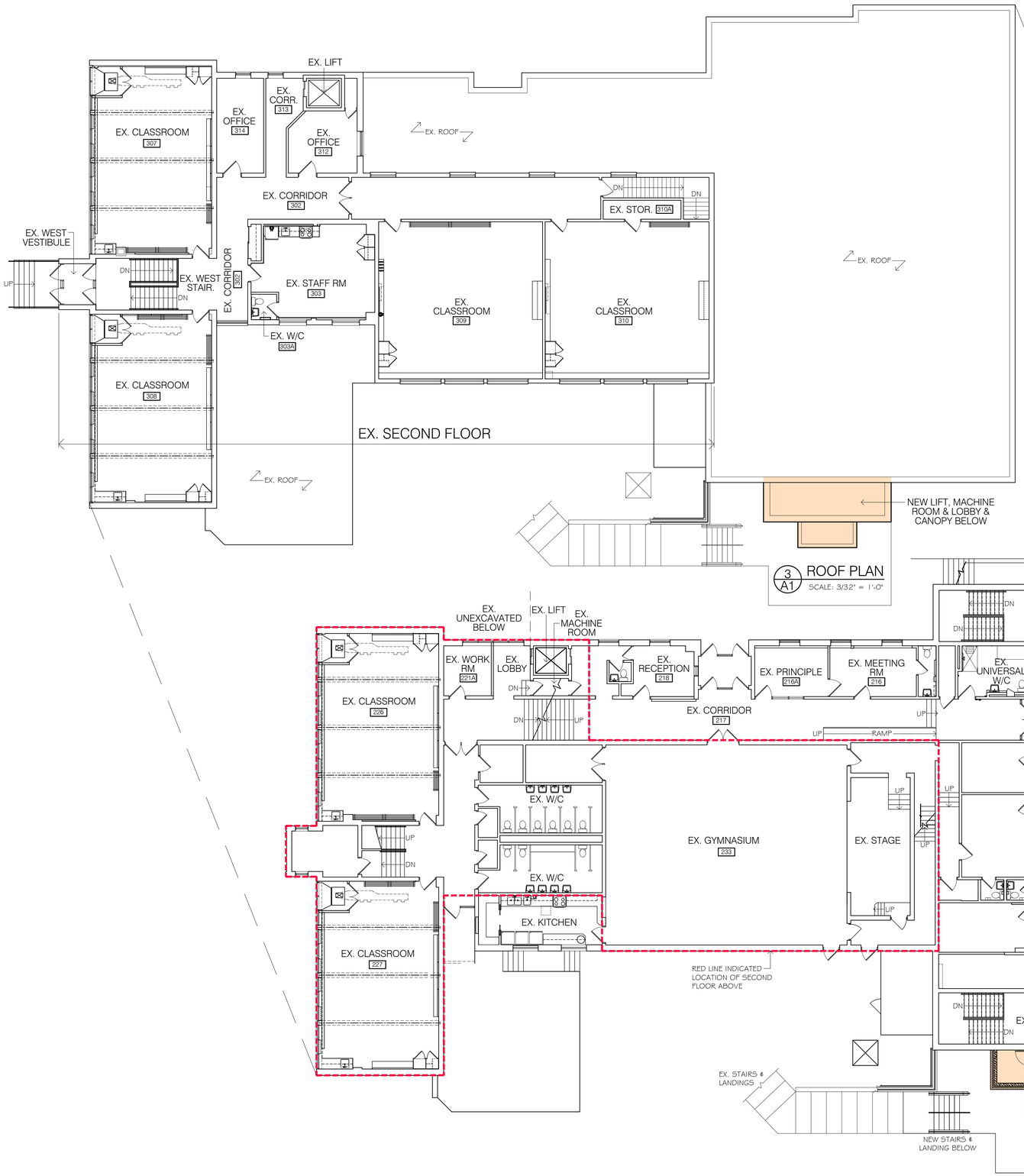

3 A1 ROOF PLAN
SCALE: 3/32" = 1'-0"

1 A1 PHOTO

2 A1 EX. SITE PLAN
SCALE: 1:500 METRIC

4 A1 MAIN FLOOR PLAN (SPLIT LEVEL)
SCALE: 3/32" = 1'-0"

5 A1 LOWER GROUND FLOOR PLAN
SCALE: 3/32" = 1'-0"

WILCOX ARCHITECTS INC.
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LINDSAY ONT.
(705) 328-0175 PHONE
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ONTARIO ASSOCIATION OF ARCHITECTS
GLENN K. WILCOX
LICENCE 3966

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1 A1 EX. PHOTO
SCALE: N.T.S.

GENERAL NOTES

1. EXTERIOR WALL DIMENSIONS TO OUTSIDE FACE OF FOUNDATION WALLS.
2. INTERIOR WALL DIMENSIONS TO D'WALL/CONC. BLOCK.
3. DOOR AND WINDOW DIMENSIONS TO ℄ OF R.S.O. (R.S.O. TO BE DETERMINED BY WINDOW/DOOR MANUFACTURER).
4. MAKE GOOD ALL FINISHES WHICH HAVE BEEN ALTERED DUE TO RENOVATIONS.
5. ALL WORK TO MEET OR EXCEED O.B.C. STANDARDS.

EX. DOOR

NEW DOOR or RELOCATED

FOR PERMIT & TENDER	FEB 6, 2026
ISSUED:	DATE:

THIS DRAWING IS COMPLIMENTARY & MUST BE READ IN CONJUNCTION WITH ALL THE OTHER DRAWINGS AND/OR SPECIFICATIONS. REPORT ANY INCONSISTENCIES TO THE ARCHITECT.

PROJECT:

RENOVATIONS TO
ST. MARY CATHOLIC
ELEMENTARY SCHOOL

35 CENTRE ST, CAMPBELLFORD, ON K0L 1L0

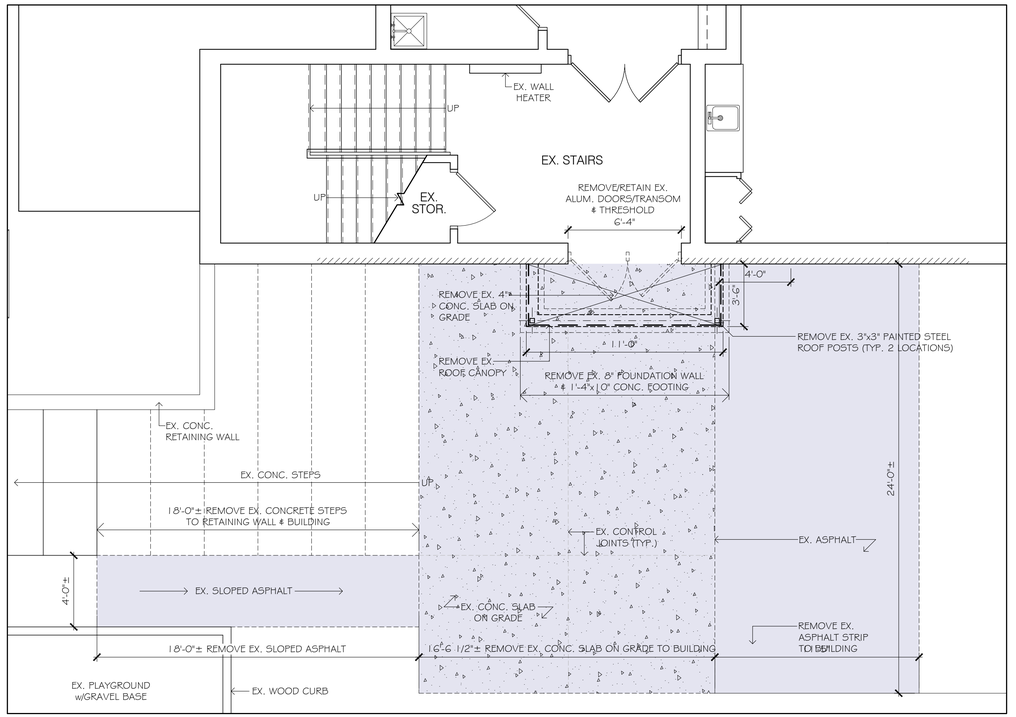
DRAWING TITLE:

EXISTING FLOOR PLANS
EX. SCHOOL PLANS
& NEW ADDITION LOCATION

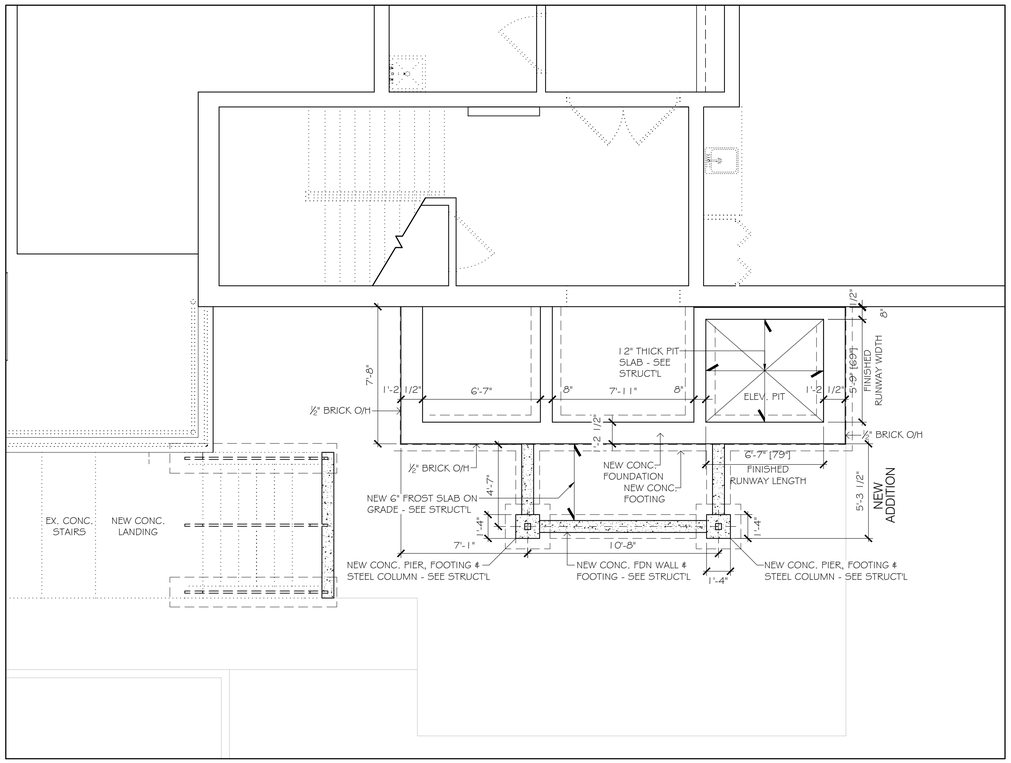
SCALE:	AS NOTED
DRAWN BY:	SV
CHECKED BY:	GW

DRAWING NUMBER: A1 OF 5
24060

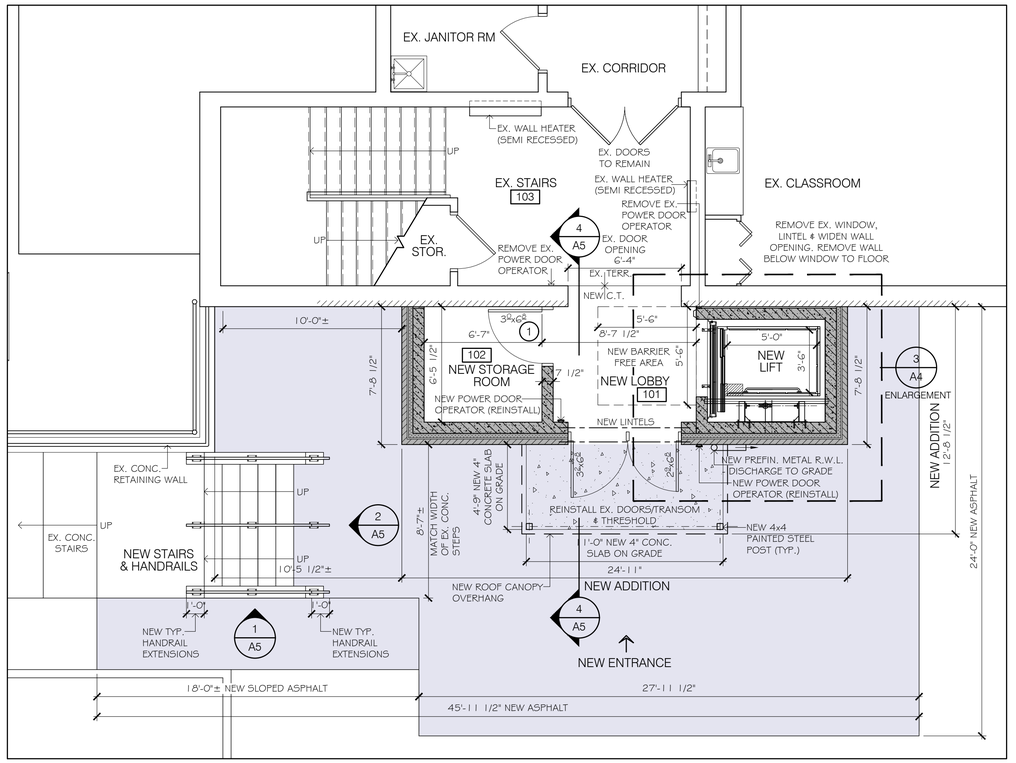
1/A2 EX. PHOTO
SCALE: N.T.S.



2/A2 EX. LOWER GROUND FLOOR PLAN - DEMOLITION
SCALE: 1/4" = 1'-0"



3/A2 NEW FOUNDATION PLAN ADDITION
SCALE: 1/4" = 1'-0"



4/A2 NEW LOWER GROUND FLOOR PLAN ADDITION
SCALE: 1/4" = 1'-0"

PROVIDE CONC. SPLASH PAN FOR R.W.L. AT GRADE

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74 LINDSAY ST. S.
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EX. DOOR
NEW DOOR

CONCRETE
ASPHALT

NOTE:
PROVIDE COMPACTED GRAVEL BASE FOR ALL CONCRETE ASPHALT AS PER SPECS

DOOR SCHEDULE - SEE A5

FOR PERMIT & TENDER	FEB 6, 2026
ISSUED:	DATE:

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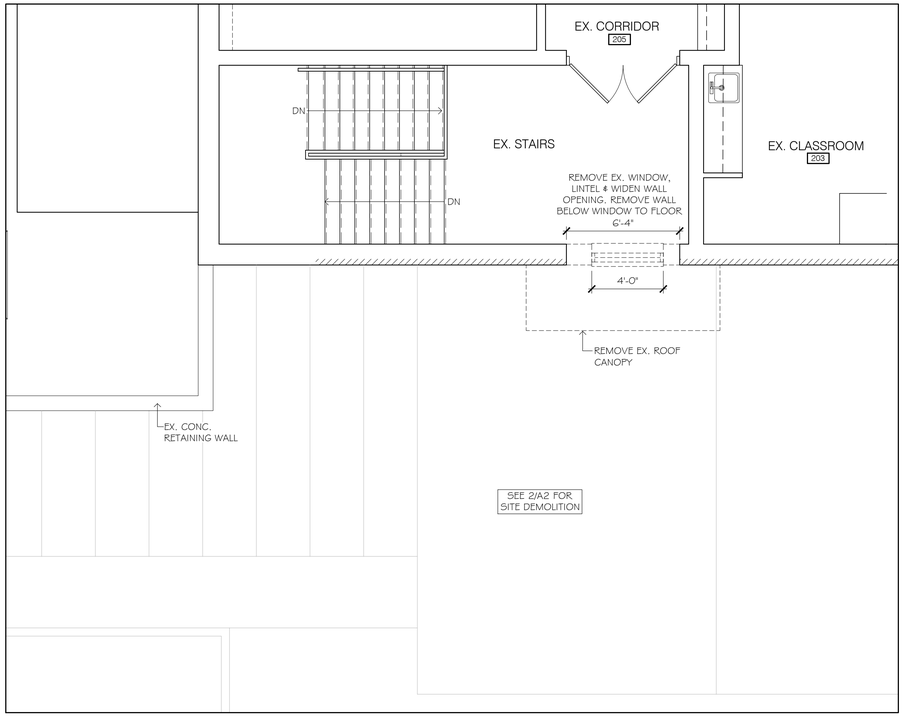
PROJECT:
NEW ELEVATOR ADDITION
ST. MARY CATHOLIC ELEMENTARY SCHOOL

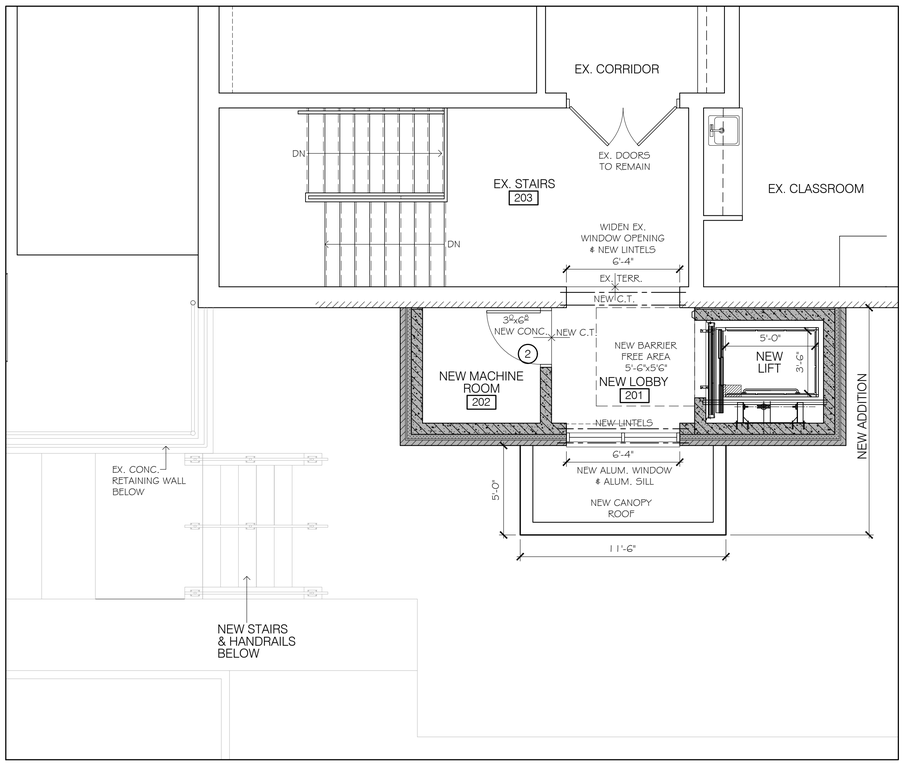
35 CENTRE ST, CAMPBELLFORD, ON K0L 1L0

DRAWING TITLE:
NEW ADDITION PLANS
DEMOLITION & NEW WORK

SCALE: AS NOTED	DRAWING NUMBER: A2 OF 5
DRAWN BY: SV	24060
CHECKED BY: GW	



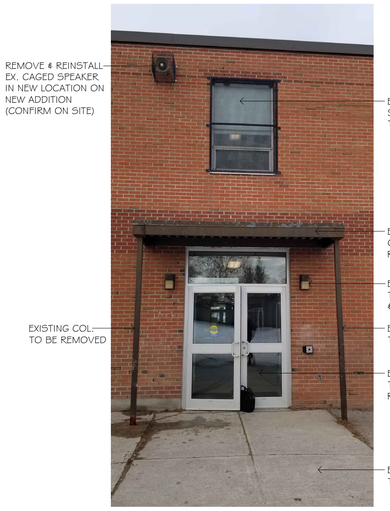
3/A3 MAIN FLOOR PLAN - DEMOLITION
SCALE: 1/4" = 1'-0"



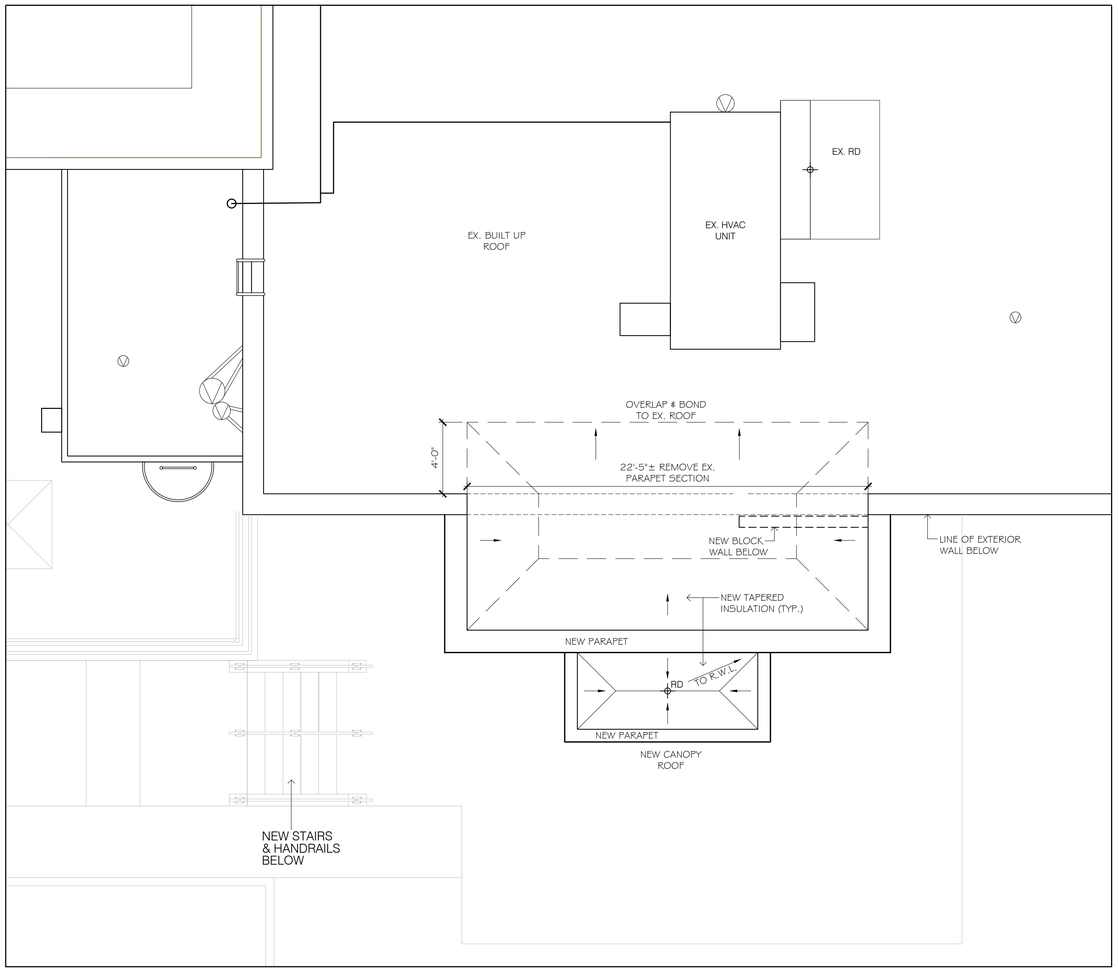
4/A3 NEW MAIN FLOOR PLAN ADDITION
SCALE: 1/4" = 1'-0"

SECTION OF EX. CONC. STAIRS TO BE REMOVED

1/A3 EX. PHOTO
SCALE: N.T.S.



2/A3 EX. PHOTO
SCALE: N.T.S.



5/A3 NEW ROOF PLAN ADDITION
SCALE: 1/4" = 1'-0"

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74 LINDSAY ST. S.
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LICENCE
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EX. DOOR

NEW DOOR

FOR PERMIT & TENDER	FEB 6, 2026
ISSUED:	DATE:

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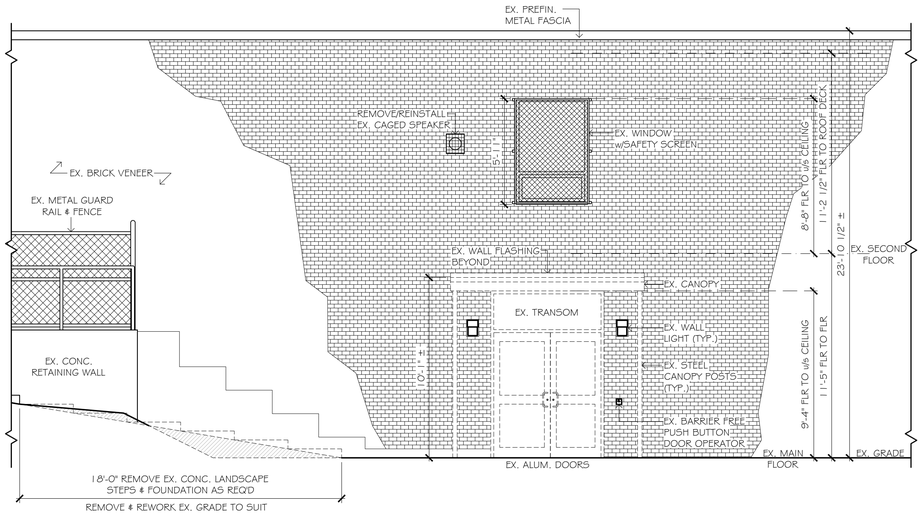
PROJECT:
NEW ELEVATOR ADDITION
ST. MARY CATHOLIC ELEMENTARY SCHOOL

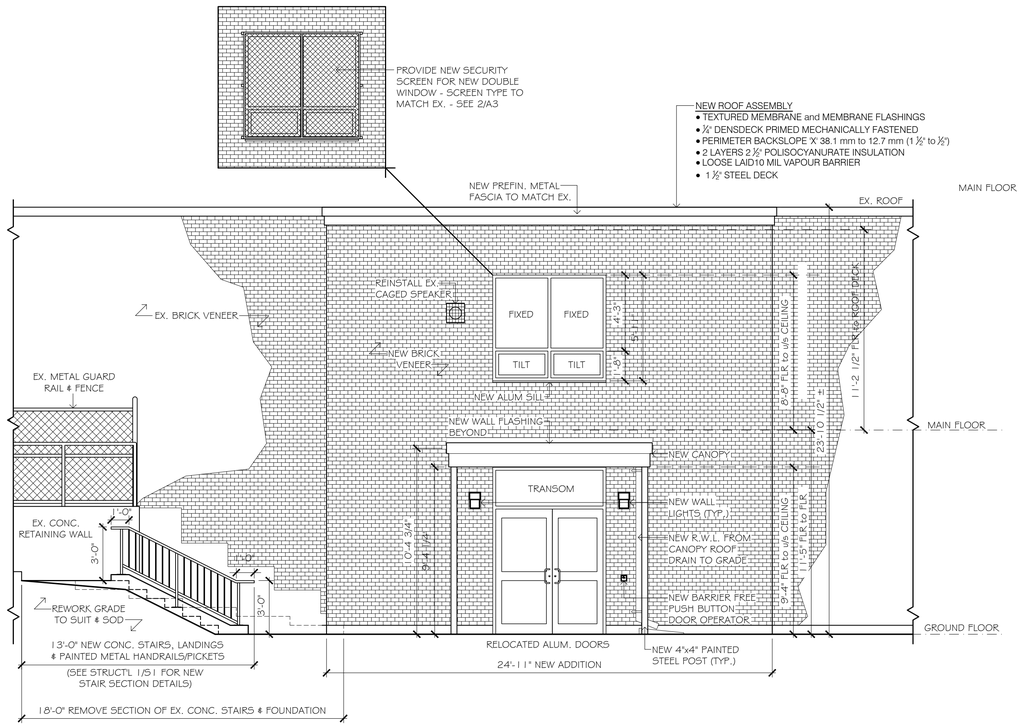
35 CENTRE ST, CAMPBELLFORD, ON K0L 1L0

DRAWING TITLE:
NEW ADDITION ROOF PLAN
NEW ADDITION ELEVATIONS

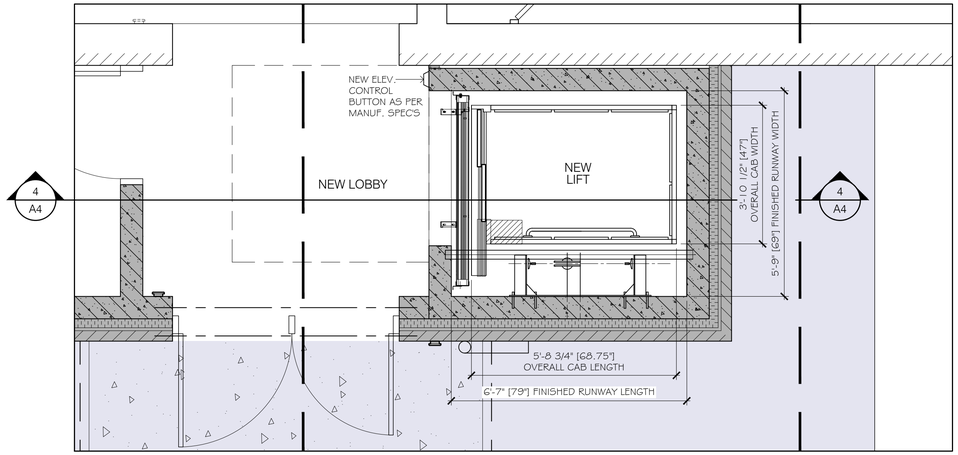
SCALE: AS NOTED	DRAWING NUMBER: A3 OF 5
DRAWN BY: SV	24060
CHECKED BY: GW	



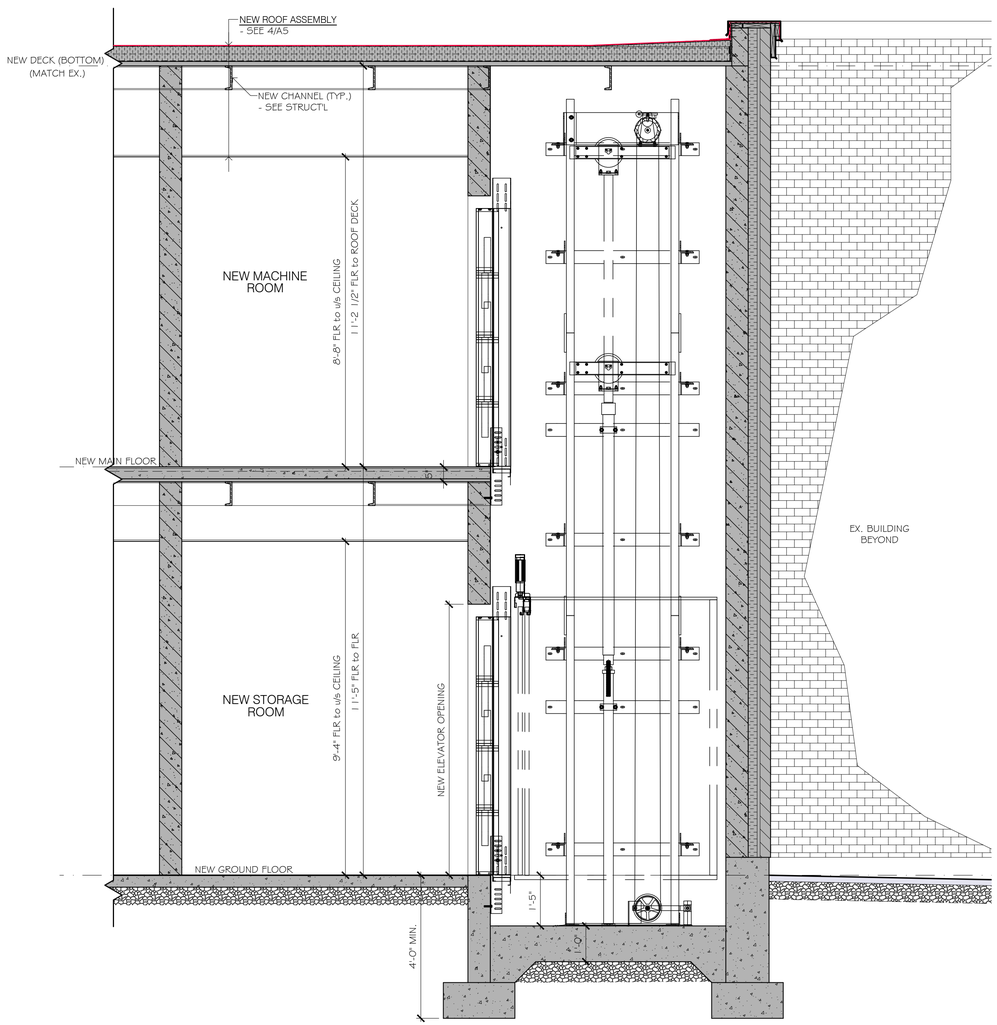
1 A4 EXISTING ELEVATION
SCALE: 1/4" = 1'-0"



2 A4 NEW ADDITION ELEVATION
SCALE: 1/4" = 1'-0"



3 A4 NEW ADDITION ELEVATOR PLAN @ GROUND FLOOR
SCALE: 1/2" = 1'-0"



4 A4 NEW ADDITION SECTION AT ELEVATOR
SCALE: 1/2" = 1'-0"

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EX. DOOR

NEW DOOR

FOR PERMIT & TENDER	FEB 6, 2026
ISSUED:	DATE:

THIS DRAWING IS COMPLIMENTARY & MUST BE READ IN CONJUNCTION WITH ALL THE OTHER DRAWINGS AND/OR SPECIFICATIONS. REPORT ANY INCONSISTENCIES TO THE ARCHITECT.

PROJECT:
NEW ELEVATOR ADDITION
ST. MARY CATHOLIC ELEMENTARY SCHOOL

35 CENTRE ST, CAMPBELLFORD, ON K0L 1L0

DRAWING TITLE:
NEW ELEVATOR SECTION
NEW REFLECTED CEILING PLANS

SCALE: AS NOTED	DRAWING NUMBER: A4 OF 5
DRAWN BY: SV	
CHECKED BY: GW	24060

DOOR SCHEDULE

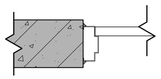
CONFIRM ALL EX. OPENINGS & HEIGHTS - REPORT ANY INCONSISTANCIES

	DOOR				FRAME			
Door No.	SIZE	TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	COMMENTS
1	3'-0" x 6'-8"	A	H.M.	PT.	A	H.M.	PT	¾ HR RATED, CLOSER

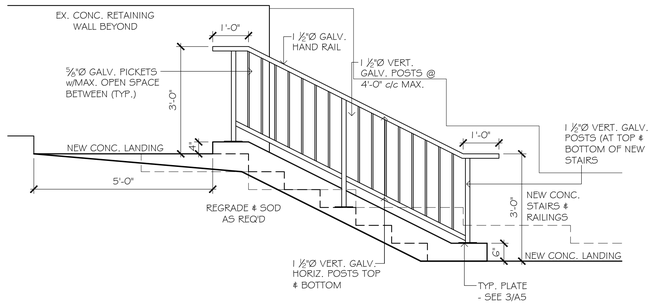
DOORS

TYPE 'A'

FRAMES

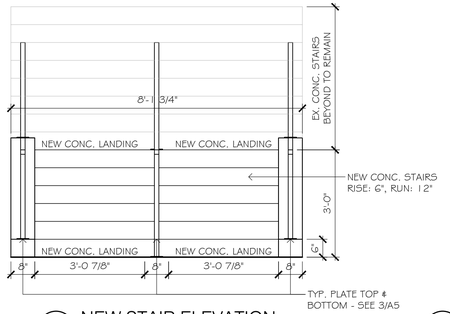


TYPE 'A'



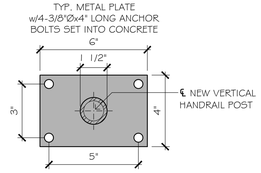
1 A5 NEW STAIR ELEVATION

SCALE: 1/2" = 1'-0"



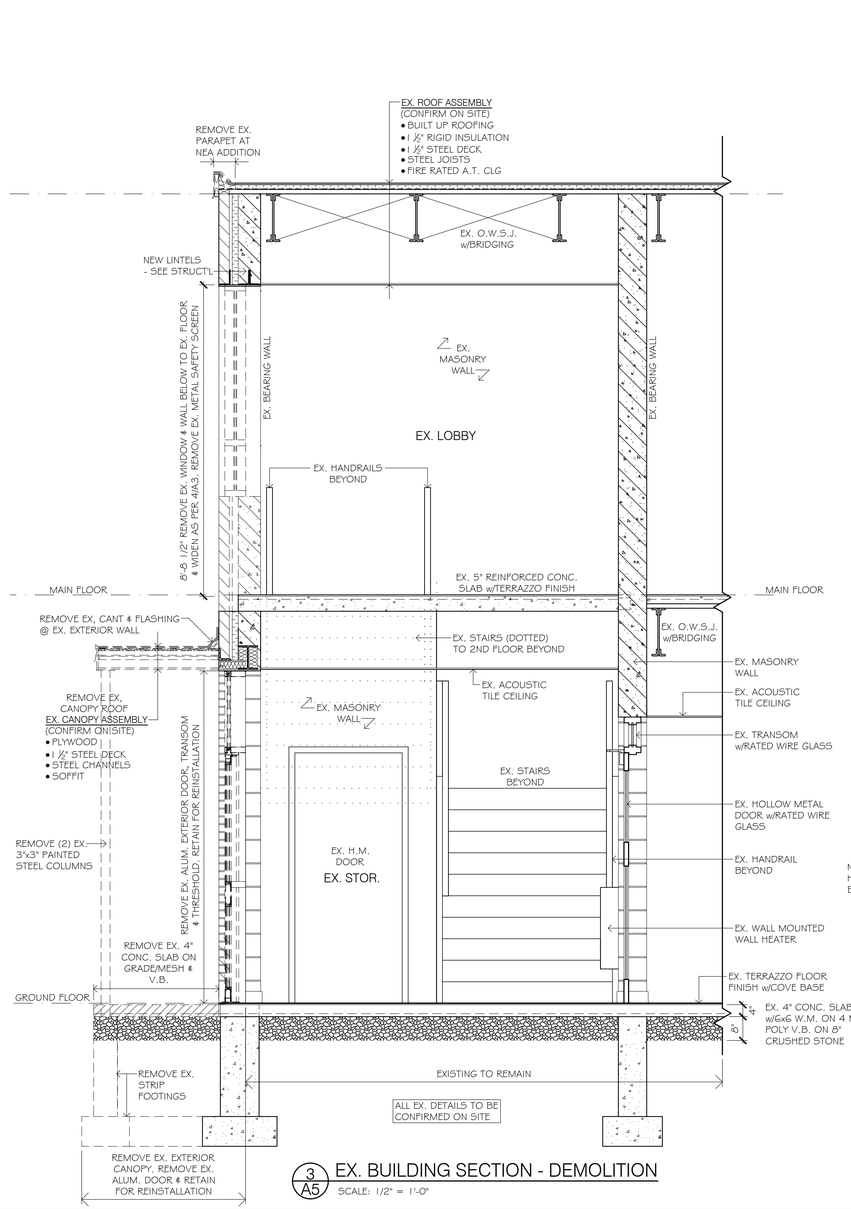
2 A5 NEW STAIR ELEVATION

SCALE: 1/2" = 1'-0"



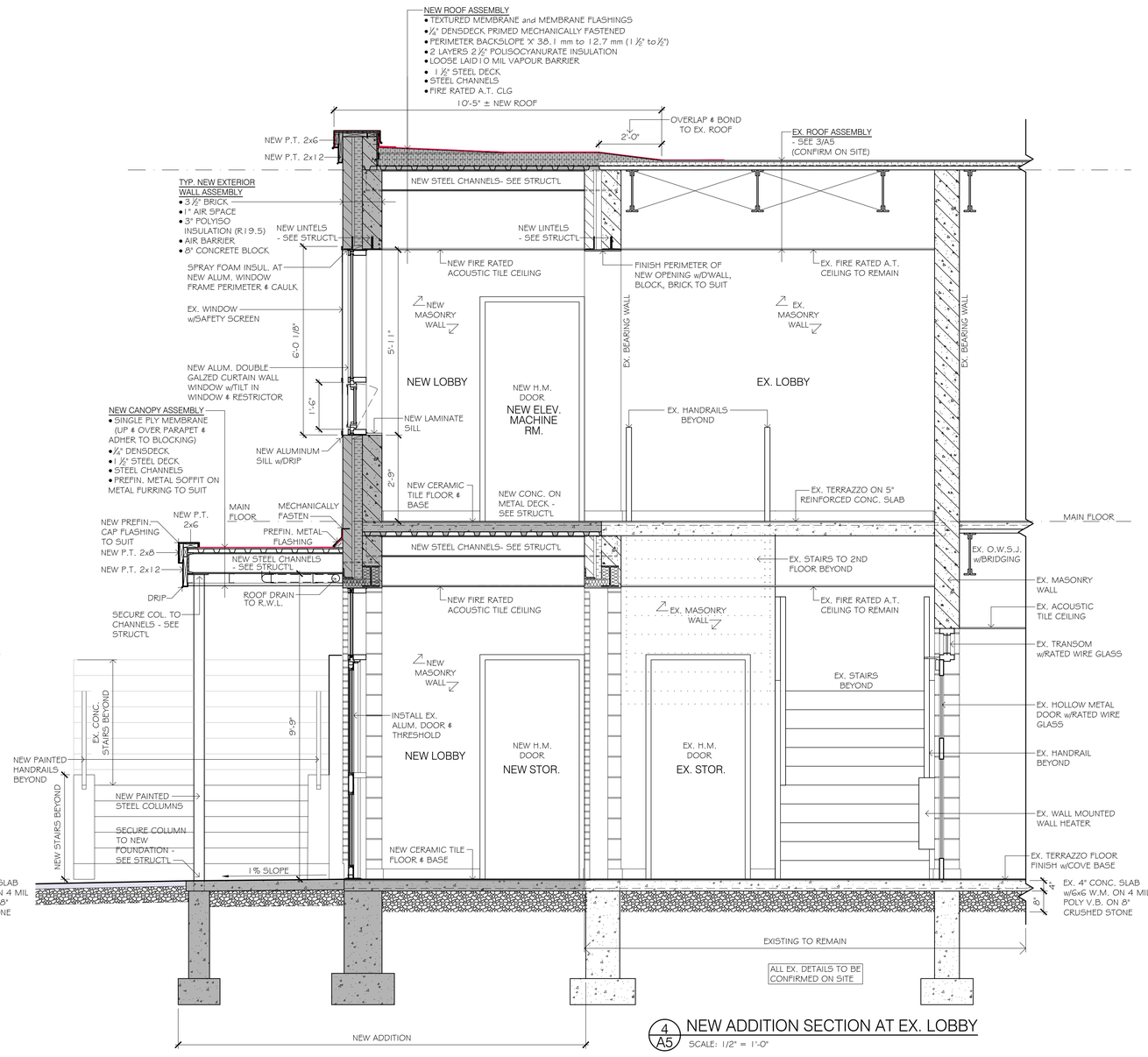
3 A5 NEW RAILING POST BASE PLATE

SCALE: 3" = 1'-0"



3 A5 EX. BUILDING SECTION - DEMOLITION

SCALE: 1/2" = 1'-0"



4 A5 NEW ADDITION SECTION AT EX. LOBBY

SCALE: 1/2" = 1'-0"

WILCOX ARCHITECTS INC.
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ONTARIO ASSOCIATION OF ARCHITECTS
GLENN A. WILCOX
LICENCE 3966

TRUE NORTH

Peterborough Victoria Northumberland and Clarington Catholic District School Board

FOR PERMIT & TENDER	FEB 6, 2026
ISSUED:	DATE:

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PROJECT:

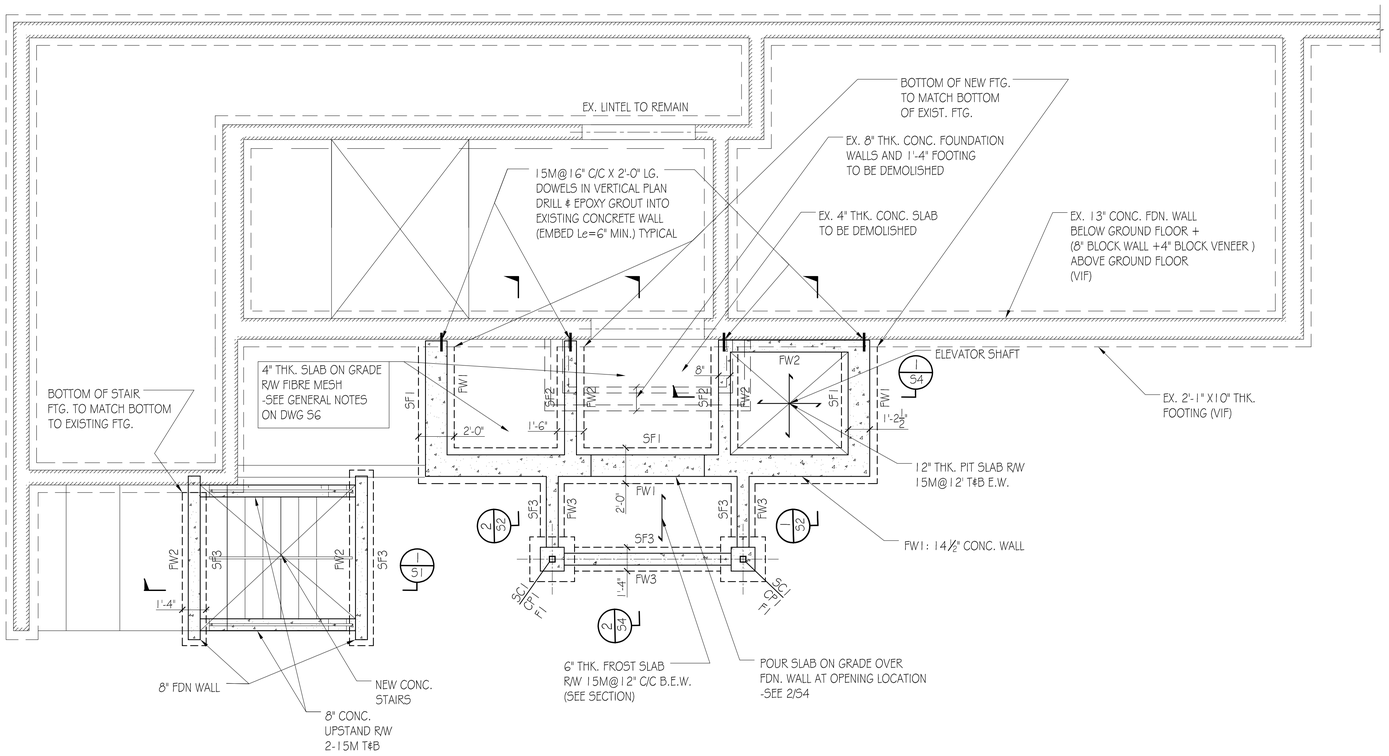
NEW ELEVATOR ADDITION
ST. MARY CATHOLIC ELEMENTARY SCHOOL

35 CENTRE ST, CAMPBELLFORD, ON K0L 1L0

DRAWING TITLE:

NEW ELEVATOR SECTION
NEW REFLECTED CEILING PLANS

SCALE: AS NOTED	DRAWING NUMBER: A5 OF 5
DRAWN BY: SV	24060
CHECKED BY: GW	



FOUNDATION PLAN

SCALE: ¼"=1'-0"

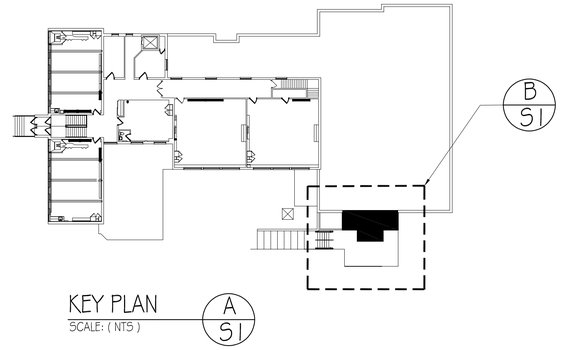
B / S1

NOTES:

1. ALL EXISTING FRAMING & DIMENSIONS SHALL BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION.
2. SEE ARCHT'L DRAWINGS FOR DIMENSIONS, ELEVATIONS, AND SLOPES.
3. SEE ALSO SCHEDULES, GENERAL NOTES AND TYPICAL DETAILS ON DRAWING S5 & S6.

NOTE:

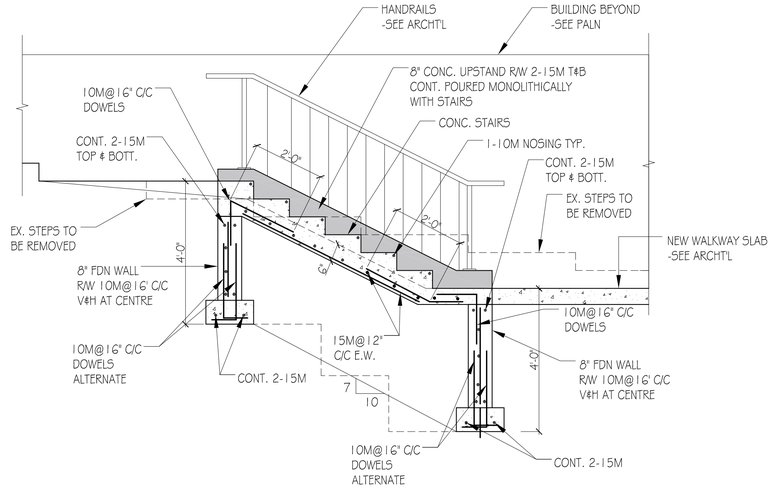
DESIGN SOIL BEARING PRESSURE OF 150KPA (3000 PSF) TO BE VERIFIED IN FIELD BY SOIL ENGINEER PRIOR TO CONSTRUCTION. ARCH / GC TO COORDINATE TYP.



KEY PLAN

SCALE: (NTS)

A / S1



SECTION

SCALE: ½"=1'-0"

1 / S1

No.	REVISION	DATE	BY
2	ISSUED FOR PERMIT	FEB 04/26	D.K
1	ISSUED FOR PROGRESS	DEC 23/25	D.K

PROJECT NORTH

CLIENT: WILCOX ARCHITECTS INC.
74 LINDSAY ST. S. LINDSAY, ONT.

PROJECT:

RENOVATIONS TO ST. MARY CATHOLIC ELEMENTARY SCHOOL

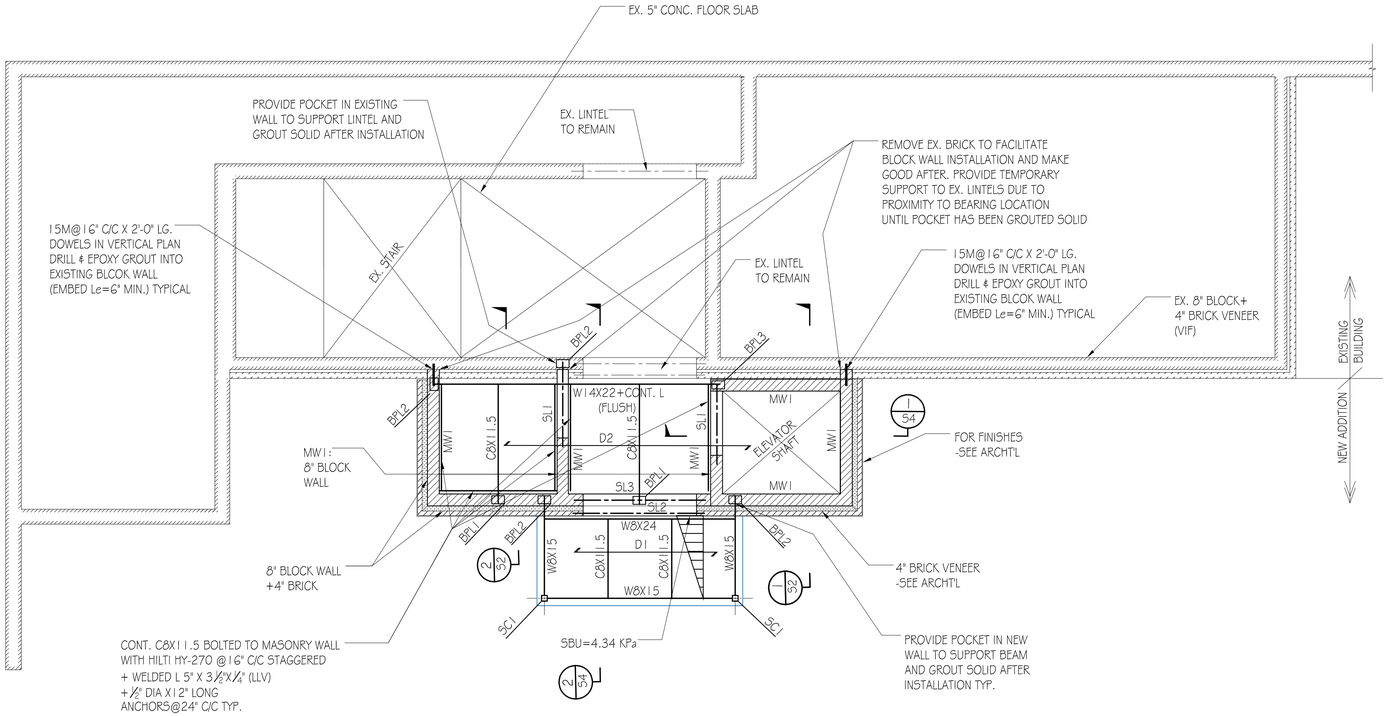
35 CENTRE ST. CAMPBELLFORD, ON, K0L 1L0

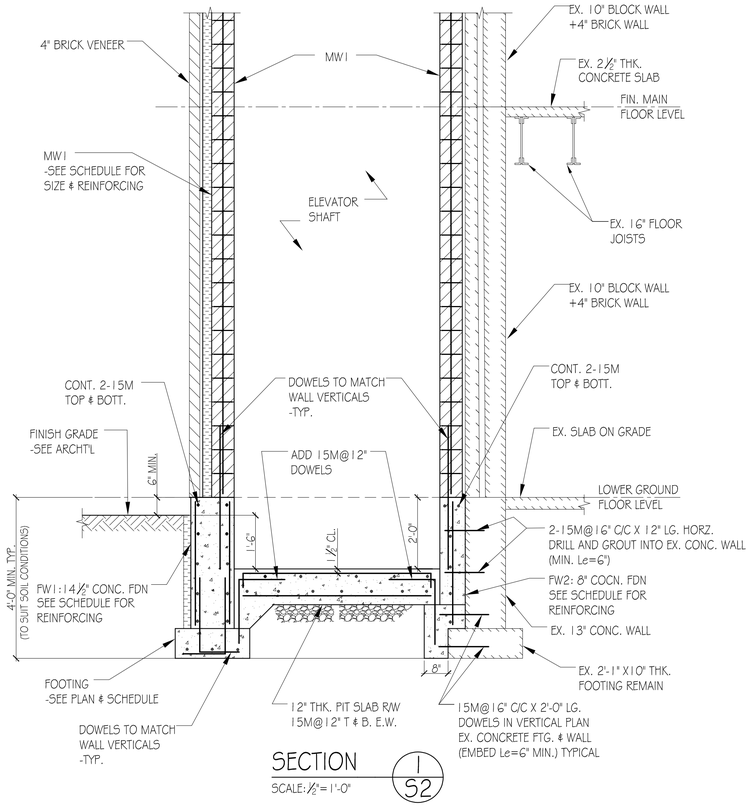
DRAWING: FOUNDATION AND KEY PLAN & SECTION

AMR ENGINEERING LTD.
STRUCTURAL ENGINEERS
920 ALNESS STREET, SUITE 205
TORONTO, ON M3J 2H7
(416) 551-1611

REGISTERED PROFESSIONAL ENGINEER
25-2329
D. KOTOBELLI
PROVINCE OF ONTARIO

DRAWN BY:	M.K.	AMR PROJECT No.	25-2329
CHECKED BY:	D.K.		
DATE:	FEB 04/26	DWG. No.	S1 OF 6
SCALE:	AS NOTED		





SECTION 1/S2

SCALE: ½"=1'-0"

MAIN FLOOR AND CANOPY FRAMING PLAN A/S2

SCALE: ¼"=1'-0"

NOTES:

1. SEE ARCHT'L DRAWINGS FOR DIMENSIONS, ELEVATIONS, AND SLOPES.
2. SEE ALSO SCHEDULES, GENERAL NOTES AND TYPICAL DETAILS ON DRAWING S5. & S6.

DESIGN LOADS

MAIN FLOOR FRAMING DESIGN LOADS:

DEAD LOAD	=3.35 KPa
LIVE LOAD	=4.80 KPa
TOTAL LOAD	=8.15 KPa

NEW CANOPY ROOF FRAMING DESIGN LOADS:

DEAD LOAD	=1.20 KPa
LIVE LOAD	=1.76 KPa + SBU (SNOW BUILD-UP)
TOTAL	= 2.96 KPa + SBU (SNOW BUILD-UP)

NOTE: EXISTING FLOOR FRAMING ASSUMED TO BE ADEQUATE FOR 4.8 KPa. LIVE LOAD

NOTE 'A':

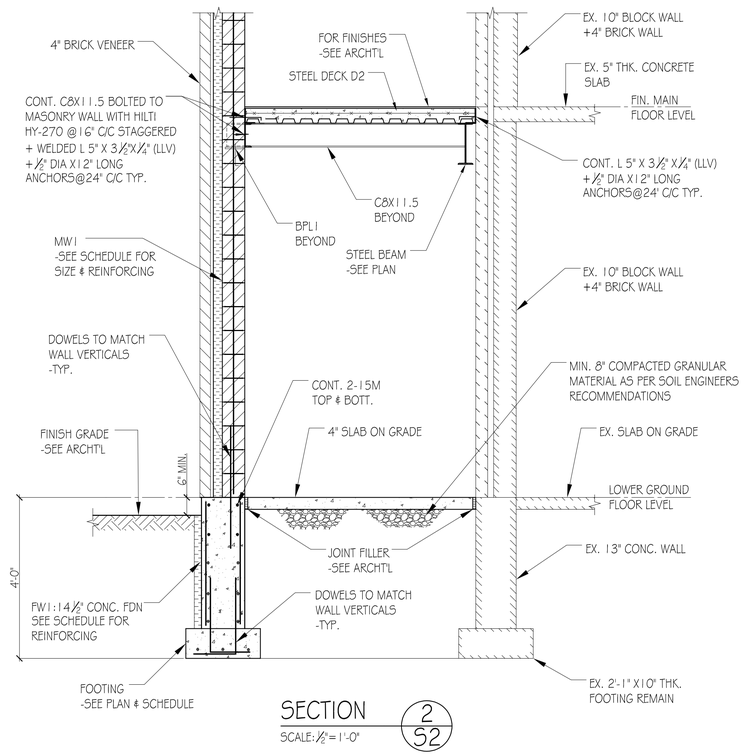
ALL EXISTING STRUCTURAL FRAMING IS ASSUMED AS SHOWN ON THE DRAWINGS. LIMITED DRAWINGS OF EXISTING BUILDING WERE MADE AVAILABLE FOR REVIEW. CONTRACTOR TO VERIFY ALL EXISTING FRAMING IN FIELD PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER FOR REVIEW.

NOTE 'B':

CONTRACTOR TO VERIFY ALL LOAD BEARING STRUCTURE ON SITE AND PROVIDE ADEQUATE TEMPORARY SHORING AS REQUIRED PRIOR TO ANY LOAD BEARING STRUCTURE REMOVAL
SEE ALSO TEMPORARY SHORING NOTES ON DWG. S6

NOTE 'C':

PROVIDE 200 X 400 DEEP SOLID BLOCK BAND FOR ATTACHMENT OF RAILS. COORDINATE NUMBER & LOCATION WITH ELEVATOR SUPPLIER.



SECTION 2/S2

SCALE: ½"=1'-0"

No.	REVISION	DATE	BY
2	ISSUED FOR PERMIT	FEB 04/26	D.K
1	ISSUED FOR PROGRESS	DEC 23/25	D.K

PROJECT NORTH

CLIENT: WILCOX ARCHITECTS INC.
74 LINDSAY ST. S. LINDSAY, ONT.

PROJECT:

RENOVATIONS TO ST. MARY CATHOLIC ELEMENTARY SCHOOL

35 CENTRE ST. CAMPBELLFORD, ON, K0L 1L0

DRAWING: MAIN FLOOR AND CANOPY FRAMING PLAN & SECTIONS

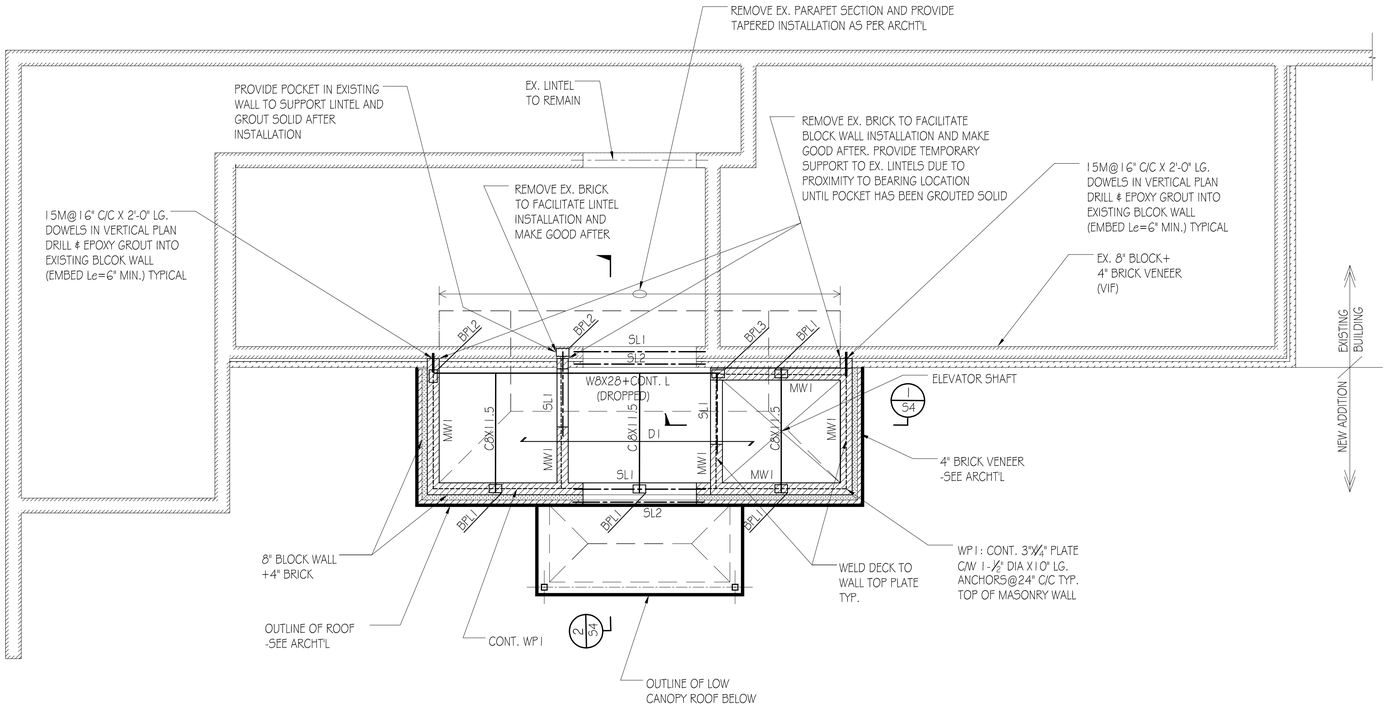
AMR ENGINEERING LTD.
STRUCTURAL ENGINEERS
920 ALNESS STREET, SUITE 205
TORONTO, ON M3J 2H7
(416) 551-1611

REGISTERED PROFESSIONAL ENGINEER 25-2329 D. KOTOBELLI PROVINCE OF ONTARIO

DRAWN BY:	M.K.
CHECKED BY:	D.K.
DATE:	FEB 04/26
SCALE:	AS NOTED

AMR PROJECT No. 25-2329

DWG. No. S2 OF 6



ROOF FRAMING PLAN (A / S3)

SCALE: ¼"= 1'-0"

NOTES:

1. SEE ARCHT'L DRAWINGS FOR DIMENSIONS, ELEVATIONS, AND SLOPES.
2. SEE ALSO SCHEDULES, GENERAL NOTES AND TYPICAL DETAILS ON DRAWING S5. & S6.

DESIGN LOADS

NEW ROOF FRAMING DESIGN LOADS:

DEAD LOAD	= 1.20 KPa
LIVE LOAD	= 1.76 KPa + SBU (SNOW BUILD-UP)
TOTAL	= 2.96 KPa + SBU (SNOW BUILD-UP)

NOTE 'A':

ALL EXISTING STRUCTURAL FRAMING IS ASSUMED AS SHOWN ON THE DRAWINGS. LIMITED DRAWINGS OF EXISTING BUILDING WERE MADE AVAILABLE FOR REVIEW. CONTRACTOR TO VERIFY ALL EXISTING FRAMING IN FIELD PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER FOR REVIEW.

NOTE 'B':

CONTRACTOR TO VERIFY ALL LOAD BEARING STRUCTURE ON SITE AND PROVIDE ADEQUATE TEMPORARY SHORING AS REQUIRED PRIOR TO ANY LOAD BEARING STRUCTURE REMOVAL SEE ALSO TEMPORARY SHORING NOTES ON DWG. S6

NOTE 'C':

PROVIDE 200 X 400 DEEP SOLID BLOCK BAND FOR ATTACHMENT OF RAILS. COORDINATE NUMBER & LOCATION WITH ELEVATOR SUPPLIER.

No.	REVISION	DATE	BY
2	ISSUED FOR PERMIT	FEB 04/26	D.K
1	ISSUED FOR PROGRESS	DEC 23/25	D.K

PROJECT NORTH

CLIENT: WILCOX ARCHITECTS INC. 74 LINDSAY ST. S. LINDSAY, ONT.

PROJECT:

RENOVATIONS TO ST. MARY CATHOLIC ELEMENTARY SCHOOL

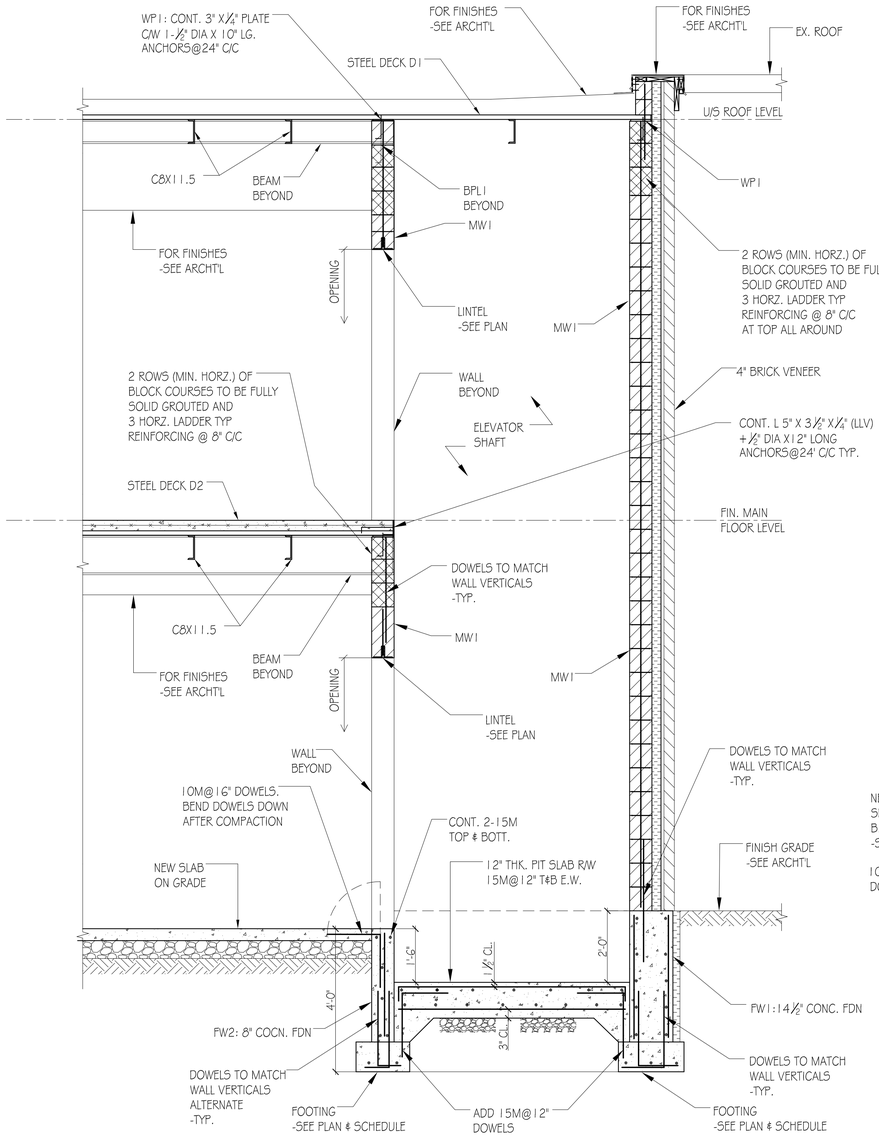
35 CENTRE ST. CAMPBELLFORD, ON, K0L 1L0

DRAWING: ROOF FRAMING PLAN

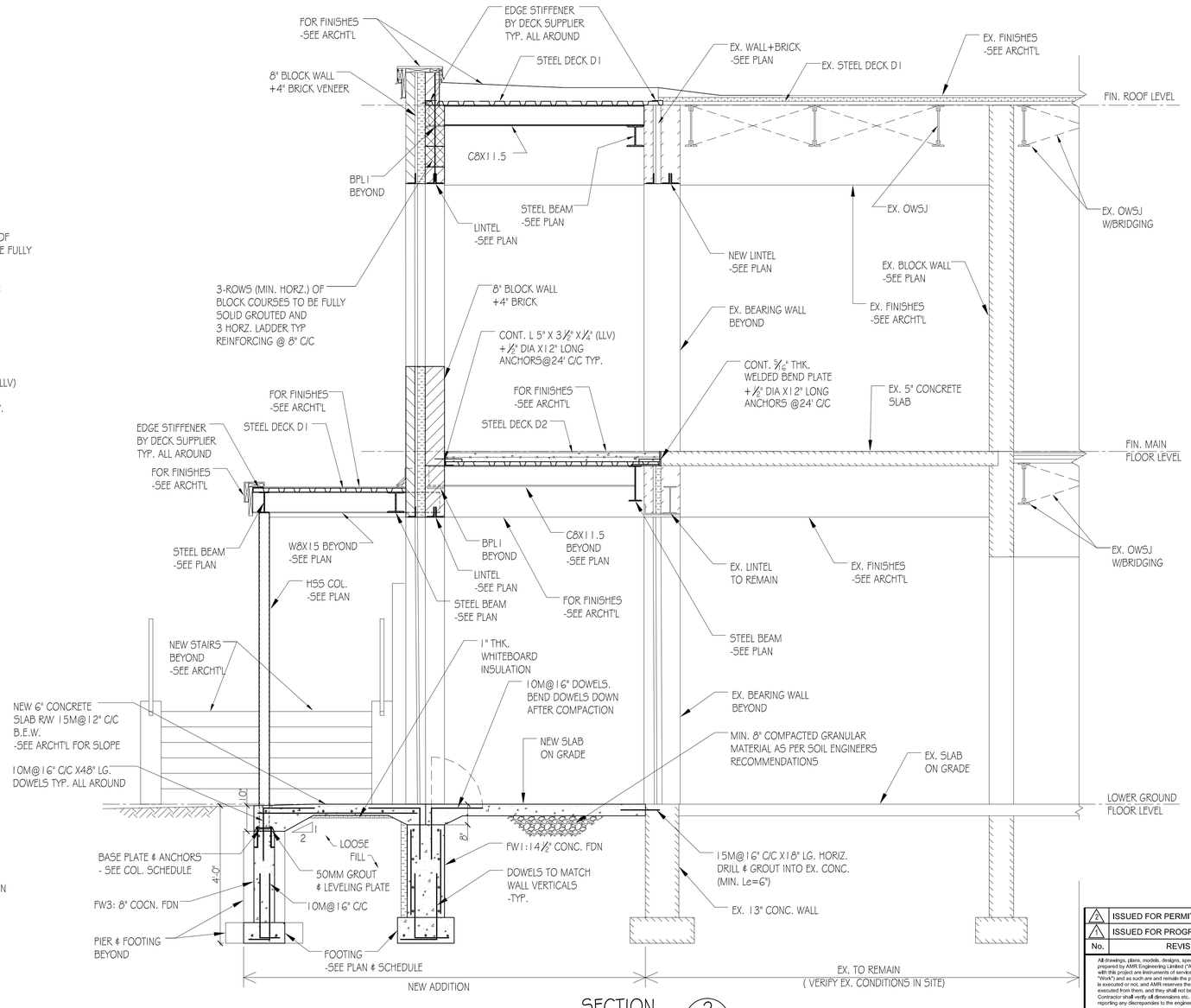
AMR ENGINEERING LTD.
STRUCTURAL ENGINEERS
920 ALNESS STREET, SUITE 205
TORONTO, ON M3J 2H7
(416) 551-1611

REGISTERED PROFESSIONAL ENGINEER 25-2329 D. KOTOBELLI PROVINCE OF ONTARIO

DRAWN BY:	M.K.	AMR PROJECT No.	25-2329
CHECKED BY:	D.K.		
DATE:	FEB 04/26	DWG. No.	S3 OF 6
SCALE:	AS NOTED		



SECTION 1/S4
SCALE: 1/2" = 1'-0"



SECTION 2/S4
SCALE: 1/2" = 1'-0"

NOTE 'C':

PROVIDE 200 X 400 DEEP SOLID BLOCK BAND FOR ATTACHMENT OF RAILS. COORDINATE NUMBER & LOCATION WITH ELEVATOR SUPPLIER.

No.	REVISION	DATE	BY
2	ISSUED FOR PERMIT	FEB 04/26	D.K
1	ISSUED FOR PROGRESS	DEC 23/25	D.K

CLIENT: WILCOX ARCHITECTS INC.
74 LINDSAY ST. S. LINDSAY, ONT.

PROJECT:

RENOVATIONS TO ST. MARY CATHOLIC ELEMENTARY SCHOOL

35 CENTRE ST. CAMPBELLFORD, ON, K0L 1L0

DRAWING: SECTIONS

AMR ENGINEERING LTD.
STRUCTURAL ENGINEERS
920 ALNESS STREET, SUITE 205
TORONTO, ON M3J 2H7
(416) 551-1611

REGISTERED PROFESSIONAL ENGINEER
25-2329
D. KOTOBELLI
PROVINCE OF ONTARIO

DRAWN BY:	M.K.
CHECKED BY:	D.K.
DATE:	FEB 04/26
SCALE:	AS NOTED

AMR PROJECT No. 25-2329

DWG. No. S4 OF 6

PIER SCHEDULE

MARK	SIZE	NOTES
CP1	16" X 16" CONC. PIER + 4-15M VERTICALS + 10M@12" O/C TIES + 2 SET OF TIES AT TOP	

STRIP / SPREAD FOOTING SCHEDULE

MARK	SIZE	NOTES
F1	2'-6" X 2'-6" X 8" DP. + 3-15M CONT. B.E.W.	PROVIDE 15M DOWELS TO CONCRETE PIER ABOVE (SEE SECTIONS)
SF1	2'-0" X 10" DP. R/W + 3-15M CONT. BOTTOM	PROVIDE 15M DOWELS TO CONCRETE WALL ABOVE (SEE SECTIONS)
SF2	1'-6" X 10" DP. R/W + 2-15M CONT. BOTTOM	PROVIDE 15M DOWELS TO CONCRETE WALL ABOVE (SEE SECTIONS)
SF3	1'-4" X 8" DP. R/W + 2-15M CONT. BOTTOM	PROVIDE 15M DOWELS TO CONCRETE WALL ABOVE (SEE SECTIONS)

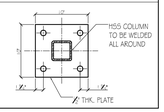
FOUNDATION WALL SCHEDULE

MARK	SIZE	REINFORCING
FW1	14½" CONCRETE FDN. WALL R/W +15M@12" C/C V.E.F. +10M@16" H.E.F.	SEE ALSO SECTION AND GENERAL NOTES
FW2	8" CONCRETE FDN. WALL R/W +10M@16" C/C V¢H.@ CENTRE	SEE ALSO SECTION AND GENERAL NOTES
FW3	8" CONCRETE FDN. WALL R/W +2-15M TOP ¢ BOTTOM	SEE ALSO SECTION AND GENERAL NOTES

MASONRY WALL SCHEDULE

MARK	SIZE	REINFORCING
MW1	8" BLOCK WALL (TYPE "S" MORTAR)	15M@16" C/C VERTICALS GROUTED +4.76MM EXTRA HEAVY DUTY BLOK LOK (LADDER TYPE) REINFORCING @ 16" C/C MAX. -TYP. FULL HEIGHT. SEE ALSO GENERAL NOTES.

STEEL COLUMN SCHEDULE

MARK	SIZE	BASEPLATE	ANCHOR BOLTS	BASEPLATE DETAIL
SC1	HSS 4" X 4" X¼"	10" X½" X 10"	4-½" DIA X 12" LG ANCHOR (2" HOOK)	

NOTES:
1. UNDER ALL COLUMN BASE PLATE PROVIDE 6MM LEVELING PLATE AND 44MM NON-SHRINK GROUT. LEVELING PLATE SHALL PROJECT 12MM BEYOND COLUMN BASE PLATE ALL AROUND.
2. ALL EXTERIOR STEEL COLUMNS BASE PLATE , ANCHOR BOLTS ETC. SHALL BE HOT DIPPED GALVANIZED DURING STEEL FABRICATION.

BEAM BEARING PLATE SCHEDULE

MARK	SIZE	ANCHORS	BEARING PAD
BPL1	5" X½" X 5"	1-½" DIA X 16" LONG WELDED ANCHORS (2" HOOK)	100% FULLY GROUTED BLOCK TYP.
BPL2	12" X ⅝" X 7"	2- ⅝" DIA X 14" LONG WELDED ANCHORS (2" HOOK)	2 COURSES 100% FULLY GROUTED BLOCK TYP.
BPL3	7" X ⅜" X 12"	2- ⅜"Ø X 14" LONG WELDED ANCHORS (2" HOOK)	2 COURSES 100% FULLY GROUTED BLOCK TYP.

NOTE:
1. LAST DIMENSION SHOWN IS PARALLEL TO BEAM WEB.
2. WELD BEAM TO BEARING PLATE TYP.

STEEL DECK SCHEDULE

MARK	SIZE	NOTES
D1	1½" STEEL DECK - MIN. 22 GAUGE	MIN. 3 SPAN CONTINUOUS
D2	3½" CONCRETE ON 1½" THK. 22 GAUGE COMPOSITE STEEL DECK WITH 6X6X 6 /6 WWF MESH REINFORCING	MIN. 3 SPAN CONTINUOUS

STEEL LINTEL SCHEDULE

MARK	SIZE	BEARING PLATE	NOTES
SL1	⊥ 2L'S 5" X 3.5" X 5/16" (LLV) WELDED	SEE PLANS AND SCHEDULE	PROVIDE MIN. 8" BEARING @ E/E
SL2	L 5" X 3.5" X 5/16" (LLV)	SEE PLANS AND SCHEDULE	PROVIDE MIN. 6" BEARING @ E/E
SL3	⊥ 2L'S 5" X 3.5" X ⅜" (LLV) WELDED	SEE PLANS AND SCHEDULE	PROVIDE MIN. 8" BEARING @ E/E

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CLIENT: WILCOX ARCHITECTS INC.
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DRAWING:
SCHEDULES

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25-2329
D. KOTOBELLI
PROVINCE OF ONTARIO

DRAWN BY:	M.K.	AMR PROJECT No.	25-2329
CHECKED BY:	D.K.		
DATE:	FEB 04/26	DWG. No.	S5 OF 6
SCALE:	AS NOTED		

DESIGN CODE

1. THE COMPLETED RENOVATION TO THE STRUCTURE SHOWN ON THE STRUCTURAL DRAWINGS HAS BEEN DESIGNED IN SUBSTANTIAL ACCORDANCE WITH THE ONTARIO BUILDING CODE 2024 WHICH IS BASED ON THE NATIONAL BUILDING CODE OF CANADA 2020.

DESIGN LOADS

1. FLOOR AND ROOF PLAN LOADING IS SHOWN ON PLANS.

   CONTRACTOR CONSTRUCTION LOADS MUST NOT EXCEED THE SPECIFIED DESIGN LOADS. DESIGN LOADS MAY ONLY BE APPLIED AFTER CONCRETE REACHES IT'S DESIGN STRENGTH.

2. SPECIFIED CONCENTRATED LOADS ARE AS FOLLOWS U.N.O. ON PLAN:

   A. ROOFS -- 1.8 kN
   B. FLOORS -- 4.5 kN

3. SEISMIC AND WIND DESIGN: (CAMPBELLEFORD, ONTARIO)

3a. EARTHQUAKE DESIGN PARAMETERS

Sa (0.2) = 0.33	Sa (2.0) = 0.0961	SITE CLASSIFICATION: SITE CLASS "D"
Sa (0.5) = 0.33	Sa (5.0) = 0.0258	SEISMIC CATEGORY: SC2 (ASSUMED)
Sa (1.0) = 0.2	Sa (10.0) = 0.00812	
PGA = 0.184	PGV = 0.213	Ie = 1.0

3b. WIND DESIGN PARAMETERS:

   Ce, Cg, and Cp ARE BASED ON OBC CL.4.1.7.
   $q(\frac{1}{50})$ = 0.41 kPa, Iw = 1.0 ULS, 0.75 SLS

   WIND UPLIFT LOADS ON STEEL ROOFS SHALL BE 0.70 kPa NET UNLESS NOTED OTHERWISE ON PLAN.

GENERAL NOTES

1. THE USE OF THESE DRAWINGS IS LIMITED TO THAT IDENTIFIED IN THE REVISIONS COLUMN.
2. THE INFORMATION ON THESE DRAWINGS SHALL NOT BE USED FOR ANY OTHER PROJECT OR WORKS. THE INFORMATION ON THESE DRAWINGS APPLIES SOLELY TO THIS PROJECT.
3. THE DRAWINGS DO NOT SHOW COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND THE DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES, FORMWORK, FALSE WORK, SHORING, ETC. REQUIRED TO COMPLETE THE WORK.
4. "NON-STRUCTURAL" OR "SECONDARY STRUCTURAL" ELEMENTS ARE NOT PART OF THE STRUCTURAL DESIGN SHOWN ON THESE DRAWINGS. SUCH ELEMENTS ARE DESIGNED, DETAILED AND REVIEWED IN THE FIELD BY OTHERS. THEY APPEAR ON DRAWINGS OTHER THAN THESE DRAWINGS OF AMR ENGINEERING LIMITED. WHERE STRUCTURAL ENGINEERING RESPONSIBILITY IS REQUIRED FOR THESE ELEMENTS, THIS SHALL BE PROVIDED BY SPECIALTY STRUCTURAL ENGINEERS, WHO SHALL ALSO PROVIDE ANY LETTERS REQUIRED BY BUILDING PERMIT AUTHORITIES.
5. SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS WHICH MAY AFFECT THE PRIMARY STRUCTURAL SYSTEM SHALL BE SUBMITTED TO AMR ENGINEERING LIMITED. THESE DRAWINGS WILL BE REVIEWED ONLY FOR THE EFFECT OF THE ELEMENT ON THE PRIMARY STRUCTURAL SYSTEM.

SHORING NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF TEMPORARY SHORING. SUBMIT DRAWING BEARING STAMP OF P.ENG RESPONSIBLE FOR DESIGN WHEN SO DIRECTED BY THE LOCAL BUILDING AUTHORITY.
2. THE CONTRACTOR SHALL CHECK AND VERIFY EXISTING SITE CONDITIONS AFFECTING WORK PRIOR TO STARTING ANY WORK. ANY INCONSISTENCIES AND/OR VARIATIONS IN EXISTING CONDITIONS AFFECTING THIS WORK SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
3. THE CONTRACTOR MUST TAKE ALL THE NECESSARY PRECAUTIONS TO CARRY OUT THIS WORK AND BE RESPONSIBLE FOR PROTECTION OF THE EXISTING BUILDING THROUGHOUT CONSTRUCTION.
4. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY BRACING IN TWO PERPENDICULAR DIRECTIONS TO PREVENT ANY MOVEMENT IN SHORING.
5. NEW OR SOUND USED MATERIAL MAY BE USED FOR SHORING MEMBERS SUBJECT TO ENGINEERS APPROVAL.
6. PROVIDE WEDGES AS REQUIRED TO ENSURE TIGHT FIT.

RENOVATIONS

1. THE CONTRACT DOCUMENTS ARE BASED ON ASSUMED AS-BUILT DIMENSIONS FOR THE EXISTING BUILDING STRUCTURE AND ASSUMPTIONS IN ACCORDANCE WITH DETAILING AND PLACING PRACTICE. THESE ASSUMPTIONS MAY VARY FROM THE ACTUAL ON-SITE CONDITIONS. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE CONSULTANT OF ANY ACTUAL VARIATIONS FROM THE ASSUMED CONDITIONS.
2. MINOR MODIFICATIONS TO SUIT TOLERANCES OF +/- 50mm WILL BE REQUIRED TO THE WORK INDICATED ON THESE DRAWINGS TO REFLECT ACTUAL SITE CONDITIONS. THE CONTRACTOR WILL COOPERATE WITH THE CONSULTANT AND AMR IN THIS REGARD. MINOR MODIFICATIONS WILL BECOME THE RESPONSIBILITY OF THE CONTRACTOR AND WILL NOT RESULT IN A CHANGE IN THE CONTRACT PRICE.
3. ENSURE THAT ALL NECESSARY JOB DIMENSIONS ARE TAKEN AND ALL TRADES ARE COORDINATED FOR THE PROPER EXECUTION OF THE WORK. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF SUCH DIMENSIONS, AND FOR COORDINATION.
4. PRIOR TO FABRICATION OF ANY STRUCTURAL MEMBERS, THE CONTRACTOR SHALL COMPLETE THIS SITE REVIEW OF CRITICAL "TIE-IN" DIMENSIONS AND CONFIRM ALL DIMENSIONS TO ENSURE PROPER FIT OF NEW WORK TO EXISTING. REPORT ANY DISCREPANCIES TO AMR PRIOR TO STARTING WORK.
5. COMMENCEMENT OF CONSTRUCTION OR ANY PART THEREOF CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND MEANS DIMENSIONS AND ELEVATIONS HAVE BEEN CONSIDERED, VERIFIED AND ARE ACCEPTABLE.
6. ANY OPENINGS THAT ARE NOT SHOWN OR INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE REPORTED TO AMR FOR REVIEW. THESE OPENINGS MAY NOT BE ALLOWED, MAY HAVE TO BE MOVED, OR MAY REQUIRE ADDITIONAL STRUCTURAL WORK AND DETAILING. DO NOT PROCEED WITH THESE OPENINGS WITHOUT WRITTEN PERMISSION FROM AMR.
7. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, THE CORING OR CUTTING OF OPENINGS AND HOLES SHOWN ON THE STRUCTURAL DRAWINGS THROUGH THE EXISTING STRUCTURE SHALL NOT CUT ANY REINFORCING BARS. THE CONTRACTOR SHALL LOCATE THE LOCATION, SIZE, LENGTH, ORIENTATION AND POSITION OF EXISTING REINFORCING AND PROVIDE AMR WITH HARD COPIES OF SUCH FOR OUR REVIEW IN THE VICINITY OF THE HOLES AND SLEEVES TO BE CUT OR CORED, AND THE HOLES AND SLEEVES SHALL BE LOCATED TO AVOID CUTTING OF REINFORCING BARS. WHERE THIS IS NOT POSSIBLE, IT SHALL BE REPORTED TO AMR FOR REVIEW.
8. UNLESS NOTED OTHERWISE AT ALL LOCATIONS WHERE NEW CONCRETE WILL BE IN CONTACT WITH EXISTING CONCRETE SURFACES, THE EXISTING CONCRETE SURFACE IS TO BE COMPLETELY CLEANED AND ROUGHENED BY HYDRODEMOLITION, BUSH HAMMERING, (OR APPROVED EQUAL) TO AN AMPLITUDE OF 6 mm (1/4").
9. CONNECTIONS FOR NEW STRUCTURAL STEEL FRAMING TO EXISTING STRUCTURAL STEEL SHALL BE ACHIEVED THROUGH WELDED CONNECTIONS UNLESS OTHERWISE NOTED. WELDING OF NEW STEEL TO "OLD" STEEL (STEEL PRODUCED IN EARLY 20TH CENTURY) MAY REQUIRE MODIFICATIONS TO THE STANDARD WELDING PROCEDURES. PROCEDURES OF WELDING NEW STEEL TO "OLD" STEEL SHALL BE PREPARED BY THE CONTRACTOR'S SPECIALTY STRUCTURAL ENGINEER AND REVIEWED AND APPROVED BY AMR. CONTRACTOR TO ALSO PROVIDE A REPORT FROM MATERIALS TESTING COMPANY COMMENTING ON CHEMICAL COMPOSITION AND WELDABILITY OF OLD STEEL.
10. CONTRACTOR TO ENSURE THAT UNDERGROUND OR IN-SLAB SERVICES ARE NOT DAMAGED THROUGH DEMOLITION, SAWCUTTING, HOLE AUGURING, OR OTHER CONSTRUCTION ACTIVITIES. SEE SPECIFICATION FOR TESTING/LOCATING REQUIREMENTS.
11. DRILL AND SITE MEASURE BOLT HOLES IN EXISTING STRUCTURE PRIOR TO FABRICATING STEEL CONNECTION PLATES. BOLT HOLES MAY HAVE TO BE MOVED FROM WHAT IS SHOWN ON THE DRAWINGS TO AVOID CUTTING EXISTING REINFORCING OR TO AVOID OTHER SITE CONDITIONS. SITE MODIFICATION OF STEEL CONNECTION PLATES WILL NOT BE ACCEPTED WITHOUT THE PRIOR APPROVAL OF AMR.

NON-STRUCTURAL ELEMENTS

1. "NON-STRUCTURAL" OR "SECONDARY STRUCTURAL" ELEMENTS ARE NOT PART OF THE STRUCTURAL DESIGN SHOWN ON THESE DRAWINGS. SUCH ELEMENTS ARE DESIGNED, DETAILED AND REVIEWED IN THE FIELD BY OTHERS. THEY APPEAR ON DRAWINGS OTHER THAN THESE DRAWINGS OF AMR ENGINEERING LIMITED. WHERE STRUCTURAL ENGINEERING RESPONSIBILITY IS REQUIRED FOR THESE ELEMENTS, THIS SHALL BE PROVIDED BY SPECIALTY STRUCTURAL ENGINEERS, WHO SHALL ALSO PROVIDE ANY LETTERS REQUIRED BY BUILDING PERMIT AUTHORITIES.
2. EXAMPLES OF NON-STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO:
   A. ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, FLAG POSTS, CANOPIES, CEILINGS, MILLWORK, ETC.
   B. LANDSCAPE ELEMENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC.
   C. CLADDING, GLAZING, WINDOW MULLIONS, INTERIOR STUD WALLS AND EXTERIOR STUD WALLS.
   D. ARCHITECTURAL PRECAST, PRECAST CLADDING.
   E. MECHANICAL AND ELECTRICAL EQUIPMENT.
   F. WINDOW WASHING EQUIPMENT AND ITS ATTACHMENTS.
   G. ESCALATORS, ELEVATORS, AND CONVEYING SYSTEMS.
   H. BRICK OR BLOCK VENEERS AND THEIR ATTACHMENTS.
   I. NON-LOAD BEARING MASONRY.
   J. NON-STRUCTURAL CONCRETE TOPPINGS.
3. SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS WHICH MAY AFFECT THE PRIMARY STRUCTURAL SYSTEM SHALL BE SUBMITTED TO AMR ENGINEERING LIMITED. THESE DRAWINGS WILL BE REVIEWED ONLY FOR THE EFFECT OF THE ELEMENT ON THE PRIMARY STRUCTURAL SYSTEM.
4. THE DESIGN WIND LOAD TO BE USED FOR INTERIOR STUDS AND PARTITIONS IS 0.25 kPa (UNFACTORED) UNLESS NOTED OTHERWISE.

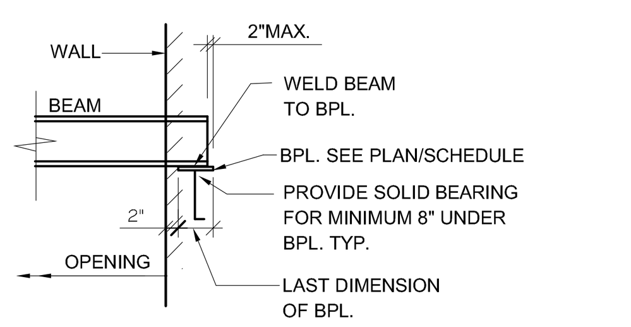
FOUNDATIONS

1. AS NO SOIL REPORT HAS BEEN MADE AVAILABLE FOR THIS SITE, NORMAL SOIL CONDITIONS HAVE BEEN ASSUMED. FOOTINGS HAVE BEEN DESIGNED FOR THE FOLLOWING BEARING RESISTANCES.
   A. STRIP FOOTINGS: SLS: 3000 PSF
   B. SPREAD FOOTINGS: SLS: 3000 PSF
2. BEARING SURFACES MUST BE APPROVED BY THE SOILS ENGINEER IMMEDIATELY BEFORE FOOTING CONCRETE IS PLACED. AMR IS NOT RESPONSIBLE FOR CONFIRMING BEARING CAPACITIES OF SOILS.
3. UNLESS OTHERWISE SHOWN, CENTER FOOTINGS UNDER COLUMNS AND WALLS.
4. DOWELS SHALL BE PLACED BEFORE CONCRETE IS PLACED. TEMPLATES SHALL BE USED TO ENSURE CORRECT PLACEMENT OF DOWELS.
5. PROVIDE 50 mm GROUND SEAL/ SKIM COAT, MUD SLAB UNDER FOOTINGS AS REQUIRED BY SOIL CONDITIONS.
6. FOR GROUND ELEVATIONS AND DRAINAGE SLOPES, SEE ARCHITECT'S DRAWINGS.
7. VARY FOOTING ELEVATIONS WHERE REQUIRED IN ACCORDANCE WITH DETAIL FOR "TYPICAL STEPPED FOOTING"(S.D.F.), SHOWN ON STRUCTURAL DRAWINGS.
8. FOOTINGS MAY HAVE TO BE LOWERED TO ACCOMMODATE MECHANICAL OR ELECTRICAL SERVICES. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ELEVATIONS OF SAME. FOOTINGS ARE NOT TO BE UNDERMINED BY EXCAVATIONS FOR SERVICES, PITS, ETC.
9. FOOTING ELEVATIONS, IF SHOWN, ARE FOR PRICE ESTIMATING PURPOSES ONLY, ARE NOT FINAL, AND MAY VARY ACCORDING TO SITE CONDITIONS OR AS REQUIRED BY SERVICES. ALL FOOTINGS MUST BE TAKEN TO A BEARING LAYER APPROVED BY THE SOILS ENGINEER.
10. BEARING SURFACES MUST BE PROTECTED FROM FREEZING BEFORE AND AFTER FOOTINGS ARE POURED.
11. WHERE A FOUNDATION WALL RETAINS SOIL ON EACH SIDE, PLACE BACKFILL ON BOTH SIDES SIMULTANEOUSLY.
12. FOUNDATION WALLS RETAINING EARTH BETWEEN SLABS AT DIFFERENT LEVELS SHALL BE SHORED UNTIL THE SLAB AT HIGHER LEVEL IS IN PLACE AND HAS REACHED ITS REQUIRED STRENGTH.

LOAD BEARING MASONRY

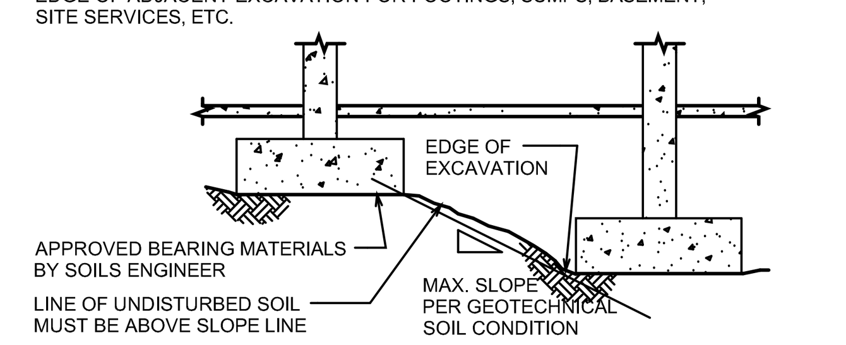
1. MASONRY WORK SHALL CONFORM TO CSA S304.1 AND ITS REFERENCED DOCUMENTS, INCLUDNG:
   A. CONCRETE BLOCK TO CAN/CSA-A165.1, TYPE H15/A, UNLESS NOTED OTHERWISE ON SCHEDULE (BASED ON NET AREA).
   B. MORTAR TO CAN/CSA-A179, TYPE 'S' FOR ALL WALLS.
   C. GROUT TO CAN/CSA-A179.
   D. MASONARY WIRE REINFORCING TO CSA G30.5.
   E. REINFORCING BARS TO CAN/CSA-G30.18 - 400 MPa.
   F. WELDED REINFORCING BARS TO CAN/CSA-G30.18 - 400 MPa.
   G. CONNECTIONS TO CAN/CSA-A370.
   H. PRACTICE TO CAN/CSA-A371.
2. STRUCTURAL DRAWINGS INDICATE ONLY LOAD-BEARING WALLS. DESIGN IS BASED ON ENGINEERING ANALYSIS ACCORDING TO CSA S304.1.
3. FILL BLOCK CORES UNDER ALL CONCENTRATED LOADS WITH 12.5 MPa MIN. GROUT TO A DEPTH OF AT LEAST 400 mm MEASURED DOWN FROM THE BEARING UNLESS NOTED OTHERWISE.
4. PROVIDE LINTELS OVER ALL OPENINGS IN WALLS. SEE LINTEL SCHEDULE, UNLESS NOTED OTHERWISE ON PLAN. CONNECT BACK TO BACK ANGLES TOGETHER AT 500 mm O/C MAXIMUM. PROVIDE 150 mm MINIMUM END BEARING FOR LINTELS.
5. OUTSIDE FACE OF EXTERIOR WALLS SHALL BE WATERPROOFED AS PER SPECIFICATIONS AND ARCHITECTURAL DRAWINGS.
6. NO MASONRY WORK SHALL BE PERMITED WITH TEMPERATURE BELOW 5° CELSIUS, UNLESS PROVISIONS ARE MADE FOR HEATING THE MATERIALS AND PROTECTING THE WORK.
7. BUILD MASONRY TIGHT TO U/S OF BEAM WEB.
8. PROVIDE STANDARD BLOCK LOK LADDER TYPE REINFORCING IN ALL BLOCK WALLS AT 400MM C/C MAX.
9. PROVIDE EXTRA HEAVY DUTY BLOCK LOK LADDER TYPE REINFORCING OR AN APPROVED EQUAL AT 400 C/C MAXIMUM UNLESS NOTED IN ALL MASONRY WITH TWO OR MORE WYTHES
10. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY BRACING TO HOLD FREE STANDING MASONRY WALLS PLUMB & TRUE TO LINE DURING CONSTRUCTION.
11. LOAD BEARING MASONRY IS SHOWN THUS ////// ON PLAN/SCHEDULE/ SECTION.

TYP. BEAM BEARING DETAIL AT MASONRY OR CONCRETE WALLS

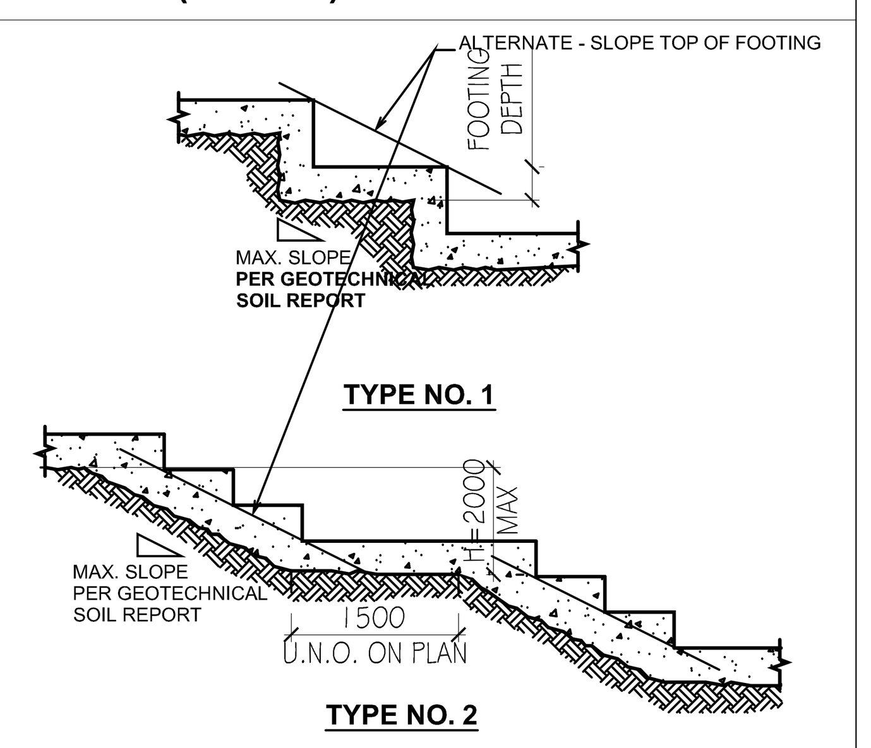


TYPICAL FOOTING ADJACENT TO EXCAVATION

EDGE OF ADJACENT EXCAVATION FOR FOOTINGS, SUMPS, BASEMENT, SITE SERVICES, ETC.

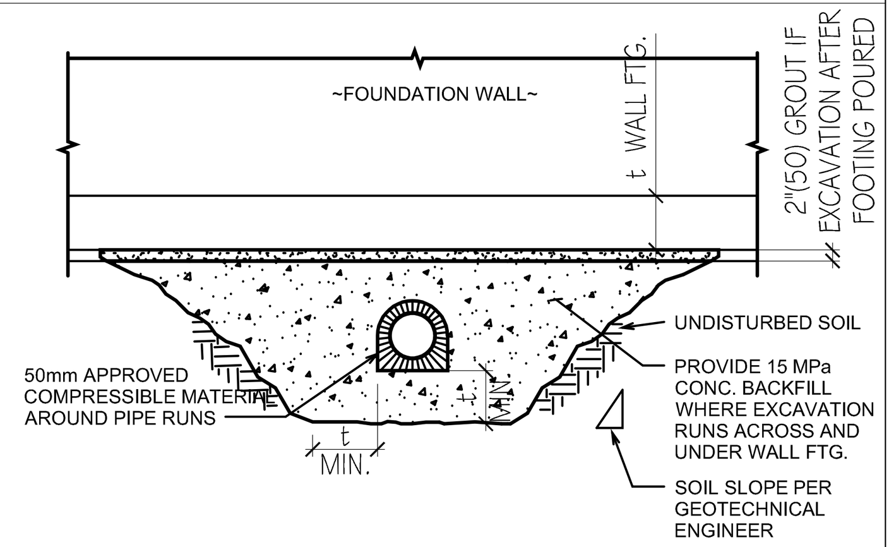


TYPICAL STEPPED FOOTINGS *ON SOIL* (WALLS)



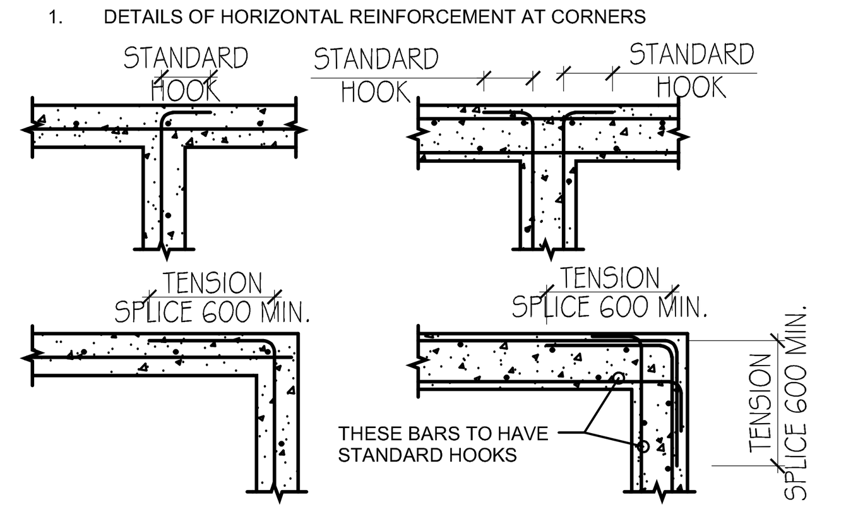
NOTE: IF TOTAL STEPPING 'H' EXCEEDED PROVIDE INTERMEDIATE FLAT HORIZONTAL SECTION BETWEEN SLOPED FOOTINGS U.N.O. ON PLAN

TYPICAL PIPE UNDER WALL FOOTING DETAIL



CONCRETE WALLS

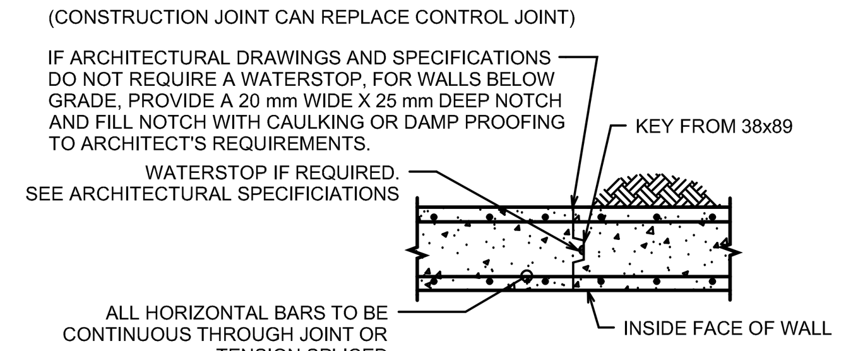
1. DETAILS OF HORIZONTAL REINFORCEMENT AT CORNERS



2. PLACE HORIZONTAL REINFORCEMENT IN OUTTER LAYERS OF THE CURTAINS AND VERTICALS AS 2ND INSIDE LAYER (BEHIND HORIZONTALS).
3. ALL WALL REINFORCING SHALL BE CONTINUOUS, WITH HOOKS OR CORNER BARS USED AT ALL WALL JUNCTIONS. EXTEND HOOKS TO FAR FACE OF WALL. CORNER BARS TO BE LOCATED ON OUTSIDE FACE OR CENTRE OF WALL.
4. ENDS OF ALL WALLS SHALL HAVE 2-15M VERTICAL LAPPED 600 UNLESS OTHERWISE NOTED ON DRAWINGS.
5. ADD 2-15M PARALLEL TO ALL EDGES AND EXTENDING 625 BEYOND CORNERS AT OPENINGS IN WALLS.

WALL CONSTRUCTION JOINT

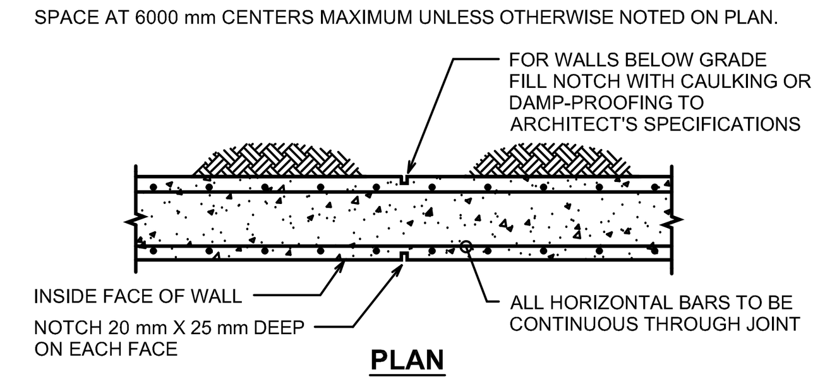
(CONSTRUCTION JOINT CAN REPLACE CONTROL JOINT)



WALL CONTROL JOINT

UNLESS NOTED OTHERWISE FOR EXTERIOR WALLS BELOW GRADE AND EXTERIOR WALLS EXPOSED TO WEATHER ABOVE GRADE.

SPACE AT 6000 mm CENTERS MAXIMUM UNLESS OTHERWISE NOTED ON PLAN.



CONCRETE

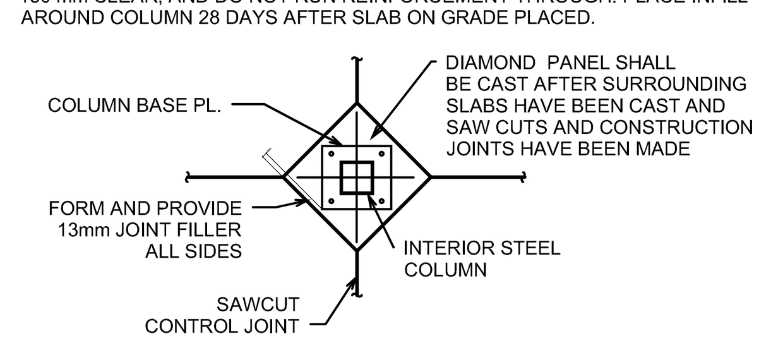
1. CONCRETE IS SPECIFIED AS PER THE "PERFORMANCE" ALTERNATE AS OUTLINED IN TABLE 5 OF CAN/CSA-A23.
2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR WORKING WITH THE CONCRETE SUPPLIER TO ENSURE THAT THE PLASTIC AND HARDENED MIX PROPERTIES MEET SITE REQUIREMENTS FOR PLACING, FINISHING, AND THE OWNERS' SPECIFIED PERFORMANCE REQUIREMENTS. THE GENERAL CONTRACTOR SHALL MEET THE DOCUMENTATION AND QUALITY CONTROL REQUIREMENTS OUTLINED UNDER THE "PERFORMANCE" ALTERNATE OF TABLE 5 OF CAN/CSA-A23.
3. THE SUPPLIER SHALL MEET ALL CERTIFICATION AND DOCUMENTATION REQUIREMENTS AS OUTLINED UNDER THE "PERFORMANCE" ALTERNATE OF TABLE 5 OF CAN/CSA-A23.
4. THE CONCRETE SUPPLIER SHALL BE CERTIFIED BY THE READY MIXED CONCRETE ASSOCIATION OF ONTARIO.
5. PORTLAND CEMENT SHALL BE TYPE GU UNLESS NOTED OTHERWISE.
6. CONCRETE SHALL HAVE A UNIT WEIGHT OF 23±1 kN/m³ (145±5 PCF) UNLESS NOTED OTHERWISE.
6. THE ULTIMATE 28 DAYS COMPRESSIVE STRENGTH OF CONCRETE SHALL BE BE 25 MPa WITH AIR ENTRAINMENT CONTENT OF 5% TO 7% (MAX.) AND WATER/CEMENT RATIO BY MASS OF 0.55 U.N.O. EXPOSURE CLASS FOR RETAINING/FOUNDATION WALLS SHALL BE F-2. EXPOSURE CLASS FOR INTERIOR SLAB ON GRADE AND FOOTINGS SHALL BE N.
7. THE ULTIMATE 28 DAYS COMPRESSIVE STRENGTH OF CONCRETE EXPOSED TO FREEZING AND THAWING (EXTERIOR SLABS, SIDEWALKS, CURBS, RETAINING WALLS ETC.) SHALL BE 32 MPa WITH MINIMUM AIR ENTRAINMENT CONTENT OF 5% AND MAXIMUM WATER CEMENT RATIO BY MASS OF 0.45. EXPOSURE CLASS FOR CONCRETE EXPOSED TO FREEZING AND THAWING SHALL BE C-2.
8. DO NOT USE CALCIUM CHLORIDE OR OTHER PRODUCTS IN CONCRETE.
9. FOR CONCRETE TOPPING USE PEA SIZE AGGREGATE (MAX. 10mm DIAMETER).
10. CURING OF CONCRETE TO MEET THE REQUIREMENTS FOR THE EXPOSURE CLASS AS OUTLINED IN CLAUSE 7.4.1.7 AS WELL AS TABLES 2 AND 20 OF CAN/CSA-A23.
11. CONCRETE REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS:

A.	CAN/CSA-G30.18R	-	GRADE 400 MPa - 10M AND LARGER (U.N.O.)
B.	CSA STANDARD G30.5	-	GRADE 400 MPa - WELDED WIRE REINFORCEMENT
C.	CAN/CSA-G30.18W	-	GRADE 400 MPa - ALL REINFORCING THAT WILL BE WELDED OR IS PART OF THE SEISMIC RESISTING ELEMENTS: REINFORCING FOR SHEAR WALLS, HEADERS AND ZONES (INCLUDING ZONE TIES AND HEADER TIES/STIRRUPS) AND MOMENT FRAME COLUMNS AND BEAMS (INCLUDING COLUMN TIES AND BEAM STIRRUPS).
D.	CSA STANDARD G279	-	PRESTRESSING STRANDS
E.	EPOXY REINFORCING	-	ASTM A775M AND ASTM D3963

12. TENSION AND COMPRESSION EMBEDMENT AND SPLICE LENGTHS SHALL CONFORM TO CAN/CSA-A23.3.
13. DO NOT SUBSTITUTE DEFORMED WIRE FOR REINFORCING BARS WITHOUT PRIOR APPROVAL OF THE AMR.
14. SUPPORT REINFORCING WITH CHAIRS, ACCESSORIES, OR REINFORCING BARS AS REQUIRED. BARS USED AS SUPPORT BARS SHALL BE CONSIDERED AS ACCESSORIES.
15. PROVIDE SUFFICIENT SUPPORTS TO MAINTAIN CONCRETE COVER AS SPECIFIED. ALL SUPPORTS AND BARS MUST BE TIED TOGETHER TO MAINTAIN REINFORCING STEEL SECURELY IN PLACE DURING CONCRETE PLACEMENT.
16. DETAIL REINFORCING IN ACCORDANCE WITH REINFORCING STEEL MANUAL OF STANDARD PRACTICE RSIC IAAC.
17. SUBMIT SHOP DRAWINGS FOR CONCRETE REINFORCEMENT, BAR SUPPORT AND ACCESSORIES FOR REVIEW BY AMR PRIOR TO PLACEMENT OF REBAR. CLEARLY INDICATE BAR SIZES, GRADES, SPACING, LOCATION AND QUANTITIES OF REINFORCING MESH, BAR SUPPORTS AND ACCESSORIES AND IDENTIFYING CODE MARKS TO PERMIT CORRECT PLACEMENT WITHOUT REFERENCE TO STRUCTURAL DRAWINGS.
    PLACING DRAWINGS AND BAR LISTS WILL BE REVIEWED FOR NUMBER AND SIZE OF BARS ONLY AND THIS REVIEW SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR CARRYING OUT THE WORK IN ACCORDANCE WITH THE DRAWINGS.
    SUBSTITUTION OF IMPERIAL REINFORCING SIZES AND GRADES WILL ONLY BE ACCEPTED IF PLACING DRAWINGS SHOWING IMPERIAL SIZES ARE SUBMITTED TO THE CONSULTANT FOR REVIEW. APPROVAL MUST BE OBTAINED BEFORE ANY WORK IS COMMENCED.
18. FOR CONCRETE PATCH MATERIAL USE SIKA LATEX R AS MANUFACTURER BY SIKA OR AN APPROVED EQUAL. FOR CEMENT SLURRY USE ASTM C 150 PORTLAND TYPE I OF II.

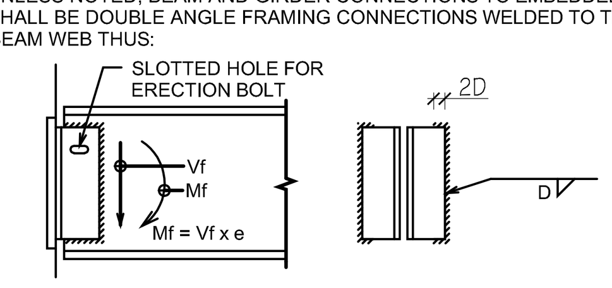
SLAB ON GRADE REINF. & CONTROL JOINTS

1. SLAB ON GRADE SHALL BE PLACED ON SOIL CAPABLE OF SUSTAINING 25.0 kPa MIN. WITHOUT SETTLEMENT RELATIVE TO THE BUILDINGS FOOTINGS. IN AREAS WHERE S.O.G. USED TO SUPPORT TEMPORARY SHORING LOADS, LARGER SUBGRADE CAPACITIES MAY BE REQUIRED PER LOADS SUPPLIED BY TEMPORARY WORKS ENGINEER.
2. U.N.O REINFORCE SLAB ON GRADE WITH FIBRE MESH EQUIVALENT MASTERFIBER MAC MATRIX FIBRES WITH A DOSAGE OF 0.9 KG/M3 OR AN APPROVED EQUAL.
3. UNLESS MORE RIGOROUS REQUIREMENTS ARE INDICATED ELSEWHERE ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS, SPACE CONTROL JOINTS AT 4500 mm O/C MAXIMUM.
4. SAWCUT JOINTS 5mm WIDE AND 25 mm DEEP AS SOON AS PRACTICAL, BUT NO LATER THAN 24 HOURS AFTER PLACEMENT OF SLAB. USE EQUIPMENT THAT DOES NOT "RAVEL" THE EDGES OF THE CUT, SEAL AS REQUIRED.
5. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, RUN ANY SLAB ON GRADE REINFORCEMENT THROUGH THE JOINTS.
6. UNLESS NOTED OTHERWISE, SAWCUT DIAMOND PATTERN AROUND COLUMNS, 150 mm CLEAR OF COLUMNS.
7. UNLESS NOTED OTHERWISE, FORM A DIAMOND SHAPE AROUND COLUMNS, 150 mm CLEAR, AND DO NOT RUN REINFORCEMENT THROUGH. PLACE INFILL AROUND COLUMN 28 DAYS AFTER SLAB ON GRADE PLACED.

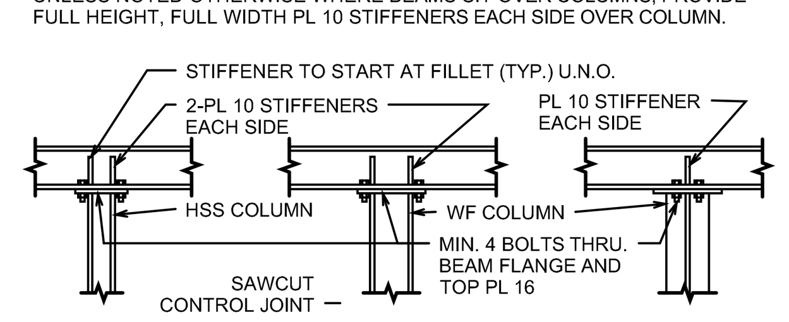


STEEL BEAMS AND GIRDERS

1. UNLESS NOTED, BEAM AND GIRDER CONNECTIONS TO EMBEDDED PLATES SHALL BE DOUBLE ANGLE FRAMING CONNECTIONS WELDED TO THE BEAM WEB THUS:



2. UNLESS NOTED OTHERWISE ALL CONNECTIONS FOR BEAMS AND GIRDERS SHALL BE DESIGNED FOR A SHEAR BASED ON THE MEMBER'S FULL MOMENT RESISTANCE CAPACITY RELATED TO A UNIFORM LOAD ON A SIMPLE SUPPORTED SPAN.
3. STEEL BEAM CAMBERS SHOWN THUS (75) MEAN CAMBER BEAMS 75 mm AT CENTRE.
4. TOP FLANGES OF BEAMS TO BE FREE OF ALL PAINT, DIRT, HEAVY RUST, MILL SCALE, SAND AND OTHER MATERIALS WHICH WILL INTERFERE WITH WELDING OF STUD SHEAR CONNECTIONS AND STEEL DECK TO BEAMS.
5. UNLESS NOTED OTHERWISE WHERE BEAMS SIT OVER COLUMNS, PROVIDE FULL HEIGHT, FULL WIDTH PL 10 STIFFENERS EACH SIDE OVER COLUMN.



STRUCTURAL STEEL

1. STRUCTURAL STEEL SECTIONS SHALL BE NEW AND CONFORM TO THE FOLLOWING:
2.

A.	WIDE FLANGE BEAMS AND WWF SECTIONS ---	CSA G40.21 350W
B.	MISCELLANEOUS ROLLED SECTIONS (EXCEPT WIDE FLANGES) ----------	CSA G40.21 300W
C.	HOLLOW STRUCTURAL SECTIONS (CLASS C U.N.O.) ----------	CSA G40.21 350W
D.	ROLLED PLATES ----------	CSA G40.21 300W
E.	BOLTS (SEE PLANS AND DETAILS) ----------	ASTM A325 OR ASTM A490
F.	STRUCTURAL STEEL ANCHOR RODS (U.N.O.) --	ASTM F1554 GRADE 36 MINIMUM
G.	REINFORCING BAR ANCHOR BOLTS ----------	CAN/CSA-G30.18R, GRADE 400

3. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE. ALL BEAM CONNECTIONS TO BE STANDARD FRAME BEAM CONNECTIONS OR EQUIVALENT, UNLESS NOTED OTHERWISE. SUBMIT A LETTER OF CERTIFICATION BY P.ENG RESPONSIBLE FOR DESIGN OF CONNECTIONS.
4. SHOP DRAWINGS SHALL BE PREPARED UNDER THE DIRECTION OF A SPECIALTY STRUCTURAL ENGINEER. FOR THOSE CONNECTIONS AND COMPONENTS DESIGNED BY THE FABRICATOR. THIS ENGINEER OR THEIR REPRESENTATIVE SHALL VISIT THE SITE TO REVIEW IN PLACE THE CONNECTIONS AND COMPONENTS DESIGNED BY THIS ENGINEER TO SATISFY THEMSELVES THAT THESE CONNECTIONS AND COMPONENTS COMPLY WITH THEIR DESIGN ON THE SHOP DRAWINGS. THIS ENGINEER SHALL PROVIDE A LETTER TO AMR TO THIS EFFECT. THIS ENGINEER SHALL ALSO PROVIDE SEALED SKETCHES FOR ALL FIELD MODIFICATIONS MADE TO THEIR DESIGN.
5. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO START OF STEEL FABRICATION.
6. FABRICATION, ERECTION, STRUCTURAL DESIGN, AND DETAILING OF ALL STEEL SHALL BE IN ACCORDANCE WITH CAN/CSA-S16.
7. FILLET WELDS SHALL BE 5 mm MINIMUM U.N.O.
8. BOLTS SHALL BE A325 19 mm Ø MINIMUM U.N.O.
9. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS IN EACH MEMBER U.N.O.
10. UNLESS NOTED OTHERWISE, COLUMN CAP PLATES SHALL BE 16 mm THICK AND COLUMN BASE PLATES SHALL BE 20 mm MINIMUM THICK.
11. PROVIDE 6 mm CAP PLATES FOR ALL HSS MEMBERS U.N.O.
12. CONNECTION DETAILS SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE ALTERED BY THE CONTRACTOR WITHOUT WRITTEN APPROVAL FROM AMR ENGINEERING LIMITED.
13. UNLESS NOTED OTHERWISE ON THE PLANS, REFER TO THE DETAILS IN THE GENERAL NOTES FOR FRAMING FOR SUPPORT OF ROOF TOP MECHANICAL EQUIPMENT.
14. STEEL TO BE EXPOSED IN FINISHED WORK SHALL BE CLEANED, PREPARED, PRIMED AND PAINTED IN ACCORDANCE WITH CSA STANDARD S16 AND THE ARCHITECTURAL DRAWINGS AND PAINTING SPECIFICATION.
15. DESIGN DRAWINGS INCLUDE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. SEE ALSO ARCHITECTURAL DRAWINGS FOR ROOF AND FLOOR ELEVATIONS, ROOF SLOPES, EDGE DETAILS, AND ADDITIONAL DIMENSIONS AND DETAILS. WHERE ELEVATIONS, ROOF SLOPES, ETC., ARE SHOWN ON THE STRUCTURAL DRAWINGS, THEY MUST BE CONFIRMED WITH THE ARCHITECTURAL DRAWINGS.
16. UNLESS NOTED OTHERWISE, DO NOT OVERSIZE HOLES IN STEEL TO FIT ANY ANCHOR LOCATIONS. FOR COLUMN BASE PLATE HOLES, UNLESS NOTED OTHERWISE ON DRAWINGS, FOLLOW STANDARD PRACTICE WHICH IS TO USE SLIGHTLY OVERSIZED HOLES. USE 6 mm OVERSIZED HOLE DIAMETER FOR COLUMN ANCHOR RODS UP TO AND INCLUDING 27 mm DIAMETER, AND 12 mm OVERSIZED HOLE DIAMETER FOR COLUMN ANCHOR RODS GREATER THAN 27 mm DIAMETER.
17. TOUCH UP ALL FIELD WELDS. ALL STEEL SHALL BE PAINTED WITH 1 ZINC RICH SHOP COAT AND FIELD TOUCH UP AS PER CGSB-1.40-M89.
18. NON-SHRINK GROUT SHALL BE M-BED STANDARD BY SIKA CANADA INC. OR APPROVED EQUAL.

STEEL DECK

1. STEEL DECKING SHALL CONFORM TO CAN/CSA-S136.
2. STEEL DECKING SHALL CONFORM TO CSSBI SPECIFICATION 10M MINIMUM GRADE 230 ZINC COATED STRUCTURAL QUALITY STEEL FOR ROOF AND FLOOR DECK. BASE STEEL NOMINAL THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUM REQUIREMENTS ONLY.
3. INTERIOR EXPOSURE DECK SHALL BE ZINC COATED WIPE COAT ZF075 FOR FLOORS AND FOR ROOFS. EXTERIOR EXPOSURE DECK SHALL BE Z275 ZINC COATED UNLESS NOTED OTHERWISE.
4. STEEL DECKING SHALL BE INSTALLED SUCH THAT SHEETS ARE SET FOR A MINIMUM OF THREE SPANS CONTINUOUS UNLESS NOTED OTHERWISE. LAPS OF DECKING SHALL BE LIMITED OR DETAILED TO PREVENT UNDUE VERTICAL DEFORMATIONS AT THE END OF THE DECK DUE TO END ROTATIONS.
5. SEE DRAWINGS FOR DECK THICKNESSES OR DESIGN LOADS.
6. WHERE DECK IS CALLED UP ON THE DRAWINGS, ALTERNATES MUST BE THE SAME DEPTH, BE EQUIVALENT FOR DEFLECTIONS, VERTICAL LOAD, AND SHEAR CAPACITY, AND BE PRE-APPROVED.
7. SUBMIT SHOP DRAWINGS INDICATING THE DECK SPANS, THICKNESSES, PROFILES, AND DETAILS. WHERE THE DECK THICKNESSES AND CONNECTIONS ARE NOT SHOWN ON THE DRAWINGS, THE FABRICATOR SHALL DESIGN THE DECK AND CONNECTIONS FOR THE VERTICAL LOADS AND THE SHEAR/DIAPHRAGM LOADS NOTED ON THE DRAWINGS AND HAVE THE SHOP DRAWINGS SEALED BY THE CONTRACTOR'S SPECIALTY STRUCTURAL ENGINEER.
8. FASTENINGS - MINIMUM REQUIREMENTS UNLESS NOTED OTHERWISE ON DRAWINGS:
   A. SIDE LAPS MECHANICALLY FASTENED (CLINCHED) AT NOT MORE THAN 600 mm O/C.
   B. 20 mm Ø FUSION WELDS AT DECK SUPPORTS SHALL BE AT 300 mm O/C ALONG SIDE EDGES AND AT EVERY OTHER FLUTE.
9. REMOVE WATER BETWEEN THE DECK AND SUPPORTING STEEL BEFORE WELDING DECK.
10. IF NOT SHOWN OTHERWISE, ALL EDGES OF STEEL DECKING SHALL BE SUPPORTED ON CONTINUOUS ANGLE L76x76x6.4.
11. SEE ALSO MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR ALL OPENINGS IN DECK.
12. STEEL DECK TO BE DESIGNED FOR A MINIMUM DIAPHRAGM SHEAR OF 3.5 kN/m, U.N.O.
13. TOUCH UP ALL FIELD WELDS WITH ZINC PAINT.

No.	REVISION	DATE	BY
2	ISSUED FOR PERMIT	FEB 04/26	D.K
1	ISSUED FOR PROGRESS	DEC 23/25	D.K

CLIENT: WILCOX ARCHITECTS INC.
74 LINDSAY ST. S. LINDSAY, ONT.

PROJECT:

RENOVATIONS TO
ST. MARY CATHOLIC
ELEMENTARY SCHOOL

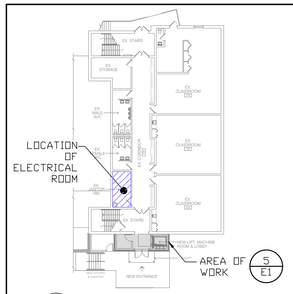
35 CENTRE ST. CAMPBELLFORD, ON, K0L 1L0

DRAWING:
GENERAL NOTES AND TYPICAL DETAILS

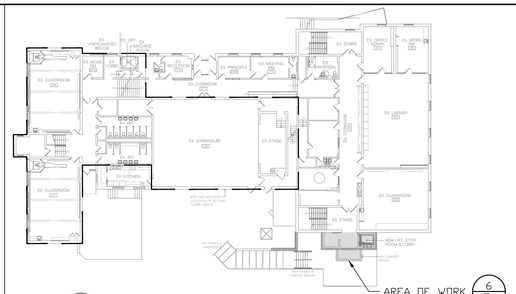
AMR ENGINEERING LTD.
STRUCTURAL ENGINEERS
920 ALNESS STREET, SUITE 205
TORONTO, ON M3J 2H7
(416) 551-1611

REGISTERED PROFESSIONAL ENGINEER
25-2329
D. KOTOBELLI
PROVINCE OF ONTARIO

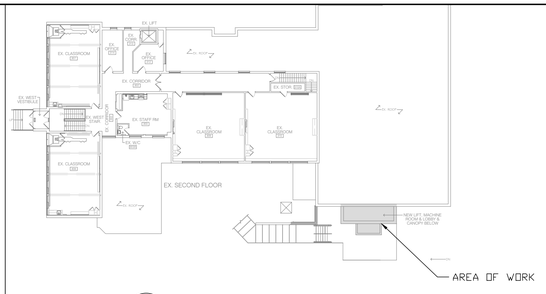
DRAWN BY:	M.K.	AMR PROJECT No.	25-2329
CHECKED BY:	D.K.		
DATE:	FEB 04/26	DWG. No.	S6 OF 6
SCALE:	AS NOTED		



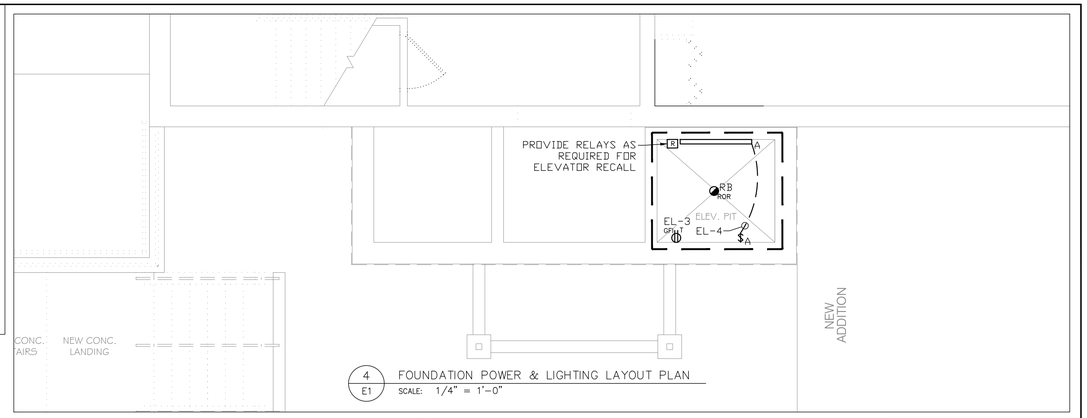
1 E1 LOWER GROUND FLOOR PLAN
SCALE: 1/16" = 1'-0"



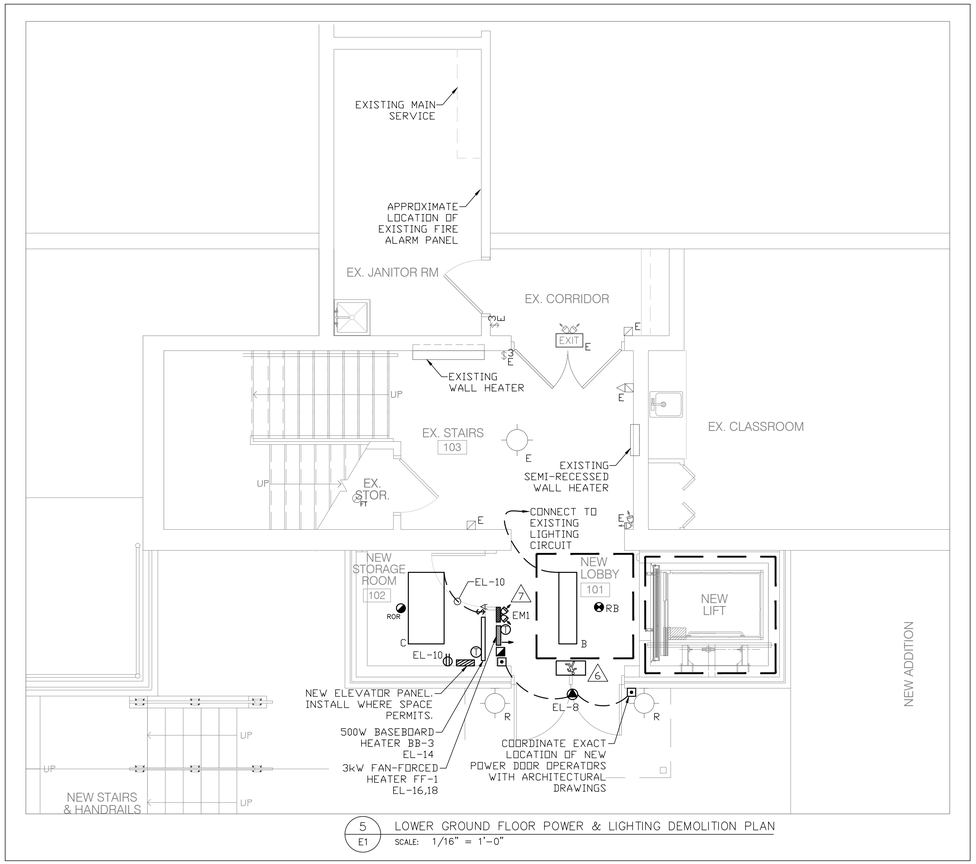
2 E1 MAIN GROUND FLOOR KEY PLAN
SCALE: 1/16" = 1'-0"



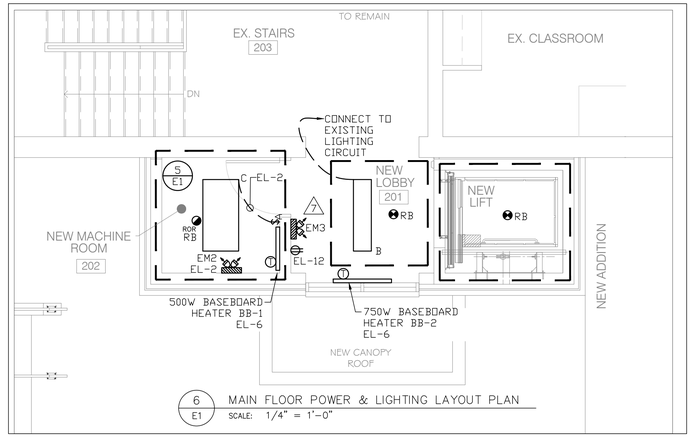
3 E1 SECOND FLOOR/ROOF KEY PLAN
SCALE: 1/16" = 1'-0"



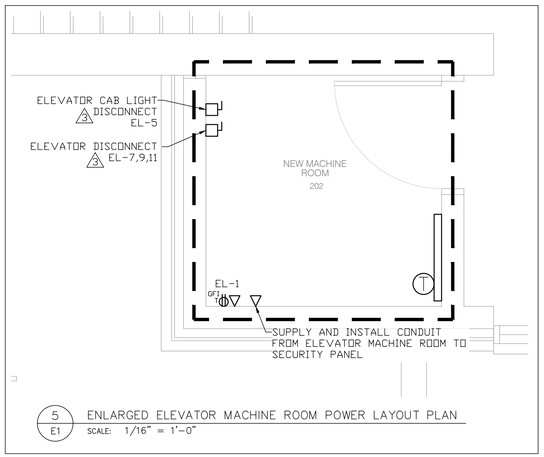
4 E1 FOUNDATION POWER & LIGHTING LAYOUT PLAN
SCALE: 1/4" = 1'-0"



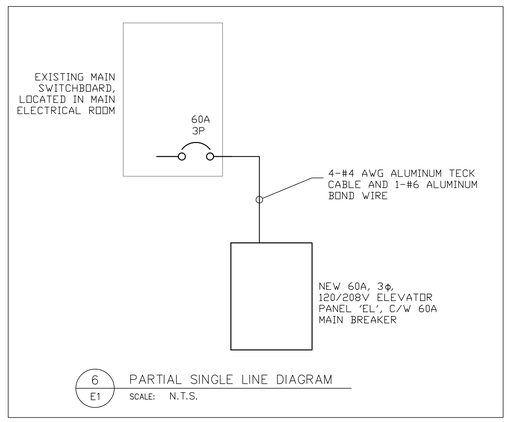
5 E1 LOWER GROUND FLOOR POWER & LIGHTING DEMOLITION PLAN
SCALE: 1/16" = 1'-0"



6 E1 MAIN FLOOR POWER & LIGHTING LAYOUT PLAN
SCALE: 1/4" = 1'-0"



5 E1 ENLARGED ELEVATOR MACHINE ROOM POWER LAYOUT PLAN
SCALE: 1/16" = 1'-0"



6 E1 PARTIAL SINGLE LINE DIAGRAM
SCALE: N.T.S.

NOTES:

1. SMOKE DETECTORS COMPLETE WITH RELAY BASES SHALL BE CONNECTED TO ELEVATOR CONTROL PANEL.
2. SUPPLY AND INSTALL WIRING FROM FIRE ALARM PANEL TO ELEVATOR CONTROL PANEL FOR NEW ELEVATOR ZONES.
3. CONNECT ELEVATOR DISCONNECTS TO THEIR RESPECTIVE EQUIPMENT.
4. ENSURE SYSTEM IS OPERATIONAL AND FUNCTIONING CORRECTLY AFTER REMOVALS AND ALTERATIONS.
5. REVERSE ACTING THERMOSTAT SUPPLIED BY MECHANICAL, INSTALLED BY ELECTRICAL.
6. CONNECT TO EXISTING EXIT SIGN CIRCUIT.
7. FED FROM EXISTING LIGHTING CIRCUIT FOR EXISTING LIGHTS.

RECEPTACLE LEGEND	
⏚	RECEPTACLE
•	MOUNTED ABOVE COUNTER
T	20A T-SLOT
E	EXISTING
R	RELOCATED

POWER LEGEND	
▲	DIRECT CONNECTION
S_M	MOTOR RATED SWITCH
◯	SINGLE PHASE MOTOR
⊡	POWER DOOR OPERATOR
△	PHONE OUTLET
R	RELAY BASE
E	EXISTING
R	RELOCATED

FIRE ALARM LEGEND	
☑	EXISTING PULL STATION
Θ_{HT}	EXISTING HEAT DETECTOR
RB	NEW SMOKE DETECTOR C/W RELAY BASE
RB ROR	NEW RATE OF RISE HEAT DETECTOR C/W RELAY BASE

LIGHTING SCHEDULE

SYMBOL	MODEL No.	MANUFACT.	DESCRIPTION
A	14CGTS-L3C3-4000K-HIGH C/W DF-14W-U	COOPER - METALUX	1'x4' SURFACE MOUNTED LED FLAT PANEL LUMINAIRE, SELECTABLE LUMENS AND CCT, SET TO HIGH LUMEN OUTPUT (4792 LUMENS (34.1W)), 120V, MOUNTED IN T-BAR CEILING
B	4SNLED-LD5-74HL-LN-UNV-L840-CD1-U	COOPER - METALUX	4' LENSED LED STRIPLIGHT, 7548 LUMENS, 62W, SEMI-FROST LENS, 120V, 4000K, 0-10V DIMMING DRIVER
C	14CGTS-L3C3-4000K-HIGH C/W DF-14W-U	COOPER - METALUX	2'x4' SURFACE MOUNTED LED FLAT PANEL LUMINAIRE, SELECTABLE LUMENS AND CCT, SET TO HIGH LUMEN OUTPUT (7229 LUMENS (50.8W)), 120V, MOUNTED IN T-BAR CEILING

LIGHTING CONTROLS SCHEDULE

SYMBOL	MODEL No.	MANUFACT.	DESCRIPTION
$A	ONW-D-1001-DMV-WH	GREENGATE	DUAL TECHNOLOGY WALL SWITCH OCCUPANCY SENSOR, 120V, WHITE IN COLOUR, PROGRAMMED AUTO-ON (WALL PLATE NOT INCLUDED)

ELECTRIC HEATING EQUIPMENT SCHEDULE

SYMBOL	MODEL No.	MANUFACTURER	DESCRIPTION
T	OAC04000-T	OUELLET OR APPROVED EQUAL	3kW COMMERCIAL FAN-FORCED HEATER, WHITE, 240V, C/W INTEGRAL TAMPERPROOF THERMOSTAT
T	ODB0502-TB6	OUELLET OR APPROVED EQUAL	500W BASEBOARD HEATER, WHITE, 120V, C/W INTEGRAL THERMOSTAT
T	ODB0752-TB6	OUELLET OR APPROVED EQUAL	750W BASEBOARD HEATER, WHITE, 120V, C/W INTEGRAL THERMOSTAT

EMERGENCY LIGHTING & EXIT SCHEDULE

SYMBOL	MODEL No.	MANUFACT.	DESCRIPTION
	12ESL36/2LI	EMERGILITE OR APPROVED EQUAL	EMERGENCY LIGHTING UNIT, 36W BATTERY CAPACITY, 12VDC, 10 YEAR BATTERY, C/W TWO 5W MR16 LED HEADS AS LISTED AND MOUNTING SHELF

Rev.	Date	Description	By	App.
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
0	26/02/05	ISSUED FOR PERMIT & TENDER	PGB	–

BERTHELOT ENGINEERING LTD
2193 Lynhaven Rd., Peterborough, ON. K9K 1W8
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Email: pberthelot@bertheloteng.com

LICENSED PROFESSIONAL ENGINEER — P.G.P. BERTHELOT — Feb. 5/26 — PROVINCE OF ONTARIO
ELECTRICAL BCIN 23396

DWN.
CHK. P. BERTHELOT
DSN. PGB
SCALE: AS NOTED

PROJECT
RENOVATIONS TO ST. MARY CATHOLIC ELEMENTARY SCHOOL
35 Centre Street
Campbellford, Ontario

TITLE
POWER & LIGHTING LAYOUT PLAN

FILE No. 787
DWG. No. E1

Part 1 – General

1.1. General

1.1.1. This section covers the general requirements for the electrical work. Read all divisions of the contract documents.

1.1.2. All equipment shall be CSA approved.

1.1.3. All equipment, materials and installation methods shall conform to the best commercial standard practice, and in accordance with the Ontario Electrical Safety Code and all bulletins.

1.2. Outline Scope

1.2.1. The following major items of work shall be supplied and installed under the electrical contract:

1.2.1.1. Provide all labour, materials, equipment and services to complete the work of the electrical division as further specified and as shown on the drawings:
a. Supply and install exit, emergency lights, fire alarm equipment and receptacles as detailed on drawings.
b. Miscellaneous removals as required.

1.3. Contract Drawings

1.3.1. Drawings for electrical work are performance drawings, diagrammatic, intended to convey scope of work and indicate general arrangement and approximate location of apparatus, fixtures and wiring. Drawings do not show all conduits. Those shown are diagrammatic only.

1.3.2. Additional money over the contract price shall not be paid unless an approved change order is issued by the architect. Claims for extras shall be submitted with a complete breakdown of material, labour, hourly rates, etc.

1.4. Shop Drawings

1.4.1 Submit four reproducible copies of manufacturer's detailed shop drawings, which indicate clearly the materials and/or equipment actually being supplied, all details of construction, accurate dimensions, capacity, operating characteristics and performance for each piece of manufactured equipment and for items listed under each section for review.

1.4.2. Shop drawings submitted for approval that are not stamped and signed in accordance with the preceding requirements will be returned for resubmittal.

1.4.3. Installation of any equipment shall not commence until after shop drawings have been reviewed by the consultant.

1.4.4. Bind one set of approved shop drawings in each operating and maintenance instruction manual.

1.5. Co-Operation with Other Trades

1.5.1. The contractor shall co-operate fully with other trades in such a manner as not to interfere with other work being carried out at the job site. Where other work and equipment has to be installed along with work pertaining to this division, arrange with other trades to install this work to best suit the needs for the particular condition.

1.6. Warranty

1.6.1. The contractor shall guarantee all work for a period of one year after the date of issue of the final certificate by the engineer and for longer periods where specified. If any defects become evident within the guarantee periods all necessary repairs and replacements to the work shall be made without cost to the owner. The contractor shall pay for making good any other work damaged through defects in the work of this section during both construction and guarantee periods.

1.7. Insurance

1.7.1. The contractor shall maintain all necessary insurance to protect the owner and all trades from all possible claims.

1.8. Liability

1.8.1. The contractor shall assume full responsibility for layout of work and for any damage caused by improper location or carrying out of work of these sections.

1.9. Cutting and Patching

1.9.1. The contractor shall complete all required cutting and patching to perform the work of this contract. Cuttings shall be kept to a minimum and be performed with clean cut straight edges. Patching shall be neat, clean and restore to original finish conditions using similar types of materials. Use only trades personnel skilled in the various types of work required. Cutting of structural members shall not be permitted without written approval by the owner.

1.10. Record Drawings

1.10.1 The contractor shall maintain accurate records of changes to the drawings on the job site.
These shall include: all changes included in addenda to the tender documents; site instructions; and contract change notices. Upon project completion, the contractor shall forward to the consultant the set of drawings indicating the as-built conditions.

1.11. Existing Conditions

1.11.1. The contractor shall visit and examine the site and become familiar with all existing conditions affecting the work prior to submitting tender. No allowances in cost will be made by the owner for any difficulties encountered in the work arising out of conditions existing at the time of tendering.

1.12. Product Delivery, Storage and Handling

1.12.1. Inspect products delivered to the site and before acceptance, ensure that the product is: new; free from defects; is as specified; and is as per reviewed shop drawings, all in accordance with the contract documents. Store materials only in designated areas and protect as necessary to maintain materials in new condition.

1.13. Instructions to Owner

1.14.1. Instruct the owner's representative(s) in all respects of the operation and maintenance of systems and equipment. Obtain from the consultant a list of the owner's representative(s) qualified to receive instructions.

1.14. Clean-Up

1.14.1. At all times keep the premises free from accumulations of waste material or rubbish caused by employees or work. At the completion of the work, remove all rubbish and all tools, equipment and surplus materials from and about the work and leave the work "broom clean" or its equivalent, unless more exactly specified. All lighting fixtures, light switches, and other operable electrical devices shall be cleaned at the completion of work.

1.15. Codes and Standards

1.15.1 Provide equipment and materials, and do the work, in accordance with the following, and comply with relevant sections as adopted or amended by authorities having jurisdiction:
a. Canadian electrical code (Canada)
b. National Fire Protection Association
c. CAN/ULC Standards
d. Ontario Electrical Safety Code, including current bulletins and amendments.
e. Ontario Building Code
f. Worker's Compensation Board Regulations
g. Governing Fire Codes in the Province Of Ontario

1.16. Permit, Fees and Inspection

1.16.1 The contractor shall apply for, obtain and pay all permits, licenses, inspections, examinations and fees required. The contractor shall arrange for inspection of all work by the authorities having jurisdiction over the work. On completion of the work, present to the owner the final unconditional certificate of approval by the inspection authorities.

1.16.2 Before starting any work, submit the required number of copies of drawings and specifications to the authorities for their approval and comments. Comply with any changes requested as part of the contract, but notify the owner immediately of such changes, for proper processing of these requirements.

Part 2 – Basic Materials and Methods

2.1. Conduits, Conduit Fastenings and Conduit Fittings

2.1.1. Conduit systems shall be electrical metallic tubing, intermediate metal conduit, galvanized rigid steel conduit, or polyvinyl chloride. Minimum size shall be 1/2". Use EMT above-grade for indoor construction except where rigid conduit is required. Where galvanized rigid steel conduit is required, provide lock-nuts and bushing at terminations.

2.1.2. Type BX -90 flexible armoured cable may be used only for final connections to lighting fixtures. Use flexible conduit for final connections to motors and sensors. Lengths should not exceed 18". Use liquid tight PVC jacketed flexible conduit for connections to equipment outdoors or in damp locations.

2.1.3. Conduits shall be of sufficient size to permit easy removal of the conductors at any time. Use one hole steel straps to secure surface conduits 2" and smaller, and two hole steel straps for conduits larger than 2". Use beam clamps to secure conduits to expose steel work. Install fittings manufactured for use with the conduit supplied. Watertight connectors and couplings are required for EMT. Set screws are not acceptable.

2.1.4. Install conduits to conserve headroom in exposed locations and cause minimum interference in spaces through which they pass. Conduits shall be run exposed in service areas, but shall be concealed in finished rooms. Exposed conduits shall be installed parallel and perpendicular to walls and ceilings. Wherever conduits cross building expansion joints, approved means, such as conduit expansion joints or flexible conduit loops shall be provided as necessary to take care of the movement. Conduit shall not be run horizontally in partitions.

2.1.5. All conduits shall be properly supported with spacing not to exceed C.E.C. requirements. Approved electrical hardware, hangers, structural shapes, etc. Shall be used. Perforated strap handlers shall not be permitted. Where run exposed on concrete or masonry walls, conduits shall be supported using conduit clamps and lead anchors or approved preset concrete inserts and where run on building steel, beam clamps shall be used. Conduit clamps shall be heavy duty galvanized malleable iron. Factory "ells" shall be used where 90° bends are required for 1" or larger conduits. Make bends and offsets with a hickey or power bender without flattening or denting the conduits. Bend conduit cold. Replace conduit if kinked or flattened more than 1/10th of its original diameter. Connect conduit lengths with only approved couplings or conduit unions.

2.1.6. Install conduits so that there is no interference with access openings in ceilings or access to equipment in the ceiling space. Install conduit to avoid proximity to water or heating pipes. Do not run within 6" of such pipes. Where crossings are unavoidable, maintain a minimum distance of 1" from the pipe covering.

2.1.7. Square-cut all conduit ends, ream and file to remove all burrs before installation and properly clean and cap all empty conduits. Install fish cord in empty conduits.

2.2. Wires and Cables

2.2.1. All conductors shall be copper. Conductors shall be stranded for #8AWG and larger with 1000v insulation of chemically cross-linked thermo setting polyethylene. 600v insulation can be used for conductors smaller than #8AWG. Base the 600 volt RW 90 conductor ampacities on published CEC 90°C. Rating. Cables shall be loaded to not more than 75% (70% to 80%) of this rating. Minimum #12AWG wiring shall be used.

2.2.2. Neutrals of power systems, although connected to a common ground at the source, shall be electrically separated and isolated from each other beyond this point of origination. Feeders to two or more switches or panels and the tapoffs to same shall all be run using the same size conductors throughout.

2.2.3. All wires shall be carried full size from source to the load. Neutral wires shall be the same size as phase wires. Equipment Ground wires shall be one size smaller than phase wire, except that the conductor shall not be larger than a 4/0 and shall be no. 10 for 30 amp circuits and no. 12 for circuits less than 30 amps. Insulation shall be type RW 90. Multi-circuit branch circuits in same conduit require only one equipment ground wire.

2.3. Junction and Pullboxes

2.3.1. Junction and pullboxes should be of welded steel construction with screw-on flat covers for surface mounting. Install pullboxes in inconspicuous but accessible locations. Install junction and pullboxes so as not to exceed 30m of conduit run between pullboxes. All junction and pullboxes should be labelled to identify equipment or circuit numbers.

2.4. Outlet, Conduit Boxes and Fittings

2.4.1. Size boxes in accordance with CSA C22.1. 100 mm square or larger outlet boxes as required for special devices. Gang boxes where wiring devices are grouped. Provide blank cover plates for boxes without wiring devices. Support boxes independently of connecting conduits. Conduit boxes shall be cast FS boxes with factory threaded hubs and mounting feet for surface wiring. Provide correct size of opening in boxes for conduit and cables. Reducing washers are not allowed.

Part 4 – Lighting Equipment

Emergency lighting

4.4. Install unit equipment and remote mounted fixtures as indicated.

4.5. Emergency lighting shall be installed in such a manner that it will be automatically actuated upon failure of the power supply to the normal lighting in the area covered by that unit equipment.

4.6. Emergency lighting shall have a supply voltage of 120VAC, and an output voltage of 12VDC, and be able to assume the electrical load automatically for a minimum of 30 minutes.

Exit signs

4.7. Install exit signs as per the contract drawings.

4.8. Exit signs shall consist of a green pictogram and white graphic symbol meeting the visibility specifications referred to in ISO 3864-1.

4.9. Exit signs shall be continuously illuminated.

PART 5 – FIRE ALARM SYSTEM

5.1. Contractor shall provide all material, equipment, and labour as required for the complete and adequate installation of the fire alarm system, as shown on the contract drawings, and as described below. Where an existing fire alarm system is present, all new devices shall match the existing system.

5.2. Contractor is responsible for the submittal of shop drawings for the complete system. At a minimum, the following shall be submitted:
5.2.1. Layout of equipment;
5.2.2. Zoning;
5.2.3. Wiring diagrams for connections and devices;
5.2.4. Methods or operation;
5.2.5. Fire alarm device make, model number, and type.

5.3. All components of the system, its installation and the system as a whole shall be ULC listed and labeled and shall meet the requirements of all authorities having jurisdiction of the application. The entire installation shall be carried out in accordance with CAN/ ULC S524 and shall be verified in accordance with CAN/ ULC S537.

5.4. Fire alarm control and booster panel breakers shall be of the lockable type, and shall be painted red.

5.5. Separate circuits from the control panel to each zone of initiating devices shall be provided.

5.6. Fire alarm system shall be single stage operation.
5.2.1. Single stage fire alarm system shall, upon the operation of any manual pull station or fire detector, cause an alarm signal to sound on all audible signal devices in the system.

5.7. Fire alarm device zones to be clearly indicated on control panel.

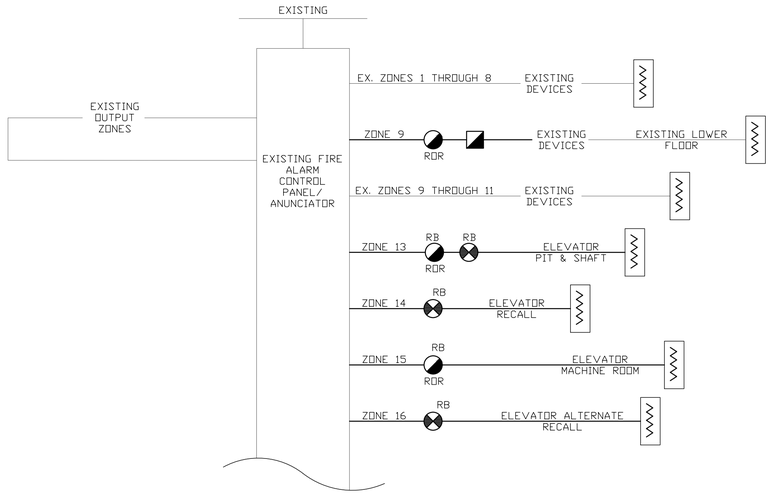
5.8. Arrange and pay for on-site lecture and demonstration by fire alarm equipment manufacturer to train operational personnel in use and maintenance of fire alarm system.

5.9. All fire alarm junction boxes shall be painted red.

5.10. All new fire alarm devices shall be compatible with existing system.

Part 8 – Removals

8.1. Contractor shall disconnect and remove all existing electrical devices and equipment, as per the contract documents.



1 / E2 PARTIAL FIRE ALARM RISER DIAGRAM
SCALE: N.T.S.

FIRE ALARM SYSTEM SCHEDULE

SYMBOL	MODEL NUMBER	MANUFACTURER	DESCRIPTION
ROR	MATCH EXISTING	MATCH EXISTING	RATE OF RISE HEAT DETECTOR TO MATCH EXISTING
RB ROR	MATCH EXISTING	MATCH EXISTING	RATE OF RISE HEAT DETECTOR C/W RELAY BASE TO MATCH EXISTING
RB	MATCH EXISTING	MATCH EXISTING	PHOTOELECTRIC TYPE SMOKE DETECTOR C/W RELAY BASE TO MATCH EXISTING
	MATCH EXISTING	MATCH EXISTING	MANUAL PULL STATION TO MATCH EXISTING

NOTES:
1. CONNECT NEW AND RELOCATED DEVICES TO EXISTING FLOOR ZONE.
2. EXISTING DEVICES ARE NOT SHOWN, BUT SHALL REMAIN ON EXISTING ZONES.
3. INCREASE BATTERY SIZE TO ACCOMMODATE NEW STROBES.
4. FIRE ALARM PANEL IS LOCATED IN JANITOR/ELECTRICAL ROOM.

PANEL: EL
LOCATION: NEW STORAGE ROOM
TYPE: SURFACE MOUNTED
FED FROM: MAIN SERVICE
VOLTAGE: 208/120V 3P 4W
MAIN BUS: 100A
MAIN BREAKER: 60A
IC RATING: 10kA
CIRCUITS: 24

CIRCUIT DESCRIPTION	LOAD (kVA)	CCT BKR	CCT #	PHASE	CCT #	CCT BKR	LOAD (kVA)	CIRCUIT DESCRIPTION
ELEVATOR MACHINE ROOM REC.	x	20A	1	a	2	15A	x	ELEVATOR MACHINE RM. LIGHTS
ELEVATOR PIT GFCI REC.	x	20A	3	b	4	15A	x	ELEVATOR PIT LIGHT
ELEVATOR CAB LIGHTS	x	15A	5	a	6	15A	x	BB-1/BB-2
ELEVATOR	x	30A	7	b	8	15A	x	DOOR OPERATORS
	x		9	a	10	15A	x	NEW STORAGE RM REC & LT
	x		11	b	12	15A	x	NEW LOBBY RECEPTACLE
SPARE	x	15A	13	a	14	15A	x	BB-3
SPARE	x	15A	15	b	16	20A	x	FF-1
SPARE	x	15A	17	a	18		x	
SPARE	x	20A	19	b	20	x	x	x
x	x	x	21	a	22	x	x	x
x	x	x	23	b	24	x	x	x

Rev.	Date	Description	By	App.
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–	–	–	–	–
0	26/02/05	ISSUED FOR PERMIT & TENDER	PGB	–

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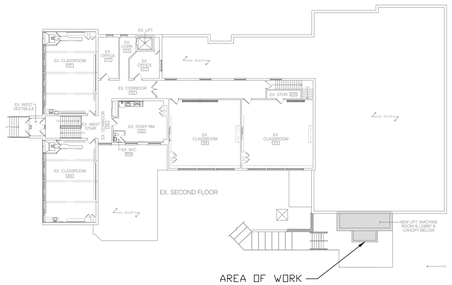
Feb. 5/26
PROVINCE OF ONTARIO
ELECTRICAL BCIN 23396

DWN.
CHK. P. BERTHELOT
DSN. PGB
SCALE: AS NOTED

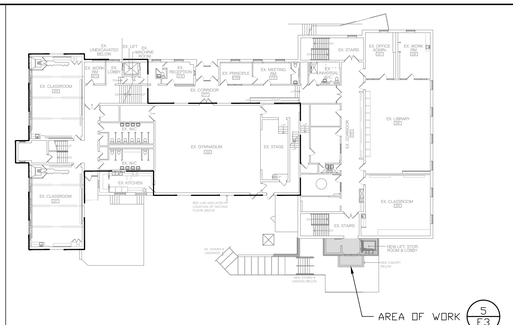
PROJECT
RENOVATIONS TO ST. MARY CATHOLIC ELEMENTARY SCHOOL
35 Centre Street
Campbellford, Ontario

TITLE
FIRE ALARM RISER, DETAILS & SCHEDULES

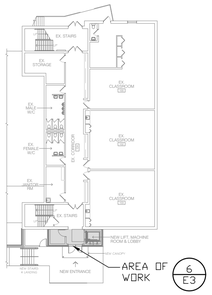
FILE No. 787
DWG. No. E2



1 E3 SECOND FLOOR/ROOF KEY PLAN
SCALE: 1/16" = 1'-0"



2 E3 MAIN GROUND FLOOR KEY PLAN
SCALE: 1/16" = 1'-0"



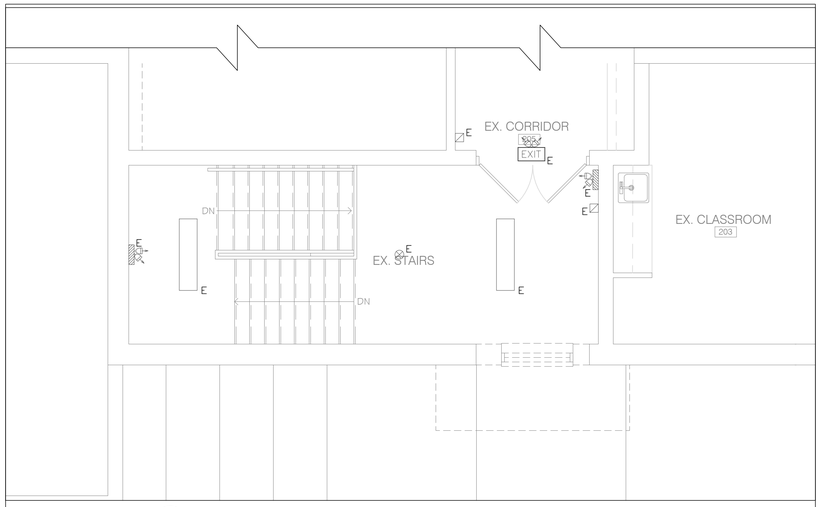
3 E3 LOWER GROUND FLOOR PLAN
SCALE: 1/16" = 1'-0"

FIRE ALARM LEGEND	
⊘	PULL STATION
⊗	SMOKE DETECTOR
	DOOR HOLD OPEN
FT	FIXED TEMPERATURE HEAT DETECTOR
E	EXISTING EQUIPMENT TO REMAIN
R	EXISTING EQUIPMENT TO BE RELOCATED
X	EXISTING EQUIPMENT TO BE REMOVED

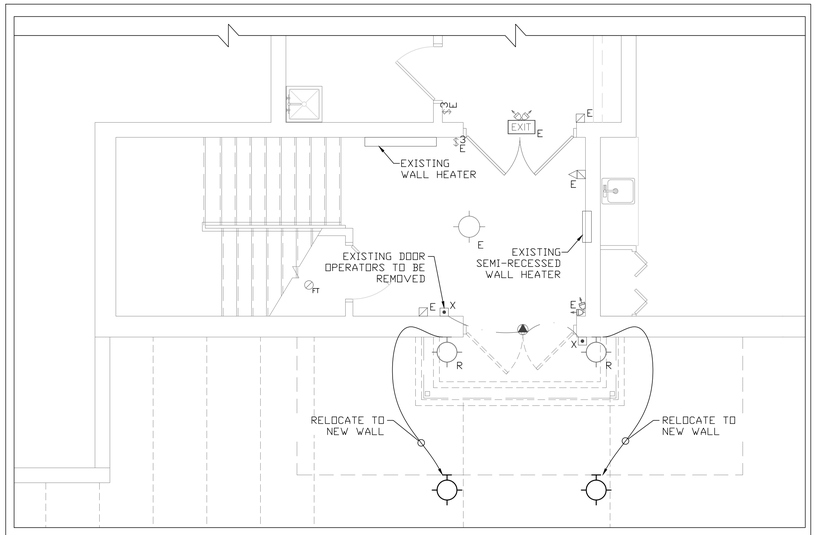
EMERGENCY LIGHTING LEGEND	
▬	EMERGENCY LIGHT BATTERY PACK
	EMERGENCY LIGHT
EXIT	EXIT SIGN
E	EXISTING EQUIPMENT TO REMAIN
R	EXISTING EQUIPMENT TO BE RELOCATED
X	EXISTING EQUIPMENT TO BE REMOVED

LIGHTING LEGEND	
$	
E, X	
E	EXISTING EQUIPMENT
X	EXISTING TO BE REMOVED

NOTE: EXISTING ELECTRICAL EQUIPMENT AND LIGHTING TO REMAIN, EXCEPT AS NOTED. DISCONNECT DEVICES SCHEDULED FOR REMOVAL OR RELOCATION. REMOVE EXISTING WIRING AND CONDUIT BACK TO SOURCE, WHERE PRACTICAL, AND MAKE SAFE.



4 E3 MAIN GROUND FLOOR POWER & LIGHTING DEMOLTION PLAN
SCALE: 1/4" = 1'-0"



5 E3 LOWER GROUND FLOOR POWER & LIGHTING DEMOLTION PLAN
SCALE: 1/4" = 1'-0"

Rev.	Date	Description	By	App.
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DSN. PGB
SCALE: AS NOTED

PROJECT
RENOVATIONS TO ST. MARY CATHOLIC ELEMENTARY SCHOOL
35 Centre Street
Campbellford, Ontario

TITLE
POWER & LIGHTING DEMOLITION LAYOUT PLAN

FILE No. 787

DWG. No. E3