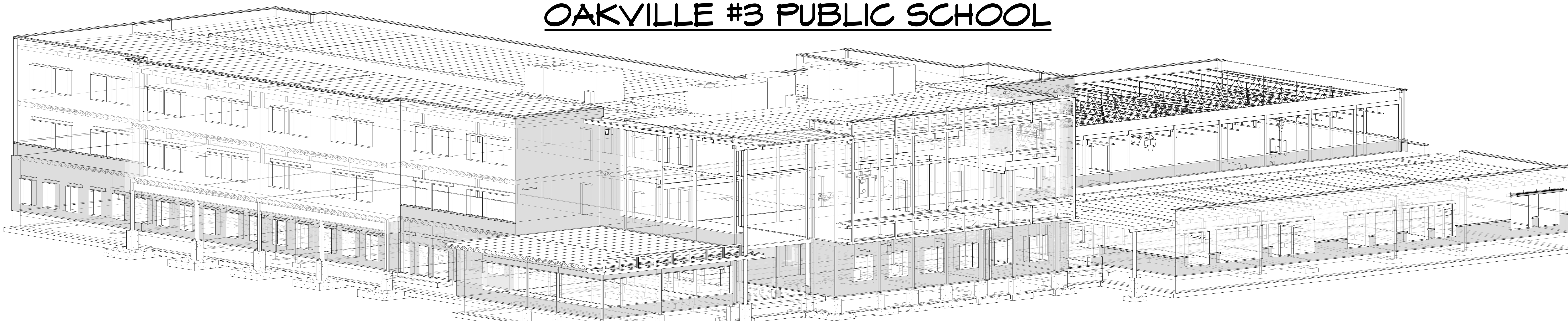
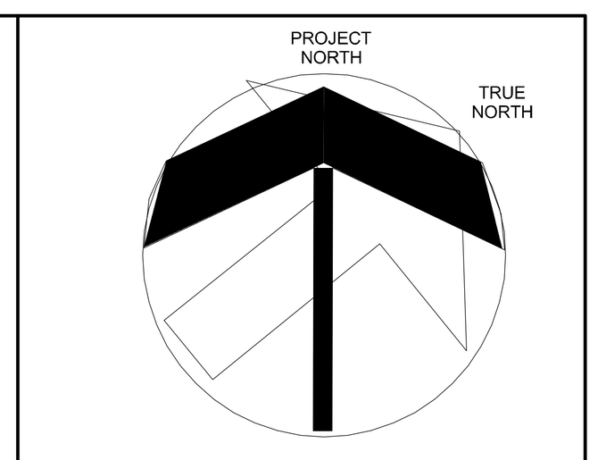
OAKVILLE #3 PUBLIC SCHOOL





* FOR REFERENCE ONLY *

DRAWING LIST

DRAWING No.	DRAWING NAME:
S0.0	COVERPAGE
S1.0	FOUNDATION PLAN
S2.0	FOUNDATION DETAILS
S3.0	SECOND FLOOR FRAMING PLAN
S3.1	THIRD FLOOR FRAMING PLAN
S3.2	ROOF FRAMING PLAN
S4.0	TYPICAL FRAMING DETAILS
S4.1	WALL SECTIONS
S4.2	WALL SECTIONS

GENERAL NOTES

1. CHECK ALL DIMENSIONS ON THESE DRAWINGS WITH ALL OTHER DRAWINGS, INCLUDING BUT NOT LIMITED TO DRAWINGS PREPARED ARCHITECTURAL, MECHANICAL OR ELECTRICAL CONSULTANTS. REPORT ANY INCONSISTENCIES TO THE ARCHITECT OR ENGINEER PRIOR TO COMMENCING WITH THE WORK. DO NOT SCALE THE DRAWINGS.
2. THE DESIGN LIVE LOADS ARE INDICATED ON THE DRAWINGS. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LOADS.
3. THE COMPLETED STRUCTURE IS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING AND ANY OTHER TEMPORARY OR PERMANENT MEASURES AS REQUIRED DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT OF EXISTING OR ADJACENT STRUCTURES AS REQUIRED. ALL BRACING AND SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONSTRUCTION FEATURES NOT FULLY SHOWN ARE COMPARABLE TO SIMILAR CONDITION DETAILS.
5. REFER TO OTHER CONSULTANTS DRAWINGS FOR DETAILS OF OPENINGS, PITS, CHAMFERS, DEPRESSIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS.
6. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST ONTARIO BUILDING CODE, LATEST APPLICABLE REGULATIONS, AND GOOD CONSTRUCTION PRACTICES.
7. THE STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS.
8. CLARIFY ANY QUERIES WITH THE ENGINEER REGARDING THE INTERPRETATION OF THE DRAWINGS, PRIOR TO THE COMMENCEMENT OF ANY WORK.

SUBMITTALS

1. SUBMIT FOR REVIEW BY THE CONSULTANT, DETAILED SHOP DRAWINGS FOR ALL STRUCTURAL WORK INCLUDING, BUT NOT LIMITED TO: PRECAST SLABS, OPEN WEB STEEL JOIST, METAL STUDS, METAL DECK, CONCRETE MIXES, REINFORCING STEEL, STRUCTURAL STEEL AND TEMPORARY SHORING.
2. THE SCALE OF THE DRAWINGS SHALL BE SUCH THAT THE DETAILS OF THE STRUCTURAL WORK ARE CLEARLY SHOWN, AND IN NO CASE SMALLER THAN 1/4"= 1'-0" (1:50).
3. THE STRUCTURAL DRAWINGS SHALL NOT BE REPRODUCED, IN WHOLE OR IN PART, FOR USE AS SHOP DRAWINGS.
4. EACH DRAWING SUBMITTED FOR PRECAST SLABS, OPEN WEB STEEL JOIST, METAL STUDS, METAL DECK, CONCRETE MIXES, REINFORCING STEEL, STRUCTURAL STEEL AND TEMPORARY SHORING SHALL BEAR THE SEAL AND SIGNATURE OF A QUALIFIED PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
5. CONTRACTOR SHALL ALLOW FOR A 5 WORKING DAY TURN AROUND TIME FOR STRUCTURAL CONSULTANT TO REVIEW THE SHOP DRAWINGS.

CALCULATIONS

1. SUBMIT CALCULATIONS, BEARING THE SEAL AND SIGNATURE OF PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO, FOR STRUCTURAL WORK, IF REQUESTED BY THE CONSULTANT.

CONCRETE NOTES

1. 1. ALL STRUCTURAL CONCRETE ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD CAN/CSA A23.3. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD CAN/CSA A23.1.
2. MINIMUM CONCRETE STRENGTH AT 28 DAYS SHALL BE:
   - FOOTINGS 25 MPa TYPE N
   - FOUNDATION WALLS 25 MPa TYPE F1
   - EXTERIOR SLABS 32 MPa TYPE C-2
   - SLAB ON GRADE 25 MPa TYPE N
   - PIERS 25 MPa TYPE N
   - LEAN CONCRETE 10 MPa

   SLUMP SHALL BE 75mm± 25mm.
   AGGREGATE SHALL BE 20mm MAXIMUM.
   AIR ENTRAINED TO BE 6% ± 1% WHEN EXPOSED TO EXTERIOR.
   CONTRACTOR TO SUBMIT CONCRETE MIX DESIGN FO REVIEW.
3. THE DEFORMED REINFORCING STEEL SHALL CONFORM TO CSA STANDARD G30.18M GRADE 300R FOR STIRRUPS AND TIES AND GRADE 400R FOR ALL OTHER REINFORCING. UNLESS OTHERWISE NOTED THE REINFORCING LAP LENGTH SHALL BE 'CLASS B' IN SPLICES. ALL REINFORCING HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH A23.1.
4. WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH CSA G30.5. ALL MESH SHALL BE CHAIRED PRIOR TO THE CONCRETE POUR. LIFTING OF THE MESH DURING THE CONCRETE POUR WILL NOT PERMITTED. ALL SPLICES SHALL BE A MINIMUM OF TWO CROSS WIRE SPACINGS PLUS 50mm.
5. THE REINFORCING COVER FOR CONCRETE SHALL BE:
   - 75mm FOR CONCRETE AGAINST EARTH
   - 40mm FOR FORMED CONCRETE EXPOSED TO EARTH OR WEATHER WHERE THE REINFORCING BAR IS 15M OR SMALLE
   - 50mm FOR FORMED CONCRETE EXPOSED TO EARTH OR WEATHER WHERE THE REINFORCING BAR IS 20M OR LARGER
   - 25mm FOR INTERIOR CONCRETE. ALL CHAIRS, BOLSTERS, SPACERS AND BAR SUPPORTS SHALL BE IN ACCORDANCE WITH A23.1.
6. FOOTINGS SHALL BEAR ON ENGINEERED FILL WITH A MINIMUM BEARING RESISTANCE OF:
   - 150 kPa (SLS)
   - 225 kPa (ULS)

   THE CONTRACTOR SHALL VERIFY THE CAPACITY PRIOR TO PLACEMENT OF CONCRETE.
   REFER TO GEOTECHNICAL REPORT PREPARED BY DS CONSULTANT LTD. DATED NOVEMBER 23, 2022. PROJECT No. 19-053-101.
   REFER TO SITE OBSERVATION REPORTS BY G2S CONSULTING INC. REGARDING PLACEMENT OF ENGINEERED FILL.
7. THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATION OR STEP DOWN FOOTINGS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10. STEP HEIGHT SHALL NOT EXCEED 600mm.
8. KEEP EXCAVATIONS DRY BEFORE CONCRETE IS PLACED. REMOVE ALL LOOSE MATERIAL, SOFT SOIL OR WATER PRIOR TO PLACING CONCRETE. PROVIDE A 75mm MUD SLAB FOR ALL FOOTINGS BELOW THE WATER TABLE.
9. ALL FOOTINGS SHALL BE CENTRED ON THE WALL UNLESS OTHERWISE NOTED.
10. THE FOOTING DESIGN IS BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. THE FOOTING DESIGN MAY BE ALTERED DURING CONSTRUCTION, IF THE SITE CONDITIONS WARRANT, BUT ONLY WITH THE EXPRESS PERMISSION OF THE ENGINEER.
11. PROTECT ALL FOOTINGS, WALLS AND SLABS AGAINST FROST ACTION DURING CONSTRUCTION. ALL EXTERIOR FOOTINGS SHALL FOUNDED BELOW THE FROST LINE, MINIMUM 1200mm BELOW GRADE.
12. DO NOT BACKFILL AGAINST WALLS RETAINING EARTH UNTIL THE ELEMENTS PROVIDING LATERAL SUPPORT ARE COMPLETE. PLACE BACKFILL IN A MANNER WHERE THE ELEVATION DIFFERENCE ON EITHER SIDE OF THE WALL IS NO GREATER THAN 450mm. PROVIDE TEMPORARY SHORING AS REQUIRED.
13. SLAB-ON-GRADE GRADE CONSTRUCTION SHALL BE CAPABLE OF SUPPORTING 25kN/m² WITHOUT RELATIVE SETTLEMENT.
14. CONSTRUCT CONCRETE WALLS WITHOUT CONTROL JOINTS, UNLESS OTHERWISE NOTED. PROVIDE CHASES AND BEAMS POCKETS IN THE INTERIOR FACE OF THE WALL AS REQUIRED.
15. PROVIDE DOWELS TO WALLS AND COLUMNS TO SUIT THE REINFORCING IN THE WALL OR COLUMN ABOVE.
16. ALL ADHESIVE ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE HILTI HIT-HY200 (OR APPROVED EQUAL) PROCEDURES.

MASONRY NOTES

1. ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD S304.1. ALL MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD A371. ALL MASONRY CONNECTORS, REINFORCING AND TYING SHALL BE IN ACCORDANCE WITH CSA A370. ALL MORTAR AND GROUT SHALL BE IN ACCORDANCE WITH A179.
2. ALL CONCRETE BLOCKS SHALL BE NORMAL WEIGHT TYPE H/15/A/M UNLESS OTHERWISE NOTED. MORTAR SHALL BE TYPE S FOR LOADBEARING AND TYPE N FOR NON-LOADBEARING.
3. VERTICAL CONTROL JOINTS SHALL BE PROVIDED AT A MAXIMUM SPACING OF 6000mm. REFER TO ARCHITECTURAL DRAWING FOR DETAILS AND LOCATIONS
4. TRIM ALL OPENINGS WITH 2-15M BARS.
5. GROUT SHALL CONSIST OF ON ONE PART PORTLAND CEMENT, THREE PARTS SAND (MAXIMUM AGGREGATE SIZE SHALL BE 10mm) WITH WATER TO PROVIDE A MINIMUM 10MPa COMPRESSIVE STRENGTH AT 28 DAYS. SLUMP SHALL BE 200mm TO 250mm.
6. ALL CELLS CONTAINING REINFORCING SHALL BE GROUTED SOLID. TWO BLOCK COURSES BELOW BEARING PLATES SHALL BE GROUTED SOLID.
7. THE MASONRY SHALL BE CONSTRUCTED EVENLY WITH MAXIMUM LIFTS OF 1200 PER DAY. DO NOT TOOTH AND BOND OR STACK BOND MASONRY. RAKE BACK ENDS OF UNFINISHED WALLS.
8. ALL MORTAR JOINTS SHALL BE TOOLED (CONCAVE). A MINIMUM BED JOINT OF 6mm IS REQUIRED FOR THE STARTING COURSE TO A MAXIMUM OF 20mm. THE BED JOINTS SHALL BE 10mm.
9. PROVIDE VERTICAL AND HORIZONTAL REINFORCING AS FOLLOWS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   - 140 CONCRETE BLOCK - 10M VERTICAL AT 600 O.C. & HEAVY DUTY TRUSS TYPE HORIZONTAL REINFORCING EVERY SECOND COURSE.
   - 190 CONCRETE BLOCK - 15M VERTICAL AT 800 O.C. & HEAVY DUTY TRUSS TYPE HORIZONTAL REINFORCING EVERY SECOND COURSE.
   - 240 CONCRETE BLOCK - 20M VERTICAL AT 600 O.C. & HEAVY DUTY TRUSS TYPE HORIZONTAL REINFORCING EVERY COURSE.
   - 290 CONCRETE BLOCK - 20M VERTICAL AT 600 O.C. & HEAVY DUTY TRUSS TYPE HORIZONTAL REINFORCING EVERY COURSE.
10. THE HORIZONTAL REINFORCING AT EXTERIOR WALLS SHALL BE GALVANIZED. DO NOT EXTEND HORIZONTAL REINFORCING THROUGH CONTROL JOINTS UNLESS OTHERWISE NOTED.
11. PROVIDE A STEEL LINTEL OVER ALL OPENINGS OR RECESSES INCLUDING OPENINGS FOR MECHANICAL AND ELECTRICAL COMPONENTS. ALL EXTERIOR LINTELS TO BE HOT DIP GALVANIZED.
12. BUILD THE MASONRY SOLID AROUND ALL BEAM, LINTEL AND JOIST POCKETS. INSTALL BEARING PLATES AT THE SPECIFIED ELEVATION AND GROUT THE PLATE INTO THE WALL A MINIMUM OF 400mm.
13. PROVIDE TEMPORARY BRACING AS REQUIRED TO SUPPORT THE MASONRY WALLS IN CONSTRUCTION. PROTECT THE MASONRY WALLS FROM THE ELEMENTS AT ALL TIMES EXCEPT DURING CONSTRUCTION PROGRESS.

STRUCTURAL STEEL NOTES

1. ALL STRUCTURAL STEEL ELEMENTS, INCLUDING DESIGN OF ELEMENTS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH CAN/CSA S16.
2. ALL STRUCTURAL STEEL SHALL CONFORM TO CSA G40.21 (300W) EXCEPT W SECTIONS AND PLATES G40.21 (350W), HSS MEMBERS G40.21 (350W) CLASS C OR ASTM A500 GRADE C, ANCHOR BOLTS ASTM F1554 GR 55, COLD FORMED SECTIONS ASTM A570M GRADE 350W. UNLESS OTHERWISE NOTED, ALL SECTIONS SHALL BE PRIME PAINTED WITH THE SURFACE PREPARATION AND PAINTING PROCEDURES IN ACCORDANCE WITH CAN/CGSB 85.10.
3. OPEN WEB STEEL JOISTS ARE TO BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER TO CARRY THE LOADS AND SPANS INDICATED ON THE DRAWINGS. DETAILS AND DESIGN INCLUDING BRIDGING REQUIREMENTS ARE TO CONFORM TO CSA STANDARDS S16-09. PROVIDE 100mm DEEP JOIST SHOES DESIGNED FOR A MAXIMUM BEARING PRESSURE OF 1100 kPa ON MASONRY WALLS.
4. ALL WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA W59. THE STEEL FABRICATOR SHALL BE FULLY QUALIFIED UNDER THE REQUIREMENTS BY THE CANADIAN WELDING BUREAU IN CONFORMANCE WITH CAN/CSA W47.1.
5. DESIGN ALL MOMENT AND SHEAR CONNECTIONS FOR THE FULL CAPACITY OF THE SMALLER MEMBER IN THE CONNECTION UNLESS OTHERWISE NOTED.
6. PROVIDE MINIMUM BEARING LENGTH OF STEEL MEMBERS AS FOLLOWS:
   - ON MASONRY - 150mm
   - ON STEEL - 90mm
7. THE BASE PLATE AND BEARING PLATE GROUT SHALL BE OF THE CEMENTITIOUS NON-SHRINK TYPE.
8. DECK SHALL BE EITHER 38mm OR 76mm DEEP IN ACCORDANCE WITH
9. CSA S136 AND SHALL BE FABRICATED FROM ASTM A653 SS GRADE 230 GALVANIZED STEEL WITH A ZF75 GALVANNEAL OR Z275 GALVANIZED ZINC COATING. THE MINIMUM NOMINAL STEEL CORE THICKNESS SHALL BE
10. 0.76mm. STEEL DECK SHALL BE FASTENED TO THE SUPPORT STRUCTURE WITH 20mm SPOT WELDS AT NOT MORE THAN 300mm c/c (150mm AT PERIMETER). CLINCH SIDELAPS AT 600mm c/c. ALL WELDS TO BE TOUCHED UP WITH PRIMER. MECHANICAL FASTENERS MAY ONLY BE USED WITH THE PERMISSION OF THE ENGINEER.
11. FULLY WELD THE BASE PLATE TO THE COLUMN TO DEVELOP THE ANCHOR BOLTS. PROVIDE CAP PLATES ON ALL COLUMNS. PROVIDE 6mm CAP PLATES ON ALL COLUMNS.
12. ALL BOLTS SHALL BE TIGHTENED WITH A SUITABLE TORQUE WRENCH IN ACCORDANCE WITH CSA S16.
13. ALL STEEL EXPOSED TO THE EXTERIOR TO BE HOT DIP GALVANIZED.
14. ERECT STRUCTURAL STEEL IN ACCORDANCE WITH CSA S16 AND IN CONFORMANCE WITH THE APPROVED SHOP DRAWINGS.
15. ALL BEAMS & LINTELS SHALL HAVE FULL BEARING ON BEARING PLATES.

LIGHT GAUGE STEEL FRAMING NOTES

GENERAL

1. THESE NOTES APPLY TO THE STEEL STUD FRAMING COMPONENT OF THE EXTERIOR WALL SYSTEM ONLY.
2. THE DESIGN WIND LOADING IS 1.2kN/m² (25 PSF) DETERMINED BY O.B.C. REQUIREMENTS AND CAN-S136. DEFLECTION IS LIMITED TO L/360.
3. THE DESIGN OF FRAMING SYSTEM IS BASED ON PUBLISHED STUD SECTION PROPERTIES BY BAILEY METAL PRODUCTS LIMITED.

MATERIAL

1. THE MINIMUM BASE METAL THICKNESS FOR ALL METAL WALL COMPONENTS, EXCLUDING COATINGS ARE NOTED ON THE DRAWINGS.
2. STEEL MEETS THE REQUIREMENTS OF A.S.T.M. A653/A653M SS GRADE 33 (230) FOR 1.22mm MATERIAL AND THINNER, AND SS GRADE 50 (340) CLASS 1 FOR 1.52mm MATERIAL AND THICKER.
3. GALVANIZING TO BE HOT-DIP PROCESS, G90 (Z275).

EXECUTION

1. METHOD OF CONSTRUCTION SHALL BE BY STICK BUILDING ON SITE.
2. CONNECTIONS SHALL BE ACCOMPLISHED BY SELF DRILLING SCREWS AND OTHER FASTENERS AS SHOWN ON THESE DRAWINGS. PENETRATION BEYOND JOINED MATERIALS SHALL BE NOT LESS THAN THREE EXPOSED THREADS. ALL CONNECTORS USED IN ASSEMBLIES SHALL BE OF CORROSION RESISTANT MATERIAL COMPATIBLE WITH GALVANIZED COATINGS WITH A MINIMUM COATING THICKNESS OF 0.039mm ZINC OF CADMIUM PLATES. NO BLACK CONNECTORS WILL BE ACCEPTED. SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
3. SCREWS COVERED BY SHEATHING MATERIALS SHALL HAVE LOW PROFILE HEADS.
4. WIRE TYING IS NOT PERMITTED IN STRUCTURAL APPLICATIONS.
5. CUTTING OF STEEL FRAMING MEMBERS SHALL BE BY SAW OR SHEAR. NO TORCH OR MANUAL CUTTING IS PERMITTED.
6. SPLICING OF STUDS OR TRACK IS NOT PERMITTED EXCEPT AS NOTED ON DRAWINGS.
7. BRIDGING SHALL BE OF SIZE, SPACING AND TYPE SHOWN ON THE DRAWINGS AND SHALL BE INSTALLED SO AS TO PROVIDE RESISTANCE TO MINOR AXIS BENDING AND ROTATION OF STUDS. PROVIDE BRIDGING AT 1200mm c/c MAXIMUM.
8. TEMPORARY BRACING SHALL BE PROVIDED AND LEFT IN PLACE UNTIL WORK IS PERMANENTLY STABILIZED.
9. STUDS SHALL SEAT INTO TOP AND BOTTOM TRACKS WITH THE GAP BETWEEN THE END OF THE STUD AND WEB OF THE TRACK NOT TO EXCEED 3mm.
10. VERTICAL ALIGNMENT (PLUMBNESS) OF STUDS SHALL BE WITHIN 1/1000 OF THE SPAN.
11. HORIZONTAL ALIGNMENT (LEVELNESS) OF WALLS SHALL BE WITHIN 1/1000 OF THEIR RESPECTIVE LENGTHS.
12. SPACING OF STUDS SHALL BE WITHIN 3mm FROM DESIGN SPACING PROVIDED THAT CUMULATIVE ERROR DOES NOT EXCEED THE REQUIREMENTS OF THE FINISHING MATERIALS.

LOADING SUMMARY

DESIGN STANDARDS

- ONTARIO BUILDING CODE, 2012, PART 4: STRUCTURAL DESIGN
- CAN/CSA-A23.3-14, DESIGN OF CONCRETE STRUCTURES
- CAN/CSA-A23.4-16 (R2021), DESIGN OF PRECAST CONCRETE STRUCTURES
- CAN/CSA-S304.1-14, MASONRY DESIGN FOR BUILDINGS
- CAN/CSA-S16-14, LIMIT STATES DESIGN OF STEEL STRUCTURES
- CAN/CSA-S136-16, DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS

SNOW, ICE AND RAIN LOADS

APPLIED PER OBC, PART 4, SECTION 4.1.6
- IMPORTANCE FACTOR, Is 0.9 (SLS) 1.15 (ULS)
- GROUND SNOW LOAD, Ss 1.1 kPa
- ASSOCIATED RAIN LOAD, Sr, 0.4 kPa
- WIND EXPOSURE FACTOR, Cw, 1.0
- ROOF SNOW LOAD, S, 1.47 kPa
- DRIFT LOADS PER CLAUSE 4.1.6.2.8
- SLOPE FACTORS PER CLAUSE 4.1.6.2.(5) TO (7)

WIND LOADS

APPLIED PER OBC, PART 4, SECTION 4.1.7
- IMPORTANCE FACTOR, Iw 0.75 (SLS) 1.15 (ULS)
- REFERENCE VELOCITY PRESSURE FOR STRUCTURAL MEMBERS 0.41 kPa 1/50 YEAR PROBABILITY
- REFERENCE VELOCITY PRESSURE FOR CLADDING & NON-STRUCTURAL MEMBERS 0.32 kPa 1/10 YEAR PROBABILITY
- GUST FACTORS Cg:
  2.0 FOR WHOLE & MAIN STRUCTURAL MEMBERS
  2.5 FOR SMALL ELEMENTS INCLUDING CLADDING
  2.0 FOR INTERNAL PRESSURES
- BUILDING INTERNAL PRESSURE CATEGORY 2 PER NBC 2010 STRUCTURAL COMMENTARY (PART B), COMMENTARY B.

SEISMIC LOADS

APPLIED PER OBC, PART 4, SECTION 4.1.8
- IMPORTANCE FACTOR, IE 1.3 (ULS)

Sa (0.2) 0.260
Sa (0.5) 0.129
Sa (1.0) 0.062
Sa (2.0) 0.029
Sa (5.0) 0.007
Sa (10.0) 0.0027
PGA 0.167
PGV 0.101
SOIL CLASS C

PGAref 0.134
Fa 1.0
Fv 1.0
Ta 0.323 (SECONDS)
Mv 1.0
Rd 1.5 Ro 1.5
V 6900 kN

FLOOR LOADS

APPLIED PER OBC, PART 4, TABLE 4.1.5.3
- GROUND FLOOR 4.8KPa (100.0 PSF)
- SECOND FLOOR 4.8KPa (100.0 PSF)
- STAIRS 4.8KPa (100.0 PSF)
- CORRIDORS 4.8KPa (100.0 PSF)
- MEZZANINES 4.8KPa (100.0 PSF)
- BALCONIES 4.8KPa (100.0 PSF)
- STAIRS AND EXITS 4.8KPa (100.0 PSF)
- WASHROOMS 4.8KPa (100.0 PSF)

SEISMIC SWAY BRACING

ARTICLE 4.1.8.18(2) OF THE ONTARIO BUILDING CODE NOTES THAT IF THE PRODUCT OF IE * Fa * Sa(0.2) IS LESS THAN 0.35, THE REQUIREMENTS NOTED ABOVE NEED NOT APPLY. THESE VALUES ARE EXPLORED BELOW. THIS EXEMPTION IS NOT APPLICABLE TO POST-DISASTER BUILDINGS.

BASED ON THE ABOVE NOTED VALUES, THE PRODUCT OF IE * Fa * Sa(0.2) = 1.3 * 1.0 * 0.26 = 0.338. GIVEN THIS IS LESS THAN THE THRESHOLD OF 0.35, THE APPLICATION OF THE LATERAL FORCE (Vp) TO ALL ELEMENTS AND COMPONENTS AND SWAY BRACING IS NOT REQUIRED.

REQUIREMENTS FOR LOAD RESTRICTIONS OUTLINED IN FIRE RESISTANCE RATINGS - CAN/ULC-S101 CERTIFIED FOR CANADA AND THE UL957 HAVE BEEN ACCOUNTED FOR IN THE STRUCTURAL DESIGN

DESIGN LOADING

A) ROOF :
DEAD :

4-PLY ASPHALT & GRAVEL	= 0.32 KPa
150 RIGID INSULATION	= 0.10 KPa
COVERBOARD	= 0.10 KPa
M&E ALLOWANCE	= 0.25 KPa
CEILING	= 0.25 KPa
FUTURE BALLASTED PV ARRAY (PRECAST ROOFS ONLY)	= 0.50 KPa
TOTAL	1.52 KPa

PLUS MECHANICAL UNITS AND 1 kPa AT ROOF PAVERS
- 254mm HOLLOW CORE PRECAST CONCRETE SLABS = 3.54 KPa
- 305mm HOLLOW CORE PRECAST CONCRETE SLABS = 4.12 KPa
- 38 STEEL DECK = 0.10 KPa

B) FLOORS :
DEAD :

FLOORING	= 0.20 KPa
50 TOPPING	= 1.18 KPa
M&E ALLOWANCE	= 0.25 KPa
CEILING	= 0.25 KPa
TOTAL	1.88 KPa

- PLUS 1 kPa PARTITION LOAD IN CLASSROOM AREAS
- 203mm HOLLOW CORE PRECAST CONCRETE SLABS = 2.96 KPa
- 254mm HOLLOW CORE PRECAST CONCRETE SLABS = 3.54 KPa
- 305mm HOLLOW CORE PRECAST CONCRETE SLABS = 4.12 KPa
- 254mm SOLID PRECAST CONCRETE SLABS = 5.97 KPa
- 305mm SOLID PRECAST CONCRETE SLABS = 7.17 KPa

METAL DECK AND O.W.S.J. NOTES

1. ALL OPEN WEB STEEL JOISTS SHALL BE DESIGNED AND ERECTED IN ACCORDANCE WITH CAN/CSA S16-14. JOISTS ARE TO BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER TO CARRY THE LOADS AT THE SPANS AND SPACINGS NOTED ON THE DRAWINGS. DETAILS AND DESIGNS INCLUDING BRIDGING REQUIREMENTS ARE TO CONFORM TO CAN/CSA S16-14.
2. ALL WELDING OF JOISTS, DECK, AND ASSOCIATED COMPONENTS SHALL BE CARRIED OUT IN ACCORDANCE WITH CAN/CSA W59. THE STEEL FABRICATOR AND INSTALLER SHALL BE FULLY QUALIFIED UNDER THE REQUIREMENTS OF THE CANADIAN WELDING BUREAU (CWB) IN CONFORMANCE WITH CAN/CSA W47.1.
3. ALL JOISTS AND DECK SHALL BE DESIGNED TO RESIST THE LOADS NOTED ON THE DRAWINGS IN ACCORDANCE WITH PART 4 OF THE 2012 ONTARIO BUILDING CODE.
4. UPLIFT LOADS ON METAL DECK AND JOISTS WITHIN 3m OF THE BUILDING EDGE SHALL BE CALCULATED USING A C_pC_g OF -2.0. UPLIFT LOADS IN OTHER AREAS SHALL BE CALCULATED USING A C_pC_g OF -1.3.
5. JOIST DEFLECTION SHALL BE LIMITED TO L/300 AND SHALL BE CALCULATED USING SPECIFIED LOADS UNLESS NOTED OTHERWISE.
6. PROVIDE 100mm DEEP JOIST SHOES DESIGNED FOR A MAXIMUM BEARING PRESSURE OF 1.1 MPa ON MASONRY WALLS.
7. NO DRILLING, CUTTING, OR WELDING OF JOISTS OR BRIDGING IS PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER AND THE JOIST DESIGNER.
8. DECK SHALL BE EITHER 38mm OR 76mm DEEP IN ACCORDANCE WITH CSA S136 AND SHALL BE FABRICATED FROM ASTM A653 SS OR GRADE 230 GALVANIZED STEEL WITH A ZF75 GALVANNEAL OR Z275 GALVANIZED ZINC COATING. THE MINIMUM NOMINAL STEEL CORE THICKNESS SHALL BE 0.76mm.
9. DECK SHALL BE FASTENED TO THE SUPPORTING STRUCTURE WITH 20mm ARC SPOT WELDS AT NOT LESS THAN 300mm o.c. (914/4) AT SUPPORTS AND NOT LESS THAN 150mm o.c. (914/7) WITHIN 3m OF THE NEAREST BUILDING EDGE. SIDELAPS SHALL BE CLINCHED AT 600mm O.C. ALL WELDS SHALL BE TOUCHED UP WITH PRIMER. MECHANICAL FASTENERS MAY ONLY BE USED WITH THE PERMISSION OF THE ENGINEER.

SLAB & DECK LEGEND

SLAB LEGEND

- S1 — 203 HOLLOW CORE PRECAST SLAB / 50 CONCRETE TOPPING / PLUS MASONRY LINE LOADS (10 kN/m²)
- S2 — 254 HOLLOW CORE PRECAST SLAB / 50 CONCRETE TOPPING / PLUS MASONRY LINE LOADS (10 kN/m²)
- S3 — 305 HOLLOW CORE PRECAST SLAB / 50 CONCRETE TOPPING / PLUS MASONRY LINE LOADS (10 kN/m²)
- S4 — 254 HOLLOW CORE PRECAST SLAB
- S5 — 300 HOLLOW CORE PRECAST SLAB
- S6 — 254 SOLID PRECAST SLAB / 50 CONCRETE TOPPING (EXCLUDING MIDLANDING)
- S7 — 300 SOLID PRECAST SLAB / 50 CONCRETE TOPPING

NOTE: PROVIDE SOLID SLABS AS REQUIRED. TO BE DETERMINED BY THE PRECASTER

DECK LEGEND

- D1 — 38 STEEL DECK (MIN. 22GA) ACOUSTIC / PLUS SNOW PILE-UP
- D2 — 38 STEEL DECK (MIN. 20GA) ACOUSTIC / PLUS SNOW PILE-UP
- D3 — 38 STEEL DECK C/W 62 CONCRETE TOPPING c/w 152x152MW18.7xMW18.7 / (100 COMPOSITE DECK)

BEARING PLATE (B.P.) SCHEDULE

TYPE	SIZE
A	175x175x16
B	190x390x16
C	230x230x16
D	230x390x16

- PROVIDE 2-15∅ ANCHORS WELDED TO EACH PLATE AND GROUTED INTO BLOCK/CONCRETE UNLESS OTHERWISE NOTED.

400

50

- FOR ALL BEAMS, JOISTS AND CHANNELS PROVIDE:
BEARING PLATE 'A' IN 190 BLOCK
BEARING PLATE 'C' IN 240 BLOCK
UNLESS OTHERWISE NOTED.

COLUMN SCHEDULE

COLUMN No.	C1	C2	C3	C4	C5	C6	
CAP PL. SIZE	300x300x19	6mm PL.	300x300x19	300x300x19	300x300x19	300x300x19	
COLUMN SIZE	HSS152x152x9.5	HSS273x6.4	HSS178x178x16	HSS127x127x6.4	HSS152x152x8.0	HSS203x203x9.5	
BASE PL. SIZE	B.PL. 2	B.PL. 1	B.PL. 1	B.PL. 2	B.PL. 2	B.PL. 1	
ANCHOR BOLT	4-25∅mm	4-25∅mm	4-25∅mm	4-25∅mm	4-25∅mm	4-25∅mm	
NOTES:							

PIER SCHEDULE

MARK	SIZE	REINFORCING	T/O PIER ELEV.
P1	450x450	4-25M VERTS & 10M @300 TIES	-200
P2	600x600	8-25M VERTS & 2-10M @300 TIES	-200

FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F1	1200x1200x300	4-20M B.E.W.
F2	2000x2000x400	8-20M B.E.W.
F3	3000x3000x500	12-20M B.E.W.

LICENSED PROFESSIONAL ENGINEER
11/28/2022
G. W. D. FINLAY
100224815
PROVINCE OF ONTARIO

NO	REVISIONS	DATE

NO	ISSUED	DATE
2	ISSUED FOR TENDER	23-01-04
1	ISSUED FOR PERMIT	22-08-26

CERTIFICATE OF PRACTICE #4292

OAKVILLE #3 PUBLIC SCHOOL

1235 WHEAT BOOM DRIVE
OAKVILLE, ON

LEGAL DESCRIPTION:

BLOCKS 41 , REGISTERED PLAN 20M-1247
TOWN OF OAKVILLE, REGION OF HALTON

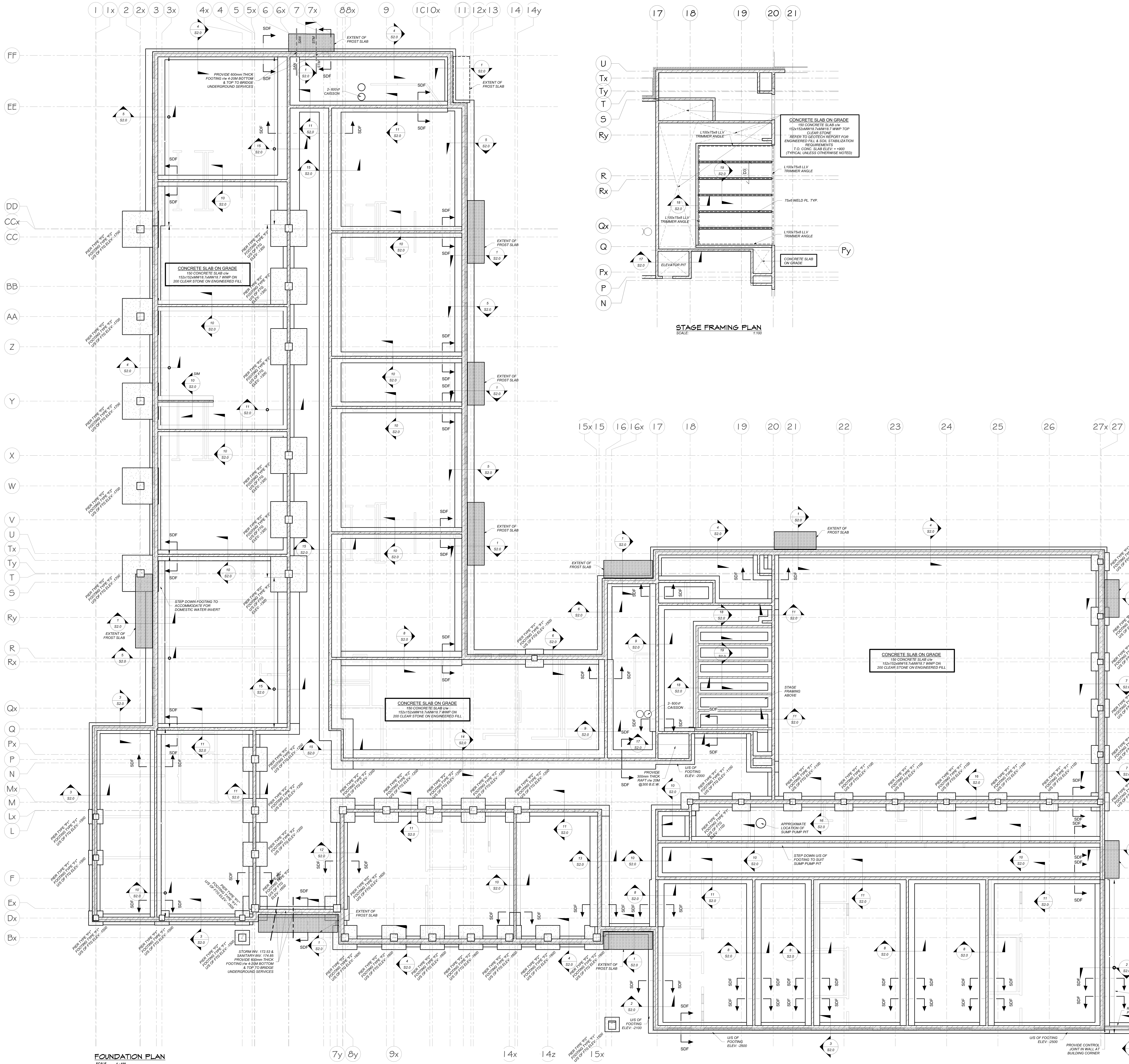
KALOS ENGINEERING
300 YORK BLVD. HAMILTON ONT. L8R 3K6
PROJECT No. 22087

HALTON DISTRICT SCHOOL BOARD
J.W.SINGLETON EDUCATION CENTRE
2050 GUELPH LINE
BURLINGTON, ON., L7R 3Z2
TEL. (905) 335-3663
FAX (905) 335-9802

COVERPAGE

HOSSACK & ASSOCIATES ARCHITECTS
4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-8284 Fax (905) 607-8290

SCALE	As indicated	PROJECT	22104
DATE	AUGUST. 2022		
DRAWN	S.NUVE	DRAWING	S0.0
CHECKED	GF		
PRINT DATE	11/28/2022 11:24:02 AM		
REVIT FILE	T:\2015\15106\02\Revit\MILTON10.RVT		



FOUNDATION LEGEND

DESCRIPTION	SYMBOL
WEEPING TILE	—WT———WT—
GAS LINE	—GS———GS—
(C.J.) SAW CUT CONTROL JOINT	C.J. — — — — C.J.
FOOTING EXTENTS	———
SLAB THICKENING	- - - - -
WALL ABOVE	———
STEP DOWN FOOTING	SDF SDF

FOUNDATION NOTES

1. TOP OF GROUND FLOOR SLAB ELEV. = 177.00 GEODETIC (0.0) UNLESS NOTED OTHERWISE.
2. TYPICAL EXTERIOR U/S FOOTING = -1500 U.N.O. TYPICAL INTERIOR U/S FOOTING = -1100 U.N.O.
3. U/S OF SPREAD FOOTING TO BE DROPPED TO PROVIDE A CONTINUOUS TOP OF FOOTING.
4. REFER TO S1.1 FOR TYPICAL FOUNDATION DETAILS AND S1.4 FOR CONCRETE NOTES.
5. COORDINATE PIER, ANCHOR BOLT LAYOUT WITH COLUMN BASE PLATES.
6. ELEVATIONS SHOWN ARE APPROXIMATE ONLY. REFER TO ARCHITECTURAL FLOOR PLAN FOR DRAIN LOCATIONS AND SLOPE TO DRAIN.
7. PROVIDE SAWCUTS IN THE SLAB-ON-GRADE IN A 3m x 3m GRID PATTERN

PROJECT NORTH
TRUE NORTH

LICENSED PROFESSIONAL ENGINEER
11/28/2022
G. W. D. FINLAY
100224815
PROVINCE OF ONTARIO

NO	REVISIONS	DATE

NO	ISSUED	DATE
2	ISSUED FOR TENDER	23-01-04
1	ISSUED FOR PERMIT	22-08-26

CERTIFICATE OF PRACTICE #4292

OAKVILLE #3 PUBLIC SCHOOL

1235 WHEAT BOOM DRIVE
OAKVILLE, ON

LEGAL DESCRIPTION:

BLOCKS 41 , REGISTERED PLAN 20M-1247
TOWN OF OAKVILLE, REGION OF HALTON

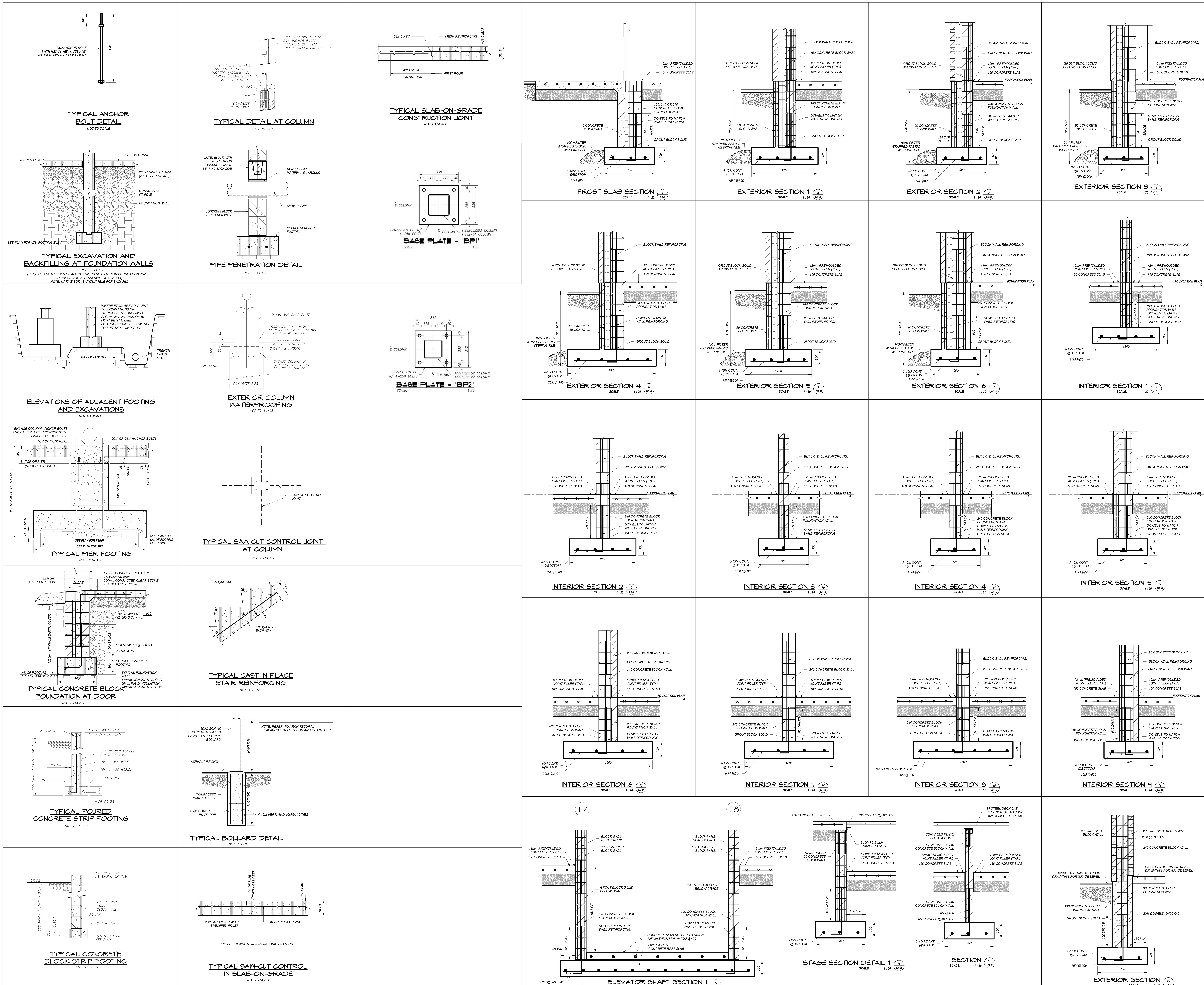
KALOS ENGINEERING
300 YORK BLVD. HAMILTON ONT. L8R 3K6
PROJECT No. 22087

Halton District School Board
HALTON DISTRICT SCHOOL BOARD
J.W.SINGLETON EDUCATION CENTRE
2050 GUELPH LINE
BURLINGTON, ON., L7R 3Z2
TEL. (905) 335-3663
FAX (905) 335-9802

FOUNDATION PLAN

HOSSACK & ASSOCIATES ARCHITECTS
4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-8284 Fax (905) 607-8290

SCALE As indicated	PROJECT 22104
DATE AUGUST. 2022	
DRAWN SNUVE	DRAWING S1.0
CHECKED GF	
PRINT DATE	11/28/2022 11:24:26 AM
REVIT FILE	T:\2015\15106\02\Revit\MILTON10.RVT



TYPICAL ANCHOR BOLT DETAIL
NOT TO SCALE
TYPICAL DETAIL AT COLUMN
NOT TO SCALE
TYPICAL SLAB-ON-GRADE CONSTRUCTION JOINT
NOT TO SCALE
TYPICAL EXCAVATION AND BACKFILLING AT FOUNDATION WALLS
NOT TO SCALE
PIPE PENETRATION DETAIL
NOT TO SCALE
BASE PLATE - 'BP1'
SCALE: 1:20
ELEVATIONS OF ADJACENT FOOTING AND EXCAVATIONS
NOT TO SCALE
EXTERIOR COLUMN WATERPROOFING
NOT TO SCALE
BASE PLATE - 'BP2'
SCALE: 1:20
TYPICAL PIER FOOTING
NOT TO SCALE
TYPICAL SAW CUT CONTROL JOINT AT COLUMN
NOT TO SCALE
TYPICAL CONCRETE BLOCK FOUNDATION AT DOOR
NOT TO SCALE
TYPICAL CAST IN PLACE STAIR REINFORCING
NOT TO SCALE
TYPICAL POURED CONCRETE STRIP FOOTING
NOT TO SCALE
TYPICAL BOLLARD DETAIL
NOT TO SCALE
TYPICAL CONCRETE BLOCK STRIP FOOTING
NOT TO SCALE
TYPICAL SAW-CUT CONTROL IN SLAB-ON-GRADE
NOT TO SCALE
FROST SLAB SECTION 1 S1.0 SCALE: 1:20
EXTERIOR SECTION 1 2 S1.0 SCALE: 1:20
EXTERIOR SECTION 2 3 S1.0 SCALE: 1:20
EXTERIOR SECTION 3 4 S1.0 SCALE: 1:20
EXTERIOR SECTION 4 5 S1.0 SCALE: 1:20
EXTERIOR SECTION 5 6 S1.0 SCALE: 1:20
EXTERIOR SECTION 6 7 S1.0 SCALE: 1:20
INTERIOR SECTION 1 8 S1.0 SCALE: 1:20
INTERIOR SECTION 2 9 S1.0 SCALE: 1:20
INTERIOR SECTION 3 10 S1.0 SCALE: 1:20
INTERIOR SECTION 4 11 S1.0 SCALE: 1:20
INTERIOR SECTION 5 12 S1.0 SCALE: 1:20
INTERIOR SECTION 6 13 S1.0 SCALE: 1:20
INTERIOR SECTION 7 14 S1.0 SCALE: 1:20
INTERIOR SECTION 8 15 S1.0 SCALE: 1:20
INTERIOR SECTION 9 16 S1.0 SCALE: 1:20
ELEVATOR SHAFT SECTION 1 17 S1.0 SCALE: 1:20
STAGE SECTION DETAIL 1 18 S1.0 SCALE: 1:20
SECTION 19 S1.0 SCALE: 1:20
EXTERIOR SECTION 20 S1.0 SCALE: 1:20

LICENSED PROFESSIONAL ENGINEER
11/28/2022
G. W. D. FINLAY
100224815
PROVINCE OF ONTARIO

NO	REVISIONS	DATE
2	ISSUED FOR TENDER	23-01-04
1	ISSUED FOR PERMIT	22-08-26
NO	ISSUED	DATE

DRAWINGS ARE NOT TO BE SCALED. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE PROJECT; AND MUST REPORT ANY DISCREPANCIES TO THE CONSULTANTS BEFORE PROCEEDING WITH THE WORK. THE USE OF THIS DRAWING OR PART THEREOF IS FORBIDDEN WITHOUT THE WRITTEN APPROVAL OF THE CONSULTANTS.

CERTIFICATE OF PRACTICE #4292

OAKVILLE #3 PUBLIC SCHOOL

1235 WHEAT BOOM DRIVE
OAKVILLE, ON

LEGAL DESCRIPTION:

BLOCKS 41 , REGISTERED PLAN 20M-1247
TOWN OF OAKVILLE, REGION OF HALTON

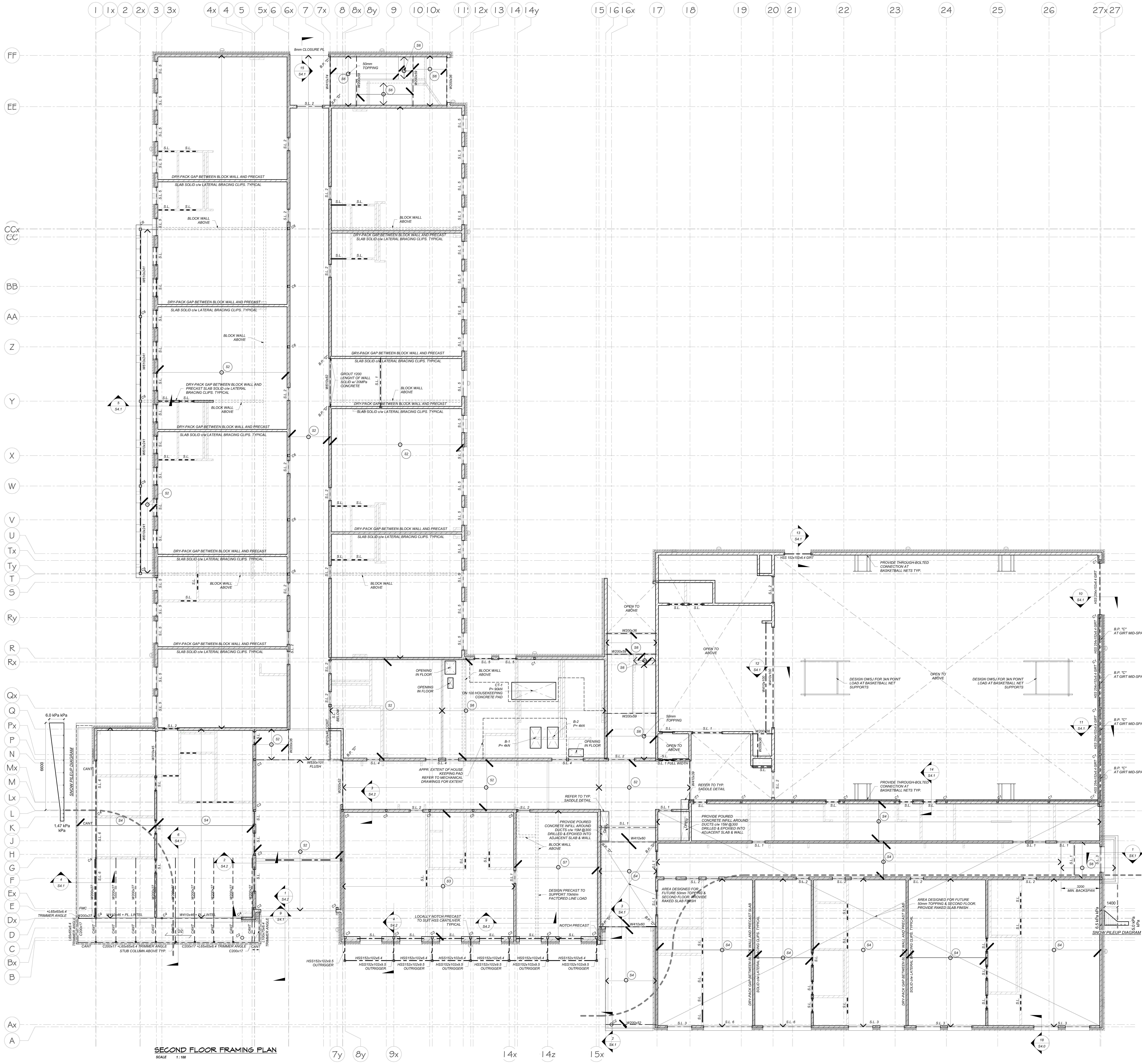
KALOS ENGINEERING
300 YORK BLVD. HAMILTON ONT. L8R 3K6
PROJECT No. 22087

HALTON DISTRICT SCHOOL BOARD
J.W.SINGLETON EDUCATION CENTRE
2050 GUELPH LINE
BURLINGTON, ON., L7R 3Z2
TEL. (905) 335-3663
FAX (905) 335-9802

FOUNDATION DETAILS

HOSSACK & ASSOCIATES ARCHITECTS
4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-8284 Fax (905) 607-8290

SCALE: As indicated	PROJECT: 22104
DATE: AUGUST. 2022	
DRAWN: SNUVE	DRAWING: S2.0
CHECKED: GF	
PRINT DATE	11/28/2022 11:25:03 AM
REVIT FILE	T:\2015\15106\02\Revit\MILTON10.RVT



FRAMING NOTES

1. TOP OF STEEL ELEVATION 3700 UNLESS NOTED THUS (+0.0)
2. TOP OF PRECAST SLAB 3950 UNLESS NOTED THUS [+0.0]
3. REFER TO ARCHITECTURAL DRAWINGS. AND MECHANICAL DRAWINGS FOR DIMENSIONS.
4. REFER TO DRAWING S0.0 FOR NOTES AND S4.0 STANDARD DETAILS AND FOR CONCRETE BLOCK WALL REINFORCING.
5. REFER TO ARCH'L, MECH'L AND ELEC'L DWGS. FOR SIZE AND LOCATION OF ALL OPENINGS IN BLOCK WALLS. SEE LINTEL SCHEDULE DRAWINGS S4.0 FOR LINTEL SIZES.
6. ELEVATION SHOWN FOR TOP OF JOISTS AND ROOF CHANNELS ARE APPROXIMATE ONLY. REFER TO ARCH'L ROOF PLAN FOR DRAIN LOCATIONS AND SET STEEL TO FALL EVENLY TO DRAIN.
7. REFER TO S0.0 FOR PRECAST SLAB CONFIGURATION AND LOADING.
8. REFER TO S0.0 FOR COLUMN SCHEDULE.
9. PROVIDE STEEL LINTELS FOR ALL OPENINGS AS SHOWN ON ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS. (NOT ALL SHOWN ON THIS DRAWING) REFER TO S4.0 FOR SIZES. PROVIDE LINTELS AT ALL DUCT OPENINGS. ALL LINTELS SHALL BE PROVIDED BY THE STRUCTURAL STEEL TRADE.
10. COORDINATE PRECAST SLABS w/ WITH MECHANICAL EQUIPMENT & ASSOCIATED PENETRATIONS.

STAIR FRAMING NOTES

1. THE HANDRAILS MUST BE DESIGNED TO WITHSTAND LOADING AS SPECIFIED IN O.B.C. DIV. B. ARTICLE 3.4.6.4. & GUARD RAILS MUST BE DESIGNED TO WITHSTAND LOADING AS SPECIFIED IN ARTICLES 4.1.5.15. & 4.1.5.17. SHOP DRAWINGS ARE TO BE STAMPED BY A PROFESSIONAL ENGINEER.

PROJECT NORTH
TRUE NORTH

LICENSED PROFESSIONAL ENGINEER
11/28/2022
G. W. D. FINLAY
100224815
PROVINCE OF ONTARIO

NO	REVISIONS	DATE
2	ISSUED FOR TENDER	23-01-04
1	ISSUED FOR PERMIT	22-08-26
NO	ISSUED	DATE

CERTIFICATE OF PRACTICE #4292

OAKVILLE #3 PUBLIC SCHOOL

1235 WHEAT BOOM DRIVE
OAKVILLE, ON

LEGAL DESCRIPTION:

BLOCKS 41 , REGISTERED PLAN 20M-1247
TOWN OF OAKVILLE, REGION OF HALTON

KALOS ENGINEERING
300 YORK BLVD. HAMILTON ONT. L8R 3K6
PROJECT No. 22087

Halton District School Board
HALTON DISTRICT SCHOOL BOARD
J.W.SINGLETON EDUCATION CENTRE
2050 GUELPH LINE
BURLINGTON, ON., L7R 3Z2
TEL. (905) 335-3663
FAX (905) 335-9802

SECOND FLOOR FRAMING PLAN

HOSSACK & ASSOCIATES ARCHITECTS
4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-8284 Fax (905) 607-8290

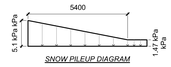
SCALE As indicated	PROJECT 22104
DATE AUGUST. 2022	
DRAWN SNUVE	DRAWING S3.0
CHECKED GF	
PRINT DATE	11/28/2022 11:25:25 AM
REVIT FILE	T:\2015\15106\02\Revit\MILTON10.RVT

FRAMING NOTES

1. *TOP OF STEEL ELEVATION 7700 UNLESS NOTED THUS +0.0*
2. *TOP OF PRECAST SLAB 7950 UNLESS NOTED THUS +0.0*
3. *REFER TO ARCHITECTURAL DRAWINGS. AND MECHANICAL DRAWINGS FOR DIMENSIONS.*
4. *REFER TO DRAWING S0.0 FOR NOTES AND S4.0 STANDARD DETAILS AND FOR CONCRETE BLOCK WALL REINFORCING.*
5. *REFER TO ARCH'L, MECH'L AND ELEC'L DWGS. FOR SIZE AND LOCATION OF ALL OPENINGS IN BLOCK WALLS. SEE LINTEL SCHEDULE DRAWINGS S4.0 FOR LINTEL SIZES.*
6. *ELEVATION SHOWN FOR TOP OF JOISTS AND ROOF CHANNELS ARE APPROXIMATE ONLY. REFER TO ARCH'L ROOF PLAN FOR DRAIN LOCATIONS AND SET STEEL TO FALL EVENLY TO DRAIN.*
7. *REFER TO S0.0 FOR PRECAST SLAB CONFIGURATION AND LOADING.*
8. *REFER TO S0.0 FOR COLUMN SCHEDULE.*
9. *PROVIDE STEEL LINTELS FOR ALL OPENINGS AS SHOWN ON ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS. (NOT ALL SHOWN ON THIS DRAWING) REFER TO S4.0 FOR SIZES. PROVIDE LINTELS AT ALL DUCT OPENINGS. ALL LINTELS SHALL BE PROVIDED BY THE STRUCTURAL STEEL TRADE.*
10. *COORDINATE PRECAST SLABS w/ WITH MECHANICAL EQUIPMENT & ASSOCIATED PENETRATIONS.*

STAIR FRAMING NOTES

1. *THE HANDRAILS MUST BE DESIGNED TO WITHSTAND LOADING AS SPECIFIED IN O.B.C. DIV. B. ARTICLE 3.4.6.4. & GUARD RAILS MUST BE DESIGNED TO WITHSTAND LOADING AS SPECIFIED IN ARTICLES 4.1.5.15. & 4.1.5.17. SHOP DRAWINGS ARE TO BE STAMPED BY A PROFESSIONAL ENGINEER.*



SNOW PILEUP DIAGRAM

TYP. SPU AROUND MECHANICAL UNITS

SNOW PILEUP DIAGRAM

THIRD FLOOR FRAMING PLAN & GYM ROOF FRAMING PLAN

SCALE 1 : 100

PROJECT NORTH / TRUE NORTH

LICENSED PROFESSIONAL ENGINEER
11/28/2022
G. W. D. FINLAY
100224815
PROVINCE OF ONTARIO

NO.	REVISIONS	DATE
2	ISSUED FOR TENDER	23-01-04
1	ISSUED FOR PERMIT	22-08-26

NO.	ISSUED	DATE

DRAWINGS ARE NOT TO BE SCALED. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE PROJECT, AND MUST REPORT ANY DISCREPANCIES TO THE CONSULTANTS BEFORE PROCEEDING WITH THE WORK. THE USE OF THIS DRAWING OR PART THEREOF IS FORBIDDEN WITHOUT THE WRITTEN APPROVAL OF THE CONSULTANTS.

CERTIFICATE OF PRACTICE #4292

OAKVILLE #3 PUBLIC SCHOOL

1235 WHEAT BOOM DRIVE
OAKVILLE, ON

LEGAL DESCRIPTION:

BLOCKS 41 , REGISTERED PLAN 20M-1247
TOWN OF OAKVILLE, REGION OF HALTON

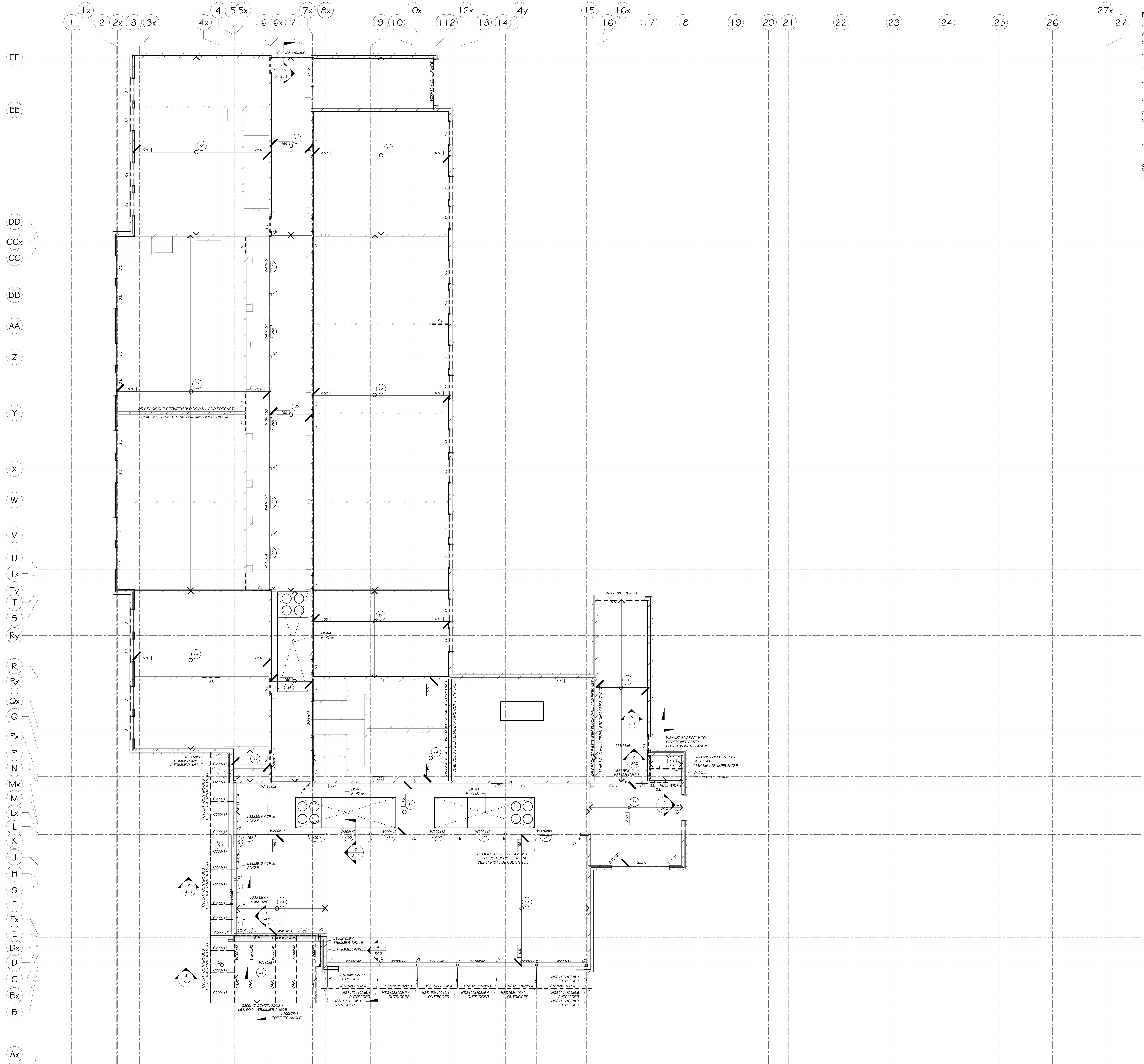
KALOS ENGINEERING
300 YCRK. BLVD. HAMILTON ONT. L8R 3K6
PROJECT No. 22087

HALTON DISTRICT SCHOOL BOARD
c.w.SINGLETON EDUCATION CENTRE
2050 GUELPH LINE
BURLINGTON, ONL. L7R 3Z2
TEL. (905) 335-3663
FAX (905) 335-8802

THIRD FLOOR FRAMING PLAN

HOSSACK & ASSOCIATES ARCHITECTS
4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-4004 Fax (905) 607-4290

SCALE As indicated	PROJECT 22104
DATE AUGUST, 2022	
DRAWN SNUVE	DRAWING
CHECKED GF	S3.1
PRINT DATE	11/28/2022 11:25:35 AM
REVIT FILE	T:\2015\1510602\Revit\MILTON10.RVT



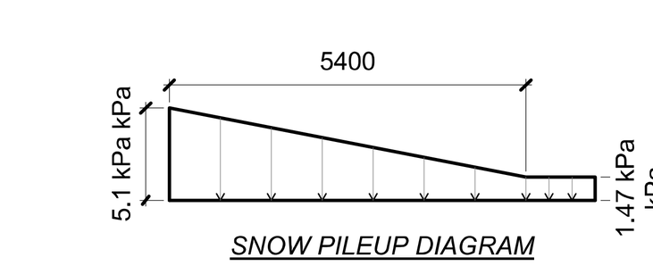
ROOF FRAMING PLAN
SCALE 1 : 100

FRAMING NOTES

1. TOP OF STEEL ELEVATION 11750 UNLESS NOTED THUS (+0.0)
2. TOP OF PRECAST SLAB 12000 UNLESS NOTED THUS [+0.0]
3. REFER TO ARCHITECTURAL DRAWINGS. AND MECHANICAL DRAWINGS FOR DIMENSIONS.
4. REFER TO DRAWING S0.0 FOR NOTES AND S4.0 STANDARD DETAILS AND FOR CONCRETE BLOCK WALL REINFORCING.
5. REFER TO ARCH'L, MECH'L AND ELEC'L DWGS. FOR SIZE AND LOCATION OF ALL OPENINGS IN BLOCK WALLS. SEE LINTEL SCHEDULE DRAWINGS S4.0 FOR LINTEL SIZES.
6. ELEVATION SHOWN FOR TOP OF JOISTS AND ROOF CHANNELS ARE APPROXIMATE ONLY. REFER TO ARCH'L ROOF PLAN FOR DRAIN LOCATIONS AND SET STEEL TO FALL EVENLY TO DRAIN.
7. REFER TO S0.0 FOR PRECAST SLAB CONFIGURATION AND LOADING.
8. REFER TO S0.0 FOR COLUMN SCHEDULE.
9. PROVIDE STEEL LINTELS FOR ALL OPENINGS AS SHOWN ON ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS. (NOT ALL SHOWN ON THIS DRAWING) REFER TO S4.0 FOR SIZES. PROVIDE LINTELS AT ALL DUCT OPENINGS. ALL LINTELS SHALL BE PROVIDED BY THE STRUCTURAL STEEL TRADE.
10. COORDINATE PRECAST SLABS w/ WITH MECHANICAL EQUIPMENT & ASSOCIATED PENETRATIONS.

STAIR FRAMING NOTES

1. THE HANDRAILS MUST BE DESIGNED TO WITHSTAND LOADING AS SPECIFIED IN O.B.C. DIV. B. ARTICLE 3.4.6.4. & GUARD RAILS MUST BE DESIGNED TO WITHSTAND LOADING AS SPECIFIED IN ARTICLES 4.1.5.15. & 4.1.5.17. SHOP DRAWINGS ARE TO BE STAMPED BY A PROFESSIONAL ENGINEER.



TYP. SPU AROUND MECHANICAL UNITS

LICENSED PROFESSIONAL ENGINEER
11/28/2022
G. W. D. FINLAY
100224815
PROVINCE OF ONTARIO

NO	REVISIONS	DATE
2	ISSUED FOR TENDER	23-01-04
1	ISSUED FOR PERMIT	22-08-26
NO	ISSUED	DATE

CERTIFICATE OF PRACTICE #4292

OAKVILLE #3 PUBLIC SCHOOL

1235 WHEAT BOOM DRIVE
OAKVILLE, ON

LEGAL DESCRIPTION:

BLOCKS 41 , REGISTERED PLAN 20M-1247
TOWN OF OAKVILLE, REGION OF HALTON

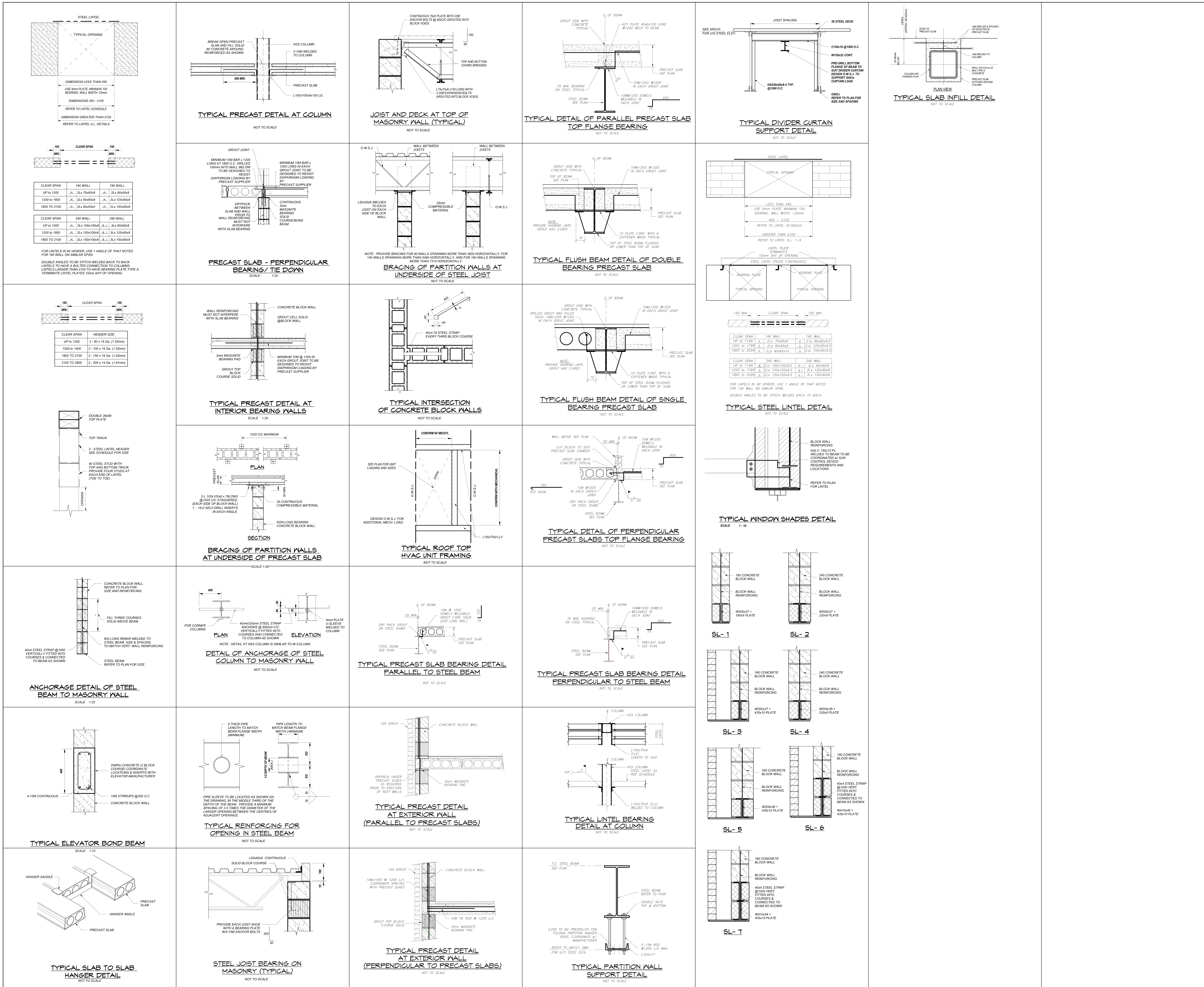
KALOS ENGINEERING
300 YORK BLVD. HAMILTON ONT. L8R 3K6
PROJECT No. 22087

Halton District School Board
HALTON DISTRICT SCHOOL BOARD
J.W.SINGLETON EDUCATION CENTRE
2050 GUELPH LINE
BURLINGTON, ON., L7R 3Z2
TEL. (905) 335-3663
FAX (905) 335-9802

ROOF FRAMING PLAN

HOSSACK & ASSOCIATES ARCHITECTS
4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-8284 Fax (905) 607-8290

SCALE	As indicated	PROJECT	22104
DATE	AUGUST. 2022		
DRAWN	SNUVE	DRAWING	S3.2
CHECKED	GF		
PRINT DATE		11/28/2022 11:25:46 AM	
REVIT FILE		T:\2015\15106\02\Revit\MILTON10.RVT	



CLEAR SPAN	140 WALL	190 WALL
UP to 1200	2Ls 75x65x8	2Ls 90x90x8
1200 to 1800	2Ls 90x65x8	2Ls 125x90x8
1800 TO 2100	2Ls 90x65x0	2Ls 150x90x8

CLEAR SPAN	240 WALL	290 WALL
UP to 1200	2Ls 100x100x8	3Ls 90x90x8
1200 to 1800	2Ls 150x100x8	3Ls 125x90x8
1800 TO 2100	2Ls 150x100x8	3Ls 150x90x8

FOR LINTELS IN 90 VENEER, USE 1 ANGLE OF THAT NOTED FOR 190 WALL ON SIMILAR SPAN.

DOUBLE ANGLES TO BE STITCH WELDED BACK TO BACK.
LINTELS TO HAVE A BOLTED CONNECTION TO COLUMNS.
LINTELS LARGER THAN 2100 TO HAVE BEARING PLATE TYPE A
TERMINATE LINTEL PLATES 10mm SHY OF OPENING

CLEAR SPAN	HEADER SIZE
UP to 1200	2 - 90 x 16 Ga. (1.52mm)
1200 to 1400	2 - 100 x 16 Ga. (1.52mm)
1800 TO 2100	2 - 150 x 16 Ga. (1.52mm)
2100 TO 2800	2 - 200 x 14 Ga. (1.91mm)

11/28/2022
G. W. D. FINLAY
100224815
PROVINCE OF ONTARIO

NO	REVISIONS	DATE
2	ISSUED FOR TENDER	23-01-04
1	ISSUED FOR PERMIT	22-08-26
NO	ISSUED	DATE

DRAWINGS ARE NOT TO BE SCALED. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE PROJECT; AND MUST REPORT ANY DISCREPANCIES TO THE CONSULTANTS BEFORE PROCEEDING WITH THE WORK. THE USE OF THIS DRAWING OR PART THEREOF IS FORBIDDEN WITHOUT THE WRITTEN APPROVAL OF THE CONSULTANTS.

CERTIFICATE OF PRACTICE #4292

OAKVILLE #3 PUBLIC SCHOOL

1235 WHEAT BOOM DRIVE
OAKVILLE, ON

LEGAL DESCRIPTION:

BLOCKS 41 , REGISTERED PLAN 20M-1247
TOWN OF OAKVILLE, REGION OF HALTON

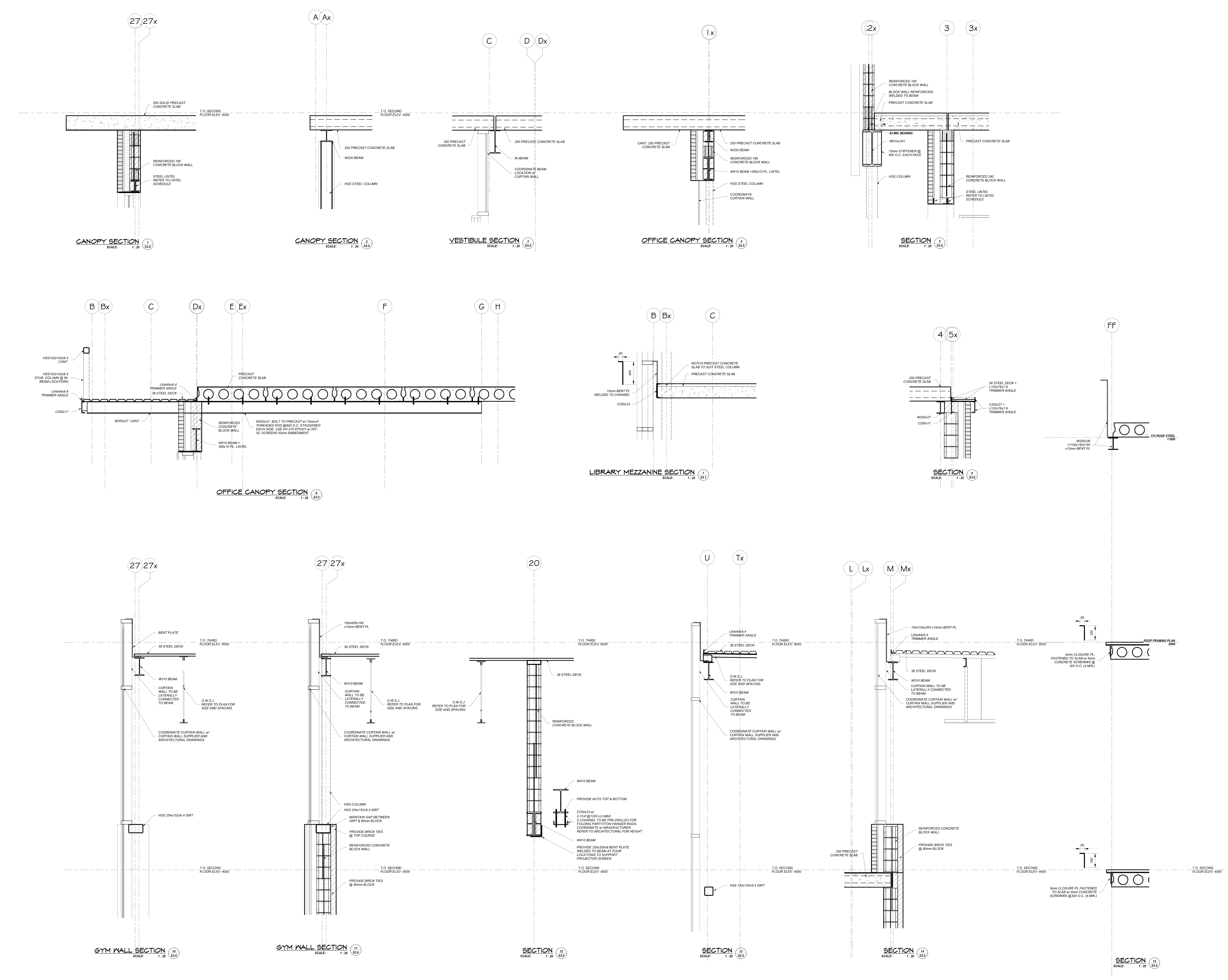
KALOS ENGINEERING
300 YORK BLVD. HAMILTON ONT. L8R 3K6
PROJECT No. 22087

HALTON DISTRICT SCHOOL BOARD
J.W.SINGLETON EDUCATION CENTRE
2050 GUELPH LINE
BURLINGTON, ON., L7R 3Z2
TEL. (905) 335-3663
FAX (905) 335-9802

TYPICAL FRAMING DETAILS

HOSSACK & ASSOCIATES ARCHITECTS
4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-8284 Fax (905) 607-8290

SCALE: As indicated	PROJECT: 22104
DATE: AUGUST. 2022	
DRAWN: SNUVE	DRAWING: S4.0
CHECKED: GF	
PRINT DATE	11/28/2022 11:25:59 AM
REVIT FILE	T:\2015\15106\02\Revit\MILTON10.RVT



LICENSED PROFESSIONAL ENGINEER
11/28/2022
G. W. D. FINLAY
100224815
PROVINCE OF ONTARIO

NO	REVISIONS	DATE
2	ISSUED FOR TENDER	23-01-04
1	ISSUED FOR PERMIT	22-08-26
NO	ISSUED	DATE

CERTIFICATE OF PRACTICE #4292

OAKVILLE #3 PUBLIC SCHOOL

1235 WHEAT BOOM DRIVE
OAKVILLE, ON

LEGAL DESCRIPTION:

BLOCKS 41 , REGISTERED PLAN 20M-1247
TOWN OF OAKVILLE, REGION OF HALTON

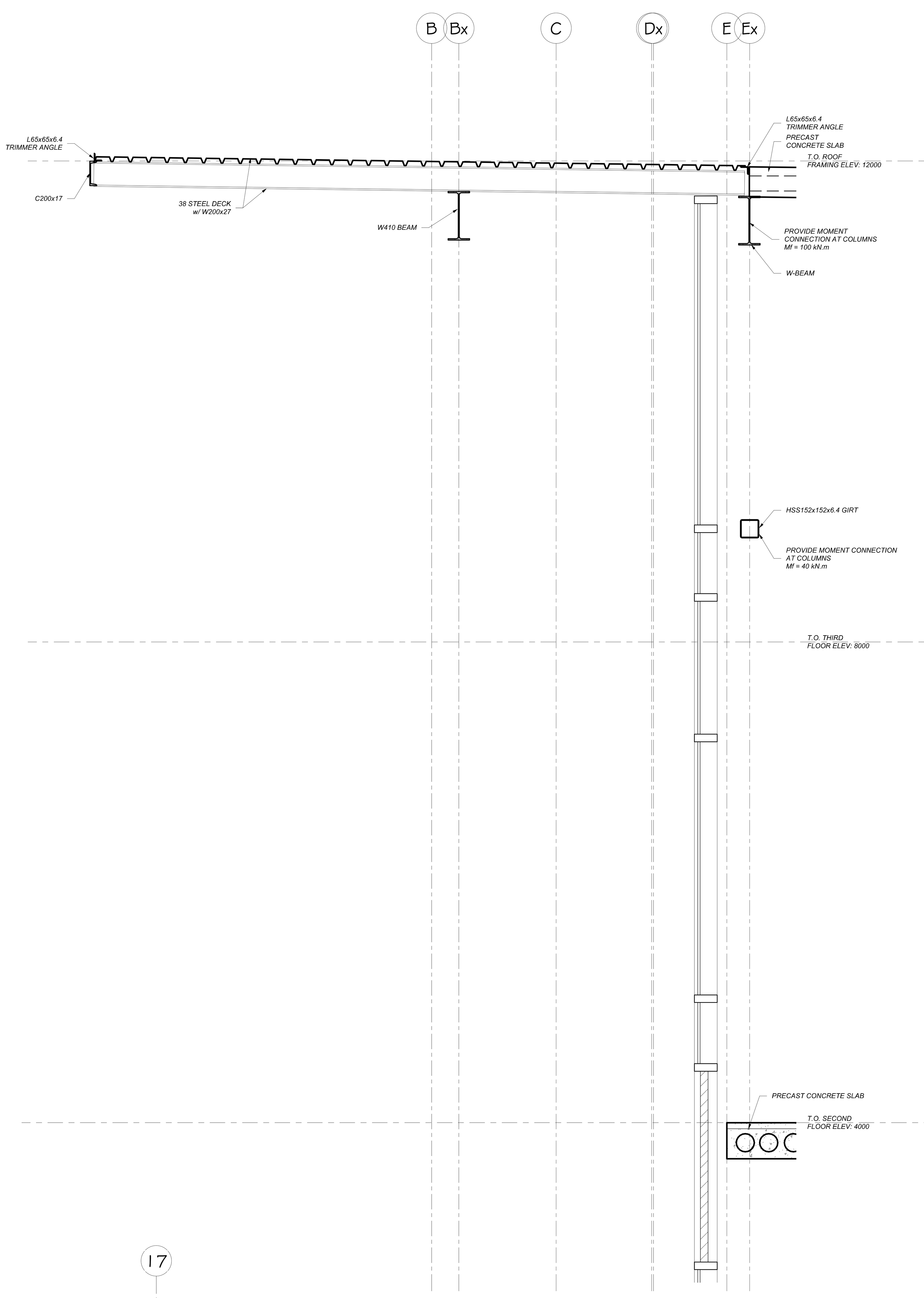
KALOS ENGINEERING
300 YORK BLVD. HAMILTON ONT. L8R 3K6
PROJECT No. 22087

HALTON DISTRICT SCHOOL BOARD
J.W.SINGLETON EDUCATION CENTRE
2050 GUELPH LINE
BURLINGTON, ON., L7R 3Z2
TEL. (905) 335-3663
FAX (905) 335-9802

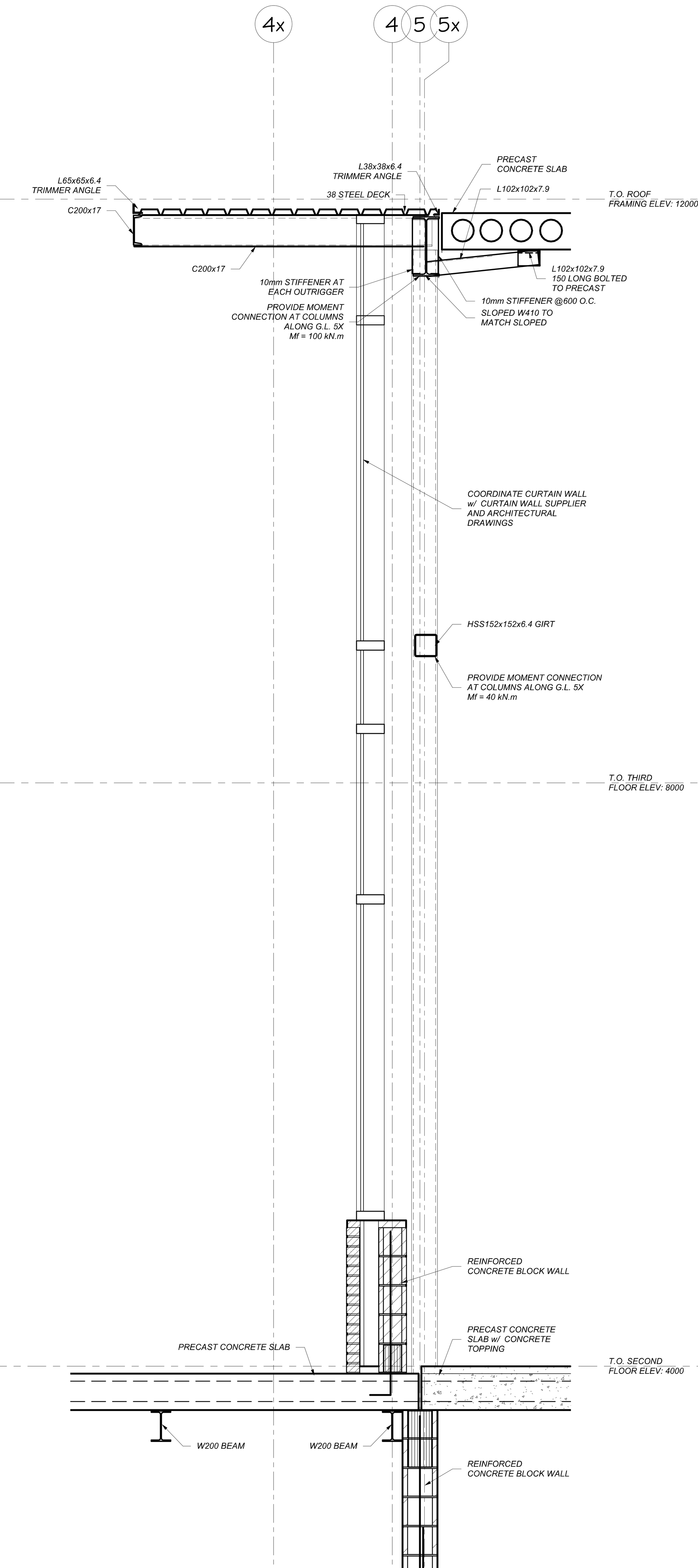
WALL SECTIONS

HOSSACK & ASSOCIATES ARCHITECTS
4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-8284 Fax (905) 607-8290

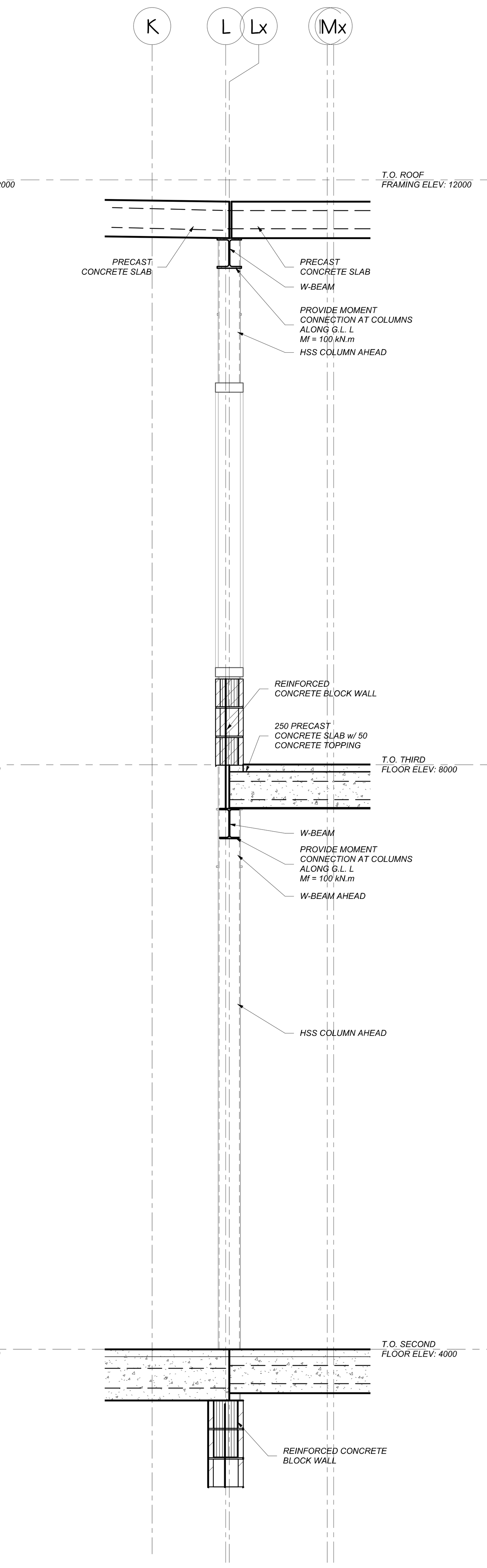
SCALE 1 : 20	PROJECT 22104
DATE AUGUST. 2022	
DRAWN SNUVE	DRAWING S4.1
CHECKED GF	
PRINT DATE	11/28/2022 11:26:11 AM
REVIT FILE	T:\2015\15106\02\Revit\MILTON10.RVT



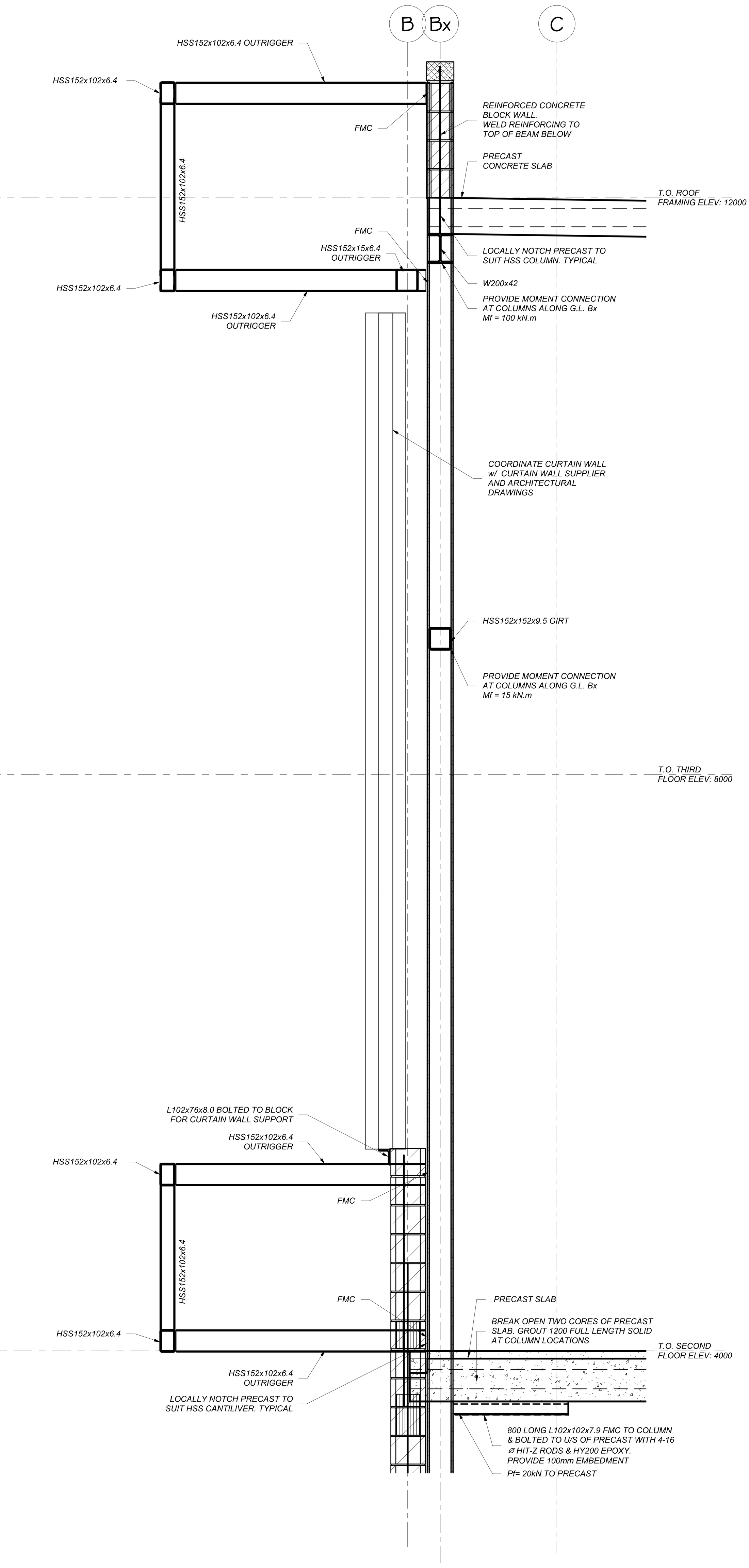
MAIN CANOPY SECTION (1 / S3.0)
SCALE: 1 : 20



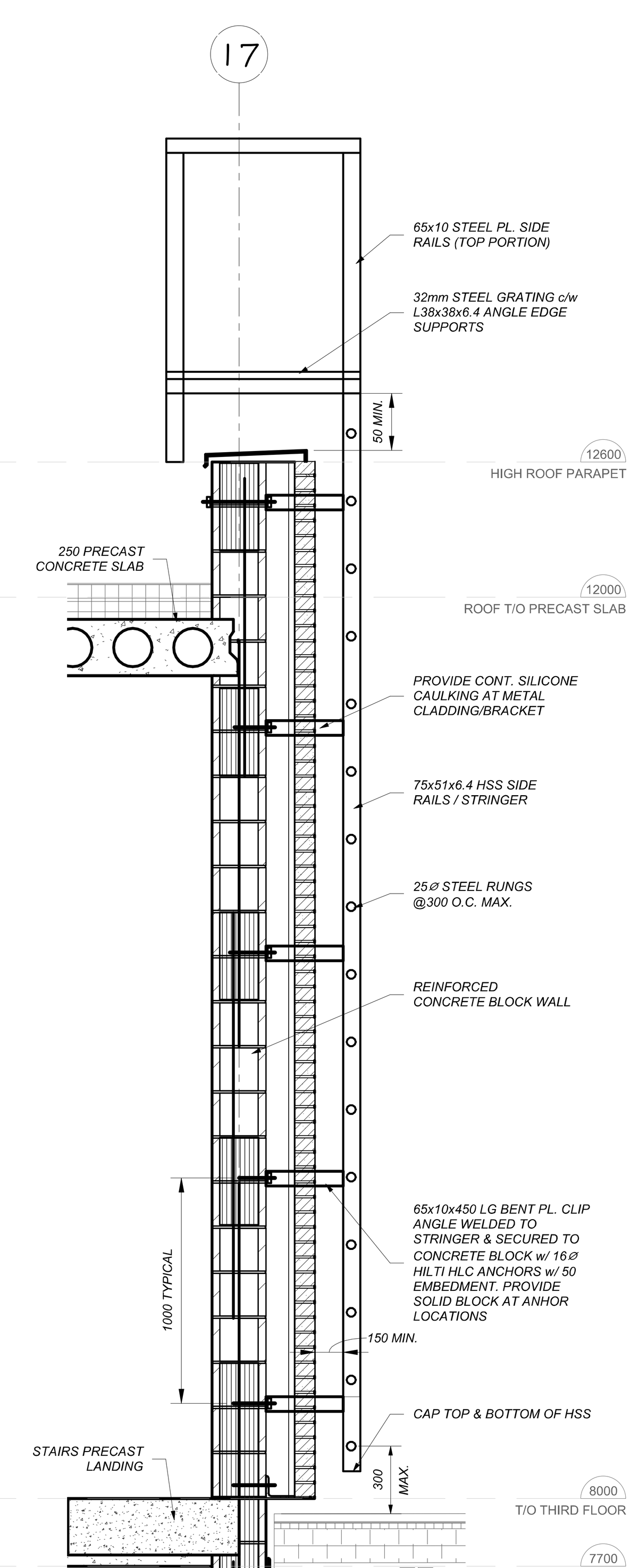
MAIN CANOPY SECTION (2 / S3.0)
SCALE: 1 : 20



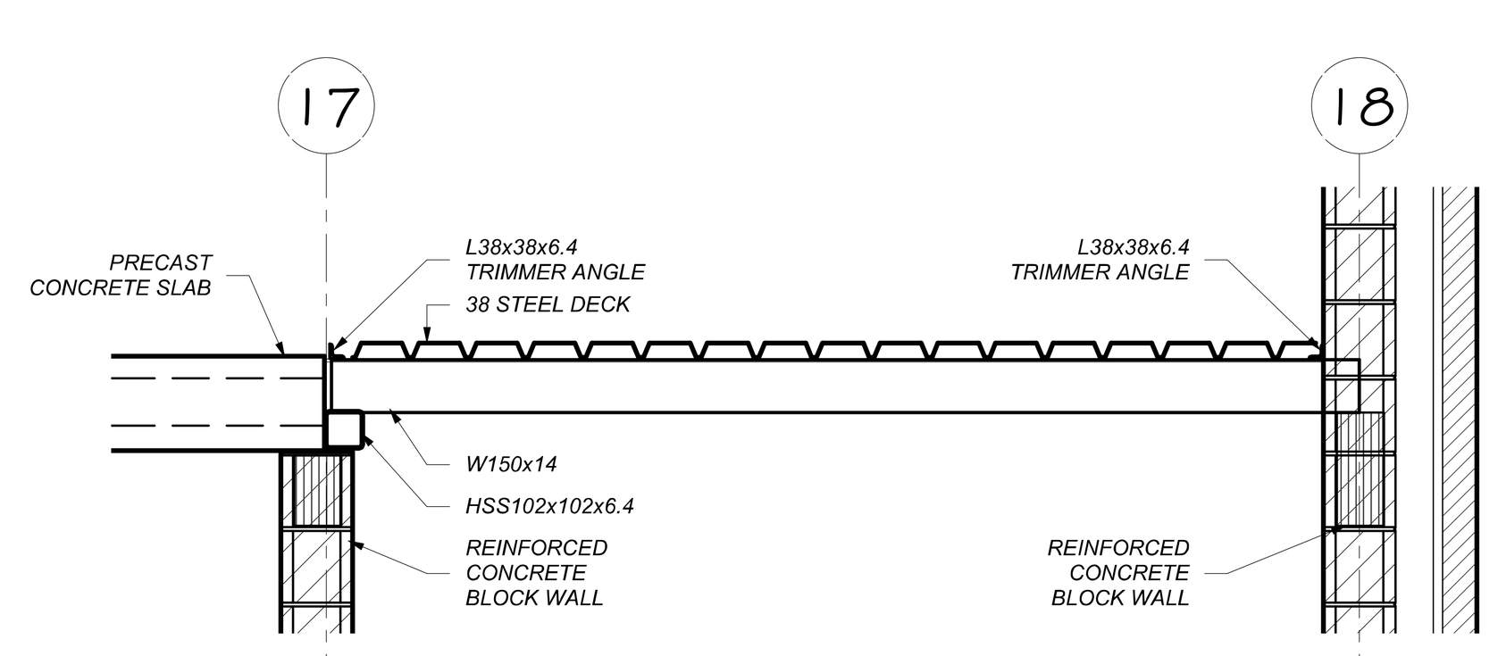
LIBRARY WALL SECTION (3 / S3.0)
SCALE: 1 : 20



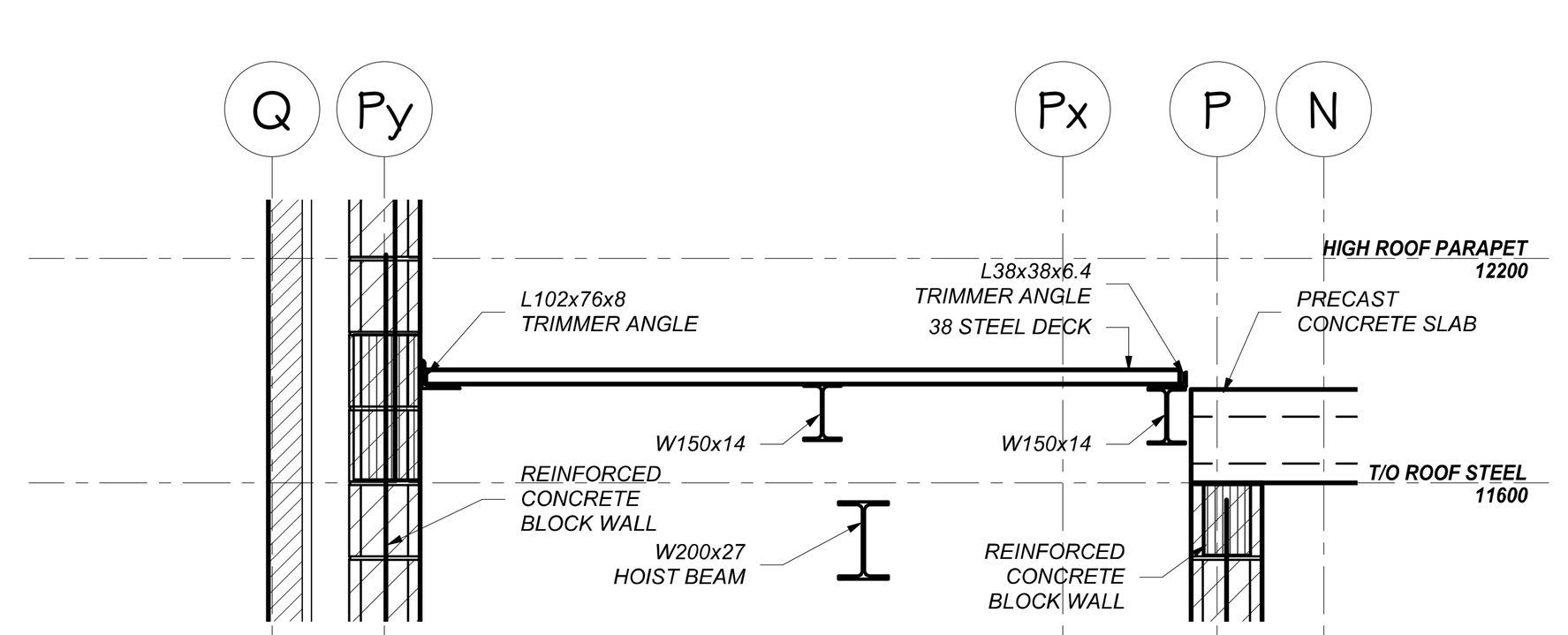
CLADDING SUPPORT SECTION (4 / S3.0)
SCALE: 1 : 20



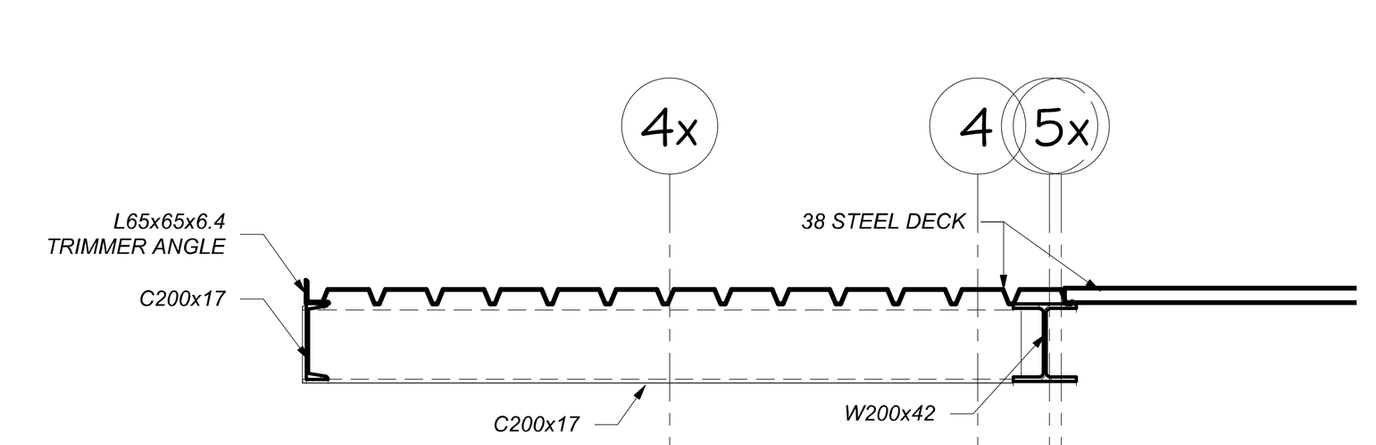
ROOF LADDER DETAIL (5 / S3.1)
SCALE: 1 : 20



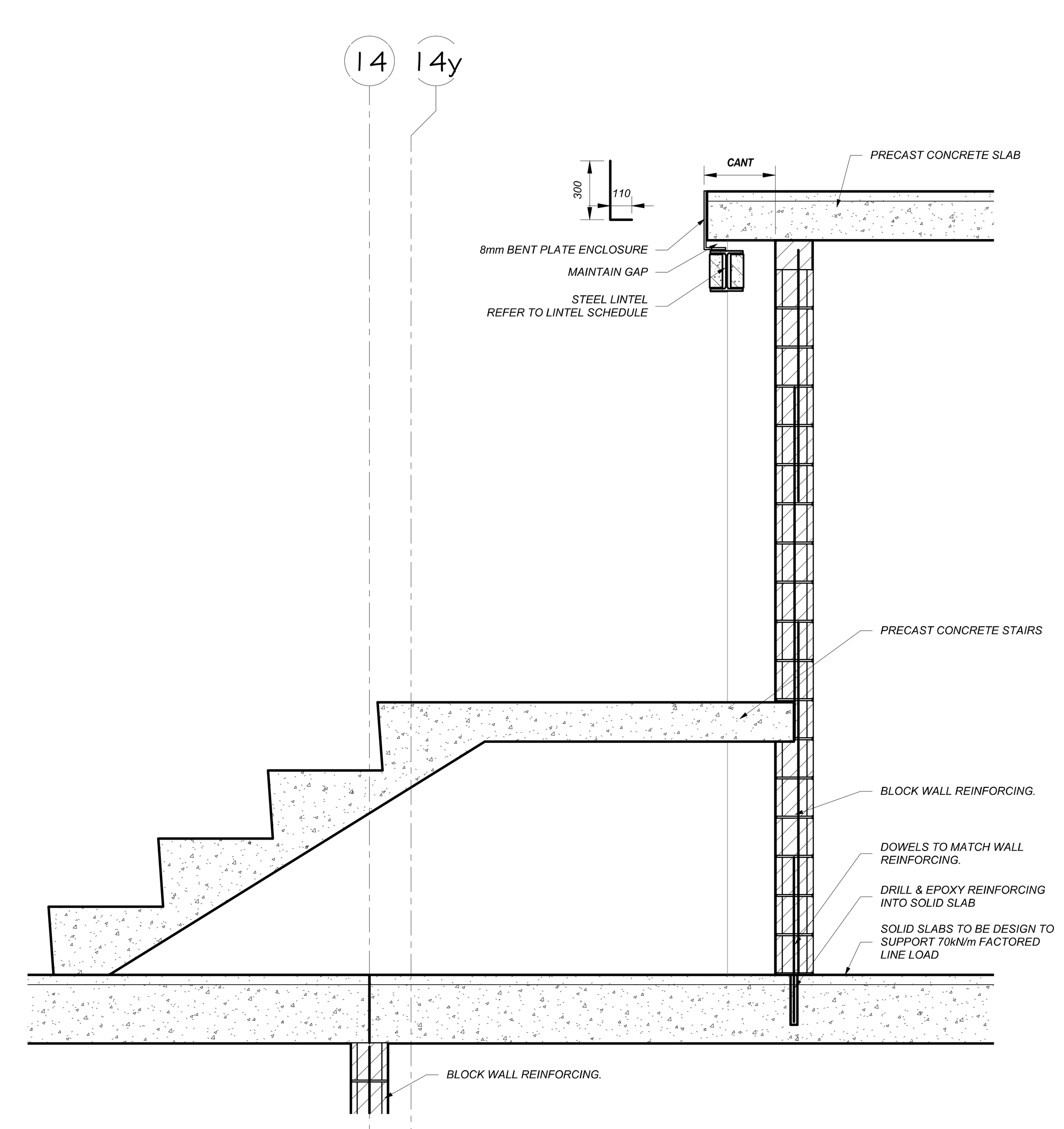
ELEVATOR ROOF SECTION (6 / S3.2)
SCALE: 1 : 20



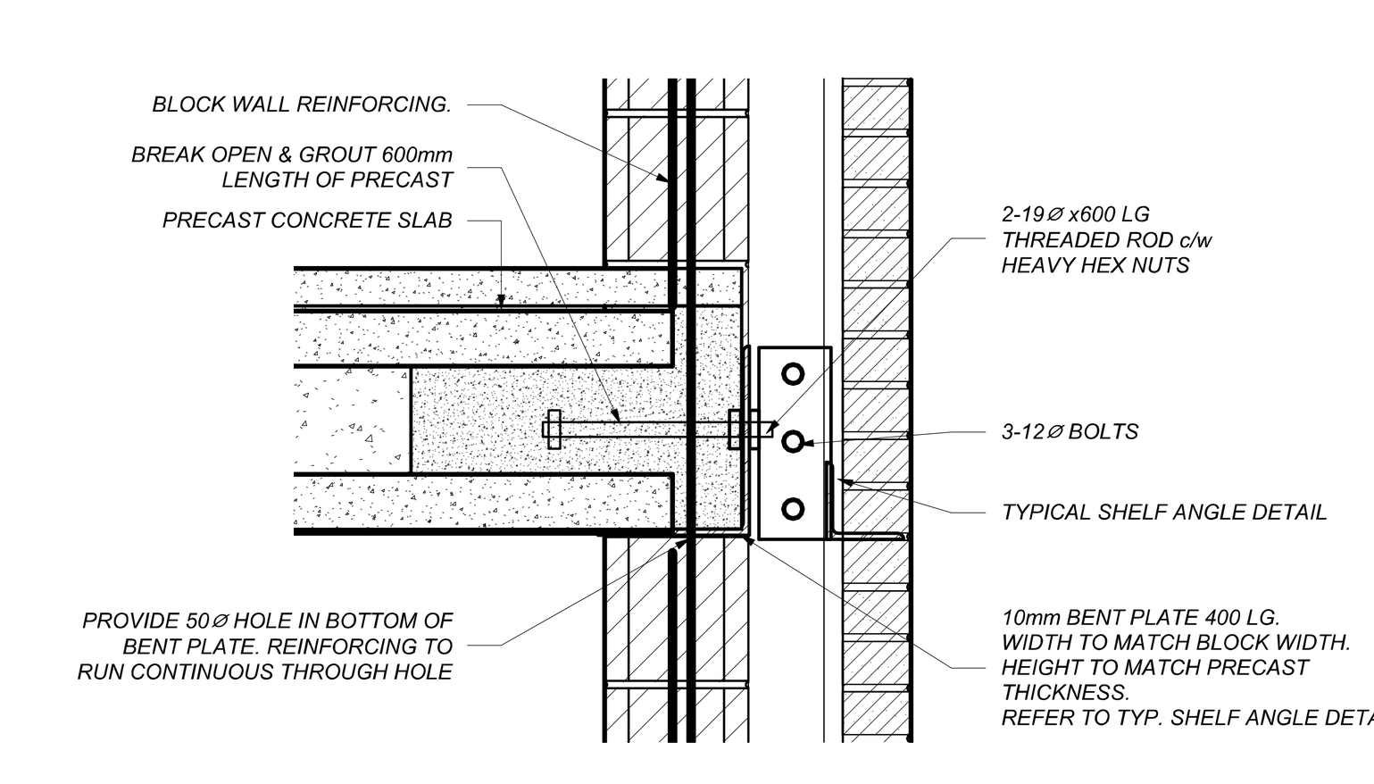
ELEVATOR ROOF SECTION (7 / S3.2)
SCALE: 1 : 20



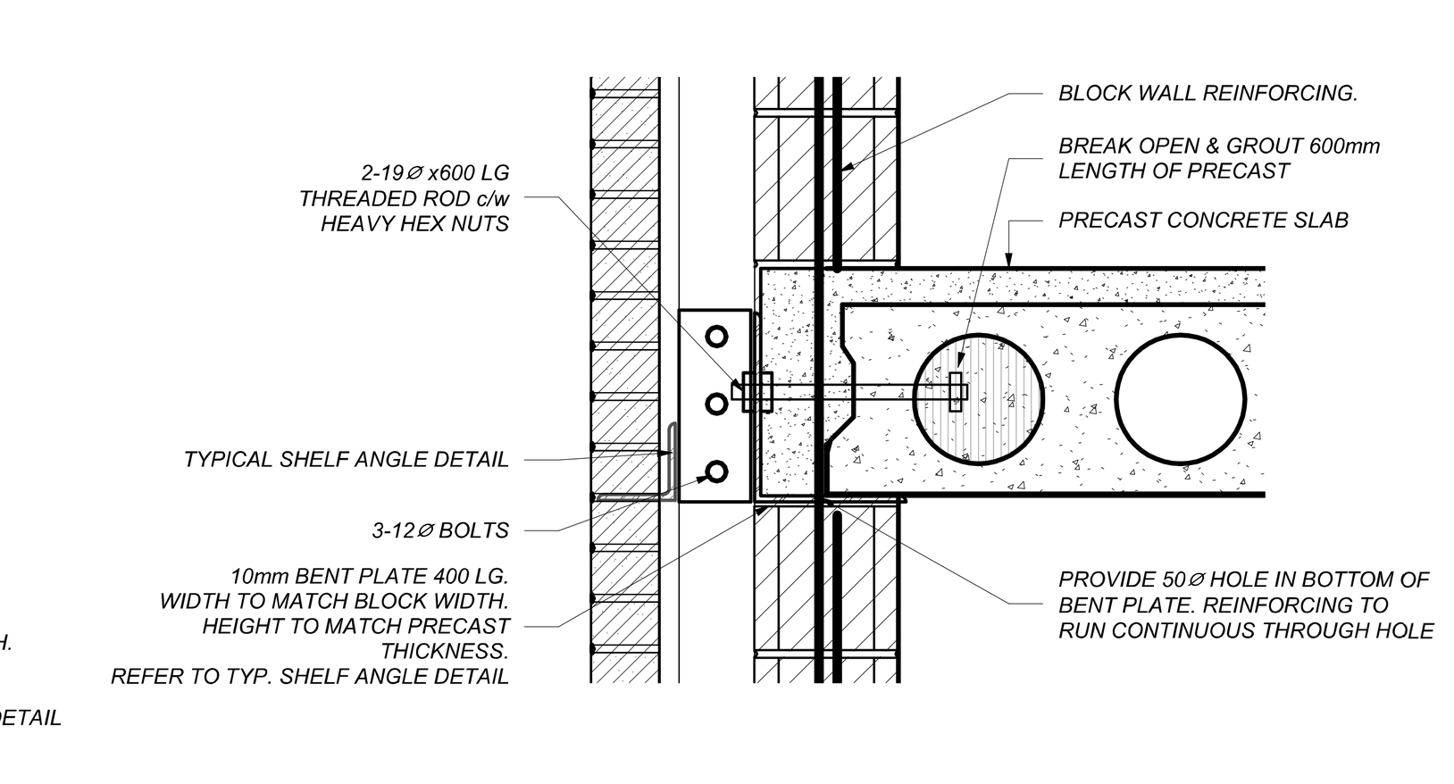
MAIN CANOPY SECTION (8 / S3.2)
SCALE: 1 : 20



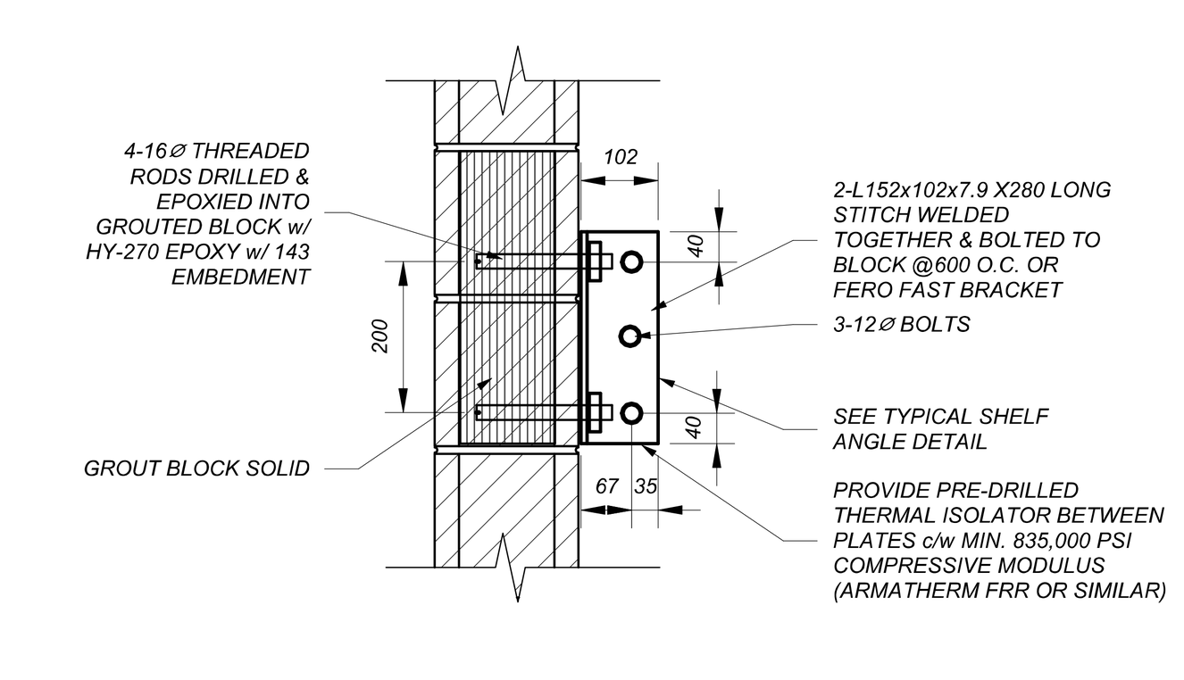
LIBRARY MEZZANINE SECTION (9 / S3.2)
SCALE: 1 : 20



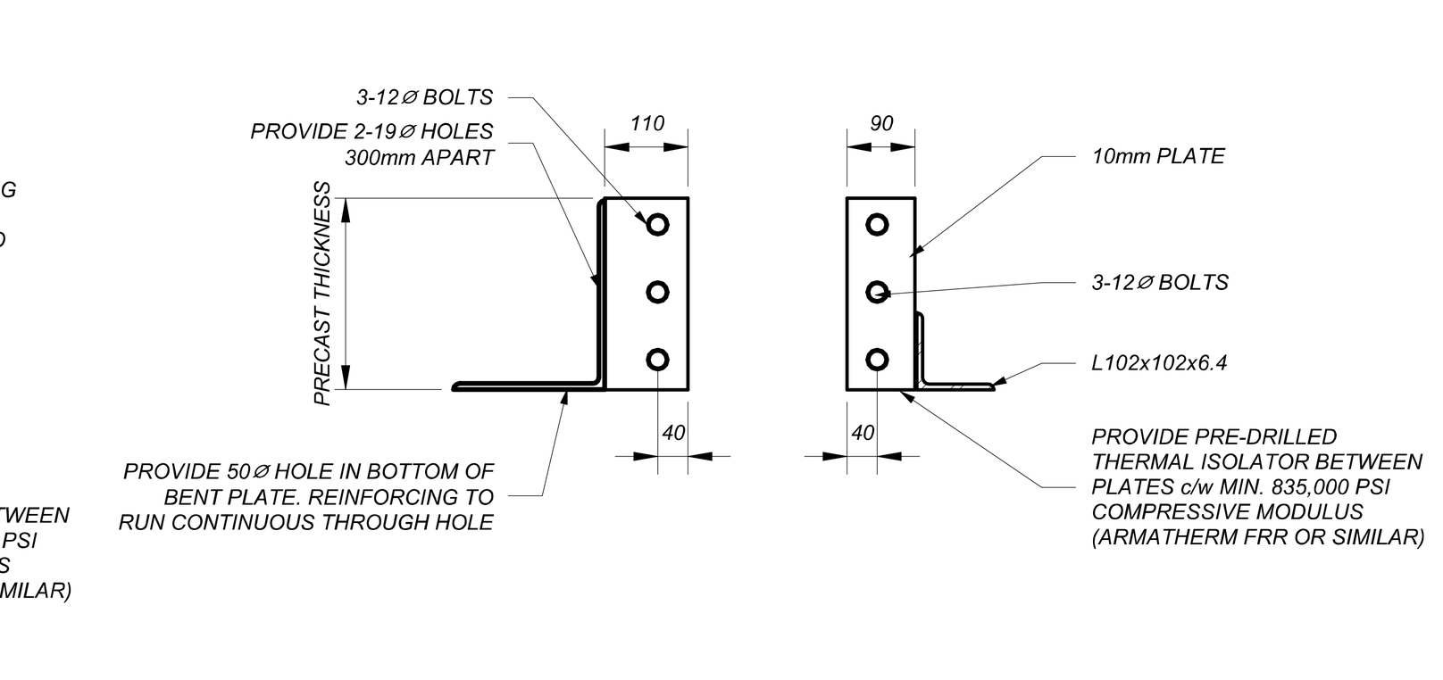
PERPENDICULAR BRICK SHELF DETAIL TO PRECAST-SLAB (10 / S3.1)
SCALE: 1 : 10



PARALLEL BRICK SHELF DETAIL TO PRECAST SLAB (11 / S3.1)
SCALE: 1 : 10



SHELF ANGLE DETAIL @BLOCK (12 / S3.1)
SCALE: 1 : 10



TYPICAL SHELF ANGLE DETAIL
SCALE: 1 : 10

PROJECT NORTH / TRUE NORTH

LICENSED PROFESSIONAL ENGINEER
11/28/2022
G. W. D. FINLAY
100224815
PROVINCE OF ONTARIO

NO	REVISIONS	DATE

NO	ISSUED	DATE
2	ISSUED FOR TENDER	23-01-04
1	ISSUED FOR PERMIT	22-08-26

CERTIFICATE OF PRACTICE #4292

OAKVILLE #3 PUBLIC SCHOOL

1235 WHEAT BOOM DRIVE
OAKVILLE, ON

LEGAL DESCRIPTION:

BLOCKS 41 , REGISTERED PLAN 20M-1247
TOWN OF OAKVILLE, REGION OF HALTON

KALOS ENGINEERING
300 YORK BLVD. HAMILTON ONT. L8R 3K6
PROJECT No. 22087

Halton District School Board
HALTON DISTRICT SCHOOL BOARD
J.W.SINGLETON EDUCATION CENTRE
2050 GUELPH LINE
BURLINGTON, ON., L7R 3Z2
TEL. (905) 335-3663
FAX (905) 335-9802

WALL SECTIONS

HOSSACK & ASSOCIATES ARCHITECTS
4-2150 DUNWIN DRIVE
MISSISSAUGA, ONTARIO L5L 5M8
Tel (905) 607-8284 Fax (905) 607-8290

SCALE: As indicated	PROJECT: 22104
DATE: AUGUST. 2022	
DRAWN: SNUVE	DRAWING: S4.2
CHECKED: GF	
PRINT DATE	11/28/2022 11:26:21 AM
REVIT FILE	T:\2015\15106\02\Revit\MILTON10.RVT