

ARCHITECTURAL

STRUCTURAL

SCOPE OF WORK

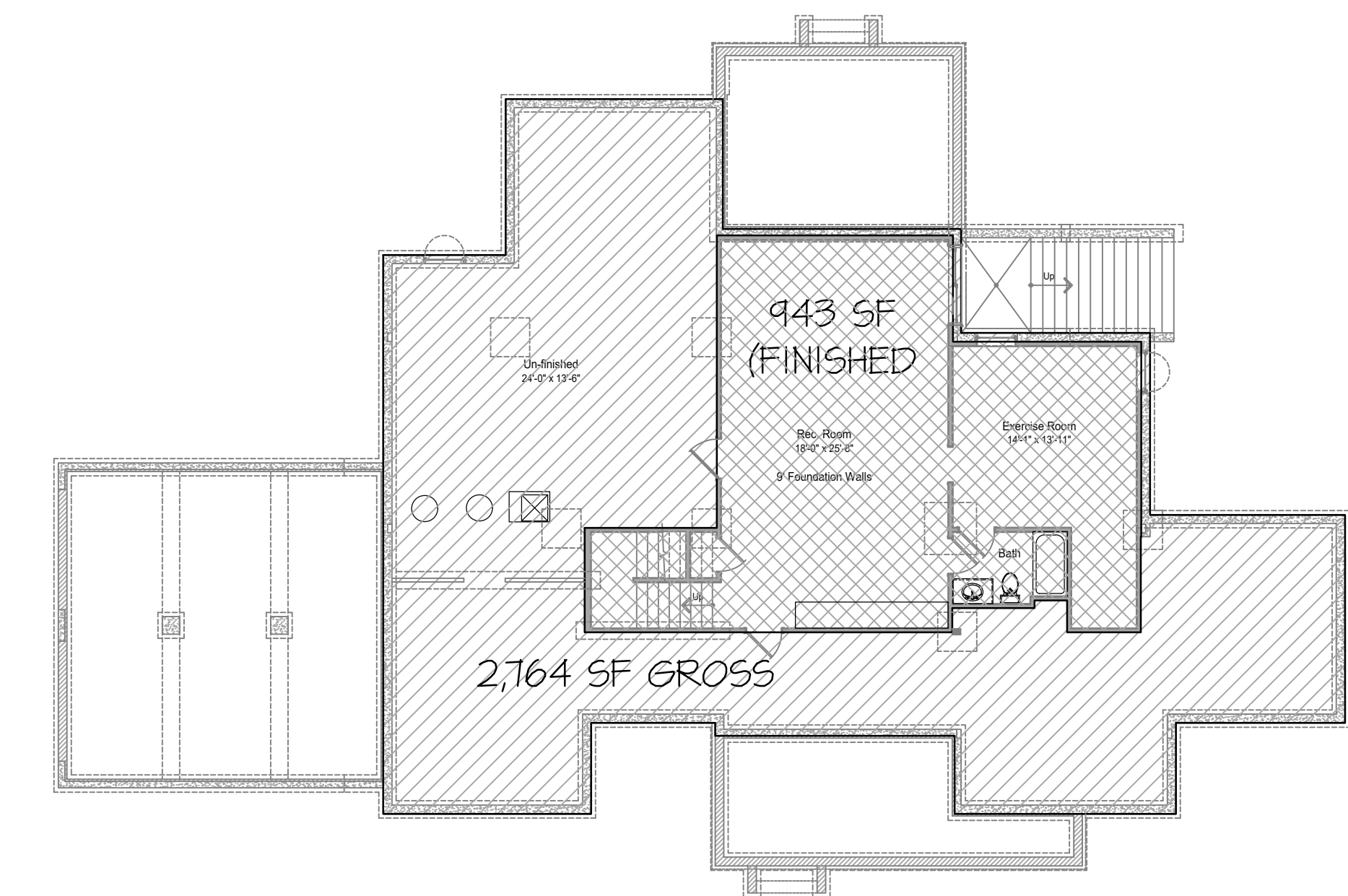
APPLICABLE CODES

ALL WORK MUST COMPLY WITH THE FOLLOWING CODES FOR FREDERICK COUNTY, MD:

PLUMBING / GAS:
2021 ICC INTERNATIONAL PLUMBING CODE (IPC) ILLUSTRATED WITH LOCAL AMENDMENTS
2021 INTERNATIONAL FUEL GAS CODE (IFGC) WITH LOCAL AMENDMENTS
2017 LIQUEFIED PETROLEUM GAS CODE NFPA 58

ELECTRICAL:
2023 NEC NATIONAL ELECTRICAL CODE WITH LOCAL AMMENDMENT

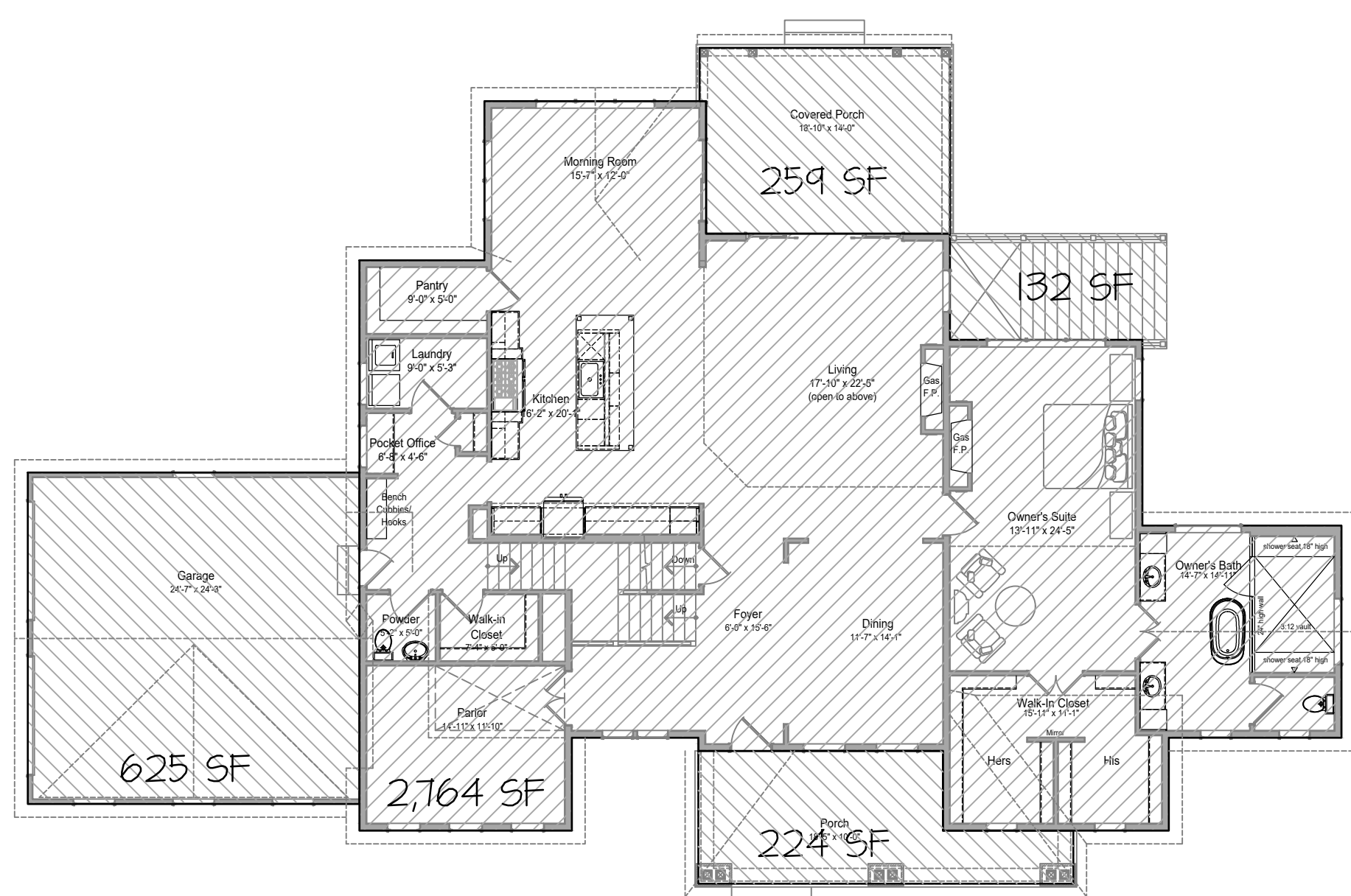
FIRE PREVENTION:
-MARYLAND STATE FIRE PREVENTION CODE
-2018 NFPA 1 FIRE CODE (NATIONAL FIRE PROTECTION ASSOCIATION) WITH AMENDMENTS, PER STATE OF MARYLAND FIRE PREVENTION CODE
-2018 NFPA 101 LIFE SAFETY CODE (NATIONAL FIRE PROTECTION ASSOCIATION) WITH AMENDMENTS, PER STATE OF MARYLAND FIRE PREVENTION CODE



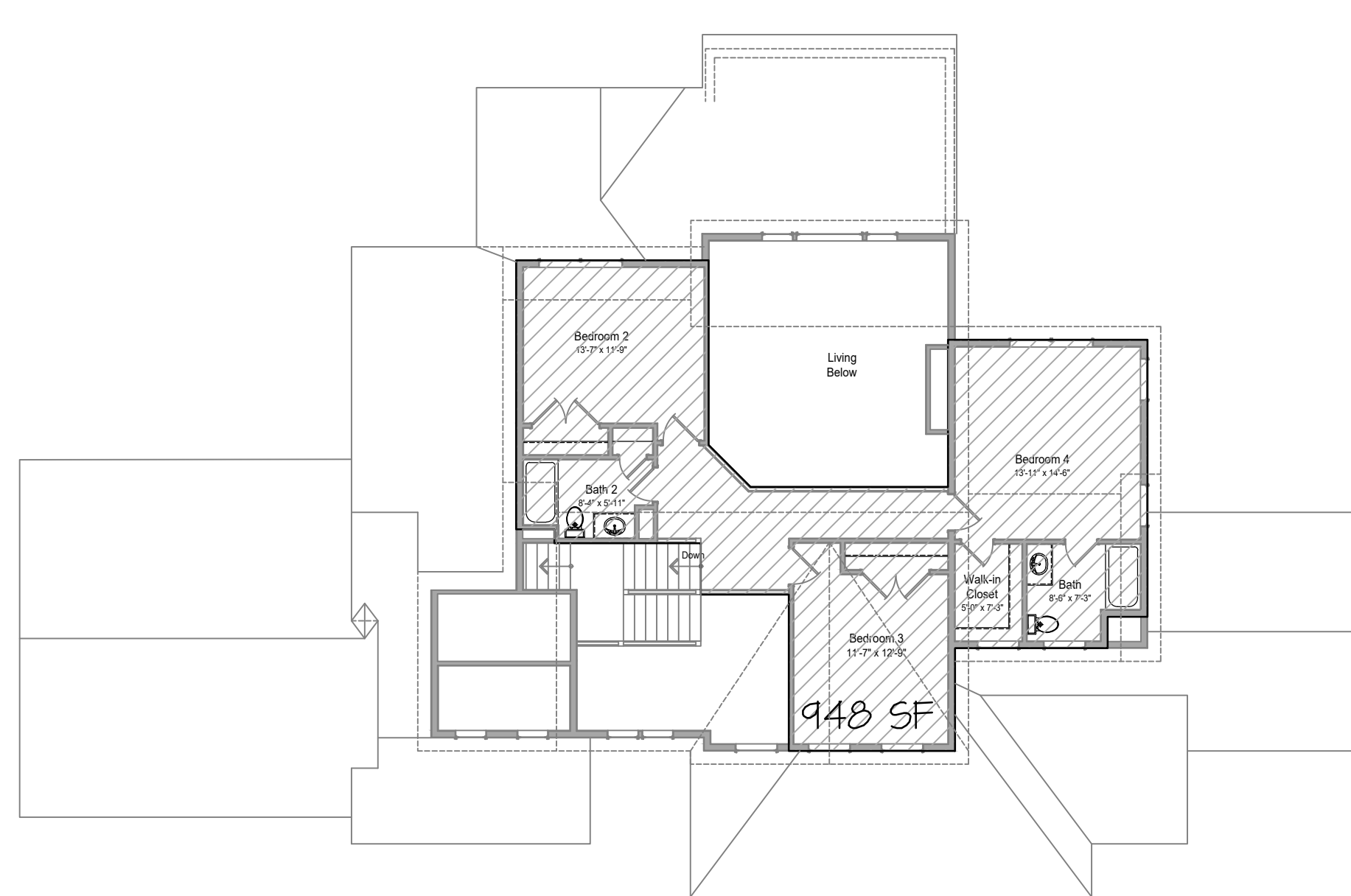
I. STRUCTURAL DESIGN BASED ON THE FOLLOWING LOCAL CRITERIA:

4. FOUNDATION DESIGN:
4.0 SEE STRUCTURAL

5. CONCRETE SLABS:
- 5.1. TYPICAL BASEMENT SLAB TO BE 4" CONCRETE W/ 6X6 W4.0XW4.0 W/WF. OVER VAPOR BARRIER & 4" GRAVEL BASE. CONCRETE TO BE AIR ENTRAINED - TOTAL AIR CONTENT TO BE NOT LESS THAN 5% OR MORE THAN 1% CONCRETE TO BE 2500 P.S.I. CONCRETE.
 - 5.1. TYPICAL GARAGE SLAB TO BE 4-1/2" CONCRETE WITH #4 BARS @ 24" O.C. EACH WAY OVER VAPOR BARRIER. CONCRETE TO BE AIR ENTRAINED - TOTAL AIR CONTENT TO BE NOT LESS THAN 5% OR MORE THAN 1% CONCRETE TO BE 4000 P.S.I. CONCRETE.
 - 5.2. TYPICAL PORCH AND STOOP SLAB TO BE 4" CONCRETE WITH 6X6 W4.0XW4.0 W/WF. OVER VAPOR BARRIER & 4" GRAVEL BASE. CONCRETE TO BE AIR ENTRAINED - TOTAL AIR CONTENT TO BE NOT LESS THAN 5% OR MORE THAN 1% CONCRETE TO BE 4000 P.S.I. CONCRETE.
 - 5.3. VAPOR BARRIER TO BE 6 MIL. POLY-ETHYLENE SHEET W/ MIN. 6" OVERLAP AT SEAMS.
 - 5.4. WHEN REQUIRED BY DRAWING PROVIDE FIBER-MESH ADDITIVE TO CONCRETE PRIOR TO MIXING.
 - 5.5. PROVIDE CONTROL JOINTS OF @ LEAST 1/4" SLAB DEPTH @ A MAX. OF 30' INTERVALS, OFFSETS OF GREATER THAN 10' REQUIRE CONTROL JOINT @ OFFSET.



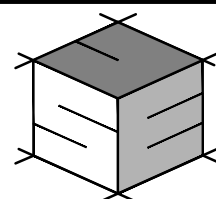
1. FIRE-STOPPING TO BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS BOTH VERTICALLY AND HORIZONTALLY.
2. FIRE-STOPPING TO CONSIST OF NOMINAL 2X LUMBER, OR 2 LAYERS OF PLYWOOD OR IX MECHANICAL. INTEGRITY OF ALL FIRE-STOPS TO BE MAINTAINED.
3. DRAFT-STOPPING TO BE PROVIDED IN ALL FLOOR/CEILING ASSEMBLIES WHEN CEILING IS SUSPENDED OR FLOOR IS OPEN STYLE TRUSSES.
4. DRAFT-STOPPING TO CONSIST OF 1/2" GYP. BOARD OR 3/8" PLYWOOD.
5. PROVIDE CONT. RIDGE VENT AND SOFFIT VENTS FOR ALL ROOF AREAS INSTALLED PER MFRS RECOMMENDATIONS AND SPECIFICATIONS.
6. COMBINATION CO/SMOKE DETECTORS SHALL BE HARD-WIRED AND INTERCONNECTED AND INSTALLED INSIDE EACH SLEEPING AREA AND HALLWAY BETWEEN SLEEPING AREAS AND ON EACH ADDITIONAL STORY OF HABITABLE SPACE. PRIMARY POWER FROM THE BUILDING WIRING WITH BATTERY BACK-UP PER NFPA 72. SEE IRC 2021 FOR FURTHER DETAILS
7. WATER RESISTANT GYPSUM BOARD TO BE PROVIDED IN ALL BATHROOMS. NO VAPOR BARRIER IS PERMITTED. USE 1/2" CEMENTITIOUS BACKER BOARD AT ALL MET SHOWER AND TUB LOCATIONS WHERE TILE IS APPLIED WITH APPROVED WATERPROOFING MEMBRANE.
8. PROVIDE ARTIFICIAL LIGHT AND VENTILATION IN ALL BATHS WHEN WINDOWS ARE OMITTED. PROVIDE EXHAUST FAN DIRECTLY TO THE EXTERIOR. VENTILATION REQUIRED IS 5 ACHR. ARTIFICIAL LIGHT REQUIRED IS 6 FOOT CANDLES AT 30" ABOVE FINISHED FLOOR.
9. PROVIDE TEMPERED GLASS AT ALL HAZARDOUS LOCATIONS, PER IRC 2021 308.4.
10. PROVIDE LANDINGS AT EXTERIOR DOORS PER IRC R310.3
11. STAIR RISERS TO BE 7 3/4" MAX. AND TREADS TO BE 10" MIN.
12. PROVIDE 1/2" GYPSUM BOARD UNDER STAIRS WHERE SPACE IS FINISHED, ENCLOSED, AND ACCESSIBLE.
13. PROVIDE HANDRAILS FOR ALL STAIRS. RAILINGS ON OPEN SIDE OF STAIRS MUST BE 34" HIGH MEASURED FROM THE TIP OF THE NOSING WITH INTERMEDIATE RAILS WHICH WILL NOT ALLOW THE PASSAGE OF A 4" SPHERE TO BE CONSIDERED HANDRAILS/GUARDRAILS. HANDRAILS TO BE GRASPABLE PER R310.7.
14. PROVIDE 36" HIGH GUARDRAILS FOR ALL RAISED SURFACES LOCATED MORE THAN 30" ABOVE THE FINISHED FLOOR OR GRADE BELOW. RAILS TO HAVE INTERMEDIATE RAILS WHICH WILL NOT ALLOW THE PASSAGE OF A 4" SPHERE PER R310.2.3. GUARDRAILS SHALL BE ABLE TO RESIST A 200# LOAD APPLIED AT ANY POINT ALONG RAIL PER IRC 2021 IN TABLE R301.5 "GUARDS AND HANDRAILS"
15. STAIR, LANDING AND CORRIDOR MUST HAVE MINIMUM 3'-0" WIDTH.
16. PROVIDE ILLUMINATION AT ALL INTERIOR STAIRS WITH SWITCHES AT EACH LEVEL. ACCESSED BY STAIRS PER IRC R303.1. PROVIDE ILLUMINATION AT EXTERIOR STAIRS PER IRC R303.8
17. PROVIDE EGRESS WINDOWS FROM ALL BEDROOMS WITH A NET CLEAR OPENING OF 5.7 SQ.FT. EXCEPT GRADE FLOOR WINDOWS MAY HAVE A CLEAR OPENING OF 5.0 SQ.FT.. SILL HEIGHT = MAX. 44", WINDOW CLEAR WIDTH = 20" MIN., WINDOW CLEAR HEIGHT=22" MIN.
18. ALL WINDOW OPENINGS MORE THAN 6' ABOVE GRADE OR SURFACE BELOW SHALL BE A MIN. OF 24" ABOVE FINISHED FLOOR INSIDE.
19. EXPOSED INSULATION BATTS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 AND SMOKE DEVELOPMENT INDEX NOT TO EXCEED 450. CELLULOSE LOOSE FILL INSULATION SHALL HAVE A SMOKE DEVELOPMENT INDEX OF NOT MORE THAN 450. ATTIC INSULATION TO HAVE A CRITICAL RADIANT FLUX OF AT LEAST .12 WATT PER SQUARE CENTIMETER.
20. PROVIDE 22" X 30" MIN. ATTIC ACCESS HOLE FOR ALL TRUSSED SPACES WITH MORE THAN 30" CLEAR HEIGHT. CUT ACCESS HOLES FROM EXISTING ATTIC SPACES INTO NEW ATTIC SPACE PER R601.
21. HVAC DESIGN AND SPECIFICATIONS TO BE IN ACCORDANCE WITH 2021 INTERNATIONAL MECHANICAL CODE AND 2021 INTERNATIONAL ENERGY CONSERVATION CODE. ALL HVAC TO BE HIGH EFFICIENCY CARRIER EQUIPMENT OR APPROVED EQUAL.
22. PLUMBING TO BE DONE UNDER A SEPARATE PERMIT BY A PLUMBER REGISTERED IN THE STATE OF MARYLAND. ALL PLUMBING TO BE IN ACCORDANCE WITH COMAR SECTION 4.20, 2021 INTERNATIONAL PLUMBING CODE AND THE LOCAL N.J.S.C. AMENDMENTS.
23. ELECTRIC TO BE DONE UNDER A SEPARATE PERMIT. ALL ELECTRICAL WORK TO BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND LOCAL REQUIREMENTS.
24. PROVIDE GROUNDING ROD FOR ELECTRIC SERVICE PER REQUIREMENTS OF PERFCO.
25. ALL WORK TO BE DONE IN ACCORDANCE WITH MFRS RECOMMENDATIONS AND SPECIFICATIONS.
26. PROVIDE METAL FLASHING AT ALL WINDOWS, DOOR, AND ROOF INTERSECTIONS PER MANUFACTURERS SPECIFICATIONS & RECOMMENDATIONS.
27. PROVIDE RADON PROTECTION CONSISTENT W/ IRC, APPENDIX F AND LOCAL AMENDMENTS.
28. PROVIDE STREET ADDRESS NUMBERS VISIBLE TO ROAD. MIN. 6" HIGH NUMBERS.
29. SLOPE FINISH GRADE AWAY FROM HOUSE MIN. 6" IN THE FIRST 10'. GRADE SHALL BE A MIN. OF 6" BELOW TO OF CONCRETE / MASONRY WALLS.
30. FACTORY BUILT FIREPLACES AND CHIMNEYS TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. ALL FACTORY BUILT APPLIANCES MUST COMPLY WITH I.R.C. SECTION R1004 & R1005.
31. PROVIDE FIRE SPRINKLERS THROUGHOUT HOUSE IN ACCORDANCE WITH N.F.P.A. 13R. SUB-CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LOCAL FIRE MARSHAL FOR APPROVAL PRIOR TO INSTALLATION.



3. ALL STRUCTURAL LUMBER TO BE HDM FR #2 OR BETTER GRADE.
4. FLOOR SHEATHING TO BE 5/8" PLYWOOD OR 3/4" OSB TONGUE AND GROOVE RATED SHEATHING, GLUED AND NAILLED TO JOISTS WITH 6D NAILS AT 6" O.C. ON EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
5. JOISTS AND BEAMS TO HAVE MIN 1 1/2" BEARING.
6. JOISTS AND BEAMS TO HAVE LATERAL SUPPORT BY FULL DEPTH SOLID BLOCKING OR NAILLED TO A BAND BOARD.
7. FLOOR JOISTS SHALL BE DIMENSIONAL LUMBER AS NOTED OR PRE-ENGINEERED FLOOR TRUSSES BY TRUSS JOIST - PROVIDE SHOP DRAWINGS SIGNED AND SEALED BY LICENSED ENGINEER IN THE STATE OF MARYLAND.
8. CUTTING AND NOTCHING OF JOISTS ARE NOT ACCEPTABLE - SEE TRUSS MFGRS SPECIFICATIONS
9. BORED HOLES IN JOIST ARE NOT ACCEPTABLE - SEE TRUSS MFGRS SPECIFICATIONS IF TRUSSES ARE USED.
10. ALL TRUSS PRODUCTS TO BE DESIGNED BY A LICENSED ENGINEER IN THE STATE OF MARYLAND. SEALED TRUSS DRAWINGS TO BE GIVEN TO INSPECTOR PRIOR TO CLOSE-IN INSPECTION. ALL TRUSS REPAIRS MUST BE SIGNED BY LICENSED ENGINEER.
11. ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE TO BE TREATED LUMBER, METAL HANGERS AND CONNECTORS TO BE STAINLESS STEEL OR HOT DIPPED GALVANIZED STEEL COMPATIBLE WITH TREATED WOOD PRODUCT USED.
12. INTERIOR NON-BEARING WALLS TO BE 2 X 4 WOOD STUDS AT 16" O.C. WITH 1/2" GYP. BOARD ON EACH SIDE. FIRE-STOPPED AS REQUIRED FOR BEARING WALLS.
13. EXTERIOR WALLS TO BE BUILT IN ACCORDANCE WITH TYPICAL WALL SECTIONS AND SPECIFIC DETAILS AS INCLUDED IN THESE DOCUMENTS AND IN COMPLIANCE WITH SECTION R-602 OF THE IRC, 2021
14. STUDS IN BEARING PARTITIONS MAY BE CUT OR NOTCHED TO A DEPTH NOT TO EXCEED 25% OF ITS WIDTH. A STUD MAY BE BORED TO A DIAMETER NOT TO EXCEED 60% OF ITS WIDTH IF STUDS ARE DOUBLED AND NOT MORE THAN TWO CONSECUTIVE STUDS ARE BORED.
15. TOP PLATE NOTCHED OR CUT MORE THAN 50% SHALL BE REINFORCED WITH 24 GAUGE STEEL ANGLE OR APPROVED STRAPPING.
16. MAINTAIN 2" AIR SPACE BETWEEN COMBUSTIBLE FRAMING AND ALL FIREPLACES AND CHIMNEYS PER THE REQUIREMENTS OF IRC SECTION R101.11.
17. NEW EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED PER IRC 2015, SECTION 602.10, W.S.P. METHOD. BRACED WALL SEGMENTS SHALL BE SPACED MAXIMUM 25'-0" ON CENTER, AND SHALL START WITH IN 12'-0" OF EACH END OF BRACED WALL LINES

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PROFESSIONAL CERTIFICATION. I HEREBY
CERTIFY THAT THESE DOCUMENTS WERE
PREPARED OR APPROVED BY ME, AND THAT I
AM A DULY LICENSED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF MICHIGAN
LICENSE NO.:
EXPIRATION DATE:

ACL3 MODEL
Sundays Ln. Lot 3,
Frederick, MD 21702

JOB #:		BO491
REVISIONS:	DATE:	
PERMIT SET	2/1/25	
PLAN REVIEW COMMENTS	10/9/25	

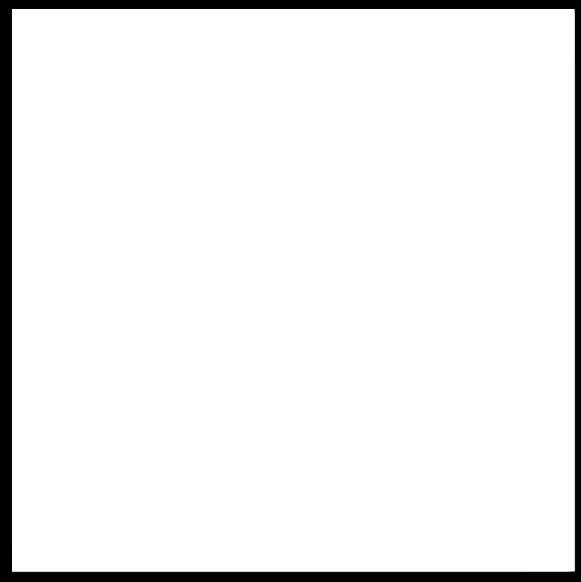
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PAGE DESCRIPTION:
GENERAL
STRUCTURAL NOTES
& SCHEDULES

SHEET:

001



MD ALTERNATIVE ENERGY COMPLIANCE (2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)) PER CHART R402.1.3.1 MARYLAND ALTERNATIVE R-VALUE

- 2021 IECC WALL AND CEILING INSULATION LEVELS WERE AMENDED AND REVERTED BACK TO 2018 IECC LEVELS BY ADDING TABLE R402.1.3.1 MARYLAND ALTERNATIVE R-VALUE.
- COMPLIANCE WITH TABLE R402.1.3.1 ALSO REQUIRES COMPLIANCE WITH TABLE R408.3 ADDITIONAL ENERGY FEATURES, WHERE AN ADDITIONAL 6% SAVINGS MUST BE ACHIEVED.

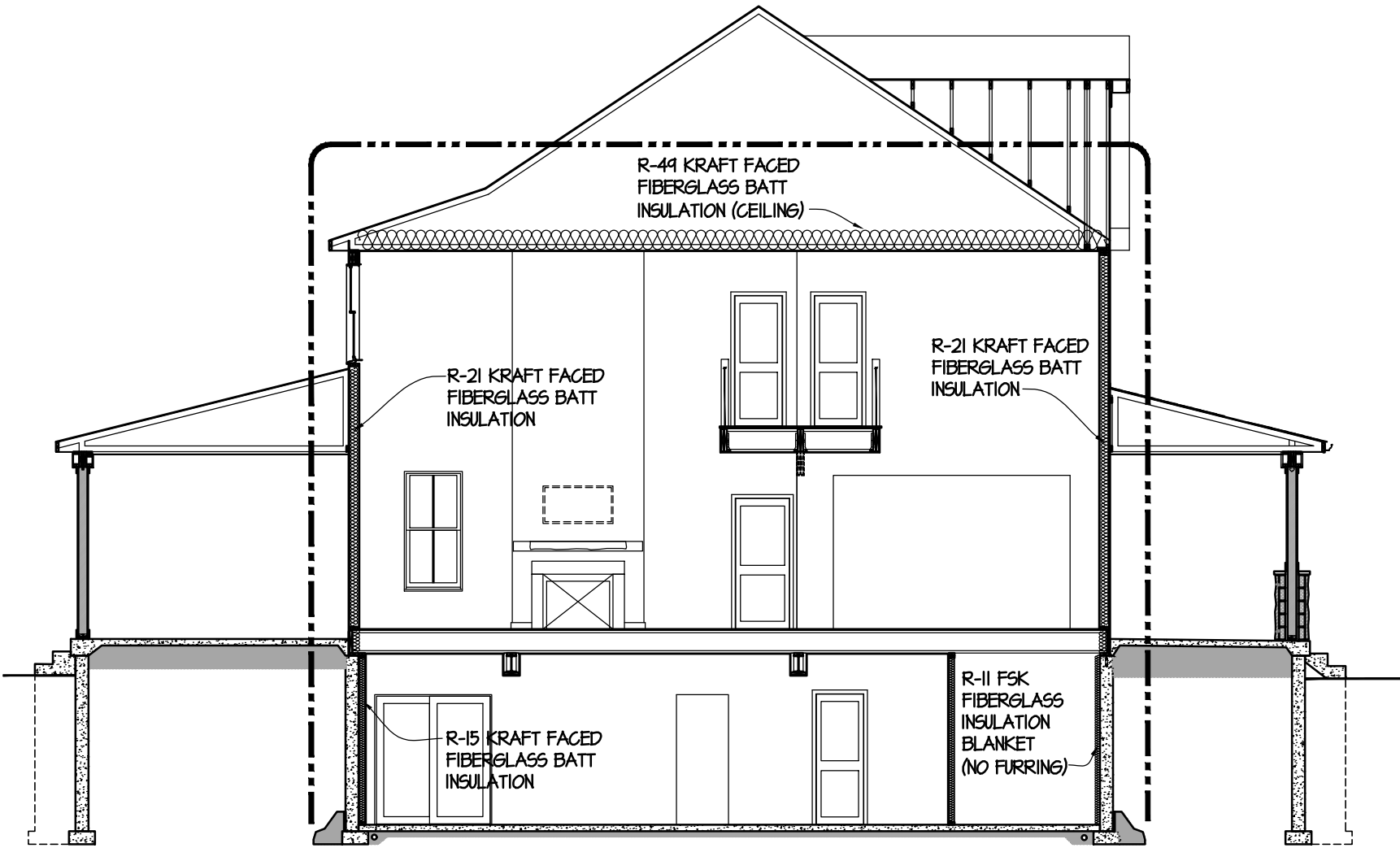
NOTE: THE EFFICIENCY PACKAGE REQUIREMENT WHERE AN ADDITIONAL 6% SAVINGS IS BEING MET WITH A GREATER THAN OR EQUAL TO 2.9 UEF ELECTRIC SERVICE WATER-HEATING SYSTEM.

TABLE R402.1.3.1 MD ALTERNATIVE INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT ^a										
CLIMATEZONE	FENESTRATION U-FACTOR ^b	SKYLIGHT ^c U-FACTOR	GLAZED FENESTRATION SHGC ^{d,e}	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENTS WALL R-VALUE	SLAB ^h R-VALUE & DEPTH	CRAWLSPACE ⁱ WALL R-VALUE
4 EXCEPT MARINE	0.30	0.55	0.40	49	20 OR 13+5 ⁿ	8/13	19	10ci or 13	10ci, 4 FT	10ci or 13
5	0.30i	0.55	0.40	49	20 OR 13+5 ⁿ	13/17	30	15ci or 19 or 13 + 5ci	10ci, 4 FT	15ci or 19 or 13 + 5ci

NR = NOT REQUIRED FOR 5:1 FOOT = 304.8 MM.
AIR-VALUES AND WEATHERING U-FACTORS AND SHGC ARE WEATHERING. INSULATION IS INSTALLED IN A CAVITY THAT IS LESS THAN THE LABEL OR SECTION THICKNESS OF THE INSULATION. THE INSTALLED R-VALUE OF THE INSULATION SHALL BE NOT LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.
B. THE FENESTRATION U-FACTOR COLUMN INCLUDES SKYLIGHTS. THE SHGC COLUMN APPLIES TO ALL GLAZED FENESTRATION.
EXCEPTION: IN CLIMATE ZONES 1 THROUGH 3, SKYLIGHTS SHALL BE PERMITTED TO BE EXCLUDED FROM GLAZED FENESTRATION SHGC REQUIREMENTS PROVIDED THAT THE SHGC FOR SUCH SKYLIGHTS DOES NOT EXCEED 0.30.
C. 10-13 MEANS R-10 CONTINUOUS INSULATION (CI) ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-13 CONTINUOUS INSULATION ON THE INTERIOR OF THE BASEMENT WALL. 15-19 MEANS R-15 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-19 CONTINUOUS INSULATION ON THE INTERIOR OF THE BASEMENT WALL. ALTERNATIVELY, COMPLIANCE WITH 15-19 SHALL BE R-15 CAVITY INSULATION ON THE INTERIOR OF THE BASEMENT WALL PLUS R-5 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE HOME.
D. R-5 INSULATION SHALL BE PROVIDED UNDER THE FULL SLAB AREA OF A HEATED SLAB IN ADDITION TO THE REQUIRED SLAB EDGE INSULATION R-VALUE FOR SLABS AS INDICATED IN THE TABLE. THE SLAB EDGE INSULATION FOR HEATED SLABS SHALL NOT BE REQUIRED TO EXTEND BELOW THE SLAB.
E. THERE ARE NO SHGC REQUIREMENTS IN THE MARINE ZONE.
F. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED BY FIGURE R302.1 AND TABLE R302.1.
G. ALTERNATIVELY, INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY AND PROVIDING NOT LESS THAN AN R-VALUE OF R-19.
H. THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION. THEREFORE, AS AN EXAMPLE, 13+17 MEANS R-13 CAVITY INSULATION PLUS R-13 CONTINUOUS INSULATION.
I. UNLESS WALLS SHALL BE IN ACCORDANCE WITH SECTION R402.2.5. THE SECOND R-VALUE APPLIES WHERE MORE THAN HALF OF THE INSULATION IS ON THE INTERIOR OF THE MASS WALL.

ENERGY CODE COMPLIANCE NOTES

- BUILDING DESIGNED IN ACCORDANCE WITH 2021 I.E.C.C. SECTION R402.1.5 AS AMENDED BY MARYLAND ALTERNATIVE ENERGY COMPLIANCE AND PERFORMANCE STANDARDS TOTAL UA ALTERNATIVE PER TABLE R402.1.3.1 MD ALTERNATIVE INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS.
- ALL MECHANICAL EQUIPMENT TO BE HIGH EFFICIENCY- SIZED IN ACCORDANCE W/ 2021 IECC SECTION - R403.6
- WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM TO BE PROVIDED IN ACCORDANCE W/ I.E.C.C. SECTION R403.5.0 & M501.3 OF 1.R.C. 2021.
- AIR DUCTS & MECHANICAL SYSTEMS OUTSIDE THE THERMAL ENVELOPE TO BE INSULATED WITH MIN. R-8 COVERING. AIR DUCT IN FLOORS OUTSIDE THE ENVELOPE SHALL BE MIN. R-6.
- HOT WATER PIPES SHALL HAVE MIN. R-2 PIPE INSULATION
- SEAL ALL AIR DUCTS IN ACCORDANCE WITH 2021 I.E.C.C. SECTION R403.2.2
- ALL PENETRATIONS THROUGH THERMAL ENVELOPE TO BE SEALED IN ACCORDANCE WITH IECC CHAPTER 4.
- BUILDING TO BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 3 AIR CHANGES PER HOUR AT 50 PA, PER IECC SECTION R402.4.1.2
- ALL FENESTRATION TO HAVE A U-FACTOR PER ALLOWABLE FENESTRATION U-FACTORS IN TABLE R402.1.2
- CEILING TO HAVE A MIN. R-VALUE OF - 49 EXCEPT WHERE INDICATED.
- WOOD FRAMED EXTERIOR WALLS TO HAVE A MIN. R-VALUE OF - 21
- FLOORS OVER UNCONDITIONED SPACE TO HAVE A MIN. R-VALUE OF - 30
- BASEMENT WALLS TO HAVE A MIN. R-VALUE OF R-11 CONTINUOUS OR R-15 CAVITY PER RESCHECK.
- PROVIDE 4' R-10 PERIMETER UNDER SLAB INSUL. @ LOCATIONS WHERE TOP OF SLAB IS 2' OR LESS BELOW EXTERIOR GRADE PER 2021 I.E.C.C. or AS AMENDED.
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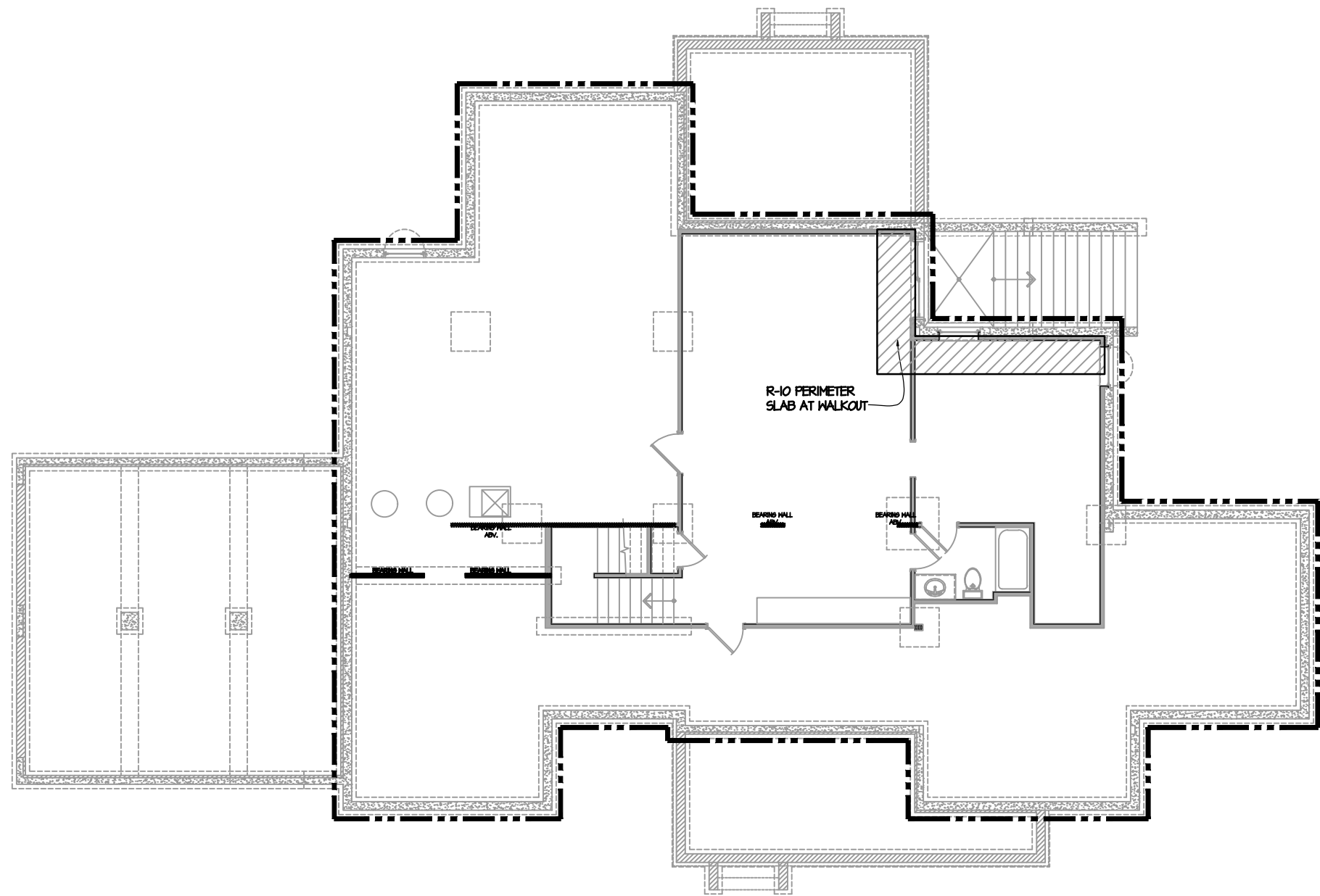


TYPICAL BUILDING SECTION

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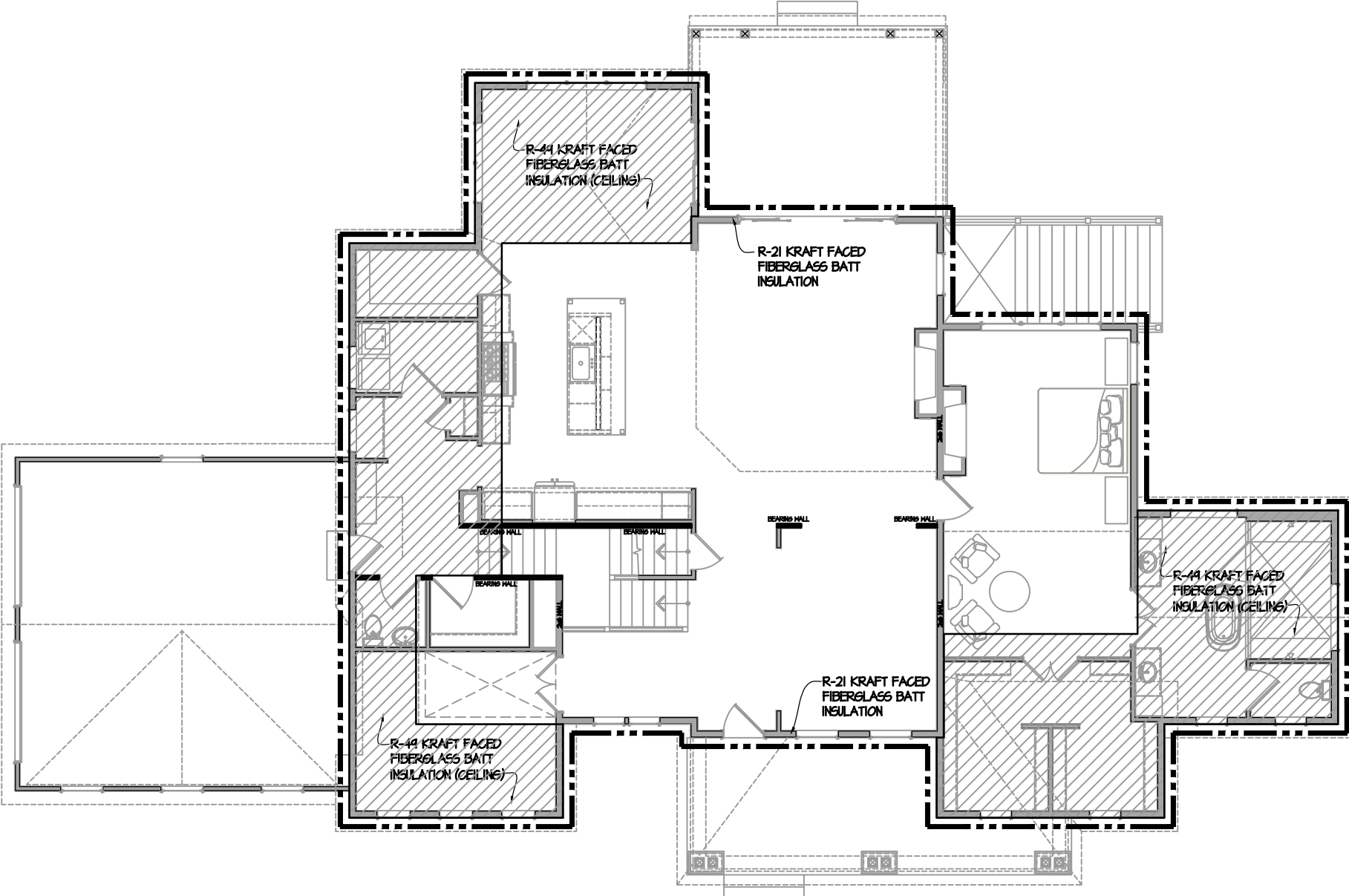
DRAWING SYMBOL LEGEND

- NEW CONCRETE FOUNDATION WALL
- NEW INTERIOR PARTITION - 2x4 WOOD STUDS AT 16" O.C. MAX. W/ 1/2" GYP. BD. EACH SIDE
- NEW EXTERIOR WALL - 2 X 6 WOOD STUDS AT 16" O.C. MAX. WITH R-21 BATT INSULATION, O.S.B. SHEATHING, W/ SIDING AS SELECTED
- BEARING WALL
- NEW WINDOW, TYP.
- NEW DOOR, TYP.
- LOCATION OF BUILDING THERMAL ENVELOPE
- R-49 FGL. INSUL. @ CEILING / R-30 FGL. INSUL. @ FLOOR / R-10 PERIMETER SLAB INSUL.
- R-30 FIBERGLASS BLOWN INSULATION W/ BAFFLES AS REQUIRED PER NII02.2.2 (27 S.F. W/ NO ATTIC)



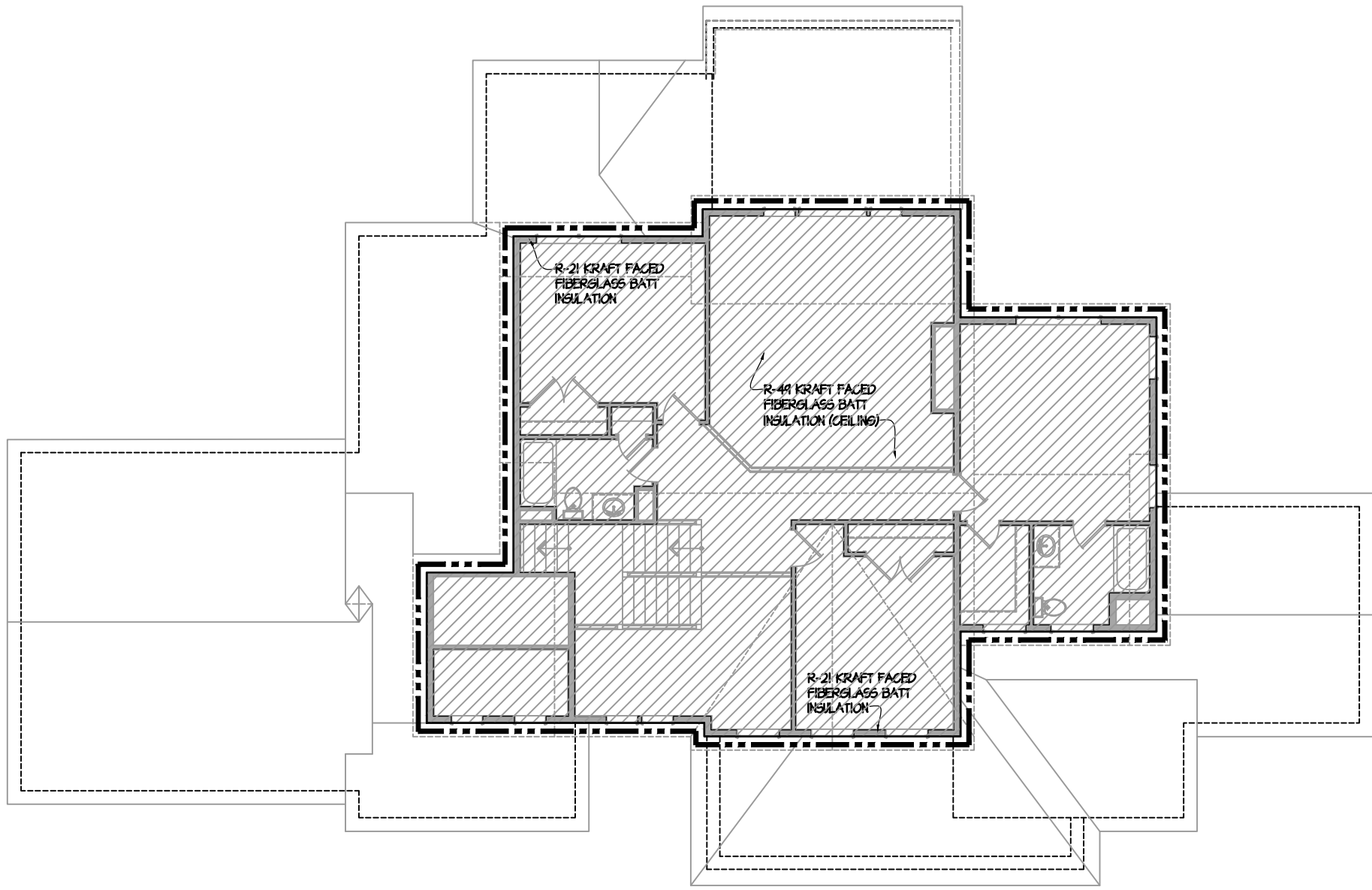
FOUNDATION PLAN

SCALE: 3/32"=1'-0"



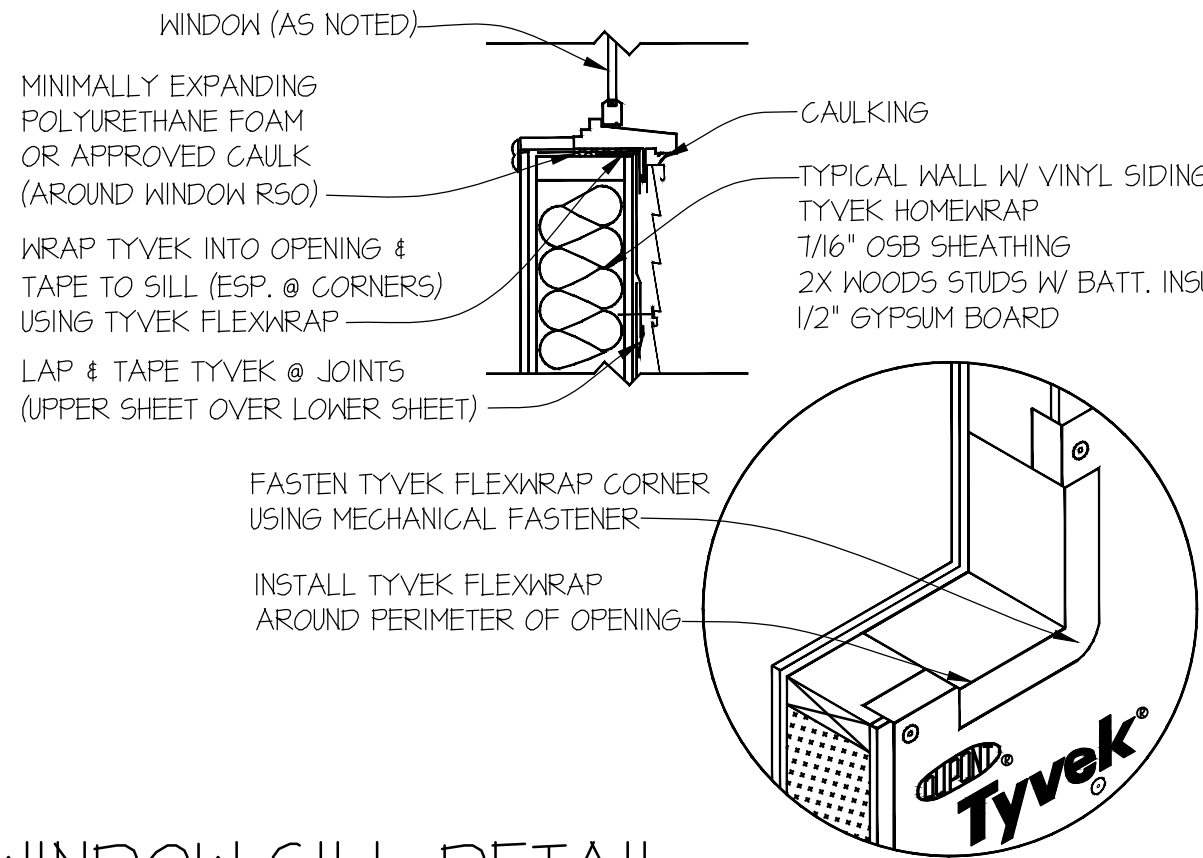
FIRST FLOOR PLAN

SCALE: 3/32"=1'-0"



SECOND FLOOR PLAN

SCALE: 3/32"=1'-0"



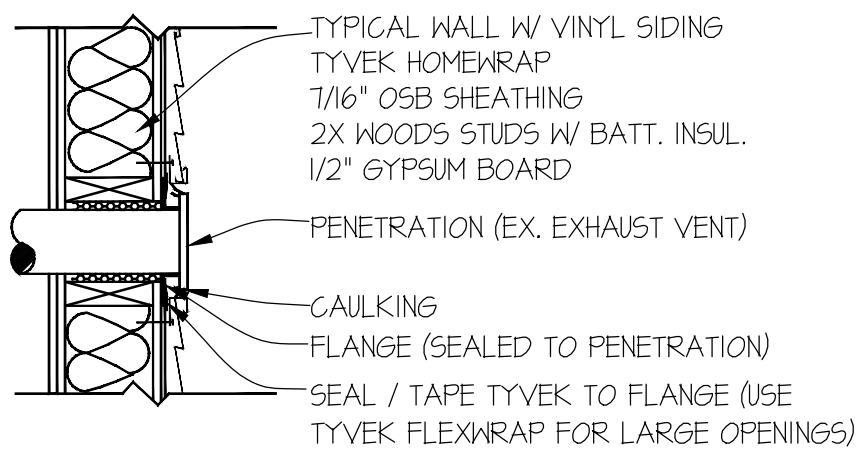
WINDOW SILL DETAIL

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RESIDENTIAL WOOD FRAME STRUCTURE W/ VINYL SIDING (HEATING CLIMATE)

TYVEK GENERAL NOTES:

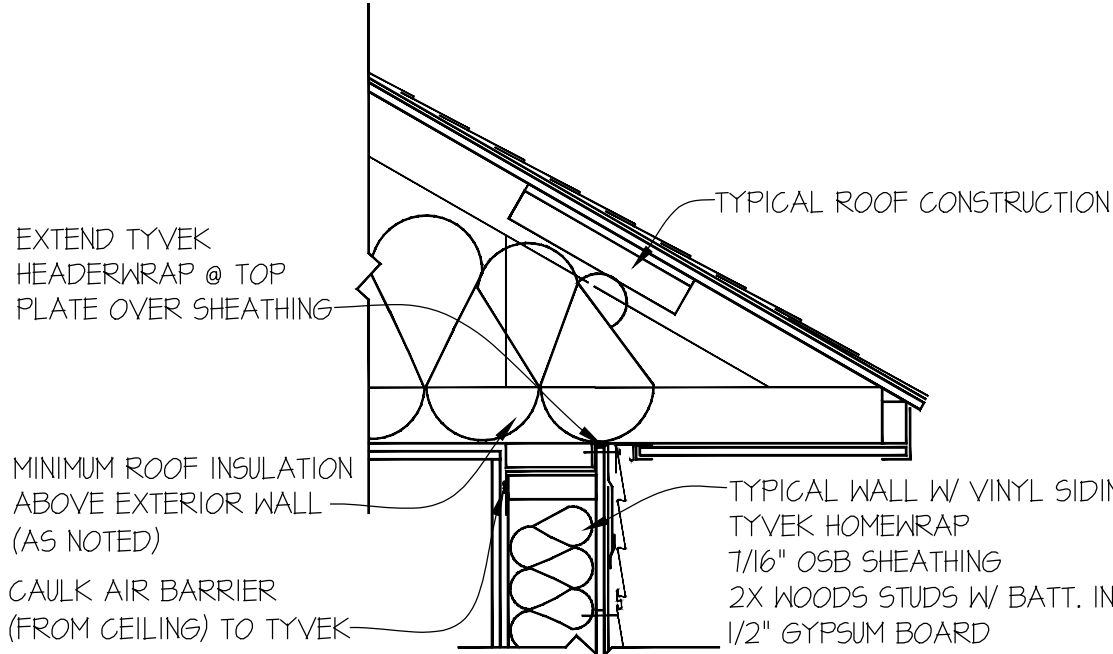
- SEAL ALL TYVEK JOISTS AND PENETRATIONS WITH APPROVED TAPE. (EX. DUPONT CONTRACTOR TAPE)
- FASTEN TYVEK TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (EX. DUPONT WRAPCAPS)
- SEAL OR GASKET BRICK TIES AT FACE OF TYVEK
- LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.



WALL PENETRATION

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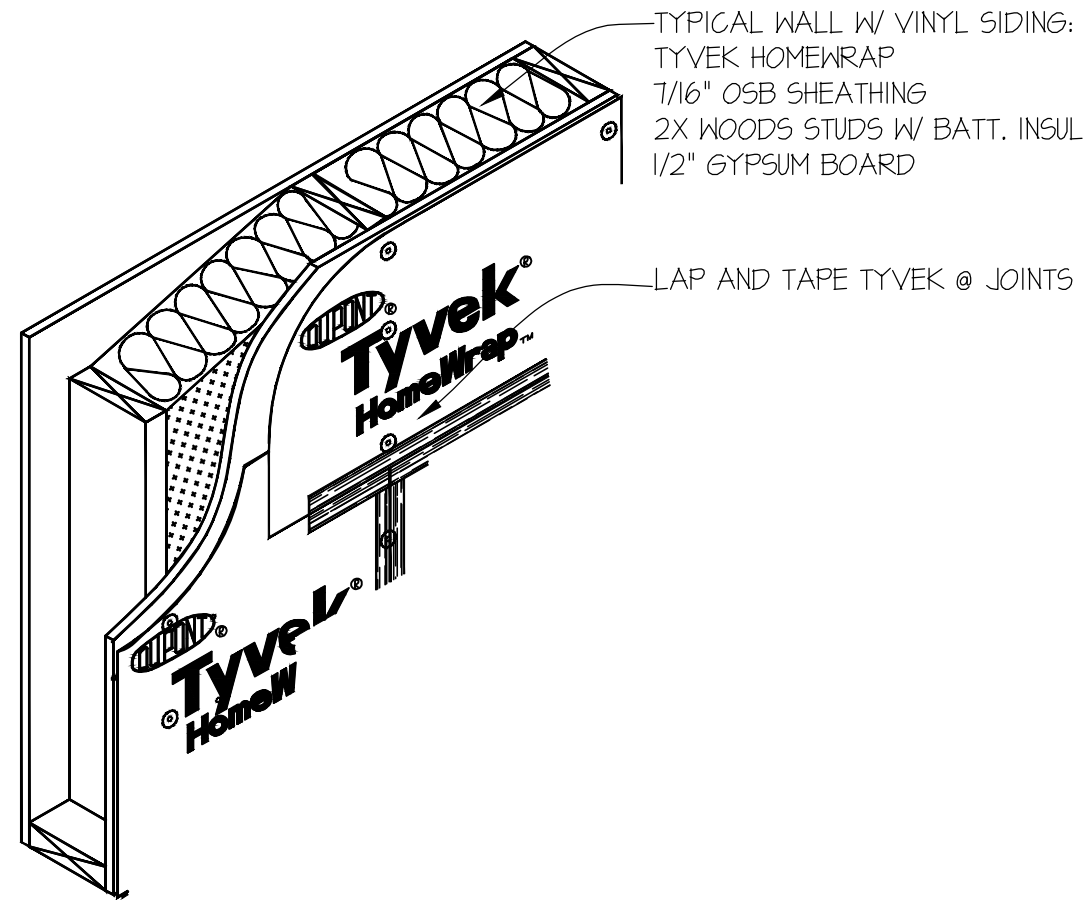
RESIDENTIAL WOOD FRAME STRUCTURE W/ VINYL SIDING (HEATING CLIMATE)



ROOF / WALL INTERFACE

SCALE: NTS

RESIDENTIAL WOOD FRAME STRUCTURE W/ VINYL SIDING (HEATING CLIMATE)



TYP. WALL ISOMETRIC

SCALE: NTS

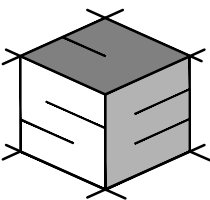
RESIDENTIAL WOOD FRAME STRUCTURE W/ VINYL SIDING (HEATING CLIMATE)

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STRUCTURAL ENGINEERING
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301-748-2769

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MICHIGAN.
LICENSE NO.:
EXPIRATION DATE:

ACL3 MODEL
Sundays Ln. Lot 3,
Frederick, MD 21702

JOB #:	B0491
REVISIONS:	DATE:
PERMIT SET	2/1/25
PLAN REVIEW COMMENTS	10/9/25

DATE: 2 - 01 - 2025

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PAGE DESCRIPTION:
ENERGY COMPLIANCE
NOTES & THERMAL
ENVELOPE DIAGRAMS

SHEET:

002

STAIR/RAIL NOTES

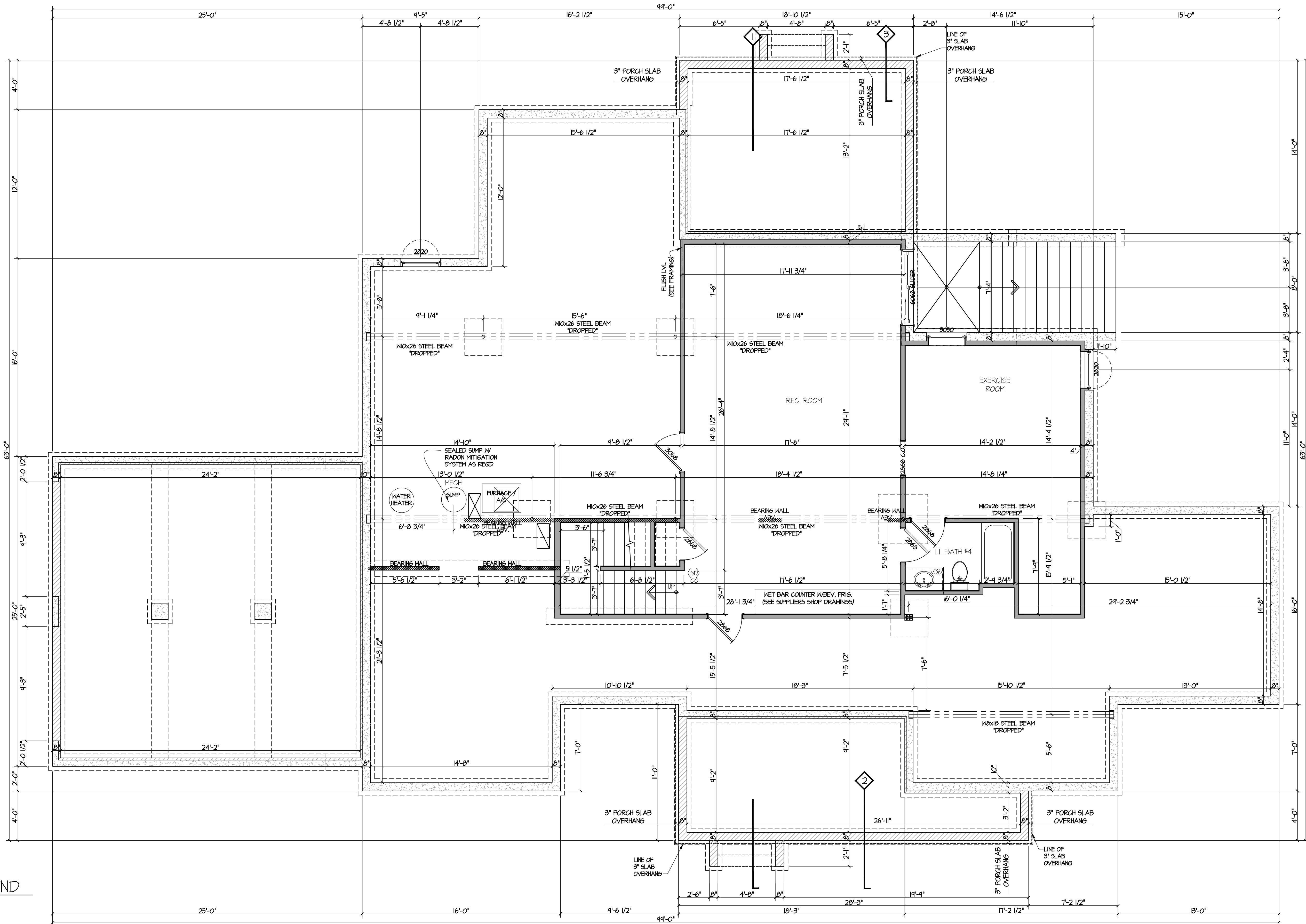
- HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONT. RUN OF TREADS OR FLIGHT WITH FOUR OR MORE RISERS
- HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, SHALL NOT BE LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES.
- HANDRAILS FOR STAIRWAYS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT FROM A POINT DIRECTLY ABOVE THE TOP RISER OF THE FLIGHT TO A POINT DIRECTLY ABOVE THE LOWEST RISER OF THE FLIGHT. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEKEL POSTS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 3/4" BETWEEN THE WALL AND THE HANDRAIL. HANDRAILS MAY BE PERMITTED TO BE INTERRUPTED BY A NEKEL POST AT THE TURN.
- THE DISTANCE FROM THE BOTTOM RAIL TO THE FINISHED FLOOR SURFACE SHALL NOT BE GREATER THAN 4 INCHES.
- VERTICAL BALUSTERS ARE REQUIRED TO BE SPACED SO AS NOT TO ALLOW A 4-INCH SPHERE TO PASS THROUGH.
- AT STAIR RAILINGS, THE TRIANGULAR OPENING FORMED BY THE RISER, TREAD AND BOTTOM ELEMENT OF THE GUARDRAIL AT THE OPEN SIDE OF A STAIRWAY SHALL NOT PERMIT A 6-INCH SPHERE TO PASS THRU.

PLAN NOTES

- EXTERIOR DIMENSIONS ARE FROM FACE OF WALL, INTERIOR DIMENSIONS ARE FROM FACE OF STUD.
- TYP. CONC. FOOTING: CONT. 16" X 8" DP. CONC. FOOTING WITH 3-#4 BARS.
- TYP. FOUNDATION WALL: 9" HIGH - CONC. WALLS SEE STRUCTURAL DRAWINGS FOR REINFORCING WITH DOWELS ON CONCRETE FOOTINGS.
- TYP. BASEMENT SLAB: 4" CONC. SLAB SEE STRUCTURAL DRAWINGS FOR REINFORCING OVER 6 MIL VAPOR BARRIER OVER 4" COMPACTED GRAVEL FILL PROVIDE 1/2" COMPRESSIBLE FILLER AT PERIMETER WALL. TYP. SEAL SLAB AFTER SLAB CURES W/ CONCRETE SEALER AS SELECTED.
- TYP. PORCH SLAB: 4" CONC. SLAB SEE STRUCTURAL DRAWINGS FOR REINFORCING OVER 10 MIL VAPOR BARRIER OVER 4" COMPACTED GRAVEL FILL PROVIDE 1/2" COMPRESSIBLE FILLER AT PERIMETER WALL W/ ELASTOMERIC SEALANT FLUSH W/SLAB. TYP. SEAL SLAB AFTER SLAB CURES W/ CONCRETE SEALER AS SELECTED. FINISH AS SELECTED
- TYPICAL BASEMENT INTERIOR PARTITION: 2X4 WOOD STUDS @ 16" O.C. WITH TREATED BOTTOM PLATE AND 1/2" GYP. BOARD EACH SIDE.
- TYPICAL FURRED FOUNDATION WALL - 2X4 WOOD FURRING @ 16" O.C. W/ R-II BATT INSULATION AND 1/2" GYP. BD.
- PROVIDE COMBO CO/SMOKE DETECTORS ON EACH FLOOR AND IN THE VICINITY OF ALL BEDROOMS. PROVIDE SMOKE DETECTORS IN ALL BEDROOMS
- PROVIDE EGRESS WINDOW FROM BEDROOM WITH MIN. 5.7 SQ.FT. CLEAR OPENING W/ MAX. SILL HEIGHT 44" AND MIN. CLEAR WIDTH 22".
- PROVIDE ARTIFICIAL LIGHT AND VENTILATION WITH EXHAUST TO THE EXTERIOR FOR BATHROOM.
- TYP. FLOOR CONST.: 14" ENGINEERED WOOD FLOOR TRUSSES AT 19.2" O.C. WITH 3/4" T&G SHEATHING GLUED AND SCREWED WITH FIN. FLOOR AS SELECTED.
- WINDOWS - DESIGNATION ARE CALLED OUT IN FEET & INCHES

DRAWING SYMBOL LEGEND

- NEW CONCRETE FOUNDATION WALL
- NEW INTERIOR PARTITION - 2x4 WOOD STUDS AT 16" O.C. MAX. W/ 1/2" GYP. BD. EACH SIDE
- NEW EXTERIOR WALL - 2 X 6 WOOD STUDS AT 16" O.C. MAX. WITH R-21 BATT INSULATION O.S.B. SHEATHING, W/ SIDING AS SELECTED
- BEARING WALL
- INTERIOR WALL W/ SOUND ATTENUATION BATTS
- NEW WINDOW, TYP.
- NEW DOOR, TYP.



FINISHED BASEMENT PLAN

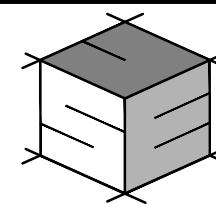
SEE SHEET 5001 FOR ENGINEERED FOUNDATION PLAN

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

LAINE STREET HOMES LLC

244 N Market St
Frederick, MD 21701
(301)524-4471
MikeMuren@buildersnationalcooperative.com

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STRUCTURAL ENGINEERING
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FREDERICK, MD 21701
240-815-6760
301-748-2769

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LICENSE NO.:
EXPIRATION DATE:

ACL3 MODEL
Sundays Ln. Lot 3,
Frederick, MD 21702

JOB #:	B0491
REVISIONS:	DATE:
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DATE: 2 - 01 - 2025

SCALE: AS SHOWN

PAGE DESCRIPTION:

FINISHED
BASEMENT PLAN

SHEET:

A001

STAIR/RAIL NOTES

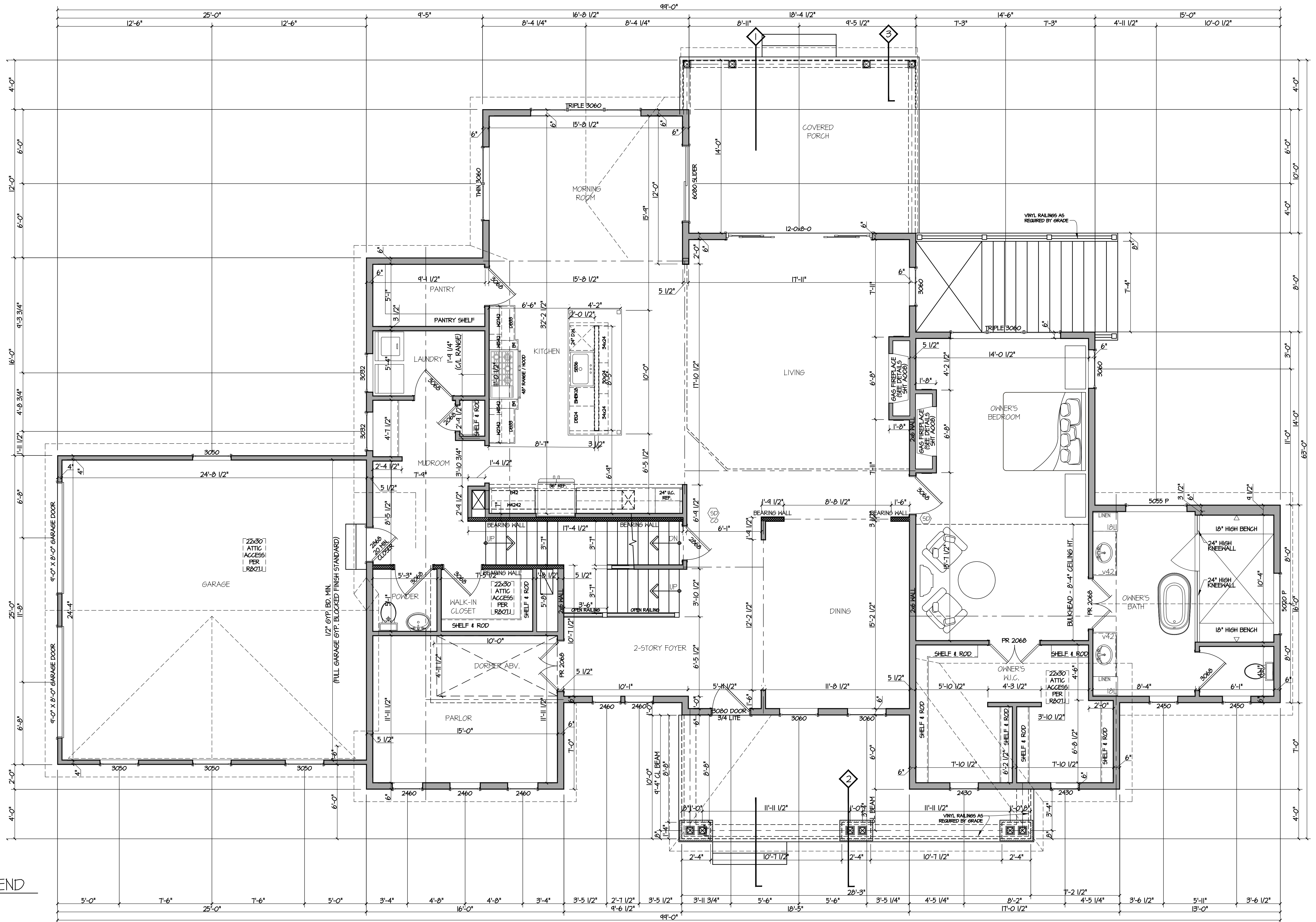
- HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH FOUR OR MORE RISERS
- HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, SHALL NOT BE LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES.
- HANDRAILS FOR STAIRWAYS SHALL BE CONTINUOUS FROM A POINT DIRECTLY ABOVE THE TOP RISER OF THE FLIGHT TO A POINT DIRECTLY ABOVE THE LOWEST RISER OF THE FLIGHT. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEVEL POSTS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1/4" BETWEEN THE WALL AND THE HANDRAIL. HANDRAILS MAY BE PERMITTED TO BE INTERRUPTED BY A NEVEL POST AT THE TURN.
- THE DISTANCE FROM THE BOTTOM RAIL TO THE FINISHED FLOOR SURFACE SHALL NOT BE GREATER THAN 4 INCHES.
- VERTICAL BALUSTERS ARE REQUIRED TO BE SPACED 50 AS NOT TO ALLOW A 4-INCH SPHERE TO PASS THROUGH.
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PLAN NOTES

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- TYP. EXTERIOR WALL: 2X6 WOOD STUDS AT 16" O.C. W/ R-21 BATT INSUL, 1/16" O.S.B. SHEATHING, TYVEK AIR INFILTRATION AND AIR BARRIER AND HARDIE PLANK SIDING WITH 1/2" GYP. BOARD INTERIOR FINISH - BASE, CROWN AND CHAIR MOLDING AS SELECTED.
- TYP. INTERIOR PARTITION: 2X4 WOOD STUDS AT 16" O.C. W/ 1/2" GYP. BD. EA. SIDE. PROVIDE WATER RESISTANT GYP. BD. AT SINK LOCATIONS AND BATHROOMS.
- PROVIDE 1/2" DUROCK UNDERLAYMENT UNDER ALL CERAMIC TILE.
- PROVIDE COMBO CO/SMOKE DETECTORS ON EACH FLOOR AND IN THE VICINITY OF ALL BEDROOMS. PROVIDE SMOKE DETECTORS IN ALL BEDROOMS.
- PROVIDE EGRESS WINDOW FROM 2ND FLOOR BEDROOMS WITH MIN. 5.7 SQ.FT. CLEAR OPENING W/ MAX. SILL HEIGHT 44" AND MIN. CLEAR WIDTH 22".
- PROVIDE ARTIFICIAL LIGHT AND VENTILATION WITH EXHAUST TO THE EXTERIOR FOR BATHROOMS.
- CABINETS, COUNTERTOPS, APPLIANCES, FIXTURES AND FLOORING AS SELECTED.
- PROVIDE BATH TUB AND DIVERTER ACCESS PANELS.
- TYP. FLOOR CONSTRUCTION: 14" ENGINEERED WOOD FLOOR TRUSSES AT 14'-2" O.C. WITH 3/4" 1/2" SHEATHING GLUED AND SCREENED WITH FIN. FLOOR AS SELECTED.
- WINDOWS - DESIGNATION ARE CALLED OUT IN FEET & INCHES

DRAWING SYMBOL LEGEND

- NEW CONCRETE FOUNDATION WALL
- NEW INTERIOR PARTITION - 2x4 WOOD STUDS AT 16" O.C. MAX. W/ 1/2" GYP. BD. EACH SIDE
- NEW EXTERIOR WALL - 2 X 6 WOOD STUDS AT 16" O.C. MAX. WITH R-21 BATT INSULATION, O.S.B. SHEATHING, W/ SIDING AS SELECTED
- BEARING WALL
- INTERIOR WALL W/ SOUND ATTENUATION BATTS
- NEW WINDOW, TYP.
- NEW DOOR, TYP.



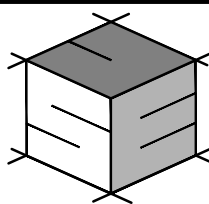
FIRST FLOOR PLAN

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

LAINE STREET HOMES LLC

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MikeMuren@buildersnationalcooperative.com

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301-748-2769

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EXPIRATION DATE: _____

ACL3 MODEL
Sundays Ln. Lot 3,
Frederick, MD 21702

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PLAN REVIEW COMMENTS	10/9/25

DATE: 2 - 01 - 2025

SCALE: AS SHOWN

PAGE DESCRIPTION:

FIRST FLOOR PLAN

SHEET:

A002

1. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH FOUR OR MORE RISERS
2. HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, SHALL NOT BE LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES.
3. HANDRAILS FOR STAIRWAYS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT FROM THE POINT DIRECTLY ABOVE THE TOP RISER OF THE FLIGHT TO A POINT DIRECTLY ABOVE THE LOWEST RISER OF THE FLIGHT. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEKEL POSTS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1" BETWEEN THE WALL AND THE HANDRAILS MAY BE PERMITTED TO BE INTERRUPTED BY A NEKEL POST AT THE TURN.
4. THE DISTANCE FROM THE BOTTOM RAIL TO THE FINISHED FLOOR SURFACE SHALL NOT BE GREATER THAN 4 INCHES.
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6. PROVIDE EGRESS WINDOW FROM 2ND FLOOR BEDROOMS WITH MIN. 57 SQ.FT. CLEAR FINISH W/ MAX. SILL HEIGHT 44" AND MIN. CLEAR WIDTH 22".
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8. CABINETS, COUNTERTOPS, APPLIANCES, FIXTURES AND FLOORING AS SELECTED.
9. PROVIDE BATH TUB AND DIVERTER ACCESS PANELS.
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11. WINDOWS - DESIGNATION ARE CALLED OUT IN FEET & INCHES

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 BEARINGS WALL

 INTERIOR WALL W/ SOUND ATTENUATION BATTS

 NEW WINDOW, TYP.

 NEW DOOR, TYP.

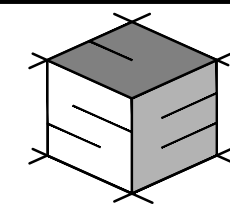


SECOND FLOOR PLAN

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

244 N Market St
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(301)524-4471
likeMuren@buildersnationalcooperative.com

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301-748-2769

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CERTIFY THAT THESE DOCUMENTS WERE
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LICENSE NO.:
EXPIRATION DATE:

ACL3 MODEL
Sundays Ln. Lot 3,
Frederick, MD 21702

JOB #:		BO491	
REVISIONS:		DATE:	
PERMIT SET		2/1/25	
PLAN REVIEW COMMENTS		10/9/25	
REVISIONS		0/21/23	
DATE:		2 - 07 - 2025	
SCALE:		AS SHOWN	
PAGE DESCRIPTION:			

SECOND FLOOR PLAN

SHEET:
A003



FRONT ELEVATION

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

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Frederick, MD 21702

JOB #:	B0491
REVISIONS:	DATE:
PERMIT SET	2/1/25
PLAN REVIEW COMMENTS	10/9/25

DATE: 2 - 01 - 2025

SCALE: AS SHOWN

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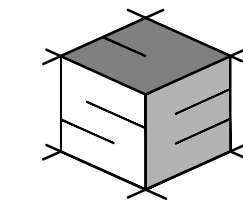
ELEVATIONS

SHEET:
A004

Laine Street Homes LLC
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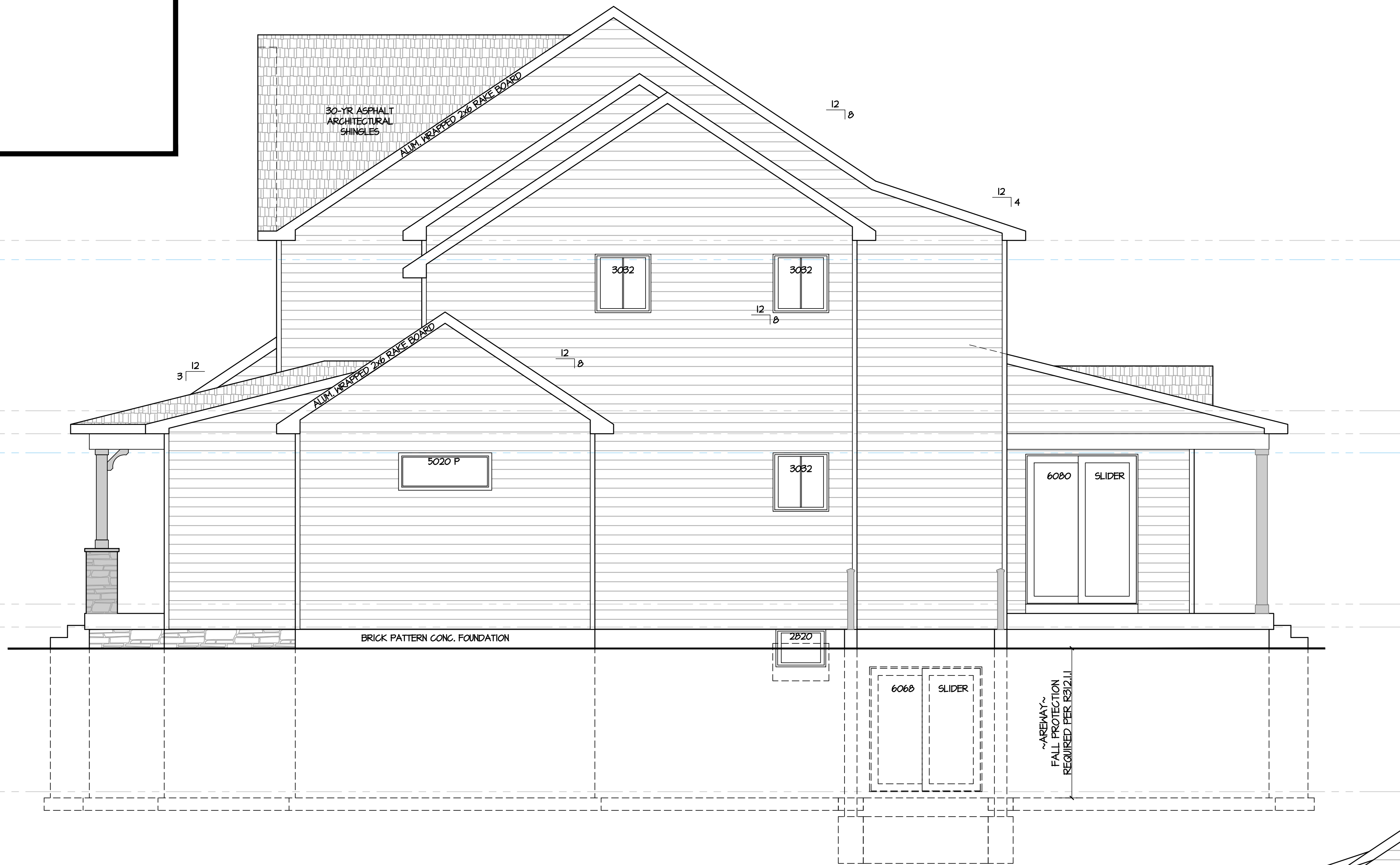
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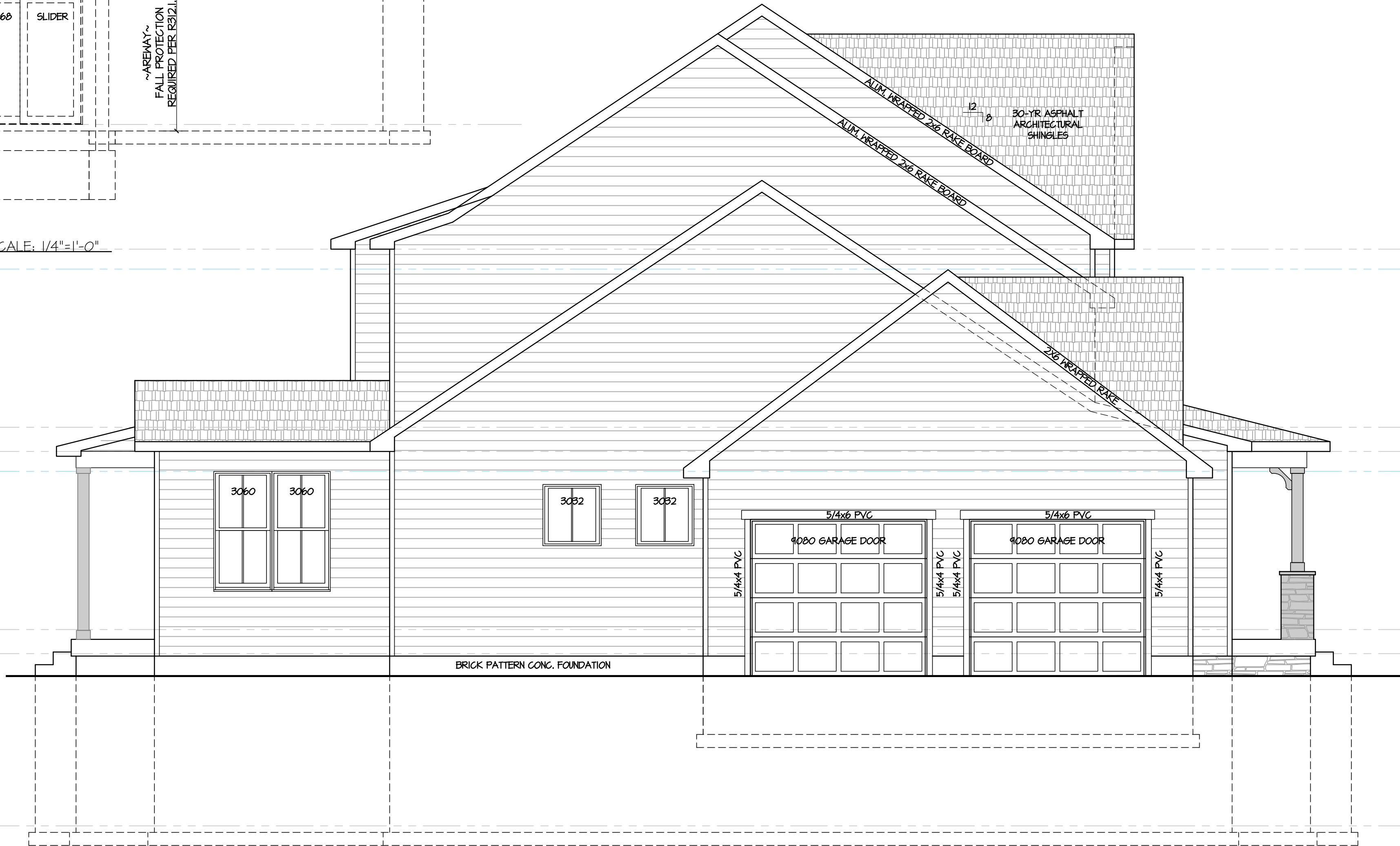
ELEVATIONS

SHEET:
A005



RIGHT SIDE ELEVATION

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

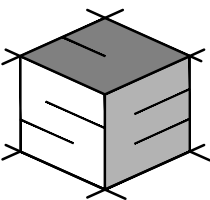


LEFT SIDE ELEVATION

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

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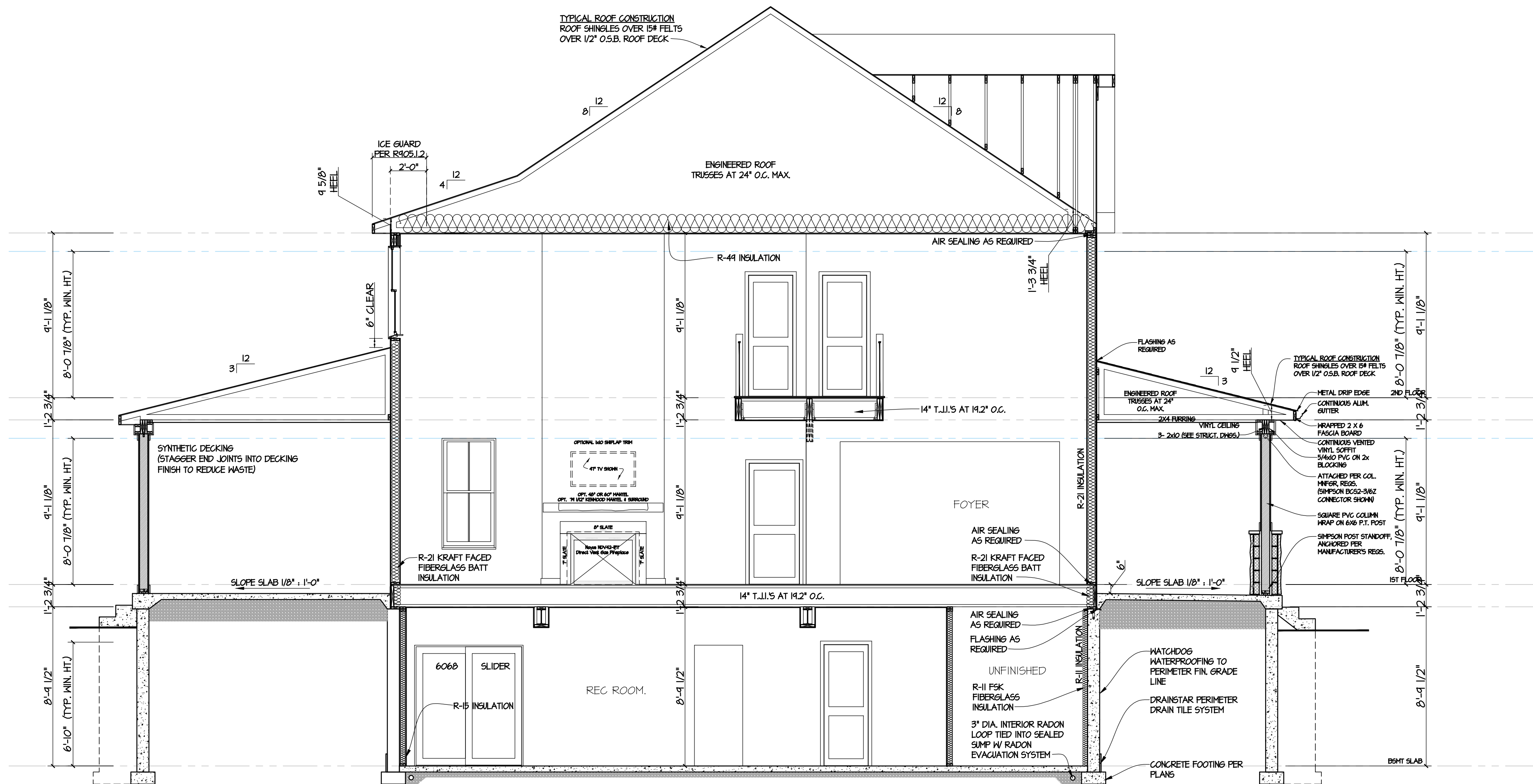
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Sundays Ln. Lot 3,
Frederick, MD 21702

JOB #:	B0491
REVISIONS:	DATE:
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PLAN REVIEW COMMENTS	10/9/25
DATE:	2 - 01 - 2025
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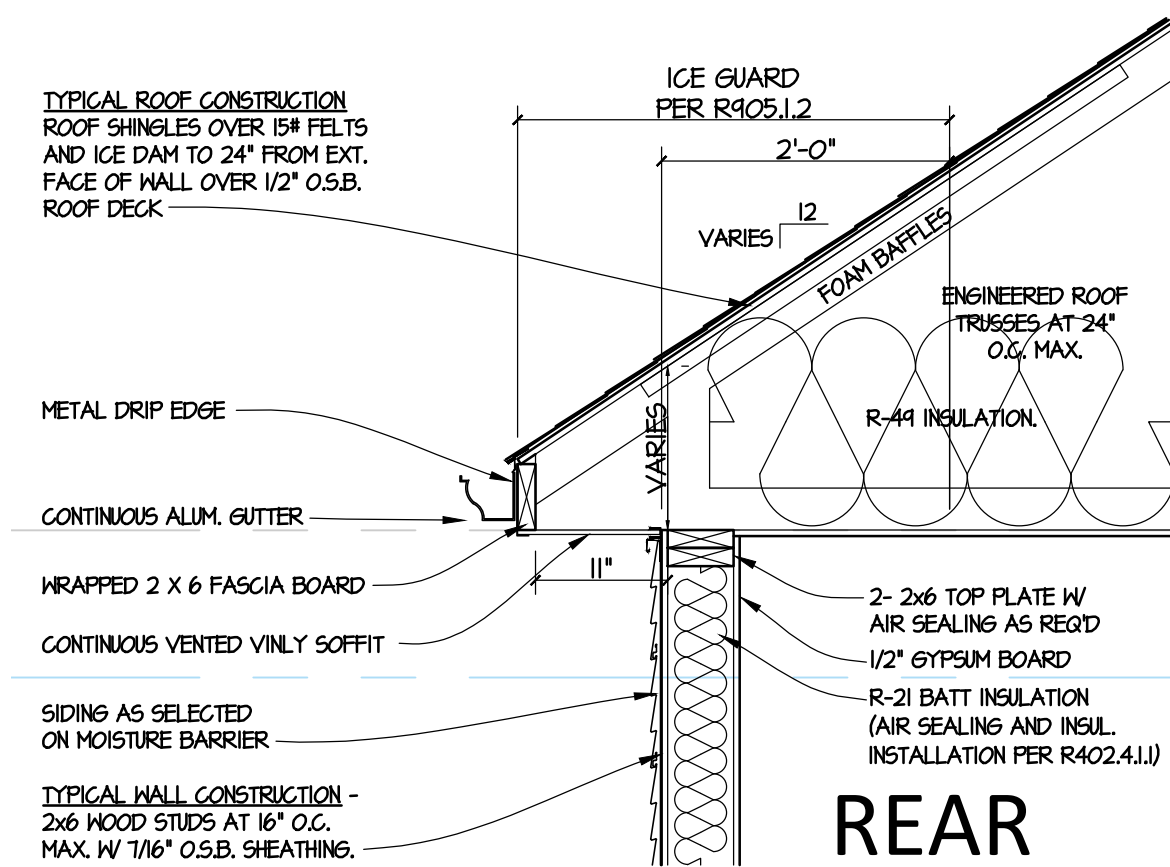
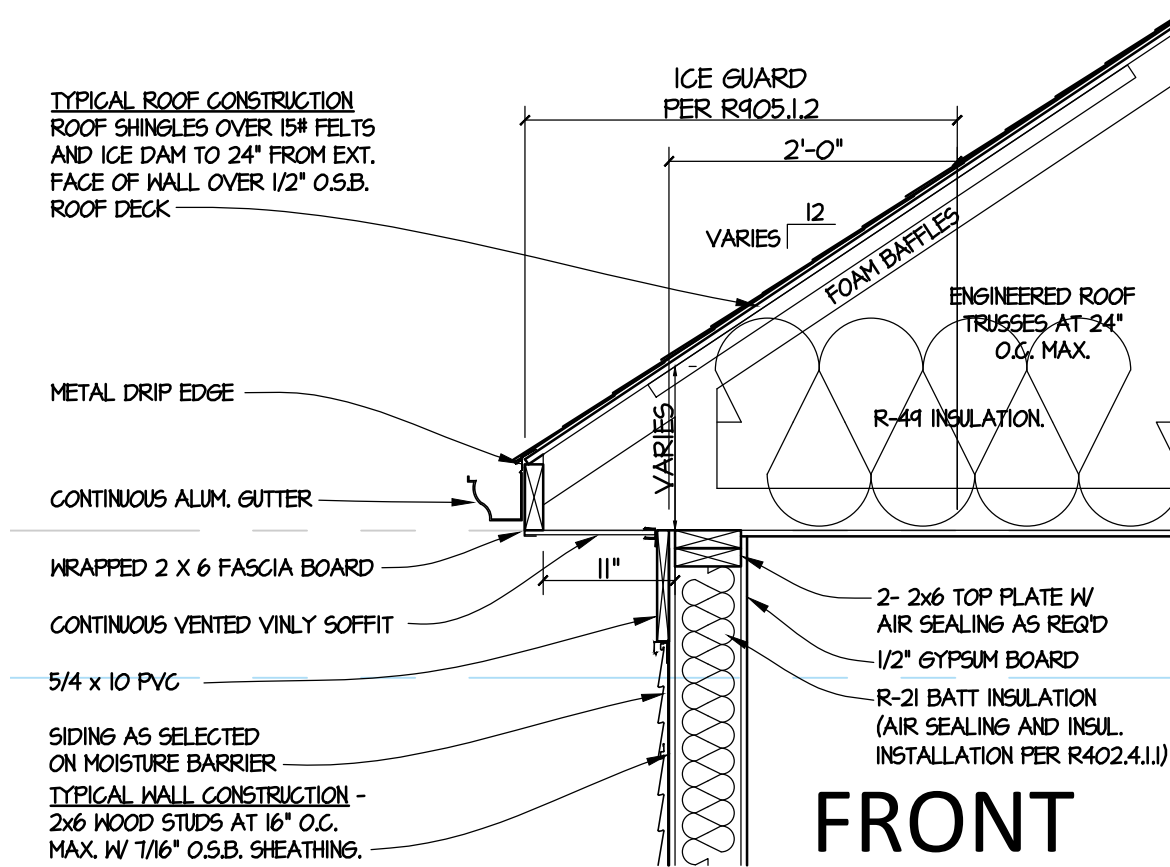
ELEVATIONS

SHEET:
A006



BUILDING SECTION

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



TYPICAL EAVE DETAILS

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

Laine Street Homes LLC
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MikeMuren@buildersnationalcooperative.com

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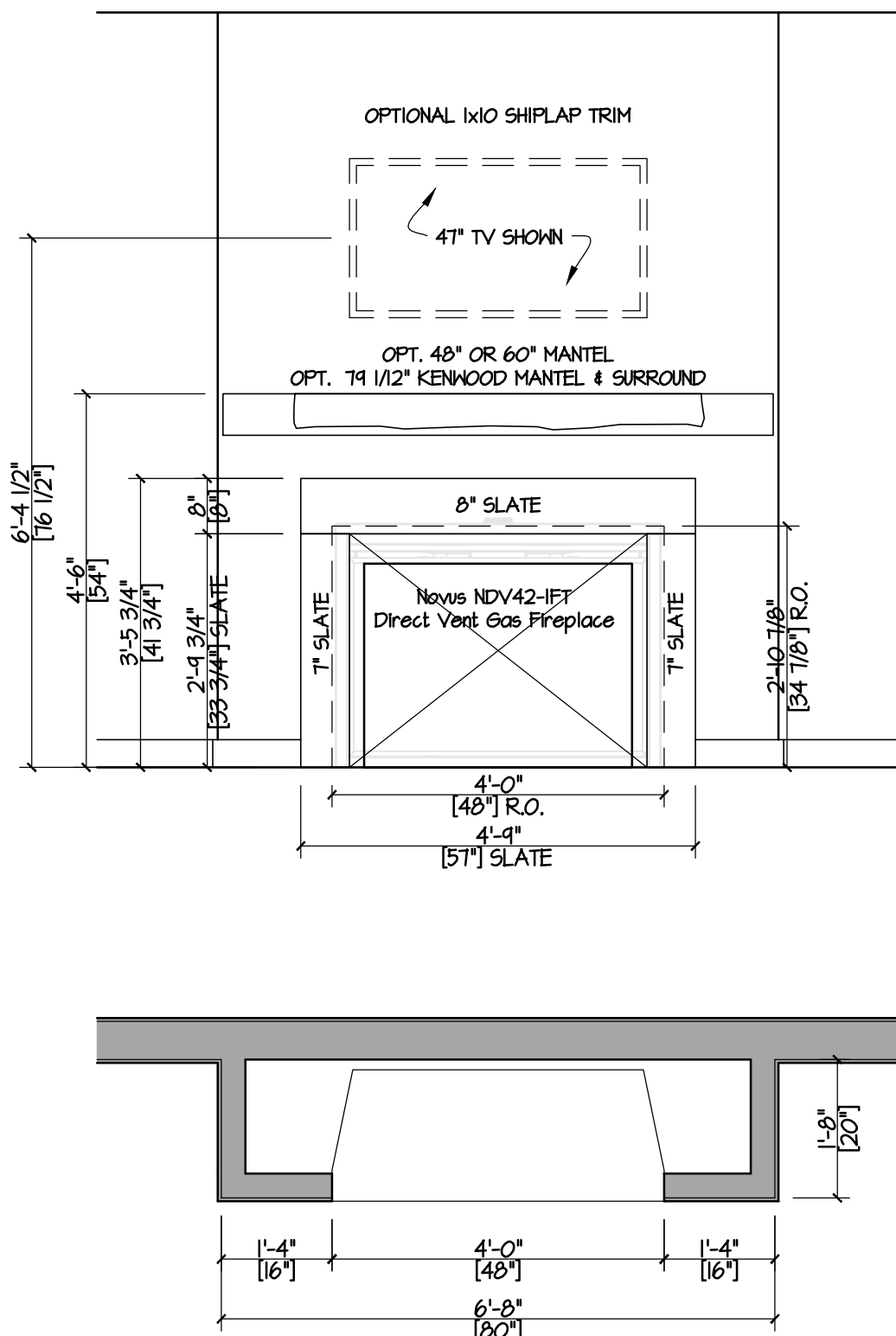
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SECTIONS &
DETAILS

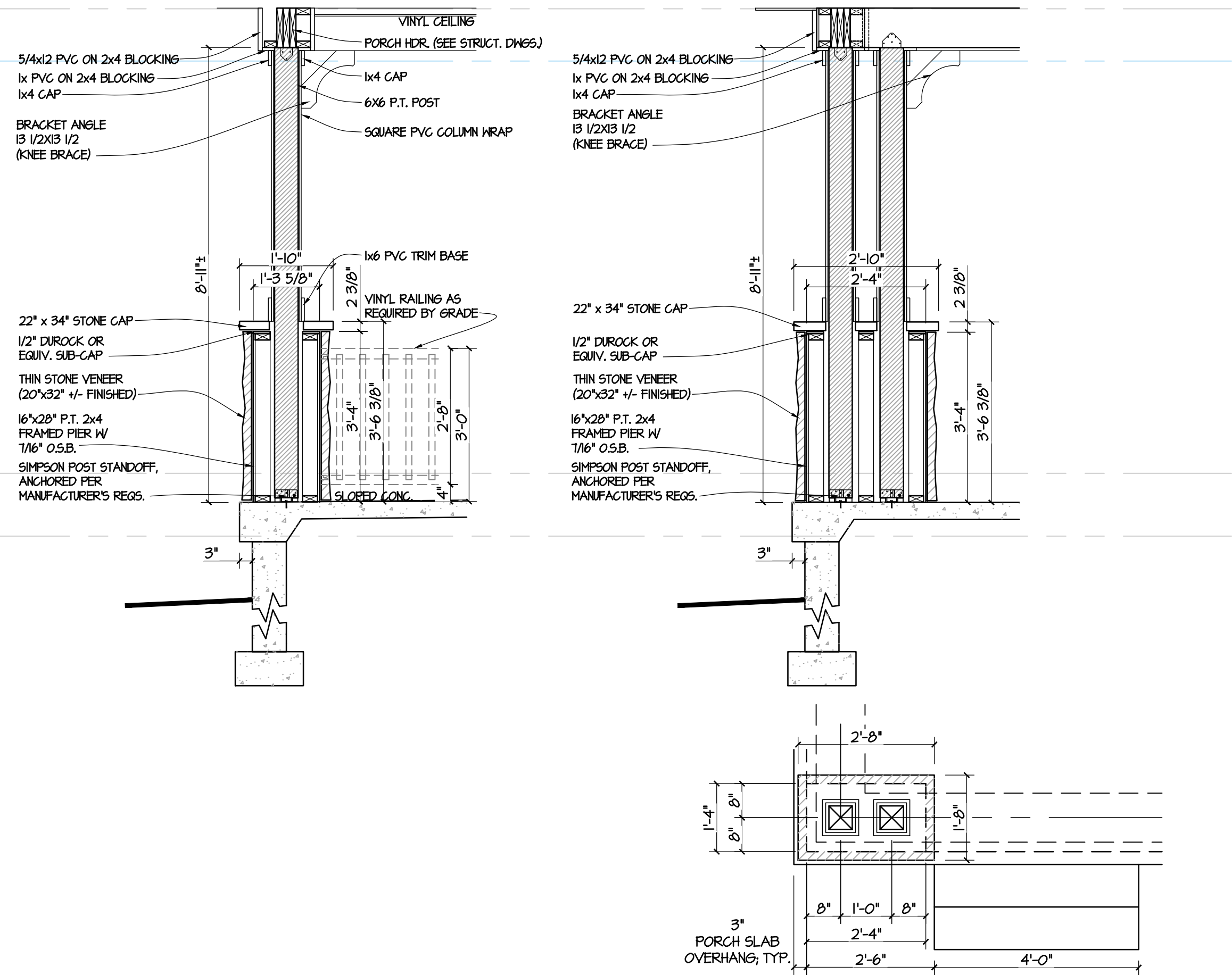
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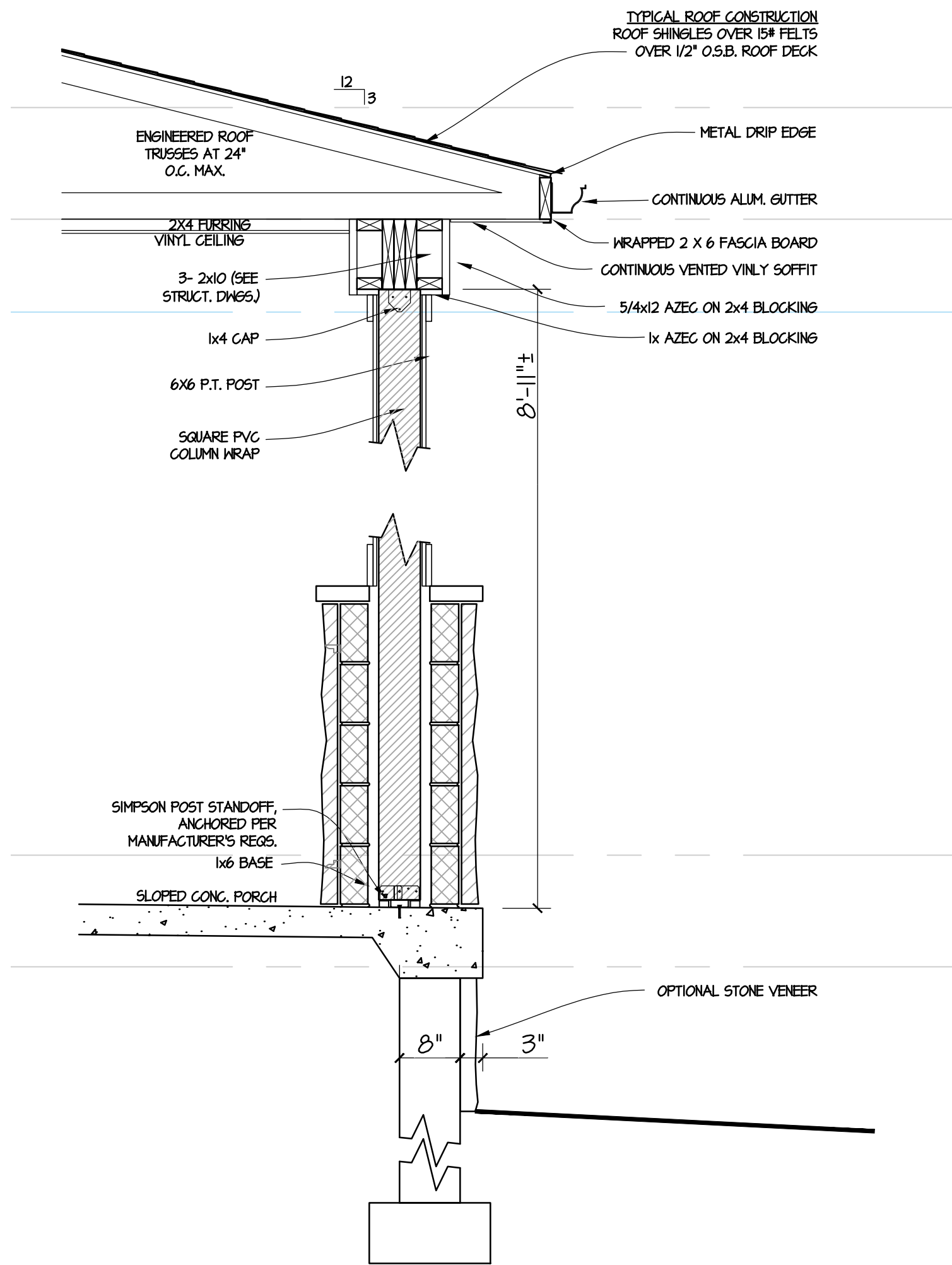


FIREPLACE LEVEL B GAS (TRADITIONAL)
Novus NDV42-IFT Direct Vent Gas Fireplace
Rough in framing: 48"W x 34 7/8"H x 19 5/8"D
Dimension with Surround: 57"W x 41 3/4"H
Total Fireplace Enclosure Dimension: 72"W x Ceiling Height x 20"D

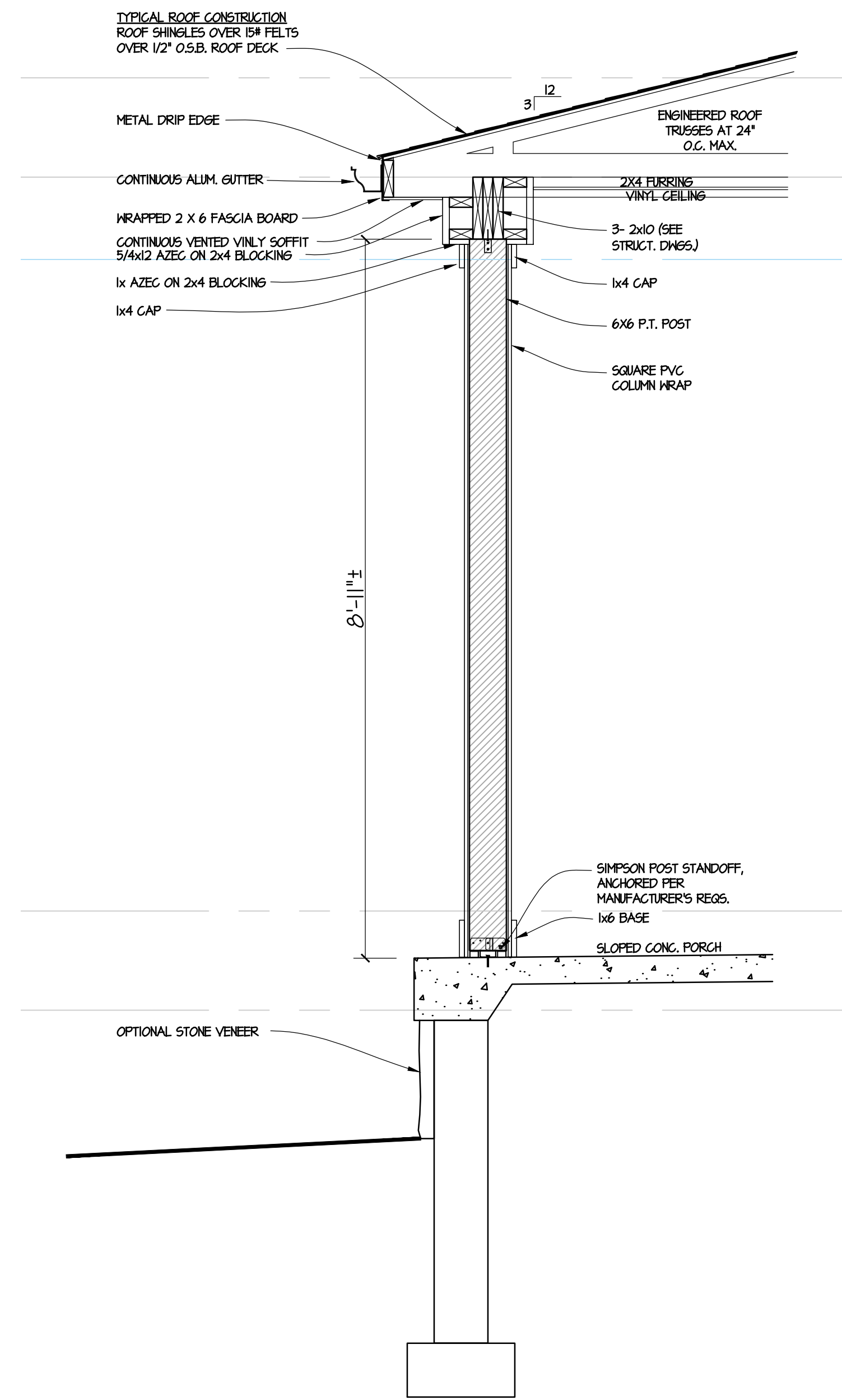
FIREPLACE DETAILS SCALE: 1/2"=1'-0"



PORCH COLUMN DETAILS SCALE: 1/2"=1'-0"



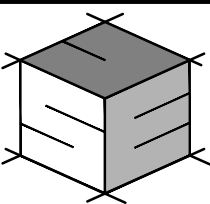
2 PORCH SECTION SCALE: 3/4"=1'-0"



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

LAIN STREET HOMES LLC
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LICENSE NO. _____
EXPIRATION DATE: _____

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Sundays Ln. Lot 3,
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JOB #:	B0491
REVISIONS:	DATE:
PERMIT SET	2/1/25
PLAN REVIEW COMMENTS	10/9/25

DATE: 2 - 01 - 2025

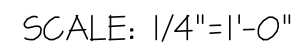
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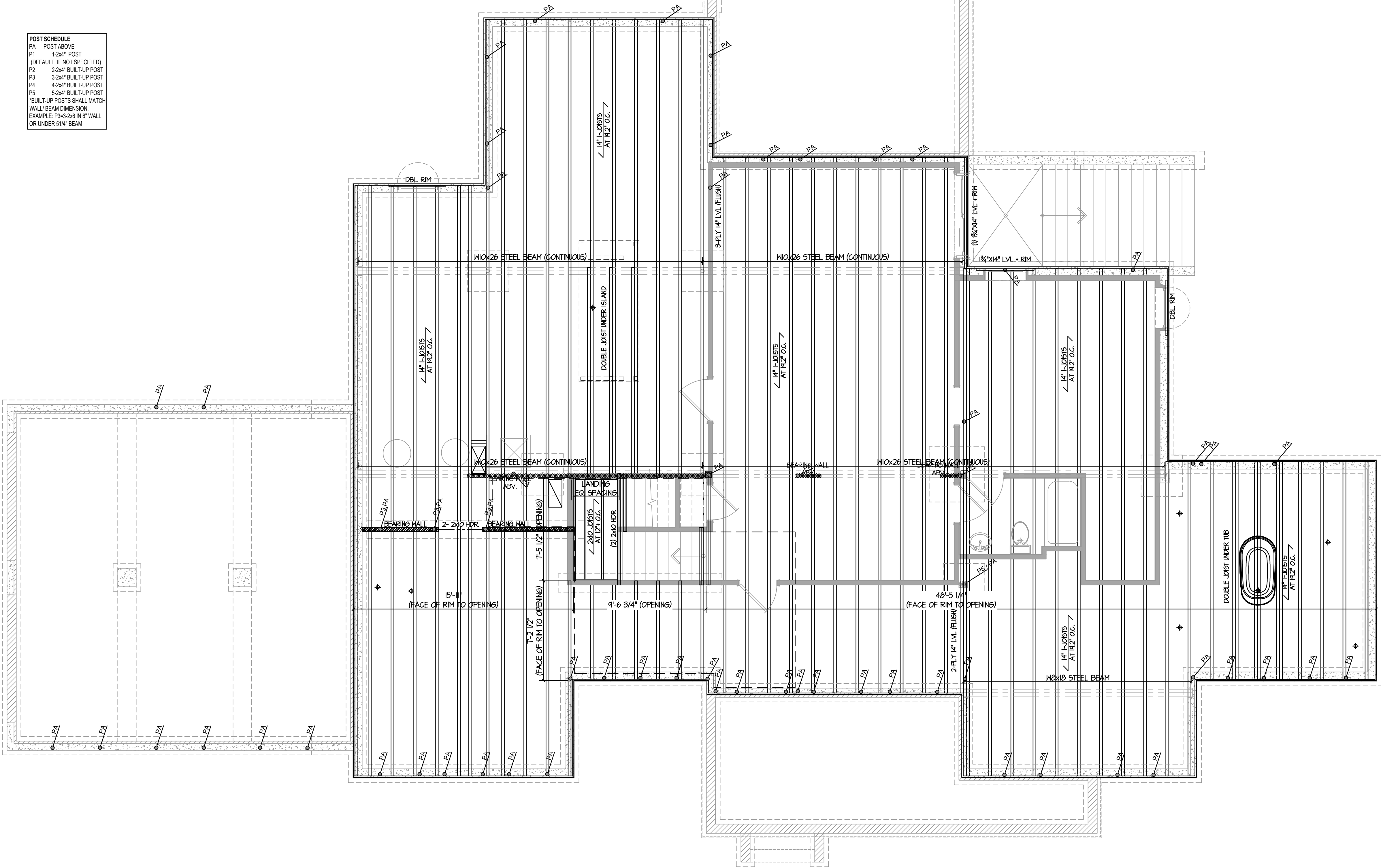
SECTIONS &
DETAILS

SHEET:

A008



NOTE:
REFER TO TRUSS SUPPLIER'S ENGINEERED
TRUSS LAYOUT AND SHOP DRAWINGS



FIRST FLOOR FRAMING PLAN

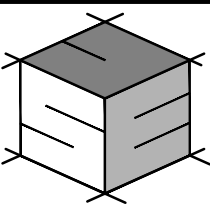
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UNDER THE LAWS OF THE STATE OF
MARYLAND.
LICENSE NO.: 24518
EXPIRATION DATE: 09-21-2025

ACL3 MODEL
Sundays Ln. Lot 3,
Frederick, MD 21702

JOB #: B0491

REVISIONS:	DATE:
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PLAN REVIEW COMMENTS	10/9/25

DATE: 2 - 01 - 2025

SCALE: AS SHOWN

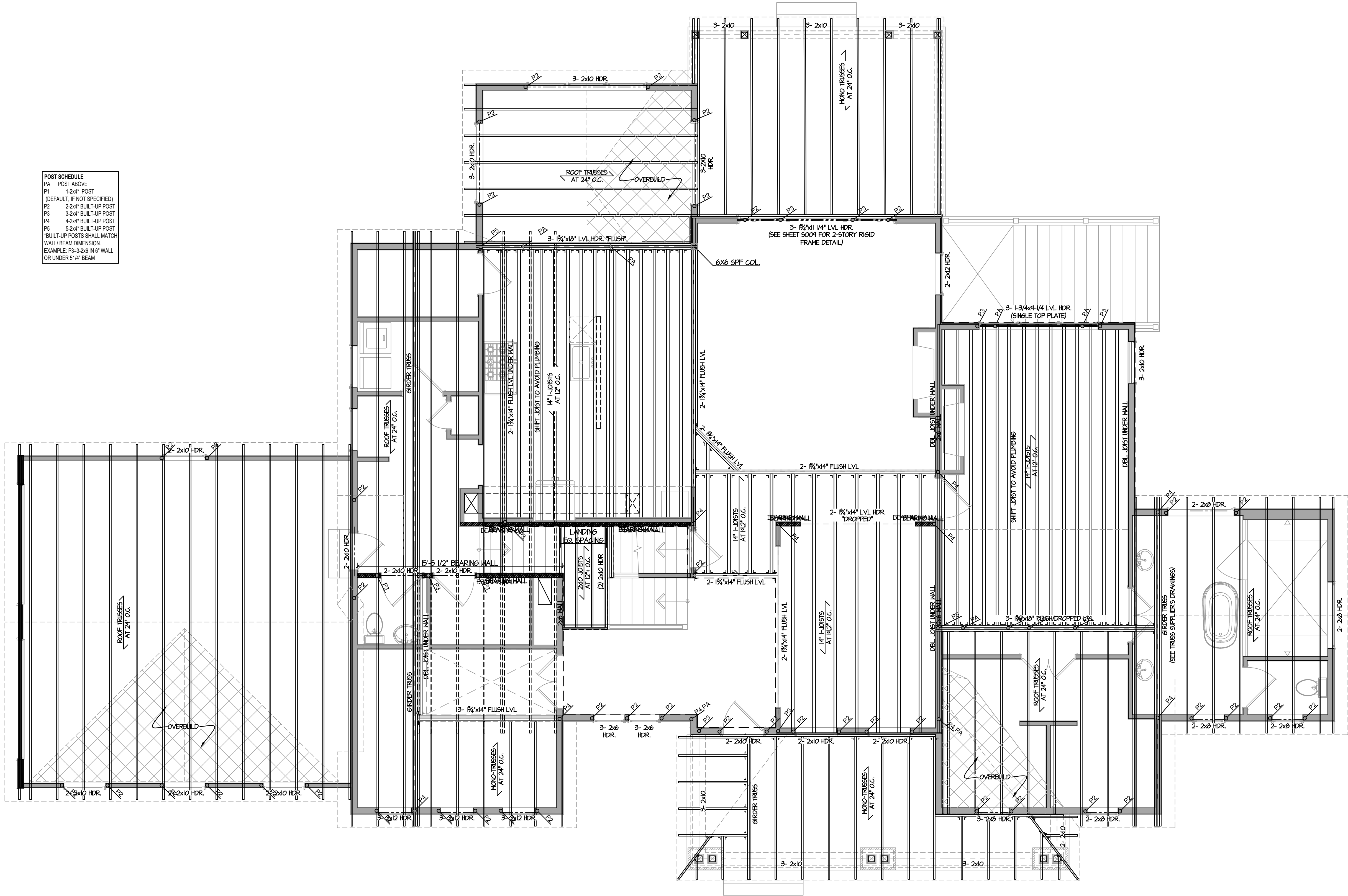
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FIRST FLOOR
FRAMING PLAN

SHEET:

S002

NOTE:
REFER TO TRUSS SUPPLIER'S ENGINEERED
JOIST/TRUSS LAYOUT AND SHOP DRAWINGS



SECOND FLOOR FRAMING PLAN

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

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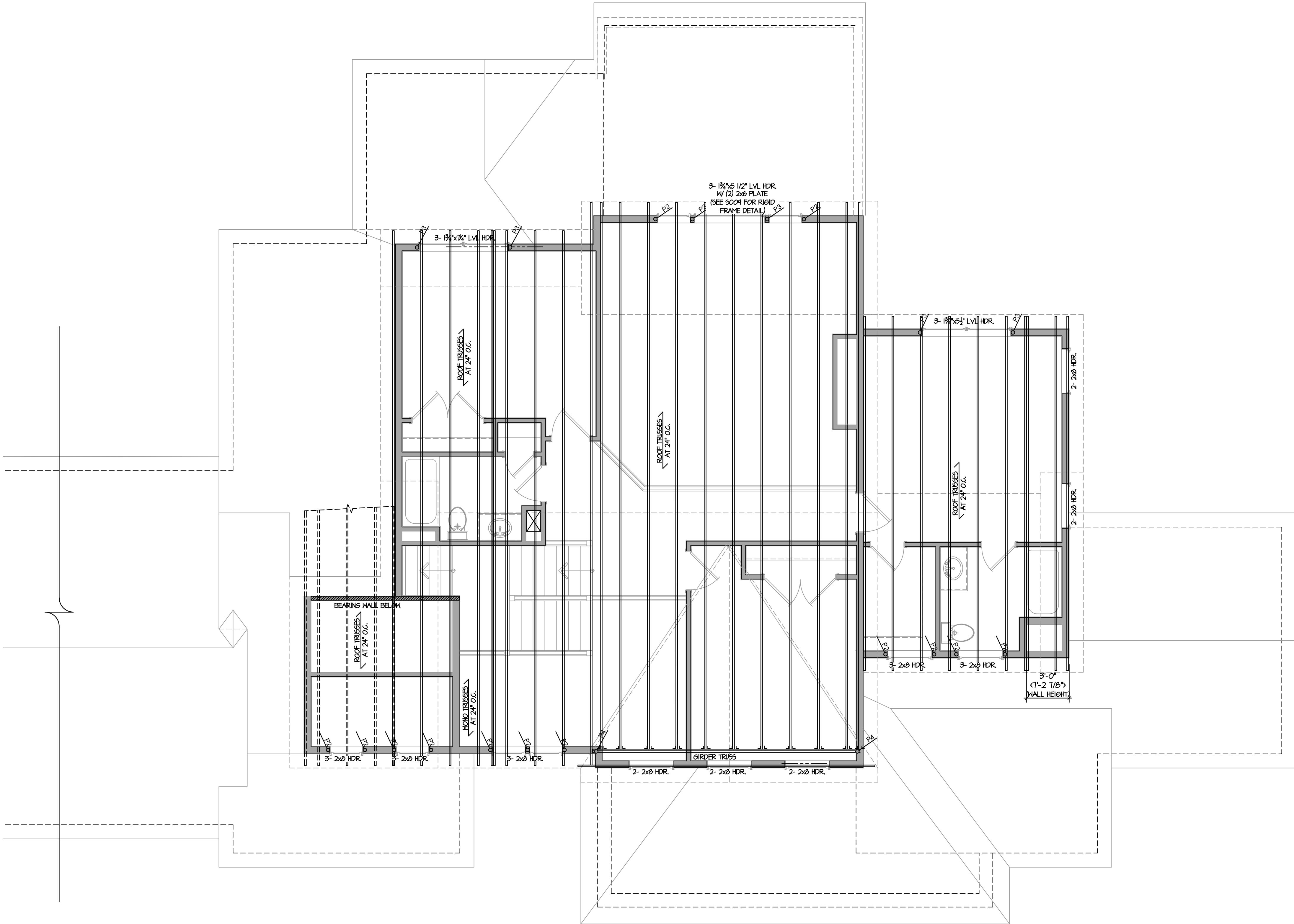
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ACL3 MODEL
Sundays Ln. Lot 3,
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NOTE:
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ROOF FRAMING PLAN

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

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JUAN JOE MORALES
PROFESSIONAL ENGINEER
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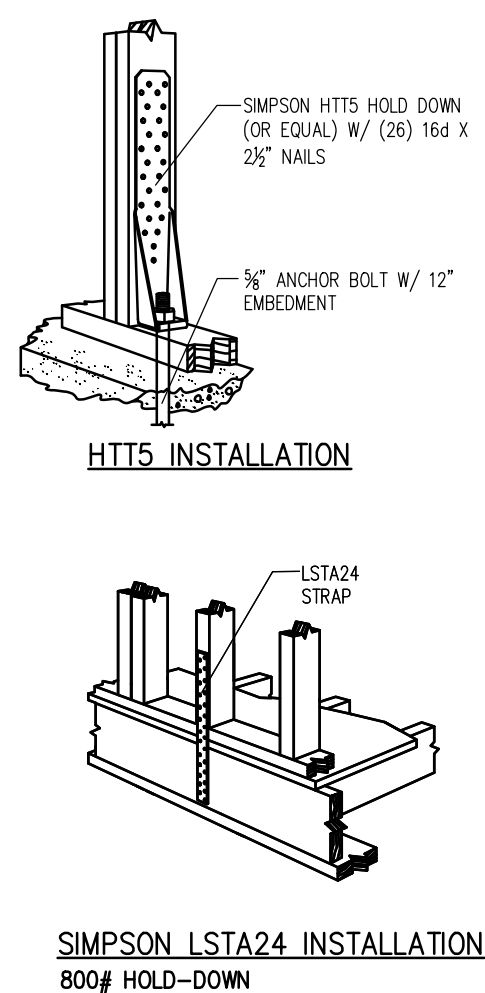
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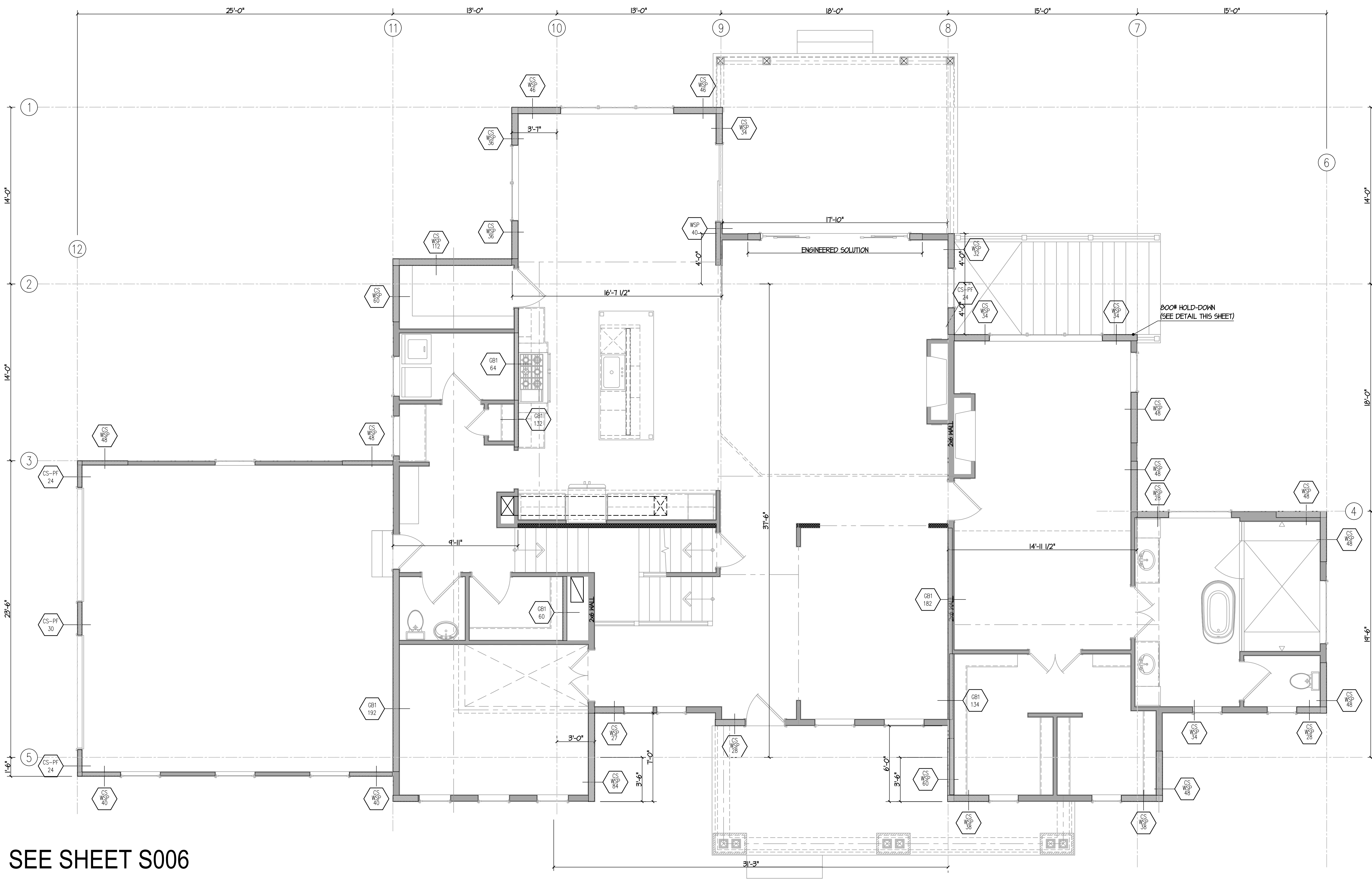
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ROOF FRAMING
PLAN

SHEET:
S004



WALL ASSEMBLY SCHEDULE	
TYPE	DESCRIPTION*
GB #	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER IRC 2021, SECTION 602.10.1.2 GYPSUM BOARD NAILED w/11 ga NAILS OR SCREWS @ 7" oc ALONG EDGES NAILED @ 8" oc IN THE FIELD. SCREWD @ 12" oc IN THE FIELD. GB2 DESIGNATES SHEATHING BOTH SIDES.
CS WSP #	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER IRC 2021, SECTION 602.10.1.2 OSB OR PLYWOOD SHEATHING, w/8d COMMON EDGE NAILS @ 6" oc, 12" oc IN FIELD, OR 16ga, 6" CROWN, 12" LEG EDGE STAPLES @ 3" oc, 6" oc IN FIELD.
WSP #	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER IRC 2021, SECTION 602.10.1.2 OSB OR PLYWOOD SHEATHING, w/8d COMMON EDGE NAILS @ 6" oc, 12" oc IN FIELD, OR 16ga, 6" CROWN, 12" LEG EDGE STAPLES @ 3" oc, 6" oc IN FIELD.
CS-PT #	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER IRC 2021, SECTION 602.10.1.2 OSB OR PLYWOOD SHEATHING, NAILED & STRAPPED PER IRC CS-PT METHOD. DENOTES ACTUAL PANEL WIDTHS, IN INCHES.
LIB #	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER IRC 2021, SECTION 602.10.4 DIAGONAL METAL BRACING w/ (SIMPSON STRONG-TIE) OR EQUAL, NAILED w/ (2) 16d NAILS INTO PLATES AND (1) NAIL INTO STUDS 45° TO 60° MAX. STUD SPACING 16" O.C.
*NOTE: ALL ASSEMBLIES REQ MIN. 2x4 STUDS @ 16" oc AND ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED PER IRC 2021, SECTION 602.10.1.2 WSP METHOD. PER WSP ABOVE, U.N.D. BRACED WALL SEGMENTS SHALL BE SPACED MAXIMUM 20'-0", END TO END, AND SHALL START WITHIN 10'-0" OF EACH END OF BRACED WALL LINES.	



SEE SHEET S006
FOR 1-10
BRACING CHART

FIRST FLOOR WALL BRACING PLAN

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

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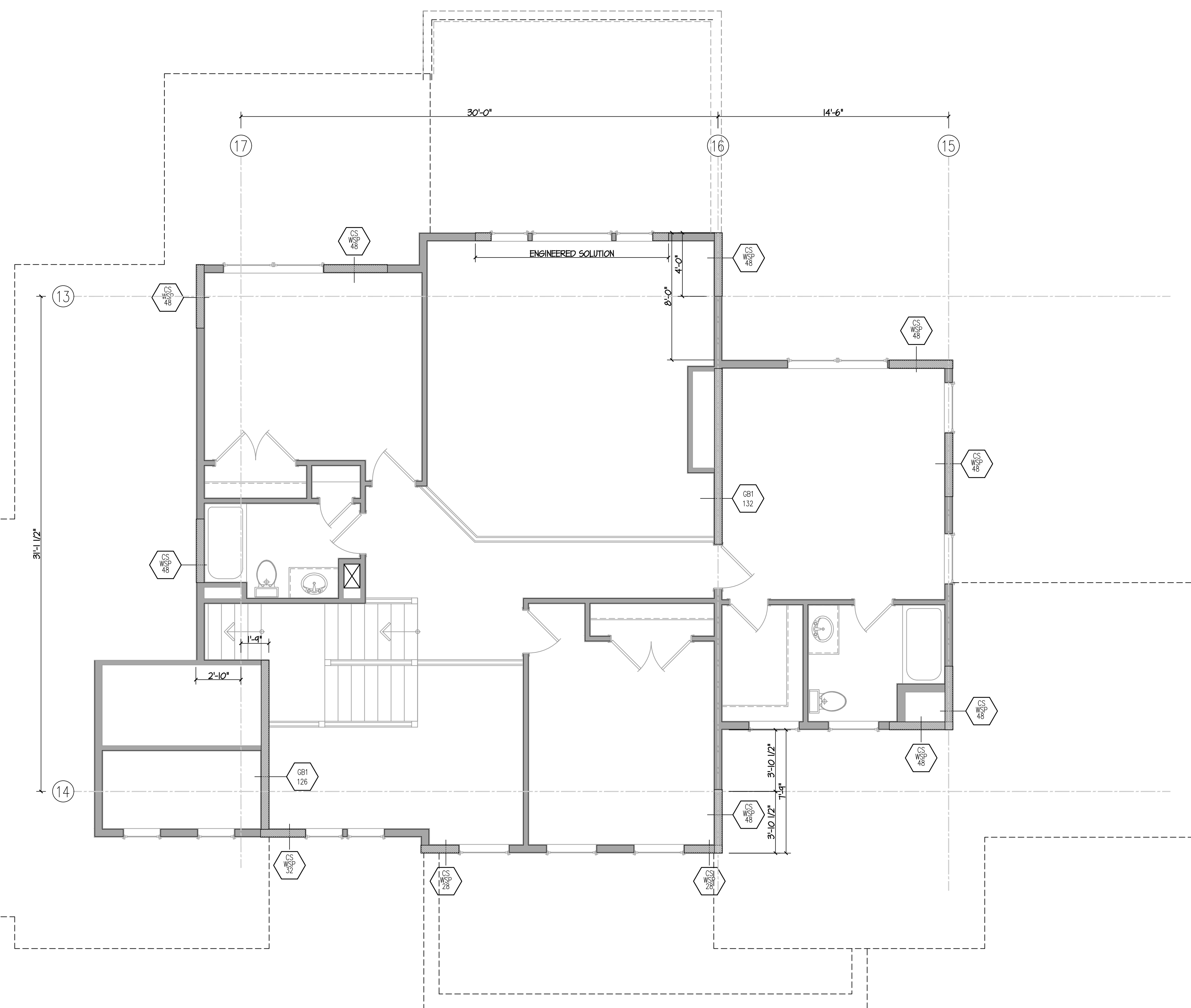
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SHEET:	S005

WALL ASSEMBLY SCHEDULE	
TYPE	DESCRIPTION*
GB	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER INCH. 20210, SECTION 602.10.0.1 CFSM BRACED NAILED W/ 10 G NALS 12" CFSM ALONG FACE OF WALL, 12" CFSM W/ 10 G NALS IN THE FIELD, SECTIONS 602.12" IN THE FIELD. GB2 DENOTES SHEATHING BOTH SIDES.
GBS	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER INCH. COMMON EIDE NALS 602.10.0.1 G5B OR PLYWOOD SHEATHING, 4/8" COMMON EIDE NALS 602.10.0.1 12" IN FIELD, OR 16ga. OR CROWN, 1/2" LEE SIDE STRAPLES CFSM, 12" IN FIELD, OR 16ga. OR CROWN,
GBP	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER INCH. 20210, SECTION 602.10.0.1 G5B OR PLYWOOD SHEATHING, 4/8" COMMON EIDE NALS 602.10.0.1 12" IN FIELD, OR 16ga. OR CROWN, 1/2" LEE SIDE STRAPLES CFSM, 12" IN FIELD, OR 16ga. OR CROWN,
CS-PT	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER INCH. 20210, SECTION 602.10.0.1 CFSM BRACED NAILED W/ 10 G NALS AND STRAPPED PER INCH CFSM METHOD DENOTES: ACTUAL PANEL WIDTH.
LIB	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER INCH. 20210, SECTION 602.10.4 DIAGONAL NAIL BRACING WD (SP/SCN STRONG-TIE) AND/ OR EIDE NAILED W/ 12 (160 NALS) INTO PLATES AND 1") NAIL INTO STUDS 45° TO 60° MAX. STUD SPACING 16" O.C.

*NOTE: ALL ASSEMBLIES REQ. MIN. 2x4 STUDS @ 16" AND ALL EXTERIOR WALLS SHALL BE CONTINUOUSLY BRACED TO FOUNDATION.

160210, WSP METHOD, PER GBP ABOVE, 10" BRACED WALL SEGMENTS SHALL BE SPACED MAXIMUM 20'-0", END TO END, AND SHALL START WITHIN 10'-0" OF EACH END OF BRACED WALL SEGMENT.

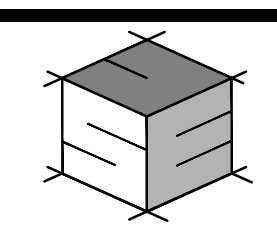
Diagram illustrating the installation of LSTA24 STRAP on a 800# HOLD-DOWN.



SECOND FLOOR WALL BRACING PLAN

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

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WOOD FRAMING

NAIL IN ACCORDANCE WITH RECOMMENDED WOOD FASTENING SCHEDULE IN APPLICABLE BUILDING CODES (LATEST EDITION/HIGH WIND REGION). PROVIDE BLOCKING, BRIDGING AND BRACING PER SAME CODE. AT A MIN., PROVIDE BRIDGING AT EACH END OF THE JOIST, AND ONE ROW OF SOLID BRIDGING BELOW ALL INTERIOR BEARING PARTITIONS.

FASTENERS: JOIST HANGERS, HURRICANE ANCHORS, POST BASES AND OTHER FRAMING ANCHORS ARE TO BE AS MANUFACTURED BY SIMPSON STONG-TIE, U.S.P., OR EQUAL, AND ARE TO BE USED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN SPECIFICATIONS. ALL FASTENERS TO BE 16 GA. MIN. UNLESS NOTED OTHERWISE. PROVIDE GALV. FINISH UNLESS NOTED OTHERWISE. JOIST HANGERS SHALL BE MIN. 16 GA. WITH SIZE AND PROFILE TO SUIT APPLICATION (U.N.O.). PROVIDE JOIST HANGERS FOR ALL FLUSH FRAMED JOISTS. ALL FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE Z-MAX OR TRIPLE ZINC COATED, U.N.O.

THE NUMBER OF WALL STUDS AT BEARING POINTS OF 2X MEMBER BEAMS SHALL EXCEED THE NUMBER OF MEMBERS IN THE BEAM BY ONE. THE CENTERLINE OF THE BEAM SHALL BE THE CENTERLINE OF THE SUPPORTING WALL STUDS. (UNLESS NOTED OTHERWISE ON PLAN) ALL MICRO-LAM BEAMS SHALL HAVE 3 STUDS (MIN. & EXCEED WIDTH OF BEAM). CONTINUE THESE STUDS TO THE FOUNDATION WITH INTERMEDIATE SUPPORTS THROUGH FLOOR, BETWEEN LOWER WALL TOP PLATE & UPPER WALL BOTTOM PLATE.

ALL EXTERIOR POSTS TO BE TREATED 6X6 (U.N.O.). NOTCH TOP OF POST FOR BEAM BRG. (3" MAX.) AND THRU BOLT BEAM TO POST WITH (2) 1/2" DIA. GALV. BOLTS. ALTERNATE: PROVIDE COLUMN CAP CONNECTION WITH #AC SERIES BY SIMPSON STONG-TIE OR EQ. PROVIDE SOLID BLOCKING BELOW ALL COLUMNS, TO TRANSFER LOAD DIRECTLY TO FRAMING/FOUNDATION BELOW.

PROVIDE DOUBLE JOIST UNDER ALL PARTITIONS PARALLEL TO JOIST SPAN AND AROUND ALL FLOOR AND ROOF OPENINGS. SPACE & BLOCK IF PARTITIONS ABOVE IS A PLUMBING WALL. PROVIDE SOLID BLOCKING AT 12"oc BETWEEN JOISTS UNDER PARTITIONS ABOVE) WHICH ARE PARALLEL TO THE JOISTS BUT NOT DIRECTLY OVER THE JOISTS. BLOCKING SHALL BE NOT LESS THAN 2" IN. THICKNESS & SHALL MATCH THE DEPTH OF THE JOISTS. TRUSSES MAY USE TRUSS BOLDS.

ALL MULTI-PLY BEAMS SHALL BE NAILED WITH 3 ROWS OF 10d NAILS AT 8"oc STAGGERED OR BOLTED WITH 1/2" DIA. BOLTS AT 16"oc STAGGERED (U.N.O.).

PROVIDE COLLAR TIES OF 1X6 BOARDS AT UPPER 1/3 DOWN FROM RIDGE BEAMS SPACED 48"oc MAXIMUM. (FOR CONVENTIONAL FRAMING)

BALLOON FRAME ALL END WALLS WITH CATHEDRAL CEILING (U.N.O.):
2x4 @ 16"oc UP TO 9'-0", 2x6 @ 16"oc UP TO 14'-0" & 2x8 @ 16"oc UP TO 18'-0"

FASTEN GABLE-END WALL STUDS TO CEILING DIAPHRAGM BY FASTENING NAILER TO EACH STUD AND BY FASTENING CEILING TO NAILER WITH 8d NAILS AT 6"oc

WHERE DECKS FASTEN TO HOUSE FRAMING, PROVIDE CONTINUOUS TREATED LEDGER THRU-BOLTED TO FLOOR STRUCTURE WITH (2) 1/2" DIA. BOLTS AT 16"oc PROVIDE HOT-DIPPED GALV. JST. HANGER TO LEDGER.

ALL EXTERIOR WALLS SHALL BE STUDS AT 16"oc AS SPECIFIED ON PLANS WITH 7/16" OSB EXTERIOR SHEATHING. BLOCKING OF HORIZONTAL PANEL EDGES IS NOT REQUIRED. NAIL ALL REQUIRED PANEL EDGES WITH 8d NAILS AT 6"oc AND INTERMEDIATE STUDS WITH 8d NAILS AT 12"oc

ROOF AND FLOOR FRAMING LAYOUTS ARE PROVIDED TO ILLUSTRATE CONDITIONS OF CONSTRUCTION AND DO NOT NECESSARILY INDICATE SPECIFIC QUANTITIES OF MATERIALS OR COMPONENTS REQUIRED FOR CONSTRUCTION.

CONSTRUCTION BRACING SHALL BE PROVIDED BY THE CONTRACTOR TO MAINTAIN THE BUILDING PLUMB AND TRUE. THIS BRACING SHALL REMAIN UNTIL THE SPECIFIED SHEARWALLS ARE TOTALLY INSTALLED.

PRESCRPTIVE BRACED WALL SEGMENTS SHALL HAVE STUDS AT 16"oc (MAX.) WITH 7/8" OSB EXTERIOR SHEATHING. BLOCKING OF HORIZONTAL PANEL EDGES IS NOT REQUIRED. NAIL ALL SHEATHING PANEL EDGES WITH 8d NAILS AT 6"oc AND INTERMEDIATE STUDS WITH 8d NAILS AT 12"oc

SHEARWALLS SHALL HAVE STUDS @ 16"oc (MAX.) WITH 7/8" OSB EXTERIOR SHEATHING (U.N.O., SEE PLAN). BLOCKING OF HORIZONTAL PANEL EDGES IS REQUIRED. NAIL ALL SHEATHING PANEL EDGES WITH 8d NAILS AT 6"oc (U.N.O., SEE PLAN) AND INTERMEDIATE STUDS WITH 8d NAILS AT 12"oc (U.N.O., SEE PLAN)

SHEAR WALL HOLD-DOWNS: ALL SHEAR WALLS SHOWN ON PLANS TO HAVE HOLD-DOWNS AT THE BASE AT EACH WALL END SHALL BE AS FOLLOWS:
 * AT UPPER FLOORS USE (2) SIMPSON HD8A'S OR (1) SIMPSON FTAT AT EACH END OF SHEAR WALL SEGMENT AND EACH EXTERIOR CORNER OF BUILDING.(U.N.O., SEE PLAN)
 * AT CONCRETE FOUNDATIONS USE (1) SIMPSON HD2A AT EACH END OF SHEAR WALL SEGMENT AND AT EACH EXTERIOR CORNER OF BUILDING.(U.N.O., SEE PLAN)
 * AT PILE/GORDER SUPPORTED FLOOR, USE (2) SIMPSON HD8A'S OR (1) SIMPSON FTAT AT EACH END OF SHEAR WALL SEGMENT AND AT EACH EXTERIOR CORNER OF BUILDING.(U.N.O., SEE PLAN)
 * PROVIDE 3 STUDS MIN. AT EACH HOLD-DOWN.(U.N.O., SEE PLAN)
 * PROVIDE TRIPLE JOISTS BELOW SHEAR WALLS THAT RUN PARALLEL TO FLOOR FRAMING.(U.N.O., SEE PLAN)

ALL INTERIOR SHEAR WALLS SHOWN ON THE PLANS SHALL HAVE STRUCTURAL SHEATHING THAT EXTENDS TO THE UNDERSIDE OF THE FLOOR SHEATHING ABOVE. WHERE JOISTS RUN PARALLEL TO THE SHEAR WALL, PROVIDE A DBL-JOIST ABOVE THE SHEAR WALL. WHERE JOISTS RUN PERPENDICULAR, PROVIDE 2X BRIDGING ABOVE SHEAR WALL AND "TOOTH" PLYWOOD AROUND JOISTS. NAIL THROUGH FLOOR SHEATHING ABOVE INTO WALL WITH (2) 10d NAILS AT 4"oc

ALTERNATE POWER NAILS (FOR FRAMING MEMBERS ONLY)- 0.113# x 2 3/8" FOR 8d NAILS & 0.131# x 3" FOR 16d NAILS
 PROVIDE DEFORMED SHANK NAILS AS REQD. BY U.L. RATINGS.

STEEL

FABRICATION AND ERECTION OF ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST SPECIFICATION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

PROVIDE WELDED CONNECTIONS TYPICALLY UNLESS OTHERWISE NOTED.

WELDS SHALL BE MADE ONLY BY WELDERS WHO HAVE BEEN PREQUALIFIED BY TESTS OF THE AMERICAN WELDING SOCIETY, DESCRIBED IN THE "STRUCTURAL WELDING CODE," AWS D1J (LATEST EDITION).

ANY CONNECTION NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED AND DETAILED BY THE STRUCTURAL STEEL FABRICATOR. SEE THE TYPICAL BEAM CONNECTION DETAILS ON THE DRAWINGS.

MILL BOTTOM OF ALL COLUMNS AND FINISH TOP OF ALL BASE PLATES IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS. BASE PLATES SHALL BE WELDED TO BOTTOM OF COLUMNS.

CONNECTIONS SHALL BE ALSO STANDARD.

PROVIDE BASE PLATE FOR ALL STRUCTURAL STEEL BEAMS BEARING ON CONCRETE OR MASONRY. GROUT FOR SETTING BEARING SURFACES SHALL BE NON-SHRINK, NOT-STAINING, EQUAL TO "MASTERFLO 713" BY THE MASTER BUILDERS CORPORATION.

SPECIFIED GROUT THICKNESS INCLUDES 1/4 INCH THICK LEVELING PLATES WHICH SHALL BE USED UNDER ALL BEAMS AND COLUMNS RESTING ON CONCRETE.

PRE-ENGINEERED WOOD TRUSSES

TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THESE SPECIFICATIONS AND WHERE ANY APPLICABLE DESIGN FEATURE IS NOT SPECIFIED HEREIN, DESIGN SHALL BE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF LATEST EDITION OF NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION (NDS) AMERICAN FOREST AND PAPER ASSOCIATION (AFPA), AND DESIGN SPECIFICATIONS FOR METAL PLATE CONNECTED WOOD TRUSSES (ANSI/TPI 1), TRUSS PLATE INSTITUTE (TPI), AND CODES OF CONSTRUCTION. FABRICATE, SUPPLY AND ERECT WOOD TRUSSES AS SHOWN ON THE DRAWINGS AND AS SPECIFIED. WORK SHALL INCLUDE ALL ANCHORAGE, BLOCKING, CURBING, MISCELLANEOUS FRAMING AND BRACING.

LUMBER USED FOR TRUSS MEMBERS SHALL BE IDENTIFIED BY GRADE MARK OF A LUMBER INSPECTION AGENCY, AND SHALL BE AS SHOWN ON DESIGN DRAWINGS. TRUSSES SHALL BE HANDLED DURING FABRICATION, DELIVERY AND AT JOBSITE SO AS NOT TO BE SUBJECTED TO EXCESSIVE BENDING. TRUSSES SHALL BE UNLOADED ON SMOOTH GROUND TO AVOID LATERAL STRAIN. TRUSSES SHALL BE PROTECTED FROM DAMAGE THAT MIGHT RESULT FROM ON-SITE ACTIVITIES AND ENVIRONMENTAL CONDITIONS. PREVENT TOPPLING WHEN BANDING IS REMOVED.

HANDLE DURING INSTALLATION IN ACCORDANCE WITH HANDLING, INSTALLING AND BRACING WOOD TRUSSES (HIB-91), TPI, AND ANSI/TPI 1-1995. INSTALLATION SHALL BE CONSISTENT WITH GOOD WORKMANSHIP AND GOOD BUILDING PRACTICES. TRUSSES SHALL BE SET AND SECURED LEVEL AND PLUMB, AND IN CORRECT LOCATION. TRUSSES SHALL BE HELD IN CORRECT ALIGNMENT UNTIL SPECIFIED PERMANENT BRACING IS INSTALLED. CUTTING AND ALTERING OF TRUSSES IS NOT PERMITTED. CONCENTRATED LOADS (FULL BUNDLES OF DECKING) SHALL NOT BE PLACED ATOP TRUSSES UNTIL ALL SPECIFIED BRACING HAS BEEN INSTALLED AND DECKING IS PERMANENTLY NAILED IN PLACE. ERECTION BRACING IS ALWAYS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FURNISHING THE MATERIALS USED FOR INSTALLATION AND PERMANENT BRACING.

STRUCTURAL ENGINEER OF RECORD SHALL APPROVE SHOP DRAWINGS PRIOR TO SUBMITTAL TO BUILDING OFFICIAL. BUILDING OFFICIAL SHALL APPROVE SHOP DRAWING PRIOR TO INSTALLATION. TRUSSES SHALL BE FABRICATED FROM APPROVED SHOP DRAWINGS.

MANUFACTURER SHALL SUBMIT 3 COPIES OF TRUSS DESIGN DRAWINGS BEARING SEAL OF PROFESSIONAL ENGINEER FOR APPROVAL PRIOR TO ERECTION AND ENGINEERING FRAMING PLANS FOR ALL FLAT CHORD TRUSSES. ALL TRUSS SHOP DRAWINGS MUST BE REVIEWED AND APPROVED IN WRITING, BY GENERAL CONTRACTOR, PRIOR TO SUBMITTAL OF SHOP DRAWINGS TO STRUCTURAL ENGINEER AND MUST INCLUDE THE FOLLOWING:

1. STAMP AND SIGNATURE OF ENGINEER, WHO IS REGISTERED IN THE STATE WHERE THE JOB IS TO BE CONSTRUCTED, RESPONSIBLE FOR PREPARATION OF ALL TRUSS DESIGN AND LAYOUT DRAWING.
2. ALLOWABLE LOADS IN LBS/EFFECTIVE NAIL OR PSI FOR LUMBER & PLATES USED AS ALLOWED BY ICBO, CURRENT ICBO REPORT NUMBER & BY SOUTHERN BUILDING CODE CONGRESS INTERNATIONAL.
3. STRESS REDUCTION FACTORS USED FOR PLATES.
4. TOP AND BOTTOM CHORD DESIGN LOADS IN PLF.
5. SIZE, GAUGE, AND EXACT LOCATION BY DIMENSION OF PLATES.
6. LUMBER SPECIES AND GRADES USED.
7. NAME & TRADEMARK OF PLATE MANUFACTURER, TRUSS FABRICATOR & PROJECT NAME/LOCATION
8. CONCENTRATED LOAD REQUIREMENTS HAVE BEEN DESIGNED FOR AND SHOWN ON DOCUMENTS.
9. TRUSS CONNECTION HARDWARE REQUIREMENTS.

ALL TRUSSES MUST BE DESIGNED FOR UPLIFT LOADS. UPLIFT VALUES @ EACH TRUSS BEARING POINT MUST BE SHOWN ON TRUSS ENGINEERING SHEET.

ALL ROOF TRUSSES SHALL BE ATTACHED TO PERPENDICULAR NON-LOAD BEARING WALLS WITH TRUSS CLIPS. CEILING GWB SHALL BE ATTACHED TO BLOCKING ON THE WALL AND NOT TO THE TRUSS FOR A DISTANCE OF 18" FROM THE WALL.

ALL FLOOR TRUSSES ON THE LOWEST FLOOR W/ TRUSSES SHALL BE ATTACHED TO PERPENDICULAR NON-LOAD BEARING WALLS WITH TRUSS CLIPS. CEILING GWB SHALL BE ATTACHED TO BLOCKING ON THE WALL AND NOT TO THE TRUSS FOR A DISTANCE OF 18" FROM THE WALL.

LIVE LOAD DEFLECTION SHALL NOT EXCEED 1/8" OR L/480 FOR FLOOR TRUSSES AND 1/4" OR L/360 FOR ROOF TRUSSES.

THE MANUFACTURER SHALL SUPPLY ALL REQUIRED HANGERS, HOLD-DOWN CLIPS, AND OTHER SPECIAL HARDWARE.

MASONRY

ALL MASONRY WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF BIA AND NCMA SPECIFICATION FOR CONCRETE MASONRY CONSTRUCTION (ACI 531.1-76) AND "SPECIFICATIONS FOR MASONRY STRUCTURE (ACI 530.1-02)" PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE.

PROVIDE CONTINUOUS MASONRY BOND BEAM SPANNING ALL EXPANSION JOINTS & WALL INTERSECTIONS.

PROVIDE (2) #5 BENT BARS WITH 3-FOOT LEGS AT EVERY CORNER OR WALL INTERSECTION.

CONTINUOUS TIE OR BOND BEAMS SHALL BE REINFORCED WITH NOT LESS THAN 2 #5 CONTINUOUS BARS. LINTELS SHALL BE THE SIZES SHOWN AND REINFORCED AS INDICATED ON THE DRAWINGS.

REINFORCED MASONRY WALLS SHALL HAVE ALL REINFORCED CELLS FILLED WITH CONCRETE. CONCRETE MAY BE PLACED IN MAXIMUM VERTICAL LIFTS NOT TO EXCEED 4-FEET. ROUGHEN ALL SURFACES OF CONCRETE FILL WHICH ARE TO RECEIVE ADDITIONAL LIFTS ABOVE.

MASONRY WALLS SHALL HAVE "DUR-O-WALL" (OR APPROVED EQUAL) TRUSS TYPE HORIZONTAL REINFORCEMENT AT 16"oc VERTICALLY ABOVE GRADE AND 8"oc VERTICALLY BELOW GRADE. COORDINATE BRICK TIE BACK REQUIREMENTS WITH ARCHITECTURAL DRAWINGS. UNLESS NOTED OTHERWISE, STOP ALL HORIZONTAL JOINT REINFORCING AT CONTROL JOINTS.

BRICK VENEER WALLS TO HAVE NON-CORROSIVE METAL TIES AT 16"oc VERTICALLY AND HORIZONTALLY AND COMPLY WITH ASTM A82 WITH A153, CLASS B-2 COATING. MINIMUM WIRE DIAMETER SHALL BE 0.1875 INCHES. PROVIDE WEEP HOLES AT 24"oc AT BASE FLASHING.

PROVIDE MIN. 2 COURSES 8"x 16" SOLID BEARING AT BEAM & HEADER BEARING POINTS IN CMU WALLS.

A36 STEEL LINTEL SIZES FOR OPENINGS PER 4" THICKNESS OF MASONRY WALL AS FOLLOWS:
 4'-0" SPAN OR LESS 13"x 3" 1/2"x 5/16" 7'-6" SPAN OR LESS 15"x 3 1/2"x 5/16"
 5'-6" SPAN OR LESS 14"x 3 1/2"x 5/16" 9'-0" SPAN OR LESS 16"x 3 1/2"x 5/16"
 PROVIDE MIN. 6" BEARING, EACH END & BRICK TIES, 16"oc @ 1st COURSE ABOVE LINTEL.

FILL SOLIDLY w/2,500psi ASTM C-476 GROUT, ALL BOND BEAMS, CELLS THAT ARE REINFORCED, WILL SECURE EXPANSION BOLTS, SILL PLATE ANCHOR BOLTS OR OTHER MECHANICAL ATTACHMENTS AND ALL CELLS BELOW GRADE.

REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A-615, GRADE 60. SHOP FABRICATES REINFORCING BARS, WHICH ARE SHOWN TO BE HOOKED, OR BENT. PROVIDE A MINIMUM LAP OF 48 BAR DIAMETERS AT ALL SPLICES, UNLESS INDICATED OTHERWISE.

UNLESS OTHERWISE NOTED, ALL WALLS SHALL BE LAID IN RUNNING BOND. BOND CORNERS AND INTERSECTIONS OF LOAD-BEARING WALLS.

PROVIDE VERTICAL REINFORCING BARS OF THE GIVEN SIZE AND SPACING AS INDICATED. PROVIDE BARS AT ALL WALL CORNERS, INTERSECTIONS AND OPENINGS EDGES.

PROVIDE REBAR DOWELS FROM FOUNDATIONS TO MATCH VERTICAL REINFORCING SIZE AND SPACING. DOWELS SHALL HAVE STANDARD 90-DEGREE HOOKS AND LAP WITH THE FIRST LIFT OF REINFORCING.

PROVIDE BOND BEAM LINTELS AND BRICK SHELF ANGLES ABOVE ALL WALL OPENINGS.

PROVIDE JOIST & BEAM BEARING PLATES w/OTHER ACCESSORIES AS INDICATED, WITH 3 COURSES OF SOLIDLY GROUTED CMU BELOW ALL BEAM BEARINGS OVER A WIDTH OF 2'-8" CENTERED ON THE BEAM.

PROVIDE CMU CONTROL JOINTS AS INDICATED, w/ADDITIONAL JOINTS SUCH THAT THE SPAING BETWEEN JOINTS DOES NOT EXCEED A SPACING OF 3x WALL HEIGHT, 35' MAXIMUM. WHERE BEAMS OR LINTELS BEAR AT CMU CONTROL JOINTS, OFFSET & LAP THE VERTICAL REINFORCING AS INDICATED.

MASONRY CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY BRACING DURING CONSTRUCTION.

SCHEDULE OF CONSTRUCTION MATERIALS

CONCRETE	LOCATION	COMP. STRENGTH	SUMP
	BASEMENT WALLS & FDN NOT EXPOSED TO WEATHER	3000 PSI (2)	4" +/- 1"
	BASEMENT SLABS AND INTERIOR SLABS ON GRADE	3000 PSI	4" +/- 1"
	BASEMENT WALLS, FENS, EXTERIOR WALLS & OTHER CONCRETE EXPOSED TO WEATHER	3000 PSI (3)	4" +/- 1"
	DRIVEWAYS, CURBS, WALKS, PATIOS, STEPS AND UNPAVED GARAGE FLOORS EXPOSED TO WEATHER	3500 PSI (3)	4" +/- 1"

- 1) THE COMPRESSIVE STRENGTH IS BASED 28-DAY COMPRESSIVE STRENGTH.
- 2) CONCRETE SUBJECTED TO FREEZE AND THAW CONDITIONS DURING CONSTRUCTION SHALL BE AIR-ENTRAINED (8% +/- 1%).
- 3) CONCRETE SHALL BE AIR-ENTRAINED (6% +/- 1%).

MASONRY	MATERIAL	SPECIFICATION
	HOLLOW CMU	NORMAL WEIGHT: ASTM C90, GRADE N, Fm= 1500 PSI
	FACE BRICK	ASTM C216, SEVERE WEATHER BRICK, TYPE FBX, Fm=2000 PSI
	STONE VENEER	OWNER APPROVED
	CONCRETE BRICK	ASTM C95 TYPE 1, GRADE 8
	SOLID CMU	NORMAL WEIGHT: ASTM C145, GRADE N
	MORTAR: SINGLE WYTHE ABOVE GRADE	ASTM C270 PROJECTION SPECIFICATION MORTARS SHALL CONSIST OF TYPE 1 PORTLAND CEMENT, TYPE S HYDRATED LIME AND APPROVED AGGREGATE, WITH 1800 psi MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 2-INCH CUBES AT 28-DAYS.
	MORTAR: SINGLE WYTHE BELOW GRADE	ASTM C270 PROJECTION SPECIFICATION MORTARS SHALL CONSIST OF TYPE 1 PORTLAND CEMENT, TYPE N HYDRATED LIME AND APPROVED AGGREGATE, WITH 2500 psi MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 2-INCH CUBES AT 28-DAYS.
	MORTAR: VENEER	ASTM C270 PROJECTION SPECIFICATION MORTARS SHALL CONSIST OF TYPE 1 PORTLAND CEMENT, TYPE N HYDRATED LIME AND APPROVED AGGREGATE, WITH 750 psi MINIMUM AVERAGE COMPRESSIVE STRENGTH OF 2-INCH CUBES AT 28-DAYS.

REINFORCING STEEL	MATERIAL	SPECIFICATION
	REBAR	HIGH STRENGTH NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60 (60,000 PSI) - DEFORMED
	WELDED WIRE FABRIC	ASTM A-185
	PROTECTION	CLEAR COVER (IN)
	FOOTINGS AND OTHER CONCRETE POURED AGAINST EARTH	3"
	FORMED CONCRETE EXPOSED TO EARTH	2"
	FORMED CONCRETE NOT EXPOSED TO WEATHER OR EARTH	1 1/2"
	SLABS ON GROUND, UNLESS OTHERWISE NOTED	MD-DEPTH OF SLAB
	REINFORCED MASONRY WALLS	MD-DEPTH OF WALL

STRUCTURAL STEEL	SHAPE	SPECIFICATION
	I-BEAMS	STRUCTURAL STEEL I BEAMS SHALL CONFORM TO ASTM A572 GRADE 50 (50 KSI).
	TUBE	STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500, GRADE B, UNLESS OTHER SIDE NOTED IN THE PROJECT SPECIFICATIONS
	PIPE	STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A36 (36KSI), UNLESS OTHER SIDE NOTED IN THE PROJECT SPECIFICATIONS
	ALL OTHER SHAPES	ALL OTHER STRUCTURAL STEEL, INCLUDING PLATES AND MISCELLANEOUS SHAPES SHALL CONFORM TO ASTM A36 (36KSI).
	CONNECTION	SPECIFICATION
	BOLTS	BOLTS FOR CONNECTING STRUCTURAL STEEL SHAPES SHALL BE ASTM A325-N, 1-INCH DIAMETER, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR IN THE PROJECT SPECIFICATION
	ANCHOR BOLTS	ANCHOR BOLTS SHALL CONFORM TO ASTM A307.
	WELDS	WELDING ELECTRODES SHALL BE E70 SERIES.

WOOD	MATERIAL	DIMENSION AND STRUCTURAL COMPOSITE LUMBER DESIGN VALUES (1)
		F _b F _t F _v F _c L F _c H E x 10 ⁶
	UNTREATED FRAMING (2)	2X 3X, OR 4X 875 450 135 425 1150 1.4
	5X5 AND LARGER(B)	600 300 125 425 425 1.0
	5X5 AND LARGER(F)	500 325 125 425 500 1.0
	TREATED FRAMING (3)	2X4 1500 825 175 565 1650 1.6
		2X6 1250 725 175 565 1600 1.6
		2X8 1200 650 175 565 1550 1.6
		2X10 1050 575 175 565 1500 1.6
		2X12 975 550 175 565 1450 1.6
	5X5 AND LARGER	850 550 165 375 525 1.2
	LVL COLUMNS AND BEAMS	2650 1650 285 750 3000 1.7
	LVL (2.0E) BEAMS	3100 2150 285 750 3000 2.0

STRUCTURAL GLUED LAMINATED TIMBER (GLULAM)	MATERIAL	DESIGN VALUES (1)
		F _c COMP. LONG F _b BENDING LONG F _v F _c L F _c H E x 10 ⁶
	UNTREATED FRAMING	BEAMS 24F-1.8E 2400 1850 240 650 1600 1.8
		COLUMNS #2 DF 1700 1800 180 560 1950 1.6

ENGINEERED WOOD PRODUCTS	MATERIAL	SPECIFICATION
	PREFABRICATED WOOD I-JOISTS	PREFABRICATED WOOD I-JOISTS SHALL BE MANUFACTURED BY BOISE CASCADE, LLC, OR APPROVED SUBSTITUTE. THE MANUFACTURER SHALL SUPPLY ALL REQUIRED HANGERS, WEB STIFFENERS, SQUARE BLOCKS, BEVELLED BEARING PLATES, AND OTHER SPECIAL HARDWARE. THE MANUFACTURER SHALL SUBMIT ERECTION DRAWINGS TO THE ENGINEER PRIOR TO FABRICATION ALL PREFABRICATED WOOD I-JOISTS SHALL BE INSTALLED AND BRACED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
	PLYWOOD/OSB	DOC PSI, DOC PS2, CSA0437 OR CSA0325 ADVANTYTECH, STRUCTURE WOOD NOT ALLOWED.

- NOTES
 (1) DESIGN VALUES ARE FOR NORMAL LOAD DURATION AND DRY SERVICE CONDITIONS. SEE NDS OR MANUFACTURER SPECIFICATION FOR A COMPREHENSIVE DESCRIPTION OF DESIGN VALUE ADJUSTMENT FACTORS.
 (2) FRAMING DESIGN VALUES ARE BASED ON SYP No.2.
 (3) FRAMING DESIGN VALUES ARE BASED ON SYP No.2.

GOVERNING BUILDING CODES AND STANDARDS

THE FOLLOWING CODES AND STANDARDS, INCLUDING ALL SPECIFICATIONS REFERENCED WITHIN, SHALL APPLY TO THE DESIGN, CONSTRUCTION, QUALITY CONTROL AND SAFETY OF ALL WORK PERFORMED ON THE PROJECT. USE THE LATEST EDITIONS UNLESS NOTED OTHERWISE.

- * INTERNATIONAL RESIDENTIAL CODE (IRC), INTERNATIONAL CODE COUNCIL, INC., 2018
- * MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ANSI/ASCE 07-10), AMERICAN SOCIETY OF CIVIL ENGINEERS.
- * BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318-11, AMERICAN CONCRETE INSTITUTE.
- * ACI MANUAL OF CONCRETE PRACTICE - PARTS 1 THROUGH 5 - 2011
- * MANUAL OF STANDARD PRACTICE, CONCRETE REINFORCING STEEL INSTITUTE.
- * MANUAL OF STEEL CONSTRUCTION - 13TH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (INCLUDING SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, AND ALSO CODE OF STANDARD PRACTICE WITH EXCEPTION, IF ANY, AS INDICATED IN THE SPECIFICATIONS).
- * MANUAL OF STEEL CONSTRUCTION, VOLUME II CONNECTIONS, ASD 13TH EDITION/LRFD 1ST EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- * DETAILING FOR STEEL CONSTRUCTION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- * STRUCTURAL WELDING CODE ANSI/AWS D 1.1-92, AMERICAN WELDING SOCIETY.
- * DESIGN MANUAL FOR FLOOR DECKS AND ROOF DECKS, STEEL DECK INSTITUTE.
- * SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS AMERICAN IRON AND STEEL INSTITUTE, AISI S100-2007.
- * BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-10/ASCE 5-05/TMS 402-05) & SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-05/ASCE 6-05/TMS 602-05).
- * NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION/ 2012, AMERICAN FOREST & PAPER ASSOCIATION.

DESIGN LOADS

	LIVE LOADS	DEAD LOADS	TOTAL
ROOF TRUSSES	30 PSF	10 PSF (TOP & BOTTOM)	50 PSF
RAFTERS	30 PSF	12 PSF	42 PSF
ATTIC FLOORS (TYP)	30 PSF	12 PSF	42 PSF
LTD STORAGE	20 PSF	12 PSF	32 PSF
NO STORAGE	10 PSF	5 PSF	15 PSF
SLEEPING ROOMS	30 PSF	12 PSF	42 PSF
OTHER FLOORS	40 PSF	12 PSF	52 PSF
GARAGE FLOORS	50 PSF	50 PSF	100 PSF
DECKS	40 PSF	10 PSF	50 PSF
BALCONY	60 PSF	10 PSF	70 PSF
STAIRS	40 PSF	20 PSF	60 PSF
ROOF LIVE LOAD DESIGN	MINIMUM	30 PSF	16 PSF

WIND LOAD BASIC WIND SPEED (3 SEC GUST)	115 MPH
WIND PRESSURE (ROOF AVG.)	10.0 PSF
WIND PRESSURE (WALL AVG.)	27.9 PSF
WIND LOAD IMPORTANCE	1.0
WIND EXPOSURE CATEGORY	EXPOSURE B
SNOW LOAD	GROUND SNOW LOAD (P _g) 30 PSF
	THERMAL FACTOR 1.1
	SNOW EXPOSURE FACTOR (C _e) 1.0
	SNOW LOAD IMPORTANCE FACTOR 1.00
SNOW LOAD (ROOF)	18 PSF
MINIMUM SNOW LOAD	20 PSF
RAIN-ON-SNOW	23.0 PSF

ADDITIONAL DRIFT AND SLIDING SNOW LOADS HAVE BEEN CONSIDERED WHERE APPLICABLE.

SEISMIC PEAK VELOCITY-RELATED ACCELERATION(A)	0.07
PEAK ACCELERATION (A)	0.05
SEISMIC HAZARD EXPOSURE GROUP	1
SEISMIC DESIGN CATEGORY	C
SOIL PROFILE TYPE	2 (UNKNOWN)
BASIC STRUCTURAL SYSTEM AND SEISMIC RESISTING SYSTEM	LOAD BEARING WALL SYSTEM LIGHT FRAMED WALLS w/SHEAR PANELS
RESPONSE MODIFICATION FACTOR (R)	6 1/2
DEFLECTION AMPLIFICATION FACTOR (C)	4
ANALYSIS PROCEDURE (ELEP OR MAP)	ELEP

SOIL BEARING CAPACITY 2000 PSF

IF IT IS DETERMINED THAT THE SOIL CAPACITY AT THE SITE IS LESS THAN 2000 PSF, THE FOUNDATION MUST BE RE-EVALUATED.

BACK FILL 60 PCF EQUIVALENT FLUID WEIGHT, UNLESS OTHERWISE NOTED

MECHANICAL UNITS & OTHER EQUIPMENT SUPPORTED BY THE STRUCTURE WITH WEIGHTS IN EXCESS OF 200# SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

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CONCRETE

ALL CONCRETE SHALL BE MADE IN ACCORDANCE WITH DESIGN MIXES WHICH ARE TO BE APPROVED BY THE ARCHITECT OR ENGINEER PRIOR TO CASTING ANY CONCRETE. MIXES SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTION ACI 318, ALL PLAIN CONCRETE TO CONFORM TO ACI 318.1 AND ACI 332 GUIDE TO RESIDENTIAL CAST IN PLACE CONCRETE CONSTRUCTION. MIXES SHALL HAVE A MINIMUM CEMENT CONTENT OF 520 LB. PER CUBIC YD., MAXIMUM WATER/CEMENT RATIO OF 0.53 FOR INTERIOR CONCRETE PROTECTED FROM FREEZING AND 0.45 FOR ALL EXTERIOR EXPOSED CONCRETE.

CONCRETE MATERIALS SHALL CONFORM TO ASTM C150, TYPE I FOR PORTLAND CEMENT AND ASTM C33 FOR AGGREGATES. WATER-REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494, TYPE A (FREE OF CALCIUM CHLORIDES), AIR-ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260, AND HIGH-RANGE WATER REDUCERS (SUPER-PLASTICIZERS) SHALL CONFORM TO ASTM C494, TYPE F. FLY ASH SHALL COMPLY WITH ASTM C619 FOR CLASS F AND SHALL NOT BE PROPORTIONED IN MIXES WITH MORE THAN 20% CEMENT BY WEIGHT. LIQUID-MEMBRANE CURING COMPOUNDS SHALL BE HIGH-SOLIDS, WATER AND ACRYLIC-BASED, COMPLYING WITH ASTM C539 AS TESTED UNDER ASTM C156. SLUMP OF THE CONCRETE SHALL BE A MINIMUM OF 4-INCHES AND A MAXIMUM OF 6-INCHES. SEE THE PROJECT SPECIFICATIONS. THE COMPRESSIVE STRENGTH IS BASED 28-DAY COMPRESSIVE STRENGTH.

SLAB ISOLATION JOINTS: PROVIDE PRE-MOLDED JOINT FILLER AROUND ALL PIPING, PIERS & FOUNDATION WALLS.

ALL CONCRETE TO BE PLACED IN THE CELLS OF CONCRETE MASONRY UNITS (CMU BLOCK FILL), OR IN THE VOIDS OF BRICK MASONRY CONSTRUCTION, SHALL CONTAIN PEA GRAVEL (3/8" Ø STONE) IN LIEU OF COARSE AGGREGATE. THE CONCRETE MIX SHALL CONTAIN A HIGH-RANGE WATER REDUCER (SUPERPLASTICIZER). SLUMP OF THE CONCRETE SHALL BE A MINIMUM OF 6" AND A MAXIMUM OF 9". SEE THE PROJECT SPECIFICATIONS.

ALL EXTERIOR CONCRETE AND CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED, 6% +/-1%. USE OF ADDITIVES SHALL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. USE OF ADDITIVES CONTAINING CALCIUM CHLORIDE SHALL NOT BE PERMITTED. DO NOT USE HIGH-RANGE WATER REDUCING ADMIXTURES IN AIR-ENTRAINED CONCRETE. CONFORM TO ASTM C260.

ADDITION OF WATER TO THE CONCRETE AT THE JOB SITE FOR THE PURPOSE OF INCREASING THE SLUMP OR FOR RETEMPERING THE CONCRETE, WHICH HAS BEGUN TO SET IS STRICTLY PROHIBITED. SEE THE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WATER ADDITION TO CONCRETE AT THE JOBSITE.

SLABS ON GRADE SHALL BE 4" THICK CONCRETE AND REINFORCED W/6x6 W4xW4 WWF. WELDED WIRE FABRIC SHALL BE SUPPORTED ON HIGH CHAIRS SO THAT THE FABRIC IS POSITIONED AT MID-DEPTH OF THE SLAB THICKNESS. LAP ONE FULL MESH PLUS 2" AT SPLICES IN EACH DIRECTION. PLACE CONCRETE OVER 6 MIL POLYETHYLENE VAPOR BARRIER AND 4" MINIMUM COURSE AGGREGATE OR AS RECOMMENDED BY SOILS ENGINEER. THE AGGREGATE LAYER SHALL BE PLACED OVER FIRM NATURAL SUBGRADE OR ON COMPACTED AND CONTROLLED FILL. FILL UNDER SLABS SHALL BE COMPACTED IN 8 INCH LAYERS TO 95% MAX. DENSITY. USE AIR-ENTRAINED AT ALL EXTERIOR SLABS.

CONCRETE FOR SLABS-ON-GRADE SHALL BE PLACED IN A SEQUENCE AND MANNER THAT IS CONSISTENT WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE. LOCATE CONSTRUCTION AND CONTROL JOINTS IN SUCH A WAY TO MINIMIZE THE EFFECTS OF SHRINKAGE OF THE CONCRETE SLAB SECTIONS. SUBMIT TO THE ARCHITECT/ENGINEER THE SEQUENCE AND METHOD OF CASTING CONCRETE SLABS-ON-GRADE PRIOR TO PLACING THESE ELEMENTS. POUR SLABS IN ALTERNATE PANELS WITH A MAXIMUM OF 600 SF AND PROVIDE CONTROL AND CONSTRUCTION JOINTS AT 15'-0" MAXIMUM OR AS REQUIRED TO PREVENT UNCONTROLLED CRACKING.

SLAB CONTROL JOINTS: SAW CUT OR FORM TO 1/3 SLAB DEPTH. SPACE NO MORE THAN 15 FEET APART. DISCONTINUE WELDED WIRE FABRIC AT CONTROL JOINTS. PROVIDE JOINTS ON GROUND SUPPORTED SLABS IN RECTANGULAR CONFIGURATION, WITH THE LONGER SIDE NO MORE THAN ONE-AND-ONE-HALF TIMES THE LENGTH OF THE SHORTER SIDE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ANCHOR BOLTS, CLIPS, INSERTS, CONNECTION PLATES, SLEEVES, SLOTS AND OTHER REQUIRED ITEMS IN ACCORDANCE WITH THE CONTRACT DRAWINGS, AND IN COOPERATION WITH OTHER TRADES PRIOR TO PLACING CONCRETE.

ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH ACI'S MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES, (ACI-315). DETAILS OF REINFORCEMENT SHALL CONFORM TO ACI 318, ACI 315, AND CRSI STANDARDS.

ALL REINFORCING STEEL (INCLUDING WELDED WIRE FABRIC) SHALL BE SECURELY TIED AND ANCHORED IN PLACE TO PREVENT DISLOCATION DURING THE PLACING OPERATION.

REINFORCING STEEL SHALL BE CLEAN OF MUD, DEBRIS, LOOSE RUST, CEMENT, GROUT, OR ANY OTHER MATERIAL WHICH MAY INHIBIT THE BOND BETWEEN THE STEEL AND CONCRETE.

PROVIDE 8" X 8" CORNER BARS TO MATCH ALL HORIZONTAL REINFORCING IN WALLS AND FOOTINGS. ALL LAPS SHALL BE A MINIMUM OF 36 BAR DIAMETERS. PROVIDE DOWELS BETWEEN ALL FOOTINGS, WALLS AND PIERS TO MATCH SIZE AND SPACING OF VERTICAL REINFORCING.

DRY PACK SHALL CONSIST OF SIKKA GROUT 212 OR APPROVED SUBSTITUTE. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

WOOD

FLITCH BEAMS SHALL BE SIZED AS INDICATED ON THE DRAWINGS, USING #2 SPF MINIMUM AND A-86 STEEL PLATE. USE TWO ROWS OF 1/2" DIAMETER THROUGH BOLTS 2" FROM TOP AND BOTTOM, SPACED 16"oc AT TOP AND 32"oc AT THE BOTTOM. BEGIN BOLTING ROWS 6" FROM ENDS. STEEL FLITCH PLATES MUST BE EITHER FULL LENGTH OR FULL MOMENT BUTT SPICE.

WOOD EXPOSED TO THE ELEMENTS, WOOD IN CONTACT WITH CONCRETE OR MASONRY, AND WOOD DESIGNATED "TREATED" SHALL BE #2 GRADE SOUTHERN PINE OR BETTER & PRESSURE IMPREGNATED WITH ALKALINE COPPER QUATERNARY (ACQ) IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA) STANDARD C2, WITH A MIN. RETENTION OF 0.40 LBS. PER CUBIC FOOT OF WOOD. MIN. DEPTH OF PENETRATION SHALL BE 2.5" OR 80% OF THE SAPWOOD.

ALL STUDS SHALL BE INSTALLED IN ACCORDANCE WITH WFOPA. MEMBERS ARE NOT TO BE DRILLED IN EXCESS OF NDS OR LOCAL CODE REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ALL POSTS AND MULTIPLE STUDS SHALL BE RUN CONTINUOUSLY TO SOLID BEARING ON FOUNDATION WALL OR BEAMS. PROVIDE SOLID BLOCKING AT FLOORS. COLUMNS SHALL BE ADEQUATELY ANCHORED TO PREVENT INTERNAL DISPLACEMENT.

FRAME CHIMNEYS: FRAME CHIMNEYS SHALL BE CONSTRUCTED OF MINIMUM #2 SPF STUDS, MAXIMUM 16"oc USE 2 X 4 IF CHIMNEY EXTENDS LESS THAN 8' ABOVE ROOF, OTHERWISE USE 2 X 6. SHEATH WITH 1/2" APA OR APPROVED SUBSTITUTE RATED SHEATHING CONTINUOUS ACROSS PLATES AND JOISTS, GLUE, AND NAIL WITH 8D NAILS @ 6"oc SECURE TO ROOF. STUDS MUST BE CONTINUOUS ACROSS ROOF INTERSECTION.

NO STRUCTURAL MEMBER SHALL BE OMITTED, NOTCHED, CUT, BLOCKED OUT OR RELOCATED WITHOUT PRIOR APPROVAL BY THE DESIGNER OR STRUCTURAL ENGINEER. DO NOT ALTER SIZES OF MEMBERS NOTED WITHOUT APPROVAL OF BOTH.

CUTTING OF WOOD BEAMS, JOISTS AND RAFTERS SHALL BE LIMITED TO CUTS AND BORED HOLES NOT DEEPER THAN ONE-SIXTH THE MEMBER DEPTH AND SHALL NOT BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN, NOTCHES LOCATED CLOSER TO SUPPORTS THAN THREE TIMES THE MEMBER DEPTH SHALL NOT EXCEED ONE-FIFTH THE DEPTH. HOLES BORED OR CUT INTO JOISTS SHALL BE MIN. 2" CLEAR FROM THE TOP OR BOTTOM OF THE JOIST AND THE HOLE DIAMETER SHALL NOT EXCEED ONE-THIRD OF THE JOIST DEPTH.

THERE SHALL NOT BE LESS THAN ONE LINE OF BRIDGING IN EVERY EIGHT FEET OF SPAN IN FLOOR, ATTIC AND ROOF FRAMING. THE BRIDGING SHALL CONSIST OF NOT LESS THAN ONE BY THREE INCH LUMBER DOUBLE NAILED AT EACH END OR OF EQUIVALENT METAL BRACING OF EQUAL RIGIDITY. MIDSPAN BRIDGING IS NOT REQUIRED FOR FLOOR, ATTIC OR ROOF FRAMING WHERE JOIST DEPTH DOES NOT EXCEED TWELVE INCHES NOMINAL. BLOCK ALL STUD WALLS AT MAXIMUM INTERVALS OF EIGHT FEET WITH A MINIMUM OF TWO-BY-SIX MATERIAL WITH TIGHT JOINTS. PROVIDE TWO-BY-FIRE STOPS AT MID-POINT OF STUD WALLS.

UNLESS NOTED OTHERWISE, BRACE EXTERIOR CORNERS OF BUILDING WITH 1 X 4 DIAGONALS, LET INTO STUDS, OR 4 X 8 PLUG SHEET OF THICKNESS TO MATCH THAT OF SHEATHING, OR WITH METAL STRAPS. LAP PLATES AT ALL CORNERS.

MISCELLANEOUS

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SAFETY REGULATIONS, PROGRAMS AND PRECAUTIONS RELATED TO ALL WORK ON THIS PROJECT AND FOR THE PROTECTION OF PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.

THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. SUCH LOADS SHALL NOT EXCEED THE CAPACITY OF THE STRUCTURE AT ANY TIME.

THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION, AND ANY TEMPORARY BRACING OR SUPPORT REQUIRED TO ACCOMMODATE THE CONTRACTOR'S MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR IS TO VERIFY ALL OPENING SIZES AND LOCATIONS WITH THE REQUIREMENTS OF OTHER TRADES PRIOR TO FABRICATION AND ERECTION.

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THE WORK OF ALL TRADES IS COORDINATED WITH STRUCTURAL WORK.

EARTH RETAINING WALLS, OTHER THAN CANTILEVERED TYPE WALLS, SHALL BE ADEQUATELY BRACED UNTIL CONCRETE FOR SUPPORTING SLABS HAS BEEN PLACED AND ALL CONCRETE HAS CURED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING, FURNISHING, ERECTING AND REMOVING ANY TEMPORARY SHORING AND BRACING DURING CONSTRUCTION

THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED AT THE PROPER TIME WHEN ALL ITEMS ARE READY FOR OBSERVATION. SUFFICIENT NOTICE SHALL BE GIVEN BY THE CONTRACTOR TO ALLOW FOR SCHEDULING OF OBSERVATIONS.

SAFETY REGULATIONS SHALL BE STRICTLY FOLLOWED BY THE CONTRACTOR OR SUBCONTRACTOR DURING ALL TIMES OF WORK ON THIS PROJECT. THE ARCHITECT OR ENGINEER SHALL NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR ACTS OF OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

ALL SPECIALTY BOLTS, INCLUDING EXPANSION TYPE AND EPOXY TYPE ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

THE CONTRACTOR SHALL PROTECT FROM DAMAGES EXISTING BUILDING(S), OWNER EQUIPMENT, ROADS, WALKS AND UTILITIES. THE CONTRACTOR SHALL MAINTAIN THESE DURING THE COURSE OF THE WORK, AND SHALL REPAIR ALL DAMAGES AT NO ADDITIONAL EXPENSE TO THE OWNER.

IN AREAS WHERE THE DRAWINGS DO NOT ADDRESS METHODOLOGY, THE CONTRACTOR SHALL BE BOUND TO PERFORM IN STRICT COMPLIANCE WITH MANUFACTURER'S SPECIFICATIONS AND/OR RECOMMENDATIONS.

ON-SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS. NOTED DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE.

THE GENERAL NOTES AND TYPICAL DETAILS APPLY THROUGHOUT THE JOB UNLESS OTHERWISE NOTED OR SHOWN.

THE CONTRACTOR SHALL COMPARE AND COORDINATE ALL DRAWINGS. IF A DISCREPANCY EXISTS, HE SHALL PROMPTLY REPORT IT FOR PROPER ADJUSTMENT BEFORE PROCEEDING WITH THE WORK.

IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS THAT ARE SHOWN OR NOTED.

THESE PLANS ARE SUBJECT TO MODIFICATIONS AS NECESSARY TO MEET CODE REQUIREMENTS OR TO FACILITATE MECHANICAL, PLUMBING INSTALLATIONS OR TO INCORPORATE DESIGN IMPROVEMENTS.

DO NOT BUILD OVER GAS LINES OR ENCLOSE THE METER. CONSULT THE LOCAL GAS COMPANY PRIOR TO CONSTRUCTION.

CHIMNEY SHALL EXTEND AT LEAST 2 FEET HIGHER THAN ANY PORTION OF THE BUILDING WITHIN 10 FEET, BUT SHALL NOT BE LESS THAN 3 FEET ABOVE THE POINT WHERE IT PASSES THROUGH THE ROOF.

DECKS ARE NOT APPROVED FOR FUTURE HOT TUB INSTALLATION.

NO OPENING NOR ANY CHANGES IN SIZE, DIMENSION OR LOCATION SHALL BE MADE IN ANY STRUCTURAL ELEMENTS WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH NEW WORK IN AREAS AFFECTED BY EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE INFORMED IN WRITING OF CONFLICTS BETWEEN EXISTING AND PROPOSED NEW CONSTRUCTION.

CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS. INCONSISTENCIES ON THE STRUCTURAL DRAWINGS OR BETWEEN THE ARCHITECTURAL DRAWINGS AND ANY OTHER CONTRACT, SHOP, FABRICATION, OR OTHER DRAWINGS OR INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH AFFECTED WORK.

THE STRUCTURAL INTEGRITY OF THE BUILDING IS DEPENDANT UPON COMPLETION ACCORDING TO PLANS AND SPECIFICATIONS. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION. THE METHOD OF CONSTRUCTION AND SEQUENCE OF OPERATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUPPLY ANY NECESSARY SHORING, BRACING, GUTS, ETC., TO PROPERLY BRACE THE STRUCTURE AGAINST WIND, DEAD AND LIVE LOADS UNTIL THE BUILDING IS COMPLETED ACCORDING TO THE PLANS AND SPECIFICATIONS.

CONTRACTOR SHALL NOT PLACE BACK FILL AGAINST BASEMENT WALLS UNTIL THE FLOOR SYSTEM IS COMPLETELY INSTALLED OR CONTRACTOR HAS PROVIDED ADEQUATE SHORING AND BRACING. ANY QUESTIONS REGARDING TEMPORARY SHORING REQUIREMENTS SHOULD BE FORWARDED TO THE STRUCTURAL ENGINEER FOR REVIEW.

FOUNDATION WALL STRIP FOOTING SCHEDULE

NOTES

- CONCRETE COMPRESSIVE STRENGTH = 3,000 psi
- REBAR = GRADE 60 DEFORMED

THICKENED SLABS

MARK	EQUIVALENT WALL FOOTING
TS16	W8C
TS18	W8D
TS20	W8E
TS22	W8F
TS24	W8G

8" CONCRETE WALL (D) FOOTING SIZES

SOIL CLASSIFICATIONS / PRESUMPTIVE BEARING CAPACITIES				
MARK	CL, ML, MH & CH (1500 psf)	SW, SP, SM, SC, GM & GC (2000 psf)	(2500 psf)	GW, GP (3000 psf)
	SIZE (TxW)	SIZE (TxW)	SIZE (TxW)	SIZE (TxW)
W8A	8" x 16"	8" x 16"	8" x 16"	8" x 16"
W8B	8" x 18"			
W8C	8" x 20"	8" x 18"	8" x 16"	8" x 16"
W8D	8" x 22"			
W8E	8" x 24"	8" x 20"	8" x 18"	8" x 18"
W8F	10" x 26"			
W8G	10" x 28"	8" x 22"	8" x 18"	8" x 18"
W8H	12" x 30"			
W8I	12" x 32"	10" x 26"	8" x 20"	8" x 18"
W8J	12" x 34"			
W8K	14" x 36"	10" x 28"	8" x 22"	8" x 18"

10" CONCRETE WALL (D) FOOTING SIZES

SOIL CLASSIFICATIONS / PRESUMPTIVE BEARING CAPACITIES				
MARK	CL, ML, MH & CH (1500 psf)	SW, SP, SM, SC, GM & GC (2000 psf)	(2500 psf)	GW, GP (3000 psf)
	SIZE (TxW)	SIZE (TxW)	SIZE (TxW)	SIZE (TxW)
W10B	8" x 16"	8" x 18"	8" x 16"	8" x 18"
W10C	8" x 20"			
W10D	8" x 22"	8" x 20"	8" x 18"	8" x 18"
W10E	8" x 24"			
W10F	8" x 26"	8" x 22"	8" x 20"	8" x 20"
W10G	10" x 28"			
W10H	10" x 30"	8" x 24"	8" x 20"	8" x 20"
W10I	12" x 32"			
W10J	12" x 34"	10" x 26"	8" x 22"	8" x 20"
W10K	14" x 36"			

12" CONCRETE WALL (D) FOOTING SIZES

SOIL CLASSIFICATIONS / PRESUMPTIVE BEARING CAPACITIES				
MARK	CL, ML, MH & CH (1500 psf)	SW, SP, SM, SC, GM & GC (2000 psf)	(2500 psf)	GW, GP (3000 psf)
	SIZE (TxW)	SIZE (TxW)	SIZE (TxW)	SIZE (TxW)
W12C	8" x 20"	8" x 20"	8" x 20"	8" x 20"
W12D	8" x 22"			
W12E	8" x 24"	8" x 22"	8" x 20"	8" x 20"
W12F	8" x 26"			
W12G	8" x 28"	8" x 22"	8" x 20"	8" x 20"
W12H	10" x 30"			
W12I	12" x 32"	10" x 26"	8" x 22"	8" x 20"
W12J	12" x 34"			
W12K	14" x 36"	10" x 28"	8" x 22"	8" x 20"

ISOLATED FOOTING SCHEDULE				
SQUARE, ISOLATED FOOTING SPECIFICATIONS				
SOIL CLASSIFICATIONS/PRESUMPTIVE BEARING CAPACITIES				
MARK	CL, ML, MH & CH (1500psf) SIZE WxL-N	SW, SP, SM, SC, GM & GC (2000psf) SIZE WxL-N	(2500psf) SIZE WxL-N	GW, GP (3000psf) SIZE WxL-N
FAA	30"x12"-0	24"x12"-0	24"x12"-0	24"x12"-0
FB	32"x12"-0	26"x12"-0	24"x12"-0	24"x12"-0
FC	34"x12"-0	28"x12"-0	24"x12"-0	24"x12"-0
FD	36"x12"-0	30"x12"-0	26"x12"-0	26"x12"-0
FE	38"x12"-0	32"x12"-0	30"x12"-0	30"x12"-0
FF	40"x12"-0	34"x12"-0	30"x12"-0	28"x12"-0
FG	44"x12"-3	36"x12"-0	32"x12"-0	30"x12"-0
FH	46"x12"-3	38"x12"-2	34"x12"-2	32"x12"-2
FI	48"x12"-3	40"x12"-2	36"x12"-2	34"x12"-2
FJ	50"x12"-3	42"x12"-3	38"x12"-2	34"x12"-2
FK	52"x12"-3	44"x12"-3	40"x12"-2	36"x12"-2
FL	54"x12"-3	46"x12"-3	42"x12"-3	38"x12"-2
FM	58"x12"-4	48"x12"-3	44"x12"-3	40"x12"-2
FN	60"x12"-5	50"x12"-4	46"x12"-4	42"x12"-3
FO	62"x12"-5	52"x12"-4	48"x12"-4	42"x12"-3
FP	64"x12"-6	54"x12"-4	48"x12"-4	44"x12"-4
FQ	66"x12"-6	56"x12"-5	50"x12"-5	46"x12"-4
FR	68"x12"-7	58"x12"-6	52"x12"-5	48"x12"-5
FS	72"x12"-8	60"x12"-6	54"x12"-6	50"x12"-5
FT	74"x12"-9	62"x12"-7	56"x12"-6	50"x12"-5
FU	76"x12"-10	64"x12"-8	58"x12"-7	52"x12"-6
FV	78"x14"-10	66"x12"-8	60"x14"-8	54"x12"-7
FW	80"x14"-11	68"x14"-9	62"x14"-8	56"x14"-7
FX	82"x14"-11	70"x14"-9	62"x14"-8	58"x14"-8
FY	86"x14"-12	72"x14"-10	64"x14"-9	58"x14"-8
FZ	88"x14"-13	74"x14"-11	66"x14"-9	60"x14"-8
N = NUMBER OF #4 BOTTOM BARS, EACH WAY				
ROUND FOOTING SCHEDULE				
SOIL CLASSIFICATIONS & PRESUMPTIVE BEARING CAPACITIES				
MARK, F#	CL, ML, MH & CH (1500psf) FOOTING SIZE (DIA x L)	SW, SP, SM, SC, GM & GC (2000psf) SIZE (2500psf)	GW, GP (3000psf)	
F1#	14"x12"	12"x12"	12"x12"	12"x12"
F2#	18"x12"	14"x12"	14"x12"	12"x12"
F3#	20"x12"	16"x12"	14"x12"	14"x12"
F4#	22"x12"	18"x12"	16"x12"	16"x12"
F5#	24"x12"	20"x12"	18"x12"	18"x12"
F6#	N/A	22"x12"	20"x12"	18"x12"
F7#	N/A	24"x12"	22"x12"	20"x12"
REINFORCEMENT EQUIVALENTS				
NUMBER #4 BARS SPEC'D		NUMBER #5 BARS REQ'D		
2		2		
3-4		4		
5-6		6		
7		5		
8-9		6		
10		7		
11-12		8		
13		9		
14-15		10		

GARAGE GRADE BEAM SCHEDULE		
SPAN (FT)	BEAM SIZE (WxD)	FLEXURE REINFORCEMENT
14	12" x 18"	(3) #4
16	12" x 20"	(4) #4
18	12" x 22"	(4) #4
20	12" x 24"	(5) #4
21	14" x 22"	(5) #4
22	14" x 24"	(5) #4
23	16" x 24"	(6) #4
24	16" x 24"	(6) #4
25	18" x 24"	(7) #4
26	18" x 24"	(7) #4
28	18" x 26"	(8) #4
30	18" x 30"	(9) #4

FOUNDATION WALL REINFORCEMENT SCHEDULE

8" CONCRETE WALL (D) VERTICAL REINFORCEMENT				
SOIL CLASSIFICATIONS (EQUIVALENT FLUID PRESSURE)				
MAXIMUM WALL HEIGHT (H)	MAXIMUM UNBALANCED HEIGHT (H _{unb})	GW, GP, SW & SP (30pcf)	GM, GC, SM, SW-SC AND ML (45 pcf)	SC, MH, ML-CL, INORGANIC CL (60 pcf)
5'	4,4'-4"	N/A	N/A	N/A
6'	4,5,5'-4"	N/A	N/A	N/A
7'	4,5	N/A	N/A	N/A
8'	6'-4"	N/A	#4 @ 24"oc	#4 @ 18"oc
9'	4,5	N/A	N/A	N/A
10'	6	N/A	N/A	#4 @ 24"oc
	7	N/A	#4 @ 24"oc	#4 @ 18"oc
	7'-4"	#4 @ 30"oc	#4 @ 18"oc	#4 @ 12"oc
	4,5	N/A	N/A	N/A
	6	N/A	N/A	#4 @ 24"oc
	7	N/A	#4 @ 18"oc	#4 @ 16"oc
	8	#4 @ 24"oc	#4 @ 16"oc	#4 @ 12"oc
	8'-4"	#4 @ 20"oc	#4 @ 12"oc	#4 @ 8"oc
	4,5	N/A	N/A	N/A
	6	N/A	N/A	#4 @ 20"oc
	7	N/A	#4 @ 18"oc	#4 @ 12"oc
	8	#4 @ 24"oc	#4 @ 12"oc	#4 @ 8"oc
	9	#4 @ 18"oc	#4 @ 12"oc	#4 @ 8"oc
	9'-4"	#4 @ 12"oc	#4 @ 8"oc	#4 @ 8"oc

d = 5"(MIN), CONCRETE COMPRESSIVE STRENGTH = 3,000 psi

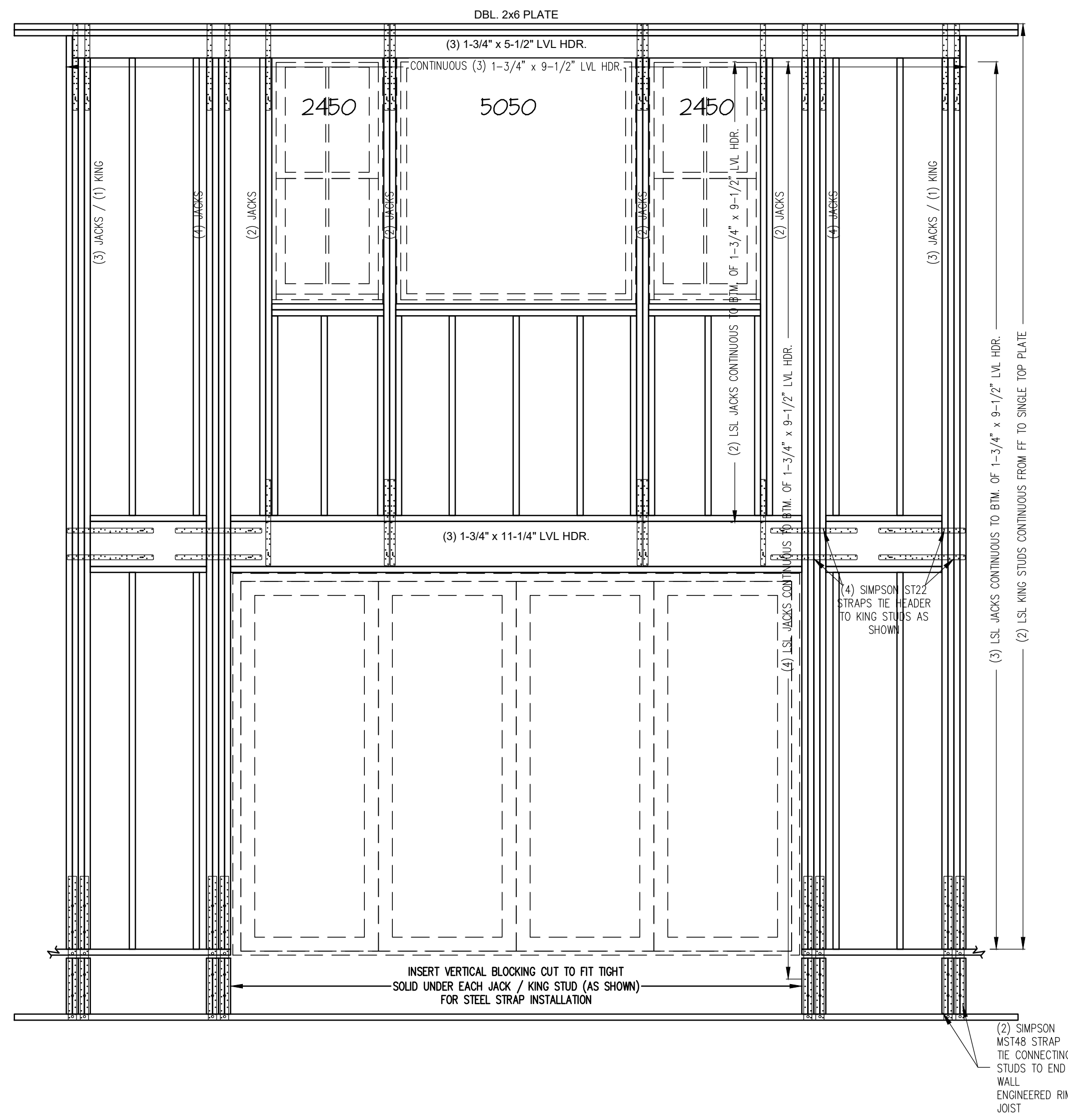
10" CONCRETE WALL (D) VERTICAL REINFORCEMENT				
SOIL CLASSIFICATIONS (EQUIVALENT FLUID PRESSURE)				
MAXIMUM WALL HEIGHT (H)	MAXIMUM UNBALANCED HEIGHT (H _{unb})	GW, GP, SW & SP (30pcf)	GM, GC, SM, SW-SC AND ML (45 pcf)	SC, MH, ML-CL, INORGANIC CL (60 pcf)
5'	4,4'-4"	N/A	N/A	N/A
6'	4,5,5'-4"	N/A	N/A	N/A
7'	4,5,6,6'-4"	N/A	N/A	N/A
8'	4,5,6,7	N/A	N/A	N/A
	7'-4"	N/A	N/A	#4 @ 20"oc
	4,5,6	N/A	N/A	N/A
9'	7	N/A	N/A	#4 @ 20"oc
	8	N/A	#4 @ 20"oc	#4 @ 16"oc
	8'-4"	N/A	#4 @ 18"oc	#4 @ 12"oc
	4,5,6	N/A	N/A	N/A
10'	7	N/A	N/A	#4 @ 18"oc
	8	N/A	#4 @ 16"oc	#4 @ 16"oc
	9	#4 @ 48"oc	#4 @ 16"oc	#4 @ 12"oc
	9'-4"	#4 @ 18"oc	#4 @ 12"oc	#4 @ 8"oc

d = 6"(MIN), CONCRETE COMPRESSIVE STRENGTH = 3,000 psi

12" CONCRETE WALL (D) VERTICAL REINFORCEMENT				
SOIL CLASSIFICATIONS (EQUIVALENT FLUID PRESSURE)				
MAXIMUM WALL HEIGHT (H)	MAXIMUM UNBALANCED HEIGHT (H _{unb})	GW, GP, SW & SP (30pcf)	GM, GC, SM, SW-SC AND ML (45 pcf)	SC, MH, ML-CL, INORGANIC CL (60 pcf)
5'	4,4'-4"	N/A	N/A	N/A
6'	4,5,5'-4"	N/A	N/A	N/A
7'	4,5,6,6'-4"	N/A	N/A	N/A
8'	4,5,6,7,7'-4"	N/A	N/A	N/A
	4,5,6,7	N/A	N/A	N/A
9'	8	N/A	N/A	#4 @ 48"oc
	8'-4"	N/A	N/A	#4 @ 16"oc
	4,5,6,7	N/A	N/A	N/A
10'	8	N/A	N/A	#4 @ 18"oc
	9	N/A	#4 @ 48"oc	#4 @ 12"oc
	9'-4"	N/A	#4 @ 16"oc	#4 @ 12"oc

d = 8"(MIN), CONCRETE COMPRESSIVE STRENGTH = 3,000 psi

REBAR CONVERSION CHART	
ORIGINAL	#5 EQUAL
#4 @ 6"oc	#5 @ 9"oc
#4 @ 8"oc	#5 @ 12"oc
#4 @ 12"oc	#5 @ 18"oc
#4 @ 16"oc	#5 @ 24"oc
#4 @ 18"oc	#5 @ 24"oc
#4 @ 24"oc	#5 @ 36"oc



2-STORY RIGID FRAME DETAIL

PARTIAL FASTENING SCHEDULE

MARK	CONNECTION	FASTENING	DETAIL
1	TOP PLATE TO STUD, END NAIL	2X4 2-16d 2X6 3-16d 2X8 4-16d 2X10 5-16d 2X12 6-16d	
2	DOUBLE TOP PLATE, FACE NAIL	10d @ 24"oc	
3	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	16d TOENAILS @ 6"oc (MIN 2 PER BLOCK)	
4	CEILING JOISTS TO PLATE, TOE NAIL	(2) 16d	
5	CEILING JOIST/COLLAR TIE TO RAFTER, FACE NAIL	(6) 16d (MIN)	
6	RAFTER / TRUSS TO PLATE, TOE NAIL	(3) 16d	
7	BLOCKING TO JOIST OR RAFTER, EACH END	(2) 16d, TOE NAIL OR (2) 16d, END NAIL	
8	STUD TO SOLE PLATE, END NAIL	2X4 (2) - 16d 2X6 (3) - 16d 2X8 (4) - 16d 2X10 (5) - 16d 2X12 (6) - 16d	
9	SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL SEGMENTS, FACE NAIL	3-16d @ 16"oc 4-16d @ 19.2"oc OR 5-16d @ 24"oc	
10	SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	2-16d @ EACH JOIST OR BLOCKING	
11	SOLE PLATE TO RIM BOARD, FACE NAIL	16d @ 16"oc	
12	RIM BOARD TO TOP / SILL PLATE, TOE NAIL	10d @ 6"oc	
13	JOIST TO RIM BOARD, END NAIL	(3) 16d	
14	JOIST TO TOP / SILL PLATE OR GIRDER, TOE NAIL	(2) 16d	
15	SILL PLATE TO FOUNDATION WALL	3/4" @ ANCHOR BOLTS (7" MIN EMBEDMENT INTO WALL) @ 48"oc (MAX) (MIN 2 PER PLATE, WITH 1 WITHIN 12" OF END OF PLATE)	
16	TOP PLATE LAPS SPLICE, FACE NAIL (4"-0" MINIMUM)	(8) 16d	
17	DOUBLE STUDS, FACE NAIL (STAGGER)	10d @ 12"oc EACH FACE	
18	JACK STUD TO KING STUD, FACE NAIL (STAGGER)	10d @ 12"oc EACH FACE	
19	KING STUD TO HEADER, FACE NAIL - EACH PLY	(3) 16d	
20	CONTINUED HEADER, TWO PIECES	16d @ 16"oc ALL EDGES & 4-16d NAILS AT ENDS	
21	BUILT UP HEADER, TWO PLYS WITH 1/2" SPACER	16d @ 16"oc ALL EDGES & 4-16d NAILS AT ENDS	
22	TOP PLATE LAP AT WALL INTERSECTION, FACE NAIL	(2) 10d	
23	CEILING JOIST TO JOIST, LAP OVER PARTITION	(5) 10d FACE NAILS	
24	RAFTER TO RIDGE, VALLEY OR HIP RAFTER	(3) 16d FACE NAILS, (4) 16d TOE NAILS	
25	BUILT-UP CORNER STUDS (THREE STUDS MINIMUM)	16d @ 16" OC	
26	BUILT-UP BEAM AND GIRDERS, 2-INCH LUMBER LAYERS, NAILING PER LAYER	16d @ 16"oc ALL EDGES & 4-16d NAILS AT ENDS AND SPLICES	
27	INTERMEDIATE SUPPORT POST TO HEADER, TOE NAIL	(2) 16d EACH PLY OF POST	

PARTIAL SHEATHING FASTENING SCHEDULE

2x STUD WALL PER FRAMING PLANS

2x - BOTTOM PLATE, EDGE NAILED

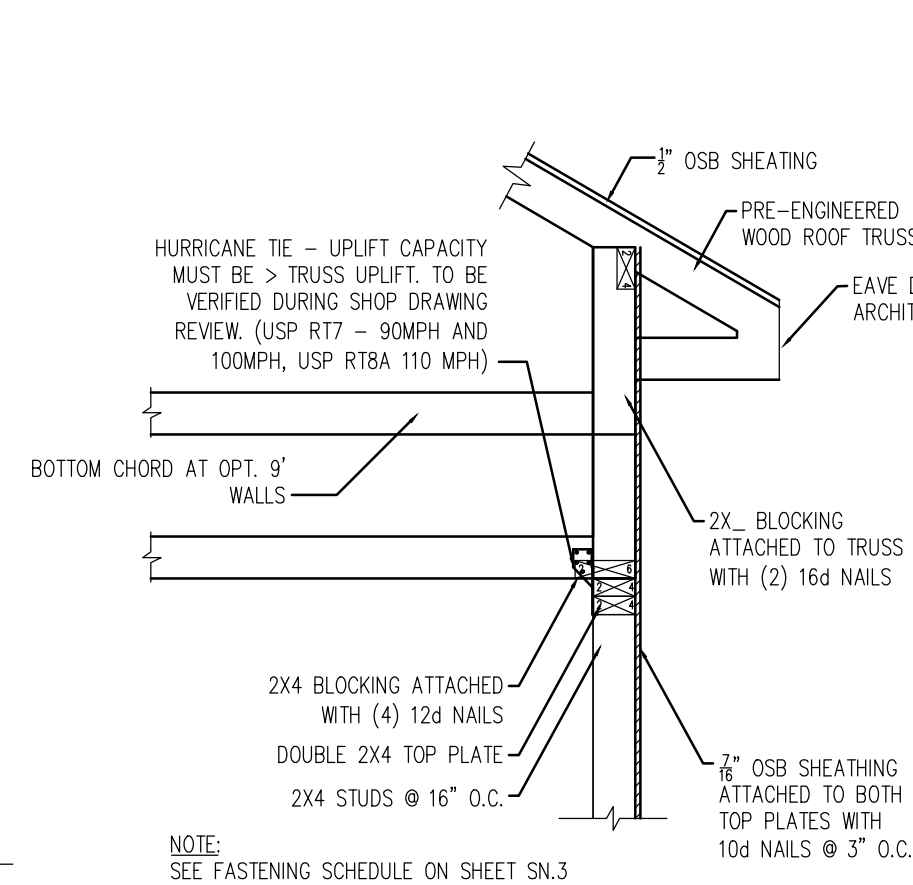
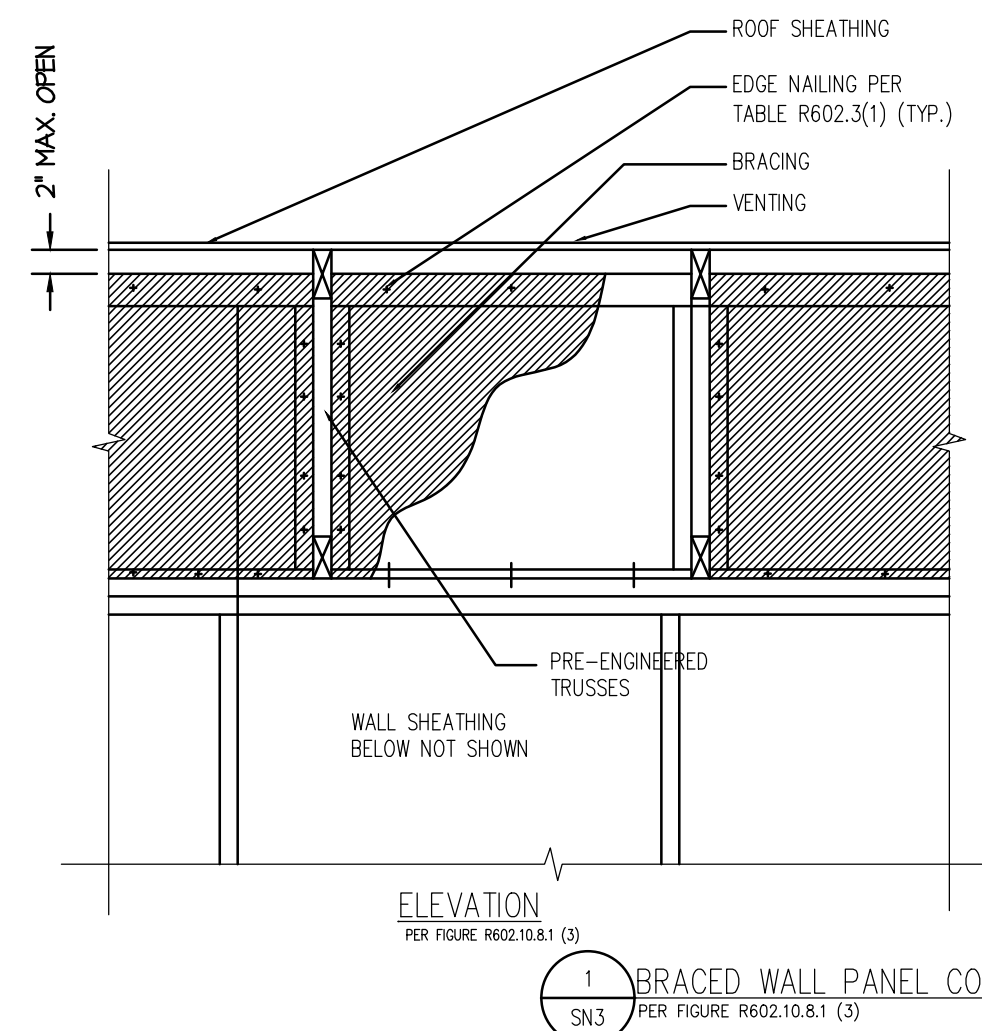
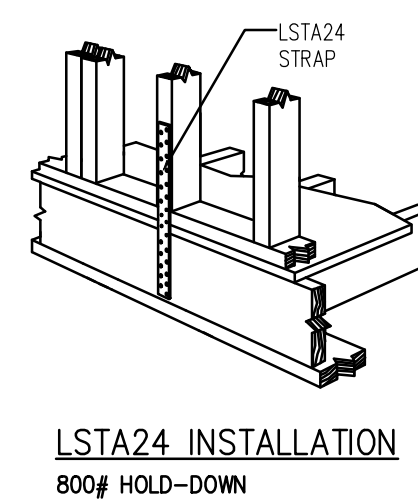
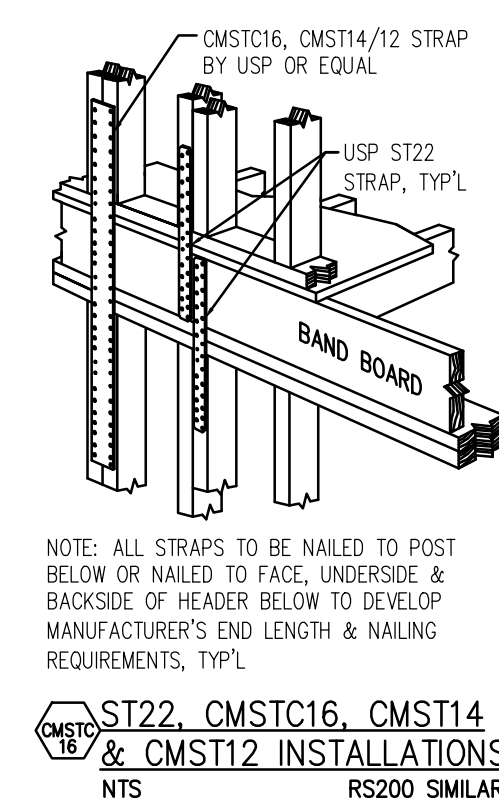
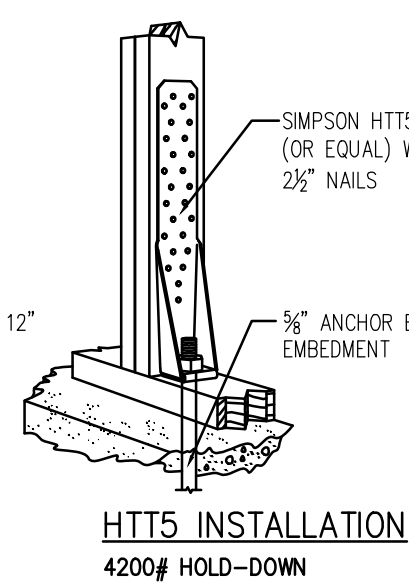
3/8"

SHEATHING	FASTENERS	S. SPACING OF FASTENERS	
		PANEL EDGES	PANEL FIELD
5/8" - 2" PLYWOOD	6d COMMON, FLOOR, WALL 8d COMMON, ROOF	6	12
3/8" - 1" PLYWOOD	8d COMMON	6	12
1/8" - 1 1/2" PLYWOOD	10d COMMON OR 8d DEFORMED	6	12
5/8" GYPSUM	1 1/2" GALV. ROOFING; 6d COMMON; 1 1/2" GALV. STAPLE; 1 1/4" SCREW, TYPE S OR W	4	8
5/8" GYPSUM	3/4" GALV. ROOFING; 8d COMMON; 1 1/2" GALV. STAPLE; 1 1/4" SCREW, TYPE S OR W	4	8

SHEATHING

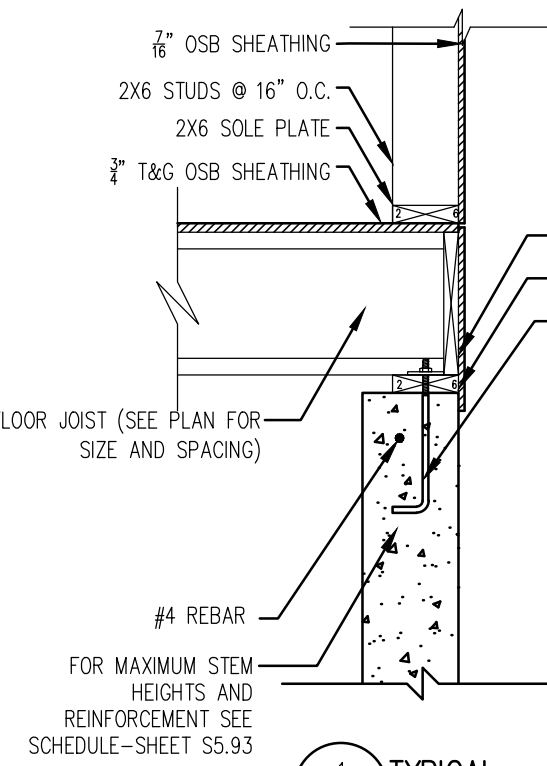
DOUBLE NAIL EDGE SPACING

ACL3 MODEL
Sundays Ln. Lot 3,
Frederick, MD 21702



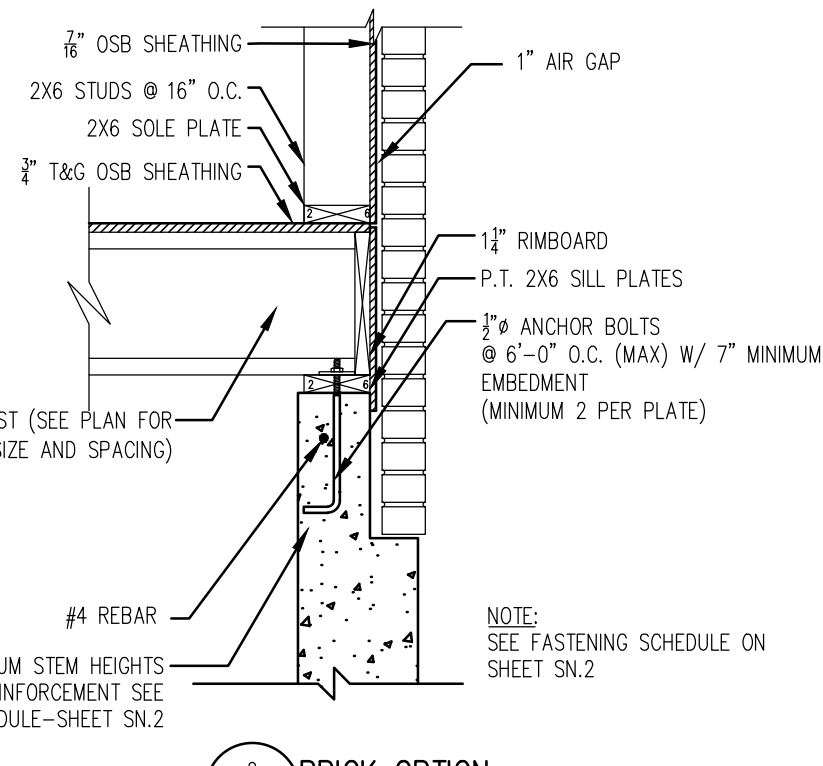
1 BRACED WALL PANEL CONNECTION TO PERP. TRUSSES
SN3 PER FIGURE R602.10.8.1 (3) 3/4" PER FOOT

JOB #: B0491	
REVISIONS:	DATE:
PERMIT SET	2/1/25
PLAN REVIEW COMMENTS	10/9/25
DATE: 2 - 01 - 2025	
SCALE: AS SHOWN	
PAGE DESCRIPTION:	
GENERAL STRUCTURAL DETAILS & NOTES	
	SHEET:
	S009



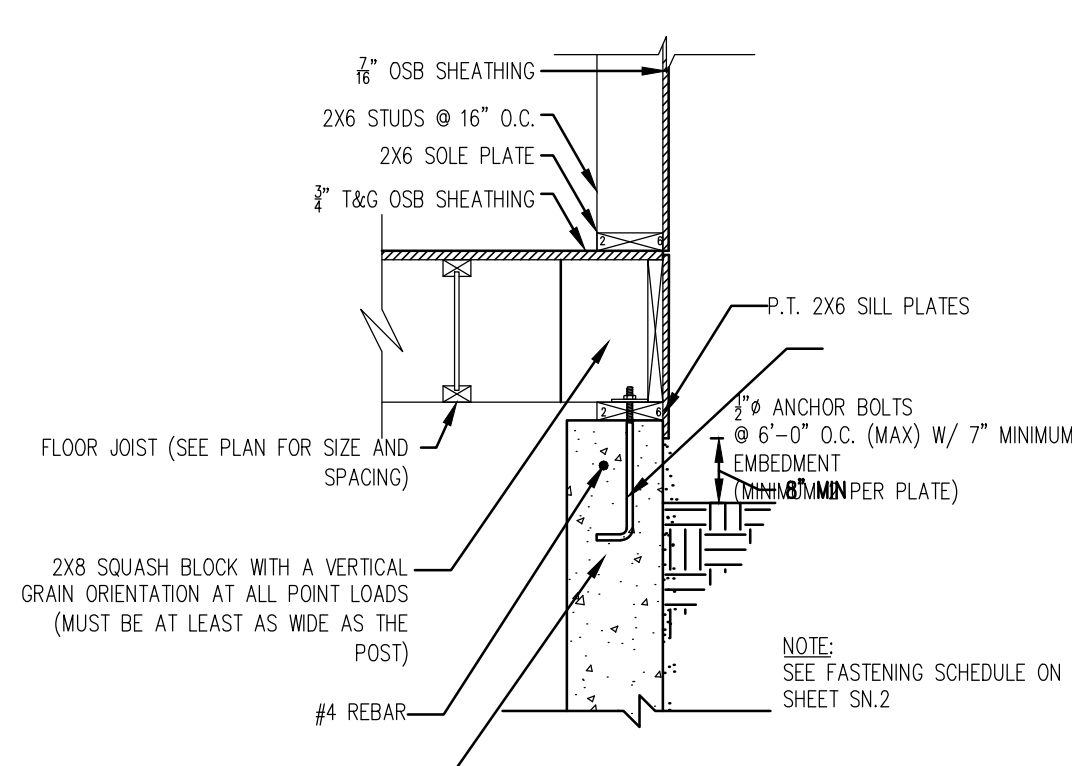
NOTE:
SEE FASTENING SCHEDULE ON SHEET SN.2

1 TYPICAL
S008 3/4" PER FOOT



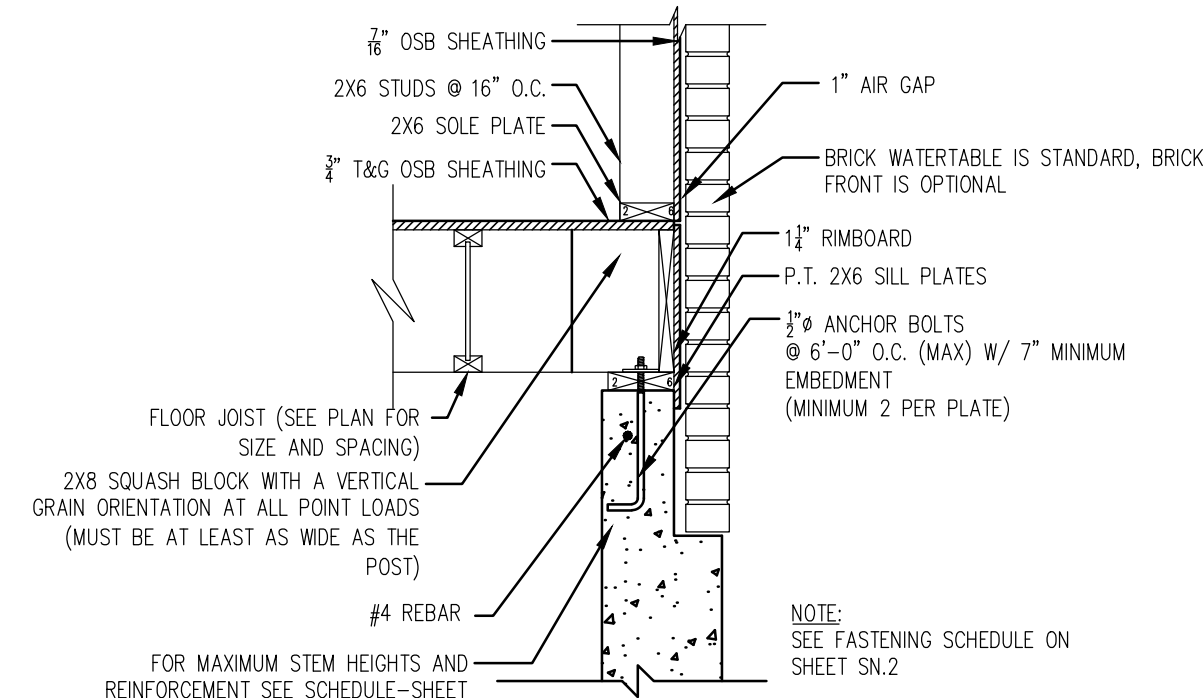
NOTE:
SEE FASTENING SCHEDULE ON SHEET SN.2

2 BRICK OPTION
S008 3/4" PER FOOT

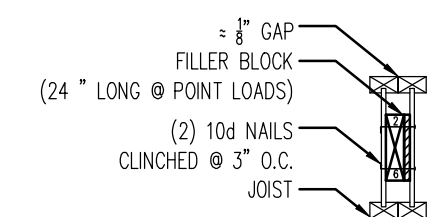


NOTE:
SEE FASTENING SCHEDULE ON SHEET SN.2

3 TYPICAL
S008 3/4" PER FOOT



4 BRICK OPTION
S008 3/4" PER FOOT

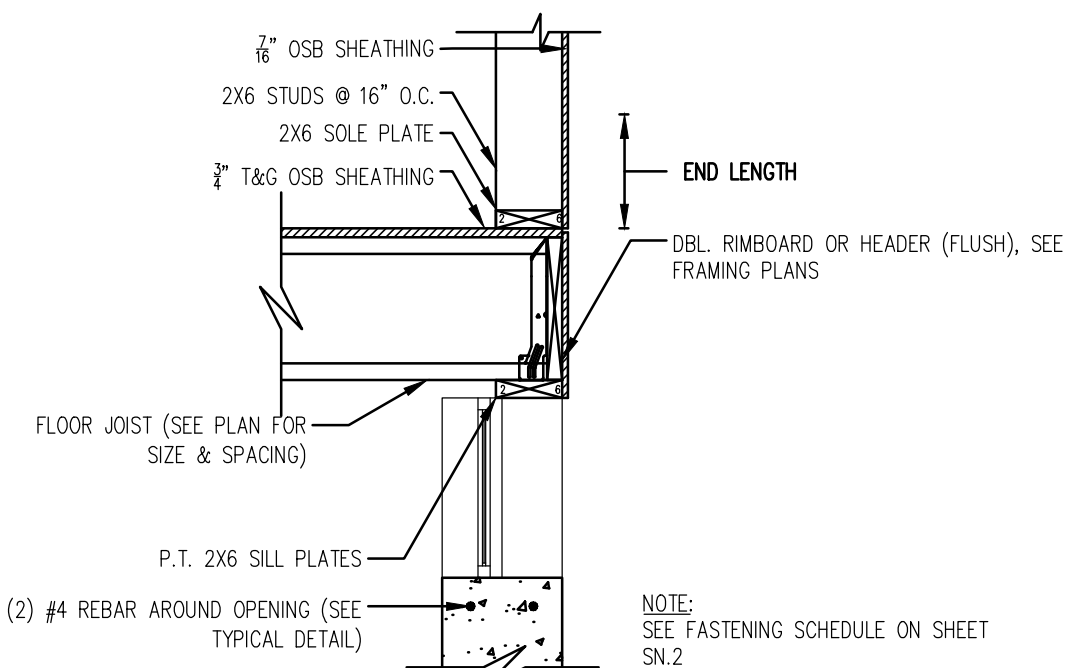


DOUBLE JOIST DETAIL (TYP)
3/4" PER FOOT

	FILLER AND BACKER BLOCK SCHEDULE							
	5000s		6000s AND 6500s		60s		90s	
BOISE	9-1/2" OR 11-3/8"	14"	9-1/2" OR 11-3/8"	14" OR 16"	11-7/8"	14" OR 16"	11-7/8"	14" OR 16"
DEPTH	9-1/2" OR 11-3/8"	14"	9-1/2" OR 11-3/8"	14" OR 16"	11-7/8"	14" OR 16"	11-7/8"	14" OR 16"
FILLER BLOCK*	2X6	2X8	2X6 + 8" SHEATHING	2X8 + 8" SHEATHING	2X8 + 8" SHEATHING	2X8 + 8" SHEATHING	TWO 2X6	TWO 2X8

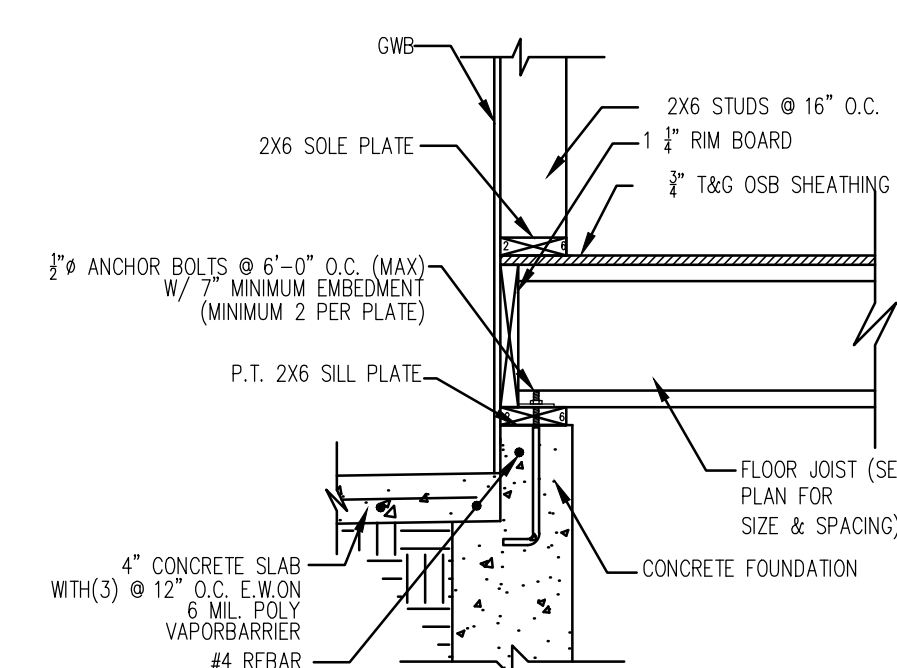
* IF NECESSARY, INCREASE FILLER AND BACKER BLOCK HEIGHT FOR FACE MOUNT HANGERS AND MAINTAIN 1/2" GAP AT TOP OF JOIST.

DECK JOIST SPACE	FLOOR SPACING		
	16"	19.2"	24"
≤ 8'-0"	MP34	MP34	MPA1
10'-0"	MP34	MPA1	(2)MP34
12'-0"	MPA1	MPA1	(2)MP34
14'-0"	MPA1	(2)MP34	(2)MPA1
16'-0"	(2)MP34	(2)MP34	(2)MPA1
18'-0"	(2)MP34	(2)MPA1	(2)MPA1
20'-0"	(2)MPA1	(2)MPA1	(2)MPA1

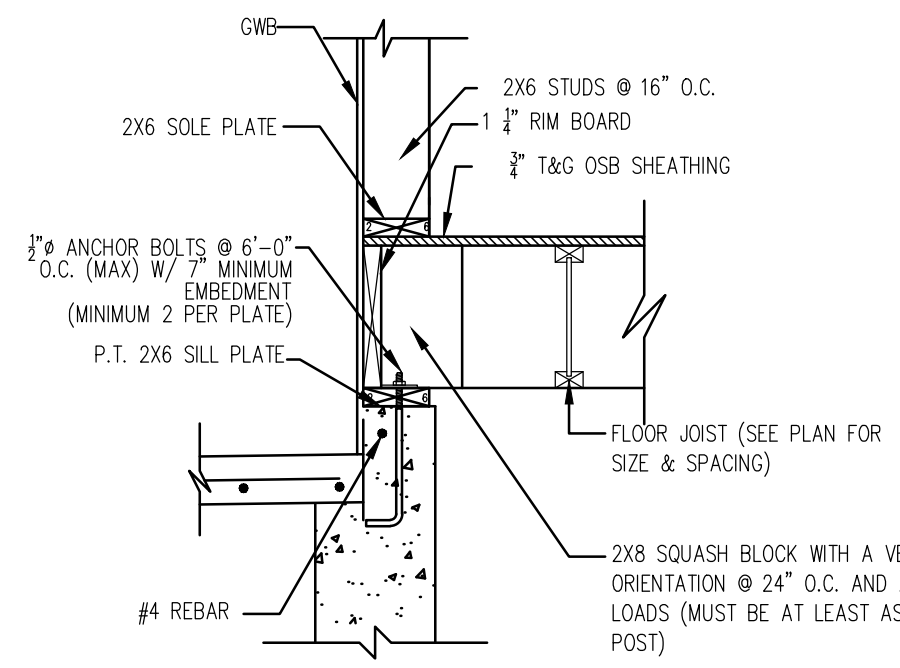


NOTE:
SEE FASTENING SCHEDULE ON SHEET SN.2

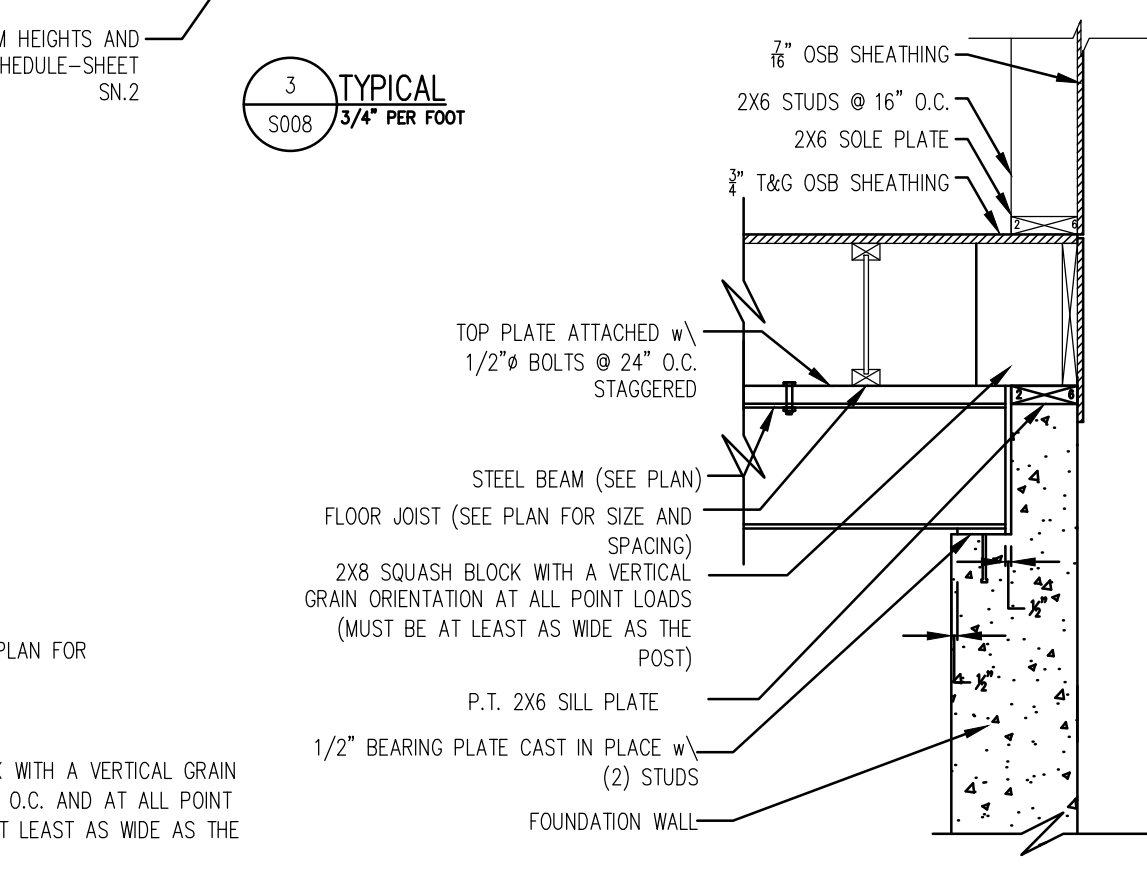
5 SECTION
S008 3/4" PER FOOT



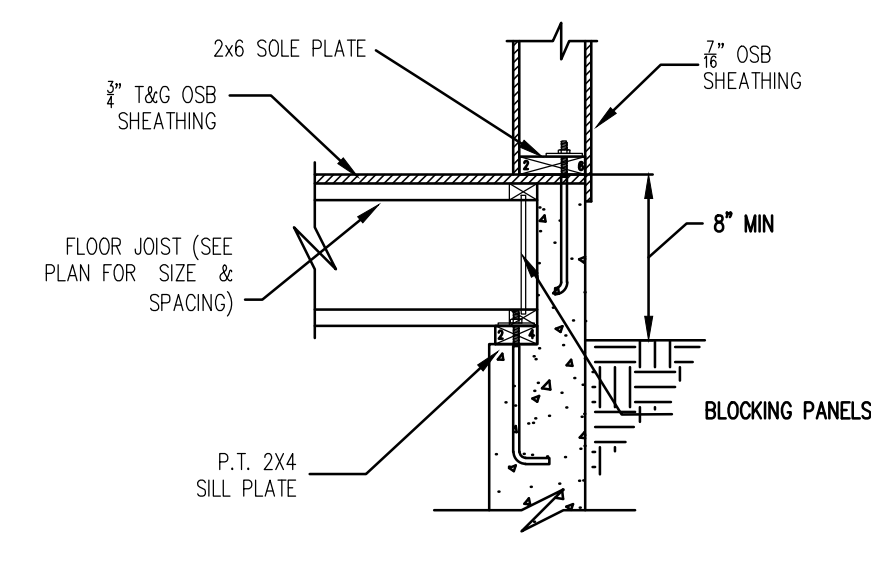
6 SECTION - GARAGE
S008 3/4" PER FOOT



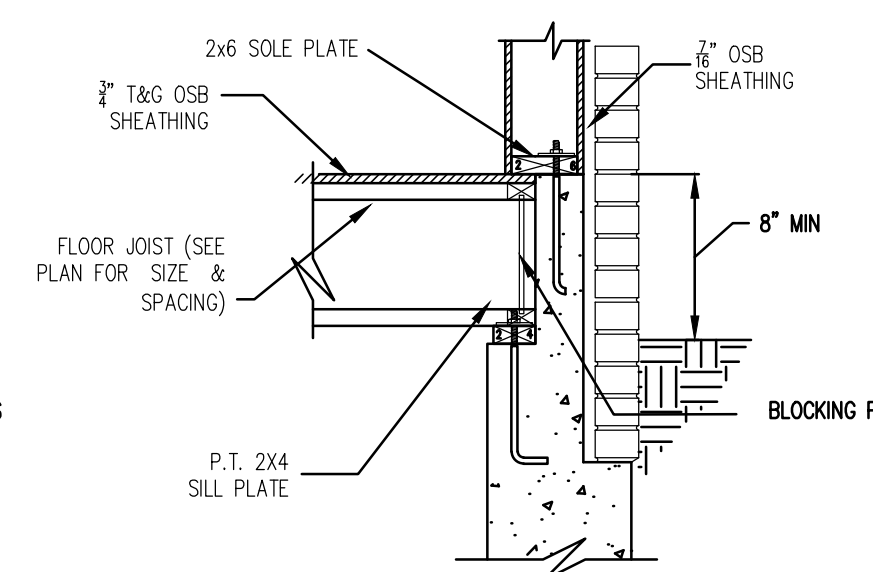
7 SECTION - GARAGE
S008 3/4" PER FOOT



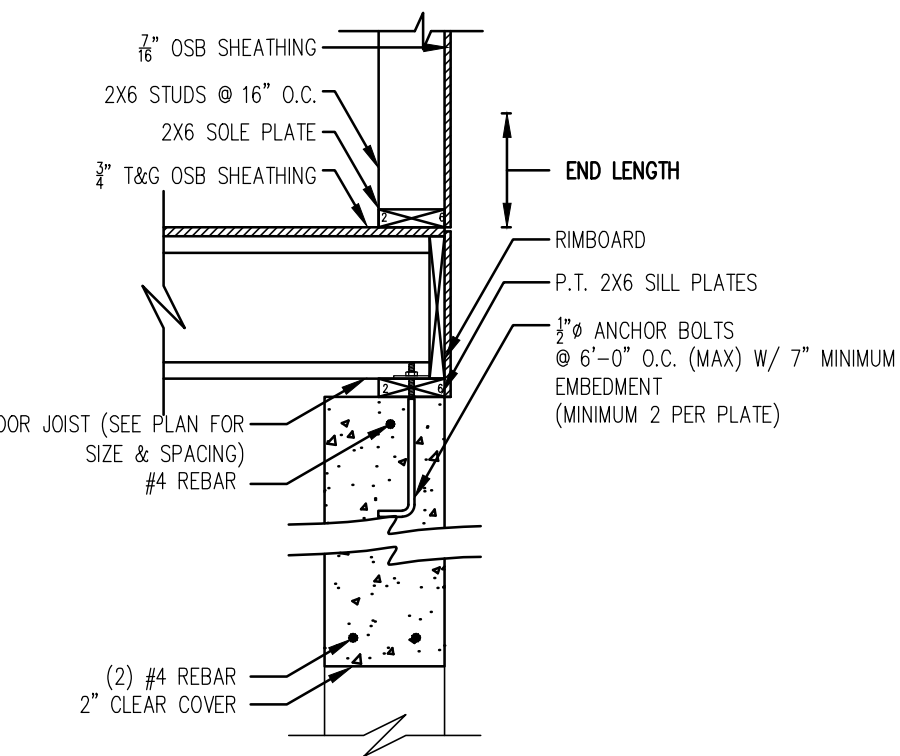
8 SECTION - BEAM POCKET
S008 3/4" PER FOOT



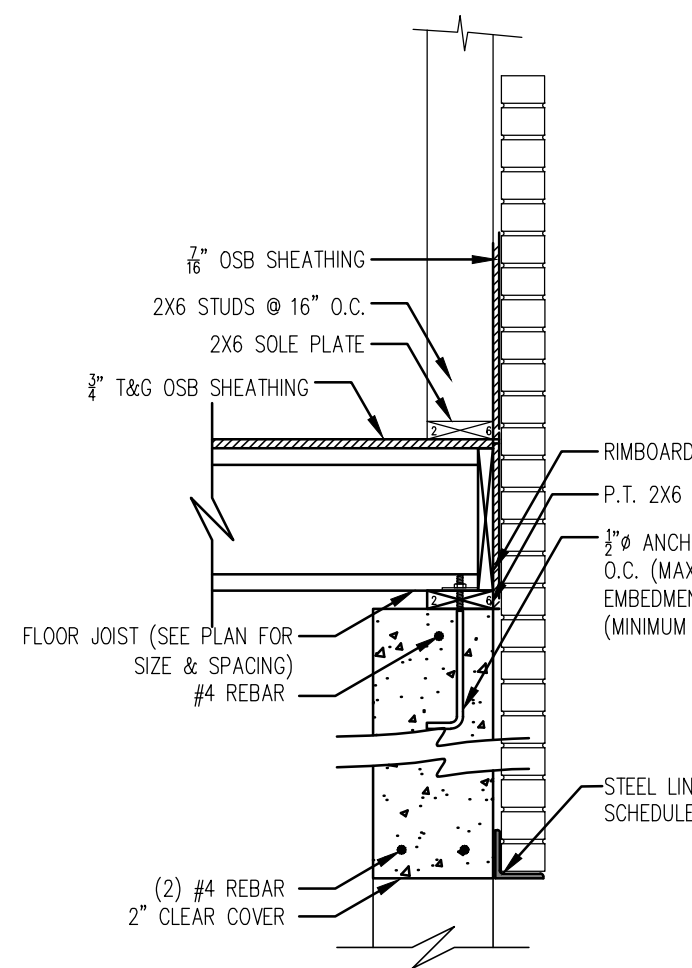
9 SECTION @ REVERSED LEDGE
S008 3/4" PER FOOT



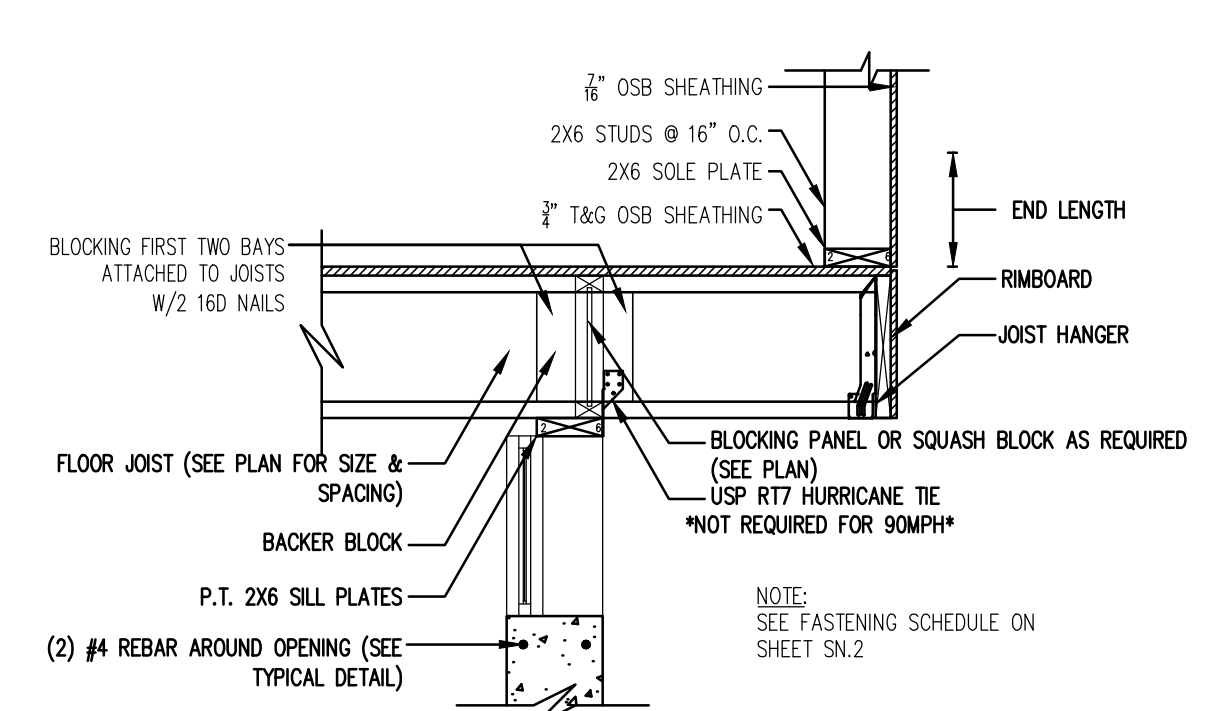
10 SECTION @ REVERED LEDGE W/ BRICK
S008 3/4" PER FOOT



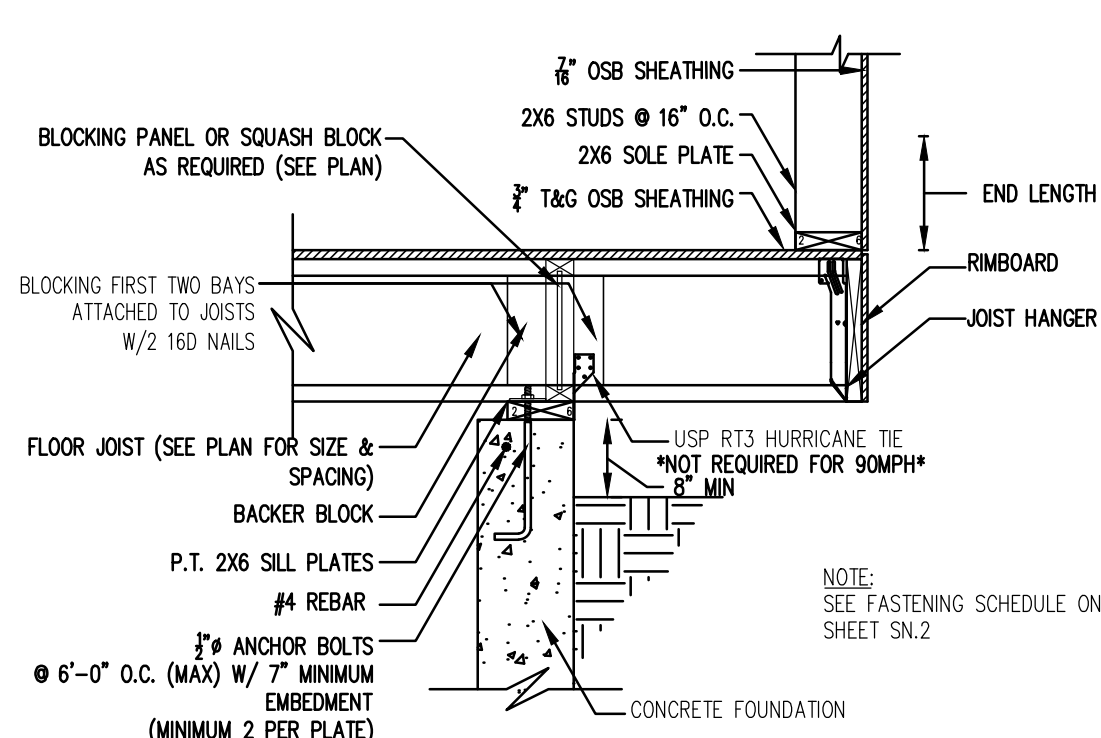
11 SECTION @ CONC. HEADER
S008 3/4" PER FOOT



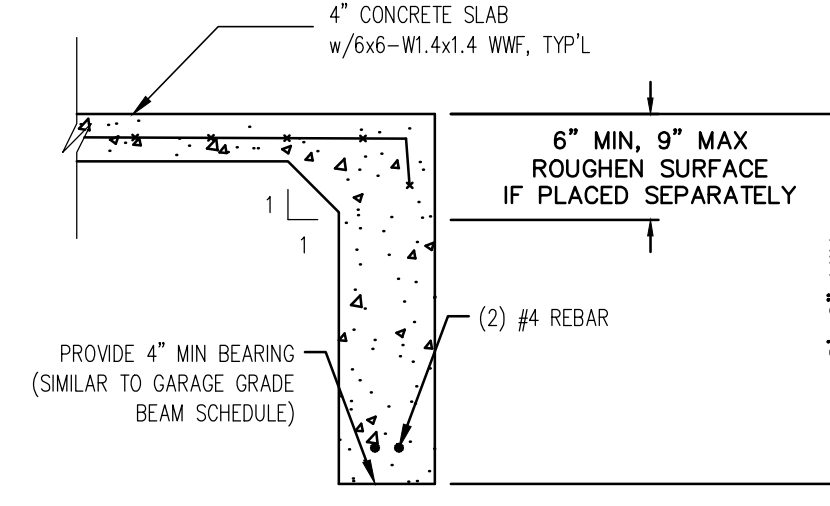
12 SECTION @ CONC. HEADER W/ BRICK
S008 3/4" PER FOOT



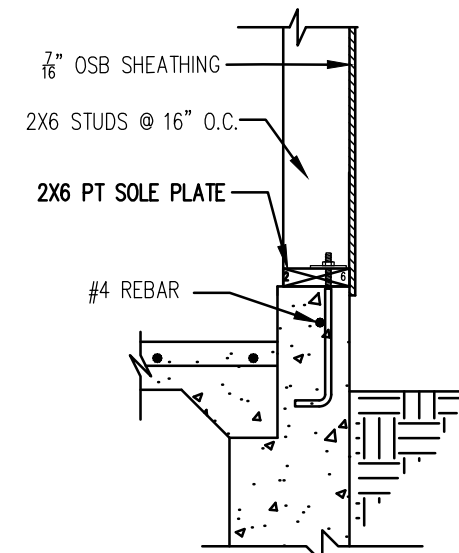
13 SECTION @ CANT. JOIST OVER WINDOW
S008 3/4" PER FOOT



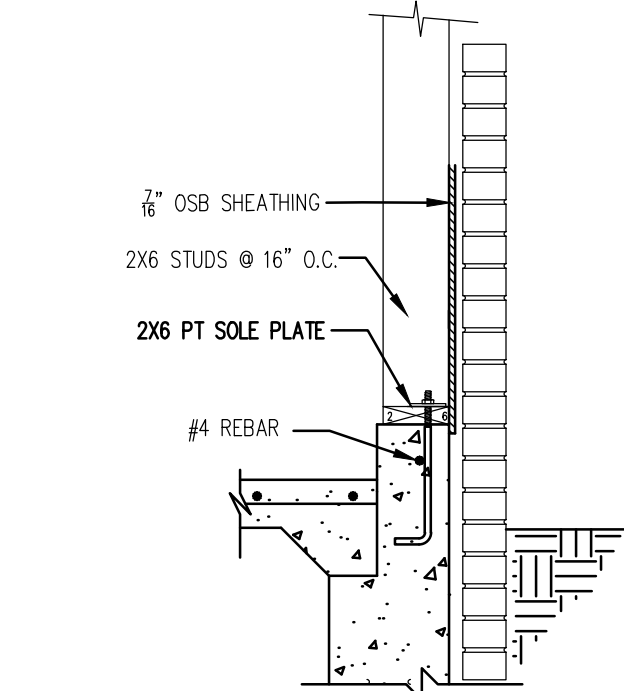
14 SECTION @ CANT. JOIST W/ SUPPORTING RIM BOARD
S008 3/4" PER FOOT



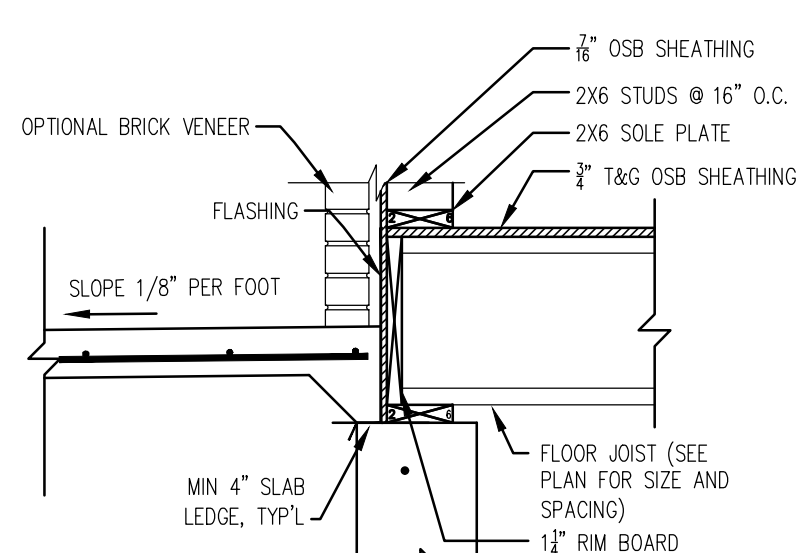
15 TURN DOWN SLAB
S0.2 3/4" PER FOOT



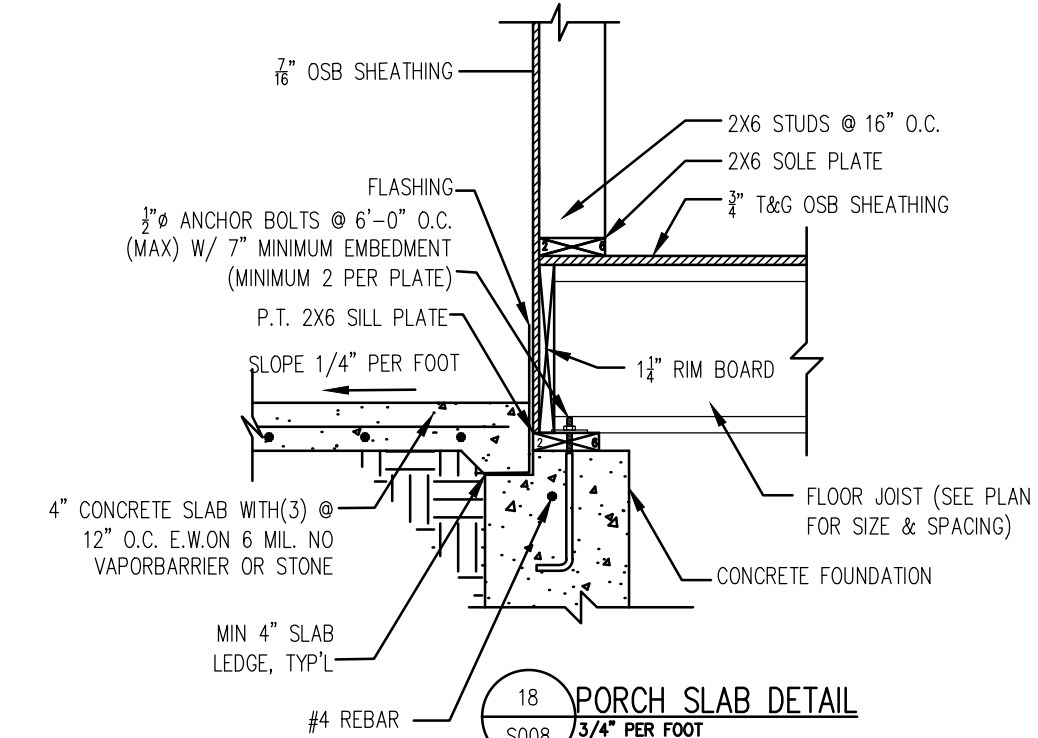
16 SECTION @ GARAGE EXTERIOR
S008 3/4" PER FOOT



17 SECTION @ GARAGE EXTERIOR W/ BRICK
S008 3/4" PER FOOT



18 PORCH SLAB DETAIL W/ BRICK
S008 3/4" PER FOOT



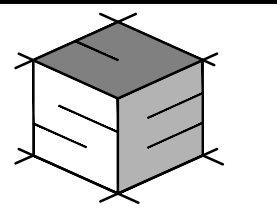
19 PORCH SLAB DETAIL
S008 3/4" PER FOOT

LAIN STREET HOMES LLC

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STRUCTURAL ENGINEERING UNLIMITED, LLC
341 W. PATRICK STREET
FREDERICK, MD 21701
240-815-6760
301-748-2769



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO.: 24518
EXPIRATION DATE: 09-21-2025

ACL3 MODEL
Sundays Ln. Lot 3,
Frederick, MD 21702

JOB #: B0491

REVISIONS: DATE:

PERMIT SET 2/1/25

PLAN REVIEW COMMENTS 10/9/25

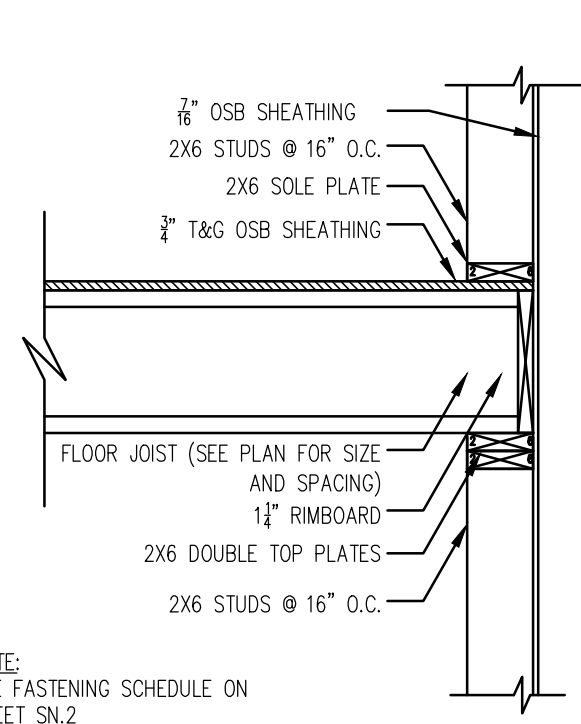
DATE: 2 - 01 - 2025

SCALE: AS SHOWN

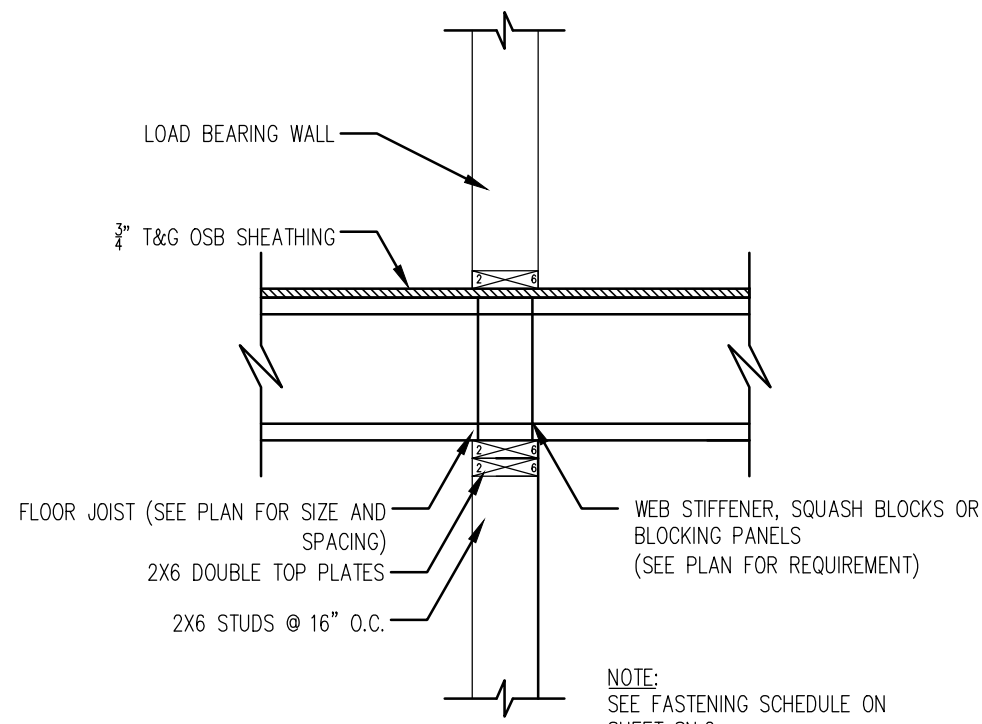
PAGE DESCRIPTION:
GENERAL
STRUCTURAL
DETAILS & NOTES

SHEET:

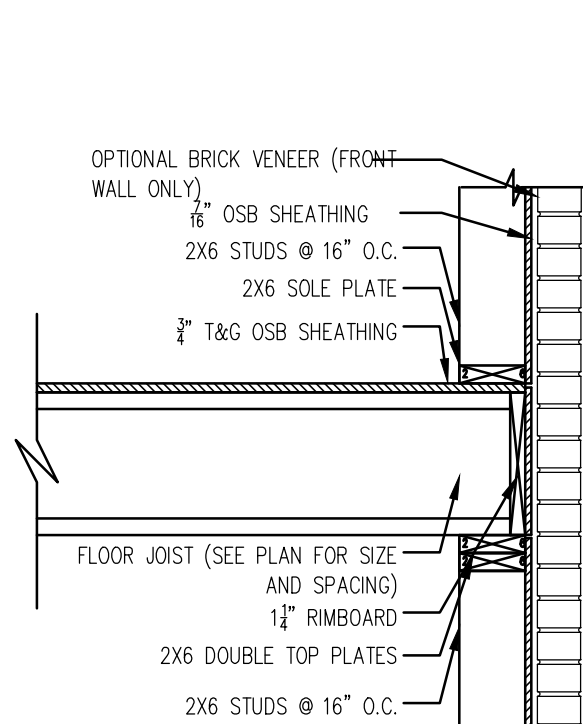
S010



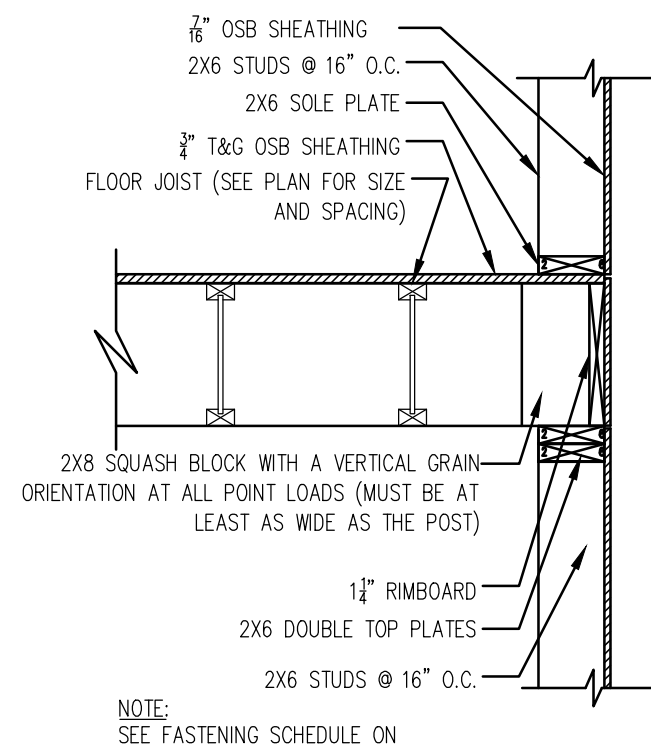
1 SECTION - EXTERIOR WALL
S009 3/4" PER FOOT



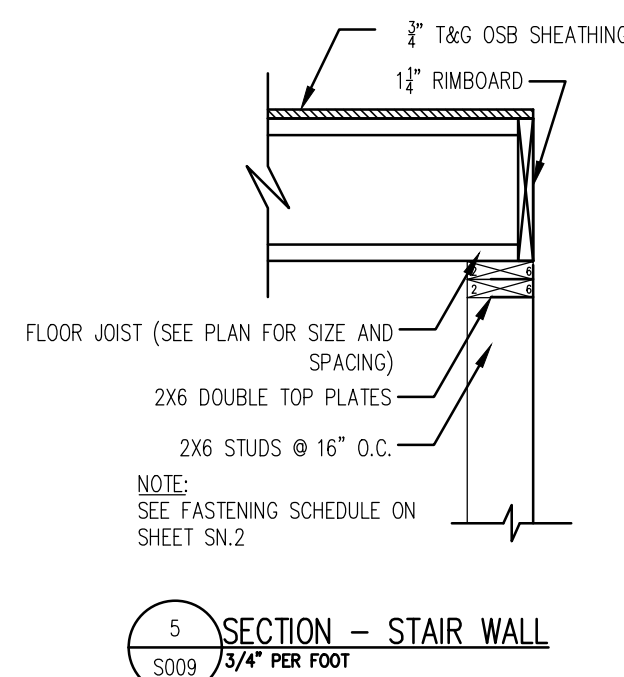
2 SECTION
S009 3/4" PER FOOT



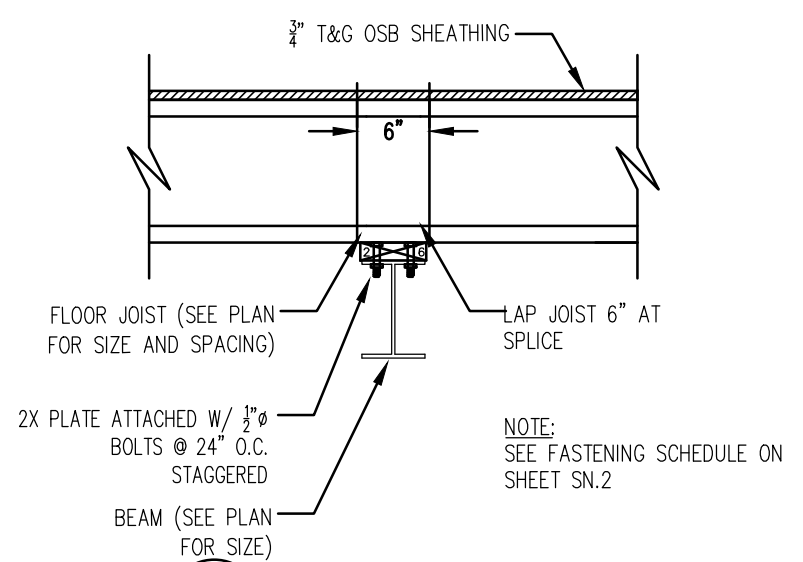
3 SECTION - EXTERIOR WALL W/ BRICK
S009 3/4" PER FOOT



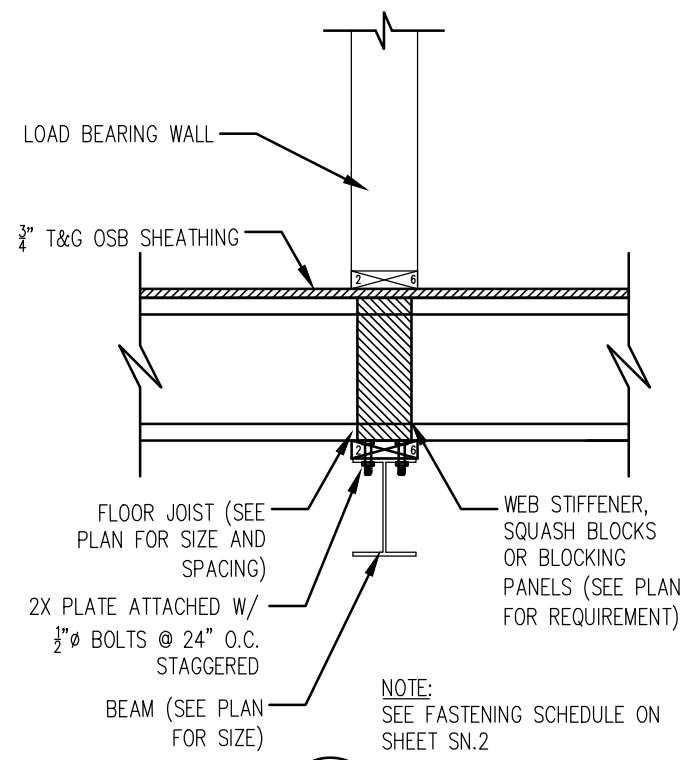
4 SECTION - EXTERIOR WALL
S009 3/4" PER FOOT



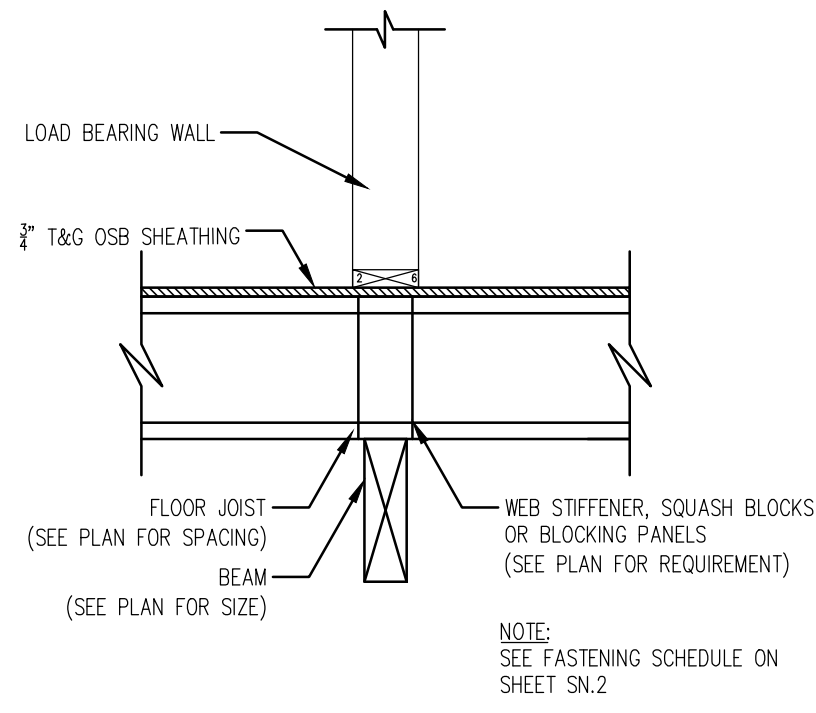
5 SECTION - STAIR WALL
S009 3/4" PER FOOT



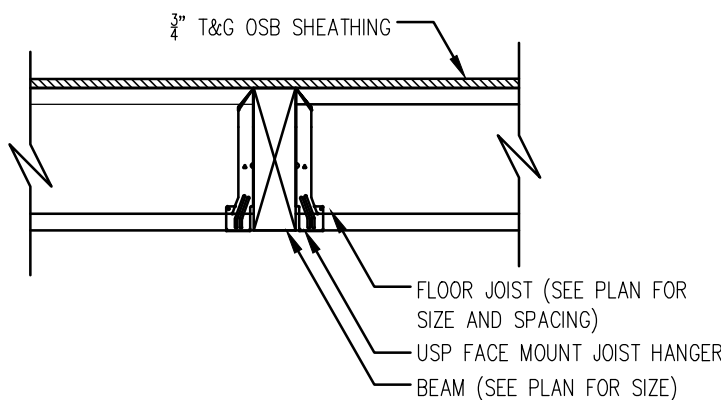
7 SECTION - LAPPING JOISTS
S009 3/4" PER FOOT



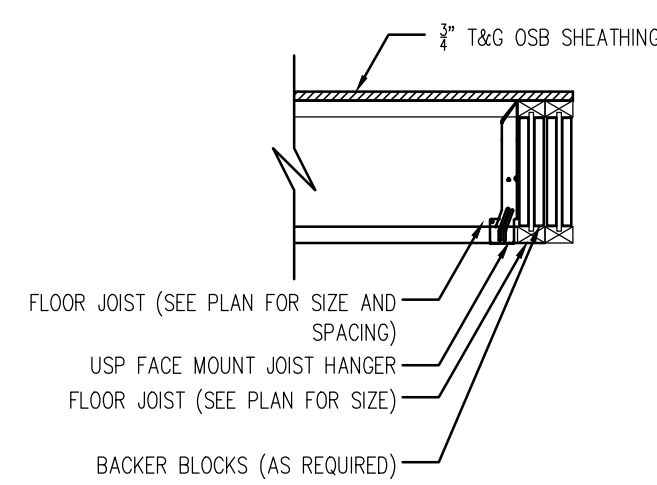
8 SECTION
S009 3/4" PER FOOT



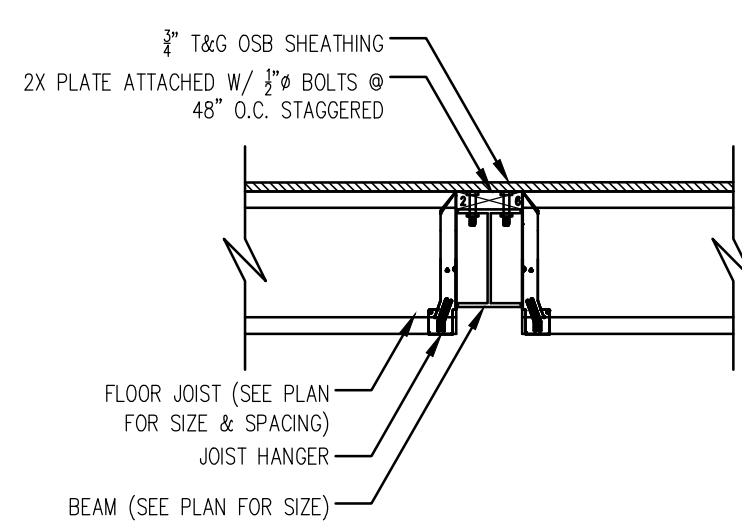
9 SECTION
S009 3/4" PER FOOT



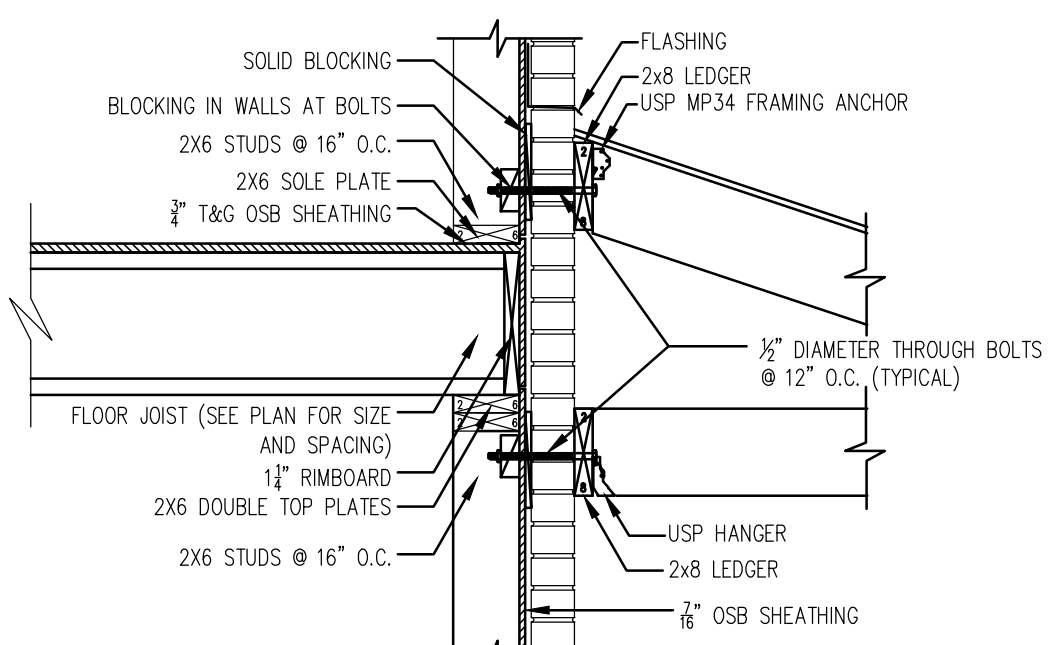
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S009 3/4" PER FOOT



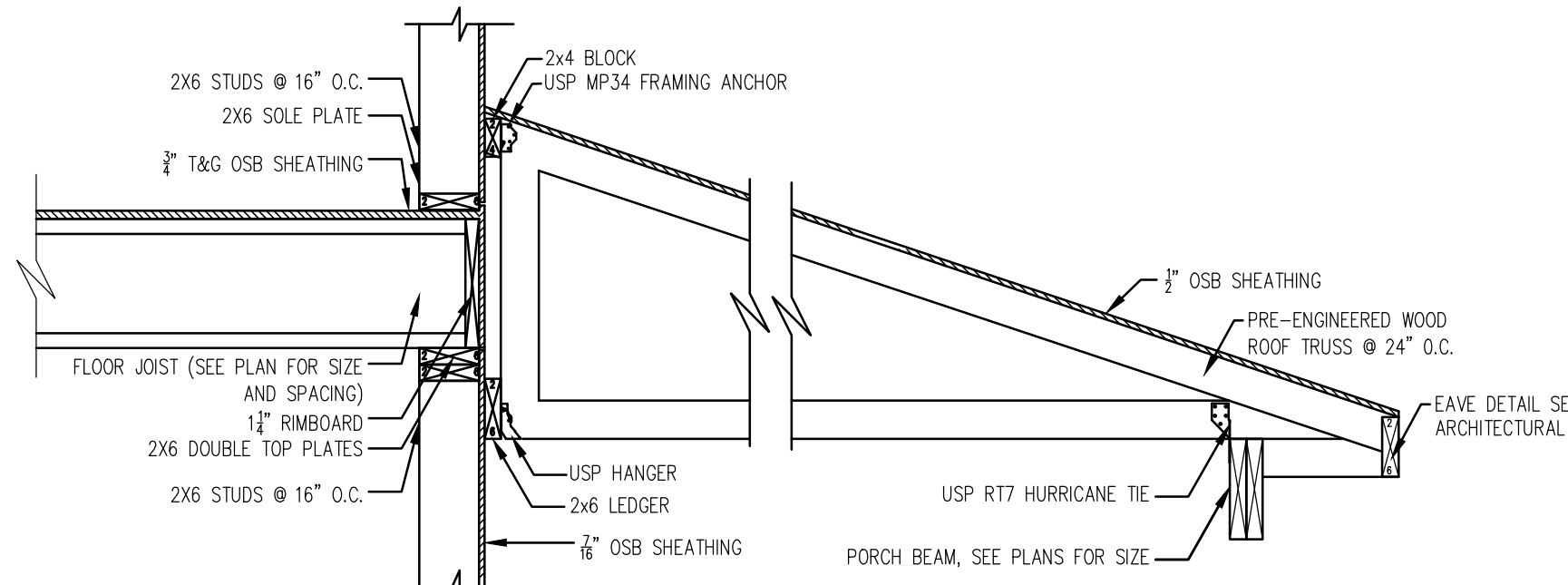
11 SECTION
S009 3/4" PER FOOT



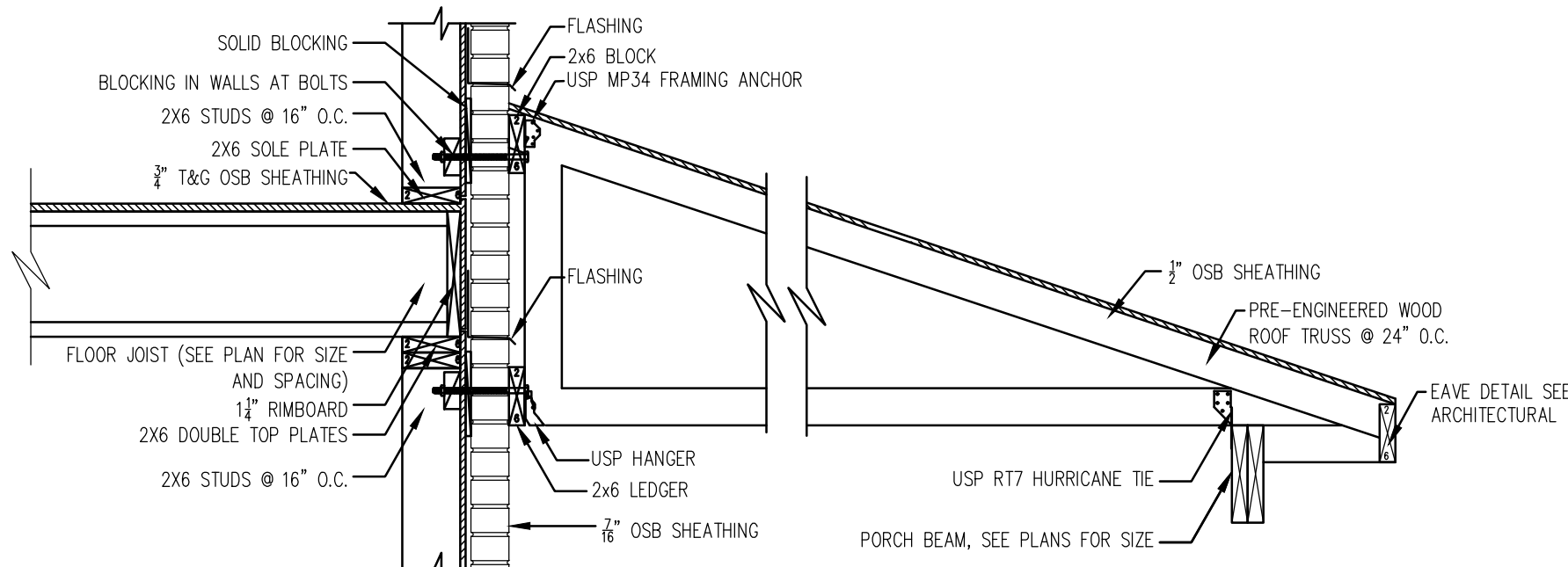
12 SECTION
S009 3/4" PER FOOT



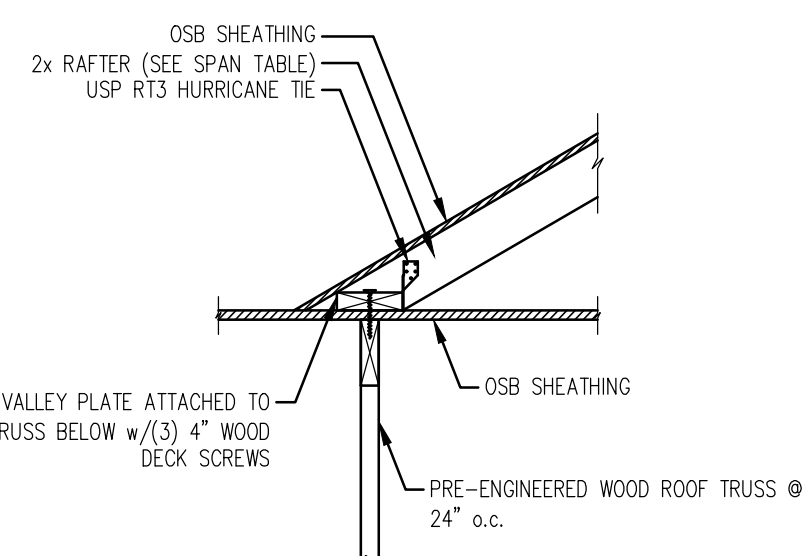
13 DETAIL FOR RAFTER CONNECTION @ WALL W/ BRICK
S009 3/4" PER FOOT



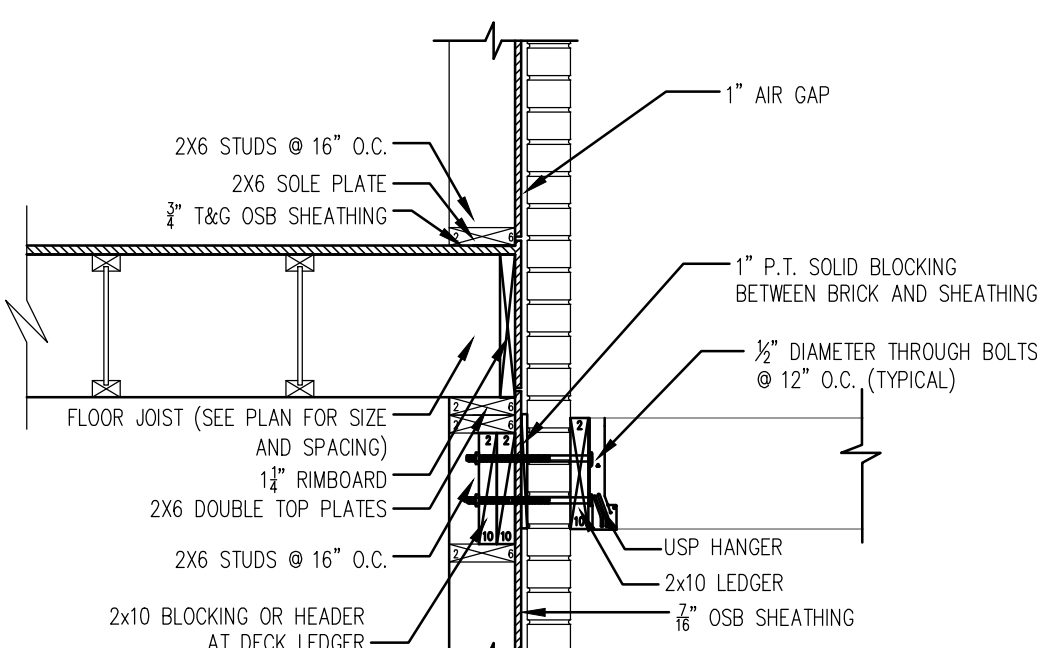
14 DETAIL FOR TRUSS CONNECTION @ WALL
S009 3/4" PER FOOT



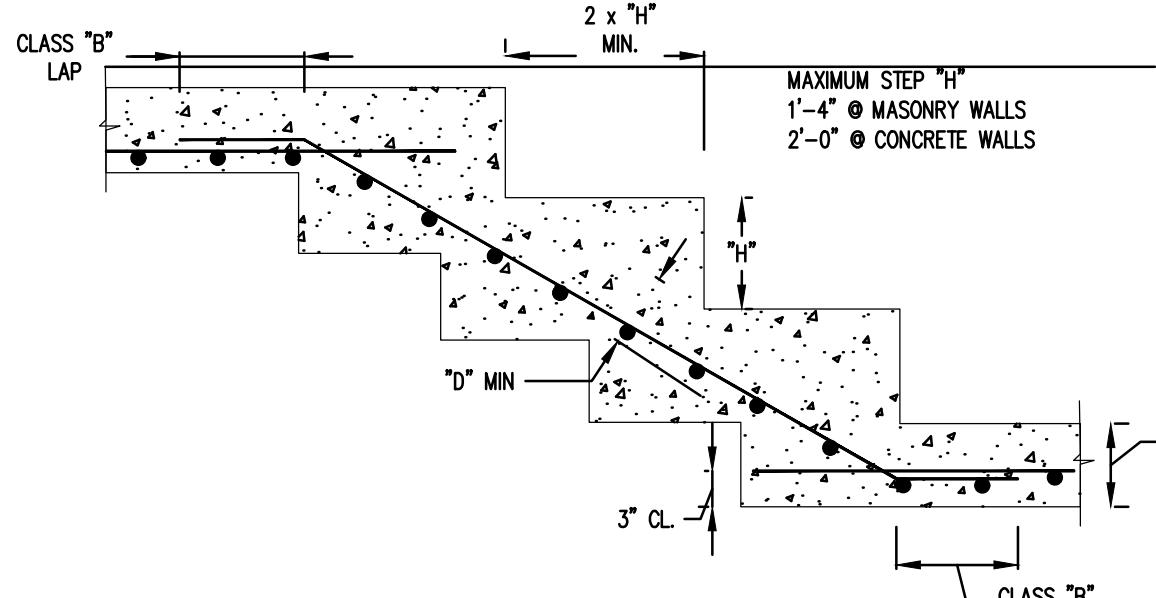
15 DETAIL FOR TRUSS CONNECTION @ WALL W/ BRICK
S009 3/4" PER FOOT



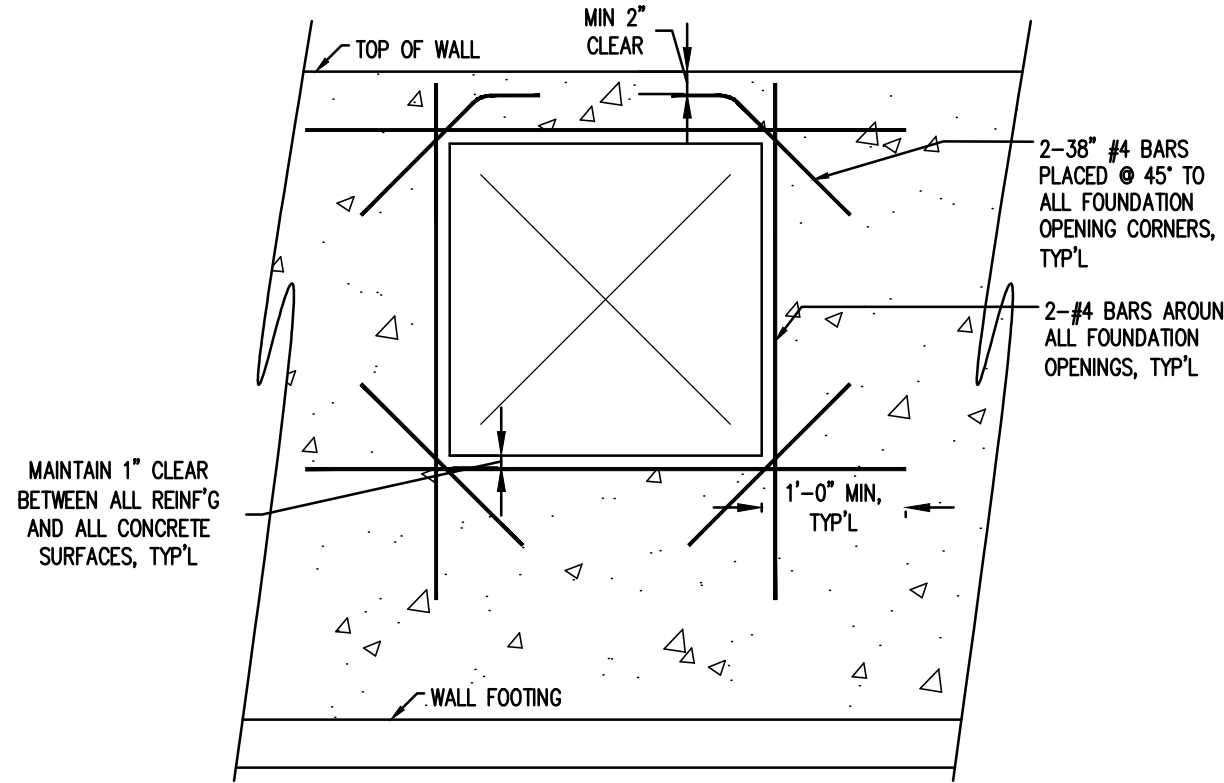
16 TYP OVER FRAMING CONNECTION DETAIL
S009 3/4" PER FT



6 DETAIL FOR DECK JOISTS CONNECTION @ WALL W/ BRICK
S009 3/4" PER FOOT



17 STEP FOOTING DETAIL (TYP.)
S009 N.T.S.



18 WALL OPENING DETAIL (TYP.)
S009 N.T.S.

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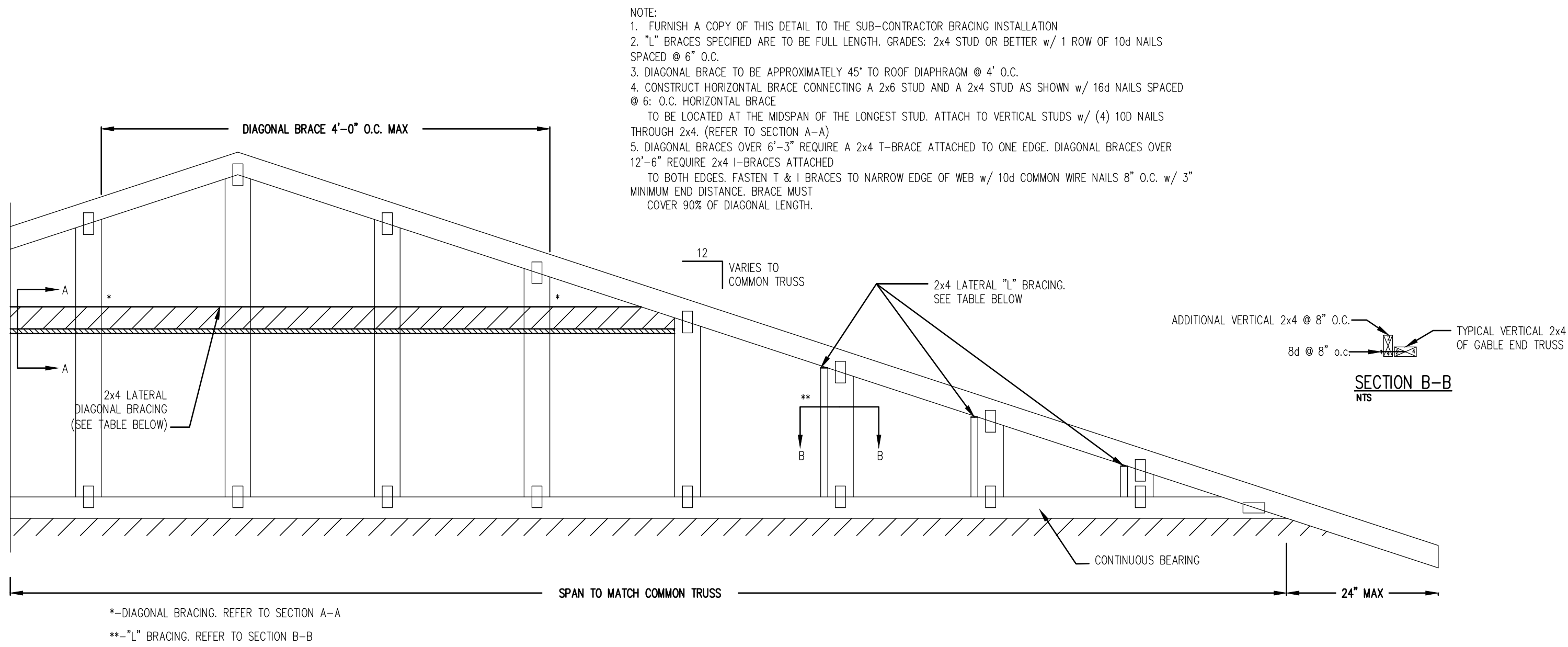


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ACL3 MODEL
Sundays Ln. Lot 3,
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JOB #:	B0491
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SHEET:	S011



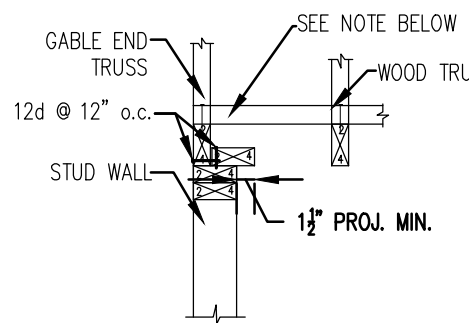
LATERAL BRACING NAILING SCHEDULE	
VERTICAL HEIGHT	NUMBER OF NAILS
UP-TO 6'-11"	2-16d
7'-0" & 8'-5"	3-16d
8'-6" & OVER	4-16d

MAXIMUM VERTICAL STUD HEIGHT				
SPACING OF VERTICALS	W/O LATERAL BRACE	WITH "L" BRACE	WITH DIAGONAL BRACE	WITH 2 DIAGONAL BRACES AT 1/3 POINTS
12" o.c.	4'-9-3/4"	7'-10"	9'-7-1/2"	14'-5-1/4"
16" o.c.	4'-4-1/2"	6'-9-3/4"	8'-8-3/4"	13'-1-1/4"
24" o.c.	3'-9-1/2"	5'-6-1/2"	7'-7-1/4"	11'-4-3/4"

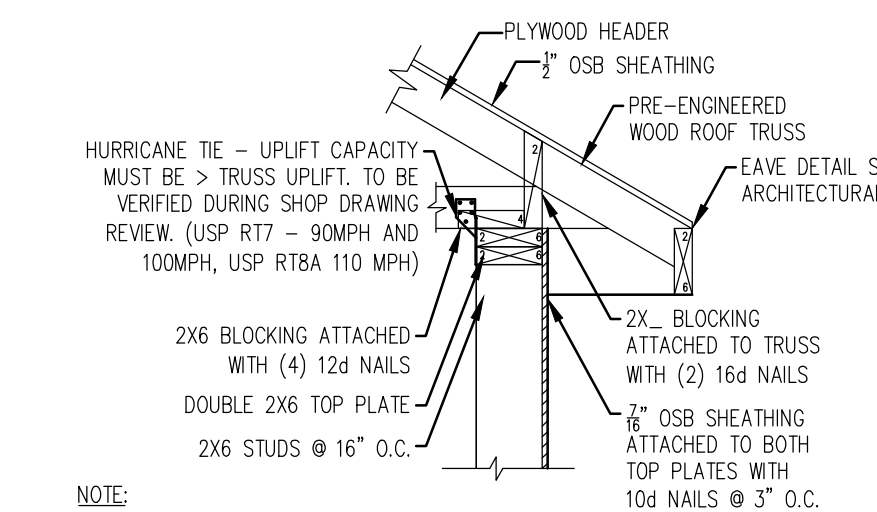
THIS TABLE CANNOT BE USED WITH BRICK VENEER

MAXIMUM WIND SPEED = 100 MPH
 MAX MEAN ROOF HEIGHT = 30'-0"
 CATEGORY II BUILDING
 EXPOSURE B or C
 ASCE 7-08
 DURATION OF LOAD INCREASE: 1.60

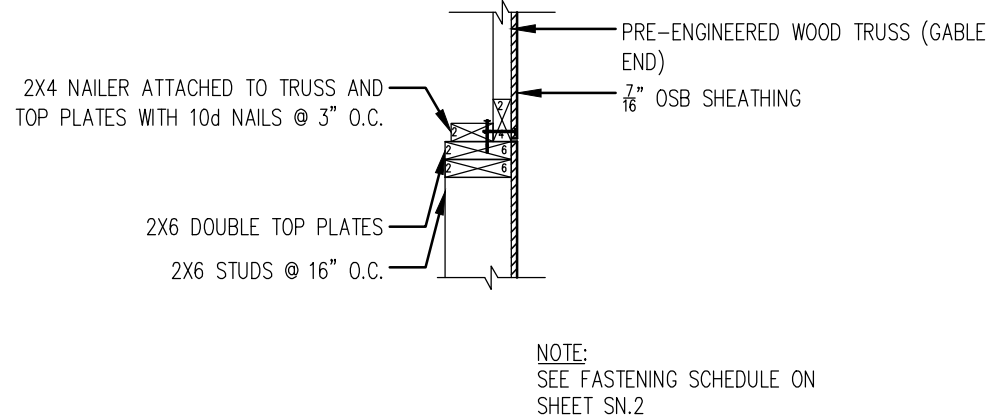
NOTE:
 BOTTOM CHORD HORIZONTAL BRACING, 2x4 (FLAT) ATTACHED TO 4 TRUSS @ 3'-0" o.c. NAIL TO TOP OF EACH BOTTOM CHORD WITH 2-16d NAILS.



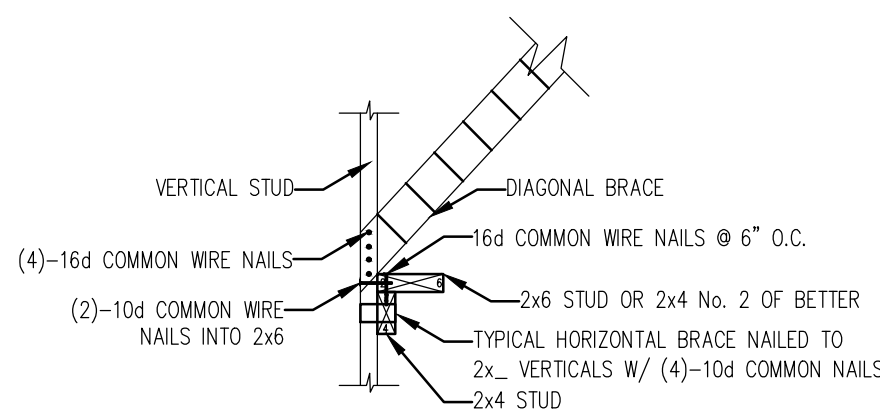
DETAIL "B" NTS



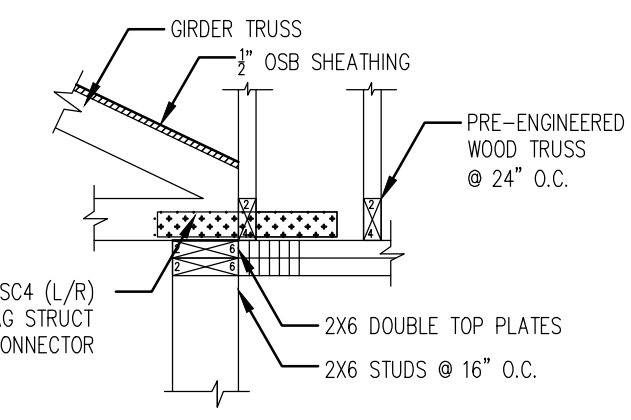
1 SECTION S010 3/4" PER FOOT



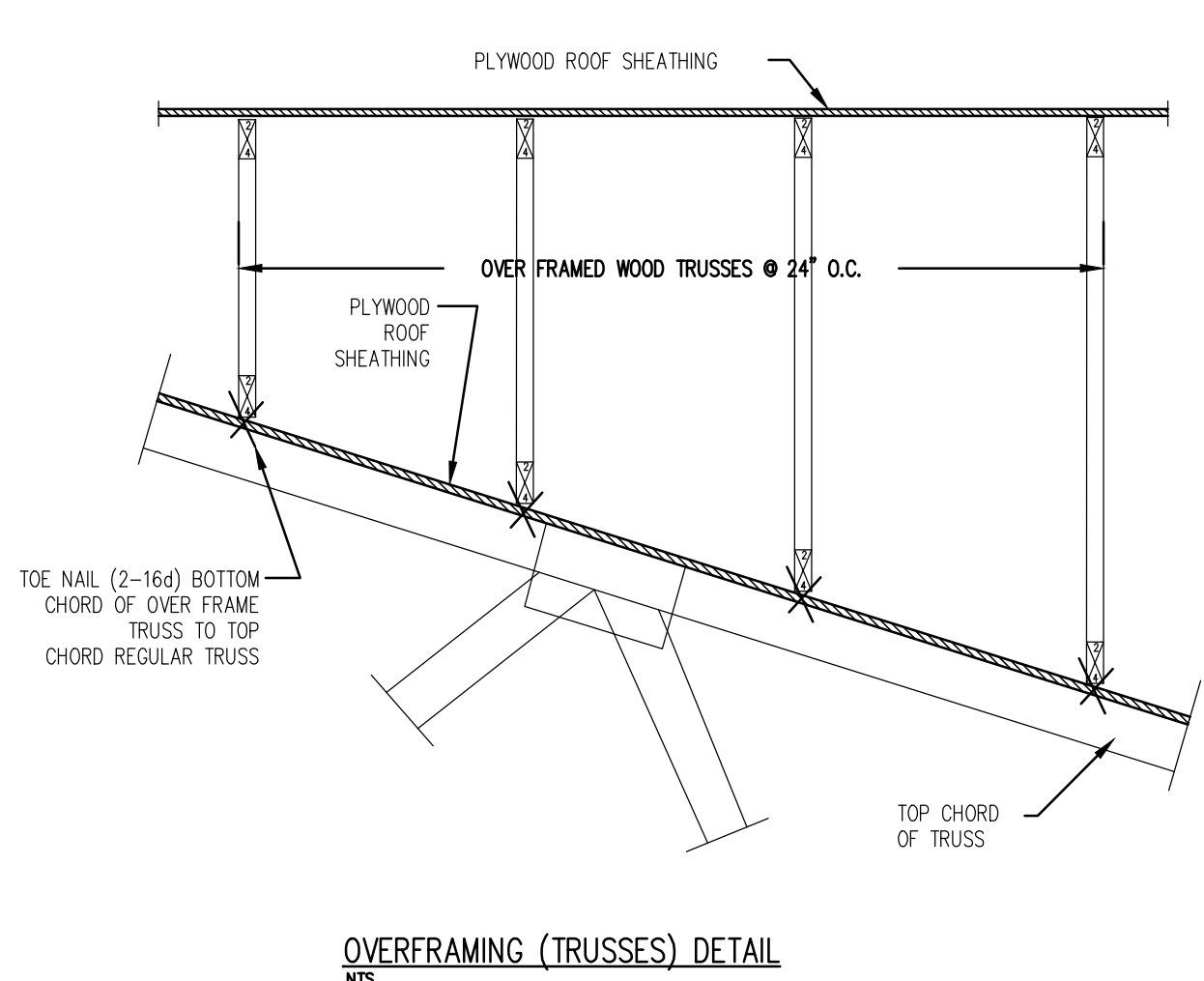
2 SECTION S010 3/4" PER FOOT



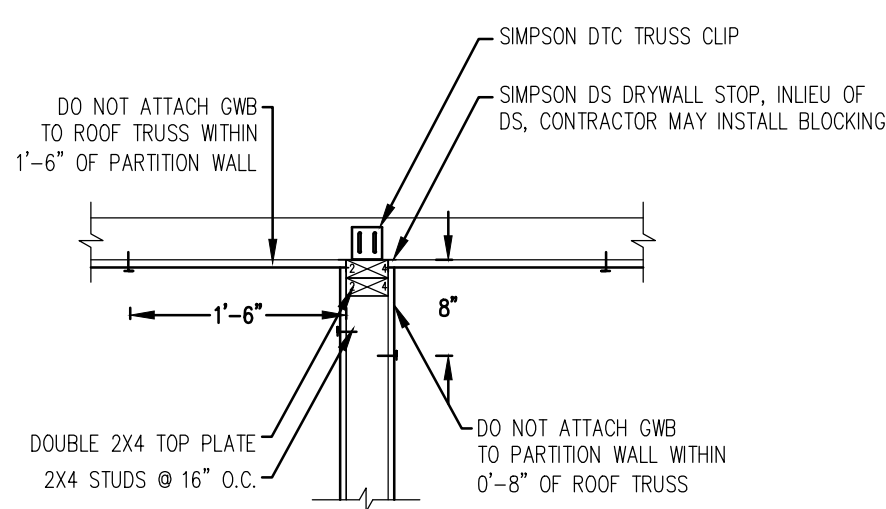
SECTION A-A NTS



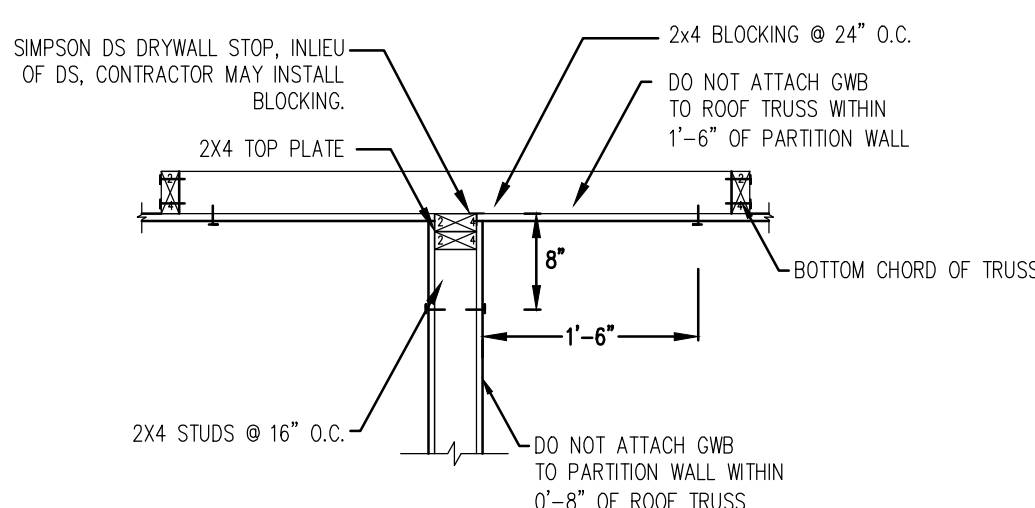
3 SECTION S010 3/4" PER FOOT



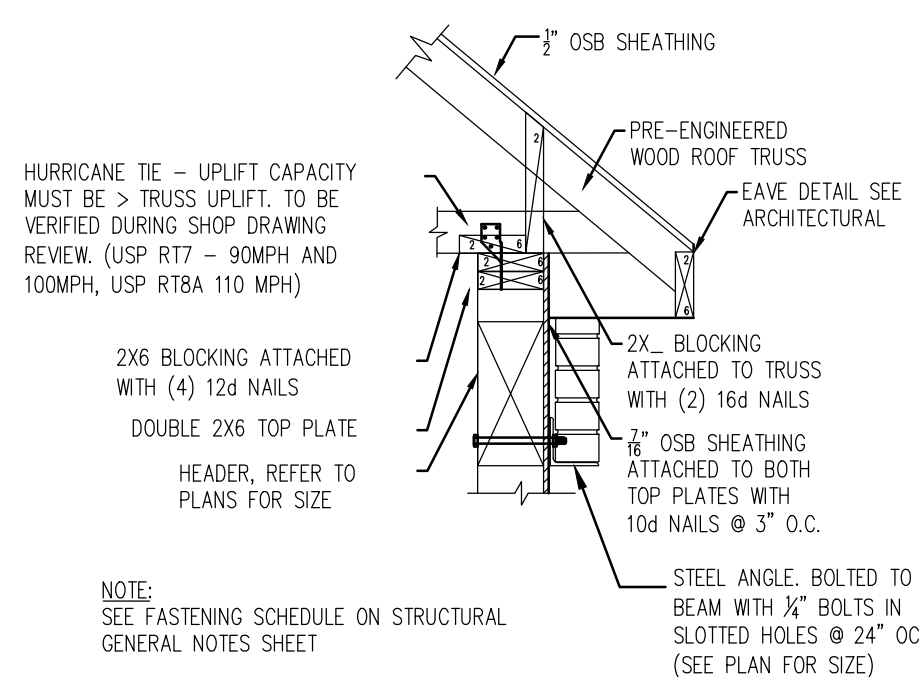
OVERFRAMING (TRUSSES) DETAIL NTS



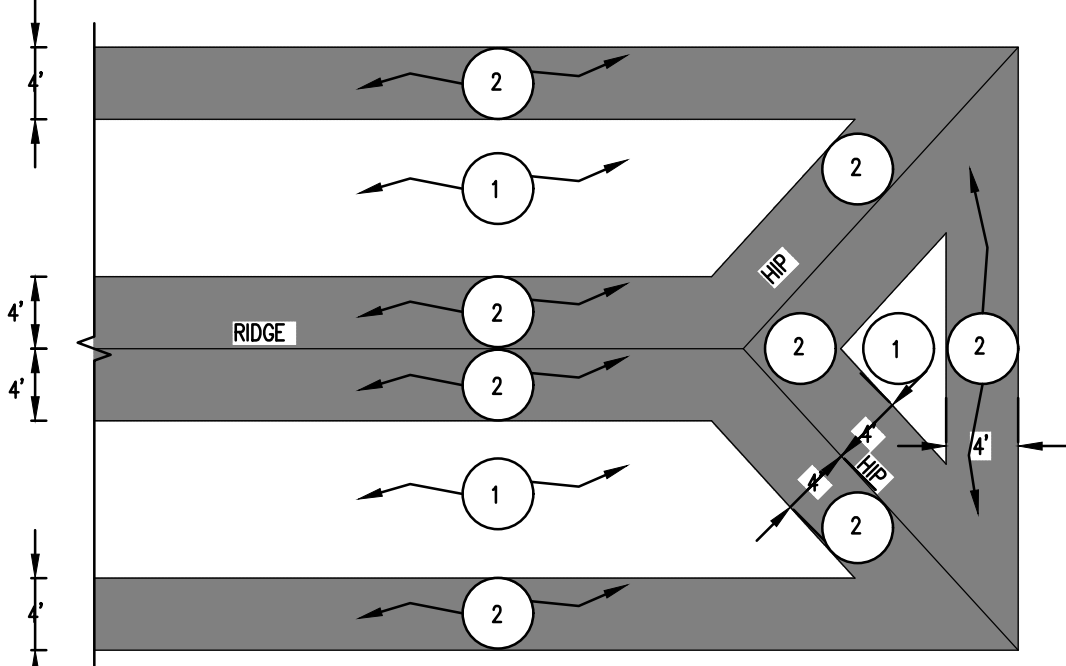
PERPENDICULAR PARTITION DETAIL (TYP) NTS



PARALLEL PARTITION DETAIL (TYP) NTS



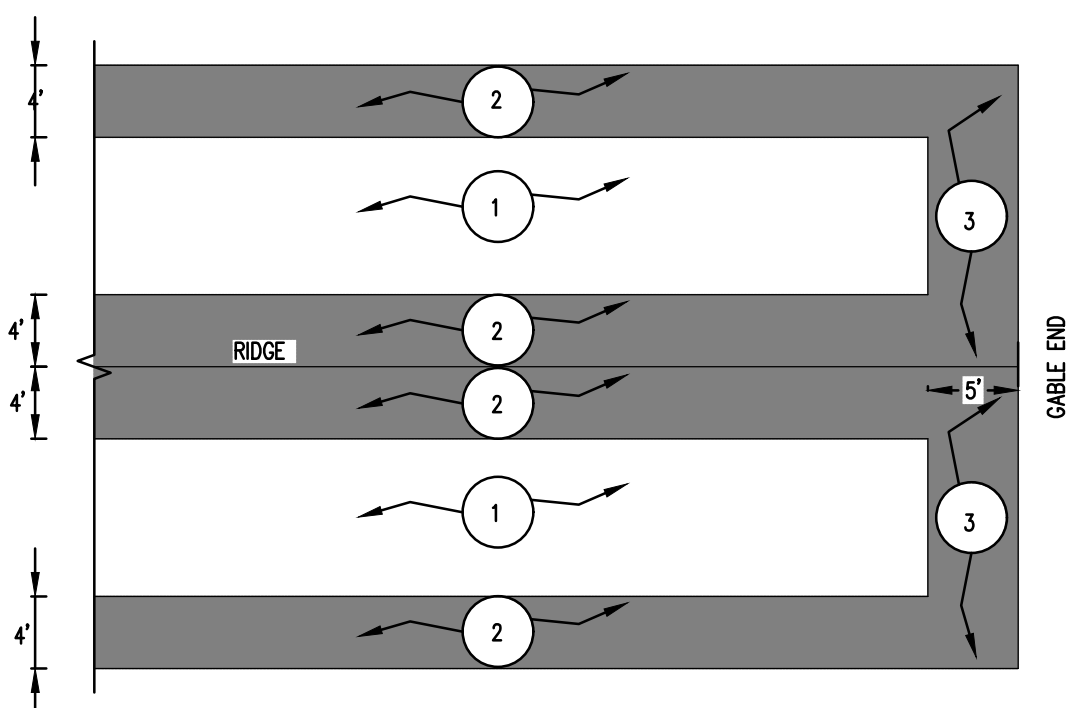
4 SECTION S010 3/4" PER FOOT



NAIL SPACING SCHEDULE				
ZONE	1		2	
	<110 MPH (3SEC GUST)	≥110 MPH (3SEC GUST)	<110 MPH (3SEC GUST)	≥110 MPH (3SEC GUST)
PANEL EDGE	6" O.C.	4" O.C.	6" O.C.	6" O.C.
PANEL INTERIOR	12" O.C.	6" O.C.	12" O.C.	6" O.C.

NOTE: USE 8d RING SHANK NAILS

PARTIAL ROOF (PLAN VIEW) SHOWING SHEATHING/FASTENING DETAIL



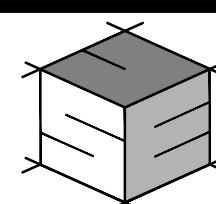
NAIL SPACING SCHEDULE						
ZONE	1		2		3	
	<110 MPH (3SEC GUST)	≥110 MPH (3SEC GUST)	<110 MPH (3SEC GUST)	≥110 MPH (3SEC GUST)	<110 MPH (3SEC GUST)	≥110 MPH (3SEC GUST)
PANEL EDGE	6" O.C.	4" O.C.	6" O.C.	6" O.C.	6" O.C.	4" O.C.
PANEL INTERIOR	12" O.C.	6" O.C.	12" O.C.	6" O.C.	6" O.C.	6" O.C.

NOTE: USE 8d RING SHANK NAILS

PARTIAL ROOF (PLAN VIEW) SHOWING SHEATHING/FASTENING DETAIL

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S012