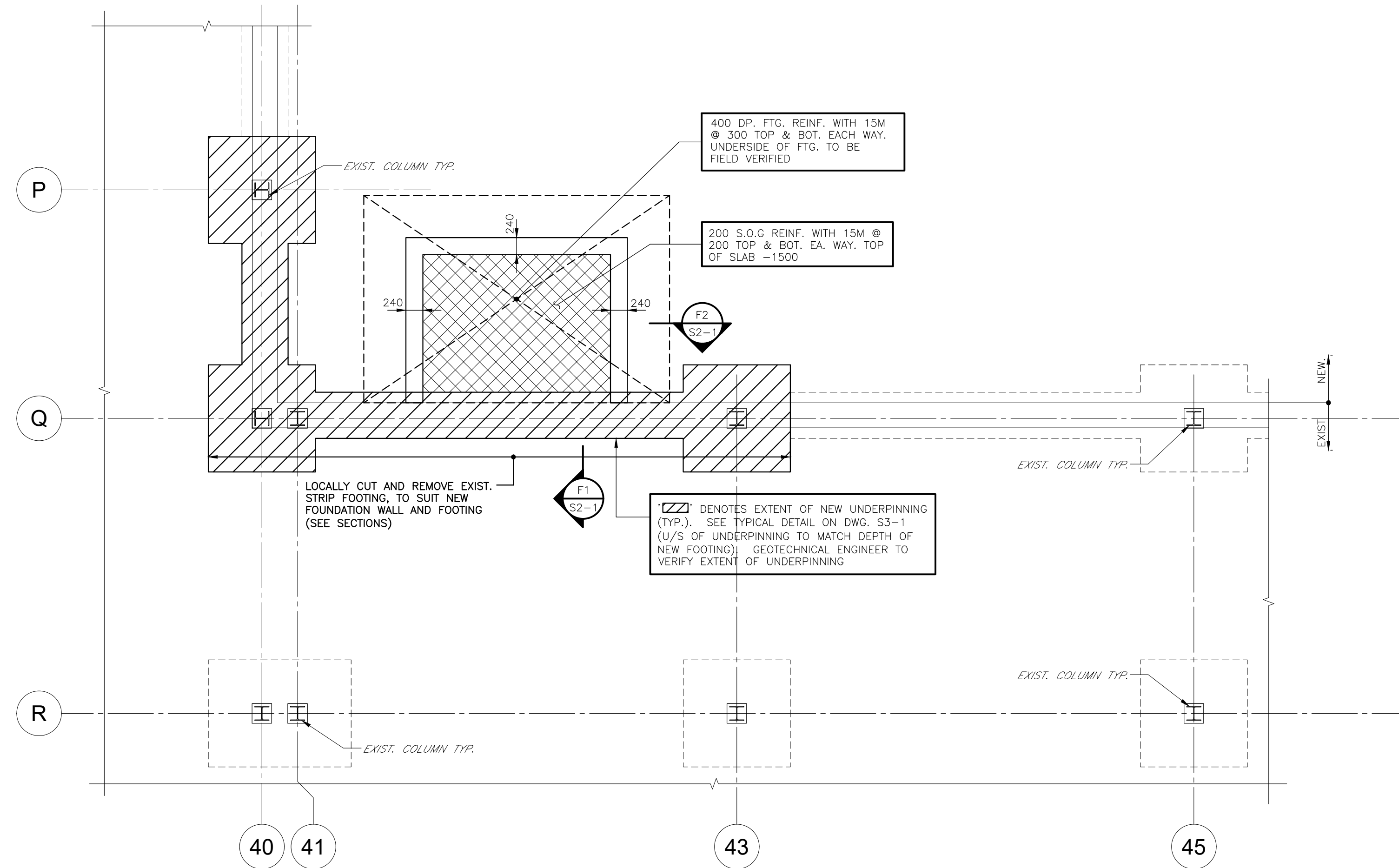


PROJECT DESIGN DATA TABLE		
BUILDING IMPORTANCE CATEGORY	HIGH	
SPECIFIED FLOOR LOADS		
REFER TO FLOOR FRAMING PLANS FOR SPECIFIED DESIGN LIVE AND DEAD LOADS		
SPECIFIED SNOW LOADS		
IMPORTANCE FACTOR	$I_s$	1.15
BASIC ROOF SNOW LOAD	S	1.84
SNOW AND RAIN LOADING (1/50) DESIGN DATA	$S_g$	0.8
	$S_r$	0.4
FACTORS USED FOR BASIC ROOF SNOW LOAD	$C_d$	0.8
	$C_w$	1.0
	$C_s$	1.0
	$C_e$	1.0
ACCUMULATED SNOW LOADS AROUND OBSTRUCTIONS, MECHANICAL ROOF TOP UNITS AND/OR HIGH TO LOW ROOF AREAS ARE INDICATED ON PLAN		
SPECIFIED WIND LOADS		
IMPORTANCE FACTOR	$I_w$	1.15 kPa
HOURLY WIND PRESSURE (1/50) DESIGN DATA	0.49 kPa	
WIND DESIGN CATEGORY	CATEGORY 2	
TERRAIN	OPEN	
SPECIFIED EARTHQUAKE LOADS		
IMPORTANCE FACTOR	$I_e$	1.3
SEISMIC DESIGN DATA	$S_0$ (0.2)	0.391
	$S_0$ (0.5)	0.317
	$S_0$ (1.0)	0.177
	$S_0$ (2.0)	0.0814
	$S_0$ (5.0)	0.0209
	$S_0$ (10.0)	0.00644
SEISMIC SITE CLASS	D	
PROBABILITY OF EXCEEDANCE IN 50 YEARS	2%	
SEISMIC FORCE MODIFICATION FACTORS FOR SEISMIC FORCE RESISTING SYSTEM (NORTH-SOUTH)	$R_d$	1.5
	$R_o$	1.5
SEISMIC FORCE MODIFICATION FACTORS FOR SEISMIC FORCE RESISTING SYSTEM (EAST-WEST)	$R_d$	1.5
	$R_o$	1.5
SEISMIC HAZARD INDEX	$I_s$	SC3
STRUCTURAL IRREGULARITIES: NONE		

**PARTIAL EXISTING & PROPOSED FOUNDATION PLAN NOTES:**

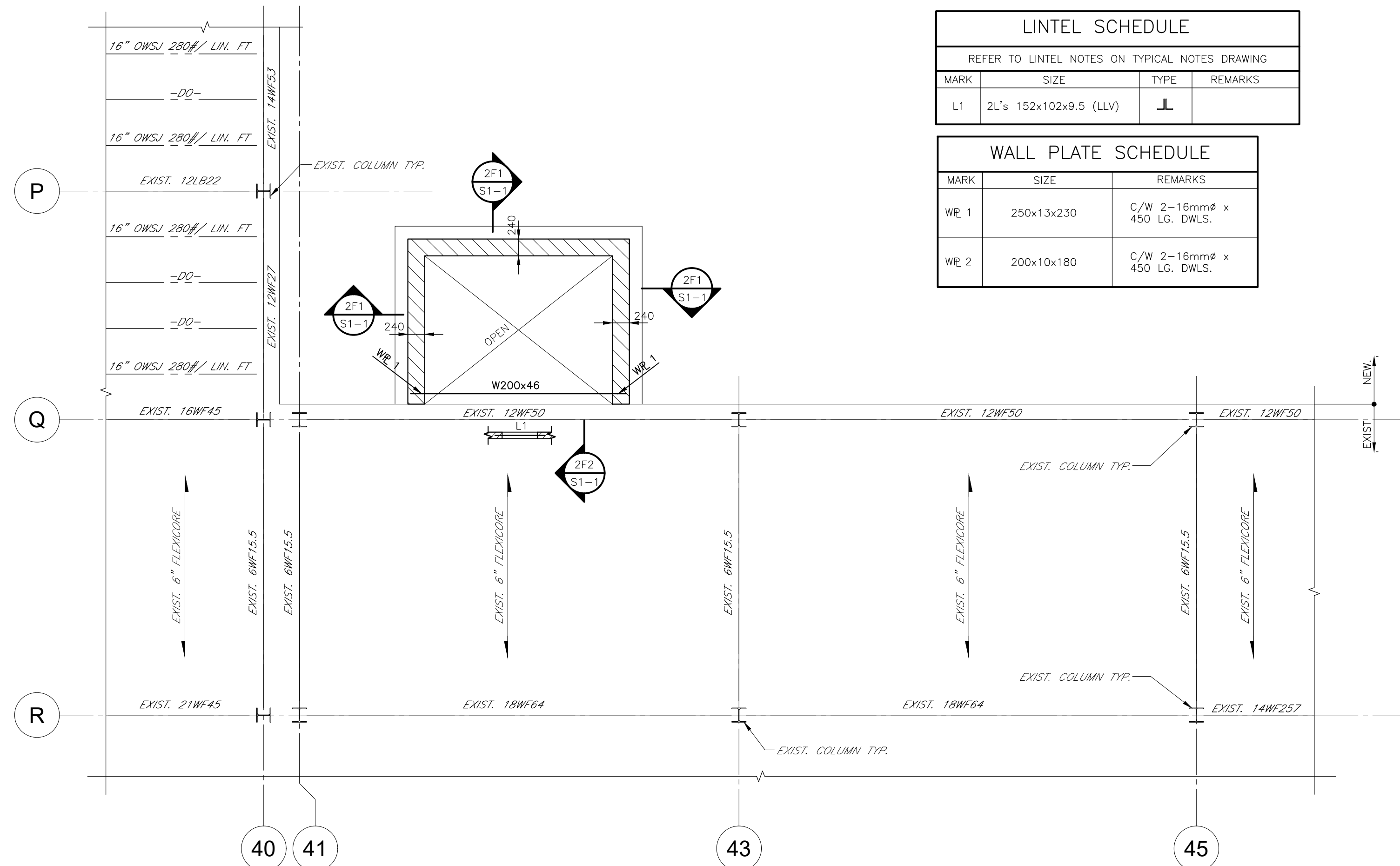
- FOOTINGS SHALL BE CARRIED DOWN TO NATURAL UNDISTURBED SOIL CAPABLE OF SUSTAINING 200 kPa (ULS), AND IN ALL CASES AT LEAST 1200mm INTO EXISTING GRADE.
- SOIL OF BEARING CAPACITY IS ASSUMED TO BE FOUND AT THE ELEVATIONS SHOWN, ANY VARIATIONS MUST BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- A GEOTECHNICAL ENGINEER IS TO BE RETAINED TO VERIFY THE EXISTING FOUNDATIONS AND SUBSURFACE CONDITIONS AND CONFIRM THE BEARING CAPACITY REFERENCED IN NOTE 1.
- SOIL AT THE UNDERSIDE OF THE FOOTINGS IS TO BE INSPECTED AND APPROVED BY A REPRESENTATIVE OF A SOILS CONSULTANT BEFORE PLACING CONCRETE.
- CO-ORDINATE ALL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
- CENTRE LINES OF COLUMNS, CAPS AND FOOTINGS ARE COINCIDENT UNLESS OTHERWISE NOTED.
- UNDERSIDE OF COLUMN FOOTINGS TO BE AT ELEVATION NOTED ON PLAN, AND A MINIMUM OF 200mm BELOW FINISH GRADE.
- UNDERSIDE OF WALL FOOTINGS TO BE AT ELEVATION NOTED ON PLAN, AND A MINIMUM OF 200mm BELOW FINISH GRADE.
- SDF = STEP DOWN FOOTING.
- UNLESS OTHERWISE NOTED ON PLAN OR SECTIONS, ALL WALL FOOTINGS TO BE 300mm DEEP WITH 200mm PROJECTIONS EACH SIDE.
- FILL REQUIRED ON BOTH SIDES OF FOUNDATION WALLS SHALL BE PLACED AND COMPACTED SIMULTANEOUSLY ON BOTH SIDES TO EQUALIZE SOIL PRESSURE.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AS NOTED IN CONCRETE SCHEDULE ON DRAWING S1-1.
- TOP OF SLAB-ON-GRADE TO BE 0.0m BELOW FINISHED FLOOR DATUM ELEVATION 187.010m UNLESS NOTED OTHERWISE ON PLAN, EXCEPT AS NOTED OR SLOPED TO SUIT DRAINAGE.
- PROVIDE SLAB DEPRESSIONS AND SLOPES, OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, AS REQUIRED BY THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS.
- SLAB-ON-GRADE TO BE 125mm THICK REINFORCED WITH 152x152 MM18.7MM18.7 WELDED WIRE MESH TOP OF SLAB, EXCEPT AS NOTED OTHERWISE. PLACE REINFORCING 25mm FROM TOP OF SLAB.
- SLAB-ON-GRADE TO BE FOUNDED ON A BELOW GRADE VAPOUR RETARDER AS SPECIFIED, ON A 200mm MINIMUM OF FREE DRAINING 20mm CLEAR CRUSHED STONE COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY, ON A QUALITY CRUSHED GRANULAR MATERIAL (OPSS GRANULAR A OR B TYPE II) COMPACTED TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPHDD).
- THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE INCLUDING STRIP FOOTINGS.
- ALL GROUT FILL TO CONSIST OF 25 MPa CONCRETE, UNLESS NOTED OTHERWISE.
- SEE TYPICAL NOTES, TYPICAL DETAILS, COLUMN AND FOOTING SCHEDULE AND ALL OTHER DRAWINGS.
- PLUMBING PASSING THRU FOUNDATION WALLS TO HAVE 25mm CLEARANCE ALL AROUND AND CLOSED OFF WITH A COMPRESSIBLE MATERIAL.
- SEE SITE PREPARATION NOTES ON THIS DRAWING FOR PREPARATION OF BUILDING SUBSURFACE.
- REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS FOR PERIMETER AND SUB-FLOOR DRAINAGE SYSTEM.
- "MCx" DENOTES MASONRY COLUMN ABOVE THE TOP OF FOUNDATION WALL. DOWELS FOR THE MASONRY COLUMNS ARE TO EXTEND INTO THE FOOTING, AND ABOVE THE FOUNDATION WALL WITH A LAP LENGTH. SEE MASONRY COLUMN SCHEDULE ON THIS DRAWING.

CONCRETE SCHEDULE			
No.	AREA	$f'_c$ (MPa)	AIR ENT.
1	FOOTINGS	25	CLASS EXPOSURE N
2	FOUNDATION WALLS	25	CLASS EXPOSURE F-2
3	INTERIOR SLAB-ON-GRADE	25	CLASS EXPOSURE N
4	FLOOR IN-FILL	25	CLASS EXPOSURE N



**PARTIAL EXISTING AND PROPOSED FOUNDATION PLAN**

SCALE= 1:50



**PARTIAL EXISTING AND PROPOSED SECOND FLOOR FRAMING PLAN**

SCALE= 1:50

**GENERAL NOTES**

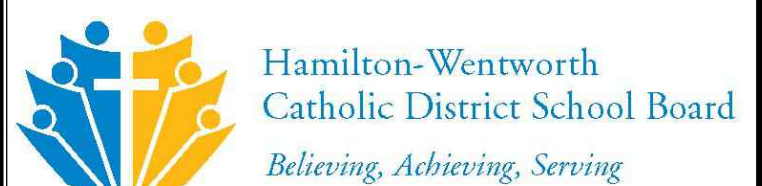
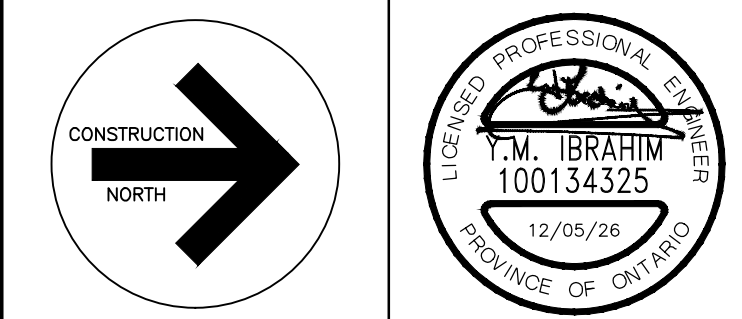
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**REVISIONS**



**ELEVATOR FOR ST. JEAN DE BREBEUF CATHOLIC SECONDARY SCHOOL**

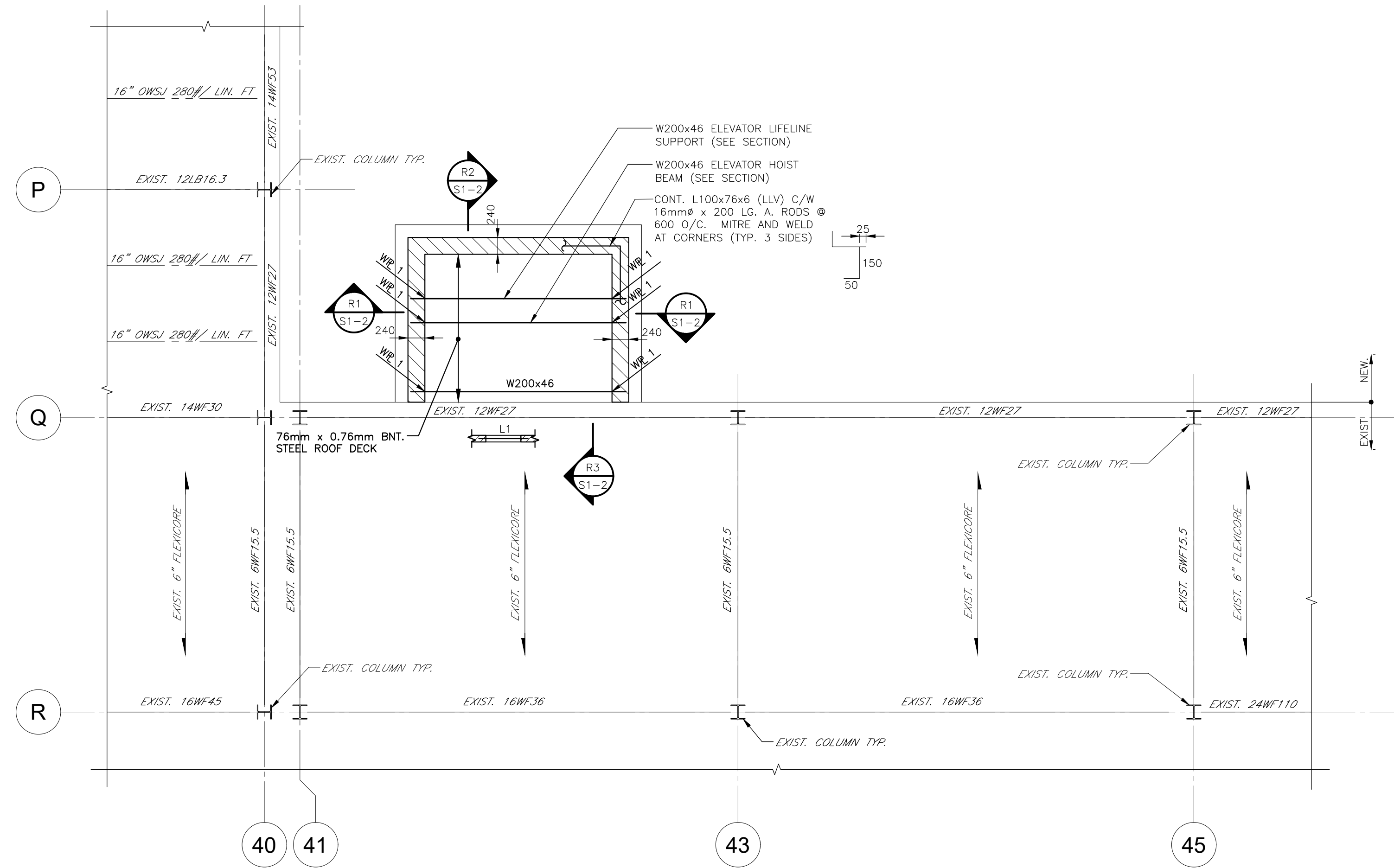
200 ACADIA DR.  
HAMILTON  
ONTARIO

**PARTIAL EXISTING AND PROPOSED PLANS AND SECTIONS**

SCALE	DRAWN	PROJECT No.
AS NOTED	VE	26053
DATE	CHECKED	DRAWING No.
APRIL 2026	YI	<b>S1-1</b>

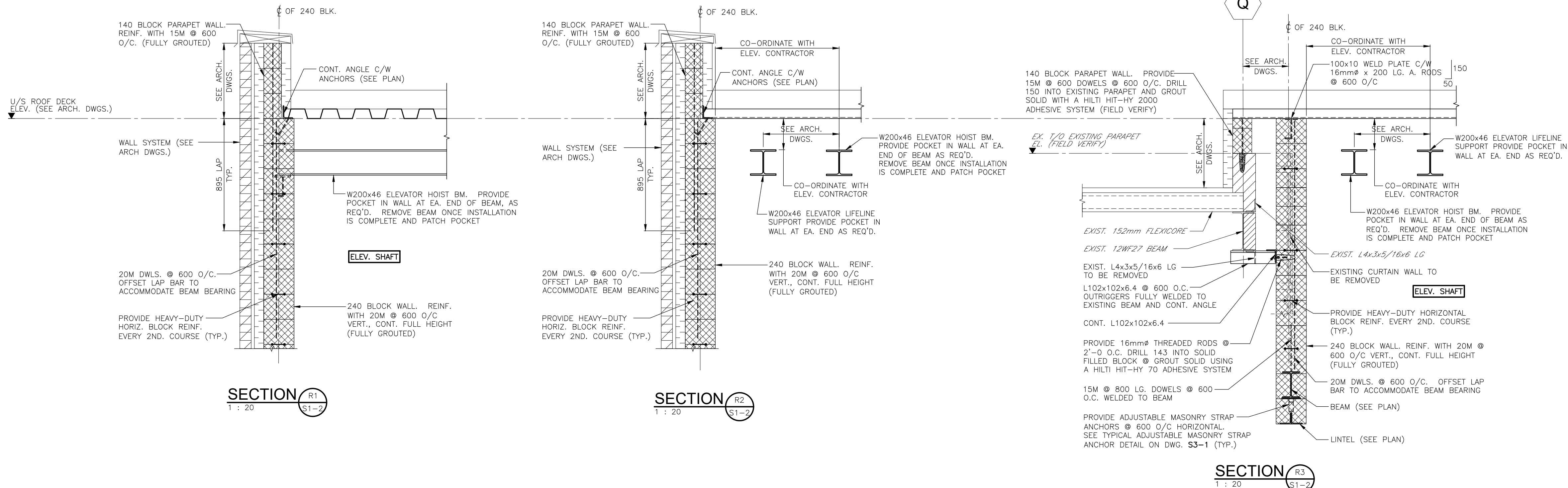
**PARTIAL EXISTING AND PROPOSED ROOF FRAMING PLAN NOTES:**

- U/S OF ROOF DECK TO BE 0.0m BELOW FINISHED ROOF DATUM ELEVATION (SEE ARCH. DWGS.), UNLESS OTHERWISE NOTED ON PLAN. SEE ALSO ARCH. DWGS.
- ROOF DECK TO BE PLACED FLAT. SLOPE TO DRAINS TO BE ACHIEVED BY ROOFING SYSTEM, AS SHOWN ON ARCHITECTURAL DRAWINGS.
- TOP OF STEEL BEAMS TO BE 0.0m BELOW ROOF DATUM ELEVATION, EXCEPT AS SHOWN THUS  $\frac{25}{50}$  ON PLAN.
- TOTAL DEAD LOAD AS FOLLOWS:  
ROOF - 1.2 kPa
- DEAD LOAD OF FOUR PLY BUILT-UP ROOFING SYSTEM IS ASSUMED TO BE 0.72 kPa UNLESS NOTED OTHERWISE.
- LIVE LOAD IS A UNIFORM LOAD OF 1.84 kPa PLUS ACCUMULATED SNOW LOAD (ASL) IN ACCORDANCE WITH THE ONTARIO BUILDING CODE REQUIREMENTS AND IN NO CASE LESS THAN AS NOTED ON PLAN.
- STEEL ROOF DECK SHALL BE DESIGNED TO SUPPORT SPECIFIED TOTAL DEAD AND LIVE LOADS. MINIMUM BASE NOMINAL THICKNESS (BNT) OF STEEL DECK SHALL BE AS NOTED PLAN.
- STEEL ROOF DECK SHALL BE INSTALLED FOR DIAPHRAGM ACTION IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE CANADIAN SHEET STEEL BUILDING INSTITUTE AND SPECIFICATIONS. STEEL DECK TO BE FASTENED AT ALL SUPPORTS W/ MIN. 19mm PUDDLE WELDS (36/7 SUPPORT PATTERN) AND 150mm O/C AT PERIMETER. ALL SIDE LAPS TO BE BUTT PUNCHED @ 300mm O/C U.N.O.
- STEEL ROOF DECK SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER. SHOP DRAWINGS AND CALCULATIONS BEARING THE STAMP AND SIGNATURE OF THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION AND ERECTION.
- BEAMS AND BEARING ANCHORAGE HAVE BEEN DESIGNED TO RESIST UPLIFT DUE TO WIND AS REQUIRED BY THE ONTARIO BUILDING CODE AND IN NO CASE LESS THAN THE GREATER OF THOSE INDICATED ON THE WIND UPLIFT DIAGRAM OR 0.5 kPa NET UPLIFT.
- LIVE LOAD DEFLECTION OF ROOF BEAMS SHALL NOT EXCEED 1/360 OF SPAN.
- LOCATION OF MECHANICAL EQUIPMENT AND MECHANICAL EQUIPMENT LOADS ARE TO BE CONFIRMED BY MECHANICAL CONTRACTOR BEFORE STRUCTURAL STEEL IS FABRICATED. REFER TO MECHANICAL DRAWINGS. MECHANICAL EQUIPMENT AND PIPING MUST BE HUNG FROM THE TOP FLANGE OF THE BEAMS AND HANGER SPACING SHALL NOT EXCEED 3.1m.
- FRAME ALL ROOF OPENINGS AS NOTED IN SPECIFICATIONS AND ON TYPICAL DETAIL.
- SUBMIT DETAILS FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS TO STRUCTURAL CONSULTANT FOR REVIEW.
- AN INDEPENDENT INSPECTION AND TESTING COMPANY IS TO INSPECT STRUCTURAL STEEL AND STEEL DECK IN THE SHOP AND IN THE FIELD FOR WELDING, CONNECTIONS, BOLT TORQUES, AND GENERAL CONFORMANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS.
- SEE TYPICAL NOTES, TYPICAL DETAILS, COLUMN AND FOOTING SCHEDULE AND ALL OTHER DRAWINGS.
- WALL PLATES (WR) SHALL HAVE LAST DIMENSION PARALLEL TO BEAM. SEE WALL PLATE SCHEDULE ON DRAWING S1-1.



**PARTIAL EXISTING AND PROPOSED ROOF FRAMING PLAN**

SCALE= 1:50



NOTE: FIELD VERIFY EXISTING STRUCTURE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER

**GENERAL NOTES**

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**REVISIONS**

CONSTRUCTION

→

NORTH

LICENSED PROFESSIONAL ENGINEER

T.M. IBRAHIM

100134325

12/05/26

PROVINCE OF ONTARIO

**Hamilton-Wentworth**  
Catholic District School Board

*Believing. Achieving. Serving*

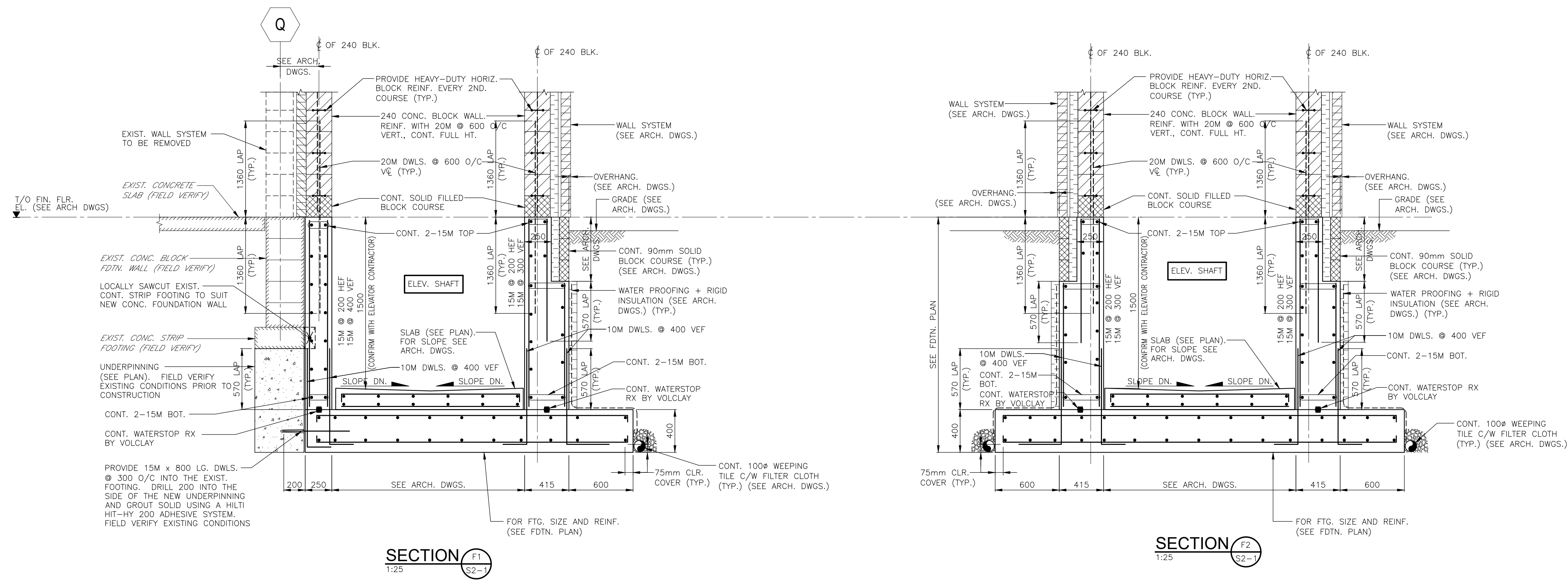
**LANHACK Steelcon Inc.**  
Consulting Engineers  
1709 Upper James Street  
Hamilton, ON L9B 1K7  
Tel: (905) 777-1454  
Fax: (905) 336-8142

**ELEVATOR FOR ST. JEAN DE BREBEUF CATHOLIC SECONDARY SCHOOL**

200 ACADIA DR.  
HAMILTON  
ONTARIO

**PARTIAL EXISTING AND PROPOSED ROOF FRAMING PLAN AND SECTIONS**

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AS NOTED	VE	26053
DATE	CHECKED	DRAWING No.
APRIL 2026	YI	<b>S1-2</b>

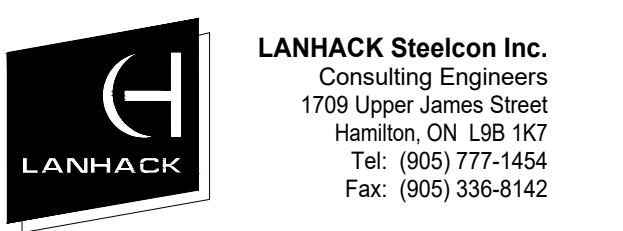
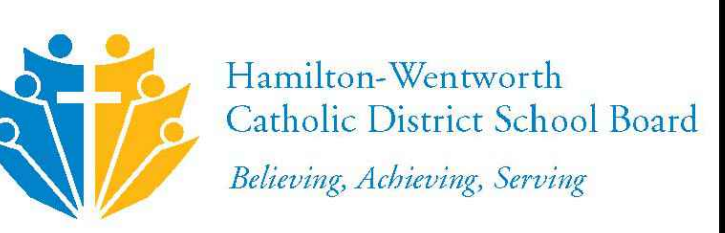
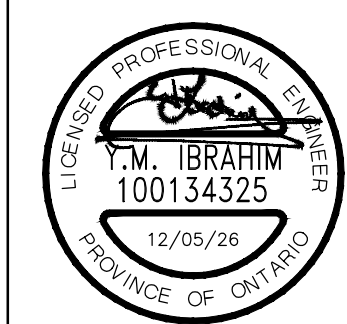


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**REVISIONS**



**ELEVATOR FOR ST. JEAN DE BREBEUF CATHOLIC SECONDARY SCHOOL**  
 200 ACADIA DR. HAMILTON ONTARIO

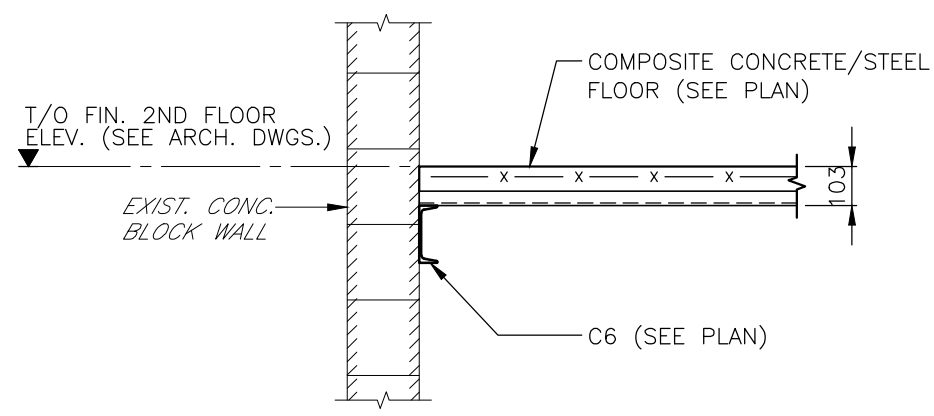
**ELEVATOR FLOOR INFILL PLAN AND FOUNDATION SECTIONS**

SCALE	DRAWN	PROJECT No.
1:25	VE	26053
DATE	CHECKED	DRAWING No.
APRIL 2026	YI	<b>S2-1</b>

**TYPICAL STAIR MID-LANDING FRAMING PLAN NOTES:**

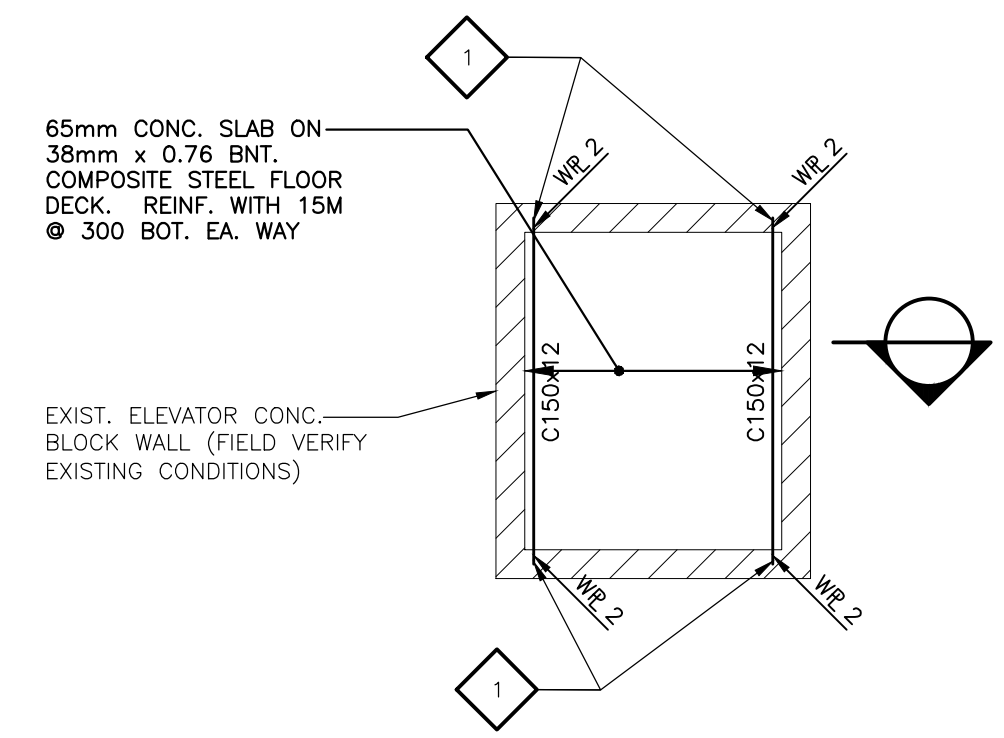
- TOP OF CONCRETE SLAB TO BE AT ELEVATION AS NOTED ON ARCHITECTURAL DRAWINGS.
- TOP OF STEEL ANGLES TO BE -103mm BELOW FINISHED FLOOR DATUM NOTED ON ARCHITECTURAL DRAWINGS.
- TOTAL DEAD AND LIVE LOAD IS AS FOLLOWS:  

DEAD LOAD (kPa)	LIVE LOAD (kPa)
3.03	4.8
- STEEL FLOOR DECK SHALL BE DESIGNED TO SUPPORT SPECIFIED TOTAL DEAD AND LIVE LOADS WITH COMPOSITE ACTION. MINIMUM BASE NOMINAL THICKNESS (BNT) OF COMPOSITE STEEL DECK SHALL BE 0.76mm.
- STEEL FLOOR DECK SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE CANADIAN SHEET STEEL BUILDING INSTITUTE AND STEEL DECK NOTES EXCEPT ADJACENT UNITS SHALL BE CRIMPED TOGETHER AT 460mm ON CENTRE.
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa AT 28 DAYS.
- SUBMIT DETAILS FOR ALL OPENINGS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS TO STRUCTURAL CONSULTANT FOR REVIEW.
- AN INDEPENDENT INSPECTION AND TESTING COMPANY IS TO INSPECT STRUCTURAL STEEL AND STEEL DECK IN THE SHOP AND IN THE FIELD FOR WELDING, CONNECTIONS, BOLT TORQUES, AND GENERAL CONFORMANCE WITH THE STRUCTURAL DRAWINGS SPECIFICATIONS.
- THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE FOR A REVIEW OF PREPARATIONS.
- SEE TYPICAL NOTES, TYPICAL DETAILS, COLUMN AND FOOTING SCHEDULE AND ALL OTHER DRAWINGS.



**TYPICAL INFILL FLOOR SLAB AT EXISTING ELEVATOR DETAIL**

**PARTIAL EXISTING AND PROPOSED SECOND FLOOR FRAMING PLAN - AT EXISTING ELEVATOR FLOOR INFILL**  
 SCALE=1:50



**DRAWING LEGEND**

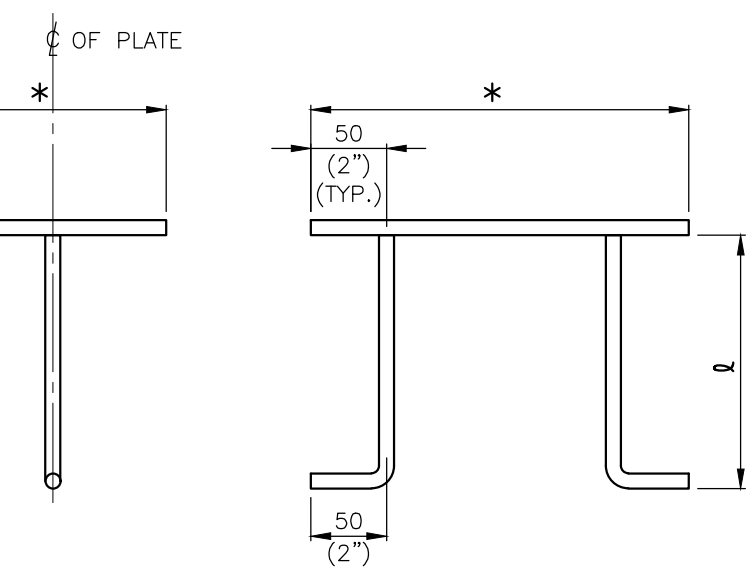
	LOCALLY POCKET EXIST. WALL A MIN. OF 800 LG. x WIDTH OF WALL. GROUT SOLID VOIDS OF BLOCK DIRECTLY BELOW BEAM. INSTALL NEW WALL PLATE FOR BEARING OF NEW BEAM. GROUT/PACK SOLID AND MAKE GOOD FINISH TO MATCH EXIST., ONCE NEW WORK IS COMPLETE
--	--

**WALL PLATE SCHEDULE**

MARK	SIZE	REMARKS
WR 1	250x13x230	C/W 2-16mmØ x 450 LG. DWLS.
WR 2	200x10x180	C/W 2-16mmØ x 450 LG. DWLS.

**LOAD BEARING MASONRY NOTES**

- GENERAL
- THE FOLLOWING INDICATES ONLY THE MINIMUM REQUIREMENTS APPLICABLE TO STRUCTURAL LOAD BEARING MASONRY, BASED UPON CSA S304-14 (R2010) DESIGN OF MASONRY STRUCTURES, CLAUSE 10.5.2.
- REFER ALSO TO ARCHITECTURAL DRAWINGS &/OR THE SPECIFICATION FOR REQUIREMENTS OTHER THAN STRUCTURAL, AND FOR NON-LOAD BEARING WALLS & PARTITIONS.
- IF MASONRY CONSTRUCTION IS BASED ON ENGINEERING ANALYSIS "ENGINEERED MASONRY", THEN REFER TO NOTES & DETAILS ON STRUCTURAL DRAWINGS.
- MASONRY CONSTRUCTION TO CONFORM TO CSA STANDARDS CSA-S304-14 & CSA A37-14.
- PRODUCTS
- CONCRETE BLOCKS & BRICKS:- TO CONFORM TO ONE OR MORE OF CSA A165 SERIES-14. BLOCKS TO BE MODULAR UNITS AS SHOWN ON THE ARCHITECTURAL DRAWINGS &/OR SPECIFICATION, AND UNLESS OTHERWISE NOTED SHALL BE:-
  - FOR BELOW GRADE & EXTERIOR EXPOSED WALLS USE NORMAL WEIGHT LOAD BEARING UNITS:-  
STANDARD HOLLOW: TYPE H/15/A/M.  
75% SOLID: TYPE S/15/A/M.  
100% SOLID: TYPE S/15/A/M.
  - FOR INTERIOR ABOVE GRADE WALLS USE LIGHTWEIGHT LOAD BEARING BLOCKS:-  
STANDARD HOLLOW: TYPE H/15/C/M.  
75% SOLID: TYPE S/15/C/M.  
100% SOLID: TYPE S/15/C/M.
- CLAY BRICKS:- TO CONFORM TO ONE OR MORE OF CSA A82-14. SEE ARCHITECTURAL DRAWINGS &/OR SPECIFICATIONS FOR TYPES & STYLES OF BRICKS REQUIRED. UNLESS OTHERWISE NOTED, THE MINIMUM COMPRESSIVE STRENGTH (BRICK FLATWISE) GROSS AREA SHALL BE 20 MPa.
- MORTAR:- TO CONFORM TO CSA A179-14. FOR LAYING CONCRETE BLOCKS...USE TYPE "S" MORTAR UNLESS NOTED. FOR LAYING CLAY BRICKS: USE TYPE "N" MORTAR UNLESS NOTED.
- MASONRY GROUT:- TO CONFORM TO CSA A179-14. THE SLUMP SHALL BE + 200mm (+8") AND THE MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 12.5 MPa.
- MASONRY CONNECTORS:- (ANCHORS, FASTENERS & TIES) SHALL CONFORM TO CSA A370-14, AND BE INSTALLED TO COMPLY WITH CSA A371-14. SPACING, STRENGTH & GALVANIZING OF STRIP TIES, DOVETAIL ANCHORS, BAR ANCHORS, ROD ANCHORS, STRAP ANCHORS, WALL & PARTITION ANCHORS SHALL COMPLY WITH CSA A371-14.
- BRICK VENEER AND MASONRY TIES TO BE DESIGNED AND CERTIFIED BY MASONRY CONTRACTOR'S ENGINEER. PROVIDE CALCULATIONS AND DETAILS, CERTIFIED BY A PROFESSIONAL ENGINEER, LICENSED IN THE PROVINCE OF ONTARIO. TIES TO CONFORM TO O.B.C. 2012 AND CSA A370-14 & CSA A371-14. TIES TO BE DESIGNED FOR SEISMIC REQUIREMENTS, IN ACCORDANCE WITH O.B.C. 2012 AND CSA S304-14.
- VERTICAL REINFORCING FOR ALL NON-LOAD BEARING WALLS AND PARTITIONS: THE FOLLOWING ARE MINIMUM REQUIREMENTS:-
  - 90 (4") BLOCK = 10M @ 800mm (2'-8") O/C  
140 (6") BLOCK = 15M @ 1000mm (3'-4") O/C  
190 (8") BLOCK = 15M @ 800mm (2'-8") O/C  
240 (10") BLOCK = 15M @ 600mm (2'-0") O/C  
290 (12") BLOCK = 15M @ 400mm (1'-4") O/C
- HORIZONTAL JOINT REINFORCEMENT FOR ALL MASONRY WALLS: THE FOLLOWING ARE MINIMUM REQUIREMENTS:-
  - CONFORM TO CSA A370-14 & A371-14.
  - REINFORCEMENT SHALL BE AN APPROVED CONTINUOUS "LADDER" TYPE, PREFABRICATED WITH 3.66mm DIAMETER (9 GAUGE) LONGITUDINAL & CROSS WIRES.
  - SPACING:- PROVIDE REINFORCING IN THE TOP COURSE IMMEDIATELY BELOW FLOOR & ROOF BEARING LEVELS AND THE FIRST TWO COURSES ABOVE AND BELOW EVERY WALL OPENING. THE REINFORCING SHALL EXTEND 600mm (24") BEYOND SUCH OPENINGS. FOR THE REMAINDER OF WALLS, THE VERTICAL SPACING SHALL NOT EXCEED 400mm (16").
  - OVERLAP SPLICES:- SHALL BE A MIN. OF 150mm (6") FOR KNURLED WIRE & 300mm (12") FOR PLAIN WIRE. LAPS SHALL BE STAGGERED A MINIMUM OF 750mm (30") FROM COURSE TO COURSE. REINFORCING SHALL NOT PASS THROUGH A VERTICAL CONTROL JOINT UNLESS OTHERWISE SHOWN.
  - CORROSION RESISTANCE:- JOINT REINFORCING FOR ALL WALLS IN CONTACT WITH SOIL, EXTERIOR WALLS & WALLS IN A MOIST ENVIRONMENT SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION TO ASTM A153/A153M-09, 458 gm/sq.meter (1.5oz./sq.foot).
  - COMPOSITE & CAVITY WALLS:- WHERE COURSING OF WYTHES DO NOT ALIGN OF WHERE IT IS DESIRABLE & PERMITTED TO BUILD ONE WYTHE BEFORE THE OTHER, REINFORCING SHALL BE AN APPROVED ADJUSTABLE TYPE WITH A BOX OR EYE SECTION WHICH EXTENDS INTO THE COLLAR JOINT OR CAVITY AND RESTRAINS THE TRANSVERSE MOVEMENT OF THE TWO WYTHES. FOR CAVITY WALLS WITH RIGID INSULATION, EXTENSION SHALL BE DESIGNED TO HOLD THE INSULATION IN PLACE BY USE OF PLASTIC WEDGES OR APPROVED EQUAL. GALVANIZED HOOK STYLE "BOX TIES" OR "PIN-TIES" SHALL EXTEND INTO THE FACE WYTHE TO COMPLETE THE ASSEMBLY.
  - PROVIDE ALL PREFABRICATED CORNER AND TEE SECTIONS.
- COMPOSITE WALLS:- SHALL HAVE THE VERTICAL COLLAR JOINTS BETWEEN WYTHES COMPLETELY FILLED WITH MORTAR OR GROUT.
- BOND BEAMS:- MADE FROM LINTEL BLOCKS, OR HALF WEB BLOCKS WHERE SHOWN ON STRUCTURAL DRAWINGS SHALL CONFORM TO CSA A371-14.
- GROUTING:- BY FILLING VOIDS OF HOLLOW UNITS & REINFORCED HOLLOW UNITS SHALL CONFORM TO CSA A371-14 (MORTAR IS NOT ACCEPTABLE).
- EXPANSION & CONTROL JOINTS:- SHALL BE PROVIDED. SEE ARCHITECTURAL DRAWINGS &/OR SPECIFICATION FOR DETAILS.
- EXECUTION
- BEARINGS ON MASONRY:-
  - MINIMUM BEARING ON MASONRY UNLESS OTHERWISE NOTED:-  
BEAMS (STEEL, CONC., WOOD).....200mm (8") NOMINAL  
LINTELS (STEEL, CONC., WOOD).....150mm (6") NOMINAL  
JOISTS (STEEL, WOOD).....100mm (4") NOMINAL  
SLABS (CAST-IN-PLACE, PRECAST).....100mm (4") NOMINAL  
STEEL DECKING (ON WELD PLATE).....100mm (4") NOMINAL
  - MASONRY BEARINGS SHALL BE OF SOLID BLOCKS (OR DROUTED SOLID) OR BRICKS LAID IN MORTAR. ALL JOINTS ARE TO BE FULLY FILLED WITH TYPE "S" MORTAR.
  - MIN. SIZE OF SOLID BEARINGS AT BEAMS AND LINTELS UNLESS NOTED SHALL BE EQUAL TO TWICE THE BEARING/WALL PLATE (WP) LENGTH AND FOR A DEPTH EQUAL TO THE BEARING/WALL PLATE (WP) LENGTH, AND IN NO CASE LESS THAN 400 LONG x 200 DEEP (16" x 8"), SYMMETRICAL UNDER BEARING POINT.
  - PROVIDE A MINIMUM OF ONE CONTINUOUS COURSE 200mm (8") OF SOLID OR GROUTED VOID BLOCKS OR BRICKS LAID IN MORTAR AT THE TOP COURSE IMMEDIATELY BELOW ALL FLOOR AND ROOF BEARING LEVELS.
- TOLERANCES:- UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS &/OR SPECIFICATION, SHALL CONFORM TO CSA A371-14.
- COLD WEATHER CONSTRUCTION:- REQUIREMENTS & PROTECTION SHALL CONFORM TO CSA A371-14 AND UNDER NO CIRCUMSTANCES SHALL MASONRY CONSTRUCTION BE PERMITTED WHEN THE AIR TEMPERATURE FALLS BELOW - 12°C.
- QUALITY CONTROL
- WHEN REQUESTED SAMPLING AND TESTING SHALL CONFORM TO CSA S304-14. REFER ALSO TO GENERAL NOTES.



**TYPICAL WALL PLATE DETAIL**

- ALL BENT ANCHORS TO BE FABRICATED FROM DEFORMED BAR WITH A MIN. YIELD OF 400 MPa.
- \*F: SEE PLANS AND WALL PLATE SCHEDULE
- L = (SPECIFIED TOTAL LENGTH - 50 (-2")), SEE WALL PLATE SCHEDULE FOR LENGTH

**CAST IN PLACE CONCRETE NOTES**

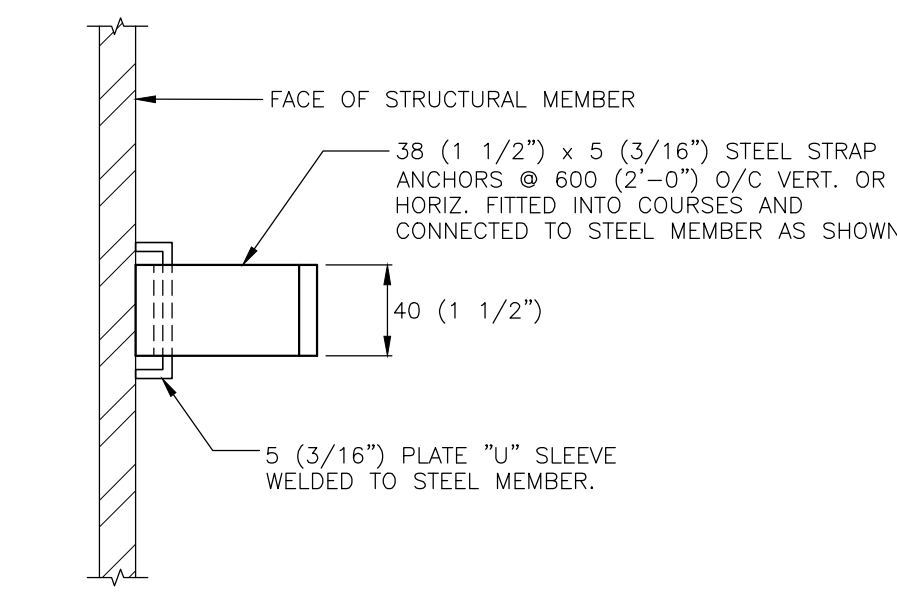
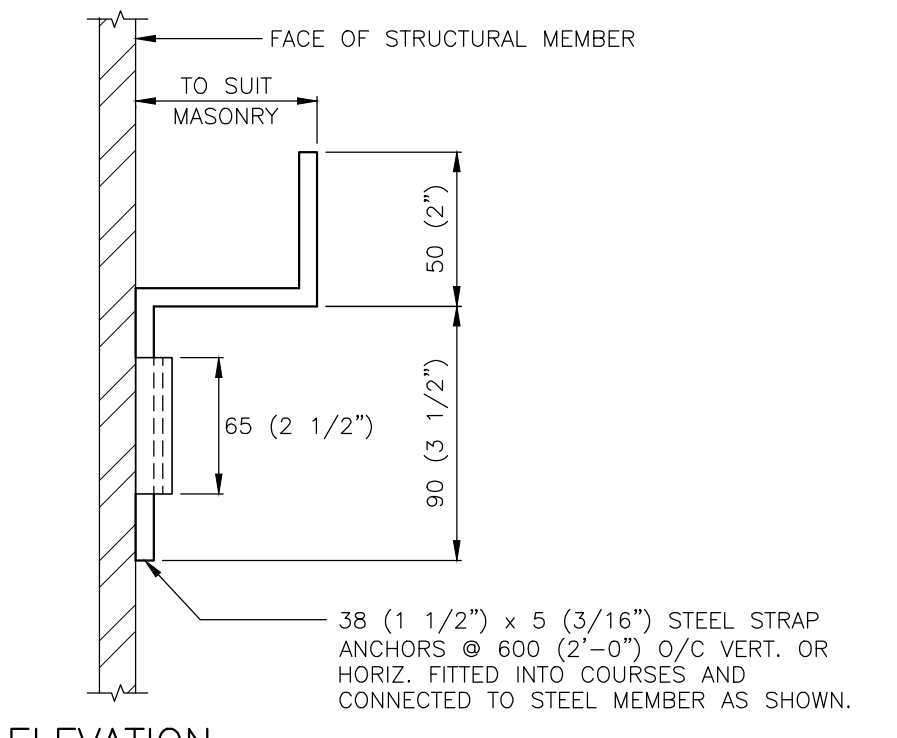
- GENERAL
- PROVIDE ALL LABOUR, MATERIALS, TOOLS AND EQUIPMENT REQUIRED TO CARRY OUT THE WORK.
- REFER ALSO TO GENERAL NOTES, NOTES UNDER PLANS AND SCHEDULES, TYPICAL DETAILS AND SPECIFICATION.
- PRODUCTS
- PORTLAND CEMENT, WATER AND AGGREGATES SHALL CONFORM TO CAN/CSA-A23.1-14.
- PROVIDE AN APPROVED WATER REDUCING ADDITIVE IN ALL CONCRETE. PROVIDE AN APPROVED AIR ENTRAINING ADDITIVE IN ALL CONCRETE WHICH WILL BE EXPOSED TO A FREEZE/THAW CYCLE AND/OR THE ACTION OF DE-ICING SALT. ADMIXTURES SHALL CONFORM TO CAN/CSA A23.1-14.
- FORMWORK SHALL CONFORM TO CAN/CSA A23.1-14 AND CAN/CSA-S269.3-M92 (R2013) AND FALSEWORK SHALL CONFORM TO CSA S269.3-M92 (R2013).
- IF SO INSTRUCTED, THE DESIGNS FOR THE FORMWORK SHALL BE SUBMITTED FOR REVIEW BEFORE CONSTRUCTION. FORMWORK DRAWINGS AND DESIGN SHALL BEAR THE STAMP OF A LICENSED PROFESSIONAL ENGINEER.
- UNLESS OTHERWISE NOTED PROVIDE SLAB & BEAM FORMS WITH AN UPWARD CAMBER OF 2mm/1000mm (1/4" PER 10'-0") OF SPAN, AND UPLIFT ENDS OF CANTILEVERED SLAB & BEAM FORMS 3mm/1000mm (1/4" PER 8'-0") OF CANTILEVER LENGTH.
- PROVIDE STANDARD ADJUSTABLE MASONRY ANCHOR SLOTS FOR ALL MASONRY FACING OR ABUTTING CONCRETE FACES.
- PROVIDE AND/OR INSTALL STANDARD ADJUSTABLE INSERTS & ALL OTHER CAST-IN INSERTS AS REQUIRED BY THE ARCHITECTURAL, STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS & SPECIFICATION.
- REINFORCING STEEL UNLESS SPECIFICALLY NOTED, SHALL BE DEFORMED BARS CONFORMING TO CAN/CSA G30.18-09 GRADE 400 (58000 PSI).
- WELDED WIRE FABRIC TO CONFORM TO CSA G30.18-09.
- REINFORCING SHALL BE DETAILED, BENT, PLACED AND SUPPORTED TO CONFORM TO ACI STANDARD 315-99 AND THE MANUAL OF STANDARD PRACTICE PUBLISHED BY THE REINFORCING STEEL INSTITUTE OF CANADA, 2004.
- DRY-PACK GROUT TO BE 1 PART PORTLAND CEMENT TO 1 1/2 PARTS SAND TO 2 PARTS OF 8mm PEA GRAVEL WITH ONLY SUFFICIENT WATER TO DAMPEN MIXTURE. COMPRESSIVE STRENGTH 50 MPa AT 28 DAYS.
- NON-SHRINK GROUT TO BE AN APPROVED PRE-MIXED PROPRIETARY PRODUCT.
- PROVIDE APPROVED EXTRUDED PVC WATERSTOPS OF SIZE & STYLES INDICATED WITH PRE-WELDED CORNERS & INTERSECTIONS. SEE ALSO TYPICAL DETAILS.
- CURING AND SEALING COMPOUNDS WHERE APPROVED FOR USE TO CONFORM TO ASTM STANDARD C309. GENERALLY, ALL CONCRETE SURFACES ARE TO BE SEALED UNLESS NOTED OTHERWISE. COMPOUNDS ARE TO BE COMPATIBLE WITH APPLIED FINISHES.
- EXECUTION
- MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE @ 28 DAYS SHALL BE AS NOTED ON THE DRAWINGS (20 MPa MINIMUM).
- SLUMP AT THE POINT OF DISCHARGE SHALL BE CONSISTENT AT 90mm + 20mm (3 1/2" + 3/4") UNLESS NOTED OTHERWISE. GREATER SLUMPS ARE NOT ACCEPTABLE.
- CONCRETE MIXING, TRANSPORTATION, HANDLING AND PLACING SHALL CONFORM TO CAN/CSA A23.1-14.
- CONSTRUCTION JOINTS FOR WALLS ARE BASED UPON VERTICAL JOINTS AT A MAXIMUM SPACING OF 10000mm (30'-0").
- CONSTRUCTION JOINTS FOR WALLS, SLABS, AND BEAMS NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL CONSULTANT 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.
- 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 THAT THEY SHALL NOT REQUIRE THE CUTTING, BENDING, OR DISPLACEMENT OF THE REINFORCING OTHER THAN AS SHOWN ON THE TYPICAL DETAILS.
- ELECTRICAL CONDUIT SHALL NOT PASS THROUGH A COLUMN, SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1/3 SLAB THICKNESS OR WALL OR BEAM IN WHICH IT IS EMBEDDED. SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS ON CENTRE UNLESS APPROVED AND HAVE A MINIMUM CONCRETE COVER OF 25mm (1") AND UNLESS SPECIFICALLY PERMITTED OTHERWISE, SHALL NOT RUN HORIZONTALLY IN A CONCRETE WALL.
- OPENINGS AND DRIVEN FASTENERS REQUIRED IN THE CONCRETE AFTER THE CONCRETE IS PLACED SHALL BE APPROVED BY THE STRUCTURAL CONSULTANT BEFORE PROCEEDING.
- FINISHING, REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIRED FINISH TO EXPOSED CONCRETE. ALL HONEYCOMBING SHALL BE CUT OUT AND FILLED. FLOOR FINISHES SHALL BE AS REQUIRED BY THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS AND SHALL CONFORM TO CSA STANDARD CAN/CSA A23.1-14 (CLASS A FINISH UNLESS NOTED).
- TOLERANCES FOR PLACING STRUCTURAL CONCRETE, REINFORCING STEEL, CAST-IN HARDWARE AND FOR FLOOR & ROOF FINISHES SHALL BE AS SPECIFIED IN CSA STANDARD CAN/CSA A23.1.
- MINIMUM REINFORCING FOR ANY CONCRETE WALL TO BE AS SHOWN ON TYPICAL DETAIL FOR CONCRETE WALLS.
- MINIMUM REINFORCING FOR ANY SUSPENDED SLAB SHALL BE TEMPERATURE BARS BOTTOM EACH WAY PLUS 10M @ 400 (16") DOWELS 600x600 (2'-0" x 2'-0") TOP AROUND PERIMETER. REFER TO TYPICAL DETAIL OF ONE WAY SLABS.
- QUALITY CONTROL
- FOR INSPECTION AND TESTING, SEE GENERAL NOTES.

**LINTEL NOTES**

- UNLESS OTHERWISE SHOWN OR NOTED ON THE STRUCTURAL DRAWINGS, PROVIDE LINTELS OVER ALL OPENINGS IN MASONRY WALLS, AS FOLLOWS:-
- FOR OPENINGS UP TO 1200mm (4'-0") CLEAR; ONE ANGLE 90 x 90 x 6 (3 1/2" x 3 1/2" x 1/4") FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.  
OR  
200mm (8") DEEP MASONRY LINTEL BLOCK REINFORCED WITH 1-10M BOTTOM FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
  - FOR OPENINGS FROM 1200mm (4'-0") CLEAR TO 1800mm (6'-0") CLEAR; ONE ANGLE 125 x 90 x 8 LONG LEG VERTICAL (5 x 3 1/2 x 5/16) FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.  
OR  
200mm (8") DEEP MASONRY LINTEL BLOCK REINFORCED WITH 1-15M BOTTOM FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
  - ALL LINTELS TO BEAR 150mm (6") MINIMUM AT EACH END ON SOLID MASONRY, UNLESS SHOWN OTHERWISE.
  - PAIRS OF LINTEL ANGLES ARE TO BE BOLTED OR WELDED TOGETHER, PRIOR TO SHIPMENT, AT MAXIMUM 450mm (18") CENTRES.
  - MASONRY LINTEL BLOCKS MAY ONLY BE USED IN LOAD-BEARING WALLS WITH PERMISSION & MUST BE FILLED WITH 20 MPa CONCRETE. MORTAR IS NOT ACCEPTABLE AND WILL BE REJECTED.
  - STEEL LINTELS ARE TO BE SUPPLIED BY STEEL CONTRACTOR BUT PLACED BY GENERAL CONTRACTOR OR MASONRY SUB-CONTRACTOR.
  - STEEL CONTRACTOR TO SUPPLY ALL NECESSARY DIRECTIONS REQUIRED FOR PLACING STEEL LINTELS.
  - WHILE EVERY EFFORT HAS BEEN MADE TO SHOW ON THE STRUCTURAL DRAWINGS EACH AND EVERY LINTEL OVER DOORS, MECHANICAL AND ELECTRICAL SERVICES, RECESSES & POCKETS ETC., THROUGH LOAD-BEARING MASONRY WALLS, IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CO-ORDINATE AND SUPPLY ALL LINTELS REQUIRED THROUGH ALL WALLS (INCLUDING NON-LOAD BEARING WALLS) THROUGHOUT THE PROJECT. UNLESS OTHERWISE DIRECTED, LINTELS SHALL CONFORM TO THE ABOVE REQUIREMENTS.
  - REFER ALSO TO TYPICAL DETAILS.

**STRUCTURAL STEEL NOTES**

- GENERAL
- STRUCTURAL STEEL CONNECTIONS SHALL CONFORM TO CSA STANDARD CAN/CSA S16-14 (LIMIT STATES DESIGN) & SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER EXPERIENCED IN THIS TYPE OF WORK.
- REFER ALSO TO GENERAL NOTES AND NOTES UNDER PLANS.
- WELDING SHALL CONFORM TO CSA STANDARD W59-13 AND BE PERFORMED BY A FABRICATOR CERTIFIED TO CSA W47.1-09 (R2014).
- BEAM CONNECTIONS SHALL BE DESIGNED FOR A MINIMUM OF 50% OF THE BEAM SHEAR CAPACITY UNLESS OTHERWISE NOTED, & IN NO CASE BE LESS THAN THE LOADS SHOWN ON OR IMPLIED BY THE DRAWINGS.
- PRODUCTS
- ALL STRUCTURAL STEEL MEMBERS SHALL CONFORM TO CAN/CSA G40.20-13/G40.21-13. ROLLED SECTIONS, PLATES, S40 RODS, STRAP ANCHORS & BARS, EXCEPT WIDE FLANGE BEAMS SHALL BE TYPE 350W AND HOLLOW STRUCTURAL AND WIDE FLANGE BEAMS SECTIONS SHALL BE TYPE 350W, CLASS H FOR SQUARE HSS & CLASS C FOR ROUND HSS.
- BOLTS, NUTS & WASHERS FOR CONNECTIONS TO CONFORM TO ASTM A325-14 UNLESS NOTED.
- ANCHOR BOLTS, NUTS & WASHERS FOR BASE PLATES, BEARING PLATES & WELD PLATES TO CONFORM TO ASTM A307-14 UNLESS NOTED.
- WELDING MATERIALS TO CONFORM TO CSA W48-14 (SERIES).
- PRIMER PAINT TO CONFORM TO CGSB 1.40-M89 OR CISC/CPMA 2-75.
- EXECUTION
- FABRICATION, HANDLING & ERECTION TO CONFORM TO CAN/CSA S16-14.
- PROVIDE A MINIMUM OF 2-12mm (1/2") DIAMETER BY 250 (10") LONG WALL ANCHORS FOR ALL BEAM WALL PLATES ON MASONRY, OR AN APPROVED EQUAL, UNLESS OTHERWISE NOTED. BEAMS TO BE WELDED TO BEARING PLATES.
- PROVIDE ADJUSTABLE ANCHORS TO ALL STEEL TO BE BUILT INTO, ABUTTED BY, OR FACED WITH MASONRY (REFER ALSO TO DETAILS IF SHOWN). SPACING OF ANCHORS TO BE:
  - FOR VERTICAL SPACING: 600 (24") MAX. CENTRES
  - FOR HORIZONTAL SPACING: 10 TIMES WALL THICKNESS\*  
MAX. 2000 (6'-8") CENTRES
 (\* NOTE, USE BACK-UP WYTHE ONLY FOR CAVITY WALLS.)
- WHERE STEEL PROVIDES LATERAL BRACING ONLY TO MASONRY (I.E. DOES NOT SUPPORT MASONRY) ANCHORS SHALL PERMIT DIFFERENTIAL VERTICAL MOVEMENT BETWEEN STRUCTURAL MEMBER & MASONRY.
- CLEAN, PREPARE SURFACES AND SHOP PRIME STRUCTURAL STEEL WITH ONE COAT OF SPECIFIED PRIMER PAINT IN ACCORDANCE WITH CSA CAN3-S16-14, EXCEPT WHERE MEMBERS ARE TO BE ENCASED IN CONCRETE. FIELD "TOUCH-UP" BOLTS, WELDS, BURNED OR SCRAPPED SURFACES AFTER ERECTION.
- PROVIDE ALL NECESSARY TEMPORARY BRACING TO KEEP STRUCTURE SAFE AND PLUMB. BRACING SHOWN ON STRUCTURAL DRAWINGS IS PERMANENT FOR FINISHED BUILDING ONLY.
- CO-ORDINATE WITH MECHANICAL & ELECTRICAL CONSULTANTS & SUB-TRADES WHOSE WORK MAY EFFECT DETAILING, FABRICATION & ERECTION OF THE STEEL STRUCTURE.
- TOLERANCES: VARIATION FROM PLUMB & LEVEL EXTERIOR COLUMNS, COLUMNS AT ELEVATOR SHAFTS & SPANDREL BEAMS INCLUDING ANGLES: 1:1000 MAX 25mm (1/8" IN 10'-0" MAX. 1") OTHER PIECES: 1:500 (1/4" IN 10'-0")
- NO HOLES OTHER THAN THOSE SHOWN ON REVIEWED SHOP DRAWINGS SHALL BE MADE IN ANY STEEL MEMBER WITHOUT WRITTEN PERMISSION OF THE STRUCTURAL CONSULTANT.
- QUALITY CONTROL
- SEE GENERAL NOTES, NOTES UNDER PLANS, AND/OR SPECIFICATION FOR INSPECTION & TESTING REQUIREMENTS.

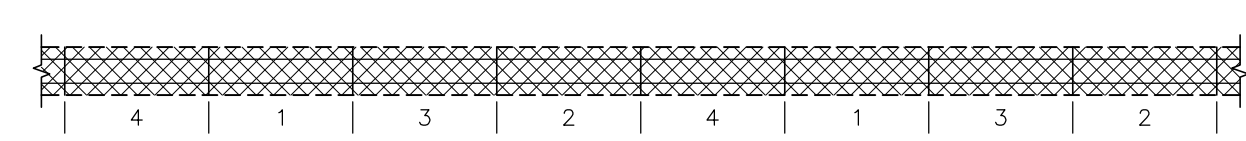


**TYPICAL DETAIL OF ADJUSTABLE MASONRY ANCHORS TO STRUCTURAL STEEL MEMBER**

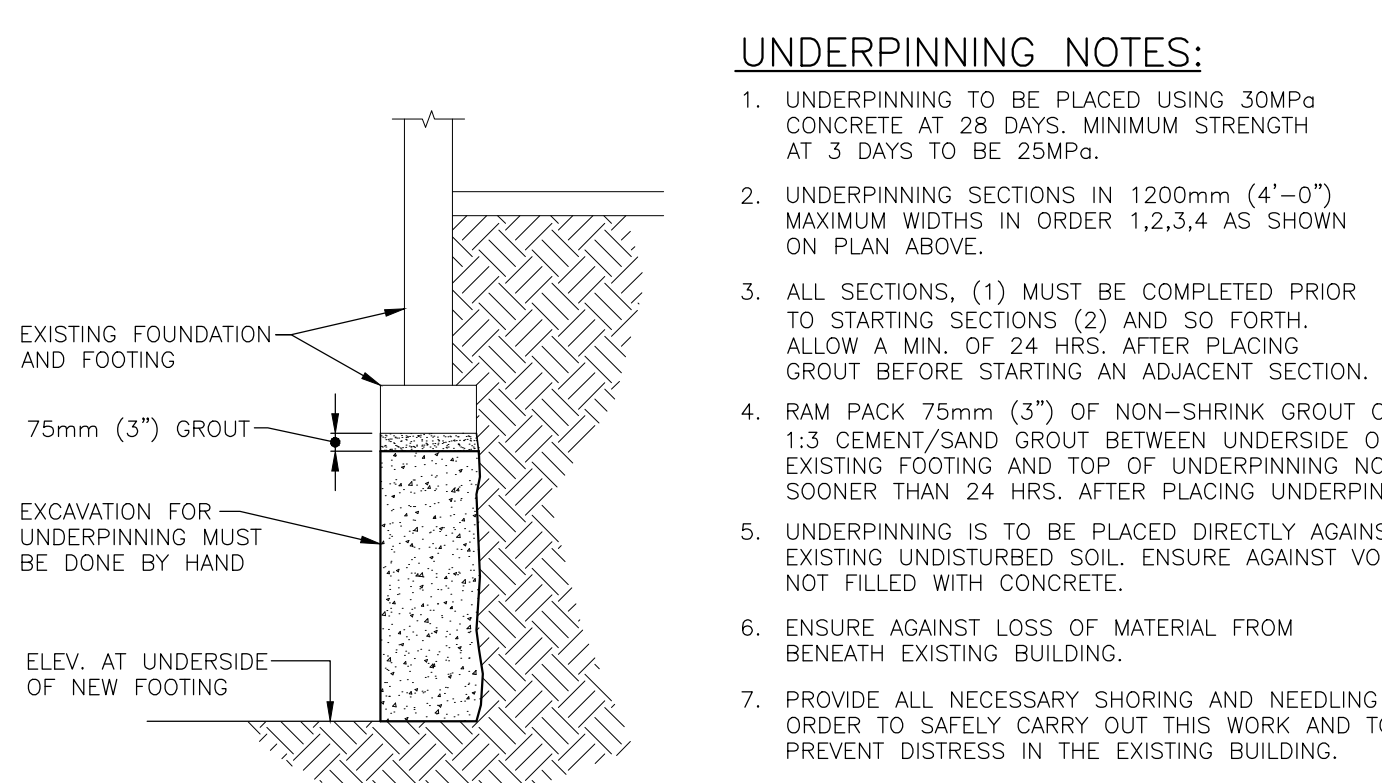
- ALTERNATIVE SUITABLE PROPRIETARY BRANDS OF ADJUSTABLE MASONRY ANCHORAGE MECHANISMS MAY BE APPROVED FOR USE, SUCH AS: BLOK-LOK, COLUMN-LOK, BLOK-LOK TYPE C WITH BL304 TIES, OR BLOK-LOK TYPE B' ANCHORS WITH BLT1 TIES. SUBMIT DETAILS FOR APPROVAL BEFORE PROCEEDING.

**GENERAL NOTES**

- GENERAL
- DESIGN AND CONSTRUCTION IS TO CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, REFER ALSO TO TYPICAL NOTES UNDER PLANS & SCHEDULES ON THE STRUCTURAL DRAWINGS, AND TO THE SPECIFICATION. ALL CODES, MANUALS, STANDARDS AND SPECIFICATIONS REFERRED TO SHALL BE THE LATEST EDITIONS INCLUDING ALL REVISIONS AND ADDENDA. ALL DIMENSIONS OTHER THAN PURELY STRUCTURAL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE CHECKED AGAINST THE ARCHITECTURAL DRAWINGS AND ANY INCONSISTENCIES REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. STRUCTURAL DRAWINGS MUST NOT BE SCALED.
- REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SIZES OF OPENINGS, TRENCHES, PITS, SUMPS, EQUIPMENT, SLEEVES, DEPRESSIONS, GROOVES AND CHAMFERS NOT INDICATED ON THE STRUCTURAL DRAWINGS. UNLESS SPECIFICALLY NOTED OTHERWISE, THE ABOVE ITEMS WHERE SHOWN ON THE STRUCTURAL DRAWINGS ARE INDICATED ONLY APPROXIMATELY AS TO SIZE AND LOCATION.
- UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS, NO PROVISION HAS BEEN MADE IN THE DESIGN FOR CONDITIONS OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS TO PROVIDE ALL NECESSARY BRACINGS AND SHORING REQUIRED FOR 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 BRACINGS, SHORINGS, SHEET PILING OR OTHER TEMPORARY SUPPORTS TO SAFEGUARD ALL EXISTING OR ADJACENT STRUCTURES EFFECTED BY THIS WORK.
- SHOP DRAWINGS, PLACING DRAWINGS & BAR LISTS:-
- FOR ALL STRUCTURAL COMPONENTS SHOWN ON THE STRUCTURAL DRAWINGS, SUBMIT COPIES OF SHOP DRAWINGS AS DIRECTED, FOR REVIEW BY THE STRUCTURAL CONSULTANT. SHOP DRAWINGS TO SHOW COMPLETE INFORMATION FOR THE FABRICATION AND ERECTION OF THE STRUCTURAL COMPONENTS.
- REVIEW BY THE STRUCTURAL CONSULTANT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR SEEING THAT THE WORK IS COMPLETE, ACCURATE AND IN CONFORMITY WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS.
- INSPECTION AND TESTING:-
- A SOILS CONSULTANT AND AN INDEPENDENT INSPECTION AND TESTING COMPANY ARE TO BE ENGAGED TO CARRY OUT THE FOLLOWING SERVICES:-
  - SOIL - REFER TO NOTES ON STRUCTURAL DRAWINGS AND ALSO TO THE SOIL REPORT.
  - FILL UNDER SLABS-ON-GRADE - CONFIRM THAT FILL MATERIAL USED IS SATISFACTORY AND THAT THE REQUIRED DEGREE OF COMPACTION HAS BEEN ATTAINED.
  - CAST-IN-PLACE & PRECAST CONCRETE - ROUTINE INSPECTION OF MATERIALS, INCLUDING SLUMP, CYLINDER AND AIR ENTRAINMENT TESTS & REINFORCING ROD TESTS WHEN REQUIRED OR DIRECTED IN ACCORDANCE WITH CAN/CSA A23.2-14.
  - STRUCTURAL STEEL AND OWSJ - ROUTINE SHOP AND FIELD INSPECTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF CAN/CSA S16-14.
  - STEEL DECK - SEE STEEL DECK NOTES.
  - MASONRY - WHEN REQUIRED OR DIRECTED, CONCRETE BLOCKS SHALL BE TESTED IN ACCORDANCE WITH CSA A165 SERIES-14; BRICKS IN ACCORDANCE WITH CSA A165.2-14; AND MORTAR AND/OR GROUT IN ACCORDANCE WITH CSA A179-14.
- ALL INSPECTION AND TESTING SERVICES ARE TO BE PERFORMED BY COMPANIES CERTIFIED BY THE CANADIAN STANDARDS ASSOCIATION AND FOR WELDING, INSPECTORS ARE TO BE CERTIFIED BY THE CANADIAN WELDING BUREAU.
- FOUNDATIONS
- REFER TO NOTES UNDER FOUNDATION PLANS. ALL EXTERIOR FOOTINGS OR OTHER FOOTINGS EXPOSED TO FREEZING IN THE FINISHED BUILDING SHALL BE FOUNDED AT A MINIMUM OF 1200mm (4'-0") BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED. FOOTINGS EXPOSED TO FROST ACTION DURING CONSTRUCTION SHALL BE PROTECTED BY A MINIMUM OF 1200mm (4'-0") OF EARTH OR ITS EQUIVALENT SUFFICIENT TO PREVENT FREEZING.
- THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS FOR FOOTINGS OR ALONG STEPPED FOOTINGS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10, MAXIMUM STEP APPROX. 600mm (2'-0").
- ALL DEPTHS AND FOOTING ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THE STRUCTURAL DRAWINGS.
- IF ACTUAL JOB SITE OR SOIL CONDITIONS VARY FROM THOSE ASSUMED, THEN WRITTEN DIRECTIONS MUST BE OBTAINED FROM THE STRUCTURAL CONSULTANT BEFORE PROCEEDING WITH THE WORK.
- KEEP EXCAVATIONS CONTINUOUSLY DRY BEFORE CONCRETE IS PLACED. IF THE SOIL IS SOFTENED BY WATER, THE EXCAVATION SHALL BE EXTENDED BELOW THE SOFTENED MATERIAL AND THE BOTTOM OF THE FOOTINGS LOWERED TO SUIT.
- BACKFILLING AND COMPACTION:-
- SLABS-ON-GRADE AND ALL STRUCTURAL ELEMENTS FRAMING INTO WALLS WHICH RETAIN EARTH MUST BE IN PLACE BEFORE BACKFILLING.
- AT FOUNDATION WALLS WITH GRADE BOTH SIDES, UNLESS ADEQUATELY SHORED, BACKFILL & COMPACT EACH SIDE OF WALL SIMULTANEOUSLY.
- UNDER SLABS-ON-GRADE, REMOVE SOFT SPOTS, ORGANIC AND FOREIGN MATTER IN THE SUB-GRADE. (WHERE SUB-GRADE CONSISTS OF COMPACTED FILL, REFER TO SPECIFIC NOTES ON THE DRAWINGS).
- BACKFILL UNDER SLAB-ON-GRADE, IN FOOTING EXCAVATIONS AND IN TRENCHES ONLY WITH APPROVED MATERIAL UNLESS SPECIFICALLY NOTED OTHERWISE, BACKFILLING SHALL BE CARRIED OUT IN MAXIMUM OF 200mm (8") THICK LIFTS OF LOOSE FILL EACH COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DENSITY.
- UNLESS OTHERWISE NOTED, PROVIDE IMMEDIATELY UNDER SLABS-ON-GRADE A MINIMUM OF 200mm (8") OF COMPACTED (MTC) GRANULAR 'B' MATERIAL. COMPACTION TO ACHIEVE A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DENSITY.



**TYPICAL UNDERPINNING PLAN**



**UNDERPINNING NOTES:**

- UNDERPINNING TO BE PLACED USING 30MPa CONCRETE AT 28 DAYS. MINIMUM STRENGTH AT 3 DAYS TO BE 25MPa.
- UNDERPINNING SECTIONS IN 1200mm (4'-0") MAXIMUM WIDTHS IN ORDER 1,2,3,4 AS SHOWN ON PLAN ABOVE.
- ALL SECTIONS, (1) MUST BE COMPLETED PRIOR TO STARTING SECTIONS (2) AND SO FORTH, ALLOW A MIN. OF 24 HRS. AFTER PLACING GROUT BEFORE STARTING AN ADJACENT SECTION.
- RAM PACK 75mm (3") OF NON-SHRINK GROUT OR 1:3 CEMENT/SAND GROUT BETWEEN UNDERSIDE OF EXISTING FOOTING AND TOP OF UNDERPINNING NO SOONER THAN 24 HRS. AFTER PLACING UNDERPINNING.
- UNDERPINNING IS TO BE PLACED DIRECTLY AGAINST EXISTING UNDISTURBED SOIL. ENSURE AGAINST VOIDS NOT FILLED WITH CONCRETE.
- ENSURE AGAINST LOSS OF MATERIAL FROM BENEATH EXISTING BUILDING.
- PROVIDE ALL NECESSARY SHORING AND NEEDLING IN ORDER TO SAFELY CARRY OUT THIS WORK AND TO PREVENT DISTRESS IN THE EXISTING BUILDING.
- DETAILS SHOWN ARE FOR ASSUMED CONDITIONS, ANY VARIATIONS MUST BE REPORTED TO THE STRUCTURAL CONSULTANT BEFORE PROCEEDING.

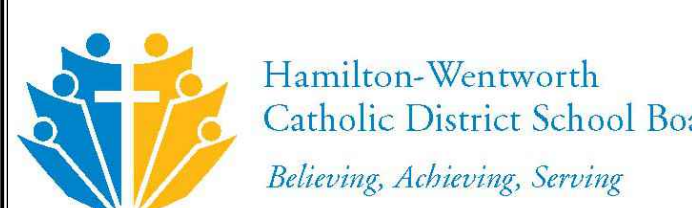
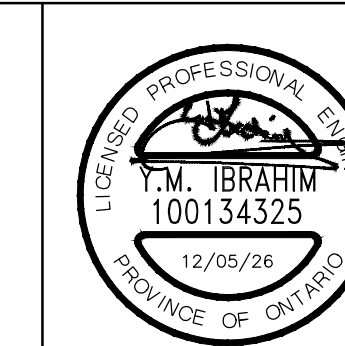
**TYPICAL UNDERPINNING SECTION**

**GENERAL NOTES**

Contractor must verify all dimensions on the Project Site and report any discrepancies before proceeding with the Work.  
This drawing is a part of the Contract Documents and is to be read in conjunction with all other Contract Documents.  
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B	12/05/26	ISSUED FOR TENDER
A	12/05/26	ISSUED FOR PERMIT
No.	DD/MM/YY	DESCRIPTION

**REVISIONS**



**ELEVATOR FOR ST. JEAN DE BREBEUF CATHOLIC SECONDARY SCHOOL**  
200 ACADIA DR. HAMILTON ONTARIO

**TYPICAL NOTES AND DETAILS**

SCALE	DRAWN	PROJECT No.
N.T.S.	VE	26053
DATE	CHECKED	DRAWING No.
APRIL 2026	YI	<b>S3-1</b>