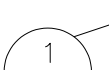
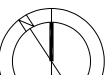
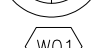
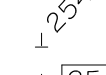
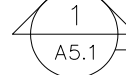
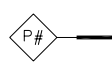
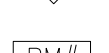


ISSUED FOR CONSTRUCTION

[illegible]A photograph of the exterior of Norwood Park School. The building is constructed of red brick and features a sign that reads "Norwood Park School". The school is surrounded by green grass, trees, and shrubs. A large tree is in the foreground, partially obscuring the building. The sky is overcast.

CONTACT LIST			
	Client	Hamilton-Wentworth District School Board 20 Education Court, P.O. Box 2558 Hamilton, Ontario T: 905-527-5092	Hamilton-Wentworth District School Board
	Architect	GS Gacesa Slate Architects Inc B-109 James Street North, Hamilton, Ontario, L8R 2K6 T: 905-297-0863 x1 E: stevan.gacesa@gs-arch.ca	Stevan Gacesa, OAA,
	Structural	AILMAR ENGINEERING INC. 94 Curran Road, Ancaster, Ontario, L9K 0H4 T: 905-966-4797 E: ssmoio@ailmar.com	Samuel Somo, P.Eng.
	Mechanical	CoPa Engineering Ltd. 29 Rolling Acres Drive Kitchener, ON N2A 3W5 T: 519-894-0022 F: 519-894-4548 E: copa.eng@sympatico.ca	Costas Pashartis, P. Eng.
	Electrical	Root3 Engineering Ltd. 1920 Young St, Suite 200, Toronto, ON M4S 3E2 T: 437-562-6772 E: sholditch@root3.ca	Steve Holditch, P. Eng.

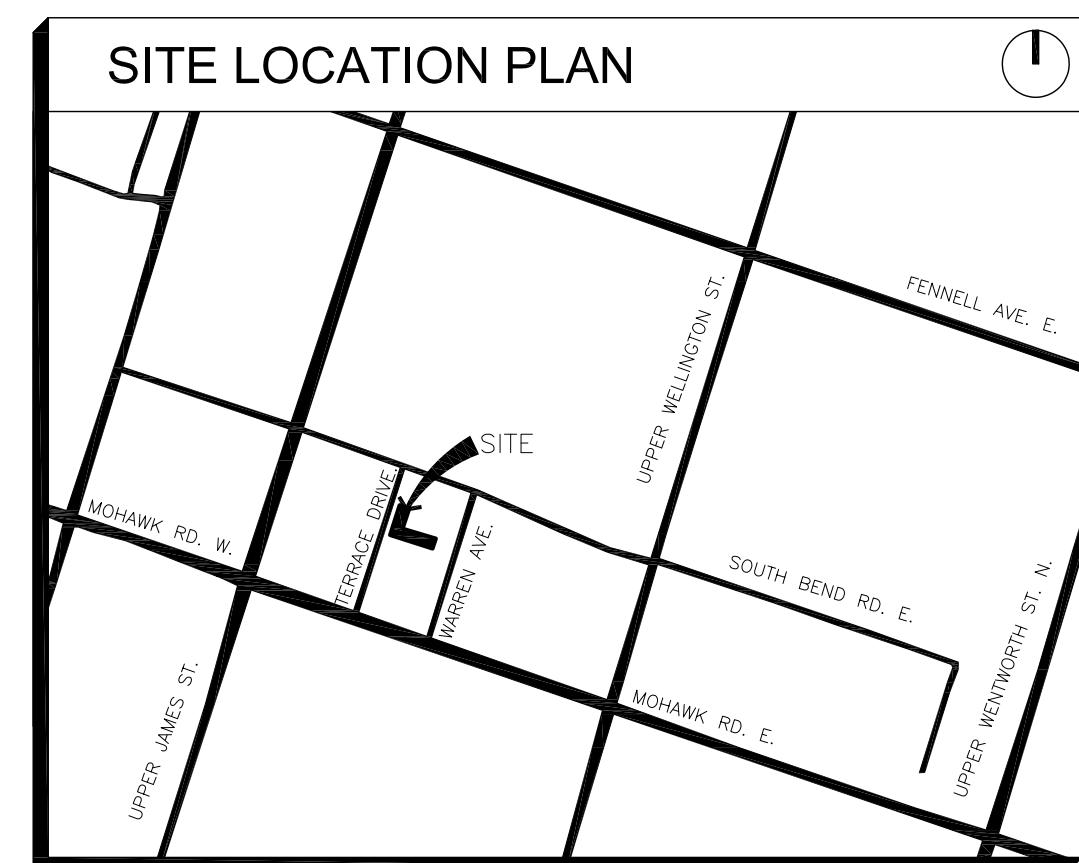
GRAPHIC SYMBOLS

	INDICATES DETAIL NUMBER		INDICATES ELEVATION NUMBER		GRID REFERENCE
	INDICATES DRAWING SHEET ON WHICH DETAIL IS SHOWN (CROSS REFERENCING)		INDICATES SHEET ON WHICH ELEVATION IS SHOWN (CROSS REFERENCING)		INDICATES WALL SECTION NUMBER
	INDICATES SKETCH SHEET ON WHICH DETAIL IS SHOWN		EXISTING ELEVATION		INDICATES DRAWING SHEET ON WHICH SECTION IS SHOWN (CROSS REFERENCING)
	PROJECT NORTH		NEW ELEVATION		INDICATES BUILDING SECTION NUMBER
	WINDOW TYPE		REVISION TO DRAWING		INDICATES DRAWING SHEET ON WHICH SECTION IS SHOWN (CROSS REFERENCING)
	KEYNOTE		INTERIOR PARTITION ASSEMBLY		
	EXTERIOR WALL ASSEMBLY		FLOOR/ROOF ASSEMBLY		INTERIOR GLAZED SCREEN TYPE
	ROOM NUMBER		DOOR NUMBERS		

SHEET INDEX					
SHEET NUMBER/TITLE					
ARCHITECTURAL	A0.1	COVER			
	A0.2	OBC MATRIX, WALL ASSEMBLIES & DOOR SCHEDULES			
	A0.3	SPECIFICATIONS			
	A2.0	DEMOLITION, NEW FLOOR PLANS & INTERIOR ELEVATION			
	A2.1	REFLECTED CEILING PLAN AND PENTHOUSE PLAN			
	A3.0	WASHROOM DETAILS			
	A6.0	SECTION			
STRUCTURAL	S0.0	GENERAL NOTES			
	S1.0	FLOOR PLANS			
	S1.1	FLOOR PLANS			
	S1.2	PARTIAL DEMOLITION PLANS			
	S1.3	PARTIAL FRAMING PLANS			
	S2.0	SECTION AND DETAILS			
	S3.0	TYP., DETAILS			
MECHANICAL	M1.1	PLUMBING LAYOUTS			
	M2.1	HVAC LAYOUTS			
	M3.1	MECHANICAL NOTES AND SCHEDULES			

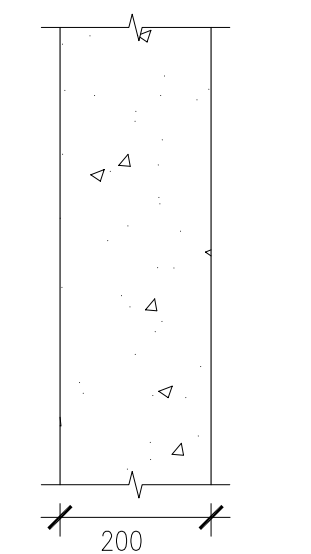
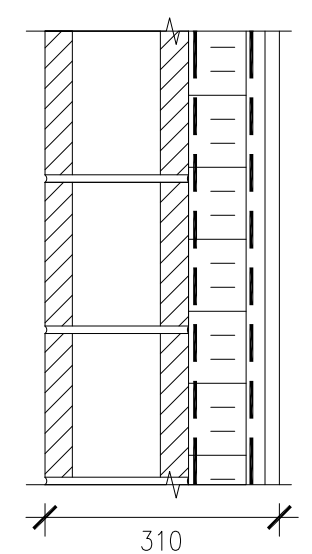
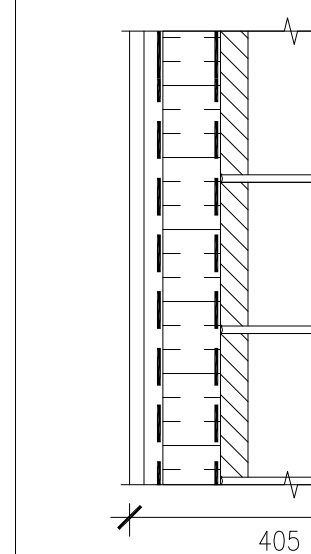
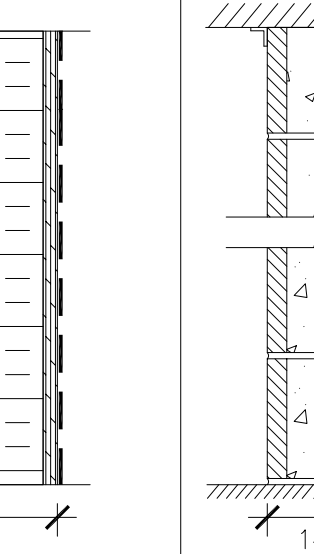
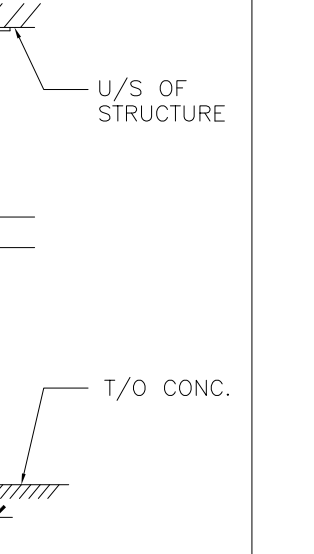
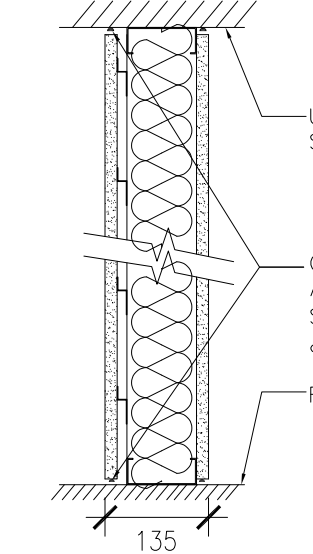
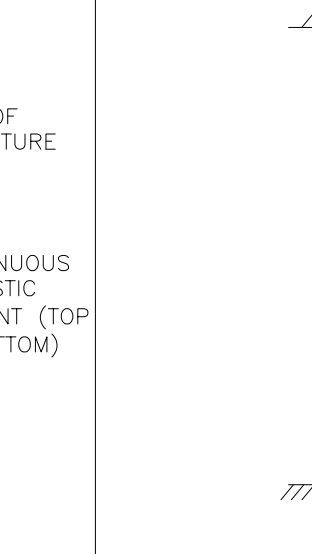
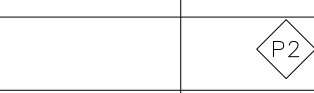
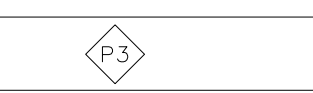
GENERAL NOTES

1. ALL CONSTRUCTION TO MEET ALL CURRENT ONTARIO BUILDING CODE REQUIREMENTS.
2. ENSURE THAT ALL CONSTRUCTION, MATERIALS, METHODS OF INSTALLATION AND TEMPORARY FACILITIES COMPLY WITH REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION.
3. INSPECT SITE CONDITIONS PRIOR TO COMMENCING ON NEW WORK AND REPORT ANY DISCREPANCIES.
4. REPORT ALL CONTEMPLATED DEVIATIONS FROM THE DRAWINGS PRIOR TO MAKING CHANGES.
5. SITE VERIFY ALL DIMENSIONS AND MAKE MODIFICATIONS TO SUIT EXISTING SITE CONDITIONS.
6. MAKE GOOD ALL AREAS DISTURBED OR DAMAGED DURING CONSTRUCTION WHETHER SHOWN ON DRAWINGS OR NOT.
7. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ANY AND ALL STRUCTURAL, MECHANICAL, ELECTRICAL, CIVIL AND LANDSCAPE DRAWINGS. COORDINATE STRUCTURAL, MECHANICAL, ELECTRICAL, CIVIL & LANDSCAPE WORK TO ENSURE THE PARTS OF THE WORK COME TOGETHER PROPERLY.
8. PROVIDE CUTTING, PATCHING, AND REMEDIAL WORK IN ORDER TO ENSURE PARTS OF THE WORK COME TOGETHER PROPERLY.
9. ARRANGE FOR INSPECTIONS REQUIRED BY LOCAL BUILDING, PLUMBING, HYDRO, GAS, ETC., AUTHORITIES DURING CONSTRUCTION AND FOR OCCUPANCY.
10. THE PLANS SHOWN HERE DO NOT REPRESENT THE FULL LIMIT OF THE SCOPE OF WORK. PROVIDE ALL WORK IN ORDER TO ENSURE PARTS OF THE WORK COME TOGETHER PROPERLY.

[illegible]

GACESA SLOTE ARCHITECTS	
TEL: 905-297-0863 B - 109 JAMES ST. NORTH, HAMILTON, ONTARIO L8N 2N6	
	
CONTRACTOR IS TO CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE PROJECT AND TO REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.	
CONTRACT DOCUMENTS ARE THE COPYRIGHT OF THE CONSULTANTS AND SHALL NOT BE USED OR REPRODUCED WITHOUT AUTHORIZATION. DOCUMENTS ARE TO BE RETURNED UPON COMPLETION OF THE PROJECT.	
NOTE: DRAWINGS ARE NOT TO BE SCALED.	
05	2026-05-25 Issued for Construction
04	2026-04-29 Issued for Addendum #1
03	2026-04-10 Issued for Tender
02	2026-02-27 Issued for Permit
01	2025-11-19 Issued for Client Review
No.	Date Remarks
Interior Renovations for HWDSB Norwood Park Accessibility Upgrades 165 Terrace Dr, Hamilton, ON L9A 2Z2	

A0.1

GRAPHIC DESCRIPTION							
							
	FOUNDATION WALL	EXTERIOR WALL	PARAPET WALL	INTERIOR PARTITION	INTERIOR PARTITION	INTERIOR PARTITION	ROOF ASSEMBLY
	FIRE RESISTANCE RATING (F.R.R.)	—	—	—	—	—	—
	SOUND TRANSMISSION CLASS (S.T.C.)	—	—	—	—	—	—

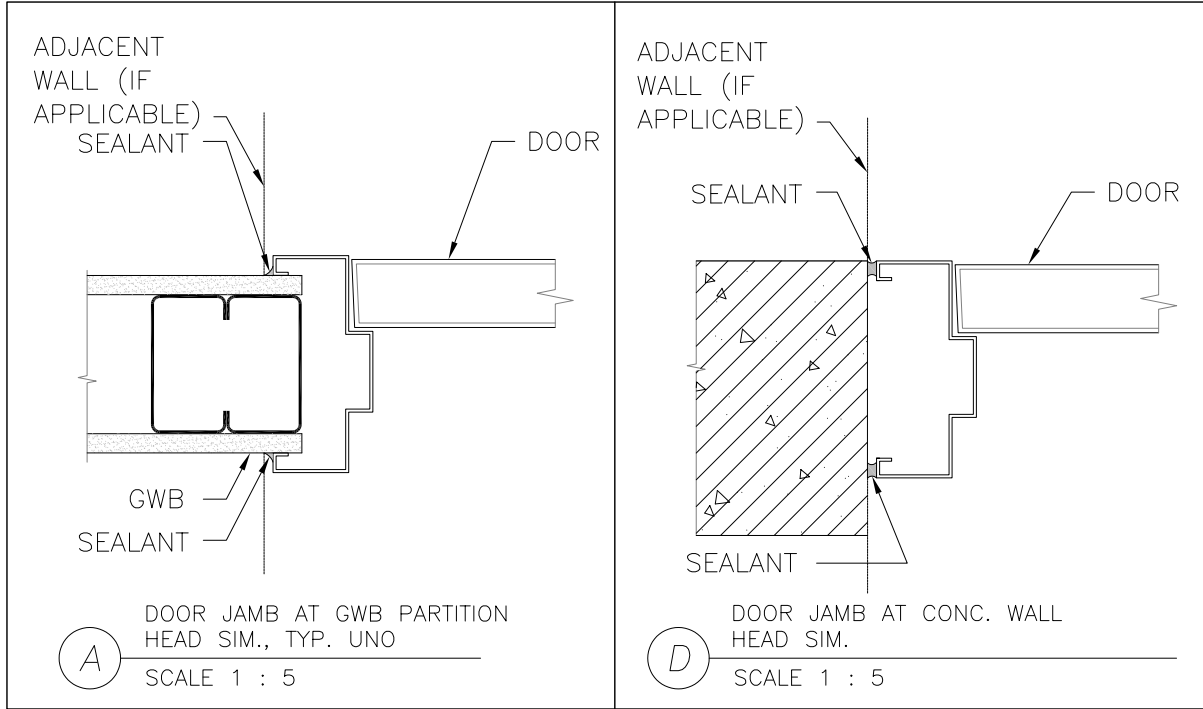
8 WALL ASSEMBLY
A0.2 1:10

ROOM NUMBER	NAME	DOOR / SCREEN NUMBER	SIZE	TYPE	MAT'L	FINISH	GLASS	FRAME TYPE	MAT'L	FINISH	FIRE RATING	REMARKS
136A	ELEVATOR MACHINE ROOM	D136A	965 X 2135	A	HM	PT	—	F1	HM	PT	45 MIN.	
136B	OFFICE ROOM	D136B	965 X 2135	A	HM	PT	—	F1	HM	PT	—	
211	EX. CLASSROOM	D211	EX.	EX.	EX.	ST	—	F1	HM	PT	—	REUSE EX. DOOR PANEL & HARDWARE FROM EX. CLASSROOM 211 G.C. TO SITE. VERIFY EX. DOOR SIZE FOR NEW R.O.
203A	B.F. WASHROOM	D203A	1015 X 2135	A	SCWD	ST	—	EX.	EX.	ST	—	REUSE EX. DOOR HARDWARE. NEW DOOR PANEL ON EX. DOOR FRAME.

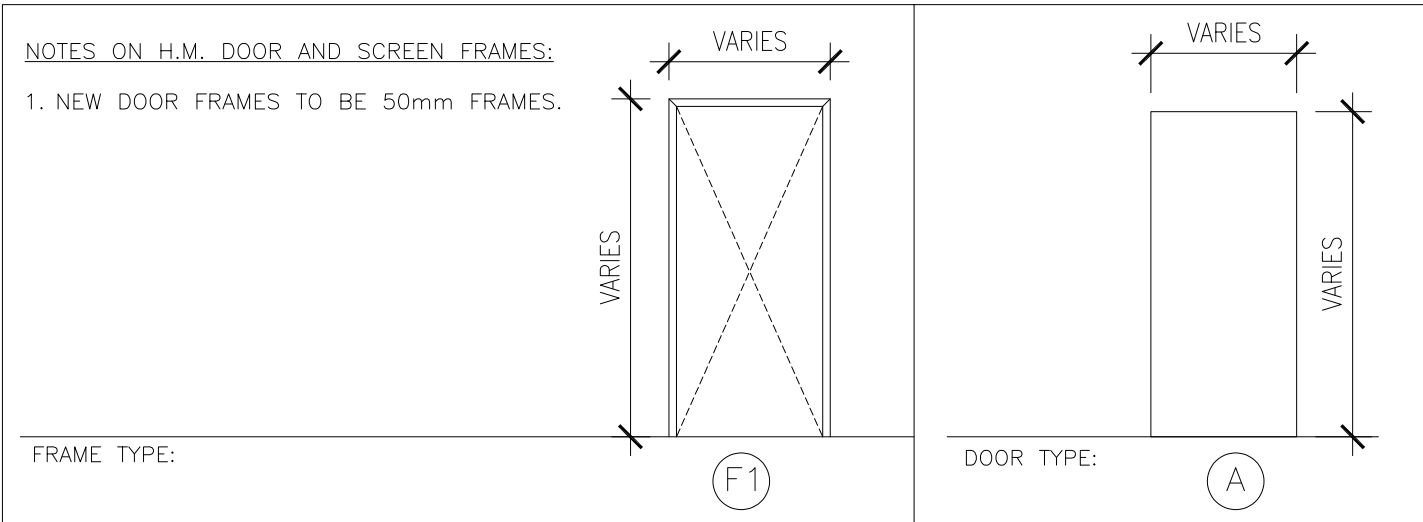
LEGEND: EX. — EXISTING
ST — STAINED
PT — PAINTED
SCWD — SOLID CORE WOOD DOOR

HM — HOLLOW METAL
MIN — MINUTES

7 DOOR SCHEDULE
A0.2 1:50

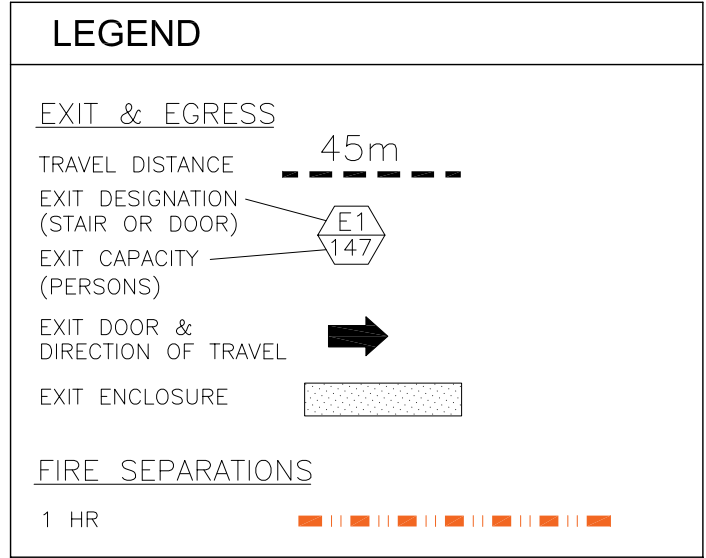


6 FRAME DETAILS
A0.2 1:5



5 FRAME TYPE
A0.2 1:100

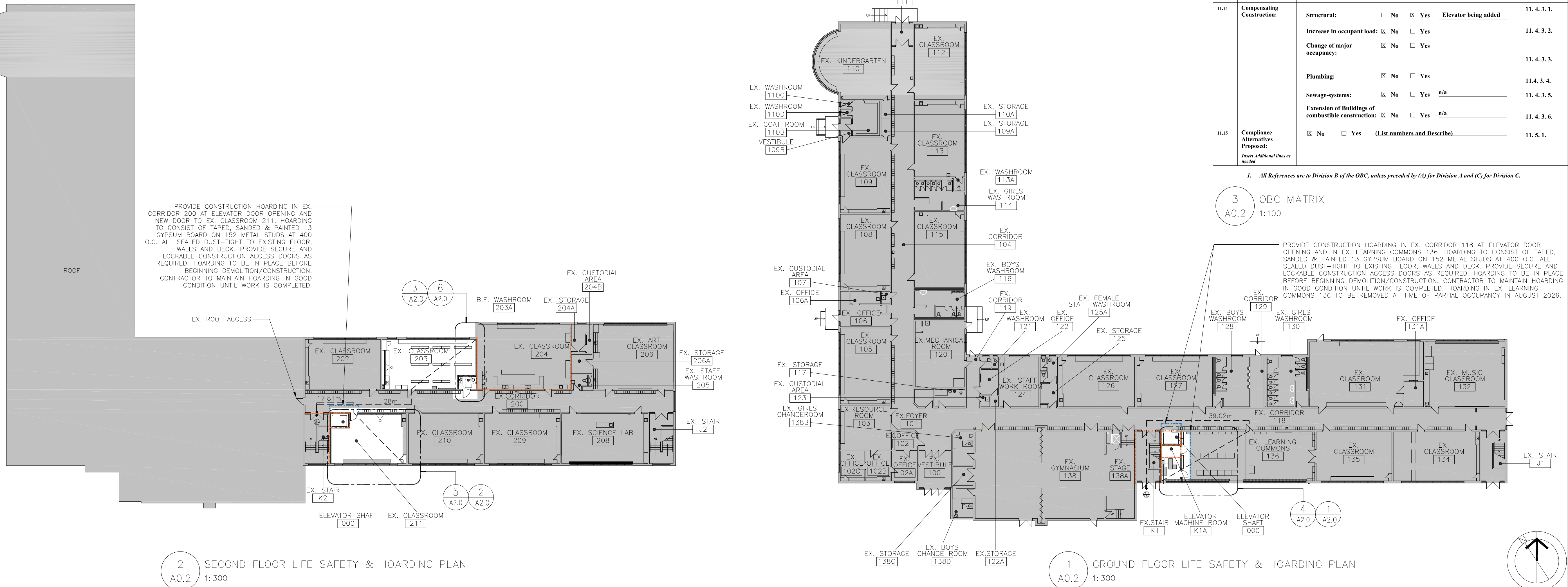
4 DOOR TYPE
A0.2 1:100



Name of Practice: GS GACESA SLOTE ARCHITECTS INC. 118 James Street North, Suite 300 Hamilton, ON, L8R 2K7 Tel: 905-297-0863 Ex.-1 Name of Project: Alterations to HWDSB Norwood Park Accessibility Upgrades Location: 165 Terrace Dr, Hamilton, ON, L9A 2Z2 Date: November 2025							
2024 Ontario Building Code Data Matrix Part-11 Renovation						Building Code Reference (i)	
11.00	Building Code Version:	— O. Reg. 163/24 —		Last Amendment — O. Reg. 447/24 —			
11.01	Project Type :	☐ Addition ☒ Renovation ☐ Addition and Renovation ☐ Change of use Description : Existing Use Institutional (Group A2)				[A] 1.3.3.B.	
11.02	Major Occupancy Classification :	Occupancy — A2 —		Use — Institutional		3.1.2.1.(1), 2.1.4.1.(1), & 11.2.1.	
11.03	Superimposed Major Occupancies :	☒ No ☐ Yes Description :				11.2.3.2.2.5. to 3.2.2.8., & 2.2.1.	
11.04	Building Area (m ²)	Description :		Existing	New	Total	[A] 1.4.1.2., 11.2., & 11.3.
		Ground floor		2787.56	0	2787.56	
		Second floor		1011.83	0	1011.83	
		Total		3799.39	0	3799.39	
11.05	Building Height	2 Storeys above grade		8.07	(m)	Above grade	[A] 1.4.1.2., 3.2.1.1., 2.2.2.2., & 11.3.
11.06	Number of Streets/ Firefighter access :	0 Storeys below grade					3.2.2.10, 3.2.5., 2.2.4.1., & 11.3.
11.07	Building Size	☐ Small ☒ Medium ☐ Large ☐ > Large					11.2.1.1., T 11.2.1.1. B-N
11.08	Existing Building Classification	Change in Major Occupancy: ☐ Yes ☒ No ☒ Not-Applicable (no change of major occupancy) Construction Index : - Hazard Index : - Importance Category: ☐ Low ☒ Normal ☐ High ☐ Post disaster					10.1.1.2., 11.2.1.1., T 11.2.1.1. A T 11.2.1.1. B to N 4.1.2.1.(3), 2.3.1., & 5.2.2.1.(2)
11.09	Renovation Type:	☐ Basic Renovation ☒ Extensive Renovation					11.3.3.1. & 11.3.3.2.
11.10	Occupant Load	Floor Level/Area	Occupancy Type	Based On	Occupant Load (Persons)		3.1.17., 2.1.2.2., & 11.4.2.2.
		LEVEL 1	A2	Design	EXISTING		
		LEVEL 2	A2	Design	EXISTING		
	Insert Additional lines as needed	TOTAL			EXISTING		
11.11a	Plumbing Fixture Requirements	1 B.F. Washroom added					3.7.4., 11.3.4., 11.3.5., 11.4.2.4., & 11.4.2.5.
11.12	Barrier free Design	☐ No ☒ Yes Existing					11.3.1.2., 11.3.2., 11.3.3.2.
	Barrier-free Entrances:	Number 2		Ex. East entrance & Ex. South entrance			
11.13	Reduction in Performance Level:	Structural:	☒ No ☐ Yes		☐ Yes		11.4.2.1.
		By Increase in occupant load:	☒ No ☐ Yes		☐ Yes		11.4.2.2.
		By Change of major occupancy:	☒ No ☐ Yes		☐ Yes		11.4.2.3.
		Plumbing:	☐ No ☒ Yes		☐ Yes		11.4.2.4.
		Sewage-systems:	☐ No ☐ Yes		☐ Yes		11.4.2.5.
		Extension of Buildings of combustible construction:	☒ No ☐ Yes		☐ Yes		11.4.2.6.
11.14	Compensating Construction:	Structural:	☐ No ☒ Yes	Elevator being added			11.4.3.1.
		Increase in occupant load:	☒ No ☐ Yes				11.4.3.2.
		Change of major occupancy:	☒ No ☐ Yes				11.4.3.3.
		Plumbing:	☒ No ☐ Yes				11.4.3.4.
		Sewage-systems:	☒ No ☐ Yes	n/a			11.4.3.5.
		Extension of Buildings of combustible construction:	☒ No ☐ Yes	n/a			11.4.3.6.
11.15	Compliance Alternatives Proposed:	☒ No ☐ Yes (List numbers and Describe)					11.5.1.
	Insert Additional lines as needed						

1. All References are to Division B of the OBC, unless preceded by (A) for Division A and (C) for Division C.

3 OBC MATRIX
A0.2 1:100



Material Specifications:

HM Doors & Frames:	Washroom Accessories:	Soap Dispenser & Toilet Paper Dispenser: supplied by Owner and installed by contractor. Sanitary Napkin Disposal: 22 gauge stainless steel wall mounted sanitary napkin receptacle (6 litre capacity) – Code 622 by Frost Products Ltd. or approved equivalent. Grab Bars: Equal to ASI 3700 Series, 1-1/4" diameter, snap-on flange concealed mounting, peened finish. Type GB-01 24" long bar above each toilet. Type GB-02 30"x30" L-shaped bar beside the toilet. Vandal Resistant Mirror M1 (Small): ASI 0600-C2436 tempered glass and Type 304 stainless steel frame 24"x36" Coat Hook: Equal to Frost 1150 Safety Hook. Provide 1 on rear of the door at 1200mm AFF in Barrier Free Washroom 203A.	Millwork:
Frames: Flush, galvanized, 16-gauge H.M. welded frames, equal to Fleming F-16 frames, narrow face profile where noted, paint finish. Doors: Flush, galvanized, 1.75" (45mm), 18-gauge H.M. doors to receive a paint finish, equal to Fleming D series. Hollow Metal Doors: 16 gauge lockseam doors constructed of galvannealed steel sheet. Internally reinforced with vertical steel channels separated by semi-rigid fibreglass insulation. Interior doors and screens to have ¼" tempered glazing except where Georgian wired glass is required for fire-rating. Hollow Metal Frames: 1.5mm thick, cold-rolled commercial quality steel; galvanized finish. Blank, reinforce, drill and tap frames for mortised hardware. Reinforce frames for surface mounted hardware. Hardware reinforcing to be minimum 3.4mm for hinges panic devices, 2.7mm for surface mounted hardware, 1.5mm for other devices. All glazing in Doors and Screens to be ¼" Tempered glass.	Suspended Acoustic Lay-in Ceiling Tile ACT:	To ASTM E1264, Type III, Form 1, Pattern C E; 24" x 48" size, 7/8" thick wet-formed mineral fiber non-sagging lay-in tile, complete with factory-applied latex paint, White colour; Fine Fissured High NRC - 1755 by Armstrong World Industries or similar by CertainTeed Canada, Inc. or CGC Inc.	
Whiteboards & Tackboards:	Suspended Ceiling Grid:	To ASTM C635/C635M, Class HD; commercial quality, cold rolled steel, non-fire rated; main tees, cross tees and grid adapters with exposed 15/16" T-shape, 1-11/16" high; die cut and interlocking components; White baked enamel finish; Prelude XL by Armstrong World Industries or similar by CertainTeed Canada, Inc. or CGC Inc. Install suspended ceiling grid to ASTM C636/C636M and CISCA installation standards. Include for all stabilizer bars, clips, splices, transitional mouldings, edge mouldings, hanger wire, tie wire and all other accessories to make a complete installation.	
	Ceramic Tiles CT-A	Acceptable Materials: Size 73mm x300mm; "Shadebick Series" by Olympia Tile, matte finish. Allow for two (2) field colours from manufacturer's full line. Install with coloured epoxy grout to match.	
	CT-B	Acceptable Materials: Size 73mm x300mm; "Shadebick Series" by Olympia Tile, matte finish. Allow for two (2) field colours from manufacturer's full line. Install with coloured epoxy grout to match.	
	CT-C	Acceptable Materials: Size 73mm x300mm; "Shadebick Series" by Olympia Tile, matte finish. Allow for two (2) field colours from manufacturer's full line. Install with coloured epoxy grout to match.	
		Epoxy grout to conform to ANSI 118.3. Grout to be two-component, 100% solids epoxy grout, water cleanable and non-sagging; Mapel Kerapoxy CQ or equivalent.	
	Tile Edge Trim:	Install tile to TTMAC Tile Installation Manual 2019-2021. Provide metal edge trim at all exposed tile edges. Equal to Schluter Jolly, anodized aluminum.	
	Tile Grout & Adhesive:	Manufacturers of grout and adhesive having Product considered acceptable for use: Flextile, Latitecra, Mapel, Proma Adhesives, Inc., TEC. Grout colour selected by Consultant from manufacturer's full colour range.	

Fabricate and install casework to AWMAC NAAWS 4.0, Custom Grade.

Materials:
Hardwood Lumber: White Birch, NHLA Select and Better Grade, with vertical grain capable of receiving a high quality transparent finish.

Plywood: To ANSI/HPVA HP-1, Architectural G2S; hardwood veneer core comprised of minimum 9 plies: White Birch veneers, Face Grade A; Plain-Sliced (flat cut); of clear Book match grain capable of receiving a high quality transparent finish; thicknesses as indicated on Drawings.

Medium Density Fiberboard (MDF): To ANSI A208.2, Grade MD; minimum 740 kg/m³ density and moisture content between 4.5 - 8.0 percent; with clear Natural finish; thicknesses as indicated on Drawings.

Melamine Panels: melamine resin impregnated decorative paper, thermally fused to both sides of a premium grade medium density fiberboard (MDF). Performance to meet or exceed NEMA LD3-2005-VGS minimum requirements.
Colours to be selected from full manufacturer's standard colour range.

Decorative Laminate: High pressure decorative laminate to ANSI/NEMA LD3; as follows:
.1 General Purpose Type: Grade HGS, 1.2 mm thick.
.2 Postforming Type: Grade HGP, 1.0 mm thick.
.3 Backer Type: Grade BKM, 1.0 mm thick.
.4 Manufacturers: Arborite, Formica, Nevamar or Wilsonart.

Cabinets:

All countertops:
Postformed plastic laminate with 180 degree wrapped bullnose edge.
If wall finish around countertop is tiled, no integral backsplash is required.
At junction of counter/counter backsplash & adjacent wall finish, apply small bead of sealant.

Cabinet/Drawer Fronts/Doors & Cabinet Interiors:
Melamine or plastic laminate on plywood, on all exposed surfaces.
All cabinet interiors to be off-white colour (gray or beige) melamine or plastic laminate.

Bodies, Shelves, Aprons, Skirts: 19mm thick.

Backs: 6mm thick.

Rubber Floor Base:
To ASTM F1861, Type TP, Group 1, Style B - Cove; 3.17mm thick thermoplastic rubber, 152mm high; top set; complete with pre-moulded end stops and external corners; Charcoal colour; as manufactured by Armstrong World Industries, Flexco, Roppe Corporation or Tarkett Johnsonite

Transition Strip:
Thermoset vulcanized rubber, smooth, purpose made to accommodate wheeled traffic and prevent tripping; tapered designs to suit nature of transition; colours as selected by Consultant; as manufactured by Armstrong World Industries, Flexco, Roppe Corporation or Tarkett Johnsonite.

Fire Stopping & Smoke Seals:
Firestop Sealant: To CAN/ULC-S115; ULC labelled; non-sagging type for vertical applications; types as listed in tested assemblies.

Firestop Insulation: To CAN/ULC-S702.1, Type 2; manufactured from only rock or slag fibers, as listed in tested assemblies.

Firestop Accessories: Firestop foams, boards, blocks, collars, wraps, putlys and plugs; to CAN/ULC-S115; ULC labelled; types as listed in tested assemblies.

Manufacturers: 3M Canada Inc. or Hilti Canada Corporation or A/D Fire Protection or Tremco.

Inspect penetration firestop systems to ASTM E2174 and fire-resistant joint systems to ASTM E2393.

Concrete Specification:
All concrete shall be designed to comply with the latest edition of CAN/CSA A23.3. The construction of concrete shall comply with the latest edition of CAN/CSA A23.1 and A23.2. Provide a minimum of 75mm of concrete cover for rebars placed in concrete cast against earth. 28 day concrete compressive strength, f_c, shall be 32MPa.
Exposure class: C-2
Slump at delivery: 75mm (+/-) 25mm

Joint Sealants:
General Purpose, Acoustical Sealant: To CAN/CGSB-19.17-M; one-part, siliconized acrylic latex, mildew-resistant, accommodating joint movement of plus or minus 12-1/2 percent; colours as selected by Consultant; Tremflex 834 by Tremco or similar by Dow, General Electric or Master Builders Solutions Canada, Inc.
Mildew-Resistant Sealant: To ASTM C920, Type S, Grade NS, Class 25, Use NT, G, A, and O; one-part, acetoxy silicone sealant, complete with integral fungicide; colours as selected by Consultant; Tremseal 200 by Tremco or similar by Dow, General Electric or Master Builders Solutions Canada, Inc.
Install joint sealants to ASTM C1193.
Install acoustical sealants to ASTM C919.
Inspect completed sealant joints for adhesion and cohesion to ASTM C1521.
Exterior Weatherseal Sealant: To ASTM C920, Type S, Grade NS, Class 35, Use NT, M, A and O; one-part, moisture curing, low modulus polyurethane sealant; accommodating joint movement of plus or minus 35 percent, with a 30- to 90-minute skin time; eg. Dymonic FC by Tremco.
Colour: To be selected from full standard range by consultants.
Acceptable manufacturers: Tremco, GE, Dow, or 3M.
Glazing Sealant: To CAN/CGSB-19.13-M, Type MG-2-25-A-L; one-part, moisture curing, acetoxy silicone sealant; eg. Proglaze by Tremco, Clear colour.

Paint:
Conform to MPI Architectural Painting Specification Manual, using only Products from the following manufacturers as listed in MPI Approved Products List for each scheduled paint system. Provide primers and undercoats produced by same manufacturer as finish coats.
Manufacturers: Benjamin Moore & Co. Ltd., ICI (Dulux) Paints, MF Paints Inc. (Innovation Plus), Para Paints Canada Inc., PPG Canada Inc. (Pittsburgh Paints), Pratt & Lambert Co., Sherwin-Williams Canada, and Sico Coatings, Inc.
Conform to MPI Maintenance Repainting Manual for refinishing existing previously finished surfaces.

- Paint System Schedule
- Concrete - Opaque Painted Finish: INT. 3.1M - Institutional low odor/voc; Premium Grade: Gloss Level G5 - Semi-Gloss.
 - Concrete Masonry Units - Opaque Painted Finish: INT. 4.2E - Institutional low odor/voc (over latex block filler), Premium Grade: Gloss Level G5 - Semi-gloss. Provide block filler primer on all new concrete block masonry before applying paint.
 - Brick - Opaque Painted Finish: INT. 4.1M - Institutional low odor/voc (over latex primer/sealer), Premium Grade: Gloss Level G5 - Semi-gloss
 - Gypsum Board Walls - Opaque Painted Finish: INT. 9.2M - Institutional low odor/voc (over latex primer/sealer), Premium Grade: Gloss Level G4 - Satin.
 - Gypsum Board Ceilings - Opaque Painted Finish: INT. 9.2M - Institutional low odor/voc (over latex primer/sealer), Premium Grade: Gloss Level G1 - Flat.
 - Galvanized and Galvannealed Metal - INT.5.3N - Institutional low odor/voc (over w.b. galvanized primer), Premium Grade: Gloss Level G5.
Colours: Up to 4 colours as selected by Consultant.

NOTE: All exterior metal to be hot-dipped galvanized.

Extra Stock Materials: Provide 3% additional extra stock materials for all wall and floor finishing materials. Contractor to provide new, unopened cartons of finish materials to Owner c/w intact original labels. Deliver to and store extra stock materials at location directed by Owner at Place of the Work.

Roofing

Prefinished Metal Flashing
0.61 mm (24 gauge minimum thickness) prefinished metal flashing.
Colour to match adjacent material.

Prefinished Metal Roofing
Prefinished standing seam metal roofing. Agway AR-50. 18.5" wide panel Profile. 24-gauge thickness. Provide zinc-plated fasteners as required. Perspectra plus Series finish. Architect to choose colour. Provide stamped engineered submittal drawings for review by Architect.

Caulking: Mulco supra expert sealant or equal (colour to match adjacent sheet). 'Tremco' JS-773 butyl elastomer caulking / 'Tremco' 440 butyl tape (3mm thick and 13mm wide).

Touch-up: Remove Burrs and filings from field cut sheets. Touch-up marred areas with air dry paint.

Subgrits: 18-guage. Z275 galvanized steel Finish.

Flashing: Exterior flashing. 22-guage thickness. Pre-painted steel finish. Colour to match adjacent sheet.

Self-Adhered Wall Air Barrier:
Vapour permeable, self-adhered sheet air barrier membrane with manufacturer's recommended primer. Henry Blueskin VP160, Delta-Vent SA, SRP AirOutshield SA280, Vaproshield WrapShield SA, or approved equivalent.

Spray foam insulation
Closed cell, sprayed polyurethane foam insulation, tested in accordance with CAN/ULC S705.1-01 and CAN/ULC S770-15 with minimum core density of 28.34 kg/m3 (1.77 lb/ft3). Max. water vapour permeance to 60 ng/Pa.m2.s (1 perm).

Wall Flashing
Flash all window, door, screen, louver, mechanical or electrical penetrations or openings in exterior walls to adjacent sheathing with Henry AirBloc LF Liquid Applied Window and Door Flashing membrane. Extend flashing minimum 8" onto wall face at all opening and penetrations.

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Interior Renovations for
HWDSB Norwood Park
Accessibility Upgrades
165 Terrace Dr, Hamilton,
ON L9A 2Z2

Dwg. Title:

Specifications

Drwn: Chkd: SG

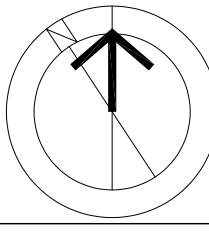
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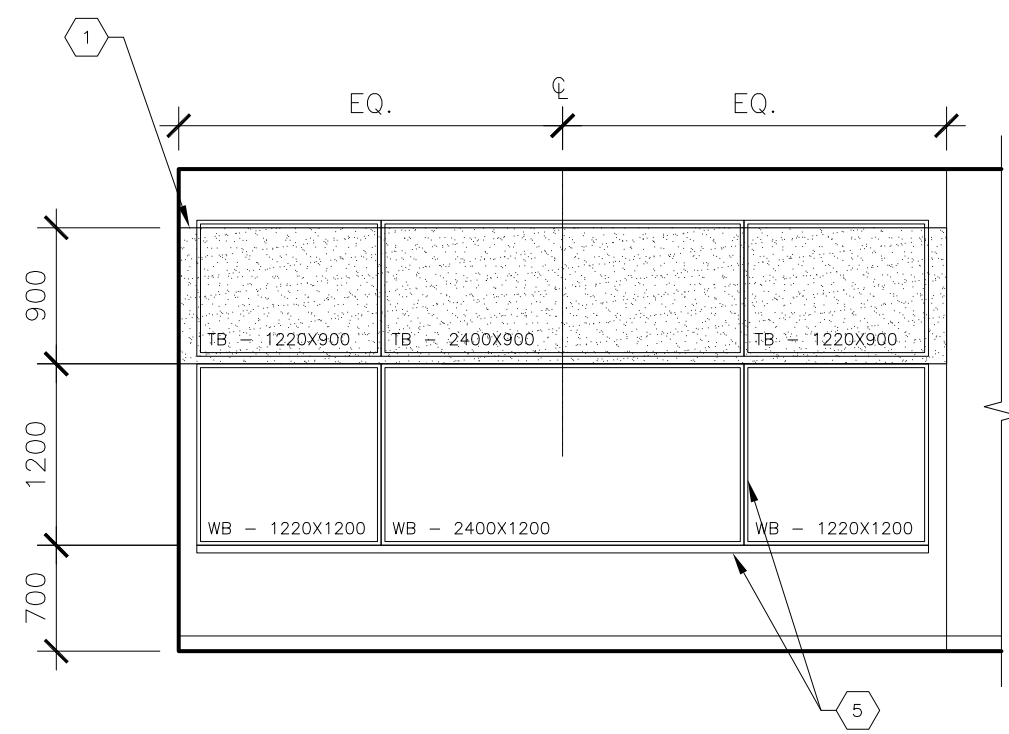
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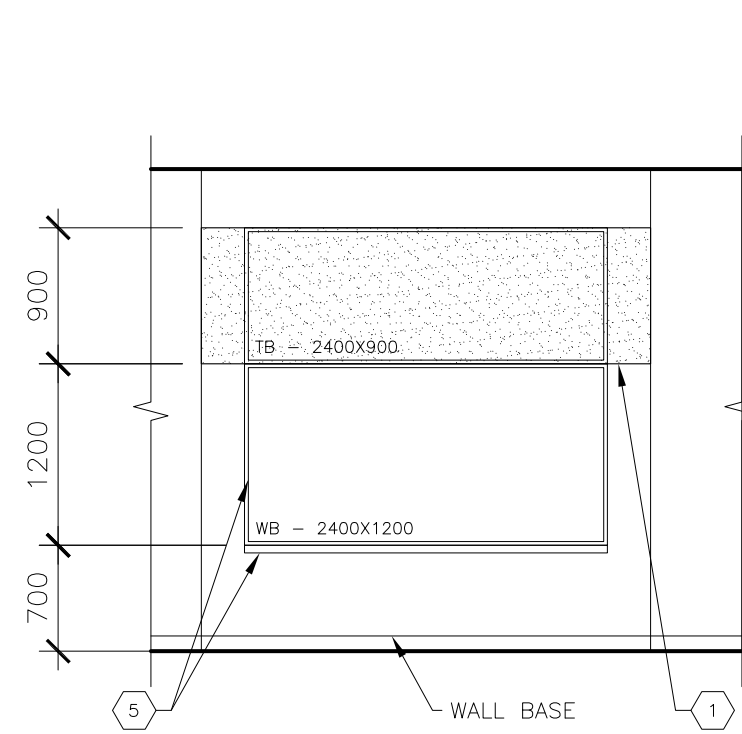
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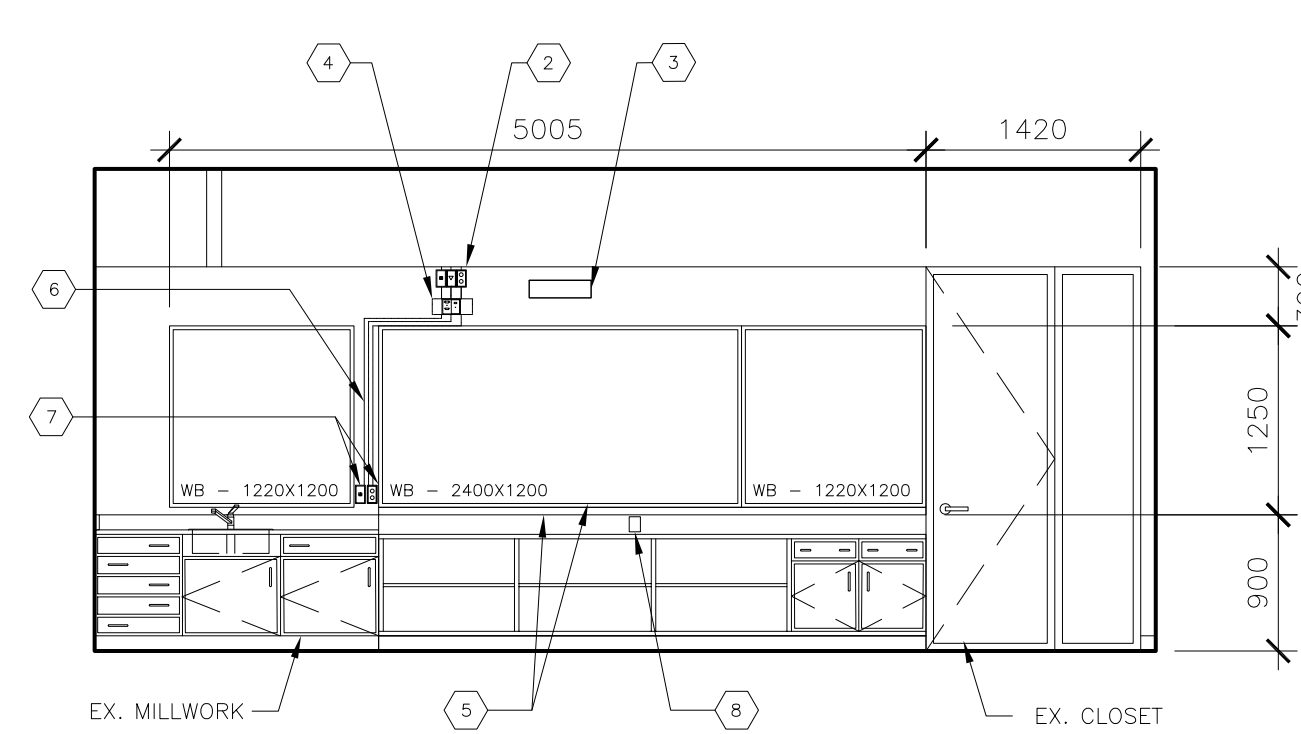




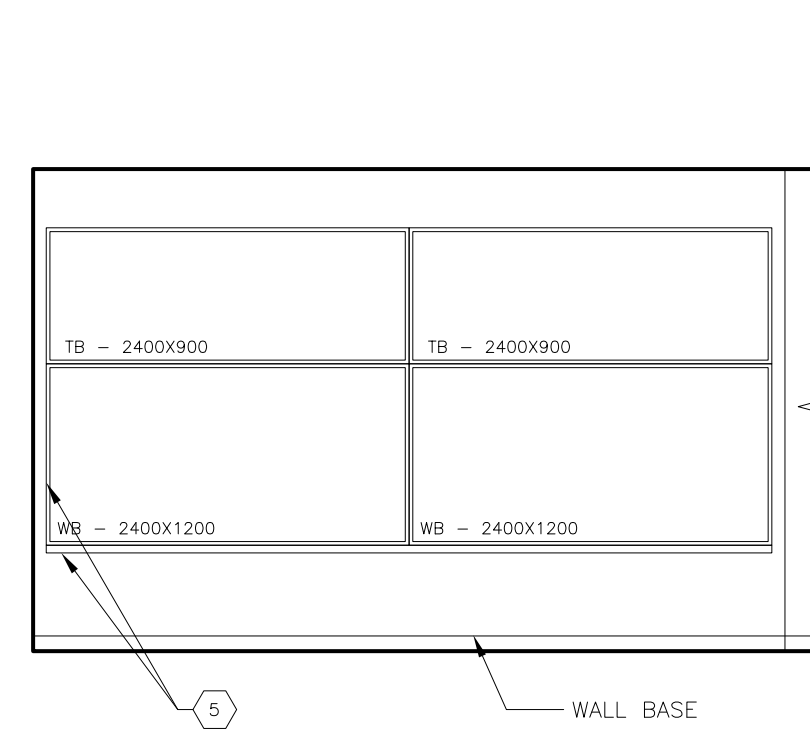
ELEVATION A



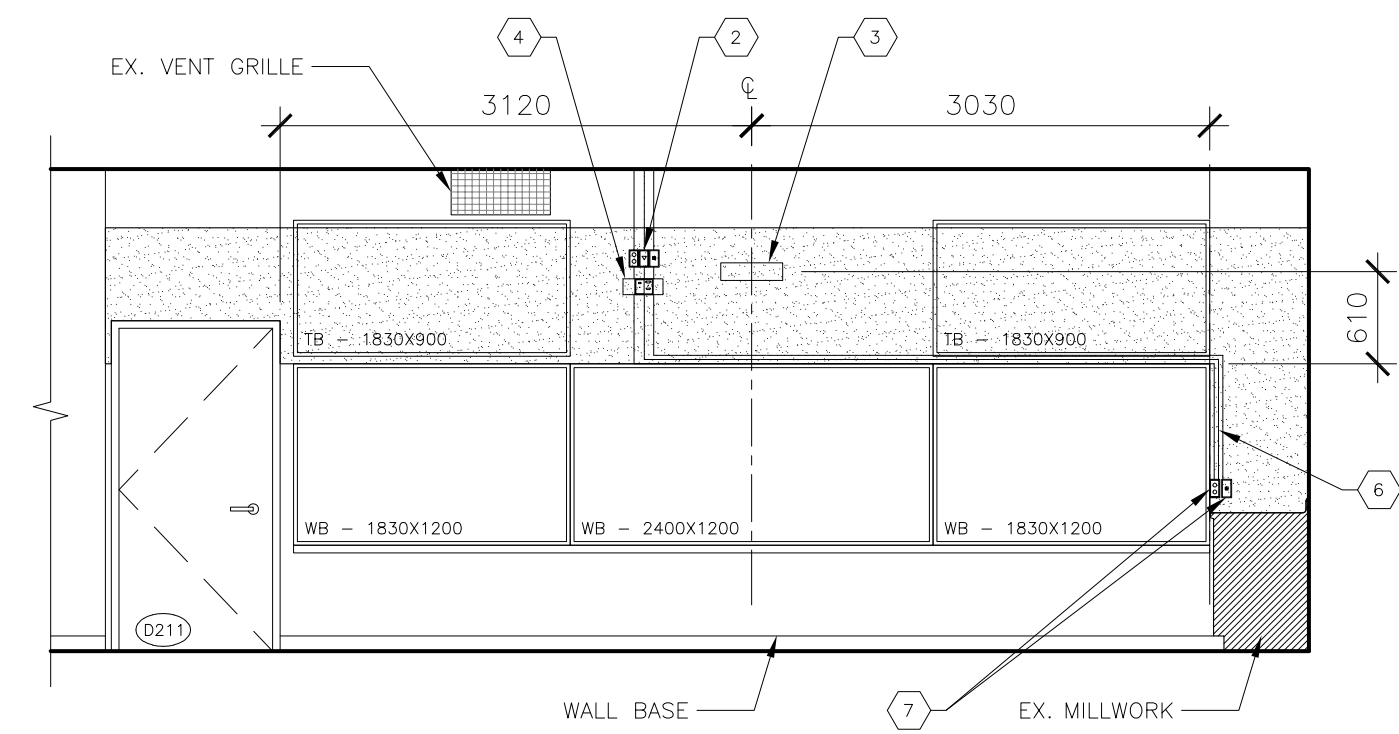
ELEVATION B



ELEVATION C



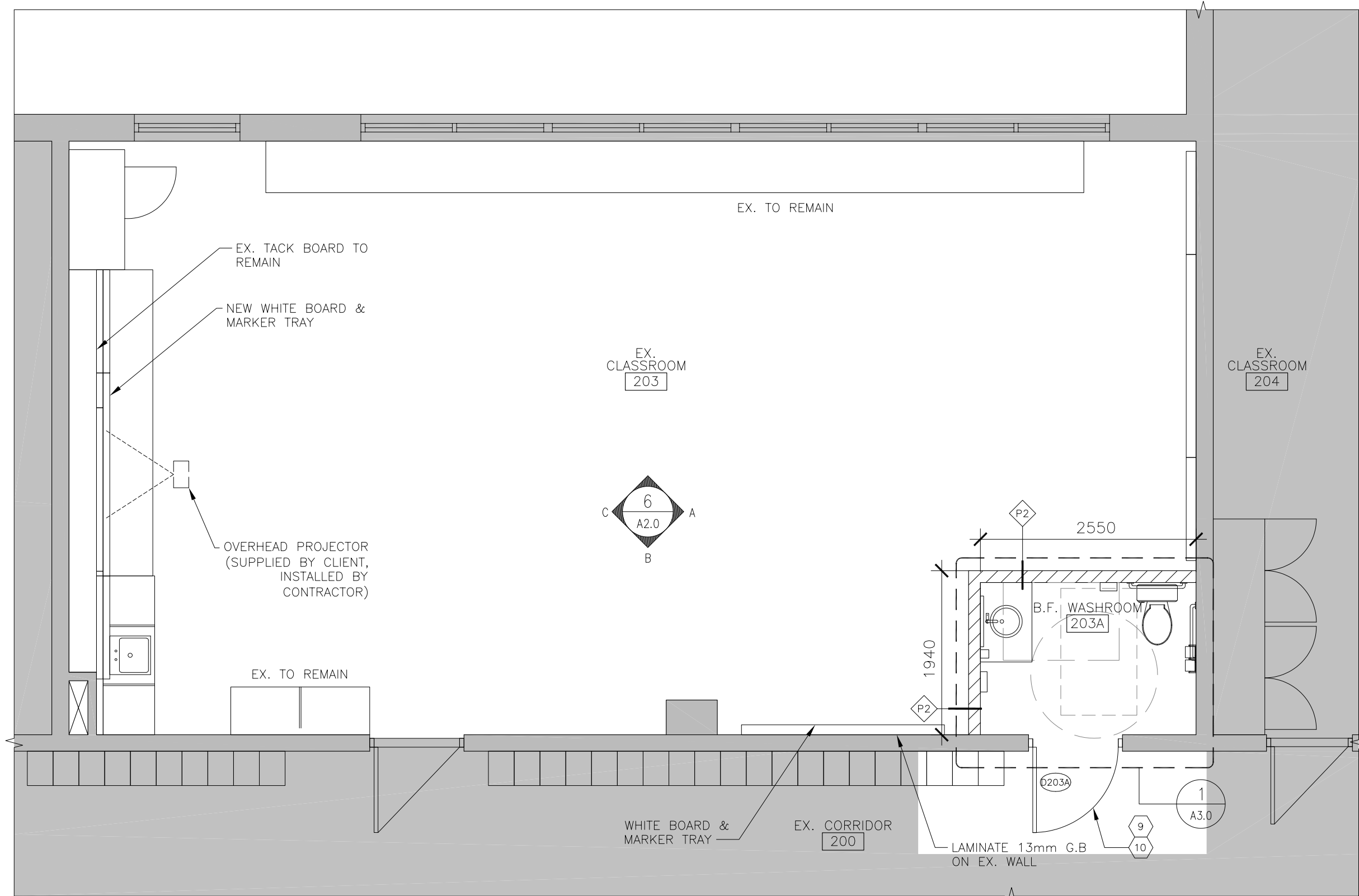
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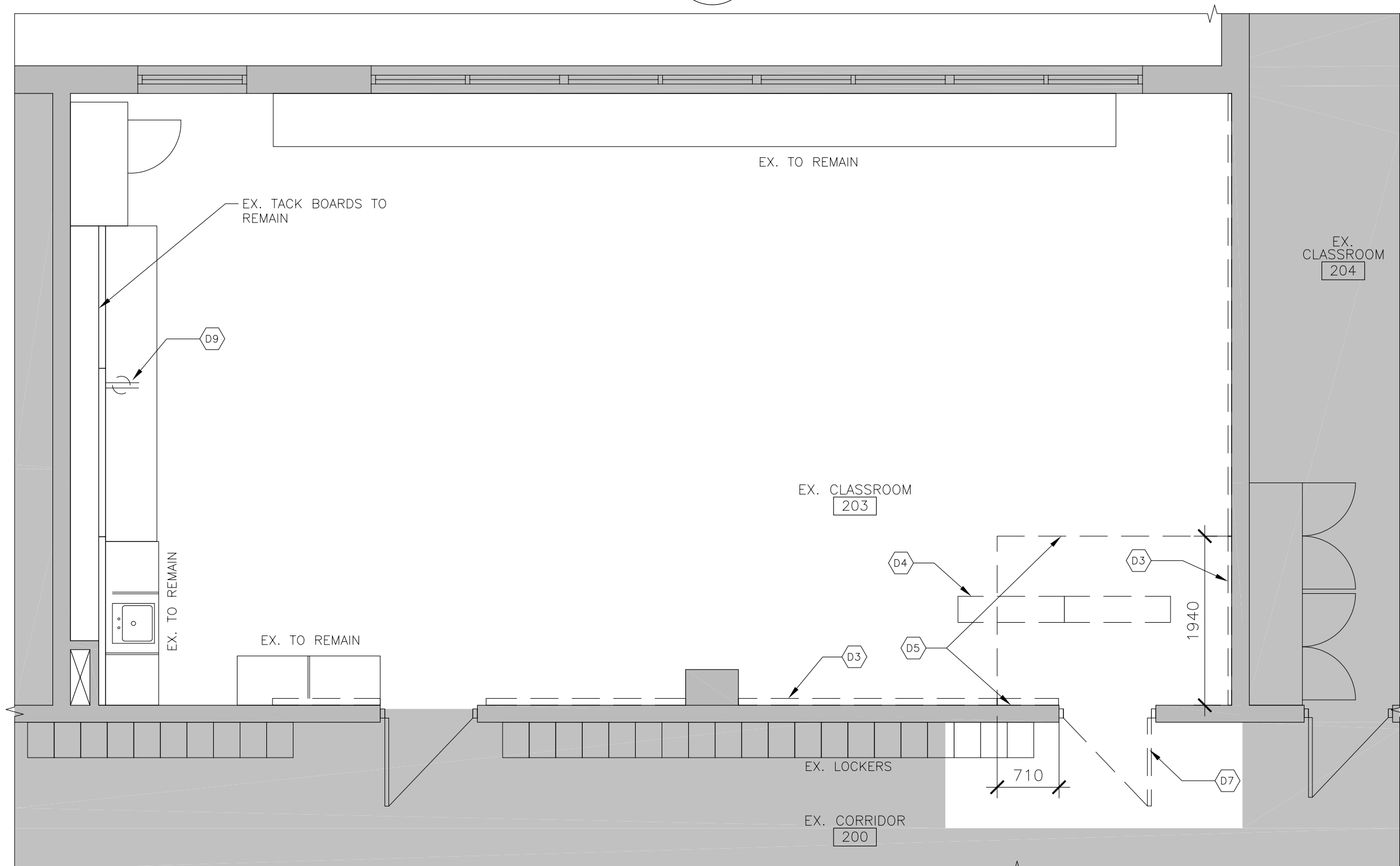
ELEVATION B

6
A2.0
INTERIOR ELEVATION- CLASSROOM 203
1:50

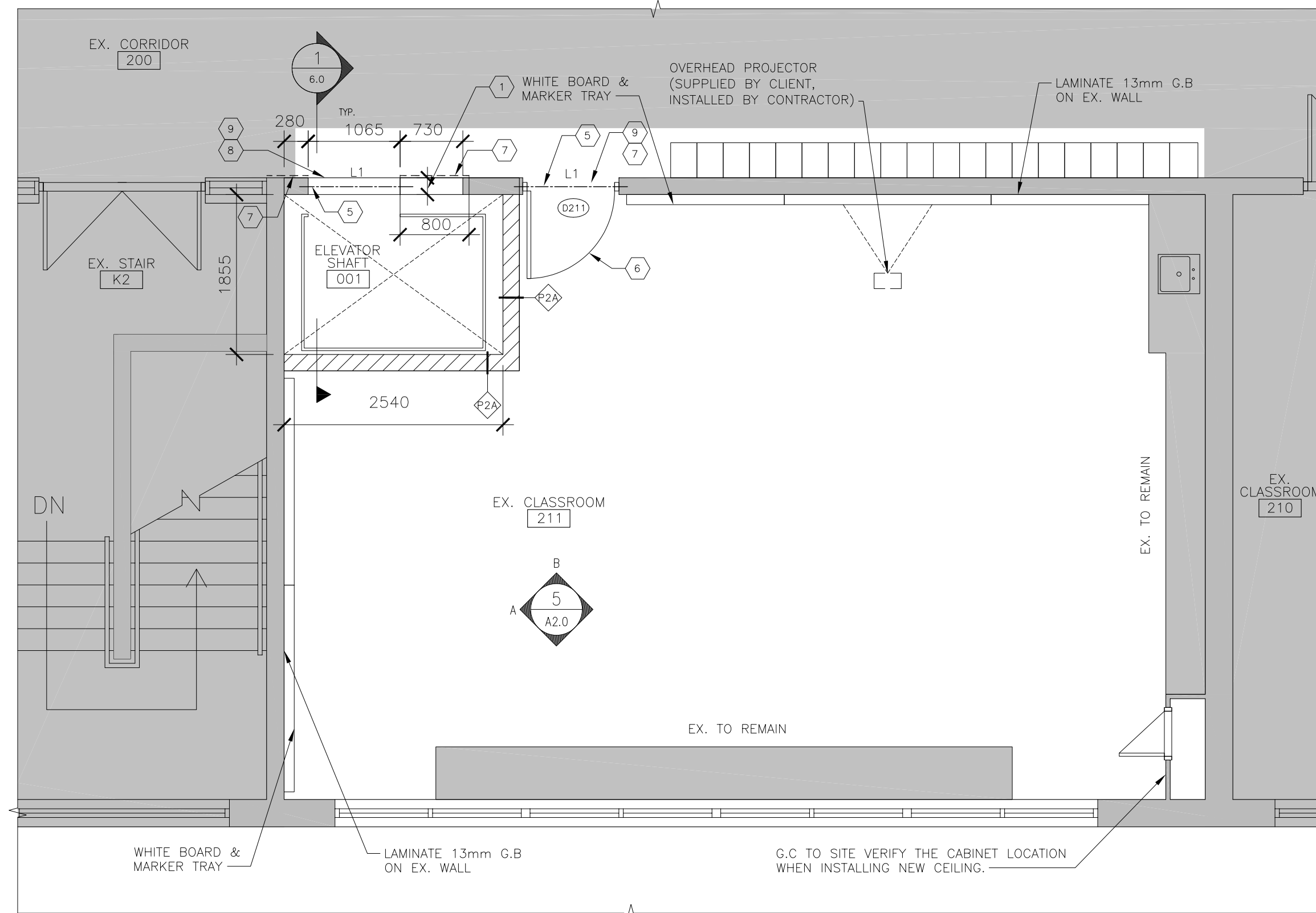
5
A2.0
INTERIOR ELEVATION- CLASSROOM 211
1:50



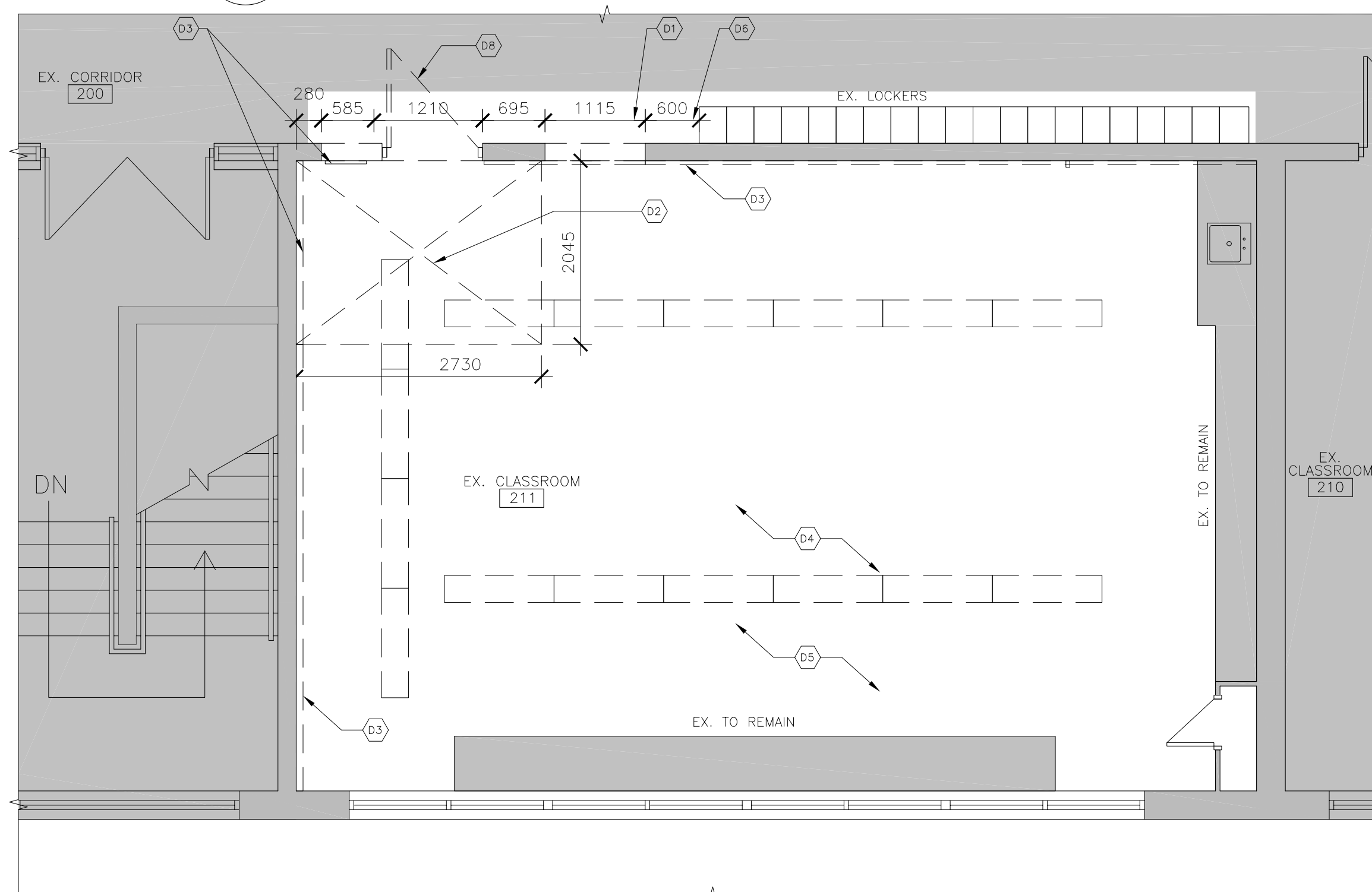
4
A2.0
B.F. WASHROOM 203A
SECOND FLOOR PLAN
1:50



2
A2.0
EX. CLASSROOM 203
SECOND FLOOR DEMOLITION PLAN
1:50



3
A2.0
ELEVATOR SHAFT
PROPOSED SECOND FLOOR PLAN
1:50



1
A2.0
EX. CLASSROOM 211
SECOND FLOOR DEMOLITION PLAN
1:50

INTERIOR ELEVATION KEYNOTES

NOTE: ALL KEYNOTES MAY NOT BE USED.

- 1 LAMINATE 13mm G.B ON EX. WALL
- 2 POWER & DATA FOR PROJECTOR: POWER & DATA
- 3 OVERHEAD PROJECTOR (SUPPLIED BY CLIENT, INSTALLED BY CONTRACTOR)
- 4 HDMI, USB, VGA & 3.5mm AUDIO PORTS.
- 5 WHITE BOARD & MARKER TRAY
- 6 WIRE MOLD
- 7 POWER & DATA FOR INPUT DEVICE: DATA (2) USED (2) BLANK/ POWER QUAD RECEPTACLE.
- 8 RELOCATED RECEPTACLE.

PLAN KEY NOTES

NOTE: ALL KEYNOTES MAY NOT BE USED.

- 1 NEW WALL TYPE AND THICKNESS TO MATCH EXISTING.
- 2 RELOCATED EX. SHELVEING.
- 3 INSTALL GYPSUM BOARD FILLER PANELS.
- 4 PIT ACCESS LADDER
- 5 L1 - LINTEL. REFER TO STRUCTURAL.
- 6 RE USE EX. DOOR PANEL & HARDWARE FROM EX. CLASSROOM 211. PATCH & REPAIR ALL DAMAGED SURFACES.
- 7 INSTALL WALL CERAMIC TILE (CT-C). HEIGHT 2440 FFL.
- 8 PROVIDE TERRAZZO FLOOR PATCHING TO MATCH ADJACENT EX. FLOOR.
- 9 SIGNAGE: DOOR FRAME TAG/ TYPE 3
- 10 SIGNAGE: ROOM I.D./ TYPE 6-15

PLAN NOTES

1. LOCATE DOOR FRAMES 50mm FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
2. PATCH AND MAKE GOOD AT ALL JUNCTION OF NEW AND EXISTING WORK.
3. PATCH AND MAKE GOOD ALL DISTURBED SURFACES.

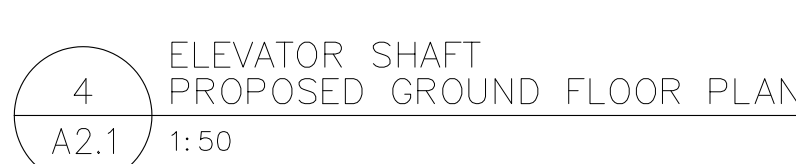
PLAN LEGEND

	EXISTING
	DEMOLITION
	NEW CONSTRUCTION
	NEW BLOCK WALL
	EXISTING DOOR TO REMAIN
	NEW DOOR
	FLOOR DRAIN
	PUSH BUTTON FOR AUTOMATIC DOOR OPENER
	PUBLIC ADDRESS SYSTEM
	NEW LINTEL
	MIRROR
	TOILET PAPER DISPENSER
	SOAP DISPENSER

DEMO PLAN KEYNOTES

NOTE: ALL KEYNOTES MAY NOT BE USED.

- 01 REMOVE EX. WALL FOR NEW DOOR OPENING. PATCH AND REPAIR ALL DAMAGED SURFACES.
- 02 SAW CUT AND REMOVE EXISTING FLOOR SLAB, EXISTING OWSJ AT FLOORS AND THE ROOF. COORDINATE WITH MECHANICAL, ELECTRICAL & STRUCTURAL.
- 03 REMOVE ALL EX. WALL MOUNTED ITEMS. SAVE SHELVEING UNITS FOR FUTURE USE. PATCH AND MAKE ALL SURFACES GOOD.
- 04 REMOVE ALL EX. CEILING TILES, HANGERS AND LIGHTING. AND EX. GB CEILING BEYOND.
- 05 REMOVE ALL EX. WALL BASES AND EX. FLOOR FINISHES.
- 06 RELOCATE THE EXISTING LOCKER SET BY 600mm AWAY FROM NEW DOOR OPENING.
- 07 REMOVE EXISTING DOOR PANEL & DISCARD. SAVE DOOR HARDWARE FOR FUTURE USE. EX. DOOR FRAME TO REMAIN.
- 08 REMOVE EXISTING DOOR & FRAME. SAVE DOOR PANEL & HARDWARE FOR FUTURE USE. DISCARD DOOR FRAME.
- 09 REMOVE & RELOCATE THE EXISTING RECEPTACLE BELOW THE NEW WHITEBOARD. COORDINATE WITH ELECTRICAL.



PROVIDE 16mm TYPE 'X' PAINTED GYPSUM BOARD CEILING C/W METAL TRACK TIGHT TO U/S OF LOWEST FIXED ITEMS SUCH AS STRUCTURAL STEEL OR PIPE WORK GYPSUM CEILING TO PROVIDE 50 MINUTES FIRE- RESISTANCE AS PER SB-2 TABLE 2.3.4.B. AND TABLE 2.3.4.F.

NOTE: ALL KEYNOTES MAY NOT BE USED

HATCH LEGEND

AREA OF WORK

EX. TO REMAIN

EXIT LIGHT

SURFACE MOUNTED EXTERIOR FIXTURE

610x610 ACOUSTIC TILE CEILING TYP.

610X610 RECESSED LIGHT FIXTURE



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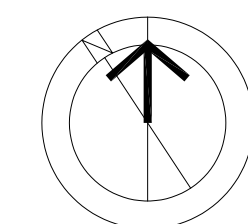
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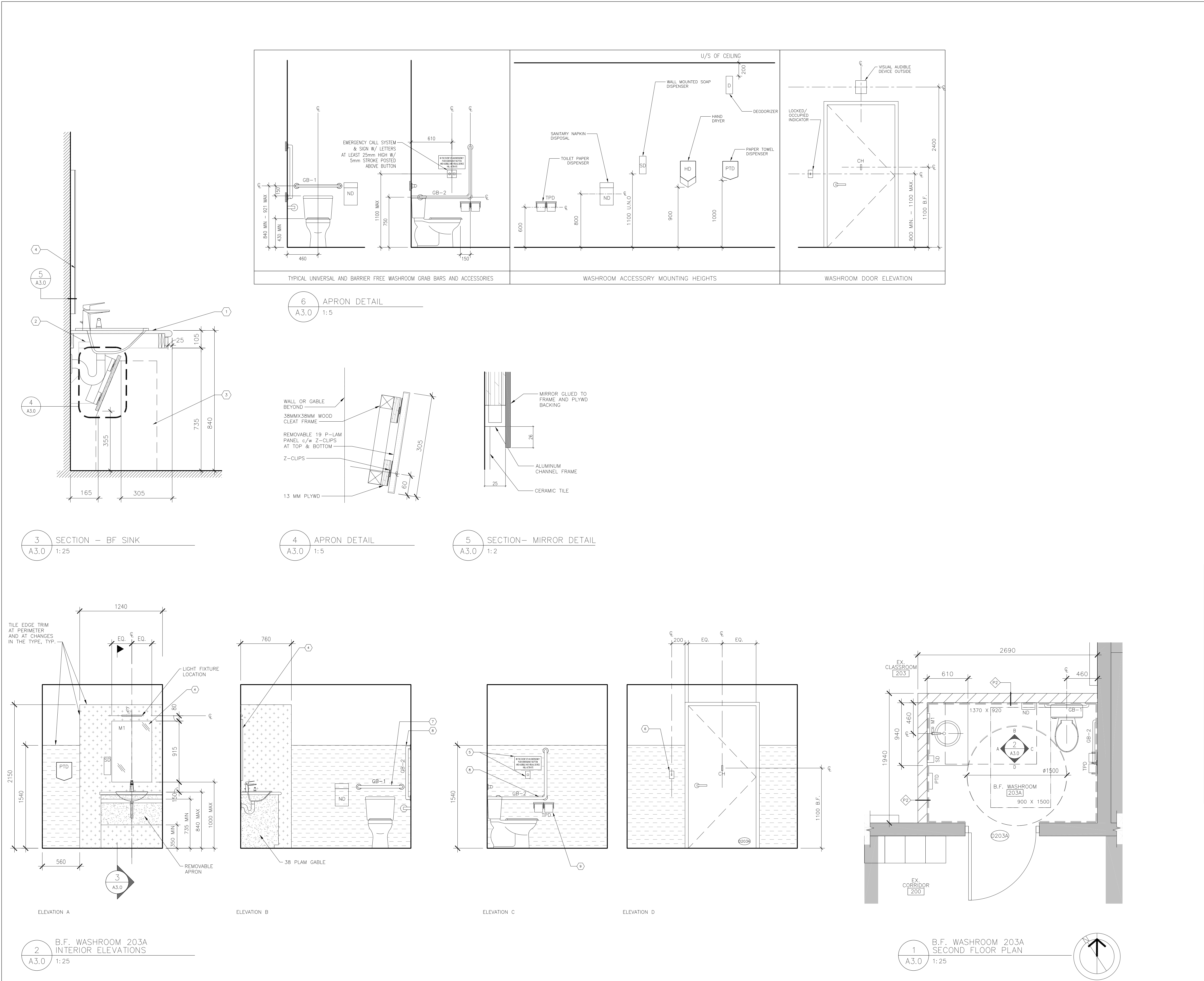
Interior Renovations for
HWDSB Norwood Park
Accessibility Upgrades
165 Terrace Dr, Hamilton,
ON L9A 2Z2

Dwg. Title:
Reflected
Ceiling Plan &
Penthouse Plan

Drwn:	Chkd:	SG
Proj. No.: 25027		
Scale:	As noted	
Date:	2026 01 20	

Drawing No.:
A2.1





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Interior Renovations for
HWDSB Norwood Park
Accessibility Upgrades
165 Terrace Dr, Hamilton,
ON L9A 2Z2

Dwg. Title:
**Washroom
Details**

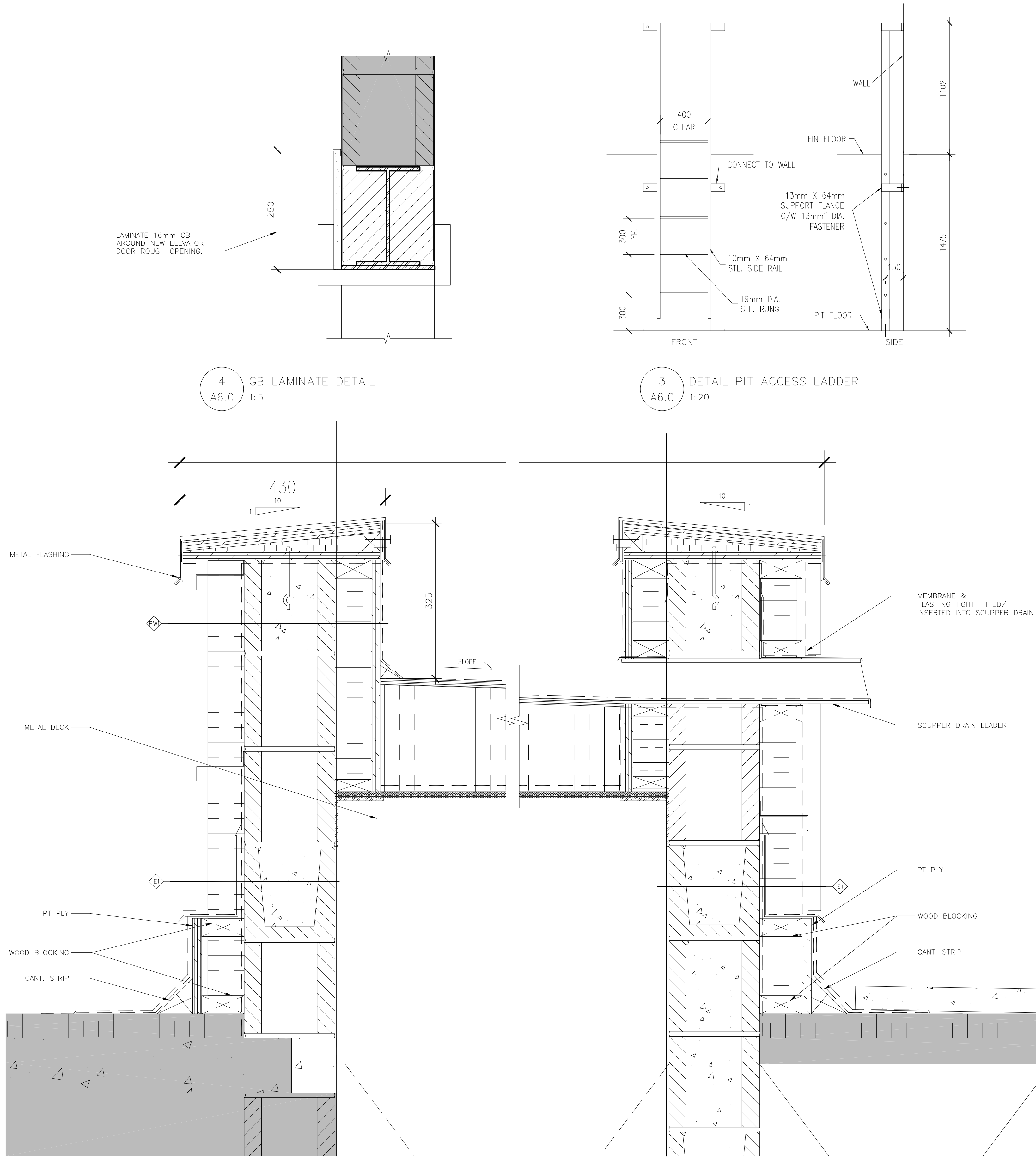
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Date: 2026 01 20

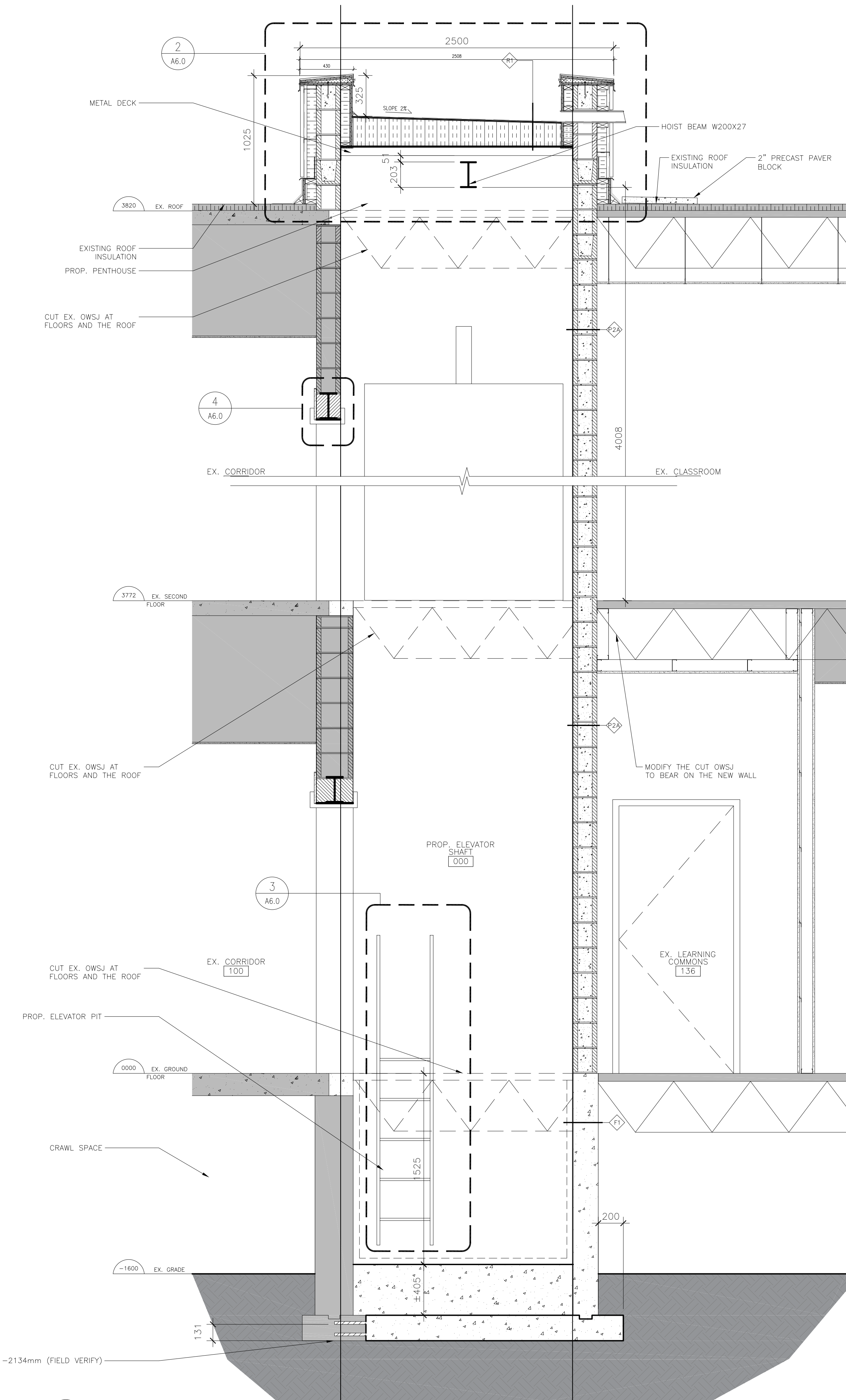
Drawing No.:
A3.0



4 GB LAMINATE DETAIL
A6.0 1:5

3 DETAIL PIT ACCESS LADDER
A6.0 1:20

2 PARAPET WALL DETAIL
A6.0 1:5



1 ELEVATOR SHAFT SECTION
A6.0 1:20

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Interior Renovations for
HWDSB Norwood Park
Accessibility Upgrades
165 Terrace Dr, Hamilton,
ON L9A 2Z2

Dwg. Title:
Sections &
Details

Drwn:	Chkd:	SG
Proj. No.:	25027	
Scale:	As noted	
Date:	2026 01 20	

Drawing No.:
A6.0

GENERAL NOTES

DRAWING NOTES AND INTERPRETATION:

1. READ THESE DRAWINGS IN CONJUNCTION WITH ALL RELATED ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL DRAWINGS AND CONTRACT DOCUMENTS.
2. THE DESIGN, DETAILING, CONSTRUCTION, AND SHORING SHALL CONFORM TO THE LATEST EDITIONS OF THE ONTARIO BUILDING CODE AND THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
3. DO NOT SCALE THE DRAWINGS.
4. ALL DESIGN LOADS INDICATED ARE UNFACTORED UNLESS NOTED OTHERWISE.
5. THE DESIGN AND CONSTRUCTION OF ALL WORK ON THIS PROJECT SHALL CONFORM TO THE CURRENT ONTARIO BUILDING CODE AND THE LATEST EDITIONS OF THE LISTED STANDARDS INCLUDING REVISIONS.
6. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND MEASUREMENTS AT THE SITE AND REPORT TO THE ENGINEER ANY DISCREPANCIES OR CONDITIONS WHICH MAY ADVERSELY AFFECT THE PROPER COMPLETION OF THE JOB BEFORE PROCEEDING WITH THE WORK.
7. DESIGN LIVE LOADS SHOWN ON THE DRAWINGS SHALL NOT BE EXCEEDED DURING CONSTRUCTION.
8. IN CASE OF CONFLICT BETWEEN CODES, REFERENCE STANDARDS, DRAWINGS AND OTHER CONTRACT DOCUMENTS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN. ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION AND DIRECTION PRIOR TO ORDERING OR PROVIDING ANY MATERIALS OR LABOR. THE CONTRACTOR SHALL BID THE MOST STRINGENT REQUIREMENTS.

SHOP DRAWINGS:

1. SHOP DRAWINGS MUST BE REVIEWED AND STAMPED REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTING TO THE CONSULTANTS. SHOP DRAWINGS NOT STAMPED BY THE GENERAL CONTRACTOR WILL BE REJECTED. ANY DELAYS IN THE CONSTRUCTION SCHEDULE DUE TO NON-COMPLIANCE WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
2. CONTRACTORS SHALL PRIORITIZE THE SUBMISSION OF SHOP DRAWINGS FOR REVIEW AND ALLOW 5 BUSINESS DAYS TIME FOR REVIEW BY THE STRUCTURAL CONSULTANT IN ADDITION TO TIME REQUIRED BY OTHER PARTIES.
3. SHOP DRAWINGS MUST BE PRODUCED BY THE RESPECTIVE SUB-TRADES. THE USE OF STRUCTURAL DRAWINGS AS SHOP DRAWINGS IS NOT ACCEPTABLE AND WILL BE REJECTED.
4. SUBMIT SHOP DRAWINGS AS PER THE FOLLOWING TABLE:

ITEMS	REQ'D PROFESSIONAL ENGINEER STAMP?
CONCRETE MIX DESIGN	NO
CONCRETE REBARS	NO
MASONRY REBARS	NO
STRUCTURAL, COLD-FORM AND MISC. STEEL IF APPLICABLE	YES

TESTING AND INSPECTION

THE FOLLOWING ITEMS REQUIRE TESTING OR INSPECTION BY A CERTIFIED INDEPENDENT TESTING OR INSPECTION AGENCY UNLESS NOTED OTHERWISE. THE AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS TO THE ENGINEER FOR REVIEW.

ITEMS	REQ'D?	COMMENTS
SOIL BEARING CAPACITY	YES	BY SOILS ENGINEER
REINFORCING STEEL PLACEMENT	YES	INSPECT FINAL PLACEMENT
CONCRETE COMPRESSIVE TESTS	YES	MIN. 2 SETS PER CSA 23.2
CONCRETE SLUMP	YES	
WELDED CONNECTIONS	YES	INSPECT ALL FIELD WELDS
MORTAR CUBES	NO	

SHORING AND TEMPORARY STRUCTURES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION SAFETY, MEANS, TECHNIQUES AND CONSTRUCTION PROCEDURES AND ALL SHORING AND TEMPORARY WORK AS MAY BE REQUIRED TO BUILD AND COMPLETE THE STRUCTURE IN CONFORMITY WITH CONTRACT DOCUMENTS.
2. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING TO KEEP THE STRUCTURE PLUMB AND IN TRUE ALIGNMENT AT ALL PHASES OF THE WORK, UNTIL COMPLETION INCLUDING EXISTING AND NEW MASONRY WALLS, EXISTING AND NEW FLOORS AND ROOF DECKS, ETC.

FOUNDATIONS:

1. FOOTING FOR THE NEW ELEVATOR HAS BEEN DESIGNED FOR A SOIL BEARING CAPACITY OF 150 KPA FOR (SLS) AND 225KPA FOR (ULS). A GEOTECHNICAL ENGINEER SHALL VERIFY SOIL BEARING PRIOR TO PLACING CONCRETE.
2. FOUND THE FOOTING ON A STRATA CAPABLE OF SUPPORTING THE ABOVE NOTED DESIGN BEARING PRESSURES.
3. PROTECT SOIL ADJACENT AND BELOW ALL FOOTINGS FROM FREEZING.
4. PROTECT FOOTINGS, FOUNDATION WALLS, AND SLAB-ON-GRADE AGAINST FREEZING DURING CONSTRUCTION TIME.
5. DO NOT EXCEED A RISE OF 7 IN A RUN OF 10 IN THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS FOR FOOTINGS OR TRENCHES.
6. DO NOT BACKFILL AGAINST WALLS BELOW GRADE UNTIL ALL LATERALLY SUPPORTING ELEMENTS ARE PROPERLY INSTALLED AND THE SLAB-ON-GRADE IS CAST AND CONCRETE ATTAINED ITS 28-DAY DESIGN COMPRESSIVE STRENGTH. FOR OTHER WALLS BELOW GRADE BACKFILL AND COMPACT SIMULTANEOUSLY ON BOTH SIDES OF THE WALL.

CAST-IN-PLACE-CONCRETE:

1. ALL CONCRETE SHALL BE DESIGNED TO COMPLY WITH THE LATEST EDITION OF CAN/CSA A23.3
2. THE CONSTRUCTION OF CONCRETE SHALL COMPLY WITH THE LATEST EDITION OF CAN/CSA A23.1 AND A23.2.
3. THE 28-DAY CONCRETE COMPRESSIVE STRENGTH, f_c, SHALL BE AS INDICATED IN THE FOLLOWING TABLE:

	28-DAY STRENGTH (MPa)	EXPOSURE CLASSIFICATION	SLUMP AT DELIVERY (MM)	AIR ENTRAINMENT (%)
FOOTINGS & INTERIOR FOUNDATION WALLS	25	N	75(+/-) 25 3"(+/-) 1"	—
INTERIOR SLAB ON GRADE	25	N	50(+/-) 25 2"(+/-)1" (NOTE 1)	—
MASONRY CELLS FILLING GROUT	15	—	PER CSA A179	—
NON-SHRINK BEARING GROUT	35	—	—	—

NOTES:

1. THIS SLUMP IS BEFORE ADDITION OF SUPERPLASTICIZER. IF SUPERPLASTIZIER IS USED, SLUMP SHALL BE 150(+/-25MM), 6"(+/-)1".
4. THE MINIMUM CONCRETE COVER IN (MM) TO THE REINFORCING BARS SHALL BE AS INDICATED IN THE FOLLOWING TABLE UNLESS AS NOTED IN THE FOLLOWING SENTENCES 5 AND 6.

	EXPOSURE CLASSES N, F1, AND F2	EXPOSURE CLASSES C1, AND C3
FOOTINGS	75(3") TO BOTTOM BARS AND 50 (2") TO TOP BARS	75 TO BOTTOM BARS AND 60 TO TOP BARS
WALLS	40(1.5") TO EXTERIOR SURFACE AND 20 (¾") TO INTERIOR SURFACE	60 (2-⅜")

5. THE MINIMUM CONCRETE COVER SHALL BE EQUAL TO THE REINFORCING BAR DIAMETER FOR EXPOSURE CLASS N, 1.5 TIMES THE BAR DIAMETER FOR CLASSES F1 AND F2, AND 2 TIMES THE BAR DIAMETER FOR CLASSES C1 AND C3.
6. WHERE CONCRETE IS CAST AGAINST EARTH, THE MINIMUM CONCRETE COVER SHALL BE 75MM, (3").
7. REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA G30.18, GRADE 400W AND 400R, AND SHALL BE DEFORMED BAR UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

MASONRY:

1. MASONRY DESIGN AND CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF:
C.S.A. S304.1- DESIGN OF MASONRY STRUCTURES
C.S.A. S371- MASONRY CONSTRUCTION FOR BUILDINGS
C.S.A. A165 SERIES- CSA STANDARDS FOR CONCRETE MASONRY UNITS
C.S.A. A179- MORTAR AND GROUT FOR UNIT MASONRY
2. ALL CONCRETE BLOCK SHALL HAVE A MINIMUM NET COMPRESSIVE STRENGTH OF 15 MPa.
3. UNLESS NOTES OTHERWISE,E MORTAR SHALL BE TYPE S.
4. PROVIDE LATERAL RESTRAINT AT THE TOP OF ALL NON-LOAD BEARING PARTITIONS.
5. UNLESS NOTES OTHERWISE, PROVIDE 4.8MM(3/16") BAR DIAMETER GALVANIZED LADDER TYPE BED JOINT REINFORCING IN EVERY SECOND COURSE.
6. UNLESS NOTES OTHERWISE, PROVIDE A BOND BEAM AT THE TOP OF ALL REINFORCED WITH 2-15M CONTINUOUS REBARS.

10M 600MM(24")
15M 750MM(30")
20M 950MM(38")
25M 1100MM(44")
8. PROVIDE ADDITIONAL REINFORCING TO MATCH WALL REINFORCING AT ALL CORNERS, OPENINGS AND IN THE GROUTED CELLS UNDER ALL BEARING PLATES AND LINTELS.
9. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, PROVIDE AND INSTALL LINTELS OVER ALL OPENINGS INCLUDING OPENINGS FOR MECH. IN ACCORDANCE WITH THE TYPICAL LINTEL SCHEDULE SHOWN ON THIS SHEET.

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL SHALL BE DESIGNED IN COMPLIANCE WITH THE REQUIREMENTS OF CSA S16 LATEST (EDITION).
2. ALL STRUCTURAL STEEL SAMPLES SHALL CONFORM TO CSA G40.21.
3. ALL WELDING SHALL CONFORM TO THE LATEST EDITIONS OF CSA W59 AND W47.1.
4. ALL STEEL SHALL BE SHOP PRIMED IN CONFORMANCE WITH CISC STANDARDS 1-73A AND 2-75, EXCEPT FOR INTERIOR STEEL THAT NEEDS TO BE SPRAYED WITH FIRE RESISTIVE MATERIAL AS PER ARCHITECTURAL DRAWINGS.
5. DO NOT CUT OPENINGS IN THE STRUCTURAL STEEL WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
6. THE CONTRACTOR SHALL PROVIDE AND REMOVE AFTERWARDS PROPER TEMPORARY BRACING TO KEEP THE STRUCTURE TRUE AND PLUMB DURING CONSTRUCTION.
7. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL BOLTS SHALL BE A MINIMUM 3/4" DIAMETER AND CONFORM TO ASTM A325.
8. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING LAYOUTS, SIZES, MATERIALS, AND CONNECTION DETAILS. SHOP DRAWINGS SHALL BE STAMPED, DATED, AND SIGNED BY A PROFESSIONAL ENGINEER PRACTICING IN ONTARIO.

STEEL LINTELS IN NON-LOAD BEARING WALLS:

WALL THICKNESS	SPAN (MM)	LINTEL SIZE (MM)	DETAILS
90 MM (3-1/2")	UP TO 1200 >1200 TO 1800 >1800 TO 2400 >2400 TO 3000	L90X90X6 L127X90X6 L127X90X8 L150X90X9.5	--- LLV LLV LLV
140 MM (5-1/2")	UP TO 1200 >1200 TO 1800 >1800 TO 2400	2-L64X64X6 2-L90X64X6 2-L90X64X8 W/100X10 PLATE	BACK TO BACK BACK TO BACK, LLV BACK TO BACK, LLV, PLATE WELDED TO U/S OF HORIZONTAL LEGS
190 MM (7-1/2")	UP TO 1200 >1200 TO 1800 >1800 TO 2400 >2400 TO 3000	2-L75X90X6 2-L90X90X6 2-L100X90X8 2-L150X90X8	BACK T BACK, (LLH) BACK TO BACK BACK TO BACK, LLV BACK TO BACK, LLV
240 MM (9-1/2")	UP TO 1200 >1200 TO 1800 >1800 TO 2400 >2400 TO 3000	2-L75X100X6 2-L100X100X6 2-L100X100X9.5 2-L150X100X8	BACK T BACK, (LLH) BACK TO BACK BACK TO BACK BACK TO BACK, LLV
290 MM (11-1/2")	UP TO 1200 >1200 TO 1800 >1800 TO 2400 >2400 TO 3000	3-L75X90X6 3-L90X90X6 3-L100X90X8 3-L127X90X8	INVERTED DOUBLE (T) WITH 90 LEGS HORIZONTAL

NOTES:

1. STITCH WELD BACK TO BACK ANGLES USING 6MM WELD, 50 MM LONG SPACED AT 450MM MAX. OR CONNECT USING 16MM BOLTS AT 450 MM MAX. WITH THE FIRST BOLT LOCATED AT 75 MM FROM THE END OF THE LINTEL
2. ENSURE EVEN BEARING OF STEEL LINTELS BY PROVIDING STEEL PACKING AS REQUIRED.
3. FOR LARGER OPENINGS AND FOR OPENINGS IN LOAD BEARING WALLS, SEE PLANS FOR LINTEL SIZES.

DESIGN LOADS:

LOADS CONSIDERED IN THE DESIGN ARE:
FLOORS:
DEAD LOAD: (4" CONCRETE ON STEEL DECK) 3.6 kPa
LIVE LOAD:
- ROOMS: 2.4kPa
- CORRIDORS: 4.8 kPa
ROOF:
DEAD LOAD: 1.2 kPa
SNOW: CALCULATED USING S_s=1.3KPA AND S_r=0.4KPA.
IMPORTANCE FACTOR: I_s=1.15
WIND: CALCULATED USING q(½h) = 0.46kPa. IMPORTANCE FACTOR I_w=1.15
MASONRY WALLS: (8" BLOCK) 2.6 kN/m2.
ELEVATOR HOIST BEAM:
34 kN (7500 Lbs.) POINT LOAD PLACED ANYWHERE ALONG THE SPAN OF THE BEAM.



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No.	Date	Remarks

Renovations to
HWDSB Norwood Park
Accessibility Upgrades
165 Terrace Dr, Hamilton,
ON L9A 2Z2

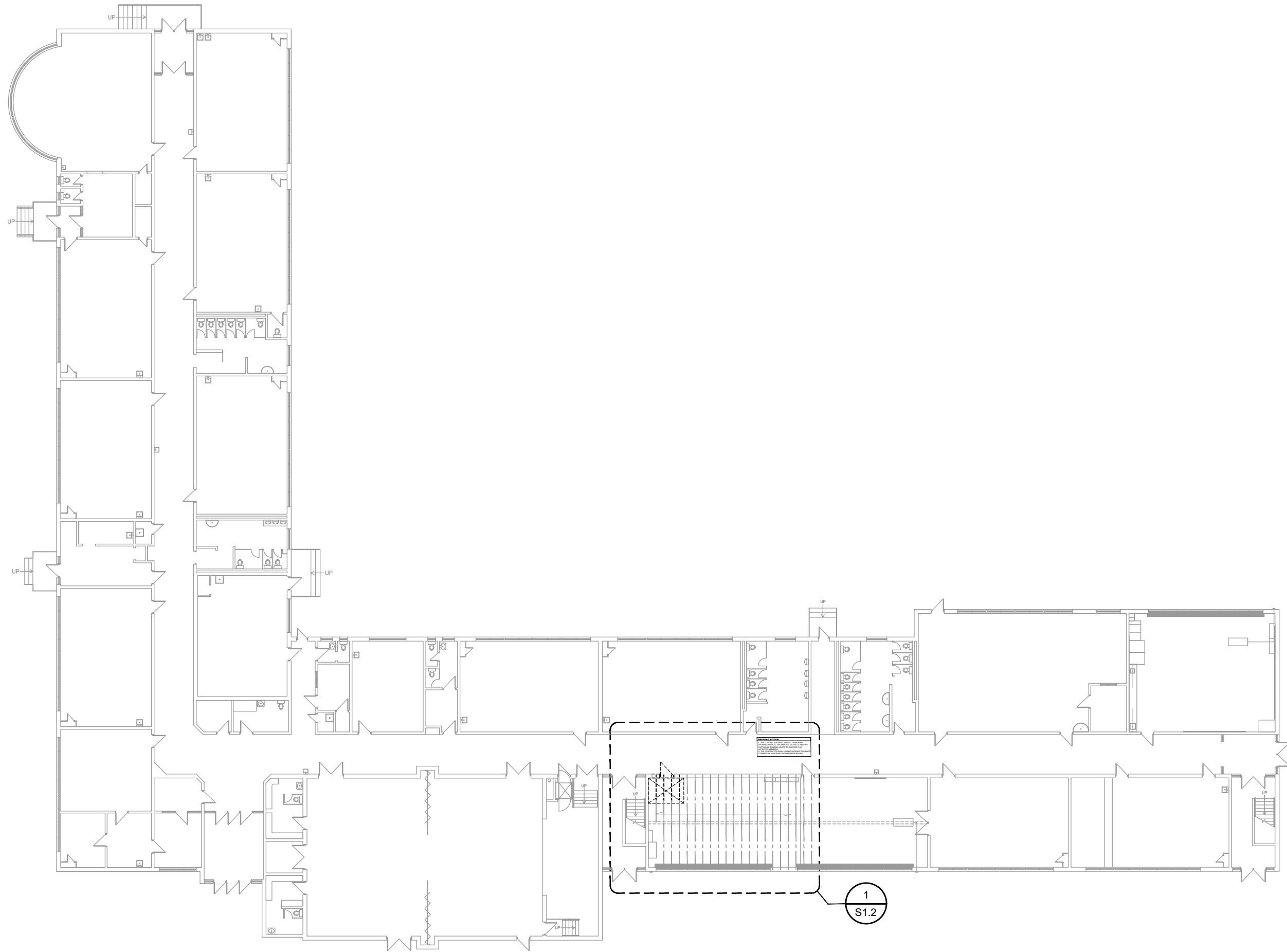
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GENERAL
NOTES

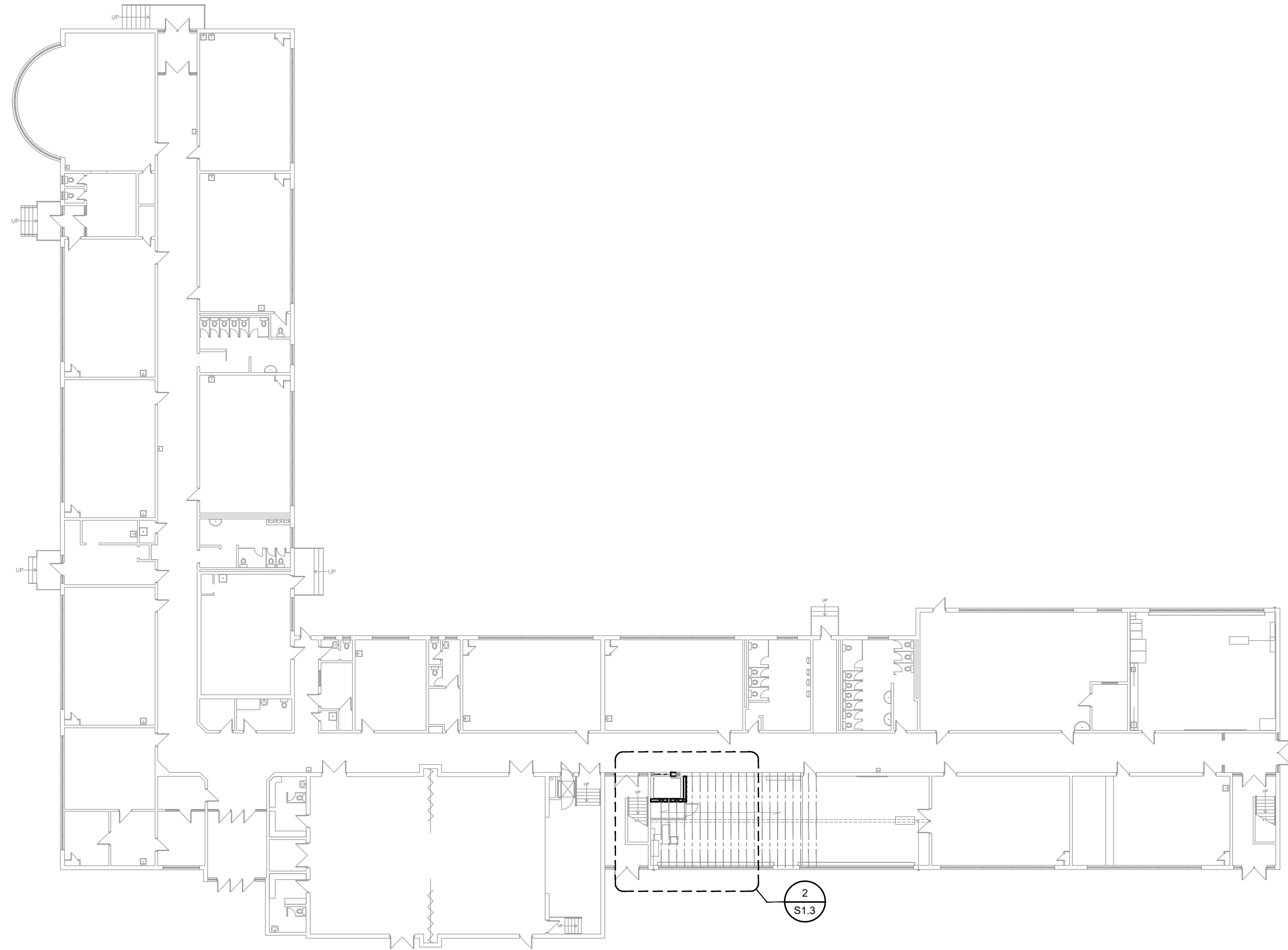
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Proj. No.: 14019	
Scale: As noted	
Date: JAN, 2026	

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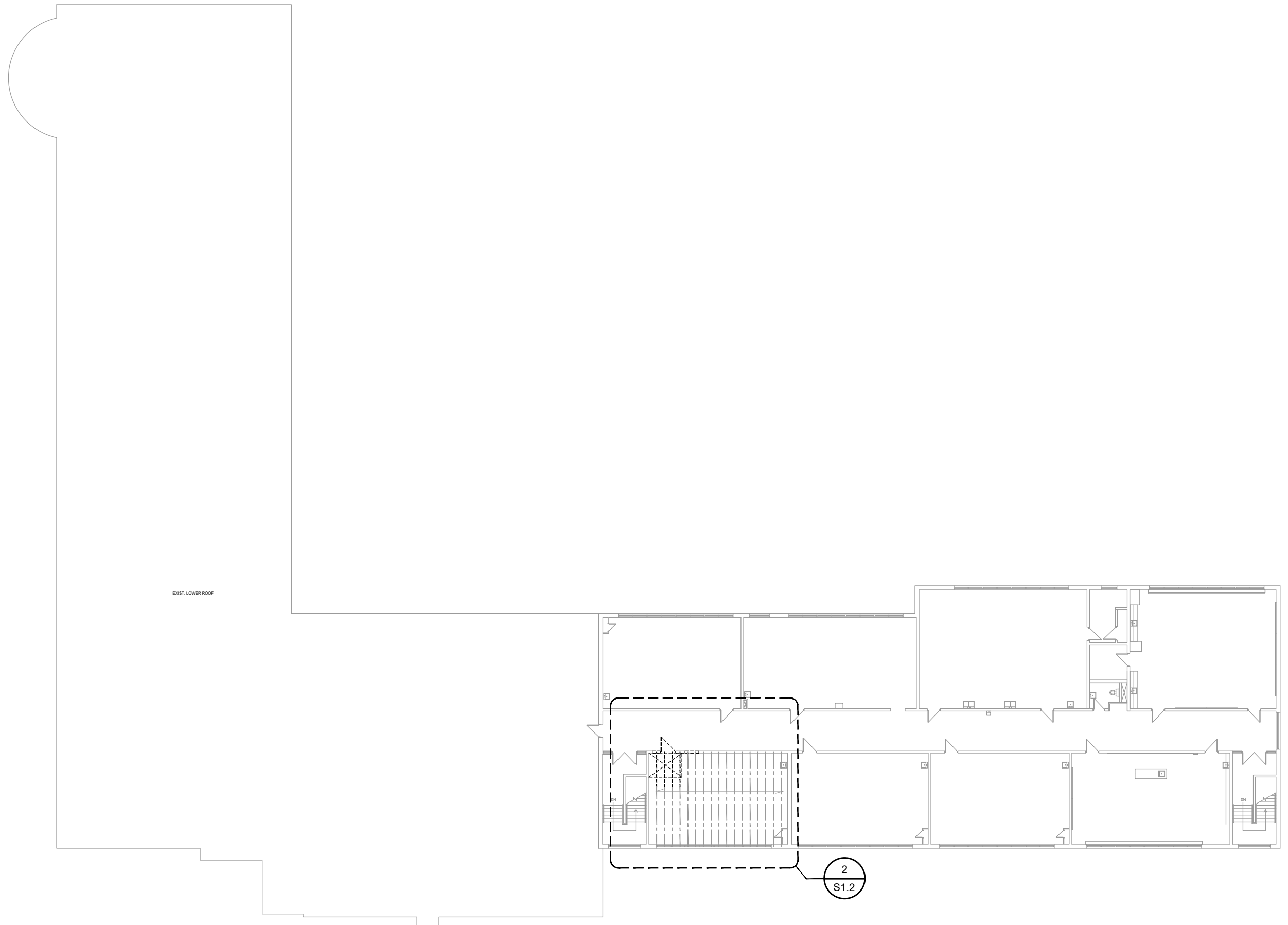
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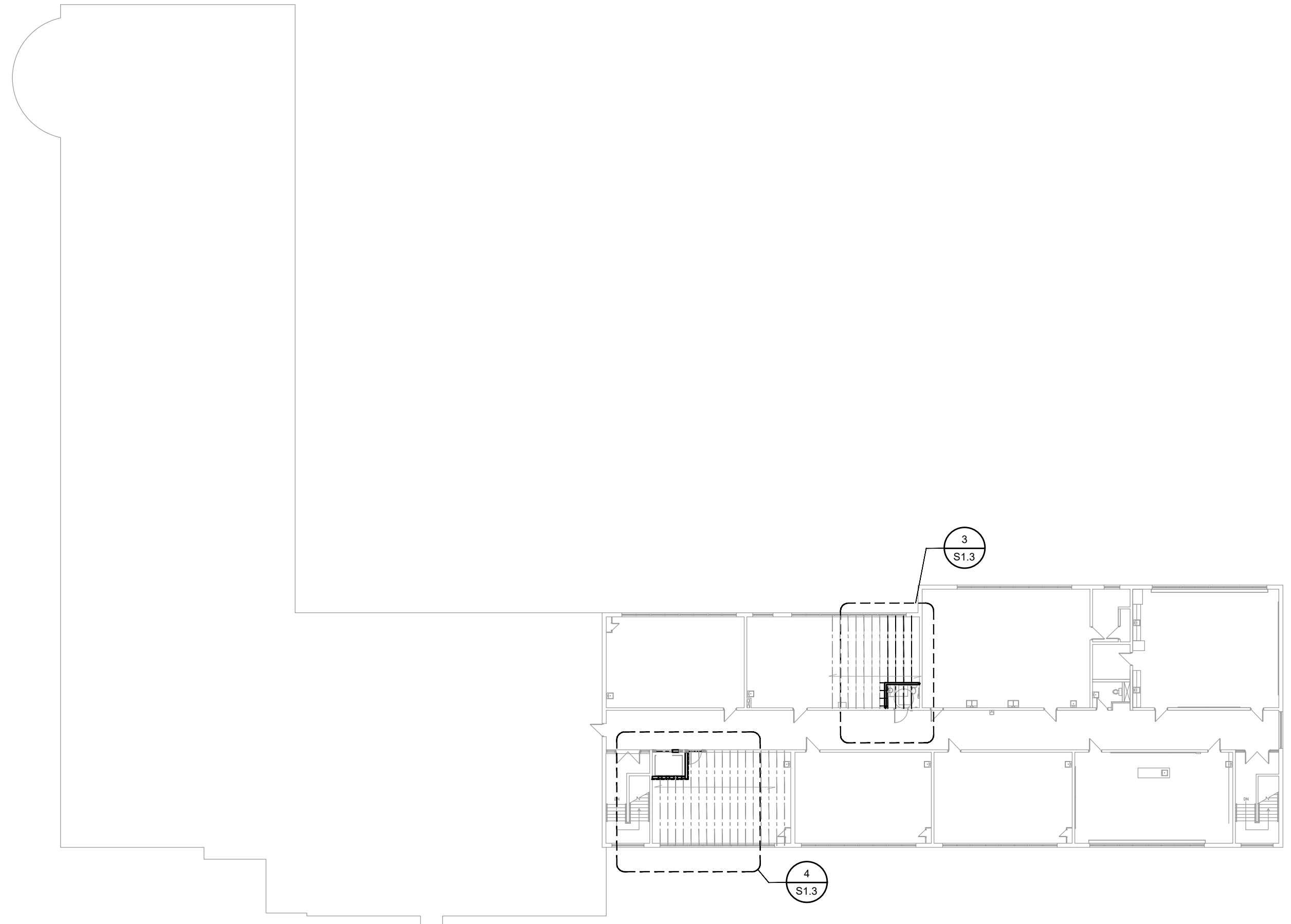
1 GROUND FLOOR DEMOLITION PLAN
S1.0 SCALE: 1:300



2 GROUND FLOOR PLAN
S1.0 SCALE: 1:300



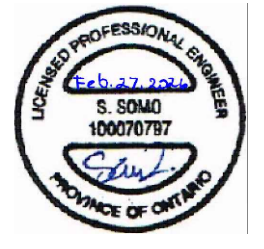
3 SECOND FLOOR DEMOLITION PLAN
S1.0 SCALE: 1:150



4 SECOND FLOOR PLAN
S1.0 SCALE: 1:150

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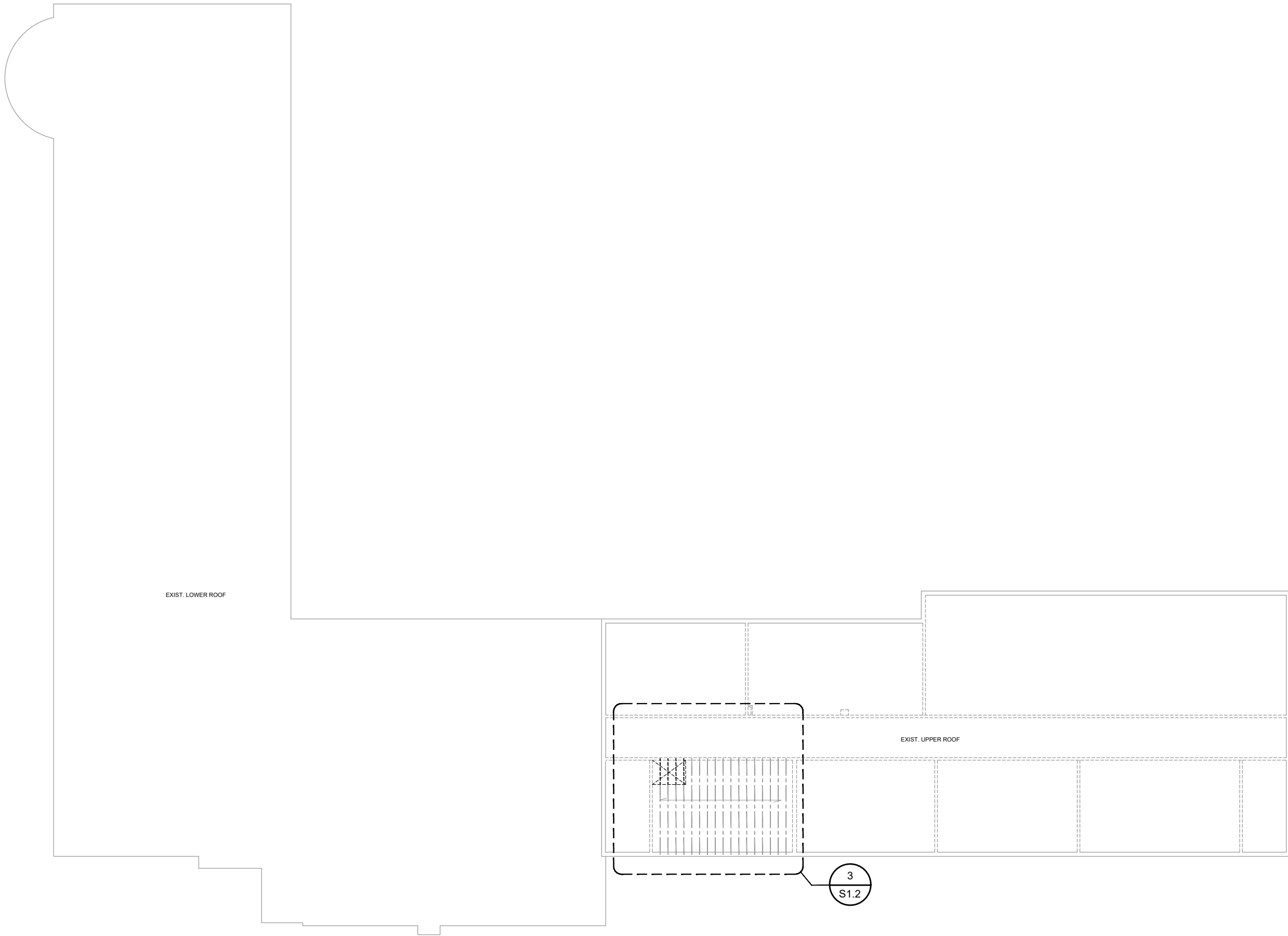
Renovations to
HWDSB Norwood Park
Accessibility Upgrades
165 Terrace Dr, Hamilton,
ON L9A 2Z2

Dwg. Title:
FLOOR PLANS

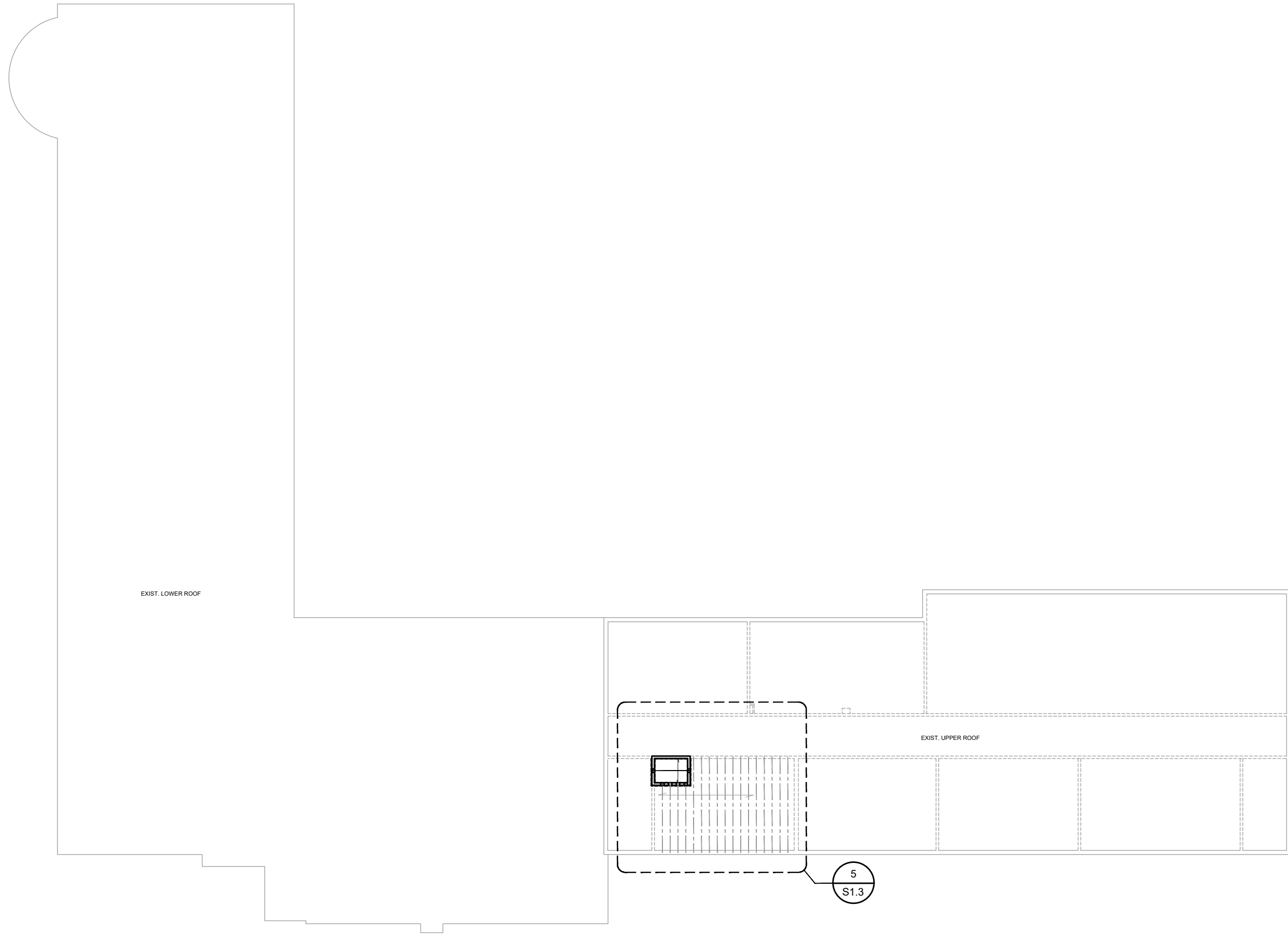
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Proj. No.: 14019
Scale: As noted
Date: JAN. 2026

Drawing No.:

S1.0



1 ROOF DEMOLITION PLAN
S1.1 SCALE: 1:300



2 ROOF PLAN
S1.1 SCALE: 1:300

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HWDSB Norwood Park
Accessibility Upgrades
165 Terrace Dr, Hamilton,
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Dwg. Title:
FLOOR PLANS

Drwn: S.K. Chkd: S.S.
Proj. No.: 14019
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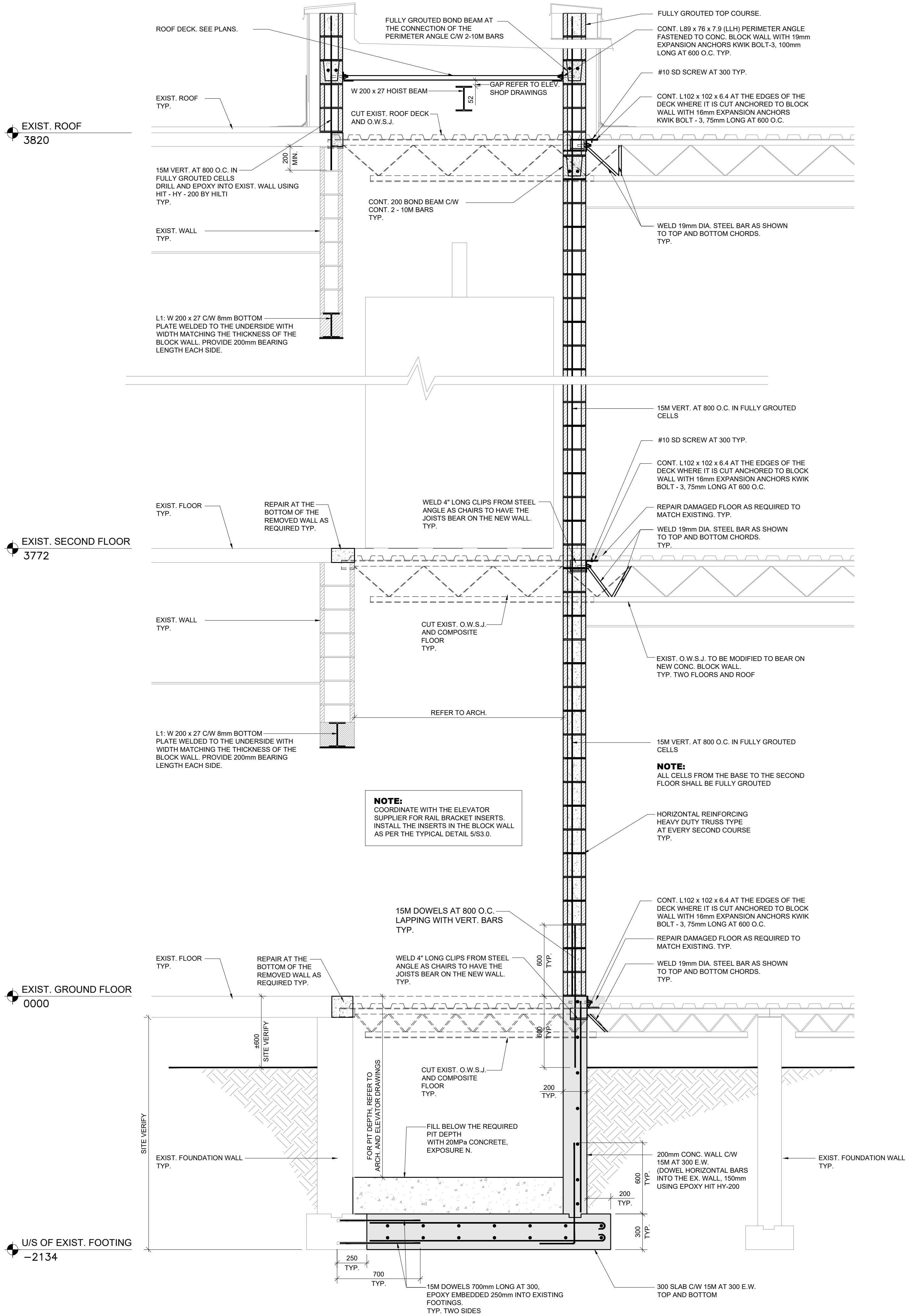
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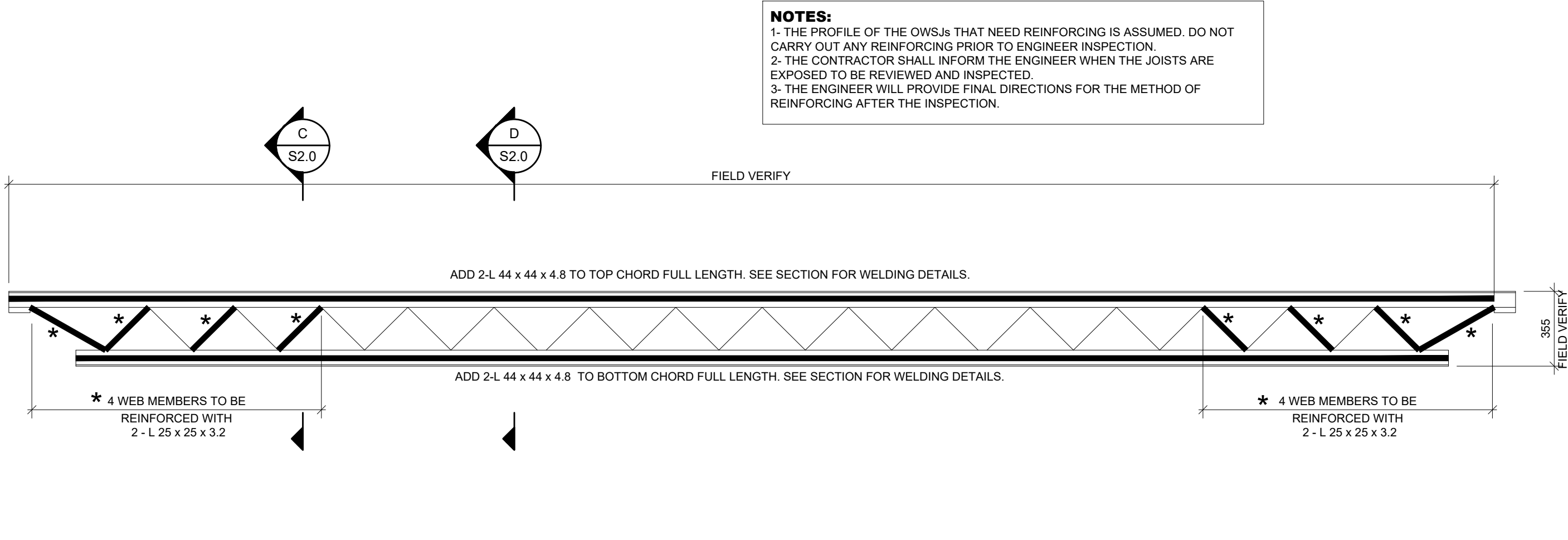
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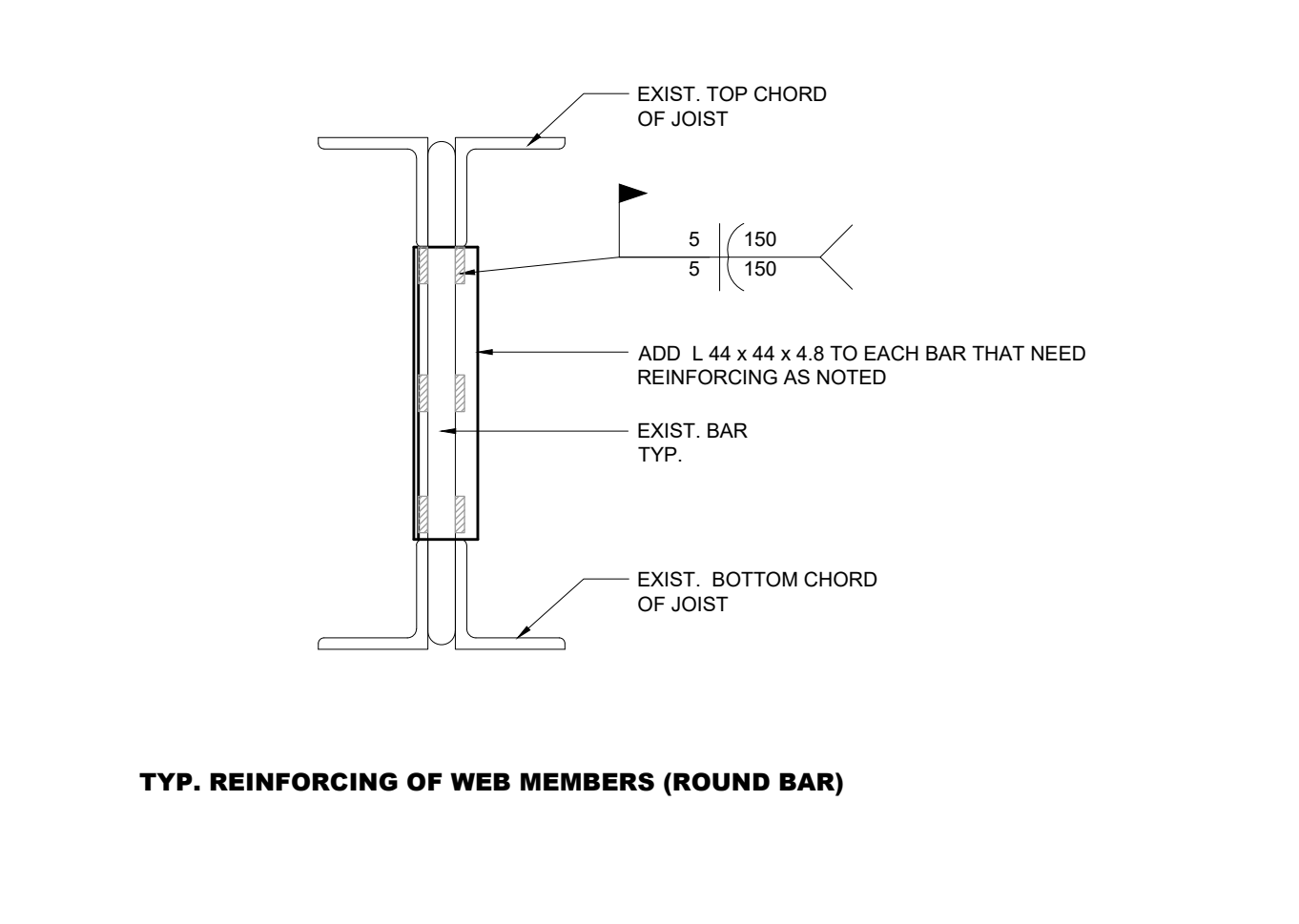
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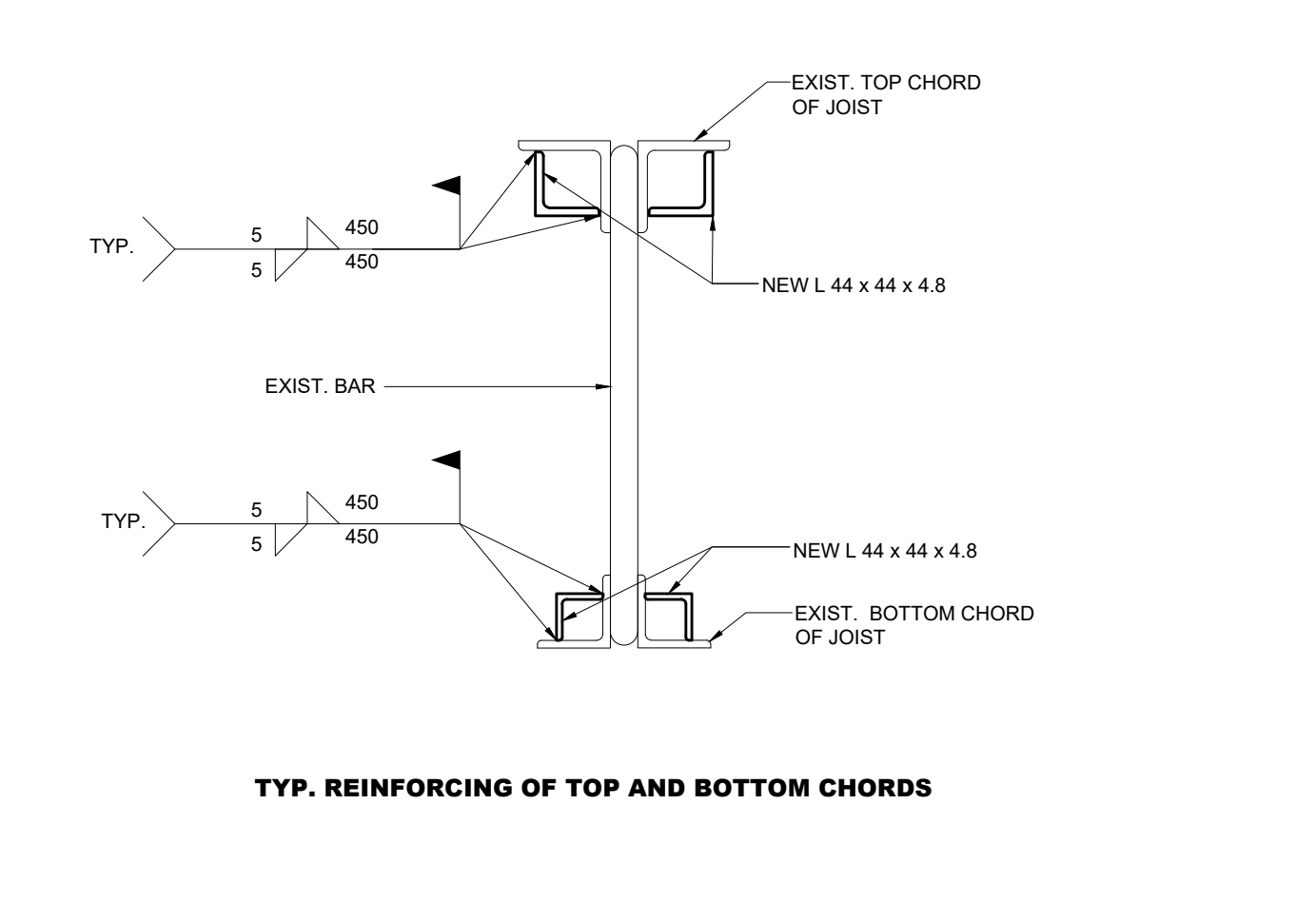
A SECTION
S2.0 SCALE: 1:20



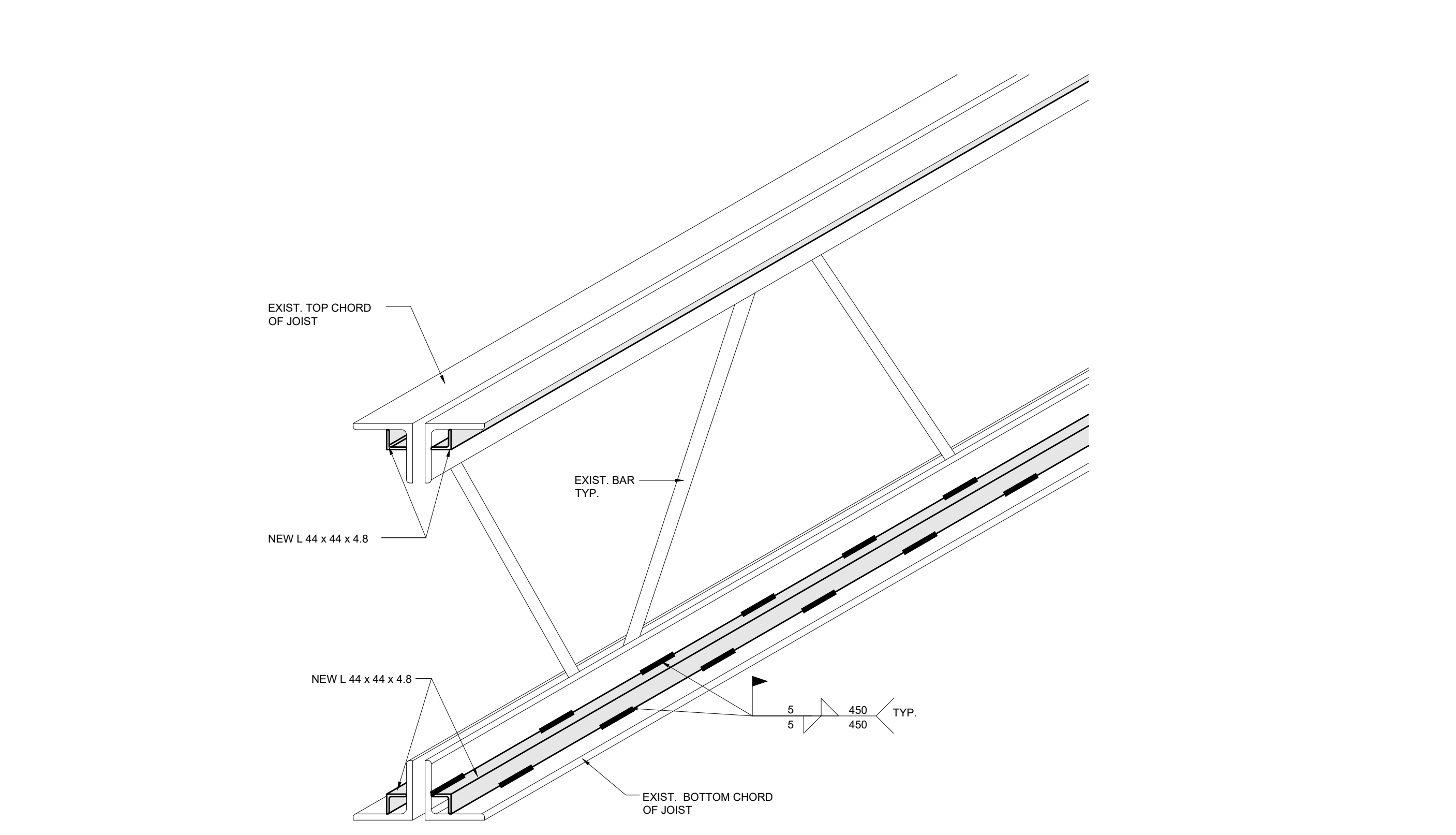
B TYP. ELEVATION OF REINFORCED EXIST. O.W.S.J.
S2.0 SCALE: 1:20



C SECTION
S2.0 SCALE: 1:20

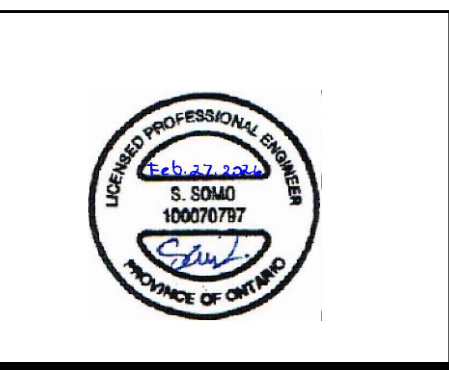


D SECTION
S2.0 SCALE: 1:20



1 ISOMETRIC VIEW OF O.W.S.J. REINFORCEMENT DETAIL
S2.0 SCALE: N.T.S

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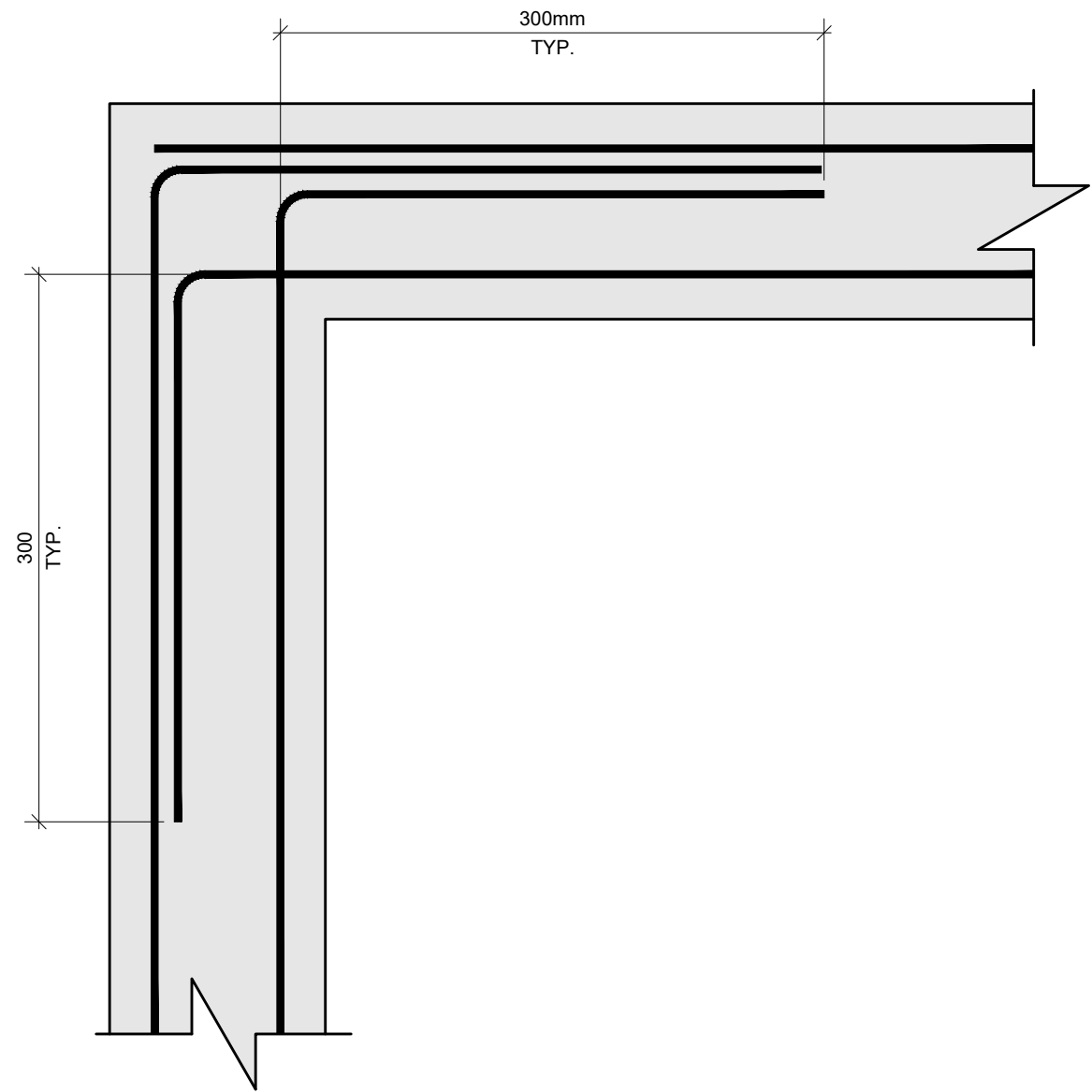
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**Renovations to
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Accessibility Upgrades**
165 Terrace Dr, Hamilton,
ON L9A 2Z2

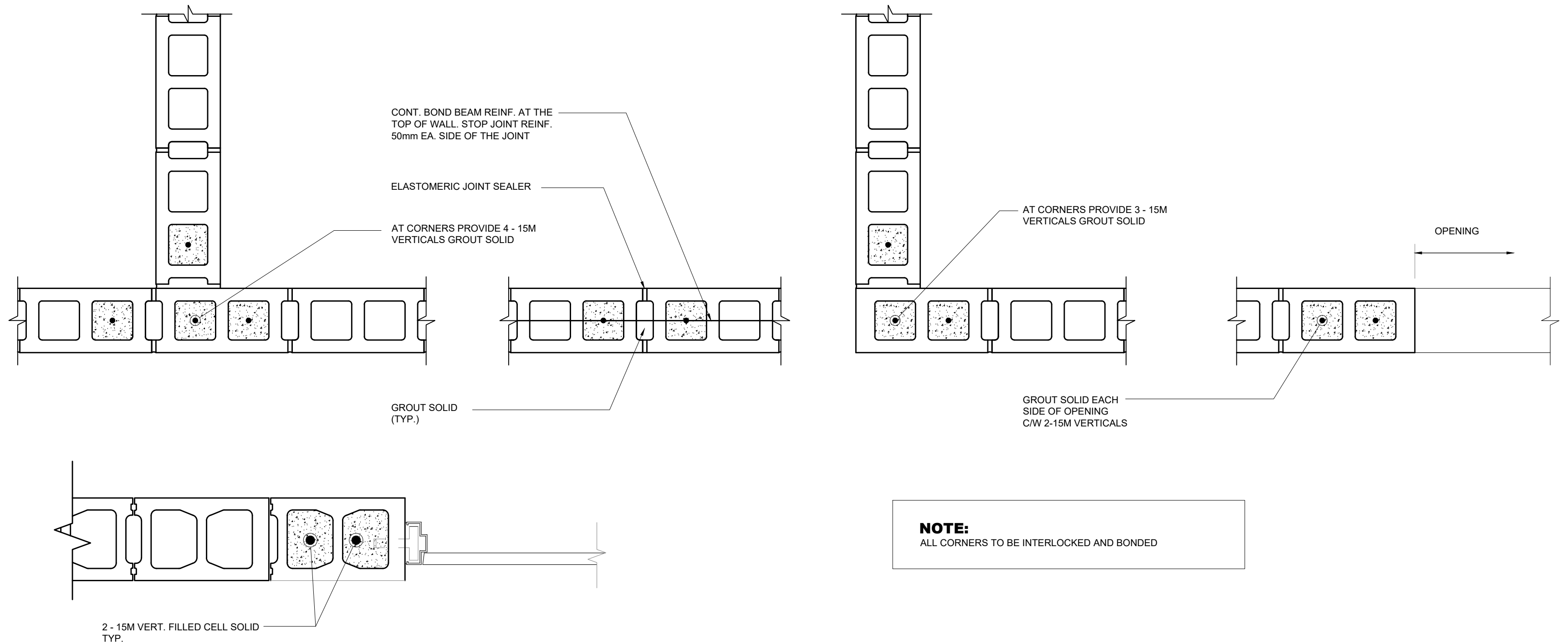
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**SECTION AND
DETAILS**

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Date: JAN, 2026

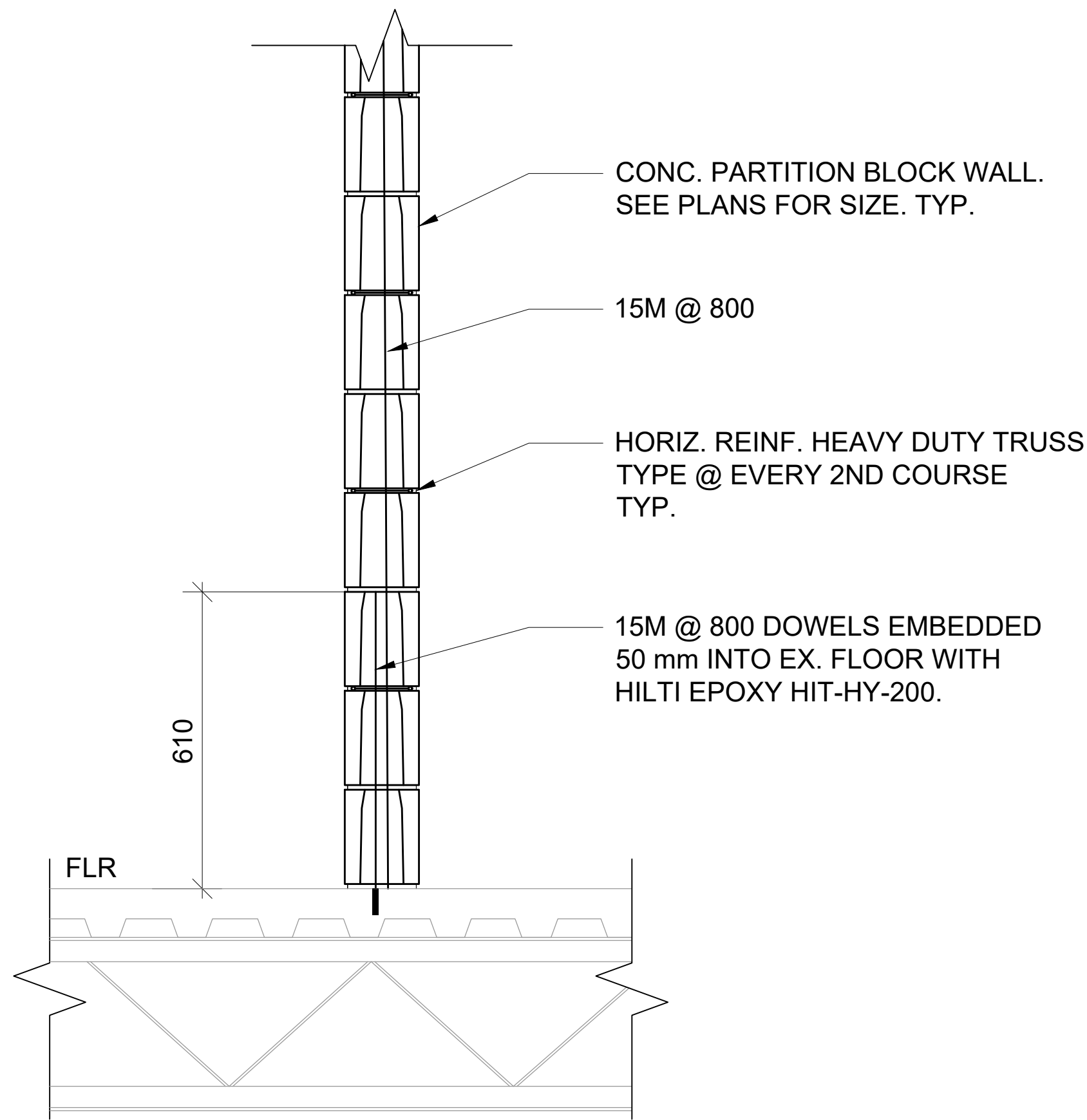
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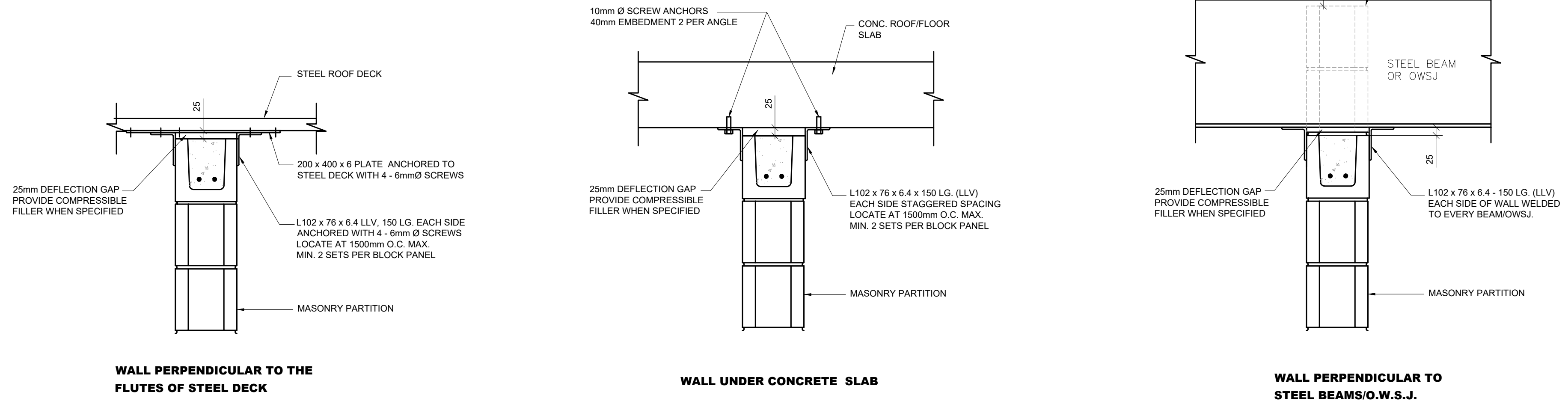
1 TYPICAL CORNER REBAR DETAIL
S3.0 SCALE: 1:10



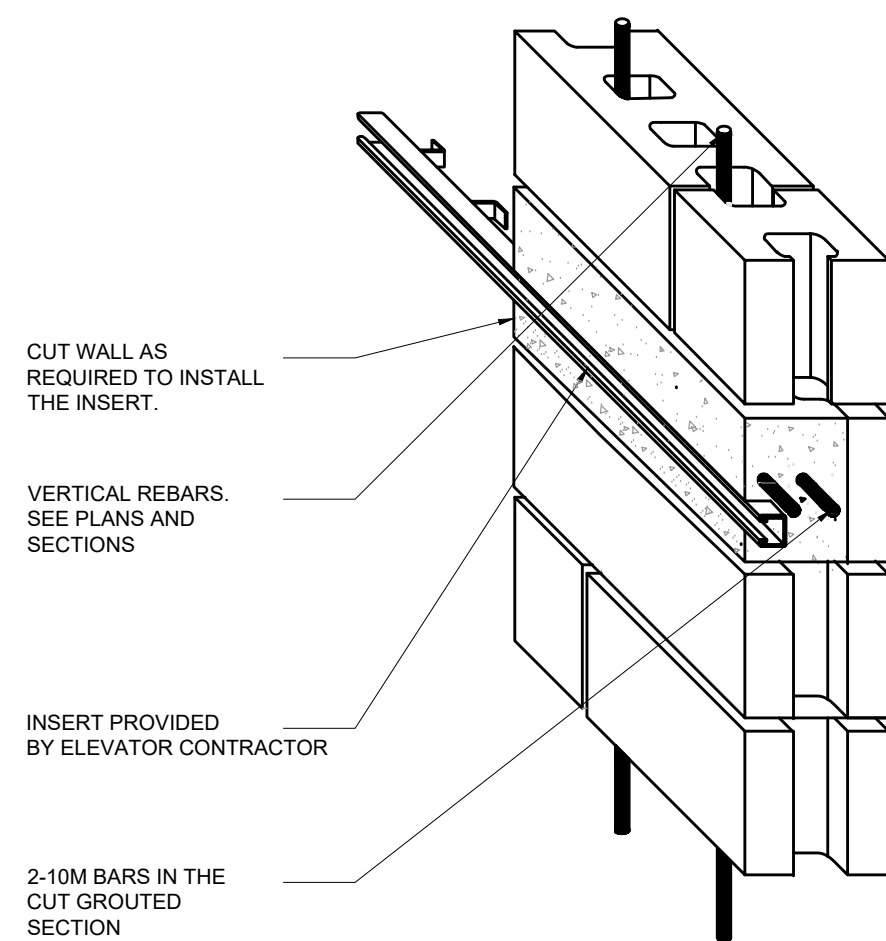
2 TYPICAL BLOCK WALL REINFORCING DETAILS
S3.0 SCALE: 1:10



3 TYPICAL BLOCK PARTITION WALL DETAIL
S3.0 SCALE: 1:20

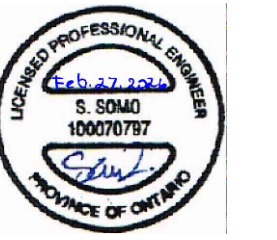


4 TYPICAL BLOCK WALL RESTRAINT DETAIL
S3.0 SCALE: 1:10



5 TYPICAL BLOCK WALL INSERT DETAIL
S3.0 SCALE: 1:10

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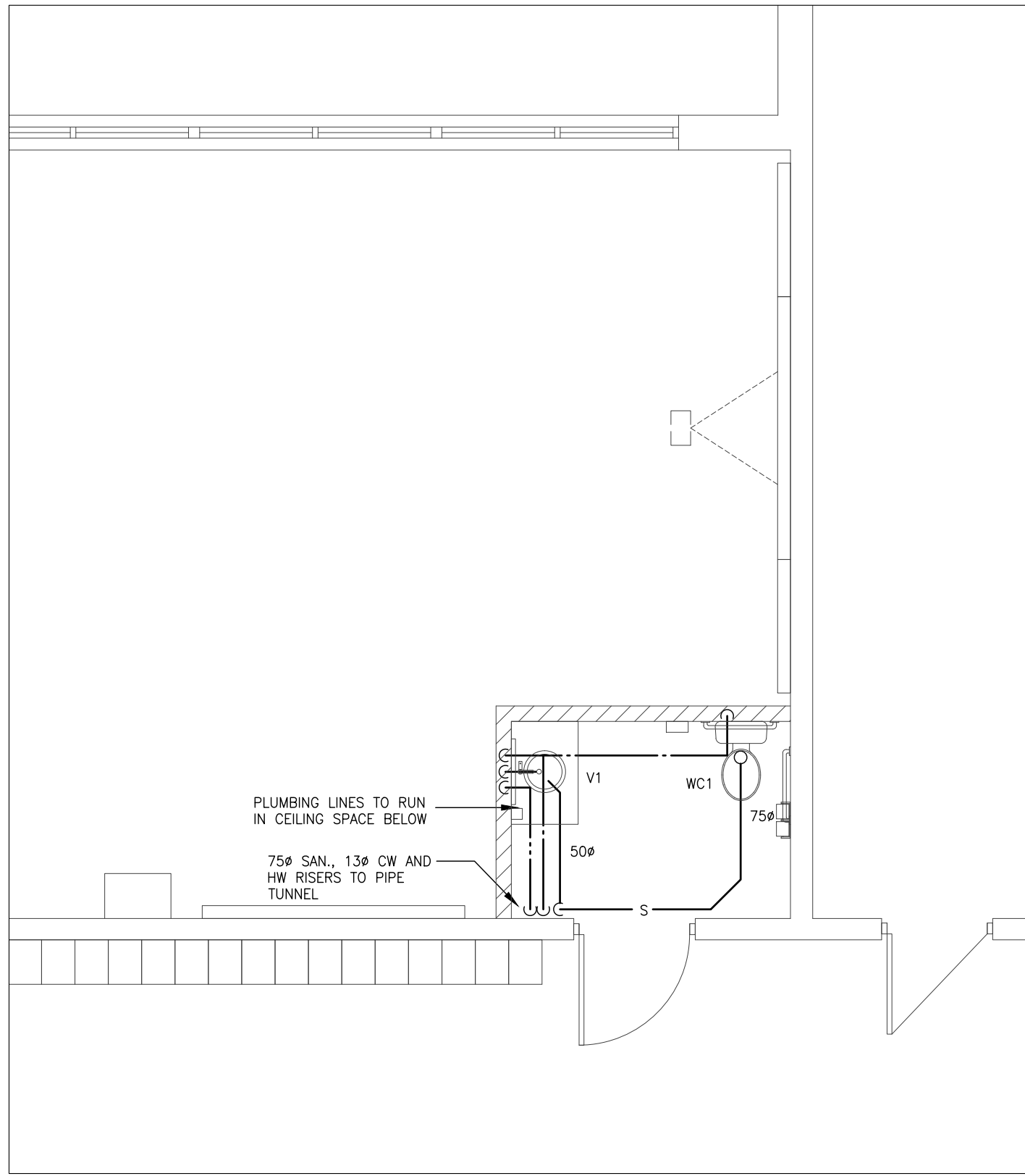
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**Renovations to
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Accessibility Upgrades**
165 Terrace Dr, Hamilton,
ON L9A 2Z2

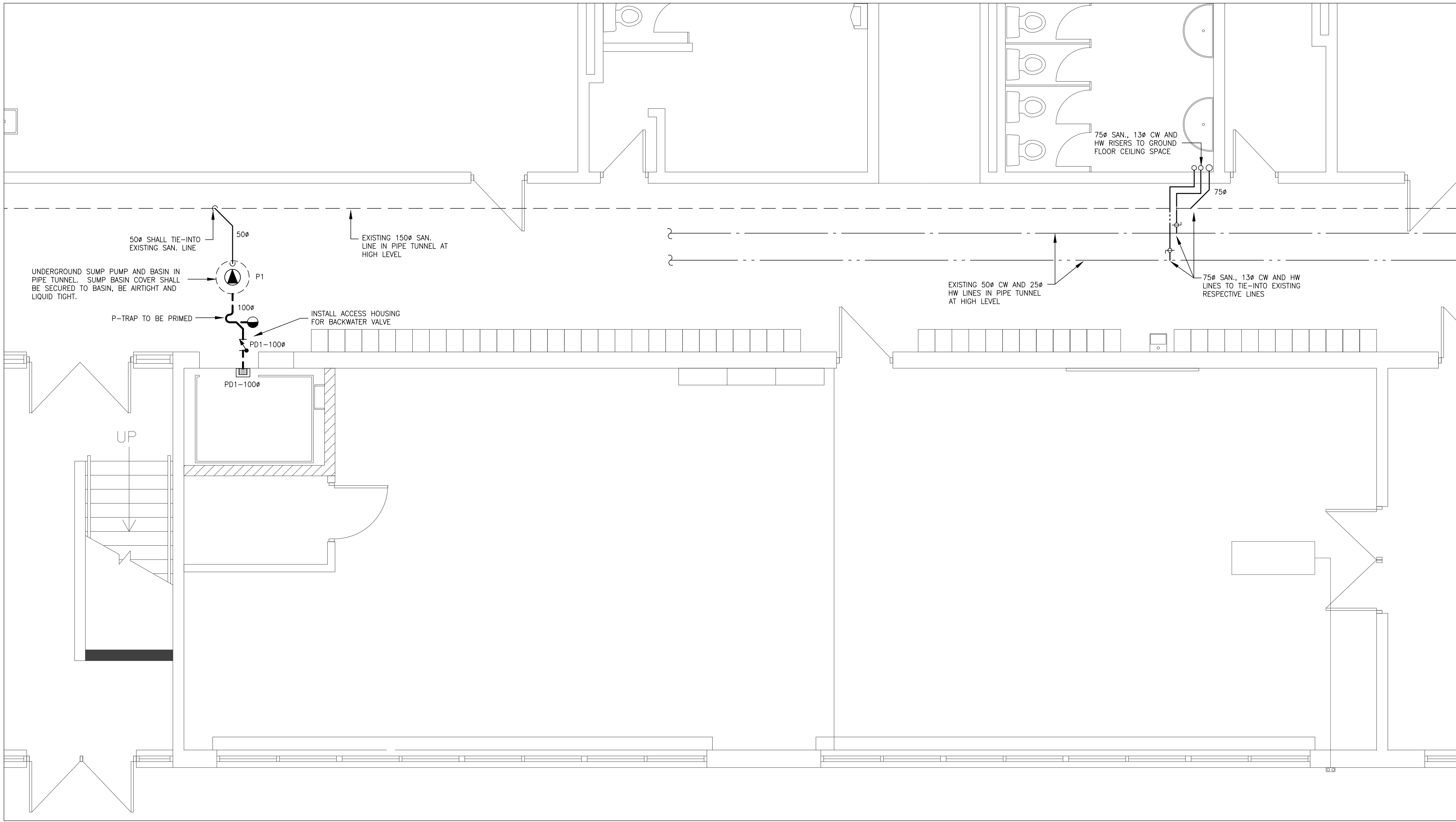
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TYP. DETAILS

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Proj. No.: 14019
Scale: As noted
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Drawing No.:
S3.0



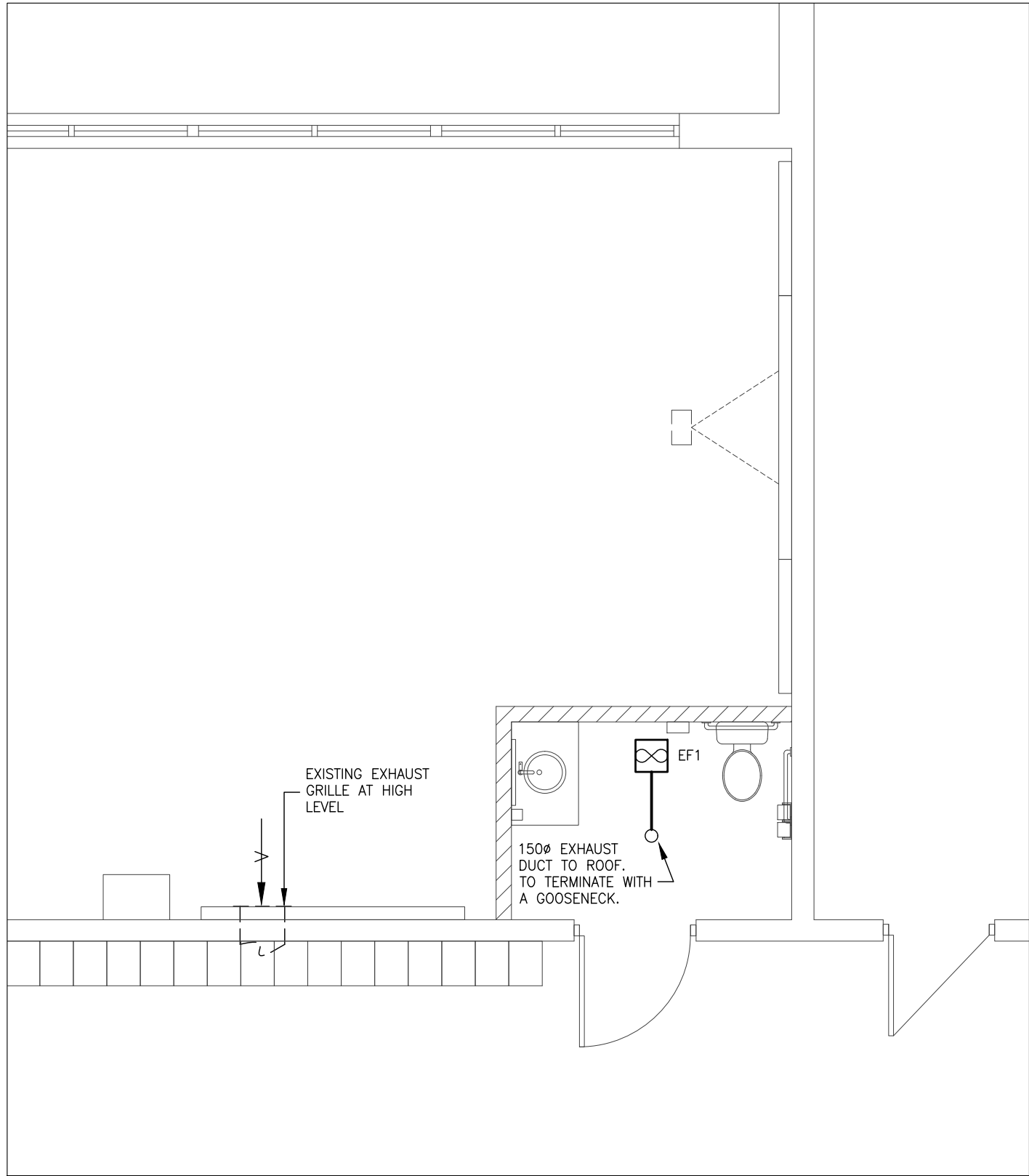
2
B.F. WASHROOM 203A
SECOND FLOOR PLUMBING RENOVATION
M1-1 1:50



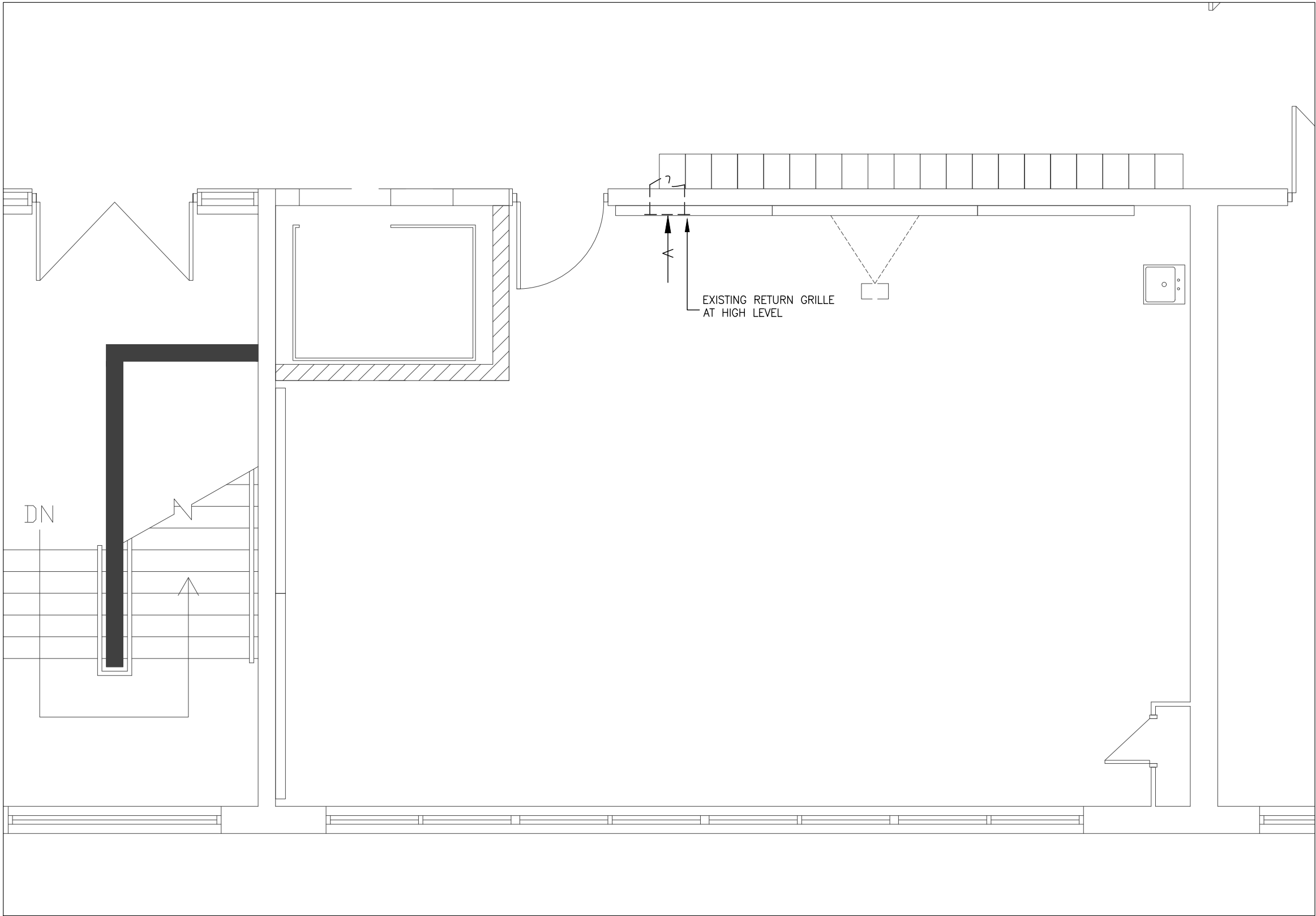
1
ELEVATOR SHAFT
GROUND FLOOR PLUMBING RENOVATION
M1-1 1:50

SYMBOL	DESCRIPTION
—	NEW LINES
- - -	EXISTING LINES
-X-X-X-	EQUIPMENT TO BE REMOVED
-RL-	EQUIPMENT TO BE RELOCATED
RV	EQUIPMENT TO BE REMOVED
—	CAPPED LINE
—o	PIPE RISE
—v	PIPE DROP
—S	SANITARY LINE BELOW GRADE
—S	SANITARY LINE ABOVE GRADE
—ST	STORM LINE BELOW GRADE
—ST	STORM LINE ABOVE GRADE
—C	COLD WATER CW
—H	HOT WATER HW
—T	HOT WATER RECIRCULATION HWR
—T	TEMPERED HOT WATER
FD	FLOOR DRAIN
—	FLOOR CLEANOUT
—	LINE CLEANOUT
—	GATE VALVE
—	BALL VALVE
—	BUTTERFLY VALVE
—	GLOBE VALVE
—	CHECK VALVE
BFP	BACKFLOW PREVENTOR
—	PUMP
—	WATER METER
—	HOSE BIB

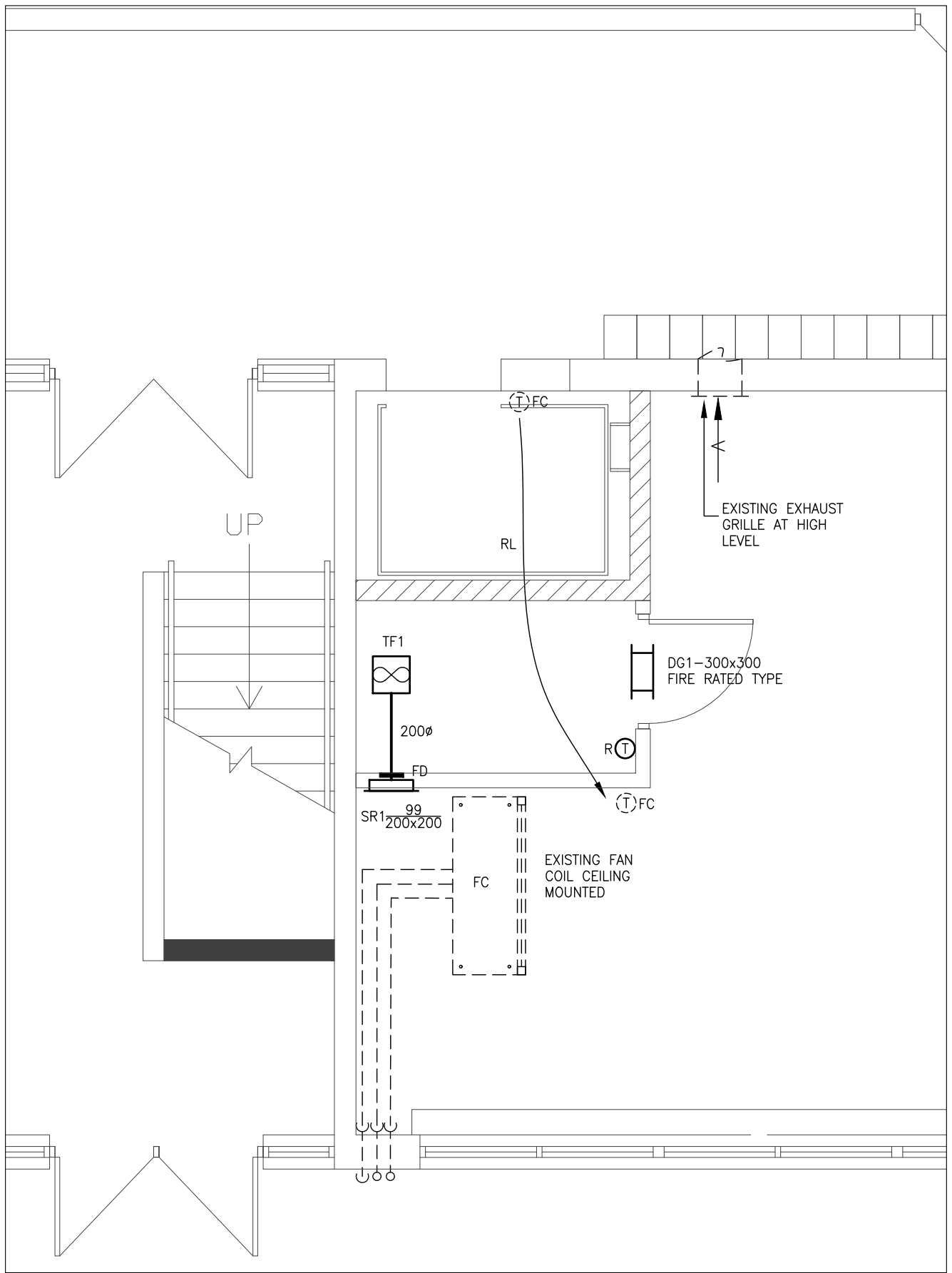
3	MAY27/26	ISSUED FOR CONSTRUCTION
2	APR.10/26	ISSUED FOR TENDER
1	MAR.19/26	ISSUED FOR PERMIT
NO.	DATE	REVISION
DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR DURING THE COURSE OF WORK.		
CoPa ENGINEERING LTD.		
29 ROLLING ACRES DR. KITCHENER, ONTARIO N2A 3W5 MOB: (519) 496-2672		
PROJECT INTERIOR RENOVATIONS FOR HWDSB NORWOOD PARK ACCESSIBILITY UPGRADES 165 TERRACE DR. HAMILTON ONTARIO		
DRAWING PLUMBING LAYOUTS		
DRAWN BY: C. P.		SCALE: 1:50
CHECKED BY: C. PASHARTIS		DATE: MARCH 19, 2026
PROJECT NO. 25CP096		DRAWING NO. M1-1



3 B.F. WASHROOM 203A
SECOND FLOOR HVAC RENOVATION
M2-1 1:50



2 ELEVATOR SHAFT
SECOND FLOOR HVAC RENOVATION
M2-1 1:50



1 ELEVATOR SHAFT AND LEARNING COMMONS 136
GROUND FLOOR HVAC RENOVATION
M2-1 1:50

HVAC LEGEND	
SYMBOL	DESCRIPTION
	NEW EQUIPMENT
	EQUIPMENT TO REMAIN
	EQUIPMENT TO BE REMOVED
	EQUIPMENT TO BE RELOCATED
	EQUIPMENT TO BE REMOVED
	DUCTING TO BE CAPPED
	SUPPLY DUCT
	EXHAUST/RETURN DUCT
	SUPPLY DIFFUSER
	DIFFUSER WITH BLANK SIDES
	SUPPLY REGISTER (WALL/SIDE DUCT MOUNTED)
	SUPPLY REGISTER
	ROUND DIFFUSER
	EXHAUST/RETURN GRILLE
	DIFFUSER/GRILLE DATA: A-REF, 2-L/S, 3-MM
	FLEXIBLE DUCT
	VOLUME CONTROL DAMPER
	SPLITTER DAMPER
	FIRE DAMPER
	EXHAUST FAN
	THERMOSTAT
	THERMOSTAT REVERSE ACTING 120v/1/60
	VARIABLE SPEED CONTROLLER
	OPPOSED BLADE MOTORIZED DAMPER
	ACOUSTIC LINING
	FLEXIBLE CONNECTION
	DOOR GRILLE
	TRANSFER AIR ELBOW ACOUSTICALLY LINED
	ELECTRIC FAN FORCED HEATER(BY MECHAN. DIV.)
	ELECTRIC BASEBOARD HEATER(BY MECHAN. DIV.)

3	MAY27/26	ISSUED FOR CONSTRUCTION
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PROJECT INTERIOR RENOVATIONS FOR HWDSB NORWOOD PARK ACCESSIBILITY UPGRADES 165 TERRACE DR. HAMILTON ONTARIO		
DRAWING HVAC LAYOUTS		
DRAWN BY: C. P.		SCALE: 1:50
CHECKED BY: C. PASHARTIS		DATE: MARCH 19, 2026
PROJECT NO. 25CP096		DRAWING NO. M2-1

GENERAL NOTES:

1. ANY COMBUSTIBLE MATERIALS INSTALLED IN THE CEILING SPACE USED AS A RETURN AIR PLENUM, SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50. PLUMBING AND HVAC CONTRACTORS SHALL COORDINATE WITH ALL OTHER TRADES.
2. WHERE CEILING SPACE IS TO BE USED AS A RETURN AIR PLENUM, ALL WIRING FOR CONTROL, TELEPHONE, DATA, SECURITY, SPEAKER WIRE ETC., SHALL BE FT6, CMP, MPP OR PLENUM VERIFIED.
3. THE SPECIFIED MANUFACTURERS MEANS THAT THE ITEM NAMED AND SPECIFIED, FORMS PART OF SPECIFICATION AND SETS STANDARD REGARDING PERFORMANCE, QUALITY OF MATERIAL AND WORKMANSHIP. ALTERNATE MANUFACTURERS WILL BE CONSIDERED AND ACCEPTED AS EQUAL PROVIDED THEY MEET THE STANDARD SPECIFIED.

MECHANICAL GENERAL REQUIREMENTS

1. DESCRIPTION OF WORK
 - 1. THE MECHANICAL CONTRACTOR SHALL FURNISH ALL LABOUR, MATERIAL, TOOLS, EQUIPMENT, SUPERVISION AND OTHER SERVICES AS MAY BE REQUIRED TO EXECUTE THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS.
2. SITE EXAMINATION
 - 1. BEFORE SUBMITTING TENDERS, CAREFULLY EXAMINE THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS HAVING A BEARING ON THE WORK. VISIT THE EXISTING BUILDING AND THOROUGHLY ASCERTAIN THE EXTENT AND NATURE OF ALL CONDITIONS AFFECTING THE PERFORMANCE OF WORK.
3. CODES AND STANDARDS
 - 1. THE INSTALLATION SHALL COMPLY WITH THE LATEST EDITIONS AND ALL AMENDMENTS OF THE FOLLOWING CODES AND STANDARDS, WHERE CONFLICTS IN REQUIREMENTS OCCUR, THE HIGHER STANDARDS WILL APPLY: ONTARIO BUILDING CODE, NATIONAL GAS INSTALLATION STANDARD CSA-B149.1 AND LOCAL CODES, STANDARDS AND BY-LAWS.
4. REGULATIONS, PERMITS, FEES, CONNECTION CHARGES AND CERTIFICATES
 - 1. ALL MATERIALS AND WORKMANSHIP SHALL MEET ALL PROVINCIAL BUILDING, MUNICIPAL, N.F.P.A. AND FIRE MARSHALL REGULATIONS, CODES AND BYLAWS IN FORCE IN THE AREA OF THE PROJECT.
 - 2. EACH CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY FOR ALL FEES AND CONNECTION CHARGES FOR ALL SERVICES PROVIDED BY THIS DIVISION.
5. COOPERATION OF TRADES
 - 1. READ SPECIFICATIONS AND DRAWINGS OF OTHER TRADES AND CONFORM WITH THEIR REQUIREMENTS BEFORE PROCEEDING WITH ANY WORK SPECIFIED IN THIS DIVISION RELATED TO OTHER TRADES.
6. DRAWINGS
 - 1. CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF THE MECHANICAL SYSTEMS AND WORK INCLUDED IN THE CONTRACT.
 - 2. WHERE THE EXACT LOCATIONS OF FIXTURES AND EQUIPMENT ARE NOT DEFINITELY ESTABLISHED, THE CONTRACTOR SHALL OBTAIN THIS INFORMATION FROM THE OWNER AND ENGINEER.
7. REMOVAL OF EXISTING EQUIPMENT
 - 1. EXAMINE THE EXISTING BUILDING AND INCLUDE IN TENDER PRICE ALL NECESSARY ALLOWANCES TO REMOVE EXISTING EQUIPMENT AS DETAILED ON DRAWINGS AND AS DIRECTED BY THE GENERAL CONTRACTOR.
 - 2. MATERIALS REMOVED BY THIS DIVISION SHALL BECOME CONTRACTOR'S PROPERTY AND BE REMOVED FROM WORK SITE, PROVIDED:
 - 1. THE ITEMS HAVE BEEN INSPECTED BY THE OWNER AND GENERAL CONTRACTOR AND RELEASED FOR REMOVAL.
 - 2. ITEMS HAVE NOT BEEN DESIGNATED FOR REUSE IN OTHER SECTIONS OF SPECIFICATIONS OR DRAWINGS.
8. ALTERATION TO EXISTING
 - 1. PRIOR TO REMOVAL AND ALTERATION OF THE EXISTING SYSTEMS, THE CONTRACTOR SHALL IDENTIFY TO THE ENGINEER AT WHICH SECTIONS OF THE EXISTING MECHANICAL EQUIPMENT, PIPING AND DUCTWORK SHALL BE CUT BACK AND REMOVED.
 - 2. RELOCATE EXISTING MECHANICAL EQUIPMENT AND APPURTENANCES AS SPECIFICALLY INDICATED ON DRAWINGS OR SPECIFIED AND AS REQUIRED TO SUIT ALTERATION WORK. CLEAN RELOCATED EQUIPMENT AND INSTALL IN NEW LOCATION, IN A NEAT ORDERLY MANNER WITH SAME ATTENTION AS GIVEN TO NEW EQUIPMENT, WHERE EXISTING MATERIAL OR EQUIPMENT IS NO LONGER REQUIRED, SHALL BE CUT BACK AND MAKE GOOD TO SATISFACTION OF THE ENGINEER. WHEN EXISTING MATERIAL OR EQUIPMENT IS DISCONNECTED OR DISASSEMBLED TO FACILITATE RELOCATION, REINSTALL AS ORIGINAL, INCLUDING AUXILIARY WORK, INSULATION, ELECTRICAL WORK ETC.
 - 3. WHERE EXISTING MATERIAL OR EQUIPMENT IS DAMAGED, MAKE GOOD TO THE SATISFACTION OF ENGINEER. IF IT IS FOUND IN AN UNSUITABLE CONDITION, NOTIFY ENGINEER FOR INSTRUCTIONS.
 - 4. OBTAIN WRITTEN AUTHORIZATION FROM ENGINEER FOR ALTERATION WORK THAT IS NOT SPECIFICALLY CALLED FOR OR CLEARLY INDICATED ON DRAWINGS.
9. PROTECTION OF OPENINGS
 - 1. PROTECT EQUIPMENT AND SYSTEMS OPENINGS FROM DIRT, DUST, AND OTHER FOREIGN MATERIALS.
 - 2. THIS CONTRACTOR SHALL PROTECT FINISHED AND UNFINISHED WORK OF HIS OWN AND OTHER SUBCONTRACTORS FROM DAMAGE DUE TO CARRYING OUT HIS WORK. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONDITION OF ALL MATERIALS AND EQUIPMENT SUPPLIED UNDER THIS CONTRACT OR REMOVED FROM EXISTING BUILDING FOR REUSE AND SHALL PROVIDE ALL NECESSARY PROTECTION FOR SAME. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND MAINTENANCE OF THE WORK OF THIS SECTION, UNTIL THE BUILDING HAS BEEN COMPLETED AND ACCEPTED.
10. CUTTING AND PATCHING
 - 1. RESPONSIBILITY FOR CUTTING OF OPENINGS TO WALLS, FLOORS, ROOF AND ANY OTHER SURFACES IN THE STRUCTURE SHALL BE COORDINATED WITH GENERAL CONTRACTOR. IN ADDITION, RESPONSIBILITY FOR THE PATCHING AND FINISHING OF THESE SURFACES AND ASSEMBLIES SHALL ALSO BE COORDINATED WITH GENERAL CONTRACTOR. WORK SHALL BE PERFORMED BY THE EXPERT TRADE WHO SPECIALIZE IN THEIR WORK. IN THE EVENT THE GENERAL CONTRACTOR WILL NOT BE RESPONSIBLE FOR THIS WORK, THIS SCOPE OF WORK SHALL BE INCLUDED UNDER THE MECHANICAL CONTRACTOR.
 - 2. BEFORE CUTTING OF OPENINGS IN THE STRUCTURE, THE CONTRACTOR SHALL IDENTIFY TO THE STRUCTURAL ENGINEER AND THE OWNER'S REPRESENTATIVE AT WHICH SECTIONS OF THE BUILDING STRUCTURE ARE TO BE CUT BACK. THE CUTTING, PATCHING AND FINISHING OF THE ASSEMBLIES RESTRICTED BY THE WORK OF THIS DIVISION SHALL BE PERFORMED BY THE AFFECTED/EXPERT TRADE.
 - 3. UNDER NO CIRCUMSTANCES SHALL ANY CUTTING OR BURNING OF THE STRUCTURAL PARTS OF THE BUILDING BE UNDERTAKEN WITHOUT THE WRITTEN AUTHORITY OF THE ENGINEER.
11. EXCAVATING, BACKFILLING, COMPACTING AND FLOOR CEMENTING
 - 1. RESPONSIBILITY FOR EXCAVATING, BACKFILLING AND COMPACTING FOR PLUMBING PIPES AND DRAINS PROVIDED BY THIS DIVISION SHALL BE COORDINATED WITH GENERAL CONTRACTOR. ALL BACKFILLING SHALL BE NEW CLEAN GRANULAR FILL BROUGHT IN SPECIFICALLY FOR THE PURPOSE OF BACKFILLING. ALL BACKFILLING SHALL BE COMPACTED AT INTERVALS OF NOT MORE THAN 6" LAYERS TO THE SATISFACTION OF THE ENGINEER. RESPONSIBILITY FOR FLOOR CEMENTING SHALL BE COORDINATED WITH GENERAL CONTRACTOR. IN THE EVENT THE GENERAL CONTRACTOR WILL NOT BE RESPONSIBLE FOR THIS WORK, THIS SCOPE OF WORK SHALL BE INCLUDED UNDER THE MECHANICAL CONTRACTOR.
12. EQUIPMENT INSTALLATION
 - 1. ALL EQUIPMENT, FIXTURES, PIPES, INSULATION AND ASSOCIATED APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - 2. SPACE FOR SERVICING, DISASSEMBLY AND REMOVAL OF EQUIPMENT AND COMPONENTS AS RECOMMENDED BY MANUFACTURER OR AS INDICATED.
 - 3. CONTROL PANELS, ELECTRICAL PANELS AND WIRING TERMINATION POINTS PROVIDE MINIMUM 40" CLEARANCE.
 - 4. EQUIPMENT DRAINS: PIPE TO FLOOR DRAINS.
13. ROOF CONES AND FLASHING
 - 1. ROOF CONES FOR PIPES AND ROUND DUCTS PENETRATING ROOF SHALL BE SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR.
 - 2. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO SEE THAT ACCEPTABLE FLASHINGS ARE INSTALLED WHERE NECESSARY FOR THE WORK OF HIS TRADE. COUNTER FLASHING IS BY ROOFING CONTRACTOR AT THE EXPENSE OF THE MECHANICAL CONTRACTOR.
14. SLEEVES
 - 1. THIS CONTRACTOR SHALL SUPPLY AND INSTALL SUITABLE SLEEVES FOR PIPING AND DUCTWORK PENETRATIONS TO THE BUILDING STRUCTURE.
 - 2. PIPE SLEEVES: INSTALL AT POINTS WHERE PIPES PASS THROUGH MASONRY, CONCRETE OR U.L.C. FIRE RATED ASSEMBLIES AND AS INDICATED.
 - 3. SCHEDULE 40 STEEL PIPE.
 - 4. SLEEVES WITH ANGULAR FIN CONTINUOUSLY WELDED AT MIDPOINT.
 - 5. SIZES: 1/4" CLEARANCE ALL AROUND, BETWEEN SLEEVE AND NON-INSULATED PIPE OR BETWEEN SLEEVE AND INSULATION.
 - 6. TERMINATE SLEEVES FLUSH WITH SURFACE OF CONCRETE AND MASONRY WALLS AND CONCRETE FLOORS ON GRADE IN FINISHED AREAS.
 - 7. FILL VOIDS AROUND PIPES:
 - 1. WHERE SLEEVES PASS THROUGH WALLS, PROVIDE SPACE FOR FIRE STOPPING. WHERE PIPES PASS THROUGH FIRE RATED WALLS AND PARTITIONS, MAINTAIN FIRE RATING INTEGRITY.
 - 2. ENSURE NO CONTACT BETWEEN COPPER TUBE OR PIPE AND FERROUS SLEEVE.
 - 3. FILL FUTURE-USE SLEEVES WITH LIME PLASTER OR OTHER EASILY REMOVABLE FILLER.
 - 4. COAT EXPOSED EXTERIOR SURFACES OF FERROUS SLEEVES WITH HEAVY APPLICATION OF ZINC RICH PAINT.
15. PREPARATION FOR FIRE STOPPING
 - 1. FIRE STOPPING MATERIALS AND INSTALLATION WITHIN ANNULAR SPACE BETWEEN PIPES, DUCTS, INSULATION AND ADJACENT FIRE SEPARATION: TO THE APPROVAL OF THE ENGINEER.
 - 2. UNINSULATED UNHEATED PIPES NOT SUBJECT TO MOVEMENT; NO SPECIAL PREPARATION.
 - 3. UNINSULATED HEATED PIPES SUBJECT TO MOVEMENT; WRAP WITH NON-COMBUSTIBLE SMOOTH MATERIAL TO PERMIT PIPE TO MOVE WITHOUT DAMAGING FIRE STOPPING.
 - 4. INSULATED PIPES AND DUCTS: ENSURE INTEGRITY OF INSULATION AND VAPOUR BARRIER AT FIRE SEPARATION.
16. ESOUTCHAINS
 - 1. PROVIDE ON EXPOSED PIPES PASSING THROUGH WALLS, PARTITIONS, FLOORS AND CEILINGS ON FINISHED AREAS.
 - 2. CHROME OR NICKEL PLATED BRASS OR TYPE 302 STAINLESS STEEL, SPLIT PIPE TYPE WITH SET SCREWS.
 - 3. OUTSIDE DIAMETER TO COVER OPENING OR SLEEVE.
 - 4. INSIDE DIAMETER TO FIT AROUND FINISHED PIPE.
 - 5. SECURE TO PIPE OR FINISHED SURFACE BUT NOT INSULATION.
17. TESTS
 - 1. INSULATE OR CONCEAL WORK ONLY AFTER TESTING AND APPROVAL BY ENGINEER.
 - 2. BEAR ALL COSTS IN CONNECTION WITH ALL TESTS, INCLUDING REPAIRING LEAKS RETESTING AND MAKING GOOD.
 - 3. PRIOR TO TESTS, ISOLATE ALL EQUIPMENT AND OTHER PARTS WHICH ARE NOT DESIGNED TO WITHSTAND TEST PRESSURES OR TEST MEDIMUM.
 - 4. PROVIDE CERTIFICATES INDICATING RESULTS OF ALL TESTS INCLUDING TEST LOGS.
 - 5. PIPING:
 - 1. PLUMBING LINES SHALL BE TESTED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
18. PIPE FLUSHING AND CLEANING
 - 1. AFTER PRESSURE TESTS ARE COMPLETED AND APPROVED, PRIOR TO START-UP AND PLACING INTO OPERATION, FLUSH AND CLEAN OUT ALL PIPING SYSTEMS.
 - 2. FOR DOMESTIC WATER SYSTEM, CLEAN AS PER ONTARIO BUILDING CODE AND LOCAL REQUIREMENTS.
19. ACCESS DOORS
 - 1. SUPPLY ACCESS DOORS TO CONCEALED MECHANICAL EQUIPMENT FOR OPERATING, INSPECTING, ADJUSTING AND SERVICING.
 - 2. ACCESS DOORS REQUIRED IN LISTED FIRE SEPARATION SHALL BEAR A U.L.C LABEL TO MATCH WALL CLASSIFICATION.
20. DIELECTRIC COUPLINGS
 - 1. PROVIDE WHERE PIPES OF DISSIMILAR METALS ARE JOINED. SHALL BE COMPATIBLE WITH AND TO SUIT PRESSURE RATING OF PIPING SYSTEM.
 - 2. PIPES NPS 2 AND UNDER SHALL BE WITH ISOLATING UNIONS. PIPES NPS 2 1/2 AND OVER SHALL BE ISOLATING FLANGES.
 - 3. PROVIDE FELT OR RUBBER GASKET TO PREVENT DISSIMILAR METALS CONTACT.
21. DRAIN VALVES
 - 1. LOCATE AT LOW POINTS AND AT SECTION ISOLATING VALVES UNLESS OTHERWISE SPECIFIED.
 - 2. MINIMUM NPS 3/4 UNLESS OTHERWISE SPECIFIED: BRONZE, WITH HOSE END MALE THREAD.
22. EQUIPMENT SUPPORTS
 - 1. EQUIPMENT SUPPORTS NOT SUPPLIED BY EQUIPMENT MANUFACTURER SHALL BE FABRICATED FROM STRUCTURAL GRADE STEEL.
 - 2. RESPONSIBILITY FOR ROOFING AND REINFORCING OF ROOF FOR MECHANICAL EQUIPMENT SUPPORT SHALL BE COORDINATED WITH GENERAL CONTRACTOR. IN THE EVENT THE GENERAL CONTRACTOR WILL NOT BE RESPONSIBLE FOR THIS WORK, THIS SCOPE OF WORK SHALL BE INCLUDED UNDER THE MECHANICAL CONTRACTOR.
23. PIPE HANGERS AND SUPPORTS
 - 1. PROVIDE UPPER ATTACHMENTS, MIDDLE ATTACHMENT ROD, PIPE ATTACHMENT, RISER CLAMPS, SADDLES, SHIELDS AND OTHER DEVICES. RIGID, SWING OR ANY OTHER HANGER SYSTEM SHALL BE SUITABLE FOR THE APPLICATION AND TAKE INTO ACCOUNT ATTACHMENT IN AREAS MADE OF CONCRETE, SLAB, CAST IN PLACE, WOOD JOISTS AND STEEL JOISTS AND FOR EXPANSION OF PIPING.
 - 2. HANGER SPACING AND MIDDLE ATTACHMENT (ROD) DIAMETER AS PER REGULATORY AUTHORITIES AND MANUFACTURER'S RECOMMENDATIONS.
 - 3. INSTALL HANGER SO THAT ROD IS VERTICAL UNDER OPERATING CONDITIONS. ADJUST HANGERS TO EQUALIZE LOAD. SUPPORT FROM STRUCTURAL MEMBERS, WHERE STRUCTURAL BEARING DOES NOT EXIST OR INSERTS ARE NOT IN SUITABLE LOCATIONS, PROVIDE SUPPLEMENTARY STRUCTURAL STEEL MEMBERS.
 - 4. WHERE SUPPORTING COPPER PIPE, IT SHALL BE ISOLATED FROM ANY NON-COPPER HANGER WITH ELECTROLYTIC ACTION TAPE OR EQUIVALENT.
24. SHOP DRAWINGS AND PRODUCT DATA
 - 1. EQUIPMENT SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
 - 2. SHOP DRAWINGS AND PRODUCT DATA SHALL SHOW:
 - 1. MOUNTING ARRANGEMENTS.
 - 2. OPERATING AND MAINTENANCE CLEARANCES, EG. ACCESS DOOR, SWING SPACES.
 - 3. TYPE, NAME, CATALOGUE NUMBERS, TECHNICAL PERFORMANCE DATA, WIRING DIAGRAMS ETC
25. PAINTING
 - 1. APPLY AT LEAST ONE COAT OF CORROSION RESISTANT PRIMER PAINT TO FERROUS SUPPORTS AND SITE FABRICATED WORK.
 - 2. PRIME AND TOUCH UP MARRED FINISHED PAINT WORK TO MATCH ORIGINAL.
 - 3. RESTORE TO NEW CONDITION, FINISHES WHICH HAVE BEEN DAMAGED TO EXTENSIVELY TO BE MERELY PRIMED AND TOUCHED UP.
 - 4. AT AREAS WHERE CUTTING AND PATCHING HAS TAKEN PLACE, PAINTING OF THESE AREAS SHALL BE UNDERTAKEN BY THE AFFECTED (EXPERT) TRADE AT THE EXPENSE OF THE MECHANICAL CONTRACTOR.
26. IDENTIFICATION
 - 1. IDENTIFY AND LABEL EQUIPMENT AND PIPEWORK SERVICES ON COMPLETION OF THE PROJECT.
 - 2. DOMESTIC WATER LINES SHALL SHOW SERVICE AND DIRECTION OF FLOW.
 - 3. EQUIPMENT, PANELS AND CABINETS, SYSTEM NAMEPLATES SHALL BE 1/8"THICK LAMINATED PLASTIC WITH LETTERS AND NUMBERS MACHINE ENGRAVED INTO CORE.
27. ELECTRICAL WORK
 - 1. ALL WIRING AND CONDUIT FOR POWER AND CONTROL SHALL BE BY ELECTRICAL DIVISION, EXCEPT FOR WIRING, CONDUIT AND CONNECTIONS BELOW 50V WHICH ARE RELATED TO AUTOMATIC CONTROL SYSTEMS SHALL BE BY MECHANICAL CONTRACTOR.
 - 2. COORDINATE WITH ELECTRICAL CONTRACTOR FOR WIRING AND TESTING OF ALL MECHANICAL EQUIPMENT.
28. CLEANING
 - 1. UPON COMPLETION AND IN PREPARATION FOR FINAL ACCEPTANCE, CONTRACTOR SHALL REMOVE PROTECTIVE COVERINGS, CLEAN AND REFURBISH ALL EQUIPMENT, FREE ALL OBSTRUCTIONS, REPLACE FILTERS, CLEAN STRAINERS AND LEAVE IN OPERATING CONDITION. ALL SURPLUS AND WASTE MATERIAL SHALL BE PROMPTLY REMOVED FROM THE PREMISES.
29. TRIAL USAGE
 - 1. OBTAIN WRITTEN PERMISSION FROM ENGINEER TO START AND TEST PERMANENT EQUIPMENT AND SYSTEMS TO ACCEPTANCE BY OWNER.
 - 2. ENGINEER AND OWNER MAY USE EQUIPMENT AND SYSTEMS FOR TEST PURPOSES PRIOR TO ACCEPTANCE. SUPPLY LABOUR, MATERIAL AND INSTRUMENTS REQUIRED FOR TESTING.
30. TESTING, ADJUSTING AND BALANCING (TAB)
 - 1. THIS OPERATION SHALL BE UNDERTAKEN BY A CONTRACTOR WHOSE PRINCIPAL BUSINESS IS THAT OF TESTING, ADJUSTING AND BALANCING. THIS CONTRACTOR IS TO CONDUCT ACCEPTANCE TESTS TO DEMONSTRATE THAT THE EQUIPMENT AND SYSTEMS ACTUALLY MEET THE SPECIFIED REQUIREMENTS. TESTS MAY BE CONDUCTED AS SOON AS CONDITIONS PERMIT. SUBMIT TAB REPORT TO ENGINEER FOR REVIEW.
 - 2. THE BALANCING CONTRACTOR SHALL BE AFFILIATED WITH ASBC OR NEBB.
 - 3. THIS CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF ALL "TAB" DEVICES, EQUIPMENT, ACCESSORIES, MEASUREMENT PORT AND FITTINGS. ALL NECESSARY TEST PORTS FOR HYDRONIC SYSTEM SHALL BE PROVIDED TO THE MECHANICAL CONTRACTOR FOR INSTALLATION. OPERATE SYSTEMS FOR LENGTH OF TIME REQUIRED FOR TAB. SUBMIT "TAB" REPORT TO ENGINEER FOR VERIFICATION. "TAB" SHALL BE CARRIED OUT FOR THE FOLLOWING SYSTEMS:
 - 1. ALL AIRFLOWS INDICATED.
 - 2. HYDRONIC FLOWS FOR NEW HEATING EQUIPMENT.
31. DEMONSTRATION, OPERATION AND MAINTENANCE INSTRUCTIONS
 - 1. SUPPLY TOOLS, EQUIPMENT AND PERSONNEL TO DEMONSTRATE AND INSTRUCT CLIENT'S REPRESENTATIVE DURING REGULAR WORK HOURS AND PRIOR TO ACCEPTANCE IN OPERATING, CONTROLLING, AND ADJUSTING OF ALL SYSTEMS AND EQUIPMENT.
32. OPERATION AND MAINTENANCE MANUAL
 - 1. PROVIDE OPERATION AND MAINTENANCE DATA FOR INCORPORATION INTO MANUAL.
 - 2. OPERATION AND MAINTENANCE MANUAL TO BE APPROVED BY AND FINAL COPIES DEPOSITED WITH ENGINEER BEFORE FINAL INSPECTION.
33. RECORD DRAWINGS
 - 1. SITE RECORDS:
 - 1. ON ONE SET OF AUTOCAD MECHANICAL DRAWINGS, MARK ALL CHANGES AS WORK PROGRESSES AND AS CHANGES OCCUR.
 - 2. MAKE AVAILABLE FOR REFERENCE PURPOSES AND INSPECTION AT ALL TIMES.
 - 2. AS-BUILT DRAWINGS:
 - 1. IDENTIFY EACH DRAWING IN LOWER RIGHT HAND CORNER IN LETTERS AT LEAST 1/2" HIGH AS FOLLOWS: "AS BUILT DRAWINGS: THIS DRAWING HAS BEEN REVISED TO SHOW MECHANICAL SYSTEMS AS INSTALLED" (SIGNATURE OF CONTRACTOR) (DATE).
 - 2. SUBMIT TO ENGINEER FOR APPROVAL AND MAKE CORRECTIONS AS DIRECTED.
 - 3. SUBMIT COMPLETED REPRODUCIBLE AS-BUILT DRAWINGS WITH OPERATING AND MAINTENANCE MANUALS.
34. GUARANTEE
 - 1. PROVIDE A WRITTEN GUARANTEE TO COVER ALL MATERIALS AND INSTALLATION OF THE COMPLETE MECHANICAL SYSTEMS. THIS GUARANTEE SHALL EXTEND FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE CERTIFICATE OF SUBSTANTIAL COMPLETION.
 - 2. SPECIFIC GUARANTEE OF MANUFACTURERS WHOSE WARRANTY NORMALLY EXTENDS OVER LONGER OR SHORTER PERIODS THAN ONE YEAR, SHALL IN NO WAY LIMIT THE GUARANTEE OF THE MECHANICAL WORK.
 - 3. ANY DEFECTS OCCURRING WITHIN THE GUARANTEE PERIOD SHALL BE REPAIRED/REPLACED AT NO COST TO THE OWNER.
 - 4. WHERE PERMANENT EQUIPMENT IS USED TO PROVIDE TEMPORARY SERVICES, THE WARRANTY SHALL BE EXTENDED SO THAT THE WARRANTY PERIOD DOES NOT COMMENCE UNTIL THE CERTIFICATE OF SUBSTANTIAL COMPLETION IS ISSUED.

PLUMBING GENERAL NOTES FOR INSTALLATION

1. DOMESTIC WATER PIPING WITHIN THE BUILDING:
 - 1. ABOVE GROUND SHALL BE SEAMLESS COPPER WATER TUBE, TYPE L WITH SOLDERED JOINTS.
 - 2. GRAVITY SANITARY, STORM AND VENT PIPE AND FITTINGS:
 - 1. BELOW GRADE SHALL BE PVC-SDR35 (8 IN. AND LARGER), PVC-SDR28 (6 IN. AND SMALLER), ABS-DWV OR PVC-DWV WITH SOLVENT WELD FITTINGS.
 - 2. ABOVE GROUND UP TO 2-1/2" DIA. SHALL BE PVC-DWV ULC APPROVED WITH SOLVENT WELD FITTINGS OR COPPER DWV WITH WROUGHT COPPER FITTINGS.
 - 3. ABOVE GROUND FOR 3" AND OVER SHALL BE PVC-DWV, ULC APPROVED WITH SOLVENT WELD FITTINGS OR CAST IRON WITH MECHANICAL JOINTS, NEOPRENE OR BUTYL RUBBER COMPRESSION GASKETS AND STAINLESS STEEL CLAMPS.
 - 4. IN A RETURN AIR PLENUM USE FULLY CERTIFIED FIRE-RESISTANT PVC-DWV PIPE SUCH AS IPEX SYSTEM XFR 15-50. COORDINATE WITH ARCHITECTURAL AND HVAC DRAWINGS TO CLARIFY AREAS WITH RETURN AIR PLENUM.
 - 3. COMBUSTIBLE PIPE SHALL NOT BE INSTALLED IN A VERTICAL SERVICE SHAFT.
 - 4. PUMPED SANITARY AND STORM LINE ABOVE GROUND, SHALL BE PVC SCH 40.
 - 5. WHERE PLASTIC PIPE CROSSES A FIRE SEPARATION IT SHALL BE FITTED WITH APPROVED FIRE STOP DEVICES.
 - 6. INSTALL PLUMBING VENT LINES AS PER OBC PART 7, DISTRIBUTION AND SIZING SHALL BE BY PLUMBING CONTRACTOR.
 - 7. FOR ALL PIPE PENETRATIONS, VOIDS AROUND PIPES SHALL BE SEALED AND CAULKED TO KEEP REQUIRED INTEGRITY.
 - 8. INSTALL PIPE CLEANOUTS FOR SANITARY AND STORM DRAINAGE LINES. FOR LINES UP TO 4" THE MAXIMUM SPACING SHALL BE 15 M (49 FT.) AND FOR 6" AND LARGER SHALL BE 30 M (98 FT.)
2. PLUMBING INSULATION
 - 1. PREFORMED SECTIONAL RIGID FIBREGLASS PIPE INSULATION WITH VAPOUR BARRIER JACKET AND FACING MATERIAL 0-850 DEG.F. SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50.
 - 1. APPLICATION:
 - 1. DOMESTIC COLD AND HOT WATER, HOT WATER RECIRCULATION LINE SHALL BE INSULATED THROUGHOUT IN ALL LOCATIONS.
 - 2. THICKNESS AND THERMAL CONDUCTIVITY AS PER FOLLOWING: RUNOUTS REFERS TO INDIVIDUAL PLUMBING FIXTURES OR TERMINAL UNITS NOT EXCEEDING 12FT.
 - 1. DOMESTIC COLD AND HOT WATER AND HOT WATER RECIRCULATION LINES:
 - 1. INSULATION THERMAL CONDUCTIVITY 0.24-0.28 BTUIN/(H.FT.FT.F) AT 100 DEG. F MEAN TEMP. RATING. NOMINAL PIPE DIAMETER UP TO 2 IN., INSULATION THICKNESS SHALL BE 1 IN. RUNOUTS UP TO 2 IN. NOMINAL PIPE SIZE, THICKNESS SHALL BE 1/2 IN.
 - 2. FASTENINGS:
 - 1. SELF-ADHESIVE ALUMINUM TAPE ULC LABELLED.
 - 2. LAP SEAL ADHESIVE, QUICK SETTING FOR JOINTS AND LAP SEALING OF VAPOUR BARRIERS.
 - 3. LAGGING ADHESIVE FIRE RETARDANT COATING.
3. ALL INSULATED EXPOSED PLUMBING PIPES RUNNING INSIDE THE BUILDING SHALL BE ENTIRELY INSTALLED WITH WHITE PVC JACKETING, UV-RESISTANT WITH MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50.
4. WHERE SUPPORTING COPPER PIPE, IT SHALL BE ISOLATED FROM ANY NON-COPPER HANGER WITH ELECTROLYTIC ACTION TAPE OR EQUIVALENT.
5. INSTALL VALVED SUPPLIES AT ALL PLUMBING FIXTURES.
6. INSTALL TRAP SEAL PRIMER FOR FLOOR DRAINS AND HUB DRAINS ON COLD WATER SUPPLY TO NEAREST FREQUENTLY USED PLUMBING FIXTURE OR TO A TRAP SEAL PRIMER. INSTALL SOFT COPPER TUBING OR PEK PIPE TO FLOOR DRAIN AND HUB DRAIN.
7. FOR ACCESSIBLE LAVATORY INSULATE SANITARY AND HOT WATER PIPE WITH 1 IN. THICKNESS OF INSULATION. INSULATION IS NOT REQUIRED IF KNEE CONTACT GUARD IS INSTALLED.
8. FOR THE REWORKING OF EXISTING DOMESTIC WATER LINES, NEW DOMESTIC WATER LINES TO RE-INTO EXISTING, CUTTING BACK AND CAPPING OF THE LINES, THIS WORK SHALL BE CARRIED OUT BY FREEZING EXISTING DOMESTIC WATER LINES.
9. SUMP PUMP SHALL BE INSTALLED WITH A UNION, CHECK VALVE AND A SHUT-OFF VALVE INSTALLED IN THIS SEQUENCE IN THE DIRECTION OF DISCHARGE.

HVAC GENERAL NOTES FOR INSTALLATION

1. UNLESS OTHERWISE NOTED ALL DUCTWORK AND DUCTWORK ACCESSORIES SHALL BE GALVANIZED STEEL LOW PRESSURE. DUCTWORK CONSTRUCTION AND INSTALLATION SHALL BE AS PER THE REQUIREMENTS OF SMACNA.
2. ALL DUCTWORK TRANSVERSE JOINTS AND CONNECTIONS SHALL BE SEALED WITH A DUCT SEALANT SUITABLE FOR THE APPLICATION.
 - 1. DUCTWORK EXPOSED TO THE EXTERIOR TO THE BUILDING SHALL BE WATERTIGHT AND DUCT SEALANT SHALL BE WATERPROOF.
3. DUCT OPENINGS ON ROOF, SHALL BE INSTALLED WITH BRODSGREEN.
4. DUCTWORK SHALL BE INSULATED AS FOLLOWS. ALL INSULATION SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50.
 - 1. EXHAUST DUCT 8 FT. FROM WALL/ROOF, SHALL BE INSULATED WITH 2 IN. THICKNESS OF FIBREGLASS FLEXIBLE DUCT INSULATION WITH REINFORCED FOIL/KRAFT VAPOUR RETARDER FACING, DENSITY 0.75 PCF AND NOMINAL R-VALUE OF 6.7 H.FT2/F.BTU.
2. FASTENINGS:
 - 1. SELF-ADHESIVE ALUMINUM TAPE ULC LABELLED.
 - 2. LAP SEAL ADHESIVE, QUICK SETTING FOR JOINTS AND LAP SEALING OF VAPOUR BARRIERS.
 - 3. CONTACT ADHESIVE QUICK SETTING.
5. WHERE DUCTS CROSS A FIRE SEPARATION, INSTALL FIRE DAMPERS TO SUIT APPLICATION. FIRE DAMPERS SHALL BE OF THE DYNAMIC CLOSURE TYPE WITH BLADE OUT OF AIRSTREAM, ULC LISTED AND FUSIBLE LINK WITH TEMPERATURE RATING TO SUIT APPLICATION. SHALL BE INSTALLED AS PER NPA 90A WITH BREAKAWAY JOINTS, RETAINING ANGLES AND ACCESS DOOR ADJACENT TO FIRE DAMPER.
6. FOR DUCT PENETRATIONS AT WALL, VOIDS AROUND DUCT SHALL BE SEALED AND CAULKED TO MAINTAIN REQUIRED INTEGRITY.
7. FLEXIBLE CONNECTIONS SHALL BE GALVANIZED SHEET METAL FRAME 24 GAUGE WITH FABRIC CLENCHED BY MEANS OF DOUBLE LOCKED SEAMS. DIMENSIONS 3 IN. METAL, 3 IN. FABRIC, 3 IN. METAL. NEOPRENE DOUBLE COATED GLASS FABRIC, NON-COMBUSTIBLE, SELF-EXTINGUISHING, AIRTIGHT AND WATERPROOF, TEMPERATURE RATED AT -40 DEG.F TO PLUS 200 DEG. F AND DENSITY OF 39 OZ./YD2.
 - 1. INSTALL AT INLET/OUTLET OF N-LINE FANS.

BUILDING AUTOMATION CONTROLS - (BAS)

1. THE BUILDING AUTOMATION CONTROLS SUPPLY AND INSTALLATION SHALL BE UNDERTAKEN BY THE CURRENT HVAC CONTROLS CONTRACTOR RESPONSIBLE FOR THE BUILDING AUTOMATION CONTROLS. CONTACT JAKE RENDULIC AT SIEMENS CANADA LTD, EMAIL: jake.rendulic@siemens.com.
2. THE BUILDING AUTOMATION CONTROLS SUPPLY AND INSTALLATION SHALL BE INCLUDED IN THE BASE BID AND INDICATED AS A SEPARATE PRICE. CONFIRM CONTROLS COMPANY TO BE USED.
3. RELOCATE THERMOSTAT AND CONTROL COMPONENTS SERVING CLASSROOM.
4. UPDATE GRAPHICS TO INCORPORATE:
 - 1. NEW ELEVATOR PIT SUMP PUMP FOR "STATUS" AND "ALARM". THE SUMP PUMP PANEL WILL LOCATED IN THE ELEVATOR MACHINE ROOM.
 - 2. -ELEVATOR MACHINE ROOM TRANSFER FAN TF1, "STATUS" AND "ALARM". SUPPLY AND INSTALL REVERSE ACTING THERMOSTAT FOR TF1.

PLUMBING FIXTURES AND EQUIPMENT SCHEDULE

- WC1 WATER CLOSET BARRIER-FREE, FLOOR MOUNTED, FLUSH TANK TYPE, LOW CONSUMPTION 1.3 IMP. G. (6.0L), ELONGATED BOWL WHITE FINISH, AMERICAN STANDARD 215AA 054 CADET PRO RIGHT HEIGHT, LINED TANK, OPEN FRONT TOILET SEAT LESS COVER, CENTIGO 5000C WHITE FINISH. COMPLETE WITH FLEX SUPPLY WITH SCREENED LOCKSHIELD STRUCTURE. SEAT SHALL BE LOCATED NOT LESS THAN 430 MM AND NOT MORE THAN 450MM ABOVE THE FLOOR.
- V1 VANITY BASIN, OVAL SHAPE, BARRIER-FREE, VITREOUS CHINA, AMERICAN STANDARD 0419 111EC CADET, CENTRE HOLE ONLY, WHITE FINISH, FAUCET SET, DELTA 22C651. OFFSET P.O. PLUG, CHROME PLATED P-TRAP AND FLEX SUPPLIES WITH HANDLE LOCKSHIELD STRUCTURE. MOUNTING HEIGHT AND CLEARANCES BELOW THE BASIN SHALL COMPLY AS PER 0.6 C. 3.8.3.11. INSTALL WITH MIXING VALVE SYMONS 7-210-26.
- P1 ELEVATOR SUMP PUMP, MYERS ME3F, 55 US.GPM, AT 12 FT. HEAD, WITH WIDE ANGLE PIGGY-BACK FLOAT SWITCH, FIBERGLASS BASIN 24"DAx30" DEPTH, BASIN COVER, CHECK VALVE AND GATE VALVE AND HIGH WATER ALARM BUZZER 115V/1/60. ELECTRICAL DATA: 115V/1/60, ½, HP MOTOR, 11.5 A.
- PD1 ELEVATOR PIT DRAIN, WATTS BV-600, COMPLETE WITH REMOVABLE BACKWATER VALVE AND SEAT.
- HVAC EQUIPMENT SCHEDULE
- EF1 EXHAUST FAN, CEILING MOUNTED, BROAD L150E, 103 CFM AT 0.25" S.P., 0.7 SONES. SHALL BE COMPLETE WITH METAL GRILLE AND MOTION SENSOR. ELECTRICAL DATA: 120V/1/60, 0.3A, 803 RPM. ACTIVATED BY MOTION SENSOR.
- TF1 TRANSFER FAN, CEILING MOUNTED, BROAD L200E, 214 CFM AT 0.25" S.P., 1.7 SONES. SHALL BE COMPLETE WITH METAL GRILLE AND REVERSE ACTING THERMOSTAT. ELECTRICAL DATA: 120V/1/60, 0.5A, 1031 RPM. ACTIVATED BY REVERSE ACTING THERMOSTAT 120V/1/60. TRANSFER FAN IS NORMALLY "OFF". UPON A RISE IN ROOM TEMPERATURE, THE FAN SHALL BE ENERGIZED.
- DIFFUSERS, GRILLES AND REGISTERS BY E.H. PRICE UNLESS OTHERWISE INDICATED. COLOUR TO BE FINALIZED ON SITE WITH ARCHITECT.
- REF. SR1: SUPPLY GRILLE DOUBLE DEFLECTION, 520/F/A/A. REF. DG1: DOOR GRILLE, FIRE RATED TYPE, NAYLOR IND. MOD. 610GD-FR

ELECTRICAL SPECIFICATION

GENERAL CONDITIONS

- THE CANADIAN STANDARD FORM OF CONSTRUCTION CONTRACT AND GENERAL CONDITIONS GOVERNING THE SAME CCDC PARTS 1 TO 12 INCLUSIVE ARE HEREBY MADE PART OF THIS SPECIFICATION.
- ALL WORK SHALL BE IN FULL ACCORDANCE WITH THE REQUIREMENTS OF THE 2021 ONTARIO ELECTRICAL SAFETY CODE, ELECTRICAL SAFETY AUTHORITY (ESA), AND THE LOCAL BUILDING INSPECTION DEPARTMENT REQUIREMENTS.
- ELECTRICAL CONTRACTOR SHALL INCLUDE FOR ESA INSPECTION FEES.
- THIS CONTRACTOR SHALL MAINTAIN LIABILITY INSURANCE AS REQUIRED.
- ALL WORKMANSHIP SHALL BE EXECUTED TO A STANDARD DETERMINED BY GOOD PRACTICE. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE THE EQUIPMENT & INSTALLATION FOR ONE YEAR FROM SUBSTANTIAL COMPLETION.
- THE ELECTRICAL CONTRACTOR SHALL SUBMIT ONE SET OF ELECTRONIC PDF SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW. SHOP DRAWINGS TO INCLUDE ALL ELECTRICAL EQUIPMENT, DEVICES & ULC LISTED FIRE STOPPING DETAILS. MATERIALS **SHALL NOT BE ORDERED** UNTIL REVIEW HAS BEEN COMPLETED. APPROVAL IS FOR GENERAL DESIGN COMPLIANCE ONLY.
- THE OWNERS RESERVE THE RIGHT TO ALTER THE LOCATION OF ANY ITEM UP TO TEN FEET (3m) WITHOUT INCURRING EXTRA COSTS, PROVIDED THE REQUEST IS MADE PRIOR TO INSTALLATION.
- ALL MATERIAL AND EQUIPMENT USED ON THIS PROJECT SHALL BE C.S.A. APPROVED, ESA FIELD EVALUATED, OR MUST BEAR AN ESA RECOGNIZED CERTIFICATION MARK.
- CUTTING AND PATCHING FOR ELECTRICAL WORK SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE EXISTING CONDITIONS AND THEN MAKE NECESSARY ALLOWANCES IN THEIR TENDER PRICE FOR REMOVAL, RELOCATION, REROUTING AND/OR RECONNECTION OF EXISTING ELECTRICAL EQUIPMENT AND WIRING, AS MAY BE NECESSARY FOR THE EXECUTION AND COMPLETION OF THIS PROJECT. EXTRA CHARGES FOR PREMIUM TIME LABOUR SHALL BE INCLUDED IN THE TENDER PRICE, ALLOWING FOR AFTER HOURS, WEEKEND AND HOLIDAY LABOUR REQUIREMENTS.
- THE DRAWINGS AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES OR CONTRADICTIONS SHALL BE BROUGHT TO THE CONSULTANT'S ATTENTION.
- THE ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT **IS TO BE CONFIRMED** WITH MECHANICAL DRAWINGS & SCHEDULES PRIOR TO RELATED WORK.
- ALL TEMPORARY LIGHTING AND POWER DURING CONSTRUCTION SHALL BE BY THE GENERAL CONTRACTOR AFTER AGREEMENT WITH THE ELECTRICAL CONTRACTOR. POWER SHALL BE PROVIDED FROM PANELS WITH REQUIRED SUPPLY AND CAPACITY.
- TENDER SHALL BE BASED UPON THE SPECIFIED EQUIPMENT AND MATERIAL. REQUESTS FOR CONSIDERATION OF ALTERNATES TO THE SPECIFIED MATERIALS SHALL BE MADE TO THE CONSULTANT ONE WEEK PRIOR TO TENDER CLOSING AND SHALL INCLUDE MANUFACTURER, MODEL, AND COST MODIFICATION. COSTS OF ANY CHANGE REQUIRED TO OTHER TRADES AS A RESULT OF USING ALTERNATE EQUIPMENT ARE TO BE INCURRED BY THE ELECTRICAL CONTRACTOR.
- ALL CLAIMS FOR EXTRA WORK NOT COVERED IN THE CONTRACT TO BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIALS AND LABOUR.
- DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS ARE TO BE TAKEN FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.
- PROVIDE FIRE STOPPING PROTECTION FOR OPENINGS THROUGH ALL FIRE RATED ASSEMBLIES. ULC LISTED ASSEMBLY NUMBERS ARE TO BE USED.
- LOW VOLTAGE CABLES (IE: NETWORK, SECURITY, CONTROL, ETC...) ROUTED WITHIN PLENUM SPACES SHALL BE FT6, CMP OR PLENUM RATED WHEN ROUTING THROUGH MECHANICAL CEILING PLENUMS.

MOUNTING HEIGHTS

- | | | |
|----|---|-------------------------------------|
| 1. | DEVICE MOUNTING HEIGHT TO CENTRE OF DEVICE IS AS FOLLOWS: | |
| • | LIGHT SWITCHES | 1090mm (or 1200mm in SERVICE ROOMS) |
| • | RECEPTACLE | 400mm |
| • | DATA OUTLETS | 400mm |
| • | POWER DOOR OPERATORS | 1000mm |
| • | FIRE ALARM HORN/STROBE | 2300mm |
| • | FIRE ALARM MANUAL PULL STATION | 1150mm |
| • | FIRE ALARM END OF LINE RESISTORS | 1700mm |
| • | OTHER BUILDING CONTROLS | 1000mm |

ELECTRICAL EQUIPMENT, DEVICES & MATERIAL

- ALL EQUIPMENT, DEVICES & MATERIAL TO BE INSTALLED AS PER MANUFACTURERS INSTRUCTIONS.
- ALL BRANCH CIRCUIT WIRING SHALL BE RUN IN ELECTRICAL METALLIC TUBING (E.M.T.) OR FLEXIBLE ARMoured CABLE (AC90) RECESSED IN WALLS OR CEILINGS EXCEPT WHERE SPECIFICALLY NOTED ON THE PLANS. ALL WIRING TO BE COPPER AND MINIMUM #12 AWG UNLESS STATED OTHERWISE. ALL SURFACE WIRING SHALL BE T90/RW90 COPPER IN EMT CONDUIT SURFACE WIREMOLD PAINTED TO MATCH WALL WHERE WIRING AND CONDUIT CANNOT BE RECESSED.
- ALL DEVICES MOUNTED ON CORE SLAB SHALL BE FED WITH WIRING CONCEALED WITHIN THE CORES. UNFINISHED AREAS SUCH AS UTILITY OR STORAGE ROOMS MAY BE SURFACE EMT.
- ALL BELOW GRADE WIRING SHALL BE RW90 COPPER IN RIGID PVC CONDUIT UNLESS OTHERWISE NOTED.
- ALL ELECTRICAL DEVICES AND LIGHTING CONTROLS, TO HAVE **TYPED CIRCUIT LABEL** ON DEVICE COVER PLATE. LABEL TO BE BLACK LETTERING ON CLEAR BACKING.
- THE ELECTRICAL CONTRACTOR SHALL SUPPLY ALL LABOUR AND MATERIALS TO PROVIDE ELECTRIC SERVICE COMPLETE WITH FEEDERS AND BRANCH CIRCUITS ALL AS SHOWN ON THE PLANS. CONTRACTOR TO COORDINATE WITH UTILITY FOR NEW INCOMING ELECTRICAL SERVICE.
- ELECTRICAL PANELS TO HAVE BOLT ON CIRCUIT BREAKERS. ALL PANELS TO HAVE HINGED LOCKABLE PANEL COVERS. PANELS SHALL HAVE TYPED DIRECTORIES.
- ALL NON-RESIDENTIAL EQUIPMENT (PANELS, SWITCHBOARDS, SPLITTERS, TRANSFORMERS, ETC...) TO HAVE LAMACOID LABEL INDICATING: EQUIPMENT ID, VOLTAGE, PHASE/WIRE, AND "SUPPLIED FROM: EQUIPMENT ID".
- ALL JUNCTION AND PULL BOXES ARE TO BE ACCESSIBLE AND BE PROVIDED WITH SCREWED PLATES COLOUR MATCHED TO ADJACENT WALL OR CEILING FINISHES.
- PULL BOXES SHALL BE PROVIDED EVERY 30m AND EVERY THREE 90° BENDS.
- ALL WIRING SHALL BE PARALLEL WITH ARCHITECTURAL LINES AND DESIGN.
- PROVIDE A NYLON PULL STRING IN ALL EMPTY CONDUIT.
- ALL NEW SWITCH AND RECEPTACLE DEVICES & PLATES SHALL BE WHITE NYLON. ALL DEVICES TO BE COMMERCIAL GRADE DECORA SERIES OR EQUAL UNLESS OTHERWISE STATED. DO NOT MOUNT WALL OUTLETS BACK TO BACK IN WALLS, STAGGER TO PREVENT SOUND TRANSFER.
- WIRING TO FIXTURES IN SUSPENDED CEILINGS IS TO CONSIST OF AC90 'DROPS' WITH A MAXIMUM LENGTH OF 4.5m (15 FT) AND T90 WIRING IN EMT CONDUIT BACK TO SOURCE PANEL.
- ALL CONDUITS TO BE SECURELY FASTENED WITH APPROVED CLIPS AND SCREWS. NAILS OR TIE WIRES ARE NOT ACCEPTABLE.
- ALL ELECTRICAL EQUIPMENT, DEVICES, AND WIRING ARE TO BE INDEPENDENTLY SUPPORTED. KEEP CLEAR OF MECHANICAL PIPING WHERE POSSIBLE.
- WIRING FOR MECHANICAL EQUIPMENT SHALL BE AS DETAILED ON THE PLANS.
- PROVIDE 21mm (3/4") CONDUIT RACEWAY BETWEEN MECHANICAL EQUIPMENT AND CONTROLS AS PER MECHANICAL AND ELECTRICAL PLANS.
- PROVIDE EQUIPOTENTIAL BONDING OF NON-ELECTRICAL EQUIPMENT AS PER OESC 10-700, AND WIRE MESH/REBAR SUPPORTING ELECTRICAL RADIANT HEATING CABLES. REFER TO MECHANICAL AND ARCHITECTURAL PLANS.

COMMUNICATION SYSTEM

- THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE EMPTY CONDUIT SYSTEM FOR COMMUNICATION OUTLETS AS SHOWN ON THE PLANS.
- PROVIDE CONDUIT AS PER LOW-VOLTAGE DEVICE SCHEDULE. CONDUIT TO BE METALLIC CONDUIT & FIRE STOPPED WHEN PENETRATING FIRE SEPARATIONS.
- PROVIDE NYLON PULL STRING IN ALL EMPTY CONDUITS.

LIGHTING

- SUPPLY AND INSTALL LIGHTING FIXTURES AND DEVICES AS NOTED ON THE PLANS AS PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
- INSTALL ALL FIXTURES PARALLEL WITH BUILDING LINES UNLESS INDICATED OTHERWISE.
- FOR RECESSED FIXTURES (LED PLUCK LIGHTS EXEMPTED) WITHIN SUSPENDED CEILINGS, PROVIDE EITHER:
A. SAFETY "JACK CHAIN" TO BUILDING STRUCTURE, OR
B. MANUFACTURER APPROVED FASTENING DEVICES OR "EARTHQUAKE CLIPS" FASTENED TO T-BAR.
- INSTALL A SEPARATE NEUTRAL CONDUCTOR FOR EACH LIGHTING BRANCH CIRCUIT.
- LIGHTING CONTROL WIRING NOT RUN WITHIN CONDUIT SHALL BE PLENUM RATED (FT6).

FIRE ALARM

- GENERAL:
- FIRE ALARM WIRING SHALL BE MINIMUM #18 AWG 300V FAS CABLE (WIRING TO BE SIZED BY FIRE ALARM VENDOR FOR VOLTAGE DROP) RUN AS FOLLOWS:
A. EXPOSED WALL: SURFACE WALL WIRING SHALL BE FAS WIRING IN SURFACE METAL WIREMOLD PAINTED TO MATCH WALL WHERE WIRING AND CONDUIT CANNOT BE RECESSED.
B. ACCESSIBLE CEILING SPACES, CONCEALED SPACES, FINAL DEVICE CONNECTIONS: ARMoured FAS CABLE
C. EXPOSED CEILING, RISER CLOSETS, SERVICE ROOMS: FAS WIRING IN EMT CONDUIT.
D. BELOW GRADE: FAS WIRING IN CONCRETE ENCASED PVC CONDUIT.
 - COMMISSIONING OF LIFE SAFETY SYSTEMS **SHALL BE INCLUDED** IN ELECTRICAL CONTRACTORS PRICE.
 - FIRE ALARM SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH CAN/ULC-5524:2019, "INSTALLATION OF FIRE ALARM SYSTEMS".
 - FIRE ALARM SYSTEM SHALL BE VERIFIED IN CONFORMANCE WITH CAN/ULC-5537:2019, "VERIFICATION OF FIRE ALARM SYSTEMS" BY A THIRD PARTY (ARMS LENGTH).
 - ANNUNCIATOR PANEL TO BE UPDATED WITH NEW ZONES LABELS. PASSIVE GRAPHIC BESIDE ANNUNCIATOR PANEL TO BE REPLACED WITH NEW PASSIVE GRAPHIC SHOWING NEW/UPDATED ZONES.
A. THE FIRE DEPARTMENT AND BUILDING OCCUPANTS SHALL BE NOTIFIED, AND
B. IF APPLICABLE THE SUPERVISORY STAFF SHALL BE NOTIFIED, AND
C. POST NOTICES ON ALL FLOORS BY ELEVATORS AND AT ENTRANCES, STATING THE SCOPE OF WORK AND WHEN IT IS EXPECTED TO BE COMPLETED.
 - HAVE STAFF OR OTHER RELIABLE PERSON(S) PATROL THE AFFECTED AREA(S) AT LEAST ONCE EVERY HOUR. REFER TO CAN/ULC-5537:2019(18) APPENDIX B - ALTERNATE MEASURES FOR OCCUPANT FIRE SAFETY.
 - WHERE EXISTING, UNLESS NOTED OTHERWISE, FIRE ALARM TO BE KEPT. THE ELECTRICAL CONTRACTOR TO INCLUDE ALL COSTS ASSOCIATED WITH RELOCATION OF ANY DEVICES OR EQUIPMENT.
 - NEW LIFE SAFETY DEVICES SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM. WHERE EXISTING ZONE CIRCUITS ARE USED TO FEED NEW DEVICES, CONTRACTOR TO CONFIRM EXISTING INITIATING AND ANNUNCIATING ZONE WIRING IS COMPLETE WITH A BOND WIRE PRIOR TO RELATED WORK.
 - FIRE ALARM PANEL SHALL PROVIDE EMERGENCY BATTERY BACKUP TO SUPPLY SUPERVISORY POWER FOR NOT LESS THAN 24H AND IMMEDIATELY FOLLOWING FULL LOAD FOR NOT LESS THAN: 30MIN, 5MIN (NO ANNUNCIATOR)
 - CIRCUIT BREAKER SUPPLYING THE FIRE ALARM SYSTEM SHALL BE CLEARLY LABELLED, COLOURED RED, AND BE LOCKABLE IN THE ON POSITION.
 - DWELLING UNIT PANEL SIGNAL SILENCE:
A. CANNOT OCCUR WITHIN THE FIRST 60s OF OPERATION OR WITHIN THE ZONE OF INITIATION
B. A SUBSEQUENT TIME IN THE BUILDING WILL REACTUATE THE SILENCED AUDIBLE SIGNAL DEVICES WITHIN DWELLING UNITS.
C. AFTER A PERIOD OF NOT MORE THAN 10MIN, THE SILENCED AUDIBLE SIGNAL DEVICES WILL BE RESTORED TO CONTINUOUS AUDIBLE SIGNAL IF THE ALARM IS NOT ACKNOWLEDGED.
 - PROVIDE MONITORING NOTIFICATION SIGNALS TO A CENTRAL STATION CONFORMING TO CAN/ULC-5561-19, "INSTALLATION AND SERVICES FOR FIRE SIGNAL RECEIVING CENTRES AND SYSTEMS" OR TO THE MUNICIPAL FIRE ALARM SYSTEM.
OR
PROVIDE 'LEGIBLE NOTICE' THAT IS NOT EASILY REMOVED, AFFIXED TO THE WALL NEAR EACH MANUAL PULL STATION, "IN EVENT OF FIRE DIAL 911".

EXISTING CONDITIONS

- ELECTRICAL WORK AFFECTING OTHER TENANTS SHALL BE PERFORMED AFTER BUSINESS HOURS (EVENINGS AND WEEKENDS). COORDINATE WITH LANDLORD.
- SERVICE AND DISTRIBUTION SYSTEM POWER INTERRUPTIONS SHALL BE KEPT TO A MINIMUM. POWER INTERRUPTIONS MUST BE COORDINATED WITH THE OWNER AND ALL OTHER TRADES BY THIS CONTRACTOR. WRITTEN APPROVAL FOR ELECTRICAL INTERRUPTIONS MUST BE RECEIVED FROM THE OWNER INDICATING THE DATE, TIME AND ESTIMATED DURATION OF THE INTERRUPTION. APPLICATION FOR APPROVAL OF THE POWER INTERRUPTIONS MUST BE SUBMITTED TO THE OWNERS AND/OR ARCHITECTS AT LEAST TWO WEEKS PRIOR TO THE REQUESTED SHUTDOWN DATE.
- EXISTING ELECTRICAL EQUIPMENT, REMOVED AND INDICATED FOR REUSE, SHALL BE CLEANED BEFORE RE-INSTALLATION.
- WIRING LOCATED IN AREAS BEING ALTERED OR DEMOLISHED, BUT FEEDING OUTLETS OR EQUIPMENT REQUIRED TO REMAIN IN SERVICE, MUST BE REWORKED IN ORDER TO MAINTAIN THE CONTINUITY OF THE EXISTING WIRING.
- REPAIRS TO EXISTING WALLS, FLOORS, AND CEILINGS ARE TO BE PERFORMED BY THE GENERAL CONTRACTOR TO MEET THE EXISTING CONDITIONS.
- SEQUENCE OF REMOVAL AND RELOCATION OF EXISTING EQUIPMENT AND WIRING SHALL BE COORDINATED WITH THE OTHER TRADES AND SHALL CONFORM TO THE REQUIREMENTS AND CONDITIONS OUTLINED.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION TO EXISTING WIRING AND EQUIPMENT THROUGHOUT THE PROJECT, PARTICULARLY WHERE WIRING AND ELECTRICAL EQUIPMENT HAVE BECOME EXPOSED TO MECHANICAL DAMAGE OR MOISTURE IN THE COURSE OF ALTERATIONS OR NEW CONSTRUCTION.
- NEW OUTLETS AND EQUIPMENT SHOWN IN THE SAME LOCATION AS EXISTING OUTLETS MAY BE FED THROUGH THE EXISTING CONDUITS/WIRING, PROVIDED THAT THEY ARE IN GOOD CONDITION AND ARE ACCEPTABLE TO THE ESA INSPECTION DEPARTMENT.

DEMOLITION

- ALL EXISTING ELECTRICAL EQUIPMENT, WIRING, AND ROUGH-IN DEVICES ARE TO BE REMOVED COMPLETE TO SUIT THE DEMOLITION AND RENOVATION OF THE SPACES. ALL EXISTING ELECTRICAL EQUIPMENT, NOT BEING REUSED, SHALL BECOME THE PROPERTY OF THE OWNER. ELECTRICAL CONTRACTOR SHALL PROPERLY DISPOSE OF EQUIPMENT NOT DESIRED BY OWNER.
- ALL DEVICES & EQUIPMENT MADE OBSOLETE SHALL BE REMOVED FROM THE CONSTRUCTION SITE.

GENERAL CLOSE OUT PROCEDURES

- DOCUMENTS:** ELECTRICAL CONTRACTOR TO SUBMIT:
 - FIRE ALARM SYSTEM ULC-5537:2019 VERIFICATION REPORT (INCLUDING DEVICE & AUDIBILITY REPORT).
 - ESA CERTIFICATE OF INSPECTIONS.
 - SIGNED COPY OF EMERGENCY LIGHTING TEST REPORT. EMERGENCY LIGHTING TEST REPORT TO INDICATE TOTAL RUNTIME OF EMERGENCY LIGHTING ONCE NORMAL POWER IS LOST FOR EACH BATTERY SYSTEM. (MINIMUM 30MIN AS PER OBC:3.2.7.4(1b))
- TRAINING:** ELECTRICAL CONTRACTOR SHALL PROVIDE TRAINING SESSIONS TO THE OWNER ON ALL MAJOR ELECTRICAL SYSTEMS.
- COMMISSIONING:** ALL MAJOR SYSTEMS ARE TO BE COMMISSIONED BY THE MANUFACTURERS REPRESENTATIVE INCLUDING FIRE ALARM, LIGHTING CONTROL SYSTEMS.
- RECORD DRAWINGS:** ELECTRICAL CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF ACTUAL INSTALLATION TO OWNERS WITHIN 30 DAYS OF SYSTEM ACCEPTANCE. DRAWINGS ARE TO INCLUDE SINGLE LINE DIAGRAM OF DISTRIBUTION SYSTEM; FLOOR PLANS SHOWING THE LOCATION OF DISTRIBUTION EQUIPMENT AND THE AREAS SERVED BY THAT EQUIPMENT; CHANGES TO LIGHTING, LIGHTING CONTROLS & CIRCUITING.

INSPECTIONS BY CONSULTANT

- CONTRACTOR SHALL NOTIFY CONSULTANTS WHEN INSPECTIONS ARE REQUIRED. ALLOW FOR MINIMUM OF THREE BUSINESS DAYS OF NOTICE PRIOR TO INSPECTION.
- INSPECTIONS ARE REQUIRED AT THE FOLLOWING MILESTONES:
A. DEVICE ROUGH-IN (PRIOR TO DRYWALL)
B. FINAL INSPECTION

All Sheet Notes	
#	NOTE
L1	REWORK NEW LIGHTING CONTROL TO EXISTING LIGHTING CIRCUIT.
P1	REWORK EXISTING POWER/DATA USING EXISTING CIRCUIT IN NEW LOCATION.

ELECTRICAL LEGEND

SCHEDULE (x = TYPE)	EXISTING	DEMO	NEW	DESCRIPTION
LIGHTING DEVICE SCHEDULES	\$	\$	\$ x	LIGHT SWITCH
	⌚	⌚	⌚ x	DIMMER SWITCH
	⊗	⊗	⊗ x	LIGHTING MOTION SENSOR
LIGHTING FIXTURE SCHEDULES	⊗	⊗	⊗ x	EXIT SIGN, CEILING MOUNT, HATCH = SIGN, ARROW = DIRECTION
	⊗	⊗	⊗ x	EXIT SIGN, WALL MOUNT, HATCH = SIGN, ARROW=DIRECTION
	⊗	⊗	⊗ x	EXIT / EMERG COMBO, WALL MOUNT, HATCH=SIGN, ARROW=DIRECTION
	⊗	⊗	⊗ x	EMERGENCY LIGHT, BATTERY UNIT
	⊗	⊗	⊗ x	EMERGENCY LIGHT, REMOTE HEAD
	⊗	⊗	⊗ x	LIGHTING FIXTURE
ELECTRICAL EQUIPMENT SCHEDULES	⊗	⊗	⊗ x	WALL MOUNTED LIGHTING FIXTURE
	⊗	⊗	⊗ x	LIGHTING FIXTURE
	⊗	⊗	⊗ x	ELECTRICAL POWER PANEL
ELECTRICAL DEVICE SCHEDULES	⊗	⊗	⊗ x	ELECTRICAL DISCONNECT (FUSED OR UNFUSED)
	⊗	⊗	⊗ x	ELECTRICAL EQUIPMENT - MISCELLANEOUS
	⊗	⊗	⊗ x	HARDWIRE CONNECTION
LOW VOLTAGE DEVICE SCHEDULES	⊗	⊗	⊗ x	DUPLEX RECEPTACLE 15A
	⊗	⊗	⊗ x	DUPLEX RECEPTACLE 15A - COUNTER (100mm ABOVE BACKSPLASH)
	⊗	⊗	⊗ x	DUPLEX RECEPTACLE 20A
	⊗	⊗	⊗ x	DUPLEX RECEPTACLE 20A - COUNTER (100mm ABOVE BACKSPLASH)
	⊗	⊗	⊗ x	SPECIAL RECEPTACLE
	⊗	⊗	⊗ x	DATA OUTLET
FIRE ALARM DEVICE SCHEDULES	⊗	⊗	⊗	PUSHBUTTON (BOX & 16mm EMT TO ACCESSIBLE CEILING SPACE)
	⊗	⊗	⊗	UNIVERSAL WASHROOM: ASSISTANCE REQUESTED AUDIBLE VISUAL SIGNAL
	⊗	⊗	⊗	COMMUNICATION BACKBOARD - PLYWOOD GOOD ONE SIDE
	⊗	⊗	⊗	WIFI ACCESS POINT
	⊗	⊗	⊗	SOUND SPEAKER
	⊗	⊗	⊗	SMOKE ALARM
	⊗	⊗	⊗	CO2 ALARM - 120V C/W BATTERY BACKUP
	⊗	⊗	⊗	SMOKE/CO2 ALARM - 120V C/W BATTERY BACKUP, STROBE VISUAL
	⊗	⊗	⊗	FIRE ALARM MANUAL PULL STATION
	⊗	⊗	⊗	FIRE ALARM HORN
	⊗	⊗	⊗	FIRE ALARM HORN STROBE (zz = CANDELA, 15cd DEFAULT)
	⊗	⊗	⊗	FIRE ALARM STROBE (zz = CANDELA, 15cd DEFAULT)
FIRE ALARM DEVICE SCHEDULES	⊗	⊗	⊗ x	FIRE ALARM SMOKE DETECTOR
	⊗	⊗	⊗	FIRE ALARM HEAT DETECTOR
	⊗	⊗	⊗	FIRE ALARM SMOKE DETECTOR c/w FORM 'C' RELAY SUB-BASE
	⊗	⊗	⊗	FIRE ALARM HEAT DETECTOR c/w FORM 'C' RELAY SUB-BASE
	⊗	⊗	⊗ or ⊗	POLYCARBONATE COVER WITH ALARM OVER MANUAL PULL STATION
	⊗	⊗	⊗	FIRE ALARM END OF LINE RESISTOR
FIRE ALARM DEVICE SCHEDULES	⊗	⊗	⊗	FIRE ALARM ADDRESSABLE RELAY CONTACT

- NEW DEVICE/EQUIPMENT
TO BE REMOVED
EXISTING TO REMAIN

TYPICAL SYMBOL LINETYPE FOR DEVICES or EQUIPMENT

1 New, Removed, Existing

- RS-2 EQUIPMENT TYPE ID (AS PER MECHANICAL EQUIPMENT SCHEDULE)
A-4/6/8 EQUIPMENT CIRCUIT
@1800mm AFF EQUIPMENT SPECIFIC DETAILS.
⊗ EQUIPMENT SYMBOL (VARIES)

2 Tags - Mechanical Equipment

- 2TS DEVICE TYPE ID (AS PER LOW VOLTAGE DEVICE SCHEDULE)
TV@1800mm DEVICE SPECIFIC MOUNTING INSTRUCTIONS
⊗ DEVICE SYMBOL (VARIES)

DEVICES WITH UNIQUE SYMBOL & TYPE MAY NOT HAVE A TYPE ID.
DEVICES MOUNTED BESIDE COUNTER HEIGHT ELECTRICAL DEVICES ARE TO ALSO BE MOUNTED AT COUNTER HEIGHT.

3 Tags - Low Voltage Devices

- RS-2 DEVICE TYPE ID (AS PER ELECTRICAL DEVICE SCHEDULE)
A-4 DEVICE CIRCUIT
TV@1800mm DEVICE SPECIFIC DETAILS
⊗ DEVICE SYMBOL (VARIES)

4 Tags - Electrical Devices

- V1 DEVICE TYPE ID (AS PER LIGHTING CONTROL DEVICE SCHEDULE)
Z1.1 LIGHTING CONTROL ZONE ID
0-10V 0-10V WIRING REQUIRED BETWEEN CONTROL DEVICE AND ALL LIGHTING FIXTURES WITHIN THE SAME CONTROL ZONE.
A-4 CIRCUIT # USED FOR ZONE
⊗ DEVICE SYMBOL (VARIES)

5 Tags - Lighting Devices

DEVICE/EQUIPMENT OPTIONS & TAGS

7	SHEET NOTE LABEL - REFER TO SHEET NOTES
CL	CEILING MOUNT
FL	FLOOR MOUNT
GF	DEVICE WIRED TO LOAD SIDE OF GFCI RECEPTACLE/BREAKER
RP	REPLACE EXISTING DEVICE WITH NEW DEVICE IN SAME LOCATION.
REL	RELOCATED DEVICE/EQUIPMENT . REWORK WIRING AS NEEDED. IF APPLICABLE PROVIDE NEW DEVICE BOX & CONNECTORS.

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

DRAWINGS ARE NOT TO BE SCALED.



NO.	DESCRIPTION	DATE
3	Issued For Construction	May 25, 2026
2	Issued For Tender	Apr 10, 2026
1	Issued For Permit	Mar 26, 2026
REVISION SCHEDULE		

ROOT3 Engineering
1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

PROJECT NAME

**HWDSB Norwood
Park Elevator**

165 Terrace Dr,
Hamilton City, ON

DRAWING TITLE

**Electrical Legend &
Specification**

SCALE

1 : 1

SHEET SIZE

24"x36"

PROJECT NUMBER

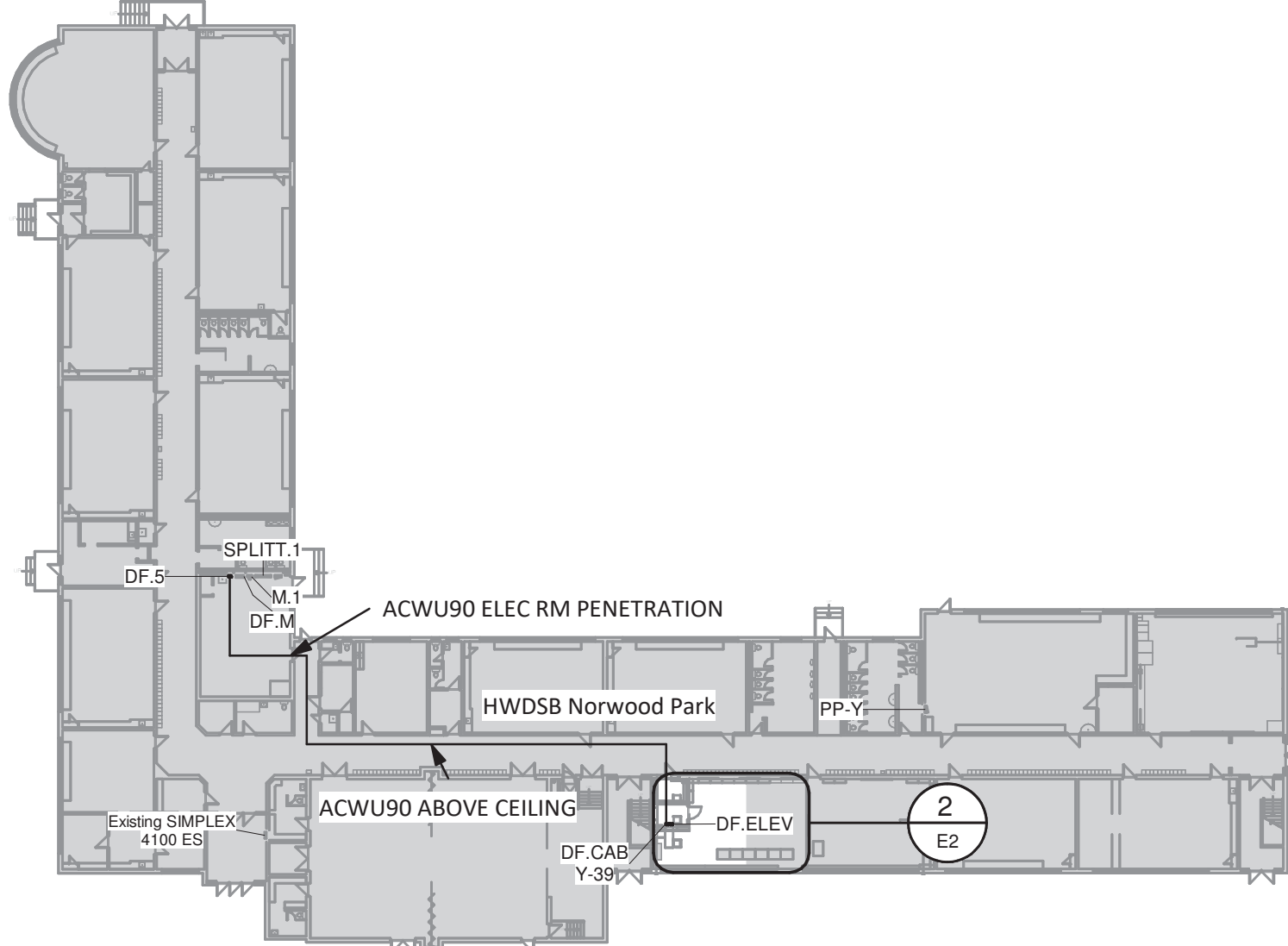
25150

DRAWING NUMBER

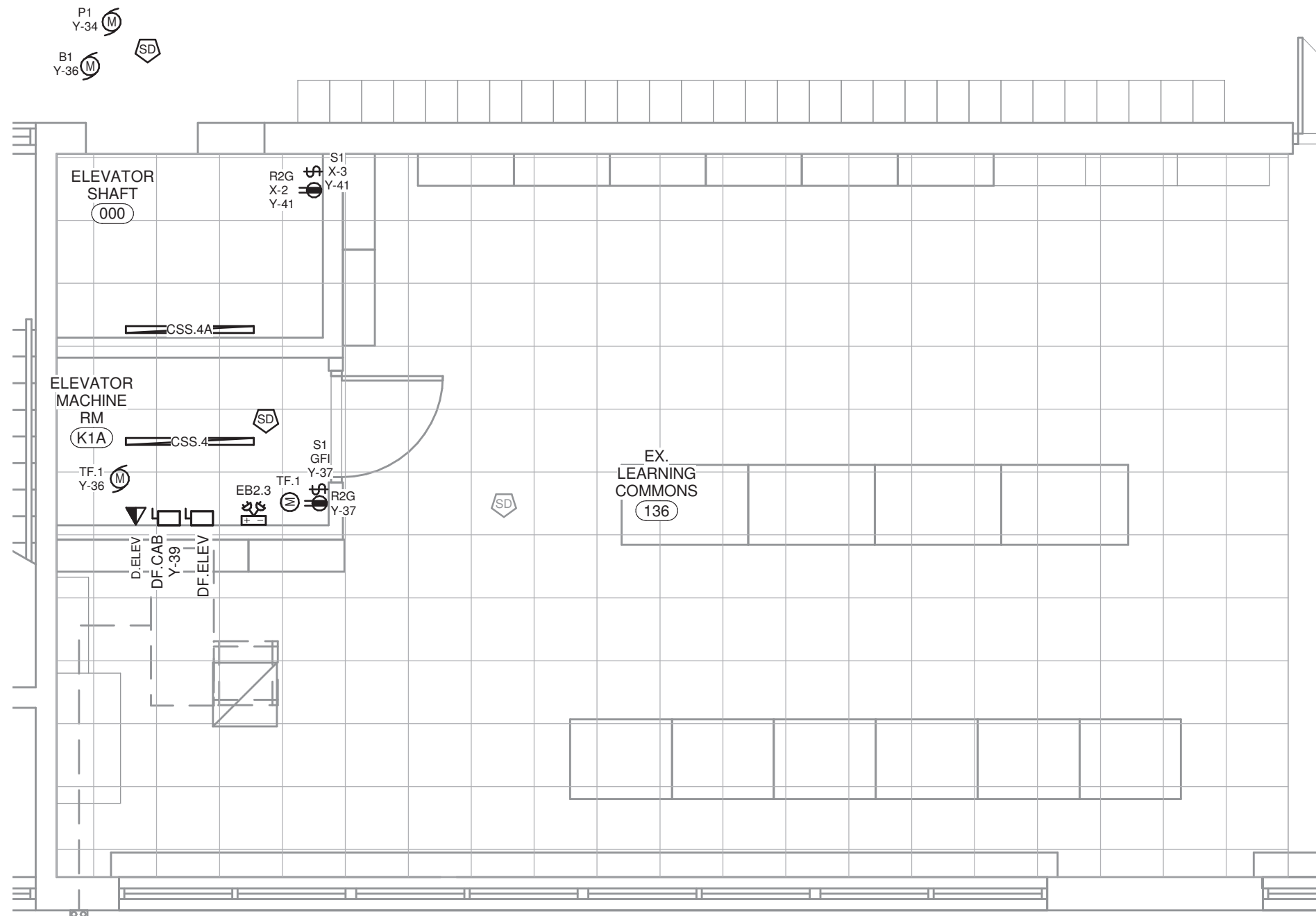
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DESIGNER

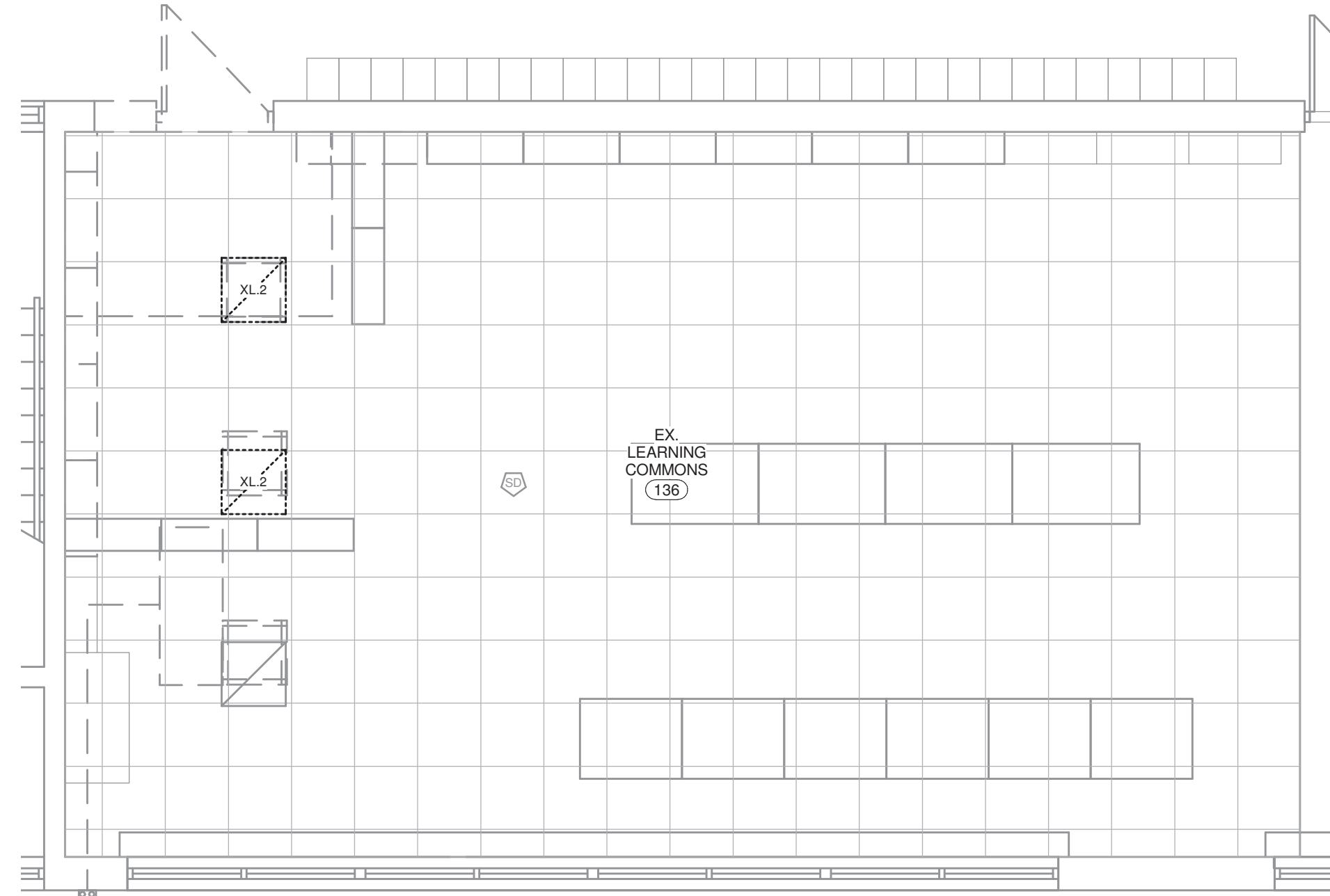
GCM



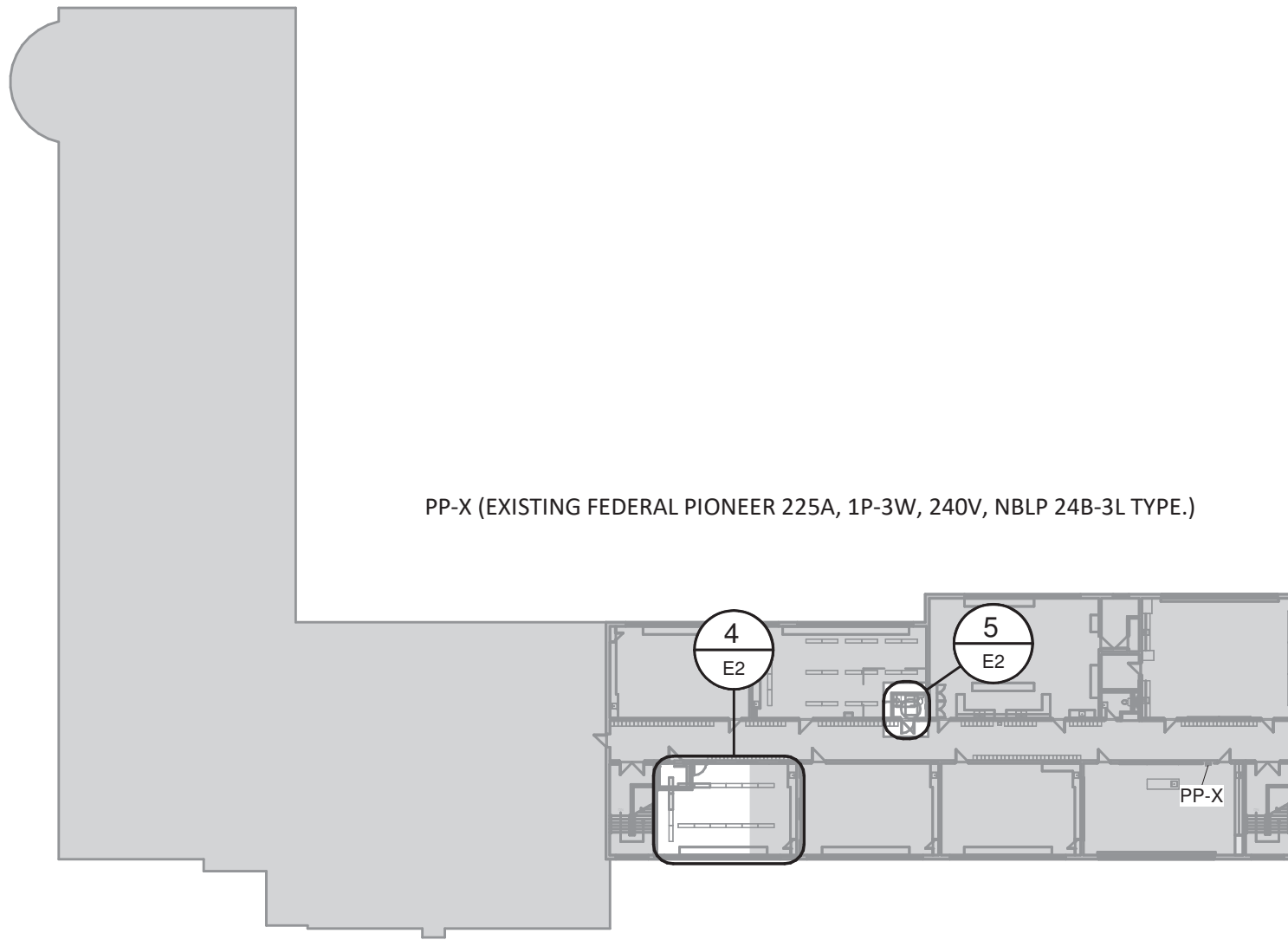
1 Keymap First Floor
1 : 500



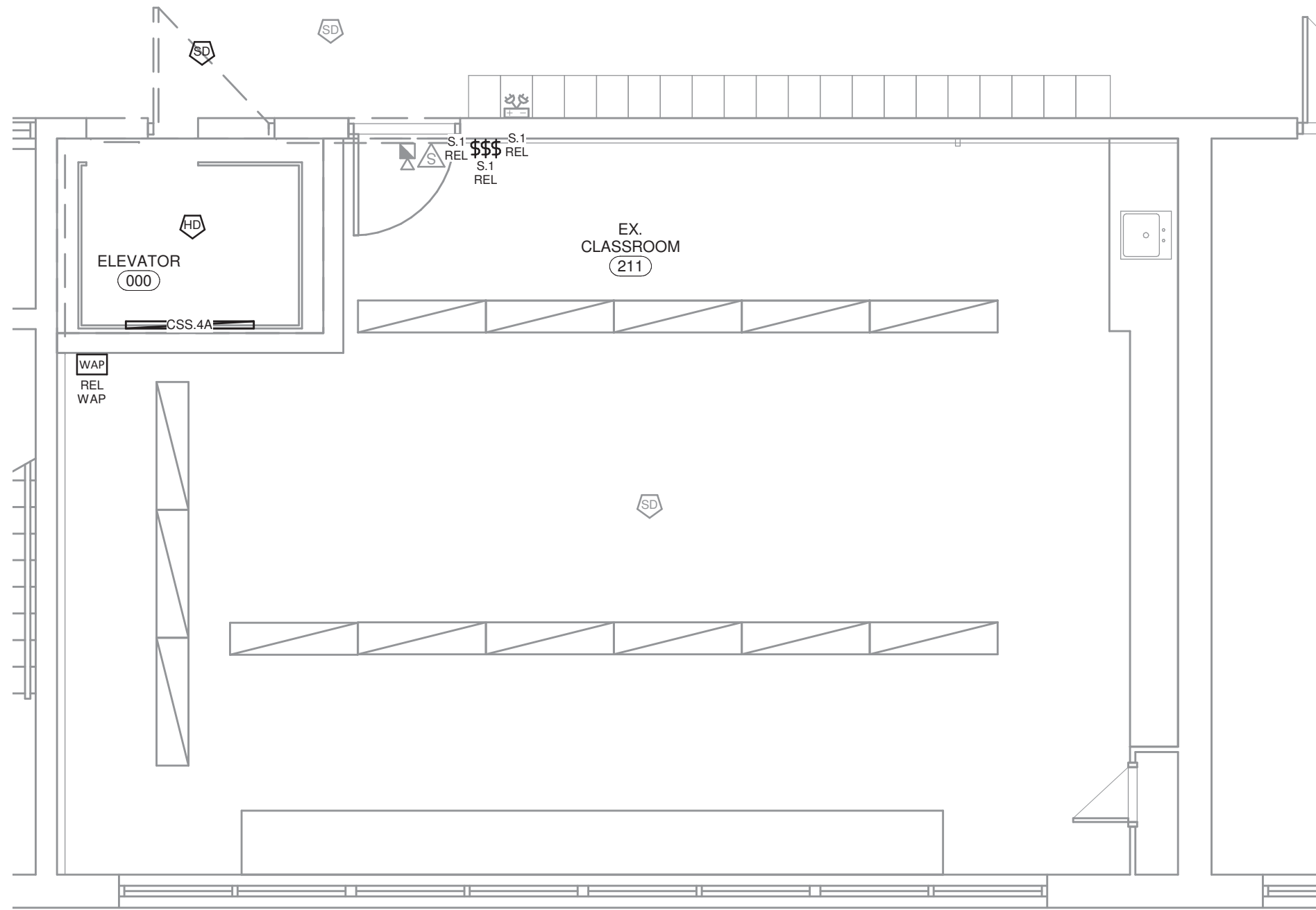
2 Ex. Learning Commons 136 - Electrical Plan
1 : 50



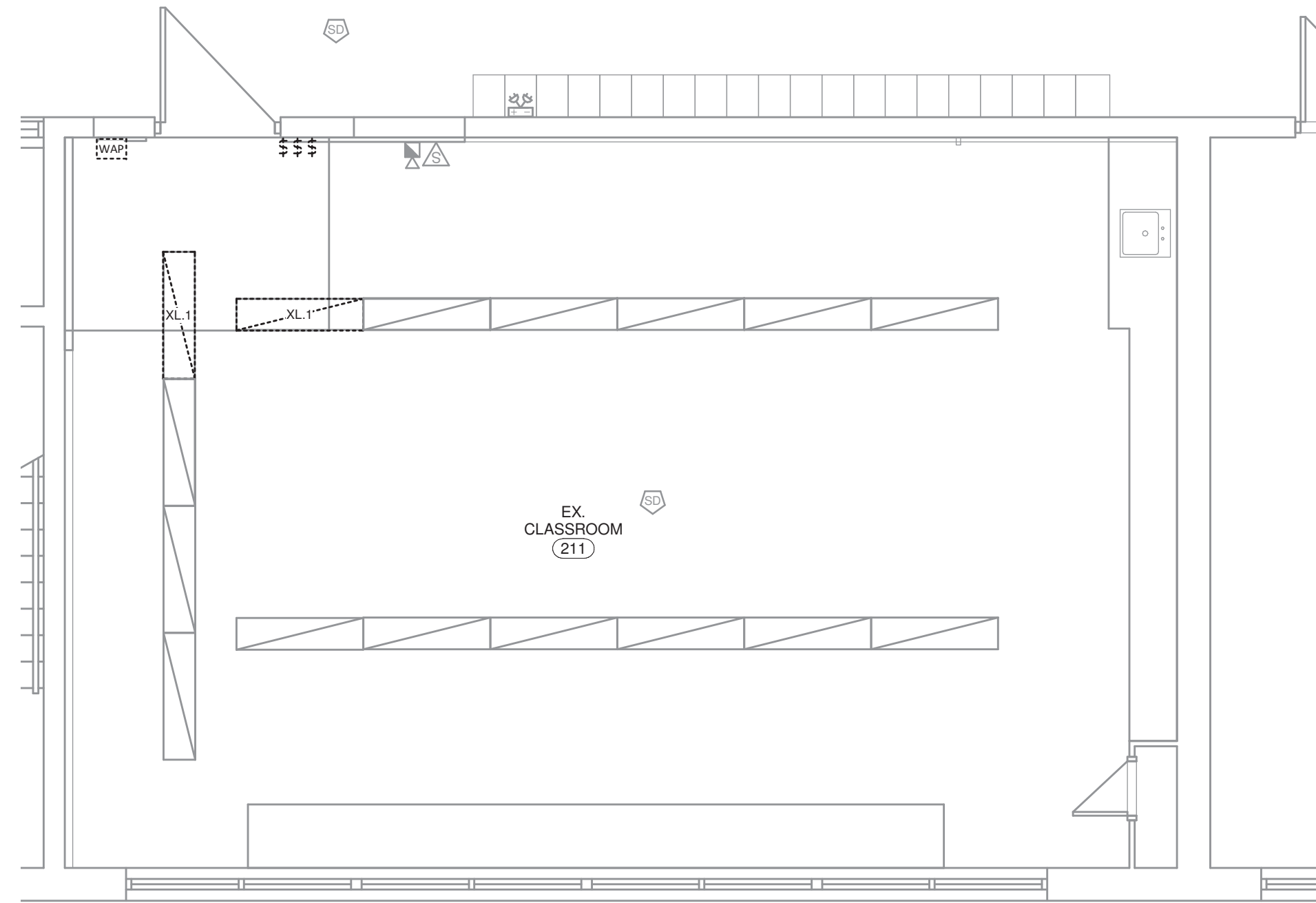
8 Demo - Ex. Learning Commons 136 - Electrical Plan
1 : 50



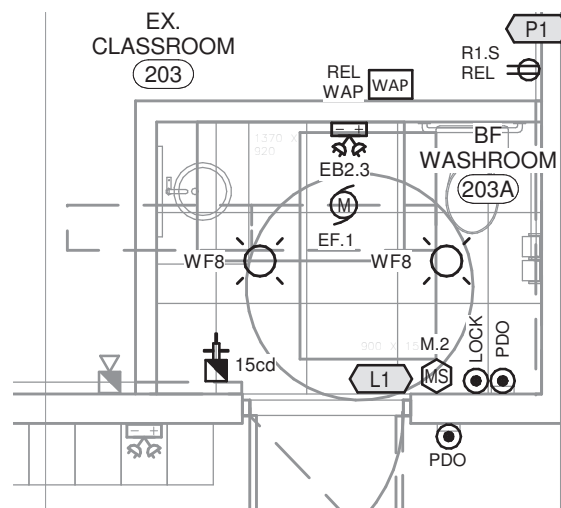
3 Keymap Second Floor
1 : 500



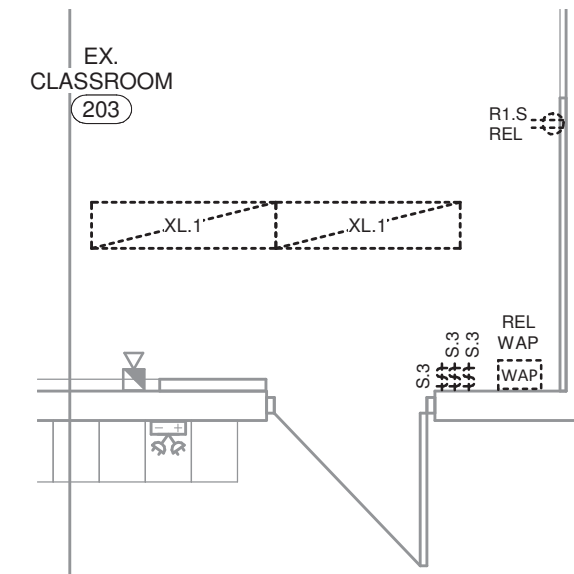
4 Ex. Classroom 211 - Electrical Plan
1 : 50



7 Demo - Ex. Classroom 211 - Electrical Plan
1 : 50



5 BF Washroom 203A - Electrical Plan
1 : 50



6 Demo - Ex. Classroom 203 - Electrical Plan
1 : 50

7 Sheet Notes	
#	NOTE
L1	REWORK NEW LIGHTING CONTROL TO EXISTING LIGHTING CIRCUIT.
P1	REWORK EXISTING POWER/DATA USING EXISTING CIRCUIT IN NEW LOCATION.

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DRAWINGS ARE NOT TO BE SCALED.



NO.	DESCRIPTION	DATE
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REVISION SCHEDULE



1920 YONGE ST, SUITE 200
TORONTO, ON, M4S 3E2

PROJECT NAME

HWDSB Norwood Park Elevator

165 Terrace Dr,
Hamilton City, ON

DRAWING TITLE

Electrical Plan

SCALE	DRAWING NUMBER
As indicated	E2
SHEET SIZE 24"x36"	
PROJECT NUMBER 25150	
DESIGNER	GCM

