STRUCTURAL STEEL:

1. STEEL SHALL CONFORM TO THE FOLLOWING GRADES:

   ALL WIDE FLANGE (U.N.O.): A992 GRADE 50 (Fy=50)
   ALL CHANNEL, ANGLE, BASE PLATES, CONNECTION. PLATES (U.N.O.): A36 (Fy=36)
   STRUCTURAL PIPE: A53 (Fy=35)
   STRUCTURAL HSS RECTANGULAR TUBE: A500 GRADE B (Fy=46)
   STRUCTURAL HSS ROUND TUBE: A500 GRADE B (Fy=42)

2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE A.I.S.C. CODE OF STANDARD PRACTICE, EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.

3. CONNECTIONS MAY BE BOLTED OR WELDED. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF CONNECTIONS NOT DESIGNED ON THE DRAWINGS. GENERALLY, CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE SCHEMATIC AND ARE ONLY INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. ANY CONNECTION THAT IS NOT SHOWN OR IS NOT COMPLETELY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF THE PROJECT, RETAINED BY THE FABRICATOR. COMPLETELY DETAILED MEANS THE FOLLOWING INFORMATION IS SHOWN ON THE DETAIL:

   A. ALL PLATE DIMENSIONS AND GRADES.

   B. ALL WELD SIZES, LENGTHS, PITCHES, AND RETURNS.

   C. ALL HOLE SIZES AND SPACINGS.

   D. NUMBER AND TYPES OF BOLTS: WHERE BOLTS ARE SHOWN BUT NO NUMBER IS GIVEN, THE CONNECTION HAS NOT BEEN COMPLETELY DETAILED.

   E. WHERE PARTIAL INFORMATION IS GIVEN, IT SHALL BE THE MINIMUM REQUIREMENT FOR THE CONNECTION.

   PRIOR TO FABRICATION, PROVIDE (FOR RECORD COPY) DESIGN CALCULATIONS FOR TYPICAL BEAM CONNECTIONS, ALL PRIMARY BRACING AND HANGER CONNECTIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT SHALL BE SUBMITTED TO THE ENGINEER.

4. CONNECTION DESIGN FORCES:

   A. BEAMS, IF REACTION IS NOT SHOWN GREATER OF:

      55% OF TOTAL ALLOWABLE UNIFORM LOAD CAPACITY FROM A.I.S.C. 14TH EDITION TABLES FOR ALLOWABLE LOADS ON BEAMS, W_DL.

      10 KIPS.

   B. MOMENT CONNECTIONS INDICATED ON THE DRAWINGS THUS: ▬◄H►▬ DESIGN FOR MOMENT SHOWN OR, IF NOT SHOWN, DEVELOP MOMENT CAPACITY OF MEMBER WITH f_b = 0.66 Fy.

   C. MAINTAIN TENSION CAPACITY OF COLUMNS, DIAGONALS AND MEMBERS SUBJECT TO TENSION AT BOLT HOLES, NOTCHES, OR COPES.

   D. CONNECTION FORCE NOTATION:

      P = AXIAL FORCE IN KIPS: (+) TENSION, (-) COMPRESSION
      V OR [ ] = SHEAR IN KIPS
      M = MOMENT IN FOOT KIPS
      T = TORSION IN FOOT KIPS

5. THE MINIMUM PLATE THICKNESS SHALL BE 1/4".

6. BOLTED CONNECTIONS:

   A. MINIMUM BOLT DIAMETER = 3/4"

   B. SLIP CRITICAL CONNECTIONS OF A325SC OR A490SC BOLTS SHALL BE USED FOR ALL BOLTED CONNECTIONS OF BRACING MEMBERS, MOMENT CONNECTIONS, CANTILEVERS, AND AS SHOWN ON THE DRAWINGS. OVERSIZED AND LONG-SLOTTED HOLES ARE ALLOWED FOR SLIP CRITICAL CONNECTIONS.

   C. ALL OTHER BOLTED CONNECTIONS SHALL BE BEARING TYPE USING A325N OR A490N BOLTS. OVERSIZED HOLES AND LONG-SLOTTED HOLES ARE NOT ALLOWED UNLESS SHOWN ON THE DRAWINGS.

   D. A307 BOLTS MAY BE USED WHERE INDICATED ON THE DRAWINGS.

   E. PROTRUDING BOLT HEADS, SHAFTS OR NUTS SHALL NOT EXTEND INTO NOR PROHIBIT THE APPLICATION OF ARCHITECTURAL FINISHES AND THEY SHALL NOT EXTEND INTO NOR PROHIBIT THE PLACEMENT OF STEEL DECKING TO THE CORRECT LINE AND ELEVATION.

   F. THE FABRICATOR IS RESPONSIBLE FOR VERIFYING THE TENSION CAPACITY OF AXIALLY LOADED MEMBERS AFTER A SECTION IS REDUCED FOR BOLT HEADS. MEMBER SIZE MAY BE INCREASED OR CONNECTION PLATES ADDED AS REQUIRED.

   G. SHOP DRAWINGS SHALL INDICATE THE TYPE OF BOLT USED IN EACH CONNECTION AND THE ALLOWABLE VALUES USED FOR THE VARIOUS BOLT TYPES.

7. WELDED CONNECTIONS:

   A. WELDS ARE CONTINUOUS UNLESS NOTED.

   B. ALL FILLET WELDS: A.I.S.C. MINIMUM BUT NOT LESS THAN 1/4" UNLESS NOTED OTHERWISE.

   C. ALL WELDING SHALL BE IN ACCORDANCE WITH THE CURRENT "STRUCTURAL WELDING CODE" (A.W.S. D1.1) PUBLISHED BY THE AMERICAN WELDING SOCIETY. ELECTRODES FOR WELDING SHALL COMPLY WITH THE REQUIREMENTS OF TABLE 4.1.1 OF (A.W.S. D1.1).

   D. ALL GROOVE WELDS SHALL BE COMPLETE PENETRATION UNLESS NOTED OTHERWISE.

8. SPLICING OF STEEL MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.

9. NO CHANGE IN SIZE OR POSITION OF THE STRUCTURAL ELEMENTS SHALL BE MADE AND HOLES, SLOTS, CUTS, ETC., ARE NOT PERMITTED THROUGH ANY MEMBER UNLESS THEY ARE DETAILED ON THE APPROVED SHOP DRAWINGS.

10. NO FINAL BOLTING OR WELDING SHALL BE MADE UNTIL AS MUCH OF THE STRUCTURE AS WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.

11. UNLESS NOTED OTHERWISE, BEAMS SHALL BEAR 8" MINIMUM ON CONCRETE OR MASONRY. ANCHOR BEAMS TO MASONRY OR CONCRETE WITH 2-3/4" DIA. ANCHOR BOLTS OR WELDED TO EMBED PLATE.

12. FABRICATE ALL BEAMS WITH THE MILL CAMBER UP.

13. SHEAR STUDS: CONFORM TO A.W.S. D1.1-98, SHOP WELD EXCEPT WHERE APPLIED THROUGH METAL DECK.

14. HEADED STUDS SHALL CONFORM TO A.S.T.M. A108, GRADE 1015, WELDABLE (Fy = 65 K.S.I.).

15. TOP OF ALL TUBES AND PIPES SHALL HAVE A CAP PLATE 1/4", SEAL WELDED ALL AROUND, UNLESS LARGER CAP PLATE AND / OR WELD IS NOTED. THIS DOES NOT APPLY TO DIAGONAL / SLOPING TUBES OR PIPES.

16. WHERE FIREPROOFING IS REQUIRED, ADJUST FIREPROOFING THICKNESS BASED ON MEMBER SIZES. SEE ARCHITECTURAL DRAWINGS FOR FIREPROOFING REQUIREMENTS AND THICKNESS.

17. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF STEEL STAIRS. STAIRS SHOWN ON THE STRUCTURAL DRAWINGS ARE SCHEMATIC AND ARE ONLY INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. STAIRS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT, RETAINED BY THE FABRICATOR.

18. ALL EXPOSED EXTERIOR STEEL SHALL HAVE A GALVANIZED FINISH, UNLESS NOTED OTHERWISE.
19. 18. ALL EXPOSED EXTERIOR STEEL SHALL HAVE A GALVANIZED FINISH, UNLESS NOTED OTHERWISE

CONCRETE:

1. CONCRETE SHALL CONFORM WITH THE REQUIREMENTS SET FORTH IN A.C.I. 301 AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH AND DENSITY, IN ACCORDANCE WITH THE FOLLOWING:

INTENDED USE	28 DAY STRENGTH f'c (K.S.I.)	CONCRETE DENSITY	MAXIMUM W/C (INCLUDING FLY ASH)	MINIMUM CEMENT MATERIAL (#/CY INCLUDING FLY ASH)	MAXIMUM AGGREGATE (IN.)	SLUMP LIMITS (IN.) (+0", -2")	TOTAL AIR LIMITS (0%) (B)	REQUIRED ADMIXTURES (C)
FOOTINGS	4	145	0.48	564	1 1/2	4	-	-
INTERIOR TOPPING SLABS	3.5	145	0.50	541	3/4	4	-	-
INTERIOR SLABS ON GRADE	4	145	0.50	564	1 1/2	4	N	-
ALL CONCRETE NOT OTHERWISE SPECIFIED	4	145	0.40	564	3/4	4	6	-

CONCRETE TABLE NOTES:

A. FOR MAXIMUM COARSE AGGREGATE SIZE INDICATED, USE THE FOLLOWING AGGREGATE SIZE NUMBERS PER A.S.T.M. C33:

   3/8" - #8 AGGREGATE
   3/4" - #67 AGGREGATE
   1" - #57 AGGREGATE
   1 1/2" - #467 AGGREGATE

B. TOTAL AIR CONTENT LIMITS INCLUDE BOTH ENTRAINED AND ENTRAPPED AIR +/- 1 1/2%. "N" IN COLUMN INDICATES ADDITION OF ENTRAINED AIR IS NOT PERMITTED.

C. ABBREVIATIONS FOR REQUIRED ADMIXTURES AS FOLLOWS: AE - AIR-ENTRAINING ADMIXTURE, WR - WATER REDUCING ADMIXTURE

D. MAXIMUM SHRINKAGE FOR SLAB ON GRADE SHALL BE LIMITED TO 5/8" PER 100 FOOT.

1. REINFORCING SHALL CONFORM TO A.S.T.M. A615, GR. 60, INCLUDING TIES AND STIRRUPS. BARS REQUIRING WELDING OR FIELD BENDING SHALL BE A.S.T.M. A706, GRADE 60.

2. WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A185.

3. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE, UNLESS NOTED OTHERWISE. WHERE CLASSES ARE NOT CALLED OUT ON DRAWINGS, USE CLASS "B" SPLICES:

   SPLICES: f'c = 4000 P.S.I., fy = 60,000 P.S.I.

STANDARD TENSION LAP SPLICE, GRADE 60												
CLASS A and B LAP SPLICE LENGTH (INCHES)												
		f'c = 3,000 P.S.I.				f'c = 4,000 P.S.I.				f'c = 5,000 P.S.I.			
BAR SIZE	CLASS	A		B		A		B		A		B	
	CASE	1	2	1	2	1	2	1	2	1	2	1	2
#3		16	25	21	32	14	21	18	28	13	19	17	25
#4		22	33	28	43	19	28	25	37	17	25	22	33
#5		27	41	36	53	24	36	31	46	21	32	28	41
#6		33	49	43	64	28	43	37	55	25	38	33	50
#7		48	72	62	93	42	62	54	81	37	56	48	72
#8		55	82	71	107	47	71	62	92	42	64	55	83
#9		62	93	80	120	54	80	70	104	48	72	62	93
#10		70	104	90	136	60	90	78	117	54	81	70	105
#11		77	116	100	151	67	100	87	130	60	90	78	117

"TOP BARS" ARE DEFINED AS ANY BAR WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR, SEE NOTE 4 IN TABLE NOTES.

COMPRESSION LAP SPLICE SCHEDULE	
LAP LENGTH (INCHES)	
f'c = 3,000 P.S.I. OR GREATER	
BAR SIZE	30 BAR DIA.
#3	12
#4	15
#5	19
#6	22
#7	26
#8	29
#9	33
#10	37
#11	41

TABLE NOTES:

A. TABLES ARE BASED A.C.I. 318. WHERE CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS AT LEAST 2 BAR DIAMETERS AND THE CLEAR COVER AT LEAST 1 BAR DIAMETER, USE CASE 1. USE CASE 2 FOR OTHER BAR ARRANGEMENTS.

B. ALL SPLICES TO BE CLASS "B" TENSION SPLICE UNLESS OTHERWISE NOTED.

C. SPLICE PLAIN WELDED WIRE FABRIC BY LAPPING ONE FULL MESH SPACE PLUS 2 INCHES.

D. FOR TOP BARS, MULTIPLY LENGTHS IN TABLE BY 1.3.

E. FOR EPOXY COATED REINFORCEMENT, MULTIPLY LENGTHS IN TABLE BY 1.5 FOR COVER LESS THAN 3db OR CLEAR SPACING LESS THAN 6db, MULTIPLY LENGTHS BY 1.2 FOR ALL OTHER EPOXY COATED REINFORCEMENT.

F. FOR LIGHT WEIGHT CONCRETE, MULTIPLY LENGTHS IN TABLE BY 1.3.

G. COMPRESSION DOWEL EMBEDMENT: 22 BAR DIAMETERS

H. COMPRESSION DOWEL EMBEDMENT: 22 BAR DIAMETERS.

CONCRETE NOTES (CONTINUED):

4. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED, IN ACCORDANCE WITH THE LATEST EDITION OF THE A.C.I. DETAILING MANUAL.

5. ALL REINFORCING SHALL BE SUPPORTED IN FORMS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH C.R.S.I. "REINFORCING BAR DETAILING", LATEST EDITION.

6. MINIMUM CONCRETE COVER, UNLESS NOTED OTHERWISE:

   A. UNFORMED SURFACE IN CONTACT WITH THE GROUND: 3 IN.

   B. FORMED SURFACES EXPOSED TO EARTH OR WEATHER: 1 1/2 IN. FOR #5 BAR OR SMALLER, 2 IN. FOR #6 BAR OR LARGER

   C. FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER: WALLS, SLABS: 3/4 IN., BEAMS, GIRDERS AND COLUMNS (TO TIES OR STIRRUPS): 1 1/2 IN.

7. ALL CONSTRUCTION JOINTS SHOWN ON DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE, UNLESS THEIR ELIMINATION IS APPROVED BY THE ENGINEER. ADDITIONAL CONSTRUCTION JOINTS, REQUIRED TO FACILITATE CONSTRUCTION, SHALL BE LOCATED AT POINTS OF MINIMUM SHEAR AND SHALL BE DETAILED ON SHOP DRAWINGS WITH LOCATIONS SUBJECT TO APPROVAL BY ENGINEER. REINFORCEMENT SHALL PASS CONTINUOUSLY THROUGH THE JOINT.

8. ALL ABUTTING CONCRETE MEMBERS SHALL BE DOWELED TOGETHER, UNLESS POURED MONOLITHICALLY. DOWELS SHALL BE EQUAL IN SIZE AND SPACING TO THE REINFORCING IN THE ADJACENT MEMBER.

9. UNLESS OTHERWISE SHOWN IN THE ARCHITECTURAL DRAWINGS, PROVIDE 3/4" CHAMFERS AT ALL EDGES THAT ARE EXPOSED TO VIEW IN THE FINISHED STRUCTURE.

10. SEE ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIP SLOTS, REGLETS, MASONRY ANCHORS, PRECAST BEARING LEDGES, BRICK LEDGE ELEVATIONS AND FOR MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGLES, ETC.

11. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES. WHERE FINISH IS NOT SPECIFIED, CONFORM TO REQUIREMENTS OF A.C.I. 301.

12. MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS SHALL BE REFERRED TO FOR DRAINS, SLEEVES, OUTLET BOXES, CONDUIT, ANCHORS, ETC. THE VARIOUS TRADES ARE RESPONSIBLE FOR PLACING THEIR ITEMS.

13. REFER TO MECHANICAL DRAWINGS FOR UNDERFLOOR AND PERIMETER FOUNDATION DRAINS.

14. BASE PLATES, ANCHOR BOLTS, SUPPORT ANGLES, ETC., BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 3" CONCRETE.

15. PROVIDE CONTINUOUS WATERSTOP AT HORIZONTAL AND VERTICAL JOINTS BELOW GRADE.

16. FILL SLABS INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE REINFORCED WITH 6x6- W1.4xW1.4 W.W.F., UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR PLAN DIMENSIONS, THICKNESSES, SLOPES TO DRAIN, ETC.

17. WHERE REINFORCING IS NOT INDICATED OR DEFINED, INCLUDE FOR BID PURPOSES ONLY:

   A. WALLS: #5 EACH WAY EACH FACE. SPACING IN INCHES = 140/(WALL THICKNESS IN INCHES) BUT NOT OVER 18" O.C.

   B. BEAMS: 1-#9 CONTINUOUS TOP AND BOTTOM FOR EACH 100 SQUARE INCHES OF BEAM CROSS SECTIONAL AREA AND #4 STIRRUPS SPACED AT 1/4 OF BEAM DEPTH FULL LENGTH OF BEAM.

   C. COLUMNS: 1-#9 VERTICAL PER 50 SQUARE INCHES OF CROSS SECTIONAL AREA AND #3 TIES @ 9"O.C.

   D. SLABS: #5 EACH WAY TOP AND BOTTOM. SPACING IN INCHES = 100/(SLAB THICKNESS IN INCHES) BUT NOT OVER 18" O.C.

   ON SHOP DRAWINGS, INDICTE ABOVE REINFORCING AS "PER GENERAL NOTES". SUCH REINFORCING MAY BE REVISED OR RELOCATED BY STRUCTURAL ENGINEER DURING SHOP DRAWING REVIEW.

18. MASONRY DOWELS: PROVIDE, PLACE, AND SPACE TO MATCH MASONRY REINFORCING.

19. PROVIDE STANDARD HOOKS ON BARS TERMINATING AT A CONCRETE FACE UNLESS NOTED (E.G.: EDGES OF OPENINGS, SLAB EDGES, EXPANSION JOINTS, ENDS OF BEAMS, AND AT: TOP, BOTTOM AND ENDS OF WALLS, ETC...).

20. PROVIDE 2-#5 (MINIMUM) @ EACH SIDE OF OPENING. EXTEND 2'-0" BEYOND OPENINGS.

SHEET LIST				
Sheet Number	Sheet Name	Sheet Issue Date	Progress	Current Revision
S001	NOTES	2/24/2025	100%	
S002	NOTES	2/24/2025	100%	
S003	SPECIAL INSPECTIONS	2/24/2025	100%	
S100	FOUNDATION	2/24/2025	100%	
S101	LOW ROOF FRAMING	2/24/2025	100%	
S102	HIGH ROOF PLAN	2/24/2025	100%	
S200	FOUNDATION DETAILS	2/24/2025	100%	
S201	FOUNDATION/FRAMING DETAILS	2/24/2025	100%	
S300	SECTIONS AND DETAILS	2/24/2025	100%	
S301	SECTIONS AND DETAILS	2/24/2025	100%	
S302	SECTIONS AND DETAILS	2/24/2025	100%	
S303	SECTIONS AND DETAILS	2/24/2025	100%	

BUILDING LOAD CRITERIA - SEISMIC LOADS		
SEISMIC PARAMETER & LOADING - (AS PER ASCE7-16 CHAPTER 11 & CHAPTER 12)		
ITEM	VALUE	
RISK CATEGORY	IV	
SEISMIC IMPORTANCE FACTOR, Ie	1.5	
PROCEDURE USED FOR DESIGN	EQUIVALENT LATERAL FORCE PROCEDURE	
THE MAPPED AND DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS & 1-SECOND PERIODD	Ss	0.217 g
	Sds	0.116 g
	S1	0.055 g
	Sd1	0.030 g
SITE CLASS	B	
SEISMIC DESIGN CATEGORY	A	
SEISMIC FORCE RESISTING SYSTEM	STEEL FRAME NOT SPECIFICALLY DESIGNED FOR SEISMIC RESISTANCE	
R	3	
SEISMIC BASE SHEAR	10 KIPS	

BUILDING LOAD CRITERIA - LIVE LOADS		
ITEM	VALUE	
ROOF	ROOF LIVE LOAD	20 PSF.
SECOND FLOOR	FLOOR LIVE LOAD+PARTITION	80 PSF.
CORRIDOR & PUBLIC	FLOOR LIVE LOAD	100 PSF.
STORAGE & ELECTRICAL ROOMS	FLOOR LIVE LOAD	100 PSF.
STAIR & ITS LANDING(S)	FLOOR LIVE LOAD	100 PSF.

BUILDING LOAD CRITERIA - WIND LOADS		
WIND PARAMETER & LOADING - MAIN WIND FORCE RESISTING SYSTEM (AS PER ASCE7-10 CHAPTER 27 - DIRECTIONAL PROCEDURE)		
ITEM	VALUE	
BASIC WIIND GUST 3S SPEED (ULTIMATE)	125 MPH	
BASIC WIND GUST 3S SPEED (ASD)	99 MPH	
EXPOSURE	B	
Kd	0.85	
Kzt	1	
HORIZONTAL PRESSURE ON WALLS	PARAPET	64 PSF
	WIND IN PLAN WEST-EAST DIRECTIONS	+/- 31 PSF
	WIND IN PLAN NORTH-SOUTH DIRECTIONS	+/- 31 PSF
WIND SHEAR IN DIAPHRAGMS IN PLAN WEST-EAS...	30 KIPS	
WIND SHEAR IN DIAPHRAGMS IN PLAN...	50 KIPS	

BUILDING LOAD CRITERIA - SNOW LOADS		
SNOW LOAD (AS PER ASCE7-16 CHAPTER 7)		
ITEM	VALUE	REFERENCE
RISK CATEGORY	IV	TABLE 1.5-1
IMPORTANCE FACTOR, Is	1.2	TABLE 1.5-2
GROUND SNOW LOAD	40 PSF	
SNOW DENSITY	19.2 PCF	EQ. 7.7-1
EXPOSURE FACTOR, Ce	1.0 (PARTIALLY EXPOSED)	TABLE 7-2
THERMAL FACTOR, Ct	1.0	TABLE 7-3
FLAT ROOF SNOW LOAD, Pf	35 PSF	SECTION 7.3
ROOF SLOPE FACTOR, Cs...	1.0 (ALL OTHER SURFACES)	FIGURE 7-2a
SLOPED ROOF SNOW LOAD. Ps	35 PSF	SECTION 7.4
SLOPED ROOF SNOW HEIGHT...	N/A	SECTION 7.6.2
UNBALANCED SNOW	NOT APPLIED	
DRIFT	SEE ROOF PLAN	
SLIDING SNOW	NOT APPLIED	

BUILDING LOAD CRITERIA - DEAD LOADS		
ITEM	MAXIMUM UNIFORMLY DISTRIBUTED LOAD...	
ROOF	ROOFING	3 PSF
	INSULATION	3 PSF
	ROOF SHEATHING	3 PSF
	MEP	2 PSF
	FRAMING	5 PSF
	CEILING	4 PSF
	TOTAL ROOF DEAD LOAD	20 PSF
2ND FLOOR	FLOOR FINISH	1 PSF
	ELEVATED SLAB	60 PSF
	FRAMING	5 PSF
	MEP	2 PSF
	CEILING	2 PSF
	TOTAL FLOOR DEAD LOAD	70 PSF
STAIR & LANDING	TOTAL STAIR & LANDING DEAD LOAD	50 PSF

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REVISIONS:

NUM.	DATE	DESCRIPTION

100% BID DOCUMENTS

PROJECT

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Drawing: NOTES

STATE OF NEW YORK • VINCENT A GRIFFIN • LICENSED PROFESSIONAL ENGINEER • 096942

Project: 23321 Date: 2/24/2025
Drawn: Author Scale: AS NOTED
Drawing Number: S001

METAL ROOF DECK:

1. METAL ROOF DECK SHALL COMPLY WITH THE REQUIREMENTS OF THE STEEL DECK INSTITUTE PROJECT SPECIFICATIONS SEE PLANS FOR DECK TYPES AND GAUGES.
2. METAL ROOF DECK HAS BEEN DESIGNED TO FUNCTION AS A DIAPHRAGM FOR THE TRANSMISSION OF LATERAL LOADS.
3. LAP DECK 4" MINIMUM AT SPLICES CENTERED ON SUPPORT.
4. DO NOT SUSPEND POINT LOADS FROM DECK INCLUDING HANGERS FOR: CEILINGS, PIPES, DUCTS, EQUIPMENT, ETC.. CONTRACTOR INSTALLING SUCH POINT LOADS SHALL PROVIDE SUB-FRAMING TO TRANSFER LOAD TO STRUCTURE SUPPORTING DECK.
5. FABRICATE DECK UNITS IN LENGTHS TO SPAN THREE OR MORE SUPPORT SPACINGS.
6. MINIMUM YIELD STRENGTH = 80 K.S.I.
7. METAL DECK SHALL BE ROLLED OF STEEL SHEETS CONFORMING TO A.S.T.M. A653 GRADE A.
8. DECKING MANUFACTURER SHALL COORDINATE SIZE AND LOCATION OF ROOF OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. PROVIDE FRAMING FOR OPENINGS PER TYPICAL DETAILS.

FOUNDATIONS:

DESIGN:

1. THE FOUNDATION HAS BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE "SOILS AND FOUNDATION INVESTIGATION" BY KEVIN L. PATTON.
2. BACKFILLING:
   - A. DO NOT BACKFILL BASEMENT WALLS AND GRADE BEAMS UNTIL BRACING FLOORS ARE IN PLACE OR ADEQUATE TEMPORARY BRACING IS INSTALLED.
   - B. WHERE FOUNDATION WALLS ARE TO HAVE EARTH PLACED ON EACH SIDE, PLACE FILL SIMULTANEOUSLY SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF THE WALL.
   - C. BACKFILL UNDER FOUNDATIONS WITH CONCRETE OR AS APPROVED BY GEOTECHNICAL ENGINEER.

SPREAD FOOTINGS:

1. FOOTINGS SHALL BEAR ON APPROVED COMPACTED FILL CAPABLE OF SUSTAINING A NET BEARING PRESSURE OF 3.0 K.S.F. UNDER FULL SERVICE LIVE AND DEAD LOAD.
2. TOP OF FOOTING (T/F) ELEVATIONS ARE SHOWN ON THE PLANS.
3. FOOTINGS SHALL NOT BE POURED INTO AN EARTH-FORMED TRENCH U.N.O..
4. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT. THE GEOTECHNICAL ENGINEER SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.
5. BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 48" BELOW FINAL GRADE FOR FROST PROTECTION.
6. SLIDING RESISTANCE (ALLOWABLE LOADS):
   - A. COEFFICIENT OF SLIDING FRICTION = 0.35
   - B. PASSIVE PRESSURE = 200 P.S.F./FT
7. SLAB-ON-GRADE HAVE BEEN DESIGNED USING A SUBGRADE MODULUS OF 175 P.C.I.

STEEL JOISTS:

1. STEEL JOISTS SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH "S.J.I." SPECIFICATIONS (LATEST EDITION).
2. BRIDGING SHALL BE SPACED IN ACCORDANCE WITH S.J.I. SPECIFICATIONS AND THE ERECTION DRAWINGS OF THE JOIST SUPPLIER. STEEL JOIST BRIDGING SHALL BE PLACED AND JOIST ENDS FIXED PRIOR TO THE APPLICATION OF ANY LOADS. JOIST SUPPLIER SHALL PROVIDE ALL BRIDGING NECESSARY TO ADEQUATELY BRACE THE JOIST TOP CHORD WHERE ROOF CONSTRUCTION IS INSUFFICIENT.
3. MINIMUM BEARING REQUIREMENTS, UNLESS NOTED OTHERWISE:

   K SERIES: 2 1/2" ON STRUCTURAL STEEL, 4" ON CONCRETE OR MASONRY
   LH AND DLH SERIES: 4" ON STRUCTURAL STEEL, 6" ON CONCRETE, OR MASONRY

4. UNLESS NOTED OTHERWISE, JOISTS SHALL BE ATTACHED TO SUPPORTING STEEL WORK AT MINIMUM AS FOLLOWS:

   K / KCS / E SERIES: TWO 1/8" FILLET WELDS (ONE EACH SIDE) 2 1/2" LONG OR EQUIVALENT.
   LH SERIES (TOP CHORD ANGLE LEG LESS THAN OR EQUAL TO 2 1/2"): TWO 3/16" FILLET WELDS (ONE EACH SIDE) 1/2" LONG OR EQUIVALENT.
   LH / DLH SERIES (TOP CHORD ANGLE LEG LESS THAN OR EQUAL TO 3 1/2"): TWO 1/4" FILLET WELDS (ONE EACH SIDE) 2 1/2" LONG OR EQUIVALENT.
   LH / DLH SERIES (TOP CHORD ANGLE LEG GREATER THAN THAN OR EQUAL TO 4"): TWO 1/4" FILLET WELDS (ONE EACH SIDE) 4" LONG OR EQUIVALENT.
   JOIST GIRDERS: TWO 5/16" FILLET WELDS (ONE EACH SIDE) 4" LONG OR EQUIVALENT.

5. JOISTS, AT COLUMN CENTERLINES, SHALL BE BOLTED TO STRUCTURAL STEEL BEAMS PER S.J.I. REQUIREMENTS.
6. SEE DETAILS ON STRUCTURAL DRAWINGS FOR ATTACHMENT OF JOISTS TO CONCRETE AND MASONRY.
7. BRIDGING THAT TERMINATES AT, OR IS INTERRUPTED BY, STRUCTURAL STEEL BEAMS, SHALL BE ATTACHED THERETO BY FIELD WELDING OR BOLTING. SEE DRAWINGS FOR DETAIL OF ATTACHMENT OF BRIDGING TO CONCRETE OR MASONRY.
8. JOISTS SHALL BE STOCKPILED AT THE JOBSITE IN A VERTICAL POSITION, RESTING ON THEIR TOP OR BOTTOM CHORDS, AND SHALL BE ADEQUATELY SUPPORTED WITH WOOD BLOCKING. KEEP JOISTS FREE OF MUD AND DIRT.
9. IT SHALL BE THE ERECTOR'S RESPONSIBILITY TO SEE THAT JOISTS WHICH ARE DAMAGED, KINKED, BENT, OR WITH BROKEN WELDS, ARE NOT PLACED IN THE STRUCTURE.
10. JOIST SUPPLIER SHALL DESIGN JOISTS AND SUBMIT CALCULATIONS, STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT FOR RECORD COPY TO BUILDING DEPARTMENT AND ENGINEER OF RECORD PRIOR TO FABRICATION OF JOISTS. THE ABOVE CALCULATIONS TO INCLUDE ALL LOADING CONDITIONS SHOWN ON THE DRAWINGS AND DETAILS.
11. JOIST ENDS, AT ROOF DIAPHRAGM BOUNDARIES, SHALL BE CAPABLE OF TRANSMITTING THE BOUNDARY SHEAR TO THE SUPPORTING STRUCTURE. SEE DETAILS.
12. THE JOIST DESIGN AND BRIDGING PLACEMENT SHALL BE CHECKED BY THE JOIST MANUFACTURER USING THE NET UPLIFT SPECIFIED ON THE DRAWINGS. CHANGES IN JOIST SIZE AND/OR BRIDGING PLACEMENT WILL SHOW UP ON THE SHOP DRAWINGS.
13. LOCATE PIPE AND EQUIPMENT HANGERS AND OTHER CONCENTRATED LOADS ONLY WHERE LOADS ARE SHOWN ON JOIST SHOP DRAWINGS. ATTACHMENT METHOD AS APPROVED BY JOIST MANUFACTURER.
14. ALL HOLES IN SUPPORTING STEEL PROVIDED FOR JOIST ERECTION SHALL BE "FILLED" WITH APPROPRIATE DIAMETER BOLT OR PLUG WELDED. HOLES IN SUPPORTING STEEL SHALL NOT BE SLOTTED.

REINFORCED MASONRY:

1. NOTES APPLY TO MASONRY SHOWN ON STRUCTURAL DRAWINGS AND SHALL BE THE MINIMUM REQUIREMENTS FOR MASONRY SHOWN ON THE ARCHITECTURAL DRAWINGS.
2. CONCRETE MASONRY:
   - A. COMPRESSIVE STRENGTH OF MASONRY, PRISM STRENGTH F'm = 1500 P.S.I.
   - B. CONCRETE MASONRY UNITS:

     A.S.T.M. C90
     NORMAL WEIGHT (135 P.C.F.), 2 CELL UNITS

   - C. GROUT:

     A.S.T.M. C476
     STRENGTH AT 28 DAYS = 100% OF F'm, 2500 P.S.I. MINIMUM

   - D. MORTAR:

     A.S.T.M. C270
     TYPE - M, AT EXTERIOR WALLS BELOW GRADE, HYDRATED LIME REQUIRED
     TYPE - M OR S, AT EXTERIOR WALLS ABOVE GRADE, HYDRATED LIME REQUIRED
     TYPE - S, AT INTERIOR WALLS, HYDRATED LIME REQUIRED

3. REINFORCED MASONRY REQUIRES CONTINUOUS SPECIAL INSPECTION - SEE SPECIFICATIONS AND SPECIAL INSPECTION TABLES.
4. REINFORCING: BARS SHALL CONFORM TO A.S.T.M. A615, GRADE 60, UNLESS NOTED ON DRAWINGS. WIRES SHALL CONFORM TO A.S.T.M. A951
5. DOWELS FROM C.I.P. CONCRETE SHALL MATCH THE VERTICAL REINFORCEMENT IN THE WALL ABOVE UNLESS NOTED OTHERWISE. SUCH DOWELS SHALL BE FURNISHED BY THE CONCRETE CONTRACTOR.
6. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN 6 VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING.
7. SPLICED REINFORCING SHALL BE LAPPED 48 BAR DIAMETERS OR 24", WHICHEVER IS GREATER. SPLICED BARS SHALL BE WIRED TOGETHER. ***GENERATE NEW LAPS BASED ON ACI 530-08 (EQ2-12) AND NEWER, USE I'M AND OTHER PROJECT REQUIREMENTS.
8. VERTICAL BARS SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 DIAMETERS OF THE REINFORCING.
9. VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEARANCE OF 3/4" FROM THE MASONRY OR ADJACENT BARS AND NOT LESS THAN ONE BAR DIAMETER BETWEEN BARS NOT SPLICED.
10. VERTICAL GROUTING MAY BE EITHER "LOW LIFT" OR "HIGH LIFT" AT THE CONTRACTOR'S OPTION.
11. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 2" x 3".
12. GROUTING SHALL BE STOPPED 1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.
13. GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
14. ALL BOLTS, ANCHORS, ETC., INSERTED IN THE WALLS, SHALL BE GROUTED SOLID INTO POSITION.
15. ALL HORIZONTAL REINFORCING (JOINT REINFORCING AND REBAR) SHALL STOP AT CONTROL JOINTS.
16. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DETAILS OF DOOR AND WINDOW OPENINGS FOR SPECIAL COURSING AND OTHER MASONRY DETAILS. THE INFORMATION SHOWN ON THE STRUCTURAL DRAWINGS IS INTENDED TO DEFINE THE STRUCTURAL REQUIREMENT ONLY.
17. MINIMUM WALL REINFORCING UNLESS NOTED OTHERWISE:

NOMINAL WALL THICKNESS	VERTICAL REINFORCING	HORIZONTAL JOINT REINFORCING	BOND BEAM REINFORCING
8"	#5@24"O.C. MID.	9 GA. E.F. @ 16"O.C.	2-#5

   PROVIDE BOND BEAMS AT: BASE OF WALL, SILL LINES, BOTTOM EDGE OF OPENINGS (EXTEND MINIMUM OF 2'-0" PAST OPENING), TOP OF WALLS, FLOOR LINES, ROOF LINES, TOP OF PARAPETS, AND AT 10'-0"O.C. MAXIMUM BETWEEN. BOND BEAM SHALL BE CONTINUOUS UNLESS NOTED OTHERWISE.

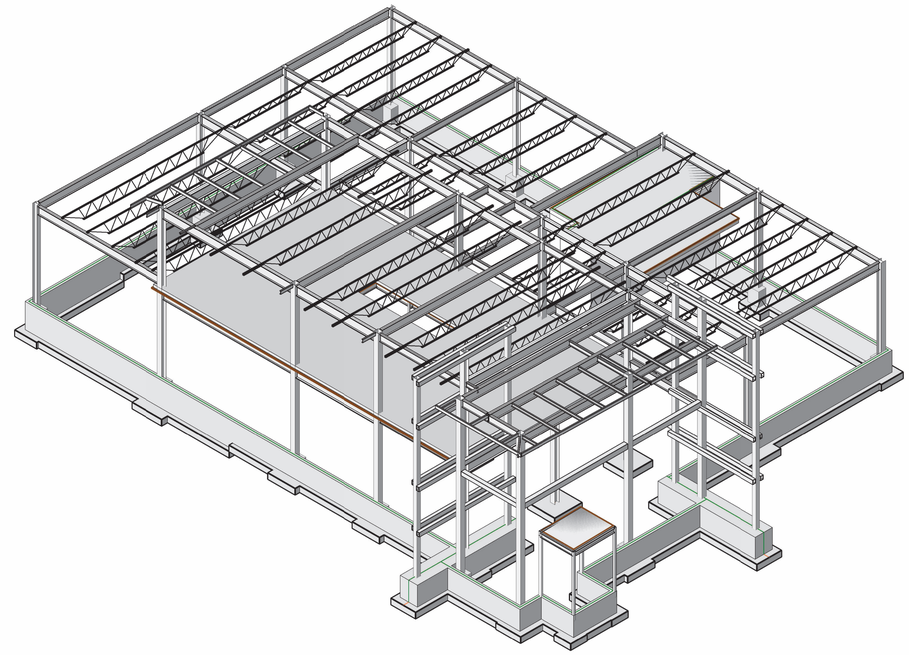
   HORIZONTAL JOINT REINFORCING: WIRE LADDER TYPE @ 16"O.C., UNLESS NOTED OTHERWISE. PROVIDE HORIZONTAL JOINT REINFORCING @ 8"O.C. AT STACK BOND LOCATIONS.

   SEE TYPICAL DETAILS FOR LINTEL SCHEDULE OVER OPENINGS.

18. PROVIDE VERTICAL WALL REINFORCING, SAME SIZE AS ADJACENT BAR, AT: CORNERS, ENDS, JAMBS, EACH SIDE OF OPENING, AND EACH SIDE OF CONTROL AND EXPANSION JOINTS.
19. CONTINUE VERTICAL REINFORCING FLOOR TO FLOOR (OR ROOF) AND EXTEND TO TOP OF PARAPET.
20. CONTINUE REINFORCING THROUGH CONSTRUCTION JOINTS, AND AROUND CORNERS UNLESS NOTED OTHERWISE.
21. PROVIDE STANDARD HOOKS ON BARS TERMINATING INTO MASONRY FACE: IN WALLS AT OPENINGS, HEADS, JAMBS, EXPANSION JOINTS, ENDS; IN BEAMS AT TOP, BOTTOM, AND ENDS
22. SPLICE CONTINUOUS TOP BARS AT MID SPAN AND BOTTOM BARS OVER SUPPORT. SPLICE VERTICAL REINFORCING AT FLOOR OR ROOF LINES.
23. COORDINATE BLOCK-OUTS, REVEALS, HOLES, OPENINGS, AND BUILT IN ITEMS WITH ALL CONTRACT DOCUMENTS AND TRADES.
24. GROUT CELLS SOLID AT: REINFORCING, BOND BEAMS, INSERTS, ANCHORS, ELEVATOR GUIDE RAILS, AND 24" BELOW BEARING POINT OF STEEL SECTIONS AND 12" TO EACH SIDE.
25. PROVIDE SHOP DRAWINGS WITH WALL ELEVATIONS SHOWING REINFORCING, OPENINGS, AND POCKETS.
26. ALL BEAMS BEARING ON MASONRY SHALL BEAR ON 1/2"x 6 1/2"x 1'-4" BEARING PLATE w/ (2) 1/2" DIA. x 5" LG. HEADED STUDS U.N.O. PROVIDE 2" DIA. HOLE IN BEARING PLATES - VIBRATE GROUT AFTER PLACEMENT OF PLATE. WELD BEAM TO BEARING PLATE w/ 1/4" x 2" LONG FILLET WELD EACH SIDE.

DEFERRED SUBMITTALS:

1. THE FOLLOWING PROJECT COMPONENTS REQUIRE DESIGN TO BE PROVIDED BY A QUALIFIED PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF THE PROJECT:
   - A. CONNECTION DESIGN FOR BRACED FRAMES, MOMENT CONNECTIONS, COLLECTOR BEAMS AND TYPICAL SHEAR CONNECTIONS.
   - B. STEEL STAIR CALCULATIONS AND DETAILS.
   - C. STEEL LADDER CALCULATIONS AND DETAILS.
   - D. PREFABRICATED METAL BUILDING DESIGN AND CALCULATIONS FOR CANOPIES.
   - E. STEEL JOIST AND JOIST GIRDER CALCULATIONS AND DESIGN.



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MISCELLANEOUS:

1. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
2. NO OPENING SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
3. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
4. OPENINGS 1'-4" AND LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH OPENINGS.
5. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
6. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.
7. UNLESS OTHERWISE NOTED, FIRE PROOFING METHODS AND MATERIALS FOR STRUCTURAL MEMBERS ARE NOT SHOWN ON STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR FIRE RATING REQUIREMENTS, FIRE PROOFING METHODS AND MATERIALS.
8. DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.
9. CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD. EXPANSION JOINTS SHOWN ON THE DRAWINGS HAVE BEEN DESIGNED TO ACCOMMODATE ANTICIPATED THERMAL MOVEMENT AFTER THE BUILDING IS COMPLETE.
10. THE CONTRACTOR SHALL INFORM THE ARCHITECT IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY FOR SUCH DEVIATION BY THE ARCHITECTS APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS HE HAS SPECIFICALLY INFORMED THE ARCHITECT OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
11. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS, OR AMBIGUITIES, IN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. PLANS AND/OR SPECIFICATIONS WILL BE CORRECTED, OR WRITTEN INTERPRETATION OF THE ALLEGED DEFICIENCY, OMISSION, CONTRADICTION OR AMBIGUITY WILL BE MADE BY THE ARCHITECT BEFORE THE AFFECTED WORK PROCEEDS.
12. CHECK ALL DIMENSIONS AGAINST REQUIREMENTS OF OTHER CONTRACT DOCUMENTS. FIELD VERIFY DIMENSIONS RELATING TO EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS AND FABRICATION.
13. WHERE DIMENSIONS OR WEIGHTS OF EQUIPMENT OR SYSTEMS ARE VARIABLE FROM MANUFACTURER TO MANUFACTURER, VERIFY DIMENSIONS AND WEIGHTS SHOWN ON DRAWINGS WITH SELECTED MANUFACTURER PRIOR TO ORDERING MATERIALS. NOTIFY STRUCTURAL ENGINEER OF DISCREPANCIES.
14. DO NOT PLACE EQUIPMENT WHEN SHIPPING OR OPERATING WEIGHT EXCEEDS WEIGHT INDICATED ON STRUCTURAL DRAWINGS.
15. NO MODIFICATION, ALTERATION OR REPAIR SHALL BE MADE WITHOUT PRIOR REVIEW BY STRUCTURAL ENGINEER. SUBMIT DETAILS AND CALCULATIONS PREPARED BY A PROFESSIONAL ENGINEER REGISTERED IN STATE WHERE PROJECT IS LOCATED AND EMPLOYED BY CONTRACTORS.
16. VERIFY ELEVATOR AND ESCALATOR PIT DIMENSIONS, LOCATIONS, LOADINGS AND DETAILS WITH SUPPLIERS PRIOR TO THE FABRICATION AND/OR INSTALLATION OF ANY MATERIAL.

EDPONS ASSOCIATES, P.C. | STRUCTURAL ENGINEERS
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REVISIONS:

NUM.	DATE	DESCRIPTION

100% BID DOCUMENTS

PROJECT

KEY PLAN WORK AREA

ADG ARCHITECTS
25 WALLKILL AVE • MONTGOMERY • NY 12549
O. 845.294.2724 | F. 888.305.6442
WWW.ADGARCHITECT.COM
CONTACT@ADGARCHITECT.COM
ARCHITECTURE • PLANNING • INTERIORS

Project: POLICE STATION
TOWN OF MONTGOMERY, ORANGE COUNTY, NEW YORK

Drawing: NOTES

STATE OF NEW YORK • VINCENT A GRIFFIN • 096942 • LICENSED PROFESSIONAL ENGINEER

Project: 23321	Date: 2/24/2025
Drawn: Author	Scale: AS NOTED

Drawing Number: S002

A. A. SPECIAL INSPECTION

a. SPECIAL INSPECTION WILL BE IN ACCORDANCE WITH 2020 BUILDING CODE OF NEW YORK STATE (IBC 2018).

b. SPECIAL INSPECTION IS REQUIRED OF MATERIALS, INSTALLATION, FABRICATION, ERECTION OR PLACEMENT OF COMPONENTS AND CONNECTIONS REQUIRING SPECIAL EXPERTISE TO ENSURE COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS.

c. COORDINATE SCHEDULES WITH THE AGENCYPERFORMING SPECIAL INSPECTIONS TO INSURE AMPLE TIME IS AVAILABLE TO PERFORM THE REQUIRED TASKS.

d. THE SPECIAL INSPECTOR SHALL PROVIDE REPORTS TO THE LOCAL BUILDING OFFICIAL, REGISTERED DESIGN PROFESSIONAL IN CHARGE, AND THE OWNER'S DESIGNATED REPRESENTATIVE. THESE REPORTS MUST BE IN COMPLIANCE WITH THE 2020 BUILDING CODE OF NEW YORK STATE / IBC 2018. THE SPECIAL INSPECTOR SHALL IMMEDIATELY NOTIFY THE CONTRACTOR IN WRITING OF NON-CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS, 2020 NYSBC / IBC 2018, OR OTHER VIOLATIONS OF THE APPLICABLE REFERENCED MATERIAL STANDARDS IN THE 2020 NYSBC / IBC 2018 WITHIN THE SCOPE OF THE SPECIAL INSPECTION REQUIREMENTS.

e. THE SPECIAL INSPECTION AGENCY SHALL SUBMIT A FINAL REPORT TO THE BUILDING OFFICIAL, REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, AND OWNER'S REPRESENTATIVE STATING WHETHER WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED, REPORTED, AND FOUND TO BE IN COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS, 2020 NYSBC / IBC 2018, AND THE APPLICABLE REFERENCED MATERIAL STANDARDS IN THE 2020 NYSBC / IBC 2018 CODE. FINAL REPORTS SHALL CATALOG ALL INSPECTION, TESTING, AND RELATED ENGINEER SIGNED REPORTS.

B. STRUCTURAL OBSERVATION

a. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM BY A REGISTERED DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. THESE OBSERVATIONS DO NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTION AS DEFINED BY SPECIAL INSPECTION.

b. THE STRUCTURAL OBSERVER IS NOT INSPECTING FOR OSHA COMPLIANCE AND TEMPORARY CONSTRUCTION, SUCH AS BRACING, SHORING, MEANS AND METHODS, ETC.

C. COMMENTS:

a. PERIODIC SPECIAL INSPECTION: THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF WORK. (2020 NYSBC / IBC 2018)

b. CONTINUOUS SPECIAL INSPECTION: THE FULLTIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE WORK IS BEING PERFORMED. (2020 NYSBC / IBC 2018)

c. ITEMS NOT SHOWN MAY REQUIRE CONTINUOUS OR PERIODIC SPECIAL STRUCTURAL INSPECTION AT THE DISCRETION OF THE PROJECT MANAGER. ITEMS LISTED MAY REQUIRE ALTERNATE FREQUENCIES OF INSPECTION OTHER THAN SHOWN.

d. WELDING OF REINFORCING STEEL IS NOT ACCEPTABLE UNLESS DIRECTED BY THE ENGINEER OF RECORD.

SPECIAL INSPECTION:

THE FOLLOWING STRUCTURAL ELEMENTS OF CONSTRUCTION SHALL REQUIRE SPECIAL INSPECTION PER N.Y.B.C. SECTION 1704. OWNER TO FURNISH INSPECTION UNLESS INSTRUCTED OTHERWISE BY THE CONSTRUCTION CONTRACT.

NOTES:

1. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A COUNTY INSPECTOR. SPECIALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE COUNTY INSPECTOR IS SUBJECT TO REMOVAL OR EXPOSURE.
2. THE SPECIAL INSPECTORS MUST BE CERTIFIED BY THE COUNTY TO PERFORM THE TYPES OF INSPECTION SPECIFIED.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. ANY WORK PERFORMED WITHOUT REQUIRED SPECIAL INSPECTION IS SUBJECT TO REMOVAL.
4. SUBMIT WRITTEN REPORTS WITHIN TWO DAYS OF TESTING TO ARCHITECT, ENGINEER OF RECORD AND BUILDING OFFICIAL.

MINIMUM QUALIFICATIONS FOR SPECIAL INSPECTORS

REINFORCED CONCRETE	1. CURRENT ICC REINFORCED CONCRETE SPECIAL INSPECTOR OR ACI CONCRETE CONSTRUCTION INSPECTOR. 2. CONCRETE FIELD TESTING CAN BE BY AN ACI CONCRETE FIELD TESTING TECHNICIAN WITH GRADE 1 CERTIFICATION. 3. ENGINEER-IN-TRAINING (EIT) WITH RELEVANT EXPERIENCE. 4. PENNSYLVANIA STATE LICENSED PROFESSIONAL ENGINEER (P.E.) WITH RELEVANT EXPERIENCE.
WELDING	1. CURRENT AWS CERTIFIED WELDING INSPECTOR. 2. CURRENT ICC STRUCTURAL STEEL AND WELDING CERTIFICATE PLUS ONE YEAR OF RELEVANT EXPERIENCE. 3. CURRENT LEVEL II CERTIFICATION FROM THE AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING (NDT). 4. CURRENT NDT LEVEL III PROVIDED PREVIOUSLY CERTIFIED AS NDT LEVEL II.
HIGH-STRENGTH BOLTING & STEEL FRAME INSPECTION	1. CURRENT ICC STRUCTURAL STEEL AND WELDING CERTIFICATION AND ONE YEAR OF RELEVANT EXPERIENCE. 2. EIT WITH RELEVANT EXPERIENCE. 3. P.E. WITH RELEVANT EXPERIENCE.
MASONRY	1. CURRENT ICC STRUCTURAL MASONRY CERTIFICATION AND ONE YEAR OF RELEVANT EXPERIENCE. 2. EIT WITH RELEVANT EXPERIENCE. 3. P.E. WITH RELEVANT EXPERIENCE.
EXCAVATION AND FILLING; VERIFICATION OF SOILS;	1. CURRENT LEVEL II CERTIFICATION IN GEOTECHNICAL ENGINEERING TECHNOLOGY/CONSTRUCTION FROM THE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET). 2. EIT WITH RELEVANT EXPERIENCE. 3. P.E. WITH RELEVANT EXPERIENCE.
INSPECTION OF FABRICATORS	1. BAR JOIST: SEE WELDING REQUIREMENTS. 2. STRUCTURAL STEEL: SEE WELDING REQUIREMENTS
EXTERIOR AND INTERIOR ARCHITECTURAL WALL PANELS	1. P.E. WITH RELEVANT EXPERIENCE. 2. EIT WITH RELEVANT EXPERIENCE. 3. SEE THE MASONRY REQUIREMENTS FOR THE SI OF MASONRY VENEERS SUBJECT TO BCNYS SECTION 1704.10.
EXTERIOR INSULATION AND FINISH SYSTEM	1. REGISTERED DESIGN PROFESSIONAL (RDP) WITH RELEVANT EXPERIENCE. 2. EIT WITH RELEVANT EXPERIENCE
SMOKE CONTROL	1. THE RDP RESPONSIBLE FOR DESIGN.
SEISMIC RESISTANCE	1. SEE THE APPLICABLE CATEGORIES IN THIS TABLE.

SOILS INSPECTIONS AND VERIFICATION		FREQUENCY	
		CONTINUOUS	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 CONTROLLED FILL MATERIALS.	-	X
4.	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	X	-
5.	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

FOUNDATION INSPECTIONS AND VERIFICATION SOILS - TABLE 1704.7		FREQUENCY	
		CONTINUOUS	PERIODIC
1.	VERIFY SUBGRADE MATERIALS BELOW THE FOOTING FOR DESIGN BEARING CAPACITY.		X
2.	VERIFY DEPTH OF EXCAVATION AND TYPE OF SUBGRADE MATERIALS REACHED.		X
3.	PERFORM CLASSIFICATION AND COMPACTION TESTING OF CONTROLLED BACKFILL MATERIALS.		X
4.	VERIFY MATERIALS USED, LAYERED THICKNESSES AND COMPACTION OF BACK FILLS.	X	
5.	VERIFY THE SUBGRADE AND SITE PREPARATIONS FOR CONTROLLED FILL.		X
6.	COMPLIANCE WITH REQUIRED PROVISIONS OF THE GEOTECHNICAL REPORT AND CONSTRUCTION DOCUMENTS.		X

CONCRETE INSPECTIONS AND VERIFICATION (TABLE 1704.4)		FREQUENCY	
		CONTINUOUS	PERIODIC
1.	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.		X
2.	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE FOR STRUCTURAL STEEL INSPECTION, ITEM 5B.	X	
3.	INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.	X	
4.	VERIFYING USE OF REQUIRED DESIGN MIX.		X
5.	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	
6.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	
7.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X
8.	ERECTION OF PRECAST CONCRETE MEMBERS.		X
9.	VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.		X
10.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		X
	ERECTION OF PRECAST CONCRETE MEMBERS.		
11.	VERIFY SUBMITTAL OF CERTIFIED MILL TEST REPORTS FOR EACH SHIPMENT OF REINFORCING STEEL USED TO RESIST FLEXURAL, SHEAR AND AXIAL FORCES IN REINFORCED CONCRETE INTERMEDIATE FRAMES, SPECIAL MOMENT FRAMES AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE OR REINFORCED MASONRY SHEAR WALLS.		X
12.	TEST ASTM A 615 REINFORCING STEEL IS USED TO RESIST EARTHQUAKE INDUCED FLEXURAL AND AXIAL FORCES IN SPECIAL MOMENT FRAMES AND IN WALL BOUNDARY ELEMENTS OF SHEAR WALLS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F, PER ACI 318.		X
13.	TEST ASTM A 615 REINFORCING STEEL THAT IS TO BE WELDED, CHEMICAL TESTS SHALL BE PERFORMED TO DETERMINE WELDABILITY IN ACCORDANCE WITH SECTION 3.5.2 OF ACI 318		X
14.	INSTALLATION OF (CHEMICAL / EPOXY) ADHESIVE ANCHORS, RODS AND DOWELS	X	
15.	INSTALLATION AND TORQUE TESTING EXPANSION ANCHORS	X	

STRUCTURAL STEEL INSPECTIONS AND VERIFICATION (TABLE 1704.3)		FREQUENCY	
		CONTINUOUS	PERIODIC
1.	MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:		
	a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.		X
	b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.		X
2.	INSPECTION OF HIGH-2. STRENGTH BOLTING:		
	a. BEARING-TYPE CONNECTIONS. (SNUG TIGHT JOINTS)		X
	b. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.		X
	c. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	
3.	MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD - FORMED DECK		
	a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.		X
	b. MANUFACTURERS' CERTIFIED MILL TEST REPORTS.		X
4.	MATERIAL VERIFICATION OF WELD FILLER MATERIALS:		
	a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.		X
	b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.		X
5.	INSPECTION OF WELDING:		
	a. STRUCTURAL STEEL AND COLD - FORMED STEEL DECK		
	1.) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.	X	
	2.) MULTI-PASS FILLET WELDS.	X	
	3.) SINGLE-PASS FILLET WELDS > 5/16"	X	
	4.) SINGLE-PASS FILLET WELDS ≤ 5/16"		X
	5.) FLOOR AND ROOF DECK WELDS.		X
	6.) WELDED STUDS WHEN USED FOR STRUCTURAL DIAPHRAGM.		X
	7.) WELDED SHEET STEEL FOR COLD-FORMED STEEL MEMBERS.		X
	8.) WELDING OF STAIRS AND RAILING SYSTEM.		X
	b. REINFORCING STEEL:		
	1.) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.		X
	2.) REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.	X	
	3.) SHEAR REINFORCEMENT.	X	
	4.) OTHER REINFORCING STEEL.		X
6.	INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS:		
	a. DETAILS SUCH AS BRACING AND STIFFENING.		X
	b. MEMBER LOCATIONS.		X
	c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.		X
7.	INSPECTION OF FABRICATORS: REVIEW PLANT OPERATIONS AND QUALITY CONTROL PROCEDURES.		
8.	INSPECTION OF FLOOR AND ROOF DECK ATTACHMENT.		X
9.	INSPECTION OF STEEL JOIST AND JOIST GIRDER INSTALLATION AND ATTACHMENT TO SUPPORTS, INCLUDING BRIDGING AND ACCESSORIES.		X
10.	COMPLIANCE WITH CONSTRUCTION DOCUMENTS AND APPROVED SUBMITTALS SHALL BE VERIFIED WITH SETS USED IN THE FIELD.		
	INSPECTION OF FLOOR AND ROOF DECK ATTACHMENT.		
11.	THE TESTING SHALL BE AS REQUIRED BY AISC 341.	-	-
12.	BASE METAL THICKER THAN 1.5 INCHES (38 MM), WHERE SUBJECT TO THROUGH-THICKNESS WELD SHRINKAGE STRAINS, SHALL BE ULTRASONICALLY TESTED FOR DISCONTINUITIES BEHIND AND ADJACENT TO SUCH WELDS AFTER JOINT COMPLETION.	-	-
13.	THE ACCEPTANCE CRITERIA FOR NONDESTRUCTIVE TESTING SHALL BE AS REQUIRED IN AWS D1.1 **AS SPECIFIED BY THE REGISTERED DESIGN PROFESSIONA**L. ANY MATERIAL DISCONTINUITIES SHALL BE ACCEPTED OR REJECTED ON THE BASIS OF ASTM A 435 OR ASTM A 898 (LEVEL 1 CRITERIA) AND CRITERIA AS ESTABLISHED BY THE REGISTERED DESIGN PROFESSIONAL(S) IN RESPONSIBLE CHARGE AND THE CONSTRUCTION DOCUMENTS.		
14.	CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR STRUCTURAL WELDING IN ACCORDANCE WITH AISC 341.	X	

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REVISIONS:

NUM.	DATE	DESCRIPTION

100% **BID DOCUMENTS**

PROJECT

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Project: POLICE STATION
TOWN OF MONTGOMERY, ORANGE COUNTY, NEW YORK

Drawing: SPECIAL INSPECTIONS

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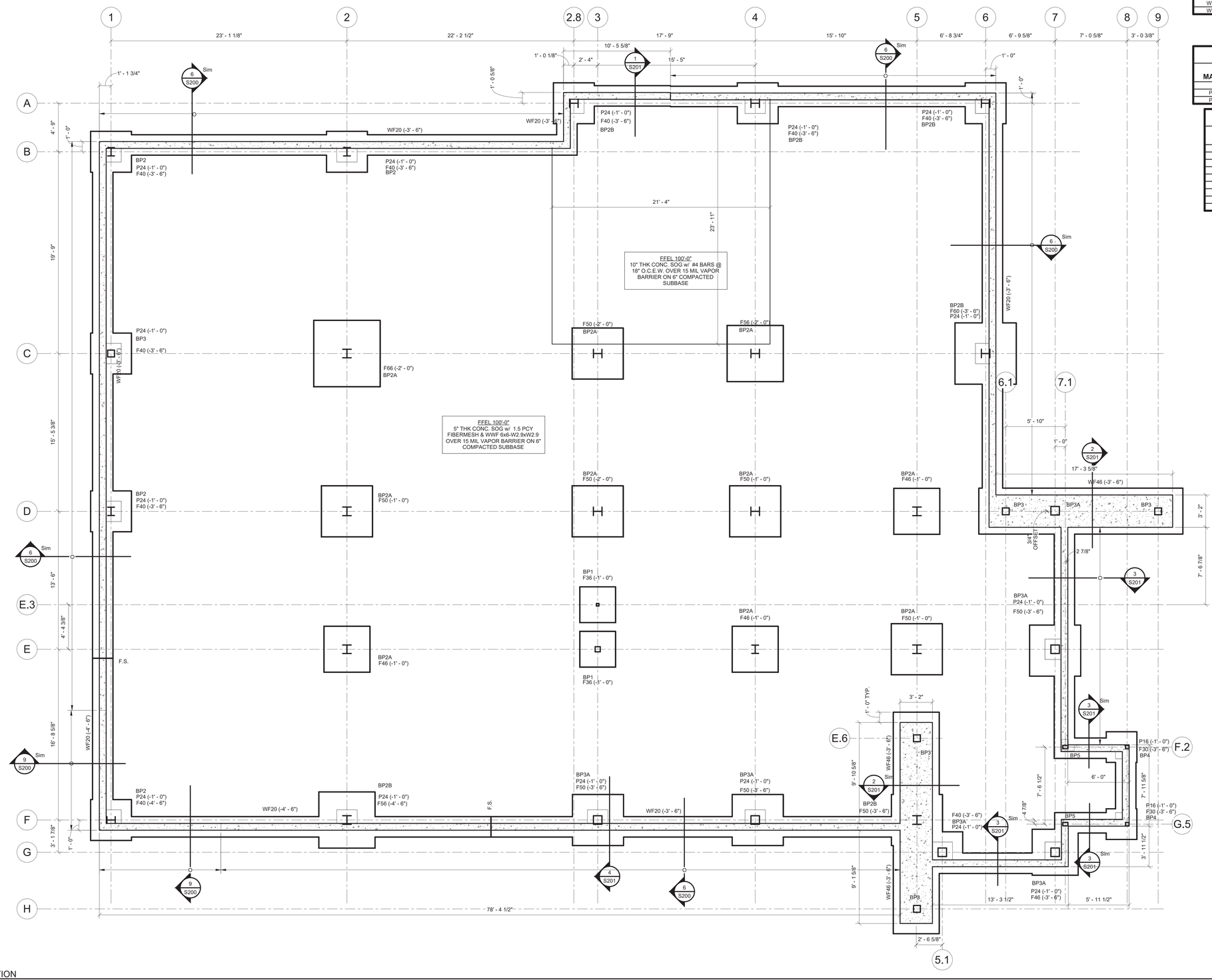
Project:	23321	Date:	2/24/2025
Drawn:	RMH	Scale:	AS NOTED

Drawing Number: S003



1 S100 PLAN - FOUNDATION
1/4" = 1'-0"

FOOTING SCHEDULE

TYPE	LENGTH	WIDTH	THICKNESS	TRANS. REINF.	LONG. REINF.
F30	3' - 0"	3' - 0"	1'-0"	(5)-#4	(5)-#4
F36	3' - 6"	3' - 6"	1'-0"	(5)-#5	(5)-#5
F40	4' - 0"	4' - 0"	1'-0"	(5)-#5	(5)-#5
F46	4' - 6"	4' - 6"	1'-0"	(5)-#5	(5)-#5
F50	5' - 0"	5' - 0"	1'-0"	(5)-#6	(5)-#6
F56	5' - 6"	5' - 6"	1'-0"	(6)-#6	(6)-#6
F60	6' - 0"	6' - 0"	1'-0"	(6)-#6	(6)-#6
F66	6' - 6"	6' - 6"	1'-0"	(7)-#6	(7)-#6
WF20	<varies>	2' - 0"	1'-0"	#4@18" O.C.	(3)-#4
WF46	<varies>	4' - 6"	1'-0"	#5@12" O.C.	#5@12" O.C.

PIER SCHEDULE

MARK	DIMENSIONS	VERT. REINF	TIES
P16	1'-4"x1'-4"	(4)-#6	#4@3" O.C. TOP 12", 12" O.C. REMAINDER
P24	2'-0"x2'-0"	(10)-#6	#4@3" O.C. TOP 12", 12" O.C. REMAINDER

BASE PLATE SCHEDULE

BASE PLATE	DIMENSIONS	ANCHOR BOLTS	NOTES
BP1	3/4"x1'-0"x1'-0"	(4)-3/4" DIA. W/ 9" EMBED.	
BP2	3/4"x1'-4"x1'-4"	(4)-3/4" DIA. W/ 12" EMBED.	
BP2A	1"x1'-5"x1'-5"	(4)-3/4" DIA. W/ 9" EMBED.	
BP2B	1"x1'-5"x1'-5"	(4)-1" DIA. W/ 18" EMBED.	
BP3	3/4"x1'-2"x1'-2"	(4)-3/4" DIA. W/ 12" EMBED.	
BP3A	3/4"x1'-5"x1'-5"	(4)-1" DIA. W/ 18" EMBED.	
BP4	3/4"x1'-0"x1'-0"	(4)-3/4" DIA. W/ 12" EMBED.	
BP5	SEE DETAIL	(4)-3/4" DIA. W/ 12" EMBED.	

FOUNDATION PLAN NOTES:

1. FINISHED FLOOR ELEVATION 100'-0" (DATUM ELEVATION 422.00' ON CIVIL DRAWINGS)
2. REINFORCE 5" THICK SLAB ON GRADE w/ WWF 6x6-W2.9xW2.9. PROVIDE 6" THICK COMPACTED CRUSHED STONE SUBBASE.
3. SEE MECHANICAL PLAN FOR LOCATIONS OF SUMP PITS AND FLOOR DRAINS.
4. SEE ARCHITECTURAL PLAN FOR ALL RECESSED FLOOR LOCATIONS.
5. PROVIDE 15 MIL VAPOR BARRIER BELOW SLAB.

XX* INDICATES FOOTING DESIGNED TO BEAR ON SOIL

PXX (-X'-XX") INDICATES PIER TYPE (SEE SCHEDULE) & TOP OF PIER ELEVATION REFERENCED FROM FFEL

FXX (-X'-XX") INDICATES FOOTING TYPE (SEE SCHEDULE) & TOP OF FOOTING ELEVATION REFERENCED FROM FINISHED FLOOR ELEVATION

S.J. INDICATES SLAB JOINT

BPX INDICATES STEEL COLUMN BASEPLATE SEE SCHEDULE FOR SIZE & ANCHOR BOLTS

F.S. INDICATES FOOTING STEP SEE TYPICAL DETAIL

W.S. WALL STEP [X'-X"] INDICATES TOP OF WALL ELEVATION

NOTES - FOUNDATION
1/4" = 1'-0"

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Drawing: FOUNDATION

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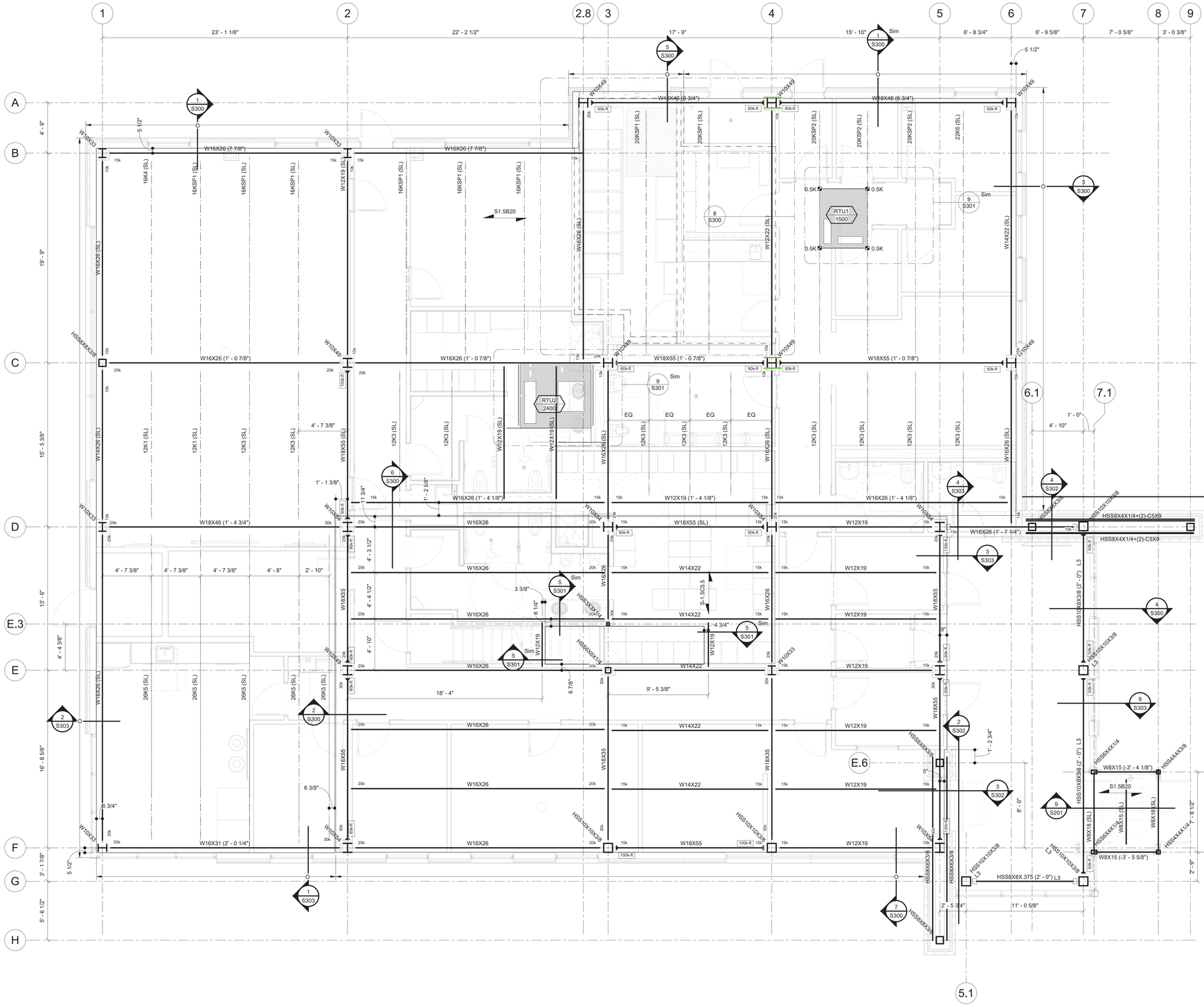
Project: 23321 Date: 2/24/2025
Drawn: VAG Scale: AS NOTED
Drawing Number:
S100



INDICATES COL. WEB STIFFENER REQUIRED

INDICATES MOMENT CONNECTION SEE TYP. DETAIL

LX — INDICATES CATAGORY OF AESS FINISHING

INDICATES TO DESIGN BEAM CONNECTION FOR AXIAL LOAD SHOWN

INDICATES TORSION RESTRAINT AT BEAM END. SEE TYP. DETAIL

S-1.5C5.5 — INDICATES 1 1/2" DEEP 20 GAGE COMPOSITE DECK W/ 4" N.W. CONCRETE TOPPING (5 1/2" TOTAL) W/ WWF-6x6-W2.9xW2.9

S1.5B20 — INDICATES 1 1/2" DEEP 20 GAGE TYPE B ROOF DECK. CONN. TO STEEL W/ 5/8" DIA. PUDDLE WELDS 36/4 PATTERN. SPACE 6" AT EDGES AND PROVIDE(4)-#10 SIDELAP SCREWS

XXX — DESIGN SHEAR REACTION

XXX JOIST CONC. LOAD

<XXXX> — DESIGN AXIAL LOAD

X'-X" — INDICATES DISTANCE FROM BEAM CENTERLINE TO EDGE OF DECK/FACE OF BENT PLATE OR ANGLE

1. ALL REACTIONS SHOWN ARE FACTORED USING STRENGTH DESIGN IN ACCORDANCE ASCE 7-16.
2. ALL TOP OF STEEL ELEVATIONS REFENCED FROM ELEVATION (113'-6 1/2")
3. ALL BEAM ARE EQUALLY SPACED U.N.O.

NOTES-FLOOR/FRAMING
1/4" = 1'-0"

1 S101 PLAN - LOW ROOF FRAMING
1/4" = 1'-0"

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Drawing: LOW ROOF FRAMING

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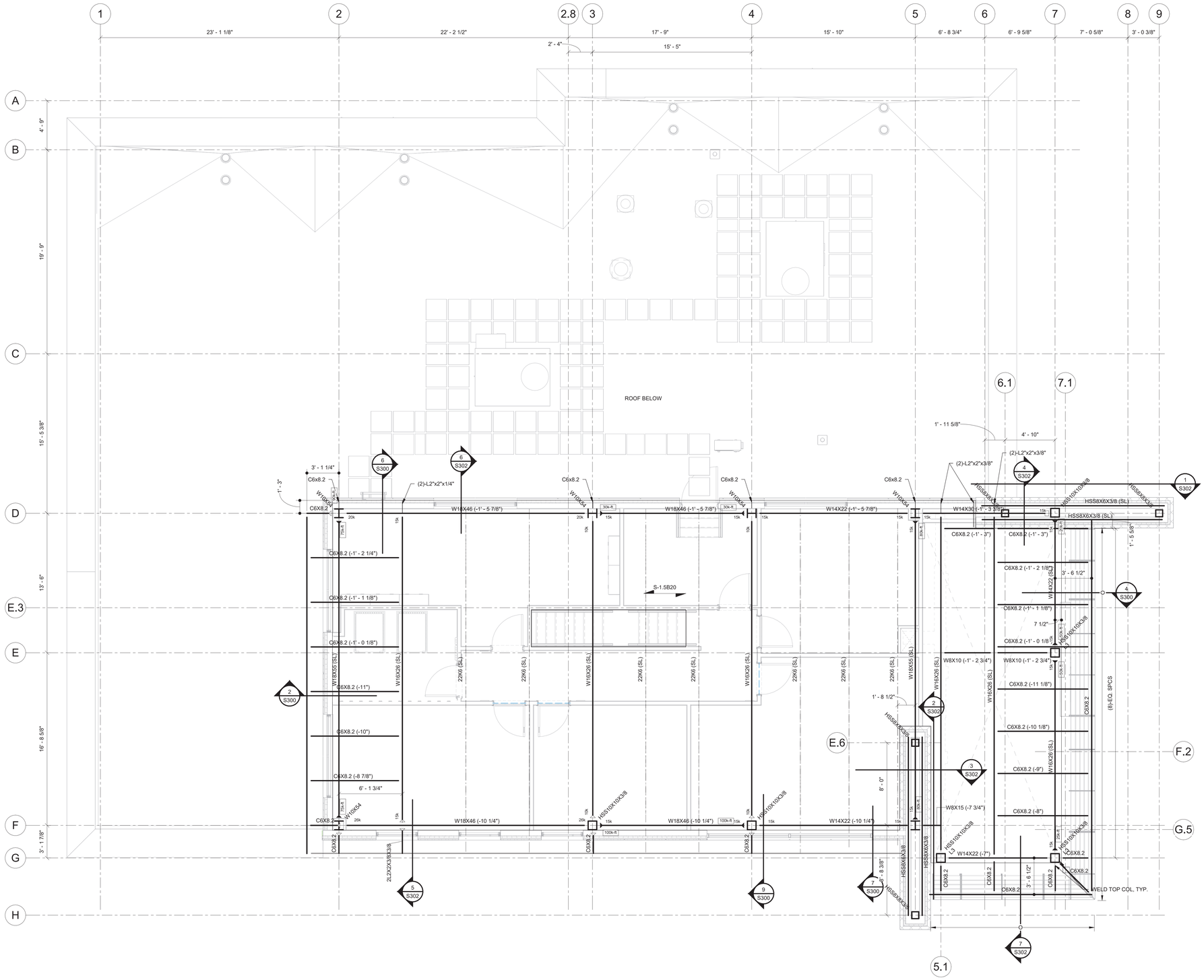
Project: 23321	Date: 2/24/2025
Drawn: VAG	Scale: AS NOTED

Drawing Number: S101



1 S102 PLAN - HIGH ROOF PLAN
1/4" = 1'-0"

□— INDICATES TOSION END RESTRAINT, SEE TYPICAL DETAIL

BB1 INDICATES W8x10 BRACE BEAM

S-1.5B20 INDICATES 1 1/2" DEEP 20 GAGE TYPE B ROOF DECK. CONN. TO STEEL W/ 5/8" DIA. PUDDLE WELDS 36/4 PATTERN. SPACE 6" AT EDGES AND PROVIDE(4)-#10 SIDELAP SCREWS

xxx DESIGN SHEAR REACTION

MBX INDICATES MASONRY BEARING PLATE, SEE SCHEDULE. BEARING PLATE IS TYPICAL AT BOTH ENDS UNLESS NOTED OTHERWISE

WA1 INDICATES L4"x4"x3/8" CONT. DECK SUPPORT ANGLE W/ 5/8" Ø THREADED RODS ANCHORED TO CMU W/ HILTI HIT HY 200 EPOXY, 5" EMBED, AT 2'-0" ON-CENTER

X'-X" INDICATES DISTANCE FROM BEAM CENTERLINE TO EDGE OF DECK/FACE OF BENT PLATE OR ANGLE

1. ALL REACTIONS SHOWN ARE FACTORED USING STRENGTH DESIGN IN ACCORDANCE ASCE 7-16.
2. ALL TOP OF STEEL ELEVATIONS REFENCED FROM ELEVATION (127'-6")
3. ALL BEAM ARE EQUALLY SPACED U.N.O.

NOTES - HIGH ROOF FRAMING
1/4" = 1'-0"

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Drawing: HIGH ROOF PLAN

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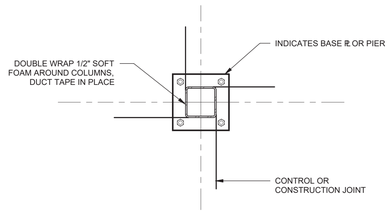
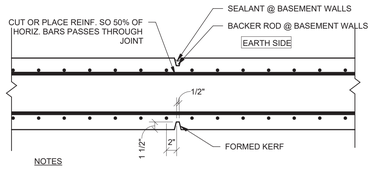
Project: 23321	Date: 2/24/2025
Drawn: VAG	Scale: AS NOTED
Drawing Number: S102	



1 S200 DETAIL - COLUMN ISOLATION JOINT
1" = 1'-0"



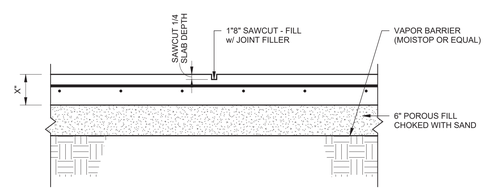
NOTES

1. INSTALL CONTROL JOINTS AT A MAXIMUM SPACING OF 30 TIMES THE WALL THICKNESS FOR WALLS LESS THAN 11" THICK AND 25'-0" ON-CENTER MAXIMUM FOR ALL OTHER WALLS. FOR WALLS TALLER THAN 12'-0" THE MAXIMUM CONTROL JOINT SPACING SHALL BE THE WALL HEIGHT.

2. AT EXTERIOR WALLS THE FOUNDATION WALL CONTROL JOINTS SHOULD BE LOCATED TO ALIGN WITH THE MASONRY CONTROL JOINTS SHOWN ON THE ARCHITECTURAL PLAN. WHERE THIS IS NOT POSSIBLE DUE TO A PIER AT THE CONTROL JOINT LOCATION THE CONTROL JOINT IN THE FOUNDATION SHOULD BE LOCATED ADJACENT TO THE PIER.

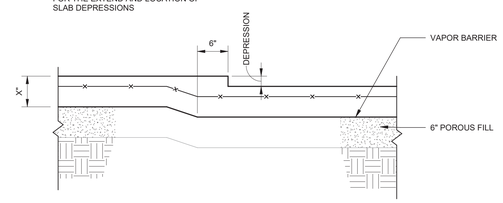
3. A CONTROL JOINTS SHOULD BE LOCATED WITHIN 10 TO 15 FEET OF A WALL CORNER.

2 S200 DETAIL-WALL CONTROL JOINT
N.T.S.

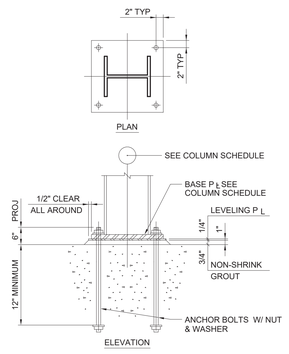


3 S200 SLAB CONTROL JOINT
1" = 1'-0"

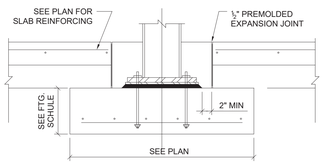
NOTE: SEE ARCHITECTURAL PLANS FOR THE EXTEND AND LOCATION OF SLAB DEPRESSIONS



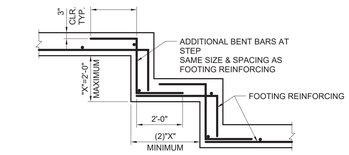
4 S206 SLAB DEPRESSION DETAIL
1" = 1'-0"



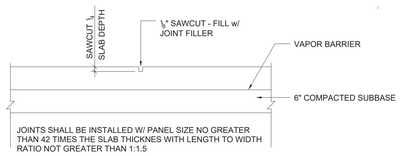
TYPICAL ANCHOR BOLT DETAILS
NOT TO SCALE



TYPICAL INTERIOR COLUMN FOOTING DETAIL
NOT TO SCALE

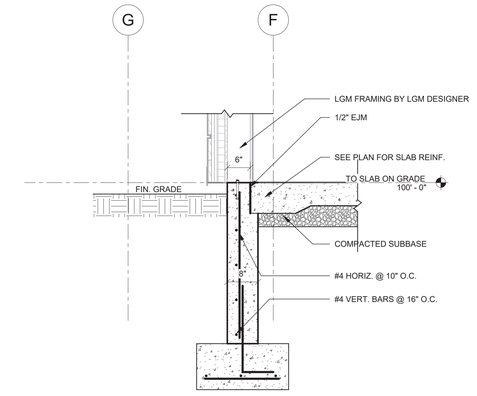


TYPICAL STEPPED FOOTING DETAIL
NOT TO SCALE

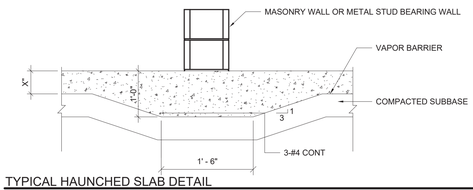


JOINTS SHALL BE INSTALLED W/ PANEL SIZE NO GREATER THAN 42 TIMES THE SLAB THICKNES WITH LENGTH TO WIDTH RATIO NOT GREATER THAN 1:1.5

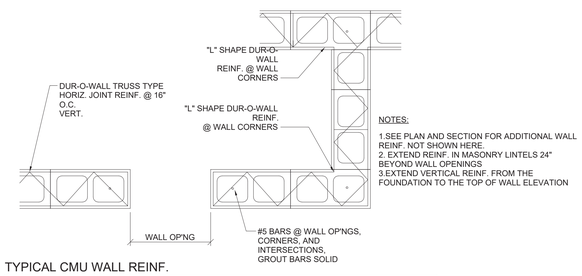
TYPICAL CONTROL JOINT DETAIL
NOT TO SCALE



6 S200 SECTION - TYPICAL FOUNDATION WALL
3/4" = 1'-0"



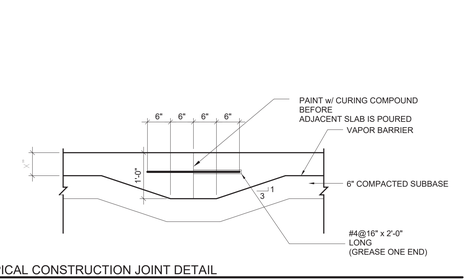
TYPICAL HAUNCHED SLAB DETAIL
NOT TO SCALE



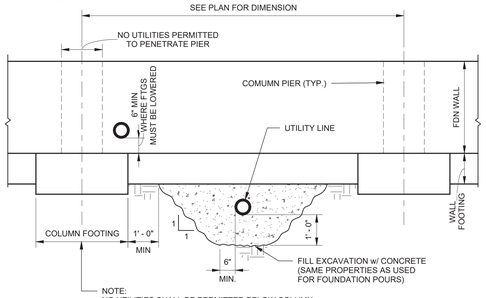
NOTES:

1.SEE PLAN AND SECTION FOR ADDITIONAL WALL REINF. NOT SHOWN HERE.
2. EXTEND REINF. IN MASONRY LINTELS 24" BEYOND WALL OPENINGS
3.EXTEND VERTICAL REINF. FROM THE FOUNDATION TO THE TOP OF WALL ELEVATION

TYPICAL CMU WALL REINF.
NOT TO SCALE

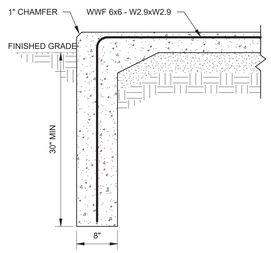


TYPICAL CONSTRUCTION JOINT DETAIL
NOT TO SCALE

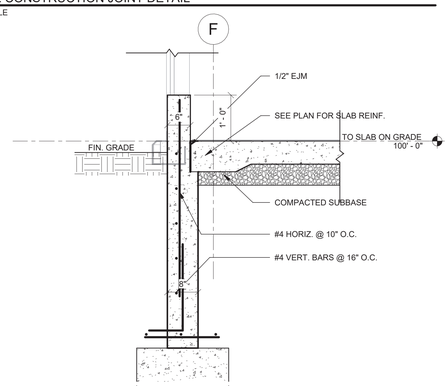


NOTE:
NO UTILITIES SHALL BE PERMITTED BELOW COLUMN FOOTINGS. SHOULD UTILITIES NEED TO BE LOCATED IN THE VICINITY OF COLUMN FOOTINGS, THE FOOTING SHALL BE LOWERED IN ELEVATION (SEE TYPICAL STEPED FOOTING DETAIL). IF LOWERING OF FOOTING IS NOT POSSIBLE, CONSULT A/E FOR FURTHER DIRECTION.

7 S200 TYPICAL DETAIL - UTILITY LINE BELOW WALL FOOTING
1/2" = 1'-0"



8 S200 TYPICAL DETAIL - SLAB TURN DOWN @ EXTERIOR DOORS
1" = 1'-0"



9 S200 SECTION - FOUNDATION AT CURTAIN WALL
3/4" = 1'-0"

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Drawing: FOUNDATION DETAILS

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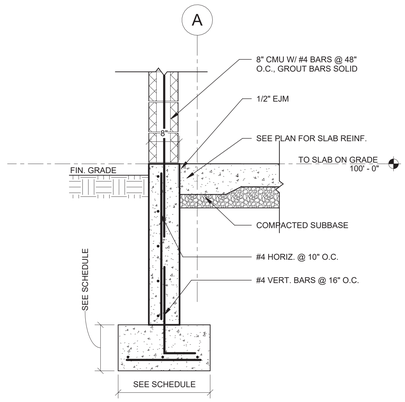
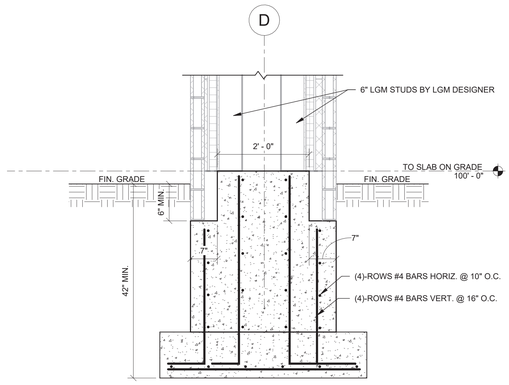
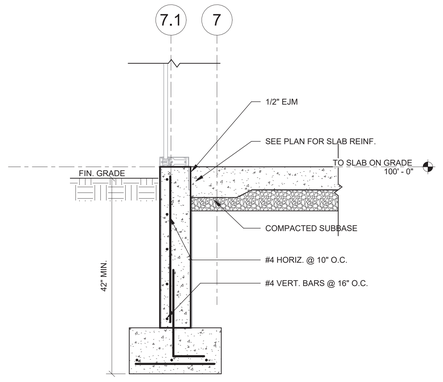
Project: 23321 Date: 2/24/2025
Drawn: Author Scale: AS NOTED
Drawing Number: S200



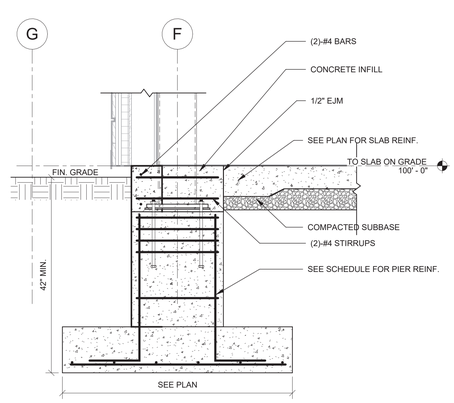
1 S201 SECTION - CMU AT FOUNDATION
3/4" = 1'-0"



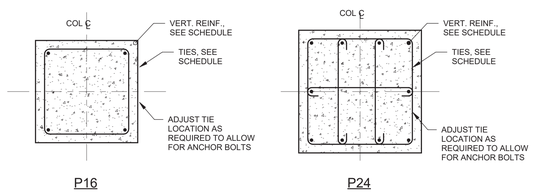
2 S201 SECTION - FOUNDATION AT BRICK PIERS
3/4" = 1'-0"



3 S201 SECTION - FOUNDATION AT CURTAIN WALL ENTRANCE
3/4" = 1'-0"

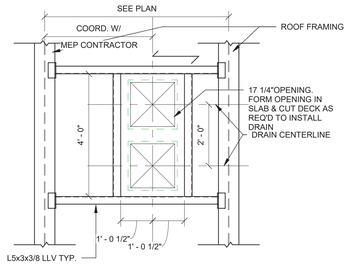


4 S201 SECTION - PIER FOUNDATION
3/4" = 1'-0"

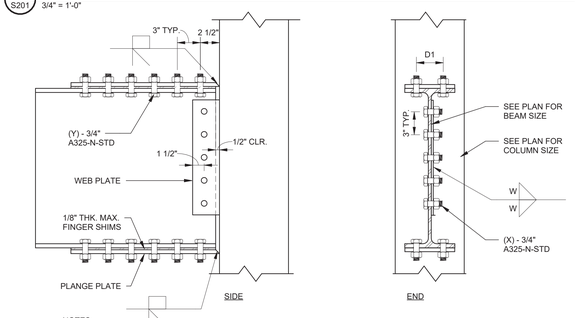


NOTE: PIER SHOULD BE CENTERED ON COLUMN U.N.O ON PLAN

5 S201 DETAILS - PIERS
N.T.S.

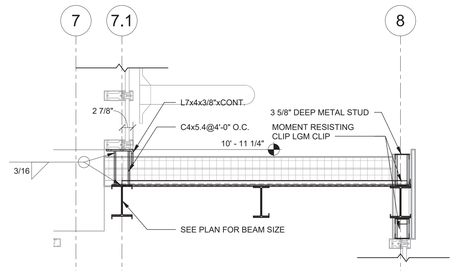


6 S201 DETAIL - FRAMING AT ROOF DRAINS
1/2" = 1'-0"

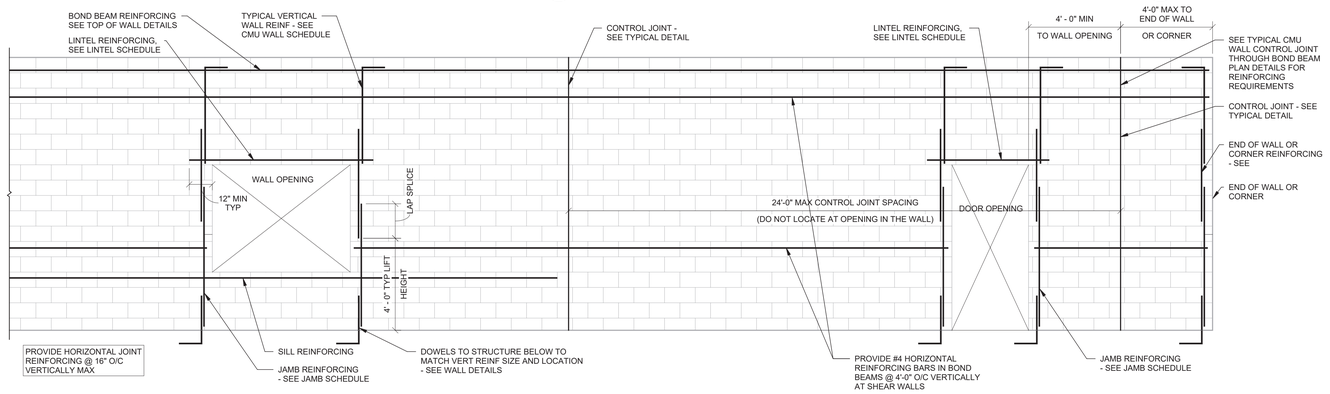


NOTES:
1. MOMENT CONNECTION IS SCHEMATIC ONLY. CONNECTION SHOULD BE DESIGNED FOR 80% OF THE BEAM CAPACITY. IF THE MOMENT IS SHOWN ON THE PLAN THE CONNECTION SHOULD BE DESIGNED FOR THAT MOMENT.
2. SHEAR CONNECTION SHOULD BE DESIGNED FOR THE SHEAR REACTION SHOWN ON THE PLAN.
3. MOMENT CONNECTION SHALL HAVE A MINIMUM OF (4) BOLTS ON THE TOP AND BOTTOM FLANGE

7 S201 DETAIL - MOMENT CONNECTION AT TUBES
1 1/2" = 1'-0"



9 S201 SECTION - ENTRANCE FRAMING
3/4" = 1'-0"



8 S201 DETAIL - TYPICAL CMU REINFORCING SCHEMATIC
3/8" = 1'-0"

NOTES:
1. JAMB AND END OF WALL REINFORCING SHALL BE FULL HEIGHT OF WALL AND SHALL BE IN ADDITION TO TYPICAL VERTICAL WALL REINFORCING.
2. PROVIDE CONTROL JOINTS TO MEET SPACING REQUIREMENTS SHOWN, AND AT LOCATIONS WHERE CHANGES IN WALL HEIGHT OCCUR, WHERE CHANGES IN WALL THICKNESS OCCUR, AND WHERE MOVEMENT JOINTS IN THE FLOOR ABOVE AND/OR BELOW OCCUR.
3. SEE ARCHITECTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS AT NON-LOAD BEARING WALLS NOT SHOWN ON STRUCTURAL DRAWINGS.
4. SEE ARCHITECTURAL DRAWINGS FOR WALL OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS.
5. PROVIDE CLEANOUT AT BOTTOM COURSE FOR GROUT POURS GREATER THAN 5'-0" HIGH.
6. SILL REINFORCING SHALL BE LADDER JOINT REINFORCING IN THE FIRST OR SECOND MORTAR JOINT BELOW THE SILL OR A REINFORCED BOND BEAM. SILL REINFORCING SHALL EXTEND BETWEEN CONTROL JOINTS.
7. SEE NON-LOAD BEARING INTERIOR CMU WALL REINFORCING SCHEDULE FOR LINTEL AND JAMB REINFORCING REQUIRED AT NON-LOAD BEARING WALLS.

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NUM.	DATE	DESCRIPTION

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PROJECT

KEY PLAN

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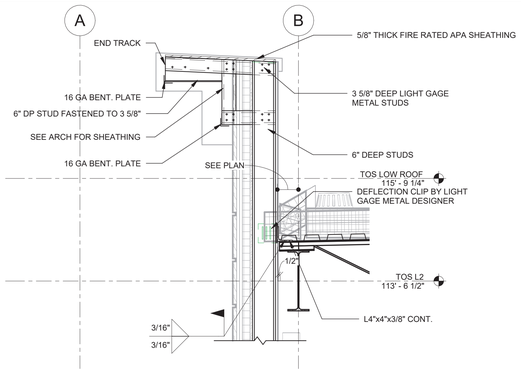
Project: POLICE STATION
TOWN OF MONTGOMERY, ORANGE COUNTY, NEW YORK

Drawing: FOUNDATION/FRAMING DETAILS

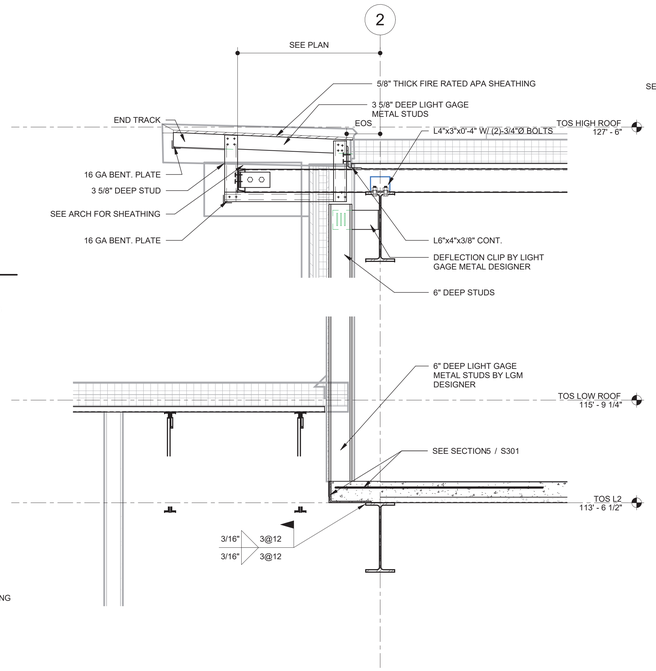
STATE OF NEW YORK · VINCENT A GRIFFIN · LICENSED PROFESSIONAL ENGINEER · 096942

Project:	23321	Date:	2/24/2025
Drawn:	Author	Scale:	AS NOTED

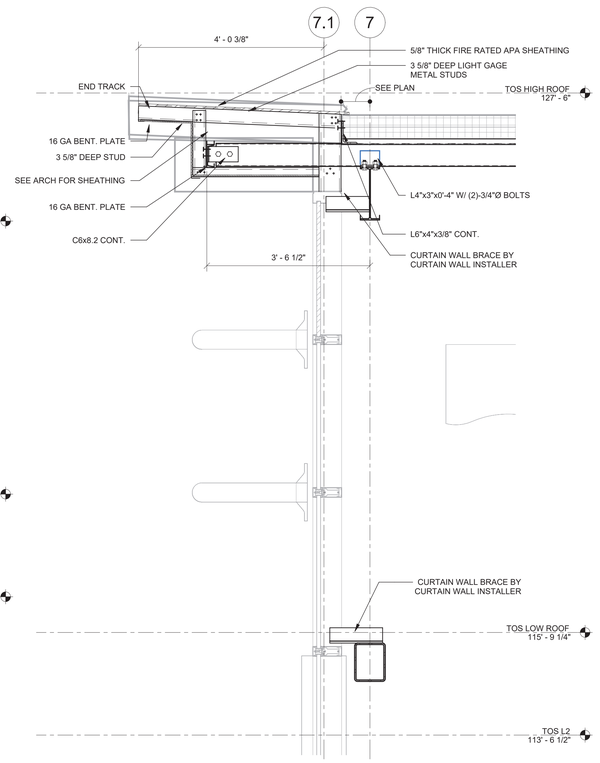
Drawing Number: S201



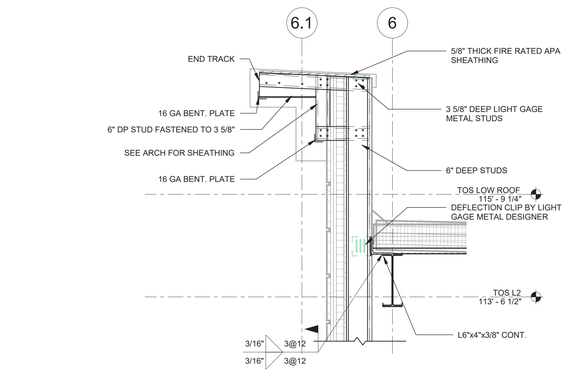
1 S300 SECTION - EXTERIOR WALL
3/4" = 1'-0"



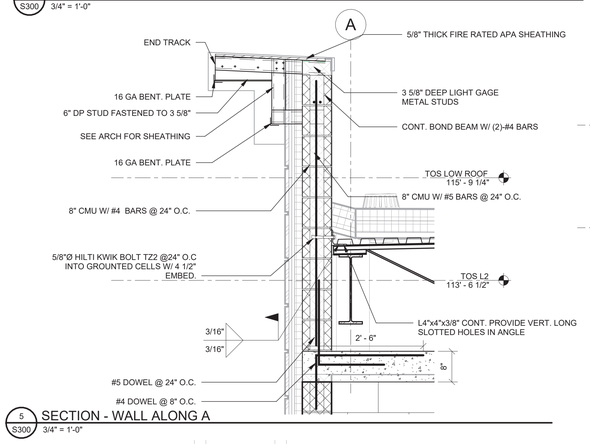
2 S300 SECTION - WALL ALONG 2
3/4" = 1'-0"



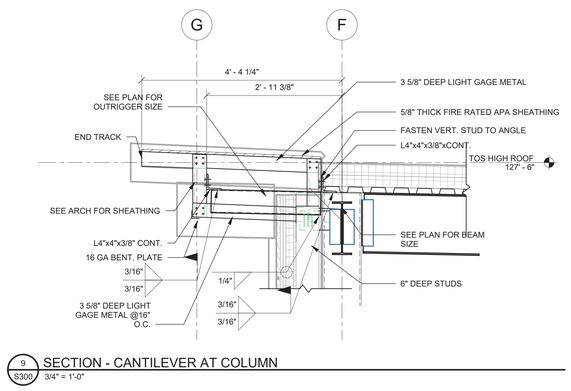
4 S300 SECTION - WALL ALONG 7
3/4" = 1'-0"



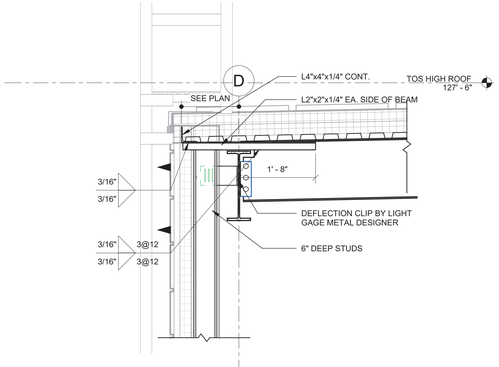
3 S300 SECTION - WALL ALONG 6
3/4" = 1'-0"



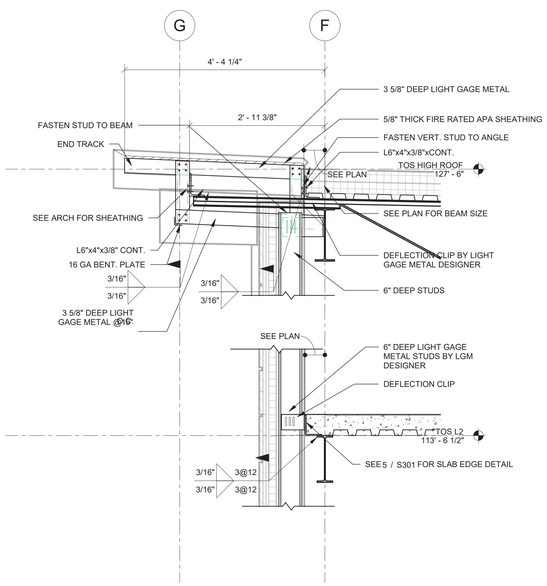
5 S300 SECTION - WALL ALONG A
3/4" = 1'-0"



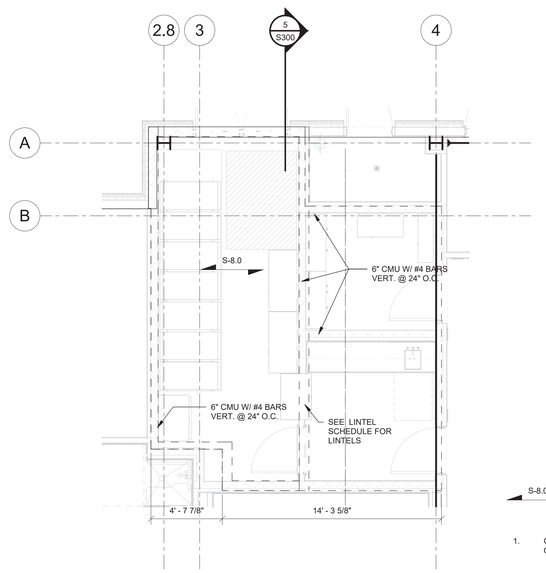
9 S300 SECTION - CANTILEVER AT COLUMN
3/4" = 1'-0"



6 S300 SECTION - WALL ALONG D
3/4" = 1'-0"



7 S300 SECTION - WALL ALONG F
3/4" = 1'-0"



8 S300 PLAN - VAULT FRAMING
1/4" = 1'-0"

S-8.0 INDICATES 8" THICK CONCRETE SLAB W/ #4 @12" O.C.E.W. BOT.

1. GROUT WALL SOLID. REINF. WITH #4 BARS @ 48" ON-CENTER.

NOTES - VAULT
1/4" = 1'-0"

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Drawing: SECTIONS AND DETAILS

STATE OF NEW YORK · VINCENT A GINEFRI · 096942 · LICENSED PROFESSIONAL ENGINEER

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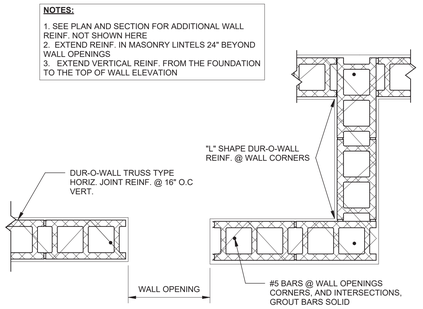
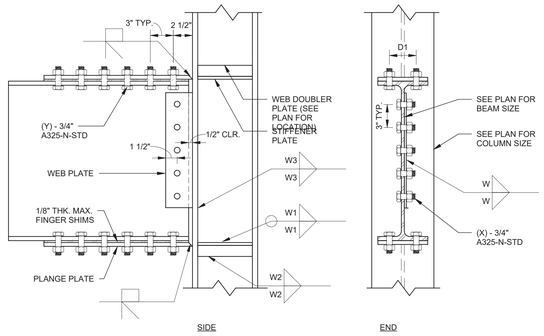
Drawing Number: S300



1 S301 CMU WALL REINFORCING
1" = 1'-0"



NOTES:
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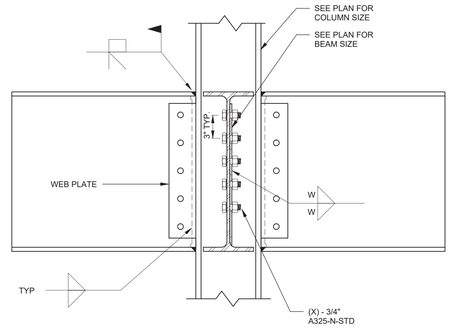
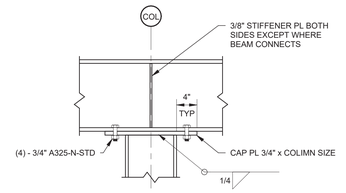
2. SHEAR CONNECTION SHOULD BE DESIGNED FOR THE SHEAR REACTION SHOWN ON THE PLAN

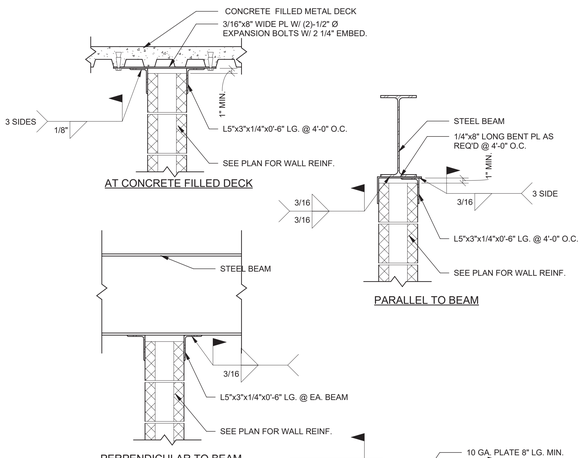
2 S301 COLUMN FLANGE MOMENT CONNECTION
1 1/2" = 1'-0"



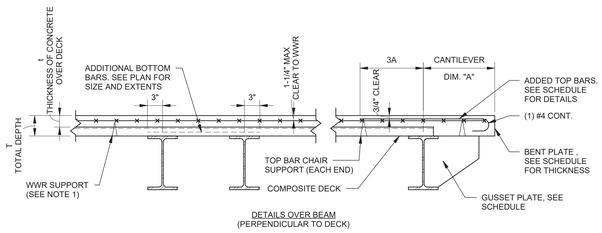
ALTERNATE WELDED DETAIL



3 S301 DETAIL - TYP. BEAM CONT OVER COLUMN
1" = 1'-0"



4 S301 DETAIL-INTERIOR NON-BEARING CMU WALL SUPPORT
1" = 1'-0"

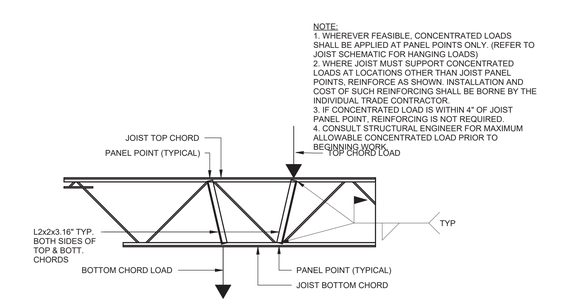


DETAILS OVER BEAM
(PERPENDICULAR TO DECK)

LINTEL SCHEDULE					
WALL THICKNESS	CLEAR SPAN				NOTES
	UP TO 4'-0"	4'-1" UP TO 6'-0"	6'-1" UP TO 8'-0"	8'-1" UP TO 10'-0"	
4"	L4x4x1/4	L4 1/2x4x5/16 (LLV)	L6x4x5/16 (LLV)	L6x4x3/8 (LLV)	4" END BRG
6"	6"x8" SOLID LINTELS W/#3 BOTTOM BAR	6"x8" SOLID LINTELS W/#3 BOTTOM & TOP BAR	6"x8" SOLID LINTELS W/#3 TOP BAR & #4 BOTTOM BAR		8" END BRG USE @ ALL EXTERIOR CMU OPENINGS
8"	(2)-4"x8" SOLID LINTELS W/#3 BOTTOM BAR	(2)-4"x8" SOLID LINTELS W/#3 BOTTOM & TOP BAR	(2)-4"x8" SOLID LINTELS W/#3 TOP BAR & #4 BOTTOM BAR		8" END BRG USE @ ALL INTERIOR CMU OPENINGS

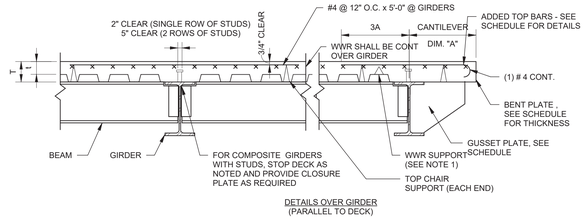
NOTE:
1. ALL CONCRETE LINTELS TO BE YORK BUILDING PRODUCTS OR APPROVED EQUAL
2. ALL MULTIPLE ANGLE LINTELS SHALL HAVE 3/16"xWxCONT. BOTTOM PLATE. W SHALL EQUAL THE WALL THICKNESS MINUS 1".
3. ALL EXTERIOR STEEL LINTELS TO BE HOT-DIPPED GALVANIZED.
4. FOR WALLS WIDER THAN 8" PROVIDE ADDITIONAL 4" PRECAST LINTELS AS REQUIRED.

6 S301 LINTEL SCHEDULE
1" = 1'-0"



NOTE: DETAIL IS NOT APPLICABLE AT JOIST GIRDERS.

8 S301 JOIST REINFORCEMENT DETAIL
1" = 1'-0"

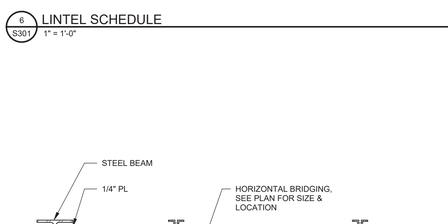


DETAILS OVER GIRDER
(PARALLEL TO DECK)

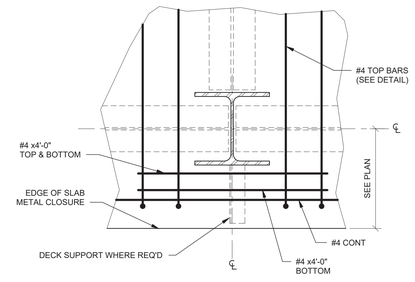
NOTES:
1. WWR MUST BE POSITIVELY SUPPORTED PRIOR TO PLACING CONCRETE (SEE DETAIL FOR DIM'S). DEPRESS WWR AS REQUIRED AT TOP REINFORCEMENT ONLY.
2. PROVIDE TOP LAP SPLICE 8" MIN. OR 2 WIRES
3. PROVIDE (1) #4 x 4'-0" DIAGONAL TOP AT ALL RE-ENTRENT CORNERS. MAY OMIT AT CONSTRUCTION JOINTS. (SIMILAR TO FLOOR OPENING DETAIL).
4. DECK GAGE SHOWN IS MINIMUM. INCREASE DECK GAGE OR SHORE CONSTRUCTION WHERE DECK SPAN EXCEEDS UNSHORED CLEAR SPAN PER SDI.
5. FOR "A" GREATER THAN 18", PROVIDE 1/4" THK. GUSSET PLATE @ 4'-0" O.C.
6. BENT PLATE THICKNESS AT EDGE OF SLAB SHALL BE AS SHOWN IN TABLE BELOW U.N.O. IN WALL SECTIONS

DIM. "A"	TOP BARS AT CANTILEVER	BENT PLATE
A≤6"	WWR ONLY	1/4" THK.
6"<As16"	#3 @ 12"	5/16" THK.
16"<As24"	#4 @ 12"	3/8" THK.

5 S301 DETAILS FOR COMPOSITE DECK CONSTRUCTION
1" = 1'-0"

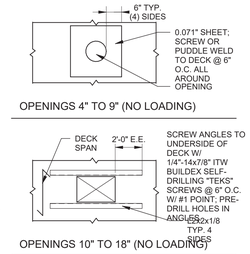


7 S301 JOIST HB AT BEAM
1" = 1'-0"



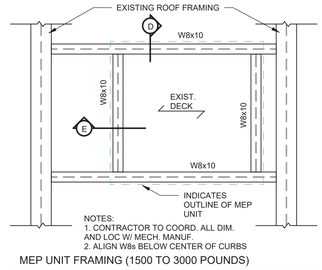
10 S301 TYP SLAB REINF AT PERIMETER COLUMN
1" = 1'-0"

MEP UNIT AND OPENING GREATER THAN 18" (LESS THAN 1500 POUNDS)



OPENINGS 4" TO 9" (NO LOADING)

OPENINGS 10" TO 18" (NO LOADING)



MEP UNIT FRAMING (1500 TO 3000 POUNDS)

9 S301 ROOF FRAMING AT DECK OPENING FOR RTU
1/2" = 1'-0"

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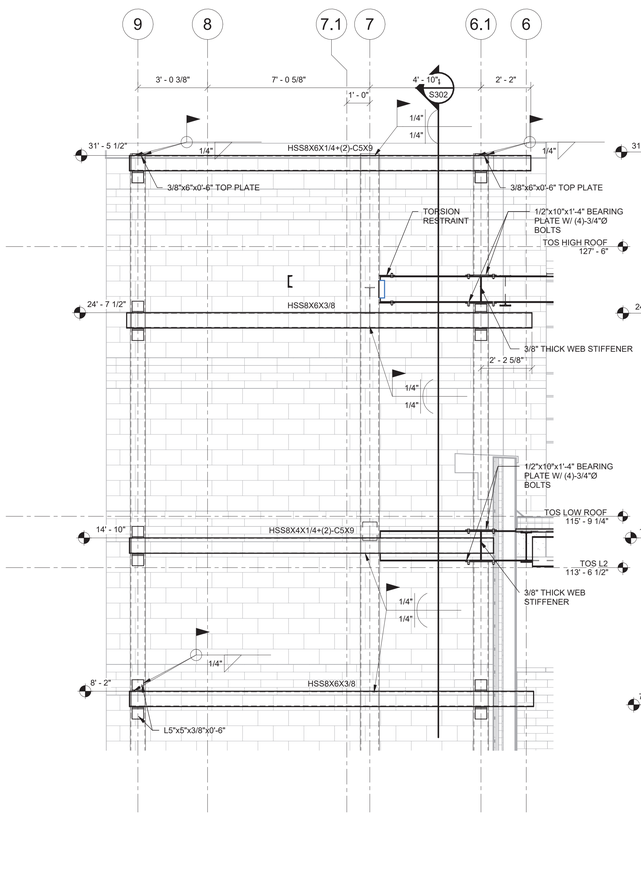
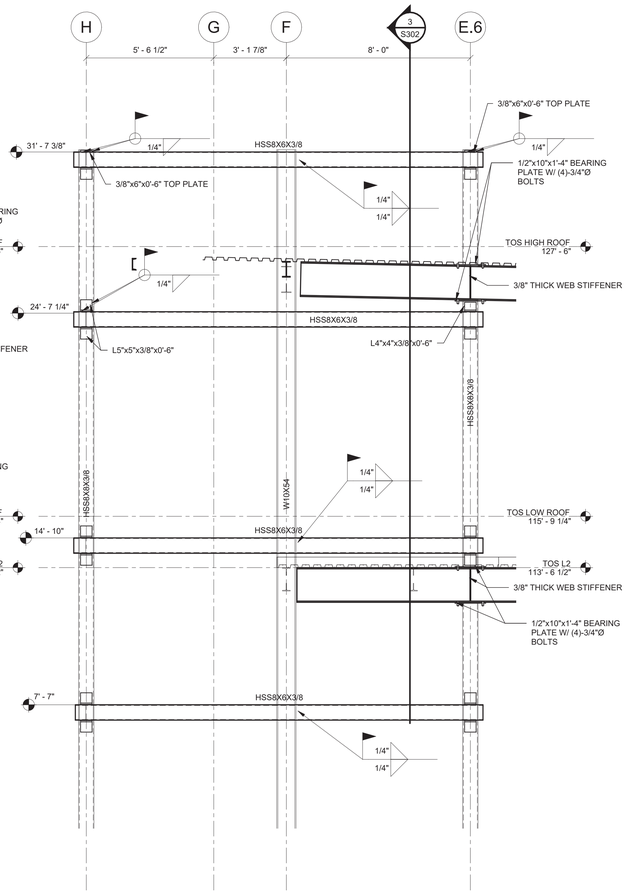
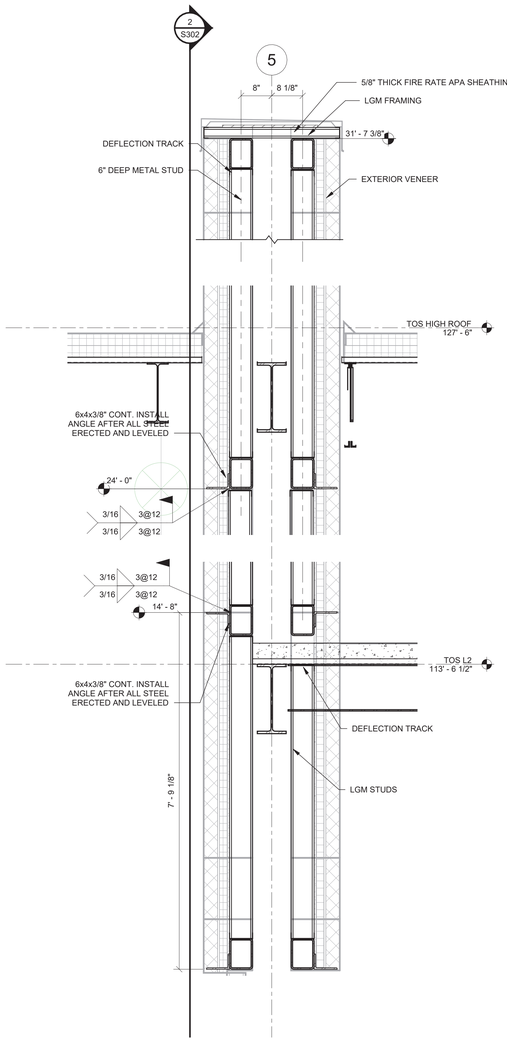
Project: 23321 Date: 2/24/2025
Drawn: Author Scale: AS NOTED
Drawing Number:
S301



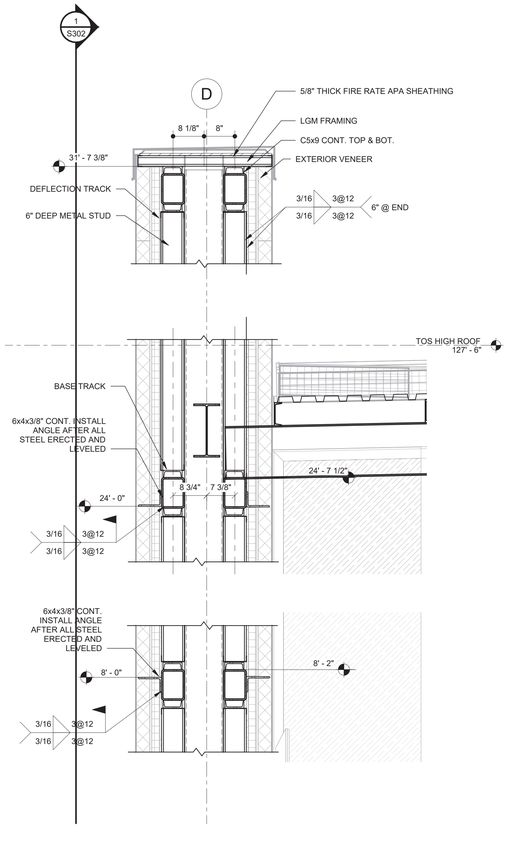
1 S302 ELEVATION - WINGWALL D
3/8" = 1'-0"



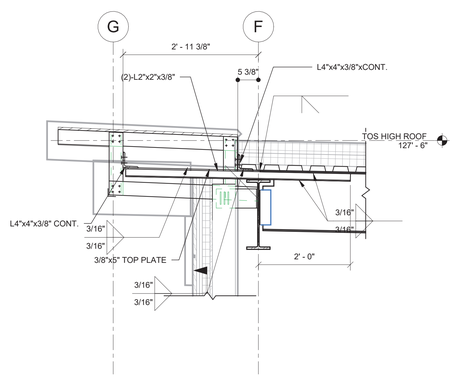
2 S302 ELEVATION - WINGWALL 5
3/8" = 1'-0"



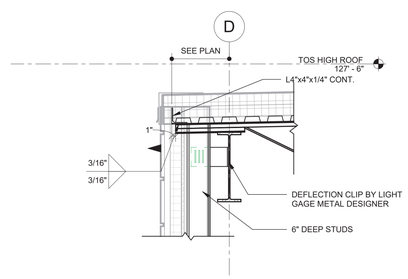
3 S302 SECTION - WINGWALL ALONG 5
3/4" = 1'-0"



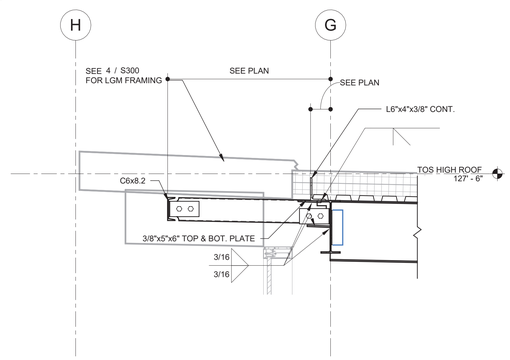
4 S302 SECTION - WINGWALL ALONG D
3/4" = 1'-0"



5 S302 SECTION - CANTILEVER AT BEAM
3/4" = 1'-0"



6 S302 SECTION - JOIST EXT. ALONG D
3/4" = 1'-0"



7 S302 SECTION - CANTILEVER ALONG 7
3/4" = 1'-0"

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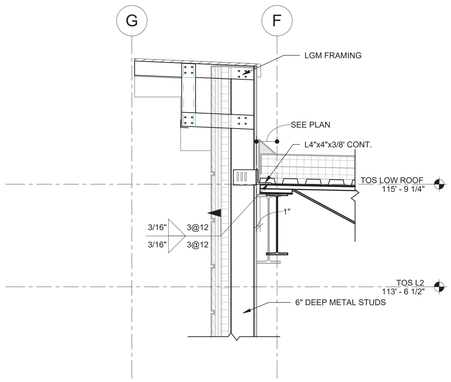
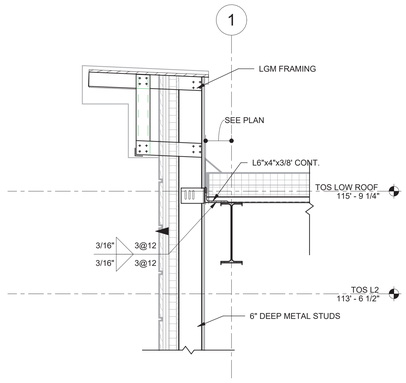
Drawn:	Author	Scale:	AS NOTED

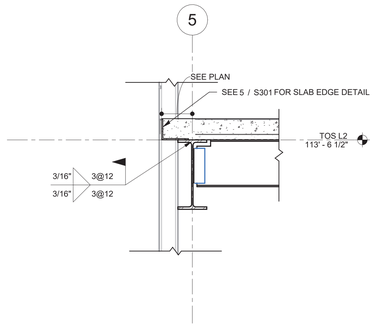
Drawing Number: S302



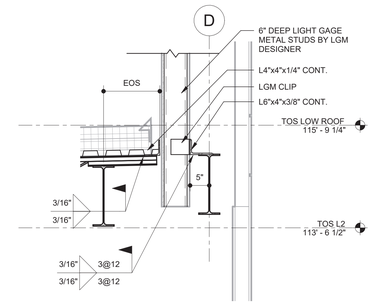
1 S303 SECTION - WALL ALONG LINE F
3/4" = 1'-0"



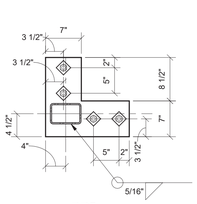
2 S303 SECTION - WALL ALONG LINE 1
3/4" = 1'-0"



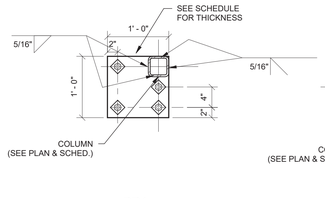
3 S303 SECTION - SLAB ALONG LINE 5
3/4" = 1'-0"



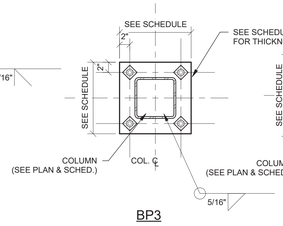
4 S303 SECTION - BEAM ALONG D
3/4" = 1'-0"



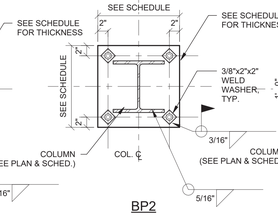
BP5



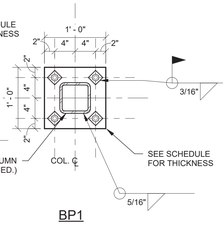
BP4



BP3

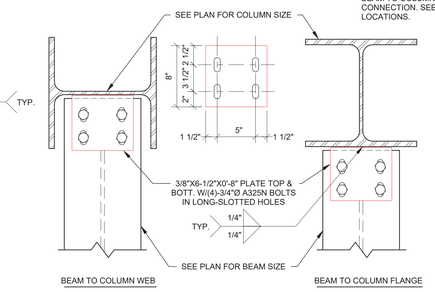


BP2



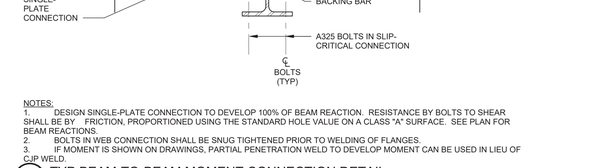
BP1

NOTE:
TORSIONAL RESTRAINT CONNECTIONS SHALL NOT OCCUR WHERE BEAMS ARE TO BE FRAMED TO COLUMNS W/ BEAM TO COLUMN MOMENT CONNECTION. SEE PLAN FOR REQ'D LOCATIONS.



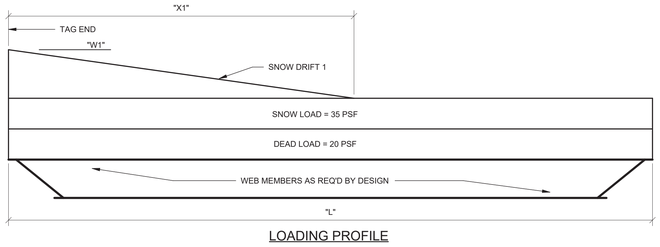
5 S303 DETAIL - BASE PLATES
1" = 1'-0"

6 S303 TORSIONAL RESTRAINT CONN. (SEE PLAN FOR REQ'D LOCATIONS)
N.T.S.



NOTES:
1. DESIGN SINGLE-PLATE CONNECTION TO DEVELOP 100% OF BEAM REACTION. RESISTANCE BY BOLTS TO SHEAR SHALL BE BY FRICTION, PROPORTIONED USING THE STANDARD HOLE VALUE ON A CLASS "A" SURFACE. SEE PLAN FOR BEAM REACTIONS.
2. BOLTS IN WEB CONNECTION SHALL BE SNUG TIGHTENED PRIOR TO WELDING OF FLANGES.
3. IF MOMENT IS SHOWN ON DRAWINGS, PARTIAL PENETRATION WELD TO DEVELOP MOMENT CAN BE USED IN LIEU OF CJP WELD.

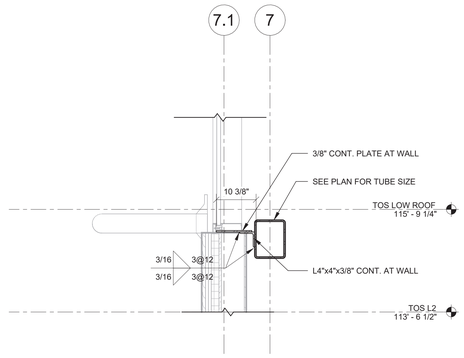
7 S303 TYP BEAM-TO-BEAM MOMENT CONNECTION DETAIL
1 1/2" = 1'-0"



LOADING PROFILE

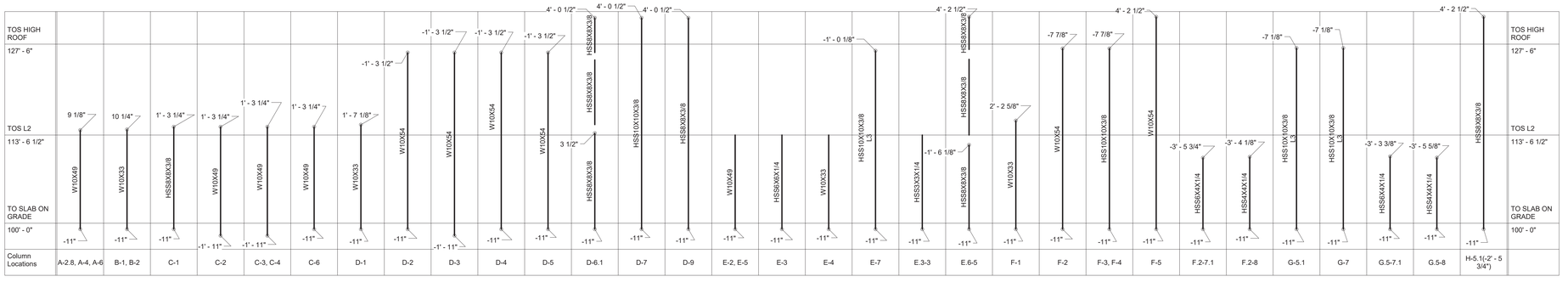
SPECIAL JOIST TABLE						
		SNOW DRIFT 1		SNOW DRIFT 2		
MARK	LENGTH "L"	W1	L1	W2	L2	NOTES
16KSP1	SEE PLAN	32 PSF	14'-0"	N/A	N/A	
20KSP1	SEE PLAN	32 PSF	14'-0"	N/A	N/A	

NOTES:
1. SNOW DRIFT #1 OCCURS AT TAG END.
2. IN ADD. TO UNIFORM LOADS SHOWN JOIST SHOULD BE DESIGNED FOR ADD CONC. LOAD SHOWN ON THE PLAN



9 S303 SECTION - WALL ALONG 7 AT WALL
3/4" = 1'-0"

8 S303 TYPICAL DETAIL - SPECIAL JOIST DIAGRAM
1" = 1'-0"



COLUMN SCHEDULE
1/8" = 1'-0"

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REVISIONS:

NUM.	DATE	DESCRIPTION

100% BID DOCUMENTS

PROJECT

KEY PLAN

WORK AREA

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O. 845.294.2724 | F. 888.305.6442
WWW.ADGARCHITECT.COM
CONTACT@ADGARCHITECT.COM
ARCHITECTURE • PLANNING • INTERIORS

Project: POLICE STATION
TOWN OF MONTGOMERY, ORANGE COUNTY, NEW YORK

Drawing: SECTIONS AND DETAILS

STATE OF NEW YORK · VINCENT A GRIFFIN · LICENSED PROFESSIONAL ENGINEER · 096942

Project:	23321	Date:	2/24/2025
Drawn:	Author	Scale:	AS NOTED

Drawing Number: S303