINE (SPRINKLERS)
  - 1-HOUR FIRE-RATED PENETRATIONS OF WALLS WITHIN 5FT OF PROPERTY LINE (WITHOUT SPRINKLERS)
- CONCRETE LANDING WITH MIN 36" DEPTH AND A MAXIMUM OF 1-1/2" LOWER THAN TOP OF DOOR THRESHOLD

**PLUMBING NOTES**

- MIN. 1/4" PER FOOT SLOPE FOR WASTE PIPES PER SECTION 708 CPC
- BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE CALIFORNIA PLUMBING CODE.
- ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
- EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN SIX(6) INCHES ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE SERVED BEFORE OFFSETTING HORIZONTALLY OR BEFORE BEING CONNECTED TO ANY OTHER VENT.
- ALL DRAINAGE WASTE AND VENT PIPE SHALL COMPLY WITH TABLE 703.2 CPC.
- SHOWER AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH MIXING VALVES PER SECTION 408.3 CPC.
- TOILETS SHALL BE ULTRA-LOW FLUSH TYPE (1.28 G.P.F. MAX.)
- EACH SHOWERHEAD SHALL NOT EXCEED A WATER FLOW OF 1.8 GPM.
- KITCHEN SINK FAUCET SHALL NOT EXCEED A WATER FLOW 1.8 GPM.
- EACH LAVATORY FAUCET SHALL NOT EXCEED A WATER FLOW OF 1.2 GPM.
- ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
- COPPER PIPING FOR ALL POTABLE WATER SYSTEMS.

**SHOWER PLAN NOTES**

- MIN. 1/4" PER FOOT SLOPE FOR WASTE PIPES PER SECTION 708 CPC
- BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE CALIFORNIA PLUMBING CODE.
- ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
- EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN SIX(6) INCHES ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE SERVED BEFORE OFFSETTING HORIZONTALLY OR BEFORE BEING CONNECTED TO ANY OTHER VENT.
- ALL DRAINAGE WASTE AND VENT PIPE SHALL COMPLY WITH TABLE 703.2 CPC.
- SHOWER AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH MIXING VALVES PER SECTION 408.3 CPC.
- TOILETS SHALL BE ULTRA-LOW FLUSH TYPE (1.28 G.P.F. MAX.)
- EACH SHOWERHEAD SHALL NOT EXCEED A WATER FLOW OF 1.8 GPM.
- KITCHEN SINK FAUCET SHALL NOT EXCEED A WATER FLOW 1.8 GPM.
- EACH LAVATORY FAUCET SHALL NOT EXCEED A WATER FLOW OF 1.2 GPM.
- ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
- COPPER PIPING FOR ALL POTABLE WATER SYSTEMS.

**NEW ADDITION FLOOR PLAN**  
1/4" = 1'-0"

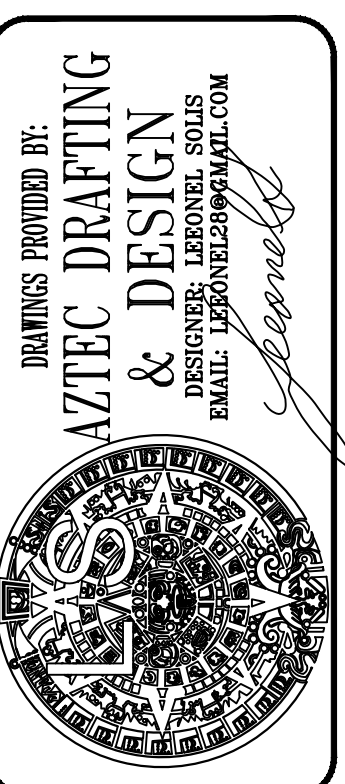
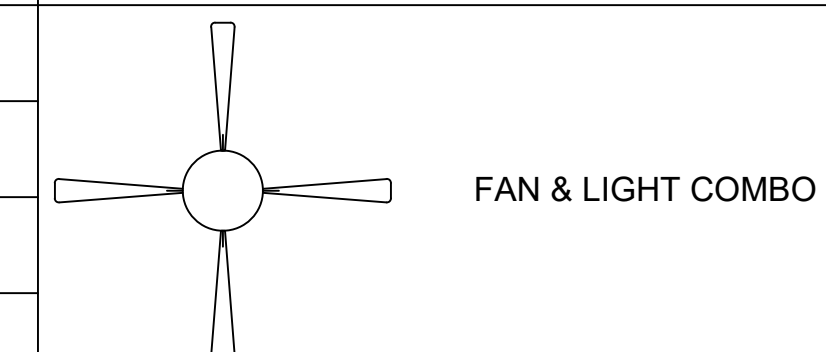
WINDOW SCHEDULE					
MARK	DIMENSION	TYPE	TEMPERED	U-factor	SHGC
(A)	4'-0" x 4'-0"	SLIDING		0.3000	0.2300

EXTERIOR WINDOWS, EXTERIOR GLAZED DOORS, GLAZED OPENINGS WITHIN EXTERIOR DOORS, GLAZED OPENINGS WITHIN EXTERIOR GARAGE DOORS, AND EXTERIOR STRUCTURAL GLASS VENEER SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)

- MULTI-PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING, AND WHERE ANY GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN INTERLOCK AREA, AND BE CERTIFIED TO AAMA/WDMA/CSA 101/1.S.2/A40
- MINIMUM 20-MIN FIRE-RESISTANCE-RATED
- MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-2

**ELECTRICAL LEGEND**

⊕	DUPLEX OUTLET	⊙	HIGH EFFICACY RECESSED LIGHT
⊞	WALL SWITCH	⊕	GARBAGE DISPOSAL
⊞ <sub>G.D.</sub>	GARBAGE DISPOSAL SWITCH		
⊞ <sub>V.S.</sub>	VACANCY SENSOR		
⊞	4" DIA DRYER VENT		
⊙	SMOKE DETECTOR		
⊙	CARBON MONOXIDE ALARM		
⊞	EXHAUST FAN AND LIGHT COMBINATION		
⊙	HIGH EFFICACY LIGHT FIXTURE		



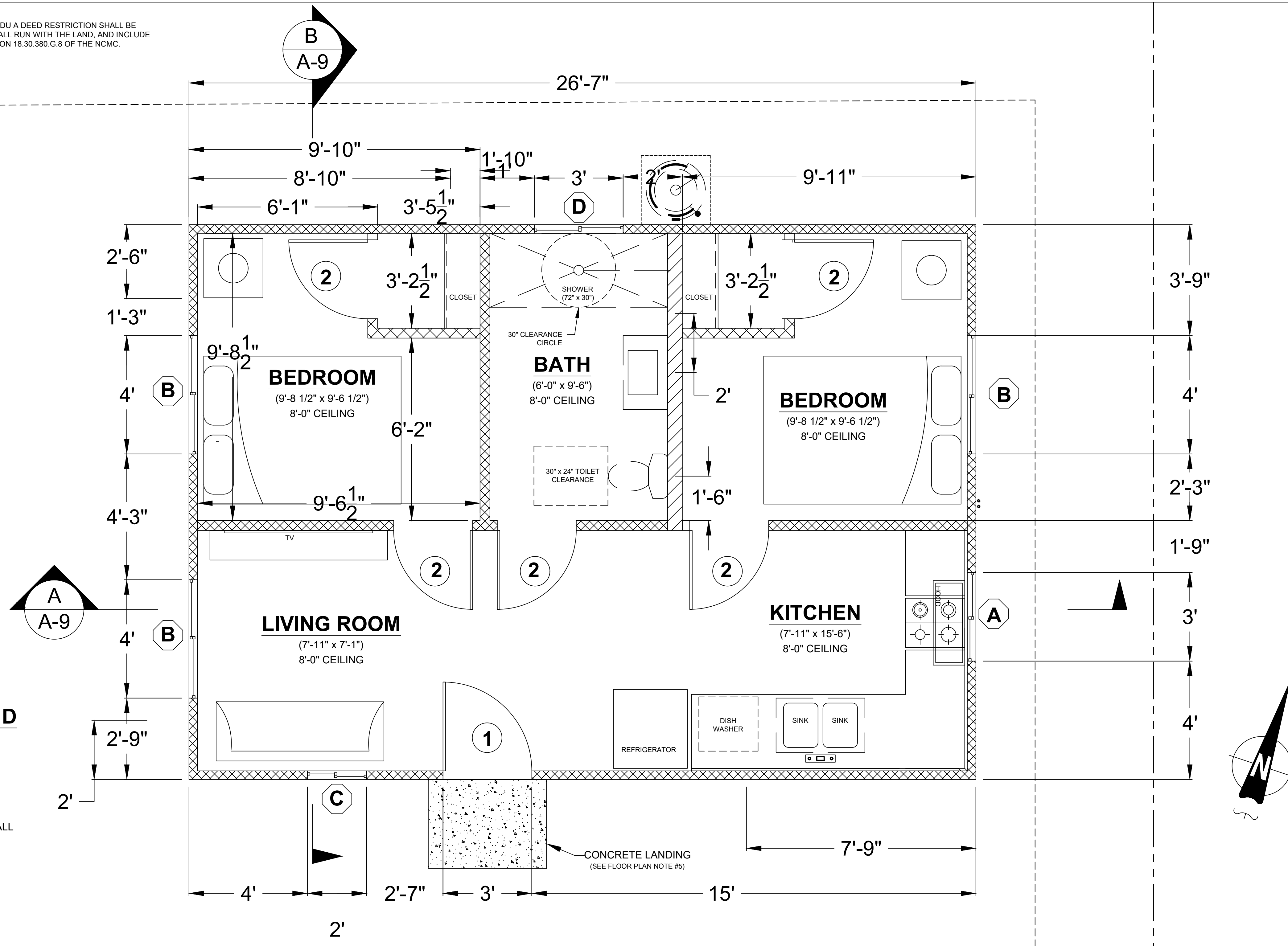
DRRAWINGS PROVIDED BY:  
**AZTEC DRAFTING & DESIGN**  
DESIGNED BY: JUAN MANUEL DIARTE  
EMAIL: JDIARTE@AZTECDRAFTING.COM  
**JUAN MANUEL DIARTE**  
DETACH ADDITIONAL DWELLING UNIT  
15223 E 14th St, NATIONAL CITY CA 91950  
APN: 557-342-09-00  
UTILITY: SDG&E  
AJH: NATIONAL CITY

**NEW ADDITION FLOOR PLAN**

REVISION		
0	-	02/14/22

PROJECT NO. P013  
SHEET NO. A-2

NOTE:  
 1. AS A CONDITION OF APPROVAL FOR THE ADU A DEED RESTRICTION SHALL BE RECORDED WITH THE COUNTY, WHICH SHALL RUN WITH THE LAND, AND INCLUDE LANGUAGE IN CONFORMANCE WITH SECTION 18.30.380.G.8 OF THE NCMC.



**WALL LEGEND**

- 2x6 WALL
- 2x4 WALL
- 2x4 PONY WALL

**FLOOR PLAN**  
 1/2" = 1'-0"

WINDOW SCHEDULE				
MARK	DIMENSION	TYPE	TEMPERED	NOTES
(A)	3'-0" x 4'-0"	SLIDING		
(B)	4'-0" x 4'-0"	SLIDING		
(C)	2'-0" x 3'-0"	SLIDING	Y	
(D)	3'-0" x 2'-0"	SLIDING	Y	

EXTERIOR WINDOWS, EXTERIOR GLAZED DOORS, GLAZED OPENINGS WITHIN EXTERIOR DOORS, GLAZED OPENINGS WITHIN EXTERIOR GARAGE DOORS, AND EXTERIOR STRUCTURAL GLASS VENEER SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)  
 A. MULTI-PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING, AND WHERE ANY GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN INTERLOCK AREA, AND BE CERTIFIED TO AAMA/WDMA/CSA 101/I.S.2/A40  
 B. MINIMUM 20-MIN FIRE-RESISTANCE-RATED.  
 C. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-2

DOOR SCHEDULE				
MARK	DIMENSION	TYPE	TEMPERED	NOTES
(1)	3'-0" x 6'-8"	SWINGING		1-3/8" SOLID CORE
(2)	2'-8" x 6'-8"	SWINGING		
(3)	8'-0" x 6'-8"	SLIDING		6FT CLOSET

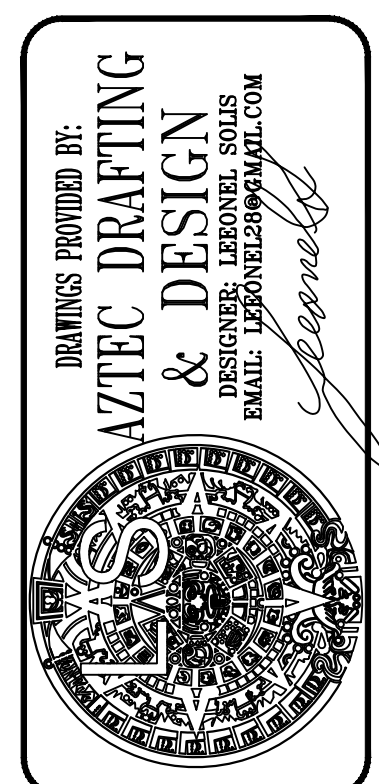
EXTERIOR DOORS SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)  
 A. EXTERIOR SURFACE OR CLADDING OF NON-COMBUSTIBLE OR IGNITION-RESISTANT MATERIAL  
 B. SOLID CORE WOOD COMPLYING WITH THE FOLLOWING:  
 - STILES AND RAILS MINIMUM 1-3/8 INCHES THICK  
 - RAISED PANELS MINIMUM 1-1/4 INCHES THICK  
**EXCEPTION:** EXTERIOR PERIMETER OF RAISED PANEL MAY TAPER TO A TONGUE MINIMUM 3/8 INCHES THICK  
 C. MINIMUM 20-MIN FIRE RATED WHEN TESTED PER NFPA 252  
 D. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1

**FLOOR PLAN NOTES**

- EXTERIOR WALLS WITHIN 3 FEET OF PROPERTY LINE (SPRINKLERS) OR 5 FEET OF PROPERTY LINE (WITHOUT SPRINKLERS) REQUIRE 1-HOUR FIRE RATING FOR EXPOSURE TO BOTH SIDES
- PROJECTIONS:
  - PROHIBITED WITHIN 2 FEET OF PROPERTY LINE
  - 1-HOUR FIRE RATING ON THE UNDERSIDE WITHIN 3FT OF PROPERTY LINE (SPRINKLERS)
  - 1-HOUR FIRE RATING ON THE UNDERSIDE WITHIN 5FT OF PROPERTY LINE (WITHOUT SPRINKLERS)
- OPENINGS:
  - PROHIBITED WITHIN 3FT OF PROPERTY LINE
  - MAXIMUM 25% OF WALL AREA WITHIN 5 FEET OF PROPERTY LINE (WITHOUT SPRINKLERS)
- PENETRATIONS:
  - 1-HOUR FIRE-RATED PENETRATIONS OF WALLS WITHIN 3FT OF PROPERTY LINE (SPRINKLERS)
  - 1-HOUR FIRE-RATED PENETRATIONS OF WALLS WITHIN 5FT OF PROPERTY LINE (WITHOUT SPRINKLERS)
- CONCRETE LANDING WITH MIN 36" DEPTH AND A MAXIMUM OF 1-1/2" LOWER THAN TOP OF DOOR THRESHOLD

**OPTIONAL ROLL-IN SHOWER PLAN NOTES**

- SHOWER COMPARTMENT SEAT
  - MUST BE FOLDING TYPE, NOT TO EXCEED MORE THAN 6 INCHES FROM MOUNTING WALL WHEN FOLDED
  - LOCATED WITHIN 27 INCHES OF SHOWER CONTROLS
  - MOUNTED MINIMUM 17 INCHES AND MAXIMUM 19 INCHES ABOVE BATHROOM FINISHED FLOOR
  - SEAT INSTALLED ON SIDE WALL ADJACENT TO CONTROLS AND EXTENDING FROM BACK WALL TO POINT WITHIN 3 INCHES OF SHOWER COMPARTMENT ENTRY
  - STRUCTURAL ADEQUACY OF MOUNTING HARDWARE AND FASTENERS TO ACCOMMODATE 250 POUND POINT LOAD APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE
- SHOWER GRAB BARS
  - MOUNTED MINIMUM 33 INCHES AND MAXIMUM 36 INCHES ABOVE SHOWER FLOOR
  - NOT EXTENDING OVER SHOWER SEAT
  - IF CROSS SECTION IS CIRCULAR, MINIMUM 1-1/4" AND MAXIMUM 2" OUTSIDE DIAMETER
  - IF CROSS SECTION IS NON-CIRCULAR, MINIMUM 4" AND MAXIMUM 4.8" PERIMETER AND MAXIMUM 2-1/4" CROSS SECTION DIMENSION
  - GRAB BARS MOUNTED ADJACENT TO A WALL, 1-1/2" ABSOLUTE SPACE BETWEEN WALL AND GRAB BAR
  - MINIMUM 1-1/2" SPACE BETWEEN GRAB BAR AND PROJECTING OBJECTS BELOW AND AT ENDS
  - MINIMUM 12 INCH SPACE BETWEEN GRAB BAR AND PROJECTING OBJECTS ABOVE
  - SURFACE MATERIAL OF ANY WALLS OR OBJECTS ADJACENT TO GRAB BARS MUST BE FREE OF SHARP OR ABRASIVE ELEMENTS AND HAVE ROUNDED EDGES.
  - STRUCTURAL ADEQUACY OF MOUNTING HARDWARE AND FASTENERS TO ACCOMMODATE 250 POUND POINT LOAD APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE
  - WALL REINFORCEMENT TO BE PROVIDED AT LOCATION OF GRAB BARS (E.G. BLOCKING)
- OPERABLE PARTS OF SHOWER CONTROLS AND FAUCETS:
  - INSTALLED ON BACK WALL OF SHOWER COMPARTMENT ADJACENT TO SEAT WALL
  - LOCATED MINIMUM 19 INCHES AND MAXIMUM 27 INCHES FROM SEAT WALL
  - LOCATED ABOVE GRAB BAR BUT NO HIGHER THAN 48 INCHES ABOVE SHOWER FLOOR
  - CENTERLINE AT MINIMUM 39 INCHES AND MAXIMUM 41 INCHES ABOVE SHOWER FLOOR
  - SINGLE-LEVER DESIGN
  - OPERABLE WITH MAXIMUM 5 POUNDS OF FORCE
  - OPERABLE WITH ONE HAND AND WITHOUT TIGHT GRASPING, PINCHING, OR TWISTING OF WRIST
- SPRAYER UNIT AND ASSOCIATED OPERABLE PARTS SHALL BE PROVIDED PER THE FOLLOWING:
  - OPERABLE PARTS, INCLUDING HANDLE, TO BE INSTALLED ON BACK WALL OF SHOWER COMPARTMENT MINIMUM 19 INCHES AND MAXIMUM 27 INCHES FROM SEAT WALL
  - OPERABLE PARTS LOCATED ABOVE GRAB BAR BUT NO HIGHER THAN 48 INCHES ABOVE SHOWER FLOOR, MEASURED TO TOP OF MOUNTING BRACKET
  - MINIMUM 59 INCH LONG HOSE
  - CAPABLE FOR USE AS FIXED SHOWER HEAD AND HAND HELD SHOWER
  - ON/OFF CONTROL WITH NON-POSITIVE SHUT OFF
  - ADJUSTABLE -HEIGHT SHOWER HEADS ON VERTICAL BAR SHALL NOT OBSTRUCT USE OF BATHTUB GRAB BARS
- WHERE SOAP DISHES ARE PROVIDED, MAXIMUM 40 INCHES ABOVE SHOWER FLOOR AND WITHIN REACH LIMITS FROM THE SHOWER SEAT
- MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS OF ROLL-IN SHOWER FLOORS
- MAXIMUM 2" HIGH THRESHOLDS WITH MAXIMUM 50% BEVELED SLOPE AT ROLL-IN SHOWERS
- WHERE DRAINS ARE PROVIDED AT ROLL-IN SHOWERS, MAXIMUM 1/2" GRATE OPENINGS FLUSH WITH SHOWER FLOOR SURFACE



JUAN MANUEL DIARTE  
 DETACH ADDITIONAL DWELLING UNIT  
 1523 E 14th St, NATIONAL CITY CA 91950  
 APN: 557-342-09-00  
 UTILITY: SDG&E  
 AJH: NATIONAL CITY

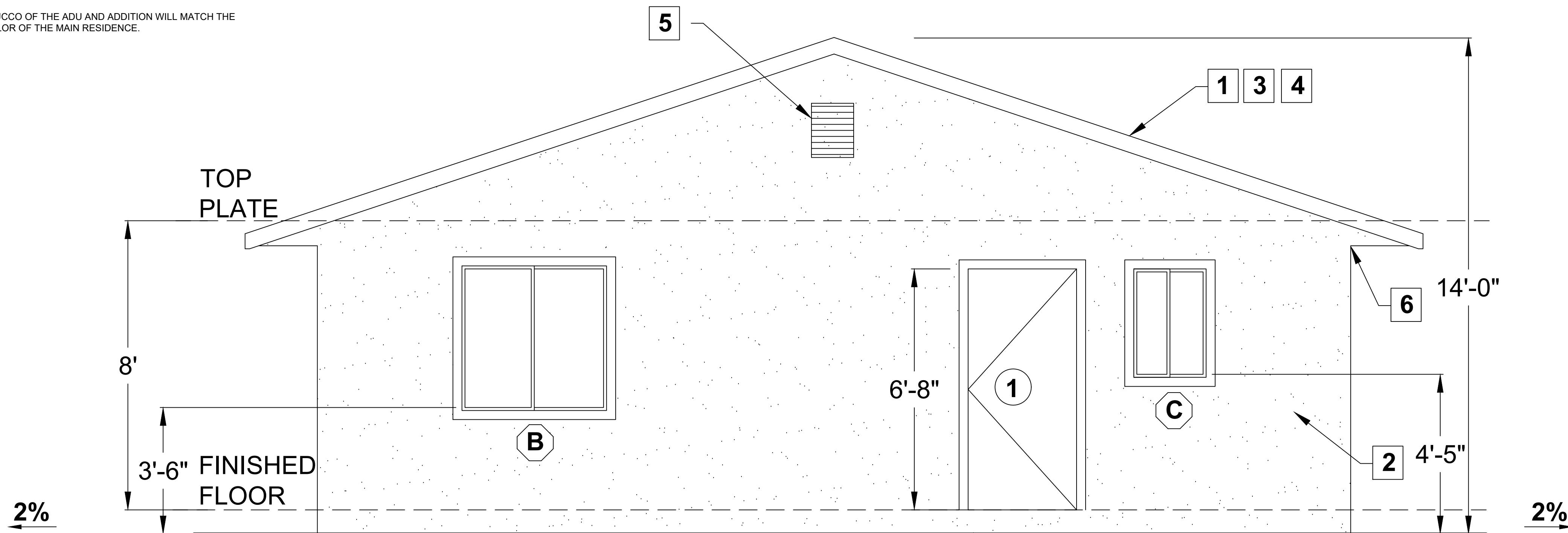
**ADU FLOOR PLAN**

REVISION	
0	02/14/22

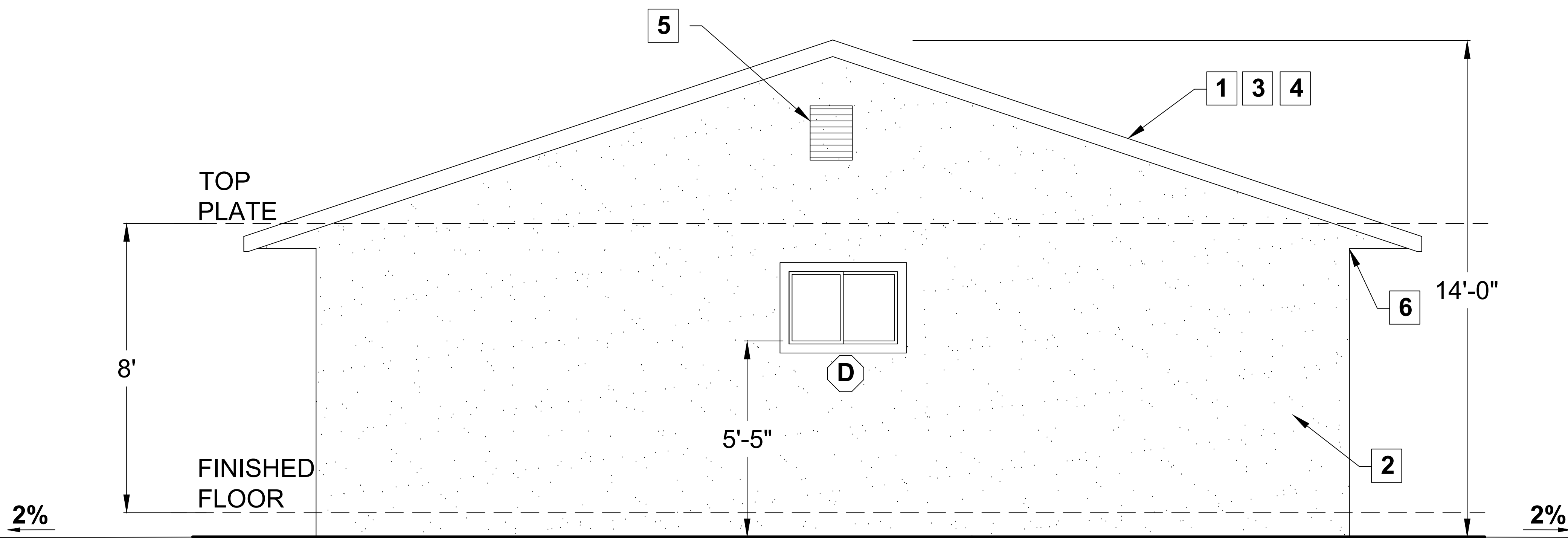
PROJECT NO. P013  
 SHEET NO. A-3



- NOTE:
- CLEARLY VISIBLE ADDRESS NUMBER WITH 4" TALL LETTERS, WITH 4" TALL LETTERS, WITH A 1/2" MIN STROKE PER CRC R319.
  - STUCCO OF THE ADU AND ADDITION WILL MATCH THE COLOR OF THE MAIN RESIDENCE.



**FRONT**



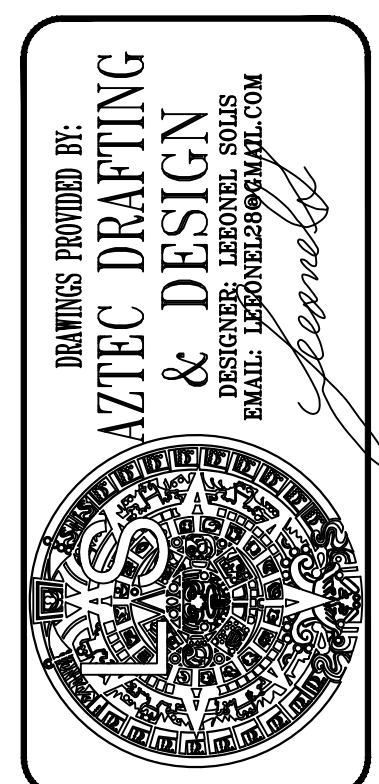
**BACK**

**ELEVATION KEY NOTES**

- ROOF: CLASS 'A' FIRE RATING - ROOF MATERIAL: OWENS CORNING ASPHALT SHINGLES FIRE RATING CLASS A. UNDERLAYMENT: OWENS CORNING ProArmor SYNTHETIC ROOFING UNDERLAYMENT. LISTING REPORT #: PROA21
- EXTERIOR WALL FINISH: STUCCO PAINTED TO MATCH EXISTING
- ROOF PITCH: 4:12
- RADIANT BARRIER IS REQUIRED
- GABLE VENT (SEE NOTE 5 & 6 BELOW) MANUFACTURER: GIBRALTAR BUILDING PRODUCTS MODEL: GLFF1418WH-0.125 NFVA: 110sqin ( 71 in<sup>2</sup>)
- EAVE VENT (SEE NOTE 5 & 6 BELOW) A: MANUFACTURER: GIBRALTAR BUILDING PRODUCTS B: GALV. STEEL 2-WAY REVERSIBLE VENT C: 71sqin (MIN 23 in<sup>2</sup>)

**WILDFIRE ZONE PLAN NOTES**

- IN ROOF COVERINGS WHERE THE PROFILE CREATES SPACE BETWEEN THE ROOF COVERING AND COMBUSTIBLE ROOF DECKING, SPECIFY ONE OF THE FOLLOWING MEANS OF PROTECTING SPACES AT EAVES ENDS.
  - FIRE-STOPPING WITH APPROVED MATERIALS
  - ONE LAYER OF 72 POUND (32.4 KG) MINERAL-SURFACED NON-PERFORATED CAP SHEET COMPLYING WITH ASTM D 3909 INSTALLED OVER THE COMBUSTIBLE DECKING
  - OTHERWISE CONSTRUCTED TO PREVENT INTRUSION OF FLAMES AND EMBERS
- EXPOSED VALLEY FLASHINGS SHALL BE CONSTRUCTED WITH NOT LESS THAN 0.019-INCH (NO. 26 GALVANIZED SHEET GAGE) CORROSION-RESISTANT METAL. INSTALLED OVER A MINIMUM 36-INCH-WIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF NO. 72 ASTM CAP SHEET RUNNING THE FULL LENGTH OF THE VALLEY.
- ANY ROOF GUTTERS SHALL BE PROVIDED WITH MEANS TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS.
- SKYLIGHTS SHALL BE TEMPERED GLASS.
- ALL VENTS (ROOF, FOUNDATION, COMBUSTION-AIR, ETC) SHALL RESIST THE INTRUSION OF FLAMES AND EMBERS
- VENTILATION OPENINGS FOR ENCLOSED ATTICS, EAVE SOFFIT SPACES, ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, UNDERFLOOR VENTILATION OPENINGS, AND VENT OPENINGS IN EXTERIOR WALLS AND EXTERIOR DOORS SHALL BE LISTED TO ASTM E 2886 AND COMPLY WITH ALL OF THE FOLLOWING:
  - THERE SHALL BE NO FLAMING IGNITION OF THE COTTON MATERIAL DURING THE EMBER INTRUSION TEST
  - THERE SHALL BE NO FLAMING IGNITION DURING THE INTEGRITY TEST PORTION OF THE FLAME INTRUSION TEST
  - THE MAXIMUM TEMPERATURE OF THE UNEXPOSED SIDE OF THE VENT SHALL NOT EXCEED 662 DEGREES FAHRENHEIT (350 DEGREES CELSIUS)
- EXTERIOR WALL FINISH SHALL COMPLY WITH ONE OF THE FOLLOWING:
  - NON-COMBUSTIBLE MATERIAL (STUCCO, CEMENT FIBER BOARD, ETC) - STUCCO AND CEMENT PLASTER USED AS AN EXTERIOR WALL COVERING SHALL BE 7/8-INCH THICK
  - NON-COMBUSTIBLE OR FIRE-RETARDANT-TREATED WOOD SHAKE USED AS AN EXTERIOR WALL COVERING SHALL HAVE AN UNDERLAYMENT OF MINIMUM 1/2-INCH FIRE-RATED GYPSUM SHEATHING THAT IS TIGHTLY BUTTED, OR TAPED AND MUDDED, OR AN UNDERLAYMENT OF OTHER IGNITION-RESISTANT MATERIAL APPROVED BY THE BUILDING OFFICIAL.
  - IGNITION-RESISTANT MATERIAL
- PATIO COVER, CARPORT AND TRELLIS CONSTRUCTION WITH ALL EXPOSED ELEMENTS SHALL COMPLY WITH ANY OF THE FOLLOWING:
  - NON-COMBUSTIBLE MATERIAL
  - 1-HOUR FIRE-RESISTANT-RATED MATERIAL
  - APPROVED EXTERIOR FIRE-RETARDANT TREATED WOOD
  - MODIFIED HEAVY TIMBER (MIN 2X TONGUE-AND-GROOVE SHEATHING, 4X6 RAFTERS/BEAMS, 6X6 POSTS)
- DECK, BALCONY, AND EXTERIOR STAIR CONSTRUCTION, WITH ALL EXPOSED ELEMENTS SHALL COMPLY WITH THE FOLLOWING:
  - FRAMING
    - NON-COMBUSTIBLE MATERIAL
    - 1-HOUR FIRE-RESISTANT-RATED MATERIAL
    - APPROVED EXTERIOR FIRE-RETARDANT TREATED WOOD
    - MODIFIED HEAVY TIMBER (MIN 4X8 JOISTS, 4X10 OR 6X8 BEAMS, 6X6 POSTS)
  - DECKING AND TREAD MATERIAL (ANY OF THE FOLLOWING):
    - NON-COMBUSTIBLE MATERIAL
    - 1-HOUR FIRE-RESISTANT-RATED MATERIAL
    - APPROVED EXTERIOR FIRE-RETARDANT TREATED WOOD
    - APPROVED ALTERNATIVE DECKING MATERIAL MEETING TESTS REQUIREMENTS OF COUNTY BUILDING CODE 92.1.709A.1.4)
- EXTERIOR GARAGE DOORS SHALL RESIST THE INTRUSION OF EMBERS INTO THE GARAGE BY LIMITING THE SIZE OF ANY GAPS AT THE BOTTOM, SIDES, AND TOP OF THE DOOR TO 1/8 INCH OR LESS USING ONE OF THE FOLLOWING METHODS
  - WEATHER-STRIPPING PRODUCTS WITH TENSILE STRENGTH AND FLAMMABILITY RATING PER CBC 708A.4
  - DOOR OVERLAPS ONTO JAMBS AND HEADERS
  - GARAGE DOOR JAMBS AND HEADERS COVERED WITH METAL FLASHING
- PAPER-FACED INSULATION PROHIBITED IN ATTICS OR OTHER VENTILATED SPACES.
- FENCES OR ANY STRUCTURE WITHIN 5 FEET OF BUILDING SHALL BE CONSTRUCTED PER ONE OF THE FOLLOWING:
  - NON-COMBUSTIBLE MATERIAL
  - APPROVED EXTERIOR FIRE-RETARDANT TREATED WOOD
  - MATERIAL MEETING SAME FIRE-RESISTIVE STANDARDS AS EXTERIOR WALLS OF BUILDINGS



JUAN MANUEL DIARTE  
DETACH ADDITIONAL DWELLING UNIT  
1523 E 14th St, NATIONAL CITY CA 91950  
APN: 557-342-09-00  
UTILITY: SDG&E  
AJH: NATIONAL CITY

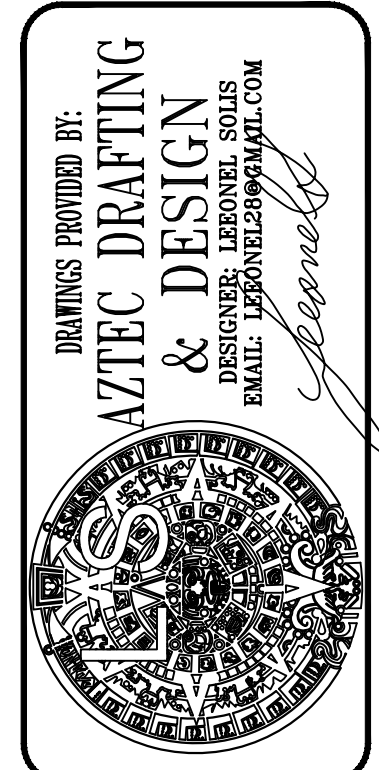
**ADU ELEVATIONS**

REVISION		
0	-	02/14/22
PROJECT NO. P013		
SHEET NO. A-5		



ELEVATION KEY NOTES

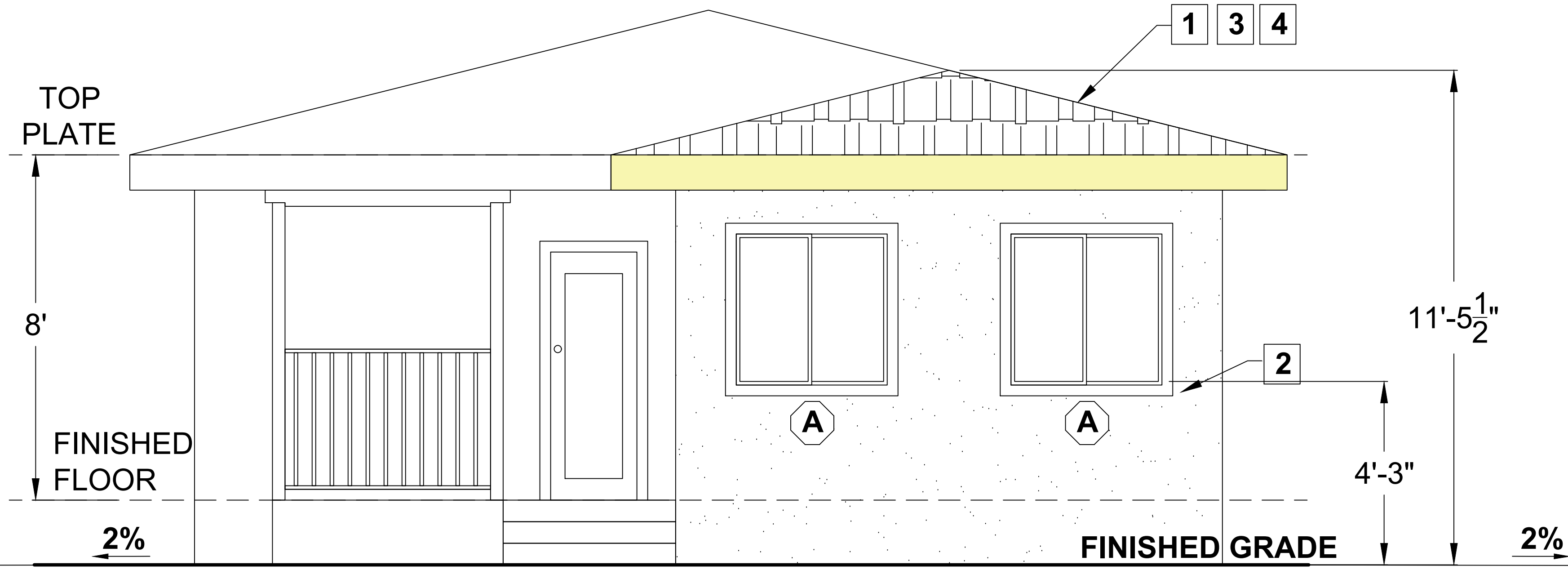
SEE SHEET A3 FOR KEY NOTES



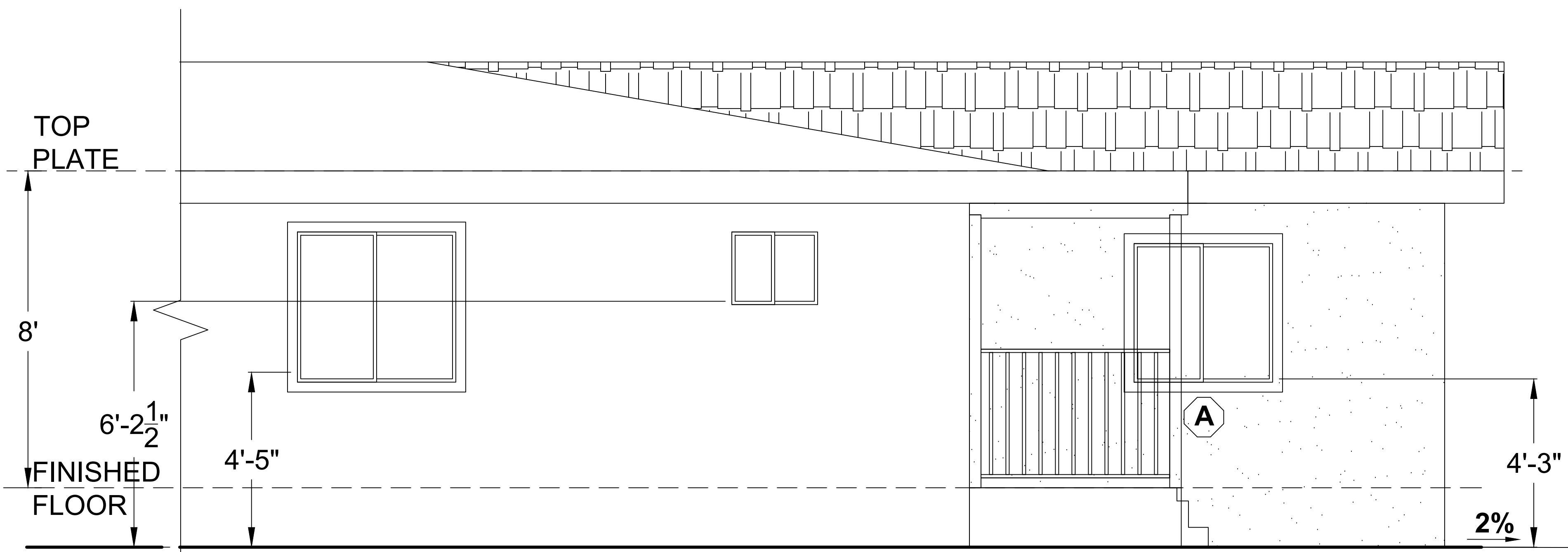
DRAWINGS PROVIDED BY:  
**AZTEC DRAFTING & DESIGN**  
 1523 E 14th St, NATIONAL CITY CA 91950  
 APN: 557-342-09-00  
 UTILITY: SDG&E  
 AJH: NATIONAL CITY

**ADDITION ELEVATIONS**

REVISION	
0	02/14/22
PROJECT NO. P013	
SHEET NO. A-7	



**BACK**



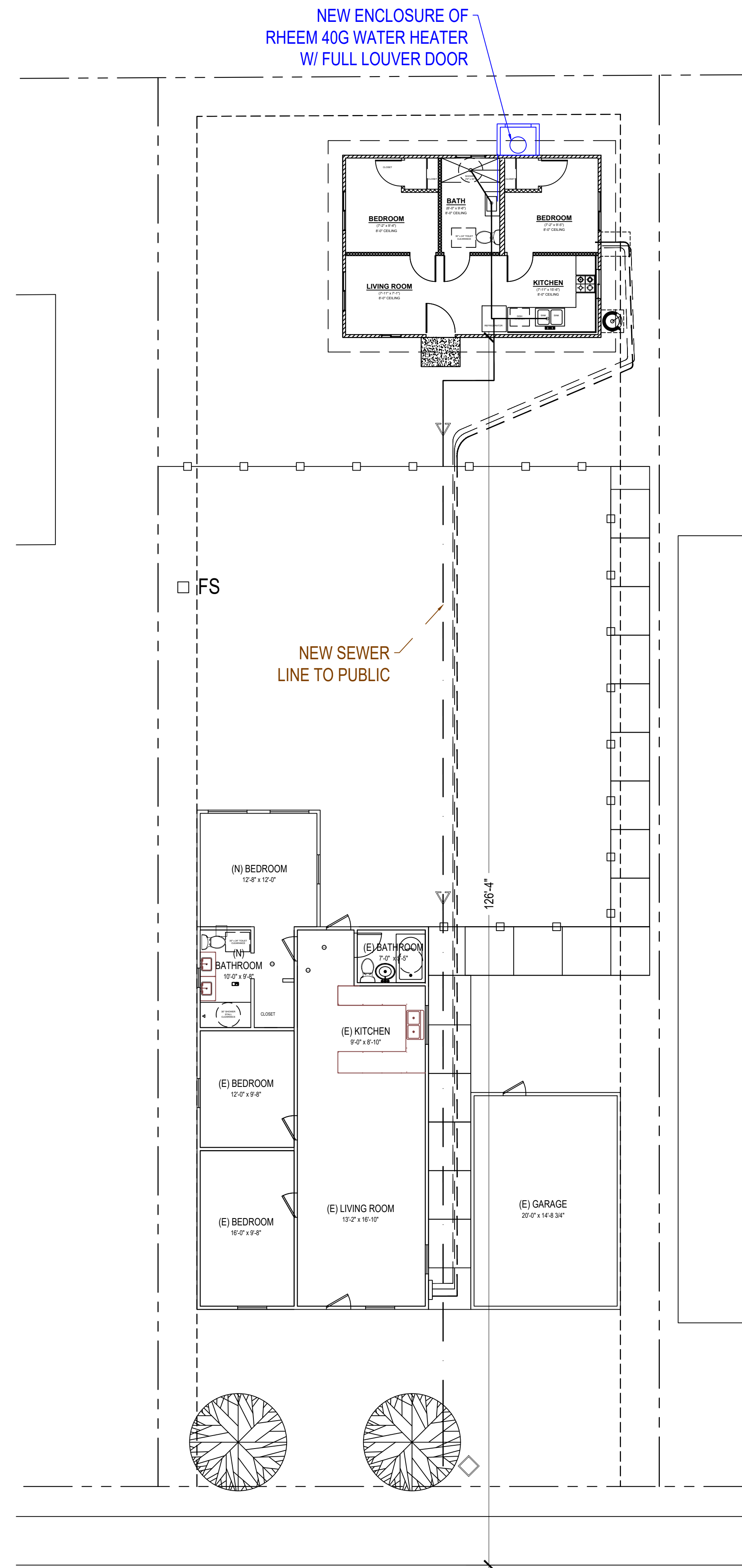
**LEFT**

**ELEVATIONS**  
 1/2" = 1'-0"









1 **UTILITY LAYOUT PLAN**  
3/4"=1'

**PLUMBING NOTES**

1. MIN. 1/4" PER FOOT SLOPE FOR WASTE PIPES PER SECTION 708 CPC
2. BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE CALIFORNIA PLUMBING CODE.
3. ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
4. EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN SIX(6) INCHES ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE SERVED BEFORE OFFSETTING HORIZONTALLY OR BEFORE BEING CONNECTED TO ANY OTHER VENT.
5. ALL DRAINAGE WASTE AND VENT PIPE SHALL COMPLY WITH TABLE 703.2 CPC.
6. SHOWER AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH MIXING VALVES PER SECTION 408.3 CPC.
7. TOILETS SHALL BE ULTRA-LOW FLUSH TYPE (1.28 G.P.F. MAX.)
8. EACH SHOWERHEAD SHALL NOT EXCEED A WATER FLOW OF 1.8 GPM.
9. KITCHEN SINK FAUCET SHALL NOT EXCEED A WATER FLOW 1.8 GPM.
10. EACH LAVATORY FAUCET SHALL NOT EXCEED A WATER FLOW OF 1.2 GPM.
11. ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
12. COPPER PIPING FOR ALL POTABLE WATER SYSTEMS.

**GENERAL REQUIREMENTS**

1. ALL SURFACE WATER TO DRAIN AWAY FROM BUILDING AND PROPERTY LINE TO ALLEY OR STREET.
2. CONTRACTOR TO COMPLY WITH ALL OSHA REQUIREMENTS.
3. STATE HEALTH & SAFETY CODE SEC. 17921.9 BANS THE USE OF CHLORINATED POLYVINYL CHLORIDE (CPVC) FOR INTERIOR WATER-SUPPLY PIPING.
4. VOC'S ARE TO BE DOCUMENTED FOR ADHESIVES, PAINTS AND COATINGS, CARPET, COMPOSITION WOOD PRODUCTS. DOCUMENTATION TO BE PROVIDED BY PRODUCT CERTIFICATION AND SPECIFICATIONS. CHAIN OF CUSTODY CERTIFICATIONS, OR OTHER MEANS ACCEPTABLE TO THE ENFORCING AGENCY. CGBSC 4.504.2.
5. ALL SHOWER COMPARTMENTS, REGARDLESS OF SHAPE, SHALL BE CAPABLE OF ENCOMPASSING A 30 INCH CIRCLE.
6. PERMANENT VACUUM BREAKERS SHALL BE INCLUDED WITH ALL NEW HOSE BIBS.
7. ALL ABS AND PVC PIPING AND FITTINGS SHALL BE ENCLOSED WITHIN WALLS AND FLOORS COVERED WITH 'TYPE 'X' GYPSUM BOARD OR SIMILAR ASSEMBLIES THAT PROVIDE THE SAME LEVEL OF FIRE PROTECTION. PROTECTION OF MEMBRANE PENETRATIONS IS NOT REQUIRED.
8. SHOWER COMPARTMENTS AND BATHTUBS WITH INSTALLED SHOWER HEADS SHALL BE FINISHED WITH A NON-ABSORBENT SURFACE THAT EXTENDS TO A HEIGHT OF NOT LESS THAN 6-FEET ABOVE FLOOR. (CRC R307.2)



DRAWINGS PROVIDED BY:  
**AZTEC DRAFTING & DESIGN**  
 9119 JAMACHA RD, SUITE 115  
 SPRING VALLEY, CA 91977  
 TEL: 619-414-8508  
 EMAIL: JLD@AZTECDRAFTING.COM

**JUAN MANUEL DIARTE**  
 DETACH ADDITIONAL DWELLING UNIT  
 1523 E 14th St, NATIONAL CITY CA 91950  
 APN: 557-342-09-00  
 UTILITY: SDG&E  
 AJH: NATIONAL CITY

**UTILITY LAYOUT**

REVISION		
0	-	02/14/22
PROJECT NO. <b>P013</b>		
SHEET NO. <b>A-10</b>		

## A. BASIS OF DESIGN

1. THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2019 CALIFORNIA BUILDING CODE (C.B.C.)
2. LIVE LOADS (REDUCED IN ACCORDANCE WITH THE 2019 C.B.C.)

	SLOPED ROOF	40 psf
3. LATERAL LOADS & CRITERIA		
BUILDING SITE CLASS D		
LATITUDE	32.6753	
LONGITUDE	-117.0890	
S <sub>g</sub> 1.127		
S <sub>1</sub>	0.382	
S <sub>DS</sub>	0.788	
S <sub>D1</sub>	0.417	
R	6.50	
D <sub>o</sub>	3.0	
C <sub>d</sub>	4.0	
C <sub>t</sub>	0.02	
X	0.75	

STRUCTURAL SYSTEM:  
BEARING WALLS SYSTEM LIGHT FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE OR STEEL SHEETS.

SOIL PROFILE	Sd
IMPORTANCE FACTOR	1.0
WIND EXPOSURE CATEGORY	C
ROOF ANGLE	15°
BASIC WIND SPEED	110 mph

## B. GENERAL NOTES:

1. THE CONTRACTOR SHALL VERIFY DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING ANY WORK AND NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. COORDINATE ELEVATIONS, SLOPES AND DRAINAGE REQUIREMENTS WITH THE ARCHITECTURAL DRAWINGS.
3. SPECIFIC NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
4. WHERE NO DETAILS ARE SHOWN OR NOTED IN ANY PART OF THE WORK THE DETAILS USED SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
  5. WHEN A DETAIL IS IDENTIFIED AS TYPICAL, THE CONTRACTOR IS TO APPLY THIS DETAIL IN ESTIMATING AND CONSTRUCTION TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE.
6. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER OF ANY SITE CONDITIONS NOT REFLECTED ON THE WORKING DRAWINGS OR DIFFERENT FROM THE MAXIMUM OR MINIMUM DIMENSIONS INDICATED, INCLUDING CONFLICT IN GRADES, ADVERSE SOIL CONDITIONS, GROUND WATER PRESENT, DEEPEMED FOOTINGS, UNCOVERED AND UNEXPECTED UTILITY LINES, ETC.
7. ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
8. MATERIALS AND WORKMANSHIP SHALL CONFORM TO REQUIREMENTS OF THE CURRENT CALIFORNIA BUILDING CODE AS AMENDED BY THE GOVERNING AUTHORITY AND APPLICABLE REGULATIONS OF THE GOVERNING JURISDICTION, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY.
9. DRAWINGS SHALL NOT BE SCALED. COORDINATE DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
10. ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE OF THE LATEST REVISION.
11. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOOR. LOADS SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.

## C. TEMPORARY WORK AND SITE SAFETY:

1. THESE DRAWINGS SHOW THE REQUIREMENTS FOR PERMANENT COMPLETED STRUCTURE ONLY. TEMPORARY WORKS REQUIRED TO COMPLETE THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR DESIGN OR FIELD REVIEW OF TEMPORARY AND ANCILLARY WORK.
2. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND AROUND THE JOBSITE. PROPER AND SAFE METHODS OF CONSTRUCTION SHALL BE USED AT ALL TIMES INCLUDING GUYING AND BRACING OF INCOMPLETE STRUCTURES, FORMWORK, SHORING, RESHORING, FALSEWORK, PLATFORMS, SCAFFOLDING, BARRIERS, WALKWAYS, ETC. AND CONTROL THE INTENSITY, DURATION AND LOCATION OF CONSTRUCTION LOADS UPON CONSTRUCTION.

## L. MACHINE APPLIED NAILING:

1. THE USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOB SITE DEMONSTRATION AND THE APPROVAL OF THE PROJECT ENGINEER. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE.
2. NAIL HEADS SHALL NOT PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER.
3. EDGE DISTANCES SHALL BE MAINTAINED. SHINERS SHALL BE REPLACED. IF NAIL HEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER, OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.
4. MACHINE NAILING WILL NOT BE APPROVED FOR PLYWOOD 5/16" OR LESS IN THICKNESS.

## D. FOUNDATION

1. FOUNDATION DESIGN IS BASED ON THE 2019 CBC.
2. ALLOWABLE BEARING SOIL PRESSURE: 1,500 psf
3. THE MAXIMUM ALLOWABLE SOIL BEARING PRESSURE SHALL BE 1,500 psf. ALLOWABLE BEARING MAY BE INCREASED BY 1/3 FOR WIND AND SEISMIC LOAD CASES.
4. BOTTOM OF FOOTING SHALL BE EMBEDDED AT LEAST 12 INCHES BELOW LOWEST ADJACENT FINISHED (PAD) GRADE.
5. FOOTING DEPTHS SHOWN ARE FOR BIDDING PURPOSES ONLY AND ARE ASSUMED TO BE IN SUITABLE BEARING MATERIALS. FOOTING DEPTHS MAY REQUIRE DEEPENING PER DIRECTION OF THE ENGINEER.
6. ABANDONED FOOTINGS, UTILITIES, ETC. THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
7. THE FOOTING EXCAVATIONS SHALL BE KEPT FREE FROM LOOSE MATERIAL AND STANDING WATER. CONTRACTOR SHALL PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM SURFACE OR SEEPAGE WATER.
8. FOOTING AND UTILITY TRENCH BACKFILL SHALL BE MECHANICALLY COMPACTED IN LAYERS. FLOODING WILL NOT BE PERMITTED.
9. SUBMIT COMPACTION TEST REPORTS FOR ALL FILL BY A QUALIFIED TESTING LAB TO ENGINEER AND BUILDING DEPARTMENT PRIOR TO REQUESTING FOUNDATION INSPECTION.
10. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, UNDERPINNING, AND SHORING REQUIRED TO SAFELY RETAIN ALL GRADES AND STRUCTURES.
11. FOOTING ELEVATIONS SHOULD BE LOCATED SUCH THAT THE BASES OF THE FOUNDATIONS ARE A MINIMAL HORIZONTAL DISTANCE OF SEVEN FEET FROM THE FACE OF SLOPE.
12. SLAB ON GRADE RESTRAINING THE BOTTOM OF RETAINING WALLS SHALL BE IN PLACE PRIOR TO BACKFILLING OF WALLS.
13. WALLS RETAINING EARTH SHALL BE DRAINED TO DAYLIGHT OR DRAINAGE STRUCTURE AND BACKFILLED PER SOIL ENGINEER'S RECOMMENDATION.
14. FOUNDATIONS SUPPORTING WOOD SHALL EXTEND 8" MINIMUM ABOVE ADJACENT FINISH GRADE. PROVIDE 18" CLEARANCE UNDER WOOD JOISTS AND 12" CLEARANCE UNDER WOOD GIRDERS.

## E. REINFORCING STEEL

1. DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS MUST FOLLOW THE A.C.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, A.C.I. 315-LATEST ED. U.O.N.
2. REINFORCING BARS SHALL CONFORM TO THE 2019 CBC AND THE STANDARD SPECIFICATION FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT, ASTM DESIGNATION A-615, GRADE 60, U.O.N.
3. LAPS AT BAR SPLICES SHALL BE: 42 BAR DIA. (18" MIN.) FOR CONCRETE U.O.N. 48 BAR DIA. (24" MIN.)
4. REINFORCING BARS SHALL BE PROVIDED WITH THE FOLLOWING CONCRETE COVER:

CONC. CAST AGAINST EARTH	3"
FORMED CONC. EXPOSED EARTH/WEATHER	
#5 OR LARGER	1-1/2"
#6 OR LARGER	2"
SLABS (#11 AND SMALLER)	1"
5. VERTICAL BARS SHALL BE ACCURATELY POSITIONED AT THE CENTER OF THE WALL, U.O.N. ON DETAILS, AND SHALL BE TIED IN PLACE AT THE TOP AND BOTTOM.
6. PROVIDE #3 SPACER TIES AT 30" (75 mm) ON CENTER IN ALL BEAMS AND FOOTINGS TO SECURE REINFORCING BARS IN PLACE, U.O.N.

## F. REINFORCED CONCRETE (GENERAL)

1. CONCRETE CONSTRUCTION SHALL CONFORM WITH CHAPTER 19 OF THE CODE AND WITH THE PROVISIONS OF ACI 318, LATEST EDITION.
2. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND APPROVED BY THE STRUCTURAL ENGINEER.
3. CEMENT SHALL CONFORM TO ASTM C-150 TYPE I OR II, ALKALI (2019 CBC).
5. READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94.
6. MINIMUM CONCRETE COMPRESSIVE STRENGTHS AT 28 DAYS, MAXIMUM SLUMPS, AND MAXIMUM WATER/CEMENT RATIOS SHALL BE AS FOLLOWS:  
  
\*CONCRETE HAS BEEN DESIGNED FOR 2,500 PSI MAXIMUM WATER CEMENT RATIO = 0.45. NO SPECIAL INSPECTION REQUIRED
7. WATER MAY BE ADDED ON SITE TO OBTAIN SPECIFIED SLUMPS ONLY IF IT IS ADDED WITHIN ONE HOUR OF BATCHING AND SPECIFIED ON THE BATCH REPORT. CONCRETE SHALL NOT BE PLACED BEYOND 1-1/2 HOURS FOLLOWING BATCHING.
8. NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE SLABS UNLESS SPECIFICALLY DETAILED. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT.
9. CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF SEVEN DAYS AFTER ITS PLACEMENT. APPROVED CURING COMPOUNDS MAY BE USED IN LIEU OF MOIST CURING.
10. CONCRETE SLAB-ON-GRADE THICKNESS SHOWN IS MINIMUM REQUIRED THICKNESS. FLOORS SHALL BE MONITORED BY TRANSIT LEVEL OR LASER DURING PLACEMENT TO MAINTAIN LEVEL FLOOR.
11. FLYASH SHALL BE LIMITED TO NO MORE THAN 15 PERCENT OF THE TOTAL WEIGHT OF CEMENTIOUS CONCRETE, U.O.N.
12. CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED.

## STRUCTURAL NOTES

13. PROVIDE 1-#5 x 4'-0" LONG DIAGONAL BAR AT CORNERS OF WALL, FLOOR, AND ROOF OPENINGS AND INSIDE CORNERS OF CONCRETE FLOORS, MAKING 45 DEGREES WITH ANY PARALLEL OR PERPENDICULAR LINE OF OPENING.

14. ALL CONSTRUCTION JOINTS IN STRUCTURAL MEMBERS TO BE REVIEWED FOR LOCATION AND DETAIL PRIOR TO CONSTRUCTION. FLEXURAL REINFORCEMENT TO CONTINUE UNINTERRUPTED THROUGH ALL CONSTRUCTION JOINTS. KEYWAYS TO BE PROVIDED PERPENDICULAR TO THE DIRECTION OF LOAD IN ALL JOINTS.

15. WHEN CONCRETE IS PLACED AGAINST EXISTING CONCRETE SURFACES, EXISTING CONCRETE SURFACES SHALL BE THOROUGHLY CLEANED AND THEN SANDBLASTED TO CREATE AN AMPLITUDE OF 1/4" MINIMUM. APPLY A CONCRETE BONDING ADJACENT TO IMPROVE BONDING QUALITY.

## G. ROUGH CARPENTRY:

1. ROOF SHEATHING SHALL BE APA RATED AND SHALL CONFORM TO PRODUCT STANDARD PS 1, INTERIOR TYPE WITH EXTERIOR GLUE, IDENTIFICATION INDEX (24/0) UNLESS OTHERWISE NOTED. EQUIVALENT THICKNESS O.S.B. BOARD MAY BE USED IN LIEU OF PLYWOOD ROOF SHEATHING.
2. FLOOR SHEATHING, THICKNESS, GRADE, AND NAILING PER STRUCTURAL PLANS. PLYWOOD SHEATHING SHALL CONFORM TO PRODUCT STANDARD PS 1-80, TONGUE AND GROOVE, INTERIOR TYPE WITH EXTERIOR GLUE, IDENTIFICATION INDEX (32/16). O.S.B. BOARD SHALL NOT BE USED IN LIEU OF PLYWOOD FLOOR SHEATHING.
3. SHEATHING SHALL BE LAID PERPENDICULAR TO FRAMING FOR FLOORS AND ROOFS WITH 4" JOINTS STAGGERED AND CENTERED ON JOISTS. ALL OTHER JOINTS AT FLOORS SHALL BE BLOCKED.
4. PLYWOOD FLOOR SHEATHING SHALL BE GLUED TO ALL FRAMING MEMBERS WITH AN A.P.A. APPROVED ADHESIVE.
5. UNLESS OTHERWISE NOTED, ALL FRAMING LUMBER SHALL BE DOUGLAS FIR LARCH, GRADE-MARKED BY THE W.C.L.I.B. OR W.W.P.A. AS FOLLOWS:

2X JOISTS & RAFTERS	NO. 1
4X & LARGER BEAMS	NO. 1
ALL POSTS	NO. 1
STUDS	NO. 2
PLATES	NO. 1
LEDGERS	NO. 1
BLOCKING	NO. 3
PLYWOOD	A.P.A. RATED
O.S.B. BOARD	A.P.A. RATED
6. SILL PLATES SHALL BE TREATED DOUGLAS FIR OR FOUNDATION REDWOOD. EXTERIOR WALL SILL PLATES SHALL BE SECURED TO CONCRETE WITH 5/8" X 10" LONG ANCHOR BOLTS WITH 7" MINIMUM EMBEDMENT INTO CONCRETE AT A MAXIMUM SPACING OF 32" O.C. AND 12" FROM EACH END. PLATE WASHERS A MINIMUM OF 3 INCH BY 3 INCH BY 1/4 OF AN INCH THICK SHALL BE USED ON EACH BOLT. (FOR SPECIAL CONDITIONS, SEE SHEAR WALL SCHEDULE FOR SHEAR WALL ANCHORAGE).
7. DO NOT BORE OR NOTCH JOISTS, RAFTERS, OR BEAMS, EXCEPT WHERE SHOWN IN DETAILS. OBTAIN ENGINEER'S APPROVAL FOR ANY HOLES OR NOTCHES NOT DETAILED.
8. PROVIDE DOUBLE FLOOR JOISTS UNDER PARALLEL PARTITIONS, U.O.N.
9. PROVIDE 1/2 INCH MINIMUM CLEARANCE BETWEEN TOP PLATES OF INTERIOR NON-BEARING PARTITIONS AND THE BOTTOM CHORD OF TRUSSES.
10. NAILS SHALL BE COMMON WIRE. NAILING SHALL COMPLY WITH TABLE 23-II-B-1 OF THE 2016 C.B.C. NAILS EXPOSED TO WEATHER SHALL BE HOT-DIP GALVANIZED, U.O.N.
11. PROVIDE SOLID BLOCKING AT ENDS AND AT SUPPORTS OF FLOOR JOISTS AND ROOF RAFTERS UNDER PARTITIONS AND AT RIDGE LINE.
12. TOP PLATES OF ALL BEARING WOOD STUD WALLS SHALL BE TWO PIECES, SAME SIZE AS STUDS AND LAPPED 4'-0" MINIMUM WITH NOT LESS THAN 10-16d NAILS AT EACH SIDE OF TOP PLATE BREAK POINT SPACED AT 4" O.C. MAXIMUM UNLESS OTHERWISE NOTED.
13. INTERIOR AND EXTERIOR WOOD POSTS ATTACHED DIRECTLY TO CONCRETE SHALL BE SECURED WITH SIMPSON PB OR EPB POST BASES, AS APPLICABLE, UNLESS OTHERWISE NOTED.
14. STUDS SHALL HAVE FULL BEARING ON PLATE, ALL JOISTS, HEADERS, BEAMS, AND RAFTERS SHALL HAVE A MINIMUM SOLID LEVEL BEARING OF 1.5 INCHES AT EACH END.
15. NOT LESS THAN THREE (3) STUDS SHALL BE INSTALLED AT EVERY CORNER OF AN EXTERIOR OR INTERIOR BEARING WALL.
16. BEAMS, JOISTS, RAFTERS, ETC. SHALL BE INSTALLED WITH THE CROWN SIDE UP.
17. BOLT HOLES IN WOOD SHALL BE DRILLED 1/32" TO 1/16" IN DIAMETER LARGER THAN THE NOMINAL BOLT SIZE. RETIGHTEN ALL NUTS PRIOR TO CLOSING IN.
18. LAG BOLTS SHALL BE PRE-DRILLED TO A DIAMETER OF 60 PERCENT OF THE SHANK DIAMETER. THE BOLT SHALL BE TURNED BY A WRENCH AND NOT HAMMERED.
19. BOLTS SHALL HAVE A 7 DIA. MIN. END DISTANCE AND A 4 DIA. EDGE DISTANCE, U.O.N.
20. STANDARD CUT WASHERS SHALL BE USED UNDER ALL BOLT HEADS AND NUTS AGAINST WOOD. USE HEAVY PLATE OR MALLEABLE IRON WASHERS FOR ALL BOLTS DESIGNED TO ACT IN TENSION, SUCH AS LEDGERS AND HOLD DOWN ANCHORS.
21. PROVIDE FIRE BLOCKING OR JOINT BLOCKING BETWEEN STUDS AT NOT LESS THAN 8'-0" VERTICAL INTERVALS AND AT ALL PLYWOOD EDGES.
22. FRAMING ANCHORS, POST CAPS, COLUMN BASES, HANGERS, ETC. SHALL BE MANUFACTURED BY SIMPSON, OR APPROVED EQUAL.
23. PROVIDE 2X MINIMUM BACKING FOR ALL WALL HUNG CABINETS, HANDRAILS, SHELVING, LIGHT FIXTURES, ACCESSORIES, ETC.
24. PRESSURE TREATED DOUGLAS FIR SHALL BE NO. 2 MINIMUM AND BEAR "A.W.P.B." QUALITY MARK AND THE W.C.L.N.G. GRADE STAMP. CERTIFICATES ARE NOT ACCEPTABLE.
25. CUTS AND HOLES IN PRESSURE TREATED LUMBER SHALL BE TREATED PER A.W.P.A. M-84.

## H. PREMANUFACTURED ROOF TRUSSES

1. TRUSS DRAWINGS, CALCULATIONS AND THE LATEST ICBO APPROVED TEST DATA FOR TRUSS METAL PLATE CONNECTORS SHALL BE SUBMITTED TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW PRIOR TO FABRICATION. CALCULATIONS FOR GIRDER TRUSSES SHALL INCLUDE POINT LOADS FROM CARRIED TRUSS REACTIONS.
2. CALCULATIONS AND SHOP DRAWINGS SHALL BE SIGNED BY A CALIFORNIA REGISTERED CIVIL OR STRUCTURAL ENGINEER. IT SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER TO OBTAIN APPROVALS OF FINAL CALCULATIONS AND SHOP DRAWINGS PRIOR TO FABRICATION.
3. TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST LOCAL APPROVED BUILDING CODES AND ORDINANCES FOR ALL LOADS IMPOSED, INCLUDING LATERAL LOADS. FABRICATOR SHALL REVIEW ALL DRAWINGS AND MEET PROFILES AS INDICATED.
4. THE MANUFACTURER SHALL BE RESPONSIBLE FOR THE DESIGN OF MEMBERS USED AS DRAG OR CHORD MEMBERS AND SHALL INSURE THAT SUCH MEMBERS ARE PLACED AS REQUIRED ON THE FRAMING PLANS. THE AMOUNT OF LOAD TO BE LATERALLY TRANSMITTED BY THE MEMBER SHALL BE A MINIMUM OF 2000 POUNDS U.O.N. ON THE FRAMING PLANS.
5. ROOF TRUSS DESIGN LOADS

TOP CHORD	DEAD LOAD	LIVE LOAD
	17 PSF	16 PSF (REDUCIBLE)
BOTTOM CHORD	5 PSF	10 PSF (NON-COINCURENT)

\*DESIGN ROOF TRUSSES TO SUPPORT A 500LB. CONCENTRATED LOAD AT ANY TOP CHORD PANEL.
6. MAXIMUM FLOOR AND ROOF DEFLECTIONS:

LOCATION	MAXIMUM DEFLECTIONS	TOTAL	LOAD
ROOF	L/360	L/240	
7. INCREASES IN ALLOWABLE STRESSES FOR REPETITIVE MEMBERS, ARE NOT PERMISSIBLE.
8. PROVIDE ADEQUATE CAMBER FOR DESIGNATED DESIGN LOADS.
9. TRUSS DESIGNER SHALL OVERSIZE PLATES FOR CHORD MEMBERS TO ACCOUNT FOR WOOD DEFECTS LIKE KNOTS, KNOT HOLES AND GREATLY DISTORTED GRAINS. MAXIMUM ALLOWABLE DEFECT SIZE PER MEMBER SHALL BE 2 SQUARE INCHES. NO DEFECTS ALLOWED UNDER PLATES FOR WEB MEMBERS.
10. TRUSS MANUFACTURER TO VERIFY ALL DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS AND IN FIELD WITH WALL LAYOUT PRIOR TO FABRICATION. PROVIDE SHOP DRAWINGS WHICH SHALL INCLUDE PLAN DRAWING SHOWING TRUSS LOCATIONS AND TRUSS PROFILES, WITH DIMENSIONS REVIEWED AND APPROVED BY GENERAL CONTRACTOR, PRIOR TO FABRICATION.
11. GABLE END TRUSSES SHALL HAVE 2X VERTICALS AT 16" O.C. TYPICAL UNLESS OTHERWISE NOTED.
12. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION AND WILL INCLUDE THE FOLLOWING MINIMUM INFORMATION:
  - a. PROJECT NAME AND LOCATION
  - b. DESIGN LOADS, CONFIGURATIONS, (2 OR 3 POINT BEARING) AND SHEAR TRANSFER.
  - c. MEMBER STRESSES, DEFLECTIONS, TYPE OF JOINT PLATES AND ALLOWABLE DESIGN VALUES. TRUSS JOINTS SHALL BE DESIGNED FOR 125% OF THE DESIGN STRESSES.
  - d. TYPE, SIZE, AND LOCATION OF HANGERS TO BE USED FOR THE PROJECT. HANGERS SHALL BE DESIGNED TO SUPPORT THE FULL VERTICAL LOAD AND A LATERAL LOAD EQUAL TO 20% OF THE VERTICAL REACTION. ALL CONNECTORS SHALL BE ICBO APPROVED AND OF ADEQUATE STRENGTH TO RESIST STRESSES DUE TO THE LOADING INVOLVED.
13. ALL HARDWARE REQUIRED FOR CONNECTING TRUSSES (JACK TO HIP, HIP TO GIRDER OR GIRDER TO GIRDER, ETC.) SHALL BE DESIGNED, DETAILED AND PROVIDED BY TRUSS FABRICATOR.
14. THE TRUSS MANUFACTURER SHALL BE RESPONSIBLE FOR ALL TRUSS TO TRUSS CONNECTIONS. EACH TRUSS SHALL BE LEGIBLY MARKED WITH THE FOLLOWING INFORMATION WITHIN TWO FEET OF THE CENTER OF THE SPAN ON THE FACE OF THE BOTTOM OF THE CHORD:
  1. MANUFACTURER'S NAME
  2. DESIGN LOADS
  3. TRUSS SPACING
15. MULTIPLE CHORDS SHALL BE FACTORY LAMINATED.
16. CROSS BRIDGING AND/OR BRACING SHALL BE PROVIDED FOR, AND DETAILED BY, THE MANUFACTURER AS REQUIRED TO ADEQUATELY BRACE TRUSSES.
17. WHERE TRUSSES BLOCKING IS CALLED OUT, THE BLOCKING PIECE SHALL BE THE SAME DEPTH AS THE ADJOINING MEMBERS AND CAPABLE OF RESISTING A LATERAL LOAD EQUAL TO 500 POUNDS IN ITS PLANE, OR BE SHEATHED SOLID WITH 1/2" CDX PLYWOOD AND NAILED WITH 10d COMMON NAILS AT 6" (EN) U.O.N. ON THE FRAMING PLANS.
18. GENERAL CONTRACTOR TO PROVIDE TEMPORARY ERECTION BRACING AND WEB BRACING AS REQUIRED BY TRUSS MANUFACTURER'S DESIGN.

## SPECIAL INSPECTION

Summary of Special Inspection		
No.	Description of Type of Inspection Required, Location, Remarks, etc.	Design Strength
1	EPOXY ANCHORS FOR CONCRETE (INCLUDING ICC REPORT NUMBER, ESR-2508)	f'c= 2,500 psi

"NOTICE OF THE APPLICANT /OWNER'S AGENT/ARCHITECT OR ENGINEER OF RECORD: BY USING THIS PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION/ INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU AGREE TO COMPLY TO THE REQUIREMENT OF NATIONAL CITY FOR SPECIAL INSPECTION, STRUCTURAL OBSERVATION, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS, CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION AND, AS REQUIRED BY THE CALIFORNIA CONSTRUCTION CODE"

"NOTICE TO THE CONTRACTOR/BUILDER/INSTALLER/SUB-CONTRACTORS/ OWNER-BUILDER, BY USING THIS PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION/INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU ACKNOWLEDGE AND ARE AWARE OF THE REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION. YOU AGREE TO COMPLY WITH REQUIREMENTS OF NATIONAL CITY FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATION, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS, CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION AND, AS REQUIRED BY THE CALIFORNIA CONSTRUCTION CODES.

"THE SPECIAL INSPECTOR MUST BE CERTIFIED BY THE CITY OF NATIONAL CITY, DEVELOPMENT SERVICES, IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION."

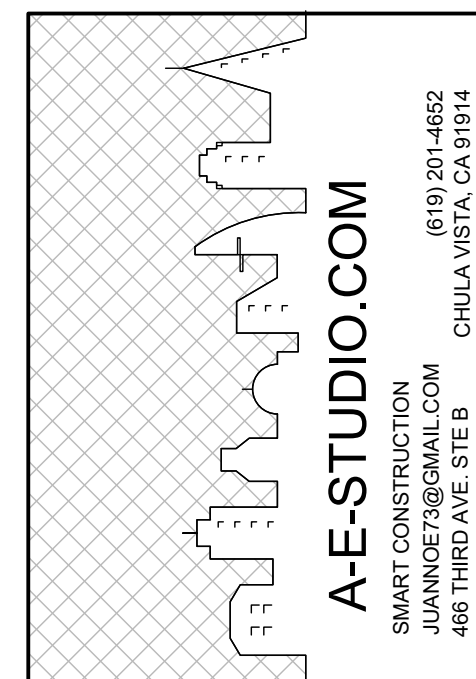
"THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY THE CITY OF NATIONAL CITY, DEVELOPMENT SERVICES, FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS AND EQUIPMENTS."

"FABRICATOR MUST BE APPROVED BY THE CITY OF NATIONAL CITY, DEVELOPMENT SERVICES FOR THE FABRICATION OF MEMBERS AND ASSEMBLIES ON THE PREMISES OF THE FABRICATOR'S SHOP."

"FABRICATOR SHALL SUBMIT AN 'APPLICATION TO PERFORM OFF-SITE FABRICATION' TO THE INSPECTION SERVICES DIVISION FOR APPROVAL PRIOR TO COMMENCEMENT OF FABRICATION."

"FABRICATOR SHALL SUBMIT A 'CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION' TO THE INSPECTION SERVICES DIVISION PRIOR TO ERECTION OF FABRICATED ITEMS AND ASSEMBLIES."

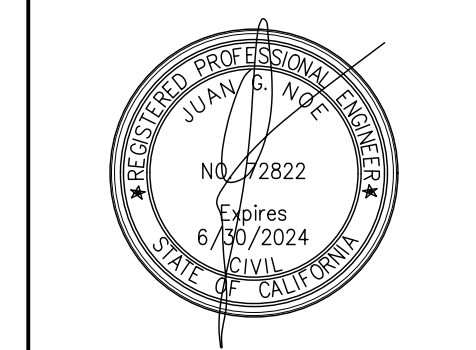
"THE SPECIAL INSPECTIONS IDENTIFIED ON PLANS ARE, IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THOSE INSPECTIONS REQUIRED TO BE PERFORMED BY A CITY'S BUILDING INSPECTOR."



Date February 17, 2023

## REVISIONS

No.	Description

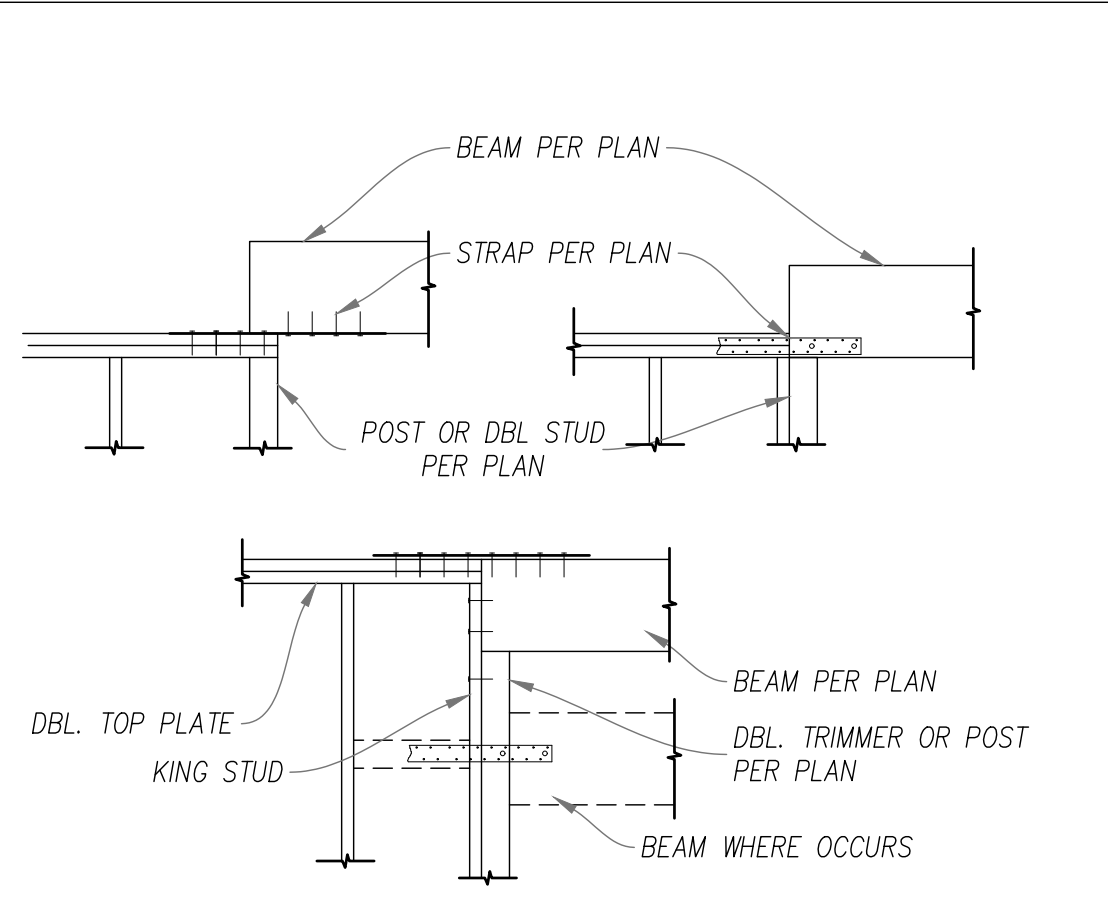


ADDITION & NEW ADU  
1523 E 14th ST, NATIONAL CITY, CALIFORNIA 91950

02-17-2023

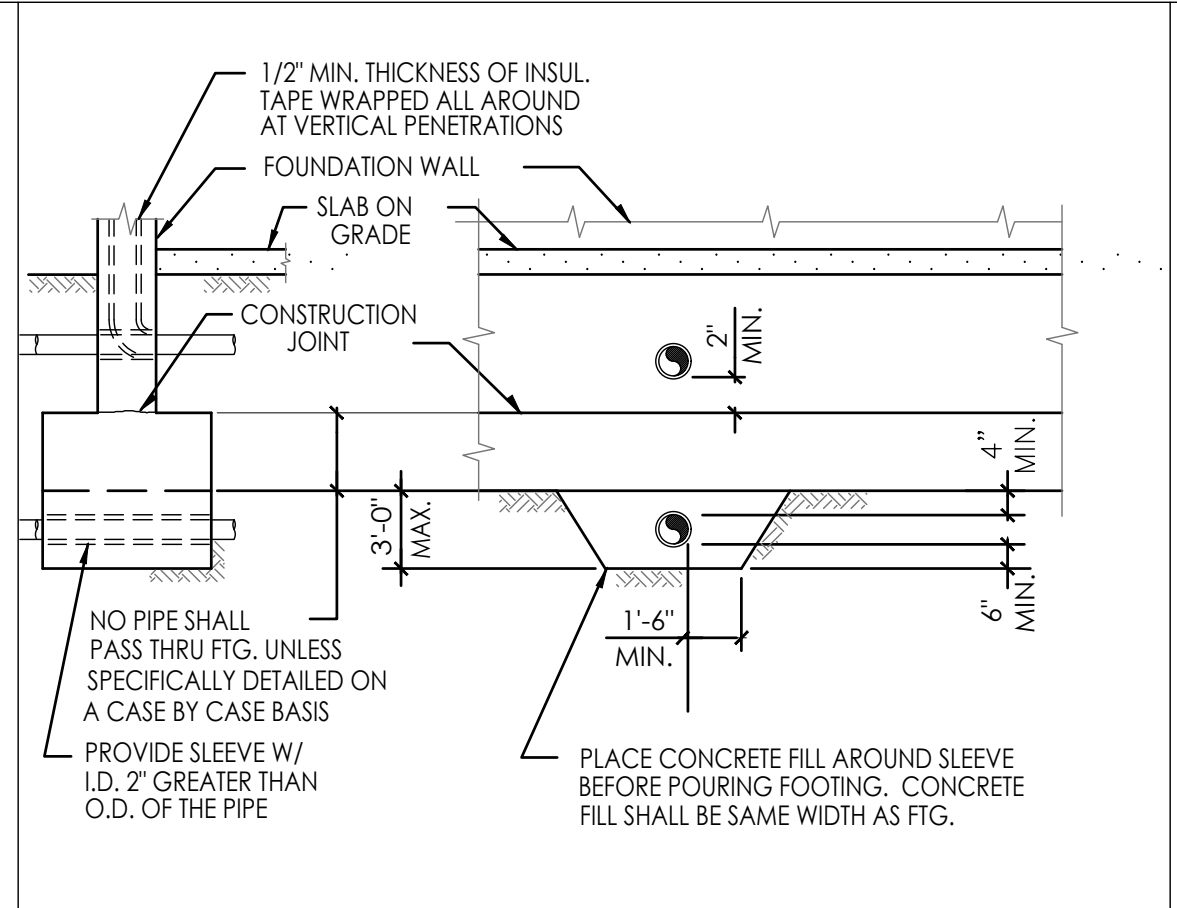
STRUCTURAL NOTES

S1



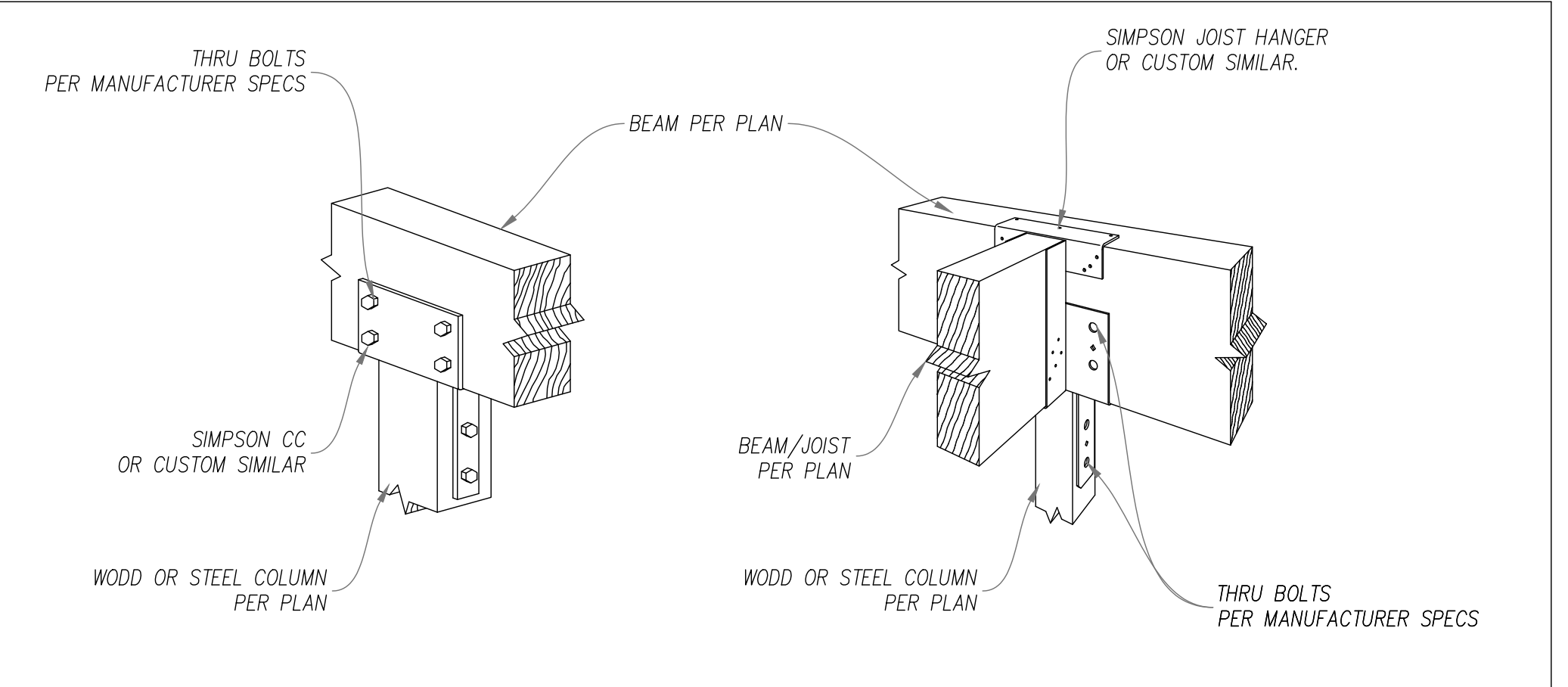
TYPICAL DRAG STRAPS TO BEAMS

10



DETAIL OF PIPE SLEEVE AT CONTINUOUS FOOTING.

6



TYPICAL BEAM TO COLUMN CONNECTORS

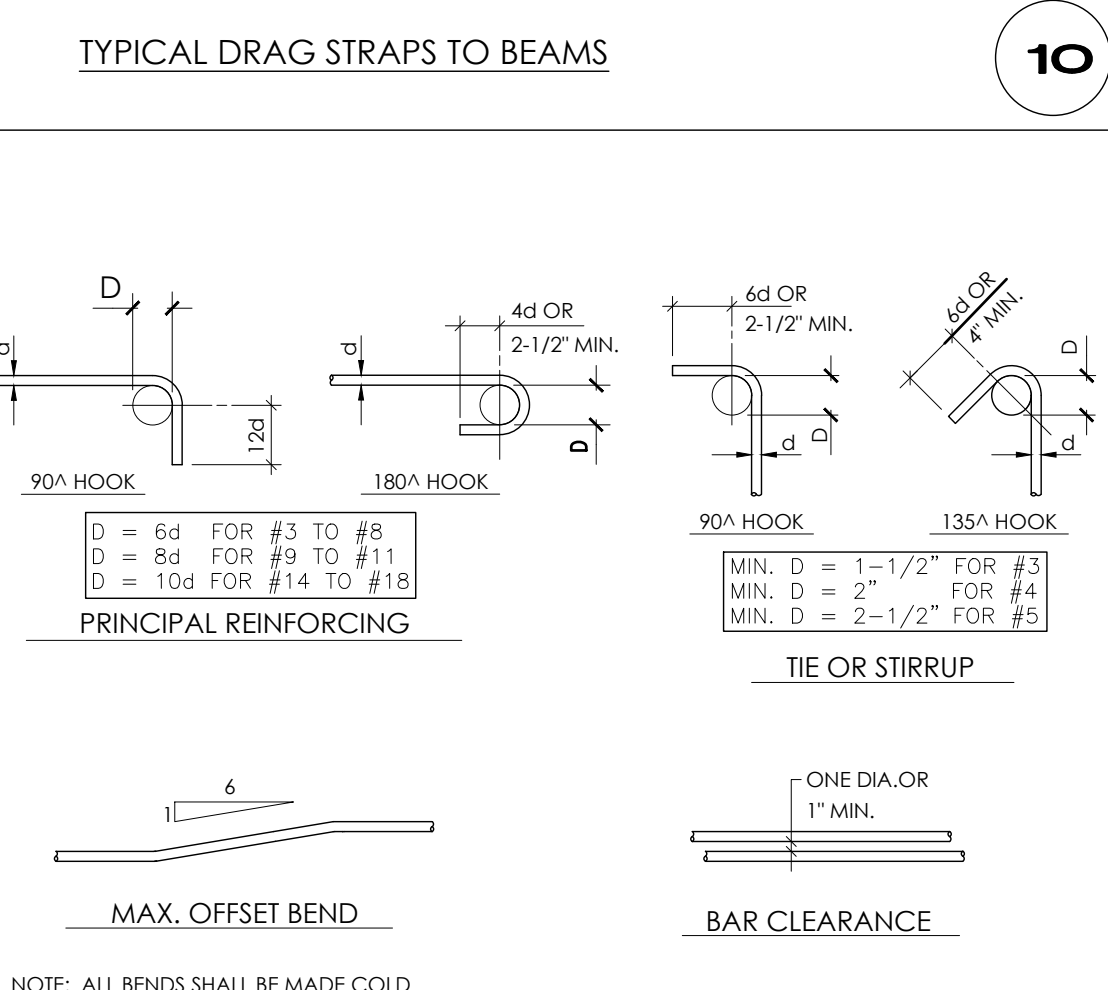
3

TABLE 2304.9.1 FASTENING SCHEDULE

CONNECTION	FASTENING	LOCATION
1. JOIST TO SILL OR GIRDER	3-8d COMMON (3 1/2"x0.131") 3-1" x 0.131" NAILS	TOENAIL
2. BRIDGING TO JOIST	2-8d COMMON (3 1/2"x0.131") 2-1" x 0.131" NAILS	TOENAIL AT EACH END
3. 1"x4" SUBFLOOR OR LESS TO EACH JOIST	3-8d COMMON (3 1/2"x0.131") 3-1" x 0.131" NAILS	FACE NAIL
4. WIDER THAN 1"x4" SUBFLOOR TO EA. JOIST	3-8d COMMON (3 1/2"x0.131") 3-1" x 0.131" NAILS	FACE NAIL
5. SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON (3 1/2"x0.162") 2-1" x 0.131" NAILS	TYPICAL FACE NAIL
6. SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL	16d (3 1/2"x0.131) @ 16" o.c. 1" x 0.131" NAILS @ 8" o.c. 1" x 0.131" NAILS @ 16" o.c. 1" x 0.131" NAILS @ 16" o.c.	TYPICAL FACE NAIL BRACED WALL PANELS
7. TOP PLATE TO STUD	2-16d COMMON (3 1/2"x0.162") 2-1" x 0.131" NAILS	END NAIL
8. STUD TO SOLE PLATE	2-16d (3 1/2"x0.162") 2-1" x 0.131" NAILS	TOENAIL
9. DOUBLE STUDS	16d (3 1/2"x0.131) @ 24" o.c. 1" x 0.131" NAIL @ 8" o.c. 1" x 0.131" NAIL @ 16" o.c.	FACE NAIL
10. DOUBLE TOP PLATES	16d (3 1/2"x0.131) @ 16" o.c. 1" x 0.131" NAIL @ 8" o.c. 1" x 0.131" NAIL @ 16" o.c.	TYPICAL FACE NAIL
DOUBLE TOP PLATES	12-3" x 0.131" NAILS 12-3" x 0.131" NAILS	LAP SPLICE
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3-8d COMMON (3 1/2"x0.131") 3-1" x 0.131" NAILS	TOENAIL
12. RIM JOIST TO TOP PLATE	3-1" x 0.131" NAILS 3-1" x 0.131" NAILS	TOENAIL
13. TOP PLATES, LAPS AND INTERSECTIONS	2-16d (3 1/2"x0.162") 2-1" x 0.131" NAILS	FACE NAIL
14. CONTINUOUS HEADER, TWO PIECES	16d COMMON (3 1/2"x0.162") 3-1" x 0.131" NAILS	16" o.c. ALONG EDGE
15. CEILING JOISTS TO PLATE	3-1" x 0.131" NAILS 3-1" x 0.131" NAILS	TOENAIL
16. CONTINUOUS HEADER TO STUD INTERSECTIONS	4-8d COMMON (2 1/2"x0.131") 4-1" x 0.131" NAILS	TOENAIL
17. CEILING JOISTS, LAPS OVER PARTITIONS (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3-16d (3 1/2"x0.162") MIN. 3-1" x 0.131" NAILS	FACE NAIL
18. CEILING JOISTS TO PARALLEL PARTITIONS (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3-16d (3 1/2"x0.162") MIN. 3-1" x 0.131" NAILS	FACE NAIL
19. RAFTERS TO WALL (SEE SECTION 2308.10.1, TABLE 2308.10.1)	3-8d COMMON (3 1/2"x0.131") 3-1" x 0.131" NAILS	TOENAIL
20. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	2-8d COMMON (2 1/2"x0.131") 2-1" x 0.131" NAILS	FACE NAIL
21. 1" x 8" SHEATHING TO EACH BEARING	3-8d COMMON (2 1/2"x0.131") 3-1" x 0.131" NAILS	FACE NAIL
22. SHEATHING TO EACH BEARING TO EACH BEARING	3-8d COMMON (2 1/2"x0.131") 3-1" x 0.131" NAILS	FACE NAIL
23. BUILT-UP CORNER STUDS	16d COMMON (3 1/2"x0.162") 1" x 0.131" NAILS	24" o.c. 16" o.c. 16" o.c.
24. BUILT-UP GIRDER & BEAMS	16d (4"x0.131) @ 32" o.c. 1" x 0.131" NAIL @ 24" o.c. 1" x 0.131" NAIL @ 24" o.c. 1" x 0.131" NAIL @ 24" o.c.	FACE NAIL AT TOP & BOTTOM STUD ON OPPOSITE SIDES FACE NAIL AT ENDS & AT EACH STUD
25. 2" PLANKS	16d COMMON (3 1/2"x0.162") 1" x 0.131" NAILS	AT EACH BEARING
26. COLLAR TIE TO RAFTER	3-16d COMMON (3 1/2"x0.162") 3-1" x 0.131" NAILS	FACE NAIL
27. JACK RAFTER TO HIP	2-16d COMMON (3 1/2"x0.162") 2-1" x 0.131" NAILS	TOENAIL
28. ROOF RAFTER TO 2-BY-10 FRAMING	2-16d COMMON (3 1/2"x0.162") 2-1" x 0.131" NAIL @ 24" o.c. 1" x 0.131" NAIL @ 24" o.c. 2-16d COMMON (3 1/2"x0.162") 2-1" x 0.131" NAILS	FACE NAIL FACE NAIL
29. JOIST TO BAND JOIST	4-1" x 0.131" NAILS 4-1" x 0.131" NAILS	FACE NAIL
30. LEDGER STRIP	3-16d COMMON (3 1/2"x0.162") 3-1" x 0.131" NAILS	FACE NAIL
31. WOOD STRUCTURAL PANELS & PARTICLE BOARD SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING)	1/2" & LESS 6d-1" 2 3/8"x0.113" NAIL" 1 3/4" 16 GA 19/32" TO 3/4" 6d OR 6d 2 3/8"x0.113" NAILP 7/8" TO 1" 8d 3/4" TO LESS 6d 7/8" TO 1" 8d 1 1/8" TO 1 1/4" 10d OR 8d 1 1/2" & LESS 6d 5/8" 1/2" NO. 11 GA. ROOFING NAIL 6d COMMON NAIL (2"x0.113") NO. 10 GA. ROOFING NAIL (1 1/2"x0.131") NO. 10 GA. STAPLE 1" NO. 10 GA. STAPLE 1"	FACE NAIL
32. PANEL SIDING (TO FRAMING)	1/2" & LESS 6d 1 1/8" TO 1 1/4" 10d OR 8d 1 1/2" & LESS 6d 5/8" 1/2"	FACE NAIL
33. FIBERBOARD SHEATHING	1/2" & LESS 6d 1 1/8" TO 1 1/4" 10d OR 8d 1 1/2" & LESS 6d 5/8" 1/2"	FACE NAIL

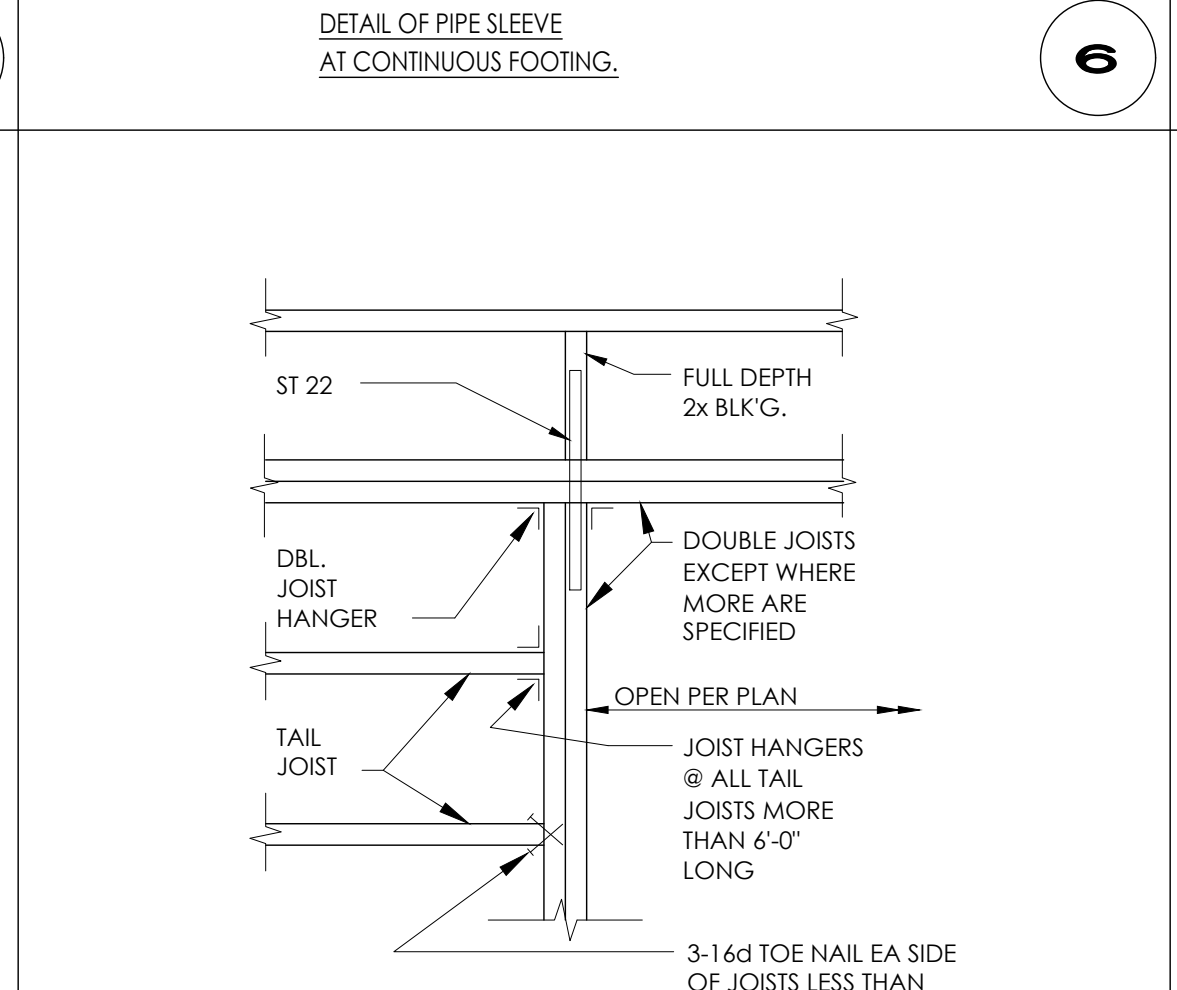
TYPICAL BEAM TO COLUMN CONNECTORS

3



BAR BENDS

11



TYP JOIST SUPPORT AT OPENING

7

SHEAR WALL SCHEDULE

MARKS	SHEATHING MATERIAL (INDEX)	ALLOW. LOAD	MIN. FRAMING WEA. STUDS DBL.TOP	EDG.NAIL (EA.)	FIELD NAIL (EA.)	SILL >	ANCHOR BOLT 7,8,9	SILL NAILING	SIMPSON SCREWS AT BLOCKING	SHEAR TRANSFER WALLING
1	3/8 STRUCT I (240)	276	2x 2x+2x	10d @ 6"	10d @ 12"	2x 5/8"-A.B. x 12" @ 32" O.C.	16d @ 6"	1/4"-5/8" @ 16" x LONG	1/4"-5/8" @ 16" x LONG	A35 @ 16" O.C.
2	1/2 STRUCT I (240)	340	2x 2x+2x	10d @ 6"	10d @ 12"	2x 5/8"-A.B. x 12" @ 32" O.C.	16d @ 6"	1/4"-5/8" @ 16" x LONG	1/4"-5/8" @ 16" x LONG	A35 @ 16" O.C.
3	3/8 STRUCT I (240)	432	3x 2x+2x	10d @ 4"	10d @ 12"	2x 5/8"-A.B. x 12" @ 32" O.C.	20d @ 4" AT 3X	1/4"-5/8" @ 16" x LONG	1/4"-5/8" @ 16" x LONG	A35 @ 12" O.C.
4	3/8 STRUCT I (240)	552	3x 2x+2x	10d @ 3"	10d @ 12"	2x 5/8"-A.B. x 12" @ 32" O.C.	16d @ 3" AT 3X	1/4"-5/8" @ 16" x LONG	1/4"-5/8" @ 16" x LONG	A35 @ 8" O.C.
5	3/8 STRUCT I (240)	732	3x 2x+2x	10d @ 2"	10d @ 12"	3x 5/8"-A.B. x 12" @ 16" O.C.	20d @ 2" AT 3X	1/4"-5/8" @ 16" x LONG	1/4"-5/8" @ 16" x LONG	A35 @ 6" O.C.
6	1/2 STRUCT I (240)	870	3x 2x+2x	10d @ 2"	10d @ 12"	3x 5/8"-A.B. x 12" @ 16" O.C.	20d @ 2" AT 3X	1/4"-5/8" @ 16" x LONG	1/4"-5/8" @ 16" x LONG	A35 @ 6" O.C.
7	3/8 STRUCT I (240)	864	3x	8d @ 4"	8d @ 12"	4x 5/8"-A.B. x 12" @ 16" O.C.	20d @ 2" AT 3X	1/4"-5/8" @ 16" x LONG	1/4"-5/8" @ 16" x LONG	A35 @ 6" O.C.
8	3/8 STRUCT I (240)	1104	4x	8d @ 3"	8d @ 12"	4x 5/8"-A.B. x 12" @ 12" O.C.	20d @ 2" AT 3X	1/4"-5/8" @ 16" x LONG	1/4"-5/8" @ 16" x LONG	A35 @ 6" O.C.

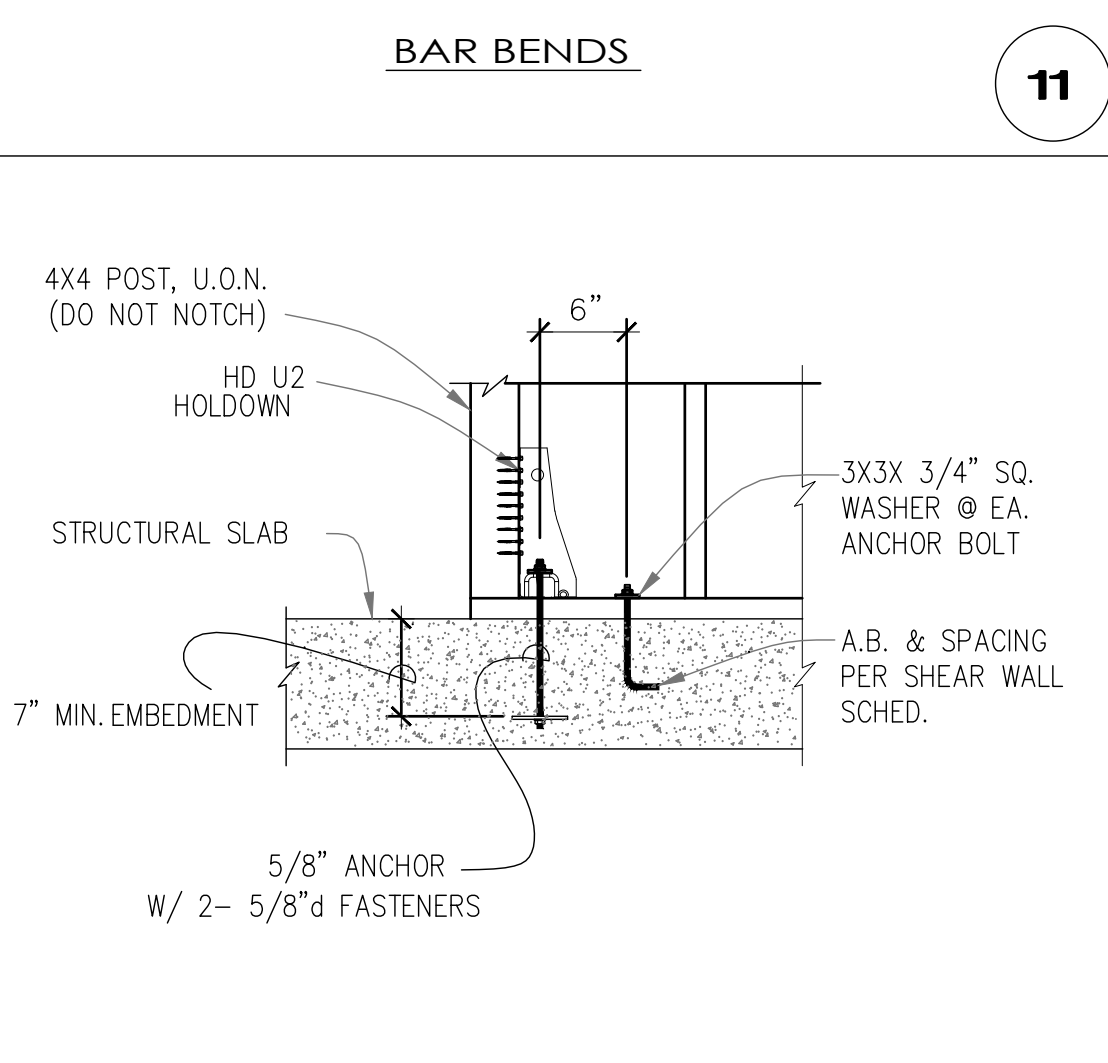
INDICATES HF13x18 1"-HARDY WALL PER ICBO PFC-5342 SEE SHEET H1 FOR MANUFACTURE SPECIFICATIONS

NOTES:

- FIELD NAILS @ 12" o.c. ALL PANEL EDGES BIKED
- ALL NAILING TO BE WITH COMMON NAILS
- 3 ANCHOR BOLTS MIN. PER SHEAR WALL SILL PLATES EXCEPT FOR SHEAR WALLS LESS OR EQUAL THAN 3'-0" PROVIDE 2 A.B. MIN. NOT INCLUDING HD ANCHOR
- PROVIDE 3x BLK.G. 3x STUDS, FOR SHEAR WALL TYPE 3, 2, & 2-4 AT F.W. EDGES, FOR PLYWOOD APPLIED ON TWO SIDES
- WHERE 3x PLATES ARE USED, USE 20d NAILS IN PRE-DRILLED HOLES IN LIEU OF 16d NAILS INDICATED PER SHEAR WALL SCHED.
- PROVIDE 2-1 1/4" TIMBERSTRAND LSL RIM JOIST FOR SILL NAILING LESS THAN 3' OTHERWISE 1" TIMBERSTRAND LSL RIM JOIST U/L/O
- PROVIDE 3x3x0.229 HOT DIPPED GALVANIZED WASHER PLATE AT ALL ANCHOR BOLTS, THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" INCH (4.75 mm) LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 1/2" INCH (44 mm), PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NAIL.

SHEAR WALL SCHEDULE

4



TYP. DIAPHRAGM NAILING

12

TYP. DOUBLE TOP PLATE SPLICE

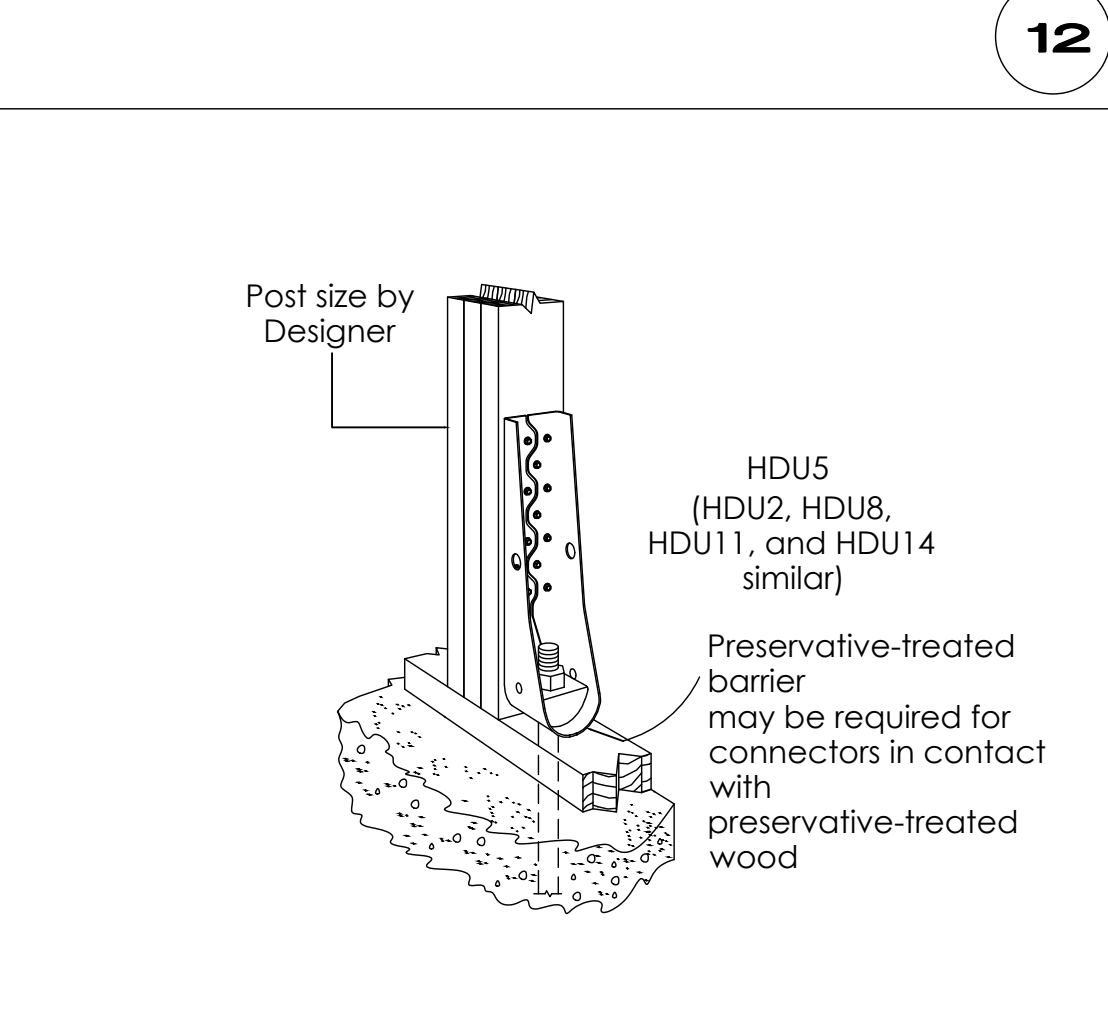
NUMBER OF NAILS OR BOLTS LISTED BELOW SHALL BE USED EACH SIDE OF EACH UPPER & LOWER > JOINT

SPL	NAILING	LOAD(lbs)	SPL (3)	NAILING	LOAD(lbs)	SPL	BOLTING	LOAD(lbs)
A	8-16d	1138	F	20-16d	2846	K	2-5/8" M.B.	1570
B	10-16d	1423	G	24-16d	3414 (1)	L	3-5/8" M.B.	2350
C	12-16d	1707	H	28-16d	3984 (1)	M	2-3/4" M.B.	1889
D	14-16d	1992	I	32-16d	4552 (1)	N	3-3/4" M.B.	2833
E	16-16d	2276	J	36-16d	5122 (1)	O	4-3/4" M.B.	3777

NOTE: MIN. SPLICE 16d @ 12" o.c. U.N.O  
(1) REQUIRES #2 GRADE 2X4 TOP P'S MIN. L  
(2) REQUIRES #1 GRADE 2X4 TOP P'S MIN. L  
(3) REQUIRES GREATER THAN 4'-0" LAP SPLICES

TYP. DOUBLE TOP PLATE SPLICE

5



TYP. HEADER FRAMING

13

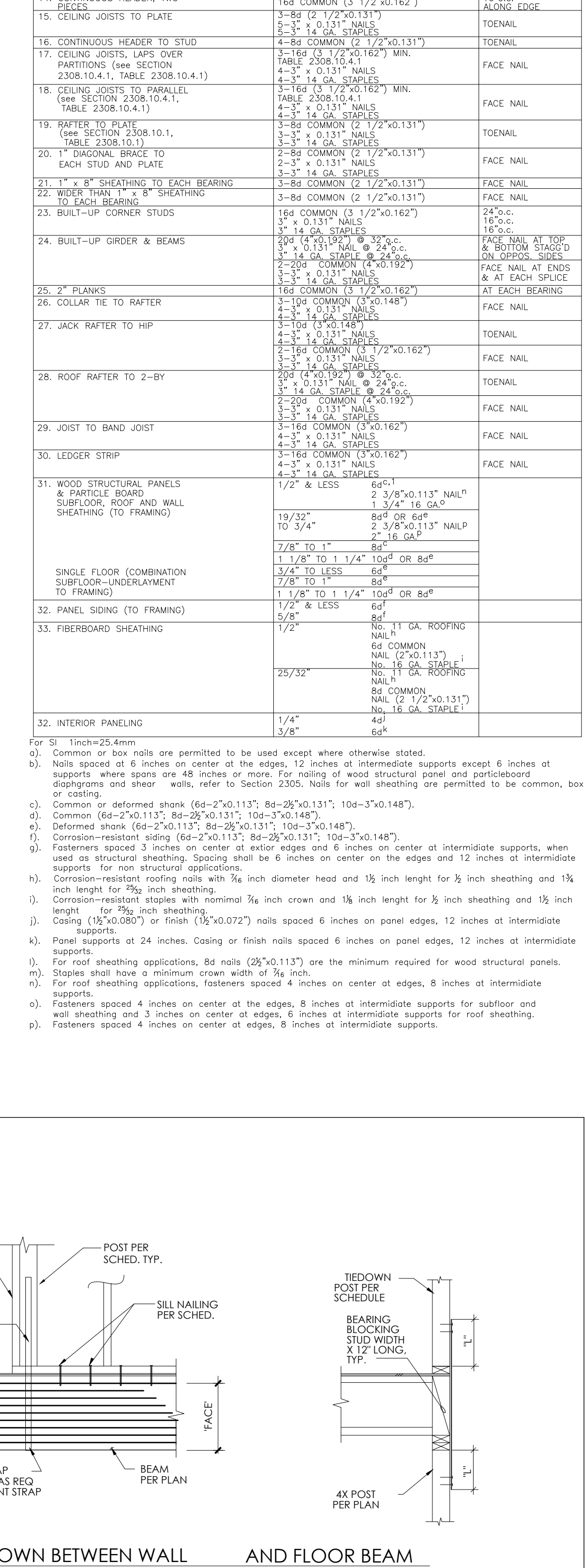
TIEDOWN SCHEDULE

MARK	SIZE	L" MIN.	TIEDOWN ANCHOR	BOLTS TO EA. POST	NAILING TO EACH POST	NAILING TO FACE	HOLDOWN (MIN.)	CAPACITY (LBS)
S-1	MST37	11"	-	-	11-16d	-	4 x 4	2100
S-2	MST48	16"	-	-	17-16d	-	4 x 4	3330
S-3	MSTC48B3	21"	-	-	38-10d	12-10d	4 x 4	3930
S-4	MSTC66B3	21"	-	-	38-10d	14-10d	4 x 4	4440
S-5	MST60	22"	-	-	24-16d	-	4 x 4	4990
S-6	HD-2A	-	5/8"	2-5/8"	-	-	4 x 4	2775
S-7	HD-5A	-	3/4"	2-3/4"	-	-	4 x 4	4010
S-8	HD-6A	-	7/8"	2-7/8"	-	-	4 x 4	5100
S-9	MST72	27"	-	-	28-16d	-	4 x 6	5800
S-10	CMST12	45"	-	-	50-16d	-	4 x 6	9640
S-11	2-MST72	27"	-	-	28-16d EA. STRAP	-	6 x 8	11080
S-12	2-MST60	22"	-	-	24-16d EA. STRAP	-	6 x 8	9930

NOTE:  
1. DBL MST72 SHALL BE INSTALLED SIDE BY SIDE WITH A 3/8" GAP BETWEEN THEM.

TIEDOWN SCHEDULE

2



TIE-DOWN BETWEEN WALL AND FLOOR BEAM

2

A-E-STUDIO.COM  
SMART CONSTRUCTION  
JUANNE23@GMAIL.COM  
(619) 201-4652  
466 THIRD AVE STE B  
CHULA VISTA, CA 91914

Date February 17, 2023

REVISIONS

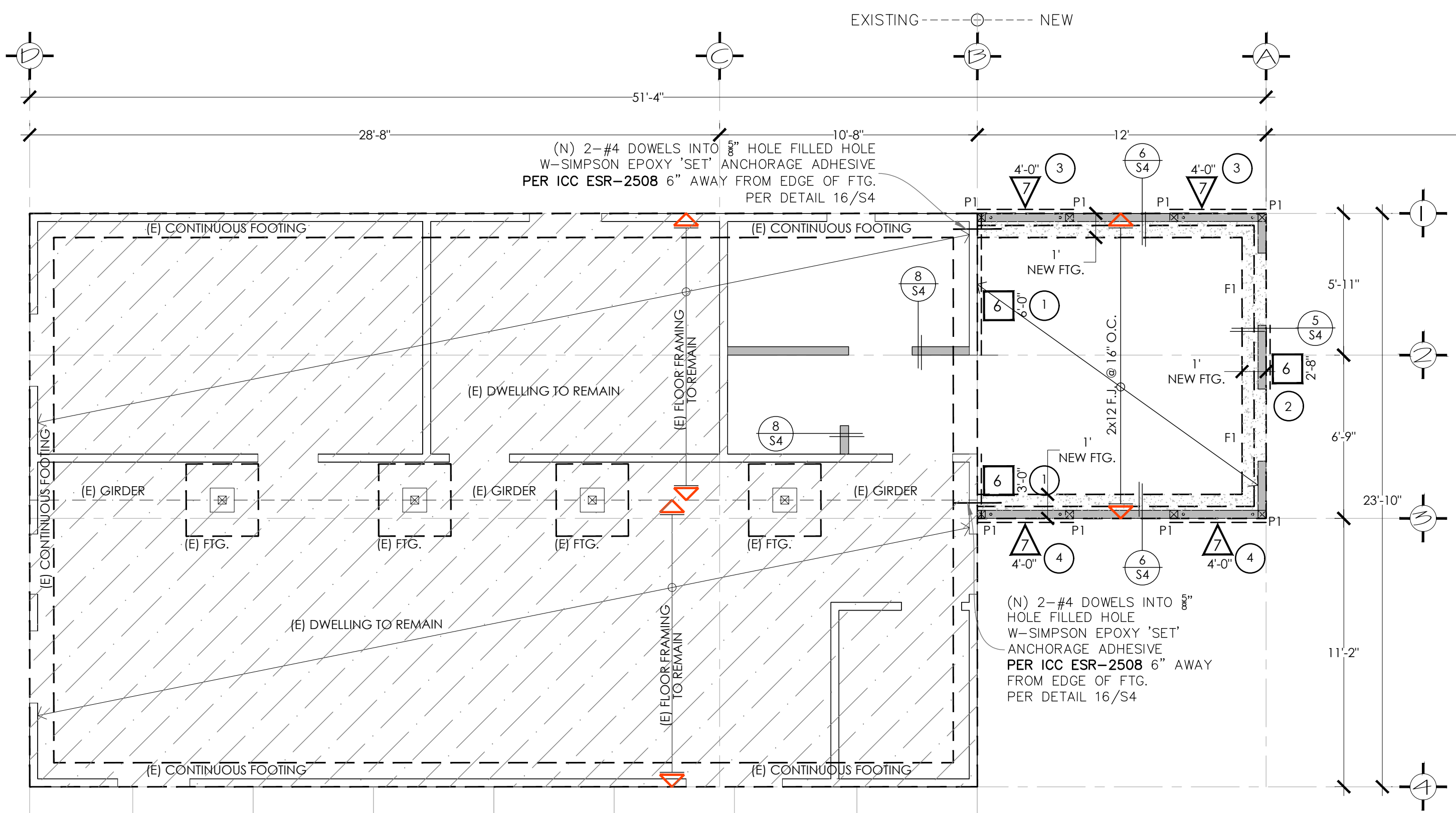
REGISTERED PROFESSIONAL ARCHITECT  
NO. 72822  
JAMES  
6/10/2024  
STATE OF CALIFORNIA

ADDITION & NEW ADU  
1523 E 14th ST, NATIONAL CITY, CALIFORNIA 91950

02-17-2023

TYPICAL DETAILS

S1.1

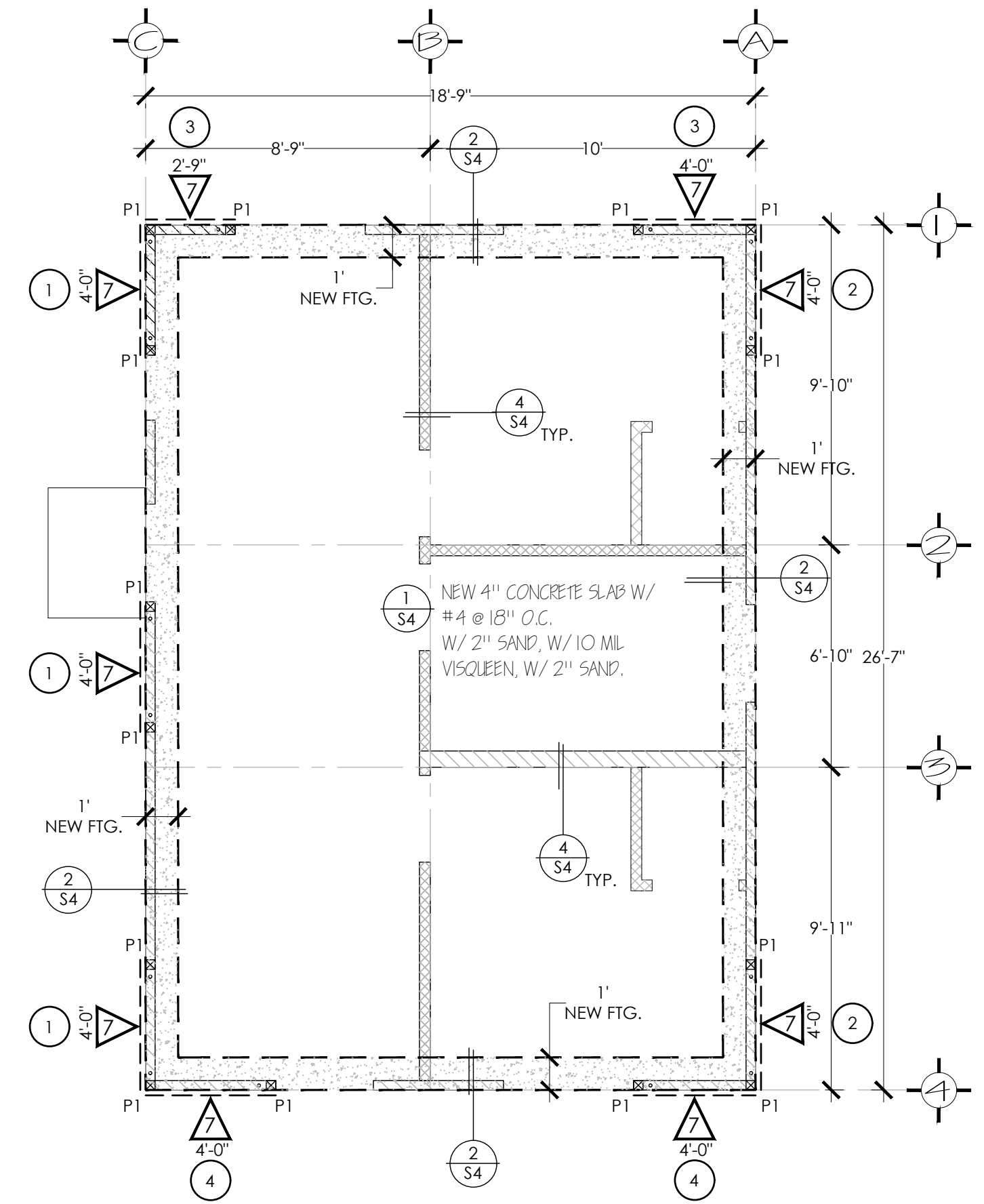


KEY LEGEND	
CONT. FIG.	12" X 18" 2 #4 T. & B.
F1	24" X 48" X 12" #4 @ 12" O.C. E.W.
P1	4" X 4" WOOD POST W/HDU2

ALL BEAM TO COLUMN CONNECTIONS SHALL USE SIMPSON COLUMN CAPS CONNECTORS OR CUSTOM SIMILAR, PER DETAIL 3/S1.1

WALLS LEGEND	
	PROPOSED WOOD-FRAMED WALLS USING 2X4 STUDS @ 16" O.C. MAX. 8'-0" HIGH PER CRC SECTION R602.3.1
	EXISTING WOOD-FRAMED WALLS TO REMAIN THE SAME.

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



FOUNDATION PLAN ADU  
SCALE: 1/4" = 1'-0"

FOUNDATION NOTES:

- REFER TO SHEETS S1 FOR GENERAL NOTES & STANDARD DETAILS. THESE NOTES & DETAILS SHALL BE USED WHERE APPLICABLE WHETHER SPECIFICALLY REFERENCED OR NOT.
- REFER TO ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
  - ALL DIMENSIONS NOT SHOWN.
  - ALL OPENINGS NOT SHOWN.
  - ALL NON-BEARING WALL NOT SHOWN.
- EXTERIOR WALLS ARE 2x4 AT 16" O.C AND 2x6's @ 16" O.C. AT STAIRS
- a) THE STRUCTURE WILL BE LOCATED ON NATIVE/UNDISTURBED

SOIL SIGNATURE \_\_\_\_\_ LICENSED ENGINEER

b) IF THE BUILDING INSPECTOR SUSPECTS FILL, EXPANSIVE SOIL OR ANY GEOLOGIC INSTABILITY BASED UPON OBSERVATION OF THE FOUNDATION EXCAVATION, A SOILS OR GEOLOGICAL REPORT, AND RESUBMIT OF PLANS TO PLAN CHECK TO VERIFY THAT THE REPORT RECOMMENDATIONS HAVE BEEN INCORPORATED, MAY BE REQUIRED.

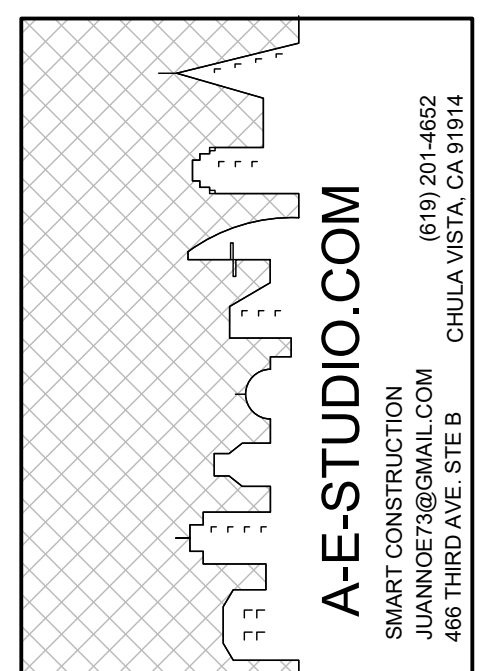
5. PROVIDE A MIN. OF 2 BOLTS PER PIECE OF SILL OR WOOD PLATE. ONE BOLT SHALL BE LOCATED NOT MORE THAN 12" OR LESS THAN 7 BOLT DIAMETER FROM EA. END OF THE PIECE OF SILL OR WOOD PLATES. BOLTS SHALL BE INSTALLED W/ PROPERLY TIGHTENED NUTS & WASHERS

6. PROVIDE STEEL WASHERS OF MIN. 3" X 3" X 1/4" THICKNESS AT EACH WOOD PLATE OR SILL BOLT.

7. SHEAR-WALL PER SCHEDULE ON S1.1 SHEET

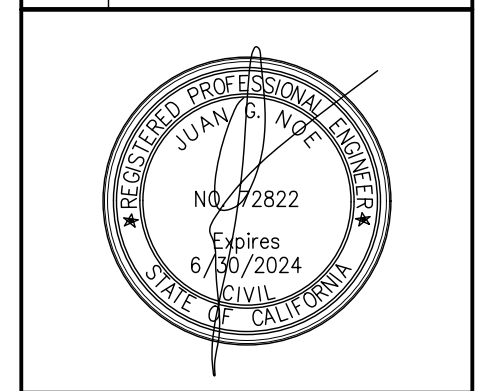
\* ANY DIFFERENCES BETWEEN PLANS AND REAL DIMENSIONS OR MATERIALS SHALL BE REPORTED IMMEDIATELY TO THE STRUCTURAL ENGINEER.

FASTENERS IN PRESERVATIVE-TREATED WOOD AND FIRE-RETARDANT WOOD SHALL BE HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.



Date February 17, 2023

REVISIONS	
△	
△	
△	
△	
△	



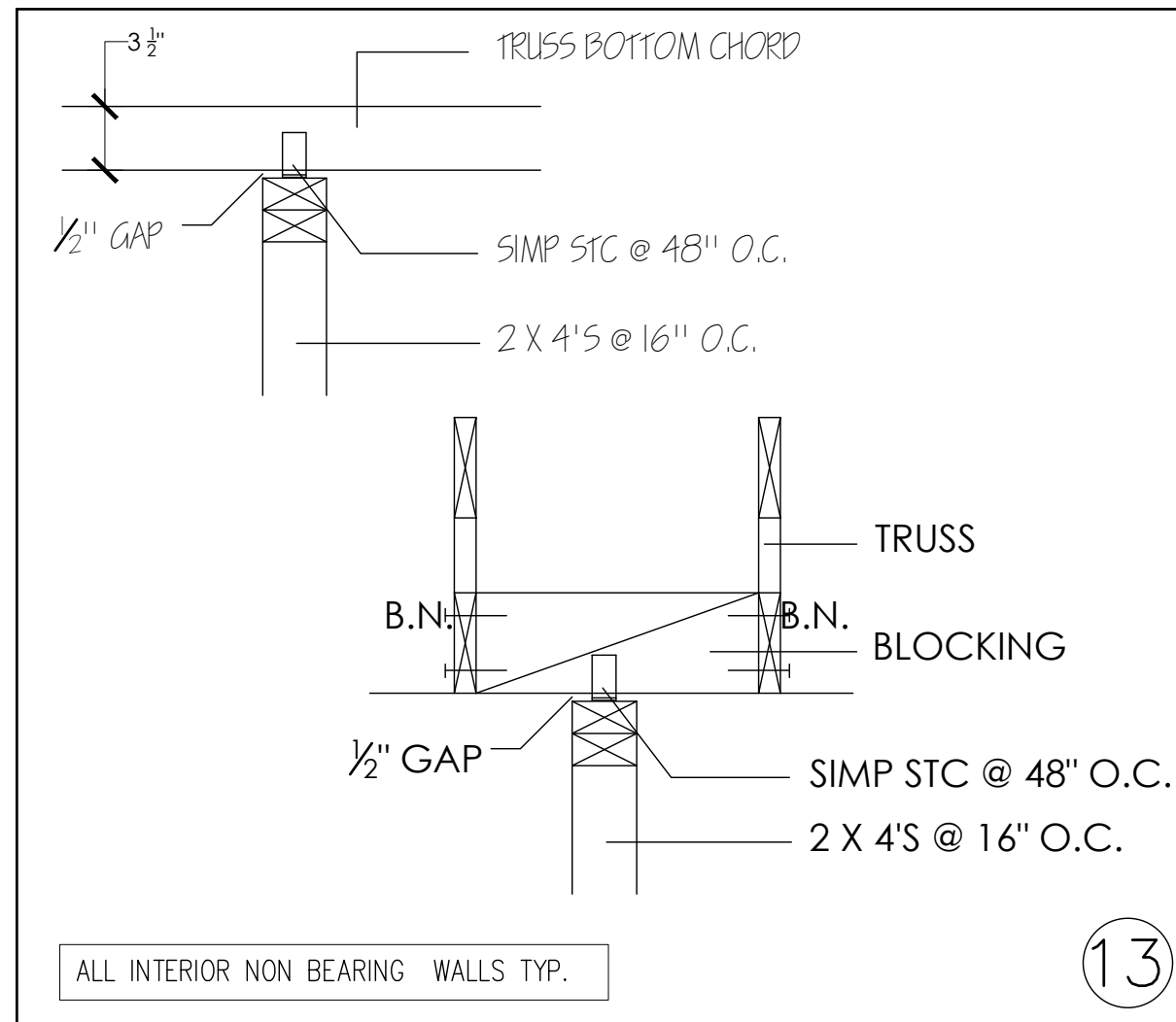
ADDITION & NEW ADU  
1523 E 14th ST, NATIONAL CITY, CALIFORNIA 91950

02-17-2023

FOUNDATION PLAN

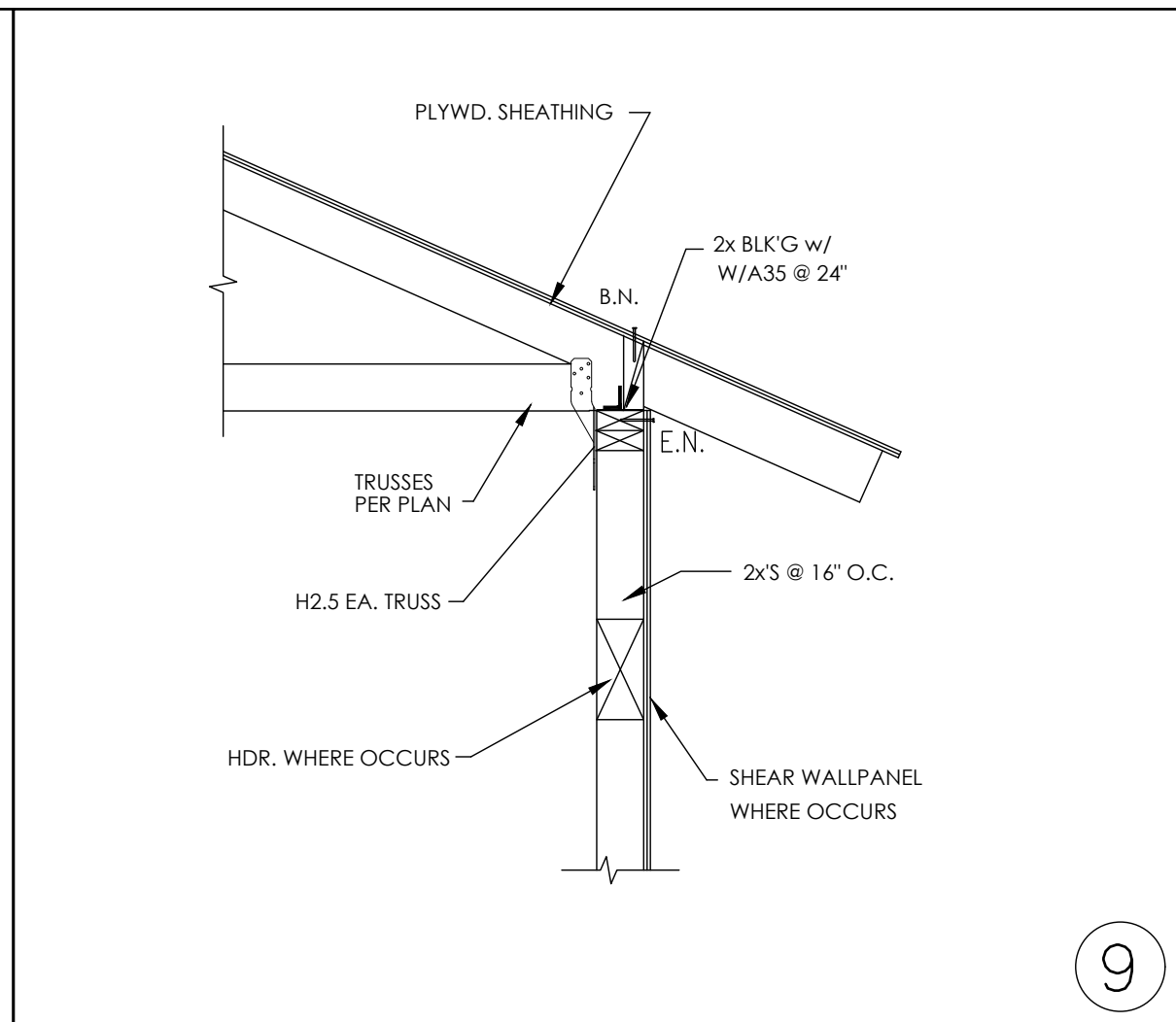
S2



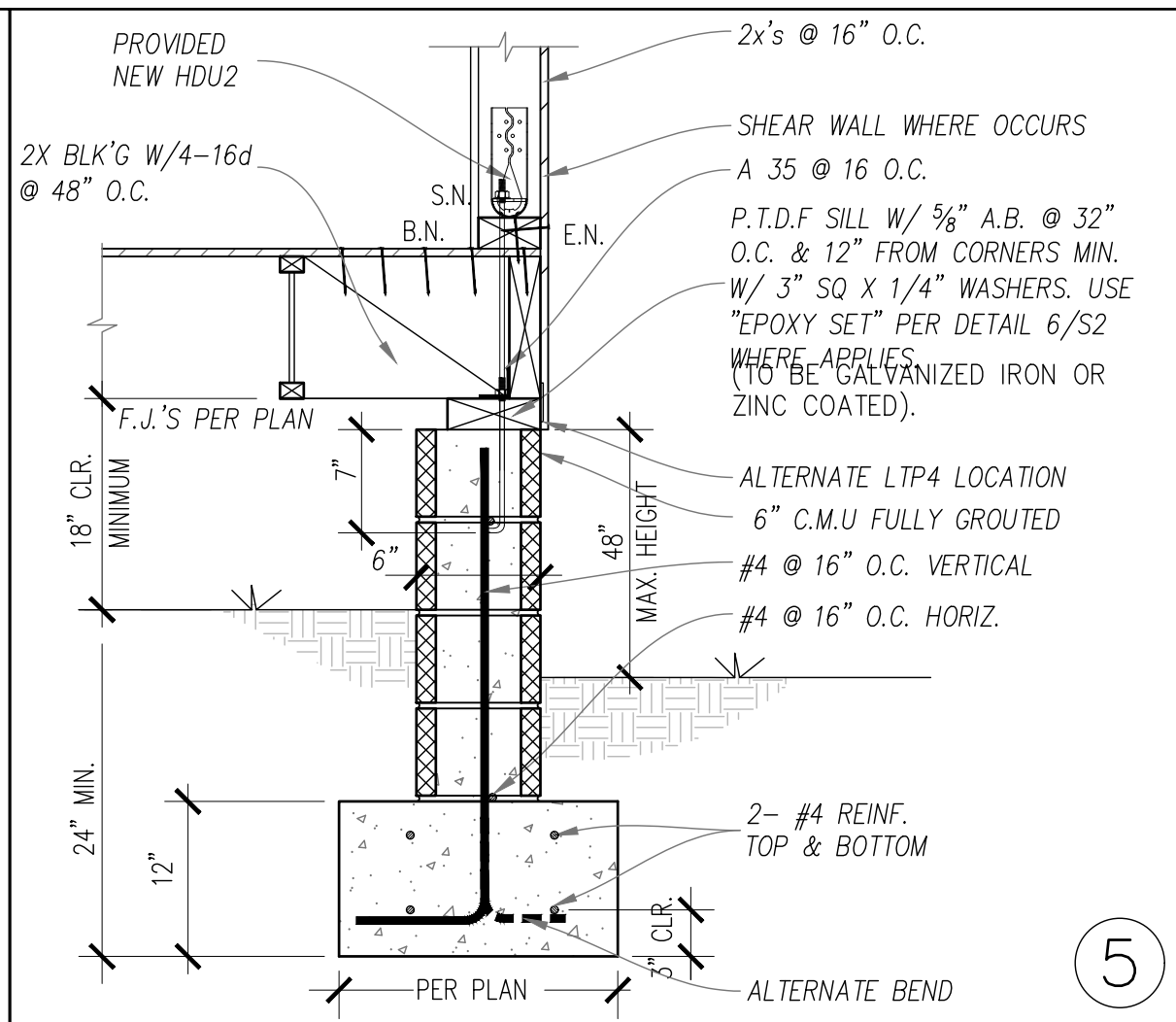


ALL INTERIOR NON BEARING WALLS TYP.

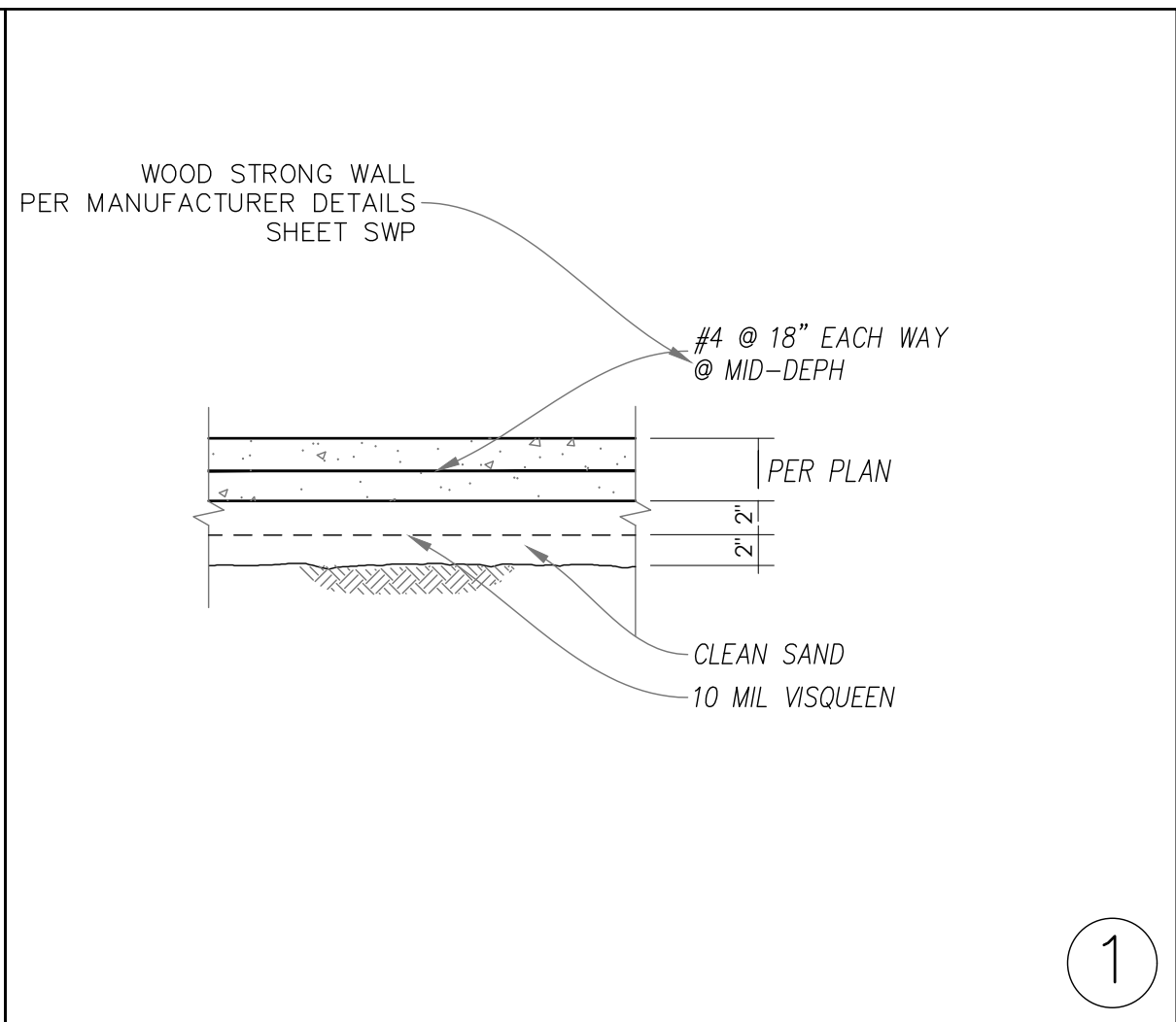
13



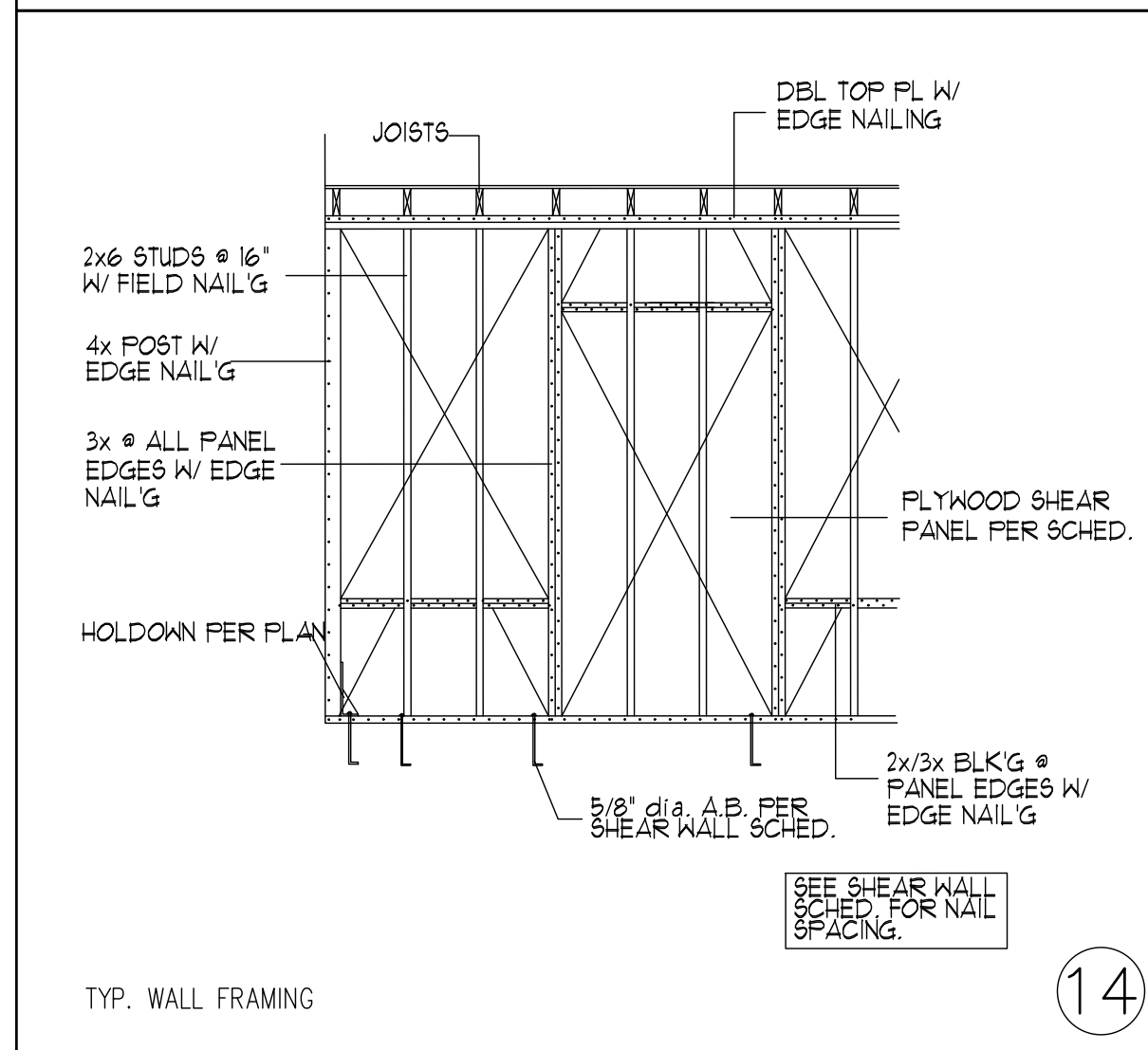
9



5

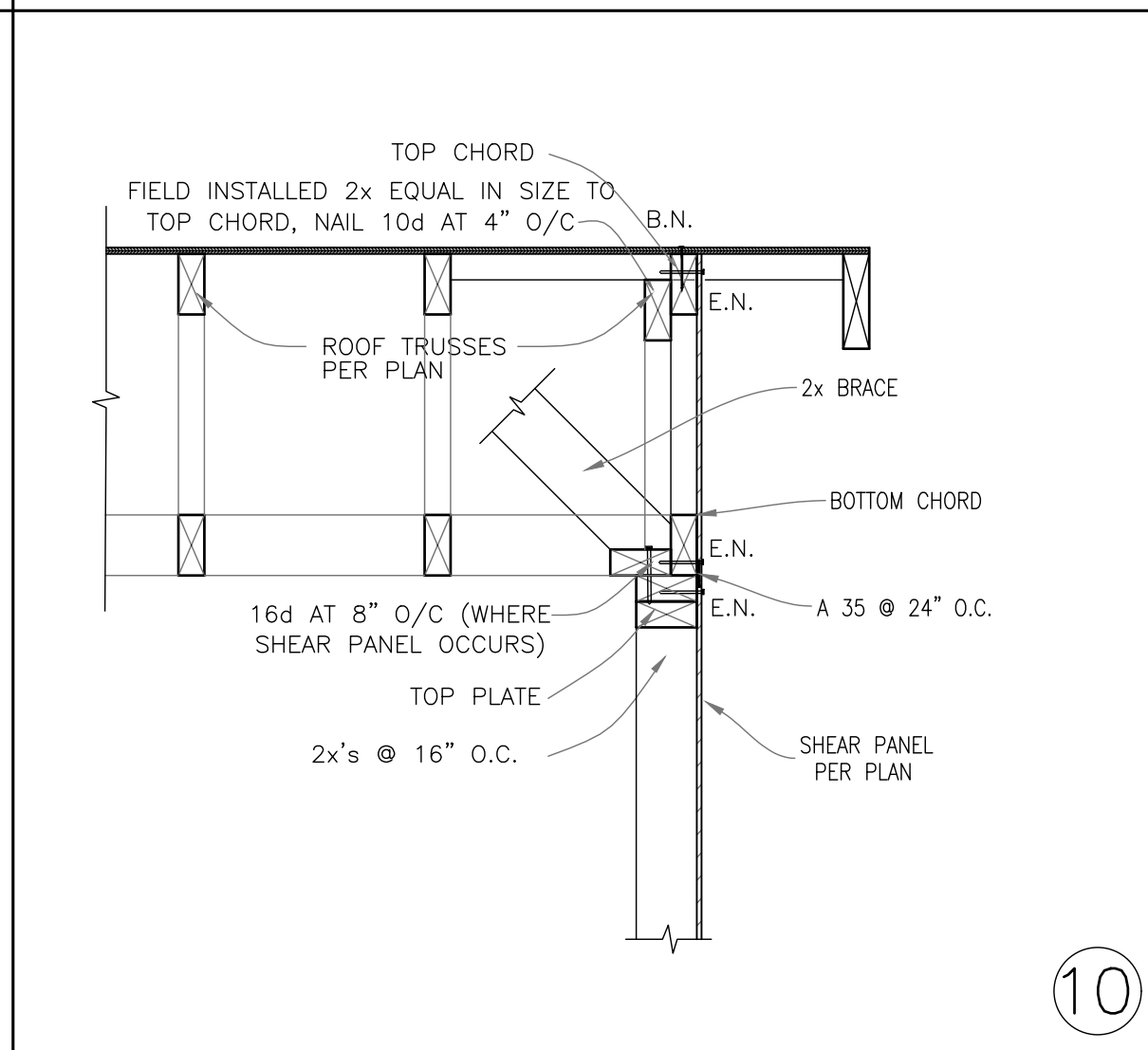


1

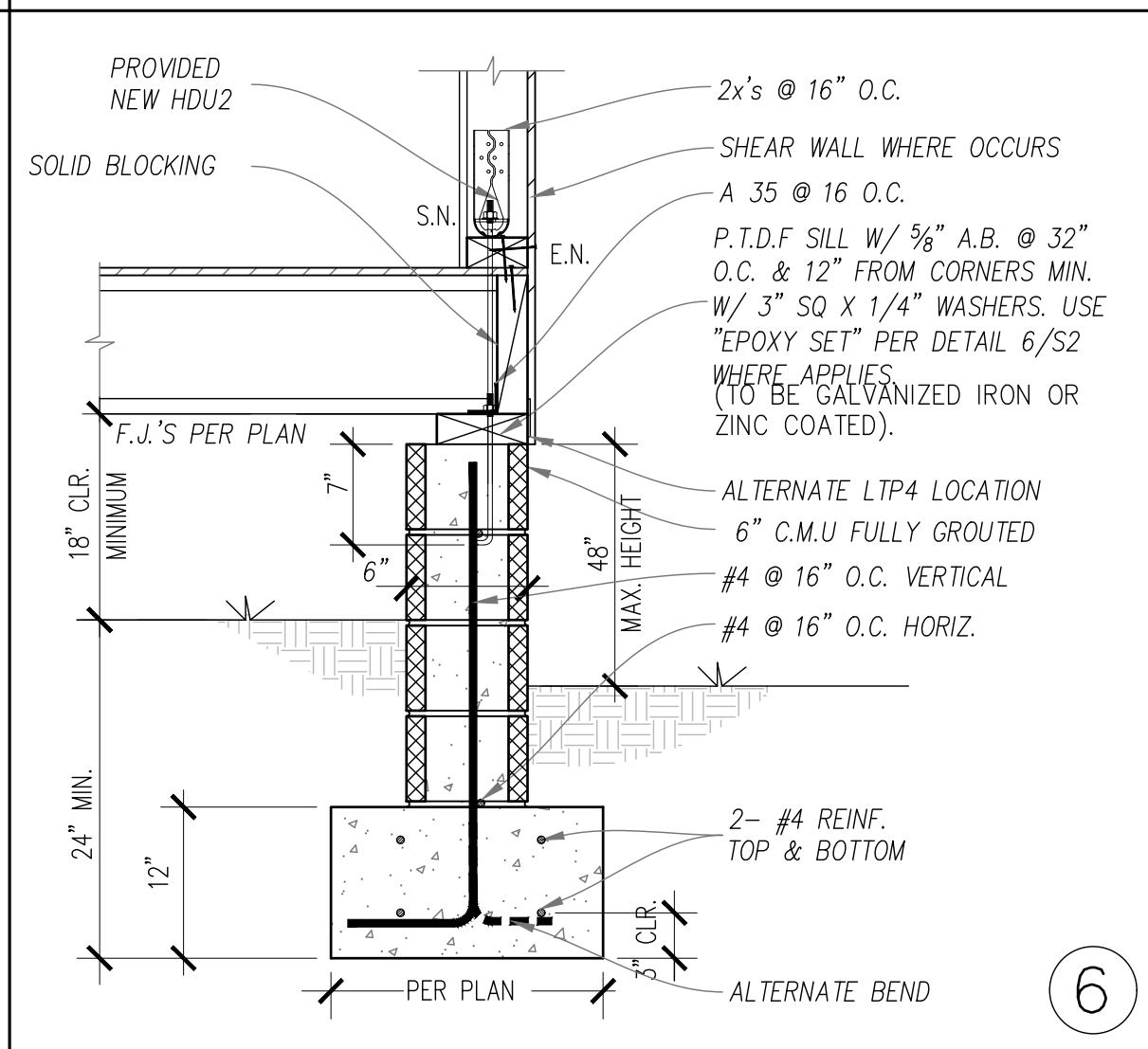


TYP. WALL FRAMING

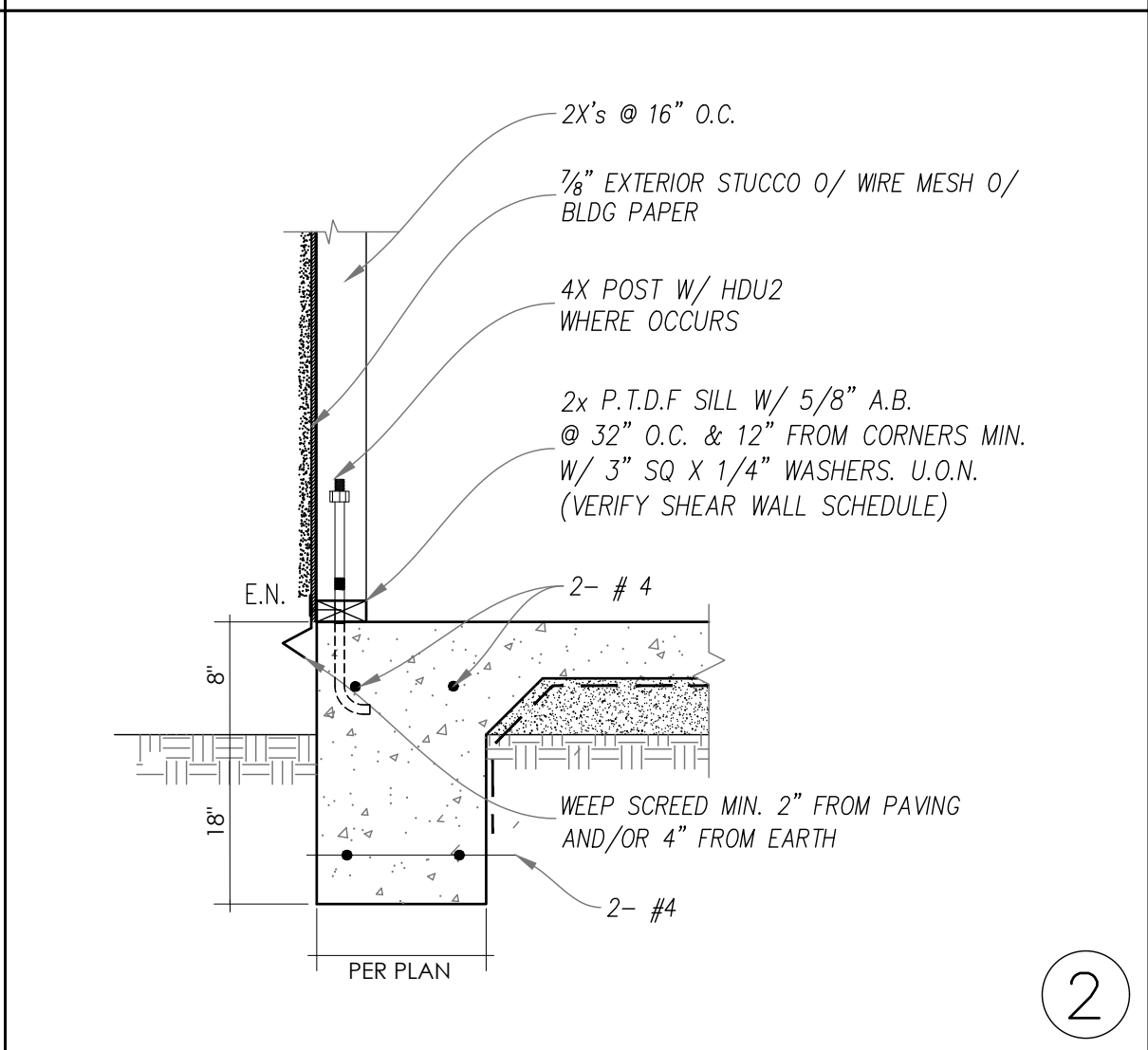
14



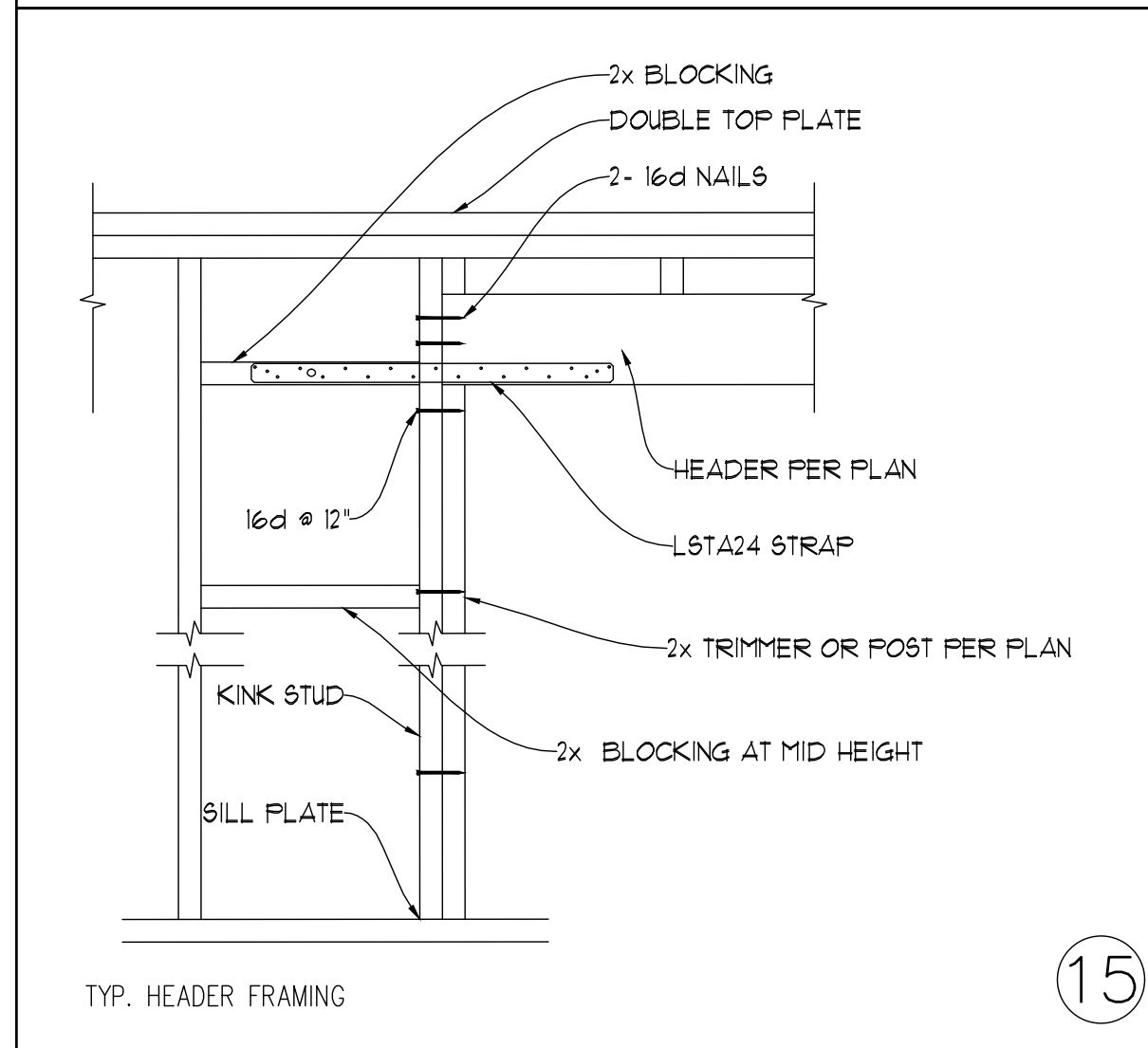
10



6

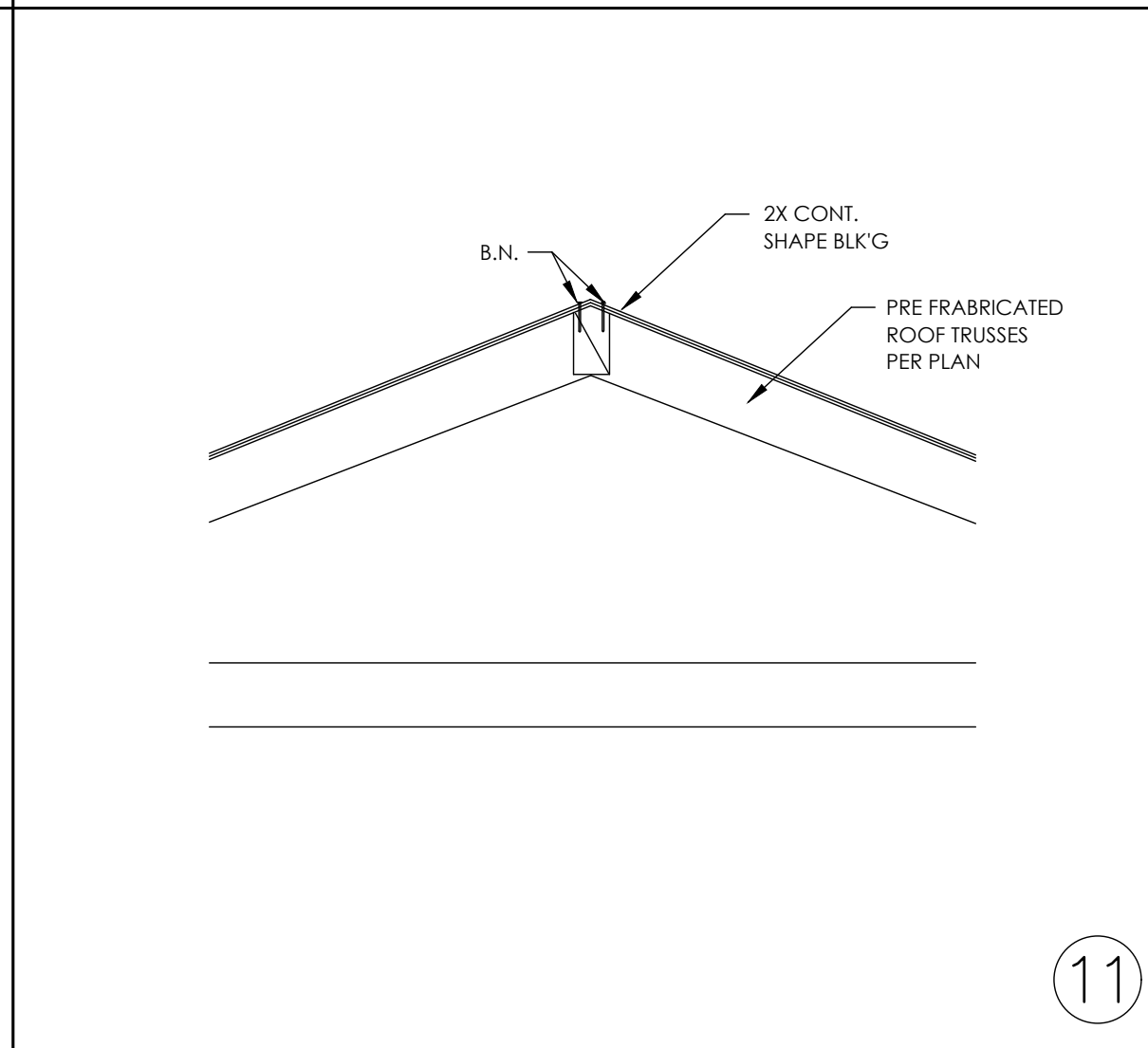


2

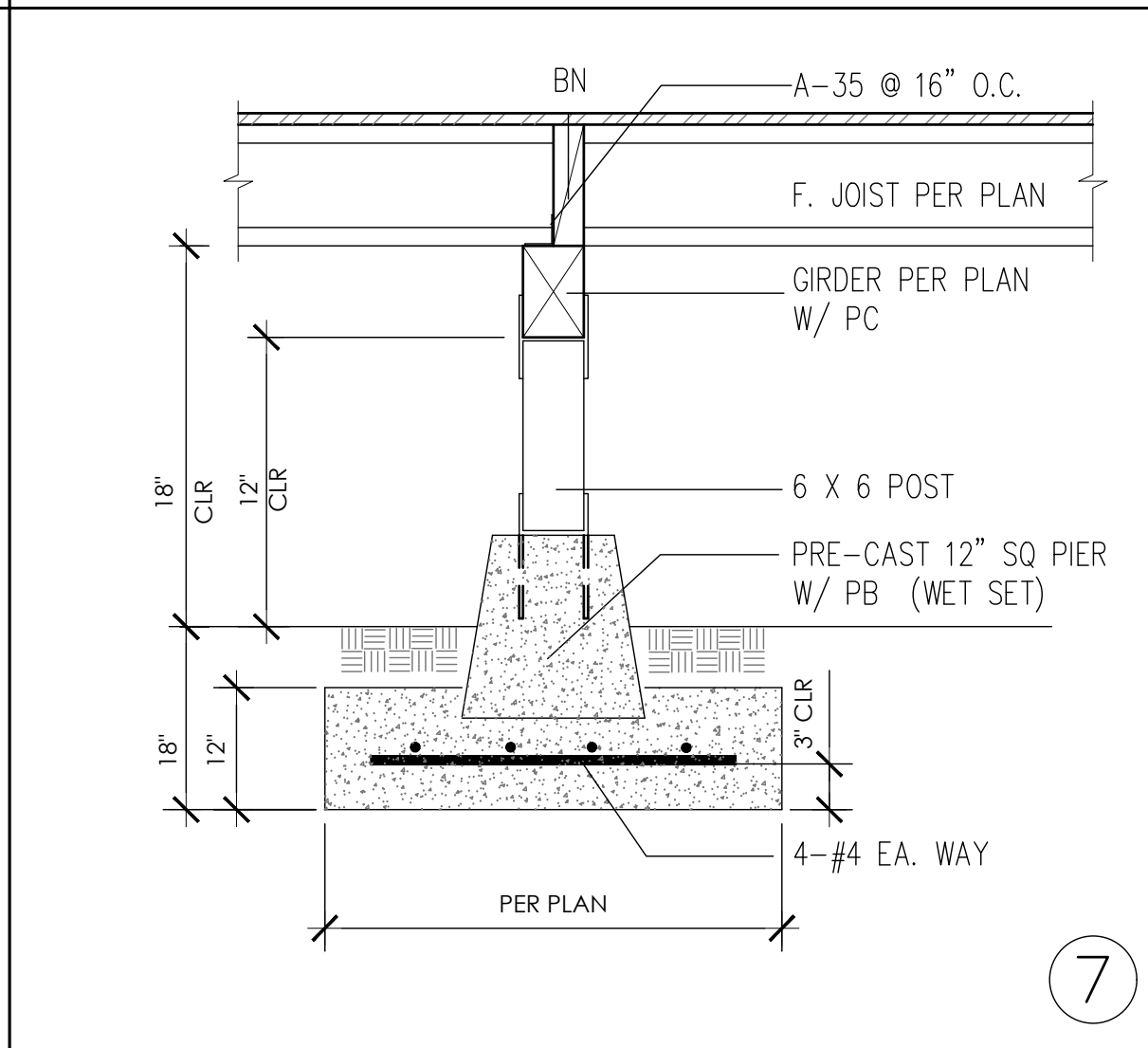


TYP. HEADER FRAMING

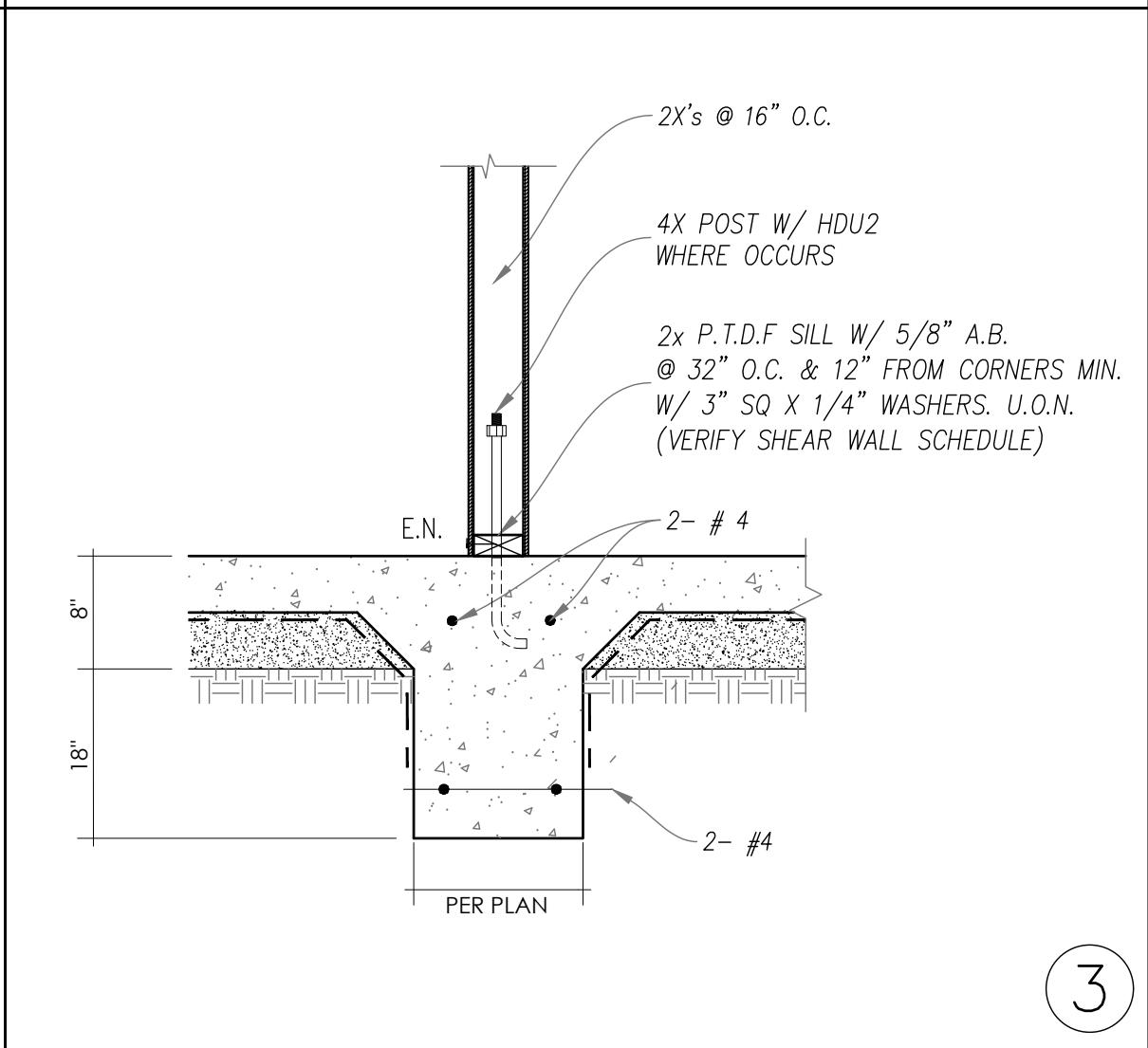
15



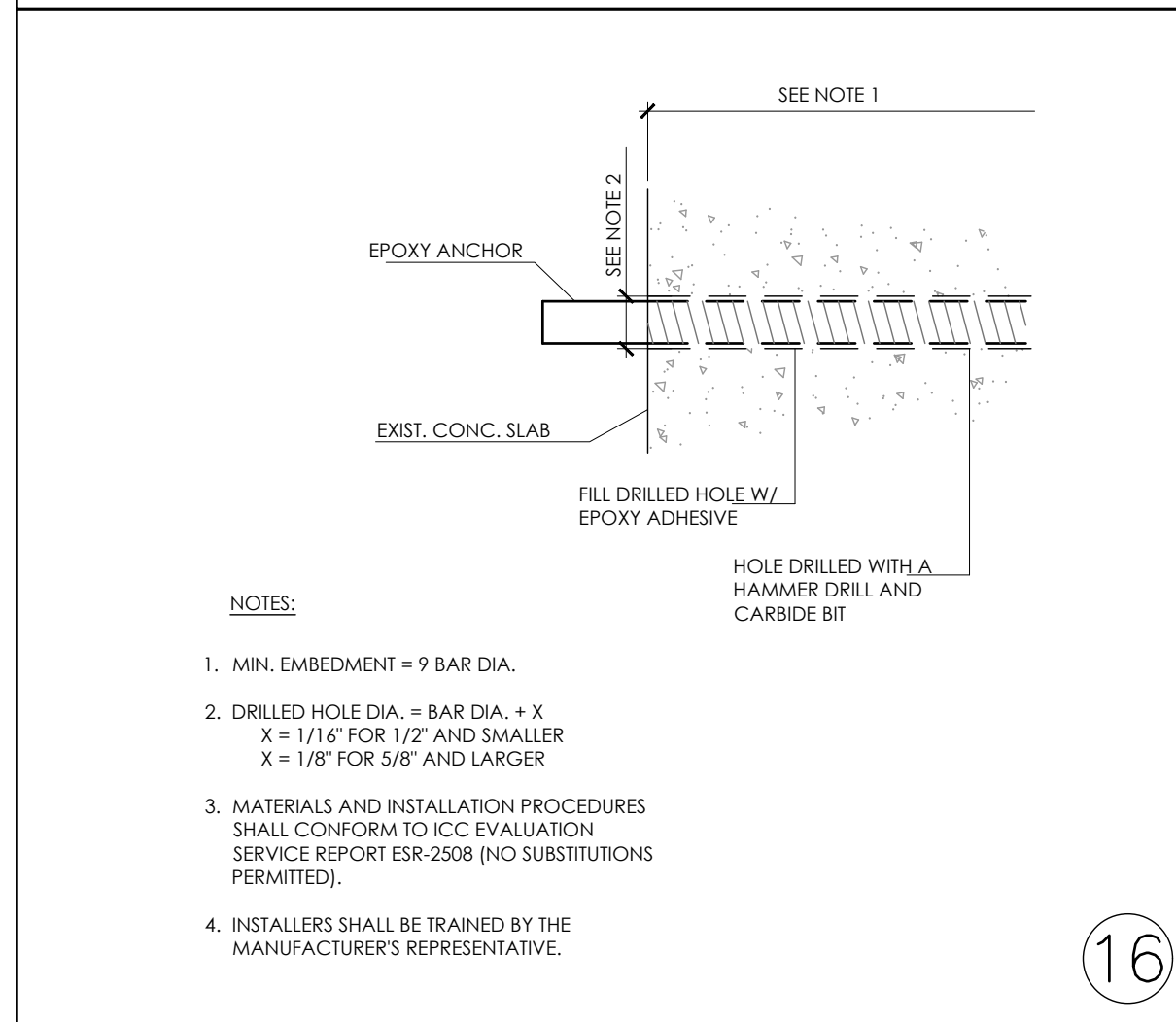
11



7



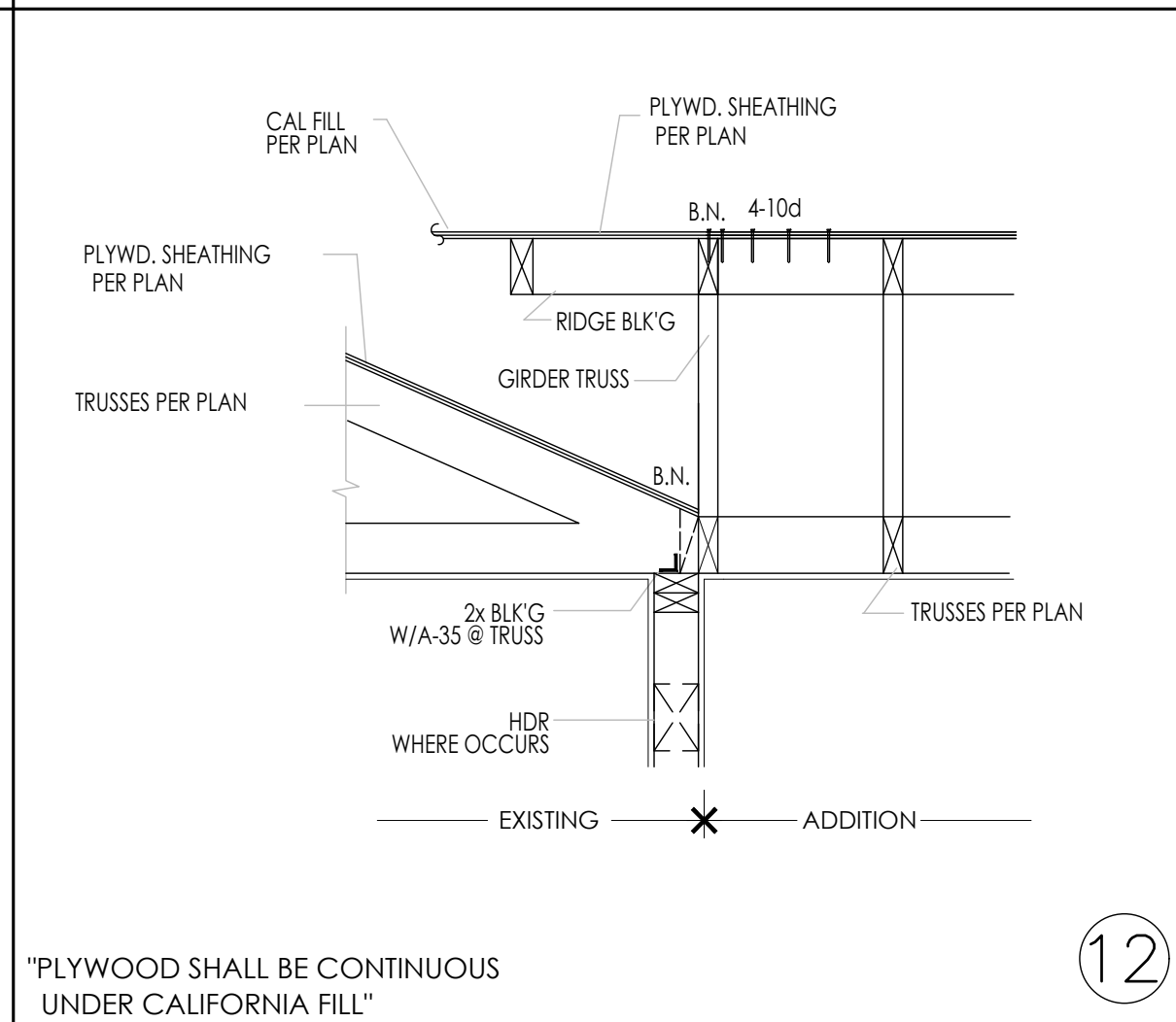
3



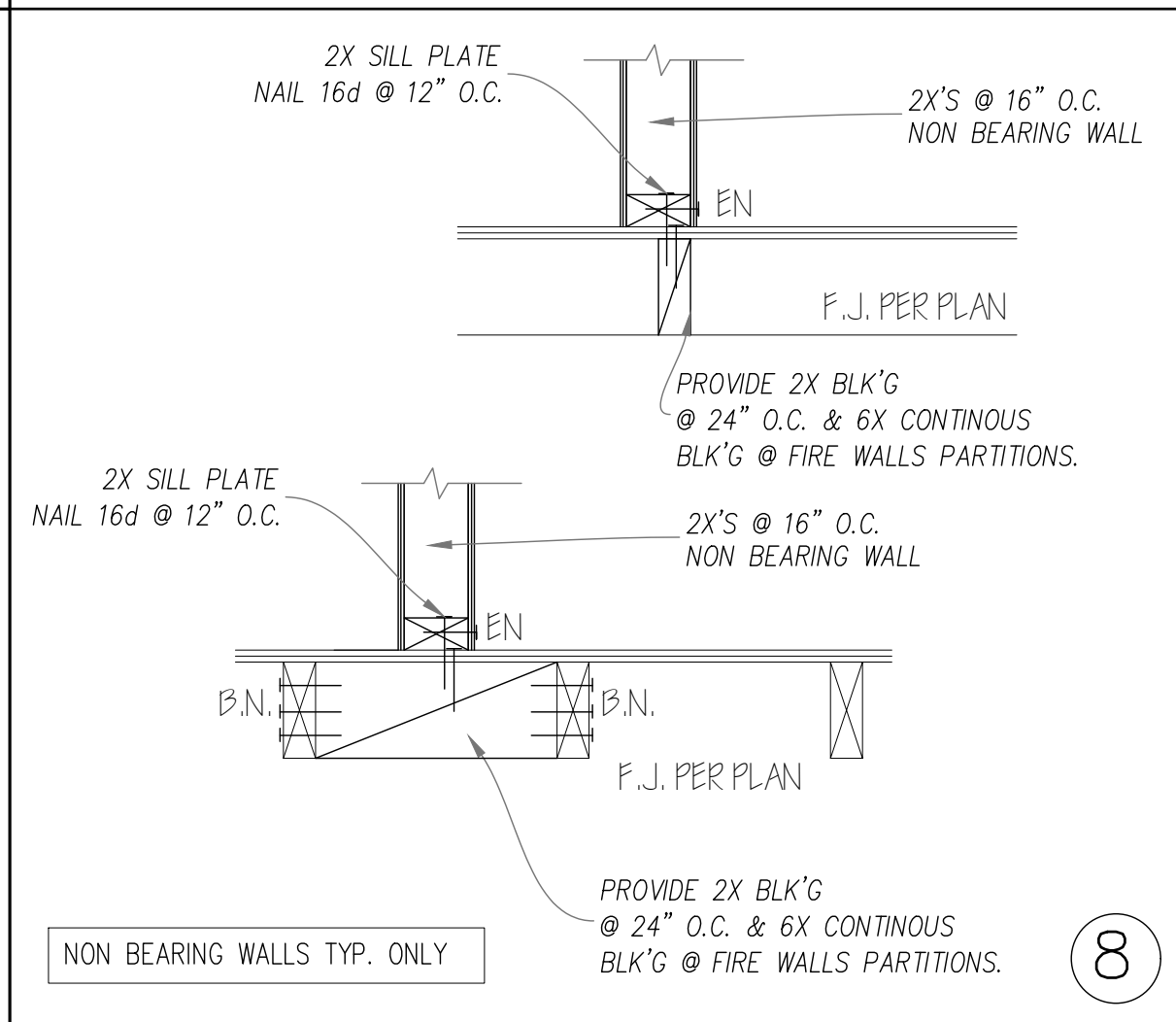
NOTES:

1. MIN. EMBEDMENT = 9 BAR DIA.
2. DRILLED HOLE DIA. = BAR DIA. + X  
X = 1/16" FOR 1/2" AND SMALLER  
X = 1/8" FOR 5/8" AND LARGER
3. MATERIALS AND INSTALLATION PROCEDURES SHALL CONFORM TO ICC EVALUATION SERVICE REPORT ESR-2508 (NO SUBSTITUTIONS PERMITTED).
4. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

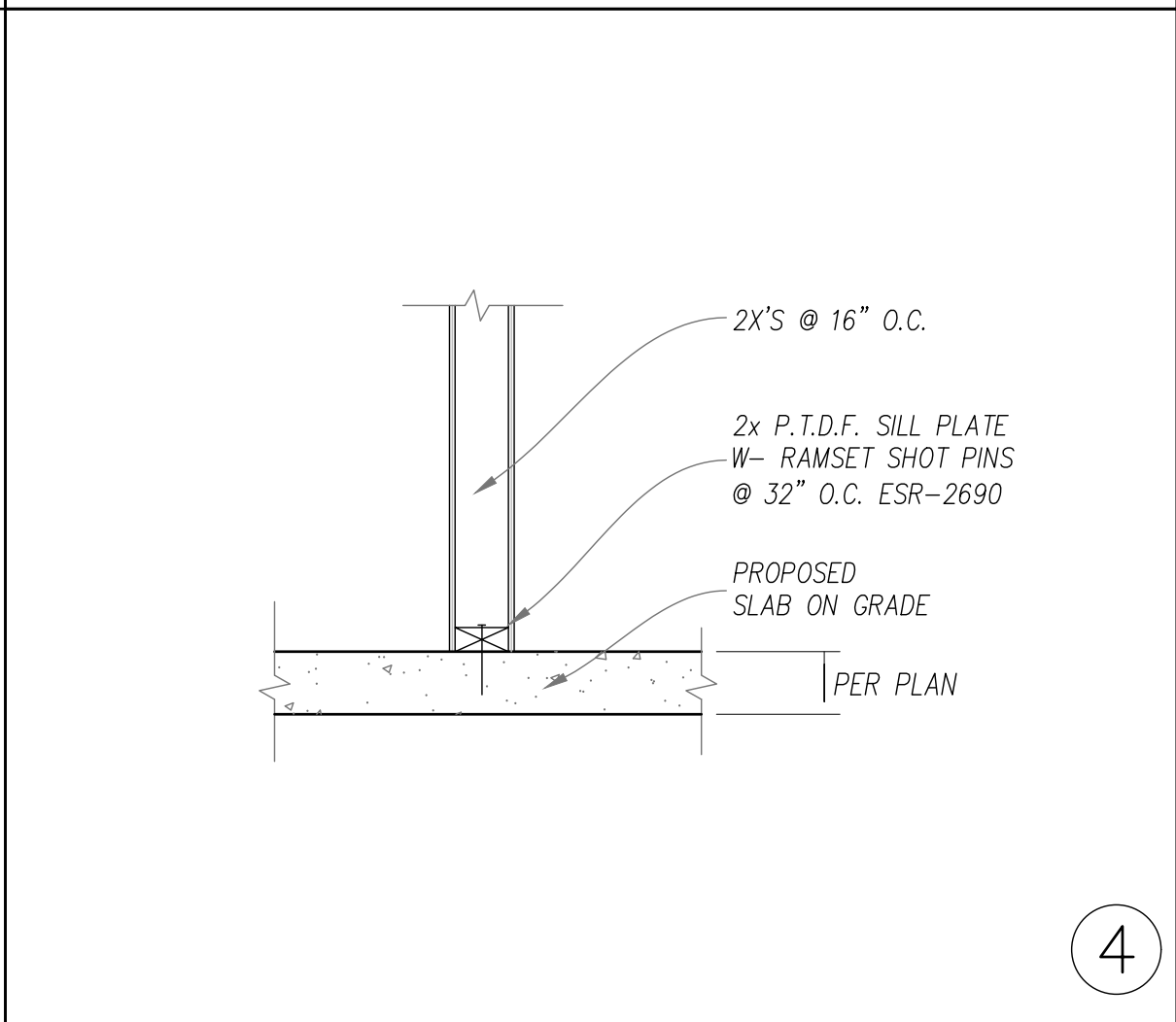
16



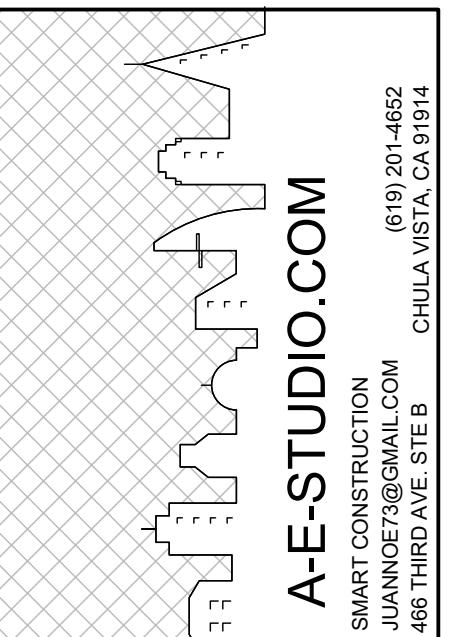
12



8

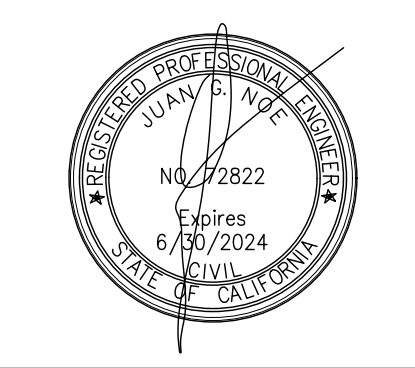


4



Date February 17, 2023

REVISIONS	



**ADDITION & NEW ADU**  
1523 E 14th ST. NATIONAL CITY, CALIFORNIA 91950

02-17-2023

**STRUCTURAL DETAILS**

**S4**



**Mitek USA, Inc.**  
Mitek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661  
Telephone 916-755-3571

Re: 230080  
14th st

The truss drawing(s) referenced below have been prepared by Mitek USA, Inc. under my direct supervision based on the parameters provided by Pacific Truss (El Cajon).

Pages or sheets covered by this seal: R74806870 thru R74806873

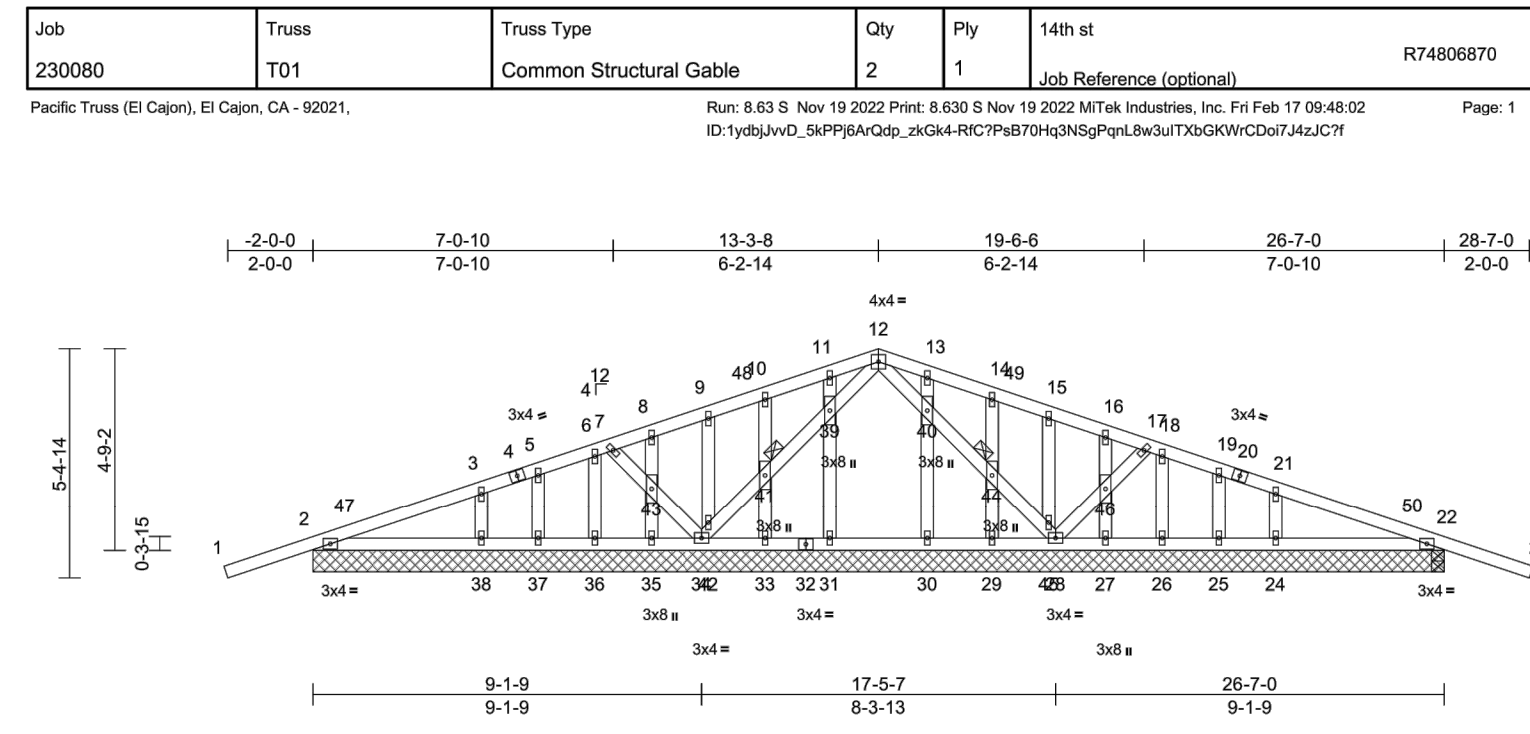
My license renewal date for the state of California is September 30, 2024.



Zhao, Xiaoming

February 17, 2023

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to Mitek or TRENCO. Any project specific information included is for Mitek's or TRENCO's customer file reference purpose only, and was not taken into account in the preparation of these designs. Mitek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and property incorporation these designs into the overall building design per ANSI/TPI 1, Chapter 2.



Job	Truss	Truss Type	Qty	Ply	14th st	Job Reference (optional)
230080	T01	Common Structural Gable	2	1		R74806870

Pacific Truss (El Cajon), El Cajon, CA - 92021. Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 Mitek Industries, Inc. Fri Feb 17 09:48:05  
ID: 1Y9b9w4D\_5dP99AaQp\_2kC4-R4C7Pb7Dh9Gh9PgnBv3u7X6G9WCDzA2zC7H

Scale = 1:54.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (occ)	l/60	L/D	PLATES	GRP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.34	Vert(LL)	-0.01	2-38	#999	240
TCDL	20.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	-0.01	2-38	#999	180
BCLL	0.0	Rap Stress Incr	YES	WB	0.03	Horz(CT)	0.00	22	n/a	n/a
BCDL	10.0	Code	IBC2018/TP12014	Matrix-S						

Weight: 149 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 DF No.2  
BOT CHORD 2x4 DF No.2  
WEBS 2x4 DF No.2  
OTHERS 2x4 DF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0 oc bracing.

**JOINTS**  
1) Brace at J(s): 41, 44

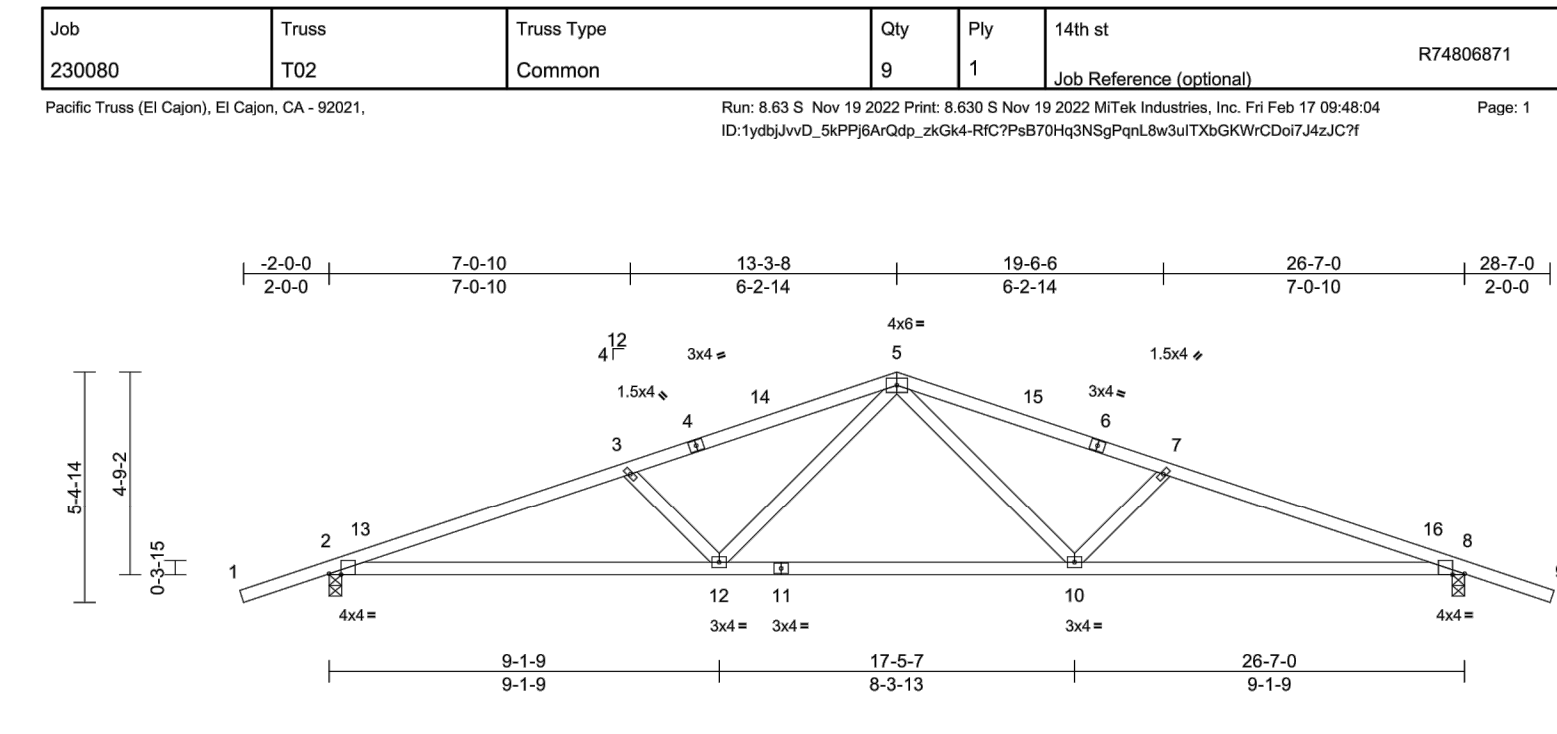
**REACTIONS** (size)  
2+26-7.0, 22+0-3.8, 24+26-7.0, 29+26-7.0, 38+26-7.0, 27+26-7.0, 31+26-7.0, 33+26-7.0, 34+26-7.0, 35+26-7.0, 38+26-7.0, 37+26-7.0

**FORCES**  
(b) - Maximum Compression/Maximum Tension  
TOP CHORD 2+26-7.0, 22+0-3.8, 24+26-7.0, 29+26-7.0, 38+26-7.0, 27+26-7.0, 31+26-7.0, 33+26-7.0, 34+26-7.0, 35+26-7.0, 38+26-7.0, 37+26-7.0

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16, Vult=110mph (3-second gust) Vast=87mph, TCDF=12.0psf, BCDF=4.6psf, h=20ft; Ken=1.00, Cat. II, Exp. B; Enclosed: MWFRS (envelope) exterior zone and C-C Exterior(2E) 2-0-0 to 0-1-7, Interior (1) 0-1-7 to 10-3-8, Exterior(2R) 10-3-8 to 16-3-8, Interior (1) 16-3-8 to 25-7-9, Exterior(2) 25-7-9 to 35-7-9; zone: cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.  
4) All plates are 1/4" thick unless otherwise indicated.  
5) Gable studs spaced at 14-0 on center.  
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 17, 2023



Job	Truss	Truss Type	Qty	Ply	14th st	Job Reference (optional)
230080	T02	Common	9	1		R74806871

Pacific Truss (El Cajon), El Cajon, CA - 92021. Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 Mitek Industries, Inc. Fri Feb 17 09:48:04  
ID: 1Y9b9w4D\_5dP99AaQp\_2kC4-R4C7Pb7Dh9Gh9PgnBv3u7X6G9WCDzA2zC7H

Scale = 1:54

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (occ)	l/60	L/D	PLATES	GRP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.63	Vert(LL)	-0.18	2-12	#999	240
TCDL	20.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	-0.45	2-12	#999	180
BCLL	0.0	Rap Stress Incr	YES	WB	0.15	Horz(CT)	0.10	8	n/a	n/a
BCDL	10.0	Code	IBC2018/TP12014	Matrix-S						

Weight: 104 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 DF No.2  
BOT CHORD 2x4 DF No.2  
WEBS 2x4 DF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-8-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0 oc bracing.

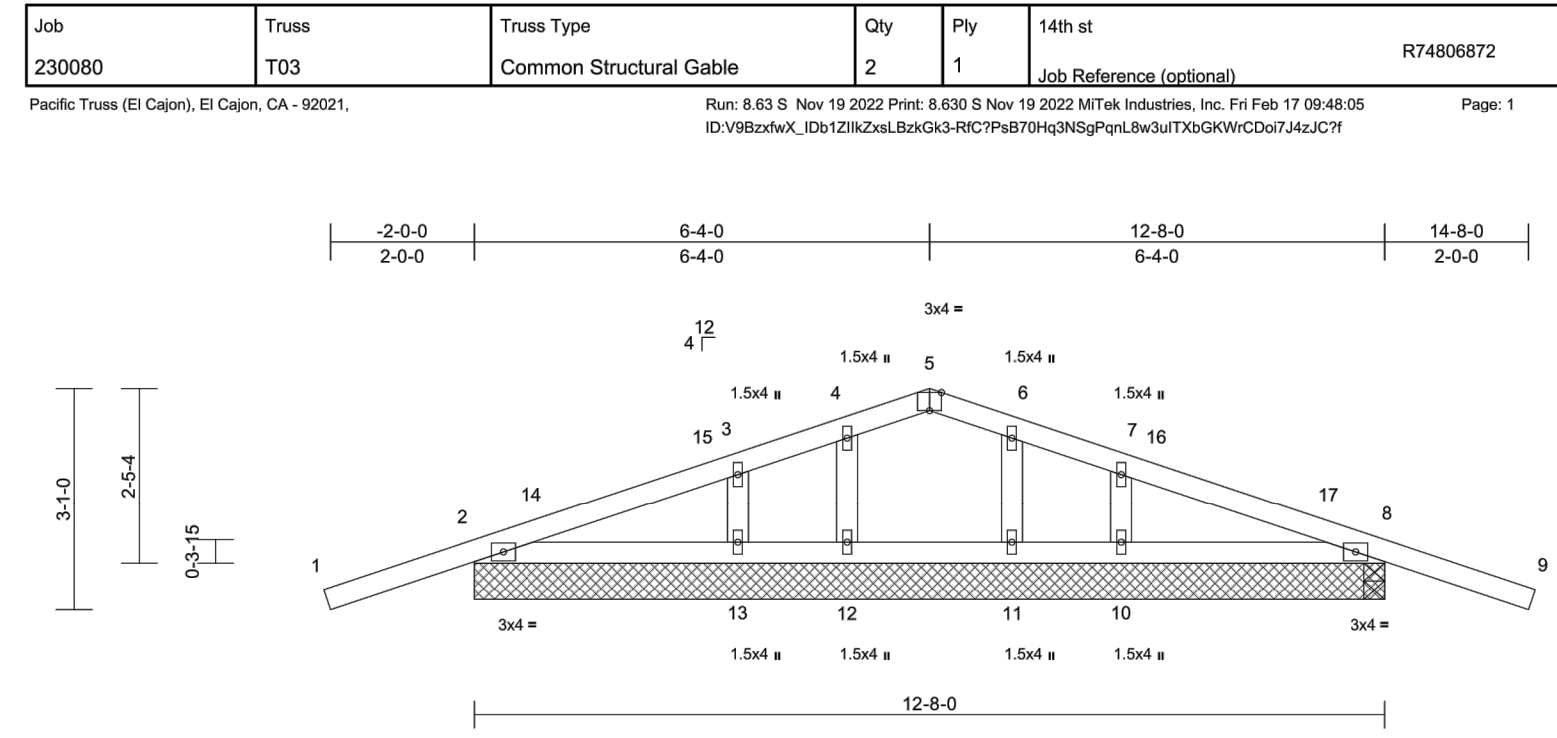
**REACTIONS** (size)  
2+0-3.8, 8+0-3.8  
Max Horiz 2+64 (LC 10)  
Max Grav 2+1400 (LC 10), 13+1400 (LC 1)

**FORCES**  
(b) - Maximum Compression/Maximum Tension  
TOP CHORD 1+2+0-3.8, 2+3+106.0, 3+5+269.0, 5+7+269.0, 7+8+3106.0, 8+9+350  
BOT CHORD 2+12+0-3.8, 10+12+191.5, 8+10+285.9  
WEBS 3+10+0-3.8, 7+10+580.29, 5+12+0-3.8, 3+12+580.29

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16, Vult=110mph (3-second gust) Vast=87mph, TCDF=12.0psf, BCDF=4.6psf, h=20ft; Ken=1.00, Cat. II, Exp. B; Enclosed: MWFRS (envelope) exterior zone and C-C Exterior(2E) 2-0-0 to 0-1-7, Interior (1) 0-1-7 to 10-3-8, Exterior(2R) 10-3-8 to 16-3-8, Interior (1) 16-3-8 to 25-7-9, Exterior(2) 25-7-9 to 35-7-9; zone: cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
4) \* This truss has been designed for a live load of 20 psf on the bottom chord in all areas where a rectangle 3-0-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



February 17, 2023



Job	Truss	Truss Type	Qty	Ply	14th st	Job Reference (optional)
230080	T03	Common Structural Gable	2	1		R74806872

Pacific Truss (El Cajon), El Cajon, CA - 92021. Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 Mitek Industries, Inc. Fri Feb 17 09:48:05  
ID: 1Y9b9w4D\_5dP99AaQp\_2kC4-R4C7Pb7Dh9Gh9PgnBv3u7X6G9WCDzA2zC7H

Scale = 1:32.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (occ)	l/60	L/D	PLATES	GRP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.34	Vert(LL)	0.00	2-13	#999	240
TCDL	20.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	-0.01	2-13	#999	180
BCLL	0.0	Rap Stress Incr	YES	WB	0.02	Horz(CT)	0.00	8	n/a	n/a
BCDL	10.0	Code	IBC2018/TP12014	Matrix-S						

Weight: 48 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 DF No.2  
BOT CHORD 2x4 DF No.2  
WEBS 2x4 DF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0 oc bracing.

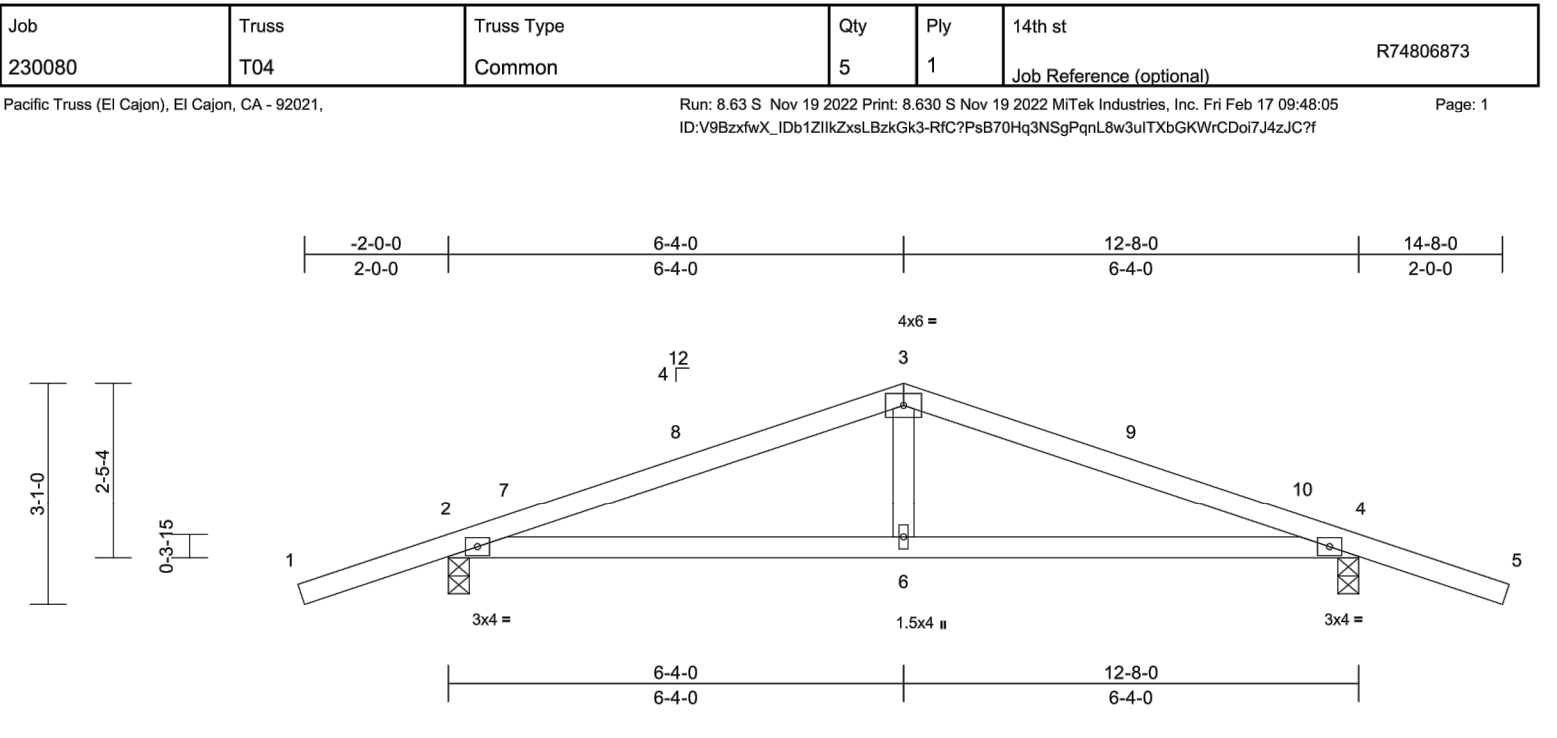
**REACTIONS** (size)  
2+12-8.0, 8+0-3.8, 10+12-8.0, 11+12-8.0, 12+12-8.0, 13+12-8.0  
Max Horiz 2+30 (LC 10)  
Max Uplift 2+4 (LC 6), 8+10 (LC 7)  
Max Grav 2+381 (LC 1), 8+400 (LC 1), 10+223 (LC 24), 11+168 (LC 1), 12+145 (LC 1), 13+255 (LC 23)

**FORCES**  
(b) - Maximum Compression/Maximum Tension  
TOP CHORD 1+2+0-3.8, 2+3+102.19, 3+4+73.06, 4+5+71.55, 5+8+72.55, 6+7+70.36, 7+8+100.20, 8+9+90.50  
BOT CHORD 2+13+0-0.7, 12+13+0-0.7, 11+12+0-0.7, 10+11+0-0.7, 9+10+0-0.7, 4+12+116.0, 6+11+129.31, 3+13+207.19, 7+10+182.14

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16, Vult=110mph (3-second gust) Vast=87mph, TCDF=12.0psf, BCDF=4.6psf, h=20ft; Ken=1.00, Cat. II, Exp. B; Enclosed: MWFRS (envelope) exterior zone and C-C Exterior(2E) 2-0-0 to 0-1-7, Interior (1) 0-1-7 to 3-4-0, Exterior(2R) 3-4-0 to 9-4-0, Interior (1) 9-4-0 to 11-8-8, Exterior(2) 11-8-8 to 14-8-9 zone: cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.  
4) All plates are 1/4" thick unless otherwise indicated.  
5) Gable studs spaced at 14-0 on center.  
6) This truss has been designed for a live load of 20 psf on the bottom chord in all areas where a rectangle 3-0-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



February 17, 2023



Job	Truss	Truss Type	Qty	Ply	14th st	Job Reference (optional)
230080	T04	Common	5	1		R74806873

Pacific Truss (El Cajon), El Cajon, CA - 92021. Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 Mitek Industries, Inc. Fri Feb 17 09:48:05  
ID: 1Y9b9w4D\_5dP99AaQp\_2kC4-R4C7Pb7Dh9Gh9PgnBv3u7X6G9WCDzA2zC7H

Scale = 1:32.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (occ)	l/60	L/D	PLATES	GRP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.03	2-6	#999	240
TCDL	20.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.09	2-6	#999	180
BCLL	0.0	Rap Stress Incr	YES	WB	0.06	Horz(CT)	0.02	4	n/a	n/a
BCDL	10.0	Code	IBC2018/TP12014	Matrix-S						

Weight: 44 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 DF No.2  
BOT CHORD 2x4 DF No.2  
WEBS 2x4 DF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-4-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0 oc bracing.

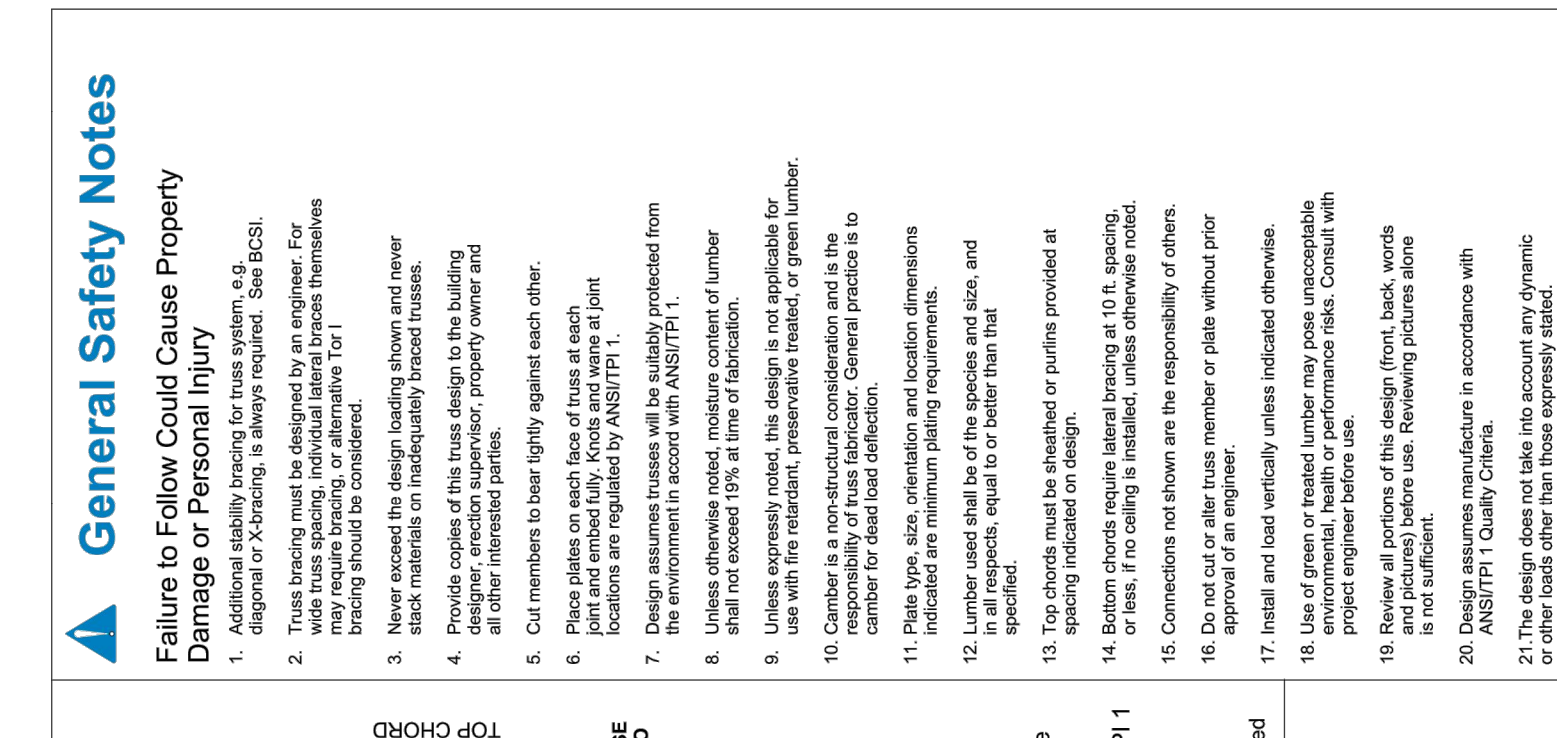
**REACTIONS** (size)  
2+0-3.8, 4+0-3.8  
Max Horiz 2+30 (LC 10)  
Max Grav 2+794 (LC 1), 4+794 (LC 1)

**FORCES**  
(b) - Maximum Compression/Maximum Tension  
TOP CHORD 1+2+0-3.8, 2+3+102.19, 3+4+102.19, 4+5+90.50  
BOT CHORD 2+6+0-3.8, 4+6+0-3.8, 3+6+0-3.8

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16, Vult=110mph (3-second gust) Vast=87mph, TCDF=12.0psf, BCDF=4.6psf, h=20ft; Ken=1.00, Cat. II, Exp. B; Enclosed: MWFRS (envelope) exterior zone and C-C Exterior(2E) 2-0-0 to 0-1-7, Interior (1) 0-1-7 to 3-4-0, Exterior(2R) 3-4-0 to 9-4-0, Interior (1) 9-4-0 to 11-8-8, Exterior(2) 11-8-8 to 14-8-9 zone: cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
4) \* This truss has been designed for a live load of 20 psf on the bottom chord in all areas where a rectangle 3-0-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



February 17, 2023



Job	Truss	Truss Type	Qty	Ply	14th st	Job Reference (optional)
230080	T05	Common	5	1		R74806874

Pacific Truss (El Cajon), El Cajon, CA - 92021. Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 Mitek Industries, Inc. Fri Feb 17 09:48:05  
ID: 1Y9b9w4D\_5dP99AaQp\_2kC4-R4C7Pb7Dh9Gh9PgnBv3u7X6G9WCDzA2zC7H

Scale = 1:32.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (occ)	l/60	L/D	PLATES	GRP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.03	2-6	#999	240
TCDL	20.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.09	2-6	#999	180
BCLL	0.0	Rap Stress Incr	YES	WB	0.06	Horz(CT)	0.02	4	n/a	n/a
BCDL	10.0	Code	IBC2018/TP12014	Matrix-S						

Weight: 44 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 DF No.2  
BOT CHORD 2x4 DF No.2  
WEBS 2x4 DF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-4-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0 oc bracing.

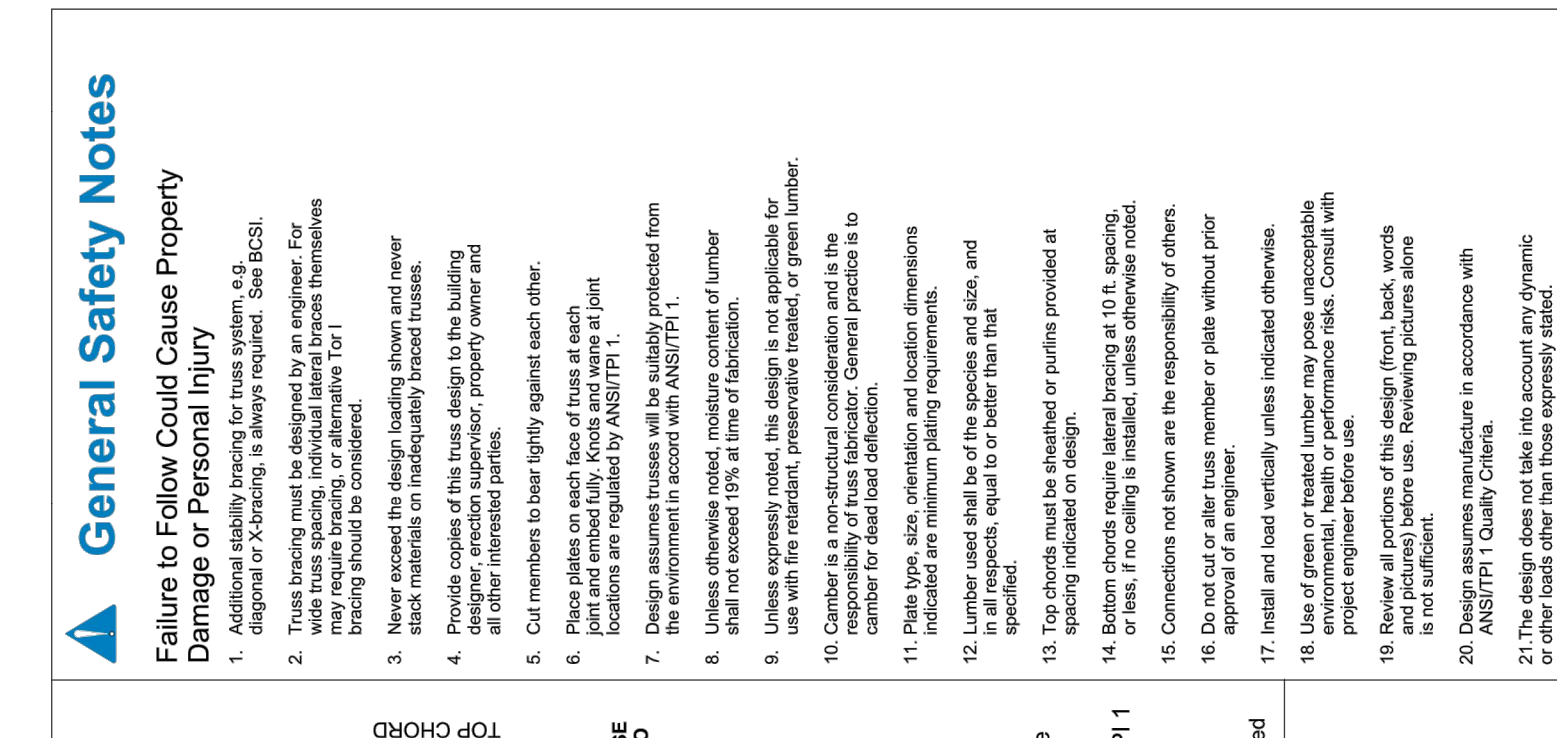
**REACTIONS** (size)  
2+0-3.8, 4+0-3.8  
Max Horiz 2+30 (LC 10)  
Max Grav 2+794 (LC 1), 4+794 (LC 1)

**FORCES**  
(b) - Maximum Compression/Maximum Tension  
TOP CHORD 1+2+0-3.8, 2+3+102.19, 3+4+102.19, 4+5+90.50  
BOT CHORD 2+6+0-3.8, 4+6+0-3.8, 3+6+0-3.8

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16, Vult=110mph (3-second gust) Vast=87mph, TCDF=12.0psf, BCDF=4.6psf, h=20ft; Ken=1.00, Cat. II, Exp. B; Enclosed: MWFRS (envelope) exterior zone and C-C Exterior(2E) 2-0-0 to 0-1-7, Interior (1) 0-1-7 to 3-4-0, Exterior(2R) 3-4-0 to 9-4-0, Interior (1) 9-4-0 to 11-8-8, Exterior(2) 11-8-8 to 14-8-9 zone: cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
4) \* This truss has been designed for a live load of 20 psf on the bottom chord in all areas where a rectangle 3-0-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



February 17, 2023



Job	Truss	Truss Type	Qty	Ply	14th st	Job Reference (optional)
230080	T06	Common	5	1		R74806875

Pacific Truss (El Cajon), El Cajon, CA - 92021. Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 Mitek Industries, Inc. Fri Feb 17 09:48:05  
ID: 1Y9b9w4D\_5dP99AaQp\_2kC4-R4C7Pb7Dh9Gh9PgnBv3u7X6G9WCDzA2zC7H

Scale = 1:32.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (occ)	l/60	L/D	PLATES	GRP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.03	2-6	#999	240
TCDL	20.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.09	2-6	#999	180
BCLL	0.0	Rap Stress Incr	YES	WB	0.06	Horz(CT)	0.02	4	n/a	n/a
BCDL	10.0	Code	IBC2018/TP12014	Matrix-S						

Weight: 44 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 DF No.2  
BOT CHORD 2x4 DF No.2  
WEBS 2x4 DF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-4-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0 oc bracing.

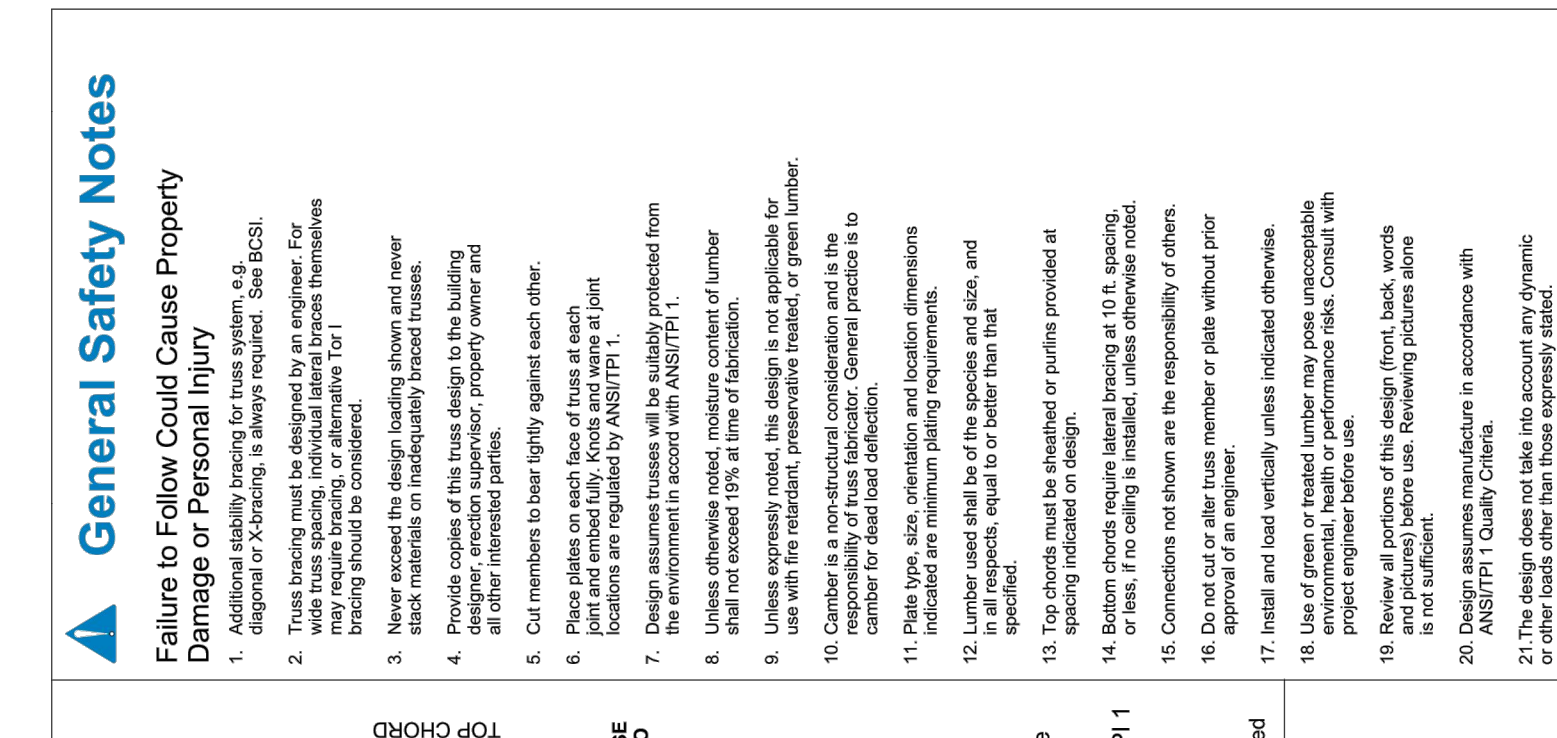
**REACTIONS** (size)  
2+0-3.8, 4+0-3.8  
Max Horiz 2+30 (LC 10)  
Max Grav 2+794 (LC 1), 4+794 (LC 1)

**FORCES**  
(b) - Maximum Compression/Maximum Tension  
TOP CHORD 1+2+0-3.8, 2+3+102.19, 3+4+102.19, 4+5+90.50  
BOT CHORD 2+6+0-3.8, 4+6+0-3.8, 3+6+0-3.8

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16, Vult=110mph (3-second gust) Vast=87mph, TCDF=12.0psf, BCDF=4.6psf, h=20ft; Ken=1.00, Cat. II, Exp. B; Enclosed: MWFRS (envelope) exterior zone and C-C Exterior(2E) 2-0-0 to 0-1-7, Interior (1) 0-1-7 to 3-4-0, Exterior(2R) 3-4-0 to 9-4-0, Interior (1) 9-4-0 to 11-8-8, Exterior(2) 11-8-8 to 14-8-9 zone: cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
4) \* This truss has been designed for a live load of 20 psf on the bottom chord in all areas where a rectangle 3-0-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



February 17, 2023



Job	Truss	Truss Type	Qty	Ply	14th st	Job Reference (optional)
230080	T07	Common	5	1		R74806876

Pacific Truss (El Cajon), El Cajon, CA - 92021. Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 Mitek Industries, Inc. Fri Feb 17 09:48:05  
ID: 1Y9b9w4D\_5dP99AaQp\_2kC4-R4C7Pb7Dh9Gh9PgnBv3u7X6G9WCDzA2zC7H

Scale = 1:32.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (occ)	l/60	L/D	PLATES	GRP
TCLL (roof)	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.03	2-6	#999	240
TCDL	20.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.09	2-6	#999	180
BCLL	0.0	Rap Stress Incr	YES	WB	0.06	Horz(CT)	0.02	4	n/a	n/a
BCDL	10.0	Code	IBC2018/TP12014	Matrix-S						

Weight: 44 lb FT = 20%

**LUMBER**  
TOP CHORD 2x4 DF No.2  
BOT CHORD 2x4 DF No.2  
WEBS 2x4 DF No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-4-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0 oc bracing.

**REACTIONS** (size)  
2+0-3.8, 4+0-3.8  
Max Horiz 2+30 (LC 10)  
Max Grav 2+794 (LC 1), 4+794 (LC 1)

**FORCES**  
(



GENERAL INFORMATION	
01	Project Name
02	Run Title
03	Project Location
04	City
05	Standards Version
06	Zip code
07	Software Version
08	Climate Zone
09	Front Orientation (deg/ Cardinal)
10	Building Type
11	Number of Dwelling Units
12	Project Scope
13	Number of Bedrooms
14	Addition Cond. Floor Area (ft²)
15	Number of Stories
16	Existing Cond. Floor Area (ft²)
17	Penetration Average U-factor
18	Total Cond. Floor Area (ft²)
19	Glazing Percentage (%)
20	ADU Bedroom Count
21	ADU Conditioned Floor Area
22	Is Natural Gas Available?

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

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft²)	Tilt (deg)
New Front Wall	Detached ADU Zone	R-15 Wall	162	Front	212.7	26	90
New Right Wall	Detached ADU Zone	R-15 Wall	72	Right	150	28	90
New Left Wall	Detached ADU Zone	R-15 Wall	252	Left	150	32	90
New Back Wall	Detached ADU Zone	R-15 Wall	342	Back	162	6	90
New Roof	Detached ADU Zone	R-30 Roof Attic	n/a	n/a	498	n/a	n/a

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 Detached ADU Zone	Attic Roof/Detached ADU Zone	Ventilated	4	0.1	0.85	No	No

PENETRATION / 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 (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
C	Window	New Front Wall	Front	162				1 6 0.3	NFRC	0.23	NFRC	Bug Screen	
A	Window	New Right Wall	Right	72				1 12 0.3	NFRC	0.23	NFRC	Bug Screen	
B	Window	New Right Wall	Right	72				1 16 0.3	NFRC	0.23	NFRC	Bug Screen	
B	Window	New Left Wall	Left	252				1 16 0.3	NFRC	0.23	NFRC	Bug Screen	
B	Window	New Left Wall	Left	252				1 16 0.3	NFRC	0.23	NFRC	Bug Screen	
D	Window	New Back Wall	Back	342				1 6 0.3	NFRC	0.23	NFRC	Bug Screen	

SPACE CONDITIONING SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
New Minisplit1	Heat pump heating cooling	Heat Pump System 1	Heat Pump System 1	n/a	n/a	Setback	New	NA	1	1

HVAC - HEAT PUMPS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Number of Units	Heating			Cooling		Zonally Controlled	Compressor Type	HERS Verification
			HSPF/COP	Cap 47	Cap 17	SEER	EER/CEER			
Heat Pump System 1	Ductless Minisplit HP	1	8.2	6000	5000	14	11.5	Not Zonal	Single Speed	Heat Pump System 1-her's-htpump

HVAC HEAT PUMPS - HERS VERIFICATION								
01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge	Verified HSPF	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-her's-htpump	Not Required	0	Not Required	Not Required	No	No	Yes	Yes

IAQ (INDOOR AIR QUALITY) FANS						
01	02	03	04	05	06	07
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASRE	HERS Verification
Sfam IAQ/ventrpt	37	0.35	Exhaust	n/a	n/a	Yes

ENERGY DESIGN RATING				
	Energy Design Ratings		Compliance Margins	
	Efficiency <sup>1</sup> (EDR)	Total <sup>2</sup> (EDR)	Efficiency <sup>3</sup> (EDR)	Total <sup>3</sup> (EDR)
Standard Design	65.4	28.4		
Proposed Design	63.4	26.4	2	2

- RESULT: <sup>3</sup> COMPLIES
- 1: Efficiency EDR includes improvements to the building envelope and more efficient equipment
  - 2: Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries
  - 3: Building complies when efficiency and total compliance margins are greater than or equal to zero
- Standard Design PV Capacity: 1.79 kWdc
  - PV System resized to 1.79 kWdc (a factor of 1.788) to achieve 'Standard Design PV' PV scaling

ENERGY USE SUMMARY				
Energy Use (kTDU/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	10.37	1.01	-0.64	-173
Space Cooling	25.16	28.09	-2.93	-11.6
IAQ Ventilation	6.32	6.32	0	0
Water Heating	45.52	35.51	10.01	22
Self Utilization/Flexibility Credit	n/a	0	0	n/a
Compliance Energy Total	77.37	70.93	6.44	8.3

REQUIRED PV SYSTEMS - SIMPLIFIED											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff (%)	Annual Solar Access (%)
1.79	NA	Standard	Fixed	none	true	150-270	n/a	n/a	<=7:12	96	98

OPAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft²)	U-factor
1	New Front Wall	20	0.5

SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
New Slab On Grade	Detached ADU Zone	498	0.1	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 Roof/Detached ADU Zone	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/Sheathing/Decking Cavity / Frame: no insul. / 2x4
R-30 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-30.9 Insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Ricardo Perez	Documentation Author Signature: Ricardo Perez
Company: Estudio75	Signature Date: 2022-04-18 12:12:54
Address: 4275 Executive Square #200	CEA/HERS Certification Identification (if applicable): R19-19-30062
City/State/Zip: La Jolla, CA 92037	Phone: 619-274-2838

- RESPONSIBLE PERSON'S DECLARATION STATEMENT
- I certify the following under penalty of perjury, under the laws of the State of California:
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
  - I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
  - The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Ricardo Perez		Responsible Designer Signature: Ricardo Perez	
Company: Estudio75	Date Signed: 2022-04-18 12:12:54		
Address: 4275 Executive Square #200	License: R19-19-30062		
City/State/Zip: La Jolla, CA 92037	Phone: 619-274-2838		

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.



REQUIRED SPECIAL FEATURES	
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.	
Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed	

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 CF2Ns and CF3Rs are required to be completed in the HERS Registry	
Building-level Verifications:	
Indoor air quality ventilation	
Kitchen range hood	
Cooling System Verifications:	
None	
Heating System Verifications:	
Verified heat pump rated heating capacity	
HVAC Distribution System Verifications:	
None	
Domestic Hot Water System Verifications:	
None	

BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Proposed Detached ADU	498	1	2	1	0	1

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
Detached ADU Zone	Conditioned	New Minisplit1	498	8	DHW Sys 1	N/A

BUILDING ENVELOPE - HERS VERIFICATION			
01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

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

WATER HEATERS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition
DHW Heater 1	Heat Pump	n/a	1	40	NEEA Rated	<= 12 KW	n/a	n/a	n/a	Rheem/VE40T1DHS 45U0 (40 gal)	Outside

WATER HEATING - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery	
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required



Estudio75  
Ricardo H. Perez  
4275 Executive Square Suite#200 La Jolla, CA 92037  
(619) 274-2838 / t24.e75@gmail.com

1523 E 14TH Street  
National City, California 91950

Project Address

T01



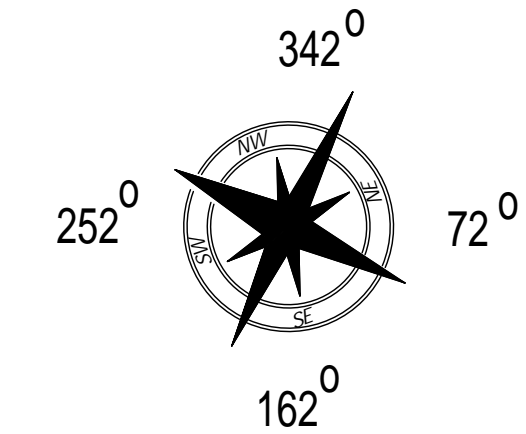
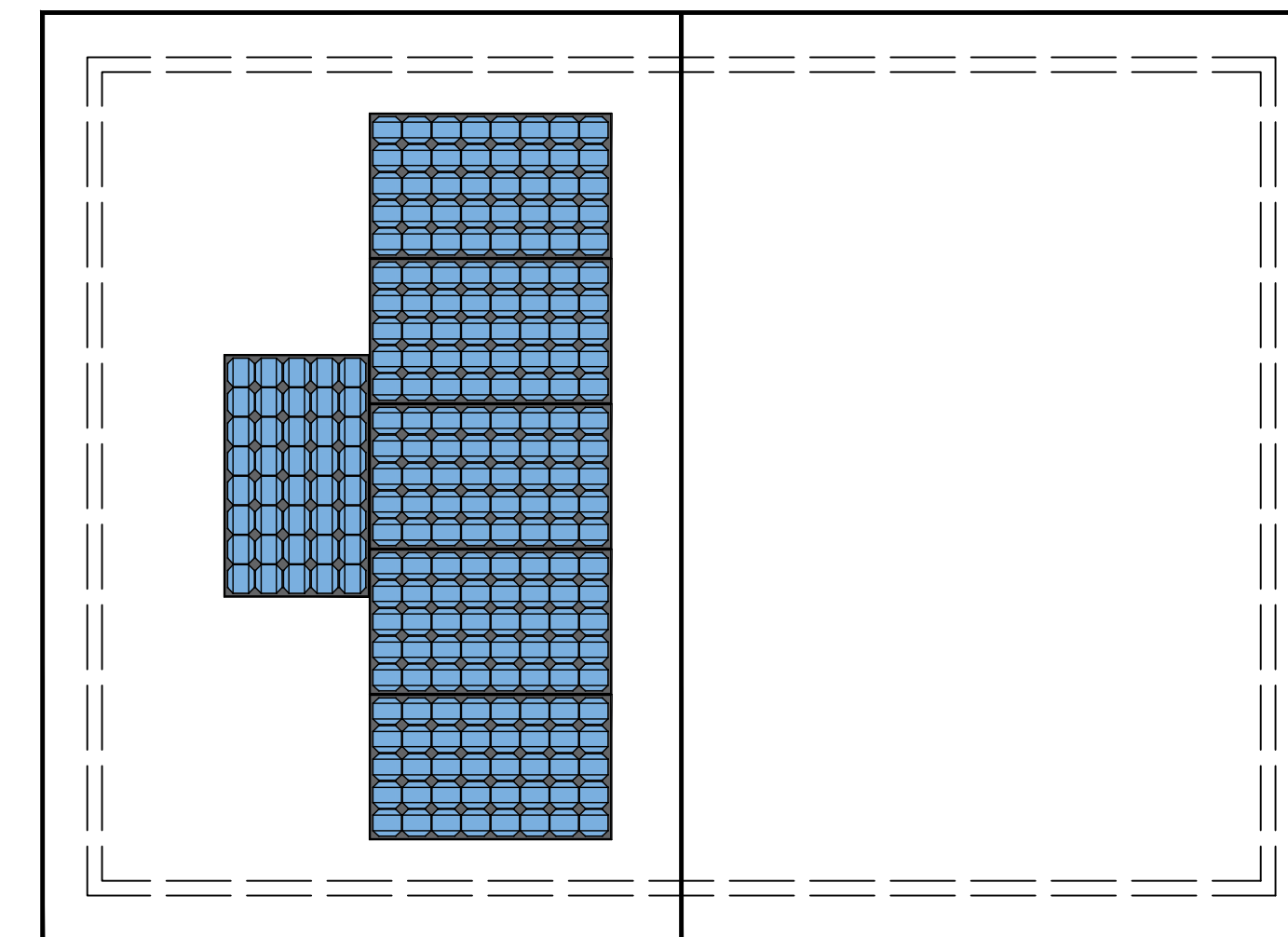
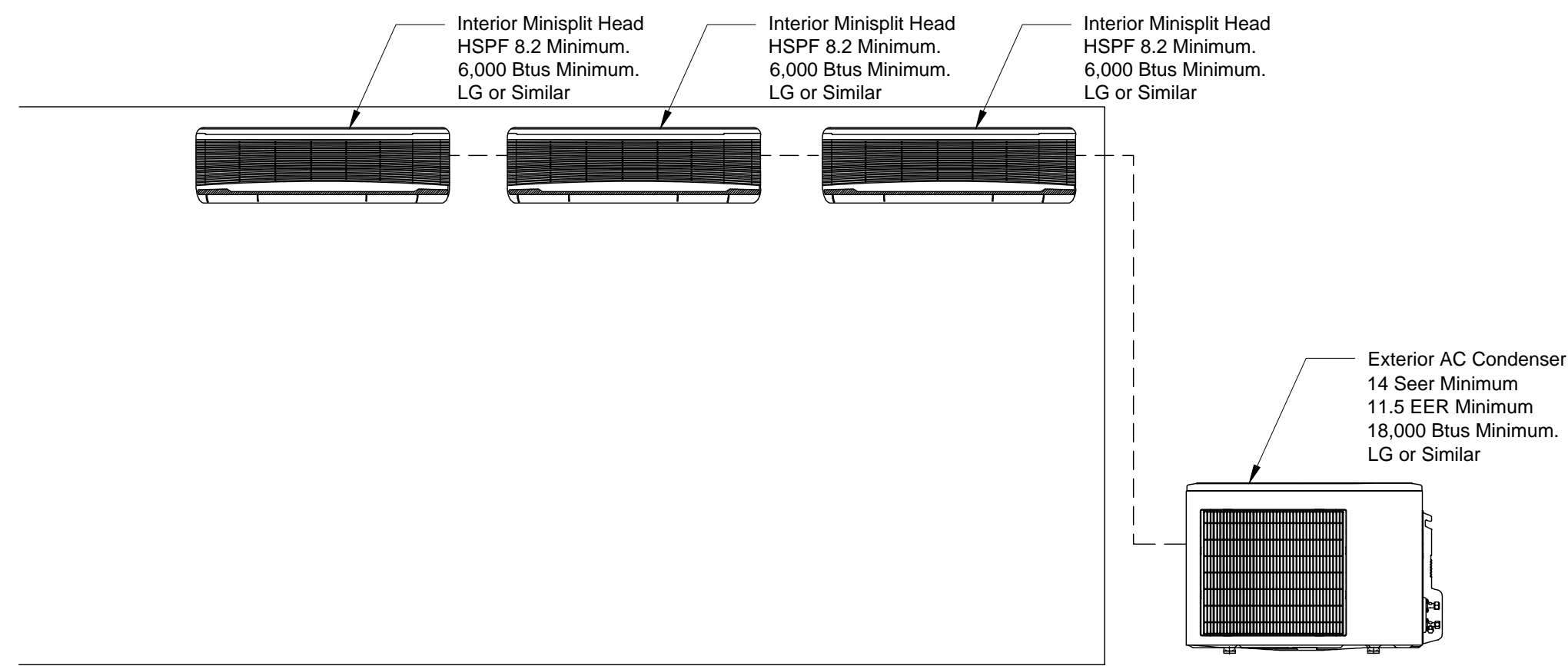


Estudio75  
 Ricardo H. Perez  
 4275 Executive Square Suite#200 La Jolla, CA 92037  
 (619) 274-2838 / t24.e75@gmail.com

1523 E 14TH Street  
 National City, California 91950

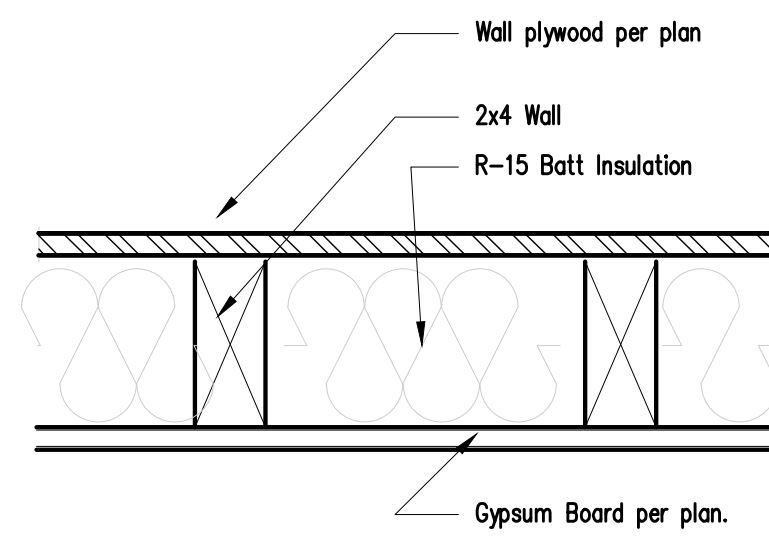
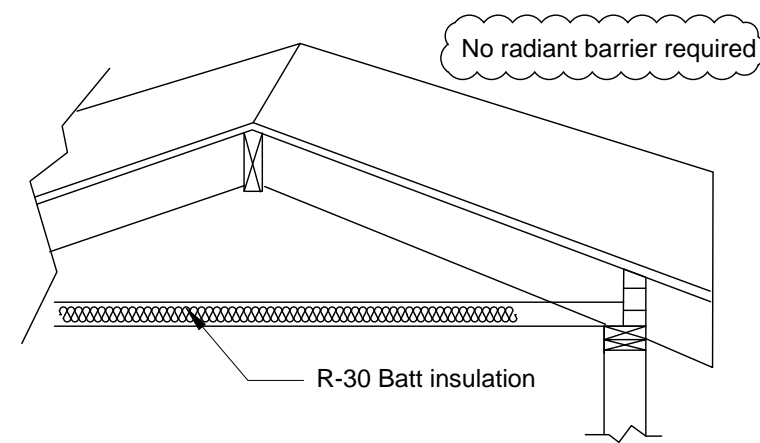
Project  
 Address

T03



REQUIRED PV SYSTEMS - SIMPLIFIED											
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
1.79	NA	Standard	Fixed	none	true	150-270	n/a	n/a	<=7:12	96	98

MINISPLIT DETAIL



INSULATION AT ROOF ATTIC

INSULATION AT EXTERIOR WALL

REQUIRED PV SYSTEMS

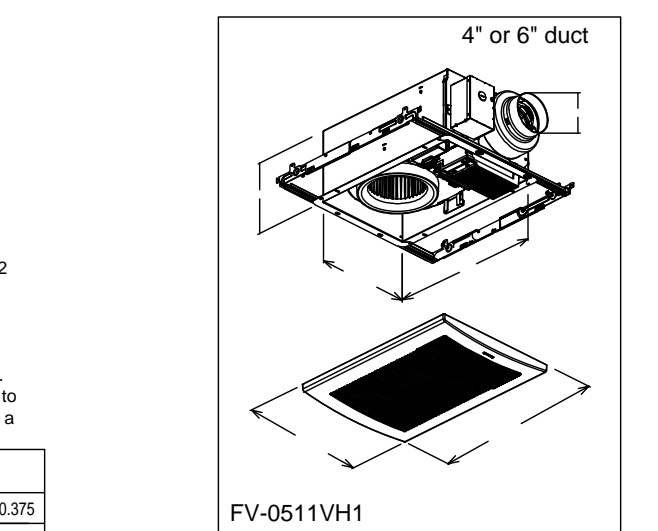
Certificate of Product Ratings

AHRI Certified Reference Number : 8552226 Date : 02-07-2020 Model Status : Active  
 Brand Name : RHEEM  
 Model Number : RTG-950VLN-1  
 Rated as follows in accordance with Department of Energy (DOE) Water Heater test procedures as published in the latest edition of the Code of Federal Regulations, 10 CFR Part 430 and subject to verification of rating accuracy by AHRI-sponsored, independent, third party testing:  
 Max GPM : 5.0  
 Uniform Energy Factor : 0.82  
 The following data is for reference only and is not certified by AHRI  
 Energy Source : Natural Gas  
 Heater Type : Instantaneous  
 Usage Bin : High Usage  
 Nominal Capacity (gal) : 0  
 DOE Rated Storage Volume (gal) : 0  
 Input (MBtu/h) : 199.9  
 Recovery Efficiency, (%) : 84  
 Heat Traps : No

PANASONIC FV-0511VH1  
 Specification Submittal Data / Panasonic Ventilation Fan/Heater

**Description:**  
 Ventilating fan/heater shall be low noise ceiling mount type rated for continuous run. Fan/heater shall be certified by the Home Ventilating Institute (HVI). Heating elements shall be included. Evaluated by Underwriters Laboratories and conform to both UL and cUL safety standards. Fan/heater is not intended for installation over a sub-power enclosure.  
**Motor/Blower:**  
 -Enclosed brushless ECM motor technology rated for continuous run.  
 -Fan ventilation rates shall be manually adjustable for 50-80-110 CFM.  
 -Power rating shall be 120 volts and 60 Hz.  
 -Motor equipped with thermal-cutoff fuse.  
 -Removable with permanently lubricated plug-in motor.  
 -Minimum 20 Amp dedicated circuit required.  
**Housing:**  
 -26 gauge Zinc-Aluminum-Magnesium (ZAM) housing.  
 -Integrated dual 4" or 6" diameter duct adapter.  
 -Built-in back draft damper.  
 -Built-in metal flange provides blocking for penetrations through drywall as an Air Barrier, and assists with the decrease in leakage in the building envelope during blower door testing.  
 -Building Envelope during blower door testing.  
 -Suitable for installation in ceilings insulated up to R60.  
 -Articulating and expandable installation bracket up to 24".

**Grille:**  
 -Attractive design using Poly Pro material.  
 -Attaches directly to housing with tension springs.  
 -Circulation grille with built-in diffuser for higher output velocity and directional heat throw.  
**Heater:**  
 -1600W Positive Temperature Coefficient (PTC) heater for greater safety and reliability.  
 -Heater is self-limiting. As it approaches designed operating temperature, the electrical consumption automatically decreases, which prevents overheating.  
**Warranty:**  
 -6 years ECM Motor, 5 years LED, 3 years all other parts.  
**Architectural Specifications:**  
 Ventilating fan/heater combination shall be ceiling mount, with built-in speed selector. Select from 50/80/110 CFM and no more than <math>0.3/0.3/0.7</math> sone as certified by the Home Ventilating Institute (HVI) at 0.1 static pressure in inches water gauge (w.g.), with 5/8/2 1/2 CFM and no more than 0.8/1.0/1.5 sone as certified by HVI at 0.25 w.g., and no less than 53/80/110 CFM at 0.375 w.g. Power Consumption shall be no greater than 4,777/7,172 watts at 0.1 w.g., 8,613/3,119.0 watts at 0.25 w.g., and 12,318/2,265.0 watts at 0.375 w.g. Energy efficiency shall be no less than 10.6/10.4/9.2 CFM/watt at 0.1 w.g., 6.9/6.5 CFM/watt at 0.25, and 4.3/4.5/4.0 CFM/watt at 0.375 w.g. Power rating shall be 120V/60Hz. Minimum 20 Amp dedicated circuit required. Duct diameter shall be inclusive of an integrated dual 4" or 6" duct adapter. Also suitable for installation in ceilings insulated up to R60. Fan/heater is not intended for installation over a



WhisperWarm DC FV-0511VH1	4"	4"	4"
Static Pressure in inches w.g.	0.1	0.25	0.375
Air Volume (CFM)	110	112	110
Noise (sone)	0.7	1.5	-
Power Consumption (watts)	12	19.0	26.0
Energy Efficiency (CFM/Watt)	9.2	5.9	4
Speed (RPM)	861	1090	1249
Current (amps)	0.24	0.37	0.49
MAX. Current (amps)	0.50		
Power Rating (V/Hz)	120/60		
Motor Type	ECM		
ENERGY STAR rated	N/A - No ENERGY STAR category for fan/heater		

**ECM Motor Technology:**  
 When the fan senses static pressure, its speed is automatically increased to ensure that the desired CFM is not compromised, which allows the fan to perform as rated.

IAQ FAN ( HERS VERIFICATION REQUIRED )

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

**Building-level Verifications:**

- Indoor air quality ventilation
- Kitchen range hood

**Cooling System Verifications:**

- None

**Heating System Verifications:**

- Verified heat pump rated heating capacity

**HVAC Distribution System Verifications:**

- None

**Domestic Hot Water System Verifications:**

- None

ENERGY EFFICIENCY HERS VERIFICATION

GAS TANKLESS WATER HEATER

**CERTIFICATE OF COMPLIANCE**  
 Project Name: Addition  
 Calculation Description: Title 24 Analysis  
 Calculation Date/Time: 2022-10-07T10:33:30-07:00  
 Input File Name: 1523 E 14th St Add...ribd19x  
 CF1R-PRF-01E (Page 1 of 7)

GENERAL INFORMATION										
01	Project Name	Addition								
02	Run Title	Title 24 Analysis								
03	Project Location	1523 E 14th Street								
04	City	National City	05	Standards Version	2019					
06	Zip code	91950	07	Software Version	EnergyPro 8.3					
08	Climate Zone	7	09	Front Orientation (deg/ Cardinal)	162					
10	Building Type	Single family	11	Number of Dwelling Units	1					
12	Project Scope	AdditionOnly	13	Number of Bedrooms	3					
14	Addition Cond. Floor Area (ft²)	152	15	Number of Stories	1					
16	Existing Cond. Floor Area (ft²)	704	17	Penetration Average U-factor	0.3					
18	Total Cond. Floor Area (ft²)	856	19	Glazing Percentage (%)	31.58%					
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a					
22	Is Natural Gas Available?	Yes								

Addition Alone Project Analysis Parameters					
01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	Addition Area (excl. existing) (ft2)	Total Area (ft2)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms
704	152	856	2	1	3

COMPLIANCE RESULTS					
01	Building Complies with Computer Performance				
02	Building does not require field testing or HERS verification				
03	Building does not incorporate Special Features				

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 Schema Version: rev 20200901  
 HERS Provider: Report Generated: 2022-10-07 10:33:46

**CERTIFICATE OF COMPLIANCE**  
 Project Name: Addition  
 Calculation Description: Title 24 Analysis  
 Calculation Date/Time: 2022-10-07T10:33:30-07:00  
 Input File Name: 1523 E 14th St Add...ribd19x  
 CF1R-PRF-01E (Page 2 of 7)

ENERGY USE SUMMARY				
Energy Use (kWh/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	0	0	0	
Space Cooling	69.39	61.2	8.19	11.8
IAQ Ventilation	0	0	0	
Water Heating	145.7	145.7	0	0
Self Utilization/Flexibility Credit	n/a	0	0	n/a
Compliance Energy Total	215.09	206.9	8.19	3.8

**REQUIRED SPECIAL FEATURES**  
 The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.  
 \* NO SPECIAL FEATURES REQUIRED

**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

Building-level Verifications:  
 \* -- None --  
 Cooling System Verifications:  
 \* -- None --  
 Heating System Verifications:  
 \* -- None --  
 HVAC Distribution System Verifications:  
 \* -- None --  
 Domestic Hot Water System Verifications:  
 \* -- None --

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
Addition Zone	Conditioned	Wall Heater1	152	8	DHW Sys 1	N/A

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 Schema Version: rev 20200901  
 HERS Provider: Report Generated: 2022-10-07 10:33:46

**CERTIFICATE OF COMPLIANCE**  
 Project Name: Addition  
 Calculation Description: Title 24 Analysis  
 Calculation Date/Time: 2022-10-07T10:33:30-07:00  
 Input File Name: 1523 E 14th St Add...ribd19x  
 CF1R-PRF-01E (Page 3 of 7)

OPAQUE SURFACES									
01	02	03	04	05	06	07	08	09	10
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	TIR (deg)	Wall Exceptions	Status
Left Wall	Addition Zone	R-15 Wall	252	Left	96	16	90	Extension	New
Back Wall	Addition Zone	R-15 Wall	342	Back	101	32	90	none	New
Right Wall	Addition Zone	R-15 Wall	72	Right	96	0	90	none	New
Interior Wall	Addition Zone	R-0 Wall	n/a	n/a	70	0	n/a	n/a	New
Roof	Addition Zone	R-30 Roof Attic	n/a	n/a	152	n/a	n/a	n/a	New
Raised Floor	Addition Zone	R-19 Floor Crawlspace	n/a	n/a	152	n/a	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 Addition Zone	Attic RoofAddition Zone	Ventilated	4	0.08	0.75	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 (ft²)	U-factor	SHGC	SHGC Source	SHGC	Exterior Shading
Window A	Window	Left Wall	Left	252	1	16	0.3	NFRC	0.23	NFRC		Bug Screen	
Window A	Window	Back Wall	Back	342	1	16	0.3	NFRC	0.23	NFRC		Bug Screen	
Window A	Window	Back Wall	Back	342	1	16	0.3	NFRC	0.23	NFRC		Bug Screen	

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 Schema Version: rev 20200901  
 HERS Provider: Report Generated: 2022-10-07 10:33:46

**CERTIFICATE OF COMPLIANCE**  
 Project Name: Addition  
 Calculation Description: Title 24 Analysis  
 Calculation Date/Time: 2022-10-07T10:33:30-07:00  
 Input File Name: 1523 E 14th St Add...ribd19x  
 CF1R-PRF-01E (Page 4 of 7)

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
R-0 Wall	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Other Side Finish: Gypsum Board
Attic RoofAddition Zone	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
R-19 Floor Crawlspace	Floors Over Crawlspace	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.049	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x6
R-30 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION			
01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 Schema Version: rev 20200901  
 HERS Provider: Report Generated: 2022-10-07 10:33:46

**CERTIFICATE OF COMPLIANCE**  
 Project Name: Addition  
 Calculation Description: Title 24 Analysis  
 Calculation Date/Time: 2022-10-07T10:33:30-07:00  
 Input File Name: 1523 E 14th St Add...ribd19x  
 CF1R-PRF-01E (Page 5 of 7)

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

WATER HEATERS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff	1st Ht. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	Status	Verified Existing Condition
DHW Heater 1	Gas	n/a	1	50	0.64-EF	<=75 kWh/hr	0	82	n/a	n/a	n/a	Existing	n/a

WATER HEATING - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONING SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Heating Existing Condition	Heating Equipment Count	Cooling Equipment Count
Wall Heater1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	n/a	n/a	Existing	NA	1	1

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 Schema Version: rev 20200901  
 HERS Provider: Report Generated: 2022-10-07 10:33:46

**CERTIFICATE OF COMPLIANCE**  
 Project Name: Addition  
 Calculation Description: Title 24 Analysis  
 Calculation Date/Time: 2022-10-07T10:33:30-07:00  
 Input File Name: 1523 E 14th St Add...ribd19x  
 CF1R-PRF-01E (Page 6 of 7)

HVAC - HEATING UNIT TYPES			
01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Heating Component 1	Gas wall furnace	1	AFUE-70

HVAC - COOLING UNIT TYPES							
01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER/CEER	Efficiency SEER	Zonally Controlled	Multi-speed Compressor	HERS Verification
Cooling Component 1	No Cooling	1	n/a	n/a	Not Zonal	Single Speed	n/a

HVAC - FAN SYSTEMS			
01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.58	n/a

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 Schema Version: rev 20200901  
 HERS Provider: Report Generated: 2022-10-07 10:33:46

**CERTIFICATE OF COMPLIANCE**  
 Project Name: Addition  
 Calculation Description: Title 24 Analysis  
 Calculation Date/Time: 2022-10-07T10:33:30-07:00  
 Input File Name: 1523 E 14th St Add...ribd19x  
 CF1R-PRF-01E (Page 7 of 7)

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Ricardo Perez	Documentation Author Signature: Ricardo Perez
Company: Estudio 75	Signature Date: 10/7/2022
Address: 4275 Executive Square, Suite 200	CEA/HERS Certification Identification (if applicable): R19-19-30062
City/State/Zip: La Jolla, CA 92037	Phone: 619 274-2838

RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I hereby certify the following under penalty of perjury, under the laws of the State of California:	
1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.	
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.	
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
Responsible Designer Name: Leonel Solis	Responsible Designer Signature: Leonel Solis
Company: Aztec Drafting & Design	Date Signed: 10/7/2022
Address: 9119 Jamacha Rd, Suite 115	License: na
City/State/Zip: Spring Valley, CA 91977	Phone: 619 414-8506

Registration Number: CA Building Energy Efficiency Standards - 2019 Residential Compliance  
 Registration Date/Time: Report Version: 2019.2.000  
 Schema Version: rev 20200901  
 HERS Provider: Report Generated: 2022-10-07 10:33:46

**RESIDENTIAL MEASURES SUMMARY** RMS-1

Project Name	Building Type	Single Family	Addition Alone	Date
Addition	<input checked="" type="checkbox"/> Single Family	<input checked="" type="checkbox"/> Addition Alone	<input type="checkbox"/> Multi-Family	<input type="checkbox"/> Existing Addition/Alteration
1523 E 14th Street National City	CA Climate Zone 07	152	152	10/7/2022

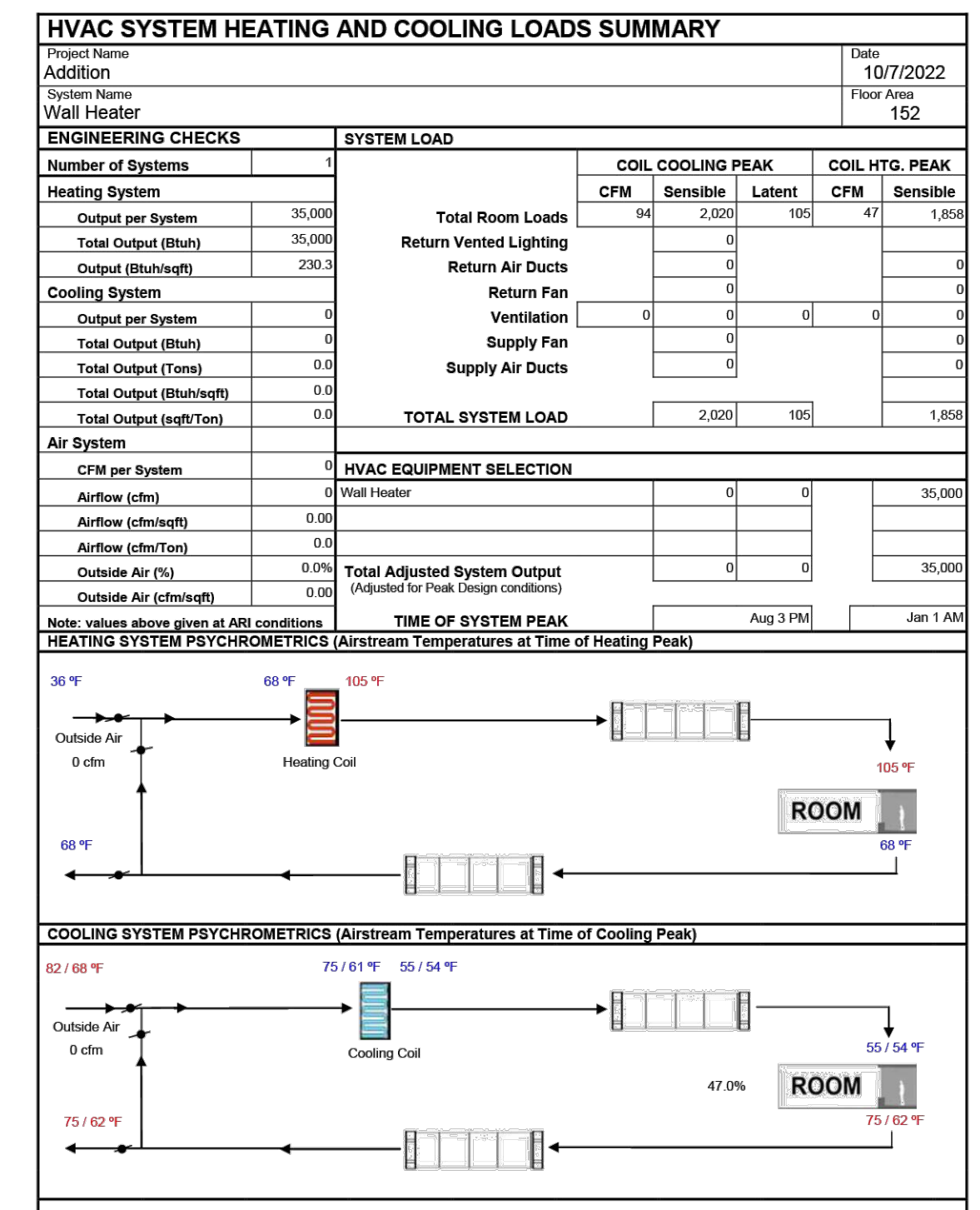
INSULATION	Construction Type	Cavity	Area (ft²)	Special Features	Status
Wall	Wood Framed	R 15	80		New
Wall	Wood Framed	R 15	165		New
Demisting	Wood Framed	-no insulation	70		Existing
Roof	Wood Framed Attic	R 30	152	Cool Roof	New
Floor	Wood Framed w/Crawl Space	R 19	152		New

FENESTRATION	Orientation	Area(ft²)	U-Fac	SHGC	Overhang	Sidelines	Exterior Shades	Status
Left (W)	16.0	0.300	0.23	none	none	N/A	N/A	New
Rear (R)	32.0	0.300	0.23	none	none	N/A	N/A	New

HVAC SYSTEMS	Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
Gas wall Furnace	1	20% AFUE	No Cooling	14.0 SEER	Outback	Existing	

HVAC DISTRIBUTION	Location	Heating	Cooling	Duct Location	Duct R-Value	Status
Wall Heater	Ductless / No Fan	Ductless	n/a	n/a	n/a	Existing

WATER HEATING	Qty.	Type	Gallons	Min. Eff	Distribution	Status
Gas wall Furnace	1	Gas	14.0	20% AFUE	Outback	Existing



Estudio75  
 Ricardo H. Perez  
 4275 Executive Square Suite#200 La Jolla, CA 92037  
 (619) 274-2838 / t24.e75@gmail.com

Addition  
 1523 E 14th. St.  
 National City, California 91950

Project  
 Address

T05

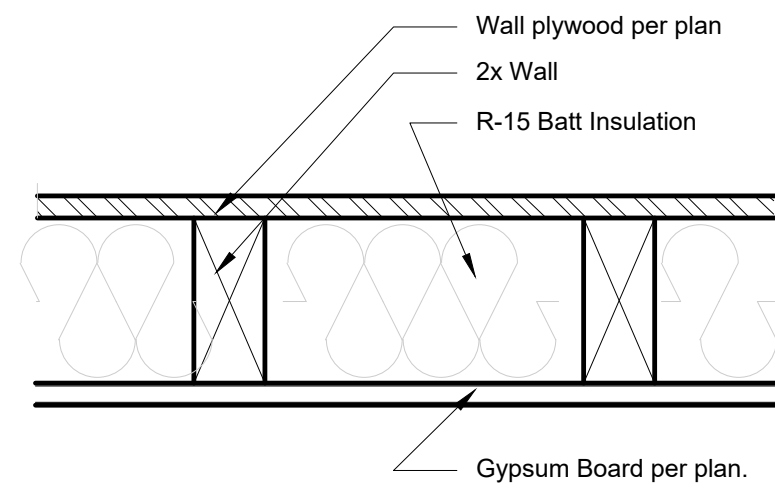


**Studio75**  
 Ricardo H. Perez  
 4275 Executive Square Suite#200 La Jolla, CA 92037  
 (619) 274-2838 / t24.e75@gmail.com

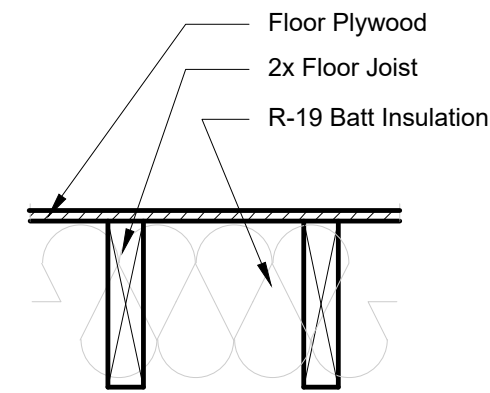
**Addition**  
 1523 E 14th. St.  
 National City, California 91950

**Project Address**

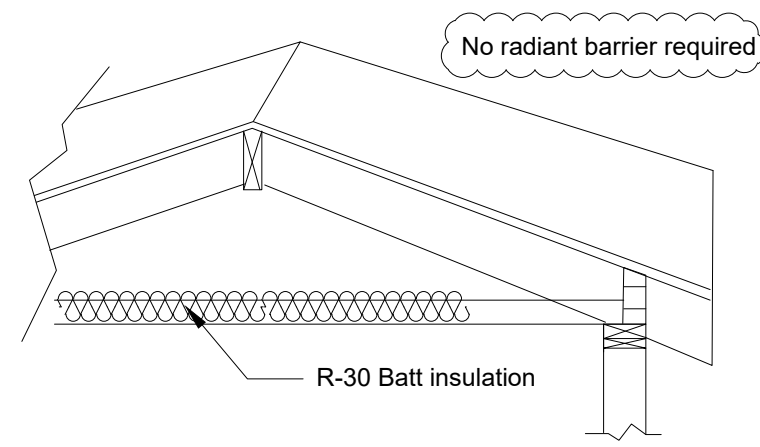
**T05**



**INSULATION AT EXTERIOR WALL**



**INTERIOR AT RAISED FLOOR**



**INSULATION AT ROOF ATTIC**

PROPERLY COMPLETED AND SIGNED CERTIFICATES OF INSTALLATION (CF2R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD. FOR PROJECTS REQUIRING HERS VERIFICATION, THE CF2R FORMS SHALL BE REGISTERED WITH A CALIFORNIA-APPROVED HERS PROVIDER DATA REGISTRY.

PROPERLY COMPLETED CERTIFICATES OF VERIFICATION (CF3R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD FOR ITEMS REQUIRING HERS VERIFICATION. CF3R FORMS SHALL BE REGISTERED WITH A CALIFORNIA-APPROVED HERS PROVIDER DATA REGISTRY.

Windows: U-Factor=.30 SHGC=.23	French Door: U-Factor=.30 SHGC=.23	Folding Door: U-Factor=.30 SHGC=.23	Skylight: U-Factor=.30 SHGC=.23
--------------------------------------	--	---	---------------------------------------

**ENERGY EFFICIENCY HERS VERIFICATION**