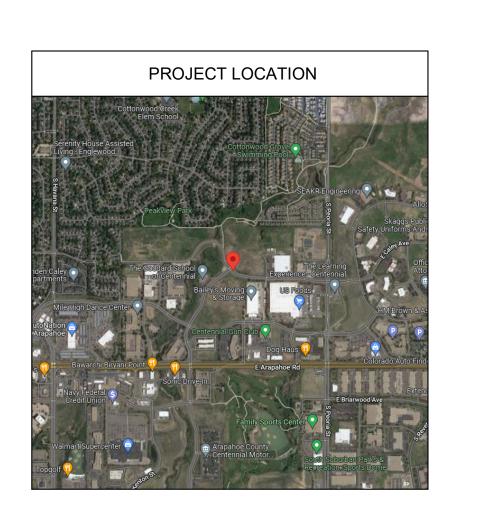
COMPOSITE TOTALJOIST FRAMING FOR

SOUTH VALLEY MEZZANINE

1511 E CALEY AVE, CENTENNIAL, COLORADO, CO 80111



SHEET LIST							
SHEET NUMBER	CURRENT REVISION DATE	CURRENT REVISION	SHEET NAME				
S.100	2022-08-18	3	COVER PAGE				
S.101	2022-08-18	3	SCHEDULES				
S.202	2022-08-18	3	2ND FLOOR FRAMING PLAN				
S.203	2022-08-18	3	2ND FLOOR HOLE LAYOUT				
S.500	2022-08-18	3	COMPOSITE FASTENING DETAILS				
S.501	2022-08-18	3	FLOOR DETAILS				
SL.202	2022-08-18	3	2ND FLOOR FRAMING LAYOUT				

ARCHITECTURAL

REVISION

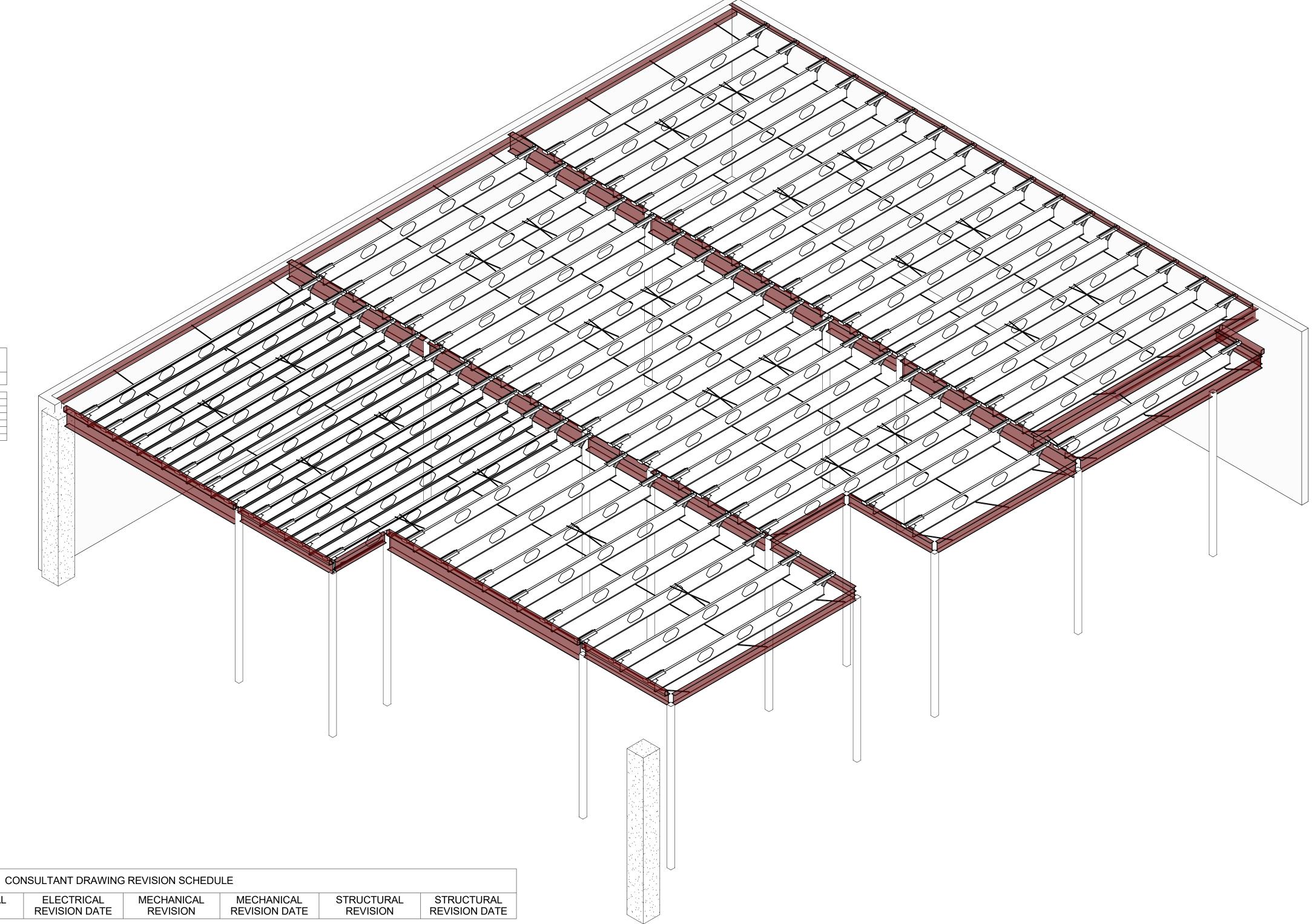
SOUTH VALLEY PREFAB

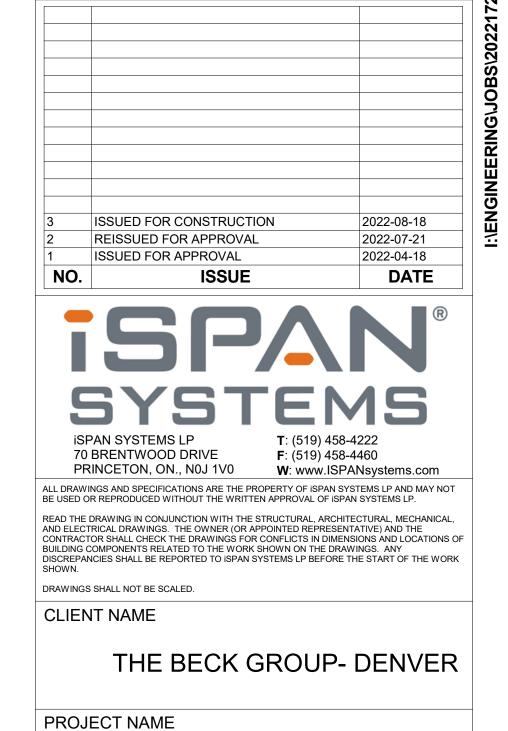
ARCHITECTURAL

REVISION DATE

ELECTRICAL

REVISION





COVER PAGE

DRAWN BY: CHECKED: CURRENT ISSUE:

M.S ISSUED FOR APPROVAL CONSTRUCTION

SOUTH VALLEY MEZZANINE

1511 E CALEY AVE, CENTENNIAL, COLORADO, CO

PROJECT NO.: DRAWING NO.

20221727

SHEET NAME

2022-04-05

S.100

GENERAL NOTES

- 1.0 The design of the work displayed on these drawings is in accordance with the ICC IBC- [2021], CSA standard AISI S100-[16] North American standard for the design of cold formed steel structural members, ACI 318-[19] building code requirements for structural concrete and AISC 360-[16] design of steel structures.
- These drawings are to be read in conjunction with the structural, architectural, mechanical, and electrical drawings. The owner (or appointed representative) and the contractor shall check the drawings for conflicts in dimensions and locations of building components related to

the work shown on these drawings. Any discrepancies shall be reported to iSPAN Systems LP

3.0 Provision for future expansion or alterations:

before the start of the fabrication process.

- 3.01 The structure has not been designed for future lateral expansion. 3.02 The structure has not been designed for future vertical expansion.
- 4.0 The installer shall notify iSPAN Systems LP of any damage to product prior to it being installed and within 24 hours of delivery. iSPAN will address the damage promptly and / or agree on a solution to proceed at iSPAN's cost. If damaged product is installed or notification is given later than 24 hours from delivery, the installer shall be responsible for the cost of labour and material to repair damaged materials.
- [The engineer of record is responsible for the review of existing construction for the additional loads as per the proposed construction.]

LOADING

- General
- The structure has been designed for the loads shown on these drawings only. No other loads have been considered in the design including, but not limited to, lateral loads, loads to support top of concrete / masonry walls, loads to brace beams by
- 1.02 If additional loading is required that is not shown on these drawings, the consultant responsible for the design of the element imposing load shall provide the following to iSPAN:
 - Specified load magnitude and type. Specified load location at all locations where loads are imposed.
- 2.0 Gravity Loads

<u>Floors</u>					
Live Loads					
125 psf	125 psf				
Dead Loads					
40 psf					
25 psf					
	40 psf				

2.01 See plans for special loading areas.

	<u>DEFLECTION LIMITS</u>						
	<u>FLOORS</u>		ROOF				
	LIVE LOAD	L/480	LIVE LOAD	L/360			
	TOTAL LOAD	L/240	TOTAL LOAD	L/180			

MATERIAL

- - 1.01 All miscellaneous materials shall be designed by others. Where loads are imposed on the structure from the miscellaneous materials, the designer of the miscellaneous materials shall inform iSPAN of location(s), load type and magnitude of all loads. Elements not specified upon these drawings shall be deemed as miscellaneous
 - Examples of miscellaneous materials include, but are not limited to, ladders, railings, stair stringers, risers, treads, permanent seating and associated framing, permanent

shelving and associated framing, grating, framing to support finishing materials, etc.

- 2.0 CFS Material
 - 2.01 18ga joists: ASTM A653 SS grade 50.
 - 16ga and 14ga joists: ASTM A653 HSLAS grade 60
 - Galvanized coating thickness is minimum G60 All other sheet metal: ASTM A653 SS grade 50 U.N.O.
- - Anchor bolts conform to ASTM A307 grade C.
 - Structural bolts, nuts and washers conform to ASTM F3125 A325. Sheet steel screws shall be ITW self drilling, self tapping screws or equivalent.
- All sheet steel screws and connectors shall be corrosion resistant. minimum coating 0.0007" of mechanical zinc.
- Welded Connections
- 4.01 Arc welding shall be performed by a fabricator certified in accordance with appropriate AWS standards and procedures for the type and position of welding being performed.
- Arc welds thickness from 1/32" to 1/8": Welding shall conform to the requirements of AISI S100 and shall be performed with the applicable requirements of AWS D1.3. When welding thicknesses over 1/8", welding shall conform to AWS D1.3.
- Concrete For Floors
- Concrete shall be minimum 3000 psi compressive strength in accordance with ACI 318-[19].
- Max water to concrete ratio of 0.55.
- Max siliceous or carbonate aggregate in accordance with ACI 318-[19]. Areas exposed to freezing and thawing shall have 6% to 8% air entrainment
- Concrete in garage areas shall contain minimum 6x6 6/6 welded wire mesh. Concrete in all other areas may contain macro synthetic fiber approved included in UL G555 at a dosage of 4 lbs/yd³ in lieu of or in addition to welded wire mesh.
- Contractor shall coordinate compressive strength tests during each pour, min. 3 cylinders per 100 yd³ and shall forward the test results to iSPAN.

EXECUTION

- 1.01 Fabrication and erection shall conform to the approved shop drawings. Modifications required to accommodate as-built conditions shall be submitted to iSPAN for approval
 - prior to making modifications. Any unauthorized modifications shall be repaired in accordance with iSPAN and / or engineer of record direction at the contractor's expense, including labour, materials, and engineering cost.
- 2.0 Fasteners And Welds
- 2.01 Ensure that connected parts are in contact. Provide clamping before welding or mechanically fastening as required.
 - Companies engaged in welding shall be certified by the American Welding Society, see 'materials, section 4.0' for details.
 - Touch-up welds and coatings damaged by welding with zinc rich paint according to ASTM A-780.
 - Penetration of sheet metal screws beyond joined materials shall be not less than 3 exposed threads. Sheet metal screw installation shall conform to the manufacturer's
 - Screws shall not be placed closer than 3 times the diameter from the edge of any part nor
 - shall they be closer than 3 times the diameter to adjacent screws.

(See iSPAN details for minimum anchor embedment as required).

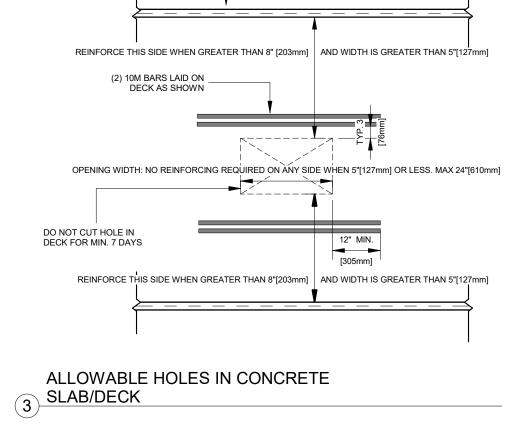
- Sheet metal screws covered by sheathing materials shall have low profile heads. Install concrete anchors in accordance with manufacturer's recommendations, including drilling and cleaning procedures, minimum edge distance and minimum anchor spacing.
- 3.0 Handling And Storage Of Materials
 - 3.01 Products shall be protected from conditions that may cause physical damage or corrosion. 3.02 Handling and lifting of prefabricated panels and joists shall not cause permanent distortion
- to any member or collateral material.
- 4.0 Erection 4.01 Methods of construction may be either piece by piece (stick-built) or by fabrication into
 - panels (panelized) either on or off site. Do not exceed design loads during construction.
 - Temporary bracing shall be employed wherever necessary to withstand all loads to which the structure may be subject to during erection and subsequent construction. Temporary bracing shall be left in place as long as required for the safety and integrity of the structure. The erector shall ensure that during the erection, a margin of safety consistent with the requirements of the IBC and AISI S100 exists in the uncompleted structure.
 - Framing shall be erected according to AISI S202 under the direct supervision of an approved and qualified foreman.
 - Do not cut openings in framing members except when approved in writing by iSPAN. Cutting of steel members, when approved, shall be by saw or shear, torch cutting is not
 - 4.06 For the purposes of this section, camber is defined as the deviation from straightness of a member or any portion of a member with respect to its major axis, and sweep is defined as the deviation from straightness of a member or any portion of a member with respect to its minor axis.
 - For joists, sweep shall not exceed 1/720 of the member length.
 - Align web cut-outs in joists for the installation of services. Make all field measurements necessary to ensure the proper fit of all members.
 - 4.09 Members with localized damage are to be replaced unless a written repair detail is provided by iSPAN. Any damage shall be brought to attention of iSPAN immediately upon observation. Do not proceed until damage has been reviewed and direction has
 - been provided in writing by iSPAN. 4.10 For variances of underside of joist elevation, the drywall contractor shall include shimming (including labour and materials) within their scope.
- Concrete Placement
- 5.01 Concrete shall be placed in accordance with ACI 301
- Concrete slab shall be placed to a constant thickness with a tolerance of +3/8" / 1/4".
- 5.03 Floor flatness shall conform to: 90% compliance with 1/4" maximum gap under a 10' unleveled straight
 - 100% compliance with 3/8" maximum gap under a 10' unleveled
- straight edge. Testing of floor flatness to comply with ACI 117.
- 5.04 Construction joints in concrete floors are to be placed:
- Over supporting walls / beams when perpendicular to joists. Centered between joists when parallel to joists.
- Joint surfaces to be left rough and wire mech sheet to be centered on 5.05 Concrete contractor shall take all appropriate measure for cold weather application. Cold
- weather application procedures are required when the temperature is expected to drop below 40°F within 24 hours of placing concrete as predicted by the nearest meteorological
 - General contractor to ensure all required materials and equipment for cold weather concreting are on hand and ready for use prior to placement of concrete. This may include but is not limited to, heaters, insulating blankets, tarps, and protection below the floor being poured. Ensure all snow and ice is removed from the deck and formwork.
 - Calcium chloride or other de-icing salts shall not be used to de-ice deck Deck and formwork shall be maintained at a temperature that will not allow the concrete temperature to drop below 50°F for a min. of 3 days
 - after concrete placement or the time it takes to reach 40% of the compressive strength. After slab finishing is completed, immediately install insulating blankets
 - over the entire slab for a min. of 3 days or the time it takes to reach 40% of the compressive strength.

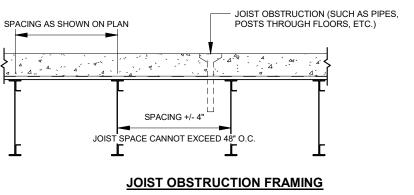
LIST OF ABBREVIATIONS

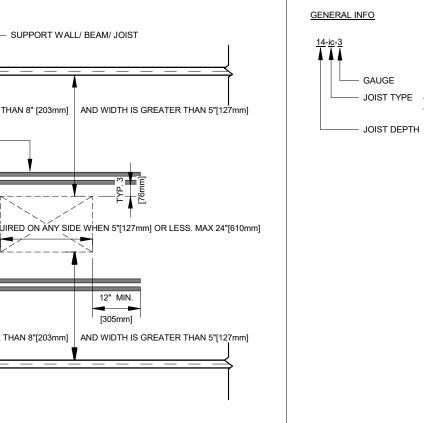
Winter mix concrete is to be reviewed with the general contractor, engineer of record, and iSPAN.

LIST OF ABBREVIATIONS ABBREVIATI

ION	DEFINITION		ABBREVIATION	DEFINITION
		•	4	
	AT]	kN/m	KILONEWTON PER METER
	ANCHOR BOLT		kN/m²	KILONEWTON PER SQUARE METER
	BASE (BEARING) PLATE	1	kPa	KILOPASCAL
	BOTTOM FACE	1	Ksi	1000 Psi
	BEAM BY OTHERS	1	Ibs	POUNDS
	BUILDING	1	LL	LIVE LOAD
	CENTER TO CENTER	1	M	METRE
	COLUNN, POST ABOVE	1	MAX	MAXIMUM
	CANTILEVER	1	MC	MOMENT CONNECTION
	COLUMN BY OTHERS	1	MEZZ	MEZZANNINE
	COLD FORMED STEEL	1	MIN	MININUM
	CENTER LINE	1	MISC	MISCELLANEOUS
	COLUMN	1	MPa	MEGAPASCAL
	CONCRETE	1	N	NEWTON
	CONTINUOUS	1	N.F.	NEAR FACE
	DIMENSION	1	NBI	NOT BY ISPAN
	DOUBLE JOIST	1	No	NUMBER
	DEAD LOAD	1	NTS	NOT TO SCALE
	DITTO	1	OSB	ORIENTED STRAND BOARD
	DRAWING(S)		Pa	PASCAL
	EACH END	1	PL	PLATE
	EACH FACE		Psi	POUNDS PER SQUARE INCH
	EACH	1	REF	REFERENCE
	ELEVATION	1	REQ'D	REQUIRED
	EQUAL	1	REV	REVISION, REVISED
	EXISTING	1	S.I.	SHOP INSTALLED
	EXTERIOR	1	SL	SNOW LOAD
	FAR FACE	1	SPEC'S	SPECIFICATIONS
	FINISH FLOOR ELEVATION		SQ	SQUARE
	FOUNDATION	1	STD	STANDARD
	FINISHED		T&B	TOP AND BOTTOM
	FOOTING	1	T.F.	TOP FACE
	GAUGE		T.O.	TOP OF
	GALVANIZED		TBC	TO BE COORDINATED
	GIRDER TRUSS		TJ	TIE JOIST
	INTERIOR		TYP	TYPICAL
	KILOGRAM		U/N, UNO	UNLESS NOTED OTHERWISE
	1000 LBS		U/S	UNDERSIDE
	KILONEWTON]	W.C.	CENTERED IN WALL
	KILONEWTON METER]	WL	WIND LOAD

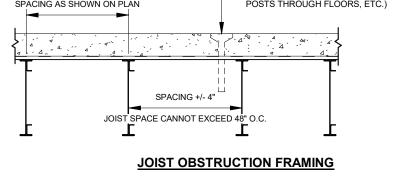






— JOIST TYPE - "ic" COMPOSITE

- "i" NON COMPOSITE



HOLE SIZING

9-1/2" - 10" [241mm-254mm] 4" [102mm] 3-1/2" [89mm] 6" [152mm] 2-1/4" [57mm] 3-1/2" [89mm] 11-7/8" - 12" [302mm-305mm] 6-5/8" [168mm] 6" [152mm] 9-7/8" [251mm] 4" [102mm] 6" [152mm] 14" [356mm] 8-1/4" [210mm] 8" [203mm] 12-3/4" [324mm] 5-5/8" [143mm] 8" [203mm]

ISSUED FOR CONSTRUCTION 2022-08-18 REISSUED FOR APPROVAL 2022-07-21 2022-04-18 ISSUED FOR APPROVAL **DATE** NO. **ISSUE**



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PRINCETON, ON., N0J 1V0

CLIENT NAME

THE BECK GROUP- DENVER

PROJECT NAME

SHEET NAME

SOUTH VALLEY MEZZANINE 1511 E CALEY AVE, CENTENNIAL, COLORADO, CO

SCHEDULES

W: www.ISPANsystems.com

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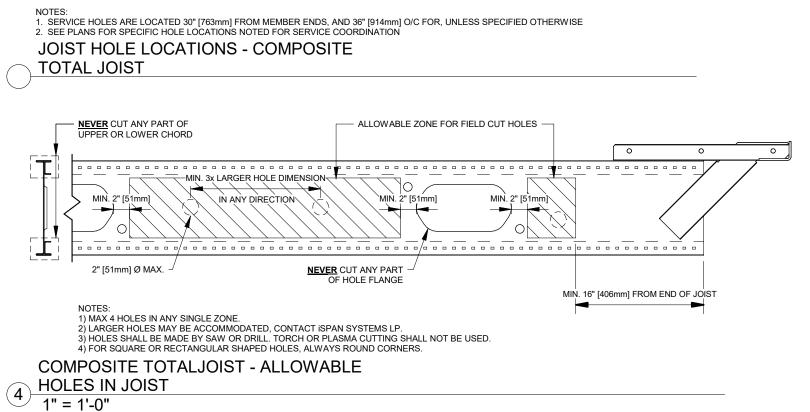
CONSTRUCTION PROJECT NO.: DRAWING NO.

20221727

DATE: 2022-04-05

As indicated

SCALE:



VARRIES BASED ON JOIST LENGTH

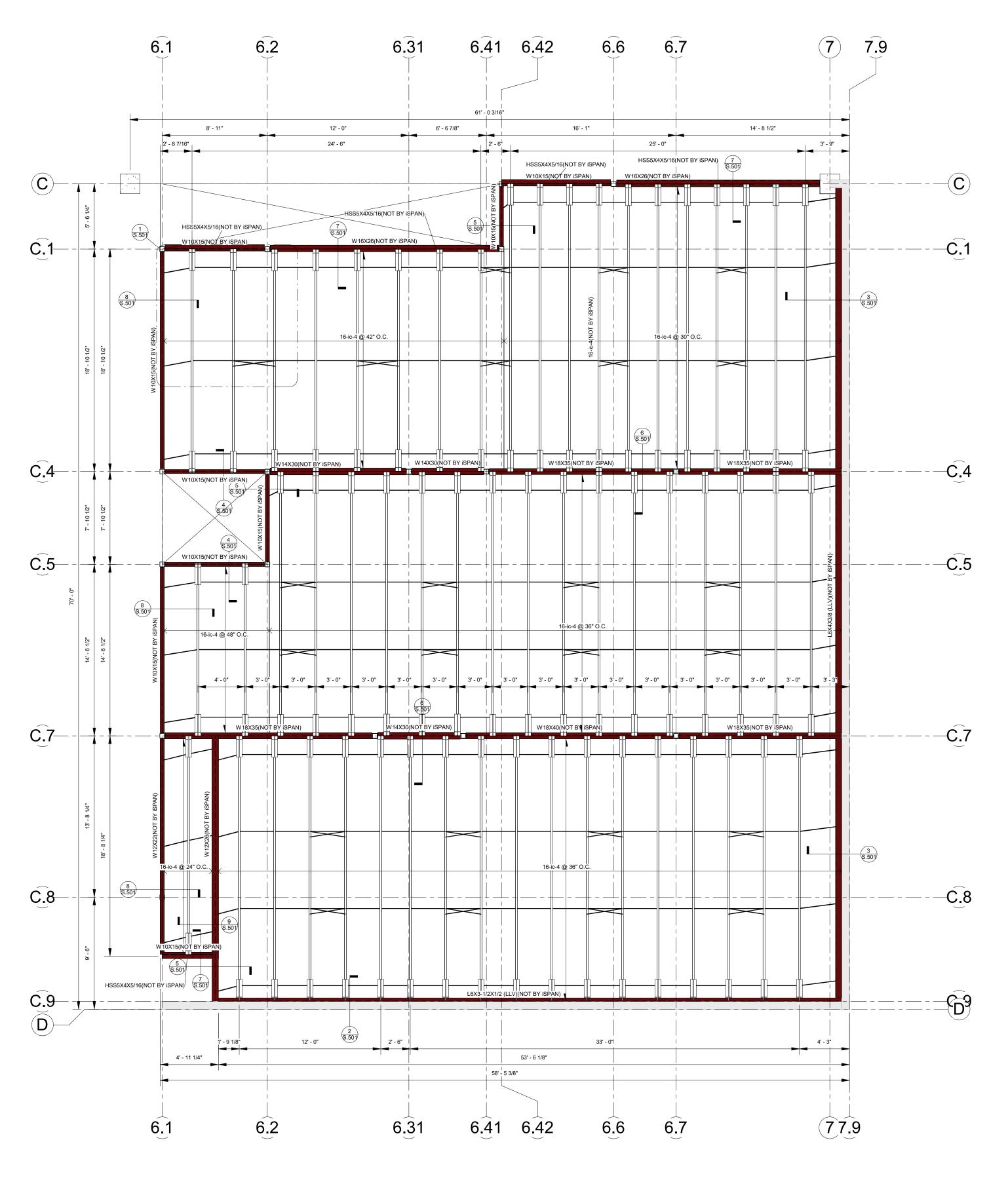
O/O SHOE ASSEMBLY JOIST LENGTH

ROLL FORMED JOIST LENGTH

(FOR LENGTH OF JOIST)

- SUPPORT AS PER PLAN

─ JOIST OBSTRUCTION



1 2ND FLOOR FRAMING PLAN
3/16" = 1'-0"



SUMMARY: 16-ic-4 FRAMING TYPE: **TOTALDECK** DECK TYPE: CONCRETE **TOPPING TYPE:** 3" U.N.O. TOPPING THICKNESS: T.O. CONCRETE ELEVATION: 12'-0" FROM TOP OF CONC. FLOOR_ 5" BELOW TOP OF SLAB U.N.O.

T.O. STEEL ELEVATION:

As indicated

TO BRENTWOOD DRIVE
PRINCETON, ON., NOJ 1V0

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PROJECT NAME

SOUTH VALLEY MEZZANINE

1511 E CALEY AVE, CENTENNIAL, COLORADO, CO
SHEET NAME

2ND FLOOR HOLE
LAYOUT

2022-08-18

DATE

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ISSUE

PROJECT NO.: DRAWING NO.

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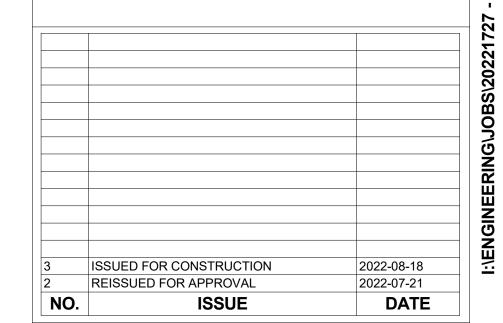
DATE: 2022-04-05

3/16" = 1'-0"

SCALE:

S.203

1 2ND FLOOR FRAMING LAYOUT 3/16" = 1'-0"





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SOUTH VALLEY MEZZANINE

1511 E CALEY AVE, CENTENNIAL, COLORADO, CO

SHEET NAME

2ND FLOOR FRAMING LAYOUT

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20221727

DATE: 2022-04-05 SCALE:

3/16" = 1'-0"

