STRUCTURAL GENERAL NOTES

A. GENERAL

1. The contractor shall verify all dimensions prior to starting construction. The architect shall be notified of any discrepancies or inconsistencies.
2. Dimensions shall take precedence over scale shown on drawings.
3. Notes and details on drawings shall take precedence over general notes and typical notes.
4. All work shall conform to the minimum standards of the following code. The International Building Code, 2018 Edition, and any other regulating agencies which have authority over any portion of the work, and those codes and standards listed in these notes and specifications.
5. See architectural drawings for the following:
   - Size and location of all door and window openings, except as noted.
   - Size and location of all interior and exterior nonbearing partitions.
   - Size and location of all concrete curbs, floor drains, slopes, depressed areas, changes in level, chamfers, grooves, inserts, etc.
   - Size and location of floor and roof openings except as shown
   - Floor and roof finishes
   - Stair framing and details (except as shown)
6. See mechanical, plumbing, and electrical drawings for the following:
   - Pipe runs, sleeves, hangers, trenches, wall and slab openings, etc. Except as shown or noted.
   - Electrical conduit runs, boxes, outlets in walls and slabs.
   - Concrete inserts for electrical, mechanical or plumbing fixtures.
   - Size and location of machine or equipment bases, anchor bolts for mounts.
7. The contract structural drawings and specifications represent the finished structure. They do not indicate the method of construction. The contractor shall provide all measures necessary to protect the structure during construction. Such measure shall include, but not be limited to, bracing, shoring for loads due to construction equipment, etc. Observation visits to the site by the structural engineer shall not include inspection of the above structural members.
8. Openings, pockets, etc. larger than 6 inches shall not be placed in slabs, decks, beams, joists, columns, walls, etc. unless specifically detailed on the structural drawings. Notify the structural engineer when drawings by others show openings, pockets, etc. not shown on the structural drawings, but which are located on structural members.
9. ASTM specifications noted shall be the latest revision.
10. Contractor shall investigate site during clearing and earthwork operations for filled excavations or buried structures such as cesspools, cisterns, foundations, etc. If any such structures are found, the structural engineer shall be notified immediately.
11. Construction materials shall be spread out if placed on floors or roof. Load shall not exceed the design live load per square foot. Provide adequate shoring and/or bracing where structure has not attained design strength.
12. Design Loads:
    - Roof:
      - 26 psf DEAD (Pitched Roof)
      - 27 psf DEAD (Flat Roof) (Includes 7 psf Ballasted Solar)
      - 20 psf LIVE
    - Floor & Deck:
      - 32 psf DEAD
      - 40 psf LIVE (Reducible)
    - Stairs & Exits:
      - 100 psf LIVE (Non-Reducible)
    - Wind:
      - Velocity 100 mph (3 sec. Gust)
      - Exposure "C"
      - Risk Category = II
    - Seismic:
      1. Importance Factor: I = 1
      2. S_s = 0.551 S_1 = 0.188
      3. Site Class: "C"
      4. S_{DS} = 0.470 S_{D1} = 0.188
      5. Seismic Design Category "C"
      6. Seismic Force Resisting System: Timber roof & floor diaphragms with wood shear walls.
      7. Base Shear:
         - V = 23.6:
           BLDG A = 23.8 kips
           BLDG B = 24.1 kips
           BLDG C = 24.1 kips
           MAINT. BLDG 4.2 kips
           REC BLDG 28.4 kips
      8. C_s = 0.072
      9. R = 6.5
      10. Analysis Procedure: Equivalent lateral force method.
      11. Risk Category: II
      12. Internal Pressure Coefficient = 0.18
      13. Components and cladding pressure = 37.6 psf

B. FOUNDATION

1. Footings are designed based on an allowable soil pressure of 2000 PSF per the project soils report. Footings and foundations have been designed in accordance with the soils report prepared by:

   Company: GeoTek
   Job Number: 15005-LV
   Date: September 3, 2019
   Update: December 9, 2019
   Addendum: July 17, 2020 (revised July 21, 2020)

2. Contractor shall provide for proper de-watering of excavations from surface water, ground water, seepage, etc.
3. Footings shall be placed according to depths shown on the drawings.
4. Footing back fill and utility trench back fill within building area shall be mechanically compacted in layers. Flooding will not be permitted.
5. All abandoned footings, utilities, etc. that interfere with new construction shall be removed.
6. The soil under perimeter beams and slabs shall be above optimum moisture as described in the referenced geotechnical report prior to concrete placement and shall be verified by the soils engineer.
7. All 1/2" Ø anchor bolts may be replaced with ICC approved 1/2"Ø Titen HD screws or 1/2"Ø all thread rod in 5/8" Ø hole with 4" embed using Simpson SET-XP epoxy at the spacing indicated below.

WALL TYPE	RETROFIT 1/2" TITEN OR ALL-THREAD ROD SPACING
S1, S2, NON-SHEAR	SAME AS 1/2"ø A.B.
S3 & S4	12" O.C.

C. CONCRETE

1. All phases of work pertaining to the concrete construction shall conform to the "Building Code Requirements for Reinforced Concrete" (ACI 318 latest approved edition) with modifications as noted in the drawings and specifications.
2. Reinforced concrete design is by the "Ultimate Strength Design Method", ACI 318-(latest edition)
3. Schedule of structural concrete 28-day strengths and types:

Location in structure	Strength PSI	Type
Slabs on Grade	4500	Hard rock
Footings	4500	Hard rock

   Design based on 4500 PSI, 28-day strength, special inspection is required for 4500 psi concrete and P.T. tendon placement.
4. Concrete mix design shall be submitted to the engineer for approval with the following requirements:
   a. Compressive strength at age 28 days as specified above.
   b. Large aggregate-hardrock, ¾" maximum size conforming to ASTM C-33
   c. Cement-ASTM C-150, Type V Portland cement
   d. Maximum slump 5-inches, max water cement ratio: 0.45
   e. No admixtures, except for entrained air, and as approved by the engineer.
5. Concrete mixing operations, etc. shall conform to ASTM C-94
6. Placement of concrete shall conform to ACI standard 514 and project specifications.
7. Clear coverage of concrete over outer reinforcing bars shall be as follows: Concrete poured directly against earth - 3 inches clear, structural slabs - 3/4 inches clear (top and bottom), formed concrete with earth back fill - 2 inches clear.
8. All reinforcing bars, anchor bolts and other concrete inserts shall be well secured in position prior to placing concrete.
9. Provide sleeves for plumbing and electrical openings in concrete before placing. Do not cut any reinforcing that may conflict. Coring in concrete is not permitted except as shown. Notify the structural engineer in advance of conditions not shown on the drawings.

C. CONCRETE (CONT.)

10. Conduit or pipe size (O.D.) shall not exceed 30% of slab thickness and shall be placed between the top and bottom reinforcing, unless specifically detailed otherwise. Concentrations of conduits or pipes shall be avoided except where detailed openings are provided.
11. Modulus of elasticity of concrete, when tested in accordance with ASTM C-460, shall be at least the value given by the equations in section 8.5.1 of ACI 318 for the specified 28-day strength.
12. Shrinkage of concrete, when tested in accordance with ASTM C-157, shall not exceed 0.0004 inches/inch.

D. REINFORCING STEEL

1. Reinforcing bars shall conform to the requirements of ASTM A-615 grade 60.
2. All reinforcing bar bends shall be made cold
3. Minimum lap of welded wire fabric shall be 6 inches or one full mesh and one half, which ever is greater.
4. All bars shall be marked so their identification can be made when the final in-place inspection is made.
5. Rebar splices are to be: Class "B"
6. Reinforcing splices shall be made only where indicated on the drawings.
7. Dowels between footings and walls or columns shall be the same grade, size and spacing or number as the vertical reinforcing, respectively.
8. Reinforcing splice lengths shall be as follows:
   - #3 bar = 18"
   - #4 bar = 24"
   - #5 bar = 30"

E. WOOD

1. Framing Lumber
   a. Douglas fir larch No. 2 grade for 2x and 4x framing except for 2x4, 2x6 studs use Douglas fir stud grade, U.N.O.
   b. 6x framing DFL No. 1 grade
2. Bolt holes shall be 1/16" maximum larger than the bolt size. Re-tighten all nuts prior to closing in.
3. Standard cut washers shall be used under all sill plate anchor bolts, U.N.O. at shear walls. See the Shear Wall Schedule on sheet S1.1 for anchor bolt spacing and washer requirements at shear walls.
4. All sills or plates resting on concrete or masonry shall be pressure treated Douglas Fir. Bolts shall be placed 9 inches from the end of a plate, or from a notch greater than ½ the width of the plate, and spaced at intervals noted.
5. Do not notch joists, rafters or beams except where shown in details. Obtain engineer's approval for any holes or notches not detailed. Holes through sills, plates, studs and double plates in interior, bearing and shear walls shall conform with detail 11/S1.1.
6. Connection hardware shall be by USP or Simpson Strong-Tie, or ICC approved equal.

DUAL SPECIFICATION TABLE

SIMPSON CONNECTOR	USP CONNECTOR	SIMPSON CONNECTOR	USP CONNECTOR
CS16	RS150	HDU2	PHD2A
ST6224	KST224	HDU4	PHD4A
A35	MPA1	HDU5	PHD5A
LUS24--2	JUS24--2	HDU8	PHD8
H1	RT15	HDU11	UPHD11
H10	RT16A		
LTP4	MP4F	STHD10	STAD10
LSSU	LSSH	STHD14	STAD14

7. Fastening schedule per International Building Code, 2018 Edition, table No. 2304.9.1. Unless noted otherwise.
8. All nails, bolts, holdowns, straps or other steel fasteners in contact with pressure treated timber shall be hot-dipped galvanized, stainless steel or otherwise treated or isolated to prevent chemical attack. Contractor shall verify treatment method and confirm appropriate corrosion resistance be provided in accordance with hardware supplier recommendations.
9. Non-bearing, non-shear interior walls to be anchored to floor and /or roof as indicated on detail 10/S1.1.
10. Sawn lumber is to comply with DOC PS 20.
11. Wood structural panels is to conform to the requirements for their type in DOC PS1, PS2, or ANSI/ APA PRP210.

F. PREFABRICATED WOOD TRUSSES

1. Prefabricated wood roof trusses shall be as designed by the truss manufacturer. Bridging size and spacing by truss manufacturer unless noted otherwise. Contractor shall submit shop drawings, erection drawings and design calculations sealed by an engineer, registered in the state of Nevada, for review prior to manufacture. Calculations and shop drawings shall show any special details required at bearing points. All connectors shall be Simpson or equivalent with current ICC approval.
2. Truss manufacturer to design trusses for lateral load (LAT. = xxxx) in pounds, as shown on plans. Lateral loads are ASD level loads.
3. Additional trusses shall be supplied as required to support mechanical equipment.
4. All truss-to-truss and truss-to-beam connectors per truss manufacturer.

G. GLUE LAMINATED BEAMS (GLB)

1. Glue laminated beams shall be 24F-V4 (cantilevers and continuous beams shall be 24F-V8) and have the following minimum properties: fb=2400 psi, Fv=190 psi, Fc (perpendicular)=650 psi, E=1,800,000 psi. All beams shall be fabricated using waterproof glue. Fabrication and handling per latest AITC and WCCA standards. Beams to bear grade stamp and AITC stamp and certificate. Moisture content shall be limited to 12% or less.

H. LAMINATED VENEER LUMBER (LVL)

1. Laminated veneer lumber to have: Fb=2600 psi, Fv=285 psi, E=1.9x10^6psi
2. Double & triple LVL beams shall be nailed together as follows:
   Provide (2) rows of 16d sinkers at 12" O.C. for beams < 11 7/8" deep
   Provide (3) rows of 16d sinkers at 12" O.C. for beams > 11 7/8" deep
3. Beams w/ (4) or more plies shall be bolted together as indicated in the manufacturer's written specifications.

I. WOOD STRUCTURAL PANELS

1. All wood structural panels shall be plywood or APA rated oriented strand board. Panels shall bear the stamp of an approved agency. Panels shall be of the span/index rating shown on the plans. Fastening shall be indicated on the plans.
2. All plywood shall be C-D interior sheathing with exterior glue. Plywood shall be 4-ply, minimum.

J. SHOP DRAWINGS

1. Shop drawings shall be submitted for all structural items in addition to items required by architectural specifications.
2. The contractor shall review all shop drawings prior to submittal. Items not in accordance with contract drawings shall be flagged for review.
3. Verify all dimensions with architect.
4. Any changes, substitutions, or deviations from original contract drawings shall be redlined or flagged by submitting parties, shall be considered approved after engineers review, unless noted otherwise.
5. The engineer has the right to approve or disapprove any changes to the original drawings at anytime before or after shop drawings review.
6. The shop drawings do not replace the original contract drawings. Items omitted or shown incorrectly and are not flagged by the structural engineer or architect are not to be considered changes to the original contract drawings.
7. The adequacy of engineering designs and layout performed by the others rests with the designing or submitting authority.
8. Reviewing is intended only as an aid to the contractor in obtaining correct shop drawings. Responsibility for corrections shall rest with the contractor.

K. SHEATHING

1. Slope roof sheathing
   15/32" wood structural panel: plywood or oriented strand board (O.S.B.) panel index = 32/16, unblocked, nail with 8d common nails at 6" O.C. at all boundaries and supported edges, 12" O.C. field. Minimum penetration 1" in supporting member (NER 272).
2. Flat roof sheathing
   19/32" T&G Plywood or Oriented Strand Board (O.S.B)
3. Floor sheathing
   3/4 " (min.) wood structural panel: plywood or oriented strand board (O.S.B.) T & G, panel index = 48/24, (3/4" CDX @ all decks & breezeways) unblocked, nail with 10d common nails at 6" O.C. at all boundaries and supported edges, 12" O.C. field. ⚠1
4. Shear wall sheathing
   Sheathing for shear walls shall be as indicated on the shear wall plans and schedules. Sheathing at shear walls may be installed with panels horizontal or vertical. All shear wall panels shall have minimum wood structural panel span rating of 24/0 or "Wall-16."

L. STRUCTURAL STEEL

1. Hot-rolled structural steel shapes & plates shall be per ASTM A36 with the following exception. All W-Flange shapes shall be per ASTM A992.
2. Structural steel pipe shall be per ASTM A53 grade B, Tube steel per ASTM A500 Grade B.
3. Nuts & bolts in structural steel connections shall be per ASTM 325N, with hardened washers. Design is based upon bearing type connections with thread not excluded, therefore, no special inspection required, U.N.O. in note M below.
4. Anchor bolts shall be per ASTM A307, U.N.O.
5. Welds shall be by E70XX, low hydrogen electrodes, all welding shall be performed in a shop approved by the building official.
6. Grout material for base plates shall be non-metallic, non-shrink, pre-packaged grout conforming to ASTM C 1107.

M. SPECIAL INSPECTION / QUALITY ASSURANCE PLAN

1. The seismic lateral load resisting system consists of timber roof diaphragms with wood shear walls.
2. Special inspections shall be required:
   - All post-installed anchorage to concrete (Periodic)
   - When required by the local building department: All timber elements of the lateral force resisting system components
   - All post-tensioned foundation construction, periodic, including tendon placement and concrete
   - All masonry construction shall require Level B special inspection.
   a. The owners shall employ special inspectors who shall provide additional inspections during construction in accordance with IBC section 17.
   b. All special inspections shall be performed by an independent certified inspector from an established testing agency, licensed and approved by the building department.
   c. The testing agency shall send copies of all structural testing and inspection reports directly to Vector Structural Engineering and all interested parties.
3. Structural testing is not required.
4. All reports shall be distributed on a monthly basis to the engineer of record, owner, contractor, and to the building official.
5. No structural observation is required. However, the engineer of record reserves the right to make field observations during construction approximately once per week.

N. ICC APPROVAL SCHEDULE

ICC-ES ESR SCHEDULE

HARDWARE	MANUFACTURER	ICC-ES ESR #	HARDWARE	MANUFACTURER	ICC-ES ESR #
A35	SIMPSON	2606	MP4F	USP	3445
CS16	SIMPSON	2105	MPA1	USP	3445
FHA18	SIMPSON	2105	RPS	SIMPSON	2608
GBC	SIMPSON	2605	RS150	USP	3445
H1	SIMPSON	2613	RT15	USP	3445
H10	SIMPSON	2613	RT16A	USP	3445
HDU2	SIMPSON	2230	SDS	SIMPSON	2236
JUS24--2	USP	3445	SET--XP	SIMPSON	2508
			ST6224	SIMPSON	2105
KST224	USP	3445	SW18x9	SIMPSON	1267
LSSH	USP	3446	TITEN HD	SIMPSON	2713
LSSU	SIMPSON	2551	PHD	USP	0200
LTP4	SIMPSON	2606	UPHD	USP	0200
LUS24--2	SIMPSON	2549	STAD	USP	2787

O. CONCRETE MASONRY UNITS (CMU)

1. Masonry units shall be grade N-II units, 2000 psi, conforming to the latest ASTM designation C-90 & in addition, the quality control standards of the Concrete Masonry Association of California & Nevada. (Design F'M = 1500 psi.)
2. Portland cement shall conform to ASTM designation C-150 & be as specified for concrete.
3. Mortar mix shall be type M (2500 psi per ASTM designation C-270).
4. Grout shall conform to the requirements of section 2103 of I.B.C. for coarse grout. Use sufficient water for grout to flow into all joints of the masonry without segretion. Grout shall attain a compressive strength of 2000 psi at 28 days.
5. Provide a minimum of 1/2" grout between main reinforcing & masonry units.
6. Low lift construction, maximum grout pour height is 4 feet.
7. Cells shall be in vertical alignment. Dowels in footings shall be set to align with cores containing reinforcing steel.
8. Refer to architectural drawings for surface & height of units, laying pattern & joint type.
9. Special inspection is required for all CMU walls per I.B.C. section 1704.

P. POST-TENSIONED FOUNDATION

1. See sheet SD-1 for post-tensioned foundation notes.

Q. DEFERRED SUBMITTAL

1. Manufactured roof and floor truss designs are deferred submittal. See note F.
2. Steel stairs are a deferred submittal.

Required Verification and Inspection of Soils

Verification and Inspection	Frequency: Continuous	Frequency: Periodic
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	-	X
2. Verify excavations are extended to proper depth and have reached proper material.	-	X
3. Perform classification and testing of compacted fill materials	-	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	-
5. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	-	X

Required Verification and Inspection of Concrete Construction

Verification and Inspection	Frequency: Continuous	Frequency: Periodic	Referenced Standard
1. Inspection of reinforcing steel, including prestressing tendons, and placement.	-	X	ACI 318: 3.5, 7.1-7.7
2. Inspection of reinforcing steel welding in accordance with IBC Table 1704.3, Item 5b.	-	-	AWS D1.4 ACI 318: 3.5.2
3. Inspection of bolts to be installed in concrete prior to and during placement of concrete.	X	-	ACI 318: 8.1.3, 21.2.8
4. Inspection of anchors installed in hardened concrete.	-	X	ACI 318: 3.8.6, 8.1.3, 21.2.8
5. Verifying use of required design mix.	-	X	ACI 318: Ch. 4, 5.2-5.4
6. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	-	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8
7. Inspection of concrete and shotcrete placement for proper application techniques.	X	-	ACI 318: 5.9, 5.10
8. Inspection for maintenance of specified curing temperature and techniques.	-	X	ACI 318: 5.9, 5.10
9. Inspection of prestressed concrete: a. Application of prestressing forces. b. Grouting of bonded prestressing tendons in the seismic-force-resisting system.	X X	- -	ACI 318: 18.20 ACI 318: 18.18.4
10. Erection of precast concrete members.	-	X	ACI 318: Ch. 16
11. Verification of in-situ concrete strength, prior to stressing of tendons in posttensioned concrete and prior to removal of shores from meams and structural slab.	-	X	ACI 318: 6.2
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	-	X	ACI 318: 6.1.1

Required Verification and Inspection of Timber Construction

Verification and Inspection	Frequency: Continuous	Frequency: Periodic
1. Verify nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system where fastener spacing is 4" or less, including wood shear walls, wood diaphragms, drag struts, braces, shear panels, and holdowns.	-	X

ABBREVIATIONS

A.B.	ANCHOR BOLT	LVL	LAMINATED VENEER LUMBER
ARCH'L	ARCHITECTURAL DRAWINGS	MFR	MANUFACTURED
BLDG	BUILDING	N.T.S.	NOT TO SCALE
BLK	BLOCK	o/	OVER
BLK'G	BLOCKING	O.C.	ON CENTER
BM	BEAM	OPT'L	OPTIONAL
CANT'L	CANTILEVERED	O.S.B.	ORIENTED STRAND BOARD
C.L.	CENTER LINE	PSL	PARALLEL STRAND LUMBER
CLG	CEILING	PL	PLATE
CMU	CONCRETE MASONRY UNIT	REQ'D	REQUIRED
COL	COLUMN	SHTH'G	SHEATHING
CONT	CONTINUOUS	SHT	SHEET
DBL	DOUBLE	SIM	SIMILAR
DTL	DETAIL	STL	STEEL
EL	ELEVATION	SW	STRONG-WALL
EOR	ENGINEER OF RECORD	T.O.F.	TOP OF FOOTING
FND	FOUNDATION	T.O.W.	TOP OF WALL
FTG	FOOTING	T&B	TOP AND BOTTOM
GL	GLUE LAMINATED (BEAM)	TYP.	TYPICAL
HDR	HEADER	U.N.O.	UNLESS NOTED OTHERWISE
HORIZ.	HORIZONTAL	VERT.	VERTICAL
H.D.	HOLD DOWN	w/	WITH
LSL	LAMINATED STRAND LUMBER	u/	UNDER

SHEET INDEX

SHT #	SHEET NAME	ORIGINAL
S1	STRUCTURAL GENERAL NOTES	●
S1.1	STANDARD DETAILS & SCHEDULES	●
S2.1	FOUNDATION PLAN – BUILDING A	●
S2.2	P.T. DIMENSION PLAN – BUILDING A	●
S2.3	2ND FLOOR FRAMING PLAN – BUILDING A	●
S2.4	3RD FLOOR FRAMING PLAN – BUILDING A	●
S2.5	ROOF FRAMING PLAN – BUILDING A	●
S2.6	MAIN LEVEL SHEAR WALL PLAN – BUILDING A	●
S2.7	2ND LEVEL SHEAR WALL PLAN – BUILDING A	●
S2.8	3RD LEVEL SHEAR WALL PLAN – BUILDING A	●
S3.1	FOUNDATION PLAN – BUILDING B	●
S3.2	P.T. DIMENSION PLAN – BUILDING B	●
S3.3	2ND FLOOR FRAMING PLAN – BUILDING B	●
S3.4	3RD FLOOR FRAMING PLAN – BUILDING B	●
S3.5	ROOF FRAMING PLAN – BUILDING B	●
S3.6	MAIN LEVEL SHEAR WALL PLAN – BUILDING B	●
S3.7	2ND LEVEL SHEAR WALL PLAN – BUILDING B	●
S3.8	3RD LEVEL SHEAR WALL PLAN – BUILDING B	●
S4.1	FOUNDATION PLAN – BUILDING C	●
S4.2	P.T. DIMENSION PLAN – BUILDING C	●
S4.3	2ND FLOOR FRAMING PLAN – BUILDING C	●
S4.4	3RD FLOOR FRAMING PLAN – BUILDING C	●
S4.5	ROOF FRAMING PLAN – BUILDING C	●
S4.6	MAIN LEVEL SHEAR WALL PLAN – BUILDING C	●
S4.7	2ND LEVEL SHEAR WALL PLAN – BUILDING C	●
S4.8	3RD LEVEL SHEAR WALL PLAN – BUILDING C	●
S5.1	STRUCTURAL PLANS – MAINTENANCE BUILDING	●
S6.1	FOUNDATION PLAN – RECREATION BUILDING	●
S6.2	P.T. DIMENSION PLAN – RECREATION BUILDING	●
S6.3	ROOF FRAMING PLAN – RECREATION BUILDING	●
S6.4	SHEAR WALL PLAN – RECREATION BUILDING	●
SD-1	STRUCTURAL DETAILS	●
SD-2	STRUCTURAL DETAILS	●
SD-3	STRUCTURAL DETAILS	●
SD-4	STRUCTURAL DETAILS	●

RELEASE DATE:

DATE: 7-24-20 | DESIGNED BY: JCS | DRAWN BY: MCP | CHECKED BY: RTA
REVISION # | DATE: | DESIGNER/DRAFTER | DESCRIPTION

VECTOR Engineers
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

STRUCTURAL GENERAL NOTES

For Review
02/24/2025 10:13:22 AM

U0136-049-191

S1

STANDARD TRUSS TIE-DOWNS

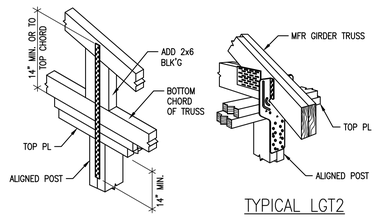
UPLIFT LOAD PER TRUSS MANUFACTURER	SIMPSON TIE-DOWN	REQ'D ALIGNED HOLDOWN & POST
200 TO 365 LBS	H2.5 OR CS16	NOT REQ'D
< 400 LBS	H1 OR CS16	NOT REQ'D
< 845 LBS	H10 OR H7Z OR CS16	NOT REQ'D
< 1265 LBS	H16 OR CS16	HDU2 & (2) 2x4 POST
< 1785 LBS	LGT2	HDU2 & (2) 2x4 POST
< 6485 LBS	HGT-2	(2) 2x4 POST w/HDU4 @ BASE & (2) HDU2 @ TOP TO HGT-2. AT (1) PLY TRUSS, INSTALL 2x SHAPED FILLER ADJACENT TO TRUSS AT BEARING

NOTES:
1. TIE-DOWN CAPACITIES ARE BASED ON SPRUCE PINE FIR
2. TRUSS UPLIFT OF LESS THAN 200lbs: TIE-DOWN REQ'D
3. SEE TYPICAL HOLDOWN ANCHORAGE DETAIL FOR HDU HOLDOWN INSTALLATION

STANDARD FLOOR-TO-FLOOR STRAPS

UPLIFT LOAD PER TRUSS MANUFACTURER	SIMPSON TIE-DOWN	REQ'D ALIGNED POST
< 1705 LBS	CS16	2x4 POST
< 3410 LBS	(2) CS16	(2) 2x4 POST

NOTES:
1. INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (11) 10d NAILS. (STRAP LENGTH = 48").
2. WHERE UPLIFT OCCURS ABOVE HDR OR BM, INSTALL STRAP PER SCHEDULE AT EACH TRIMMER OR POST
3. FLOOR TO FLOOR STRAPS REQ'D ALIGNED WITH ROOF TRUSS ABV.



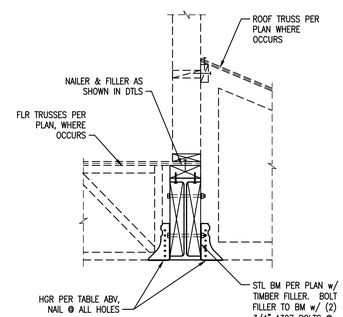
TYPICAL CS16 | TYPICAL LGT2 INSTALLATION

TYPICAL TRUSS ANCHORAGE (14)
N.T.S.

MFR TRUSS TO BEAM HANGERS

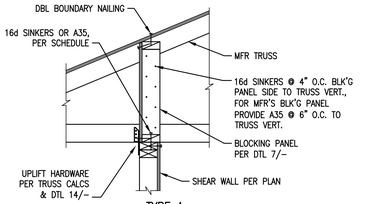
CARRYING MEMBER	CARRIED MBR WIDTH	HANGER TYPE	MAX. REACTION (FROM TRUSS CALCS.) (LBS)	NOTES
STEEL OR TIMBER	1-1/2"	LUS210	1275	FACE MOUNT
STEEL OR TIMBER	1-1/2"	HUS26	2565	FACE MOUNT
STEEL OR TIMBER	1-1/2"	HGUS26	3750	FACE MOUNT
STEEL OR TIMBER	1-1/2"	HGUS28	5720	FACE MOUNT
STEEL OR TIMBER	3"	LUS26-2	1000	FACE MOUNT
STEEL OR TIMBER	3"	HHUS26-2	2580	FACE MOUNT
STEEL OR TIMBER	3"	HGUS26-2	3940	FACE MOUNT
STEEL OR TIMBER	3"	HGUS28-2	6805	FACE MOUNT
STEEL OR TIMBER	3"	HGUS210-2	8650	FACE MOUNT
STEEL OR TIMBER	3-1/2"	LUS46	1000	FACE MOUNT
STEEL OR TIMBER	3-1/2"	HHUS46	2580	FACE MOUNT
STEEL OR TIMBER	3-1/2"	HGUS46	3940	FACE MOUNT
STEEL OR TIMBER	3-1/2"	HGUS48	6805	FACE MOUNT
STEEL OR TIMBER	6"	HGUS26-4	3940	FACE MOUNT
STEEL OR TIMBER	6"	HGUS210-4	8780	FACE MOUNT
STEEL OR TIMBER	6"	HGUS212-4	9155	FACE MOUNT

NOTES:
1. FOR STEEL BEAMS CARRYING FLOOR TRUSSES, PROVIDE TIMBER FILLER PER DTL BELOW.
2. ALTERNATE HANGERS MAY BE USED AT THE CONTRACTOR'S OPTION. SUBMIT TO ENGINEER OF RECORD FOR APPROVAL.
3. HANGERS APPLICABLE FOR TIMBER BEAMS.

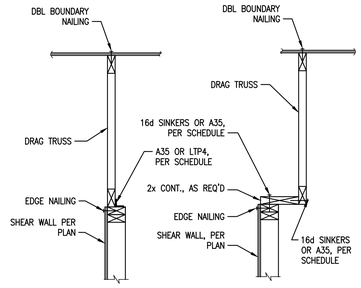


TYPICAL STEEL BEAM

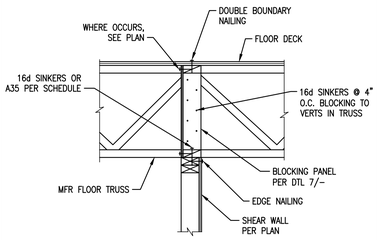
TYPICAL TRUSS HANGERS (15)
N.T.S.



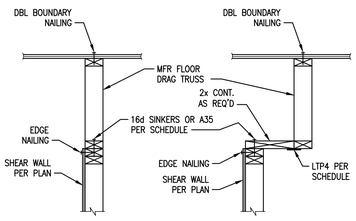
TYPE A



TYPE B



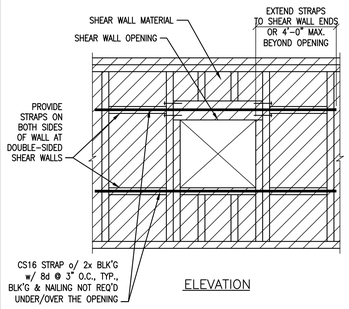
TYPE C



TYPE D

CONNECTION SCHEDULE		
SHEAR WALL	A35 OR LTP4	16d SINKERS
P1	18" O.C.	6" O.C.
P2	12" O.C.	4" O.C.
P3	10" O.C.	3" O.C. (STAGGERED)
P4	8" O.C.	2" O.C. (STAGGERED)

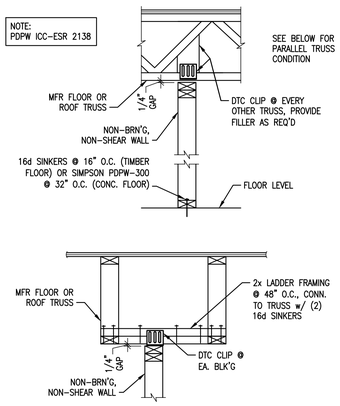
SHEAR TRANSFER (12)
N.T.S.



ELEVATION

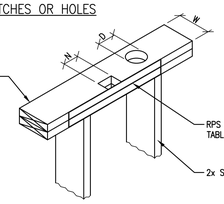
SHEAR TRANSFER @ OPENING (13)
N.T.S.

NOTE: PDPW ICC-ESR 2138



NON-BRN'G & NON-SHEAR WALL CONN. (10)
N.T.S.

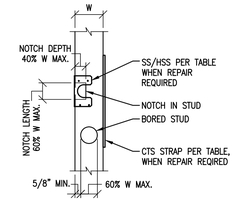
PLATE NOTCHES OR HOLES



2x4 PLATE HOLE DIA 'D'	2x6 PLATE HOLE DIA 'D'	2x4 & 2x6 PLATE NOTCH WIDTH 'N' (MAX. NOTCH DEPTH = W/2)	RPS STRAP
≤ 7/8"	≤ 1"	≤ 1"	NONE
≤ 1"	≤ 1 3/8"	≤ 2 1/2"	(1) RPS18
≤ 1 3/8"	≤ 2 1/8"	≤ 5 1/2"	(2) RPS18
≤ 2"	≤ 3 1/4"	≤ 12"	(2) RPS28

NOTES:
1. USE RPSZ FOR SILL PLATE.
2. CENTER STRAPS @ NOTCH OR HOLE.
3. WHERE ROOF TRUSS OR FLOOR JOIST IS BEARING WITHIN STUD BAY OF THE HOLE OR NOTCH, INSTALL AN ADDITIONAL STUD DIRECTLY BELOW THE TRUSS OR JOIST UNLESS NO RPS STRAP IS REQUIRED OR WHERE EXISTING STUD FACE IS WITHIN 3" OF TRUSS OR JOIST FACE.
4. NOTCHES & HOLES MUST BE SEPARATED BY "2xD" OR "2xN".
5. WHERE MULTIPLE HOLES ARE LOCATED ADJACENT TO EACH OTHER, THE STRAP REPAIR MAY BE WITH A CS16 STRAP ON EACH SIDE OF THE UPPER PLATE. THE STRAPS AND NAILING SHALL EXTEND AT LEAST 9" BEYOND EACH END OF THE WHOLE GROUP. NAILING BETWEEN THE HOLES IS NOT REQUIRED. NAILS IN THE CS16 STRAPS MAY BE N8'S OR N10'S.

STUD NOTCHES OR HOLES



ALLOWABLE HOLES OR NOTCHES FOR NON-BEARING, NON-SHEAR OR INTERIOR PARTITIONS (NO REPAIR REQ'D)

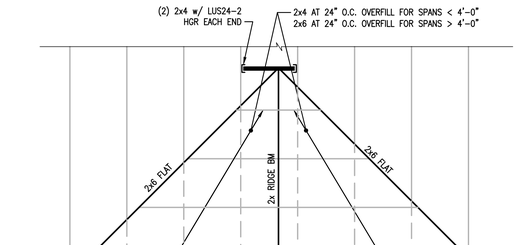
HOLE / NOTCH SCHEDULE		
HOLE / NOTCH % OF 'W'	2x4 STUD	2x6 STUD
25%	3/4"	1-3/8"
40%	1-3/8"	2-1/8"
60%	2"	3-1/4"

NOTES:
1. HOLES & NOTCHES SHALL NOT OCCUR IN THE SAME STUD.
2. WHERE HOLES OR NOTCHES EXCEED THOSE SHOWN ABOVE, REPAIR PER TABLE BELOW.
3. ALL NOTCHES IN BEARING OR SHEAR OR EXTERIOR WALLS REQUIRE REPAIRS.

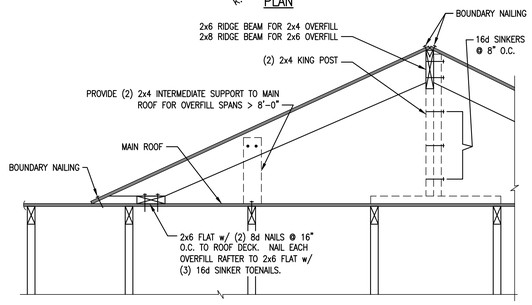
STUD HOLE REPAIR			
	2x4 STUD HOLE DIA 'D'	2x6 STUD HOLE DIA 'D'	REPAIR
NON-BEARING & NON-SHEAR & INTERIOR	≤ 2 3/4"	≤ 4 1/2"	(1) CTS218 w/ 10d
BEARING OR SHEAR OR EXTERIOR WALL	≤ 3/4"	≤ 1 3/8"	(1) CTS218 w/ 10d
BEARING OR SHEAR OR EXTERIOR	≤ 2 3/4"	≤ 4 1/2"	(2) CTS218 TWO-SIDED w/ 10d

STUD NOTCH REPAIR					
	2x4 STUD NOTCH DEPTH	2x4 STUD NOTCH LENGTH	2x6 STUD NOTCH DEPTH	2x6 STUD NOTCH LENGTH	REPAIR
NON-BEARING & NON-SHEAR & INTERIOR	≤ 2 1/2"	≤ 4 1/2"	≤ 3 3/4"	≤ 4 1/2"	(1) CTS218 w/ 10d
BEARING OR SHEAR OR EXTERIOR	≤ 2 1/2"	≤ 2 1/2"	≤ 2 1/2"	≤ 2 1/2"	SS w/ 10d
BEARING OR SHEAR OR EXTERIOR	≤ 2 3/4"	≤ 4 1/2"	≤ 4 1/2"	≤ 4 1/2"	(2) CTS218 TWO-SIDED w/ 10d

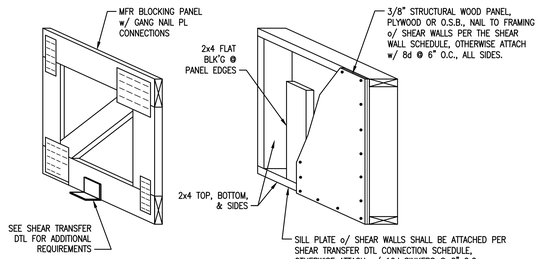
DRILLING & NOTCHING OF PLATES & STUDS (11)
N.T.S.



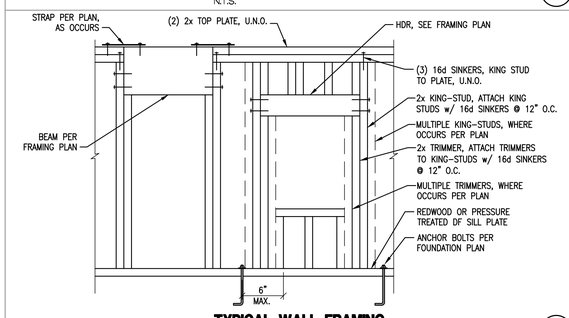
PLAN



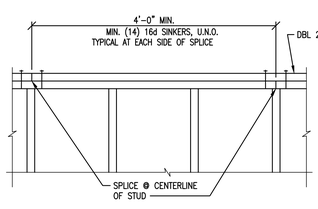
TYPICAL OVERBUILD (6)
N.T.S.



TYPICAL BLOCKING PANEL (7)
N.T.S.



TYPICAL WALL FRAMING (8)
N.T.S.



NOTE:
WHERE SPLICE LENGTH IS LESS THAN 4'-0" INSTALL ST6224 STRAP AT PL SPLICES. STRAPS ARE NOT REQUIRED WHERE ONE OF THE PLATES IS CONTINUOUS FOR AT LEAST 4'-0" IN EACH DIRECTION.

⚠1 WHERE TOP PLATE CHANGES FROM 2x6 TO 2x4 INSTALL ST6224 STRAP AT PLATE SPLICES

TYPICAL TOP PLATE SPLICE (9)
N.T.S.

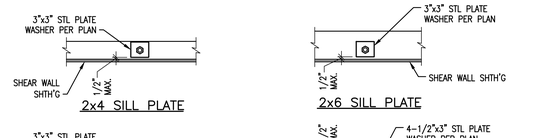
SHEAR WALL SCHEDULE					
MARK	MIN. BLOCKED MATERIAL	EDGE / BOUNDARY NAILING	FIELD NAILING	SOLE PL NAILING, WHERE OCCURS	SHEAR WALL CAPACITY	DEFAULT SILL ANCHORAGE, U.N.O.
P1	3/8" PLYWOOD OR O.S.B.	8d COMMON NAILS @ 6" O.C.	8d COMMON NAILS @ 12" O.C.	16d SINKERS @ 6" O.C.	260 plf	S1
P2	3/8" PLYWOOD OR O.S.B.	8d COMMON NAILS @ 4" O.C.	8d COMMON NAILS @ 12" O.C.	16d SINKERS @ 4" O.C.	350 plf	S2
P3	3/8" PLYWOOD OR O.S.B.	8d COMMON NAILS @ 3" O.C.	8d COMMON NAILS @ 12" O.C.	16d SINKERS @ 3" O.C.	490 plf	S3
P4	3/8" PLYWOOD OR O.S.B.	8d COMMON NAILS @ 2" O.C.	8d COMMON NAILS @ 12" O.C.	16d SINKERS @ 2" O.C.	640 plf	S4

SILL ANCHORAGE SCHEDULE				
MARK	NOMINAL SILL PL THICKNESS	1/2"ø A.B. SPACING	5/8"ø A.B. SPACING	CAPACITY
S1	2x	32" O.C.	48" O.C.	370 plf
S2	2x	24" O.C.	32" O.C.	520 plf
S3	2x	16" O.C.	24" O.C.	740 plf
S4	2x	12" O.C.	16" O.C.	1040 plf

SHEAR WALL LENGTH TOLERANCES	
SPECIFIED SHEAR WALL LENGTH	ACCEPTABLE SHEAR WALL TOLERANCE
UP TO 3'-0"	± 2"
OVER 3'-0" AND UP TO 5'-0"	± 3"
OVER 5'-0" AND UP TO 7'-0"	± 4"
OVER 7'-0" AND UP TO 10'-0"	± 6"
OVER 10'-0"	± 8"

1. ALL SHEAR WALLS SHALL BE FRAMED TO THE MINIMUM LENGTHS SHOWN ON THE PLANS WITH THE TOLERANCES INDICATED ON THE TABLE ABOVE, U.N.O. ON PLAN w/ MINIMUM WALL LENGTH.
2. ALL SHEAR WALLS SHALL TERMINATE ON AT LEAST (1) FULL HEIGHT STUD. ADDITIONAL STUDS OR SOLID POSTS SHALL BE INSTALLED AS REQUIRED FOR HOLDOWNS WHERE THEY OCCUR.
3. 8d COMMON NAIL SHANK DIAMETER = .131", 16d SINKER SHANK DIAMETER = .148"
4. FOR "P3" AND "P4" SHEAR WALLS, ALL FRAMING RECEIVING EDGE NAILING FROM ADJOINING PANEL EDGES SHALL BE 3-INCH NOMINAL OR WIDER AND NAILS SHALL BE STAGGERED. AS AN ALTERNATE, (2) 2x STUDS MAY BE USED PROVIDED THEY ARE NAILED TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT.
5. FOR "P2", "P3" AND "P4" DOUBLE-SIDED SHEAR WALLS, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS, OR FRAMING SHALL BE 3-INCH NOMINAL OR WIDER AT ADJOINING PANEL EDGES AND NAILS ON EACH SIDE SHALL BE STAGGERED.
6. ALL ANCHOR BOLTS SHALL HAVE 7" MINIMUM EMBEDMENT.
7. ALL SHEAR WALL ANCHOR BOLTS SHALL INCLUDE A STEEL 3"x3"x0.229" PLATE WASHER BETWEEN THE SILL PL & NUT. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1¾", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. ANCHOR BOLTS & PLATE WASHERS ARE TO BE OFFSET TOWARD THE SHEATHED WALL EDGE TO LIMIT THE GAP BETWEEN THE EDGE OF WASHER TO SHEATHING TO A MAXIMUM OF 1/2". WHERE BOTH SIDES OF A 2x6 WALL IS SHEATHED A STEEL 4-1/2"x3"x0.229" PLATE WASHER SHALL BE CENTERED ON THE SILL PLATE, PER DTL 2/-.

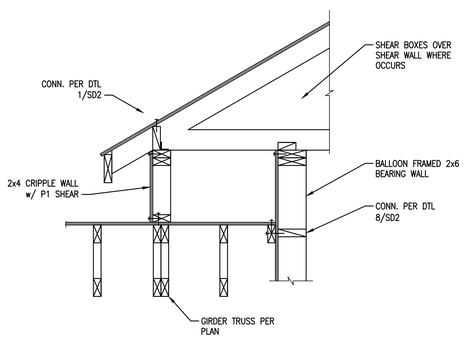
STANDARD SHEAR WALL SCHEDULE (1)
N.T.S.



TYP. SHEAR WALL WASHERS (2)
N.T.S.

FOOTING SCHEDULE		
MARK	SIZE	REINFORCING, BOTTOM
F2.0	2'-0" SQ. x 12" THICK	(3) #4 EACH WAY
F2.5	2'-6" SQ. x 12" THICK	(4) #4 EACH WAY
F3.0	3'-0" SQ. x 12" THICK	(4) #4 EACH WAY

STANDARD FOOTING SCHEDULE (3)
N.T.S.



(4)
N.T.S.

NOT USED (5)
N.T.S.

VECTOR ENGINEERING
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

REVISION #	DATE	DESIGNED/DRAFTER	DESCRIPTION
DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA

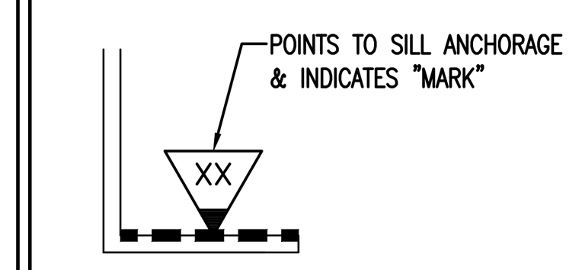
STANDARD DETAILS & SCHEDULES

U0136-049-191

S1.1

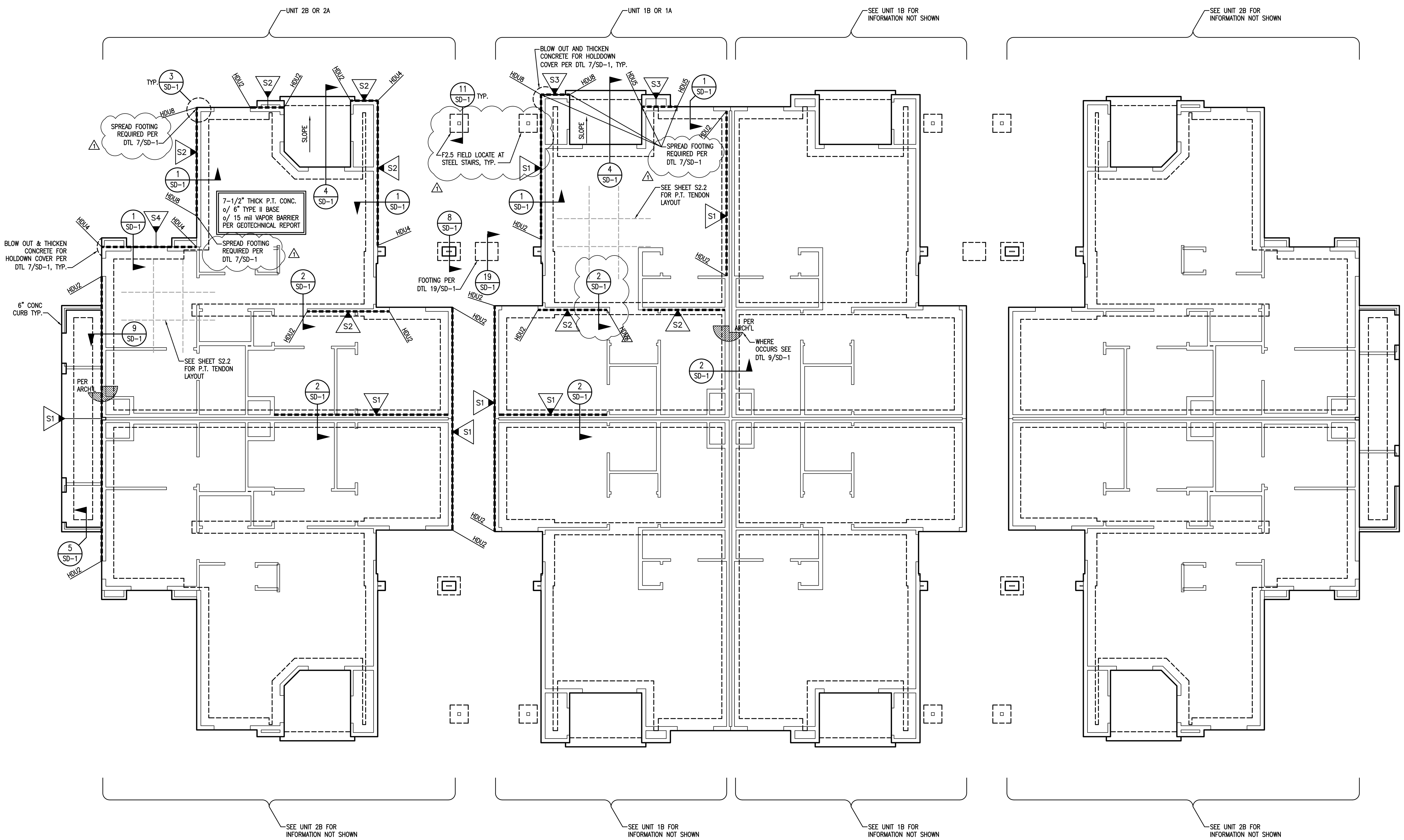
FOUNDATION NOTES:

1. ALL DIMENSIONS ARE PER ARCHITECTURAL DRAWINGS.
2. ALL EXTERIOR WALLS, INTERIOR BEARING WALLS & SHEAR WALLS TO BE ATTACHED TO THE FOUNDATION w/ ø1/2" x 10" LONG ANCHOR BOLTS (7" EMBED.) AT 48" O.C., U.N.O. SEE THIS PLAN & SHEAR WALL SCHEDULE FOR ANCHOR BOLT REQUIREMENTS AT SHEAR WALLS. ANCHOR BOLTS AT SHEAR WALLS TO HAVE WASHERS PER SHEAR WALL SCHEDULE (S1.1). ALL OTHER ANCHOR BOLTS TO HAVE WASHERS PER NOTE "E" IN GENERAL NOTES (S1).
3. ALL HOLDOWNS SHALL BE INSTALLED AS SHOWN ON DETAIL 11/SD-1.
4. ISOLATED FOOTINGS & INTERIOR STRIP FOOTINGS TO BE CENTERED BELOW POSTS & BEARING/SHEAR WALLS, RESPECTIVELY.
5. SEE SHEET S1.1 FOR FOOTING SCHEDULE.
6. MASA MUDSILL ANCHORS MAY BE USED IN PLACE OF ANCHOR BOLTS, INSTALLED AT THE SAME SPACING INDICATED FOR ANCHOR BOLTS, INCLUDING REDUCED SPACING AT SHEAR WALLS.
7. STRIP & REMOVE EXISTING VEGETATION, REMOVE UNCONTROLLED FILL, OVEREXCAVATE AND REPLACE w/ PROPERLY COMPACTED FILL AS REQUIRED PER GEOTECHNICAL REPORT.
8. (SW) – INDICATES LOCATION OF SIMPSON STRONG WALL, INSTALL PER MFR'S SPECIFICATIONS, USE MFR'S TEMPLATE TO ENSURE PROPER ANCHORAGE LOCATION. SEE SHEAR WALL PLANS FOR SPECIFICATIONS.



NOTE:
SEE SHEET S1.1 FOR SILL ANCHORAGE SCHEDULE

SILL ANCHORAGE KEY



FOUNDATION PLAN

3/16" = 1'-0"

DATE: 7-24-20 | DESIGNED BY: JCS | DRAWN BY: MGP | CHECKED BY: RTA

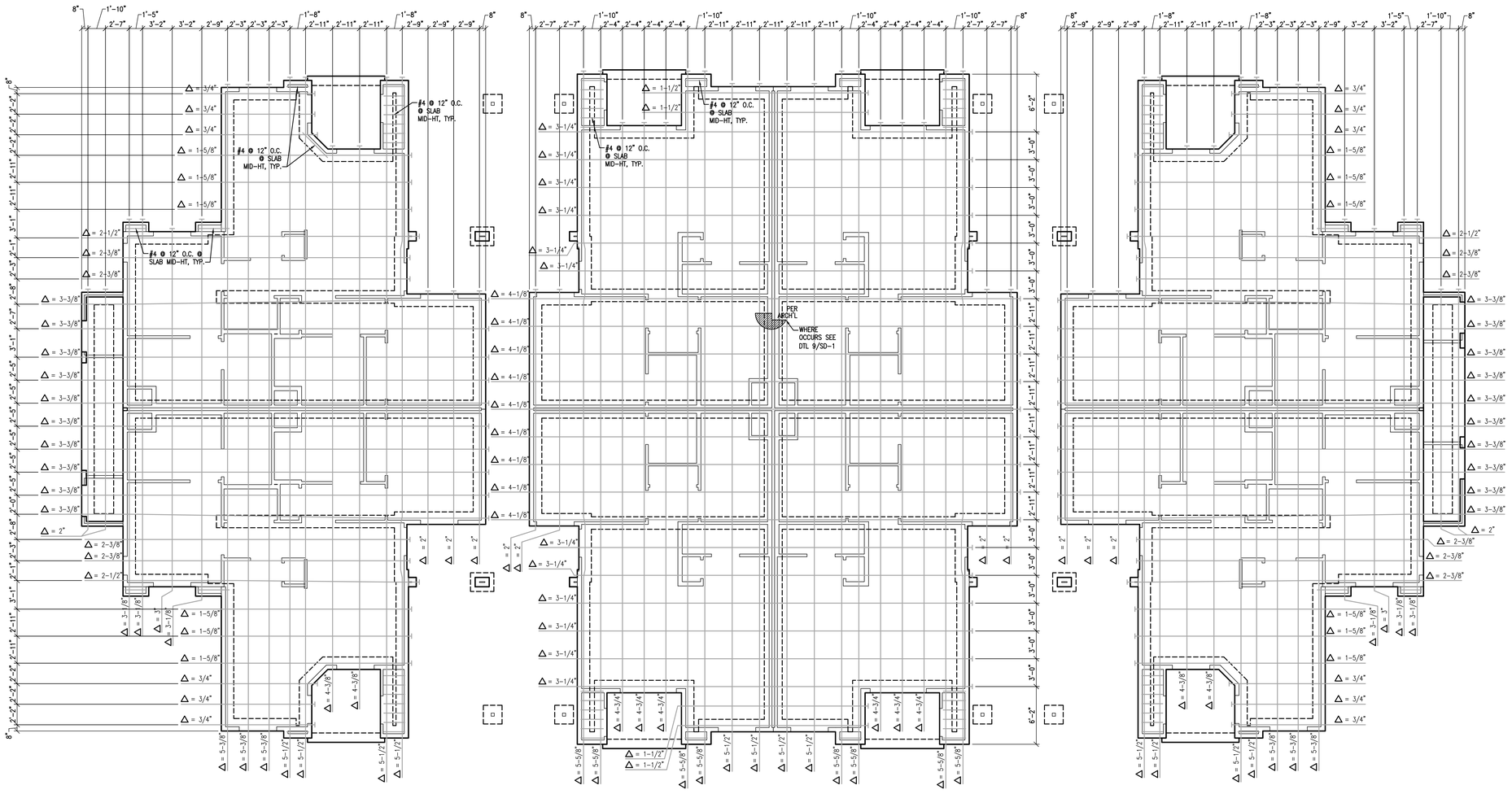
REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

BUILDING TYPE A
FOUNDATION PLAN

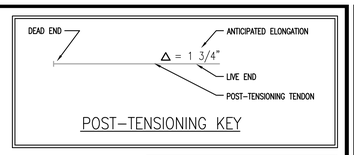
U0136-049-191

S2.1



P.T. DIMENSION PLAN

3/16" = 1'-0"



POST-TENSIONING KEY

NOTE: SPACING OF TENDONS MAY VARY ±3". PLACE TENDONS @ SLAB MID-HEIGHT.

REVISION #	DATE: 7-24-20
DATE	DESIGNED BY: JCS
DESIGNER/DRAFTER	DRAWN BY: MCP
DESCRIPTION	CHECKED BY: RTA

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
UTAH LICENSE NUMBER
NV FIRM LICENSE NUMBER
9445

BUILDING TYPE A

P.T. DIMENSION PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

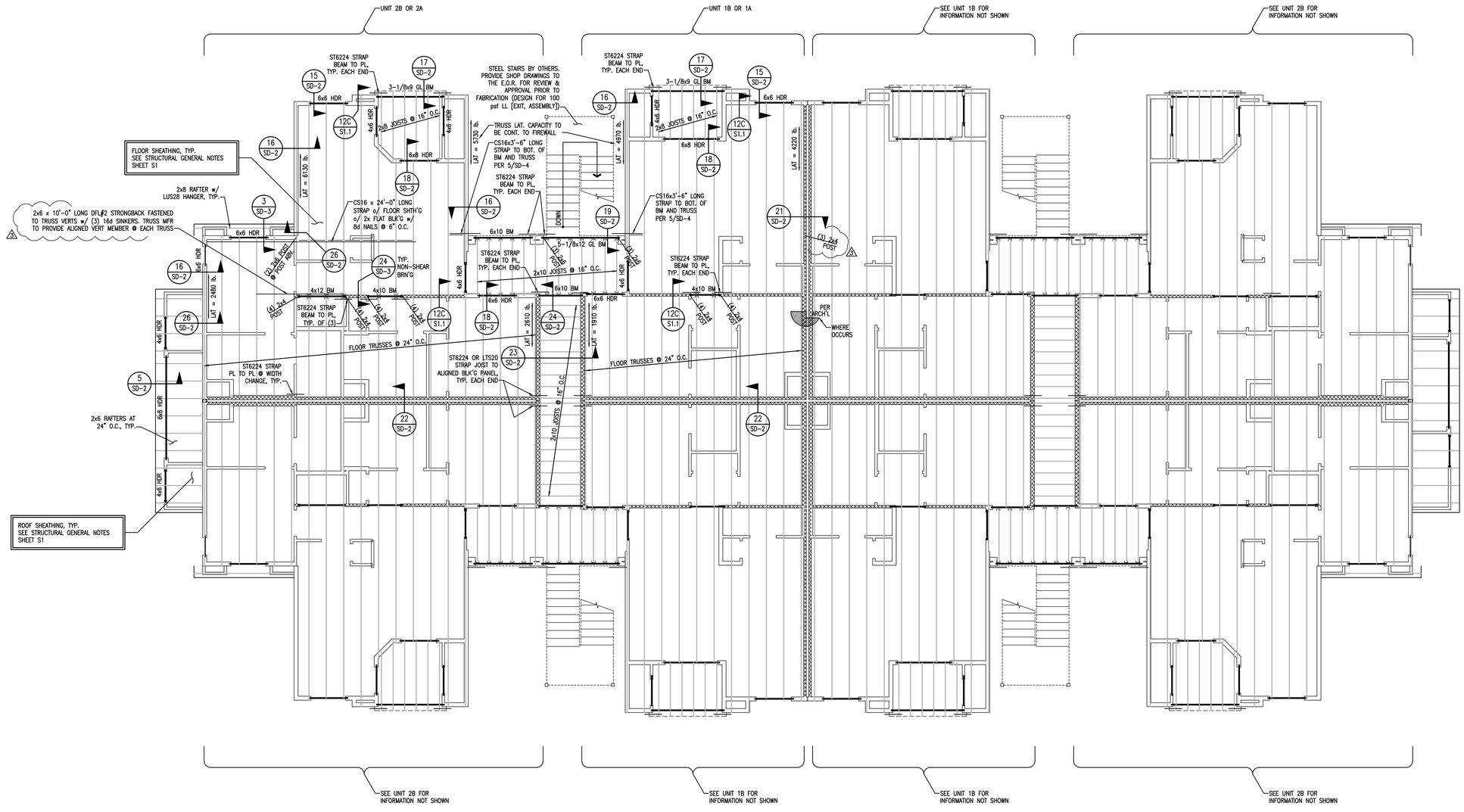
U0136-049-191

S2.2

1st STORY STUD TABLE			
LOCATION	STUD SIZE	GRADE	SPACING
EXTERIOR	2x6	STUD GRADE	16" O.C.
	2x4	DFL #2	12" O.C.
INTERIOR BEARING & PARTY WALL	2x6	STUD GRADE	16" O.C.
	2x4	DFL #1	12" O.C.
NON-BEARING PARTY WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
NON-BEARING WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O. POSTS OF EQUAL OR GREATER SIZE SHALL BE INSTALLED AT ALL LOWER LEVELS TO THE FOUNDATION.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



2ND FLOOR FRAMING PLAN

3/16" = 1'-0"

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20	DESCRIPTION	DESIGNER/DRAFTER		

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

BUILDING TYPE A
2ND FLOOR FRAMING PLAN

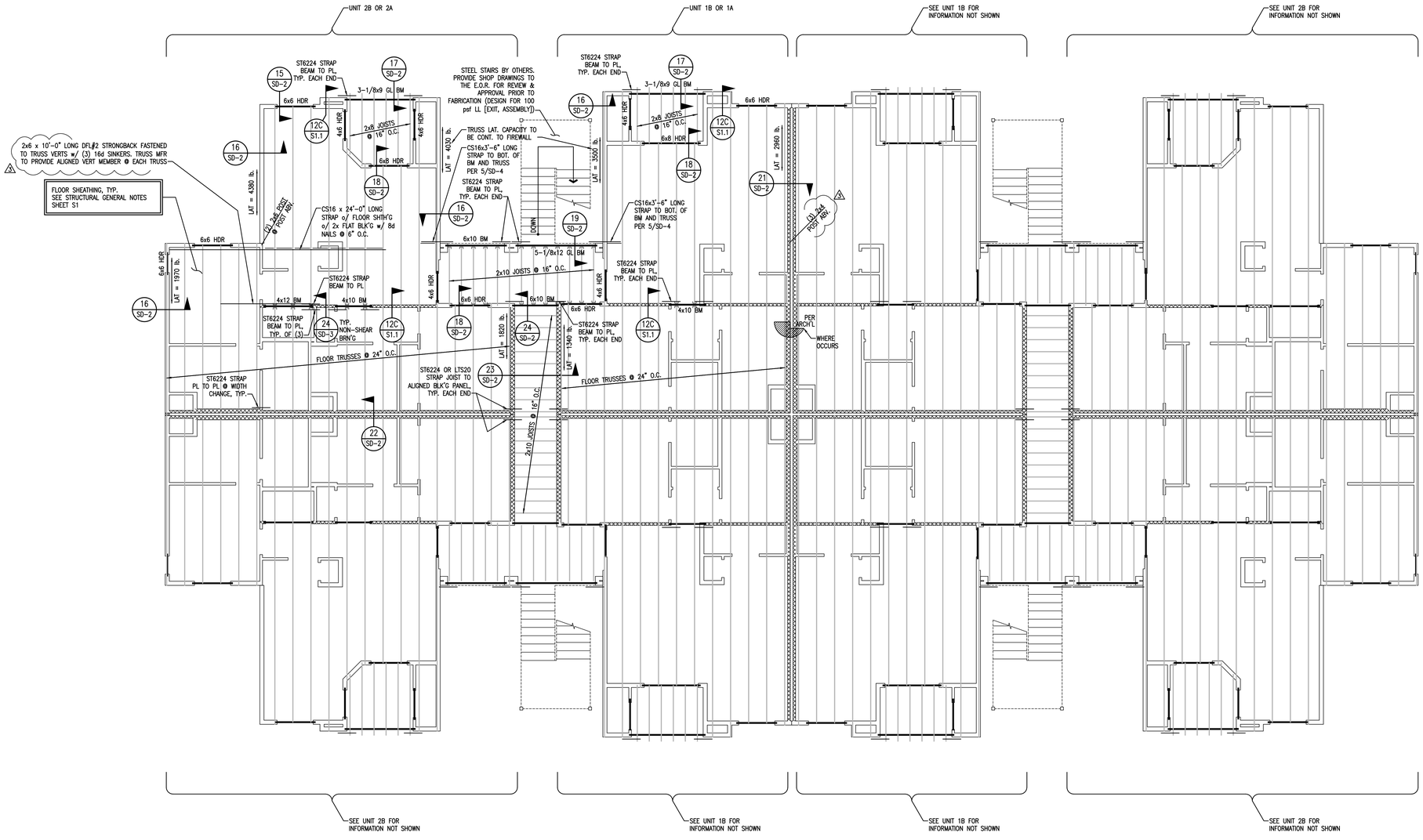
U0136-049-191

S2.3

2nd STORY STUD TABLE			
LOCATION	STUD SIZE	GRADE	SPACING
EXTERIOR	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
INTERIOR PARTY WALL	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	12" O.C.
NON-BEARING WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O. POSTS OF EQUAL OR GREATER SIZE SHALL BE INSTALLED AT ALL LOWER LEVELS TO THE FOUNDATION.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



3RD FLOOR FRAMING PLAN

3/16" = 1'-0"

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
UTAH LICENSE NUMBER
NV FIRM LICENSE NUMBER
9445

DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION

BUILDING TYPE A
3RD FLOOR FRAMING PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

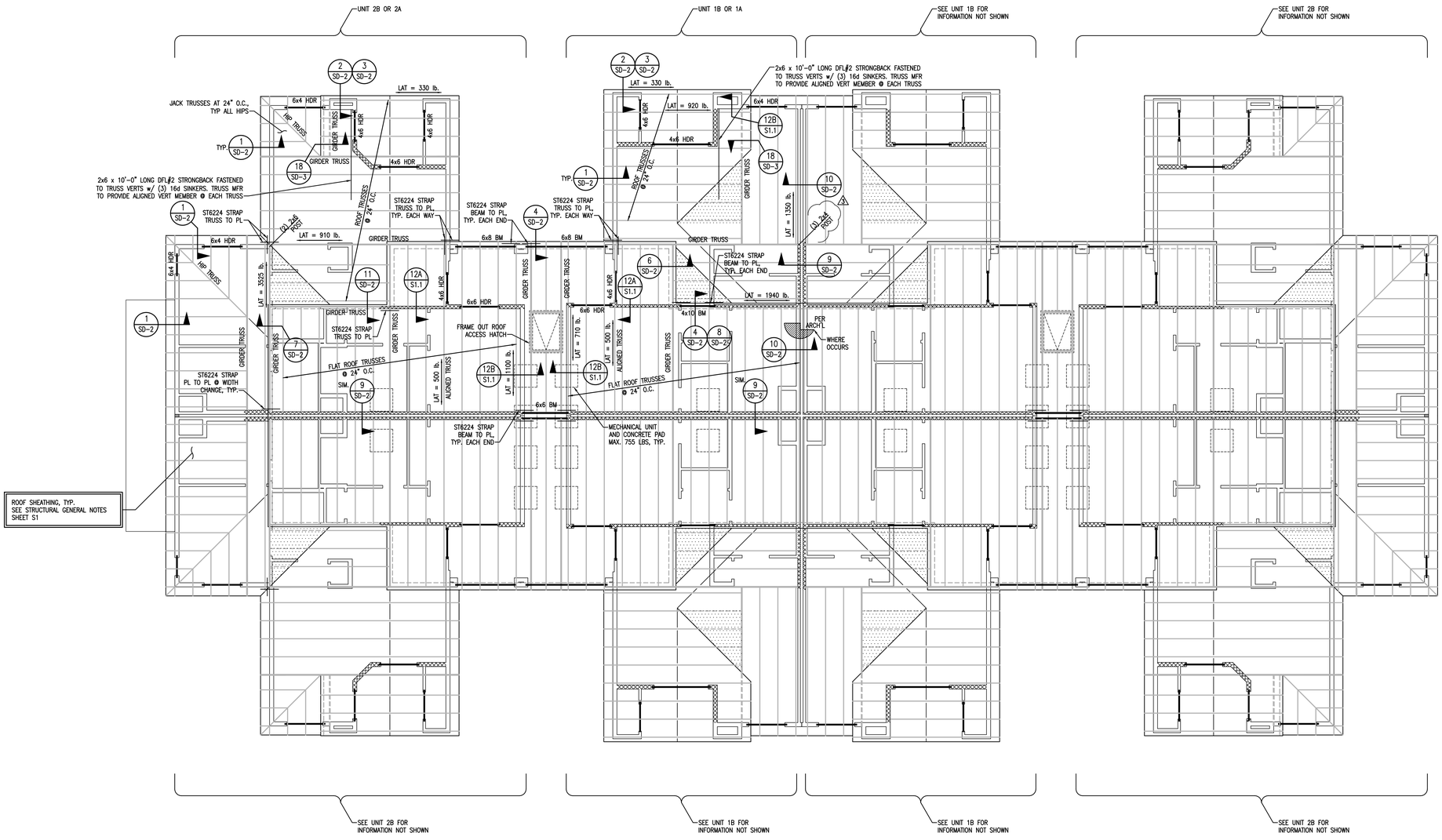
U0136-049-191

S2.4

3rd STORY STUD TABLE			
LOCATION	STUD SIZE	GRADE	SPACING
EXTERIOR	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
INTERIOR PARTY WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
NON-BEARING WALLS	2x4	STUD GRADE	16" O.C.
	2x6	STUD GRADE	16" O.C.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O. POSTS OF EQUAL OR GREATER SIZE SHALL BE INSTALLED AT ALL LOWER LEVELS TO THE FOUNDATION.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



ROOF FRAMING PLAN

3/16" = 1'-0"

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

BUILDING TYPE B

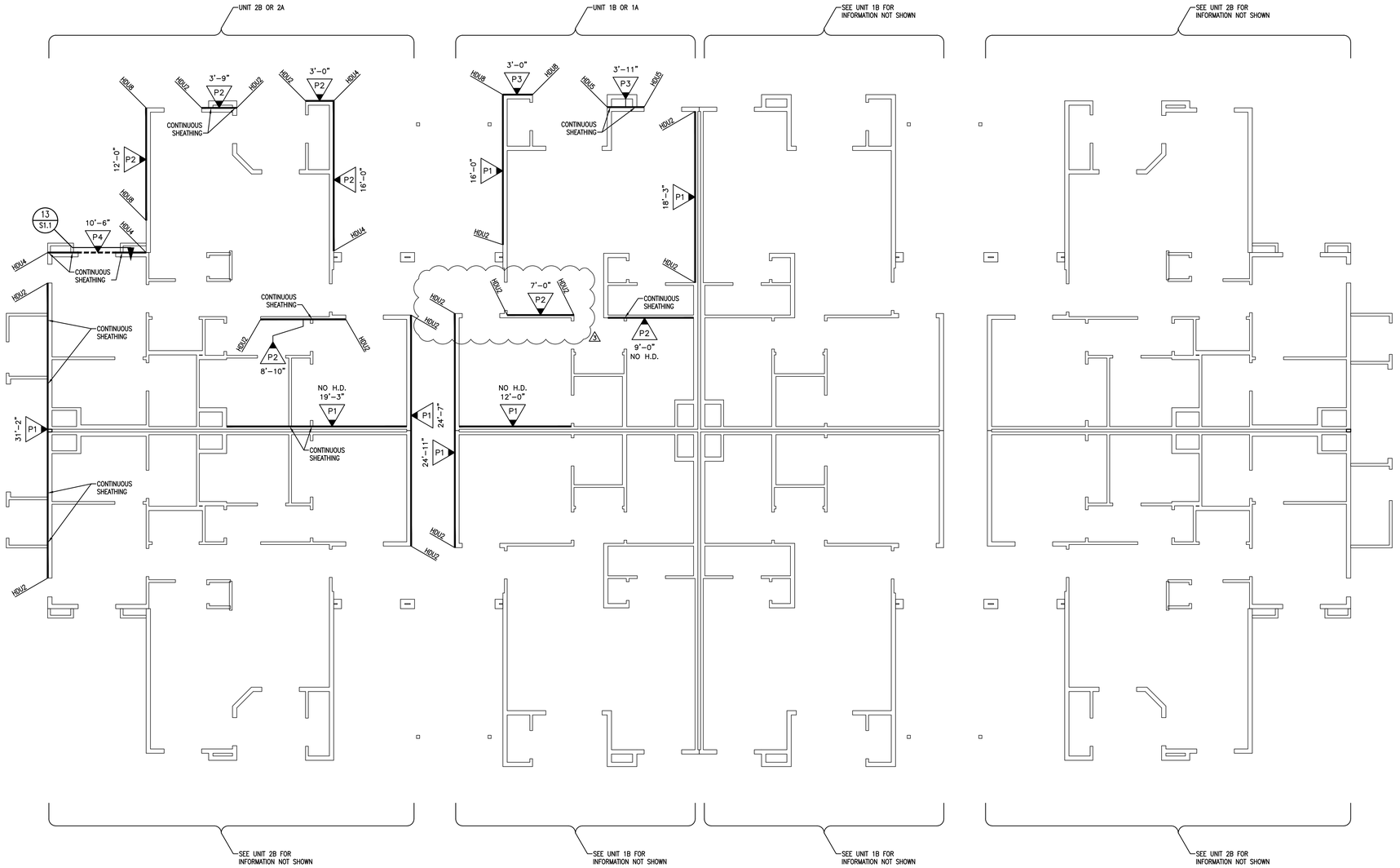
ROOF FRAMING PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

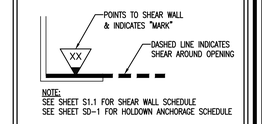
U0136-049-191

S2.5



MAIN LEVEL SHEAR WALL PLAN

3/16" = 1'-0"



NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

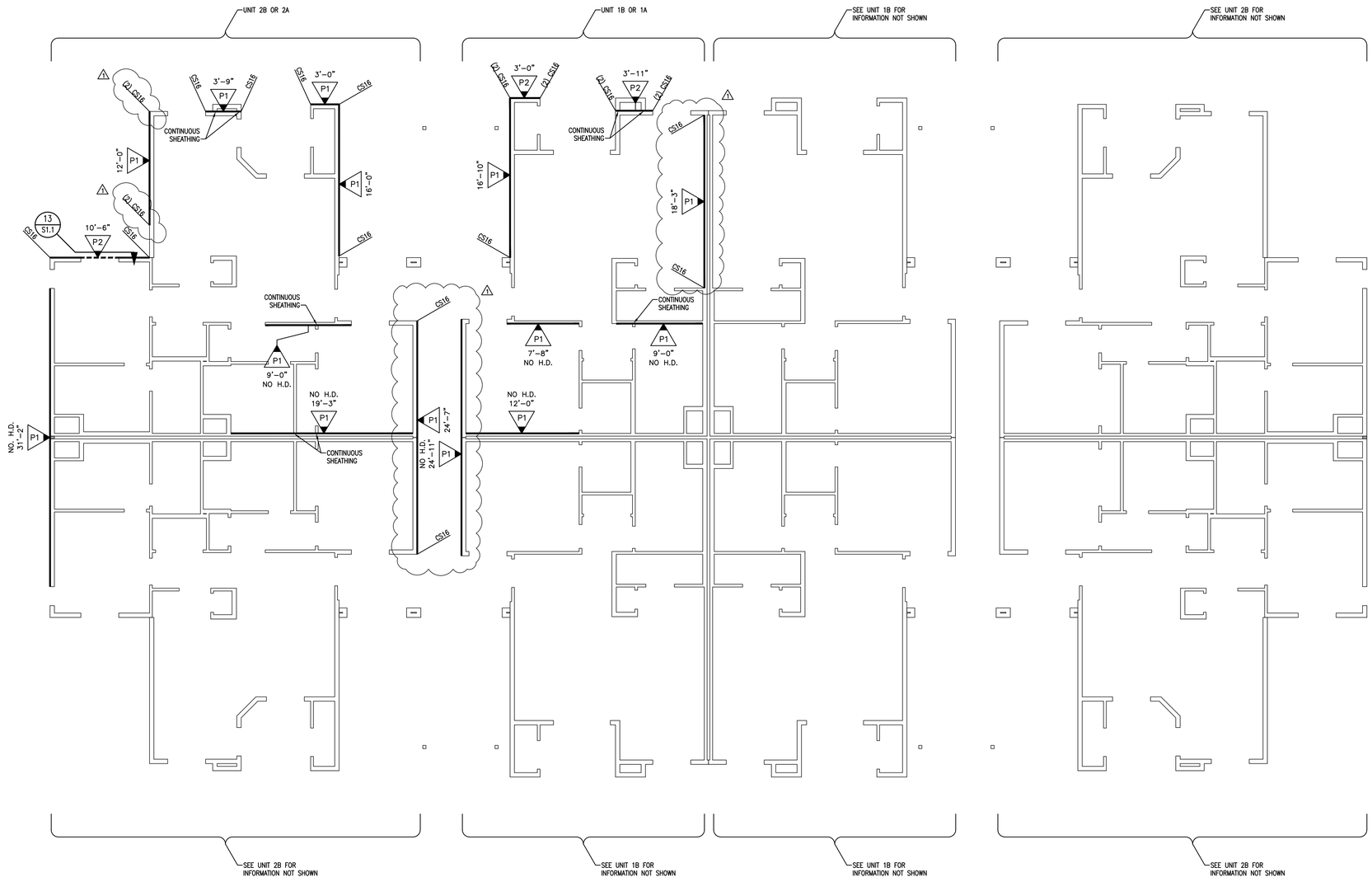
VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

BUILDING TYPE A
MAIN LEVEL SHEAR WALL PLAN

For Review
02/24/2025 10:13:22 AM

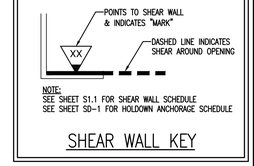
U0136-049-191

S2.6



2ND LEVEL SHEAR WALL PLAN

3/16" = 1'-0"



NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

NOTE:
INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (11) 10d NAILS. (STRAP LENGTH = 48"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

NOTE:
INSTALL MST48 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (13) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL MST60 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (20) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL MST72 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (27) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL CMST12 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (37) 16d NAILS. (STRAP LENGTH = 90"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
REVISION #	DATE:	DESIGNER/DRAFTER	DESCRIPTION

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

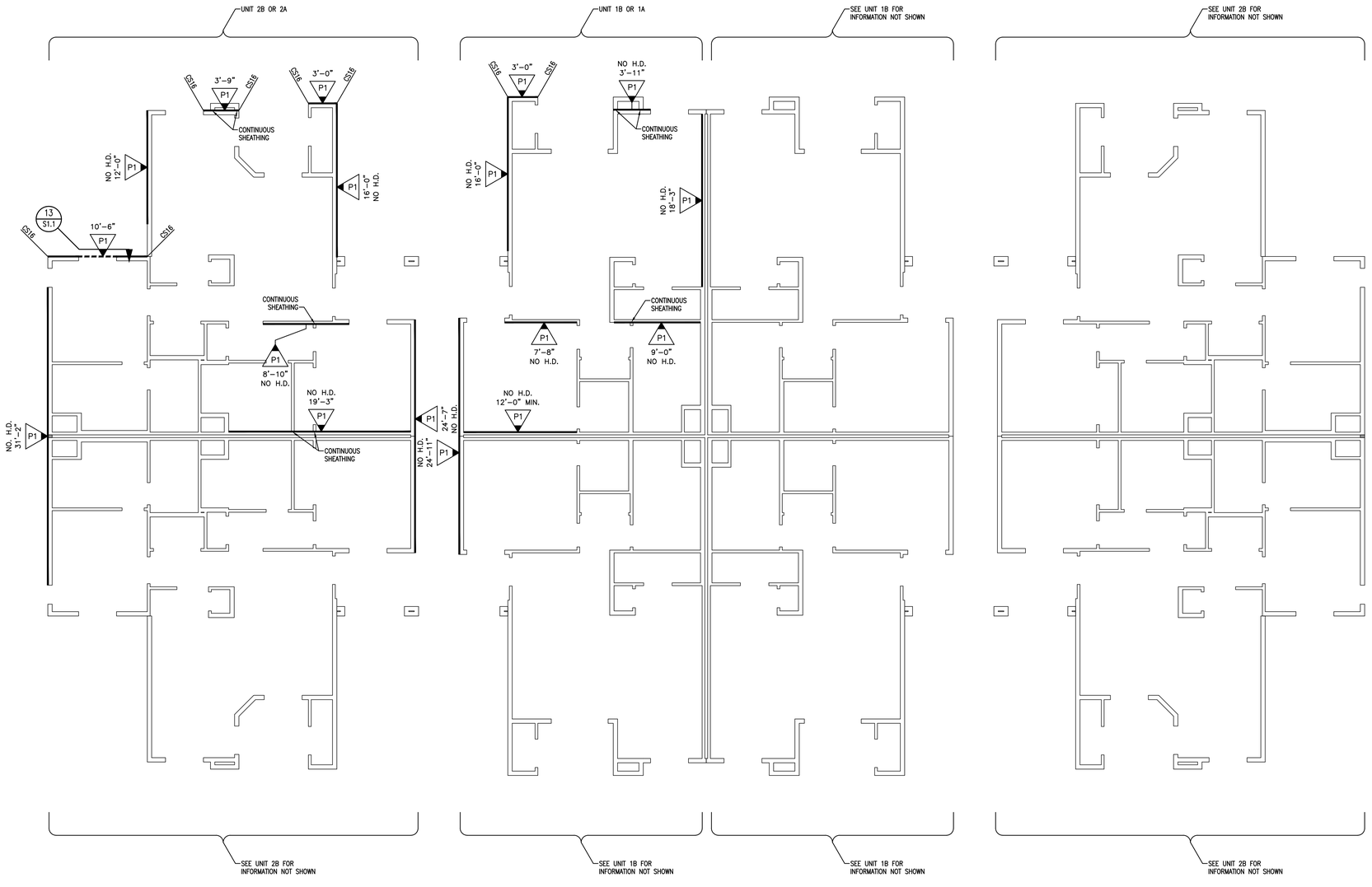
BUILDING TYPE A
2ND LEVEL SHEAR WALL PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

U0136-049-191

S2.7



3RD LEVEL SHEAR WALL PLAN

3/16" = 1'-0"

POINTS TO SHEAR WALL & INDICATES "MARK"

DASHED LINE INDICATES SHEAR AROUND OPENING

XX

NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

NOTE:
INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (11) 10d NAILS. (STRAP LENGTH = 48"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

NOTE:
INSTALL MST48 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (13) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL MST60 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (20) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL MST72 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (27) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL CMST12 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (37) 16d NAILS. (STRAP LENGTH = 90"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

3RD LEVEL SHEAR WALL PLAN

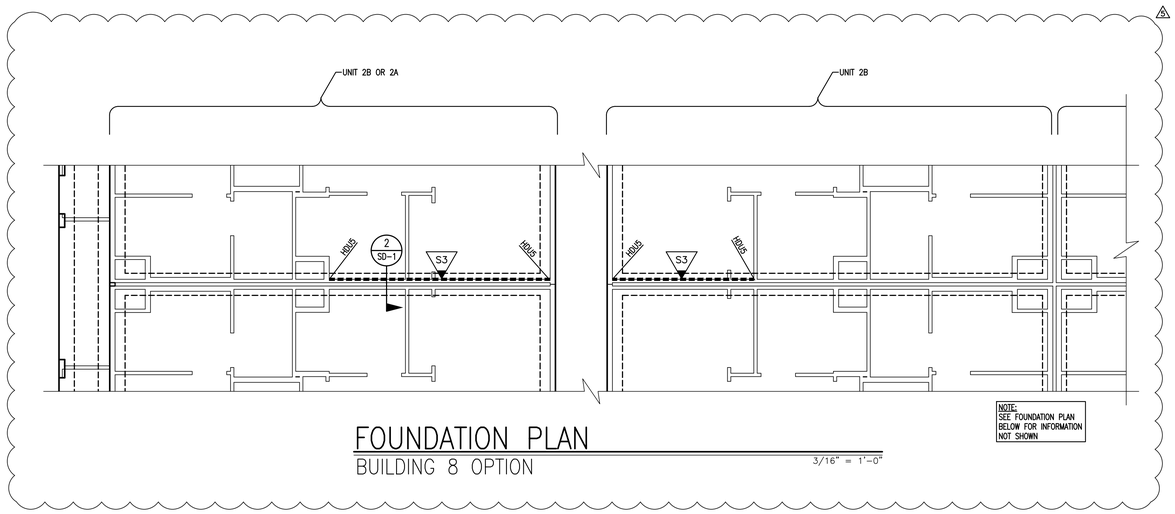
For Review
02/24/2025 10:13:22 AM

U0136-049-191

S2.8

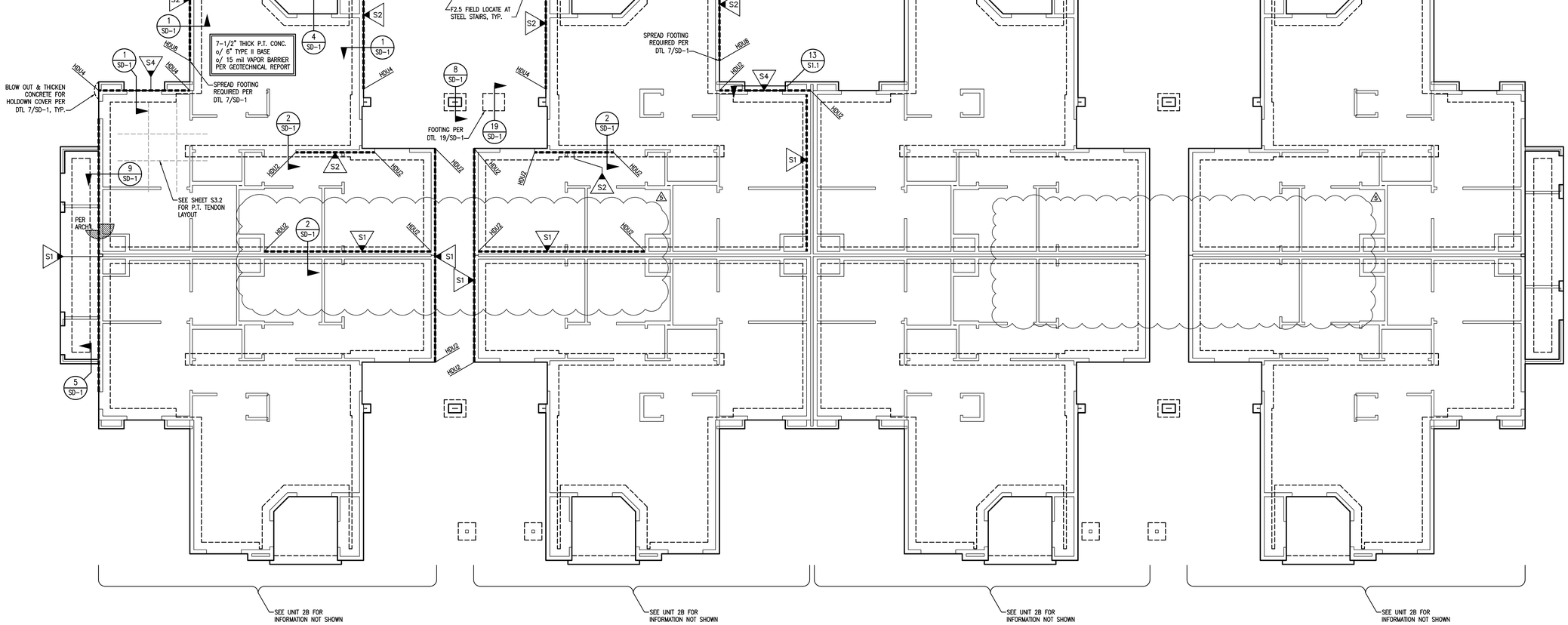
FOUNDATION NOTES:

1. ALL DIMENSIONS ARE PER ARCHITECTURAL DRAWINGS.
2. ALL EXTERIOR WALLS, INTERIOR BEARING WALLS & SHEAR WALLS TO BE ATTACHED TO THE FOUNDATION w/ #1/2" x 10" LONG ANCHOR BOLTS (7" EMBED.) AT 48" O.C., U.N.O. SEE THIS PLAN & SHEAR WALL SCHEDULE FOR ANCHOR BOLT REQUIREMENTS AT SHEAR WALLS. ANCHOR BOLTS AT SHEAR WALLS TO HAVE WASHERS PER SHEAR WALL SCHEDULE (S1.1). ALL OTHER ANCHOR BOLTS TO HAVE WASHERS PER NOTE "E" IN GENERAL NOTES (S1).
3. ALL HOLDOWNS SHALL BE INSTALLED AS SHOWN ON DETAIL 11/SD-1.
4. ISOLATED FOOTINGS & INTERIOR STRIP FOOTINGS TO BE CENTERED BELOW POSTS & BEARING/SHEAR WALLS, RESPECTIVELY.
5. SEE SHEET S1.1 FOR FOOTING SCHEDULE.
6. MASA MUDSILL ANCHORS MAY BE USED IN PLACE OF ANCHOR BOLTS, INSTALLED AT THE SAME SPACING INDICATED FOR ANCHOR BOLTS, INCLUDING REDUCED SPACING AT SHEAR WALLS.
7. STRIP & REMOVE EXISTING VEGETATION, REMOVE UNCONTROLLED FILL, OVEREXCAVATE AND REPLACE w/ PROPERLY COMPACTED FILL AS REQUIRED PER GEOTECHNICAL REPORT.
8. SW – INDICATES LOCATION OF SIMPSON STRONG WALL, INSTALL PER MFR'S SPECIFICATIONS, USE MFR'S TEMPLATE TO ENSURE PROPER ANCHORAGE LOCATION. SEE SHEAR WALL PLANS FOR SPECIFICATIONS.

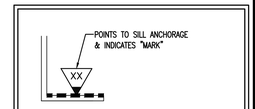


FOUNDATION PLAN
BUILDING 8 OPTION

3/16" = 1'-0"



FOUNDATION PLAN
3/16" = 1'-0"



NOTE: SEE SHEET S1.1 FOR SILL ANCHORAGE SCHEDULE

SILL ANCHORAGE KEY

DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
REVISION #	DATE:	DESIGNER/DRAFTER	DESCRIPTION
DATE: 7-24-20			

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

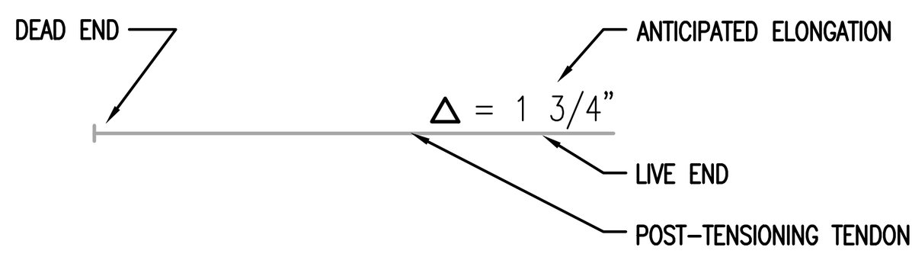
BUILDING TYPE B
FOUNDATION PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

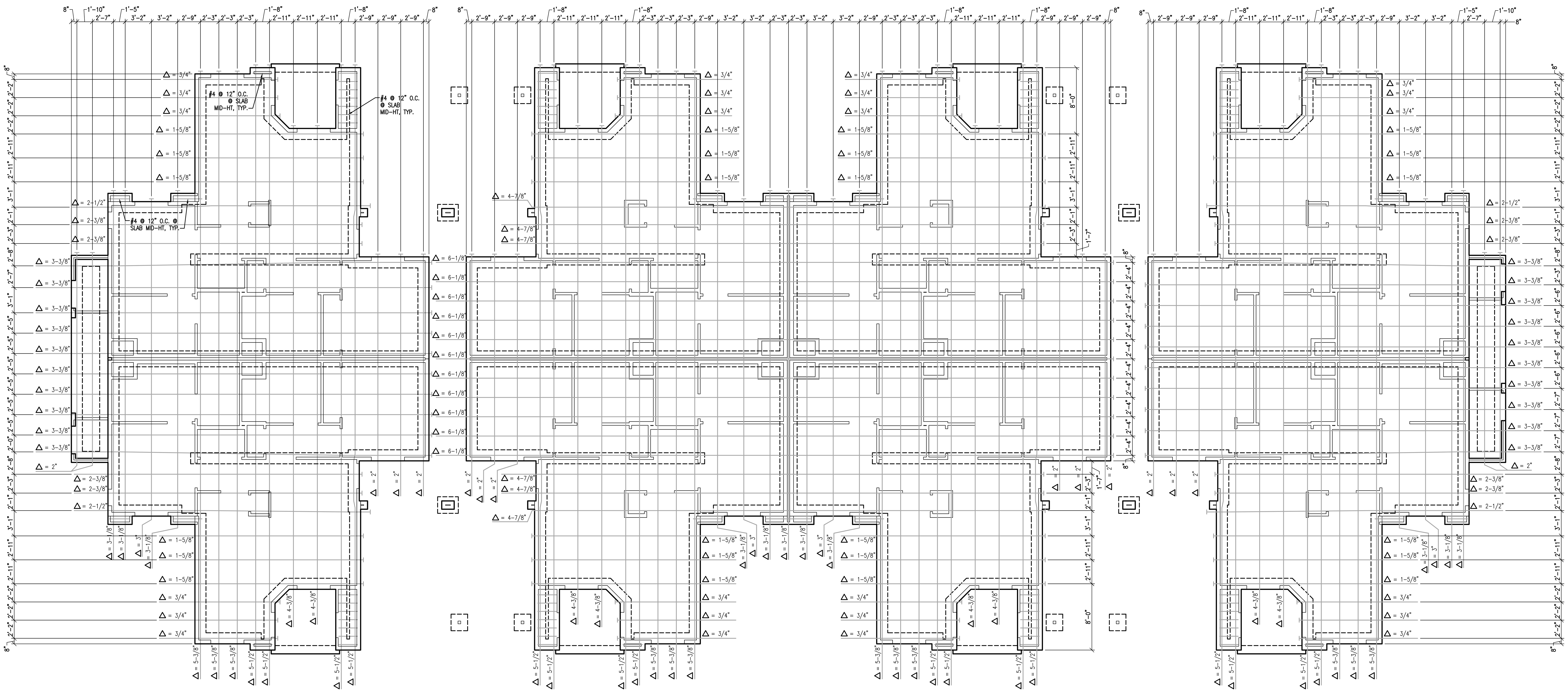
U0136-049-191

S3.1



POST-TENSIONING KEY

NOTE: SPACING OF TENDONS MAY VARY ±3". PLACE TENDONS @ SLAB MID-HEIGHT.



P.T. DIMENSION PLAN

3/16" = 1'-0"

DATE: 7-24-20 | DESIGNED BY: JCS | DRAWN BY: MGP | CHECKED BY: RTA

REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

BUILDING TYPE B
P.T. DIMENSION PLAN

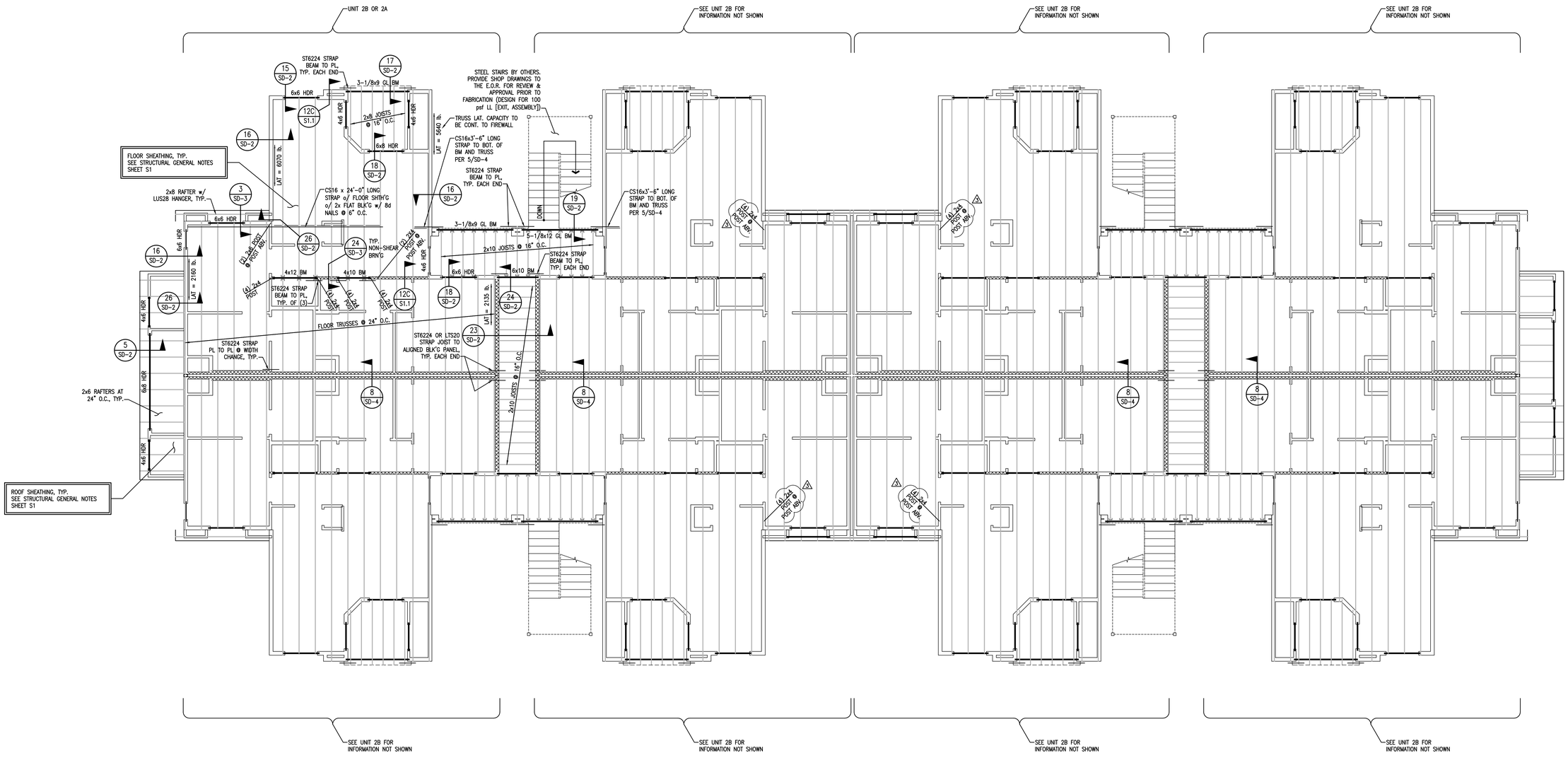
U0136-049-191

S3.2

1st STORY STUD TABLE			
LOCATION	STUD SIZE	GRADE	SPACING
EXTERIOR	2x6	STUD GRADE	16" O.C.
	2x4	DFL #2	12" O.C.
INTERIOR BEARING & PARTY WALL	2x6	STUD GRADE	16" O.C.
	2x4	DFL #1	12" O.C.
NON-BEARING PARTY WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
NON-BEARING WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O. POSTS OF EQUAL OR GREATER SIZE SHALL BE INSTALLED AT ALL LOWER LEVELS TO THE FOUNDATION.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



2ND FLOOR FRAMING PLAN

3/16" = 1'-0"

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

BUILDING TYPE B

2ND FLOOR FRAMING PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

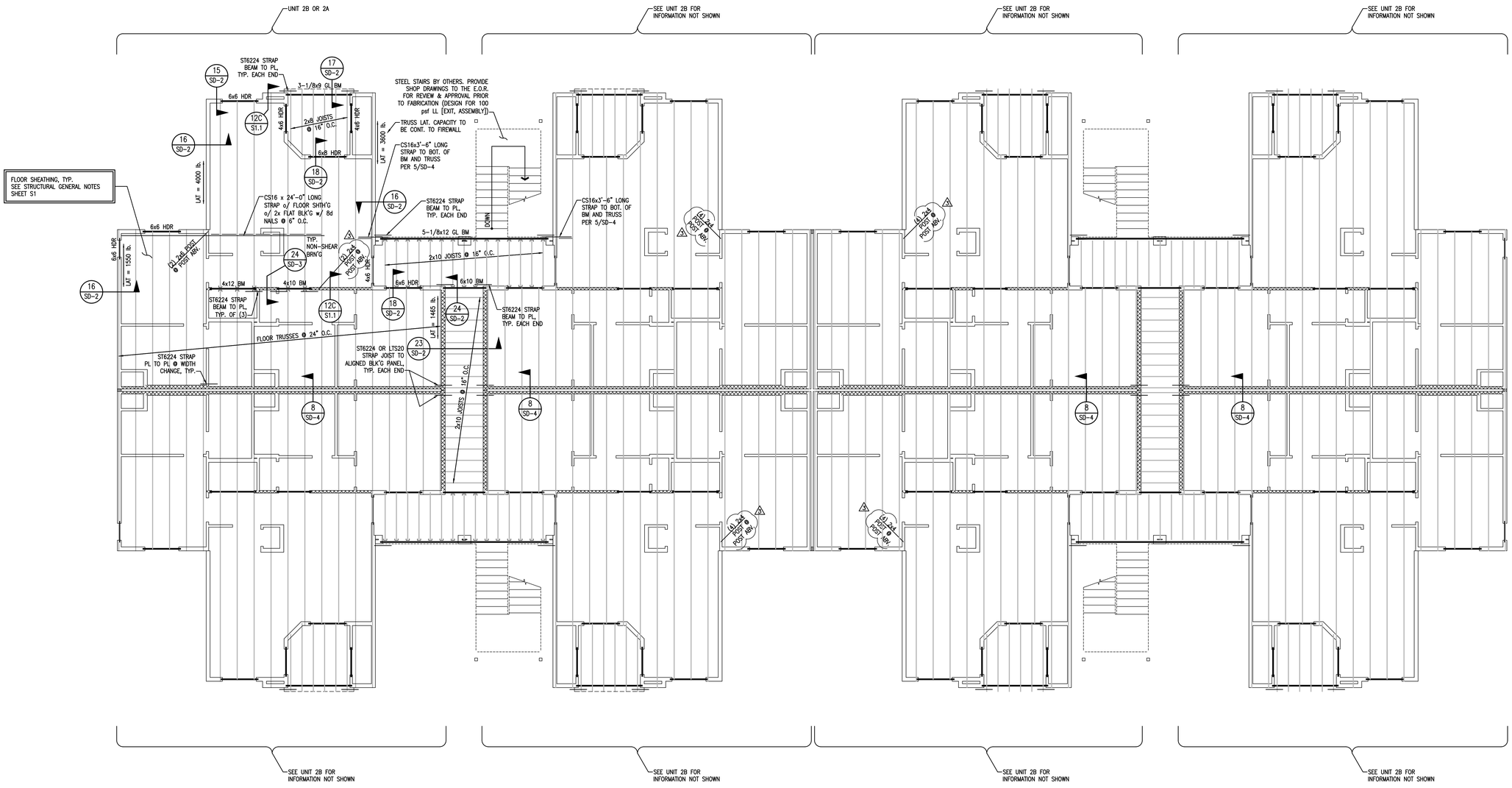
U0136-049-191

S3.3

2nd STORY STUD TABLE			
LOCATION	STUD SIZE	GRADE	SPACING
EXTERIOR	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
INTERIOR PARTY WALL	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	12" O.C.
NON-BEARING WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O. POSTS OF EQUAL OR GREATER SIZE SHALL BE INSTALLED AT ALL LOWER LEVELS TO THE FOUNDATION.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



3RD FLOOR FRAMING PLAN

3/16" = 1'-0"

DATE: 7-24-20 | REVISION # | DATE: | DESIGNED BY: JCS | DESIGNER/DRAFTER: | DRAWN BY: MCP | DESCRIPTION | CHECKED BY: RTA

VECTOR Engineers
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

BUILDING TYPE B
3RD FLOOR FRAMING PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

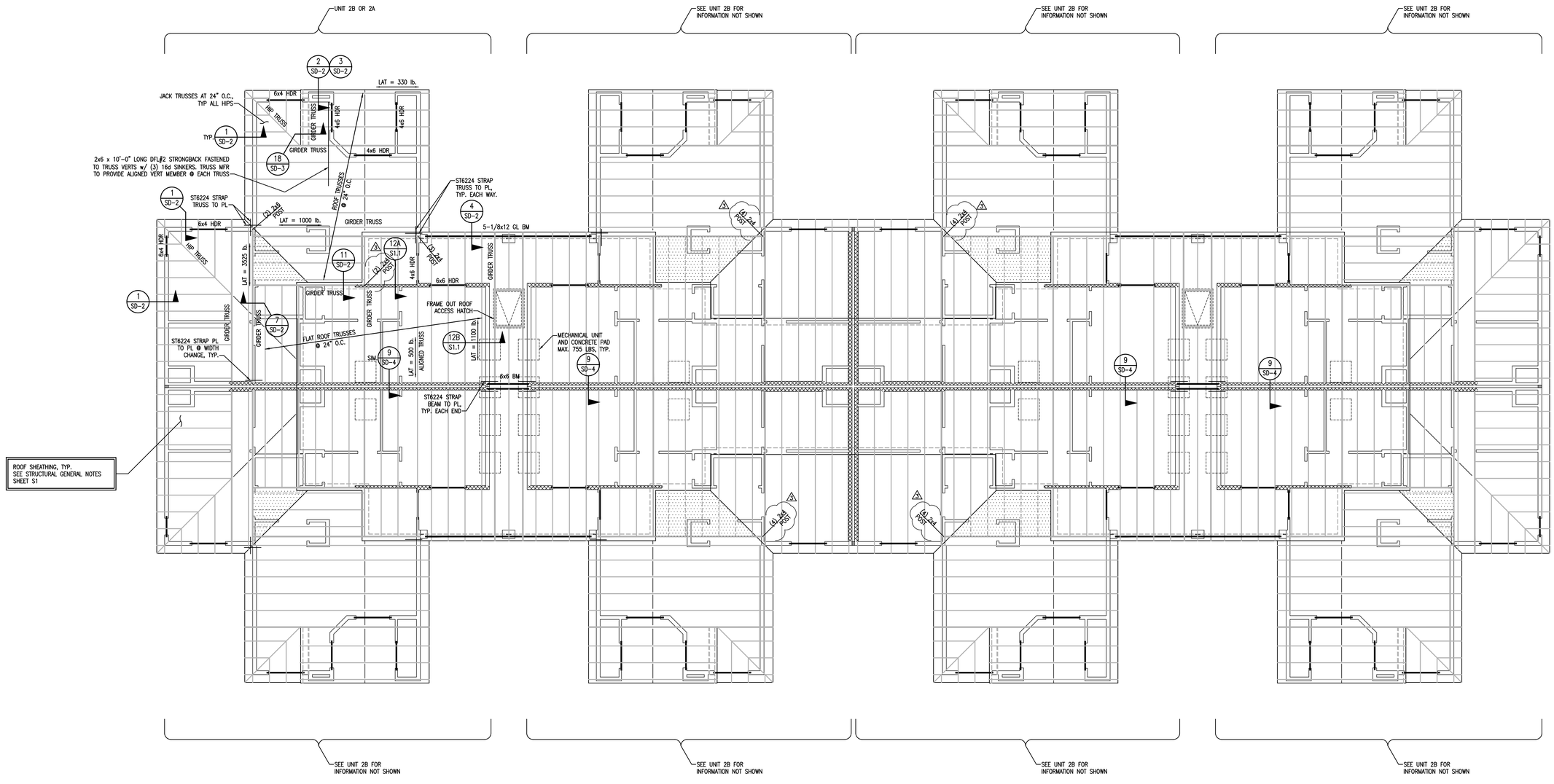
U0136-049-191

S3.4

3rd STORY STUD TABLE			
LOCATION	STUD SIZE	GRADE	SPACING
EXTERIOR	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
INTERIOR PARTY WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
NON-BEARING WALLS	2x4	STUD GRADE	16" O.C.
	2x6	STUD GRADE	16" O.C.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O. POSTS OF EQUAL OR GREATER SIZE SHALL BE INSTALLED AT ALL LOWER LEVELS TO THE FOUNDATION.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



ROOF FRAMING PLAN

3/16" = 1'-0"

VECTOR Engineers
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

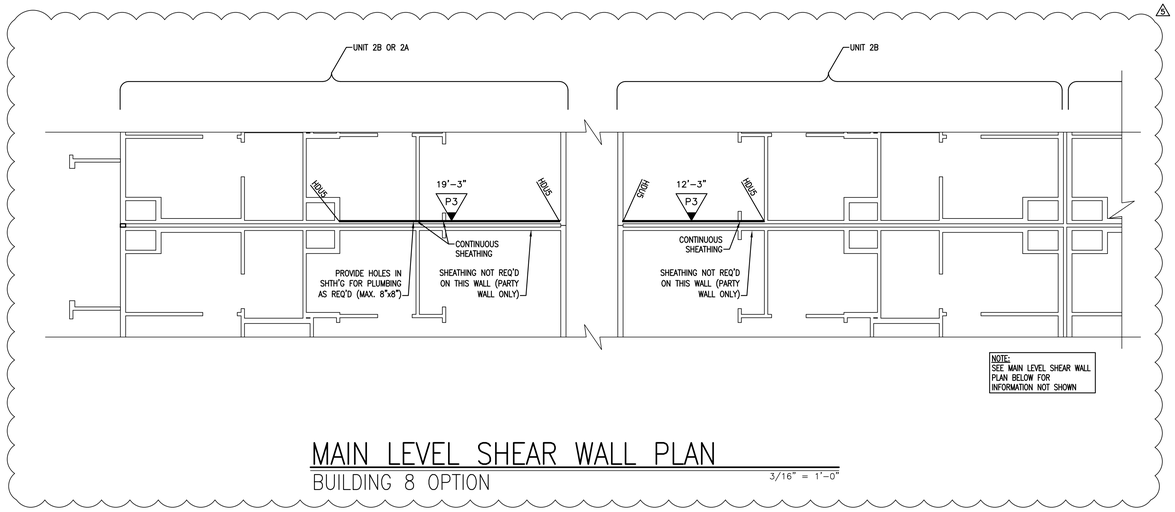
BUILDING TYPE B
ROOF FRAMING PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

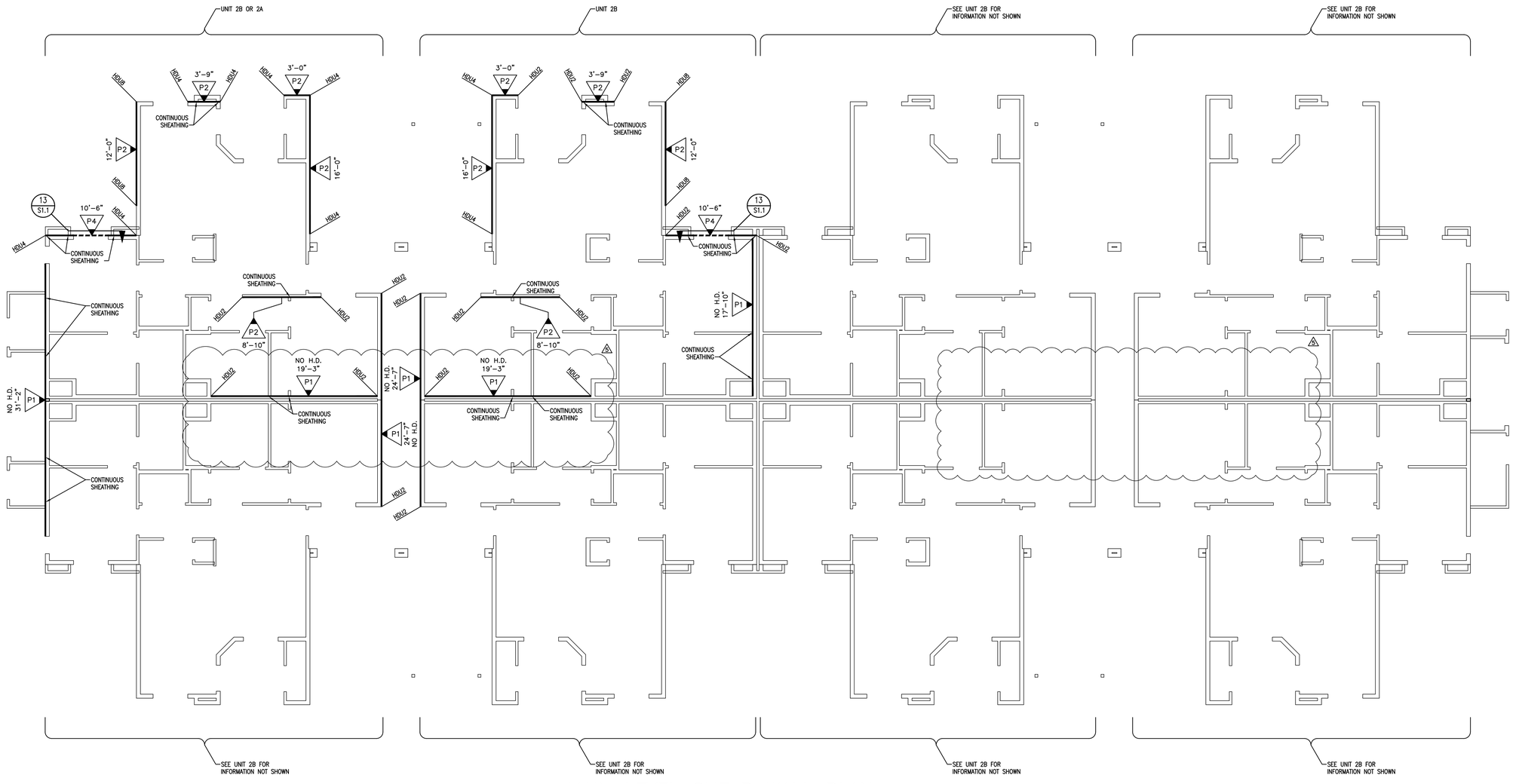
U0136-049-191

S3.5



MAIN LEVEL SHEAR WALL PLAN
BUILDING 8 OPTION

3/16" = 1'-0"



MAIN LEVEL SHEAR WALL PLAN

3/16" = 1'-0"

POINTS TO SHEAR WALL & INDICATES "MARK"

DASHED LINE INDICATES SHEAR AROUND OPENING

XX

NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
REVISION #	DATE:	DESIGNER/DRAFTER	DESCRIPTION

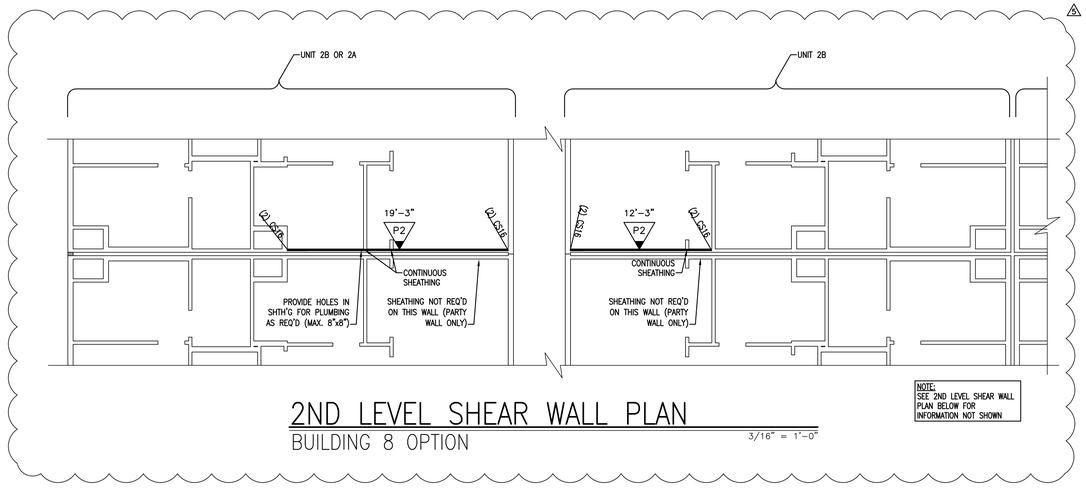
VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

BUILDING TYPE B
MAIN LEVEL SHEAR WALL PLAN

For Review
02/24/2025 10:13:22 AM

U0136-049-191

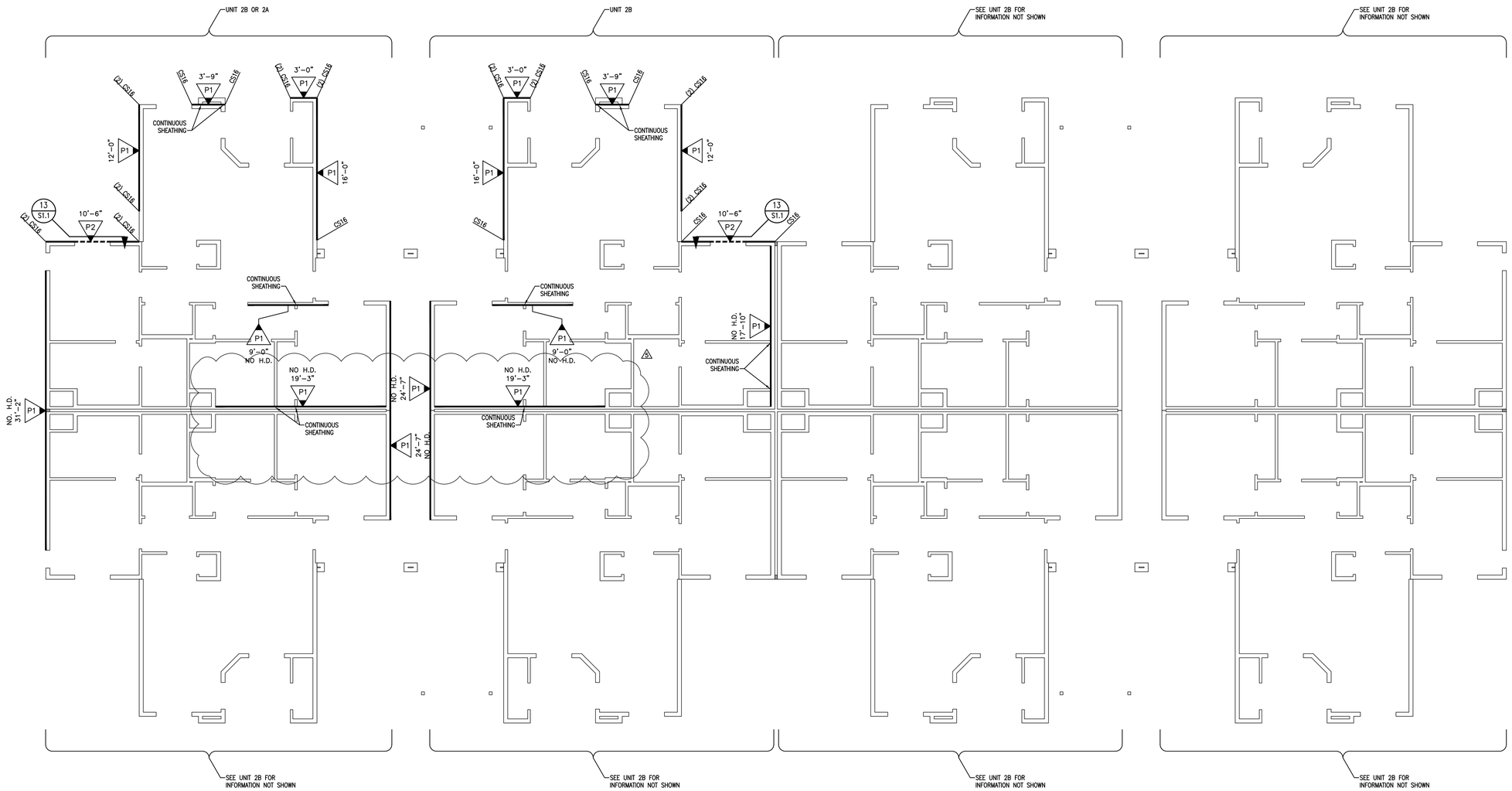
S3.6



2ND LEVEL SHEAR WALL PLAN

BUILDING 8 OPTION

3/16" = 1'-0"



2ND LEVEL SHEAR WALL PLAN

3/16" = 1'-0"

POINTS TO SHEAR WALL & INDICATES "MARK"

DASHED LINE INDICATES SHEAR AROUND OPENING

XX

NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

NOTE:
INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (11) 10d NAILS. (STRAP LENGTH = 48"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

NOTE:
INSTALL MST48 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (13) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL MST60 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (20) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL MST72 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (27) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL CMST12 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (37) 16d NAILS. (STRAP LENGTH = 90"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
REVISION #	DATE:	DESIGNER/DRAFTER	DESCRIPTION

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

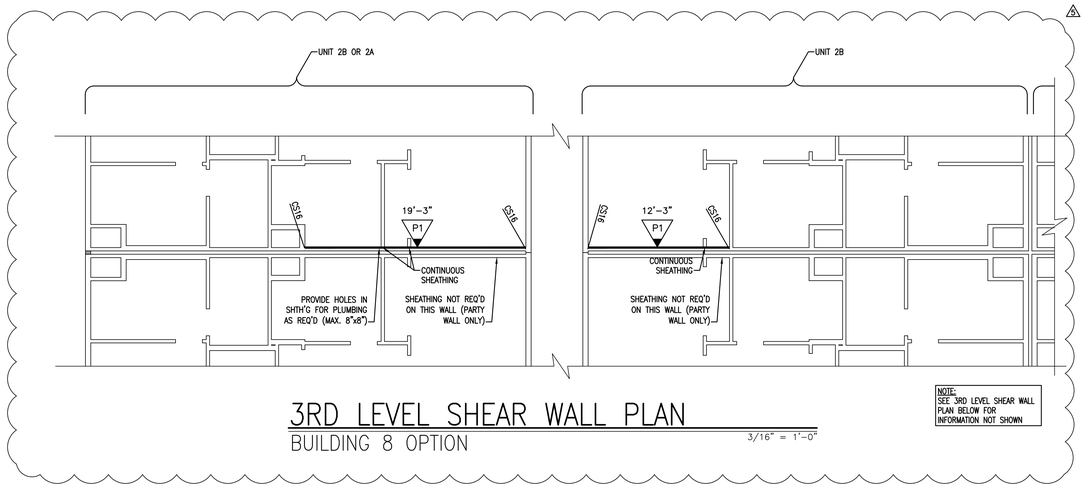
BUILDING TYPE B

2ND LEVEL SHEAR WALL PLAN

For Review
02/24/2025 10:13:22 AM

U0136-049-191

S3.7

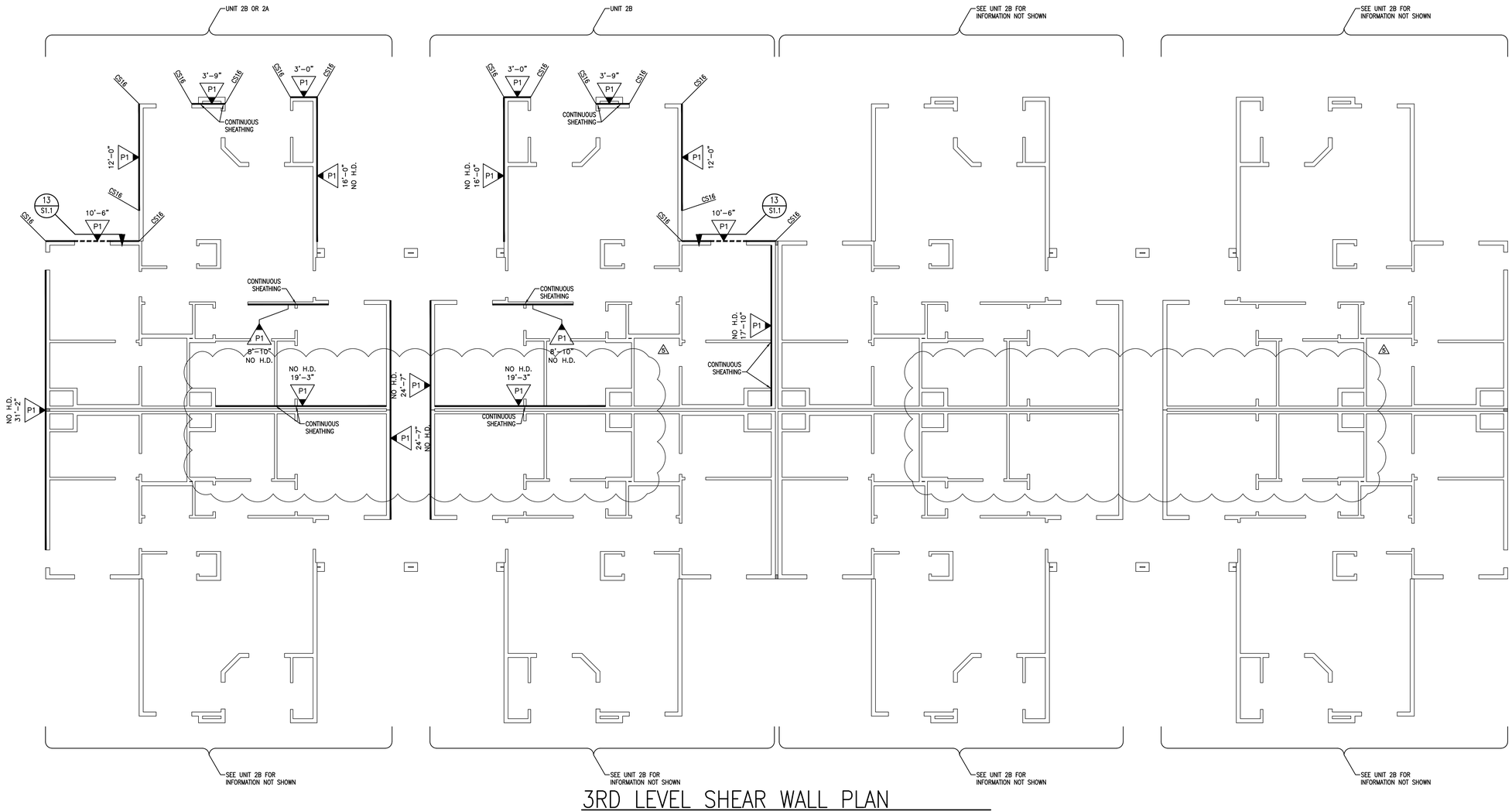


NOTE:
SEE 3RD LEVEL SHEAR WALL PLAN BELOW FOR INFORMATION NOT SHOWN

3RD LEVEL SHEAR WALL PLAN

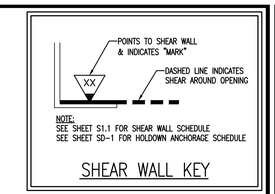
BUILDING 8 OPTION

3/16" = 1'-0"



3RD LEVEL SHEAR WALL PLAN

3/16" = 1'-0"



NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

NOTE:
INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (11) 10d NAILS. (STRAP LENGTH = 48"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

NOTE:
INSTALL MST48 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (13) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL MST60 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (20) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL MST72 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (27) 16d NAILS. WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM

NOTE:
INSTALL CMST12 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (37) 16d NAILS. (STRAP LENGTH = 90"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

BUILDING TYPE B

3RD LEVEL SHEAR WALL PLAN

PROPRIETARY DO NOT DISTRIBUTE

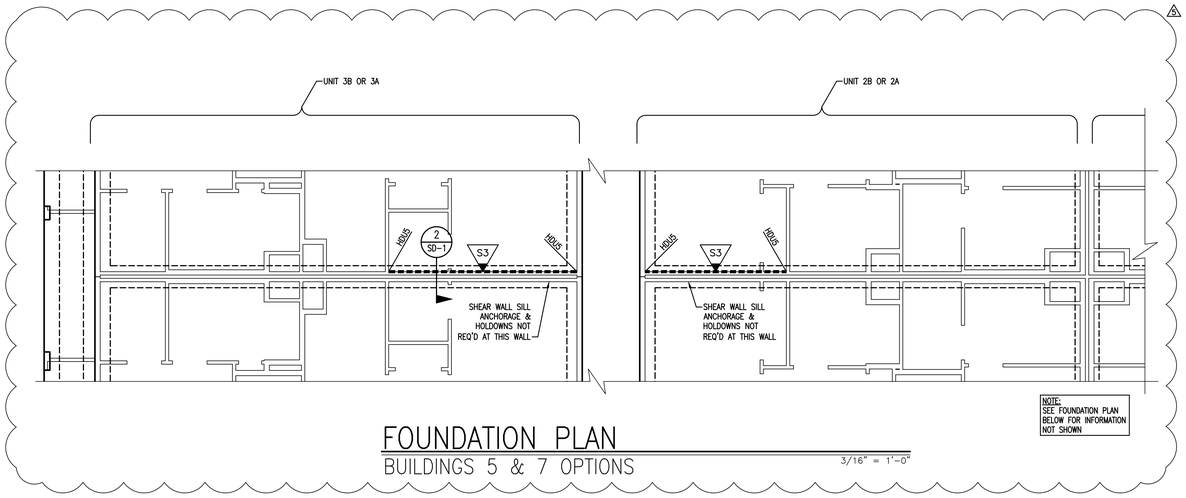
For Review
02/24/2025 10:13:22 AM

U0136-049-191

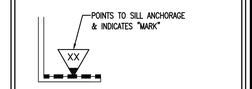
S3.8

FOUNDATION NOTES:

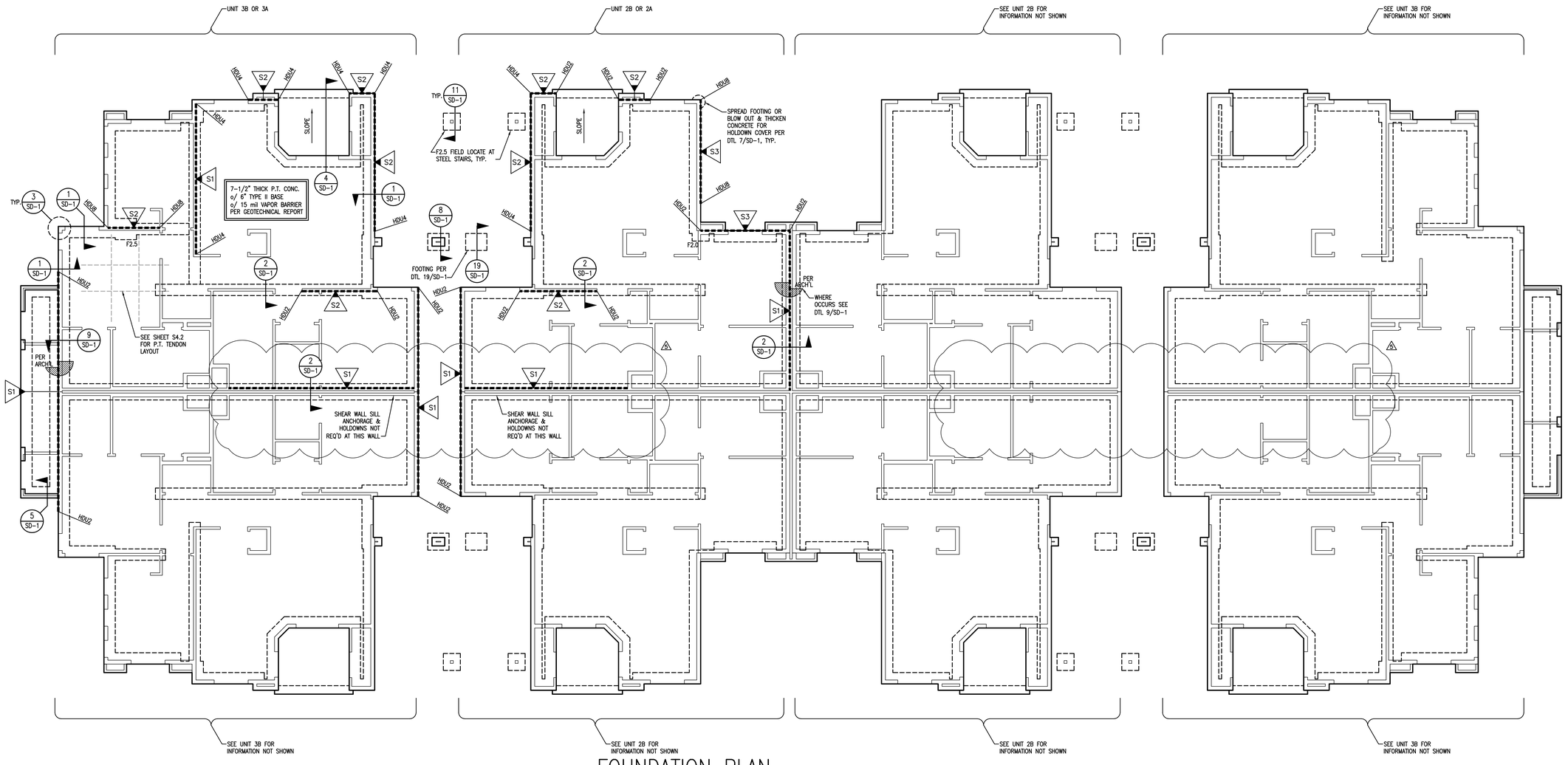
1. ALL DIMENSIONS ARE PER ARCHITECTURAL DRAWINGS.
2. ALL EXTERIOR WALLS, INTERIOR BEARING WALLS & SHEAR WALLS TO BE ATTACHED TO THE FOUNDATION w/ #1/2" x 10" LONG ANCHOR BOLTS (7" EMBED.) AT 48" O.C., U.N.O. SEE THIS PLAN & SHEAR WALL SCHEDULE FOR ANCHOR BOLT REQUIREMENTS AT SHEAR WALLS. ANCHOR BOLTS AT SHEAR WALLS TO HAVE WASHERS PER SHEAR WALL SCHEDULE (S1.1). ALL OTHER ANCHOR BOLTS TO HAVE WASHERS PER NOTE "E" IN GENERAL NOTES (S1).
3. ALL HOLDOWNS SHALL BE INSTALLED AS SHOWN ON DETAIL 11/SD-1.
4. ISOLATED FOOTINGS & INTERIOR STRIP FOOTINGS TO BE CENTERED BELOW POSTS & BEARING/SHEAR WALLS, RESPECTIVELY.
5. SEE SHEET S1.1 FOR FOOTING SCHEDULE.
6. MASA MUDSILL ANCHORS MAY BE USED IN PLACE OF ANCHOR BOLTS, INSTALLED AT THE SAME SPACING INDICATED FOR ANCHOR BOLTS, INCLUDING REDUCED SPACING AT SHEAR WALLS.
7. STRIP & REMOVE EXISTING VEGETATION, REMOVE UNCONTROLLED FILL, OVEREXCAVATE AND REPLACE w/ PROPERLY COMPACTED FILL AS REQUIRED PER GEOTECHNICAL REPORT.
8. SW – INDICATES LOCATION OF SIMPSON STRONG WALL, INSTALL PER MFR'S SPECIFICATIONS, USE MFR'S TEMPLATE TO ENSURE PROPER ANCHORAGE LOCATION. SEE SHEAR WALL PLANS FOR SPECIFICATIONS.



FOUNDATION PLAN
BUILDINGS 5 & 7 OPTIONS
3/16" = 1'-0"



SILL ANCHORAGE KEY



FOUNDATION PLAN
3/16" = 1'-0"

DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

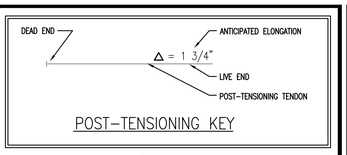
BUILDING TYPE 5
FOUNDATION PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

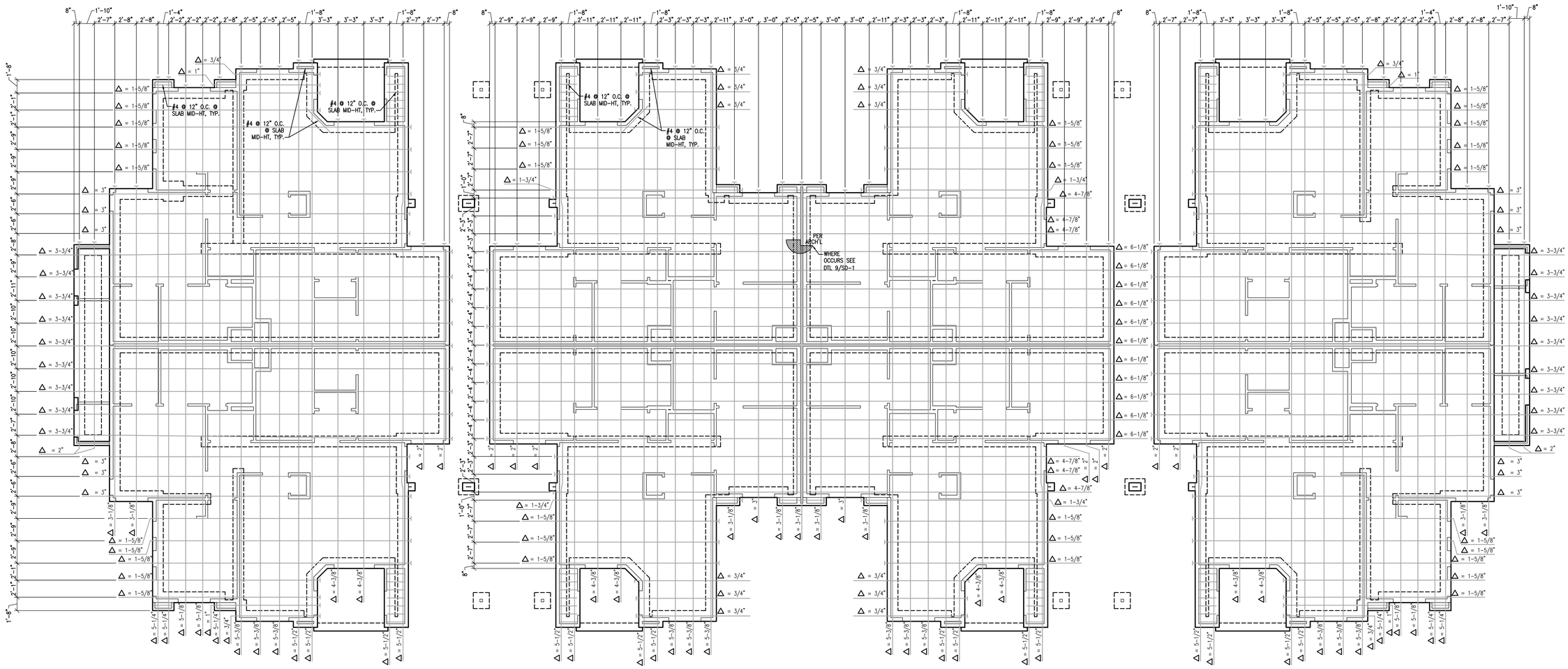
U0136-049-191

S4.1



POST-TENSIONING KEY

NOTE: SPACING OF TENDONS MAY VARY ±3". PLACE TENDONS @ SLAB MID-HEIGHT.



P.T. DIMENSION PLAN

3/16" = 1'-0"

REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION
DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

BUILDING TYPE C
P.T. DIMENSION PLAN

For Review
02/24/2025 10:13:22 AM

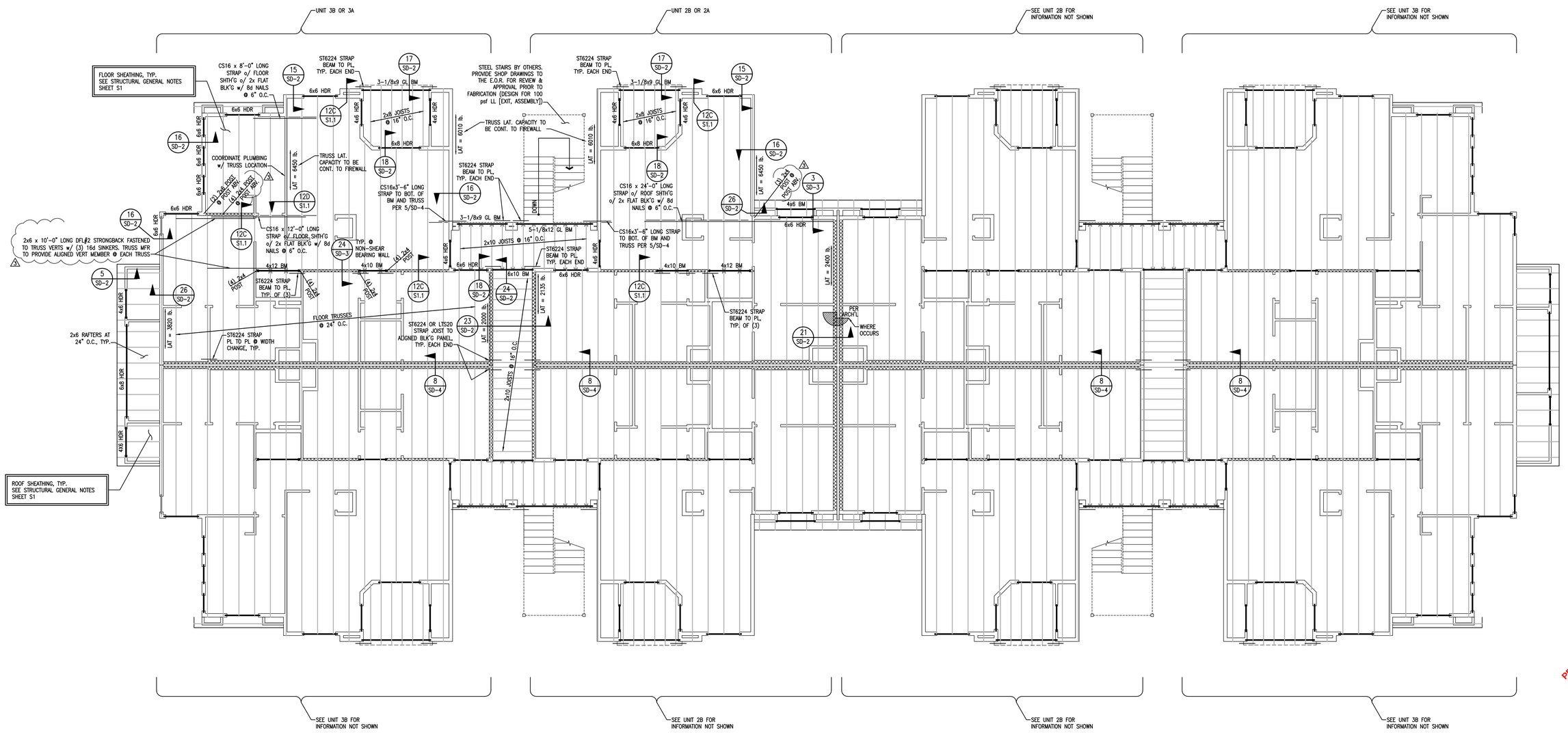
U0136-049-191

S4.2

1st STORY STUD TABLE			
LOCATION	STUD SIZE	GRADE	SPACING
EXTERIOR	2x6	STUD GRADE	16" O.C.
	2x4	DFL #2	12" O.C.
INTERIOR BEARING & PARTY WALL	2x6	STUD GRADE	16" O.C.
	2x4	DFL #1	12" O.C.
NON-BEARING PARTY WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
NON-BEARING WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



2ND FLOOR FRAMING PLAN

3/16" = 1'-0"

DATE: 7-24-20	DESIGNED BY: JCS
REVISION #	DATE:
	DESCRIPTION
	DRAWN BY: MCP
	CHECKED BY: RTA

VECTOR Engineers
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

BUILDING TYPE C
2ND FLOOR FRAMING PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

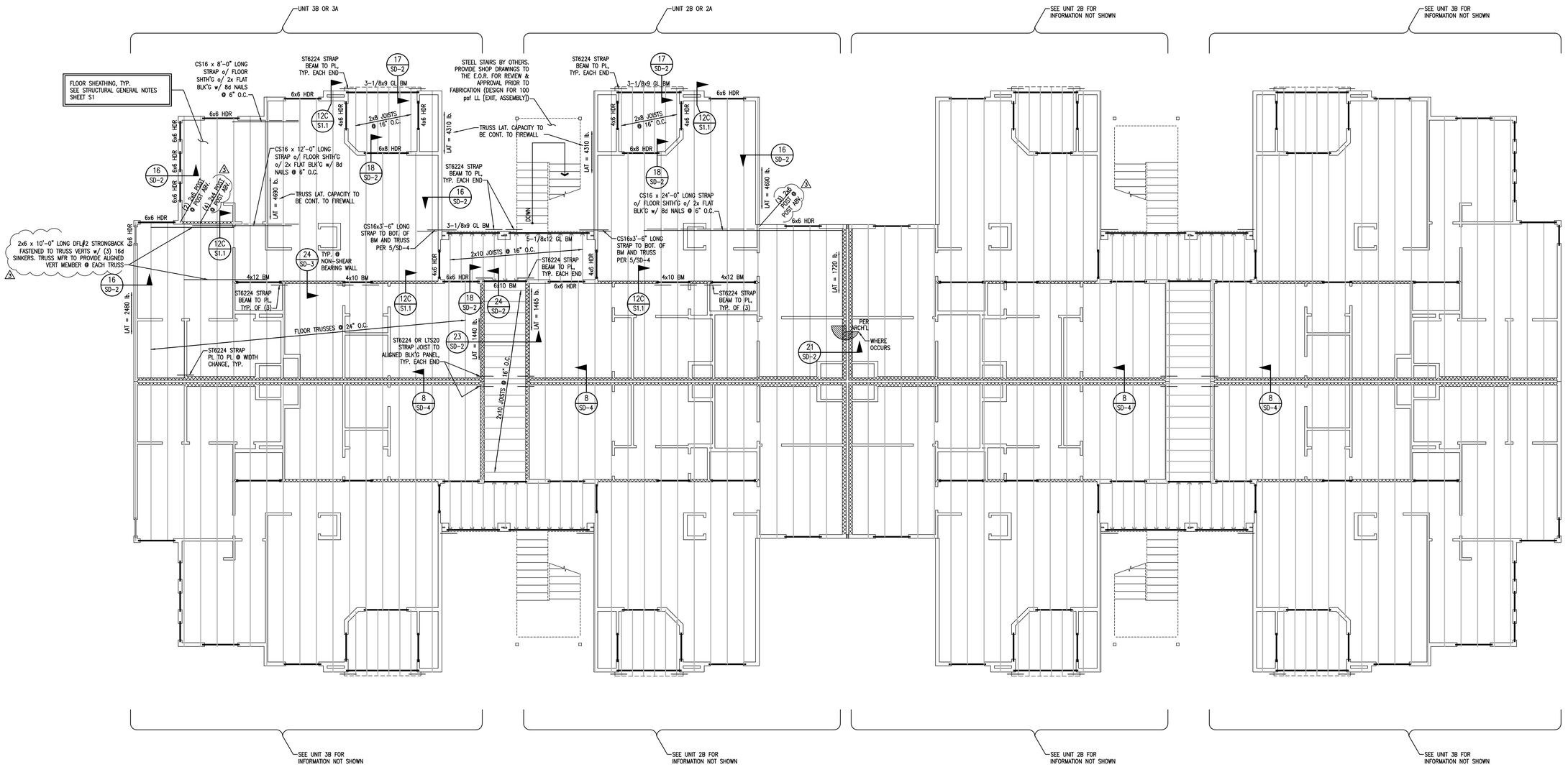
U0136-049-191

S4.3

2nd STORY STUD TABLE			
LOCATION	STUD SIZE	GRADE	SPACING
EXTERIOR	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
INTERIOR PARTY WALL	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	12" O.C.
NON-BEARING WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



3RD FLOOR FRAMING PLAN

3/16" = 1'-0"

DATE: 7-24-20 | REVISION # | DATE | DESIGNED BY: JCS | DESIGNER/DRAFTER | DRAWN BY: MCP | CHECKED BY: RTA | DESCRIPTION

VECTOR Engineers
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

BUILDING TYPE C
3RD FLOOR FRAMING PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

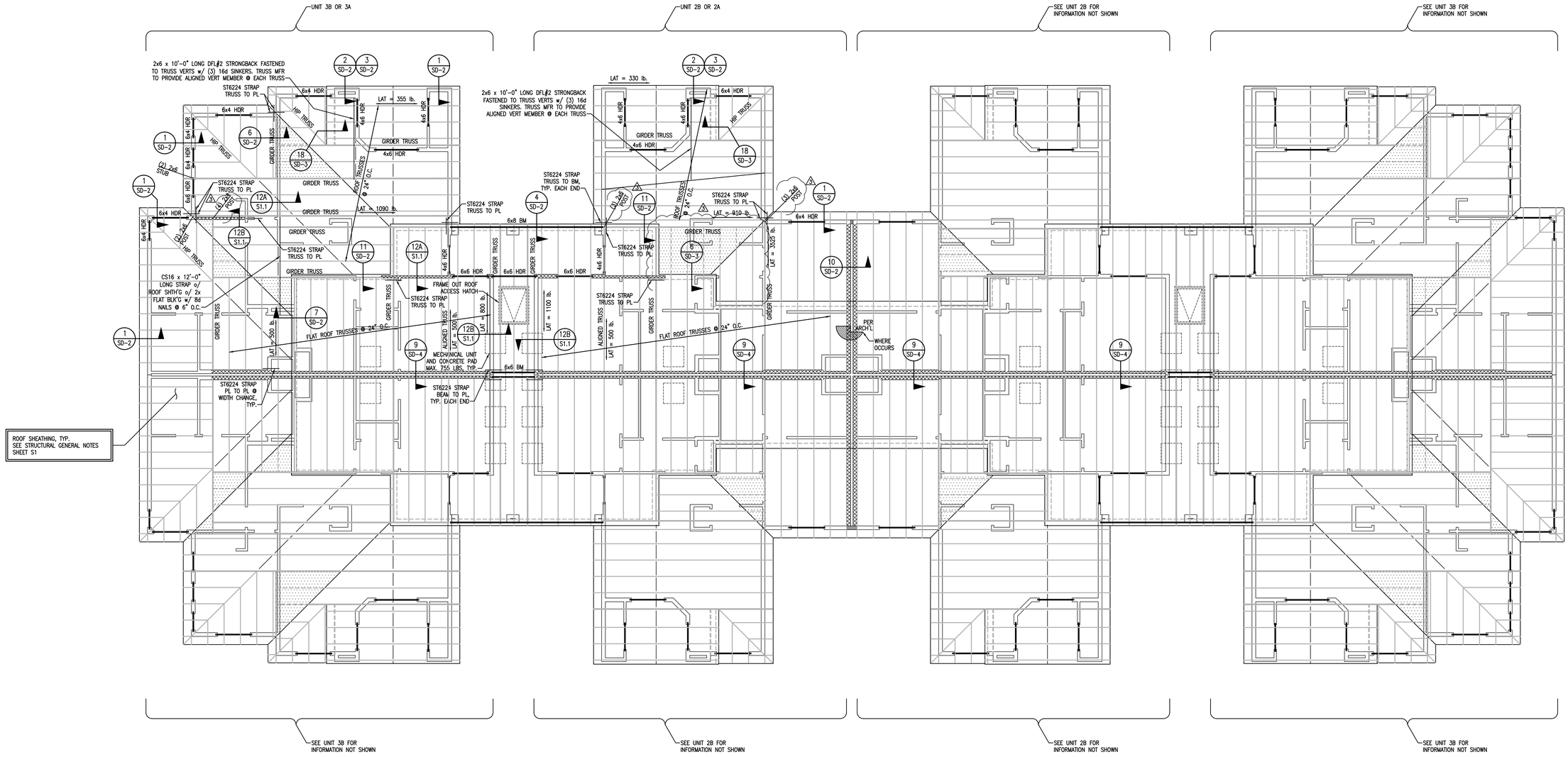
U0136-049-191

S4.4

3rd STORY STUD TABLE			
LOCATION	STUD SIZE	GRADE	SPACING
EXTERIOR	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
INTERIOR PARTY WALLS	2x6	STUD GRADE	16" O.C.
	2x4	STUD GRADE	16" O.C.
NON-BEARING WALLS	2x4	STUD GRADE	16" O.C.
	2x6	STUD GRADE	16" O.C.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O. POSTS OF EQUAL OR GREATER SIZE SHALL BE INSTALLED AT ALL LOWER LEVELS TO THE FOUNDATION.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.



ROOF FRAMING PLAN

3/16" = 1'-0"

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MKP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

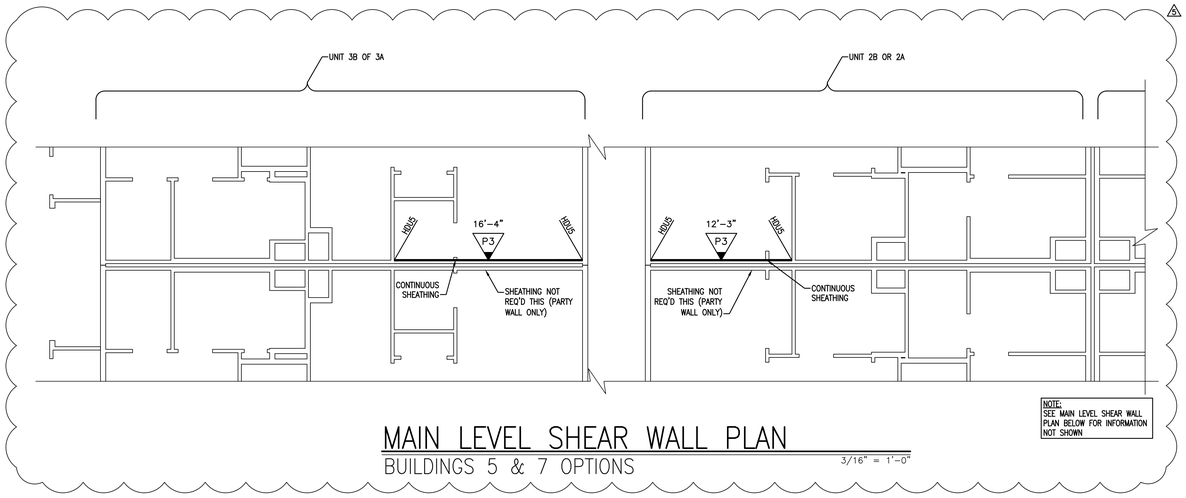
BUILDING TYPE V
ROOF FRAMING PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

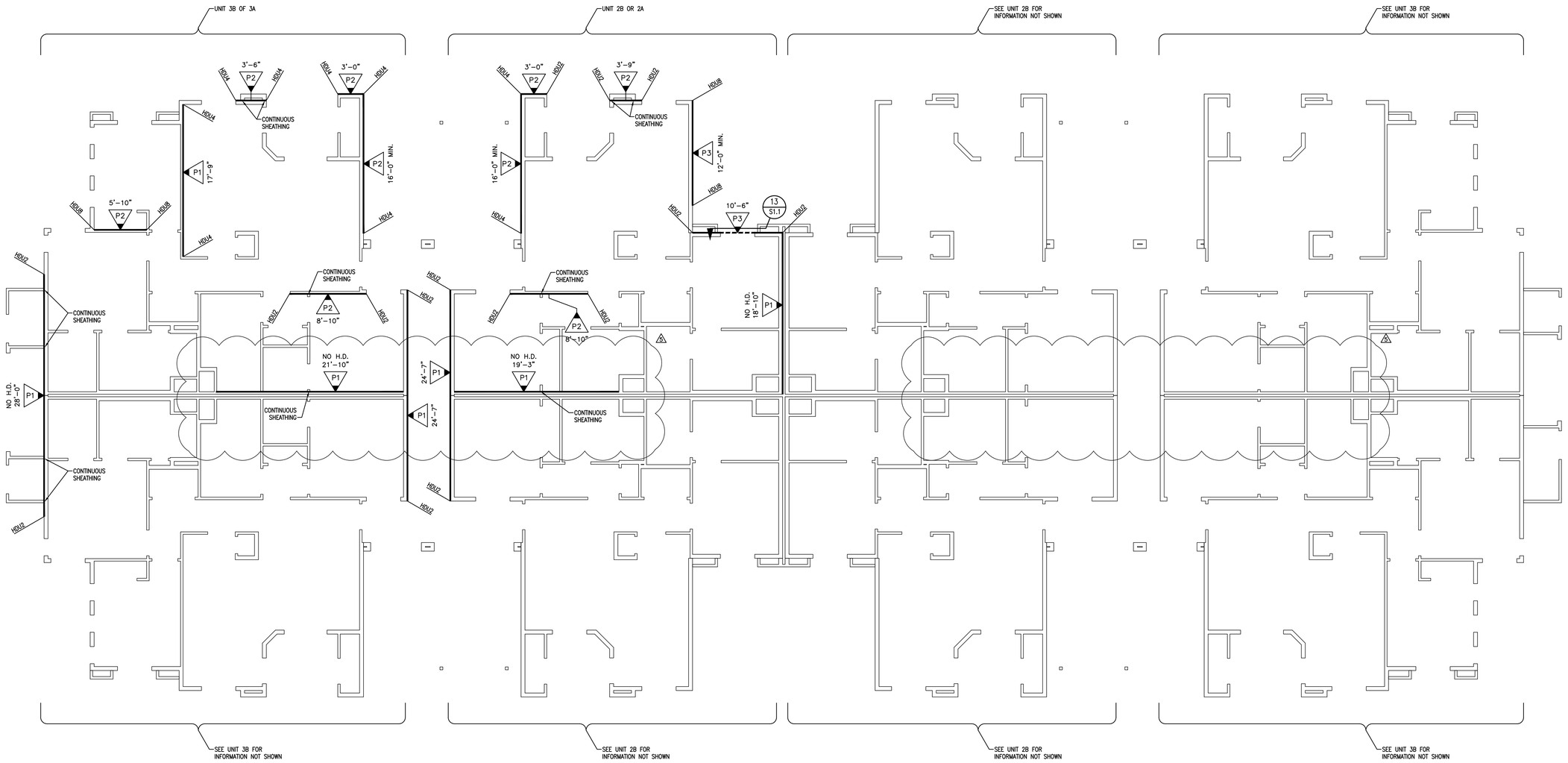
U0136-049-191

S4.5



MAIN LEVEL SHEAR WALL PLAN
BUILDINGS 5 & 7 OPTIONS

3/16" = 1'-0"



MAIN LEVEL SHEAR WALL PLAN

3/16" = 1'-0"

POINTS TO SHEAR WALL & INDICATES "MARK"

DASHED LINE INDICATES SHEAR AROUND OPENING

XX

NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20	DESIGNER/DRAFTER	DESCRIPTION		

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

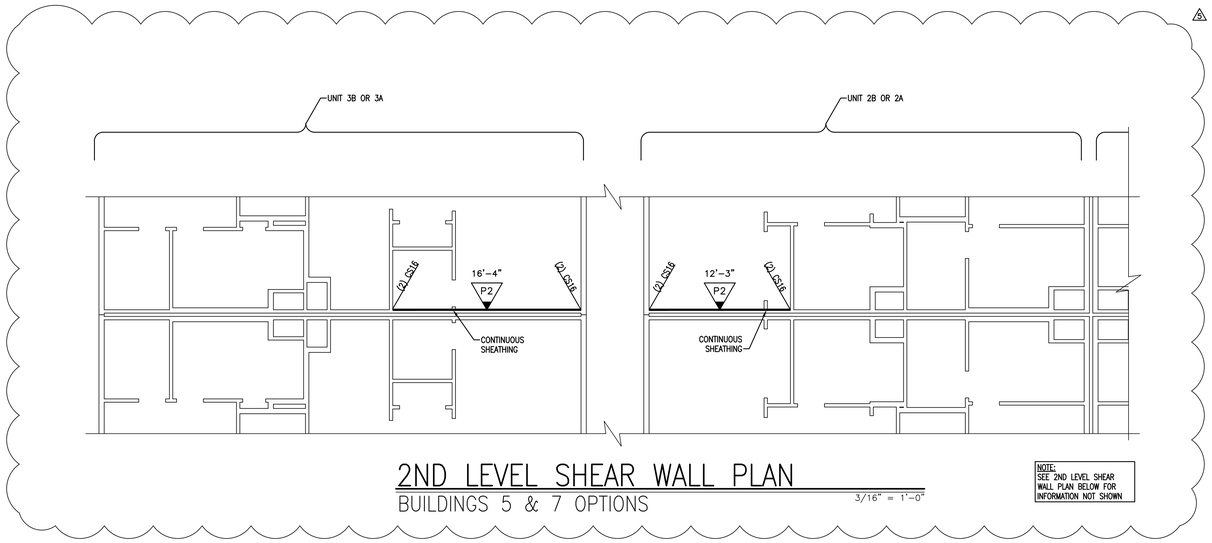
BUILDING TYPE C
MAIN LEVEL SHEAR WALL PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

U0136-049-191

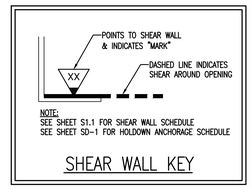
S4.6



2ND LEVEL SHEAR WALL PLAN
BUILDINGS 5 & 7 OPTIONS

3/16" = 1'-0"

NOTE:
SEE 2ND LEVEL SHEAR WALL PLAN BELOW FOR INFORMATION NOT SHOWN



NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

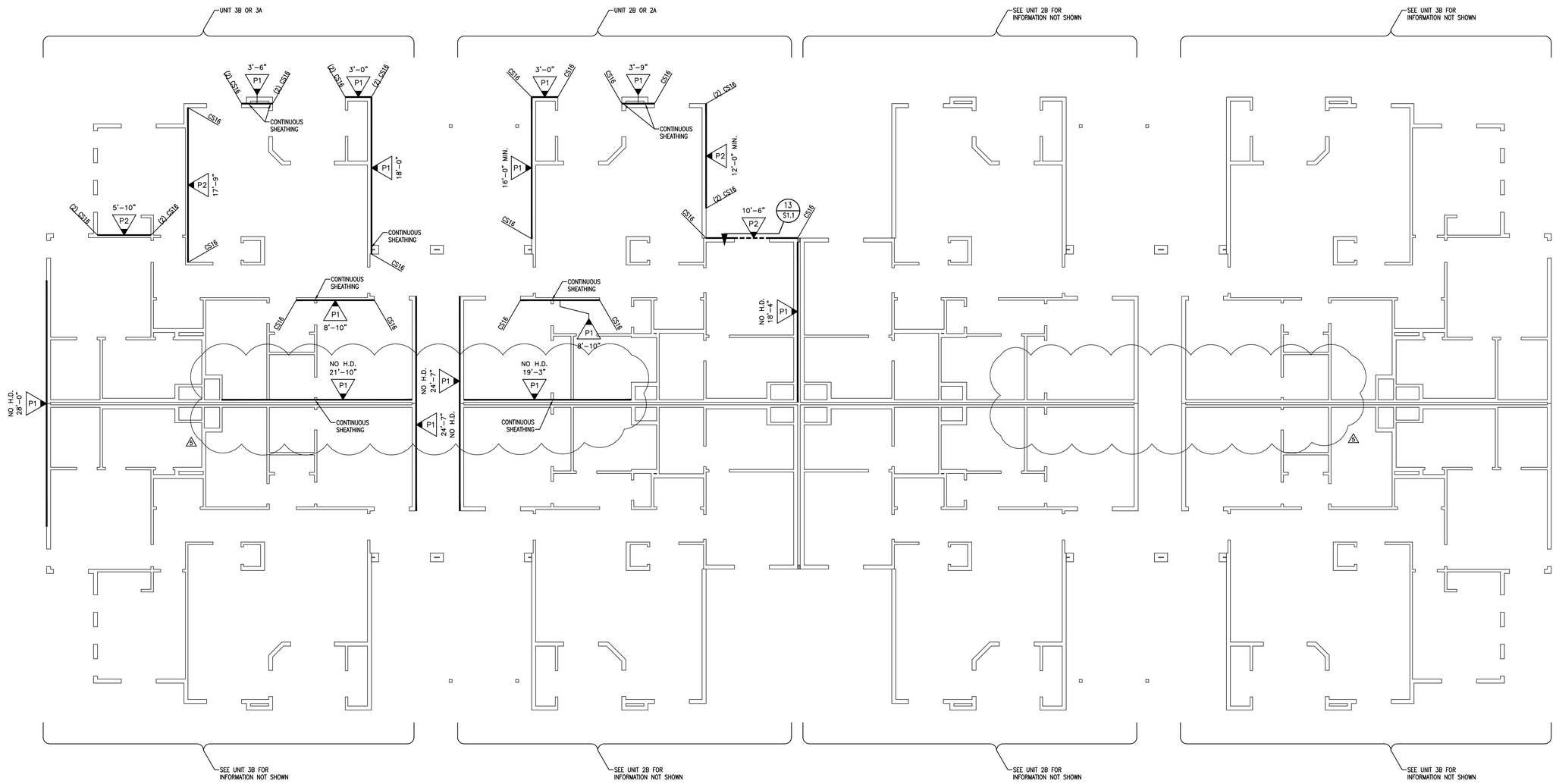
NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

NOTE:
INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (11) 10d NAILS. (STRAP LENGTH = 48"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445



2ND LEVEL SHEAR WALL PLAN

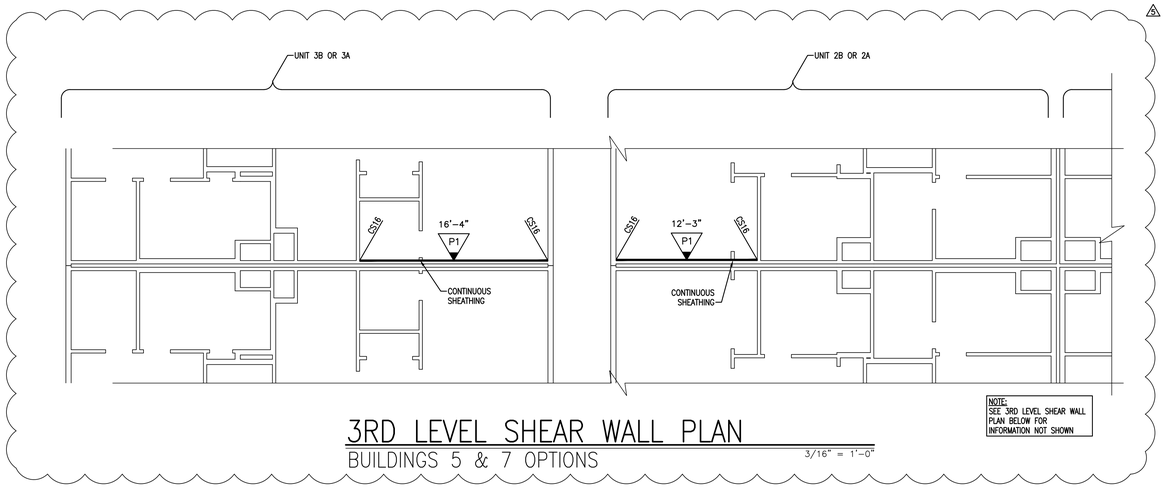
3/16" = 1'-0"

BUILDING TYPE C
2ND LEVEL SHEAR WALL PLAN

For Review
02/24/2025 10:13:22 AM

U0136-049-191

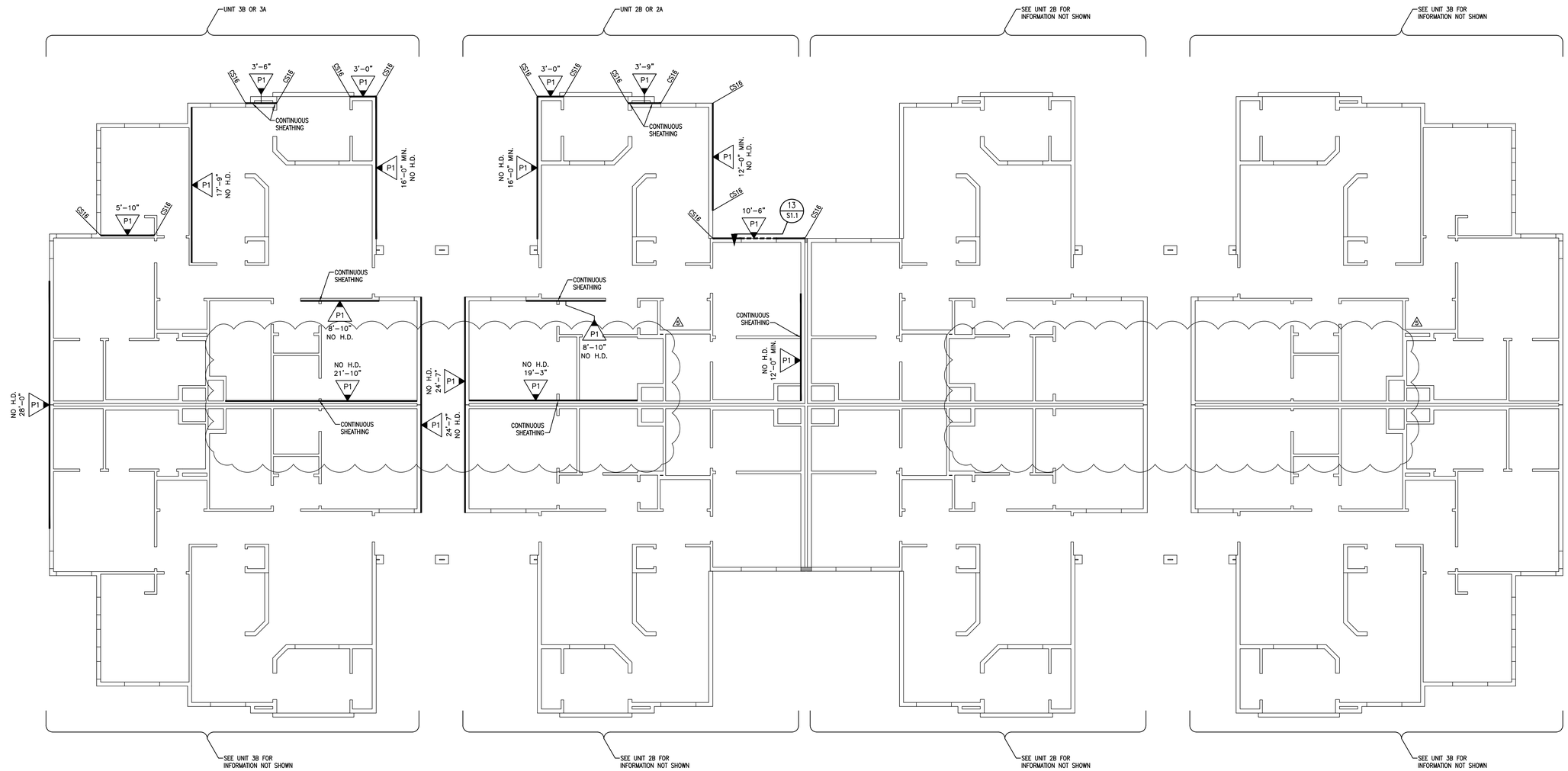
S4.7



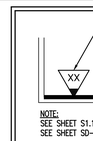
NOTE:
SEE 3RD LEVEL SHEAR WALL PLAN BELOW FOR INFORMATION NOT SHOWN

3RD LEVEL SHEAR WALL PLAN
BUILDINGS 5 & 7 OPTIONS

3/16" = 1'-0"



3RD LEVEL SHEAR WALL PLAN
3/16" = 1'-0"



NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

NOTE:
INSTALL CS16 STRAPS TO 2x STUDS ABOVE AND BELOW FLOOR FRAMING. NAIL EACH END w/ (11) 10d NAILS. (STRAP LENGTH = 48"). WHERE WALL DOES NOT OCCUR BELOW, ATTACH TO BEAM OR TRUSS

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

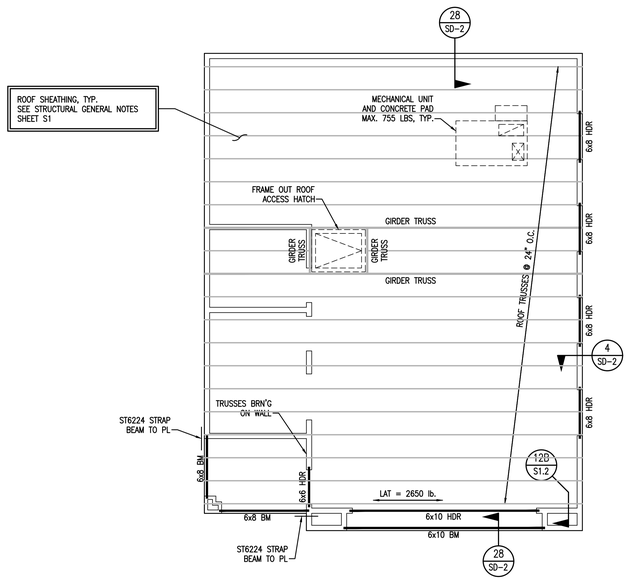
3RD LEVEL SHEAR WALL PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

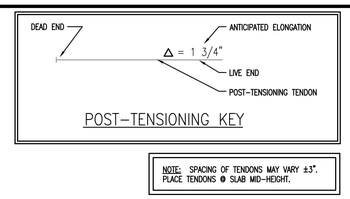
U0136-049-191

S4.8



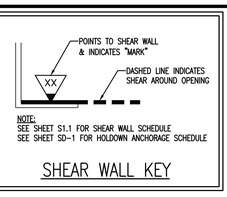
ROOF FRAMING PLAN

3/16" = 1'-0"



POST-TENSIONING KEY

NOTE: SPACING OF TENDONS MAY VARY ±3". PLACE TENDONS @ SLAB MID-HEIGHT.



NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

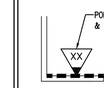
NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE ON SHEET S1.1.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≥ 6'-0" & ≤ 10'-0" U.N.O.
   C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≥ 10'-0" & ≤ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≥ 8'-0" & ≤ 12'-0" U.N.O.
   C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≥ 12'-0" & ≤ 20'-0" U.N.O.
   NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.

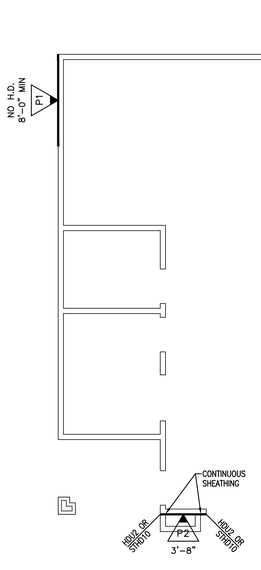
FOUNDATION NOTES:

1. ALL DIMENSIONS ARE PER ARCHITECTURAL DRAWINGS.
2. ALL EXTERIOR WALLS, INTERIOR BEARING WALLS & SHEAR WALLS TO BE ATTACHED TO THE FOUNDATION w/ #1/2" x 10" LONG ANCHOR BOLTS (7" EMBED.) AT 48" O.C. U.N.O. SEE THIS PLAN & SHEAR WALL SCHEDULE FOR ANCHOR BOLT REQUIREMENTS AT SHEAR WALLS. ANCHOR BOLTS AT SHEAR WALLS TO HAVE WASHERS PER SHEAR WALL SCHEDULE (S1.1). ALL OTHER ANCHOR BOLTS TO HAVE WASHERS PER NOTE "L" IN GENERAL NOTES (S1).
3. ALL HOLDOWNS SHALL BE INSTALLED AS SHOWN ON DETAIL 11/SD-1.
4. ISOLATED FOOTINGS & INTERIOR STRIP FOOTINGS TO BE CENTERED BELOW POSTS & BEARING/SHEAR WALLS, RESPECTIVELY.
5. SEE SHEET S1.1 FOR FOOTING SCHEDULE.
6. MASA MUDSILL ANCHORS MAY BE USED IN PLACE OF ANCHOR BOLTS, INSTALLED AT THE SAME SPACING INDICATED FOR ANCHOR BOLTS, INCLUDING REDUCED SPACING AT SHEAR WALLS.
7. STRIP & REMOVE EXISTING VEGETATION, REMOVE UNCONTROLLED FILL, OVEREXCAVATE AND REPLACE w/ PROPERLY COMPACTED FILL AS REQUIRED PER GEOTECHNICAL REPORT.



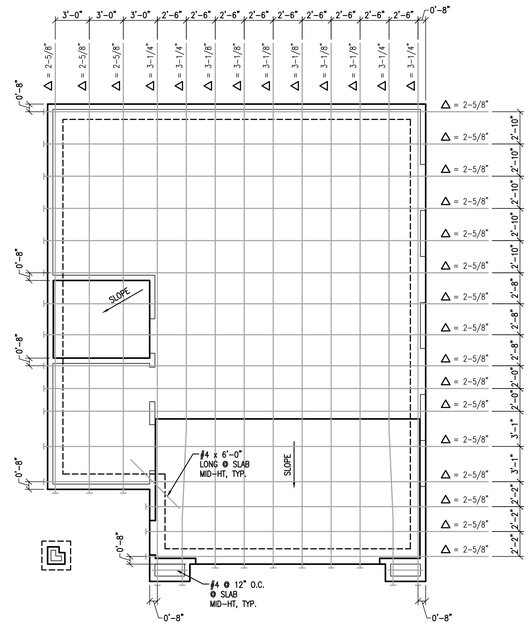
NOTE:
SEE SHEET S1.1 FOR SILL ANCHORAGE SCHEDULE

SILL ANCHORAGE KEY



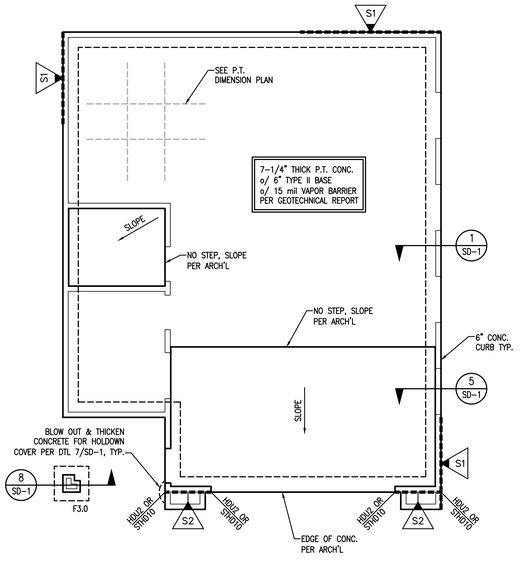
SHEAR WALL PLAN

3/16" = 1'-0"



P.T. DIMENSION PLAN

3/16" = 1'-0"



FOUNDATION PLAN

3/16" = 1'-0"

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MKP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTOREE.COM
NV FIRM LICENSE NUMBER
9445

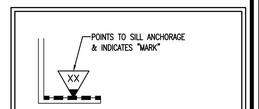
MAINTENANCE BUILDING
STRUCTURAL PLANS

U0136-049-191

S5.1

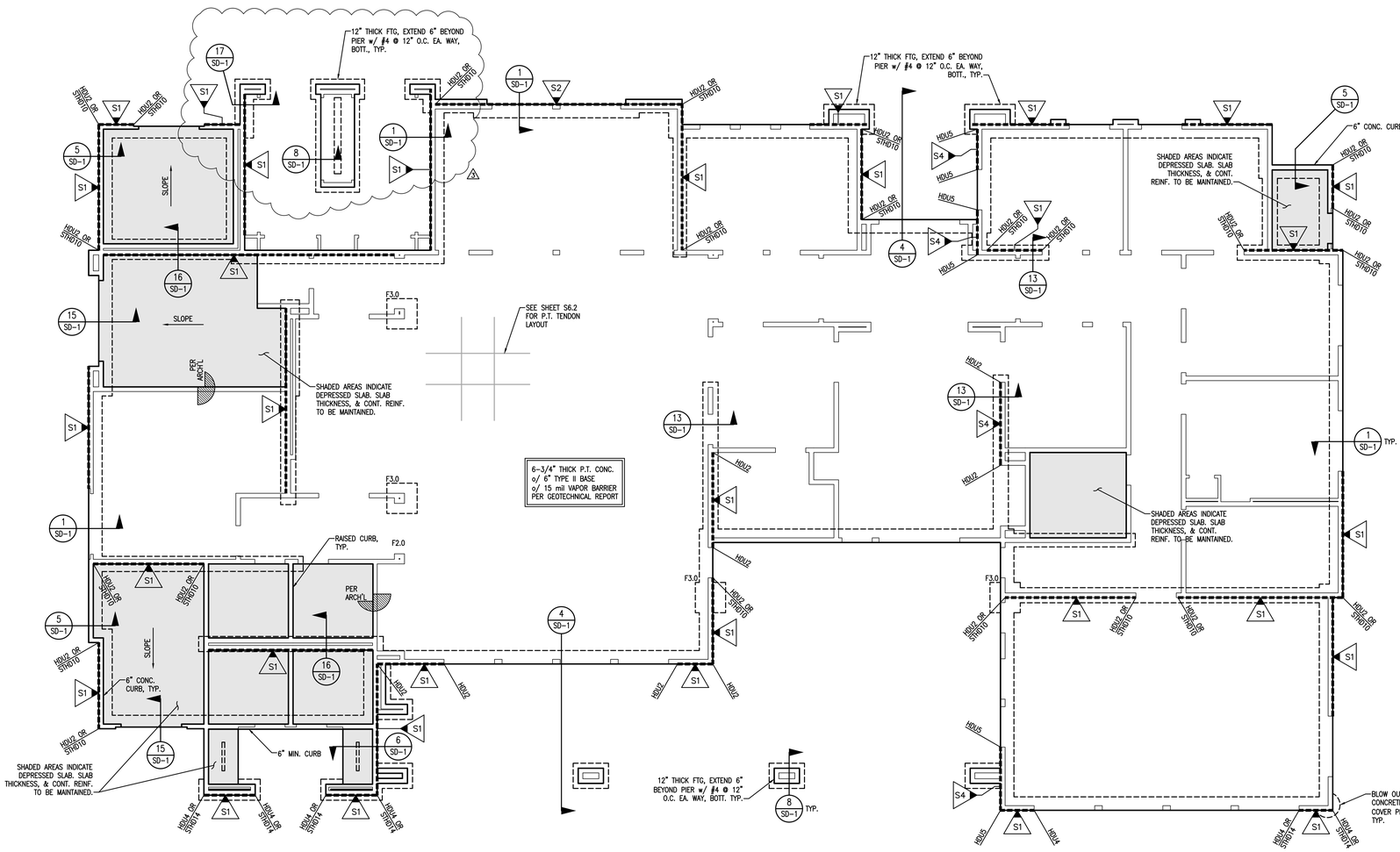
FOUNDATION NOTES:

1. ALL DIMENSIONS ARE PER ARCHITECTURAL DRAWINGS.
2. ALL EXTERIOR WALLS, INTERIOR BEARING WALLS & SHEAR WALLS TO BE ATTACHED TO THE FOUNDATION w/ #1/2" x 10" LONG ANCHOR BOLTS (7" EMBED.) AT 48" O.C. U.N.O. SEE THIS PLAN & SHEAR WALL SCHEDULE FOR ANCHOR BOLT REQUIREMENTS AT SHEAR WALLS. ANCHOR BOLTS AT SHEAR WALLS TO HAVE WASHERS PER SHEAR WALL SCHEDULE (S1.1). ALL OTHER ANCHOR BOLTS TO HAVE WASHERS PER NOTE "E" IN GENERAL NOTES (S1).
3. ALL HOLDOWNS SHALL BE INSTALLED AS SHOWN ON DETAIL 7/SD-1.
4. ISOLATED FOOTINGS & INTERIOR STRIP FOOTINGS TO BE CENTERED BELOW POSTS & BEARING/SHEAR WALLS, RESPECTIVELY.
5. SEE SHEET S1.1 FOR FOOTING SCHEDULE.
6. MASA MUDSILL ANCHORS MAY BE USED IN PLACE OF ANCHOR BOLTS, INSTALLED AT THE SAME SPACING INDICATED FOR ANCHOR BOLTS, INCLUDING REDUCED SPACING AT SHEAR WALLS.
7. STRIP & REMOVE EXISTING VEGETATION, REMOVE UNCONTROLLED FILL, OVEREXCAVATE AND REPLACE w/ PROPERLY COMPACTED FILL AS REQUIRED PER GEOTECHNICAL REPORT.



NOTE:
SEE SHEET S1.1 FOR SILL ANCHORAGE SCHEDULE

SILL ANCHORAGE KEY



FOUNDATION PLAN

3/16" = 1'-0"

DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION

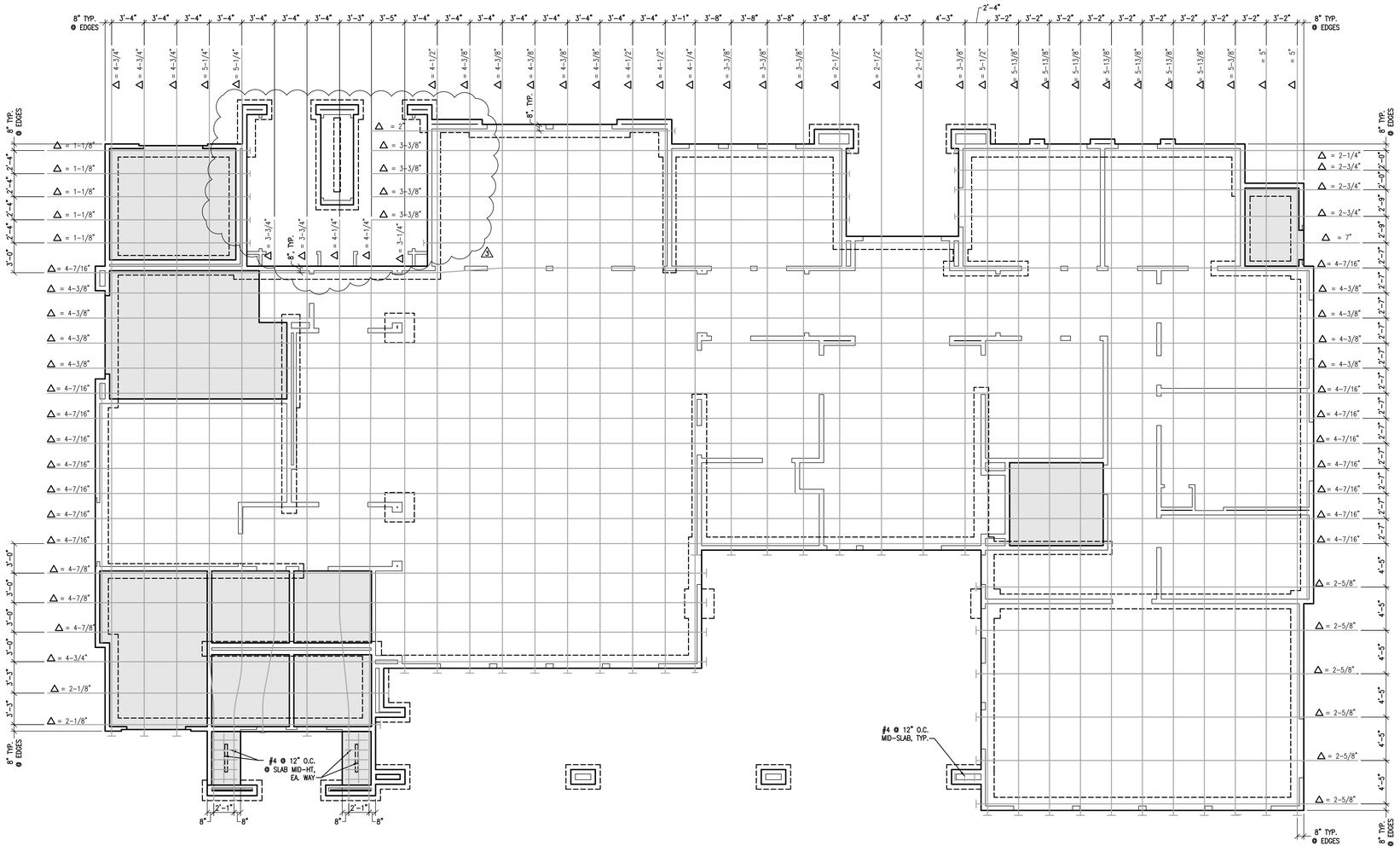
VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

RECREATION BUILDING
FOUNDATION PLAN

For Review
02/24/2025 10:13:22 AM

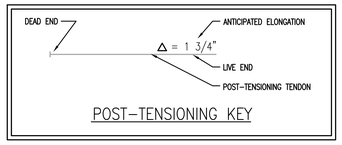
U0136-049-191

S6.1



P.T. DIMENSION PLAN

3/16" = 1'-0"



POST-TENSIONING KEY

NOTE: SPACING OF TENDONS MAY VARY ±3". PLACE TENDONS @ SLAB MID-HEIGHT.

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
	DATE: 7-24-20	DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
UTAH LICENSE NUMBER
9445

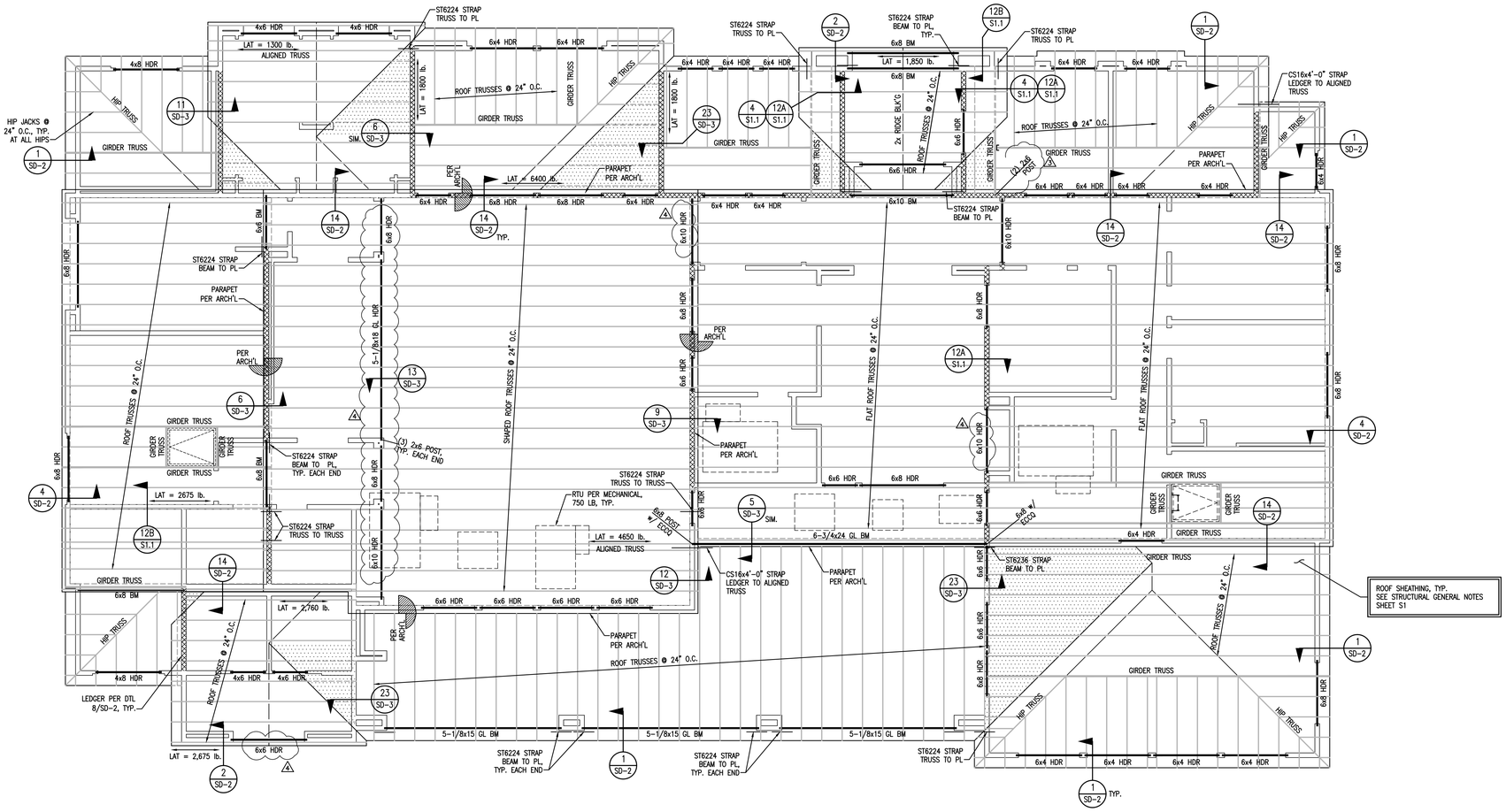
RECREATION BUILDING
P.T. DIMENSION PLAN

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

U0136-049-191

S6.2



ROOF FRAMING PLAN

3/16" = 1'-0"

FRAMING NOTES:

1. ALL FRAMED WALLS TO BE 2x @ 16" O.C. (MAX) PER ARCHITECTURAL PLANS AND SHALL MEET REQUIREMENTS OF WALL TABLE BELOW.
2. FOR 2x4 FRAMED WALLS AT HEADERS (HDR):
   - A. PROVIDE (1) 2x4 TRIMMER & (1) 2x4 KING STUD AT OPENINGS < 6'-0" U.N.O.
   - B. PROVIDE (2) 2x4 TRIMMERS & (2) 2x4 KING STUDS AT OPENINGS ≧ 6'-0" & ≦ 10'-0" U.N.O.
   - C. PROVIDE (2) 2x4 TRIMMERS & (3) 2x4 KING STUDS AT OPENINGS ≧ 10'-0" & ≦ 18'-0" U.N.O. (1) KING STUD REQUIRED AT BAY WINDOW OPENINGS & AT GARAGE OPENINGS WHERE ADDITIONAL KING STUDS WOULD NOT FIT.
   - NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
3. FOR 2x6 FRAMED WALLS AT HEADERS (HDR):
   - A. PROVIDE (1) 2x6 TRIMMER & (1) 2x6 KING STUD AT OPENINGS < 8'-0" U.N.O.
   - B. PROVIDE (2) 2x6 TRIMMERS & (2) 2x6 KING STUDS AT OPENINGS ≧ 8'-0" & ≦ 12'-0" U.N.O.
   - C. PROVIDE (2) 2x6 TRIMMERS & (3) 2x6 KING STUDS AT OPENINGS ≧ 12'-0" & ≦ 20'-0" U.N.O.
   - NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
4. FOR 2x8 FRAMED WALLS AT HEADERS (HDR):
   - A. PROVIDE (1) 2x8 TRIMMER & (1) 2x8 KING STUD AT OPENINGS < 8'-0" U.N.O.
   - B. PROVIDE (2) 2x8 TRIMMERS & (2) 2x8 KING STUDS AT OPENINGS ≧ 8'-0" & ≦ 12'-0" U.N.O.
   - C. PROVIDE (2) 2x8 TRIMMERS & (3) 2x8 KING STUDS AT OPENINGS ≧ 12'-0" & ≦ 20'-0" U.N.O.
   - NOTE: KINGSTUDS NOT REQUIRED AT BEAMS (BM)
5. FACE NAIL MULTIPLE 2x POSTS WITH 16d SINKERS @ 6" O.C.
6. ▨ SHADED AREAS ARE TYPICAL OVERFILL, STICK FRAMED PER DETAIL 6/S1.1 OR OVERBUILD TRUSSES PER TRUSS MANUFACTURER
7. ▩ INTERIOR BEARING WALLS
8. ALL GLULAM BEAMS TO HAVE STANDARD CAMBER (R = 2000') U.N.O.
9. PROVIDE (2) 2x POST, EACH END OF ALL BEAMS & GIRDER TRUSSES, U.N.O.
10. BEAM AND HEADER SIZES INDICATED ON THE PLANS ARE MINIMUM SIZES. LARGER SIZES MAY BE INSTALLED AT THE CONTRACTOR'S OPTION.
11. CONTINUOUS TOP PLATE MAY BE USED IN LIEU OF ST6224 STRAP FROM BEAM TO PLATE.
12. ALL POSTS & TRIMMERS AT ROOF & UPPER FLOOR FRAMING LEVELS TO BE CONTINUED TO FOUNDATION w/ MATCHING POSTS/TRIMMERS AND SQUASH BLOCKING @ FLOORS BELOW
13. VERIFY LOCATION & OPERATING WEIGHTS OF ROOFTOP MECH'L UNITS w/ MECH'L PLANS

STUD HEIGHT TABLE

STUD WALL TYPE	MAX. HEIGHT
2x4 STUD @ 16" O.C.	10'-0"
2x4 STUD @ 12" O.C.	11'-6"
(2) 2x4 STUD @ 16" O.C.	14'-0"
2x4 DFL #2 @ 16" O.C.	12'-0"
2x4 DFL #2 @ 12" O.C.	13'-0"
(2) 2x4 DFL #2 @ 16" O.C.	14'-0"
2x6 STUD @ 16" O.C.	17'-0"
2x6 STUD @ 12" O.C.	19'-6"
(2) 2x6 STUD @ 16" O.C.	22'-6"
2x6 DFL #2 @ 16" O.C.	18'-6"
2x6 DFL #2 @ 12" O.C.	20'-6"
(2) 2x6 DFL #2 @ 16" O.C.	22'-6"
2x8 DFL #2 @ 16" O.C.	24'-6"
2x8 DFL #2 @ 12" O.C.	26'-6"
(2) 2x8 DFL #2 @ 16" O.C.	30'-0"
1-3/4 x 7-1/4 LVL STUDS @ 16" O.C.	27'-0"
4 1-3/4 x 5-1/4 LVL STUDS @ 16" O.C.	20'-6"

NOTES:
1. THIS TABLE ASSUMES IBC WIND LOADS w/ 90 mph, EXP. "B"
2. THIS TABLE ASSUMES AXIAL DL = 500 lb/ft, LL = 500 lb/ft.

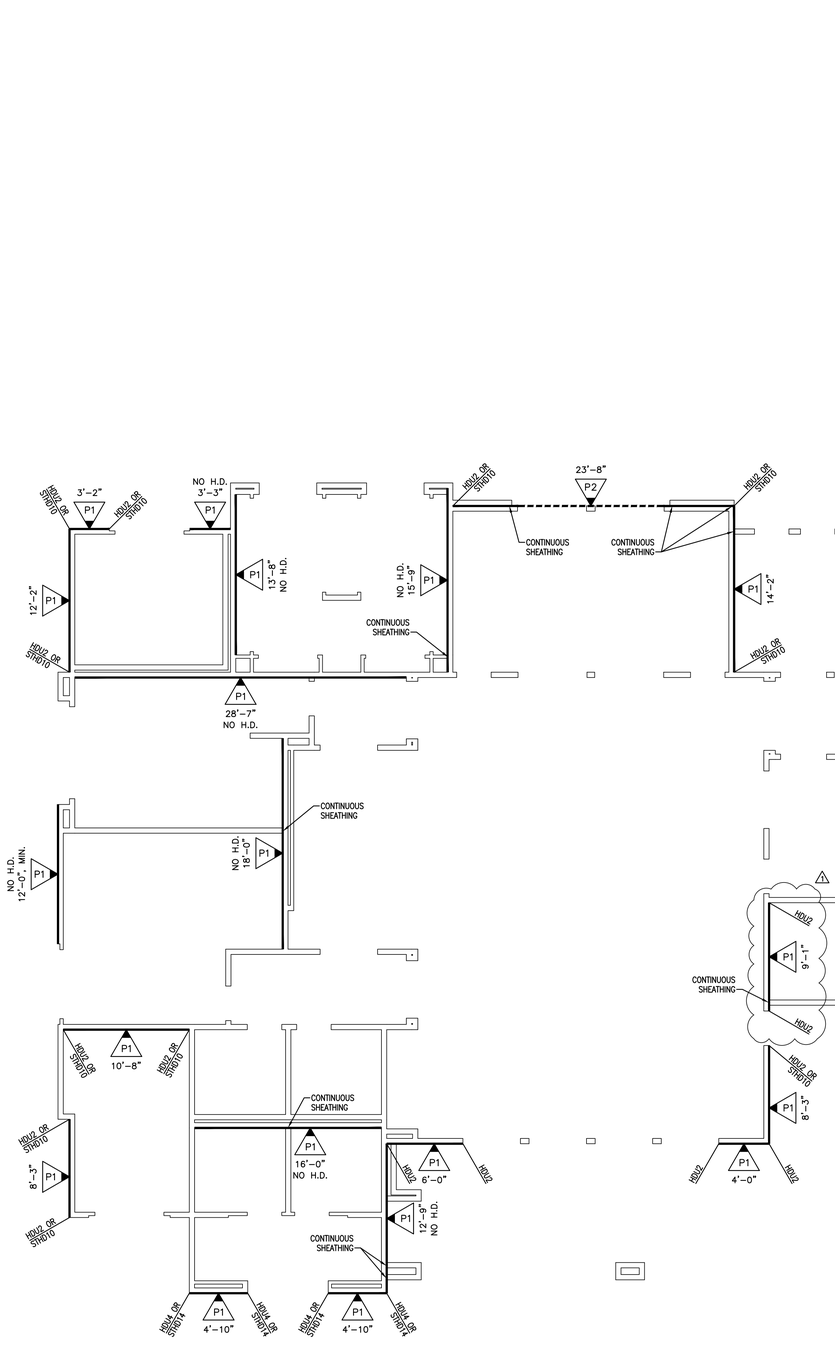
DATE: 7-24-20
DESIGNED BY: JCS
DRAWN BY: MGP
CHECKED BY: RTA

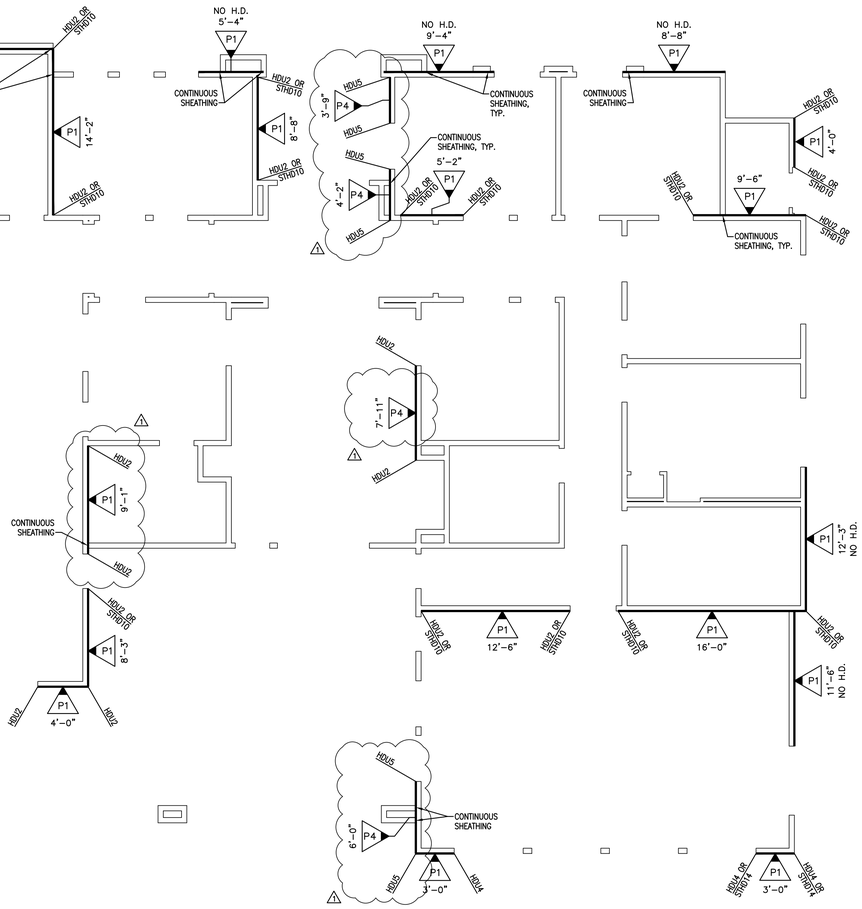
REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION

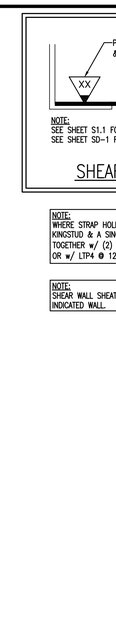
VECTOR
ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

RECREATION BUILDING
ROOF FRAMING PLAN

U0136-049-191







NOTE:
SEE SHEET S1.1 FOR SHEAR WALL SCHEDULE
SEE SHEET SD-1 FOR HOLDOWN ANCHORAGE SCHEDULE

SHEAR WALL KEY

NOTE:
WHERE STRAP HOLDOWN IS ATTACHED TO A SINGLE KINGSTUD & A SINGLE TRIMMER, ATTACH THE TWO TOGETHER w/ (2) 16d SINKERS @ 6" O.C. FULL HEIGHT OR w/ LTP4 @ 12" O.C. FULL HEIGHT.

NOTE:
SHEAR WALL SHEATHING MAY BE ON EITHER SIDE OF INDICATED WALL.

SHEAR WALL PLAN

3/16" = 1'-0"

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
DATE: 7-24-20		DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

RECREATION BUILDING
SHEAR WALL PLAN

PROPRIETARY DO NOT DISTRIBUTE
For Review
02/24/2025 10:13:22 AM

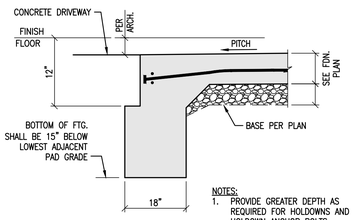
U0136-049-191

S6.4

POST TENSIONED FOUNDATION NOTES

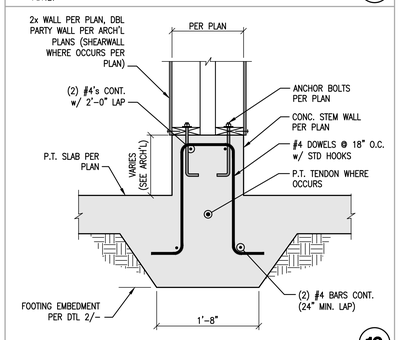
1. TENDONS SHALL BE PLACED IN THE GENERAL CONFIGURATION INDICATED ON THE PLANS. EXACT NUMBER, LOCATION, & ELONGATION OF TENDONS TO BE DETERMINED BY THE POST-TENSIONING CONTRACTOR. MAXIMUM TENDON SPACING SHALL BE AS INDICATED ON THE FOUNDATION KEY NOTES.
2. PLACEMENT SHALL BE IN ONE CONTINUOUS OPERATION UNLESS OTHERWISE SPECIFIED AND SLAB SURFACE SHALL BE CURED WITH AN ICC APPROVED COMPOUND.
3. STRESSING SHALL TAKE PLACE WITHIN 7 DAYS ON CONCRETE PLACEMENT BUT SHALL NOT TAKE PLACE UNTIL CONCRETE HAS ATTAINED A STRENGTH (f'c) OF 2,500 psi AS DETERMINED BY STANDARD CYLINDER OR OTHER TEST METHOD.
4. UNLESS OTHERWISE NOTED STOOPS, PORCHES, OR OTHER ATTACHMENT SHALL BE CAST INDEPENDENT OF THE POST-TENSION SLAB.
5. STRESS CABLE TO REQUIRED ELONGATION PLUS SEATING LOSS BUT DO NOT EXCEED .80 F's.
6. PAINT EXPOSED STRAND AND ANCHORAGE WITH APPROVED PRIMER AND GROUT OPENINGS WITH TWO PARTS CEMENT TO ONE PART SAND MIXTURE. FINISH SURFACE TO MATCH SLAB.
7. ALL TENDONS TO BE LOCATED/MARKED AND TO REMAIN UNDISTURBED DURING DRILLING FOR RETROFIT SILL PLATE AND/OR HOLDOWN ANCHOR BOLT INSTALLATION.
8. POST-TENSIONING TENDONS SHALL CONFORM TO ASTM A-416 FOR UNCOATED SEVEN-WIRE STRANDS AS FOLLOWS:

DIAMETER	1/2"
GRADE	270 ksi
AREA	.153in.²
MIN. BREAKING STRENGTH	41,300 LB
E	28,500,000psi
UNIT ELONGATION	.079" PER FT

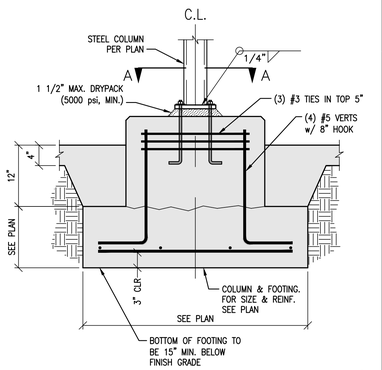


NOTES:
1. PROVIDE GREATER DEPTH AS REQUIRED FOR HOLDOWNS AND HOLDOWN ANCHOR BOLTS.
2. SEE DTL 1/– FOR INFO NOT SHOWN

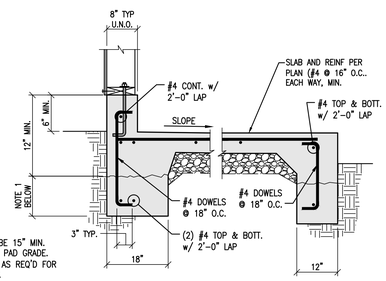
N.T.S. **15**



N.T.S. **16**

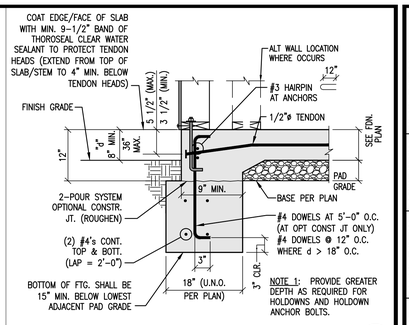


N.T.S. **11**



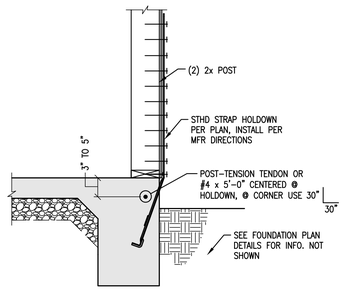
NOTE 1:
BOTTOM OF FOOTING TO BE 15" MIN. BELOW LOWEST ADJACENT PAD GRADE. PROVIDE GREATER DEPTH AS REQ'D FOR HOLDOWN ANCHOR BOLTS.

N.T.S. **6**

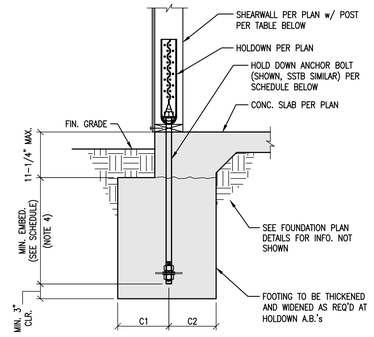


NOTE 1: PROVIDE GREATER DEPTH AS REQUIRED FOR HOLDOWNS AND HOLDOWN ANCHOR BOLTS.

N.T.S. **1**



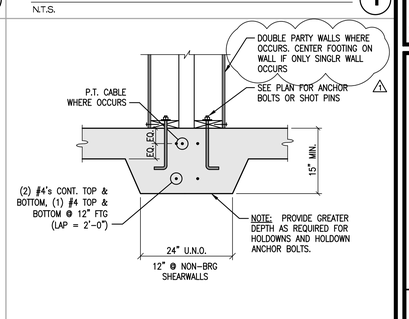
STRAP HOLD DOWN



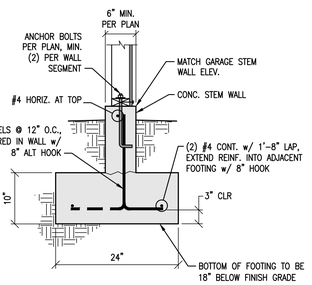
ANCHORAGE									
	ANCHORAGE (CAST IN PLACE)		ANCHORAGE (RETROFIT)		CAST IN PLACE OR RETROFIT				
HOLDOWN	SSTB	ALL THREAD ROD (NOTE 1)	ALL THREAD ROD (NOTE 2 & 3)	HOLE DIAMETER	EMBEDMENT	C1	C2	POST	FOOTING
HDU2 – SDS2.5	SSTB24	5/8"ø A307	5/8"ø A307	3/4"	10"	8"	8"	(2) 2x	PER FOUNDATION DETAILS
HDU4 – SDS2.5	SSTB24	5/8"ø A307	5/8"ø A307	3/4"	11.5"	10"	10"	(2) 2x	PER FOUNDATION DETAILS
HDU5 – SDS2.5	NONE	5/8"ø A307	5/8"ø A307	3/4"	12.5"	12"	12"	(2) 2x	SPREAD FOOTING REQUIRED
HDU8 – SDS2.5	NONE	7/8"ø A307	7/8"ø A307	1"	16.5"	15"	15"	(3) 2x	SPREAD FOOTING REQUIRED
HDU11 – SDS2.5	NONE	1"ø A307	1"ø A307	1-1/4"	20"	18"	18"	6x6	SPREAD FOOTING REQUIRED
HDU14 – SDS2.5	NONE	1"ø A307	1"ø A307	1-1/4"	24"	18"	18"	6x6 OR 4x6	SPREAD FOOTING REQUIRED

NOTES:
1. PROVIDE 2-1/8"x2-1/8"x3/8" STEEL PLATE w/ (2) NUTS @ CAST IN PLACE ANCHORS.
2. RETROFIT ALL-THREAD ROD IN HOLES w/ SIMPSON SET-XP EPOXY. PREPARE HOLES & INSTALL EPOXY PER MFR DIRECTIONS w/ EMBEDMENT AND EDGE DISTANCES AS SHOWN.
3. SIMPSON SET-XP EPOXY PER ICC-ES 2508.
4. INCREASE FOOTING DEPTH AS REQUIRED FOR 3" MIN. COVER BELOW BOLT & COORDINATE EXACT LOCATIONS WITH THE FRAMING CONTRACTOR.
5. HOLDOWNS MAY BE INSTALLED 4" MAX. FROM SHEAR WALL EDGE. BOUNDARY NAILING MUST BE PROVIDED @ STUDS ALIGNED WITH HOLDOWNS.

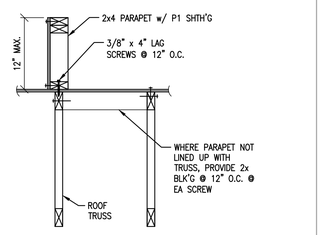
N.T.S. **7**

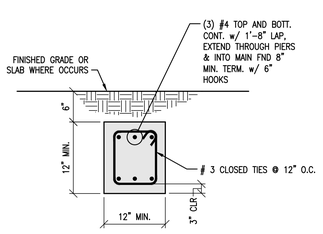


N.T.S. **2**



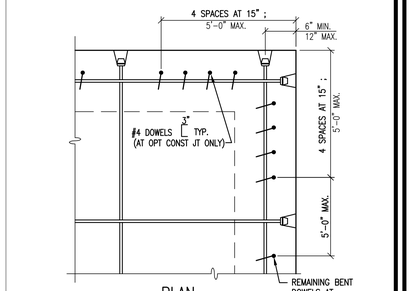
N.T.S. **17**





GRADE BEAM

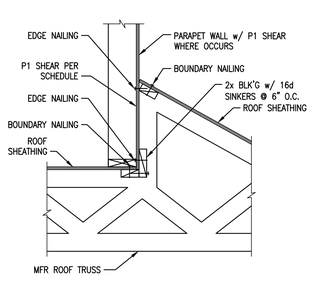
N.T.S. **12**



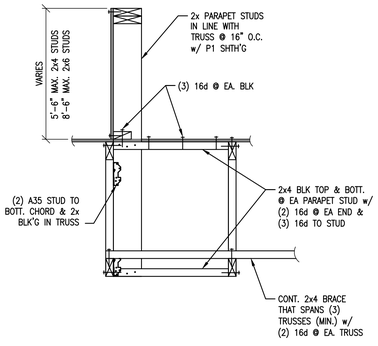
PLAN

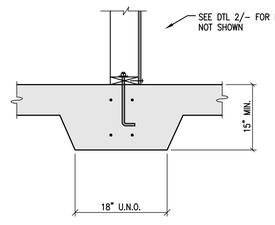
TYP. CORNER

N.T.S. **3**

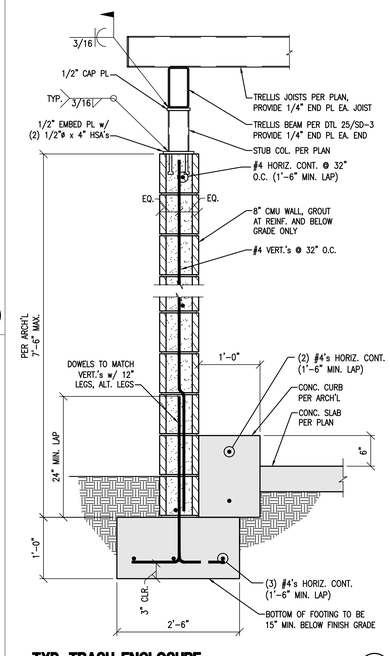


N.T.S. **18**



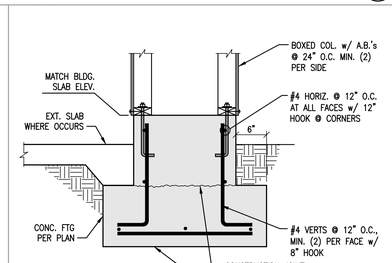


N.T.S. **13**

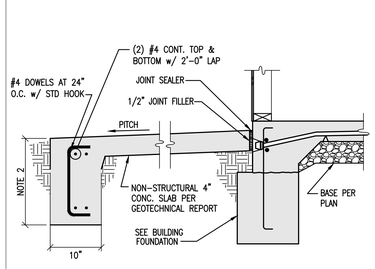


TYP. TRASH ENCLOSURE

N.T.S. **10**



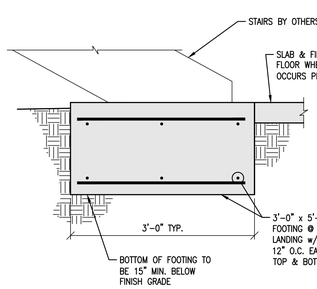
N.T.S. **8**



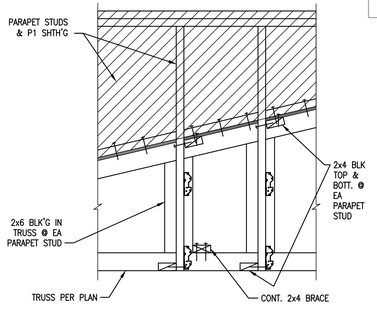
NOTE: SEE DETAIL 1/– FOR ADDITIONAL INFORMATION

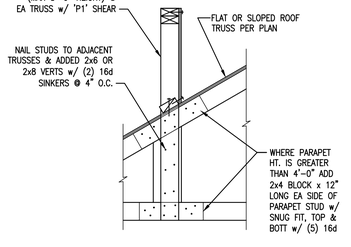
NOTE2: BOTTOM OF FOOTINGS SHALL BE 15" MIN. BELOW LOWEST ADJACENT FINISH GRADE

N.T.S. **4**

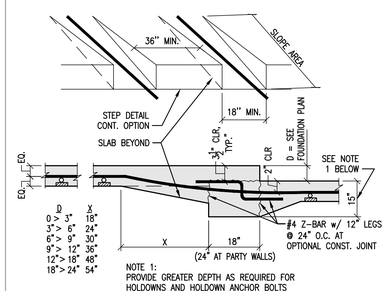


N.T.S. **19**



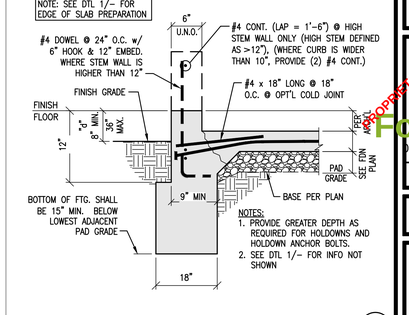


N.T.S. **14**



NOTE 1:
PROVIDE GREATER DEPTH AS REQUIRED FOR HOLDOWNS AND HOLDOWN ANCHOR BOLTS

N.T.S. **9**



N.T.S. **5**

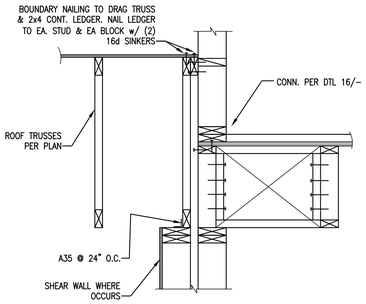
REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
	7-24-20	DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

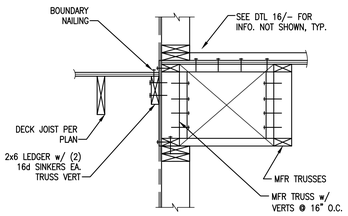
STRUCTURAL DETAILS

U0136-049-191

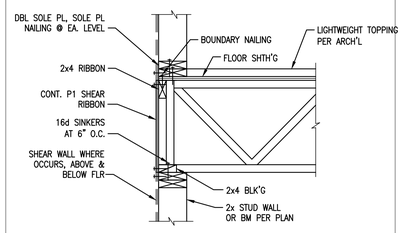
SD-1



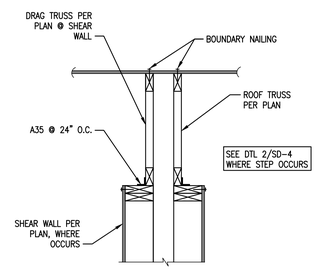
N.T.S. 25



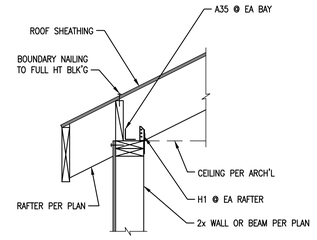
N.T.S. 20



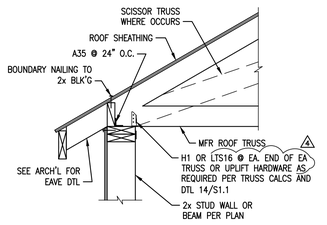
N.T.S. 15



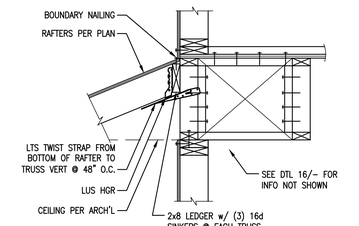
N.T.S. 10



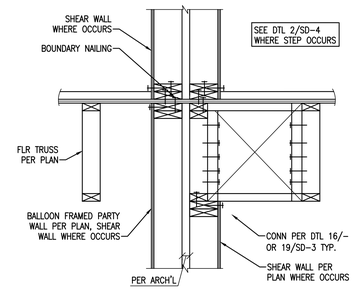
N.T.S. 5



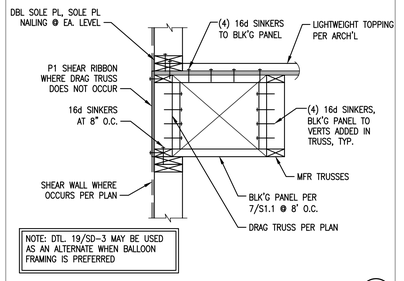
N.T.S. 1



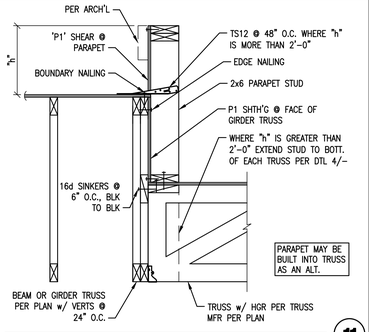
N.T.S. 26



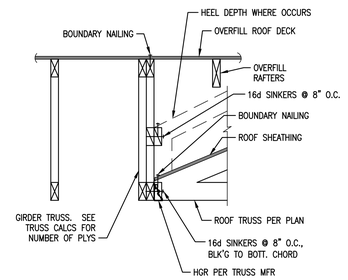
N.T.S. 21



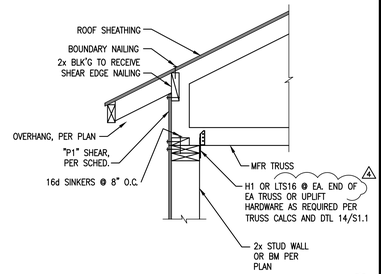
N.T.S. 16



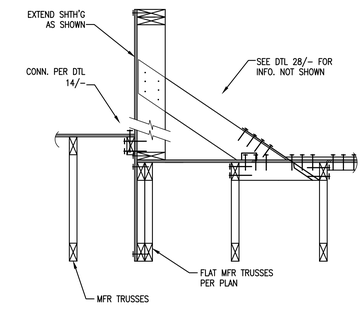
N.T.S. 11



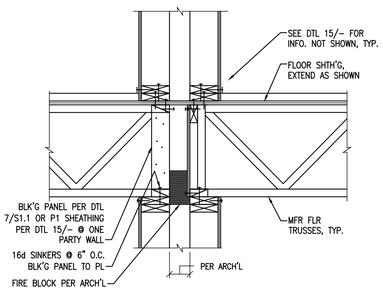
N.T.S. 6



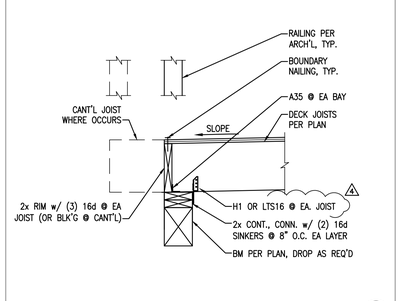
N.T.S. 26



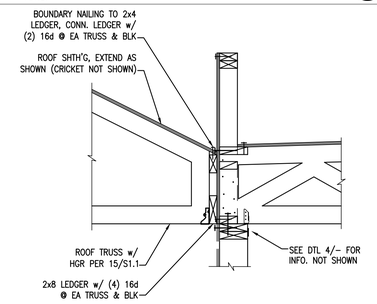
N.T.S. 27



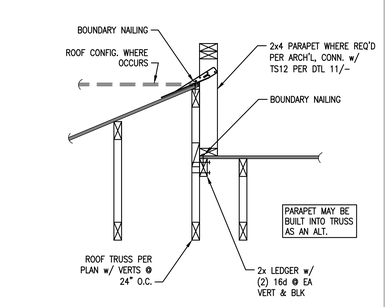
N.T.S. 22



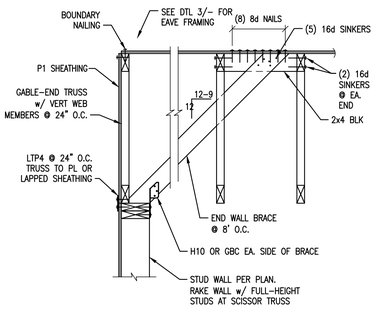
N.T.S. 17



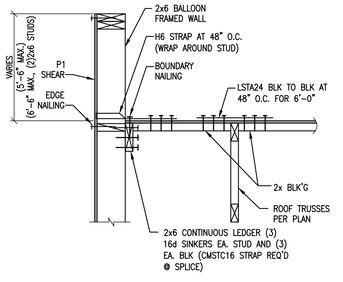
N.T.S. 12



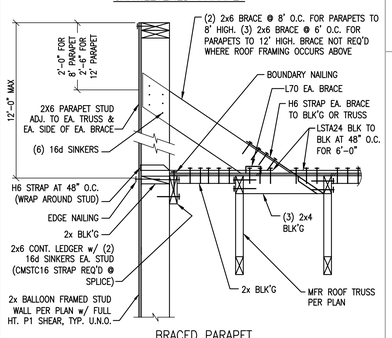
N.T.S. 7



N.T.S. 2

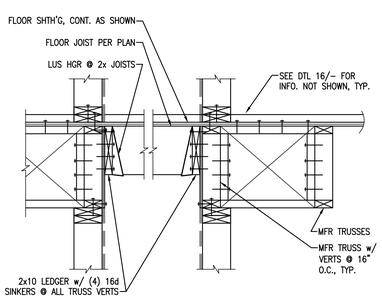


CANTILEVERED PARAPET

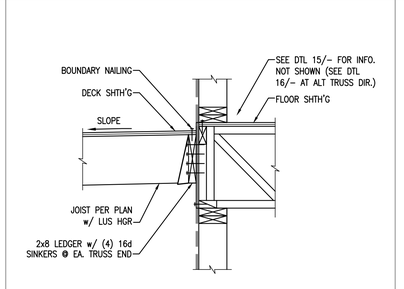


BRACED PARAPET

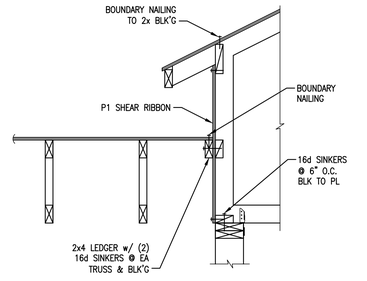
N.T.S. 28



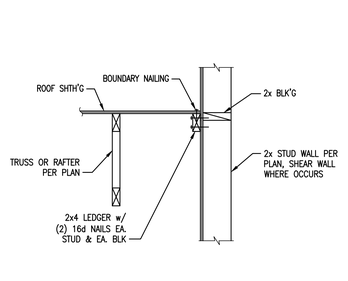
N.T.S. 23



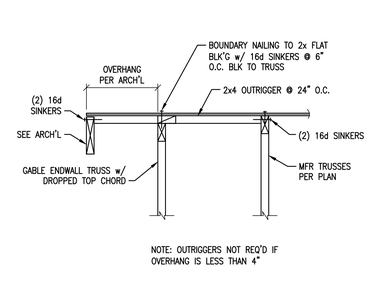
N.T.S. 18



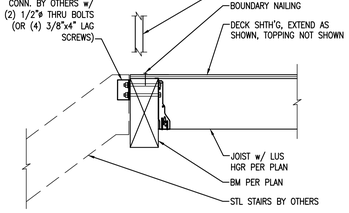
N.T.S. 13



N.T.S. 8

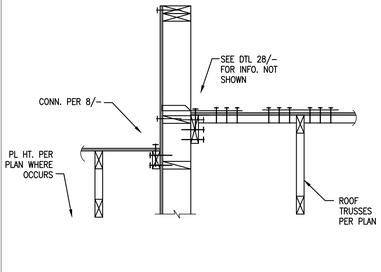


N.T.S. 3

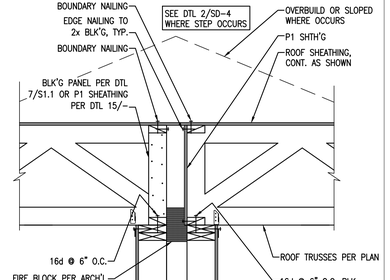


N.T.S. 24

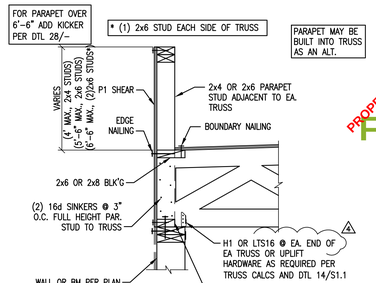
N.T.S. 19



N.T.S. 14



N.T.S. 9



N.T.S. 4

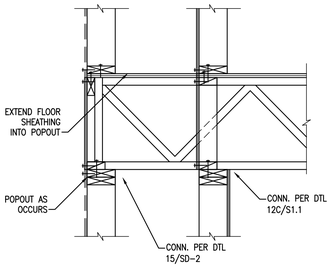
DATE: 7-24-20 | REVISION #
DESIGNED BY: JCS | DATE
DRAWN BY: MCP | DESIGNER/DRAFTER
CHECKED BY: RTA | DESCRIPTION

VECTOR ENGINEERING
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

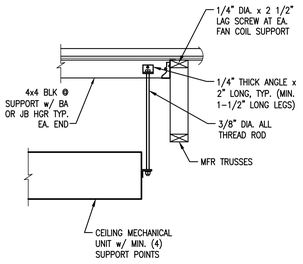
STRUCTURAL DETAILS

U0136-049-191

SD-2

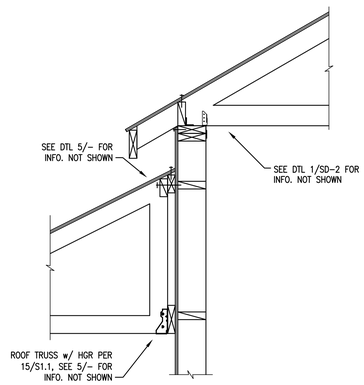


22 N.T.S.

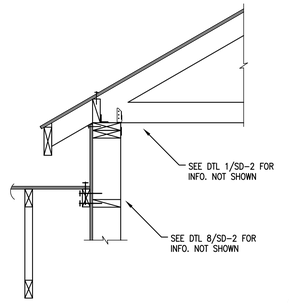


TYP. CEILING UNIT SUPPORT

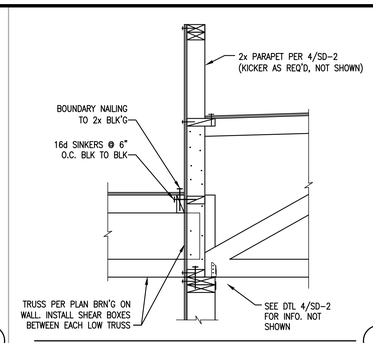
20 N.T.S.



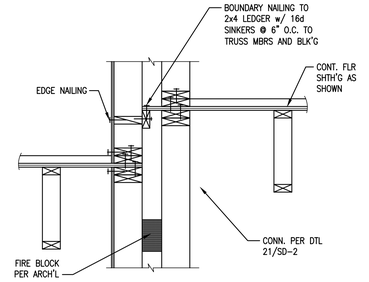
16 N.T.S.



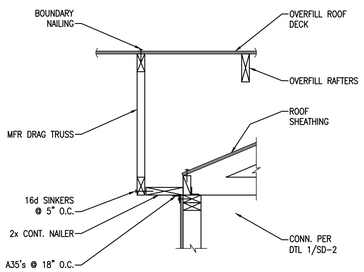
11 N.T.S.



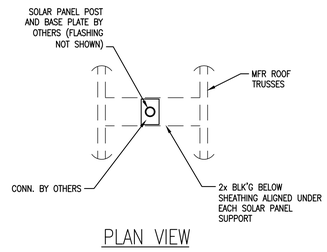
6 N.T.S.



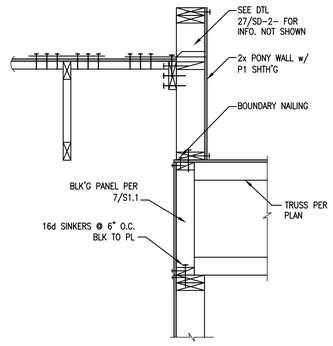
1 N.T.S.



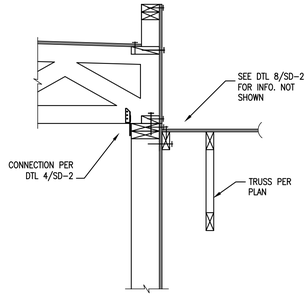
23 N.T.S.



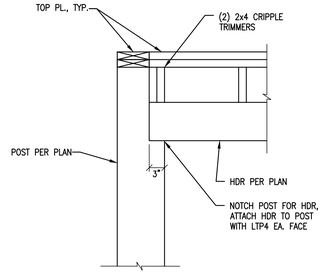
PLAN VIEW



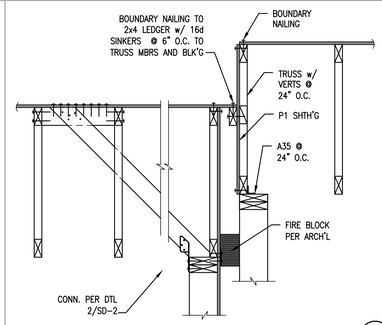
17 N.T.S.



12 N.T.S.



7 N.T.S.



2 N.T.S.

TYP. NON-SHEAR BEARING

24 N.T.S.

21 N.T.S.

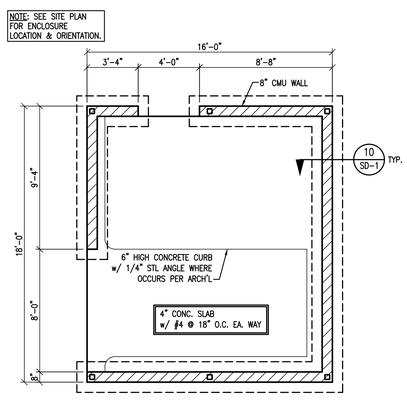
13 N.T.S.

PLAN VIEW – SILL PLATE

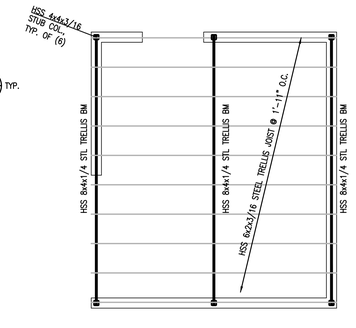
PLAN VIEW – FRAMING

8 N.T.S.

3 N.T.S.



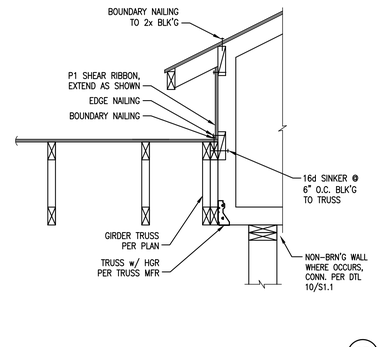
FOUNDATION PLAN



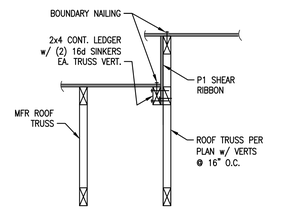
TRELLIS PLAN

TRASH ENCLOSURE

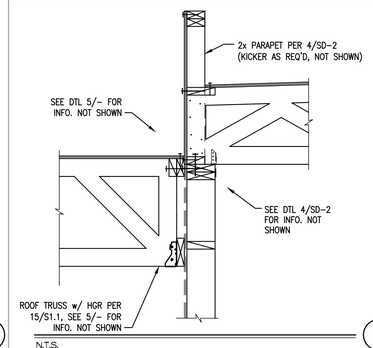
25 1/4" = 1'-0"



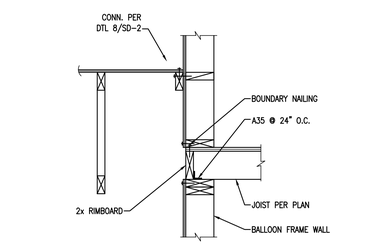
18 N.T.S.



14 N.T.S.



9 N.T.S.



4 N.T.S.

BALLOON FRAME OPTION

19 N.T.S.

15 N.T.S.

10 N.T.S.

5 N.T.S.

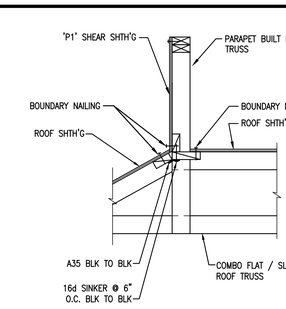
DATE: 7-24-20 | REVISION # | DATE | DESIGNER/DRAFTER | DESCRIPTION | DESIGNED BY: JCS | DRAWN BY: MGP | CHECKED BY: RTA

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9443

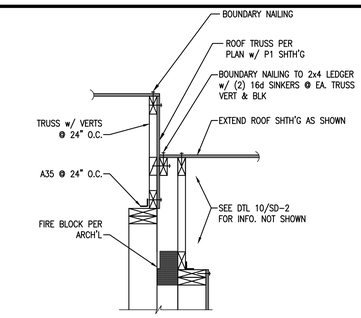
STRUCTURAL DETAILS

U0136-049-191

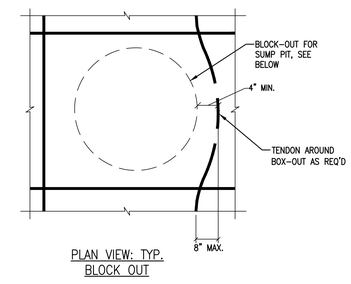
SD-3



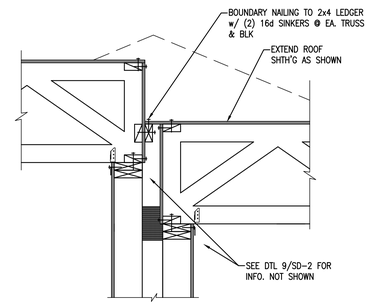
N.T.S. 6



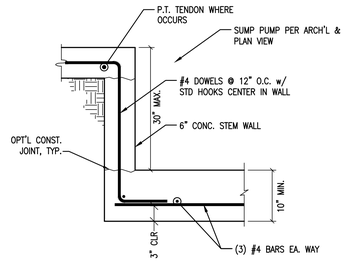
N.T.S. 1



PLAN VIEW: TYP. BLOCK OUT

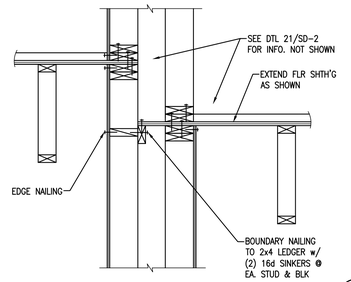


N.T.S. 2

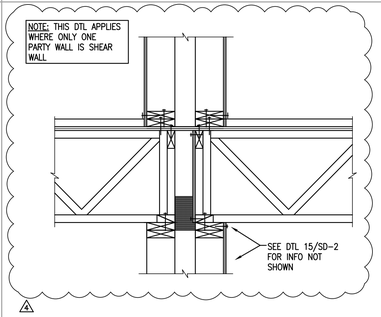


SECTION VIEW

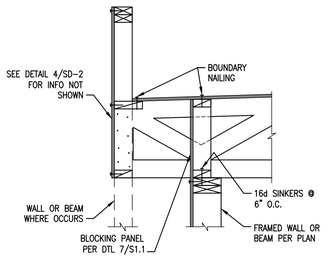
N.T.S. 7



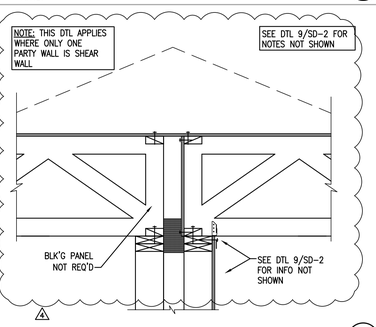
N.T.S. 3



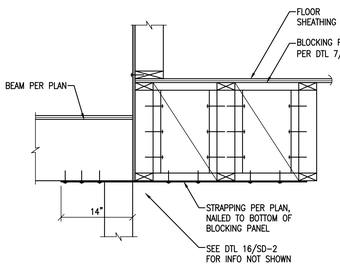
N.T.S. 8



N.T.S. 4



N.T.S. 9



N.T.S. 5

REVISION #	DATE	DESIGNED BY: JCS	DRAWN BY: MCP	CHECKED BY: RTA
	DATE: 7-24-20	DESIGNER/DRAFTER	DESCRIPTION	

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

STRUCTURAL DETAILS

U0136-049-191

SD-4

Project Number: U0136-049-191

March 26, 2021

Nevada Hand
Attn.: Kenneth Henn
295 E. Warm Springs Road, Suite 101
Las Vegas, NV 89105-0220

REFERENCE: **Decatur Alta Family - Las Vegas, NV**
Shear Wall Clarification at Bedroom 3 (RFI #29)

Dear Kenneth,

Per your request, we have reviewed the calculations and drawings for the above referenced project. Please be advised as follows:

- See attached partial framing plans for shear transfer at the bedroom #3 shearwall.

The recommendations above are provided based upon our review of calculations and drawings generated from information the client provided. A representative from Vector has not visited the construction site. No observation was made of the structural integrity, materials used or quality of work of any portion of the structure.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC

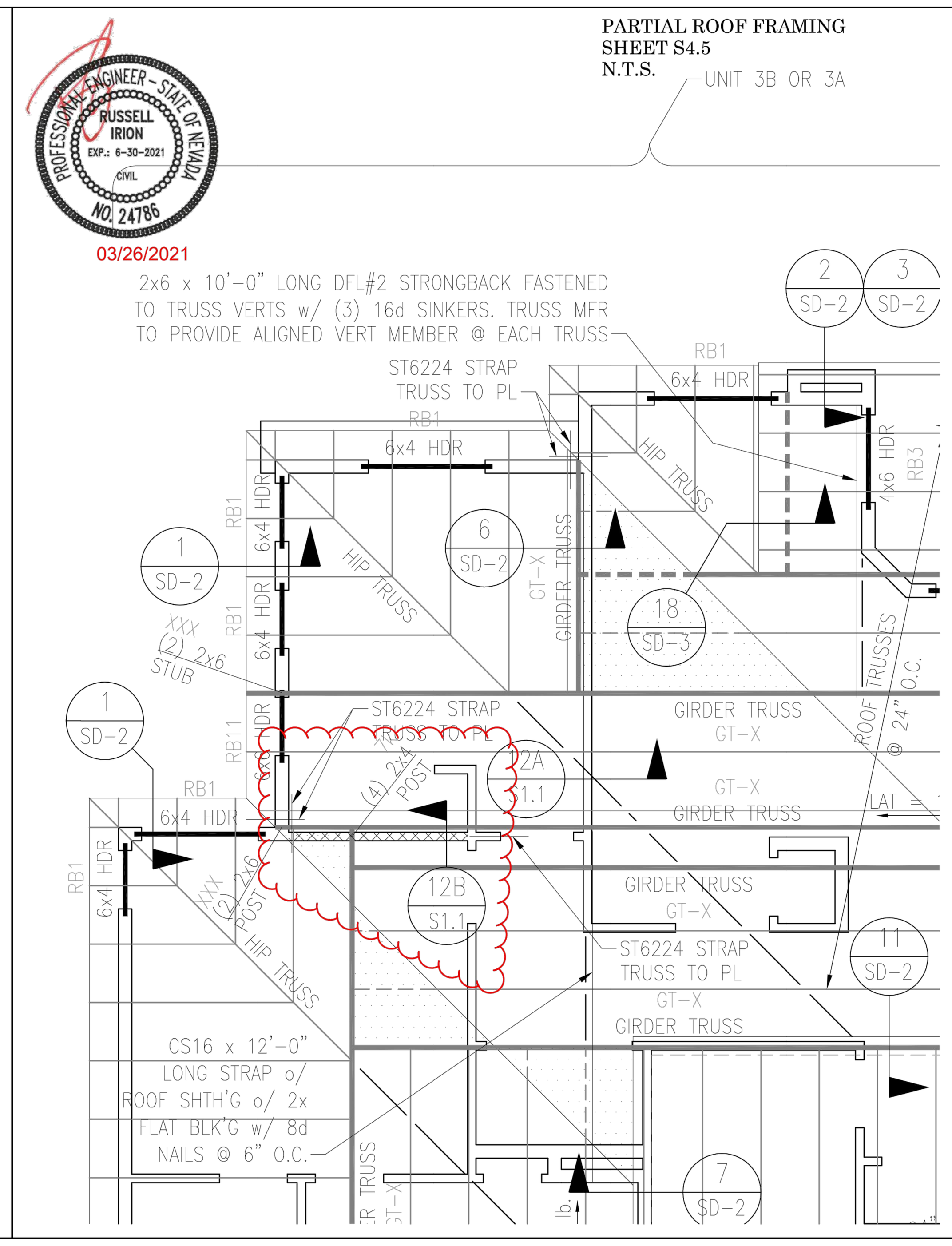
PROFESSIONAL ENGINEER - STATE OF NEVADA
RUSSELL IRION
EXP.: 6-30-2021
CIVIL
NO. 24786

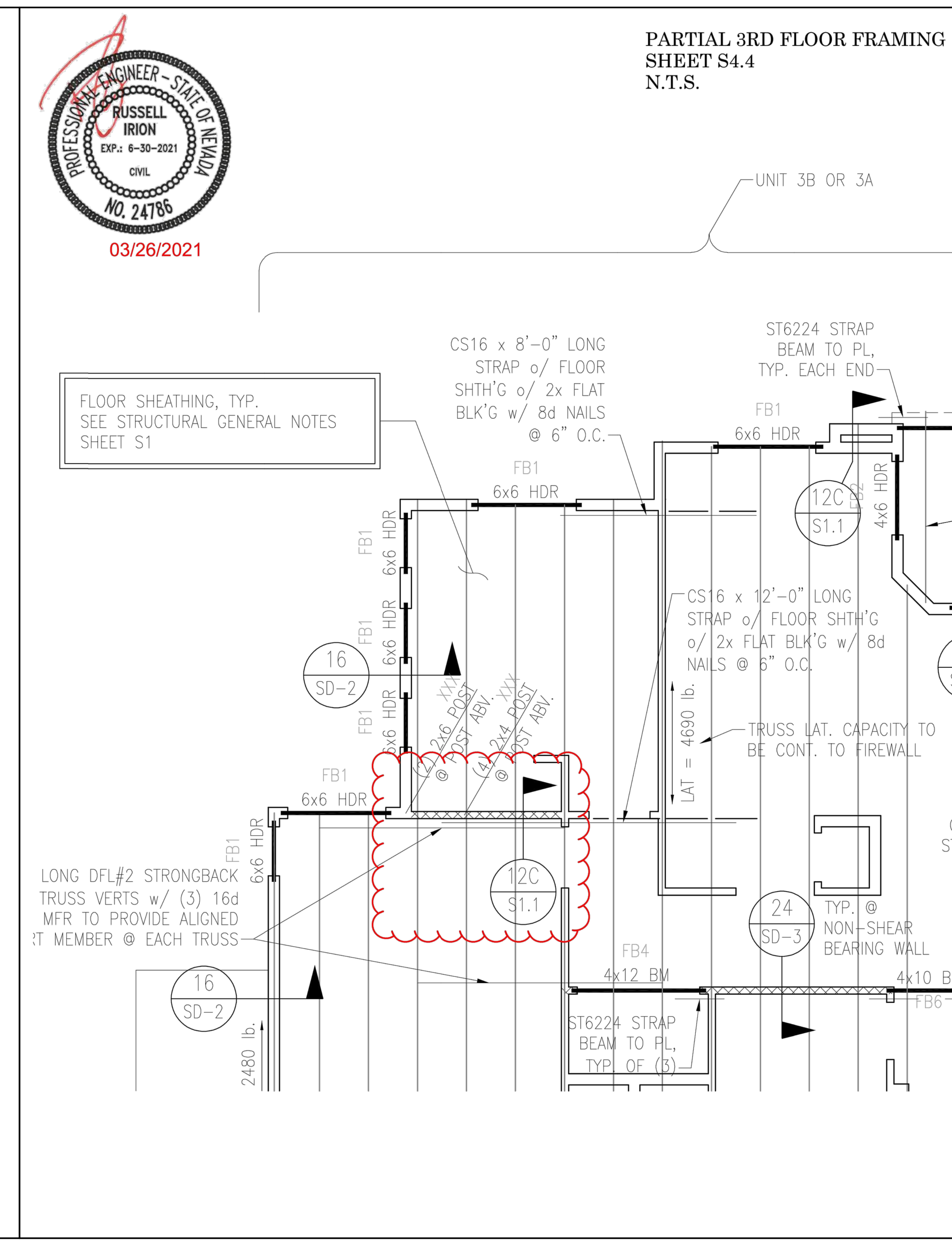
Russell Irion
ririon@vectorse.com
2021.03.26
11:06:03-06'00'

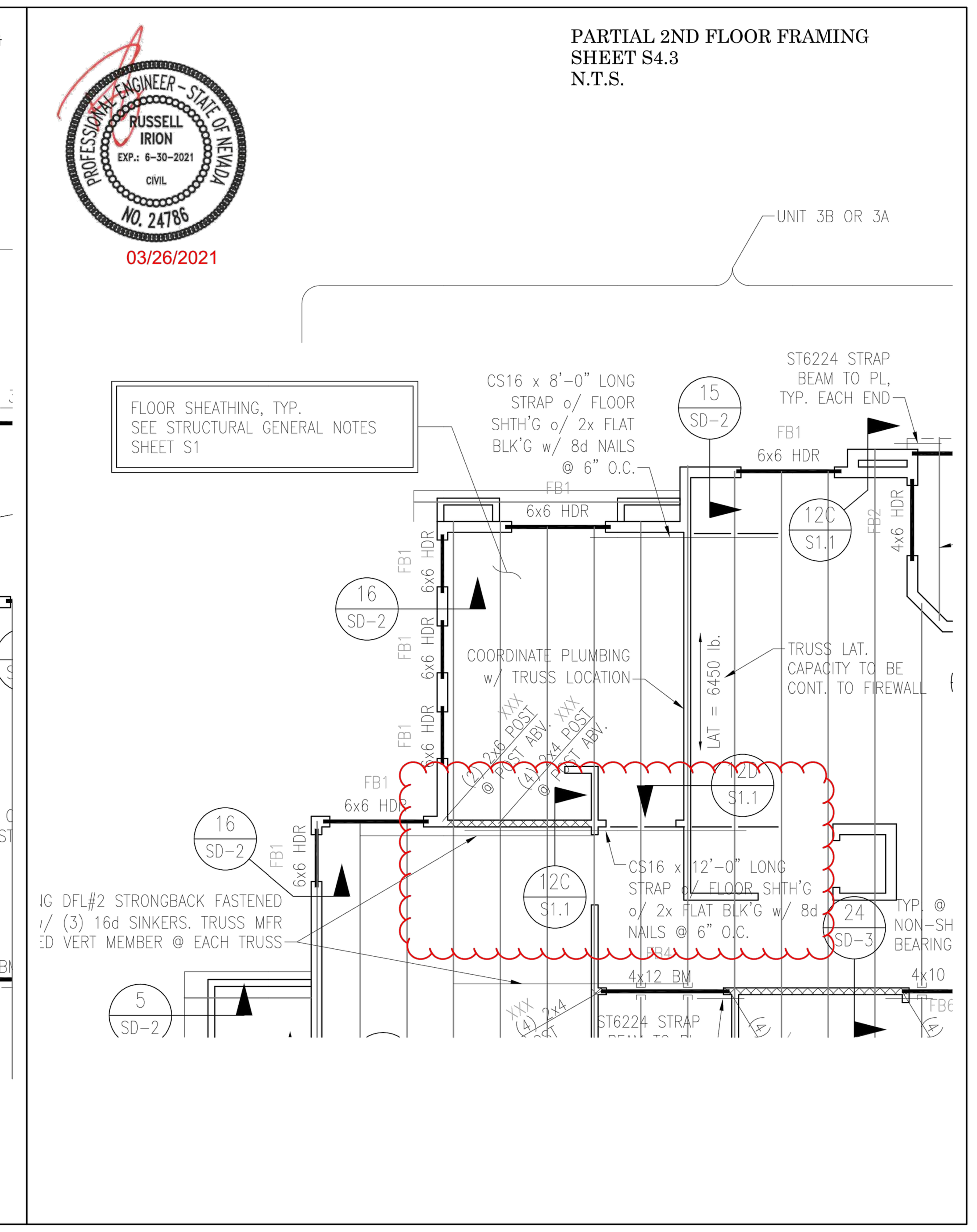
Russell T. Irion, P.E.
Project Managor
03/26/2021

RTI/jcs

Enclosure







Project Number: U0136-049-191

April 2, 2021

Nevada Hand
Attn.: Kenneth Henn
295 E. Warm Springs Road, Suite 101
Las Vegas, NV 89105-0220

REFERENCE: **Decatur Alta Family - Las Vegas, NV**
Electrical Panel Opening in Shear Walls (RFI #32)

Dear Kenneth,

Per your request, we have reviewed the calculations and drawings for the above referenced project. Please be advised as follows:

- Where electrical panels are installed in P2 or P1 shear walls (opening: 14.25" x 24" tall max.) horizontal strapping per detail 13/S1.1 is NOT required. Provide a 2x block above and below the opening, connect the blocks to adjacent studs with (2) 16d sinkers and provide edge nailing thru the sheathing to the blocking.

The recommendations above are provided based upon our review of calculations and drawings generated from information the client provided. A representative from Vector has not visited the construction site. No observation was made of the structural integrity, materials used or quality of work of any portion of the structure.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC

PROFESSIONAL ENGINEER - STATE OF NEVADA
RUSSELL IRION
EXP.: 6-30-2021
CIVIL
NO. 24786

Russell T. Irion, P.E.
Project Manager
04/02/2021

RTI/jcs

Enclosure

Table 4.3.3.5 Shear Capacity Adjustment Factor, C_o

Wall Height, h	Maximum Opening Height [1]				
	h/3	h/2	2h/3	5h/6	h
8' Wall	2'-8"	4'-0"	5'-4"	6'-8"	8'-0"
10' Wall	3'-4"	5'-0"	6'-8"	8'-4"	10'-0"
Percent Full-Height Sheathing [2]	Effective Shear Capacity Ratio				
10%	1.00	0.69	0.53	0.43	0.36
20%	1.00	0.71	0.56	0.45	0.38
30%	1.00	0.74	0.59	0.49	0.42
40%	1.00	0.77	0.63	0.53	0.45
50%	1.00	0.80	0.67	0.57	0.50
60%	1.00	0.83	0.71	0.63	0.56
70%	1.00	0.87	0.77	0.69	0.63
80%	1.00	0.91	0.83	0.77	0.71
90%	1.00	0.95	0.91	0.87	0.83
100%	1.00	1.00	1.00	1.00	1.00

1 The maximum opening height shall be taken as the maximum opening clear height in a perforated shear wall. Where areas above and/or below an opening remain unsheathed, the height of each opening shall be defined as the clear height of the opening plus the unsheathed areas.

2 The sum of the perforated shear wall segment lengths, ΣL_i, divided by the total length of the perforated shear wall, L_{tot}. Lengths of perforated shear wall segments with aspect ratios greater than 2:1 shall be adjusted in accordance with Section 4.3.4.3.

Project Number: U0136-049-191

April 6, 2021

Nevada Hand
Attn.: Kenneth Henn
295 E. Warm Springs Road, Suite 101
Las Vegas, NV 89105-0220

REFERENCE: **Decatur Alta Family - Las Vegas, NV**
Shear Wall Clarification at Bedroom 3 (RFI #29): Alternate Shear Transfer

Dear Kenneth,

Per your request, we have reviewed the calculations and drawings for the above referenced project. Please be advised as follows:

- As an alternate to providing shear transfer framing per Vector Engineers letter of 3/26/2021, it is acceptable to connect shearwalls to the roof/floor diaphragm at bedroom #3 per detail 12B/S1.1 (at the roof) and 12C/S1.1 (at floor) with the following modification:
  - At floor framing (12C/S1.1): do not install (or remove) 16d sinkers that connect the blocking panel to the adjacent trusses (this allows the trusses to remain non-bearing at the shear wall below).
  - At roof framing (12B/S1.1): in place of the A35 connecting the top plate to bottom chord of the truss (or 16d sinkers connecting 2x cont. to bottom chord of truss), install DTC clips @ 12" O.C. connecting top plate or 2x to truss bottom chord.

The recommendations above are provided based upon our review of calculations and drawings generated from information the client provided. A representative from Vector has not visited the construction site. No observation was made of the structural integrity, materials used or quality of work of any portion of the structure.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC

Russell Irion
ririon@vectorse.com
2021.04.06
15:02:29-06'00'

PROFESSIONAL ENGINEER - STATE OF NEVADA
RUSSELL IRION
EXP.: 6-30-2021
CIVIL
NO. 24786

Russell T. Irion, P.E.
Project Manager

RTI/jcs

04/06/2021

Project Number: U0136-049-191

April 12, 2021

Nevada Hand
Attn.: Bob Feibleman
295 E. Warm Springs Road, Suite 101
Las Vegas, NV 89105-0220

REFERENCE: **Decatur and Alta Family**
Shade Structure Drawings and Calculations

Dear Mr. Feibleman,

Per your request, we have reviewed the calculations and drawings for the above referenced project. Please be advised as follows:

- See attached drawings for the Shade Structure CMU Column design and base plate.
- See attached calculations.

The recommendations above are provided based upon our review of calculations and drawings generated from information the client provided. A representative from Vector has not visited the construction site. No observation was made of the structural integrity, materials used or quality of work of any portion of the structure.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC

PROFESSIONAL ENGINEER - STATE OF NEVADA
RUSSELL IRION
EXP.: 6-30-2021
CIVIL
NO. 24786

04/12/2021

Russell T. Irion, P.E.
Project Manager

RTI/jcs

Enclosure

DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MGP	CHECKED BY: RTA
REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER 9445

FIX LETTERS

U0136-049-191

SD-5

VECTOR ENGINEERS

Project Number: U0136-049-191

May 6, 2021

Nevada Hand
Attn.: Sergio Arcieri-Bonjour
P.O. Box 230220
295 E. Warm Springs Road, Suite 101
Las Vegas, NV 89105-0220

REFERENCE: **Decatur Alta Family - Las Vegas, Nev**
Building C- Party Wall Shear Wall Revision

Dear Sergio,

Per your request, we have reviewed the calculations and drawings for the above referenced project. Please see the attached plans and calculations that have been updated per the request to have shear walls on only one side of the party wall.

The recommendations above are provided based upon our review of calculations and drawings generated from information the client provided. A representative from Vector has not visited the construction site. No observation was made of the structural integrity, materials used or quality of work of any portion of the structure.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC

PROFESSIONAL ENGINEER - STATE OF NEVADA
RUSSELL IRION
EXP.: 6-30-2021
CIVIL
NO. 24795

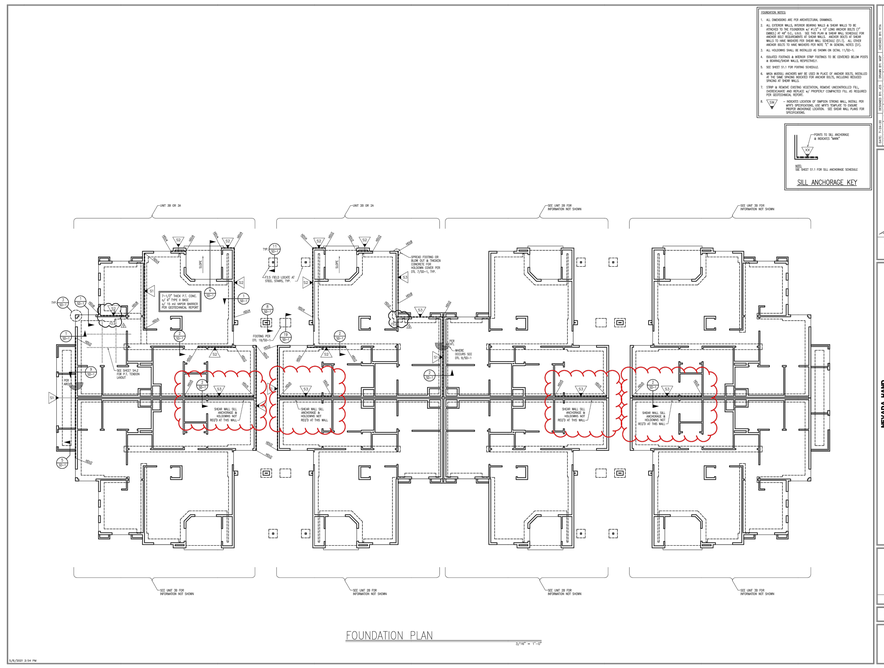
05/06/2021

Russell T. Irion, P.E.
Project Engineer

RTI/cob

Enclosure

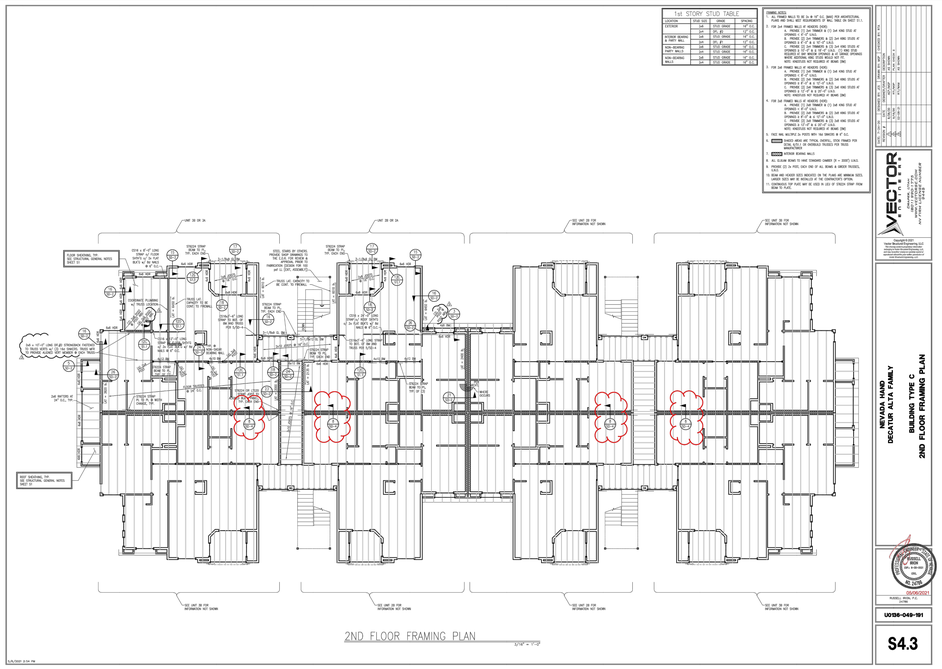
651 W. Galena Park Blvd, Ste 101 / Draper, UT 84020 / **T** (801) 990-1775 / **F** (801) 990-1776 / **www.vectorse.com**



NEVADA HAND
DECATUR ALTA FAMILY
BUILDING TYPE C
FOUNDATION PLAN

U0136-049-191

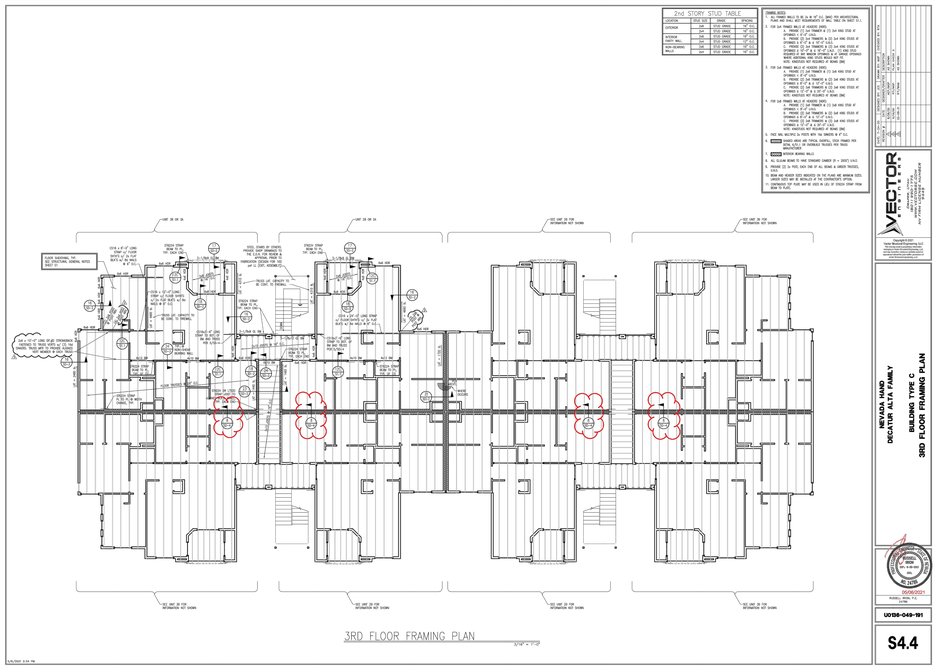
S4.1



NEVADA HAND
DECATUR ALTA FAMILY
BUILDING TYPE C
2ND FLOOR FRAMING PLAN

U0136-049-191

S4.3



NEVADA HAND
DECATUR ALTA FAMILY
BUILDING TYPE C
3RD FLOOR FRAMING PLAN

U0136-049-191

S4.4

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

DATE: 7-24-20 | DESIGNED BY: JCS | DRAWN BY: MGP | CHECKED BY: RTA
REVISION # | DATE | DESIGNER/DRAFTER | DESCRIPTION
A

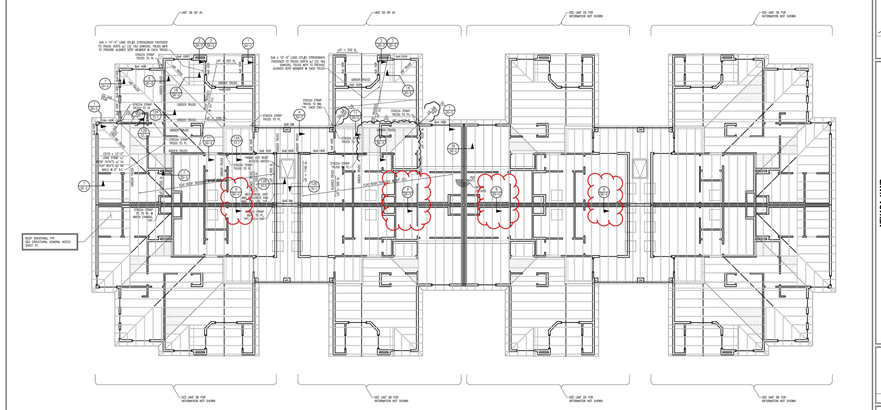
FIX LETTERS

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

U0136-049-191

SD-6.1



DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MGP	CHECKED BY: RTA

REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION

VECTOR
ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

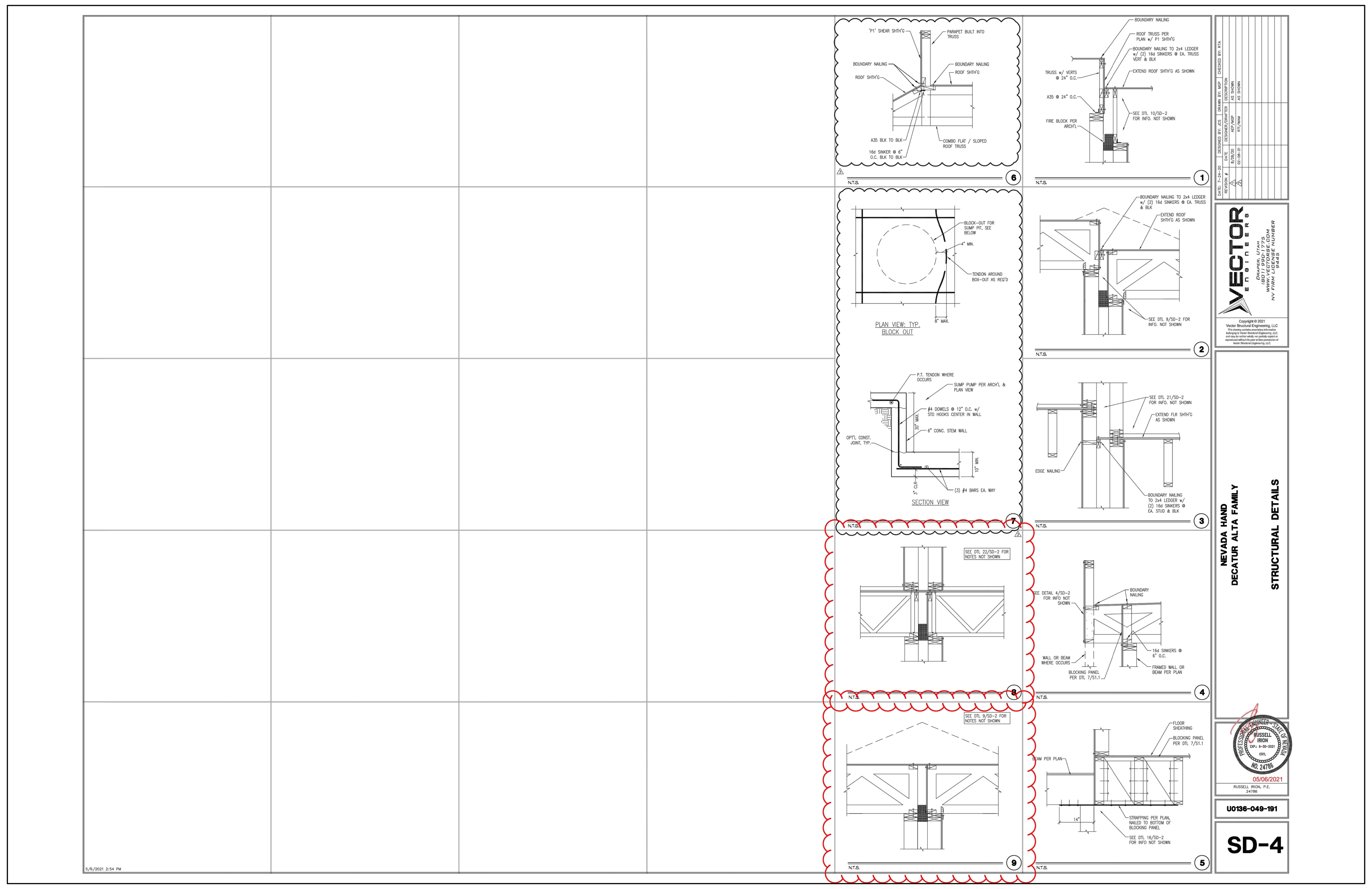
FIX LETTERS

For Review
02/24/2025 10:13:22 AM

U0136-049-191

5

SD-6.2



DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MGP	CHECKED BY: RTA
REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION

VECTOR
ENGINEERS

DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

FIX LETTERS

For Review
02/24/2025 10:13:22 AM

U0136-049-191

SD-6.3

Project Number: U0136-049-191

May 11, 2021

Nevada Hand
Attn.: Sergio Arcieri-Bonjour
P.O. Box 230220
295 E. Warm Springs Road, Suite 101
Las Vegas, NV 89105-0220

REFERENCE: **Decatur Alta Family - Las Vegas, NV**
Building B- Party Wall Shear Wall Revision

Dear Sergio,

Per your request, we have reviewed the calculations and drawings for the above referenced project. Please see the attached plans and calculations that have been updated per the request to have shear walls on only one side of the party wall.

The recommendations above are provided based upon our review of calculations and drawings generated from information the client provided. A representative from Vector has not visited the construction site. No observation was made of the structural integrity, materials used or quality of work of any portion of the structure.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC

Russell Irion
irion@vectorse.com
2021.05.11
15:47:09-06'00'

PROFESSIONAL ENGINEER - STATE OF NEVADA
RUSSELL IRION
EXP: 6-30-2021
CIVIL
NO. 24765

Russell T. Irion, P.E.
Project Engineer

05/11/2021

RTI/cob

Enclosure

Project Number: U0136-049-191

May 13, 2021

Nevada Hand
Attn.: Sergio Arcieri-Bonjour
P.O. Box 230220
295 E. Warm Springs Road, Suite 101
Las Vegas, NV 89105-0220

REFERENCE: **Decatur Alta Family - Las Vegas, NV**
Shear Wall Adjustment for Holes

Dear Sergio,

Per your request, we have reviewed the calculations and drawings for the above referenced project. Please be advised as follows:

1. A 12"x12" panel hole in the shear wall for a sprinkler drain and 1.5" diameter holes with 1'-0" spacing between holes all within a 4'x4' area of the wall is permitted in the shear wall associated with line 4. These openings may occur without installing strapping arounds the openings. See attached calculations and drawing.

The recommendations above are provided based upon our review of calculations and drawings generated from information the client provided. A representative from Vector has not visited the construction site. No observation was made of the structural integrity, materials used or quality of work of any portion of the structure.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC

Jacob S Proctor
Digitally signed by Jacob S Proctor
Contact Info: PE. 74277
Date: 2021.05.13
14:56:42-06'00'

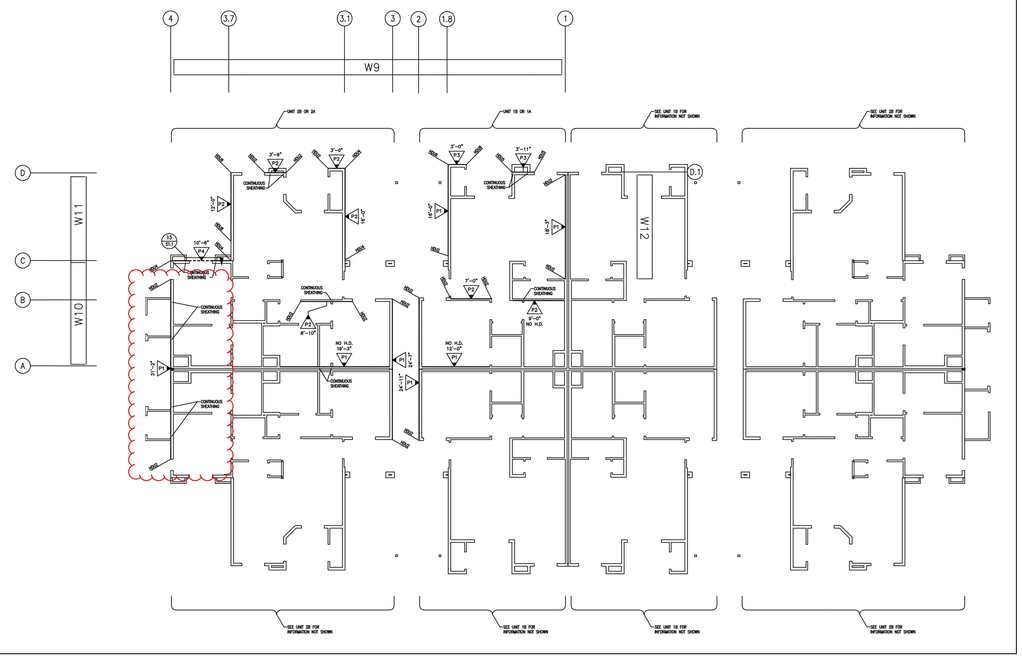
PROFESSIONAL ENGINEER - STATE OF NEVADA
JACOB S. PROCTOR
Exp: 12-31-21
CIVIL
No. 019603

Jacob S. Proctor, P.E.
Principal

05/13/2021

JSP/cob

Enclosure



Project Number: U1997-010-211

July 6, 2021

Imperial Iron Works, LLC
Attn: Danny Anderson
4226 Fidus Dr.
Las Vegas, NV 89103

REFERENCE: **Decatur Alta Stairs - Las Vegas, NV**

Dear Mr. Anderson,

Per general contractor concerns, we have visited the site of the above referenced project. In addition, we have reviewed the calculations and drawings prepared by our office. Please be advised as follows:

To alleviate an issue with the steel stair stringers bearing on sheathing and flashing, causing the flashing to deform, please provide additional fasteners in the channel ledgers that connect the stairs to the glulam beam. See attached details for specifics.

The recommendations above are based upon our observations and a review of the project calculations and drawings. Please note that our observations were limited to those structural components not hidden from view and to those areas specifically addressed in this letter. No observations were made of the structural integrity, materials used or quality of work for any other portions of the structure.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC

PROFESSIONAL ENGINEER - STATE OF NEVADA
WELLS L. HOLMES
EXP: JUNE 2023
CIVIL
NO. 016992

Wells L. Holmes, S.E.
Senior Engineer

07/06/2021

WLH/lsw

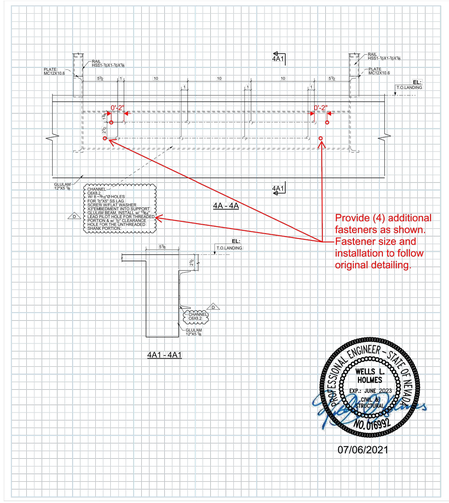
Enclosure

JOB NO. U1997-010-211 DATE 6/30/2021
PROJECT Decatur Stairs
SUBJECT Adding extra lag screws
SHEET 1 OF 2
DESIGNED LSW CHECKED RTI

PROFESSIONAL ENGINEER - STATE OF NEVADA
WELLS L. HOLMES
EXP: JUNE 2023
CIVIL
NO. 016992

07/06/2021

JOB NO. U1997-010-211 DATE 6/30/2021
PROJECT Decatur Stairs
SUBJECT Adding extra lag screws
SHEET 2 OF 2
DESIGNED LSW CHECKED RTI



PROFESSIONAL ENGINEER - STATE OF NEVADA
WELLS L. HOLMES
EXP: JUNE 2023
CIVIL
NO. 016992

07/06/2021

Project Number: U0136-049-191

October 1, 2021

Nevada Hand
Attn.: Garrett
P.O. Box 230220
295 E. Warm Springs Road, Suite 101
Las Vegas, NV 89105-0220

REFERENCE: **Decatur Alta Family - Las Vegas, NV**
Shade Structure Offset Beam Cap

Dear Garrett,

Per your request, we have reviewed the calculations and drawings for the above referenced project. Please be advised as follows:

- Adding 3" eccentricity to the top of the column is acceptable structurally
- Adjustments to the beam lengths will need to be made in the field to match the new configuration

The recommendations above are provided based upon our review of calculations and drawings generated from information the client provided. A representative from Vector has not visited the construction site. No observation was made of the structural integrity, materials used or quality of work of any portion of the structure.

We hope this meets your needs. If you have any further questions regarding this matter, please call this office at your convenience.

Very truly yours,
VECTOR STRUCTURAL ENGINEERING, LLC

PROFESSIONAL ENGINEER - STATE OF NEVADA
RUSSELL IRION
EXP: 6-30-2023
CIVIL
NO. 24765

Russell Irion, P.E.
Project Engineer

10/01/2021

RTI/jcs

REVISION #	DATE	DESIGNER/DRAFTER	DESCRIPTION
	DATE: 7-24-20	DESIGNED BY: JCS	DRAWN BY: MGP	CHECKED BY: RTA

VECTOR ENGINEERS
DRAPER, UTAH
(801) 990-1775
WWW.VECTORSE.COM
NV FIRM LICENSE NUMBER
9445

FIX LETTERS

PROPRIETARY DO NOT DISTRIBUTE

For Review
02/24/2025 10:13:22 AM

U0136-049-191

SD-7