A. GENERAL

1. ALL WORK SHALL CONFORM TO THE ONTARIO BUILDING CODE AND ALL STANDARDS REFERENCED WITHIN, LOCAL REGULATIONS AND BYLAWS, AND THE OCCUPATIONAL HEALTH AND SAFETY ACT FOR CONSTRUCTION PROJECTS. THE LATEST VERSIONS OF STANDARDS SHALL APPLY.
2. READ THESE DRAWINGS IN CONJUNCTION WITH ALL RELATED CONTRACT DOCUMENTS AND CONSULTANT DRAWINGS.
3. THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS WHICH MAY ADVERSELY AFFECT THE PROPER COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS IN RELATION TO THE DRAWINGS AND NOTIFY THE ENGINEER TO ALL DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.
4. DRAWINGS ARE NOT TO BE SCALED.
5. THE DESIGN DOCUMENTS ARE PREPARED SOLELY FOR THE USE WITH THE PARTY WHOM THE ENGINEER HAS ENTERED INTO CONTRACT. THERE ARE NO REPRESENTATIONS MADE TO ANY PARTY WITH WHOM THE ENGINEER HAS NOT ENTERED INTO CONTRACT.
6. THE CONTRACTOR SHALL RETAIN AN INDEPENDENT TESTING AND INSPECTION COMPANY TO ENSURE THAT THE WORK IS DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS INCLUDING COMPACTION TESTING, REINFORCING STEEL PLACEMENT, CONCRETE TESTING AND STRUCTURAL STEEL.
7. THE ENGINEER SHALL BE GIVEN MINIMUM 24 HOURS NOTICE BY THE CONTRACTOR FOR ALL CONSTRUCTION REVIEWS. SITE VISITS AND REVIEWS BY THE ENGINEER OR HIS REPRESENTATIVE ARE INTENDED FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT. THE REVIEWS SHALL NOT MEAN THAT THE ENGINEER HAS SEEN ALL CONSTRUCTION PROCEDURES. REVIEW BY THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS AND FOR MEETING ALL THE REQUIREMENTS OF THE CONSTRUCTION AND CONTRACT DOCUMENTS.
8. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR CONSTRUCTION LOADS AND TEMPORARY BRACING TO ENSURE SAFETY AND THE BUILDING IS PLUMB AND IN TRUE ALIGNMENT AT ALL PHASES OF CONSTRUCTION AS PER O.REG 213/91. ALL BRACING MEMBERS SHOWN ON THE DRAWINGS ARE DESIGNED FOR THE FINISHED STRUCTURE AND MAY NOT BE SUFFICIENT FOR ERECTION PURPOSES. SHORING AND BRACING SHALL BE DESIGNED, REVIEWED AND APPROVED BY A PROFESSIONAL ENGINEER. SHOP DRAWINGS SHALL BE SUBMITTED WITH P.ENG STAMP FOR OUR REVIEW PRIOR TO CONSTRUCTION.
9. NO SUBSTITUTIONS FROM THE SPECIFIED PRODUCTS AND MATERIALS ARE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

TESTING REQUIREMENTS

TEST	COMMENTS
SOIL BEARING CAPACITY	BY GEOTECH.
SOIL COMPACTION	BY GEOTECH.
REINFORCING STEEL PLACEMENT	FINAL PLACEMENT
CONCRETE COMPRESSIVE TESTS	MIN. 2 SETS PER 100 m³
CONCRETE SLUMP	
STRUCTURAL STEEL CONNECTIONS	INSPECT ALL FIELD WELDS
MORTAR CUBES	

ALL TESTING TO BE COMPLETED BY A CERTIFIED INDEPENDENT TESTING AND INSPECTION COMPANY. COPIES OF ALL REPORTS ARE TO BE FORWARDED TO THE ENGINEER FOR REVIEW.

B. DESIGN PARAMETERS

1. REFERENCE FRAMING PLANS FOR DESIGN LOADS OF FLOORS AND ROOFS.
2. BUILDING IMPORTANCE CATEGORY: NORMAL
3. CLIMACTIC DESIGN DATA: CAMBRIDGE, ON

SNOW/WIND	EARTHQUAKE
Ss = 1.6 kPa	Sa (0.2) = 0.141
Sr = 0.4 kPa	Sa (0.5) = 0.084
Cb = 0.8	Sa (1.0) = 0.047
Cw = 1.0	Sa (2.0) = 0.024
Cs = 1.0	Sa (5.0) = 0.0058
Ca = 1.0	Sa (10.0) = 0.0024
q50 = 0.36 kPa	PGA = 0.088
CATEGORY 2	PGV = 0.066
Iw = 1.0	Rd = 1.5
	Ro = 1.3
	IeFaSa (0.20) = 0.23
	SITE CLASS "D" (ASSUMED)

4. ALL ROOF FRAMING ELEMENTS INCLUDING JOISTS, OWSJ AND TRUSSES ARE TO BE DESIGNED FOR WIND UPLIFT IN ACCORDANCE WITH OBC 2012 AND NBC 2015 STRUCTURAL COMMENTARIES USING THE ABOVE NOTED DESIGN PARAMETERS.

C. FOUNDATIONS

1. FOUNDATIONS ARE TO BEAR DIRECTLY ON UNDISTURBED SOIL OR COMPACTED FILL WITH A MINIMUM BEARING CAPACITY OF 150 kPa SLS AND 225 kPa ULS, GEOTECH. ENGINEER TO CONFIRM.
2. REMOVE ALL TOP SOIL, ORGANIC MATERIAL, LOOSE FILL AND OTHER DELETERIOUS MATERIAL FROM THE BUILDING AREA PRIOR TO CONSTRUCTION.
3. PROOF ROLL EXISTING FILL MATERIALS. SOFT AREAS UNCOVERED DURING EXCAVATION SHALL BE SUB-EXCAVATED TO SOUND MATERIAL AND REPLACED WITH CLEAN, FREE DRAINING FILL COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
4. COMPACTED FILL BENEATH FOOTINGS AND FLOOR SLABS SHALL BE COMPACTED IN MAXIMUM 150mm (6") LAYERS.
5. PLACE ALL FOOTINGS EXPOSED TO FREEZING WEATHER MINIMUM 1200mm (4'-0") BELOW GRADE UNLESS OTHERWISE PROTECTED. PROTECT SOIL BELOW AND ADJACENT TO ALL FOOTINGS FROM FREEZING DURING CONSTRUCTION.
6. NECESSARY PRECAUTIONS SHALL BE TAKEN TO ENSURE EXISTING FOOTINGS ARE NOT DISTURBED OR UNDERMINED DURING CONSTRUCTION.
7. BACKFILL AGAINST FOUNDATION WALLS IN SUCH A MANNER THAT THE LEVEL OF BACKFILLING ON ONE SIDE OF THE WALL IS NEVER MORE THAN 500mm (20") HIGHER THAN THE LEVEL ON THE LOWER SIDE OF THE WALL EXCEPT WHERE TEMPORARY SUPPORT FOR THE WALL IS PROVIDED OR THE WALLS ARE DESIGNED FOR SUCH UNEVEN PRESSURES.
8. LOCATE ALL PIERS AND FOOTINGS CONCENTRIC UNDER COLUMNS AND WALLS UNLESS OTHERWISE NOTED.
9. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT OCCUR IN CONCRETE WALLS UNLESS APPROVED BY THE ENGINEER.

D. CONCRETE

1. CONCRETE WORK SHALL CONFORM TO THE MOST RECENT VERSION OF CAN/CSA-A23.1, A23.2 AND A23.3.
2. CONCRETE PROPERTIES: (MINIMUM COMPRESSIVE STRENGTH MEASURED AT 28 DAYS UNLESS NOTED)
   a. ALL CONCRETE UNLESS NOTED OTHERWISE - 20 MPa
   b. SEE CHART FOR CONCRETE TYPES

CONCRETE PROPERTIES

LOCATION	CSA CLASS	28 DAY COMP. STRENGTH MPa	MAX. W/C RATIO	AIR CONTENT %	MAX. AGGREGATE mm	SLUMP mm
FOOTINGS	N	20	NA	NA	20	80 ±30
CONCRETE IN AN UNSATURATED CONDITION EXPOSED TO FREEZING AND THAWING BUT NOT CHLORIDES (EXTERIOR WALLS AND PIERS)	F-2	25	0.55	4-7	20	80 ±30
INTERIOR PIERS AND WALLS	N	25	NA	NA	20	80 ±30
INTERIOR CONCRETE SLABS	N	25	0.50	NA	20	80 ±30
NON-STRUCTURALLY REINFORCED CONCRETE EXPOSED TO CHLORIDES AND FREEZING AND THAWING (SIDEWALKS, EXTERIOR UNREINFORCED SLABS)	C-2	32	0.45	5-8	20	80 ±30
STRUCTURALLY REINFORCED CONCRETE EXPOSED TO CHLORIDES WITH OR WITHOUT FREEZING AND THAWING CONDITIONS. (EXTERIOR SLABS, EXTERIOR WALLS AND PIERS ADJACENT TO SURFACES EXPECTED TO BE SALTED, PARKING GARAGE STRUCTURES)	C-1	35	0.40	5-8	20	80 ±30

SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ALL WATERPROOFING REQUIREMENTS

3. CONCRETE DESIGN IS BASED ON COMPRESSIVE STRENGTH. PHYSICAL PROPERTIES (SLUMP, AGGREGATE SIZE, ETC.) TO SUIT INSTALLATION (BY OTHERS) NOT TO AFFECT STRENGTH SPECIFIED.
4. ALL CONCRETE SHALL BE TESTED BY A CSA CERTIFIED CONCRETE TESTING LABORATORY. CONTRACTOR TO PROVIDE COPIES OF TESTING REPORTS TO THE ENGINEER. NOT LESS THAN ONE TEST SHALL BE MADE FOR EACH 100m³ OF CONCRETE WITH AT LEAST ONE TEST FOR EACH CLASS OF CONCRETE USED. A MINIMUM OF THREE TESTS IS REQUIRED FOR EACH CLASS.
5. SLUMP OF CONCRETE TO BE 80mm +/- 30mm PRIOR TO SUPER PLASTICIZERS BEING ADDED.
6. ALL CONCRETE FORMS ARE TO BE WET THOROUGHLY PRIOR TO PLACING CONCRETE. WATER CURING OF CONCRETE IS RECOMMENDED.
7. DO NOT ADD WATER TO THE CONCRETE.
8. ALL CONCRETE EXCEPT FOR CONCRETE SLABS 150mm (6") OR LESS SHALL BE MECHANICALLY VIBRATED.
9. CONTROL JOINTS IN CONCRETE SLABS ON GRADE ARE TO BE SPACED AT MAXIMUM 30 TIMES THE SLAB THICKNESS NOT TO EXCEED 4500mm (15'-0) AND A DEPTH OF 1/3 THE THICKNESS OF THE SLAB. CUT 50% OF THE REINFORCING STEEL AT CONTROL JOINT LOCATIONS.
10. REINFORCING STEEL SHALL CONFORM TO THE MOST RECENT VERSION OF CAN/CSA-G30.18. REINFORCING BARS SHALL BE DEFORMED, GRADE 400 MPa.
11. MAINTAIN THE FOLLOWING CONCRETE CLEAR COVER TO REINFORCING:
   a. 75mm (3") FOR CONCRETE CAST AGAINST EARTH
   b. 38mm (1 1/2") FOR CONCRETE CAST AGAINST FORMWORK
   c. 64mm (2 1/2") FOR CONCRETE EXPOSED TO DE-ICING CHEMICALS
12. ALL REINFORCING STEEL, DOWELS AND ANCHOR BOLTS ARE TO BE CLEAN AND FREE OF RUST, DIRT, FORM RELEASE AGENT, ETC. PRIOR TO POURING CONCRETE.
13. LAP REINFORCING STEEL AS PER REINFORCING STEEL CHART BELOW (MIN). LAP ALL HORIZONTAL BARS AT CORNERS WITH BENT DOWELS MEETING THE MINIMUM LAP REQUIREMENTS IN BOTH DIRECTIONS. SHOP FABRICATE ALL REINFORCING STEEL TO INCLUDE HOOKS AND BENDS.
14. REINFORCING STEEL, DOWELS AND ANCHOR BOLTS ARE TO BE SECURELY TIED PRIOR TO PLACING CONCRETE. REINFORCING STEEL CHAIRS AND SUPPORTS SHALL BE MADE OF CONCRETE BLOCKS, PLASTIC OR WIRE.
15. DOWELS SHALL MATCH REINFORCING UNLESS NOTED OTHERWISE.
16. INSTALLATION OF ALL PROPRIETARY ANCHORS IS TO BE COMPLETED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS. SPECIALIZED TRAINING MAYBE REQUIRED DEPENDING ON THE PRODUCT. CONTRACTOR IS TO CONTACT THE MANUFACTURER/SUPPLIER TO ARRANGE THE REQUIRED TRAINING.

REINFORCING STEEL MINIMUM LAP LENGTHS

CONCRETE / BAR SIZE	TENSION SPLICE 25 mPa	TENSION SPLICE 30 mPa	TENSION SPLICE 35 mPa	COMPRESSION EMBEDMENT 20 mPa	REINFORCED MASONRY 20 mPa GROUT
10M	400 (16")	400 (16")	400 (16")	450 (18")	500 (20")
15M	600 (24")	600 (24")	600 (24")	650 (26")	750 (30")
20M	800 (32")	800 (32")	800 (32")	900 (36")	900 (36")
25M	1200 (48")	1100 (44")	1000 (40")	1370 (54")	1370 (54")

NOTE: INCREASE HORIZONTAL SPLICE LENGTHS IN TABLE BY 1.3 WHERE MORE THAN 300mm (12") OF FRESH CONCRETE IS CAST BELOW THE SPLICE.

E. MASONRY

1. MASONRY TO CONFORM TO THE MOST RECENT VERSION OF CAN/CSA-S304.1 AND CSA A371.
2. STRENGTH OF LOAD-BEARING MASONRY UNITS TO BE MINIMUM 15 MPa FOR HOLLOW UNITS BASED ON NET AREA.
3. TYPE 'S' MORTAR SHALL BE USED FOR CONCRETE BLOCK. TYPE 'N' MORTAR SHALL BE USED FOR BRICK AND DECORATIVE BLOCK. GROUT STRENGTH SHALL BE 20 MPa UNLESS NOTED OTHERWISE. MORTAR AND GROUT TO CONFORM TO THE MOST RECENT VERSION OF CSA A179.
4. ALL MASONRY WALLS SHALL BE CONSTRUCTED WITH FULL MORTAR JOINTS.
5. VERTICAL CONTROL JOINTS SHALL BE INSTALLED AT 6000mm (20'-0") SPACING MAXIMUM. REINFORCING SHALL NOT CROSS A CONTROL JOINT. PROVIDE FOAM BACKING ROD AND CAULKING AT CONTROL JOINTS AND ENSURE MORTAR DOES NOT FILL THE JOINT.
6. REINFORCE ALL MASONRY WITH HOT DIP GALVANIZED NO. 9 TRUSS TYPE WIRE REINFORCING AT 400mm (16"). PROVIDE FULL OVERLAP AT ALL INTERSECTIONS AND CORNERS.
7. INSTALLATION OF ALL PROPRIETARY ANCHORS IS TO BE COMPLETED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS. SPECIALIZED TRAINING MAYBE REQUIRED DEPENDING ON THE PRODUCT. CONTRACTOR IS TO CONTACT THE MANUFACTURER/SUPPLIER TO ARRANGE THE REQUIRED TRAINING. ADHESIVE ANCHORS INTO HOLLOW CONCRETE BLOCK ARE TO BE INSTALLED WITH SCREEN TUBES.
8. ALL STEEL BEAMS AND JOISTS SHALL BE SUPPORTED BY BEARING PLATES DESIGNED TO THE MOST RECENT VERSION OF CAN/CSA S16. BEARING PLATES SHALL HAVE MINIMUM 2-12mm (1/2") DIAMETER x 450mm (18") LONG ANCHORS WITH 50mm (2") HOOK.
9. ALL MASONRY UNDER CONCENTRATED LOADS SHALL BE FILLED SOLID WITH GROUT FOR A WIDTH AND DEPTH EQUAL TO 3 TIMES THE LENGTH OF BEARING. WHERE OPEN WEB STEEL JOISTS OR BEAMS BEAR ON UNREINFORCED MASONRY WALLS PROVIDE 1-15M VERTICAL x 1200 (48") LONG UNDER BEARING PLATE.
10. ALL MASONRY WALLS ARE TO BE ADEQUATELY BRACED DURING CONSTRUCTION UNTIL THE FLOOR AND ROOF STRUCTURES ARE IN PLACE. BRACING SHALL BE DESIGNED, REVIEWED AND APPROVED BY CONTRACTOR'S ENGINEER. SHOP DRAWINGS SHALL BE SUBMITTED WITH P. ENG. STAMP FOR OUR REVIEW PRIOR TO CONSTRUCTION.
11. ALL MASONRY INSTALLED ABOVE PARAPETS OR BELOW GRADE ARE TO BE FULLY GROUTED.
12. FOR MASONRY OPENINGS NOT SHOWN ON THE FRAMING PLANS UP TO 1200mm (48") WIDE, PROVIDE ONE L89x89x6.4 (L3.5x3.5x0.25) FOR EACH 90mm (3 1/2") THICKNESS OF MASONRY.
13. PROVIDE DOWELS FROM THE FOUNDATION WALL TO MASONRY WALLS TO MATCH VERTICAL REINFORCING SPACING AND SIZE.
14. PROVIDE 15M BAR GROUTED INTO EACH EMPTY CORE 200mm (8") O.C. CONTINUOUS BEHIND EACH ELEVATOR INSERT.
15. REINFORCED MASONRY
   a. GROUT ALL REINFORCED CELLS SOLID AS PER NOTE 3. REINFORCED CELLS TO BE KEPT CLEAR OF MORTAR.
   b. PROVIDE (1) FULL HEIGHT VERTICAL REBAR EACH SIDE OF CONTROL JOINTS, OPENINGS, INTERSECTIONS AND ENDS OF WALLS.
   c. LAP ALL REINFORCING AS PER REINFORCING STEEL CHART ABOVE (MIN.)

F. STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE MOST RECENT VERSION OF CAN/CSA-S16 AND THE CISC CODE OF STANDARD PRACTICE.
2. STRUCTURAL STEEL SHALL CONFORM TO THE MOST RECENT VERSION OF CAN/CSA G40.20, G40.21 GRADE 350W CLASS C FOR H.S.S., G40.21 GRADE 350W FOR W SHAPE SECTIONS AND G40.21 GRADE 300W FOR CHANNELS, ANGLES AND MISCELLANEOUS METAL.
3. BOLTED CONNECTIONS SHALL USE GRADE A325 BOLTS.
4. ANCHOR BOLTS SHALL BE FABRICATED USING STEEL ROD CONFORMING TO THE MOST RECENT VERSION OF CSA G40.21 GRADE 300W.
5. WELDING SHALL CONFORM TO CSA W59 AND CSA W47 DIVISION 1 OR DIVISION 2.1 BY THE CANADIAN WELDING BUREAU. WELDING SHALL BE COMPLETED BY CWB CERTIFIED FABRICATOR AND ERECTOR TO THE CSA STANDARDS W178.1 AND W178.2.
6. WHERE FORCES ARE NOT SHOWN ON THE DRAWINGS BEAM REACTIONS SHALL BE 1/2 THE TOTAL UNIFORM DISTRIBUTED FACTORED LOADS NOTED IN THE BEAM LOAD TABLES OF PART 5 OF THE CISC'S HANDBOOK OF STEEL CONSTRUCTION.
7. COLUMN BEARING GROUT SHALL BE 40 MPa MINIMUM, NON-SHRINK AND 38mm (1 1/2") MINIMUM THICK.
8. STRUCTURAL STEEL MEMBERS SHALL NOT BE SPLICED WITHOUT THE APPROVAL OF THE ENGINEER.
9. STEEL BEAMS AND LINTELS SHALL HAVE MINIMUM 200mm (8") BEARING ON MASONRY UNLESS OTHERWISE NOTED. WELD BEAMS AND LINTELS TO BEARING PLATES WHERE PROVIDED WITH MINIMUM 4.8mm x 50mm (3/16"x2") FILLET WELD EACH SIDE.
10. PROVIDE 2-10mm (3/8") STIFFENER PLATES EACH SIDE OF BEAMS CANTILEVERED OVER COLUMNS OR SUPPORTS OR SUPPORTING COLUMNS.
11. ALL ROOF OPENINGS IN METAL DECK ARE TO BE REINFORCED WITH C130x10 (C5x6.7) CHANNEL FRAMES UNLESS NOTED OTHERWISE.
12. ALL COLUMNS EMBEDDED IN OR ADJACENT TO MASONRY WALLS SHALL HAVE ADJUSTABLE ANCHORS AT 400mm (15 7/8") O.C.
13. ALL STRUCTURAL STEEL IS TO BE SHOP PRIME PAINTED UNLESS NOTED OTHERWISE. STRUCTURAL STEEL WHICH IS TO BE PROTECTED WITH SPRAY APPLIED FIREPROOFING IS TO BE KEPT CLEAN AND UNCOATED. STRUCTURAL STEEL EXPOSED TO WEATHER IS TO BE HOT DIP GALVANIZED CONFORMING TO CAN/CSA-G164. ALL COATINGS ARE TO BE TOUCHED UP ON SITE WITH APPROVED PAINT FOR PRIMED STEEL AND ZINC RICH PAINT FOR GALVANIZED STEEL.
14. DESIGN METAL DECK IN CONFORMANCE TO THE MOST RECENT VERSION OF CAN/CSA-S136 INCLUDING SUPPLEMENT CAN/CSA-S136S1.
15. ROOF DECK SHALL BE MINIMUM 38mm x 0.76mm (1 1/2"x0.030") LZC UNLESS NOTED OTHERWISE. FLOOR DECK SHALL BE MINIMUM 38mm x 0.76mm (1 1/2"x0.030") LZC HI-BOND UNLESS NOTED OTHERWISE.
16. WELDS FROM DECK TO STRUCTURAL STEEL SHALL BE MINIMUM 19mm (3/4") DIA. PUDDLE WELD AT THE FOLLOWING MINIMUM SPACING:
   a. TRANSVERSE WELDS 300mm (12")
   b. PERIMETER WELDS 300mm (12")
   c. LONGITUDINAL WELDS 600mm (24")
   d. BUTTON PUNCH ALL SEAMS AT 300mm (12") O.C.
17. DECK OVERLAP AND MINIMUM BEARING LENGTH TO BE MINIMUM 50mm (2").
18. DECK WELDS SHALL BE TOUCHED UP WITH APPROVED PAINT.

G. LIGHT GAUGE STRUCTURAL STEEL FRAMING

1. DESIGN AND INSTALLATION OF COLD FORM STEEL FRAMING TO CONFORM TO THE MOST RECENT VERSION OF CAN/CSA-136.
2. DESIGN OF COLD FORM STEEL FRAMING TO BE AS PER THE GRAVITY AND LATERAL LOADS SPECIFIED ON THE DRAWINGS AND AS PER THE ONTARIO BUILDING CODE. FOR STUDS BRACING MASONRY VENEER THE DEFLECTION CRITERIA SHALL CONFORM TO THE MOST RECENT VERSION OF CSA S304.1.
3. THE COLD FORM STEEL FRAMING DESIGN ENGINEER SHALL VISIT THE SITE TO PROVIDE FINAL CONSTRUCTION CERTIFICATION FOR THE WORK.
4. COLD FORM STEEL MEMBERS SHALL CONFORM TO THE MOST RECENT VERSION OF ASTM A653. MEMBERS WITH THICKNESS OF 18 Ga. OR LIGHTER TO BE MINIMUM 230 MPa (33 ksi) YIELD STRENGTH. MEMBERS HEAVIER THAN 18 Ga. TO BE MINIMUM 345 MPa (50 ksi).
5. PROVIDE BRICK TIES WITH CORROSION RESISTANCE CONFORMING TO THE MINIMUM REQUIREMENTS OF THE MOST RECENT VERSION OF CAN/CSA A370 - CONNECTORS FOR MASONRY.

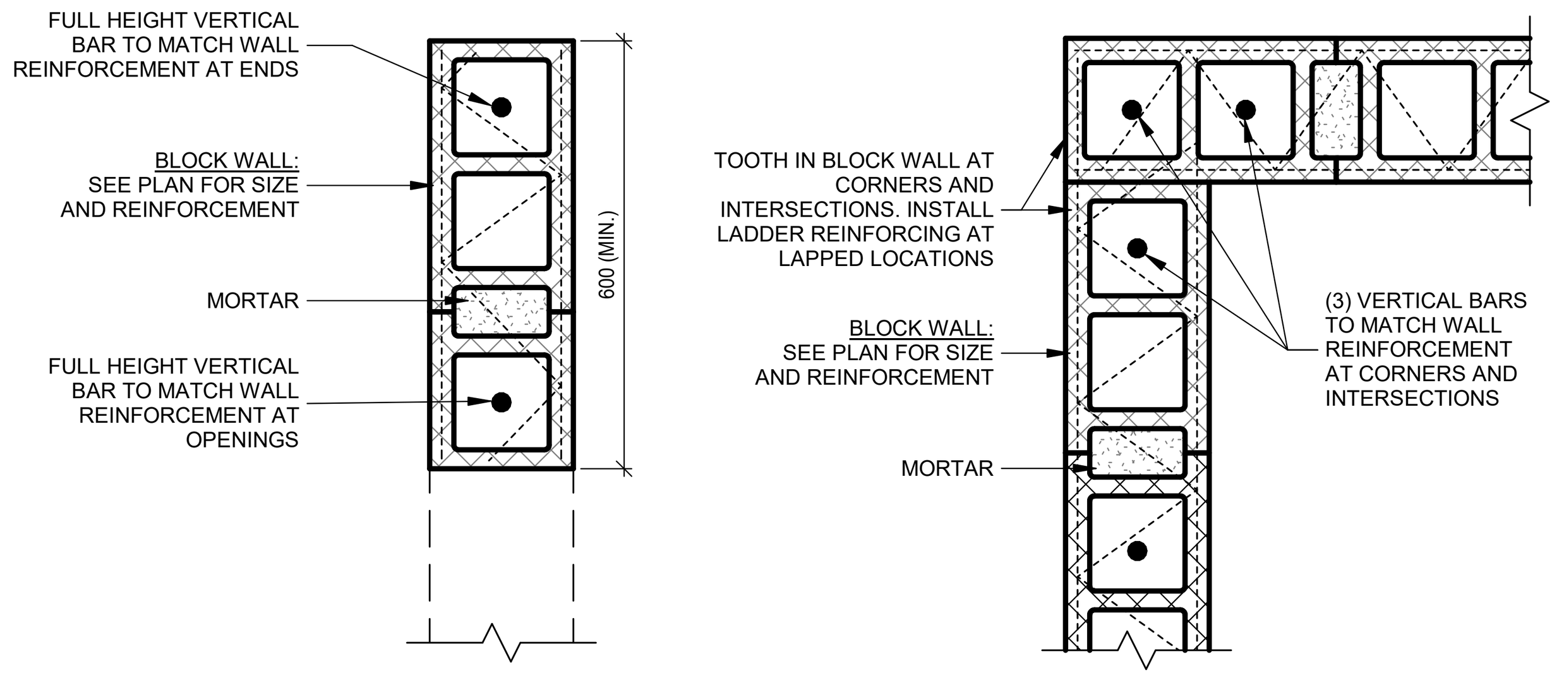
SHOP DRAWINGS REQUIRED

NAME	REQ'D	P.ENG. STAMP	MIN. CERTIFICATION REQUIREMENTS:
CONCRETE MIX DESIGN	YES	NO	
REBAR	YES	NO	
STRUCTURAL STEEL	YES	YES	CONNECTIONS ONLY
STEEL STUD FRAMING	YES	YES	MATERIALS, CONNECTIONS, BRACING AND BRIDGING
STEEL DECK	YES	YES	WELDS, MATERIALS AND FINISHES
MISCELLANEOUS STEEL	YES	YES	STAIRS, LADDERS AND GUARDS
ELEVATOR / LIFT	YES	YES	LAYOUT AND CONNECTIONS
ACM PANEL	YES	NO	FASTENING, FLASHING, AND PROFILE

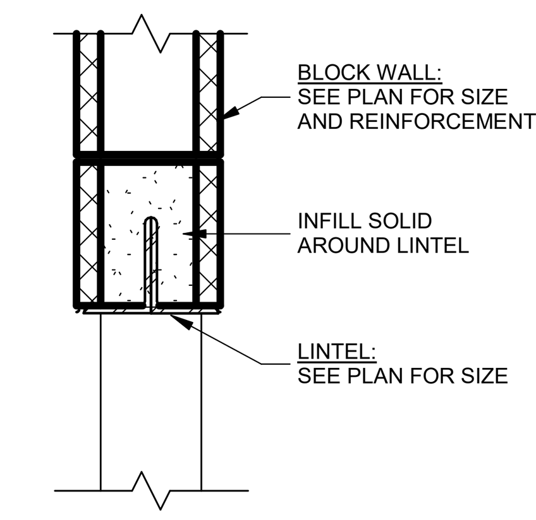
SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS MUST BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO ISSUING TO THE ENGINEER FOR REVIEW.

SHEETS LIST

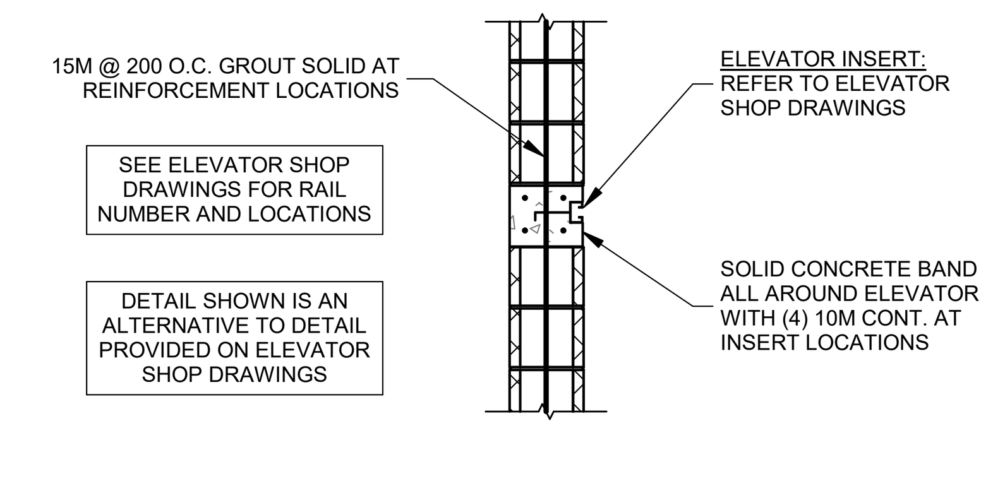
TOTAL PAGES: 7



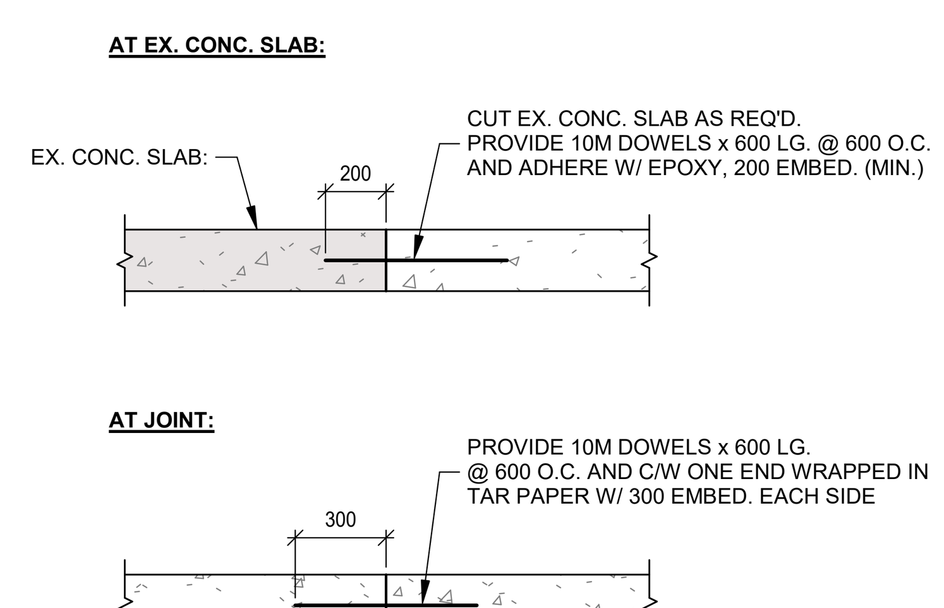
A / S0.0 DETAIL (TYP.) 1 : 10
BLOCK WALL BARS



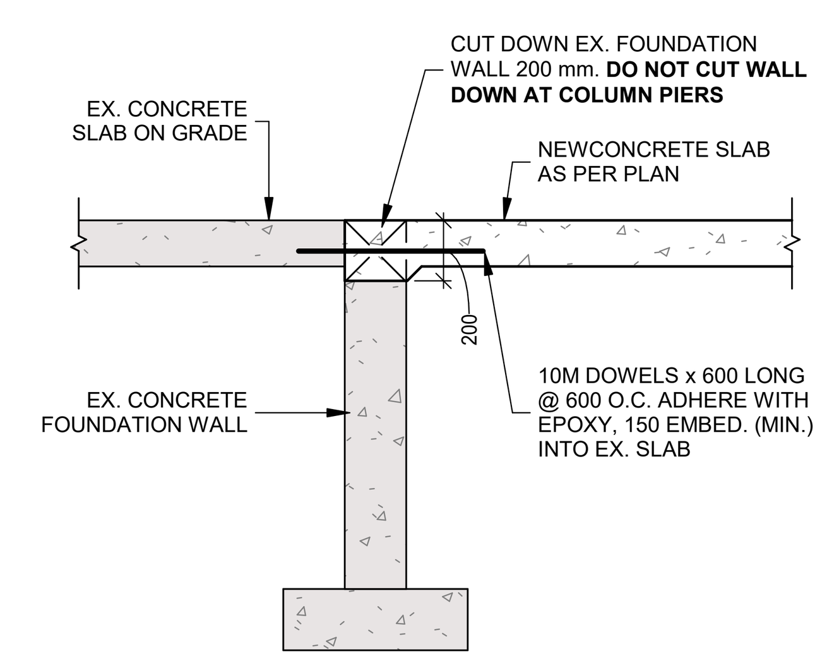
B / S0.0 DETAIL (TYP.) 1 : 10
BLOCK WALL LINTEL



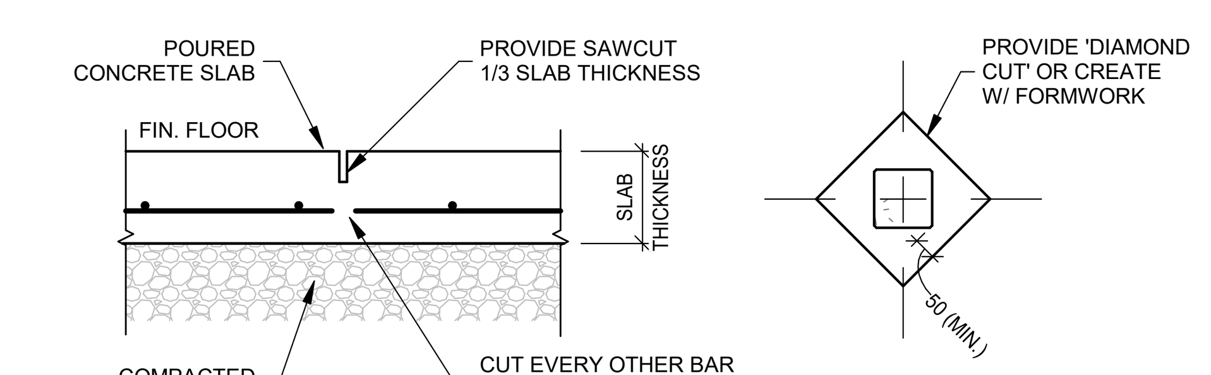
C / S0.0 DETAIL (TYP.) 1 : 25
ELEVATOR RAIL INSERT



D / S0.0 DETAIL (TYP.) 1 : 25
SLAB DOWEL

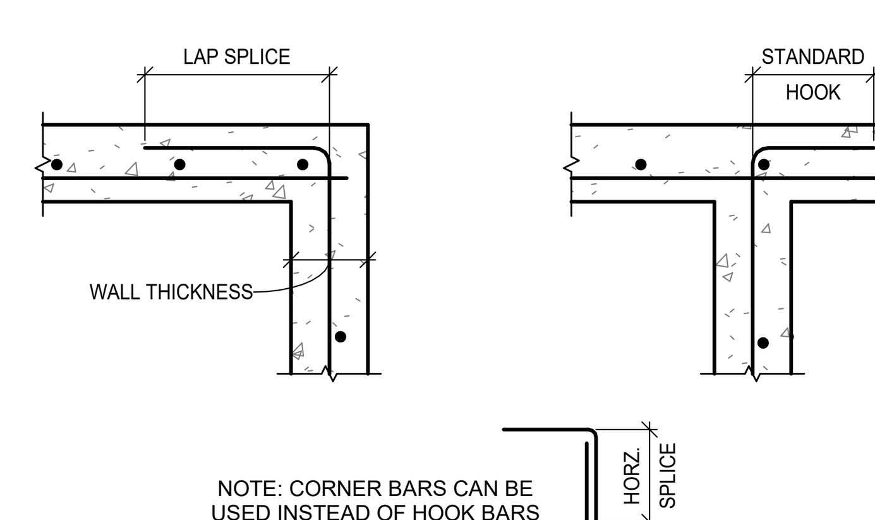


E / S0.0 DETAIL (TYP.) 1 : 25
SLAB ON GRADE @ EXISTING FOUNDATION

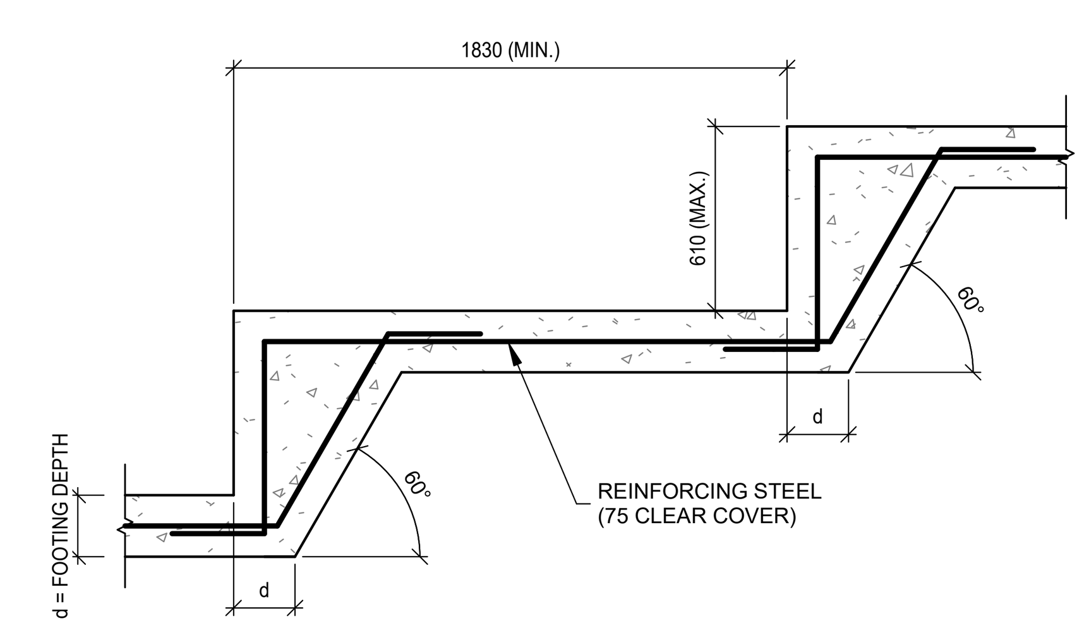


NOTE:
1. SAW CUTTING SHALL BE COMPLETED WITHIN 6 TO 18 HOURS OF PLACING CONCRETE.
2. AFTER THE SLAB IS 30 DAYS OLD, REMOVE ALL DEBRIS FROM THE SAWCUT AND FILL IN WITH MORTAR CONTAINING CEMENT, SAND AND LATEX BONDING AGENT **OR AS NOTED IN SPECIFICATIONS**.
3. COORDINATE LOCATIONS OF SAWCUTS IN SLAB ON GRADE WITH ARCHITECTURAL FLOOR FINISHES.
4. SAWCUT SLAB ON GRADE AT COLUMNS AS SHOWN ABOVE. ALTERNATE DETAILS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW, WELL IN ADVANCED OF POURING SLAB ON GRADE.

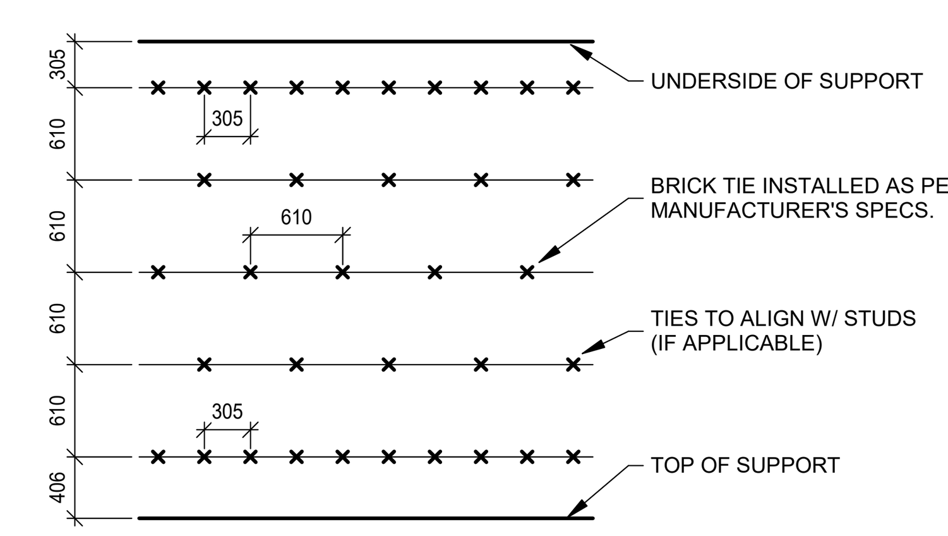
F / S0.0 DETAIL (TYP.) 1 : 25
SLAB ON GRADE SAWCUT



G / S0.0 DETAIL (TYP.) 1 : 25
CORNER REINFORCEMENT



H / S0.0 DETAIL (TYP.) 1 : 25
STEP FOOTING



J / S0.0 DETAIL (TYP.) 1 : 50
BRICK TIE SPACING

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT, BEFORE PROCEEDING WITH THE WORK.

DRAWINGS ARE NOT TO BE SCALED.

No.	REVISIONS	DATE
1	ISSUED FOR PERMIT / TENDER	2025.02.24
2	ISSUED FOR CONSTRUCTION	2025.05.16

LICENSED PROFESSIONAL ENGINEER
D. G. WATERS
100543905
May 16, 2025
PROVINCE OF ONTARIO

CHRONOLOGY	DATE

WitzelDyce ENGINEERING INC.
826 King Street North, Unit 20
Waterloo, Ontario, N2J 4G8
www.witzeldyce.com

aba architects inc.

CLIENT
WATERLOO REGION DISTRICT SCHOOL BOARD

PROJECT NAME
GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS
55 MCKAY STREET, CAMBRIDGE, ON N1R 4G8

DRAWING TITLE
GENERAL NOTES & TYP. DETAILS

SCALE	As indicated
SHEET SIZE	24X36
PROJECT NUMBER	14939-201
DRAWING NUMBER	S0.0

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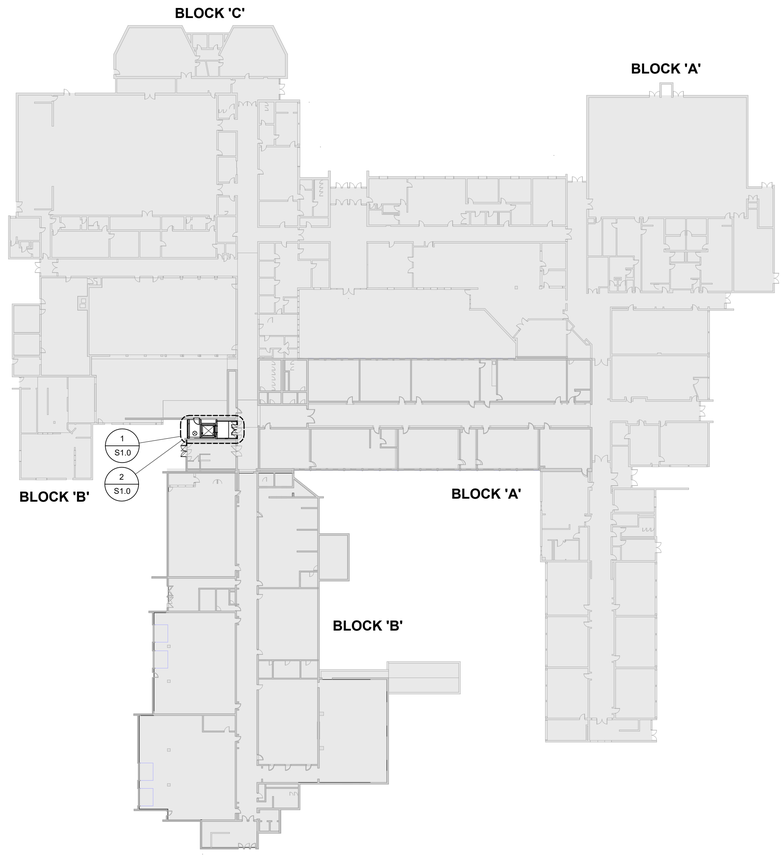
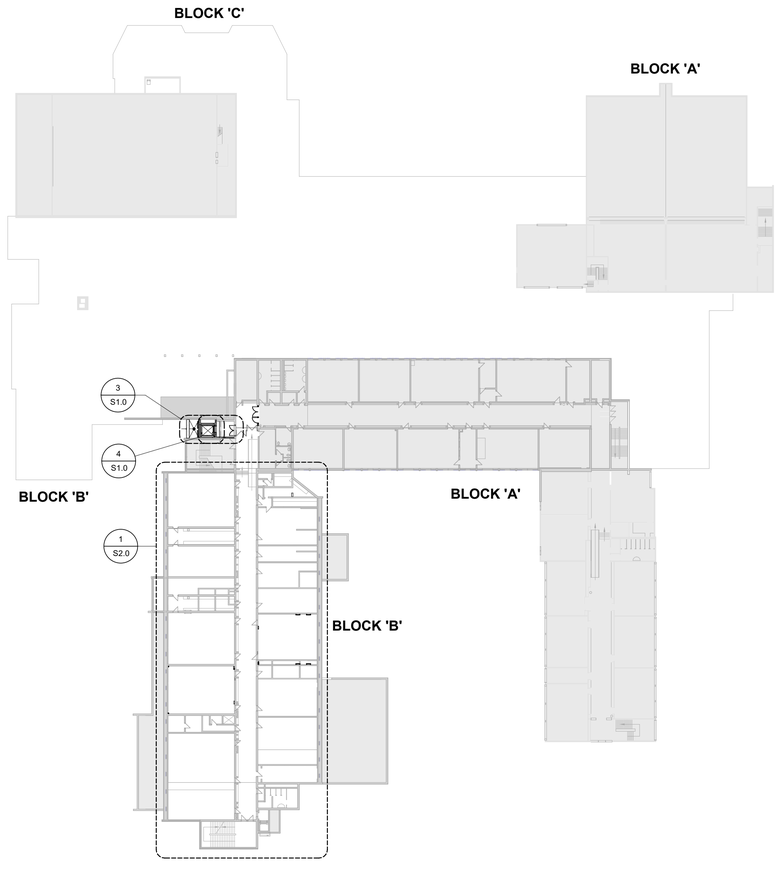


LEVEL 1 KEY PLAN

1 : 500



LEVEL 2 KEY PLAN

1 : 500

No.	REVISIONS	DATE
1	ISSUED FOR PERMIT / TENDER	2025.02.24
2	ISSUED FOR CONSTRUCTION	2025.05.16

LICENSED PROFESSIONAL ENGINEER
D. G. WATERS
100543905
May 16, 2025
PROVINCE OF ONTARIO

CHRONOLOGY	DATE

WitzelDyce ENGINEERING INC.
826 King Street North, Unit 20
Waterloo, Ontario, N2J 4G8
www.witzeldyce.com

aba architects inc.

CLIENT

WATERLOO REGION DISTRICT SCHOOL BOARD

PROJECT NAME

GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS

55 MCKAY STREET, CAMBRIDGE, ON N1R 4G8

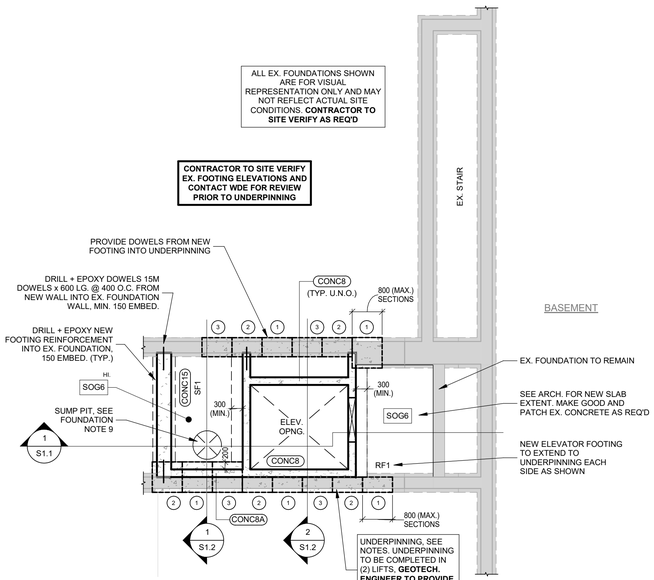
DRAWING TITLE

LEVEL 1 & 2 KEY PLANS

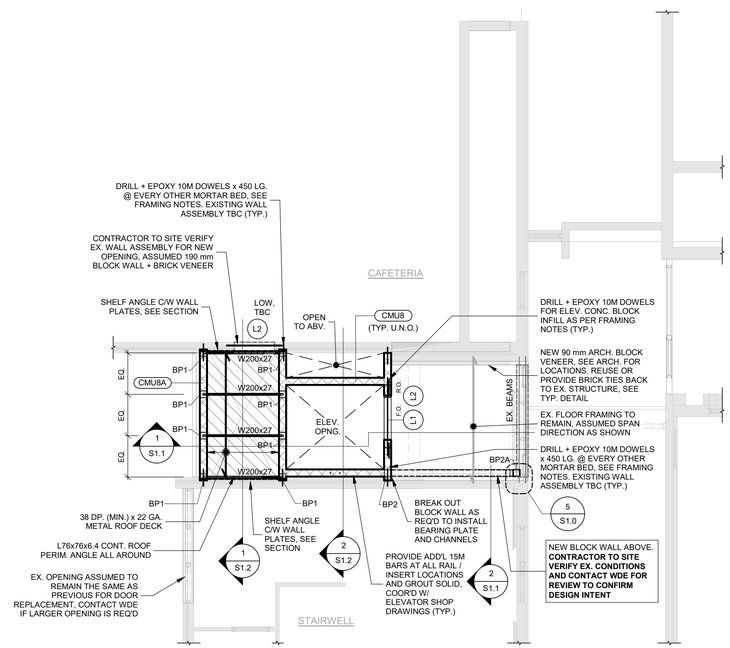
SCALE	1 : 500
SHEET SIZE	24X36
PROJECT NUMBER	14939-201

DRAWING NUMBER

S0.1



1 S1.0 PARTIAL FOUNDATION PLAN 1 : 75
FOUNDATION PLAN



2 S1.0 PARTIAL FRAMING PLAN 1 : 75
EX. LEVEL 2 & NEW LOW ROOF FRAMING PLAN

FOUNDATION NOTES
1. ALL ELEVATIONS ARE IN METRES.
2. REFER TO ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS FOR ALL SLAB DEPRESSIONS, SLOPES, OPENINGS, AND UNDER SLAB INSULATION REQUIREMENTS.
3. PROVIDE SAW CUTS AS PER GENERAL NOTES AND TYP. DETAIL.
4. AT ALL SLAB ON GRADE COLD JOINTS OR WHERE CONCRETE SLAB ON GRADE IS PLACED IN SECTIONS, THE CONTRACTOR SHALL PROVIDE 13Ø DOWELS x 600 LG. SPACED AT 600 O.C. WITH ONE END GREASED OR WRAPPED IN TAR PAPER, SET INTO CONCRETE SLAB 300 mm EACH SIDE.
5. DROP TOP OF FOUNDATION WALLS BY THE THICKNESS OF THE FLOOR SLAB AT DOOR OPENINGS. POUR SLAB OVER AS PER SECTIONS.
6. CONTRACTOR TO PROTECT FOUNDATIONS AND SOIL FROM FROST DURING CONSTRUCTION.
7. STEP INTERIOR FOOTINGS TO MATCH EXTERIOR FOOTING DEPTH TYPICAL AT ALL LOCATIONS.
8. COORDINATE MECHANICAL, ELECTRICAL AND CIVIL SLEEVES, PIPES AND CONDUITS PRIOR TO CONCRETE POUR.
9. CONFIRM W/ MECH. DRAWINGS FOR SUMP PIT LOCATION AND ELEVATION. LOCATE AWAY FROM FOOTINGS AND BACKFILL W/ LEAN MIX CONCRETE.
10. STEP FOOTINGS FOR STORM INVERTS AS REQUIRED.
11. TOP OF FOOTING ELEVATIONS GIVEN ARE A MINIMUM DEPTH. CONTRACTOR TO ENSURE THAT FOOTINGS BEAR ON SOIL APPROVED BY QUALIFIED SOILS ENGINEER.
12. PROVIDE LEAN MIX CONCRETE TO FILL EXCAVATIONS TO THE U/S OF ADJACENT BUILDING FOOTING ELEVATIONS.

ABBREVIATIONS

E.F.	EACH FACE
E.W.	EACH WAY
H.I.F.	HORIZONTAL INSIDE FACE
H.O.F.	HORIZONTAL OUTSIDE FACE
HORIZ.	HORIZONTAL
S.F.	STEP FOOTING
V.I.F.	VERTICAL INSIDE FACE
V.O.F.	VERTICAL OUTSIDE FACE
VERT.	VERTICAL
TLL	TOP LOWER LAYER
TUL	TOP UPPER LAYER
BLL	BOTTOM LOWER LAYER
BUL	BOTTOM UPPER LAYER

ANNOTATION LEGEND
P1 / CF1 — PIER DESIGNATION; FOOTING DESIGNATION
-200 / -220 — T/O PIER ELEVATION; T/O FOOTING ELEVATION
-1.20 — T/O FOOTING ELEVATION
DENOTES DOOR LOCATION

ELEVATOR FOUNDATION NOTES
1. UNDERPINNING TO BE COMPLETED IN SECTIONS. SEQUENCING OF SECTIONS ARE SHOWN. EXCAVATE AND POUR ONE SEQUENCE IN THE SAME DAY THEN WAIT 24 HOURS (MIN.) FOR CONCRETE TO CURE UNTIL EXCAVATING AND POURING THE NEXT SEQUENCE.
2. CONTRACTOR TO ENSURE THAT EXISTING FOOTINGS ARE NOT UNDERMINED DURING NEW ELEVATOR PIT FOUNDATION CONSTRUCTION, PROVIDE SHORING AS NECESSARY.
3. CONTACT GEOTECHNICAL ENGINEER TO REVIEW SOIL CONDITION AND UNDERPINNING PROCEDURE AND DESIGN PRIOR TO CONSTRUCTION.
4. CONTRACTOR MAY HAVE TO RETAIN A DEWATERING DESIGN, CONTACT GEOTECH. ENGINEER FOR REVIEW AS NOTED.
5. MAX. LENGTH OF SECTIONS AS PER PLAN.

(1) DENOTES SEQUENCING OF UNDERPINNING SECTIONS

FOUNDATION WALL SCHEDULE

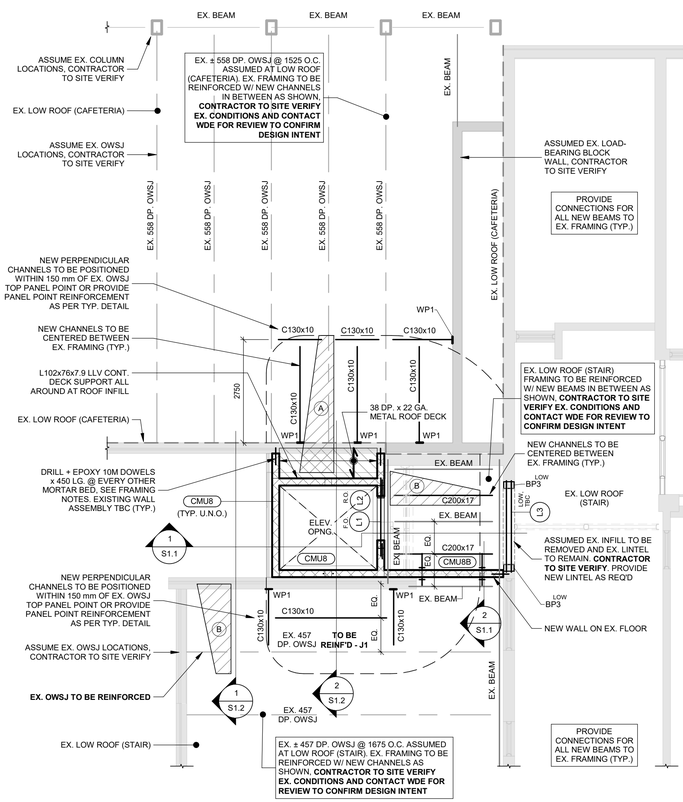
WALL	WIDTH	REINFORCEMENT
CONC8	203	20M @ 400 O.C.V.I.F. + 20M @ 300 O.C. H. I.F.
CONC8A	203	15M @ 600 O.C. E.W. CENTERED
CONC15	381	(2) 15M CONT. TOP + 15M @ 400 O.C. E.W. CENTERED, SEE SECTION
ALL WALLS TO HAVE (2) 15M CONT. TOP		

SLAB-ON-GRADE SCHEDULE

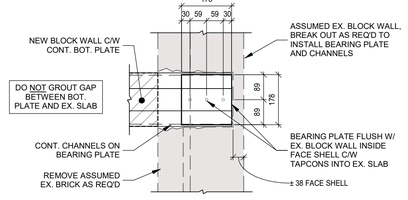
FLOOR	THICKNESS	REINFORCEMENT
SOG6	150	6x6 x 6/6 W.W.M.

FOOTING SCHEDULE

FOOTING	SIZE	REINFORCEMENT
RF1	x400D	15M @ 300 O.C. E.W. TOP + BOT.
SF1	600x200	(2) 15M CONT. BOT.



3 S1.0 PARTIAL FRAMING PLAN 1 : 75
EX. ROOF FRAMING PLAN

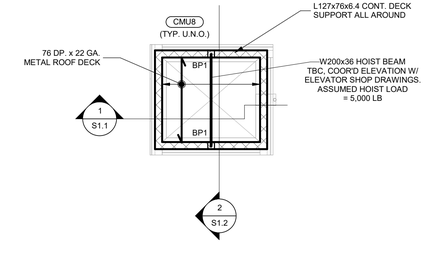


5 S1.0 DETAIL 1 : 10
BEARING PLATE

CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQ'D, SUBMIT P.ENG. STAMPED SHOP DRAWINGS FOR REVIEW

CONTRACTOR TO SITE VERIFY ALL EX. CONDITIONS

ASSUMED EX. CONDITIONS AS SHOWN, CONTRACTOR TO SITE VERIFY FRAMING / FOUNDATIONS AND REPORT BACK TO WDE IF SITE CONDITIONS VARY



4 S1.0 PARTIAL FRAMING PLAN 1 : 75
ELEVATOR ROOF FRAMING PLAN

FRAMING NOTES
GENERAL NOTES:
1. ALL ROOFTOP UNITS TO BE FRAMED WITH C130x10 (TYP. U.N.O.) REFER TO MECHANICAL DRAWINGS FOR EXACT UNIT LOCATION AND SIZE.
2. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ROOF DRAIN LOCATIONS AND ROOF SLOPES.
3. WELDS FROM ROOF DECK TO STRUCTURAL STEEL SHALL BE MINIMUM 19Ø PUDDLE WELDS AT THE FOLLOWING MINIMUM SPACINGS (U.N.O.): 36/4 (900/150) - TRANSVERSE PUDDLE WELDS @ 300 O.C. - PERIMETER WELDS @ 300 O.C. - BUTTON PUNCH ALL SEAMS @ 300 O.C.
4. PROVIDE L76x76x6.4 AT MID SPAN OF BEAM FROM BOTTOM FLANGE OF BEAM TO TOP CHORD OF ADJACENT JOIST WHERE SHOWN.
5. REFER TO SCHEMATIC ELEVATIONS FOR GIRTS AND BRACING DIRECTIONS.

METAL DECK NOTES:
1. ROOF DECK TO BE 38 THK. STEEL DECK (TYP. U.N.O.) PROVIDE P.ENG. STAMPED SHOP DRAWINGS FOR REVIEW.
2. PROVIDE L76x76x6.4 CONT. AROUND ROOF PERIMETER (TYP. U.N.O.)
3. ROOF ELEVATIONS AROUND PERIMETER TO BE 0 mm U.N.O., COORD W/ ARCH. DRAWINGS

BLOCK WALL NOTES:
1. GENERAL CONTRACTOR TO COORDINATE MASONRY WALL THICKNESS WITH ARCHITECTURAL DRAWINGS SET.
2. GROUT SOLID BELOW ALL BEARING PLATES FOR MINIMUM DEPTH OF 1200mm W/ (1) 15M x 1200 LONG DOWEL U.N.O. SEE NOTE E.8 ON S0.0.
3. PROVIDE (3) 15M VERTICAL AT ALL CORNERS IN BLOCK WALLS (TYP. U.N.O.)
4. PROVIDE (1) 15M VERTICAL AT EDGES OF ALL OPENINGS IN BLOCK WALLS (TYP. U.N.O.)
5. GROUT SOLID AT ALL DOWELS AND REINFORCING LOCATIONS.
6. DRILL + EPOXY 10M DOWELS x 450 LG. @ 400 O.C. (AT EVERY OTHER MORTAR BED) C/W HILTI HY-270 EPOXY INTO EX. CONCRETE BLOCK, 150 EMBED. (MIN.) PROVIDE SCREEN TUBES AS REQ'D. TYPICAL OF ALL NEW BLOCK WALLS ADJACENT EX. BLOCK WALL.
7. ALL CONCRETE BLOCK WALLS TO HAVE CONTROL JOINTS AS PER CSA S304 AND A371 (TYP. ALL CONCRETE BLOCK).

EX. VESTIBULE / CORR. FLOOR DESIGN LOADS
LIVE LOAD = 4.8 kPa
DEAD LOAD = 3.6 kPa + 1.0 kPa (PARTITIONS)

NEW ROOF DESIGN LOADS
LOW ROOF / ROOF INFILL: SNOW LOAD = 5.65 kPa; DEAD LOAD = 1.0 kPa
ELEVATOR ROOF: SNOW LOAD = 1.96 kPa; DEAD LOAD = 1.0 kPa

CONCRETE BLOCK WALL SCHEDULE

WALL	WIDTH	WEIGHT	COMP. STRENGTH	FULLY GROUTED	VERT. REINFORCING
CMU8	190	STANDARD	15 MPa	AT REINFORCEMENT	15M @ 400 O.C.
CMU8A	190	STANDARD	15 MPa	AT REINFORCEMENT	15M @ 800 O.C.
CMU8B	190	LIGHTWEIGHT	15 MPa	AT REINFORCEMENT	15M @ 1200 O.C.

- SEE BLOCK WALL FRAMING NOTES
- ALL WALLS TO HAVE CORES GROUTED SOLID AT REINFORCING STEEL LOCATIONS
- PROVIDE ADDITIONAL BARS AT CORNERS, OPENINGS, AND END OF WALLS AS PER BLOCK WALL FRAMING NOTES, SEE TYP. DETAIL.
- **REINFORCE ALL MASONRY WITH HOT DIP GALVANIZED NO. 9 TRUSS TYPE WIRE REINFORCING @ 400 O.C. PROVIDE FULL OVERLAP AT ALL INTERSECTIONS AND CORNERS.**
- ALL WALLS TO HAVE TOP (2) COURSES GROUTED SOLID AND ALL WALLS ABOVE ROOF LEVEL TO BE GROUTED SOLID.
- ALL WALLS TO BE TOOTHED INTO ADJACENT WALL.
- **PROVIDE 15M BAR GROUTED INTO EACH EMPTY CORE @ 200 (8") O.C. CONTINUOUS BEHIND EACH ELEVATOR INSERT, SEE TYP. DETAIL.**
- PROVIDE BRACING AT TOP OF BLOCK WALLS , SEE TYP. DETAILS U.N.O.

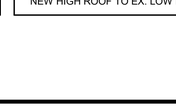
LINTEL SCHEDULE

LINTEL	SIZE	END BEARING
L1	(2) L89x89x7.9	200 EACH END
L2	(2) L127x89x7.9 LLV	200 EACH END
L3	(2) W200x27 + 9.5 PL.	BP AS PER PLAN

BEARING / WALL PLATE SCHEDULE

PLATE	SIZE	ANCHORS
BP1	178x178x19	(1) 15M x 600 LG. WELDED TO U/S BP
BP2	178x178x22	(1) 15M x 600 LG. WELDED TO U/S BP
BP2A	178x178x22	(3) 6.4Ø x 57. LG. TAPCONS INTO EX. SLAB
BP3	178x278x19	GROUT SOLID AROUND LINTEL
WP1	178x178x9.5	(2) 13Ø x 100 LG. HILTI HY-270 ANCHORS, PROVIDE SCREEN TUBES @ EX. UNGROUTED BLOCK WALLS

DRIFT LOAD A N.T.S.
NEW HIGH ROOF TO EX. LOW ROOF (CAFETERIA)



DRIFT LOAD B N.T.S.
NEW HIGH ROOF TO EX. LOW ROOF (STAIR)

PROJECT NORTH

No.	REVISIONS	DATE
1	ISSUED FOR PERMIT / TENDER	2025.02.24
2	ISSUED FOR CONSTRUCTION	2025.05.16

LICENSED PROFESSIONAL ENGINEER — D. G. WATERS — 100543905 — May 16, 2025 — PROVINCE OF ONTARIO

CHRONOLOGY	DATE

WitzelDyce ENGINEERING INC.
826 King Street North, Unit 20
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www.witzeldyce.com

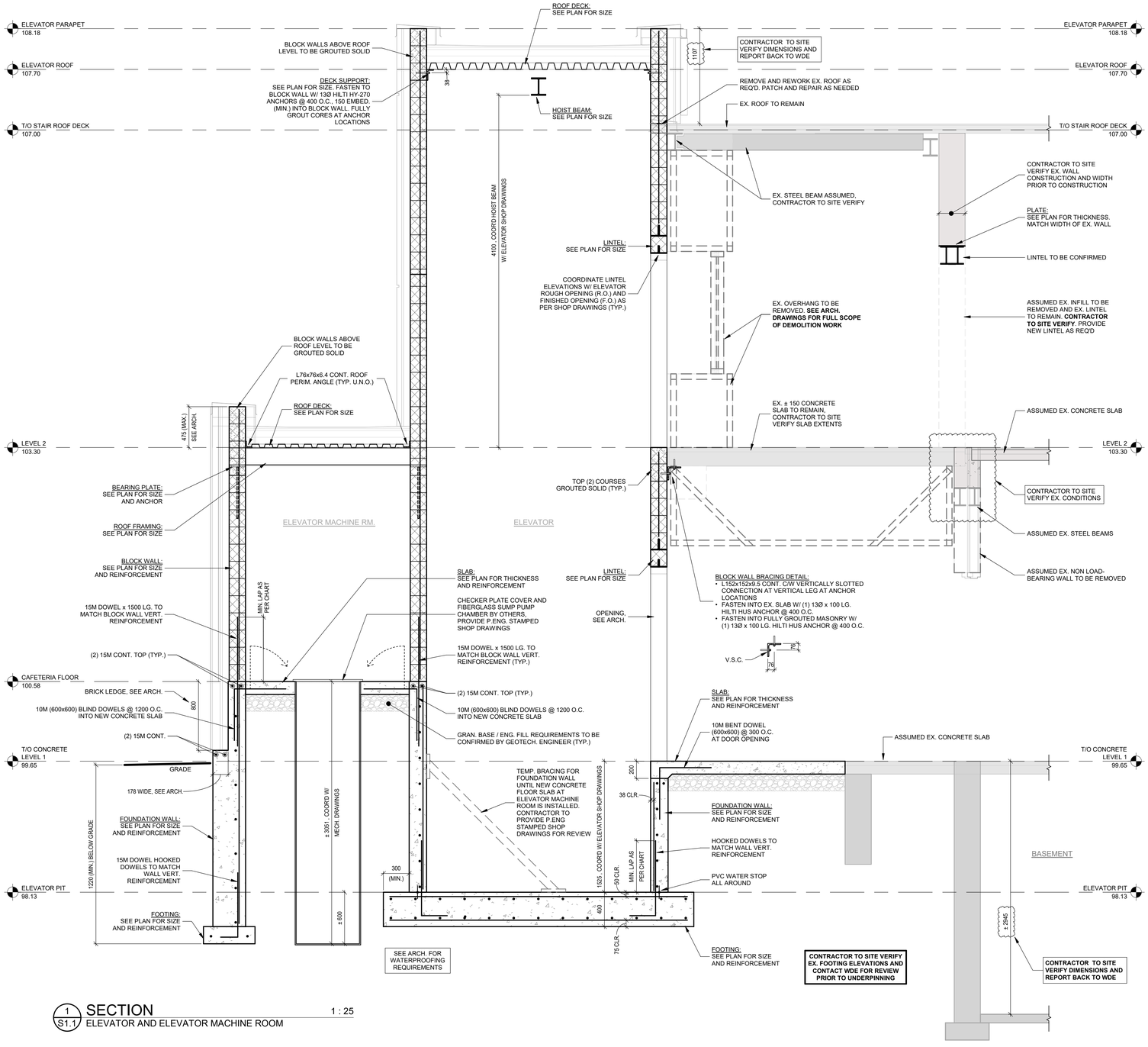
aba architects inc.
165 Ahrens Street, Unit 6, Kitchener, ON, N2H 6R1 | www.abaarchitects.ca

CLIENT
WATERLOO REGION DISTRICT SCHOOL BOARD

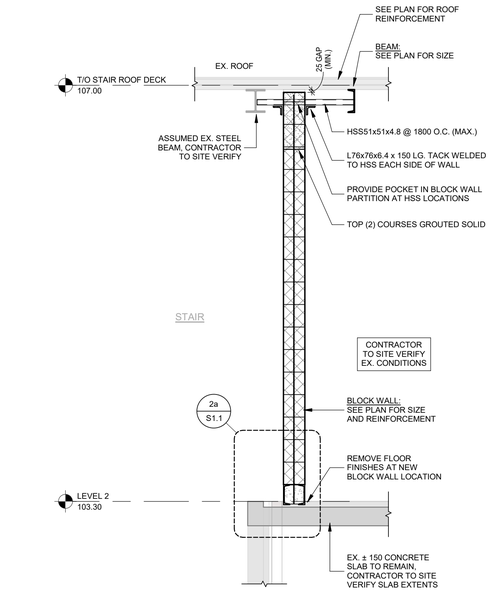
PROJECT NAME
GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS
55 MCKAY STREET, CAMBRIDGE, ON N1R 4G8

DRAWING TITLE
ELEVATOR FRAMING & FOUNDATION PLANS

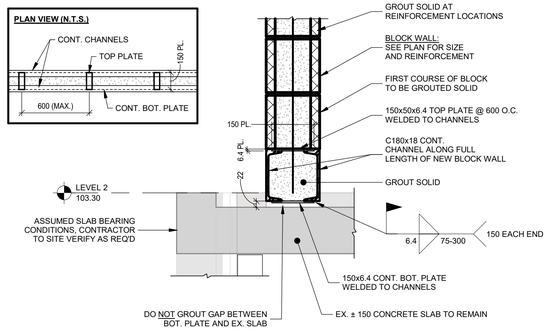
SCALE: As indicated
SHEET SIZE: 24X36
PROJECT NUMBER: 14939-201
DRAWING NUMBER: S1.0



1 / S1.1 SECTION — ELEVATOR AND ELEVATOR MACHINE ROOM — 1 : 25



2 / S1.1 SECTION — NEW PARTITION — 1 : 25



2a / S1.1 DETAIL — BOND BEAM AT BOT. OF BLOCK WALL — 1 : 10

CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQ'D, SUBMIT P.ENG. STAMPED SHOP DRAWINGS FOR REVIEW

CONTRACTOR TO SITE VERIFY ALL EX. CONDITIONS

ASSUMED EX. CONDITIONS AS SHOWN, CONTRACTOR TO SITE VERIFY FRAMING / FOUNDATIONS AND REPORT BACK TO WDE IF SITE CONDITIONS VARY

No.	REVISIONS	DATE
1	ISSUED FOR PERMIT / TENDER	2025.02.24
2	ISSUED FOR CONSTRUCTION	2025.05.16

LICENSED PROFESSIONAL ENGINEER
D. G. WATERS
100543905
May 16, 2025
PROVINCE OF ONTARIO

CHRONOLOGY	DATE

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CLIENT
WATERLOO REGION DISTRICT SCHOOL BOARD

PROJECT NAME
GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS
55 MCKAY STREET, CAMBRIDGE, ON N1R 4G8

DRAWING TITLE
ELEVATOR SECTIONS

SCALE: As indicated
SHEET SIZE: 24X36
PROJECT NUMBER: 14939-201
DRAWING NUMBER: S1.1

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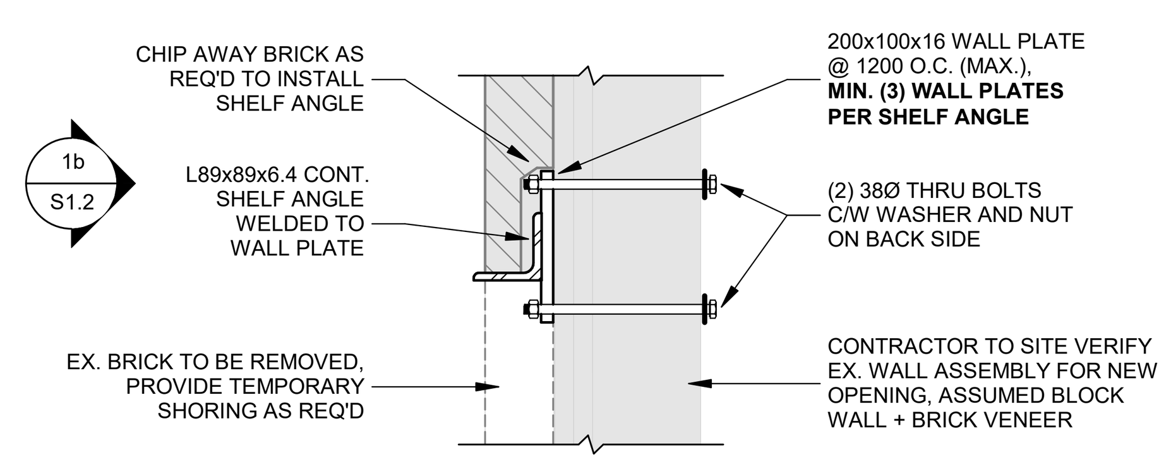
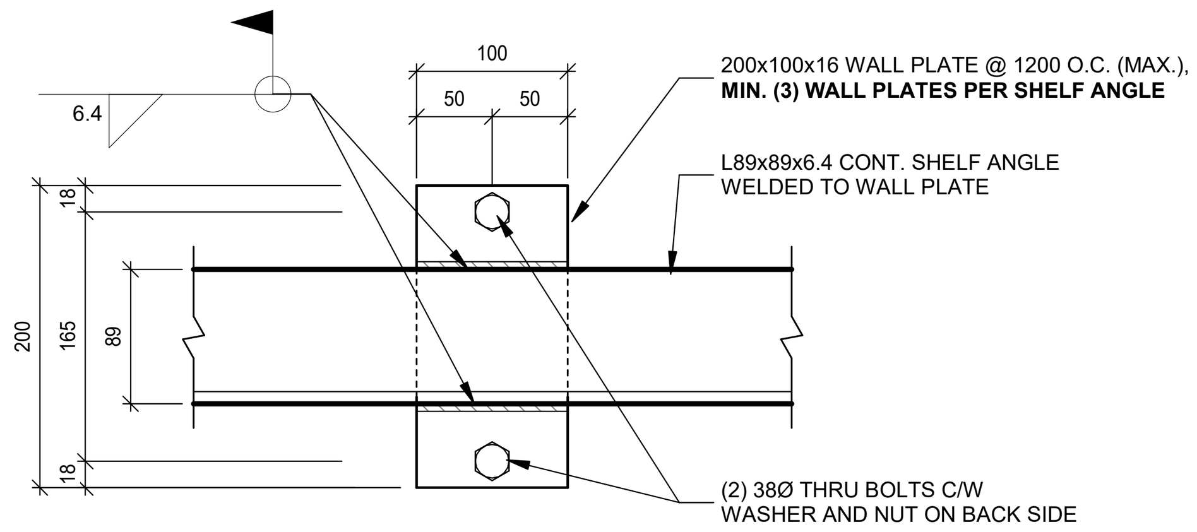
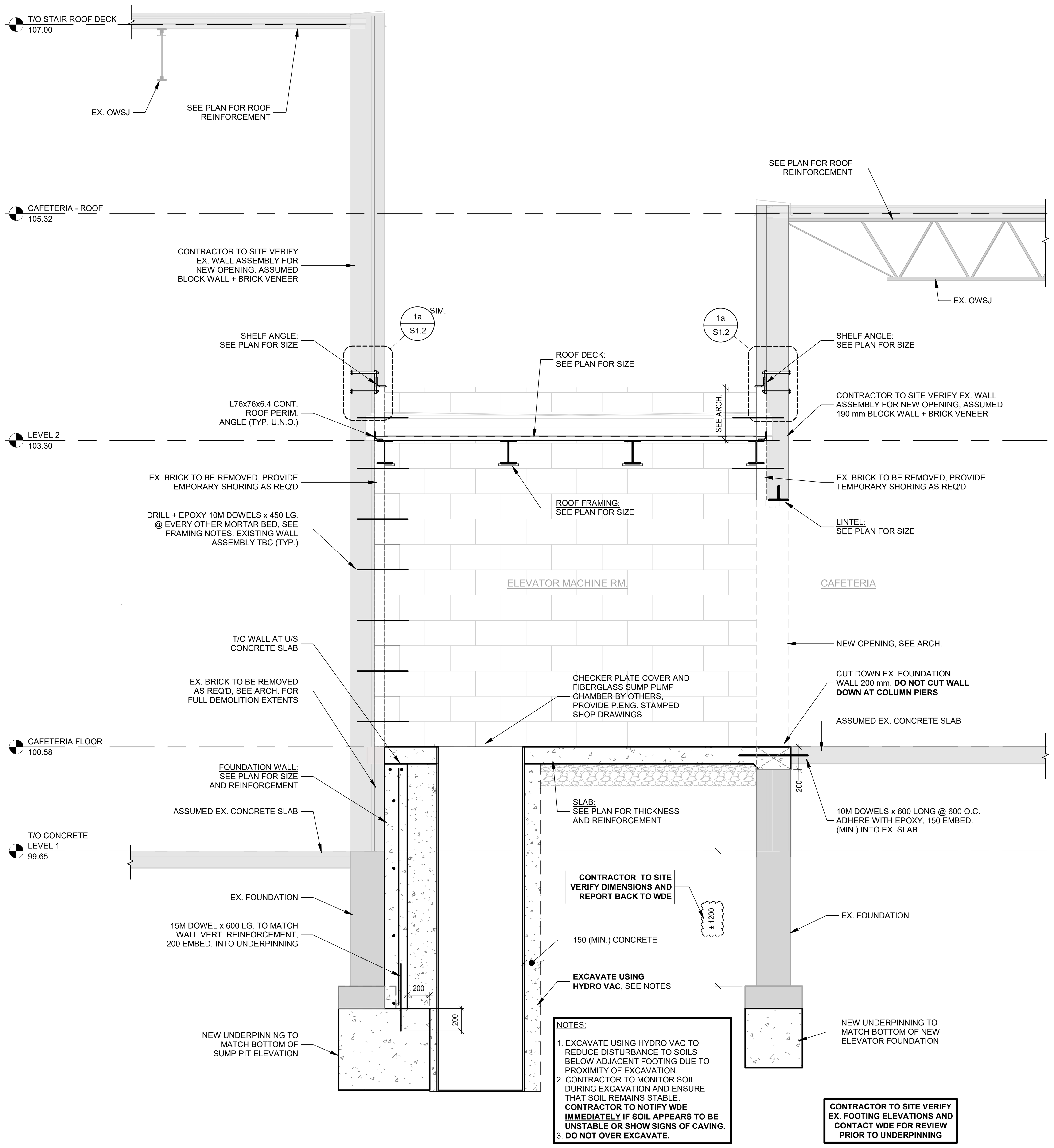


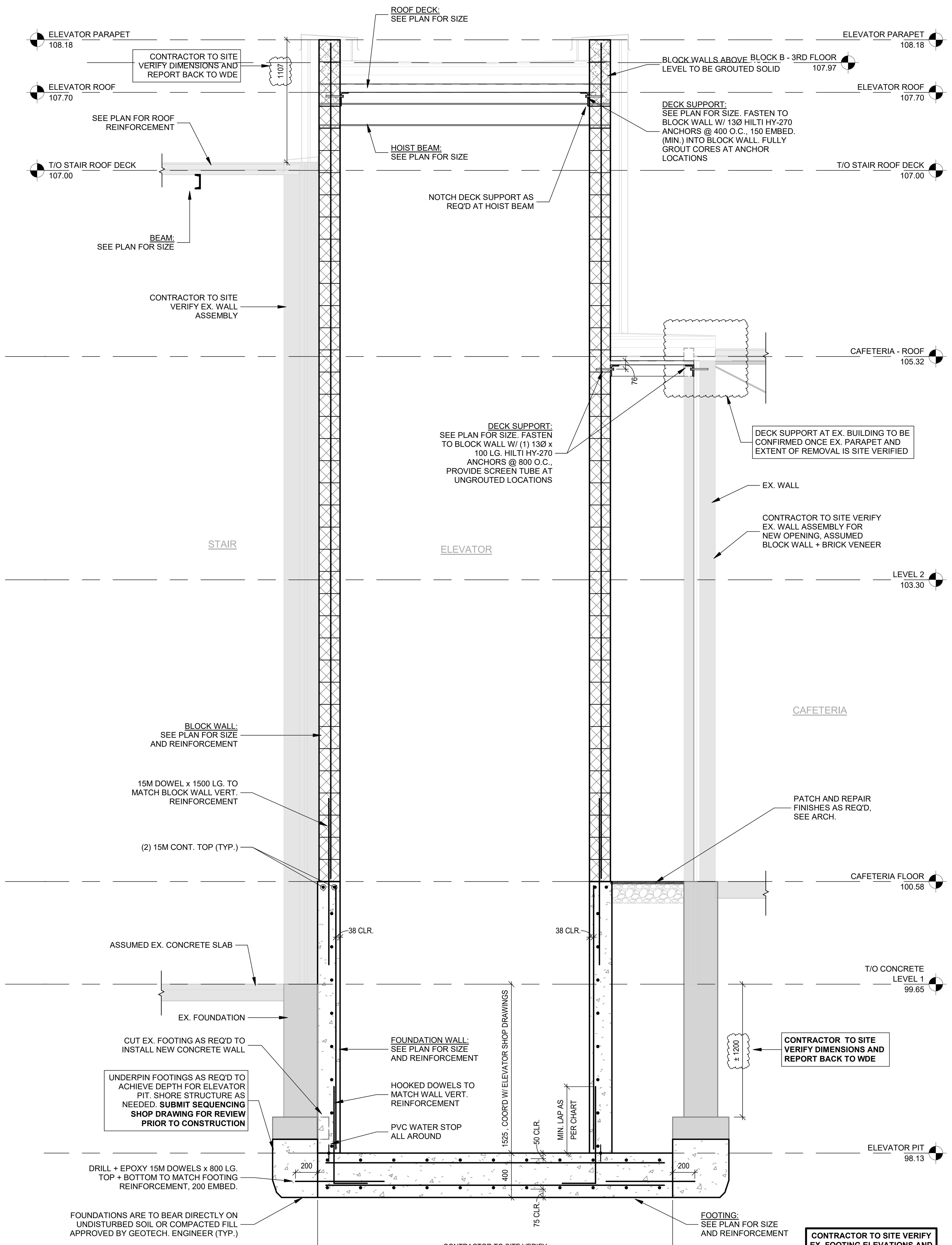
1a / S1.2 **DETAIL** 1 : 10
SHELF ANGLE



1b / S1.2 **DETAIL** 1 : 5
WALL PLATE



1 / S1.2 **SECTION** 1 : 25
ELEVATOR MACHINE ROOM



2 / S1.2 **SECTION** 1 : 25
ELEVATOR

CONTRACTOR TO PROVIDE TEMPORARY SHORING AS REQ'D, SUBMIT P.ENG. STAMPED SHOP DRAWINGS FOR REVIEW

CONTRACTOR TO SITE VERIFY ALL EX. CONDITIONS

ASSUMED EX. CONDITIONS AS SHOWN, CONTRACTOR TO SITE VERIFY FRAMING / FOUNDATIONS AND REPORT BACK TO WDE IF SITE CONDITIONS VARY

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT, BEFORE PROCEEDING WITH THE WORK.

DRAWINGS ARE NOT TO BE SCALED.

No.	REVISIONS	DATE
1	ISSUED FOR PERMIT / TENDER	2025.02.24
2	ISSUED FOR CONSTRUCTION	2025.05.16

LICENSED PROFESSIONAL ENGINEER
D. G. WATERS
100543905
May 16, 2025
PROVINCE OF ONTARIO

CHRONOLOGY	DATE

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aba architects inc.

CLIENT
WATERLOO REGION DISTRICT SCHOOL BOARD

PROJECT NAME
GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS
55 MCKAY STREET, CAMBRIDGE, ON N1R 4G8

DRAWING TITLE
ELEVATOR SECTIONS

SCALE: As indicated
SHEET SIZE: 24X36
PROJECT NUMBER: 14939-201
DRAWING NUMBER: S1.2

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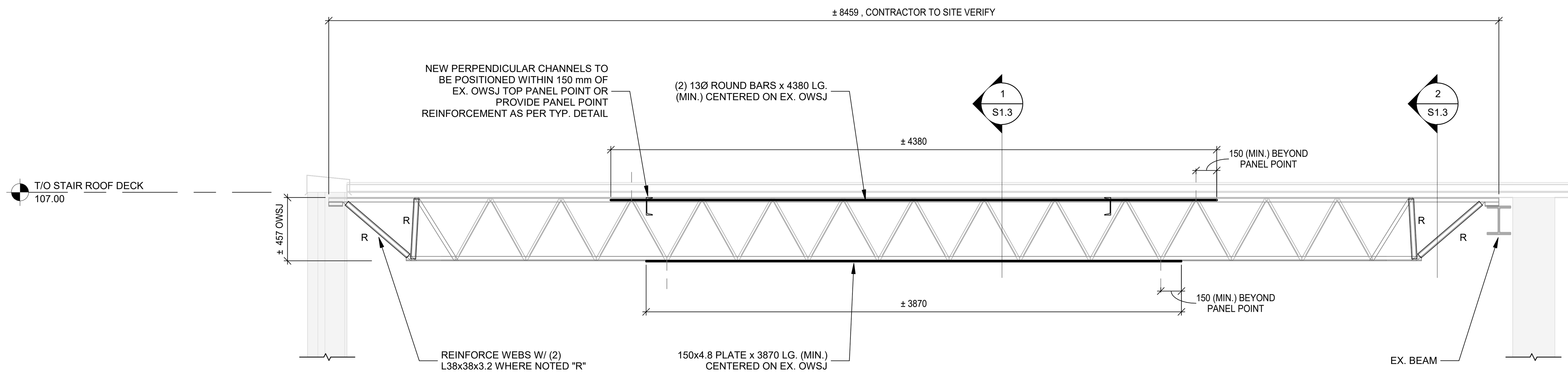
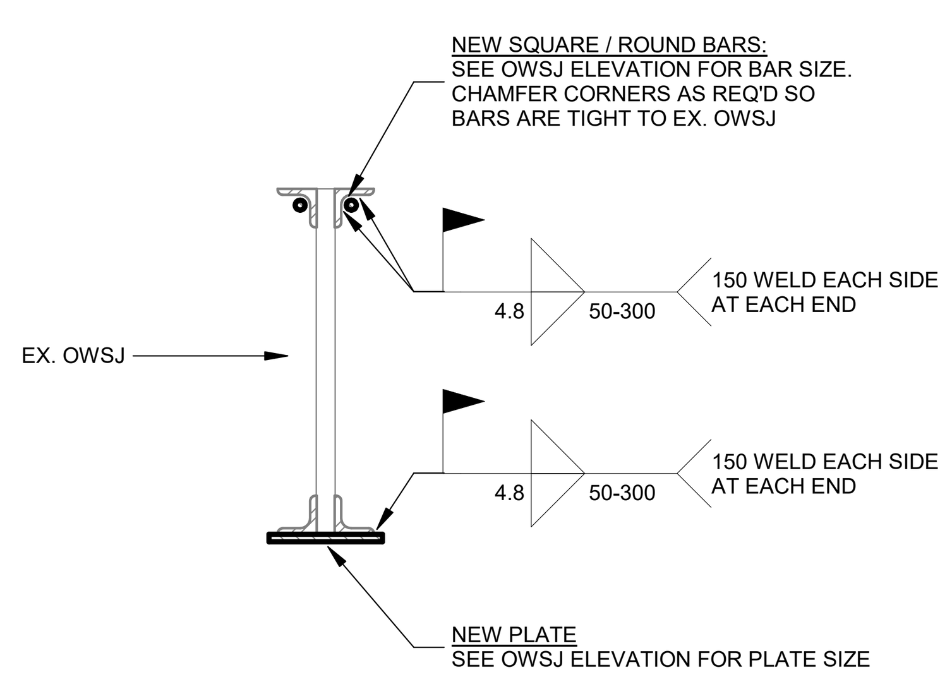
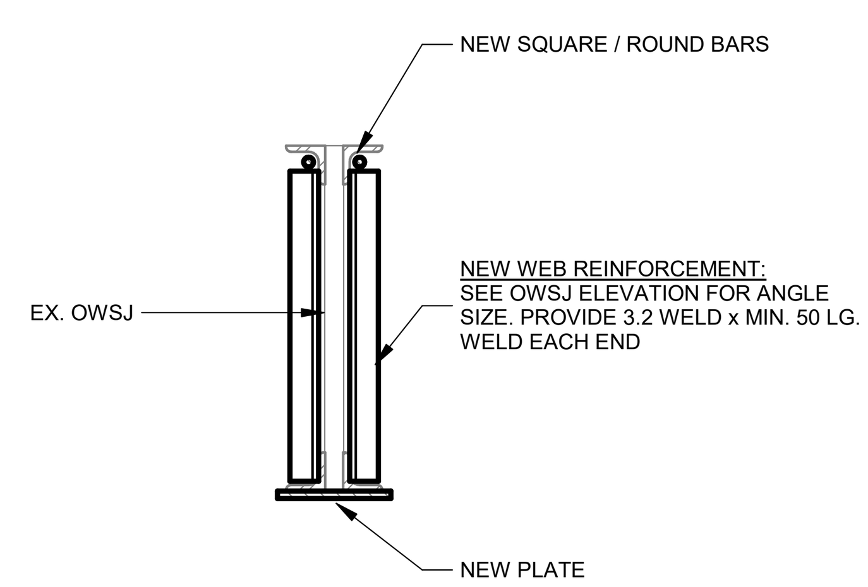


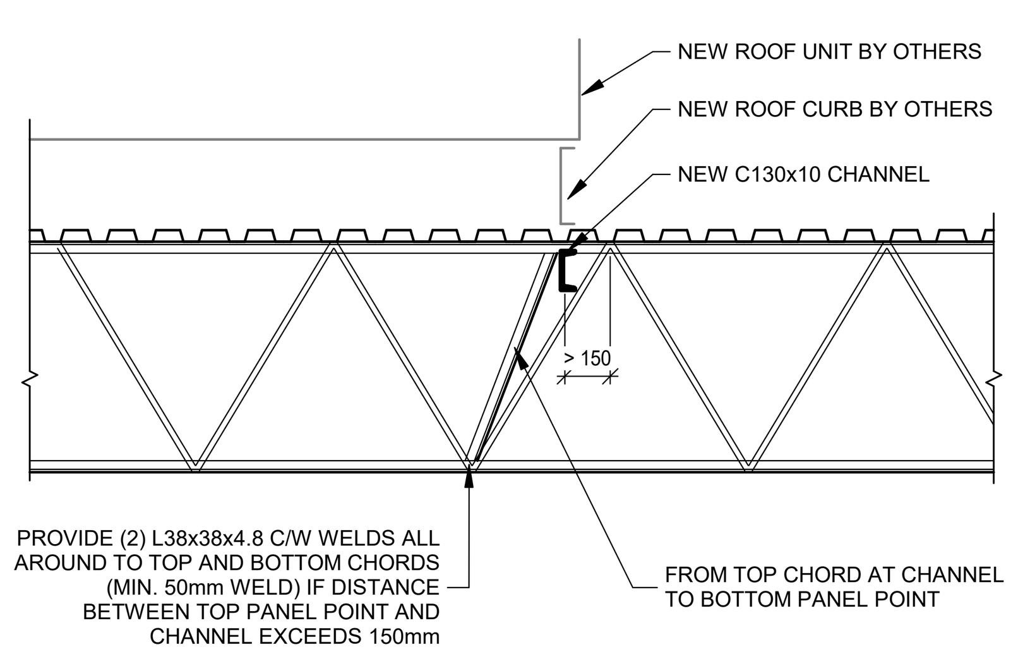
J1 REINFORCEMENT 1 : 25



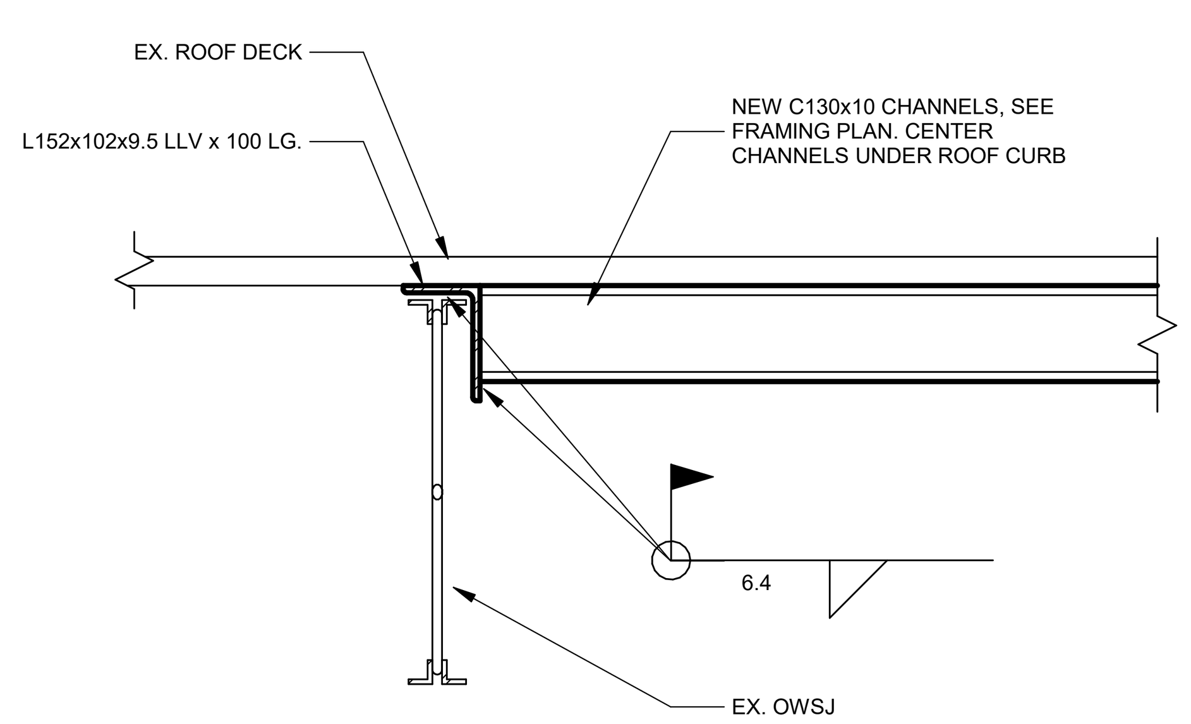
1 S1.3 **DETAIL** 1 : 10
JOIST REINFORCEMENT - TOP & BOT. CHORD



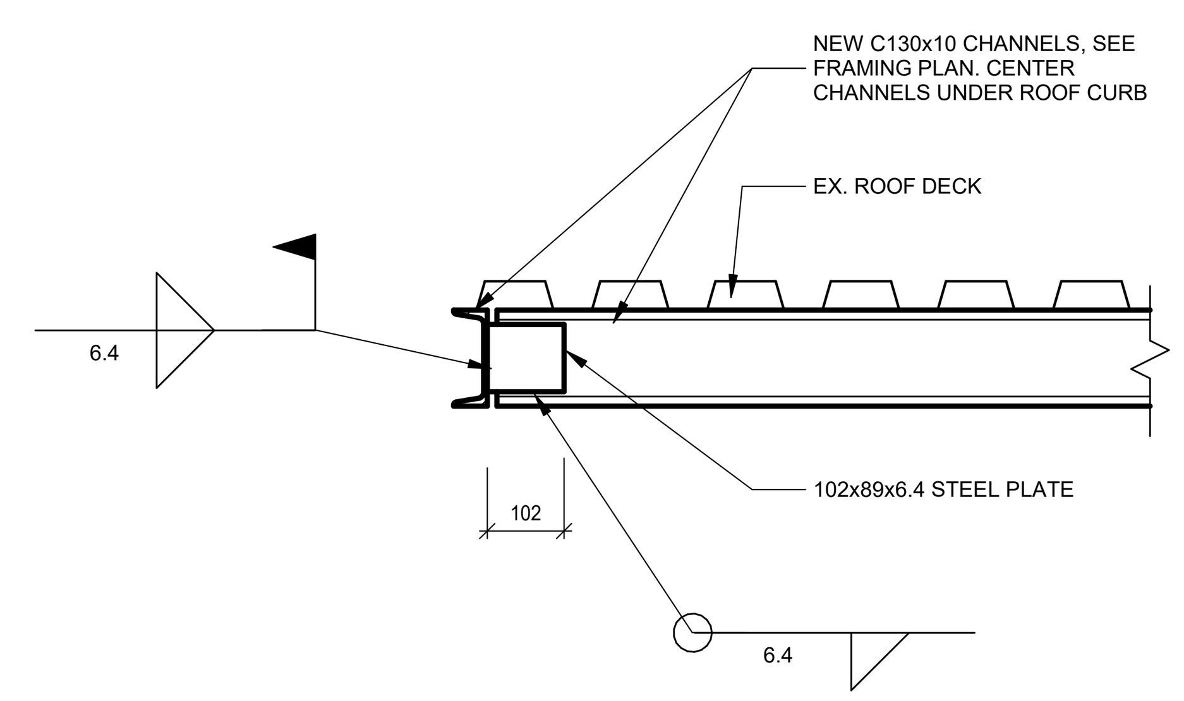
2 S1.3 **DETAIL** 1 : 10
JOIST REINFORCEMENT - WEB



A S1.3 **DETAIL (TYP.)** 1 : 25
PANEL POINT REINFORCEMENT
AT C-CHANNEL SUPPORTS



B S1.3 **DETAIL (TYP.)** 1 : 10
CHANNEL TO EX. OWSJ CONNECTION



C S1.3 **DETAIL (TYP.)** 1 : 10
CHANNEL TO CHANNEL CONNECTION

No.	REVISIONS	DATE
1	ISSUED FOR PERMIT / TENDER	2025.02.24
2	ISSUED FOR CONSTRUCTION	2025.05.16

LICENSED PROFESSIONAL ENGINEER
D. G. WATERS
100543905
May 16, 2025
PROVINCE OF ONTARIO

CHRONOLOGY	DATE

WitzelDyce ENGINEERING INC.
826 King Street North, Unit 20
Waterloo, Ontario, N2J 4G8
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aba architects inc.

CLIENT
WATERLOO REGION DISTRICT SCHOOL BOARD

PROJECT NAME
GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS
55 MCKAY STREET, CAMBRIDGE, ON N1R 4G8

DRAWING TITLE
EX. OWSJ REINFORCEMENT

SCALE: As indicated
SHEET SIZE: 24X36
PROJECT NUMBER: 14939-201
DRAWING NUMBER: S1.3

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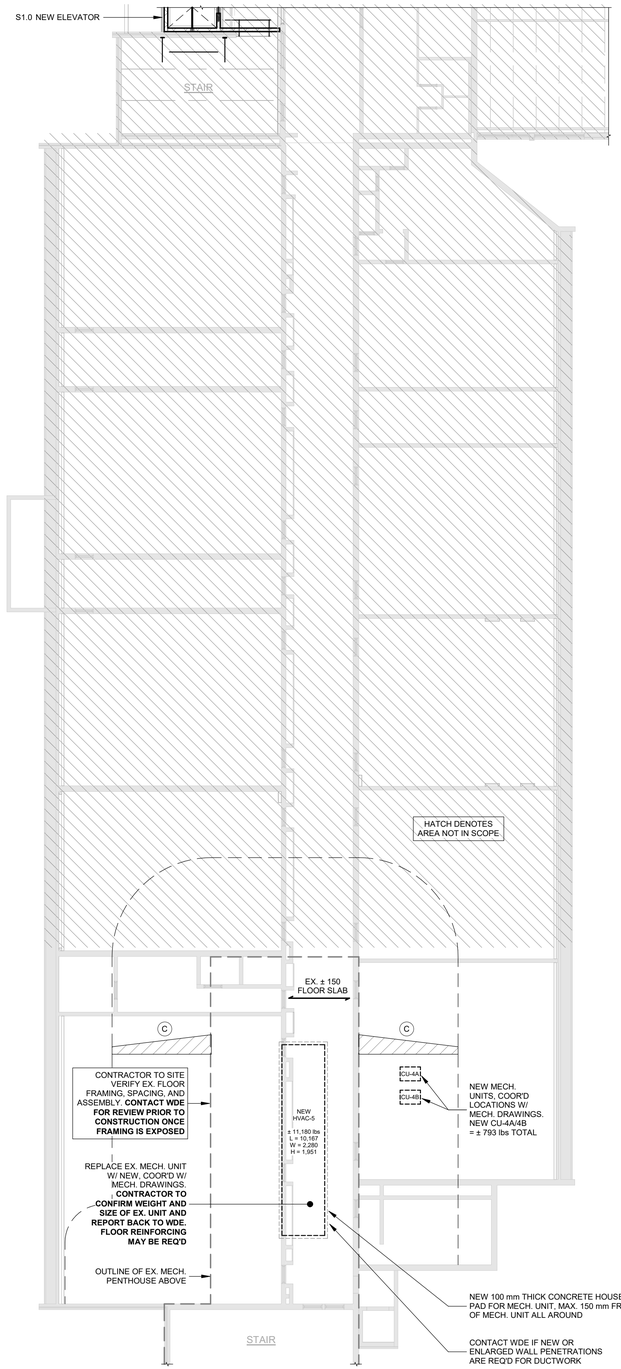
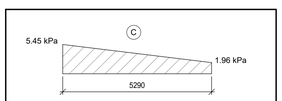


1 S2.0 **PARTIAL FRAMING PLAN** 1 : 150
ROOF / MECH. PENTHOUSE FRAMING PLAN - BLOCK 'B'

EX. MECH. ROOM DESIGN LOADS	
LIVE LOAD	= 7.2 kPa
DEAD LOAD	= 3.6 kPa
AT NEW HVAC-5:	
LIVE LOAD	= 2.2 kPa (HVAC)
DEAD LOAD	= 2.4 kPa (HOUSEKEEPING SLAB)
	+ 3.6 kPa (EX. SLAB SELF-WT.)
	= 6.0 kPa (TOTAL)

EX. ROOF DESIGN LOADS	
SNOW LOAD	= 1.96 kPa
DEAD LOAD	= 1.20 kPa

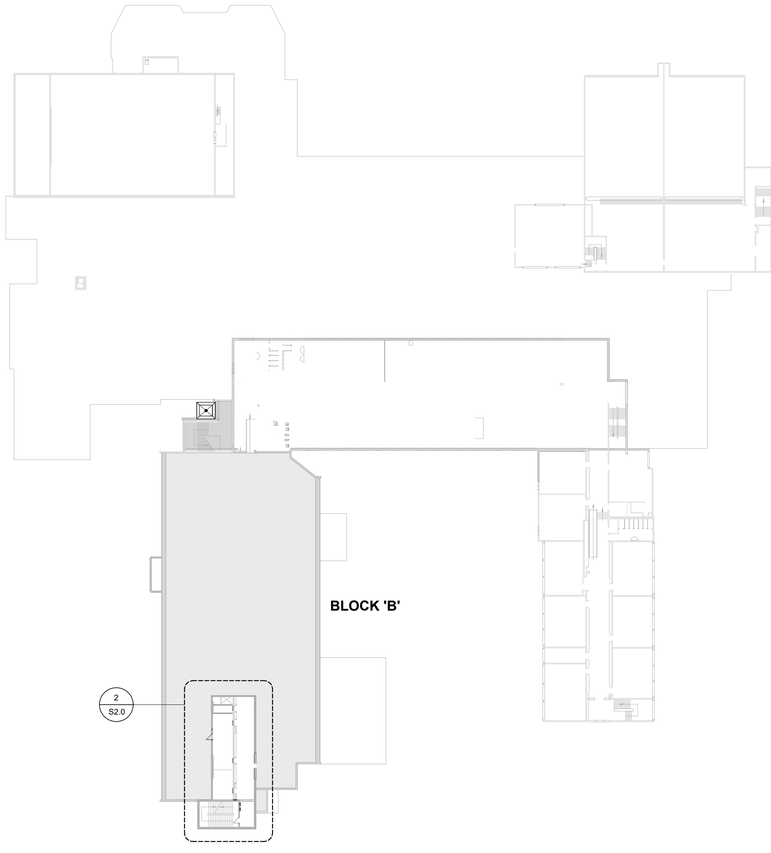


DRIFT LOAD C N.T.S.
EX. MECH. ROOM TO ROOF

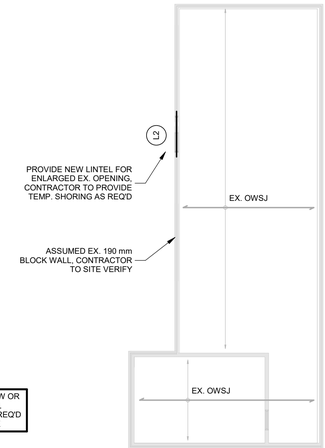
CONTRACTOR TO SITE VERIFY ALL EX. CONDITIONS

ASSUMED EX. CONDITIONS AS SHOWN, CONTRACTOR TO SITE VERIFY FRAMING / FOUNDATIONS AND REPORT BACK TO WDE IF SITE CONDITIONS VARY

CONTACT WDE IF NEW OR ENLARGED WALL PENETRATIONS ARE REQ'D FOR DUCTWORK



LEVEL 3 KEY PLAN 1 : 500



2 S2.0 **PARTIAL FRAMING PLAN** 1 : 150
MECH. PENTHOUSE ROOF FRAMING PLAN

EX. MECH. PENTHOUSE ROOF DESIGN LOADS	
SNOW LOAD	= 1.96 kPa
DEAD LOAD	= 1.20 kPa

LINTEL SCHEDULE		
LINTEL	SIZE	END BEARING
L1	(2) L89x89x7.9	200 EACH END
L2	(2) L127x89x7.9 LLV	200 EACH END
L3	(2) W200x27 + 9.5 PL.	BP AS PER PLAN

No.	REVISIONS	DATE
1	ISSUED FOR PERMIT / TENDER	2025.02.24
2	ISSUED FOR CONSTRUCTION	2025.05.16

LICENSED PROFESSIONAL ENGINEER
D. G. WATERS
100543905
May 16, 2025
PROVINCE OF ONTARIO

CHRONOLOGY	DATE

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CLIENT
WATERLOO REGION DISTRICT SCHOOL BOARD

PROJECT NAME
GLENVIEW PARK SECONDARY SCHOOL HVAC IMPROVEMENTS
55 MCKAY STREET, CAMBRIDGE, ON N1R 4G8

DRAWING TITLE
PARTIAL ROOF FRAMING PLAN - BLOCK 'B'

SCALE: As indicated
SHEET SIZE: 24X36
PROJECT NUMBER: 14939-201

DRAWING NUMBER: S2.0