

STRUCTURAL ABBREVIATIONS

SYMBOL LEGEND

STRUCTURAL NOTES

AB ANCHOR BOLT
ABV ABOVE
A.C.I. AMERICAN CONCRETE INSTITUTE
ADD'L ADDITIONAL
AFF ABOVE FINISH FLOOR
AGGR AGGREGATE
A.I.S.C. AMERICAN INSTITUTE OF STEEL CONSTRUCTION
A.I.S.I. AMERICAN IRON AND STEEL INSTITUTE
AL ALUMINUM
ALT ALTERNATE
ARCH ARCHITECT(URAL)
A.S.T.M. AMERICAN SOCIETY OF TESTING MATERIALS
AWS. AMERICAN WELDING SOCIETY

B/ BOTTOM OF
BB BOND BEAM
BLDG BUILDING
BLW BELOW
BM BEAM
BOT BOTTOM
BP BASE PLATE
BRDG BRIDGING
BRG BEARING
BRK BRICK
BS BOTH SIDES
BTJ BOLTED TIE JOIST
BTUN BETWEEN

C/C CENTER TO CENTER
CANT CANTILEVER
CB CONCRETE BEAM
CC CONCRETE COL
CIP CAST IN PLACE
CJ CONSTRUCTION JOINT OR CONTROL JOINT
CL CENTERLINE
CLR CLEAR(ANCE)
CM CONCRETE MASONRY
CMU CONCRETE MASONRY UNIT
COL COLUMN
CONC CONCRETE
CONN CONNECTION
CONT CONTINUOUS
CONTR CONTRACTOR
CSK COUNTER SINK
CTR CENTER
CTRD CENTERED

DIA DIAMETER
DL DEAD LOAD
DN DOWN
DTL DETAIL
DWG DRAWING
DWL DOWEL

EA EACH
EE EACH END
EF EACH FACE
EJ EXPANSION JOINT
ENG ENGINEER
EL ELEVATION
EQ EQUAL
EQ SP EQUAL SPACE(S) (ING)
ES EACH SIDE
EW EACH WAY
EXT EXTERIOR

F/ FACE OF
FD FLOOR DRAIN
FDN FOUNDATION
FIN FINISH
FL FLOOR
FLG FLANGE
FS FAR SIDE
FT FOOT
FTG FOOTING

GA GAGE, GAUGE
GALV GALVANIZE
GB GRADE BEAM
GC GENERAL CONTRACTOR
GLB GLU-LAM BEAM
GR GRADE

HC HOLLOW CORE
HK HOOK
HORIZ HORIZONTAL
HP HIGH POINT
HS HEADED STUD

ID INSIDE DIAMETER
IF INSIDE FACE
INT INTERIOR

JST JOIST

K KIP
KO KNOCK OUT

LG LONG
LL LIVE LOAD
LLH LONG LEG HORIZONTAL
LLV LONG LEG VERTICAL
LNTL LINTEL
LSL LONG SLOTTED HOLES
LONG LONGITUDINAL
LP LOW POINT

MAS MASONRY
MAX MAXIMUM
MBM METAL BUILDING MFR
MC MOMENT CONNECTION
MCJ MASONRY CONTROL JT
MECH MECHANICAL
MEZZ MEZZANINE
MFR MANUFACTURE(ER)
MIN MINIMUM
MO MASONRY OPENING
MS METAL STUD
MTL METAL

N NEAR SIDE
NTS NOT TO SCALE

OA OVERALL
OC ON CENTER
OD OUTSIDE DIAMETER
OF OUTSIDE FACE
OPNG OPENING
OPP OPPOSITE

PAF POWDER ACTUATED FASTENERS
PEMB PRE-ENGINEERED METAL BUILDING
PERP PERPENDICULAR
PC PRECAST
PL PLATE
PLYWD PLYWOOD
FNL PANEL
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
PTN PARTITION

R RADIUS
REF REFERENCE
REINF REINFORCE(D) (ING)
REQ REQUIRE
REQ'D REQUIRED
RF ROOF
RTN RETURN
RW RETAINING WALL

S SCHEDULE
SE SLAB EDGE
SECT SECTION
SHT SHEET
SIM SIMILAR
SJ SAWCUT JOINT
SJI STEEL JOIST INSTITUTE
SL SLOPE
SP SPACE(S)
SPEC'S SPECIFICATIONS
SQ SQUARE
SS STAINLESS STEEL
STD STANDARD
STL STEEL
STR STRENGTH
STRL STRUCTURAL
SW SHEAR WALL
SYMM SYMMETRICAL
SYP SOUTHERN YELLOW PINE

TB TIE BEAM
T&B TOP & BOTTOM
TC TIE COLUMN
TD& TURN DOWN SLAB
TEMP TEMPERATURE
THK THICK
THNS THINNESS SLAB
TOPG TOPPING
TYP TYPICAL
T/ TOP OF

UNO UNLESS NOTED OTHERWISE

VERT VERTICAL

WF WALL FOOTING
WO WINDOW OPENING (MASONRY)
WP WORKING POINT
WS WATERSTOP
WUF WELDED WIRE FABRIC WITH
W/ WITH

NUMBER FOR SECTION
LETTER FOR DETAIL

SHEET ON WHICH SECTION
OR DETAIL OCCURS

SECTION CUTS



GRID BUBBLE



NORTH ARROW



ELEVATION SYMBOL



REVISION MARK



TYP. PLAN CALL OUT SYMBOL

NUMBER FOR SECTION
LETTER FOR DETAIL

TITLE

SCALE

SHEET NUMBER

SECTION & DETAIL TITLE

TYPICAL LINETYPES

GRID LINE
EXISTING
MATCH LINE
HIDDEN
DASHED
CONTINUOUS

DESIGN CRITERIA

- D1 ALL WORK SHALL CONFORM TO AT LEAST THE MINIMUM STANDARDS OF THE FLORIDA BUILDING CODE (FBC), 8TH EDITION (2023).
- D2 DESIGN LOAD VALUES ARE INDICATED ON THE APPROPRIATE SHEETS AS FOLLOWS:
FOUNDATION DESIGN - S0.1
FLOOR FRAMING DESIGN - S12
ROOF FRAMING DESIGN - S14
WIND DESIGN - S5.1, S6.0
RAIN DESIGN:
15 MINUTE RAINFALL INTENSITY: 9.1 IN./HR
60 MINUTE RAINFALL INTENSITY: 5.15 IN./HR
- D3 TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE STRUCTURAL PLANS AND SPECIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE.
- D4 EVERY REASONABLE EFFORT HAS BEEN MADE TO ENSURE COORDINATION BETWEEN THESE DRAWINGS AND THE BOUND STRUCTURAL SPECIFICATIONS. SHOULD THERE BE ANY DISCREPANCIES, THE CONTRACTOR SHALL THEN REQUEST A CLARIFICATION IN WRITING.

GENERAL

- G1 THE GENERAL CONTRACTOR SHALL REVIEW AND DETERMINE THAT DIMENSIONS ARE COORDINATED BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO FABRICATION OR START OF CONSTRUCTION.
- G2 THE GENERAL CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, THE WORK PERSONS AND OTHER PEOPLE DURING CONSTRUCTION. HE SHALL SUPERVISE AND DIRECT THE WORK AND BE RESPONSIBLE FOR ALL CONSTRUCTION.
- G3 NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED OR OTHERWISE REDUCED IN STRENGTH.
- G4 THE GENERAL CONTRACTOR SHALL COORDINATE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ANCHORED, EMBEDDED AND SUPPORTED ITEMS WHICH AFFECT THE STRUCTURAL DRAWINGS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
- G5 ALL SHOP DRAWING SUBMITTALS SHALL BE SUBMITTED VIA ELECTRONIC MEDIA (I.E. PDF OR DWG FORMAT). HARD COPY SUBMITTALS WILL NOT BE ACCEPTED.
1. SUBMITTALS SHALL NOT BE SECURED IN ANY FORMAT THAT WILL PREVENT COMMENTS FROM BEING ADDED.
2. SUBMITTALS THAT ARE REQUIRED TO BE SIGNED AND SEALED SHALL BE SUBMITTED WITH A VISIBLE INK SEAL OR SHADED RAISED SEAL AT TIME OF FIRST SUBMITTAL.
- G6 ANY SUBMITTALS RECEIVED BY ARCH/ENG THAT HAVE NOT BEEN CHECKED BY THE GC AND HIS SUBCONTRACTOR SHALL BE RETURNED WITHOUT REVIEW.
- G7 ALL SECTIONS AND DETAILS SHALL BE CONSTRUED TO BE TYPICAL OR SIMILAR UNLESS ANOTHER SECTION OR DETAIL IS NOTED.
- G8 ANY CONFLICTS NOTICED, OR OBSERVED, BETWEEN THE WRITTEN SPECIFICATIONS AND THE CONSTRUCTION DOCUMENTS DURING PROJECT BIDDING OR PROJECT CONSTRUCTION SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE STRUCTURAL ENGINEER-OF-RECORD. IF SUCH DISCREPANCY IS NOT NOTICED OR BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER-OF-RECORD FOR WRITTEN CLARIFICATION, THE CONTRACTOR/SUBCONTRACTOR SHALL PROVIDE, AT PROJECT BID OR DURING PROJECT CONSTRUCTION, THE MORE STRINGENT AND/OR MORE COSTLY OF THE TWO ITEMS IN THE BID AND/OR FINAL INSTALLATION.
- G9 "BBM STRUCTURAL ENGINEERS" ASSUMES NO RISK OR LIABILITY FOR THE SITE SAFETY OR WELL-BEING OF ANY CONTRACTOR, SUBCONTRACTOR NOR THEIR EMPLOYEES DURING THE CONSTRUCTION OF THE PROJECT CONTAINED IN THESE DOCUMENTS.
- G10 GENERAL CONTRACTOR/CONSTRUCTION MANAGER SHALL SUPPLY ALL SUB-CONTRACTORS WITH THE STRUCTURAL GENERAL NOTE SHEETS AS WELL AS THE STRUCTURAL DRAWINGS.
- G11 THE STRUCTURAL STEEL AND OPEN WEB STEEL JOISTS SHALL BE FABRICATED AND ERECTED IN FULL CONFORMANCE WITH THE "OSHA STEEL ERECTION STANDARD". IF THE CONSTRUCTION DRAWINGS DEVIATE FROM THE OSHA STANDARD THEN THE FABRICATOR SHALL PROVIDE SUBMITTALS THAT CLEARLY INDICATE THE DEVIATION WITH A REVISION CLOUD AND REQUEST APPROVAL FROM "BBM" TO MAKE THE CHANGE SO THAT CONFORMANCE WITH THE OSHA STANDARD IS ASSURED.
- G12 THE CONTRACTOR'S MEANS AND METHODS SHALL FULLY CONFORM TO THE REQUIREMENTS OF 9E1/ASCE 31 (DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION) UNTIL ALL OF THE STRUCTURAL ELEMENTS ARE IN PLACE AND HAVE RECEIVED THE INSPECTOR'S APPROVAL.
- G13 REFER TO ARCHITECTURAL DRAWINGS FOR ROOF COVERINGS. ROOF COVERINGS FOR ENHANCED HURRICANE PROTECTION AREA (EHPA) FACILITIES SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST ASTM AND FACTORY MUTUAL STANDARDS FOR MATERIALS AND WIND UPLIFT FORCES. ROOFS SHALL BE INSPECTED BY A LICENSED ENGINEER/ARCHITECT AND A REPRESENTATIVE OF THE ROOFING MANUFACTURER AND REPORTS SHALL BE SUBMITTED TO THE OWNER AND ARCHITECT.

SPECIALTY ENGINEERING REQUIREMENTS

- SE1 STEEL PAN STAIRS SHALL BE DESIGNED BY THE FABRICATOR'S SPECIALTY ENGINEER AND SHALL INCLUDE STRINGERS, TREADS, HAND RAILINGS, PLATFORMS (AS REQUIRED), PAN INSERTS AND MISCELLANEOUS SUPPORTS AND CONNECTIONS. SHOP DRAWINGS AND CALC'S SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. MINIMUM DESIGN LIVE LOAD SHALL BE 100 PSF.
- SE2 EXTERIOR CURTAIN WALLS SHALL BE DESIGNED BY THE VENDOR'S SPECIALTY ENGINEER AND SHALL INCLUDE FRAME, GLASS, GLAZING AND CONNECTIONS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. DESIGN LOADING(S) SHALL CONFORM TO ALL REQUIREMENTS OF THE BUILDING CODE (SEE DESIGN CRITERIA FOR APPLICABLE BUILDING CODE). THE VENDOR SHALL PROVIDE WINDOW WALL REACTIONS TO THE ARCHITECT.
- SE3 FLAGPOLES AND SITE LIGHTING POLES SHALL BE DESIGNED BY THE POLE VENDOR'S SPECIALTY ENGINEER AND SHALL INCLUDE POLES, FOUNDATIONS AND CONNECTIONS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. MINIMUM DESIGN LOADS SHALL CONFORM TO ANSI/NAAM F100 "SPECIFICATIONS FOR DESIGN LOADS OF METAL FLAGPOLES".
- SE4 ALUMINUM AWNINGS, WALKWAY CANOPIES AND THEIR FOUNDATIONS SHALL BE DESIGNED BY THE FABRICATOR'S SPECIALTY ENGINEER AND SHALL INCLUDE FRAME, COVERING AND CONNECTIONS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY A STRUCTURAL ENGINEER IN THE SAME STATE AS THE PROJECT LOCATION. DESIGN LOADING(S) SHALL CONFORM TO ALL REQUIREMENTS OF THE BUILDING CODE. (SEE DESIGN CRITERIA FOR THE APPLICABLE BUILDING CODE).
- SE5 EXTERIOR LIGHT STEEL FRAMING, INCLUDING BUT NOT LIMITED TO: WALLS, EXTERIOR CEILINGS, FASCIAS AND SOFFITS SHALL BE DESIGNED BY A SPECIALTY ENGINEER. STRUCTURAL ELEMENTS HAVE BEEN PROVIDED FOR THE ATTACHMENT OF THE LIGHT STEEL FRAMING. THE LIGHT STEEL SYSTEM SUPPLIER SHALL DESIGN AND DETAIL ALL CONNECTIONS TO THESE ELEMENTS. ANY FURTHER ELEMENTS REQUIRED FOR THE SUPPORT SHALL BE DESIGNED AND SUPPLIED AS PART OF THE LIGHT STEEL SYSTEM. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND MUST BE SIGNED, DATED AND SEALED BY AN ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. DESIGN LOADING(S) SHALL CONFORM TO ALL REQUIREMENTS OF THE BUILDING CODE (SEE DESIGN CRITERIA FOR THE APPLICABLE BUILDING CODE) AND MAXIMUM DEFLECTIONS SHALL BE AS FOLLOWS: L/600 (BRICK VENEER), L/360 (STUCCO) & L/240 (FLEXIBLE FINISHES). A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.
- SE6 CONTRACTOR SHALL SUBMIT FOR ENGINEER'S APPROVAL A SHORING/RE-SHORING PLAN WITH SECTIONS AND CALCULATIONS, SIGNED, DATED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE SAME STATE AS PROJECT LOCATION.
- SE7 REFER TO STRUCTURAL STEEL NOTES FOR CONNECTION ENGINEERING.
- SE8 PROVIDE ENGINEERED SUBMITTALS, SIGNED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION, FOR ALL MECHANICAL, ELECTRICAL AND PLUMBING SUPPORTS OR ATTACHMENTS NOT INCLUDED WITHIN THE CONSTRUCTION DOCUMENTS FOR ALL ITEMS THAT REQUIRE ANYTHING OTHER THAN THE MANUFACTURER'S STANDARD HARDWARE OR ARE EXPOSED TO WIND LOADS. AN EXAMPLE OF POSSIBLE ITEMS THAT THIS WOULD APPLY TO ARE, INCLUDING BUT NOT LIMITED TO: ROOFTOP AND/OR WALL MOUNTED DUCTS, PIPES AND TRANSFORMERS.

SLAB ON GRADE

- SOG1 UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, COMPACT INTERIOR FILL TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D1557). SOIL COMPACTION SHALL BE FIELD-CONTROLLED BY A REPRESENTATIVE TECHNICIAN OF A QUALIFIED LABORATORY. EACH LAYER OF FILL SHALL NOT EXCEED 12" THICK AND SHALL BE COMPACTED PRIOR TO PLACEMENT OF NEXT LAYER.
- SOG2 MAXIMUM SPACING OF CONTROL JOINTS (I.E. SAWCUT JOINT OR CONSTRUCTION JOINT) SHALL BE AS SET IN THE TABLE BELOW, OR AS NOTED ON PLANS. THE MORE STRINGENT SHALL APPLY. PATTERNS SHALL BE APPROXIMATELY SQUARE WITH A RATIO OF LONG SIDE TO SHORT SIDE NOT EXCEEDING 15 TO 1.
- | SLAB THICKNESS (IN) | * 3/4" OR LARGER AGGREGATE SPACING (FT) |
|---------------------|---|
| 4 | 12 |
| 5 | 13 |
| 6 | 14 |
| 7 AND GREATER | 15 |
- * MIX DESIGNS CONTAINING AGGREGATE LESS THAN 3/4" ARE NOT ACCEPTABLE.
- ** SAWCUT SLAB AS SOON AS AGGREGATE DOES NOT DISLODGE (MUST BE WITHIN 12 HOURS OF CONCRETE PLACEMENT).
- SOG3 GENERAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF SJS AND CJS WITH ARCHITECTURAL FLOOR FINISHES TO ENSURE SLAB JOINTS DO NOT READ THROUGH.
- SOG4 SLAB THICKNESS SHALL BE INCREASED AS REQUIRED TO PROVIDE ADEQUATE SUPPORT FOR CRANE LOADS WITHOUT CRACKING SLAB.
- SOG5 WAREHOUSE SLABS SHALL BE POWER-TROWELLED TO A HARD, SMOOTH, BURNISHED FINISH. THE FINAL TROWEL PASS SHALL BE DONE BY MACHINE, NOT BY HAND. A SPECIAL METALLIC OR MINERAL AGGREGATE SURFACE HARDENER SHALL BE PROVIDED FOR HARD WHEELED INDUSTRIAL VEHICULAR TRAFFIC FLOORS. WET CURE THE SLAB FOR A MINIMUM OF 1 DAYS.
- SOG6 THE WAREHOUSE SLAB HAS BEEN DESIGNED FOR THE ALLOWABLE DISTRIBUTED LOADS NOTED ON THE PLAN(S). ANY AND ALL LOADS PLACED UPON THE SLAB DURING THE CONSTRUCTION OR POST-CONSTRUCTION PHASE WHICH EXCEED THE DESIGN LOADS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR/SUBCONTRACTOR OR THE TENANT.
- SOG7 MAT SLAB DOES NOT RECEIVE SAWCUTS.

FOUNDATIONS

- F1 THE FOUNDATIONS AND SLAB-ON-GRADE DESIGN CONTAINED HEREIN IS BASED SOLELY UPON THE PROJECT'S GEOTECHNICAL PRELIMINARY REPORT (REPORT NUMBER 20539), DATED SEPTEMBER 20, 2023, AS PREPARED BY NUTTING ENGINEERS OF FLORIDA, INC. GEOTECHNICAL, ENVIRONMENTAL & MATERIALS CONSULTANTS. BBM HAS RELIED EXCLUSIVELY ON THE CONTENTS AND RECOMMENDATIONS WITHIN THIS REPORT, BUT ACCEPTS NO RESPONSIBILITY WHATSOEVER FOR ITS CONTENTS OR ACCURACY. THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER SHALL MAKE THEMSELVES FAMILIAR WITH THE REPORT BEFORE THE COMMENCEMENT OF CONSTRUCTION.
- F2 FOUNDATION DESIGN IS BASED ON A NET ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF. COMPACTION UNDER ALL FOUNDATIONS SHALL ALSO BE AS STATED IN NOTE SOG1.
- F3 A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY-STANDARD SOIL DENSITY TESTS TO ENSURE CONFORMANCE WITH GEOTECHNICAL SOILS REPORT. SUBMIT REPORTS TO ARCHITECT AND ENGINEER.
- F4 CONTRACTOR, IN CONJUNCTION WITH GEOTECHNICAL FIELD REPRESENTATIVE, SHALL DETERMINE IF ANY UNSUITABLE CONDITIONS ARE DISCOVERED DURING EXCAVATION WHICH WOULD PREVENT ATTAINMENT OF THE DESIGN SOIL PRESSURE RECOMMENDED BY THE SOILS REPORT.
- F5 FOOTINGS SHALL BE CAST TO THE SCHEDULED SIZE AND SHALL NOT BE OVERSIZED BY MORE THAN 6" ON ANY SIDE FOR FOOTING WIDTH OF AT LEAST 6'-0". FOR FOOTINGS LESS THAN 6'-0" IN WIDTH THE MAXIMUM OVERSIZING SHALL BE 3".
- F6 CONTRACTOR SHALL BE PREPARED FOR AND SHALL INCLUDE COST OF FORMING FOUNDATIONS SHOULD THE EARTH NOT PROVIDE ADEQUATE BANK STABILITY.

GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

KENNETH R. CARLSON - ARCHITECT, P.A.

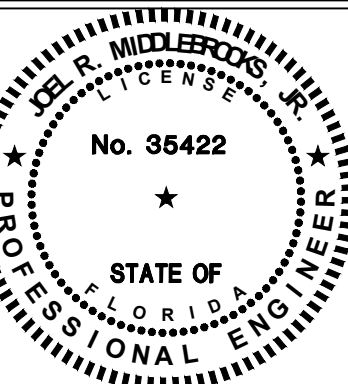
1166 W. NEWPORT CENTER DRIVE SUITE 311
DEERFIELD BEACH, FL. 33442
PH. (954) 421 - 8848
e-mail: kenneth@krcorp.com

Revisions:



DRAWN BY: NC
CHECKED BY: JRM
DATE: 07-01-24
SCALE: AS SHOWN
PROJECT #: 24123
CADD FILE:

ISSUED FOR PERMIT
10-18-2024



JOSE R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422



REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

S0.1

STRUCTURAL NOTES

CONCRETE AND REINFORCING

- C1 A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD TESTING INCLUDING SLUMP TESTS AND CYLINDER BREAKS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.
- C2 CONCRETE WORK SHALL CONFORM TO ACI 318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
- C3 ALL CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES:

LOCATION	28 DAY STRENGTH	SLUMP	COARSE AGGREGATE(S)	COMMENTS	EXPOSURE CATEGORIES			
					F	S	W	C
FOUNDATIONS	3000 PSI	4" +/- 1"	1"		F0	S0	W0	C0
SLAB-ON-GRADE: FOOT TRAFFIC	3000 PSI	4" +/- 1"	1"		F0	S0	W0	C0
SLAB-ON-GRADE: INDUSTRIAL VEHICULAR TRAFFIC, MAT SLAB	4000 PSI (MIN. CEMENT CONTENT = 520 LB/YD)	4" +/- 1"	3/8" & 1"	20% MAX. #84 TO #51 AGGREGATE	F0	S0	W0	C0
TIE BEAMS 50" BET. COLD JOINTS	3000 PSI	6" +/- 1"	3/8"		F0	S0	W0	C0
BEAMS, COL., TIE COL-ELEV. STAIRS	4000 PSI	4" +/- 1"	3/8" & 1"		F0	S0	W0	C0
ELEVATED SLABS (FORMED)	4000 PSI	4" +/- 1"	3/8" & 1"		F0	S0	W0	C0
ELEVATED SLABS (MTL DECK)	3500 PSI	4" +/- 1"	3/8" & 1"		F0	S0	W0	C0
FILLED CELLS PRECAST LINTELS & BOND BEAM JOINT ASTM C416	4000 PSI	1" +/- 1"	3/8"	ADD 1-1/2" GAL/CY OF TETRAGUARD OR ECLIPSE SHRINKAGE CONTRL. ADDITIVE	F0	S0	W0	C0

- NOTES:
- SLUMP FOR RAMPS AND SLOPING SURFACES SHALL NOT EXCEED 4".
 - ALL SLAB MIXES SHALL HAVE A MAXIMUM SAND TO TOTAL AGGREGATE RATIO OF 0.50.
 - A 2" OR 3" PUMP SHALL BE ACCEPTABLE FOR COLUMNS, CELL FILL AND TIE BEAMS BUT WILL NOT BE ALLOWED FOR FOUNDATIONS, SLABS, TILT-UP PANELS AND CONCRETE BEAMS.
 - READY MIX SUPPLIER SHALL DESIGN THE MIXES THAT CONTAIN MULTIPLE AGGREGATES TO BE WELL GRADATED.
 - SLABS SHALL NOT BE AIR ENTRAINED.
 - SEE MASONRY NOTE M21 FOR TESTING REQUIREMENTS OF GROUT TO BE USED TO FILL CORES OF CMU.

C4 CONCRETE MIX DESIGN SUBMITTALS:

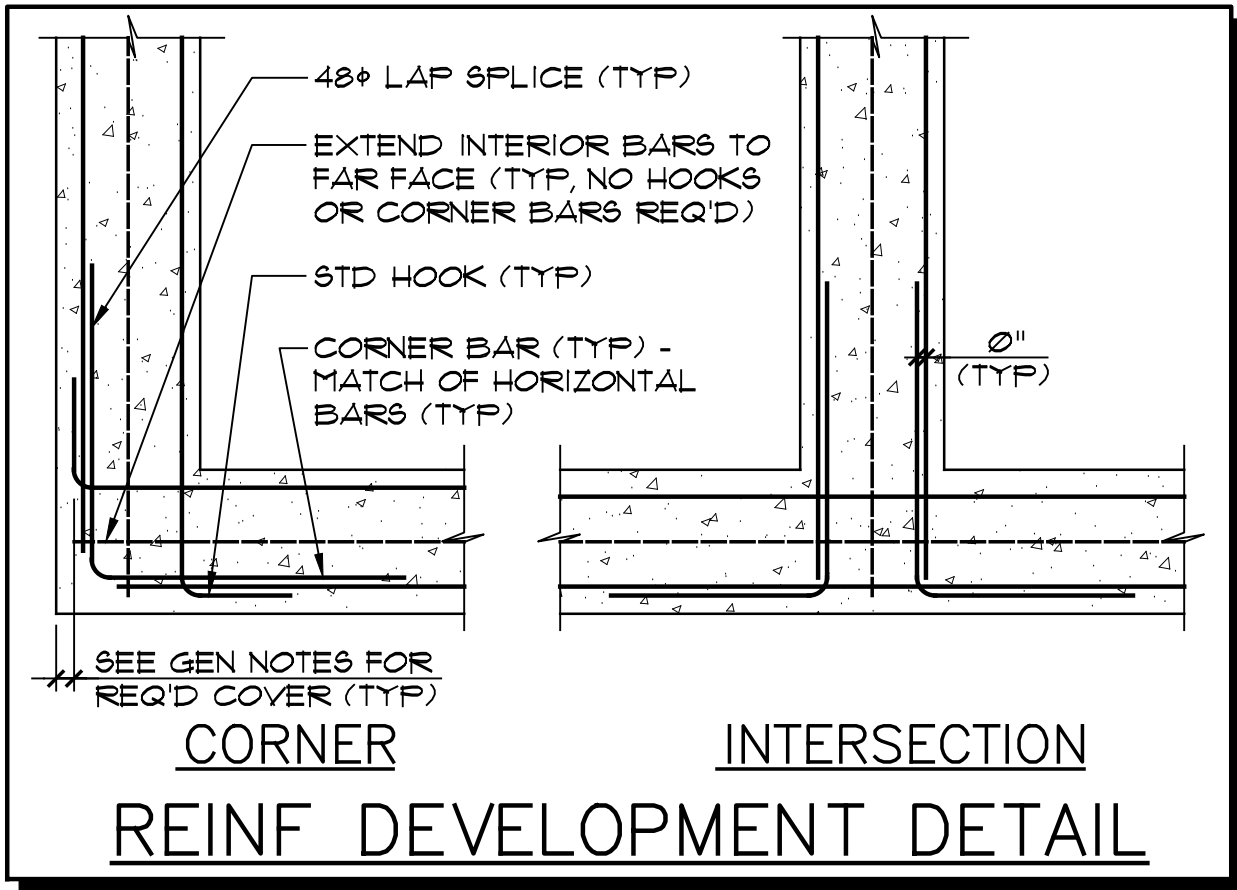
- EACH MIX DESIGN SHALL BE LABELED TO INDICATE THE AREA IN WHICH THE CONCRETE IS TO BE PLACED (I.E. FOUNDATIONS, SLAB-ON-GRADE, COLUMNS, ETC.). FAILURE TO DO SO WILL CAUSE DELAY AND/OR REJECTION OF SUBMITTALS.
- PROPOSED MIX DESIGN SHALL BE IN ACCORDANCE WITH METHOD 1 OR METHOD 2 OF ACI 301. PROVIDE SUPPORTING DATA IN TABULAR FORM FOR EACH SEPARATE PROPOSED MIX.
- SUBMIT CONCRETE MIX DESIGN FOR EACH PROPOSED CLASS OF CONCRETE.

C5 REBAR SHALL CONFORM TO ASTM-A615 GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064 AND SHALL BE LAPPED MINIMUM ONE MESH + 2" WHERE SPLICED. ALL REINFORCING SHALL BE DOMESTICALLY PRODUCED.

C6 SPLICES AND ANCHORAGE OF REINFORCING SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):

WELDED WIRE FABRIC: 8"
ALL OTHER: 48 DIA (12" MIN)

C7 REINFORCEMENT IN WALLS, FOOTINGS AND BEAMS SHALL BE CONTINUOUS AND LAPPED 48 BAR DIA AT SPLICE UNLESS OTHERWISE NOTED. HOOK AND LAP ALL CORNER AND INTERSECTING BARS. (SEE REINF DEVELOPMENT DETAIL).

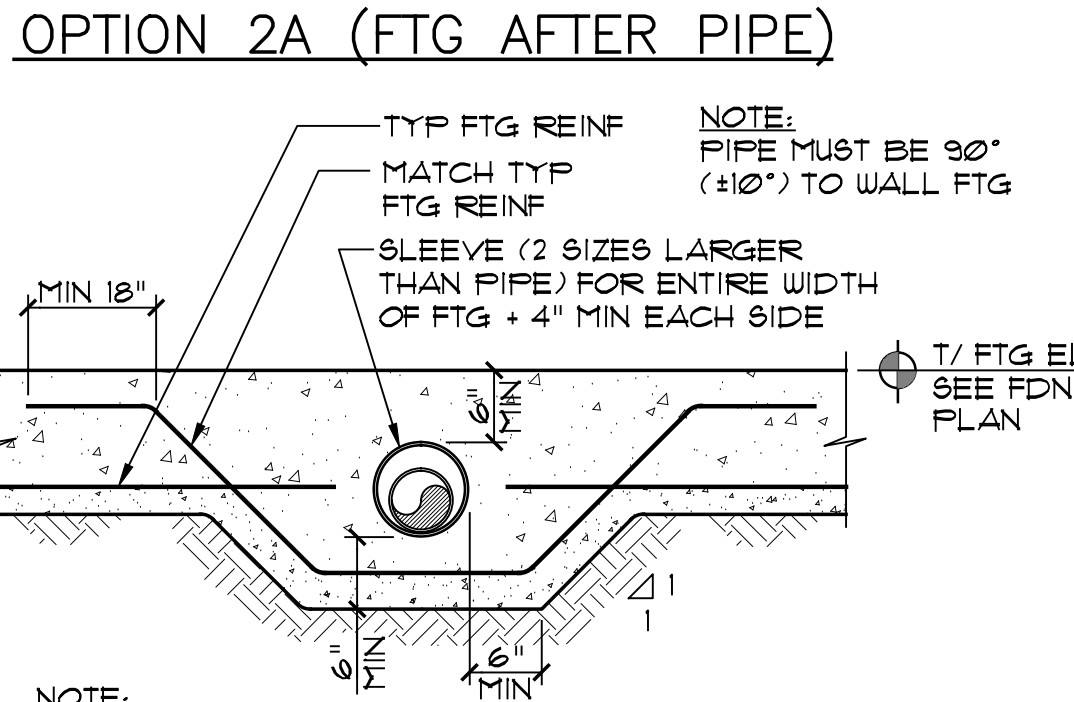
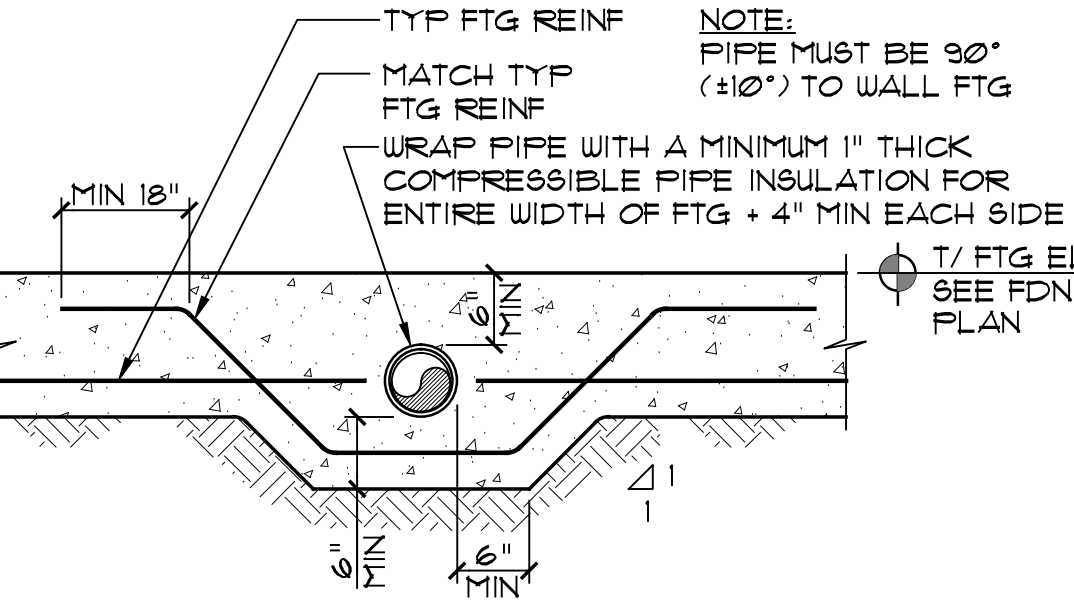
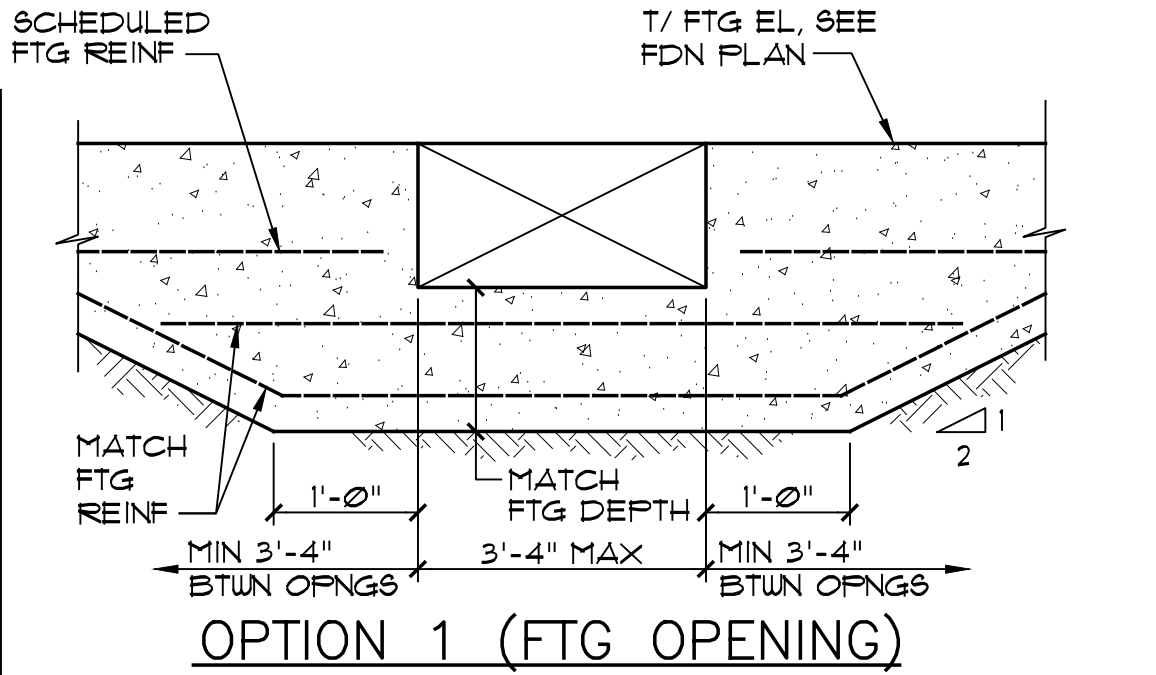


C8 COVER FOR REINFORCING SHALL BE AS FOLLOWS:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THRU #8 BARS:	2"
#5 BAR, W31 OR D31 WIRE AND SMALLER:	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:	
SLABS, WALLS, JOISTS:	
#4 AND #8 BARS:	1 1/2"
#11 BAR AND SMALLER:	3/4"
BEAMS:	
PRIMARY REINF, TIES, STIRRUPS, SPIRALS:	1 1/2"
COLUMNS & PRIMARY LONGITUDINAL REINF:	2"
SHELLS, FOLDED PLATE MEMBERS:	
#6 BAR AND LARGER:	3/4"
#5 BAR, W31, OR D31 WIRE AND SMALLER:	1/2"

C9 FOOTING PENETRATION DETAILS:

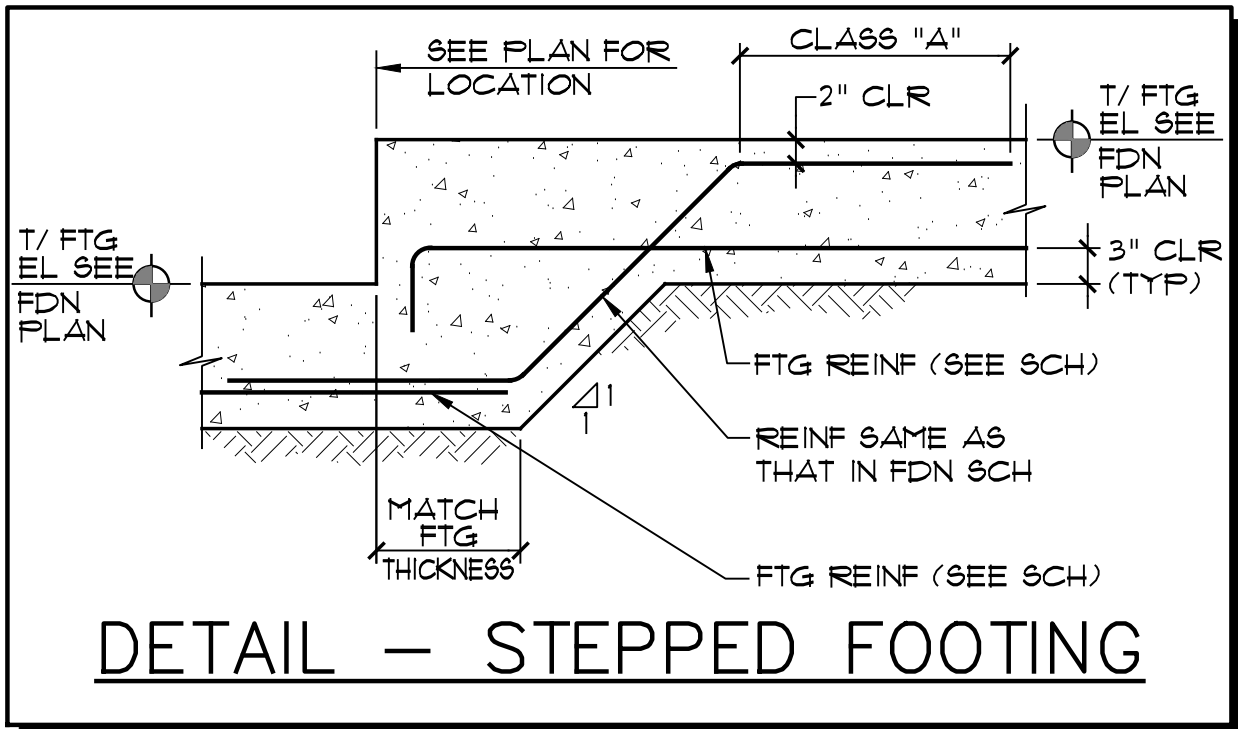
- NOTES:
- GC SHALL CONTACT ENGINEER IF OPENING SIZE AND/OR SPACING EXCEEDS THAT SHOWN.
 - WRAP PIPE(S) WITH A MINIMUM 1" THICK COMPRESSIBLE PIPE INSULATION FOR ENTIRE WIDTH OF FTG + 4" MIN EACH SIDE. GROUT VOID SOLID.



- NOTE: FILL ANNUAL SPACES BETWEEN SLEEVES AND PIPES WITH A COMPRESSIBLE MATERIAL AS REQUIRED BY THE PLUMBING CODE.

OPTION 2B (FTG BEFORE PIPE)

C10 STEPPED FOOTING DETAIL (IF REQUIRED):



C11 BASE CONSTRUCTION PRICE SUBMITTED BY CONTRACTOR/SUBCONTRACTOR SHALL INCLUDE 1000* OF BOTH #5 AND #6 REINFORCING STEEL AND 100 MAN HOURS (TOTAL) OF LABOR FOR INSTALLATION OF THIS REINFORCING AS DIRECTED BY THE ARCHITECT/ENGINEER.

C12 TERMINATE ALL DISCONTINUED ELEVATED SLAB TOP BARS WITH A 180 DEGREE STANDARD HOOK UNLESS OTHERWISE NOTED.

BAR DEVELOPMENT LENGTH

SIZE	CLASS-A			CLASS-B		
	CONCRETE STRENGTH (P.S.I.)					
	3000	4000	5000	3000	4000	5000
#3	17	15	12	22	19	17
#4	22	19	17	29	25	23
#5	28	24	22	36	31	28
#6	33	29	26	43	37	34
#7	39	34	30	50	44	39
#8	44	38	34	57	50	45
#9	50	43	39	65	56	50

TENSION SPLICE

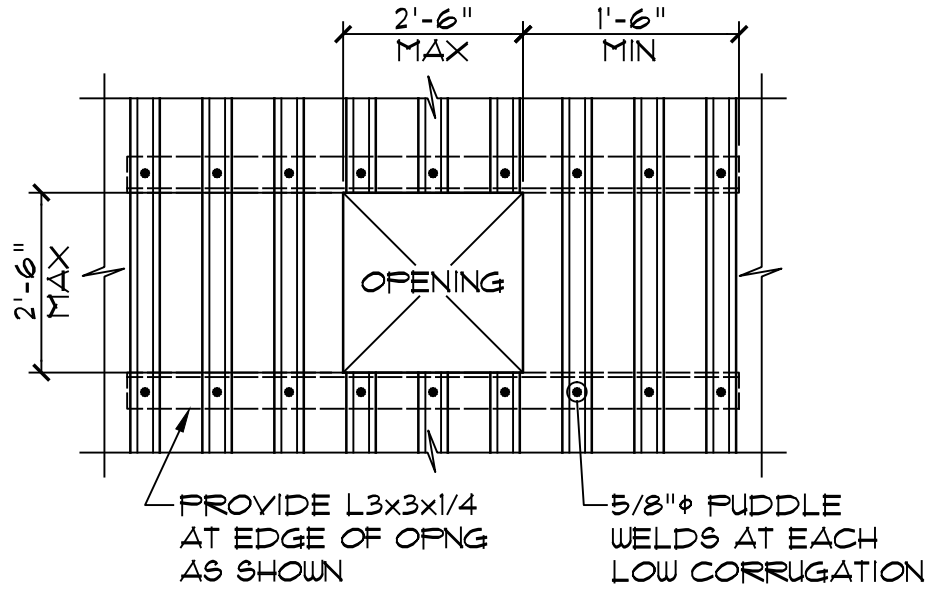
SIZE	CLASS-A			CLASS-B		
	CONCRETE STRENGTH (P.S.I.)					
	3000	4000	5000	3000	4000	5000
#3	21.4	18.5	16.5	27.8	24.0	21.5
#4	28.5	24.7	20.1	37.0	32.1	28.7
#5	35.6	30.8	25.2	46.3	40.1	35.9
#6	42.7	37.0	30.2	55.5	48.1	43.0
#7	62.3	54.0	44.1	81.0	70.1	62.7
#8	71.3	61.7	50.3	92.6	80.2	71.1
#9	80.3	69.6	56.8	104.4	90.4	80.9

STEEL ROOF DECK

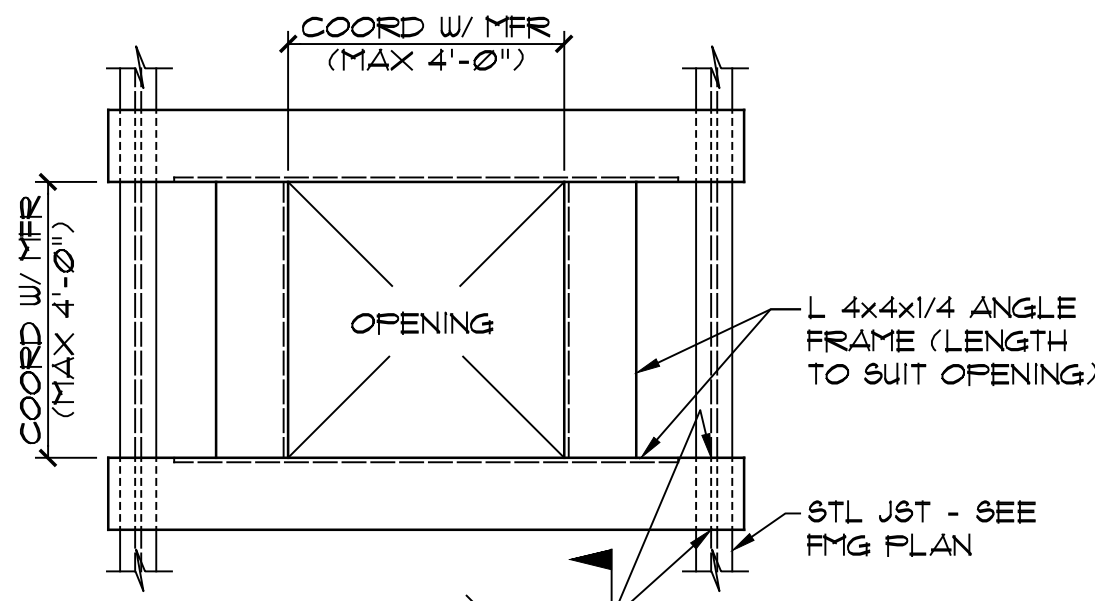
- RD1 SEE ROOF FRAMING PLAN(S) FOR STEEL DECK ATTACHMENT TO STRUCTURE.
- RD2 STEEL ROOF DECK UNITS SHALL BE FABRICATED FROM STEEL CONFORMING TO SECTION A3 OF THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE, SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS. THE STEEL USED SHALL BE GRADE 80.
- RD3 ALL FIELD WELDING OF DECK SHALL BE IN STRICT CONFORMANCE WITH ANSI/AWS D13 STRUCTURAL WELDING CODE.
- RD4 ALL SCREWS SHALL COMPLY WITH ASTM 1513, ICC AC43, AND ICC AC118. FASTENERS SHALL BE INSTALLED PERPENDICULAR TO ELEMENT SO AS TO PROPERLY SEAT FASTENER HEAD, AND TORQUED PER MANUFACTURER'S SPECIFICATIONS, NOT TO EXCEED MAXIMUM RECOMMENDED TORQUE.
- RD5 GALVANIZING SHALL CONFORM TO ASTM-A653, STRUCTURAL QUALITY AND FEDERAL SPEC. QQ-8-115.
- RD6 SEE CHART BELOW FOR MINIMUM SECTION PROPERTIES REQUIRED FOR STEEL DECK. PROPERTIES SHOWN ARE REPRODUCED FROM THE VULCRUF MANUAL.

ROOF DECK					
DECK TYPE	DESIGN THICK	I _p in ⁴ /ft	S _p in ³ /ft	I _n in ⁴ /ft	S _n in ³ /ft
B22	0.0295	0.155	0.186	0.183	0.192
B20	0.0358	0.201	0.234	0.222	0.247
B18	0.0414	0.289	0.318	0.295	0.327
F22	0.0295	0.113	0.112	0.129	0.121
F20	0.0358	0.145	0.139	0.157	0.148
F18	0.0414	0.206	0.190	0.208	0.195
A22	0.0295	0.104	0.098	0.120	0.106
A20	0.0358	0.134	0.122	0.145	0.130
A18	0.0414	0.190	0.167	0.193	0.172
N22	0.0295	0.659	0.382	0.884	0.433
N20	0.0358	0.848	0.501	1.079	0.552
N18	0.0414	1.238	0.688	1.430	0.749
E24	0.0239	0.057	0.038	0.059	0.103
E22	0.0295	0.073	0.130	0.073	0.134
E20	0.0358	0.088	0.167	0.088	0.165

RD7 SEE PARTIAL PLAN BELOW FOR METAL DECK OPENING FRAMING:



OPTION 1



OPTION 2

NOTES:

- FOR OPENINGS WITH A MAXIMUM DIMENSION OF 6" TO 1'-0", REINFORCE OPENING WITH A 20ga GALV FLAT PLATE 1'-0" LARGER THAN THE OPENING. ATTACH WITH 1" WELDS AT EACH RIB ALL AROUND.
- FOR OPENINGS WITH A MAX DIMENSION OF 1'-0" TO 2'-6", SEE DETAIL OPTION 1 ABOVE.
- FOR OPENINGS WITH A MAX DIMENSION OF 4'-0", SEE DETAIL OPTION 2 ABOVE.

RD8 NO ITEMS SHALL BE HUNG DIRECTLY FROM THE ROOF DECK UNLESS INDICATED OTHERWISE IN THE DRAWINGS.

RD9 PROVIDE METAL CLOSURE STRIPS AT OPEN UNCOVERED ENDS AND EDGES OF ROOF DECKING AND IN VOIDS BETWEEN DECKING AND OTHER CONSTRUCTION. WELD INTO POSITION TO PROVIDE A COMPLETE ENCLOSED DECKING INSTALLATION. PROVIDE FLEXIBLE CLOSURE STRIPS INSTEAD OF METAL CLOSURES, AT CONTRACTOR'S OPTION, WHEREVER THEIR USE WILL ENSURE COMPLETE CLOSURE. INSTALL WITH ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

REVIEWED FOR CODE COMPLIANCE

TOWN OF GLEN RIDGE

APPROVED BY JOSE RODRIGUEZ

PX-3697

GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

KENNETH R. CARLSON - ARCHITECT, P.A.

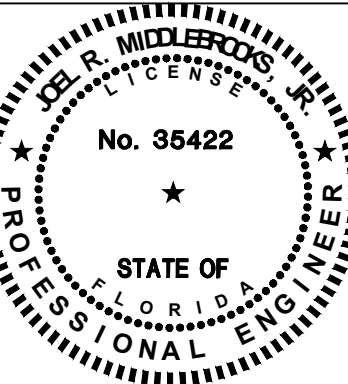
1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
FAX (954) 421 - 9929
e-mail: kenneth@kenr.com

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JOSÉ R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422



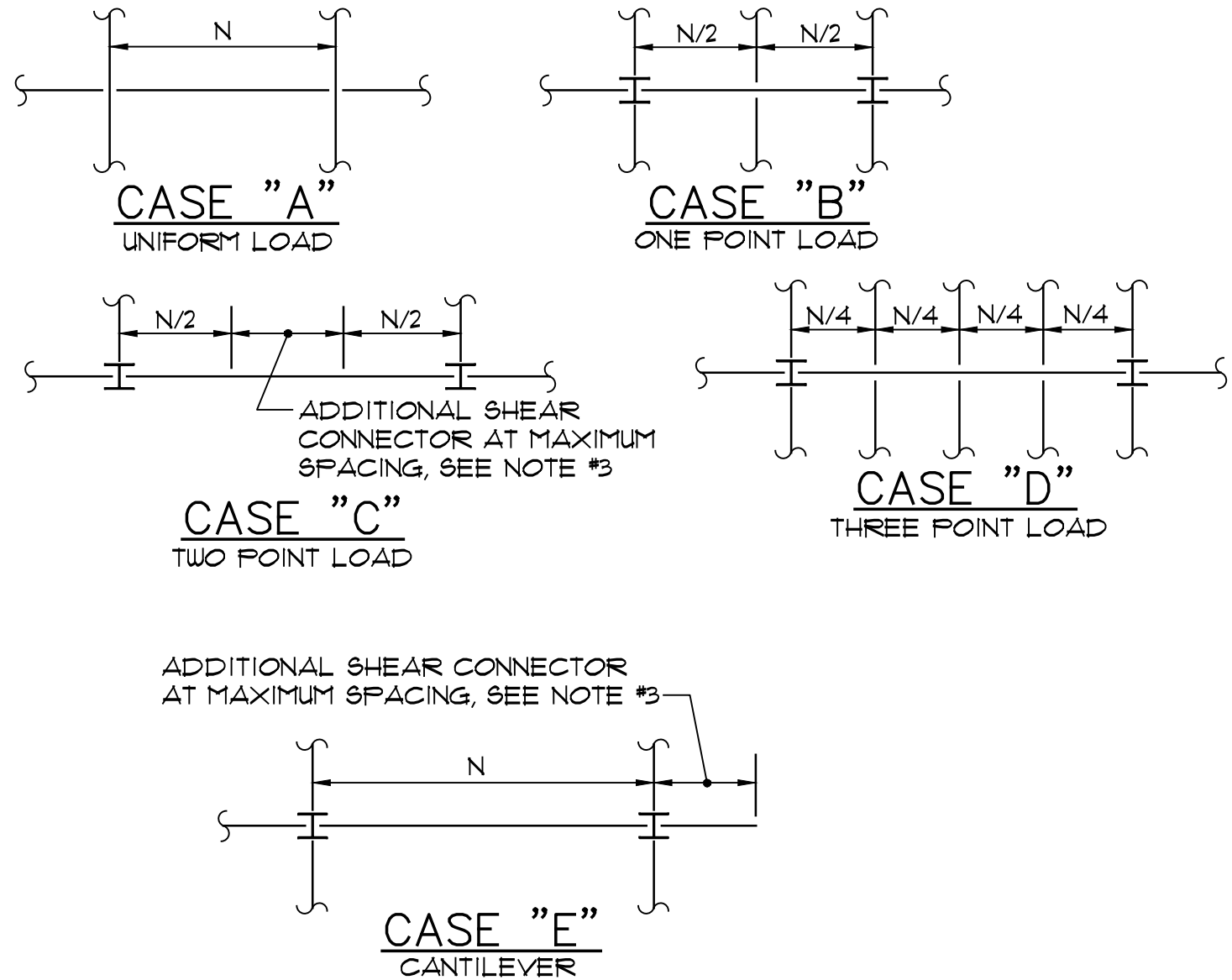
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COMPOSITE STEEL FLOOR SYSTEM

C81 COMPOSITE BEAM CONNECTIONS SHALL BE PROVIDED AS DETAILED HEREIN.

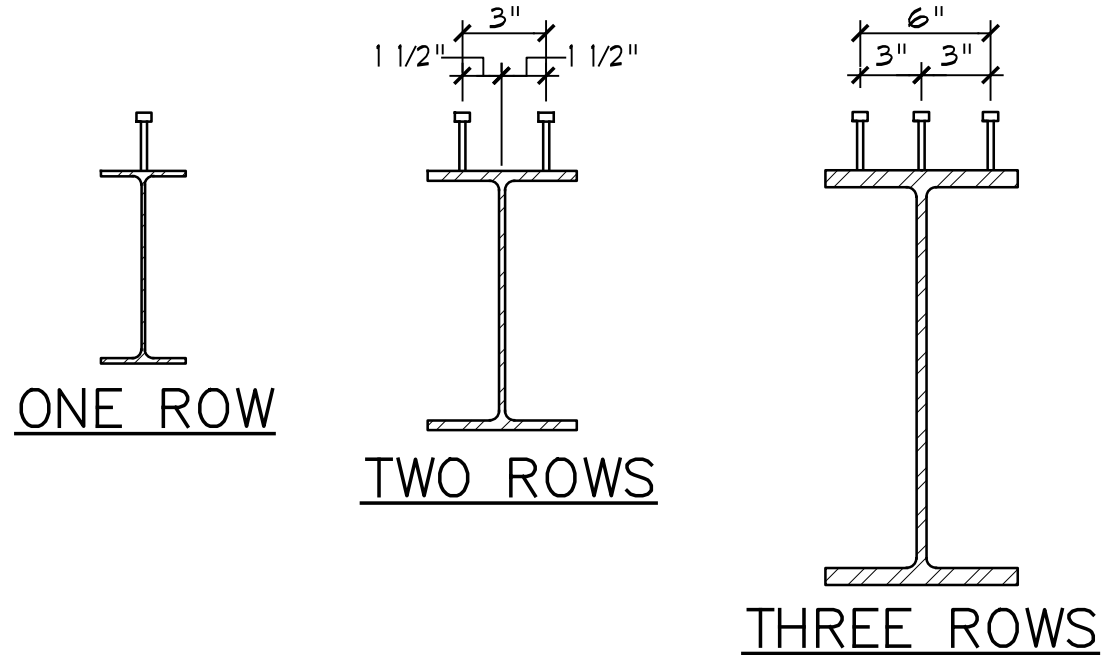
C82 SHEAR CONNECTOR SIZE AND QUANTITIES ARE SHOWN IN THE FLOOR FRAMING PLAN NOTES. THE CONTRACTOR SHALL SUBMIT STUD PLACEMENT SHOP DRAWINGS. THE TOP OF THE STUDS MUST BE A MINIMUM OF 1 1/2" ABOVE THE FLUTES OF THE METAL DECK BUT NOT SO HIGH AS TO EXTEND ABOVE THE SLAB SURFACE AFTER THE SLAB HAS BEEN CAST AND PRE-COMPOSITE DEFLECTIONS HAVE OCCURRED. THE LENGTH OF THE STUD INDICATED IN THE FLOOR FRAMING PLAN NOTES IS THE IN-PLACE LENGTH AFTER WELDING.

C83 COMPOSITE SHEAR CONNECTOR PLACEMENT DIAGRAMS:



- NOTES:
- N = SPECIFIED NUMBER OF SHEAR CONNECTORS. REFER TO FRAMING PLAN(S).
 - UNLESS NOTED OTHERWISE ON PLANS OR IN THE COMPOSITE BEAM SCHEDULE, SHEAR CONNECTORS SHALL BE DISTRIBUTED ALONG THE LENGTH OF THE BEAM AS SHOWN ON DETAILS ABOVE.
 - MAXIMUM SPACING OF SHEAR CONNECTOR SHALL BE AS FOLLOWS:
 - BEAMS PERPENDICULAR TO DECK SPAN = 36"
 - BEAMS PARALLEL TO DECK SPAN = (8 x TOTAL SLAB THICKNESS)
 - MINIMUM SPACING OF SHEAR CONNECTOR SHALL BE AS FOLLOWS:
 - BEAMS PERPENDICULAR TO DECK SPAN = 3"
 - BEAMS PARALLEL TO DECK SPAN = 4 1/2"
 - WHERE STEEL DECK CORRUGATIONS DO NOT ALLOW FOR AN EVEN SPACING OF SHEAR CONNECTORS WITH (1) STUD IN EACH FLUTE, ADDITIONAL STUDS IN A SECOND ROW (AND THIRD ROW WHERE REQUIRED) SHALL BE PLACED SUCH THAT THE HIGHEST DENSITY OF SHEAR CONNECTORS OCCURS NEAR THE BEAM SUPPORT.
 - WHERE THE SPECIFIED NUMBER OF SHEAR CONNECTOR IS LESS THAN THE BEAM SPAN LENGTH DIVIDED BY THE MAXIMUM SPACING (SEE NOTE 3) ADDITIONAL SHEAR CONNECTORS SHALL BE PROVIDED SUCH THAT THE MAXIMUM SPACING IS NOT EXCEEDED AT ANY LOCATION IN THE SPAN.
 - SUBMIT SHOP DRAWINGS SHOWING PLACEMENT OF SHEAR CONNECTORS TO ARCHITECT FOR ENGINEER'S APPROVAL.

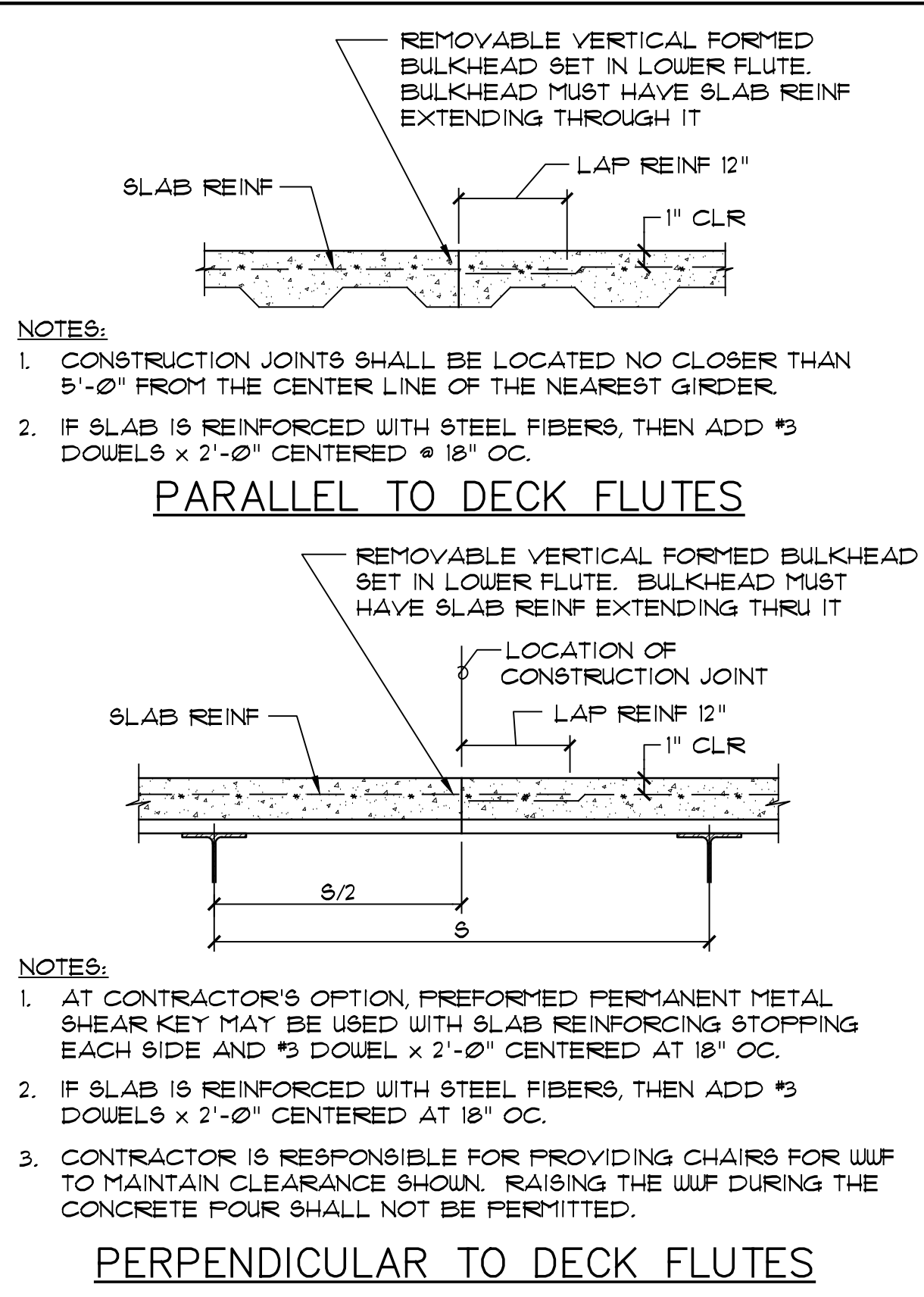
C84 COMPOSITE SHEAR CONNECTOR SPACING DETAIL:



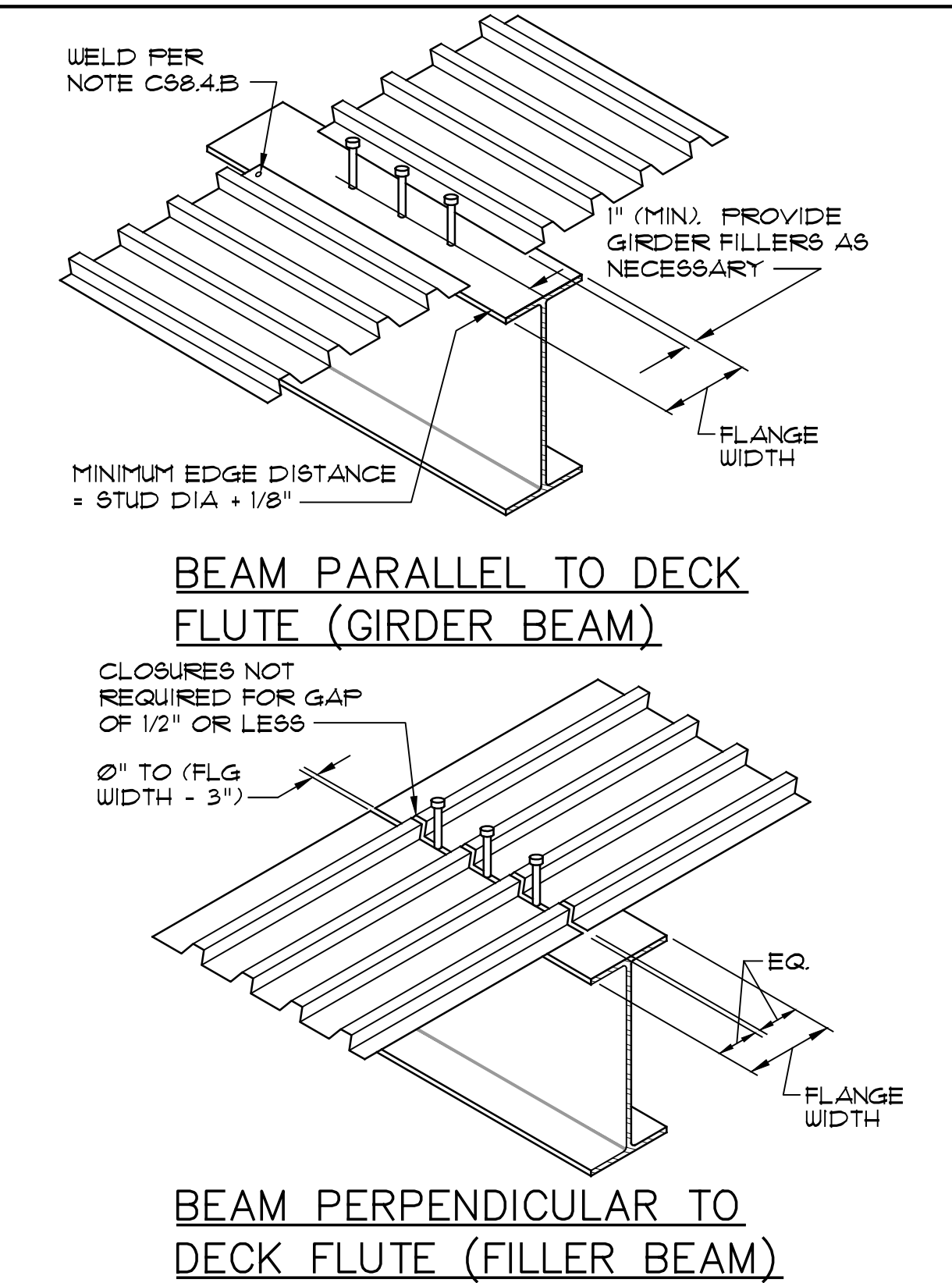
- NOTES:
- SHEAR CONNECTORS IN (1) ROW SHALL BE PLACED DIRECTLY OVER THE BEAM WEB.
 - PLACE STUD IN A SINGLE ROW WHERE SPACING REQUIREMENTS PERMIT. STUDS SHALL BE PLACED IN (2) OR (3) ROWS ONLY WHERE REQUIRED IN ORDER TO PLACE THE TOTAL NUMBER OF STUDS. SEE TYPICAL DETAIL, SHEAR CONNECTOR PLACEMENT DIAGRAMS.

STRUCTURAL NOTES

C85 COMPOSITE SLAB CONSTRUCTION DETAIL DIAGRAMS:

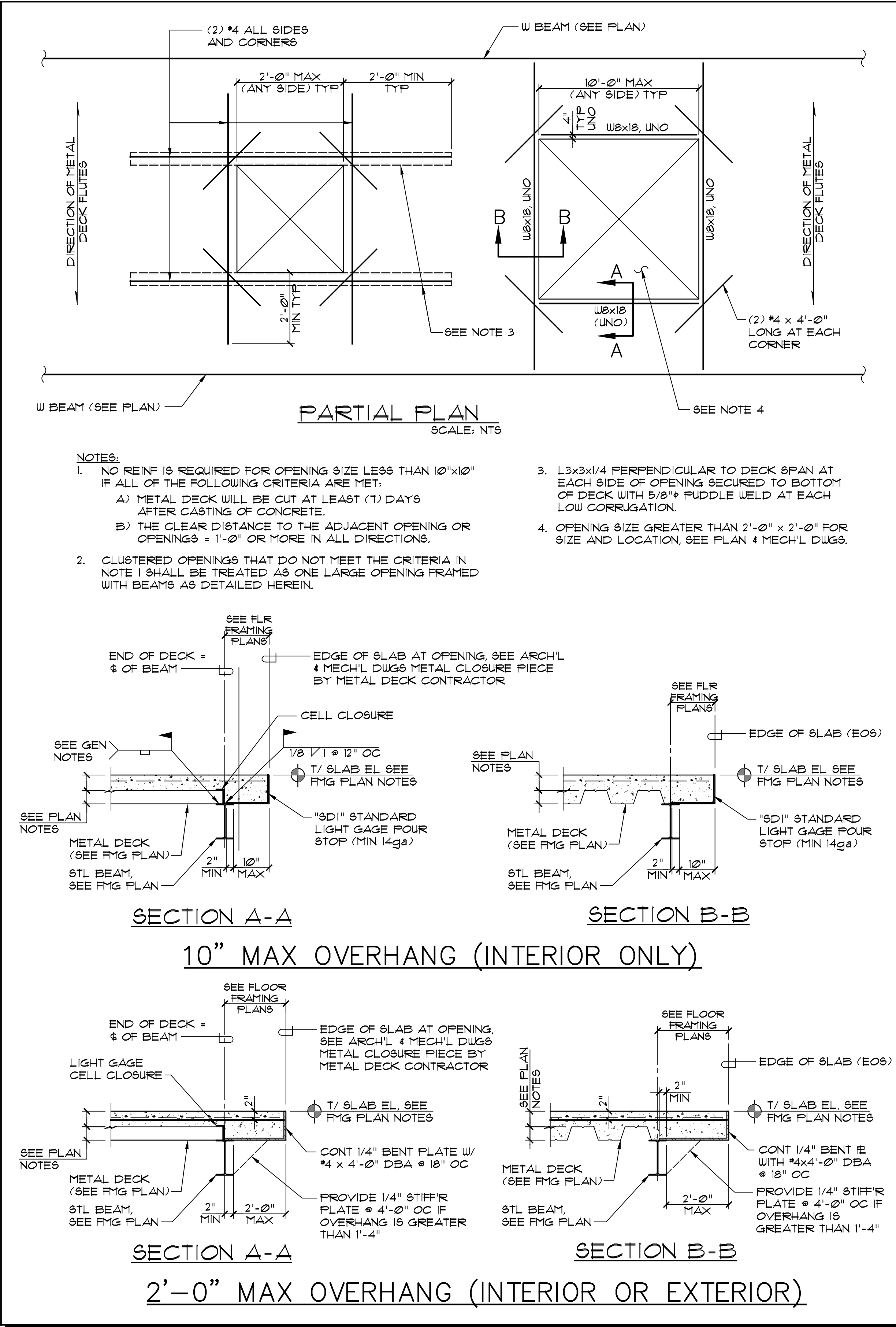


C86 COMPOSITE FLOOR DECK PLACEMENT DETAILS:



- NOTES:
- DECK SHALL BE FURNISHED IN MODULAR PANEL WIDTHS. ANY CUTTING THAT IS REQUIRED SHALL BE DONE BY THE DECK ERECTOR.
 - LATERAL AND LONGITUDINAL SPACING IS CONTROLLED BY SECTION 1.11.4 OF THE A.I.S.C.E. SPECIFICATIONS. FOR THE LOCATION OF THE STUD WITH RESPECT TO THE EDGE OF THE FLANGE, SEE THE STRUCTURAL WELDING CODE AWS, 428.8, (DETAIL 4).
 - WHEN STUDS ARE USED, DECK MUST NOT BE LAPPED IN ORDER TO PERMIT WELDING OF STUDS THROUGH SINGLE THICKNESS OF DECK. WELDING OF STUDS TO BEAM THROUGH (2) LAYERS OF DECK SHALL NOT BE PERMITTED.

C87 PARTIAL TYPICAL FRAMING PLAN AT OPENINGS IN COMPOSITE SLAB:



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PX-3697

GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

KENNETH R. CARLSON - ARCHITECT, P.A.

1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
e-mail: kenneth@krcarlson.com

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JOSE R. RODRIGUEZ, P.E.
No. 35422
STATE OF FLORIDA
PROFESSIONAL ENGINEER

JOSE R. RODRIGUEZ, P.E.
Florida Professional Engineer No. 35422

BBM
STRUCTURAL
399 W. Palmetto Park Rd
Suite 200
Boca Raton, FL 33432
p. 561-750-1916
BBM PROJECT # 24123

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STRUCTURAL NOTES

COMPOSITE STEEL FLOOR SYSTEM CONT:

C88 COMPOSITE FLOOR DECK INSTALLATION:

NOTES:

1. INSTALL TEMPORARY SHORING, IF REQUIRED, BEFORE PLACING DECK PANELS.
2. PLACE DECK PANELS ON STRUCTURAL SUPPORTS AND ADJUST TO FINAL POSITION WITH ENDS ALIGNED. ATTACH FIRMLY TO THE SUPPORTS IMMEDIATELY AFTER PLACEMENT IN ORDER TO FORM A SAFE WORKING PLATFORM.
3. CUT AND NEATLY FIT DECK UNITS AND ACCESSORIES AROUND OPENINGS AND OTHER WORK PROJECTING THROUGH OR ADJACENT TO THE DECKING.
4. ANCHOR FLOOR DECK UNITS TO STEEL SUPPORTING MEMBERS BY ARC SPOT FIDDLE WELDS OF THE FOLLOWING DIAMETER AND SPACING (OR FILLET WELDS OF EQUAL STRENGTH):
 - A. MINIMUM VISIBLE WELD DIAMETER = 5/8" AT EACH CORRUGATION.
 - B. WELD EDGE RIBS OF PANELS AT EACH SUPPORT. SPACE ADDITIONAL WELDS AN AVERAGE OF 12" OC BUT NOT MORE THAN 18" OC IN ANY ONE LOCATION.
 - C. FASTEN SIDE LAPS AND PERIMETER EDGE OF UNITS BETWEEN SUPPORTS AT INTERVALS NOT EXCEEDING 24" OC, USING ONE OF THE FOLLOWING METHODS:
 1. #10 SELF-DRILLING SCREWS
 2. CRIMP OR BUTTON PUNCH
 3. FOR DECKS THAT ARE 20ga AND HEAVIER: ARC FIDDLE WELDS 5/8" MINIMUM VISIBLE DIAMETER OR 1" LONG FILLET WELDS.
5. INSTALL DECK ENDS OVER SUPPORTS WITH A MINIMUM END BEARING OF 1 1/2".
6. FASTEN FOUR STOPS AND GIRDER FILLERS TO SUPPORTING STRUCTURE ACCORDING TO THE MFR'S RECOMMENDATIONS.
7. FASTEN COLUMN CLOSURES, CELL CLOSURES AND Z CLOSURES TO DECK TO PROVIDE TIGHT FITTING CLOSURES AT OPEN ENDS OF RIBS AND SIDES OF DECKING. FASTEN CELL CLOSURES AT CHANGES OF DIRECTION OF FLOOR DECK UNITS.

C89 COMPOSITE STEEL FLOOR UNITS SHALL BE FABRICATED FROM STEEL CONFORMING TO SECTION A3 OF THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS. THE STEEL USED SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI (345 MPa). SEE CHART BELOW FOR MINIMUM SECTION PROPERTIES REQUIRED FOR STEEL DECK. PROPERTIES SHOWN ARE REPRODUCED FROM THE VULCRRAFT MANUAL.

COMPOSITE FLOOR DECK						
DECK TYPE	DESIGN THICK	I _p in ⁴ /ft	S _p in ³ /ft	I _n in ⁴ /ft	S _n in ³ /ft	
15VL22	0.0295	0.143	0.169	0.171	0.179	
15VL20	0.0358	0.186	0.224	0.212	0.231	
15VL18	0.0414	0.212	0.311	0.295	0.324	
20VL122	0.0295	0.324	0.263	0.321	0.266	
20VL120	0.0358	0.409	0.341	0.406	0.346	
20VL118	0.0414	0.559	0.495	0.558	0.504	
30VL122	0.0295	0.130	0.414	0.129	0.426	
30VL120	0.0358	0.320	0.534	0.319	0.551	
30VL118	0.0414	1.254	0.770	1.252	0.797	

C910 ALL FIELD WELDING OF DECK SHALL BE IN STRICT CONFORMANCE WITH ANSI/AWS D13 STRUCTURAL WELDING CODE.

C911 GALVANIZING SHALL CONFORM TO ASTM-A653, STRUCTURAL QUALITY AND FEDERAL SPEC. QQ-S-715 TO PROVIDE A MINIMUM COATING PROTECTION OF G90.

C912 COMPOSITE BEAMS SHALL BE CAMBERED AS INDICATED ON THE FLOOR FRAMING PLAN(S). IF NO CAMBER IS SPECIFIED, THE FABRICATOR SHALL ENSURE THAT THE "NATURAL" CAMBER IN ALL ERECTED BEAMS OCCURS IN AN UPWARD DIRECTION.

C913 NO CONDUIT IN SLAB IS ALLOWED.

STEEL JOISTS

SJ1 A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.

SJ2 ALL DESIGN, FABRICATION AND ERECTION OF STEEL JOISTS AND BRIDGING SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT SPECIFICATIONS OF STEEL JOIST INSTITUTE (SJ1 PUBLICATION K-1-05) AND RECOMMENDED CODE OF STANDARD PRACTICE.

SJ3 THE ENDS OF ALL BRIDGING LINES TERMINATING AT WALLS OR BEAMS SHALL BE ANCHORED TO THE WALL OR BEAM.

SJ4 ALL STEEL JOISTS ARE TO BE CAMBERED AS SPECIFIED BY STEEL JOIST INSTITUTE.

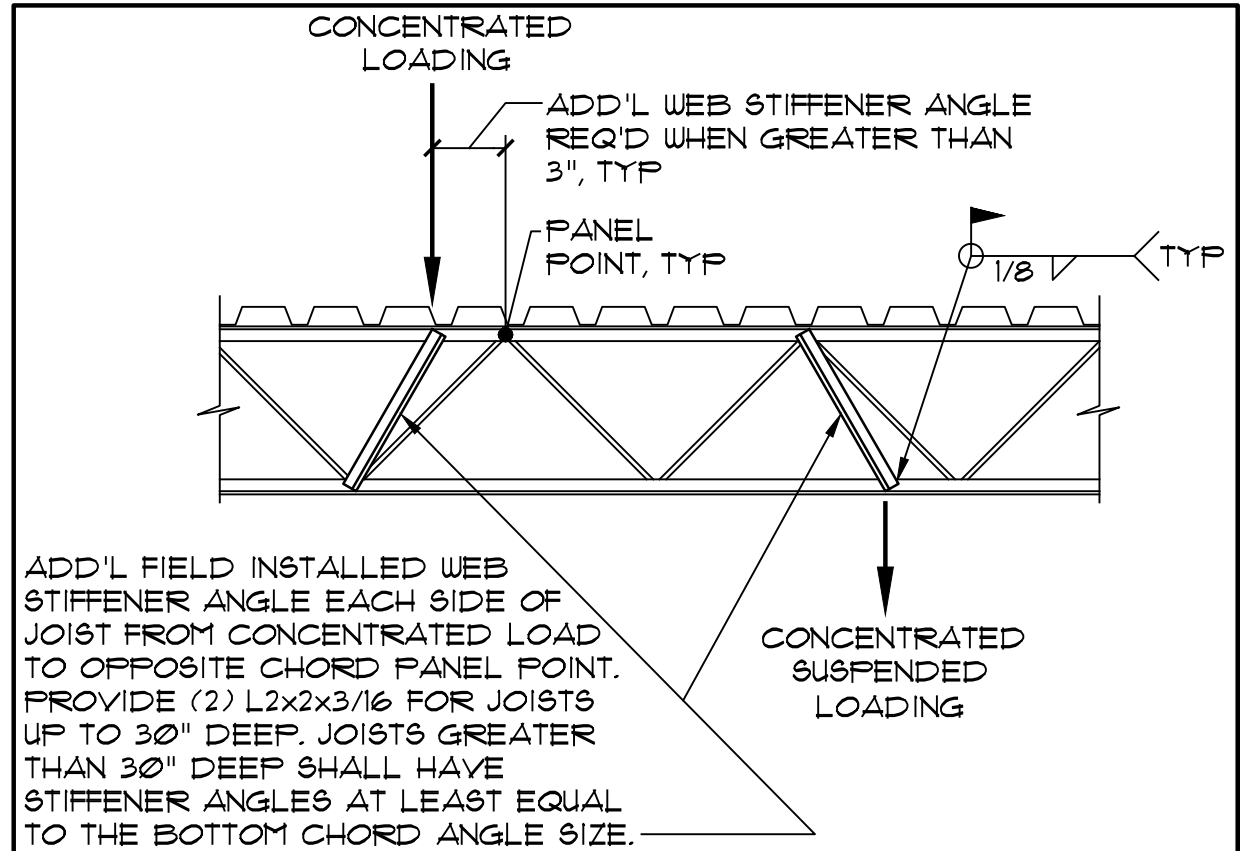
SJ5 PROVIDE BOTTOM AND/OR TOP CHORD EXTENSIONS AS SHOWN ON DRAWINGS.

SJ6 UNLESS NOTED OTHERWISE, MINIMUM JOIST BEARING SHALL BE 2 1/2" FOR K-SERIES JOISTS, 4" FOR LH, DLH AND SLH 15-18, AND 6" FOR SLH 19-25 ON A STEEL MEMBER OR EMBED PLATE.

SJ7 BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE SIZE AND SPACING REQUIREMENTS OF THE SJ1 STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS.

STEEL JOISTS CONT:

SJ8 ALL HANGERS, CURBS AND/OR ROOFTOP FRAMES TO SUPPORT MECHANICAL EQUIPMENT, ETC., TO BE SUPPORTED BY THE JOISTS SHALL BE LOCATED AT THE PANEL POINTS OF THE JOISTS IF POSSIBLE. HOWEVER, IF THE CONCENTRATED LOAD MUST BE LOCATED FURTHER THAN 4" FROM A PANEL POINT, PROVIDE WEB STIFFENER ANGLES. WEB STIFFENERS MUST BE INSTALLED EACH SIDE OF JOIST FROM CONCENTRATED LOAD TO OPPOSITE CHORD PANEL POINT BEFORE LOAD IS APPLIED. SEE DETAIL BELOW.



DETAIL AT CONCENTRATED LOADS

SJ9 CONTRACTOR TO FURNISH BAR JOIST CERTIFICATIONS SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION. A SPECIALTY ENGINEER FOR THE STEEL JOIST SUPPLIER SHALL ALSO CERTIFY THAT THE STEEL JOIST BOTTOM CHORDS WILL SAFELY RESIST THE WIND UPLIFTS, CONSIDERING THE SPACING OF BRIDGING.

SJ10 PROVIDE UPLIFT BRIDGING PER TABULATED PRESSURES ON SHEET 95.0

SJ11 ALL ITEMS SUSPENDED FROM JOISTS (I.E. CATWALKS, BALCONIES, OPERABLE PARTITIONS, ETC.) SHALL BE INSTALLED AFTER DEAD LOAD HAS BEEN APPLIED.

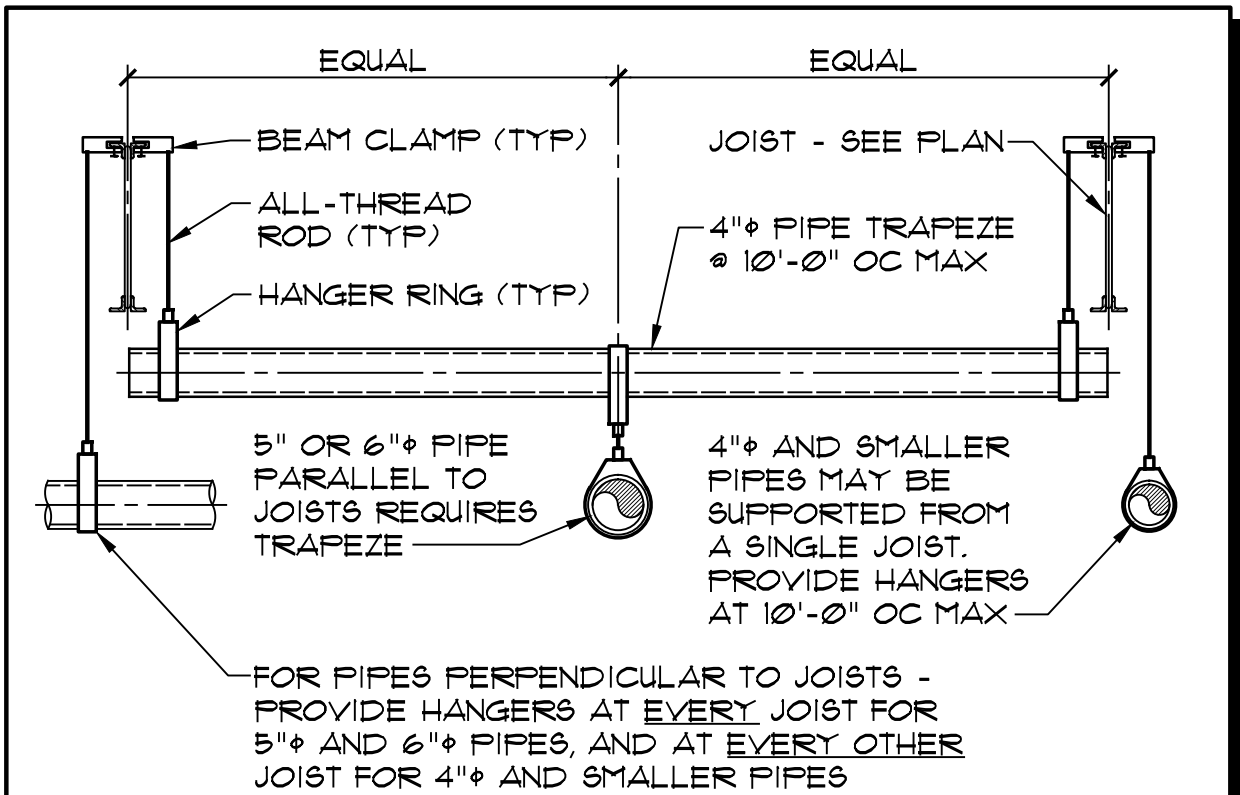
SJ12 BOLTED TIE JOISTS (BTJ) ARE USED IN STEEL FRAMES WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS. JOIST(S) AT COLUMN LINES SHALL BE FIELD BOLTED AT THE COLUMNS WITH TWO 1/2" BOLTS TO PROVIDE LATERAL STABILITY DURING CONSTRUCTION.

SJ13 STEEL JOISTS SHALL RECEIVE SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT) EXCEPT THOSE AREAS WHICH WILL RECEIVE SPRAY-ON FIRE PROTECTION.

SJ14 ANY STEEL JOIST WITHIN A 4'-0" DISTANCE FROM A PARALLEL SUPPORT SHALL BE FABRICATED IN SUCH A WAY THAT CAMBER OF THE JOIST WILL NOT CAUSE A PROBLEM INSTALLING THE METAL DECK.

SJ15 IN THE EVENT THAT FIRE SPRINKLERS ARE REQUIRED FOR THIS PROJECT, THE STEEL FABRICATOR SHALL PROVIDE A DIMENSIONED JOIST BRIDGING AND JOIST GIRDER BOTTOM CHORD BRACE PLAN ALONG WITH DETAILS TO THE SPRINKLER CONTRACTOR. THE FABRICATOR AND SPRINKLER CONTRACTOR SHALL COORDINATE WITH EACH OTHER TO ENSURE THAT ANY CONFLICTS ARE RESOLVED BEFORE ANY FABRICATION BEGINS.

SJ16 ALL PIPES MUST BE SUPPORTED AS SHOWN BELOW:



NOTES:

1. LOCATE HANGERS WITHIN 6" OF THE JOIST TOP CHORD PANEL POINTS.
2. PIPES LARGER THAN 6" SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL PRIOR TO FABRICATION OF JOISTS. INCLUDE LOCATION OF PIPE AND PREFERRED HANGING DETAIL IF OTHER THAN INDICATED ABOVE. JOISTS SHALL BE SPECIALLY DESIGNED BY THE FABRICATOR TO SUPPORT PIPES LARGER THAN 6". THE WEIGHT OF THE PIPES LARGER THAN 6" IS NOT INCLUDED IN THESE DOCUMENTS UNLESS SPECIFICALLY INDICATED OTHERWISE. COORDINATE WITH APPLICABLE TRADES.
3. PIPES SUSPENDED IN CONFORMANCE WITH THIS DETAIL WILL LIMIT THE PIPE SYSTEM WEIGHT TO 3.5 PPF EQUIVALENT DISTRIBUTED LOAD.

TYPICAL PIPE HANGER DETAIL

STEEL JOISTS CONT:

SJ17 FABRICATOR SHALL ENSURE THAT ALL OSHA REQUIREMENTS ARE MET. PARTICULAR ATTENTION SHALL BE PAID TO THE ERECTION PROCESS, BOLTED CONNECTIONS MAY BE REQUIRED. SUBMIT DETAILS FOR APPROVAL.

SJ18 THE JOIST MANUFACTURER MAY NOT INCREASE ALLOWABLE STRESSES.

SJ19 THE OPEN WEB STEEL JOISTS SHALL BE FABRICATED AND ERECTED IN FULL CONFORMANCE WITH THE "OSHA STEEL ERECTION STANDARD". IF THE CONSTRUCTION DRAWINGS DEVIATE FROM THE OSHA STANDARD THEN THE FABRICATOR SHALL PROVIDE SUBMITTALS THAT CLEARLY INDICATE THE DEVIATION WITH A REVISION CLOUD AND REQUEST APPROVAL FROM BBM TO MAKE THE CHANGE SO THAT CONFORMANCE WITH THE OSHA STANDARD IS ASSURED.

SJ20 THE SUPPORTS FOR SCISSOR, ARCHED CHORDS OR ANY OTHER SIMILAR TYPE JOIST, UNLESS NOTED OTHERWISE, SHALL BE DESIGNED WITH A FINNED CONNECTION AT ONE END AND A HORIZONTAL ROLLER AT THE OTHER END. THE SUPPORTING STRUCTURE, UNLESS NOTED OTHERWISE, HAS NOT BEEN DESIGNED FOR ANY GRAVITY LOAD HORIZONTAL FORCE DUE TO DEFLECTION. DO NOT DESIGN THESE TYPE OF JOISTS WITH FINNED SUPPORTS EACH END.

SJ21 K-SERIES STEEL JOISTS WITH SPANS 40'-0" AND LONGER SHALL BE ERECTED IN PANELS SO THAT BOLTED CONNECTIONS ARE NOT REQUIRED (EXCEPT AT THE COLUMN LINES). THE GC SHALL INSURE THAT ALL RELATED JOIST FRAMING COMPONENTS ARE COORDINATED TO MEET THIS REQUIREMENT.

SJ22 ALL ROOFS THAT EXCEED 1/4"/FT SLOPE SHALL HAVE THE JOIST BEARING SEATS SLOPED AS REQUIRED PER STEEL JOIST INSTITUTE.

STRUCTURAL STEEL

S91 A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.

S92 FABRICATE AND ERECT STRUCTURAL STEEL IN CONFORMANCE WITH THE LATEST VERSION OF AISC 360-16.

S93 MATERIAL SPECIFICATIONS:

ALL STEEL SHALL BE PRODUCED DOMESTICALLY.

ROLLED SHAPES, PLATES AND BARS: ASTM A36, EXCEPT WIDE-FLANGE & WT SECTIONS, WHICH SHALL BE ASTM A992.

HOLLOW STRUCTURAL SECTION (HSS): ASTM A500, GRADE B.

ANCHOR BOLTS, RODS, NUTS AND WASHERS: PER BASE PLATE SCHEDULE.

HEADED STUDS: ASTM A108, GRADE 1015 THROUGH 1020, COLD-FINISHED CARBON STEEL, AWG D11, TYPE B.

BOLTED STRUCTURAL CONNECTIONS: UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE 3/4" ASTM A325, TYPE N. BOLTS INDICATED LESS THAN 5/8" SHALL BE ASTM A307.

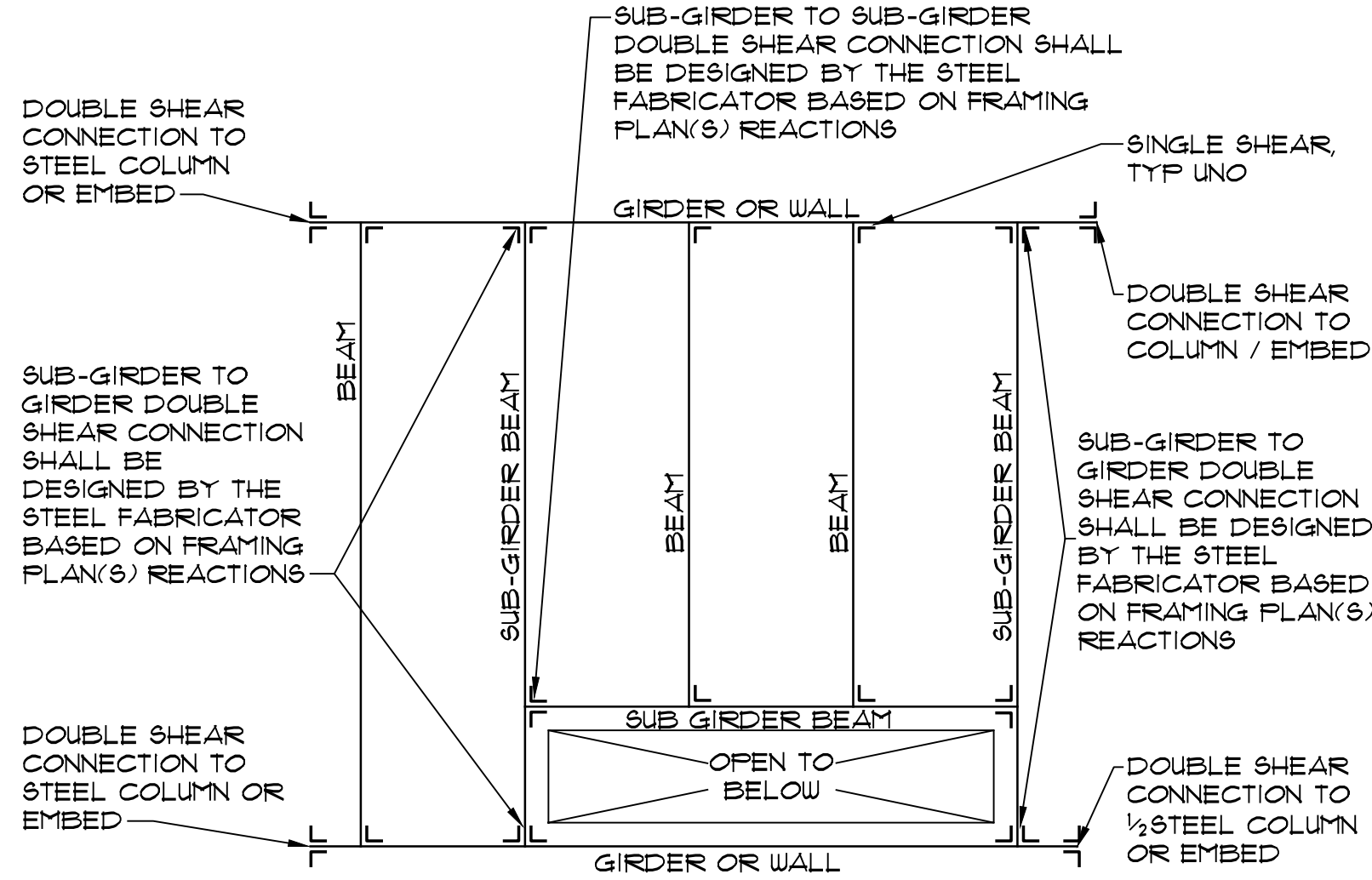
WELDED CONNECTIONS: ELECTRODES - E70XX UNO (LOW HYDROGEN); FILLET WELDS SHALL BE 3/16" UNO.

S94 HIGH-STRENGTH FIELD-BOLTED CONNECTIONS SHALL BE INSTALLED, TIGHTENED, TESTED AND INSPECTED ACCORDING TO "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC). ALL BOLTS IN STEEL TO STEEL CONNECTIONS SHALL BE BROUGHT TO A "SNUG-TIGHT" CONDITION, AS DEFINED IN THE SPECIFICATION. ALL BOLTS IN STEEL TO EMBED CONNECTIONS SHALL BE FINGER-TIGHT WITH FEENED THREADS. SLIP-CRITICAL (SC) BOLTS MUST BE FULLY TENSIONED PER SPECIFICATION.

S95 STANDARD NON-SLOPED AND NON-SKEWED SHEAR CONNECTIONS HAVE BEEN DESIGNED AND THE NECESSARY INFORMATION MAY BE FOUND IN THE SCHEDULES. THE ULTIMATE (I.E. FACTORED) REACTIONS HAVE BEEN PROVIDED AT EACH END OF EACH MEMBER SHOULD THE FABRICATOR WISH TO RE-ENGINEER THE CONNECTIONS TO THEIR PREFERENCES. SHOULD THE FABRICATOR WISH TO RE-ENGINEER THE CONNECTIONS, THEY MUST PROVIDE SUBMITTALS THAT HAVE BEEN PREPARED AND SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE SAME STATE AS THE PROJECT LOCATION.

S95A NON-STANDARD SLOPED AND/OR SKEWED SHEAR CONNECTIONS SHALL BE DESIGNED & DETAILED BY THE FABRICATOR'S ENGINEER. PROVIDE SIGNED & SEALED CONNECTION SUBMITTAL FOR REVIEW.

S96 ALL WIDE FLANGE FLOOR MEMBERS SHALL BE CONNECTED TO THE SUPPORTING STRUCTURE AS DETAILED IN CONNECTION SCHEDULES ON SHEET 9-31. UNLESS SPECIFICALLY NOTED OTHERWISE ON PLAN(S), ANY FLOOR MEMBER SUPPORTING ANOTHER FLOOR MEMBER OR COLUMN SHALL BE CONNECTED AS DETAILED IN DOUBLE SHEAR SCHEDULES 1/93.1 AND 3/93.1. SINGLE SHEAR CONNECTIONS AS DETAILED IN SCHEDULES 2/93.1 AND 4/93.1 SHALL ONLY BE USED FOR FLOOR MEMBERS SUPPORTING DECK/SLAB ONLY (I.E. FILLER BEAMS) OR AS SPECIFICALLY IDENTIFIED ON PLAN OR SECTION. THE USE OF A DOUBLE SHEAR CONNECTION MAY BE REQUIRED FOR A "TYPICAL" FLOOR BEAM DUE TO BEAM REACTION. REFER TO REACTION NOTED ON PLAN(S) & COORDINATE WITH SCHEDULED MAXIMUM VALUES TO DETERMINE CONNECTION TYPE REQUIRED. SEE PARTIAL SCHEMATIC FRAMING PLAN BELOW THAT ILLUSTRATES WHERE TYPICAL SINGLE AND DOUBLE SHEAR CONNECTIONS ARE REQUIRED.



PARTIAL SCHEMATIC FRAMING PLAN TO ILLUSTRATE TYPICAL SINGLE & DOUBLE SHEAR CONNECTION LOCATIONS

S97 ALL WIDE FLANGE ROOF MEMBERS SHALL BE CONNECTED TO THE SUPPORTING STRUCTURE AS DETAILED IN THE CONNECTION SCHEDULES ON SHEET 931. UNLESS SPECIFICALLY NOTED OTHERWISE ON PLAN, ALL ROOF MEMBERS SHALL BE CONNECTED AS DETAILED IN THE SINGLE SHEAR SCHEDULES 2/93.1 AND 4/93.1.

S98 BRACE AND MAINTAIN ALL STEEL IN ALIGNMENT UNTIL OTHER PARTS OF CONSTRUCTION NECESSARY FOR PERMANENT SUPPORT ARE COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TEMPORARY SHORING AS REQUIRED FOR THE STABILITY OF THE STEEL FRAME UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN COMPLETED AND BUILDING IS ENCLOSED.

S99 ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF "THE STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY.

S910 GROUT FOR COLUMN BASE PLATES AND PRESET BEARING PLATES SHALL BE NON-SHRINK, NON-METALLIC GROUT (5000 PSI MIN).

S911 SUBMIT SHOP DRAWINGS INDICATING ALL SHOP AND ERECTION DETAILS INCLUDING PROFILES, SIZES, SPACING AND LOCATIONS OF STRUCTURAL MEMBERS, CONNECTION ATTACHMENTS, FASTENERS, LOADS AND TOLERANCES.

S912 ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 FOR MEMBERS AND ASTM A153 FOR CONNECTION ELEMENTS, EXCEPT THAT ALL ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) SHALL BE BLAST CLEANED AND COATED IN ACCORDANCE WITH THE STRUCTURAL STEEL AND PAINT SPECIFICATIONS.

S913 STRUCTURAL STEEL SHALL RECEIVE A SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT) EXCEPT THOSE AREAS WHICH WILL RECEIVE SPRAY-ON FIRE PROTECTION, OR WHERE HEADED STUDS ARE TO BE WELDED.

S914 PROVIDE ALLOWANCE FOR 300 FEET OF L3x3x1/4 AND LABOR TO INSTALL SAME AT ARCHITECT OR ENGINEER'S DIRECTION. CREDIT OWNER WITH ALL MATERIAL AND LABOR NOT USED.

S915 STEEL BEAMS SHALL BE CAMBERED AS INDICATED ON THE FRAMING PLAN(S). IF NO CAMBER IS SPECIFIED, THE FABRICATOR SHALL ENSURE THAT THE "NATURAL" CAMBER IN ALL ERECTED BEAMS OCCURS IN AN UPWARD DIRECTION.

S916 ALL STEEL BEAMS THAT ARE PARALLEL TO BAR JOISTS SHALL BE CAMBERED TO MATCH THE JOIST CAMBER AND THE TOP OF THE BEAM SHALL MATCH THE TOP OF THE JOIST, TYP UNO.

S917 THE STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN FULL CONFORMANCE WITH THE "OSHA STEEL ERECTION STANDARD". IF THE CONSTRUCTION DRAWINGS DEVIATE FROM THE OSHA STANDARD THEN THE FABRICATOR SHALL PROVIDE SUBMITTALS THAT CLEARLY INDICATE THE DEVIATION WITH A REVISION CLOUD AND REQUEST APPROVAL FROM BBM TO MAKE THE CHANGE SO THAT CONFORMANCE WITH THE OSHA STANDARD IS ASSURED.

S918 STEEL PAN STAIRS SHALL BE DESIGNED BY THE FABRICATOR AND SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE SAME STATE AS PROJECT LOCATION. DESIGN FOR 100 PSF LIVE LOAD.

S919 REFER TO SPECIALTY ENGINEERING (SE) NOTES FOR DELEGATED ENGINEERING REQUIREMENTS.

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697



GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

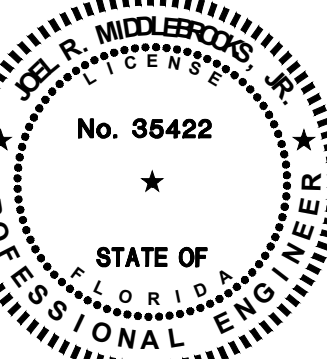
KENNETH R. CARLSON - ARCHITECT, P.A.

1166 W. NEWPORT CENTER DRIVE SUITE 9311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
e-mail: kenneth@krcorp.com

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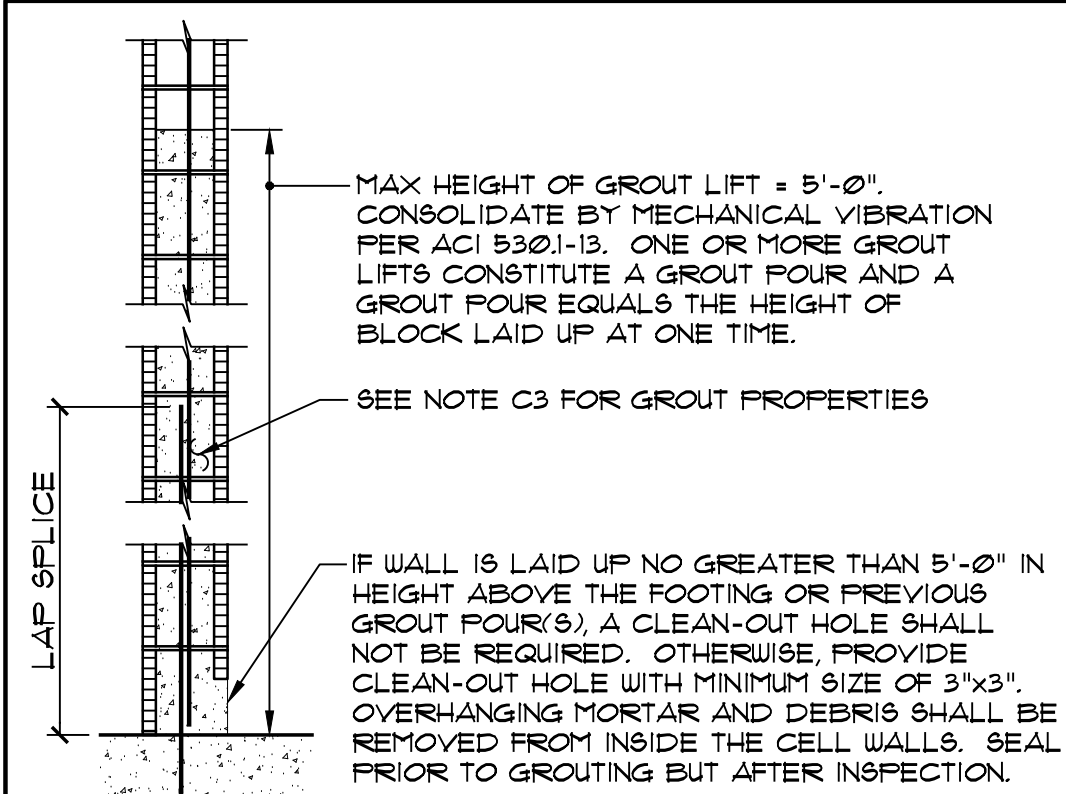


JOSE R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422

S0.4

MASONRY

- M1 MASONRY CONSTRUCTION MATERIALS AND INSPECTIONS SHALL CONFORM TO THE LATEST EDITION OF THE ACI BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES (ACI 530-13, ASCE 5-13, TMS 402-2016), SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-13, ASCE 6-13, TMS 602-2016) ASTM C416-19, ASTM C1019-09 AND NCMA TEK 107.
- M2 CONCRETE BLOCKS SHALL CONFORM TO ASTM C-90. (f'm = 2000 PSI) (2000 PSI ON THE NET AREA).
- M3 MORTAR SHALL COMPLY WITH ASTM C270, TYPE 'M' FOR RETAINING WALLS AND WALLS BELOW GRADE, TYPE 'S' FOR TYPICAL WALLS. (COMPRESSIVE STRENGTH = 2500 PSI AND 1800 PSI, RESPECTIVELY. SITE TESTED MORTAR CUBES SHALL ACHIEVE A MINIMUM OF 80% OF THE DESIGN COMPRESSIVE STRENGTH)
- M4 BLOCK SHALL NOT BE MOISTENED BEFORE GROUTING.
- M5 ALL MASONRY CROSS WEBS SHALL BE FULLY BEDDED IN MORTAR AROUND CELLS TO BE GROUTED.
- M6 REINFORCE WALLS WITH LADDER TYPE (ASTM A-153, #3 GAGE WIRE) DEFORMED REINFORCEMENT EQUAL TO DWR-Q-WALL IN BED JOINTS AT 16" OC UNO, MEASURED VERTICALLY. PLACE PER MFR'S INSTRUCTIONS. LAP ALL HORIZONTAL JOINT REINFORCING 6" MIN.
- M7 VERTICAL REINFORCING MUST HAVE A MINIMUM CLEARANCE OF 1/2" TO INSIDE FACE. REINFORCING IN WALLS SHALL BE SECURED AND LATERALLY SUPPORTED AGAINST DISPLACEMENT AT INTERVALS NOT EXCEEDING 192 x (BAR DIAMETER) OR 10 FT (WHICHEVER IS LESS) WHENEVER A CLEANOUT IS REQUIRED. SEE GROUTING DETAIL NOTE FOR CLEANOUT REQUIREMENTS.
- M8 ANY MASONRY THAT IS BELOW GRADE SHALL BE FULLY GROUTED UP TO FINISHED FLOOR.
- M9 GROUT PLACEMENT STOPPED FOR (1) HOUR OR MORE SHOULD BE STOPPED 1 1/2" BELOW THE TOP OF THE MASONRY UNIT TO PROVIDE A KEY FOR SUBSEQUENT GROUTING.
- M10 TYPICAL VERTICAL REINFORCING SIZE AND SPACING SHALL BE ABOVE AND BELOW ALL WALL OPENINGS.
- M11 TEMPORARY BRACING AND SHORING OF WALLS TO PROVIDE STABILITY DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- M12 REINFORCE MASONRY OPENINGS LESS THAN 2'-0" WIDE, WITH HORIZ JOINT REINFLACED IN (2) HORIZ JOINTS APPROXIMATELY 8" APART, IMMEDIATELY ABOVE THE GROUT FILLED LINTEL AND IMMEDIATELY BELOW THE GROUT FILLED SILL. EXTEND REINFORCING A MINIMUM OF 2'-0" BEYOND JAMBS OF THE OPENING EXCEPT AT CONTROL JOINTS.
- M13 PROVIDE FILLED PRECAST U-LINTELS AS MANUFACTURED BY CAST-CRETE OR APPROVED EQUAL WITH (2) #5 CONT AT ALL OPENINGS WHERE BEAMS ARE NOT SHOWN, SCHEDULED OR NOTED 2'-0" WIDE AND GREATER. LINTELS SHALL HAVE MINIMUM UNFILLED CAPACITY OF 400 LB/LF AND BEAR NOMINAL 8" (MIN 8") EACH END ON A GROUT FILLED CELL. PROVIDE PRE-CAST LINTEL MFR'S STANDARD TABULATED LOAD TABLES AS EVIDENCE THAT THE MINIMUM CAPACITIES AS LISTED IN THE BEAM SCHEDULE ARE SATISFIED. REFER TO MASONRY WALL BEAM SCHEDULE FOR TYPICAL PRECAST LINTEL SPANS AND DETAILS.
- M14 STOPPING AND RESUMING WORK. RACK BACK 1/2-UNIT LENGTH IN EACH COURSE. DO NOT TOOTH. CLEAN EXPOSED SURFACES OF SET MASONRY. REMOVE LOOSE MASONRY UNITS AND MORTAR PRIOR TO LAYING FRESH MASONRY.
- M15 DO NOT APPLY UNIFORM LOADS TO MASONRY WALLS FOR (3) DAYS.
- M16 DO NOT APPLY CONCENTRATED LOADS TO MASONRY WALLS FOR (1) DAYS.
- M17 EXTEND ALL VERTICAL WALL REINFORCEMENT TO WITHIN 2" OF TOP OF WALL OR BEAM UNLESS NOTED OTHERWISE. TERMINATE REINFORCING WITH STANDARD ACI 90 DEGREE HOOK IF ROOF JOISTS AND/OR TRUSSES BEAR ON TOP OF WALL AND THERE IS NO PARAPET. IF PARAPET EXISTS, HOOK IS NOT REQUIRED.
- M18 REFER TO ARCHITECTURAL DRAWINGS FOR WATERPROOFING DETAILS AT MASONRY CONTROL JOINTS.
- M19 GROUT FOR FILLED CELLS SHALL BE PLACED IN CONFORMANCE WITH ACI 530.1-13 AND AS INDICATED BELOW:



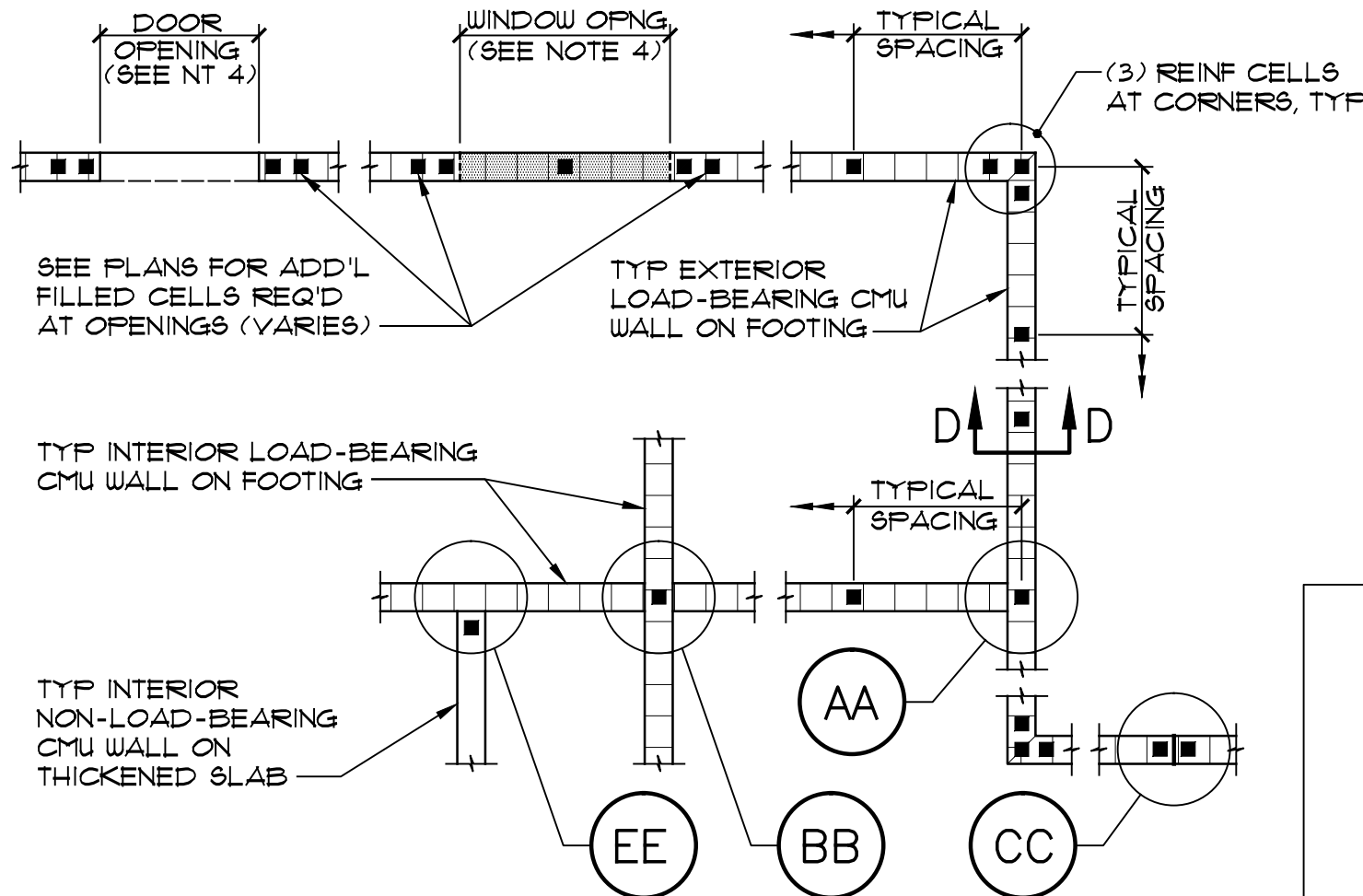
NOTES:

- BUTTER AROUND ALL CELLS THAT ARE TO BE FILLED WITH GROUT TO ENSURE GROUT DOES NOT LEAK OUT.
- DO NOT GROUT UNTIL MORTAR HAS SET SUFFICIENTLY TO WITHSTAND THE PRESSURE OF THE GROUT. WAIT NOT LESS THAN 24 HOURS.
- PLACE GROUT WITHIN 90 MINUTES FROM INTRODUCING WATER IN THE MIXTURE AND PRIOR TO INITIAL SET.
- MAXIMUM WALL HEIGHT FROM TOP OF FOOTING OR PREVIOUS GROUT POURS LAID UP AT ONE TIME SHALL BE 4'-0".
- THE MINIMUM CONTINUOUS UNOBSTRUCTED CLEAR AREA IN CELL TO RECEIVE GROUT MUST BE NOT LESS THAN 3"x3". MORTAR FINIS MUST BE REMOVED AS BLOCK PLACEMENT PROCEEDS. MORTAR DROPPINGS MUST BE KEPT OUT OF CELLS WHICH ARE TO BE GROUTED.

GROUTING DETAIL

STRUCTURAL NOTES

M20 TYPICAL MASONRY DETAILS:

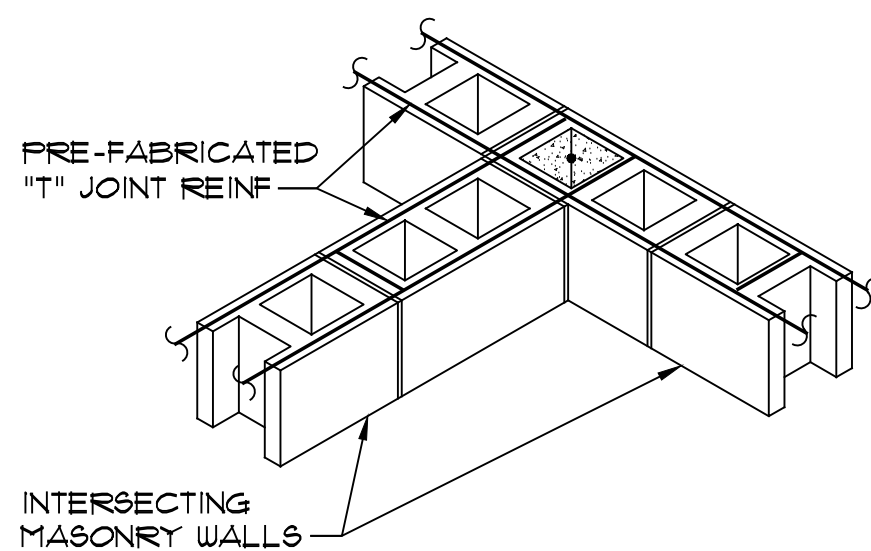


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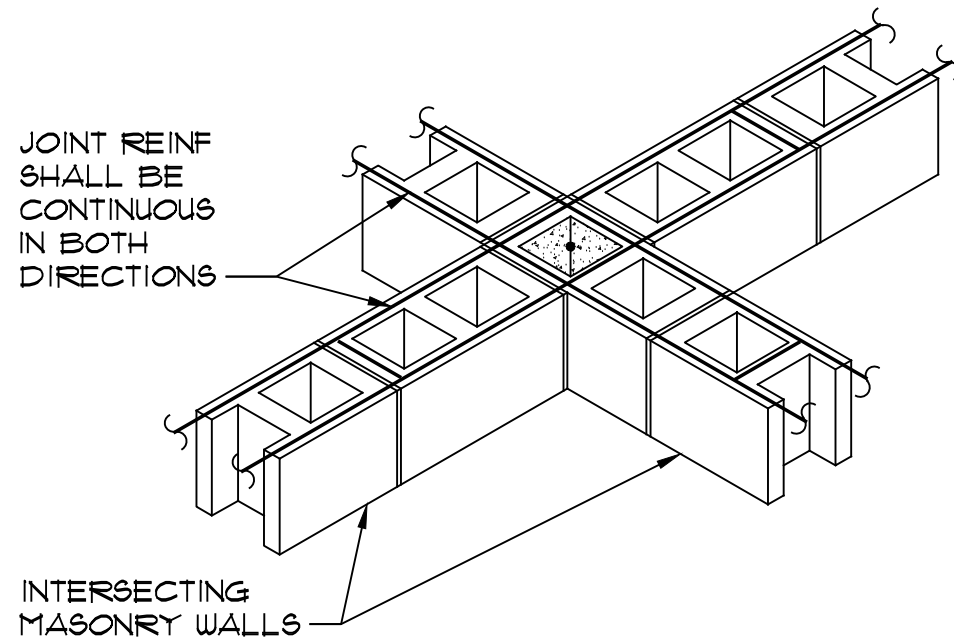
- SEE DETAIL "CC" FOR LOCATING MASONRY CONTROL JOINTS. CONTRACTOR SHALL SUBMIT MCJ PLAN TO ARCHITECT FOR APPROVAL.
- SEE ARCHITECTURAL DRAWINGS FOR OPENING SIZES AND LOCATIONS.
- SEE FDN PLAN NOTES FOR REINFORCED FILLED CELL SIZE & SPACING.
- MULTIPLE FILLED CELLS MAY BE REQUIRED AT JAMBS. ADDITIONAL BARS WILL BE SHOWN ON PLAN(S). IF NONE ARE SHOWN, THEN A SINGLE TYPICAL REINFORCED JAMB CELL IS SUFFICIENT.
- SEE MASONRY NOTES ON GENERAL NOTE SHEETS FOR HORIZONTAL JOINT REINFORCING AND OTHER ADDITIONAL INFORMATION.

ILLUSTRATIVE PLAN OF VARIOUS CMU WALL CONDITIONS

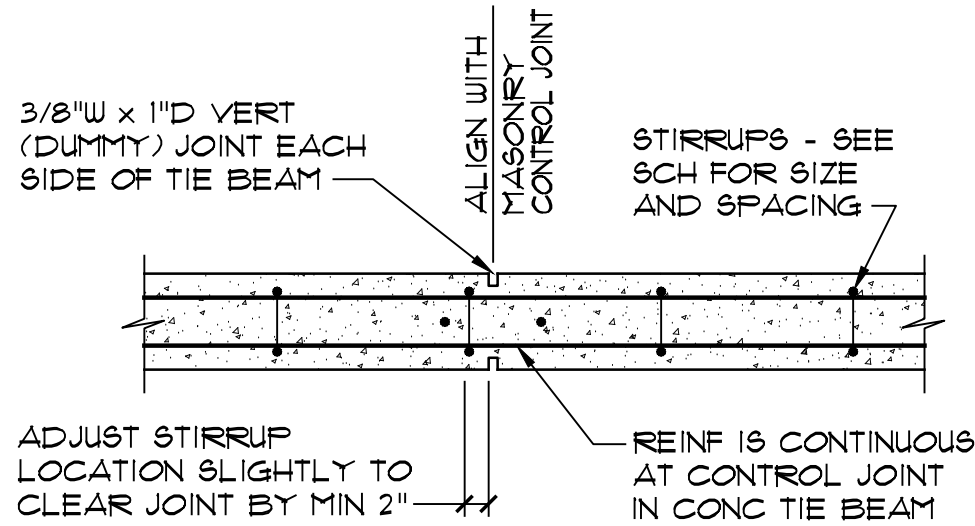
NT5



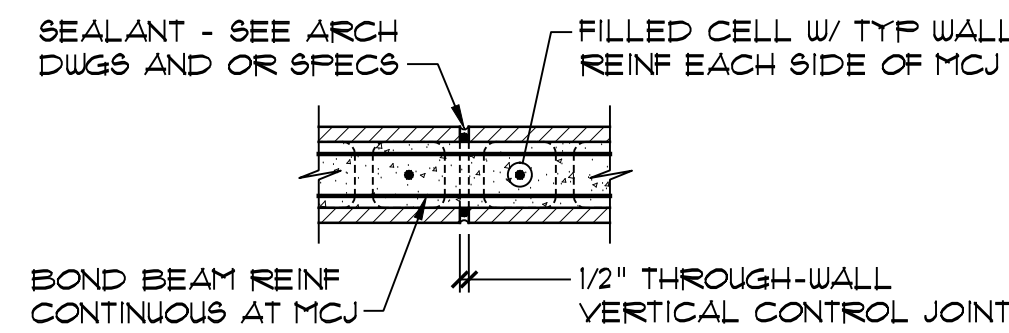
AA WALL INTERSECTION



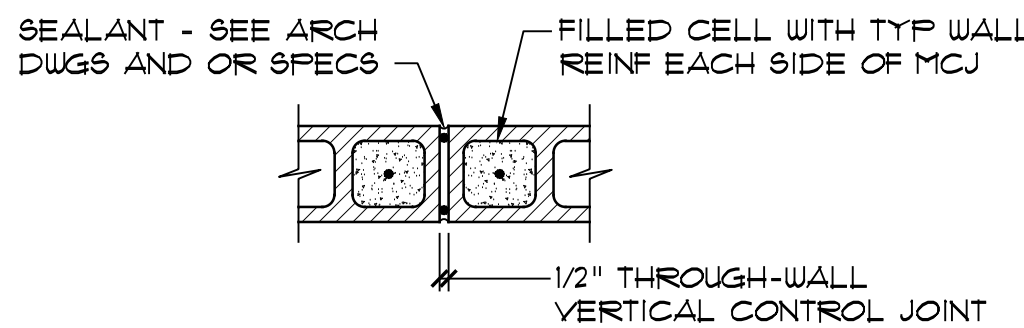
BB WALL INTERSECTION



MCJ @ TIE BEAM



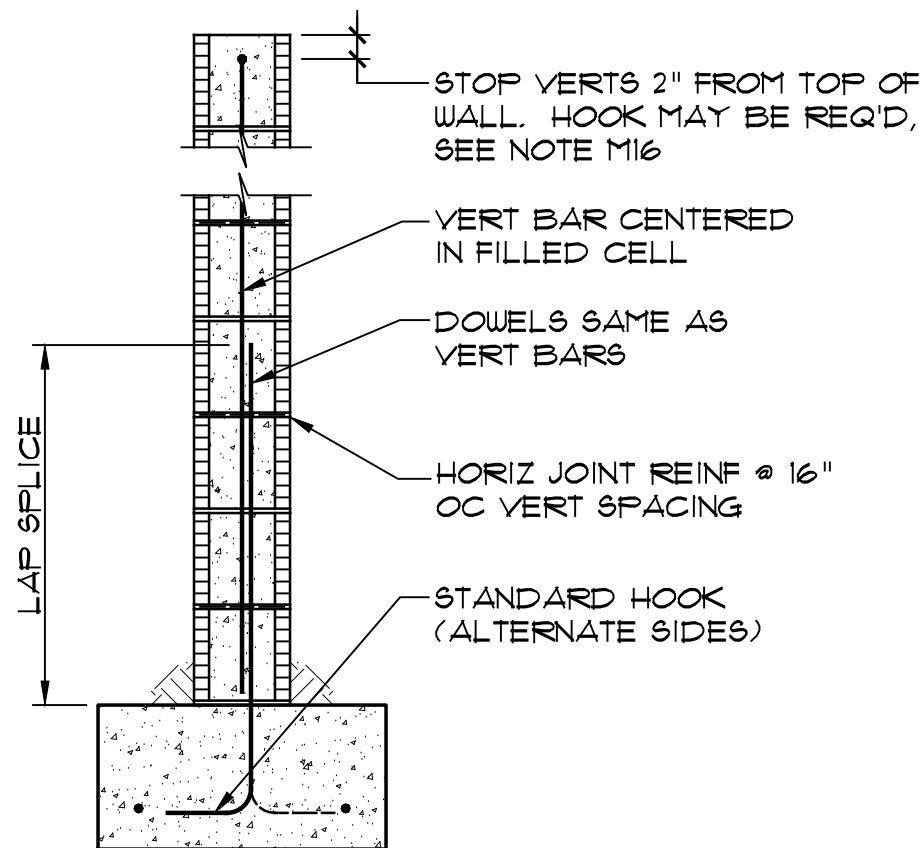
MCJ @ BOND BEAM



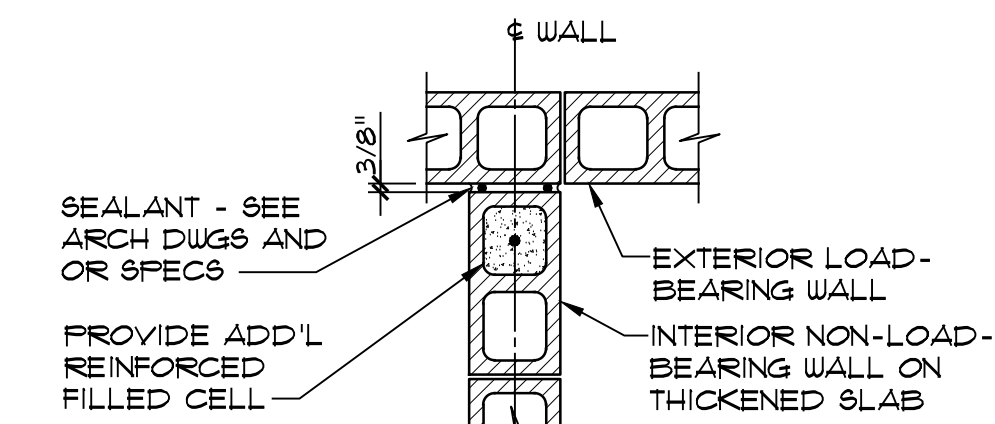
NOTES:

- THROUGH-WALL JOINT SHALL BE CONTINUOUS WITHOUT INTERRUPTION FROM FOUNDATION TO TOP OF WALL.
- TERMINATE TYPICAL HORIZONTAL JOINT REINFORCING 2" FROM JOINT.
- MAXIMUM SPACING OF CONTROL JOINTS SHALL BE 1 1/2 x (WALL HEIGHT) OR 25'-0", WHICHEVER IS LESS.

CC MAS CONTROL JOINT (MCJ)



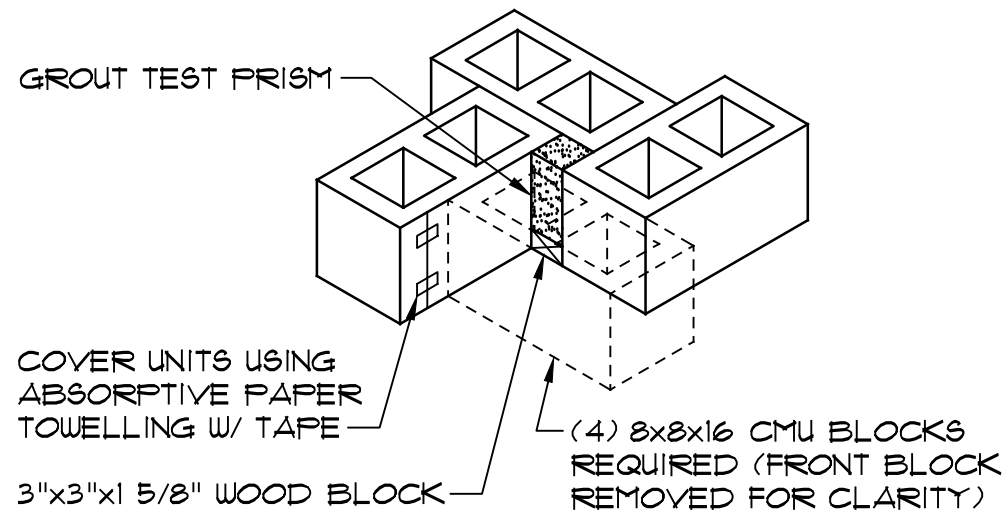
DD TYPICAL FILLED CELL DETAILS



EE INTERSECTION OF LOAD-BRG & NON-LOAD-BRG WALLS

M21

JOB SITE MIXING OF GROUT SHALL NOT BE PERMITTED. TESTING SHALL CONFORM TO ASTM C1019. SEE TEST MOLD DETAIL BELOW. SEE SCHEDULE BELOW FOR COMPRESSIVE STRENGTH AND SLUMP REQUIREMENTS.



DETAIL - MASONRY GROUT TEST MOLD (ASTM C-1019)

MASONRY GROUT SHALL HAVE THE FOLLOWING PROPERTIES:

*COORDINATE WITH S02 SCHEDULE

M22

MINIMUM LAP SPLICES FOR REINFORCED CMU PER SEVENTH EDITION (2020) FBC FOR LRFD DESIGNS.

CMU WALLS WITH CENTERED VERTICAL REINFORCING						
#4	#5	#6	#7	#8	#9 (NOTE 1)	#10 (NOTE 2)
15"	23"	35"	48"	72"	82"	

CMU WALLS WITH EACH FACE VERTICAL REINFORCING						
#4	#5	#6	#7	#8	#9 (NOTE 1)	#10 (NOTE 2)
23"	36"	54"	63"	72"	82"	

NOTES:

- #9 BARS ARE NOT ALLOWED IN 8" CMU BUT ACCEPTABLE FOR 10" AND 12" CMU. MAXIMUM BAR DIAMETER SHALL NOT EXCEED ONE-EIGHTH OF THE NOMINAL WALL THICKNESS.
- #10 BARS SHALL BE SPLICED USING MECHANICAL CONNECTORS AND SHALL ONLY BE ALLOWED IN 12" CMU.
- EPOXY COATED BARS SHALL NOT BE USED.

GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

KENNETH R. CARLSON - ARCHITECT, P.A.

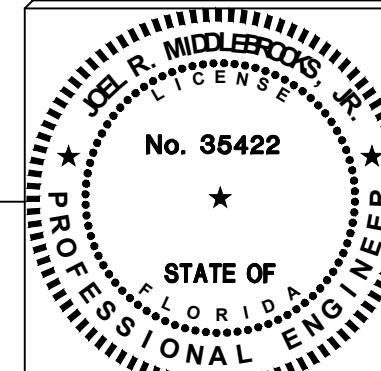
1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
FAX (954) 421 - 9929
e-mail: kenneth@krcarlson.com

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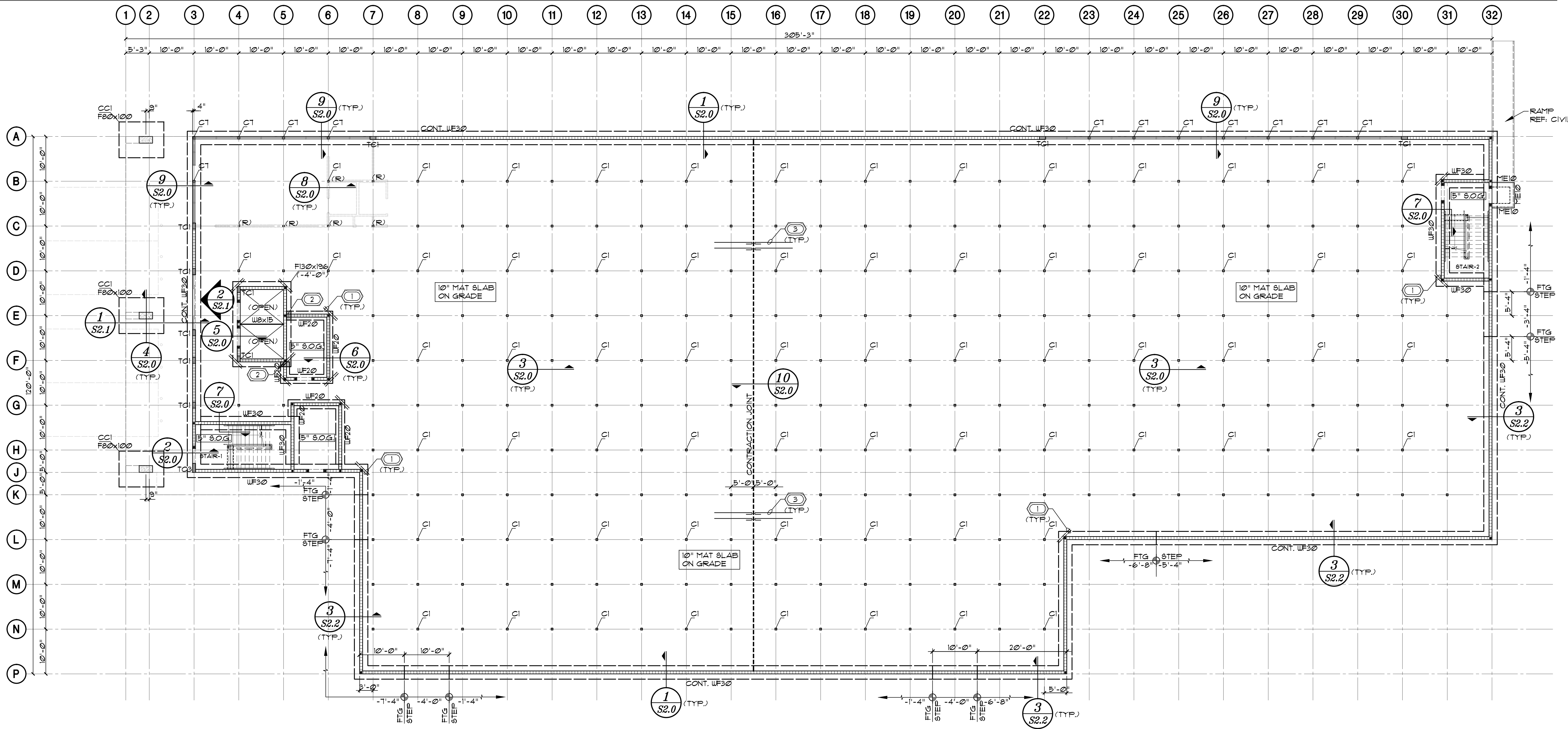


JOSE R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422



REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

S0.5



FOUNDATION PLAN NOTES:

- FLOOR SLAB SHALL BE 10" THICK CONCRETE MAT SLAB REINF WITH #5@12" O.C. EACH WAY BOTT & #5@15" O.C. EACH WAY TOP, 3" CLEAR BOTTOM, 1" CLEAR TOP, OVER CLASS A (MIN 10 MIL) VAPOR BARRIER (ASTM E 1745), ON COMPACTED AND TREATED SUBGRADE. SEE "SLAB-ON-GRADE DETAILS" ON SHEET S2.0. SEE PLAN FOR TOP REINF.
6" S.O.G. W/ 6x6 W2.9x10.2.9 WUF.
5" S.O.G. W/ 6x6 W2.1x10.2.1 WUF.
- T/ SLAB EL = 0'-0" (TYP, UNO). REFERENCE ONLY - SEE CIVIL DWGS FOR ACTUAL ELEVATION.
- T/ WALL FTG EL = -1'-4" (TYP, UNO).
- T/ COL FTG EL = -1'-4" (TYP, UNO).
- STEP AND/OR LOWER FOUNDATIONS AS NECESSARY TO AVOID INTERFERENCE WITH OTHER TRADES. SEE CONCRETE GENERAL NOTES FOR DETAILS AND SECTIONS. PARTICULAR ATTENTION SHALL BE PAID TO DOWNSPOUTS ENSURING THAT PROPER ACTIONS HAVE BEEN TAKEN TO PREVENT PIPES FROM CONFLICTING WITH THE FOUNDATION SYSTEM.

- ALL FTGS ARE CENTERED BENEATH THE BEARING WALLS AND COLUMNS (TYP, UNO).
- SEE SHEETS S2.1, S2.2, S2.3, S2.4, S2.5 & S2.6 FOR STRUCTURAL GENERAL NOTES.
- MAINTAIN STRUCTURAL SLAB THICKNESS AT ALL FLOOR SLOPES AND DEPRESSIONS, TYP UNO.
- THE CONTRACTOR SHALL COORDINATE ALL UNDERGROUND UTILITIES, PIPES, ETC... WITH THE FOUNDATION PLAN AND FOUNDATION ELEVATIONS. FOOTING PENETRATION DETAILS MAY BE FOUND IN THE CONCRETE AND REINFORCING SECTION OF THE STRUCTURAL GENERAL NOTES.
- REFER TO A/S2.1 FOR TYPICAL DUMPSTER PLAN AND DETAILS.

FOUNDATION PLAN KEY NOTES:

- (2) #4x4'-0" LONG @ 3" OC PLACED 2" CLR FROM CORNER, CENTERED IN SLAB @ RE-ENTRANT CORNERS (TYP)
- TURN FOOTING DOWN ON ELEVATOR MAT
- TERMINATE SLAB REINF. AT EXPANSION WITH STANDARD 180 DEGREE HOOK
- DENOTES 8" CMU WALL REFER SHEET S5.0 FOR WALL REINFORCING
- DENOTES 8" CMU WALL REFER SHEET S5.0 FOR WALL REINFORCING

FOUNDATION LEGEND:

- C - INDICATES STEEL COLUMN. SEE SCHEDULE ON SHEET S5.0 FOR INFO.
- (R) - INDICATES RECESS STEEL COLUMN/PLATE 4" BELOW FINISH FLOOR.
- TYPICAL "C2" COLUMN
- F - INDICATES PAD FOOTING. SEE FOUNDATION SCHEDULE ON SHEET S5.0 FOR INFO.
- UF - INDICATES WALL FOOTING. SEE FOUNDATION SCHEDULE ON SHEET S5.0 FOR INFO.

NOTE TO GC:
LOCATION OF MASONRY CONTROL JOINTS (MCJ) SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND SHALL NOT EXCEED REQUIREMENTS OUTLINED IN NOTE MIT ON SHT S2.3. FOR ADDITIONAL FILLED CELLS REQUIRED AT MASONRY CONTROL JOINTS AND NOT SHOWN ON FOUNDATION PLANS, SEE "ILLUSTRATIVE PLAN OF VARIOUS CMU WALL CONDITIONS" ON SHT S2.3. SUBMIT MCJ PLAN TO ARCHITECT FOR APPROVAL.

NOTES:

- REFER TO A/S2.1 FOR DUMPSTER PLAN AND DETAILS.
- REFER TO S2.3 FOR RETAINING WALL DETAILS & NOTES.

FOUNDATION PLAN

SCALE: 3/32"=1'-0"

REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697



BBM
STRUCTURAL
399 W. Palmetto Park Rd
Suite 200
Boca Raton, FL 33432
p. 561-750-1916
BBM PROJECT # 24123

GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

KENNETH R. CARLSON - ARCHITECT, P.A.

1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
FAX (954) 421 - 9929
e-mail: kenneth@kenr.com

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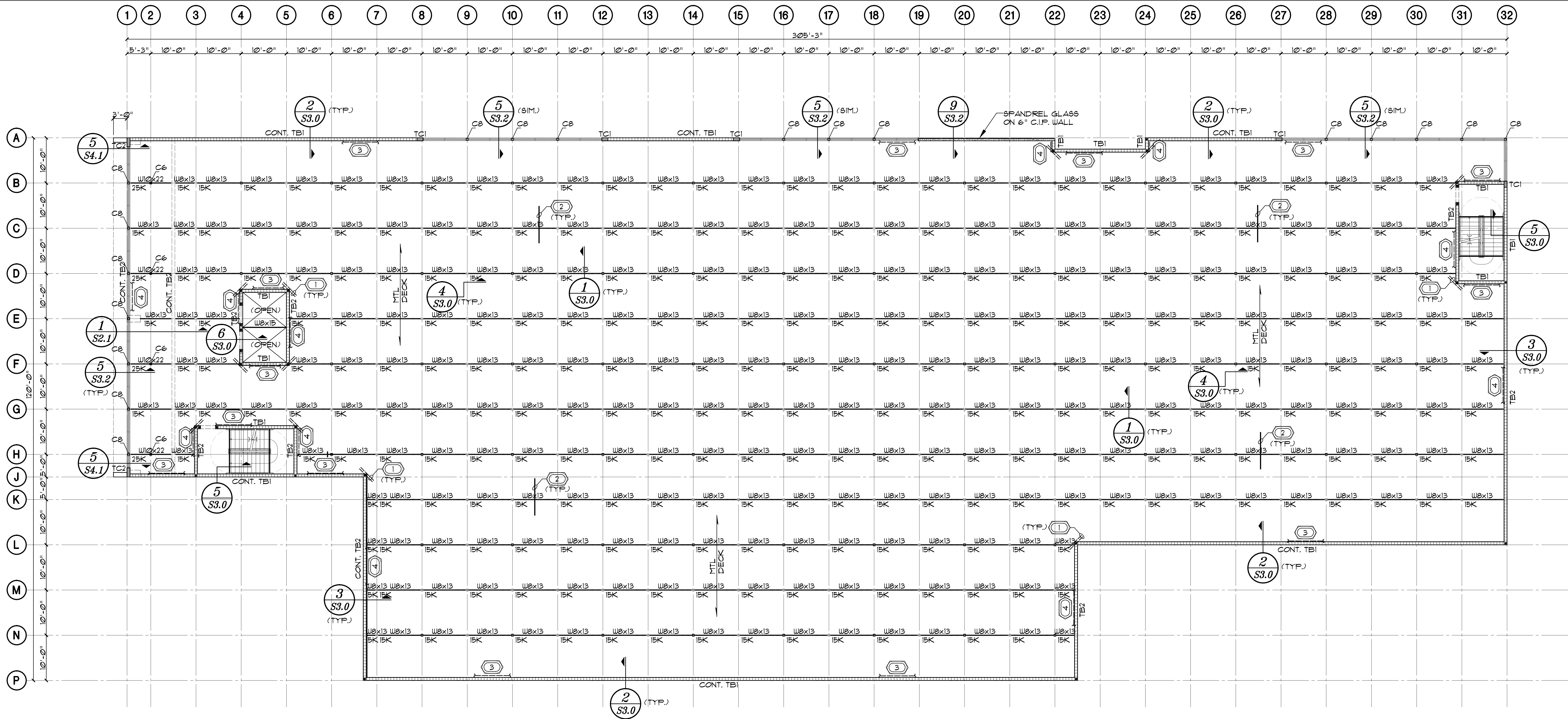
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JOEL R. MIDDLEBROOKS, P.E.
No. 35422
STATE OF FLORIDA
PROFESSIONAL ENGINEER

JOEL R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422

S1.1



NOTE:
SEE SHEET S12 FOR FLOOR
FRAMING PLAN NOTES

- NOTES:
1. REFER SHEET S01-S05 FOR GENERAL STRUCTURAL NOTES
 2. T/ SLAB EL. = +23'-0"
 3. T/ STEEL EL. = +22'-6 1/2"

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TOWN OF GLEN RIDGE
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3RD FLR. FRAMING PLAN

SCALE: 3/32"=1'-0"



GLEN RIDGE SELF STORAGE
SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

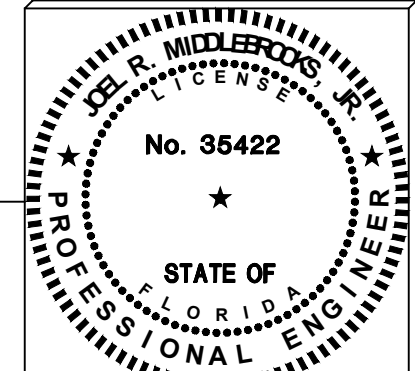
KENNETH R. CARLSON - ARCHITECT, P.A.
1166 W. NEWPORT CENTER DRIVE SUITE 1311
DEERFIELD BEACH, FL. 33442
PH. (954) 421 - 8848
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e-mail: kenneth@krcarlson.com

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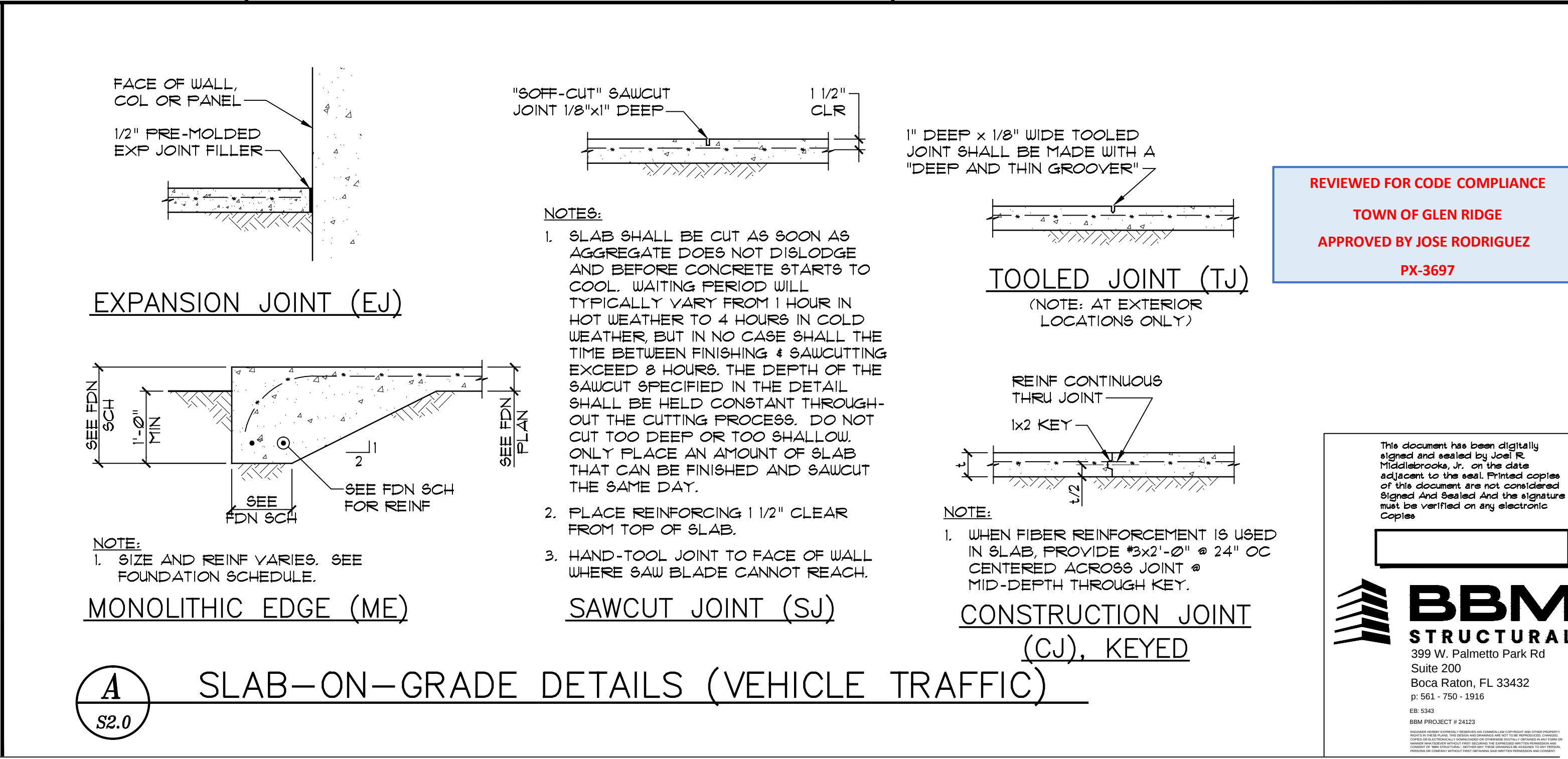
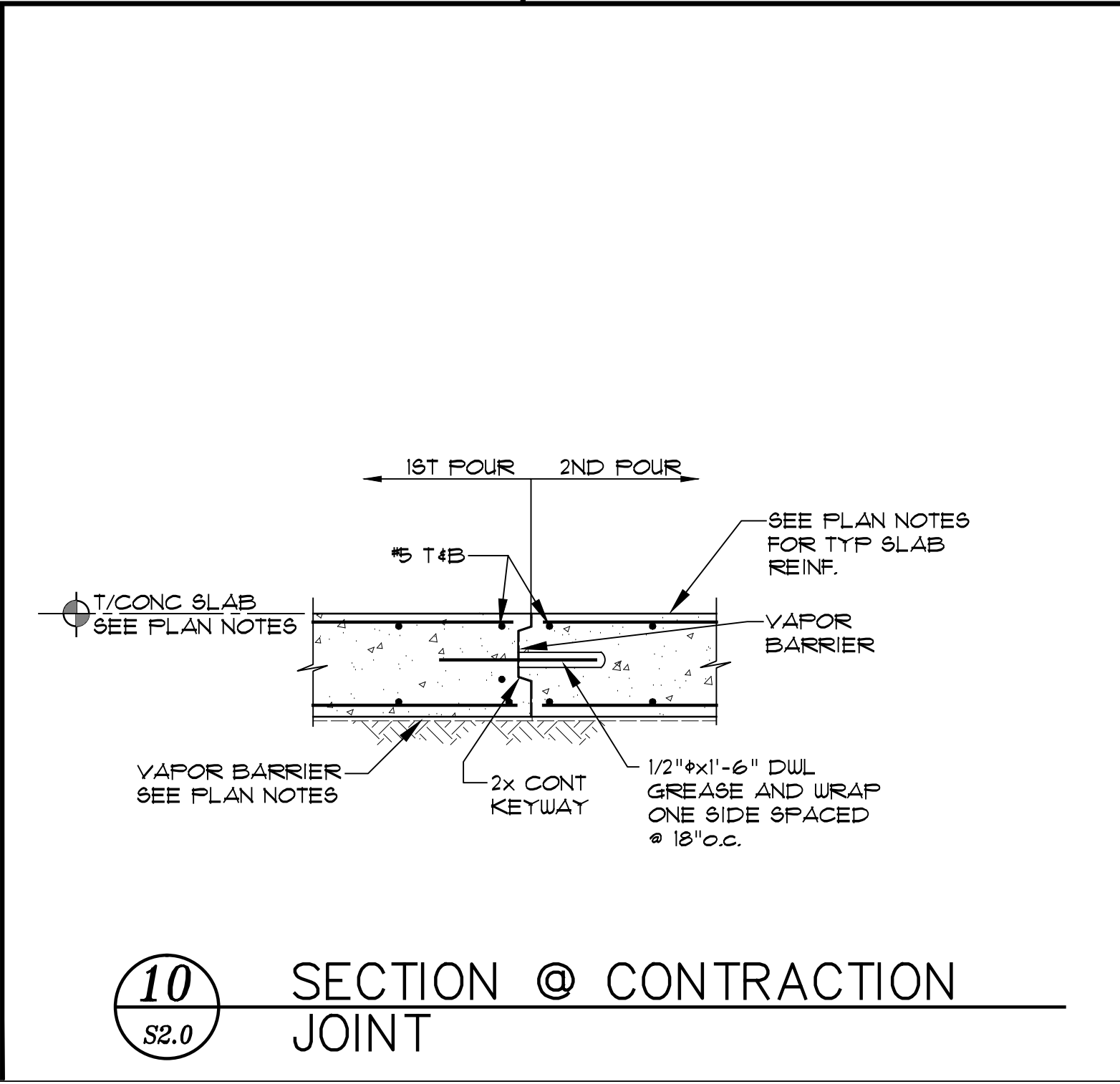
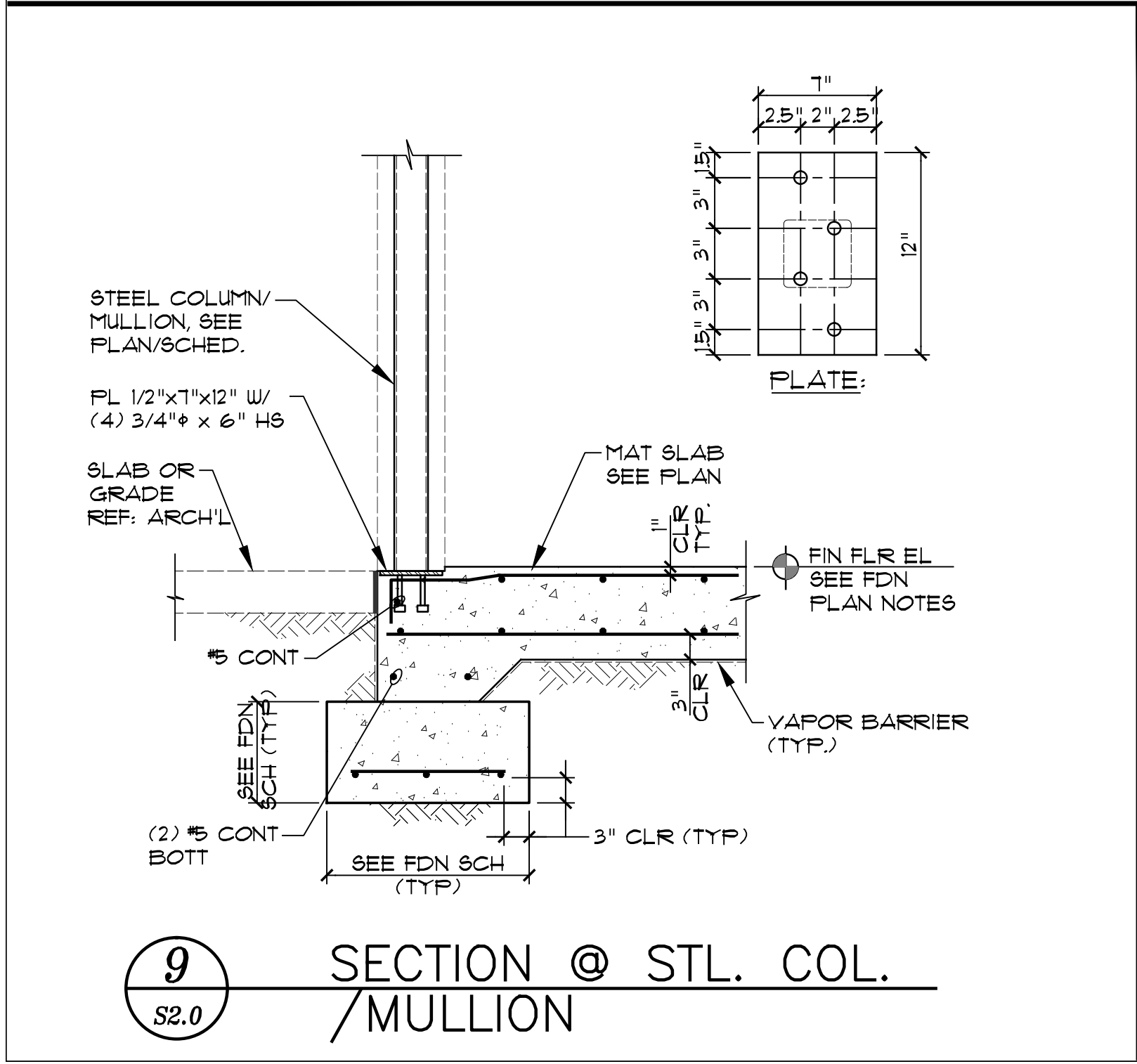
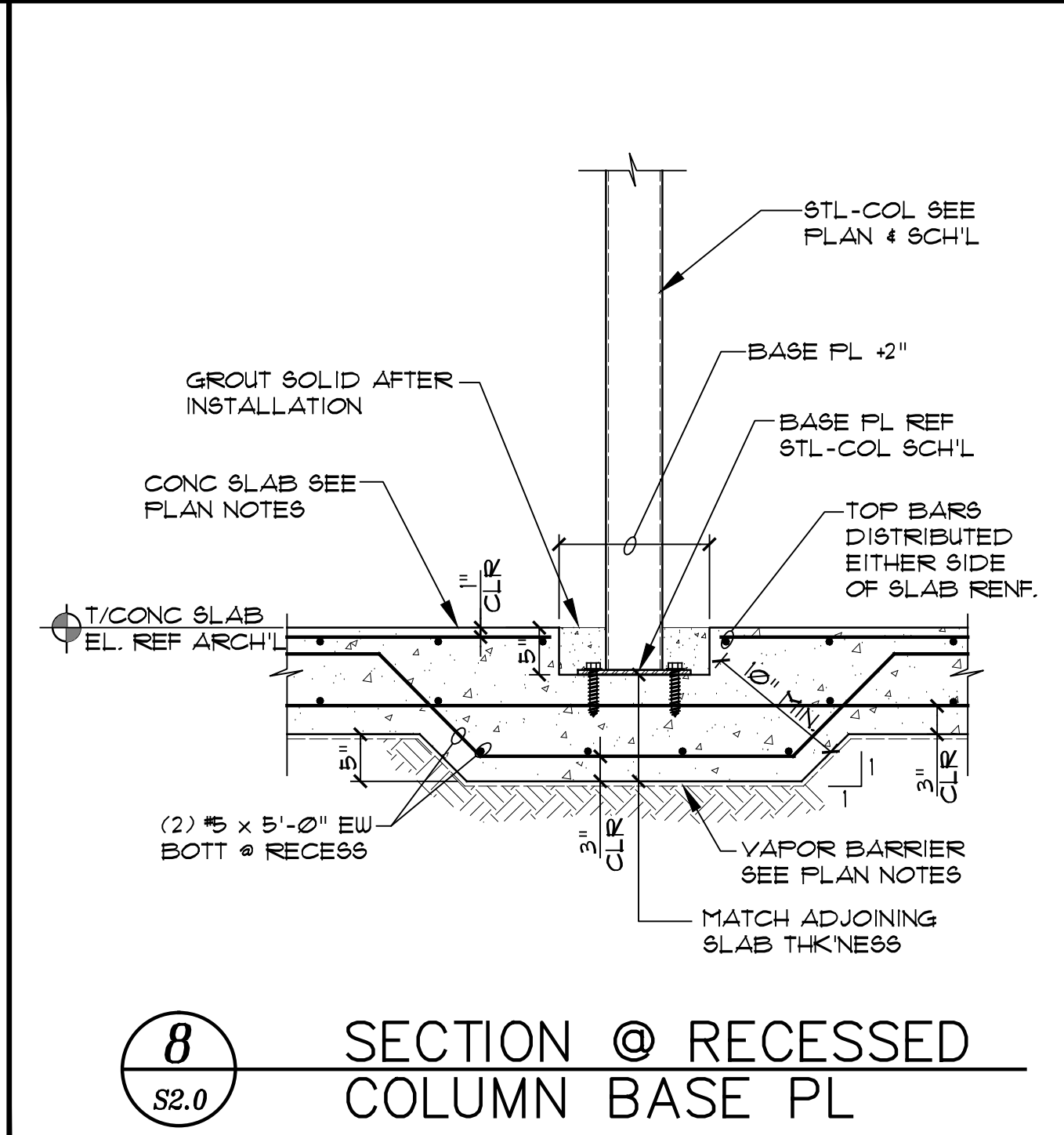
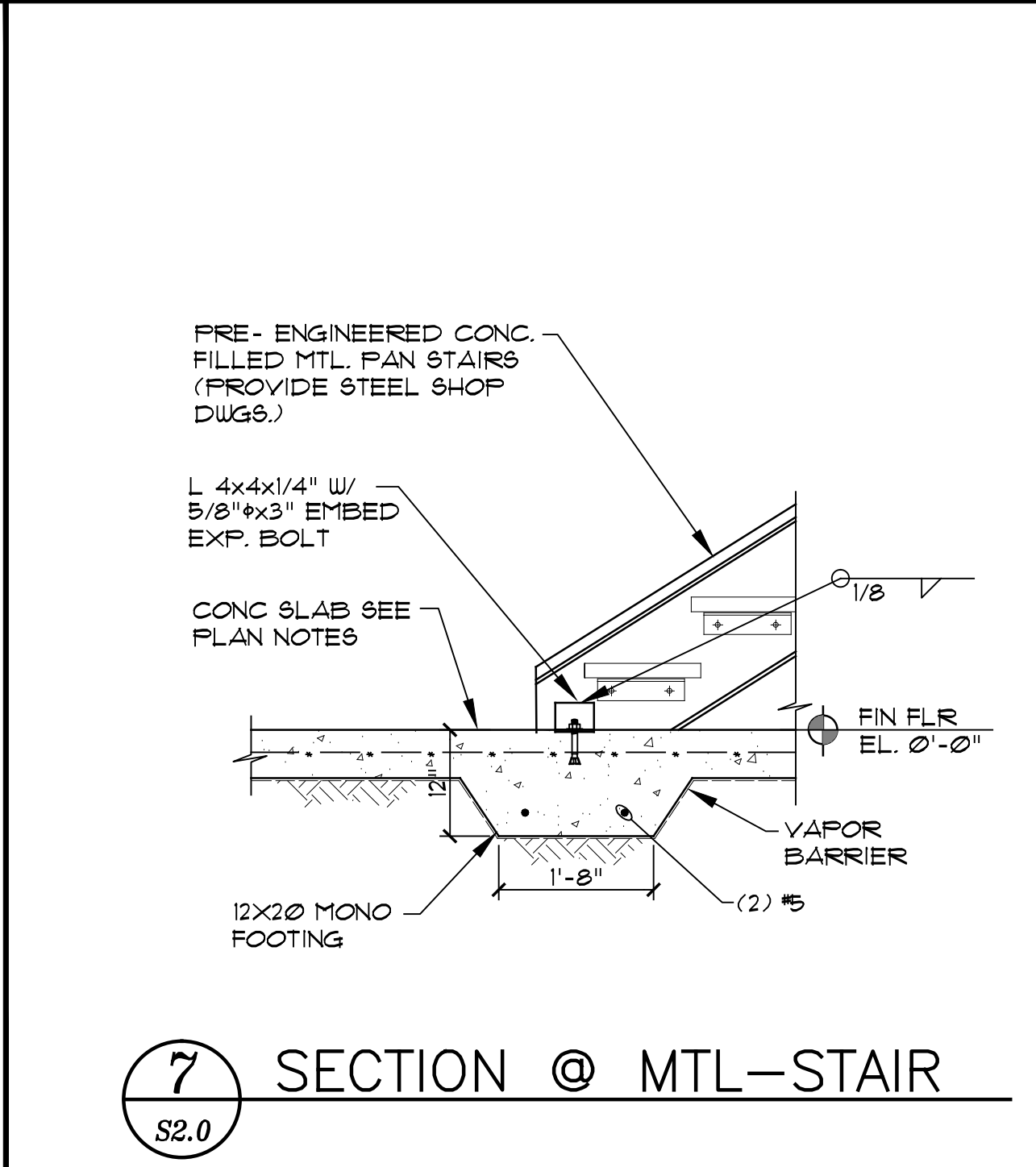
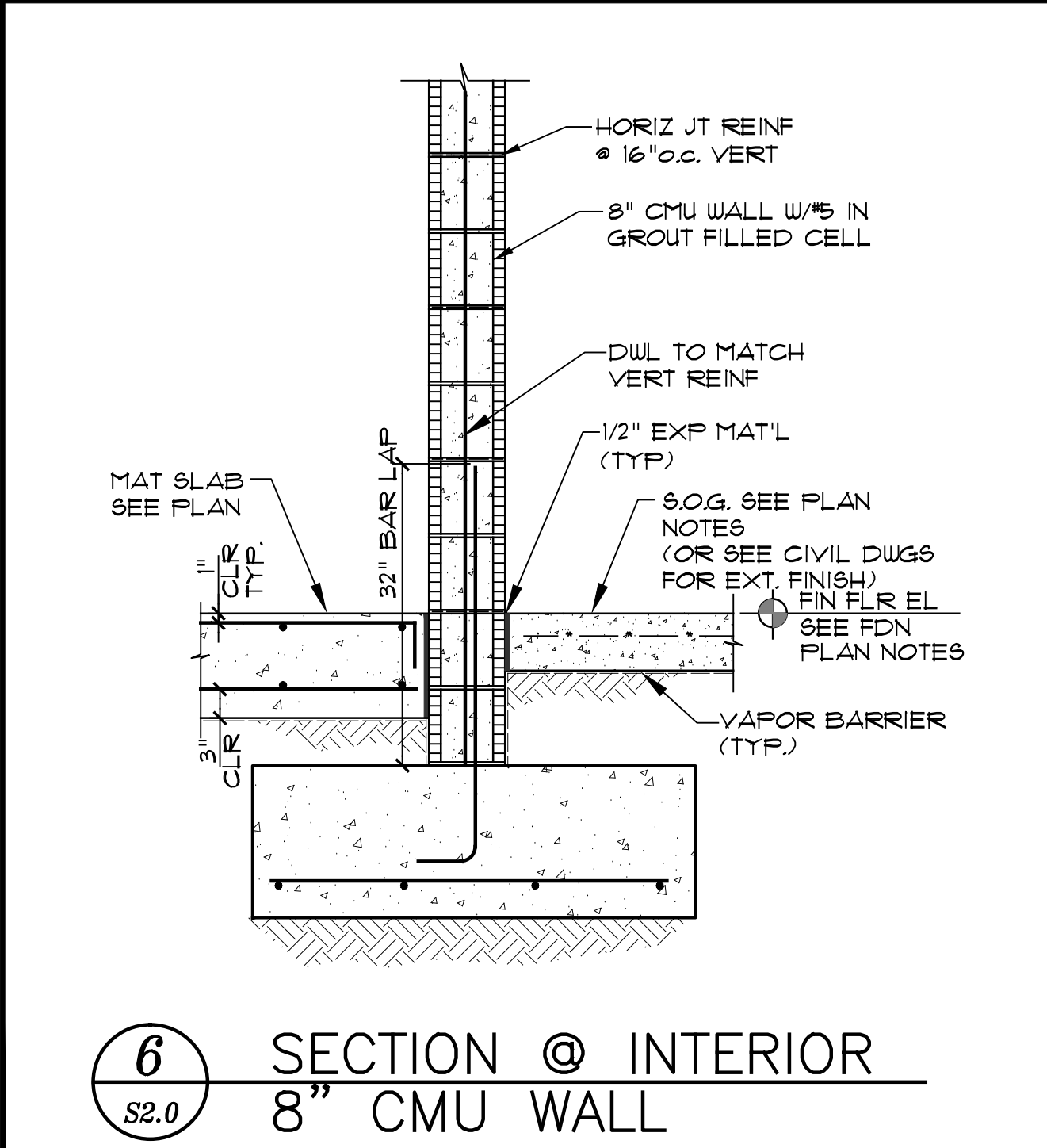
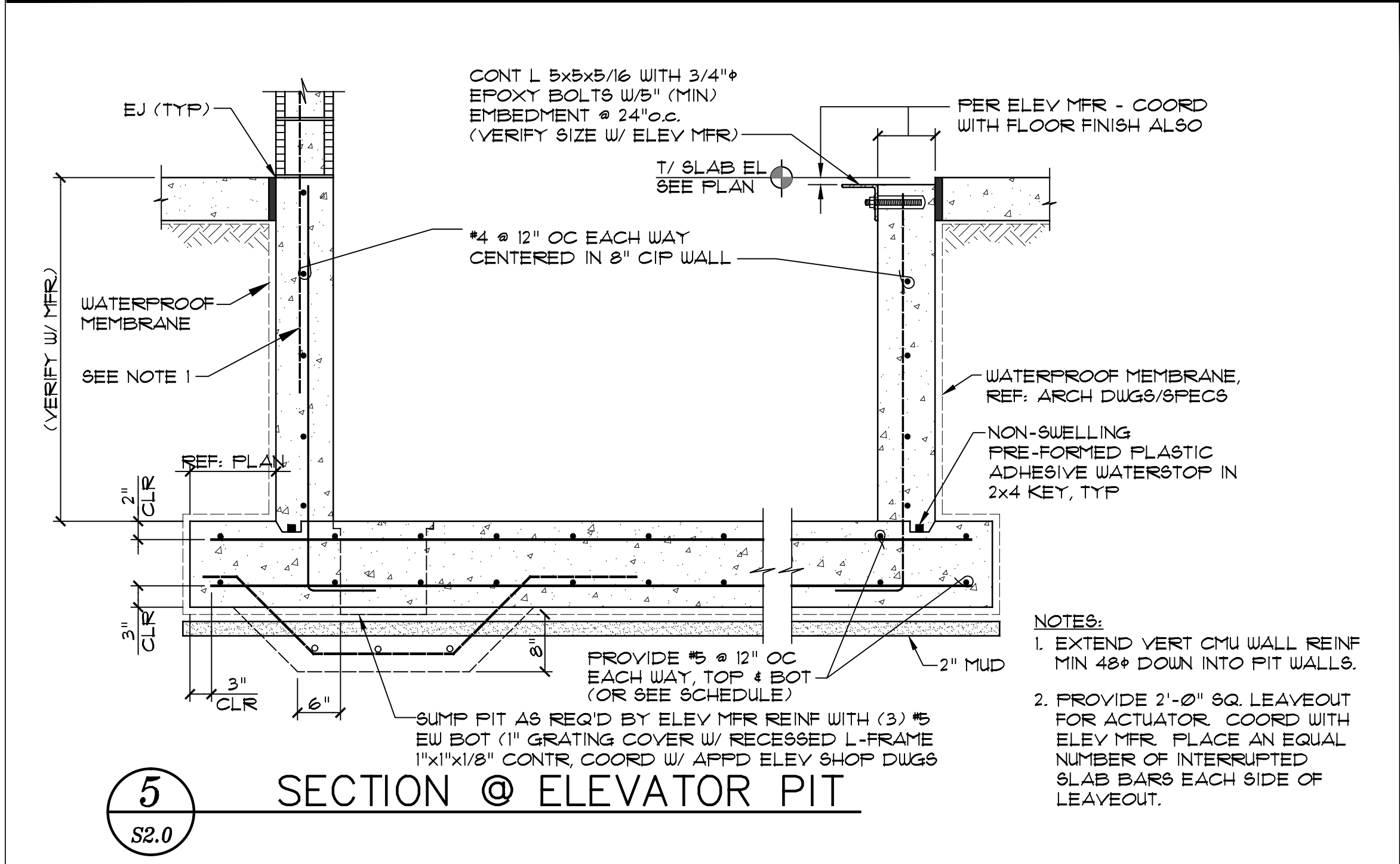
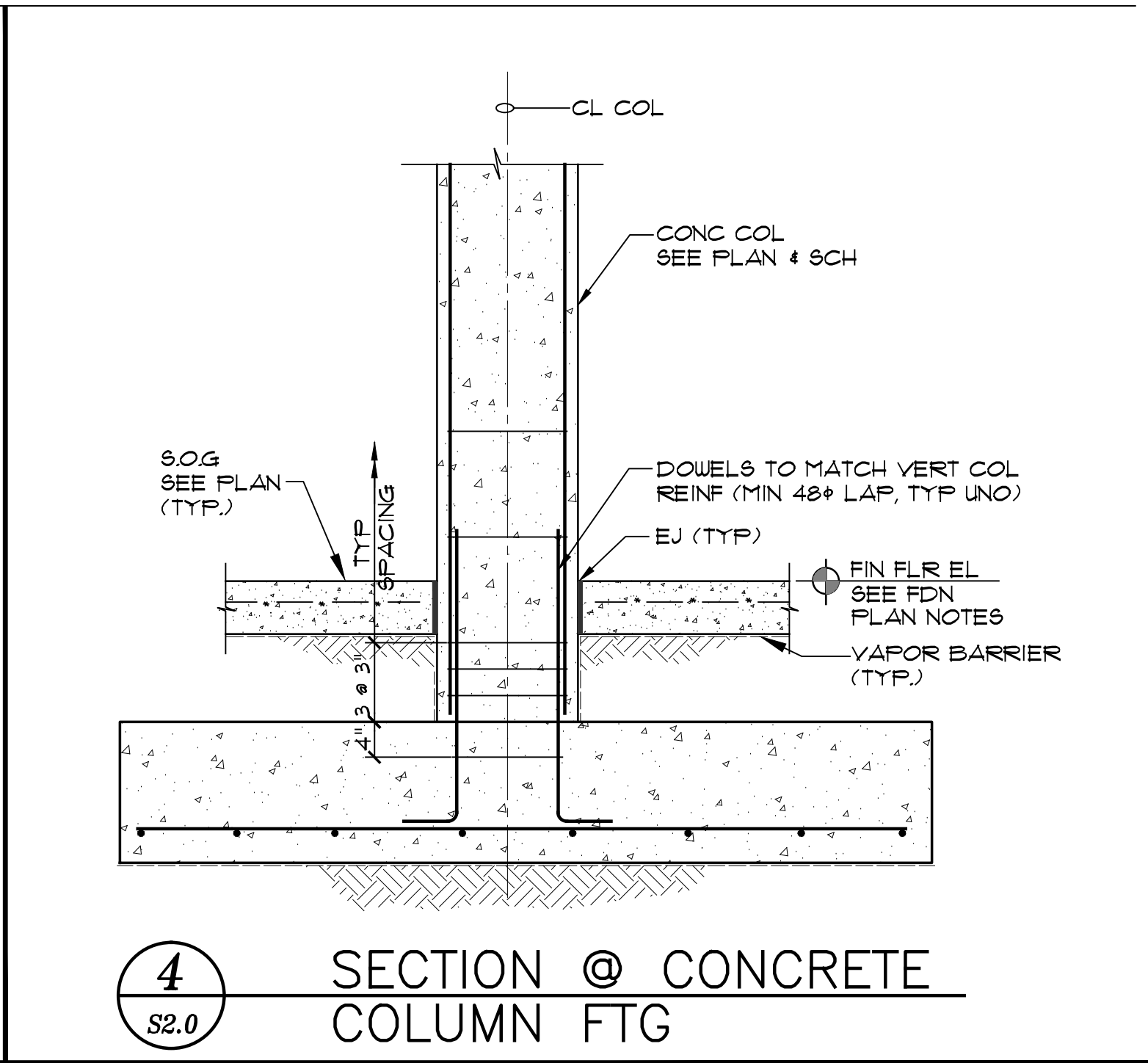
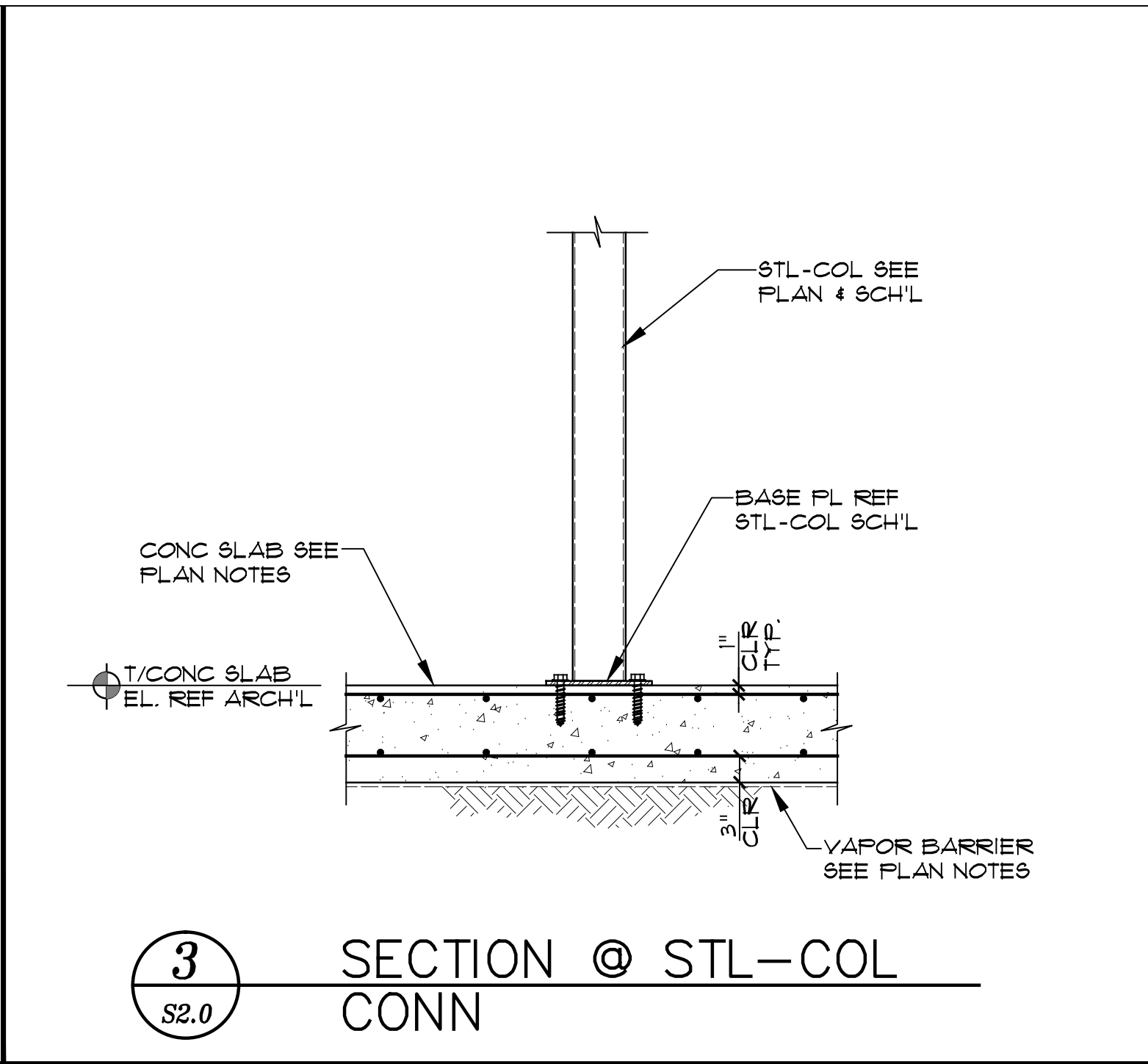
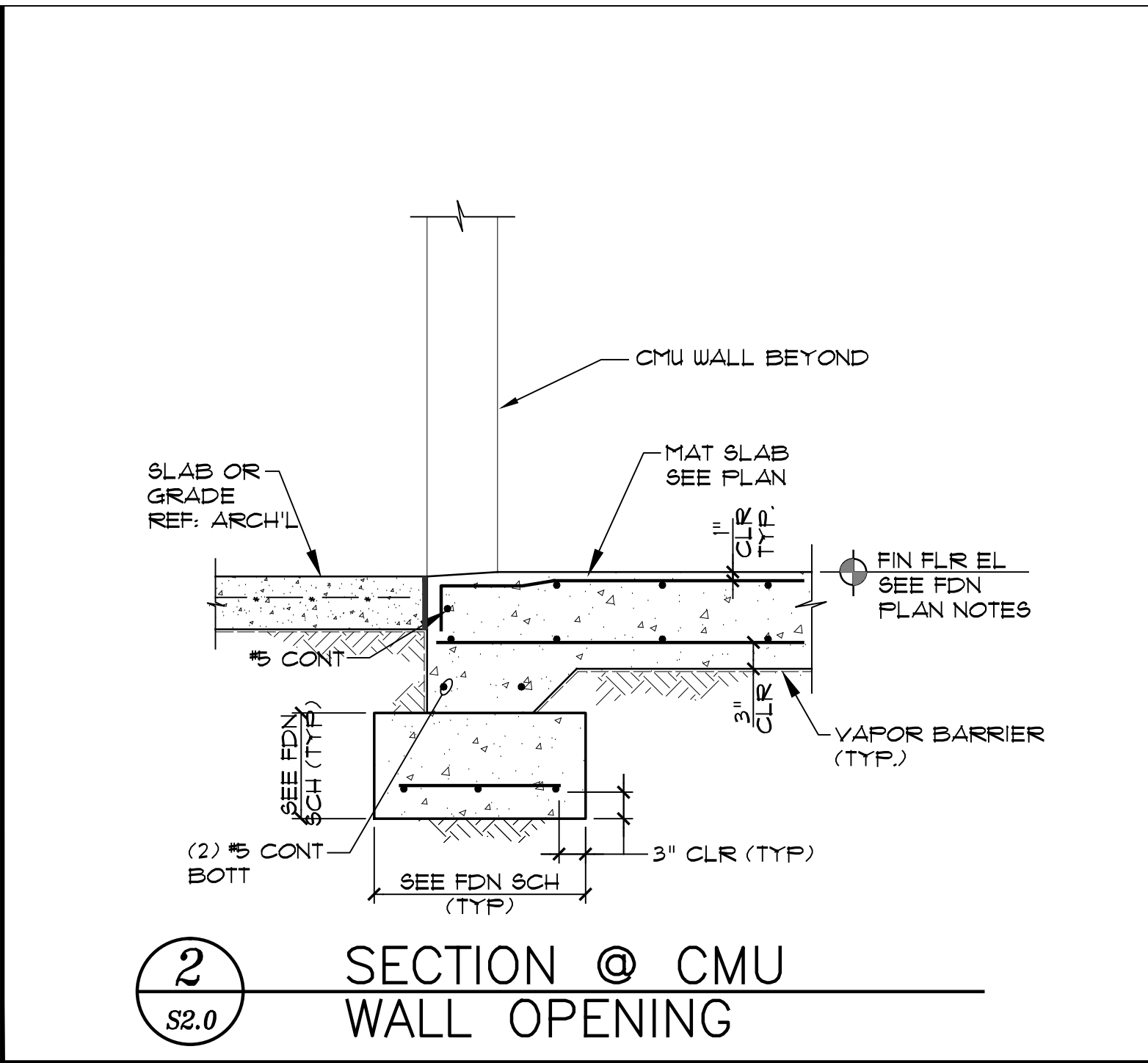
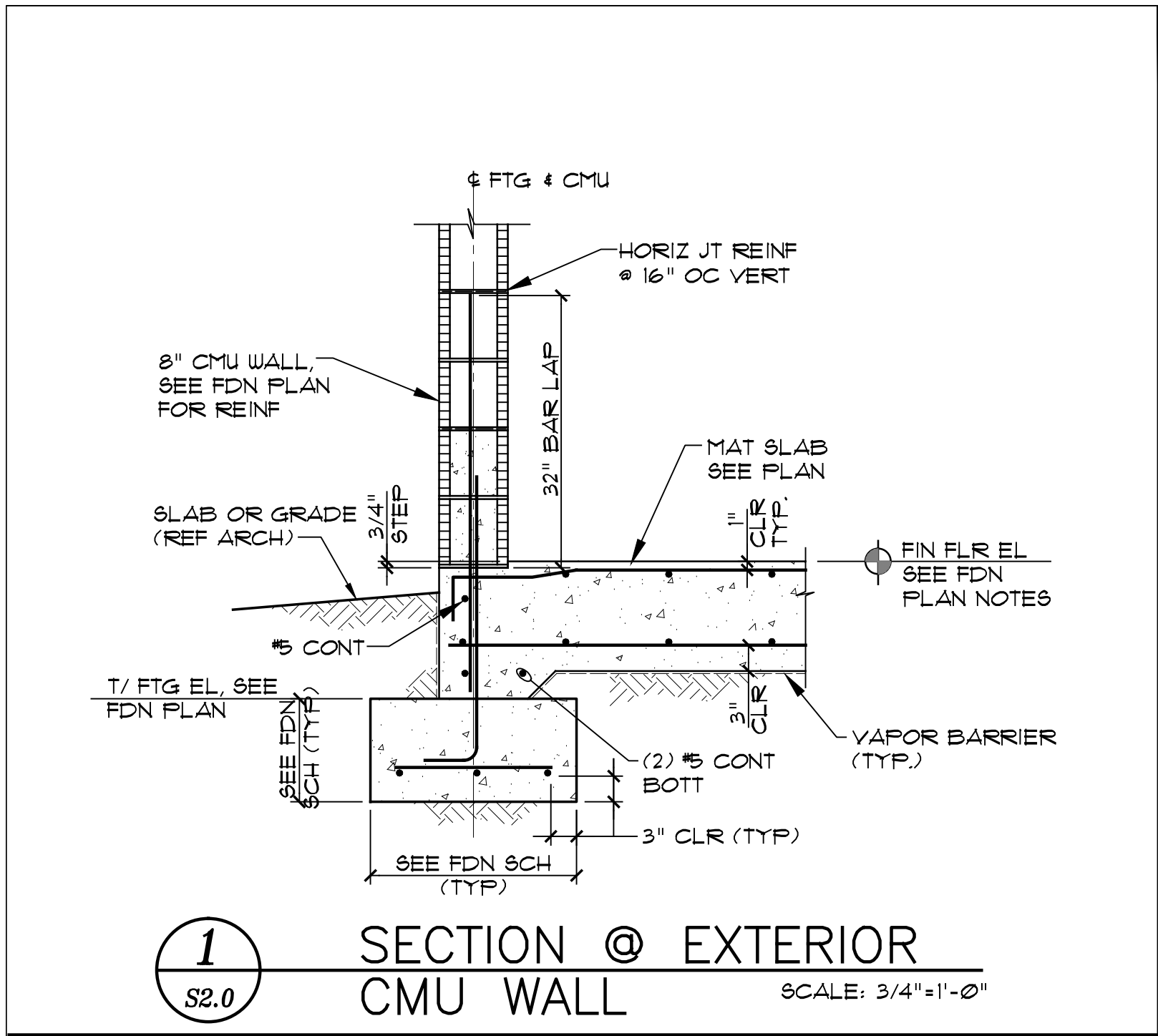
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DATE: 07-01-24
SCALE: AS SHOWN
PROJECT #: 2423
CADD FILE:

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JOSE R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422

S1.3



GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

KENNETH R. CARLSON - ARCHITECT, P.A.

1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
FAX (954) 421 - 9929
e-mail: kenneth@krcarlson.com

Revisions:

1	2	3	4	5

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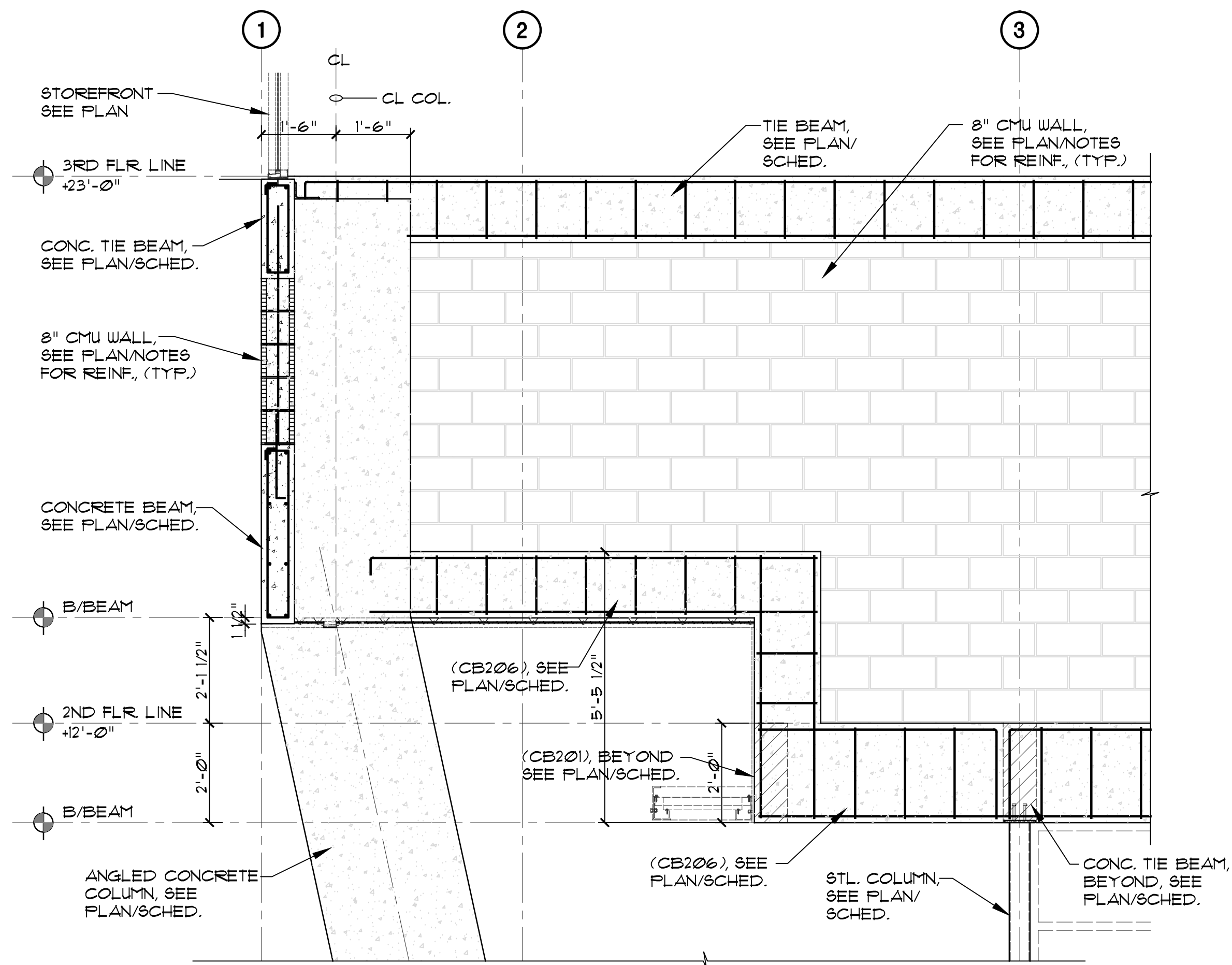
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Florida Professional Engineer No. 35422

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PX-3697

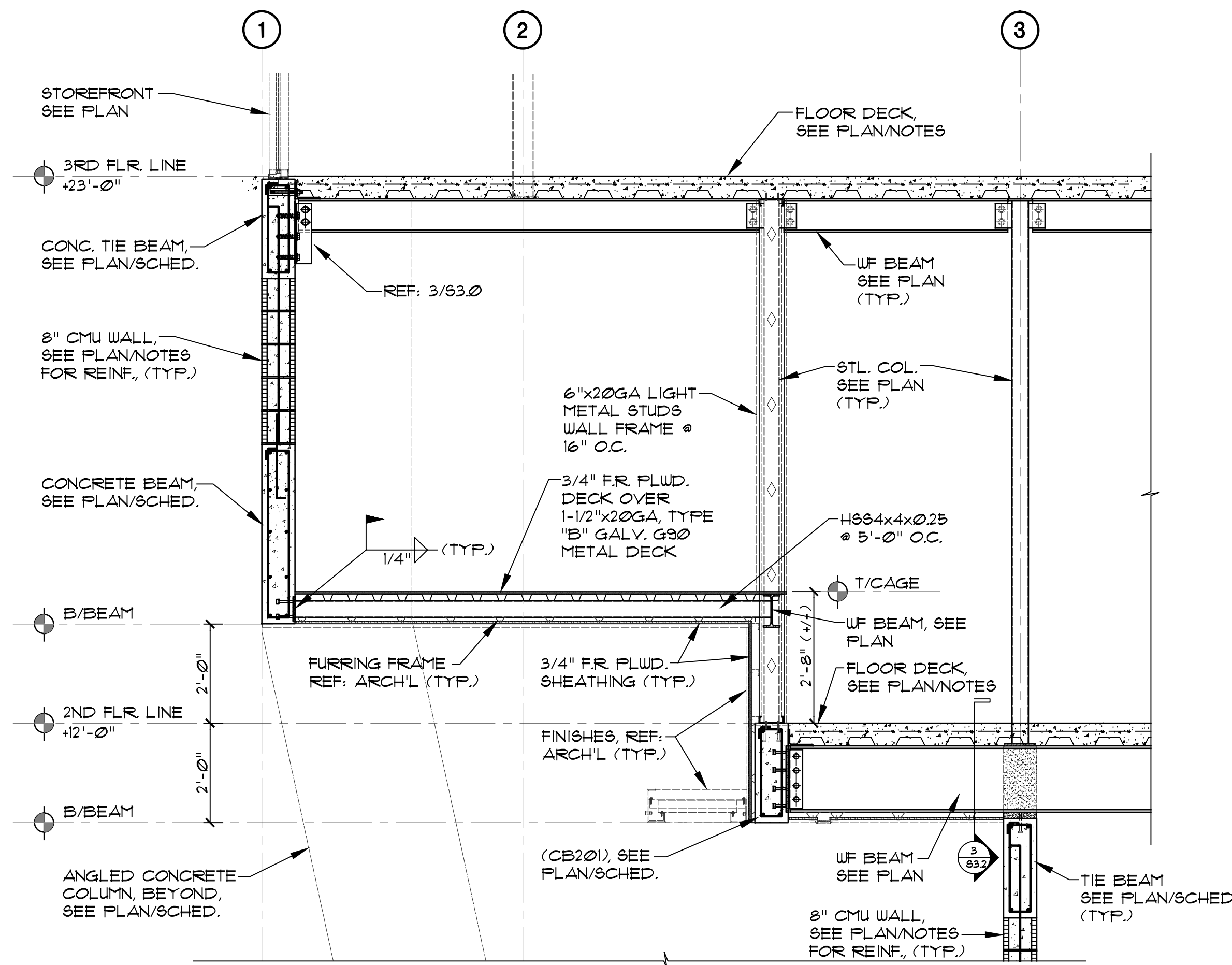
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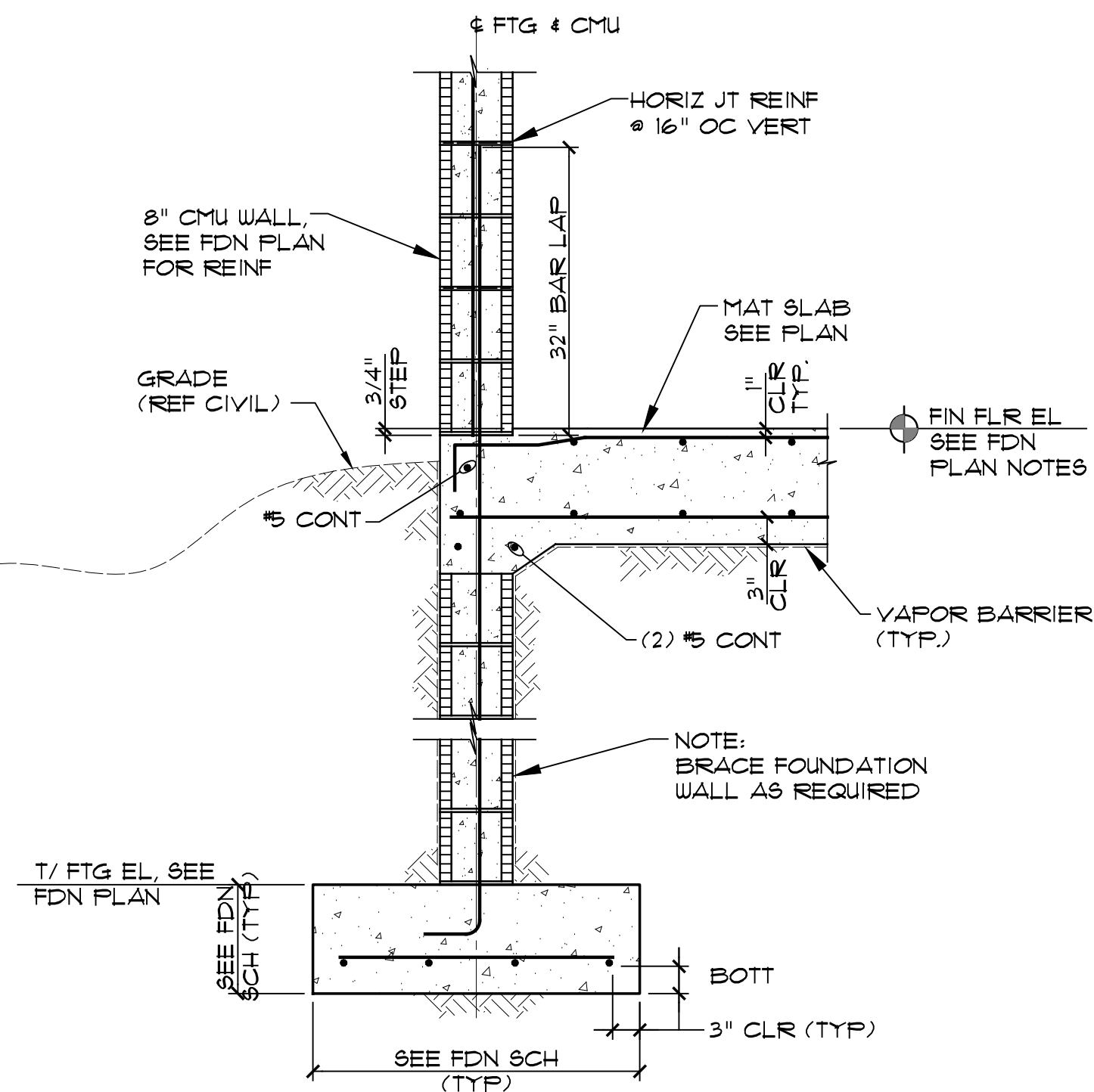
S2.0



1 SECTION @ COLUMN/BEAMS
SCALE: 1/2"=1'-0"



2 SECTION @ DECK FRAMING
SCALE: 1/2"=1'-0"



3 SECTION @ EXTERIOR CMU WALL
SCALE: 3/4"=1'-0"

GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

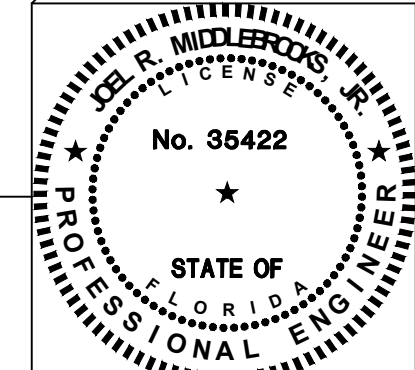
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1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
FAX (954) 421 - 9829
e-mail: kenneth@kenr.com

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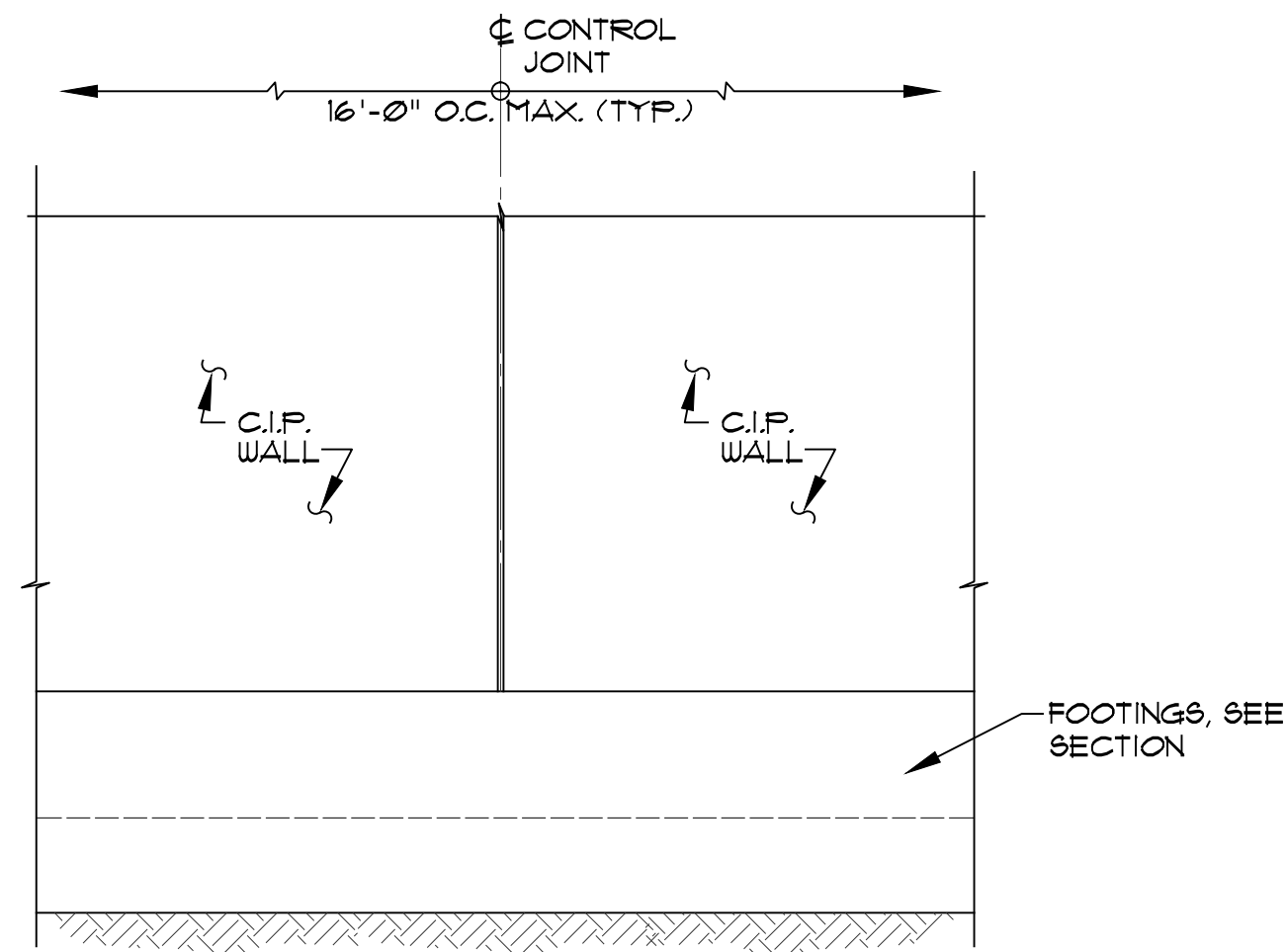


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S2.2



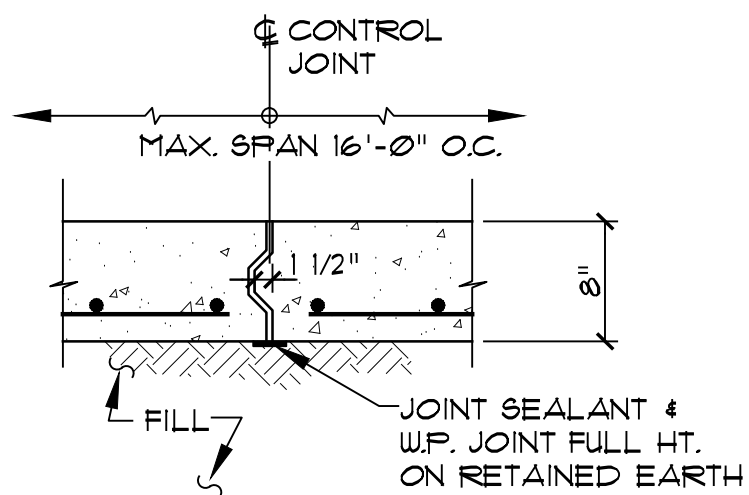
TYPICAL ELEVATION
N.T.S.

NOTE:
TEMPORARILY SUPPORT WALL AGAINST
OVERTURNING UNTIL INFILL FTG IS PLACED
AND HAS ATTAINED MINIMUM 75% OF
DESIGN STRENGTH.

DESIGN LOADS FOR
RETAINING WALL:

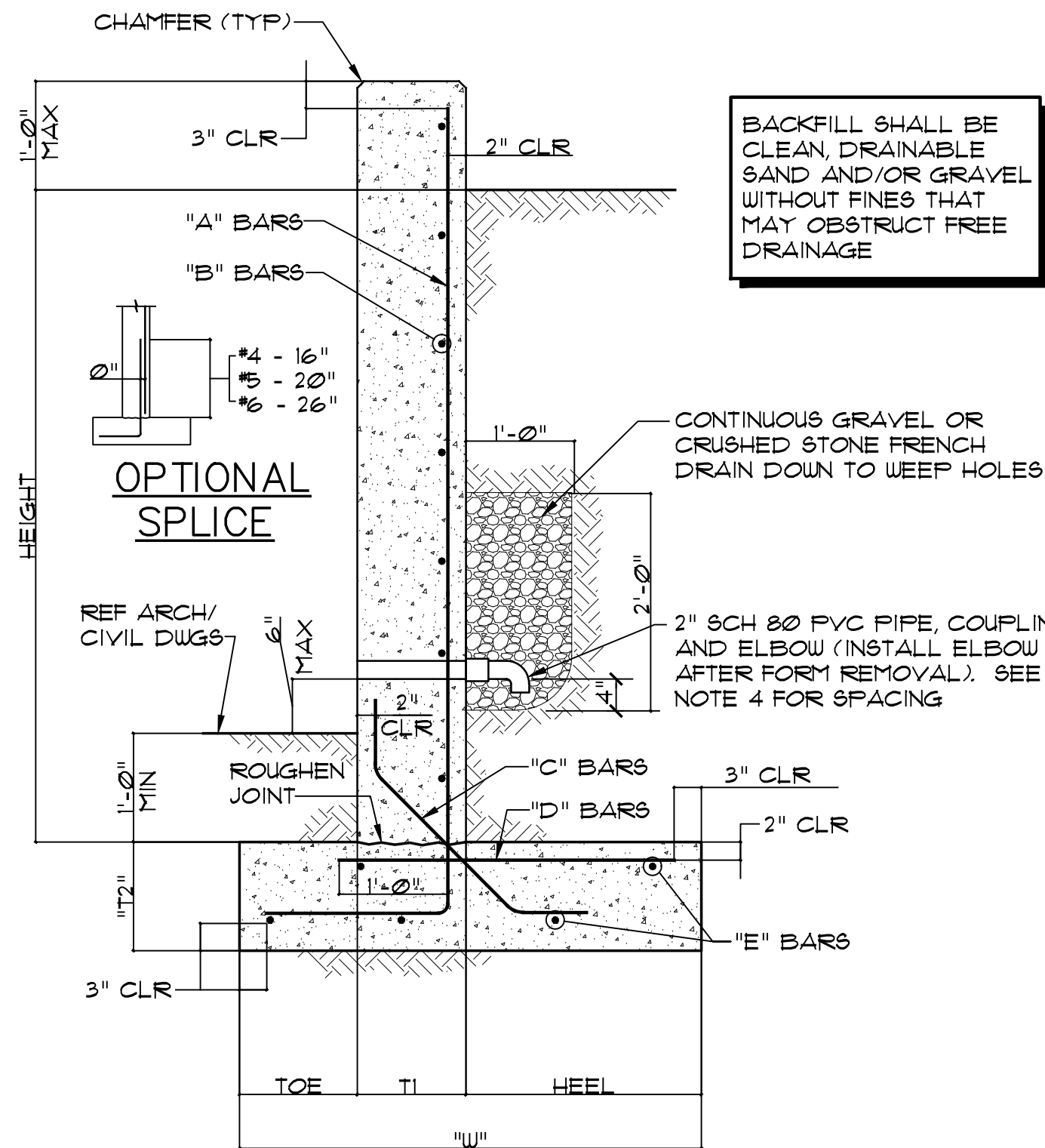
- LIVE LOAD SURCHARGES - 250 PSF

NOTE:
REFER TO CIVIL DRAWINGS FOR TOP OF
C.I.P. WALL ELEVATION, PLAN, LOCATION
AND HORIZONTAL GEOMETRY



KEYED C.J.
(16 FT. MAX.)

A TYP. C.I.P. FREESTANDING WALL
S2.3

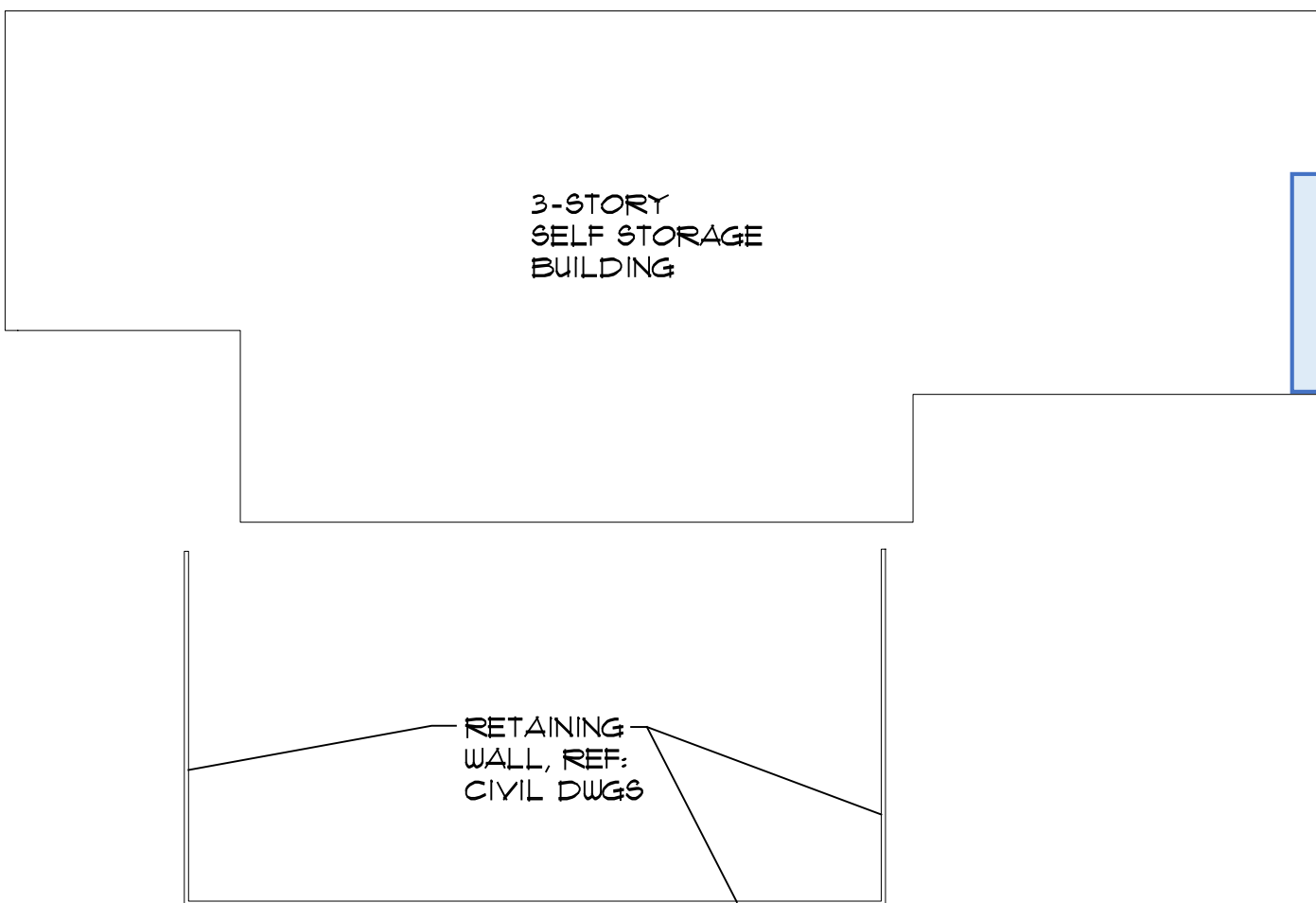


BACKFILL SHALL BE
CLEAN, DRAINABLE
SAND AND/OR GRAVEL
WITHOUT FINES THAT
MAY OBSTRUCT FREE
DRAINAGE

RETAINING WALL SCHEDULE				
LABEL	WALL HEIGHT			
	UP TO 8'-0"			
"A"	#4 @ 14"			
"B"	#5 @ 12"			
"C"	#4 @ 18"			
"D"	#4 @ 14"			
"E"	(5) #4			
"T1"	12"			
"T2"	12"			
"W"	4'-3"			
"HEEL"	2'-2"			
"TOE"	1'-1"			

- NOTES:
- HANDRAIL (IF REQD BY CIVIL) SHALL BE DESIGNED AND SUPPLIED BY STL FABRICATOR. SUBMIT SHOP DWGS TO ARCHITECT FOR APPROVAL.
 - WEEP HOLES SHALL BE PROVIDED AT MAX 12'-0" OC TO ALLOW DRAINING OUT ON TOP OF THE LOWER LEVEL. WEEP HOLES TO BE OFFSET FROM KEYED C.J. 1'-0" MINIMUM.

B TYP. SECTION @ RETAINING WALL (LEVEL BACKFILL)
S2.3



KEY PLAN
N.T.S.



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GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

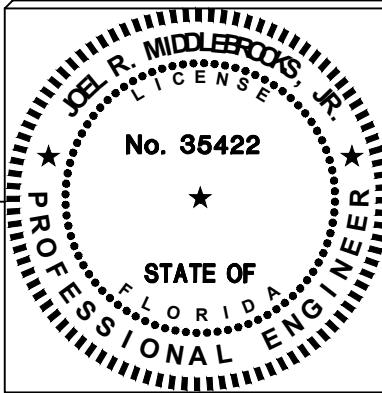
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1166 W. NEWPORT CENTER DRIVE SUITE #311
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P.H. (954) 421 - 8848 FAX (954) 421 - 9929
e-mail: kenscarlson@aol.com

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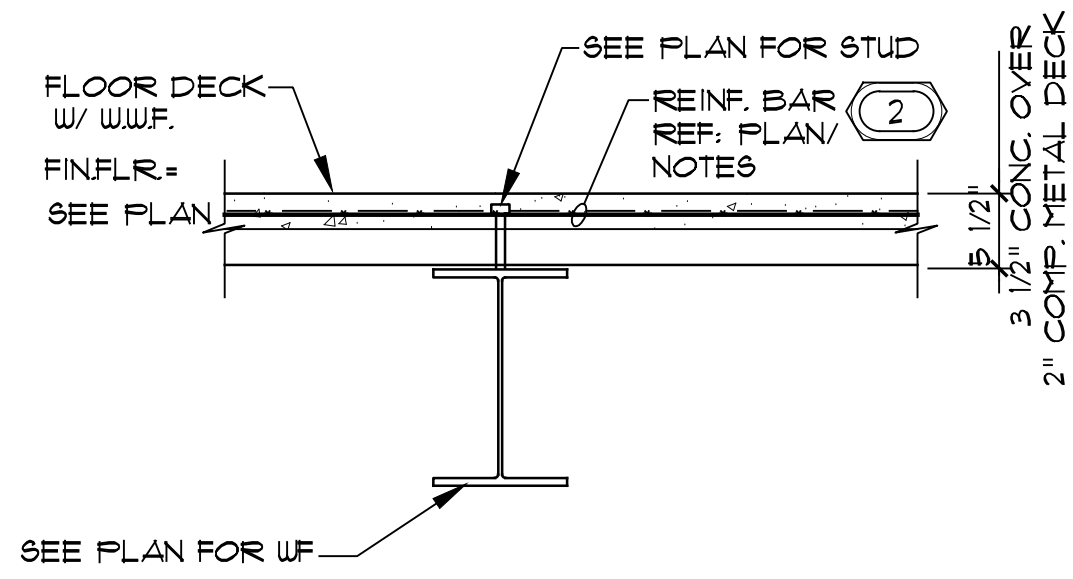
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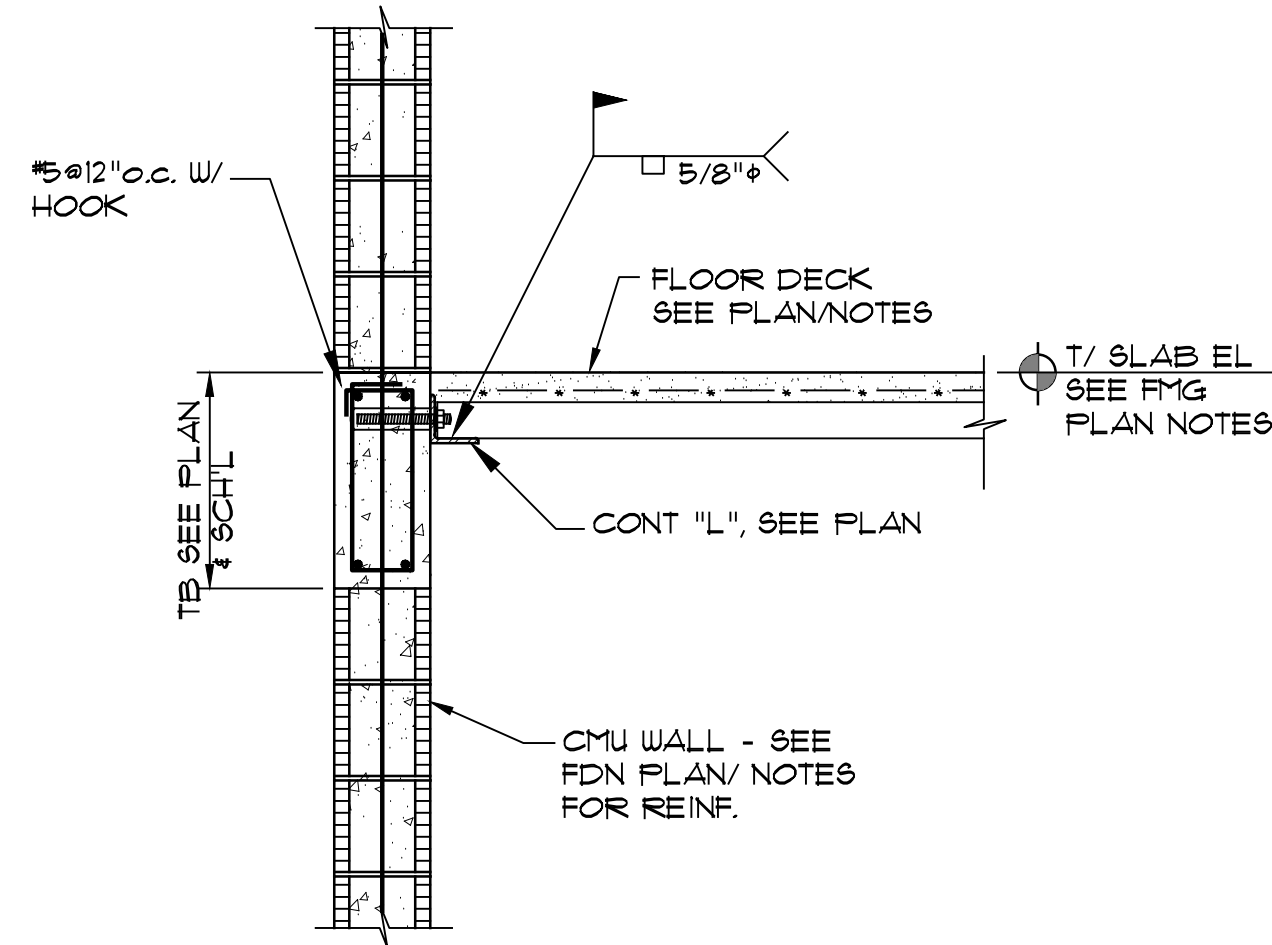


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Florida Professional Engineer No. 35422

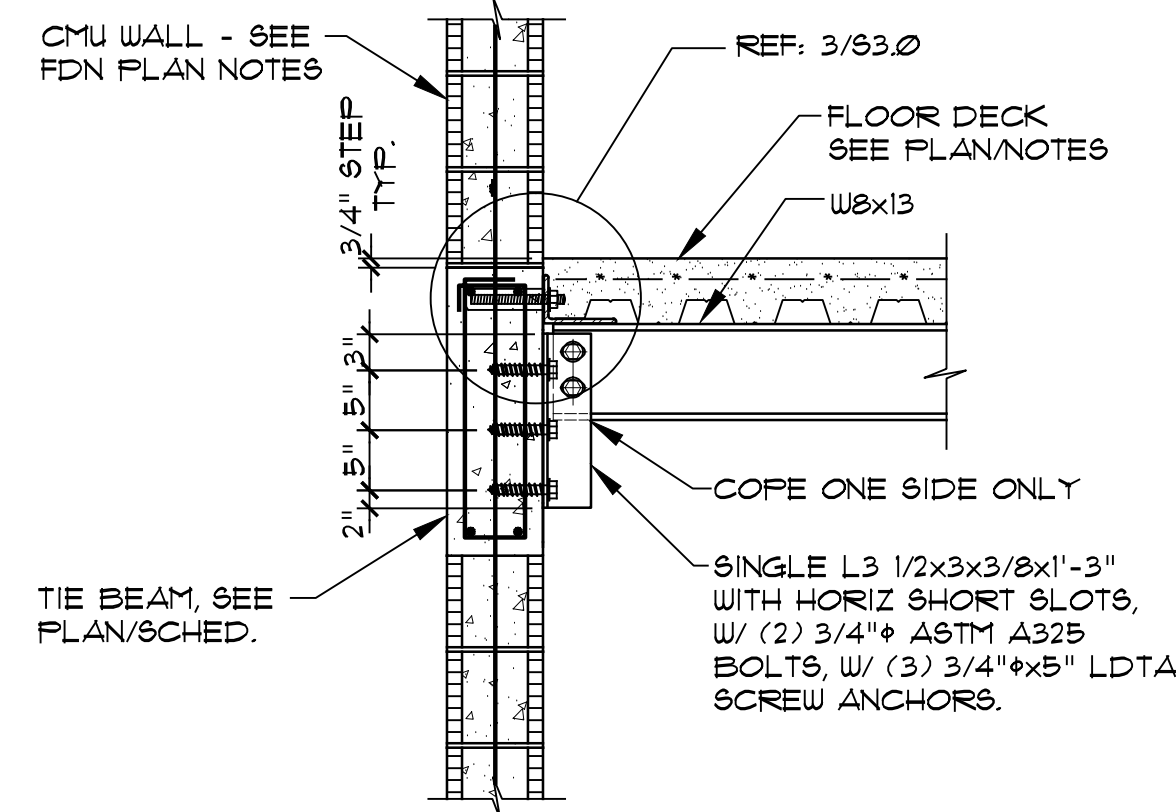
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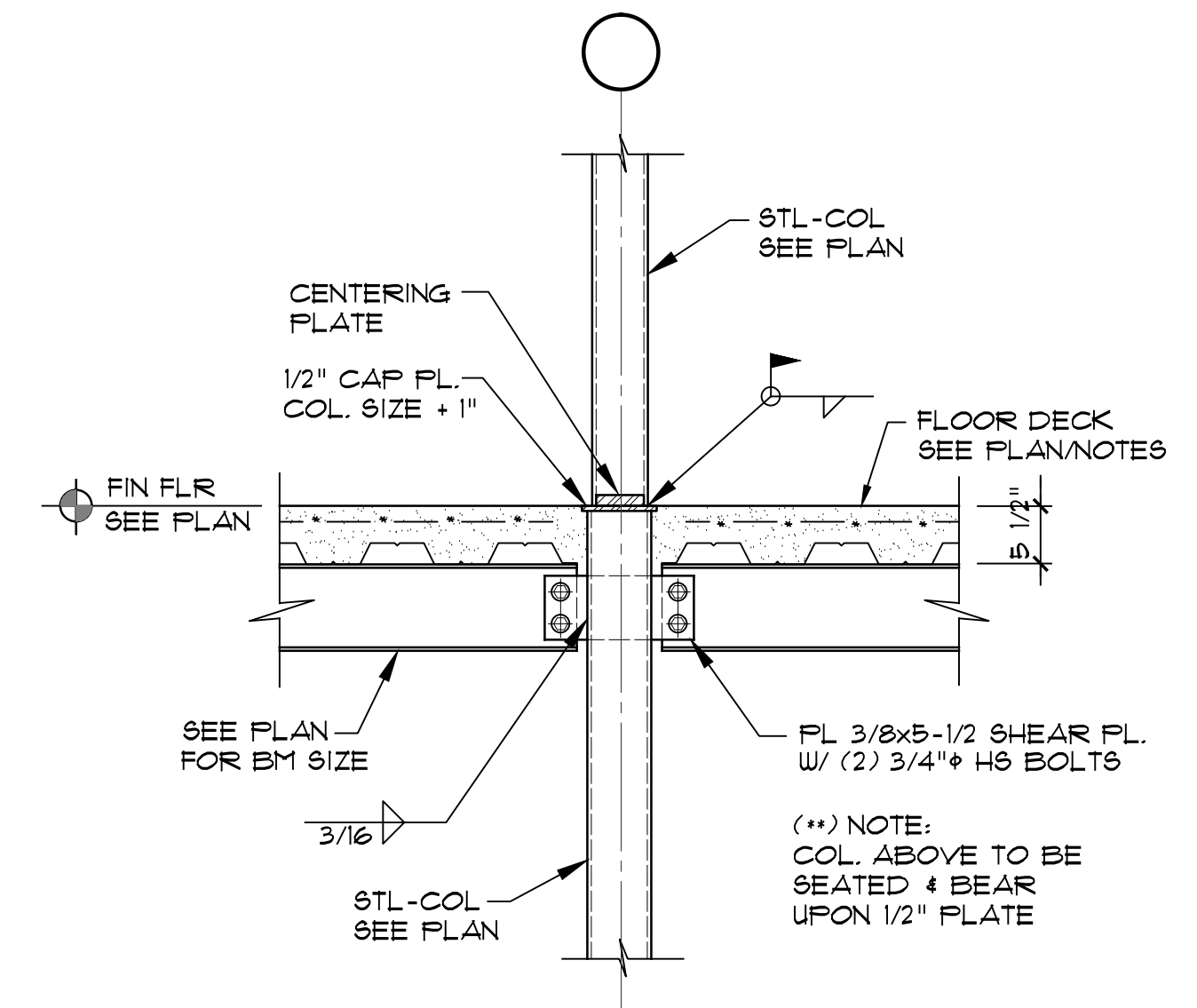
1 TYP DECK BEARING
S3.0 SCALE: 3/4" = 1'-0" TYP



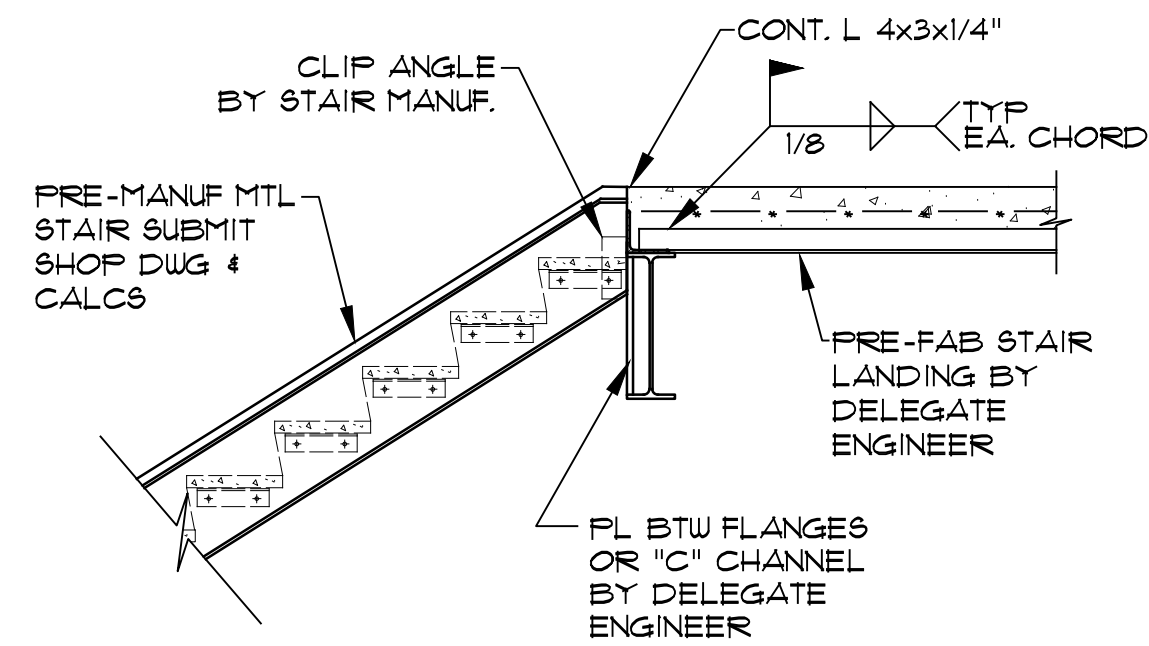
2 SECTION @ DECK BRG
S3.0



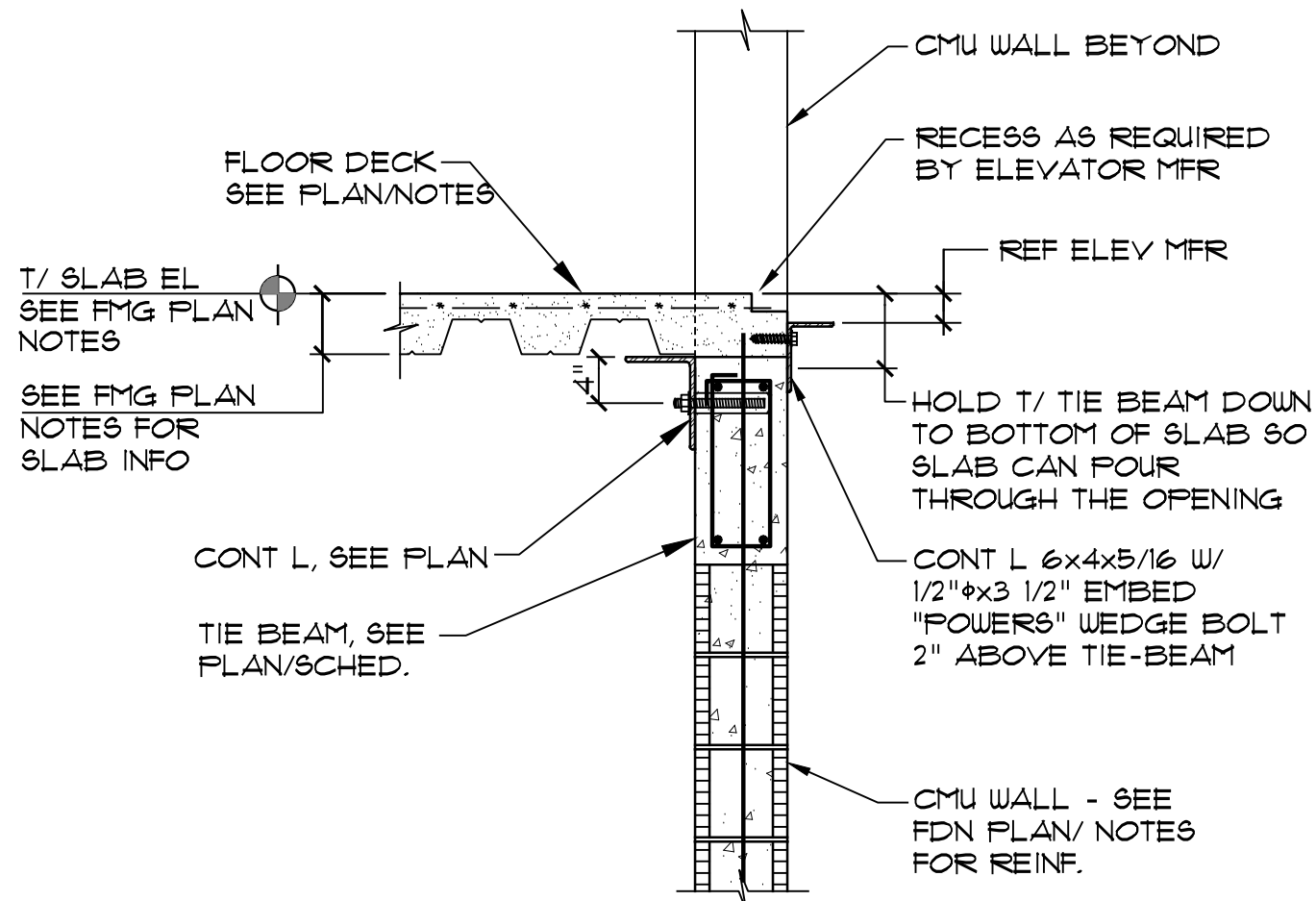
3 W8x13 BEAM TO TIE BEAM CONN
S3.2



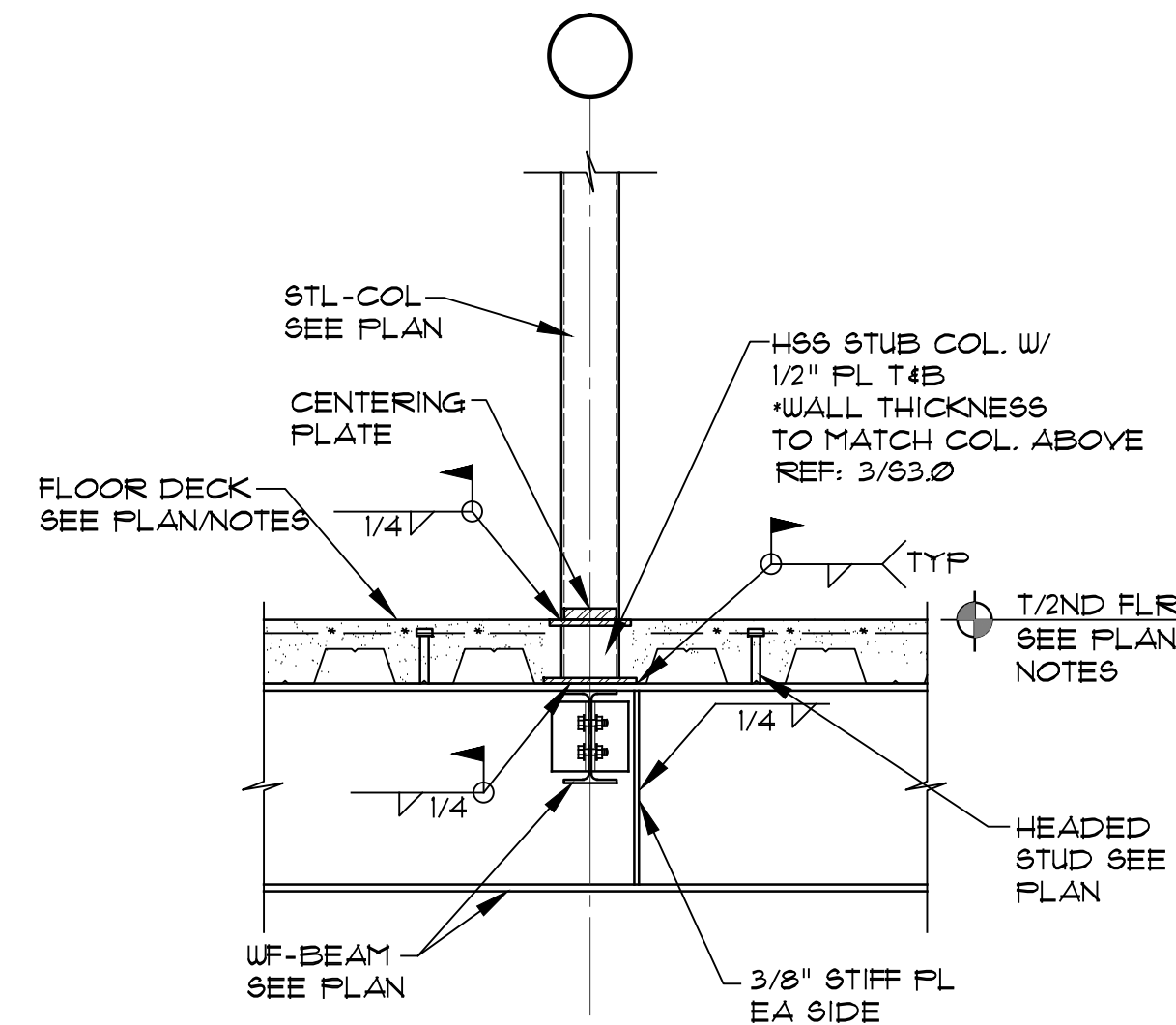
4 COLUMN/BEAM CONN
S3.0



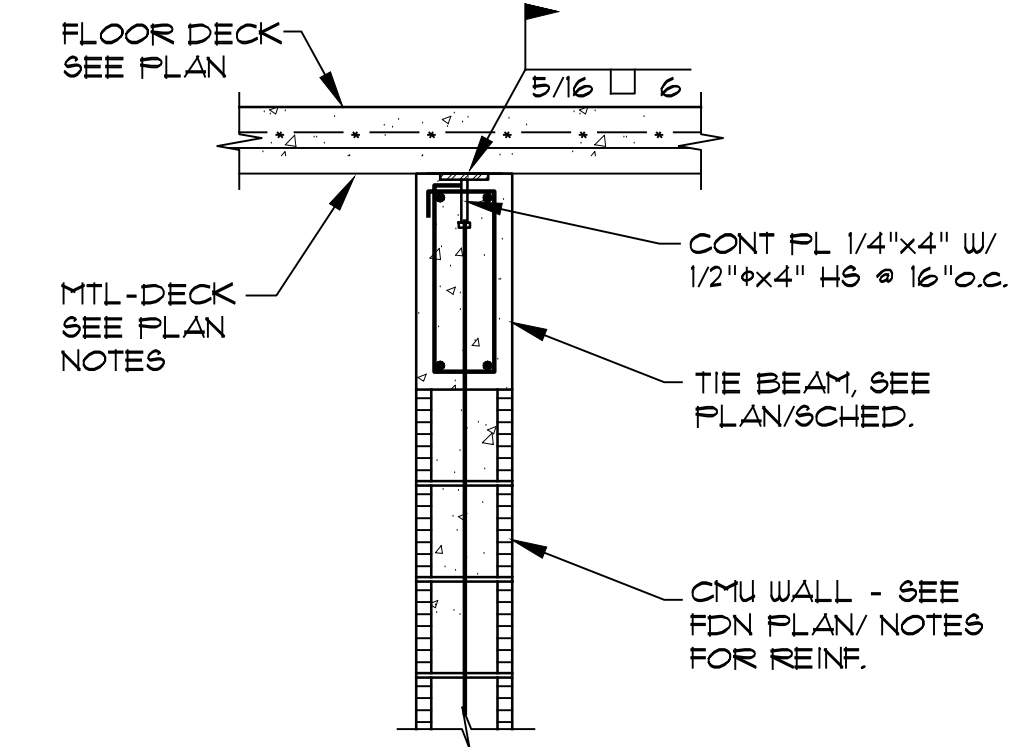
5 SECTION @ STAIR BRG
S3.0



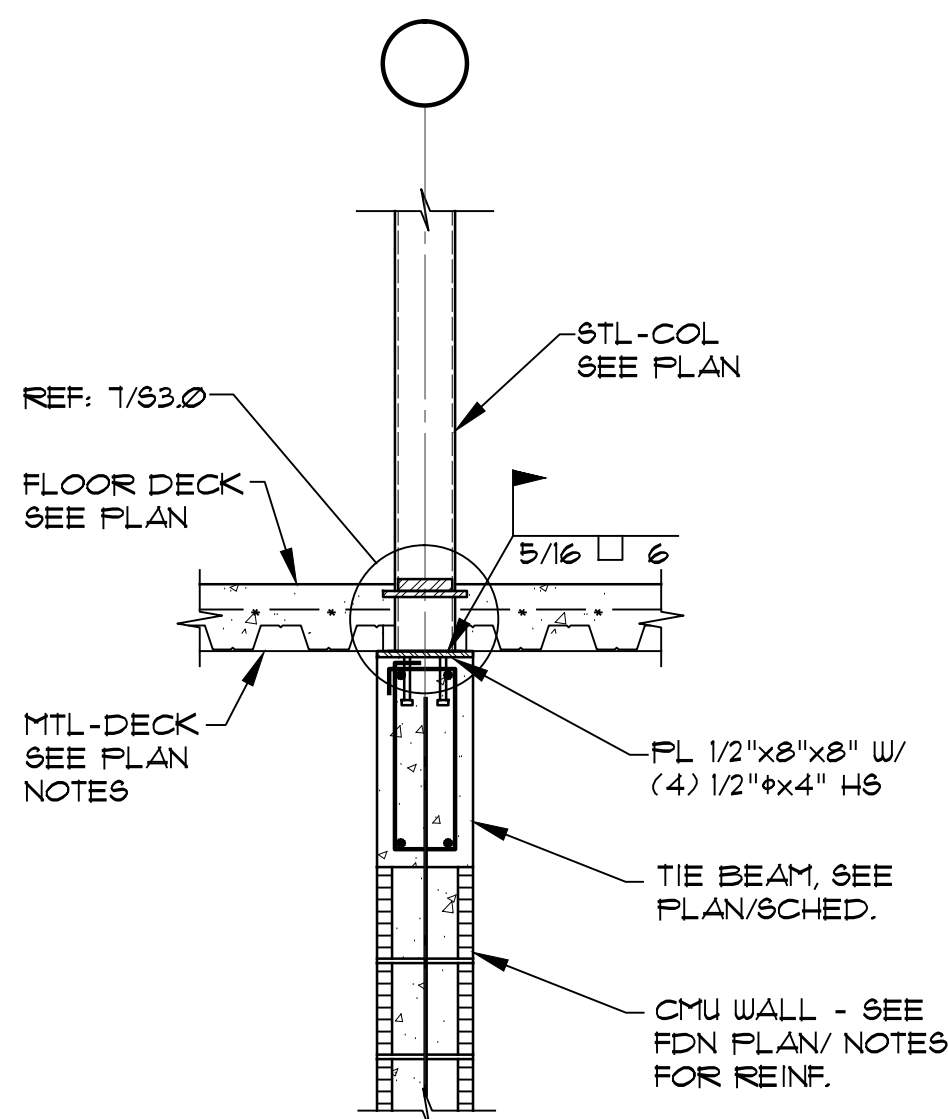
6 SECTION @ ELEVATOR DOOR
S3.0



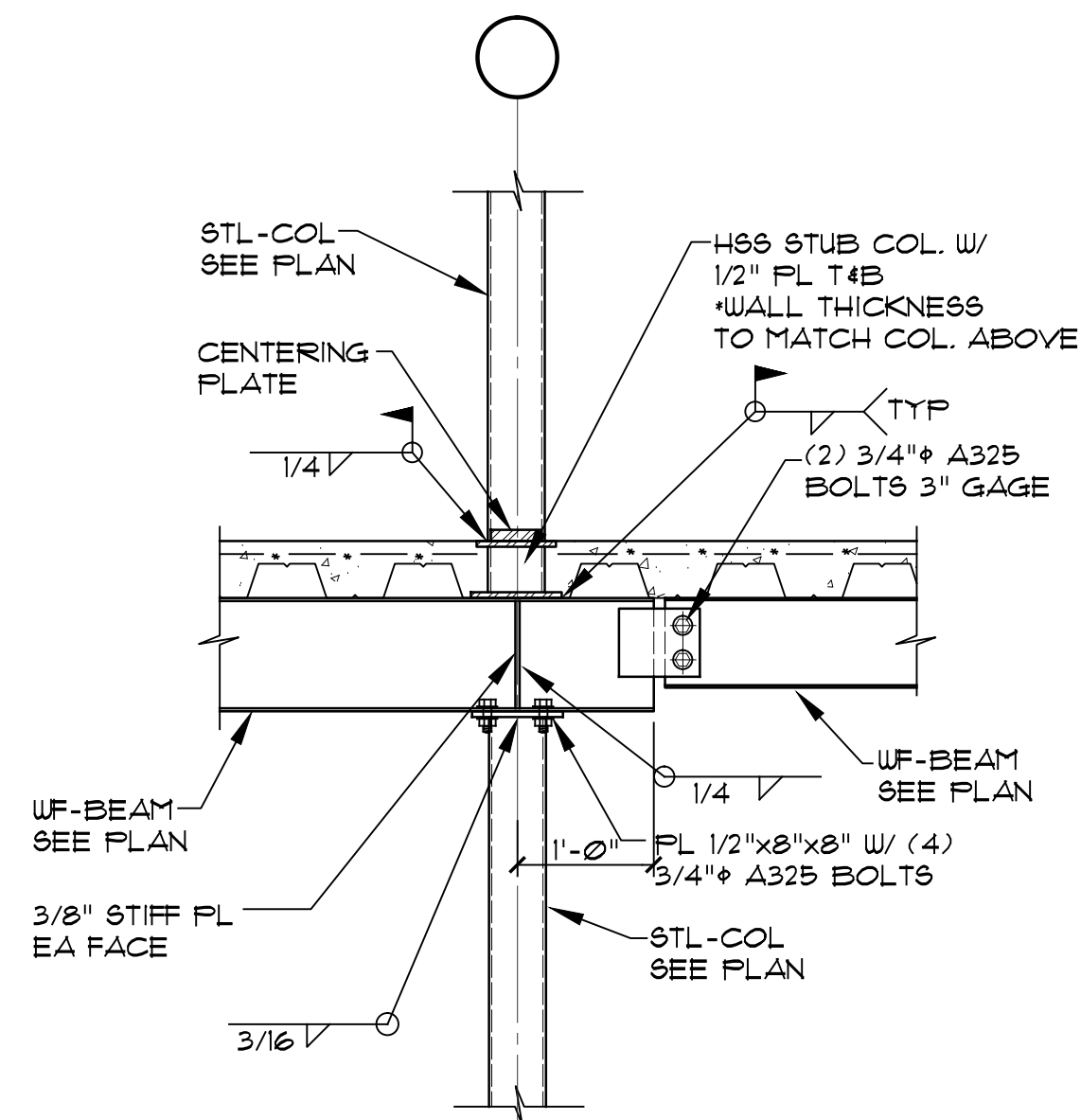
7 SECTION @ STL-COL CONN 2ND FLR
S3.0



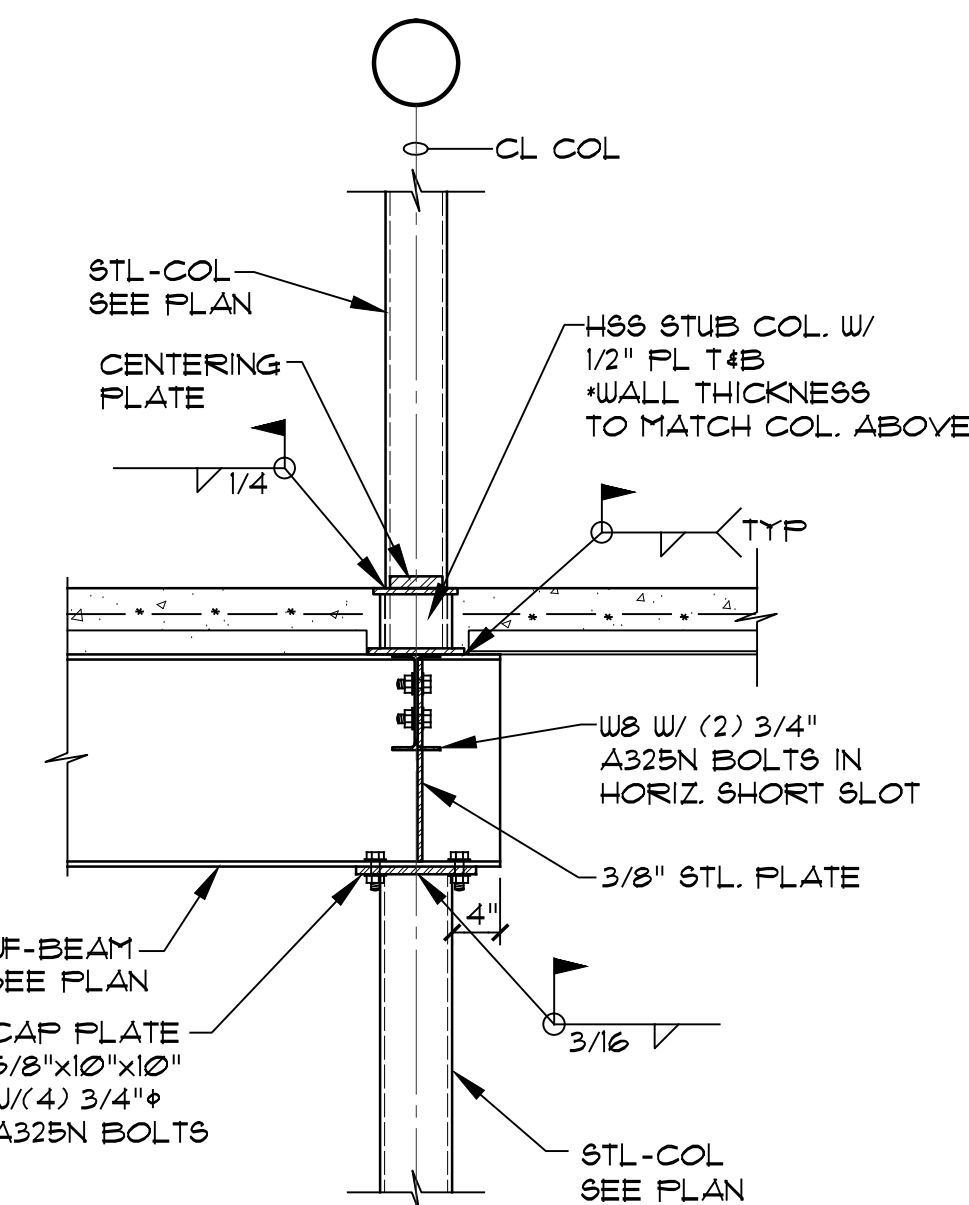
8 SECTION @ DECK BRG AT T/WALL
S3.0



9 SECTION @ STL-COL UP
S3.0



10 SECTION @ STL-COL TO BEAM CONN
S3.0



11 SECTION @ WF-BEAM TO COL CONN
S3.0

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GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

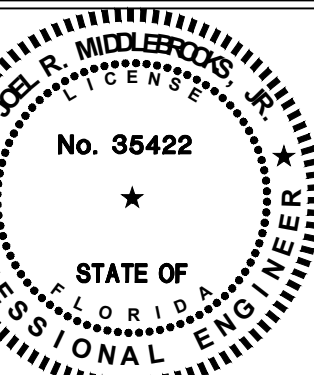
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e-mail: kenneth@krcarlson.com

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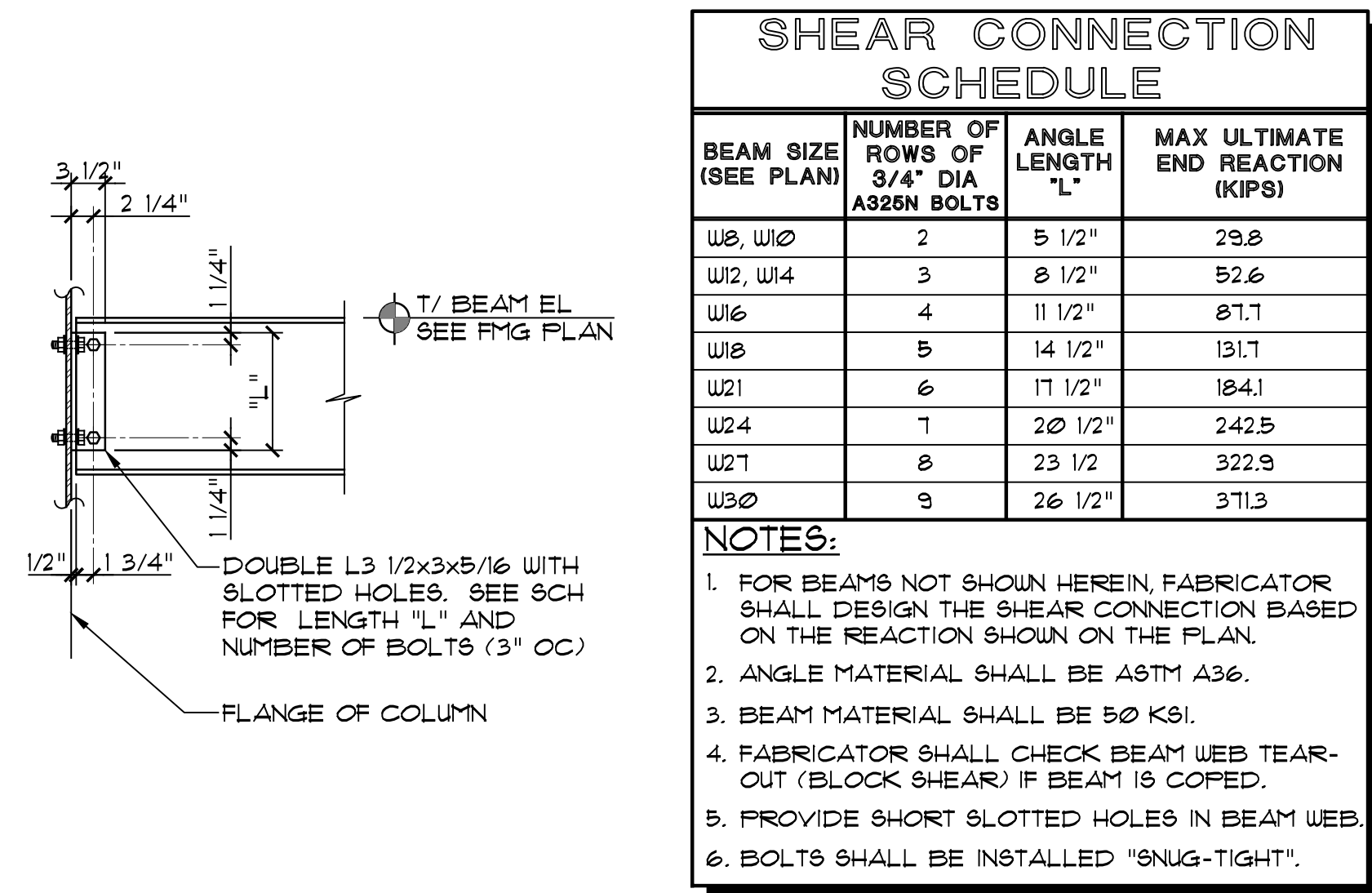
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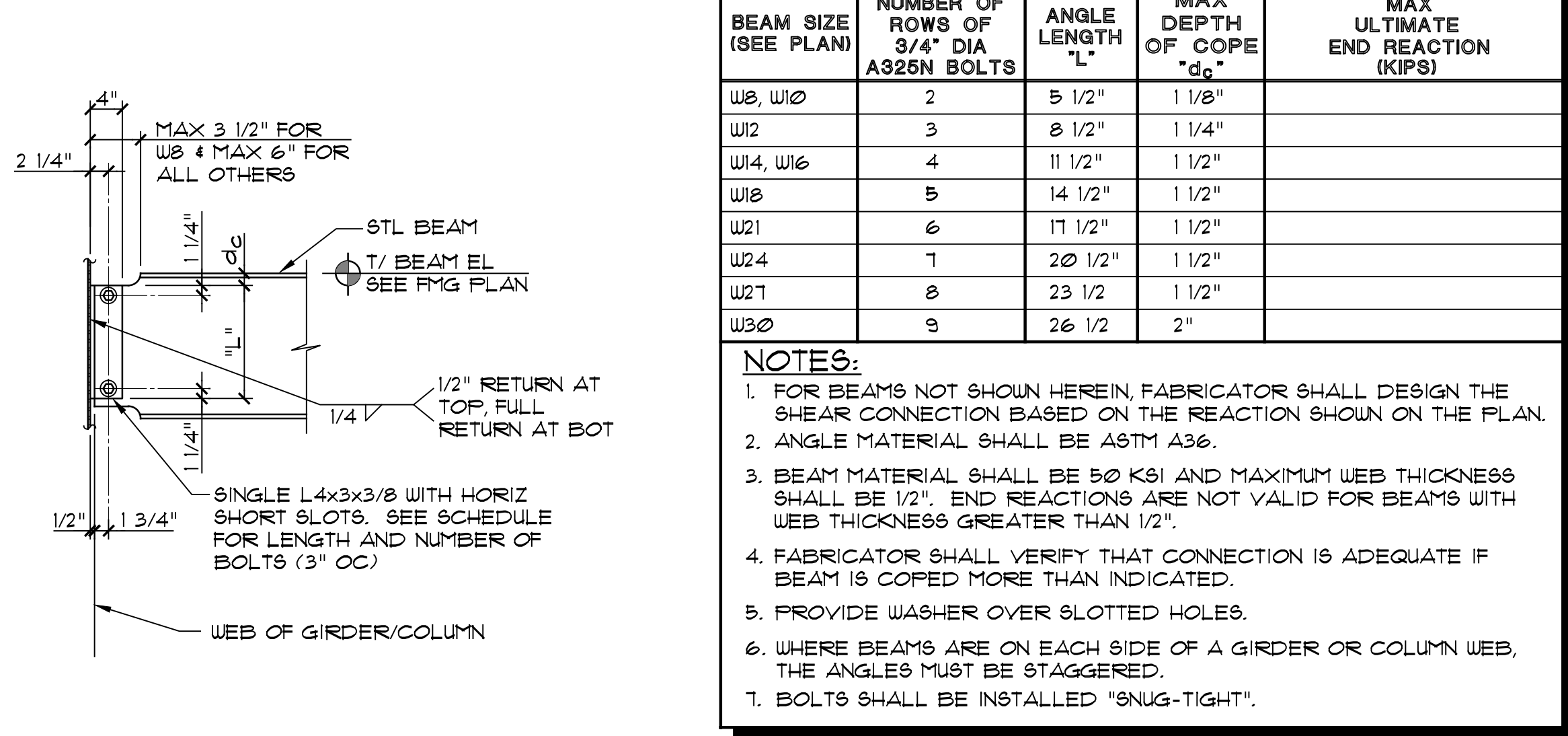


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Florida Professional Engineer No. 35422

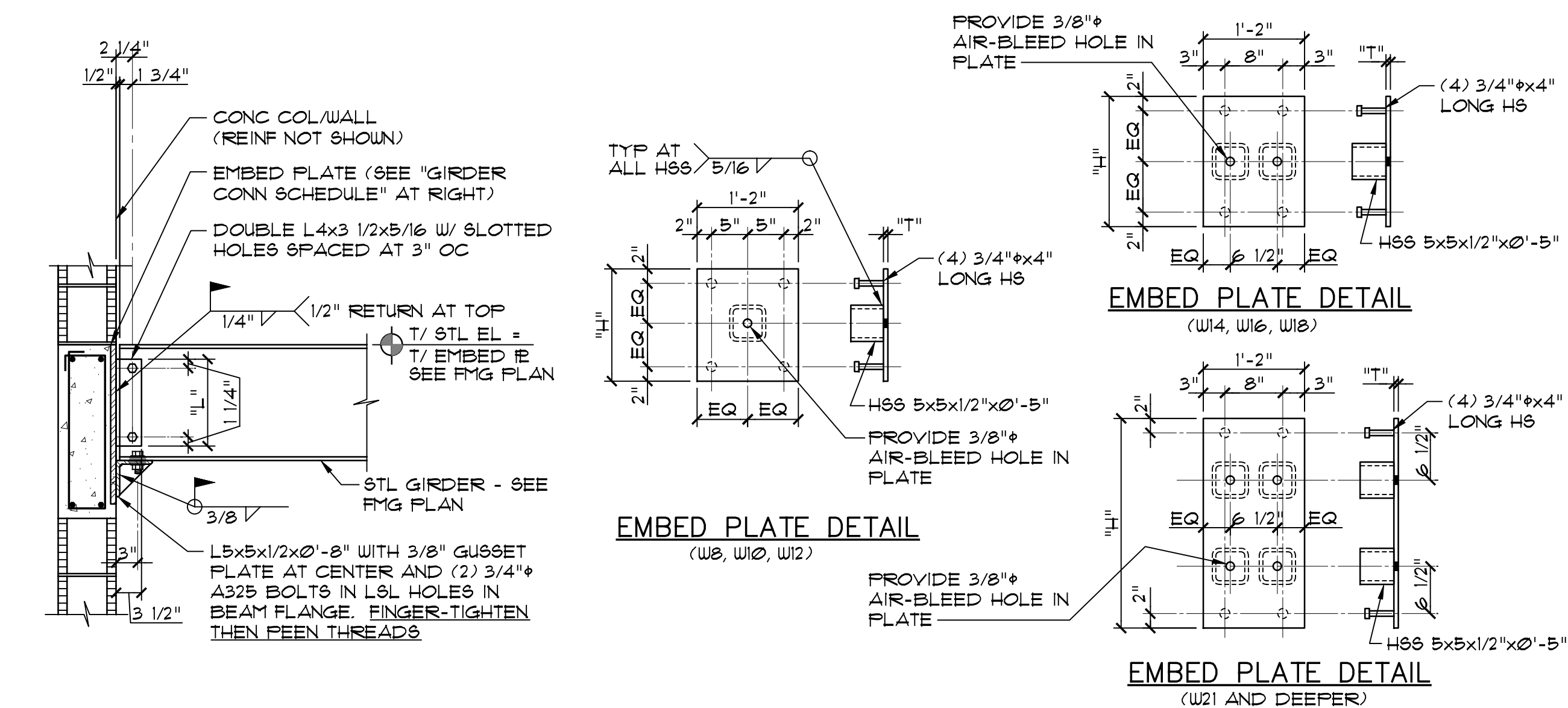
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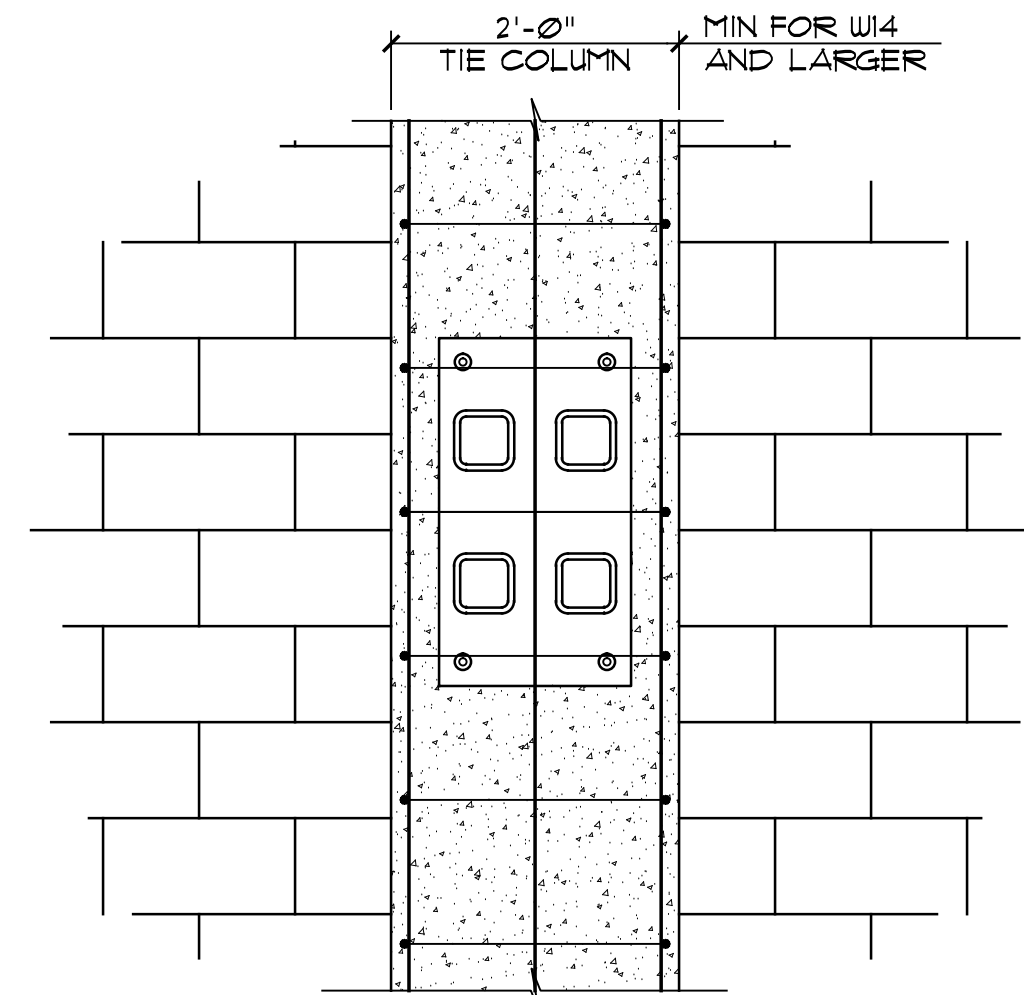
1 TYPICAL FLOOR & ROOF GIRDER TO COL CONNECTION (DOUBLE SHEAR)



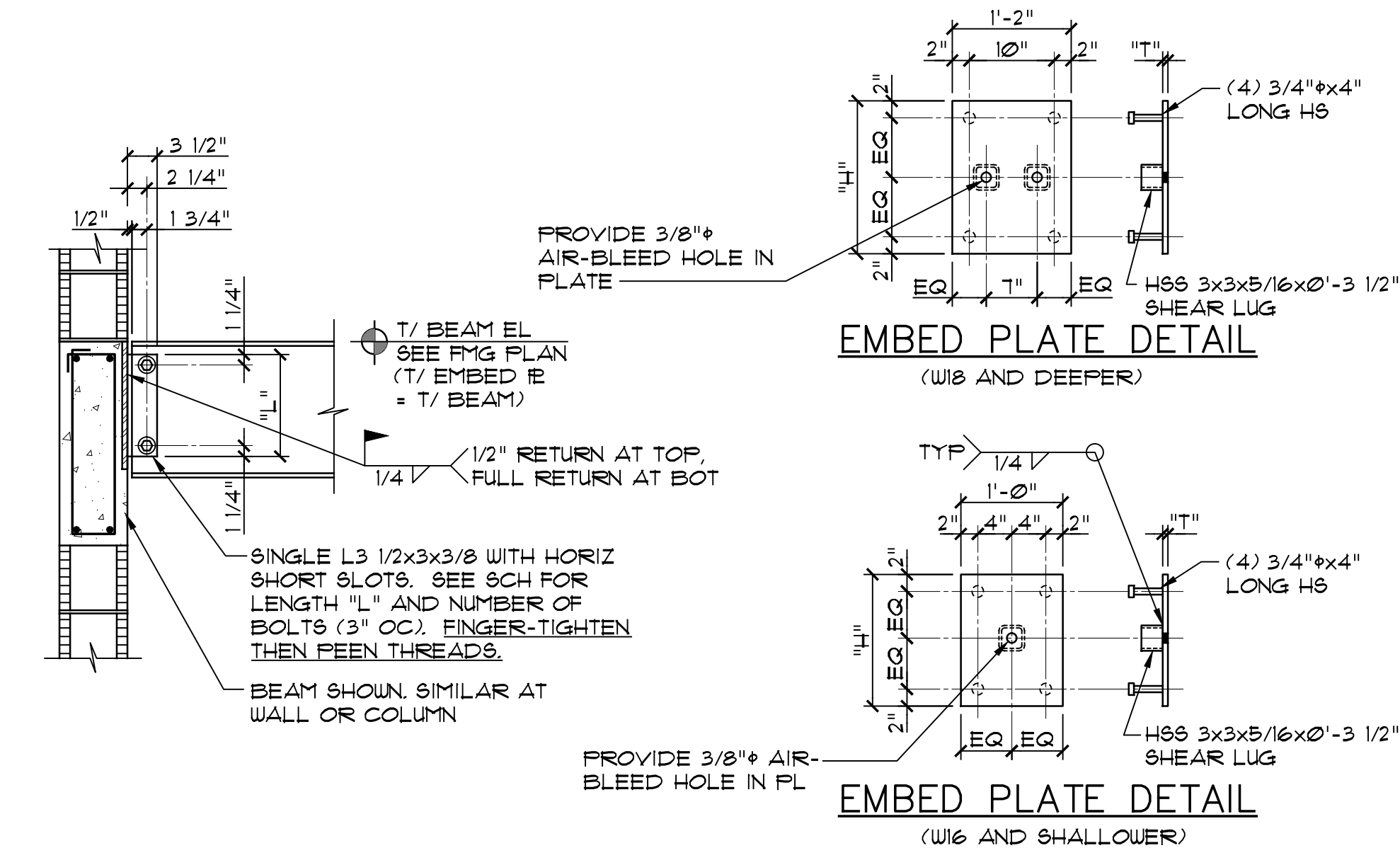
2 TYPICAL FLOOR BEAM TO GIRDER/ COLUMN CONNECTION (SINGLE SHEAR)



3 TYPICAL FLOOR & ROOF GIRDER TO CONCRETE CONNECTION (DOUBLE SHEAR)



TIE COL REINF DETAIL AT EMBED PLATE



4 TYPICAL FLOOR BEAM TO CONCRETE CONNECTION (SINGLE SHEAR)

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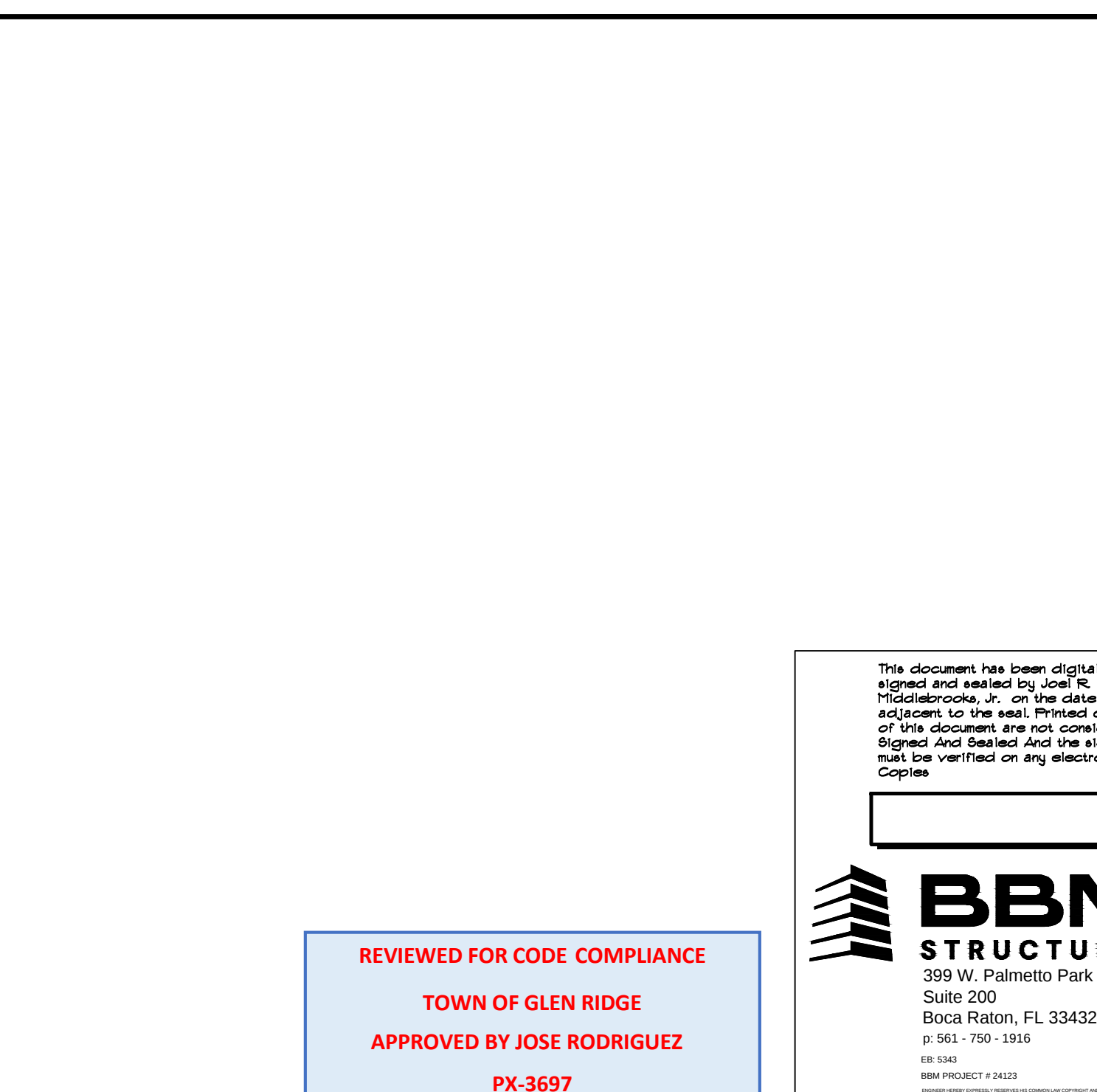
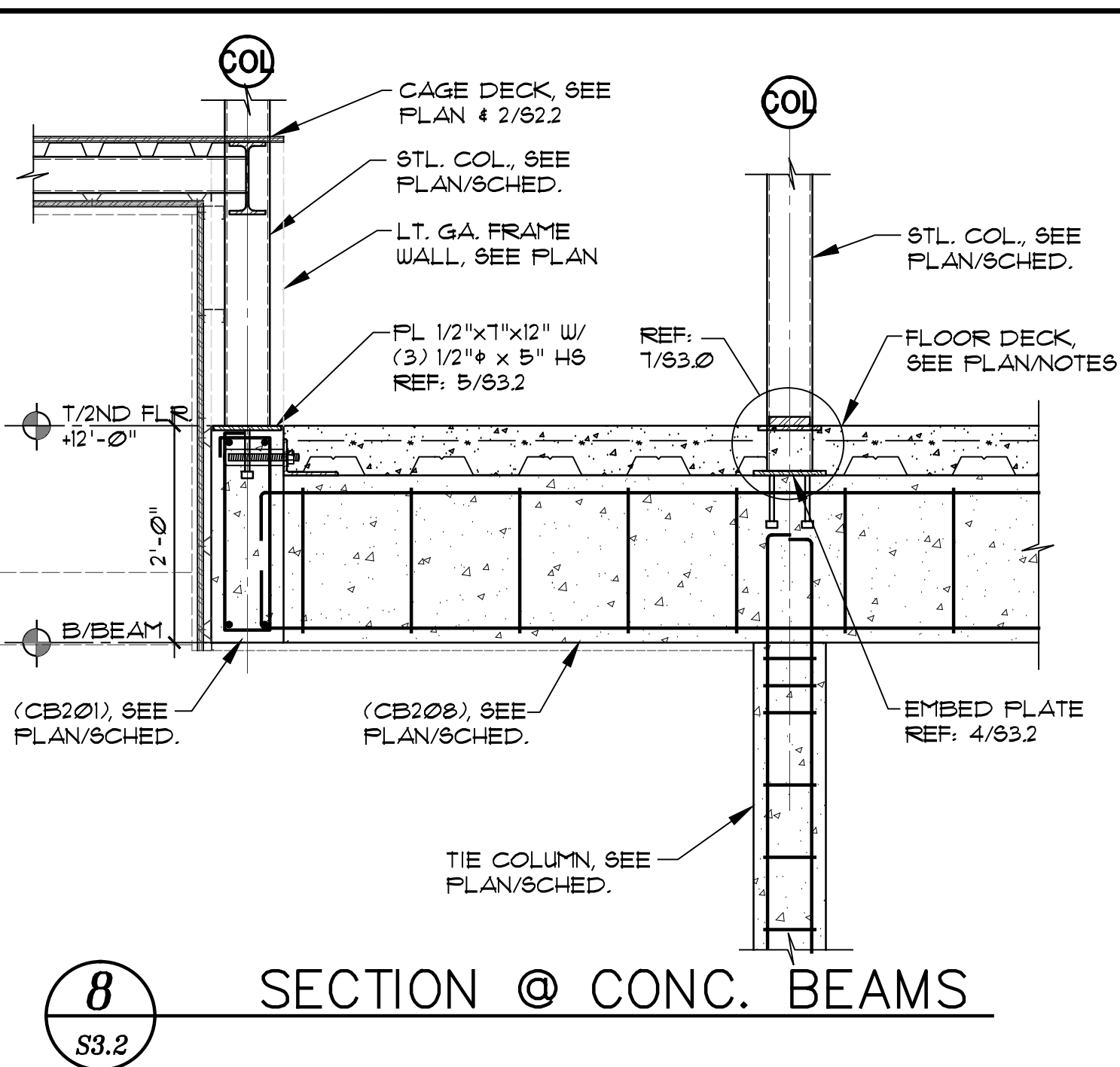
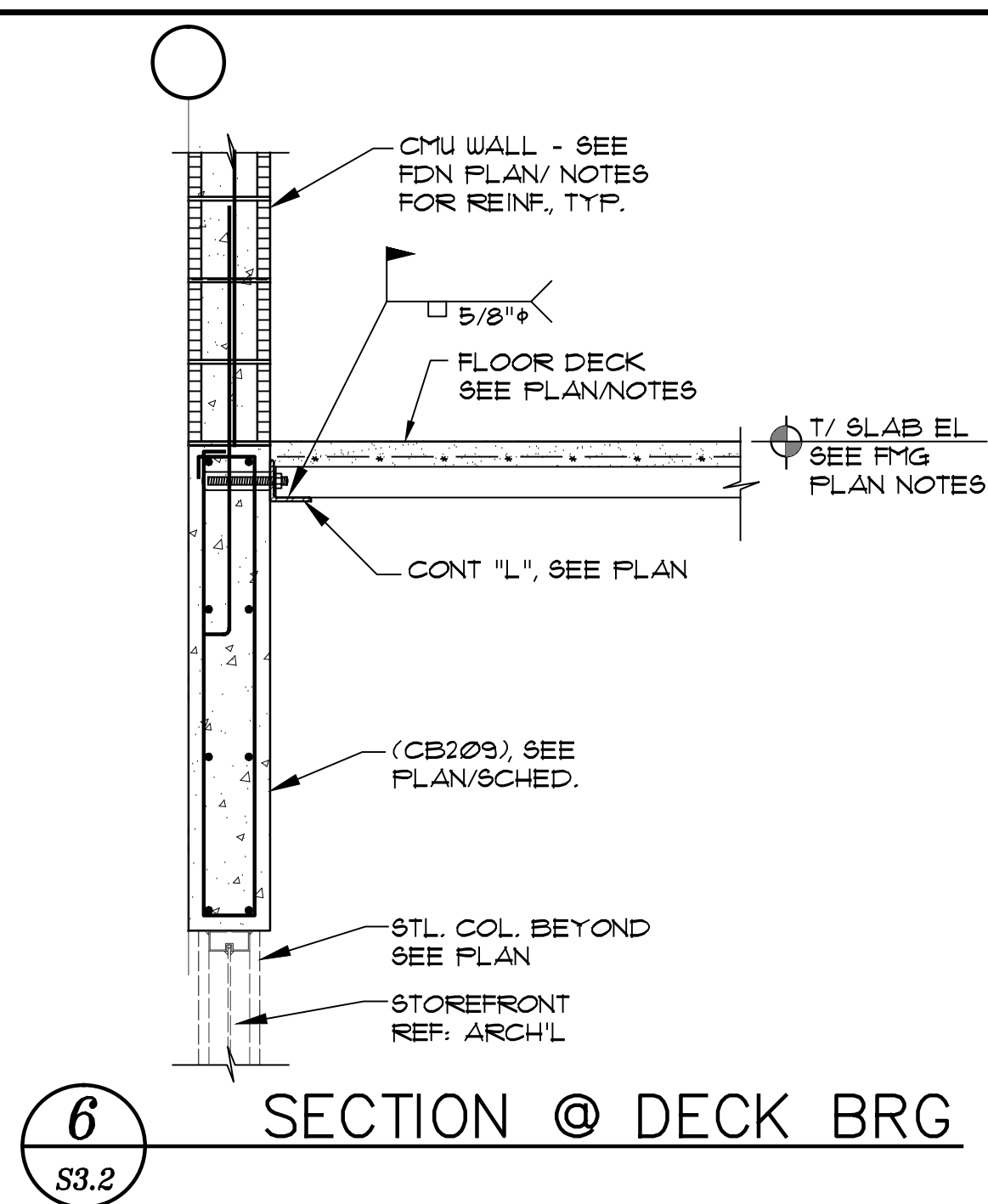
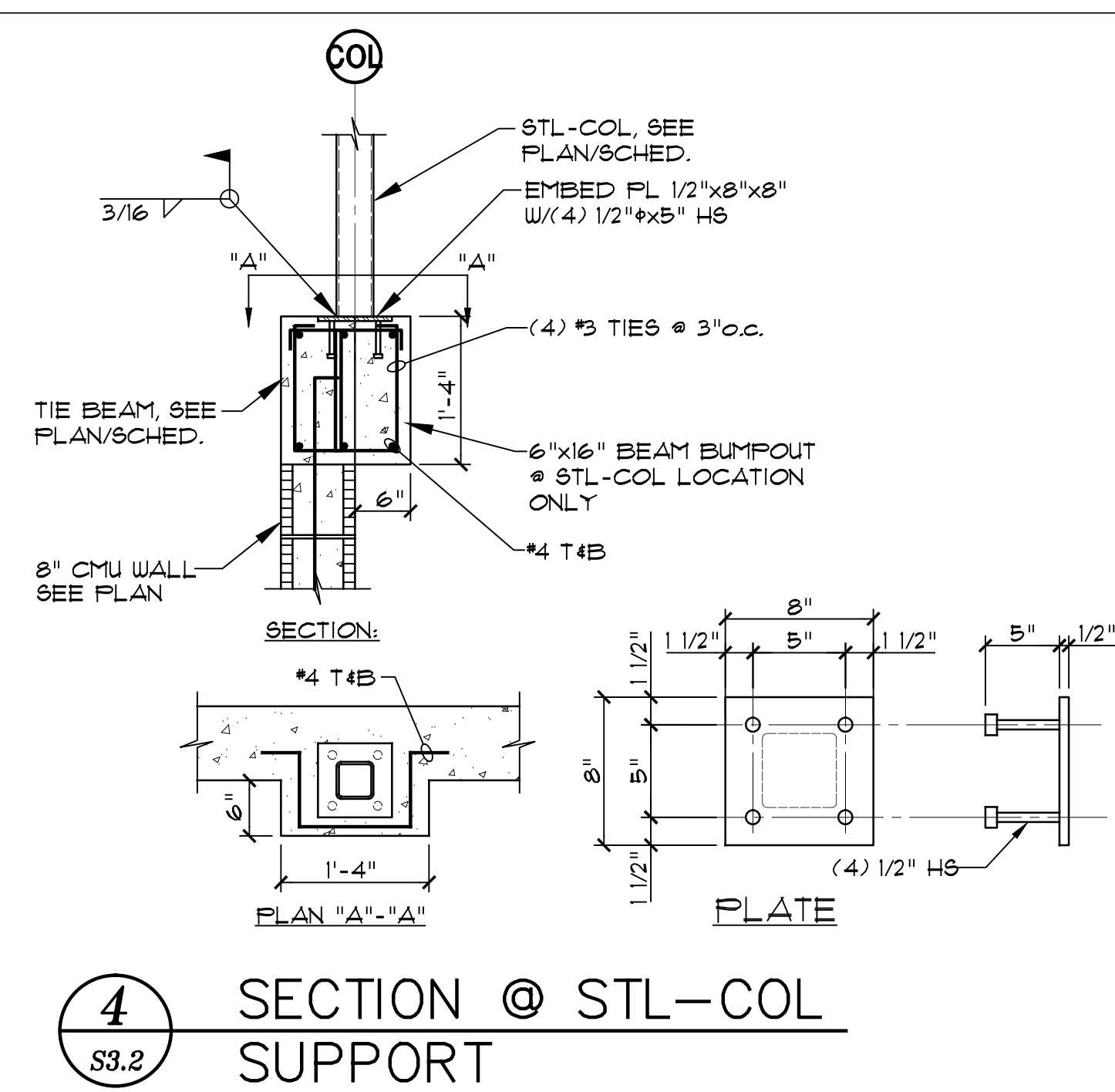
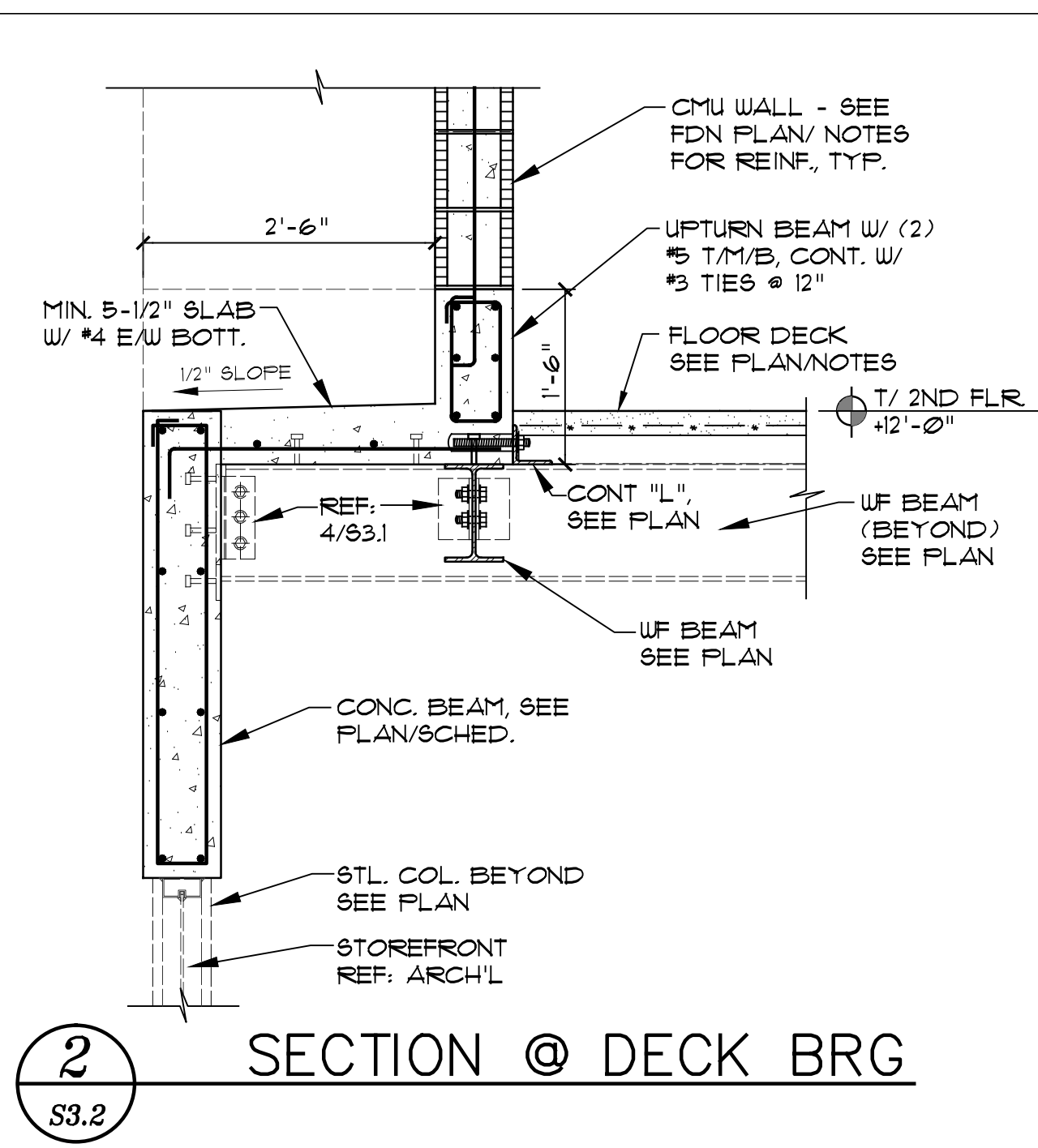
S3.1

GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

KENNETH R. CARLSON - ARCHITECT, P.A.

1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
PH. (954) 421 - 8848
e-mail: kenneth@krcarlson.com

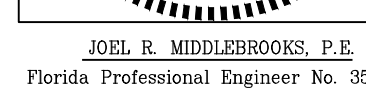


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GLEN RIDGE, FLORIDA

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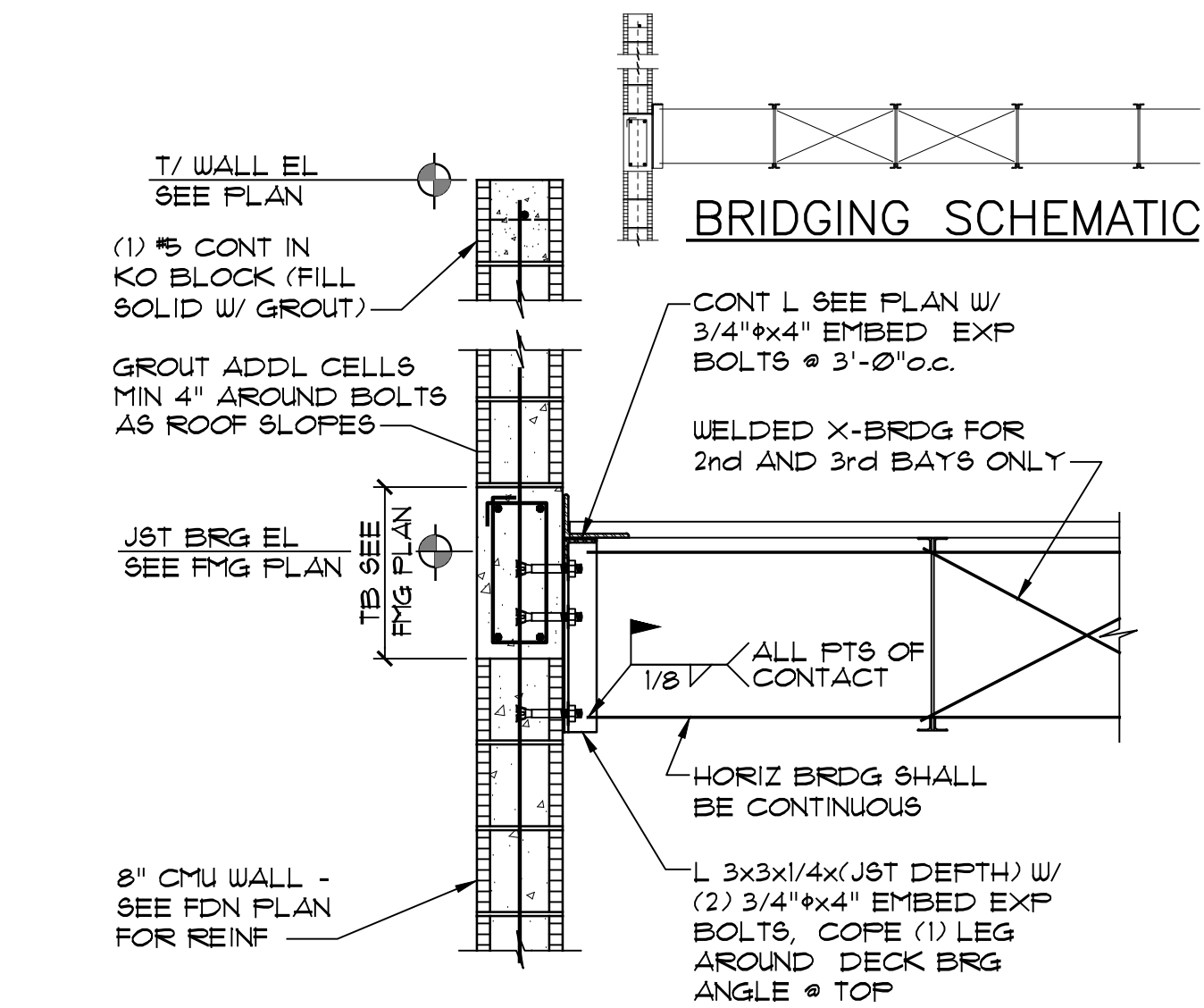
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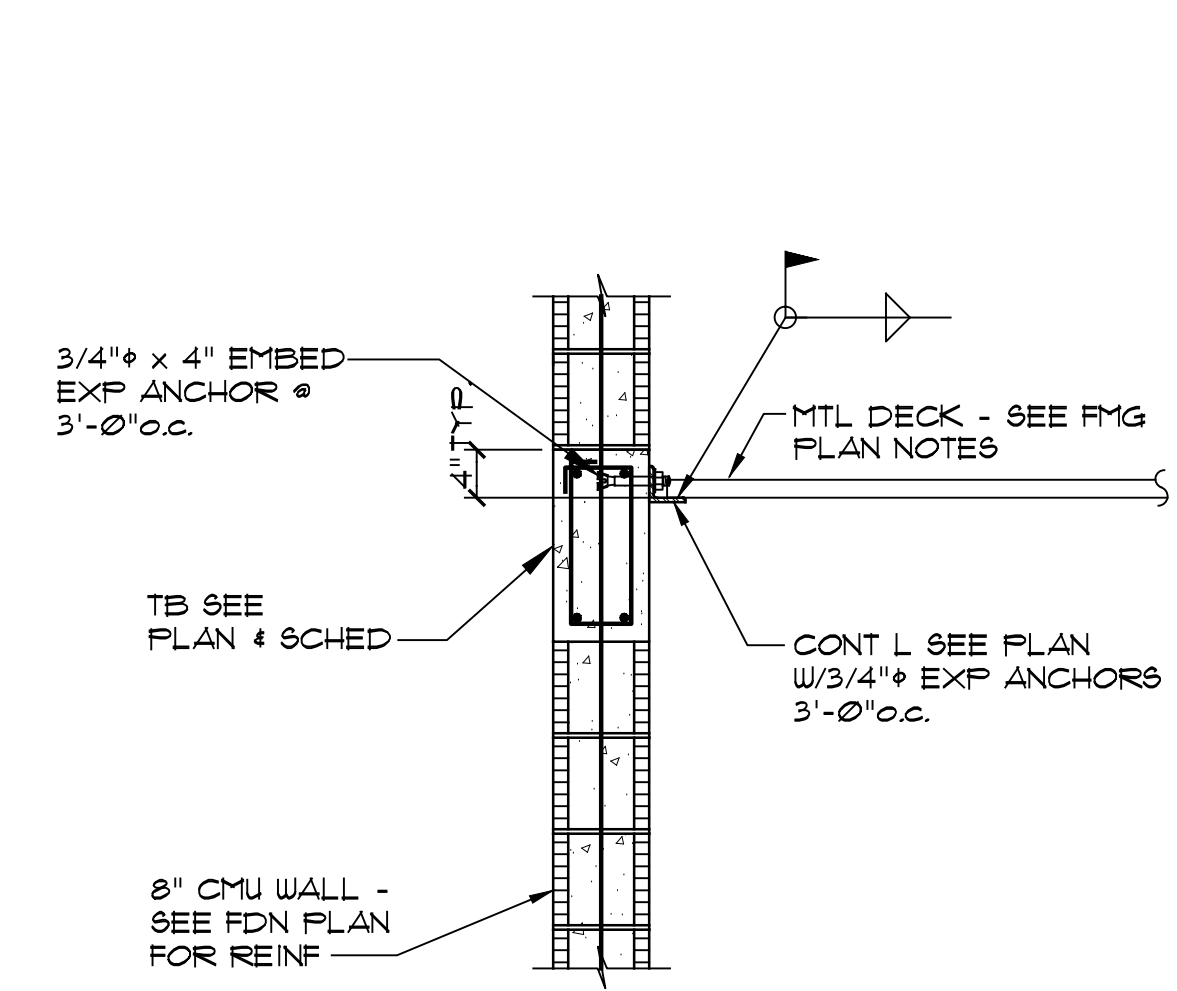
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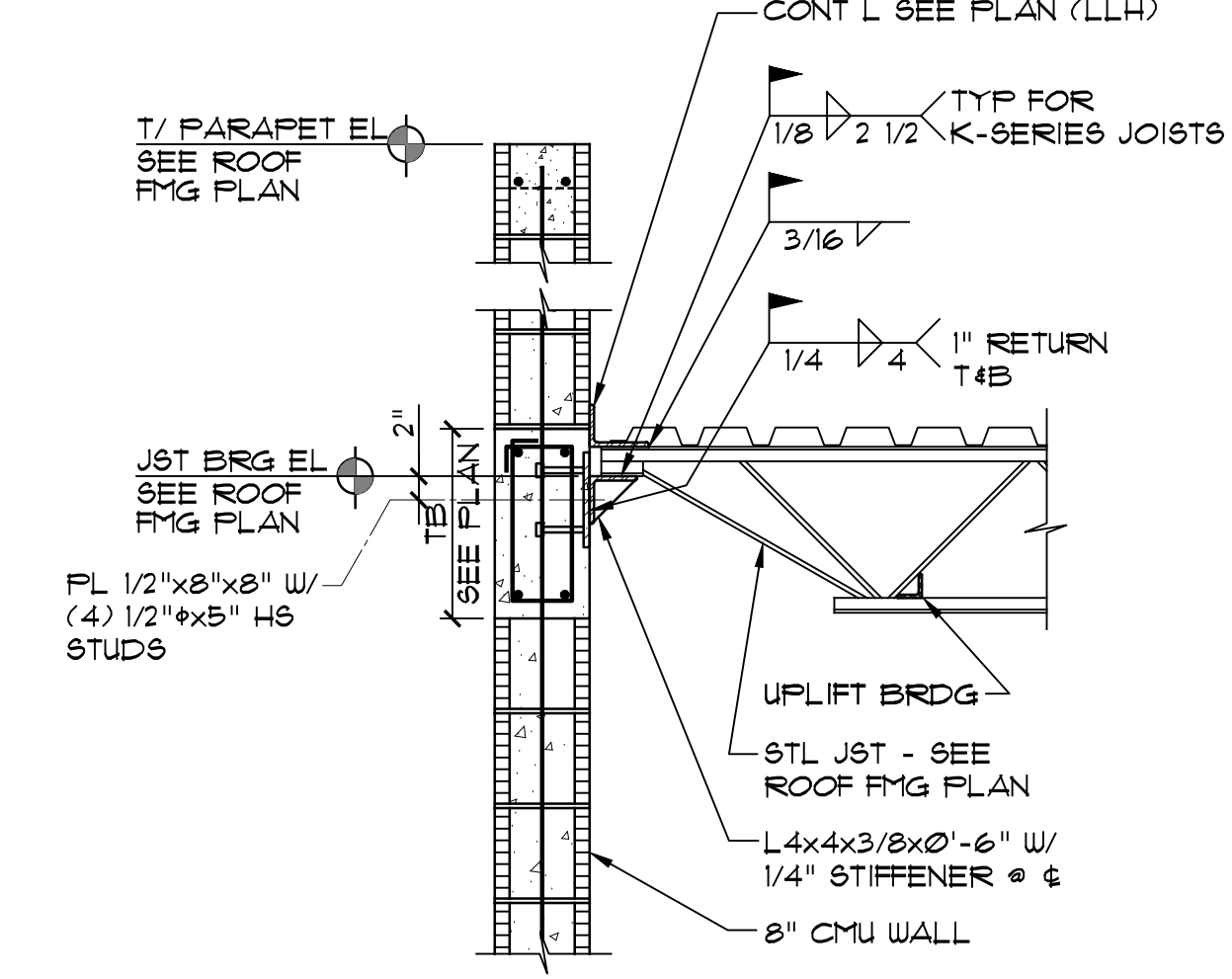
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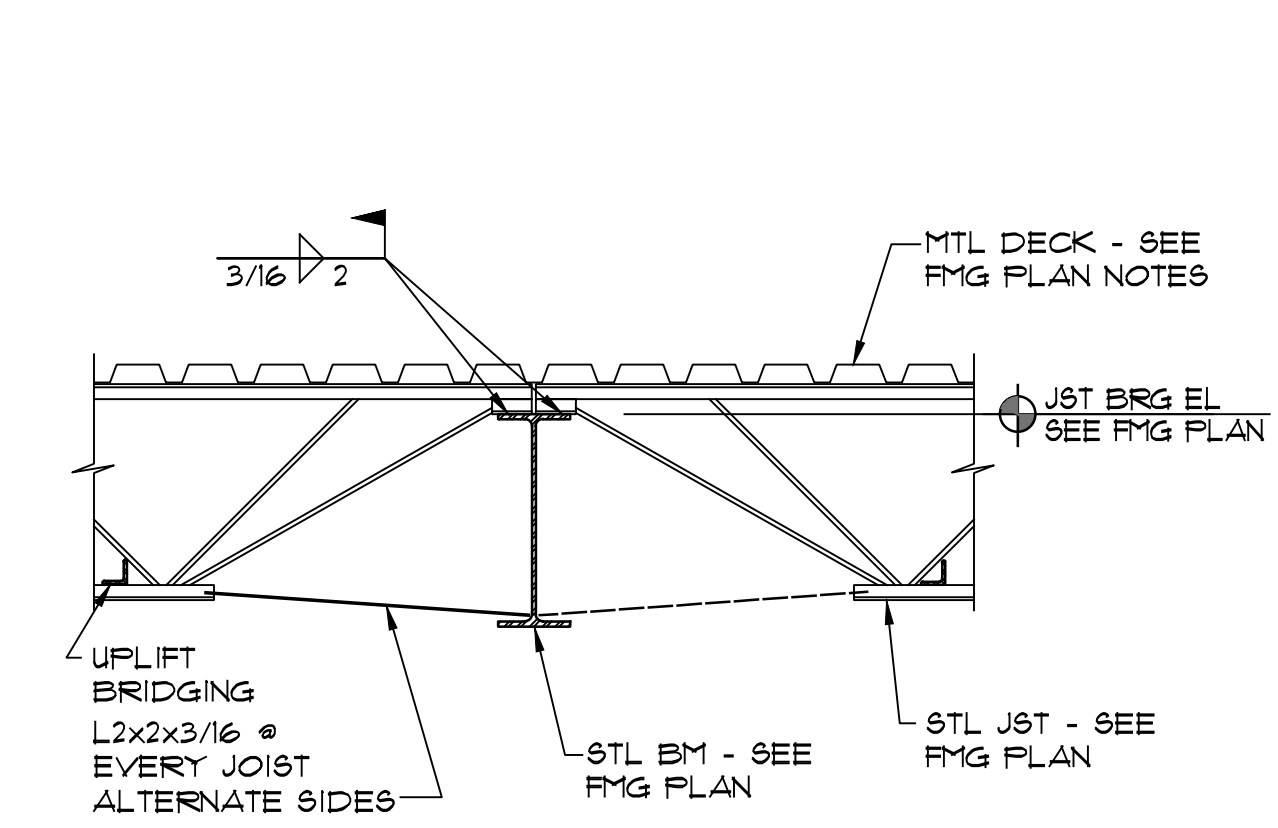
1 SECTION @ BRIDGING
S4.0



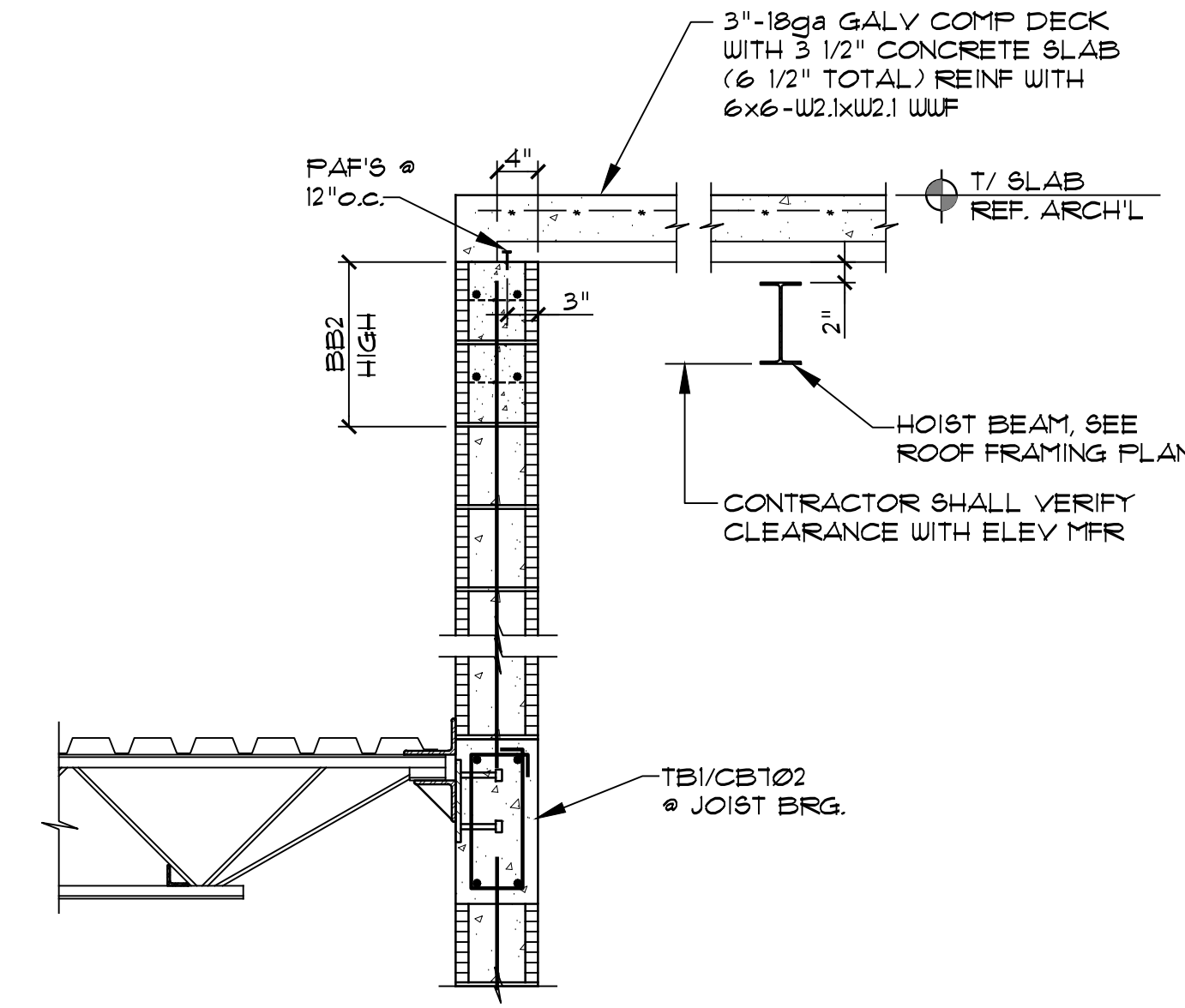
2 SECTION @ DECK BRG
S4.0



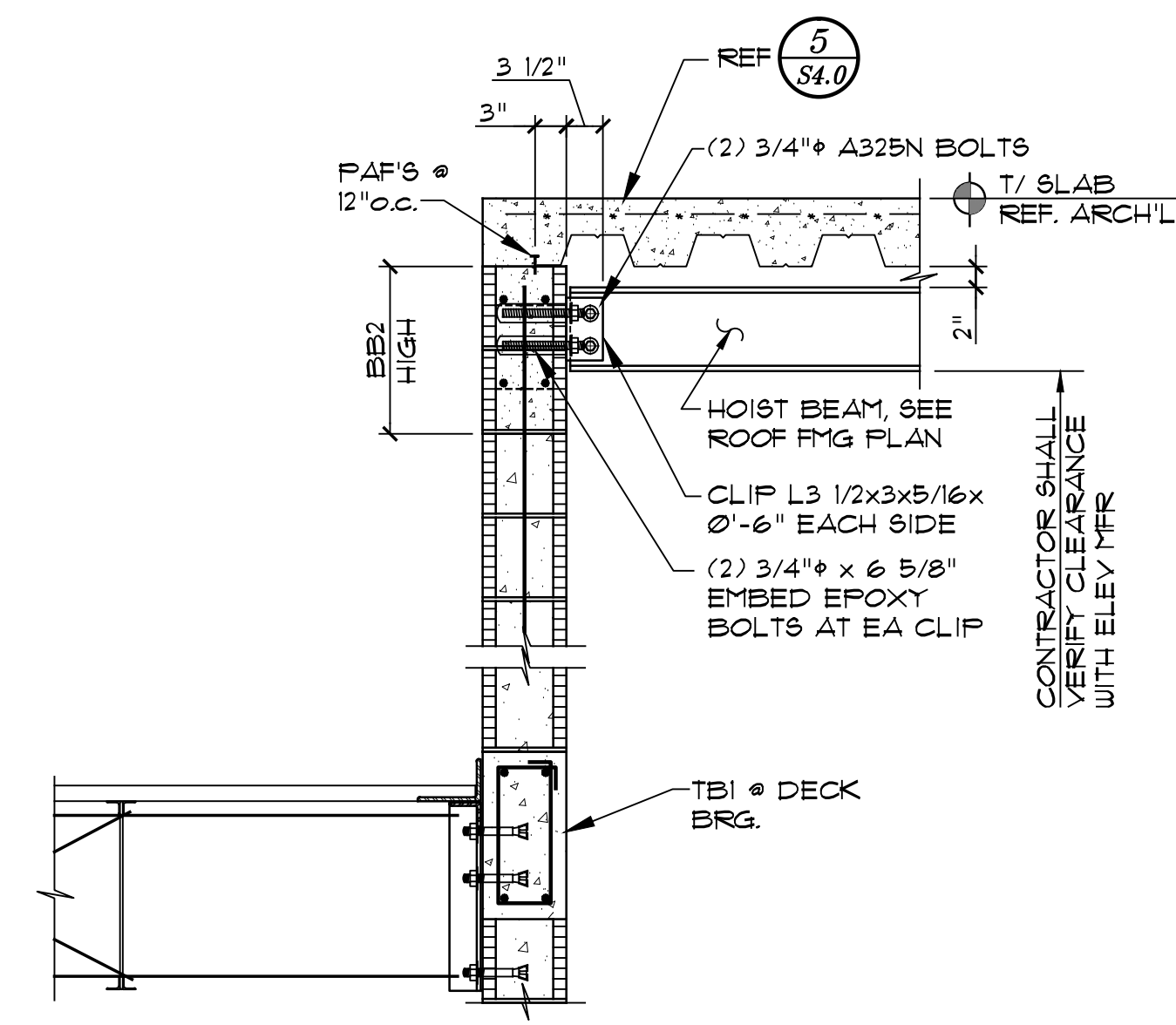
3 SECTION @ JOIST BRG
S4.0



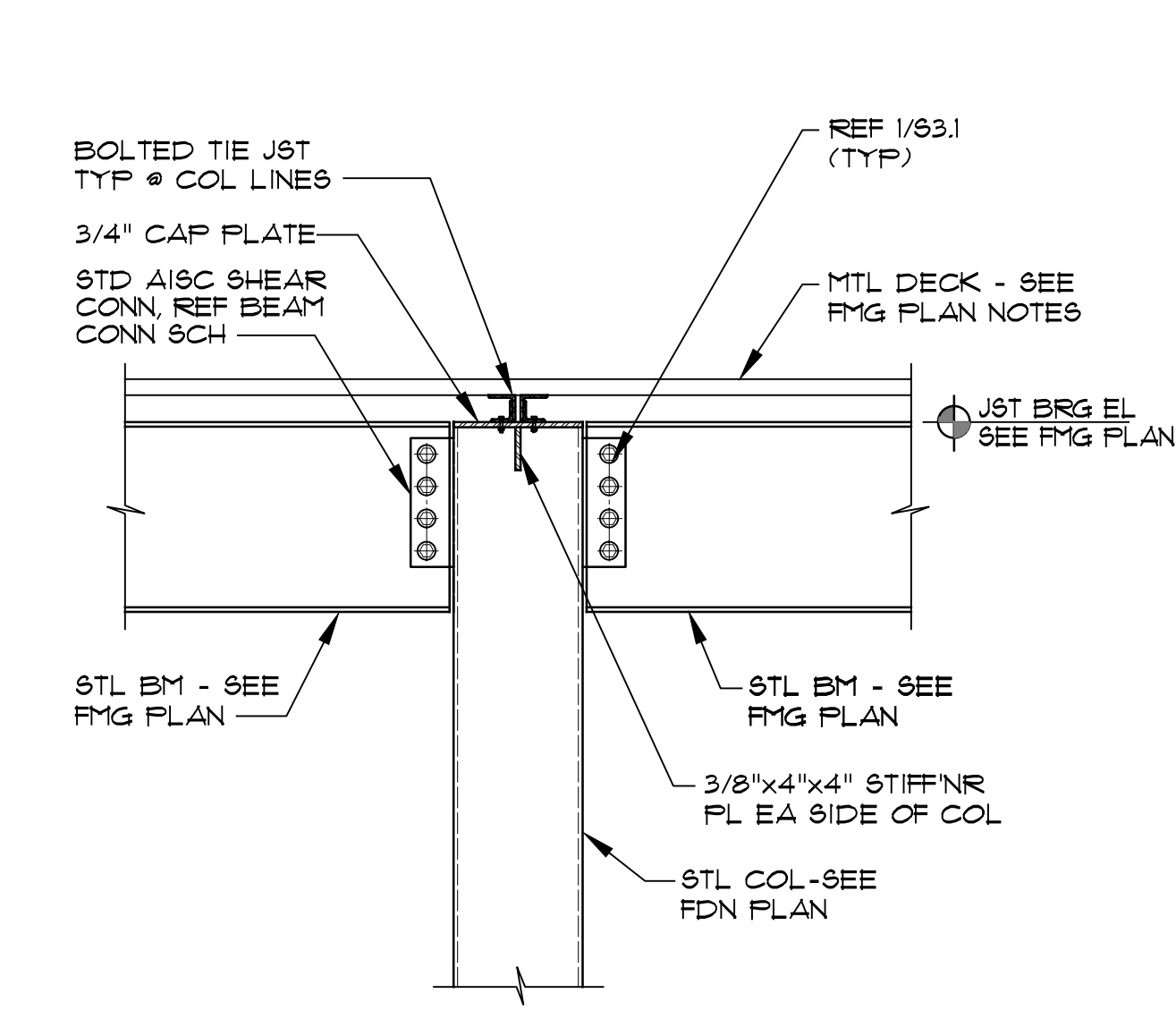
4 SECTION @ JOIST BRG
S4.0



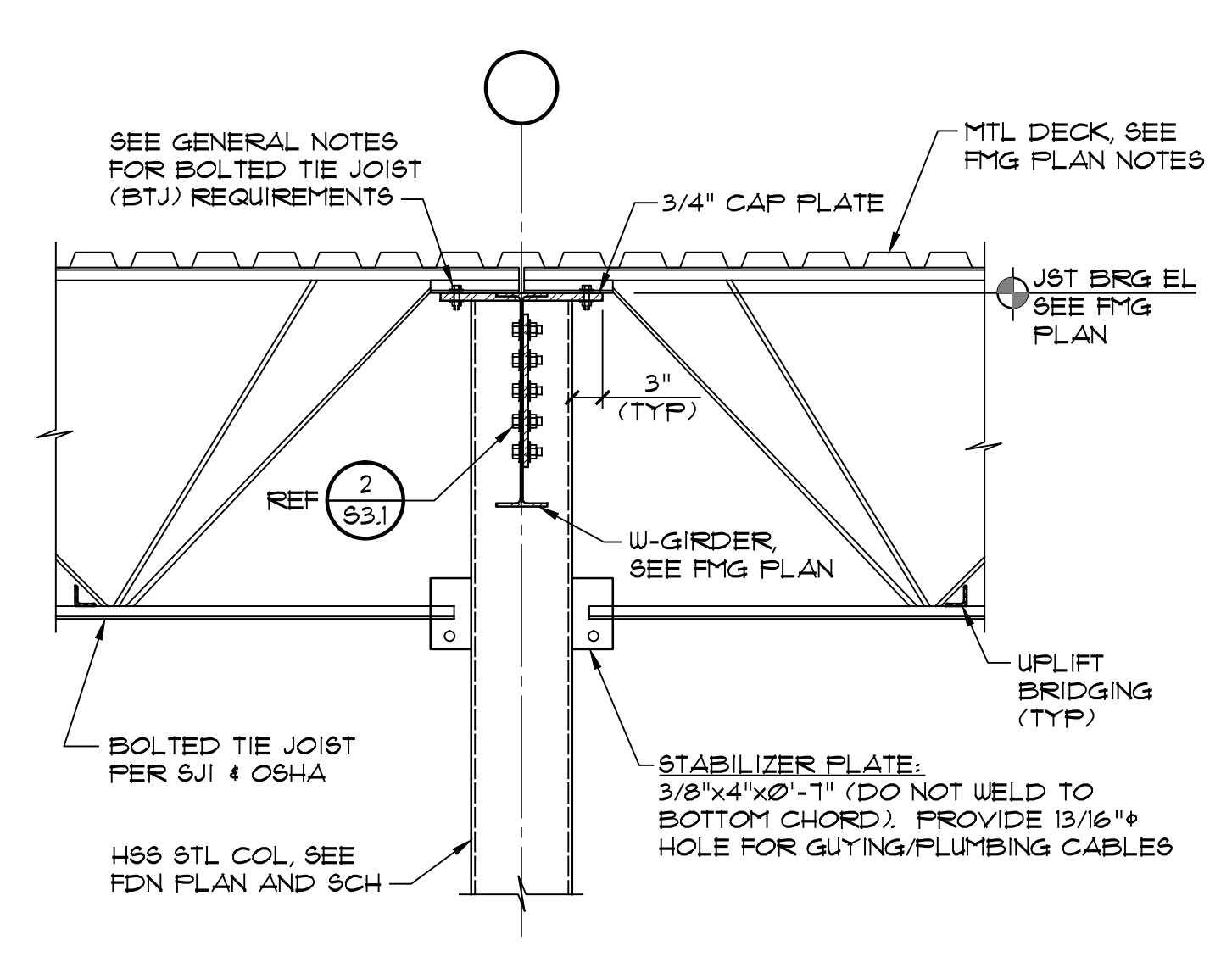
5 SECTION @ ELEVATOR SHAFT LID (DECK BRG)
S4.0



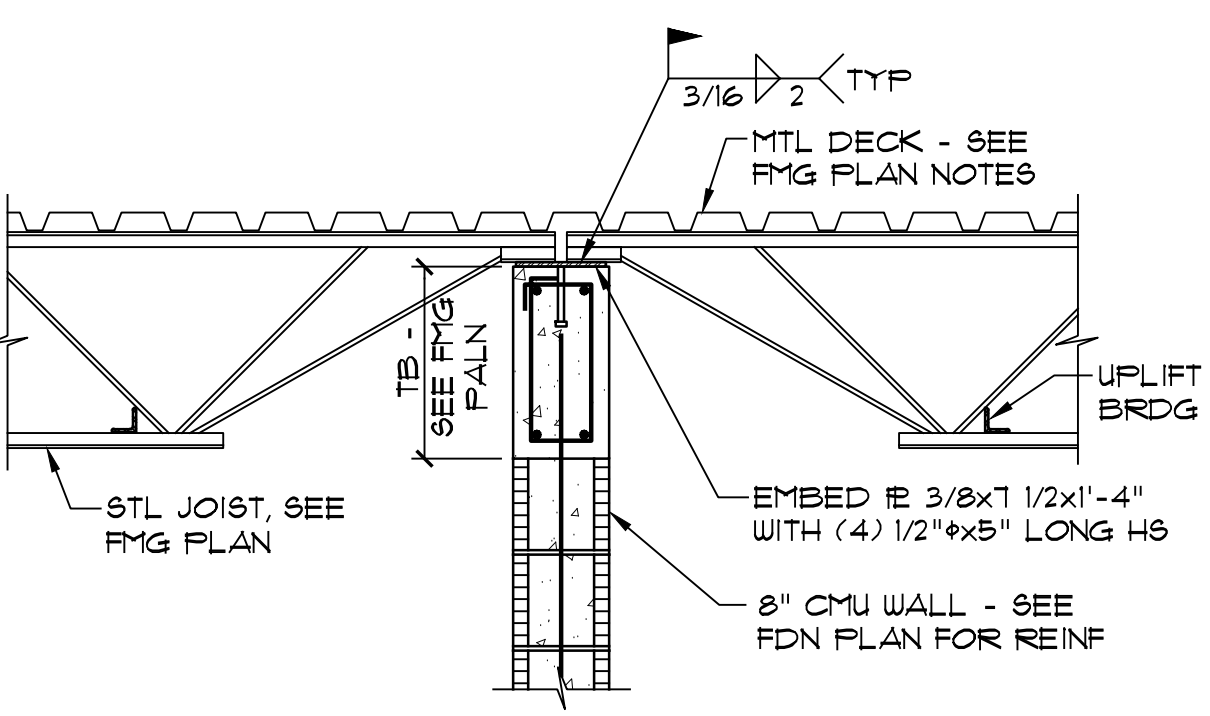
6 SECTION @ ELEVATOR SHAFT LID (SIDE OF DECK)
S4.0



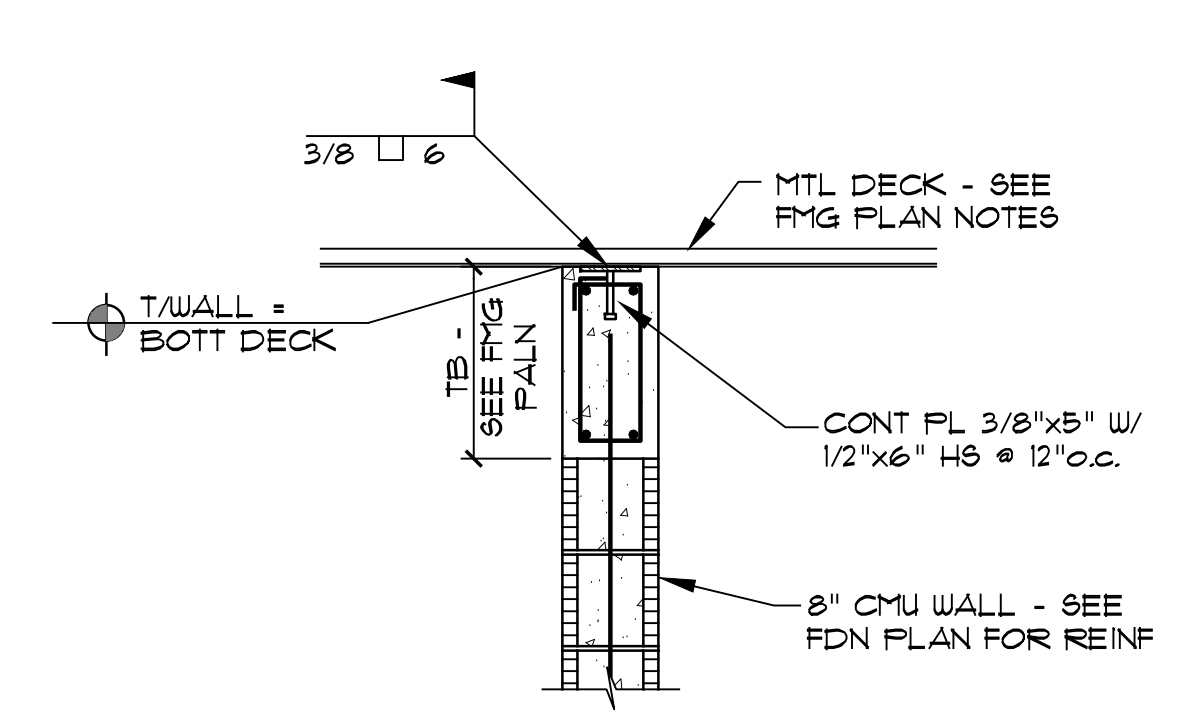
7 SECTION COL/ JST BRG
S4.0



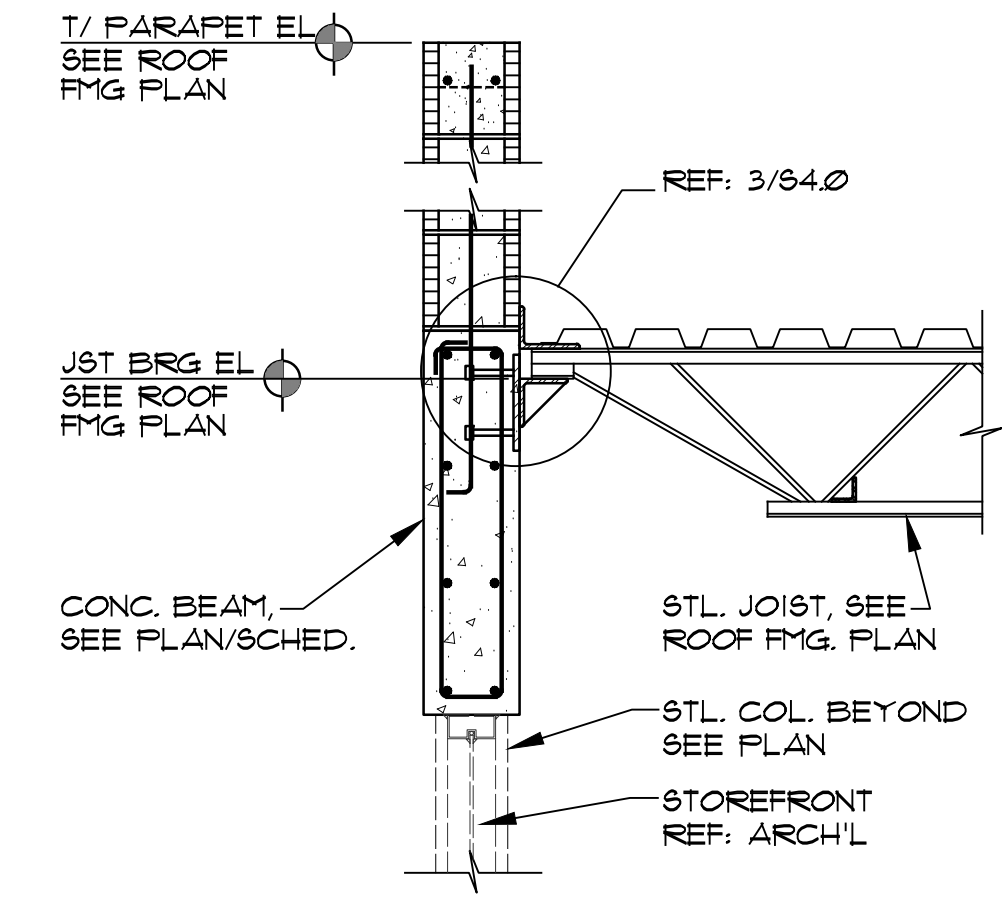
8 SECTION @ BOLTED TIE JOIST (BTJ) & HSS COL
S4.0



9 SECTION @ DOUBLE JOIST BRG
S4.0

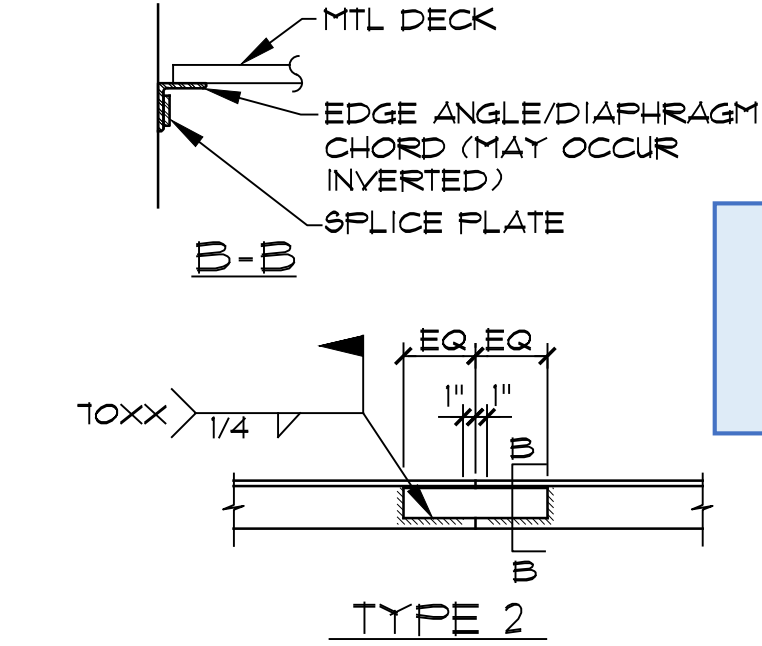


10 SECTION @ DECK BRG
S4.0



11 SECTION @ JOIST BRG
S4.0

EDGE ANGLE/DIAPHRAGM CHORD SPLICES		
ANGLE	TYPE 2 PLATE DIM	CAP (KIPS)
L 5x3x1/4 LLH	1/2x2"x1'-2"	22.0
L 5x3x5/16 LLH	1/2x2"x1'-2"	31.0



A SECT @ EDGE L/DIAPH. CHORD SPLICE DETAIL
S4.0

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GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

KENNETH R. CARLSON - ARCHITECT, P.A.

1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
FAX (954) 421 - 9928
e-mail: kenneth@krcarch.com

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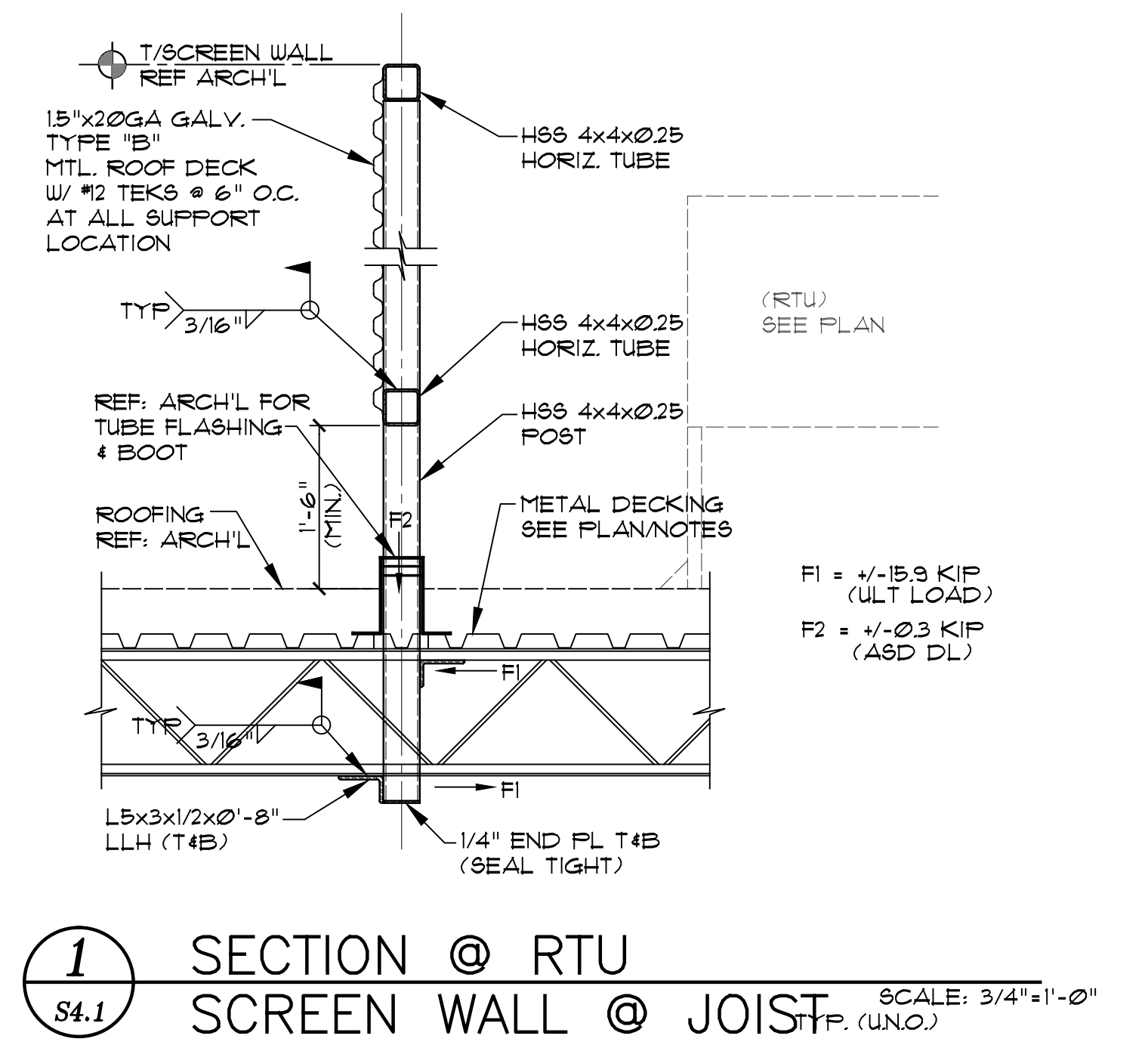
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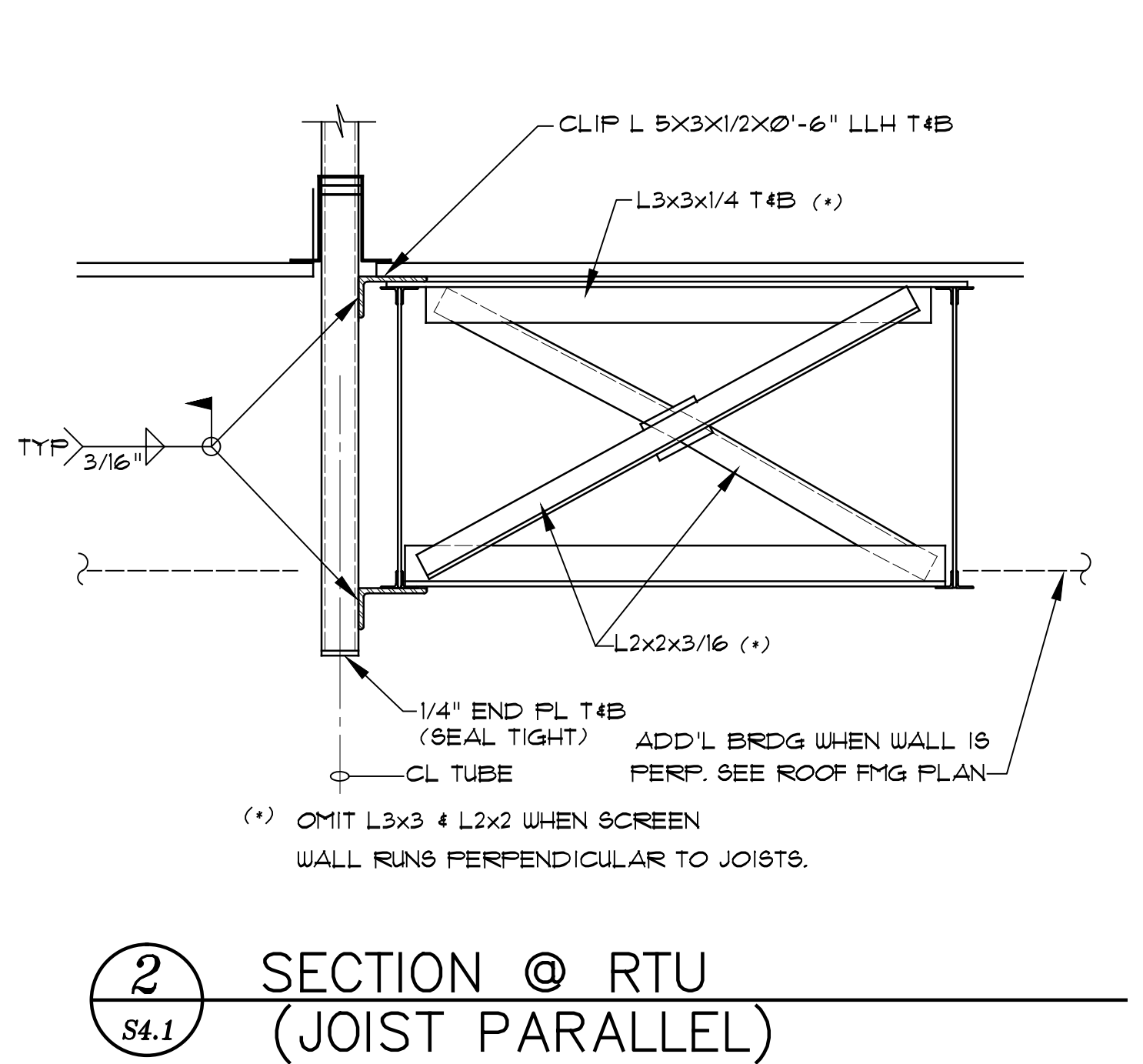
JOSE R. MIDDLEBROOKS, JR.
No. 35422
STATE OF FLORIDA
PROFESSIONAL ENGINEER

JOSE R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422

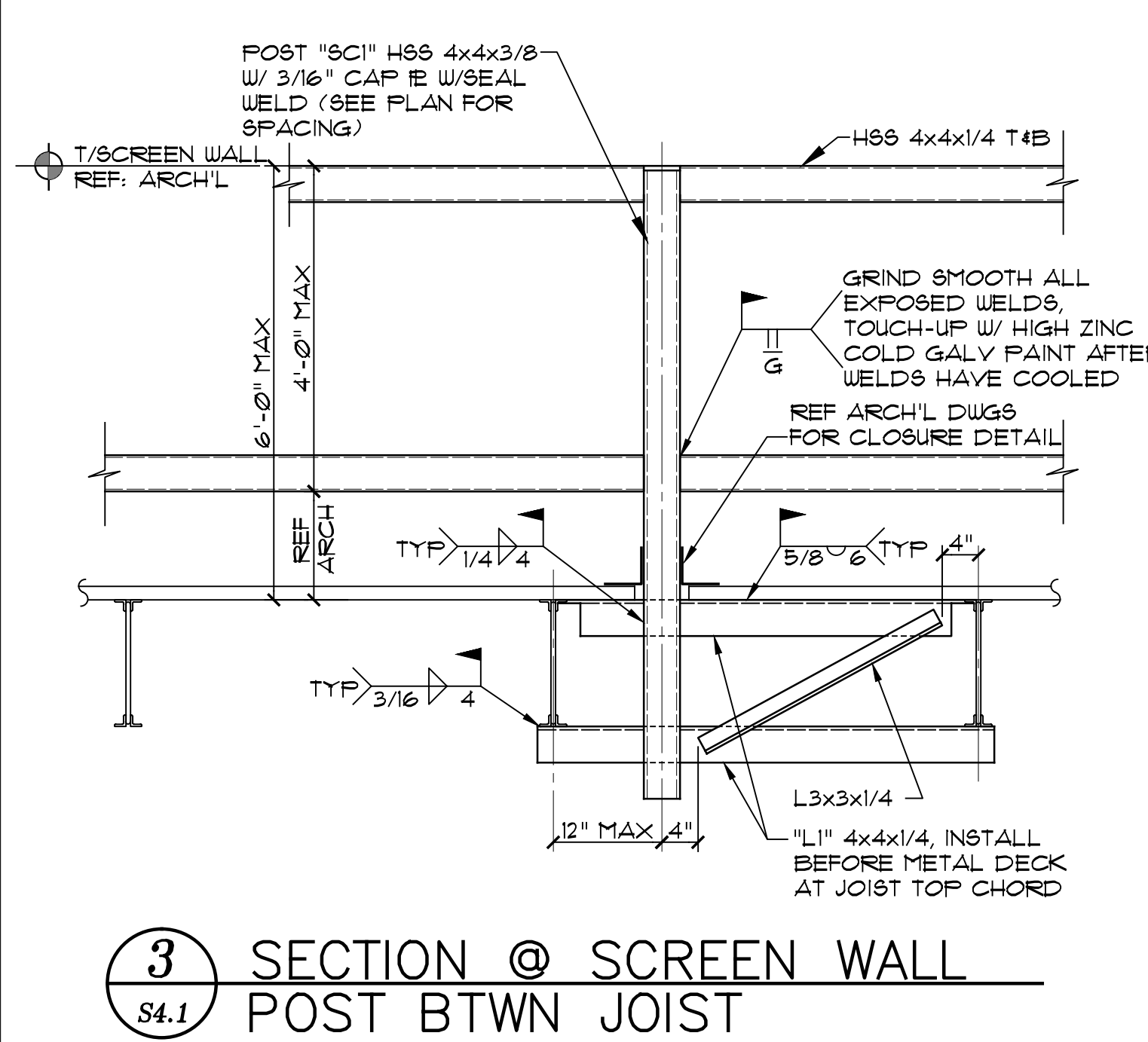
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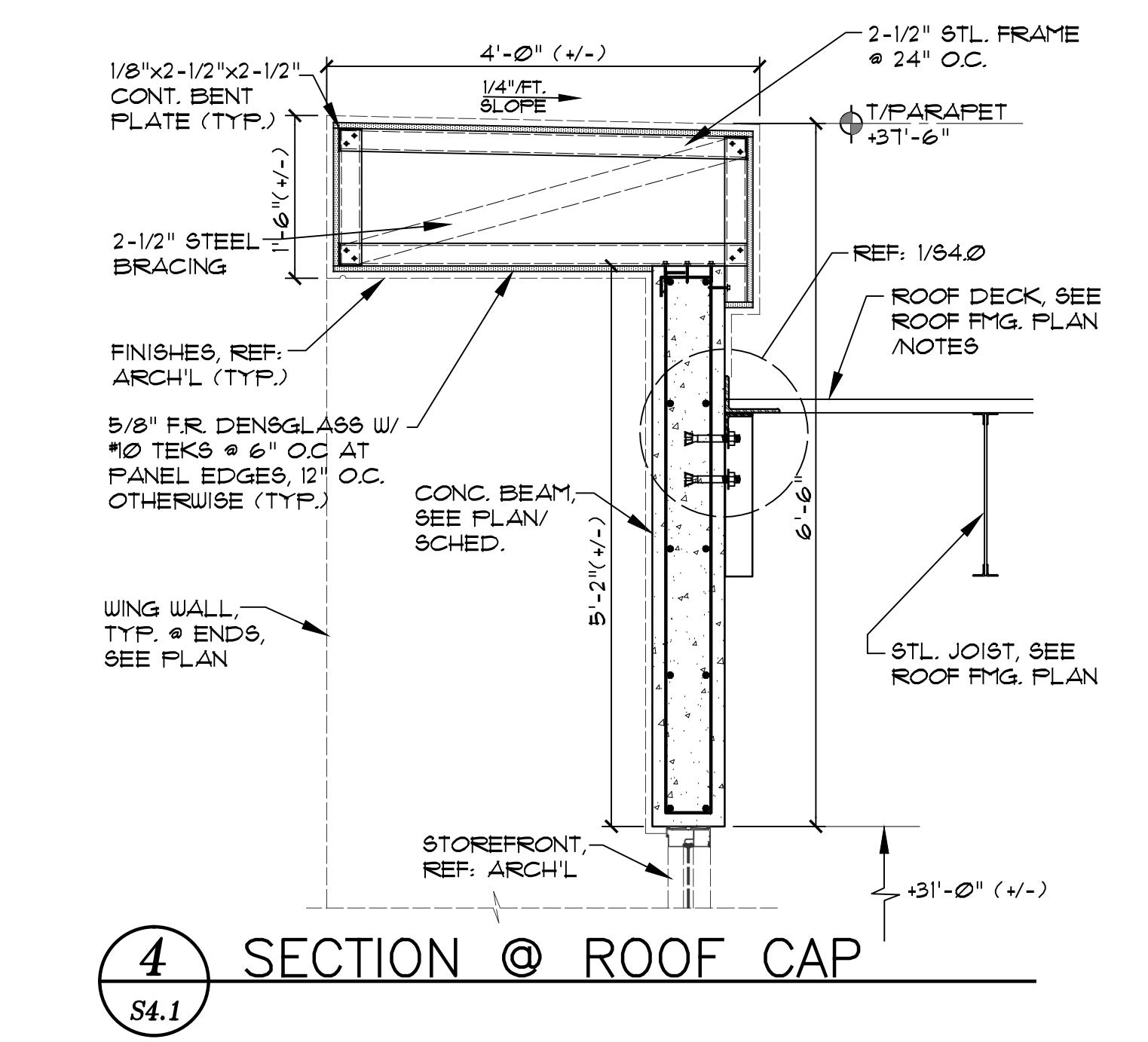
1 SECTION @ RTU
S4.1 SCREEN WALL @ JOIST
SCALE: 3/4"=1'-0"
TYP. (UNO.)



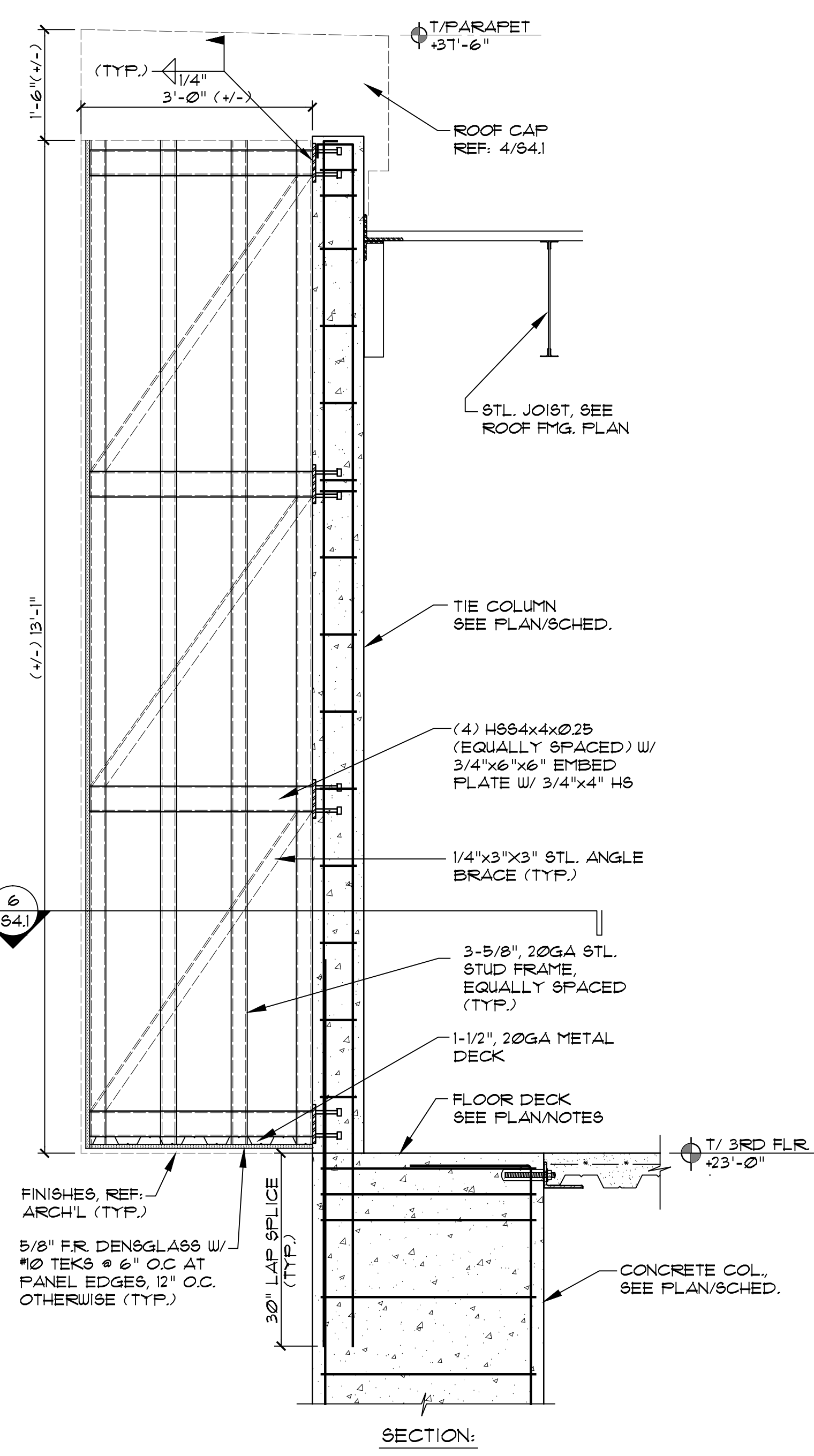
2 SECTION @ RTU
S4.1 (JOIST PARALLEL)



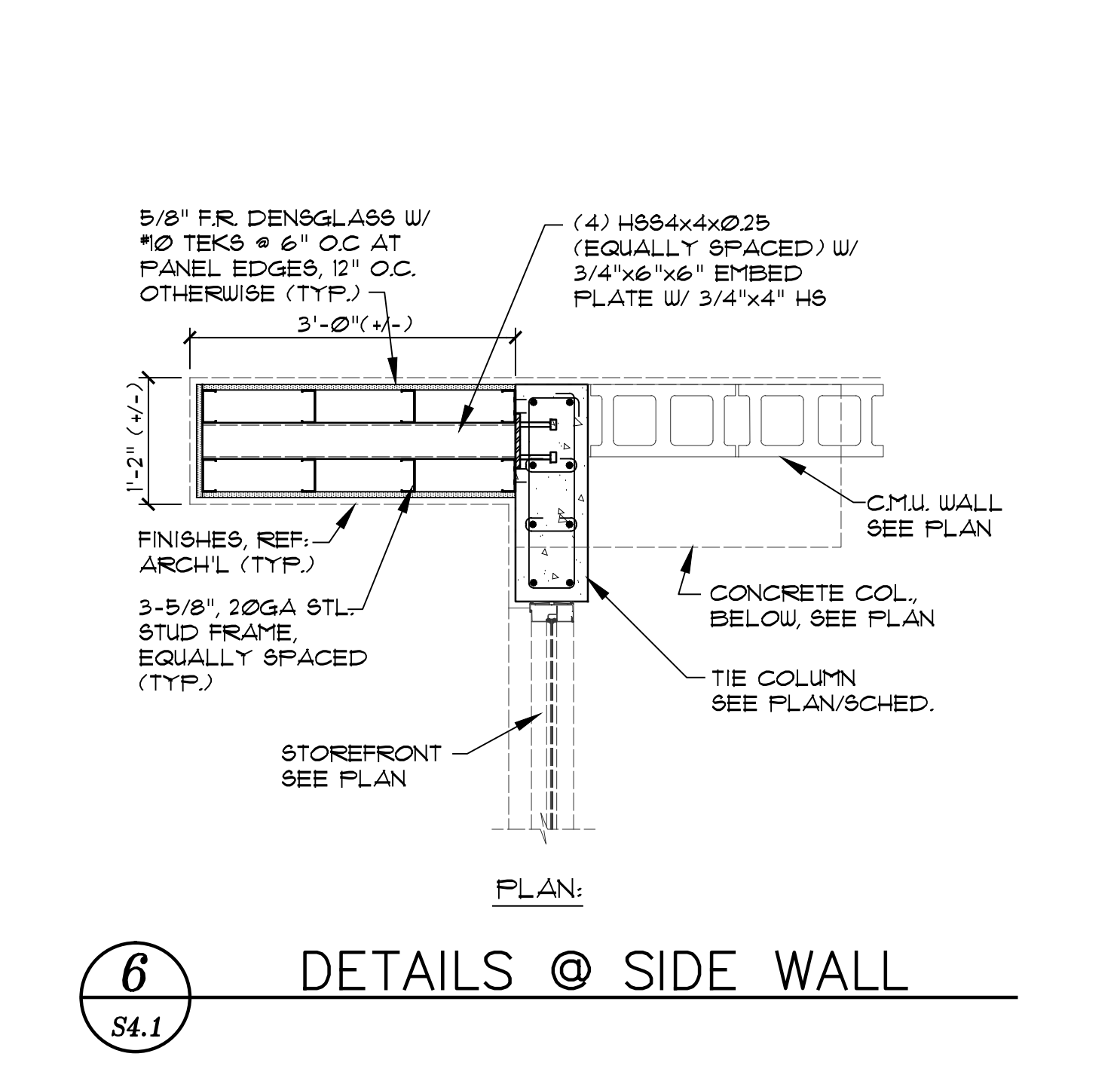
3 SECTION @ SCREEN WALL
S4.1 POST BTWN JOIST



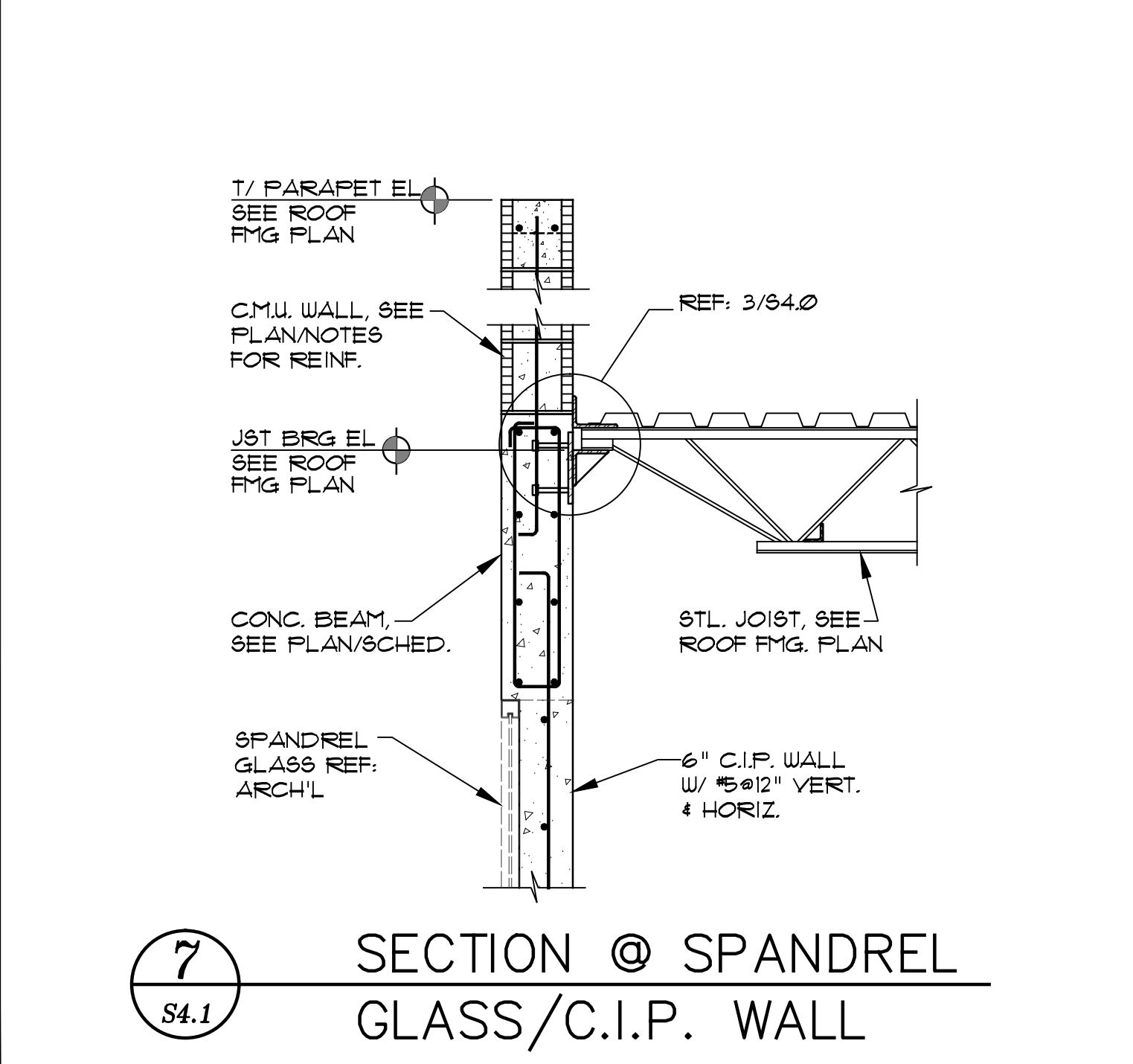
4 SECTION @ ROOF CAP
S4.1



5 DETAILS @ SIDE WALL
S4.1



6 DETAILS @ SIDE WALL
S4.1



7 SECTION @ SPANDREL
S4.1 GLASS/C.I.P. WALL



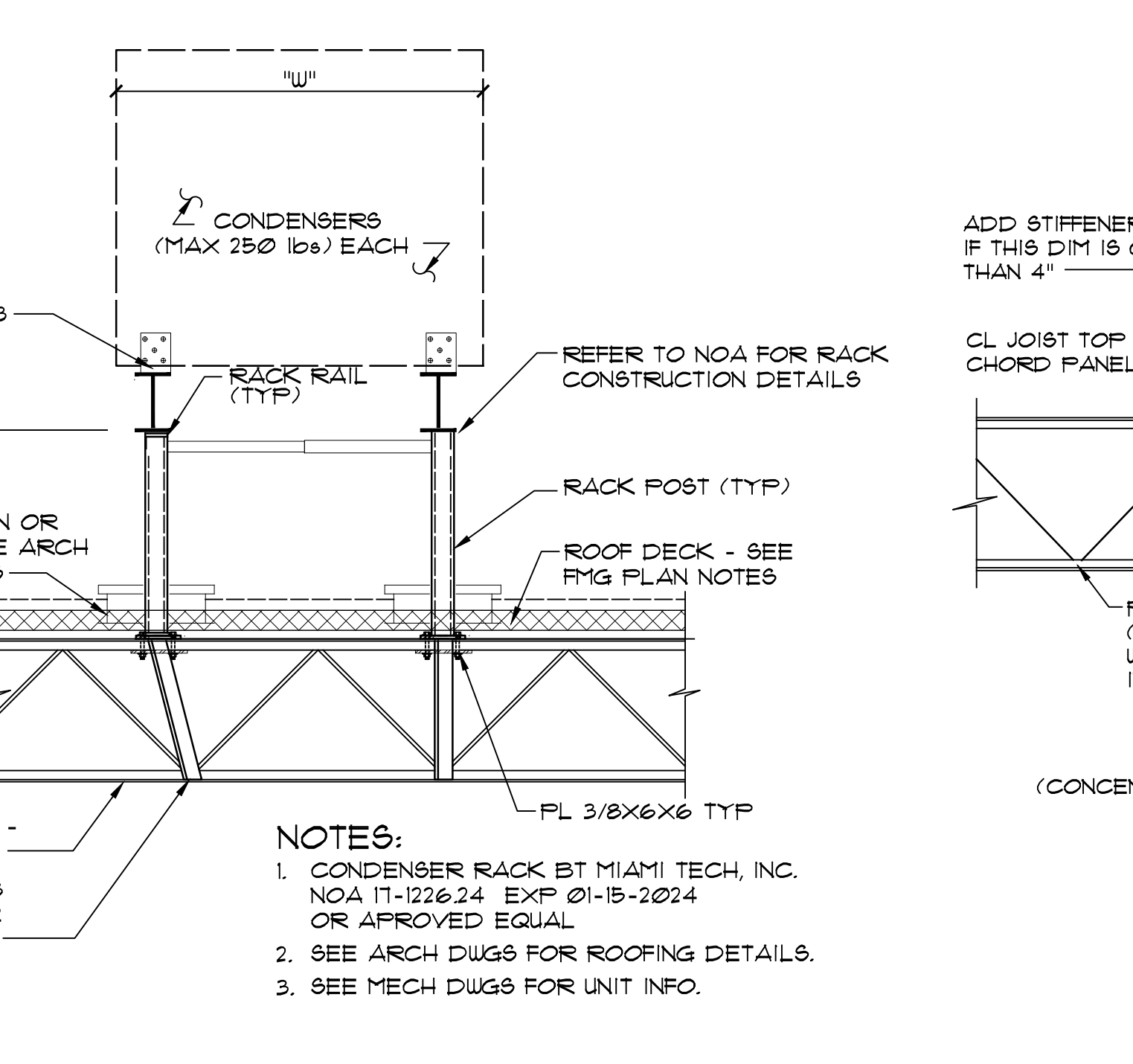
8 SECTION @ SPANDREL
S4.1 GLASS/C.I.P. WALL

ROOF MOUNTED EQUIPMENT HEIGHT REQUIREMENTS

WIDTH OF EQUI. "W" (IN)	HEIGHT OF LEGS ABOVE ROOFING "H" (IN)
UP TO 24	14
25 TO 36	18
37 TO 48	24
49 TO 60	30
61 AND WIDER	48

NOTES:

- CONDENSER RACK BT MIAMI TECH, INC. NOA 17-1226.24 EXP 01-15-2024 OR APPROVED EQUAL
- SEE ARCH DWGS FOR ROOFING DETAILS.
- SEE MECH DWGS FOR UNIT INFO.



9 TYP. SECTION @ CONDENSER
S4.1 SUPPORT FRAME

SECTION B-B (CONCENTRATED LOAD REINFORCING)

ADD STIFFENER ANGLES IF THIS DIM IS GREATER THAN 4"

CL JOIST TOP CHORD PANEL PT

CL CONCENTRATED LOAD FROM SUPPORT FRAME

TOP CHORD

WEB MEMBER

BOTTOM CHORD

PANEL POINT (WHERE DIAGONAL WEB MEMBERS INTERSECT CHORDS)

ADD L2x2x3/16 STIFFENER ANGLE IF RTU FRAME ANGLE BEARS ON JOIST FURTHER THAN 4" FROM THE NEAREST TOP CHORD PANEL POINT.

NOTES:

- CONDENSER RACK BT MIAMI TECH, INC. NOA 17-1226.24 EXP 01-15-2024 OR APPROVED EQUAL
- SEE ARCH DWGS FOR ROOFING DETAILS.
- SEE MECH DWGS FOR UNIT INFO.

10 SECTION @ CONDENSER
S4.1 SUPPORT FRAME

KENNETH R. CARLSON - ARCHITECT, P.A.

1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL 33442
P.H. (954) 421 - 8848
e-mail: kenneth@karlson.com

GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

BBM STRUCTURAL

399 W. Palmetto Park Rd
Suite 200
Boca Raton, FL 33432
p 561-750-1916
e 561-750-1916
BBM PROJECT # 2423

REVIEWED FOR CODE COMPLIANCE

TOWN OF GLEN RIDGE

APPROVED BY JOSE RODRIGUEZ

PX-3697

STATE OF FLORIDA

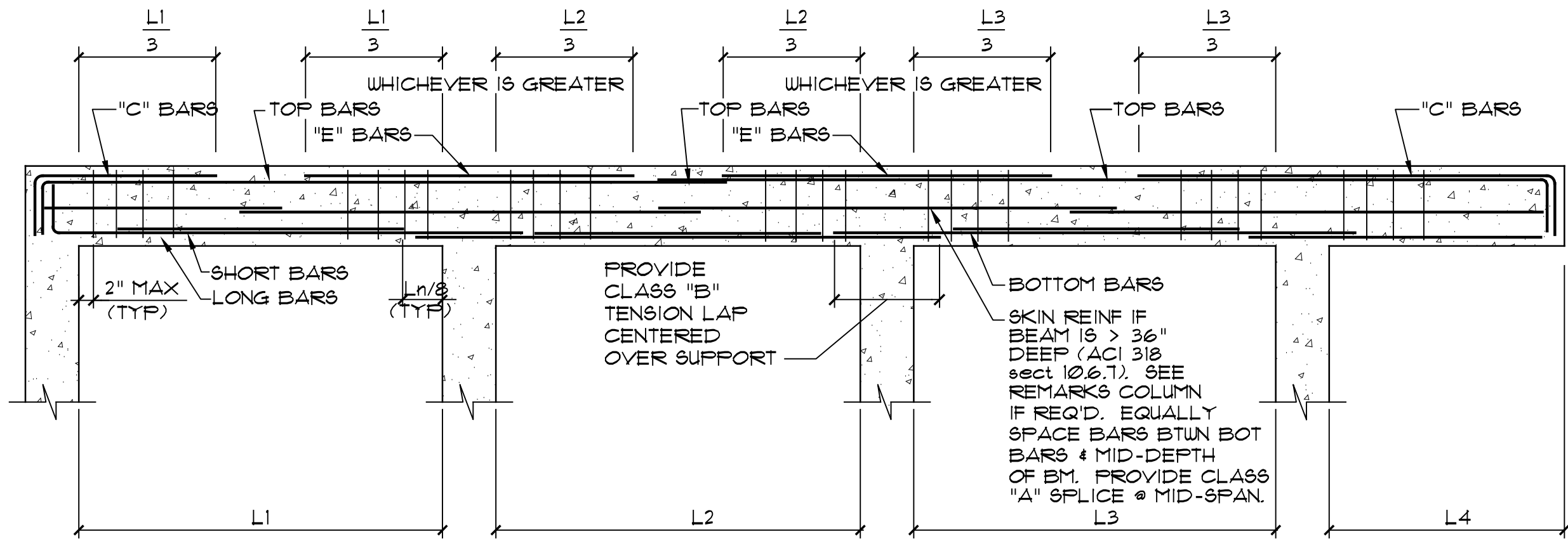
PROFESSIONAL ENGINEER

No. 35422

JOSE R. RODRIGUEZ, P.E.

Florida Professional Engineer No. 35422

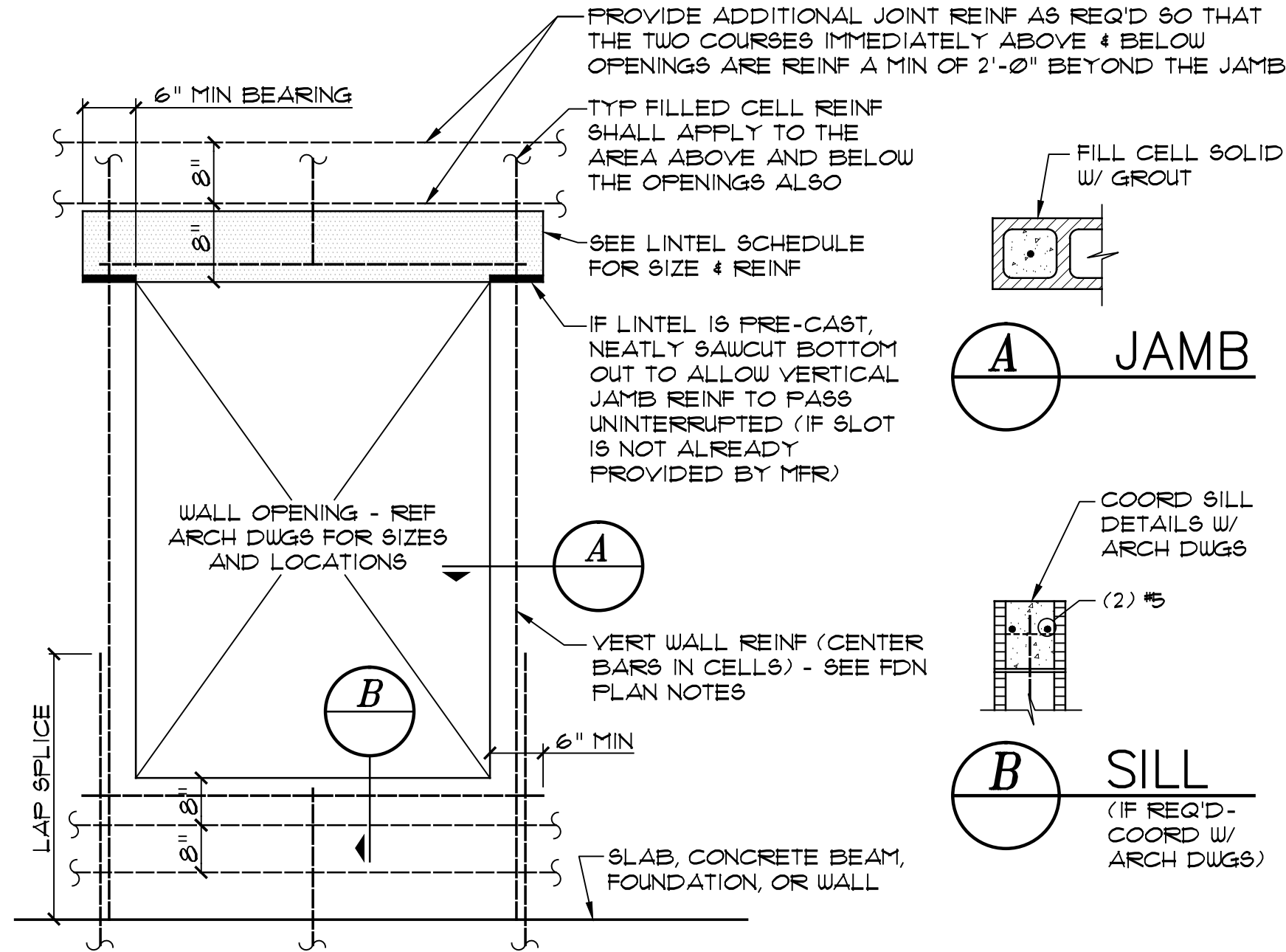
S4.1



- "C" - ADDITIONAL TOP BARS AT DISCONTINUOUS ENDS
 "E" - ADDITIONAL TOP BARS AT INTERIOR SUPPORTS
 "TOP BARS" - EXTEND TO ADJACENT SPAN, AS SHOWN
- NOTES:
 1. "E" BARS AS SCHEDULED ALWAYS REFER TO THE RIGHT END OF THE SCHEDULED BEAM.
 2. PLACEMENT OF REINF TO BE PER ACI 318.

CONCRETE BEAM SCHEDULE

BEAM NO.	ELEV. TOP OF BEAM	SIZE (W' x D')	REINFORCING						STIRRUPS		REMARKS
			BOTTOM		TOP	MID*	*C*	*E*	SIZE	SPACING EA END	
			LONG	SHORT							
CB201	+12'-0"	8"x24"	(2) #3	(2) #3			(2) #3		#3	@7"	
CB202	+11'-6 1/2"	8"x24"	(2) #3	(2) #3	(2) #3	(2) #6	(2) #3		#4	@9"	
CB203	+12'-0"	8"x24"	(2) #3	(2) #3		(2) #6	(2) #3		#3	@10"	
CB204	VARIABLES	18"x18 1/2"	(4) #5	(2) #3	(4) #5		(3) #5		#4	@8"	
CB205	+16'-0"	8"x48"	(2) #3	(2) #3	(2) #3		(4) #3	(2) #3	#3	@11"	
CB206	+15'-5 1/2"	18"x18 1/2"	(3) #6		(3) #6		(3) #6		#4	@8"	
CB207	+11'-6 1/2"	8"x24"	(2) #3		(2) #3		(2) #3		#3	@9"	
CB208	+11'-6 1/2"	12"x18 1/2"	(3) #6		(2) #3	(2) #6	(2) #3	(2) #3	#4	@8"	
CB209	+12'-0"	8"x48"	(2) #3		(2) #3	(2) #6	(2) #3		#3	@16"	
CBR01	+/-36'-2"	8"x62"	(2) #3		(2) #3	(2) #6	(2) #3		#3	@15"	
CBR02	+33'-1"	8"x32"	(2) #3		(2) #3		(2) #3		#3	@15"	
TB1	FLR. LEV. (UNO.)	8"x16"	(2) #5		(2) #5				#3	@10"	
TB2	FLR. LEV. (UNO.)	8"x24"	(2) #5		(2) #5				#3	@10"	



TYPICAL MASONRY WALL OPENING ELEVATION

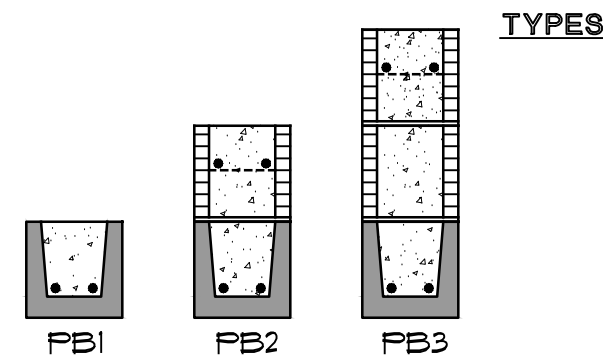
CMU WALL REINFORCING SCHEDULE

MARK		REINFORCING	REMARKS
1	8"	#5 @ 32" O.C.	LEVELS 1-3

NOTE:

LINTEL SCHEDULE (8" OR 12" CMU)

TYPE	HEIGHT	REINFORCING	MAX CLEAR SPAN	MIN CAPACITY (NOTE 1)
PB1	8x8	(2) #5 CONT	UP TO 6'-0"	1150 PLF
PB2	8x16	(2) #5 CONT T4B	UP TO 10'-0"	1450 PLF
PB3	8x24	(2) #5 CONT T4B	UP TO 14'-0"	1600 PLF



- NOTE:
 1. "MIN CAPACITY" MUST BE VERIFIED FOR EACH TYPE OF BEAM BASED ON THE MAX SPAN BY THE PRECAST MANUFACTURER AND DOCUMENTATION PROVIDED IN THE SUBMITTALS.

GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

KENNETH R. CARLSON - ARCHITECT, P.A.

1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848 FAX (954) 421 - 9929
e-mail: kenscarlson@aol.com

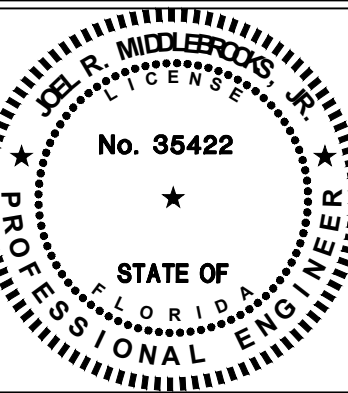
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CADD FILE:

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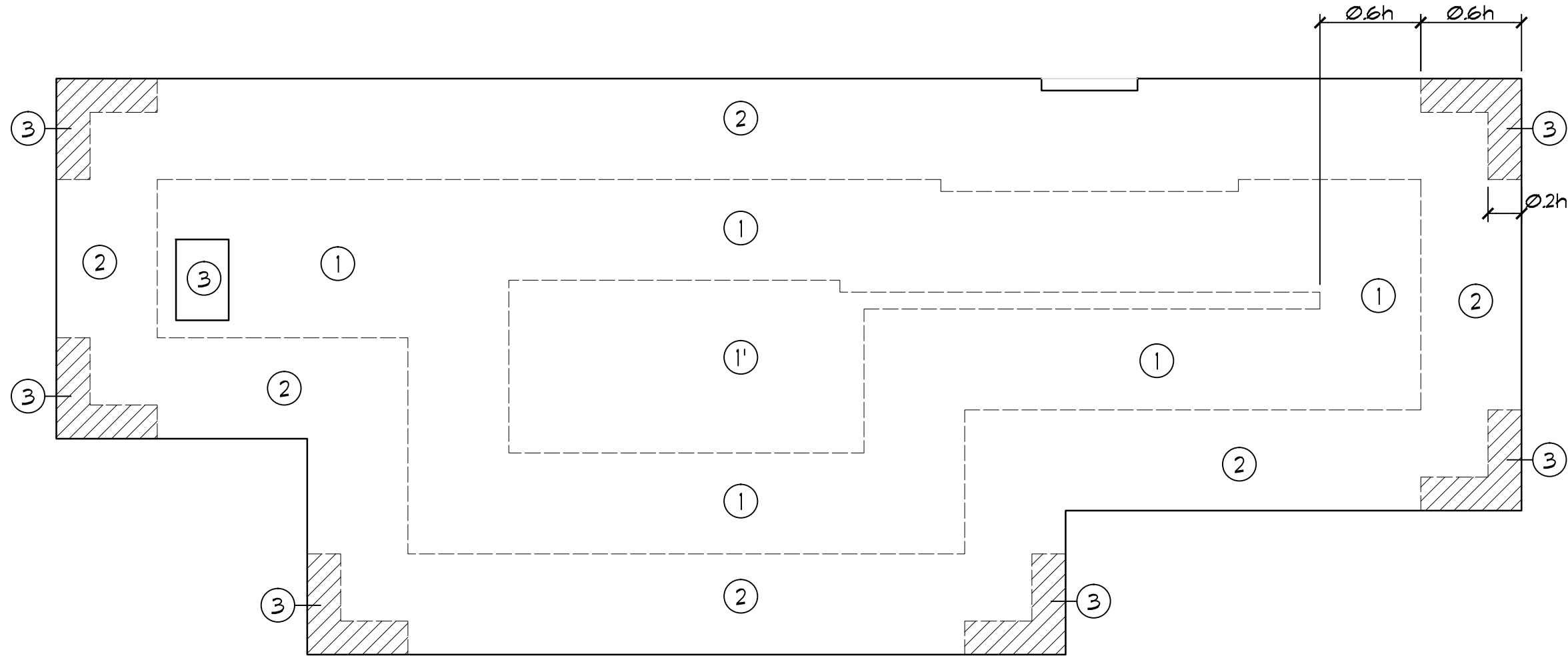


JOEL R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422



REVIEWED FOR CODE COMPLIANCE
TOWN OF GLEN RIDGE
APPROVED BY JOSE RODRIGUEZ
PX-3697

S5.0



ROOF UPLIFT PLAN

- NOTES:
1. A (Kd) OF 0.85 HAS BEEN USED IN THE DEVELOPMENT OF THESE VALUES. THE USE OF THESE VALUES SHALL ONLY BE APPLIED WHEN USED IN CONJUNCTION WITH LOAD COMBINATIONS SPECIFIED IN SECTIONS 2.3 & 2.4 OF ASCE 7-22.
 2. PRESSURES AND SUCTIONS ON SOFFITS SHALL BE THE SAME AS CORRESPONDING WALL ZONES 4 & 5.
 3. THE "ULTIMATE" WIND LOADS SHOWN IN THE COMPONENTS AND CLADDING SCHEDULE SHALL BE MULTIPLIED BY 0.6 TO REDUCE THEM DOWN TO "SERVICE" LEVEL FOR ALL TESTED ASSEMBLIES, INCLUDING BUT NOT LIMITED TO DOORS, WINDOWS AND ROOF ASSEMBLIES.
 4. DEAD LOAD OF 8 PSF SHALL BE USED TO CONVERT GROSS UPLIFT TO NET UPLIFT FOR OPEN-WEB JOIST DESIGN.
 5. 0.2h = 7.0 ft.
0.6h = 21.0 ft.

LATERAL DESIGN CRITERIA

WIND VELOCITY: 170 MPH
RISK CATEGORY: II
EXPOSURE CATEGORY: C
INTERNAL PRESSURE COEFFICIENT: +/- 0.18

ROOF TOP EQUIPMENT

ULT (PSF)		ASD (PSF)	
UPLIFT	99.7	UPLIFT	75.8
HORIZ.	126.3	HORIZ.	75.8

ASCE 7-22 GROSS UPLIFT DESIGN PRESSURES (ULT)

FOR MONOSLOPE ROOFS WITH ROOF SLOPE 0 < ϕ $\leq$ 3 (MRH $\leq$ 60°) (ϕ = ROOF SLOPE)

EFFECTIVE WIND AREA (SQ FEET)	GROSS UPLIFT PRESSURE (PSF)			
	①	①'	②	③
10	-119.6 +30.5	-68.7 +30.5	-157.8 +30.5	-215.1 +18.3
100	-93.4 +24.2	-68.7 +24.2	-124.1 +24.2	-147.7 +24.2
200	-85.5 +24.2	-59.1 +24.2	-114.0 +24.2	-127.4 +24.2
500	-75.1 +24.2	-46.5 +24.2	-100.5 +24.2	-100.5 +24.2
1000	-75.1 +24.2	-36.9 +24.2	-100.5 +24.2	-100.5 +24.2

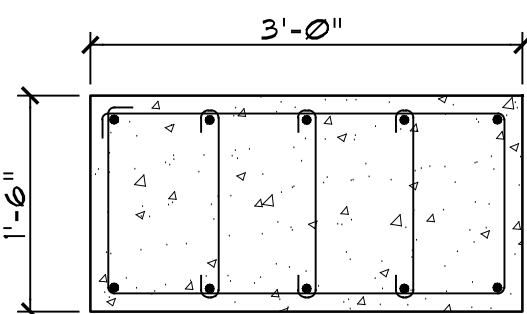
ASCE 7-22 GROSS UPLIFT DESIGN PRESSURES (ASD)

FOR MONOSLOPE ROOFS WITH ROOF SLOPE 0 < ϕ $\leq$ 3 (MRH $\leq$ 60°) (ϕ = ROOF SLOPE)

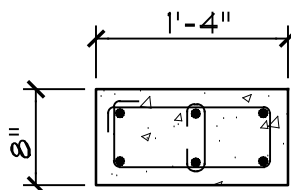
EFFECTIVE WIND AREA (SQ FEET)	GROSS UPLIFT PRESSURE (PSF)			
	①	①'	②	③
10	-71.8 +18.3	-41.2 +18.3	-94.7 +18.3	-129.0 +18.3
100	-56.0 +14.5	-41.2 +14.5	-74.5 +14.5	-98.6 +14.5
200	-51.3 +14.5	-35.5 +14.5	-68.4 +14.5	-76.4 +14.5
500	-45.1 +14.5	-27.9 +14.5	-60.3 +14.5	-60.3 +14.5
1000	-45.1 +14.5	-22.1 +14.5	-60.3 +14.5	-60.3 +14.5

CONCRETE COLUMN SCHEDULE

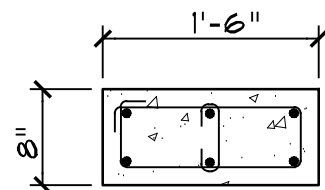
MARK	TYPE	NOMINAL SIZE (W"xD")	REINFORCING	COMMENTS
CC1	1	18x36	(10) #8, #4 @ 10"	ANGLED COL., REF: 1/S2.1
TC1	2	8x16	(6) #6 VERT W/ #3 TIES @ 8" o.c.	
TC2	3	8x18	(6) #6 VERT W/ #3 TIES @ 8" o.c.	
TC3	4	8x24	(8) #6 VERT W/ #3 TIES @ 8" o.c.	



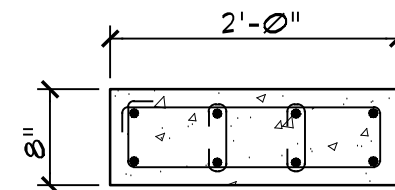
TYPE-1



TYPE-2



TYPE-3



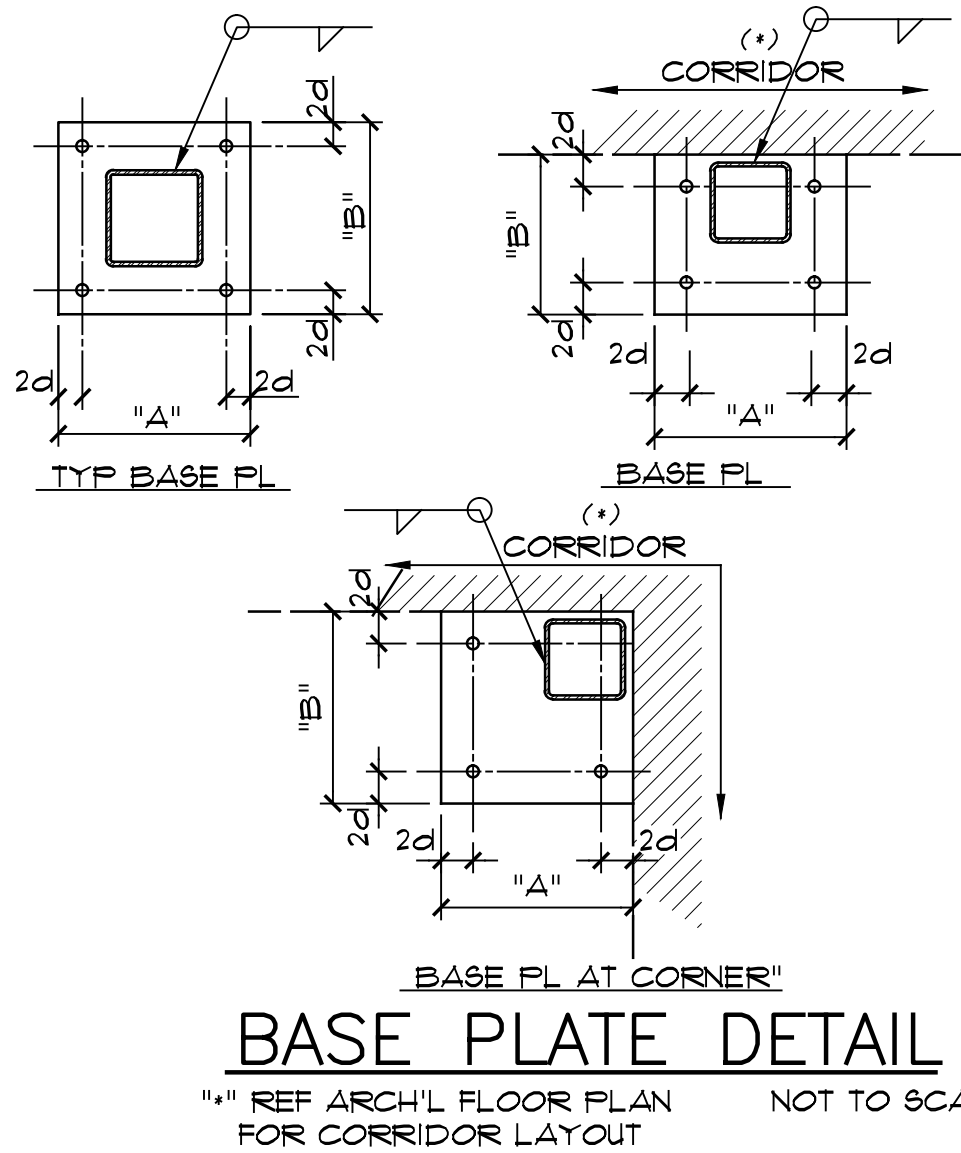
TYPE-4

- NOTES:
1. ANCHOR BOLTS SHALL BE ASTM A36 (UNO) THREADED EA END W/ NUT AT BOTTOM, TACK-WELDED SECURE. PLATE WASHER AT BOTTOM NUT IS NOT REQD. CONFORM TO CHART AT RIGHT FOR EMBEDMENT UNLESS NOTED OTHERWISE IN SCHEDULE ABOVE.
 2. MAX EMBEDMENT "E" = (FTG THICKNESS) - 5".
 3. PLATE WASHERS SHALL HAVE HOLE W/ DIAMETER EQUAL TO BOLT DIAMETER + 1/16".

BOLT TYPE, TYPE MATL.	MIN EMBEDDED LENGTH	MIN EMBEDDED EDGE DISTANCE
A307, A36	12d	5d > 4"
A325, A449	17d	7d > 4"

OVERSIZE HOLES AND PLATE WASHERS FOR BASE PLATES

BOLT DIAMETER	HOLE DIAMETER	PLATE WASHER	BOLT DIAMETER	HOLE DIAMETER	PLATE WASHER
3/4"	1 5/16"	5/16"x3"x3"	1 1/2"	2 5/16"	7/16"x5"x5"
7/8"	1 9/16"	5/16"x3"x3"	1 3/4"	2 3/4"	7/16"x5"x5"
1"	1 13/16"	3/8"x4"x4"	2"	3 1/4"	1/2"x6"x6"
1 1/4"	2 1/16"	3/8"x4"x4"	2 1/2"	3 3/4"	1/2"x6"x6"



STEEL COLUMN SCHEDULE

MARK	SIZE (L x W x D)	REINFORCING	REMARKS
ROOF			
3RD FLR			
2nd FLOOR			
LEVEL-1			
BASE PLATE (TXXB)	3/4"x14"x14"	3/4"x14"x14"	
ANCHOR BOLT	(4) 3/4"x4" LD4	(4) 3/4"x4" LD4	
COL MK	C1	C2	

- NOTES:
1. LD4: LARGE DIAMETER THREADED ANCHOR
 2. *SEE PLAN FOR COLUMNS IN SLAB RECESS NOTED AS "(R)"

FOUNDATION SCHEDULE

MARK	SIZE (L x W x D)	REINFORCING	REMARKS
WF20	CONT x 2'-0" x 1'-0"	(3) #5 CONT x #5 @ 48" TRANS, BOT	WALL FOOTING
WF30	CONT x 3'-0" x 1'-0"	(3) #5 CONT x #5 @ 24" TRANS, BOT	WALL FOOTING
F80X100	8'-0" x 10'-0" x 1'-7"	#1012" EA WAY, BOTT	PAD FOOTING
F130X196	13'-0" x 19'-6" x 2'-0"	#5012" EA WAY TOP & BOTT	PAD FOOTING
ME10	CONT, 1'-0" x 1'-0"	(1) #5 CONT, BOTT.	MONOLITHIC EDGE

FOUNDATION DESIGN INFORMATION

NOTE: REFER TO S0.1 FOR FOUNDATION DESIGN INFORMATION.

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GLEN RIDGE SELF STORAGE

SOUTHERN BLVD.
GLEN RIDGE, FLORIDA

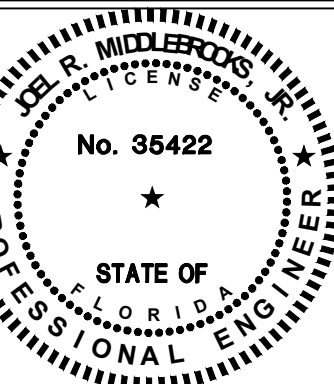
KENNETH R. CARLSON - ARCHITECT, P.A.

1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
FAX (954) 421 - 9929
e-mail: kenneth@krcpa.com

Revisions:

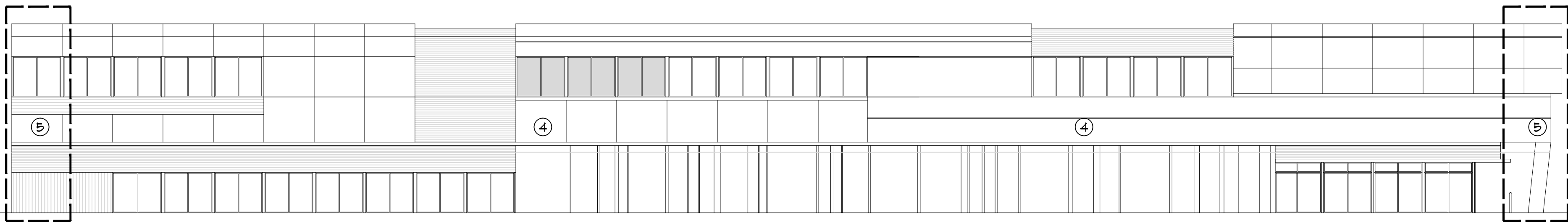
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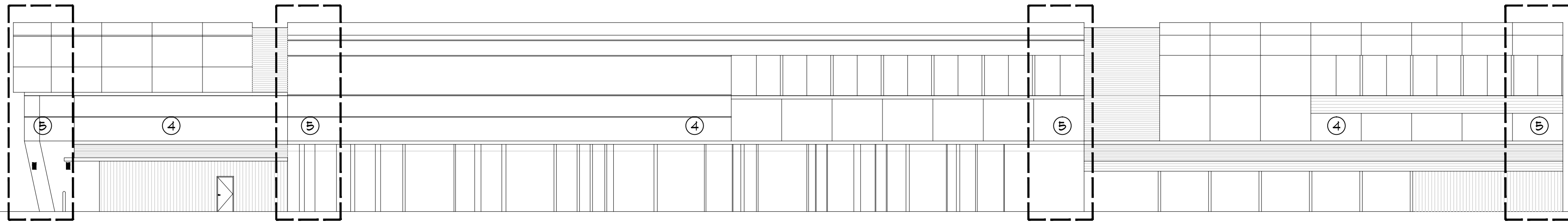
JOSE R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422

S5.1



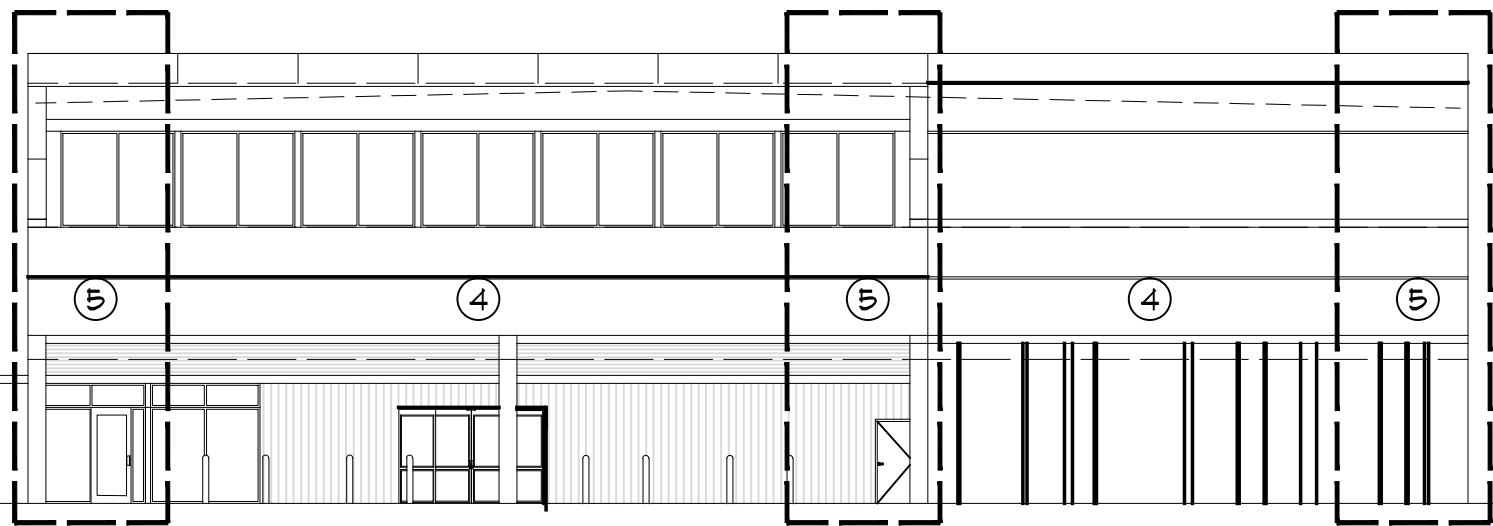
NORTH ELEVATION

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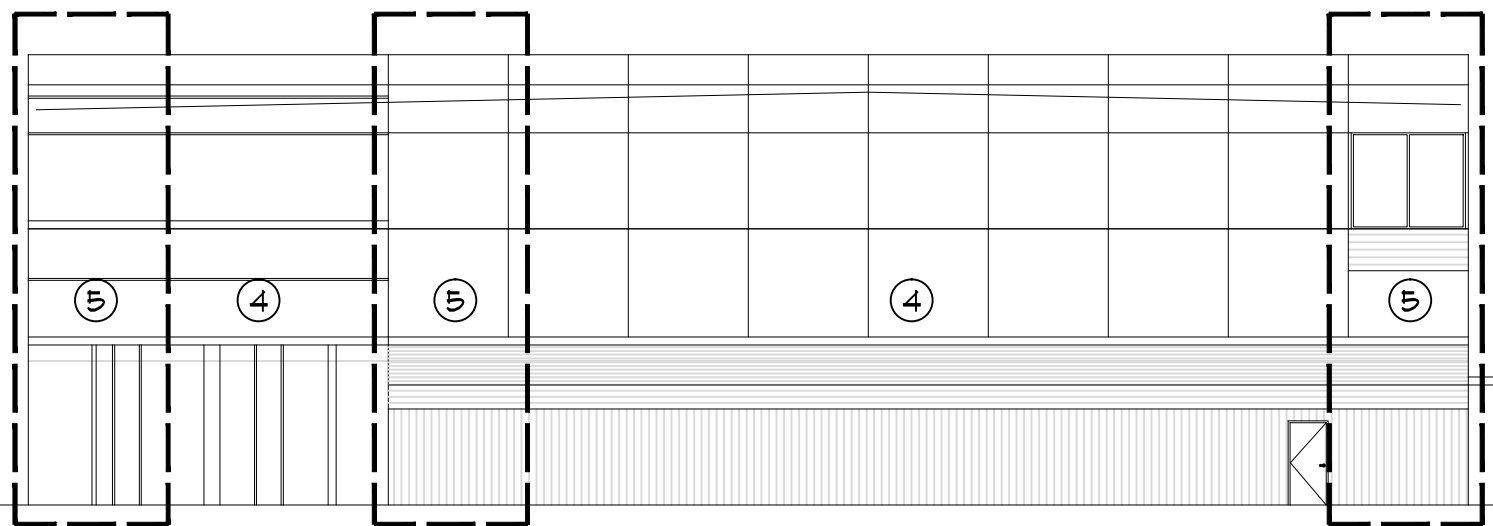
SOUTH ELEVATION

SCALE: N.T.S.



WEST ELEVATION

SCALE: N.T.S.



EAST ELEVATION

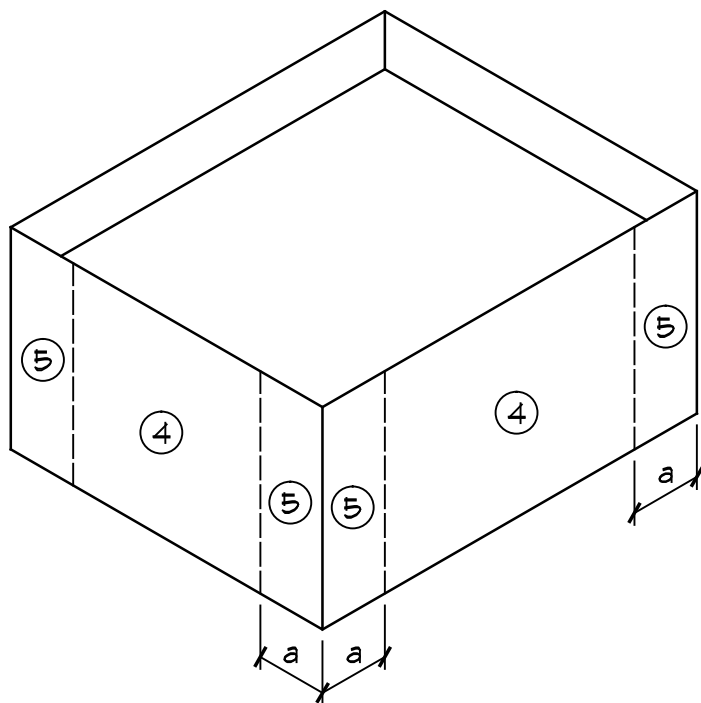
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WIND PRESSURE ELEVATION

N.T.S.

NOTES:

- A (Kd) OF 0.85 HAS BEEN USED IN THE DEVELOPMENT OF THESE VALUES. THE USE OF THESE VALUES SHALL ONLY BE APPLIED WHEN USED IN CONJUNCTION WITH LOAD COMBINATIONS SPECIFIED IN SECTIONS 2.3 & 2.4 OF ASCE 7-22.
- PARAPET WIND LOADS ARE BASED ON A "SOLID" PARAPET WITH NO INTERNAL PRESSURE. ACTUAL PARAPET CONSTRUCTION MAY DICTATE THAT INTERNAL PRESSURE BE ADDED TO THE EXTERNAL PRESSURE IN ACCORDANCE WITH ASCE 7-22 SECTION 50.8.
- THE "ULTIMATE" WIND LOADS SHOWN IN THE COMPONENTS AND CLADDING SCHEDULE SHALL BE MULTIPLIED BY 0.6 TO REDUCE THEM DOWN TO "SERVICE" LEVEL FOR ALL TESTED ASSEMBLIES, INCLUDING BUT NOT LIMITED TO DOORS, WINDOWS AND ROOF ASSEMBLIES.
- PRESSURES AND SUCTIONS ON SOFFITS SHALL BE THE SAME AS CORRESPONDING WALL ZONES 4 & 5.
- IF THE STRUCTURE IS AN EHPA OR IS INSURED BY FACTORY MUTUAL (FM) THE GROSS UPLIFT DESIGN PRESSURES SHOWN HEREIN SHALL BE DOUBLED FOR ROOF COVERINGS.
- a = 12.0ft.



ASCE 7-22 COMPONENTS & CLADDING WALL DESIGN (ULT) WIND PRESSURES & SUCTIONS FOR MEAN ROOF HEIGHT ≤ 60 ft					
EFFECTIVE WIND AREA (SQ FEET)	WIND PRESSURE AND SUCTION (PSF) (+) VALUE DENOTES PRESSURE (-) VALUE DENOTES SUCTION		PARAPETS (SOLID)*		
	4	5	CASE A		CASE B
			EDGE	CORNERS	CORNERS
10	-74.4 +68.7	-91.6 +68.7			
100	-64.3 +58.6	-71.4 +58.6			
200	-61.3 +55.6	-65.3 +55.6			
500	-57.3 +51.5	-57.3 +51.5			

ASCE 7-22 COMPONENTS & CLADDING WALL DESIGN (ASD) WIND PRESSURES & SUCTIONS FOR MEAN ROOF HEIGHT ≤ 60 ft					
EFFECTIVE WIND AREA (SQ FEET)	WIND PRESSURE AND SUCTION (PSF) (+) VALUE DENOTES PRESSURE (-) VALUE DENOTES SUCTION		PARAPETS (SOLID)*		
	4	5	CASE A		CASE B
			EDGE	CORNERS	CORNERS
10	-44.7 +41.2	-55.0 +41.2			
100	-38.6 +35.2	-42.8 +35.2			
200	-36.8 +33.3	-39.2 +33.3			
500	-34.4 +30.9	-34.4 +30.9			

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TOWN OF GLEN RIDGE
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signed and sealed by Joel R.
Middlebrooks, Jr., on the date
adjacent to the seal. Printed copies
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Signed And Sealed And the signature
must be verified on any electronic
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BBM
STRUCTURAL
399 W. Palmetto Park Rd
Suite 200
Boca Raton, FL 33432
p. 561-750-1916
EIR 5543
BBM PROJECT # 2423

KENNETH R. CARLSON - ARCHITECT, P.A.
1166 W. NEWPORT CENTER DRIVE SUITE #311
DEERFIELD BEACH, FL. 33442
P.H. (954) 421 - 8848
FAX (954) 421 - 9848
e-mail: kenscarlson.com

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JOEL R. MIDDLEBROOKS, P.E.
No. 35422
STATE OF FLORIDA
PROFESSIONAL ENGINEER

JOEL R. MIDDLEBROOKS, P.E.
Florida Professional Engineer No. 35422

S6.0