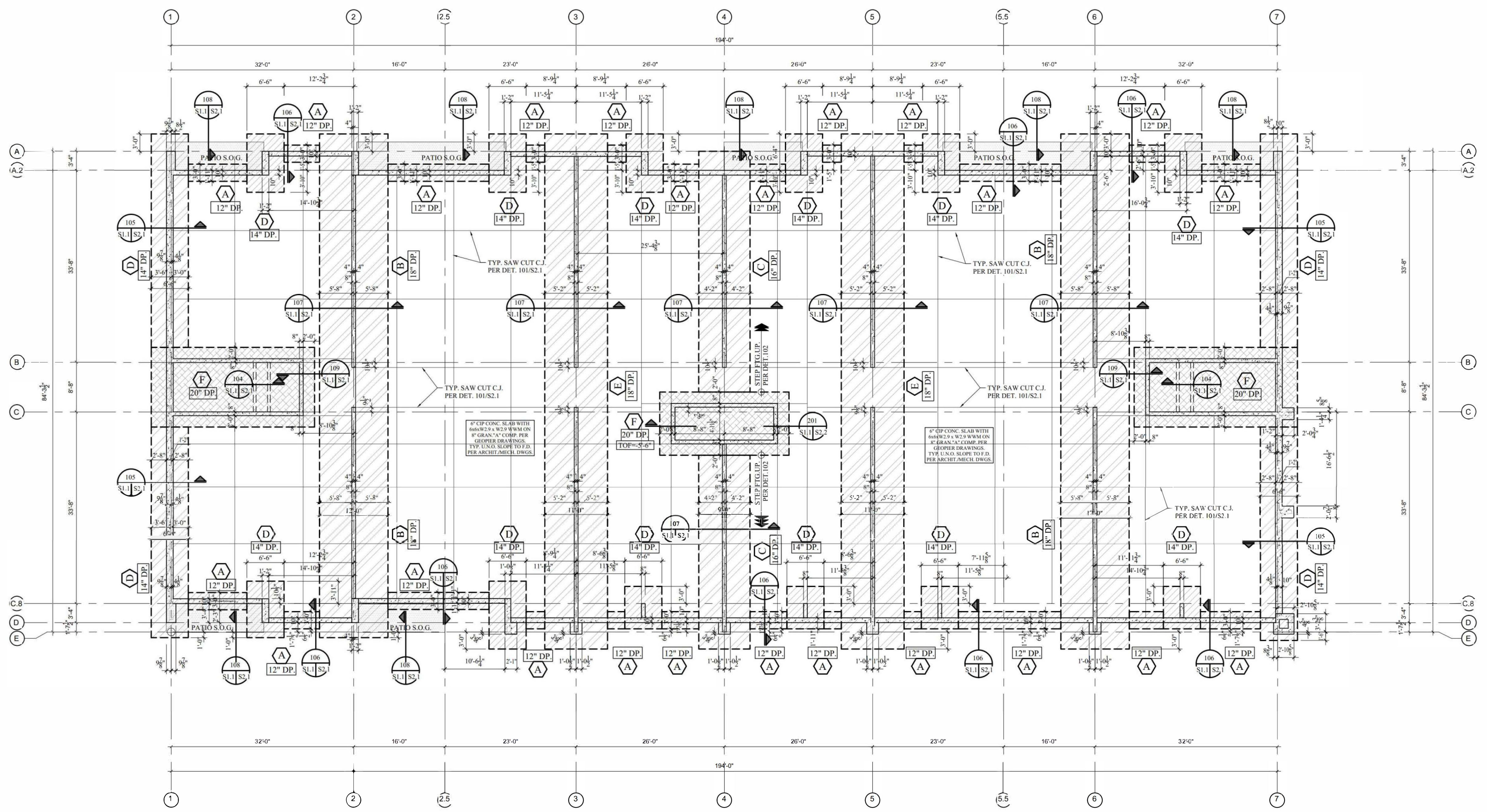


VERIFY ALL ELEVATOR DIVIDER BEAMS, HOIST BEAMS & EMBEDS SIZES, QUANTITY & LOCATION WITH THE ELEVATOR SHOP DRAWINGS.

SOLID PRECAST STAIRS & LANDING DESIGN & DETAILS INCL. BRG. ARE AS PER PRECAST SHOP DWGS. AND IN COMPLIANCE WITH THE ARCHITECTURAL DETAILS



FOUNDATION & GROUND FLOOR PLAN

SCALE: 3/32"=1'-0" GROUND FLOOR SLAB ON GRADE (SOG) = +0'-0" TYP. U.N.O.
 BOTTOM OF FOOTINGS (B.O.F.) SHALL BE @ (-4'-6") U.N.O.

- DENOTES 8\"/>
- DENOTES BRICK VENEER (PER ARCHIT.)
- DENOTES C.I.P. CONC. FTG.
- FTG. MARK PER SCHEDULE

Consulting Engineers

3260 Devon Drive
Windsor, Ontario N8X 4L4
Tel. (519) 944-3090

A A DETAIL NUMBER
B B LOCATION SHEET
C C DETAIL SHEET

CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND INFORMATION ON DRAWINGS AND SPECIFICATIONS
 ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION
 DO NOT SCALE DRAWING

PROJECT: ARK DESIGN BUILD MILL ST. APARTMENTS

DRAWING TITLE: FOUNDATION & GROUND FLOOR PLAN

REV.	DATE	DESCRIPTION	BY	CKD.	DATE
3	JUL 07 2023	FOR PRICING			
2	JUN 28 2023	FOR PERMIT			

LOCATION: **06**

DRAWN: **TM** SCALE: **AS NOTED**

CHECKED: **M**

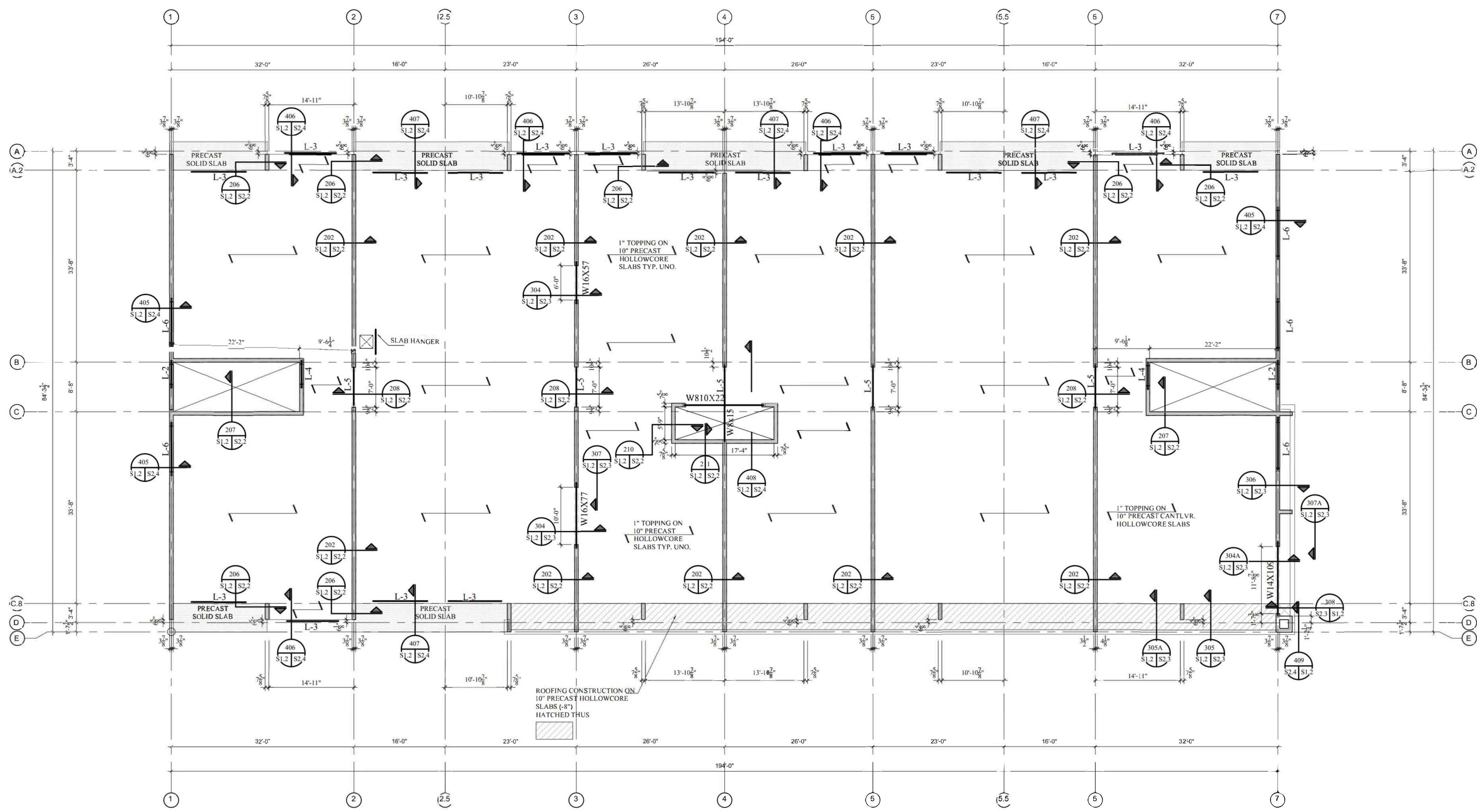
JOB NO. **23-5108**

SHEET NO. **S1.1**

VERIFY ALL ELEVATOR DIVIDER BEAMS, HOIST BEAMS & EMBEDS SIZES, QUANTITY & LOCATION WITH THE ELEVATOR SHOP DRAWINGS.

SOLID PRECAST STAIRS & LANDING DESIGN & DETAILS INCL. BRG. ARE AS PER PRECAST SHOP DWGS. AND IN COMPLIANCE WITH THE ARCHITECTURAL DETAILS

FOR EXACT MECHANICAL OPNG REFER TO MECHANICAL DWGS FOR DOOR / WINDOW OPENINGS REFER TO ARCH DWGS



2ND FLOOR FRAMING PLAN

SCALE: 3/32"=1'-0" TOP OF FLR. TOPPING SHALL BE ELEV. +12'-3" (TYP. U.N.O.)
 TOP OF HOLLOWCORE SLABS SHALL BE -1" FROM TOP OF TOPPING (TYP. U.N.O. +/-)

- DENOTES 8" MASONRY BLOCK WALL
- DENOTES BRICK VENEER (PER ARCHIT.)
- L-# DENOTES LINTEL TYPE-REFER TO DWG. S3.0 FOR LINTEL SCHEDULE
- FMC DENOTES FULL MOMENT CONNECTION
- REFER TO THE ARCHIT. FOR DOOR/WINDOW OPNGS.

hgs
LIMITED
 Consulting Engineers
 3260 Devon Drive
 Windsor, Ontario N8X 4L4
 Tel. (519) 944-3090



A	DETAIL NUMBER
B	LOCATION SHEET
C	DETAIL SHEET

CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND INFORMATION ON DRAWINGS AND SPECIFICATIONS
 ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION
 DO NOT SCALE DRAWING

REV.	DATE	DESCRIPTION	BY	CKD.
3	JUL 07 2023	FOR PRICING		
2	JUN 28 2023	FOR PERMIT		
1	MAY 08 2023	FOR COORDINATION	TM	

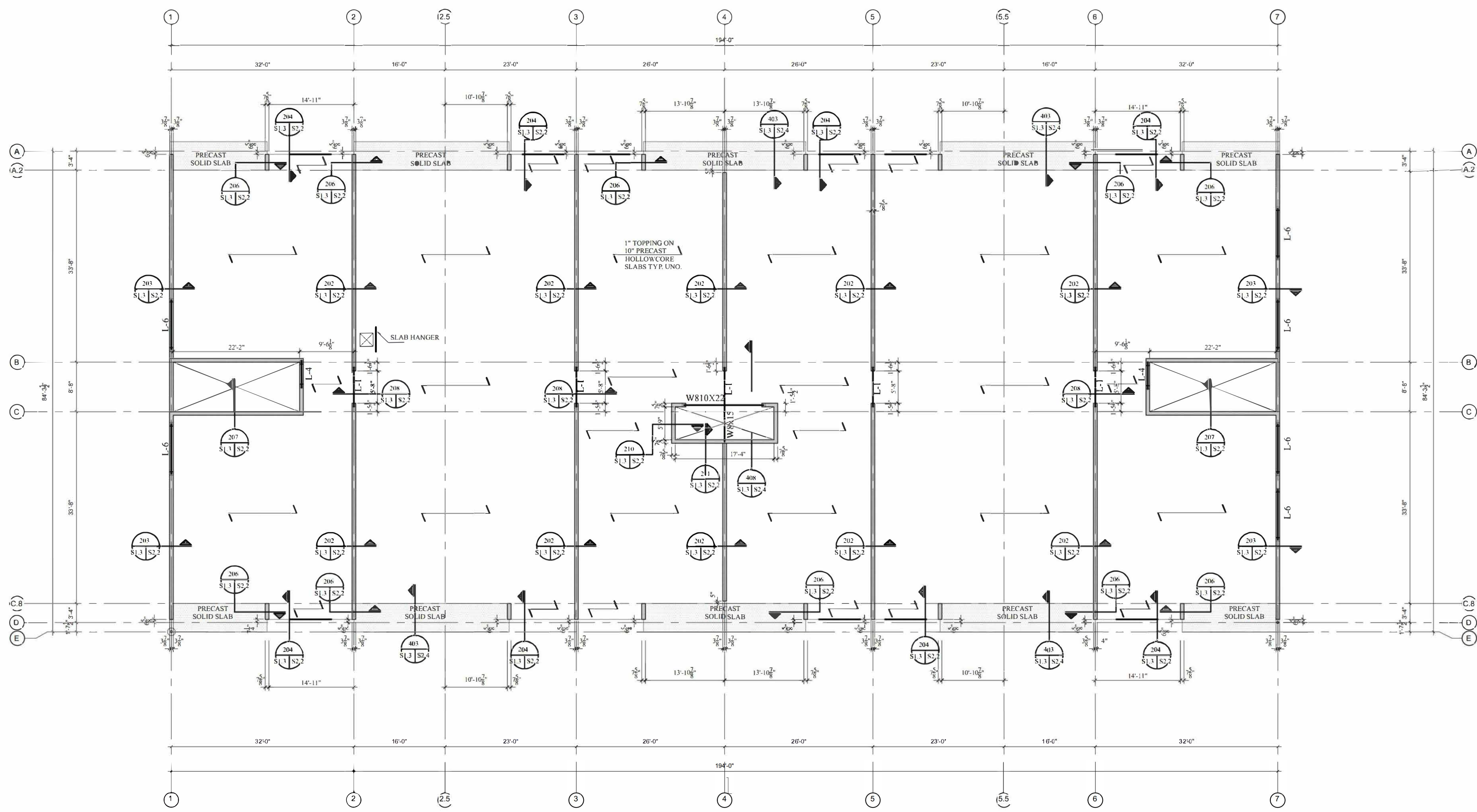
PROJECT: ARK DESIGN BUILD MILL ST. APARTMENTS	
DRAWING TITLE: 2ND FLOOR FRAMING PLAN	
LOCATION:	DRAWN: TM SCALE: AS NOTED
GENERAL CONTRACTOR: HAAA	CHECKED: H/A
ARCHITECT: HAAA	JOB NO.: Z5-5108
DATE:	SHEET NO. S1.2

Updated: MAY 2023
 File Name: S1.2
 Plot Scale: 1:125

VERIFY ALL ELEVATOR DIVIDER BEAMS, HOIST BEAMS & EMBEDS SIZES, QUANTITY & LOCATION WITH THE ELEVATOR SHOP DRAWINGS.

SOLID PRECAST STAIRS & LANDING DESIGN & DETAILS INCL. BRG. ARE AS PER PRECAST SHOP DWGS. AND IN COMPLIANCE WITH THE ARCHITECTURAL DETAILS

FOR EXACT MECHANICAL OPNG REFER TO MECHANICAL DWGS FOR DOOR / WINDOW OPENINGS REFER TO ARCH DWGS



3RD TO 5TH FLOOR FRAMING PLAN

SCALE: 3/32"=1'-0" TOP OF FLR. TOPPING SHALL BE ELEV. = +23'-9" @3RD, +35'-3" @4TH, +46'-9" @5TH (TYP. U.N.O.)
 TOP OF HOLLOWCORE SLABS SHALL BE -1" FROM TOP OF TOPPING (TYP. U.N.O. +/-)

- DENOTES 8" MASONRY BLOCK WALL
- DENOTES BRICK VENEER (PER ARCHIT.)
- DENOTES LINTEL TYPE-REFER TO DWG. S3.0 FOR LINTEL SCHEDULE
- REFER TO THE ARCHIT. FOR DOOR/WINDOW OPNGS.



hgs
LIMITED
 Consulting Engineers

3260 Devon Drive
 Windsor, Ontario N8X 4L4
 Tel. (519) 944-3890



A	DETAIL NUMBER
B	LOCATION SHEET
C	DETAIL SHEET

CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND INFORMATION ON DRAWINGS AND SPECIFICATIONS
 ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION
 DO NOT SCALE DRAWING

REV.	DATE	DESCRIPTION	BY	CKD.
3	JUL 07 2023	FOR PRICING		
2	JUN 28 2023	FOR PERMIT		
1	MAY 08 2023	FOR COORDINATION		

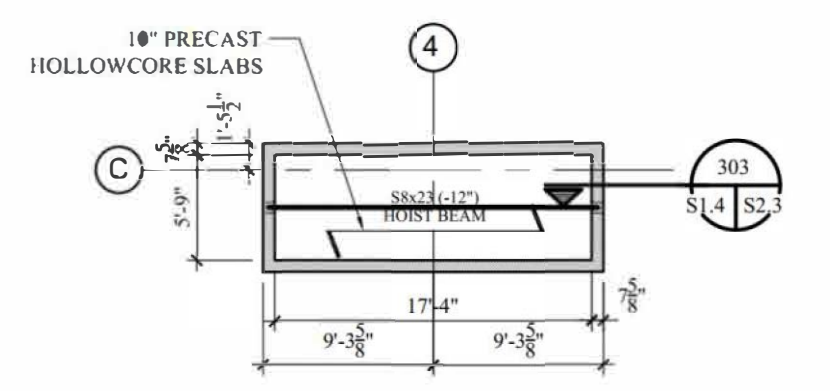
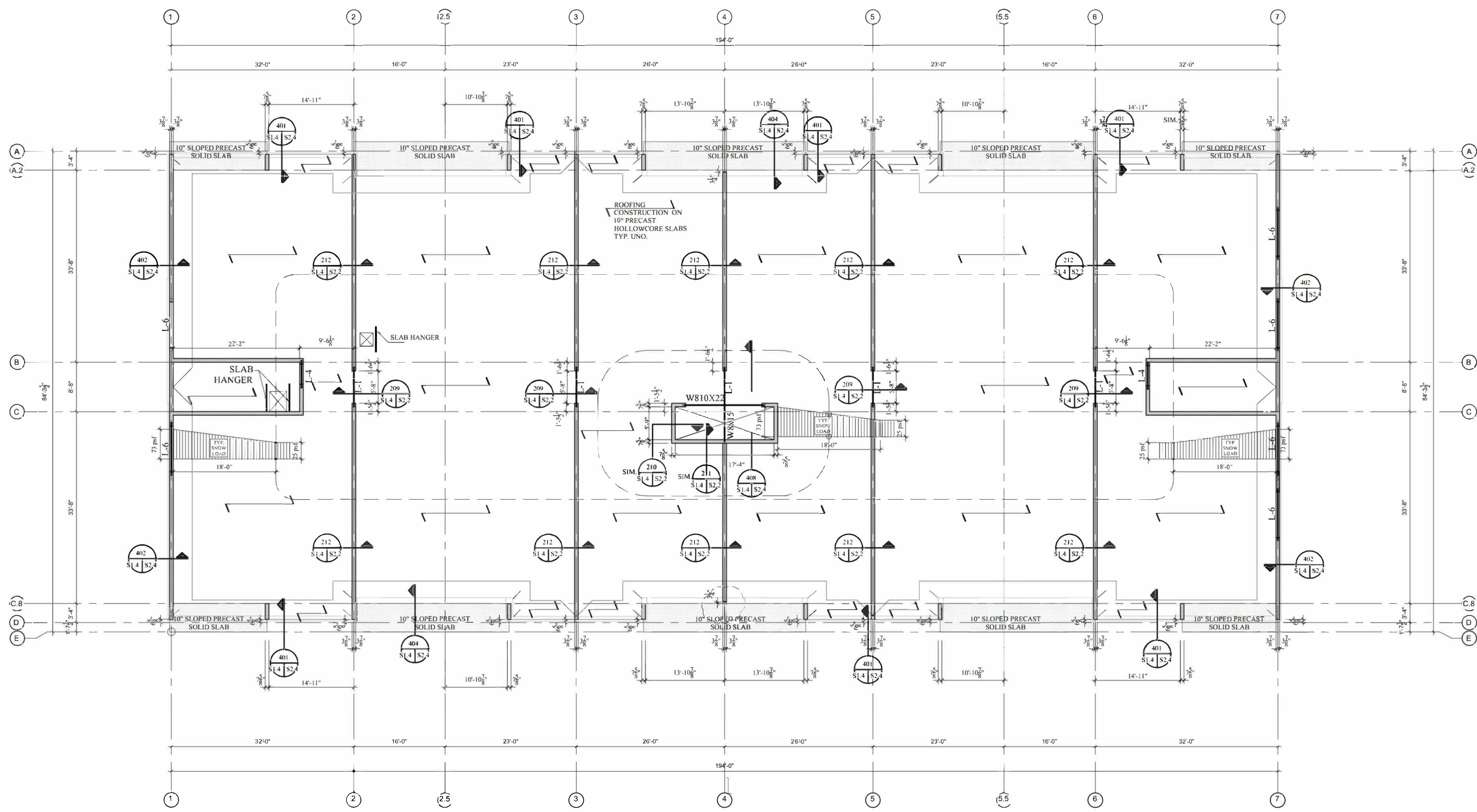
PROJECT: ARK DESIGN BUILD MILL ST. APARTMENTS	
DRAWING TITLE: 3RD TO 5TH FLOOR FRAMING PLAN	
LOCATION: 100 MILL ST. WINDSOR, ONT. N8X 4L4	DRAWN: TM SCALE: AS NOTED
GENERAL CONTRACTOR: HAVA	CHECKED: HA/MA
ARCHITECT: HAVA	JOB NO.: Z5-5108
DATE: 2023-05-08	SHEET NO.: S1.3

VERIFY ALL ELEVATOR DIVIDER BEAMS, HOIST BEAMS & EMBEDS SIZES, QUANTITY & LOCATION WITH THE ELEVATOR SHOP DRAWINGS.

SOLID PRECAST STAIRS & LANDING DESIGN & DETAILS INCL. BRG. ARE AS PER PRECAST SHOP DWGS. AND IN COMPLIANCE WITH THE ARCHITECTURAL DETAILS

FOR EXACT MECHANICAL OPNG REFER TO MECHANICAL DWGS FOR DOOR / WINDOW OPENINGS REFER TO ARCH DWGS

PLEASE PROVIDE MECHANICAL WEIGHTS ON THE ROOF



ELEV. ROOF FRAMING PLAN
SCALE: 3/32"=1'-0" TOP OF HOLLOWCORE SLABS SHALL BE ELEV. = +58'-2" (TYP. U.N.O.)



ROOF FRAMING PLAN

SCALE: 3/32"=1'-0" TOP OF HOLLOWCORE SLABS SHALL BE ELEV. = +58'-2" (TYP. U.N.O.)

- DENOTES 8" MASONRY BLOCK WALL
 - DENOTES BRICK VENEER (PER ARCHIT.)
 - L-# DENOTES LINTEL TYPE-REFER TO DWG. S3.0 FOR LINTEL SCHEDULE
- REFER TO THE ARCHIT. FOR DOOR/WINDOW OPNGS.

hgs
LIMITED
Consulting Engineers

3260 Devon Drive
Windsor, Ontario N8X 4L4
Tel. (519) 944-3090



A	DETAIL NUMBER
B	LOCATION SHEET
C	DETAIL SHEET

CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND INFORMATION ON DRAWINGS AND SPECIFICATIONS

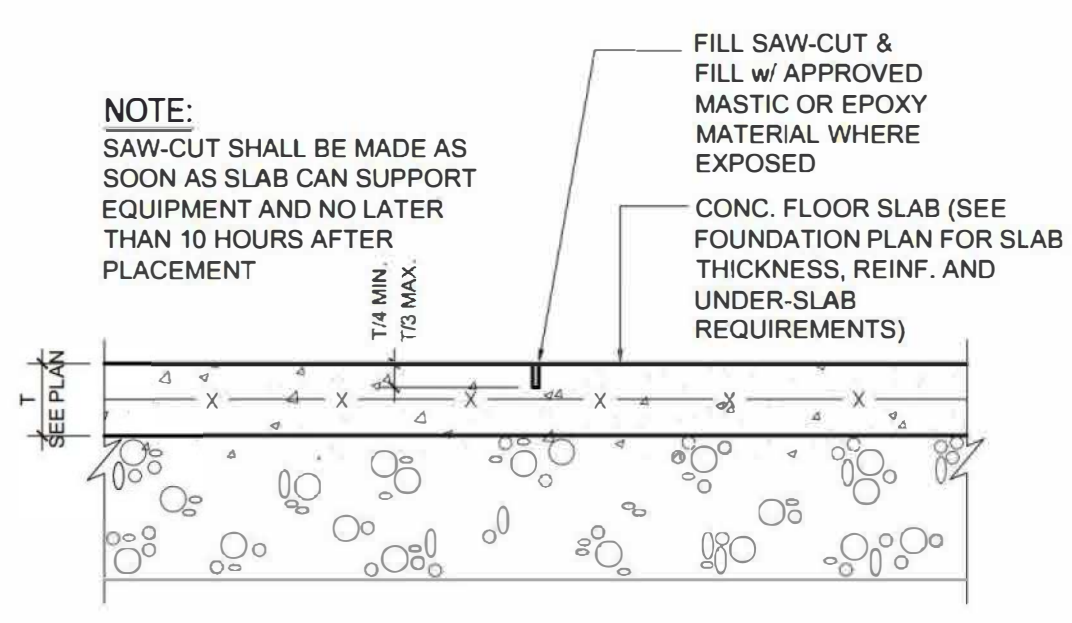
ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION

DO NOT SCALE DRAWING

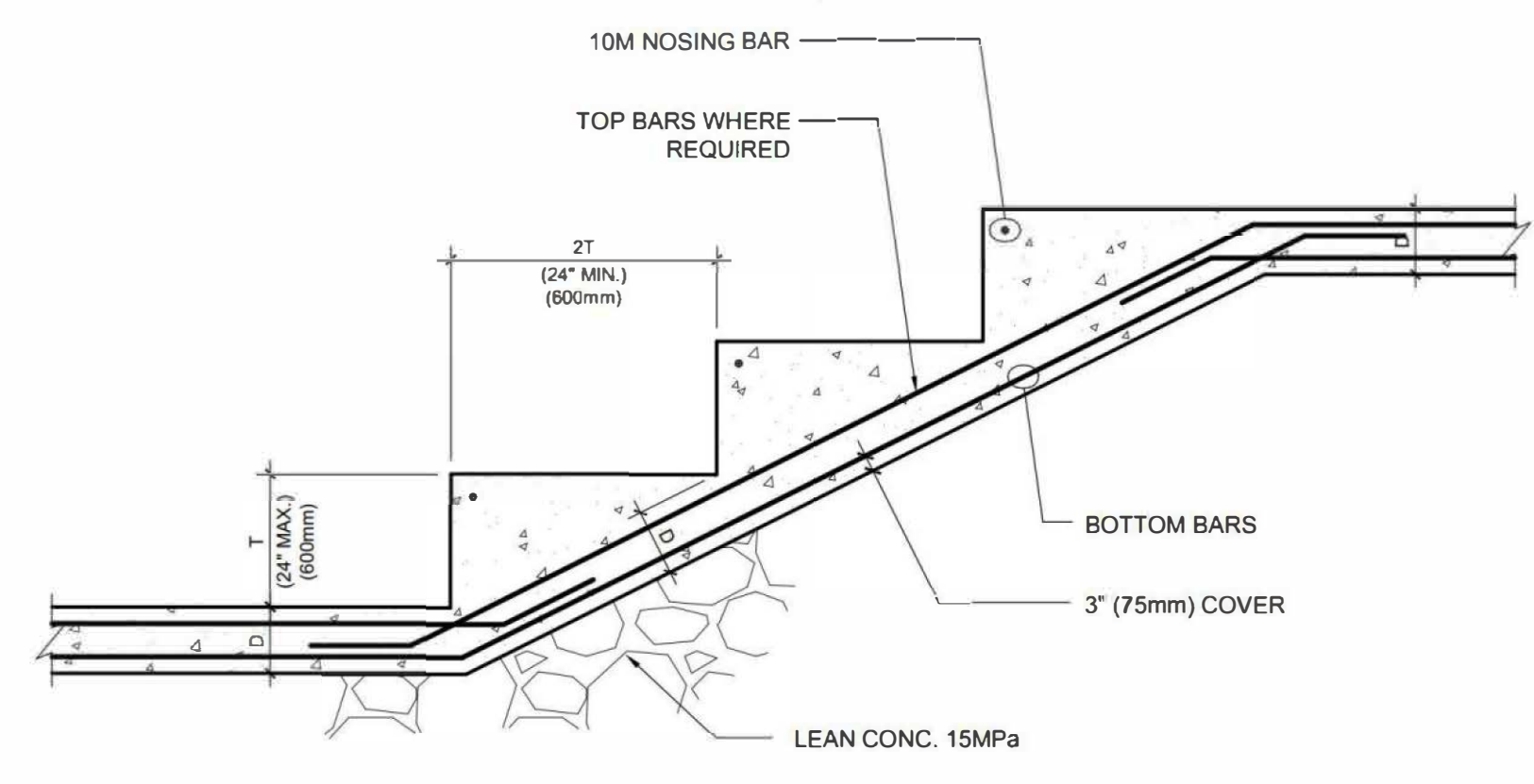
REV.	DATE	DESCRIPTION	BY	CKD.
3	JUL 07 2023	FOR PRICING		
2	JUN 28 2023	FOR PERMIT		
1	MAY 08 2023	FOR COORDINATION		

PROJECT: ARK DESIGN BUILD MILL ST. APARTMENTS	
DRAWING TITLE: ROOF FRAMING PLAN	
LOCATION:	DRAWN: TM SCALE: AS NOTED
GENERAL CONTRACTOR:	CHECKED: HA/MA
ARCHITECT:	JOB NO.: 23-5108
DATE:	SHEET NO.: S1.4

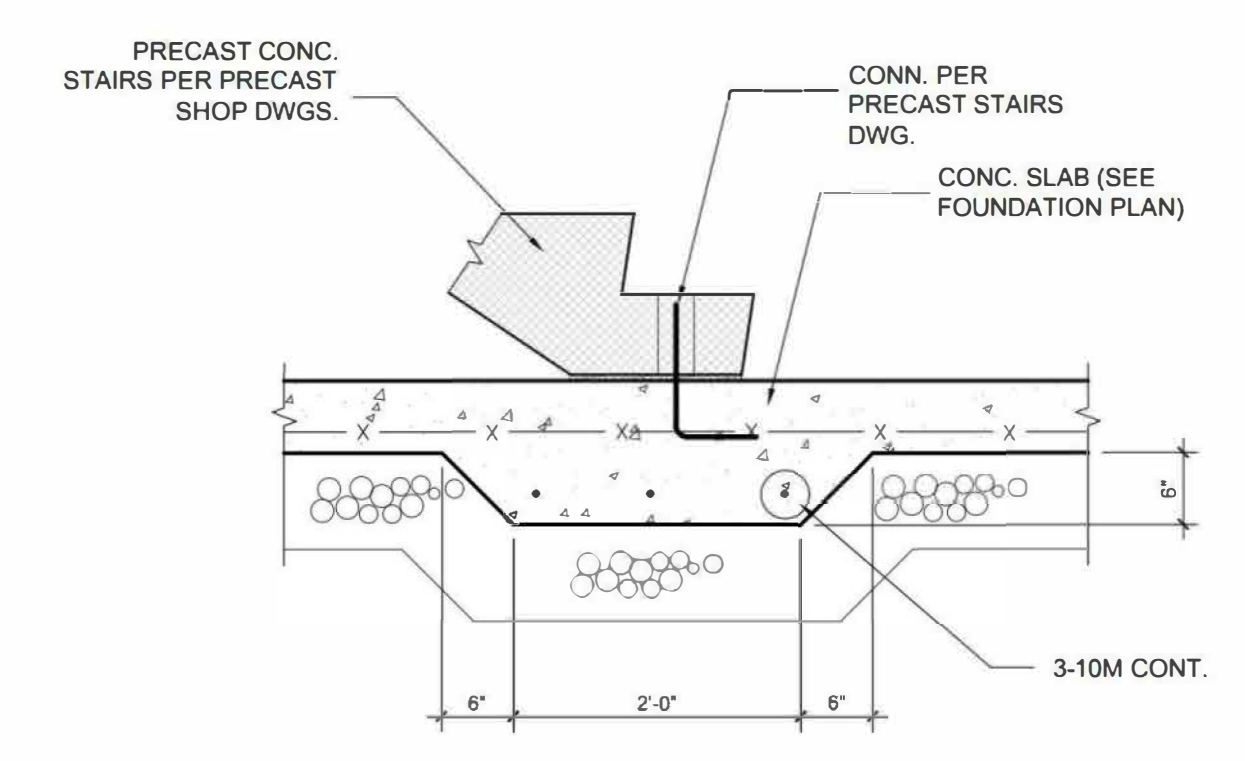
11-23
 Plot Scale
 11-23
 8/4
 8/4



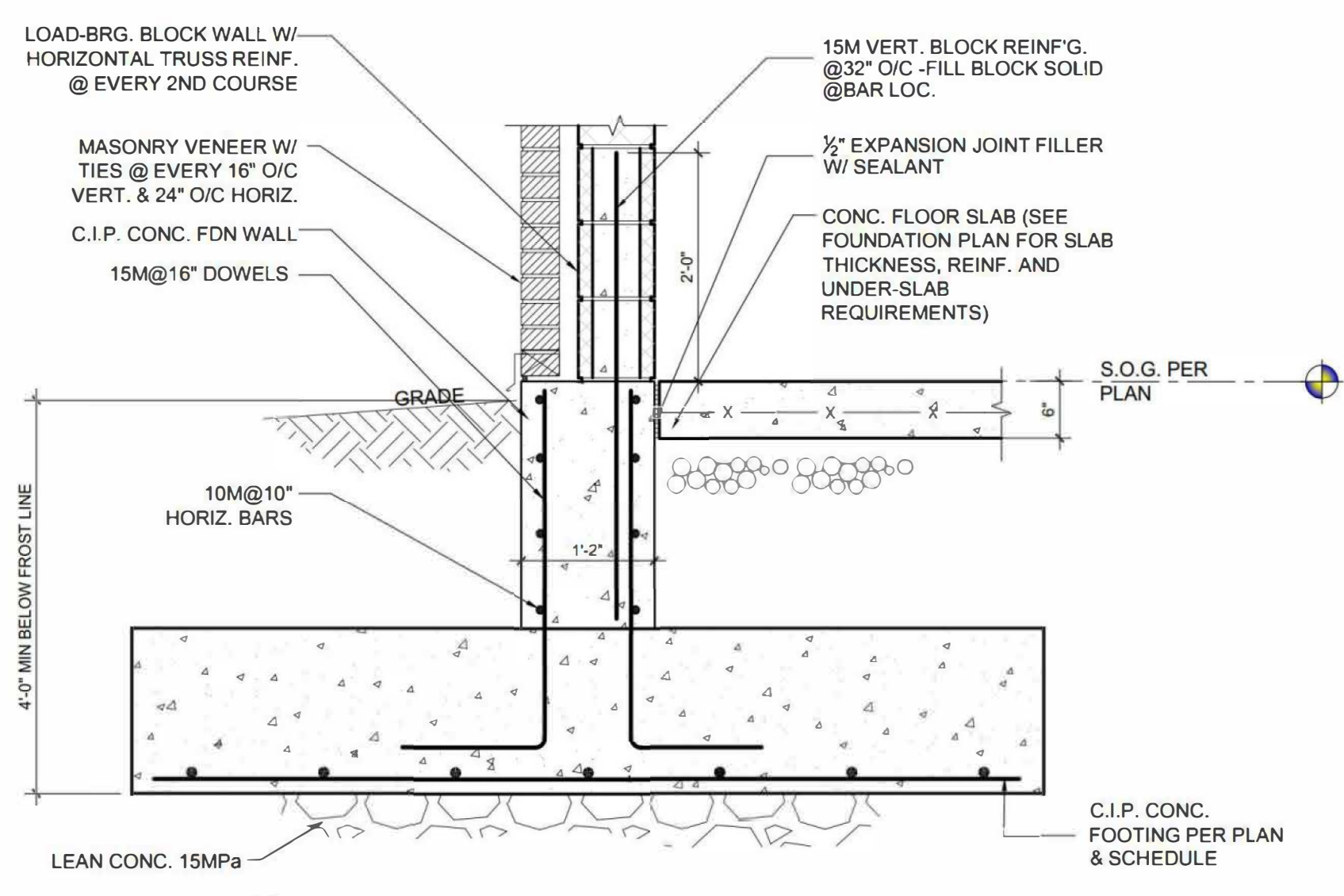
101 SECTION-SLAB CONTROL JOINT
S1.1 S2.1 SCALE: NTS



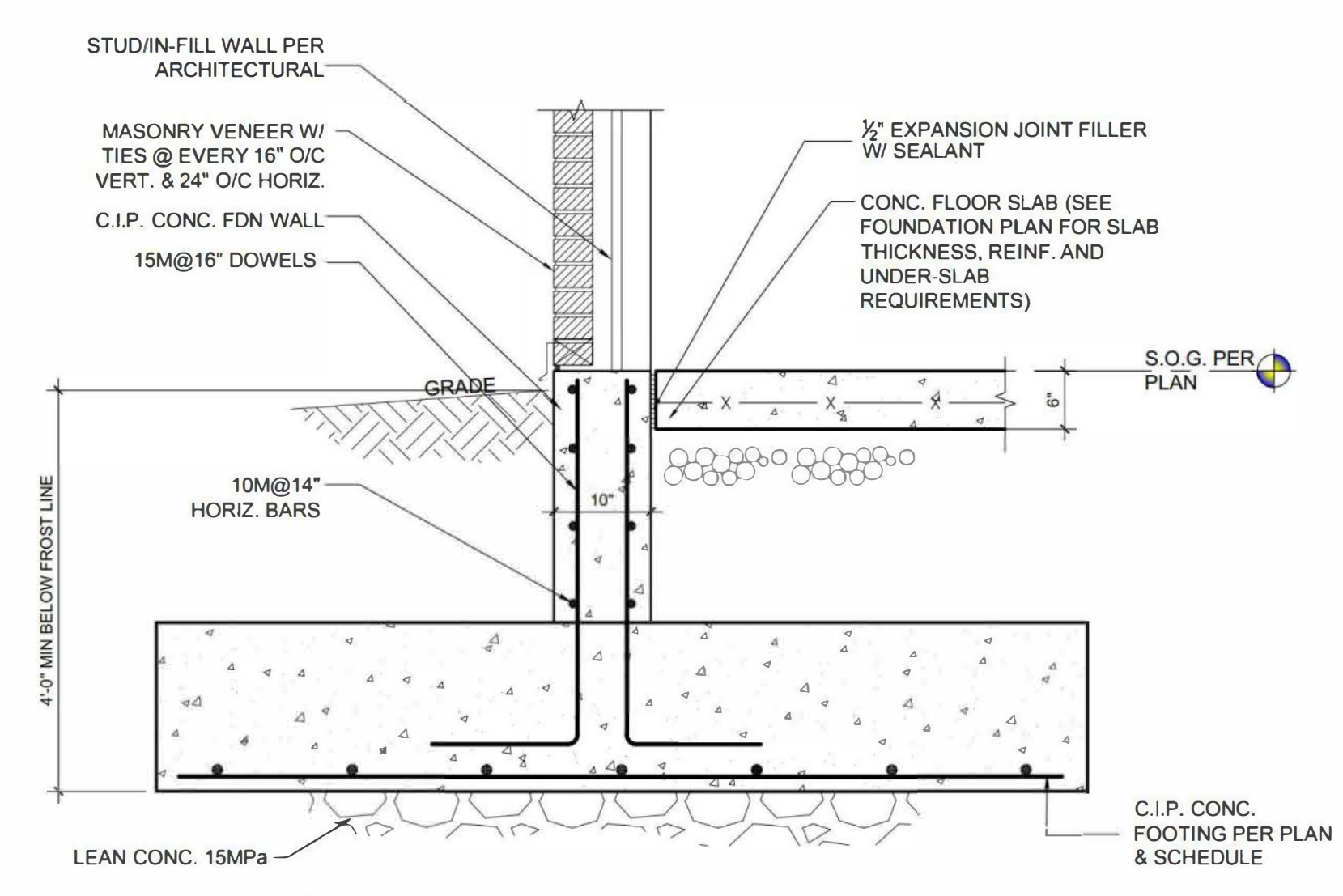
102 TYP. STEPPED FTG.-DETAIL
S1.1 S2.1 SCALE: NTS



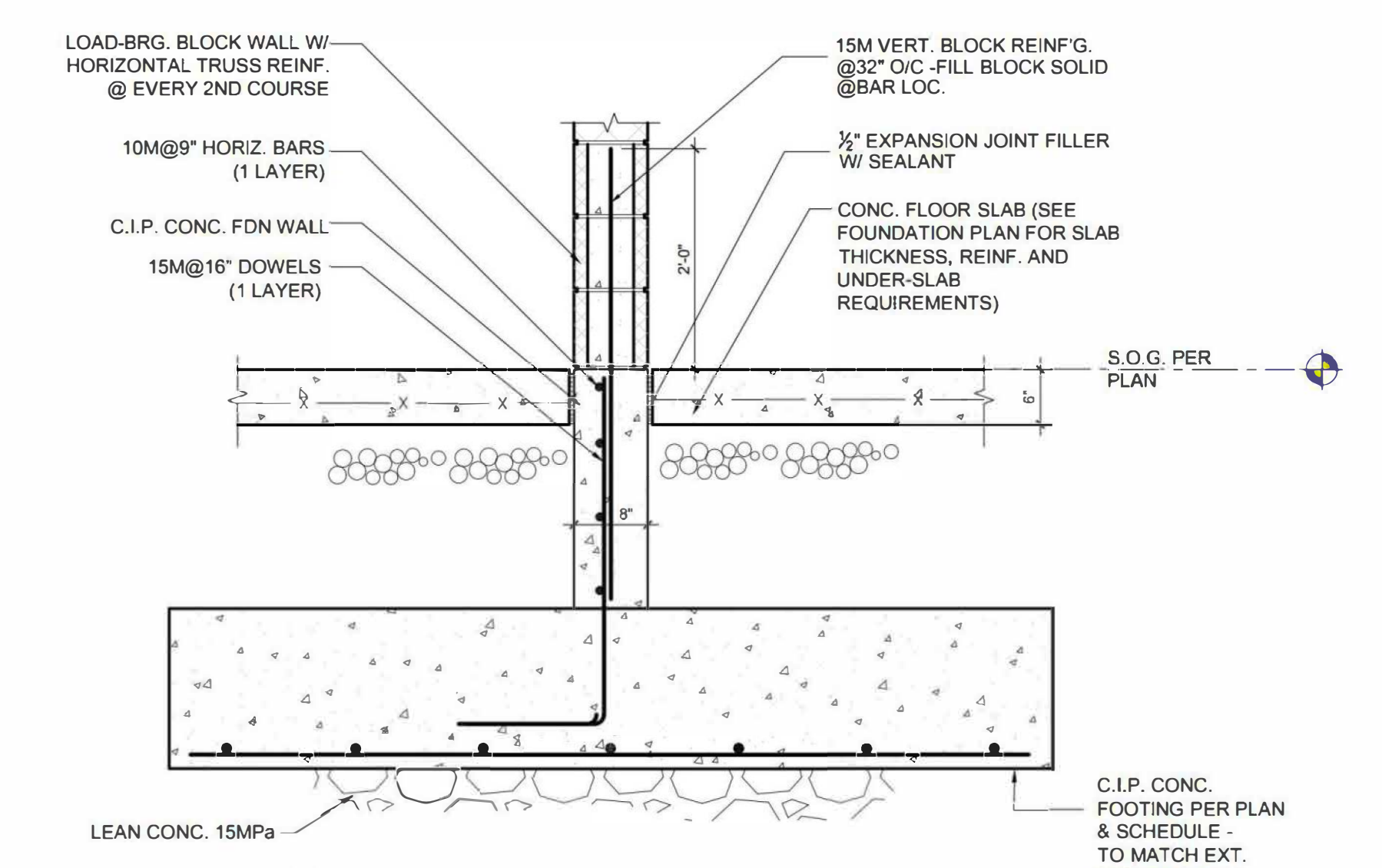
104 PC STAIRS ON SOG
S1.1 S2.1 SCALE: NTS



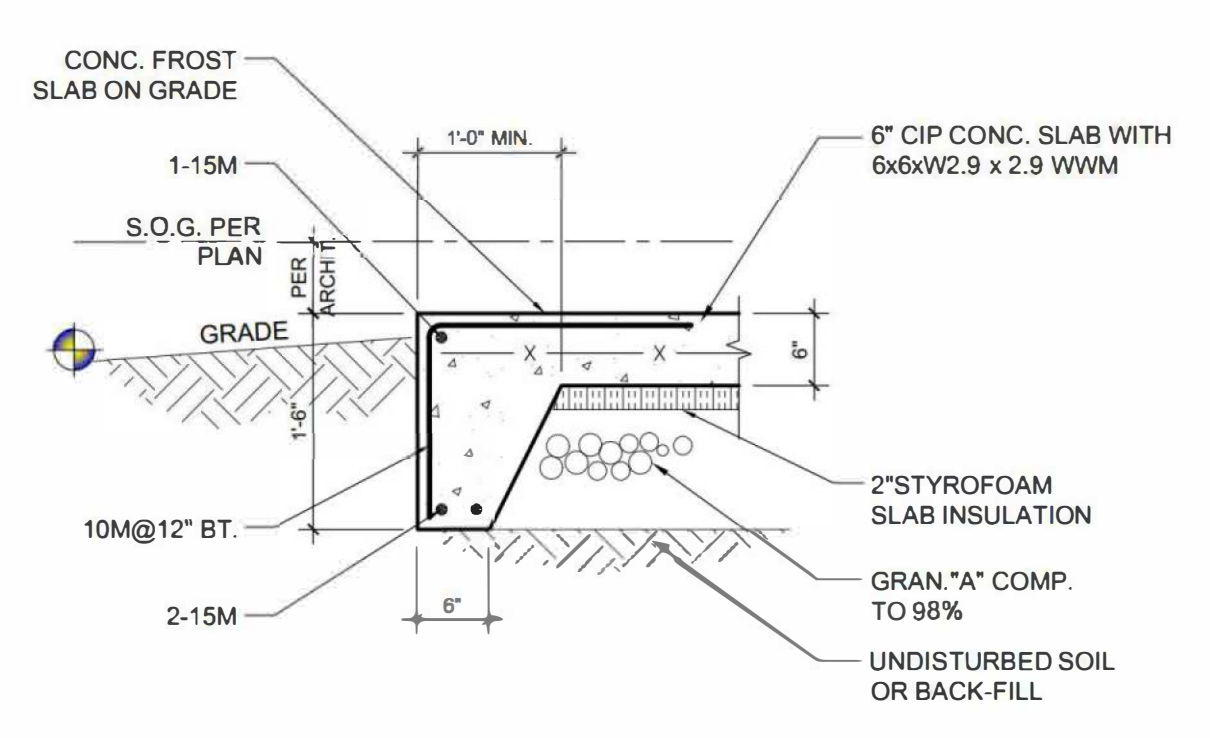
105 SECTION-EXTERIOR CIP CONC.FDN WALL LOAD-BRG. SIDE
S1.1 S2.1 SCALE: NTS



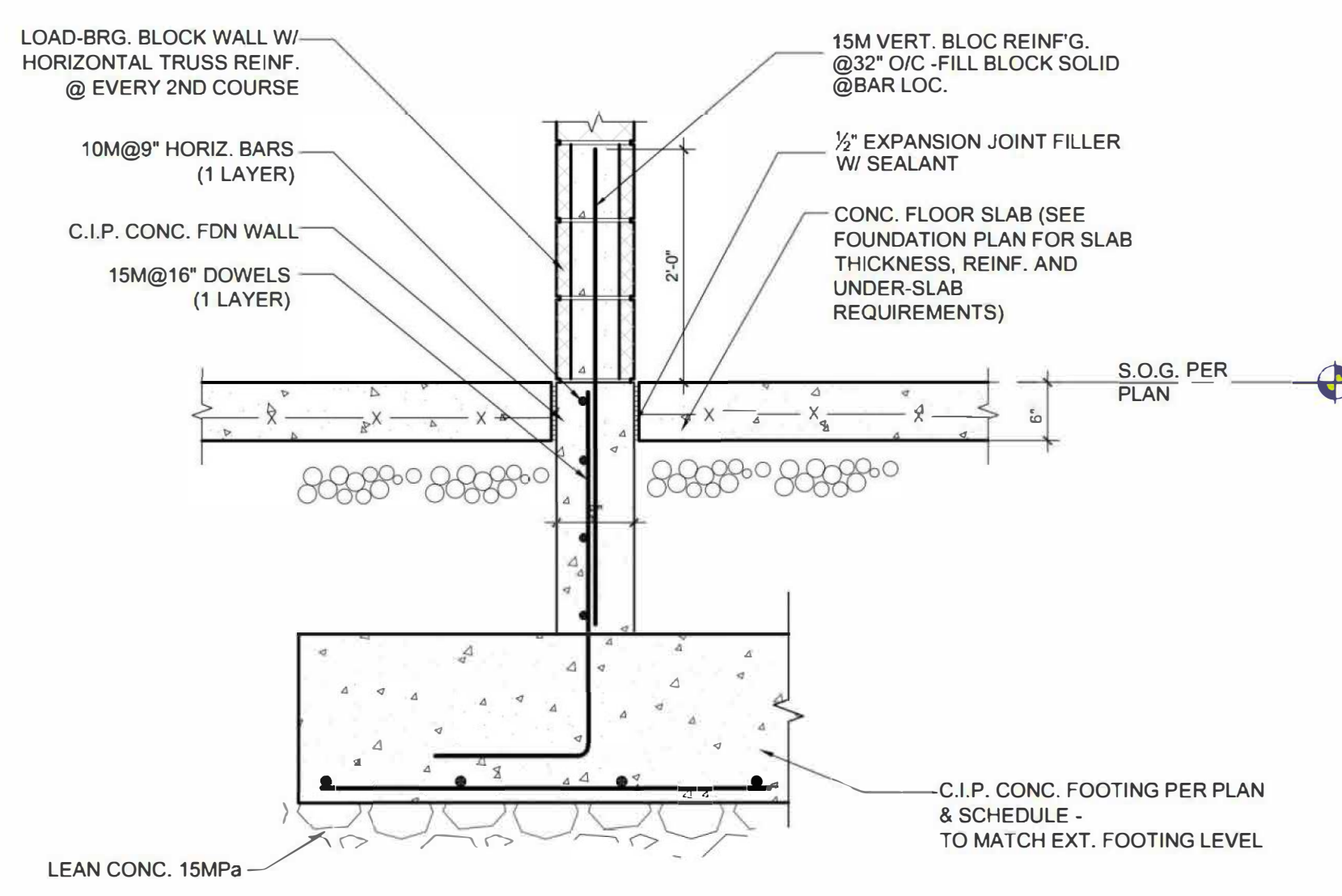
106 SECTION-EXTERIOR CIP CONC.FDN WALL NON-LOAD-BRG. SIDE
S1.1 S2.1 SCALE: NTS



107 SECTION-INTERIOR CIP CONC.FDN WALL
S1.1 S2.1 SCALE: NTS



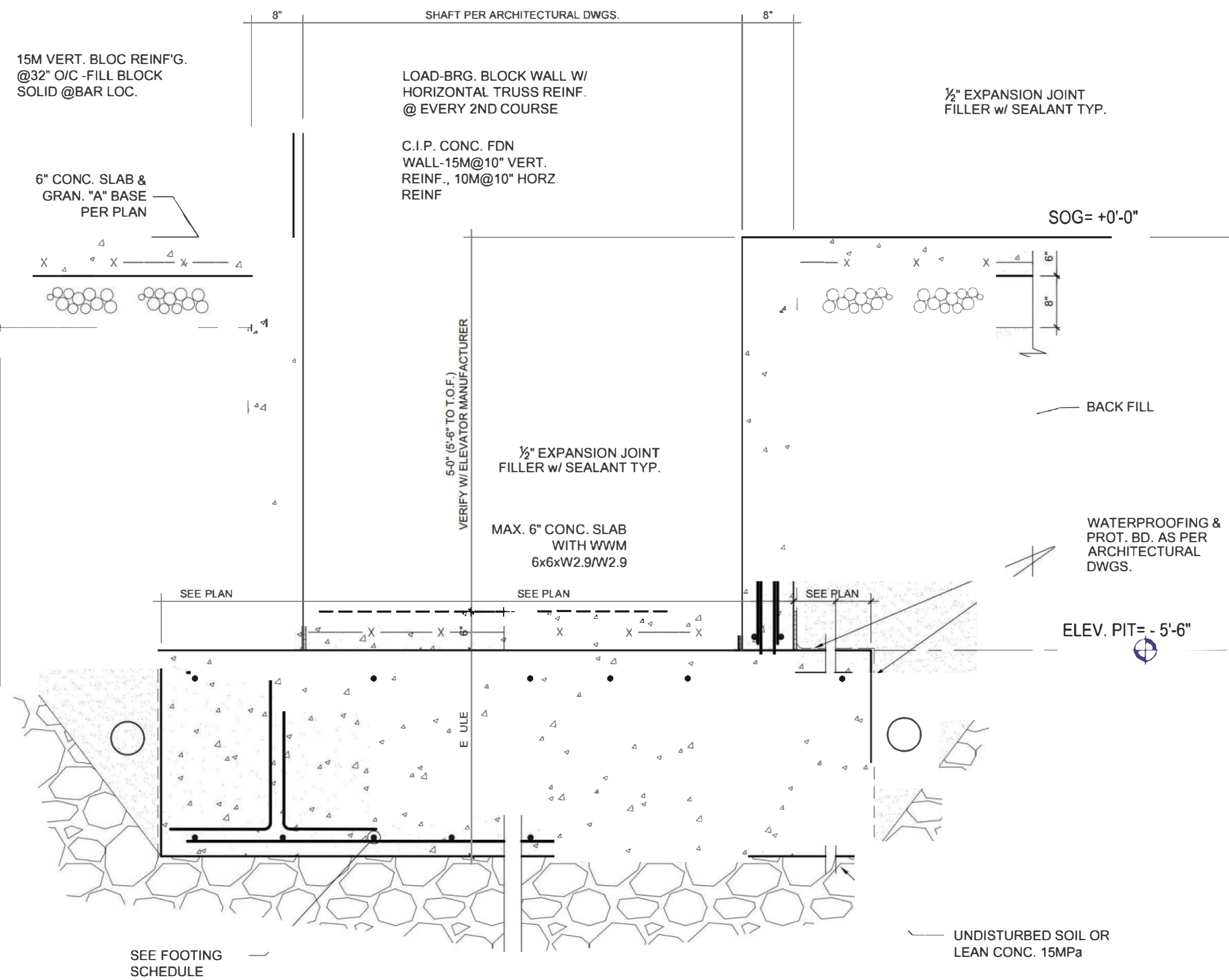
108 SECTION-EXTERIOR SLAB ON GRADE
S1.1 S2.1 SCALE: NTS



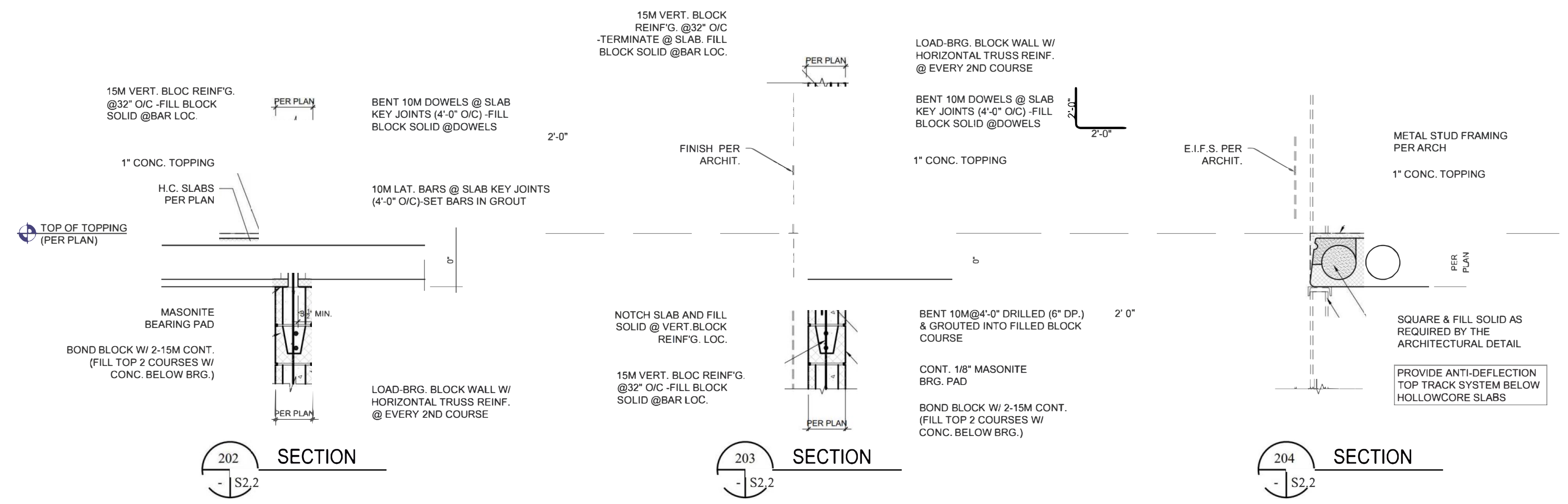
109 SECTION-INTERIOR CIP CONC.FDN WALL
S1.1 S2.1 SCALE: NTS

File Name: S2.1 Updated: Jul 2023 1:16 PM Scale:

 Consulting Engineers 3260 Devon Drive Windsor, Ontario N8X 4L4 Tel. (519) 944-3090		A B LOCATION SHEET C C DETAIL SHEET	PROJECT: ARK DESIGN BUILD MILL ST. APARTMENTS DRAWING TITLE: STRUCTURAL DETAILS
		CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND INFORMATION ON DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. DO NOT SCALE DRAWING.	LOCATION: _____ DRAWN: TM CHECKED: H/M ARCHITECT: OF R JOB NO: 23-5108 SHEET NO: S2.1
3 JUL 07 2023 FOR PRICING 2 JUN 28 2023 FOR PERMIT 1 MAY 08 2023 FOR FOUNDATION PERMIT		REV. DATE DESCRIPTION BY CKD	DATE _____



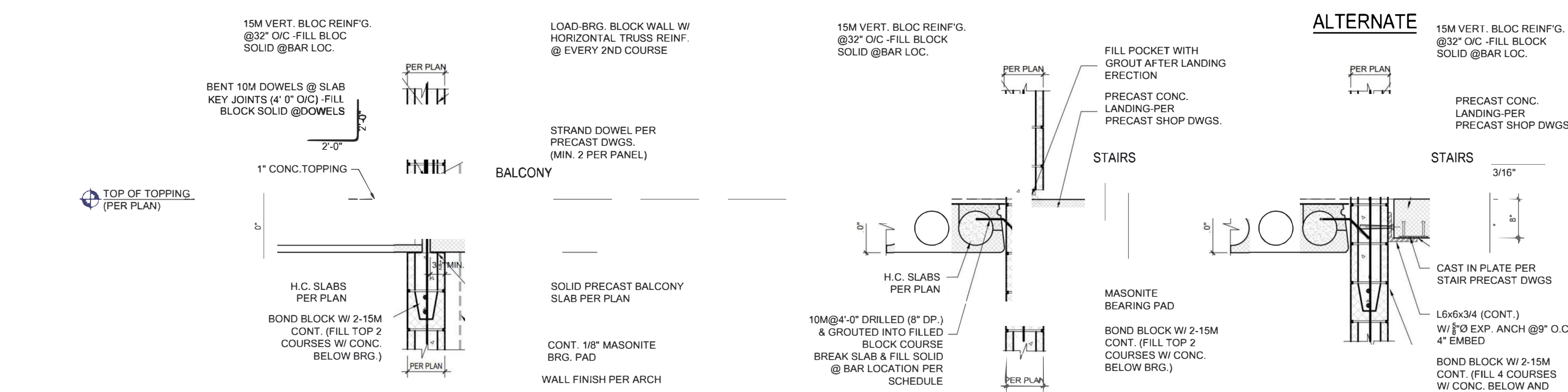
201 SECTION-ELEVATOR PIT
S1.1 S2.2 SCALE: NTS



202 SECTION
- S2.2

203 SECTION
- S2.2

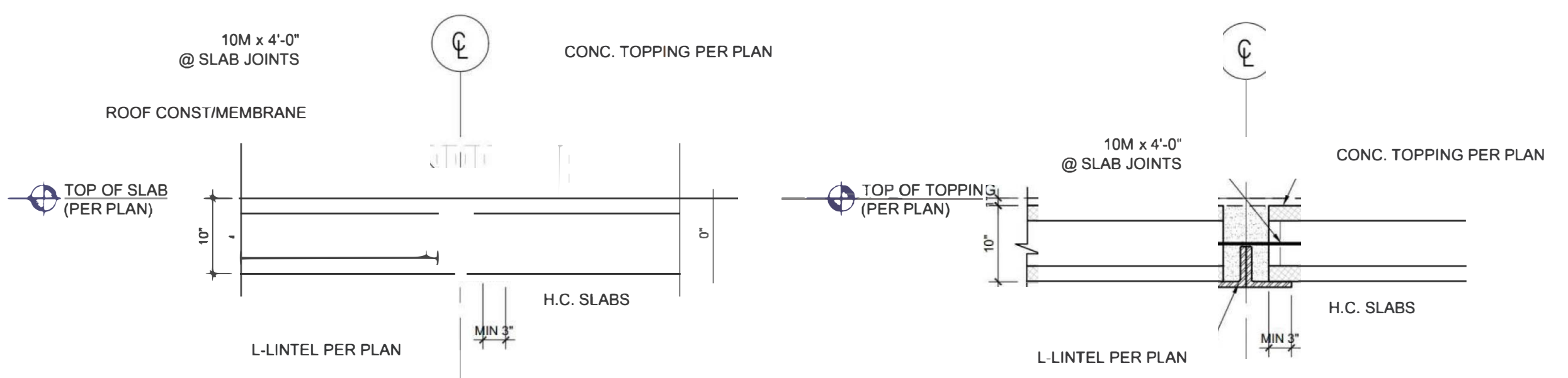
204 SECTION
- S2.2



205 SECTION
- S2.2

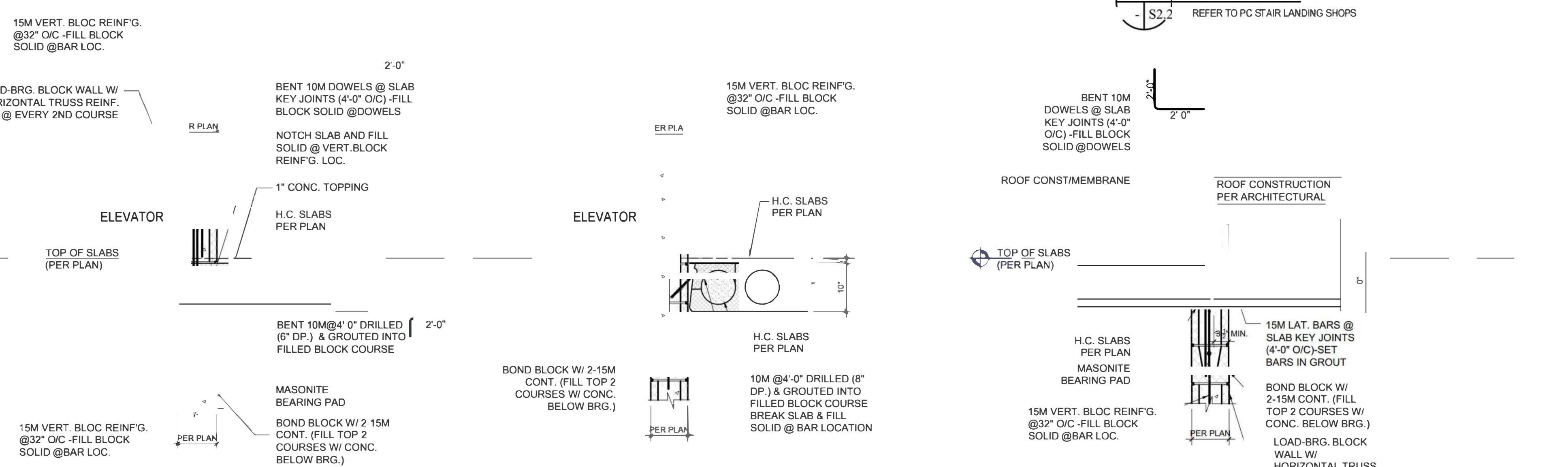
206 SECTION
- S2.2

207 SECTION
- S2.2 REFER TO PC STAIR LANDING SHOPS



209 SECTION
- S2.2

210 SECTION
- S2.2

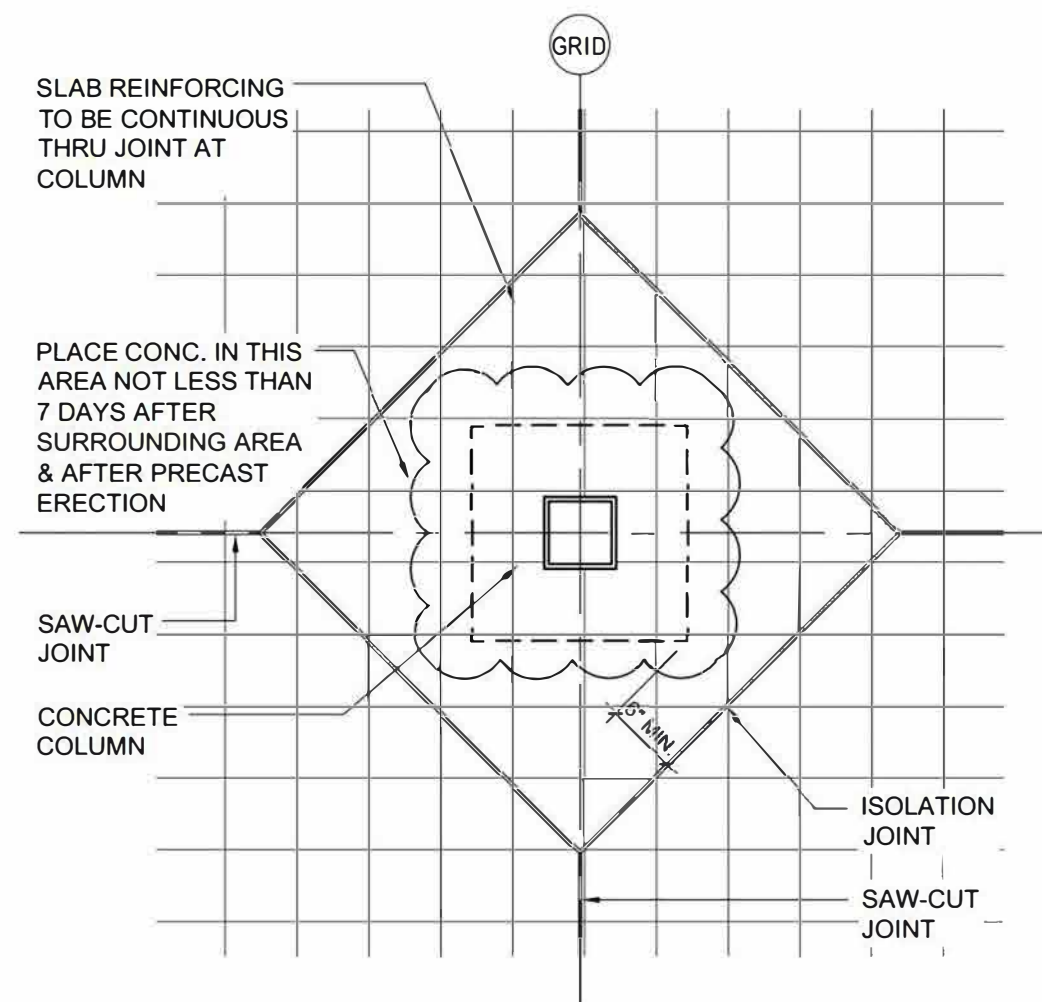


211 SECTION
- S2.2

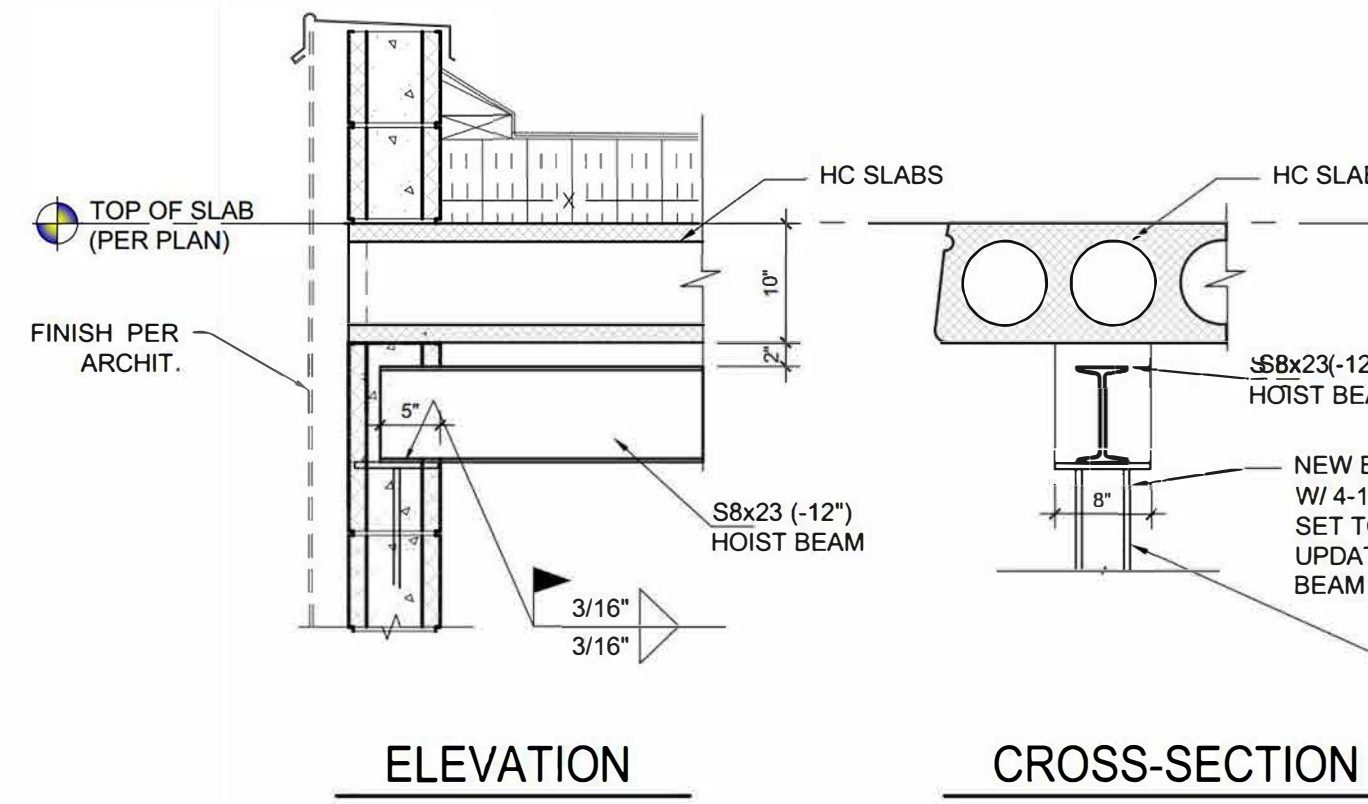
212 SECTION
S1.4 S2.2



PROJECT: ARK DESIGN BUILD MILL ST. APARTMENTS		DRAWING TITLE: STRUCTURAL DETAILS	
LOCATION SHEET: A, B, C		LOCATION: HAVAA ARCHITECTURE OF R	
CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND INFORMATION ON DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. DO NOT SCALE DRAWING.		DRAWN: TM, SCALE: 3/4"=1'-0"	
REV. 3	JUL 07 2023	FOR PRICING	CHECKED: H/M
2	JUN 28 2023	FOR PERMIT	DATE: 23-5108
1	MAY 08 2023	FOR FOUNDATION PERMIT	SHEET NO. S2.2

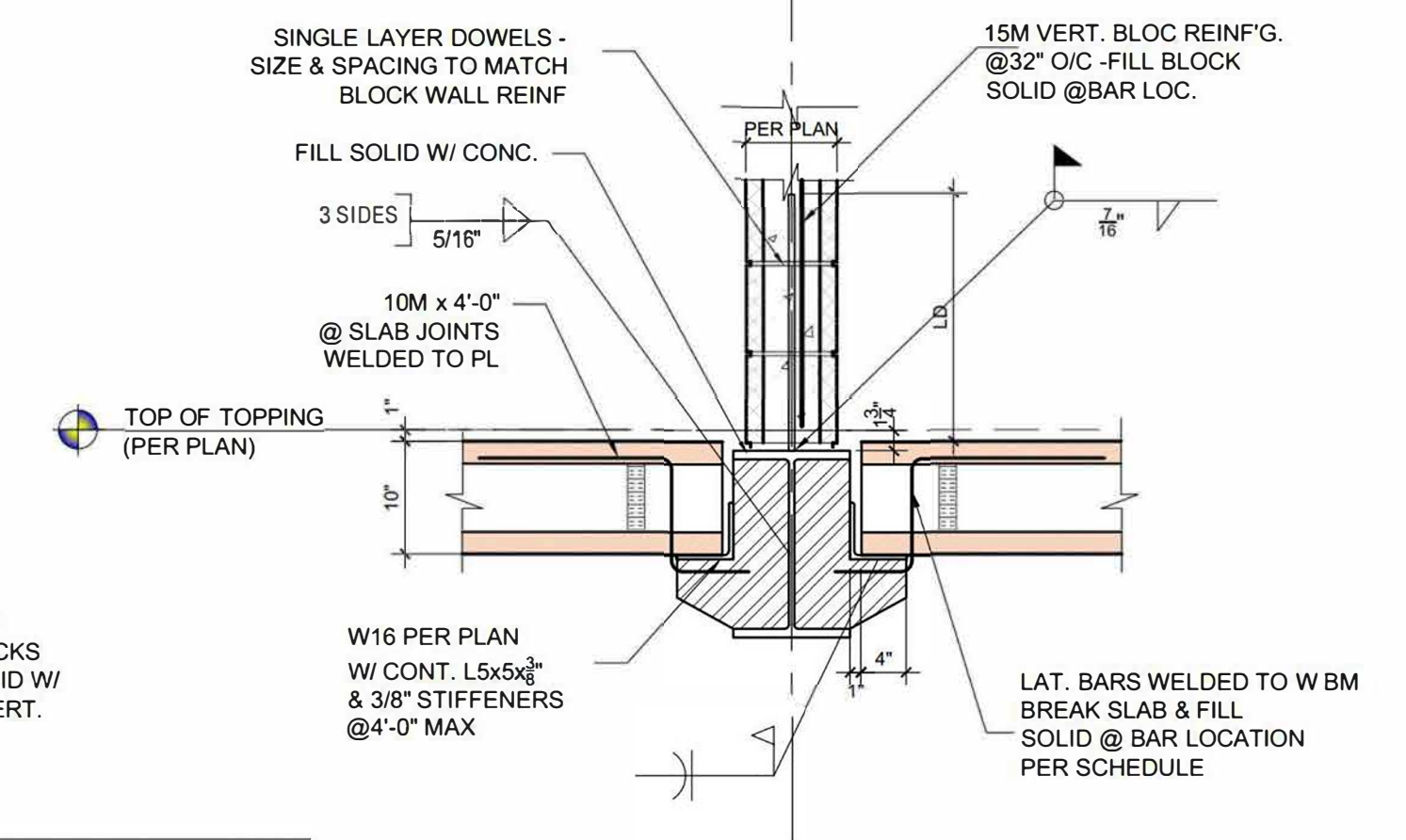


301 PLAN DETAIL-SLAB CONTROL JOINT (ISOLATION) @ COLUMN / PIER
S1.1 S2.3
SCALE: NTS

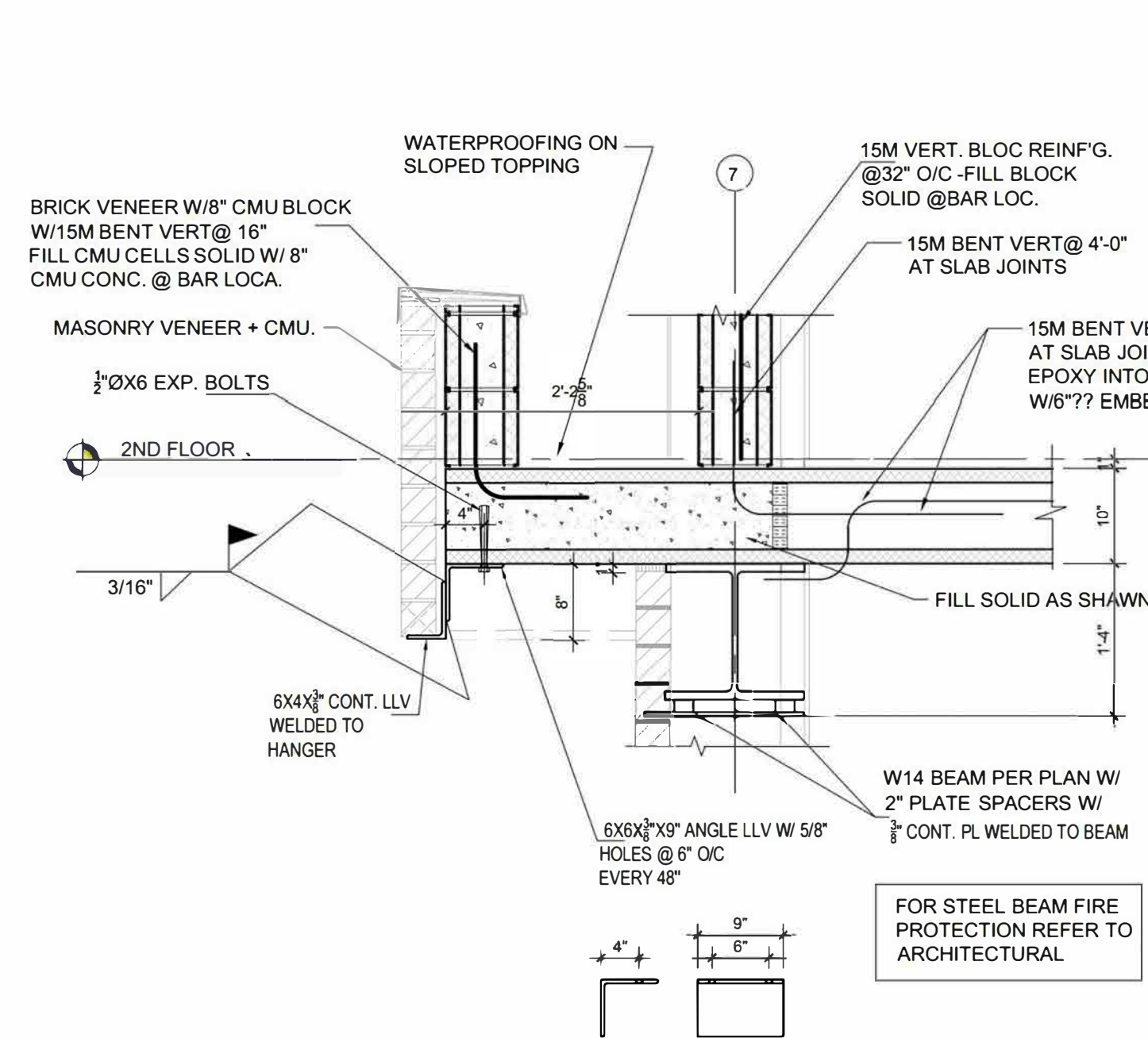


303 HOIST BEAM BEARING DETAIL
S1.4 S2.3
(SAFE WORKING LOAD: 7500lbs)

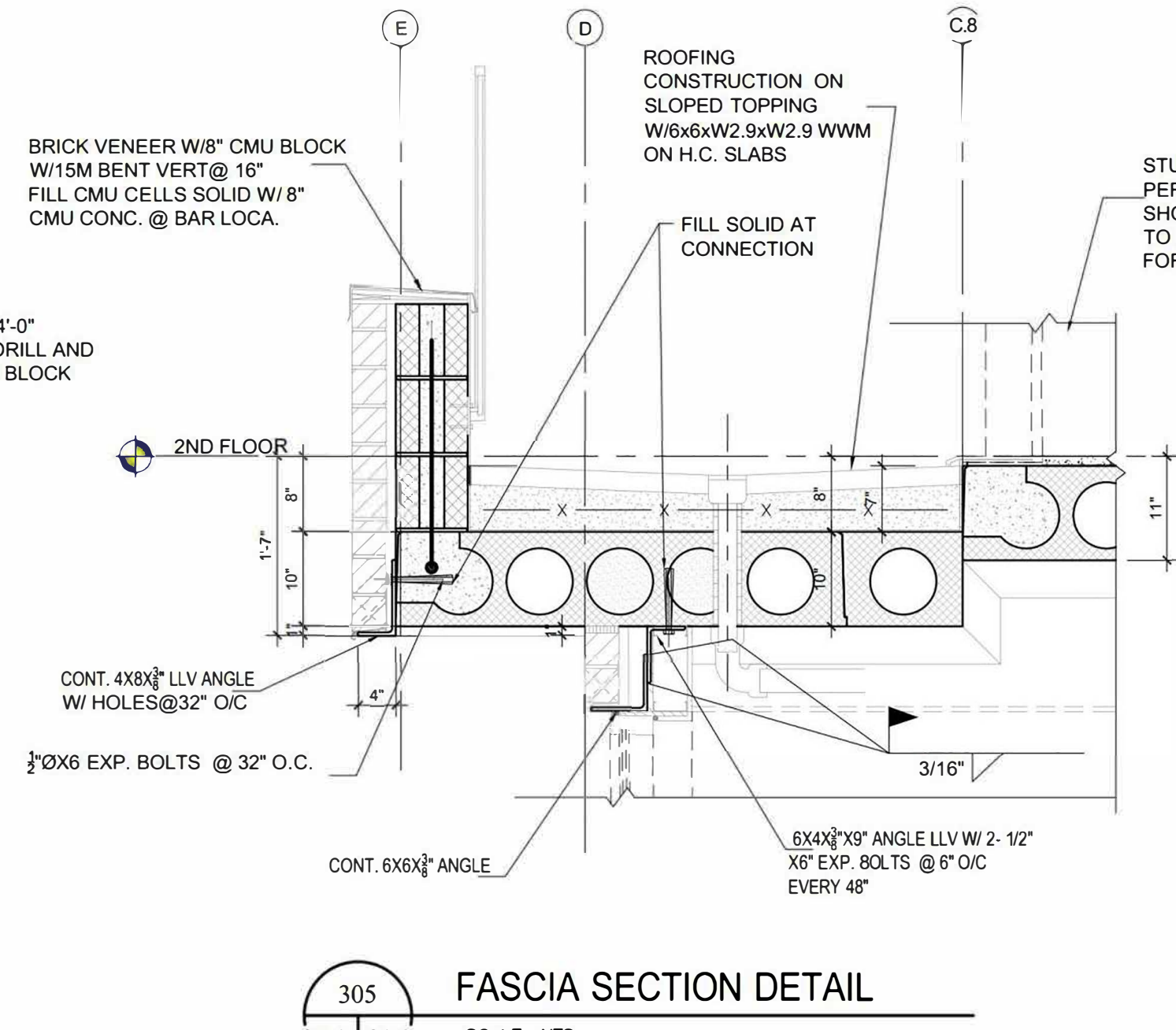
FOR STEEL BEAM FIRE PROTECTION REFER TO ARCHITECTURAL



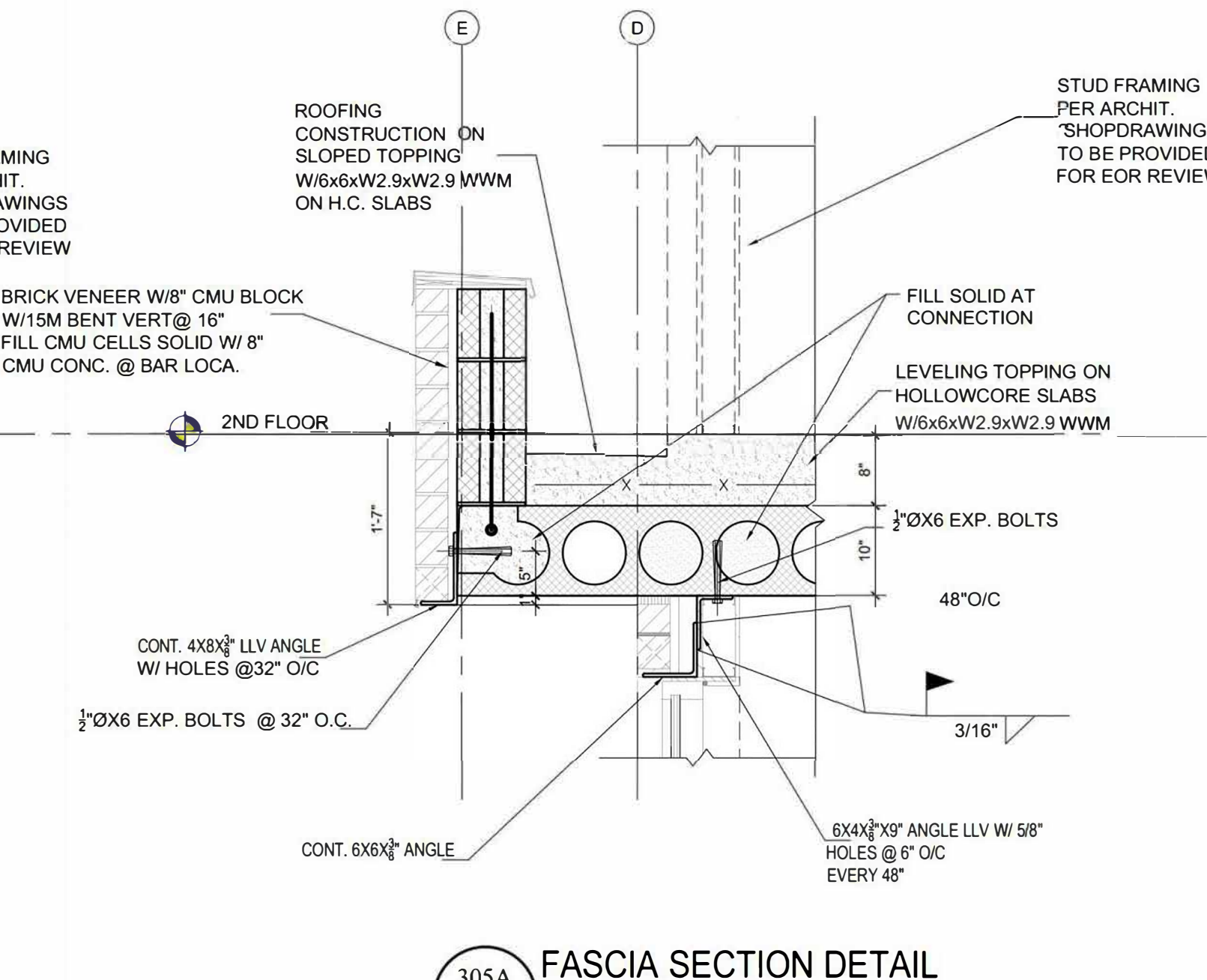
304 SECTION
S1.2 S2.3
SCALE: NTS



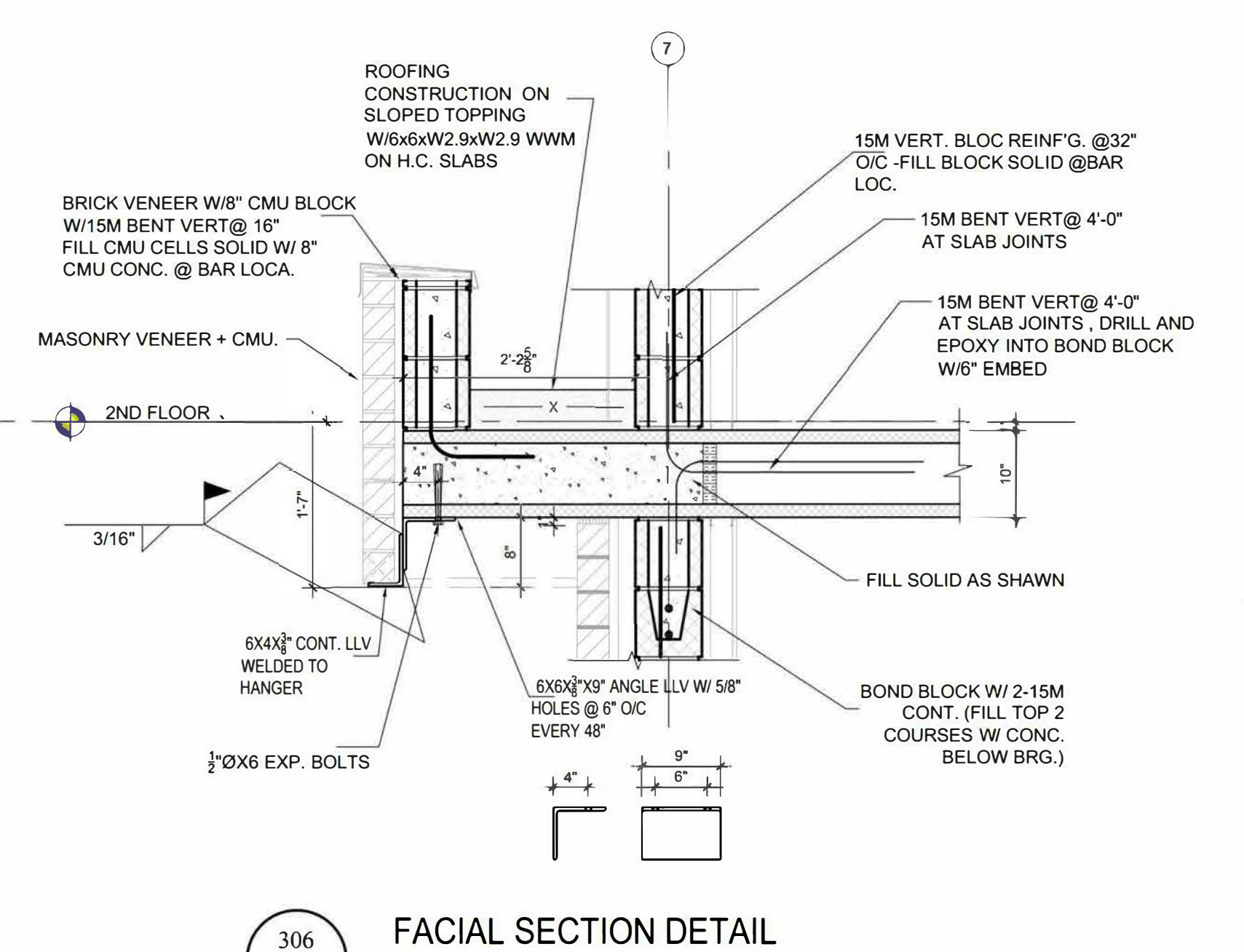
304A SECTION
S1.2 S2.3
SCALE: NTS



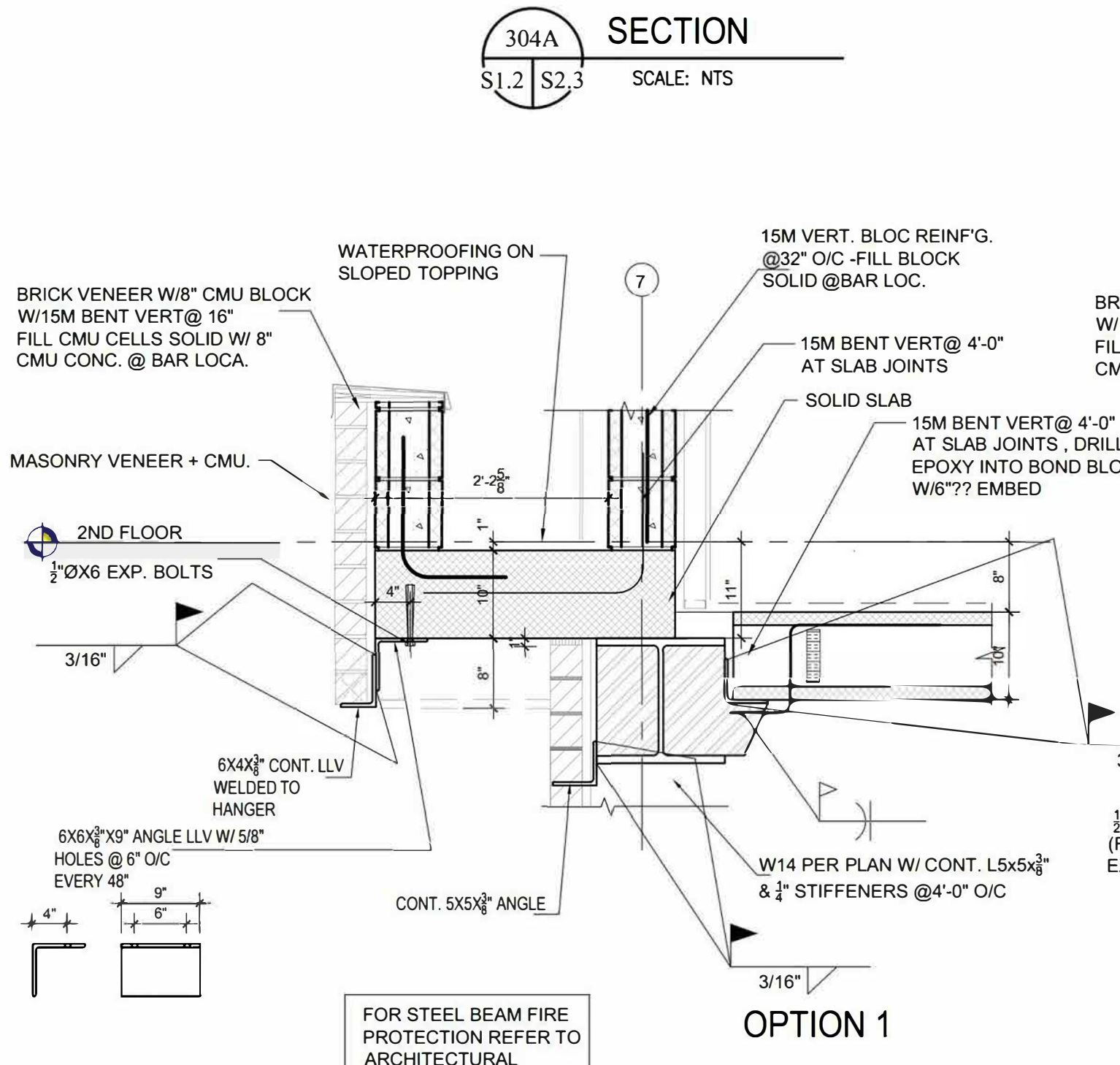
305 FASCIA SECTION DETAIL
S1.2 S2.3
SCALE: NTS



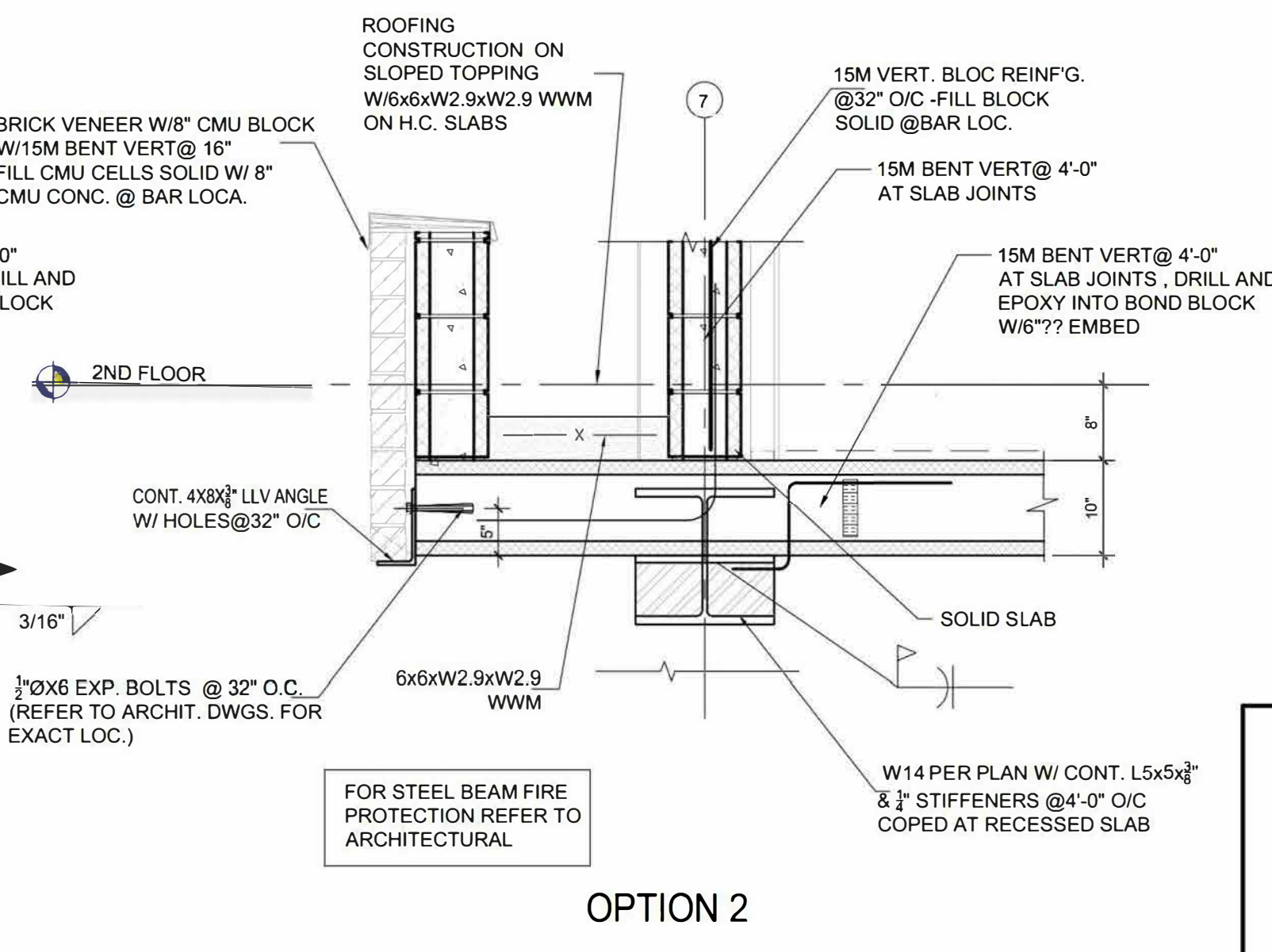
305A FASCIA SECTION DETAIL
S1.2 S2.3
SCALE: NTS



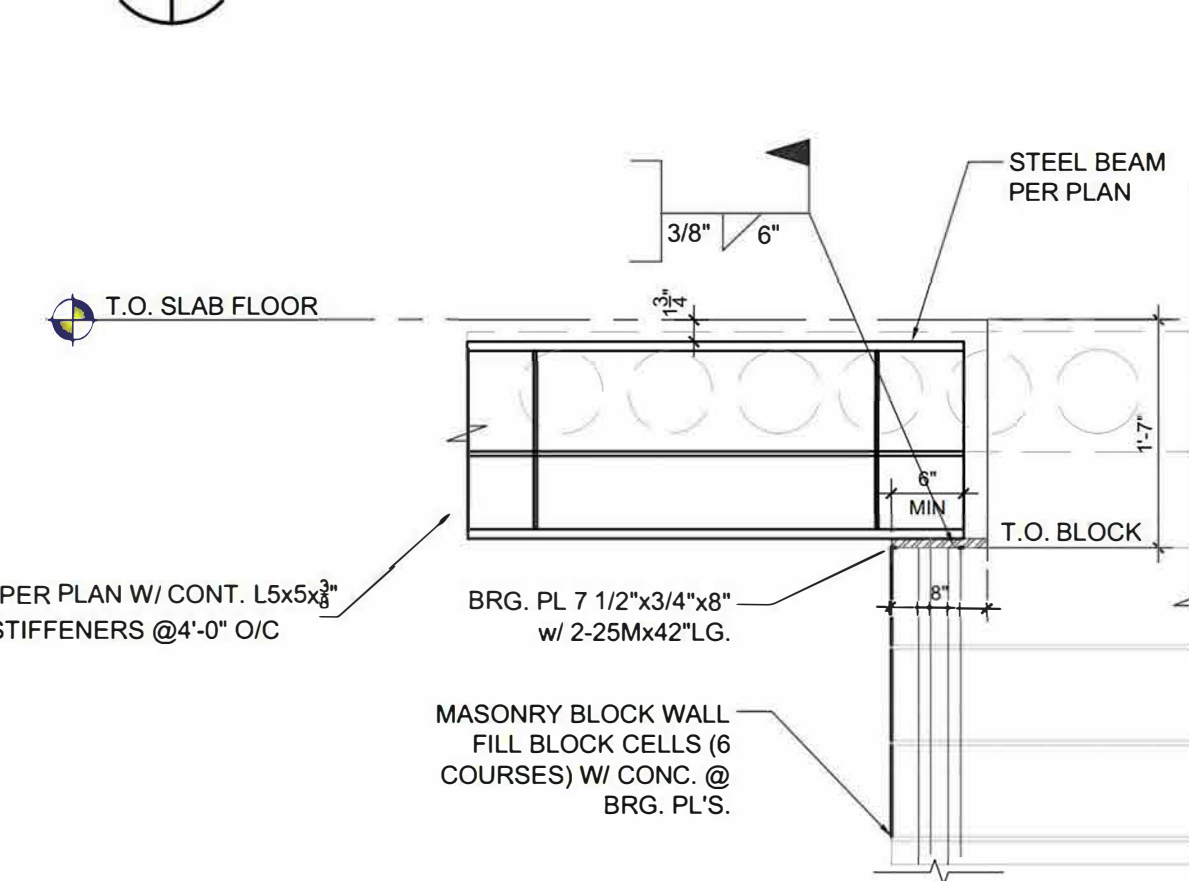
306 FACIAL SECTION DETAIL
S1.2 S2.3
SCALE: NTS



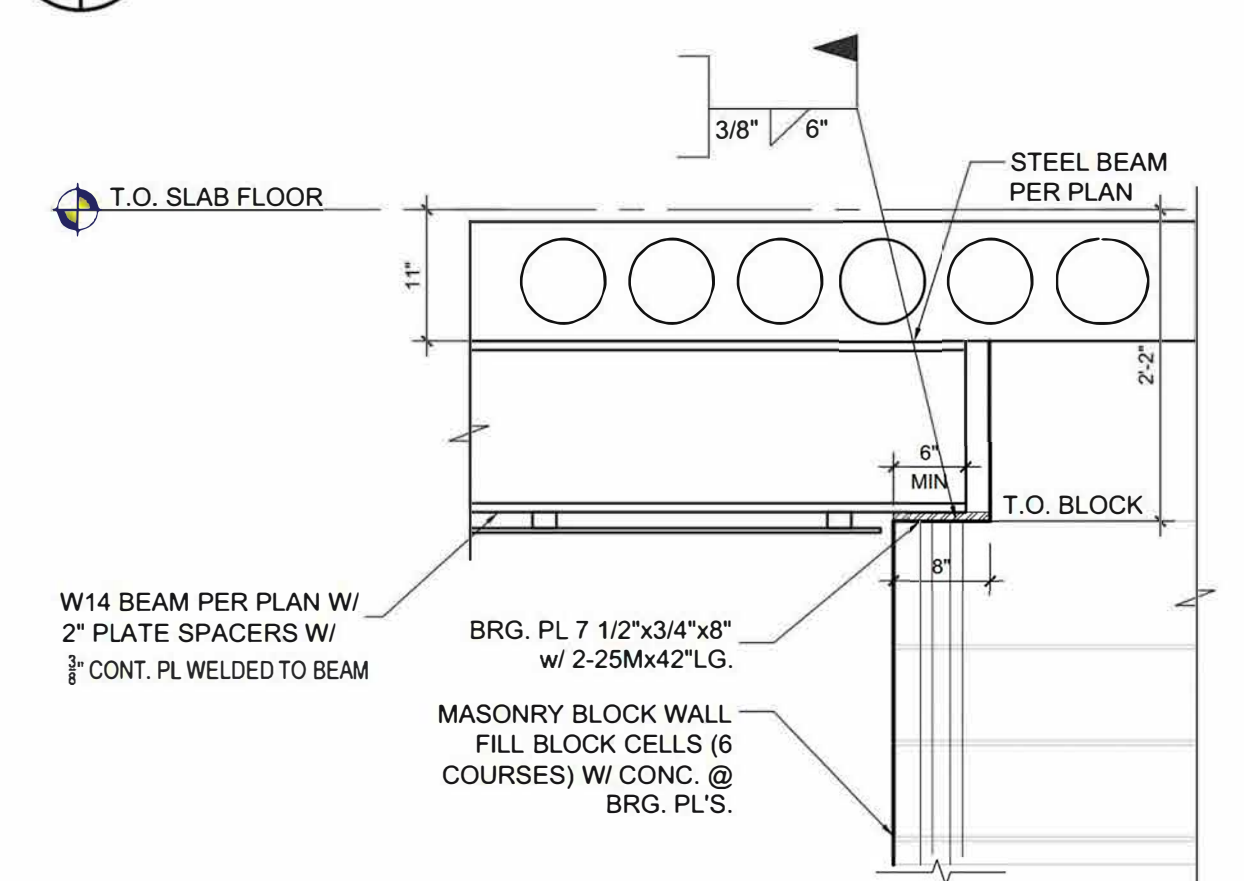
308 SECTION
S1.2 S2.3
SCALE: NTS



OPTION 2



307 SECTION
S1.2 S2.3



307A SECTION
S1.2 S2.3

hgs LIMITED
Consulting Engineers
3260 Devon Drive
Windsor, Ontario N8X 4L4
Tel. (519) 944-3090

LICENSED PROFESSIONAL ENGINEER
JUL 07 23
H. I. ABDELMESSIH
100566634
PROVINCE OF ONTARIO

A	B	LOCATION SHEET
B	C	DETAIL SHEET
CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND INFORMATION ON DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. DO NOT SCALE DRAWING.		

REV.	DATE	DESCRIPTION	BY	CKD.	DATE
3	JUL 07 2023	FOR PRICING			
2	JUN 28 2023	FOR PERMIT			
1	MAY 08 2023	FOR FOUNDATION PERMIT			

PROJECT: **ARK DESIGN BUILD MILL ST. APARTMENTS**

DRAWING TITLE: **STRUCTURAL DETAILS**

LOCATION: _____

GENERAL CONTRACTOR: _____

ARCHITECTURE OF R: _____

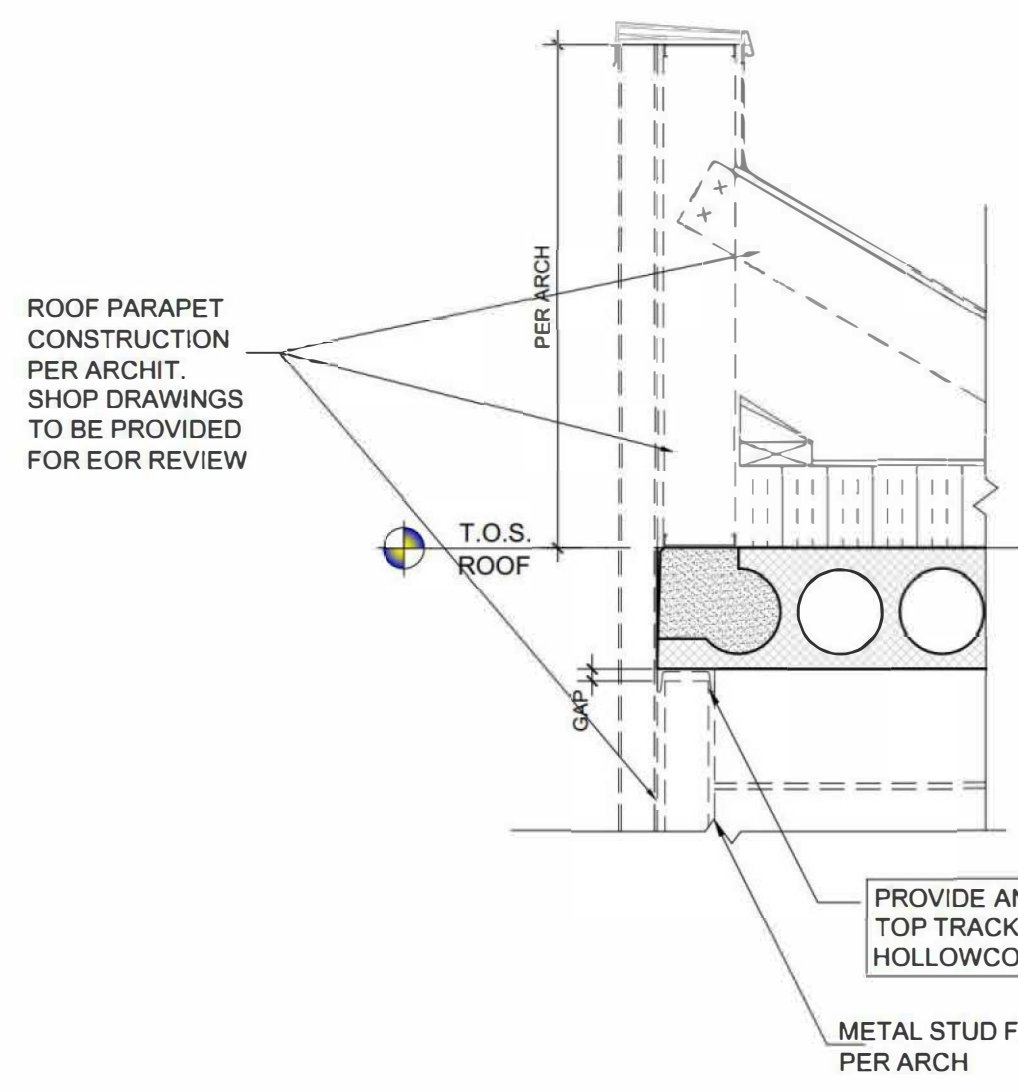
DRAWN: TM SCALE: 3/4"=1'-0"

CHECKED: H/AM

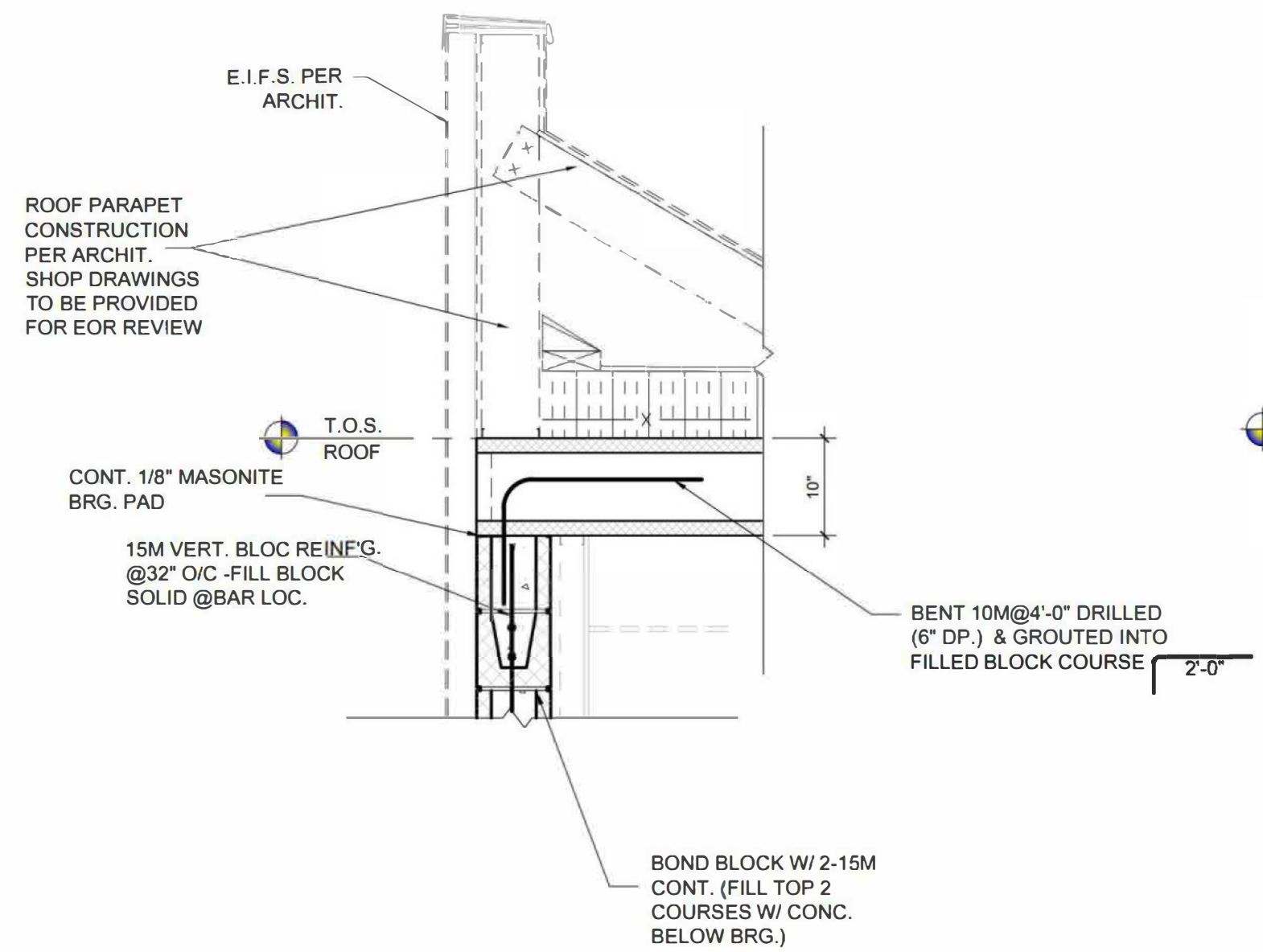
JOB NO.: 23-5108

SHEET NO.: **S2.3**

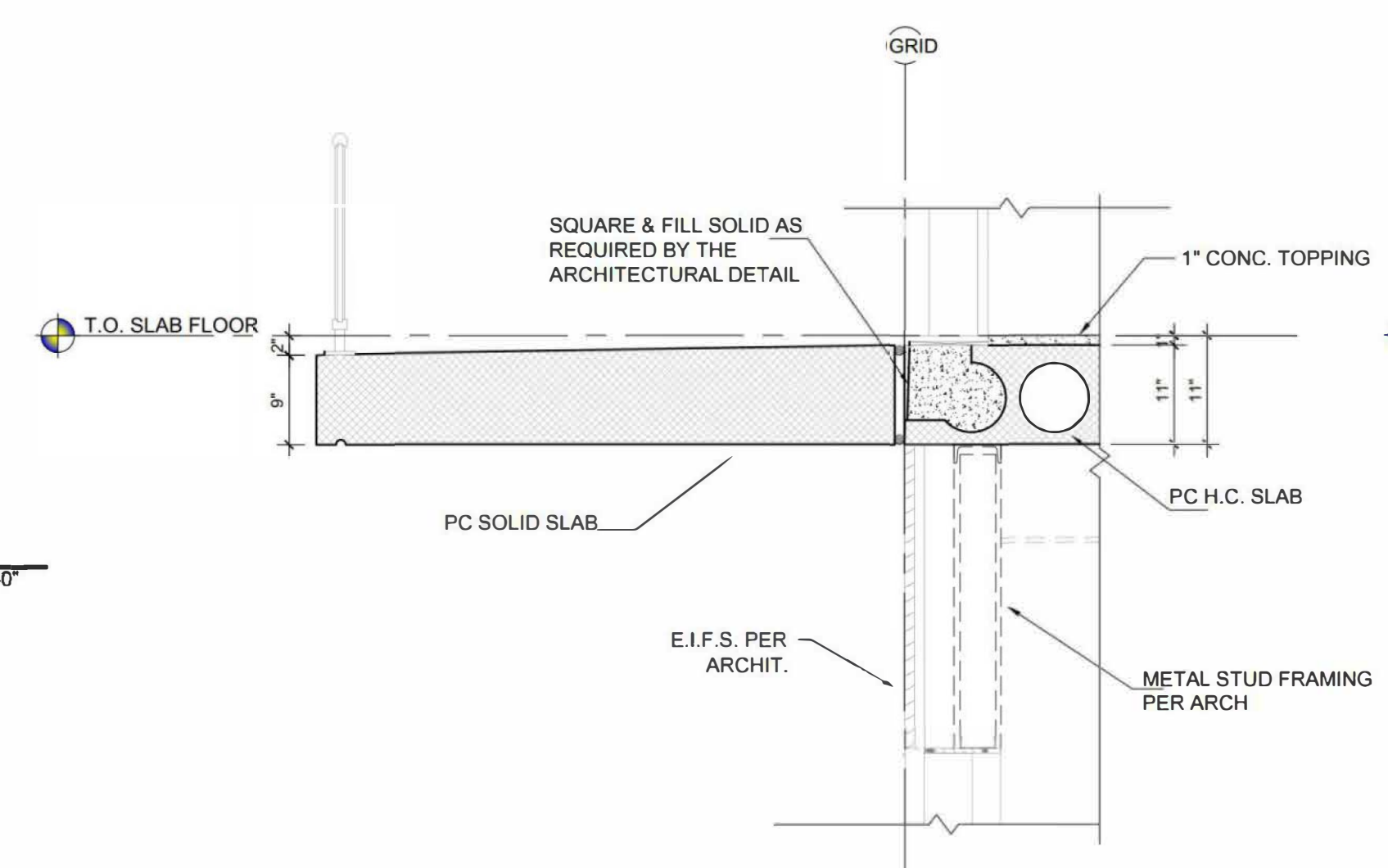
File Name: S2.3 Updated: Jul 2023 Plot Scale: 1"=16'



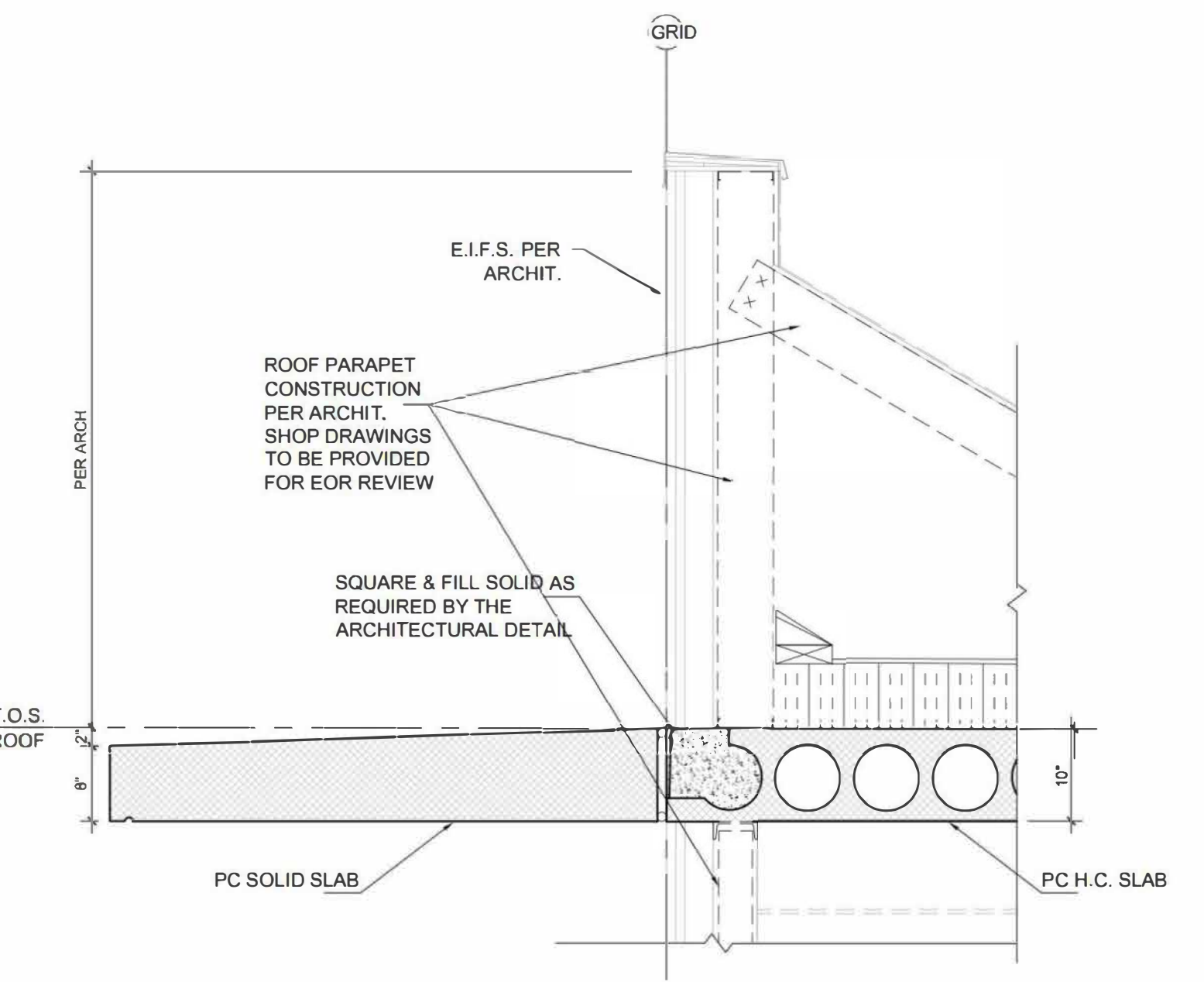
401 SECTION
S1.4 S2.4



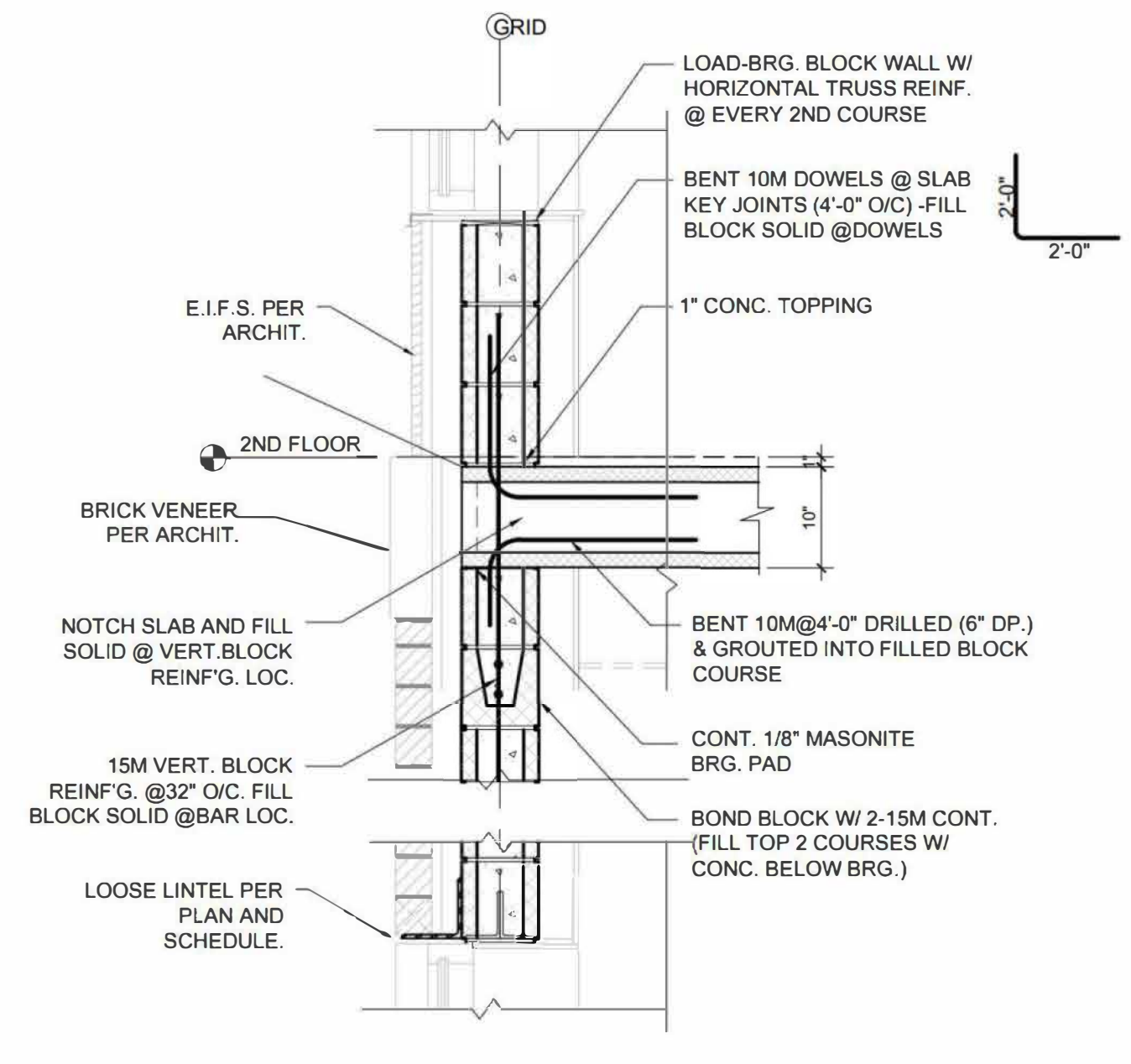
402 SECTION
S1.4 S2.4



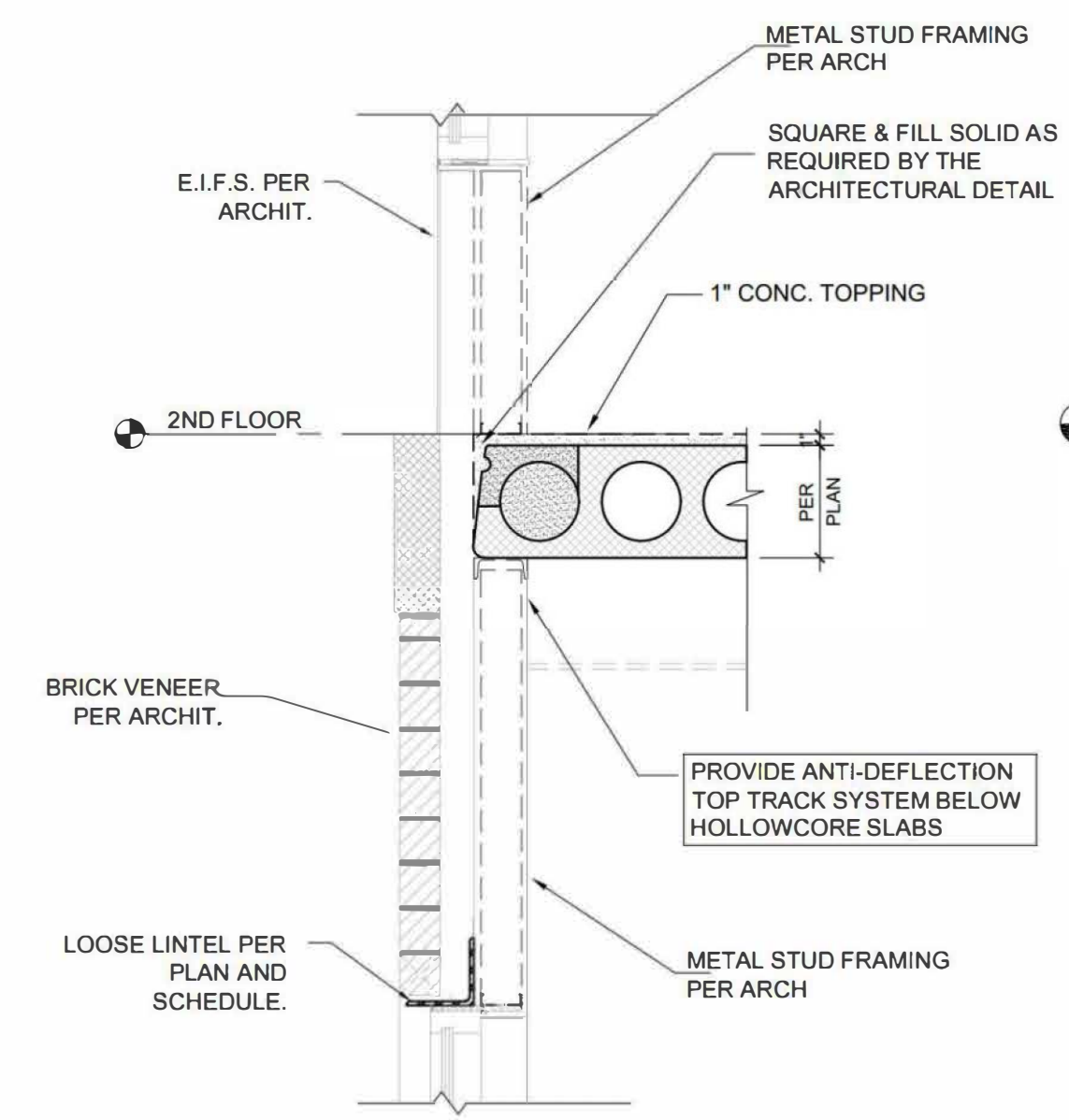
403 SECTION
S1.4 S2.4



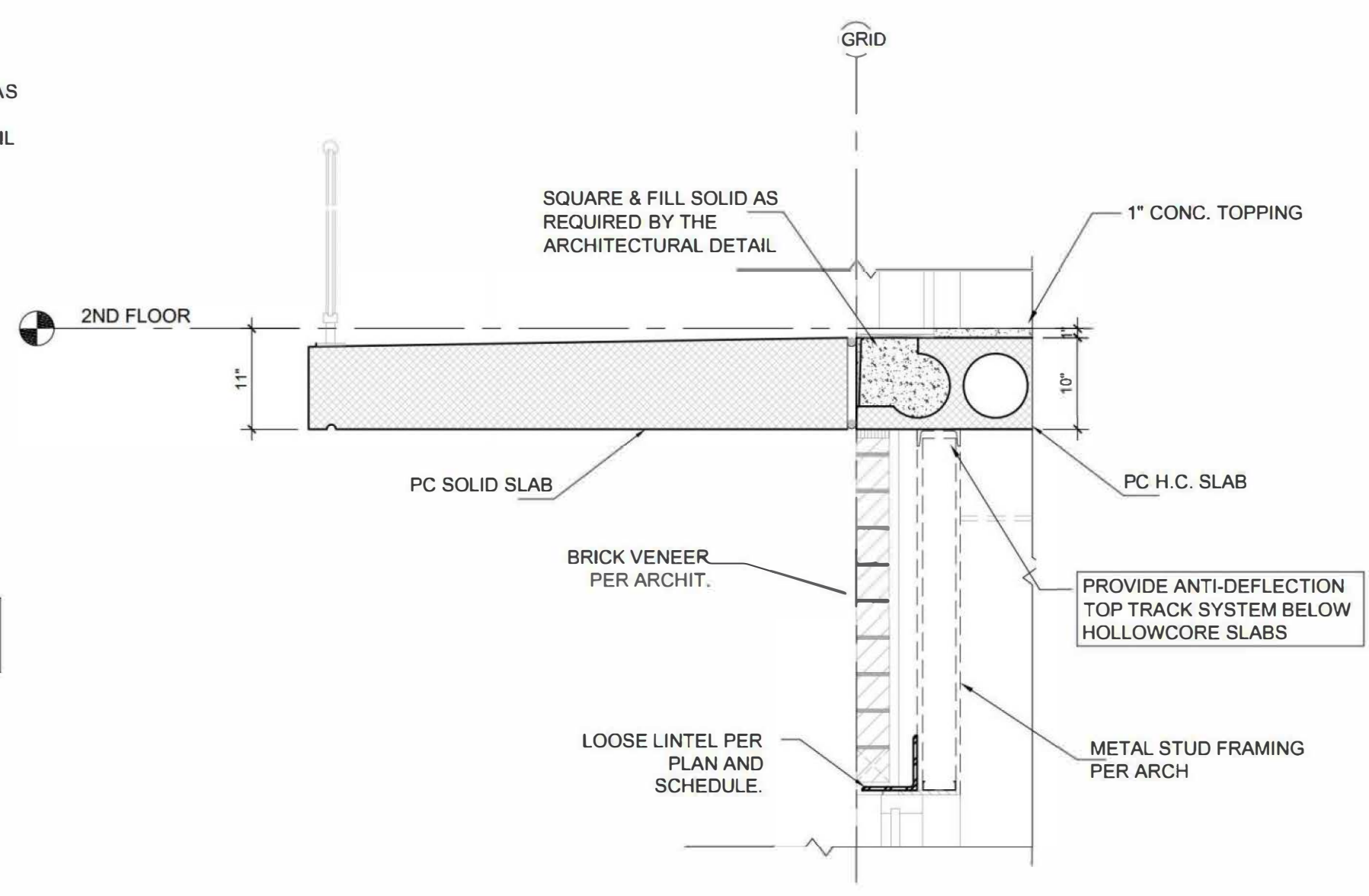
404 SECTION
S1.4 S2.4



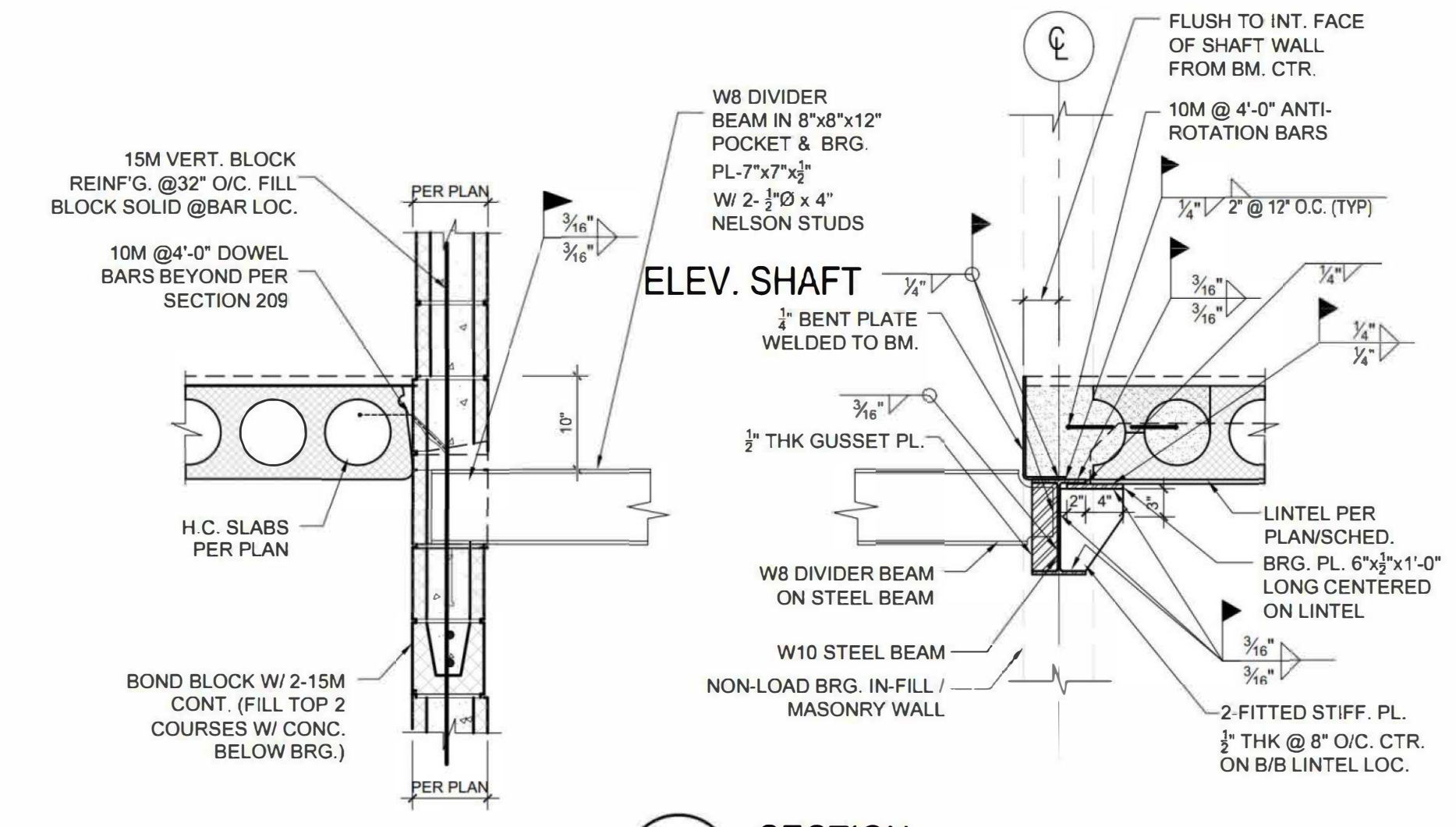
405 SECTION
S1.2 S2.4



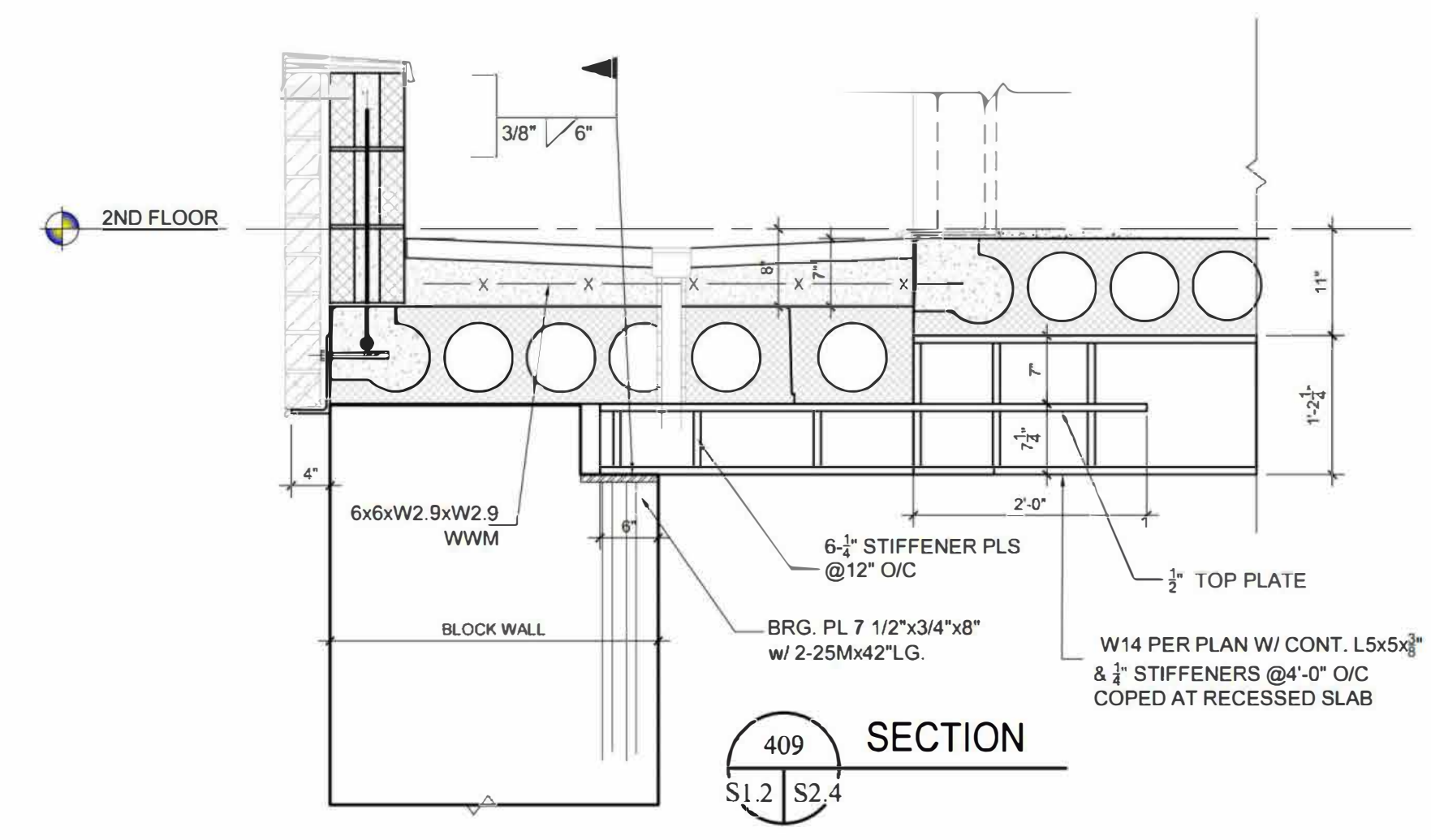
406 SECTION
S1.2 S2.4



407 SECTION
S1.2 S2.4



408 SECTION
S1.2 S2.4



409 SECTION
S1.2 S2.4

hgs
LIMITED
Consulting Engineers
3260 Devon Drive
Windsor, Ontario N8X 4L4
Tel. (519) 944-3090



A B LOCATION SHEET
B C C DETAIL SHEET

CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND INFORMATION ON DRAWINGS AND SPECIFICATIONS
ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION
DO NOT SCALE DRAWING

REV.	DATE	DESCRIPTION	BY	CKD.	DATE
3	JUL 07 2023	FOR PRICING			
2	JUN 28 2023	FOR PERMIT			
1	MAY 08 2023	FOR FOUNDATION PERMIT	TM	HAAA	

PROJECT: ARK DESIGN BUILD MILL ST. APARTMENTS	
DRAWING TITLE: STRUCTURAL DETAILS	
LOCATION	DRAWN: TM SCALE: 3/4"=1'-0"
GENERAL CONTRACTOR	CHECKED: H/M
ARCHITECT: OF R	JOB NO: 23-5108
DATE	SHEET NO: S2.4

File Name: S2.2
 Updated: Jul 2023
 Plot Scale: 1"=6'

GENERAL NOTES

GENERAL:

- THE ONTARIO BUILDING CODE, 2012/FULLY AMENDED TO O.REG.88/19 EDITION SHALL BE THE BASIS FOR THE DESIGN AND CONSTRUCTION OF THIS STRUCTURE.
- ALL DIMENSIONS GIVEN ON THE DRAWINGS MUST BE FIELD CHECKED AND ANY INCONSISTENCIES REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT 1980, ONT. REG. 213/91.

FOUNDATIONS:

- FOOTINGS SHALL BE CARRIED DOWN TO NATURAL UNDISTURBED SOIL, CAPABLE OF SUSTAINING AN ALLOWABLE PRESSURE OF 145 kPa (3,000 psf) FOR SLS & 215 KPa (4,500 psf) FOR ULS. MIN. CLEAN & SOLID & AS PER SOIL REPORT BY EXP SERVICES INC. LON-22020451-AO DATED SEP 14,2022. IF ANY SOIL ENCOUNTERED AT FOUNDATION LEVEL THAT WILL NOT SUSTAIN THE GIVEN PRESSURE, (SOIL ENGINEER SHALL FIELD VERIFY DURING EXCAVATION), NOTIFY THE ENGINEER BEFORE PROCEEDING ANY FURTHER.
- ALL EXTERIOR FOOTINGS SHALL BE CARRIED DOWN TO A MINIMUM OF 4'-0" BELOW FINISHED GRADE. FOOTINGS EXPOSED TO FROST ACTION DURING CONSTRUCTION SHALL BE PROTECTED BY 4'-0" OF EARTH OR ITS EQUIVALENT.
- THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATION FOR FOOTINGS, SEWERS OR ALONG STEPPED WALL FOOTINGS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10, MAXIMUM STEP APPROXIMATELY 2'-0".
- BACK FILL ON EACH SIDE OF FOUNDATION WALLS SUCH THAT THE DIFFERENCE IN GRADE DOES NOT EXCEED 2'-0".
- ALL EXPOSED SUB-GRADE, FOOTING LEVELS, AND SLAB ON GRADE ARE TO BE INSPECTED BY THE SOIL ENGINEER BEFORE PROCEEDING.
- REMOVE ALL TOPSOIL AND FILL AND PROOF-ROLL EXPOSED GRADE. USE GRANULAR 'A' FILL UNDER CONCRETE SLABS COMPACTED TO 100% OF ITS STANDARD PROCTOR MAXIMUM DRY DENSITY. SOFT OR DELETERIOUS MATERIAL (IF ENCOUNTERED DURING THE PROOF-ROLLING INSPECTION) MUST BE REPLACED WITH WELL GRADED GRANULAR FILL SUCH AS GRANULAR 'B' TYPE 1 (O.P.S.S. 1010), COMPACTED TO 95% OF ITS STANDARD PROCTOR MAXIMUM DRY DENSITY.
- BACK FILL AGAINST EXTERIOR RETAINING WALLS OR BASEMENT WALLS USING FREE DRAINING GRANULAR FILL SUCH AS GRANULAR 'B' TYPE 1 (O.P.S.S. 1010). THE GRANULAR FILL SHOULD BE COMPACTED TO 98% OF ITS STANDARD PROCTOR MAXIMUM DRY DENSITY.
- THE EXCAVATIONS FOR FOUNDATION WORK SHOULD BE DONE IN A DRY PERIOD AND THE FOUNDATION CONCRETE SHOULD BE PLACED IMMEDIATELY. IF NOT POSSIBLE, PLACE A THIN LAYER OF LEAN CONCRETE (MUD MAT) ON THE BASE OF EXCAVATION JUST AFTER REVIEW BY THE GEOTECHNICAL CONSULTANT.
- PLACE FOOTING CONCRETE IN FORMS FREE OF STANDING WATER AS SOON AS POSSIBLE AFTER EXCAVATION.

CONCRETE:

- ALL CONCRETE WORK SHALL COMPLY WITH CSA STANDARD A23.1-19/A23.2-19 AND A23.3-19 & A23.4-19. THE DESIGN SHALL COMPLY WITH CSA STANDARD A23.3-19 "DESIGN OF CONCRETE STRUCTURES".
- CONCRETE ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS QUALITY SHALL BE AS FOLLOWS:

FLOOR (PARKING DECK)	30 MPa	(6% AIR ENTRAINMENT)
RAFT / FOOTING / SLAB ON GRADE	25 MPa	
CAISSONS	25 MPa	
EXTERIOR CONCRETE, SIDEWALKS, ETC.	35 MPa w/ AIR	ENTRAINMENT AS SPECIFIED BY A23.3-19
COLUMNS (U/N ON COLUMN SCHEDULE)	30 MPa	
BEAMS (U/N ON BEAM SCHEDULE)	30 MPa	
WALLS (U/N ON WALL ELEVATIONS AND PLANS)	25 MPa	

- CONCRETE COVER FOR REINFORCEMENT SHALL BE:

EXTERIOR CONCRETE FLOORS	- TOP	1 3/4"
EXTERIOR CONCRETE FLOORS	- BOTTOM	1 1/2"
CONC. CAST AGAINST EARTH		3"
FOUNDATION WALLS (FORMED)	- EARTH SIDE	2"
	- INTERIOR	1"
INTERIOR CONCRETE FLOORS	- TOP	1"
	- BOTTOM	1"
INTERIOR CONC. COLUMNS		1 1/2"
EXTERIOR COLUMNS		2"
BEAMS		1 1/2"
CONCRETE WALLS		3/4"

- COMPRESSIVE STRENGTH OF NON-SHRINK GROUT (M-BED STANDARD BY STERNSON OR EQUAL) AT 3 DAYS QUALITY SHALL BE 30 MPa.

REINFORCING STEEL:

- REINFORCING STEEL SHALL BE DEFORMED HARD GRADE NEW BILLET BARS CONFORMING TO CSA STANDARD CAN/CSA-18-M2021 AND HAVING A MINIMUM YIELD STRENGTH OF 400 MPa, WELDABLE.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM 1064/1064M, Fy = 450 MPa.
- ALL BAR SPLICES AND DEVELOPMENT LENGTHS SHALL CONFORM TO CSA STANDARD A23.3-19. MINIMUM SPLICE 36 BAR DIAMETERS OR 12", WHICHEVER IS GREATER.
- DOWELS TO MATCH VERTICAL REINFORCEMENT SIZES (UNLESS NOTED OTHERWISE).

STRUCTURAL STEEL:

- ALL STRUCTURAL STEEL WORK SHALL COMPLY WITH CSA STANDARD CAN/CSA-S16-19 DESIGN OF STEEL STRUCTURES.
- ALL STRUCTURAL STEEL SHALL CONFORM TO CAN/CSA-G40.20/G40.21-13 (R2018), GRADE 350W. H.S.S. SECTIONS SHALL CONFORM TO GRADE 350W, CLASS H.
- DO NOT PAINT STEEL IN CONTACT WITH CONCRETE.
- ALL FIELD BOLTED CONNECTIONS SHALL CONFORM TO ASTM F3125, GRADE A325 FOR HIGH TENSILE BOLTS, MINIMUM 2 BOLTS PER CONNECTION, 3/4" DIAMETER BOLTS (UNLESS NOTED OTHERWISE).
- WELDING WHERE CALLED FOR, SHALL CONFORM TO CSA SPECIFICATIONS AND SHALL DEVELOP THE FULL STRENGTH OF THE MEMBERS WHERE THE LOADS ARE NOT SHOWN, USE #70XX ELECTRODES. ALL WELDS TO HAVE END RETURNS IN ACCORDANCE WITH CSA STANDARD W47.1-2019, W59-2018, AND W186-M2021
- ALL STRUCTURAL STEEL SHALL HAVE A PRIME COAT OF RUST INHIBITIVE METAL PAINT, C.G.S.B.1-GP-40M-1979. DO NOT PAINT STEEL IN CONTACT OF CONCRETE.

MASONRY:

- ALL MASONRY WORK SHALL CONFORM TO CSA STANDARD 5304-14 (R2019) "DESIGN OF MASONRY STRUCTURES".
- ALL BLOCKS SHALL BE MORTAR BEDDED FOR FACE SHELLS AND WEBS (MORTAR ON THE ENTIRE AREA).
- MORTAR USED SHALL BE MINIMUM TYPE 'S'.
- THE STRENGTH OF THE CONCRETE USED FOR FILLING BLOCK SHALL BE 20 MPa AT 28 DAYS QUALITY.
- PROVIDE HOT DIPPED GALVANIZED (458 g/m COATING² HORIZONTAL REINFORCEMENT (DUR-O-WAL OR APPROVED EQUAL) AT EVERY SECOND COURSE FOR ALL BLOCK WORK.
- ALL BLOCK WORK SHALL BE CONSTRUCTED IN RUNNING BOND (UNLESS NOTED OTHERWISE).
- THE CONTRACTOR SHALL NOT CUT ADDITIONAL HOLES THROUGH MASONRY WALLS OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
- BEARING ON MASONRY: BEARING SHALL BE ON BLOCKS FILLED SOLID WITH MORTAR, FILL THE BLOCKS FOR A LENGTH EQUAL TO TWICE THE LENGTH OF BEARING AND TO A DEPTH EQUIVALENT TO THE LENGTH OF BEARING.

STRUCTURAL STEEL STUDS:

- ALL STRUCTURAL STEEL STUDS AS SHOWN ON ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS ARE TO BE DESIGNED IN ACCORDANCE WITH CSA STANDARD CAN3-S136-16 (R2021).
- STRUCTURAL STEEL STUDS ARE TO BE BAILEY NCI OR APPROVED EQUAL.
- DESIGN STRUCTURAL STEEL STUDS ACCORDING TO LOADS GIVEN IN THESE GENERAL NOTES (UNLESS NOTED OTHERWISE).
- SUBMIT FOUR (4) SETS OF COMPLETE SHOP DRAWINGS, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO, TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF WORK.

PRECAST CONCRETE:

- PRECAST CONCRETE COMPONENTS ARE TO BE DESIGNED AS PER THE REQUIREMENTS OF CSA STANDARDS A23.1-19 AND A23.4-19, AND THE CPCL HANDBOOK (5TH EDITION).
- SUBMIT COMPLETE CALCULATIONS, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO, SHOWING ALL COMPONENTS, CONNECTION DESIGN, BEARING, ETC.
- SUBMIT COMPLETE ERECTION DRAWINGS, ERECTION DETAILS AND SHOP DRAWINGS FOR PIECE PRECAST ELEMENTS TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF PRODUCTION.

DESIGN LOADS: (UNLESS NOTED OTHERWISE ON THE DRAWINGS)

	D.L. (PSF)	L.L. (PSF)	S.L. (PSF)
DWELLING AREAS	107 (10"HC +Part.+Mech.+Fin) (70+37)	40	
AMENITY AREAS AND LOBBIES	120 (10"HC +Part.+Mech.+Fin) (70+50)	100	
ROOFS	137 (10"HC +Rtg. Asm) + EQUIPMENT (70+30+38)	20	22 + BUILD UP
MECHANICAL ROOMS	120 (10"HC +Mech.+Pass) (70+50+See Plans)	75	

LATERAL LOADS

WIND:
 $p = Iw^2qCeCtCgCp$
 $Iw = 1.0$
 $q = 0.43 (0/50 \text{ years})$
 $Ce = (h/10)^{0.2}$
 $Ct = 1.0$
 $Cg = 2.0$
 $Cp(w/w) = 0.8$
 $Cp(l/w) = 0.5$

SEISMIC:

$Sa(0.2) = 0.112$
 $Sa(0.5) = 0.07$
 $Sa(1.0) = 0.039$
 $Sa(2.0) = 0.019$
 $Sa(5.0) = 0.0047$
 $Sa(10.0) = 0.002$
 $PGA = 0.068$
 $Fa = 1.24$
 $Rd = 2.0, Ro = 1.5$

SITE CLASS : D
 IMPORTANCE FACTOR=1.0
 $Mv=1.0$
 $To=0.43$
 $V = \frac{S(Ta) M J e W}{Rd Ro}$
 $= 3.43 \% W$

SIZE	D.L. (PSF)	
	HOLLOWCORE	SOLID SLAB
8"	62	110
10"	70	130
12"	82	160
14"	101	185

LINTEL SCHEDULE			
MARK	DESCRIPTIONS	PROFILE	REMARK
L-1	2-L6 x 4x 1/2" LLV TACK WELDED B/B		BEARING PLATES- 7"x7"x1/2" + N. STUDS TYP. U.N.O. ON PLAN
L-2	2-L5 x 3 1/2 x 3/8" LLV TACK WELDED B/B, OR LINTEL BLOCK W/ 2-15M BOTT. BARS (MASONRY BLOCK) 1-L6 x 6x 3/8" LOOSE BRICK SHELF ANGLE (BELOW SECOND FLOOR ONLY)		BEARING PLATES- 7"x7"x1/2" + N. STUDS TYP. U.N.O. ON PLAN 8" MIN BEARING ON BRICK
L-3	1-L6 x 6x 3/8" LOOSE BRICK SHELF ANGLE		8" MIN BEARING ON BRICK
L-4	2-L5 x 3 1/2 x 3/8" LLV TACK WELDED B/B, OR 8" LINTEL BLOCK W/ 2-15M BARS		BEARING PLATES- 7"x7"x1/2" + N. STUDS TYP. U.N.O. ON PLAN
L-5	2-L6 x 6x 1" LLV TACK WELDED B/B		BEARING PLATES- 7"x7"x1/2" + 4-15M TYP. U.N.O. ON PLAN
L-6	2-L6 x 4x 3/8" LLV TACK WELDED B/B 1-L6 x 6x 3/8" LOOSE BRICK SHELF ANGLE		BEARING PLATES- 7"x7"x1/2" + N. STUDS TYP. U.N.O. ON PLAN 8" MIN BEARING ON BRICK

NOTE:ALL STEEL LINTELS SHOULD HAVE 6" MIN. BRG.

FOOTING SCHEDULE					
MARK	SIZE	DEPTH	REINFORCEMENT		REMARKS
			MAIN	SECONDARY	
A	3'-0"	12"	20M @ 14"	3-15M	
B	12'-0"	18"	25M @ 8"	10-20M	
C	9'-0"	16"	25M @ 12"	7-20M	
D	6'-6"	14"	20M @ 12"	7-15M	
E	11'-0"	18"	25M @ 10"	9-20M	
F	SEE PLAN	20"	25M @ 14" (T&B) EACH DIRECTION		

NOTE:ALL FTG. SIZES & RE-BARS SHALL BE BASED ON THIS SCHEDULE UNLESS NOTED OTHERWISE. ELEVATION & SECTION SHOWN ON DWG. SERIES S2.- SHALL BE FOR ILLUSTRATION PURPOSES ONLY.

 Consulting Engineers 1260 Devon Drive Windsor, Ontario N8X 4L4 Tel. (519) 944-3090		<table border="1"> <tr> <td>A</td> <td>DETAIL NUMBER</td> </tr> <tr> <td>B</td> <td>LOCATION SHEET</td> </tr> <tr> <td>C</td> <td>DETAIL SHEET</td> </tr> </table>	A	DETAIL NUMBER	B	LOCATION SHEET	C	DETAIL SHEET	CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS AND INFORMATION ON DRAWINGS AND SPECIFICATIONS ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION DO NOT SCALE DRAWING	PROJECT: ARK DESIGN BUILD MILL ST. APARTMENTS
			A	DETAIL NUMBER						
B	LOCATION SHEET									
C	DETAIL SHEET									
DRAWING TITLE: FTGS./LINTEL SCHEDULES AND GENERAL NOTES										
				GENERAL CONTRACTOR: TM						
				ARCHITECT: H/A/A						
				CHECKED: H/A/A						
				JOB NO.: 23-5108						
				SHEET NO.: S3.0						
				DATE:						
				BY: CKD.						
				REV. DATE DESCRIPTION						