GENERAL STRUCTURAL NOTES

GENERAL

- 1. Changes to these contract drawings may be made only by an authorized representative of the engineer or architect. The architect or engineer shall not be held responsible or liable for any claims arising directly or indirectly from changes made without written authorization by an authorized representative.
- Omissions or conflicts between the contract drawings and/or specifications shall be brought to the attention of the architect/engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the architect/engineer at no additional cost to the owner.
- The contractor shall be responsible for means, methods, techniques, sequences, and procedures in order to comply with the contract drawings and specifications. The contractor shall provide adequate shoring and bracing as required for the chosen method of erection. Shoring and bracing shall remain in place until final connections for the permanent members are completed. The building shall not be considered stable until all connections are completed. Walls shall not be considered self-supporting and shall be braced until the floor/roof system is
- The contractor shall coordinate with all trades any items that are to be integrated into the structural system such as openings, penetrations, mechanical and electrical equipment, etc. Sizes and locations of mechanical and other equipment that differs from those shown on the contract drawings shall be reported to the architect/engineer.
- The contractor shall submit a written request to the architect/engineer before proceeding with any changes, substitutions, or modifications. Any work done by the contractor before receiving written approval will be at the contractor's risk.
- The contractor shall verify all site conditions and dimensions. If actual conditions differ from those shown in the contract drawings, the contractor shall immediately notify the architect/engineer before proceeding with the fabrication or construction of any affected
- The structural notes are intended to complement the project specifications. Specific notes and details in the drawings shall govern over the structural notes and typical details.
- Typical details and sections shall apply where specific details are not shown. Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings. The structural drawings shall be used in conjunction with the architectural and other consultants' drawings. Most dimensions and most non-structural elements such as elevations, depressions, slopes, mechanical housekeeping pads, etc. are not shown in the structural drawings. See the Architectural Drawings for dimensions, doors, windows, non-bearing interior

and exterior walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings,

- waterproofing, finishes, chamfers, kerfs, etc. Shop drawings made from reproductions of the drawings will be rejected unless the contractor
- signs a release agreement prior to the shop drawings being reviewed. Review of shop drawing submittals by the engineer is for general compliance only and is not intended for approval. The shop drawing review shall not relieve the contractor from the
- responsibility of completing the project according to the contract documents. All work shall be done in accordance with OSHA requirements. Potential conflicts between these documents and OSHA requirements shall be brought to the attention of the structural
- 13.

engineer before proceeding with the work.		 Laminated Veneer Lumber (LVL), Laminated Strand Lumber (LSL), and Rim Board
Site observations by the engineer and or architect shall not be construed as approval of construction, the procedures, nor special inspection. The terms "Engineer" and "Engineer of Record" (EOR) are meant to refer to an authorized representative of MJ Structural Engineers.		 LVL, LSL and Rim Board shall comply with ASTM D5456.
		 All LVL shall be a minimum of 1 3/4" thick and shall have the following minimum properties, U.N.O.
		Fb = 2600 psi; E = $2.0x10^6$ psi; Fv = 285 psi; Ft = 1555 psi; Fc = 2510 psi; Fc_ _ = 750 psi
		 All LSL shall be a minimum of 1 1/4" thick and shall have the following minimum properties, U.N.O. Fb = 1700 psi; E = 1.3x10⁶ psi; Fv = 400 psi; Ft = 1075 psi; Fcll = 1400 psi; Fc_l_ = 680 psi
TC FOR DECICAL		 All Rim Boards shall be a minimum of 1 1/4" thick and shall have the following minimum properties
IS FOR DESIGN		Fb = 1130 psi; E = 0.8x10 ⁶ psi; Fv = 355 psi; Fc_l_= 1415 psi Handle, store and install all LVL, LSL, and Rim Boards per the manufacturer's guidelines.
Governing Building Code	International Building Code 2021	 Connect multiple members together per the manufacturer's guidelines and as shown in the details.
Risk Category	II	 Where discrepancies exist between the manufacturer's guidelines and the details shown in these plans, use the more stringent of the requirements.
Floor Live Loads		• Nails
Uniformly Distributed Loads		 All Nails shall conform with the tolerances specified in ASTM F1667, "Standard Specification of Drive
Offices + Partitions	50 psf + 20 psf	Fasteners: Nails, Spikes and Staples."
Lobbies & Main Floor Corridors	100 psf	All nails shall be common nails with the following properties:
Corridor Above Main Floor Mechanical Rooms	80 psf	Neil Green Charle Diameter Min. Penetration into
Concentrated Loads, all areas	150 psf 2000 lbs	Nail Size Shank Diameter Support Member 6d 0.113" 1.25"
		8d 0.131" 1.50"
		10d 0.148" 1.63"
		12d 0.148" 1.63"
		16d 0.162" 1.75"
		 Nails with properties less then those listed above shall not be used without prior written approval fr the Engineer.
		 Nails shall have round (full) heads. Nails with "T", brad, finish or casing heads are not permitted.
		 Deformed shank nails shall have either a helical (screw) or an annular (ring) shank. Bolts
		 Anchor Bolts: ASTM F1554 Grade 36 (or A307 Grade A/C or A36)
		 All anchor bolts connecting the sill plate to the concrete foundation shall have a PL1/4"x3"x3"
		washer between the sill plate and the nut and have a minimum 7" embedment into concrete.
		 Connection Bolts: ASTM A307 Grade A/C/ or A36
		 All bolted connections shall have a standard cut or larger washer on both sides of the connectio (between the head and the wood member and between the nut and the wood member).
		 Bolt holes shall be a minimum of 1/32" to a maximum of 1/16" larger than the bolt diameter. Holes be accurately aligned in main members and side plates or side members. Bolts shall not be forcibly
	2	 All bolted connections shall have a standard cut or larger washer on both sides of the connection. Connection Hardware
		All connection hardware shown shall be supplied by Simpson Strong-Tie Incorporated or USP structura
		connectors.Install all hardware per the manufacturer's guidelines.
		 Connection hardware of equal design properties by other manufacturers may be substituted with written
		approval from the Engineer.
	3	All fasteners in contact with pressure-treated or fire-treated wood shall be hot-dipped zinc-coated galvania
		stainless steel.
	4	
	5	
	6	Provide rim board or solid blocking at all joist, rafter, and truss bearing points U.N.O. Where blocking is use at least 2" (nominal) thick full depth of joist and shaped to match slope of blocked member.
		Rim board or blocking between joists shall be nailed to the wood plate at the top of the wall with one
		Simpson "A35" framing anchor per each piece of blocking. Fill all holes in the framing anchors with
	_	8d x 1 1/2" nails (12 nails per A35), unless shown otherwise on the drawings.
	7	Provide approved bridging at 8'-0" on center maximum between joist or rafter end supports where both the bottom chord of the member are not braced with sheathing or wall board.
	8	<u>-</u>
		• Where a built-up beam connection is not shown in the details, built-up beams shall be connected as fo
		 Members 12" or less in depth shall be spiked together with not less than 16d spikes at 12" on center
		 Members more than 12" shall be connected together with 1/2" diameter bolts at 24" on center, stay shall be placed one-quarter of the depth of the member from the top and bottom of the member.
	9	·
	9	top-plate splice schedule.
		 Where a top-plate splice is not shown in the details, top plates splices shall be staggered a minimum of
		from the nearest splice in adjoining top plate and spiked together with a minimum of (20) 16d nails be splices unless noted otherwise.
	1	
	1	1 Do not cut or notch any wood stud greater than 25% of its width. Do not here a help in any wood stud gr

WOOD

Materials

Dimension Lumber and Timbers (Sawn Lumber)

All dimensioned lumber shall comply with USDOC PS20.

Visually graded dimension lumber shall be Douglas Fir-Larch #2 or better.

Visually graded timbers (5" x 5" and larger) shall be Douglas Fir-Larch #1 or better. Machine stress rated (MSR) lumber shall be 1600f-1.6E or better.

End jointed lumber may be used interchangeably with solid sawn members of the same species and grade with written approval from the Engineer.

Wood sheathing shall be APA rated sheathing Exposure 1 unless noted otherwise and shall conform to the requirements for its type in USDOC PS1 or USDOC PS2. The panels must be identified by the trademarks of the approving testing and inspection agency.

Wood sheathing minimum thicknesses, span ratings, and nailing requirements shall be as indicated in the Roof and Floor Sheathing Schedule, unless noted otherwise.

Wood sheathing shall have the following minimum thicknesses and span ratings, unless noted otherwise: 15/32" (32/16), 19/32" (40/20)

Floor 23/32" (48/24) Wall 15/32" (32/16), 7/16" (24/16)

Nails or other approved fasteners used to connect sheathing to the structure shall be driven such that their head or crown is flush with the surface of the sheathing. Do not overdrive fasteners. Prefabricated Wood I-joists

I-joists shall comply with ASTM D5055

Wood Structural Panel Sheathing

All prefabricated wood joists shall be as called out on plan and manufactured by the following: BCI: Manufactured by Boise Cascade.

TJI: Manufactured by i-Level (Weyerhaeuser).

LPI: Manufactured by LP Building Products (Louisiana-Pacific Corporation).

I-joists of equal design properties as those called for on plan, including depth, stiffness and flange width may be substituted with written approval from the Engineer.

Handle, store and install all wood I-joists per the manufacturer's guidelines. DO NOT cut or notch flanges.

Holes cut in the webs of the I-joists shall be per the manufacturer's guidelines.

Structural Glued Laminated Timber (GLB)

Structural glued laminated timber shall be manufactured and identified as required in ANSI A190.1 and ASTM D3737.

Glulam beams shall be the following species and combination number:

 Simple-Span Glulam Beams: Douglas-fir 24F-V4 1.8E Continuous-Span and Cantilevered Glulam Beams: Douglas-fir 24F-V8 1.8E

 Hybrid combination glulams with equivalent design properties may also be used with written approval from the Engineer.

Appearance of members shall be Framing or Industrial appearance. Camber: unless otherwise noted on the drawings, all stock glulam beams shall be cambered to industry

standard 3500'-0" radius. Stock beams with zero camber are acceptable where available.

Laminated Veneer Lumber (LVL), Laminated Strand Lumber (LSL), and Rim Board

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ted otherwise. used, it shall

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ggered. Bolts hown in the

11. Do not cut or notch any wood stud greater than 25% of its width. Do not bore a hole in any wood stud greater in diameter than 40% of its width. Bored holes shall be centered in the stud whenever possible. In no case shall the edge of any bored hole be nearer than 1" to the edge of the stud. Bored holes shall not be located at the same section of stud as a cut or notch.

 Bored holes up to 60% of the stud width are allowed provided that an additional stud is placed adjacent to the stud to be bored, that the bored hole is centered in the stud, and no more than two successive sets of studs are so bored.

Architecture and Interiors

MSRDesign 510 Marquette Avenue South, Suite 200

Minneapolis, MN 55402 | 612 375 0336

...... STRUCTURAL ENGINEERS 5673 S Redwood Rd. Salt Lake City, UT 84123 Office: 801-905-1097 mjstructuralengineers.com

Structural Seal



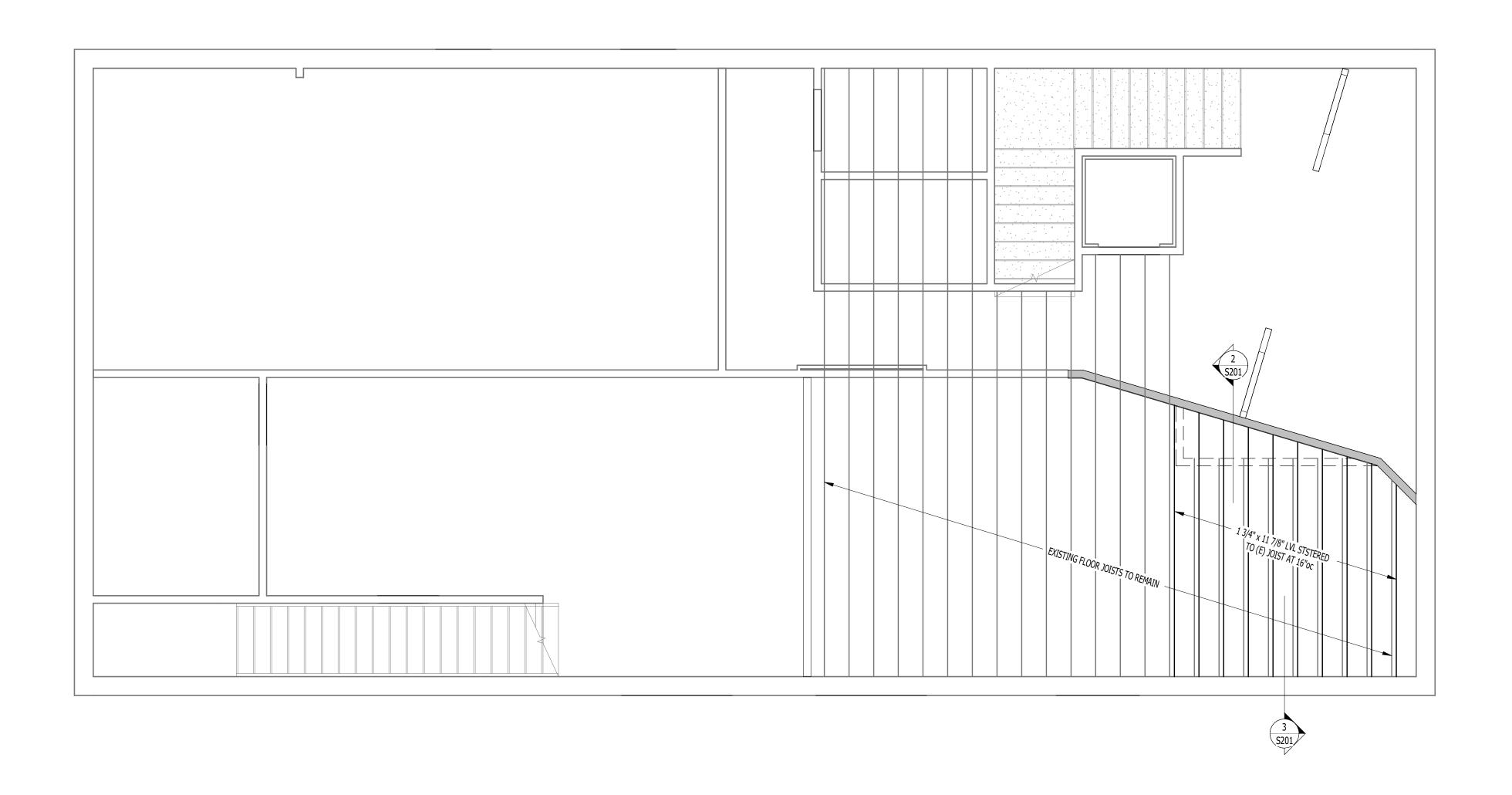
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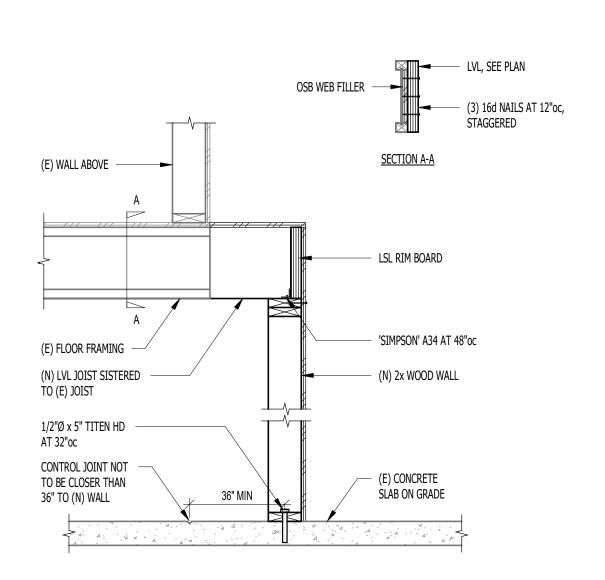
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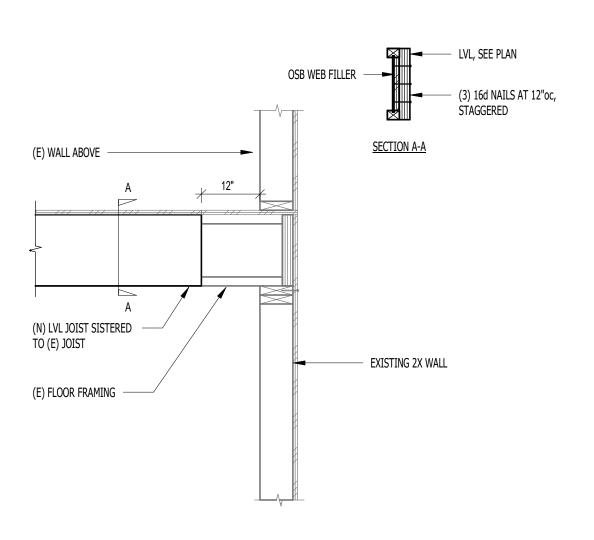
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GENERAL STRUCTURAL NOTES



1/4" = 1'-0" 2 0 2 4 6





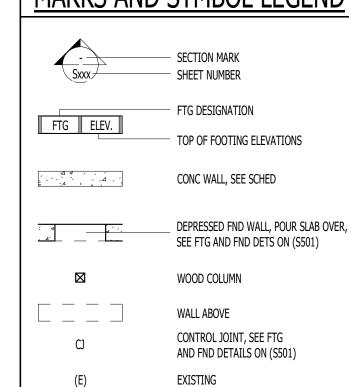
2 NEW JOIST SISTERED TO EXISTING
S201 NO SCALE:

3 NEW JOIST SISTERED TO EXISTING
S201 NO SCALE:

FOOTING AND FOUNDATION PLAN NOTES

SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
 COORDINATE LOCATION OF DEPRESSED SLABS, SLOPED SLABS, AND FLOOR DRAINS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
 SEE ARCHITECTURAL DRAWINGS AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.

MARKS AND SYMBOL LEGEND



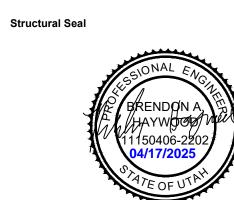
Architecture and Interiors

MSRDesign
510 Marquette Avenue South, Suite 200
Minneapolis, MN 55402 | 612 375 0336

5673 S Redwood Rd.
Salt Lake City, UT 84123
Office: 801-905-1097
mjstructuralengineers.com

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Project



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ISSUE / REVISION

FRAMING PLAN

S201