### GENERAL NOTES:

(THESE SPECIFICATIONS ARE IN ADDITION TO AND DO NOT EXCLUDE ANY FOUND IN THE GENERAL SPECIFICATIONS FOR THE PROJECT)

1. CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING AND SHORING OF STRUCTURE DURING CONSTRUCTION. FOUNDATION WALLS WHICH ARE TIED TO SLABS OR FLOOR/ROOF FRAMING SHALL BE BRACED AGAINST BACKFILL MOVEMENT UNTIL SLAB/FRAMING (WTIH DECK ATTACHMENT) IS COMPLETED. CONTRACTOR SHALL PROVIDE ALL TEMPORARY SAFETY ENCLOSURES TO PROTECT ALL PERSONNEL INVOLVED IN PROJECT.

2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. KEYSTONE STRUCTURAL ENGINEERING, P.C., IS NOT RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION OR FOR RELATED SAFETY PRECAUTIONS AND PROGRAMS.

A. CONTRACTOR SHALL FURNISH COMPLETE AND DETAILED SHOP DRAWINGS. ALL SHOP DRAWINGS SHALL BE PREPARED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

B. CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS AND STAMP ALL SHOP DRAWINGS PRIOR TO SUBMITTING DRAWINGS TO ARCH/ENG. FOR REVIEW. CONTRACTOR IS RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS SUCH AS, MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN THE CONSTRUCTION DOCUMENTS.

C. SHOP DRAWINGS SHALL SHOW MEMBERS SIZES, LOCATION, TYPE AND EXTENT OF ALL MEMBERS, BOLTS AND WELDS. D. CONTRACTOR SHALL HAVE AN APPROVED SHOP DRAWINGS AND PROOF OF WELDER

CERTIFICATION AT JOB SITE AT ALL TIMES. E. PROVIDE SETTING DRAWINGS, TEMPLATES AND DIRECTIONS FOR INSTALLATION OF ANCHOR BOLTS AND OTHER ANCHORAGES TO BE INSTALLED BY OTHERS.

F. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.

4. DESIGN LOADS THE BUILDING STRUCTURE DESCRIBED IN THESE PLANS SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE 2012 INTERNATIONAL BUILDING CODE

A. GRAVITY LOADS <u>DEAD LOADS:</u> ROOF: FLOOR:	20 PSF 60 PSF
LIVE LOADS: ROOF: ELOOP:	20 PSF

3. SHOP DRAWINGS AND SUBMITTALS:

STAIRS/CORRIDOR: 100 PSF **B: SNOW LOADS:** GROUND SNOW LOAD (Pg): 5 PSF

FLAT ROOF SNOW LOAD (Pf): 5.0 PSF SNOW EXPOSURE FACTOR (Ce): 1.0 SNOW IMPORTANCE FACTOR (Is): 1.0 THERMAL FACTOR (Ct): 1.0

C. WIND LOADS BASIC WIND SPEED ( 3 SEC. GUST): Vult 115 MPH RISK CATEGORY: II EXPOSURE CATEGORY: B INTERNAL PRESSURE (GCpi): +-.18

D. SEISMIC DESIGN CRITERIA

SEISMIC IMPORTANCE FACTOR (Ie): 1.0 RISK CATEGORY: II MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss: 0.185g S1: 0.090g SITE CLASS: D S(DS): 0.197 S(D1): 0.091 SEISMIC DESIGN CATEGORY: C BASIC SEISMIC FORCE RESISTING SYSTEM

LIGHT FRAMED WALLS SHEATHED WITH STEEL SHEETS DESIGN BASE SHEAR = 190 KIPS (BOTH DIRECTIONS) SEISMIC RESPONSE COEFFICIENT (Cs): .0312

**RESPONSE MODIFICATION FACTORS (R): 6.5** ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

FOUNDATION NOTES:

1. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR BUILDING LOCATION AND ORIENTATION. COORDINATE ALL DIMENSIONS WITH ARCH. DRAWINGS. DO NOT SCALE DRAWING 3. SEE ARCHITECTURAL DRAWINGS FOR SIDE WALK EXTENTS, PLANTER, AND PAVER

LOCATIONS AND DETAILS. 4. COORDINATE FINISHED FLOOR ELEVATIONS (F.F.E.) WITH ARCH. AND CIVIL DRAWINGS.

5. REFERENCE FFE = SEE PLANS

6. ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON THE RECOMMENDATIONS OUTLINED IN THE REPORT OF PRELIMINARY SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION BY PIEDMONT GEOTECHNICAL CONSULTANTS, INC. PGC, PROJECT NO. 117096, DATED 04/10/2017

7. ALL FOUNDATION EXCAVATIONS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER OR TESTING AGENCY PRIOR TO POURING ANY FOUNDATION CONCRETE. CONTACT STRUCTURAL ENGINEER IF SOIL CONDITION ENCOUNTERED DO NOT SATIFY THE RECOMMENDATIONS OUTLINED IN THE REPORT OF PRELIMINARY SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION.

8. ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 2'-0" BELOW F.F.E. AND A MINIMUM OF 1'-6" BELOW ADJACENT EXTERIOR FINISH GRADE (TYP. UNO)

9. TOP OF INTERIOR FOOTINGS SHALL BE A MINIMUM OF 0-8" BELOW F.F.E. (UNO)

10. PRIOR TO COMMENCING ANY FOUNDATION WORK, COORDINATE WORK WITH ANY EXISTING OR NEW UTILITIES. LOWER FOUNDATION AS REQUIRED TO AVOID INTERFERENCE WITH UTILITIES.

11. INDICATES FOOTING STEP. SEE PLANS

SPECIALTY ENGINEERED PRODUCTS

1. THE GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE THE PROPER SUBMISSION OF SPECIALTY ENGINEERED SHOP DRAWINGS WHICH SHALL BE SIGNED AND SEALED BY AN ENGINEER. REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT THE SPECIALTY ENGINEERED SHOP DRAWINGS ARE SUBMITTED IN A TIMELY MANNER SO AS TO ALLOW REVIEWS AND RESUBMISSIONS AS REQUIRED. ALL SPECIALTY ENGINEERED PRODUCTS SHALL BE DESIGNED FOR THE APPROPRIATE GRAVITY LOADS AND WIND LOADS INCLUDING UPLIFT AND LATERAL LOADS. INTERIOR SPECIALTY PRODUCTS SHALL BE DESIGNED FOR LATERAL LOADS TO ASSURE STABILITY. SPECIALTY ENGINEERED PRODUCTS SHALL BE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

A. LIGHT GAUGE METAL FRAMING INCLUDING, BUT NOT LIMITED TO, SOFFITS, CLADDING, CEILINGS,

B. MISCELLANEOUS METALS INCLUDING STEEL STAIRS, MECHANICAL EQUIPMENT SUPPORTS, FRAMES THAT SUPPORT MACHINES, PIPES OR OTHER STRUCTURAL METAL USED FOR SUPPORT OF MECHANICAL SYSTEMS.

C. MISCELLANEOUS HANGARS. METAL FRAMES. LADDERS. RIGGING. HANGING WALLS. METAL RAILINGS. GLAZING FRAMES, CLADDING SUCH AS STONE, PRECAST, ALUMINUM, METAL PANELS, CABLE BARRIER SYSTEMS, ETC. OR ANY OTHER MISCELLANEOUS PRODUCT REQUIRED BY THE ARCHITECTURAL OR MECHANICAL CONSTRUCTION DOCUMENTS.

CONCRETE SLAB ON GRADE NOTES

SUBGRADE PREPARATION REQUIREMENTS.

1. BASEMENT FLOOR SLAB-ON-GRADE SHALL BE 5" THICK 3000 PSI MINIMUM COMPRESSIVE STRENGTH NORMAL WEIGHT CONCRETE. REINFORCED w/ 6X6-W2.1/W2.1 WWF, LOCATED MID-DEPTH OF SLAB. SEE CIVIL PLANS FOR FINISHED FLOOR ELEVATIONS. COORDINATE VAPOR BARRIER REQUIREMENTS w/ ARCHITECTURAL AND GEOTECHNICAL ENGINEER REQUIREMENTS. PROVIDE 15 MIL (MIN) POLYETHYLENE VAPOR BARRIER WITH JOINTS LAPPED 6" AND TAPED UNDER ALL INTERIOR SLABS. REFER TO GEOTECHNICAL ENGINEER FOR BELOW SLAB ON GRADE,

2. CONTROL/CONSTRUCTION JOINTS SHALL BE LOCATED SUCH THAT NO AREA EXCEEDS 400 SQUARE FEET NOR SHALL THE LENGTH EXCEED 1.5 TIMES THE WIDTH. CONSTRUCTION JOINTS MY BE SUBSTITUTED FOR CONTROL JOINTS. METAL " KEYHOLD" JOINTS SHALL BE USED AT ALL CONSTRUCTION JOINTS. LOCATE ALL CONTROL JOINT EQUAL DISTANCE BETWEEN LOAD BEARING WALL AND 5'-0" MIN FROM THE END OF LOAD BEARING WALLS (INCLUDING OPENINGS ETC.)

3. CONDUITS AND PIPES EMBEDDED IN SLABS: SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE-THIRD THE OVERALL THICKNESS OF THE SLAB. SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS OR WIDTHS ON CENTER. A MINIMUM SLAB THICKNESS OF 41/2" MUST BE MAINTAINED OVER THE EMBEDDED CONDUITS OR

4. THICKEN SLAB AT LOCATIONS INDICATED ON FOUNDATION PLAN SEE 6/S3.1

STEEL NOTES:

1. STRUCTURAL STEEL A. SHALL CONFORM TO THE LATEST STANDARDS OF ASTM: WIDE FLANGE BEAMS: A992 MISC. STRUCTURAL STEEL SHAPES, PLATES AND BARS: A36 HOLLOW STRUCTURAL STEEL SECTIONS (ROUND AND RECTANGULAR): A500 GRADE B STRUCTURAL STEEL PIPE: A53 GRADE B

B. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360-05) USING ALLOWABLE STRESS DESIGN

C. PROVIDE 1" (MINIMUM) NON-SHRINK GROUT UNDER ALL BASE PLATES. D. SHOP OR FIELD SPLICES BETWEEN SUPPORTS THAT ARE NOT REQUIRED BY DESIGN WILL NOT BE ALLOWED. ANY MEMBERS CONTAINING SUCH SPLICES FOUND IN THE FIELD SHALL BE REMOVED AND REPLACED WITH UNSPLICED MEMBERS AT THE FABRICATOR'S EXPENSE.

2. STEEL CONNECTIONS: A. WHERE BEAM REACTIONS OR DETAILS ARE NOT SHOWN IN THE CONSTRUCTION

DOCUMENTS. CONNECTIONS SHALL BE DESIGNED FOR ONE-HALF THE MAXIMUM (SIMPLE SPAN) UNIFORM LOAD WHICH THE MEMBER WILL SUPPORT FOR THE SPAN SHOWN ON THE DRAWINGS.

AS SHOWN ON DRAWINGS. CONNECTIONS SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A-325 OR A-490 BOLTS. CONNECTIONS ARE BEARING TYPE.

C. BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION UNLESS OTHERWISE NOTED ON THE DRAWINGS. 3 WELDS

A. MINIMUM SIZE OF WELD IS 3/16" AND (E70XX) UNLESS NOTED OTHERWISE. B. ALL WELDING SHALL CONFORM TO THE LATEST "STRUCTURAL WELDING CODE" BY THE AMERICAN WELDING SOCIETY. ALL WORK SHALL BE PERFORMED BY CERTIFIED WELDERS EXPERIENCED IN THE TYPE OF CONSTRUCTION INVOLVED. PROOF OF

4. PROVIDE ALL SUPPORTING STEEL NOT INDICATED ON PLAN AS REQUIRED FOR THE INSTALLATION OF MECHANICAL EQUIPMENT AND MATERIALS, INCLUDING ANGLES, CHANNELS, BEAMS, HANGERS, ETC. DO NOT SUPPORT EQUIPMENT OR PIPING FROM METAL DECKING.

5. STEEL STAIRS: ENGINEERED CONCRETE FILLED STEEL STAIR SYSTEM AND ALL CONNECTIONS OF THE SAME TO THIS STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMIT SHOP DRAWINGS BEARING THE SEAL AND THE SIGNATURE OF THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE CONFIGURATION OF THE STEEL STAIR SYSTEM SHALL BE SHOWN ON THE ARCHITECTURAL DRAWINGS. STEEL STAIR SYSTEM AND ALL CONNECTIONS SHALL BE DESIGNED FOR ALL APPLICABLE LOADS AS INDICATED ON THE PLANS AND IN ALL APPLICABLE BUILDING CODES. THE LOADS SHALL BE CLEARLY INDICATED ON ALL SHOP DRAWINGS. SHOP DRAWINGS SHALL SHOW AND SPECIFY ALL CONNECTIONS UTILIZED WITHIN THE STEEL STAIR SYSTEM AS WELL AS

CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM SHOWN OF THESE PLANS.

COLD FORMED METAL FRAMING NOTES:

1. METAL FRAMING; NON-STANDARD SSMA METAL FRAMING MEMBER (CEE (C), TRACK. ZEE (Z) & HAT CHANNELS) DIMENSIONS, CONFIGURATIONS AND SECTION PROPERTIES SHALL COMPLY WITH THE 2007 AISI. COLD-FORMED STEEL DESIGN SPECIFICATIONS

2. USE STEEL TO FORM ZINC COATED (GALVANIZED) NON-STANDARD SSMA METAL FRAMING MEMBERS TO MEET THE PHYSICAL AND CHEMICAL PROPERTIES OF ASTM A653, GRADE 55 (FY=55 KSI), AND G60 COATING DESIGNATION AS DESCRIBED IN ASTM A 924

3. USE STEEL TO FORM PRIMED NON-STANDARD SSMA METAL FRAMING MEMBERS TO MEET THE PHYSICAL AND CHEMICAL PROPERTIES OF ASTM A1011, GRADE 55 (FY=55 KSI).

4. SUBMIT SHOP DRAWING INDICATING MEMBER DIMENSIONS, CONFIGURATIONS, SECTION PROPERTIES, COATING, DETAIL OF FABRICATION, DETAILS OF ATTACHMENT TO ADJOINING WORK AND DETAILS OF ALL FASTENERS INCLUDING LOCATION AND SPACING OF ALL FASTENERS ATTACHING FRAMING TO ITSELF.

5. SHOP DRAWING SUBMITTAL TO INCLUDE PLANS, ELEVATIONS, SECTIONS AND DETAILS 6. SUBMIT SHOP DRAWINGS INCLUDING CALCULATIONS PREPARED,

SIGNED AND SEALED BY A ENGINEER LICENSED WITH AND ACTIVE REGISTRATION IN THE STATE WHERE THE PROJECT IS LOCATED. 7. SCREWS SHALL BE SELF DRILLING TYPE SCREWS OF THE OF THE

MINIMUM DIAMETER INDICATED ON PLANS AND DETAILS WITH A MIN PENETRATION THROUGH JOINED MATERIAL OF NOT LESS THAN (3) EXPOSED THREADS.

8. SCREW SPACING AND EDGE DISTANCES SHALL BE (3) SCREW DIAMETERS WITH A MIN 1/2" DIMENSION

9. SCREW SHALL HAVE A PROTECTIVE COATING OF NOT LESS THAN THE JOINED MEMBER PROTECTIVE COATING.

10. ALL BOLTS FOR CONNECTIONS SHALL CONFORM TO ASTM A325 11. DO NOT ALTER, CUT OR REMOVE MEMBERS OR CONNECTIONS OF MEMBERS WITH PRIOR WRITTEN APPROVAL OF ENGINEER. 12. FIELD TOUCH UP ALL FIELD WELDS AND ABRASIONS OF GALVANIZED MATERIALS WITH ZINC RICH PAINT IN ACCORDANCE

13. STANDARD SSMA METAL STUD AND TRACK FRAMING A. METAL STUD STRENGTH CRITERIA:

THE LIGHT GAUGE STEEL FRAMING.

1. 18 MIL TO 43 MIL - 33 KSI MIN. YIELD STRESS 2. 54 MIL TO 97 MIL - 50 KSI MIN. YIELD STRESS 3. RUNNER TRACK - 33 KSI MIN. YIELD STRESS (UNO) DO NOT USE STUDS LESS THAN 43 MIL FOR ANY EXTERIOR WALL USED TO BACK-UP BRICK VENEER.

B. ATTACH METAL FRAMING TO PRIMARY STRUCTURE WITH A DEFLECTION TRACK OR A STEEL NETWORK INC. VERTICAL DEFLECTION CLIPS CAPABLE OF ALLOWING 1" OF VERTICAL DEFLECTION. 14. METAL STUD FASTENERS:

A. SCREW CONNECTIONS USE #10-16 KWIK-FLEX SELF-DRILLING SCREWS OR APPROVED EQUAL UNLESS OTHERWISE NOTED. 4 SCREWS PER C CONNECTION MIN., UNLESS NOTED OTHERWISE OR A PRE-ENGINEERED TRUSS

1. FASTENING TO CONCRETE:

B. POWER DRIVEN FASTENERS:

USE 0.145" DIA. DOME HEAD NAIL TYPE "X-ZF" BY HILTI OR APPROVED EQUAL UNLESS NOTED OTHERWISE. MIN. EMBEDMENT = 1 1/4" MIN. EDGE DISTANCE = 2" MIN. SPACING = 3" MAX. SPACING = 12"

2. FASTENING TO STEEL USE 0.145" DIA. DOME HEAD KNURLED SHANK FASTENER TYPE "X-EDNI" BY HILTI OR APPROVED EQUAL UNLESS NOTED OTHERWISE MIN. EMBEDMENT = FULL PENETRATION MIN. EDGE DISTANCE = 1/2"

MIN. SPACING = 1 1/2" MAX. SPACING 12"

B. BOLTS SHALL BE HIGH STRENGTH A-325 BOLTS OF SAME SIZE AND NUMBER

WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE.

WITH ASTM A 780, ANNEX A2. TOUCH UP WORK SHALL BE COMPLETED PRIOR TO ATTACHMENT OF THE WORK OF ANY OTHER SECTIONS TO

**ROOF FRAMING NOTES** 

DESIGN ROOF JOIST FOR A NET UPLIFT OF 20 PSF (ASD) (UNO). NO 1/3 STRESS INCREASE ALLOWED.

2. 1.5" TYPE B ROOF DECK: (ALL CANOPIES U.N.O.) 36/5 f f f f f f f f 1.5" TYPE B X22GA. (.0295")

ATTACH CANOPY DECK TO SUPPORTS WITH (#12 SCREWS) IN A 36/4 PATTERN WITH 6 SIDELAPS FASTENERS (#10 SCREWS) PER SPAN. ATTACHMENT AT PERIMETER OF DECK SHALL BE EQUAL TO ATTACHMENT AT DECK SHEET LAPS AND DECK SHEET ENDS. ANY PARTIAL OR SKEWED SHEETS SHALL BE ATTACHED AT EVERY FLUTE REGARDLESS OF ATTACHMENT PATTERN.

3. 3" TYPE N ROOF DECK: (MAIN ROOF) 24/4 f f f 3" TYPE N X22GA. (.0295") (3 SPAN MIN.)

ATTACH ROOF DECK TO SUPPORTS WITH (#12 SCREWS) IN A 24/4 PATTERN WITH 7 SIDELAP FASTENERS (#10 SCREWS) PER SPAN. ATTACHMENT AT PERIMETER OF DECK SHALL BE EQUAL TO ATTACHMENT AT DECK SHEET LAPS AND DECK SHEET ENDS. ANY PARTIAL OR SKEWED SHEETS SHALL BE ATTACHED AT EVERY FLUTE REGARDLESS OF ATTACHMENT PATTERN.

4. ROOF SYSTEM IS DESIGNED FOR MECHANICAL EQUIPMENT SHOWN. NOTIFY ARCH/ENGINEER IF ADDITIONAL EQUIPMENT REQUIRED OR IF HEAVIER UNITS ARE SUPPLIED.

5. COORDINATE THE EXACT LOCATION AND EXTENT OF ROOF HATCH OPENINGS WITH ARCH. DRAWINGS.

FLOOR FRAMING NOTES:

3. FLOOR SLAB SHALL BE 51/2" (TOTAL THICKNESS) WITH NORMAL WEIGHT CONCRETE (f c=3000 PSI) ON 3" 20 GAUGE COMPOSITE METAL DECK (50 Fy) (NEW MILLENNIUM 3.0 CD OR EQUAL), REINFORCE SLAB WITH WWR; 6X6-W1.4XW1.4 LOCATED AT MID-DEPTH OF SLAB. 4. ATTACHMENT OF FLOOR DECK TO SUPPORTS WITH (#12 TEK SCREWS) IN

A 36/4 PATTERN WITH 4 SIDE LAPS PER SPAN (#10 SCREWS). ATTACHMENT AT PERIMETER OF DECK SHALL BE EQUAL TO ATTACHMENT AT DECK SIDE LAPS AND DECK SHEET ENDS. ANY PARTIAL OR SKEWED SHEETS SHALL BE ATTACHED AT EVERY FLUTE REGARDLESS OF ATTACHMENT PATTERN.

√ 3" TYPE 3.0CD 20GA. (.0358") 36/4 (3 SPAN MIN.) 

(G60 GALVANIZED.) 5. SUSPENDED CEILINGS, LIGHT FIXTURES, DUCTS AND OTHER PERMANENT SUSPENDED LOADS SHALL NOT BE SUPPORTED BY THE METAL DECKING. 6. PROVIDE 51/2"x5" LLV 14GA CONT. POURSTOP ANGLE AT ALL DECK EDGES AND AROUND ALL OPENINGS IN FLOOR SLAB.

7. PROVIDE 6"x4"x1/4" LLV ANGLE AT ALL DECK EDGES SUPPORTED ON CMU WALLS.

SPECIAL INSPECTIONS

- A. THE SPECIAL INSPECTOR SHALL BE ENGAGED BY THE OWNER. SPECIAL INSPECTOR SHALL BE FULLY QUALIFIED, APPROVED BY THE BUILDING OFFICIAL, REGISTERED BY APPLICABLE REGISTRATION BOARD IF REQUIRED BY THE LOCAL BUILDING OFFICIAL. AND SHALL BE ACCEPTABLE TO THE ARCHITECT.
- B. THE SPECIAL INSPECTOR SHALL PROVIDE VERIFICATION OF CONSTRUCTION QUALITY CONTROL INSPECTIONS AND TESTING. THE SPECIAL INSPECTOR SHALL CERTIFY THAT ALL WORK REQUIRING INSPECTION IS PERFORMED IN COMPLIANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS, BUILDING CODE REQUIREMENTS AND LOCAL BUILDING DEPARTMENT REQUIREMENTS.
- C. SPECIAL INSPECTIONS ARE REQUIRED FOR THE ITEMS NOTED IN THE STATEMENT OF SPECIAL INSPECTIONS AND THE 2012 IBC CHAPTER 17 THE CONTRACTOR SHALL OBTAIN A COPY OF THE STATEMENT OF SPECIAL INSPECTIONS AND NOTIFY THE SPECIAL INSPECTOR WHEN WORK IS READY TO BE INSPECTED.
- D. FAILURE TO NOTIFY THE SPECIAL INSPECTOR PRIOR TO OBSCURING AN ITEM REQUIRING INSPECTION MAY RESULT IN THE CONTRACTOR REMOVING OTHER WORK TO ALLOW INSPECTION. THIS WORK WILL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE. FAILURE TO HAVE REQUIRED ITEMS INSPECTED IS REASON FOR REJECTION OF THE WORK.
- E. PREMATURE NOTIFICATION FOR INSPECTIONS WILL RESULT IN ADDITIONAL INSPECTION WITH ALL EXPENSES AND FEES PAID FOR BY THE CONTRACTOR.

### SHEAR WALL AND WALL PANEL NOTES

SW-2

1. 26 GAUGE PBU WALL PANELS WHERE NOTED, ALL OTHER PANELS SHALL BE 29 GAUGE PBU WALL PANELS. ALL WALL PANELS SHALL BE GRADE 80 2. ATTACH ALL PBU PANEL ENDS TO SUPPORTS WITH #12 TEK SCREWS AT 6" o.C. AND TO INTERMEDIATE SUPPORTS AT 12" o.c.

3. SIDELAP ATTACHMENT FOR WALLS DESIGNATED AS SHEAR WALLS ON THE PLANS SHALL BE #12 TEK SCREWS AT 12" o.c. (20" o.c. FOR ALL OTHER WALL). FOR WALLS DESIGNATED AS SHEAR WALLS ON THE PLANS, FASTEN BOTTOM EDGE OF PANEL TO BOTTOM TRACK WITH #12x3/4" TEK SCREW PANEL FASTENERS @ 12" o.c. (20" o.c. FOR ALL OTHER WALL).

4. ALL PERIMETER PANELS SHALL BE FULL HEIGHT 29 GAUGE PBU WALL PANELS 5. ALL INTERIOR PANELS SHALL BE 8'-4" HIGH. COORDINATE EXACT PANEL HEIGHT WITH ARCHITECTURAL.

6. THERE SHALL BE A DOUBLE STUD AT EACH END OF EACH SHEAR WALL AT THE LEVEL OF THE SHEAR WALL AND ALL LEVELS BELOW WITH THE EXCEPTION OF SHEAR WALLLS AT THE ROOF LEVEL. THE DOUBLE STUD SIZE, TYPE AND GAUGE SHALL BE EQUAL TO THE SHEAR WALL FRAMING MEMBERS AT EACH LEVEL.

7. SCREWS SHALL BE SELF DRILLING TYPE SCREWS WITH A MIN PENETRATION THROUGH JOINED MATERIAL OF NOT LESS THAN (3) EXPOSED THREADS. 8. SHEAR WALLS DESIGNATED ON A LEVEL ARE THE WALLS BELOW THAT LEVEL. SW-1 29 GAUGE PBU PANEL ON ONE SIDE OF WALL TO 8'-4" MINIMUM WITH

> STRAP BRACES ABOVE TOP OF PANEL 26 GAUGE PBU PANEL ON ONE SIDE OF WALL TO 8'-4" MINIMUM WITH STRAP BRACES ABOVE TOP OF PANEL

**REINFORCED MASONRY NOTES:** 

SPECIAL INSPECTION IS REQUIRED FOR ALL MASONRY CONSTRUCTION 1. ALL MASONRY WALLS SHALL HAVE CELLS REINFORCED AND DOWELED INTO FOUNDATION AS NOTED ON THE DRAWINGS. ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.

2. REINFORCED CELLS WITH GROUT SHALL BE CONTINUOUS FROM FOUNDATION TO THE TOP OF THE WALL.

3. FILL REINFORCED CELLS WITH MECHANCIALLY MIXED GROUT (2,500 PSI MIN.). A. GROUT SHALL CONFORM TO ASTM C-476 (PROPORTION SPECIFICATION).

B. GROUT SHALL BE MIXED FOR AT LEAST 5 MINUTES IN MECHANICAL MIXER AND PLACED WITHIN 1 1/2 HOURS FROM THE INITIAL INTRODUCTION OF WATER AND PRIOR TO INTIAL SET. C. BETWEEN GROUT POURS, A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING ALL CMU AT THE SAME ELEVATION AND WITH THE GROUT STOPPING A MINIMUM OF 1 1/2" BELOW A MORTAR JOINT, EXCEPT AT THE TOP OF THE WALL. WHERE BOND BEAMS OCCUR, THE GROUT POUR SHALL BE STOPPED A MINIMUM OF 1/2" BELOW THE TOP OF THE MASONRY D. CMU WALLS SHALL BE CONSTRUCTED USING LOW-LIFT GROUTING (5'-0" MAX. POUR HEIGHTS).

E. ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS ARE MARKED ON THE PLANS AS (SW). SEE SCHEDULE ON THIS SHEET FOR REINFORCEMENT. 4. ALL CONCRETE MASONRY SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH (f`m) OF 1500 PSI. (MSJC S1.4B.2B TABLE 2).

5. MORTAR SHALL BE TYPE S-(ASTM 270 TABLE 1 MORTAR PROPORTION SPECIFICATION REQUIREMENTS). A. THICKNESS OF BED JOINTS SHALL BE 3/8" EXCEPT THAT THE THICKNESS OF THE BED JOINT OF THE STARTING COURSE PLACED OVER FOUNDATIONS SHALL NOT BE LESS THAN 1/4" AND NOT MORE THAT 3/4". B. MORTAR SHALL BE MIXED UNTIL MIXTURE IS UNIFORM THOUGHOUT C. UNUSED MORTAR SHALL BE DISCARDED WITHIN 2 1/2 HOURS AFTER INITIAL MIXING

6. ALL MASONRY UNITS SHALL CONFORM TO ASTM C-90 AND HAVE A NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS EQUAL TO 1900 PSI (MSJC S1.4B.2B TABLE 2) A. ALL WALLS SHALL BE CONSTRUCTED USING RUNNING BOND (U.N.O).

7. REINFORCING STEEL SHALL CONFORM TO ASTM A615-GRADE 60. FOR WELDED REINFORCING USE ASTM A706-GRADE 60. 8. ALL MASONRY WALLS SHALL HAVE STANDARD HORIZONTAL (9 GA.) LADDER TYPE

REINFORCING @ 16" o.c. JOINT REINFORCEMENT SHALL CONFORM TO ASTM A951. 9. COORDINATE REQUIRED TYPE, SIZE, GAUGE, AND SPACING OF STEEL ANCHORS FOR ATTACHMENT OF MASONRY VENEER WITH ARCH. DRAWINGS.

10. CONTROL JOINTS IN CONCRETE MASONRY SHALL HAVE A MAXIMUM SPACING OF 25'-0" o.c. (UNO). COORDINATE THE LOCATION OF BRICK EXPANSION JOINTS WITH ARCH. DWGS.

11. SLEEVE ALL PLUMBING OR FIRE PROTECTION PIPING THRU CMU WALLS. 12. REINFORCING BARS FOR VERTICAL FILLED CELLS SHALL BE LAPPED ACCORDING

TO MASONRY LAP LENTH TABLE 1, SEE THIS SHEET. 13. COORDINATE EXACT LOCATION AND EXTENT OF ALL OPENINGS IN MASONRY

WALLS WITH ARCH. DRAWINGS. 14. MINIMUM MASONRY COVER FOR REINFORCING STEEL: A. MASONRY EXPOSED TO WEATHER OR EARTH: 2" FOR BARS LARGER THAN #5

11/2" FOR #5 AND SMALLER BARS B. MASONRY NOT EXPOSED TO WEATHER OF EARTH: 11/2"

REINFORCED CONCRETE NOTES

1. STRUCTURAL MEMBERS OF REINFORCED CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI318.

2. ALL CONCRETE SHALL HAVE A SLUMP OF 4" (+/-1") AND A MINIMUM 28 DAY COMPRESSIVE STRENGTH: A. FOOTINGS: 3000 PSI (0.50 MAXIMUM WATER/CEMENT RATIO). B. WALLS: 3000 PSI (0.50 MAXIMUM WATER/CEMENT RATIO). C. SLAB ON GRADE: 3000 PSI (540 LBS/CUBIC YARD MINIMUM CEMENTITIOUS MATERIAL) (0.50 MAXIMUM WATER/CEMENT RATIO).

3. ALL STEEL REINFORCEMENT SHALL BE ASTM 615-GRADE 60. ALL WELDED STEEL REINFORCEMENT SHALL BE ASTM A706-GRADE 60. WELDED WIRE REINFORCEMNET SHALL BE ASTM A185. ALL WELDED REINFORCEMENT SHALL BE IN ACCORDANCE WITH AWS D1.4.

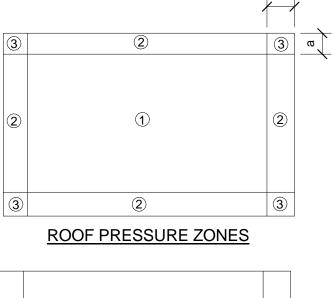
4. MINIMUM CONCRETE COVER FOR REINFORCING STEEL: (UNO) A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"

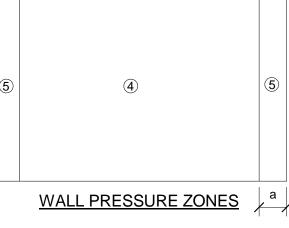
B. CONCRETE EXPOSED TO EARTH AND WEATHER: #5 REBAR AND SMALLER: 1 1/2"

#6 REBAR AND LARGER: 2" C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH. SLABS, WALLS, AND JOISTS: #14 OR #18 RFBARS: 1 1/2" #11 REBAR AND SMALLER: 3/4 BEAMS AND COLUMNS: 1 1/2"

5. UNLESS NOTED OTHERWISE, CAST IN PLACE CONCRETE SHALL HAVE THE FOLLOWING STEEL ADDED AROUND ALL OPENINGS: 2-#5 (LENGTH OF OPENING+ 48") ALONG EACH SIDE OF OPENING AND TWO (2)-#5x5'-0" DIAGONALLY AT EACH CORNER.

6. ALL CONCRETE COMPRESSIVE STRENGTH TESTS SHALL BE AVAILABLE AT JOB SITE. 7. ALL LAP SPLICE LENGTHS SHALL BE AS SHOWN IN TABLE 2 THIS SHEET





COMPONENT AND CLADDING (MAIN ROOF)

ZONE	AREA (SF)	MAX (+) (PSF)	MAX (-) (PSF)	REMARKS
ZONE 1	10	+16.0	-44.08	
	100	+16.0	-40.31	
ZONE 2	10	+17.98	-73.95	
	100	+16.0	-47.85	
ZONE 3	10	+17.98	-111.36	
	100	+16.0	-47.85	

### COMPONENT AND CLADDING (WALLS) AREA MAX (+) MAX (-) REMARKS ZONE

	(37)	(FSF)	(POF)	
ZONE 4	10	+44.08	-47.85	
	500	+32.92	-36.54	
ZONE 5	10	+44.08	-55.1	
	500	+32.92	-36.54	

### WIND TABLE NOTES 1. LOADS BASED ON ASCE 7-10 2. a=13 FT

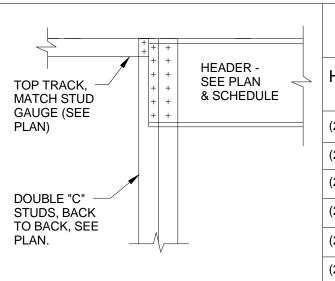
REINFORCED CONCRETE TENSION LAP SPLICE LENGTHS TABLE 2 (INCHES)						
BAR SIZE	f`c=4000 PSI					
#3	25	21.3				
#4	33	29				
#5	41	36				
#6	49	43				
#7	72	62				

LIST OF ABBREVIATIONS								
FOB: FACE OF BRICK	LO: LOW CONDITION							
FOA: FACE OF ANGLE	HI: HIGH CONDITION							
FOS: FACE OF STUD	TOW: TOP OF WALL							
TOB: TOP OF BEAM	SDS: SELF DRILLING SCREW							
BOC: BOTTOM OF CHANNEL	FOC: FACE OF CHANNEL							
T&B: TOP AND BOTTOM	TOF: TOP OF FOOTING							
TOA: TOP OF ANGLE	SIM: SIMILAR CONDITION							
BOA: BOTTOM OF ANGLE	W.P.: WORKING POINT							
LLV: LONG LEG VERTICAL	UNO.: UNLESS NOTED OTHERWISE							
LLH: LONG LEG HORIZONTAL	B. ?: BASE PLATE							
SW: MASONRY SHEAR WALL	PAF: POWER ACTUATED FASTENERS							
TOS: TOP OF SLAB	S.F: STEP FOOTING							
T/COL: TOP OF COLUMN	B/COL: BOTTOM OF COLUMN							
	FOT: FACE OF TUBE							

MASONRY LINTEL SCH	IEDULE
	0' - 2 7/8" 0' - 3 1/2"

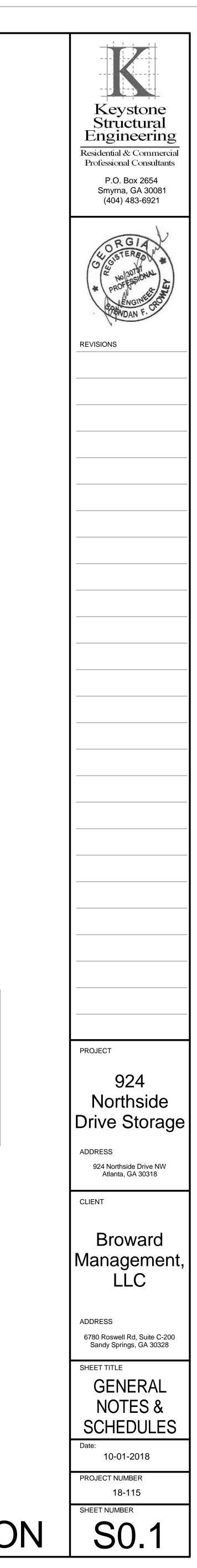
		0' - 3 1/2" (TYP.)	0' - 3 7/8" 3" 	0' - 3 1/2" 8" 8" 12"	16"	16"
OPENIN	G WIDTH		0	12	0	12
MINIMUM	MAXIMUM	LEDGE ANGLE	8" CMU	12" CMU	8" CMU	12" CMU
-	3'-4"	L3 1/2 x 3 1/2 x 1/4	2 - #4	2 - #4	-	-
3'-4"	5'-4"	L3 1/2 x 3 1/2 x 1/4	2 - #5	2 - #5	-	-
5'-4"	7'-4"	L5 x 3 1/2 x 1/4	-	-	4- #5	4 - #5
7'-4"	10'-0"	L6 x 4 x 3/8	-	-	4- #6	4 - #6
10'-0"	13'-0"	L7 x 4 x 3/8	-	-	-	-

I. EXTEND BOND BEAM REINFORCING 24" or 40 Db BEYOND THE EXTENTS OF THE OPENING. VERTICAL REINFORCING AT THE SIDES OF THE OPENING SHALL BE CONTINUOUS THROUGH THE BOND BEAM. PROVIDE KNOCK OUTS IN THE BOTTOM OF THE BOND BEAM BLOCK AS REQUIRED TO ALLOW REINFORCING TO PASS THROUGH. 2. SEE DETAIL 2/S4.3 FOR ADDITIONAL REINFORCING AT OPENINGS. 3. PROVIDE 8" BEARING FOR STEEL ANGLE LINTELS AT EACH END



### HEADER CONNECTION SCHEDULE

R - AN - DULE		HEADER	HEADER ATTACHMENT EACH SIDE OF DOUBLE STUD				
		(2) C4 x 2 1/2" x 16 GA	(2) ROWS (3) #12 SCREWS (6 TOTAL)				
	I	(2) C4 x 2" x 12 GA	(2) ROWS (3) #12 SCREWS (6 TOTAL)				
		(2) C6 x 2 1/2" x 14 GA	(2) ROWS (4) #12 SCREWS (8 TOTAL)				
		(2) C8 x 2 1/2" x 12 GA	(2) ROWS (5) #12 SCREWS (10 TOTAL)				
		(2) C10 x 2 1/2" x 12 GA	(2) ROWS (7) #12 SCREWS (14 TOTAL)				
		(2) C12 x 4" x 12 GA	(2) ROWS (7) #12 SCREWS (14 TOTAL)				

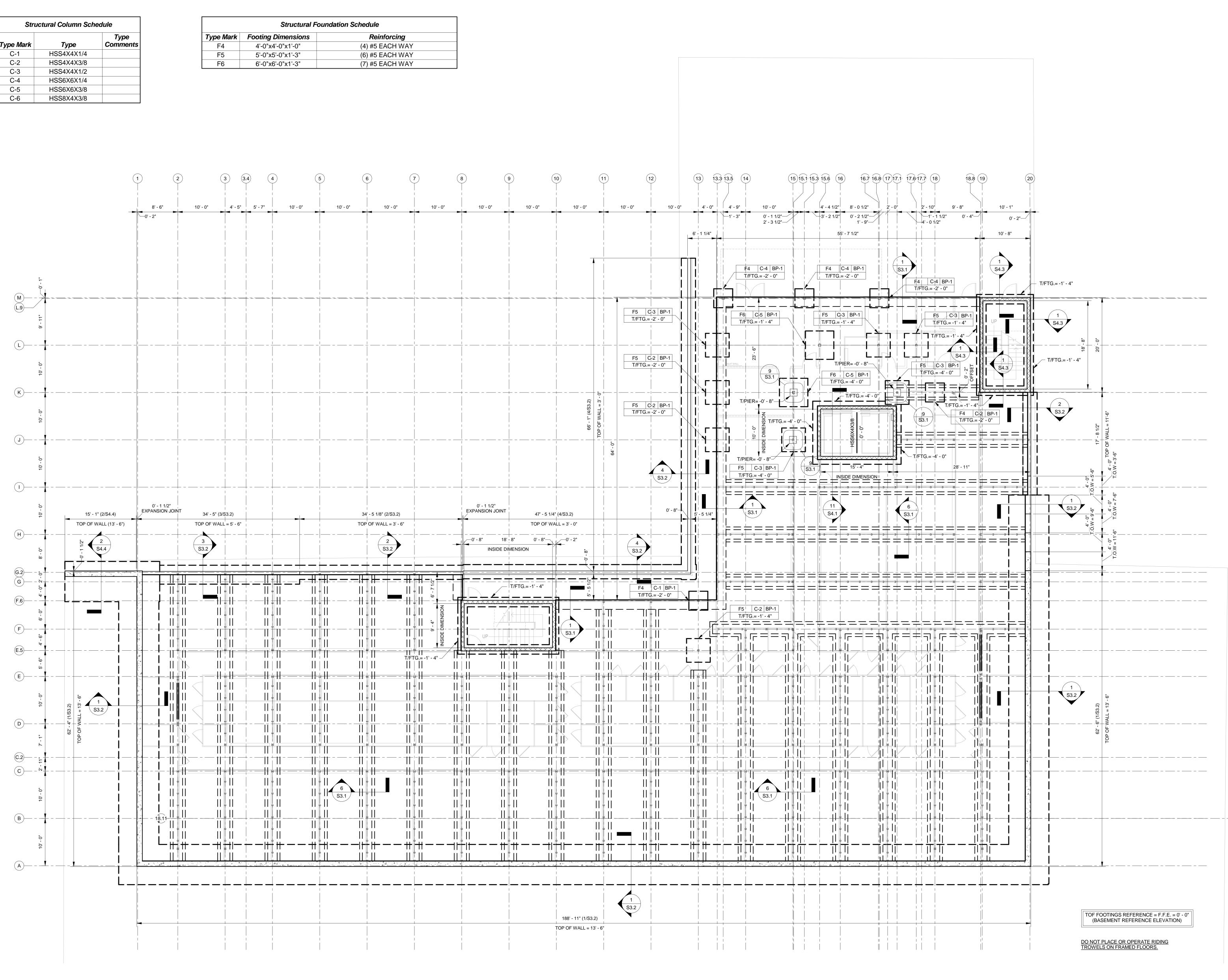






Structural Column Schedule						
Type Mark	Туре	Type Comments				
C-1	HSS4X4X1/4					
C-2	HSS4X4X3/8					
C-3	HSS4X4X1/2					
C-4	HSS6X6X1/4					
C-5	HSS6X6X3/8					
C-6	HSS8X4X3/8					

Structural Foundation Sc						
Type Mark	Footing Dimensions					
F4	4'-0"x4'-0"x1'-0"					
F5	5'-0"x5'-0"x1'-3"					
F6	6'-0"x6'-0"x1'-3"					



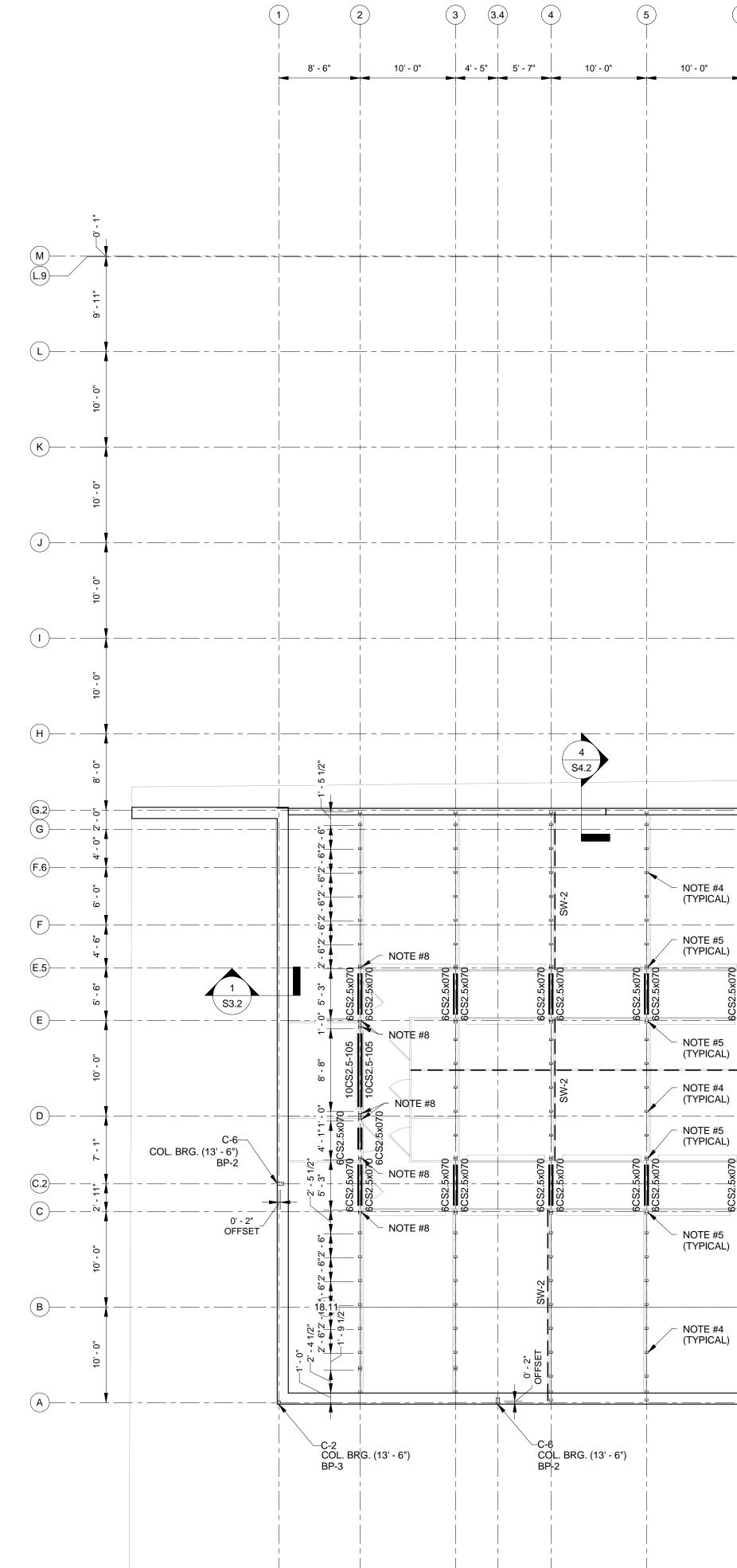
1Foundation Plan\$1.11/8" = 1'-0"

Keystone Structural Engineering Residential & Commercial Professional Consultants P.O. Box 2654 Smyrna, GA 30081 (404) 483-6921 REVISIONS PROJECT 924 Northside Drive Storage ADDRESS 924 Northside Drive NW Atlanta, GA 30318 CLIENT Broward Management, LLC ADDRESS 6780 Roswell Rd, Suite C-200 Sandy Springs, GA 30328 SHEET TITLE FOUNDATION PLAN Date: 10-01-2018 PROJECT NUMBER 18-115 SHEET NUMBER S1.1

CONCRETE FLOOR SLAB TO BE: 51/2" TOTAL 3,000 PSI CONCRETE SLAB W/ 6"x6" W1.4xW1 1. DECK (OR EQUAL) W/ #12 TEK SCREWS IN 36/4 PATTERN & (4) #10 TEK SCREWS AT SIDEL (2) 6CS2.5x070 HEADER (SEE HEADER CONNECTION SCHEDULE)

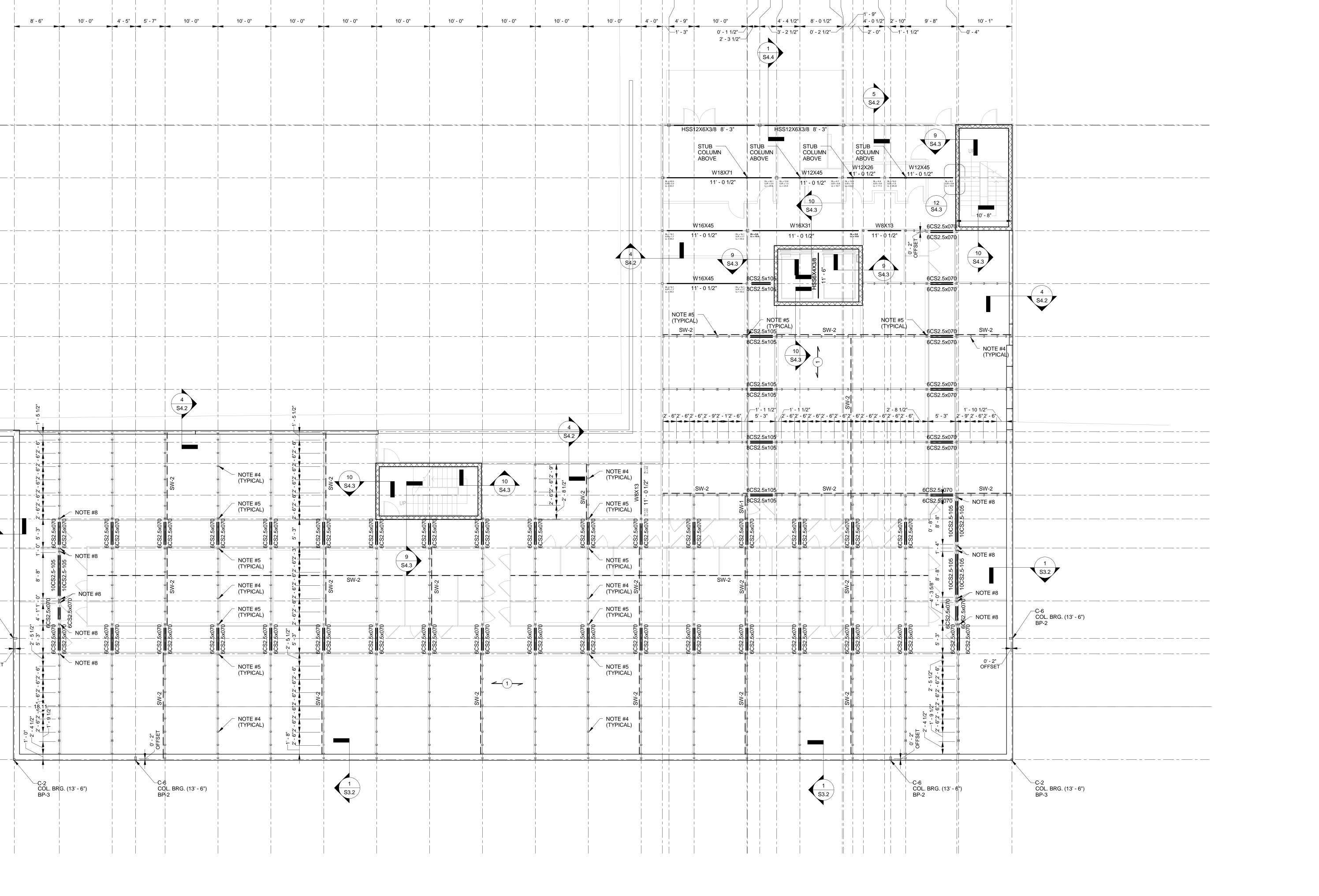
- (2) 10CS2.5x105 HEADER (SEE HEADER CONNECTION SCHEDULE). 6CS2.5x105 "CEE" TYPE METAL STUDS @ 30" O.C. AT ALL INTERIOR BEARING WALL (BELO
- (2) 6CS2.5x105 DOUBLE STUDS (BACK TO BACK) AT ALL INTERIOR BEAM ENDS, (BELOW), U ALL INTERIOR DOORS AND NON-BEARING PARTITION WALLS BY OTHERS, TYP.
- USE 6CS2.5x070 GAUGE "C" TYPE METAL STUDS AT 24" O.C. AT ALL EXTERIOR WALLS BEI STUD AT EACH AT ALL WALL OPENINGS. (2) 6CS2.5x105 DOUBLE STUDS (BACK TO BACK) AT EACH ROLL-UP DOOR JAMB, (BELOW)
- (2) 12CS4.0x105 HEADER (SEE HEADER CONNECTION SCHEDULE). PROVIDE ELEVATOR RAIL ATTACHMENT AT EACH FLOOR LEVEL (CAST INTO FLOOR SLA TRANSVERSE NON-LOAD BEARING SHEAR WALLS SHALL BE 4CS2.0x059 "C" TYPE METAL (2) 10CS2.0-105 BOX HEADER w/ (12) #12 TEK SCREWS AT EACH END ON EACH SIDE. 12.

ALTERNATE; CONCRETE FLOOR SLAB TO BE: 4 1/2" TOTAL 3,000 PSI CONCRETE SLAB W/ 6"x6" W1.4xW1.4 WWF DECK (OR EQUAL) W/ #12 TEK SCREWS IN 36/4 PATTERN & (4) #10 TEK SCREWS AT SIDELAPS, TY



### 1First Floor Framing Plan\$2.11/8" = 1'-0"

W1.4 WV DELAPS, T	VF AND S TYPICAL	3", 20 GAUG , 50 KSI = Fy	E VLI COMPOS	ITE									
)W), U.N.( LAB) TYP	(TYP). Pf O. 'ICAL.	ROVIDE DOU " o.c. TYPICA	IBLE FULL HEI	GHT	<u>DO N</u> TROV	<u>OT PLACE OR OPER/</u> VELS ON FRAMED FL	ATE RIDING OORS.						
WF AND	2", 18 G	AUGE VLI CO	OMPOSITE										
TYPICAL	., 50 KSI	Fy (7)	(	8)	(9)	(10)	(11)	(12)	(13) 1:	3.3 13.5 (14)	(15)15	5.1 15.3 15.1	.6 (16)
	10' - 0"		10' - 0"	     10'-	0" 10' -	0"   10' - C	)"   10' -	0" 10'-	0" 4' - 0"	4' - 9"	10' - 0"	4' -	- 4 1/2"
			•							1' - 3"	0' - 1 1/2" 2' - 3 1/2"		2 1/2"
											h h	S4.4	
     				   						HSS12X6X3	- Ч Ч		612X6¥3/8
										STUB COLU ABOV	MN E W18X71	UB LUMN OVE	ST CC AB
     		'   					<u> </u>				1' - 0 1/2"	DL = 20.1 LL = 20.1 LL = 37.8	<u>è</u>
   				   						W16X45			W16X31
									4 S4.2	DL-161         11'-01/           LL-302                     I	2" 01-16.1 LL=12 9 S4.3		11' - 0 1/
 				     			 			W16X45		2.5x105 2.5x105	=
										NOTE #5 (TYPICAL)		NOTE # (TYPIC) 2.5x105	#5 (AL)
		 I		   				 		SW-2 		2.5x105 2.5x105	10
											BCS	2.5x105	S4.3
	5 1/2"									2' - 6"2' - 6"2' - 6"2' - 5		2.5x105     - 1 1/2"    - 3"  _/2"	// /1' - 1 1/2' 2' - 6" <sub>1</sub> 2' - 6" <sub>1</sub> 2
<u> </u>		 		 + + 	<u></u>	<u> </u>	<u> </u>	4 54.2 -				2.5x105 2.5x105 2.5x105	
	6"2' - 6"2' - 6"2'		(10)					- NOT	=				
	6"2' - 6"2' -		S4.3			S4.3			E #2 W 8X13 W 8X13 0 1/2 0 1/2	SW-2		2.5x105 2.5x105	·
6CS2.5x070 6CS2.5x070 6CS2.5x070		6CS2.5x070 6CS2.5x070	SS2.5x070	6CS2.5x070	6CS2.5X070X	6CS2.5x070 6CS2.5x070 6CS2.5x070	6CS2.5x070	6CS2.5x070	6CS2.5x070	6CS2.5x070	6CS2.5x070		6CS2.5x070 6CS2.5x070 6CS2.5x070
	"2' - 6"2' - 3"				9 4.3				E #5 PICAL)				
L)	6"2' - 6"2' - 6"		SW-2		SW-2				E #4 PICAL) 0 		SW-2 SW		
x070 (- 5 x070 ===================================	3" 2' - 6"2' -	×070	070X	×04	×070	×070 ×070	x070 x070		E #5 PICAL) Q III Q	×070 ± 100 ×	x070 x070 x070		x070 *070 *070
6CS2.5x070 6CS2.5x070 6CS2.5x070	2' - 5 1/2"	6CS2.5x070	6CS2	9CS2.5x070	6CS2.5x070 6CS2.5x070 6CS2.5x070	6CS2.5x070	6CS2.5x070	6CS2.5×070	6CS2.5x070 6CS2.5x070	6CS2.5x070	6CS2.5x070 6CS2.5x070 6CS2.5x070		6CS2.5x070 6CS2.5x070 8CS2.5x070
, L)	6"2' - 6"2' - 6"			е 4	c			(TYF	E #5 PICAL) אורי				
	-1' - 8" 2' - 6"2' - 6"2' - 6"2' - 6"2'	8M-2		ц ц	<u></u>	SW-2		" NOT	۲۱۳ ۲E #4 PICAL)		SW-2		
	2'- 6"												
<del> </del>     	+	<sup>_</sup>							¥   		¥       		- <u> </u>
			S3.2								l I		
											h 		

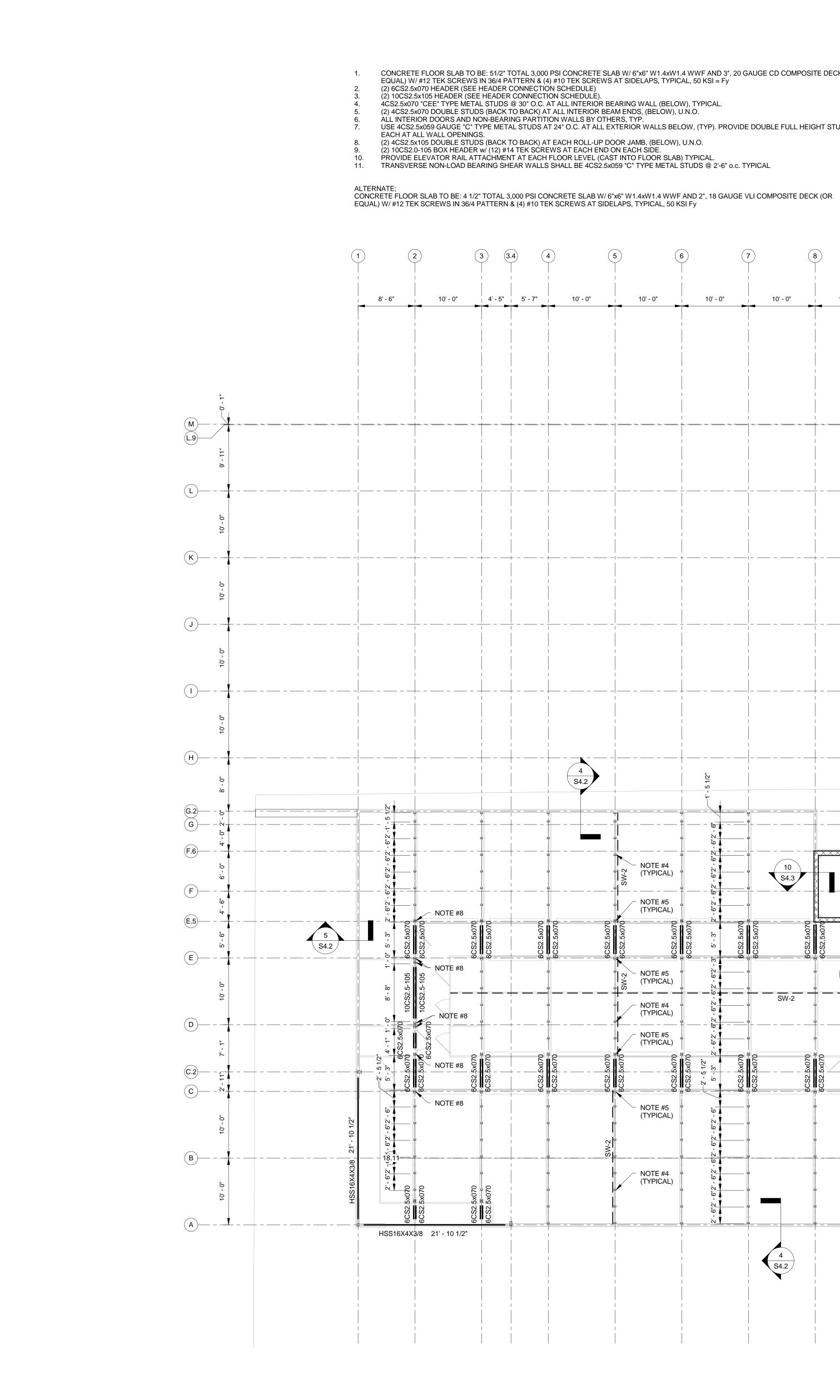


16.716.8(17)17.1 17.6 17.7 (18)

18.8 (19)

(20)

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1 Second Floor Framing Plan S2.2 1/8" = 1'-0"

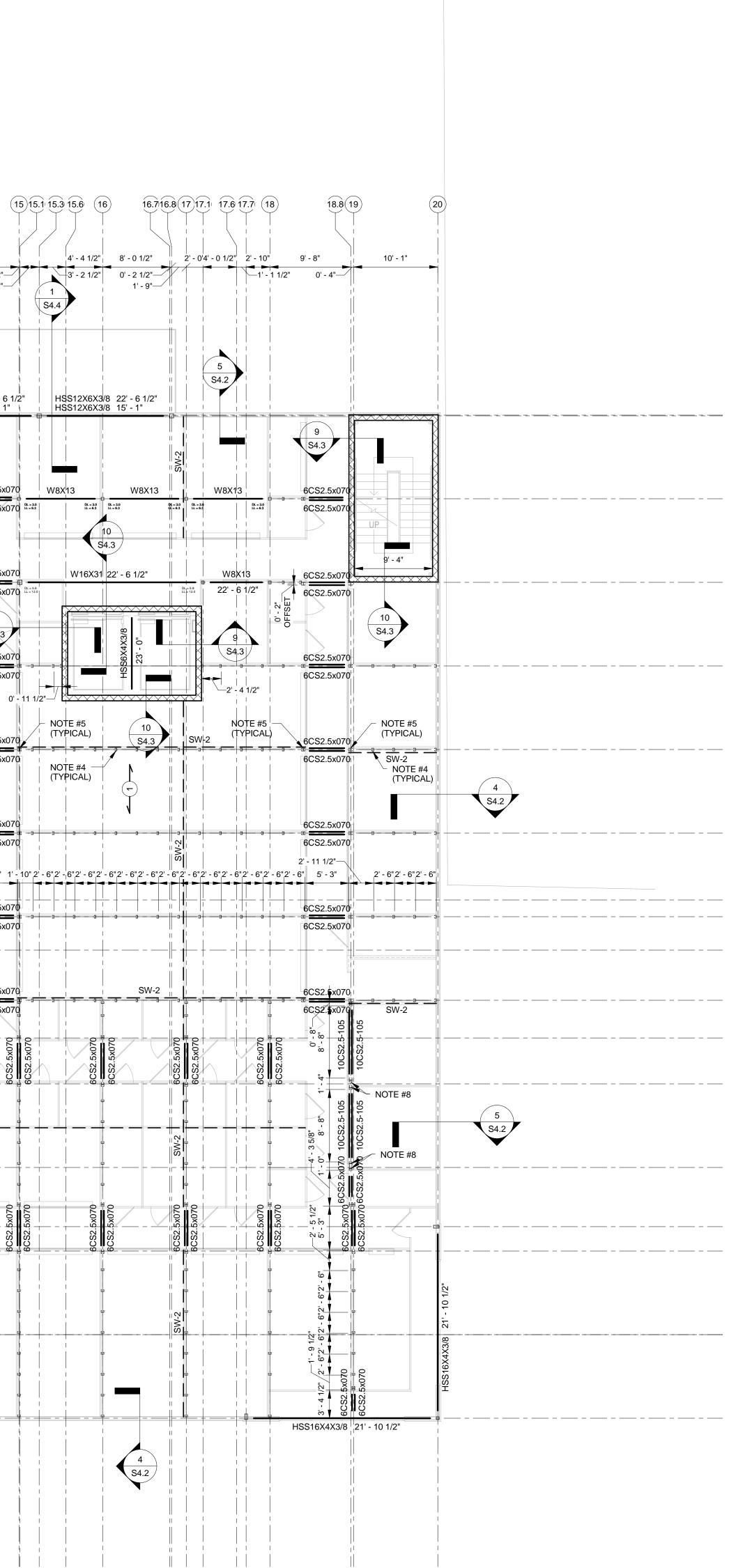
### CONCRETE FLOOR SLAB TO BE: 51/2" TOTAL 3,000 PSI CONCRETE SLAB W/ 6"x6" W1.4xW1.4 WWF AND 3", 20 GAUGE CD COMPOSITE DECK (OR

USE 4CS2.5x059 GAUGE "C" TYPE METAL STUDS AT 24" O.C. AT ALL EXTERIOR WALLS BELOW, (TYP). PROVIDE DOUBLE FULL HEIGHT STUD AT

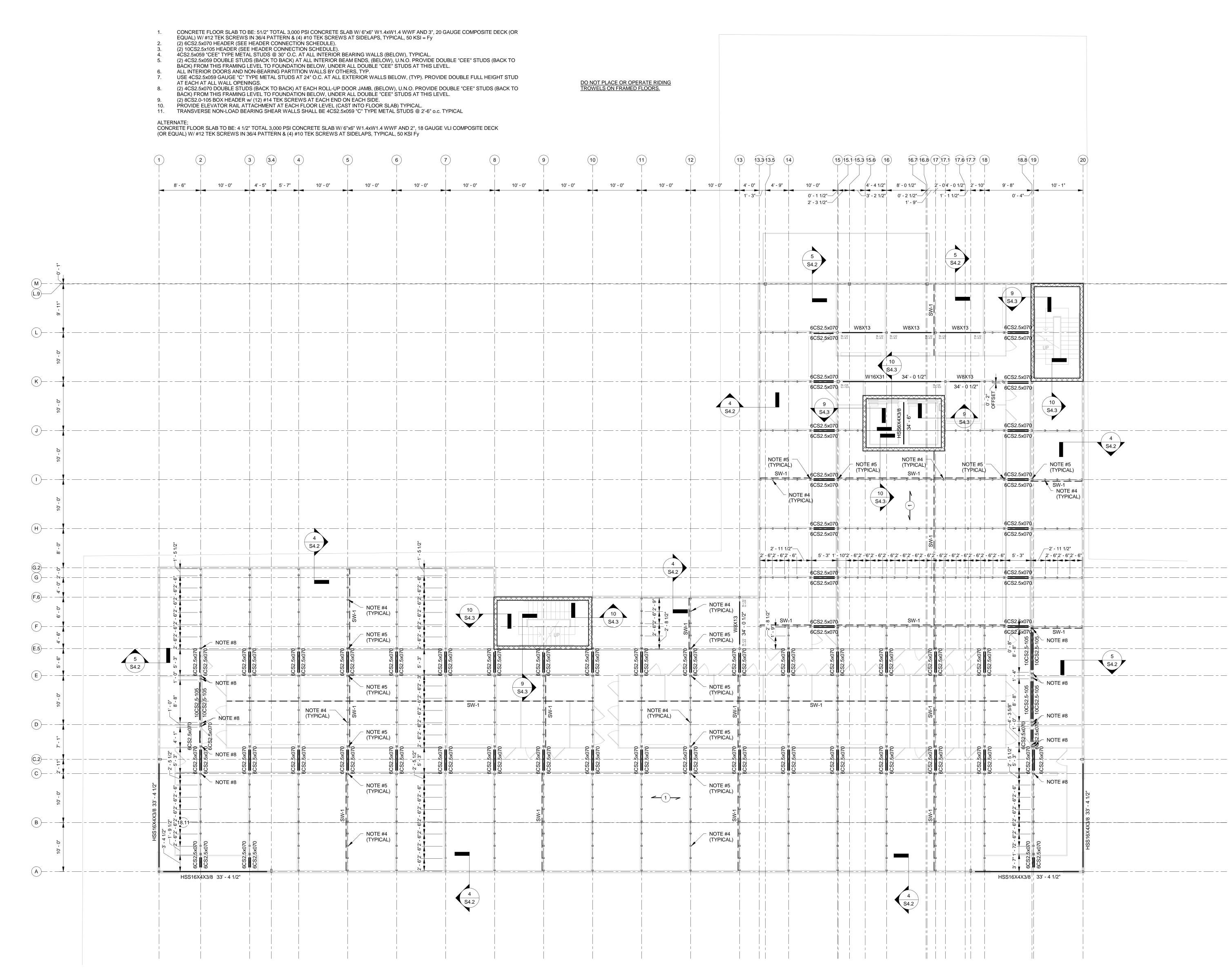
DO NOT PLACE OR OPERATE RIDING TROWELS ON FRAMED FLOORS.

Ę	5) (	6   		8   	(9)   	(10)		(12)   			(.
	10' - 0"	10' - 0"	10' - 0"	10' - 0"	10' - 0"	10' - 0"	10' - 0"	10' - 0	' 4' - 0"	4' - 9" -1' - 3"	10' - 0" 0' - 1 1/2" 2' - 3 1/2"
	       									HSS12X6 HSS12X6	X3/8 22' - 6 1/ X3/8 15' - 1"
	         	   - <u> </u>   	   		- <u> </u>				           		6CS2.5x07 6CS2.5x07
		   - +     					- +		4 S4.2		6CS2.5x07 6CS2.5x07 9 S4.3
									       	NOTE #5	6CS2.5x07 6CS2.5x07 0'
										SW-2 NOTE #4 (TYPICAL)	6CS2.5x07
		<b>6</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>							+   + 1 +	2' - 11 1/2" 2' - 6"2' - 6"2' - 6"	6CS2.5x07
	NOTE #4 NOTE #4 (TYPICAL)					10 54.3	2' - 6"2' - 9"   2' - 6"2' - 9"   2' - 8 1/2"		22' - 6 1/2" 22' - 6 1/2"	SWr2	6CS2.5x07
6CS2.5x070	6CS2.5x070	_' +	6CS2.5x070 6CS2.5x070 6CS2.5x070	. 9	6CS2.5x0700	6CS2.5X070	6CS2.5X070	eccs: 55x070 bccs:	6CS2.5x070	6CS2.5x070 6CS2.5x070 6CS2.5x070	6CS2.5x070
	NOTE #5 (TYPICAL)			S4.3	SW-2				#4 ~~~ AL) X		SW-2
6CS2.5x070	NOTE #5 (TYPICAL)	= - = - = - = - = - = - = - = = = = = =	6CS2.5x070 6CS2.5x070	6CS225x070 6CS225x070	6CS2.5x070 6CS2.5x070	c)	6CS2.5x070 = = = = = = = = = = = = = = = = = = =	ec S2:5x070 6C S2:5x070 6C S2:5x070 6C S2:5x070 6C S2:5x070 70 80 80 80 80 80 80 80 80 80 80 80 80 80	= €CS2:5x070 6CS2.5x070 = 6CS2.5x070 = 577 = 6CS2.5x070 = 7CS2.5x070 = 7CS2.5x070 = 7CS2.5x070 = 7CS2.	6CS2.5x070	6CS2.5x070
<u> </u>	NOTE #4 (TYPICAL)	- 6"2' - 6"2' - 6"2' - 6"	u u u u	е е е	BW-2 		а 		#4 CAL)		
			S4.2								





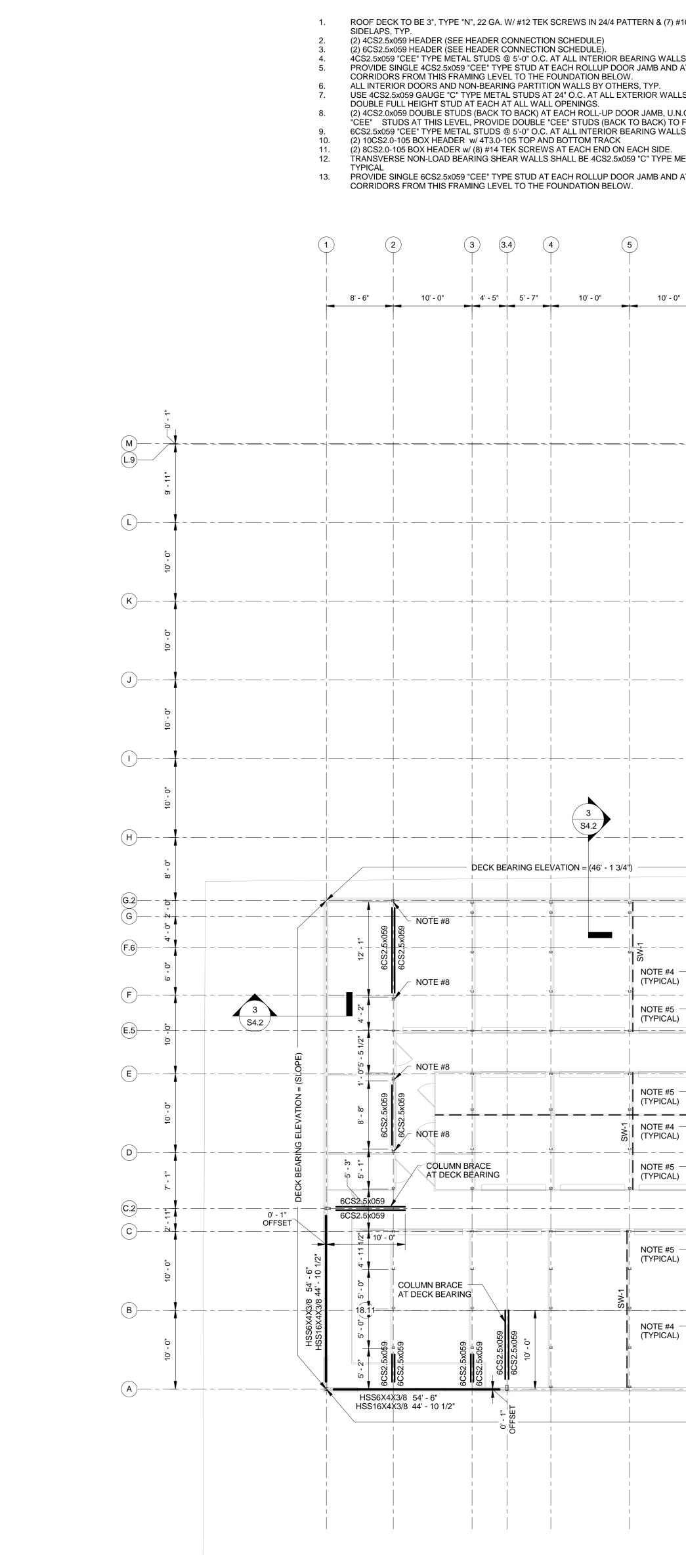
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### 1 Third Floor Framing Plan S2.3 1/8" = 1'-0"



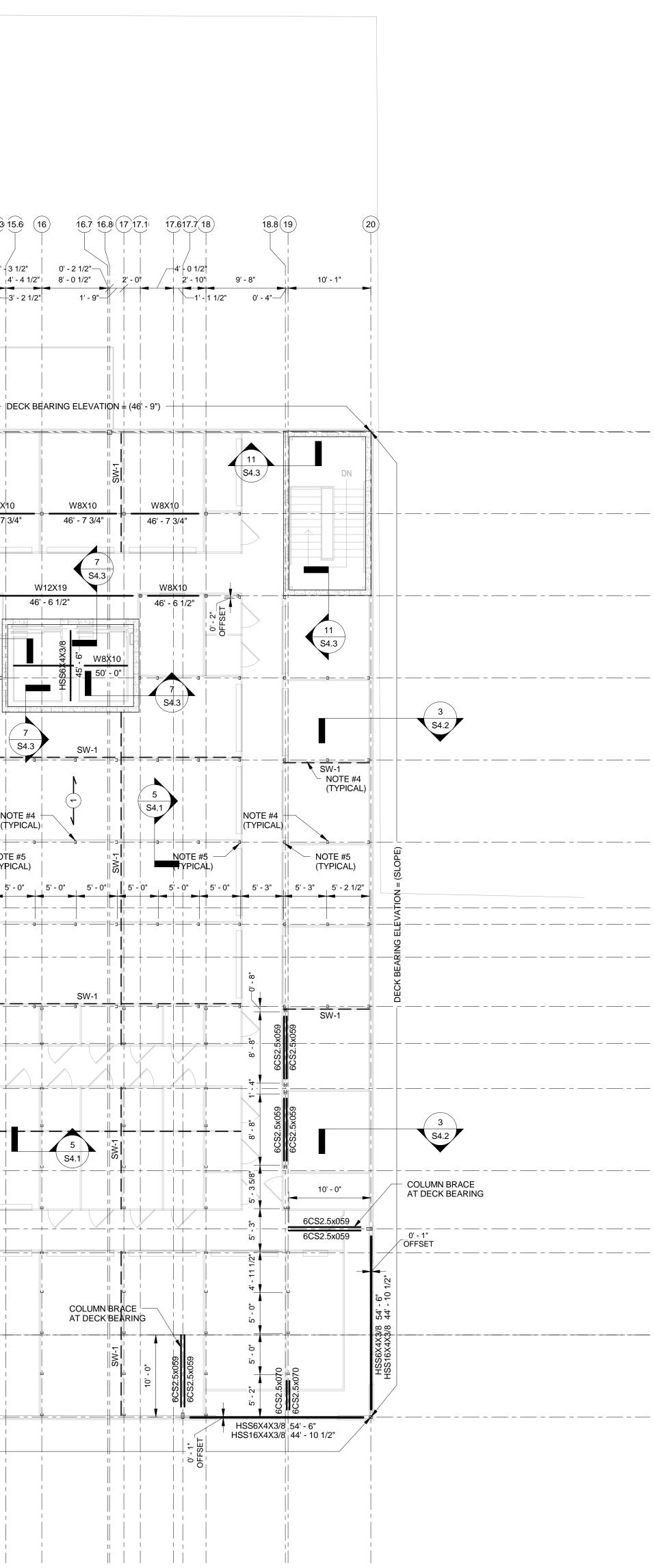
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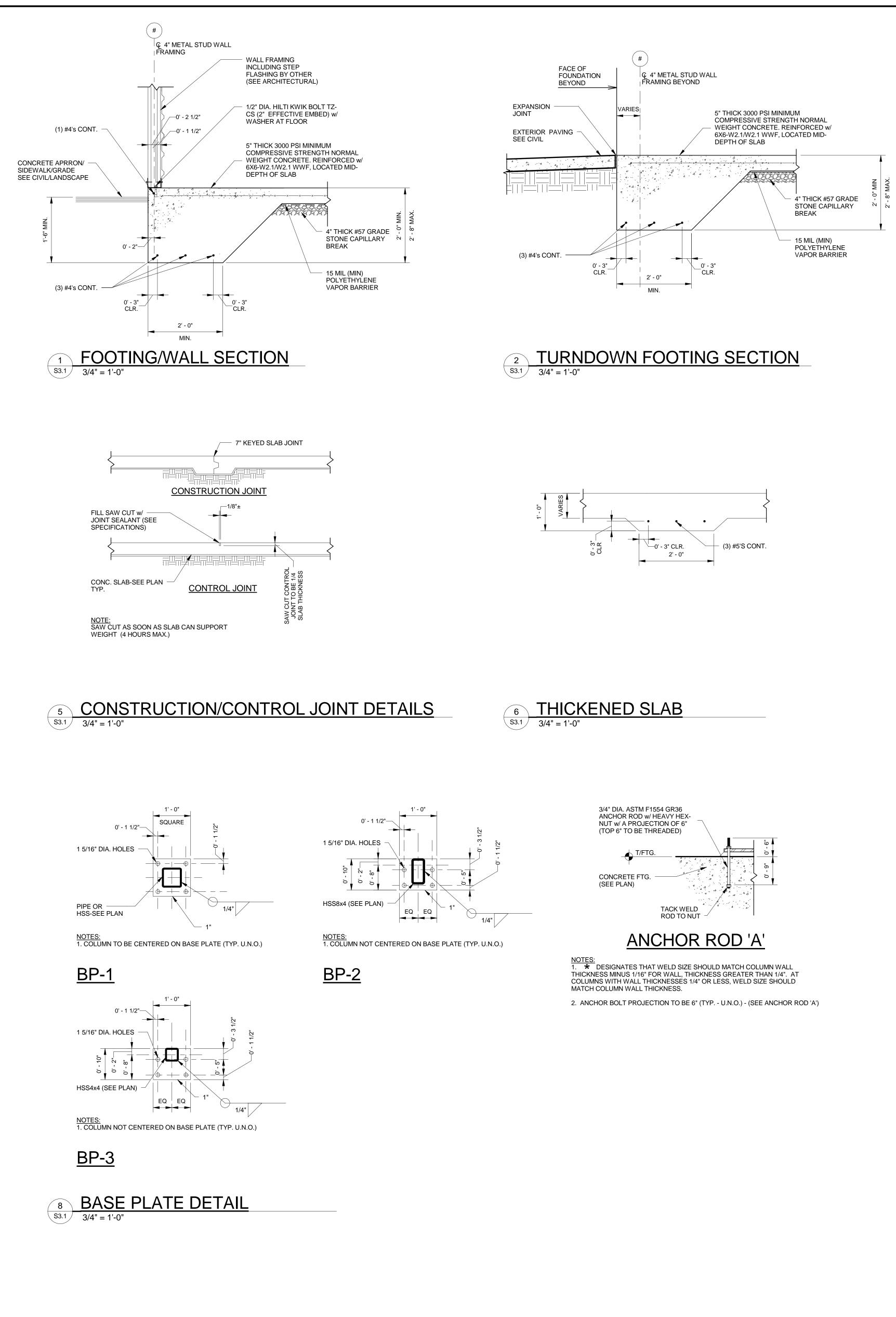


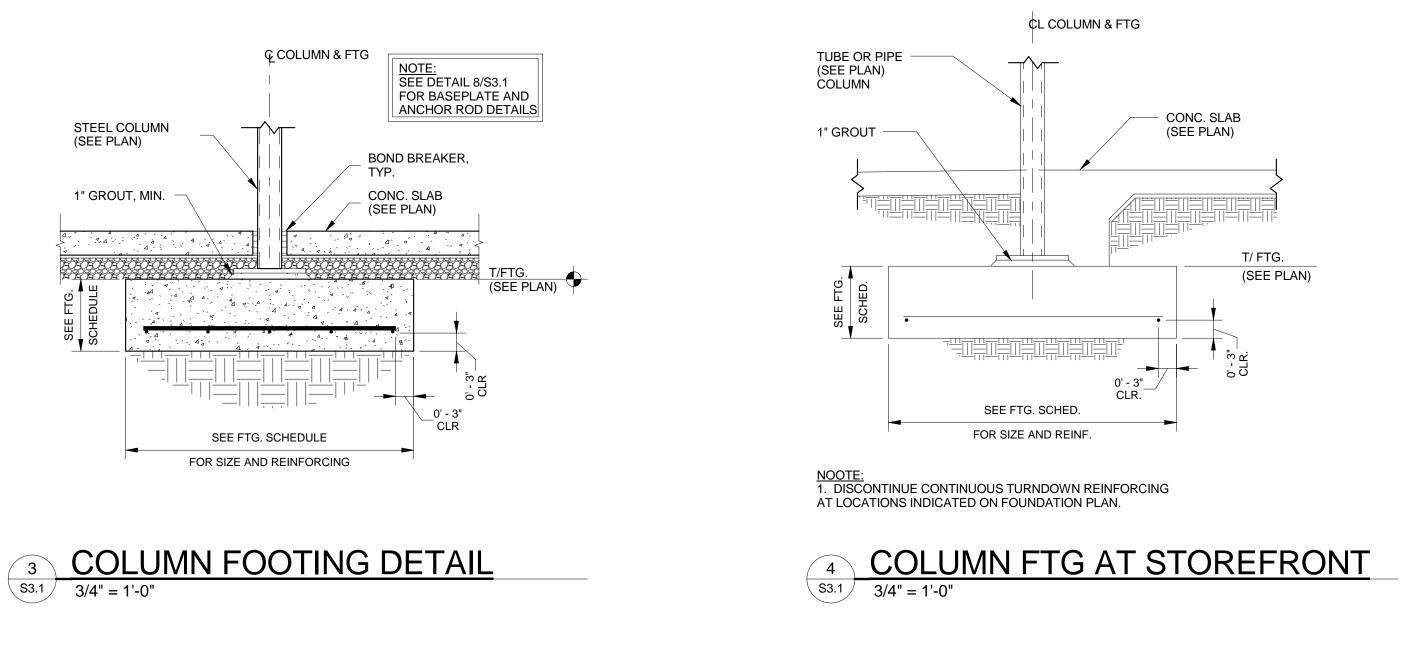
HEADER w/ (8) #14 TEK SCREWS AT EAC LOAD BEARING SHEAR WALLS SHALL B	BE 4CS2.5x059 "C" TYPE METAL STUDS @ OLLUP DOOR JAMB AND AT EACH SIDE C	/), TYPICAL. 5'-0" o.c.	9				$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
'-0" 4'-5" 5'-7" 1	0' - 0" 10' - 0" 10 10' - 0" 10	'-0" 10'-0" 1 1 1 1 1 1 1 1 1 1 1 1 1	10' - 0" 10'	- 0" 10' - 0"	10' - 0"	4' - 0"   4' - 9"	
							3 S4.2 DECK BE
							<sup>3</sup>
					3 S4.2	VATION = (SLOPE) +	
	3 54.2 = (46' - 1 3/4'')				3 S4.2		CAL) (TYPICAL)
TE #8     -     -     -     -     -     -       -     -     -     -     -     -     -       -     -     -     -     -     -     -       TE #8     -     -     -     -     -       -     -     -     -     -     -       -     -     -     -     -     -       -     -     -     -     -     -       -     -     -     -     -     -       -     -     -     -     -     -       -     -     -     -     -     -	→ → → → → → → → → → → → → → → → → → →			DECK BEARING ELEVATION		W8X10 (SµOPE)	W <sub>T</sub> 1 NOTE #4 (TYPICAL)
TE #8	(TYPICAL)		11 S4.3 SW-1				NOTE #5 (TYPICAL) NOTE #5 (TYPICAL)
TE #8	NOTE #4     5       (TYPICAL)     5       I     NOTE #5       I     1       I     I		SW-1				NOTE #5 (TYPICAL)
	NOTE #5						NOTE #5 (TYPICAL)
	 NOTE #4 (TYPICAL)			фф                 	р         		NOTE #4

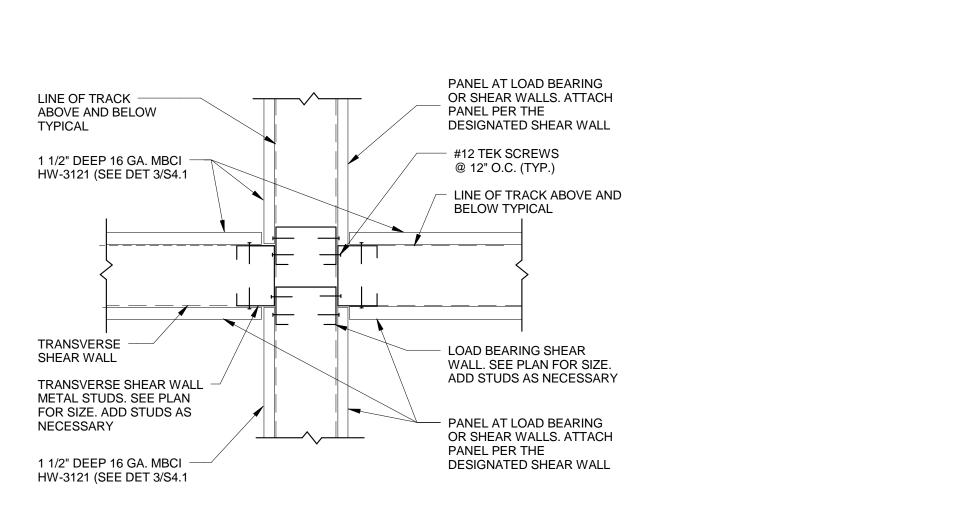




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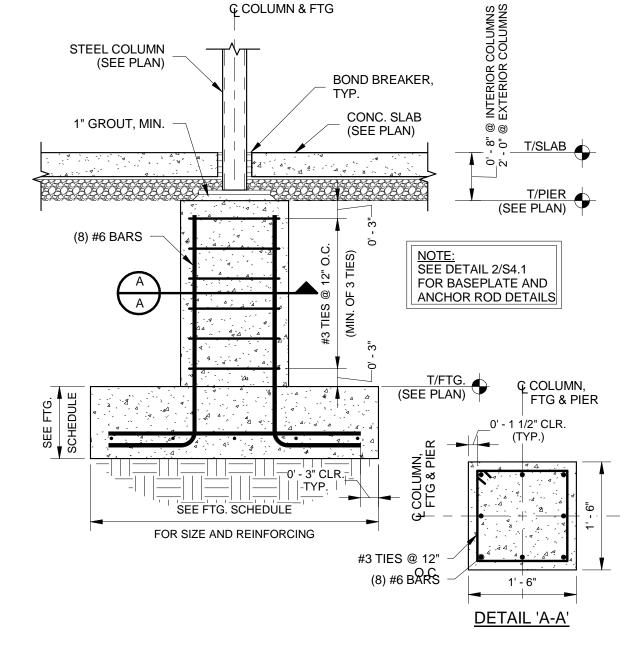






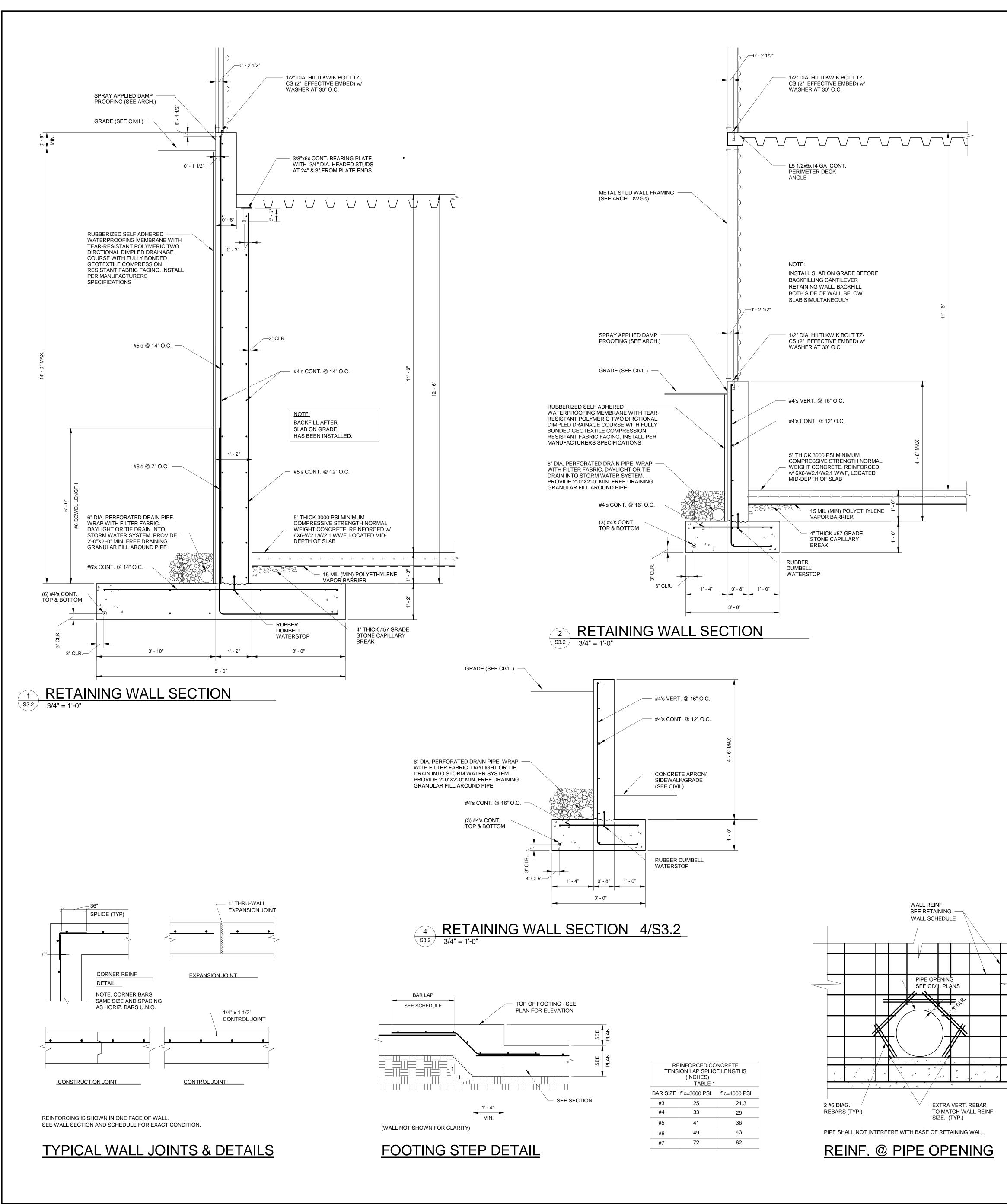
# 7 INTERSECTING METAL STUD SHEAR WALL DETAIL <sup>3</sup>/4" = 1'-0"

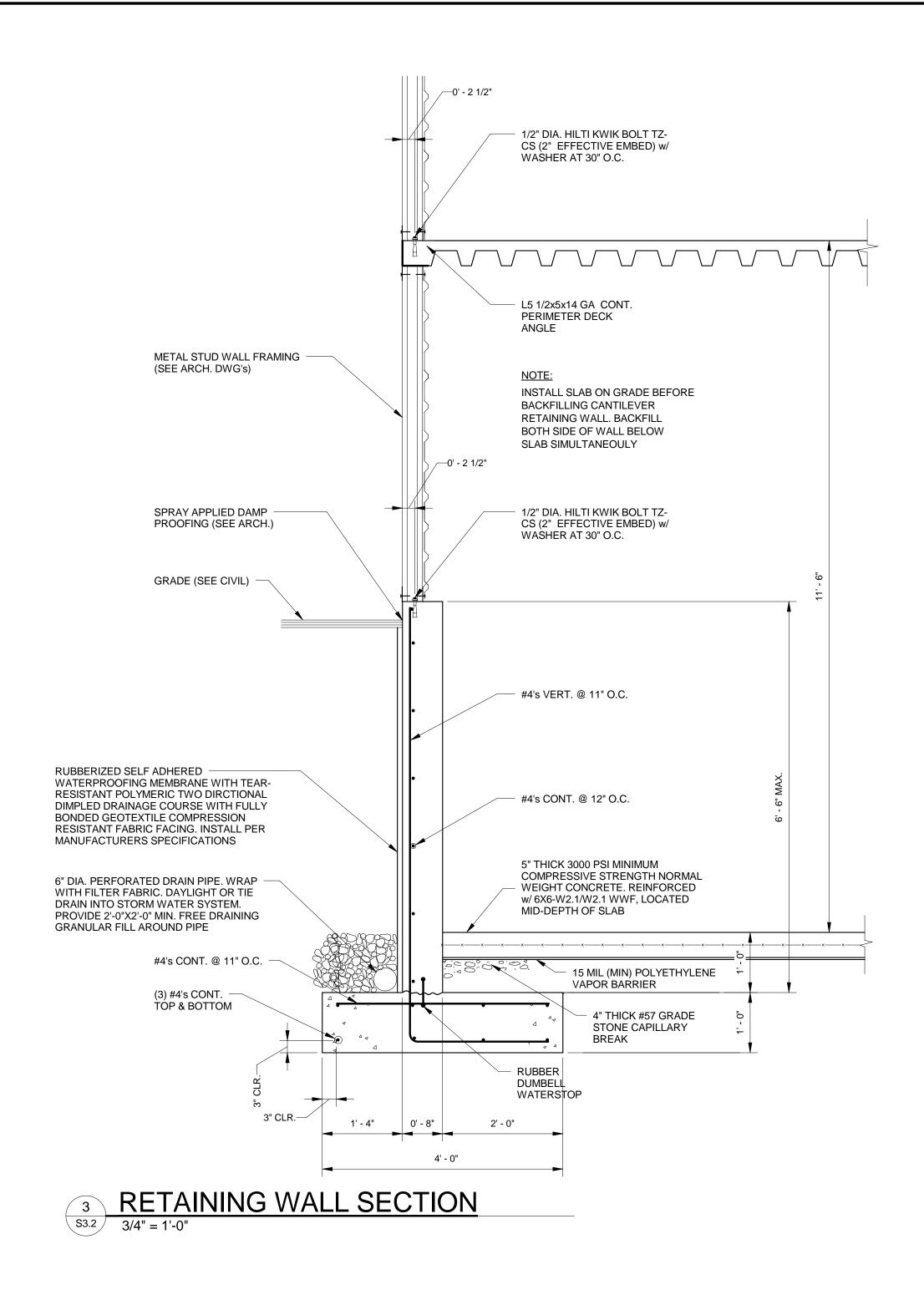
	MEMBER DESIGNATION	D (IN.)	B (IN.)	d (IN.)	GAUGE	t (IN.)	AREA (IN.^2)	Ix MOMENT OF INERTIA (IN.^4)	Iy MOMENT OF INERTIA (IN.^4)
	4C2x070	4"	2"	0.799	14	0.07	0.626	1.564	0.371
	4C2x059	4"	2"	0.773	16	0.059	0.527	1.331	0.314
	4C2.5x105	4"	2.5"	0.884	12	0.105	1.043	2.676	0.938
	4C2.5x070	4"	2.5"	0.799	14	0.07	0.696	1.835	0.630
'  ' y	4C2.5x059	4"	2.5"	0.773	16	0.059	0.586	1.560	0.533
	4C3.5x105	4"	3.5"	0.884	12	0.105	1.253	3.473	2.112
	4C3.5x070	4"	3.5"	0.799	14	0.07	0.836	2.375	1.414
	4C3.5x059	4"	3.5"	0.773	16	0.059	0.704	2.018	1.193
	4C4x070	4"	4"	0.8	14	0.07	0.906	2.646	1.957
	6C2.5x070	6"	2.5"	0.799	14	0.07	0.836	4.687	0.729
	6C2.5x059	6"	2.5"	0.773	16	0.059	0.704	3.971	0.616
	6C3x105	6"	3"	0.884	12	0.105	1.358	7.821	1.690
	6C3x070	6"	3"	0.799	14	0.07	0.906	5.302	1.130
	6C3x059	6"	3"	0.773	16	0.059	0.763	4.492	0.953
	8C2x105	8"	2"	0.884	12	0.105	1.358	12.012	0.697
	8C2x070	8"	2"	0.799	14	0.07	0.906	8.109	0.468
	8C2x059	8"	2"	0.773	16	0.059	0.763	6.861	0.395
	8C2.5x105	8"	2.5"	0.884	12	0.105	1.463	13.649	1.196
	8C2.5x070	8"	2.5"	0.799	14	0.07	0.976	9.210	0.800
	8C2.5x059	8"	2.5"	0.773	16	0.059	0.822	7.791	0.675
	10C2x105	10"	2"	0.884	12	0.105	1.568	20.745	0.741
	10C2x070	10"	2"	0.799	14	0.07	1.046	13.598	0.497
	10C2x059	10"	2"	0.773	16	0.059	0.881	11.798	0.419
	10C2.5x105	10"	2.5"	0.884	12	0.105	1.673	23316	1.277
	10C2.5x070	10"	2.5"	0.799	14	0.07	1.116	15.684	0.853
	10C2.5x059	10"	2.5"	0.773	16	0.059	0.940	13.256	0.719
	10C3x105	10"	3"	0.884	12	0.105	1.778	25.886	1.995
	10C3x070	10"	3"	0.799	14	0.07	1.186	17.410	1.330
	10C3.5x105	10"	3.5"	0.884	12	0.105	1.883	28.456	2.912
	10C3.5x070	10"	3.5"	0.799	14	0.07	1.256	19.135	1.939
	12C2.5x105	12"	2.5"	0.884	12	0.105	1.883	36.329	1.340
	12C2.5x070	12"	2.5"	0.799	14	0.07	1.256	24.390	0.894
	12C3x105	12"	3"	0.884	12	0.105	1.988	40.043	2.099
	12C3x070	12"	3"	0.799	14	0.07	1.326	26.880	1.398
	12C3.5x105	12"	3.5"	0.884	12	0.105	2.093	43.758	3.071
	12C4x105	12"	4"	0.884	12	0.105	2.198	47.472	4.275



## 9 <u>TYP. CONCRETE PIER DETAIL</u> 3/4" = 1'-0"

Keystone Structural Engineering Residential & Commercial Professional Consultants P.O. Box 2654 Smyrna, GA 30081 (404) 483-6921 REVISIONS PROJECT 924 Northside Drive Storage ADDRESS 924 Northside Drive NW Atlanta, GA 30318 CLIENT Broward Management. LLC ADDRESS 6780 Roswell Rd, Suite C-200 Sandy Springs, GA 30328 SHEET TITLE FOUNDATION DETAILS Date: 10-01-2018 PROJECT NUMBER 18-115 SHEET NUMBER S3.1

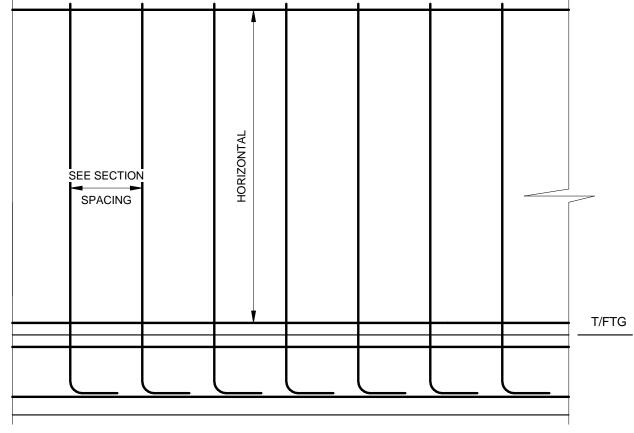




### RETAINING WALL NOTES

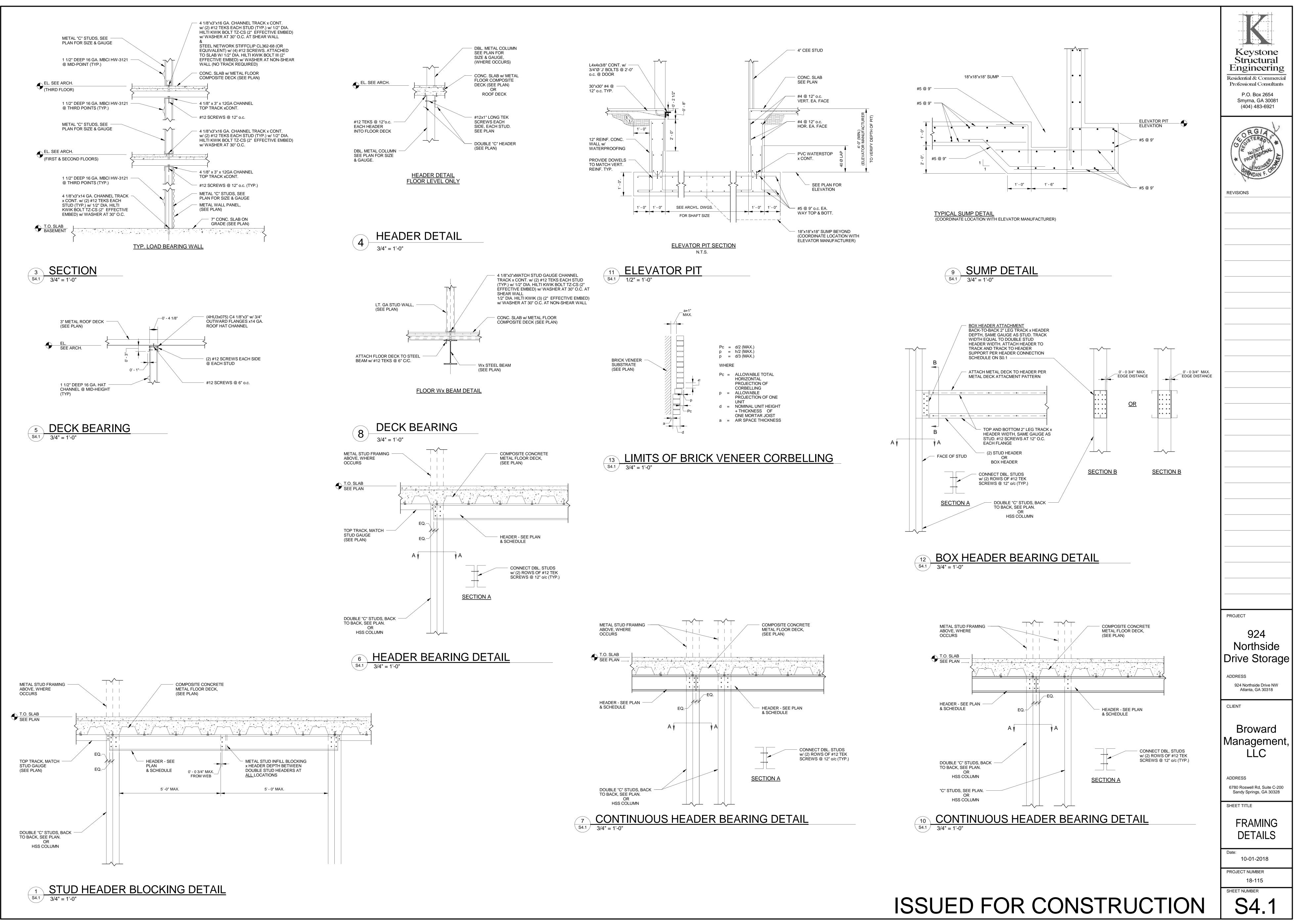
1. All concrete to have 3000 psi compressive strength at 28 days unless otherwise noted.

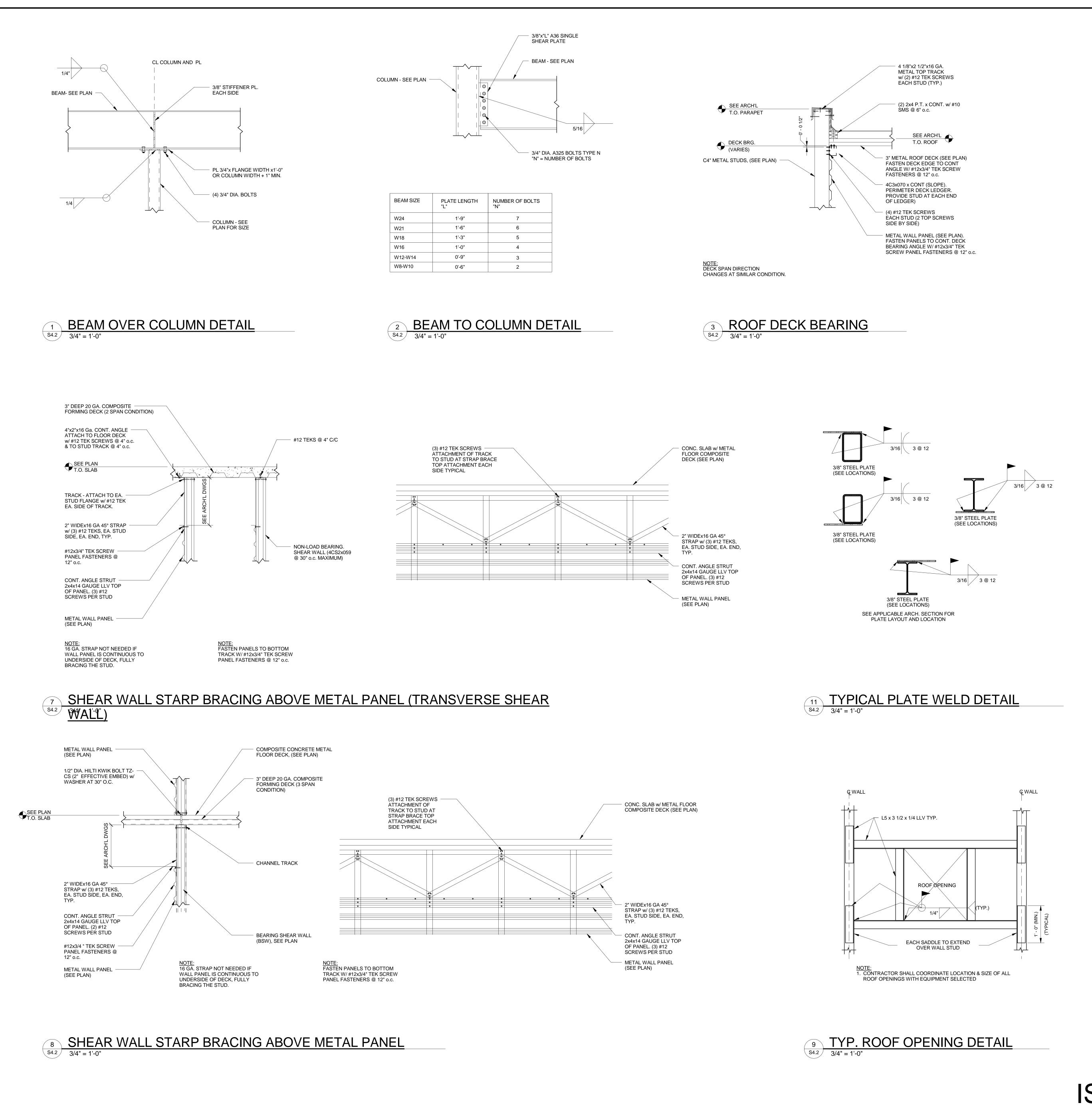
- 2. Design parameters to be verified by geotechnical engineer. Equivalent fluid pressure : 40.0 pcf (Cantilever) Equivalent fluid pressure : 60.0 pcf (Basement)
- Friction factor : 0.4 3. Reinforcing steel:
- A. Shall be detailed, fabricated and placed according to the latest standards of the A.C.I.
- B. Provide corner bars at all corners of the same size and number as the larger of the adjacent bars.
- C. Shall conform to the latest standards of ASTM A 615 Grade 60.
   D. Contractor to submit shop drawings to the Architect for approval
- D. Contractor to submit shop drawings to the Architect for approval prior to fabrication.
- 4. Wall joints:
   A. Full height vertical weakened plane contraction joints shall be located at 25' o.c. maximum spacing. Alternate longitudinal
- bars shall be cut exactly opposite such contraction joints. B. Keyed full height vertical expansion joints shall be substituted
- at every fourth contraction joint or 100' maximum. Joints to
- have asphalt impregnated fiber board filler or similar, with all longitudinal bars cut opposite such expansion joints.
- C. Construction joints between successive pours of concrete to be keyed (metal Keykold or similar).D. Construction joint may be substituted for any control joint.
- Backfill:
   A. DO NOT backfill above retaining wall heel (behind wall) until 7 days
- after concrete floor slab and concrete paving has been installed B. Compact backfill per requirements of the Soils Engineer.



WALL REINFORCING ELEVATION

Keystone Structural Engineering **Residential & Commercial** Professional Consultants P.O. Box 2654 Smyrna, GA 30081 (404) 483-6921 REVISIONS PROJECT 924 Northside Drive Storage ADDRESS 924 Northside Drive NW Atlanta, GA 30318 CLIENT Broward Management LLC ADDRESS 6780 Roswell Rd, Suite C-200 Sandy Springs, GA 30328 SHEET TITLE RETAINING WALL SECTIONS Date: 10-01-2018 PROJECT NUMBER 18-115 SHEET NUMBER S3.2

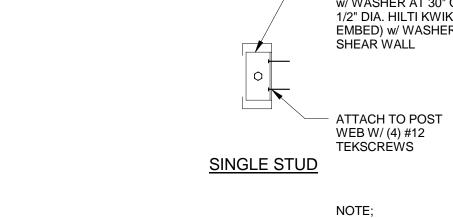


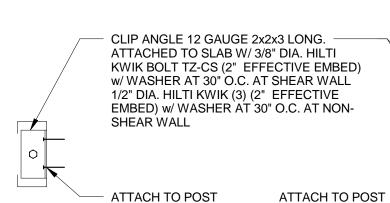


LATE LENGTH -"	NUMBER OF BOLTS "N"
1'-9"	7
1'-6"	6
1'-3"	5
1'-0"	4
0'-9"	3
0'-6"	2



TRACK NOT SHOWN FOR CLARITY







BACK-BACK/ POST BASE

WEB W/ (6) #12

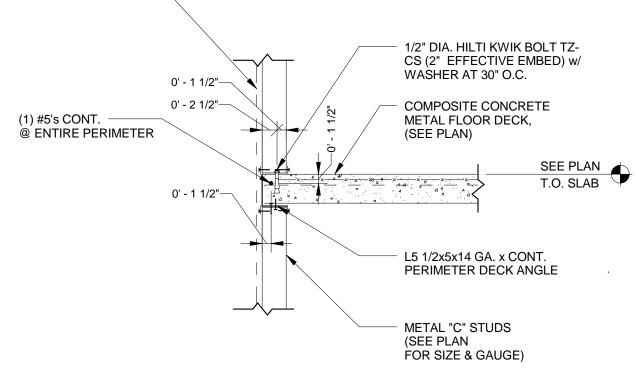
TEKSCRÈŴS

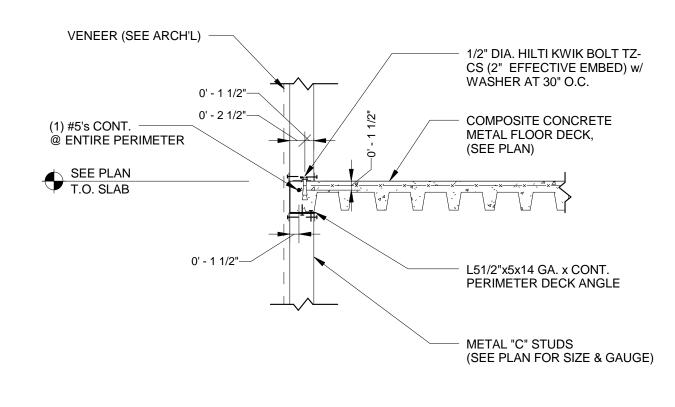


4 FLOOR DECK BEARING

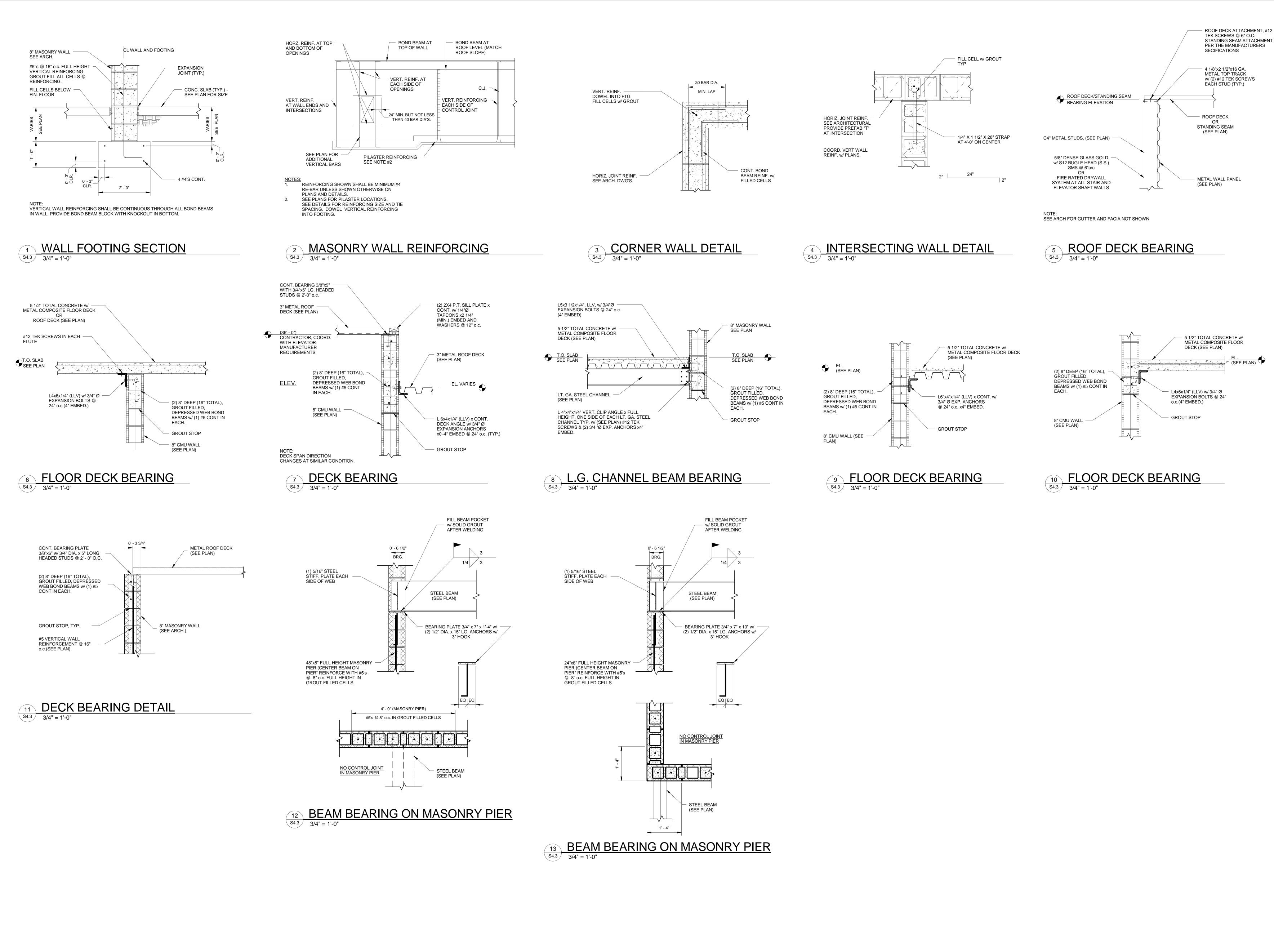
S4.2 3/4" = 1'-0"

VENEER (SEE ARCH'L)

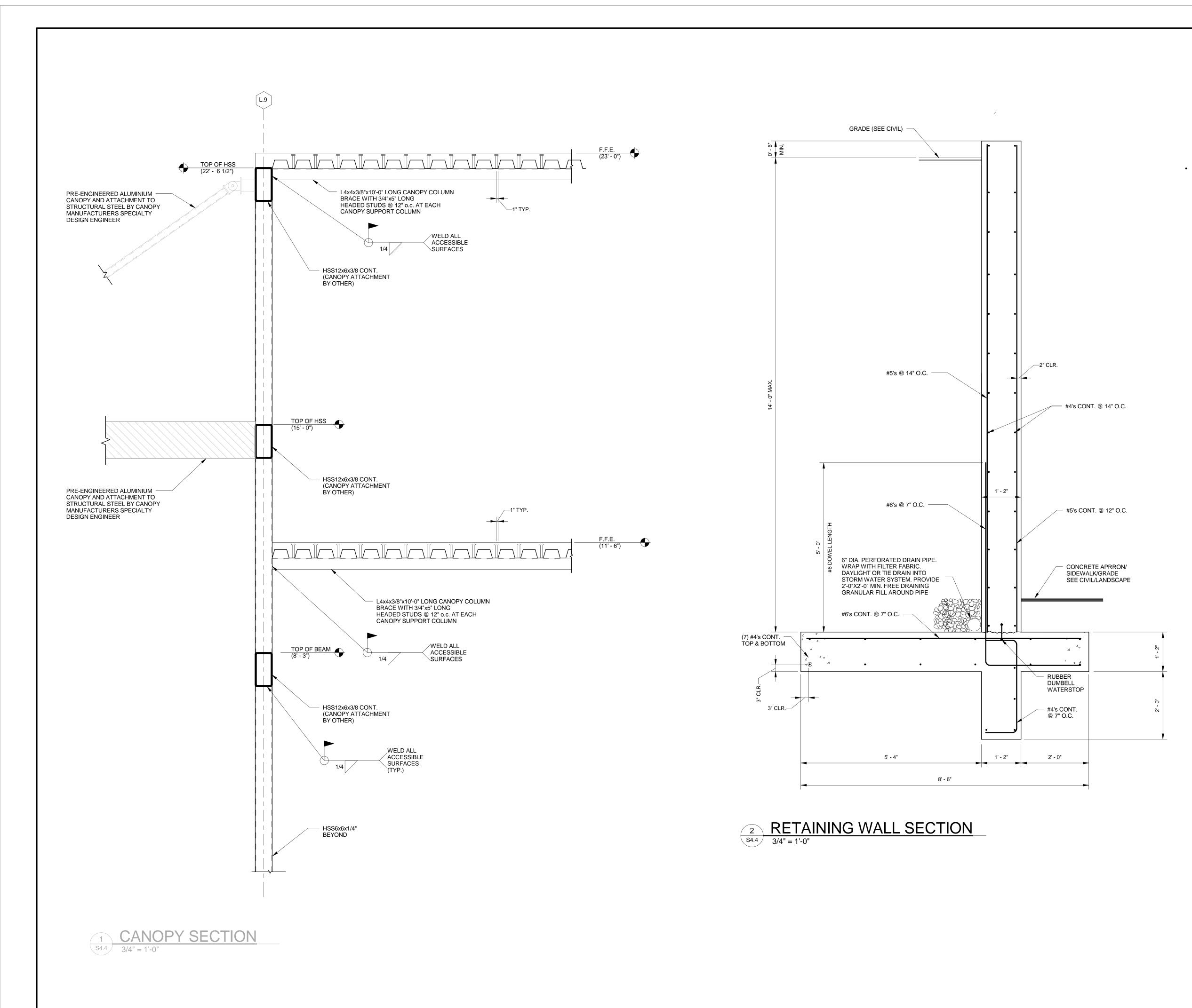




Keystone Structural Engineering **Residential & Commercial** Professional Consultants P.O. Box 2654 Smyrna, GA 30081 (404) 483-6921 REVISIONS PROJECT 924 Northside Drive Storage ADDRESS 924 Northside Drive NW Atlanta, GA 30318 CLIENT Broward Management, LLC ADDRESS 6780 Roswell Rd, Suite C-200 Sandy Springs, GA 30328 SHEET TITLE FRAMING DETAILS Date: 10-01-2018 PROJECT NUMBER 18-115 SHEET NUMBER S4.2



Keystone Structural Engineering **Residential & Commercial** Professional Consultants P.O. Box 2654 Smyrna, GA 30081 (404) 483-6921 REVISIONS PROJECT 924 Northside Drive Storage ADDRESS 924 Northside Drive NW Atlanta, GA 30318 CLIENT Broward Management LLC ADDRESS 6780 Roswell Rd, Suite C-200 Sandy Springs, GA 30328 SHEET TITLE FRAMING & MASONRY DETAILS Date: 10-01-2018 PROJECT NUMBER 18-115 SHEET NUMBER S4.3



Keystone Structural Engineering Residential & Commercial Professional Consultants P.O. Box 2654 Smyrna, GA 30081 (404) 483-6921 REVISIONS PROJECT 924 Northside Drive Storage ADDRESS 924 Northside Drive NW Atlanta, GA 30318 CLIENT Broward Management, LLC ADDRESS 6780 Roswell Rd, Suite C-200 Sandy Springs, GA 30328 SHEET TITLE FRAMING **DETAILS &** SECTIONS Date: 10-01-2018 PROJECT NUMBER 18-115 SHEET NUMBER S4.4

					MATERIAL / ACTIVITY	SERVICE				MATERIAL / ACTIVITY	SERVICE		_		MATERIAL / ACTIVITY	SERVICE	<b>.</b>		
		-		ON SERVICES	1705.3 Concrete Construction 1. Inspection of reinforcing steel		Y/N EXTENT		*DATE COMPLETED	<b>1705.5 Wood Construction</b> 1. Inspection of the fabrication process of		<b>Y/N</b> N	EXTENT	AGENT* DATE COMPLETED	1705.11.3 Cold-formed Steel Light- Frame Construction Special	JERVICE	<u>Y/N</u>	<u>EXTENT</u>	AGENT* DATE COMPLETED
MATERIAL / ACTIVITY 1704.2.5 Inspection of Fabricators	SERVICE		EXTENT	AGENT* DATE COMPLETED	installation (see 1705.2.2 for welding)     2. Inspection of prestressing steel     installation	Shop (3) and field inspection Shop (3) and field inspection	YPeriodicNPeriodic	TA N/A		wood structural elements and assemblies in accordance with Section 1704.2.5 2. For high-load diaphragms, verify	In-plant review (3)	N	Periodic	N/A	Inspections for Seismic Resistance 1. Inspection during welding operations of elements of the seismic-force-resisting	Shop (3) and	Y	Periodic	N/A
Verify fabrication/quality control procedures 1705.1.1 Special Cases (work unusual in	In-plant review (3)	Y	Periodic	T/A	3. Inspection of anchors cast in concrete where allowable loads have been increased per section 1908.5	Shop (3) and field inspection	N Periodic	N/A		grade and thickness of structural panel sheathing agree with approved building plans	Field inspection	N	Periodic	N/A	2. Inspections for screw attachment, bolting, anchoring and other fastening of	field inspection		Periodic	N/A
nature, including but not limited to alternative materials and systems, unusual design applications, materials and systems with special manufacturer's	Submittal review, shop (3) and/or field inspection	N	N/A	N/A	or where strength design is used 4. Inspection of anchors and reinforcing steel post-installed in hardened concrete: Per research reports including verification of anchor type, anchor dimensions, hole	Field inspection	Periodic or as required Y by the research report			3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners	Field inspection	N	Periodic	N/A	components within the seismic-force- resisting system 1705.11.4 Designated Seismic Systems Verification	field inspection		renouic	
requirements) <b>1705.2 Steel Construction</b> 1. Fabricator and erector documents (Verify reports and certificates as listed in AISC 360, chapter N, paragraph 3.2 for	Submittal Review	Еа	ach submittal	T/A	dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque		issued by an approved source	ТА		<ul> <li>in each line and at edge margins agree with approved building plans</li> <li>4. Metal-plate-connected wood trusses spanning 60 feet or greater: verify</li> <li>temporary and permanent</li> </ul>	Field inspection	N	Periodic	N/A	Inspect and verify that that the component label, anchorage or mounting conforms to the certificate of compliance in accordance with Section 1705.12.3		N	Periodic	N/A
compliance with construction documents)	Shop (3) and field inspection	v l	Periodic	T/A	<ul> <li>5. Verify use of approved design mix</li> <li>6. Fresh concrete sampling, perform slump and air content tests and</li> </ul>	Shop (3) and field inspection Shop (3) and field inspection	Y     Periodic       Y     Continuous	TA TA		restraint/bracing are installed in accordance with the approved truss submittal package	r leid inspection	ÎN	renouic		1705.11.5 Architectural Components Spe Inspections for Seismic Resistance	ecial			
3. Embedments (Verify diameter, grade, type, length, embedment. See 1705.3 for anchors)	Field inspection	Y	Periodic	T/A	determine temperature of concrete 7. Inspection of concrete and shotcrete placement for proper application techniques	Shop (3) and field inspection	Y Continuous	ТА		- <b>1705.6 Soils</b> 1. Verify materials below shallow foundations are adequate to achieve the	Field inspection	Y	Periodic	ТА	<ol> <li>Inspection during the erection and fastening of exterior cladding and interior and exterior veneer</li> <li>Inspection during the erection and</li> </ol>	Field inspection	N	Periodic	N/A
4. Verify member locations, braces, stiffeners, and application of joint details at each connection comply with	Field inspection	Y	Periodic	T/A	<ul> <li>8. Inspection for maintenance of specified curing temperature and techniques</li> <li>9. Inspection of prestressed concrete:</li> </ul>	Shop (3) and field inspection Shop (3) and field inspection	Y Periodic	ТА		design bearing capacity. 2. Verify excavations are extended to proper depth and have reached proper material.	Field inspection	Y	Periodic	ТА	fastening of interior and exterior nonbearing walls 3. Inspection during anchorage of	Field inspection	N	Periodic	N/A
5. Structural steel welding: a. Inspection tasks Prior to Welding					a. Application of prestressing force b. Grouting of bonded prestressing		N Continuous	N/A		3. Perform classification and testing of controlled fill materials.	Field inspection	Y	Periodic	ТА	access floors 1705.11.6 Mechanical and Electrical Components Special Inspections for	Field inspection	N	Periodic	N/A
(Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-1) b. Inspection tasks During Welding	Shop (3) and field inspection		erve or Perform as noted (4)	T/A	tendons in the seismic-force-resisting system 10. Erection of precast concrete members		N Continuous	N/A		4. Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill	Field inspection	Y	Continuous	ТА	Seismic Resistance         1. Inspection during the anchorage of electrical equipment for emergency or	Field inspection	N	Periodic	ТА
(Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-2)	Shop (3) and field inspection	Y C	Observe (4)	Т/А	<ul><li>a. Inspect in accordance with construction documents</li><li>b. Perform inspections of welding and</li></ul>	Field inspection	N In accordance with construction documents In accordance with	N/A		5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly	Field inspection	Y	Periodic	ТА	<ul><li>standby power systems</li><li>2. Inspection during the anchorage of other electrical equipment</li></ul>	Field inspection	N	Periodic	ТА
c. Inspection tasks After Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)	Shop (3) and field inspection		erve or Perform as noted (4)	Т/А	bolting in accordance with Section 1705.2 11. Verification of in-situ concrete strength, prior to stressing of tendons in	Field inspection	N Section 1705.2	N/A		<ul> <li>1705.7 Driven Deep Foundations</li> <li>1. Verify element materials, sizes and lengths comply with requirements</li> <li>2. Determine on acidina of text elements</li> </ul>	Field inspection	N	Continuous	N/A	3. Inspection during installation and anchorage of piping systems designed to carry hazardous materials, and their associated mechanical units	Field inspection	N	Periodic	ТА
<ul> <li>d. Nondestructive testing (NDT) of welded joints: see Commentary</li> <li>1) Complete penetration</li> </ul>					post tensioned concrete and prior to removal of shores and forms from beams and structural slabs	Review field testing and laboratory reports	N Periodic	N/A		<ol> <li>Determine capacities of test elements and conduct additional load tests, as required</li> <li>Observe driving operations and</li> </ol>	Field inspection	N	Continuous	N/A	4. Inspection during the installation and	Field inspection	N	Periodic	N/A
groove welds 5/16" or greater in risk category III or IV 2) Complete penetration groove	Shop (3) or field ultrasonic testing - 100% Shop (3) or field ultrasonic	N	N/A	N/A	12. Inspection of formwork for shape, lines, location and dimensions13. Concrete strength testing and	Field inspection Field testing and review of	Y Periodic	ТА		maintain complete and accurate records for each element 4. Verify placement locations and	Field inspection	N	Continuous	N/A	5. Inspection during the installation and anchorage of vibration isolation systems	Field inspection	N	Periodic	N/A
welds 5/16" or greater in risk category II 3) Thermally cut surfaces of access	testing - 10% of welds minimumShop (3) and field inspection Shop (3) or field magnetic	Y	Periodic	T/A	verification of compliance with construction documents 1705.4 Masonry Construction	laboratory reports	Y Periodic	ТА		plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity,	Field inspection	N	Continuous	N/A	1705.11.7 Storage Racks Special Inspections for Seismic Resistance	Field inspection		Deriodio	ТА
holes when material t > 2" 4) Welded joints subject to fatigue when required by AISC	Partical or Penetrant testing Shop (3) or field radiographic	N	N/A 	N/A N/A	<ul> <li>(A) Level A, B and C Quality Assurance:</li> <li>1. Verify compliance with approved submittals</li> </ul>	Field inspection	Y Periodic	ТА		record tip and butt elevations and document any damage to foundation element					storage racks 8 feet or greater in height 1705.11.8 Seismic Isolation Systems	Field Inspection		Periodic	
360, Appendix 3, Table A-3.1 5) Fabricator's NDT reports when fabricator performs NDT	or Ultrasonic testing Verify Reports	Y	Periodic	T/A	(B) Level B Quality Assurance: 1. Verification of f'm and f'AAC prior to construction	Testing by unit strength method or prism test method	Y Periodic	EOR		<ul><li>5. For steel elements, perform additional inspections per Section 1705.2</li><li>6. For concrete elements and concrete-</li></ul>	See Section 1705.2	N	See Section 1705.2	N/A	Inspection during the fabrication and installation of isolator units and energy dissipation devices used as part of the seismic isolation system	Shop and field inspection	N	Periodic	N/A
<ul> <li>6. Structural steel bolting:</li> <li>a. Inspection tasks Prior to Bolting (Observe, or perform tasks for each</li> </ul>	Shop (3) and field inspection	Obs	erve or Perform		(C) Level C Quality Assurance: 1. Verification of f'm and f'AAC prior	Testing by unit strength	V Doriodia			filled elements, perform additional inspections per Section 1705.3 7. For specialty elements, perform	See Section 1705.3	N	See Section 1705.3	N/A	1705.12.1 Concrete Reinforcement Testing and Qualification for Seismic Resistance				
bolted connection, in accordance with QA tasks listed in AISC 360, Table N5.6-1)			as noted (4)	T/A	to construction and for every 5,000 SF during construction 2. Verification of proportions of materials in premixed or preblended	method or prism test method	Y Periodic	TA		additional inspections as determined by the registered design professional in responsible charge 8. Perform additional inspections and	Field inspection	N	In accordance with construction documents	N/A	1. Review certified mill test reports for each shipment of reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special	Review certified	N	Each shipment	N/A
b.Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2) 1) Pre-tensioned and slip-critical			erve or Perform as noted (4)	T/A	<ul> <li>mortar, prestressing grout, and grout other than self-consolidating grout, as delivered to the project site</li> <li>3. Verify placement of masonry units</li> </ul>		Y Periodic	TA		tests in accordance with the construction documents 1705.8 Cast-in-Place Deep Foundations	Field Inspection and testing	N N	In accordance with construction documents	N/A	moment frames, special structural walls, and coupling beams connecting special structural walls	mill test reports			
a) Turn-of-nut with matching markings		N N	N/A N/A	N/A N/A	(D) Levels B and C Quality Assurance:	Field inspection	Y Periodic	TA		1.Observe drilling operations and maintain complete and accurate records for each element	Field inspection	N	Continuous	N/A	2. Verify reinforcement weldability of ASTM A615 reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special	Review test	N	Each shipment	N/A
b) Direct tension indicator c) Twist-off type tension control		N N	N/A N/A	N/A N/A	<ul> <li>1. Verification of Slump Flow and Visual Stability Index (VSI) of self- consolidating grout as delivered to the project</li> </ul>	Field testing	Y Continuous	ТА		2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable)	Field inspection	N	Continuous	N/A	moment frames, special structural walls, and coupling beams connecting special structural walls	reports			
d) Turn-of-nut without matching markings		N	N/A	N/A	<ul> <li>2. Verify compliance with approved submittals</li> <li>3. Verify proportions of site-mixed</li> </ul>	Field inspection	Y Periodic	ТА		and adequate end-bearing strata capacity. Record concrete or grout volumes					1705.12.2 Structural Steel Testing and Qualification for Seismic Resistance		N		<u> </u>
e) Calibrated wrench 2) Snug-tight joints c. Inspection tasks After Bolting		N Y (	N/A Observe (4)	N/A           T/A	<ul> <li>mortar, grout and prestressing grout</li> <li>for bonded tendons</li> <li>4. Verify grade, type, and size of</li> </ul>	Field inspection	Y Periodic	ТА		3. For concrete elements, perform additional inspections in accordance with Section 1705.3	See Section 1705.3	N	See Section 1705.3	N/A	Test in accordance with the quality assurance requirements of AISC 341 1705.12.3 Seismic Certification of		N	Per AISC 341	N/A
(Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N5.6-3)		Y	Perform (4)	Т/А	reinforcement and anchor bolts, and prestressing tendons and anchorages 5. Verify construction of mortar joints	Field inspection	Y Periodic Y Periodic	TA		4. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing	N	In accordance with construction documents	N/A	Nonstructural ComponentsReview certificate of compliance for designated seismic system components.	Certificate of compliance review	N	Each submittal	N/A
7. Inspection of steel elements of composite construction prior to concrete placement in accordance with QA tasks listed in AISC 360, Table N6.1		N	N/A	N/A	6. Verify placement of reinforcement, connectors, and prestressing tendons and anchorages	Field inspection	Y Level B - Periodic Level C - Continuous	TA TA	_	<b>1705.9 Helical Pile Foundations</b> 1. Verify installation equipment, pile dimensions, tip elevations, final depth, final installation torque and other data as required.	Field inspection	Y	Continuous	N/A	1705.12.4 Seismic Isolation SystemsTest seismic isolation system in accordance with ASCE 7 Section 17.81705.13 Sprayed Fire-resistant Materials	Prototype testing	N	Per ASCE 7	N/A
1705.2.2 Steel Construction Other Than Structural Steel 1. Material verification of cold-formed					<ul><li>7. Verify grout space prior to grouting</li><li>8. Verify placement of grout and</li></ul>	Field inspection	Periodic           Y         Continuous	ТА		2. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing	Y	In accordance with construction	N/A	<ol> <li>Verify surface condition preparation of structural members</li> <li>Verify application of sprayed fire-</li> </ol>	Field inspection	N	Periodic	N/A
steel deck: a. Identification markings	Field inspection		Periodic	T/A	<ul> <li>prestressing grout for bonded tendons</li> <li>9. Verify size and location of structural masonry elements</li> </ul>	Field inspection Field inspection	Y N/A Y Periodic	N/A TA		1705.10.1 Structural Wood Special         Inspections For Wind Resistance         1. Inspection of field gluing operations		N			<ul> <li>a. Verify appreciation of oprayed more resistant materials</li> <li>3. Verify average thickness of sprayed fire-resistant materials applied to</li> </ul>	Field inspection	N	Periodic	N/A N/A
<ul> <li>b. Manufacturer's certified test reports</li> <li>2. Connection of cold-formed steel dock to supporting structure:</li> </ul>	Submittal Review Shop (3) and field inspection	Y Ea	ach submittal	T/A	10. Verify type, size, and location of anchors, including details of anchorage of masonry to structural	Field inspection	Y Level B - Periodic	ТА		of elements of the main windforce- resisting system 2. Inspection of nailing, bolting, anchoring	Field inspection	N	Continuous	N/A	structural members4. Verify density of the sprayed fire- resistant material complies with	Field	N	Per IBC Section 1705.13.5	N/A
a. Welding b. Other fasteners (in accordance	· ·	Y	Periodic	T/A	<ul> <li>members, frames, or other construction.</li> <li>11. Verify welding of reinforcement (see 1705.2.2)</li> </ul>	Field inspection	Level C - Continuous           Y         Continuous	N/A		and other fastening of components within the main windforce-resisting system 1705.10.2 Cold-formed Steel Special	Shop (3) and field inspection	n N N	Periodic	N/A	<ul> <li>approved fire-resistant design</li> <li>5. Verify the cohesive/adhesive bond strength of the cured sprayed fire- registant material</li> </ul>	Field	N	Per IBC Section 105.13.6	N/A
with AISC 360, Section N6) 1) Verify fasteners are in conformance with approved submittal		Y	Periodic	T/A	12. Verify preparation, construction, and protection of masonry during cold weather (temperature below 40-F) or hot	Field inspection	Y Periodic	ТА		Inspections For Wind Resistance 1.Inspection during welding operations of elements of the main windforce- resisting system	Shop (3) and field inspectior	n N	Periodic	N/A	resistant material1705.14 Mastic and Intumescent Fire- Resistant CoatingsInspect mastic and intumescent fire-	tooting	N		
2) Verify fastener installation is in conformance with approved submittal and manufacturer's recommendations		Y	Periodic	T/A	(temperature below 40-F) or not weather (temperature above 90-F)     13. Verify application and measurement of prestressing force	Field inspection	N Continuous	N/A		2.Inspections for screw attachment, bolting, anchoring and other fastening of components within the main windforce- resisting system	Shop (3) and field inspectior	n N	Periodic	N/A	resistant coatings applied to structural elements and decks 1705.15 Exterior Insulation and Finish Systems (EIFS)	Field inspection		Periodic	N/A
	Shop (3) and field inspection		Continuous	N/A	14. Verify placement of AAC masonry units and construction of thin-bed mortar joints (first 5000 SF of AAC masonry)	Field inspection	N Continuous	N/A		1705.10.3 Wind-resisting Components 1. Roof cladding 2. Wall cladding	Shop (3) and field inspectior Shop (3) and field inspectior		Periodic Periodic	TA TA TA	1. Verify materials, details and installations are per the approved construction documents	Field inspection	Y	Periodic	ТА
b. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, boundary elements of		N	Continuous	N/A	15. Verify placement of AAC masonry units and construction of thin-bed mortar joints (after the first 5000 SF of AAC masonry)	Field inspection	N         Level B - Periodic           N         Level C - Continuous	N/A N/A		1705.11.1 Structural Steel Special Inspections for Seismic Resistance Inspection of structural steel in accordance with AISC 341	Shop (3) and field inspection		In accordance with AISC	N/A	<ul> <li>2. Inspection of water-resistive barrier over sheathing substrate</li> <li>1705.16 Fire-Resistant Penetrations and Joints</li> </ul>	Field inspection	Y N	Periodic	ТА
special concrete structural walls and shear reinforcement c. Shear reinforcement		N (	Continuous	NA	16. Verify properties of thin-bed mortar for AAC masonry (first 5000 SF of AAC masonry)	Field inspection	N Continuous	N/A		1705.11.2 Structural Wood Special Inspections for Seismic Resistance			0 <del>1</del> 1		1. Inspect penetration firestop     2. Inspect fire-resistant joint systems     1705 17 Smelle Control Systems	Field testing Field testing		Per ASTM E2174 Per ASTM E2174	N/A N/A
<ul><li>d. Other reinforcing steel</li><li>4. Cold-formed steel trusses spanning 60 feet or greater</li></ul>		N	Periodic	N/A	17. Verify properties of thin-bed mortar forAAC masonry (after the first 5000 SF of AAC masonry)	Field inspection	N         Level B - Periodic           N         Level C - Continuous	N/A N/A		1. Inspection of field gluing operations of elements of the seismic-force resisting system	Field inspection	N	Continuous	N/A	1705.17 Smoke Control Systems1. Leakage testing and recording of device locations prior to concealment	Field testing	N N	Periodic	N/A
a. Verify temporary and permanent restraint/bracing are installed in accordance with the approved truss	Field inspection	N	Periodic	N/A	<ul> <li>18. Prepare grout and mortar specimens</li> <li>19. Observe preparation of prisms</li> </ul>	Field testing Field inspection	Y     Level B - Periodic       Level C - Continuous       Level B - Periodic	TA		2. Inspection of nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Shop (3) and field inspection	n N	Periodic	N/A	2. Prior to occupancy and after sufficient completion, pressure difference testing, flow measurements, and detection and control verification	Field testing	N	Periodic	N/A
submittal package		<u>ı                                    </u>		1	-		Y Level C - Continuous	ТА		J					* INSPECTION AGENTS FIRM			ADDRESS	TELEPHONE NO.

2. The list of Special Inspectors may be submitted as a separate document, if noted so above. 3. Special Insepctions as required by Section 1704.2.5 are not required where the fabricator is approved in accordance with IBC Section 1704.2.5.2 4. Observe on a random basis, operations need not be delayed pending these inspections. Perform these tasks for each welded joint, bolted connection, or steel element. 5. NDT of welds completed in an approved fabricator's shop may be performed by that fabricator when approved by the AHJ. Refer to AISC 360, N7.

Are Requirements for Seismic Resistance included in the Statement of Special Inspections? Yes

the Special Inspector(s) and/or testing agencies may be subject to the approval of the Building Official and/or the Design Professional.

Are Requirements for Wind Resistance included in the Statement of Special Inspections? No

Abbreviations: TA = Testing Agency EOR = Engineer of Record AOR = Architect of Record N/A = Not Applicable

Keystone Structural Engineering **Residential & Commercial** Professional Consultants P.O. Box 2654 \_\_\_\_\_ Smyrna, GA 30081 (404) 483-6921 REVISIONS \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ PROJECT 924 Northside Drive Storage ADDRESS 924 Northside Drive NW Atlanta, GA 30318 CLIENT Broward Management, LLC NOTES: 1. The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of ADDRESS 6780 Roswell Rd, Suite C-200 Sandy Springs, GA 30328 SHEET TITLE SCHEDULE OF SPECIAL INSPECTIONS Date: 10-01-2018 PROJECT NUMBER 18-115 SHEET NUMBER S5.1