



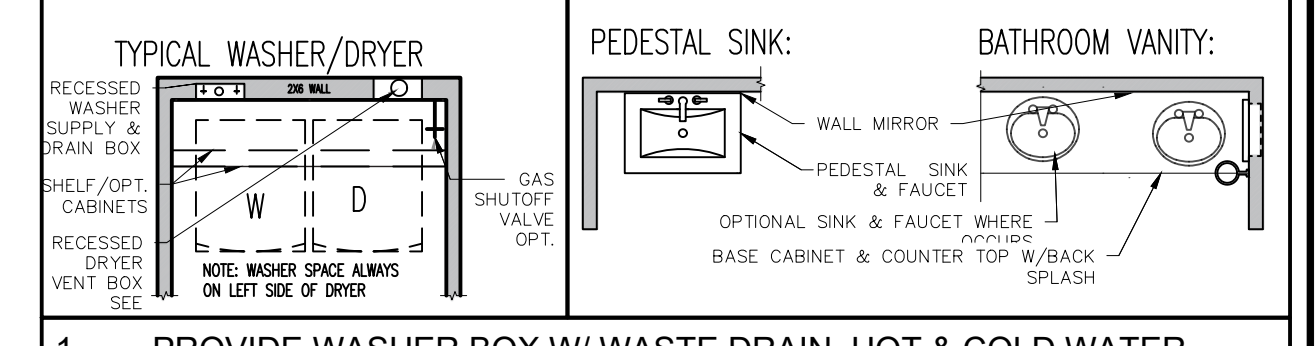
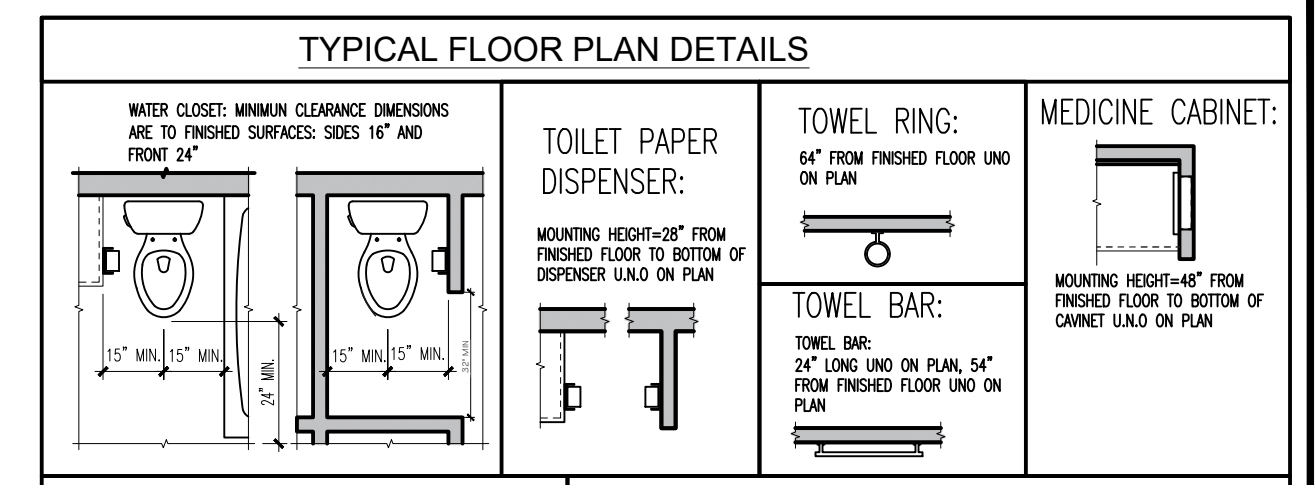
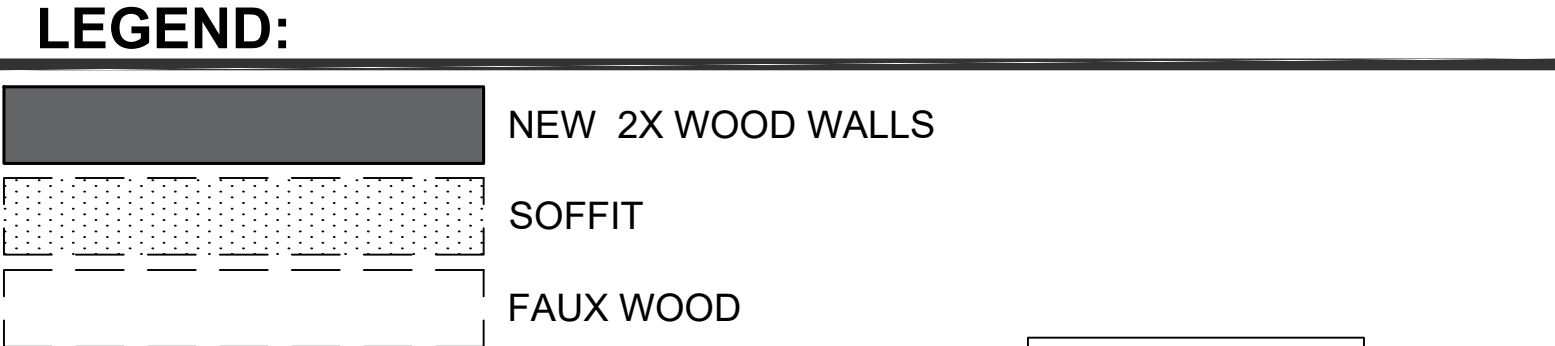
- GENERAL NOTES:**
- DIMENSION OF FLOOR PLAN ARE SHOWN TO FACE OF STUD TYPICALLY. CONTRACTOR TO VERIFY ROUGH OPENINGS REQUIREMENTS OF ALL DOOR AND WINDOWS UNITS PRIOR TO START OF CONSTRUCTION. CEILINGS AND WALLS SHALL BE ONE LAYER 1/2 INCH GYP BOARD, GARAGE WALLS TO SHALL BE 5/8 INCH GYP BOARD.
  - SEE TYPICAL FLOOR PLAN DETAILS SHEET AD FOR KITCHEN, BATH LAUNDRY WATER HEATER AND ATTIC ACCESS NOTES.
  - ALL EXTERIOR AND ENTRY DOORS TO BE SOLID CORE 1 3/4 INCH THICK.
  - ALL INTERIOR DOOR TO BE HOLLOW CORE 1 3/8 INCH THICK (REFER PLAN FOR SIZE)
  - ALL CEILING PER SECTION AND ELEVATION.
  - ALL EXTERIOR WALLS AROUND LIVABLE FLOOR SPACE, WALL BETWEEN GARAGE AND LIVABLE FLOOR SPACE SHALL RECEIVE MINIMUM R-13 INSULATION IN 2X4 WALLS AND R-19 IN 2X6 WALLS.
  - ALL DOORS AND WINDOWS GLAZING SHALL MEET THE REQUIREMENT OF THE 2018 IRC.
  - SHOWER AREA WALL SHALL BE FINISHED WITH APPROVED CEMENT, FIBER-CEMENT, OR GLASS MAT GYPSUM.
  - COORDINATE CLOSET ROD AND SHELF WITH BUILDER.
  - REFER TO STRUCTURAL PLAN (PAGE S-F-1) FOR MATERIAL SPECIFICATIONS.
  - REFER TO PLUMBING PLAN FOR PLUMBING FIXTURES CALCULATIONS.
  - REFER TO ELECTRICAL PLAN FOR OUTLETS SWITCHES AND LIGHTS LOCATIONS.
  - REFER TO MECHANICAL PLAN FOR ALL DUCT LOCATIONS AND SPECIFICATIONS OF A/C WORK.
  - REFER TO ELEVATIONS AND SECTIONS PLAN FOR SOFFIT HEIGHTS HEADER HEIGHTS AND SLOPES.
  - CENTER-LINE OF WATER CLOSET SHALL BE A MINIMUM OF 15" FROM ANY VERTICAL SURFACE OR FIXTURE.
  - PROVIDE CONCRETE PAD TO SEAT MECHANIC EQUIPMENT
  - FLAT ARCH SOFFIT PER ELEVATIONS
  - DRYER VENT V.T.R. TO COMPLY WITH CURRENT CODES.
  - AA. EMERGENCY & RESCUE OPENINGS AT SLEEPING AREAS: NET CLEAR OPENING: 5.7 SQ FT MIN; NET CLEAR OPENING HEIGHT: 24" MIN.; NET CLEAR OPENING WIDTH: 20" MIN.; WINDOW SILL HEIGHT 44" MAX. ABOVE THE FLOOR. (BASED ON R310.21-R310.2.2)
  - AB. WALL AND CEILING FINISHES SHALL HAVE A FLAME SPREAD INDEX OF NOT GREATER THAN 200.
  - AC. WALL AND CEILING FINISHES SHALL HAVE A SMOKE-DEVELOPED INDEX OF NOT GREATER THAN 450.
  - AD. FLAME SPREAD INDEX SHALL NOT EXCEED 25 AND SMOKE DEVELOPED INDEX SHALL NOT EXCEED 450 FOR INSULATION.
  - AE. CONTRACTOR TO INSTALL 5/8" GYPSUM BOARD 1-HR FIRE-RATED AT CARPORT WALLS AND CEILING.

- APPLIANCES NOTES:**
- CLOTHES DRYERS EXHAUST DUCTS SHALL HAVE A SMOOTH INTERIOR FINISH AND SHALL BE CONSTRUCTED OF METAL NOT LESS THAN 0.0157 INCH (0.3950 MM) IN THICKNESS (NO. 28 GAGE), THE DUCT SHALL BE 4 INCHES (102 MM) NOMINAL IN DIAMETER. SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND 2018 IRC.
  - WASHER SPACE - PROVIDE WASHER BOX W/ WASTE DRAIN, HOT & COLD WATER - SEE GEN. PLUMBING NOTES.
  - COOK-TOP OR RANGE, PROVIDE DOUBLE OVEN EXHAUST FAN (SHALL VENT TO EXTERIOR).
  - STANDARD BASE CABINETS.
  - REFRIGERATOR SPACE - PROVIDE 1/4" C.W. LINE FOR ICE MAKER, SEE GEN. PLUMBING NOTES.
  - SHOWER W/ TEMP. GLASS ENCLOSURE AND TILE SURROUNDS, TO A HEIGHT OF 6 FEET ABOVE THE FLOOR. TEMPERED (IRC R307.2).
  - WH ELECTRIC OR GAS WATER HEATER - USE NON RIGID CONNECTIONS. INSTALL P & T RELIEF VALVE PIPED TO OUTSIDE OF DWELLING. SEE GEN PLUMBING NOTES. 30" HIGH PLATFORM FOR WATER HEATER. PROVIDE NON-COMBUSTIBLE PLATFORM 32" SQ. x 18" ABOVE FINISH FLOOR FOR WATER HEATER. AND T&P RELIEF LINE TO BE FULL SIZE STEEL PIPE OR HARD DRAWN COPPER TUBING EXTENDING TO THE EXTERIOR OF THE BUILDING AND TERMINATING IN A DOWNWARD POSITION NOT MORE THAN 6" ABOVE GRADE.

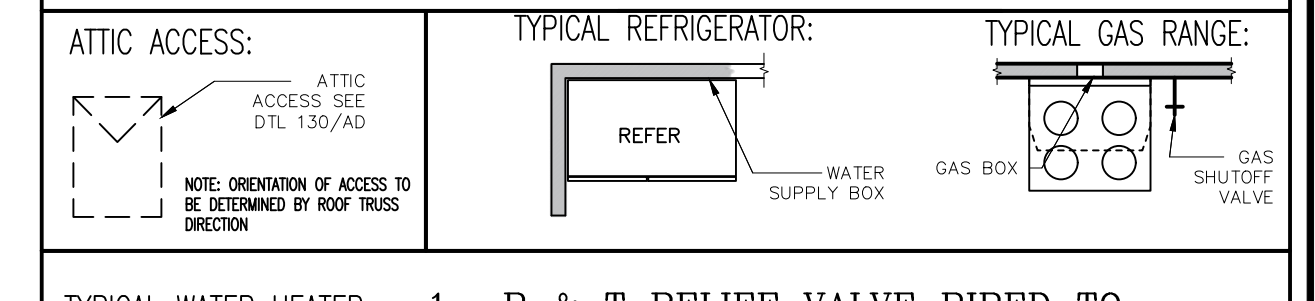
- NOTES FOR STUDS AND WALLS**
- 2X6 @ 16" O.C. EXTERIOR WALLS
  - 2X4 @ 16" O.C. EXTERIOR WALLS
  - 2X6 @ 16" O.C. EXTERIOR WALLS ON CARPORT
  - 2X6 @ 16" O.C. INTERIOR BEARING WALLS
  - 2X4 @ 24" O.C. INTERIOR NON-BEARING WALLS
  - 2X6 @ 24" O.C. INTERIOR PLUMBING WALLS
  - 2X6 @ 16" O.C. EXTERIOR PLUMBING WALLS
  - 2X4 @ 24" O.C. INTERIOR 1 HRS FIRE RETARD WALLS FIRST FLOOR

**ENERGY EFFICIENCY: (Arizona 2B Maricopa)**

THERMAL ENVELOPED AREAS OF THE BUILDING SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS: 0.40 MAXIMUM FENESTRATION U-FACTOR, 0.75 MAXIMUM SKYLIGHT U-FACTOR, 0.25 MAXIMUM GLAZED FENESTRATION SHGC. MINIMUM 38 R-VALUE AT CEILINGS, MINIMUM 13 R-VALUE AT WOOD FRAMED WALLS, MINIMUM 5 R-VALUE AT MASS WALLS, AND PROVIDE 13 R-VALUE AT FLOOR. SUPPLY AND RETURN DUCTS IN ATTIC SHALL BE INSULATED WITH MINIMUM R-8 R-VALUE FOR 3" DIA. DUCTS AND NO LESS THAN R-6 FOR DUCTS SMALLER THAN 3" DIA. IN OTHER PORTION OF THE BUILDING SHALL BE INSULATED NOT LESS THAN R-6 3" DIA. DUCTS AND NOT LESS THAN R-4.2 FOR DUCTS SMALLER THAN 3" DIA. N11025.4 (R402.4) THE BUILDING THERMAL ENVELOPED SHALL BE CONSTRUCTED TO LIMIT AIR AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS N1102.4.1 THROUGH N1102.5



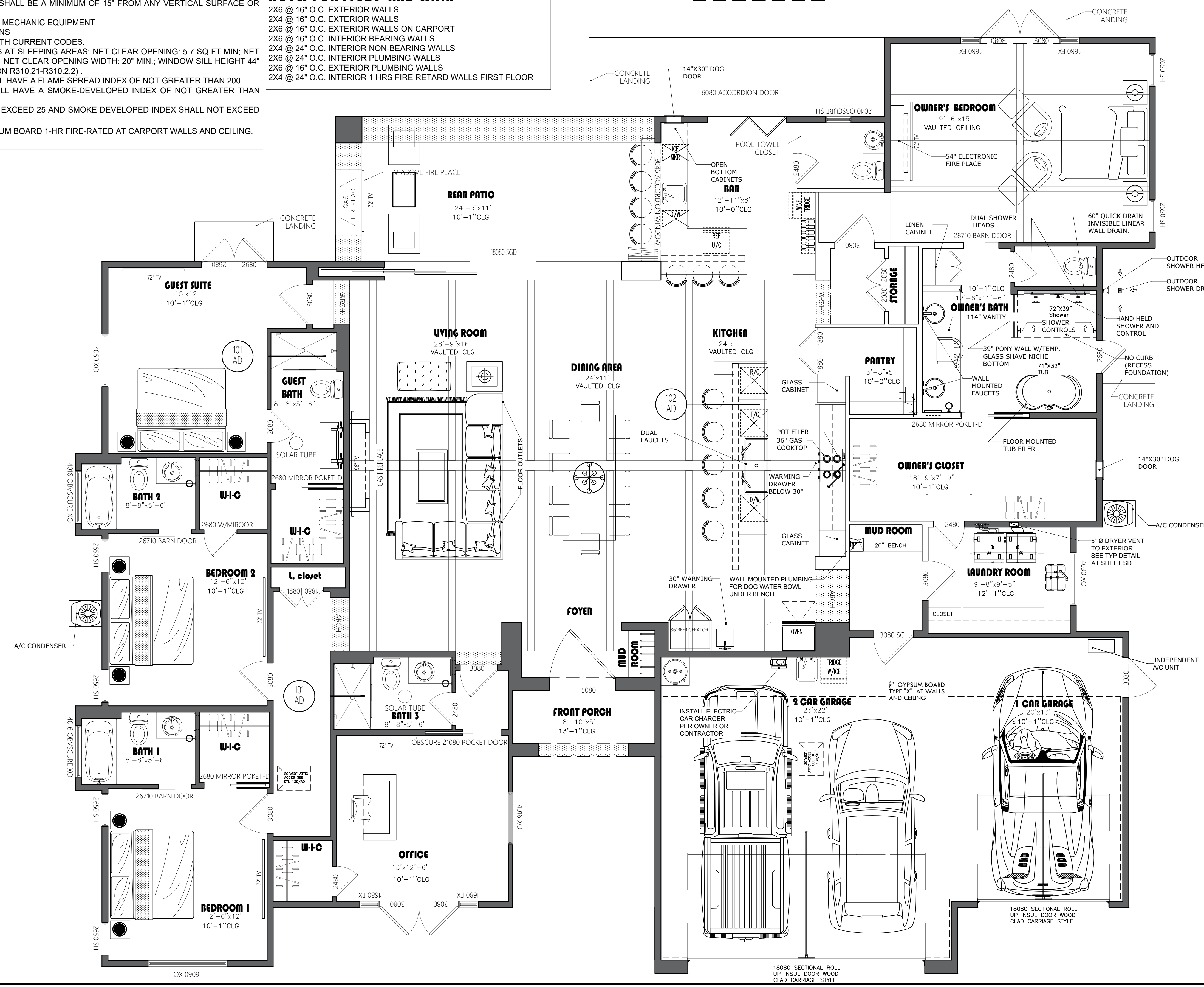
- PROVIDE WASHER BOX W/ WASTE DRAIN, HOT & COLD WATER - SEE GEN. PLUMBING NOTES. 20 MIN FIRE RATED 1 3/8" THICK S.C. DOOR WITH SELF CLOSING DEVICE, TIGHT FITTING GASKET AND SWEEP. PER R302.2.1
- CLOTHES DRYERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND 2018 IRC.
- DRYER VENT NOTE: THE LENGTH OF A CLOTHES DRYER EXHAUST DUCT SHALL NOT EXCEED 25 FEET FROM THE DRYER LOCATION TO THE WALL OR ROOF TERMINATION. THE MAXIMUM LENGTH OF THE DUCT SHALL BE REDUCED 2.5 FEET FOR EACH 45-DEGREE BEND AND 5 FEET FOR EACH 90-DEGREE BEND. THE MAXIMUM LENGTH OF THE EXHAUST DUCT DOES NOT INCLUDE THE TRANSITION DUCT. EXHAUST DUCT SHALL BE EQUIPPED WITH A BACK DRAFTY DAMPER. EXHAUST DUCT SHALL BE CONSTRUCTED OF RIDGED METAL DUCTS, HAVING SMOOTH INTERIOR SURFACE WITH JOINTS RUNNING IN THE DIRECTION OF AIR FLOW. FLEXIBLE TRANSITION DUCTS USED TO CONNECT THE DRYER TO THE EXHAUST DUCT SYSTEM SHALL BE LIMITED TO SINGLE LENGTHS, NOT TO EXCEED 8 FEET IN LENGTH. THE DUCT SHALL TERMINATE NOT LESS THAN 3 FEET FROM A PROPERTY LINE.



- TYPICAL WATER HEATER**
- P & T RELIEF VALVE PIPED TO OUTSIDE OF DWELLING
  - NON-COMBUSTIBLE PLATFORM 24"x24" x 18" ABOVE FINISH FLOOR FOR GAS WATER HEATER
  - T&P RELIEF LINE TO BE FULL SIZE STEEL PIPE OR HARD DRAWN COPPER TUBING EXTENDING TO THE EXTERIOR OF THE BUILDING AND TERMINATING IN A DOWNWARD POSITION NOT MORE THAN 6" ABOVE GRADE.

- TUB SHOWER COMBO**
- SHOWER MIXING VALVE & HEAD @ TUB/SHOWER COMBO ONLY: SHOWER HEAD @ +84"
  - SHOWER CURTAIN ROD - NOT PROVIDE BY BUILDER
  - SHOWER SURROUNDS @ MIN +76" ABOVE DRAIN U.N.O. ON PLAN
  - TUB FAUCET
  - +20" FRAMED RAISED PLATFORM TUB DECK. TUB DECK, SKIRT & BACKSPLASH
  - TEMPERED GLASS SHOWER DOOR (MIN OPENING 22") & ENCLOSURE
  - SEAT @ +20" SLOPE: 1/2": 1'
  - 14-1/2" x 14-1/2" SOAP NICHE, BTM @ +42" AFF
  - 9-1/2" x 14-1/2" SOAP NICHE, BTM @ +42"
  - 36" SHOWER DRAIN
  - WINDOW PER PLAN

SEE DTL. 140/AD FOR SHOWER AND FREESTANDING TUB COMBO



DATE	07/28/2023
CITY COMMENTS	
REVISION	

2108 E Solano Dr  
PHOENIX AZ,  
85016

CONTACT:	(623) 853 3751
DRAWN BY:	Esly Villar
CHECKED BY:	ARQM, LLC
DATE:	
SCALE:	PER PLAN
SHEET:	A-2

**GENERAL ELEVATION NOTES**

- A. ONE(1) COAT STUCCO SYSTEM (ESR-2323) OVER 1" GA SELF-FURRED WOVEN WIRE FABRIC OVER 1" SUBSTRATE (AS LISTED BELOW) OVER 1-GRADE "D" BUILDING PAPER(U.N.O) SUBSTRATE:
  - 1) FROM TOP OF SLAB TO ROOF PLATE LINE 1" EXPANDED POLYSTYRENE
  - 2) ABOVE TOP PLATE:1" INSULATIONS FOAM BOARD,EXCEPTIONS:AT OPTIONAL CATHEDRAL INSULATION,1" EXPANDED POLYSTYRENE SHALL BE USED AT ALL CONDITIONED AREAS BELOW AND ABOVE TOP PLATE.
- B. MAG ONE-COAT STUCCO COMPLIANCE PROGRAM, ALL ONE-COAT STUCCO SYSTEMS SHALL BE APPLIED BY MANUFACTURERS APPROVED INSTALLERS. AN APPROVED WEATHER-RESISTIVE BARRIER SHALL BE INSTALLED OVER ALL FRAMING AND WOOD BASED SHEATHING.
- I. PROVIDE (2) LAYER 30# FELT FLASHING AT ALL HEADS, JAMBS, AND SILLS OF WINDOWS AND DOOR OPENINGS. SEE TYP. DETAIL
- J. PROVIDE CONTINUOUS SEALANT BEAD WHERE STUCCO ABUTS WINDOWS AND DOORS FRAME SO AS TO PROVIDE A WEATHER RESISTIVE BARRIER.REFER TO DETAIL.
- K. PROVIDE CONT. 26 GA. G.I. WEEP SCREED, WITH 3-1/2" VERTICAL NAILING FLANGE AT +4" ABOVE FINISH GRADE SEE DTL. 100
- L. ALL NON-VERTICAL STUCCO SURFACES (STUCCO SHAPES)TO BE SLOPED MIN 1/8" PER 12" AND WATER-PROOFED WITH ONE LAYER OF BITHETHANE WATERPROOF MEMBRANE.

**NOTES**

- A. FOR APPLICATION WITHOUT ADHESIVE, A PAIR OF NAILS SPACED NOT LESS THAN 2 INCHES APART OR MORE THAN 2-1/2 INCHES APART MAY BE USED WITH THE PAIR OF NAILS SPACED 12 INCHES ON CENTER.
- B. SCREWS SHALL BE IN ACCORDANCE WITH SECTION R702.3.6. SCREWS USED TO ATTACH GYPSUM BOARD TO STRUCTURAL INSULATED PANELS SHALL PENETRATE THE WOOD STRUCTURAL PANEL FACING NOT LESS THAN 7/16 INCH.
- C. WHERE COLD-FORMED STEEL FRAMING IS USED WITH A CLINCHING DESIGN TO RECEIVE NAILS BY TWO EDGES OF METAL, THE NAILS SHALL BE NO LESS THAN 5/8 INCH LONGER THAN THE GYPSUM BOARD THICKNESS AND SHALL HAVE RINGED SHANKS. WHERE THE COLD-FORMED STEEL FRAMING HAS A NAILING GROOVE FORMED TO RECEIVE THE NAILS, THE NAILS SHALL HAVE BARBED SHANKS OR BE 5D, 131/2 GAGE, 15/8 INCHES LONG, 15/64-INCH HEAD FOR 1/2-INCH GYPSUM BOARD; AND 6D, 13 GAGE, 17/8 INCHES LONG, 15/64-INCH HEAD FOR 5/8-INCH GYPSUM BOARD.
- D. THREE-EIGHTHS-INCH-THICK SINGLE-PLY GYPSUM BOARD SHALL NOT BE USED ON A CEILING WHERE A WATER-BASED TEXTURED FINISH IS TO BE APPLIED, OR WHERE IT WILL BE REQUIRED TO SUPPORT INSULATION ABOVE A CEILING. ON CEILING APPLICATIONS TO RECEIVE A WATER-BASED TEXTURE MATERIAL, EITHER HAND OR SPRAY APPLIED, THE GYPSUM BOARD SHALL BE APPLIED PERPENDICULAR TO FRAMING. WHEN APPLYING A WATER-BASED TEXTURE MATERIAL, THE MINIMUM GYPSUM BOARD THICKNESS SHALL BE INCREASED FROM 3/8 INCH TO 1/2 INCH FOR 16-INCH ON CENTER FRAMING, AND FROM 1/2 INCH TO 5/8 INCH FOR 24-INCH ON CENTER FRAMING OR 1/2-INCH SAG-RESISTANT GYPSUM CEILING BOARD SHALL BE USED.
- E. TYPE X GYPSUM BOARD FOR GARAGE CEILINGS BENEATH HABITABLE ROOMS SHALL BE INSTALLED PERPENDICULAR TO THE CEILING FRAMING AND SHALL BE FASTENED AT MAXIMUM 6 INCHES O.C. BY MINIMUM 17/8 INCHES 6D COATED NAILS OR EQUIVALENT DRYWALL SCREWS.GE.

**GENERAL NOTES**

- A. TYPICAL EXTERIOR WALL - 2x4 (U.N.O.) WOOD STUDS AT 16" O.C. WITH GYP. WALLBOARD AT INTERIOR FACE AND ONE(1) COAT STUCCO SYSTEM (ICC ESR-2323) OVER 1" GA SELF-FURRED WOVEN WIRE FABRIC OVER 1" SUBSTRATE (AS LISTED BELOW) OVER 1-GRADE "D" BUILDING PAPER(U.N.O) SUBSTRATE:
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- B. TYPICAL INTERIOR WALL - 1/2" GYP. WALLBOARD EACH SIDE OF 2x6 WOOD STUDS AT 16" O.C. - PROVIDE SOUND INSULATION AS INDICATED ON PLAN.
- C. MINIMUM BATT INSULATION VALUES - WALLS = R-19, AND ROOF = R-38.
- D. AREAS OUTSIDE THE THERMAL ENVELOP ARE REQUIRED TO MEET AIR LEAKAGE REQUIREMENTS PER N1102.4
- E. PROVIDE REQUIRED AND THE PROVIDED NET FREE VENTILATING AREA. DETAIL AND NOTE ON THE PLANS THE LOCATION OF ROOF VENTILATION. IF A CONDITIONED ATTIC ASSEMBLY IS PROPOSED,SHOW COMPLIANCE WITH IRC806.5 GE.
- F. FOAM ROOF SYSTEM SEE IRC R905.14

**LEGEND**

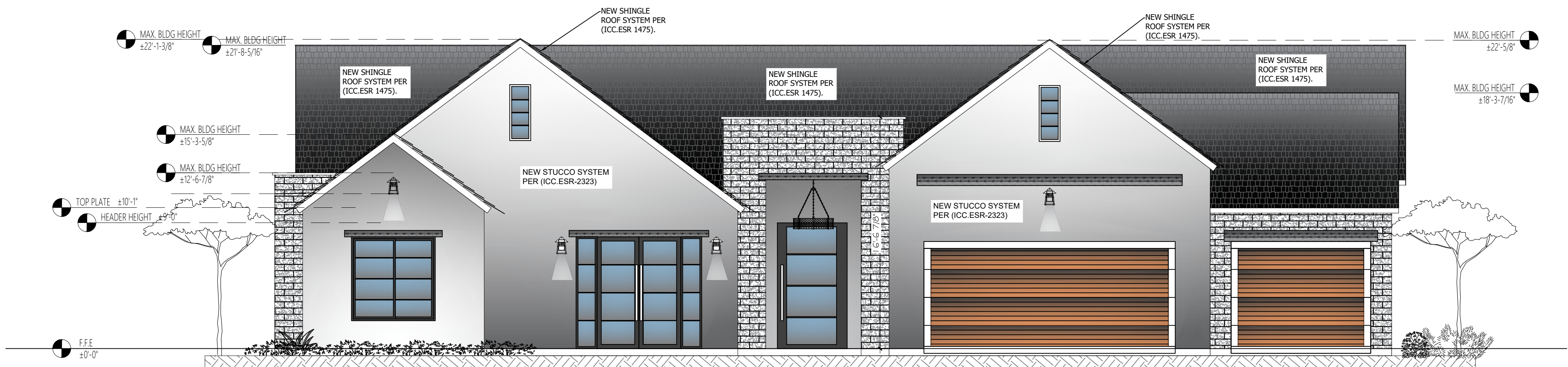
BATT INSULATION - CONT. .1M. MIN R-38 AT CEILINGS, AND R-19 AT 2x6 WALLS, R-13 @2x4 WALLS @ 16" O.C  
NOTE: IF THE OWNER / DEVELOPER CHOOSES TO USE SPRAY FOAM INSULATION (DETAIL 500 ON THIS SHEET) INSTEAD OF BATT INSULATION, THE INSTALLATION SHOULD BE MADE AS DESCRIBED IN ESR-3228

**ENERGY EFFICIENCY: (Arizona 2B Maricopa)**

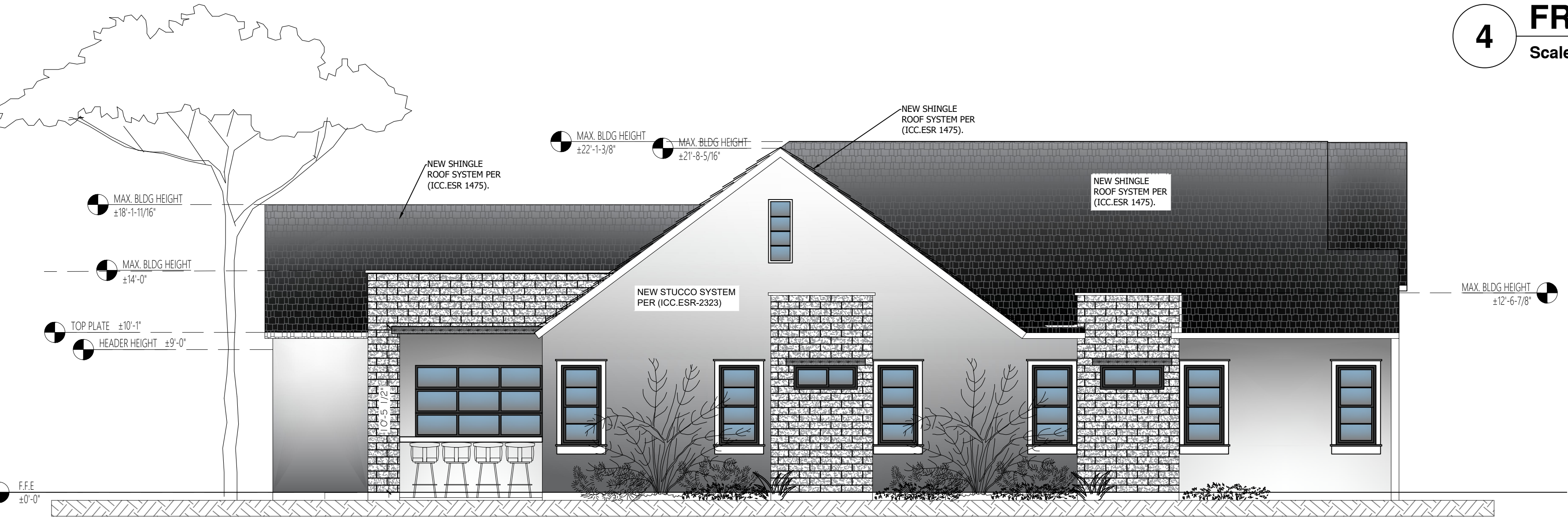
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N11025.4 (R402.4) THE BUILDING THERMAL ENVELOPED SHALL BE CONSTRUCTED TO LIMIT AIR AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS N1102.4.1 THROUGH N1102.5

**LEGEND:**

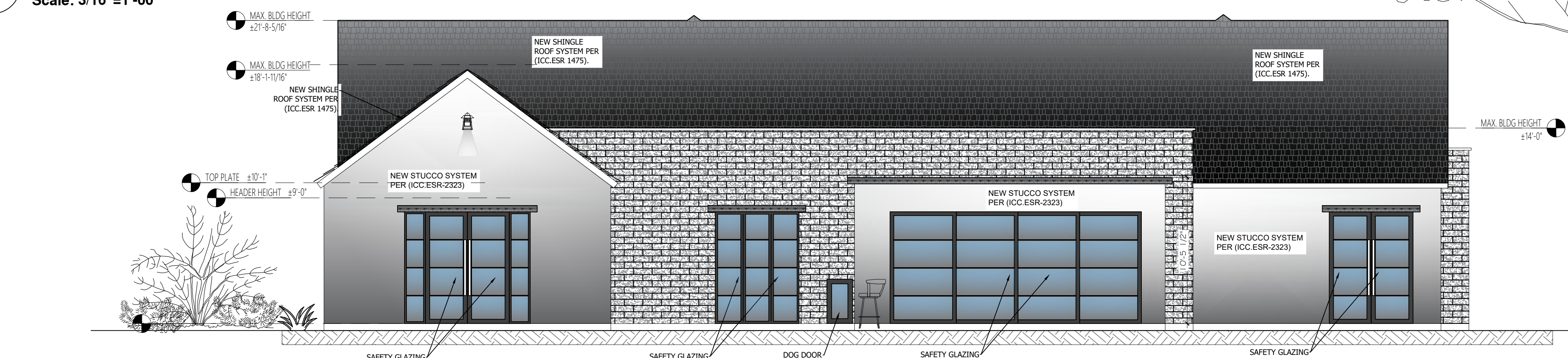
- SHINGLE ROOF ICC.ESR-1475
- STUCCO SYSTEM ICC.ESR-2323
- BRICK VENEER ICC.ESR-1702
- METAL ROOFING ICC.ESR-1188



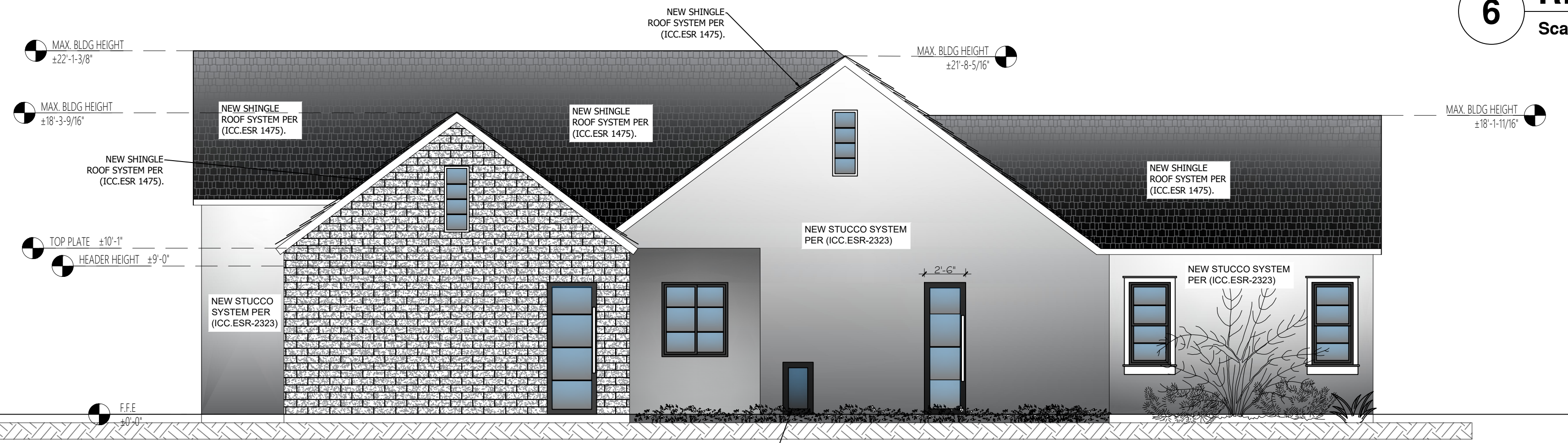
**4 FRONT ELEVATION (South)**  
Scale: 3/16"=1'-00"



**5 LEFT ELEVATION (West)**  
Scale: 3/16"=1'-00"



**6 REAR ELEVATION (North)**  
Scale: 3/16"=1'-00"



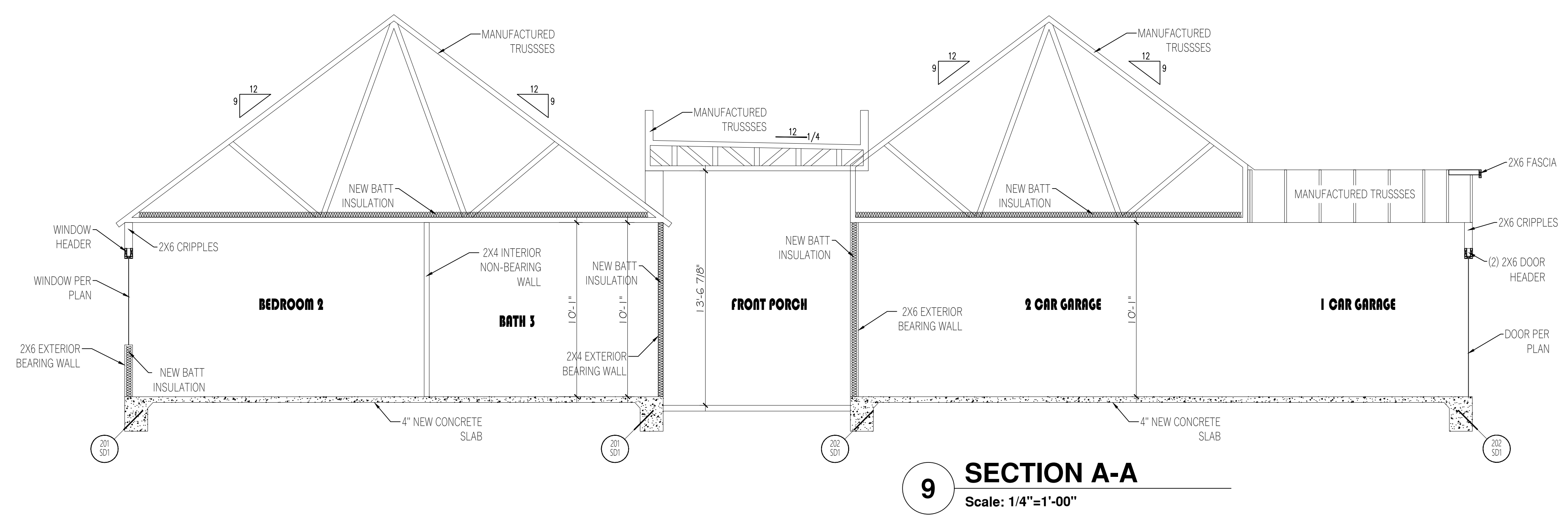
**7 RIGHT ELEVATION (East)**  
Scale: 3/16"=1'-00"

**ELEVATION PLAN**

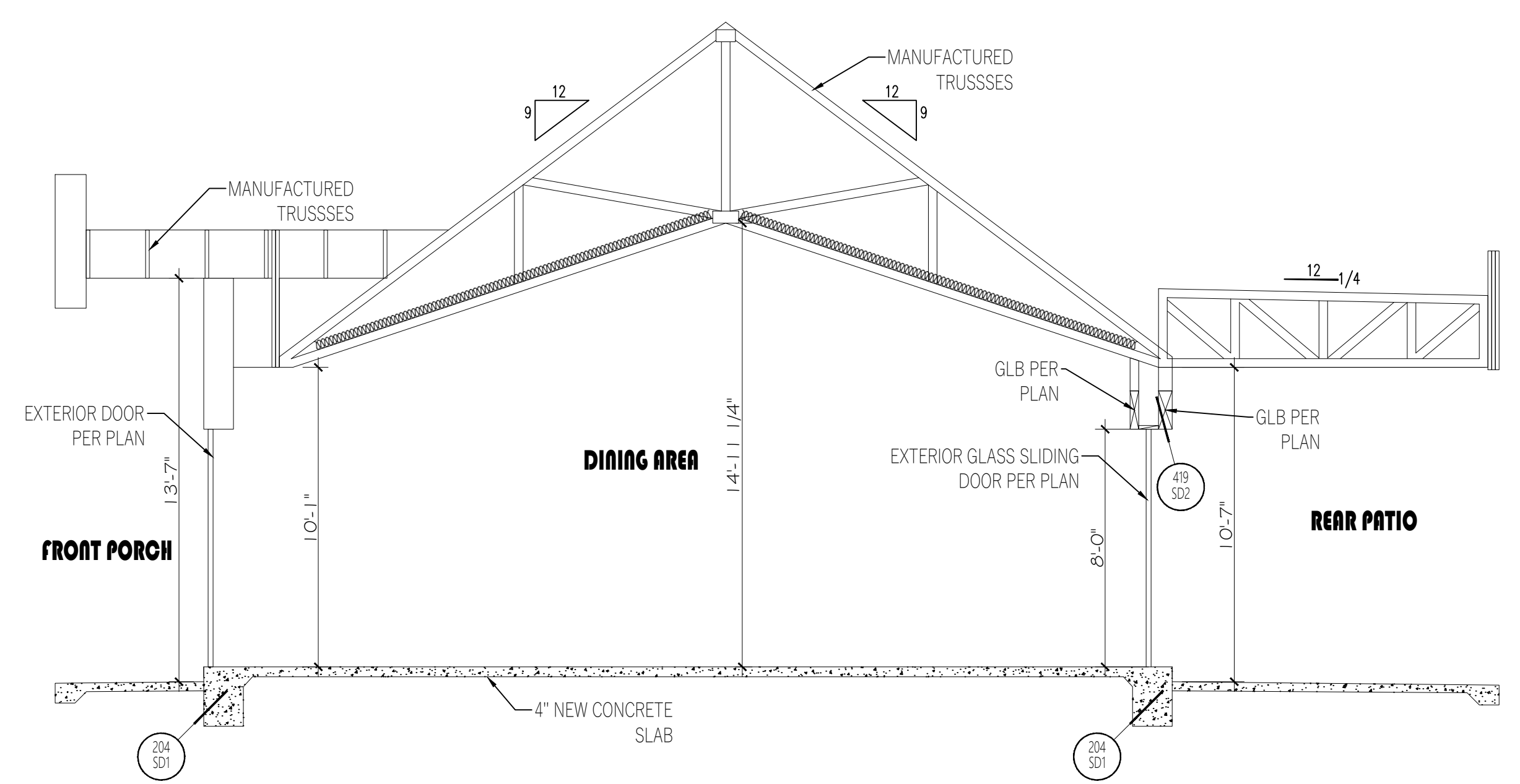
SCALE: 3/16" = 1'-0"

Scale	Comments

2108 E Solano Dr  
PHOENIX AZ,  
85016



**9 SECTION A-A**  
Scale: 1/4"=1'-00"



**9 SECTION B-B**  
Scale: 1/4"=1'-00"

**NOTES**

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- C. WHERE COLD-FORMED STEEL FRAMING IS USED WITH A CLINCHING DESIGN TO RECEIVE NAILS BY TWO EDGES OF METAL, THE NAILS SHALL BE NO LESS THAN 5/8 INCH LONGER THAN THE GYPSUM BOARD THICKNESS AND SHALL HAVE RINGED SHANKS. WHERE THE COLD-FORMED STEEL FRAMING HAS A NAILING GROOVE FORMED TO RECEIVE THE NAILS, THE NAILS SHALL HAVE BARBED SHANKS OR BE 5D, 13 1/2 GAGE, 15/8 INCHES LONG, 15/64-INCH HEAD FOR 1/2-INCH GYPSUM BOARD; AND 6D, 13 GAGE, 17/8 INCHES LONG, 15/64-INCH HEAD FOR 5/8-INCH GYPSUM BOARD.
- D. THREE-EIGHTHS-INCH-THICK SINGLE-PLY GYPSUM BOARD SHALL NOT BE USED ON A CEILING WHERE A WATER-BASED TEXTURED FINISH IS TO BE APPLIED, OR WHERE IT WILL BE REQUIRED TO SUPPORT INSULATION ABOVE A CEILING. ON CEILING APPLICATIONS TO RECEIVE A WATER-BASED TEXTURE MATERIAL, EITHER HAND OR SPRAY APPLIED, THE GYPSUM BOARD SHALL BE APPLIED PERPENDICULAR TO FRAMING. WHEN APPLYING A WATER-BASED TEXTURE MATERIAL, THE MINIMUM GYPSUM BOARD THICKNESS SHALL BE INCREASED FROM 3/8 INCH TO 1/2 INCH FOR 16-INCH ON CENTER FRAMING, AND FROM 1/2 INCH TO 5/8 INCH FOR 24-INCH ON CENTER FRAMING OR 1/2-INCH SAG-RESISTANT GYPSUM CEILING BOARD SHALL BE USED.
- E. TYPE X GYPSUM BOARD FOR GARAGE CEILINGS BENEATH HABITABLE ROOMS SHALL BE INSTALLED PERPENDICULAR TO THE CEILING FRAMING AND SHALL BE FASTENED AT MAXIMUM 6 INCHES O.C. BY MINIMUM 17/8 INCHES 6D COATED NAILS OR EQUIVALENT DRYWALL SCREWS.GE.

**GENERAL NOTES**

- A. TYPICAL EXTERIOR WALL - 2x4 (U.N.O.) WOOD STUDS AT 16" O.C. WITH GYP. WALLBOARD AT INTERIOR FACE AND ONE(1) COAT STUCCO SYSTEM (ICC ESR-2323) OVER 1" GA SELF-FURRED WOVEN WIRE FABRIC OVER 1" SUBSTRATE (AS LISTED BELOW) OVER 1-GRADE "D" BUILDING PAPER(U.N.O) SUBSTRATE:  
1)FROM TOP OF SLAB TO ROOF PLATE LINE 1" EXPANDED POLYSTYRENE  
2)ABOVE TOP PLATE:1" INSULATION FOAM BOARD. EXCEPTIONS:AT OPTIONAL CATHEDRAL INSULATION,1" EXPANDED POLYSTYRENE SHALL BE USED AT ALL CONDITIONED AREAS BELOW AND ABOVE TOP PLATE.
- B. TYPICAL INTERIOR WALL - 1/2" GYP. WALLBOARD EACH SIDE OF 2x6 WOOD STUDS AT 16" O.C. - PROVIDE SOUND INSULATION AS INDICATED ON PLAN.
- C. MINIMUM BATT INSULATION VALUES - WALLS = R-19, AND ROOF = R-38.
- D. AREAS OUTSIDE THE THERMAL ENVELOPE ARE REQUIRED TO MEET AIR LEAKAGE REQUIREMENTS PER N1102.4
- E. PROVIDE REQUIRED AND THE PROVIDED NET FREE VENTILATING AREA. DETAIL AND NOTE ON THE PLANS THE LOCATION OF ROOF VENTILATION. IF A CONDITIONED ATTIC ASSEMBLY IS PROPOSED,SHOW COMPLIANCE WITH IRC806.5 GE.
- F. FOAM ROOF SYSTEM SEE IRC R905.14

**LEGEND**

INSULATION - CONT. .IM. MIN R-38 AT CEILINGS, AND R-19 AT 2x6 WALLS, R-13 @2x4 WALLS @ 16" O.C  
NOTE: IF THE OWNER / DEVELOPER CHOOSES TO USE SPRAY FOAM INSULATION (DETAIL 500 ON THIS SHEET) INSTEAD OF BATT INSULATION, THE INSTALLATION SHOULD BE MADE AS DESCRIBED IN ESR-3228

**NOTES**

- NOTE FOR FIRE RATED WALL WHEN THE PROPERTY LINE IS 5' OR LESS
- FIRE-RESISTANCE-RATED FLOOR/CEILING AND WALL ASSEMBLIES SHALL EXTEND TO AND BE TIGHT AGAINST THE EXTERIOR WALL, AND WALL ASSEMBLIES SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE ROOF SHEATHING. (R302.3)
- OPENINGS OR PENETRATIONS THROUGH THE ROOF ARE PROHIBITED WITHIN THE 4-FT MINIMUM SEPARATION. ROOF DECKING / SHEATHING MUST BE NON-COMBUSTIBLE MATERIAL, FIRE-RETARDANT-TREATED WOOD OR PROTECTED BY 5/8-INCH TYPE-X GYPSUM BOARD. (R302.2.3)

**NOTES**

OPENINGS OR PENETRATIONS THROUGH THE ROOF ARE PROHIBITED WITHIN THE 4-FT MINIMUM SEPARATION. ROOF DECKING / SHEATHING MUST BE NON-COMBUSTIBLE MATERIAL, FIRE-RETARDANT-TREATED WOOD OR PROTECTED BY 5/8-INCH TYPE-X GYPSUM BOARD. (R302.2.3)

**OPTIONAL 2' WIDE EXTENSION NOTE:**

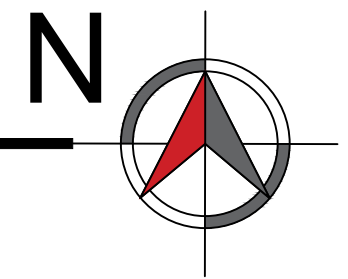
CONTRACTOR OR TRUSS MANUFACTURE SHOULD PROVIDE EXTRA TRUSSES ON ENBRGE GIRDERS AS NEEDED,

**CITY OF PHOENIX**  
Planning and Development Department  
By: Justine Cornelius  
04/12/2023

This set of plans has been reviewed for PHOENIX CONSTRUCTION CODE requirements prior to issuance of Building Permit and shall be kept at the construction site. Such review shall not prevent the contractor from making any changes to the drawings. THIS DRAWING WAS PREPARED BY OTHERS AND REVIEWED BY KING ENGINEERING FOR STRUCTURAL CORRECTNESS



**SECTIONS PLAN**  
SCALE: 1/4" = 1'-00"



**CONTACT:**  
☎ (623) 853 3751  
**DRAWN BY:**  
Cristian G.  
**CHECKED BY:**  
AROM, LLC  
**DATE:**  
**SCALE:**  
PER PLAN  
**SHEET:**  
A-3

ARQM LLC owns designs, concepts, information, data, and details contained in these drawings. they could refer to brands only as complementary information. cannot be used by others without a written approval signed by ARQM LLC.

Scale	02/28/2023
City COMMENTS	03/28/2023
City COMMENTS	
City COMMENTS	
City COMMENTS	

WINDOW SCHEDULE					
WINDOW TYPE	W SIZE	H SIZE	HEADER HEIGHT	LOCATION	QUANTITY
XO	4'-0"	5'-0"	9'-0"	GUEST SUITE	1
OBSCURE XO	4'-0"	1'-6"	9'-0"	BATH 2	1
SH	2'-6"	5'-0"	9'-0"	BEDROOM 2	2
OBSCURE XO	4'-0"	1'-6"	9'-0"	BATH 1	1
SH	2'-6"	5'-0"	9'-0"	BEDROOM 1	2
XO	6'-0"	6'-0"	9'-0"	BEDROOM 1	1
FX	1'-6"	8'-0"	9'-0"	OFFICE	2
XO	4'-0"	1'-6"	9'-0"	OFFICE	1
XO	4'-0"	3'-0"	9'-0"	LAUNDRY	1
SH	2'-6"	5'-0"	9'-0"	OWNER'S BEDROOM	2
FX	1'-6"	8'-0"	9'-0"	OWNER'S BEDROOM	2
OBSCURE XO	2'-0"	4'-0"	9'-0"	BAR'S RESTROOM	1
ACCORDION	9'-0"	4'-6"	9'-0"	BAR	1

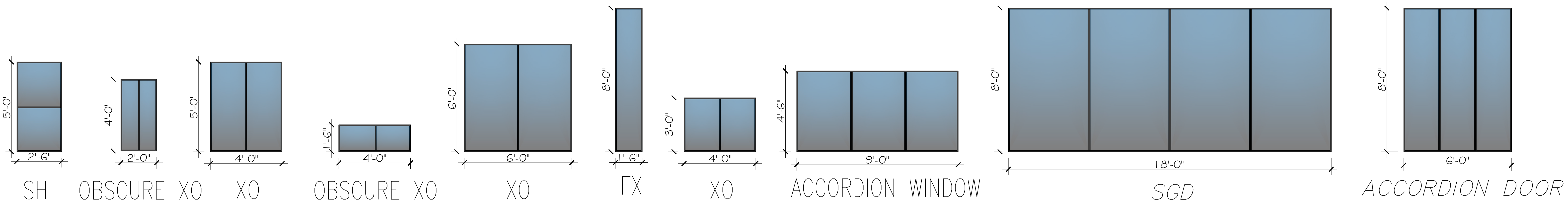
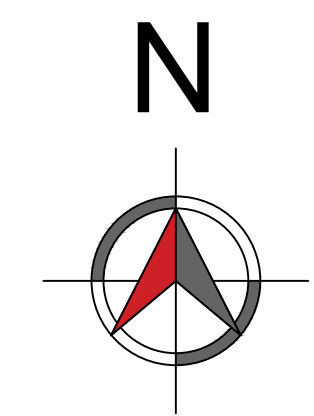
EXTERIOR GLASS DOOR SCHEDULE					
WINDOW TYPE	W SIZE	H SIZE	HEADER HEIGHT	LOCATION	QUANTITY
SGD	18'-0"	8'-0"	9'-0"	REAR PATIO	1
ACCORDION	6'-0"	8'-0"	9'-0"	BAR	1

### WINDOW SCHEDULE

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

### WINDOW SCHEDULE

SCALE: 3/8" = 1'-0"



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**CONTACT:**  
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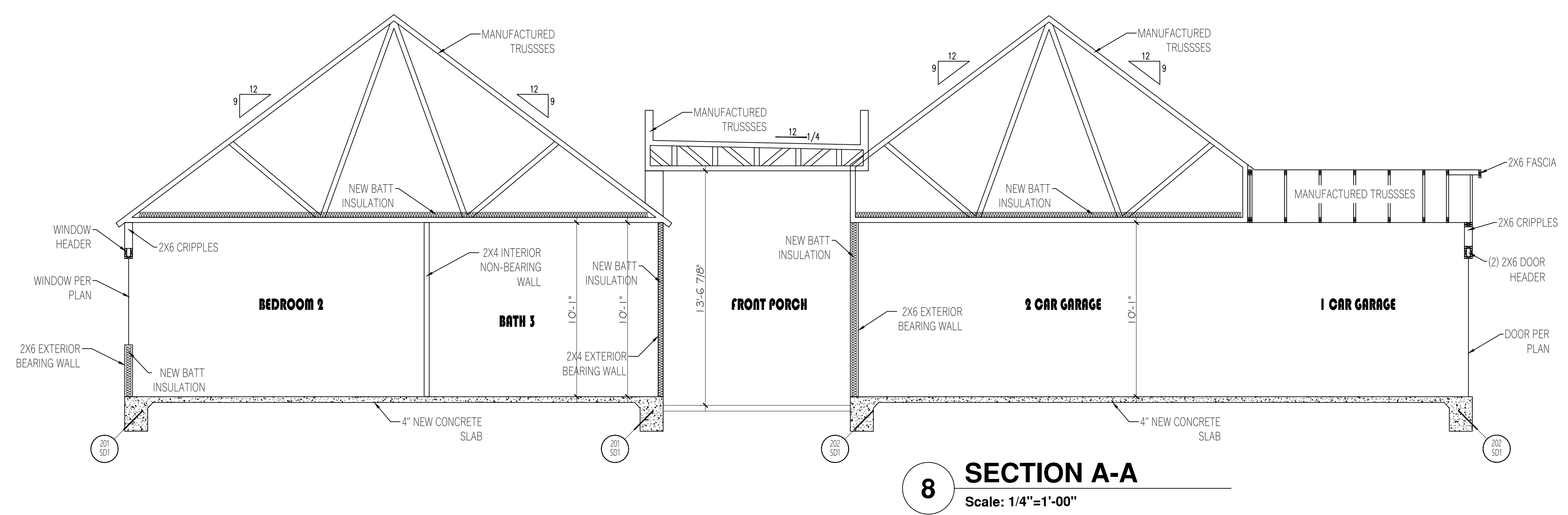
**DRAWN BY:**  
Esly Villar

**CHECKED BY:**  
ARQM, LLC

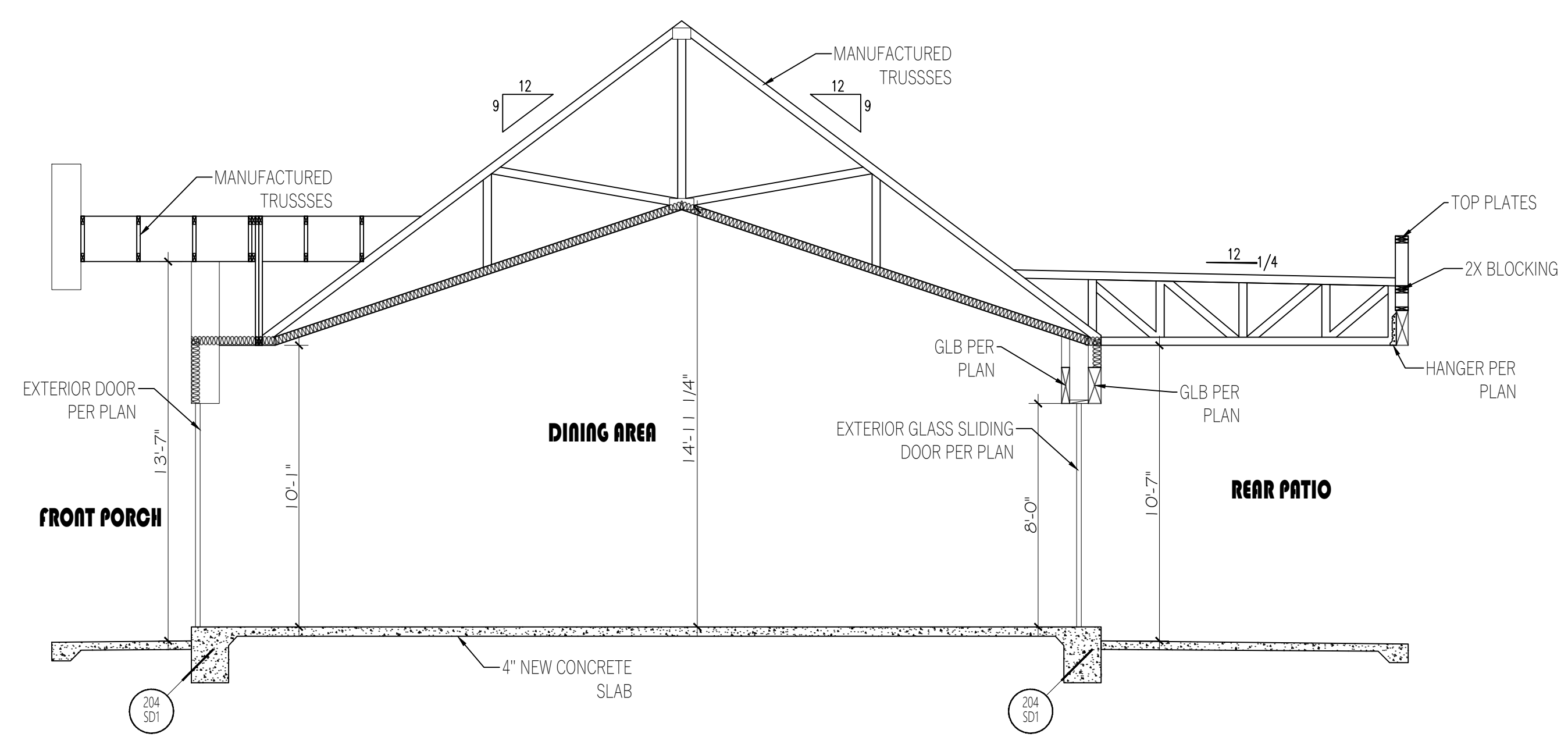
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PER PLAN

**SHEET:**  
A-3



**8 SECTION A-A**  
Scale: 1/4"=1'-00"



**9 SECTION B-B**  
Scale: 1/4"=1'-00"

**NOTES**

- A. FOR APPLICATION WITHOUT ADHESIVE, A PAIR OF NAILS SPACED NOT LESS THAN 2 INCHES APART OR MORE THAN 2-1/2 INCHES APART MAY BE USED WITH THE PAIR OF NAILS SPACED 12 INCHES ON CENTER.
- B. SCREWS SHALL BE IN ACCORDANCE WITH SECTION R702.3.6. SCREWS USED TO ATTACH GYPSUM BOARD TO STRUCTURAL INSULATED PANELS SHALL PENETRATE THE WOOD STRUCTURAL PANEL FACING NOT LESS THAN 7/16 INCH.
- C. WHERE COLD-FORMED STEEL FRAMING IS USED WITH A CLINCHING DESIGN TO RECEIVE NAILS BY TWO EDGES OF METAL, THE NAILS SHALL BE NO LESS THAN 5/8 INCH LONGER THAN THE GYPSUM BOARD THICKNESS AND SHALL HAVE RINGED SHANKS. WHERE THE COLD-FORMED STEEL FRAMING HAS A NAILING GROOVE FORMED TO RECEIVE THE NAILS, THE NAILS SHALL HAVE BARBED SHANKS OR BE 5D, 13 1/2 GAGE, 15/8 INCHES LONG, 15/64-INCH HEAD FOR 1/2-INCH GYPSUM BOARD; AND 6D, 13 GAGE, 17/8 INCHES LONG, 15/64-INCH HEAD FOR 5/8-INCH GYPSUM BOARD.
- D. THREE-EIGHTHS-INCH-THICK SINGLE-PLY GYPSUM BOARD SHALL NOT BE USED ON A CEILING WHERE A WATER-BASED TEXTURED FINISH IS TO BE APPLIED, OR WHERE IT WILL BE REQUIRED TO SUPPORT INSULATION ABOVE A CEILING. ON CEILING APPLICATIONS TO RECEIVE A WATER-BASED TEXTURE MATERIAL, EITHER HAND OR SPRAY APPLIED, THE GYPSUM BOARD SHALL BE APPLIED PERPENDICULAR TO FRAMING. WHEN APPLYING A WATER-BASED TEXTURE MATERIAL, THE MINIMUM GYPSUM BOARD THICKNESS SHALL BE INCREASED FROM 3/8 INCH TO 1/2 INCH FOR 16-INCH ON CENTER FRAMING, AND FROM 1/2 INCH TO 5/8 INCH FOR 24-INCH ON CENTER FRAMING OR 1/2-INCH SAG-RESISTANT GYPSUM CEILING BOARD SHALL BE USED.
- E. TYPE X GYPSUM BOARD FOR GARAGE CEILINGS BENEATH HABITABLE ROOMS SHALL BE INSTALLED PERPENDICULAR TO THE CEILING FRAMING AND SHALL BE FASTENED AT MAXIMUM 6 INCHES O.C. BY MINIMUM 17/8 INCHES 6D COATED NAILS OR EQUIVALENT DRYWALL SCREWS.GE.

**GENERAL NOTES**

- A. TYPICAL EXTERIOR WALL - 2x4 (U.N.O.) WOOD STUDS AT 16" O.C. WITH GYP. WALLBOARD AT INTERIOR FACE AND ONE(1) COAT STUCCO SYSTEM (ICC ESR-2323) OVER 1" GA SELF-FURRED WOVEN WIRE FABRIC OVER 1" SUBSTRATE (AS LISTED BELOW) OVER 1-GRADE "D" BUILDING PAPER(U.N.O) SUBSTRATE:  
1)FROM TOP OF SLAB TO ROOF PLATE LINE 1" EXPANDED POLYSTYRENE  
2)ABOVE TOP PLATE:1" INSULATION FOAM BOARD. EXCEPTIONS:AT OPTIONAL CATHEDRAL INSULATION,1" EXPANDED POLYSTYRENE SHALL BE USED AT ALL CONDITIONED AREAS BELOW AND ABOVE TOP PLATE.
- B. TYPICAL INTERIOR WALL - 1/2" GYP. WALLBOARD EACH SIDE OF 2x6 WOOD STUDS AT 16" O.C. - PROVIDE SOUND INSULATION AS INDICATED ON PLAN.
- C. MINIMUM BATT INSULATION VALUES - WALLS = R-19, AND ROOF = R-38.
- D. AREAS OUTSIDE THE THERMAL ENVELOPE ARE REQUIRED TO MEET AIR LEAKAGE REQUIREMENTS PER N1102.4
- E. PROVIDE REQUIRED AND THE PROVIDED NET FREE VENTILATING AREA. DETAIL AND NOTE ON THE PLANS THE LOCATION OF ROOF VENTILATION. IF A CONDITIONED ATTIC ASSEMBLY IS PROPOSED,SHOW COMPLIANCE WITH IRC806.5 GE.
- F. FOAM ROOF SYSTEM SEE IRC R905.14

**LEGEND**

INSULATION - CONT. .IM. MIN R-38 AT CEILINGS, AND R-19 AT 2x6 WALLS, R-13 @2x4 WALLS @ 16" O.C  
NOTE: IF THE OWNER / DEVELOPER CHOOSES TO USE SPRAY FOAM INSULATION (DETAIL 500 ON THIS SHEET) INSTEAD OF BATT INSULATION, THE INSTALLATION SHOULD BE MADE AS DESCRIBED IN ESR-3228

**NOTES**

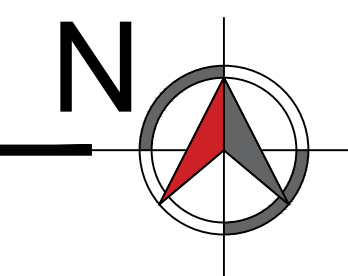
- NOTE FOR FIRE RATED WALL WHEN THE PROPERTY LINE IS 5' OR LESS
- FIRE-RESISTANCE-RATED FLOOR/CEILING AND WALL ASSEMBLIES SHALL EXTEND TO AND BE TIGHT AGAINST THE EXTERIOR WALL, AND WALL ASSEMBLIES SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE ROOF SHEATHING. (R302.3) OPENINGS OR PENETRATIONS THROUGH THE ROOF ARE PROHIBITED WITHIN THE 4-FT MINIMUM SEPARATION. ROOF DECKING / SHEATHING MUST BE NON-COMBUSTIBLE MATERIAL, FIRE-RETARDANT-TREATED WOOD OR PROTECTED BY 5/8-INCH TYPE-X GYPSUM BOARD. (R302.2.3)

**NOTES**

OPENINGS OR PENETRATIONS THROUGH THE ROOF ARE PROHIBITED WITHIN THE 4-FT MINIMUM SEPARATION. ROOF DECKING / SHEATHING MUST BE NON-COMBUSTIBLE MATERIAL, FIRE-RETARDANT-TREATED WOOD OR PROTECTED BY 5/8-INCH TYPE-X GYPSUM BOARD. (R302.2.3)

**OPTIONAL 2' WIDE EXTENSION NOTE:**

CONTRACTOR OR TRUSS MANUFACTURE SHOULD PROVIDE EXTRA TRUSSES ON ENBRGE GIRDERS AS NEEDED.



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DATE	02/28/2023
REVISION	03/28/2023
CITY COMMENTS	
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**CONTACT:**  
☎ (623) 853 3751

**DRAWN BY:**  
Eslly Villar

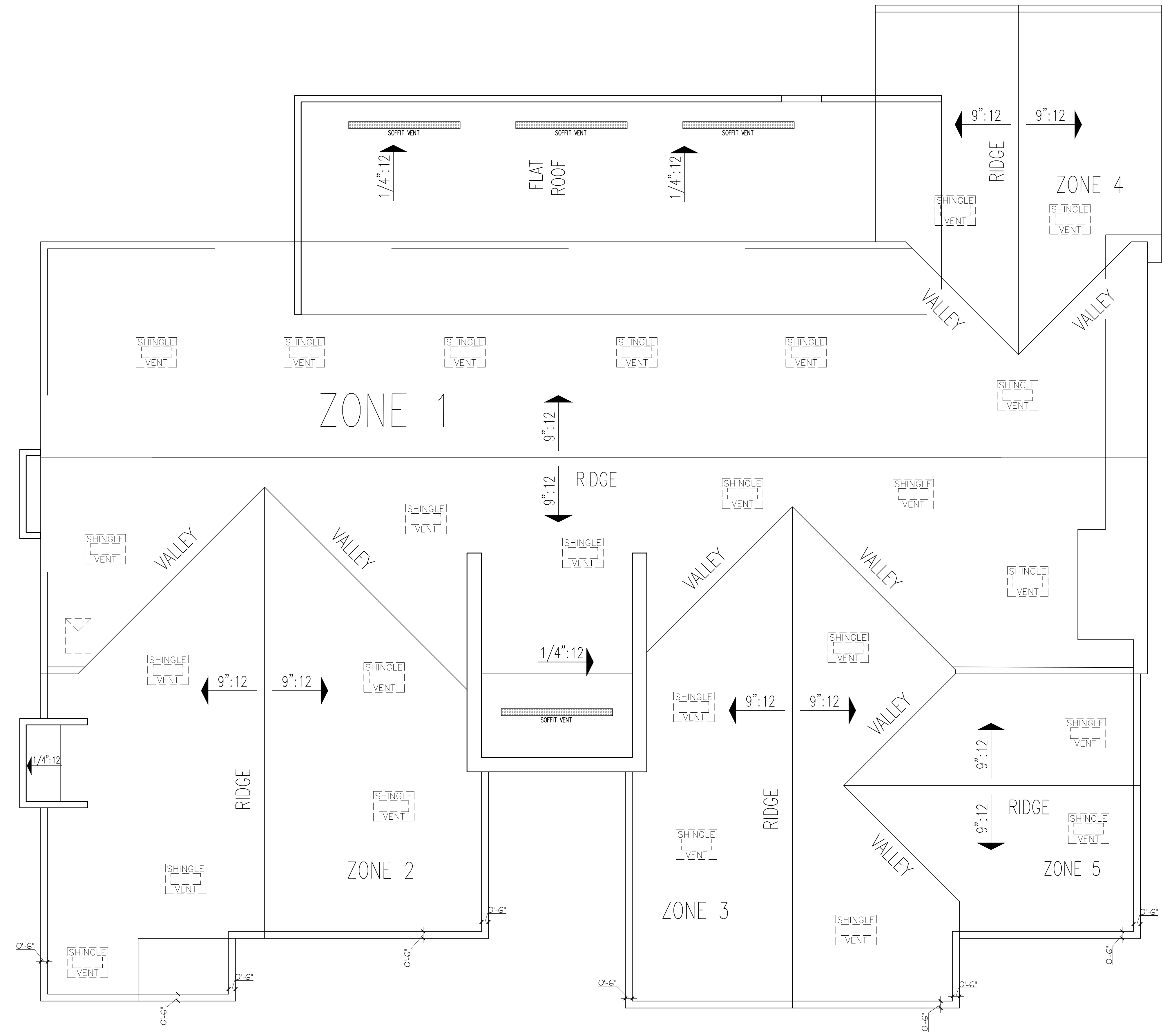
**CHECKED BY:**  
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PER PLAN

**SHEET:**  
A-4

<b>LEGEND</b>	(NON ALL USED)
	22"x30" ATTIC ACCESS-PROVIDE 30" HEADROOM AT ALL ACCESS LOCATIONS. A.H.U. LOCATED IN ATTIC SPACE(VERIFY LOCATION). INSULATE AND WEATHER STRIP PER IRC SECTION N1102.2.4.
	LINE OF BUILDING
	ROOF LINE (OVERHANG LINE)
	O'HAGIN SHINGLE VENT SQUARED BOX VENT 98.75 SQUARE INCHES NET VENTILATION (SBCCI-9650A)
	NOT IN SCOPE OF WORK

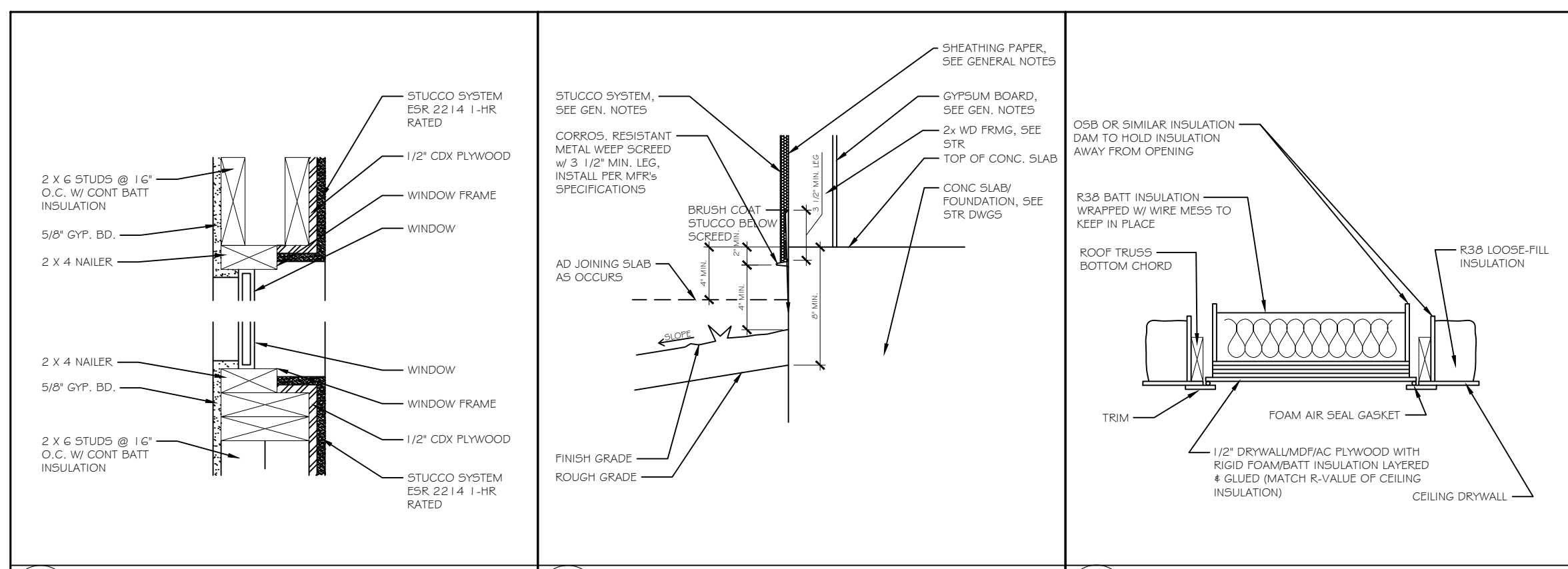


ATTIC VENT CALCULATIONS ZONE 1			
ROOF AREA SQ. FT.	TOTAL ROOF AREA SQ. IN.	VENT RADIO 1/300 SQ. IN	ROUND BACK VENT (MODEL RBV-10-C2-CMF) 78.5 SQ. IN
1967.00	283248.00	944.16	12.0275
PROVIDE MINIMUM 12 VENTS			
ATTIC VENT CALCULATIONS ZONE 2			
ROOF AREA SQ. FT.	TOTAL ROOF AREA SQ. IN.	VENT RADIO 1/300 SQ. IN	ROUND BACK VENT (MODEL RBV-10-C2-CMF) 78.5 SQ. IN
839.00	120816.00	402.72	5.1302
PROVIDE MINIMUM 5 VENTS			
ATTIC VENT CALCULATIONS ZONE 3			
ROOF AREA SQ. FT.	TOTAL ROOF AREA SQ. IN.	VENT RADIO 1/300 SQ. IN	ROUND BACK VENT (MODEL RBV-10-C2-CMF) 78.5 SQ. IN
638.00	91872.00	306.24	3.9011
PROVIDE MINIMUM 4 VENTS			
ATTIC VENT CALCULATIONS ZONE 4			
ROOF AREA SQ. FT.	TOTAL ROOF AREA SQ. IN.	VENT RADIO 1/300 SQ. IN	ROUND BACK VENT (MODEL RBV-10-C2-CMF) 78.5 SQ. IN
416.00	59904.00	199.68	2.5437
PROVIDE MINIMUM 2 VENTS			
ATTIC VENT CALCULATIONS ZONE 5			
ROOF AREA SQ. FT.	TOTAL ROOF AREA SQ. IN.	VENT RADIO 1/300 SQ. IN	ROUND BACK VENT (MODEL RBV-10-C2-CMF) 78.5 SQ. IN
316.00	45504.00	151.68	1.9322
PROVIDE MINIMUM 2 VENTS			

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City Comments	02/28/2023
City Comments	03/28/2023

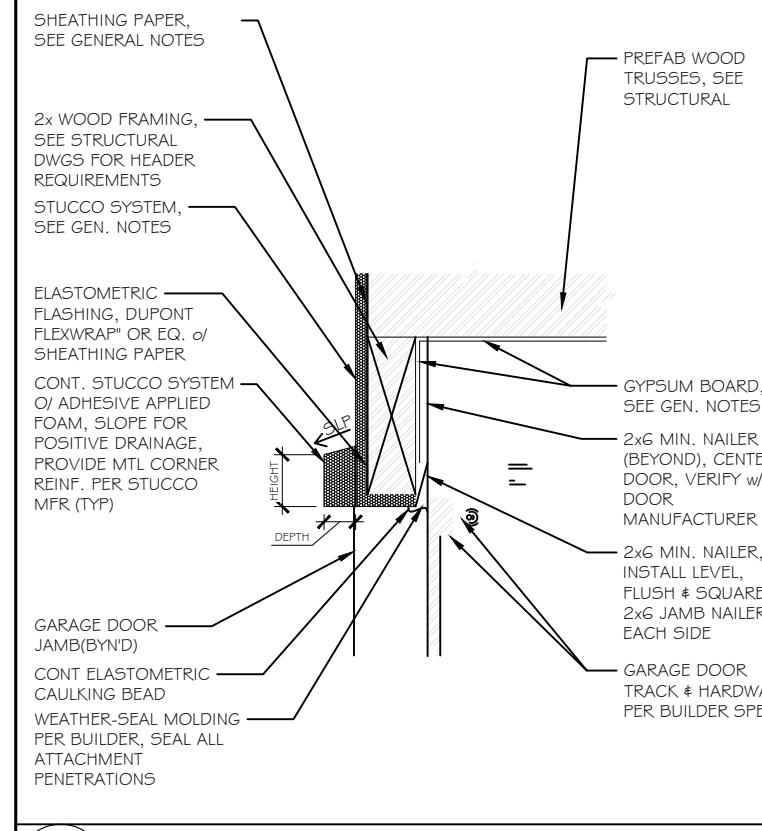
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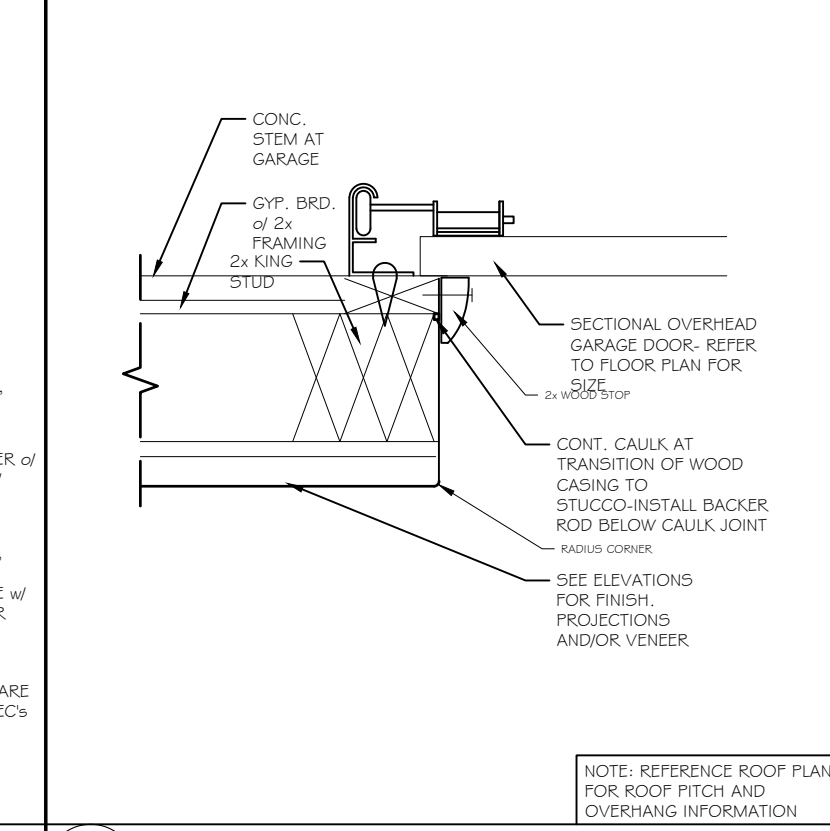
101 WINDOW JAMB REVEAL NOT TO SCALE

102 WEEP SCREED NOT TO SCALE

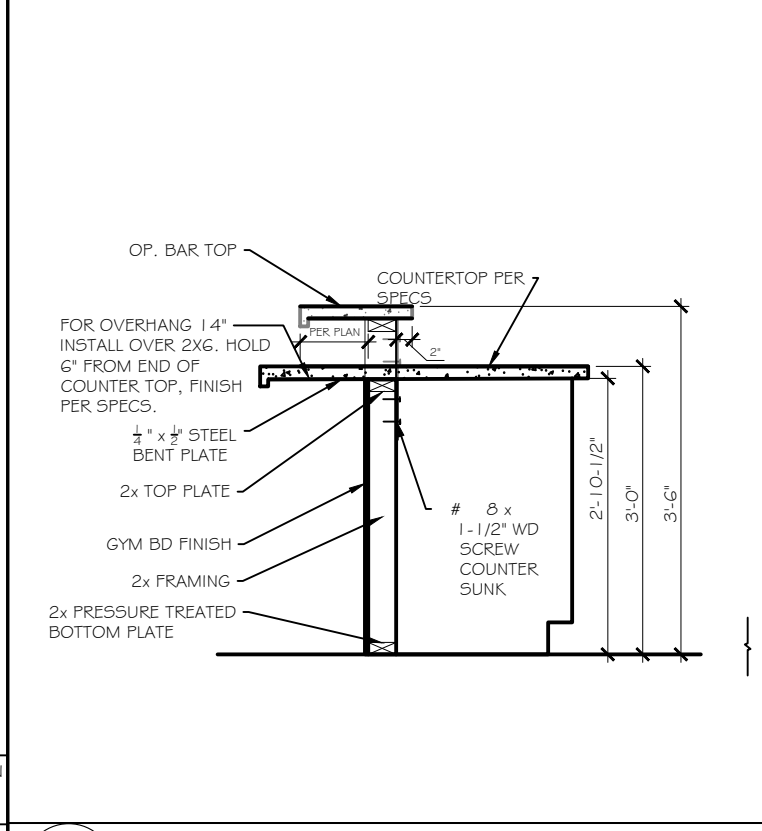
103 ATTIC ACCESS PANEL NOT TO SCALE



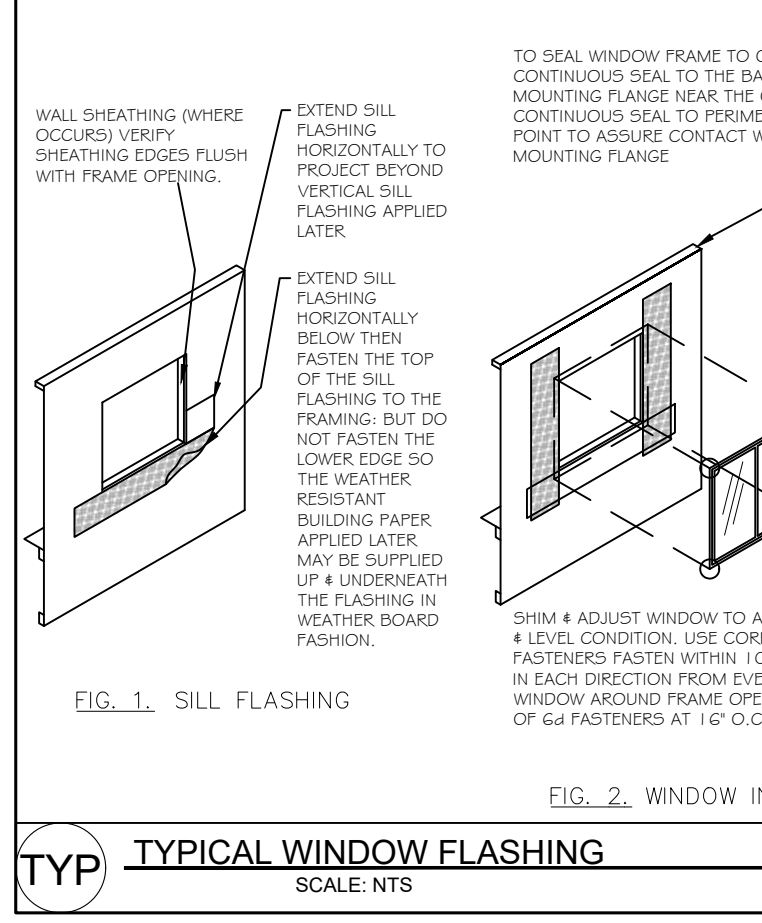
104 GARAGE DR HEAD W/ TRIM SCALE: 3/4" = 1'-0"



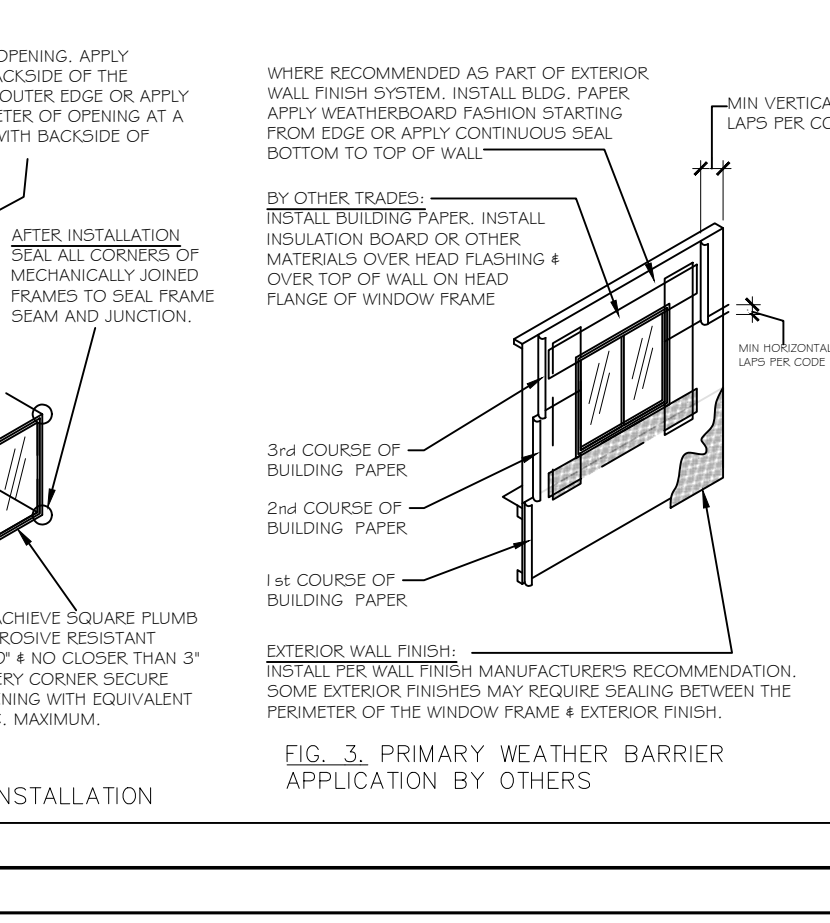
105 EXTERIOR GARAGE DOOR JAMB SCALE: 3/4" = 1'-0"



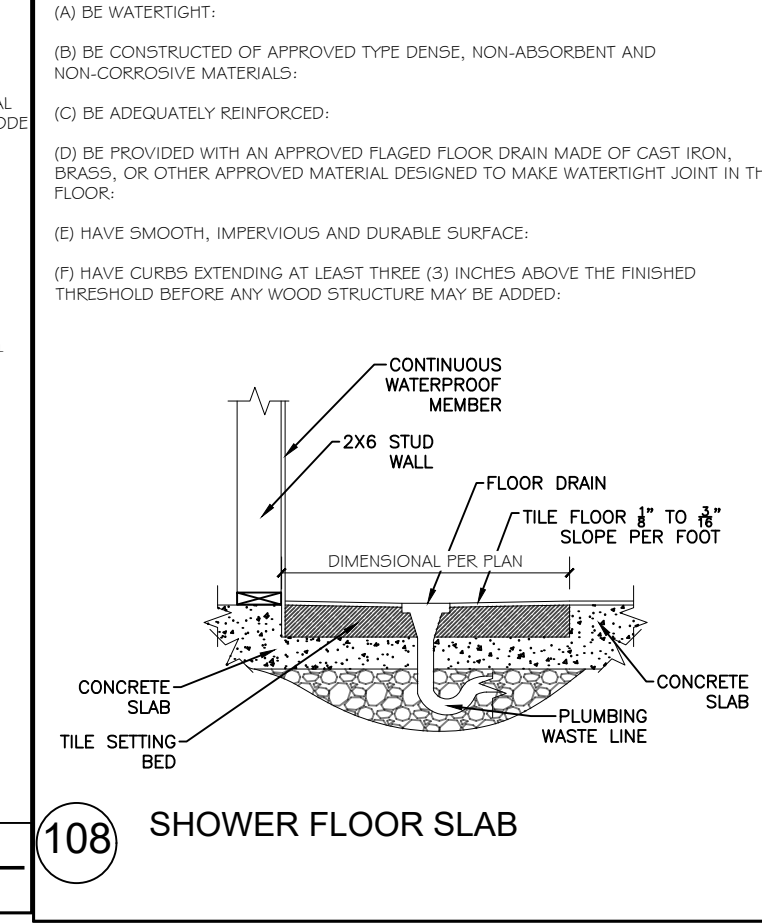
106 COUNTER OVERHANG NOT TO SCALE



TYP TYPICAL WINDOW FLASHING SCALE: NTS



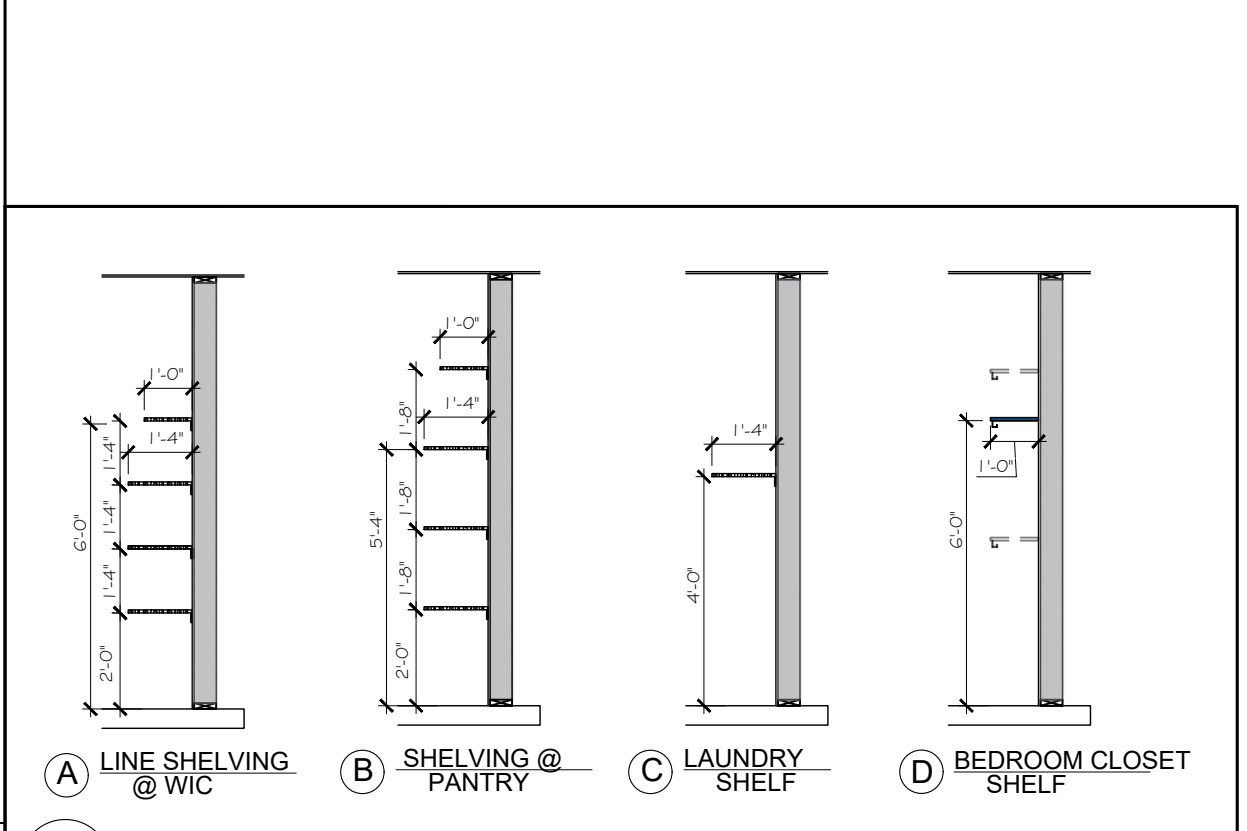
108 SHOWER FLOOR SLAB SECTION CUT A



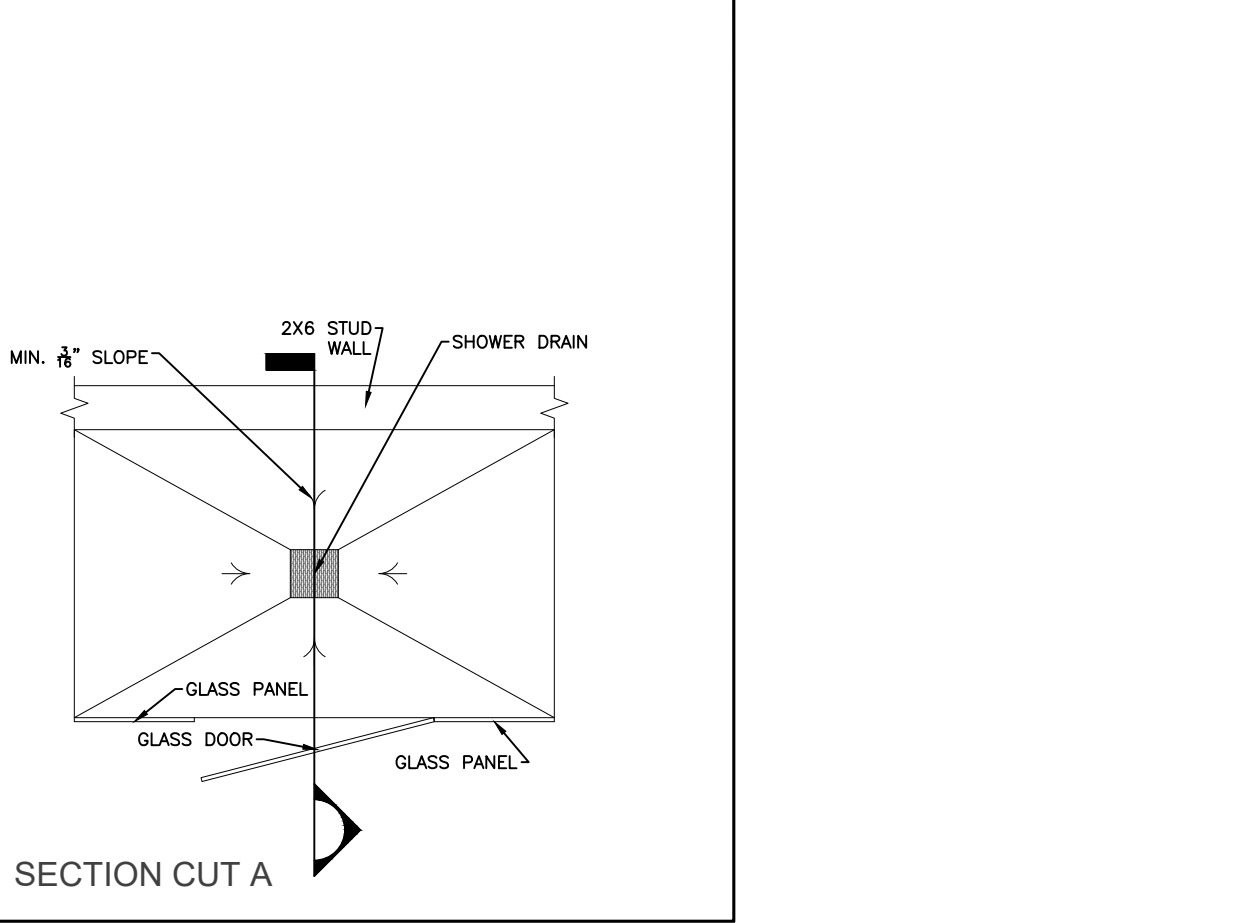
107 SHELVES



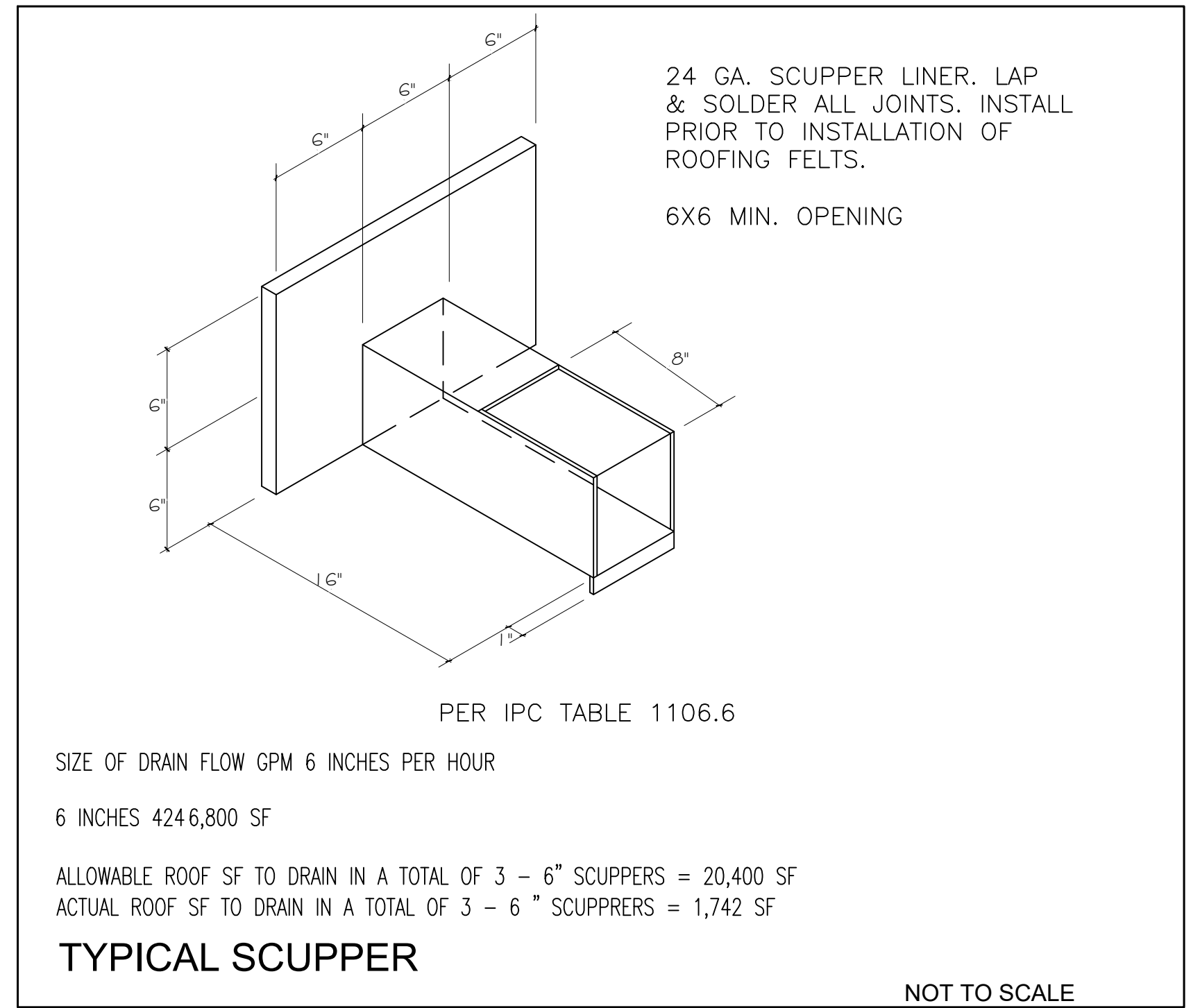
103 ATTIC ACCESS PANEL NOT TO SCALE



106 COUNTER OVERHANG NOT TO SCALE



107 SHELVES



TYPICAL SCUPPER NOT TO SCALE

**CITY OF PHOENIX**  
Planning and Development Department  
By: Justine Cornelius  
**04/12/2023**  
This set of plans has been reviewed for PHOENIX CONSTRUCTION CODE requirements prior to issuance of Building Permit and shall be kept at the construction site. Such review shall not prevent the Building Official from requiring correction of errors in the plans where such errors are subsequently found to be in violation of any law or ordinance.



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DATE	02/28/2023
REVISION	03/28/2023
CITY COMMENTS	
CITY COMMENTS	

CONTRACT: (623) 853 3751

DRAWN BY: Estly Villar

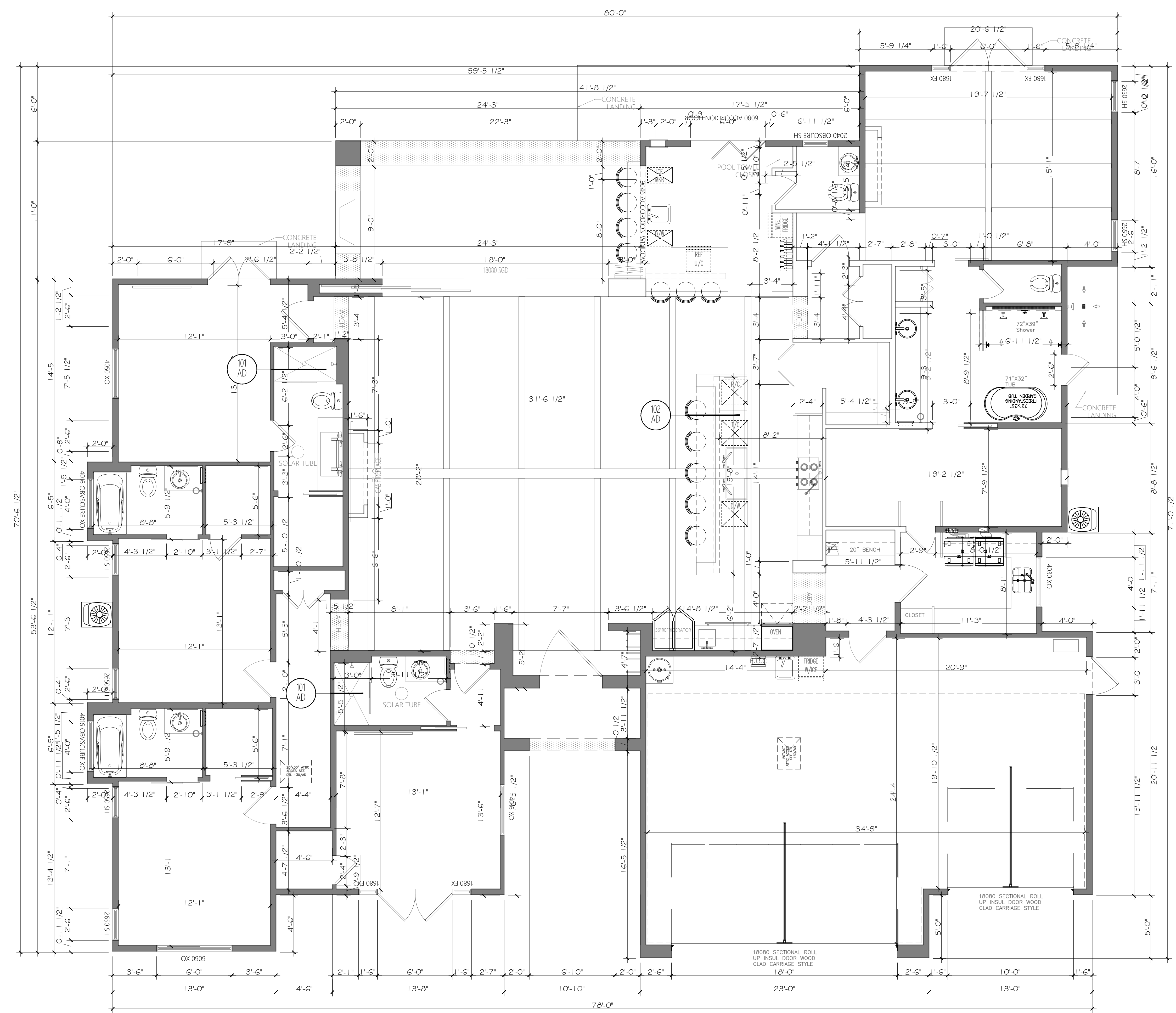
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DATE:

SCALE: PER PLAN

SHEET: A1.1

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**DIMENSIONAL PLAN** 

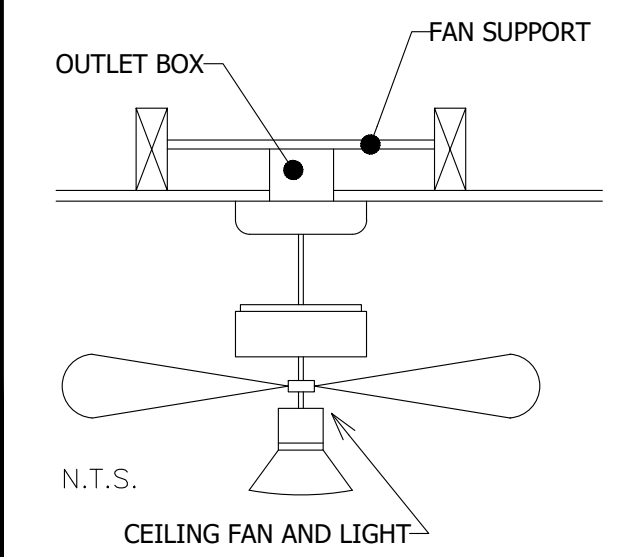
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**ELECTRICAL GENERAL NOTES**

- A. OUTLET PLACEMENT SHALL COMPLY WITH N.E.C. 2017.
- B. ALL RECEPTACLES LISTED IN 2017 NEC 406.12 SHALL BE TAMPER-RESISTANT RECEPTACLES.
- C. APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC 2017) AND STATE AND LOCAL CODES SHALL GOVERN AND DETERMINE THE MINIMUM STANDARD OF WORK. IN THE EVENT OF CONFLICT BETWEEN THIS DRAWING AND THE APPLICABLE CODE, THE CODE SHALL PREVAIL, AND THE INSTALLATION SHALL BE MADE IN CONFORMANCE WITH THE CODE.
- D. EVEN IF NOT SPECIFICALLY SHOWN ON THE ELECTRICAL PLAN, PROVIDE RECEPTACLE OUTLET ON ALL WALLS 24 INCHES OR MORE IN LENGTH IN REQUIRED AREAS. 2017 NEC 210.52(A).
- E. EVERY CIRCUIT AND CIRCUIT MODIFICATION SHALL LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT AND SPECIFIC PURPOSE OR USE PER NEC 408.4 NO GENERAL LIGHTING, MUST BE SPECIFIC TO ITS USE.
- F. APPLIANCES INSTALLED IN A COMPARTMENT, ALCOVE, BASEMENT OR SIMILAR SPACE SHALL BE ACCESSED BY AN OPENING OR DOOR AND AN UNOBSTRUCTED PASSAGEWAY MEASURING NOT LESS THAN 24" WIDE AND HAVE A WORKING SPACE A MINIMUM OF 30" WIDE AND AT LEAST AS TALL AS THE UNIT PER M1305.1.2. SMALL APPLIANCE RECEPTACLES (2018 IRC E3901.3) EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, PARLOR, LIBRARY, DEN, BEDROOM, SUNROOM, RECREATION ROOM, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS, RECEPTACLE OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH THE GENERAL PROVISIONS SPECIFIED IN SECTION E3901.2 THROUGH E3901.12 AS WELL AS 2017 NEC 210.52(B)(1).
- G. KITCHEN AND DINING AREA RECEPTACLES: A MINIMUM OF TWO (2) 20-AMP-RATED BRANCH CIRCUITS SHALL BE PROVIDED TO OUTLETS IN THE KITCHEN, PANTRY, BREAKFAST AREA, DINING AREA, OR SIMILAR AREA OF A DWELLING. 2018 IRC R3703 & 2017 NEC 210.11, 210.52.
- H. KITCHEN OUTLETS ABOVE COUNTER TO BE GFCI +44 AND DOWN.
- I. GFCI PROTECTION SHALL BE PROVIDED FOR OUTLETS THAT SUPPLY DISHWASHERS INSTALLED IN DWELLING UNIT LOCATIONS. 2017 NEC 210.8(D).
- J. THE DINING ROOM RECEPTACLE CIRCUIT SHALL BE MINIMUM 20 AMP. 2017 NEC ARTICLE 210.52(B) AND (C), AS APPLICABLE.
- K. RANGE/OVEN AND ELECTRICAL DRYER SHALL BE SUPPLIED BY 4 WIRE RECEPTACLES.
- L. OUTLETS INSTALLED IN THE GARAGE SIDE OF THE WALL BETWEEN THE DWELLING AND GARAGE SHALL BE OF MATERIAL(S) LISTED IN 2018 IRC R302.4.2.
- M. GARAGES & ACCESSORY BUILDINGS: NOT LESS THAN ONE (1) RECEPTACLE OUTLET SHALL BE INSTALLED PER 2018 IRC E3901.9 (w/CITY OF PHOENIX AMENDMENTS) AND IN EACH VEHICLE BAY AT NOT LESS THAN (18) INCHES ABOVE THE FLOOR. 2017 NEC 210.52(G)(1), (2), AND (3).
- N. GARAGE RECEPTACLES MUST BE ON A SEPARATE 20A CIRCUIT. GARAGE DOOR OPENERS AND GARAGE LIGHTING SHALL NOT BE ON THIS CIRCUIT. GARAGE DOOR OPENERS LOAD CALCULATIONS SHALL BE SEPARATE FROM OTHER CIRCUITS IN THE GARAGE. 2017 NEC, ART. 210.11 (C) (4).
- O. LIGHTING OUTLETS SHALL BE INSTALLED WHERE SPECIFIED IN 210.70(A), (B), AND (C).
- P. ALL RECESSED LIGHTS IN SHOWER/TUB AREAS TO BE SHOWER-RATED RECESSED CAN LIGHTS.
- Q. ALL RECESSED CAN LIGHTS TO BE "AIR-TIGHT" & I.C. RATED WITH NO PENETRATIONS INSIDE THE RECESSED FIXTURE PER I.E.C.C. 402.4.3 #1, 2 OR 3.
- R. E4003.9 WET OR DAMP LOCATIONS - LUMINAIRES INSTALLED IN WET OR DAMP LOCATIONS SHALL BE INSTALLED SO THAT WATER CANNOT ENTER OR ACCUMULATE IN WIRING COMPARTMENTS, LAMPHOLDERS OR OTHER ELECTRICAL PARTS. ALL LUMINAIRES INSTALLED IN WET LOCATIONS SHALL BE MARKED "SUITABLE FOR WET LOCATIONS." ALL LUMINAIRES INSTALLED IN DAMP LOCATIONS SHALL BE MARKED "SUITABLE FOR DAMP LOCATIONS" OR "SUITABLE FOR DAMP LOCATIONS." (IRC E410.10).
- S. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT MEASURED HORIZONTALLY ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN 6 FEET (1829 MM), (2018 IRC E3901.2.1) FROM A RECEPTACLE OUTLET. [2017 NEC 210.52(A)(1)].
- T. HEATING, AIR-CONDITIONING, AND REFRIGERATION EQUIPMENT OUTLET SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION FOR SERVICING OF EQUIPMENT AND AS PER 2017 NEC 210.63.
- U. E3901.12 HVAC OUTLET.-A 125-VOLT, SINGLE-PHASE, 15- OR 20-AMPERE-RATED RECEPTACLE OUTLET SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR-CONDITIONING AND REFRIGERATION EQUIPMENT. THE RECEPTACLE SHALL BE LOCATED ON THE SAME LEVEL AND WITHIN 25 FEET (7620 MM) OF THE HEATING, AIR-CONDITIONING AND REFRIGERATION EQUIPMENT. THE RECEPTACLE OUTLET SHALL NOT BE CONNECTED TO THE LOAD SIDE OF THE HVAC EQUIPMENT DISCONNECTING MEANS. (210.63) EXCEPTION: A RECEPTACLE OUTLET SHALL NOT BE REQUIRED FOR THE SERVICING OF EVAPORATIVE COOLERS. (210.63 EXCEPTION).
- V. E3802.2 CABLES IN ACCESSIBLE ATTICS - CABLES IN ATTICS OR ROOF SPACES PROVIDED WITH ACCESS SHALL BE INSTALLED AS SPECIFIED IN SECTIONS E3802.2.1 AND E3802.2.2. (320.3 AND 334.23).

**FAN MOUNTING DETAIL**

RECESSED E3905.8 BOXES AT FAN OUTLETS. OUTLET BOXES AND OUTLET BOX SYSTEMS USED AS THE SOLE SUPPORT OF CEILING-SUSPENDED FANS (PADDLE) SHALL BE MARKED BY THEIR MANUFACTURER AS SUITABLE FOR THIS PURPOSE AND SHALL NOT SUPPORT CEILING-SUSPENDED FANS (PADDLE) THAT WEIGH MORE THAN 70 POUNDS (31.8 KG). FOR OUTLET BOXES AND OUTLET BOX SYSTEMS DESIGNED TO SUPPORT CEILING-SUSPENDED FANS (PADDLE) THAT WEIGH MORE THAN 35 POUNDS (15.9 KG), THE REQUIRED MARKING SHALL INCLUDE THE MAXIMUM WEIGHT TO BE SUPPORTED. WHERE SPARE, SEPARATELY SWITCHED, UNGROUNDED CONDUCTORS ARE PROVIDED TO A CEILING-MOUNTED OUTLET BOX AND SUCH BOX IS IN A LOCATION ACCEPTABLE FOR A CEILING-SUSPENDED FAN, IT SHALL PROVIDE A CEILING BOX OR OUTLET BOX SYSTEM SHALL BE LISTED FOR SOLE SUPPORT OF A CEILING-SUSPENDED (PADDLE) FAN. [2017 NEC 314.27(C)]

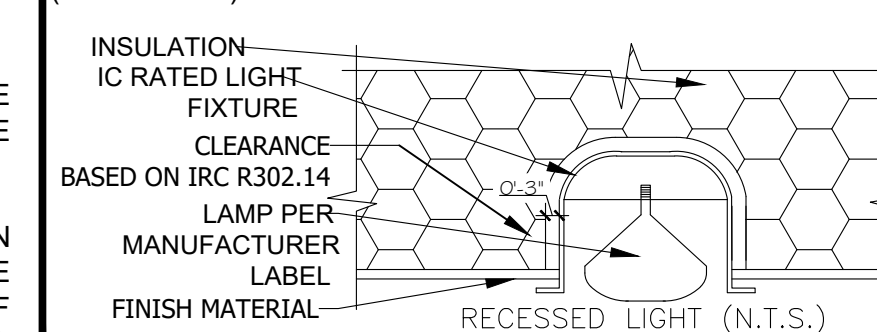


**ELECTRICAL GENERAL NOTES**

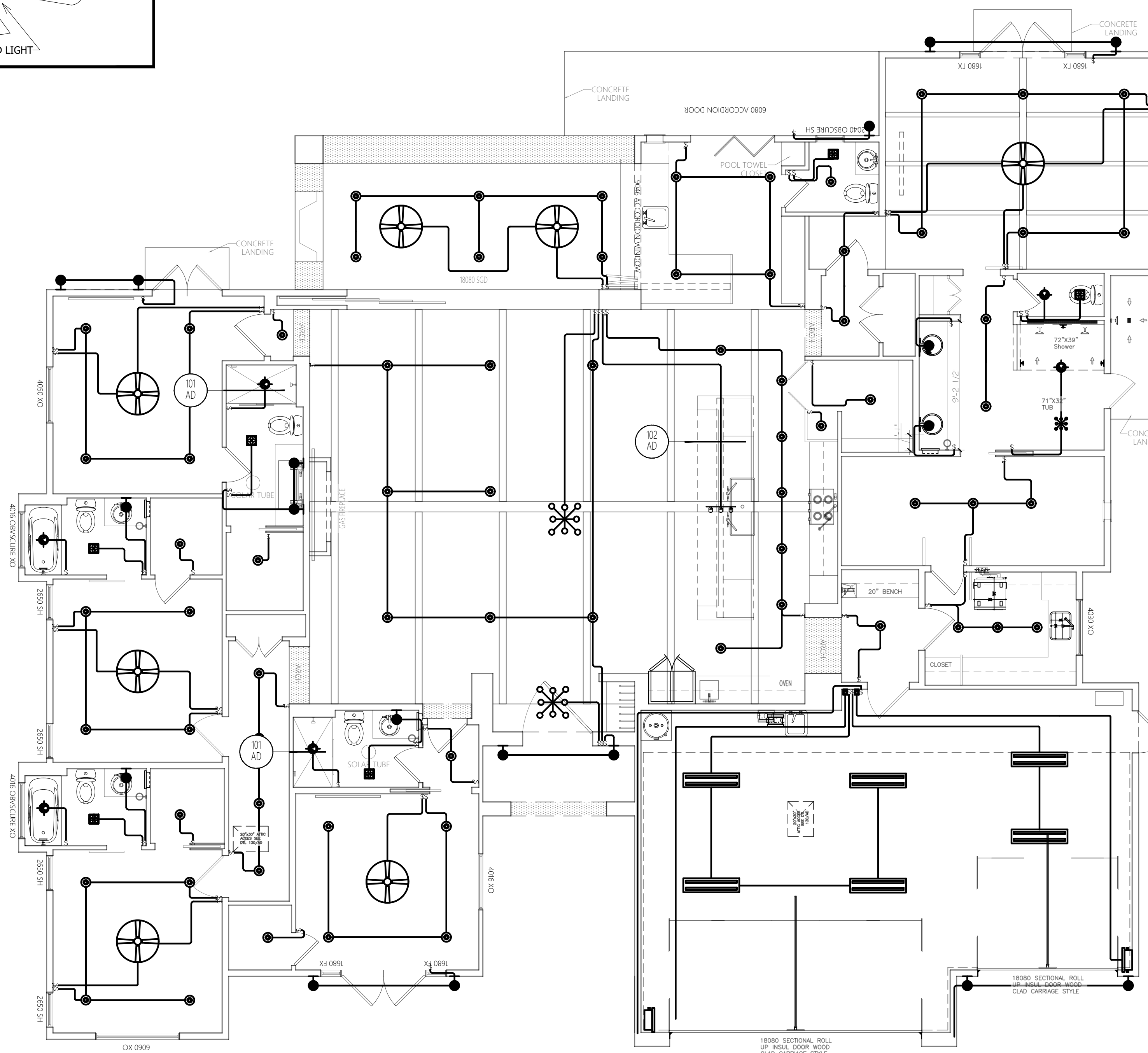
- A. PROVIDE A BONDING CONDUCTOR-MINIMUM OF #4 COPPER WIRE CONNECTING THE BUILDERS WATER PIPING SYSTEM TO THE SERVICE EQUIPMENT ENCLOSURE GROUNDING BUSS [2017 NEC 250...].
- B. AT LEAST ONE (1) 120-VOLT, 20-AMP BRANCH CIRCUIT SHALL BE INSTALLED TO SUPPLY RECEPTACLE OUTLETS IN ATTACHED GARAGES AND IN DETACHED GARAGES WITH ELECTRIC POWER. THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS. (SEE IRC E3703.5). 2017 NEC 210.11(C)(4).
- C. PROVIDE ACCESS AND WORKING SPACE ABOUT ALL ELECTRICAL EQUIPMENT (INCLUDING DISCONNECTS) PER 2017 NEC 110.26 & 2018 IRC R3405.
- D. MEMBRANE PENETRATION SHALL COMPLY WITH SECTION R302.4.1. WHERE WALLS ARE REQUIRED TO HAVE A FIRE-RESISTANT RATING, RECESSED FIXTURES SHALL BE INSTALLED SO THAT THE REQUIRED FIRE-RESISTANCE RATING WILL NOT BE REDUCED.
- E. ALL EXTERIOR ELECTRICAL RECEPTACLES SHALL BE GROUND FAULT CIRCUIT PROTECTED AND MUST BE WATER PROOF
- F. 200 AMP. SERVICE WITH METER; VERIFY LOCATION.
- G. VERIFY ALL CEILING LIGHT FIXTURES WITH MECHANICAL CONTRACTOR.
- H. ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUT-OFFS, AND INSURE ALL VOLTAGES ARE COORDINATED WITH EQUIPMENT AND APPLIANCES, ALL ALL CIRCUITRY IS CORRECT AND ALL CODES AND ORDINANCES ARE MET. ELECTRICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- I. HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATION.
- J. E3903.3 ADDITIONAL LOCATIONS. AT LEAST ONE WALL-SWITCH-CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED IN HALLWAYS, STAIRWAYS, ATTACHED GARAGES, AND DETACHED GARAGES WITH ELECTRIC POWER. AT LEAST ONE WALL-SWITCH-CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED TO PROVIDE ILLUMINATION ON THE EXTERIOR SIDE OF EACH OUTDOOR EGRESS DOOR HAVING GRADE LEVEL ACCESS, INCLUDING OUTDOOR EGRESS DOORS FOR ATTACHED GARAGES AND DETACHED GARAGES WITH ELECTRIC POWER. A VEHICLE DOOR IN A GARAGE SHALL NOT BE CONSIDERED AS AN OUTDOOR EGRESS DOOR.
- K. M1305.1.2.1 ELECTRICAL REQUIREMENTS. A LUMINAIRE CONTROLLED BY A SWITCH LOCATED AT THE REQUIRED PASSAGEWAY OPENING AND A RECEPTACLE OUTLET SHALL BE INSTALLED AT OR NEAR THE APPLIANCE LOCATION IN ACCORDANCE WITH CHAPTER 39. EXPOSED LAMPS SHALL BE PROTECTED FROM DAMAGE BY LOCATION OR LAMP GUARDS.
- L. THE TYPES OF LUMINAIRE INSTALLED IN CLOTHES CLOSETS SHALL BE LIMITED TO SURFACE-MOUNTED OR RECESSED INCANDESCENT OR LED LUMINAIRE WITH COMPLETELY ENCLOSED LIGHT SOURCES. INCANDESCENT LUMINAIRE WITH OPEN OR PARTIALLY ENCLOSED LAMPS AND PENDANT LUMINAIRE OR LAMP-HOLDERS SHALL BE PROHIBITED. (E4003.12)

**RECESSED LIGHT FIXTURE (CODE INTERPRETATION)**

RECESSED LUMINAIRE INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES. ALL RECESSED LUMINAIRE SHALL BE IC-RATED AND LABELED AS MEETING ASTM E 283 WHEN TESTED AT 1.57 PSF (75 PA) PRESSURE DIFFERENTIAL WITH NO MORE THAN 2.0 CFM (0.944 L/S) OF AIR MOVEMENT FROM THE CONDITIONED SPACE TO THE CEILING CAVITY. ALL RECESSED LUMINAIRE SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE HOUSING AND THE INTERIOR WALL OR CEILING COVERING. COMBUSTIBLE INSULATION SHALL BE SEPARATED NOT LESS THAN 3 INCH (76 mm) FROM RECESSED LUMINAIRE, FAN MOTOR AND OTHER HEAT PRODUCING DEVICES. (IRC R302.14)

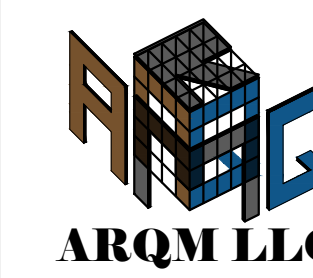
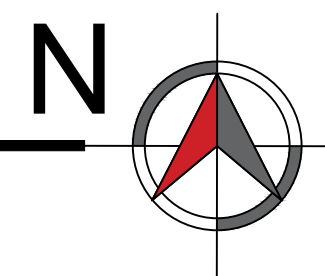


NOTE: NOT LESS THAN 90% OF THE PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL CONTAIN HIGH-EFFICACY LAMPS PER N1104.1.



**ELECTRICAL LIGHTING PLAN**

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



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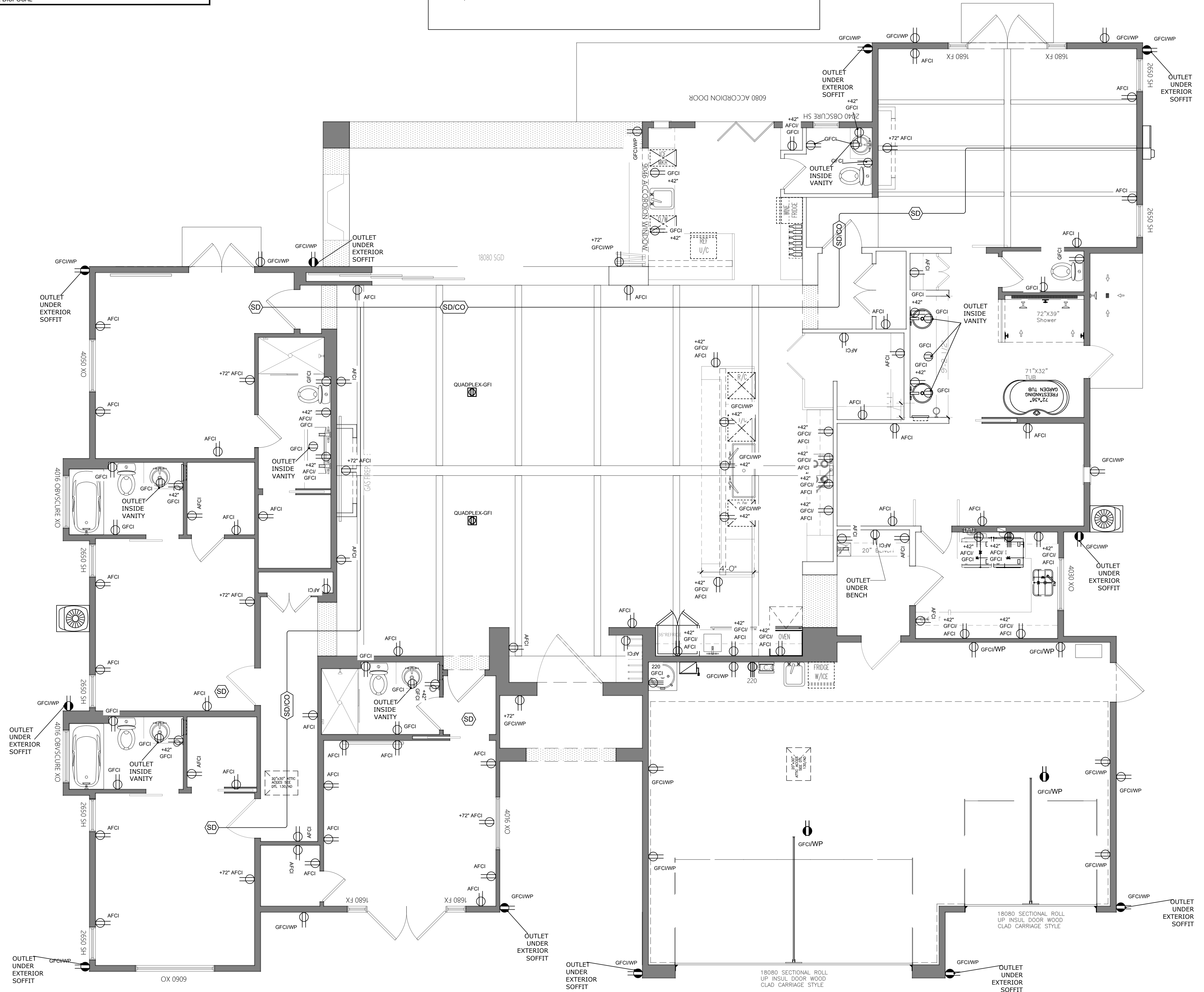
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<b>DRAWN BY:</b>	Esly Villar
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<b>DATE:</b>	
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ELECTRICAL SYMBOL SCHEDULE		(NON ALL USED)
SYMBOL	DESCRIPTION	
	120 VOLT DUPLEX CONVENIENCE OUTLET	
	220 VOLT OUTLET	
	1/2 HOT 120 VOLT OUTLET	
	120 VOLT CEILING OUTLET	
	GROUND FAULT INTERRUPTER	
	GROUND FAULT CIRCUIT INTERRUPTER	
	WEATHER PROOF	
	WEATHER RESISTANT	
	ARC FAULT INTERRUPTER	
	110V SMOKE DETECTOR INTERCONNECTED TO BE HARD WIRED WITH BATTERY BACK UP, ACCORDING WITH (IRC R314 & R315)	
	SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR ALARM TO BE WITH BATTERY BACK UP, ACCORDING WITH (IRC R314 & R315)	
	THERMOSTAT	
	COAX-RJ45 RECEPTACLE PLATE	
	PUSH SWITCH GARAGE DOOR	
	DISCONNECT SWITCH	
	200 AMP ELECTRIC PANEL	
	GARBAGE DISPOSAL	

PANEL SCHEDULE		LOCATION: SEE CONTRACTOR	
MAINS: 200 A MCS		MOUNTING:	
VOLTAGE: 120/240 1@3		MIN A.I.C.:	
LOAD WIRE SIZE	CIRCUIT DESCRIPTION	CIR. #.	BKR CIR. #
AF-20	14 GUEST SUITE	1	2
AF-30	12 KITCHEN APPLIANCES GFI 1	3	4
AF-30	12 KITCHEN APPLIANCES GFI 2	5	6
AF-20	12 HALL	7	8
AF-20	14 BEDROOM 2	9	10
AF-20	14 DINING ROOM	11	12
AF-20	12 LIVING ROOM	13	14
AF-20	12 GUEST BATH	15	16
AF-30	10 LAUNDRY	17	18
AF-20	14 OWNER'S BEDROOM	19	20
AF-20	14 BEDROOM 3	21	22
AF-20	12 OWNER'S BATH	23	24
AF-20	14 OWNER'S CLOSET	25	26
	GARAGE	27	28
	SPACE	29	30

ELECTRICAL LOAD CALCULATION				
DESCRIPTION	COUNT	WATTS	TOTAL	
LIV.SF. X 3 WATTS	3,479	X 3	10,437	
SMALL APPLIANCES KITCHEN	2	X 1,500	3,000	
LAUNDRY CIRCUIT	1	X 1,500	1,500	
DISHWASHER/DISP.	1	X 1,500	1,500	
RANGE	1	X 12,000	12,000	
REFRIGERATOR	1	X 1,500	1,500	
DRYER CIRCUIT(S)	1	X 5,000	5,000	
MICROWAVE	1	X 1,500	1,500	
WATER HEATER	1	X 4,500	4,500	
GARAGE DOOR	0	X 600	0	
GARAGE GFI	0	X 1,500	0	
CAR CHARGER	1	X 10,000	10,000	
SMOKE AND CO DETECTORS	1	X 50	50	
SUB-TOTAL			50,987	
FIRST 10 KW @ 100%			10,000	
SUB-TOTAL			40,987	
REMAINDER @ 40%			16,395	
TOTAL GENERAL LOAD			26,395	
HVAC EQUIPMENT (1)	5.0 TON	X 2,400 W	12,000	
HVAC EQUIPMENT (1)	5.0 TON	X 2,400 W	12,000	
TOTAL LOAD IN WATTS			50,395	
TOTAL LOAD DIVIDED BY 240 VOLTS			210	
SERVICE SIZE TO BE USED			200 AMP	
* THE LOAD IS TO BE PER MANUFACTURER'S SPECIFICATIONS ON THE NAME PLATE FOR UNITS 1				



**CARBON MONOXIDE ALARMS**

A. CARBON MONOXIDE ALARMS (BASED ON R315).

A.A. CARBON MONOXIDE ALARM MUST BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN IMMEDIATE VICINITY OF BEDROOM.

A.B. FOR NEW CONSTRUCTION, CARBON MONOXIDE ALARMS MUST BE PROVIDED IN DWELLING UNITS THAT:

A.B.A. CONTAIN A FUEL-FIRED APPLIANCE.

A.B.B. HAVE AN ATTACHED GARAGE WITH AN OPENING THAT COMMUNICATES WITH THE DWELLING UNIT.

B. ALTERATIONS, REPAIRS OR ADDITIONS THAT REQUIRE A PERMIT MUST COMPLY WITH NEW CONSTRUCTION REQUIREMENTS.

**ARC FAULT NOTES**

ARC-FAULT CIRCUIT-INTERRUPTER PROTECTION (IRC E3902.16): ALL 120-VOLT, SINGLE-PHASE, 15- & 20-AMP BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY ANY OF THE MEANS DESCRIBED IN 2017 NEC 210.12(A)(1) THROUGH (6).

**SMOKE DETECTOR NOTE**

A. SMOKE ALARMS SHALL COMPLY WITH NFPA 72 AND SECTION IRC R314. BE LOCATION (R314.3) SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

A.A. IN EACH SLEEPING ROOM.

A.B. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.

A.C. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS AND NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS, IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS. A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.

A.D. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 3 FEET (914 MM) HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM REQUIRED BY THIS SECTION.

**ELECTRICAL POWER PLAN**

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



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Eslly Villar

**CHECKED BY:**  
ARQM, LLC

**DATE:**

**SCALE:**  
PER PLAN

**SHEET:**  
E-2

**NOTES**

1. SEE GENERAL STRUCTURAL NOTES ON DRAWINGS FOR OTHER INFORMATION. ALL SHEATHING CONTINUOUS TO TOP OF WALL UNLESS NOTED OTHERWISE. NAILING REQUIREMENTS APPLY AT ALL PANEL EDGES, TOP AND BOTTOM PLATES AND BLOCKING. STUDS FOR PLYWOOD SHEAR WALLS TO BE NOT SMALLER THAN 2 X 4 SPACED AT NOT MORE THAN AT 24" O.C. (TYPICAL) U.N.O. ON SHEAR WALL SCHEDULE. STUDS FOR GYPSUM WALL BOARD SHEAR WALLS TO BE NOT SMALLER THAN 2 X 4 SPACED AT NOT MORE THAN AT 16" O.C. SEE SHEAR WALL ELEVATIONS IN DETAILS FOLLOWING FOR INFORMATION NOT SHOWN. 3/8" AND 1/2" PANEL GRADE 2-M-W ORIENTED STRAND BOARD MAY BE SUBSTITUTED FOR 3/8" AND 15/32" PLYWOOD SHEATHING, RESPECTIVELY. 7/16" PANEL GRADE 2-M-W ORIENTED STRAND BOARD MAY BE SUBSTITUTED FOR 15/32" PLYWOOD SHEATHING PROVIDING STUDS ARE SPACED A MAXIMUM OF 16" ON CENTER.
2. SILL PLATE BOLTING SUBSTITUTIONS:  
THE FOLLOWING SUBSTITUTIONS MAY BE MADE FOR THE 1/2" DIAMETER ANCHOR BOLTS ABOVE  
ALL INTERIOR WALLS: 1/2" DIAMETER WEDGE ANCHORS (ICC APPROVED) 2-1/4" MIN. EMBED AT SAME SPACING.  
ALL EXTERIOR AND/OR INTERIOR WALLS: 1/2" DIAMETER EPOXY ANCHORS (ICB APPROVED) - 2-1/4" MIN. EMBED AT SAME SPACING.  
SIMPSON SET EPOXY - TIE ADHESIVE (REDUCTION FACTOR FOR ABSENCE OF SPECIAL INSPECTION WAS USED)  
INTERIOR GYPSUM WALLBOARD WALLS ONLY: HILTI PINS X-DNI 72P8 AT SAME SPACING AS THE 16D WALL PLATE NAILING INDICATED FOR 2ND FLOOR CONDITION INDICATED IN SHEAR WALL SCHEDULE.
3. NAILS INDICATED IN TABLE ARE COMMON NAILS. 16D SINKERS MAY BE SUBSTITUTED FOR 16D COMMON NAILS BUT PLACED AT 0.87 TIMES THE SPACING.

**FRAMING NOTES**

- A. PROVIDE 2X SOLID BLOCKING AT ALL SPANS EXCEEDING 8'-0" AND AT ALL BEAMS AND BEARING PARTITIONS.
- B. PROVIDE 2X FIRE BLOCKING AT ALL FURR DOWNS AND 8'-0" FROM FINISH FLOOR AT ALL INTERIOR AND EXTERIOR PARTITIONS.
- C. PROVIDE MIN. 2" CLEARANCE AT CHIMNEY FRAMING MEMBERS.
- D. ALL EXTERIOR WALLS AND MAIN CROSS STUD PARTITIONS SHALL BE BRACED AT EACH 25'-0" OF LENGTH WITH 1X4 LET-INS OR APPROVED STEEL STRAPS.
- E. TRUSS DESIGN SHALL BE SEALED AND SIGNED BY AN ENGINEER LICENSED IN ARIZONA. TRUSSES SHALL BE APPROVED BY THE CITY CODE ENFORCEMENT DEPT WHERE PERMITTED A TRUSS WAIVER MAY BE USED. G.C. REVIEW PRIOR TO FABRICATION.
- F. TRUSSES FOR BUILT-UP ROOFS SHALL BE DESIGNED FOR A MIN. OF 35 A MIN OF 40 LBS. TOTAL LOAD.
- G. PROVIDE SIMPSON JOIST HANGERS AT ALL JOIST LO LEDGER CONNECTIONS.
- H. PROVIDE 16 GA SIMPSON ST 6224 TIE STRAPS AT ALL RIDGE TO BEAM CONNECTIONS  
ALL PITCHED JOIST TO BE NOTCHED @ BEARING POINTS.
- I. PROVIDE SIMPSON P.B. AND P.C. CONNECTIONS AT ALL POSTS. ALL MEMBER SHALL BE FRAMED, ANCHORED, TIED AND BRACED TO DEVELOP THE STRENGTH AND RIGIDITY NECESSARY FOR THE PURPOSE OF WHICH THEY ARE INTENDED.
- K. ROOF PITCH FORM NEW CONSTRUCTION SHALL BE 1/2" PER FOOT MIN.
- L. ROOF DECK - 3/4" CDX PLYWOOD PI W/ 8d @ 6" O.C. JOISTS AND 8d @ 12" O.C. FIELD. OR USE 3/4" O.S.B. BOARD IN LIEU OF PLYWOOD (G.C. OPTION). ALL ROOF OVERHANGS SHALL BE EXTERIOR GRADE.
- M. ALL ROOF DRAINS SHALL HAVE AN ADJACENT OVERFLOW DRAIN SET 2" ABOVE THE FLOW LINE OF THE MAIN ROOF DRAIN. (IF USED IN LIEU OF SCUPPERS.)
- N. TRUSS DIAGRAMS TO BE PROVIDED TO THE CITY INSPECTOR AT TIME OF FRAMING INSPECTION. USE 2X STUDS AT ALL BEAMS, HEADERS, MULTIPLE TRUSSES & TRUSS GIRDER SUPPORTS. U.N.O.
- O. WALL SOLE PLATES TO BE REDWOOD OR PRESSURE TREATED.
- P. SOLE PLATE ANCHORAGE 6'-0" O.C. & 12" MAX. FROM PLATE ENDS, 7" (MIN.) EMBEDMENT, 1/2" A.B. (MIN.) OR APPROVED ANCHORAGE.
- Q. ALL INTERIOR AND EXTERIOR WALL ADJACENT A VAULTED CEILING SHALL BE BALLOON FRAMED WITH FIRE-BLOCKING AT 8'-0".
- R. BRIDGING SHALL BE SOLID BLOCKING AT 8' MAX. AND/OR 8" O.C.
- S. BRACE WALLS AT END 25' LENGTH OR EQUIVALENT WHIT APPROVED DIAGONAL BRACING.
- T. ALL FRAMING ANCHORS BY "SIMPSON" OR APPROVED EQUAL.

**FOUNDATION NOTES**

- A. FOUNDATIONS:  
A.A. ALL INTERIOR AND EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 16" BELOW UNDISTURBED NATIVE SOIL (EXISTING OR FINISH GRADE IS NOT SYNONYMOUS WITH UNDISTURBED SOIL)
- A.B. BEARING DEPTH SHALL BE MEASURED AT THE ADJACENT ELEVATION FOR UNDISTURBED SOIL
- A.C. PROVIDE A MINIMUM OF (2)#4 REBAR CONT. IN FOOTING OR STEM WALL, OR 1 IN FOOTING AND 1 IN STEM WALL.
- A.D. REINFORCING STEEL SHALL BE INTERMEDIATE GRADE ASTM 15-40 (Fy=60,000 P.S.I.) DEFORMED BARS IN ACCORDANCE WITH LATEST AIA SPECIFICATIONS.
- A.E. ARRANGEMENT AND BENDING OF BARS AS PER ACI DETAIL MANUAL.
- A.F. LAP REINFORCEMENT A MINIMUM OF 32 DIA. WITH A MINIMUM LAP OF 12".
- A.G. CONCRETE PROTECTION FOR BARS:  
A.G.A. SURFACE EXPOSED TO AIR MIN. CLR. DISTANCE FROM SURFACE TO BAR SHALL BE 3".  
A.G.B. SURFACE EXPOSED TO EARTH MIN. CLR. DISTANCE FROM SURFACE TO BAR SHALL BE 1-1/2".
- A.H. MINIMUM THICKNESS OF A STUD BEARING SHALL BE 8".
- A.I. PROVIDE (2)#4'S IN FOOTING ABOVE ALL RETURN AIR DUCTS.
- A.J. NOTIFY THE ARCHITECT OF ANY SPECIAL CONDITION THAT ARE ENCOUNTERED DURING EXCAVATION AND BACKFILLING OPERATIONS.
- A.K. FOUNDATIONS DESIGN IS BASED UPON THE MINIMUM REQUIREMENTS SPECIFIED IN THE ABOVE MENTIONED GOVERNING BUILDING CODES I.B.C. 2012 SOILS ARE ASSUMED TO BE NON-EXPANSIVE AND NON COLLAPSIBLE. FINISH GRADE SHALL SLOPE AWAY FROM FOUNDATION WALLS.

- B. CONCRETE  
B.A. SHALL MEET ALL THE REQUIREMENTS OF ACI 301-89 WITH TYPE II CEMENT, WITH NORMAL WEIGHT AGGREGATE. MINIMUM 28 DAYS STRENGTH 2500 PSI EXCEPT AS FOLLOWS:  
B.B. PROVIDE EXTERIOR WATERPROOF MEMBRANE UP TO 1'-0" BEYOND CONCRETE STEM AT ALL SUNKEN FLOORS.
- B.C. SEAL ALL VOIDS AROUND PIPING PASSING THRU CONCRETE FLOOR.
- B.D. ALL EXTERIOR CONCRETE FLAT WORK TO SLOPE A MINIMUM OF 1/8" / FT. AND ALL LANDINGS AT DOORS TO SLOPE A MINIMUM OF 1/2" / FT
- B.E. ALL SLABS, SIDEWALKS, AND DRIVEWAYS SHALL BE A MIN. OF 4" THICK ON 4" OF COMPACTED GRAVEL FILL. SOIL SHALL BE TERMITRE TREATED PRIOR TO CONCRETE FILL.
- B.F. ALL BOTTOM PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH A MINIMUM 3/2" DIA. ANCHOR BOLT, HAVING A MINIMUM 7" EMBEDMENT OF 12" FROM PLATE ENDS.  
AT ALL HOLD DOWN LOCATIONS PROVIDE 1 #4 HORIZONTAL WITHIN TOP 6" OF STEM WALL.
- B.G. MACHINE BOLTS OR ANCHOR BOLTS SHALL BE ASTM A307 STEEL, Fy = 36 KSI.
- B.H. A MINIMUM 28 DAY COMPRESSIVE STRENGTH WITH A MAXIMUM 4-1/2" 45' SLUMP TEST FOR CONCRETE FOOTINGS SHALL BE 2500 PSI. AND CONCRETE SLABS SHALL BE 3000 PSI  
ALL PROCEDURE, PLACEMENT, FORMWORK LAP, ETC. SHALL CONFORM WITH LATEST A.S.C.I. STANDARDS, MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THE SLABS ON GRADE NEED ONLY TO BE VIBRATE AROUND UNDER FLOOR DUCTS, ETC.
- B.K. MINIMUM STRENGTH FOR REMOVAL OF FORMS AND SHORING SHALL BE 71% OF SPECIFIED STRENGTH AT 28 DAY.
- B.L. CONTINUOUS FLOOR SLABS SHALL BE SAW CUT EVERY 600 S.F. FOR EXPANSION JOINTS. SAW CUTS SHALL BE UNDER INTERIOR NON-BEARING WALLS, OR IN AREAS NOT AFFECTING TILE FLOORS WHERE POSSIBLE.
- B.M. CONTRACTOR SHALL PROVIDE A 20' #4 COPPER WIRE UFER ATE ELECTRICAL SERVICE ENTRANCE.
- B.N. NO ADMIXTURES WITHOUT APPROVAL. ADMIXTURES CONTAINING CHLORIDES NOT BE USED REINFORCING COVERAGE: FOOTING - 3" MINIMUM BOTTOM & SIDES, WALLS 1-1/4" MINIMUM.

**LUMBER**

GENERAL: ALL STRESS GRADE LUMBER CONSTRUCTION SHALL COMPLY WITH A.I.T.C. TIMBER CONSTRUCTION STANDARDS LATEST EDITION ALL LUMBER (EACH PC.) SHALL BEAR THE GRADE STAMP OF GRADING RULES AGENCY APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTEE (A.L.S.C.). REGARDLESS OF REQUIRED GRADE STAMP AND CERTIFICATIONS. ALL LUMBER (EACH PIECE) IN BETTER WHEN INSPECTED BY A GRADING AGENCY APPROVED BY THE A.I.S.C. GRADE LOSS RESULTING FROM EFFECTS OF WEATHERING, HANDLING, STORAGE, RESAWING OR DIVIDING LENGTHS WILL CAUSE FOR REJECTION.

NOTCH OR DRILL JOIST'S, BEAMS OR LOAD BEARING STUDS ONLY AS INDICATED ON DRAWINGS ANY OTHER ALTERATION REQUIRES PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT.

GLU LAM BEAMS: WEST COAST DOUGLAS FIR WITH F(B)=2400 PSI (24F-V3) STRESS GRADE (24-V8) FOR CANTILEVERS, FABRICATION AND HANDLING PER LATEST A.I.T.C. STANDARDS. WATERPROOF GLUE BEARS TO BEAM A.I.T.C. STAMPS AND CERTIFICATES. CAMBER =L/300 WHERE L=SPAN IN INCHES. U.N.O.

- SAWN LUMBER: WEST COAST DOUGLAS FIR - LARCH, SURFACED DRY:
- STUDS.....DFL - 3
  - JOISTS 2" TO 4" WIDE.....DFL - 2
  - BEAMS 6X AND LARGER.....DFL - 2
  - POSTS 4X4 AND LARGER.....DFL - 1
  - BLOCKING, SILLS, PLATES.....HF
- PEELED LOGS - SOUTHERN PINE OR SPRUCE PINE - FIR #2 OR BETTER

SOLE PLATE OF ALL WALLS SHALL BE PRESSURE TREATED.

PLYWOOD: APA GRADED OR OTHER GRADING AGENCY PRIOR TO APPROVED BY THE ARCHITECT. C-D W/ EXTERIOR GLUE. PLYWOOD, OSB, AND/OR WAFER BOARD SHALL CONFORM WITH N.E.R.-108.

- ROOF.....CDX/T&G 3/4, 5/8
- WALLS (TYPICAL) U.N.O.....3/8, 5/8
- FLOOR.....3/4, 5/8 T&G

PLYWOOD, O.S.B., AND WAFER BOARD SHALL CONFORM TO N.E.R.-108. LAY UP ROOF PLYWOOD OR OSB WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. MINIMUM 2-SPAN CONTINUOUS. STAGGER JOINTS. PROVIDE WOOD CLIPS (SIMPSON PSC) AT ALL UNBLOCKED EDGES. LAY UP WALL PLYWOOD WITH FACE GRAIN PARALLEL TO SUPPORTS.

CONNECTIONS: ALL FRAMED CONNECTIONS SHALL BE MADE W/ I.C.C. APPROVED FRAMING ANCHORS EACH SIDE OR APPROVED JOISTS HANGERS, BY SIMPSON, KC METALS OR ARCHRIB. ANY HANGERS USED SHALL HAVE I.C.C. CAPACITIES EQUAL TO OR GREATER THAN THE SIMPSON HANGER CALLED OUT. FOR NAILING SCHEDULE SEE TABLE R602.3(1) OF 2018 INTERNATIONAL RESIDENTIAL CODE. FIELD DRILL ALL HOLES FOR NAILS LARGER THAN 20 d.

NAIL ROOF PLYWOOD WITH 10d COMMON NAILS AT 6" O.C. AT ALL SUPPORTED EDGES AND BOUNDARIES AND AT 12" AT INTERMEDIATE SUPPORTS. U.N.O. (SEE PLANS FOR EXCEPTIONS).

NAIL WALL PLYWOOD SHEATHING AS PER DRAWINGS. MINIMUM NAILING, 8d NAILS @6" O.C. PANEL EDGES AND BOUNDARIES AND 12" O.C. INTERMEDIATE SUPPORTS. (SEE PLANS FOR EXCEPTIONS).

NAIL FLOOR PLYWOOD WITH 10d SCREW NAILS AT 6" O.C. AT ALL SUPPORTED EDGES AND INTERMEDIATE SUPPORTS. GLUE PLYWOOD TO FLOOR TRUSS.

WOOD TRUSSES: FABRICATOR SHALL BE RESPONSIBLE FOR DESIGN USING THE FOLLOWING LOADS:

- LIVE LOADS: EACH ACTS INDEPENDENTLY ROOF, 20 PSF - 7 DAY DURATION - HORIZONTAL PROJECTION AT BUILT-UP ROOF. (SEE ROOF PLAN FOR DRIFT) 16 PSF AT TILE ROOF.
- DEAD LOADS (INCLUDING WT. OF TRUSS): 15 PSF AT BUILT-UP ROOF  
24 PSF AT TILE ROOF.
- MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS.

A.I.T.C. STANDARDS APPLY PRIOR TO MANUFACTURING TRUSSES, FABRICATOR SHALL SUBMIT DESIGN CALCULATIONS AND SHOP DWGS, SEALED AND DATED WITHIN LATEST CITY ADOPTED I.R.C. BY ARIZONA REGISTERED ENGINEER TO THE BUILDING DEPARTMENT AND THE ENGINEER FOR REVIEW INCLUDING WOOD SPECIFICATIONS. ALL PERMANENT AND TEMPORARY BRACING AND FASTENING AT BEARING SHALL BE PROVIDED BY TRUSS MANUFACTURE. TRUSSES SHALL CONFORM TO I.B.C. R802.10. .

**STRUCTURAL NOTES**

- A. EXPANSION BOLTS SHALL BE SHALL BE TRUBOLTS BY RAMSET AS PER I.C.C. OR APPROVED ALTERNATE WITH ALLOWABLE VALUES EQUAL TO OR EXCEEDING THOSE FOR TRUBOLTS. EMBED 3-3/8" MINIMUM FOR 3/2" DIAMETER BOLTS IN CONCRETE. EMBED 5" GROUTED MASONRY. UNLESS NOTED OTHERWISE.
- B. UNLESS OTHERWISE NOTED, DETAILS ON STRUCTURAL DRAWINGS ARE TYP, AS INDICATED BY CUTS, REFERENCES OR TITLES.
- C. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- D. CONTRACTOR SHALL VERIFY IN FIELD ALL EXISTING CONDITIONS SHOWN ON DRAWINGS.
- E. DRYPACK SHALL BE ONE PART CEMENT AND 2-1/2 PARTS SAND W/ JUST ENOUGH WATER TO HYDRATE CEMENT AND FORM A BALL SHOWING MOISTURE ON THE SURFACE WHEN SQUEEZED. IT SHALL BE RAMMED IN TIGHT TO MAXIMUM DENSITY ATTAINABLE MINIMUM 28 DAY STRAIGHT TO BE 5000 PSI.
- F. IN LIEU OF DRYPACK, GROUT SHALL BE NON- SHRINK, NON-METALLIC: U.S. GROUT CORP., FIVE STAR ASTM C-827, C-191 AND C-109, OR PRIOR APPROVED EQUAL MIXED AND INSTALLED PER MANUFACTURER'S RECOMMENDATION. MIN. COMPRESSIVE STRENGTH 5000 PSI IN DAYS. PROVIDE ALL TEMPORARY BRACING IN, SHORING, GUYING OR OTHER MEANS TO AVOID EXCESSIVE STRESSES AND TO HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL AND PLUMBING WITH APPROPRIATE TRADES, DRAWINGS, AND SUBCONTRACTOR PRIOR TO CONSTRUCTION.
- G. THE STRUCTURAL ENGINEER SHALL NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, FOR SAFETY PRECAUTION AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENT.

**MASONRY MORTAL AND GROUT**

- A. CONCRETE MASONRY UNITS MUST BE PRODUCED BY MANUFACTURE THAT IS CURRENT COMPLIANCE WITH MASONRY INSTITUTE OF ARIZONA CERTIFIED BLOCK PROGRAM.  
A.A. BLOCK UNITS, GRADE N-1 RUNNING BOND MASONRY STRENGTH = 1,500 PSI. MORTAR TYPE S, 1,800 PSI. GROUT 2,000 PSI. MECHANICALLY VIBRATE GROUT IN VERTICAL SPACES IMMEDIATELY AFTER POURING AGAIN ABOUT 5 MINUTES LATER. MAXIMUM GROUT LIFT WITHOUT CLEANOUTS 48" STAY EACH END OF EACH VERTICAL REBAR USING WIRE AND LOOP TIE TIES. MAXIMUM VERTICAL SPACING OF TIES. MAXIMUM VERTICAL SPACING OF TIES 96". NO. POZZOLANA WILL BE PERMITTED IN MORTAR OR OR GROUT. SEE ARCHITECTURAL DRAWINGS FOR EXPANSION OR CONTROL JOINTS. LOCATE AT 30' MAXIMUM O.C. U.N.O., BUT NOT LESS THAN 24" FROM BEARING FROM A JAMB OF AN OPENING WIDER THAN 4'-0".  
A.B. VERTICAL REINFORCING, CONTINUOUS FULL HEIGHT AT CENTER OF WALL, AT ALL CORNERS, INTERSECTIONS, WALL ENDS, BEAM BEARINGS, JAMBS, EACH SIDE OF CONTROL JOINTS AND AT 48" O.C. MAX. U.N.O.  
A.C. 1 #5 BAR @48" O.C. ELSEWHERE UNLESS NOTED OTHERWISE.  
A.D. PROVIDED STANDARD WEIGHT, 9 GRADE WIRE, LADDER TYPE JOINT REINFORCING AT 16" O.C. IN HORIZONTAL JOINTS (LAP 8" MINIMUM).
- B. ARRANGEMENT AND BENDING OF BARS AS PER A.C.I. DETAILING MANUAL.
- C. GROUTING PROCEDURES MASONRY 4' LIFTS OR 8 LIFTS WITH CLEAN OUTS. GROUT: F'c = 2000 P.S.I. (AT 28 DAY)  
C.A. 1 PERT PORTLAND CEMENT TO 2 1/4 = 3 PARTS SAND & 1/4 PARTS MAX. HYDRATED LIME.  
C.B. 2 PARTS PER GRAVEL MAY BE ADDED TO (C.A.) ABOVE.

**NAILING SCHEDULE (IRC TABLE R602.3(1))**

ROOF		
DESCRIPTION OF BUILDING ELEMENTS	NUMBER & TYPE OF FASTENER a,b,c	SPACING AND LOCATION
1. BLOCKING BETWEEN CEILING JOISTS OR RAFTERS TO TOP PLATE.	4-8d BOX or 3-8d COMMON or 3-10d BOX or 3-3" NAILS	TOENAIL PER JOIST, TOE NAIL
2. CEILING JOISTS TO TOP PLATE	4-8d, 3-8d, 3-10d, OR 3-3"	
3. CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (SEE SECTION R802.5.2 AND TABLE R802.5.2)	4-10d BOX or 3-8d Common or 3-10d Box or 3-3"	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)(SEE SECTION R802.5.2 AND TABLE R802.5.2)	TABLE R802.5.2	FACE NAIL
5. COLLAR TIE TO RAFTER, FACE NAIL OR 1-1/4" x 20 GA. ROD STRAP TO RAFTER	4-10d BOX or 3-10d COMMON OR 4-3" NAILS	FACE NAIL EACH RAFTER
6. RAFTER OR ROOF TRUSS TO PLATE	3-16d BOX NAILS or 3-10d COMMON NAILS or 4-10d BOX or 4-3" NAILS	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS
7. ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16d or 3-10d or 4-10d or 4-3" 3-16d or 2-16d or 3-10d or 3-3"	TOE NAIL END NAIL
WALL		
8. STUD TO STUD (NOT AT BRACED WALL PANELS)	16d COMMON or 10d BOX or 3" NAILS	24" O.C. FACE NAIL 16" O.C. FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d BOX OR 3" NAILS 16d COMMON	12" O.C. FACE NAIL 16" O.C. FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HEADER WITH 1/2" SPACER)	16d COMMON 16d BOX	16" O.C. EACH EDGE FACE NAIL 12" O.C. EACH EDGE FACE NAIL
11. CONTINUOUS HEADER TO STUD	5-8d BOX or 4-8d COMMON or 4-10d BOX	TOE NAIL
12. TOP PLATE TO TOP PLATE	16d COMMON 10d BOX or 3" NAILS	16" O.C. FACE NAIL 12" O.C. FACE NAIL
13. DOUBLE TOP PLATE SPLICE	8-16d COMMON or 12-16d or 12-10d BOX or 12-3" NAILS	FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM 24"LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON 16d BOX or 3" NAIL	16" O.C. FACE NAIL 12" O.C. FACE NAIL
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING (AT BRACED WALL PANEL)	3-16d BOX OR 2-16d COMMON OR 4-3" NAILS	3 EACH 16" O.C. FACE NAIL 2 EACH 16" O.C. FACE NAIL 4 EACH 16" O.C. FACE NAIL
16. TOP OR BOTTOM PLATE TO STUD	4-8d BOX or 3-16d BOX or 4-8d COMMON or 4-10d BOX or 4-3" NAILS 3-16d BOX or 2-16d COMMON or 3-10d BOX or 3-3" NAILS	TOE NAIL END NAIL
17. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10d BOX or 2-16d COMMON or 3-3" NAILS	FACE NAIL
18. 1" BRACE TO EACH STUD AND PLATE	3-8d BOX or 2/8d COMMON or 2-10d BOX or 2 STAPLES 1-3/4"	FACE NAIL
19. 1" x 6" SHEATHING TO EACH BEARING	3/8d BOX or 2-8d COMMON or 2-10d BOX or 2 STAPLES 1" CROWN, 16GA., 1-3/4" LONG	FACE NAIL
20. 1" x 8" AND WIDER SHEATHING TO EACH BEARING	3-8d BOX or 3-8d COMMON or 3-10d BOX or 3 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG WIDER THAN 1" X 8" 4-8d BOX or 3-8d COMMON or 3-10d BOX or 4 STAPLES, 1" CROWN 16 GA., 1-3/4" LONG	FACE NAIL
FLOOR		
21. JOIST TO SILL, TOP PLATE OR GIRDER	4-8d BOX or 3/8d COMMON or 3-10d BOX or 3-3" NAILS 8d BOX	TOE NAIL 4" O.C. TOE NAIL 6" O.C. TOE NAIL
22. RIM JOIST, BAND JOIST OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATION ALSO)	8d COMMON or 10d BOX or 3" NAILS	4" O.C. TOE NAIL 6" O.C. TOE NAIL
23. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX or 2-8d COMMON or 3-10 d BOX or 2 STAPLES, 1" CROWN, 16 GA., 1-3/4" LONG	FACE NAIL
FLOOR		
24. 2" SUBFLOOR TO JOIST OR GIRDER	3-16d BOX or 2-16d COMMON	BLIND AND FACE NAIL
25. 2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	3-16d BOX or 2-16d COMMON	AT EACH BEARING, FACE NAIL
26. BAND OR RIM JOIST TO JOIST	3-16d COMMON 4-10 BOX or 4-3" NAILS or 4-3" x 14 GA. STAPLES, 1 1/8" CROWN	END NAIL
27. BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS	20d COMMON or 10d BOX or 3" NAILS	NAIL EACH LAYER AS FOLLOWS: 32" O.C. AT TOP AND BOTTOM AND STAGGERED 24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	AND: 2-20d COMMON or 3-10d BOX or 3-3" NAILS 4-16d BOX or 3-16d COMMON Or 4-10d BOX OR 4-3" NAILS	FACE NAIL AT ENDS AND AT EACH SPLICE AT EACH JOIST OR RAFTER, FACE NAIL
29. BRIDGING OR BLOCKING TO JOIST	2-10d BOX or 2-8d COMMON (2-1/2" x 0.131" or 2-3" x 0.131" NAILS)	EACH END, TOE NAIL

- A. ALL NAILS ARE SMOOTH-COMMON, BOX OF DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED. NAILS USED FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN: 80 ksi (551 MPa) FOR SHANK DIAMETER OF 0.192 INCH (COMMON NAIL), 90 ksi (640 MPa) FOR SHANK DIAMETERS LARGER THAN 0.142 INCH BUT NOT LARGER THAN 0.177 INCH, AND 100 ksi (689 MPa) FOR SHANK DIAMETERS OF 0.142 INCHES OF LESS.
- B. STAPLE ARE 16 GAGE WIRE AND HAVE A MINIMUM 7/16-INCH ON DIAMETER CROWN WIDTH.
- C. NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS WHERE SPANS ATE 48 INCHES OF GREATER.
- D. FOUR-FOOT-BY-8-FOOT OR 4-FOOT-BY-9-FOOT PANELS SHALL BE APPLIED VERTICALLY.
- E. SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3(2).
- F. FOR WOOD STRUCTURAL PANEL ROOF SHEATHING ATTACHED TO GABLE AND ROOF FRAMING AND TO INTERMEDIATE SUPPORTS WITHIN 48" OF ROOF EDGES AND RIDGES, NAILS SHALL BE SPACED

- AT 6 INCHES ON CENTER WHERE THE ULTIMATE DESIGN WIND SPEED IS LESS THAN 130 MPH AND SHALL BE SPACED 4" ON CENTER WHERE THE ULTIMATE DESIGN WIND SPEED IS 130 MPH OR GRATER BUT LESS THAN 140 MPH.
- G. GYPSUM SHEATHING SHALL CONFORM TO ASTM C1396 AND SHALL BE IN ACCORDANCE WITH GA 253. FIBERBOARD SHEATHING SHALL CONFORM TO ASTM C208
  - H. SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL ROOF PLANE PERIMETERS. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS SHALL NOT BE REQUIRED EXCEPT AT INTERSECTIONS OF ADJACENT ROOF PLANES. FLOOR AND ROOF PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.
  - I. RSR5-01 IS A ROOF SHEATHING RING SHANK NAIL MEETING THE SPECIFICATIONS IN ASTM F1667.

**STRUCTURAL STEEL**

- A. ASTM A-36, EXCEPT AS FOLLOWS: PIPE STEEL-ASTM A-53 GRADE B. OR A-501. TUBE STEEL
- B. ASTM A-500 GRADE B. BOLTS AND PLAIN ANCHORS: ASTM A-307. LATEST AISC HANDBOOKS AND CODES APPLY.
- C. MINIMUM EMBEDMENT OF ALL BOLTS IN GROUT OR CONCRETE SHALL BE 8" INCLUDING BOLT HEAD WITH A 3" HOOK.
- D. WELDED ANCHORS AND SHEAR CONNECTORS SHALL BE ICC APPROVED NELSON KSM OR EQUAL.

**REINFORCING**

- A. ASTM A-615 GRADE 40 EXCEPT WHERE NOTED ON PLANS OR SEE BELOW  
A.A. WIRE MESH.....A-185  
A.B. WELDER ANCHORS.....GRADE 40 CHEMICAL ANALYSIS
- B. LIMITED PRE A.W.S. SPEC. FOR WELD WITHOUT PREHEAT.
- C. ALL REINFORCING BARS DEFORMED EXCEPT #2 BARS WIRE MESH.
- D. LATEST A.C.I. CODE AND DETAILING MANUAL APPLY CLEAR CONCRETE COVERAGE TO ANY REINFORCING INCLUDING TIES ARE AS FOLLOWS:  
D.A. CONCRETE PLACE AGAINST EARTH.....3"  
D.B. FORMED CONCRETE AGAINST SOIL.....2"  
D.C. ALL OTHER.....1-1/2"
- E. LAP SPLICES IN MASONRY: SHALL BE 48 DIAMETERS.
- F. MESH SPLICES: TYPICAL SPACING PLUS 2" (MIN 6") MEASURED BETWEEN CROSS-WIRES.
- G. LAP SPLICES IN CONCRETE: LAP AND EXTENSIONS SHALL BE PROVIDED 32 DIAMETER LAP SPLICES IN CONCRETE FOR GR 40.
- H. WHERE BARS ARE SHOWN SPLICED, THEY MAY RUN CONTINUOUS AT CONTRACTOR'S OPTION.  
I. REBAR SPACING GIVEN IS MAXIMUM ON CENTER AND ALL REBAR IS CONTINUOUS UNLESS OTHERWISE NOTED. PROVIDE BENT CORNER REBAR TO MATH AND LA WITH HORIZONTAL REBAR'S AT CORNERS AND INTERSECTIONS OF WALLS, BEAM AND FOOTINGS PER A.C.I. MANUAL. DOWEL ALL VERTICAL REBAR TO EMBEDMENT IN LOCATION BEFORE PLACING CONCRETE OR GROUT. IN

**SPECIAL INSPECTION - STRUCTURAL ONLY:**  
SPECIAL INSPECTION IS TO BE PROVIDED FOR THE ITEMS LISTED BELOW IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE BUILDING JURISDICTION. "SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE BUILDING JURISDICTION INSPECTIONS REQUIRED BY SECTION 1704 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTION IS REQUIRED PER CHAPTER 17 FOR THE FOLLOWING:

- STEEL CONSTRUCTION  
5. INSPECTION OF WELDING:  
A. STRUCTURAL STEEL:  
4) PERIODIC INSPECTION OF SINGLE-PASS FILLET WELDS < 5/16".

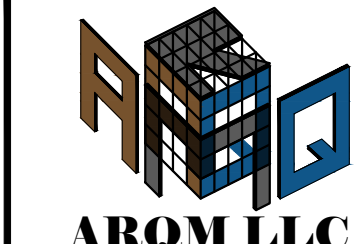
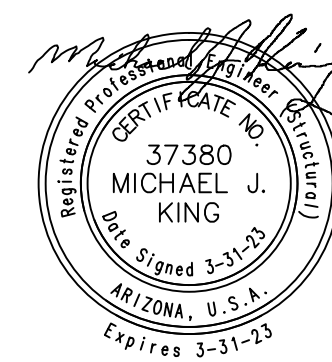
EXPANSION, EPOXY, AND ADHESIVE ANCHORS: DURING THE PLACEMENT OF ALL ANCHORS SHOWN ON STRUCTURAL DRAWINGS. ADDITIONAL INSPECTIONS REQUIRED FOR REPAIR DETAILS SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE.  
A. INSPECTION OF HOLE DIAMETER AND DEPTH.  
B. INSPECTION OF HOLE CLEANING WITH WIRE BRUSH AND COMPRESSED AIR.  
C. INSPECTION OF ANCHOR INSTALLATION USING SPECIFIED PRODUCT AND MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.

**DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:**

- A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATION.
- B. THE SPECIAL INSPECTOR IS NOT AUTHORIZED TO APPROVE DEVIATIONS FROM THE DESIGN DRAWINGS OR SPECIFICATIONS, AND ALL DEVIATIONS MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO PROCEEDING WITH THE WORK. ALL REQUESTS FOR DEVIATIONS SHALL BE INITIATED BY THE CONTRACTOR VIA WRITTEN REQUEST FOR INFORMATION (RFI).
- C. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE ENGINEER OR ARCHITECT OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
- D. CONTRACTOR SHALL PROVIDE THE SPECIAL INSPECTOR ACCESS TO ALL ITEMS REQUIRING SPECIAL INSPECTION. ACCESS SHALL BE PROVIDED BY IN-PLACE LADDERS, SCAFFOLDS, LIFTS AND/OR OTHER EQUIPMENT OPERATED BY THE CONTRACTOR'S PERSONNEL AS REQUIRED FOR SAFE OBSERVATION. INSPECTOR IS NOT RESPONSIBLE OR AUTHORIZED TO OPERATE CONTRACTOR'S EQUIPMENT.
- E. UPON COMPLETION OF THE ASSIGNED WORK THE ENGINEER OR ARCHITECT SHALL COMPLETE AND SIGN THE APPROPRIATE FORMS CERTIFYING THAT TO THE BEST OF THEIR KNOWLEDGE THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.

FOR ADDITIONAL INFORMATION ON SPECIAL STRUCTURAL INSPECTIONS, CONTACT STRUCTURAL ENGINEER PRIOR TO START OF CONSTRUCTION

THIS DRAWING WAS PREPARED BY OTHERS AND REVIEWED BY KING ENGINEERING FOR STRUCTURAL CORRECTNESS



ARQM LLC owns designs, concepts, information, data and details contained in these drawings. they could refer to brands only as complementary information, cannot be used by others without a written approval signed by ARQM LLC.

City COMMENTS: 02/28/2023  
City COMMENTS: 03/28/2023

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Esty Villar  
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ARQM, LLC  
**DATE:**  
**SCALE:**  
PER PLAN  
**SHEET:**  
GSN

MECHANICAL SPECIFICATIONS

PART I - GENERAL

- A. Scope  
Provide labor, material, equipment and incidentals necessary or required for the completion, testing, inspection and adjusting, to provide the mechanical systems operable and complete in all respects.
- B. Drawings and Specifications  
Examine and become familiar with all project drawings and specifications; and coordinate the mechanical work accordingly. Make reasonable modifications in the layout and installation as needed to prevent conflict with work of other trades and for proper execution of the work, without additional cost.
- C. Installation  
The entire mechanical installation shall be made in a neat, workmanship-like, finished and sage manner. Conceal all piping in finished areas, unless otherwise noted. The entire installation shall be subject to the Architect's approval.
- D. Codes, Permits, and Fees  
The drawings and specifications take precedence when they are more stringent than codes, ordinances, standards and statutes. Codes, ordinances, standards and statutes take precedence where they are more stringent than the drawings and specifications. Secure and pay for permits, tests, Certificates of Inspection, and all other costs incidental to the work.
- E. Guarantees  
All work shall be guaranteed to be free from defects in material and workmanship for a period of one year from date of final acceptance of the work. Replace at no additional cost any such defects or the correction of defects.

PART II - PRODUCTS

- A. Air Distribution Materials and Equipment
  - 1. Low pressure ductwork:
    - a. Low pressure ductwork: Shall be G60 coated galvanized steel. Ductwork construction and installation including sheet metal gauges, reinforcement, joint sealing, air leakage and details not specifically shown on the drawings shall be in accordance with SMACNA Low Velocity Construction standards. Take off fittings shall be spin in type with quadrant damper.
    - b. All longitudinal and transverse joints, seams at connections of supply and return ducts operating at a static pressure less than or equal to 2 inches w.g. (500 Pa) shall be securely fastened and sealed with welds, gaskets, mastics (adhesives) mastic-plus-embedded-fabric systems or tapes installed in accordance with the manufacturer's installations instructions.
  - 2. Flexible Duct: Shall be Thermaflex II type MK-E or equivalent, for low pressure, factory fabricated material, with spiral wire support, mylar sheath, blanket insulation and vinyl jacket. Connectors to be U.L. listed and in compliance with NFPA 90-A. Install w/ minimum no. of bends w/ a min. radius of 1-1/2 times the duct dia. measured from the centerline, extend straight where possible.
  - 3. Duct insulation: All supply and return ductwork shall be insulated per IECC. Ductwork installed within the Bldg. shall be R-6, ductwork installed outside of Bldg. shall be R-8. Provide fiberglass insulation blanket with foil skirncraft vapor barrier. Installed per mfr's instructions.
  - 4. Split System Heat Pump Unit:
    - a. Fan Coil Unit: Filter rack and filters, aluminum heat exchanger, 3 speed direct drive blower, blower and motor, controls, relays and wiring for dual operation and all other standard features.
    - b. Cooling coil: Single circuit coil for installation on fan coil unit with insulated and painted steel cabinet, condensate pan and drain outlet, copper coil tubing with aluminum fins, wiring, and piping.
    - c. Condensing Unit: Air cooled type unit complete with painted, reversing valve galvanized steel cabinet, control box, condenser fans and motors, rubber mounted hermetic compressor (with 5 year warranty), copper tube/aluminum fin condenser coils, low ambient controls, high and low pressure controls, service valves and refrigerant connections, transformer, contractor, grounding lug. All units shall be constructed and tested in the factory. The units shall be furnished with a wall mounted, heating and cooling thermostat with heat-off-cool and fan on-automatic selectors. The unit capacities shall be as scheduled on the drawings. Carrier company equipment is indicated but comparable units by Trane, York and Lennox will be acceptable.
- B. Piping materials, Hangers and Insulation:
  - 1. Condensate drain piping: to be type 'M' copper with wrought copper fittings and 95/5 (tin/lead) solder joints.

PART III - EXECUTION

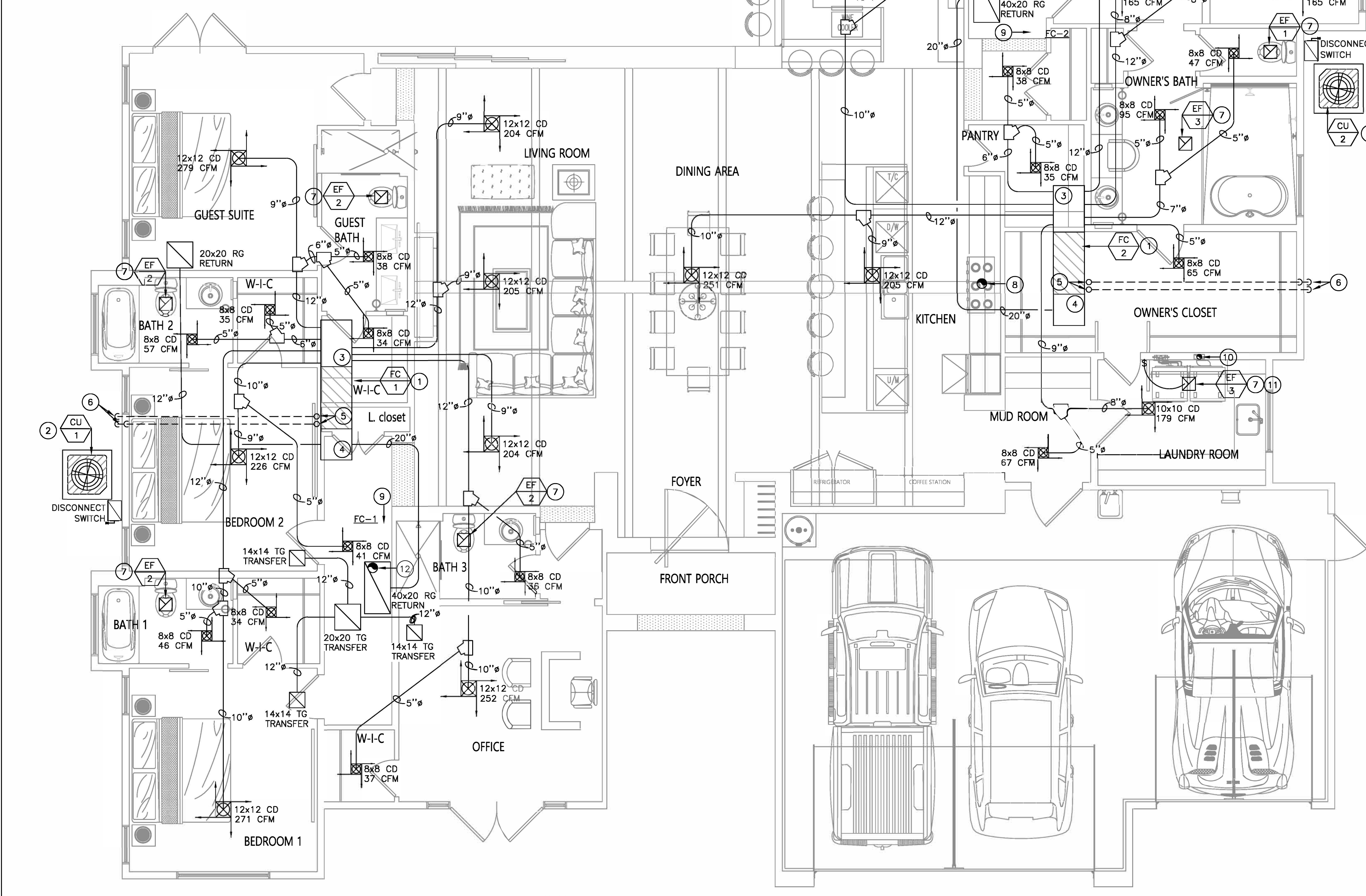
- A. Provide all labor, materials, equipment and services to install a complete, operating and approved mechanical system including but not limited to the following:
  - 1. Coordination of mechanical systems installation with all other contract trades on site for openings, clearances, space, access to equipment, etc.
  - 2. Shop drawing submittal approval required prior to purchase or work activity.
  - 3. Balancing and Adjusting: System start-up, balancing testing and adjusting of the affected portions of the mechanical system shall be the responsibility of the Mechanical Contractor. The system shall be balanced to within plus or minus 5% of the quantities listed.
  - 4. Provide a copy of a certified Air Balance to the City Inspector prior to the final of the Building or Tenant Improvement. This report needs to be conducted by a third party company, which is certified by AABC or NEBB for the testing. The report shall demonstrate that the mechanical system will meet the design calculations as indicated on the mechanical plans by the Mechanical Engineer or the Architect of Record.

KITCHEN EXHAUST NOTE

KITCHEN RANGE HOOD EXHAUST SHALL BE LIMITED TO 400 CUBIC FEET PER MINUTE (CFM) OR LESSER PER 2018 IRC, SECTION M1503.6.

IN THE EVENT THE EXHAUST SYSTEM EXCEEDS 400 CUBIC FEET PER MINUTE (CFM) IT SHALL BE PROVIDED WITH A MECHANICAL OR PASSIVELY MAKE-UP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE OF THE RANGE HOOD. SUCH MAKEUP AIR SYSTEMS SHALL BE EQUIPPED WITH NOT FEWER THAN ONE DAMPER COMPLYING WITH 2018 IRC, SECTION M1503.6.2.

KITCHEN EXHAUST MAKEUP AIR SHALL BE DISCHARGED INTO THE SAME ROOM IN WHICH THE EXHAUST SYSTEM IS LOCATED OR INTO ROOMS OR DUCT SYSTEM THAT COMMUNICATE THROUGH ONE OR MORE PERMANENT OPENINGS WITH THE ROOM IN WHICH SUCH EXHAUST SYSTEM IS LOCATED, 2018 IRC, SECTION M1503.6.1.



MECHANICAL PLAN

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

MECHANICAL NOTES

- 1. THE DWELLING MUST BE PROVIDED WITH HEATING AND COOLING CAPABLE OF MAINTAINING A ROOM TEMPERATURE BETWEEN 68 AND 90 DEGREES AT A POINT 3 FEET ABOVE THE FLOOR, AND 2 FEET FROM EXTERIOR WALLS (IRC R303.9 AS AMENDED)
- 2. DUCT LEAKAGE TEST OR ROUGH-IN DUCT LEAKAGE TEST WILL BE PERFORMED, PER SECTION N1102.2.2.
- 3. THE WHOLE HOUSE MECHANICAL VENTILATION IS REQUIRED, PER SECTION N1103.5 AND TABLE M1505.4.3.(1)
- 4. THE FAN MOTOR FOR THE MECHANICAL WHOLE HOUSE FAN TO COMPLY WITH MINIMUM EFFICACY RATINGS, PER TABLE 1102.5.1.
- 5. THE BLOWER DOOR TEST IS REQUIRED, PER SECTION N1102.4.1.2.
- 6. PROGRAMMABLE THERMOSTAT PROVIDE AUTOMATIC CHANGEOVER 7-DAY PROGRAMMABLE THERMOSTATS FOR EACH ZONE WITH A 2-HOUR OCCUPANT OVERRIDE, INTELLIGENT RECOVERY, AND 10-HOUR MINIMUM BATTERY BACKUP. PROGRAM SETBACK TEMPERATURES TO 85°F(COOL) AND 55°F(HEAT). THERMOSTATS USED TO CONTROL BOTH HEATING AND COOLING. SHALL PROVIDE A SETPOINT OVERLAP RESTRICTION SUCH AS A DEADBAND OF AT LEAST 5°F. ALL TEMPERATURE CONTROLS ARE TO BE TESTED, ADJUSTED, AND CALIBRATED FOR PROPER OPERATION. MOUNT ALL THERMOSTATS AS INDICATED ON THE DRAWINGS. COORDINATE EXACT LOCATION WITH THE ARCHITECT. MOUNT BETWEEN 48"-54" AFF. (2018 IECC, SECTION R403.1.1)

MECHANICAL KEY NOTES

1. NEW 5.0 TON FAN COIL MOUNTED HORIZONTALLY ABOVE CEILING.
2. NEW 5.0 TON CONDENSER UNIT MOUNTED ON 4" CONC. PAD.
3. FULL SIZE SUPPLY AIR PLENUM BOX CONNECTED TO SUPPLY SIDE OF FAN COIL.
4. FULL SIZE RETURN AIR PLENUM BOX CONNECTED TO RETURN SIDE OF FAN COIL.
5. 3/4" PRIMARY AND SECONDARY CONDENSATE DRAIN LINES WITH TRAP AND VENT FROM UNIT TAP.
6. 3/4" PRIMARY CONDENSATE DRAIN LINE DOWN IN WALL AND OUT AT 12" ABOVE FINISH GRADE OVER PLANTER AREA. 3/4" SECONDARY DRAIN LINE OUT WALL ABOVE CEILING. KEEP PIPE 2" AWAY FROM FACE OF WALL. TERMINATE BOTH PIPE DOWNWARD.
7. 6" EXHAUST DUCT UP THRU ROOF TO APPROVED ROOF CAP - KEEP 3' AWAY FROM ANY OPENINGS.
8. 8" EXHAUST DUCT UP FROM RANGE HOOD THRU ROOF TO APPROVED ROOF CAP - KEEP 3' AWAY FROM ANY OPENINGS.
9. 7-DAY PROGRAMMABLE THERMOSTAT MOUNTED AT 54" A.F.F.
10. 4" DRYER EXHAUST DUCT UP FROM DRYER VENT CONNECTION BOX UP THRU ROOF TO APPROVED ROOF CAP - KEEP 3' AWAY FROM ANY OPENINGS.
11. WHOLE HOUSE VENTILATION FAN
12. 8" O.S.A. DUCT UP THROUGH ROOF TO APPROVED ROOF CAP. SET TO DELIVER 160 CFM.

NOTE: FIELD VERIFY THE MOCP OF THE MECHANICAL EQUIPMENT TO THE ELECTRICAL ENSURING THE HVAC EQUIPMENT HAS THE PROPER OVERCURRENT PROTECTION. R106.1.1

**APPROVED AS NOTED**

FIELD VERIFY THE MOCP OF THE MECHANICAL EQUIPMENT TO THE ELECTRICAL ENSURING THE HVAC EQUIPMENT HAS THE PROPER OVERCURRENT PROTECTION. R106.1.1

CITY OF PHOENIX  
Planning and Development Department  
BY: Justine Cornelius  
04/12/2023

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**Teoca Design Solutions, LLC**

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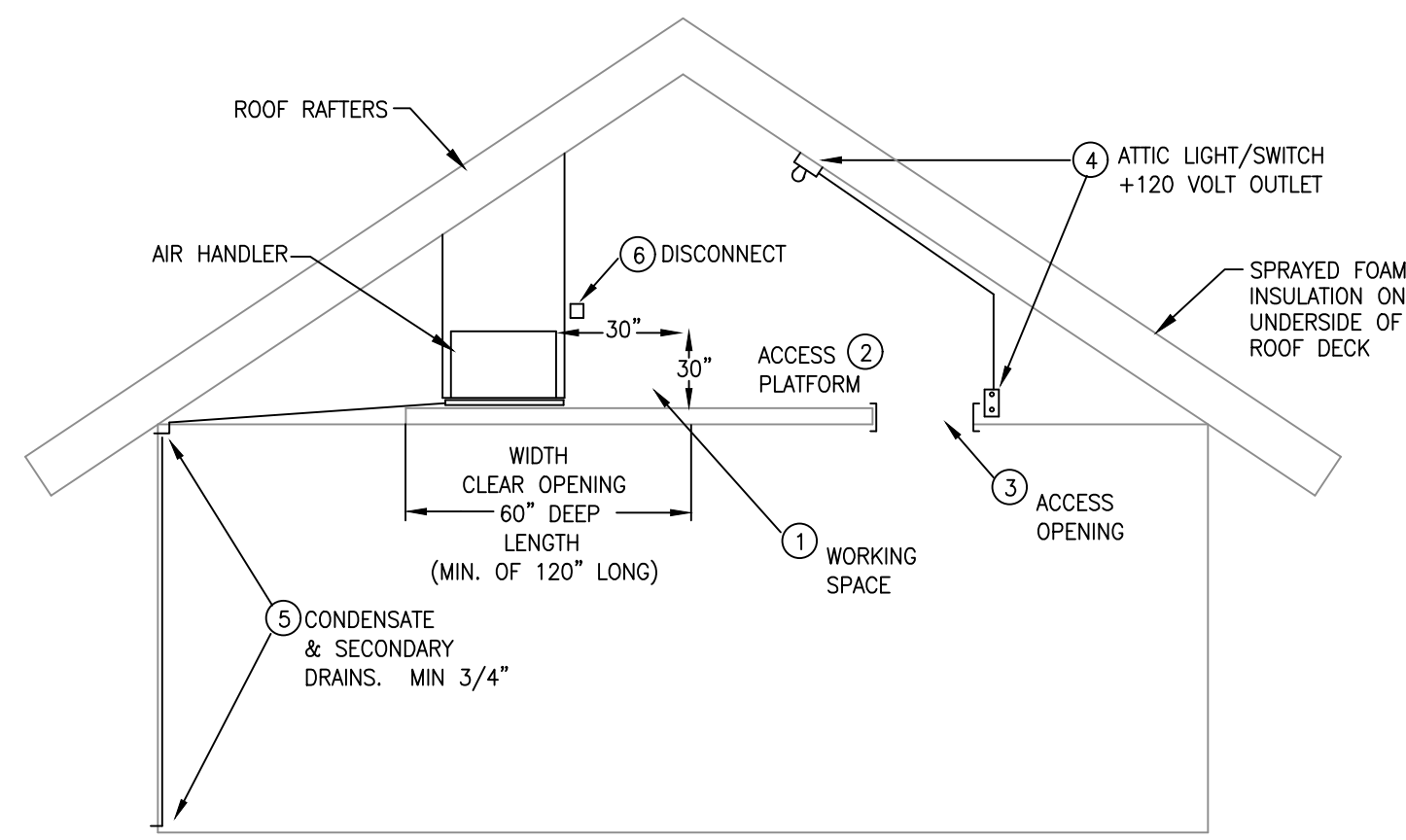
DFT: JC  
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85016

CONTRACT: (623) 853 3751  
DRAWN BY: Esly Villar  
CHECKED BY: ARQM Architect  
DATE:  
SCALE: PER PLAN  
SHEET: M1



**REQUIREMENTS FOR ATTIC FAN COIL**

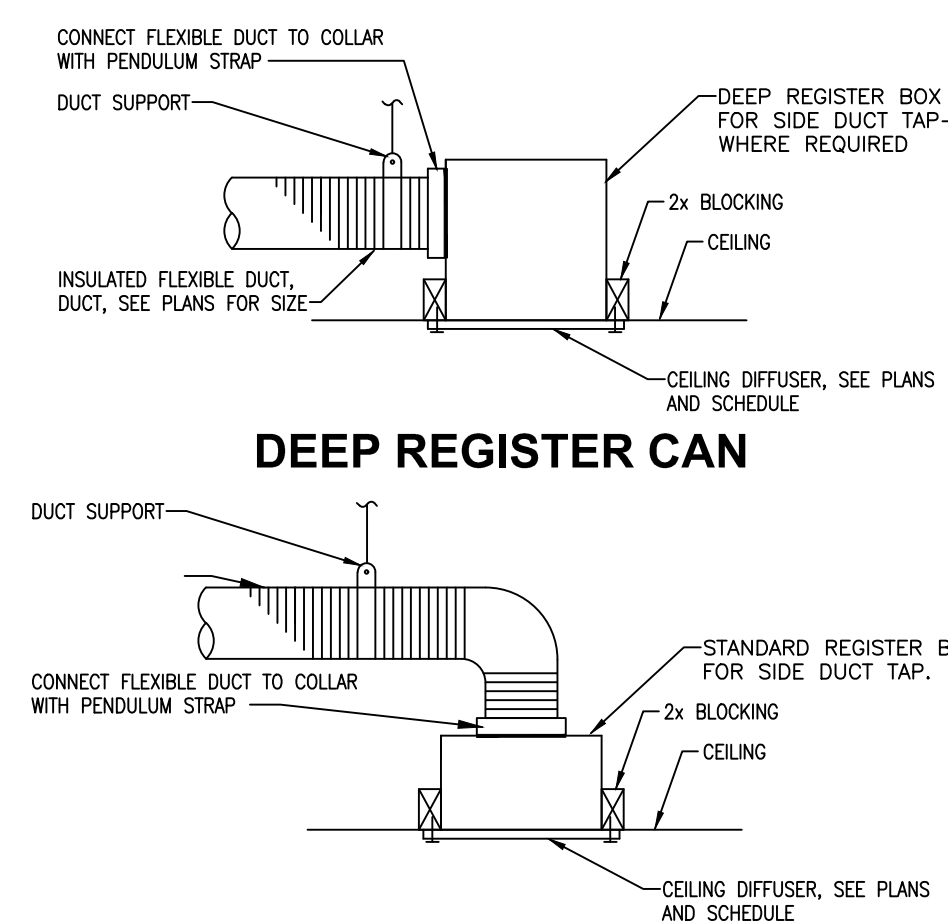
- WORKING SPACE - A WORKING PLATFORM MUST NOT BE LESS THAN 30 INCHES IN DEPTH FOR THE ENTIRE SERVICE SIDE OF THE FURNACE WITH A MINIMUM HEIGHT OF 30 INCHES HEAD CLEARANCE. MAKE PROVISIONS FOR PROPER INSULATION TO BE INSTALLED UNDER THE PLATFORMS WHEN REQUIRED.
- ACCESS PLATFORM - THE ACCESS PLATFORM MUST BE A MINIMUM OF 3/4" THICK FLOORING 24 INCHES WIDE, CONTINUOUS FLOOR NOT MORE THAN 20 FEET IN LENGTH UNLESS THE ENTIRE AIR HANDLER CAN BE SERVICED FROM THE ATTIC ACCESS OPENING.
- ACCESS OPENING - ATTIC OPENINGS AND PASSAGEWAYS TO THE AIR HANDLER MUST BE 30 INCHES X 30 INCHES.  
EXCEPTION: THE ACCESS OPENING INTO THE SPACE MAY BE 22 INCHES BY 30 INCHES PROVIDED THE LARGEST PIECE OF EQUIPMENT CAN BE REMOVED THROUGH THIS OPENING.
- ATTIC LIGHT - A PERMANENT 120 VOLT RECEPTACLE OUTLET AND LIGHTING FIXTURE CONTROLLED BY A SWITCH LOCATED AT THE REQUIRED PASSAGE WAY OPENING SHALL BE PROVIDED AT OR NEAR THE AIR HANDLER.
- CONDENSATE DRAINS - A SECONDARY DRAIN PAN MUST BE INSTALLED UNDER THE COIL SECTION TO PREVENT DAMAGE TO THE CEILING BELOW. THE SECONDARY DRAIN MUST BE INSTALLED WITH A MINIMUM GRADE OF 1/8 INCH PER 12 INCHES OF HORIZONTAL RUN AND MUST EXIT TO THE OUTSIDE WHERE IT CAN BE READILY VISIBLE.
- DISCONNECT - A POSITIVE MEANS OF ELECTRICAL DISCONNECT MUST BE LOCATED AT OR NEAR THE AIR HANDLER. THE SPECIFICATIONS ABOVE MEET THE MINIMUM REQUIREMENTS ESTABLISHED IN THE 2018 IRC.
- DRAIN PAN - PROVIDE AUXILIARY DRAIN PAN 1-1/2" DEEP AND 3" LARGER THAN THE UNIT COIL. WHERE SUBJECT TO WATER DAMAGE WITH FULL PAN, APPLIANCE SHALL BE LOCATED ABOVE PAN FLOOR LEVEL.

**E ATTIC MOUNTED FAN COIL DETAIL** NOT TO SCALE

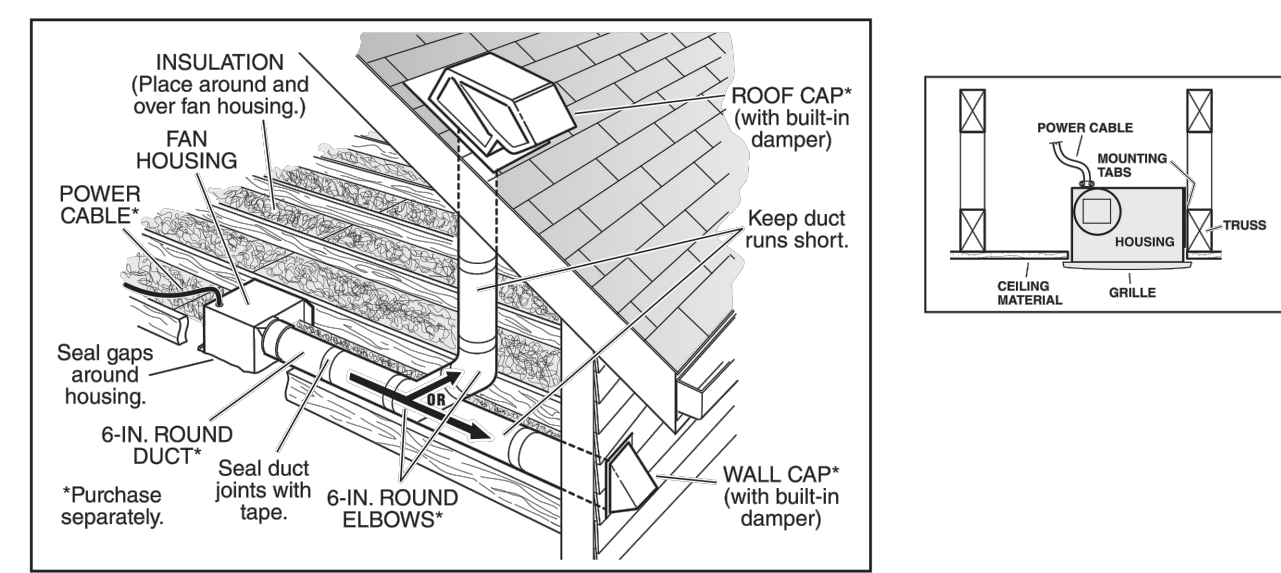


**DRYER VENT TAG**  
WHERE DRYER VENT DUCT IS CONCEALED WITHIN THE BUILDING CONSTRUCTION, THE EQUIVALENT LENGTH OF EXHAUST DUCT SHALL BE IDENTIFIED ON A PERMANENT LABEL OR TAG LIKE ABOVE. THE LABEL OR TAG SHALL BE LOCATED WITHIN 6 FEET OF THE EXHAUST DUCT CONNECTION.

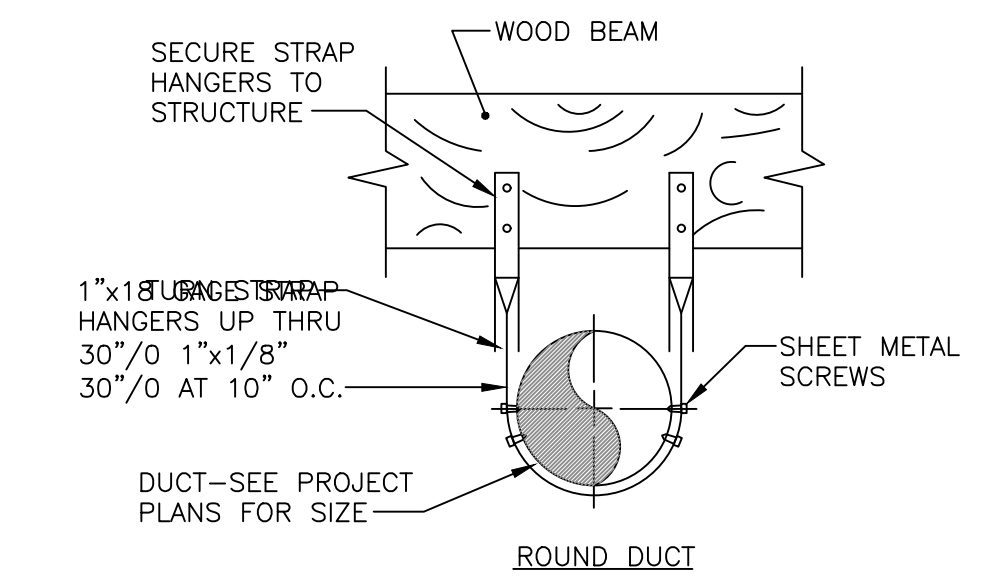
**F DRYER DUCT TAG DETAIL** NOT TO SCALE



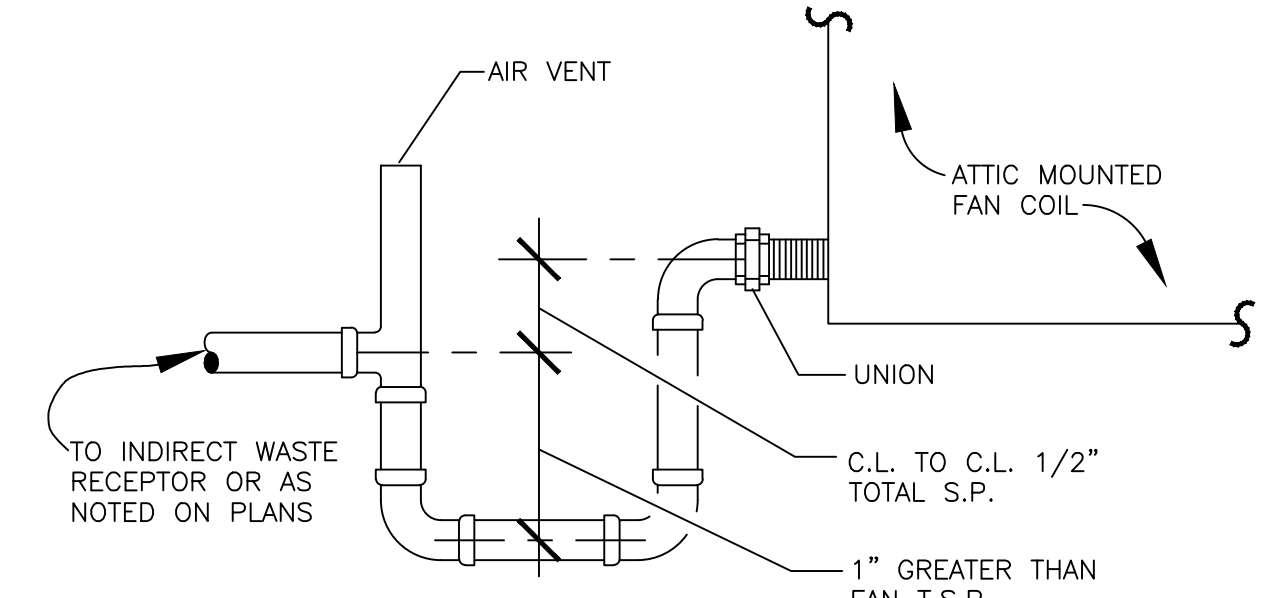
**A DEEP REGISTER CAN REGISTER BOX** NOT TO SCALE



**B CEILING EXHAUST FAN DETAIL** NOT TO SCALE



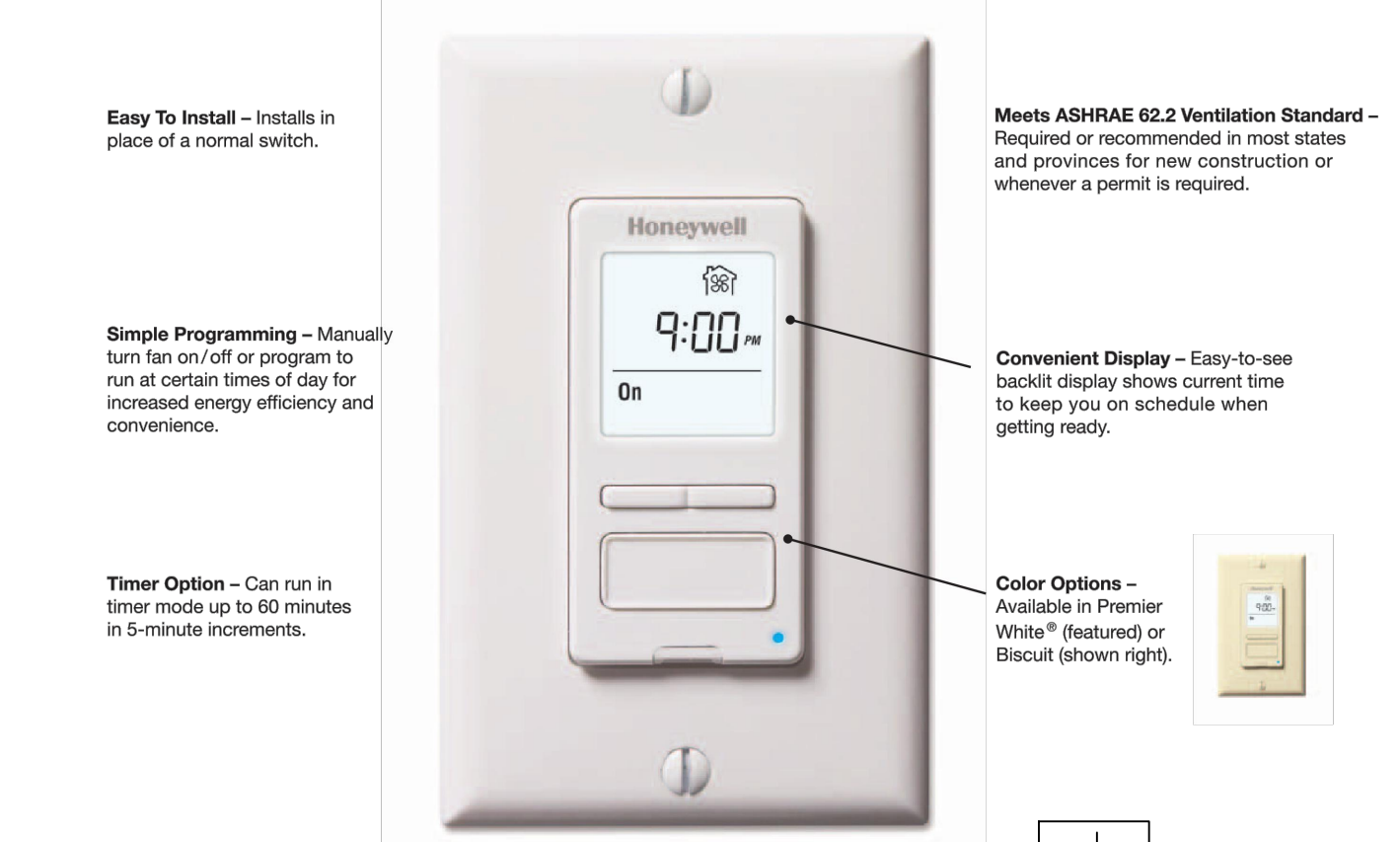
**C DUCT HANGER DETAILS FOR LOW PRESSURE DUCTWORK** NOT TO SCALE



**D CONDENSATE DRAIN TRAP** NOT TO SCALE

**Digital Bath Fan Control**

SMART, AFFORDABLE, EFFICIENT VENTILATION CONTROL



- Easy To Install** - Installs in place of a normal switch.
- Simple Programming** - Manually turn fan on/off or program to run at certain times of day for increased energy efficiency and convenience.
- Timer Option** - Can run in timer mode up to 60 minutes in 5-minute increments.
- Meets ASHRAE 62.2 Ventilation Standard** - Required or recommended in most states and provinces for new construction or whenever a permit is required.
- Convenient Display** - Easy-to-see backlit display shows current time to keep you on schedule when getting ready.
- Color Options** - Available in Premier White\* (featured) or Biscuit (shown right).

Part Number	Product Description	ASHRAE 62.2 CFM Sizing Chart					
		Floor Area (ft²)	0-1	2-3	4-5	6-7	>7
HW0001	Digital Bath Fan Control - Premier White*	< 1500	30	45	60	75	90
HW0002	Digital Bath Fan Control - Biscuit	1501 - 3000	45	60	75	90	105
		3001 - 4500	60	75	90	105	120
		4501 - 6000	75	90	105	120	135
		6001 - 7500	90	105	120	135	150
		>7500	105	120	135	150	165

**Automation and Control Solutions**  
In the US:  
Honeywell  
1985 Douglas Drive North  
Golden Valley, MN 55422-3992  
In Canada:  
Honeywell Limited  
35 Dynamic Drive  
Toronto, Ontario M1V 4Z9  
www.customer.honeywell.com  
5-YEAR LIMITED WARRANTY  
50-1331 GK November 2010 © 2010 Honeywell International Inc.

IRC TABLE M1505.4.3(1) CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS

RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
FACTOR*	4	3	2	1.5	1.3	1

a. FOR VENTILATION SYSTEM RUN TIME VALUES BETWEEN THOSE GIVEN, THE FACTORS ARE PERMITTED TO BE DETERMINED BY INTERPOLATION.  
b. EXTRAPOLATION BEYOND THE TABLE IS PROHIBITED.  
NOTE:  
WHOLE-HOUSE VENTILATION SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH TABLE M1505.4.3(1) AS FOLLOWS:  
4-5 BEDROOMS WITH A FLOOR AREA OF <4500 SQ FT SHALL BE PROVIDED WITH A MIN. 90 CFM CONTINUOUS MECHANICAL VENTILATION.  
FOR 66% RUN TIME: 90 CFM x 1.5 = 135 CFM TOTAL REQUIRED  
EXHAUST FANS IN LAUNDRY ROOM #1 (EF-3) @ 160 CFM SHALL RUN MINIMUM 66% PER 4 HOUR SEGMENT.

**EQUIPMENT SCHEDULE**

SYSTEM #1 (FC-1 / CU-1)		
CU 1	CU 2	GOODMAN OUTDOOR UNIT: GSZ140601K* 34.5 MCA / 60 MOCP AT 230/1 14.0 SEER / 8.5 HSPF
FC 1	FC 2	GOODMAN FAN COIL: AVPTC60D14A* 1 HP BLOWER 8.6 MCA / 15 MOCP AT 230/1
COOLING CAPACITY:		TOTAL 56.0 MBH SENSIBLE 42.0 MBH
HEATING CAPACITY:		TOTAL 59.0 MBH AHRI NO.: 201639435
<b>EXHAUST FANS:</b>		
EF 1	SIMILAR TO DELTA BREEZE MODEL ITG80, 50 CFM @ 0.25"S.P., 6" OUTLET, 11 WATTS AT 115/1. PROVIDE 6"Ø ALUMAFLEX TO ROOF CAP WITH BACK DRAFT DAMPER.	
EF 2	SIMILAR TO DELTA BREEZE MODEL ITG100, 85 CFM @ 0.25"S.P., 6" OUTLET, 21.0 WATTS AT 115/1. PROVIDE 6"Ø ALUMAFLEX TO ROOF CAP WITH BACK DRAFT DAMPER.	
EF 3	SIMILAR TO DELTA BREEZE MODEL PRO200 160 CFM @ 0.25"S.P., 6" OUTLET, 21.5 WATTS AT 115/1. PROVIDE 6"Ø ALUMAFLEX TO ROOF CAP WITH BACK DRAFT DAMPER.	
<b>FLEXIBLE DUCT:</b>		
SUPPLY AND RETURN FLEXIBLE AIR DUCT SHALL BE R-8.		
<b>GRILLES, DIFFUSERS AND REGISTERS</b>		
CD:	CEILING MOUNTED 4-WAY SQUARE DIFFUSER	
RG:	CEILING MOUNTED FILTER RETURN GRILLE WITH 1" FILTER FRAME.	
TG:	CEILING MOUNTED TRANSFER GRILLE	

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 DRAWN BY: Eslly Villar  
 CHECKED BY: ARQM, Archtect  
 DATE:  
 SCALE: PER PLAN  
 SHEET: M2

DATE	02/28/2023
SCALE	AS SHOWN
CITY COMMENTS	
CITY COMMENTS	

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**CONTACT:**  
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**DRAWN BY:**  
Eslly Villar

**CHECKED BY:**  
ARQM, LLC

**DATE:**

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PER PLAN

**SHEET:**  
P1

**MAX. FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS (BASED ON IRC TABLE P2903.2)**

PLUMBING FIXTURE OR FIXTURE FITTING	MAX. FLOW RATE
LAVATORY FAUCET	2.2 GALLONS PER MINUTE AT 60 PSI
SHOWER HEAD	2.5 GALLONS PER MINUTE AT 80 PSI
SINK FAUCET	2.2 GALLONS PER MINUTE AT 60 PSI
WATER CLOSET	1.6 GALLONS PER FLUSHING CYCLE
KITCHEN GROUP	LAVATORY FAUCET

NOTE: A HAND HELD SHOWER SPRAY IS CONSIDERED TO BE SHOWER HEAD

WATER SUPPLY CALCULATION SUITE A AND SUITE B (BASED ON IRC P2903.6)

TYPED OF FIXTURES	NUMBER OF FIXTURES	FIXTURE UNIT VALUE	TOTAL FIXTURE UNITS
BATHTUB (WITH/WITHOUT OVERHEAD SHOWER)	1	X 1.4	1.4
CLOTHES WASHER	1	X 1.4	1.4
FULL-BATH GROUP WITH BATHTUB (WITH OR WITHOUT SHOWER HEAD) OR SHOWER STALL	4	X 3.6	14.4
HALF-BATH GROUP (WATER CLOSET AND LAVATORY)	2	X 2.6	5.2
HOSE BIBB (INCLUDE ONLY 2)	2	X 2.5	5.0
KITCHEN GROUP (DISHWASHER AND SINK WITH OR WITHOUT GARBAGE DISPOSAL)	1	X 2.5	2.5
KITCHEN SINK	0	X 1.4	0.0
LAUNDRY GROUP (CLOTHES WASHER STANDPIPE AND LAUNDRY TUB)	1	X 2.5	2.5
LAVATORY	2	X 0.7	1.4
SHOWER STALL	0	X 1.4	0.0
TOTAL			29.9
TOTAL DEVELOPED LENGTH			86
MIN WATER METER SIZE			3/4"
MIN WATER SUPPLY SIZE			1 1/4"

NOTE: PIPING TO BE SIZED PER IRC TABLE AP201.1 WITH TOTAL DEVELOPED LENGTH SHOWN ABOVE BASED ON PRESSURE RANGE OF 30 TO 50 PSI

**GENERAL NOTES**

- A. THE PLUMBING ISOMETRIC IS FOR PIPE SIZE AND CLEAN OUT LOCATION ONLY. SIZE PIPE IS ACCORDING TO 2018 IRC.
- B. WASTE AND VENT PIPING SHALL BE PLASTIC ABS PIPE.
- C. PROVIDE PRESSURE BALANCE FOR THERMOSTATIC MIXING VALVE TYPE CONTROL VALVES FOR ALL SHOWER AND TUBS-SHOWERS COMBINATIONS.
- D. SOLDER AND FLUX HAVING A LEAD CONTENT IN EXCESS OF TWO TENTHS OF ONE PERCENT SHALL NOT BE USED IN THE INSTALLATION OR REPAIR OF ANY PLUMBING PROVIDING WATER FOR HUMAN CONSUMPTION WHICH ARE CONNECTED TO PUBLIC WATER SYSTEM.
- E. WATER, SOLID OR WASTE PIPE SHALL BE INSTALLED OR PERMITTED OUTSIDE OF A BUILDING OR IN AN EXTERIOR WALL, UNLESS WHERE NECESSARY, ADEQUATE PROVISION IN MADE TO PROTECT SUCH PIPE FROM FREEZING.
- F. PIPING SUBJECT TO UNDUE CORROSION, EROSION OR MECHANICAL DAMAGE SHALL BE PROTECTED IN AN APPROVED MANNER.
- G. EACH HOSE BIBB SHALL HAVE A BACKFLOW PREVENTTER INSTALLED.
- H. WATER HAMMER ARRESTORS ARE REQUIRED AT QUICK-CLOSING VALVES. R 3228)
- I. HORIZONTAL DRAINAGE PIPING SLOPE (BASED ON P3005.3):
  - I.A. MIN. SLOPES OF PIPES WITH DIAMETER 2 1/2" OR LESS: 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (1/4:12)(2% SLOPE).
  - I.B. MIN. SLOPES OF PIPES WITH DIAMETER 3 OR GREATER: 1/8 UNIT VERTICAL IN 12 UNITS HORIZONTAL (1/8:12)(1% SLOPE).

**NOTES**

**WATER PIPING**  
COPPER PIPE FOR WATER PIPING SHALL HAVE A WEIGHT OF NOT LESS THAN THAT OF COPPER WATER TUBE L. EXCEPTIONS: TYPE M COPPER TUBING MY BE USED FOR WATER PIPING WHEN PIPING IS ABOVE GROUND AS PER 2018 IRC STANDARDS. PEX PIPE MAY USED.

**WASTE PIPING.**  
ALL WASTE PIPING WHICH PENETRATED WALL 1 HOUR FIRE-RESTRICTIVE MATERIAL SHALL BE NON-COMBUSTIBLE PIPING MATERIAL APPROVED BY IRC. APPLICABLE EDITION. STATE AND LOCAL CODES.

**AIR ADMITTANCE VALVES (A.A.V.)**  
INDIVIDUAL AND BRANCH AIR ADMITTANCE VALVES SHALL BE LOCATED A MINIMUM OF 4 INCH. ABOVE THE HORIZONTAL BRANCH DRAIN OF FIXTURES DRAIN BEING VENTED. AIR ADMITTANCE VALVE SHALL BE INSTALLED A MINIMUM OF 6" ABOVE INSULATION MATERIAL.

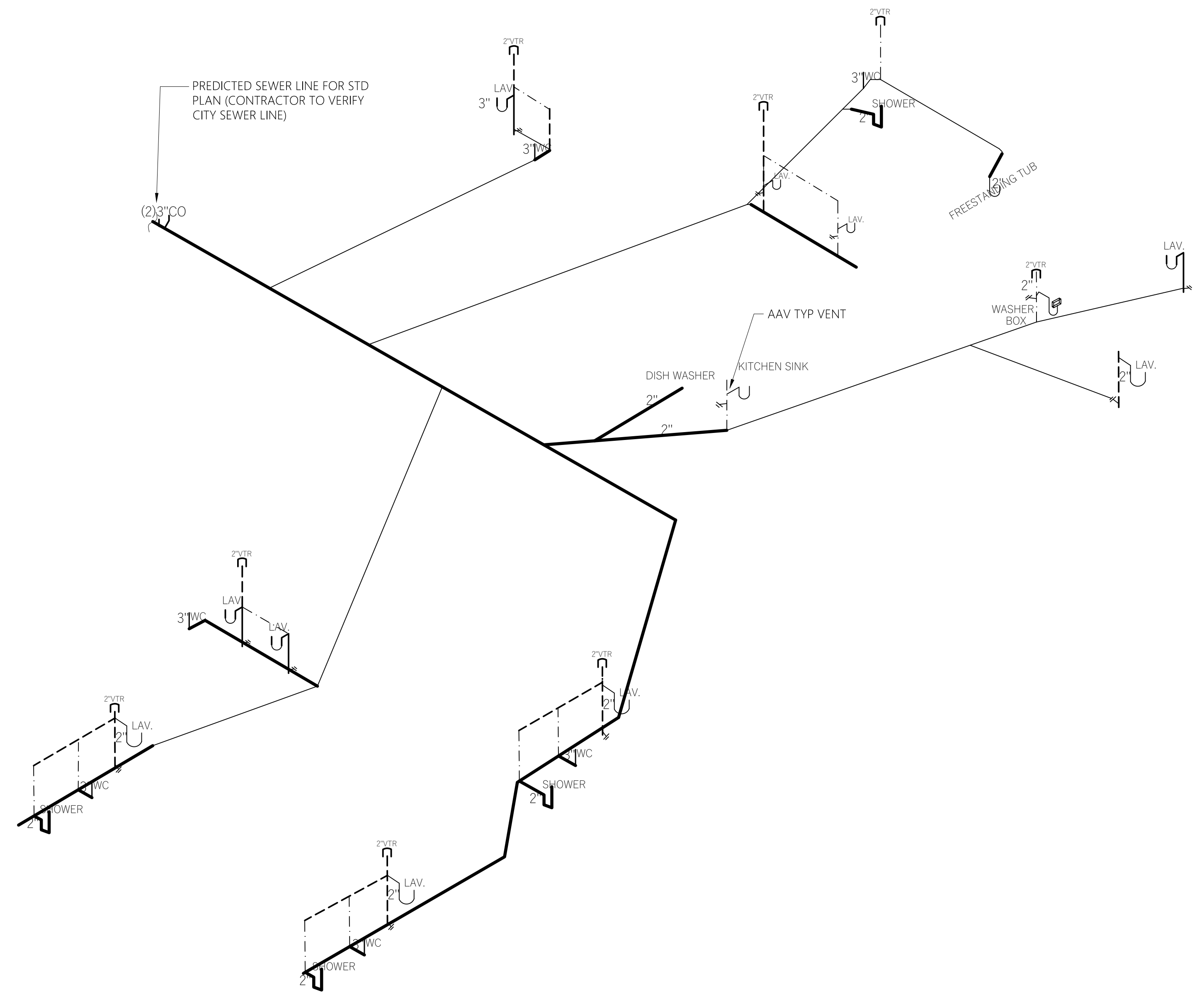
**WATER HEATER**  
WATER HEATER HAVING NON-RIGID WATER CONNECTIONS SHALL BE STRAPPED FOR SUPPORT. WATER HEATER TO BE PROVIDED WITH TEMPERATURE AND PRESSURE RELIEF DRAIN SHALL DISCHARGE NO MORE THAN 6 INCHES ABOVE THE GRADE, PER 2803.6.1 OF THE IRC.

**LEGEND**

- > 2" VENT THROUGH THE ROOF (2"VTR)
  - CO---- CLEAN OUT
  - PIPE VENT 1-1/2"
- NOTE: PER P3005 CLEAN OUT AT JUNCTION OF SEWER AND DRAINS  
E) = EXISTING

**NOTE**

WATER FIXTURE ARE EXISTING JUST RELOCATED



City Comments	02/28/2023
City Comments	03/28/2023

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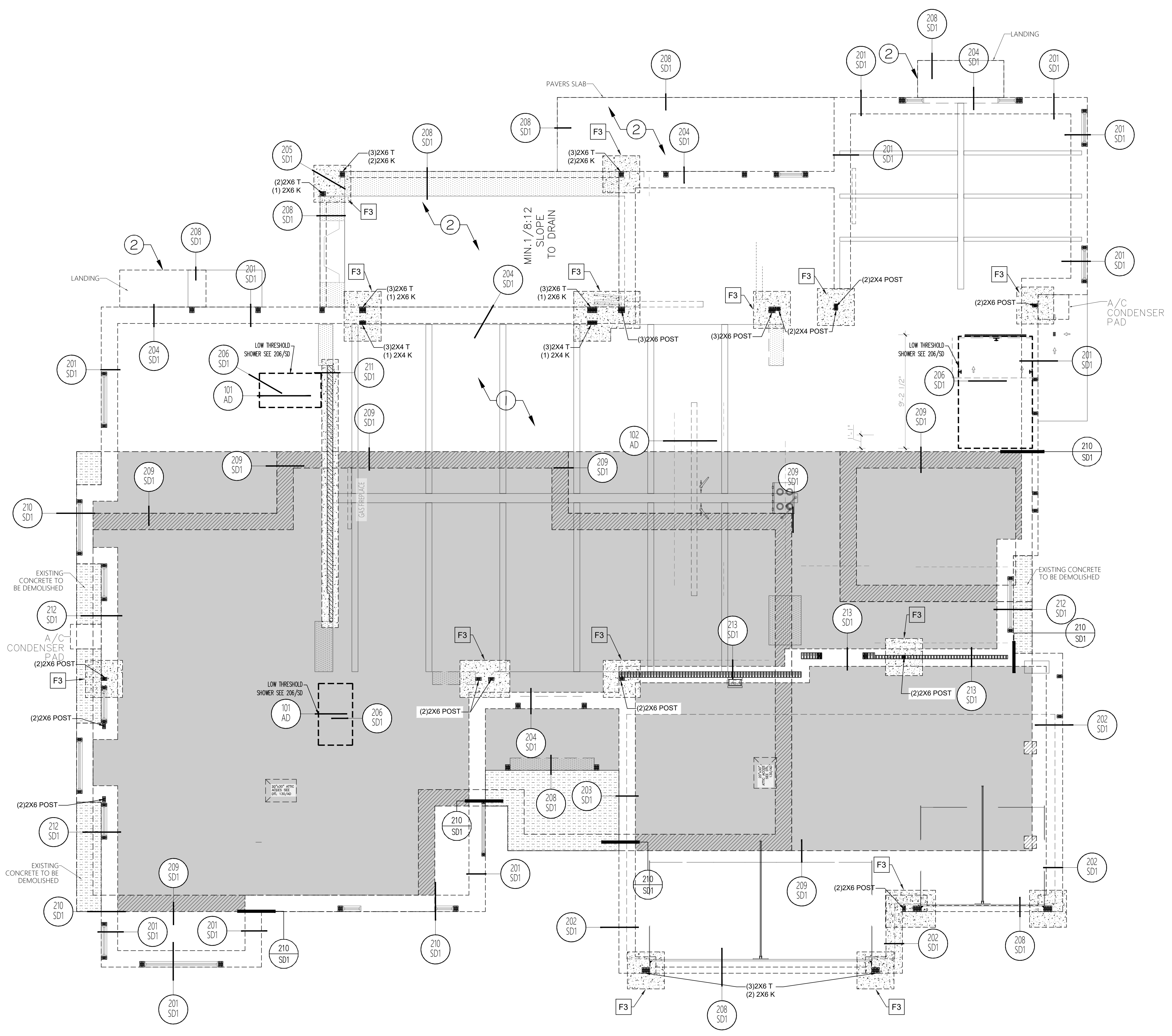
**DRAWN BY:**  
Esty Villar

**CHECKED BY:**  
ARQM, LLC

**DATE:**

**SCALE:**  
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**SHEET:**  
S1



**GENERAL NOTES**

- A. EXTERIOR WALL FRAMALL EXTERIOR AND INTERIOR BEARING FOOTINGS SHALL BEAR A MINIMUM OF 1'-6" BELOW UNDISTURBED SOIL.
- B. SEAL ALL VOIDS AROUND PENETRATIONS THROUGH FLOOR SLABS.
- C. LANDINGS AT ALL DOOR LOCATIONS SHALL HAVE A MAXIMUM SLOPE OF 1/4" PER FOOT.
- D. FOUNDATIONS WHERE THE SURFACE OF THE GROUND SLOPES MORE THAN 1 FOOT IN 10 FEET SHALL BE LEVEL OR SHALL BE STEPPED SO THAT BOTH THE TOP AND BOTTOM OF SUCH FOUNDATIONS ARE LEVEL.
- E. MAINTAIN A MINIMUM 3 INCH CLEARANCE FROM FOUNDATION REINFORCEMENT TO EARTH.
- F. SLOPE THE GARAGE FLOOR TO THE MAIN VEHICLE ENTRY DOOR.
- G. FOUNDATIONS SUPPORTING WOOD SHALL EXTEND AT LEAST 6" ABOVE ADJACENT FINISH GRADE.
- H. FINISH GRADE SLOPE SHALL SLOPE AWAY FROM FOUNDATION W/ MINIMUM SLOPE FOR A DISTANCE OF 10'-0" TOWARDS APPROVED WATER DISPOSAL.
- I. CONTRACTOR TO COORDINATE LOCATION OF UNDERGROUND MECHANICAL, PLUMBING, AND ELECTRICAL SERVICES AND OUTLETS.
- J. CONTRACTOR TO COORDINATE LOCATION OF WASTE SLABS W/ MECHANICAL CONTRACTOR.
- K. CONSTRUCTION JOINTS VERIFY WITH CONTRACTOR.
- L. JOINTS EVERY 15' MAX.
- M. VAPOR BARRIER-FOR REBAR.

**NOTE**  
OWNER/DEVELOPER TO CHOOSE BETWEEN USING STEM OR MONOLITHIC DETAILS FOR HIS BEST CONVENIENCE. SEE BOTH SHEET SD

**NOTE SOIL REPORT**  
UNLESS NOTED OTHERWISE IN OWNER/BUILDER SUPPLIED PROJECT SOILS REPORT, FOUNDATION DESIGN BASED ON 1500 PSF ALLOWABLE SOIL BEARING PRESSURE AT MINIMUM 1'-6" BELOW ENGINEER CERTIFIED COMPACTED PAD OR UNDISTURBED SOIL. SOIL IS ASSUMED TO BE NON-EXPANSIVE, NON-COLLAPSABLE AND NON-CORROSIVE. FINISH GRADE TO PROVIDE ADEQUATE DRAINAGE AWAY FROM FOUNDATION SYSTEM.

**NOTE**  
(IBC 1803.5.2) SPECIAL INSPECTIONS AND AN APPROVED GEOTECHNICAL REPORT SHALL BE REQUIRED FOR ALL CONDITIONS THAT REQUIRE FILL PLACEMENT, CLASSIFICATION, STRENGTH OR COMPRESSIBILITY OF THE SOIL. (ADMINISTRATIVE (TR1) - SOILS REPORT SPECIAL INSPECTION FOR PRESUMPTIVE LOAD-BEARING DESIGN) A REVISED STRUCTURAL FOUNDATION & DETAILS PLANS MUST BE SUBMITTED FOR REVIEW PRIOR TO PLOT PLAN REVIEW APPLICATION AND THE SAID PLANS MUST REFERENCE THE CORRECT VITAL SOIL REPORT INFORMATION FOR DESIGN: THE COMPANY AND THEIR REPORT NUMBER, ALLOWABLE SOIL BEARING CAPACITIES AND AT WHAT DEPTH AND ANY COMPACTED FILL REQUIREMENTS IN ADDITION TO ITEMS NOTED ABOVE. ALL CALCULATIONS SHALL BE BASED AND COORDINATED WITH THIS SOIL REPORT. (ADMINISTRATIVE POLICY)

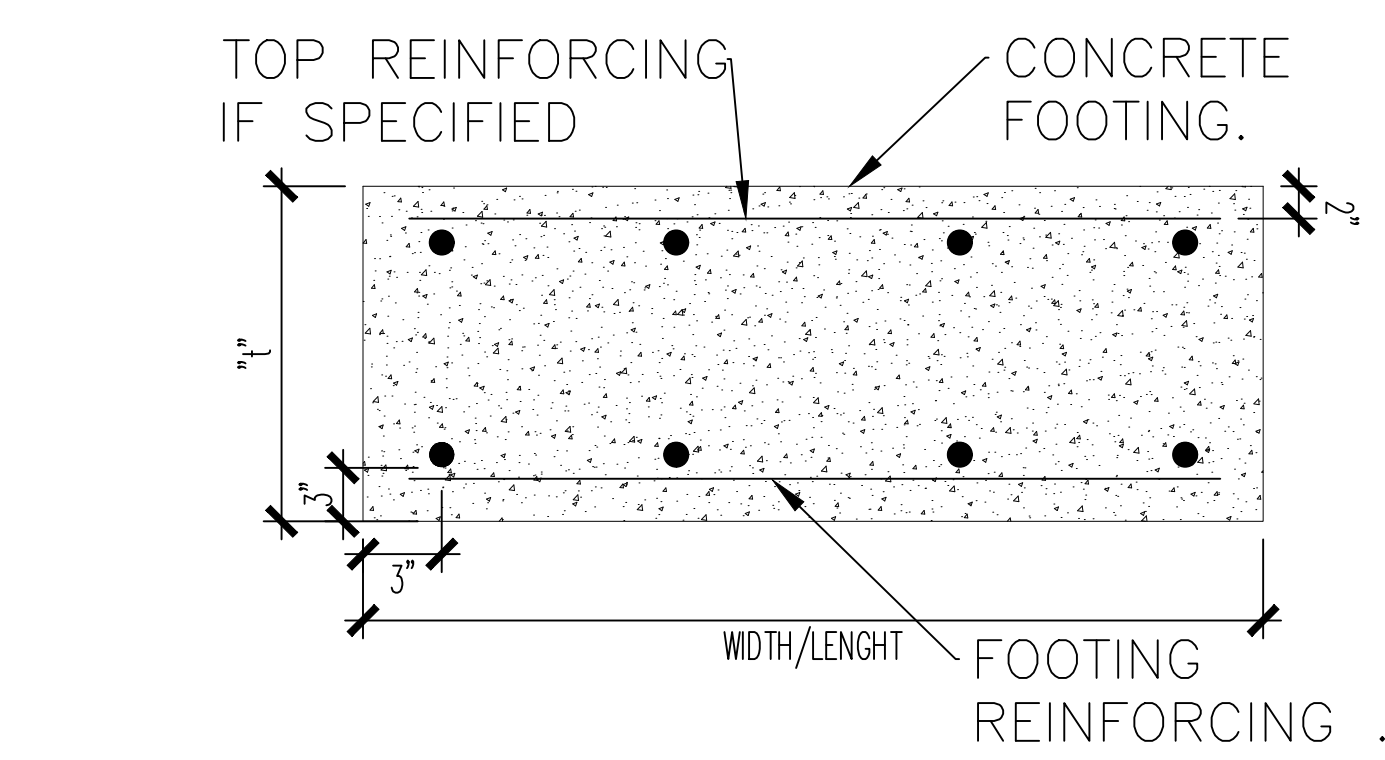
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**LEGEND:**

- EXISTING CONCRETE SLAB TO REMAIN INTACT
- EXISTING CONCRETE FOOTING TO REMAIN INTACT
- EXISTING CONCRETE TO BE DEMOLISHED
- NEW CONCRETE SLAB
- NEW CONCRETE FOOTING
- INTERIOR BEARING WALL
- INTERIOR SHEAR WALL

- ① 4" UN-REINFORCED CONCRETE SLAB OVER 4" COMPACTED ABC TO 95% STANDARD PROCTOR-DENSITY @ 12" CLEAN GRANULAR MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY.
- ② 4" UN-REINFORCED CONCRETE SLAB OVER 4" COMPACTED ABC TO 95% STANDARD PROCTOR-DENSITY WITH 1/8" SLOPE

**CONCRETE FOOTING SCHEDULE (F\_) (NOT ALL USED)**



MARK	WIDTH	LENGTH	THICKNESS "t"	REINFORCING
F1	2'-0"	2'-0"	12"	(3)#4 EACH WAY
F2	2'-6"	2'-6"	12"	(4)#4 EACH WAY
F3	3'-0"	3'-0"	12"	(4)#4 EACH WAY

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



### STUDS SCHEDULE

NOTE: ALL EXTERIOR WALLS TO BE FRAMED WITH 2X6 HEM-FIR #2 STUD GRADE STUDS AT 16" O.C. UNLESS OTHERWISE. INTERIOR BEARING WALLS TO BE FRAMED W/ 2X4 OR 2X6 HEM-FIR #2 STUD GRADE STUDS AT 16" O.C. UNLESS OTHERWISE AND NON-BEARINGS INTERIOR PARTITION WALLS TO BE FRAMED WITH 2X4 OR 2X6 HEM-FIR #2 STUD GRADE STUDS AT 24" O.C. UNLESS NOTED OTHERWISE.

W1	2X4 HEM-FIR #2 STUDS AT 12" O.C.	W4	2X6 HEM-FIR #2 STUDS AT 16" O.C.
W2	2X4 HEM-FIR #2 STUDS AT 16" O.C.	W5	2X6 HEM-FIR #2 STUDS AT 12" O.C.
W3	2X4 HEM-FIR #2 STUDS AT 12" O.C.	W6	2X6 HEM-FIR #2 MER 16501-15E AT 16" O.C.

### LEGEND

B.O.B. = BOTTOM OF BEAM	10'-1" = TOP OF WALL U.O.
T.O.B. = TOP OF BEAM	===== = INTERIOR BEARING WALL
L3 = 2X6 LEDGER	===== = BALLOON FRAMING WALL
4" DEPRESSED AREAS	===== = INTERIOR SHEAR WALL
===== = CRIPPLE WALL	===== = BEARING WALL FROM ABOVE
===== = WOOD BEAM	===== = WALL OPENINGS/HEADERS

NOTE: USE (1) TRIMMER (1) KING STUD U.O. USE DETAIL 421 FOR NUMBER OF KINGSTUD.

### HANGER SCHEDULE

A = LU210	T = THA213 (1280 LBS)	R = HGUS26-3 (4445 LBS)
B = LUS26 (785 LBS)	J = THA29 (1815 LBS)	S = HGUS28-3 (6415 LBS)
C = MUS26 (1180 LBS)	K = THA418 (1415 LBS)	T = HGUS210-2 (7825 LBS)
D = HUS26 (2780 LBS)	L = HGUS00-SDS (9475 LBS)	U = HHUS26-2 (2925 LBS)
E = HGU7.00-SDS	M = HGU0612-SDS (4460 LBS)	V = HUC66
F = HUS610	O = HU5.125/12	W = HU612 (3275 LBS)
G = THA426-2	P = HGUS26-2 (4450 LBS)	X = HU412 (2380 LBS)
H = THA426 (2435 LBS)	Q = HGUS28-2 (6415 LBS)	

PROVIDE 3/8" TYPE X GYP BD. GLUE AND SCREWED TO 3/4" PLYWOOD AT ATTIC ACCESS

22"X30" ATTIC ACCESS - PROVIDE 30" HEADROOM AT ALL ACCESS LOCATIONS. A.H.U. LOCATED IN ATTIC SPACE (VERIFY LOCATION), INSULATED AND WEATHER STRIP PER IRC SECTION N1102.2.4

### GENERAL ROOF FRAMING NOTES

- EXTERIOR WALL FRAMING SHALL BE 2x STUDS AT 16" O.C. UNO. INTERIOR LOAD BEARING WALLS SHALL BE 2x AT 16" O.C. UNO.
- MINIMUM 1 KING STUD AND ONE TRIMMER REQUIRED AT ALL OPENINGS. PROVIDE CONTINUOUS BEARING TO FOUNDATION FOR 2 TRIMMERS OR GREATER. POSS SUPPORTING FLUSH BEAM OR G.T. SHALL EXTEND TO UNDERSIDE OF BOTTOMMOST TOP PLATE OF WALL. DOUBLE TOP PLATE SHALL RUN CONTINUOUS OVER POST AT FLUSH BEAM OR G.T. UNLESS POST CAP IS SPECIFIED OR UNO ON PLAN.
- DOUBLE 2x TOP PLATE REQUIRED AT ALL BEARING WALLS.
- ROOF AND FLOOR FRAMING MEMBERS SHOWN ON PLANS INDICATE PREFABRICATED WOOD TRUSSES SPACED @ 24" O.C. MAX. UNO
- ALIGN (2) STUDS (MIN.) BENEATH ALL GIRDER TRUSSES AT BEARING WALL. NAIL STUDS TOGETHER PER TYPICAL NAILING SCHEDULE. HIP GIRDERS W/ UP TO 8'-0" SETBACK AND UP TO 20'-0" SPAN MAY HAVE (1) STUD. UNO. PROVIDE CONTINUOUS BEARING TO FOUNDATION FOR ALL BEAMS AND GIRDER TRUSSES SUPPORTED BY (2) 2x OR LARGER POSTS.
- FASTENERS SHALL BE PLACED NOT LESS THAN 3/8" FROM PANELEDGES AND SHALL BE FIRMLY DRIVEN INTO FRAMING MEMBERS. PANEL JOINT SHALL BE CENTERED ON FRAMING MEMBER. NO UNBLOCKED PANELS LESS THAN 24" WIDE SHALL BE USED. PROVIDE 3/8" GAP BETWEEN ROOF SHEATHING PANELS.

### DISCLAIMER

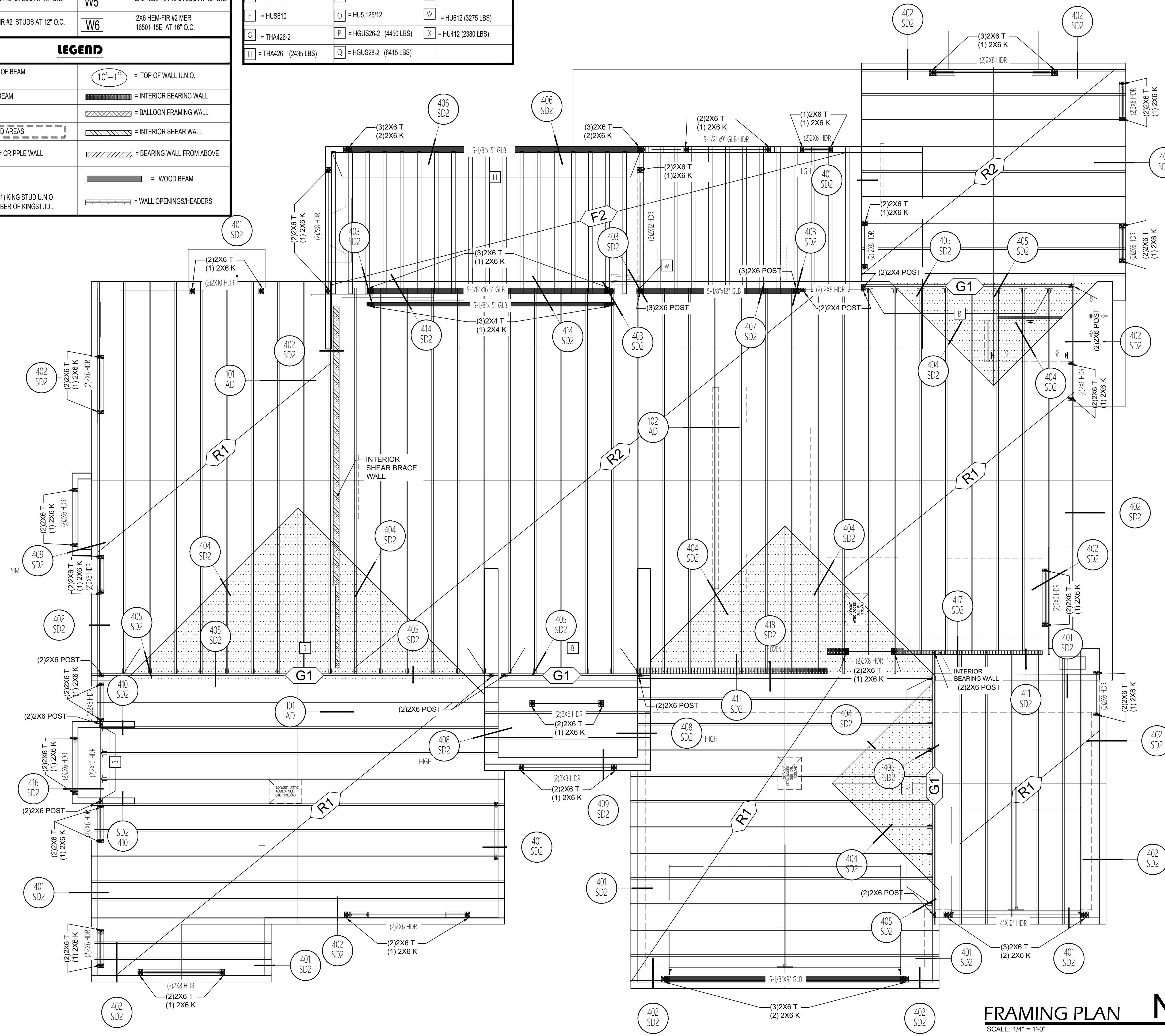
-THE SCHEMATIC ROOF FRAMING LAYOUT SHOWN HEREON IS ONLY FOR A CONCEPTUAL LAYOUT.  
 -TRUSS MANUFACTURE SHOULD FIELD VERIFY ALL DIMENSIONS.  
 -TRUSS MANUFACTURE IS TO ONLY USE THIS CONCEPTUAL PLAN FOR HIS/HER PROFESSIONAL STRUCTURAL ROOF DESIGN.  
 -TRUSS MANUFACTURE TO PROVIDE SHOP DRAWINGS THAT INDICATE SIZE, LOCATION, AND BRACING OF ALL MEMBERS TO THE CONTRACTOR/OWNER FOR APPROVAL PRIOR TO TRUSS MANUFACTURES FABRICATION OF ROOF SYSTEM.  
 -R301.4 DEAD LOAD. THE ACTUAL WEIGHTS OF MATERIALS AND CONSTRUCTION SHALL BE USED FOR DETERMINING DEAD LOAD WITH CONSIDERATION FOR THE DEAD LOAD OF FIXED SERVICE EQUIPMENT (HVAC).

### NOTES

- DOUBLE TOP PLATE REQUIRED AT ALL EXTERIOR WALLS
- ROOF SHEATHING TO BE 5/8" MINIMUM RATED PLYWOOD NAILED 6" ON CENTER.
- MANUFACTURED TRUSSES 24" ON CENTER.
- SEE ARCHITECTURAL DETAIL ON SHEET AD FOR INFORMATION NOT SHOW.

### ROOF TRUSS LOADS

TRUSS MANUFACTURE TO DESIGN FOR:  
 DEAD LOAD: 16 PSF (FLAT ROOF)  
 DEAD LOAD: 21 PSF (PITCHED)  
 LIVE LOAD: 20 PSF



FLOOR TRUSS TYPE	FLOOR TRUSS VARIATIONS
FG1 18" DEEP FLOOR GIRDER	A THREE POINT BEARING
FG2 24" DEEP FLOOR GIRDER	B FOUR POINT BEARING
FG3 22" DEEP FLOOR GIRDER	C CANTILEVERED AT ONE END
F1 18" DEEP FLOOR TRUSS AT 16" O.C.	D CANTILEVERED AT BOTH ENDS
F2 24" DEEP FLOOR TRUSS AT 16" O.C.	E TOP CHORD BEARING
F3 2X8 JOIST AT 16" O.C.	F MODIFIED VARIATION
F4 2X12 JOIST AT 16" O.C.	G
F5 12" DEEP FLOOR TRUSSES AT 16" O.C.	H
F6 20" DEEP FLOOR TRUSSES AT 16" O.C.	I
F7 22" DEEP FLOOR TRUSSES AT 16" O.C.	

ROOF TRUSS TYPE	FLOOR TRUSS LOADS
G-1 GIRDER TRUSS 2 PLY MIN.	TRUSS MANUFACTURED TO DESIGN FOR: DL: 25 PSF LL: 40 PSF
G-2 HIP GIRDER TRUSS	
G-3 GIRDER TRUSS 2 PLY MIN. W/VERTICALS AT 16" O.C. MAX.	
G-4 PREFABRICATED WOOD GIRDER TRUSS EXPOSED WOOD MEMBERS & CONNECTIONS PER LINDSAY DRAWINGS.	

ROOF TRUSS VARIATIONS
A STUBBED AT ONE END
B STUBBED AT BOTH ENDS
C CANTILEVERED AT ONE END
D CANTILEVERED AT BOTH ENDS
E 3-POINTS BEARING
F 4-POINTS BEARING
G OFFSET BEARING

ROOF TRUSS TYPE	NOTES
R-1 COMMON TRUSS 24" O.C.	
R-2 SCISSOR TRUSS AT 24" O.C.	
R-3 PARALLEL CHORD TRUSS AT 24" O.C.	
R-4 HIP TRUSS 24" O.C.	
R-5 MONO TRUSS AT 24" O.C.	
R-6 JACK TRUSS AT 24" O.C.	
R-7 2X6 RAFTER AT 24" O.C.	
R-8 STRUCTURAL GABLE END WALL TRUSS	PLY1 3/4" PLYWOOD ROOF SHEATHING W/8d AT 6 O.C. EDGE & 12" O.C. FIELD. TYP U.N.O.
R-9 PARTIAL GABLE ENDWALL TRUSS	
R-10 PARTIAL SCISSOR TRUSS	PLY2 3/4" T&G PLYWOOD FLOOR SHEATHING W/8d SCREWS 2" LONG AT 6" O.C. EDGE AND 10" O.C. FIELD - GLUED TO EACH MEMBER
R-11 2X8 RAFTER AT 12" O.C.	
R-12 2X12 RAFTER DF#2 AT 24" O.C.	

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

# WOOD STUD WALL SHEARWALL SCHEDULE

MATERIALS, ATTACHMENTS AND VALUES ARE PER 2018 IBC

MARK	MATERIAL AND ATTACHMENTS	ALLOW. SHEAR PLF(1)	SILL PLATE ATTACHMENT AT	
			FOUNDATIONS (4)(5)	UPPER FLOORS
1	1/2" UNBLOCKED DRYWALL WITH 6d COOLER NAILS AT 7" O.C. EDGES AND FIELD.	100 HF /DF	1/2" A.B. AT 48" O.C. OR: SHOT PINS AT 16" O.C.	16d 12" O.C.
2	5/8" UNBLOCKED DRYWALL WITH 6d COOLER NAILS AT 7" O.C. EDGES AND FIELD.	115 HF/DF	1/2" A.B. AT 48" O.C. OR: SHOT PINS AT 16" O.C.	16d 12" O.C.
3	1/2" BLOCKED DRYWALL WITH 5d COOLER NAILS AT 7" O.C. EDGES AND FIELD OR: 1/2" UNBLOCKED DRYWALL WITH 5d COOLER NAILS AT 4" O.C. EDGES AND FIELD.	125 HF/DF	1/2" A.B. AT 48" O.C. OR: SHOT PINS AT 12" O.C.	16d 12" O.C.
4	5/8" BLOCKED DRYWALL WITH 6d COOLER NAILS AT 7" O.C. EDGES AND FIELD OR: 5/8" UNBLOCKED DRYWALL WITH 6d COOLER NAILS AT 4" O.C. EDGES AND FIELD.	145 HF/DF	1/2" A.B. AT 48" O.C. OR: SHOT PINS AT 8" O.C.	16d 12" O.C.
5	1/2" BLOCKED DRYWALL WITH 5d COOLER NAILS AT 4" O.C. EDGES AND FIELD.	150 HF/DF	1/2" A.B. AT 48" O.C. OR: SHOT PINS AT 8" O.C.	16d 12" O.C.
6	5/8" BLOCKED DRYWALL WITH 6d COOLER NAILS AT 4" O.C. EDGES AND FIELD.	175 HF/DF	1/2" A.B. AT 48" O.C. OR: SHOT PINS AT 8" O.C.	16d 12" O.C.
7	3/8" BLOCKED APA "CDX" SHEATHING WITH 8d NAILS AT 6" O.C. AT EDGES AND 12" O.C. AT FIELD.	229 HF 260 DF	1/2" A.B. AT 32" O.C.	16d 8" O.C.
8	3/8" BLOCKED APA "CDX" SHEATHING WITH 8d NAILS AT 4" O.C. AT EDGES AND 12" O.C. AT FIELD.	352(3) HF 380(3) DF	1/2" A.B. AT 24" O.C.	16d 5" O.C.
9	3/8" BLOCKED APA "CDX" SHEATHING WITH 8d NAILS AT 3" O.C. AT EDGES AND 12" O.C. AT FIELD.	451(3) HF 490(3) DF	1/2" A.B. AT 16" O.C.	16d 4" O.C.
10	3/8" BLOCKED APA "CDX" SHEATHING WITH 8d NAILS AT 2" O.C. AT EDGES AND 12" O.C. AT FIELD.	598(2) HF 640(2) DF	1/2" A.B. AT 12" O.C.	16d 3" O.C.
11	1/2" BLOCKED APA "CDX" SHEATHING WITH 8d NAILS AT 2" O.C. AT EDGES AND 12" O.C. AT FIELD.	713(2) HF 770(2) DF	1/2" A.B. AT 12" O.C.	16d 2" O.C.
12	7/8" 3 COAT STUCCO WITH #16 GAGE STAPLES WITH 7/8" LEGS AT 6" O.C.	180 HF/DF	1/2" A.B. AT 48" O.C. OR: SHOT PINS AT 8" O.C.	16d 10" O.C.

**NOTES:**

- VALUES ARE FOR SHEATHING ON ONE SIDE OF HEM FIR OR DOUG FIR FRAMED WALLS. DOUBLE VALUE IF SHEATHING ON BOTH SIDES. 1/2" UNBLOCKED DRYWALL WITH 6d COOLER NAILS AT 7" O.C. FOR SHEAR WALLS WITH SHEATHING APPLIED TO BOTH SIDES, SILL PLATE ATTACHMENT EDGES AND FIELD. SPACING SHALL BE HALF THE SPACING SHOWN.
- FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR WIDER AND NAILS SHALL BE STAGGERED.
- WHERE SHEATHING IS APPLIED ON BOTH FACES OF WALL AND NAIL SPACING IS LESS THAN 6" O.C., PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS, OR FRAMING SHALL BE 3 INCH NOMINAL OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.
- SHOT PIN OPTION NOT ALLOWABLE AT EXTERIOR WALLS. SHOT PINS SHALL BE HILTI X-DNI INSTALLED WITH WASHERS AND 1" EMBEDMENT PER ICC ERS 1663.
- CAST-IN-PLACE ANCHOR BOLTS MAY BE REPLACED WITH 1/2" DIA EXPANSION BOLTS AT SAME SPACING AT INTERIOR WALLS ONLY. EXPANSION BOLTS SHALL BE ITW RAMSET/RED HEAD TRUBOLT WEDGE ANCHOR WITH 6" EMBED - ICC ERS 2427
- STAGGER NAILS IN SILL PLATE.

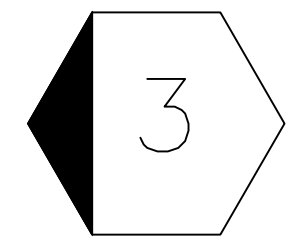
**SHEAR WALL NOTES:**

- STUD SPACING IN ALL SHEAR WALLS SHALL NOT EXCEED 16" O.C.
- ALL PANEL EDGES SHALL BE BACKED WITH MINIMUM 2 INCH NOMINAL FRAMING.
- BLOCKING SHALL BE PROVIDED NEAR MID-HEIGHT OF WALL AT SHEATHING JOINT.
- SPACING APPLIES TO NAILING AT ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING.
- SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL. (FINISHED SURFACE) WALL COVERINGS NOT NOTED.
- TYPE X DRYWALL SHALL BE PROVIDED WHERE INDICATED ON ARCHITECTURAL DRAWINGS.
- FOR EXTERIOR SHEAR WALLS USING DRYWALL, USE EXTERIOR TYPE DRYWALL PER ARCHITECTURAL DRAWINGS
- AT CONTRACTORS OPTION - OSB MAY BE SUBSTITUTED FOR CDX. OSB MUST MEET OR EXCEED SPECIFICATION FOR CDX.

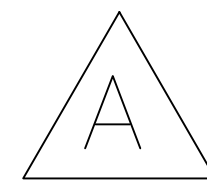
# HOLDOWN SCHEDULE

MARK	TYPE	ANCHOR BOLT	
A	LSTHD8	--	TYPE E
B	STHD8	--	TYPE E
C	STHD10	--	TYPE E
D	STHD14	--	TYPE F
E	HTT4	SSTB16	5/8" ATR - 6" EMBEDMENT *
F	HDQ8-SDS3	SSTB28	7/8" ATR - 8" EMBEDMENT *
G	HDQ11-SDS2.5	SB1X30	1" ATR - 8" EMBEDMENT *
H	HDQ14-SDS2.5	SB1X30	1" ATR - 8" EMBEDMENT **
I			
J	MST48	STRAP FOR 2ND FLOOR TO 1ST FLOOR	
K	MST60	STRAP FOR 2ND FLOOR TO 1ST FLOOR	
L	MSTC66	STRAP FOR 2ND FLOOR TO 1ST FLOOR	

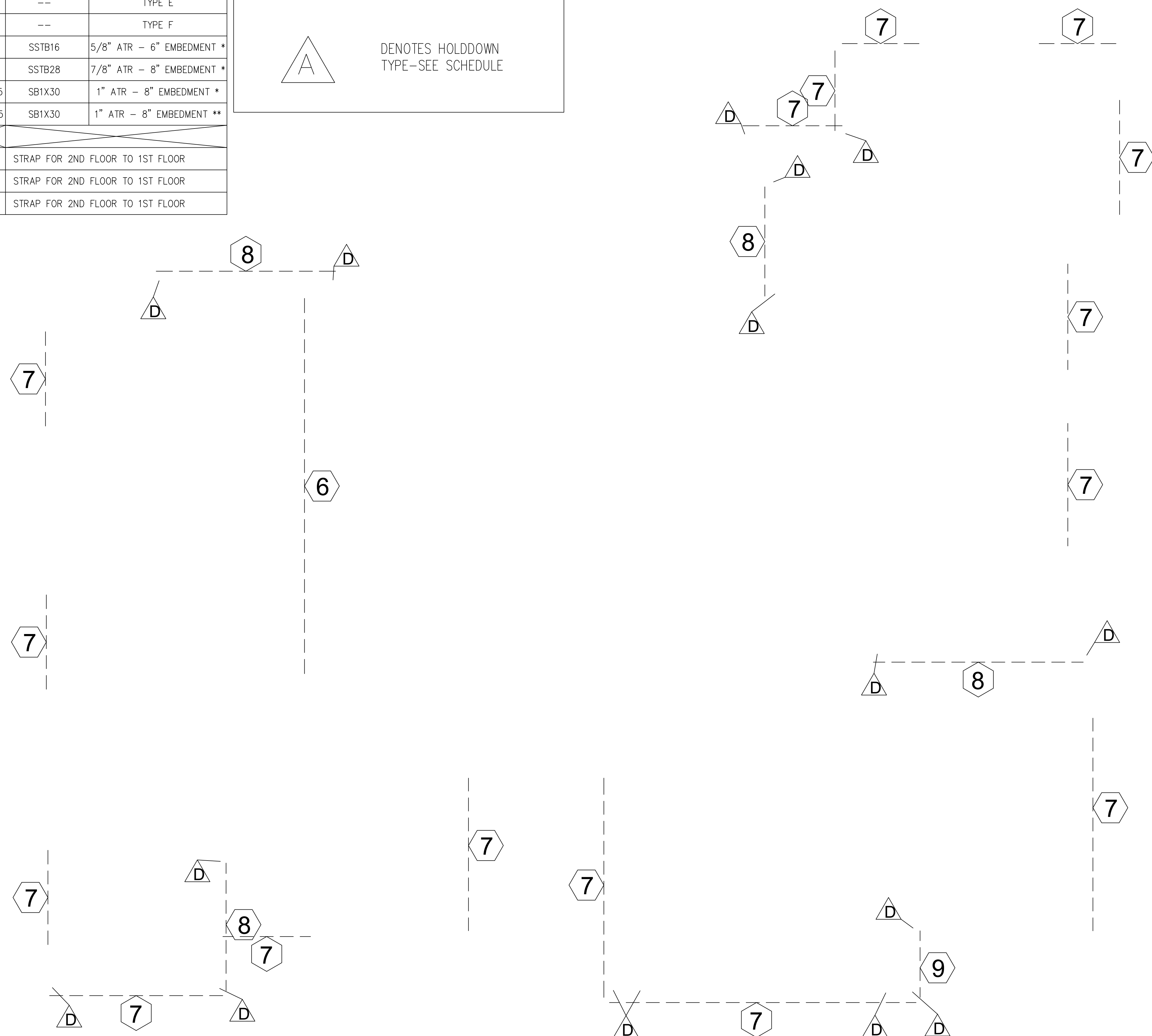
# LEGEND



DENOTES SHEARWALL TYPE-SEE SCHEDULE



DENOTES HOLDDOWN TYPE-SEE SCHEDULE



## SHEAR/BRACE PLAN

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



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REVISION	
CITY COMMENTS	
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CITY COMMENTS	

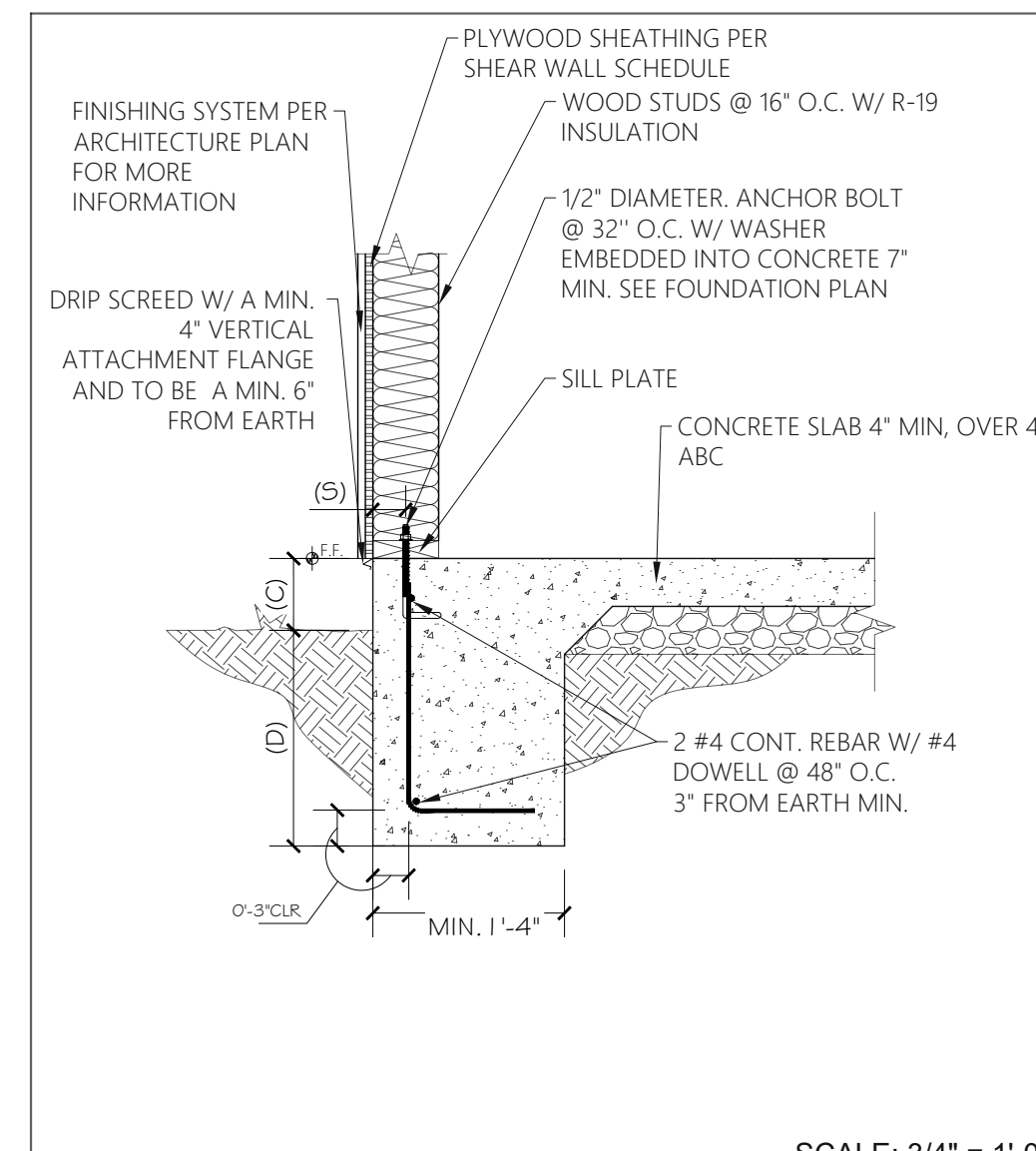
2108 E Solano Dr  
PHOENIX AZ,  
85016

<b>CONTACT:</b>	(623) 853 3751
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<b>CHECKED BY:</b>	ARQM, LLC
<b>DATE:</b>	
<b>SCALE:</b>	PER PLAN
<b>SHEET:</b>	S3

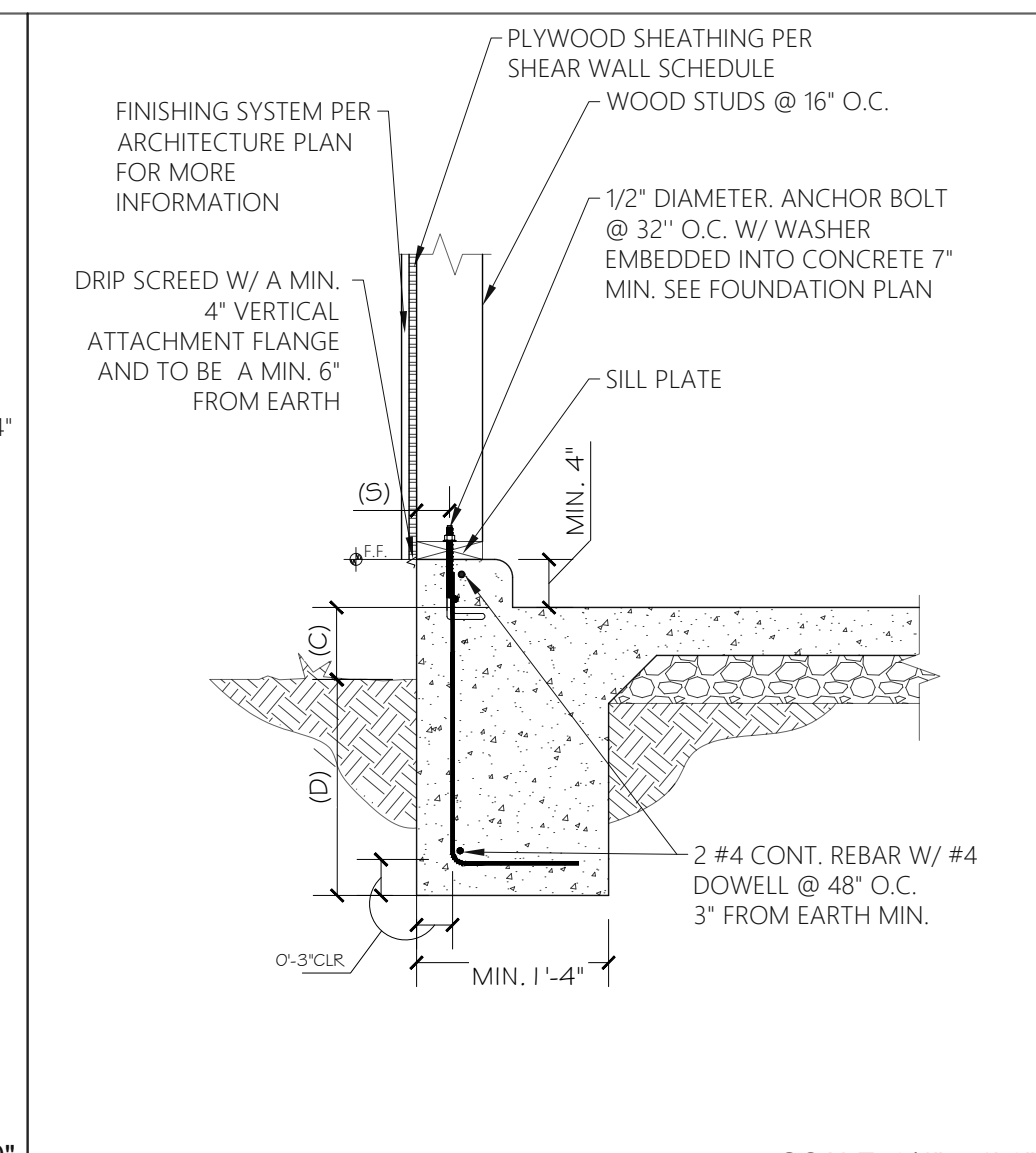
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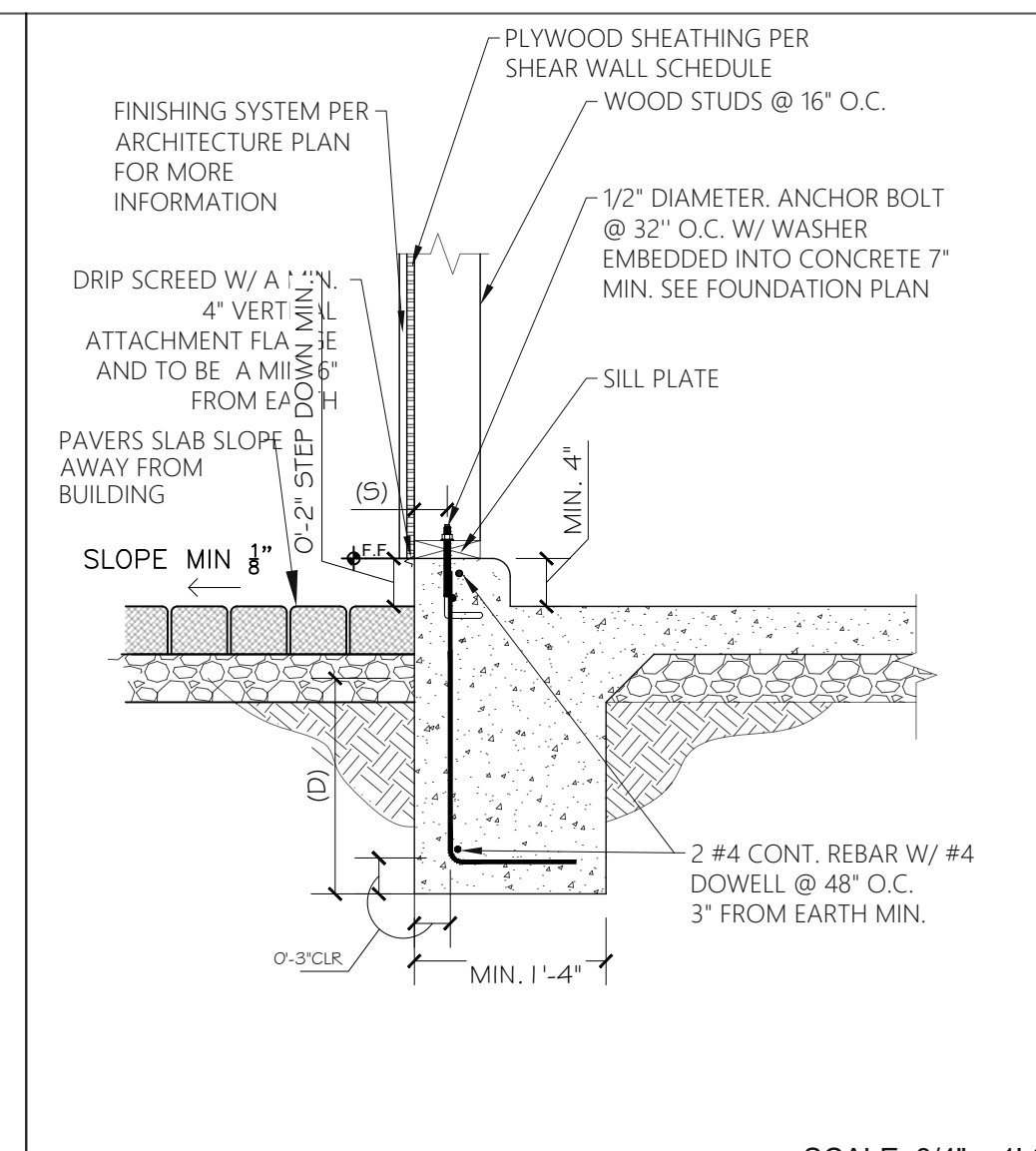
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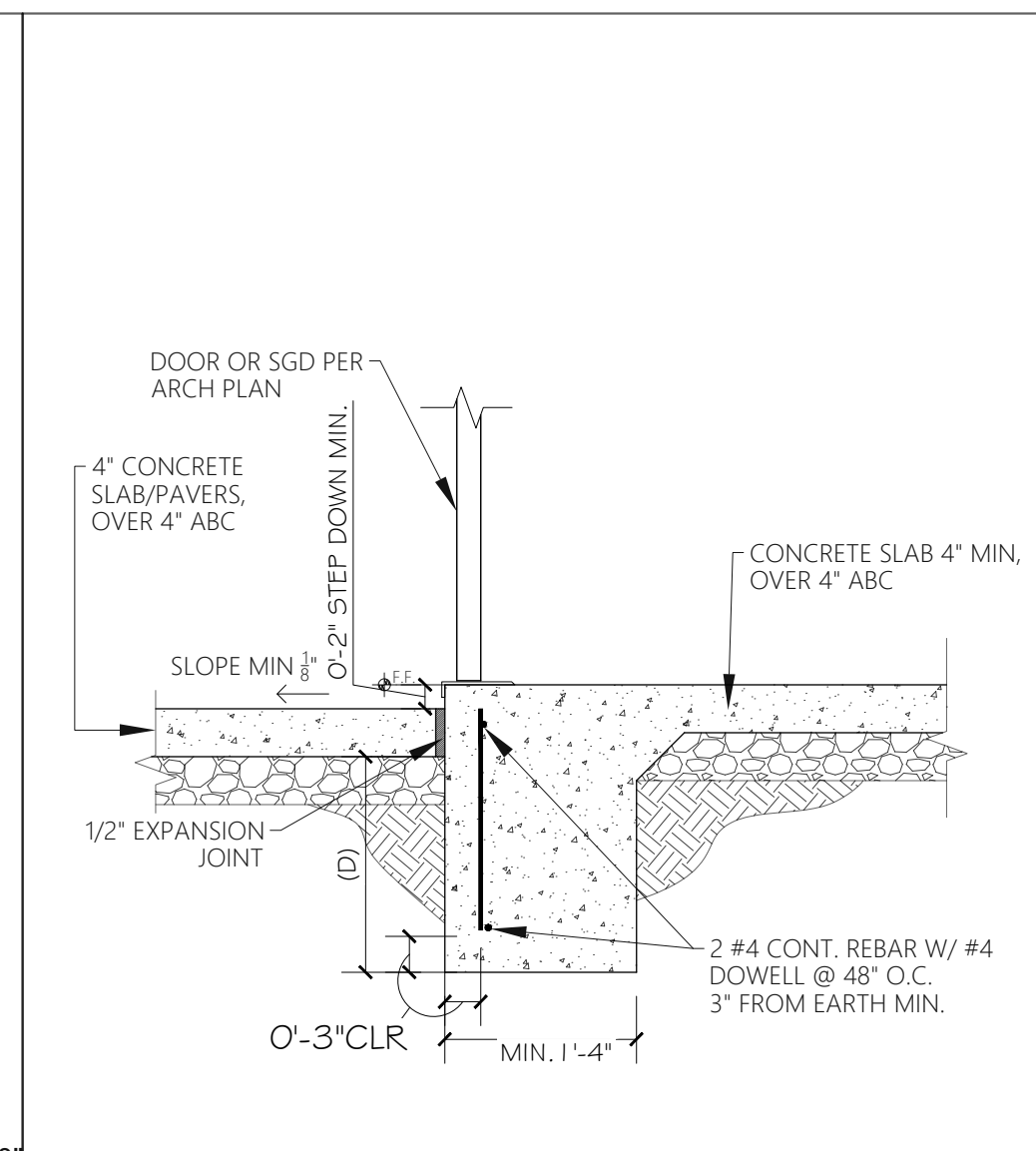
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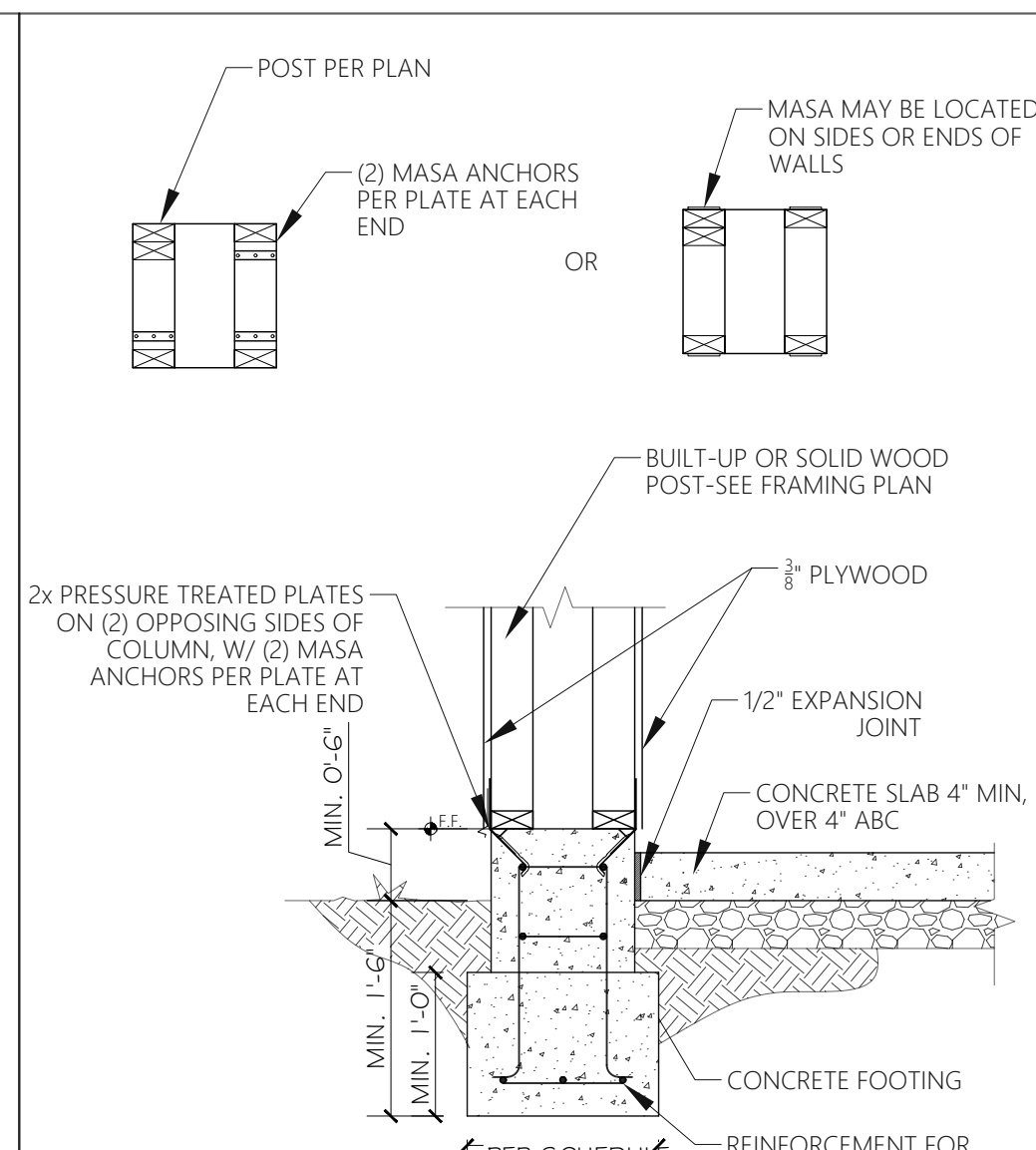
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SCALE: 3/4" = 1'-0"



SCALE: 3/4" = 1'-0"



SCALE: 3/4" = 1'-0"

NOTE: WALL SIZE SEE FLOOR PLAN				
WALL WIDTH	EDGE DISTANCE (S)	CLEARANCE (C)	DEPTH (D)	
2X4	2"	MIN. 6"	MIN. 18"	
2X6	2 1/2"	MIN. 6"	MIN. 18"	

NOTE: WALL SIZE SEE FLOOR PLAN				
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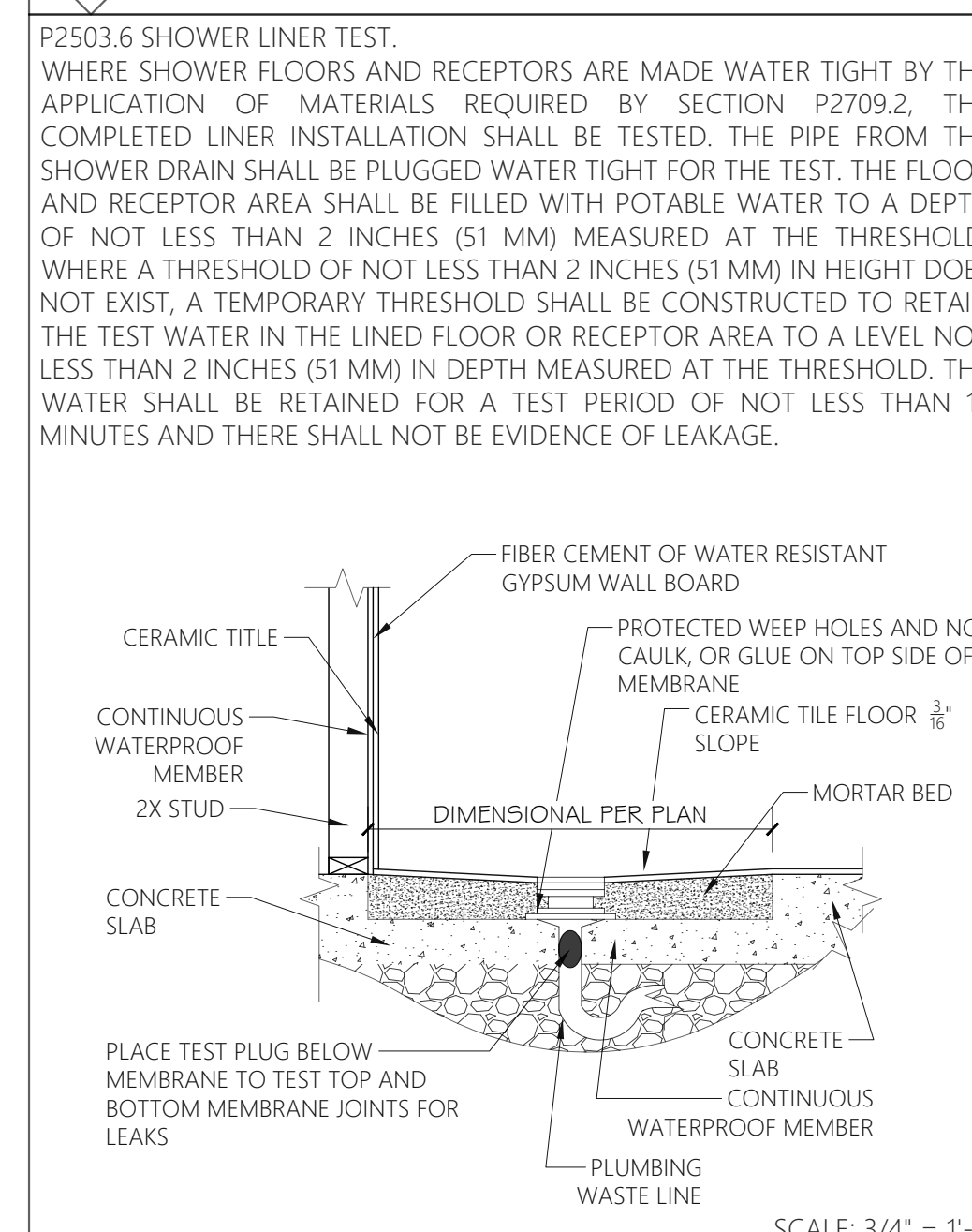
201 EXTERIOR MONOLITHIC CONCRETE

202 EXTERIOR MONOLITHIC CONCRETE GARAGE WALL TURNDOWN

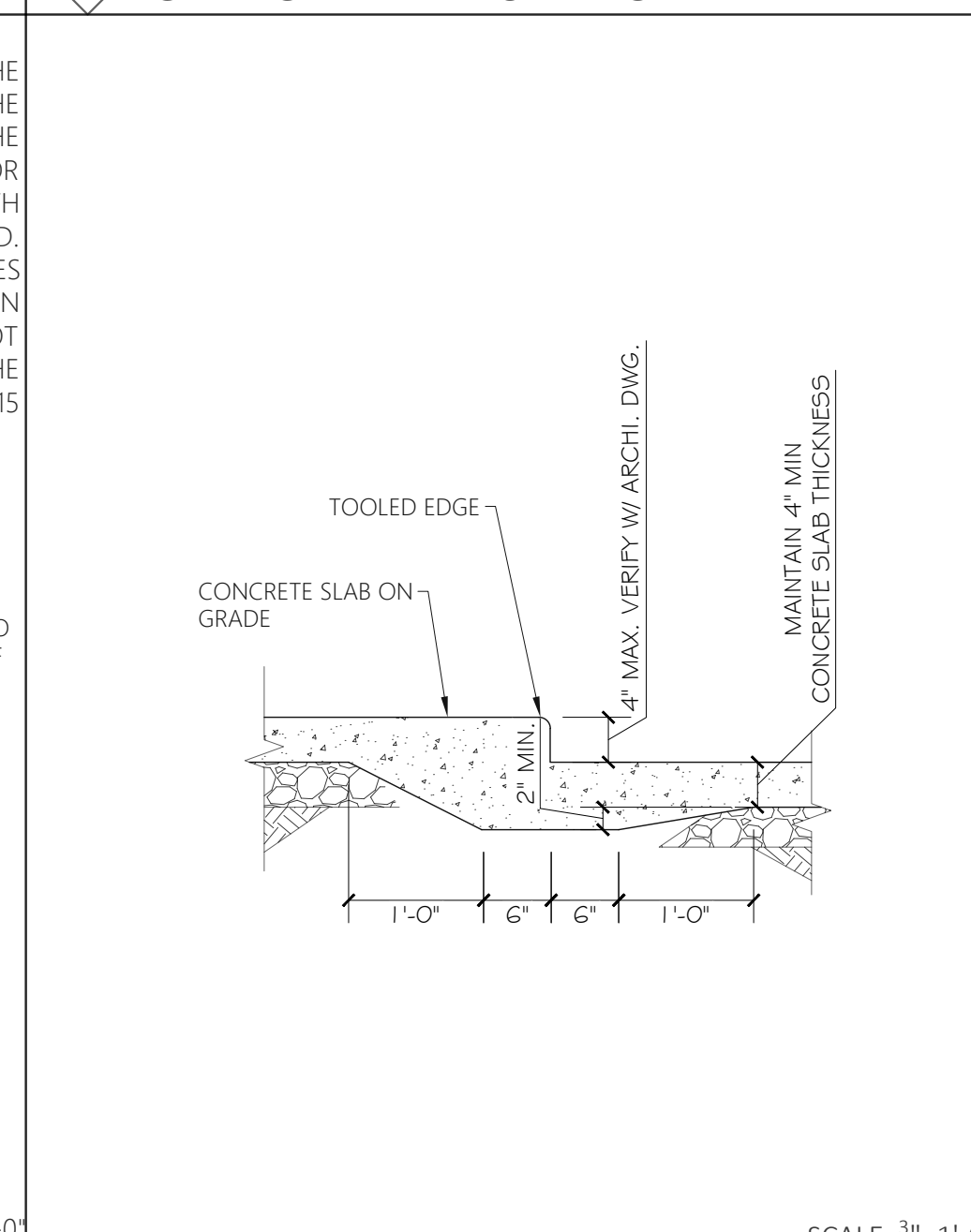
203 EXTERIOR MONOLITHIC CONCRETE GARAGE WALL TURNDOWN

204 EXTERIOR MONOLITHIC CONCRETE TURNDOWN/ SLAB

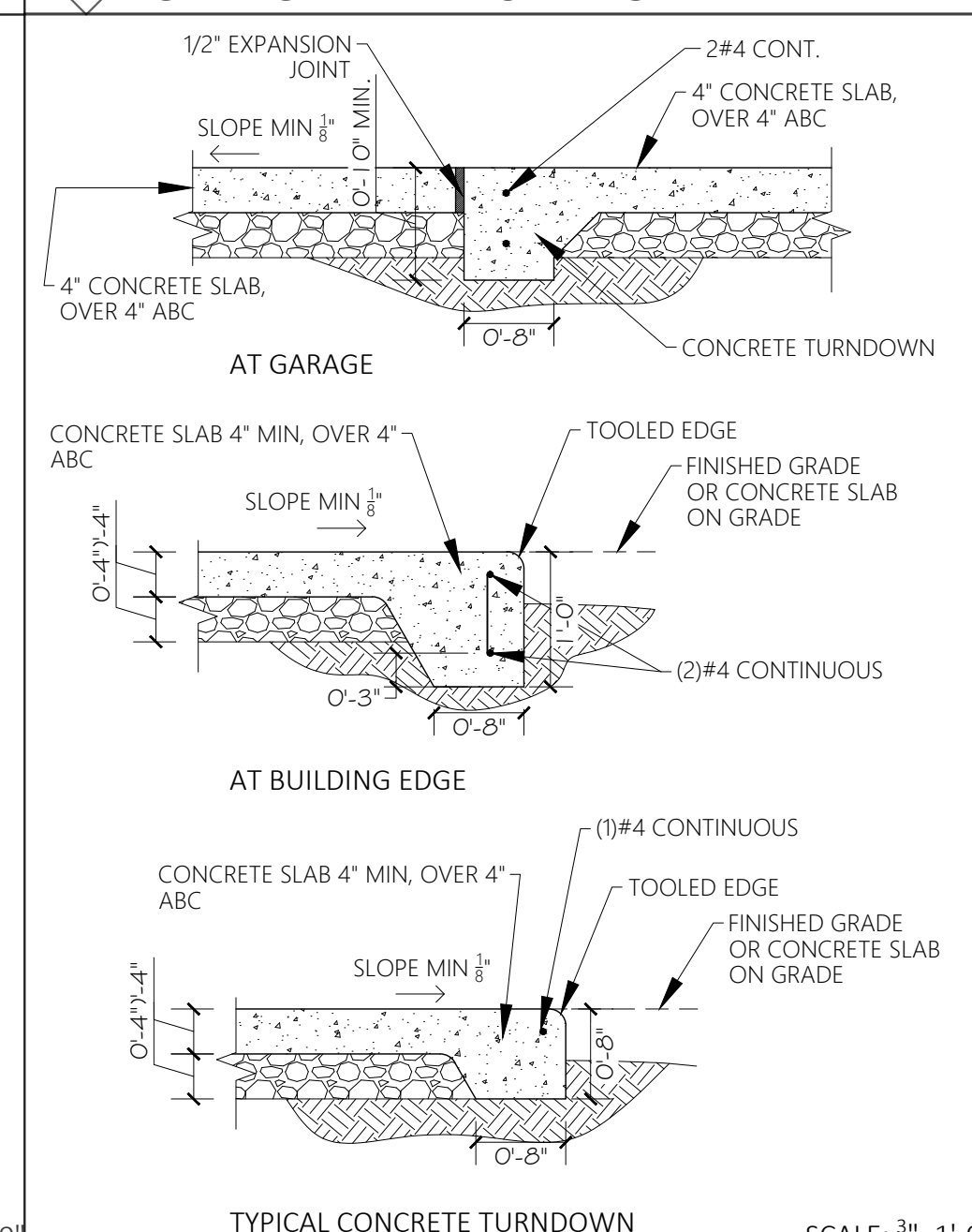
205 TYP. CONCRETE/FRAME COLUMN



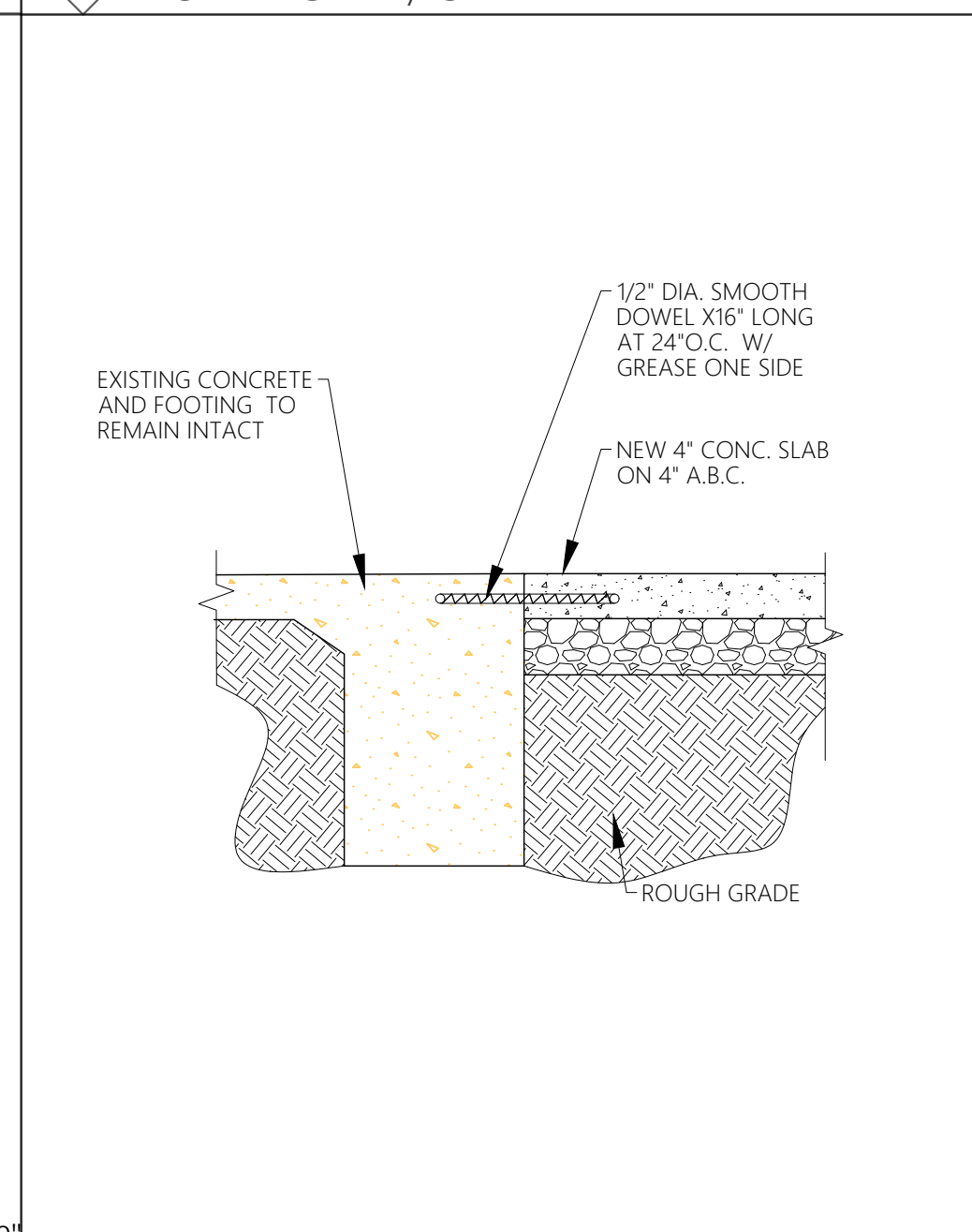
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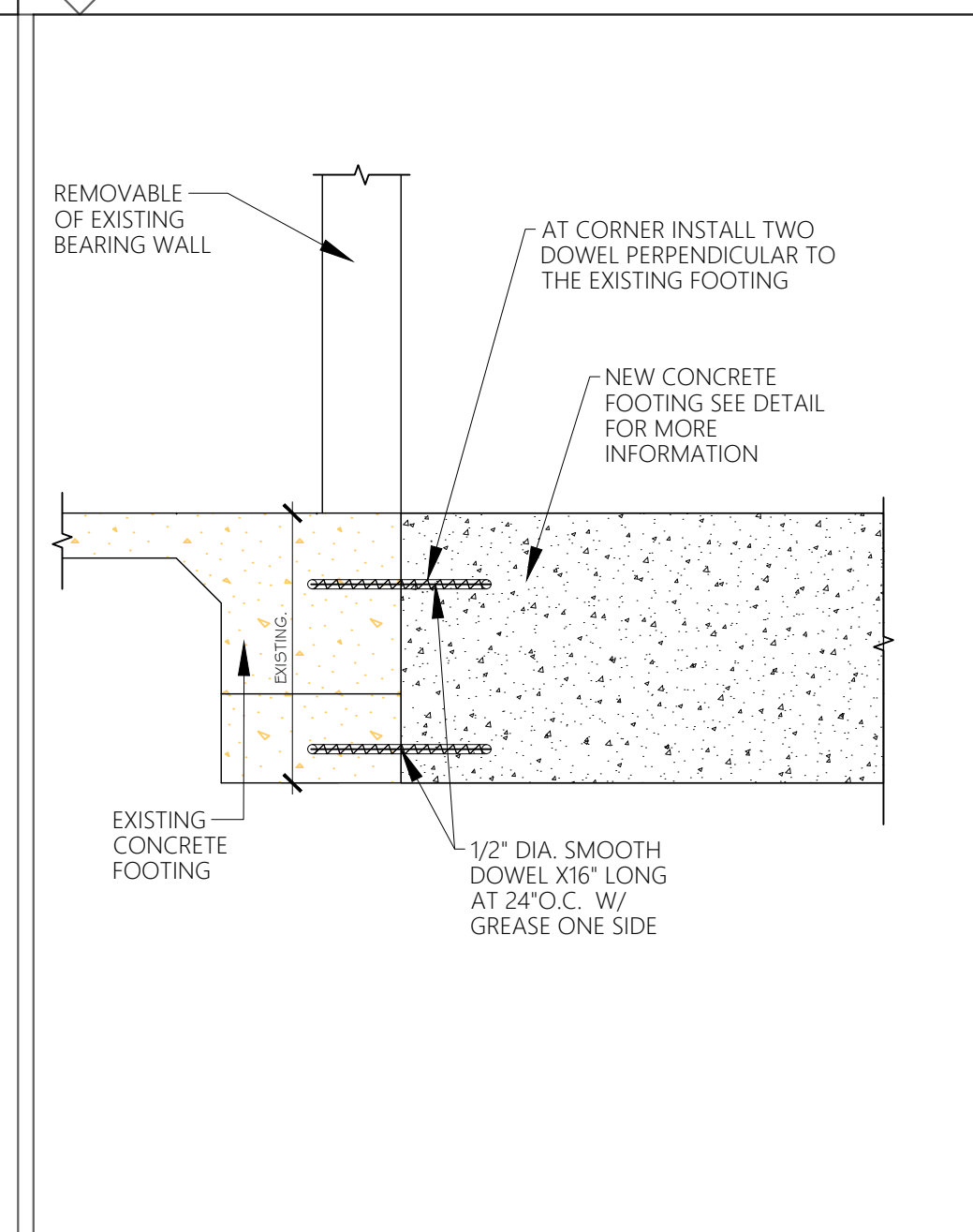
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SCALE: 3/4" = 1'-0"



209 NEW SLAB TO EXISTING FOOTING



210 NEW FOOTING TO EXISTING FOOTING

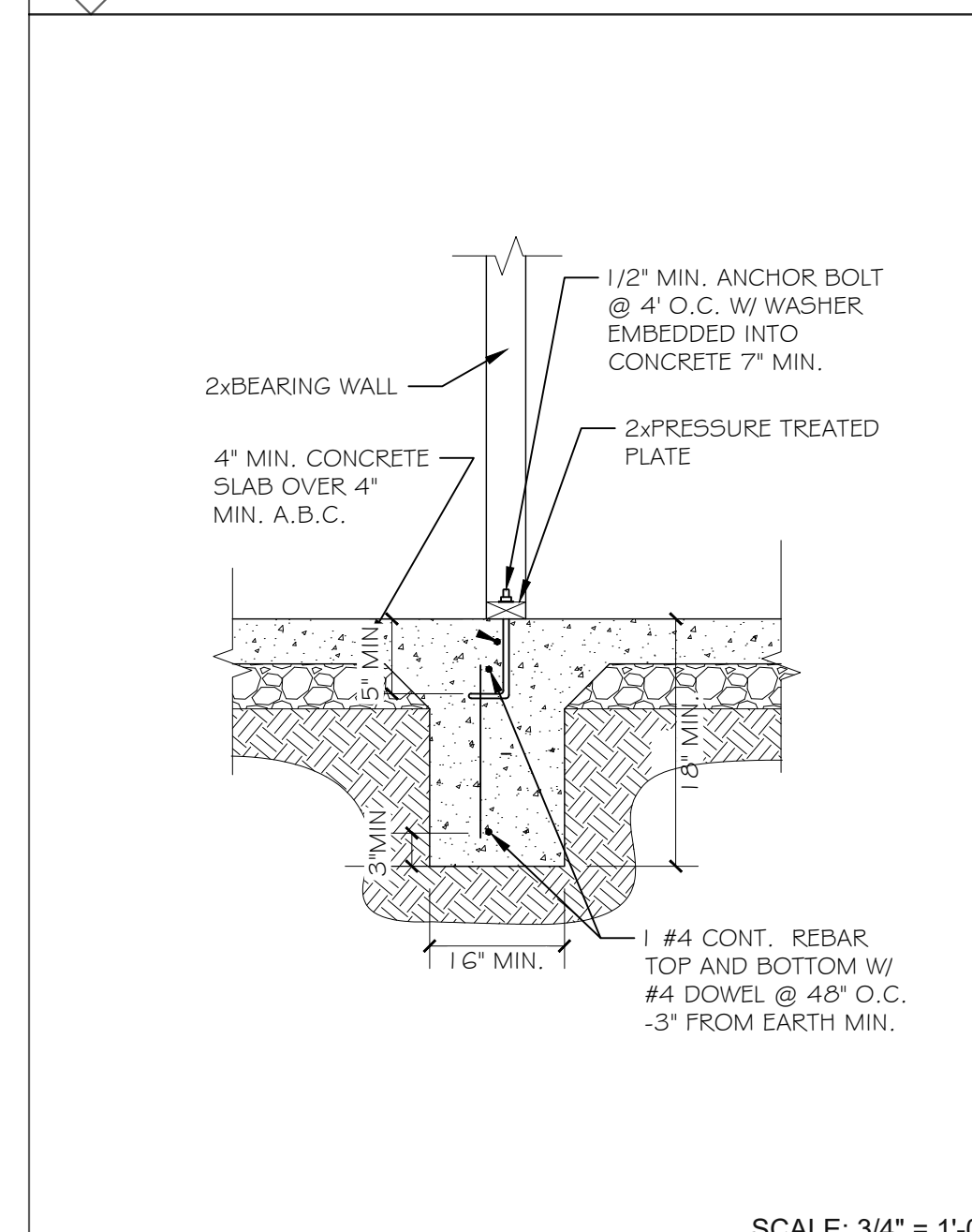
206 SHOWER PAD

207 DEPRESSED CONCRETE SLAB ON GRADE

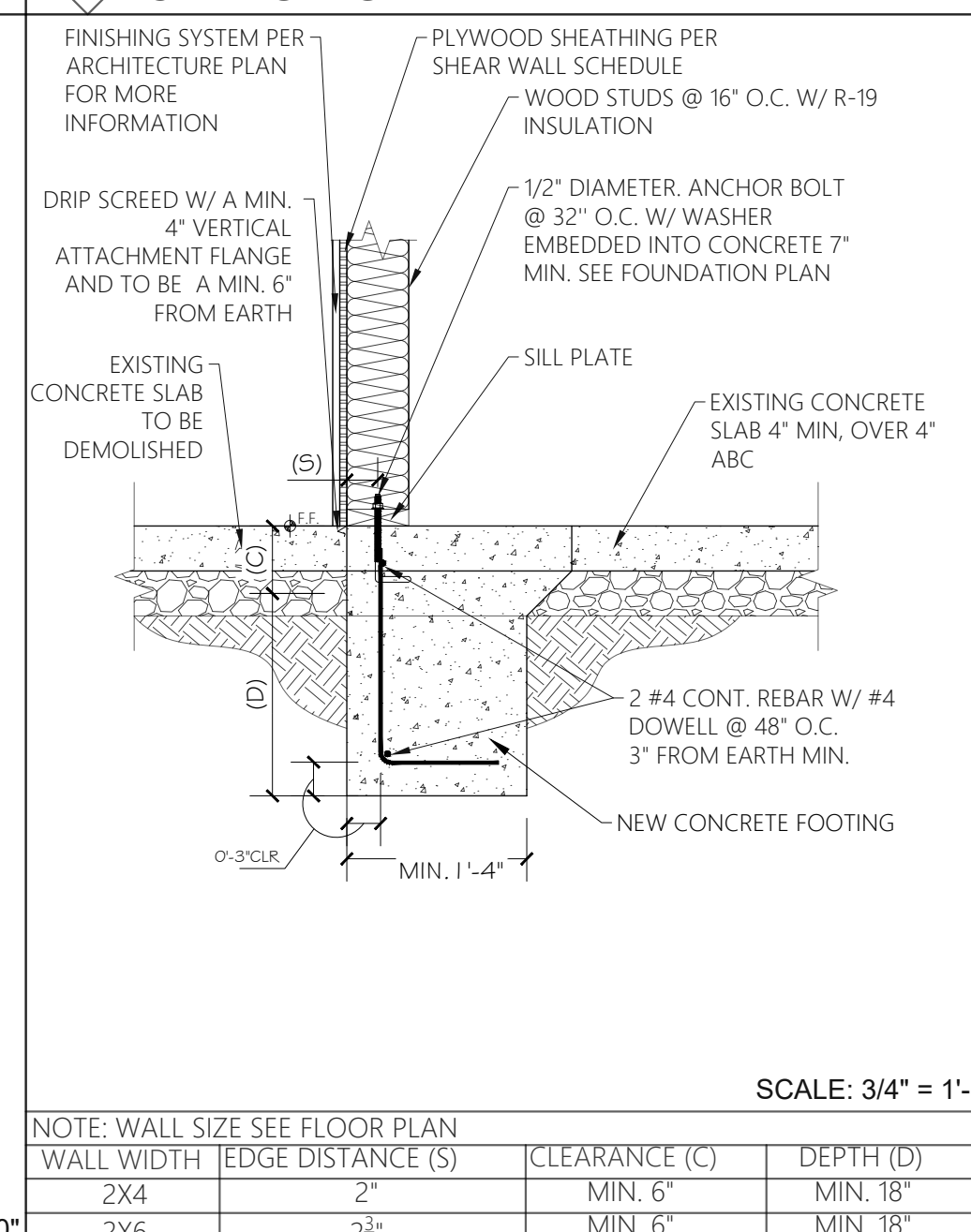
208 CONCRETE TURNDOWN

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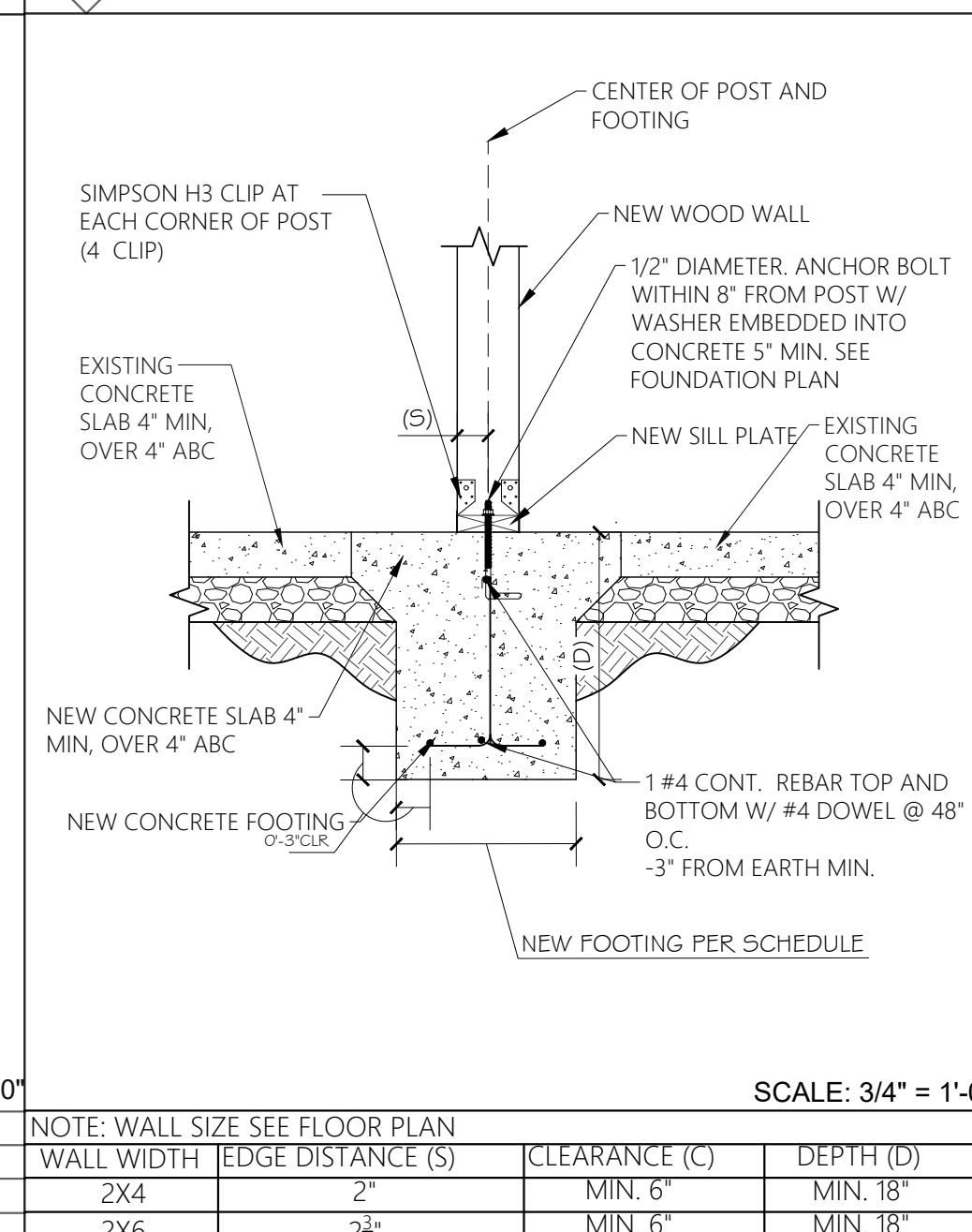
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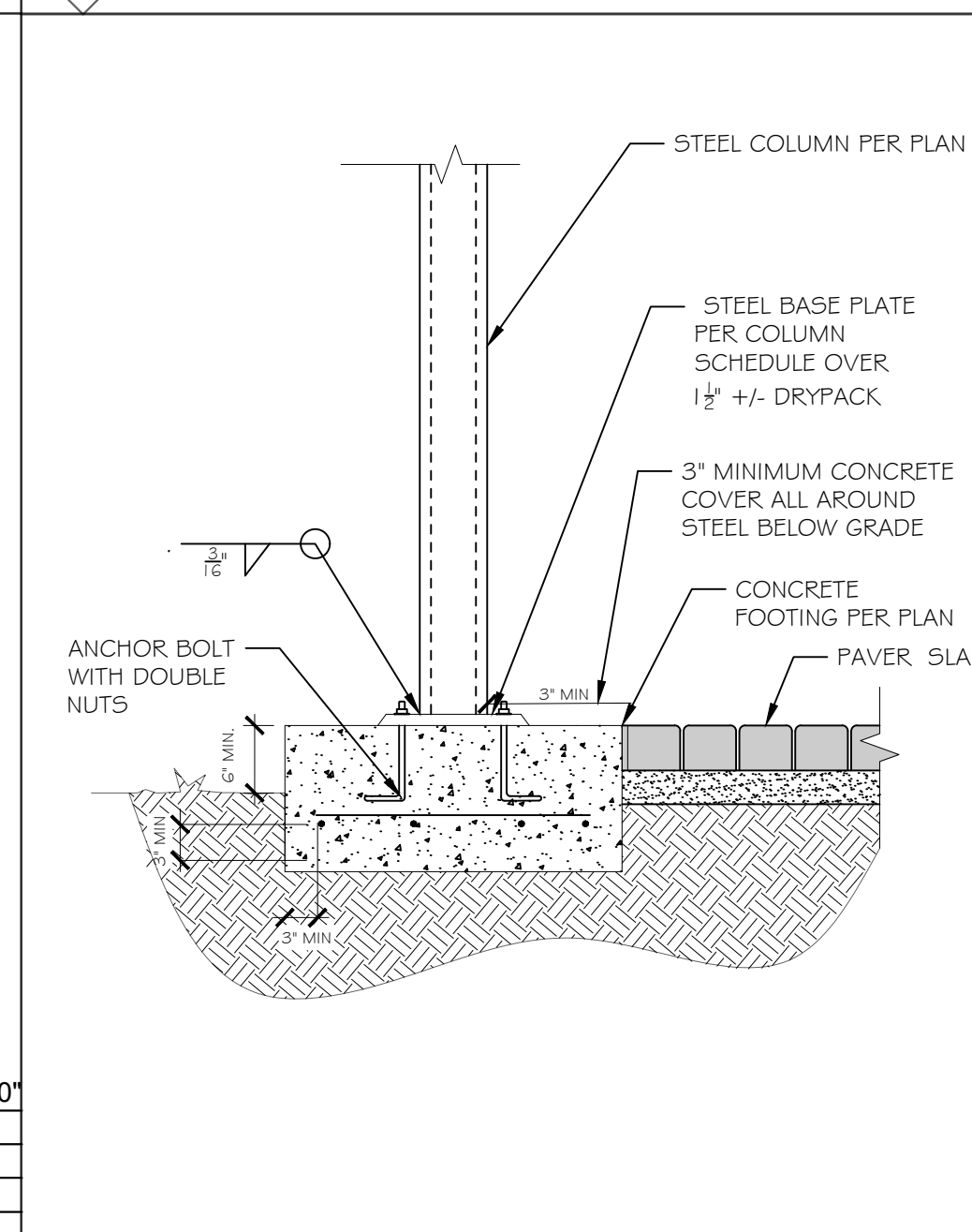
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SCALE: 3/4" = 1'-0"



SCALE: 3/4" = 1'-0"



214 STEEL COLUMN AT FOOTING

211 INTERIOR SHEAR WALL

212 EXTERIOR MONOLITHIC CONCRETE

213 INTERIOR MONOLITHIC CONCRETE TURNDOWN/ SLAB

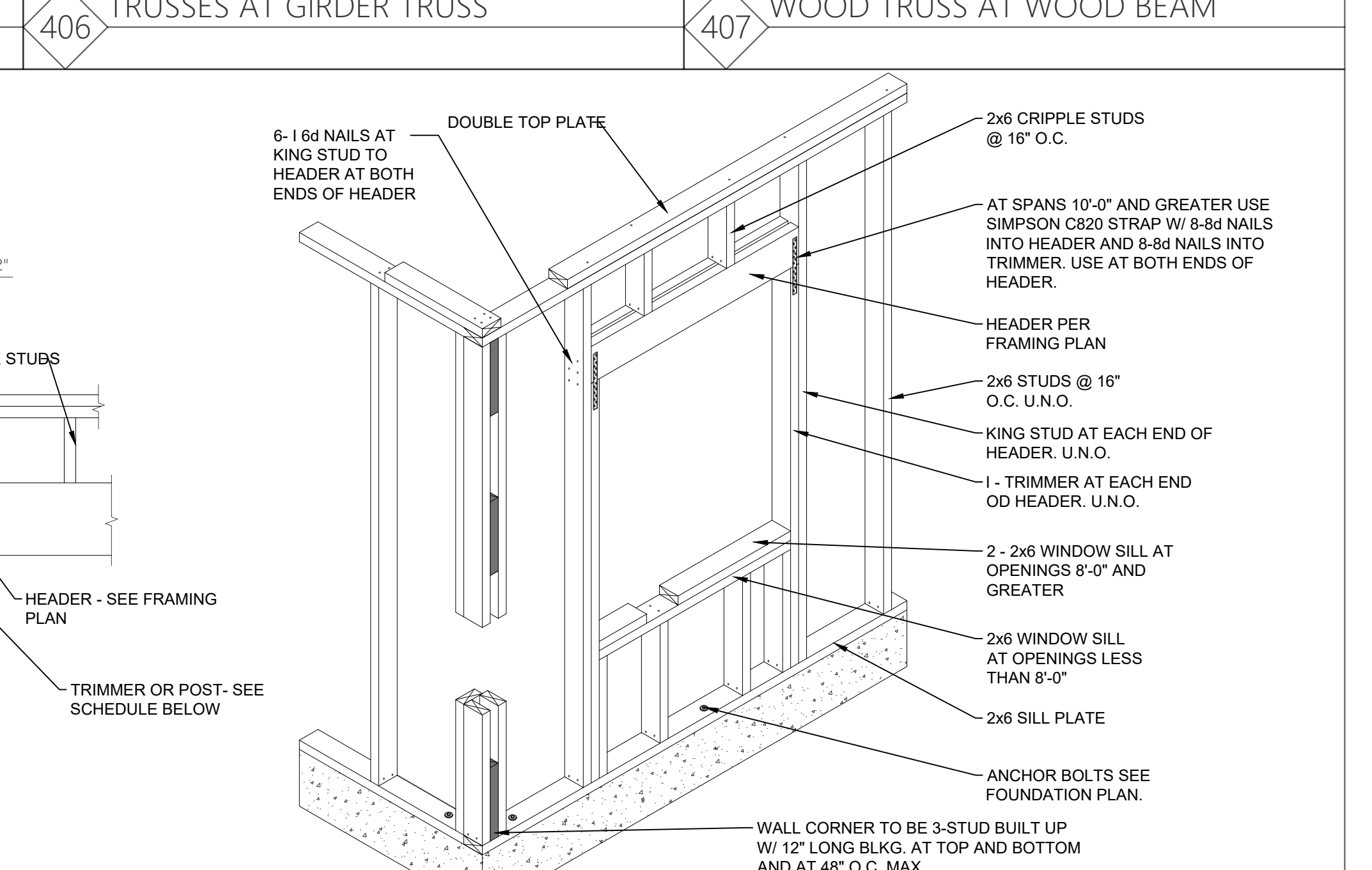
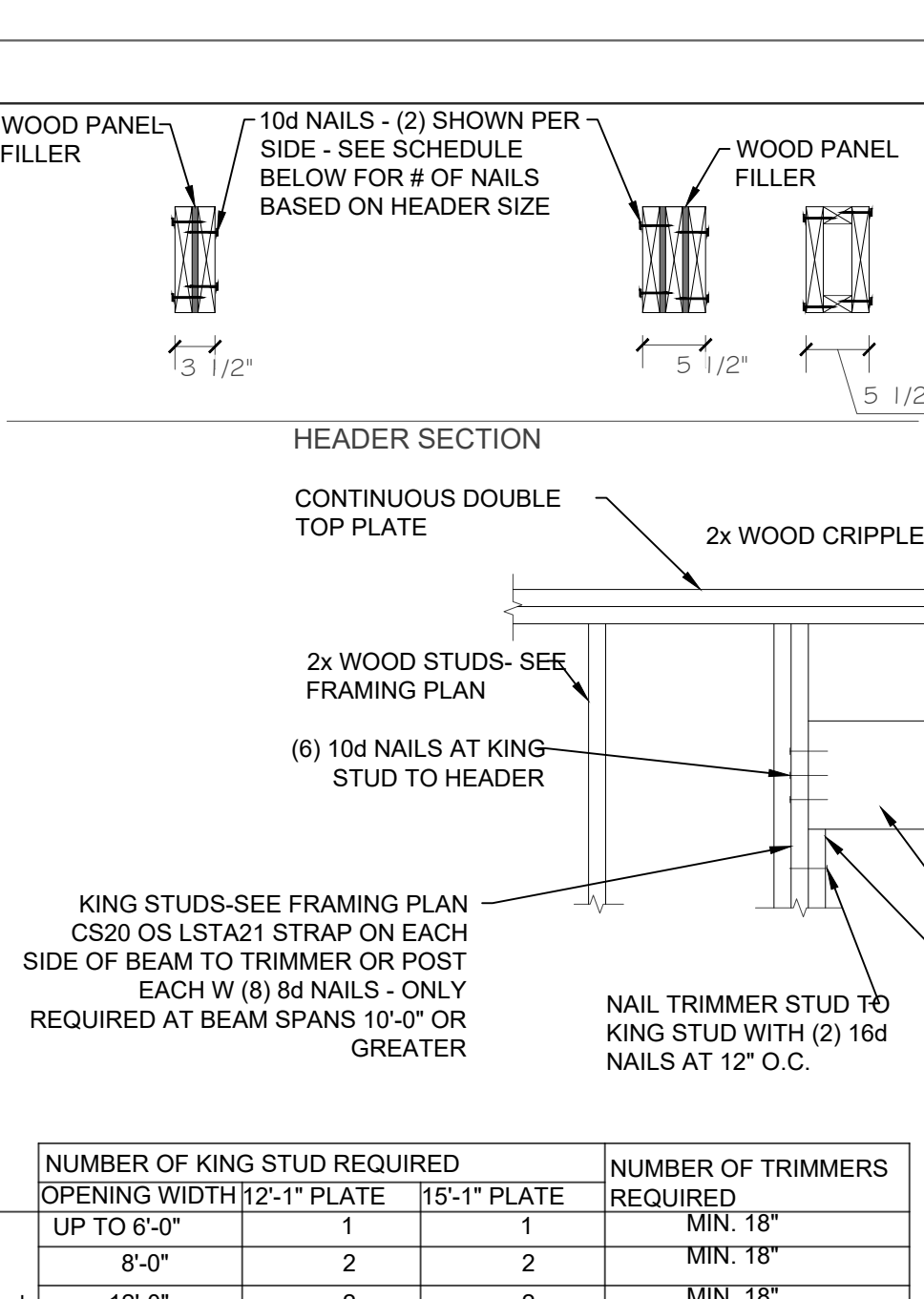
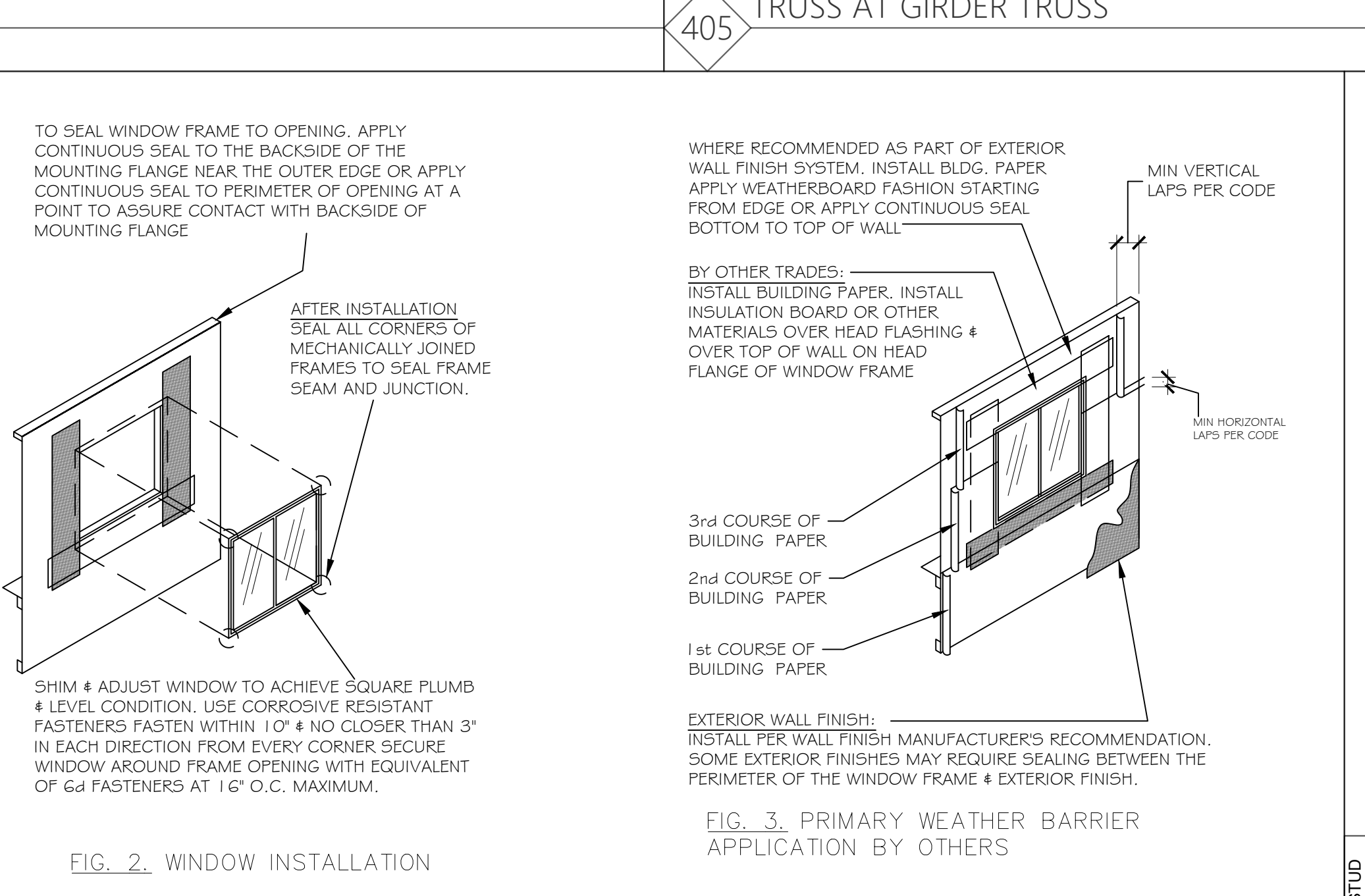
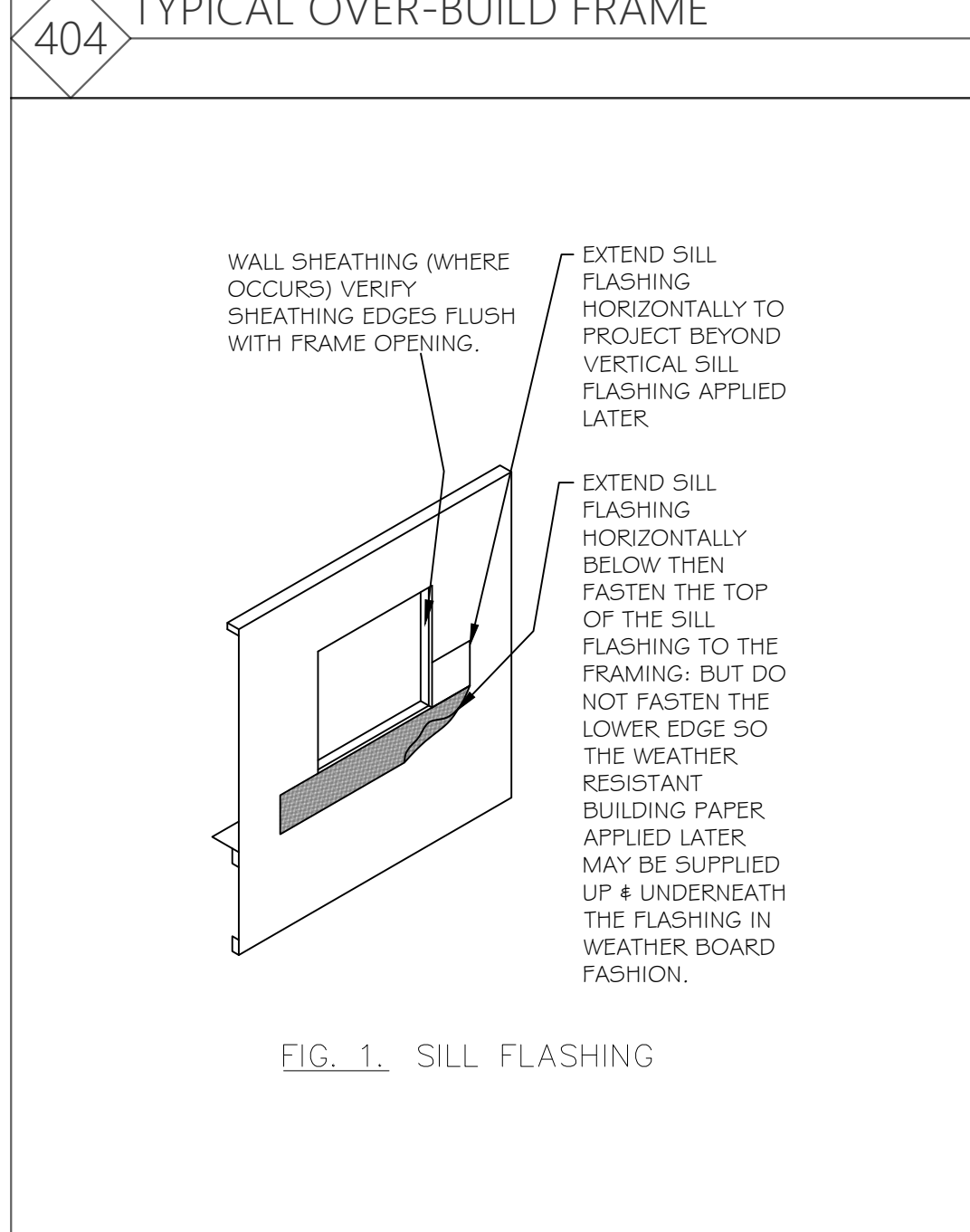
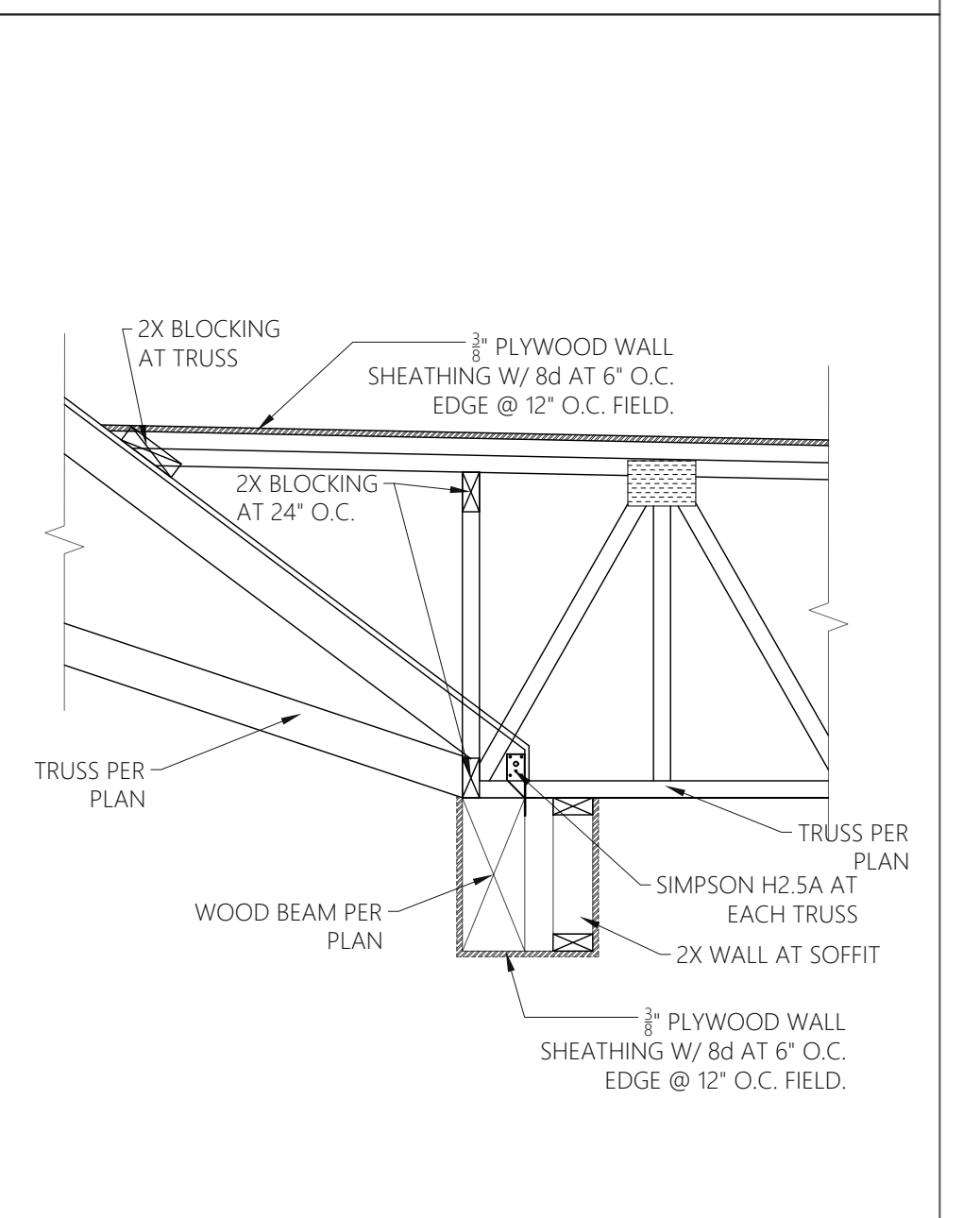
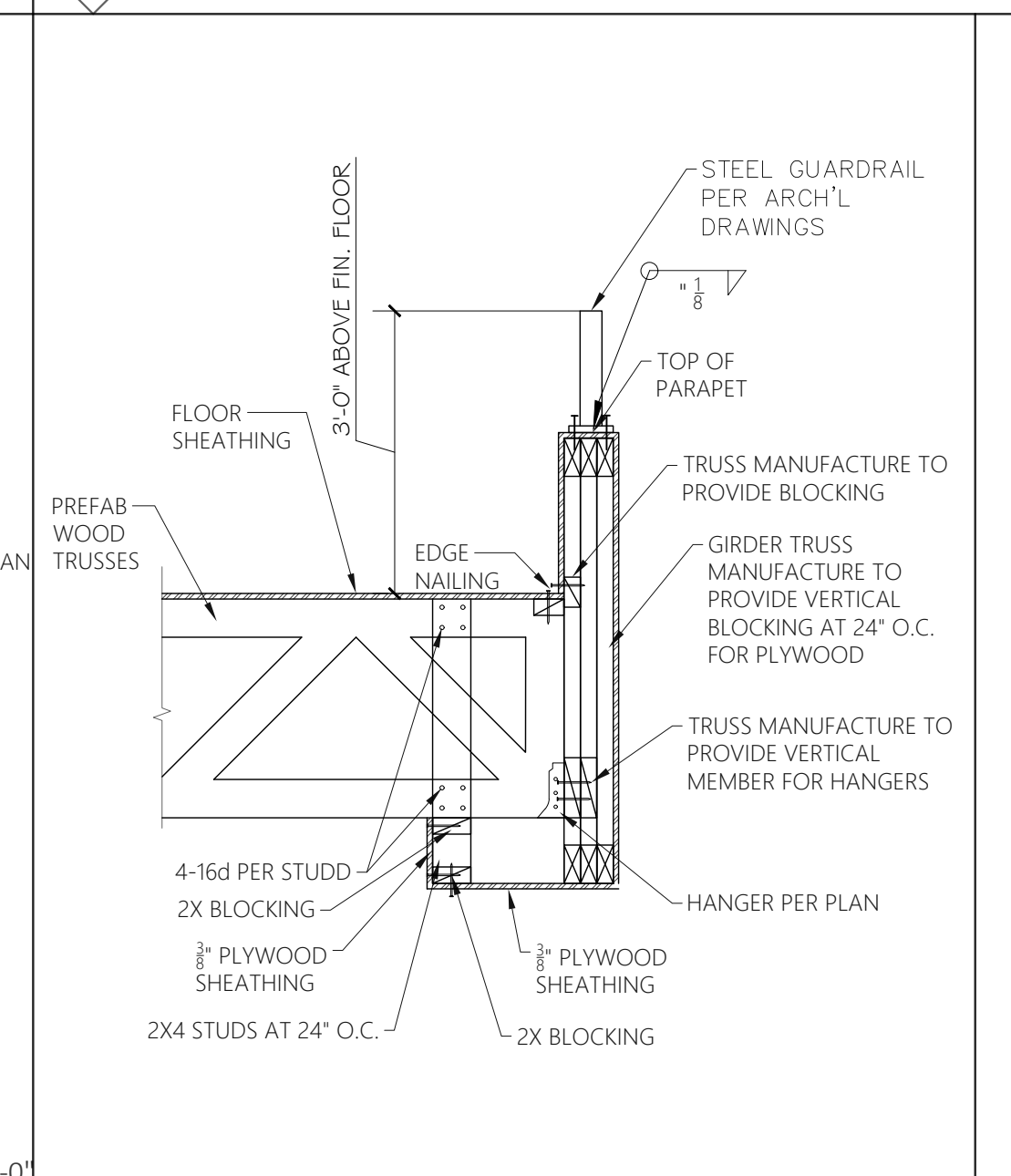
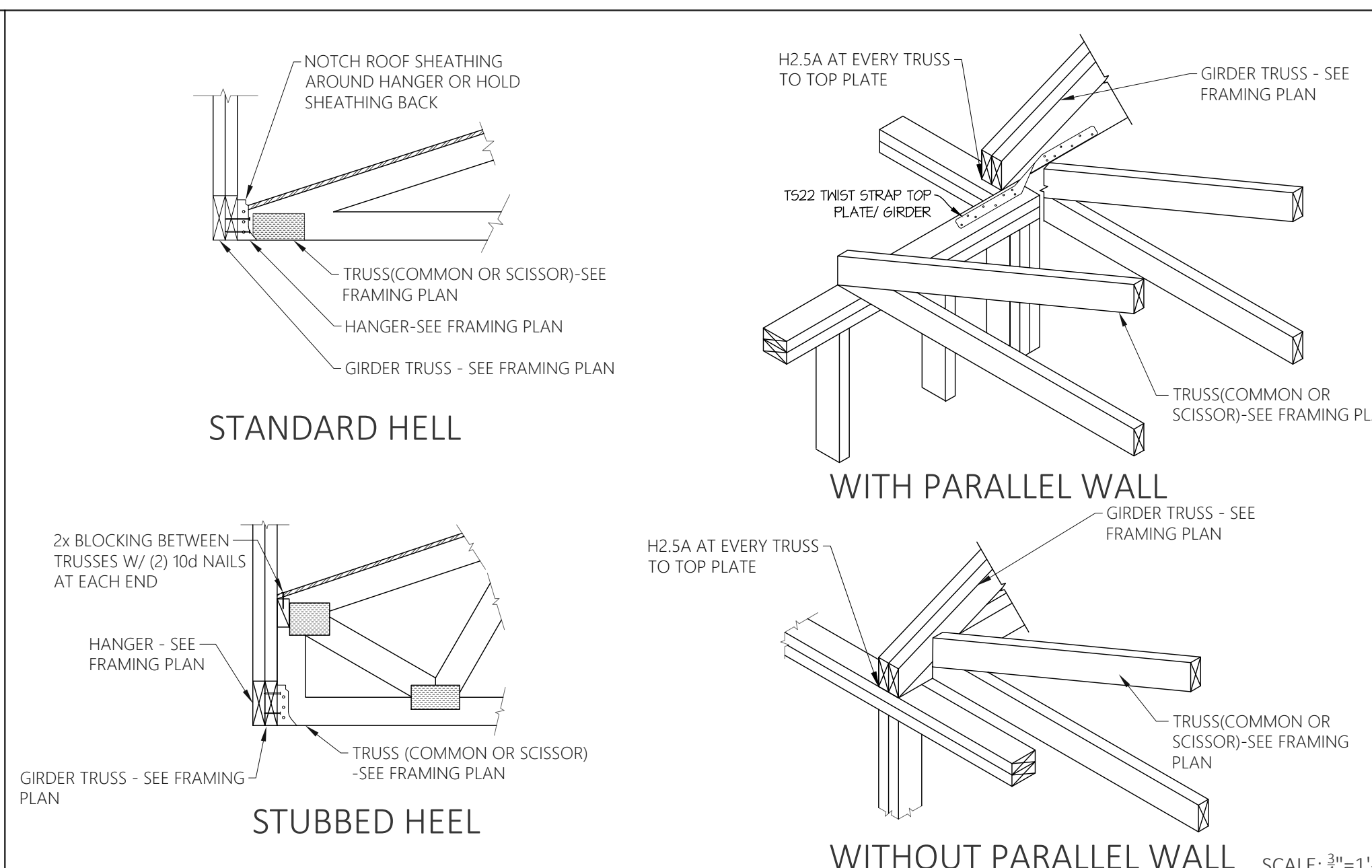
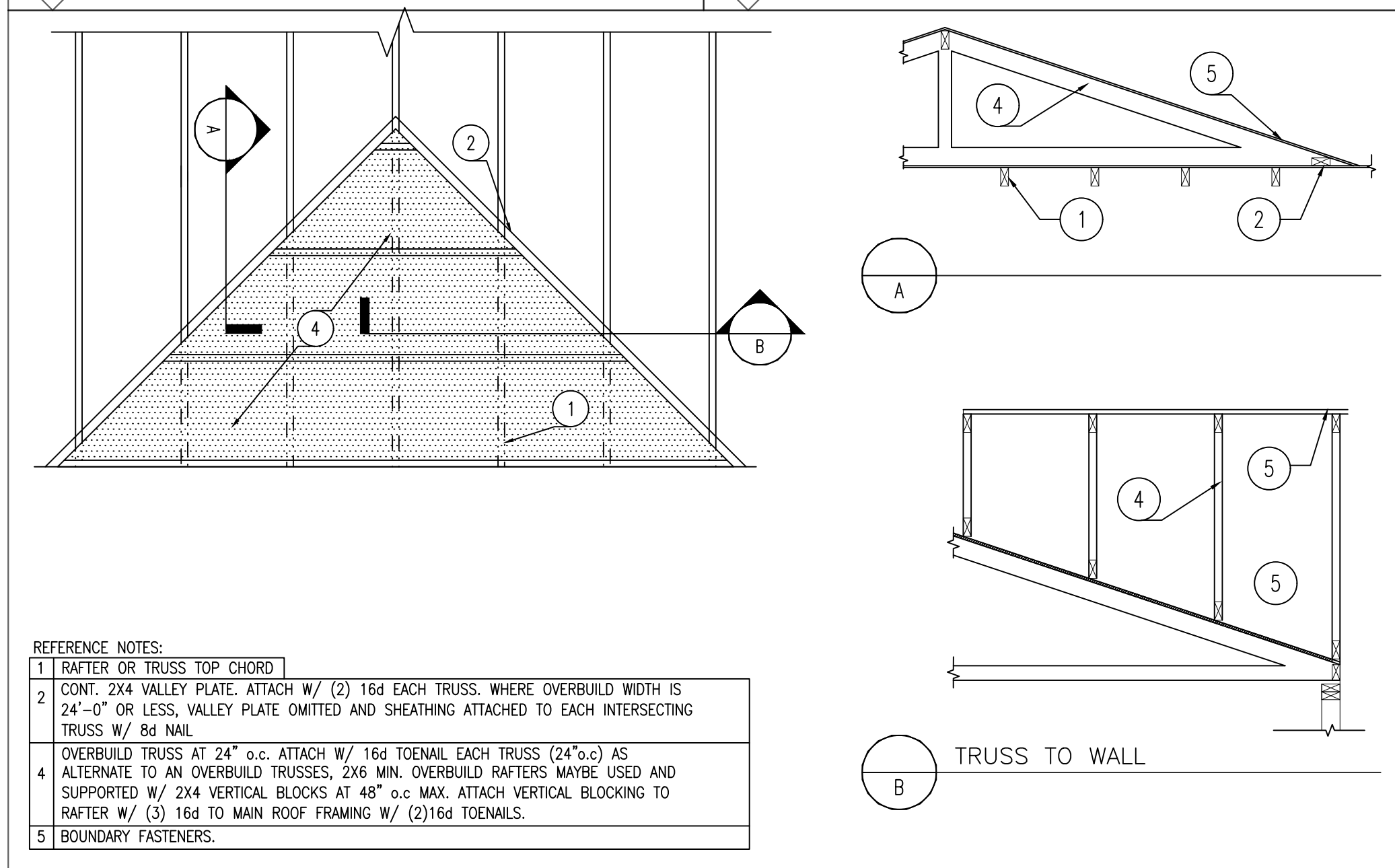
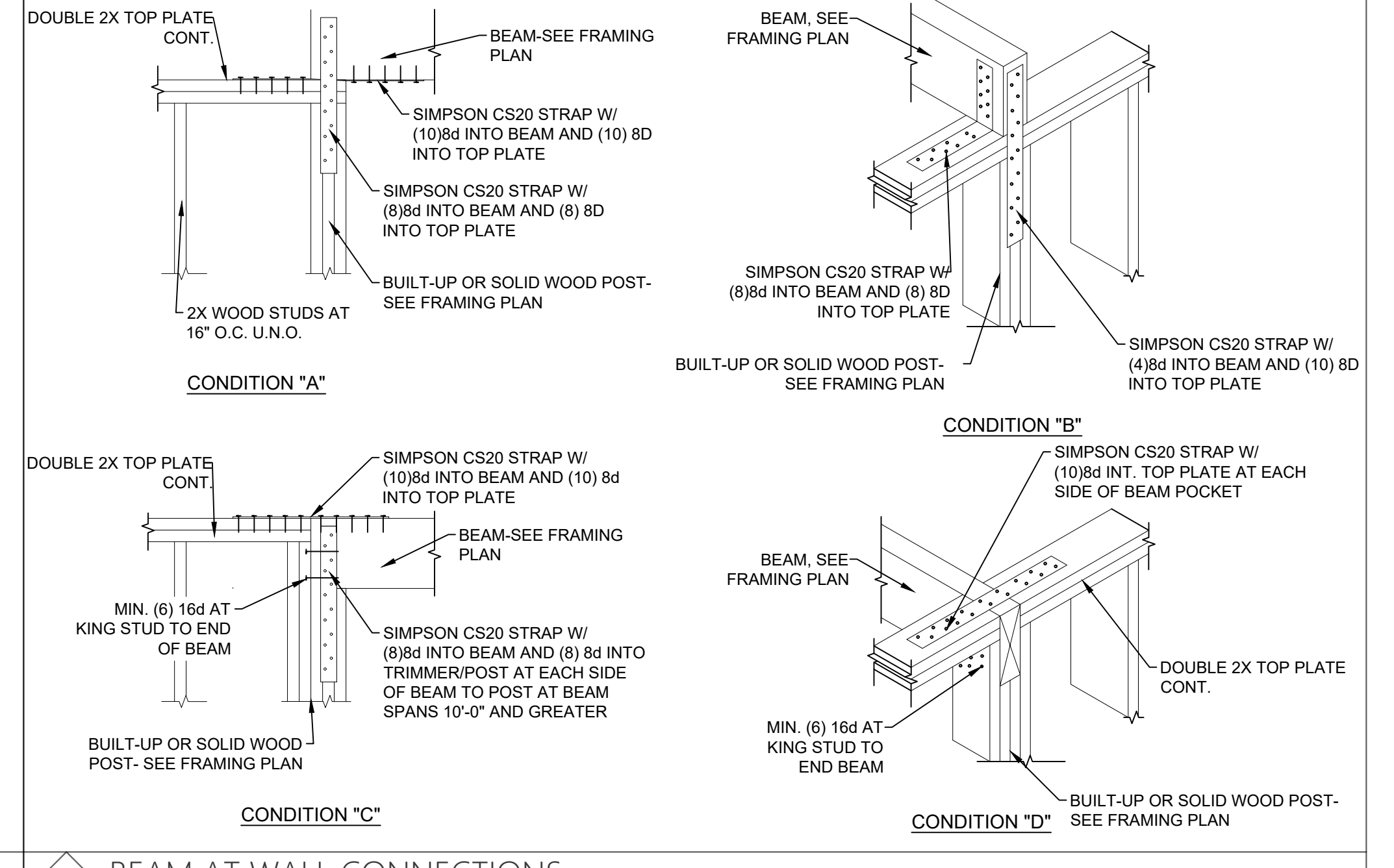
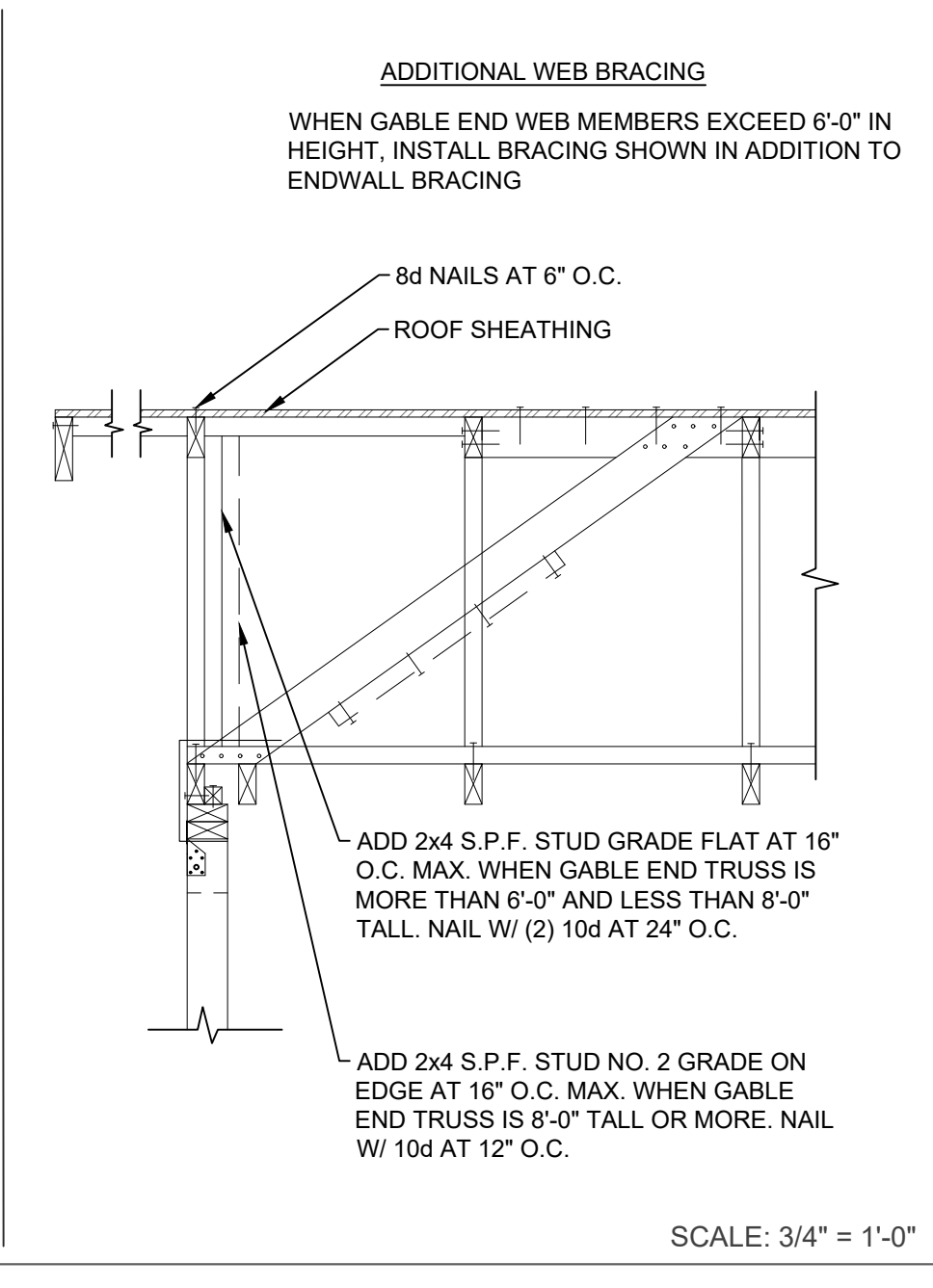
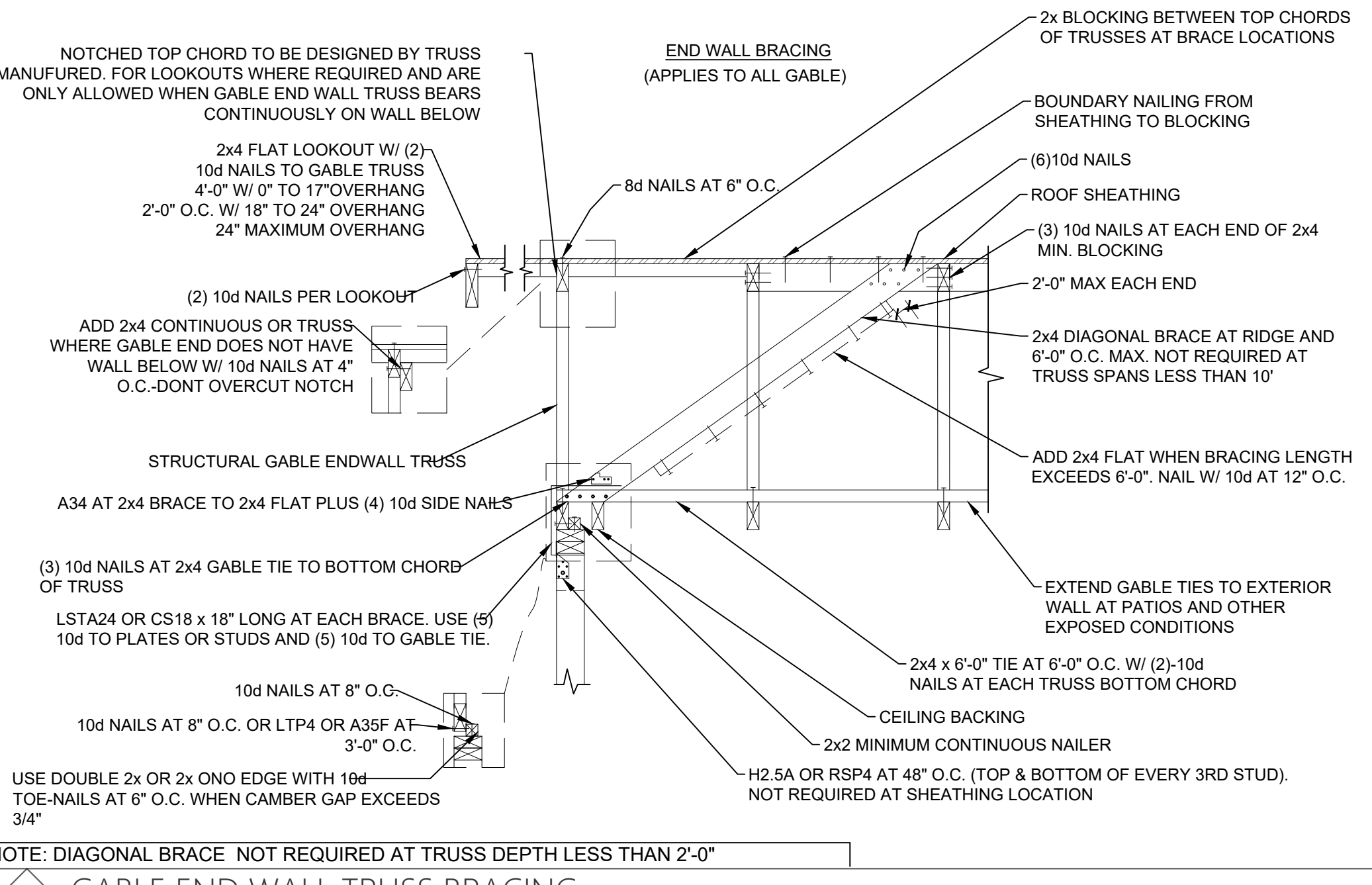
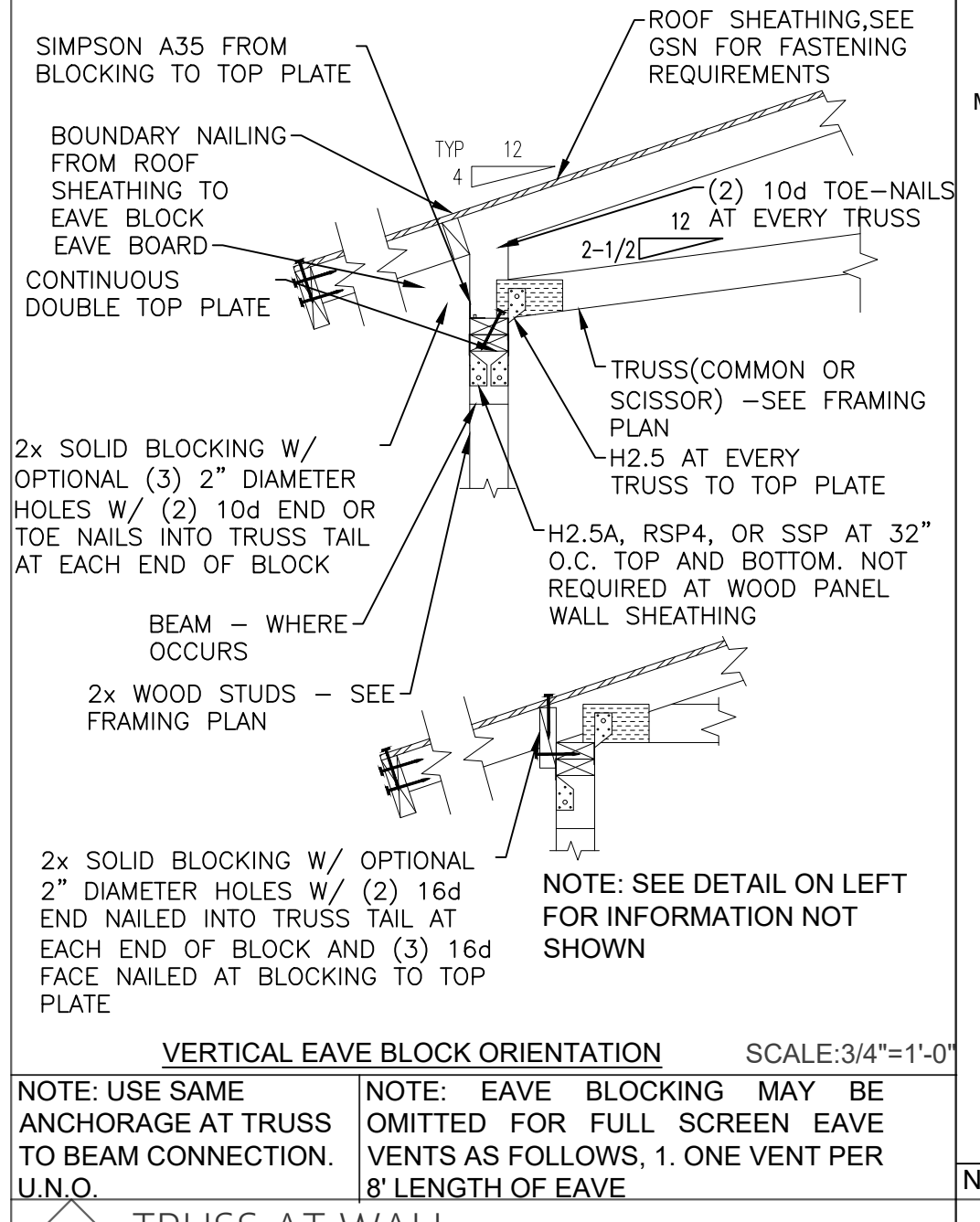
214 STEEL COLUMN AT FOOTING

NOTE: WALL SIZE SEE FLOOR PLAN				
WALL WIDTH	EDGE DISTANCE (S)	CLEARANCE (C)	DEPTH (D)	
2X4	2"	MIN. 6"	MIN. 18"	
2X6	2 1/2"	MIN. 6"	MIN. 18"	

NOTE: WALL SIZE SEE FLOOR PLAN				
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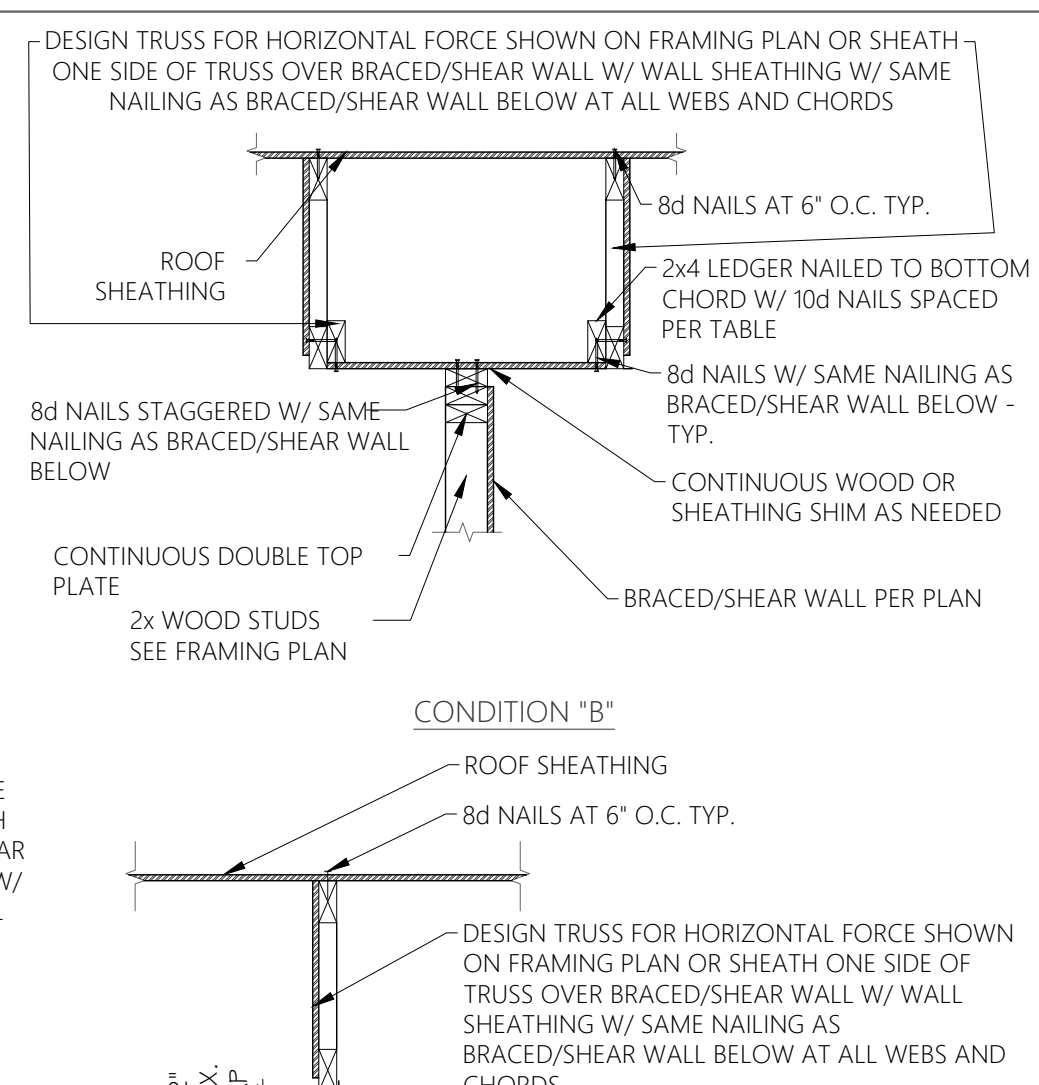
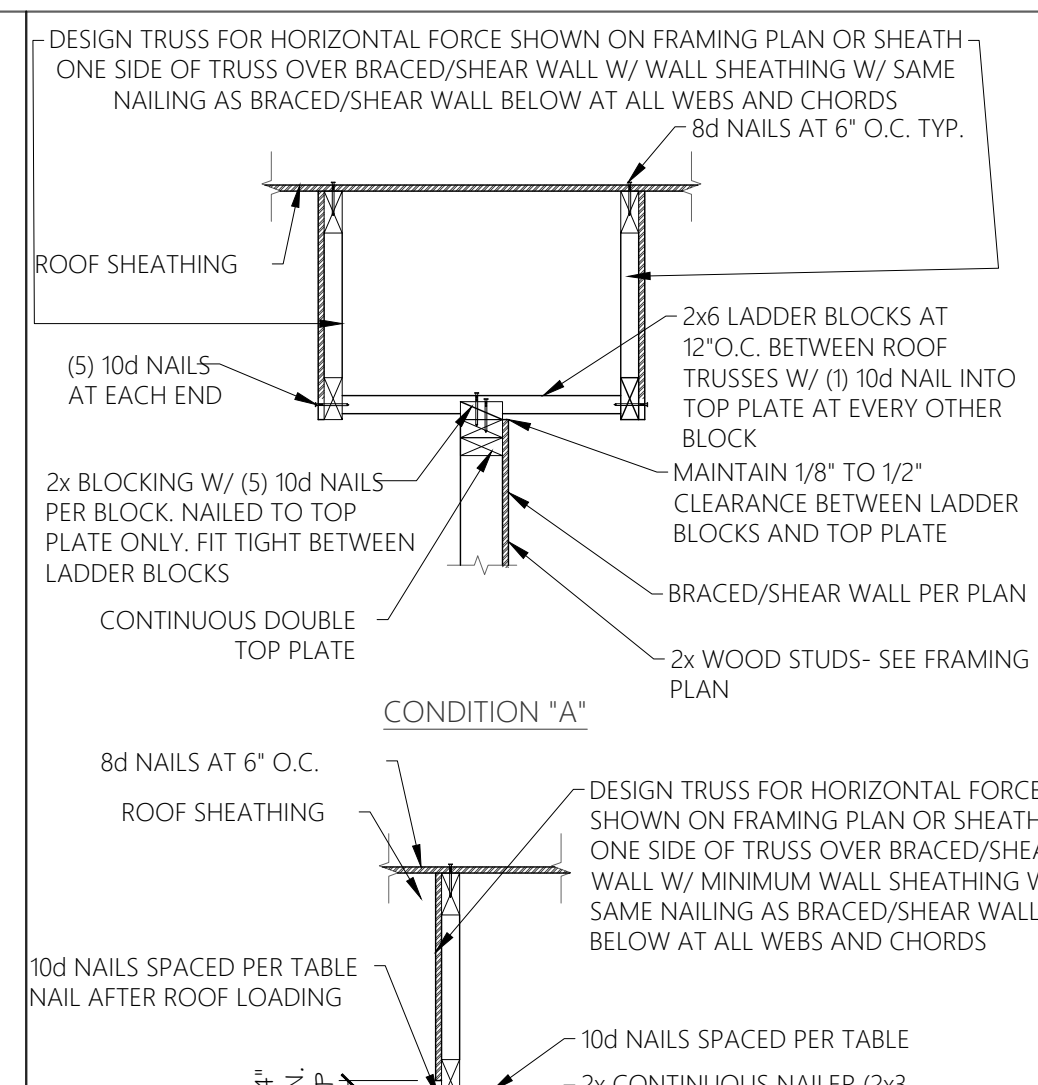
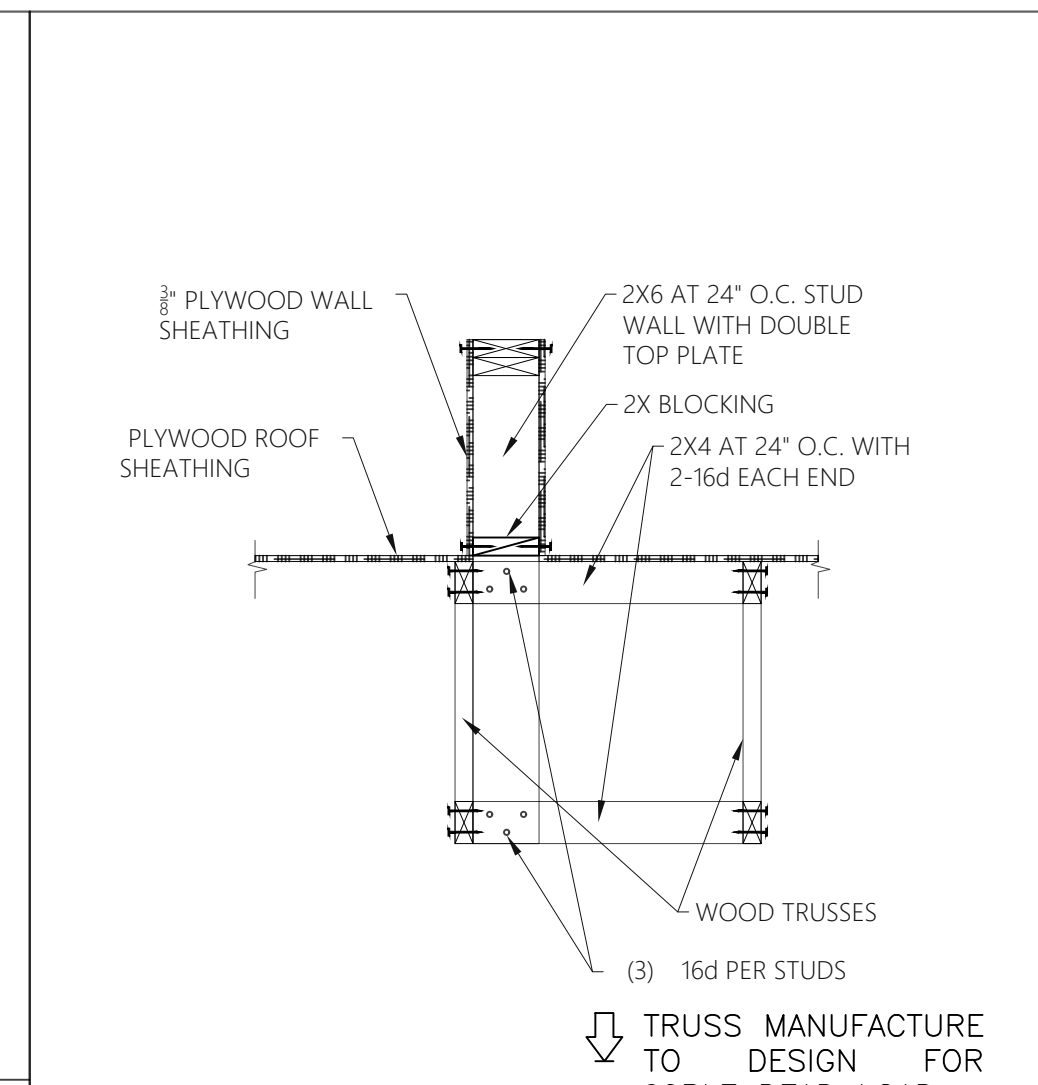
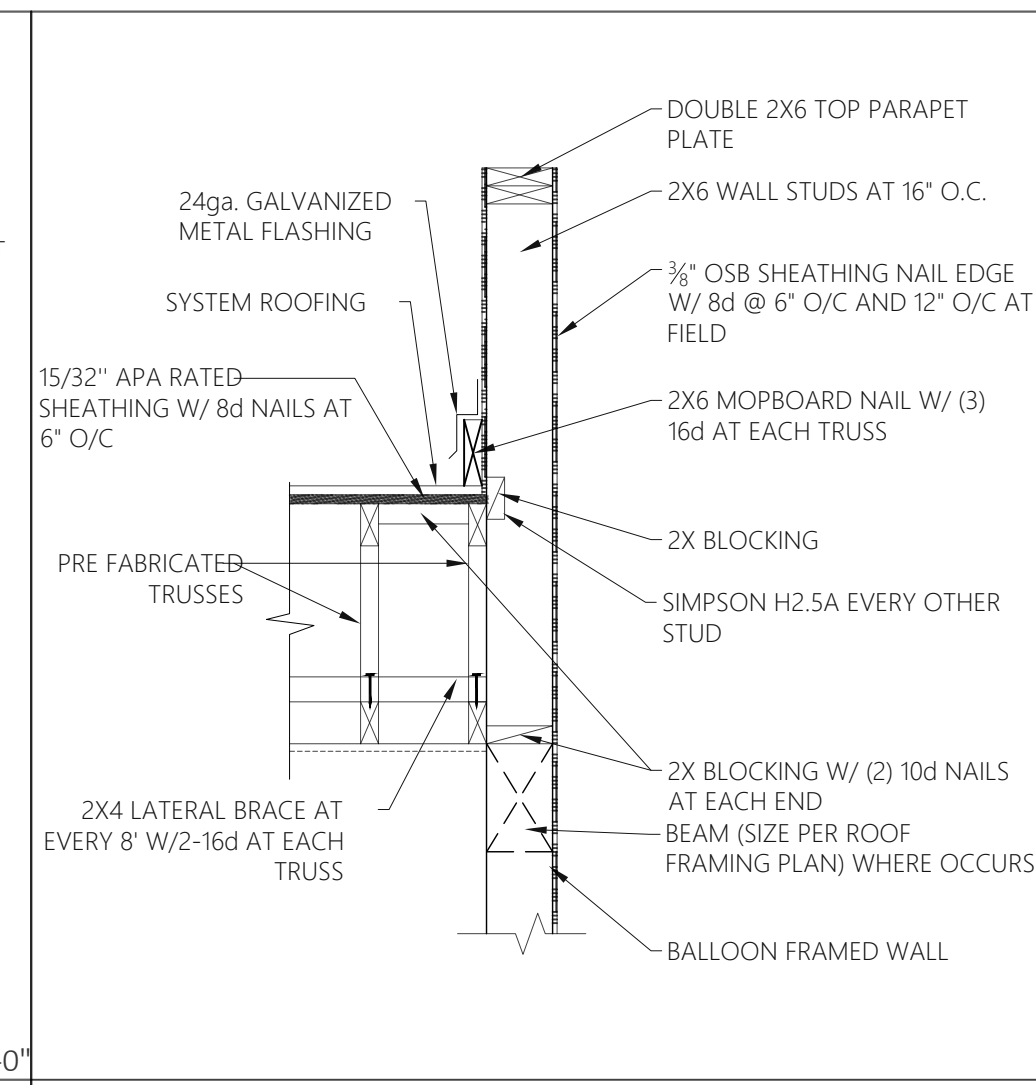
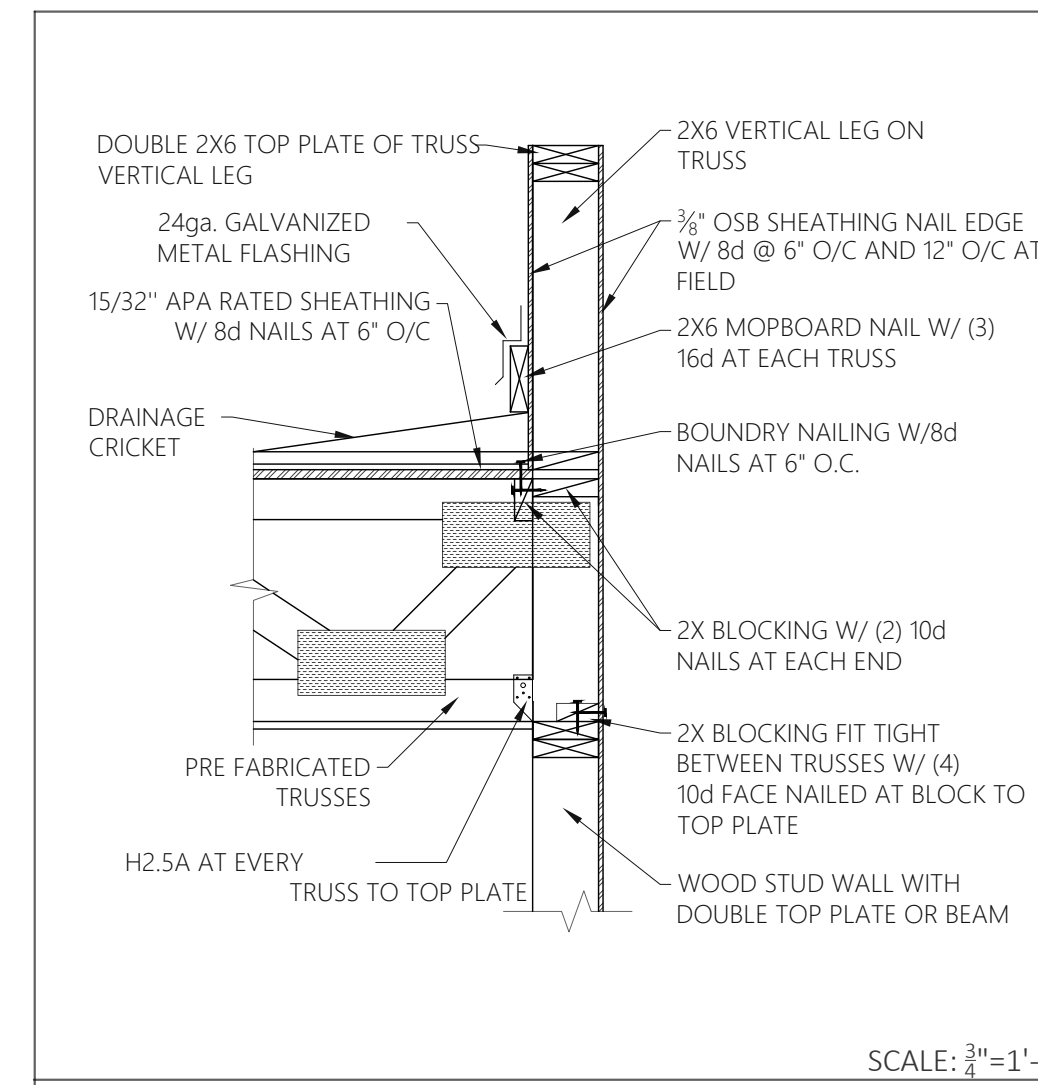
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DATE	07/28/2023
CITY COMMENTS	
CITY COMMENTS	
CITY COMMENTS	
CITY COMMENTS	
CITY COMMENTS	

2108 E Solano Dr  
PHOENIX AZ,  
85016

CONTRACT:	(623) 853 3751
DRAWN BY:	Eslly Villar
CHECKED BY:	ARQM, LLC
DATE:	
SCALE:	PER PLAN
SHEET:	SD.1



NOTE: THE FLASHING DETAILS INDICATED ARE SCHEMATIC AND ARE FOR THE PURPOSE OF ILLUSTRATING THE VARIOUS COMPONENTS THAT MAKE UP THE CONDITION ONLY. THE ROOFING CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING A COMPLETE WATERTIGHT FLASHING SYSTEM THAT IS COMPATIBLE WITH THE HOT MOP ASPHALT ROOFING SYSTEM TO BE APPROVED.

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TRUSS MANUFACTURE TO DESIGN FOR 60PLF DEAD LOAD

DESIGN TRUSS FOR HORIZONTAL FORCE SHOWN ON FRAMING PLAN OR SHEATH ONE SIDE OF TRUSS OVER BRACED/SHEAR WALL W/ WALL SHEATHING W/ SAME NAILING AS BRACED/SHEAR WALL BELOW AT ALL WEBS AND CHORDS

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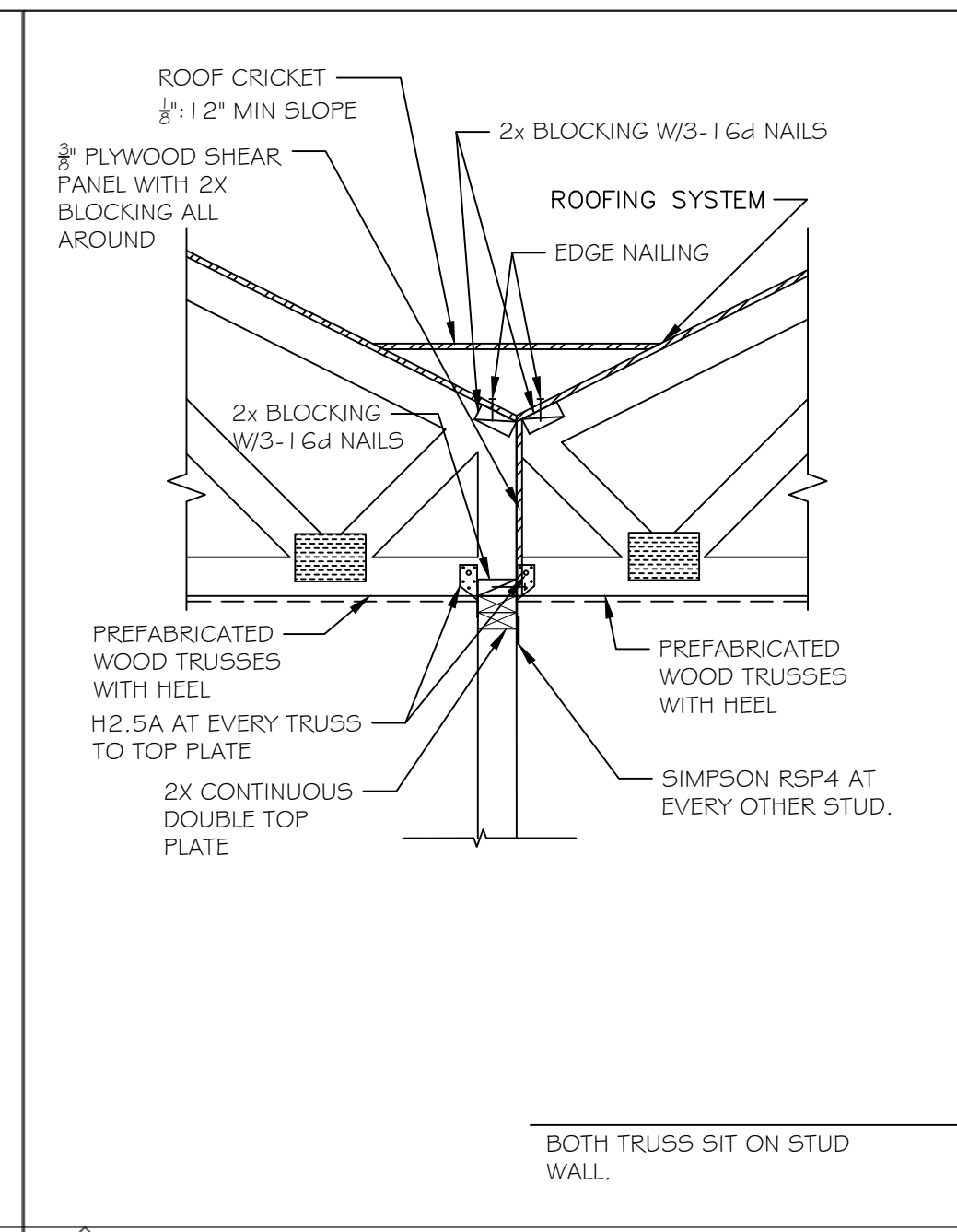
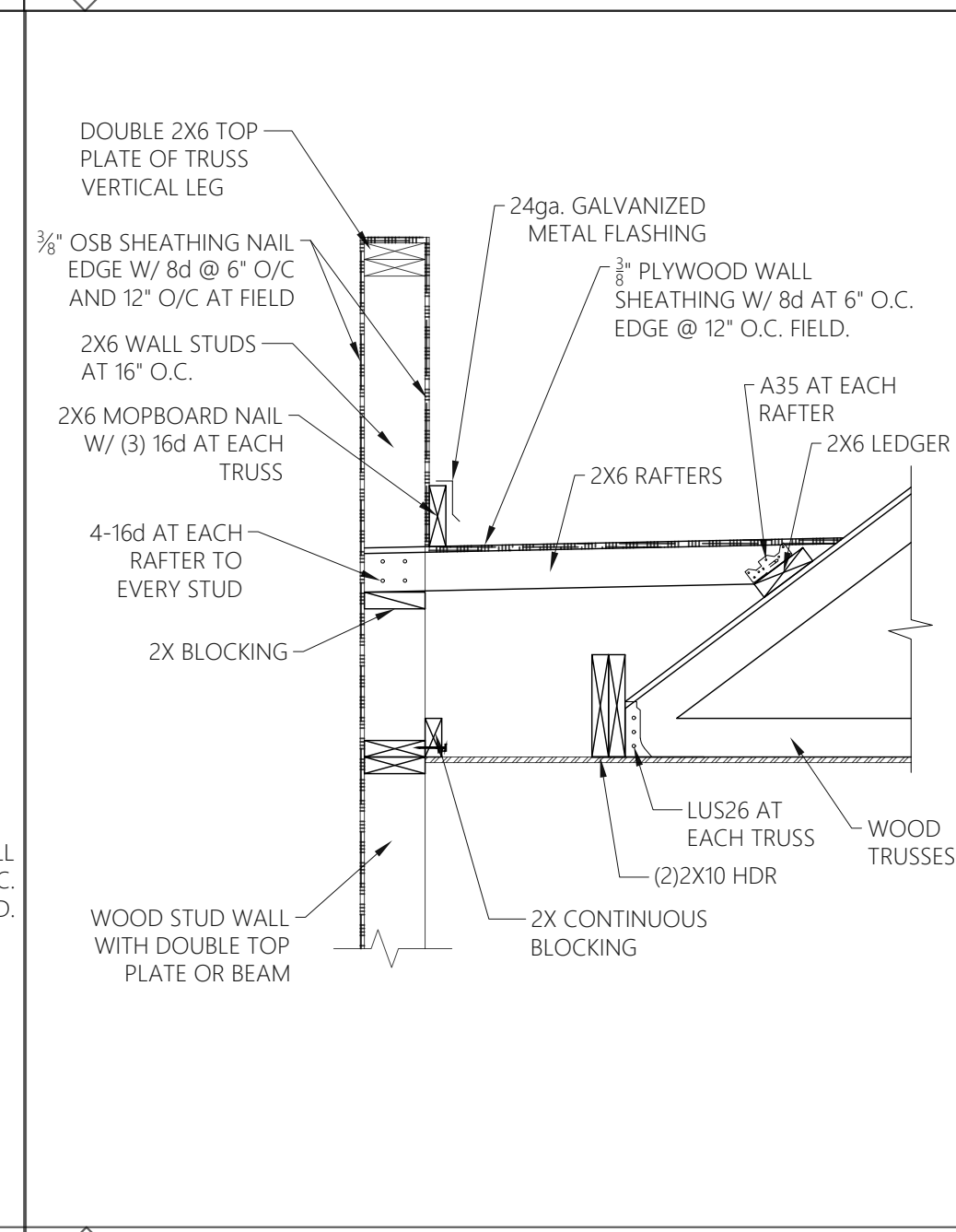
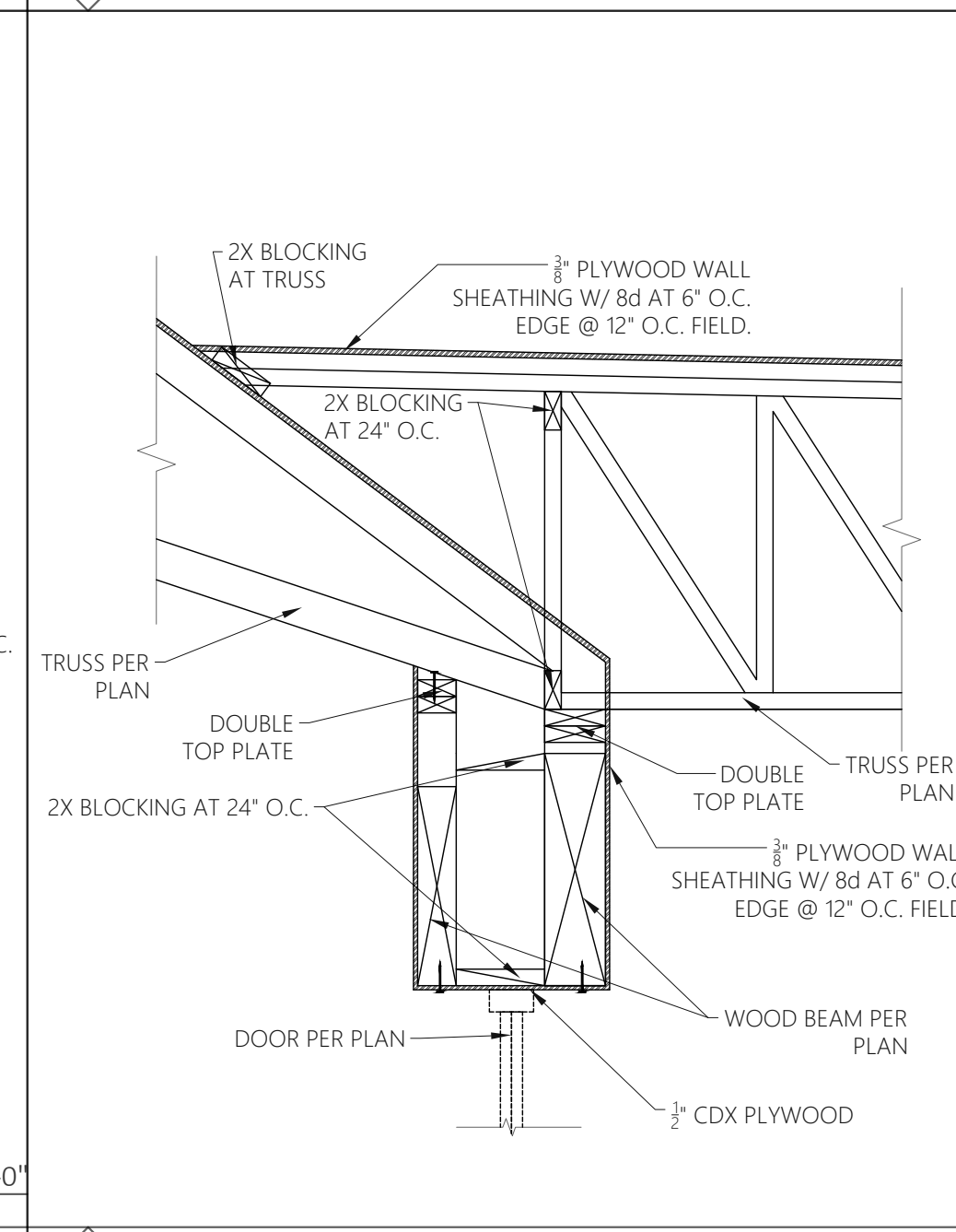
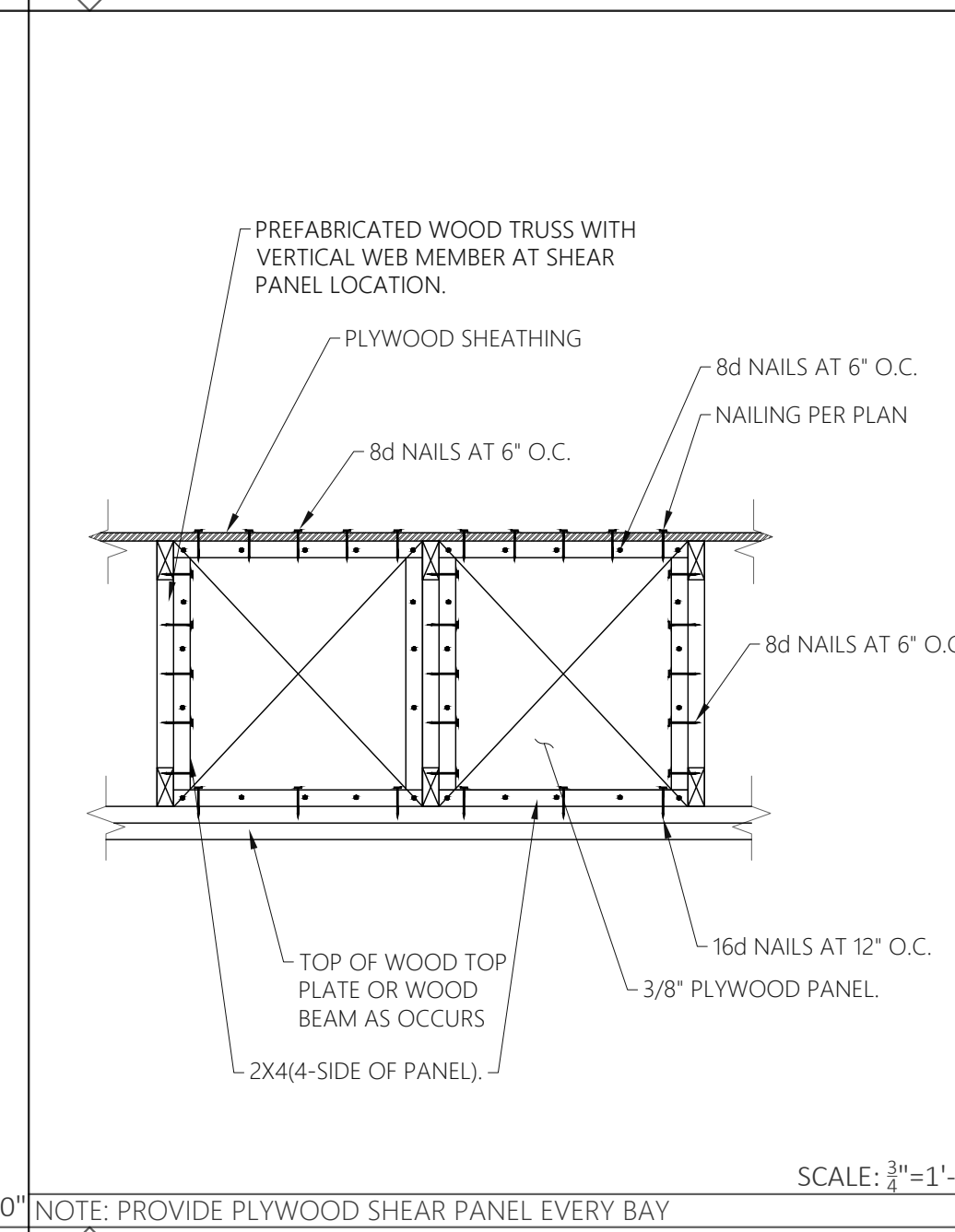
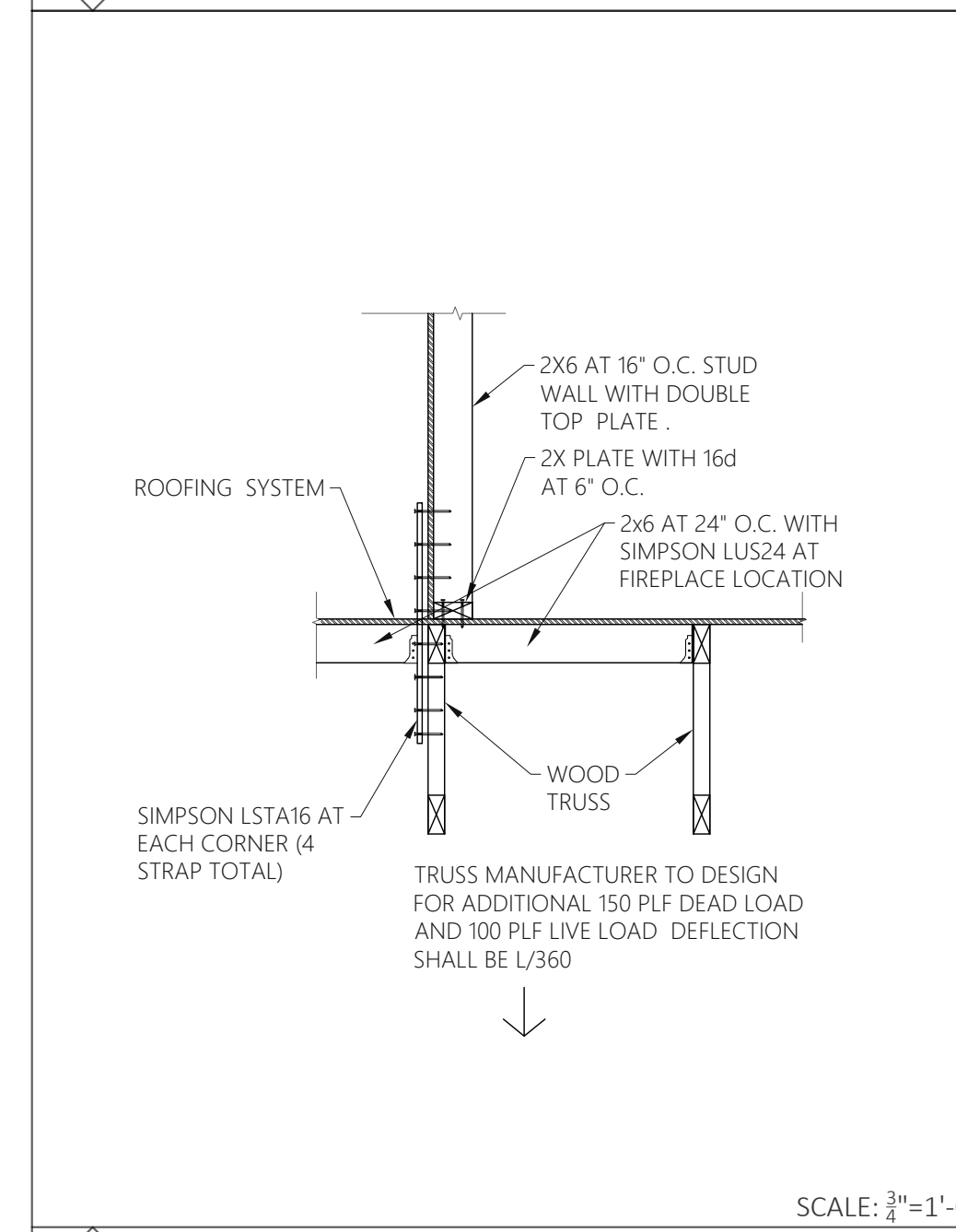
408 PARAPET DETAIL PERPEN. WALL

409 TRUSSES AT STUD WALL

410 WOOD FRAMING AT WOOD TRUSS

411 SHEAR TRANSFER AT INTERIOR BRACED/WHEAR WALL

412 WOOD FRAMING AT WOOD TRUSS



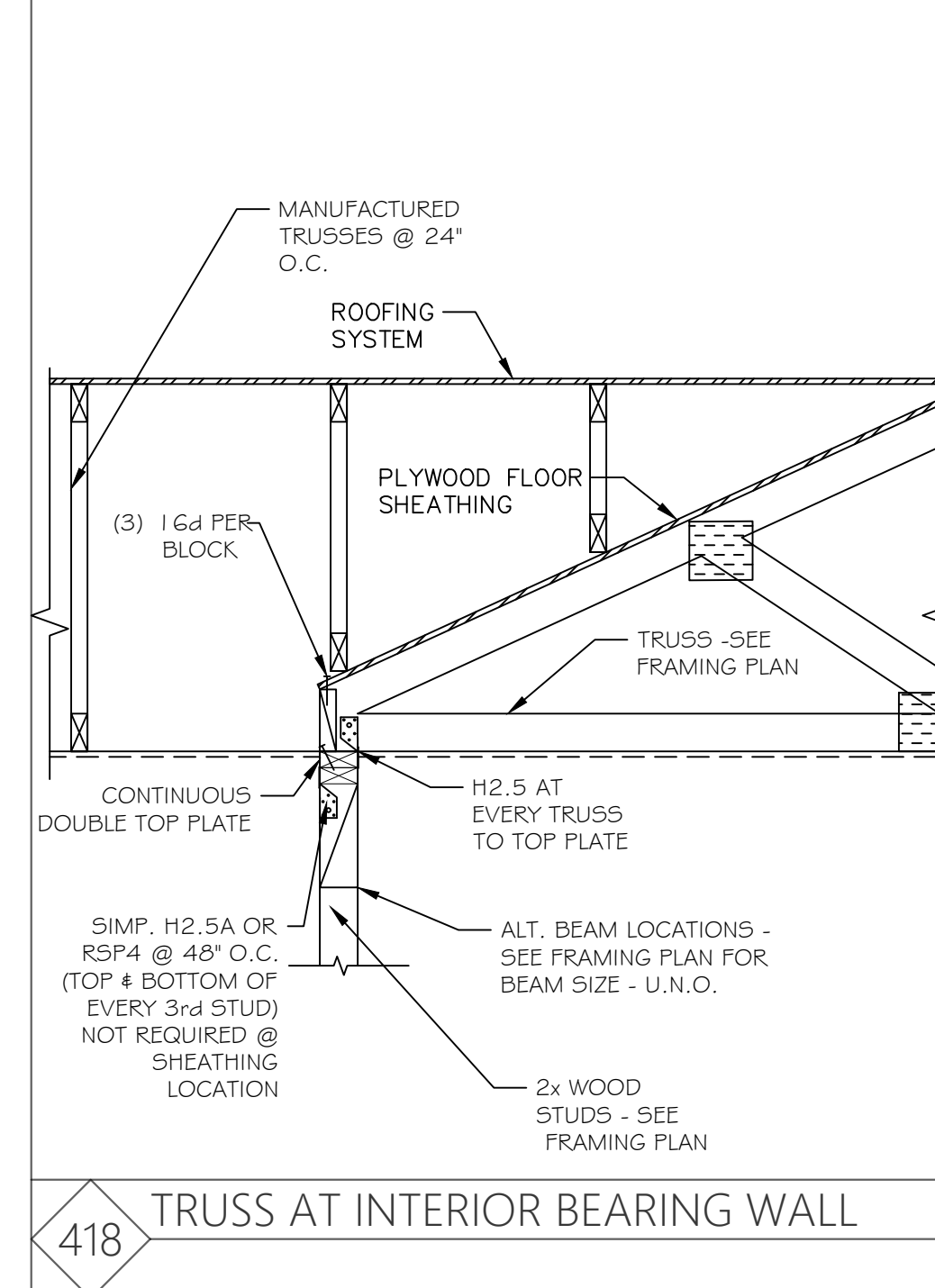
412 WOOD FRAMING AT WOOD TRUSS

413 TYP. PLYWOOD SHEAR PANEL AT WOOD TRUSS

414 WOOD TRUSS AT WOOD BEAM

416 RAFTERS AT WALL

417 WOOD TRUSS AT WOOD WALL



418 TRUSS AT INTERIOR BEARING WALL