OUR LADY OF LOURDES CES RENOVATION RFT 2026-09
55 ROSLIN AVE. S. WATERLOO, ONTARIO
WATERLOO CATHOLIC DISTRICT SCHOOL BOARD
ADDENDUM NO. 1
MARCH 31, 2026

The following additional instructions shall apply to and govern the tender documents.

AMENDMENT NO. 1.1 – Structural Drawings And Specifications

S1.1 Structural Notes
S2.1 Partial Foundation, 2nd Floor & Roof Framing Plans
S3.1 Structural Details
S3.2 Structural Details
S3.3 Structural Details

AMENDMENT NO. 1.2 – Revisions To Architectural Drawings

A2.3 Roof Plan
A4.1 Sections And Details
A4.2 Sections And Details

End of Addendum #1

GENERAL

1. DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL COMPLY WITH THE ONTARIO BUILDING CODE LATEST EDITION AND NATIONAL BUILDING CODE LATEST EDITION.
2. CONTRACTOR SHALL CHECK ALL DIMENSIONS ON WORKING DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ANY CHANGES, ALTERATIONS OR REVISIONS MUST BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. DRAWINGS SHALL NOT BE SCALED.
3. THESE DESIGN DOCUMENTS ARE PREPARED SOLELY FOR THE USE BY THE PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS ENTERED INTO A CONTRACT AND THERE ARE NO REPRESENTATIONS OF ANY KIND MADE BY THE DESIGN PROFESSIONAL TO ANY PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS NOT ENTERED INTO A CONTRACT.
4. UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS, NO PROVISION HAS BEEN MADE IN THE DESIGN FOR CONDITIONS OCCURRING DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING AND SHORING REQUIRED FOR THE STRESSES AND INSTABILITY OCCURRING FROM ANY CAUSE DURING CONSTRUCTION. THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR ALL SUCH MEASURES. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL NECESSARY BRACING, SHORING, SHEET, PILING OR STRUCTURES AFFECTED BY THIS WORK.
5. DESIGN LIVE LOADS SHALL NOT BE EXCEEDED DURING CONSTRUCTION.
6. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS - O.REG.213.
7. THESE DRAWINGS SHALL BE COORDINATED AND READ IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
8. WHERE THERE IS A CONFLICT IN THE SPECS AND/OR DRAWINGS THE MORE STRINGENT SHALL APPLY UNLESS APPROVED OTHERWISE IN WRITING BY THE ENGINEER.
9. ALL SPECIFICATIONS LISTED ARE TO LATEST EDITIONS IN FORCE AT TIME OF TENDERING.

FOUNDATIONS

1. GEOTECHNICAL INVESTIGATION REPORT: NOT AVAILABLE AT TIME OF DESIGN.
2. REMOVE ALL TOPSOIL, ORGANIC AND LOOSE FILL MATERIAL FROM BUILDING AREA BEFORE STARTING CONSTRUCTION.
3. PROOF ROLL EXISTING FILL MATERIAL. REMOVE ANY LOOSE OR SOFTENED AREAS BENEATH SLAB ON GRADE BEFORE PLACING GRANULAR FILL.
4. ALL STRIP AND SPREAD FOOTINGS SHALL BEAR ON NATIVE UNDISTURBED SOIL OR APPROVED ENGINEERED FILL WITH A MINIMUM SERVICEABILITY LIMIT STATE (SLS) BEARING CAPACITY AND A MINIMUM FACTORED ULTIMATE LIMIT STATE (ULS) BEARING CAPACITY SPECIFIED IN DWG. S2.1 . THIS IS TO BE CONFIRMED BY GEOTECHNICAL ENGINEER PRIOR TO POURING FOOTINGS.
5. APPROVED ENGINEERED FILL UNDER FOOTINGS AND FLOOR SLABS SHALL BE COMPACTED IN 150mm LAYERS TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY.
6. ALL EXTERIOR FOOTINGS SHALL BE MINIMUM 1200mm WITH NATURALLY INSULATED (I.E. SNOW COVER) AND 1400mm BELOW EXPOSED SURFACE (I.E. ADJACENT SIDEWALKS, ETC.) BELOW FINISHED EXTERIOR GRADE TO PROTECT THESE FOOTINGS FROM FROST ACTION. CONSULT GEOTECHNICAL ENGINEER FOR INSULATION REQUIREMENTS WHERE SOIL COVER CANNOT BE ATTAINED.
7. ANY NECESSARY PRECAUTIONS SHALL BE TAKEN TO ENSURE THAT EXISTING FOOTINGS ARE NOT DISTURBED OR UNDERMINED IN ANY WAY DURING EXCAVATION.
8. SOIL CONDITIONS, REINFORCING STEEL AND FORMWORK SHALL BE INSPECTED BY THE ENGINEER BEFORE POURING CONCRETE. CONTRACTOR SHALL GIVE ENGINEER A MINIMUM 24 HOURS NOTICE TO CARRY OUT INSPECTION.
9. THE LINE OF SLOPE BETWEEN ADJACENT FOOTING OR EXCAVATIONS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10 UNLESS APPROVED BY THE GEOTECHNICAL ENGINEER.
10. DO NOT BACKFILL AGAINST FOUNDATION WALLS UNTIL SUPPORTING SLABS HAVE BEEN POURED, UNLESS BRACING DETAILS ARE SUBMITTED. WHERE POSSIBLE BACKFILL BOTH SIDES OF WALLS SIMULTANEOUSLY.

CONCRETE

1. CONCRETE DESIGN AND CONSTRUCTION SHALL CONFORM TO CSA STANDARD A23.3:19.
2. CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO CSA STANDARD A23.1:19/A23.2:19.
3. FALSEWORK AND FORMWORK SHALL CONFORM TO CSA S269.1-16.
4. CONCRETE EXPOSED TO THE WEATHER SHALL HAVE 5%~8% AIR ENTRAINMENT.
5. REINFORCEMENT SHALL BE DEFORMED BARS AND CONFORM TO CAN/CSA G30.18, GRADE 400MPa.
6. REINFORCING STEEL SHALL BE DETAILED, BENT, PLACED AND SUPPORTED TO CONFORM TO ACI STANDARDS 315 AND THE MANUAL OF STANDARD PRACTICE PUBLISHED BY THE REINFORCING STEEL INSTITUTE OF ONTARIO.
7. WELDING OF REINFORCING STEEL SHALL NOT BE PERMITTED.
8. UNLESS NOTED OTHERWISE MINIMUM REINFORCING STEEL TENSION / COMPRESSION LAP LENGTHS TO BE:
   10M 450 mm (18") / 450 mm (18")
   15M 600 mm (24") / 450 mm (18")
   20M 800 mm (32") / 600 mm (24")
   25M 1200 mm (48") / 750 mm (30")
   30M 1400 mm (56") / 900 mm (36")
9. ALL REINFORCING STEEL FABRICATION AND PLACEMENT DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW BEFORE FABRICATION.
10. CONCRETE COVER FOR REINFORCEMENT SHALL CONFORM TO CSA STANDARD A23.3:19 TABLE 17 AS FOLLOWS UNLESS OTHERWISE NOTED.
   "C" CLASSES PERTAIN TO CHLORIDE EXPOSURE;
   "F" CLASSES PERTAIN TO FREEZING AND THAWING EXPOSURE WITHOUT CHLORIDE;
   "N" CLASS IS EXPOSED NEITHER CHLORIDES NOR FREEZING AND THAWING;

	EXPOSURE CLASS N	EXPOSURE CLASS F-1&F-2	EXPOSURE CLASS C-1&C-3
FOOTINGS (CAST AGAINST & PERMANENTLY EXPOSED TO EARTH)	75 mm	75 mm	75 mm
BEAMS, GIRDERS & COLUMNS	30 mm	40 mm	60 mm
SLABS	20 mm	40 mm	60 mm
WALLS	30 mm	40 mm	60 mm
RATIO OF COVER TO NOMINAL BAR DIAMETER	1.0	1.5	2.0
RATIO OF COVER TO MAXIMUM AGGREGATE SIZE	1.0	1.5	2.0

11. CONCRETE:
   a. ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 25MPa MINIMUM AND CLASS OF EXPOSURE IS CLASS N UNLESS OTHERWISE SPECIFIED. DESIGN MIX SHALL BE SUBMITTED FOR PROJECT ENGINEER'S REVIEW PRIOR TO USE AT JOB SITE.
   b. CONCRETE FOR EXTERIOR SLABS ON GRADE, GARAGE FLOORS, PORCHES, STEPS, PAVEMENTS, SIDEWALKS, CURBS AND GUTTERS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 32MPa C/W 5~8% AIR ENTRAINMENT AND CLASS OF EXPOSURE IS CLASS C-2, MAXIMUM WATER-TO-CEMENTING MATERIALS RATIO IS 0.45.
   c. CONCRETE FOR INTERIOR SLABS ON GRADE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 25MPa AND CLASS OF EXPOSURE IS CLASS N, MAXIMUM WATER-TO-CEMENTING MATERIALS RATIO IS 0.50. IF SUPERPLASTICIZER ("SUPER P") IS USED SLUMP BEFORE ADDING "SUPER P" IS 50mm~100mm, AFTER "SUPER P" IS 125mm~175mm. "SUPER P" TO BE INCLUDED IN CONTRACT PRICE.
   d. CONCRETE FOR EXTERIOR WALLS & COLUMNS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 25MPa C/W 4~7% AIR ENTRAINMENT AND CLASS OF EXPOSURE IS CLASS F-2, MAXIMUM WATER-TO-CEMENTING MATERIALS RATIO IS 0.55.
   e. CONCRETE FOR FOOTINGS, INTERIOR WALLS & COLUMNS SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 25MPa AND CLASS OF EXPOSURE IS CLASS N.
   f. STRUCTURALLY REINFORCED CONCRETE EXPOSED TO CHLORIDES WITH OR WITHOUT FREEZING AND THAWING CONDITIONS SHALL HAVE A 56 DAY COMPRESSIVE STRENGTH OF 35MPa C/W 5~8% AIR ENTRAINMENT AND CLASS OF EXPOSURE IS CLASS C-1, MAXIMUM WATER-TO-CEMENTING MATERIALS RATIO IS 0.40. FOR EXAMPLE PARKING DECKS AND RAMPS.
12. SLUMP OF CONCRETE TO BE 50mm~100mm OR AS OTHERWISE SPECIFIED. CONCRETE (WITHOUT SUPERPLASTICIZER "SUPER P") WITH 110mm SLUMP OR MORE IS TO BE REJECTED.
13. UNLESS NOTED OTHERWISE SPACING OF CONTROL JOINTS IN CONCRETE SLABS SHALL NOT EXCEED **3.6m (12'-0")** O.C.
14. ALL CONCRETE FORMS TO BE WET THOROUGHLY BEFORE POURING CONCRETE.
15. DO NOT ADD WATER TO CONCRETE ON SITE UNLESS WRITTEN APPROVAL GIVEN BY THE ENGINEER. IF HIGHER SLUMP CONCRETE IS DESIRED, CONCRETE SUPPLIER SHALL DESIGN AND SUPPLY ACCORDINGLY.
16. SLOPE ALL FLOORS AS SHOWN ON ARCHITECTURAL OR MECHANICAL DRAWINGS.
17. CONSTRUCTION JOINTS FOR FOUNDATION WALLS ARE BASED ON VERTICAL JOINTS AT A MAXIMUM SPACING OF 10m (32'-10"). CONSTRUCTION JOINTS IN FOUNDATION WALLS SHALL MATCH CONTROL JOINTS IN SLABS WHERE FOUNDATION WALLS ARE NOT SEPARATED FROM SLABS. CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE ENGINEER BEFORE CONSTRUCTION. GENERALLY, JOINTS IN SLABS SHALL BE AT RIGHT ANGLES TO THE SPANS, AT MID-SPAN IF POSSIBLE AND BE CLEAR OF SUPPORTS AND POINT LOADS.
18. INSTALL STANDARD ADJUSTABLE INSERT AND ALL OTHER CAST-IN INSERT AS REQUIRED BY THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.
19. PROVIDE SLEEVES IN WALLS FOR MECHANICAL PIPING.
20. INSERTS, FRAME-OUTS, SLEEVES, BRACKETS, CONDUITS AND FASTENING DEVICES, SHALL BE INSTALLED AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS IN A MANNER THAT SHALL NOT IMPAIR THE STRUCTURAL STRENGTH OF THE SYSTEM, BE SO INSTALLED THEY SHALL NOT REQUIRE THE CUTTING, BENDING OR DISPLACEMENT OF THE REINFORCING OTHER THAN AS SHOWN ON THE TYPICAL DETAILS.
21. ELECTRICAL CONDUIT SHALL NOT PASS THROUGH A COLUMN, SHALL NOT BE LARGER THAN ONE-THIRD THE SLAB THICKNESS OR GRADE BEAM IN WHICH IT IS EMBEDDED, SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER UNLESS APPROVED AND HAVE A MINIMUM CONCRETE COVER OF 25mm (1") AND UNLESS SPECIFICALLY PERMITTED OTHERWISE, SHALL NOT RUN HORIZONTALLY IN A FOUNDATION WALL.
22. PROVIDE OPENINGS OR DEPRESSIONS IN SLABS AS REQUIRED BY OTHER TRADES.
23. OPENINGS AND DRIVEN FASTENERS REQUIRED IN THE CONCRETE AFTER THE CONCRETE IS PLACED IT SHALL BE APPROVED BY THE ENGINEER BEFORE PROCEEDING.
24. WATER CURING OF CONCRETE SLAB ON GRADE IS REQUIRED, MINIMUM 7 DAYS.
25. NON-SHRINK GROUT SHALL BE AN APPROVED PREMIXED PROPRIETARY PRODUCT.
26. DRY-PACKED GROUT SHALL BE 1 PART PORTLAND CEMENT TO 1.5 PARTS OF SAND TO 2 PARTS OF 9mm PEA GRAVEL WITH ONLY SUFFICIENT WATER TO DAMPEN THE MIXTURE. COMPRESSIVE STRENGTH SHALL BE 50MPa AT 28 DAYS.
27. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIRED FINISH TO EXPOSED CONCRETE. FLOOR FINISHES SHALL CONFORM TO CSA STANDARD A23.1:19 CLASS A FINISH UNLESS NOTED.
28. ALL HONEYCOMBING SHALL BE CUT OUT AND FILLED TO THE SATISFACTION OF THE ENGINEER.
29. APPLY A HARDENER AS SPECIFIED TO ALL CONCRETE FLOOR SLABS THAT ARE TO REMAIN EXPOSED AS NOTED. APPLY CURING/SEALING COMPOUND, CONFORMING TO ASTM C309, AS SPECIFIED TO ALL FLOOR SLABS UNLESS A TOPPING IS TO BE APPLIED.

JOINTS

CONSTRUCTION JOINT

1. SUBMIT PROPOSED JOINT LOCATION TO THE ENGINEER FOR APPROVAL UNLESS SHOWN ON DRAWINGS.
2. DO NOT PLACE SLABS OR WALLS IN ONE CONTINUOUS POUR IN LENGTHS EXCEEDING 30.0m (100'-0").
3. LOCATE SLAB CONSTRUCTIONS JOINTS AT HIGH POINTS.
4. UNLESS NOTED, ALL WALLS AND COLUMNS SHALL BE POURED IN ONE LIFT (FLOOR TO FLOOR). FOR WALLS AND COLUMNS OVER 3.7m, SUBMIT SHOP DRAWINGS FOR FORMWORK AND PLACING.

CONTROL JOINT

IN CONCRETE WALLS:
CONTROL JOINTS IN PERIMETER FOUNDATION WALLS BELOW GRADE SHALL BE @ 9.0m (30'-0") MAXIMUM UNLESS SHOWN OTHERWISE ON ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.

IN CONCRETE SLABS:
REFER TO SLAB NOTES AND DETAILS FOR SAWCUTS. WHERE NOT SHOWN, CONTROL JOINTS (SAWCUTS) IN CONCRETE SLABS SHALL NOT EXCEED 3.6m (12'-0") O.C.

EXPANSION JOINT

FILL JOINTS IN SLABS WITH SPECIFIED BACKING AND JOINT FILLER AS SOON AS POSSIBLE OR PROTECT JOINTS FROM DAMAGE AT SLAB EDGES DURING CONSTRUCTION.

SLAB ON GRADE (INTERIOR)

1. SLAB ON GRADE TO BE PLACED ON COMPACTED GRANULAR MATERIAL. COMPACTION TESTS ON FILL MATERIAL TO BE CARRIED OUT PRIOR TO SLAB ON GRADE PLACEMENT.
2. REINFORCEMENT TO SLAB ON GRADE MUST BE SUPPORTED BY CHAIRS AT MID-DEPTH UNLESS OTHERWISE LEVEL INDICATED ON DRAWINGS.
3. PROVIDE SAWCUTS WITHIN 24 HOURS OF FINISHING AT LOCATIONS SHOWN ON DRAWINGS. SAWCUT DEPTH TO BE 1/4 OF SLAB THICKNESS. SAWCUT AS CLOSE TO COLUMNS OR WALLS AS PRACTICAL. FILL SAWCUTS WITH NON-METALLIC CONTROL JOINT FILLER (RIGID JOINT SEALANTS SIKA LOADFLEX OR SEMI-RIGID EPOXY JOINT FILLER REZI-WELD FLEX BY W. R. MEADOWS OR ALTERNATE MATERIALS APPROVED EQUAL).
4. PROVIDE 10mm ASPHALT IMPREGNATED FIBRE BOARD/POLYPROPYLENE FOAM EXPANSION JOINT FILLER AND CAULKING AROUND ALL COLUMNS AND ALONG ALL WALLS.
5. MAINTAIN MINIMUM SPECIFIED THICKNESS AT ALL DEPRESSION AND CHANGES IN ELEVATIONS.
6. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT AND LOCATIONS OF ALL FINISHES AND DEPRESSIONS.
7. PROVIDE COLD WEATHER PROTECTION TO PREVENT SLAB ON GRADE FROM HEAVING AND FROZEN.

GENERAL SLAB NOTES

1. ENSURE MINIMUM 1-15M TOP AND 1-15M BOTTOM CONTINUOUS AT ALL SLAB EDGES BY ADJUSTING BAR LENGTH OR PROVIDING ADDITIONAL TOP & BOTTOM EDGE BARS AS REQUIRED.
2. LAP TEMPERATURE REINFORCEMENT (CLASS 'B' LAP) BUT NOT LESS THAN 300 mm. STAGGER LAPS OR LAP AT SUPPORTS.

REINFORCING STEEL

1. REINFORCEMENT STEEL DETAILING TO BE IN ACCORDING WITH REINFORCING STEEL INSTITUTE OF ONTARIO (RSIO) MANUAL OF STANDARD PRACTICE AND WITH THE LATEST EDITION OF CSA CAN3-A23.1:19 AND CAN3 WITH THE FOLLOWING REQUIREMENTS FOR SPLICING NOTED:

SPLICES: ALL REINFORCING STEEL LAP SPLICES SHALL CONFORM TO LATEST CSA A23.3:19.

COLUMNS: COMPRESSION SPLICES UNLESS NOTED OTHERWISE.
WALLS & ALL OTHERS: CLASS 'B' TENSION SPLICES UNLESS NOTED OTHERWISE.
INCREASE HORIZONTAL SPLICE LENGTHS BY 1.3 TIMES WHERE MORE THAN 300mm OF FRESH CONCRETE IS CAST BELOW SPLICE.

REINFORCING CHAIRS

1. PROVIDE CHAIRS, SPACER BARS, SUPPORT BARS AND OTHER ACCESSORIES TO SUPPORT REINFORCING IN ACCORDANCE WITH THE LATEST EDITIONS OF CSA A23.1:19 AND A23.3:19. CHAIRS TO BE PLASTIC, PLASTIC TIPPED OR CONCRETE. ALL TIE WIRE, CHAIRS AND BAR SUPPORTS USED FOR COATED REINFORCING SHALL BE NON-METALLIC OR PROTECTED WITH AN ACCEPTABLE COATING.
2. CHAIRS SHALL BE SPACED AT 1200mm O.C. MAXIMUM. PROVIDE CONTINUOUS CHAIRS WHERE POSSIBLE.

OPENING AND SLEEVES

1. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND TO SHOP DRAWINGS OF ALL TRADES FOR EXACT LOCATION AND EXTENT OF OPENINGS AND SLEEVES REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS.
2. OBTAIN THE APPROVAL OF THE STRUCTURAL ENGINEER FOR OPENINGS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS. DO NOT CORE DRILL, SAWCUT OR OTHERWISE PRODUCE OPENINGS OF ANY SIZE, IN ANY STRUCTURAL MEMBER WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
3. ALL REQUIRED OPENINGS SHALL BE SLEEVED OR FORMED PRIOR TO PLACING CONCRETE. CORING OR SAW CUTTING FOR OPENINGS AFTER CASTING SHALL NOT BE PERMITTED AS AN ALTERNATE METHOD OF PROVIDING OPENINGS. ALL DRAINS SHALL BE SET PRIOR TO CONCRETE PLACING.
4. CAST IN SLEEVES SHALL GENERALLY NOT BE PERMITTED WITHIN 600mm OF A COLUMN FACE UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. CORED OPENINGS SHALL GENERALLY NOT BE PERMITTED WITHIN 10 TIMES THE SLAB (PLUS DROP PANEL) THICKNESS FROM THE FACE OF THE COLUMNS OR WALLS, UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER, AND WILL REQUIRE VERIFICATION OF THE REINFORCING BAR LOCATION PRIOR TO CORING.
5. ADDITIONAL REINFORCING AT OPENINGS IN FOUNDATION WALLS: FOR OPENING WIDTH 400~600 REINFORCE OPENING WITH ADDITIONAL 3-15M AT TOP AND BOTTOM, EXTEND 600 BEYOND EACH SIDE OF OPENING, FOR OPENING WIDTH 600~800 REINFORCE OPENING WITH ADDITIONAL 3-20M AT TOP AND BOTTOM, EXTEND 800 BEYOND EACH SIDE OF OPENING, FOR OPENING WIDTH 800~1000 REINFORCE OPENING WITH ADDITIONAL 3-25M AT TOP AND BOTTOM, EXTEND 1200 BEYOND EACH SIDE OF OPENING, UNLESS NOTED ON THE PLAN, IN NO CASE SHOULD OPENING WIDTH EXCEED 1000. MINIMUM WALL HEIGHT ABOVE OPENING IS 600, MINIMUM WALL LENGTH BETWEEN ADJACENT OPENINGS IS 400.

MISCELLANEOUS CONCRETE

CONCRETE PADS

PROVIDE CAST IN PLACE EQUIPMENT BASES FOR MECHANICAL AND ELECTRICAL HARDWARE. CONTRACTOR TO COORDINATE EXTENT, LOCATION AND DIMENSION FROM MECHANICAL/ELECTRICAL SHOP DRAWINGS. SUBMIT LAYOUT DRAWING TO CONSULTANTS FOR REVIEW.

CONCRETE CURBS

PROVIDE CONCRETE CURBING AS SHOWN ON THE ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.

CHAMFERS AND REGLETS

PROVIDE CHAMFERS, REGLETS, REVETS, REVEALS, RECESSES AND THE LIKE AS SHOWN ON THE ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.

MASONRY

1. ALL MASONRY WALLS SHALL BE REINFORCED WITH DUR-O-WALL LADDER DESIGN (OR APPROVED EQUAL) HOT DIPPED GALVANIZED CONTINUOUS REINFORCEMENT AT EVERY SECOND COURSE 400mm. REINFORCEMENT SHALL BE INSTALLED IN THE FIRST AND SECOND BED JOINTS 200mm APART, IMMEDIATELY ABOVE LINTELS AND BELOW SILLS. REINFORCEMENT IN THE SECOND BED JOINT ABOVE LINTELS AND BELOW SILLS SHALL EXTEND 600mm BEYOND THE JAMB. ALL OTHER REINFORCEMENT SHALL BE CONTINUOUS AND SIDE RODS SHALL BE LAPPED AT LEAST 150mm AT SPLICES. REINFORCEMENT SHALL BE PLACED AS TO ASSUME 16mm MORTAR COVER ON THE EXTERIOR FACE OF WALL AND 12mm COVER ON THE INTERIOR FACE OF WALL. (SEE CONCRETE BLOCK WALL REINFORCING SCHEDULE).
2. TYPE S MORTAR SHALL BE USED THROUGHOUT FOR ALL LOAD BEARING WALLS.
   TYPE N MORTAR SHALL BE USED FOR NON-LOAD BEARING PARTITIONS AND BRICK OR BLOCK VENEER.
3. MORTAR COMPRESSIVE STRENGTHS: (JOB PREPARED MIX)

   TYPE S: MINIMUM 28 DAY STRENGTH = 8.5MPa, MAXIMUM 28 DAY STRENGTH = 12.5MPa
   TYPE N: MINIMUM 28 DAY STRENGTH = 3.5MPa, MAXIMUM 28 DAY STRENGTH = 7.5MPa
   MORTAR MIX PROPORTIONS:
   MIX ACCORDING TO CURRENT CSA STANDARD A179-14.
   MORTAR MIX SHALL BE TESTED FOR STRENGTH AND APPROVED BY THE ENGINEER PRIOR TO USE ON THE JOB.
   FOR EXTERIOR BRICK VENEER ONLY USE PORTLAND CEMENT LIME MORTAR TYPE N - 1 PART PORTLAND, PORTLAND-LIMESTONE, OR BLENDED CEMENT: 1 PART HYDRATED LIME OR LIME PUTTY: 6 PARTS SAND MEASURED IN DAMP, LOOSE STATE (1:1:6 BY VOLUME) IN ACCORDANCE WITH TABLE 3.
   FOR EXTERIOR BLOCK VENEER USE REGULAR TYPE N.
4. ALL MASONRY WALL TO BE CONSTRUCTED WITH FULL MORTAR JOINTS.
5. SPACING OF MASONRY CONTROL JOINTS IN ALL WALLS SHALL NOT EXCEED 6.0m (20'-0") O.C.
6. MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF LOAD BEARING CONCRETE BLOCK MASONRY UNITS SHALL BE: **20MPa** FOR HOLLOW UNITS, BASED ON NET AREA.
7. ALL MASONRY UNDER CONCENTRATED LOADS SHALL HAVE VOIDS FILLED WITH 20MPa GROUT FOR WIDTH AND DEPTH EQUAL TO 3 TIMES THE LENGTH OF BEARING, MINIMUM 600mm WIDE x 400mm DEEP.
8. FOR MASONRY OPENINGS NOT SHOWN ON DRAWINGS PROVIDE 1L-89x89x6.4 FOR EACH 100mm THICKNESS OF WALL OPENINGS UP TO 600mm AND 1L-89x89x9.5 FOR OPENINGS UP TO 1200mm, IF OPENING IS WIDER THAN 1200mm NOTIFY ENGINEER FOR LINTEL SIZE VERIFICATION PRIOR TO FABRICATION AND INSTALLATION.
9. ALL MASONRY WALL SHALL BE PROPERLY SHORED DURING CONSTRUCTION UNTIL STRUCTURAL STEEL AND SLABS ARE IN PLACE.
10. PROVIDE BEARING PLATES FOR JOISTS SUPPORTED BY MASONRY WALLS. ALL BEARING PLATES SHALL BE DESIGNED ACCORDING TO THE REQUIREMENTS OF CSA S16.1. THEY SHALL BE ANCHORED WITH MINIMUM 1-20mm DIAMETER x450mm HOOKED RODS WELDED TO PLATES AND EMBEDDED INTO GROUT FILL WITH A MINIMUM STRENGTH OF 20MPa. ALLOWABLE BEARING STRESS ON MASONRY FOR DESIGN OF BEARING PLATES SHALL NOT EXCEED 175PSI (1.2MPa).
11. TESTING: MORTAR AND GROUT SHALL BE TESTED IN ACCORDANCE WITH CSA STANDARD A179-14.
    CONCRETE MASONRY UNITS SHALL BE TESTED IN ACCORDANCE WITH CSA STANDARD A165 SERIES-14.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO CSA G40.21 WITH ONE SHOP COAT AND FIELD TOUCH-UP OF ZINC CHROMATE PRIMER, CONFORMING TO CISC/CPMA STANDARD 1-73A ONE-COAT PAINT AND CISC/CPMA STANDARD 2-75 PRIMER. AND IT SHALL BE PAINTED TO OWNERS SPECIFICATION.
   ALL W-SHAPES & S-SHAPES SECTIONS SHALL CONFORM TO ASTM A992, ASTM A572 GRADE 50 Fy=345MPa,
   ALL C-SHAPES SECTIONS & ANGLES SHALL CONFORM TO G40.21-350W Fy=350MPa,
   ALL HSS HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO G40.21-350W CLASS C Fy=350MPa,
   ALL OTHERS (PLATES, RODS) SHALL CONFORM TO G40.21-300W Fy=300MPa.
2. FABRICATION AND ERECTION SHALL CONFORM TO LATEST EDITION OF CSA STANDARD S16:19. NO SPLICING WILL BE PERMITTED UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS.
3. DESIGN AND INSTALLATION OF ALL BRIDGING SHALL BE IN ACCORDANCE WITH LATEST EDITION OF CSA STANDARD S16:19. COMBINED DIAGONAL AND HORIZONTAL BRIDGING SHALL BE PROVIDED AT THE ENDS OF BRIDGING LINES AS REQUIRED. ENDS OF BRIDGING LINES SHALL BE ANCHORED TO STEEL, MASONRY OR OTHERWISE SHOWN.
4. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE ANY CONSTRUCTION LOADS ARE PLACED ON JOISTS.
5. ALL FIELD BOLTS SHALL BE ASTM A325 HIGH STRENGTH BOLTS IN BEARING TYPE CONNECTIONS.
6. ALL BEAM-TO-BEAM CONNECTIONS AND BEAM-TO-COLUMN CONNECTIONS SHALL HAVE DOUBLE ANGLE CONNECTIONS UNLESS NOTED OTHERWISE AND BE IN ACCORDANCE TO CSA STANDARD CONNECTIONS.
7. WELD ALL BEAMS/JOISTS TO BEARING PLATES OR SUPPORTING MEMBERS WITH MINIMUM 50mm x5mm FILLET WELDS ON BOTH SIDES OF MEMBER, UNLESS NOTED OTHERWISE.
8. WELDING OF STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF LATEST EDITION OF CSA STANDARD W59-18 AND SHALL BE UNDERTAKEN BY A FABRICATOR AND ERECTOR FULLY APPROVED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF LATEST EDITION OF CSA STANDARD W47.1:19, DIVISION 1 OR DIVISION 2.1.
9. ALL ROOF OPENINGS TO BE REINFORCED BY CONTINUOUS C150x12 (OR C130x10 FOR OPENINGS UP TO 1200mm) CHANNEL FRAMES AT PERIMETER OF OPENINGS UNLESS NOTED OTHERWISE. ALL EXHAUST FAN ROOF OPENINGS GREATER THAN 300x300 TO BE REINFORCED AS NOTED ABOVE BY STEEL CONTRACTOR, LESS THAN 300x300 TO BE REINFORCED BY DECK CONTRACTOR, SEE MECHANICAL DRAWINGS FOR ALL EXHAUST FAN LOCATIONS.
10. SUBMIT SHOP DRAWINGS, INCLUDING CONNECTIONS DETAILS AND LOCATIONS OF ALL SPLICES FOR REVIEW BEFORE PROCEEDING WITH FABRICATION. ALL SHOP DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEERING LICENSED IN THE PROVINCE OF ONTARIO.
11. ALL CONNECTIONS SHALL BE DESIGNED FOR MIN. 50% OF THE FULL SHEAR CAPACITY OF THE MEMBER UNLESS MEMBER CONNECTION LOADS ARE SHOWN ON THE DRAWINGS.
12. STEEL BEAMS AND LINTELS SHALL HAVE 200mm MINIMUM END BEARING ON MASONRY AND 65mm MINIMUM BEARING ON STEEL UNLESS INDICATED OTHERWISE.
13. ALL BEAMS CANTILEVERED OR CONTINUOUS OVER A COLUMN OR OTHER SUPPORT SHALL HAVE A MINIMUM OF 2-10mm STIFFENERS EACH SIDE FULL HEIGHT & FULL WIDTH UNLESS OTHERWISE NOTED.
14. UNDERSIDE OF COLUMN BASE PLATES AND BEAM BEARING PLATES SHALL BE GROUTED WITH 40mm NON-SHRINK GROUT.
15. ALL COLUMNS BUILT INTO MASONRY WALLS SHALL HAVE ADJUSTABLE ANCHORS @ 400mm O.C.
16. TOP OF COLUMNS WHICH ARE NOT BRACED BY JOISTS SHALL BE BRACED DIAGONALLY TO THE ROOF OR FLOOR BY A MINIMUM OF 4-76x76x6.4 ANGLES. BRACING SHALL BE BETWEEN TOP OF COLUMN AND TOP CHORD OF JOISTS OR TOP FLANGE OF BEAM.
17. WHERE STRUCTURAL STEEL MEMBERS ARE CALLED FOR ON ARCHITECTURAL DRAWINGS BUT NOT ON STRUCTURAL DRAWINGS USE 6.4mm THICKNESS MIN. FOR ANGLES AND PLATES AND MIN. BEAM WEIGHT FOR TENDERING PURPOSES.
18. U.N.O. ROOF DECK SHALL BE 38x1.22, 18 GAUGE, GRADE 275 (Fy=275MPa) CANAM GROUP INC. P-3615 OR APPROVED EQUAL. WELD DECK TO SUPPORTING STEEL WITH 19mm DIAMETER PUDDLE WELDS @300mm O.C. MAXIMUM. MARGINAL (PERIMETER) WELDS @150mm O.C. MAXIMUM. BUTTON PUNCH SIDE LAPS @600mm O.C. ROOF DECK IS DESIGNED AS A DIAPHRAGM.

INSPECTIONS AND TESTING

THE FOLLOWING ITEMS SHALL BE INSPECTED OR TESTED BY INDEPENDENT INSPECTION/TESTING AGENCIES DESIGNATED BY THE CLIENT. MATERIALS AND WORKMANSHIP NOT CONFORMING TO THE SPECIFICATIONS SHALL BE REJECTED BY THE CONTRACTOR. REPORTS AND TEST RESULTS SHALL BE PROMPTLY SUBMITTED TO THE ENGINEER FOR REVIEW. TESTING SHALL INCLUDE BUT NOT BE LIMITED TO:

SOILS

ALL TESTING AND INSPECTION (COMPACTION, BEARING CAPACITY ETC.) AS PER THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER.

CONCRETE

CONCRETE AND GROUT TESTING IN ACCORDANCE WITH CSA A23.2 LATEST EDITION AND THE SPECIFICATIONS, INCLUDING THE REQUIREMENTS OF SLUMP, AIR AND AGE PRIOR TO BEING USED. CONTRACTOR TO KEEP RECORDS OF POUR DATES, TESTING PERFORMED, CLASS OF CONCRETE USED AND TEST RESULTS FOR ALL ITEMS POURED.

TESTING TO DETERMINE THE IN-SITU STRENGTH OF CONCRETE FOR EARLY FORM REMOVAL PURPOSE WITH THE TYPE OF TEST BEING DETERMINED ON THE ADVICE OF THE TESTING AGENCY. REPAIRS NECESSARY TO THE STRUCTURE AS A RESULT OF THESE TESTS SHALL BE MADE BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.

APPROVAL OF CONCRETE

TESTING AS REQUIRED AND SPECIFIED BY THE ENGINEER TO DETERMINE THE IN-SITU STRENGTH OF CONCRETE WHICH FAILS TO MEET THE SPECIFIED REQUIREMENTS OR WHICH, DUE TO APPEARANCE, DAMAGE OR DEFECTS MAY BE DEEMED REJECTABLE. CORES SHALL BE ACQUIRED AND TESTED BY THE DESIGNATED TESTING AGENCY BUT ANY REPAIRS NECESSARY TO THE STRUCTURE AS A RESULT OF THESE TESTS SHALL BE PERFORMED AT NO COST TO THE OWNER.

STRUCTURAL STEEL

VISUAL INSPECTION OF ALL WELDS, TESTING OF BOLTED CONNECTIONS AND CHECK ON BEARING, PLUMBNESS AND ALIGNMENT OF STEEL STRUCTURES. INSPECTIONS SHALL CONFORM TO CSA STANDARD S16:19.

NON-DESTRUCTIVE TESTING TO VERIFY THE QUALITY OF WELDING, WHERE DEEMED QUESTIONABLE BY VISIBLE DEFECTS OR WHERE REQUIRED BY THE ENGINEER.

REINFORCING STEEL

CONTRACTOR SHALL ADVISE THE ENGINEER OF REQUIRED REINFORCING STEEL INSPECTIONS AT LEAST 24 HOURS PRIOR TO CLOSING OF COLUMN OR WALL FORMS AND 24 HOURS PRIOR TO PLACING OF CONCRETE IN SLABS, FOOTING, ETC.

SHOP DRAWINGS AND SUBMITTALS

GENERAL

1. SHOP DRAWINGS SHALL BE SUBMITTED. THE ERECTION DRAWINGS SHALL BE DRAWN USING THE MINIMUM SCALE THAT WAS USED FOR THE TENDER DRAWINGS. DETAILS MUST BE OF A SCALE THAT IS LEGIBLE.
2. PRIOR TO SUBMITTING TO CONSULTANTS, CONTRACTOR'S REVIEW STAMP TO BE ON ALL SHOP DRAWINGS.
3. SHOP DRAWINGS TO BE SUBMITTED AT LEAST 10 WORKING DAYS PRIOR TO START OF WORK.
4. SEPIAS OR REPRODUCTION OF THE STRUCTURAL DRAWINGS SHALL NOT BE ACCEPTED AS SHOP DRAWINGS. PROFESSIONAL ENGINEER IN THE FOLLOWING PARAGRAPHS SHALL BE REGISTERED AND LICENSED TO PRACTICE IN THE PROVINCE OF ONTARIO.
5. REVIEW OF SHOP DRAWINGS APPLIES TO THE GENERAL ARRANGEMENT FOR THE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT AND COMPLIANCE WITH OBC REQUIREMENTS. THIS REVIEW DOES NOT IMPLY APPROVAL OF DETAIL DESIGN OR QUANTITIES IN SUBMITTED DRAWINGS, NOR DOES IT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR MAKING THE WORK COMPLETE, ACCURATE AND IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS AND COMPLIANCE WITH OBC REQUIREMENTS. ALLOW 10 WORKING DAYS FOR SHOP DRAWING REVIEW.
6. DO NOT FABRICATE MATERIALS BASED ON REJECTED OR DISAPPROVED SHOP DRAWINGS.
7. SHOP DRAWING SUBMITTALS SHALL ALSO INCLUDE CLADDING CONNECTION DETAILS, PRECAST AND STEEL STAIR DETAILS, EXTERIOR GRATING DETAILS AND SAFETY GUARDS, WHICH SHALL SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE CURRENT ONTARIO BUILDING CODE.

REINFORCED CONCRETE

1. SUBMIT FOR REVIEW REINFORCEMENT PLACING DRAWINGS AND BAR LISTS FOR EVERY PORTION OF THE STRUCTURE. SHOW WALLS IN FULL ELEVATION. SHOW TOP STEEL AND BOTTOM STEEL FOR SLABS ON SEPARATE PLANS WITH REINFORCING STEEL CALLED UP DIRECTLY ON PLAN.
2. PROVIDE DETAILS OF DESIGN AND CONSTRUCTION OF FORMS AND FALSEWORK, SHORING AND RE-SHORING AND ANY SPECIAL REQUIREMENTS FOR STRIPPING OF FORMWORK. ALL SUCH DESIGN SHEETS SHALL BE PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER.
3. SUBMIT FOR REVIEW ALL PROPOSED CONCRETE MIX DESIGNS. SUBMIT AT LEAST 10 WORKING DAYS PRIOR TO START OF WORK.
4. SUBMIT FOR REVIEW DRAWINGS OF ALL PROPOSED CONSTRUCTION JOINTS LOCATIONS, AND LAYOUT DRAWINGS OF CONCRETE ISOLATION AND HOUSEKEEPING PADS.
5. REGULARLY SUBMIT REPORTS OF ALL CONCRETE TESTING AS SOON AFTER TESTING IS PERFORMED AS POSSIBLE

STRUCTURAL STEEL AND STEEL DECK

1. SUBMIT WITH SHOP DRAWINGS: DECKING PLAN, PROFILE, DIMENSIONS, CORE THICKNESS, CONNECTIONS TO SUPPORTS, REQUIRED BEARINGS, CLOSURES AND ACCESSORIES.
2. SUBMIT FOR REVIEW 3 PRINTS AND 1 SEPIA OF ERECTION DRAWINGS FOR ALL STRUCTURAL STEEL ELEMENTS. ALL MOMENT CONNECTIONS AND STEEL DECK SHALL BE DESIGNED AND DRAWINGS SHALL BE STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER.
3. SHOP DRAWING SUBMITTALS SHALL INCLUDE STEEL BEAM, COLUMN CONNECTIONS, STEEL DECK.

CLADDING

SUBMIT FOR REVIEW THE PROPOSED INSERT LOADS TRANSMITTED BY PREFABRICATED EXTERIOR CLADDING SYSTEM TO THE STRUCTURE.

RECORD DRAWINGS

GENERAL CONTRACTOR SHALL MAINTAIN TWO SETS OF RECORD DRAWINGS WHICH SHOW AS-BUILT DETAILS OF ALL ASPECTS OF THE STRUCTURE, FOR REVIEW DURING CONSTRUCTION AND FOR SUBMISSION AT THE END OF THE PROJECT.

STEEL STUDS LIGHTWEIGHT, COLD-FORMED GALVANIZED STRUCTURAL STEEL STUDS

1. SHOP DRAWINGS FOR STRUCTURAL STEEL STUDS SHALL BE SUBMITTED TO PROJECT ENGINEER FOR REVIEW PRIOR TO FABRICATION IN ACCORDANCE WITH DETAILS PROVIDED ON ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS. DRAWINGS ARE TO INCLUDE JAMB (POST), LINTEL (HEADER & SILL), BRIDGING DETAILS, CONNECTIONS AND DEFLECTION HEADS. DRAWINGS ARE TO BE STAMPED BY AN ENGINEER REGISTERED IN PROVINCE OF ONTARIO.
2. MINIMUM DEPTH OF STUD IS AS DETAILED ON THE ARCHITECTURAL DRAWINGS.
3. MINIMUM THICKNESS OF LOAD BEARING STUD SHALL NOT BE LESS THAN 0.8788mm, 0.0346", 33mil 20GAUGE, 33ksi.
4. STEEL STUD DESIGN & CONSTRUCTION SHALL CONFORM TO CSA STANDARD S136-16 COLD FORMED STEEL STRUCTURAL MEMBERS.
5. ALL EXTERIOR STUD WALLS ARE LOAD BEARING STUD WALLS UNLESS NOTED OTHERWISE. MAXIMUM LATERAL DEFLECTION SHALL NOT EXCEED L/360 FOR EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) OR OTHER CLADDING SYSTEMS & L/420 FOR MASONRY VENEER EXCEPT AS NOTED ON DRAWINGS.

TEMPORARY SHORING & BRACING

GENERAL CONTRACTOR IS RESPONSIBLE TO PROVIDE PROPER TEMPORARY SHORING & BRACING FOR NEW OR EXISTING MASONRY WALLS AND ALL OTHER STRUCTURAL ELEMENTS IN ACCORDANCE WITH RECOGNIZED CONSTRUCTION PRACTICE.
1. BRACING IS REQUIRED UNTIL FLOOR SLAB AND/OR ROOF DECK ARE IN PLACE AND PROPERLY SECURED TO BEAMS AND/OR JOISTS.
2. SHORING IS REQUIRED UNTIL PROPOSED STRUCTURE IS PROPERLY IN PLACE.
3. SHORING & BRACING SHALL BE DESIGNED, REVIEWED AND APPROVED BY CONTRACTOR'S ENGINEER.
4. SHORING SHOP DRAWINGS SHALL BE SUBMITTED WITH ENGINEER'S STAMP FOR OUR REVIEW PRIOR TO CONSTRUCTION.

DIMENSIONS FOR EXISTING STRUCTURE

ALL DIMENSIONS FOR EXISTING STRUCTURAL ELEMENTS SHOWN ON DRAWINGS ARE APPROXIMATE ONLY, THESE DIMENSIONS SHALL BE SITE VERIFIED & ANY DISCREPANCIES SHALL BE REPORTED TO PROJECT ENGINEER BEFORE PROCEEDING WITH WORK.

REVISIONS

NO.	DATE	PARTICULAR
1	2026.03.31	ISSUED FOR ADDENDUM No.1

NOTES:

KEY PLAN:

CLIENT:
WATERLOO CATHOLIC DISTRICT SCHOOL BOARD

PROJECT:
RFT 2026-09 (+VG 22585)

OUR LADY OF LOURDES CES

55 ROSLIN AVENUE SOUTH,
WATERLOO, ON
N2L 6N5

ORIGINAL PAGE SIZE ARCH D - 24" x 36"
KEY TO DETAIL LOCATION:
A - DETAIL NO.
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STRUCTURES+VG
THE VENTIN GROUP LTD.

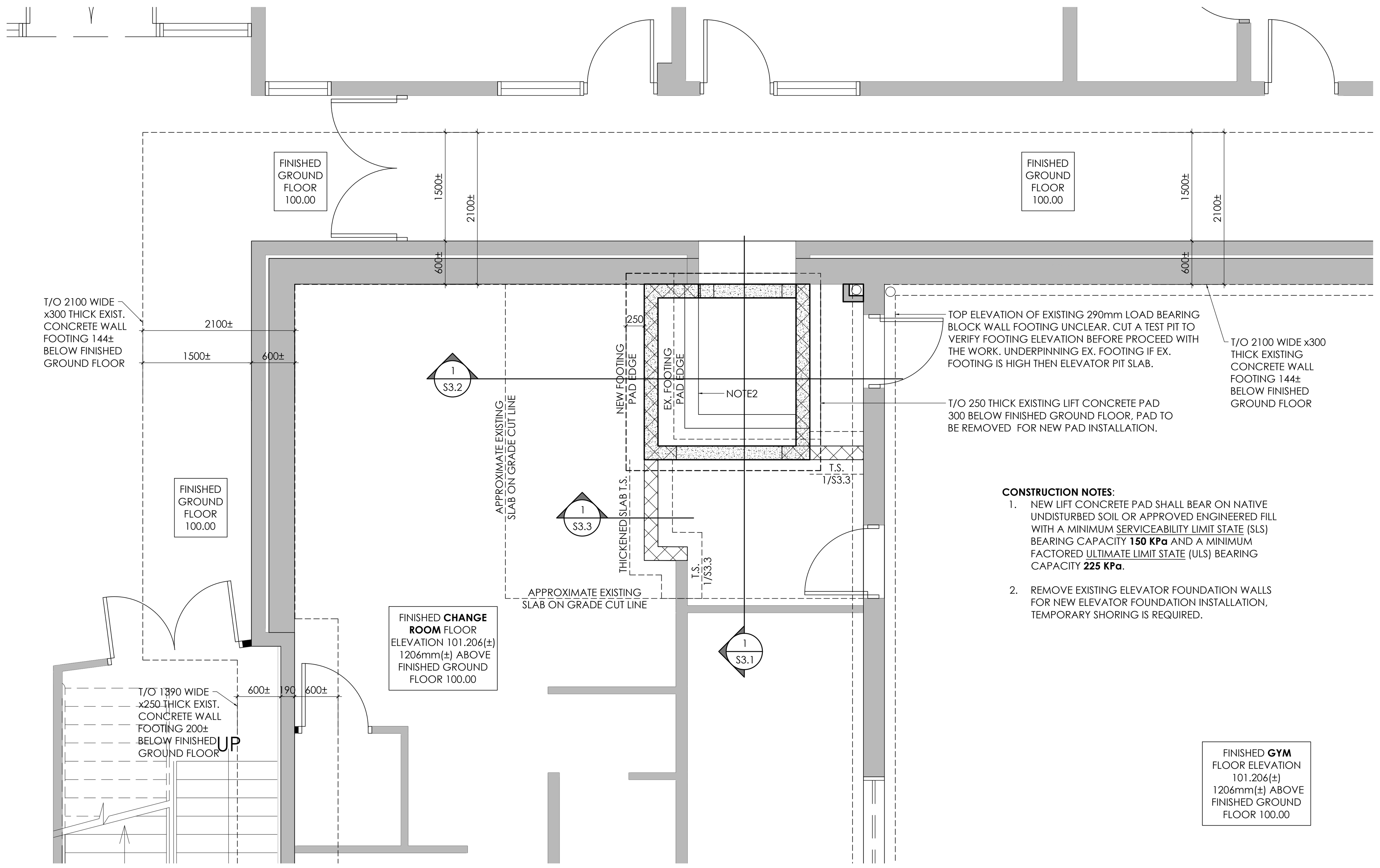
LICENSED PROFESSIONAL ENGINEER
Mar.31/26
M. W. LIN
100156441
M.Lin
PROVINCE OF ONTARIO

Filename: K:\TVG-Brantford\WCDSB Our Lady of Lourdes CES-22585\Drawings\Struct\Our Lady Struct.dwg
Plot Date: Mar 31, 2026 - 3:38pm By: mlin

STRUCTURAL NOTES

S1.1

DRAWN BY : ML CHECKED BY : ML

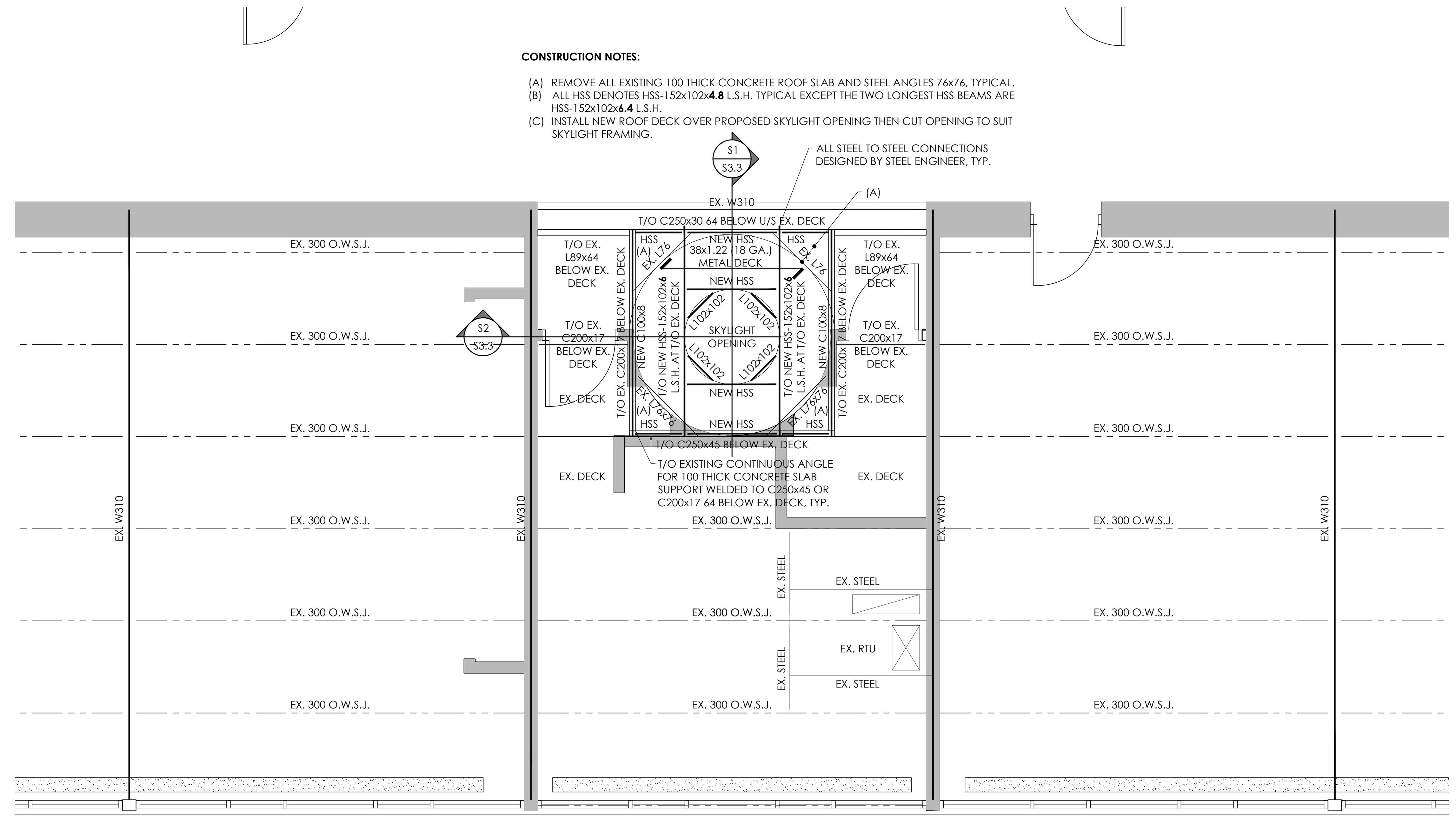


CONSTRUCTION NOTES:

1. NEW LIFT CONCRETE PAD SHALL BEAR ON NATIVE UNDISTURBED SOIL OR APPROVED ENGINEERED FILL WITH A MINIMUM SERVICEABILITY LIMIT STATE (SLS) BEARING CAPACITY **150 KPa** AND A MINIMUM FACTORED ULTIMATE LIMIT STATE (ULS) BEARING CAPACITY **225 KPa**.
2. REMOVE EXISTING ELEVATOR FOUNDATION WALLS FOR NEW ELEVATOR FOUNDATION INSTALLATION, TEMPORARY SHORING IS REQUIRED.

1 / S2.1 PARTIAL FOUNDATION PLAN

0 500 1000 2.5m

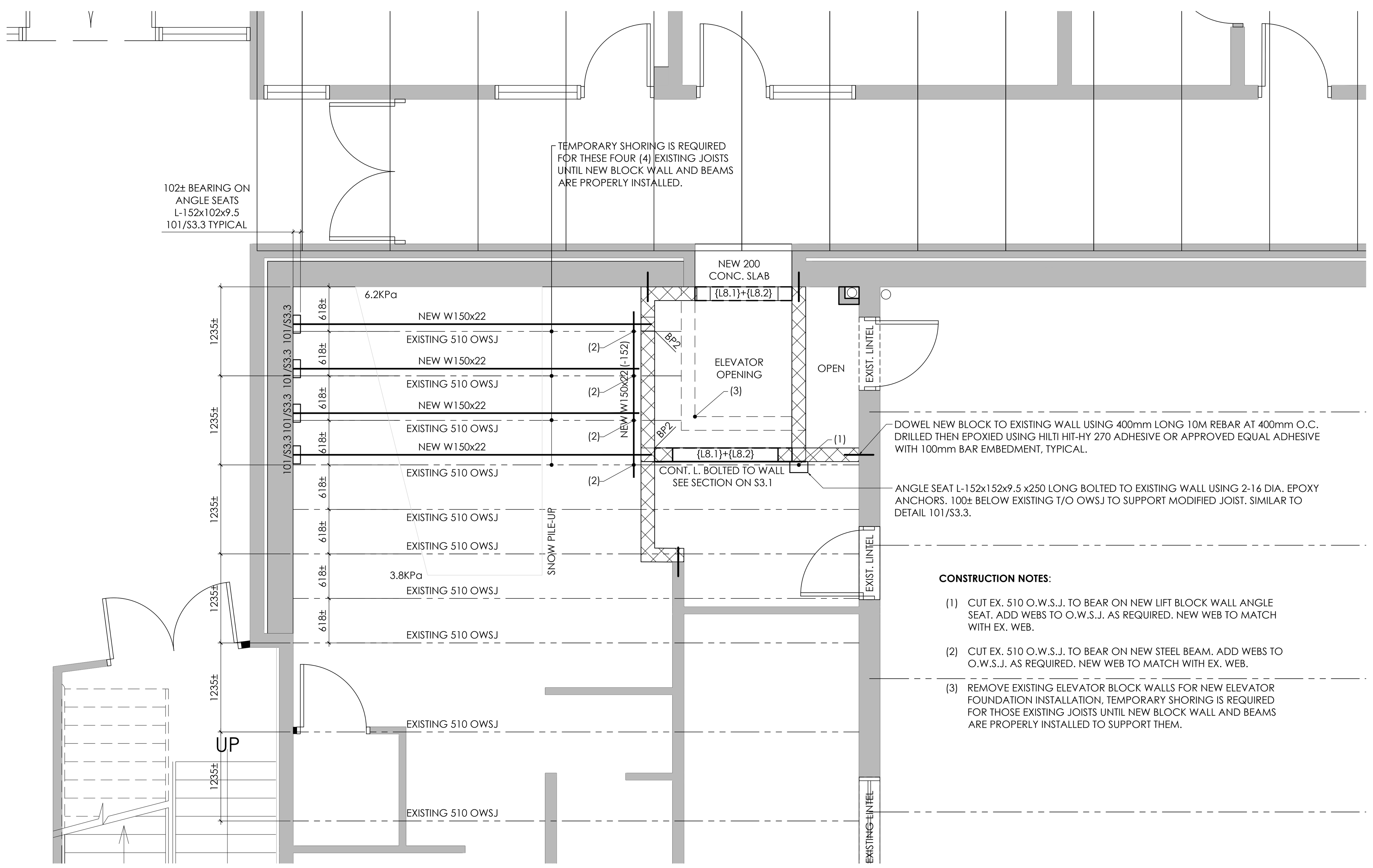


CONSTRUCTION NOTES:

(A) REMOVE ALL EXISTING 100 THICK CONCRETE ROOF SLAB AND STEEL ANGLES 76x76, TYPICAL.
(B) ALL HSS DENOTES HSS-152x102x**4.8** L.S.H. TYPICAL EXCEPT THE TWO LONGEST HSS BEAMS ARE HSS-152x102x**6.4** L.S.H.
(C) INSTALL NEW ROOF DECK OVER PROPOSED SKYLIGHT OPENING THEN CUT OPENING TO SUIT SKYLIGHT FRAMING.

4 / S2.1 PARTIAL ROOF FRAMING PLAN - SKYLIGHT

0 500 1000 2.5m



CONSTRUCTION NOTES:

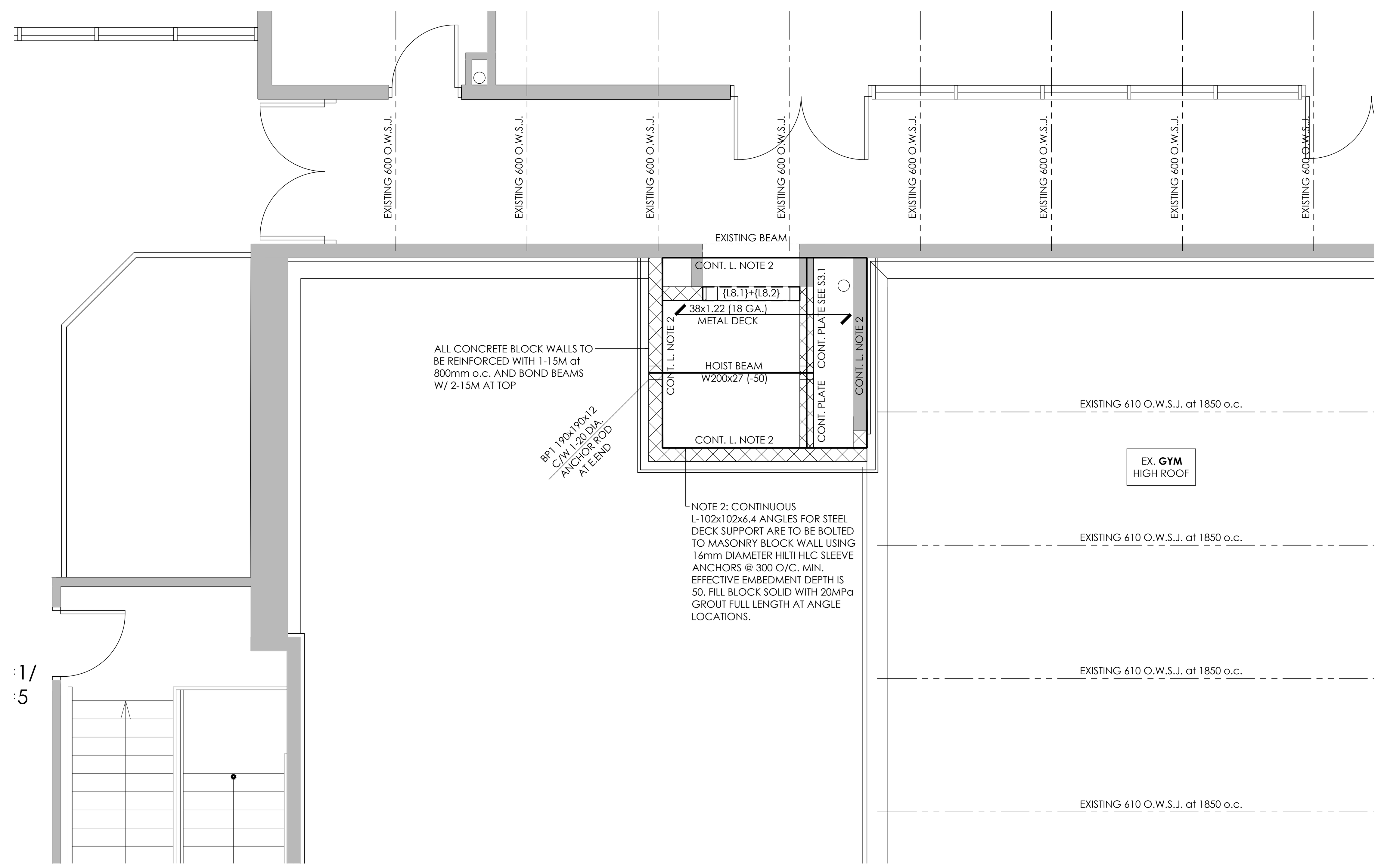
(1) CUT EX. 510 O.W.S.J. TO BEAR ON NEW LIFT BLOCK WALL ANGLE SEAT. ADD WEBS TO O.W.S.J. AS REQUIRED. NEW WEB TO MATCH WITH EX. WEB.

(2) CUT EX. 510 O.W.S.J. TO BEAR ON NEW STEEL BEAM. ADD WEBS TO O.W.S.J. AS REQUIRED. NEW WEB TO MATCH WITH EX. WEB.

(3) REMOVE EXISTING ELEVATOR BLOCK WALLS FOR NEW ELEVATOR FOUNDATION INSTALLATION, TEMPORARY SHORING IS REQUIRED FOR THOSE EXISTING JOISTS UNTIL NEW BLOCK WALL AND BEAMS ARE PROPERLY INSTALLED TO SUPPORT THEM.

2 / S2.1 PARTIAL SECOND FLOOR FRAMING PLAN

0 500 1000 2.5m



3 / S2.1 PARTIAL ROOF FRAMING PLAN

0 500 1000 2.5m

REVISIONS

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WATERLOO CATHOLIC DISTRICT SCHOOL BOARD

PROJECT:
RFT 2026-09 (+VG 22585)

OUR LADY OF LOURDES CES

55 ROSLIN AVENUE SOUTH,
WATERLOO, ON
N2L 6N5

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LICENSED PROFESSIONAL ENGINEER M. W. LIN 100156441 PROVINCE OF ONTARIO Mar.31/26

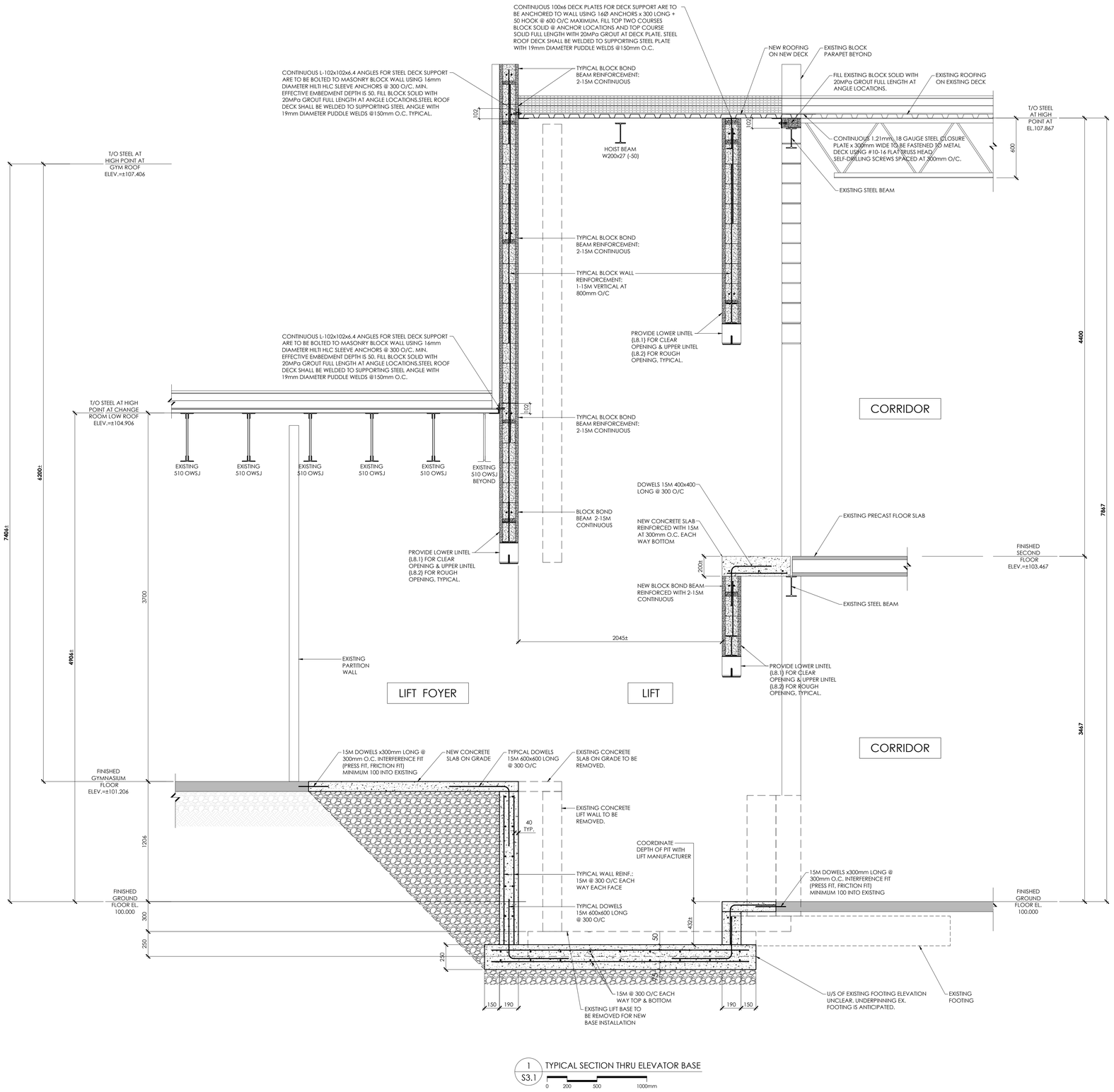
Filename: K:\TVG-Brantford\WCDSB Our Lady of Lourdes CES-22585\Drawings\Struct\Our Lady Struct.dwg

Plot Date: Mar 31, 2026 - 3:39pm By: mlin

PARTIAL FOUNDATION, 2ND FLOOR & ROOF FRAMING PLANS

S2.1

DRAWN BY : ML CHECKED BY : ML



1 S3.1 TYPICAL SECTION THRU ELEVATOR BASE

0 200 500 1000mm

REVISIONS

NO.	DATE	PARTICULAR
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THE VENTIN GROUP LTD.

LICENSED PROFESSIONAL ENGINEER
Mar.31/26
M. W. LIN
100156441
PROVINCE OF ONTARIO

STRUCTURAL DETAILS

S3.1

DRAWN BY : ML CHECKED BY : ML

All dimensions and measurements must be checked and verified by the General Contractor

Plot Date: Mar 31, 2026 - 3:40pm By: mlin
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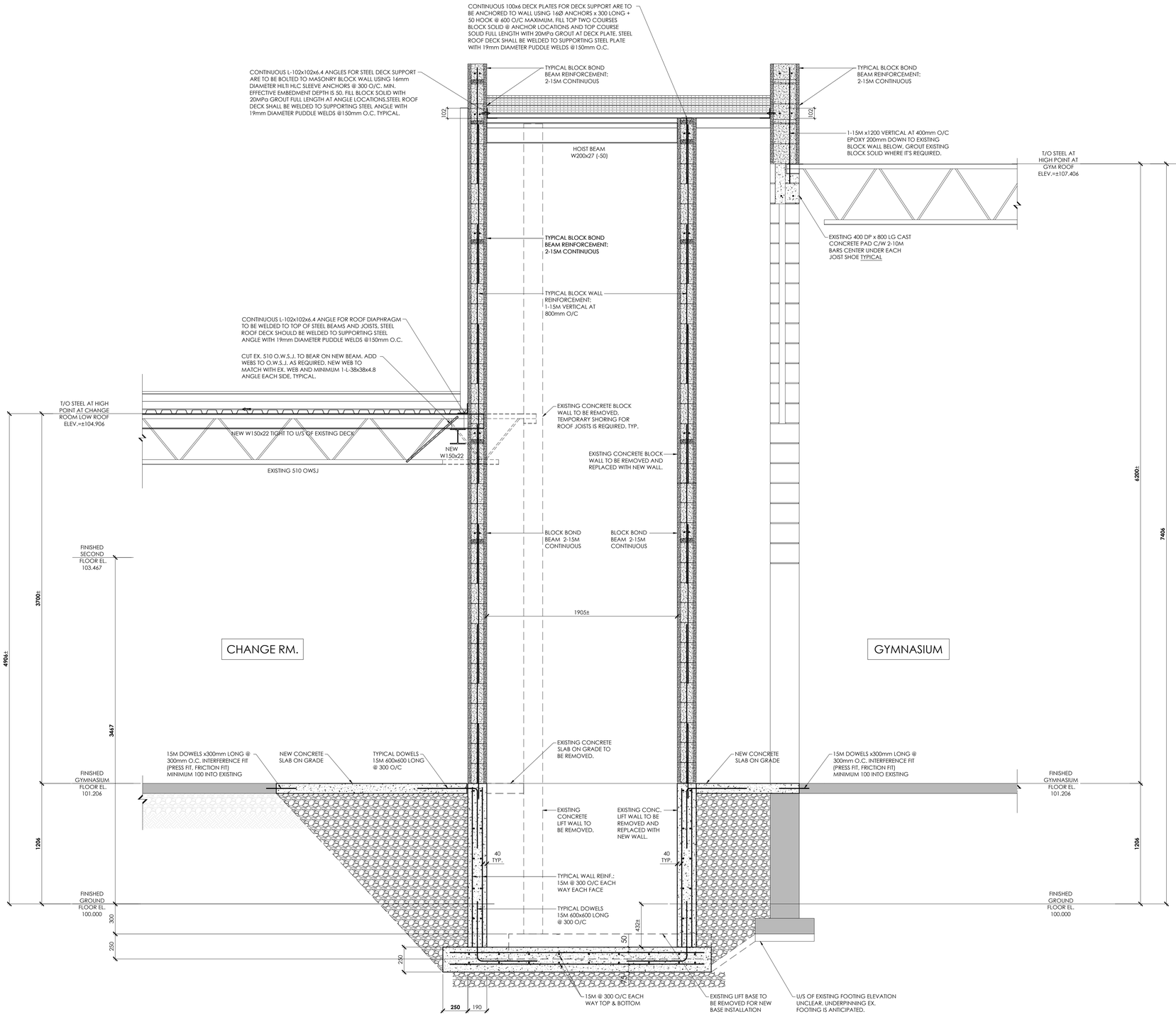

1 S3.2 TYPICAL SECTION THRU ELEVATOR BASE

0 200 500 1000mm

REVISIONS

NO.	DATE	PARTICULAR
1	2026.03.31	ISSUED FOR ADDENDUM No.1

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THE VENTIN GROUP LTD.

LICENSED PROFESSIONAL ENGINEER
May 31/26
M. W. LIN
100156441
M.Lin
PROVINCE OF ONTARIO

STRUCTURAL DETAILS

S3.2

DRAWN BY : ML CHECKED BY : ML

All dimensions and measurements must be checked and verified by the General Contractor

Filename: K:\1VG-Brantford\WCDSB Our Lady of Lourdes CES-22585\Drawings\Struct\Our Lady Struct.dwg

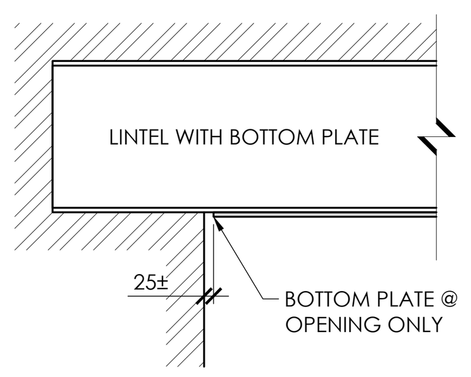
Plot Date: Mar 31, 2026 - 3:40pm By: mlin

LINTEL SCHEDULE

WALL TYPE	MARK	DESCRIPTION	DETAIL
190 (8") BLOCK	{L8.1}	2L-89x89x6.4 Sx=26x10³mm³ BACK TO BACK ANGLES	
	{L8.2}	W200x27 C/W 180x6 BOTTOM PLATE + RODS ON TOP	

TYPICAL NOTES FOR LINTEL SCHEDULES:

1. ALL EXTERIOR LINTELS TO BE HOT DIPPED GALVANIZED.
2. BACK TO BACK ANGLES SHALL BE STITCH WELDED OR BOLTED @ 600 O/C MAXIMUM.
3. BOTTOM PLATE SHALL BE SHOP WELDED TO UNDERSIDE OF BEAM USING MINIMUM WELD SIZE 6mm FILLET WELD x50mm LONG AT 600mm O.C. BOTH SIDES, SEE DETAIL 1001 FOR LINTEL WITH BOTTOM PLATE.
4. LINTEL BEARING LENGTH IS 200mm MINIMUM AT EACH END UNLESS NOTED OTHERWISE. PROVIDE 190mm BEARING LENGTH ON 190mm MASONRY WALL WHERE LINTEL IS PERPENDICULAR TO WALL AND 200mm BEARING LENGTH IS IMPOSSIBLE.
5. AT ALL LINTELS FOR BLOCK WALL ABOVE WELD 15M WELDABLE RODS x200 LONG @600 O/C TO TOP FLANGE OF LINTEL.
6. LINTEL BEARING PLATES ARE NOT REQUIRED UNLESS SPECIFICALLY SHOWN IN SCHEDULE/ON PLAN. ALL LINTELS SHALL BE FIELD WELDED TO BEARING PLATES USING MINIMUM 6mm FILLET WELDS ON BOTH SIDES OF MEMBER UNLESS NOTED OTHERWISE.
7. FOR ELEVATOR PROVIDE LOWER LINTEL {L8.1} FOR CLEAR OPENINGS & UPPER LINTEL {L8.2} FOR ROUGH OPENINGS AT ALL FLOORS UNLESS NOTED OTHERWISE.

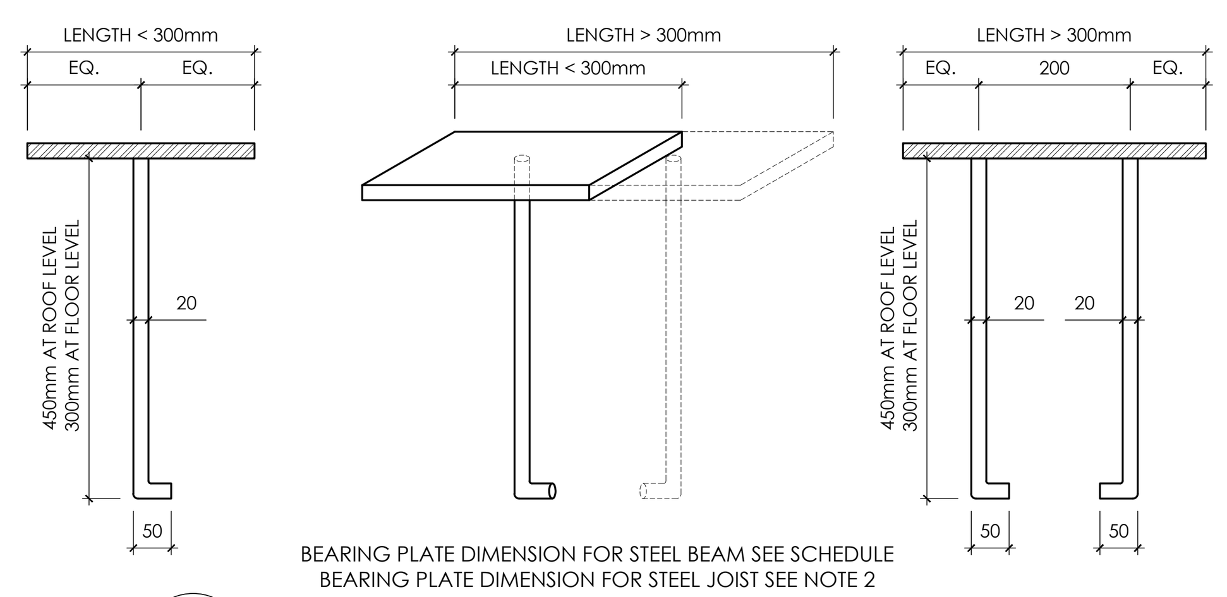


1001 / - TYPICAL DETAIL FOR LINTEL WITH BOTTOM PLATE
N.T.S.

STEEL BEARING PLATE SCHEDULE

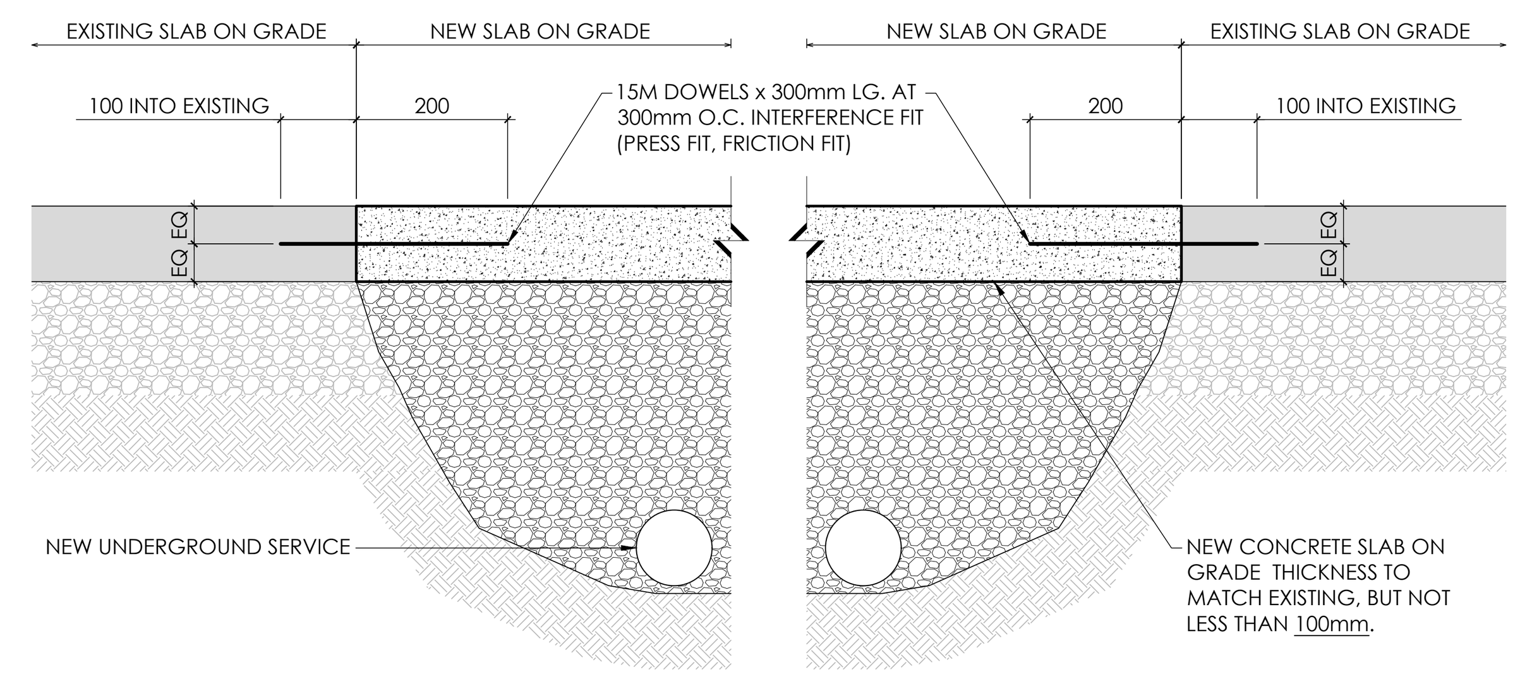
MARK	PLATE SIZE WIDTH x LENGTH x THICKNESS	MINIMUM GROUTING WIDTH x DEPTH (b x d)	ANCHORAGE
BP1	190x190x12	600x400	1-20mm DIAMETER ROD
BP2	190x190x16	600x400	1-20mm DIAMETER ROD

NOTES:
1. ALL STEEL BEAMS SHOWN ON FRAMING PLANS REQUIRE STEEL BEARING PLATES. (BUT FOR STEEL LINTELS SHOWN IN LINTEL SCHEDULES, BEARING PLATES ARE NOT REQUIRED UNLESS IT IS SPECIFICALLY SHOWN ON FRAMING PLANS). WHERE NOT SHOWN, PROVIDE BP1.
2. MINIMUM 2 MASONRY BLOCK COURSES TO BE GROUTED SOLID BENEATH ALL STEEL BEARING PLATES U.N.O.
3. BEARING PLATES SHALL BE PROPERLY INSTALLED AND TO LINE UP CENTERLINE OF BEAMS, JOISTS AND LINTELS. FIELD WELD ALL BEAMS, JOISTS AND LINTELS TO BEARING PLATES WITH 100mm LONG MINIMUM WELD SIZE 6mm FILLET WELD AT EACH SIDE OF MEMBER UNLESS NOTED OTHERWISE.
4. STEEL ANCHORAGE ROD FOR BEARING PLATE SEE TYPICAL DETAILS BELOW, WHEN USED AT ROOF PROVIDE HOLD DOWN BAR(S) 1-15M (OR 2-15M WHERE 2-20M RODS USED) FULL HEIGHT OF WALL, MINIMUM 600mm LAP LENGTH AT BAR SPLICE LOCATIONS.



A / S2.1 TYPICAL BEARING PLATE ELEVATION DETAILS
N.T.S.

NOTE: WHERE EXISTING INTERIOR CONCRETE SLAB ON GRADE IS REMOVED FOR UNDERGROUND PLUMBING AND DRAINAGE REPLACE EXISTING CONCRETE SLAB ON GRADE WITH 25MPa NEW CONCRETE SLAB ON APPROVED GRANULAR FILL, GRANULAR FILL SHALL BE COMPACTED IN 150mm LAYERS TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY. PROVIDE DOWELS FROM NEW CONCRETE SLAB ON GRADE TO EXISTING CONCRETE SLAB ON GRADE IN ACCORDANCE WITH DETAIL BELOW. TYPICAL.



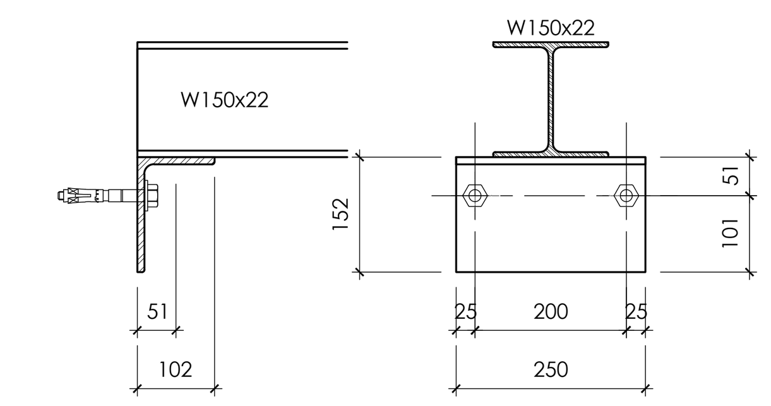
EXISTING SLAB ON GRADE
NEW SLAB ON GRADE
NEW SLAB ON GRADE
EXISTING SLAB ON GRADE
100 INTO EXISTING
200
15M DOWELS x 300mm LG. AT 300mm O.C. INTERFERENCE FIT (PRESS FIT, FRICTION FIT)
200
100 INTO EXISTING
EQ EQ
EQ EQ
NEW UNDERGROUND SERVICE
NEW CONCRETE SLAB ON GRADE THICKNESS TO MATCH EXISTING, BUT NOT LESS THAN 100mm.

100 / S3.3 TYPICAL DETAIL FOR NEW CONCRETE SLAB ON GRADE ADJACENT EXISTING FOR NEW UNDERGROUND SERVICE INSTALLATION OR NEW BUILDING ADDITION JOINT
N.T.S.

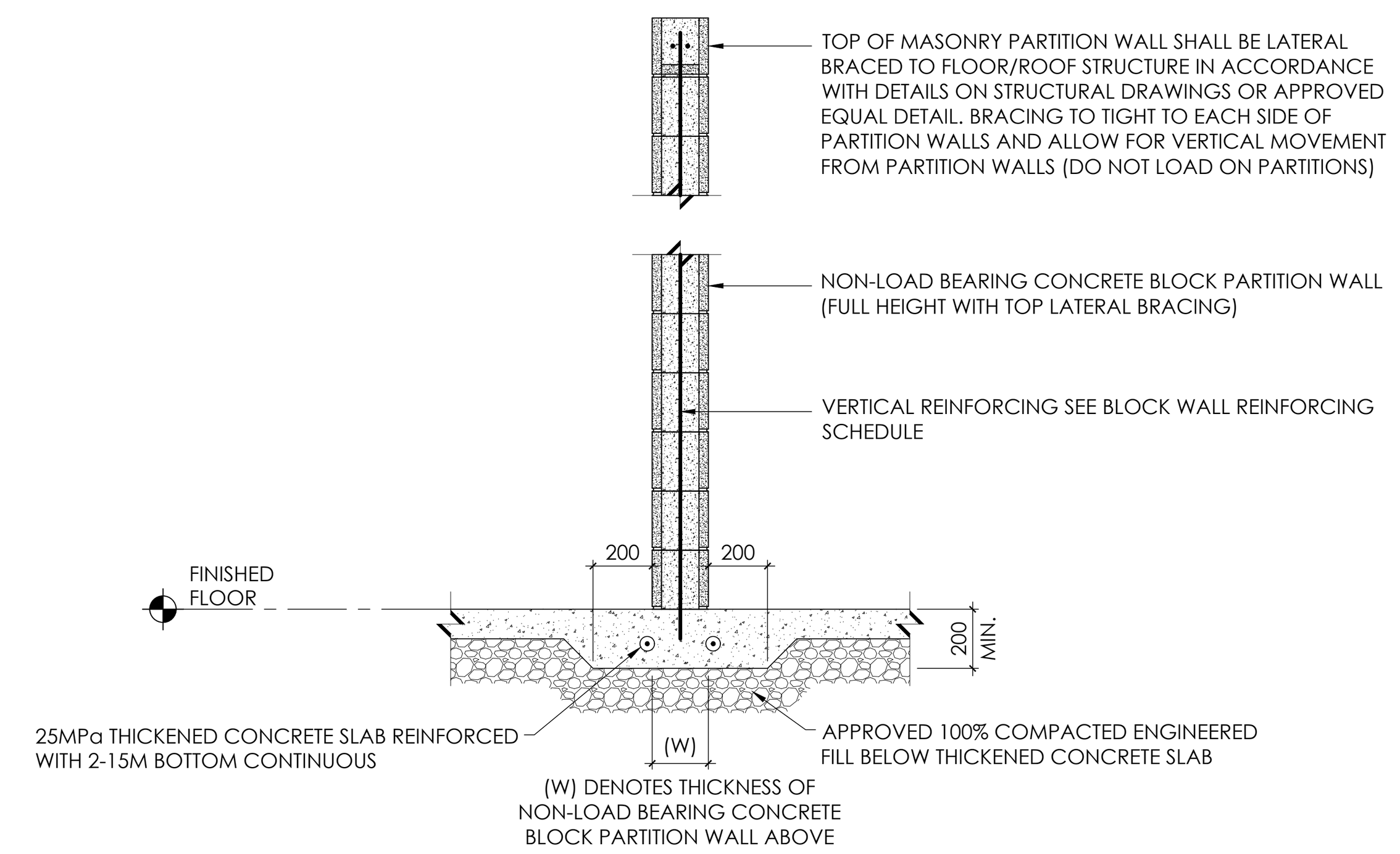
NOTES:

BOLT STEEL ANGLE SEAT L-152x102x9.5 x250 LONG LEG DOWN TO EXISTING GROUTED SOLID BLOCK WALL USING 2-16mm DIAMETER CARBON STEEL HILTI KWIK BOLTS KB-TZ2 WEDGE ANCHORS OR APPROVED EQUAL ANCHOR BOLTS WITH 113mm NOMINAL EMBEDMENT, ENSURE EXISTING BLOCK IS GROUTED SOLID AT ANCHOR LOCATIONS.

WELD STEEL BEAM END BOTTOM FLANGE TO INSTALLED ANGLE SEAT.

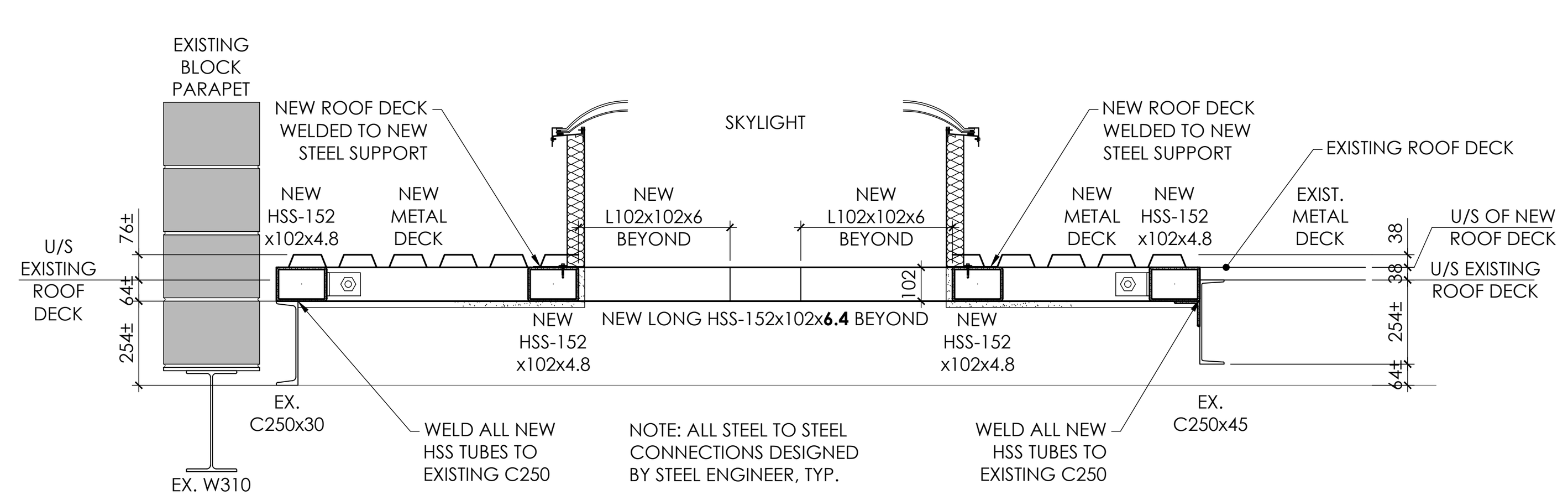


101 / S3.3 ANGLE SEAT L-152x102x9.5
0 100 200 500mm



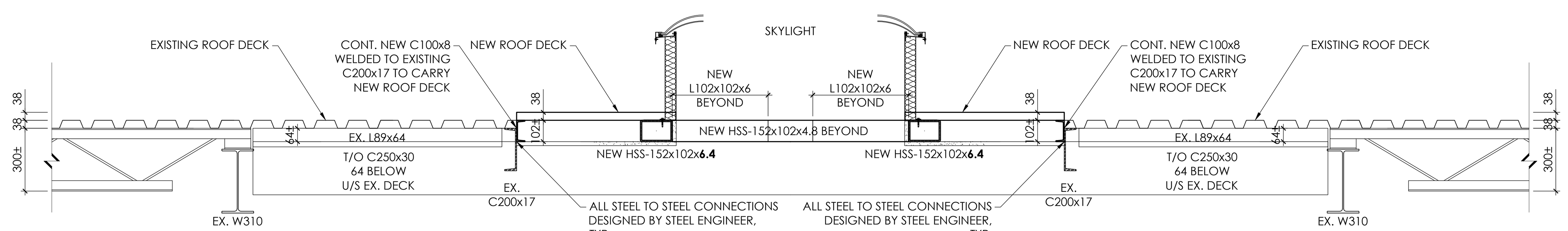
TOP OF MASONRY PARTITION WALL SHALL BE LATERAL BRACED TO FLOOR/ROOF STRUCTURE IN ACCORDANCE WITH DETAILS ON STRUCTURAL DRAWINGS OR APPROVED EQUAL DETAIL. BRACING TO TIGHT TO EACH SIDE OF PARTITION WALLS AND ALLOW FOR VERTICAL MOVEMENT FROM PARTITION WALLS (DO NOT LOAD ON PARTITIONS)
NON-LOAD BEARING CONCRETE BLOCK PARTITION WALL (FULL HEIGHT WITH TOP LATERAL BRACING)
VERTICAL REINFORCING SEE BLOCK WALL REINFORCING SCHEDULE
FINISHED FLOOR
200
200
200 MIN.
25MPa THICKENED CONCRETE SLAB REINFORCED WITH 2-15M BOTTOM CONTINUOUS
[W]
APPROVED 100% COMPACTED ENGINEERED FILL BELOW THICKENED CONCRETE SLAB
[W] DENOTES THICKNESS OF NON-LOAD BEARING CONCRETE BLOCK PARTITION WALL ABOVE

1 / S3.3 TYPICAL THICKENED CONCRETE SLAB UNDER **FULL HEIGHT** NON-LOAD BEARING CONCRETE BLOCK PARTITION WALL
0 250 500 1250mm



EXISTING BLOCK PARAPET
NEW ROOF DECK WELDED TO NEW STEEL SUPPORT
SKYLIGHT
NEW ROOF DECK WELDED TO NEW STEEL SUPPORT
EXISTING ROOF DECK
NEW HSS-152 x102x4.8
NEW METAL DECK
NEW L102x102x6 BEYOND
NEW L102x102x6 BEYOND
NEW METAL DECK
NEW HSS-152 x102x4.8
EXIST. METAL DECK
U/S OF NEW ROOF DECK
U/S EXISTING ROOF DECK
U/S EXISTING ROOF DECK
NEW HSS-152 x102x4.8
NEW LONG HSS-152x102x6.4 BEYOND
NEW HSS-152 x102x4.8
EX. C250x30
WELD ALL NEW HSS TUBES TO EXISTING C250
NOTE: ALL STEEL TO STEEL CONNECTIONS DESIGNED BY STEEL ENGINEER, TYP.
WELD ALL NEW HSS TUBES TO EXISTING C250
EX. C250x45
EX. W310

S1 / S3.3 TYPICAL SECTION THRU SKYLIGHT ROOF FRAMING
0 200 500 1000mm



SKYLIGHT
EXISTING ROOF DECK
CONT. NEW C100x8 WELDED TO EXISTING C200x17 TO CARRY NEW ROOF DECK
NEW ROOF DECK
NEW L102x102x6 BEYOND
NEW L102x102x6 BEYOND
NEW ROOF DECK
CONT. NEW C100x8 WELDED TO EXISTING C200x17 TO CARRY NEW ROOF DECK
EXISTING ROOF DECK
EX. L89x64
NEW HSS-152x102x4.8 BEYOND
EX. L89x64
T/O C250x30 64 BELOW U/S EX. DECK
NEW HSS-152x102x6.4
NEW HSS-152x102x6.4
T/O C250x30 64 BELOW U/S EX. DECK
EX. C200x17
ALL STEEL TO STEEL CONNECTIONS DESIGNED BY STEEL ENGINEER, TYP.
ALL STEEL TO STEEL CONNECTIONS DESIGNED BY STEEL ENGINEER, TYP.
EX. C200x17
EX. W310
EX. W310

S2 / S3.3 TYPICAL SECTION THRU SKYLIGHT ROOF FRAMING
0 200 500 1000mm

REVISIONS

NO.	DATE	PARTICULAR
1	2026.03.31	ISSUED FOR ADDENDUM No.1

NOTES:

KEY PLAN:

CLIENT:
WATERLOO CATHOLIC DISTRICT SCHOOL BOARD

PROJECT:
RFT 2026-09 (+VG 22585)

OUR LADY OF LOURDES CES

55 ROSLIN AVENUE SOUTH,
WATERLOO, ON
N2L 6N5

ORIGINAL PAGE SIZE ARCH D - 24" x 36"

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STRUCTURES+VG
THE VENTIN GROUP LTD.

STRUCTURAL DETAILS

S3.3

2 A2.3 ROOF PLAN IMAGE 1 - GAS LINES AND MECHANICAL UNITS

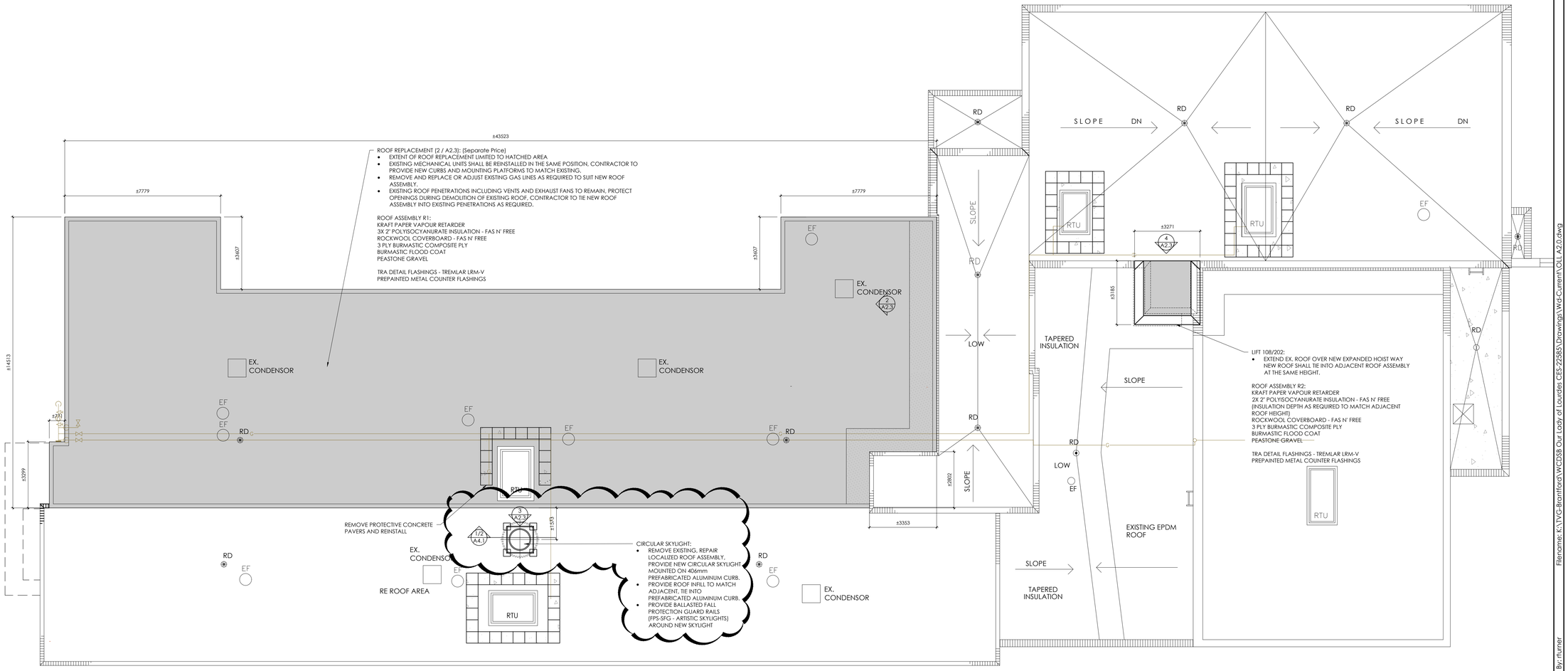
0 1 2 5m

3 A2.3 ROOF PLAN IMAGE 1 - EXISTING SKYLIGHT

0 1 2 5m

4 A2.3 ROOF PLAN IMAGE 1 - EXISTING LIFT ROOF AREA

0 1 2 5m



1 A2.3 ROOF PLAN

0 1 2 5m

REVISIONS

NO.	DATE	PARTICULAR
1	26.01.29	ISSUED FOR SCOPE REVIEW
2	26.03.02	ISSUED FOR 50% REVIEW
3	26.03.17	ISSUED FOR COORDINATION
4	26.03.27	ISSUED FOR TENDER
5	26.03.31	ISSUED FOR ADDENDUM#1

NOTES:

All dimensions and measurements must be checked and verified by the General Contractor

KEY PLAN:

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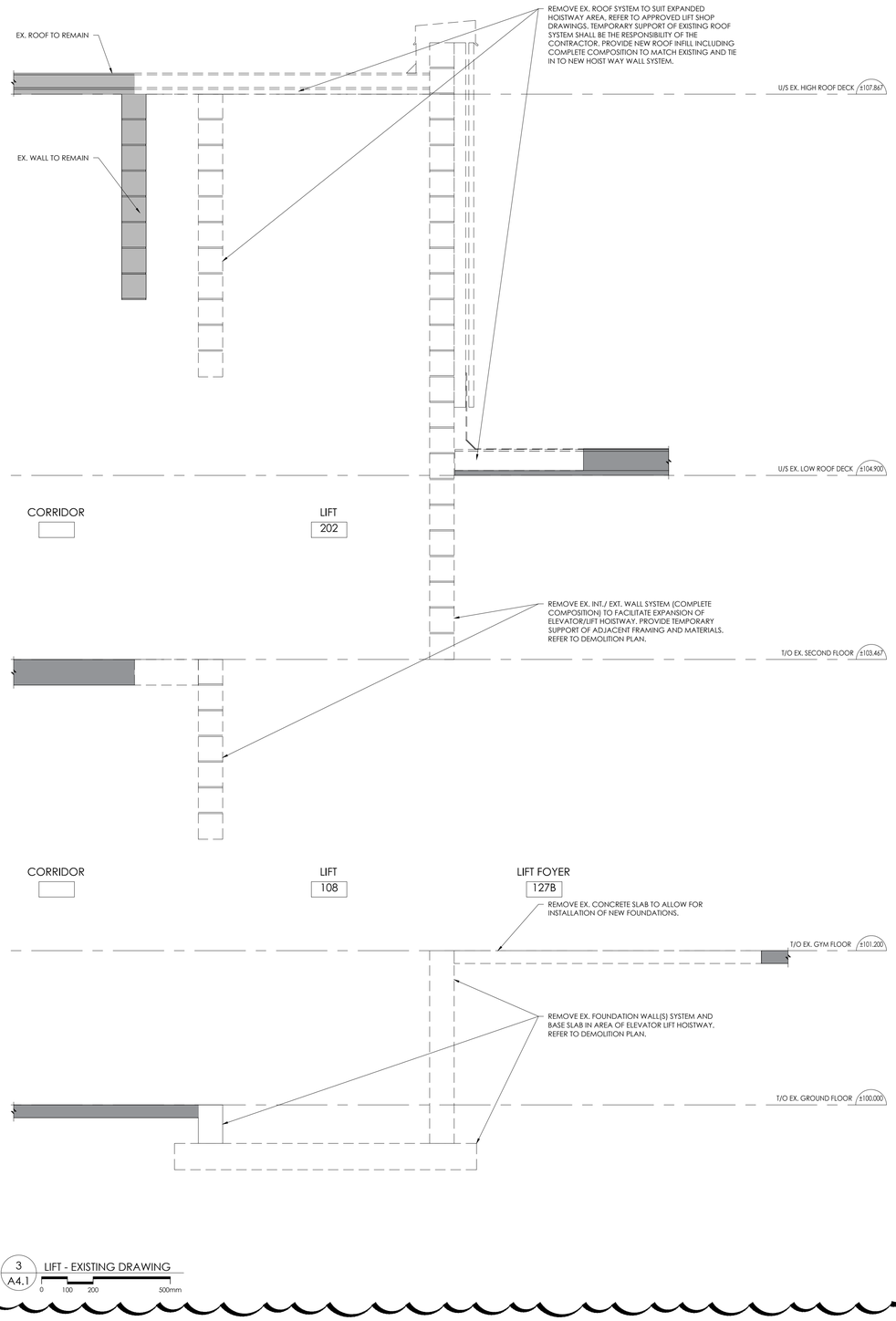
CN
N

ROOF PLAN

A2.3

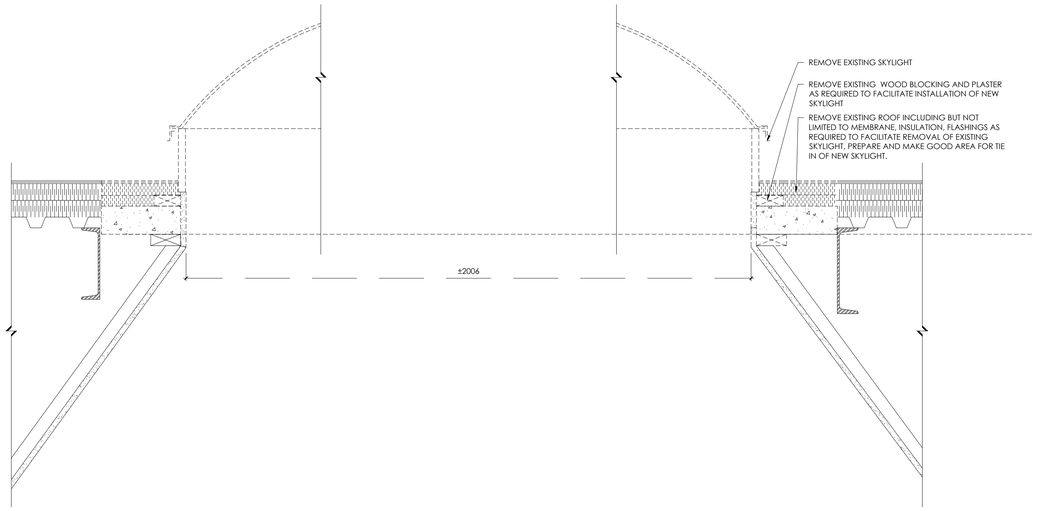
Plot Date: Mar 31, 2026 - 1:48pm By: rturner Filename: K:\1VG-Brantford\WCDSB Our Lady of Lourdes CES-22585\Drawings\Wcd-Current\OLL A2.0.dwg

DRAWN BY : ES CHECKED BY : XX



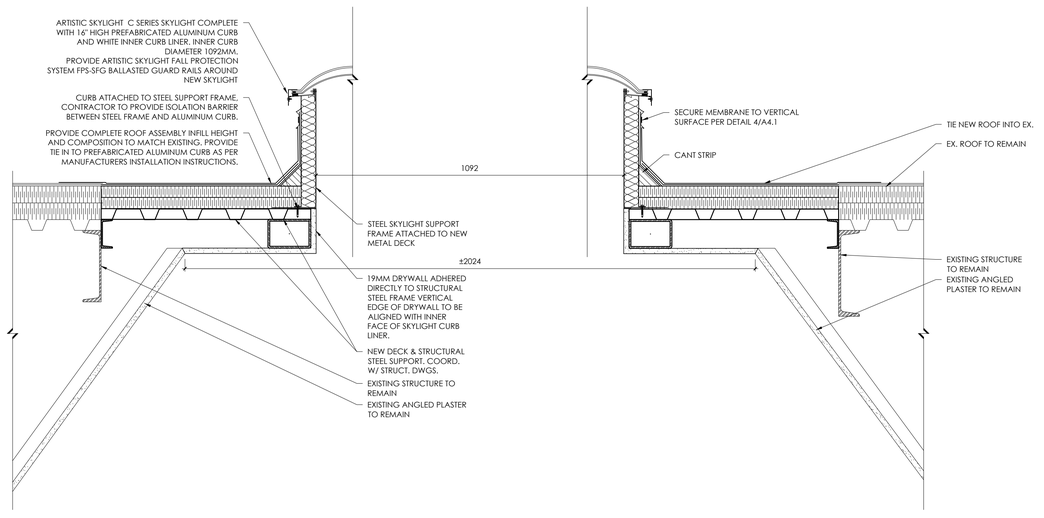
3 A4.1 LIFT - EXISTING DRAWING

0 100 200 500mm



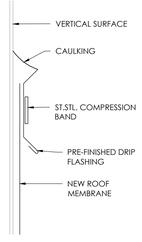
1 A4.1 SKYLIGHT - DEMOLITION

0 100 200 500mm



2 A4.1 SKYLIGHT - NEW

0 100 200 500mm



4 A4.1 TYPICAL VERTICAL MEMBRANE CONNECTION

0 20 40 100mm

REVISIONS

NO.	DATE	PARTICULAR
1	26.01.29	ISSUED FOR SCOPE REVIEW
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4	26.03.27	ISSUED FOR TENDER
5	26.03.31	ISSUED FOR ADDENDUM#1

NOTES:

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THE VENTIN GROUP LTD

SECTIONS AND DETAILS

A4.1

DRAWN BY : AR CHECKED BY : ES

All dimensions and measurements must be checked and verified by the General Contractor

Plot Date: Mar 31, 2026 - 1:48pm By: rturner
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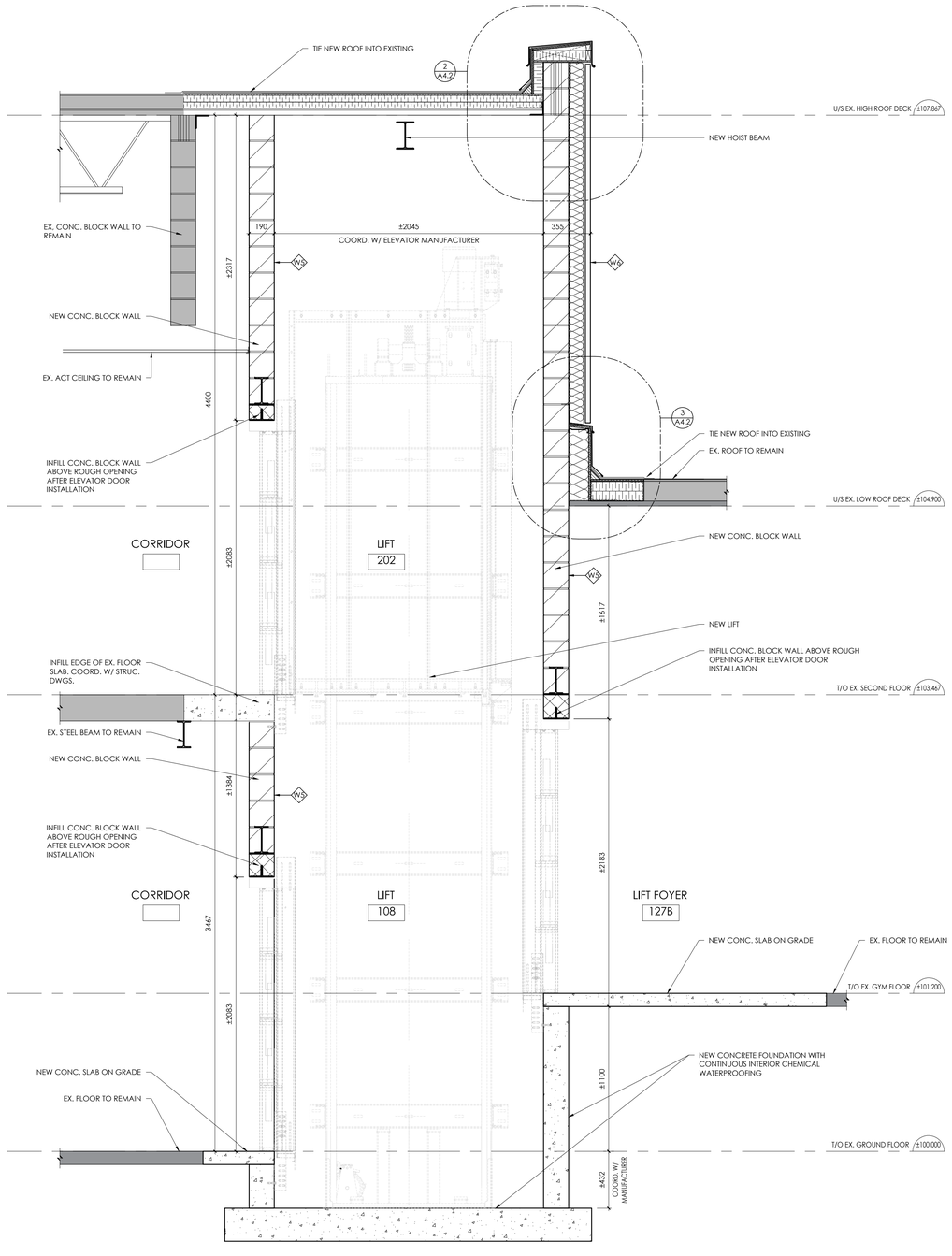

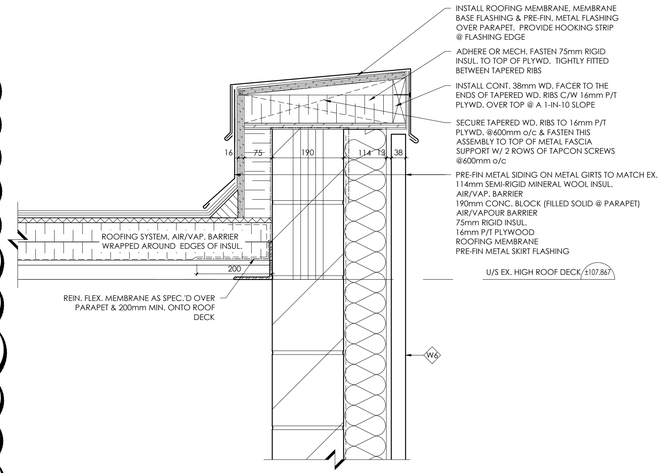

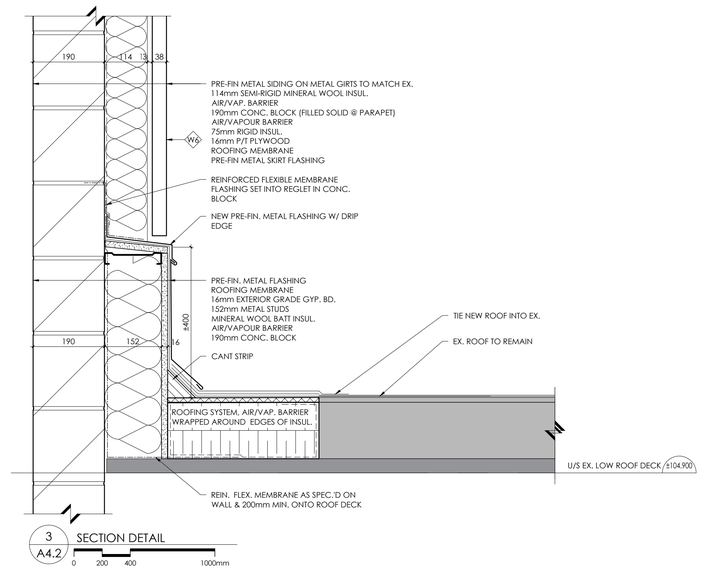

REVISIONS

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SECTIONS AND DETAILS

A4.2

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