

THESE PLANS HAVE BEEN
REVIEWED AND APPROVED
SOLEY FOR THE WORK AS
DESCRIBED IN THE
"DESCRIPTION OF WORK" AS
INDICATED ON BUILDING
PERMIT APPLICATION
NUMBERED:

DN
Building Department Manager

INDEX OF DRAWINGS

ARCHITECTURAL	
001	COVER SHEET, AREA PLANS, & GENERAL NOTES
002	ENERGY COMPLIANCE NOTES & THERMAL ENVELOPE DIAGRAMS
A001	BASEMENT PLAN
A002	FIRST FLOOR PLAN
A003	SECOND FLOOR PLAN
A004	ELEVATIONS
A005	ELEVATIONS
A006	ELEVATIONS
A007	ELEVATIONS
A008	SECTIONS & DETAILS
STRUCTURAL	
S001	STRUCTURAL FOUNDATION PLAN
S002	FIRST FLOOR FRAMING PLAN
S003	SECOND FLOOR FRAMING / FIRST FLOOR ROOF FRAMING PLAN
S004	ROOF FRAMING PLAN
S005	FIRST FLOOR WALL BRACING PLAN
S006	SECOND FLOOR WALL BRACING PLAN
S007	GENERAL STRUCTURAL NOTES & SCHEDULES
S008	GENERAL STRUCTURAL NOTES & SCHEDULES
S009	GENERAL STRUCTURAL DETAILS & NOTES
S010	GENERAL STRUCTURAL DETAILS & NOTES
S011	GENERAL STRUCTURAL DETAILS & NOTES
S012	GENERAL STRUCTURAL DETAILS & NOTES

SCOPE OF WORK

THE SCOPE OF WORK TO INCLUDE CONSTRUCTION OF A NEW 3,945 SQUARE FOOT 5 BEDROOM, 1,269 SQUARE FOOT UNFINISHED BASEMENT, SINGLE FAMILY HOME WITH INTEGRAL 3-CAR GARAGE, 311 SQUARE FOOT COVERED FRONT PORCH PER THESE DRAWINGS.

APPLICABLE CODES

ALL WORK MUST COMPLY WITH THE FOLLOWING CODES:

BUILDING:
2021 INTERNATIONAL RESIDENTIAL CODE (IRC) WITH LOCAL AMENDMENTS
-MARYLAND BUILDING PERFORMANCE STANDARDS (COMAR 05.02.01)
2021 ICC INTERNATIONAL MECHANICAL CODE (IMC)
2021 ICC INTERNATIONAL ENERGY CONSERVATION CODE (IECC)

PLUMBING / GAS:
2021 ICC INTERNATIONAL PLUMBING CODE (IPC) ILLUSTRATED WITH LOCAL AMENDMENTS
2021 INTERNATIONAL FUEL GAS CODE (IFGC) WITH LOCAL AMMENDMENTS
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 AMMENDMENTS, PER STATE OF MARYLAND FIRE PREVENTION CODE
-2018 NFPA 101 LIFE SAFETY CODE (NATIONAL FIRE PROTECTION ASSOCIATION) WITH AMMENDMENTS, PER STATE OF MARYLAND FIRE PREVENTION CODE

DECK TO BE CONSTRUCTED IN ACCORDANCE WITH "MONTGOMERY COUNTY RESIDENTIAL TYPICAL DECK DETAILS"
(Based on the 2021 International Residential Code)

GENERAL STRUCTURAL NOTES:

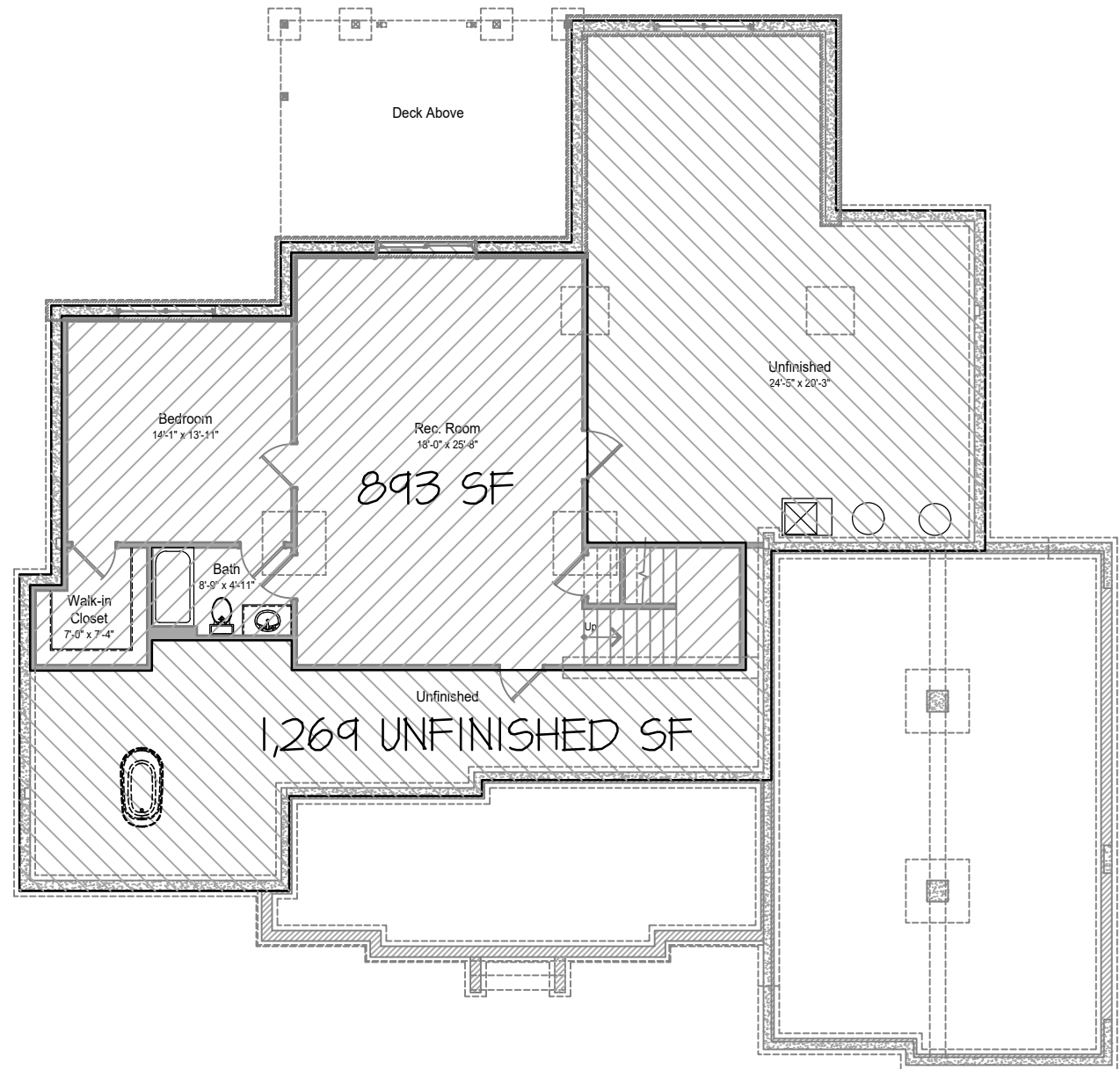
- STRUCTURAL DESIGN BASED ON THE FOLLOWING LOCAL CRITERIA:
 - 2021 INTERNATIONAL RESIDENTIAL CODE
 - GROUND SNOW LOAD - 25 P.S.F.
 - WIND PRESSURE - 20 P.S.F.
 - WIND SPEED - 115 M.P.H.
 - SEISMIC ZONE - A
 - WEATHERING AREA - SEVERE
 - FROST LINE DEPTH - 30" BELOW FINISH GRADE
 - TERMITE AREA - MODERATE TO HEAVY
 - DECAY AREA - SLIGHT TO MODERATE
 - WINTER DESIGN TEMPERATURE - 11° F
 - COINCIDENT WET BULB = 74%
 - WINTER HUMIDITY = 30%
 - SUMMER HUMIDITY = 30%
 - ICE SHIELD UNDER-LAYMENT REQUIRED - YES
 - FLOOD HAZARD - ORIGINALLY MAY 2, 1983, CURRENTLY OCTOBER 16, 2012, REVISED FEBRUARY 18, 2015
 - AIR FZ. INDEX - >1500
 - MEAN ANNUAL TEMP = 55° F
 - TOPOGRAPHIC EFFECTS - NO
 - RADON PROTECTION REQUIRED - YES
- LIVE LOADS:
 - BALCONIES (EXTERIOR) - 60 P.S.F.
 - DECKS - 60 P.S.F.
 - GARAGES - 50 P.S.F.
 - ATTICS (W/ LIMITED STORAGE) - 20 P.S.F.
 - ATTICS (NO STORAGE) - 10 P.S.F.
 - HABITABLE ATTICS & ATTICS SERVED W/ FIXED STAIR - 30 P.S.F.
 - DWELLING UNITS - 40 P.S.F.
 - SLEEPING AREAS - 30 P.S.F.
 - STAIRS - 40 P.S.F.
- DEFLECTION:
 - RAFTERS - L/180
 - INTERIOR WALLS - L/180
 - FLOORS / CEILINGS - L/360
 - STRUCTURAL MEMBERS - L/240
 - FLOOR TRUSSES - L/480
- FOUNDATION DESIGN:
 - SOIL BEARING CAPACITY MIN. - 2000 P.S.F.
 - TYPICAL FOUNDATION WALL - 8" CONCRETE WALL WITH #4 BARS AT 16" O.C. EACH WAY WITH DOWELS INTO FOOTINGS - CONCRETE TO BE AIR ENTRAINED - TOTAL AIR CONTENT TO BE NOT LESS THAT 5% OR MORE THAN 1% CONCRETE TO BE 3000 P.S.I.
 - TYPICAL CONCRETE FOOTING - CONTINUOUS 8" DEEP - MIN. 30" BELOW FINISH GRADE. SEE LOWER LEVEL PLAN FOR WIDTH. 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.
 - FOUNDATION DRAINAGE TO BE PROVIDED TO ALL BASEMENTS, DRAINAGE TO BE 4" DRAIN TILE ON 2" OF WASHED GRAVEL WITH 6" GRAVEL COVER WITH FILTER MEMBRANE OVER STONE. DRAIN TILE TO DRAIN TO GRADE OR SUMP CROCK WITH PUMP TO GRADE.
 - FOUNDATION WALL TO BE DAMP PROOFED AS REQUIRED
 - FOUNDATION FOOTING TO BE INSULATION TO BELOW FROST LINE.
 - ALL STEEL TO BE Laterally SUPPORTED AND HAVE A SHOP COAT OF RUST INHIBITIVE PAINT.
 - SOIL AROUND FOUNDATION TO BE CHEMICALLY TREATED IN ACCORDANCE WITH USDA FOREST SERVICE HOME AND GARDEN BULLETIN #64 FOR TERMITE AND PEST CONTROL.
- CONCRETE SLABS:
 - TYPICAL BASEMENT SLAB TO BE 4" CONCRETE W/ 6X6 W4.0XW4.0 WJLF. OVER VAPOR BARRIER & 4" GRAVEL BASE. CONCRETE TO BE AIR ENTRAINED - TOTAL AIR CONTENT TO BE NOT LESS THAT 5% OR MORE THAN 1%. CONCRETE TO BE 2500 P.S.I.
 - 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.
 - TYPICAL PORCH AND STOOP SLAB TO BE 4" CONCRETE WITH 6X6 W4.0XW4.0 WJLF. 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.
 - VAPOR BARRIER TO BE 6 MIL. POLY-ETHYLENE SHEET W/ MIN. 6" OVERLAP AT SEAMS.
 - WHEN REQUIRED BY DRAWING PROVIDE FIBER-MESH ADDITIVE TO CONCRETE PRIOR TO MIXING.
 - PROVIDE CONTROL JOINTS @ 10' MAX. OF 30" INTERVALS. OFFSETS OF GREATER THAT 10' REQUIRE CONTROL JOINT @ OFFSET.

BUILDING REQUIREMENTS:

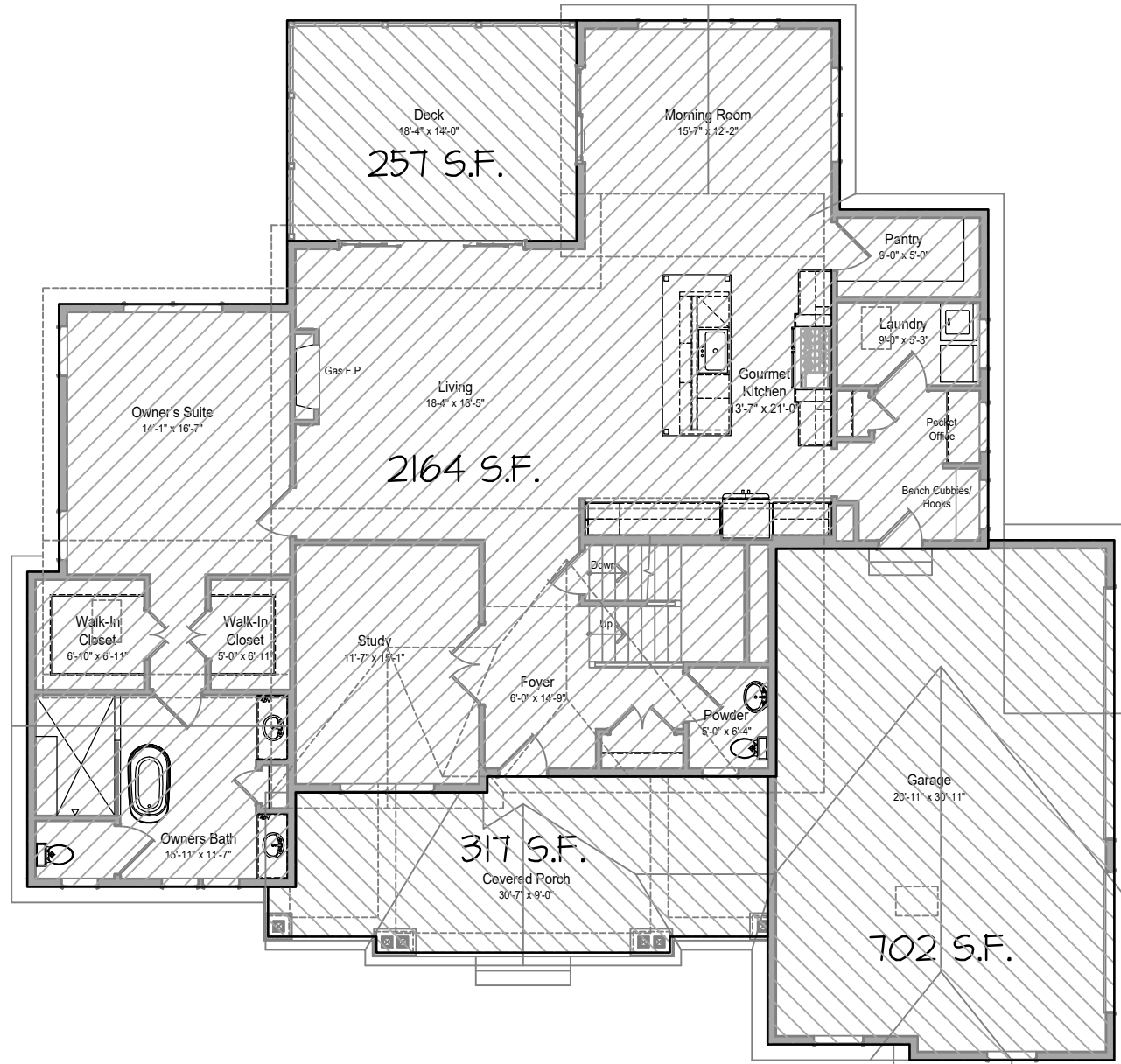
- FIRE-STOPPING TO BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS BOTH VERTICALLY AND HORIZONTALLY. FIRE-STOPPING TO CONSIST OF NOMINAL 2X LUMBER, OR 2 LAYERS OF PLYWOOD OR 1X MATERIAL. INTEGRITY OF ALL FIRE-STOPS TO BE MAINTAINED.
- DRAFT-STOPPING TO BE PROVIDED IN ALL FLOOR/CEILING ASSEMBLIES WHEN CEILING IS SUSPENDED OR FLOOR IS OPEN STYLE TRUSSES. DRAFT-STOPPING TO CONSIST OF 1/2" 61P. BOARD OR 3/8" PLYWOOD.
- PROVIDE CONT. RIDGE VENT AND SOFFIT VENTS FOR ALL ROOF AREA'S INSTALLED PER MFGS RECOMMENDATIONS AND SPECIFICATIONS.
- 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
- WATER RESISTANT GYPSUM BOARD TO BE PROVIDED IN ALL BATHROOMS. NO VAPOR BARRIER IS PERMITTED. USE 1/2" CEMENTITIOUS BACKER BOARD AT ALL WET SHOWER AND TUB LOCATIONS WHERE TILE IS APPLIED WITH APPROVED WATERPROOFING MEMBRANE.
- PROVIDE ARTIFICIAL LIGHT AND VENTILATION IN ALL BATHS WHEN WINDOWS ARE OMITTED. PROVIDE EXHAUST FAN DIRECTLY TO THE EXTERIOR. VENTILATION REQUIRED IS 5 AC/Hr. ARTIFICIAL LIGHT REQUIRED IS 6 FOOT CANDLES AT 30" ABOVE FINISHED FLOOR.
- PROVIDE TEMPERED GLASS AT ALL HAZARDOUS LOCATIONS. PER IRC 2021 308.4.
- PROVIDE LANDINGS AT EXTERIOR DOORS PER IRC R311.3
- STAIR RISERS TO BE 7 3/4" MAX. AND TREADS TO BE 10" MIN.
- PROVIDE 1/2" GYPSUM BOARD UNDER STAIRS WHERE SPACE IS FINISHED, ENCLOSED, AND ACCESSIBLE.
- 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 R311.7.8
- 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 R312.1.3. 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"
- STAIR, LANDING AND CORRIDOR MUST HAVE MINIMUM 3'-0" WIDTH.
- PROVIDE ILLUMINATION AT ALL INTERIOR STAIRS WITH SWITCHES AT EACH LEVEL. ACCESSED BY STAIRS PER IRC R303.7. PROVIDE ILLUMINATION AT EXTERIOR STAIRS PER IRC R303.8
- 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.
- ALL WINDOW OPENINGS MORE THAN 6' ABOVE GRADE OR SURFACE BELOW SHALL BE A MIN. OF 24" ABOVE FINISHED FLOOR INSIDE.
- EXPOSED INSULATION BATT'S 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.
- 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 R801.
- 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.
- 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 9.20 , 2021 INTERNATIONAL PLUMBING CODE AND THE LOCAL W.S.S.C. AMENDMENTS.
- ELECTRIC TO BE DONE UNDER A SEPARATE PERMIT. ALL ELECTRICAL WORK TO BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND LOCAL REQUIREMENTS.
- PROVIDE GROUNDING ROD FOR ELECTRIC SERVICE PER REQUIREMENTS OF THE UTILITY SERVICE PROVIDER.
- ALL WORK TO BE DONE IN ACCORDANCE WITH MFGRS RECOMMENDATIONS AND SPECIFICATIONS.
- PROVIDE METAL FLASHING AT ALL WINDOWS, DOOR, AND ROOF INTERSECTIONS PER MANUFACTURERS SPECIFICATIONS & RECOMMENDATIONS.
- PROVIDE RADON PROTECTION CONSISTENT W/ I.R.C. APPENDIX F AND LOCAL AMENDMENTS.
- PROVIDE STREET ADDRESS NUMBERS VISIBLE TO ROAD. MIN. 6" HIGH NUMBERS.
- 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.
- FACTORY BUILT FIREPLACES AND CHIMNEYS TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. ALL FACTORY BUILT APPLIANCES MUST COMPLY WITH I.R.C. SECTION R100.4 & R100.5.
- PROVIDE FIRE SPRINKLER SYSTEM (13D) AS REQUIRED PER IRC R313, AS AMENDED BY THE ANNE ARUNDEL COUNTY CODE. SUB-CONTRACTOR TO PROVIDE SHOP DRAWINGS TO LOCAL FIRE MARSHAL FOR APPROVAL PRIOR TO INSTALLATION.

WOOD CONSTRUCTION:

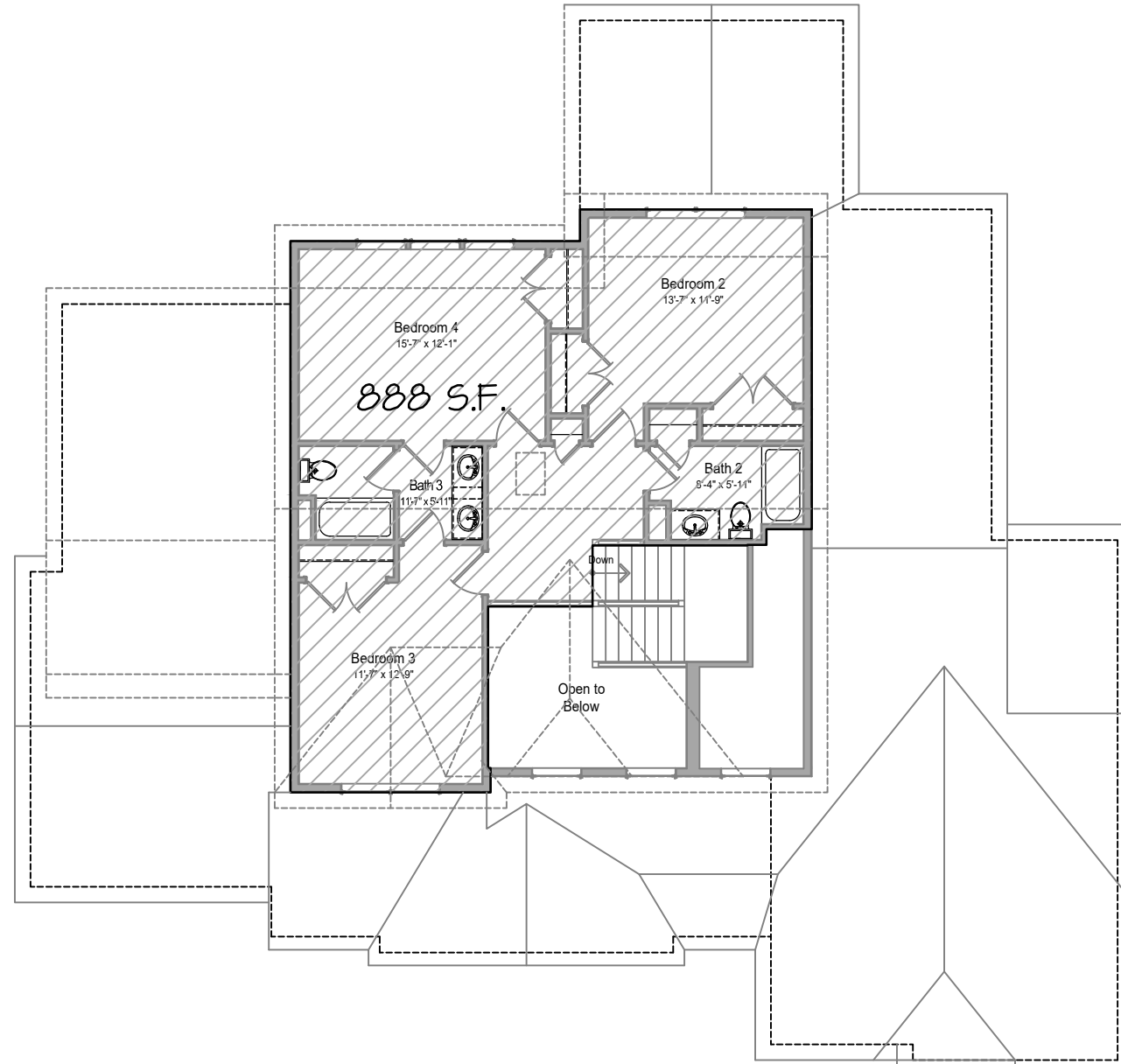
- ALL STRUCTURAL LUMBER TO BE HEM FIR #2 OR BETTER GRADE.
- FLOOR SHEATHING TO BE 5/8" PLYWOOD OR 3/4" OSB TONGUE AND GROOVE RATED SHEATHING. GLUED AND NAILED TO JOISTS WITH 6D NAILS AT 6" O.C. ON EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
- JOISTS AND BEAMS TO HAVE MIN. 1 1/2" BEARING.
- JOISTS AND BEAMS TO HAVE LATERAL SUPPORT BY FULL DEPTH SOLID BLOCKING OR NAILED TO A BAND BOARD.
- 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.
- CUTTING AND NOTCHING OF JOISTS ARE NOT ACCEPTABLE - SEE TRUSS MFGRS SPECIFICATIONS
- BORED HOLES IN JOIST ARE NOT ACCEPTABLE - SEE TRUSS MFGRS SPECIFICATIONS IF TRUSSES ARE USED.
- 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.
- 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.
- INTERIOR NON-BEARING WALLS TO BE 2 X 4 WOOD STUDS AT 16" O.C. WITH 1/2" 61P. BOARD ON EACH SIDE. FIRE-STOPPED AS REQUIRED FOR BEARING WALLS.
- 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
- 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.
- TOP PLATE NOTCHED OR CUT MORE THAN 50% SHALL BE REINFORCED WITH 24 GAUGE STEEL ANGLE OR APPROVED STRAPPING.
- MAINTAIN 2" AIR SPACE BETWEEN COMBUSTIBLE FRAMING AND ALL FIREPLACES AND CHIMNEYS PER THE REQUIREMENTS OF IRC SECTION R1001.11.
- NEW EXTERIOR WALLS SHALL BE CONTINUOUSLY SHEATHED PER IRC 2021, 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



BASEMENT PLAN
AREA PLANS



FIRST FLOOR PLAN

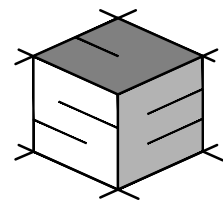


SECOND FLOOR PLAN

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



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

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:	B0613
REVISIONS:	DATE:
PERMIT PLANS	12/30/25
DATE:	12 / 30 / 2025
SCALE:	AS SHOWN
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										
CLIMATE ZONE	FENESTRATION U-FACTOR ^a	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC ^{b,c}	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ^d	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB ^b R-VALUE & DEPTH	CRAWLSPACE WALL R-VALUE
4 EXCEPT MARINE	0.30	0.55	0.40	49	20 OR 13+5 ^h	8/13	19	10d or 13	10d, 4 FT	10d or 13
5	0.30	0.55	0.40	49	20 OR 13+5 ^h	13/17	30	15d or 19 or 13+5 ^d	10d, 4 FT	15d or 19 or 13+5 ^d

W/ = NOT REQUIRED FOR 5/1 FOOT < 104 IN. MD

AS-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHERE INSULATION IS NOTICED IN A CAVITY THAT IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE NOTICED R-VALUE OF THE INSULATION SHALL BE NOT LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.

IF THE FENESTRATION U-FACTOR COLUMN EXCLUDES 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.

C10 TO 1/2 IN. R-10 CONTINUOUS INSULATION (CI) ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-13 CAVITY INSULATION ON THE INTERIOR OF THE BASEMENT WALL, 10 TO 7/8 IN. R-15 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-19 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL, ALTERNATELY COMPLIANCE WITH 10 TO 7/8 IN. R-15 CAVITY INSULATION ON THE INTERIOR OF THE BASEMENT WALL PLUS R-5 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE HOME.

D10 TO 5 IN. 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 R301.1 AND TABLE R301.1.

G ALTERNATELY, INSULATION SUFFICIENT TO FILL THE FRAME CAVITY AND PROVIDING NOT LESS THAN AN R-VALUE OF R-19.

H IF THE FIRST WALL IS CAVITY INSULATION, THE SECOND WALL IS CONTINUOUS INSULATION. HOWEVER, IF AN EXTERIOR 104 IN. R-15 CAVITY INSULATION PLUS R-13 CAVITY INSULATION PLUS R-5 CONTINUOUS INSULATION.

I MASS WALLS SHALL BE IN ACCORDANCE WITH SECTION R402.2.2. THE SECOND R-VALUE IMPLIES WHERE MORE THAN HALF OF THE INSULATION IS ON THE INTERIOR OF THE MASS WALL.

ENERGY CODE COMPLIANCE NOTES

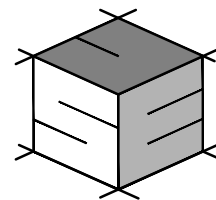
- BUILDING DESIGNED IN ACCORDANCE WITH 2021 I.E.C.C. SECTION R402.1.5 AS AMENDED BY MARYLAND ALTERNATIVE ENERGY COMPLIANCE AND PERFORMANCE STANDARDS TOTAL UA ALTERNATIVE PER TABLE R402.1.3.1 MD ALTERNATIVE INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS.
- ALL MECHANICAL EQUIPMENT TO BE HIGH 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 & M1507.3 OF I.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-II 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.
-

DRAWING SYMBOL LEGEND

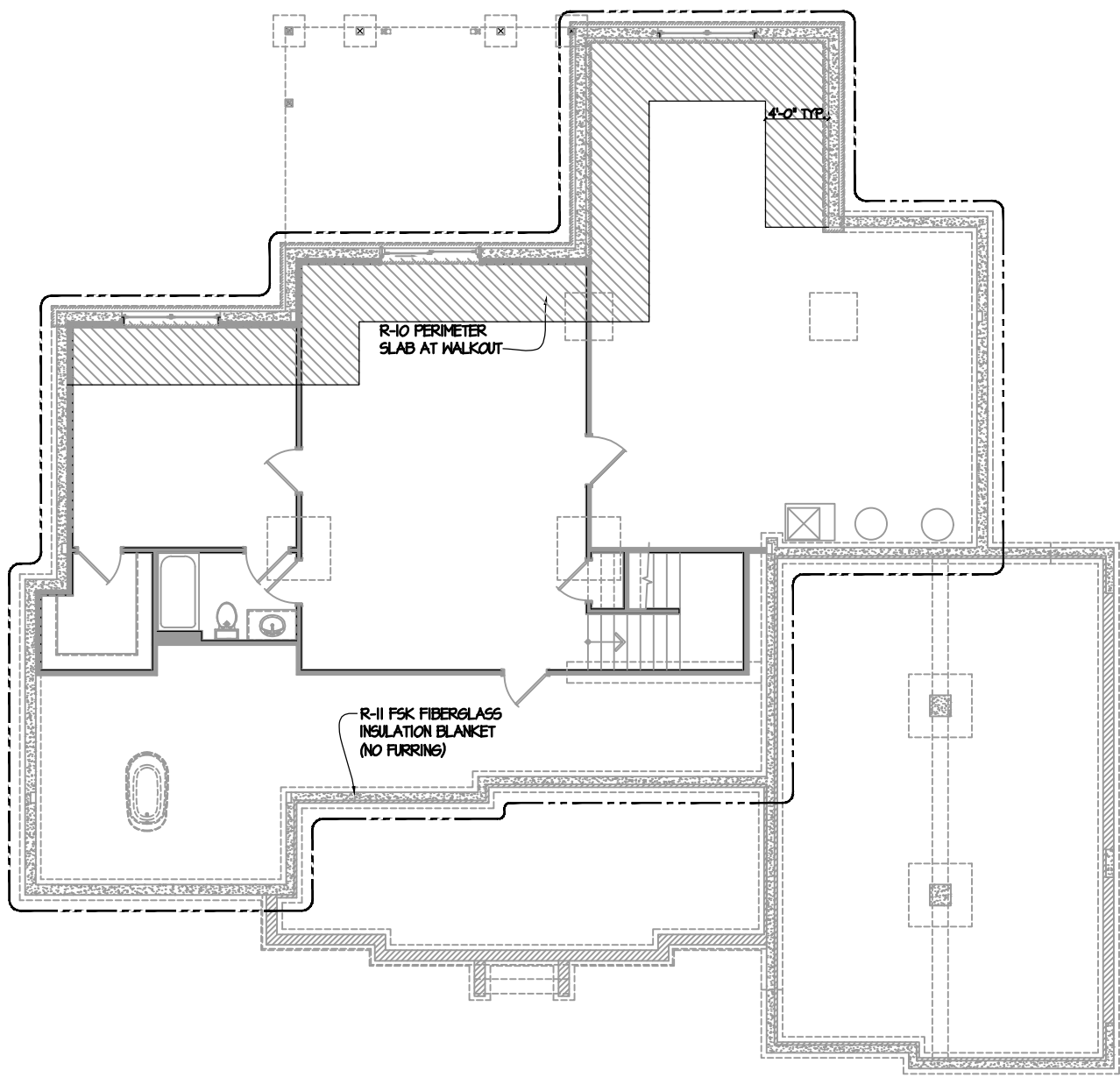
- NEW CONCRETE FOUNDATION WALL
- NEW INTERIOR PARTITION - 2x4 WOOD STUDS AT 16" O.C. MAX. W/ 1/2" GYP. BD. EACH SIDE
- NEW EXTERIOR WALL - 2 X 6 WOOD STUDS AT 16" O.C. MAX. WITH R-21 BATT INSULATION, O.S.B. SHEATHING, W/ SIDING AS SELECTED
- BEARING WALL
- NEW WINDOW, TYP.
- NEW DOOR, TYP.
- LOCATION 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 N1102.2.2 (21 5/F. W/ NO ATTIC)

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

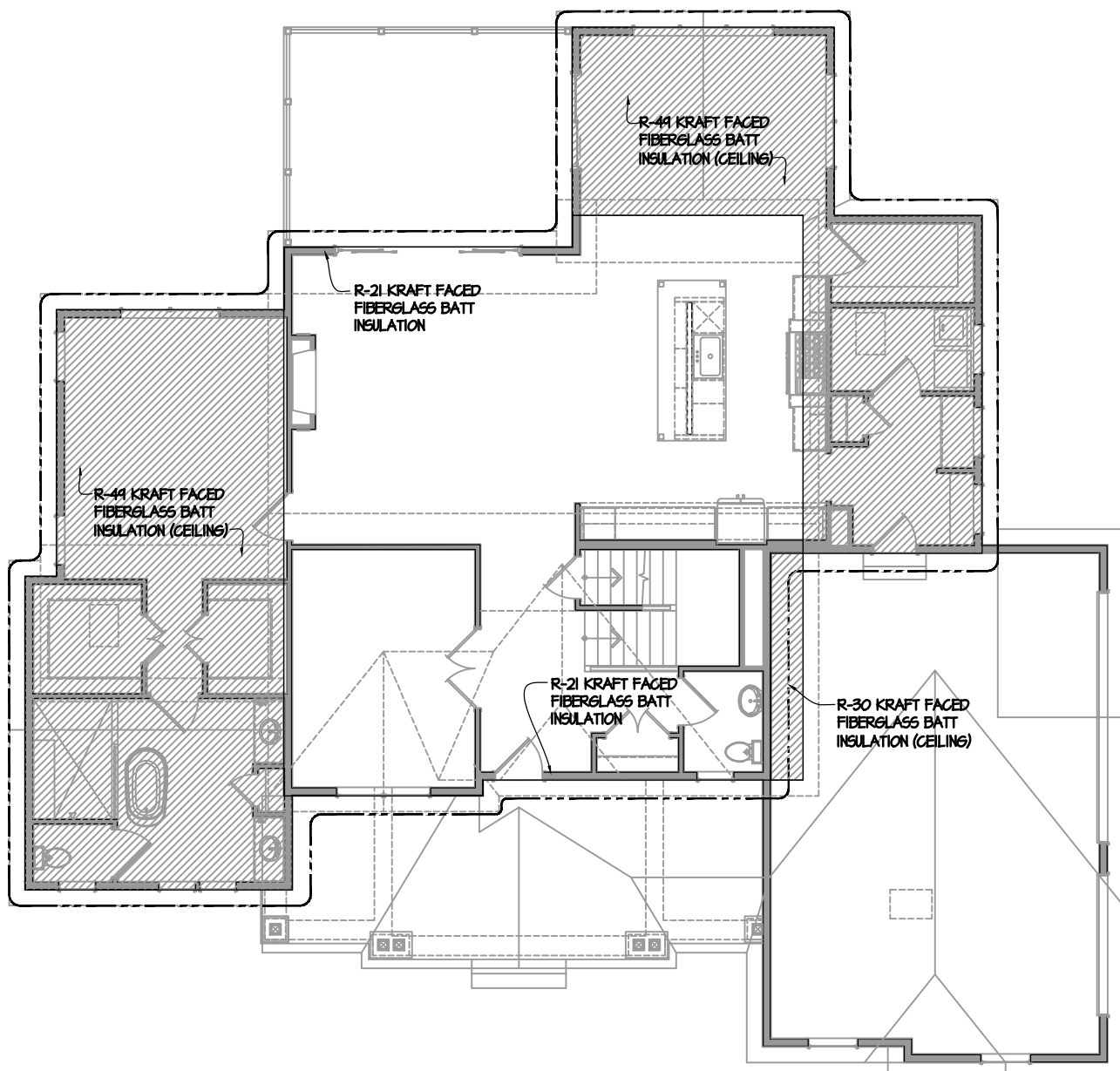
These plans are the property of of Builders National Cooperative, LLC. No unauthorized use is permitted. Plan is a lot specific ACL3 model.



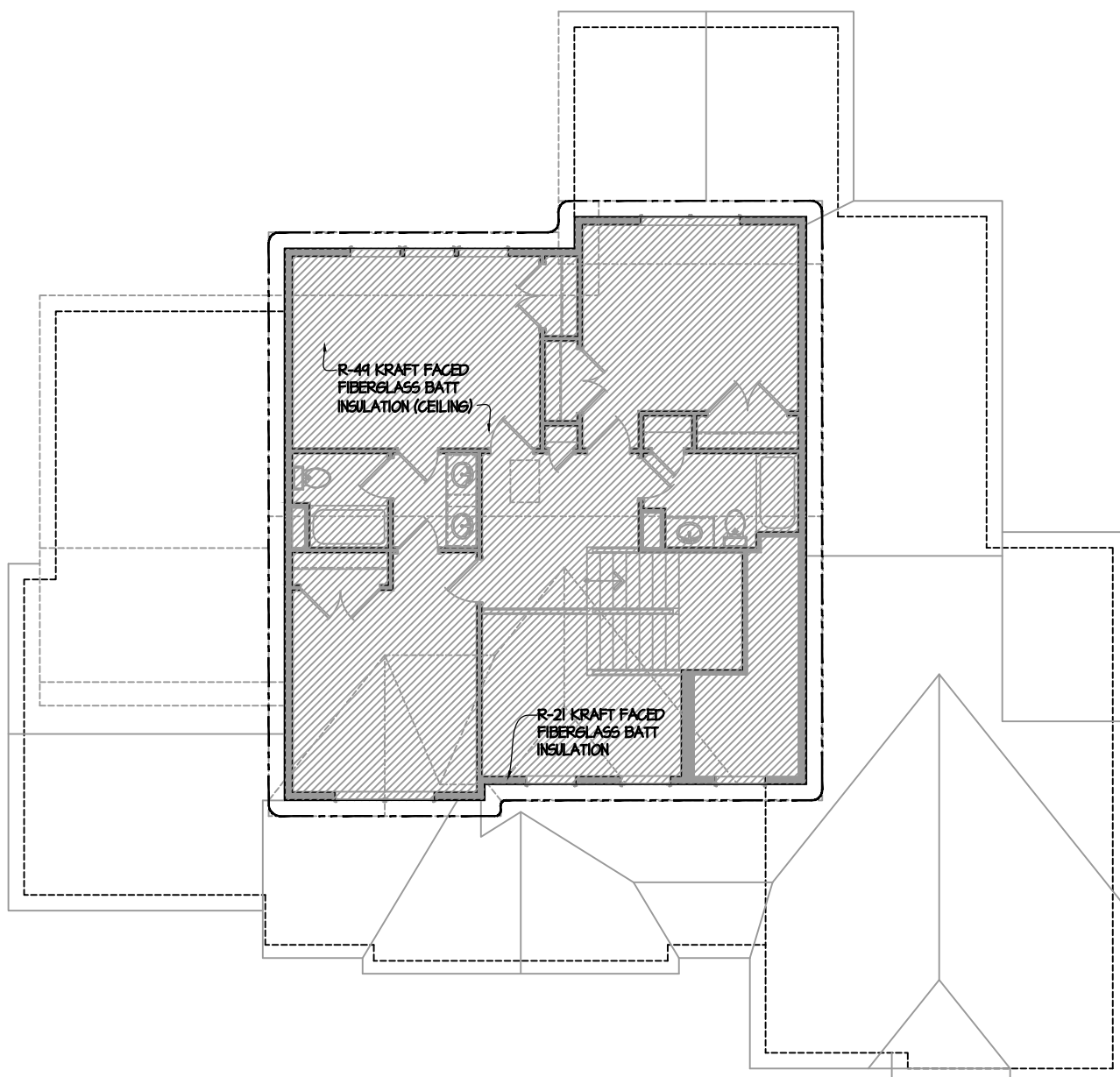
STRUCTURAL ENGINEERING
UNLIMITED, LLC
341 W. PATRICK STREET
FREDERICK, MD 21701
240-815-6760
301-748-2769



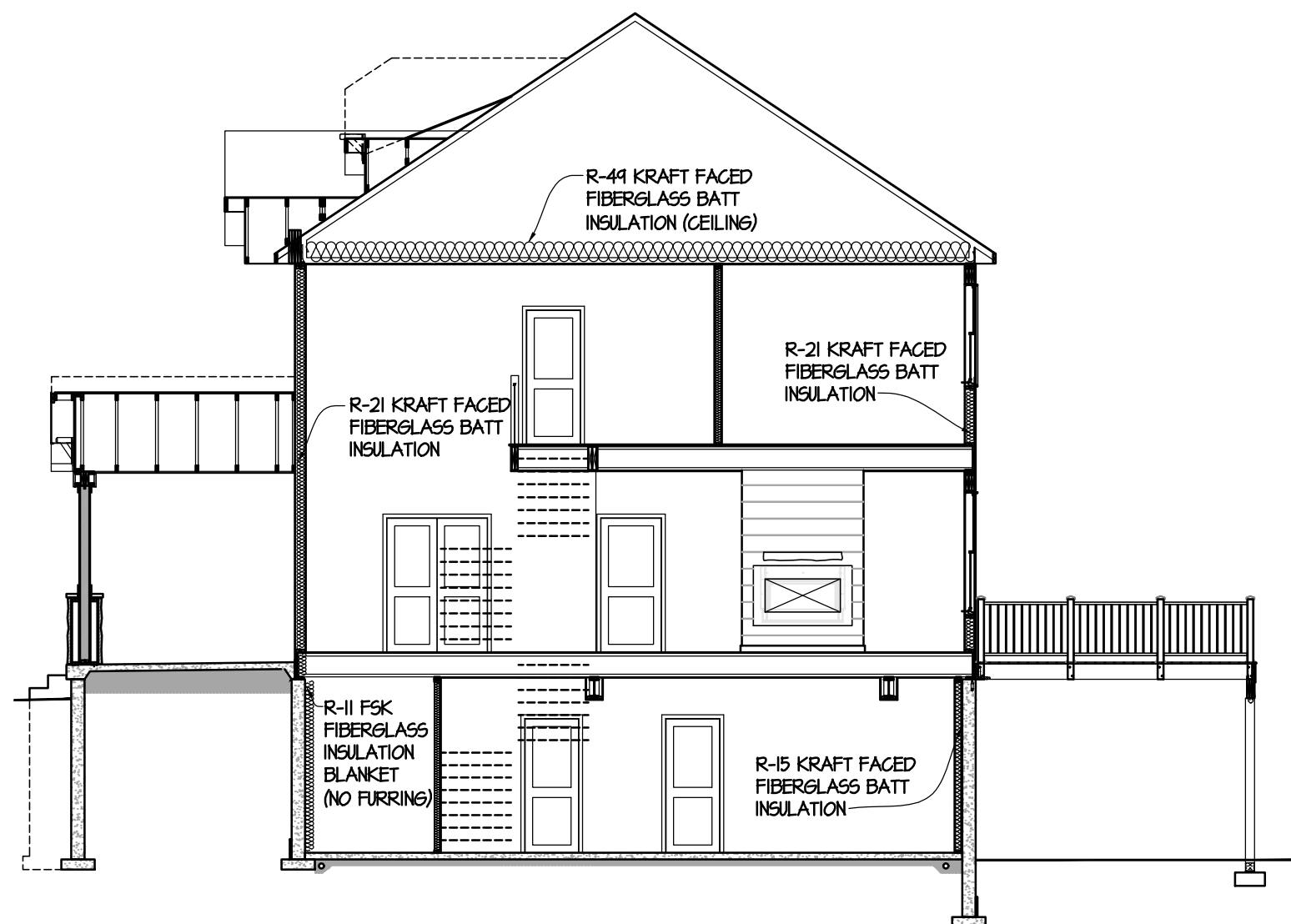
FOUNDATION PLAN
SCALE: 3/32"=1'-0"



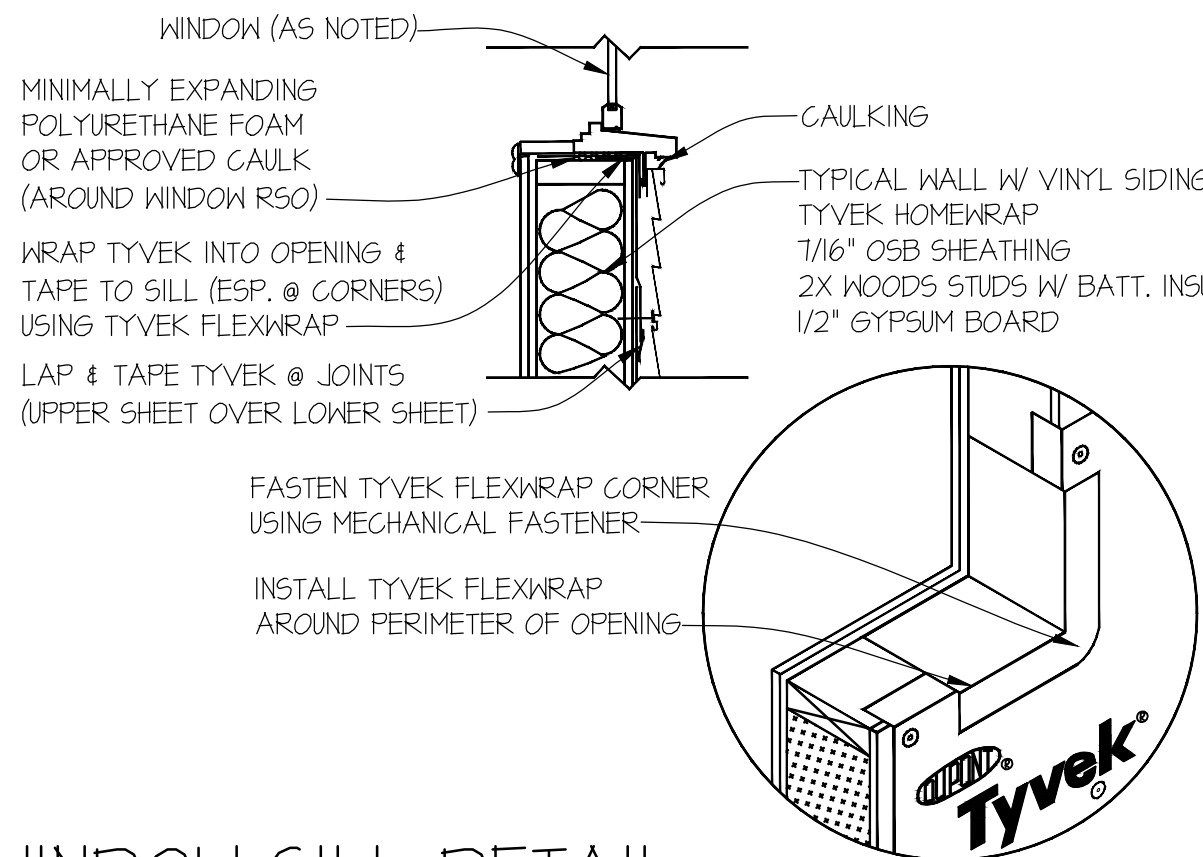
FIRST FLOOR PLAN
SCALE: 3/32"=1'-0"



SECOND FLOOR PLAN
SCALE: 3/32"=1'-0"



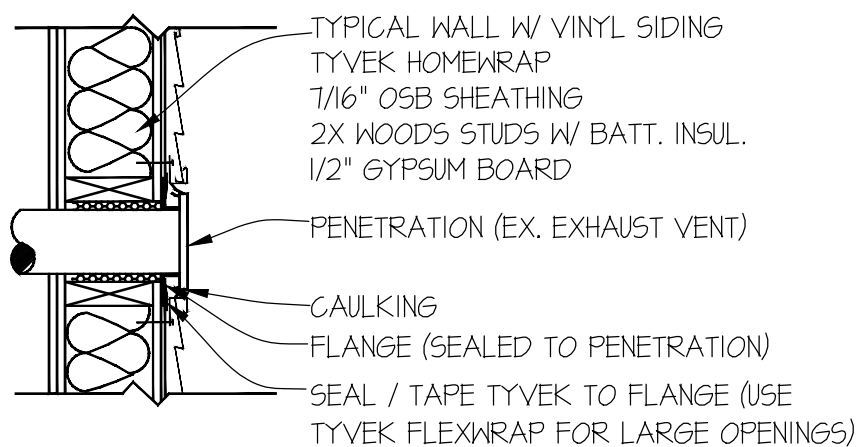
TYPICAL BUILDING SECTION
SCALE: 1/8"=1'-0"



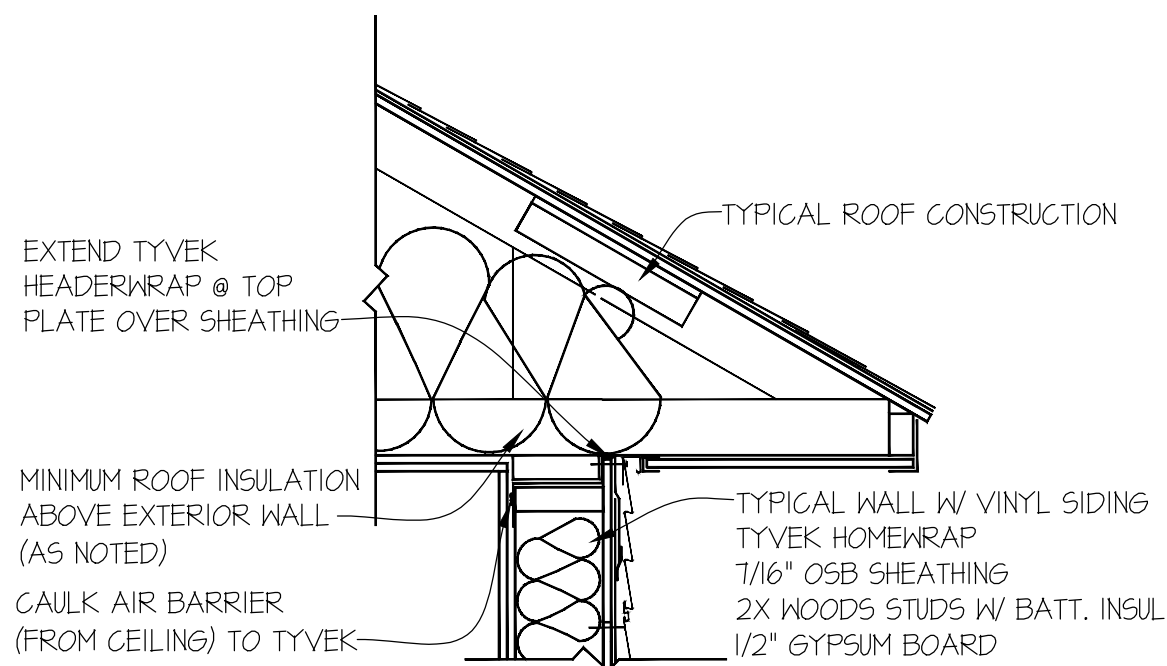
WINDOW SILL DETAIL
SCALE: NTS
RESIDENTIAL WOOD FRAME STRUCTURE W/ VINYL SIDING (HEATING CLIMATE)

TYVEK GENERAL NOTES:

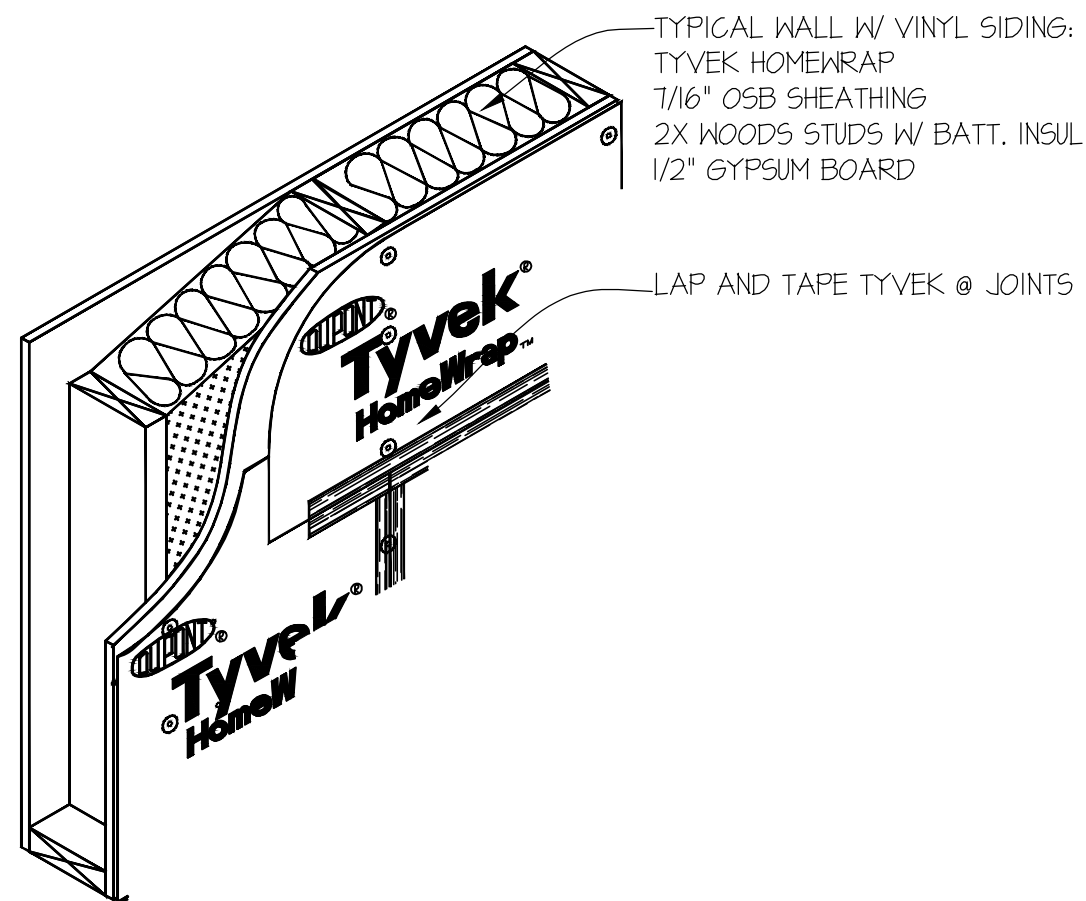
- SEAL ALL TYVEK JOISTS AND PENETRATIONS WITH APPROVED TAPE. (EX. DUPONT CONTRACTOR TAPE)
- FASTEN TYVEK TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS. (EX. DUPONT WRAPCAPS)
- SEAL OR GASKET BRICK TIES AT FACE OF TYVEK
- LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND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



WALL PENETRATION
SCALE: NTS
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)

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #: B0613

REVISIONS:	DATE:
PERMIT PLANS	12/30/25

DATE: 12 / 30 / 2025

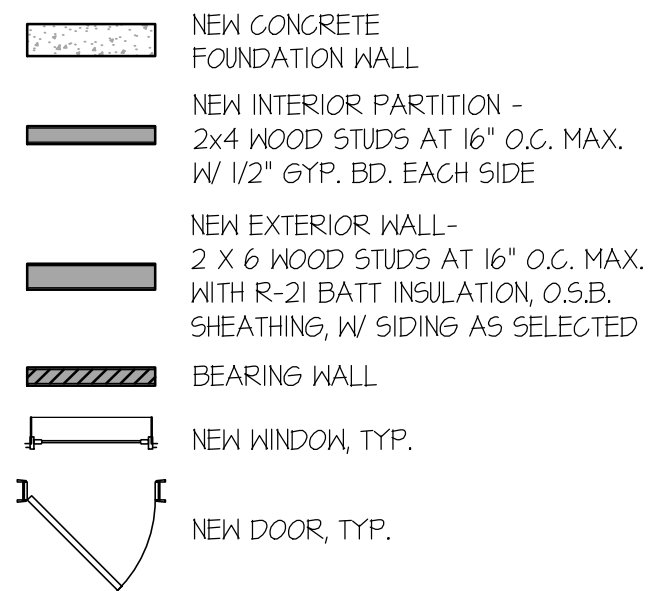
SCALE: AS SHOWN

PAGE DESCRIPTION:
ENERGY COMPLIANCE
NOTES & THERMAL
ENVELOPE DIAGRAMS

SHEET:

002

DRAWING SYMBOL LEGEND

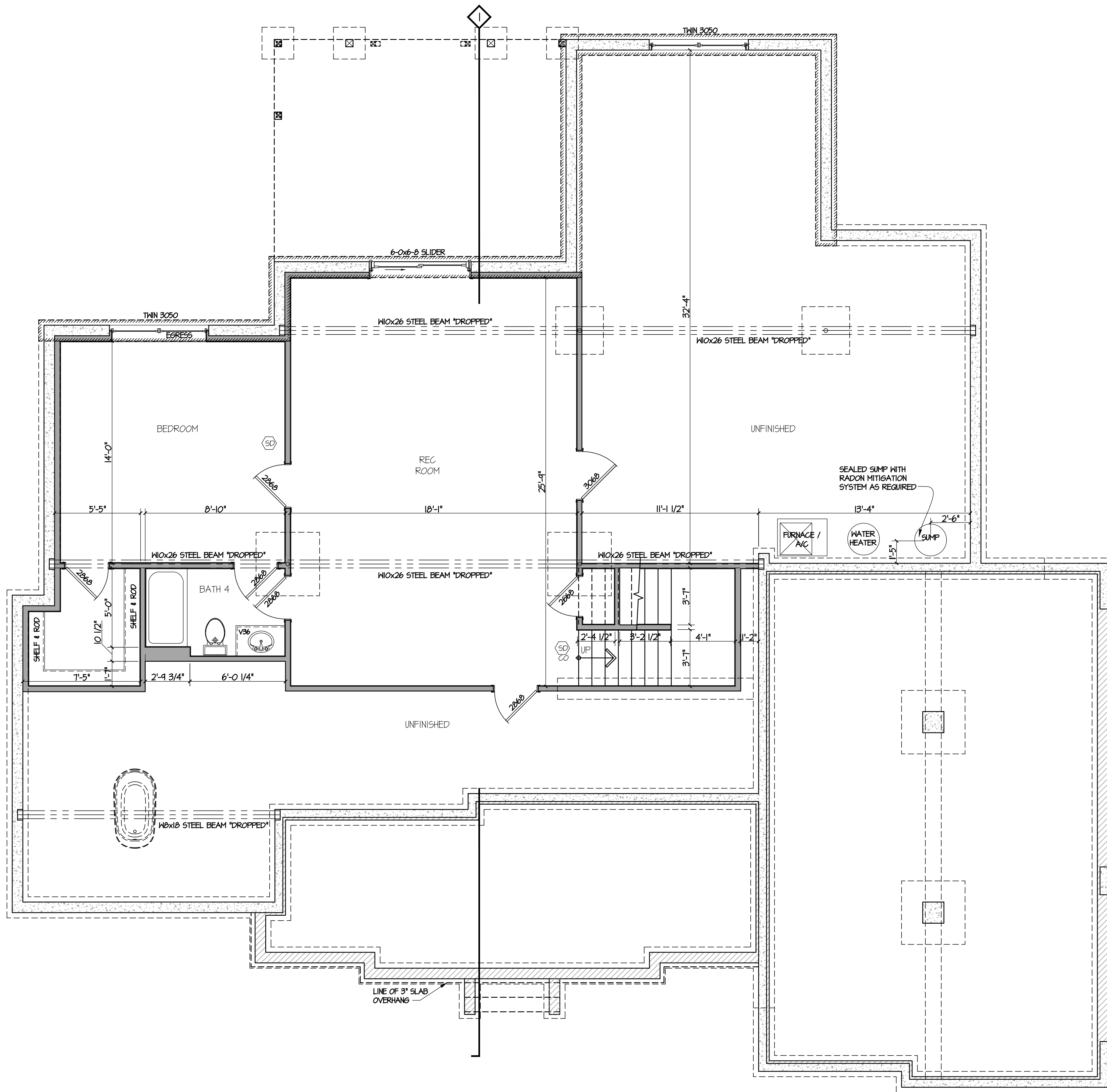


STAIR AND RAIL NOTES

- 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 36 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 NIKEL POSTS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 1/4" BETWEEN THE WALL AND THE HANDRAIL. HANDRAILS MAY BE PERMITTED TO BE INTERRUPTED BY A NIKEL 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. INTERIOR DIMENSIONS ARE FROM FACE OF STUD.
- TYP. CONC. FOOTING: CONT. 16" X 8" DP. CONC. FOOTING WITH 3-#4 BARS, U.N.O.
- TYP. FOUNDATION WALL: 9" HIGH (U.N.O.)- CONC. WALLS SEE STRUCTURAL DRAWINGS FOR REINFORCING WITH DOWELS ON CONCRETE FOOTINGS.
- TYP. BASEMENT 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. 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-11 BATT INSULATION AND 1/2" GYP. BOARD.
- 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. 5.0 SQ.FT. CLEAR OPENING W/ MAX. SILL HEIGHT 44" AND MIN. CLEAR WIDTH 24".
- PROVIDE ARTIFICIAL LIGHT AND VENTILATION WITH EXHAUST TO THE EXTERIOR FOR BATHROOM.
- TYP. FLOOR CONSTRUCTION: 14" ENGINEERED WOOD FLOOR TRUSSES AT 19.2" O.C. WITH 3/4" 1/6" SHEATHING GLUED AND SCREWED WITH FIN. FLOOR AS SELECTED.
- WINDOWS - DESIGNATION ARE CALLED OUT IN FEET & INCHES. EXAMPLE: 3052 = 3'-0" X 5'-2"



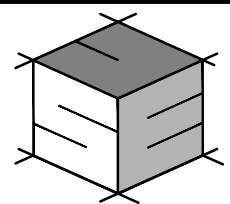
FINISHED BASEMENT PLAN

SEE SHEET 5001 FOR ENGINEERED FOUNDATION PLAN

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



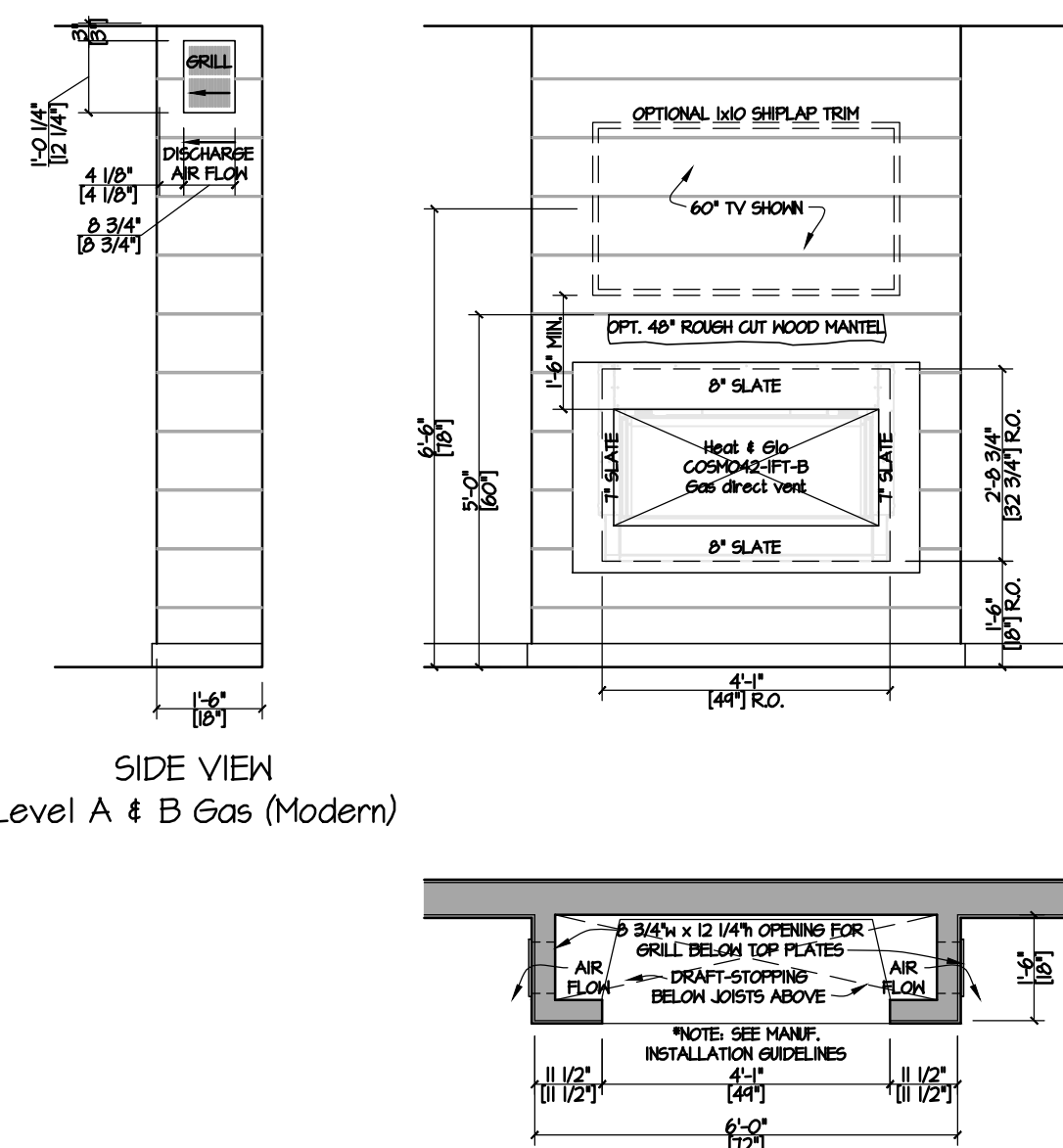
STRUCTURAL ENGINEERING
UNLIMITED, LLC
341 W. PATRICK STREET
FREDERICK, MD 21701
240-815-6760
301-748-2769

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:	B0613
REVISIONS:	DATE:
PERMIT PLANS	12/30/25
DATE:	12 / 30 / 2025
SCALE:	AS SHOWN
PAGE DESCRIPTION:	FOUNDATION / BASEMENT PLAN
	SHEET:
	A001

- 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, 0.5B. SHEATHING, W/ SIDING AS SELECTED
- BEARING WALL
- NEW WINDOW, TYP.
- NEW DOOR, TYP.

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 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 CHAINED TO TERMINATE IN NEVEL POSTS. HANDRAILS ADJACENT TO A HALL SHALL HAVE A SPACE OF NOT LESS THAN 4 INCHES BETWEEN THE HANDRAIL AND THE WALL. HANDRAILS MAY BE PERMITTED TO BE INTERRUPTED BY A NEVEL POST AT THE TURN.
4. THE DISTANCE FROM THE BOTTOM RAIL TO THE FINISHED FLOOR SURFACE SHALL NOT BE GREATER THAN 4 INCHES.
5. VERTICAL BALUSTERS ARE REQUIRED TO BE SPACED SO AS NOT TO ALLOW A 4-INCH SPHERE TO PASS THROUGH.
6. AT STAIR RAILINGS, THE TRIANGULAR OPENING FORMED BY THE RISER, TREAD AND BOTTOM ELEMENT OF THE RAILING AT THE OPEN SIDE OF THE STAIRWAY SHALL NOT PERMIT A 6-INCH SPHERE TO PASS THRU.



Fireplace Level B Gas (Modern)
Heat & Glo COSM042-IFT-B Gas direct vent
Rough in Framing: 44"W x 32 3/4"H x 17 3/4"D (hold up higher)
Dimension with Surround: 60"W x 48"H
Total Fireplace Enclosure Dimension: 72"W x Ceiling Height x 18"D

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

1. EXTERIOR DIMENSIONS ARE FROM FACE OF SHEATHING TO FACE OF STUD, INTERIOR DIMENSIONS ARE FROM FACE OF STUD.
2. 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.
3. TYP. INTERIOR PARTITION: 2X4 WOOD STUDS AT 16" O.C., W-12 GYP. BD. EA. SIDE, PROVIDE WATER RESISTANT GYP. BD. AT SINK LOCATIONS AND BATHROOMS.
4. PROVIDE 1/2" DUROCK UNDERLAYMENT UNDER ALL CERAMIC TILE.
5. PROVIDE COMBO CO/SMOKE DETECTORS ON EACH FLOOR AND IN THE VICINITY OF ALL BEDROOMS. PROVIDE SMOKE DETECTORS IN ALL BEDROOMS.
6. PROVIDE EGRESS WINDOW FROM 2ND FLOOR BEDROOMS WITH MIN. 5.7 SQ.FT. CLEAR OPENING W/ MAX. SILL HEIGHT 44" AND MIN. CLEAR WIDTH 20" W/ 24" MIN. HT.
7. PROVIDE ARTIFICIAL LIGHT AND VENTILATION WITH EXHAUST TO THE EXTERIOR FOR BATHROOMS.
8. CABINETS, COUNTERTOPS, APPLIANCES, FIXTURES AND FLOORING AS SELECTED.
9. PROVIDE BATH TUB AND DIVERTER ACCESS PANELS.
10. TYP. FLOOR CONSTRUCTION: 14" ENGINEERED WOOD FLOOR TRUSSES AT 19 1/2" O.C. WITH 3/4" 1/6 SCHED. 60 MIL GLUED AND SCREWED WITH FIN. FLOOR AS SELECTED.
11. WINDOWS - DESIGNATION ARE CALLED OUT IN FIN. 1 INCHES. EXAMPLE: 3052 = 3'-0" X 5'-2"
12. PROVIDE 20-MIN. RATED INSULATED DOOR FROM GARAGE INTO DINKELLING WITH SELF CLOSING OR AUTOMATIC-CLOSING DEVICE PER R302.5.1
13. PROVIDE ATTIC ACCESS IN GARAGE AS REQUIRED PER R302.6 & R801.1



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

A002

DRAWING SYMBOL LEGEND

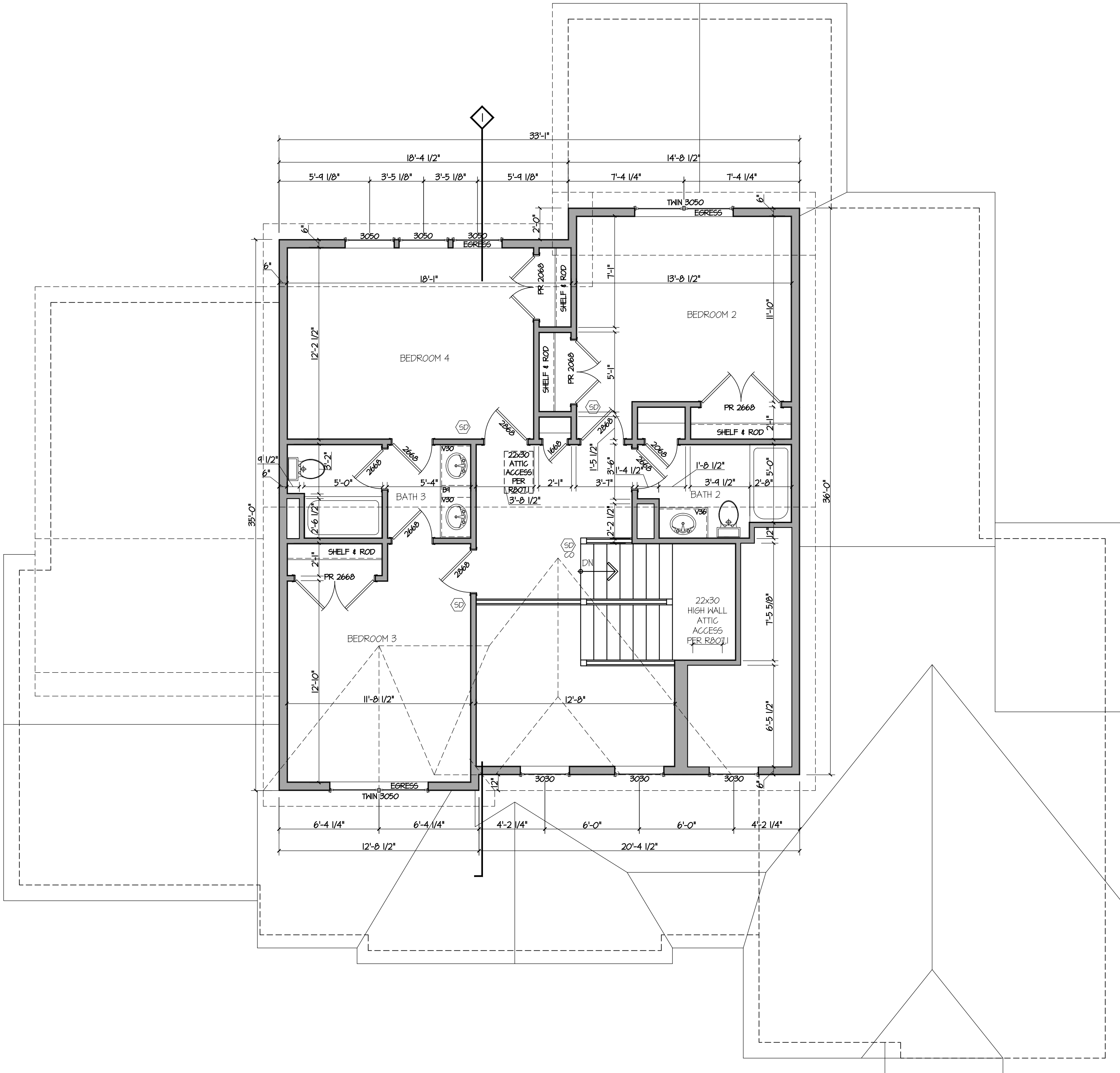
- NEW CONCRETE FOUNDATION WALL
- NEW INTERIOR PARTITION - 2x4 WOOD STUDS AT 16" O.C. MAX. W/ 1/2" GYP. BD. EACH SIDE
- NEW EXTERIOR WALL - 2 X 6 WOOD STUDS AT 16" O.C. MAX. WITH R-21 BATT INSULATION, O.S.B. SHEATHING, W/ SIDING AS SELECTED
- BEARING WALL
- NEW WINDOW, TYP.
- NEW DOOR, TYP.

STAIR AND RAIL NOTES

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 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 NENEL POSTS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1" BETWEEN THE WALL AND THE HANDRAIL. HANDRAILS MAY BE PERMITTED TO BE INTERRUPTED BY A NENEL POST AT THE TURN.
4. THE DISTANCE FROM THE BOTTOM RAIL TO THE FINISHED FLOOR SURFACE SHALL NOT BE GREATER THAN 4 INCHES.
5. VERTICAL BALUSTERS ARE REQUIRED TO BE SPACED SO AS NOT TO ALLOW A 4-INCH SPHERE TO PASS THROUGH.
6. 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

1. EXTERIOR DIMENSIONS ARE FROM FACE OF SHEATHING TO FACE OF STUD, INTERIOR DIMENSIONS ARE FROM FACE OF STUD.
2. TYP. EXTERIOR WALL: 2x6 WOOD STUDS AT 16" O.C. W/ R-21 BATT INSUL. 1/6" 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.
3. 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.
4. PROVIDE 1/2" DUROCK UNDERLAYMENT UNDER ALL CERAMIC TILE.
5. PROVIDE COMBO CO/SMOKE DETECTORS ON EACH FLOOR AND IN THE VICINITY OF ALL BEDROOMS. PROVIDE SMOKE DETECTORS IN ALL BEDROOMS.
6. PROVIDE EGRESS WINDOW FROM 2ND FLOOR BEDROOMS WITH MIN. 5.7 SQ.FT. CLEAR OPENING W/ MAX. SILL HEIGHT 44" AND MIN. CLEAR WIDTH 20" W/ 24" MIN. HT.
7. PROVIDE ARTIFICIAL LIGHT AND VENTILATION WITH EXHAUST TO THE EXTERIOR FOR BATHROOMS.
8. CABINETS, COUNTERTOPS, APPLIANCES, FIXTURES AND FLOORING AS SELECTED.
9. PROVIDE BATH TUB AND DIVERTER ACCESS PANELS.
10. TYP. FLOOR CONSTRUCTION: 14" ENGINEERED WOOD FLOOR TRUSSES AT 19.2" O.C. WITH 3/4" 1/6" SHEATHING GLUED AND SCREWED WITH FIN. FLOOR AS SELECTED.
12. WINDOWS - DESIGNATION ARE CALLED OUT IN FEET & INCHES. EXAMPLE: 3052 = 3'-0" X 5'-2"
13. PROVIDE ATTIC ACCESS AS REQUIRED PER R807J

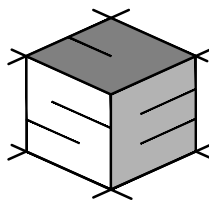


SECOND FLOOR PLAN

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



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

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:	B0613
REVISIONS:	DATE:
PERMIT PLANS	12/30/25

DATE: 12 / 30 / 2025

SCALE: AS SHOWN

PAGE DESCRIPTION:

SECOND FLOOR
PLAN

SHEET:

A003

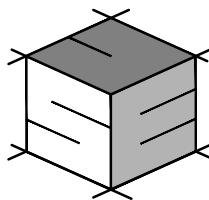


FRONT ELEVATION

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

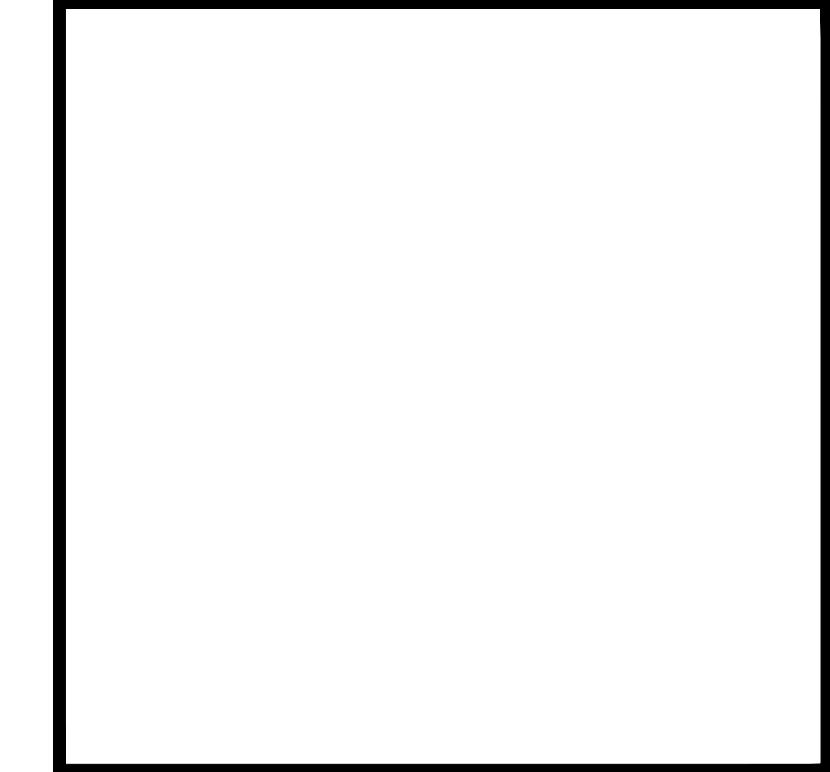
These plans are the property of of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



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

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:		B0613
REVISIONS:	DATE:	
PERMIT PLANS		12/30/25
DATE:		12 / 30 / 2025
SCALE:		AS SHOWN
PAGE DESCRIPTION:		
ELEVATIONS		
	SHEET:	A004

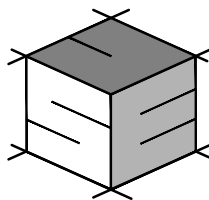


REAR ELEVATION

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

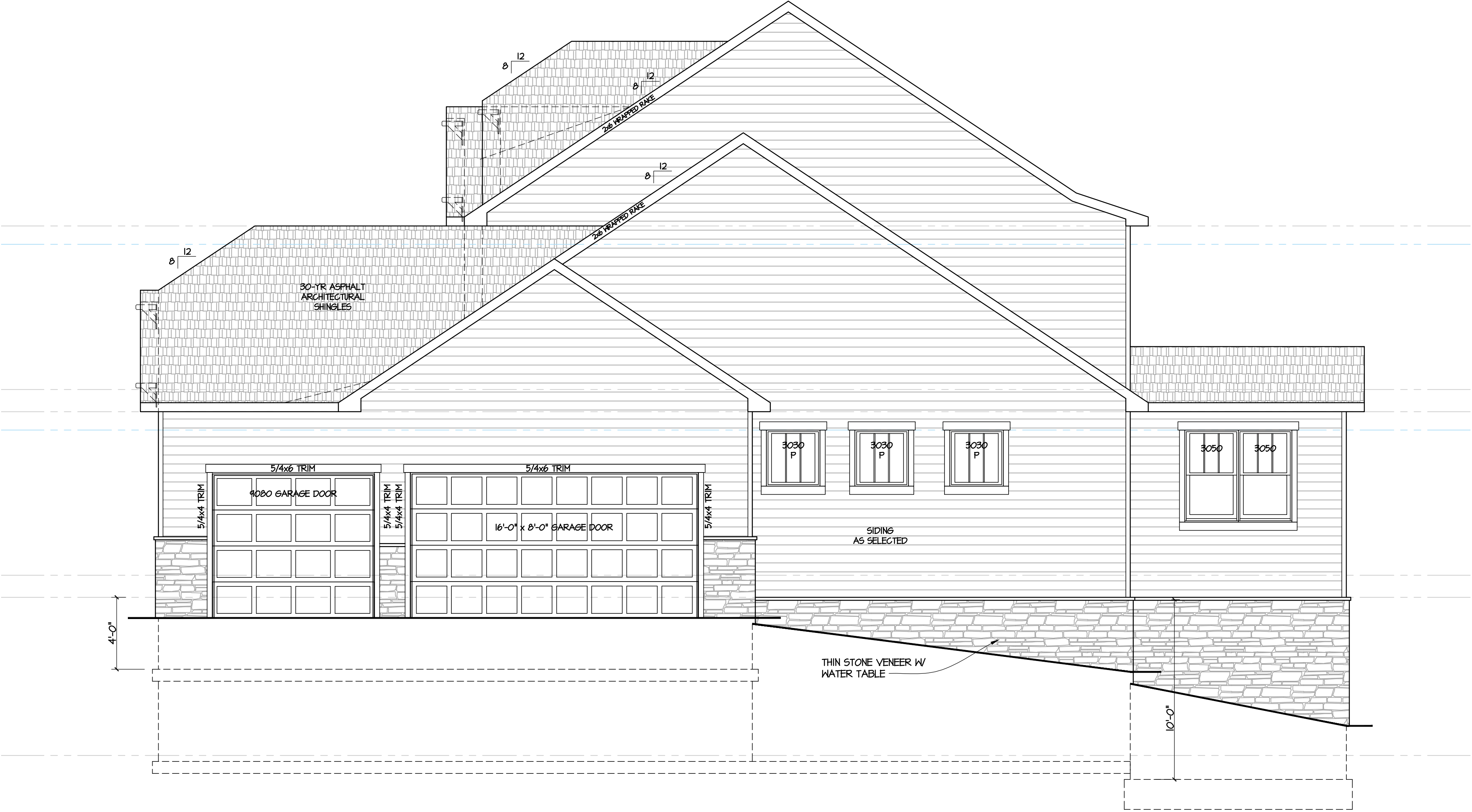
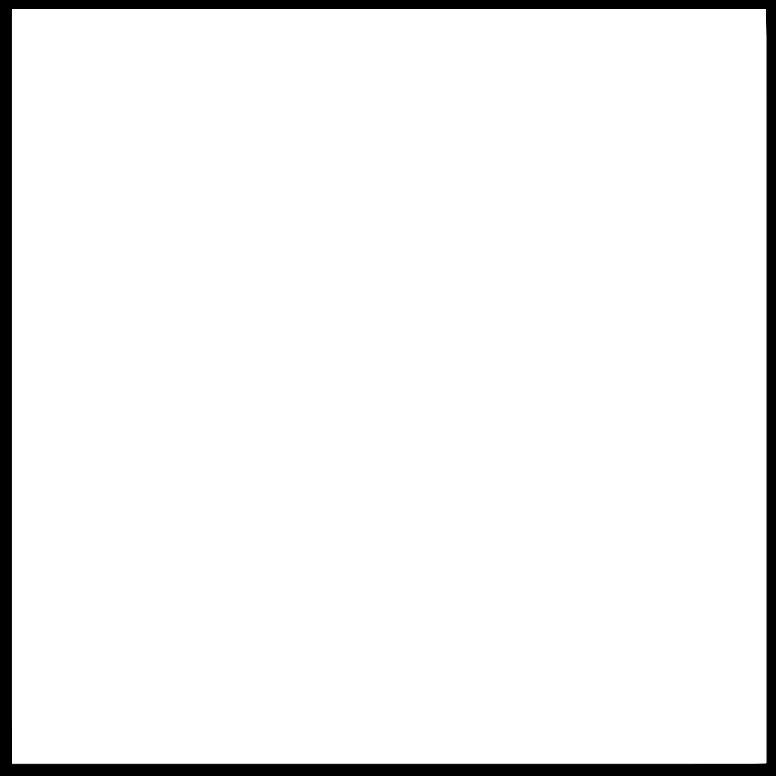
These plans are the property of Builders National Cooperative, LLC. No unauthorized use is permitted. Plan is a lot specific ACL3 model.



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

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:		B0613
REVISIONS:	DATE:	
PERMIT PLANS		12/30/25
DATE:		12 / 30 / 2025
SCALE:		AS SHOWN
PAGE DESCRIPTION:		ELEVATIONS
	SHEET:	A005

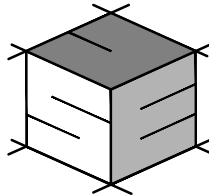


RIGHT SIDE ELEVATION

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.

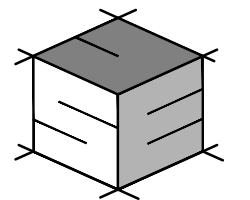


STRUCTURAL ENGINEERING
UNLIMITED, LLC
341 W. PATRICK STREET
FREDERICK, MD 21701
240-815-6760
301-748-2769

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:		B0613
REVISIONS:	DATE:	
PERMIT PLANS	12/30/25	
DATE:		12 / 30 / 2025
SCALE:		AS SHOWN
PAGE DESCRIPTION:		ELEVATIONS
	SHEET:	A006

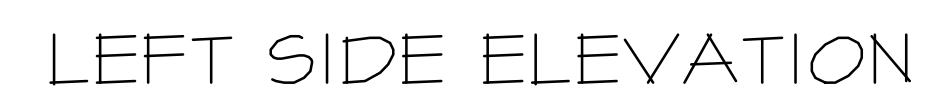
These plans are the property of Builders National Cooperative, LLC. No unauthorized use is permitted. Plan is a lot specific ACL3 model.



ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

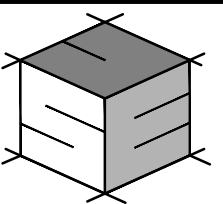
REVISIONS:	DATE:
PERMIT PLANS	12/30/25

A007



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

These plans are the property of Builders National Cooperative, LLC. No unauthorized use is permitted. Plan is a lot specific ACL3 model.



ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

A008



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

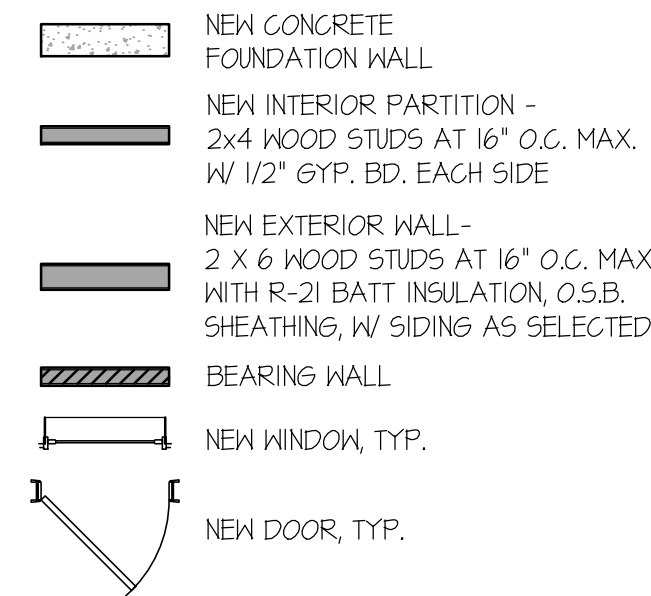


SCALE: 1/2"=1'-0"



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

DRAWING SYMBOL LEGEND

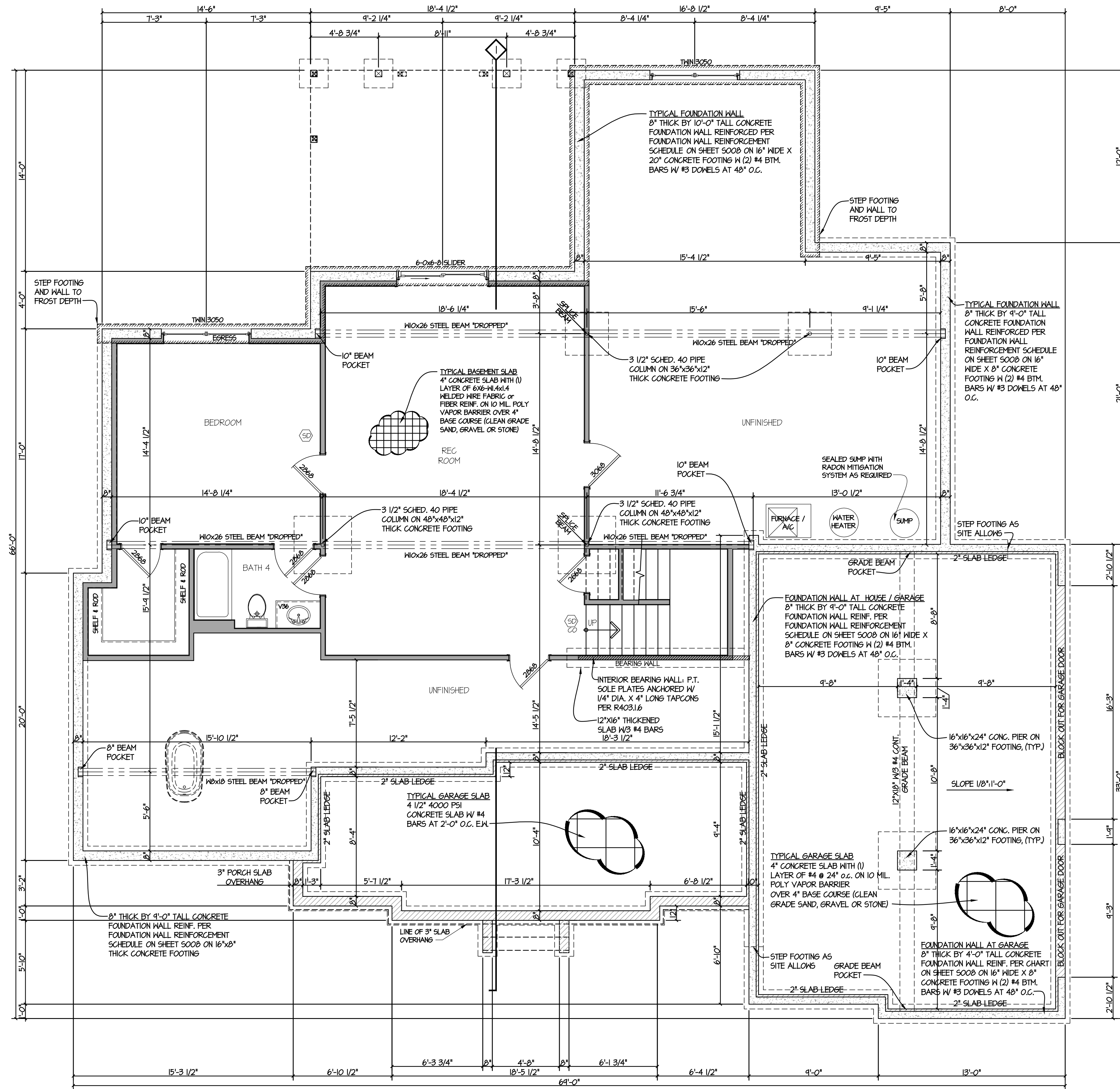


STAIR AND RAIL NOTES

- 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 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 NEELE POSTS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1" BETWEEN THE WALL AND THE HANDRAIL. HANDRAILS MAY BE PERMITTED TO BE INTERRUPTED BY A NEELE POST AT THE TURN.
- THE DISTANCE FROM THE BOTTOM RAIL TO THE FINISHED FLOOR SURFACE SHALL NOT BE GREATER THAN 4 INCHES.
- VERTICAL BAUSTERS 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.

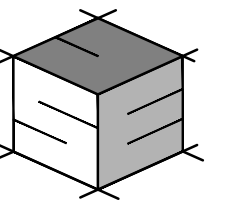
PLAN NOTES

- EXTERIOR DIMENSIONS ARE FROM FACE OF WALL, INTERIOR DIMENSIONS ARE FROM FACE OF STUD
- TYP. CONC. FOOTINGS: CONT. 16" X 8" DP. CONC. FOOTING WITH 3-#4 BARS WHERE APPLICABLE; UNO.
- TYP. FOUNDATION WALL: 9" HIGH (UNQ.)- CONC. WALLS SEE STRUCTURAL DRAWINGS FOR REINFORCING WITH DOWELS ON CONCRETE FOOTINGS.
- TYP. BASEMENT 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. 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 IF APPLICABLE - 2X4 WOOD FURRING @ 16" O.C. W/ R-11 BATT INSULATION AND 1/2" GYP. BOARD.
- 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. 5.0 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 CONSTRUCTION: 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. EXAMPLE: 3052 = 3'-0" x 5'-2"



Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



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: 09-21-2027

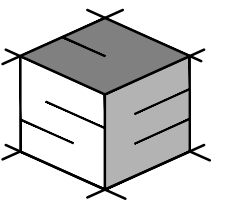
ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:	B0613
REVISIONS:	DATE:
PERMIT PLANS	12/30/25
DATE:	12 / 30 / 2025
SCALE:	AS SHOWN
PAGE DESCRIPTION:	FOUNDATION / SUB-FOUND. PLAN

SHEET:

S001

These plans are the property of Builders National Cooperative, LLC. No unauthorized use is permitted. Plan is a lot specific ACL3 model.



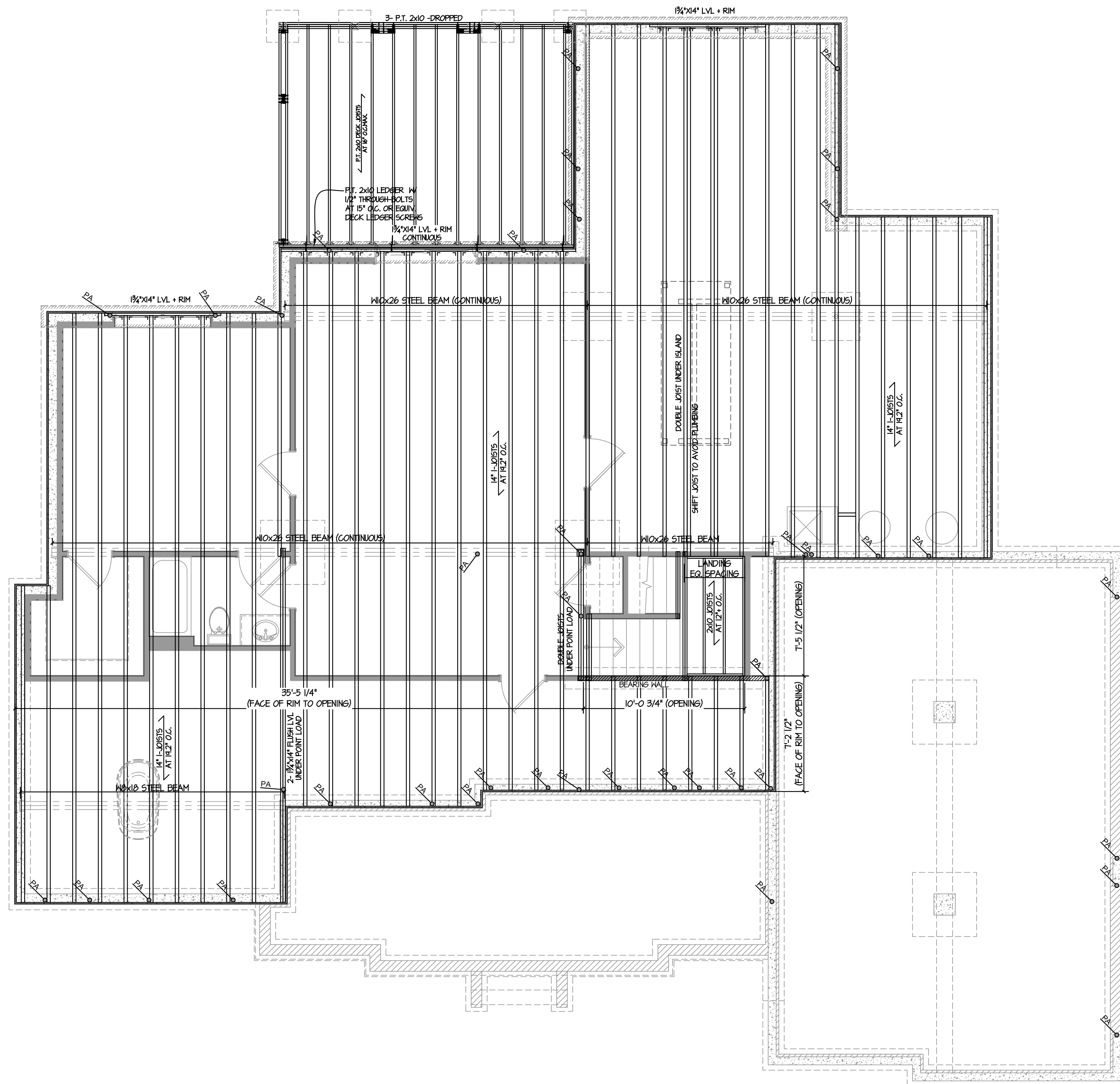
12/30/2025

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

FIRST FLOOR FRAMING PLAN

S002

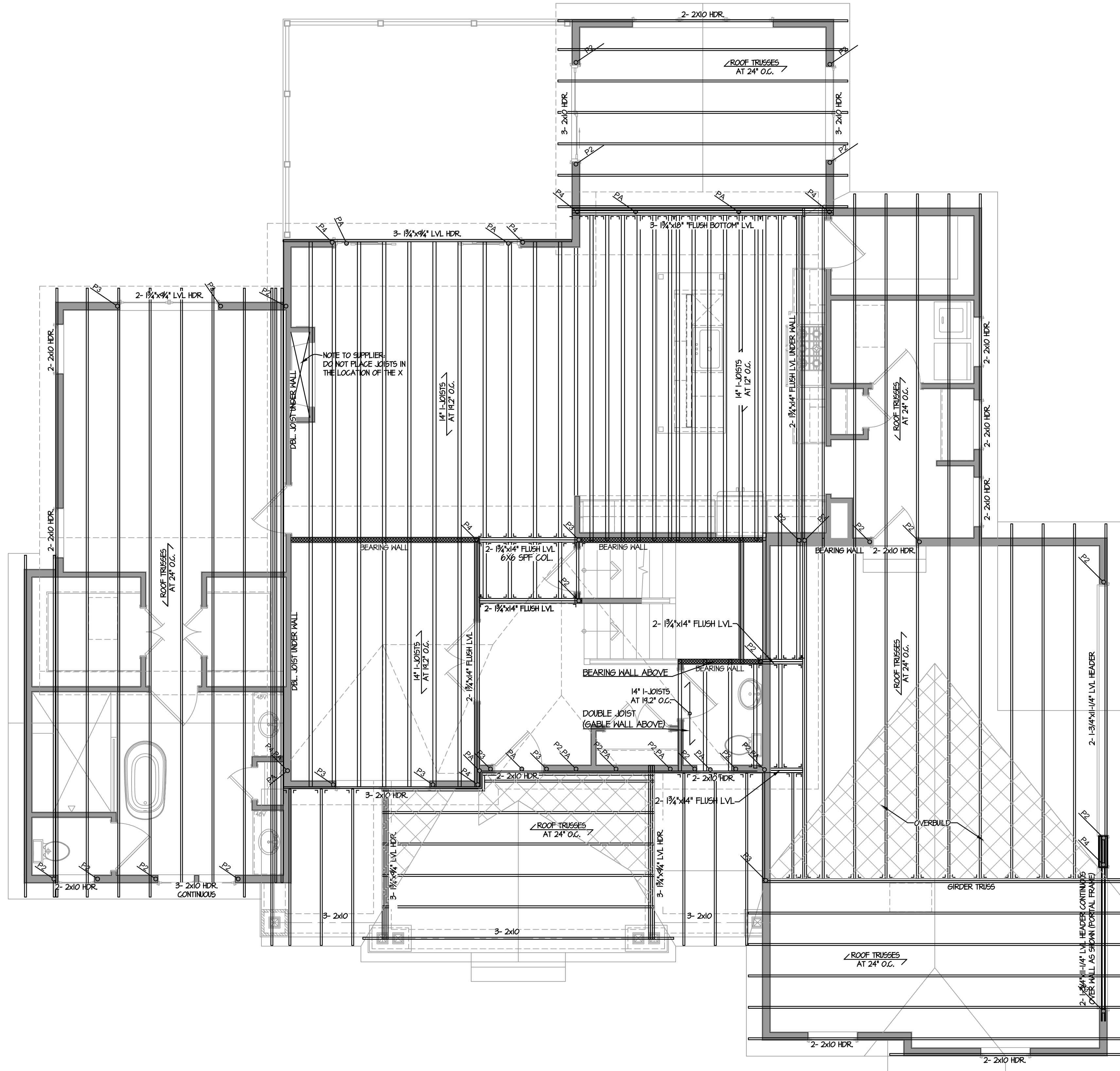
POST SCHEDULE
PA POST ABOVE
P1 1-2x4" POST
(DEFAULT, IF NOT SPECIFIED)
P2 2-2x4" BUILT-UP POST
P3 3-2x4" BUILT-UP POST
P4 4-2x4" BUILT-UP POST
P5 5-2x4" BUILT-UP POST
*BUILT-UP POSTS SHALL MATCH
WALL/ BEAM DIMENSION.
EXAMPLE: P3=3-2x6 IN 6" WALL
OR UNDER 51/4" BEAM



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

NOTE:
REFER TO TRUSS SUPPLIERS ENGINEERED
JOIST/TRUSS LAYOUT AND SHOP DRAWINGS

POST SCHEDULE	
PA	POST ABOVE
P1	1-2x4" POST (DEFAULT, IF NOT SPECIFIED)
P2	2-2x4" BUILT-UP POST
P3	3-2x4" BUILT-UP POST
P4	4-2x4" BUILT-UP POST
P5	5-2x4" BUILT-UP POST
*BUILT-UP POSTS SHALL MATCH WALL/ BEAM DIMENSION. EXAMPLE: P3-3-2x6 IN 8" WALL OR UNDER 2 1/4" BEAM	

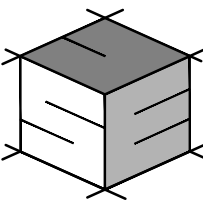


SECOND FLOOR FRAMING PLAN

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



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: 09-21-2027

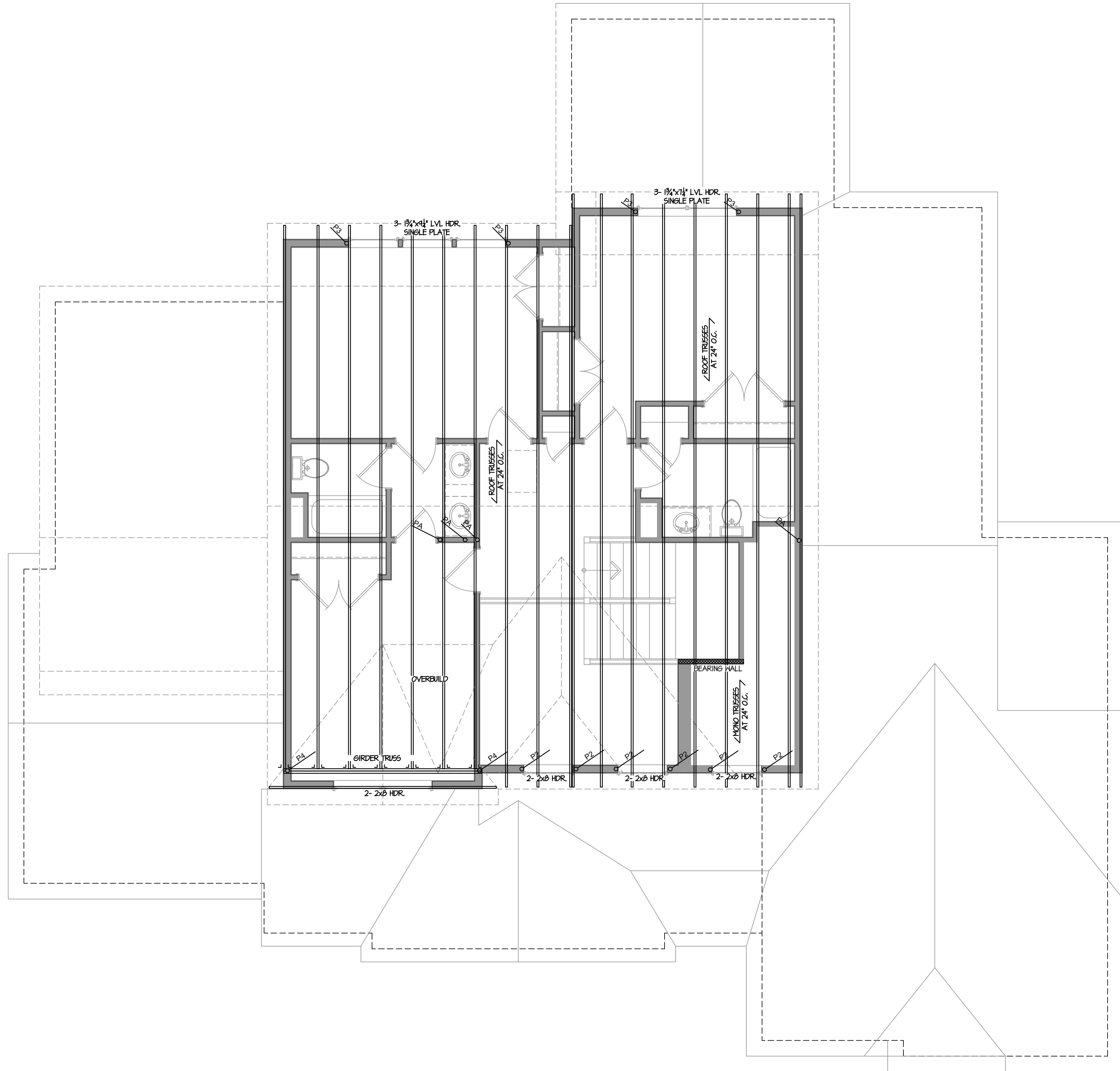
ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:	B0613
REVISIONS:	DATE:
PERMIT PLANS	12/30/25
DATE:	12 / 30 / 2025
SCALE:	AS SHOWN
PAGE DESCRIPTION:	SECOND FLOOR FRAMING PLAN

SHEET:
S003

NOTE:
REFER TO TRUSS SUPPLIERS ENGINEERED
TRUSS LAYOUT AND SHOP DRAWINGS

POST SCHEDULE	
PA	POST ABOVE
P1	1-2x4" POST
(DEFAULT, IF NOT SPECIFIED)	
P2	2-2x4" BUILT-UP POST
P3	3-2x4" BUILT-UP POST
P4	4-2x4" BUILT-UP POST
P5	5-2x4" BUILT-UP POST
*BUILT-UP POSTS SHALL MATCH	
WALL/ BEAM DIMENSION.	
EXAMPLE: P3-3-3x6 IN 8" WALL	
OR UNDER 2 1/4" BEAM	

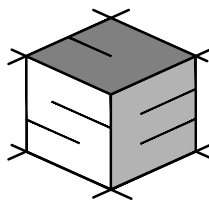


ROOF FRAMING PLAN

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



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: 09-21-2027

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:	B0613
REVISIONS:	DATE:
PERMIT PLANS	12/30/25

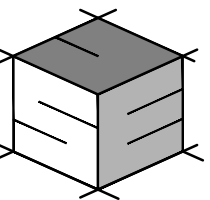
DATE: 12 / 30 / 2025

SCALE: AS SHOWN

PAGE DESCRIPTION:
ROOF FRAMING
PLAN

SHEET:
S004

These plans are the property of of
uilders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



12/30/2025

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

REVISIONS:	DATE:
PERMIT PLANS	12/30/25

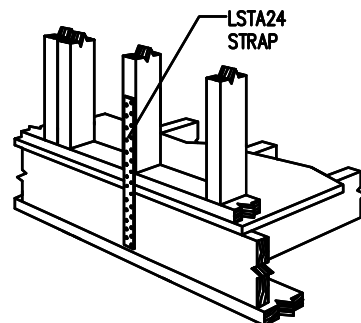
FIRST FLOOR WALL BRACING PLAN

S005

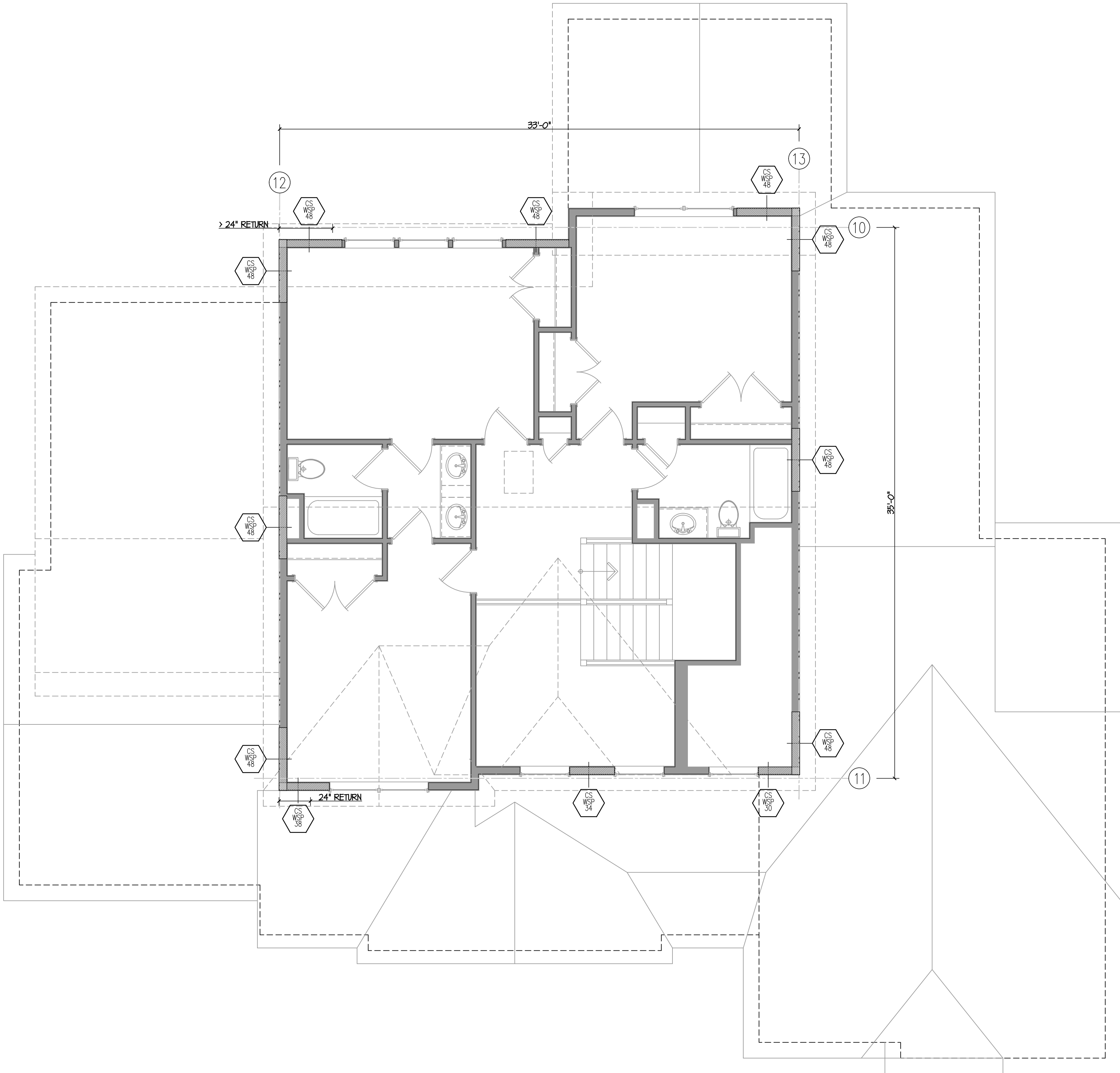


SCALE: 1/4"=1'-0"

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. SCREW @ 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. 5/8" OSB OR PLYWOOD SHEATHING, w/8d COMMON EDGE NAILS @ 6"oc, 12"oc IN FIELD, OR 16ga, 1/8" CROWN, 1 1/2" LEG EDGE STAPLES @ 3"oc, 6"oc IN FIELD.
WSP #	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER IRC 2021, SECTION 602.10. 5/8" OSB OR PLYWOOD SHEATHING, w/8d COMMON EDGE NAILS @ 6"oc, 12"oc IN FIELD, OR 16ga, 1/8" CROWN, 1 1/2" LEG EDGE STAPLES @ 3"oc, 6"oc IN FIELD.
CS-PF #	DENOTES BRACED WALL SEGMENT MIN. WIDTH, IN INCHES, PER IRC 2021, SECTION 602.10. 5/8" OSB OR PLYWOOD SHEATHING, NAILED & STRAPPED PER IRC CS-PF 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 WB (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. WSP METHOD, PER WSP ABOVE. U.N.O. 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.	



SIMPSON LSTA24 INSTALLATION
800# HOLD-DOWN

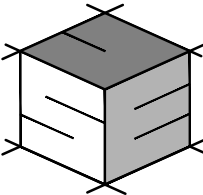


SECOND FLOOR WALL BRACING PLAN
SEE BRACING CHART SHEET 5007

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of Builders National Cooperative, LLC. No unauthorized use is permitted. Plan is a lot specific ACL3 model.



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: 09-21-2027

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:	B0613
REVISIONS:	DATE:
PERMIT PLANS	12/30/25
DATE:	12 / 30 / 2025
SCALE:	AS SHOWN
PAGE DESCRIPTION:	
SECOND FLOOR WALL BRACING PLAN	

SHEET:
S006

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 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 WMF. 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 10 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.

MASONRY

ALL MASONRY WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF BIA AND NOMA 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-FEET 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 CONCRETE 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 60-2 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 L3"x 3" 1/2"x 5/16" 7'-6" SPAN OR LESS L5"x 3 1/2"x 5/16"
5'-6" SPAN OR LESS L4"x 3 1/2"x 5/16" 9'-0" SPAN OR LESS L6"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 SPACING 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.

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 MOULD BUTT SPLICE.

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 85% OF THE SAWPOD.

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 TWO SOLID 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 PLYWOOD 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.

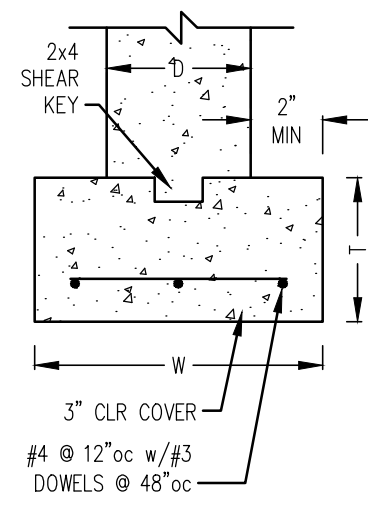
CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH NEW WORK IN AREAS AFFECTED BY EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE INFORMED IN WRITING OF CONFLICTS BETWEEN EXISTING AND PROPOSED NEW CONSTRUCTION.

CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS. INCONSISTENCIES ON THE STRUCTURAL DRAWINGS OR BETWEEN THE STRUCTURAL 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.

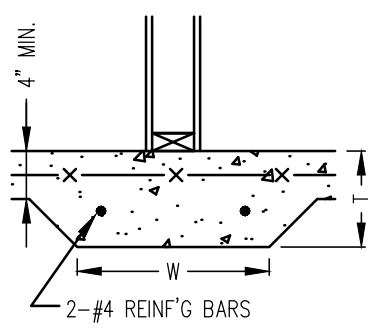
THE STRUCTURAL INTEGRITY OF THE BUILDING IS DEPENDANT UPON COMPLETION ACCORDING TO PLANS AND SPECIFICATIONS. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION. THE METHOD OF CONSTRUCTION AND SEQUENCE OF OPERATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR 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



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



MARK	THICKENED SLABS	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 (1xW)	SIZE (1xW)	SIZE (1xW)	SIZE (1xW)
WSA	8" x 16"			
WSB	8" x 18"	8" x 16"		
WSC	8" x 20"			
WSD	8" x 22"	8" x 18"		
WSE	8" x 24"			8" x 6"
WSF	10" x 26"	8" x 20"		
WSG	10" x 28"	8" x 22"		
WSH	12" x 30"	8" x 24"	8" x 18"	
WSI	12" x 32"		8" x 20"	
WSJ	12" x 34"	10" x 28"	8" x 22"	8" x 18"
WSK	14" x 36"	10" x 28"		

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 (1xW)	SIZE (1xW)	SIZE (1xW)	SIZE (1xW)
WI0B	8" x 18"			
WI0C	8" x 20"			
WI0D	8" x 22"	8" x 18"		
WI0E	8" x 24"		8" x 18"	
WI0F	8" x 26"	8" x 20"		8" x 18"
WI0G	10" x 28"	8" x 22"		
WI0H	10" x 30"			
WI0I	12" x 32"	8" x 24"	8" x 20"	
WI0J	12" x 34"	8" x 26"		
WI0K	14" x 36"	10" x 28"	8" x 22"	

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 (1xW)	SIZE (1xW)	SIZE (1xW)	SIZE (1xW)
WI2C	8" x 20"			
WI2D	8" x 22"			
WI2E	8" x 24"	8" x 20"		
WI2F	8" x 26"		8" x 20"	
WI2G	8" x 28"	8" x 22"		8" x 20"
WI2H	10" x 30"	8" x 24"		
WI2I	12" x 32"			
WI2J	12" x 34"	8" x 26"	8" x 22"	
WI2K	14" x 36"	10" x 28"		

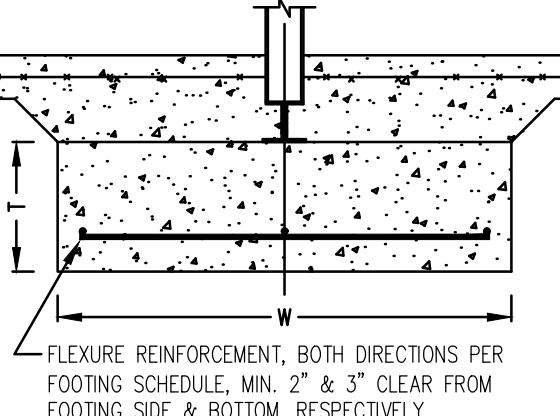
ISOLATED FOOTING SCHEDULE

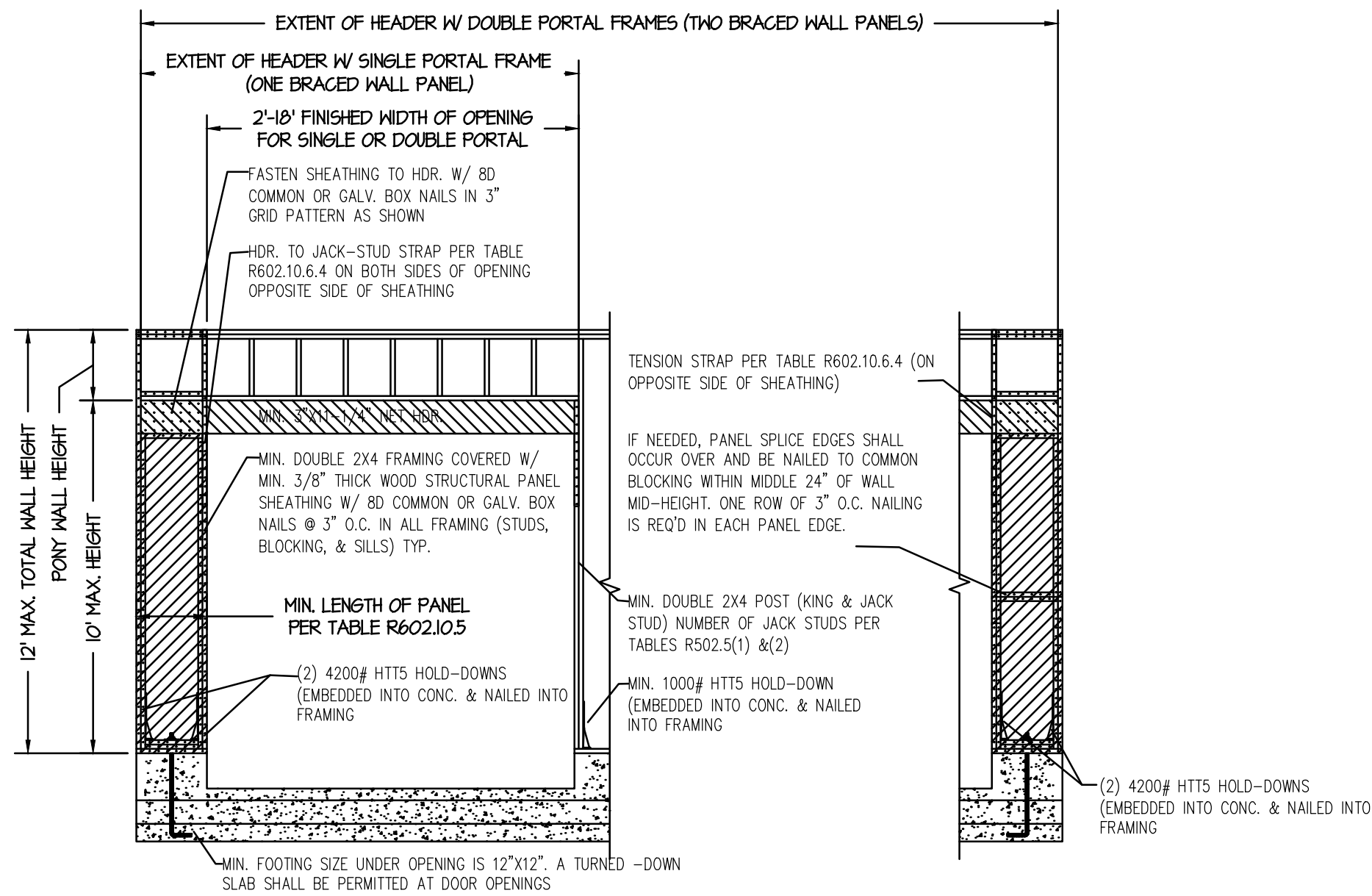
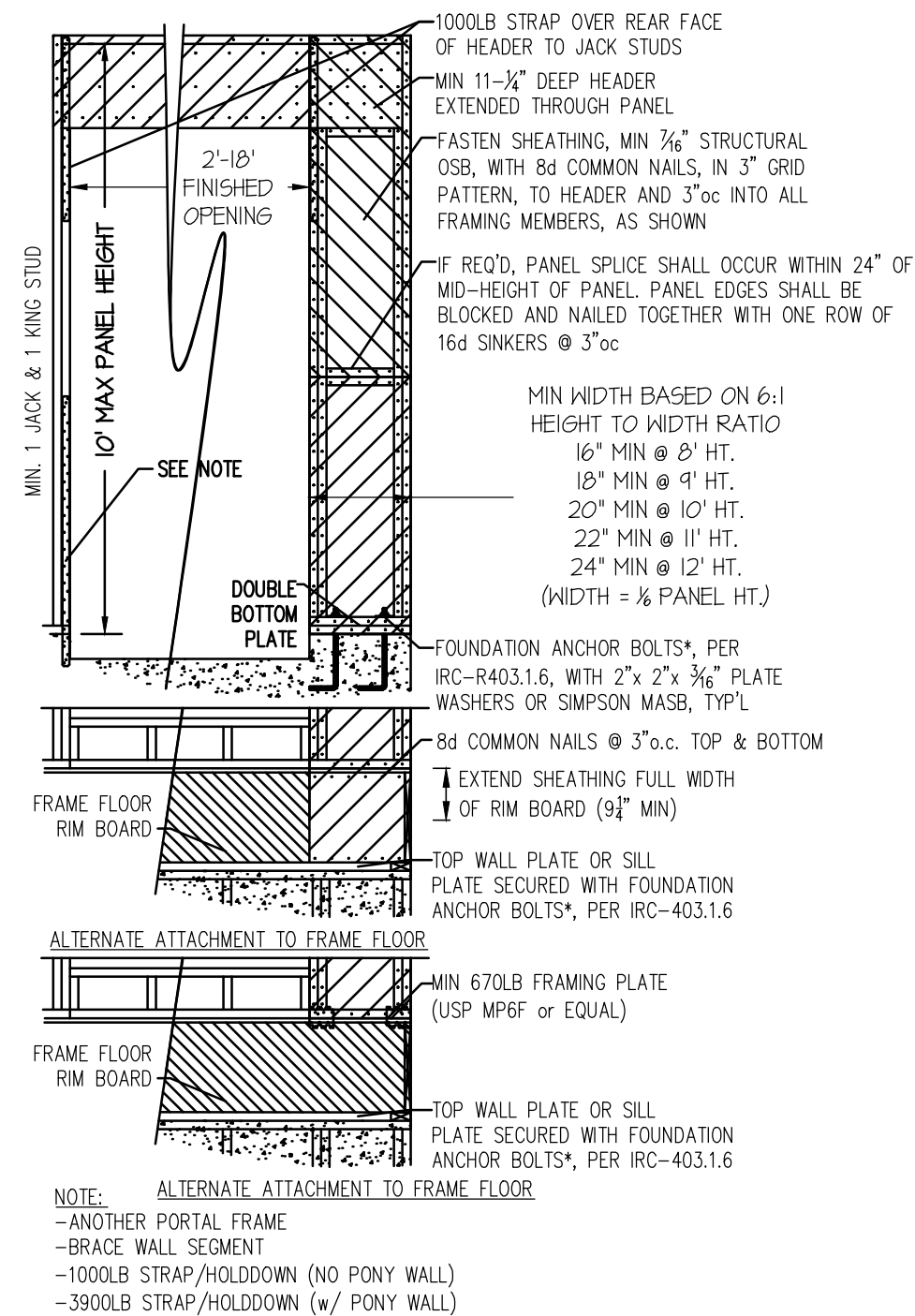
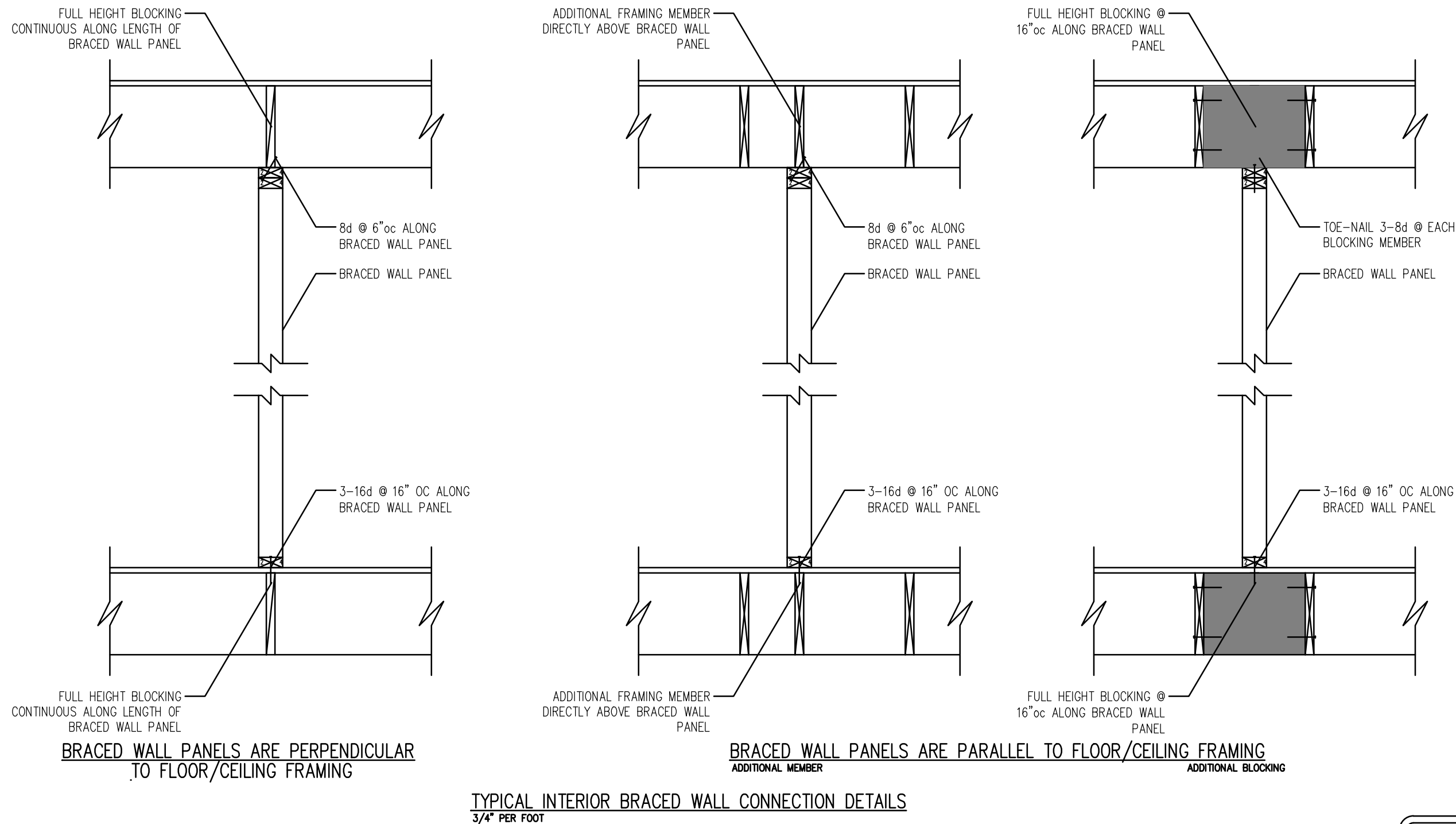
SQUARE, ISOLATED FOOTING SPECIFICATIONS

SOIL CLASSIFICATIONS/PRESUMPTIVE BEARING CAPACITIES				
EQUIVALENT FOOTINGS				
MARK (#)	CL, ML, MH & CH (1500psf) SIZE 1x1-N	SW, SP, SM, SC, GM & GC (2000psf) SIZE 1x1-N	(2500psf) SIZE 1x1-N	GW, GP (3000psf) SIZE 1x1-N
FA	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	28"x12"-0
FF	40"x12"-0	34"x12"-0	32"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"x12"-10	66"x12"-8	60"x12"-8	54"x12"-7
FX	82"x12"-11	70"x12"-9	62"x12"-8	56"x12"-7
FY	86"x12"-12	72"x12"-10	64"x12"-9	58"x12"-8
FZ	88"x12"-13	74"x12"-11	66"x12"-9	60"x12"-8
N = NUMBER OF #4 BOTTOM BARS, EACH WAY				

ROUND FOOTING SCHEDULE

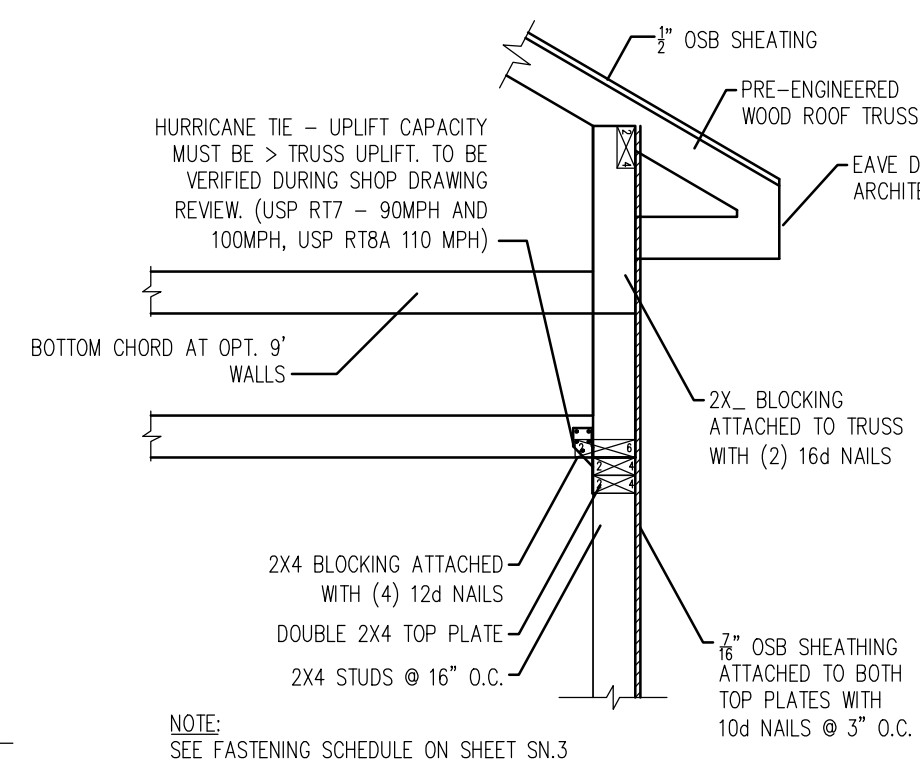
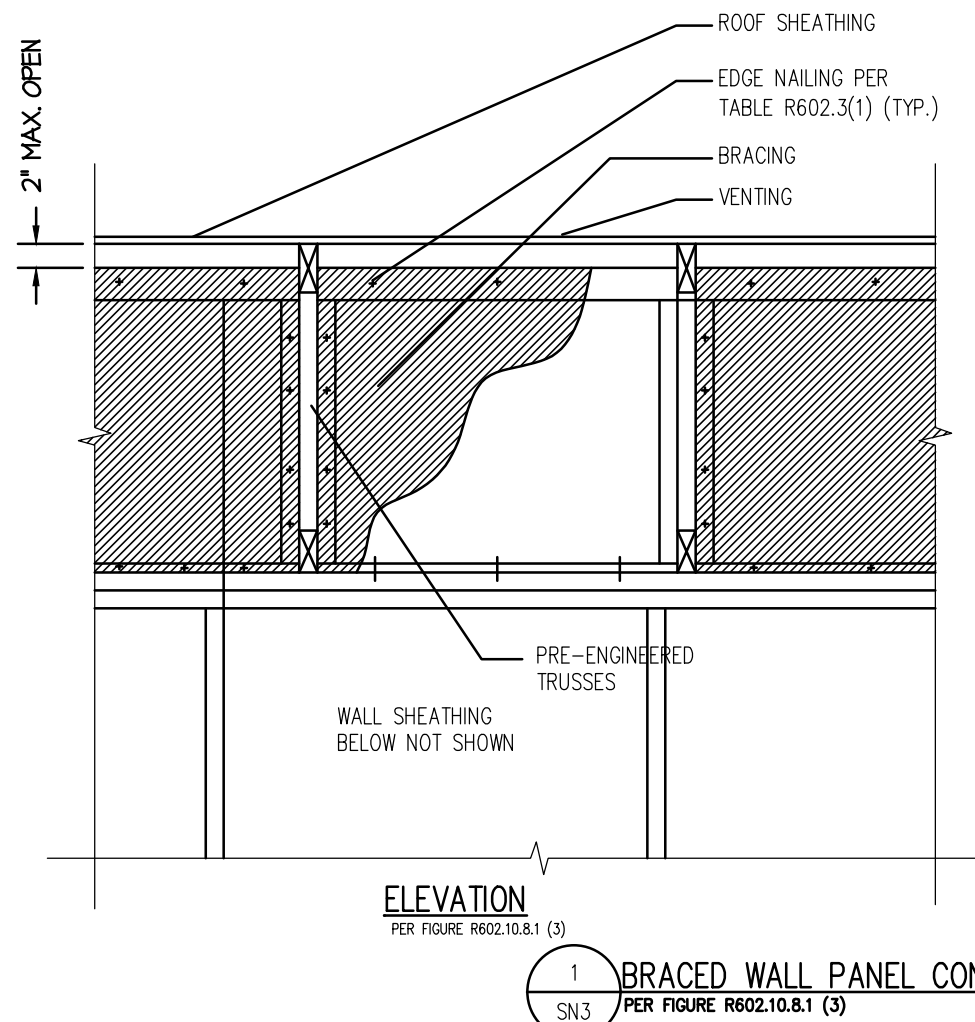
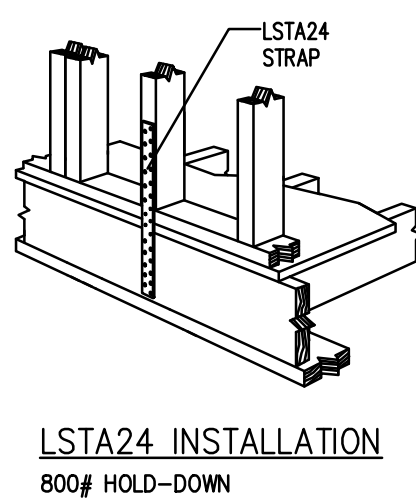
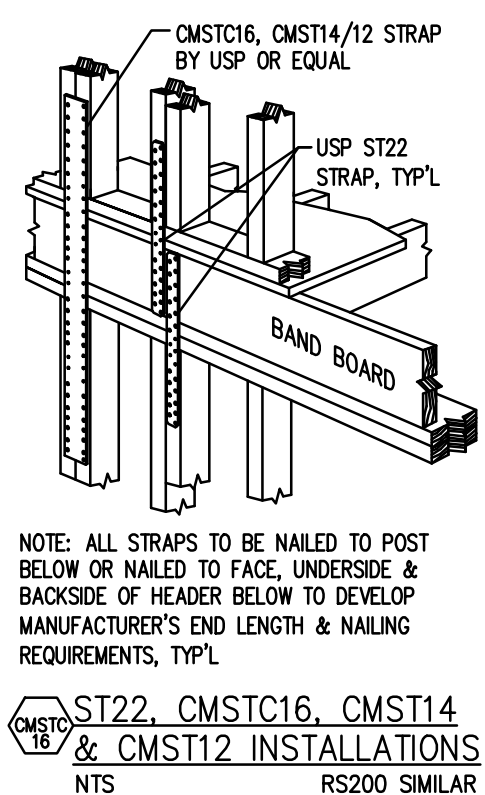
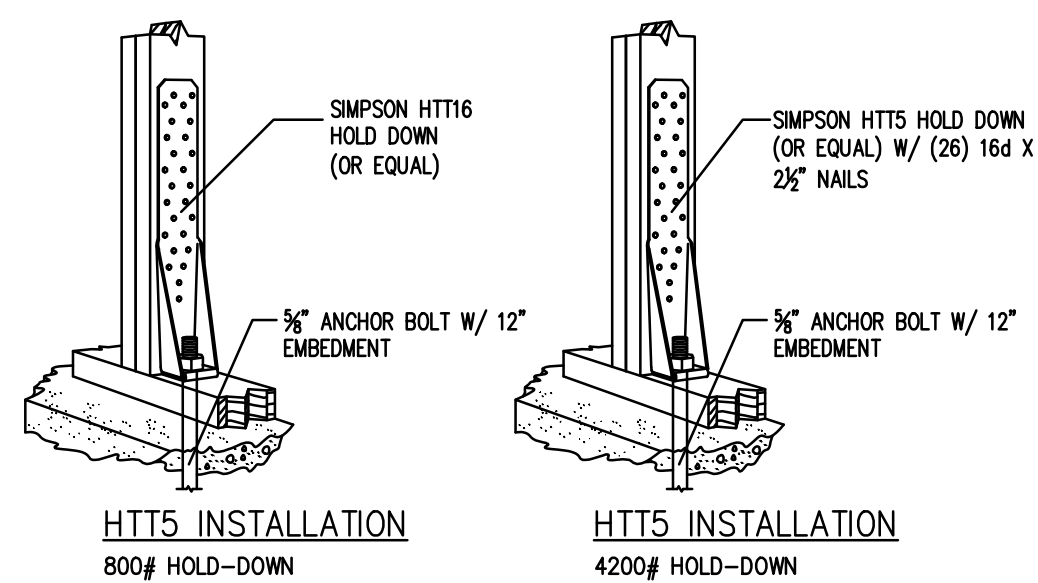
SOIL CLASSIFICATIONS & PRESUMPTIVE BEARING CAPACITIES				
EQUIVALENT FOOTINGS				
MARK (#)	CL, ML, MH & CH (1500psf) (DIA x 1)	SW, SP, SM, SC, GM & GC (2000psf) (2500psf)	GW, GP (3000psf)	
F16	146"x12"	126"x12"	126"x12"	126"x12"
F26	166"x12"	146"x12"	146"x12"	126"x12"
F36	206"x12"	166"x12"	146"x12"	146"x12"
F46	226"x12"	186"x12"	166"x12"	166"x12"
F56	246"x12"	206"x12"	186"x12"	186"x12"
F66	N/A	226"x12"	206"x12"	186"x12"
F76	N/A	246"x12"	226"x12"	206"x12"





CS-PF
NTS

PFH
18 NTS

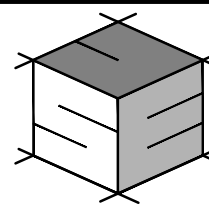


PARTIAL FASTENING SCHEDULE			
MARK	CONNECTION	FASTENING	DETAIL
1	TOP PLATE TO STUD, END NAIL	2X4 2-16d 2X6 3-16d 2X8 4-16d 2X10 5-16d 2X12 6-16d	(5)
2	DOUBLE TOP PLATE, FACE NAIL	10d @ 24" oc	(1) (2) (3)
3	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	16d TOENAILS @ 6" oc (MIN 2 PER BLOCK)	(6) (4)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

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

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of Builders National Cooperative, LLC. No unauthorized use is permitted. Plan is a lot specific ACL3 model.



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: 09-21-2027

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #: B0613

REVISIONS: DATE:

PERMIT PLANS 12/30/25

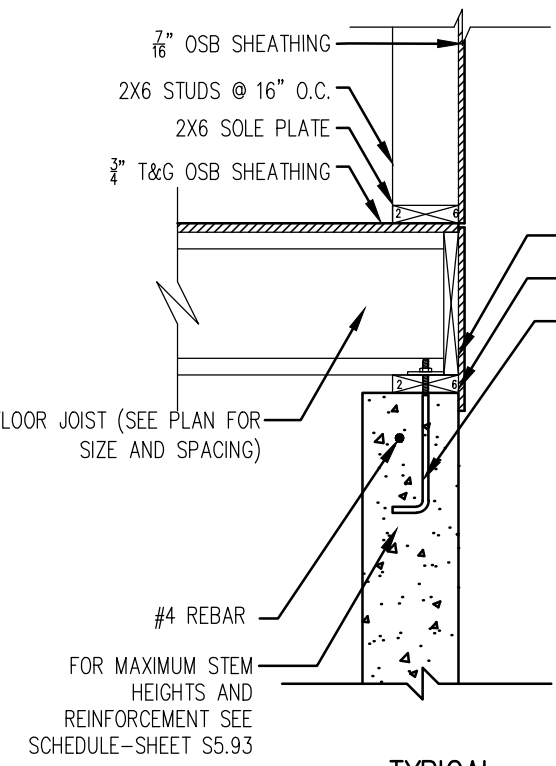
DATE: 12 / 30 / 2025

SCALE: AS SHOWN

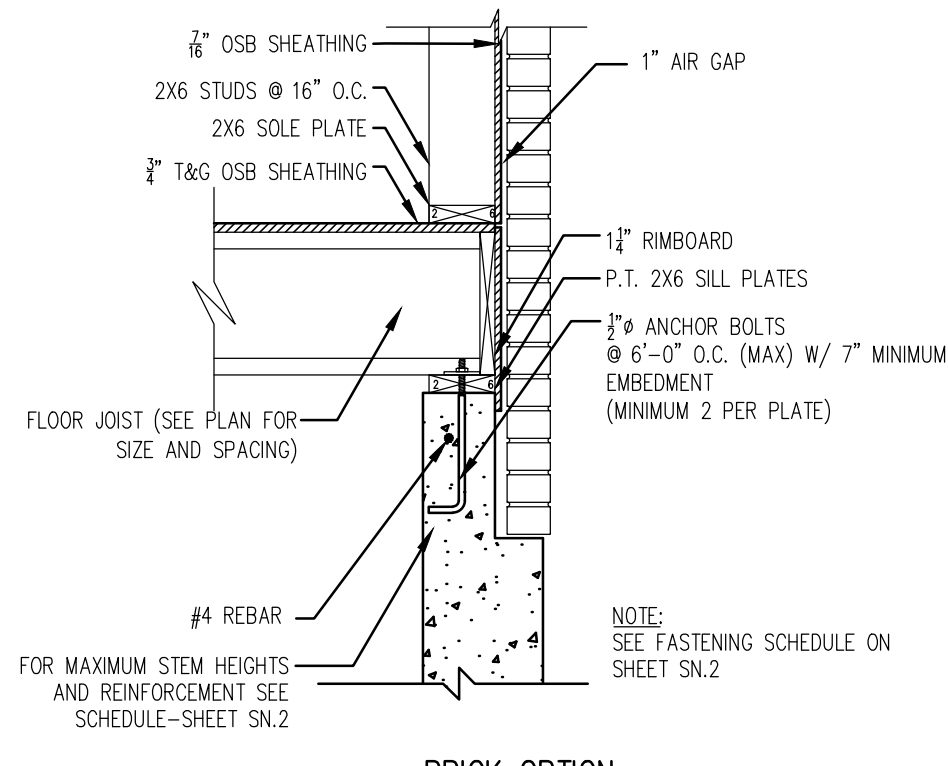
PAGE DESCRIPTION:
GENERAL
STRUCTURAL
DETAILS & NOTES

SHEET:

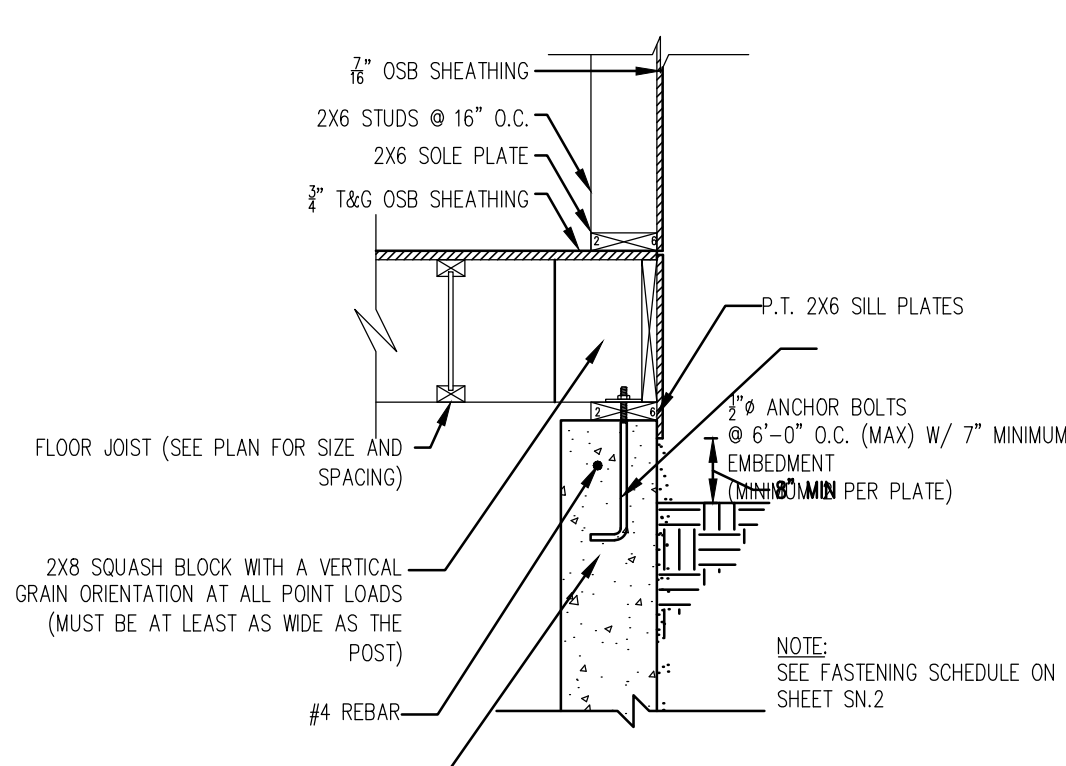
S009



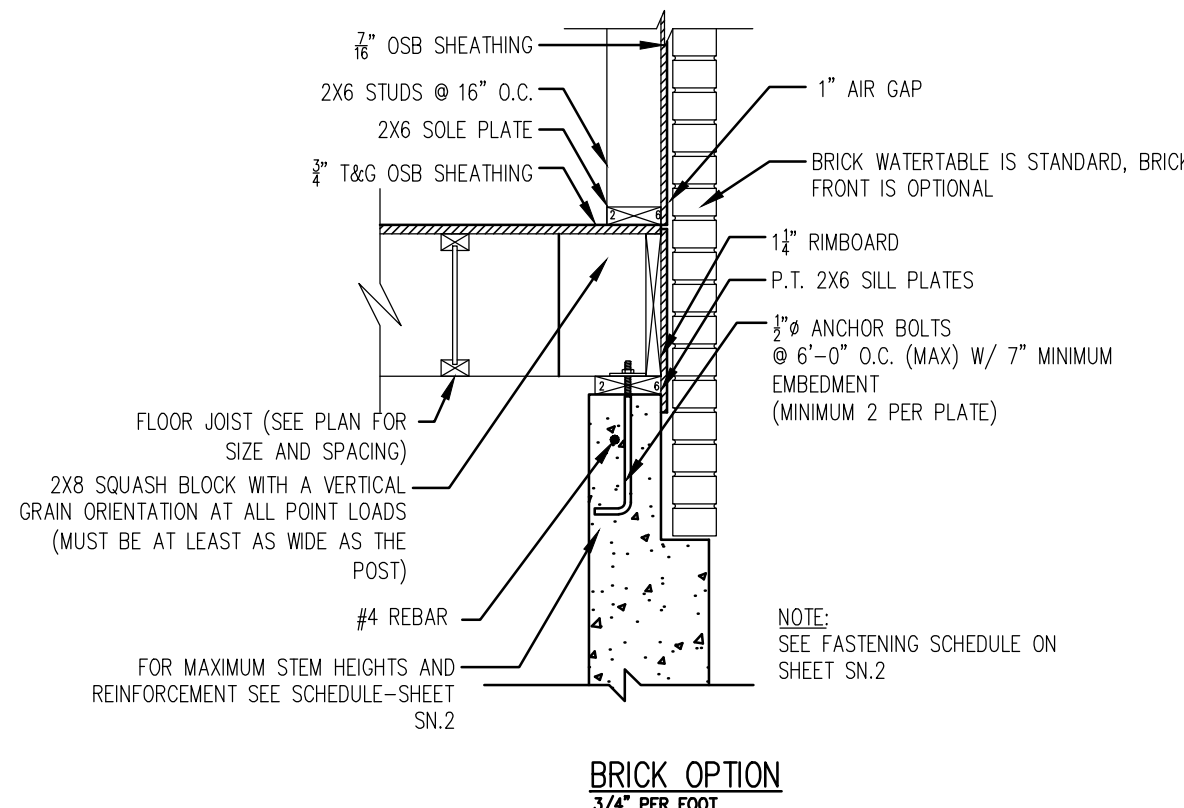
TYPICAL
3/4" PER FOOT



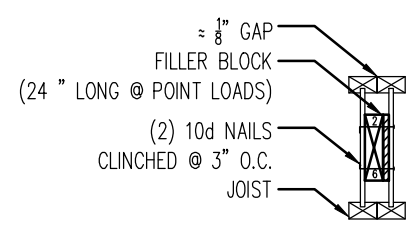
BRICK OPTION
3/4" PER FOOT



TYPICAL
3/4" PER FOOT



BRICK OPTION
3/4" PER FOOT

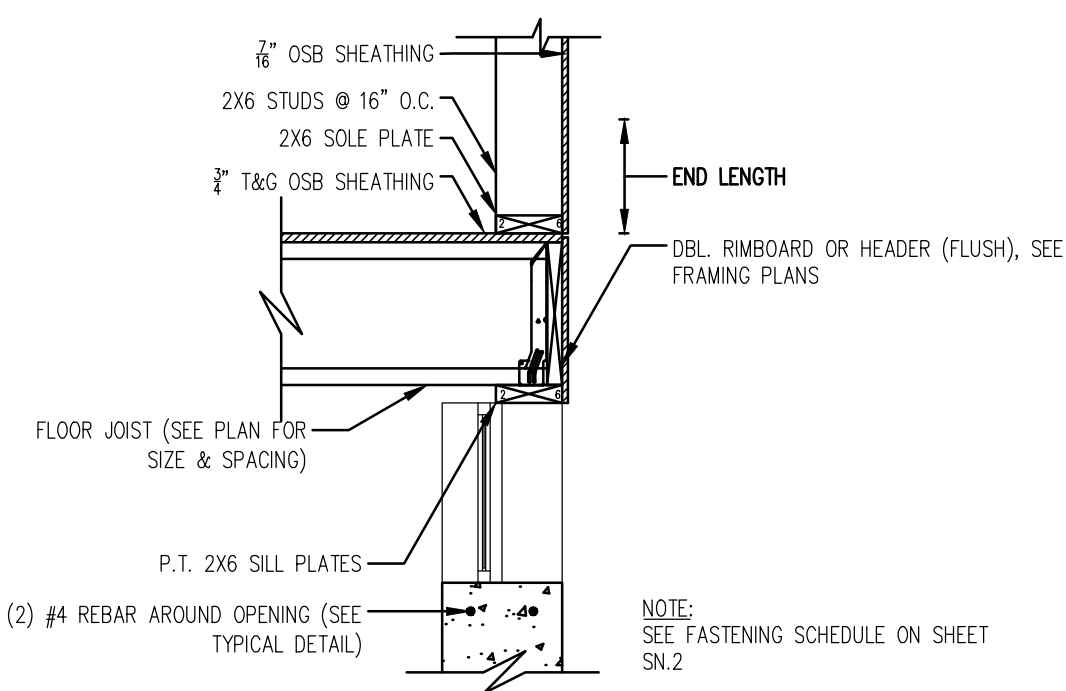


DOUBLE JOIST DETAIL (TYP)
3/4" PER FOOT

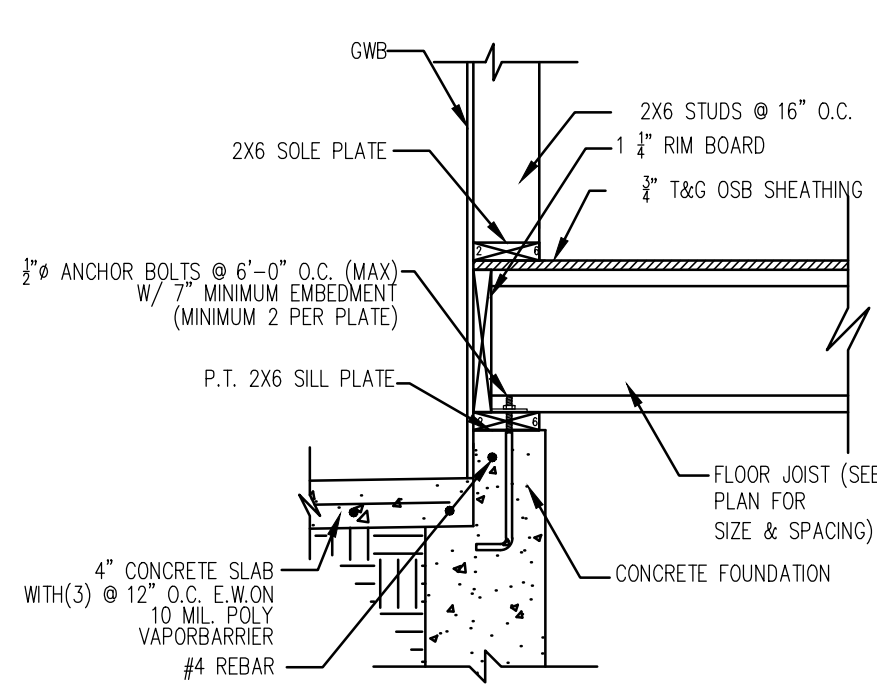
FILLER AND BACKER BLOCK SCHEDULE							
BOISE	5000s	6000s AND 6500s	60s	90s			
DEPTH	9-1/2" OR 11-3/4"	9-1/2" OR 11-3/4"	14" OR 16"	11-3/4" OR 16"	14" OR 16"	11-3/4" OR 16"	14" OR 16"
FILLER BLOCK*	2X6	2X8	2X6 + 8" SHEATHING	2X8 + 8" SHEATHING	2X8 + 8" SHEATHING	TWO 2X6	TWO 2X8

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

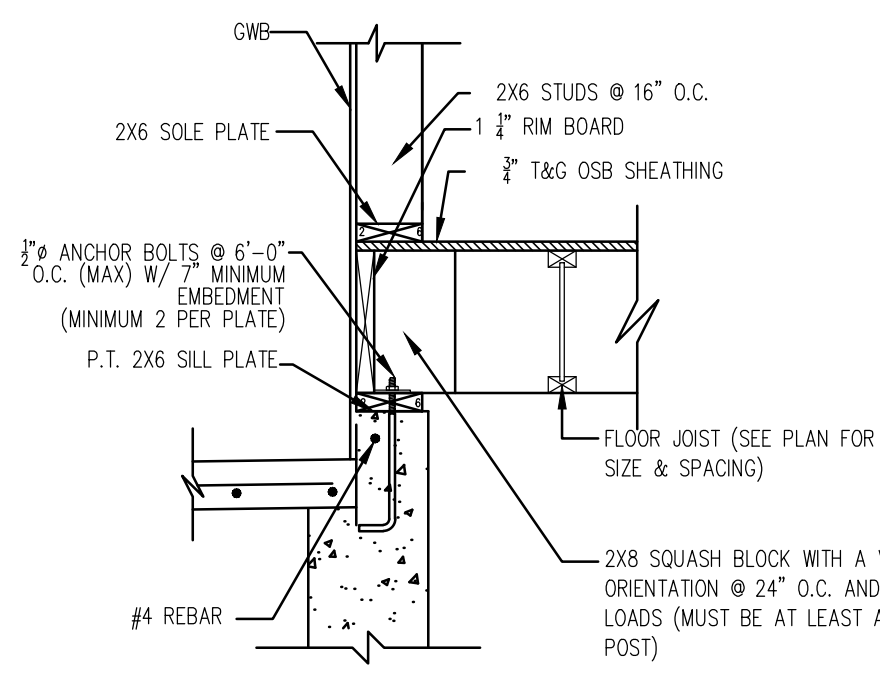
RIM/FLOOR JOIST CONNECTION SCHEDULE			
DECK JOIST SPACE	FLOOR SPACING		
	16"	19.2"	24"
≤ 8'-0"	MP34	MP34	MPA1
10'-0"	MP34	MPA1	(2)MP34
12'-0"	MPA1	MPA1	(2)MP34
14'-0"	MPA1	(2)MP34	(2)MPA1
16'-0"	(2)MP34	(2)MP34	(2)MPA1
18'-0"	(2)MP34	(2)MPA1	(2)MPA1
20'-0"	(2)MPA1	(2)MPA1	(2)MPA1



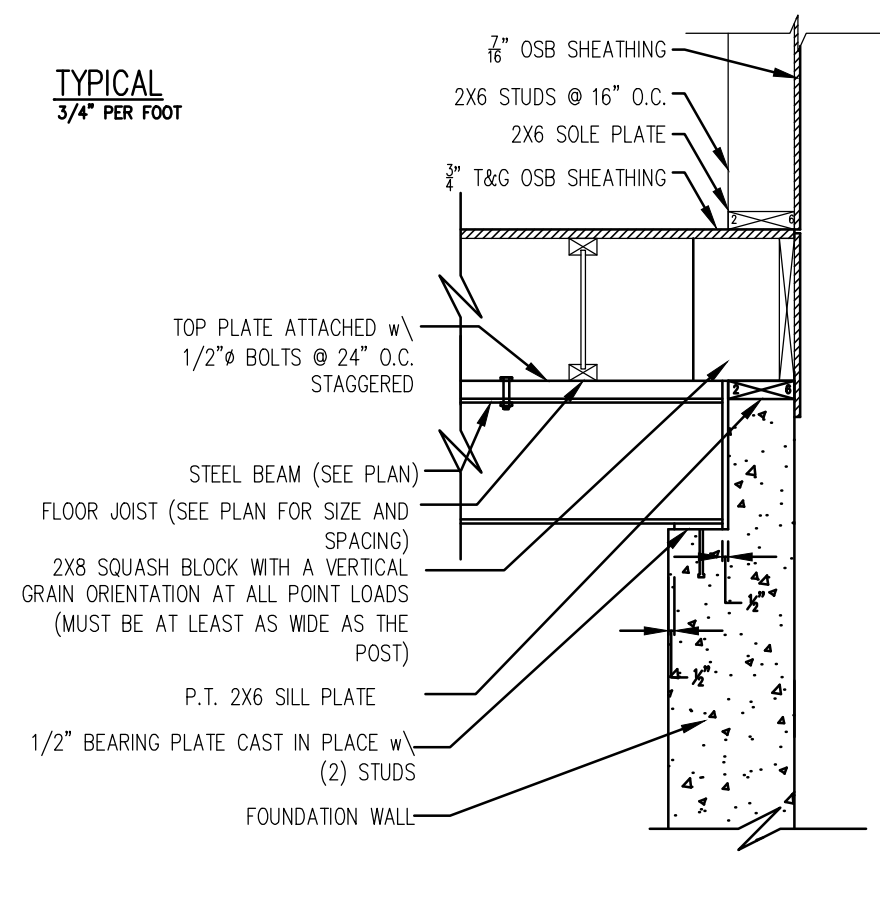
SECTION
3/4" PER FOOT



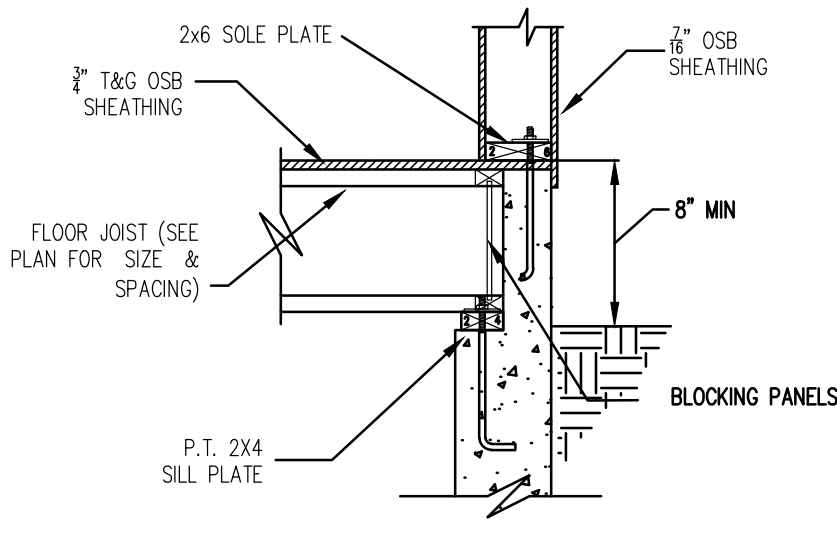
SECTION - GARAGE
3/4" PER FOOT



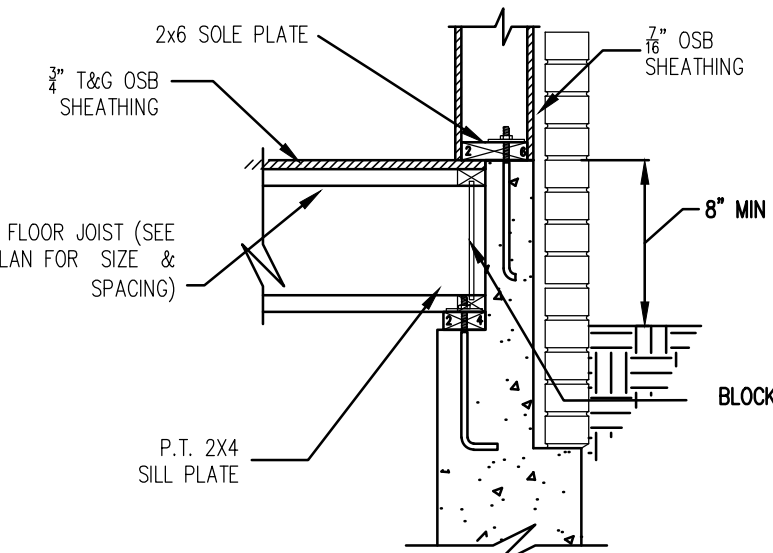
SECTION - GARAGE
3/4" PER FOOT



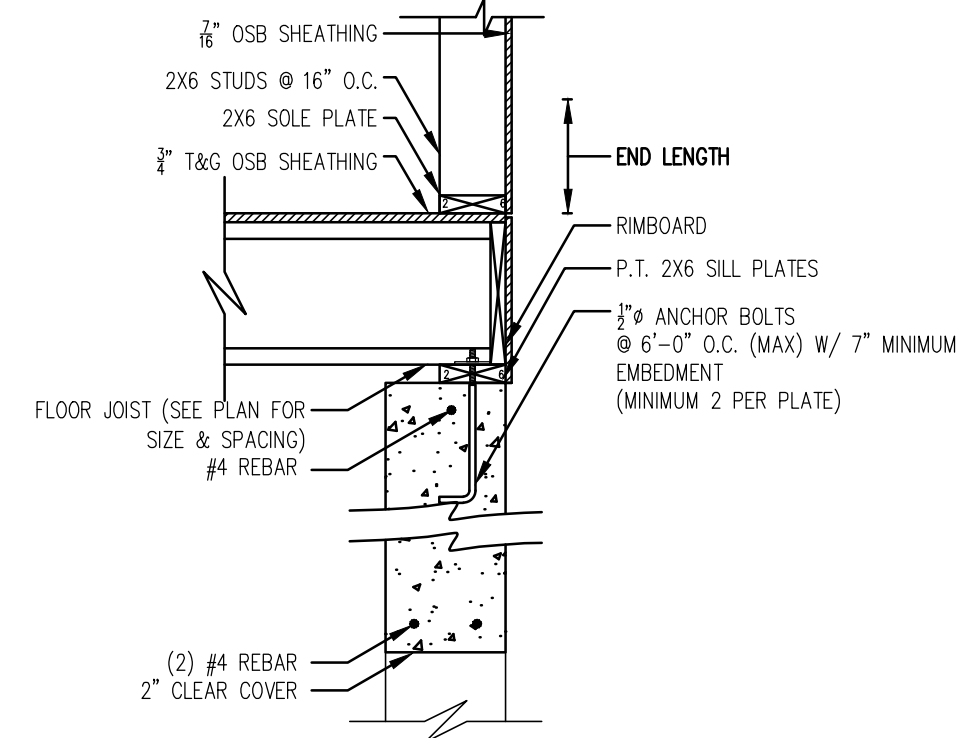
SECTION - BEAM POCKET
3/4" PER FOOT



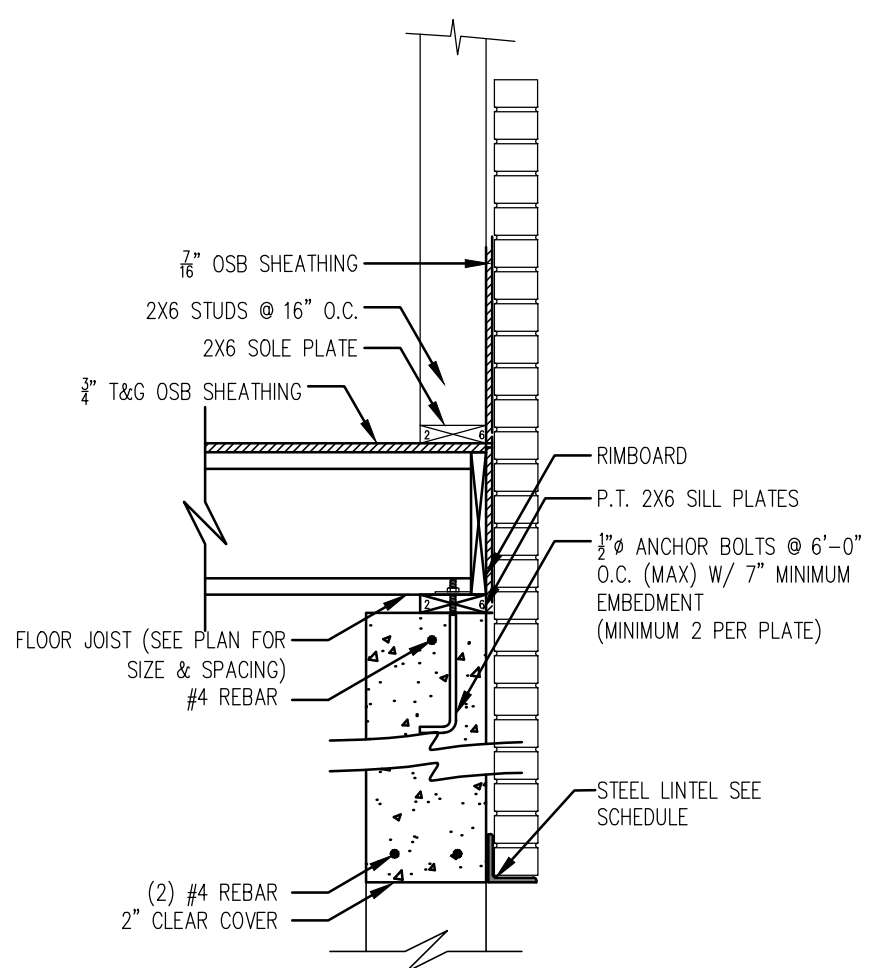
SECTION @ REVERSED LEDGE
3/4" PER FOOT



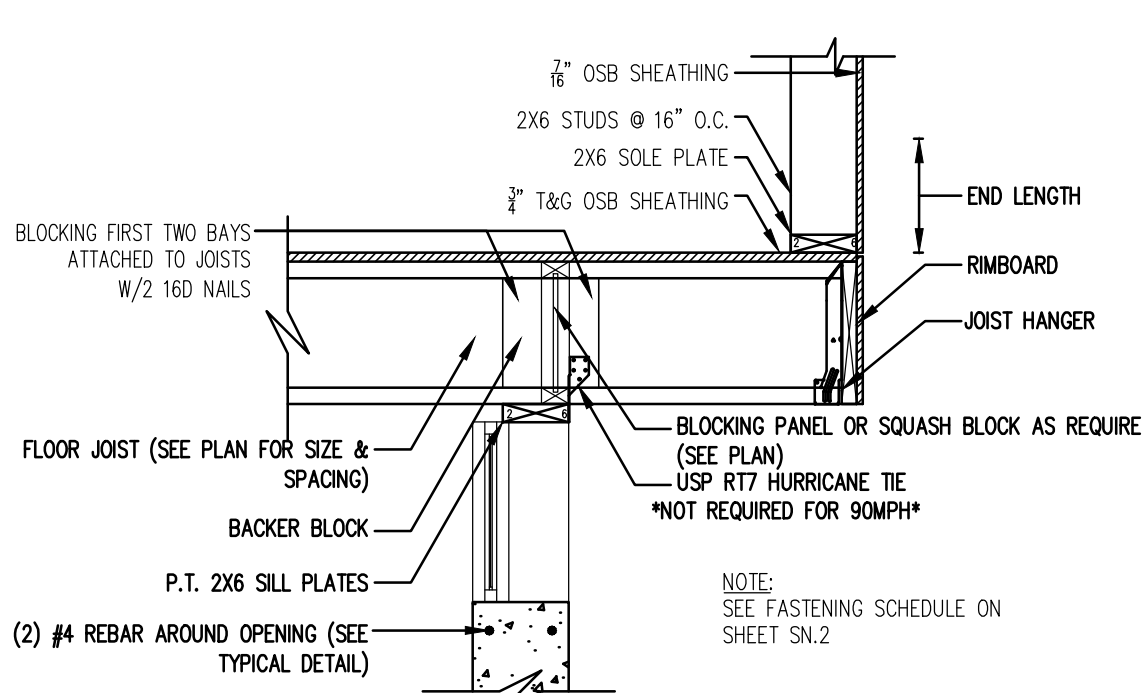
SECTION @ REVERED LEDGE W/ BRICK
3/4" PER FOOT



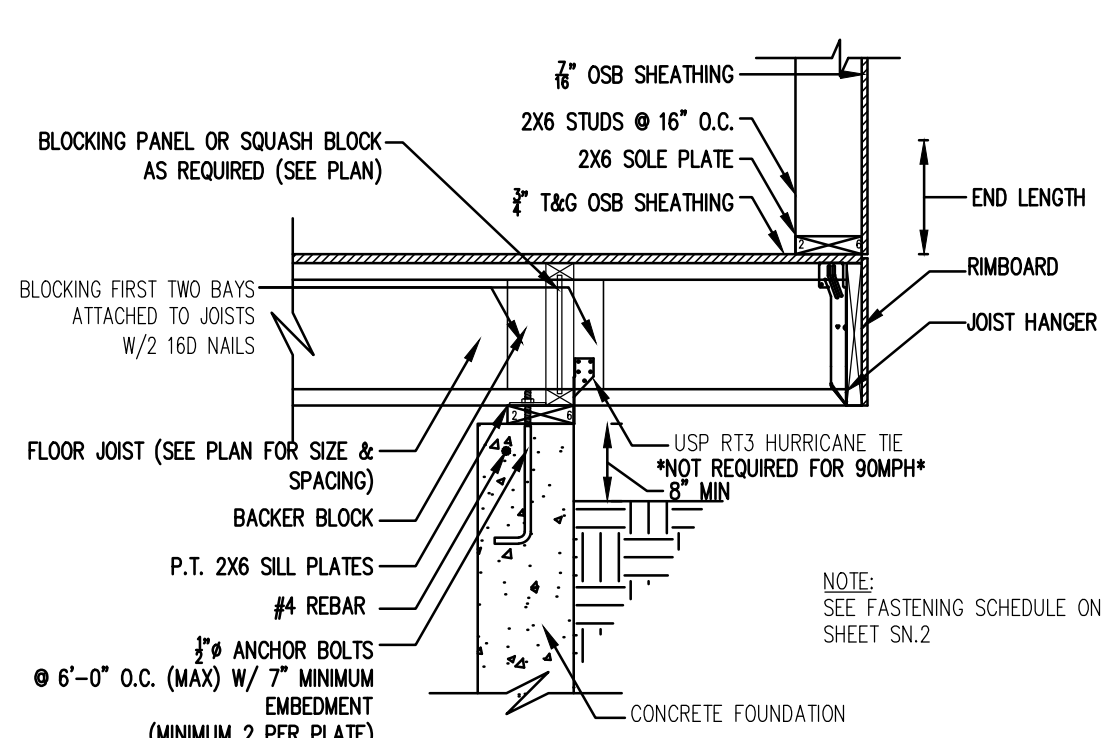
SECTION @ CONC. HEADER
3/4" PER FOOT



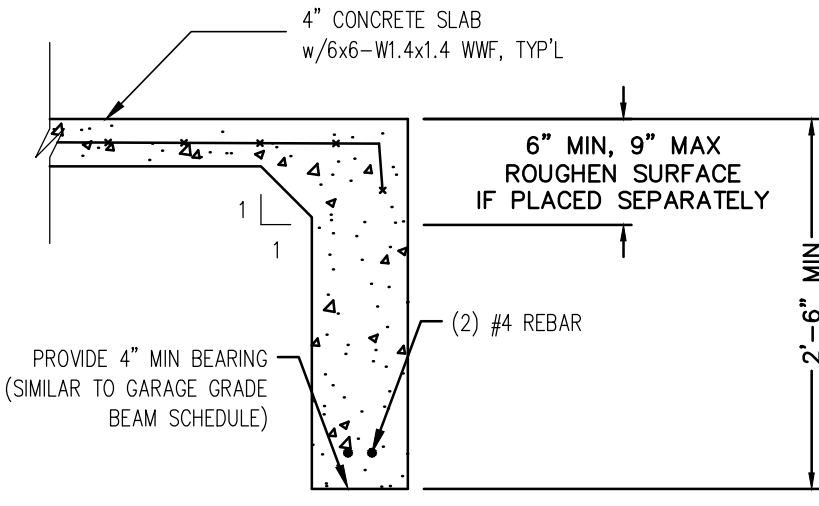
SECTION @ CONC. HEADER W/ BRICK
3/4" PER FOOT



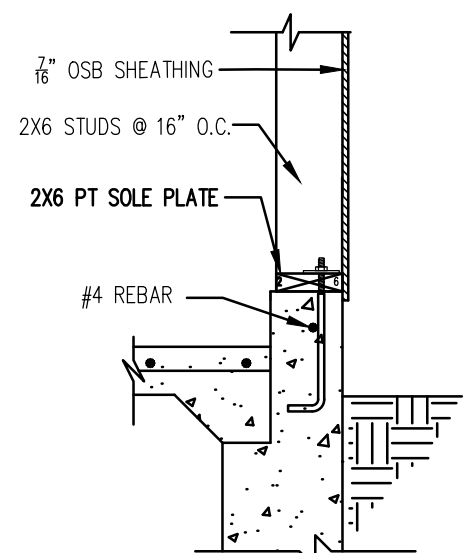
SECTION @ CANT. JOIST OVER WINDOW
3/4" PER FOOT



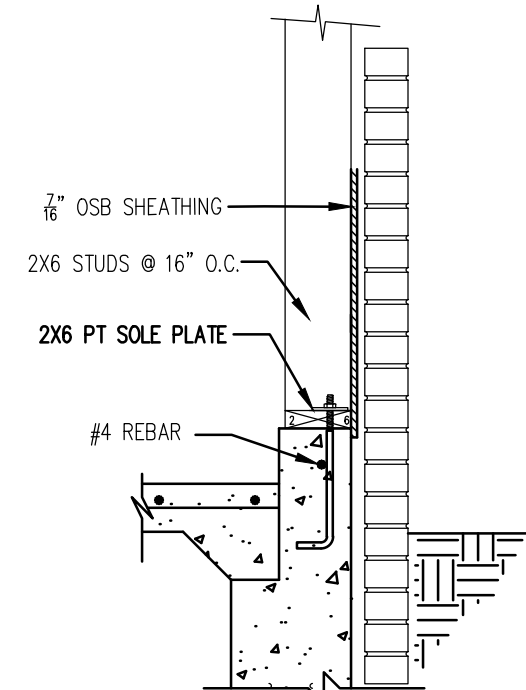
SECTION @ CANT. JOIST W/ SUPPORTING RIM BOARD
3/4" PER FOOT



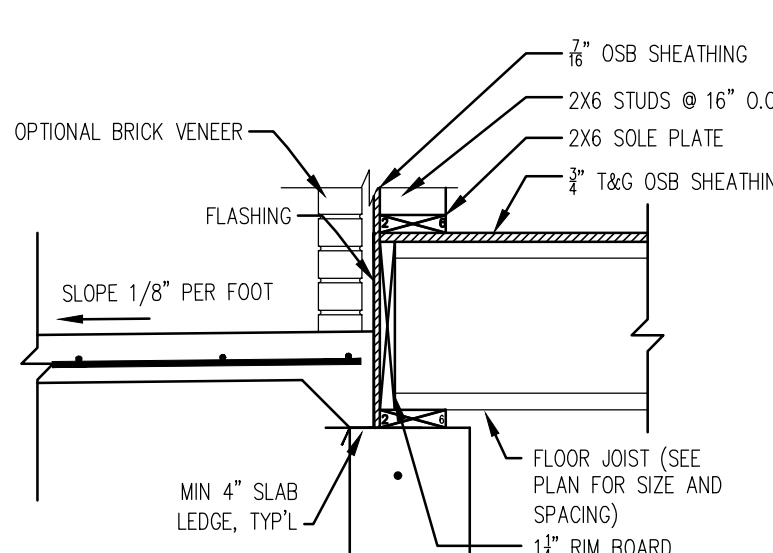
TURN DOWN SLAB
3/4" PER FOOT



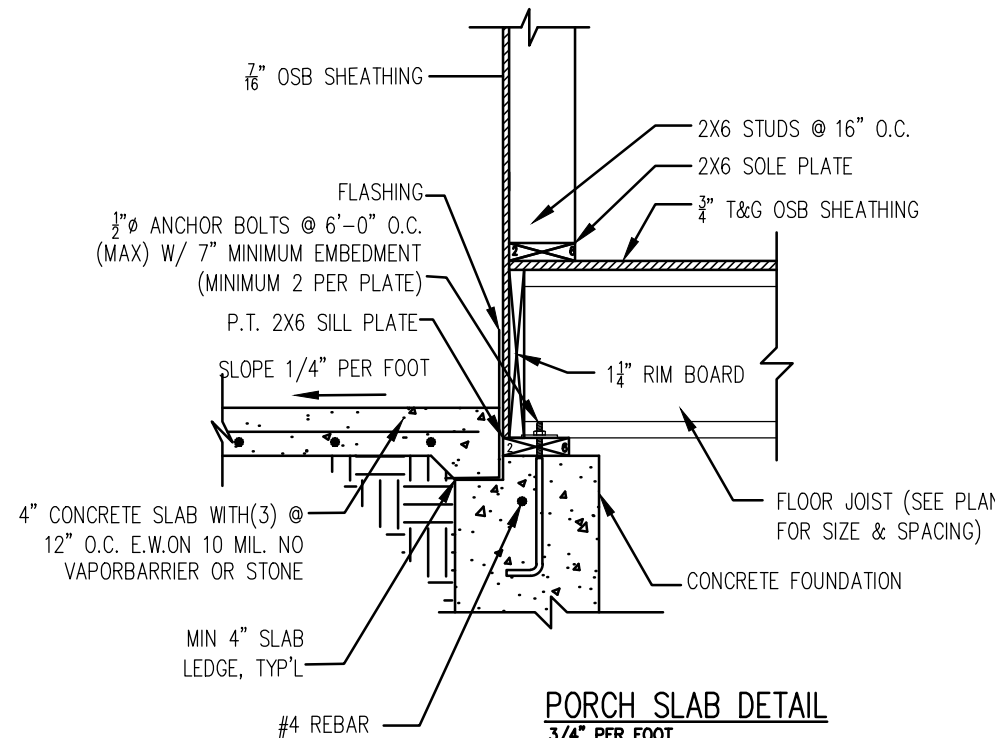
SECTION @ GARAGE EXTERIOR
3/4" PER FOOT



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



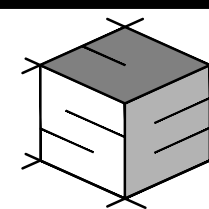
PORCH SLAB DETAIL W/ BRICK
3/4" PER FOOT



PORCH SLAB DETAIL
3/4" PER FOOT

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



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: 09-21-2027

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #: B0613

REVISIONS: DATE:

PERMIT PLANS 12/30/25

DATE: 12 / 30 / 2025

SCALE: AS SHOWN

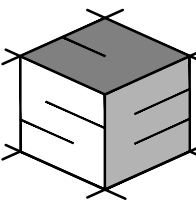
PAGE DESCRIPTION:
GENERAL
STRUCTURAL
DETAILS & NOTES

SHEET:

S010

Laine Street Homes LLC
244 N Market St
Frederick, MD 21701
(C) (301)524-4471

These plans are the property of of
Builders National Cooperative, LLC.
No unauthorized use is permitted.
Plan is a lot specific ACL3 model.



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: 09-21-2027

ACL3 MODEL, Lot 12
7176 Meadowbrooke Dr.
Frederick, MD 21702

JOB #:	B0613
REVISIONS:	DATE:
PERMIT PLANS	12/30/25

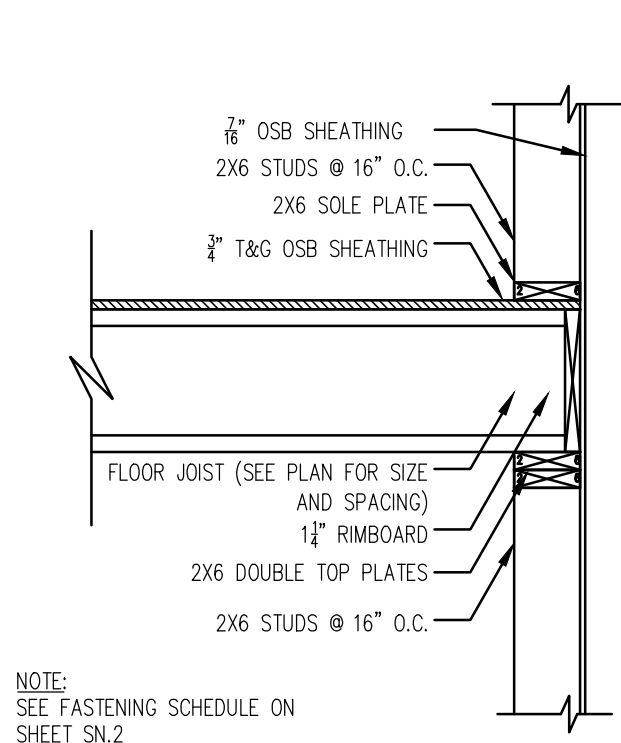
DATE: 12 / 30 / 2025

SCALE: AS SHOWN

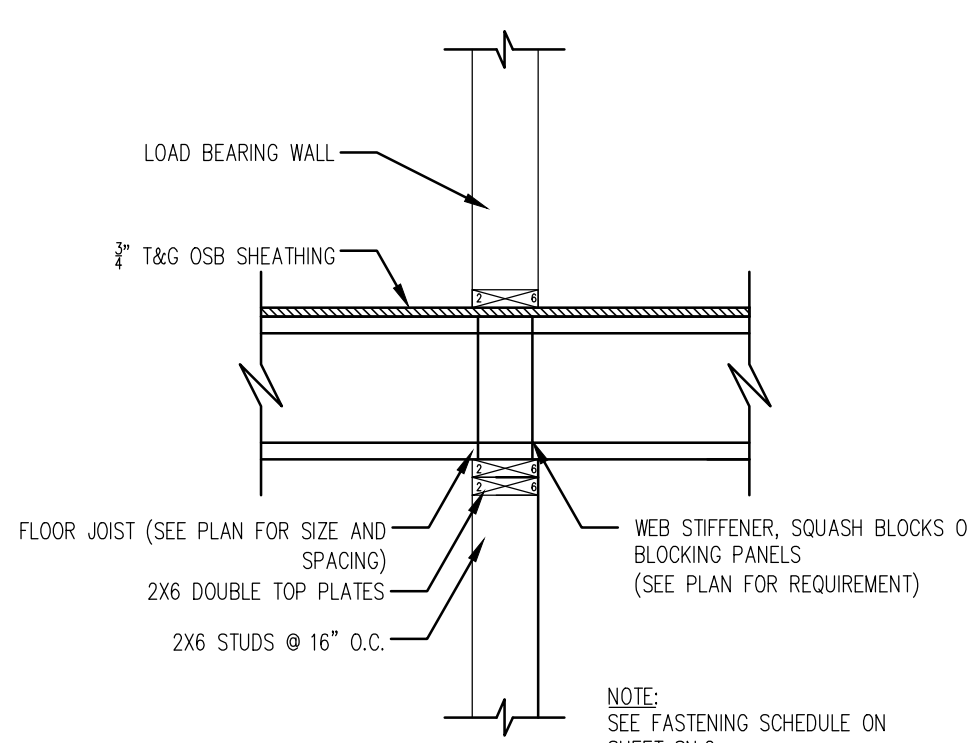
PAGE DESCRIPTION:
GENERAL
STRUCTURAL
DETAILS & NOTES

SHEET:

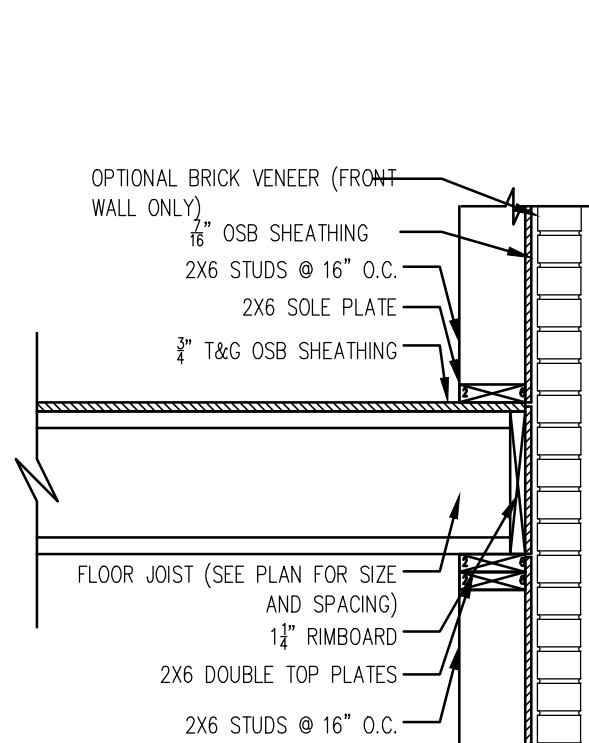
S011



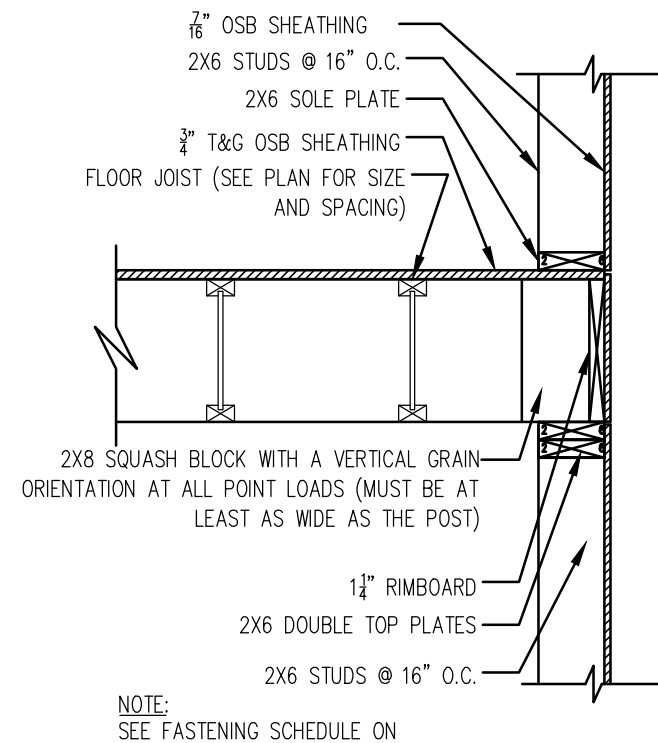
SECTION - EXTERIOR WALL
3/4\"/>



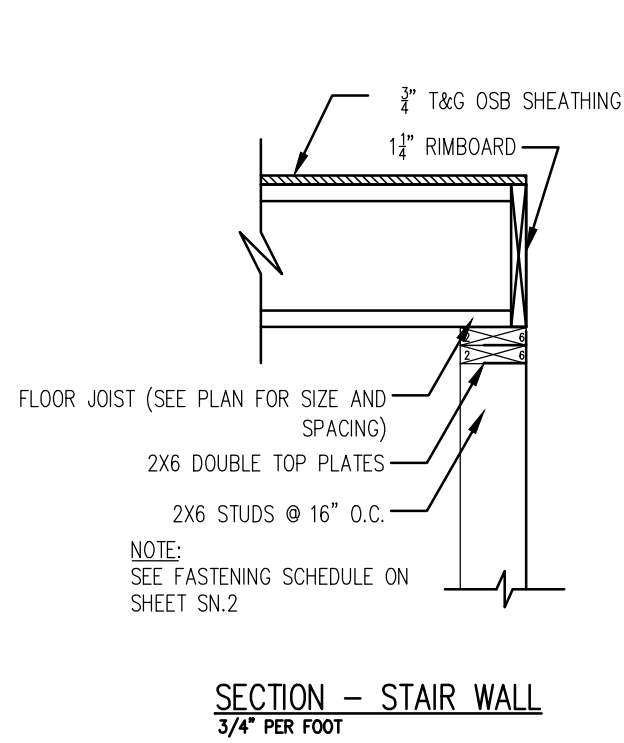
SECTION
3/4\"/>



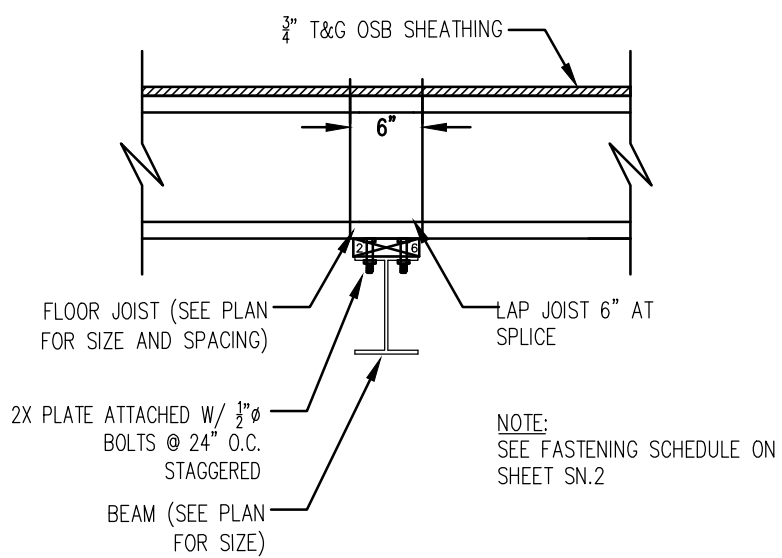
SECTION - EXTERIOR WALL W/ BRICK
3/4\"/>



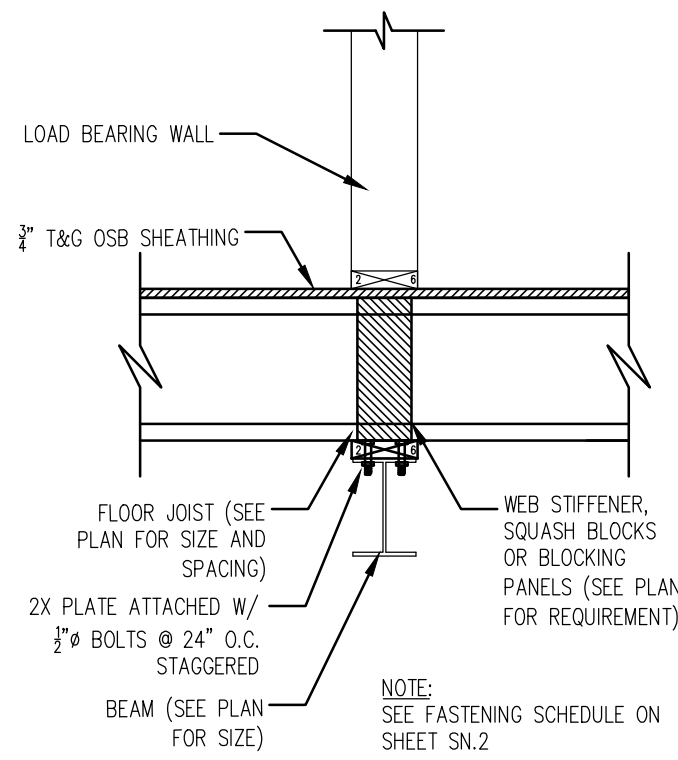
SECTION - EXTERIOR WALL
3/4\"/>



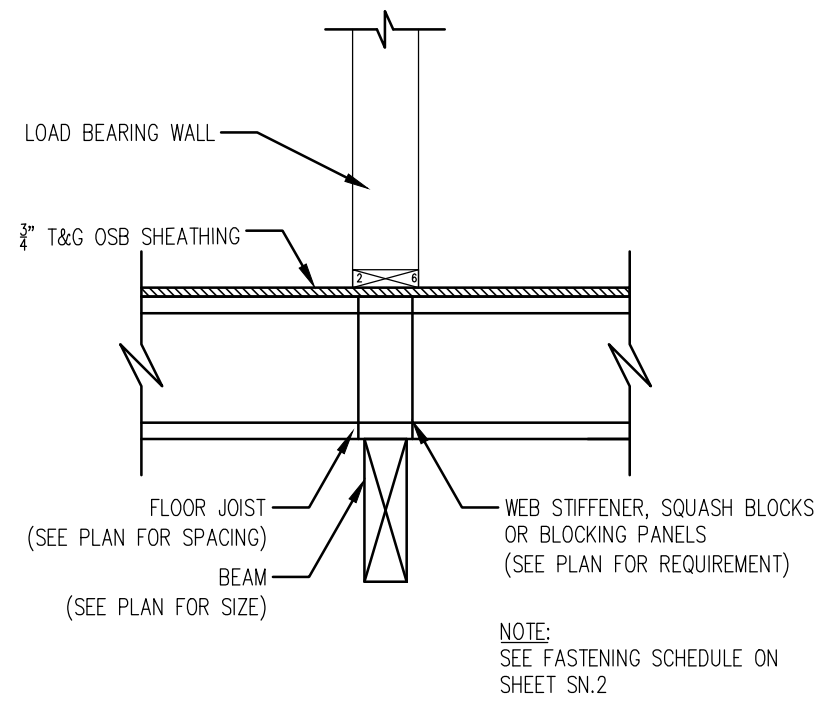
SECTION - STAIR WALL
3/4\"/>



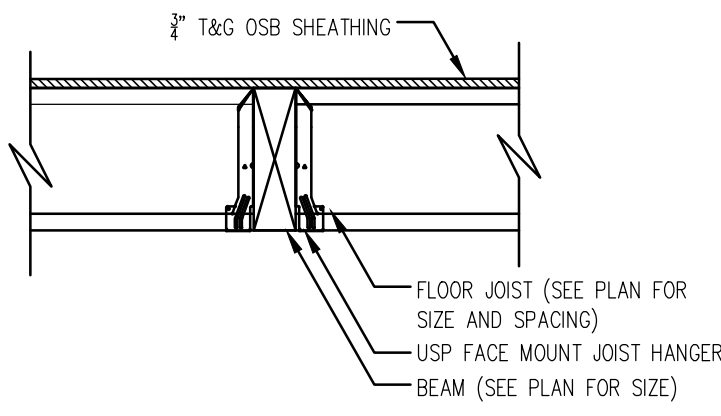
SECTION - LAPPING JOISTS
3/4\"/>



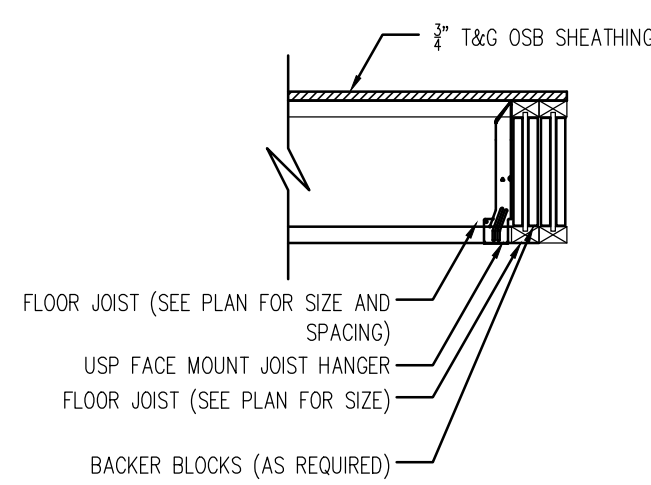
SECTION
3/4\"/>



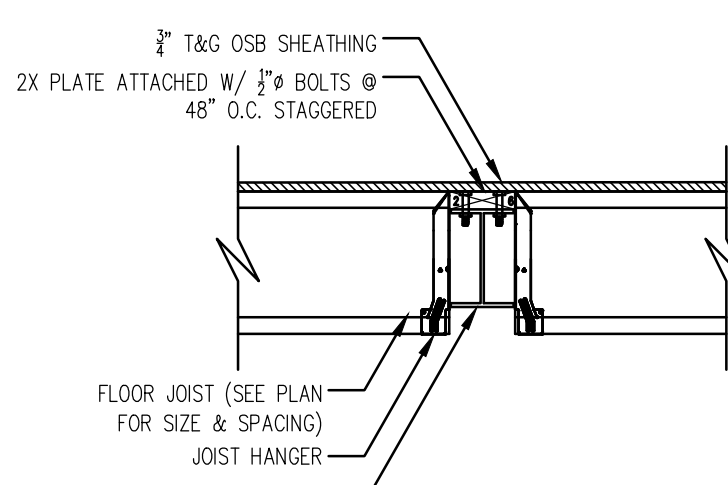
SECTION
3/4\"/>



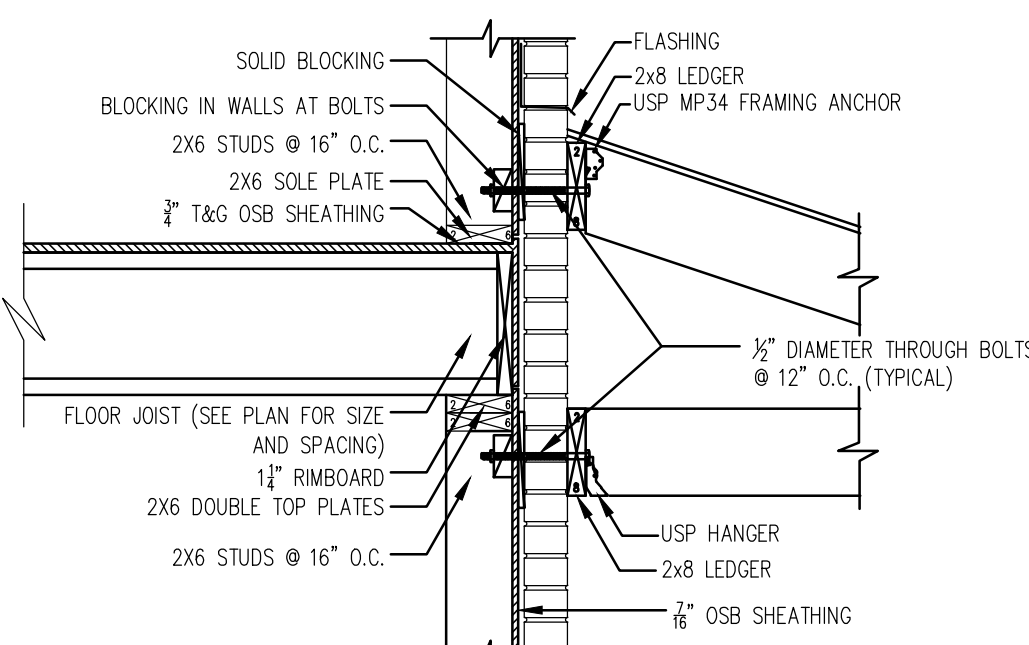
SECTION
3/4\"/>



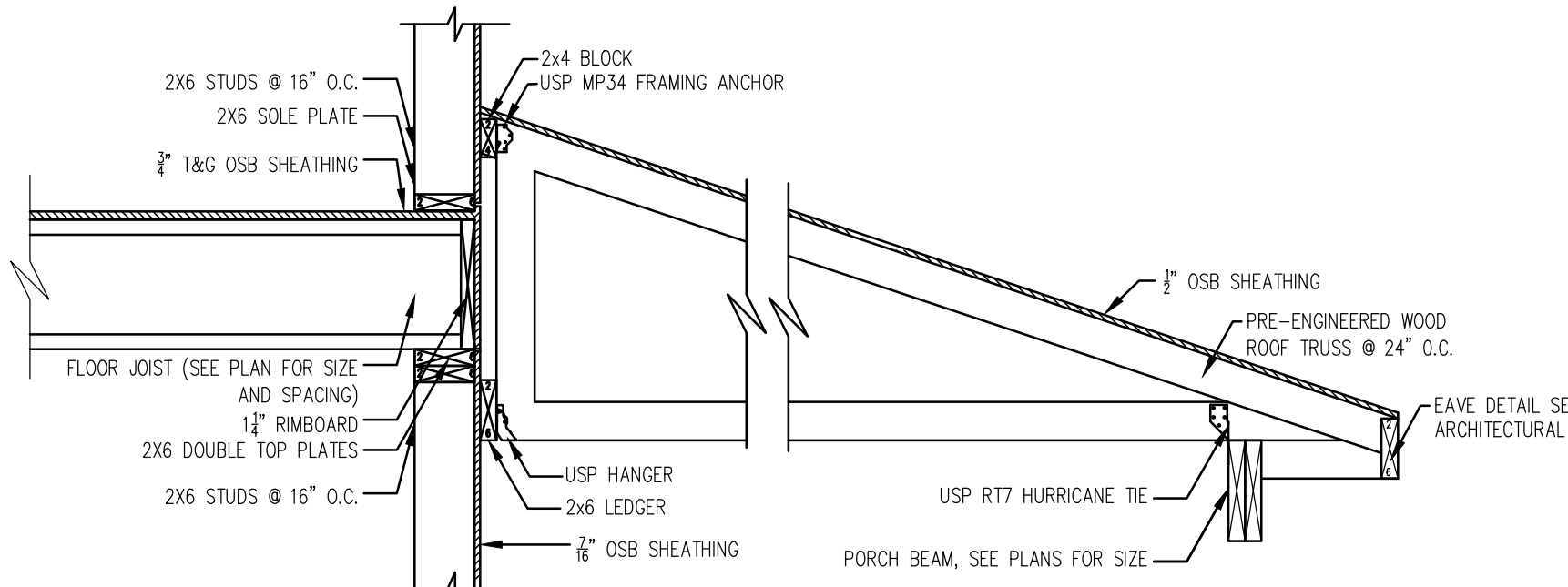
SECTION
3/4\"/>



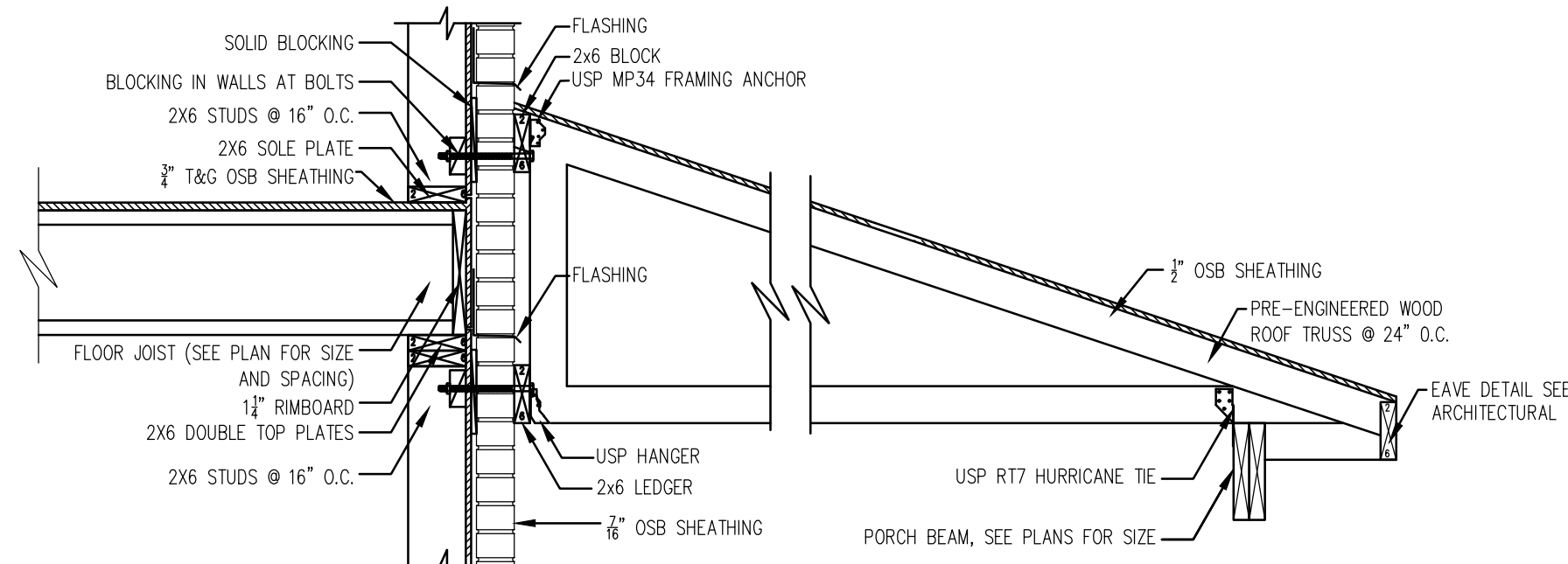
SECTION
3/4\"/>



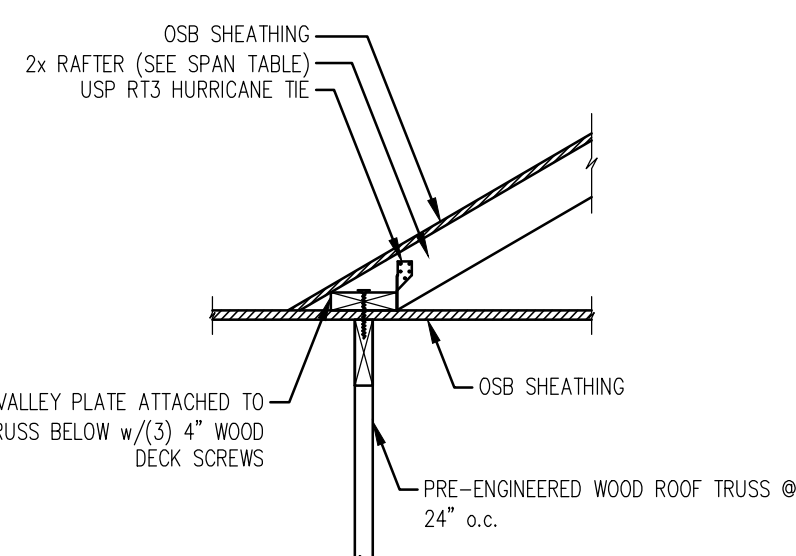
DETAIL FOR RAFTER CONNECTION @ WALL W/ BRICK
3/4\"/>



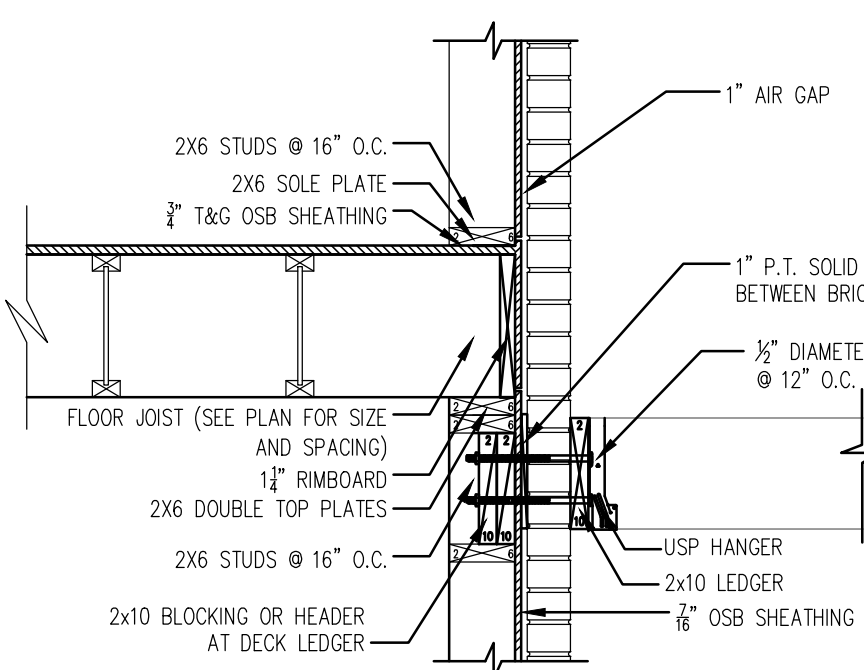
DETAIL FOR TRUSS CONNECTION @ WALL
3/4\"/>



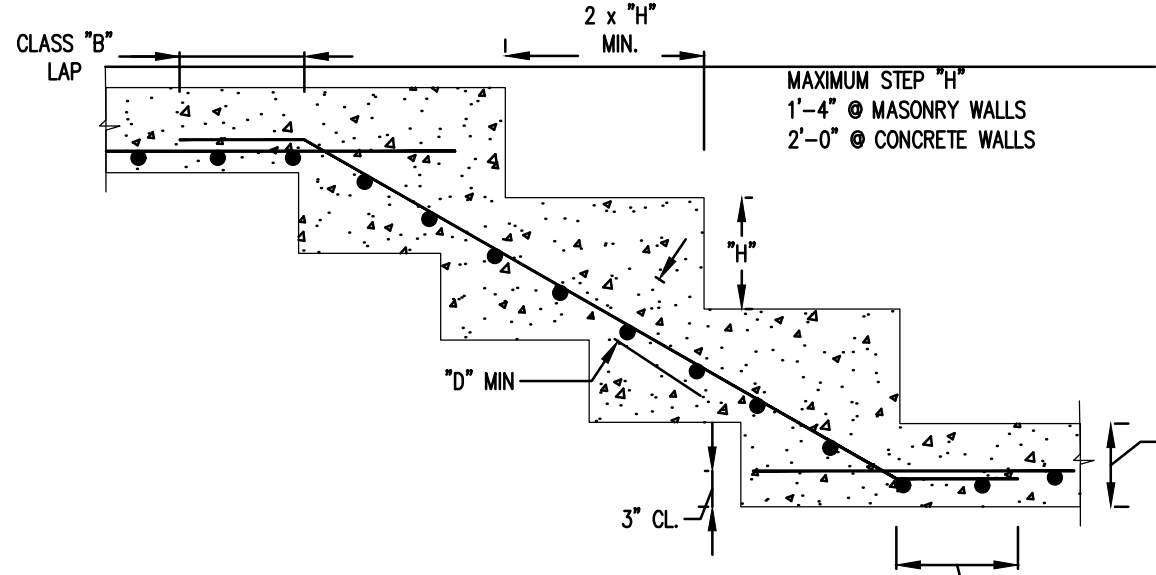
DETAIL FOR TRUSS CONNECTION @ WALL W/ BRICK
3/4\"/>



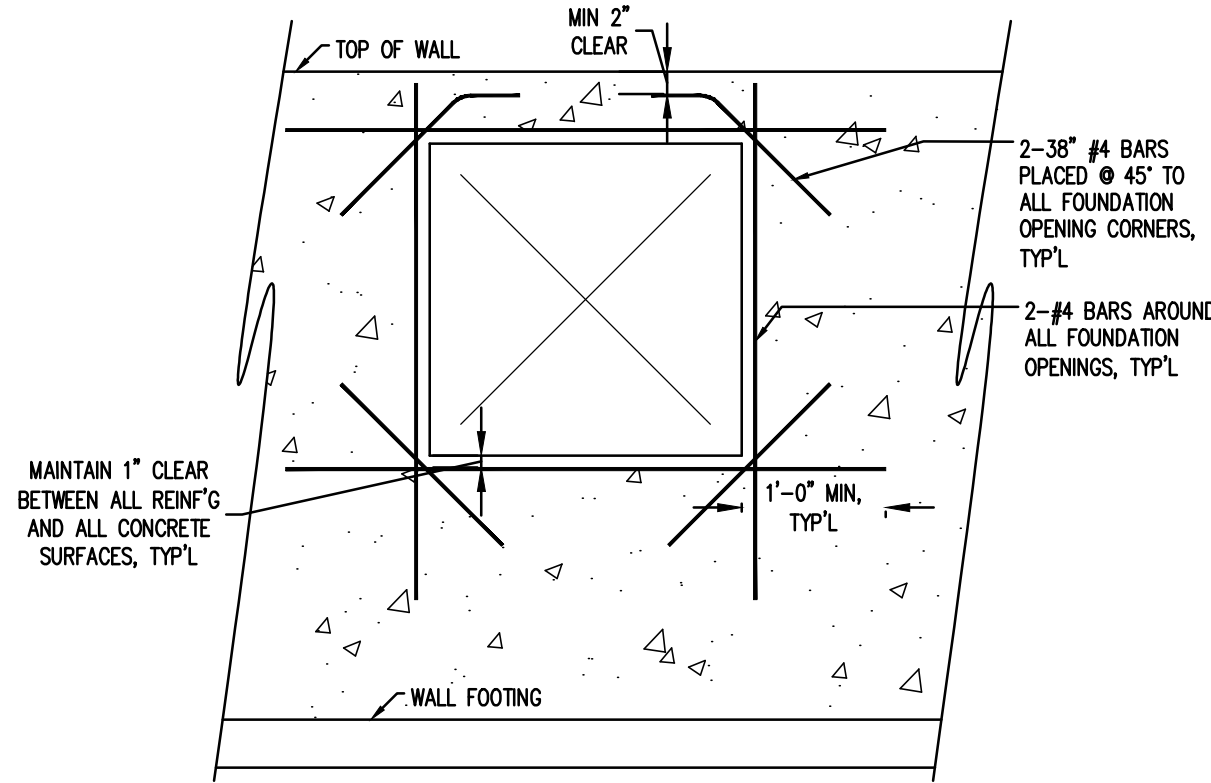
TYP OVER FRAMING CONNECTION DETAIL
3/4\"/>



DETAIL FOR DECK JOISTS CONNECTION @ WALL W/ BRICK
3/4\"/>



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



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

