

DESIGN CRITERIA NOTES

1. GENERAL
- 1.1. THE PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2012 OBC
- 1.2. TO 300% AS AMENDED INCLUDING CLAUSES 4.1.5 (1), 4.1.5 (4), 4.1.7 AND 4.1.8
- 1.3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR WHO IS SUPPLYING AND INSTALLING EQUIPMENT, THAT ALL ELEMENTS OF STRUCTURES LISTED IN TABLE 4.1.8.9 OF THE OBC 2012 ARE DESIGNED IN ACCORDANCE WITH CLAUSE 4.1.8.10
- 1.4. BUILDING IMPORTANCE CATEGORY (SNOW, WIND, AND EARTHQUAKE) IS POST DISASTER
- 1.5. STIFF ELEMENTS NOT PART OF SPRS SHALL BE SEPARATED FROM THE STRUCTURE AS PER OBC CLAUSE 4.1.8.3 (a)
- 1.6. CHANGES INCLUDE, BUT NOT LIMITED TO MASONRY PARTITIONS, BRICK VENEER, PRECAST CLADDING ETC. IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO PROVIDE SHOP DRAWINGS, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER DEMONSTRATING COMPLIANCE. PROVIDE MINIMUM 15mm SEPARATION UNLESS NOTED OTHERWISE
- 1.7. MISCELLANEOUS METAL, PRECAST AND STEEL FABRICATORS SHALL:
- 1.7.1. PROVIDE SHOP DRAWINGS TO THE ARCHITECT PRIOR TO FABRICATION, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER
- 1.7.2. DESIGN ALL GUARDS TO MEET LATERAL LOADS DESCRIBED IN OBC 4.1.5.14
- 1.7.3. DESIGN ALL HANDRAILS TO MEET LOADS DESCRIBED IN OBC 4.1.5.10
- 1.7.4. DESIGN ALL STAIRS TO SUPPORT A MINIMUM LIVE LOAD OF 4.89kPa
- 1.8. ARCHITECTURAL PRECAST FABRICATOR SHALL:
- 1.8.1. PROVIDE SHOP DRAWINGS TO THE ARCHITECT PRIOR TO FABRICATION, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER
- 1.8.2. WHERE PRECAST IS USED AS A GUARD DESIGN THE PRECAST AND CONNECTIONS TO MEET LATERAL LOADS DESCRIBED IN OBC 4.1.5.14

2. GRAVITY AND LATERAL LOADS ON STRUCTURE

2.1. WIND

$W = 1.25$
 $q = 150 = 0.44 \text{ kPa}$
 $C_e = 0.7$ (10) 15 NOT LESS THAN 0.5
 $C_d = 1.0$
 $C_g = \text{AS PER FIGURE 4.1.7.6.4 OF NBC 2020}$

2.2. SNOW

$S = 1.25$
 $S_g = 2.0$
 $S_r = 0.4$

2.3. EARTHQUAKE

$S_{a(0.2)} = 0.138$ $P_{dA} = 0.085$ $F_a = 1.0$ $I_e = 1.5$
 $S_{a(0.5)} = 0.087$ $S_{d(0.5)} = 0.087$ $S_{d(1.0)} = 0.050$ $S_{d(2.0)} = 0.026$ $R_d = 2.0$ $R_o = 1.3$ $U_S S_{d(0.2)} = 0.21$

SPRS CONSISTS OF:
LIMITED DUCTILITY CONCENTRICALLY BRACED FRAMES
LIMITED DUCTILITY MOMENT-RESISTING FRAMES
METHOD OF ANALYSIS - DYNAMIC

3. FOUNDATION WALLS

3.1. WALLS RETAINING EARTH ARE DESIGNED TO SAFELY WITHSTAND HORIZONTAL EARTH PRESSURE

$P = K (W_1 + W_2)$
 $K = 0.3$
 $W_1 = 20 \text{ kN/m}^2$
 $W_2 = 10 \text{ kN/m}^2$
 $h = \text{DEPTH METRES}$

3.2. THE WALLS HAVE BEEN DESIGNED ASSUMING FREE DRAINING BACKFILL OR THE USE OF A DRAINAGE CORE TO PREVENT THE BUILD-UP OF HYDROSTATIC PRESSURE.

CONCRETE MIX SCHEDULE

EXPOSURE	ELEMENT	MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (MPa)	EXPOSURE CLASSIFICATION	NOTES
GENERAL NON-EXPOSED CONCRETE (i.e. NOT EXPOSED TO PERIS, CHLORIDES NOR FREEZE AND THAW)	FOOTINGS	25	N	
	FOUNDATION WALLS	25	N	
	SLAB ON GRADE (NOT INCLUDING APPARATUS BAY SLAB)	25	N	
	LEAVIN	5	N	
	HOUSEKEEPING PAIS	25	N	
	TOPPING	25	N	
	UNDESIRABLE FILL	3.4 MAX	N	
EXTERIOR EXPOSED CONCRETE (i.e. EXPOSED TO FREEZE AND THAW BUT NOT CHLORIDES)	FOUNDATION RETAINING WALLS	25	F-2	
	PERIS	25	F-2	
	SLAB ON GRADE - SIDEWALKS	32	C-2	
PARKING AREAS EXPOSED TO CHLORIDES	SLAB ON GRADE - APPARATUS BAY	SUPERPLASTICIZED 35	C-1	NO AIR ENTRAINMENT
	APRON SLAB	35	C-1	
GROUT	MASONRY FILL-BOND BEAMS	S (FINE GROUT)		CONFORM TO REQUIREMENTS OF CSA A179

- 1) STRENGTH SPECIFIED AT 28 DAYS U.L.O IN DRAWINGS AND SCHEDULES
- 2) REINFORCED WITH SYNTHETIC FIBERS ADDED AT BATCHING PLANT - SEE SPECIFICATIONS

1. GENERAL

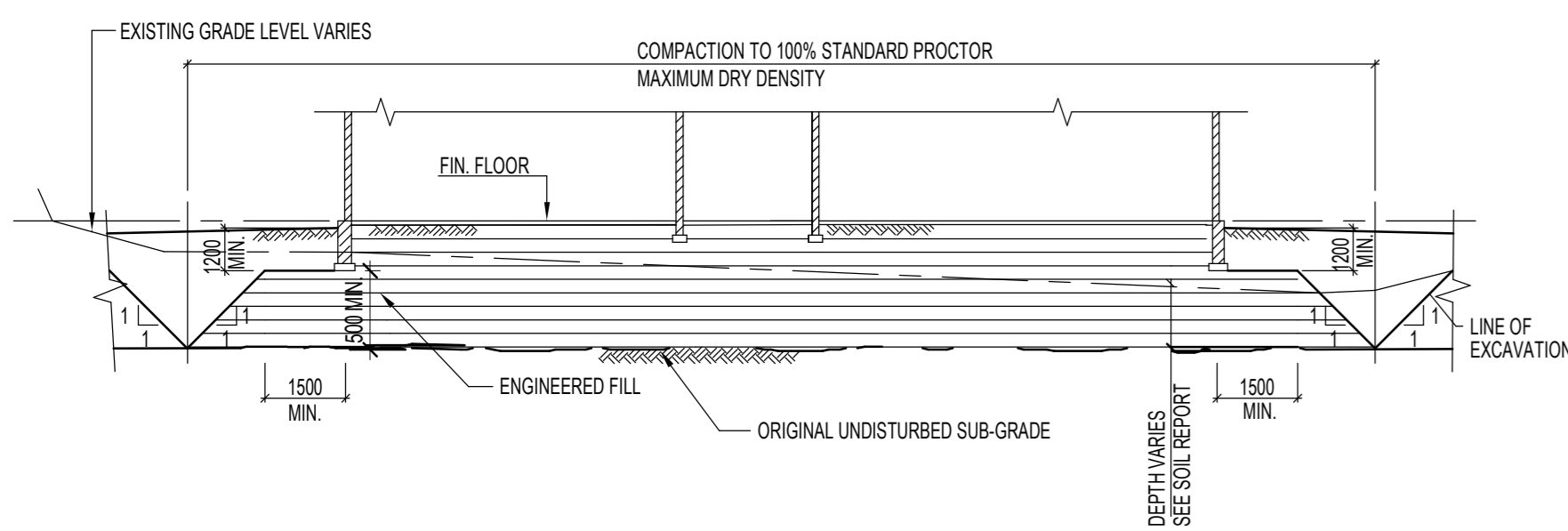
- 1.1. THE FOLLOWING ARE MINIMUM REQUIREMENTS FOR PLACING ENGINEERED FILL WITHIN THE BOUNDARIES OF THE BUILDING ENVELOPE AND EXTENDING BEYOND PERIMETER OF THE BUILDING FOUNDATIONS BY A MIN. OF 1200mm AND SLOPING DOWNWARD TO THE SUB-GRADE, IN ALL DIRECTIONS, AT 45°
- 1.2. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL CONVEY A MEETING TO BE ATTENDED BY AT LEAST THE ARCHITECT, STEPHENSON ENGINEERING, THE SOIL CONSULTANT, THE GENERAL CONTRACTOR, AND THE EXCAVATION AND BACKFILLING CONTRACTOR. THE PURPOSE OF THIS MEETING IS TO ENSURE THAT ALL PARTIES UNDERSTAND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND TO DISCUSS PROCEDURES, TIMING, MATERIALS AND TESTING, ETC.
- 1.3. REFER ALSO TO THE SPECIFICATION, THE SOIL REPORT AND DIAGRAMMATIC SECTION.

2. MATERIALS

- 2.1. ALL MATERIAL TO BE USED AS FILL MUST BE IMPORTED GRANULAR 'B' TYPE 1 MATERIAL AS APPROVED BY THE SOIL CONSULTANT
- 2.2. THE LAYER IMMEDIATELY BELOW THE SLAB-ON-GRADE SHALL BE A MIN. OF 200mm 19mm 20mm QPSS GRANULAR A COMPACTED TO 100% SPNO

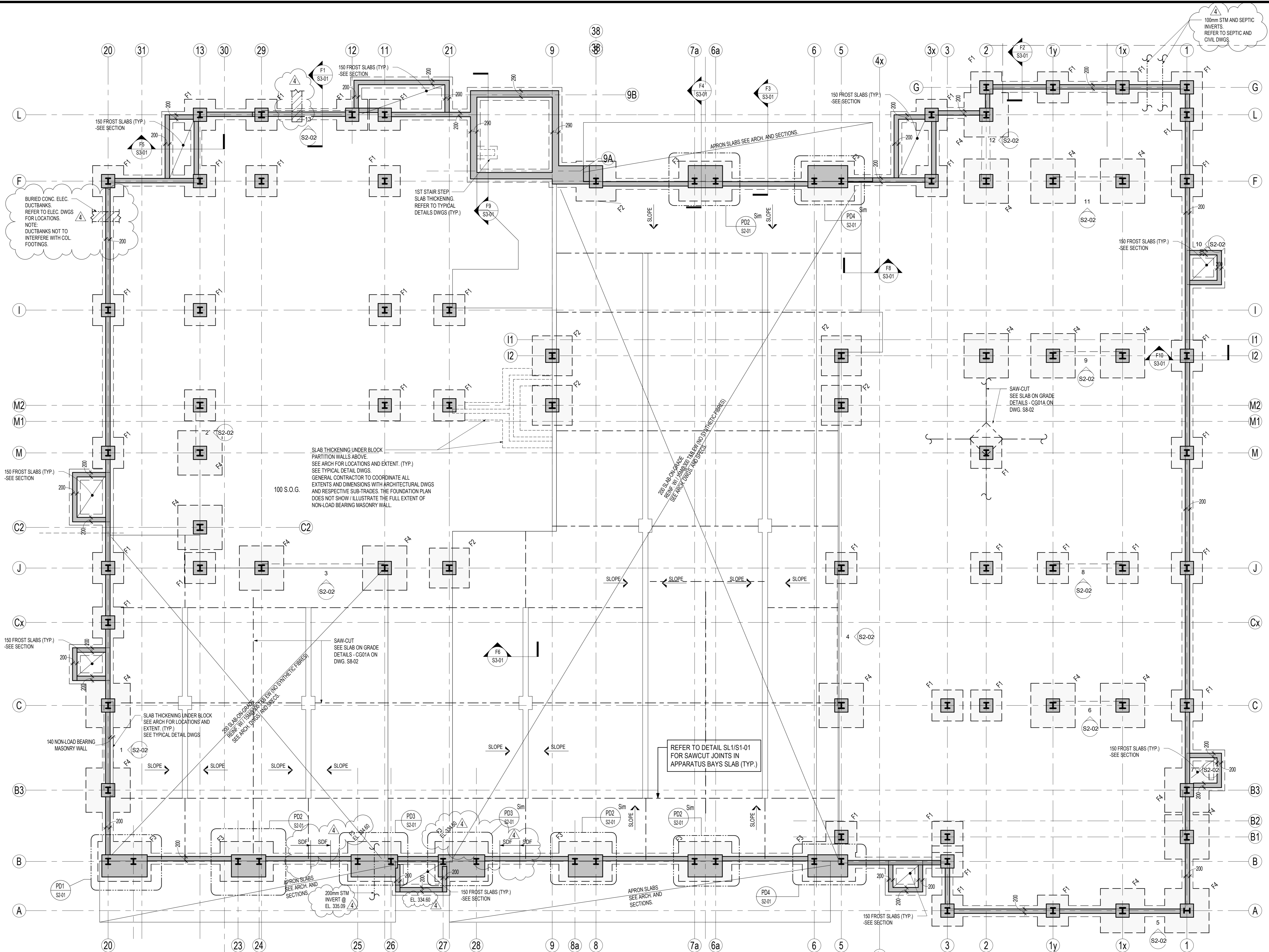
3. EXECUTION

- 3.1. REMOVE AND DISPOSE OF ALL EXISTING ORGANIC MATERIAL, FILL, AND CONTAMINATED MATERIAL DOWN TO NATURAL UNDISTURBED UNCONTAMINATED SUB-GRADE
- 3.2. THE SUB-GRADE SHALL BE PROOF ROLLED WITH HEAVY VIBRATORY EQUIPMENT TO MIN. 98% STANDARD PROCTOR MAXIMUM DRY DENSITY
- 3.3. ANY LOOSE OR SOFT SPOT SHALL BE SUB-EXCAVATED AND BACKFILLED WITH APPROVED COMPACTED MATERIAL
- 3.4. FILL REQUIRED TO RAISE THE GRADES SHALL COMPRISE OF APPROVED IMPORTED GRANULAR 'B' TYPE 1 MATERIAL PLACED IN SUCCESSIVE 300mm LAYERS EACH COMPACTED TO AT LEAST 98% STANDARD PROCTOR MAXIMUM DRY DENSITY
- 3.5. THE LAYER IMMEDIATELY BELOW THE SLAB-ON-GRADE SHOULD BE A 200mm MIN. LAYER OF 20mm QPSS GRANULAR A COMPACTED TO 100% SPNO
- 3.6. ALL PROCEDURES, EQUIPMENT AND MATERIALS SHALL BE APPROVED BY THE SOIL CONSULTANT WHO SHALL BE ENGAGED 'FULL TIME' TO SUPERVISE THIS WORK
- 3.7. CONDITIONS AS OUTLINED IN THE CONTRACT DOCUMENTS ARE ASSUMED AND ARE BASED UPON INFORMATION AVAILABLE AT THE TIME THAT THE DOCUMENTS WERE PREPARED
- 3.8. THE SOIL CONSULTANT SHALL ISSUE VIA E-MAIL DAILY REPORTS OF THE WORK
- 3.9. IF ANY ASPECT OF THE ACTUAL WORK IS NOT AS ASSUMED, THEN THE SOIL CONSULTANT SHALL ADVISE THE ARCHITECT IMMEDIATELY, BY TELEPHONE, BEFORE PROCEEDING
- 3.10. NOTE THAT THE EXISTING ON-SITE MATERIAL IS NOT SUITABLE FOR BACKFILL OF TRENCHES, ETC., OR AGAINST FOUNDATION WALLS
- 3.11. FOR AREAS UNDER DRIVEWAYS AND PARKING ETC., OUTSIDE BUILDING ENVELOPE, REFER TO SPECIFICATION AND SOIL REPORT



DIAGRAMMATIC SECTION THROUGH THE BUILDING
SHOWING PROPOSED ENGINEERED FILL

(REFER TO ENGINEERED FILL NOTES ON THIS DRAWING)



LOWER ELEVATIONS AT UNDERSIDE OF COLUMN AND WALL FOOTINGS, WHERE REQUIRED, BUT LIMITED TO SUIT STORM / SANITARY, WATER / FIRE LINES AND ELECTRICAL DUCT BANKS. THE MAXIMUM SLOPE FROM THE PIPE EXCAVATION TO THE UNDERSIDE OF ADJACENT FOOTING ELEVATIONS SHALL NOT EXCEED 7 VERTICAL TO 10 HORIZONTAL.

WHERE MECHANICAL SERVICE PIPES PASS THROUGH LOAD BEARING FOUNDATION WALLS, PROVIDE STEEL SLEEVES (MIN 500) LARGER THAN PIPE (TYPICAL)

NOTE:
UNLESS NOTED OTHERWISE ON PLAN, U.S. OF ALL FOOTINGS EL. 335.75

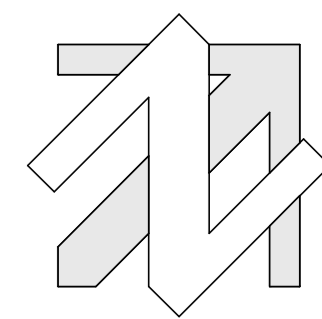
FOUNDATION NUMBER	FOOTING LENGTH	FOOTING WIDTH	FOOTING THICKNESS	FOOTING REIN. E.W. & H.E.
F1	1400	1400	300	5-15M
F2	1800	1800	300	5-15M
F3	1800	2400	300	6-15M
F4	2000	2000	300	9-15M T&B EW

FOUNDATION PLAN

- 1: 75
1. TOP OF SLAB - ON - GRADE TO BE 0.0 BELOW FINISHED FLOOR DATUM ELEVATION 337.15m EXCEPT AS NOTED. TOP - TOP OF SLAB
2. FOOTINGS SHALL BEAR ON ENGINEERED FILL CAPABLE OF SUSTAINING A MINIMUM OF 150 kPa (LS); 225 kPa (ULS)
3. REFER TO THE SOIL REPORT 44144 DATED JULY 26, 2024 PREPARED BY PATRIOT ENGINEERING LTD.
4. SOIL AT THE UNDERSIDE OF THE FOOTINGS IS TO BE INSPECTED AND APPROVED BY A REPRESENTATIVE OF A SOILS CONSULTANT BEFORE PLACING CONCRETE
5. REFER ALSO TO ENGINEERED FILL NOTES ON THIS DRAWING
6. CO-ORDINATE ALL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO PROCEEDING WITH ANY WORK
7. UNDERSIDE OF WALL FOOTINGS TO BE AT ELEVATIONS AS NOTED ON PLAN
8. SIF - STEP DOWN FOOTING
9. UNLESS OTHERWISE SHOWN, ALL WALL FOOTINGS TO BE 300mm DEEP WITH 150 mm PROJECTIONS EACH SIDE
10. FILL REQUIRED ON BOTH SIDES OF FOUNDATION WALLS SHALL BE PLACED AND COMPACTED SMALL TAKES ONLY ON EACH SIDE TO EQUALIZE SOIL PRESSURE
11. PROVIDE SLAB DEPRESSIONS AND SLOPES, OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, AS REQUIRED BY THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS
12. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE INCLUDING STRIP FOOTINGS
13. GENERAL SLAB - ON - GRADE IS 100mm THICK REINFORCED WITH SYNTHETIC FIBRES (REFER TO CONCRETE SPECIFICATION, EXCEPT AS NOTED)
14. CONCRETE STRENGTHS - SEE CONCRETE SCHEDULE
15. SEE TYPICAL NOTES, TYPICAL DETAILS, AND ALL OTHER DRAWINGS

ISSUED

No.	Description	Date
1	ISSUED FOR REVIEW	FEB 07 2025
2	ISSUED FOR CLIENT REVIEW	FEB 07 2025
3	ISSUED FOR PERMIT	MAR 24 2025
4	ISSUED FOR ADDENDUM #1	SEPT 05 2025



Stouffville

York Region

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS WITH THE LATEST ISSUE OF ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH WORK.

Salas O'Brien
2235 Sheppard Ave. E.
Suite No. 1100
Toronto, ON M2J 5B5
Stephenson Engineering, a company of Salas O'Brien

STOUFFVILLE FIRE STATION & YORK REGION PRS
4902 Aurora Rd. Whitechurch, Stouffville, ON.



Drawn by: <G> Date: SEPT 2025
Checked by: <G> Scale: As indicated
Drawing Title: FOUNDATION PLAN

Project number: 20231183 | S1-01

LOW ROOF PLAN NOTES

1. TOP OF ROOF DECK AT LOW ROOF TO BE AT DATUM ELEVATION 3750mm ABOVE FINISHED FLOOR, EXCEPT AS CROSSED AND NOTED. U.O.D = UNDERSIDE OF DECK
2. OWSI SHOES TO BE 100 mm DEEP UNLESS NOTED.
3. DEAD LOAD - SEE LOADING SCHEDULE.
4. SNOW LOAD - SEE SCHEDULE AND IN NO CASE LESS THAN AS NOTED ON PLAN.
5. STEEL ROOF DECK SHALL BE DESIGNED TO SUPPORT SPECIFIED TOTAL DEAD AND SNOW LOADS. MINIMUM BASE NOMINAL THICKNESS (BNT) OF STEEL DECK SHALL BE 0.16mm
6. STEEL ROOF DECK SHALL BE INSTALLED FOR DIAPHRAGM ACTION IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE CANADIAN STEEL STEEL BUILDING INSTITUTE AND TYPICAL NOTES REFER TO DIAPHRAGM LOADING PLANS AS A MINIMUM. DESIGN ROOF DECK FOR A FACTORED DIAPHRAGM LOAD OF 10 kN/m.
7. NO HANGERS OR BRACKETS SUPPORTING MECHANICAL EQUIPMENT OR PIPING SHALL BE HUNG FROM ROOF DECK.
8. OPEN WEB STEEL JOISTS SHALL BE DESIGNED TO SUPPORT TOTAL DEAD AND LIVE LOAD SPACING AS SHOWN ON PLAN. IN ADDITION, OWSI SHALL BE DESIGNED FOR ADDITIONAL LOADS SHOWN ON PLAN, AND FOR POINT LOADS OF BRACING AND MECHANICAL EQUIPMENT IN EXCESS OF 168 kN PER JOIST.
9. JOIST AND BEARING ANCHORAGES SHALL BE DESIGNED TO RESIST UPLIFT DUE TO WIND AS REQUIRED BY THE NATIONAL BUILDING CODE AND IN NO CASE LESS THAN THE GREATER OF THOSE INDICATED ON PLAN OR 0.48 kPa NET FACTORED UPLIFT.
10. OWSI SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER. SHOP DRAWINGS AND CALCULATIONS BEARING THE STAMP AND SIGNATURE OF THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION AND ERECTION.
11. PROVIDE CONTINUOUS TOP AND BOTTOM CHORD BRIDGING FOR OWSI IN ACCORDANCE WITH CSA S16.1 AND IN NO CASE LESS THAN AS SHOWN ON PLAN.
12. PROVIDE BOTTOM CHORD BRACING FOR ALL JOISTS SUBJECT TO NET UPLIFT IN ACCORDANCE WITH CSA S16.1 AND AT LEAST AT EACH END OF JOISTS NEAR THE FIRST BOTTOM CHORD PANEL POINT. BRIDGING CANNOT BE CONSIDERED AS BRACING.
13. LOCATION OF MECHANICAL EQUIPMENT LOADS ARE TO BE CONFIRMED BY MECHANICAL CONTRACTOR BEFORE STRUCTURAL STEEL IS FABRICATED. REFER TO MECHANICAL DRAWINGS. MECHANICAL EQUIPMENT AND PIPING MUST BE HUNG FROM OWSI PANEL POINTS AND HANGER SPACING SHALL NOT EXCEED 3m.
14. FRAME ALL ROOF OPENINGS AND MECHANICAL UNITS AS SHOWN ON TYPICAL DETAIL UNLESS NOTED.
15. SUBMIT DETAILS FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS TO STRUCTURAL CONSULTANT FOR REVIEW.
16. AN INDEPENDENT INSPECTION AND TESTING COMPANY IS TO INSPECT STRUCTURAL STEEL AND STEEL DECK IN THE SHOP AND IN THE FIELD FOR WELDING, CONNECTIONS, BOLT TORQUES, AND GENERAL CONFORMANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS.
17. SEE TYPICAL NOTES, TYPICAL DETAILS, COLUMN AND FOOTING SCHEDULE AND ALL OTHER DRAWINGS.

MECHANICAL LINTEL SCHEDULE					
LINTELS IN LOAD BEARING WALLS OVER MECHANICAL DUCTS ETC.					
MARK	WALL THICKNESS	CLEAR SPAN	MATERIAL	TYPE	NOTES
ML1	190	200-550	175x8 PLATE	---	
ML2	190	550-1220	2-190x90x6	---	
ML3	240	200-550	225x8 PLATE	---	
ML4	240	550-1220	2-100x100x8	---	
ML5	290	200-550	275x8 PLATE	---	
ML6	290	550-1220	3-190x90x6	---	
ML7	190 + 90	200-550	175x8 PLATE + 80x8 PLATE	---	
ML8	190 + 90	550-1220	2-190x90x6 + 1-190x90x6	---	
ML9	240 + 90	200-550	225x8 PLATE + 80x8 PLATE	---	
ML10	240 + 90	550-1220	2-100x100x8 + 1-100x100x8	---	
ML11	290 + 90	200-550	275x8 PLATE + 80x8 PLATE	---	
ML12	290 + 90	550-1220	3-190x90x6 + 1-190x90x6	---	
1. FOR LINTELS MARKED 'ML' ON DRAWINGS. 2. FOR SPANS LESS THAN 200mm - NO LINTEL REQUIRED. 3. FOR SPANS GREATER THAN 1200mm - SEE PLANS AND MAIN LINTEL SCHEDULE.					
WHILE EVERY EFFORT HAS BEEN MADE TO SHOW ALL LINTELS WHICH OCCUR IN LOAD BEARING MASONRY WALLS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE CORRECT SIZES AND QUANTITIES OF LINTELS ARE PROVIDED. LINTELS IN NON-LOAD BEARING WALLS AND PARTITIONS ARE GENERALLY NOT SHOWN ON THE DRAWINGS. ALL SUCH LINTELS SHALL BE PROVIDED AS REQUIRED AND SHALL CONFORM TO THE NOTES & TYPICAL DETAILS ON THE STRUCTURAL DRAWINGS. PROVIDE MECHANICAL LINTELS IN ACCORDANCE WITH TYPICAL DETAILS AND NOTES FOR ALL DUCTS AND PIPES PASSING THROUGH MASONRY WALLS.					

MASONRY CORE FILL SCHEDULE

M20

MASONRY CORE FILL SCHEDULE			
TYPE	SIZE	REINFC	REMARKS
C1	1 x 400	2-15 VERT. CONT.	
C2	1 x 600	3-15 VERT. CONT.	
C3	1 x 800	4-15 VERT. CONT.	
C4	1 x 400 x 400	4-15 VERT. CONT.	

1. PROVIDE CORE FILLS AS NOTED ON PLAN AND PROVIDE REINFORCEMENT AS SHOWN IN SCHEDULE.
2. CORE FILLS EXTEND FULL HEIGHT OF WALL, FLOOR TO FLOOR UNLESS NOTED.
3. INSTALL ALL REINFORCEMENT FULL HEIGHT BETWEEN FLOORS AND GROUT CORE SOLID FULL HEIGHT BETWEEN FLOORS UNLESS NOTED.
4. WHERE CORE FILL CONTINUES TO NEXT FLOOR ABOVE, EXTEND INDICATED VERTICAL REINFORCEMENT TO PROVIDE SPECIFIED CLASS "B" TENSION LAP SPICE WITH REINFORCEMENT OF CORE ABOVE. WHERE MASONRY WALLS START ON TOP OF STEEL BEAMS, PROVIDE WELDBLE REINFORCING DOWELS TO MATCH REINFORCING NOTED IN THIS SCHEDULE, OR EQUIVALENT DOL DEFORCED BAR ANCHORS.
5. PROVIDE 15M DOWELS IN FOUNDATION WALLS FOR ALL WALL REINFORCEMENT UNLESS NOTED OTHERWISE.
6. REFER TO M24 FOR LAP LENGTHS FOR VERTICAL BARS AND DOWELS.
7. REFER TO CORE FILLS SCHEDULE FOR LINTELS AND REINFORCEMENT.
8. PROVIDE CORE FILL C1 AT EACH SIDE OF OPENINGS UN OTHERWISE NOTED ON PLANS AND/OR SECTIONS.
- a) PROVIDE C1 AT UNSUPPORTED ENDS OF WALLS UN.
- b) PROVIDE C1 AT EACH SIDE OF CONTROL JOINTS UN.
9. PROVIDE CORE FILL C4 AT ALL WALL CORNERS UN OTHERWISE IN PLANS AND/OR SECTIONS.
10. PROVIDE TITIAL BL A CONTROL JOINT BY BLOCK OR EQUIVALENT FOR ALL VERTICAL CONTROL JOINTS IN EXTERIOR MASONRY WALLS EXCEEDING 4m IN HEIGHT.
11. REINFORCE ALL MASONRY SILLS, INTERIOR AND EXTERIOR, AS PER THE REINFORCING INDICATED IN THIS SCHEDULE. GROUT TOP TWO COURSES OF ALL SILLS SOLID. FULLY GROUT ALL EXTERIOR SILLS.

TYPICAL MASONRY WALL REINFORCING SCHEDULE	
VERTICAL BLOCK WALL REINFORCING LOAD BEARING AND NON-LOAD BEARING WALLS SCHEDULE (TYP. UN NOTED)	
140mm	15M @ 1200 o/c MAX.
190mm	15M @ 800 o/c MAX.
240mm	15M @ 600 o/c MAX.
290mm	2-15M @ 1000 o/c MAX.
HORIZONTAL WALL REINFORCING FOR MASONRY BLOCK WALLS - EXTERIOR WALLS	
190mm - EXTRA HEAVY BLOCK-LOK BL10	OR EQUIV. @ 200 o/c MAX.
240mm - EXTRA HEAVY BLOCK-LOK BL10	OR EQUIV. @ 200 o/c MAX.
290mm - EXTRA HEAVY BLOCK-LOK BL30	OR EQUIV. @ 200 o/c MAX.
INTERIOR WALLS (140, 190, 240, 290mm)	
- STANDARD BLOCK-LOK BL10 OR EQUIV. @ 400 o/c MAX.	

WALL PLATE SCHEDULE

(LAST DIMENSION PARALLEL TO WEB)

MARK	MATERIAL	REMARKS
WP1	180x15x180	(2) 30 A.BOLTS x 150 L.G.

ROOF LOADING SCHEDULE

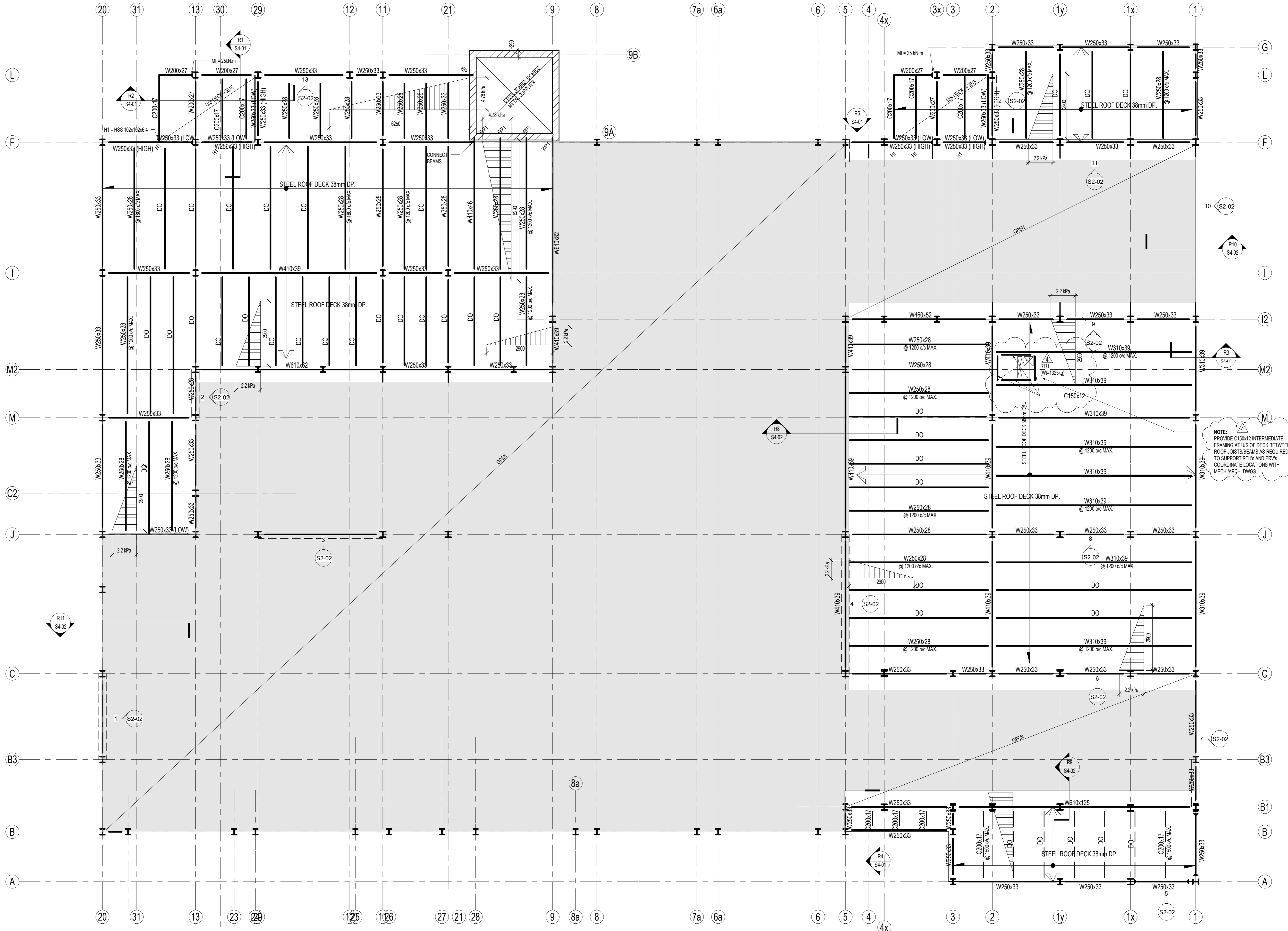
LOADING	SUPERIMPOSED DEAD LOAD (kPa)	SNOW LOAD (kPa)
STEEL DECK ROOF	0.91	2.5 +ASL
GENERAL ROOF	1.11	2.5 +ASL
CORRIDOR ROOF	1.26	2.5 +ASL
MECHANICAL ROOF	1.76	2.5 +ASL

IN ADDITION TO UNIFORM LOADING SHOWN, REFER TO ROOF PLAN FOR ADDITIONAL LOADING FOR ACCUMULATED SNOW LOADS (ASL) AS SHOWN, AND FOR POINT LOADS OF BRACING AND MECHANICAL EQUIPMENT.

IN ADDITION TO UNIFORM LOADING SHOWN, DESIGN JOISTS FOR ANY CONCENTRATED LOADS RESULTING FROM MECHANICAL PIPING OR AS A MINIMUM, DESIGN FOR POINT LOAD OF 2kN AT ANY LOCATION.

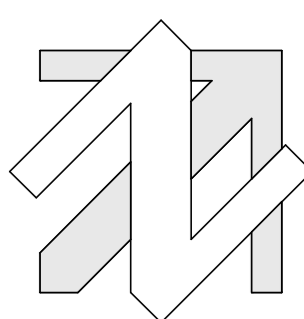
NOTE: ROOFING SINGLE PLY = 0.72 kPa HAS BEEN INCLUDED IN THE ABOVE TABLE.

NOTE: PAVEMENT LOADING, IF APPLICABLE, SHALL BE COORDINATED WITH THE EXTENTS SHOWN IN THE ARCHITECTURAL DRAWINGS. WEIGHTS SHALL BE COORDINATED WITH THE SPECIFICATIONS AND FINAL PRODUCT SHOP DRAWINGS.



ISSUED

No.	Description	Date
1	ISSUED FOR RFP	FEB 17, 2025
2	ISSUED FOR CLIENT REVIEW	FEB 17, 2025
3	ISSUED FOR PERMIT	MAR 24, 2025
4	ISSUED FOR ADDENDUM #1	SEP 10, 2025



Stouffville
York Region

THE CONTRACTOR SHALL CHECK ALL DIMENSIONS WITH THE LATEST ISSUE OF ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH WORK.

Salas O'Brien

2235 Sheppard Ave. E.
Suite No. 1100
Toronto, ON M2J 5B5
Stephenson Engineering, a company of Salas O'Brien

STOUFFVILLE FIRE STATION & YORK REGION PRS
4902 Aurora Rd. Whitechurch, Stouffville, ON.



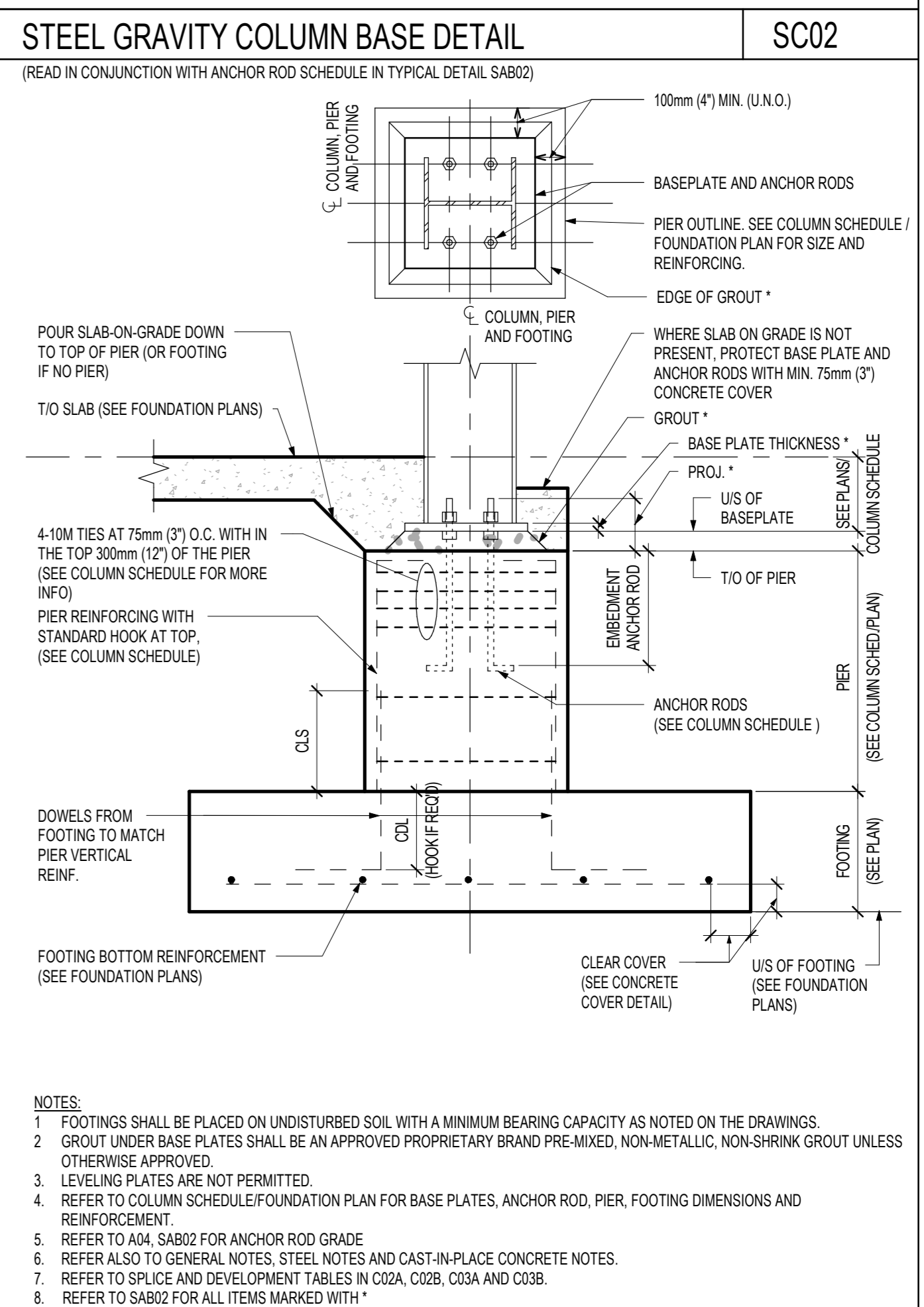
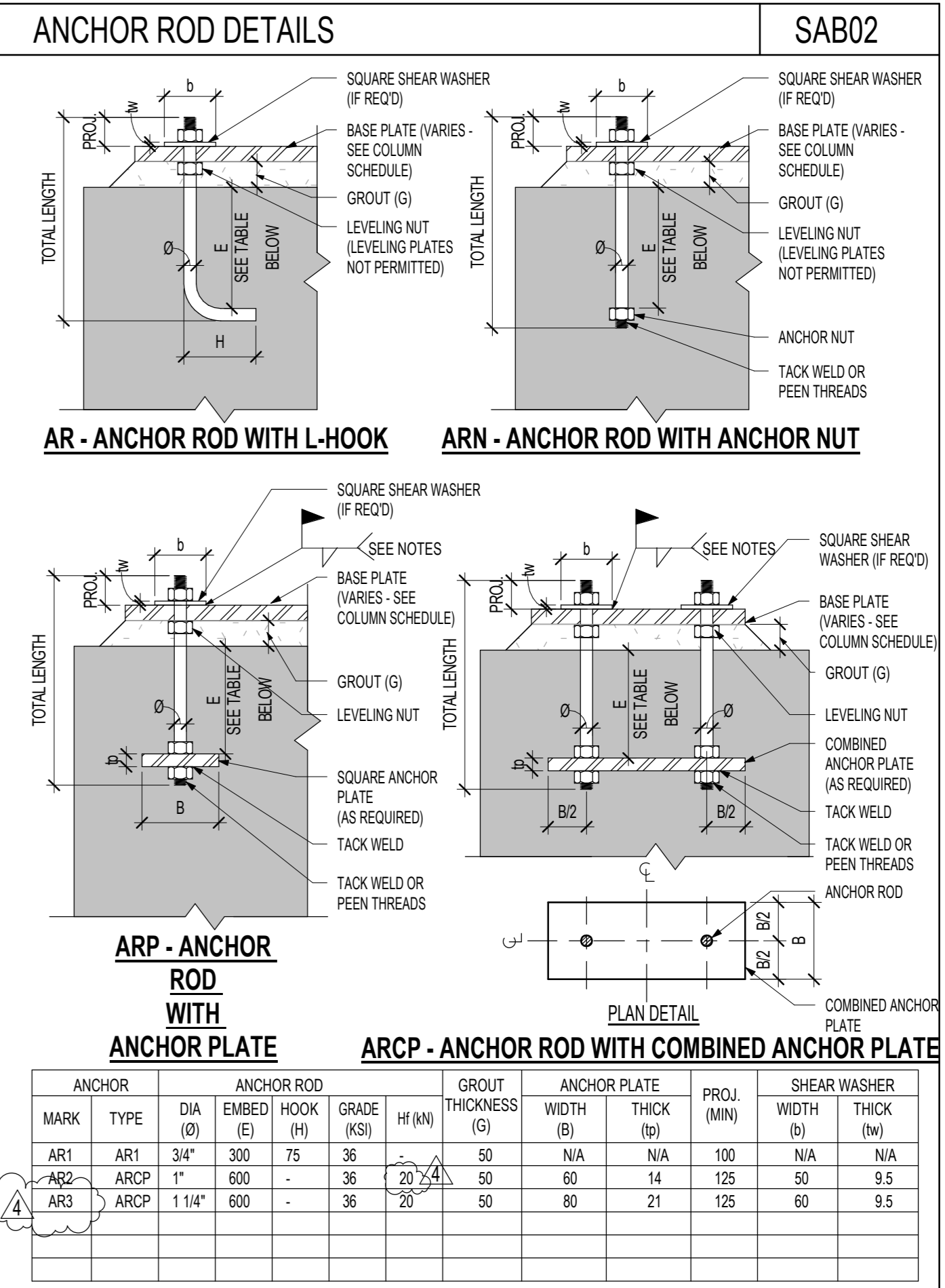
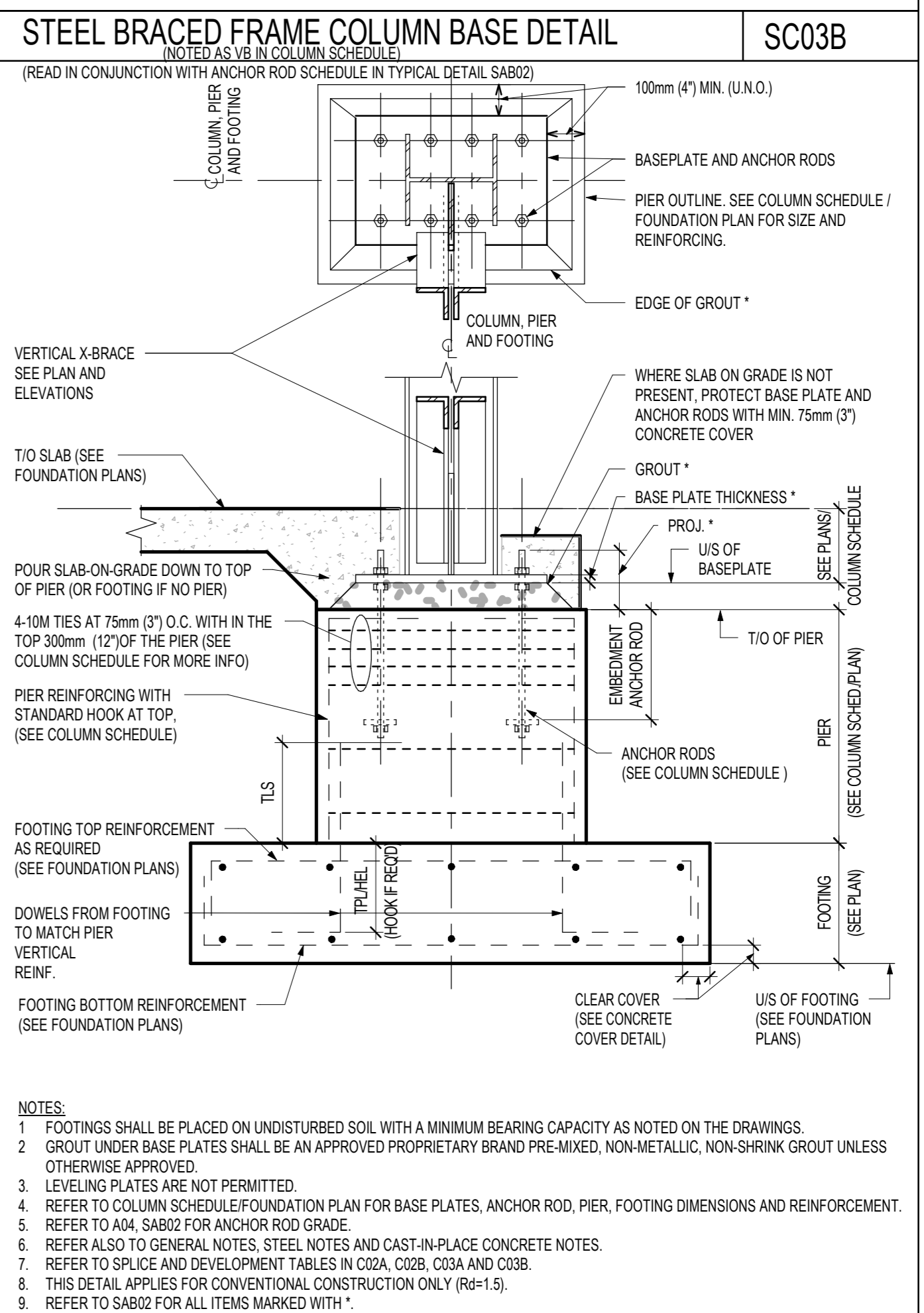
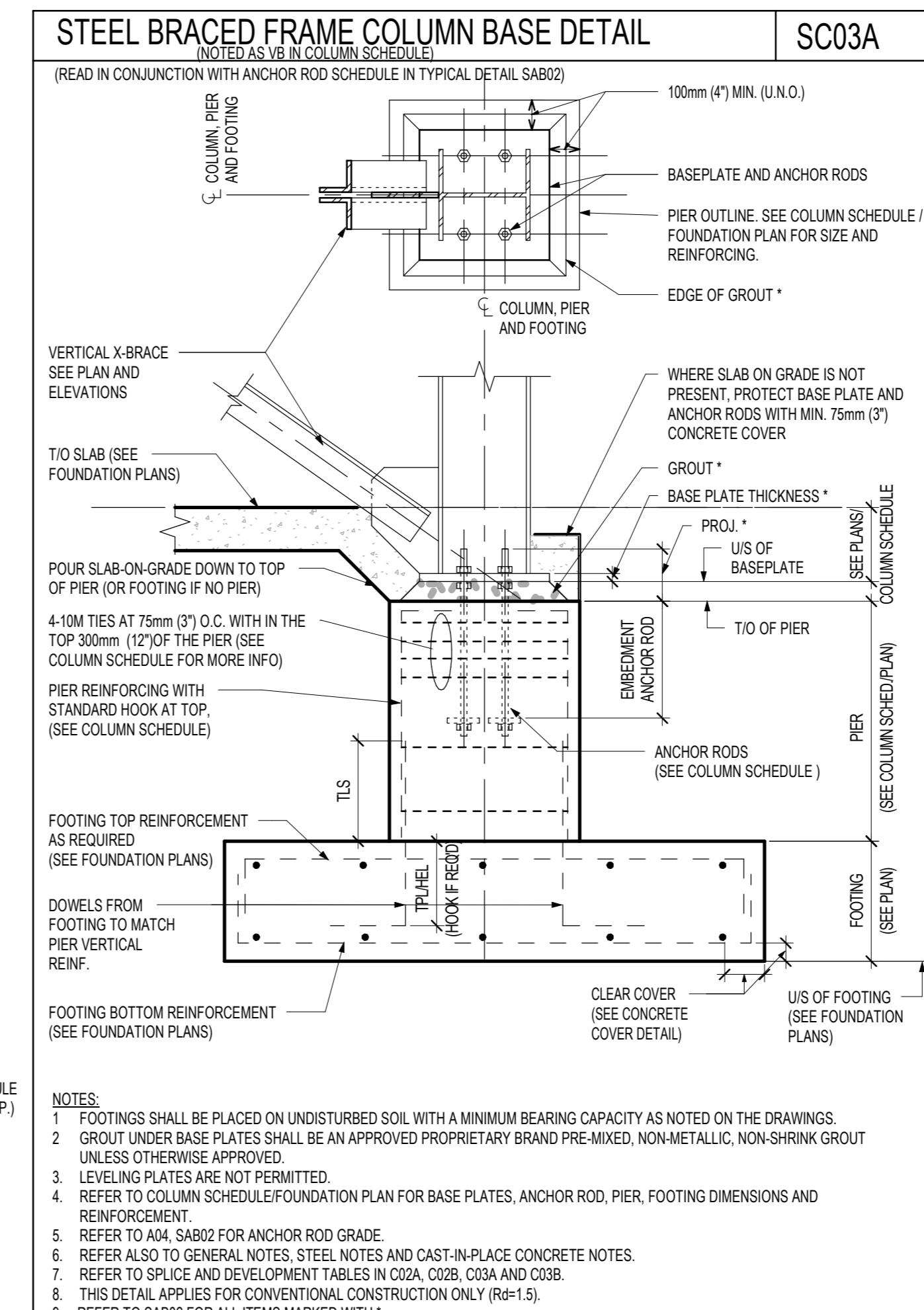
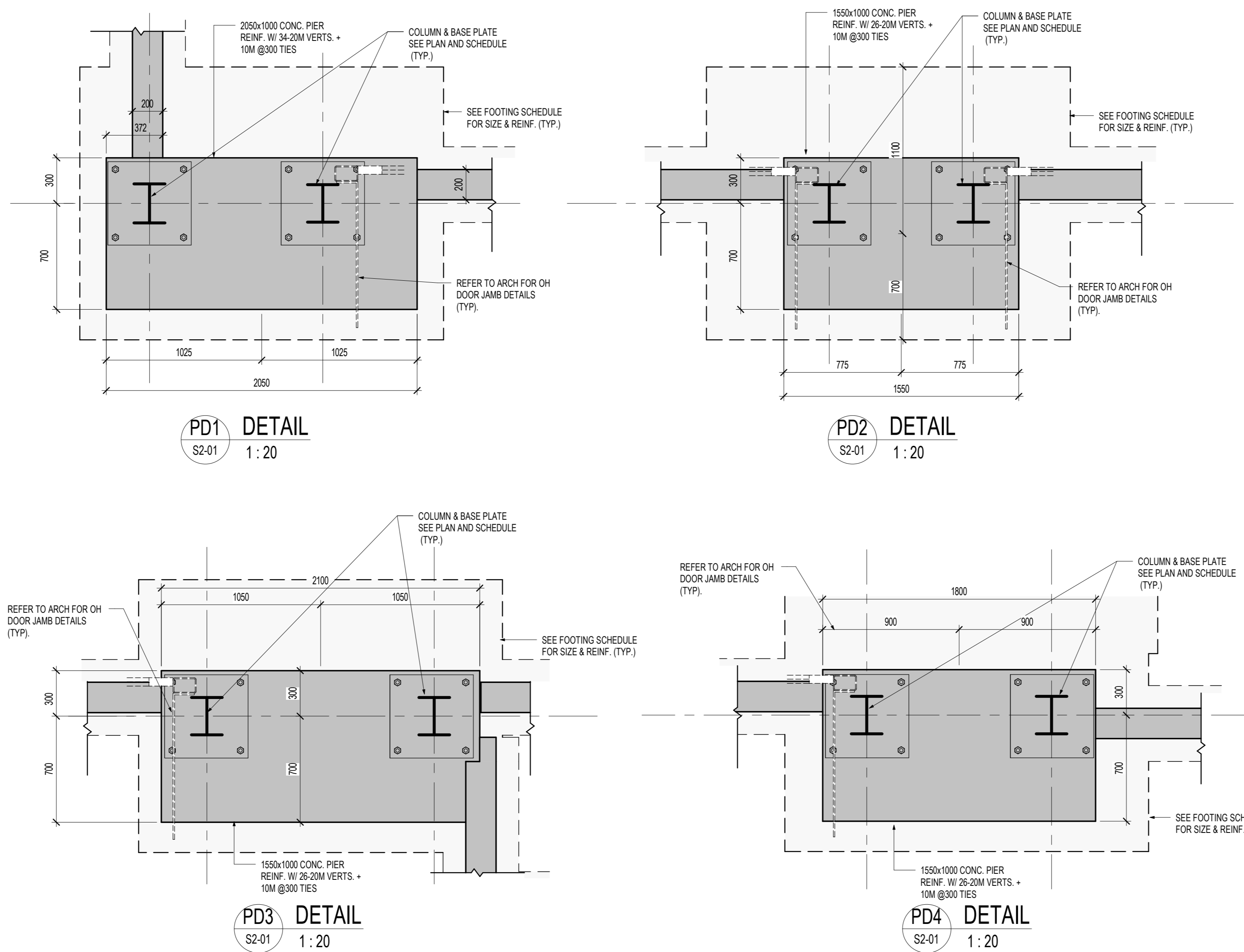
Drawn by: <G> Date: SEPT 2025
Checked by: <G> Scale: As indicated
Drawing Title: LOW ROOF FRAMING PLAN

Project number: 20231183 | S1-02

STEEL COLUMN SCHEDULE																								
HIGH ROOF	HIGH ROOF																							
LOW ROOF	LOW ROOF																							
GROUND FLOOR US B.P.L. -350 (U.N.O.)	GROUND FLOOR US B.P.L. -350 (U.N.O.)																							
BASE PLATE SIZE ANCHOR RODS	475x30x475 6(A/R3)	475x30x475 6(A/R3)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)	425x25x425 4(A/R1)
CONC. PIER SIZE REINFORCING TIES	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300	600x600 10-15V 10@300
FACTORED LOAD kN	100	100	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Column Locations	M	M	A-1y	A-3	B-3	B-5	B-6	B-6a	B-7a	B-8	B-8a	B-20	B-22	B-23	B-24	B-25	B-26	B-27	B-28	B-1-1	B-1-3	B-1-5	B-1-3	B-1-5
	A-1	A-1x																						

STEEL COLUMN SCHEDULE																								
HIGH ROOF																								
LOW ROOF																								
GROUND FLOOR																								
US B.P.L. -350 (U.N.O.)																								
BASE PLATE SIZE	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	425x25x425	
CONC. PIER SIZE	600x1000	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	
REINFORCING TIES	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	
FACTORED LOAD kN	125	125	125	125	150	125	125	75	75	75	225	225	150	175	125	250	250	325	425	425	125	VB	VB	
Column Locations	F-7a	F-8	F-11	F-13	F-20	F-29	G-1	G-1x	G-1y	G-2	I-11	I-13	I-20	I-21	I-21	I-21x	I-21y	I-2-2	I-2-5	I-2-9	J-1	J-1x	J-1y	

STEEL COLUMN SCHEDULE									
HIGH ROOF									
LOW ROOF									
GROUND FLOOR									
US B.P.L. -350 (U.N.O.)									
BASE PLATE SIZE	425x25x425	475x30x475	475x30x475	425x25x425	475x30x475	425x25x425	425x25x425	425x25x425	425x25x425
CONC. PIER SIZE	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600	600x600
REINFORCING TIES	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300	10-15V 10@300
FACTORED LOAD kN	150	300	300	200	250	200	200	200	150
Column Locations	M-20	M-2-5	M-2-9	M-2-11	M-2-13	M-2-21	Cx-20		



No.	Description	Date
1	ISSUED FOR REVIEW	FEB 21 2025
2	ISSUED FOR CLIENT REVIEW	FEB 21 2025
3	ISSUED FOR PERMIT	MAR 24 2025
4	ISSUED FOR ADDENDUM #1	SEP 15 2025

Stouffville
York Region

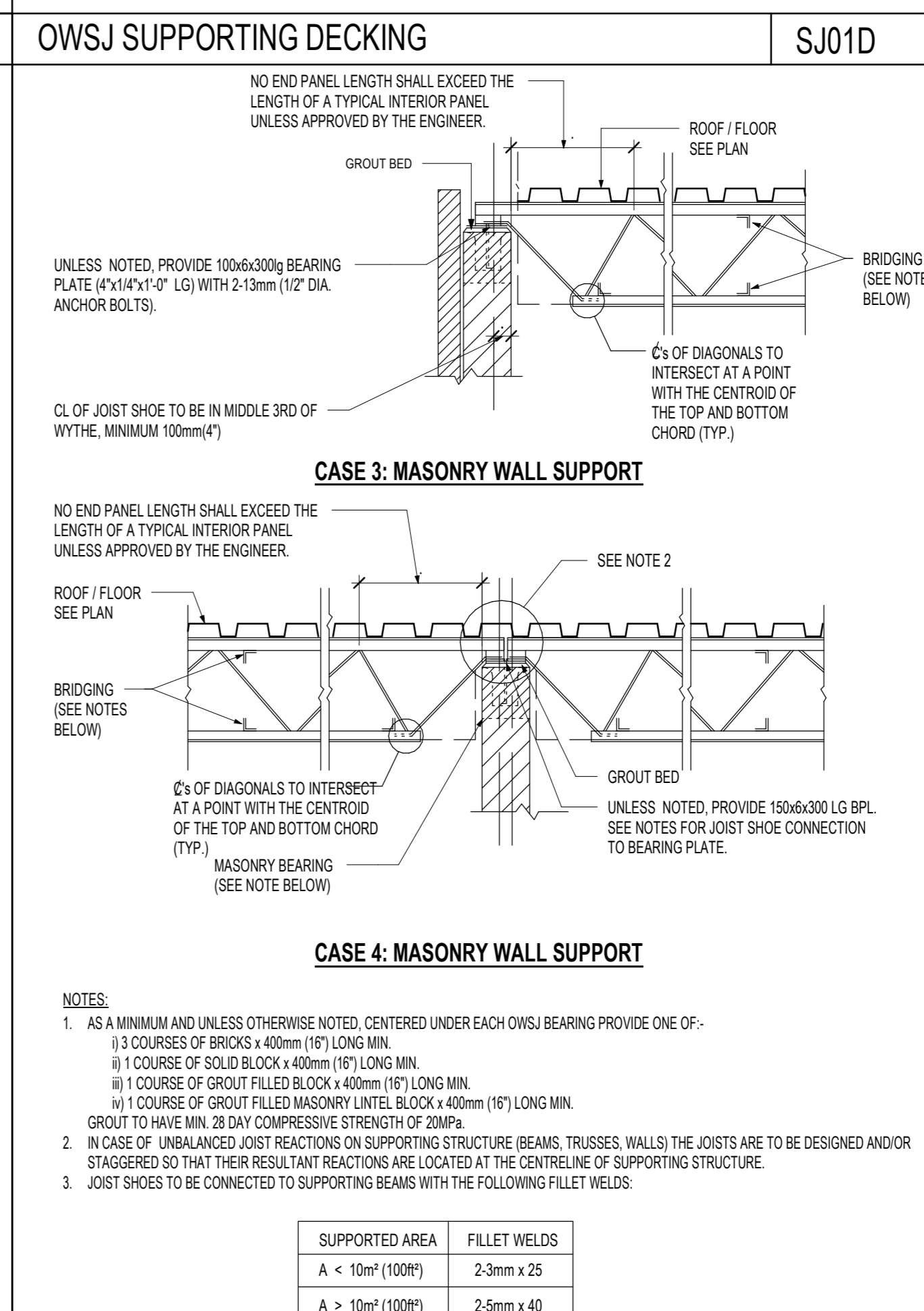
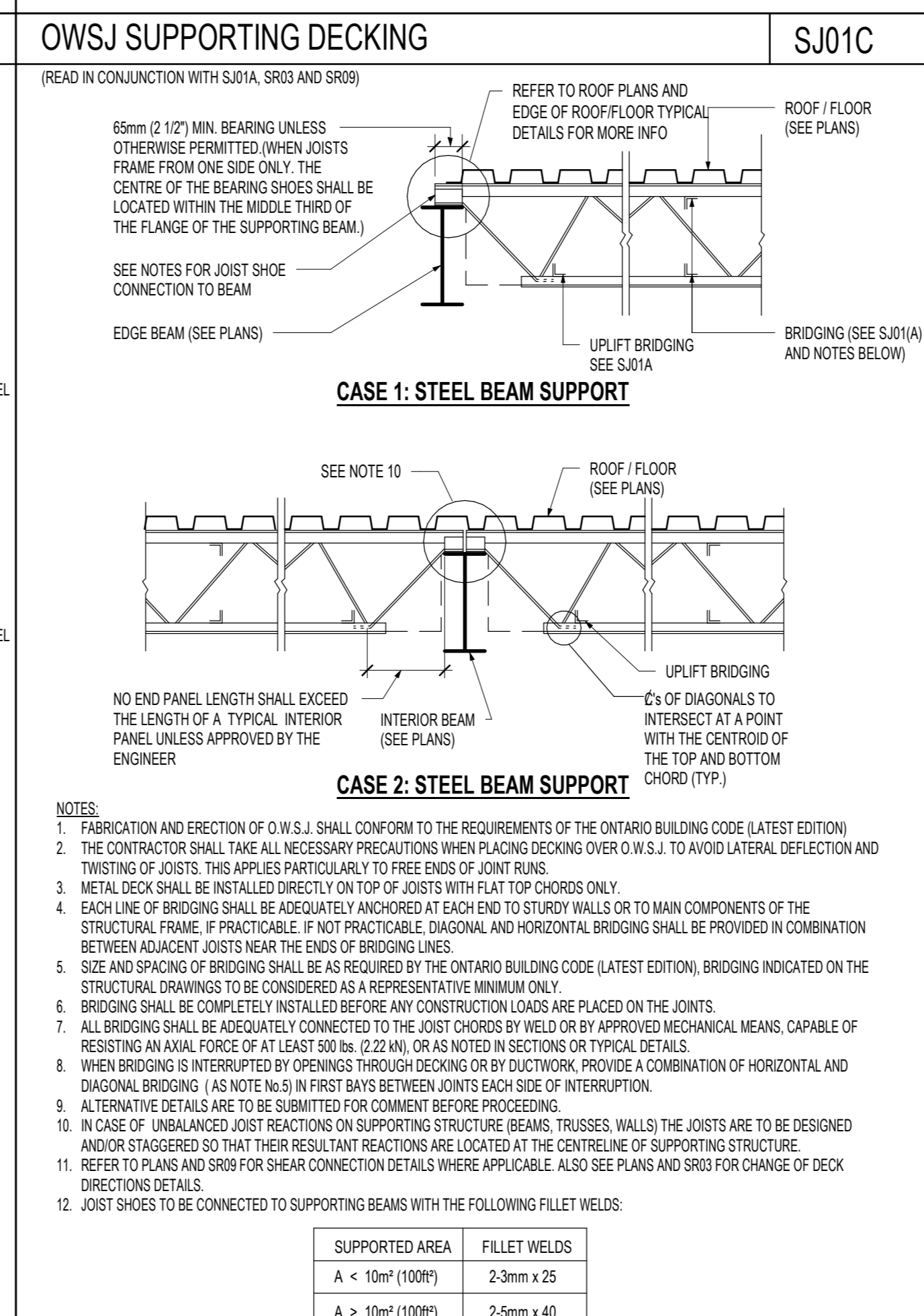
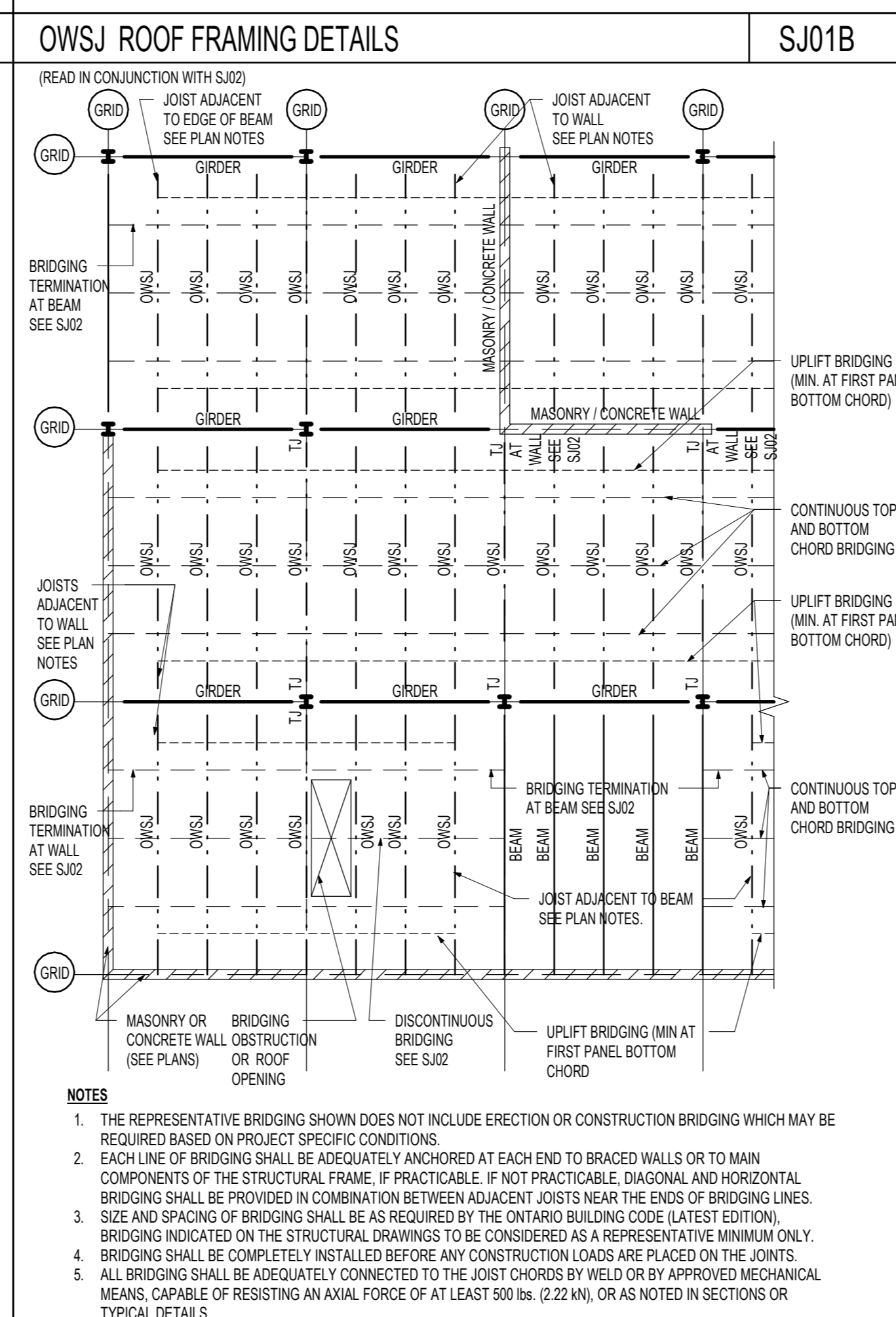
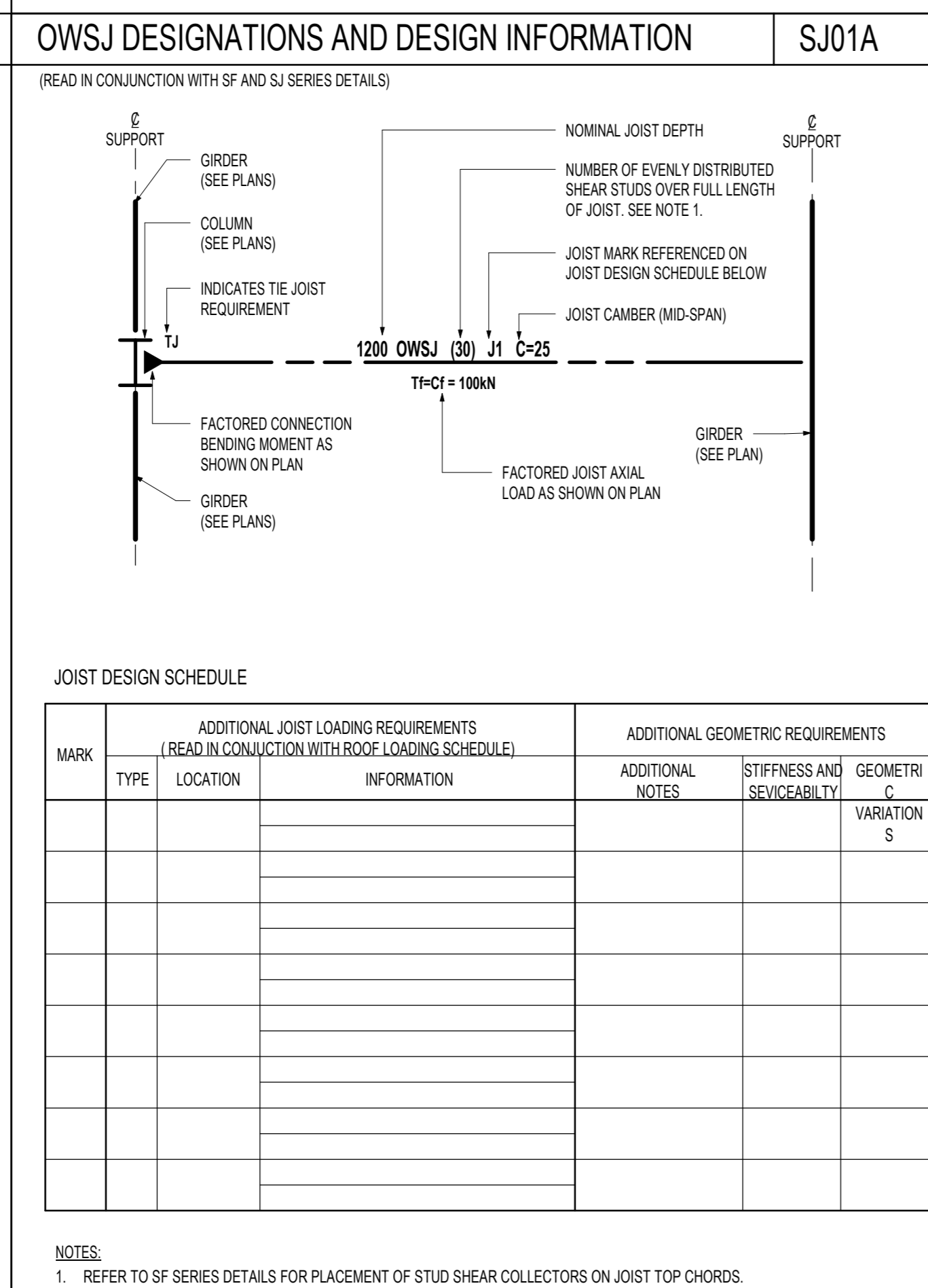
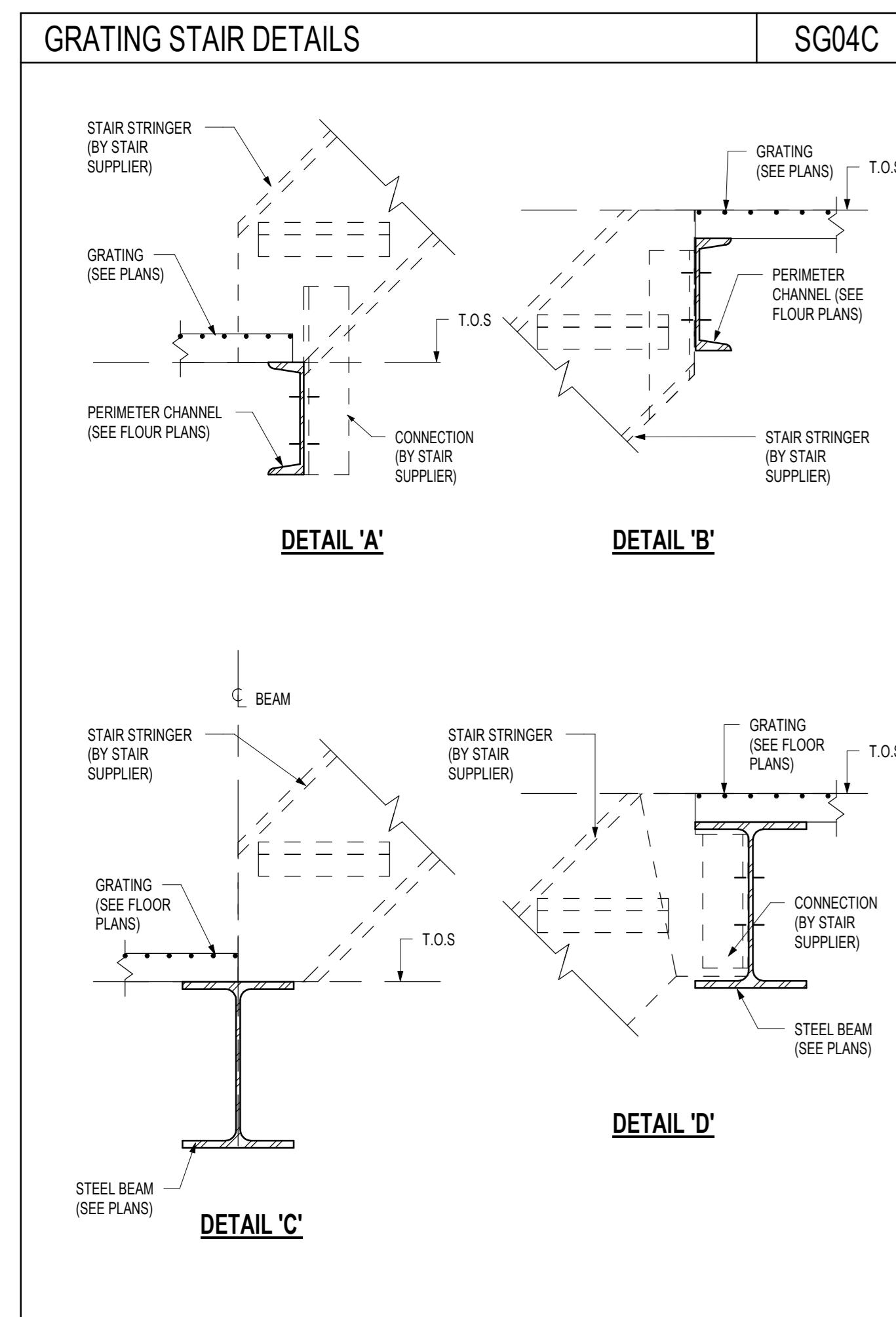
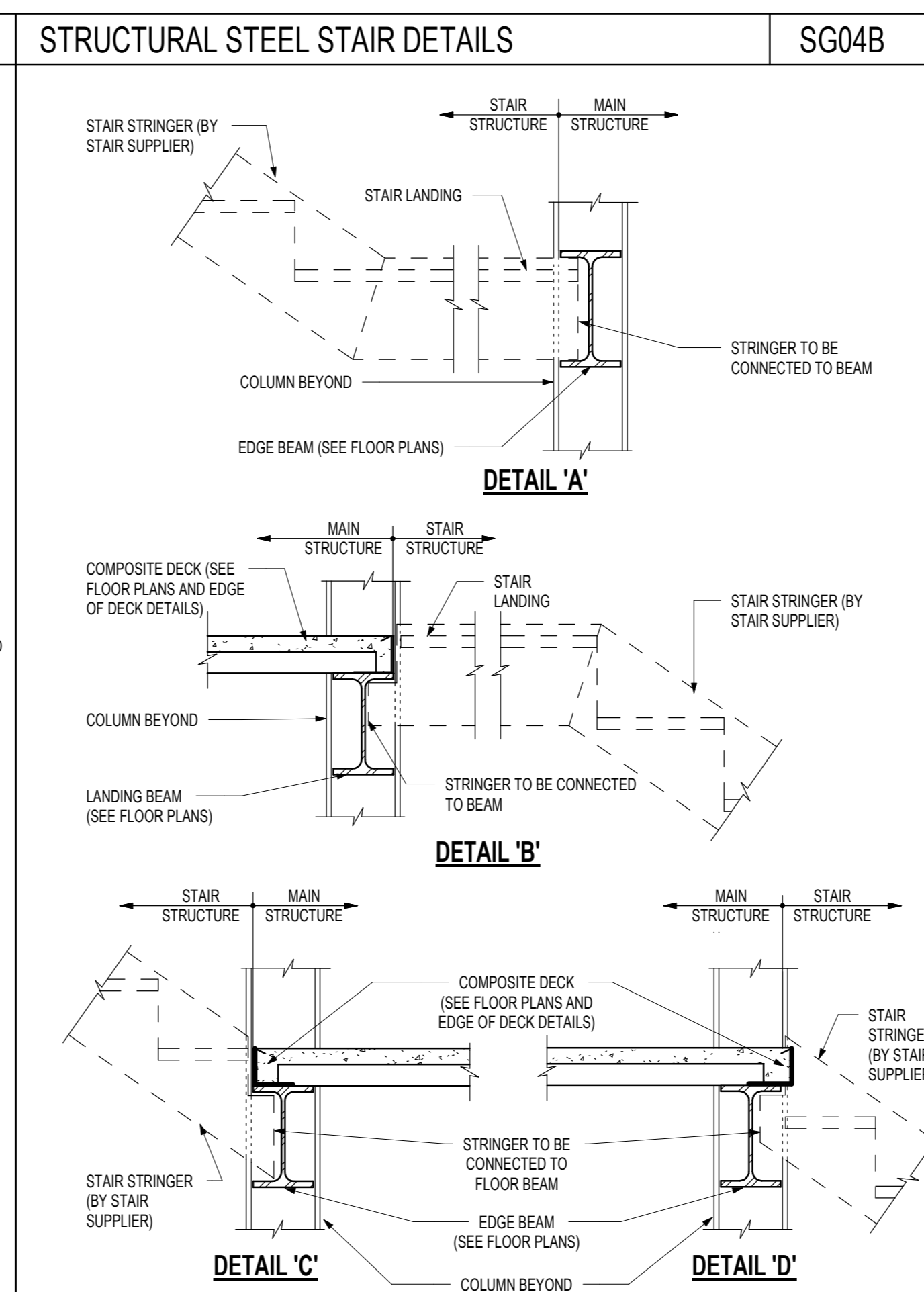
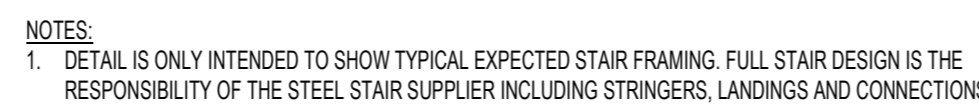
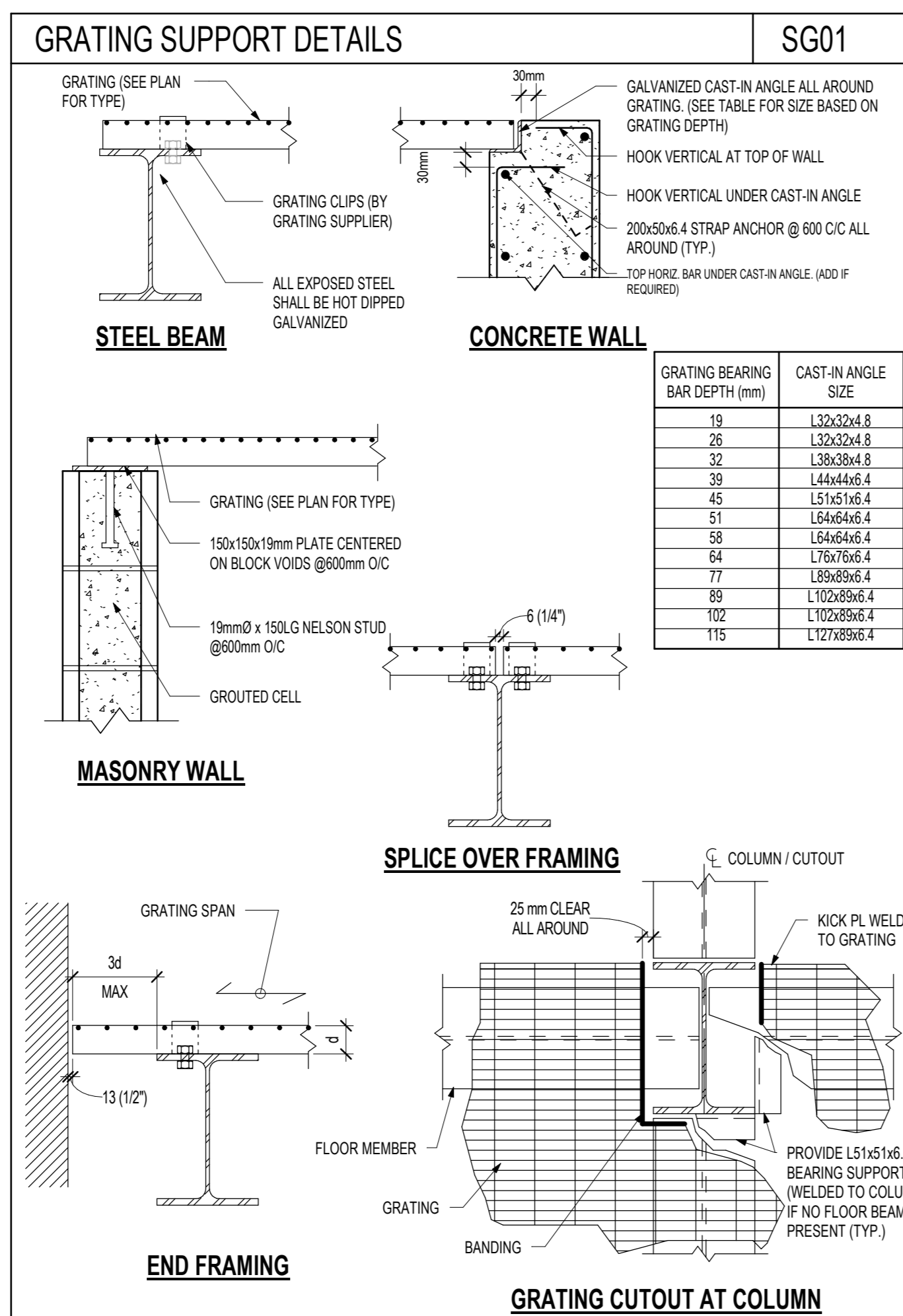
THE CONTRACTOR SHALL CHECK ALL DIMENSIONS WITH THE LATEST ISSUE OF ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH WORK.

Salas O'Brien
2235 Sheppard Ave. E.
Suite No. 1100
Toronto, ON M2J 5B5
Stephenson Engineering, a company of Salas O'Brien

STOUFFVILLE FIRE STATION & YORK REGION PRS
4902 Aurora Rd. Whitechurch, Stouffville, ON.

Drawn by: <G> Date: SEPT 2025
Checked by: <G> Scale: As indicated
Drawing Title: COLUMN SCHEDULE

Project number: 20231183 | S2-01



 Stouffville	
 York Region	
<hr/>	
<small>THE CONTRACTOR MUST CHECK ALL DIMENSIONS WITH THE LATEST ISSUE OF ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH WORK.</small>	
<hr/>	
	Salas O'Brien
2235 Sheppard Ave. E.	
Suite No. 1100	
Toronto, ON M2J 5B5	
<small>Structural Engineering, a company of Salas O'Brien</small>	
<hr/>	
STOUFFVILLE FIRE STATION & YORK REGION PRS	
4302 Aurora Rd. Whitechurch, Stouffville, ON.	
<hr/>	
	
<hr/>	
Drawn by <0>	Date 03/27/2025
Checked by <0>	Scale 1:1
<hr/>	
Drawing Title	
TYPICAL DETAILS	
<hr/>	
Project number	
20231183 S5-05	