

**A. DESIGN CRITERIA**

- 1. Design Codes:
a. International Building Code: IBC 2021
b. Minimum Design Loads for Buildings and Other Structures: ASCE 7-16

2. Design Loads:
a. Dead Loads: Floors (Units) = 25 psf, Interior Partitions = 15 psf, Floors (Breezeway) = 30 psf, Roof = 22 psf
b. Live Loads (reducible per code UNO): Residential = 40 psf, Corridors/Exits = 100 psf, Mechanical/Storage = 125 psf (non-reducible), Typical Roof = 20 psf
c. Roof Snow Load: Ground Snow Load (ps) = 30 psf, Flat Roof Snow Load (ps) = 30 psf, Snow Exposure Factor (Ce) = 0.9, Snow Load Importance (I\_s) = 1.0, Thermal Factor (C\_t) = 1.0, Slope Factor (C\_s) = 1.0, Unbalanced Loads for Hip & Gable Roofs: Windward Snow Load = 5.7 psf, Leeward Snow load from ridge to 7.61' = 40.2 psf, Leeward Snow load from 7.61' to eave = 18.9 psf

- d. Wind Load: Basic Design Wind Speed, V = 115 mph (3 sec. Gust) (Per City Bulletin #2), ASD Wind Speed, V\_asd = 89.1 mph, Risk Category = II, Wind Exposure = C, Internal pressure Coefficient (GC\_p) = +/-0.18, Components and Cladding (psf):

Table with 4 columns: Zone, A=10ft^2, A=50 ft^2, A=100 ft^2. Rows 1-5 showing wind load values for different zones and areas.

- Notes: 1. A is the Effective Wind Area as defined in ASCE 7 Ch. 26. 2. Linear interpolation between tabulated values is permitted. 3. Elements with Tributary Area (A) > 700 ft^2 shall be permitted to be designed using provisions for MWFRS.

- e. Earthquake Load: Risk Category = II, Seismic Impartance Factor (I\_s) = 1.0, S\_s = 0.252g, S\_1 = 0.063g, Soil Site Class: D (Per Geotechnical Report), S\_DS = 0.268, S\_D1 = 0.101, Seismic Design Category: B, Basic Seismic Force Resisting System(s): Light-Frame Walls with shear panels, R = 2.0, C\_s = 0.134, Design Base Shear, V = C\_s x W = 314 kips, Analysis Procedure = Equivalent Lateral Force Procedure (ASCE 7-16 Chapter 12.8)
- f. Rain Load: Rain Intensity (i) = 1.8 in/hr (Per City Bulletin #2)

3. Allowable Deflections: Table with 4 columns: Total Load, Live/Snow/Wind Load, Absolute Maximum. Rows for Floor Joists/Trusses, Roof Joists/Trusses, Wall Framing, Cantilever deflection limits.

- 4. Soil Properties: a. Soil properties are based on the project geotechnical report... b. Allowable Soil Bearing Pressure = 4000 psf (Square Footings)

**B. STRUCTURAL ENGINEERING DESIGN NARRATIVE**

- 1. McClure Engineering Company (McClure, MEC) is the Structural Engineer of Record (EOR) responsible for the documentation of structural design criteria...
a. Foundations consisting of strip footings and isolated column footings.
b. Slabs on grade.
c. Residential lower framing above the slab on grade...
d. The lateral force resisting system of the structure...
2. The following items are Deferred Submittals. Framing intent and additional requirements for these structural components are provided within these drawings...
a. Structural steel stair framing and connections...
b. Wood Floor & Roof Trusses...
c. Connections of Wood Trusses...
3. The following items are specifically excluded from McClure's design scope...
a. Requirements for fire rating of assemblies...
b. Global stability of soil mass...
c. Any exterior slabs, bollards, curbs...
d. Interior non-load-bearing wood wall or ceiling framing...
e. Shoring design, formwork design, temporary bracing...

**C. GENERAL NOTES**

- 1. All construction shall conform to the Design Codes in Section "A. Design Criteria," including all applicable standards and documents referenced within these codes.
2. Plan and detail notes provided on specific sheets within these drawings supplement information in these General Notes.
3. Unless noted specifically on a plan, all floor plans show framing for the floor indicated and vertical framing (walls, openings, posts, columns) above that floor.
4. Contract Document Coordination:
a. The drawings contained herein are intended to be utilized in conjunction with other design consultant's drawings...
b. Refer to the architectural, mechanical, electrical, and civil drawings for location and size of block outs...
c. Refer to the architectural drawings for size and location of doors and window openings...
d. Omissions or conflicts between various elements of the drawings...
5. Use of Drawings in Construction:
a. The Contractor shall verify all dimensions and conditions at the job site before commencing work...
b. Do not use scaled dimensions; use written dimensions or, where no dimension is provided, consult the engineer...
c. Details and keynotes shown shall be incorporated into the project at all appropriate locations...
d. McClure may provide the contractor with electronic files for their convenience...
6. Changes During Construction:
a. Openings shall not be cut or otherwise made in any structural member unless that opening is specifically shown...
b. Support details shown for Architectural, Mechanical, Electrical, and Plumbing equipment...
c. The Contractor has the responsibility to notify the engineer of any architectural, mechanical, electrical, or plumbing load imposed...
7. Construction Sequence and Methods:
a. These drawings and the related Specifications represent the finished structure and, except where specifically shown...
b. The Contractor is responsible for compliance with all applicable job-related safety standards...
c. The Contractor's responsibility of the Contractor to ensure the stability of the structural elements during construction...
d. The Contractor shall consider the effects of thermal movements due to hot or cold weather construction...
e. The Contractor is responsible for the protection and repair of any adjacent existing structures...

**D. SUBMITTAL REQUIREMENTS**

- 1. Submittal Procedures:
a. The Contractor shall provide all submittals in PDF format unless otherwise requested...
b. All submittals must be reviewed by the Contractor prior to McClure's review...
c. Incomplete submittals or submittals not meeting the requirements of this section will not be reviewed...
d. Submittals requiring engineering calculations for all or a portion of the work are considered incomplete...
e. Shop Drawings shall be original drawings...
f. Deferred Submittals not meeting the seal requirements of section D.2.b are considered incomplete...
g. McClure's submittal review scope of work includes a single submittal review and one review of the revised submittal...
2. Deferred Submittals:
a. See Section "B. Structural Engineering Design Narrative" for the list of items considered Deferred Submittals.
b. Deferred Submittals shall bear the seal of a professional engineer licensed in the state where the project is located...
c. Deferred Submittal items shall not be installed until the Deferred Submittal documents have been approved...
3. Submittal List:
a. Submittals (product data, test records, shop drawings, and/or calculations) are required for the following:

Table with 5 columns: Submittal Name, Product Data, Shop Drawings, Test Records, Engineering Calculations. Rows 1-16 listing various submittals like Concrete Mix Designs, Concrete Break Reports, Concrete Reinforcing Layout, etc.

- b. "Product Data" may indicate mill certifications, material data sheets, Evaluation Service Reports (ESRs), etc.
c. Where "Engineering Drawings" and/or "Engineering Calculations" are indicated, the submittal must comply with the requirements of item "2. Deferred Submittals" above.
4. Submittals For Record:
a. The following items impact the structural design and therefore must be submitted to the engineer...
i. Mechanical Equipment Shop Drawings with Weight

**E. CONCRETE**

- 1. Reinforced concrete shall have the following minimum 28 day compressive strengths:
a. Slab on grade, unless noted otherwise: 4000 psi normal weight
b. Foundations: 5000 psi normal weight
2. All concrete exposed to weather shall have 6% (+/- 1%) air entrainment.
3. Submit mix designs for all concrete mixes prior to placement.
4. Provide protection for reinforcing bars as follows:
a. Concrete cast against and permanently exposed to earth: 3"
b. Concrete exposed to earth and weather (formed):
i. #5 and smaller: 1-1/2"
ii. #8 and larger: 2"
c. Concrete not exposed to weather and not in contact with ground:
i. Slabs and walls: 3/4"
ii. Beams and columns: 1-1/2"
5. Provide construction or control joints in slab on grade as shown on plans...
6. Interface of all slab and foundation construction joints shall be roughened with 1/4" amplitude...
7. Construction joints in walls shall be keyed and placed at locations approved by the Architect and Structural Engineer...
8. Provide PVC waterstops in all below grade construction joints...
9. Provide compressible filler and sealant in all slab-on-grade and wall and column interfaces...
10. All column pockets shall be filled with concrete after column is erected...
11. Sleeves and openings in slabs not shown on structural drawings or outside the parameters of typical sleeve details are not permitted...
12. Conduit and pipes embedded in slabs, walls, or grade beams shall be no larger in outside dimension than 1/3 the overall member thickness...
13. Conduits and pipes shall not be permitted in concrete pilasters or columns...
14. Provide concrete housekeeping pads under all mechanical, plumbing, fire protection, and electrical equipment per plans...
15. At floor drains, locally slope floor towards drain...
16. Foundation walls shall be temporarily braced until positive attachment is made to floor framing per details.

**Slab on Grade**

- 1. Slab shall be constructed as shown on plans.
2. Slab-on-grade shall be founded on 6" deep 1/4" clean aggregate base.
3. The existing fill shall be removed and the upper 24" of subgrade extending 5' beyond the footprint of the building shall consist of low volume change material...
4. Provide joints at 30 x slab thickness (-) in both directions and located to conform to bay spacing...
5. Saw cut control joints shall be done late enough to prevent raveling of the cut edges...
6. Concrete slab to be cured according to ACI Standards...
7. At floor drains, locally slope floor towards drain.

**Subsurface Requirements**

- 1. Foundation design is based on geotechnical report by Terracon, dated June 10, 2024.

**F. REINFORCING FOR CONCRETE**

- 1. General:
a. All reinforcing steel to be ASTM A615, Grade 60, deformed bars, unless noted otherwise.
i. Any reinforcing to be welded shall be ASTM A706 and welded with E80 electrodes.
ii. Alternatively, ASTM A615 reinforcing may be welded with E90 electrodes...
b. Welded wire fabric shall be plain wire conforming to ASTM A1064...
c. All reinforcing bars to be detailed and placed in accordance with the ACI Manual of Standard Practice...
d. All reinforcing, including dowels, shall be securely tied and cast with the lower member...
e. Field bending of reinforcing partially embedded in concrete will not be allowed...
f. All reinforcing bars shall be contact lap spliced or doweled as follows, unless noted otherwise:

Table: Tension Development and Splice Lengths for f\_c = 4,000psi. Columns: Bar Size, Development (Top, Other), Class "B" Splice (Top, Other), Standard 90 deg. Hook (Embed, Leg, Bend Dia).

Table: Tension Development and Splice Lengths for f\_c = 5,000psi. Columns: Bar Size, Development (Top, Other), Class "B" Splice (Top, Other), Standard 90 deg. Hook (Embed, Leg, Bend Dia).

- g. All vertical wire fabric shall be lapped 12" or 48 wire diameters, whichever is greater.
h. Provide (2) #5 x 6'-0" diagonals at all corners of openings and re-entrant corners...
i. Dowels between foundation and walls shall be installed and shall be the same grade, size, and spacing...
j. Provide corner bars to match longitudinal reinforcing in all footings...
k. Slabs and Slabs-on-Grade:
a. All slabs on grade to be reinforced with 6x6 - W2.9xW2.9 welded wire fabric, unless noted otherwise.



NOTICE: McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses... "Losses" which arise from failure to follow these Plans, Specifications, and the engineering intent they convey...

WYOMING CERTIFICATE OF AUTHORITY NO. E-1790 EXPIRES: DECEMBER 31, 2025

FOR REVIEW ONLY NOT FOR CONSTRUCTION

MARCUS HIMMELBERG 17369 12/31/2024

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

Table with 3 columns: No., Description, Date. Rows 1-10 for project details.

PROJECT NUMBER: 2024000185 SET ISSUE DATE

ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

JONES GILLAM RENZ THE RESERVES AT GRAND VIEW HEIGHTS LARAMIE, WY GENERAL NOTES

DRAWING NO. S001

P:\2024\000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

G. WOOD FRAMING AND CONNECTIONS

- 1. Install rough carpentry according to the American Institute of Timber Construction Manual.
2. Material:
a. Sawn lumber
i. Sawn lumber shall be grade stamped and visually graded with maximum 19% moisture content
ii. All members shall meet strength requirements in NDS "National Design Specification for Wood Construction".
iii. Joists, rafters, and nailers with nominal depth 8" or less shall be Southern Pine (SP) or Douglas Fir-Larch (DFL), No. 2 or better.
iv. Joists, rafters, and nailers with nominal depth greater than 8" shall be Southern Pine (SP) or Douglas Fir-Larch (DFL), No. 1 or better.
v. All exterior posts shall be Western Red Cedar No. 2 or better.
vi. Bearing and shear wall studs, and wall plates, shall be Douglas Fir-Larch (DFL), No. 2 or better.
b. Structural Composite Lumber
i. SCL shall meet material specifications in ASTM D5456
ii. SCL shall include laminated veneer lumber (LVL), laminated strand lumber (LSL), oriented strand lumber (OSL) and parallel strand lumber (PSL)
iii. All LVL shall be stress class 2.0E-2600F.
iv. Other SCL materials shall be graded as indicated on the plans.
c. Glued-laminated timber (Glulam) shall be manufactured and identified as required in ANSI/AITC A-190.1 and ASTM D3737.
d. Structural Panels
i. All plywood or oriented strand board (OSB) panels shall meet the strength requirements in Department of Commerce (DOC) PS 1 and PS 2 or ANSI/APA PRP 210.
ii. All structural panels (walls, floor and roof) shall meet the Structural 1 grading standard
e. Connectors and Fasteners
i. Metal connectors and associated fasteners used for the applications indicated shall meet the following minimum standards:
1. Untreated Lumber
a. Connectors .....ASTM A653 G90
b. Bolts and Anchor Rods .....ASTM F1554 Gr36
c. Nails and Staples .....ASTM F1667
2. Sodium Borate (SBX) Pressure Treated Lumber
a. Connectors .....ASTM A653 G90
b. Bolts .....ASTM A307
c. Anchor Rods .....ASTM F1554 Gr 55
d. Nails and Staples .....ASTM F1667 with A153 Hot Dipped Galvanized
3. All Other Pressure Treated Lumber (e.g. ACQ-C, ACQ-D, CA-B, CBA-A, ACZA)
a. Connectors .....AISI SS Type 304 or 316
b. Bolts .....ASTM A193, GB7
c. Anchor Rods .....ASTM A193, GB7
d. Nails and Staples .....ASTM F1667 using AISI Type 304 or 316 Stainless Steel
ii. Fasteners utilizing dissimilar materials are prohibited.
iii. Power driven fasteners comply with NDS NER-272.
iv. Fastener installation whether power driven or otherwise shall be in accordance with the Building Code and the manufacturer's recommendations. In general fastener heads shall be installed nominally flush with the outer ply of the connection. Sheathing and support framing damaged by overdriven fasteners shall be removed and replaced.
v. Aluminum fasteners and flashing shall not be in contact with pressure treated lumber.

- 3. General:
a. All light framed wood construction shall be fastened as indicated on the plans. Connections not detailed shall be fastened in accordance with the table below.
b. All framing in direct contact with water, soil, concrete, masonry, or permanently exposed to weather shall be preservative treated lumber in accordance with the AWPA Standard U1 and M4
c. All framing indicated to be fire-retardant treated or fire resistive on the drawings (Architectural or Structural) shall comply with AWPA U1 UCFA, Type A or ICC-ES ESR 2645 and shall have UL FR-S surface burning characteristics.
d. All wood shall be stored on site and protected from the elements to prevent warping, cupping, bowing, crooking and twisting. Use only material that is straight. All stored wood shall be held off the ground with sacrificial damage blocks.
e. Wood connectors shall be installed to prevent wood from splitting or otherwise damaging either member.
f. Use 4x4, 4x6 and 6x6 columns as shown on plans. Built-up sections of 2x studs shall not be substituted for timber posts.
g. All multi-ply beams, joists and headers shall be fastened together.
h. Fasten sawn lumber members per schedule below.
i. Fasten structural composite lumber per manufacturer's literature.
j. Standard cut washers shall be used under bolt heads and nuts bearing against wood, unless noted otherwise per shear wall anchorage details.
k. Wood joists shall bear on the full width of supporting members (stud walls, beams, nailers, etc.) unless noted otherwise.
l. Subject to compliance with the project requirements, wood connectors, joist hangers, post caps and bases, holdowns, and related hardware shall be manufactured by Simpson Strong-Tie Company, Inc. San Leandro, CA.
m. Contractor shall follow the manufacturer's latest recommendations for installation of connectors.
n. Other manufacturers may be acceptable. Submit substitution request demonstrating that the proposed hardware has the same or greater capacity for each connection. Allow two weeks for review.
o. All beams and joists not bearing on supporting members shall be framed with Simpson joist hangers. Use LU (or equal) for single joists and type LUS for double joists, unless noted otherwise. The joist hangers shall be installed using nails or screws supplied by the hanger manufacturer as required for the hanger type.
p. Bottom plates of all bearing walls on concrete shall be anchored with 5/8" diameter x 6" screw anchors spaced not more than 4'-0" o.c., unless noted otherwise. Sill plate anchors shall be located a maximum of 1'-0" from corners, ends of walls and sill plate splices. Provide (2) anchors minimum in each sill plate segment Refer to plans and details for shear wall anchorage requirements.
q. Nailers shall be anchored to steel beams and columns with 1/2" diameter A307 bolts with required washers at a maximum spacing of 24" on center (alternate sides), unless noted otherwise.
r. Wall studs, jamb studs, and beam support studs shall have adequate vertical blocking installed to transfer all vertical loads to the foundation.

- 4. Wood Floor and Roof Trusses:
a. Provide wood trusses capable of withstanding the design loads within the limits and under the conditions indicated. Truss design shall be in accordance with the Building Code and TPI-1 Nation Design Standard for Metal Plate Connected Wood Truss Construction.
b. Wood trusses shall be of sawn lumber with 2x nominal thickness.
c. In addition to the loads indicated, wood trusses shall be designed for all applicable wind, seismic, and snow (including drift) loads required by Building Code and noted in plan. Truss design and shop drawing preparation shall be supervised by a registered professional engineer licensed in the state where the project is located.
d. Submittals shall be signed and sealed and include comprehensive truss layout plans, design calculations that indicate species and grades of lumber, design stresses, size and type of connector plates used.
e. Fabricator shall determine truss diagonal locations. Truss configurations shown on drawings are diagrammatic only. Bearing points shall coincide with intersections of diagonals and chords.
f. Truss member design shall consider unbalanced snow load with full dead load, as well as full dead and snow load.
g. Roof trusses shall be designed for the following:
i. Dead load = 15 psf
ii. Live load = 20 psf, on the top chord horizontal projection
iii. Dead load = 10 psf on the bottom chord.
iv. Wind uplift = 15 psf.
v. End / Gable Wind Load = +13 psf
h. Floor trusses shall be designed for the following loads:
i. Dead Load = 25 psf + 15 psf partition dead load
ii. Live Load = 40 psf: Private Rooms, offices and corridors serving them
iii. = 100 psf: Common and public areas, including stairs and landings
iv. = 125 psf: Mechanical and communication rooms
i. The maximum allowable deflection shall be:
i. Roof Trusses: Total Load: L/360, Roof Live or Snow Load: L/360
ii. Floor Trusses: Total Load: L/360, Live Load: L/480
j. The manufacturer shall provide all open web trusses and accessories as shown on the structural and architectural drawings and as required for a complete project.
k. All truss to truss connections and truss to supporting member connections shall be designed and detailed by the truss supplier and the size and type of connectors included in the shop drawing submittal. Coordinate size, species and grade of supporting chord and web members with the truss hanger selected.
l. All temporary and permanent bracing shall be in accordance with the TPI standards for bracing. The bracing shall be furnished and installed by the Contractor. Do not use ceilings as uplift bracing at truss bottom chord.
m. Girder trusses shown on drawings shall be designed to carry concentrated reactions from supported members.
n. Wood trusses shall be handled and erected in accordance with TPI HB-91. Trusses shall be unloaded and stored in bundles in an upright position out of contact with the ground until ready for installation.
o. Any damage to the trusses shall be brought to the immediate attention of the Structural Engineer and truss supplier. Field repair and modification of trusses shall not be made with prior written approval from the supplier, except for nominal trimming to correct length where such trimming will not impair the load carrying capacity of the truss.

H. WOOD SHRINKAGE

- 1. IBC 2304.3.3 requires that architectural, mechanical, electrical, and plumbing systems be designed to accommodate movement due to shrinkage. McClure Engineering Co. takes no responsibility for the naturally occurring shrinking that will occur.
2. Estimated values are based upon the following moisture content:
a. At installation (MC) = 19%
b. At equilibrium (EMC) = 8%
3. The following recommendations are intended to minimize the potential issues associated to wood shrinkage. Implementation and liability are ultimately up to the contractor or design professional responsible for the impacted trade.
a. Mechanical, Electrical, Plumbing
i. Allow construction gaps in the wood framing to close by delaying installation of MEP as long as possible to allow for additional dead load to be installed.
ii. Provide oversized or long slotted holes at pipe penetrations. Holes must be within conformances of typical penetration details.
iii. Rigid connections shall be adjusted before completion of construction of closing of wall and ceiling assemblies.
iv. All vertical sheet metal down spouts shall have intermediate slip joints.
v. Roof Drains shall utilize adjustable fittings. Fittings must be adjusted at the completion of construction and then as required to maintain proper drainage.
b. Architectural Considerations
i. Stucco, EIFS and brittle finishes shall have horizontal expansion joints, slip joints with appropriate waterproofing.
ii. Brick and stone finishes shall have ties that accommodate differential movement.
iii. Provide adjustable thresholds or transitions at rigid transitions such as CMU or concrete stair and elevator shafts.
c. Construction tolerance
i. Limit shortening due to nesting by cutting all studs level square and tight against plates.
ii. Structural wood panels shall have 1/4" relief gaps at each floor to limit bulging.
iii. Floor sheathing shall have 1/8" gaps on all sides during installation to accommodate movement.
iv. Shear wall hold downs shall be checked and retightened immediately prior to sheathing walls.
v. Delay gyp topping around concrete and CMU stair or elevator shafts until completion of construction.
d. Material storage
i. Stored materials shall be covered and elevation from the elements.
ii. Do not allow water to pond on floor sheathing. Provide drain holes if required to allow water to quickly drain if water does temporarily pond.
e. Post occupancy
i. McClure recommends a review of roof drains every 3 months for the first 24 months of occupancy and then annually. Adjust drains as required to maintain watertight integrity.
ii. McClure recommends review of joints at exterior doors, windows and finish transitions. Waterproof as needed where original joints fail per the architect's recommendations.
iii. Remedial self-leveling work may be required around concrete or CMU stair and elevator towers to accommodate shrinkage.

I. POST-INSTALLED ANCHORS TO CONCRETE AND MASONRY

- 1. Post installed anchors shall be expansion, adhesive, or screw anchors as indicated in the details, unless noted otherwise. Only use the anchor type indicated. All anchors on the project of each type must be by the same manufacturer; see below for substitution requirements.
a. Expansion anchors:
i. Concrete:
Hilti Kwik Bolt TZ (ICC-ES ESR1917),
Simpson Strong-Bolt 2 (ICC-ES ESR3037),
Powers Power-Stud+ SD2 (ICC-ES ESR2502)
b. Adhesive anchors (threaded rods shall be ASTM A193 B7 for all anchors):
i. Concrete:
Hilti HIT RE 500-SD (ICC-ES ESR2322) or Hilti HIT-HY 200 (ICC-ES ESR3187),
Simpson AT-XP (UES ER263), SET-XP (ICC-ES ESR2508) or ET-HP (ICC-ES ESR3372),
Powers Pure 110+ (ICC-ES ESR3298), PE1000+ (ICC-ES ESR2583), Pure 50+ (ICC-ES ESR3576), AC 200+ (ICC-ES ESR4027), or AC100+ Gold (ICC-ES ESR2582)
c. Screw anchors:
i. Concrete:
Hilti Kwik HUS EZ (ICC-ES ESR3027),
Simpson Titen HD (ICC-ES ESR2713),
Powers Wedge-Bolt+ (ICC-ES ESR2526)
2. Post-installed anchors shall only be used where specified in the drawings. The Contractor shall obtain approval from the engineer prior to using post-installed anchors for missing or misplaced cast-in-place anchors.
3. All personnel installing anchors shall be trained and certified by the anchoring system manufacturer or by ACI. Contractor shall submit current certifications for all personnel. ACI certification required for all personnel installing adhesive anchors in a horizontal or overhead conditions. If a failure occurs at any time during testing or construction, personnel shall be retrained and recertified.
Installation:
a. Do not cut existing reinforcing.
b. The hole through the supported steel member shall be 1/16" larger in diameter (1/8" for screw anchors) than the anchor unless noted otherwise. Use plate washers with a standard size hole welded to steel members where oversized holes must be used.
c. Holes shall be drilled per the manufacturer's written instructions as outlined in the ESR.
d. Where applicable, installation shall follow cleaning procedure indicated in the ESR. Holes shall be made with a hammer drill. Use of a core drill is not allowed.
5. Special inspection shall be provided for all post installed anchors as required by the building code and/or ICC-ES report. Written special inspection reports shall be submitted to the registered design professional in responsible charge by the special inspector. The reports shall record and report the following as a minimum:
a. One of every ten anchors installed by each technician in locations listed below shall be randomly tested in direct tension. At least one anchor shall be tested on each day that anchors are installed.
i. Test anchors in the following locations:
Shear wall hold down anchors.
Shear wall sill plate anchors.
Braced frame base plate anchors.
Anchors supporting dead or live loads in tension.
ii. Test anchor to twice the allowable tension load as provided in the ESR. Test load shall not exceed 80 percent of the yield strength of the anchor (0.8 x A\_n x f\_u).
iii. Post-installed anchors shall not be tested using a torque wrench.
iv. If any anchor fails quality control testing, all anchors of the same type shall be randomly tested until (10) consecutive anchors pass. Resume normal frequency after this with approval of the engineer. The failed anchor(s) shall be removed and the affected area patched per engineer's direction. Consult the engineer for anchor replacement instructions. The cost for additional work and testing required due to anchor failure is the responsibility of the installing contractor.
b. Prior to and during installation of anchors, inspection and report shall include:
i. Installer shall have reviewed manufacturer's ESR report and written installation procedures and has been certified by the manufacturer or ACI.
ii. General concrete or CMU block conditions (cracked or un-cracked, wet or dry, grouted or hollow, etc).
iii. Whether manufacturer's written procedures for preparation of hole were followed. Indicate if hole is wet or dry.
iv. Whether hole was made with a hammer drill
v. Whether manufacturer's written procedures for anchor installation were followed.
vi. Embedment depth and concrete or block thickness.
vii. Anchor diameter, length and type.
c. After installing anchors, inspection and report shall include:
i. All test locations.
ii. Anchor size and/or type.
iii. Applied load, loading procedure, load increments and rate of loading.
iv. Mode of failure.
v. Photographs of test equipment and typical failures.
6. Substitution requests for products other than those listed above shall be submitted to the engineer with calculations that are prepared and sealed by a registered structural engineer at least two weeks prior to scheduled installations. Calculations shall demonstrate that the substituted product will achieve an equivalent capacity using the appropriate design procedure required by the building code. Product ICC-ES code reports shall be included with the submittal package.

J. STRUCTURAL STEEL

- 1. Materials:
a. Materials shall conform to the following, unless noted otherwise.
i. Rolled W/F shapes .....ASTM A36
ii. Plates and Angles .....ASTM A572 Grade 50
iii. Channels .....ASTM A36
iv. HSS: Rectangular .....ASTM A500, Grade C
v. HSS: Round .....ASTM A500, Grade C
vi. Bolts .....ASTM F3125
1. All bolts shall be Grade A325 or F1852, UNO
2. Bolts designed as "A490" shall be Grade A490 or F2280
vii. Nuts .....ASTM A563 DH or A194
viii. Washers .....ASTM F436
ix. Anchor Bolts .....ASTM F1554 Grade 36, UNO
x. Threaded Rod .....ASTM A36
xi. Studs .....ASTM A108, Type B Nelson headed shear stud connectors or equal.
xii. Electrodes .....Matching weld metal, 70 ksi minimum strength.
b. Finishes
i. Prepare all surfaces that will be exposed in accordance with SSPC SP3 "Power Tool Cleaning".
ii. Do not prime surfaces to be fireproofed, field welded, in contact with concrete, or high-strength bolted.
iii. All exterior steel components exposed to view or weather shall be galvanized in accordance with ASTM A123 for framing members and ASTM A153 for bolts and threaded fasteners.
iv. All exterior welded connections shall be cold galvanized in accordance with ASTM A780.
2. Fabricator:
a. Steel Fabricator shall be AISC Certified.
b. Structural members shall be detailed, fabricated, and erected in accordance with the latest edition AISC 303 "Code of Standard Practice for Steel Buildings and Bridges."
c. Structural steel fabrication drawings must be submitted to the engineer for review prior to fabrication.
d. The Fabricator shall engage a professional engineer registered in the state where the project is located for the design and detailing of:
i. Steel Stairs
ii. Temporary bracing.
3. Connections:
a. The contractor has the option to use bolted or welded connections. Any connections not specifically detailed on the drawings shall be designed by a professional structural engineer licensed in the project state and retained by the fabricator. In general, any connections shown on the drawings are schematic and are intended to show only the relative relationship of the connected members.
b. Structural design calculations for all beam and bracing connections shall be submitted to the engineer prior to fabrication and should include the following (as a minimum):
i. All plate dimensions and grades (minimum plate thickness shall be 3/8").
ii. All weld sizes, lengths, pitches and returns.
iii. Number and type of bolts.
c. Bolted Connections:
i. Minimum bolt diameter shall be 3/4".
ii. Slip critical connections shall be used for bracing members, moment-resisting connections, cantilevers, and as indicated on the drawings. Standard oversized and long-slotted holes are permitted for friction-type connections.
iii. All non-slip-critical connections shall be typical bearing type. Oversized or slotted holes are not permitted unless indicated on the drawings.
iv. The fabricator is responsible for verifying the tensile capacity of axially loaded members with the presence of bolt holes. Increase member size; add plates (etc) as required.
d. Welded Connections:
i. All fillet welds shall be sized according to AISC minimums, but never less than 3/16" (UNO).
ii. All welds shall be performed in accordance with the latest edition of the AWS Structural Welding Code.
4. Erection:
a. All structural steel to be fabricated and erected in accordance with latest AISC specifications.
i. It is the responsibility of the contractor to ensure that structure is maintained in a safe, stable configuration at all times.
ii. Any shoring required shall be submitted with engineering calculations for approval.
b. Splicing of steel members not specifically shown on the drawings is prohibited without prior approval from the engineer.
c. All beams shall be installed with the mill camber up.
5. Steel Lintels:
a. Loose lintels for masonry at all openings shall be the following, one angle per 4" wythe of masonry:
i. L 3-1/2 x 3-1/2 x 5/16 for spans less than 5'-9"
ii. L 5 x 3-1/2 x 5/16 for spans between 5'-9" and 7'-11"
iii. L 6 x 3-1/2 x 5/16 for spans between 8'-0" and 9'-7"
iv. L 7 x 4 x 3/8 for spans between 9'-8" and 11'-10"
b. Lintel sizes are based on 36 psf brick weight with 8'-0" max height of brick above the lintel.
c. Lintels shall bear 8" minimum each end.
d. Lintels carrying brick shall be galvanized.
e. All double angle lintels back-to-back shall be bolted at 32" o.c. maximum spacing, with 5/8" diameter A307 bolts, a minimum of two bolts per span.
f. See architectural and mechanical drawings for opening sizes and locations.
6. Steel Stairs:
a. Design of steel stairs shown on drawings is the responsibility of the fabricator.
b. Unless noted otherwise, treads and landings shall be filled with 2 in. of concrete (4,000 psi).
c. Submit complete, sealed, shop drawings including engineering calculations for each stair. Drawings shall include all members and connections, including connections to supporting structure.
d. Unless noted, all connections to steel structure shall be welded and all connections to wood shall be post-installed anchors (screw or bolt).
e. Supporting members have been designed for all loads imposed by stair system.
f. Check supporting members for local effects at connections and provide stiffeners, doublers, etc. as necessary.
g. Design stairs for the following loads:
i. Live Load = 100 psf or 300 lb. point load on 4" square area.
ii. Dead Load = Self weight plus 10 psf superimposed dead load.
g. Design stairs for the following deflection criteria:
i. Live Load = L/480
ii. Total Load = L/360

Schedule of minimum nailing for standard connections. Table with columns for connection types (Joist to band joint, Ledger strip, etc.) and rows for nailing requirements (Number, or spacing, of fasteners required per connection).

N/A = Fastener not applicable to connection
\*This fastening schedule applies to framing members having an actual thickness of 1 1/2"(Nominal "2-by" lumber)
\*Fastenings listed above may also be used for other connections that are not listed but that have the same configuration and the same code requirement for fastener quality/spacing and fastener size (penweight and style, e.g., flat common, "B-penny common nail").
\*Fastening schedule only applies to buildings of conventional wood frame construction. Connections of shear walls and floor and roof diaphragms shall be as shown on the drawings.



NOTICE: McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY NO. E-1790 EXPIRES: DECEMBER 31, 2025

FOR REVIEW ONLY NOT FOR CONSTRUCTION

MARCUS HIMMELBERG 17369 12/31/2024 I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

Table with 3 columns: No., Description, Date. Multiple empty rows for project details.

PROJECT NUMBER 2024000185 SET ISSUE DATE ENGINEER MDH DRAWN BY CEL CHECKED BY IWC

JONES GILLAM RENZ THE RESERVES AT GRAND VIEW HEIGHTS LARAMIE, WY GENERAL NOTES

STATEMENT OF SPECIAL INSPECTIONS

Project Name: Grand View Heights, The Reserves Address: New Apt. Complex, Laramie, WY 82070

1. This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspector to be retained for conducting these inspections and tests. This Statement of Special Inspections encompasses the following disciplines:

- o Architectural
o Mechanical/Electrical/Plumbing
o Other:

2. The Special Inspector shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

3. Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

4. A Final Report of Special Inspections documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

5. Job site safety and means and methods of construction are solely the responsibility of the Contractor. This Statement of Special Inspections includes the following building systems:

- x Fabricators
x Cast-In-Place Foundations Elements
o Helical Pile Foundations
x Concrete Construction
o Masonry Construction - Level 3
o Cold-Formed Steel Construction
o Spray Fire-Resistant Materials
o Exterior Insulation and Finish System (EIFS)
o Smoke Control
x Seismic Resistance
x Soils
o Driven Deep Foundation Elements
o Cast-In-Place Deep Foundation Elements
o Masonry Construction - Level 2
x Structural Steel Construction
o Metal Building Systems
x Wood Construction
o Mastic and Intumescent Fire-Resistant Coatings
o Fire-Resistant Penetrations and Joints
x Wind Resistance

6. The following components are wind-resisting components or part of the main wind-force resisting system and are subject to special inspections in accordance with the Special Inspection Schedule - Wind Resistance:

Wood framed shear walls with wood sheathing and sheathing of other materials, wood sheathed floor and roof diaphragms.

7. The following components are designated seismic systems or part of the seismic-force resisting system that are subject to special inspections in accordance with the Special Inspection Schedule - Seismic Resistance:

Wood framed shear walls with wood sheathing and sheathing of other materials, wood sheathed floor and roof diaphragms.

Special Inspection Schedule: Fabricators

Table with 4 columns: Verification And Inspection Task, Applicable To This Project?, Frequency (Continuous, Periodic). Rows include Steel Construction, Concrete Construction, Masonry Construction, Wood Construction, Cold Formed Metal Construction, and Other Construction.

Special Inspection Schedule: Soils

Table with 4 columns: Verification And Inspection Task, Applicable To This Project?, Frequency (Continuous, Periodic). Rows include Verify materials below shallow foundations, Verify excavations, Perform classification and testing, Verify use of proper materials, and Prior to placement of compacted fill.

Special Inspection Schedule: Cast-In-Place Foundation Elements

Table with 4 columns: Verification And Inspection Task, Applicable To This Project?, Frequency (Continuous, Periodic). Rows include Special Inspections and verifications for concrete foundation construction, Isolated spread concrete footings, Continuous concrete footings supporting walls, and Concrete foundation walls.

Special Inspection Schedule: Concrete Construction

Table with 4 columns: Verification And Inspection Task, Applicable To This Project?, Frequency (Continuous, Periodic). Rows include Inspect reinforcing steel, Inspect welding, Inspect anchors cast in concrete, Inspect anchors post-installed, Verify use of required design mix, Inspect concrete and shotcrete placement, Inspect for maintenance of curing, Inspect of Prestressed Concrete, Inspect erection of precast concrete members, Verify in-situ concrete strength, and Inspect formwork.

Special Inspection Schedule: Structural Steel Construction

Table with 4 columns: Verification And Inspection Task, Applicable To This Project?, Frequency (Continuous, Periodic). Rows include Material verification of high-strength bolts, Inspection of high-strength bolting, Material verification of structural steel, Material verification of weld filler materials, Inspection of welding, and Inspection of steel frame joint details.

Special Inspection Schedule: Wood Construction

Table with 4 columns: Verification And Inspection Task, Applicable To This Project?, Frequency (Continuous, Periodic). Rows include Inspection of high-load diaphragms, Inspection of metal-plate-connected wood trusses, and Verify temporary installation restraint/bracing.

Special Inspection Schedule: Wind Resistance

Table with 4 columns: Verification And Inspection Task, Applicable To This Project?, Frequency (Continuous, Periodic). Rows include Roof cladding and roof framing connections, Wall connections to roof and floor diaphragms, Roof and floor diaphragm systems, Vertical wind force resisting systems, Wind force resisting system connections, Fabrication and installation of systems, Inspection of structural wood, Inspection of cold-formed steel light frame construction, and Wind resistant systems and components.

Special Inspection Schedule: Seismic Resistance

Table with 4 columns: Verification And Inspection Task, Applicable To This Project?, Frequency (Continuous, Periodic). Rows include Inspection of pier foundations, Inspection of concrete reinforcement, Inspection of structural steel, Inspection of cold-formed steel framing, Inspection of structural wood, Inspection of storage racks, Inspection of architectural components, Inspection of designated seismic systems, and Inspection of seismic isolation systems.



NOTICE: McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey...

WYOMING CERTIFICATE OF AUTHORITY NO. E-1790 EXPIRES: DECEMBER 31, 2025

FOR REVIEW ONLY NOT FOR CONSTRUCTION

MARCUS HIMMELBERG 17369 12/31/2024

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

Table with 3 columns: No., Description, Date. Empty rows for project notes.

PROJECT NUMBER 2024000185 SET ISSUE DATE

ENGINEER MDH DRAWN BY CEL CHECKED BY IWC

JONES GILLAM RENZ THE RESERVES AT GRAND VIEW HEIGHTS LARAMIE, WY

SPECIAL INSPECTIONS



WOOD WALL SCHEDULE				
Wood Wall Location	Stud Spacing	Level 1	Level 2	Level 3
Exterior & Breezeway Walls	24" o.c.	(1) 2x6	(1) 2x6	(1) 2x6
Interior Unit Walls (indicated)	16" o.c.	(2) 2x4*	(1) 2x4*	(1) 2x4
Unit Separation Walls	16" o.c.	(1) 2x4	(1) 2x4	(1) 2x4

- Notes:
- Wall stud spacing is to be per schedule unless noted otherwise.
  - Bottom sill plates at foundation to be fastened w/ 3/8"Ø x 3-1/2" Hilti Kwik HUS EZ Bolts @ 48" o.c. U.N.O.
  - Bottom sill plate connections shall have a 3"x3" steel plate washer at each anchor bolt on shear walls only.
  - Sill and top plates at all other levels to be fastened w/ (2) 16d nails @ 16" o.c. U.N.O.
  - Shear walls shall be sheathed per shear wall schedule
  - Non-load bearing walls not shown, refer to architectural drawings.
  - All top plates are to be continuous. Splice per 4/S500
  - U.N.O. bottom sill plates shall be (1) 2x member matching wall thickness, and top plates shall be (2) 2x members.
  - \* Indicates studs are spaced at 12" o.c.

TYPICAL WALL HEADER SCHEDULE (STACKED OPENINGS)												
Opening Mark	Max. Span (ft-in)	Header				Kings & Jacks						Sills* All Levels (if applicable)
		Level 1	Level 2	Level 3	Header Plates (All Levels)	Level 1		Level 2		Level 3		
						Kings	Jacks	Kings	Jacks	Kings	Jacks	
H1	4'-2"	(2) 2x10**	(2) 2x10**	(2) 2x8**	(1) 2x4 T&B	(3) 2x4	(1) 2x4	(2) 2x4	(1) 2x4	(1) 2x4	(1) 2x4	(1) 2x4
H2	3'-4"	(2) 2x8**	(2) 2x8**	(2) 2x8**	(1) 2x6 T&B	(2) 2x6	(1) 2x6	(2) 2x6	(1) 2x6	(2) 2x6	(1) 2x6	(1) 2x6
H3	6'-4"	(2) LVL 1-3/4 x 11-7/8	(2) LVL 1-3/4 x 11-7/8	(3) 2x8	(1) 2x6 T&B	(2) 2x6	(1) 2x6	(2) 2x6	(1) 2x6	(2) 2x6	(1) 2x6	(1) 2x6

H = An opening which requires a header

- Notes:
- See S500 for typical opening framing.
  - All openings should stack according to the plans.
  - Coordinate all dimensions and elevations with architectural drawings.
  - Cripple studs should match the adjacent wall framing.
  - \* Header top and bottom plates and sills should match the adjacent wall studs.
  - \*\* Indicates headers that do not require top and bottom plates.
  - All LVL shall be stress class 2.0E-2500F

WOOD POST SCHEDULE			
Mark	Level 1	Level 2	Level 3
C1	(3) 2x6	(3) 2x6	(3) 2x6
C2	(4) 2x4	(3) 2x4	(3) 2x4

- Notes:
- All exterior columns are to be pressure treated

JOIST & HANGER SCHEDULE	
Joist Size	Hanger
2x12	LUS28

- Notes:
- Hangers to be installed with typical fasteners per manufacturer product data
  - All exterior members are to be pressure treated

WOOD BEAM SCHEDULE			
Mark	Max. Span (ft-in)	Beam Size	Hanger
B1	8'-6"	(2) 2x12	Simpson U210-2
B2	16'-3"	(3) 2x12 (SS)	Simpson HU212-3
B3	8'-6"	(2) 1 3/4"x11 1/2" LVL	Simpson HGUS410
B4	4'-2"	(2) 2x10	Simpson HUCQ210-2-SDS
B5	4'-2"	(2) 2x8	Simpson HU28-2

- Notes:
- All exterior beams are to be pressure treated.
  - All LVL shall be stress class 2.0E-2500F
  - Hangers to be installed with typical fasteners per manufacturer product data

FLOOR AND ROOF SCHEDULE				
Type	Membrane/Sheathing	Fastening	Concrete/Topping	Reinforcing
Slab on Grade	10mil Vapor Retarder	Taped Edges	4" NW Concrete U.N.O.	see General Notes
Breezeway Floor	3/4" Plywood	10d @ 6/12	1 1/2" Gypcrete Topping	see General Notes
Interior Floors	3/4" Plywood	10d @ 6/12	3/4" Gypcrete Topping	---
Roof	15/32" Plywood	10d @ 6/12 UNO	---	---

- Notes:
- Vapor barrier to be placed over compacted fill per general notes.
  - Plywood sheathing to be fastened per detail 2/S500
  - Floor/Roof diaphragm assumed unblocked unless noted otherwise on plan.
  - Plywood to be Grade 1 Material
  - See architectural drawings for full floor and roof assemblies including nonstructural elements.

WOOD SHEAR WALL SCHEDULE						
Mark	Level	Sheathing/ Fastener Layout	Post	Hold-Down	Min. Sill/Top Plate	Base Connection
SW1	Level 3	(1) Sided, Wood Structural Panels - S1 - 15/32" Thick, 10d Nail, 6" Edge fastening Unblocked	(2) 2x6	MSTA 49 w/ (26) 0.148X2-1/2" nails	(1) 2x6	(2) 16d nails @ 12" o.c.
	Level 2	(1) Sided, Wood Structural Panels - S1 - 15/32" Thick, 10d Nail, 4" Edge fastening	(2) 2x6	MST48 w/ (34) 0.162x2-1/2" nails	(1) 2x6	(2) 16d nails @ 6" o.c.
	Level 1	(1) Sided, Wood Structural Panels - S1 - 15/32" Thick, 10d Nail, 3" Edge fastening	(2) 2x6	HTT4 w/ (18) SD #10x1-1/2 & 5/8"Ø Anchor Rod	(1) 2x6	(1) HILTI KH-EZ 1/4"Øx 4" @ 6" o.c.
SW2	Level 3	(1) Sided, Gypsum Wallboard - 1/2" Thick, 5d Nail, 7" Edge Fastening, 16" O.C. Unblocked	(2) 2x4	LSTA9 w/ (8) 0.148"x2-1/2" nails	(1) 2x4	(2) 16d nails @ 16" o.c.
	Level 2	(2) Sided, Gypsum Wallboard - 1/2" Thick, 5d Nail, 7" Edge Fastening, 16" O.C. Blocked	(2) 2x4	MSTA 49 w/ (26) 0.148X2-1/2" nails	(1) 2x4	(2) 16d nails @ 12" o.c.
	Level 1	(2) Sided, Gypsum Wallboard - 5/8" Thick, 6d Nail, 4" Edge Fastening, 16" O.C. Blocked	(3) 2x4	HTT4 w/ (18) SD #10x1-1/2 & 5/8"Ø Anchor Rod	(1) 2x4	(1) HILTI KH-EZ 1/4"Øx 4" @ 8" o.c.
SW3	Level 3	(1) Sided, Wood Structural Panels - S1 - 15/32" Thick, 10d Nail, 6" Edge fastening	(2) 2x6	MSTA 49 w/ (26) 0.148X2-1/2" nails	(1) 2x6	(2) 16d nails @ 12" o.c.
	Level 2	(1) Sided, Wood Structural Panels - S1 - 15/32" Thick, 10d Nail, 3" Edge fastening	(2) 2x6	MST60 w/ (46) 0.162x2-1/2" nails	(1) 2x6	(2) 16d nails @ 4" o.c.
	Level 1	(1) Sided, Wood Structural Panels - S1 - 15/32" Thick, 10d Nail, 2" Edge fastening	(2) 2x6	HDU8-SDS2.5 w/ (20) 1/4"Øx2-1/2"SDS Screws & 7/8"Ø Anchor Rod	(1) 2x6	(1) HILTI KH-EZ 1/4"Øx 4" @ 4" o.c.

- Notes:
- See S530 for typical shear wall framing
  - All hold down anchors to be welded to embeds or beams as detailed.
  - All threaded rods shall be F1554 GR105
  - Floor to floor strap ties at top of wall shall match that of the floor above.
  - All hold downs and strap ties are Simpson Strong-Tie brand, U.N.O.
  - Bottom sill plate connections shall have a 3"x3"x1/4" steel plate washer at each anchor bolt on shear walls only.
  - All drag trusses shall be connected to shear walls per detail 4/S530.
  - Provide floor to floor strapping on the same side as the OSB sheathing.
  - Field fastening for all sheathing to be 12" O.C. U.N.O
  - All shear walls to be blocked at all pael joints unless noted "Unblocked."

NOTICE:  
McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses collectively, "Losses" which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
NO. E-1790  
EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
17369  
12/31/2024

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE  
ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
THE RESERVES AT GRAND VIEW HEIGHTS  
LARAME, WY**

**SCHEDULES**

**FRAMING PLAN LEGEND:**

- (H?#) HEADER/OPENING PER OPENING SCHEDULE
- (SW?) SHEAR WALL TYPE, SHEAR WALL INDICATED BY
- (F?) INDICATES FOOTING TYPE
- C# INDICATES COLUMN TYPE
- P\* JAMB FROM OPENING ABOVE

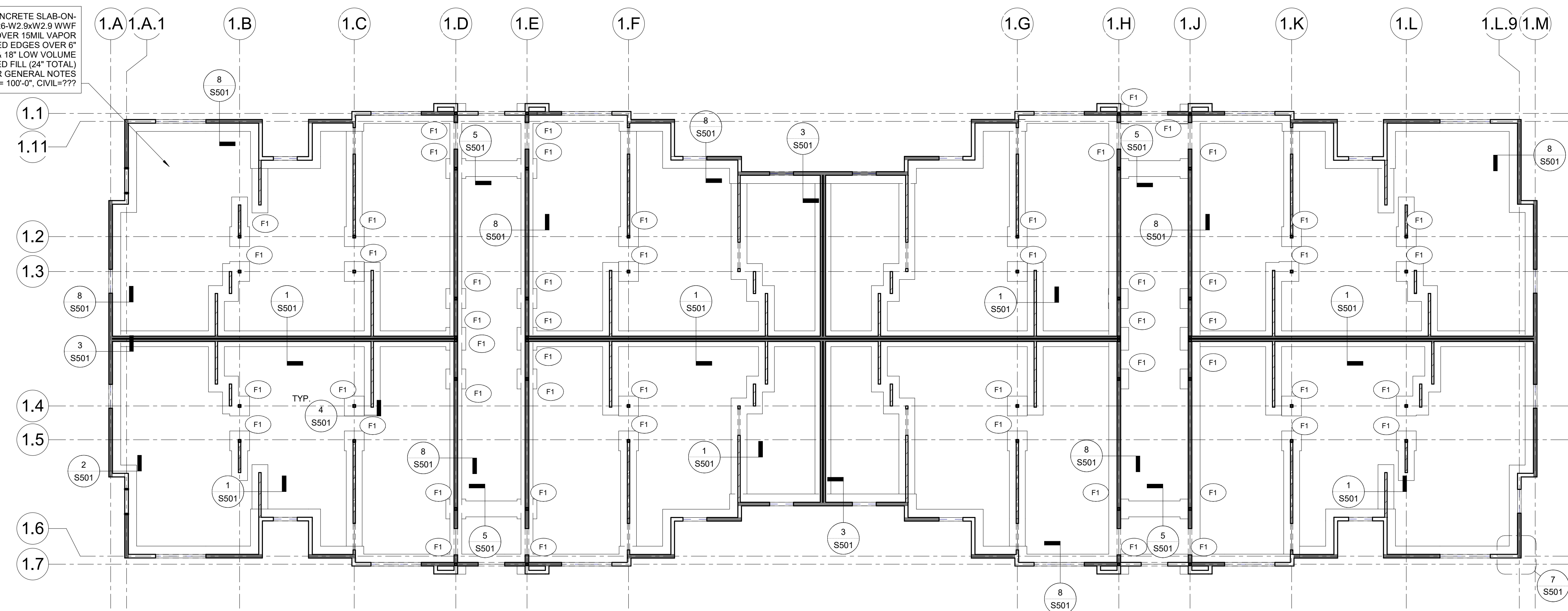
**FOUNDATION PLAN NOTES:**

1. SEE ARCHITECTURAL DRAWINGS FOR SITE PLAN BENCHMARK ELEVATION. FOR REFERENCE ELEVATIONS, SEE BELOW (VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS)
  - \* T.O. SLAB-ON-GRADE: 100'-0"
2. PROVIDE CONTROL JOINTS IN SLAB ON GRADE PER DETAIL 5/S501 AND PER GENERAL NOTES.
3. COORDINATE PLUMBING FIXTURES AND FLOOR DRAINS WITH ARCH. & MEP DRAWINGS.
4. ALL EXTERIOR AND INTERIOR LOAD BARING WALLS ARE PER WALL SCHEDULE ON SHEET S003. SEE ARCHITECTURAL FLOOR PLAN FOR NON-BEARING WALL, DOOR, AND WINDOW LOCATIONS.
5. REFER TO MANUFACTURER'S GUIDELINES FOR INSTALLATION OF STRAP TIES, HOLD DOWNS & OTHER CONNECTIONS.
6. SEE SHEET S501 & S502 FOR DETAILS.

FOUNDATION SCHEDULE		
Mark	Size	Reinforcing
F1	2'-6"x2'-6"x1'-0"	(3) #4 BARS Top & Bottom (Each Way)

Notes:  
 1. All footings must be centered on walls and columns U.N.O.

4" 4000PSI N.W. CONCRETE SLAB-ON-GRADE W/ 6x6-W2 9xW2 9 WWF CENTERED IN SLAB OVER 15MIL VAPOR BARRIER W/ TAPED EDGES OVER 6" AGGREGATE & 18" LOW VOLUME CHANGE COMPACTED FILL (24" TOTAL) PER GENERAL NOTES F.F. ELEV = 100'-0", CIVIL=???



**NOTICE:**  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
 17369  
 12/31/2024  
 I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE:  
 ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
 THE RESERVES AT GRAND VIEW HEIGHTS  
 LARAMIE, WY  
 BUILDING B - FOUNDATION**

P:\2024000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

1 BLDG B - FOUNDATION  
 S110 1/8" = 1'-0"

DRAWING NO.  
**S110**

**NOTICE:**  
McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
NO. E-1790  
EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
17369  
12/31/2024

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE:  
ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
THE RESERVES AT GRAND VIEW HEIGHTS  
LARAME, WY  
BUILDING B - LEVEL 1**

P:\2024000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

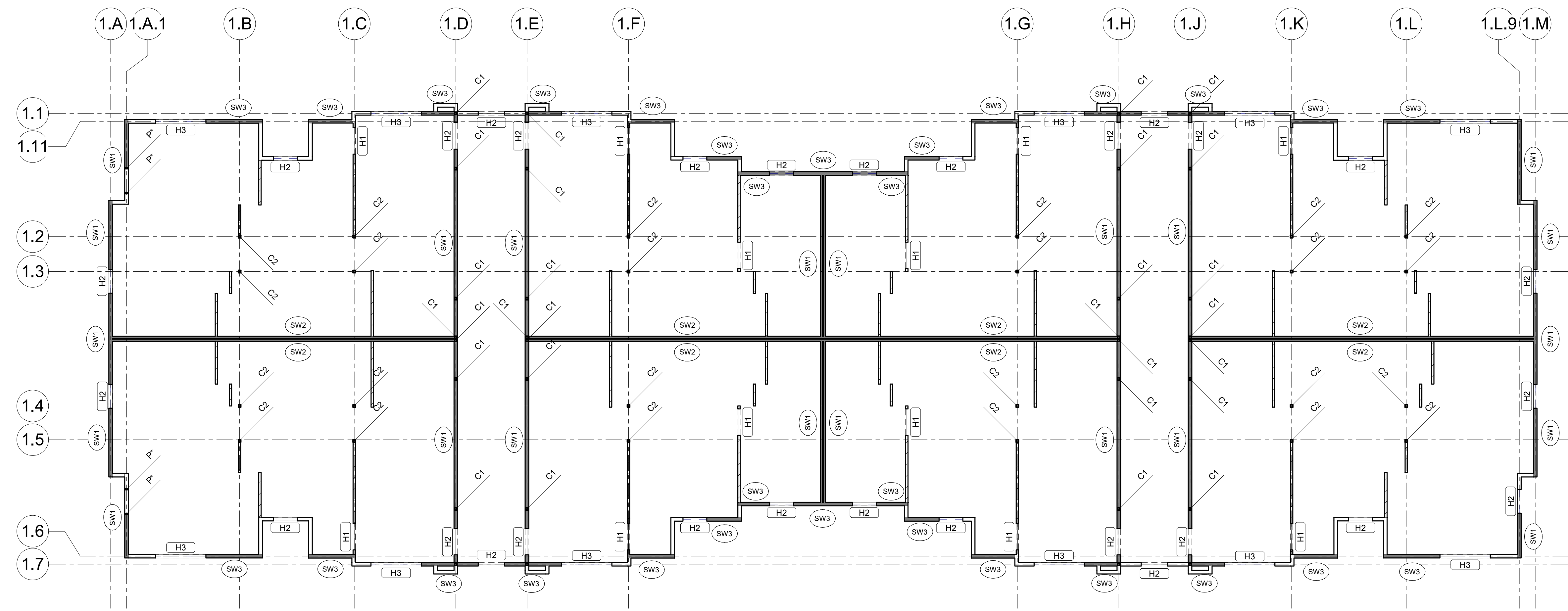
DRAWING NO.  
**S111**

**FRAMING PLAN LEGEND:**

- (H2#) HEADER/OPENING PER OPENING SCHEDULE
- (SW?) SHEAR WALL TYPE, SHEAR WALL INDICATED BY [Symbol]
- (F?) INDICATES FOOTING TYPE
- C# INDICATES COLUMN TYPE
- P# JAMB FROM OPENING ABOVE

**PLAN NOTES:**

- SEE ARCHITECTURAL DRAWINGS FOR SITE PLAN BENCHMARK ELEVATION. FOR REFERENCE ELEVATIONS, SEE BELOW (VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS)
  - T.O. SLAB-ON-GRAB: 100'-0"
  - LEVEL 2 F.F.: 110'-5 7/8"
  - LEVEL 3 F.F.: 120'-11 3/4"
  - TRUSS BRG: 130'-0 7/8"
- FLOOR SHEATHING: 3/4" STRUCTURAL GRADE PLYWOOD. FASTEN TO FRAMING W/ 10d COMMON NAILS SPACED 6" O.C. AT EDGES, 12" O.C. WITHIN FIELD.
- ROOF SHEATHING: 3/4" STRUCTURAL GRADE PLYWOOD. FASTEN TO FRAMING W/ 10d COMMON NAILS SPACED 6" O.C. AT EDGES, 12" O.C. WITHIN FIELD.
- COORDINATE PLUMBING FIXTURES, SHAFTS, AND FLOOR DRAINS WITH ARCH. & MEP DRAWINGS.
- ALL EXTERIOR AND INTERIOR LOAD BARING WALLS ARE PER WALL SCHEDULE ON SHEET S003. SEE ARCHITECTURAL FLOOR PLAN FOR NON-BEARING WALL, DOOR, AND WINDOW LOCATIONS.
- FLOOR PLAN SHOWS FRAMING FOR THE FLOOR INDICATED & VERTICAL FRAMING (WALLS, HEADERS, POSTS, COLUMNS) SUPPORTING THAT FLOOR. SEE ARCHITECTURAL DRAWINGS FOR ALL RAILING DETAILS. REFER TO GENERAL NOTES FOR DESIGN CRITERIA.
- REFER TO MANUFACTURER'S GUIDELINES FOR INSTALLATION OF STRAP TIES, HOLD DOWNS & OTHER CONNECTIONS.
- ALL EXTERIOR LUMBER (POSTS, BEAMS, DECKING, ETC.) TO BE TREATED.
- WOOD FLOOR TRUSSES TO BE DESIGNED BY MANUFACTURER AND ARE SHOWN FOR THE INTENT OF SPAN DIRECTION AND LOAD PATH ONLY. REFER TO GENERAL NOTES FOR DESIGN CRITERIA.
- TRUSS MANUFACTURER TO DESIGN & PROVIDE GIRDER TRUSSES AT ALL FLOOR OPENINGS & SPECIFY HANGERS FOR GIRDERS & SUPPORTED FRAMING.
- REFER TO ARCHITECTURAL PLANS FOR STAIR DIMENSIONS AND REQUIREMENTS. REFER TO STRUCTURAL GENERAL NOTES FOR STAIR DESIGN CRITERIA.



1 BLDG B - FIRST FLOOR FRAMING  
S111 1/8" = 1'-0"

**NOTICE:**  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
 17369  
 12/31/2024

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE: 12/31/2024  
 ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
 THE RESERVES AT GRAND VIEW HEIGHTS  
 LARAMIE, WY  
 BUILDING B - LEVEL 2**

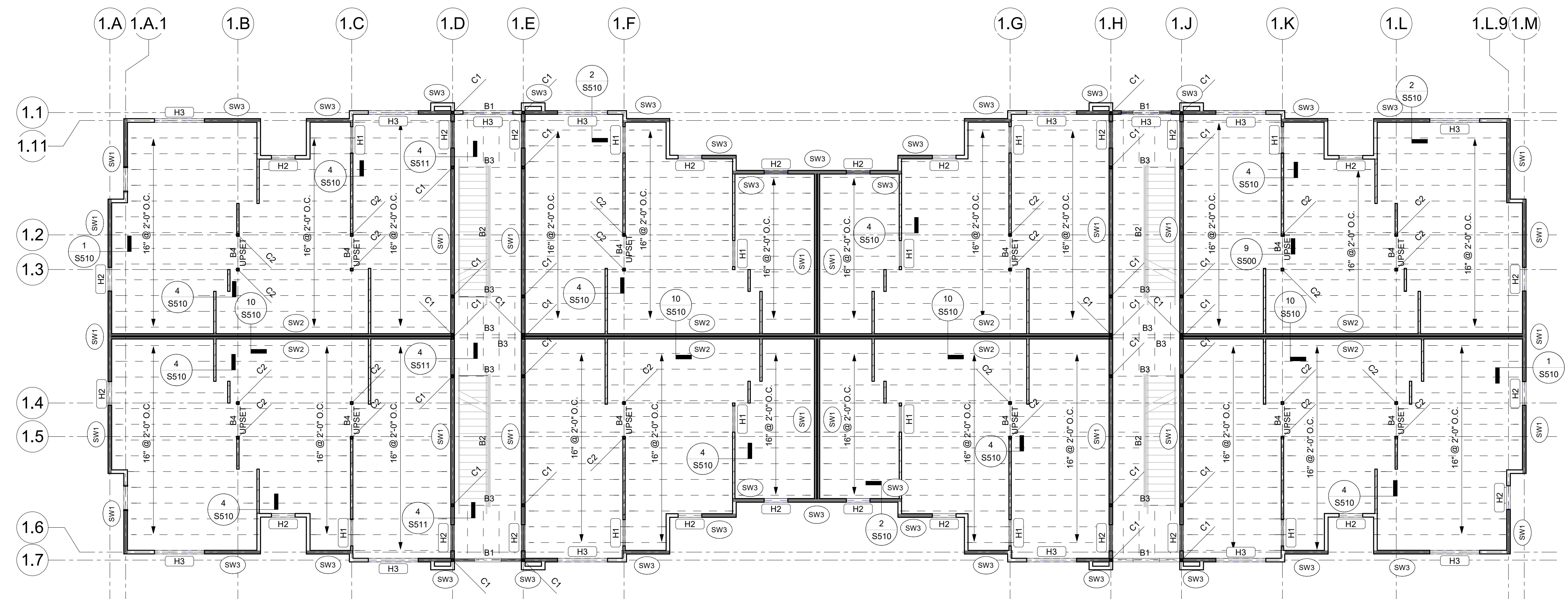
DRAWING NO. **S112**

**FRAMING PLAN LEGEND:**

- (H2#) HEADER/OPENING PER OPENING SCHEDULE
- (SW?) SHEAR WALL TYPE, SHEAR WALL INDICATED BY [Symbol]
- (F?) INDICATES FOOTING TYPE
- C# INDICATES COLUMN TYPE
- P# JAMB FROM OPENING ABOVE

**PLAN NOTES:**

- SEE ARCHITECTURAL DRAWINGS FOR SITE PLAN BENCHMARK ELEVATION. FOR REFERENCE ELEVATIONS, SEE BELOW (VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS)
  - T.O. SLAB-ON-GRADE: 100'-0"
  - LEVEL 2 F.F.: 110'-5 7/8"
  - LEVEL 3 F.F.: 120'-11 3/4"
  - TRUSS BRG.: 130'-0 7/8"
- FLOOR SHEATHING: 3/4" STRUCTURAL GRADE PLYWOOD. FASTEN TO FRAMING W/ 10d COMMON NAILS SPACED 6" O.C. AT EDGES, 12" O.C. WITHIN FIELD.
- ROOF SHEATHING: 3/4" STRUCTURAL GRADE PLYWOOD. FASTEN TO FRAMING W/ 10d COMMON NAILS SPACED 6" O.C. AT EDGES, 12" O.C. WITHIN FIELD.
- COORDINATE PLUMBING FIXTURES, SHAFTS, AND FLOOR DRAINS WITH ARCH. & MEP DRAWINGS.
- ALL EXTERIOR AND INTERIOR LOAD BARING WALLS ARE PER WALL SCHEDULE ON SHEET S003. SEE ARCHITECTURAL FLOOR PLAN FOR NON-BEARING WALL, DOOR, AND WINDOW LOCATIONS.
- FLOOR PLAN SHOWS FRAMING FOR THE FLOOR INDICATED & VERTICAL FRAMING (WALLS, HEADERS, POSTS, COLUMNS) SUPPORTING THAT FLOOR. SEE ARCHITECTURAL DRAWINGS FOR ALL RAILING DETAILS. REFER TO GENERAL NOTES FOR DESIGN CRITERIA.
- REFER TO MANUFACTURER'S GUIDELINES FOR INSTALLATION OF STRAP TIES, HOLD DOWNS & OTHER CONNECTIONS.
- ALL EXTERIOR LUMBER (POSTS, BEAMS, DECKING, ETC.) TO BE TREATED.
- WOOD FLOOR TRUSSES TO BE DESIGNED BY MANUFACTURER AND ARE SHOWN FOR THE INTENT OF SPAN DIRECTION AND LOAD PATH ONLY. REFER TO GENERAL NOTES FOR DESIGN CRITERIA.
- TRUSS MANUFACTURER TO DESIGN & PROVIDE GIRDER TRUSSES AT ALL FLOOR OPENINGS & SPECIFY HANGERS FOR GIRDERS & SUPPORTED FRAMING.
- REFER TO ARCHITECTURAL PLANS FOR STAIR DIMENSIONS AND REQUIREMENTS. REFER TO STRUCTURAL GENERAL NOTES FOR STAIR DESIGN CRITERIA.



1 BLDG B - SECOND & THIRD FLOOR FRAMING  
 S112 1/8" = 1'-0"

P:\2024000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

NOTICE:  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
 17369  
 12/31/2024  
 I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

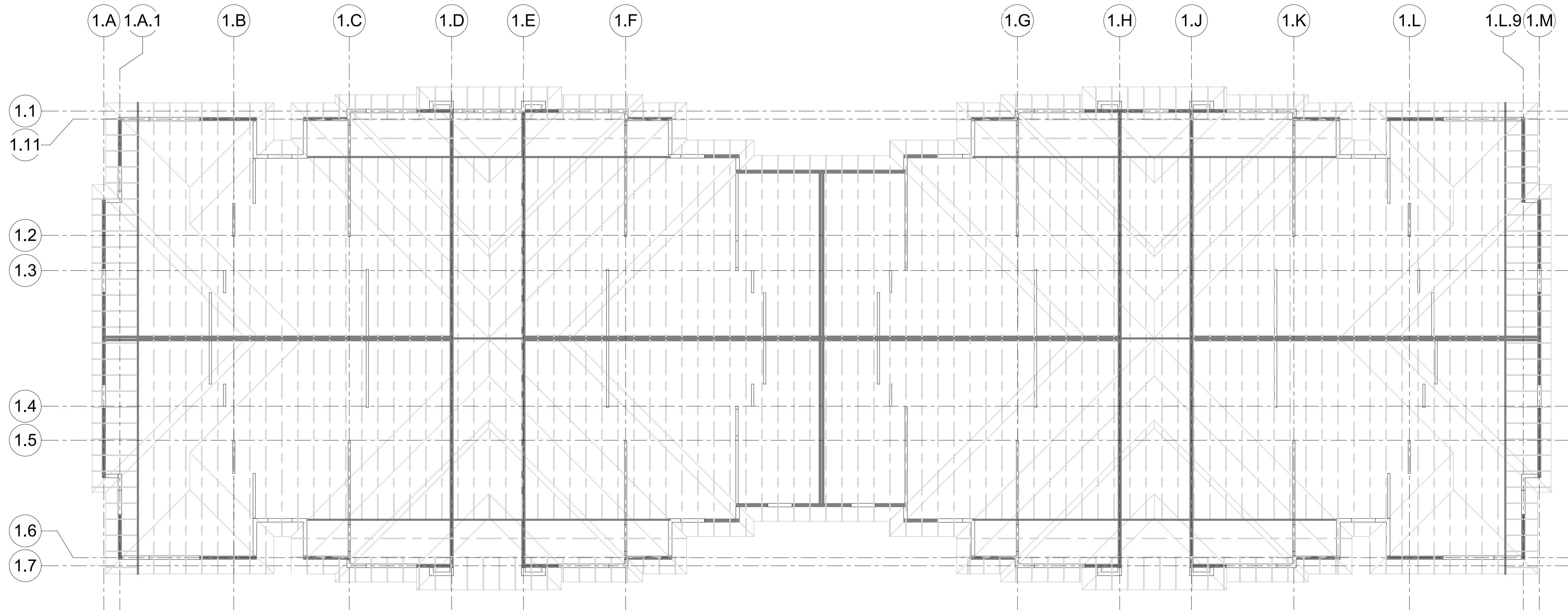
PROJECT NUMBER 2024000185	SET ISSUE DATE
ENGINEER MDH	DRAWN BY CEL
CHECKED BY IWC	

**JONES GILLAM RENZ**  
**THE RESERVES AT GRAND VIEW HEIGHTS**  
 LARAMIE, WY  
**BUILDING B - ROOF**

P:\2024\000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024\000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

**FRAMING PLAN LEGEND:**


- (H?)# HEADER/OPENING PER OPENING SCHEDULE
- (SW?) SHEAR WALL TYPE, SHEAR WALL INDICATED BY
- (F?) INDICATES FOOTING TYPE
- C# INDICATES COLUMN TYPE
- P\* JAMB FROM OPENING ABOVE



1 BLDG B - ROOF  
 S113 1/8" = 1'-0"



**FRAMING PLAN LEGEND:**

- (H?)# HEADER/OPENING PER OPENING SCHEDULE
- (SW?) SHEAR WALL TYPE, SHEAR WALL INDICATED BY 
- (F?) INDICATES FOOTING TYPE
- C# INDICATES COLUMN TYPE
- P\* JAMB FROM OPENING ABOVE

**FOUNDATION PLAN NOTES:**

- SEE ARCHITECTURAL DRAWINGS FOR SITE PLAN BENCHMARK ELEVATION. FOR REFERENCE ELEVATIONS, SEE BELOW (VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS)
  - T.O. SLAB-ON-GRADE: 100'-0"
- PROVIDE CONTROL JOINTS IN SLAB ON GRADE PER DETAIL 5/S501 AND PER GENERAL NOTES.
- COORDINATE PLUMBING FIXTURES AND FLOOR DRAINS WITH ARCH. & MEP DRAWINGS.
- ALL EXTERIOR AND INTERIOR LOAD BARING WALLS ARE PER WALL SCHEDULE ON SHEET S003. SEE ARCHITECTURAL FLOOR PLAN FOR NON-BEARING WALL, DOOR, AND WINDOW LOCATIONS.
- REFER TO MANUFACTURER'S GUIDELINES FOR INSTALLATION OF STRAP TIES, HOLD DOWNS & OTHER CONNECTIONS. SEE SHEET S501 & S502 FOR DETAILS.

FOUNDATION SCHEDULE		
Mark	Size	Reinforcing
F1	2'-6"x2'-6"x1'-0"	(3) #4 BARS Top & Bottom (Each Way)

Notes:  
1. All footings must be centered on walls and columns U.N.O.

**NOTICE:**  
McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
NO. E-1790  
EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
17369  
12/31/2024  
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

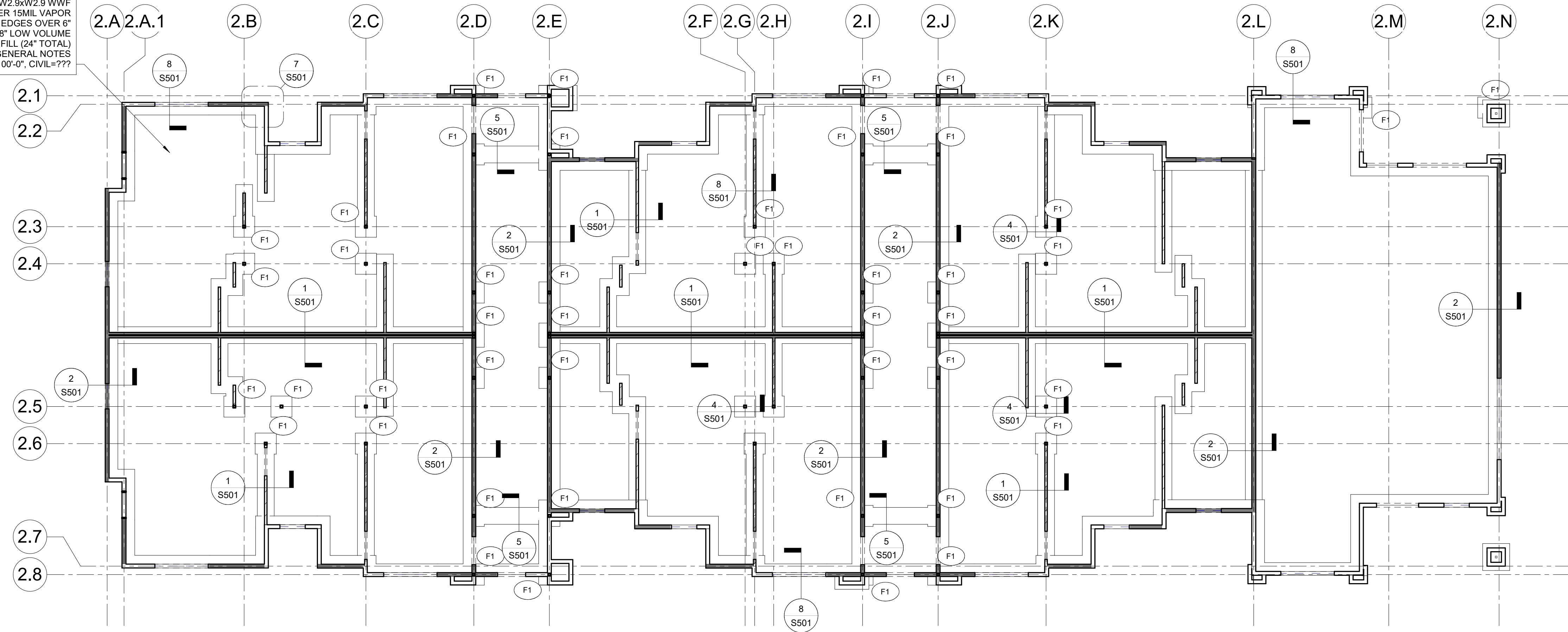
No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE:  
ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
THE RESERVES AT GRAND VIEW HEIGHTS  
LARAME, WY  
BUILDING A - FOUNDATION**

P:\2024000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

4" 4000PSI N.W. CONCRETE SLAB-ON-GRADE W/ 6x6-W2.9xW2.9 WWVF CENTERED IN SLAB OVER 15MIL VAPOR BARRIER W/ TAPED EDGES OVER 6" AGGREGATE & 18" LOW VOLUME CHANGE COMPACTED FILL (24" TOTAL) PER GENERAL NOTES  
F.F. ELEV = 100'-0", CIVIL=???



1 BLDG A - FOUNDATION  
S120 1/8" = 1'-0"

DRAWING NO.  
**S120**

**NOTICE:**  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
 17369  
 12/31/2024

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE:  
 ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
 THE RESERVES AT GRAND VIEW HEIGHTS  
 LARAMIE, WY  
 BUILDING A - LEVEL 1**

P:\2024000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

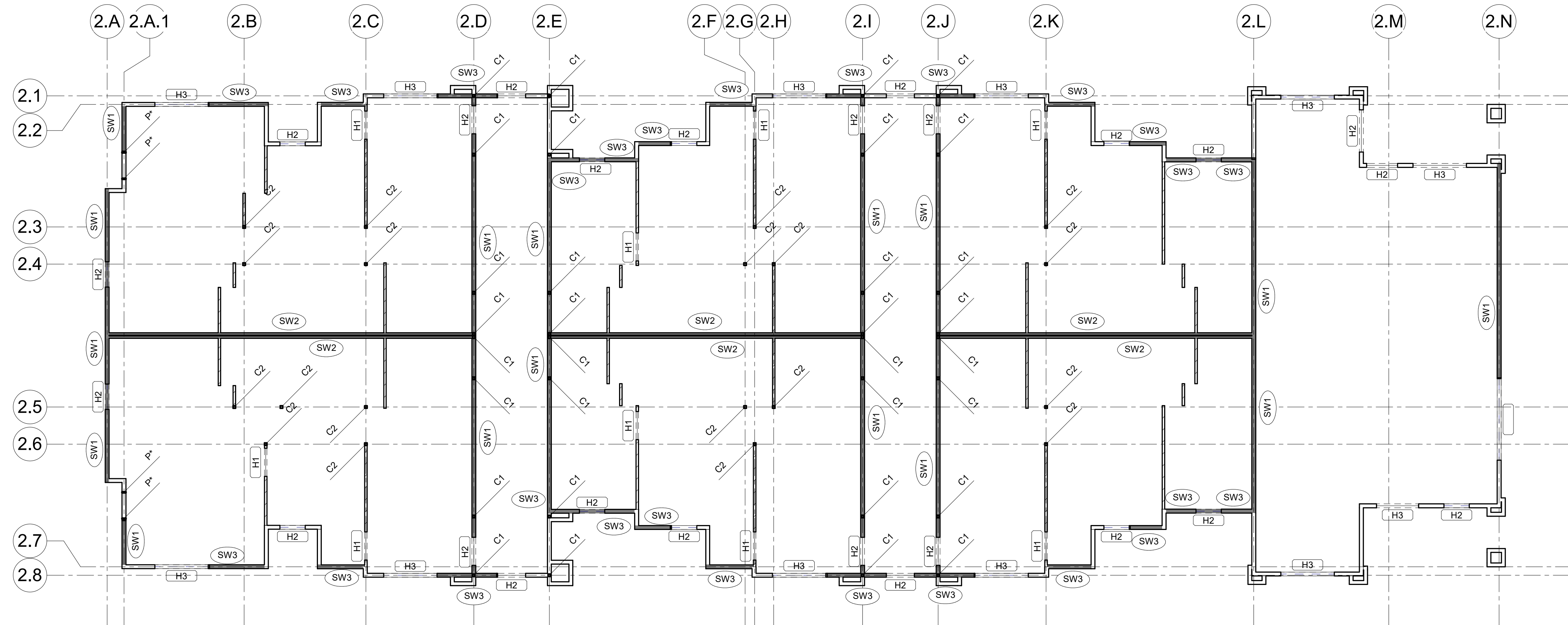
DRAWING NO.  
**S121**

**FRAMING PLAN LEGEND:**

- (H2#) HEADER/OPENING PER OPENING SCHEDULE
- (SW?) SHEAR WALL TYPE, SHEAR WALL INDICATED BY [Symbol]
- (F?) INDICATES FOOTING TYPE
- C# INDICATES COLUMN TYPE
- P# JAMB FROM OPENING ABOVE

**PLAN NOTES:**

- SEE ARCHITECTURAL DRAWINGS FOR SITE PLAN BENCHMARK ELEVATION. FOR REFERENCE ELEVATIONS, SEE BELOW (VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS)
  - T.O. SLAB-ON-GRAB: 100'-0"
  - LEVEL 2 F.F.: 110'-5 7/8"
  - LEVEL 3 F.F.: 120'-11 3/4"
  - TRUSS BRG: 130'-0 7/8"
- FLOOR SHEATHING: 3/4" STRUCTURAL GRADE PLYWOOD. FASTEN TO FRAMING W/ 10d COMMON NAILS SPACED 6" O.C. AT EDGES, 12" O.C. WITHIN FIELD.
- ROOF SHEATHING: 3/4" STRUCTURAL GRADE PLYWOOD. FASTEN TO FRAMING W/ 10d COMMON NAILS SPACED 6" O.C. AT EDGES, 12" O.C. WITHIN FIELD.
- COORDINATE PLUMBING FIXTURES, SHAFTS, AND FLOOR DRAINS WITH ARCH. & MEP DRAWINGS.
- ALL EXTERIOR AND INTERIOR LOAD BARING WALLS ARE PER WALL SCHEDULE ON SHEET S003. SEE ARCHITECTURAL FLOOR PLAN FOR NON-BEARING WALL, DOOR, AND WINDOW LOCATIONS.
- FLOOR PLAN SHOWS FRAMING FOR THE FLOOR INDICATED & VERTICAL FRAMING (WALLS, HEADERS, POSTS, COLUMNS) SUPPORTING THAT FLOOR. REFER TO ARCHITECTURAL DRAWINGS FOR ALL RAILING DETAILS. REFER TO GENERAL NOTES FOR DESIGN CRITERIA.
- REFER TO MANUFACTURER'S GUIDELINES FOR INSTALLATION OF STRAP TIES, HOLD DOWNS & OTHER CONNECTIONS.
- ALL EXTERIOR LUMBER (POSTS, BEAMS, DECKING, ETC.) TO BE TREATED.
- WOOD FLOOR TRUSSES TO BE DESIGNED BY MANUFACTURER AND ARE SHOWN FOR THE INTENT OF SPAN DIRECTION AND LOAD PATH ONLY. REFER TO GENERAL NOTES FOR DESIGN CRITERIA.
- TRUSS MANUFACTURER TO DESIGN & PROVIDE GIRDER TRUSSES AT ALL FLOOR OPENINGS & SPECIFY HANGERS FOR GIRDERS & SUPPORTED FRAMING.
- REFER TO ARCHITECTURAL PLANS FOR STAIR DIMENSIONS AND REQUIREMENTS. REFER TO STRUCTURAL GENERAL NOTES FOR STAIR DESIGN CRITERIA.



1 BLDG A - FIRST FLOOR FRAMING  
 S121 1/8" = 1'-0"

**NOTICE:**  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
 17369  
 12/31/2024

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE:  
 ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
 THE RESERVES AT GRAND VIEW HEIGHTS  
 LARAMIE, WY  
 BUILDING A - LEVEL 2**

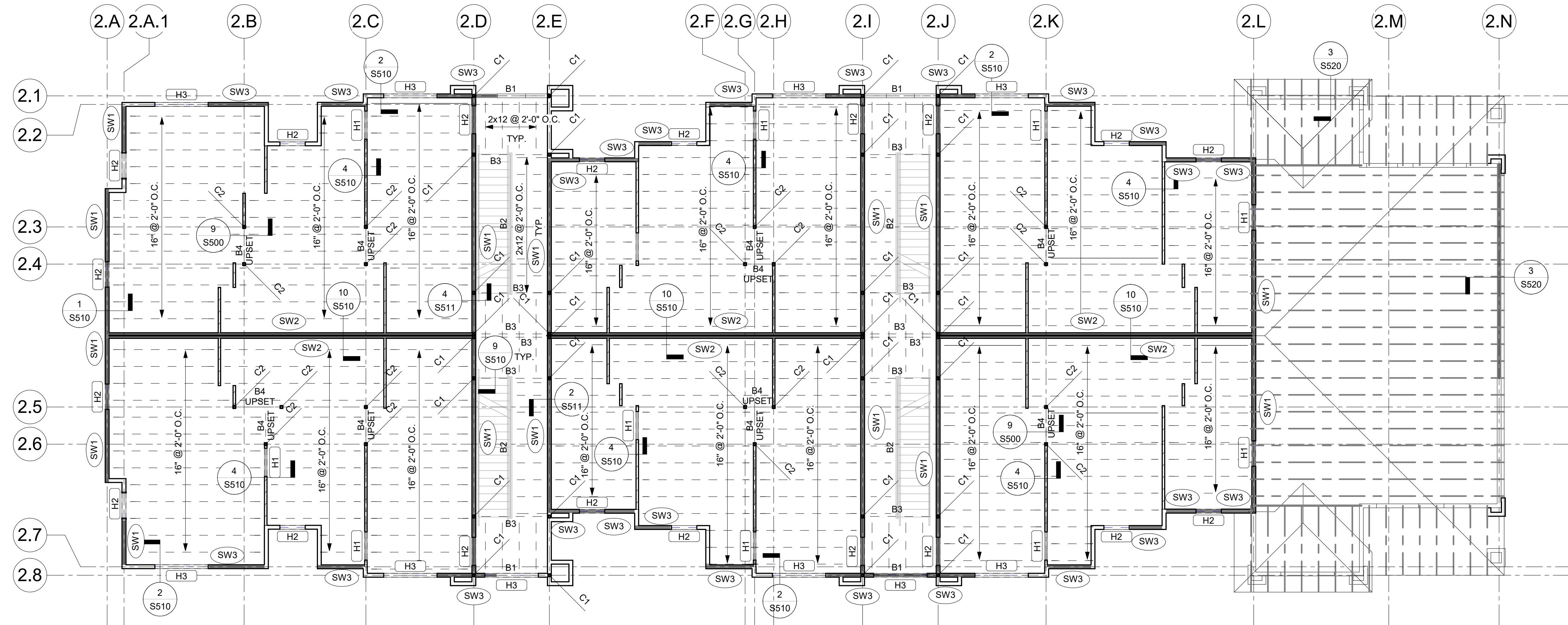
DRAWING NO.  
**S122**

**FRAMING PLAN LEGEND:**

- (H2#) HEADER/OPENING PER OPENING SCHEDULE
- (SW?) SHEAR WALL TYPE, SHEAR WALL INDICATED BY [Symbol]
- (F?) INDICATES FOOTING TYPE
- C# INDICATES COLUMN TYPE
- P# JAMB FROM OPENING ABOVE

**PLAN NOTES:**

- SEE ARCHITECTURAL DRAWINGS FOR SITE PLAN BENCHMARK ELEVATION. FOR REFERENCE ELEVATIONS, SEE BELOW (VERIFY ALL ELEVATIONS AND DIMENSIONS WITH ARCHITECTURAL DRAWINGS)
  - T.O. SLAB-ON-GRAB: 100'-0"
  - LEVEL 2 F.F.: 110'-5 7/8"
  - LEVEL 3 F.F.: 120'-11 3/4"
  - TRUSS BRG: 130'-0 7/8"
- FLOOR SHEATHING: 3/4" STRUCTURAL GRADE PLYWOOD. FASTEN TO FRAMING W/ 10d COMMON NAILS SPACED 6" O.C. AT EDGES, 12" O.C. WITHIN FIELD.
- ROOF SHEATHING: 3/4" STRUCTURAL GRADE PLYWOOD. FASTEN TO FRAMING W/ 10d COMMON NAILS SPACED 6" O.C. AT EDGES, 12" O.C. WITHIN FIELD.
- COORDINATE PLUMBING FIXTURES, SHAFTS, AND FLOOR DRAINS WITH ARCH. & MEP DRAWINGS.
- ALL EXTERIOR AND INTERIOR LOAD BARING WALLS ARE PER WALL SCHEDULE ON SHEET S003. SEE ARCHITECTURAL FLOOR PLAN FOR NON-BEARING WALL, DOOR, AND WINDOW LOCATIONS.
- FLOOR PLAN SHOWS FRAMING FOR THE FLOOR INDICATED & VERTICAL FRAMING (WALLS, HEADERS, POSTS, COLUMNS) SUPPORTING THAT FLOOR. SEE ARCHITECTURAL DRAWINGS FOR ALL RAILING DETAILS. REFER TO GENERAL NOTES FOR DESIGN CRITERIA.
- REFER TO MANUFACTURER'S GUIDELINES FOR INSTALLATION OF STRAP TIES, HOLD DOWNS & OTHER CONNECTIONS.
- ALL EXTERIOR LUMBER (POSTS, BEAMS, DECKING, ETC.) TO BE TREATED.
- WOOD FLOOR TRUSSES TO BE DESIGNED BY MANUFACTURER AND ARE SHOWN FOR THE INTENT OF SPAN DIRECTION AND LOAD PATH ONLY. REFER TO GENERAL NOTES FOR DESIGN CRITERIA.
- TRUSS MANUFACTURER TO DESIGN & PROVIDE GIRDER TRUSSES AT ALL FLOOR OPENINGS & SPECIFY HANGERS FOR GIRDERS & SUPPORTED FRAMING.
- REFER TO ARCHITECTURAL PLANS FOR STAIR DIMENSIONS AND REQUIREMENTS. REFER TO STRUCTURAL GENERAL NOTES FOR STAIR DESIGN CRITERIA.



1 BLDG A - SECOND & THIRD FLOOR FRAMING  
 S122 1/8" = 1'-0"

P:\2024000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

**FRAMING PLAN LEGEND:**

- (H?)# HEADER/OPENING PER OPENING SCHEDULE
- (SW?) SHEAR WALL TYPE, SHEAR WALL INDICATED BY
- (F?) INDICATES FOOTING TYPE
- C# INDICATES COLUMN TYPE
- P\* JAMB FROM OPENING ABOVE

**NOTICE:**  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

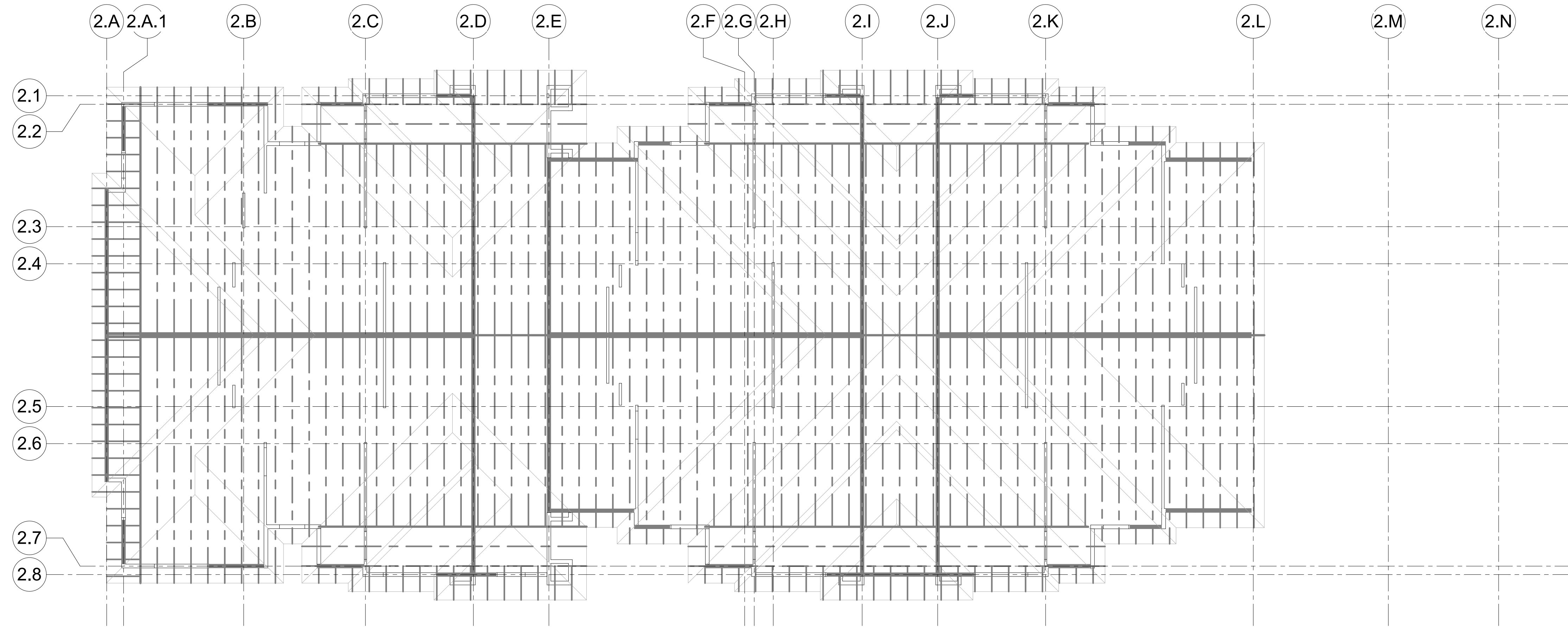
**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
 17369  
 12/31/2024  
 I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

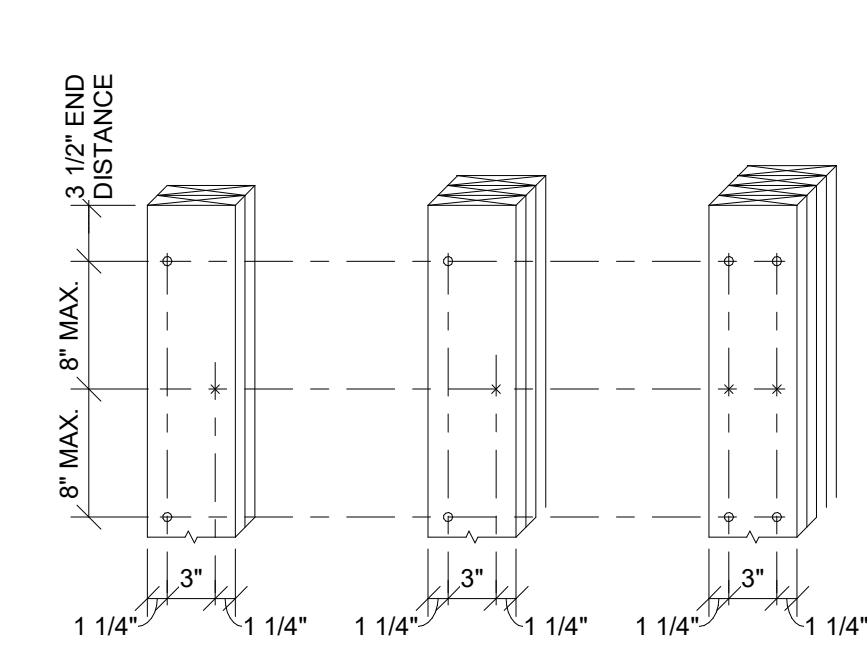
No.	Description	Date

PROJECT NUMBER: 2024000185      SET ISSUE DATE:  
 ENGINEER: MDH      DRAWN BY: CEL      CHECKED BY: IWC

**JONES GILLAM RENZ**  
**THE RESERVES AT GRAND VIEW HEIGHTS**  
**LARAMIE, WY**  
**BUILDING A - ROOF**  
P:\2024\000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024\000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt



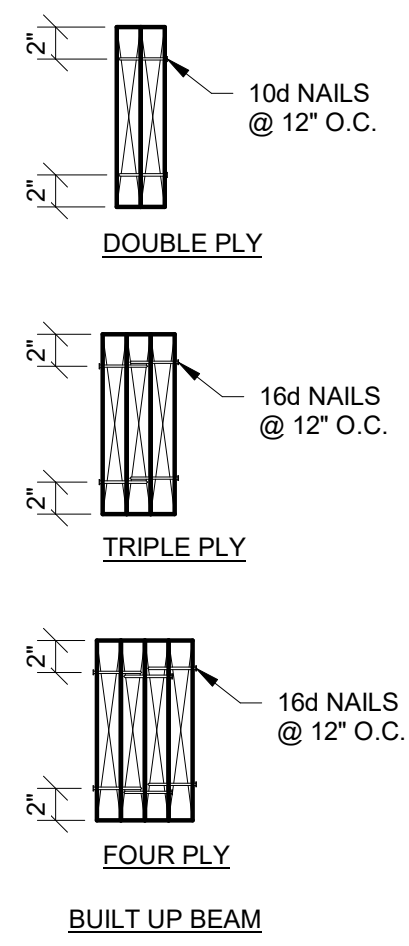
1 BLDG A - ROOF  
 S123 1/8" = 1'-0"



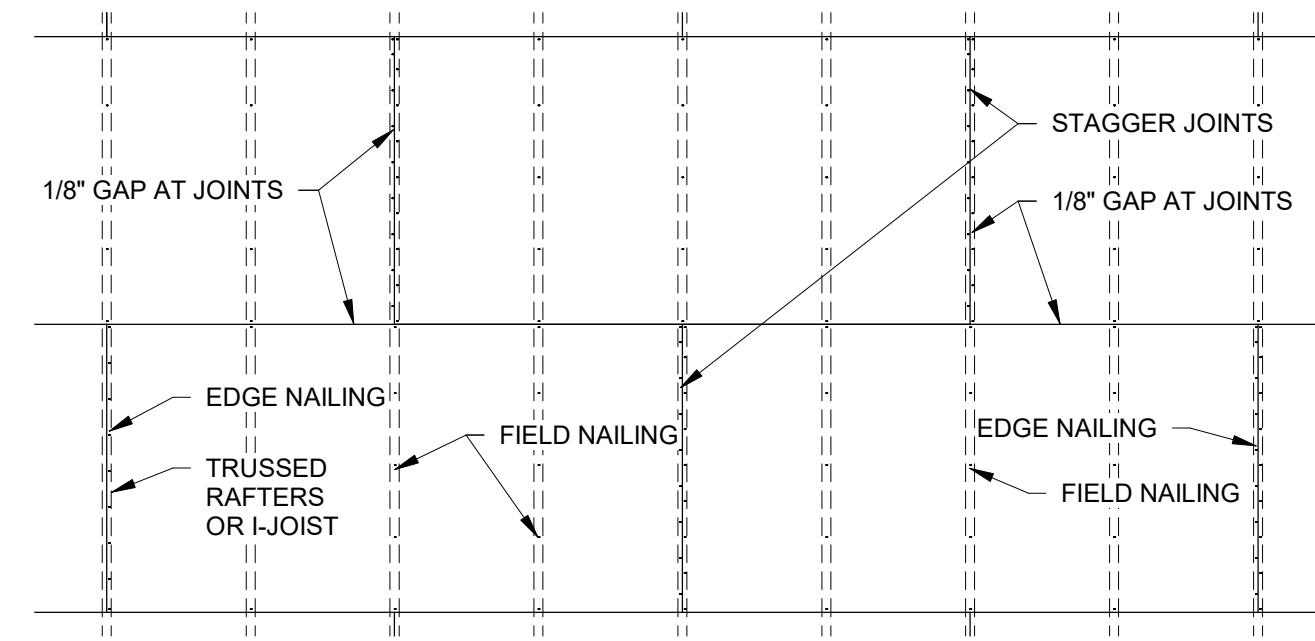
**LEGEND**  
 \* NAIL FROM THIS SIDE \* NAIL FROM OPPOSITE SIDE

**COLUMN NOTES:**  
 1. USE 10d NAILS FOR 2-PLY & 30d FOR REST  
 2. ADJACENT NAILS ARE TO BE DRIVEN FROM OPPOSITE SIDES OF COLUMN

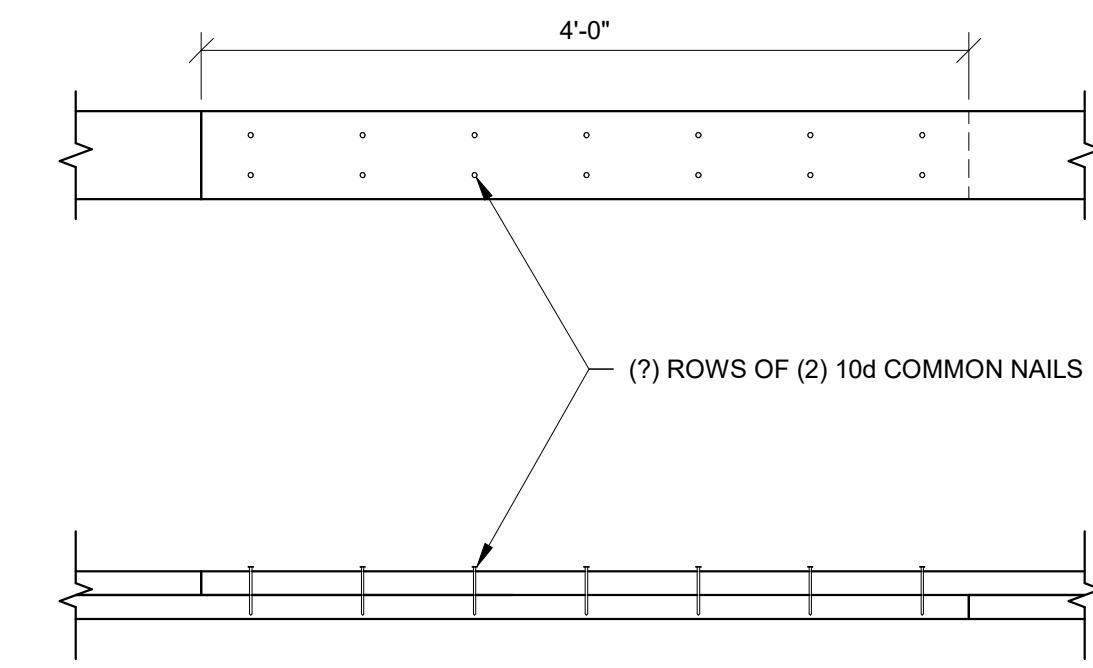
**1** TYPICAL BUILT-UP MEMBERS  
 S500 1" = 1'-0"



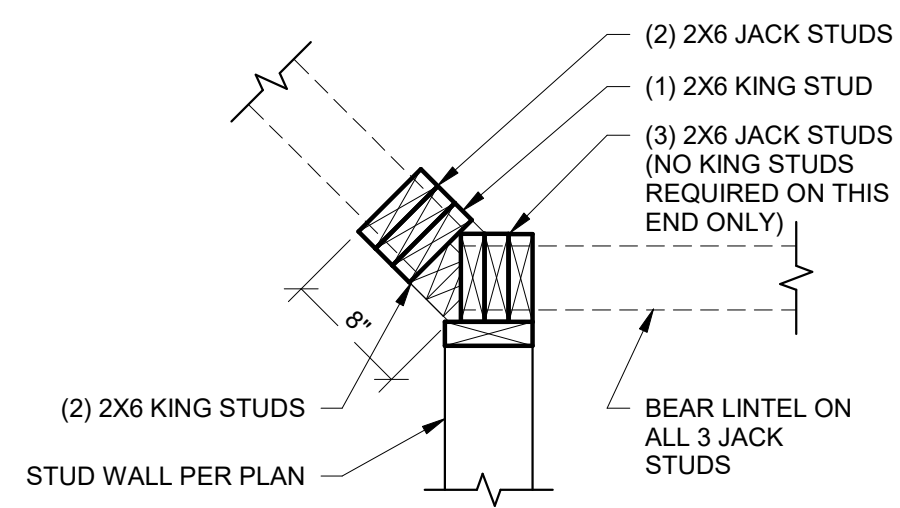
**2** DIAPHRAGM NAILING  
 S500 3/8" = 1'-0"



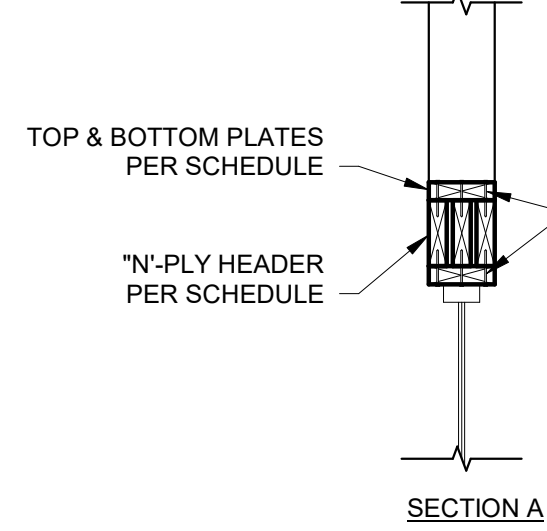
**3** TYPICAL HEADER CONNECTION  
 S500 1" = 1'-0"



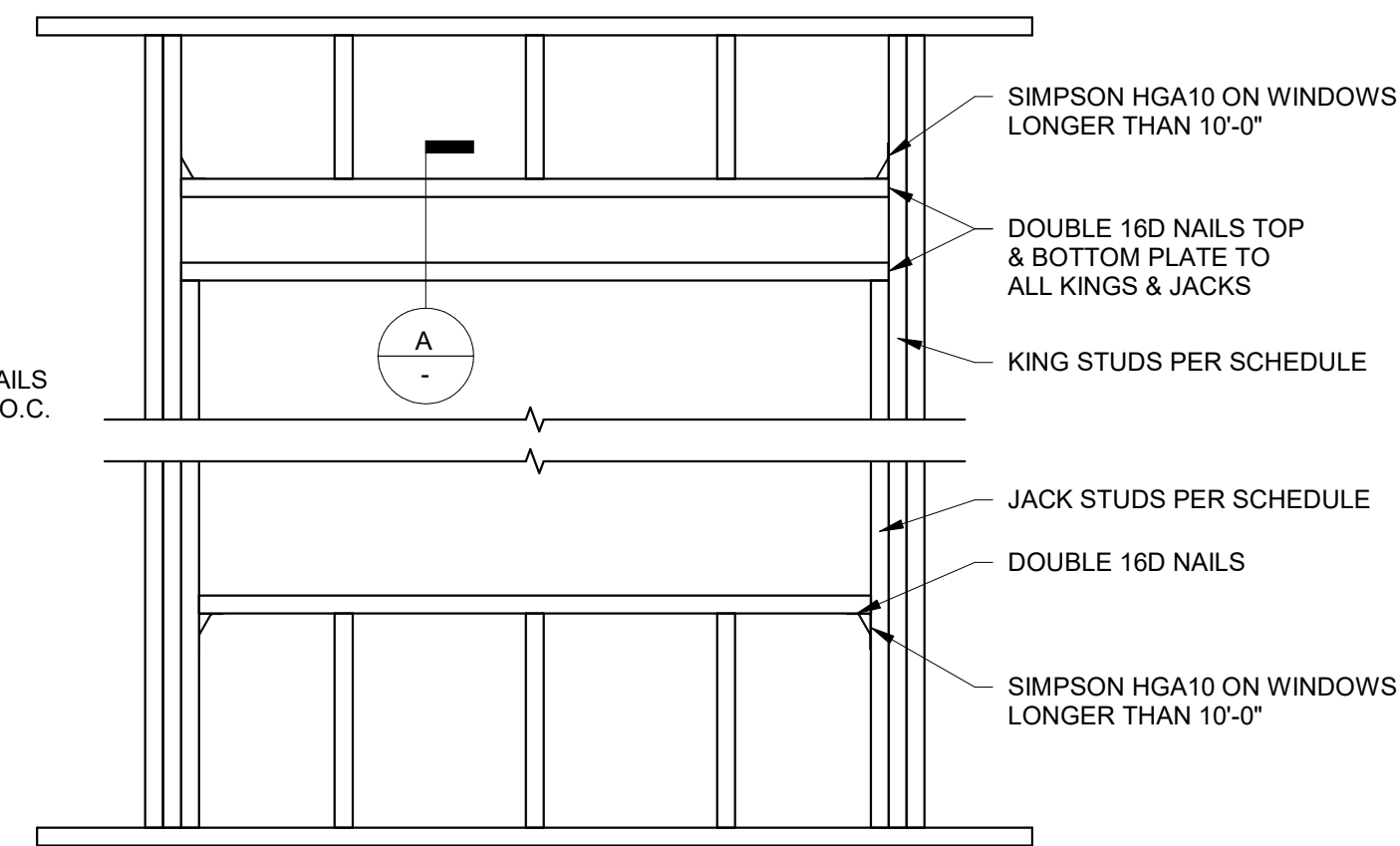
**4** TOP PLATE SPLICE  
 S500 1" = 1'-0"



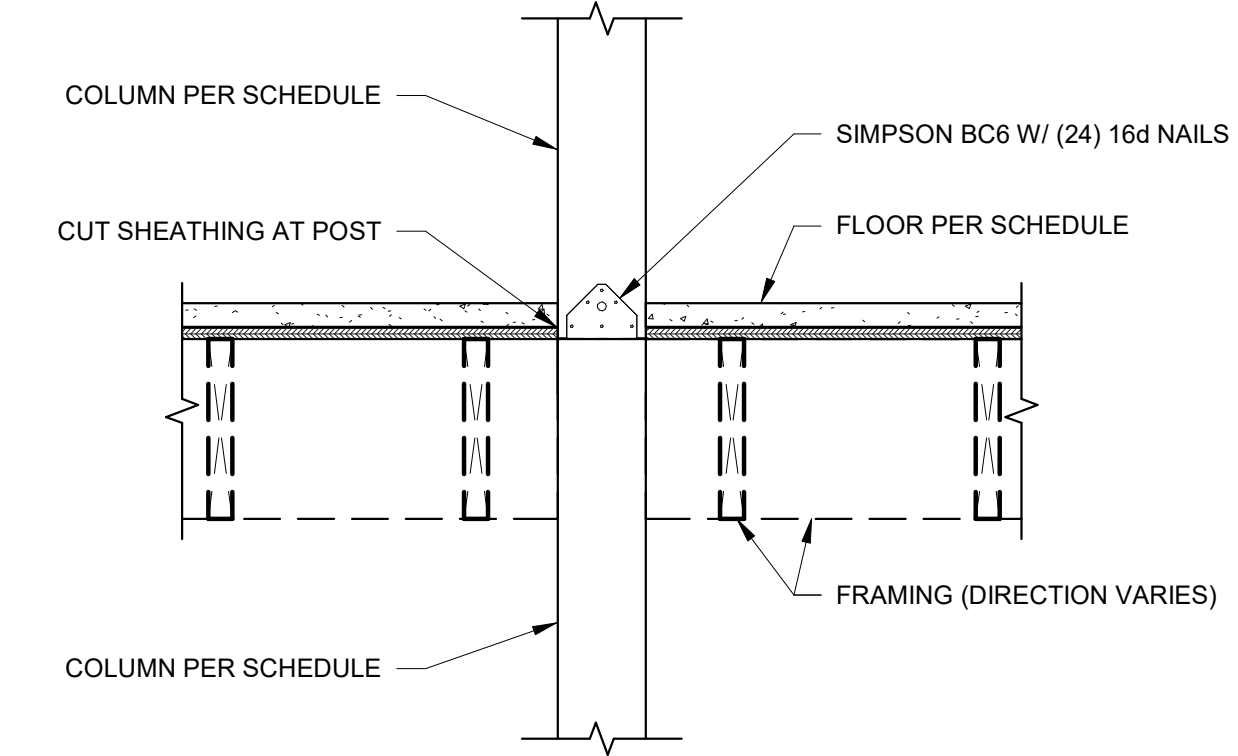
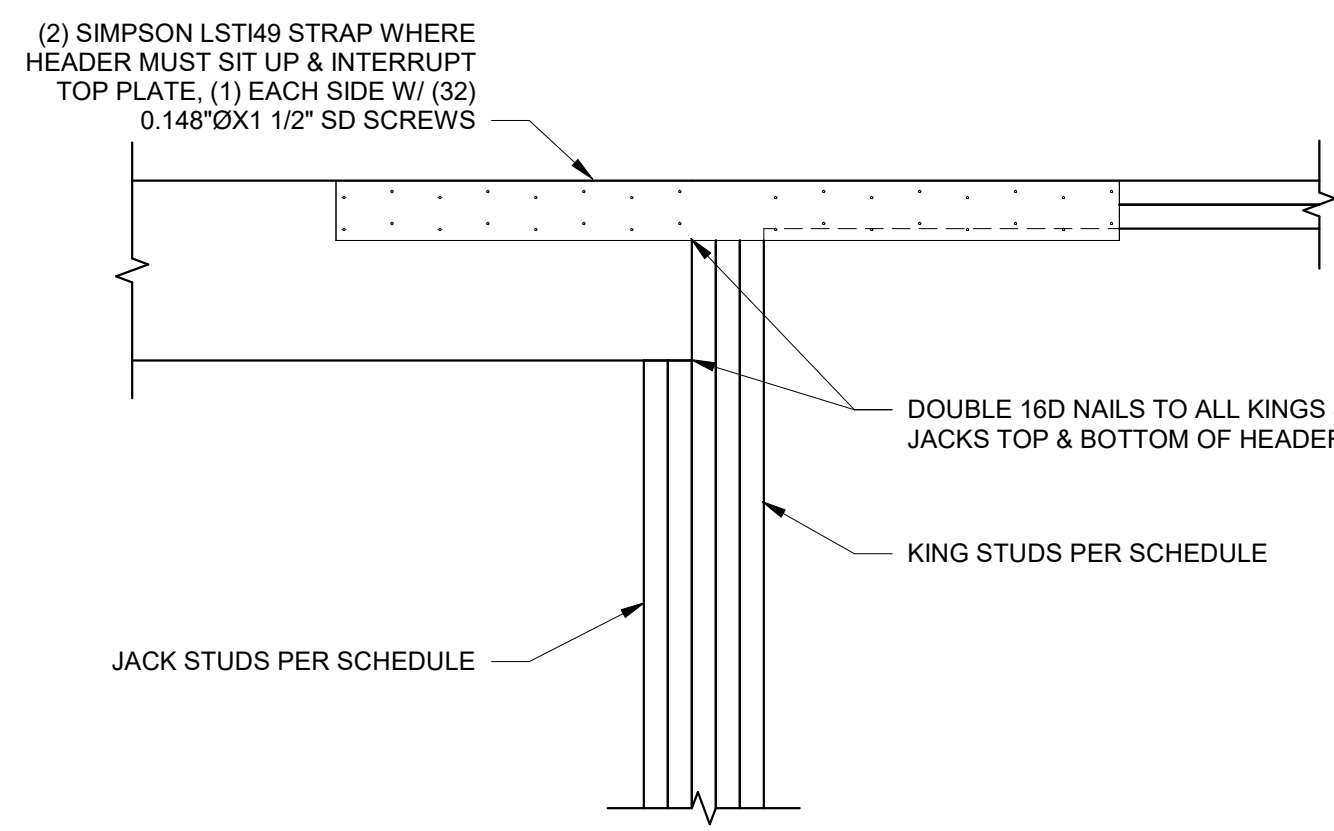
**5** ANGLED CORNER FRAMING  
 S500 1" = 1'-0"



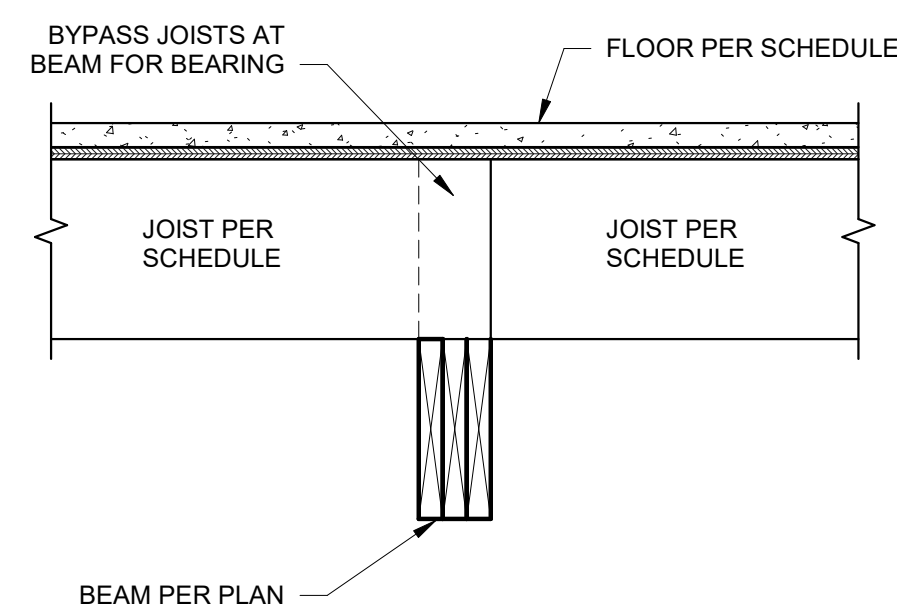
**6** FRAMING AT OPENING  
 S500 3/4" = 1'-0"



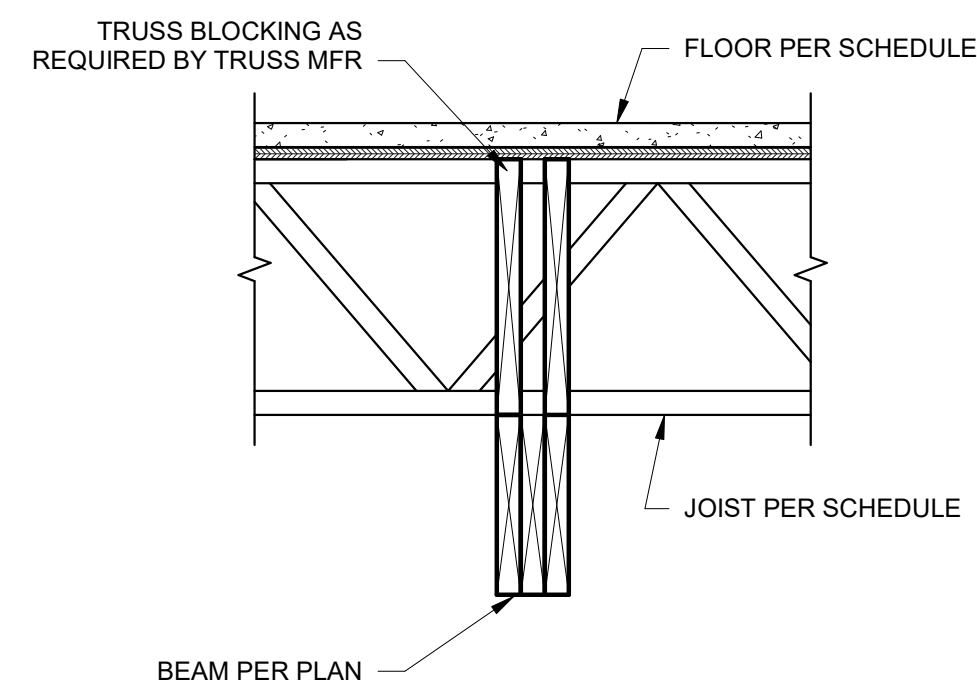
**7** FRAMING AT OPENING - RAISED HEADER  
 S500 1" = 1'-0"



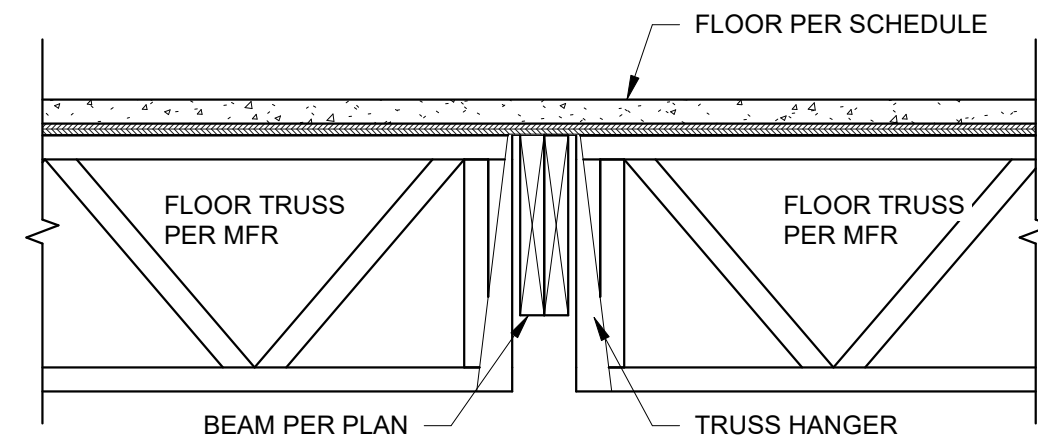
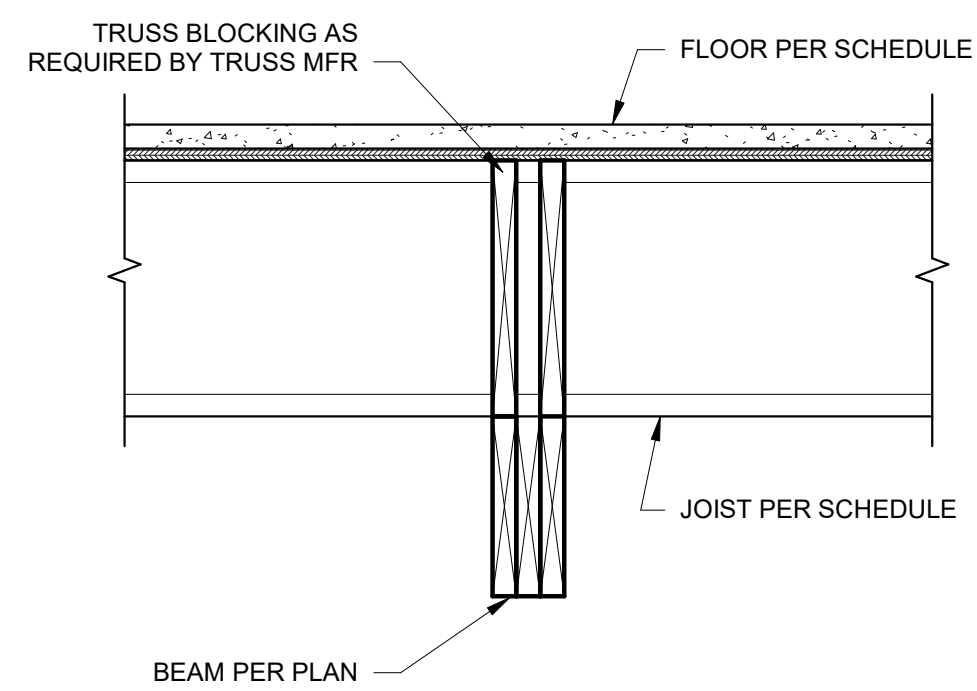
**8** COLUMN TO COLUMN CONNECTION AT FLOORS  
 S500 1" = 1'-0"



**9** JOIST BEARING AT BEAM  
 S500 1" = 1'-0"



**10** FLOOR TRUSS TO BEAM  
 S500 1" = 1'-0"



**NOTICE:**  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
 17369  
 12/31/2024  
 I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE:      

ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

JONES GILLAM RENZ  
 THE RESERVES AT GRAND VIEW HEIGHTS  
 LARAMIE, WY  
 TYPICAL WOOD DETAILS

P:\2024\000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024\000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

NOTICE:  
McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
NO. E-1790  
EXPIRES: DECEMBER 31, 2025

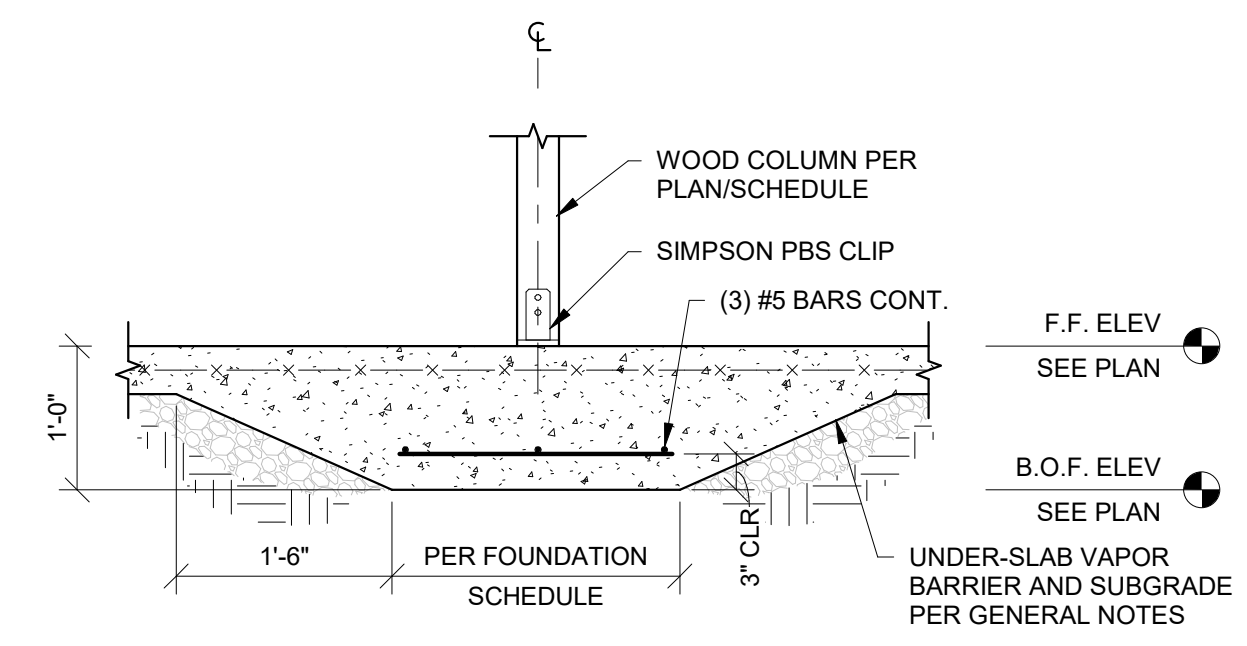
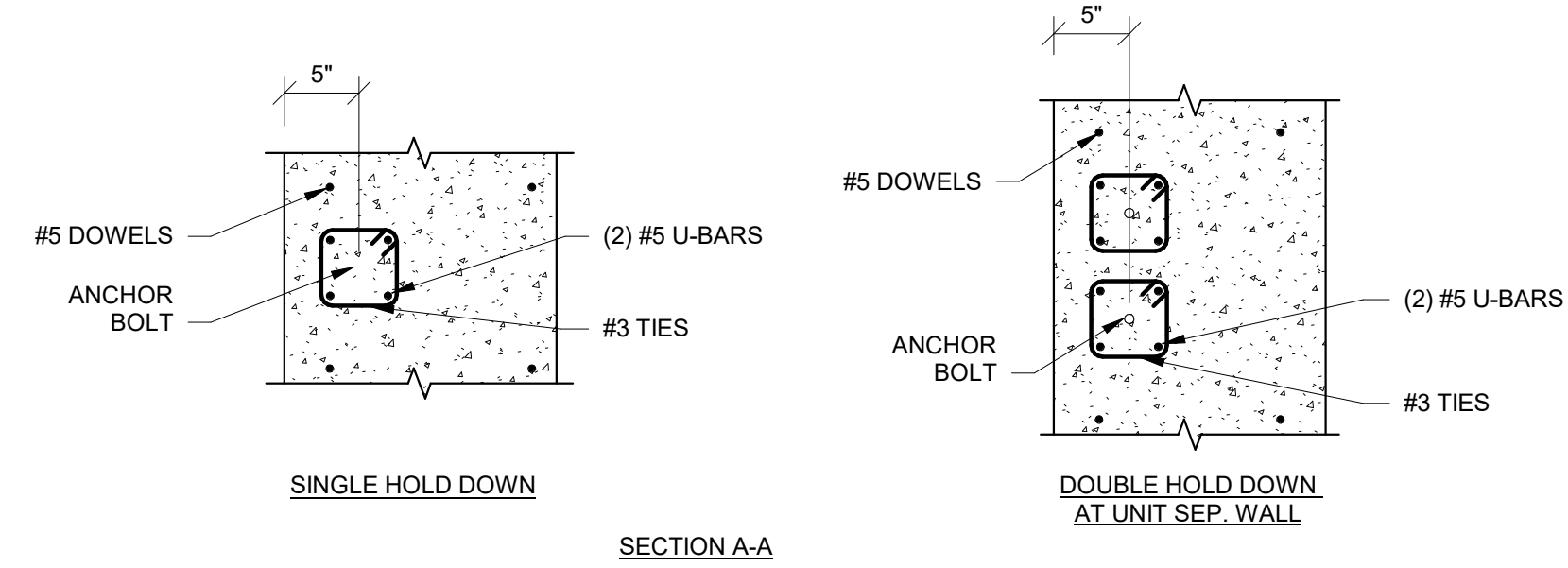
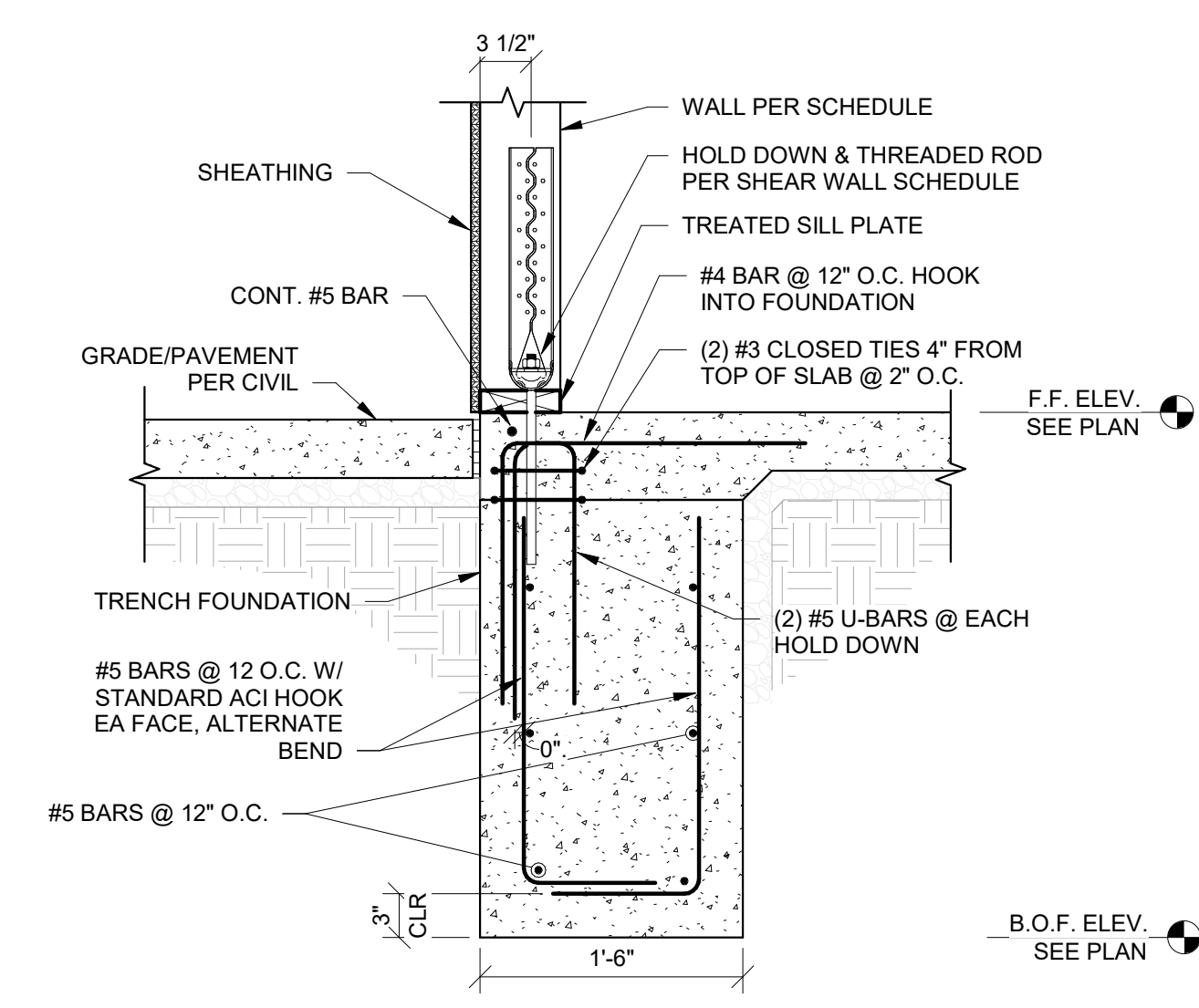
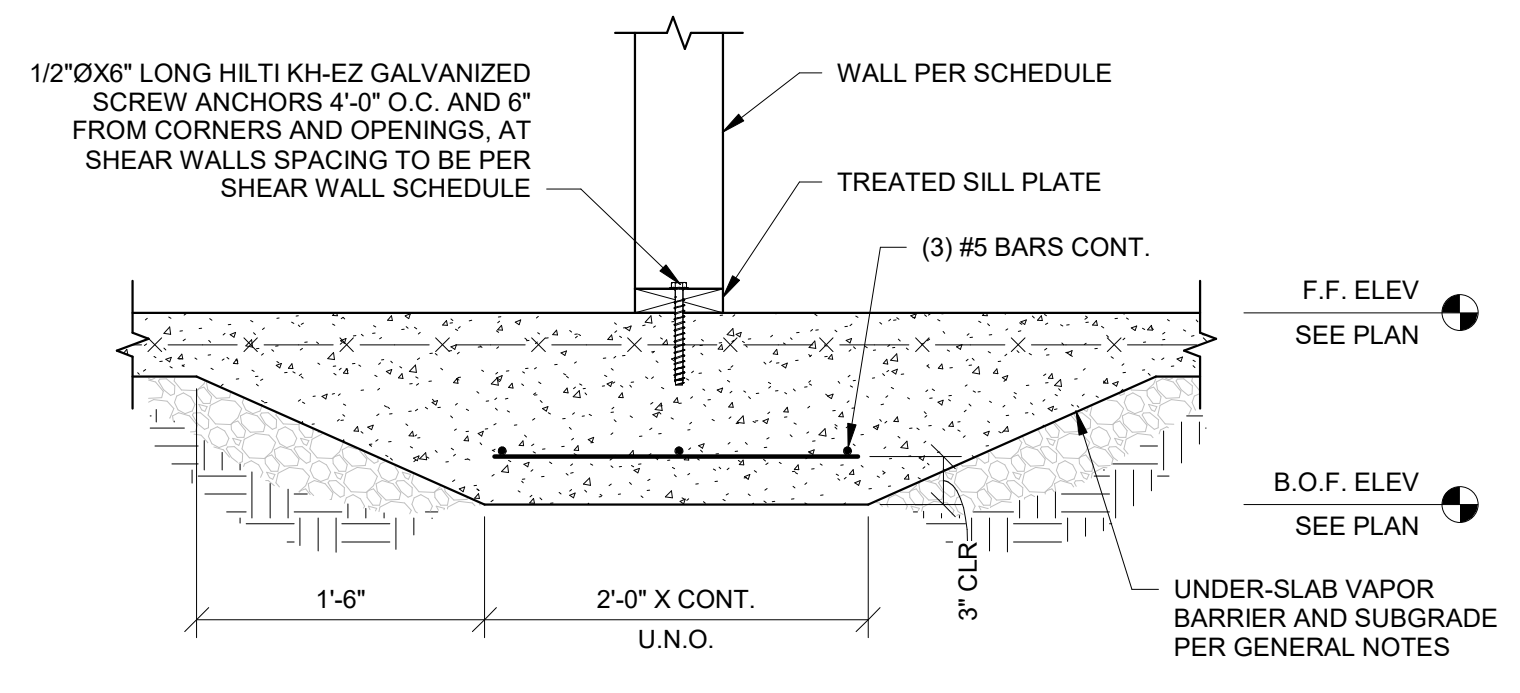
**FOR REVIEW ONLY  
NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
17369  
12/31/2024  
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE:  
ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
THE RESERVES AT GRAND VIEW HEIGHTS  
LARAMEE, WY  
FOUNDATION DETAILS**

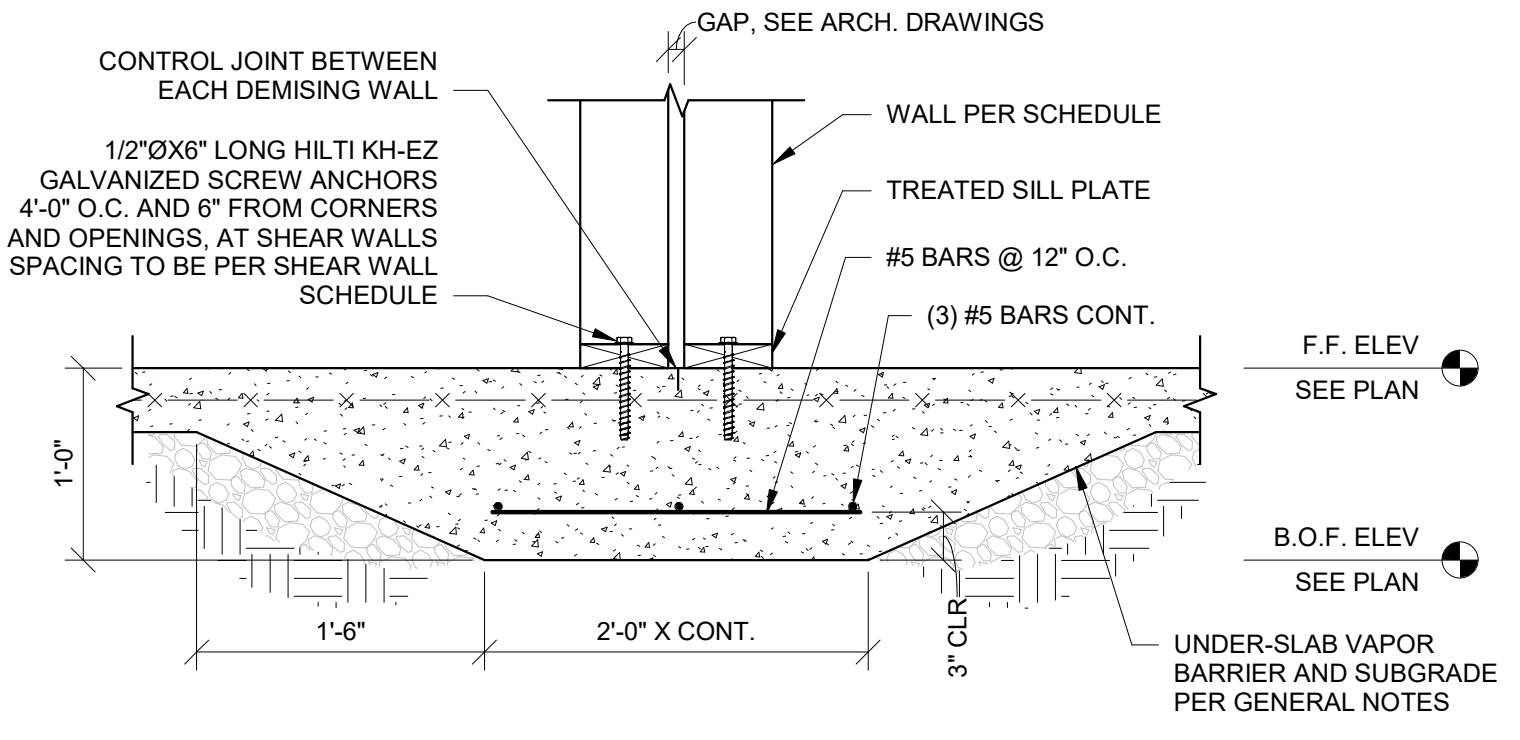


**1** INTERIOR BEARING WALL AT THICKENED SLAB  
S501 1" = 1'-0"

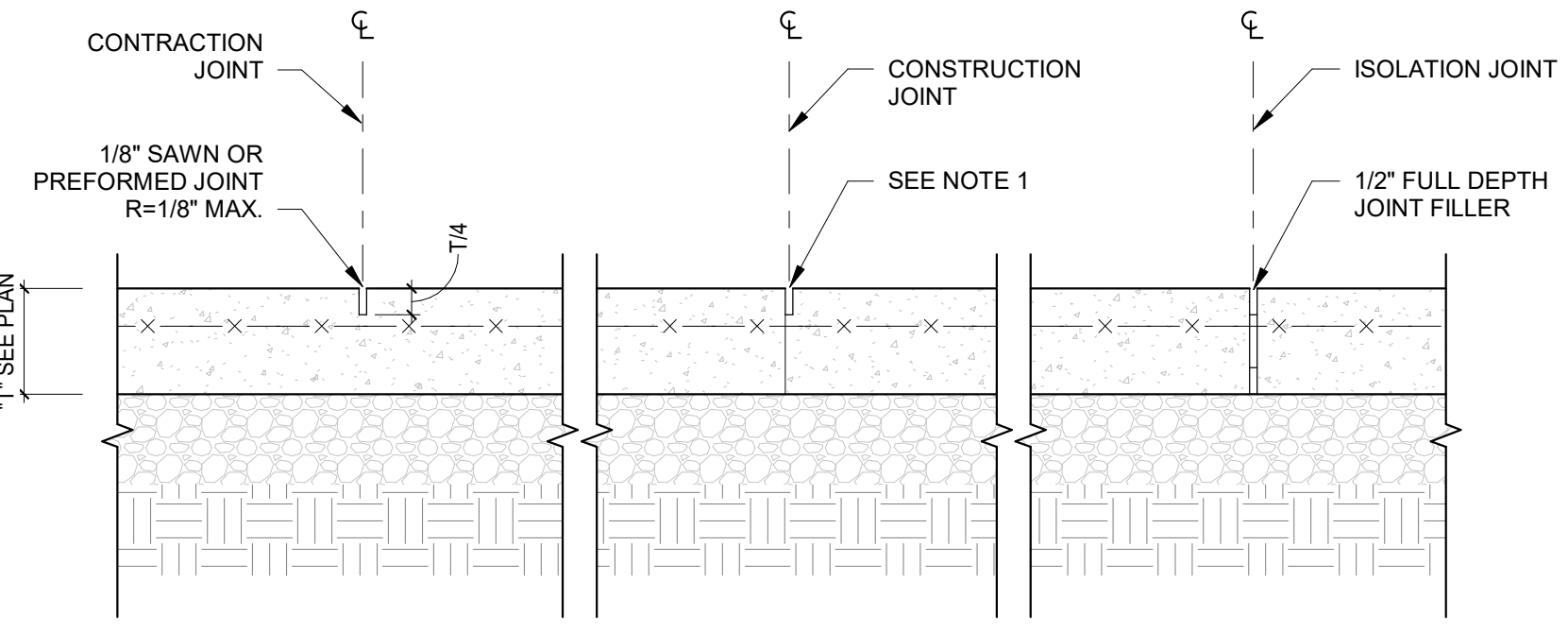
**2** SECTION AT SHEAR WALL HOLD DOWN  
S501 1" = 1'-0"

**3** DOUBLE SHEARWALL HOLD DOWN  
S501 1" = 1'-0"

**4** COLUMN AT FOUNDATION  
S501 3/4" = 1'-0"

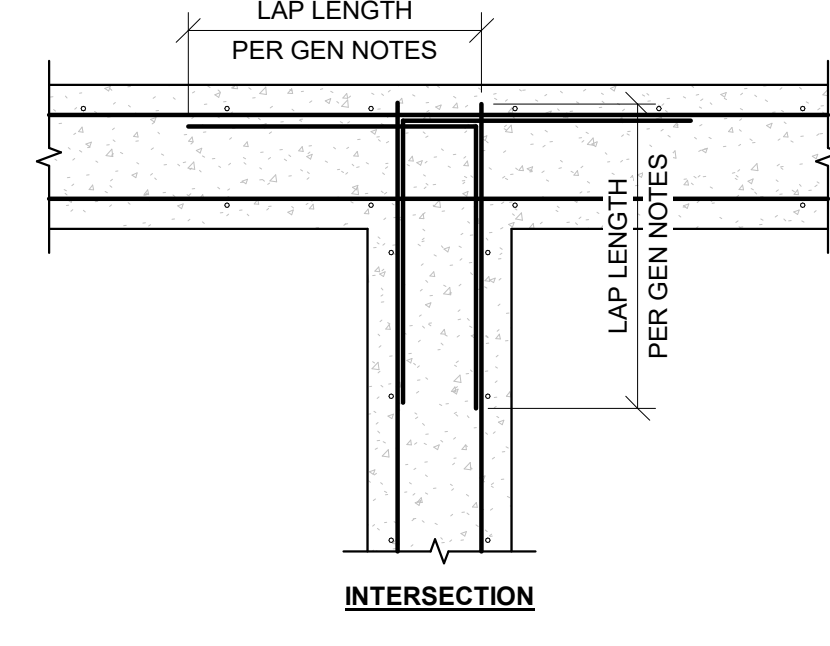
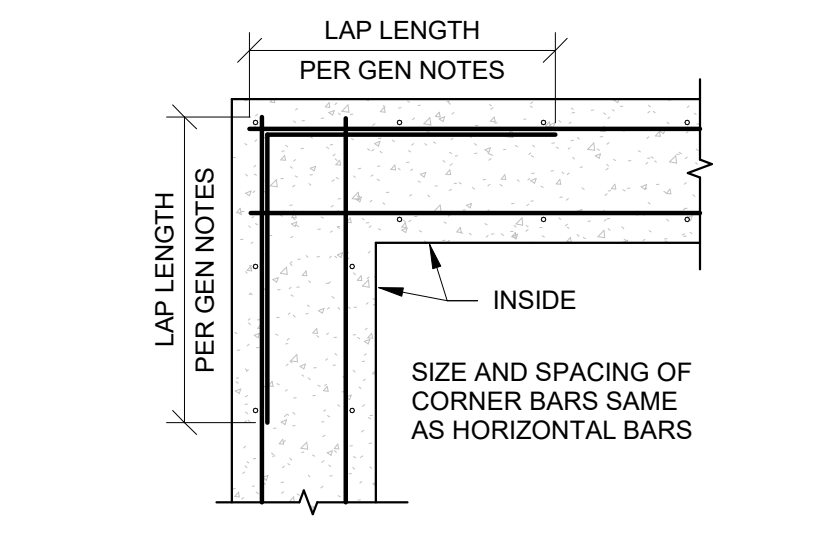


**5** STAIR TO THICKENED SLAB  
S501 1" = 1'-0"

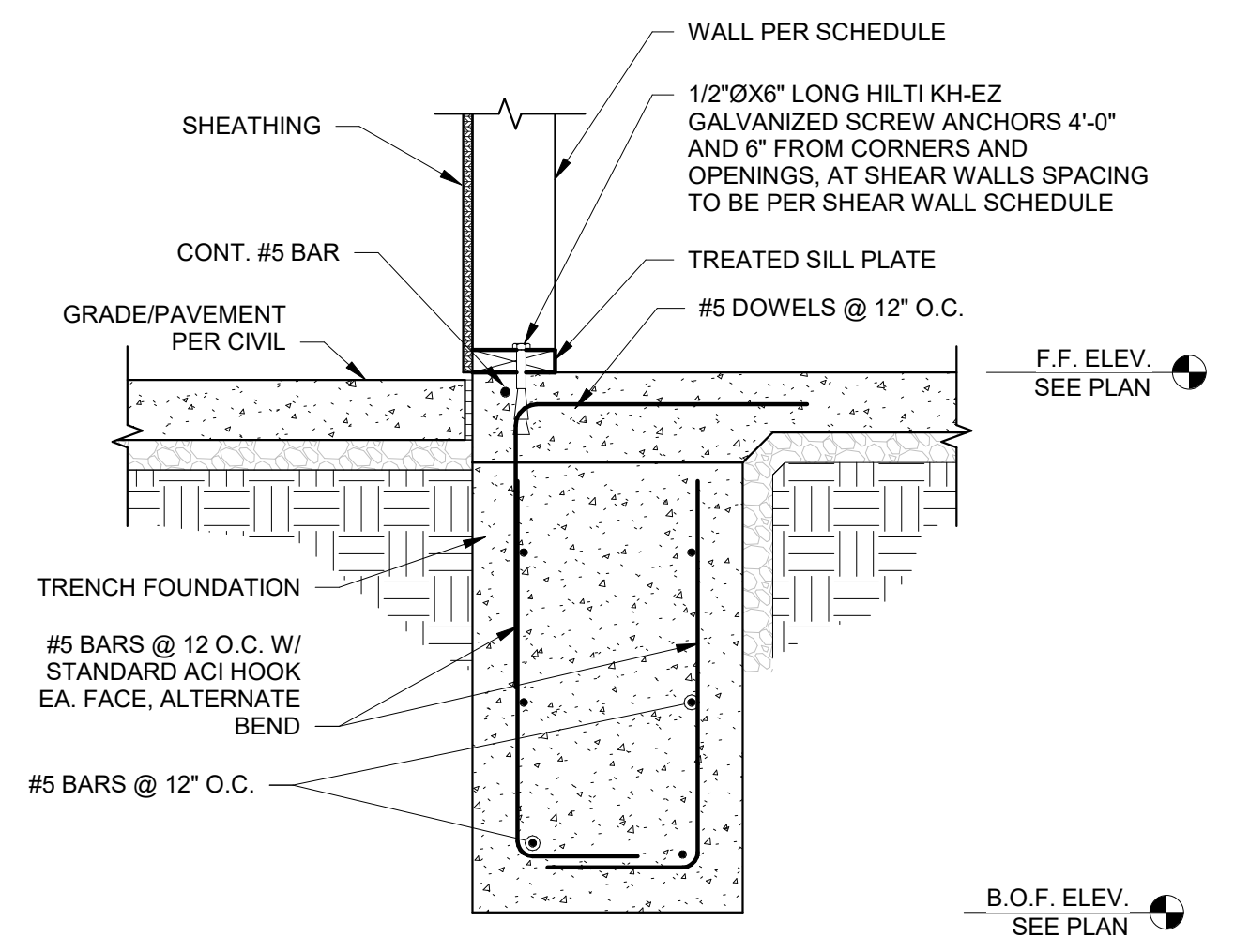


NOTES:  
1. LOCATE CONSTRUCTION JOINTS AT SAW JOINT LOCATIONS. MATCH SAW JOINT PROFILE. ALL CONSTRUCTION JOINT LOCATIONS TO BE REVIEWED AND APPROVED BY ER PRIOR TO CONSTRUCTION. MAXIMUM SPACING BETWEEN SAW JOINTS = 15'-0" FOR 6" SLABS & 10'-0" FOR 4" SLABS. SEE PLAN FOR LOCATIONS.  
2. CONTINUE SLAB ON GRADE REINFORCING. UNO. PROVIDE TENSION LAP SPICE AS REQUIRED. DO NOT PLACE DOWELS WITHIN 12" OF A SLAB CORNER.

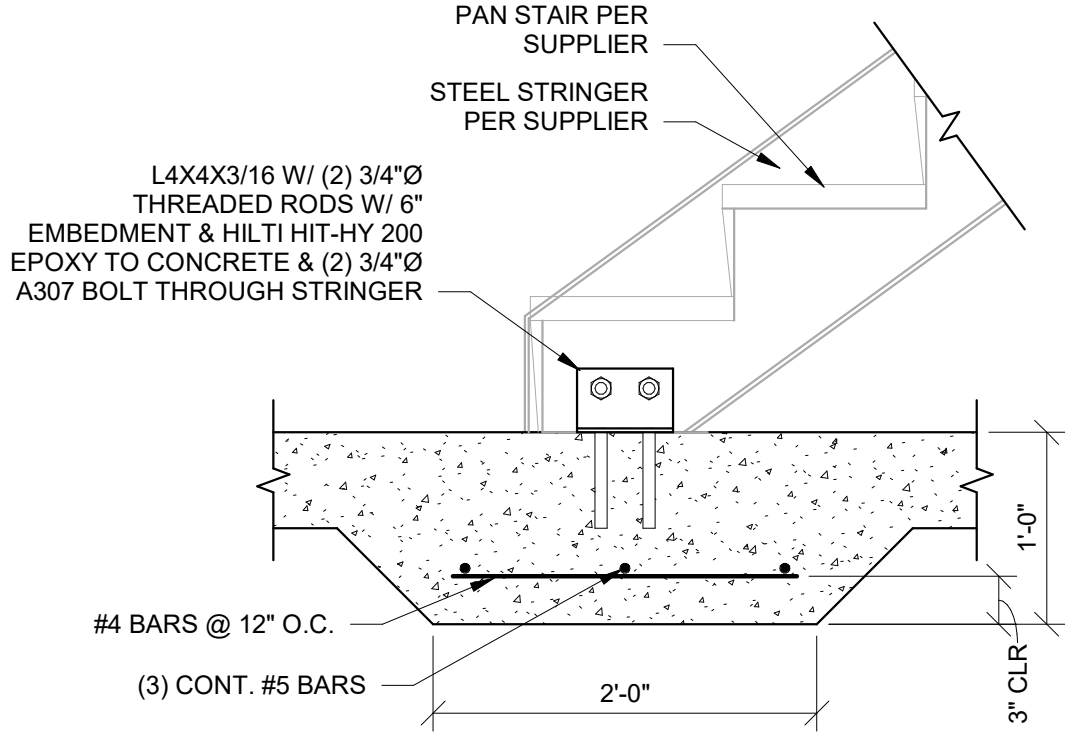
**6** TYPICAL SLAB ON GRADE JOINTS  
S501 1" = 1'-0"



**7** CORNER BAR DETAIL  
S501 3/4" = 1'-0"



**8** SECTION AT FOOTING  
S501 1" = 1'-0"



**5** STAIR TO THICKENED SLAB  
S501 1" = 1'-0"

P:\2024000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

**NOTICE:**  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

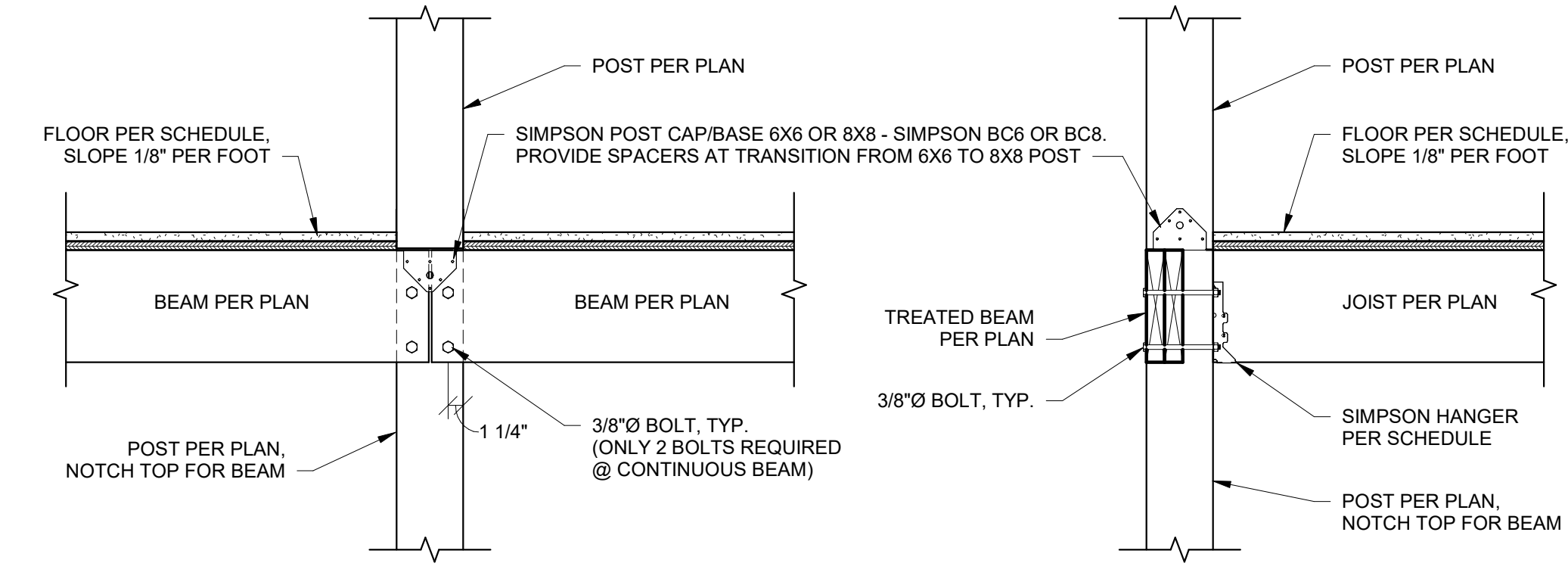
MARCUS HIMMELBERG  
 17369  
 12/31/2024  
 I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

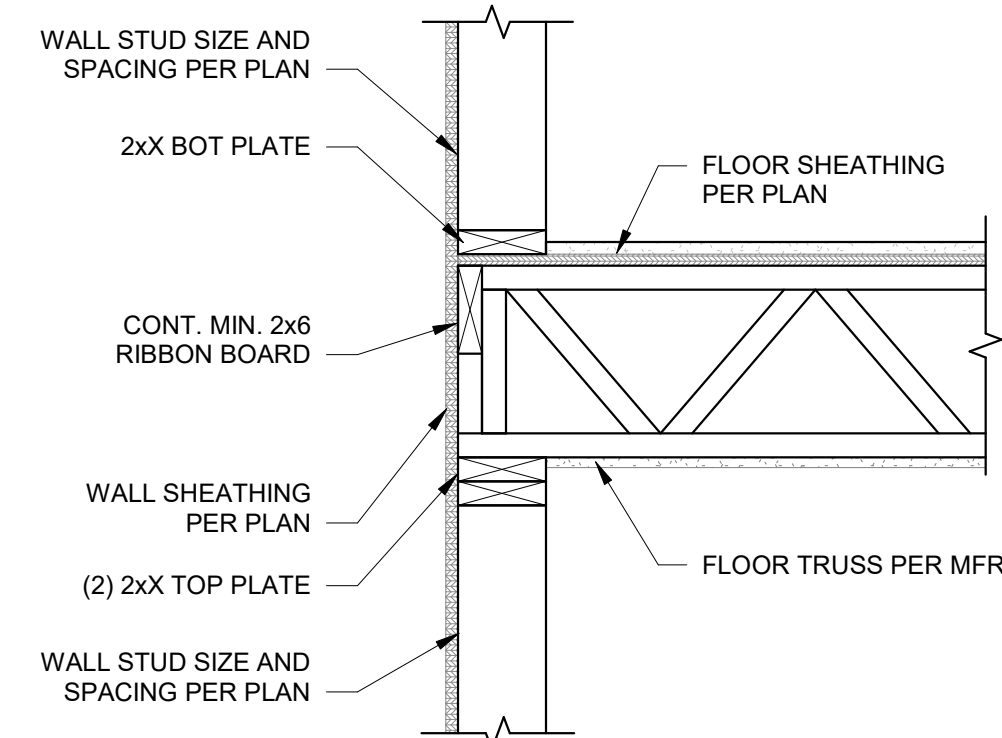
PROJECT NUMBER: 2024000185 SET ISSUE DATE:  
 ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
 THE RESERVES AT GRAND VIEW HEIGHTS  
 LARAMIE, WY  
 FRAMING DETAILS**

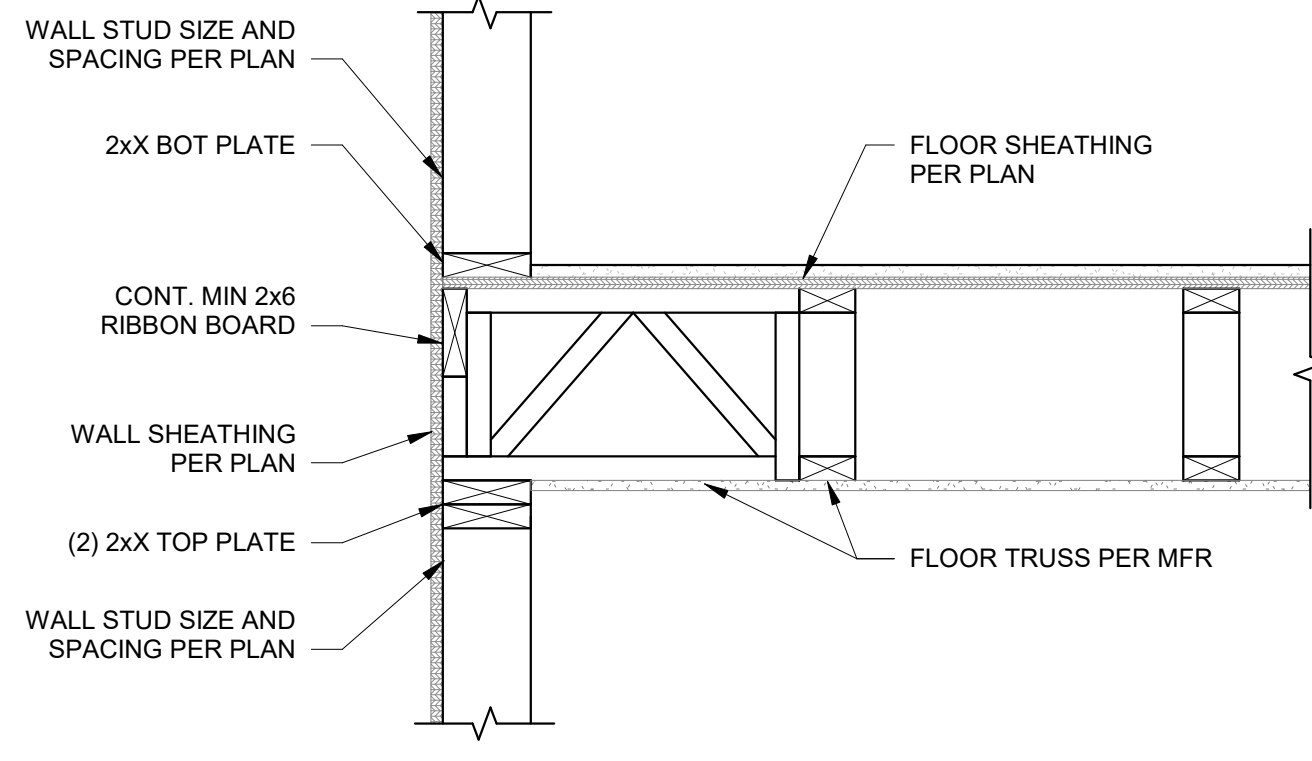
P:\2024000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt



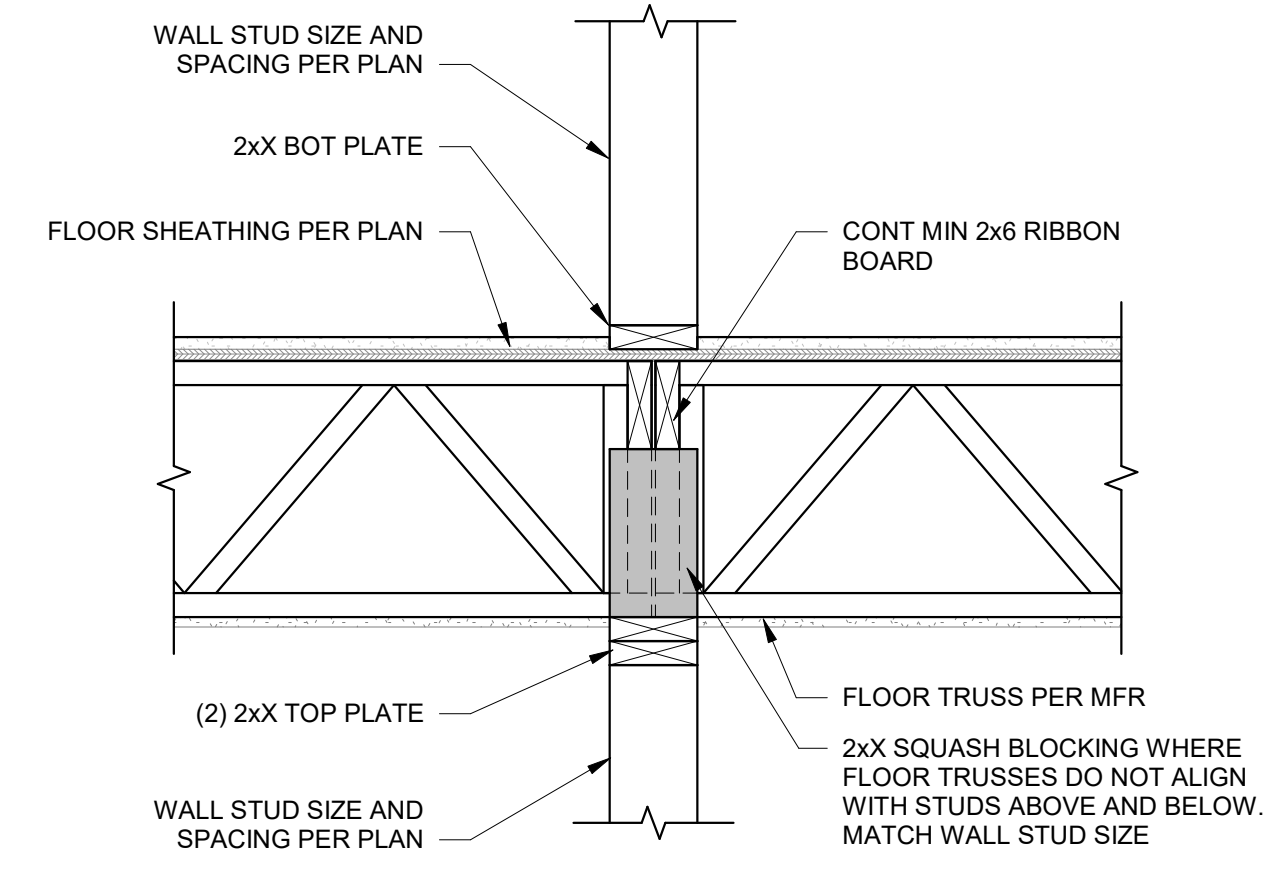
**3 BEAM TO POST CONNECTION**  
 S510 1" = 1'-0"



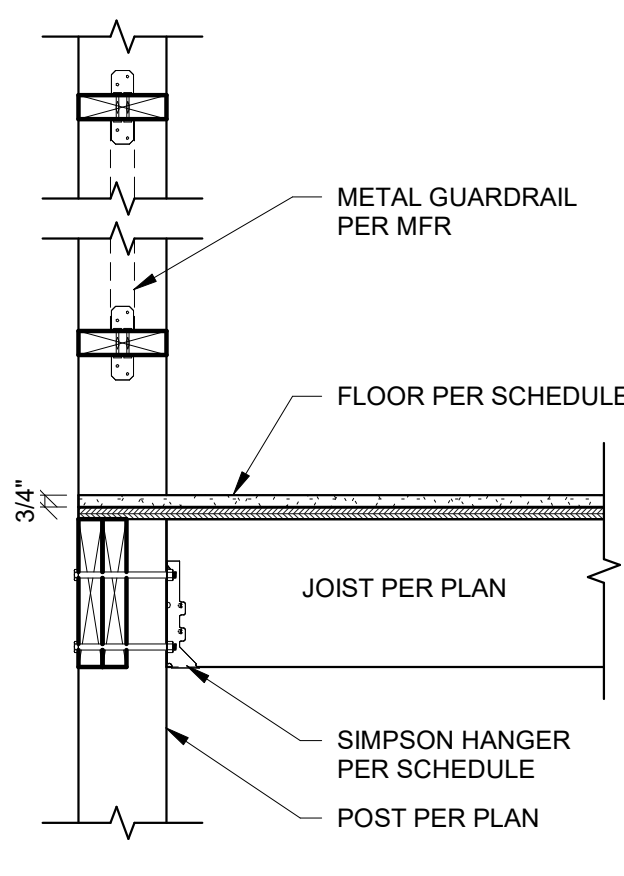
**1 FRAMING AT EXTERIOR WALL - JOIST BEARING**  
 S510 1" = 1'-0"



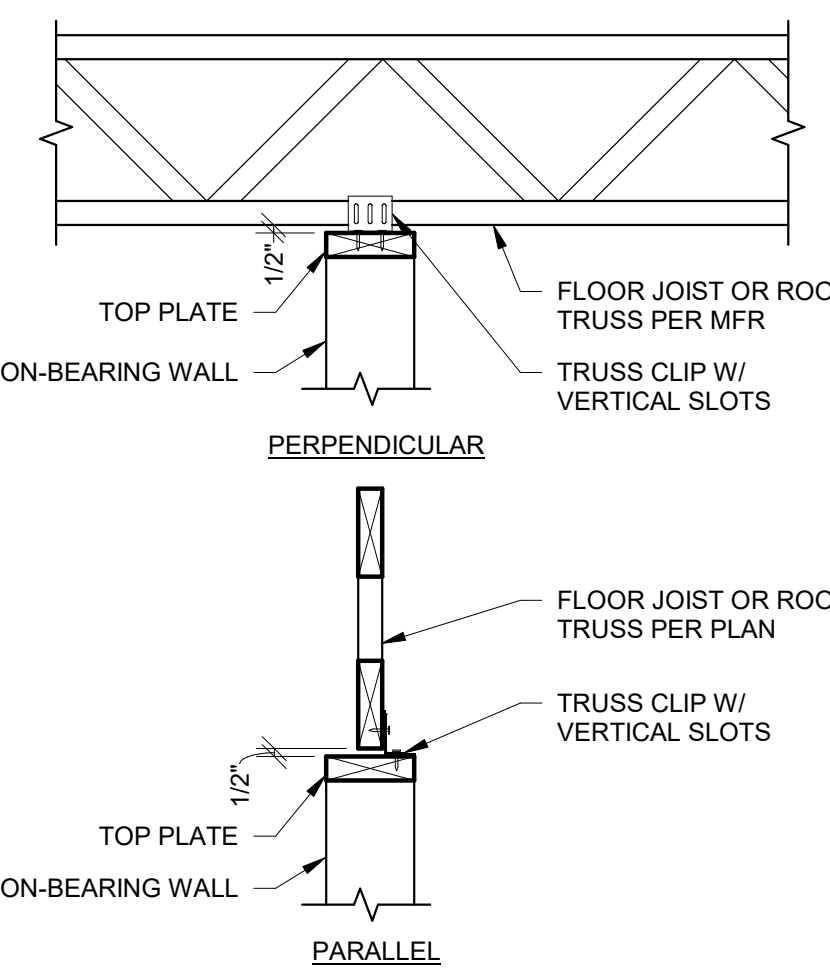
**2 FRAMING AT EXTERIOR WALL - JOIST PARALLEL**  
 S510 1" = 1'-0"



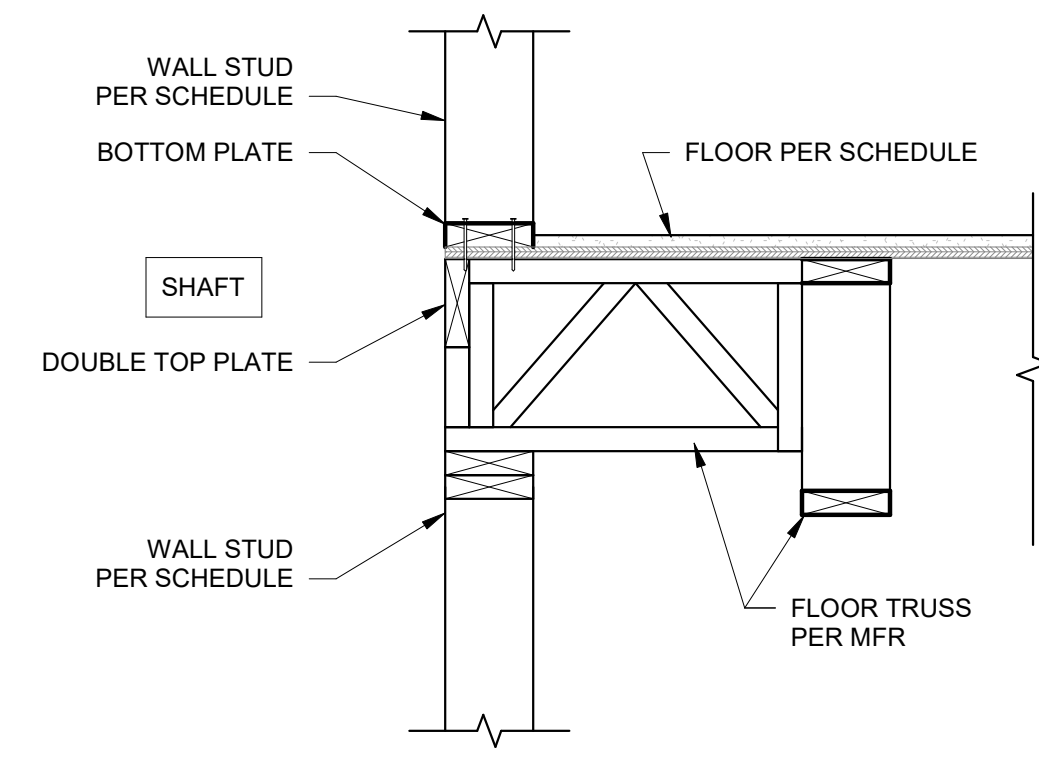
**4 FRAMING AT INTERIOR BEARING WALL (NON-SHEAR)**  
 S510 1" = 1'-0"



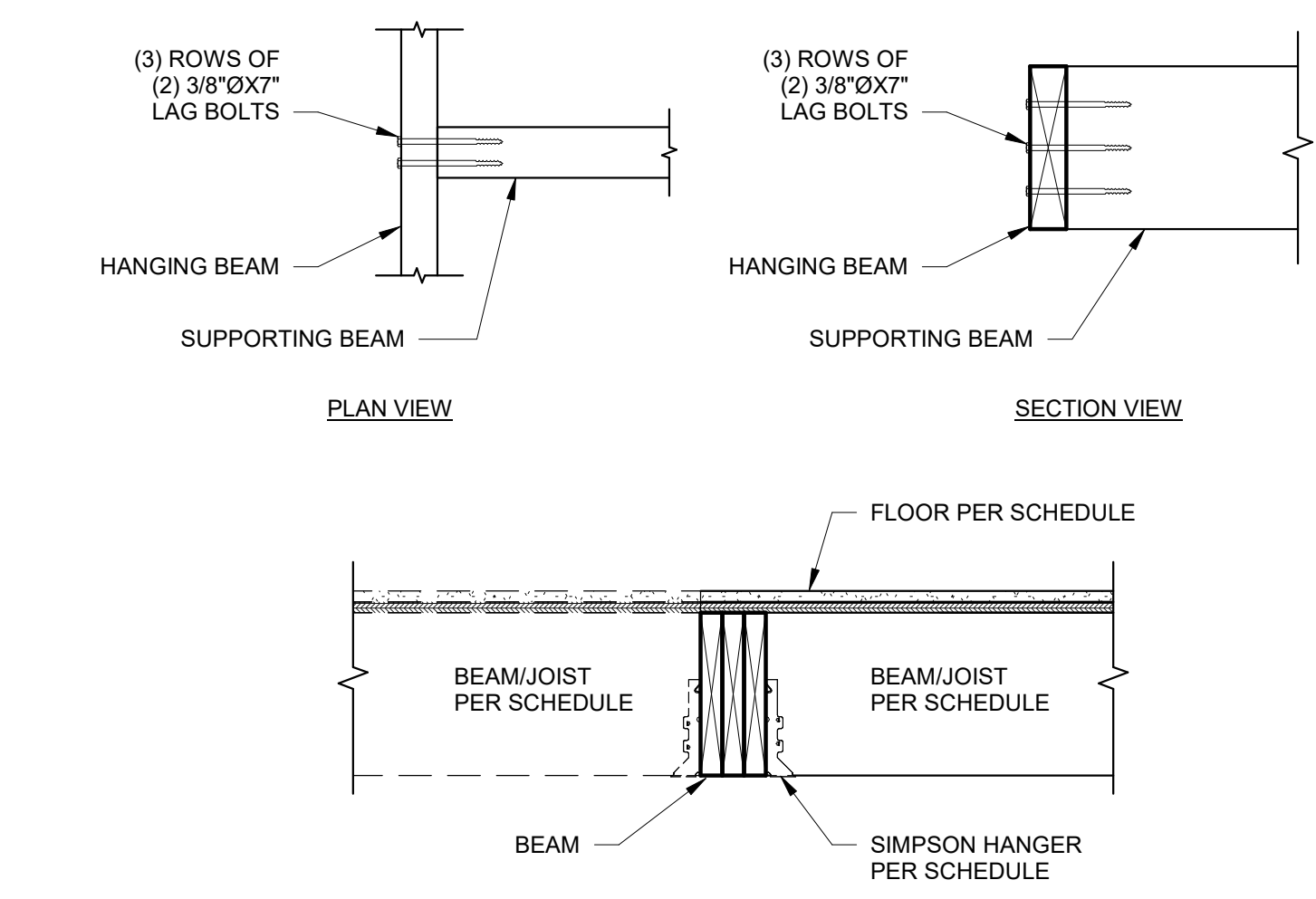
**5 RAILING FRAMING DETAIL**  
 S510 1" = 1'-0"



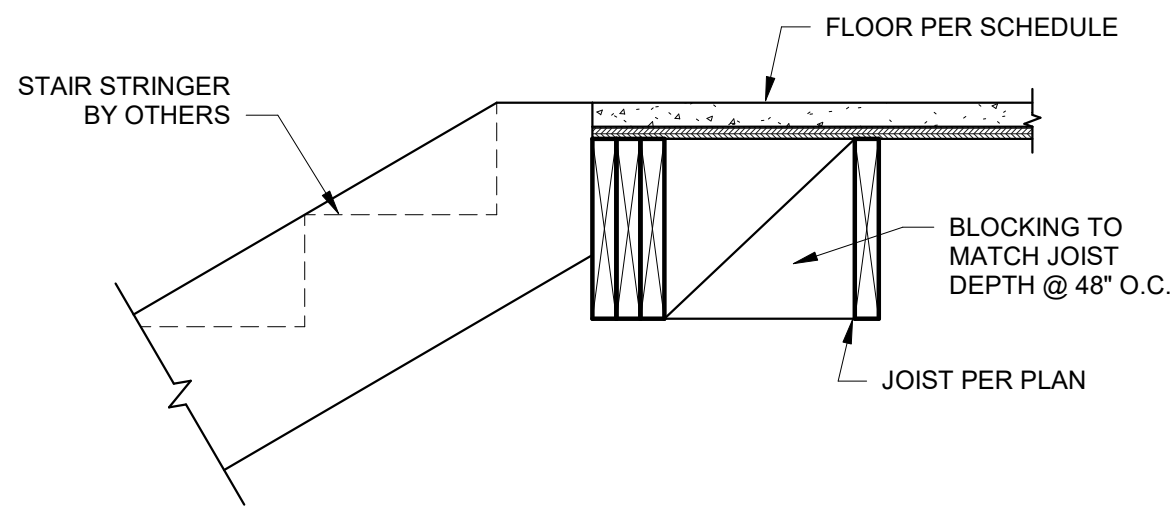
**6 NON-BEARING WALL TO JOIST**  
 S510 1" = 1'-0"



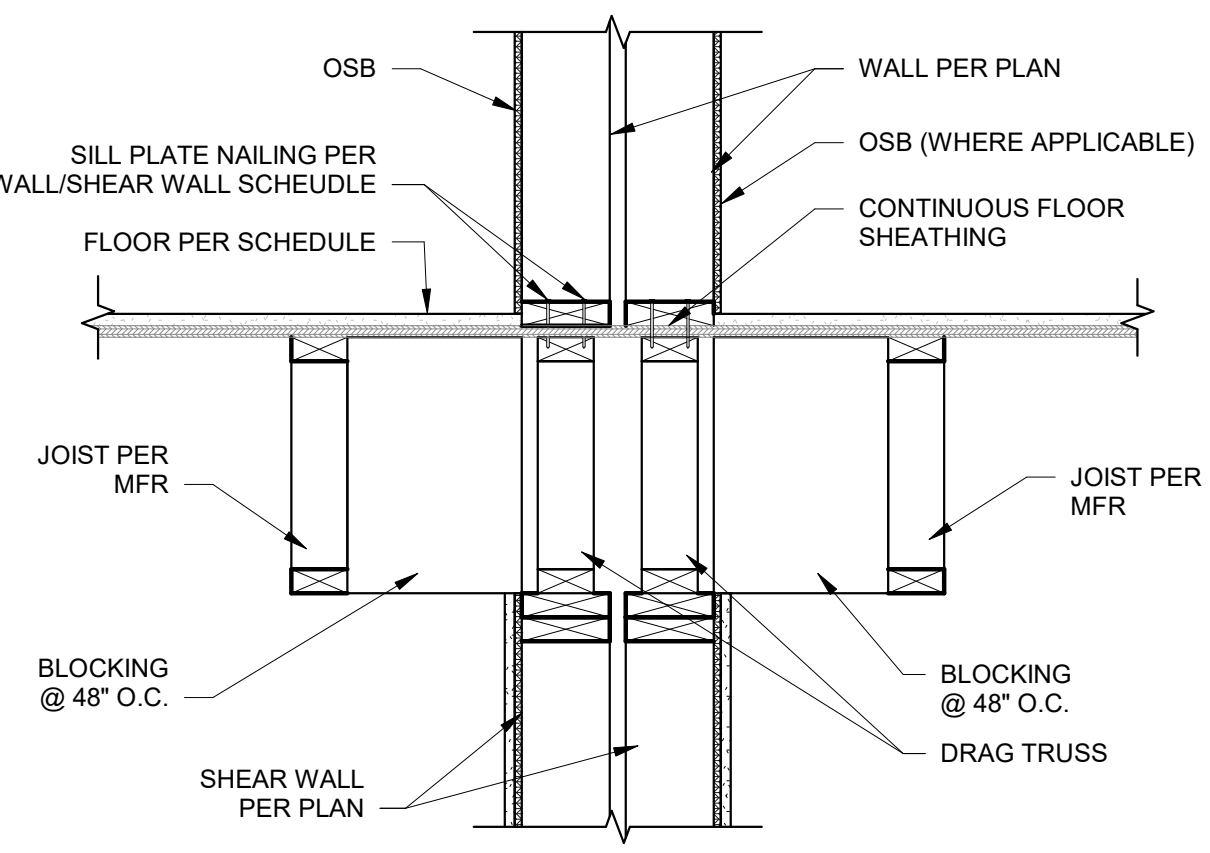
**7 TRUSS NON-BEARING AT SHAFT WALL**  
 S510 1" = 1'-0"



**8 BEAM CONNECTIONS**  
 S510 1" = 1'-0"



**9 LANDING AT FLOOR JOIST**  
 S510 1" = 1'-0"



**10 FRAMING AT PARTY WALL - JOIST PARALLEL**  
 S510 1" = 1'-0"

**NOTICE:**  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

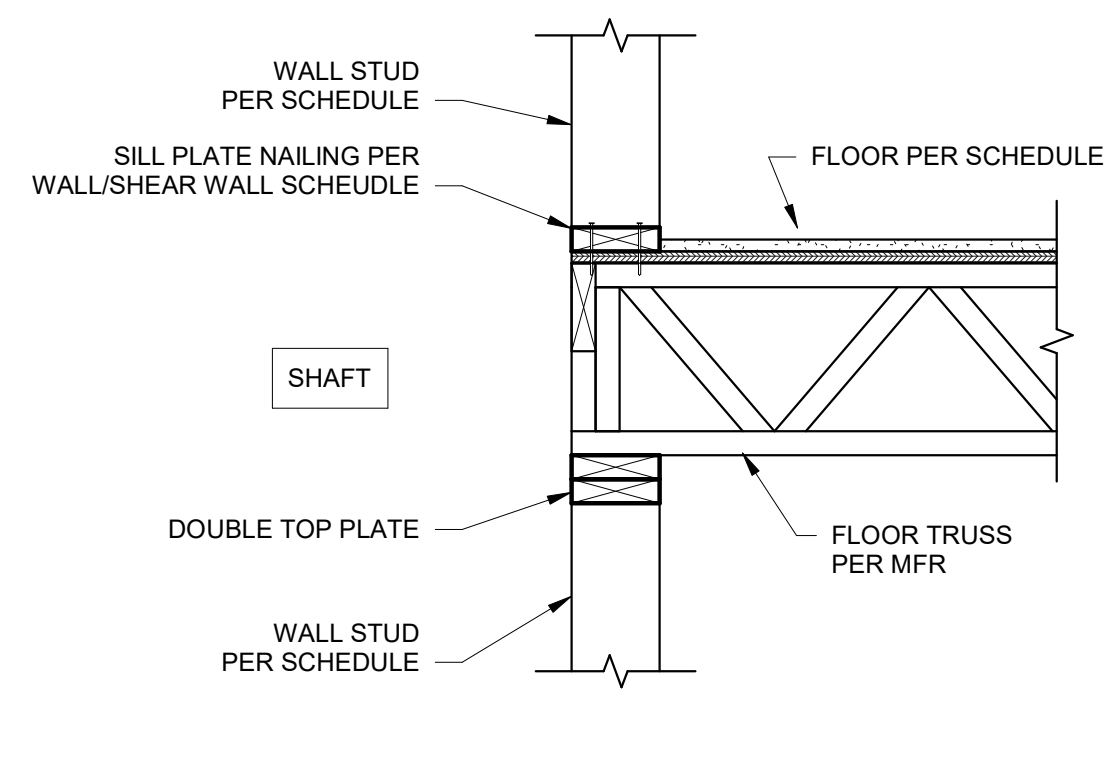
MARCUS HIMMELBERG  
 17369  
 12/31/2024  
 I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

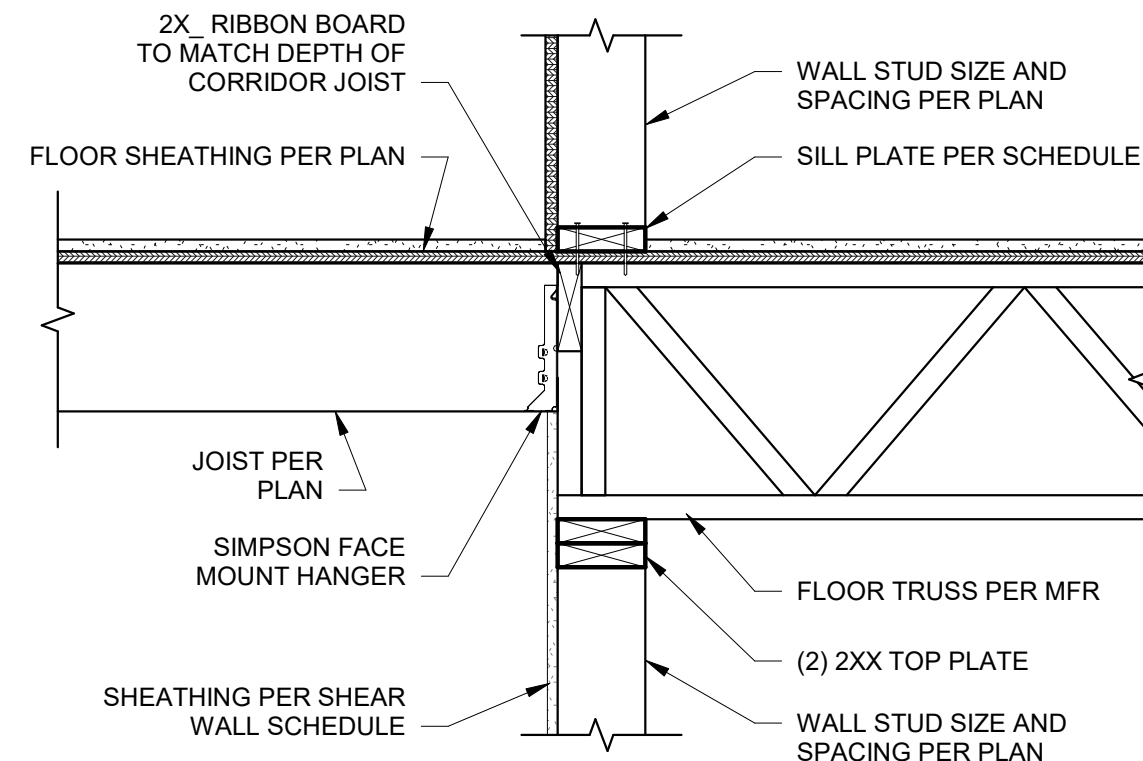
PROJECT NUMBER: 2024000185 SET ISSUE DATE:  
 ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ  
 THE RESERVES AT GRAND VIEW HEIGHTS  
 LARAMIE, WY  
 FRAMING DETAILS**

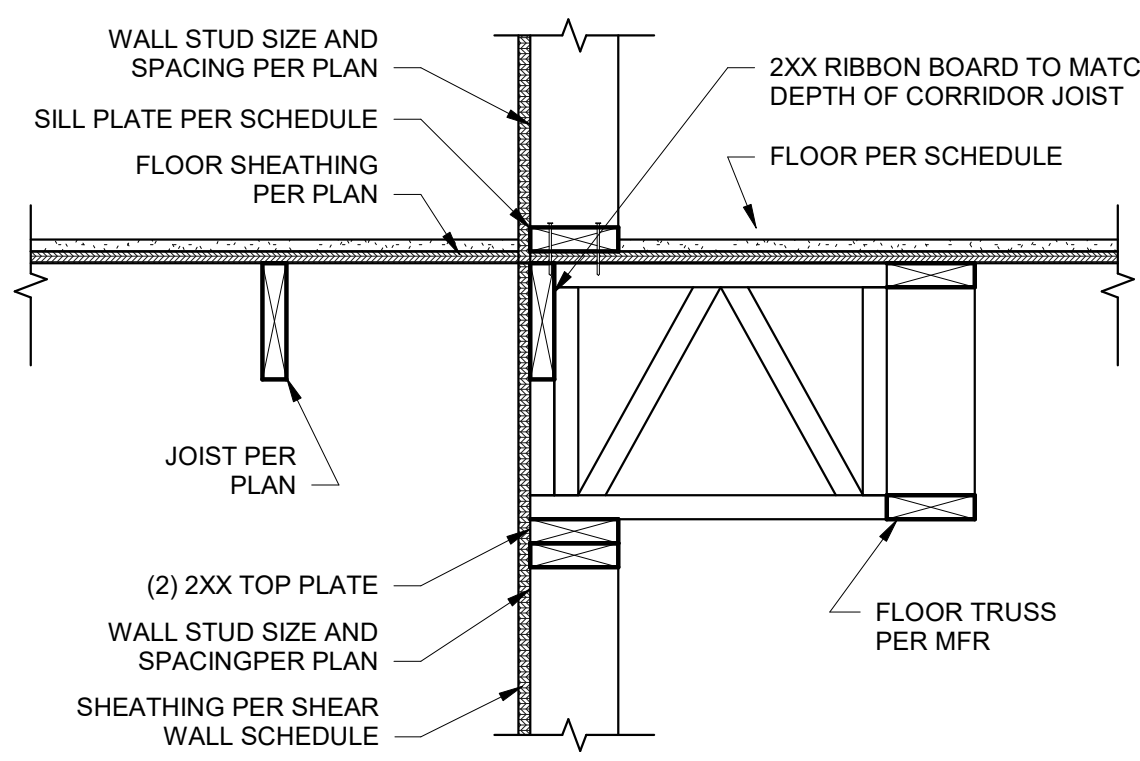
P:\2024\000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt



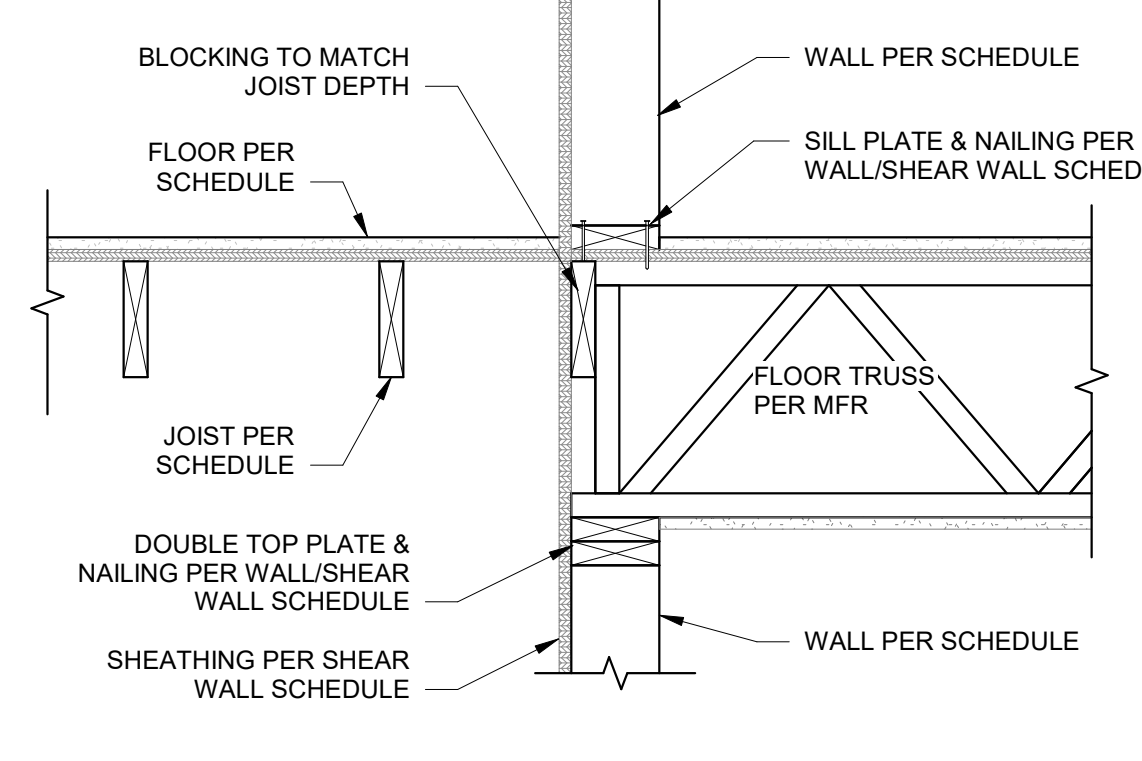
**1** TRUSS BEARING AT SHAFT WALL  
 1" = 1'-0"



**2** FRAMING AT CORRIDOR WALL  
 1" = 1'-0"

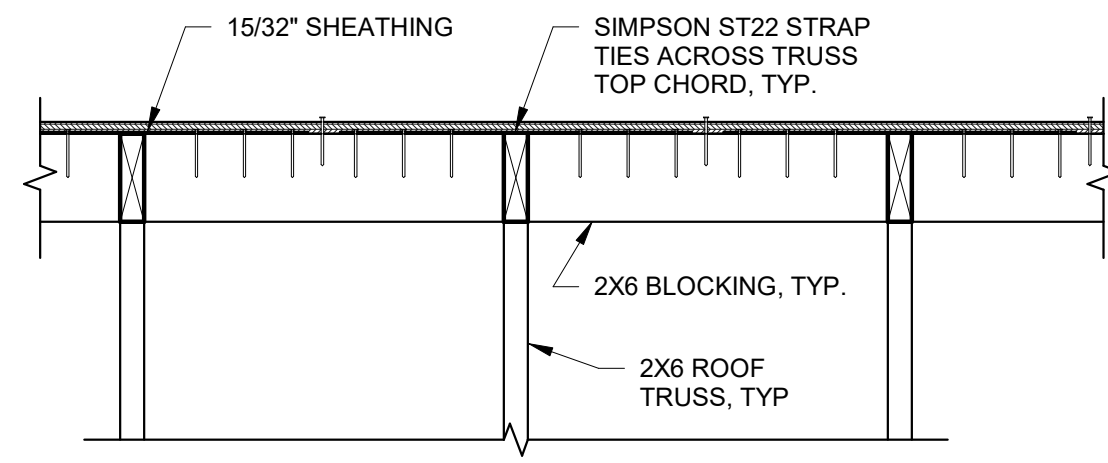


**3** FRAMING AT INTERIOR WALL  
 1" = 1'-0"

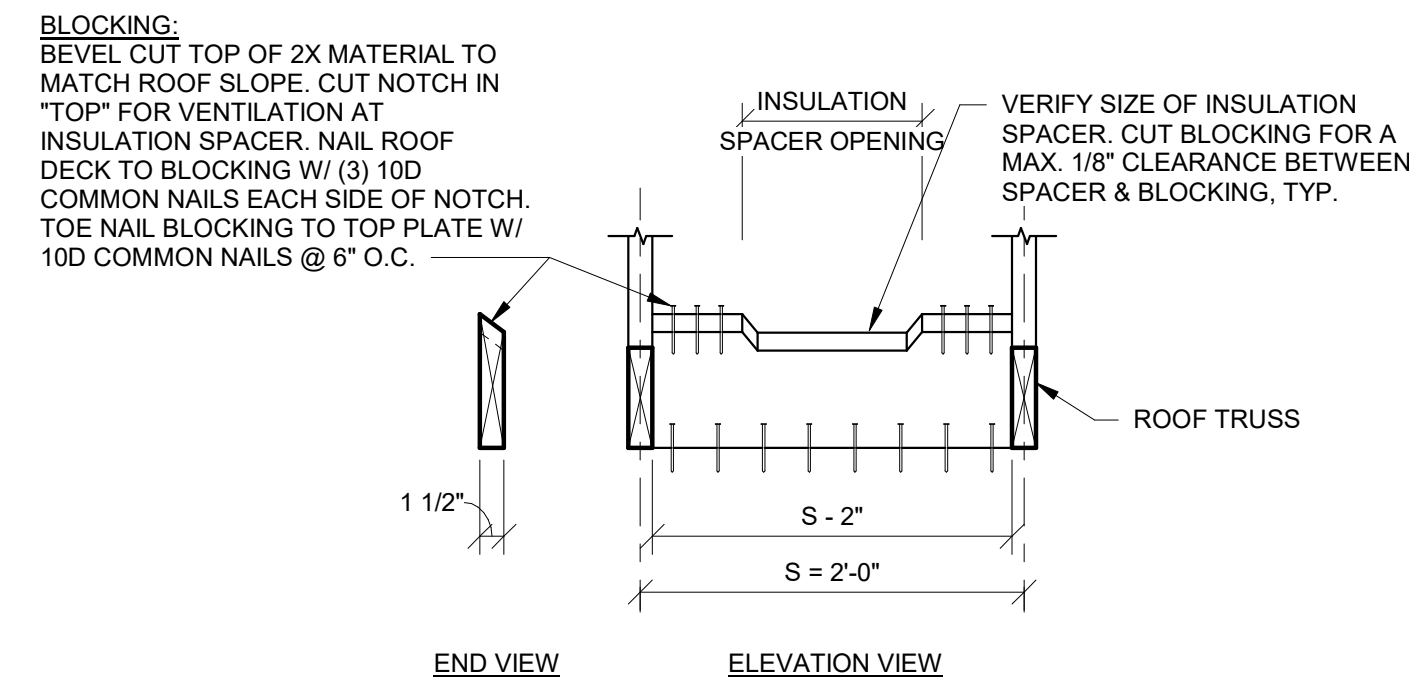


**4** FRAMING AT BREEZEWAY  
 1" = 1'-0"

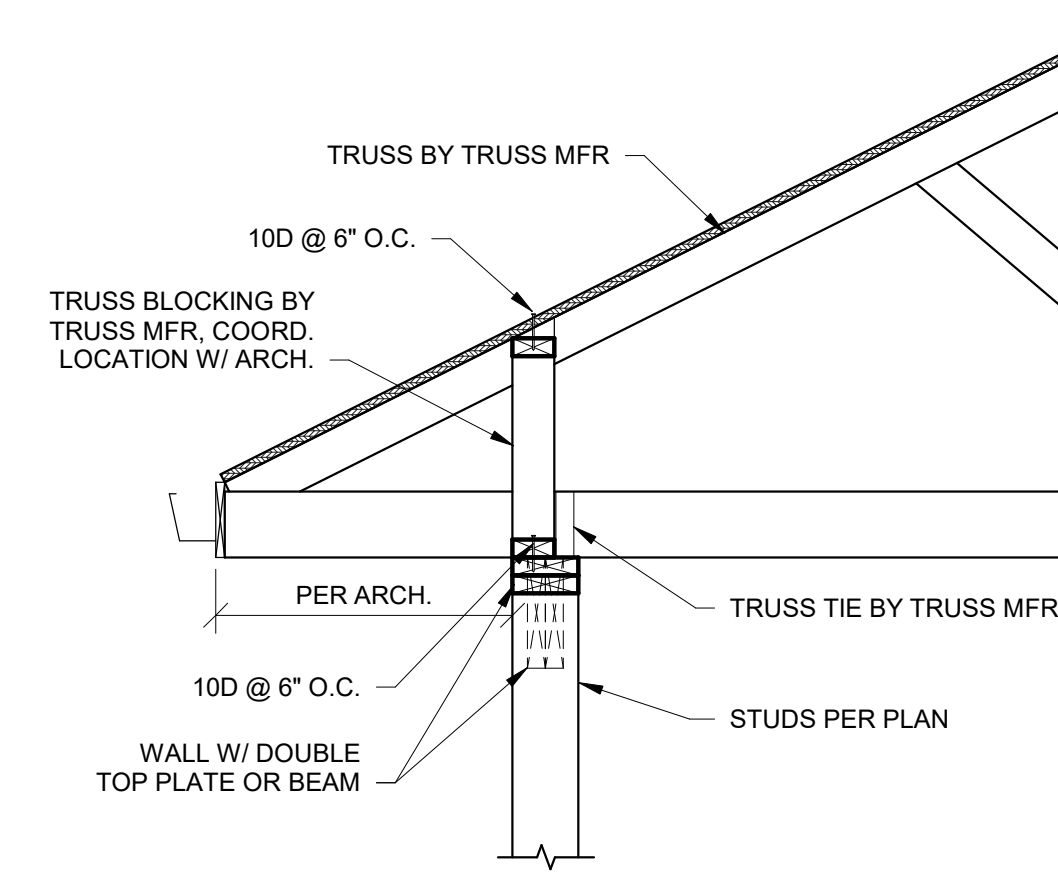




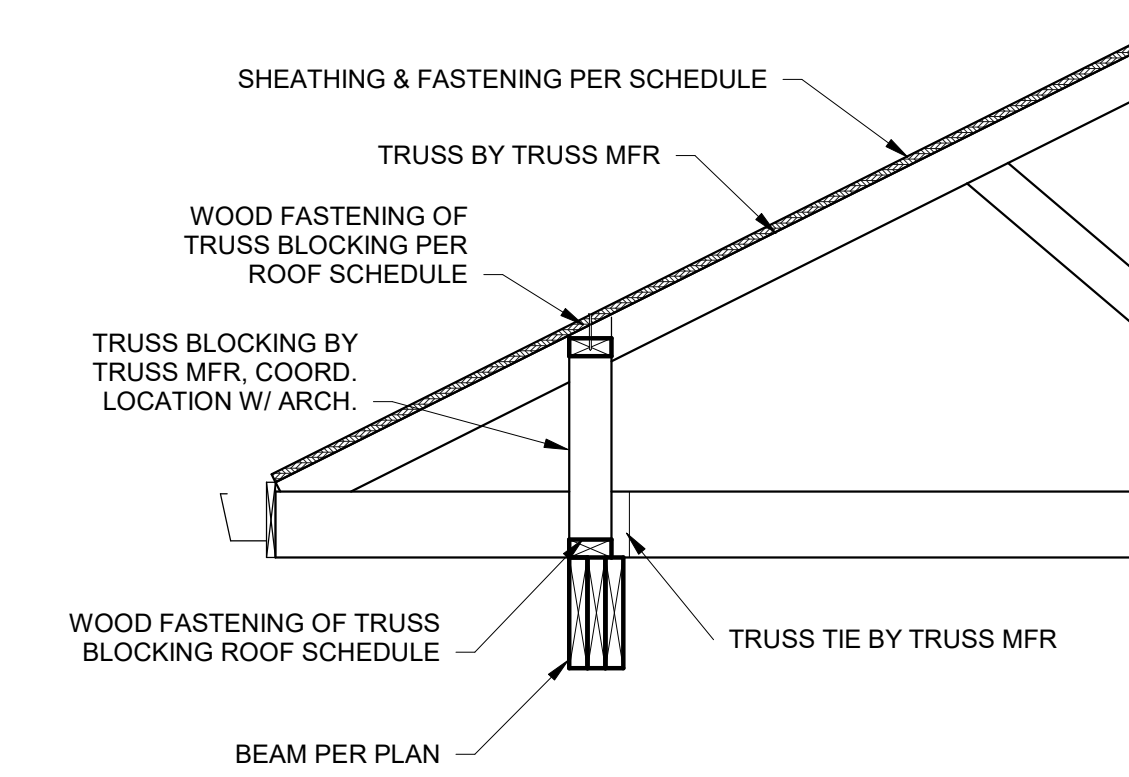
1 BLOCKING BETWEEN TRUSSES  
S520 1" = 1'-0"



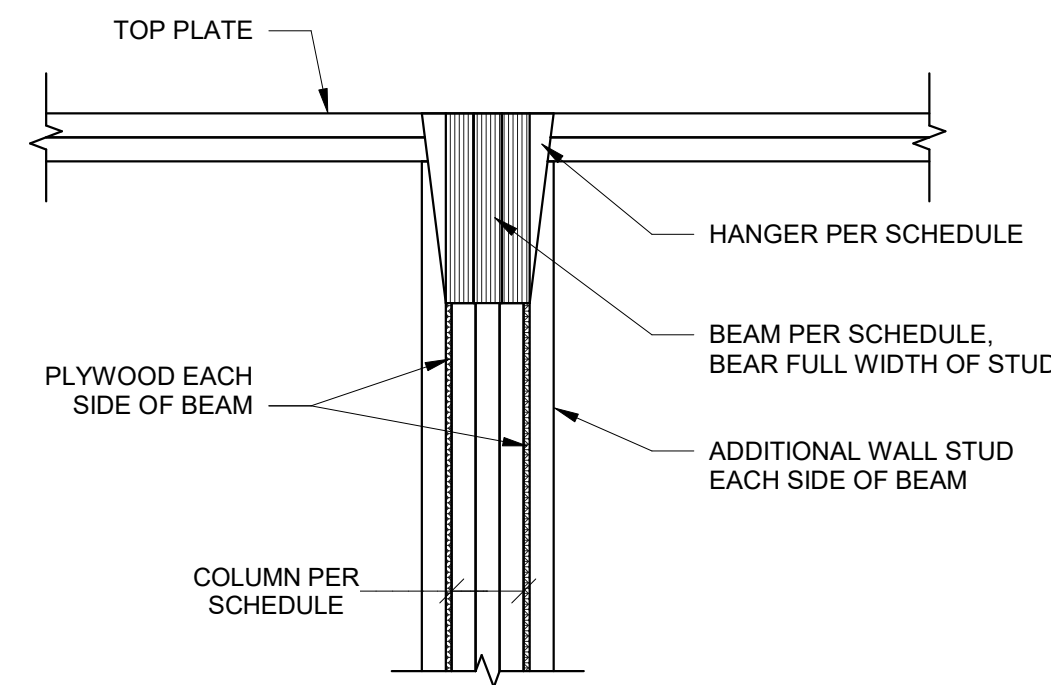
2 TRUSS BLOCKING DETAIL  
S520 1" = 1'-0"



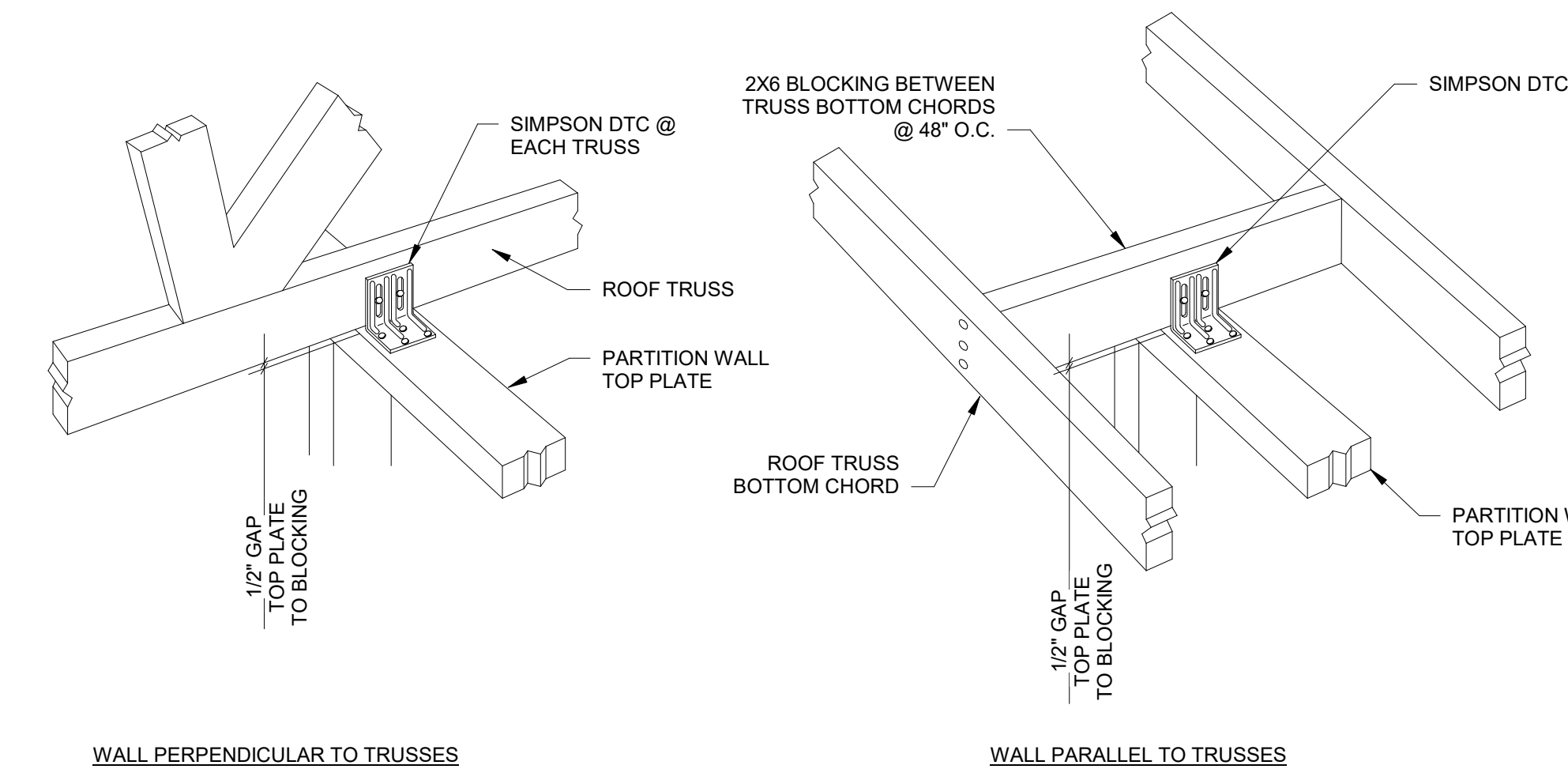
3 ROOF BEARING AT WALL/BEAM  
S520 3/4" = 1'-0"



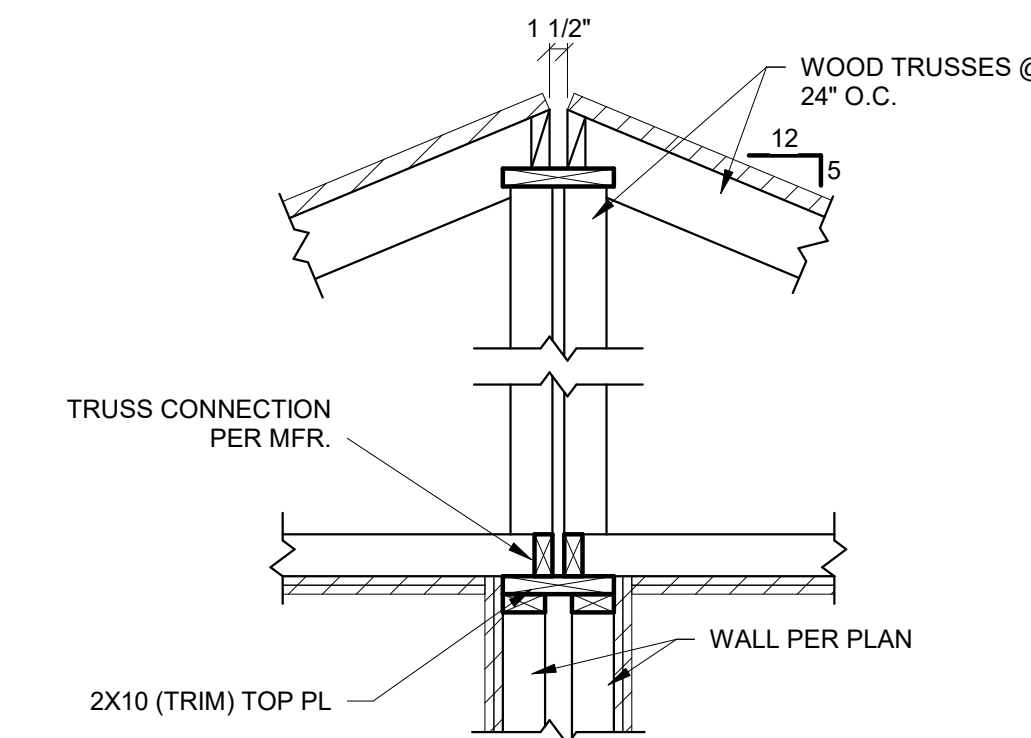
4 ROOF BEARING AT OVERHANG  
S520 3/4" = 1'-0"



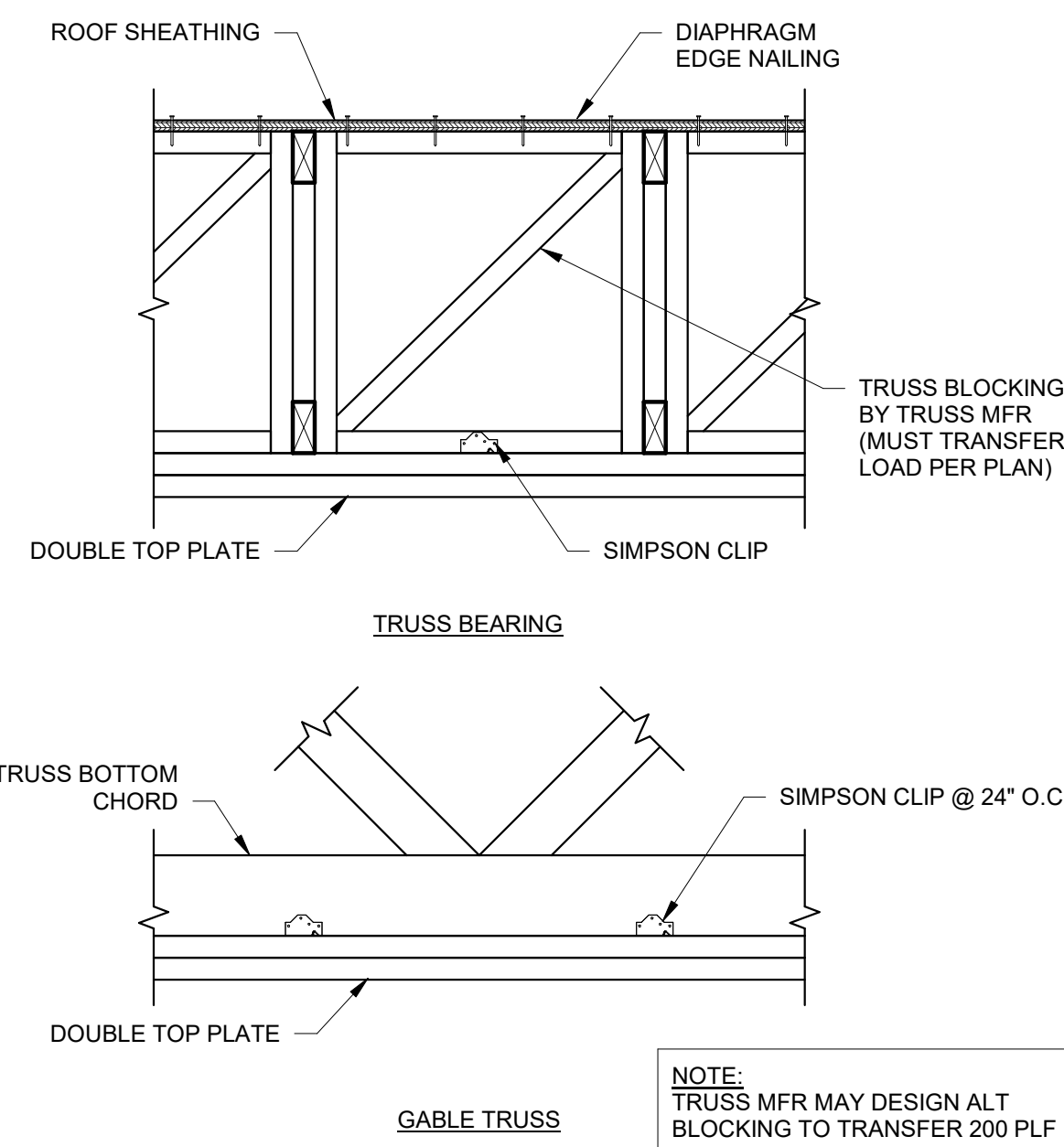
5 BEAM POCKET  
S520 1" = 1'-0"



6 PARTITION WALL AT ROOF TRUSS  
S520 1" = 1'-0"

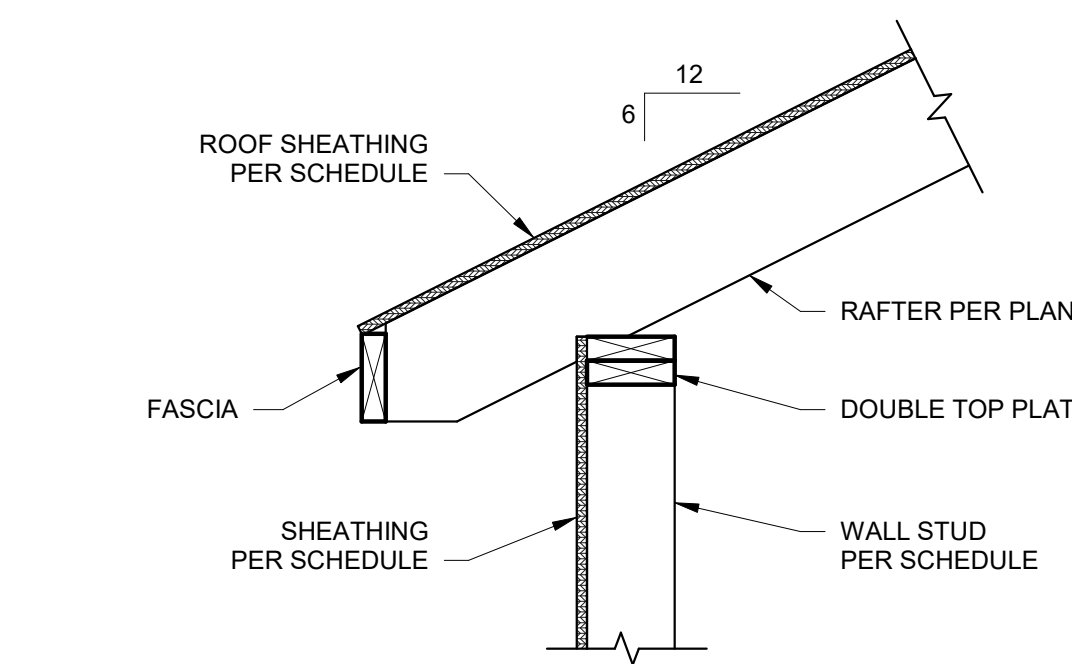


7 ROOF PEAK CONNECTION  
S520 3/4" = 1'-0"



8 DEMISING WALL AT ROOF  
S520 1" = 1'-0"

9 TRUSS BLOCKING  
S520 1" = 1'-0"



10 SECTION AT RAFTER  
S520 1" = 1'-0"

**NOTICE:**  
McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
NO. E-1790  
EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
17369  
12/31/2024  
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE:  
ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

JONES GILLAM RENZ  
THE RESERVES AT GRAND VIEW HEIGHTS  
LARAME, WY  
ROOF DETAILS

**NOTICE:**  
 McClure Engineering Co. is not responsible or liable for any issues, claims, damages, or losses (collectively, "Losses") which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for Losses which arise from failure to obtain and/or follow the engineers' or surveyors' guidance with respect to any alleged errors, omissions, inconsistencies, ambiguities, or conflicts contained within the Plans or Specifications.

WYOMING CERTIFICATE OF AUTHORITY  
 NO. E-1790  
 EXPIRES: DECEMBER 31, 2025

**FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION**

MARCUS HIMMELBERG  
 17369  
 12/31/2024

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF WYOMING.

No.	Description	Date

PROJECT NUMBER: 2024000185 SET ISSUE DATE:

ENGINEER: MDH DRAWN BY: CEL CHECKED BY: IWC

**JONES GILLAM RENZ**  
**THE RESERVES AT GRAND VIEW HEIGHTS**  
 LARAMIE, WY  
**SHEAR WALL DETAILS**

P:\2024000185-000 - JGR - The Reserves at Grand View Heights\04-Drawings\2024000185 - JGR - THE RESERVES AT GRAND VIEW HEIGHTS - R23.rvt

