

PROJECT NAME:
Newton Barndominium

PROJECT DESCRIPTION:
Construction of a new detached single-family barndominium residence including conditioned living space, attached garage, covered porches, and associated architectural, structural, mechanical, electrical, plumbing, and site improvements.

BUILDING AREAS:

Heated / Cooled Area: 3,679 SF
Garage Area: 1,047 SF
Porch Area: 1,753 SF
Total Under Roof Area: 6,479 SF

OCCUPANCY CLASSIFICATION:
R-3 Residential Occupancy

CONSTRUCTION TYPE:
Type V-B Wood Frame Construction

BUILDING USE:
Single-Family Residential Dwelling

FIRE SPRINKLER SYSTEM:
Not Required Unless Mandated by Local Jurisdiction

APPLICABLE CODES

All work shall comply with the currently adopted editions of the following codes as enforced by the State of Montana and the Authority Having Jurisdiction (AHJ):
International Residential Code (IRC)
International Building Code (IBC) where applicable
International Mechanical Code (IMC)
International Plumbing Code (IPC)
International Fuel Gas Code (IFGC)
National Electrical Code (NEC)
International Energy Conservation Code (IECC)
ASCE 7 – Minimum Design Loads for Buildings and Other Structures
Montana State Amendments
Local County and Jurisdictional Ordinances

GENERAL CONSTRUCTION NOTES

All work shall comply with applicable Montana State Building Codes and local jurisdiction requirements. Contractor shall verify all existing site conditions, dimensions, grades, utility locations, and field conditions prior to commencement of construction.
Do not scale drawings. Use figured dimensions only.
Any discrepancies between drawings, specifications, field conditions, or code requirements shall be brought to the attention of the designer prior to construction.
Contractor shall coordinate all architectural, structural, mechanical, plumbing, electrical, and site work prior to installation.
All materials shall be new, free from defects, and installed in accordance with manufacturer recommendations and approved construction practices.
Contractor shall obtain all required permits, inspections, and approvals prior to occupancy.
Temporary bracing and shoring shall be provided as necessary during construction to maintain structural stability.
All framing lumber shall comply with applicable grading standards and building code requirements.
Engineered wood products, trusses, beams, connectors, and hardware shall be installed per manufacturer specifications.
All fasteners, anchors, and connectors exposed to weather or preservative-treated lumber shall be corrosion-resistant.
Exterior wall assemblies shall include approved weather-resistant barriers and flashing systems.
Provide flashing at all openings, penetrations, roofing transitions, and exterior material joints.
Roof assemblies shall be installed per manufacturer specifications and applicable code requirements.
Fire blocking and draft stopping shall be installed where required by code.
Smoke alarms and carbon monoxide alarms shall be installed in locations required by code and interconnected where required.
Safety glazing shall be provided at hazardous locations in accordance with applicable codes.
Maintain positive drainage away from foundations and slabs.
Foundations shall bear on undisturbed native soil or approved engineered fill.
Footings shall extend below frost depth requirements established by the local jurisdiction.
Snow load, wind load, and seismic load analysis shall be based on local site conditions and applicable code requirements.
All structural members and connections shall be designed to resist applicable gravity, wind, seismic, and snow loads.
Field modifications affecting structural components shall not be made without approval from the designer or engineer of record.
Contractor shall verify all rough openings and dimensions with approved manufacturer shop drawings prior to fabrication and installation.
Exterior siding shall be metal siding (26 gauge typical) or approved equivalent.
Roofing shall be 26 gauge metal roofing installed per manufacturer specifications.
Window and door sizes shown on plans are nominal and shall be verified prior to installation.
Final exterior materials, colors, and finishes shall be selected by homeowner.
Install gutters and downspouts where indicated to direct water away from foundation systems.
All work shall be performed in a neat and workmanlike manner consistent with accepted industry standards.



DESIGN CRITERIA

Risk Category: II

Ground Snow Load (Pg): 70 PSF

Flat Roof Snow Load (Pf): 49 PSF

Ultimate Wind Speed (Vult): 115 MPH

Wind Exposure Category: C

Seismic Design Category: D1

Frost Depth: 42" Minimum

Assumed Allowable Soil Bearing Capacity: 2,000 PSF

Weathering: Severe

Termite Damage Probability: Slight to Moderate

Winter Design Temperature: -10°F



FRAMING 3D

SHEET INDEX

- A100 COVER SHEET
- A100.1 GENERAL NOTES
- A101 MAIN FLOOR PLAN
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- A103 ELEVATIONS
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- S107 FASTENING SCHEDULE
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- P109.1 DRAINAGE PLAN

Newton Barndominium

COVER SHEET

Project number	
Date	Issue Date
Drawn by	Author
Checked by	Checker
A100	
Scale	

GENERAL NOTES

PROJECT NAME:
Newton Barndominium

PROJECT DESCRIPTION:
New construction of a single-family residential barndominium including conditioned living space, attached garage, and covered porches with associated structural, architectural, mechanical, electrical, plumbing, and site development.

BUILDING AREAS
Heated / Cooled Area: 3,679 SF
Garage Area: 1,047 SF
Porch Area: 1,753 SF
Total Under Roof Area: 6,479 SF
OCCUPANCY & CONSTRUCTION
Occupancy Classification: R-3 Residential
Construction Type: Type V-B (Wood Frame Construction)
Building Use: Single Family Dwelling
APPLICABLE CODES (MONTANA ADOPTED)

All work shall comply with the currently adopted Montana State Building Codes and Local Jurisdiction Amendments, including:

International Residential Code (IRC)
International Building Code (IBC – as applicable)
International Mechanical Code (IMC)
International Plumbing Code (IPC)
International Fuel Gas Code (IFGC)
National Electrical Code (NEC)
International Energy Conservation Code (IECC)
ASCE 7 – Minimum Design Loads for Buildings and Other Structures
Montana State Amendments
Local County Building Regulations and Ordinances
STRUCTURAL DESIGN CRITERIA (MONTANA BASIS)

Design loads shall comply with ASCE 7 and local jurisdiction requirements. Where site-specific data is unavailable, the following assumed criteria shall apply:

Risk Category: II

Ground Snow Load (Pg): 70 PSF

Roof Snow Load (Pf): 49 PSF (balanced/unbalanced per ASCE 7)

Ultimate Wind Speed (Vult): 115 MPH

Wind Exposure: C (verify in field conditions)

Seismic Design Category: D1 (site-dependent verification required)
Frost Depth: 42 inches minimum

Soil Bearing Capacity (Assumed): 2,000 PSF (verify by geotechnical report if required)

Weathering: Severe
Freeze-Thaw Exposure: Severe

GENERAL NOTES

All construction shall comply with Montana State adopted building codes and Local Authority Having Jurisdiction (AHJ) requirements. Contractor shall obtain all required permits, inspections, and approvals prior to construction and occupancy. Contractor shall verify all site conditions, grades, dimensions, and utilities prior to construction. Do not scale drawings. Use written dimensions only. Any discrepancies between drawings, specifications, and field conditions shall be immediately reported to the Designer/Engineer prior to proceeding. Contractor shall coordinate architectural, structural, mechanical, electrical, and plumbing systems prior to installation. All materials shall be new, code-compliant, and installed per manufacturer specifications. Provide temporary bracing, shoring, and safety protection during all phases of construction. All penetrations through exterior assemblies shall be sealed, flashed, and weatherproofed. Contractor is responsible for jobsite safety and OSHA compliance.

STRUCTURAL NOTES

Structural design complies with IRC/IBC and ASCE 7 load requirements for Montana conditions. Foundations shall bear on undisturbed native soil or approved engineered fill. Continuous reinforced concrete foundation system: 18" x 12" continuous footing

12" x 30" reinforced stem wall above footing
Footing reinforcement: (2) continuous #4 bars minimum.

Stem wall reinforcement: #4 vertical L-bars @ 36" O.C. maximum.

Provide 1/2" anchor bolts @ 6'-0" O.C. max, and within 12" of ends, 7" minimum embedment.

Sill plates in contact with concrete shall be pressure-treated wood with sill gasket. Slab-on-grade shall be minimum 4" concrete over compacted base with vapor barrier.

Minimum concrete strength: 3,000 PSI @ 28 days. Exterior walls: 2x6 studs @ 16" O.C. with double top and bottom plates. Interior walls: 2x4 studs @ 16" O.C. with double top and bottom plates. Roof system: engineered trusses @ 24" O.C. unless otherwise noted. Porch framing: 2x8 rafters @ 16" O.C. unless otherwise noted. All trusses shall be engineered, stamped, and reviewed prior to installation.

Provide full truss bracing per BCSI and manufacturer requirements. Provide approved connectors, straps, and hold-downs at all structural points.

Shear walls shall be installed per engineered design for wind/seismic resistance. No field modification of structural members without Engineer of Record approval. Structure shall resist all gravity, snow, wind, and seismic loads per ASCE

7. ARCHITECTURAL / BUILDING ENVELOPE NOTES

Exterior siding shall be vertical metal siding (26 gauge typical) installed per manufacturer specifications. Roofing shall be 26 gauge metal roofing system installed per manufacturer specifications. Provide continuous weather-resistant barrier (WRB) over exterior sheathing. Provide ice & water shield at eaves, valleys, and penetrations per Montana climate requirements. All windows and doors shall be flashed, sealed, and installed per manufacturer instructions. Exterior envelope shall be airtight and weatherproof. Final finishes, colors, and materials shall be selected by owner unless otherwise specified.

MECHANICAL NOTES

Mechanical systems shall comply with IMC and IECC requirements. HVAC design shall be based on Manual J/S/D load calculations. All ductwork shall be sealed, insulated, and tested per code. Provide mechanical ventilation in bathrooms, kitchens, and enclosed habitable spaces. Condensate drainage shall discharge to approved locations.

ELECTRICAL

Electrical work shall comply with NEC (Montana adopted edition). Provide AFCI protection for required dwelling circuits. Provide GFCI protection at all required wet and exterior locations. Smoke alarms shall be hardwired, interconnected, and battery backed. Carbon monoxide alarms shall be installed per code. Electrical panel shall be labeled, accessible, and properly sized. Exterior devices shall be weather-resistant and properly sealed.

PLUMBING

Plumbing shall comply with IPC (Montana adopted). All piping shall be installed with proper slope and support. Water lines exposed to freezing shall be insulated/protected. Provide cleanouts at required intervals and locations. All fixtures shall be properly vented and trapped. Water heater shall comply with code safety, seismic, and discharge requirements. Site drainage shall direct water away from all foundations.

FINAL STATEMENT

All construction shall be performed in accordance with Montana State Building Codes, ASCE 7 structural requirements, and all applicable Local Jurisdiction requirements. Contractor shall verify all conditions in the field and coordinate all trades prior to installation.

Newton Barndominium

GENERAL NOTES

Project number

Date

Issue Date

Drawn by

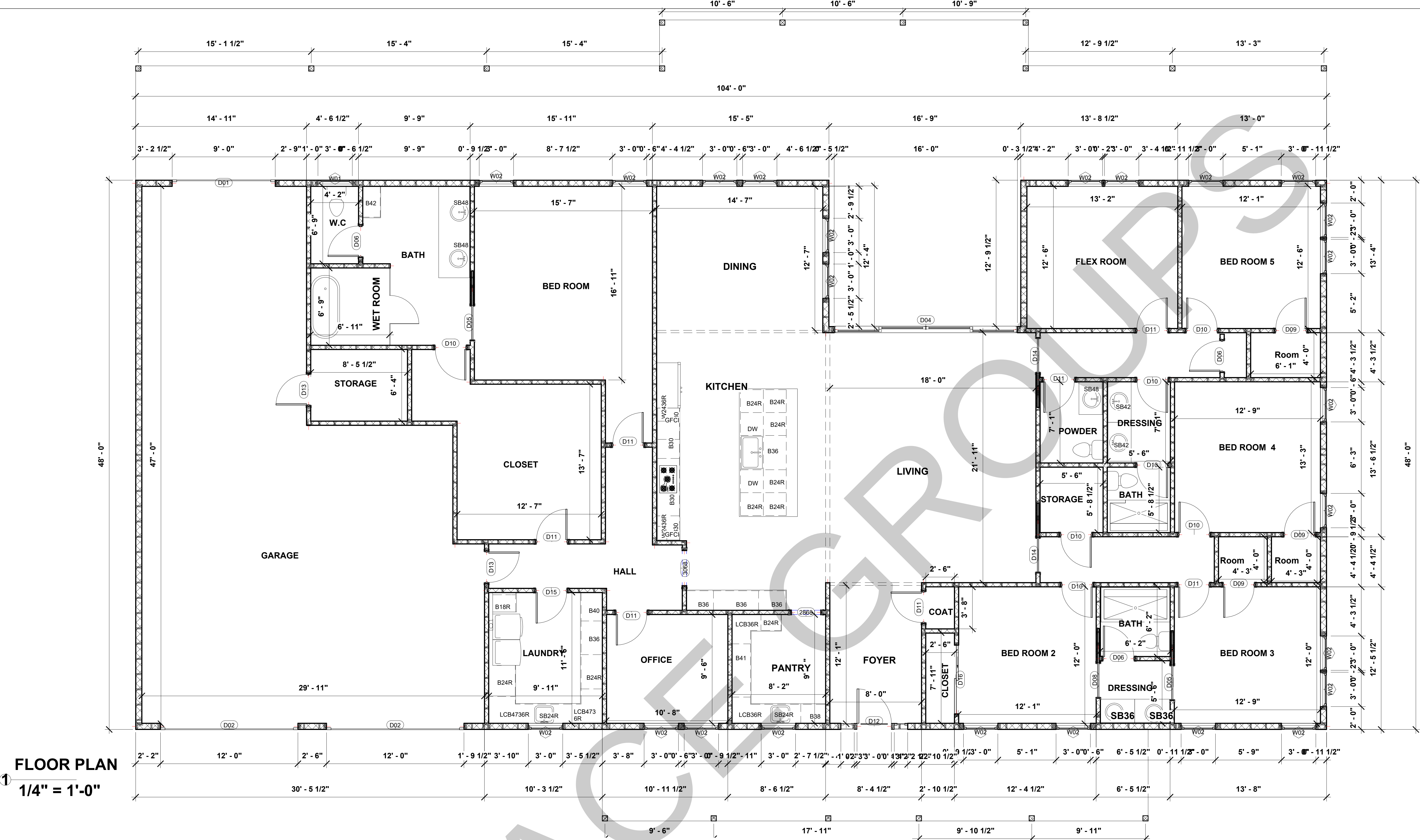
Author

Checked by

Checker

A100.1

Scale



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

FLOOR PLAN NOTES

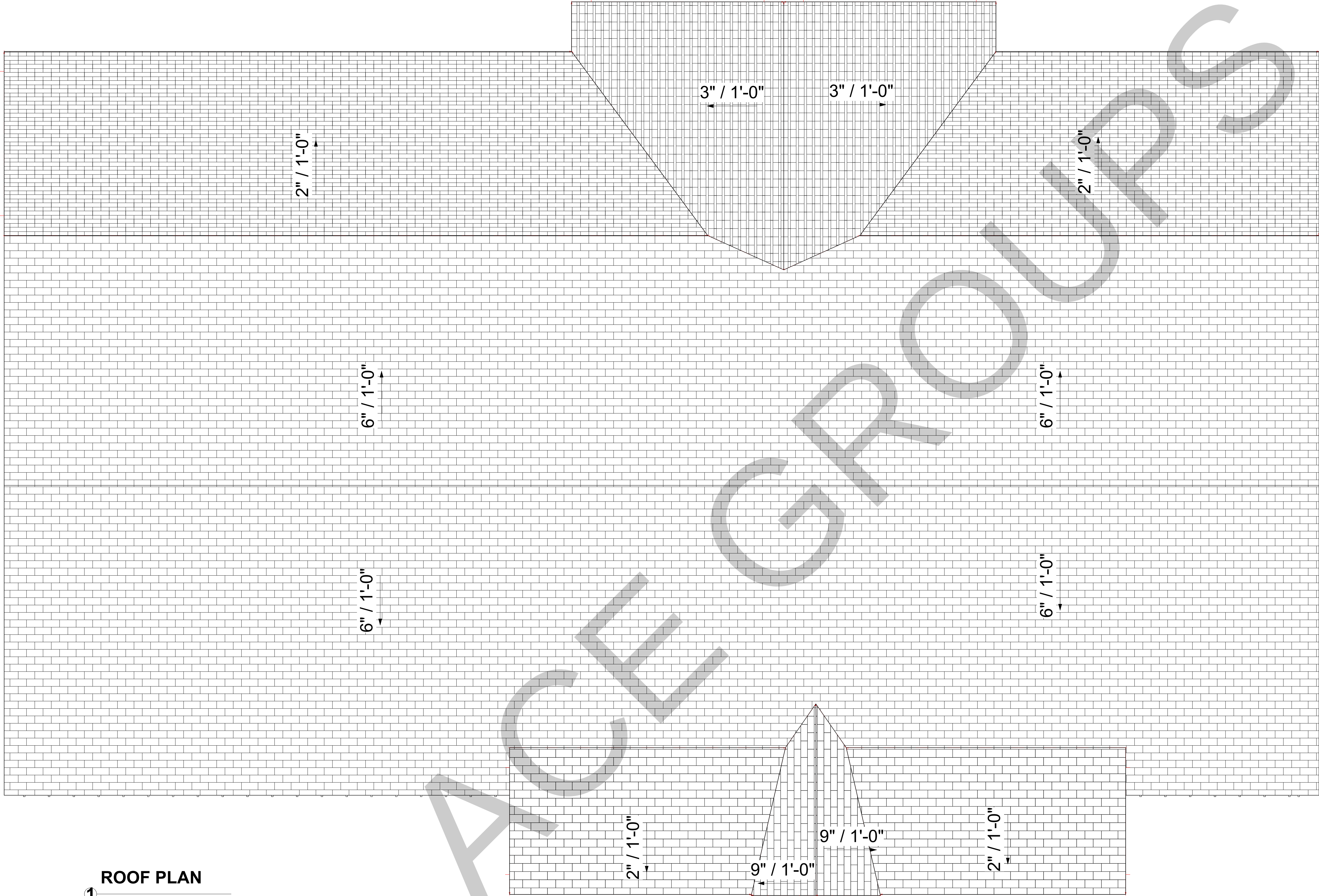
- Do not scale drawings. Use figured dimensions only.
- Contractor shall verify all dimensions and field conditions prior to construction.
- All work shall comply with applicable Montana building codes and local jurisdiction requirements.
- Exterior walls shall be insulated per energy code requirements.

- Provide headers over all openings per structural plans.
- Smoke and carbon monoxide alarms shall be installed per code.
- Safety glazing shall be provided at hazardous locations.
- Contractor shall coordinate all framing, plumbing, mechanical, and electrical rough-ins.
- All windows and doors shall be flashed and sealed per manufacturer specifications.
- Field modifications affecting structural members are not permitted without approval.

Newton
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MAIN FLOOR
PLAN

Project number	
Date	Issue Date
Drawn by	Author
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A101	
Scale	1/4" = 1'-0"



① **ROOF PLAN**
1/4" = 1'-0"

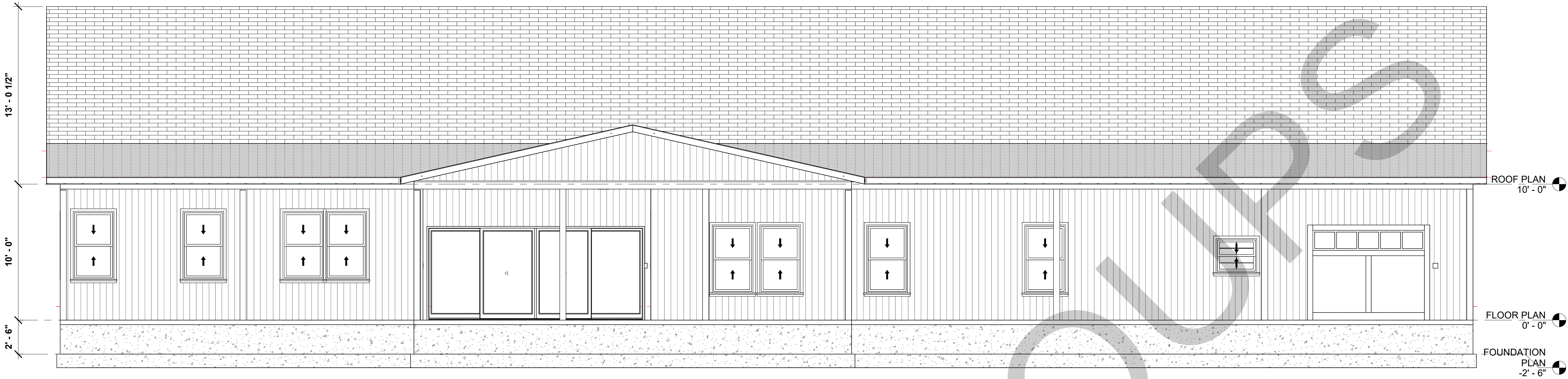
Newton
Barndominium

ROOF PLAN

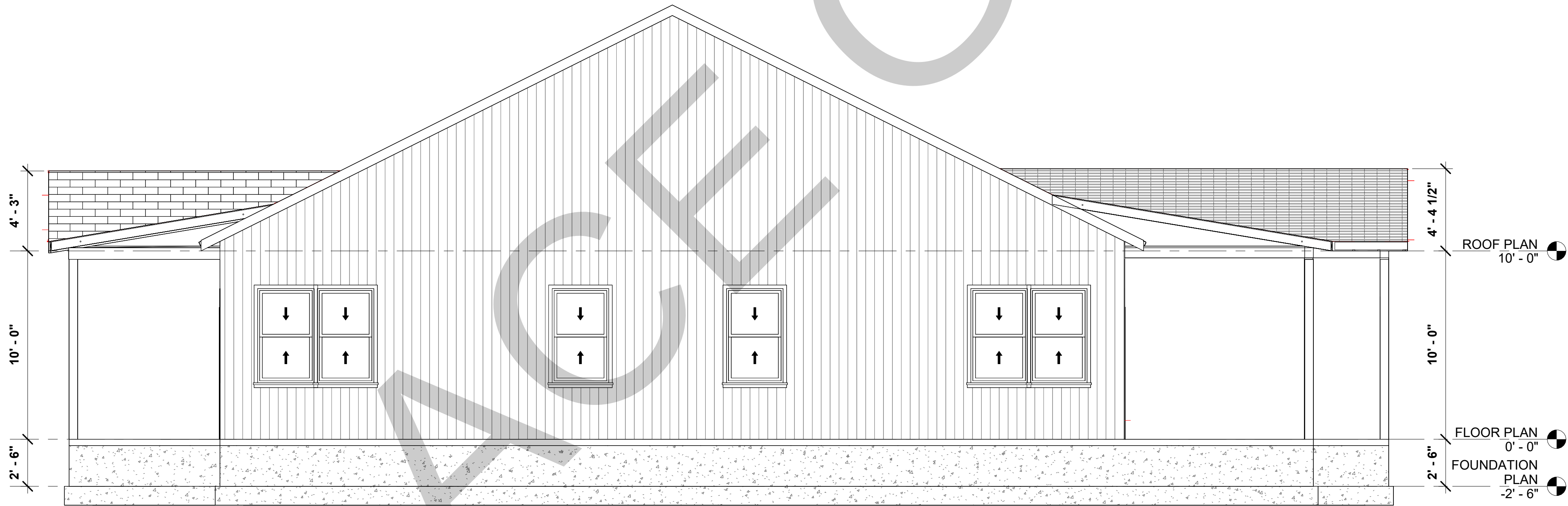
Project number	
Date	Issue Date
Drawn by	Author
Checked by	Checker

A102

Scale	1/4" = 1'-0"
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North
2 1/4" = 1'-0"



East
1 1/4" = 1'-0"

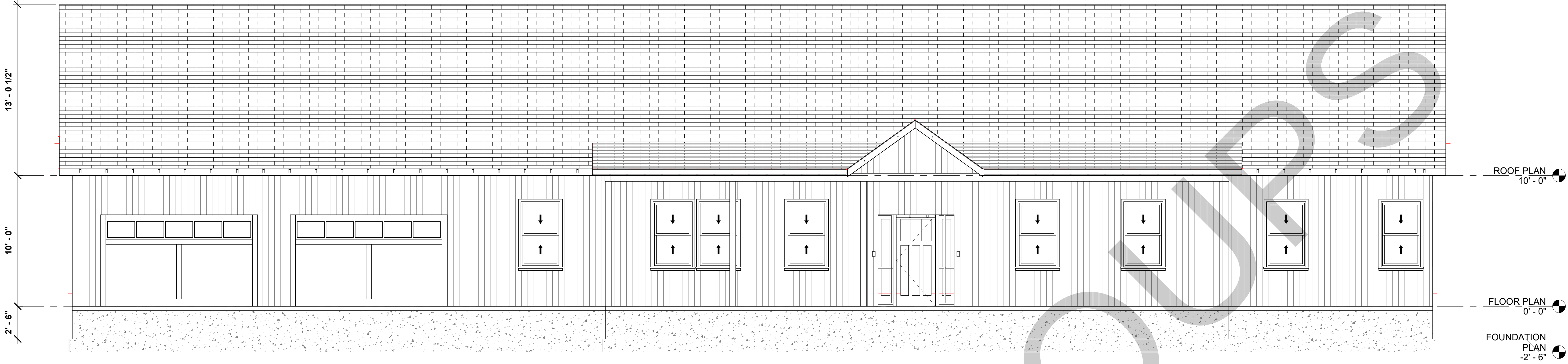
Newton Barndominium

ELEVATIONS

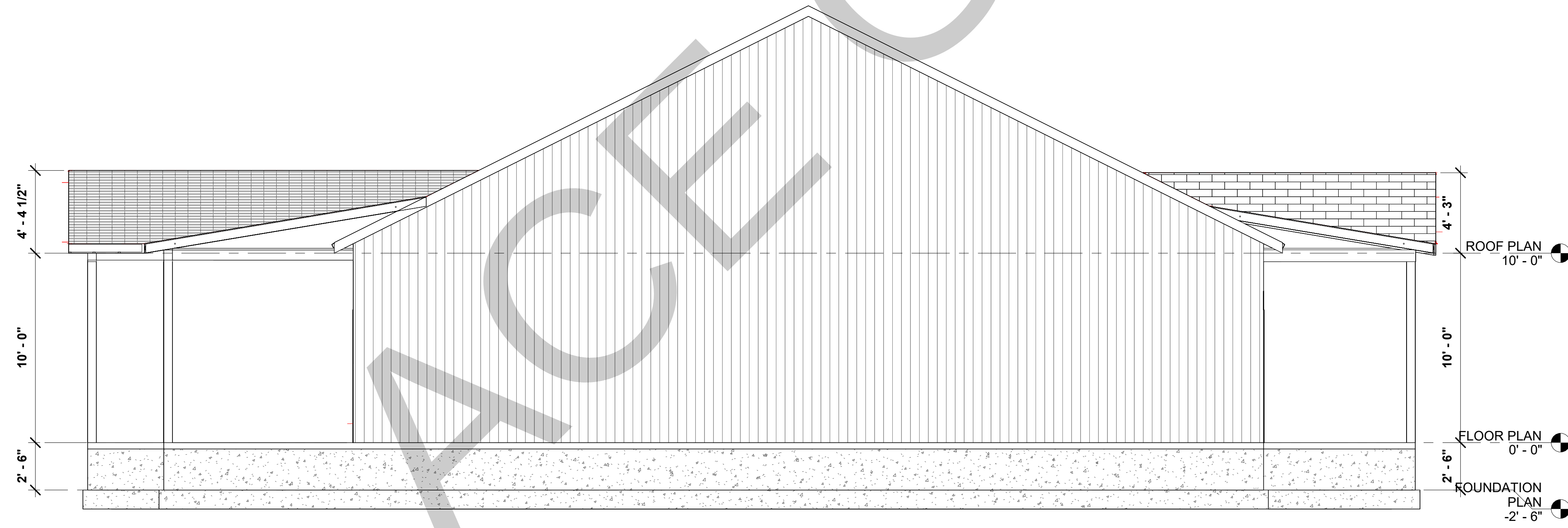
Project number	
Date	Issue Date
Drawn by	Author
Checked by	Checker

A103

Scale	1/4" = 1'-0"
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South
1 1/4" = 1'-0"



West
2 1/4" = 1'-0"

Newton Barndominium

ELEVATIONS 2

Project number	
Date	Issue Date
Drawn by	Author
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A103.1	
Scale	1/4" = 1'-0"

FOUNDATION NOTES

All foundations shall comply with applicable IRC, IBC, and local jurisdiction requirements.

Provide 12" x 30" reinforced concrete stem wall over 18" x 12" reinforced concrete continuous footing unless otherwise noted.

Footings shall bear on undisturbed native soil or approved engineered fill.

Assumed allowable soil bearing capacity shall be 2,000 PSF minimum unless otherwise determined by geotechnical investigation.

Provide (2) continuous #4 reinforcing bars in footing.

Provide #4 vertical L-hook reinforcing bars in stem wall at 36" O.C. maximum unless otherwise noted.

Provide 1/2" diameter anchor bolts at 6'-0" O.C. maximum and within 12" of plate ends. Minimum embedment shall be 7" into concrete.

Sill plates in contact with concrete shall be pressure-treated lumber.

Provide sill sealer between concrete and wood framing.

Slab-on-grade shall be minimum 4" concrete over approved compacted fill unless otherwise noted.

Provide vapor barrier below slab in conditioned spaces.

Reinforce slab with welded wire mesh or fiber reinforcement per project requirements.

Provide control joints in slab at maximum 12'-0" spacing each direction unless otherwise noted.

All concrete shall have minimum compressive strength of 3,000 PSI at 28 days.

Contractor shall verify all dimensions, footing elevations, and step locations prior to concrete placement.

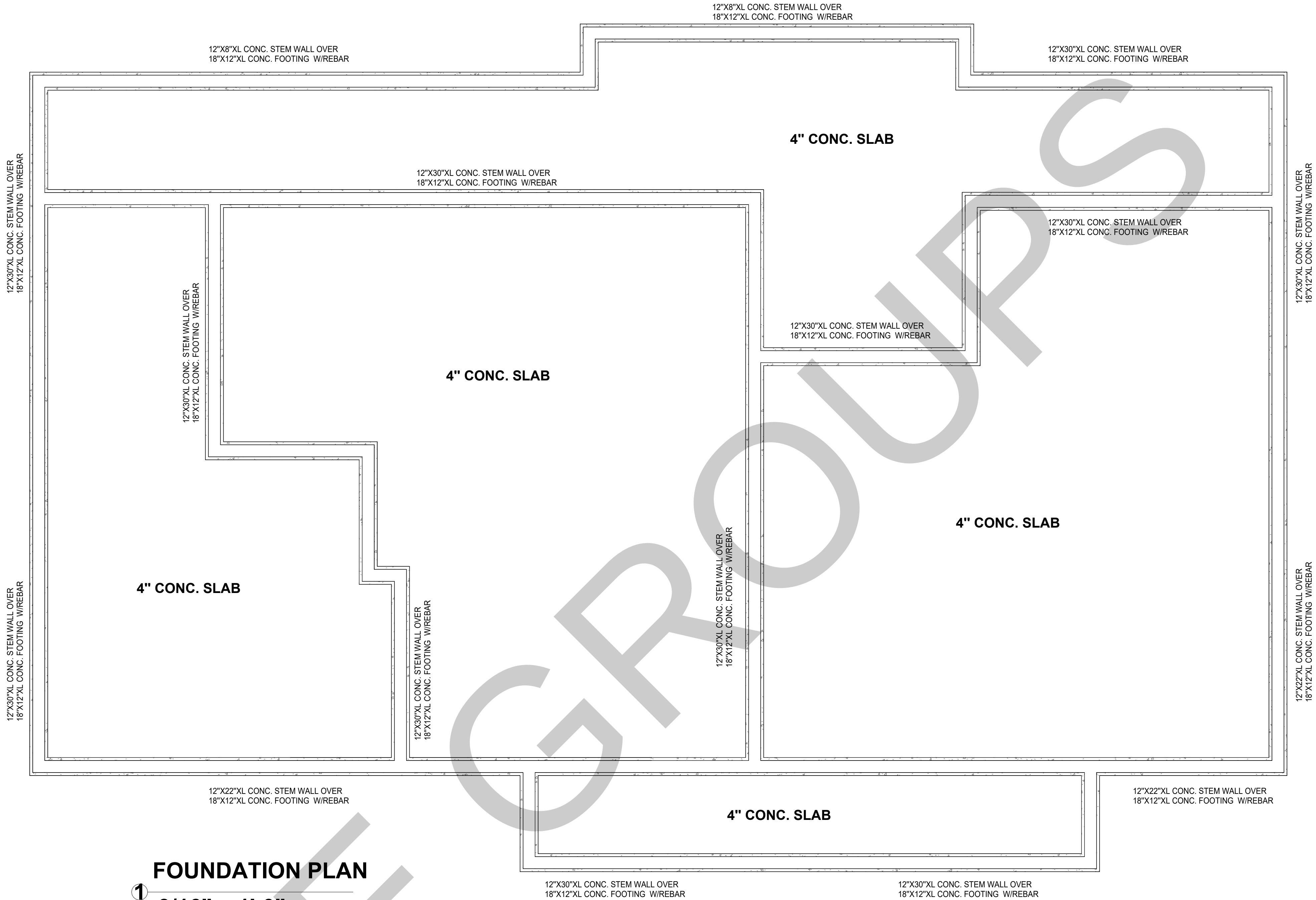
Foundation drains and damp-proofing shall be installed where required by site conditions or local jurisdiction.

All reinforcing steel shall comply with ASTM standards and shall be securely tied in place prior to concrete placement.

Footings shall extend below minimum frost depth required by local jurisdiction.

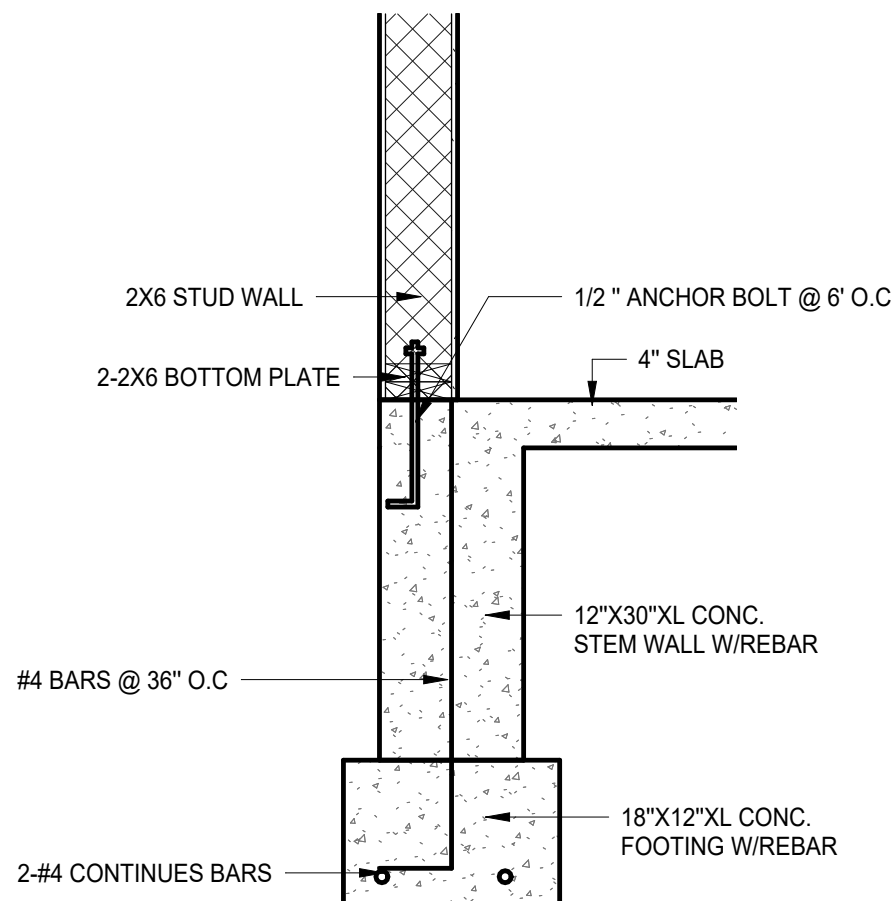
Provide positive drainage away from foundation.

Do not backfill foundation walls until supporting floor or roof diaphragms are installed or adequate bracing is provided.



FOUNDATION PLAN

1 3/16" = 1'-0"



FOOTING DETAIL

2 3/4" = 1'-0"

Newton
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FOUNDATION
PLAN

Project number	
Date	Issue Date
Drawn by	Author
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S104

Scale	As indicated
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WALL FRAMING NOTES

Exterior walls shall be framed with 2x6 wood studs at 16" O.C. unless otherwise noted.

Interior walls shall be framed with 2x4 wood studs at 16" O.C. unless otherwise noted.

Provide double 2x bottom plates and double 2x top plates at all framed walls unless otherwise noted.

All framing lumber shall be SPF No.2 grade or better unless otherwise noted.

Exterior wall framing members in contact with concrete shall be pressure-treated lumber.

Provide solid blocking, fire blocking, and draft stopping in accordance with applicable code requirements.

Headers over all openings shall be sized per structural plans and supporting load conditions.

Studs shall be continuous full height between bearing points unless otherwise detailed.

Provide king studs and jack studs at all openings per structural requirements.

Exterior wall sheathing shall be installed per approved shear wall schedule and fastening requirements.

Provide approved weather-resistant barrier over wall sheathing prior to siding installation.

Exterior siding shall be vertical metal siding (26 gauge typical) installed over approved substrate and weather barrier per manufacturer specifications.

Provide flashing at all windows, doors, penetrations, corners, roof-to-wall intersections, and material transitions.

All connectors, straps, hold-downs, anchors, and framing hardware shall be installed per manufacturer specifications.

Fasteners exposed to weather or treated lumber shall be corrosion-resistant.

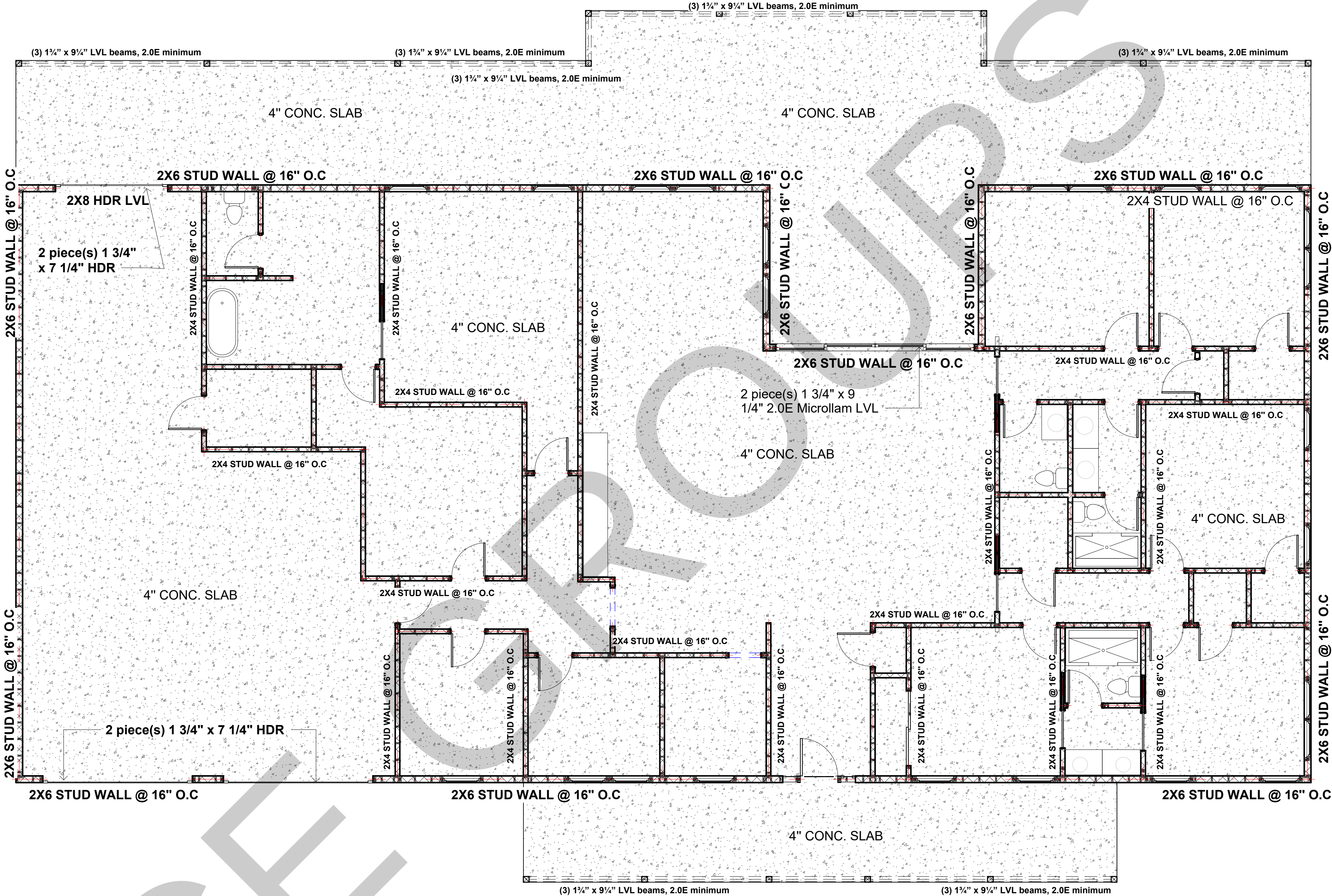
Contractor shall verify all rough openings with approved window and door manufacturer requirements prior to framing.

Field modifications affecting structural framing members shall not be made without approval from the designer or engineer of record.

All framing shall be plumb, straight, level, and adequately braced during construction.

Exterior wall assemblies shall be insulated in accordance with the adopted energy code requirements.

Seal all exterior wall penetrations to maintain weather and air barrier continuity.



WALL FRAMING PLAN

3/16" = 1'-0"

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MAIN FLOOR
WALL FRAMING
PLAN

Project number

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Issue Date

Author

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S105

Scale

3/16" = 1'-0"

ROOF FRAMING NOTES

Main roof framing shall consist of prefabricated common roof trusses spaced at 24" O.C. unless otherwise noted.

Front and rear porch roof framing shall consist of 2x8 rafters spaced at 16" O.C. unless otherwise noted.

Roof trusses shall be designed and sealed by the truss manufacturer for project-specific snow, wind, and seismic loads.

Contractor shall submit truss shop drawings for approval prior to fabrication and installation.

Install all trusses and rafters in accordance with manufacturer specifications and approved truss layout drawings.

Provide permanent truss bracing in accordance with BCSI and truss manufacturer requirements.

Provide approved hurricane ties or framing connectors at all truss and rafter bearing locations.

Roof sheathing shall be installed per approved fastening schedule and applicable code requirements.

Roofing shall consist of 26 gauge metal roofing installed per manufacturer specifications over approved underlayment.

Provide ice and water shield, flashing, drip edge, ridge caps, and roof penetrations in accordance with manufacturer requirements and local code.

Roof ventilation shall be provided in accordance with applicable code requirements unless noted otherwise.

All roof framing members shall bear fully on supporting walls or beams unless otherwise detailed.

Contractor shall verify all roof pitches, overhangs, framing elevations, and bearing conditions prior to installation.

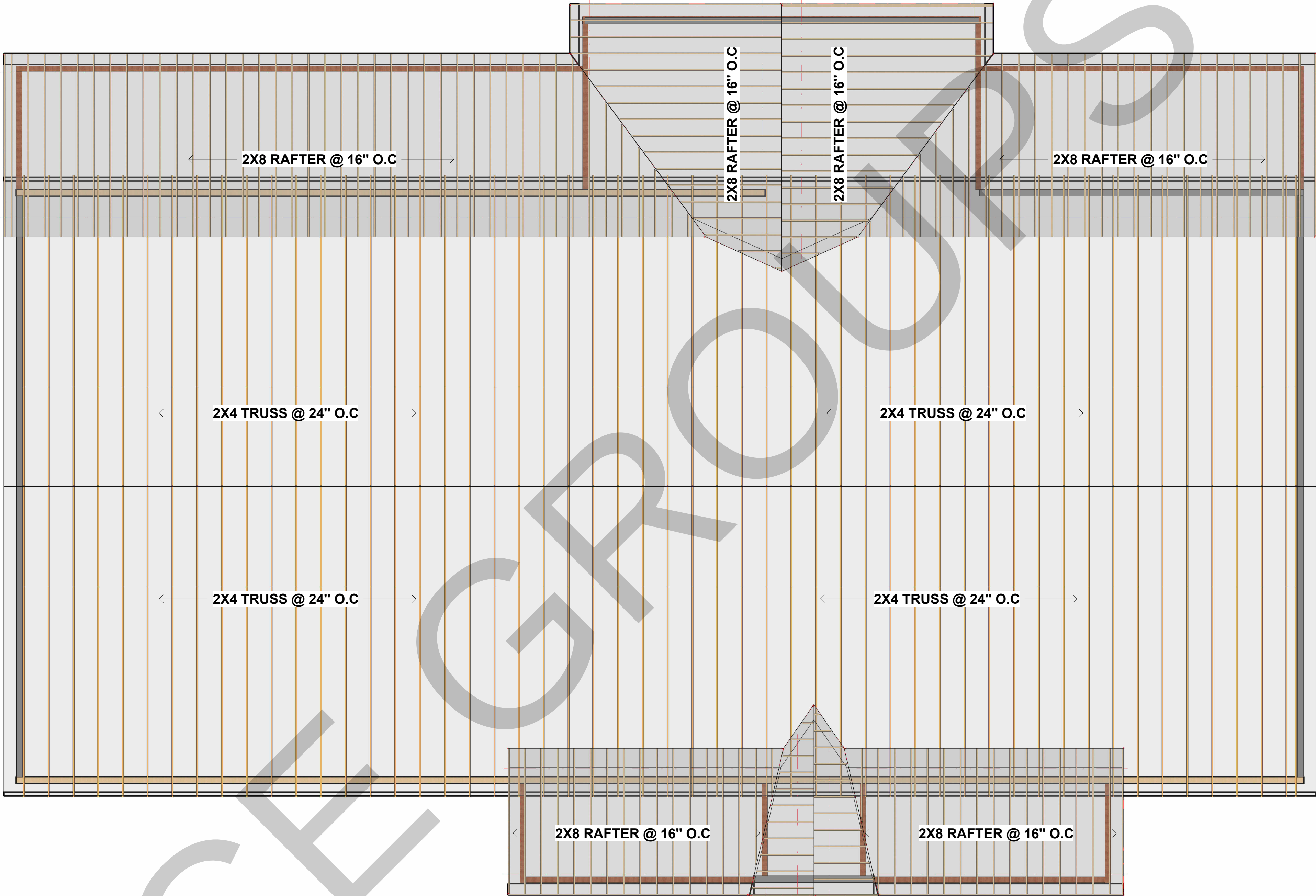
Roof framing shall be designed to support all applicable dead, live, snow, wind, and seismic loads.

Provide solid blocking at bearing points and roof framing transitions where required.

Roof penetrations for vents, flues, skylights, and mechanical equipment shall be properly framed and flashed.

All roof framing lumber shall be SPF No.2 grade or better unless otherwise noted.

All exposed fasteners and roofing accessories shall be corrosion-resistant and compatible with metal roofing systems.



1 ROOF FRAMING PLAN

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ROOF FRAMING
PLAN

Project number	
Date	Issue Date
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S105.5

Scale

Newton
Barndominium

SECTIONS

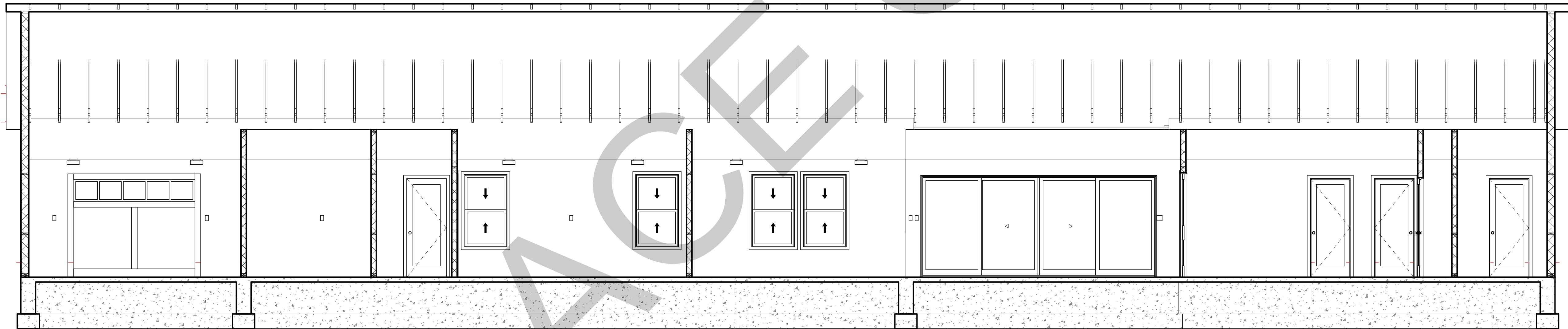
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Date	Issue Date
Drawn by	Author
Checked by	Checker

S106

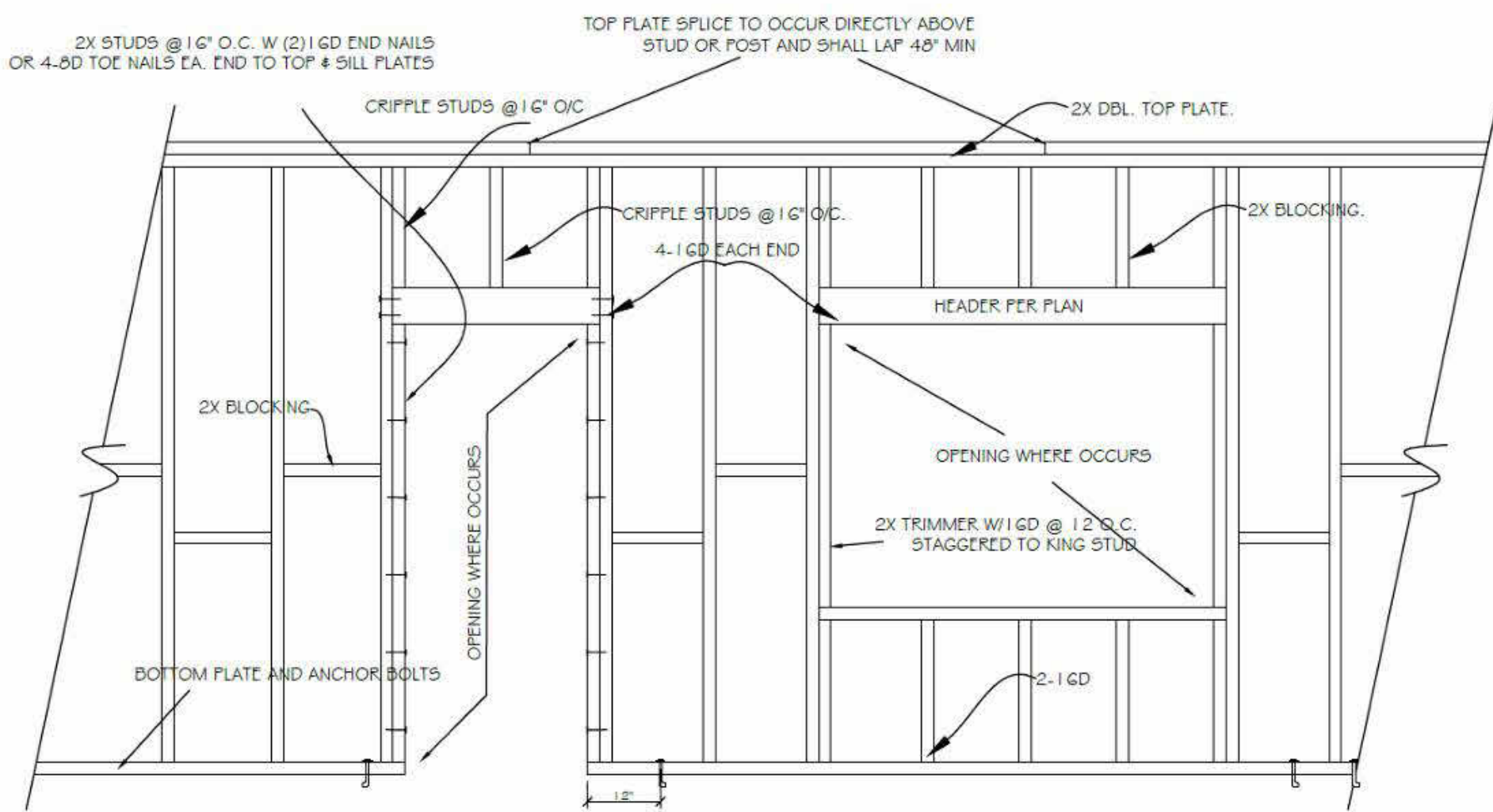
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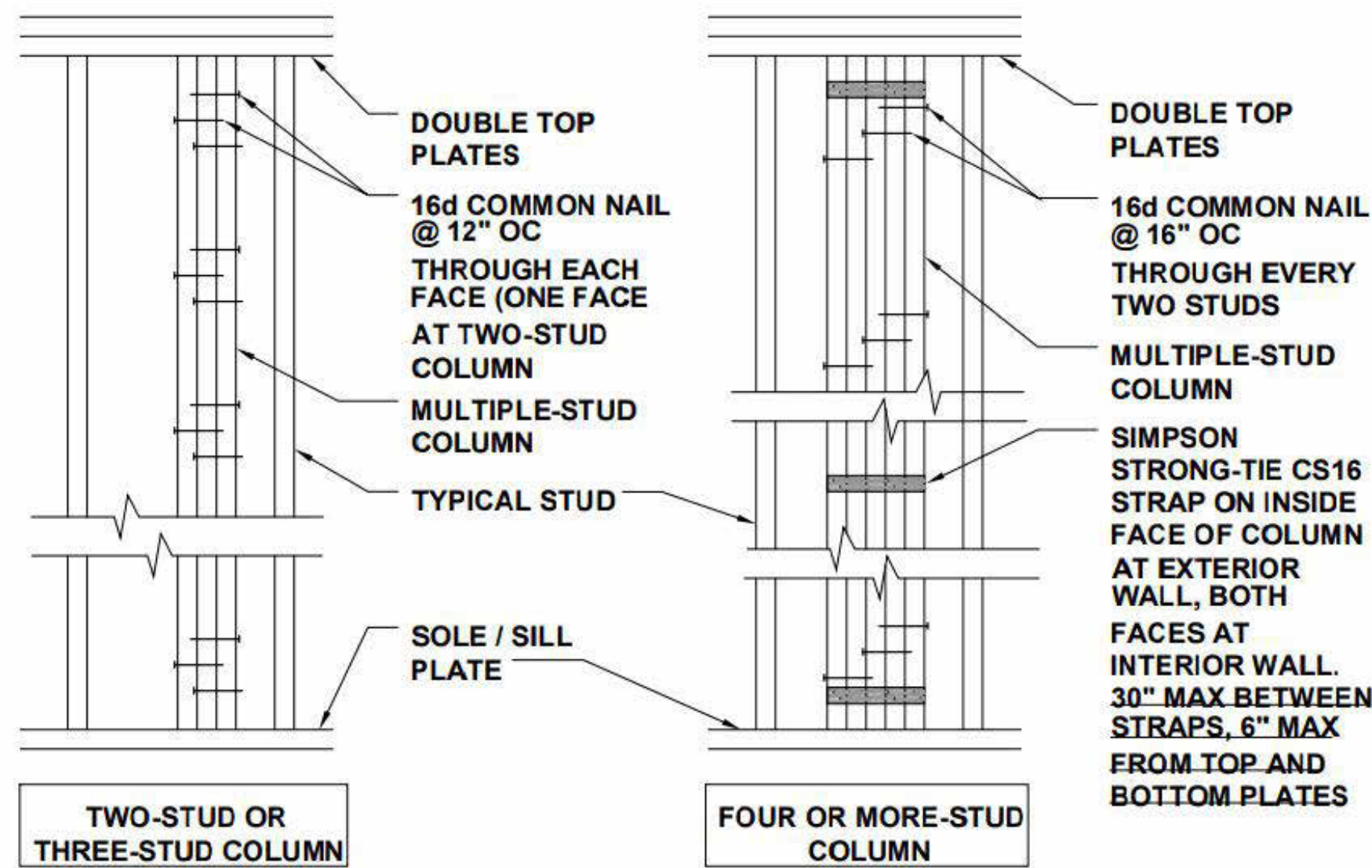
Section 4
3/8" = 1'-0"



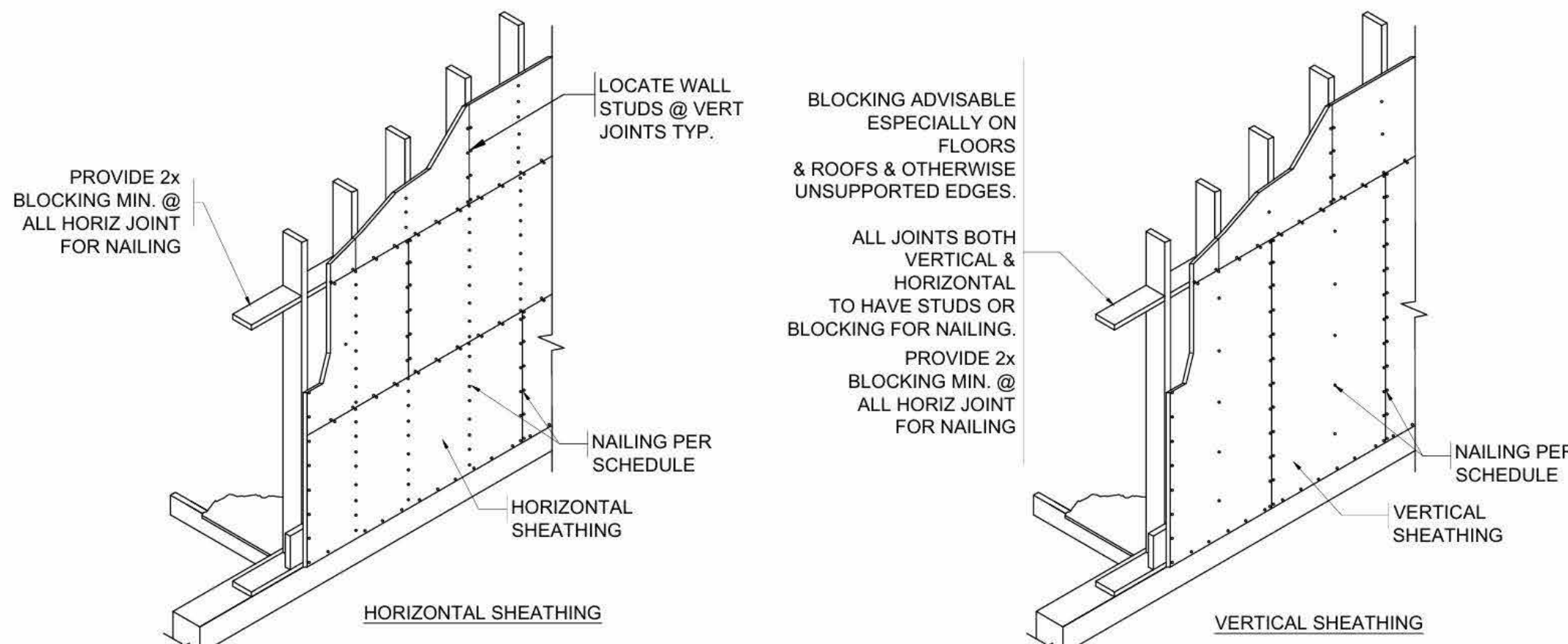
Section 3
1/4" = 1'-0"



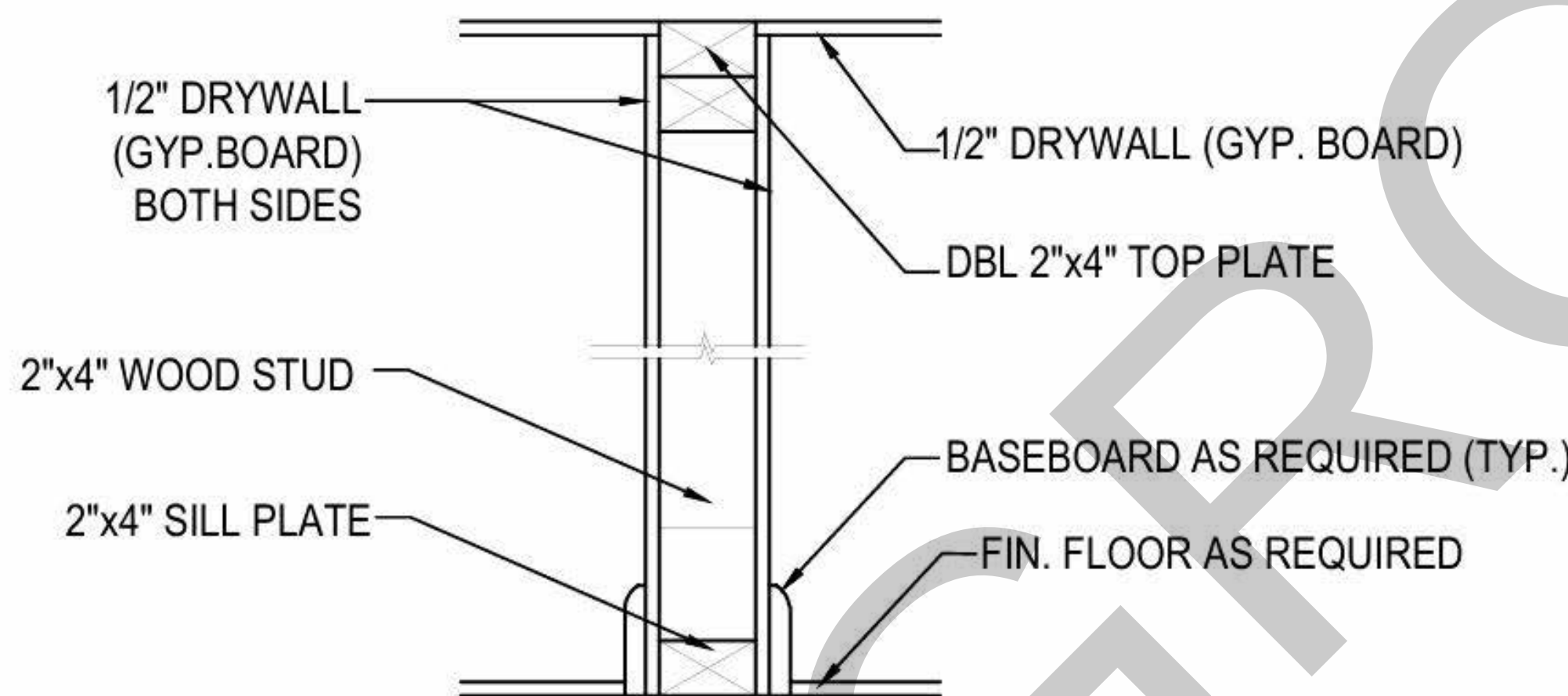
3 FRAMING DETAIL



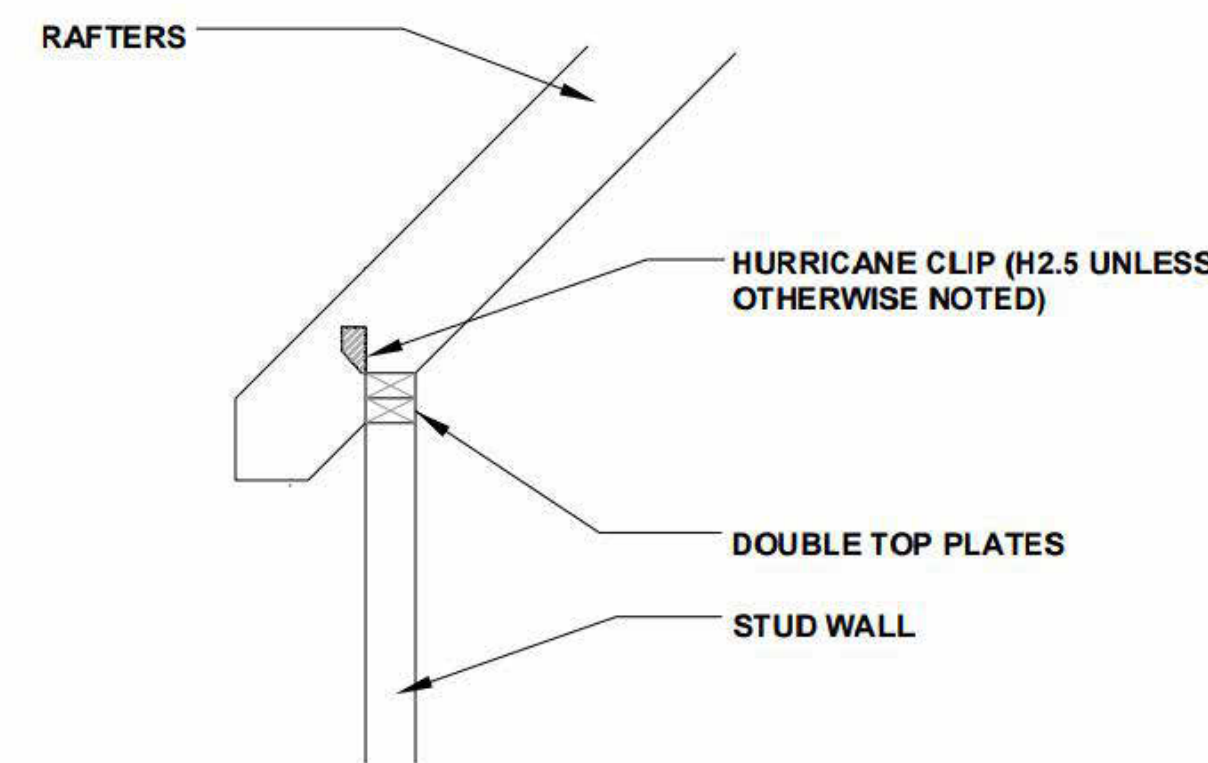
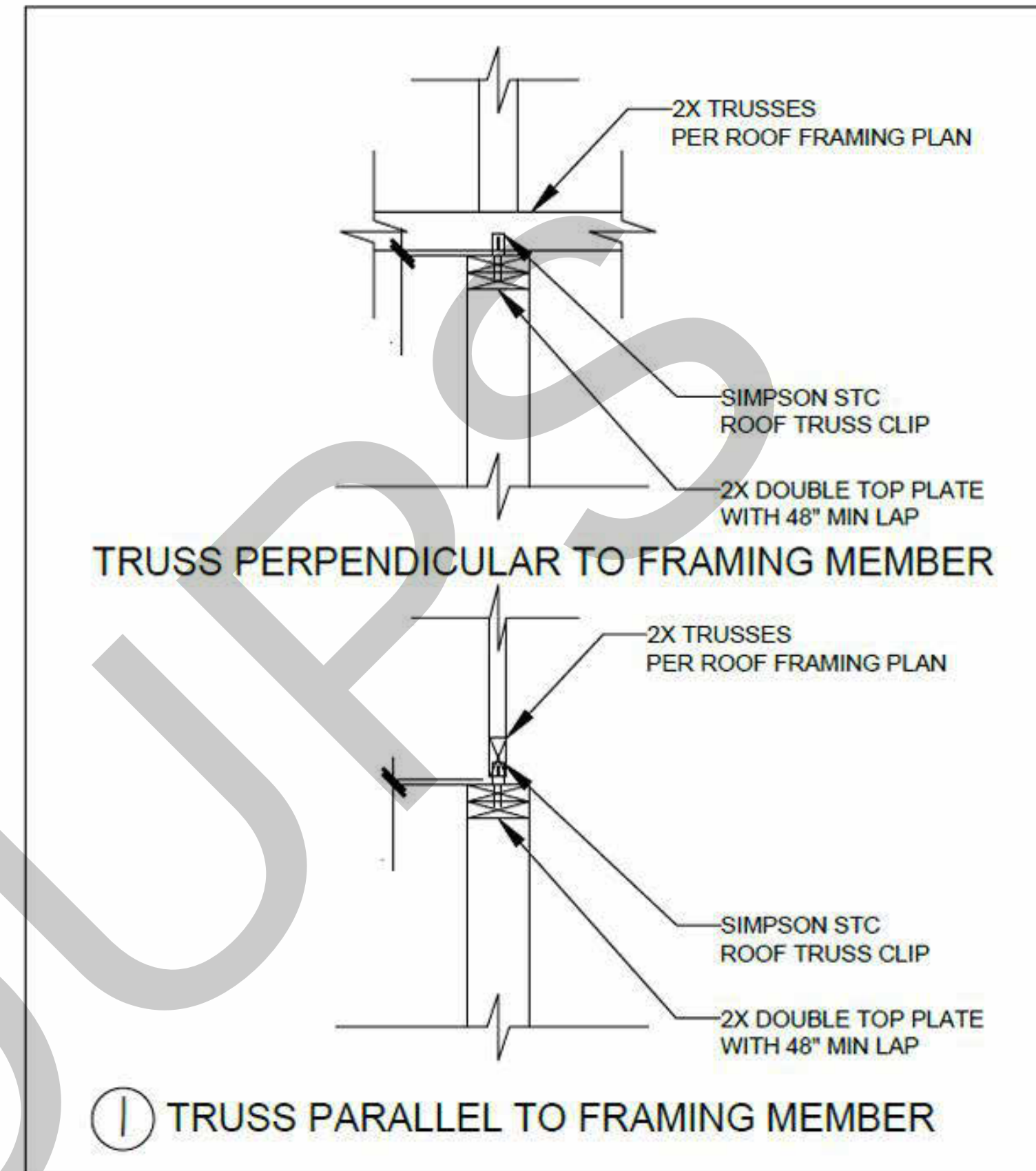
MULTIPLE-STUD COLUMN FASTENING



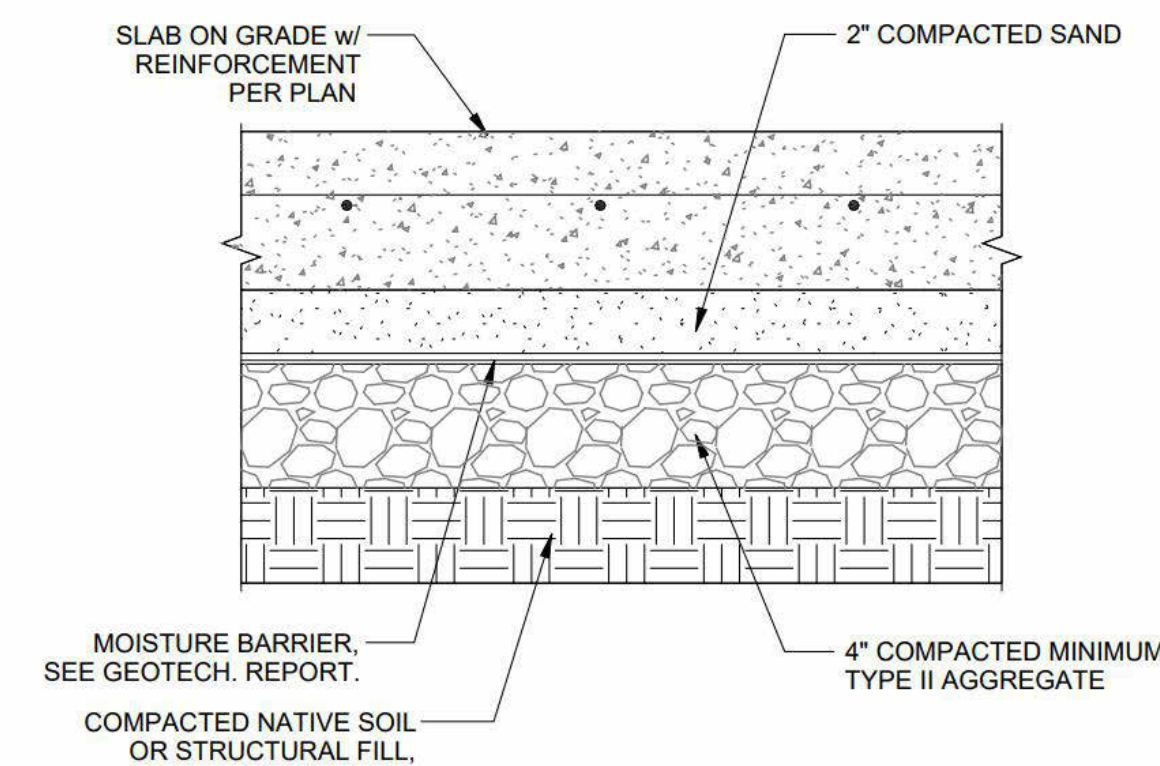
4 VERT. & HORIZ. SHEATHING DETAIL
S002 NOT TO SCALE



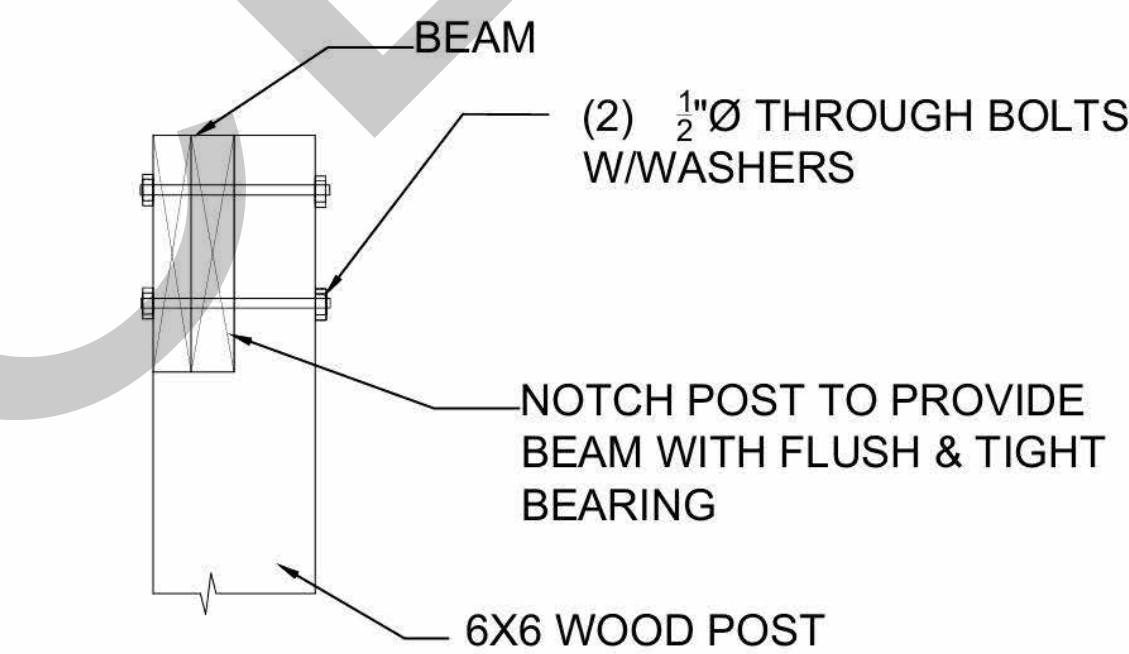
2"x4" INTERIOR WALL DETAIL



RAFTER-TO-PLATES CONNECTION



NOTE:
UNDER SLAB INFORMATION SHOWN ABOVE ARE
MINIMUM REQUIREMENTS



5 BEAM TO POST CONNECTION
S003 NOT TO SCALE

LEGEND FOR CORNER FRAMING FIGURES

1	2	3	4	5	6	7
TOP, MIDDLE AND BOTTOM 16D 2 ROWS BLOCKING OR SOLID STUD.	STUD NAILS: 16D @ 24" O.C.	EDGE NAILS: 8D* @ 6" O.C. ON ALL PANEL EDGES	FIELD NAILS: 8D* @ 6" O.C. ON ALL PANEL EDGES	STUD NAILS: 16D @ 12" O.C.	8D COMMON @ 12" O.C. ON ALL INTERMEDIATE SUPPORTS.	8D COMMON @ 12" O.C. ON BOTH STUDS AT EACH PANEL EDGE.

* STAPLES MAY BE SUBSTITUTED FOR 8D NAILS AS FOLLOWS:
FOR 3/8" OR 5/16" SHEATHING, USE 1-3/8", 15 GAGE OR 1-3/4", 16 GAGE
FOR 1/2" SHEATHING, USE 1-1/2", 15 GAGE OR 1-3/4", 16 GAGE

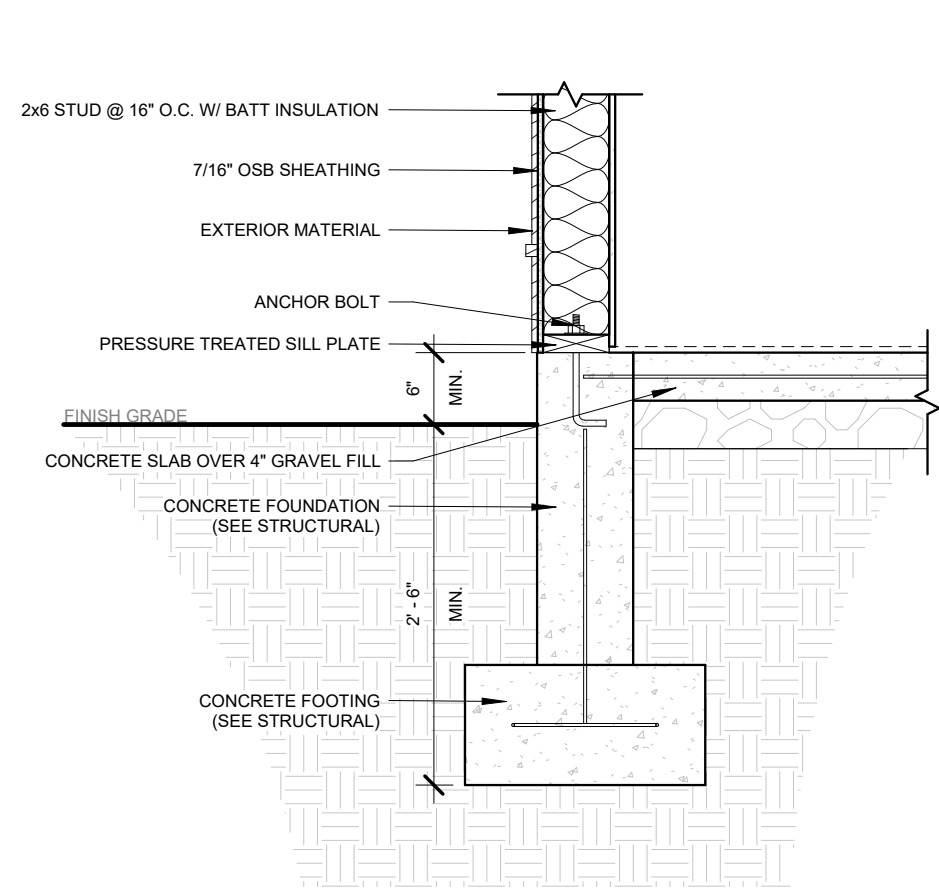
Newton Barndominium

DETAILS

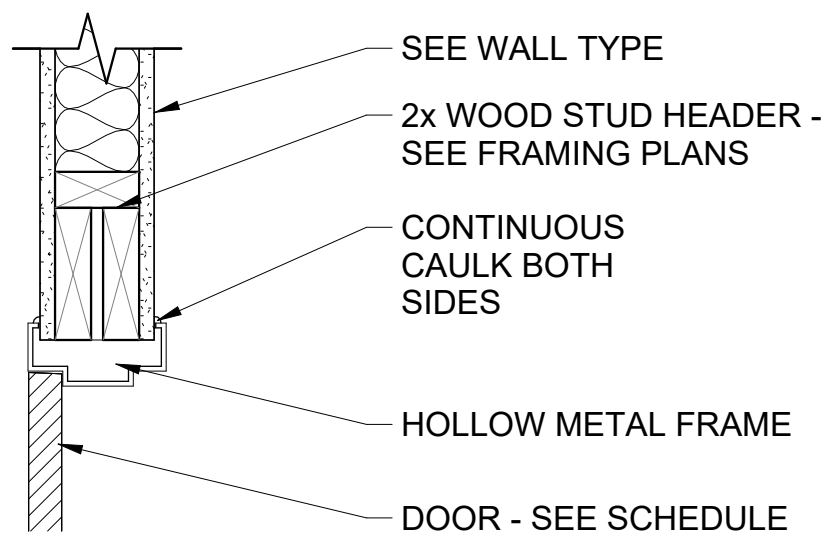
Project number	
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S106.2

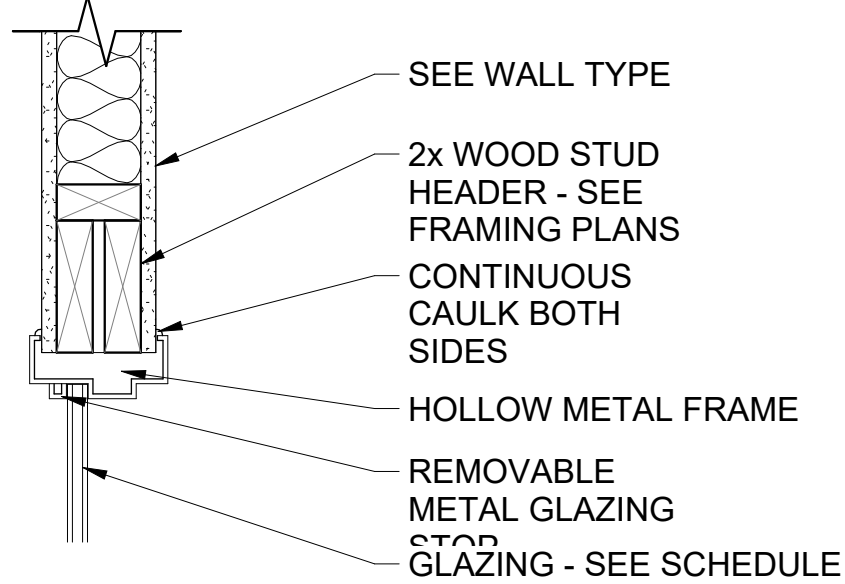
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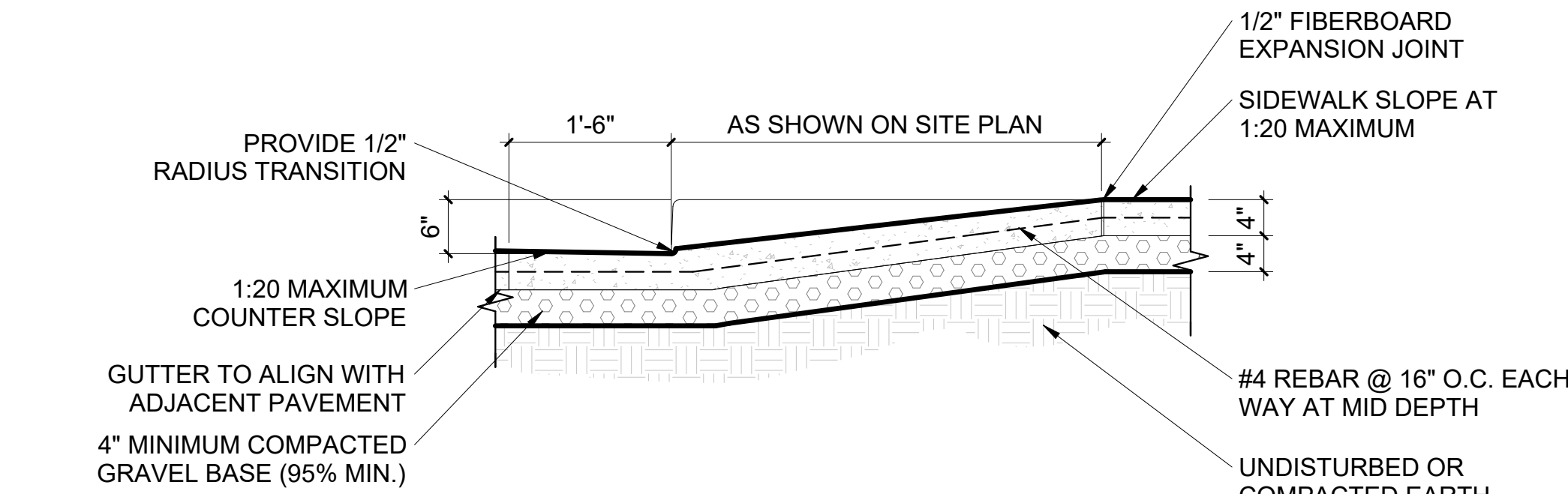
11 FOUNDATION DETAIL
3/4" = 1'-0"



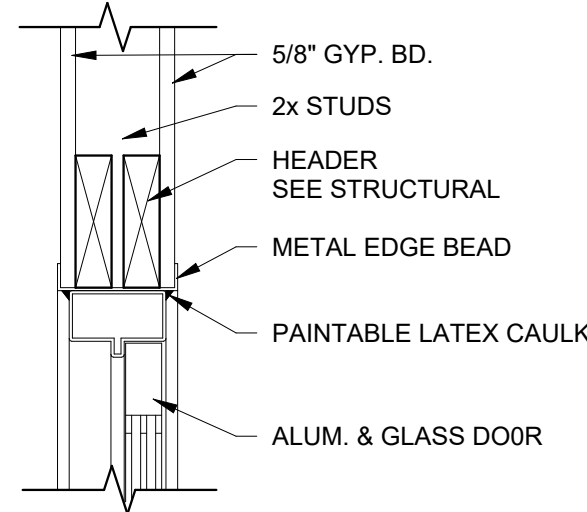
3 DOOR HEAD DETAIL
1 1/2" = 1'-0"



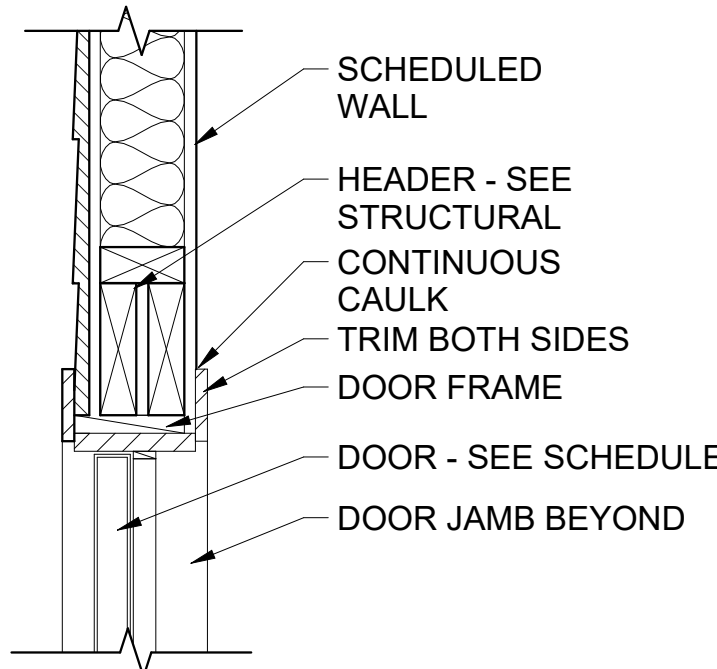
4 WINDOW HEAD DETAIL
1 1/2" = 1'-0"



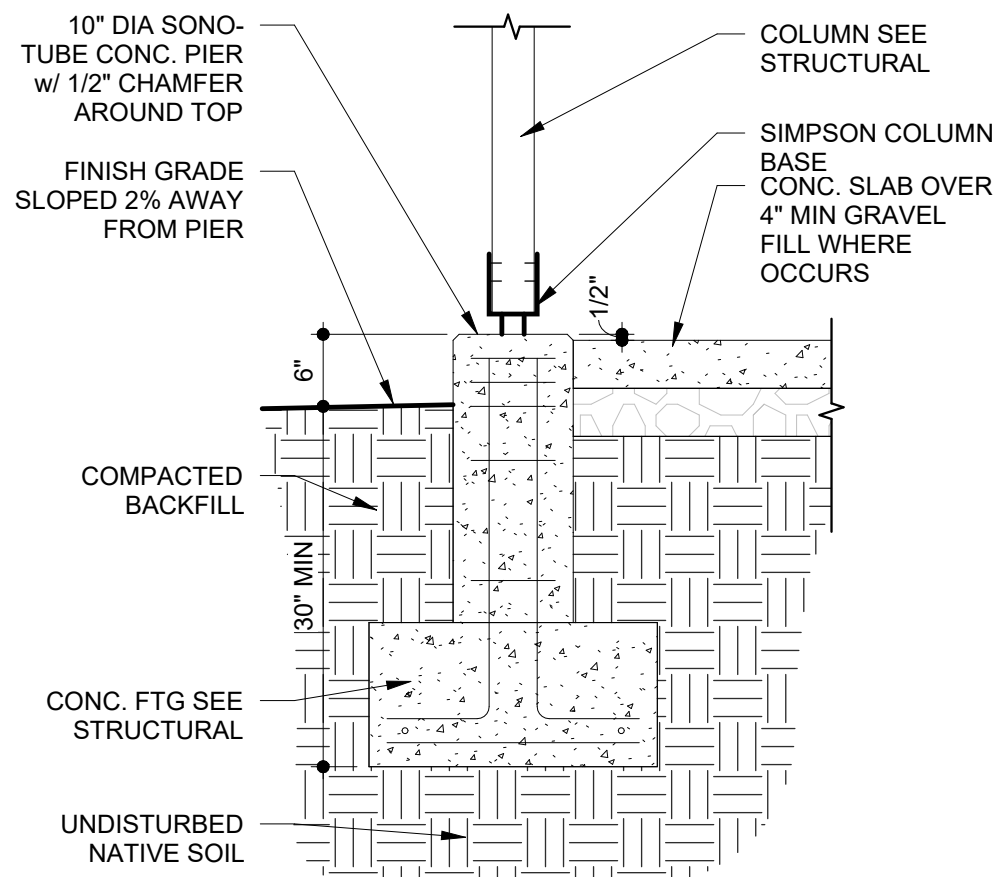
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3/4" = 1'-0"



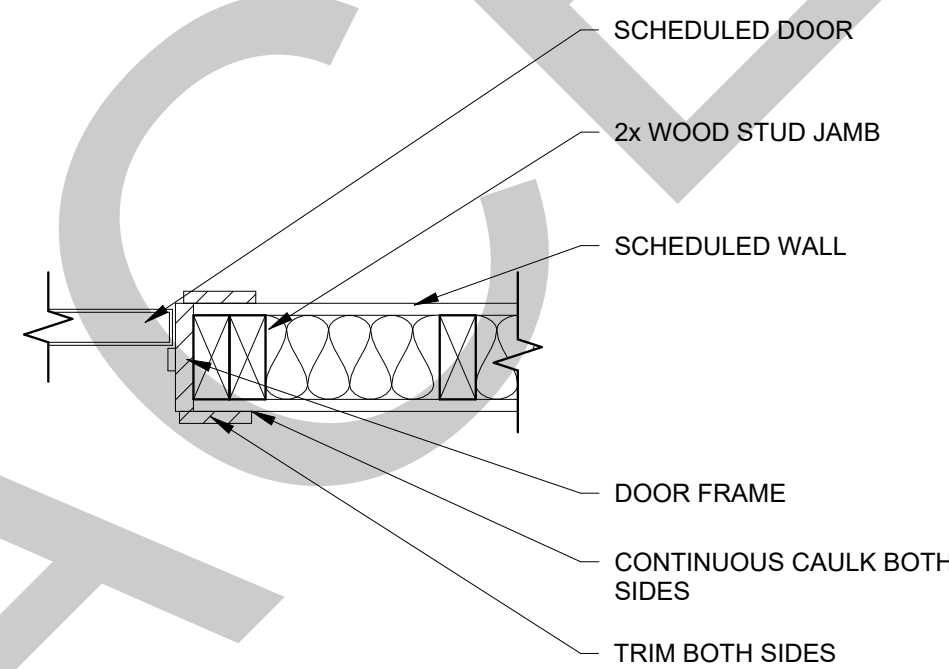
6 DOOR HEAD ALUM & GLASS - INTR.
1 1/2" = 1'-0"



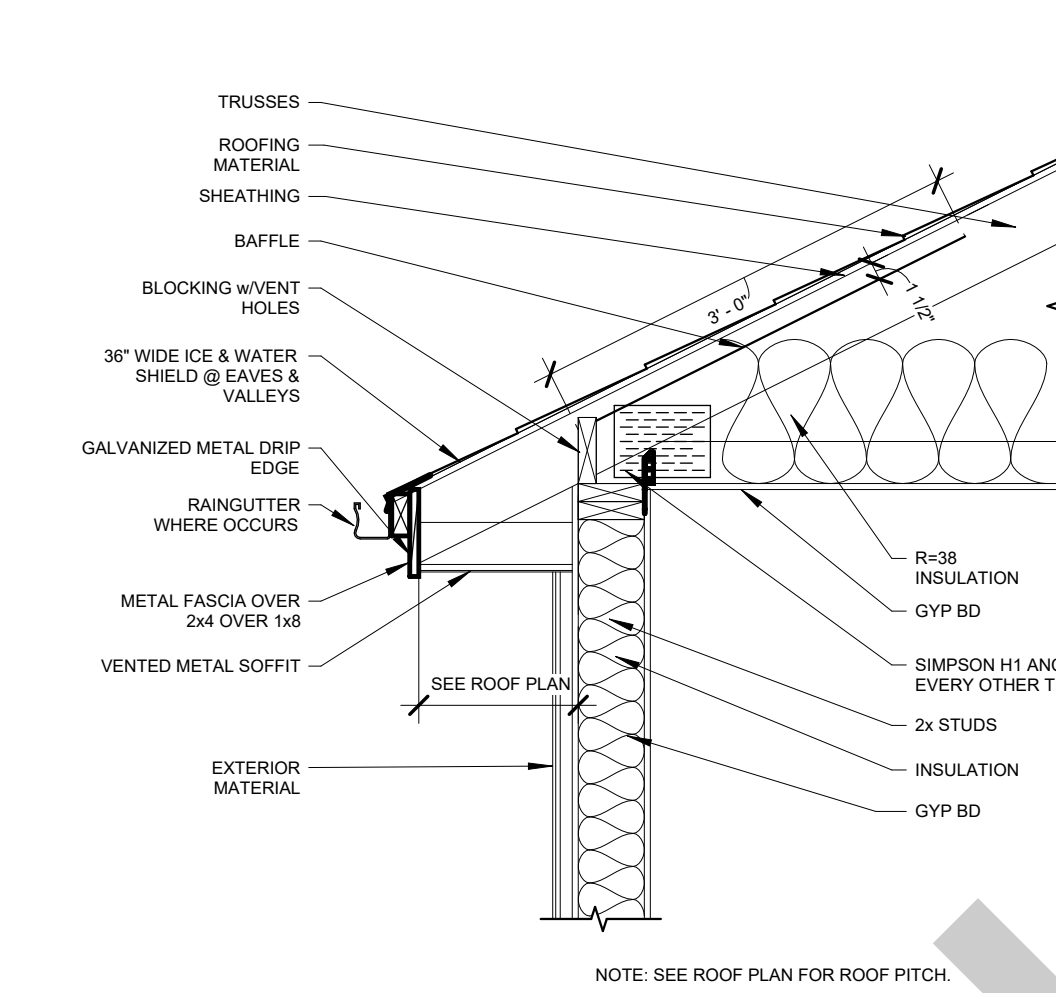
7 DOOR HEAD w/WOOD SIDING
1 1/2" = 1'-0"



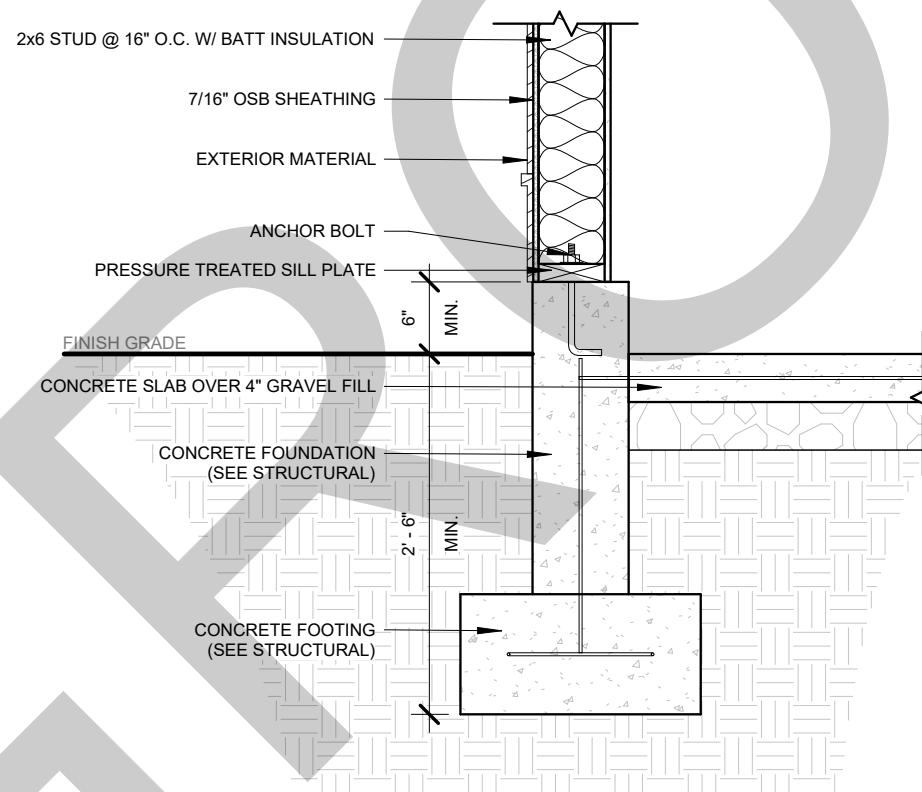
9 FOOTING @ EXTERIOR POST
3/4" = 1'-0"



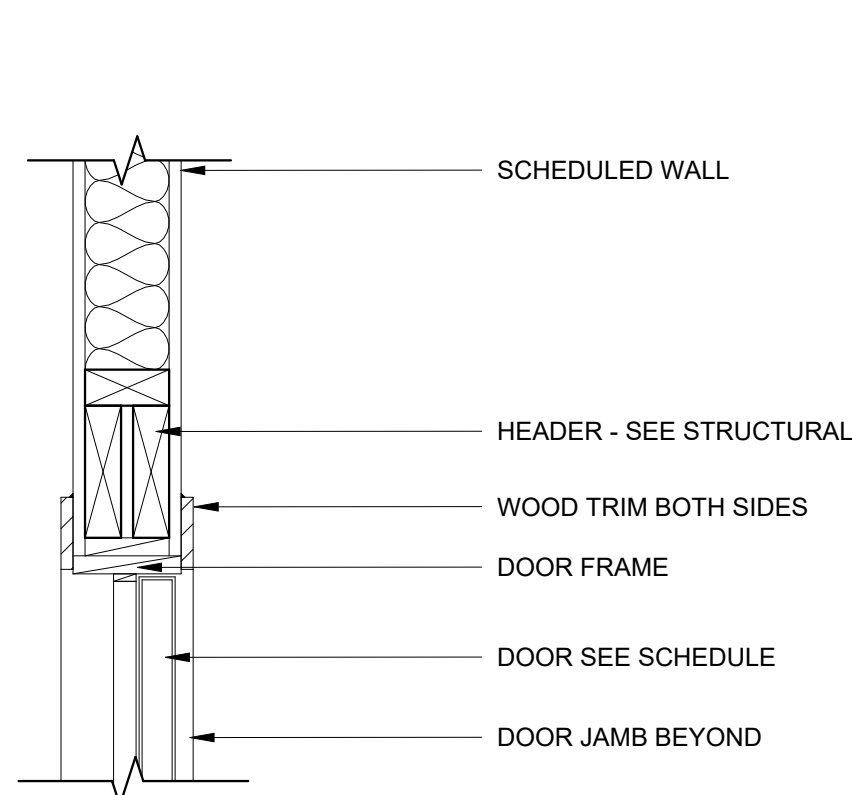
12 INTERIOR DOOR JAMB
1 1/2" = 1'-0"



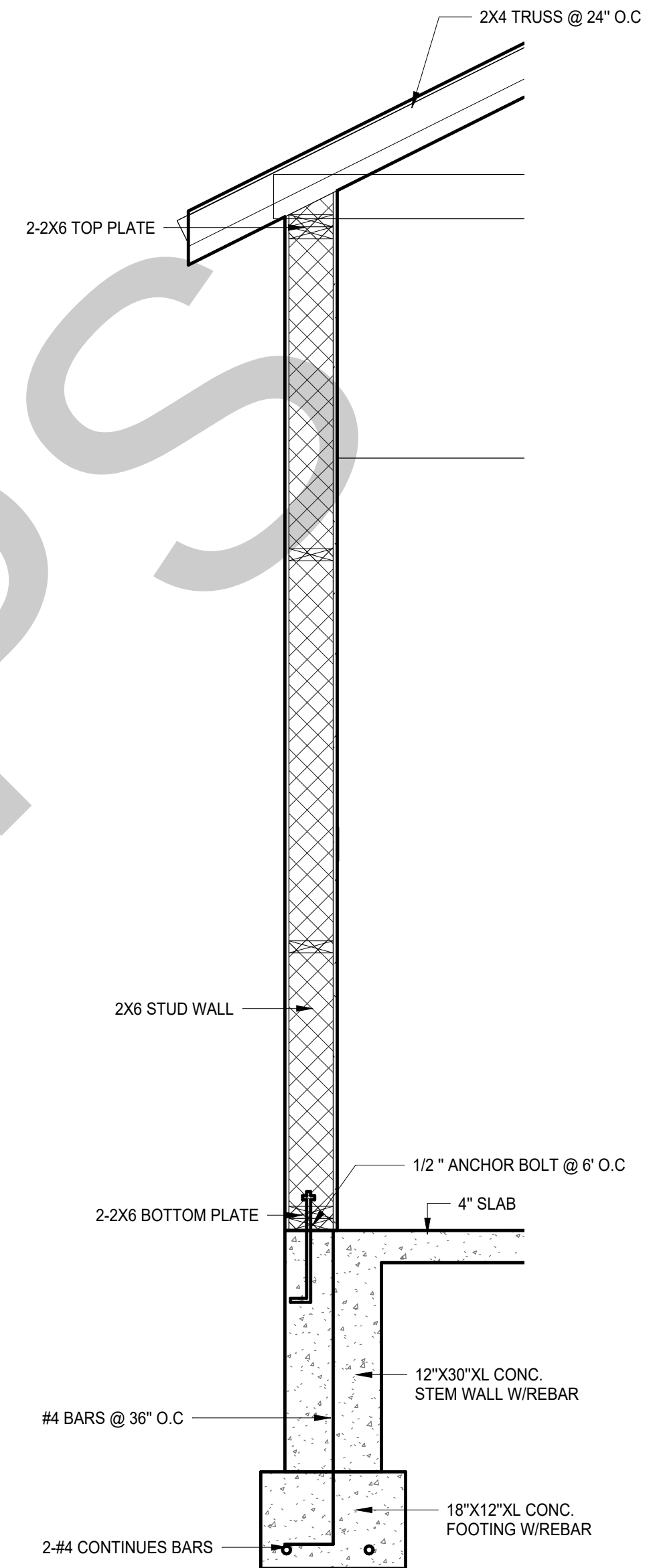
8 TRUSS EAVE
3/4" = 1'-0"



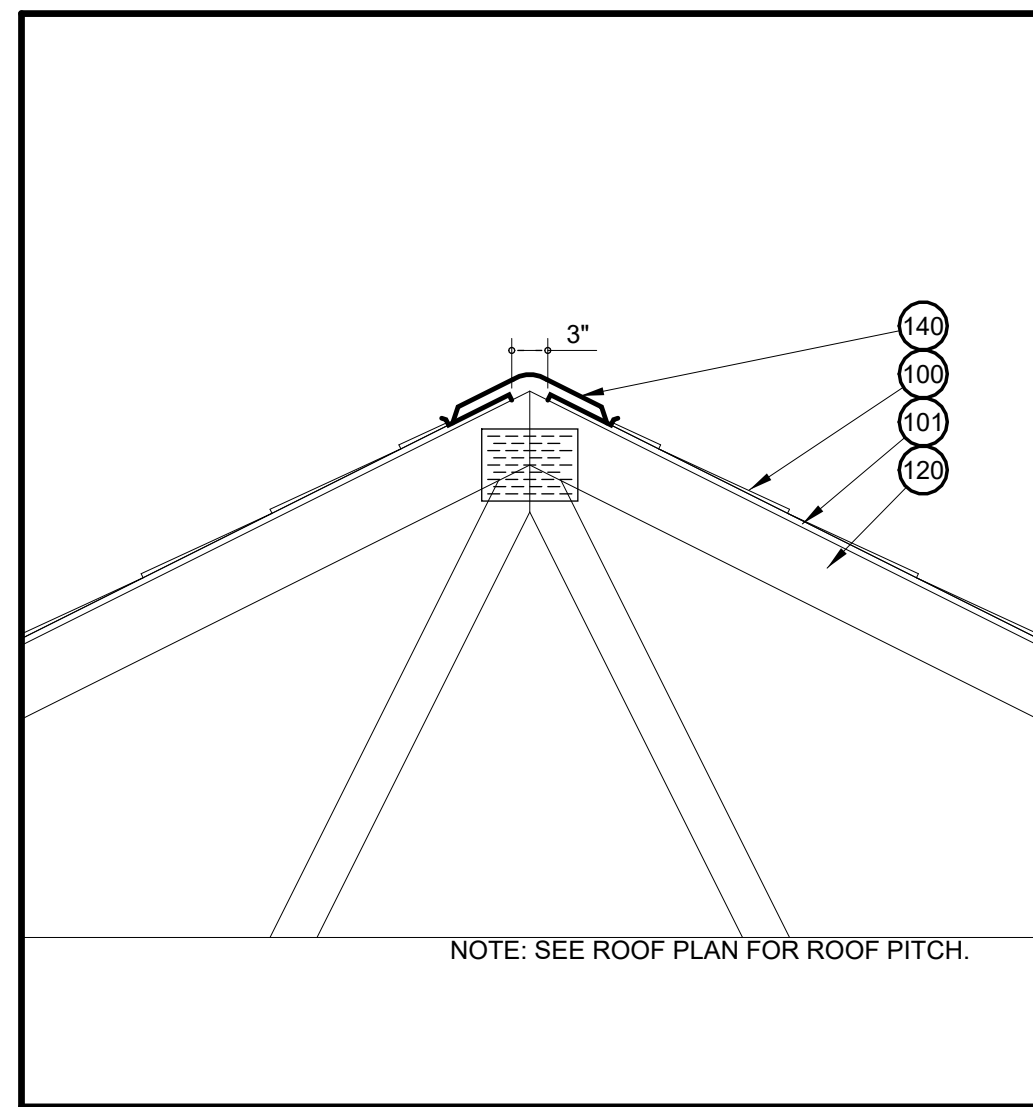
10 FOUNDATION DETAIL
3/4" = 1'-0"



13 INTERIOR DOOR HEAD
1 1/2" = 1'-0"



1 WALL SECTION
3/4" = 1'-0"



2 Truss @ Ridge
3/4" = 1'-0"

Newton Barndominium

DETAILS

Project number

Date

Drawn by

Checked by

Issue Date

Author

Checker

S106.1

Scale

As indicated

FASTENING SCHEDULE

FASTENING SCHEDULE (TABLE R602.3(1))			
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
ROOF			
1	BLOCKING BETWEEN CEILING JOISTS	4-8D BOX(21/2X0.113") OR 3-8D COMMON (2 ½" X0.131") OR 3-10D BOX (3"X0.128") OR 3-3" X 0.131 NAILS	TOE NAIL
2	CEILING JOISTS TO PLATE	4-8D BOX(21/2X0.113") OR 3-8D COMMON (2 ½" X0.131") OR 3-10D BOX (3"X0.128") OR 3-3" X 0.131 NAILS	PER JOIST, TOE NAIL
3	CEILING JOISTS TO TOP PLATE	4-8d BOX (3"X01.28"); OR 3-16d COMMON(3½"X0.162"); OR 4-3"X0.131" NAILS	FACE NAIL
4	COLLAR TIE TO RAFTER,FACE NAIL OR 1 ¼" X 20 GA. RIDGE STRAP TO RAFTERS	4-10d BOX (3"X0.128"); OR 3-10d COMMON (3"X0.148");OR 4-3"X0.131 NAILS	FACE NAIL EACH RAFTER
5	RAFTER OR ROOF TRUSS TO PLATE	3-16D (3 ½" X 0.135") OR 3-10d COMMON NAILS (3"X0.148"); OR 4-10d BOX (3" X 0.128"); OR 4- 3" x0.131" NAILS	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS
6	ROOF RAFTER TO RIDGE,VALLEY OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16d(3 ½" X 0.135"); OR 3-10d COM. NAILS (3"X0.128) 4-10d BOX (3"X0.128"); OR 4-3" X 0.131 NAILS	TOE NAIL
FLOOR			
15	JOIST TO SILL,TOP PLATE OR GIRDER	4-8d BOX (2 ½" X 0.113") OR 3-8d COMMON (2 ½" X 0.131") or 3-10d BOX (3"X0.128") or 3-3" x 0.131 NAILS	TOE NAIL
16	RIM JOIST BAND JOIST OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATION ALSO)	8d BOX (2 ½" X 0.113")	4" O,C, TOE NAIL
17		8d COMMON (2 ½": X 0.113")	6" O.C TOE NAIL
18	1"X6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2 ½" X 0.131") OR 10D BOX (3" X 0.128") OR 3" X 0.131 NAILS	FACE NAIL

WALL			
7		3-16d(3 ½" X 0.135"); OR 3-16d COM. NAILS (3"X0.128) 3-10d BOX (3"X0.128"); OR 3-3" X 0.131 NAILS	END NAIL
8	STUD TO STUD (NOT A BRACE WALL PANEL)	16d COMMON (3.5"X0.135")	24" O.C. FACE NAIL
		10d BOX (3.5" X0.135"); OR 3"X0.131" NAILS	16" O.C. FACE NAIL
9	STUD TO STUD & ABUTTING STUDS AT INTERSECTING WALL CORNERS(AT BRACE WALL PANEL)	16d BOX(3.5"X0.135"); OR 3" X 0.131 NAILS	16" O.C. FACE NAIL
		16d COMMON (3.5"X0.162")	12" O.C. FACE NAIL
10	BUILT UP HEADER (2" TO 2" HEADER WITH ½" SPACER)	16d COMMON (3 ½" X 0.162") 16d BOX (3 ½" X 0.135")	16" O.C EACH EDGE FACE NAIL 12" O.C EACH EDGE FACE NAIL
11	CONTINUOUS HEADER TO STUD	5-8d BOX (2 ½" X 0.113) OR 4-8d COMMON (2 ½" X 0.131) OR 4-10d BOX (3 X 0.128")	TOE NAIL
12	TOP PLATE TO TOP PLATE	16d COMMON (3 ½" X 0.162") 10d BOX (3" X 0.128") 3" X 0.131 NAILS	16" O.C. FACE NAIL 12" O.C. FACE NAIL
13	DOUBLE TOP PLATE TO PLATE SPLICE	8-16d COMMON (3 ½" X 0.162") or 12-16d BOX (3 ½" X 0.135") or 12-10d BOX (3" X 0.128") or 12-3" x 0.131" nails	FACE NAIL ON EACH SIDE OF END JOINT (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14	TOP OR BOTTOM PLATE TO STUD	4-8D BOX (2 ½" X 0.113") or 3-16d BOX (3 ½" X 0.162") or 3-10d BOX (3"X 0.128")	TOE NAIL END NAIL

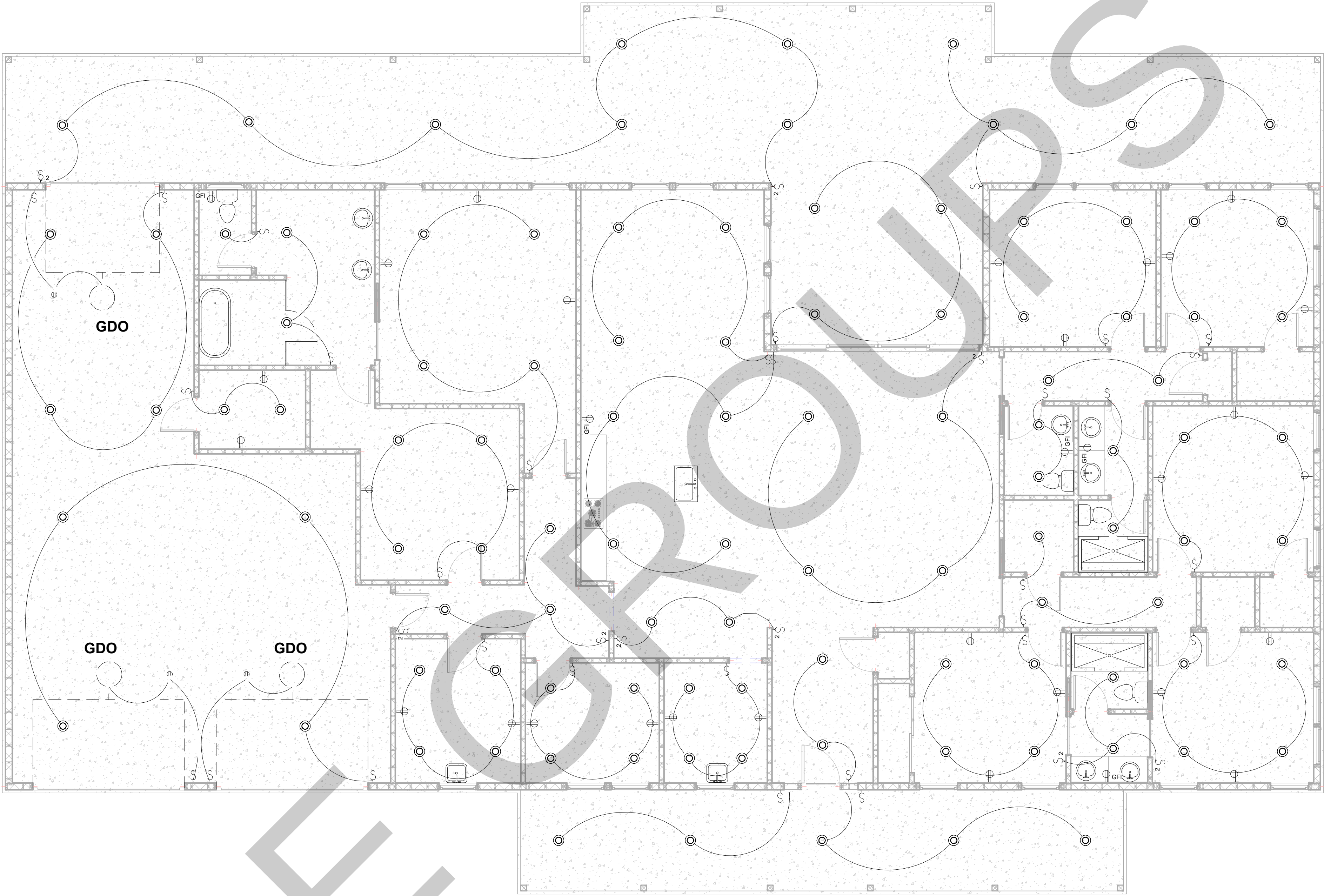
Newton Barndominium

FASTENING SCHEDULE

Project number	
Date	Issue Date
Drawn by	Author
Checked by	Checker
S107	
Scale	1/2" = 1'-0"

ELECTRICAL NOTES

- All electrical work shall comply with the adopted National Electrical Code (NEC) and local utility requirements.
- Electrical contractor shall verify service requirements with local utility provider prior to installation.
- Provide grounded electrical systems throughout the structure in accordance with NEC requirements.
- All receptacles in kitchens, bathrooms, garages, exterior locations, laundry areas, crawl spaces, unfinished basements, and wet locations shall be GFCI protected.
- Arc-fault circuit interrupter (AFCI) protection shall be provided where required by code.
- Smoke alarms and carbon monoxide alarms shall be hardwired with battery backup and interconnected.
- Electrical panelboards shall be clearly labeled and readily accessible.
- Provide dedicated circuits for all major appliances and equipment as required by manufacturer specifications.
- All wiring installed in exterior or wet locations shall be rated for such use.
- Install exterior receptacles and lighting fixtures rated for wet or damp locations as applicable.
- Provide tamper-resistant receptacles in accordance with NEC requirements.
- All electrical penetrations through exterior assemblies shall be properly sealed and weatherproofed.
- Contractor shall coordinate all lighting, switches, outlets, and equipment locations with owner prior to rough-in.
- Bathroom, kitchen, laundry, and garage receptacle spacing shall comply with NEC requirements.
- All equipment shall be installed in accordance with manufacturer installation instructions.
- Verify all electrical load calculations and panel schedules prior to installation.
- Electrical contractor shall obtain all required inspections and approvals prior to energizing systems.



1ST FLOOR ELECTRICAL
PLAN

① 3/16" = 1'-0"

Newton
Barndominium

MAIN FLOOR
ELECTRICAL
PLAN

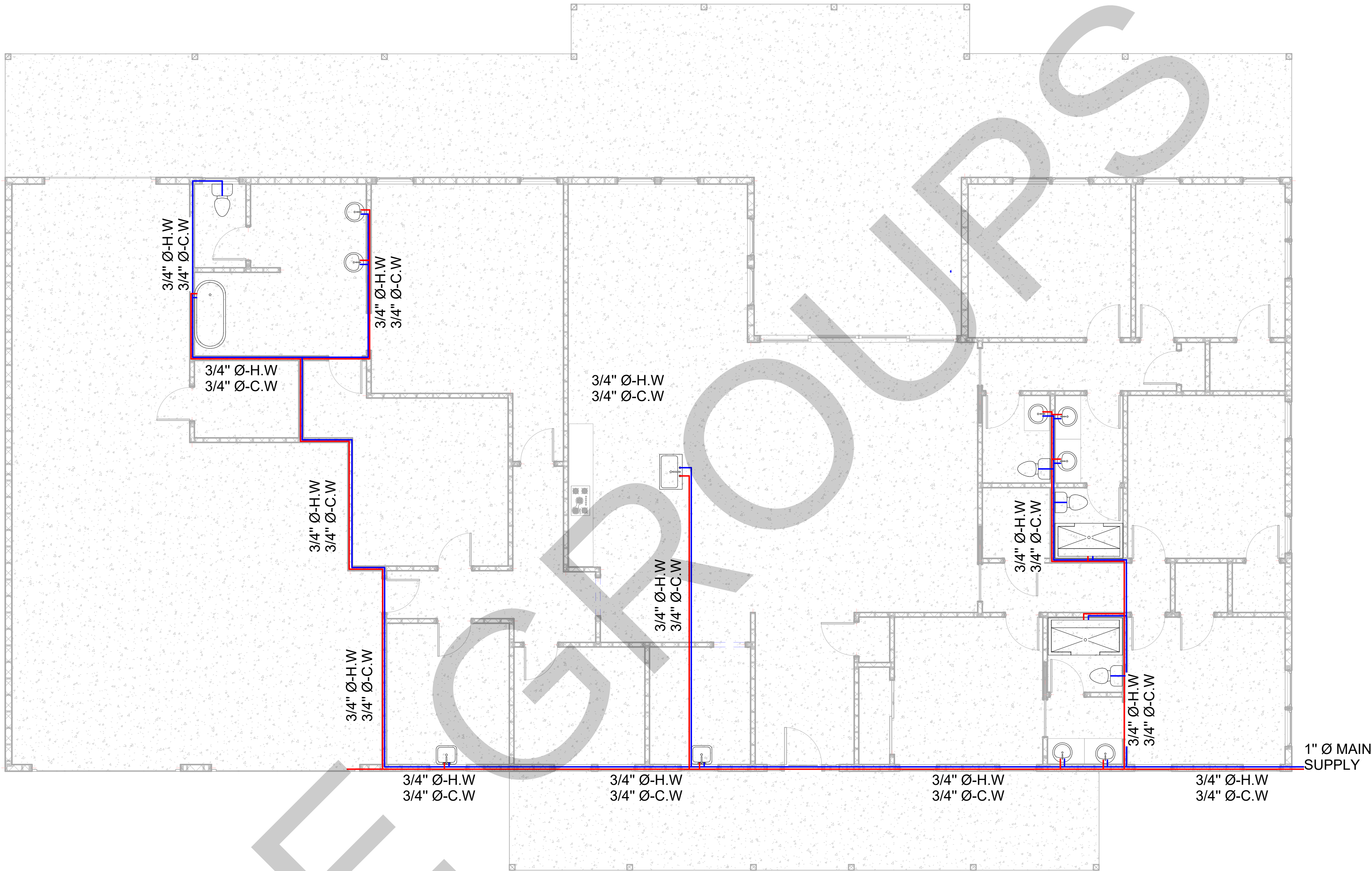
Project number	
Date	Issue Date
Drawn by	Author
Checked by	Checker

E108

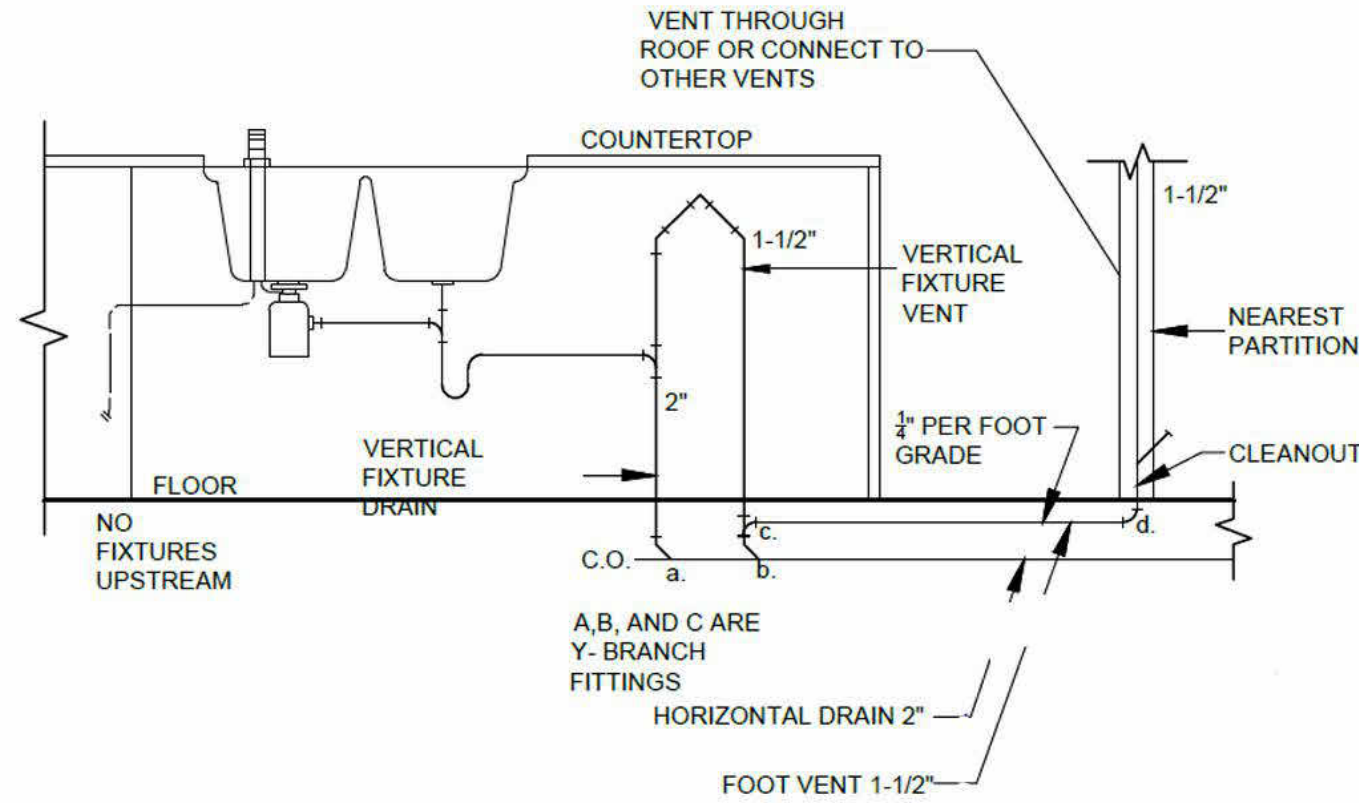
Scale	3/16" = 1'-0"
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PLUMBING & DRAINAGE NOTES

- All plumbing work shall comply with the adopted International Plumbing Code (IPC) and local jurisdiction requirements.
- Plumbing contractor shall verify all utility connection locations and invert elevations prior to installation.
All plumbing fixtures shall be connected to approved water supply and sanitary drainage systems.
- Drain, waste, and vent piping shall be installed with proper slope in accordance with code requirements.
- Minimum slope for horizontal drainage piping shall comply with applicable plumbing code requirements.
- Provide cleanouts at locations required by code and at changes in direction exceeding code limitations.
- All plumbing penetrations through framing members shall comply with structural requirements and be protected from damage.
- Water supply piping installed in exterior walls or unconditioned spaces shall be protected from freezing.
- Plumbing vents shall terminate through roof in accordance with code requirements.
- All fixtures shall be trapped and vented in accordance with applicable plumbing code requirements.
- Provide pressure-balanced or thermostatic mixing valves at showers and tub/shower combinations.
- Water heater installation shall comply with manufacturer requirements and applicable codes.
- Provide temperature and pressure relief valve discharge piping at water heaters.
- Contractor shall coordinate plumbing rough-in locations with cabinetry, appliances, and structural framing.
- Drainage systems shall discharge to approved public sewer or private onsite wastewater treatment systems.
- Site drainage shall direct water away from foundations and prevent ponding adjacent to the structure.
- Roof drainage shall be directed away from the building foundation through gutters, downspouts, splash blocks, or approved drainage systems.
- Plumbing systems shall be tested and inspected prior to concealment and final approval.
- All piping materials shall be approved for intended use and installed per manufacturer specifications.
- Contractor shall verify all fixture locations and utility requirements prior to rough-in installation.



1ST FLOOR PLUMBING PLAN
3/16" = 1'-0"



Kitchen Sink Vent Detail

Newton
Barndominium

MAIN FLOOR
PLUMBING PLAN

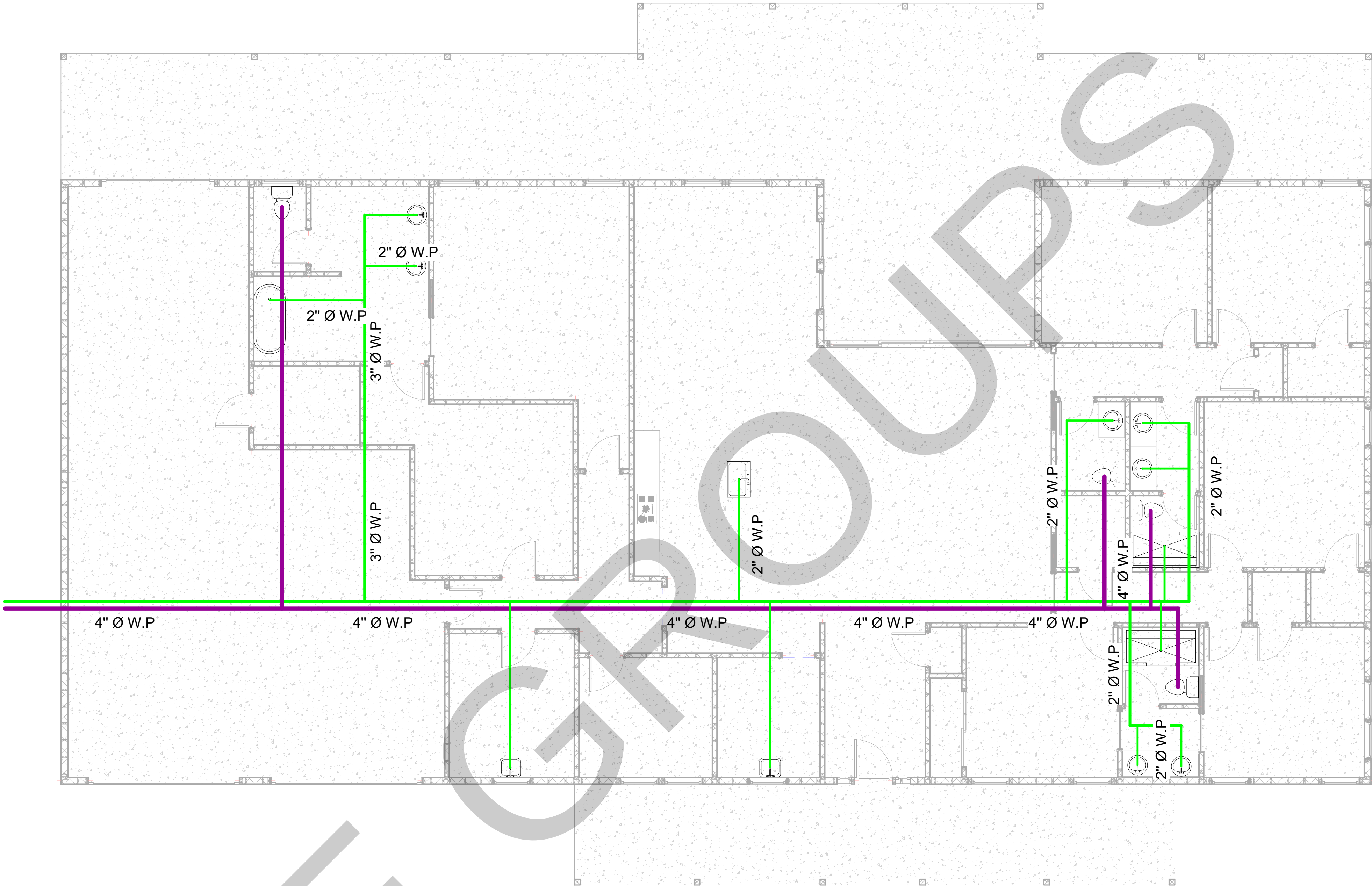
Project number	
Date	Issue Date
Drawn by	Author
Checked by	Checker

P109

Scale	3/16" = 1'-0"
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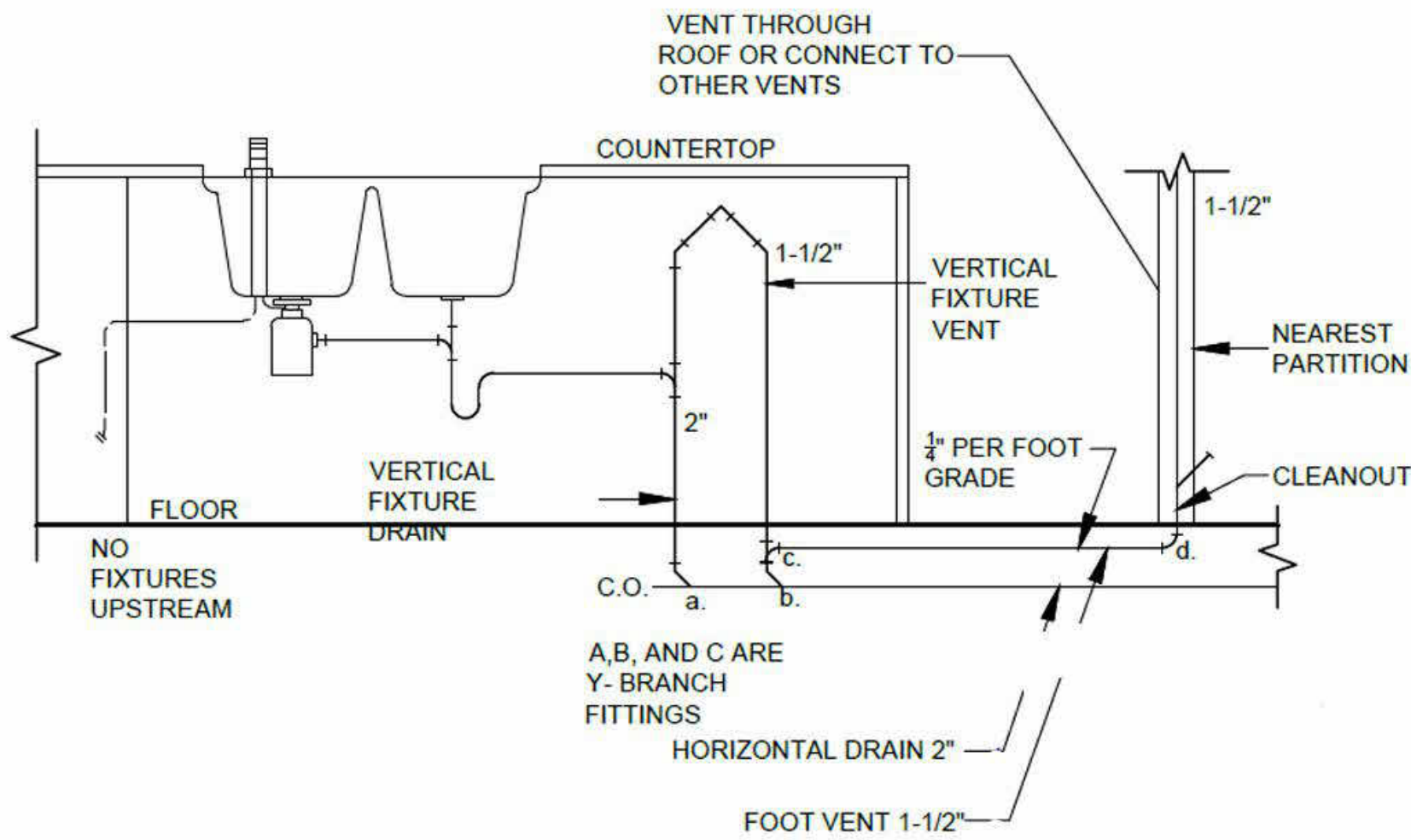
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- Minimum slope for horizontal drainage piping shall comply with applicable plumbing code requirements.
- Provide cleanouts at locations required by code and at changes in direction exceeding code limitations.
- All plumbing penetrations through framing members shall comply with structural requirements and be protected from damage.
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- Plumbing vents shall terminate through roof in accordance with code requirements.
- All fixtures shall be trapped and vented in accordance with applicable plumbing code requirements.
- Provide pressure-balanced or thermostatic mixing valves at showers and tub/shower combinations.
- Water heater installation shall comply with manufacturer requirements and applicable codes.
- Provide temperature and pressure relief valve discharge piping at water heaters.
- Contractor shall coordinate plumbing rough-in locations with cabinetry, appliances, and structural framing.
- Drainage systems shall discharge to approved public sewer or private onsite wastewater treatment systems.
- Site drainage shall direct water away from foundations and prevent ponding adjacent to the structure.
- Roof drainage shall be directed away from the building foundation through gutters, downspouts, splash blocks, or approved drainage systems.
- Plumbing systems shall be tested and inspected prior to concealment and final approval.
- All piping materials shall be approved for intended use and installed per manufacturer specifications.
- Contractor shall verify all fixture locations and utility requirements prior to rough-in installation.



1ST FLOOR DRAINAGE PLAN

3/16" = 1'-0"



Kitchen Sink Vent Detail

Newton
Barndominium

MAIN FLOOR
DRAINAGE PLAN

Project number	
Date	Issue Date
Drawn by	Author
Checked by	Checker

P109.1

Scale	3/16" = 1'-0"
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