

BUILDING PERMIT DRAWING SET

[illegible]

	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 SLOTE ARCHITECTS INC 118 James Street North, Suite 300 Hamilton, Ontario, L8R 2K7 T: 905-297-0863 x1 E: stevan.gaceso@gs-arch.ca	Stevan Gacesa, OAA,
	Structural	AILMAR ENGINEERING INC. 94 Curran Road, Ancaster, Ontario, L9K 0H4 T: 905-966-4797 E: ssomo@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 Halditch, P. Eng.

	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		INTERIOR GLAZED SCREEN TYPE
	EXTERIOR WALL ASSEMBLY		FLOOR/ROOF ASSEMBLY		
	ROOM NUMBER		DOOR NUMBERS		

SHEET NUMBER/TITLE	
ARCHITECTURAL	A0.1 COVER
	A0.2 OBC MATRIX, WALL ASSEMBLIES & DOOR SCHEDULES
	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

[illegible]

The map shows a network of streets. Mohawk Rd. W. runs diagonally from the bottom left towards the top right. Upper Lakes St. runs vertically on the left. Errico Ave. runs horizontally, intersecting Mohawk Rd. W. and Upper Lakes St. March Ave. runs vertically, intersecting Errico Ave. and Upper Wellington St. Upper Wellington St. runs diagonally from the bottom left towards the top right. Fennell Ave. E. runs diagonally from the bottom left towards the top right. South Bend Rd. E. runs diagonally from the bottom left towards the top right. Upper Westwindsor St. N. runs diagonally from the bottom left towards the top right. A black arrow points to a specific location on Errico Ave., labeled 'SITE'.

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.

A0.1

8 WALL ASSEMBLY
A0.2 1:10

GRAPHIC DESCRIPTION						
DESIGNATION	F1	E1	PW	P2, P2A	P3	R1
TYPE	FOUNDATION WALL	EXTERIOR WALL	PARAPET WALL	INTERIOR PARTITION	INTERIOR PARTITION	ROOF ASSEMBLY
FIRE RESISTANCE RATING (F.R.R.)	-	-	-	-	-	-
SOUND TRANSMISSION CLASS (S.T.C.)	-	-	-	-	-	-
CONSTRUCTION (INSIDE) (OUTSIDE)	-200mm CONCRETE WALL	-190mm CONCRETE BLOCK -A.V.B -75mm RIGID INSULATION (R-17ci) -25mm AIR SPACE -6 MIL TYVEK WRB MEMBRANE -METAL SIDING	-19mm PT. PLY. -75mm RIGID INSULATION (R-17ci) -A.V.B -190mm CONCRETE BLOCK -75mm RIGID INSULATION (R-17ci) -25mm AIR SPACE -6 MIL TYVEK WRB MEMBRANE -METAL SIDING	-140mm CONCRETE BLOCK -SAME AS P2 WITH 190mm CONCRETE BLOCK	-16 ABUSE RESISTANT GYPSUM BOARD -13 RESILIENT CHANNEL @600 O.C -92 METAL STUDS @ 400 O.C -W/89 SOUND BATT INSULATION BETWEEN STUDS -16 ABUSE RESISTANT GYPSUM BOARD	-WHITE MOD. BIT ROOFING MEMBRANE, COLD APPLIED -13mm COVER FIBRE BOARD -TAPERED INSULATION (2% SLOPE) -178mm RIGID INSULATION (Min. R35 ci) -SELF-ADHERED ROOF VAPOUR RETARDER -13mm FIBRE BOARD (THERMAL UNDERLAYMENT) -METAL DECKING

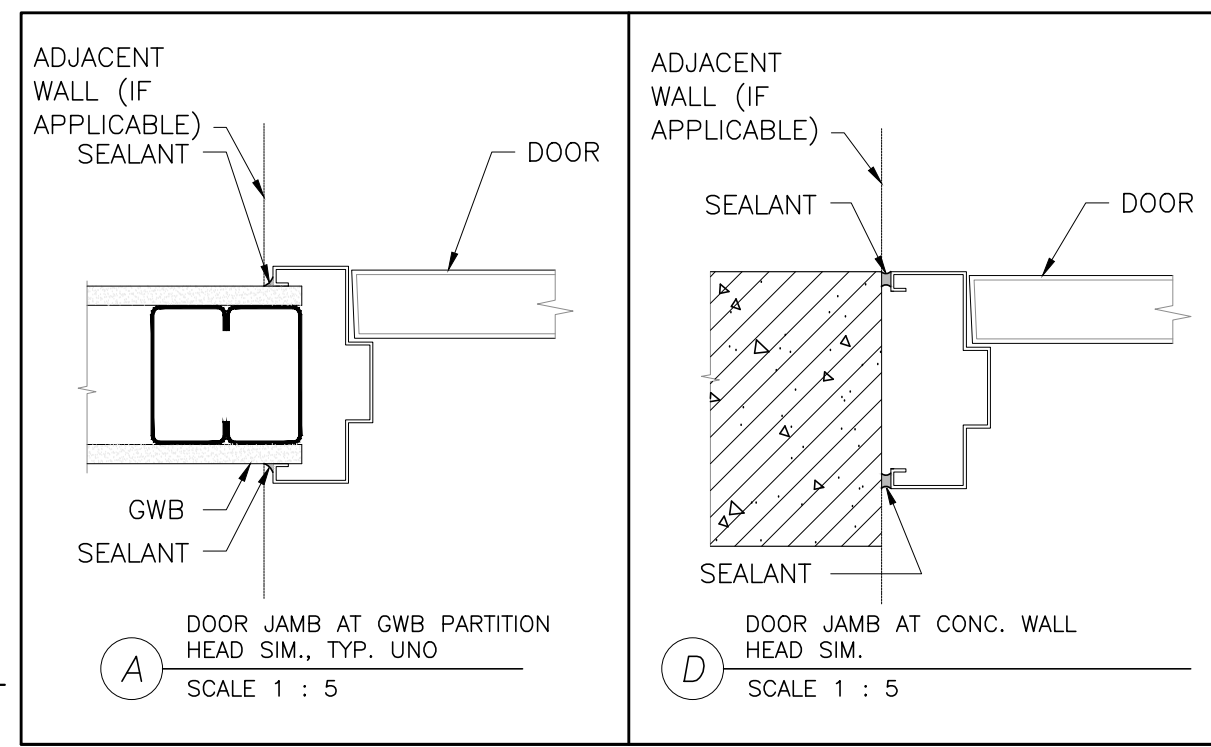
7 DOOR SCHEDULE
A0.2 1:50

ROOM	NUMBER	NAME	DOOR / SCREEN	TYPE	FRAME	FIRE RATING	REMARKS
K1A	DK1A	ELEVATOR MACHINE ROOM	965 X 2135	A	HM	PT	-
211	D211	EX. CLASSROOM	EX.	EX.	EX.	ST	-
203A	D203A	B.F. WASHROOM	1015 X 2135	A	SCWD	ST	-

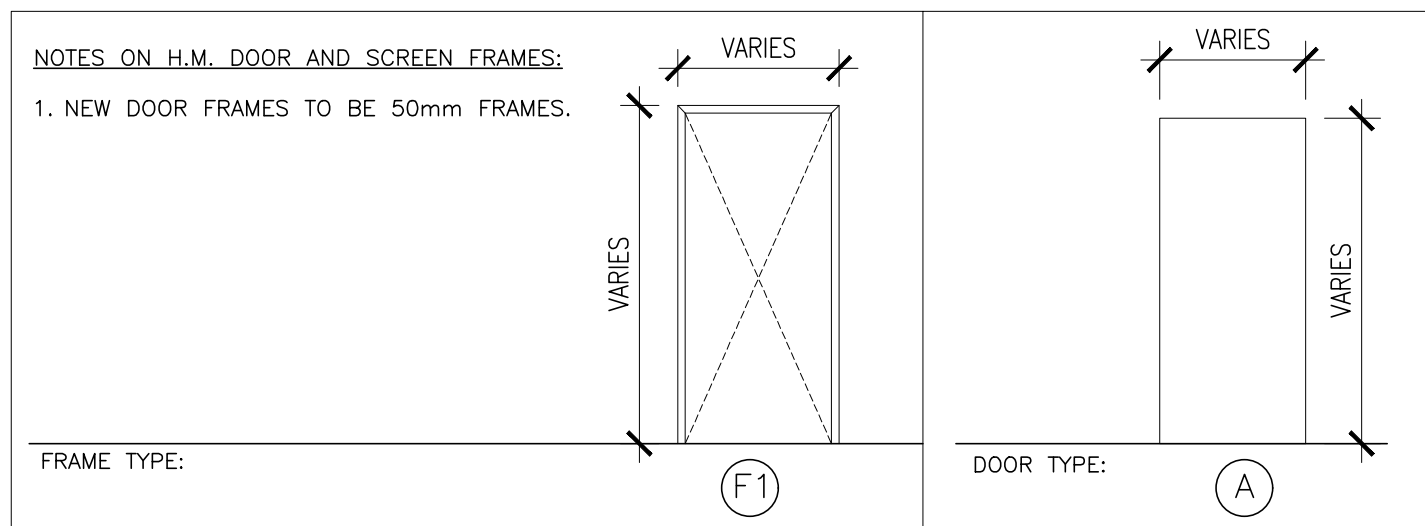
LEGEND: EX - EXISTING
HM - HOLLOW METAL
PT - PAINTED
ST - STAINED
SCWD - SOLID CORE WOOD DOOR

G1 - 6mm TEMPERED GLASS
G2 - 25mm INSULATED GLAZING
G3 - 13mm TEMPERED GLASS
MIN - MINUTES

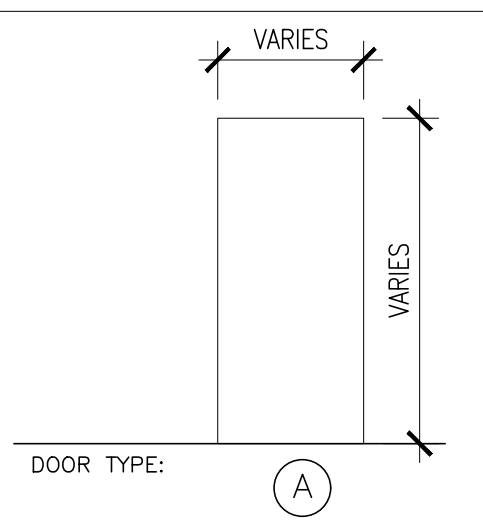
6 FRAME DETAILS
A0.2 1:5



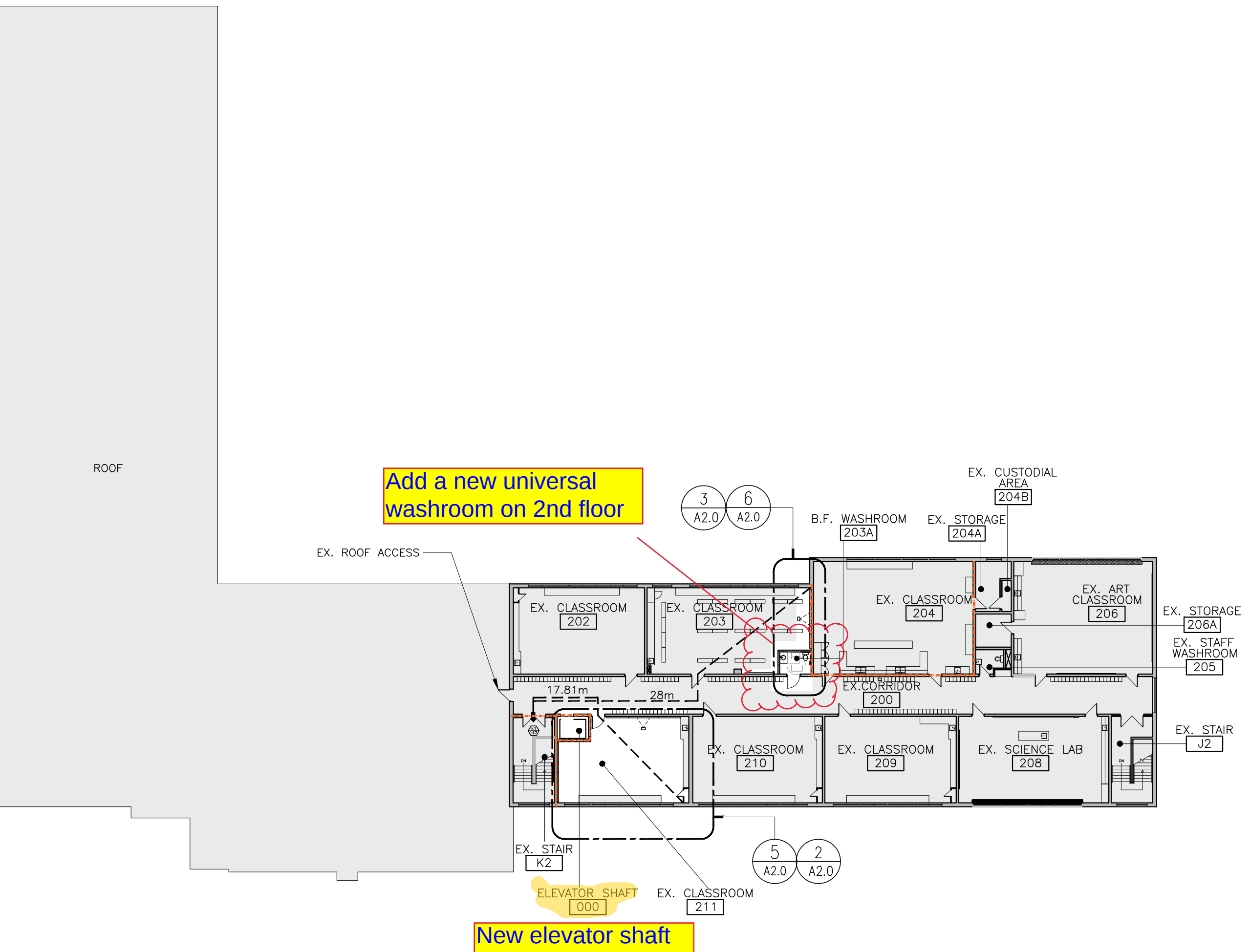
5 FRAME TYPE
A0.2 1:100



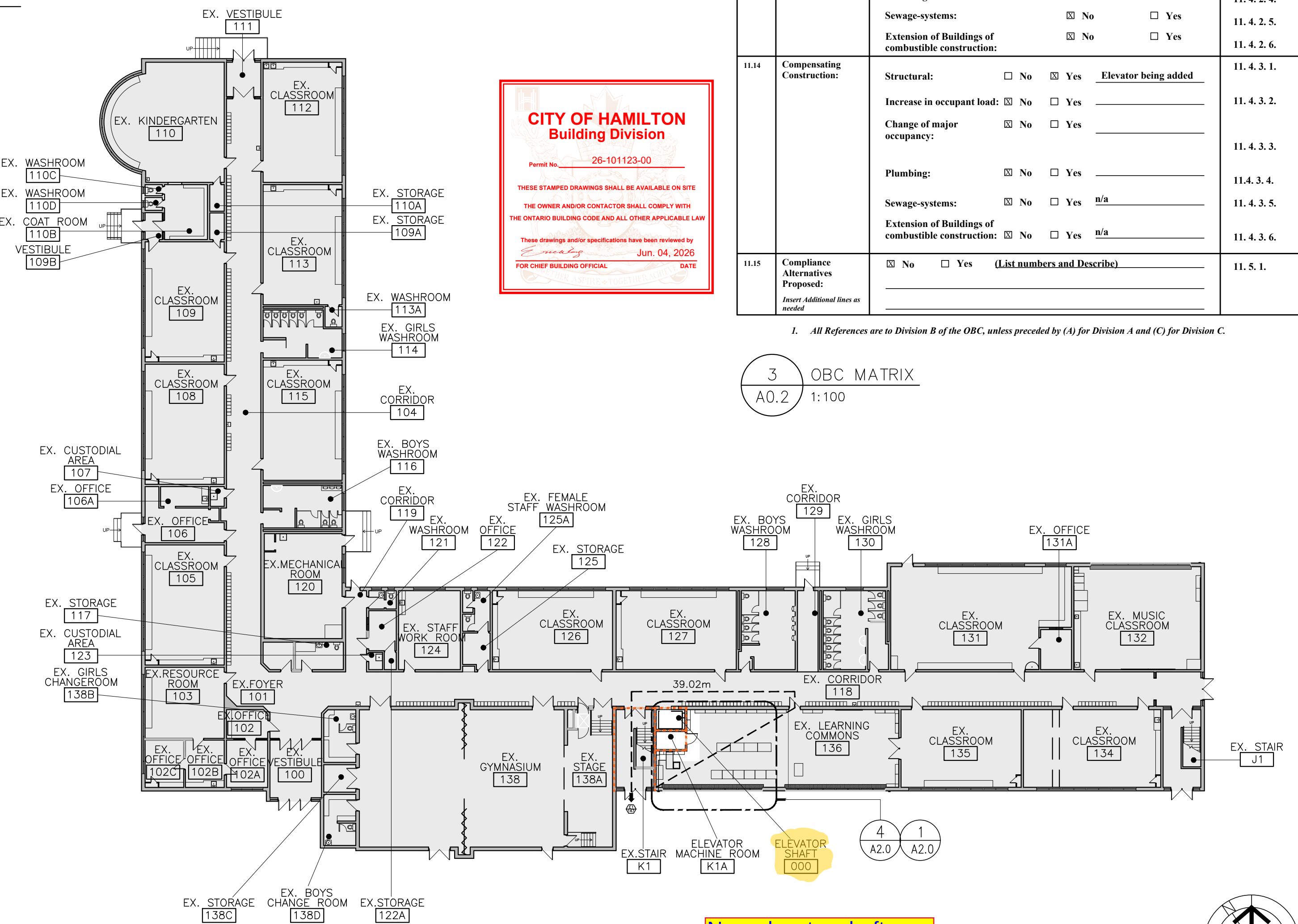
4 DOOR TYPE
A0.2 1:100



2 SECOND FLOOR LIFE SAFETY PLAN
A0.2 1:300



1 GROUND FLOOR LIFE SAFETY PLAN
A0.2 1:300



LEGEND

EXIT & EGRESS

TRAVEL DISTANCE 45m

EXIT DESIGNATION (STAIR OR DOOR)

EXIT CAPACITY (PERSONS)

EXIT DOOR & DIRECTION OF TRAVEL

EXIT ENCLOSURE

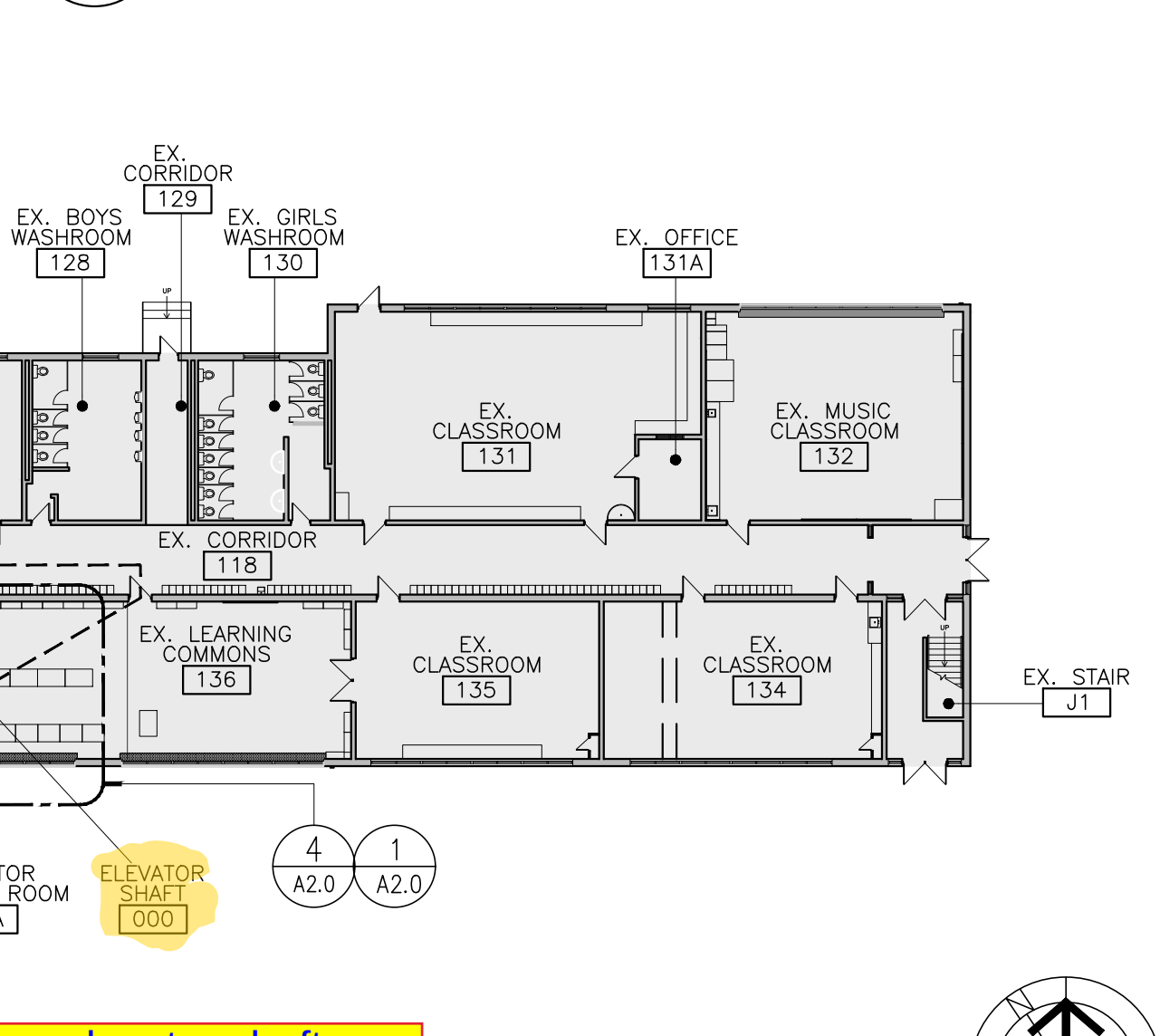
FIRE SEPARATIONS

1 HR

Name of Practice: GS GACESA SLOTE ARCHITECTS INC. 118 James Street North, Suite 300 Hamilton, ON, L8R 3K7 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	[A] 1.3.3.3B.																
11.02	Major Occupancy Classification :	☐ Change of use Description : Existing Use Institutional (Group A2)	3.1.2.1.(1), 2.1.4.1.(1), & 11.2.1.																
11.03	Superimposed Major Occupancies :	☒ No ☐ Yes Description :	11.2.3.2.5. to 3.2.2.8. & 2.2.1.																
11.04	Building Area (m²)	<table><tr><td>Description :</td><td>Existing</td><td>New</td><td>Total</td></tr><tr><td>Ground floor</td><td>2787.56</td><td>0</td><td>2787.56</td></tr><tr><td>Second floor</td><td>1011.83</td><td>0</td><td>1011.83</td></tr><tr><td>Total</td><td>3799.39</td><td>0</td><td>3799.39</td></tr></table>	Description :	Existing	New	Total	Ground floor	2787.56	0	2787.56	Second floor	1011.83	0	1011.83	Total	3799.39	0	3799.39	[A] 1.4.1.2., 11.2., & 11.3.
Description :	Existing	New	Total																
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 Storeys below grade	[A] 1.4.1.2., 3.2.1.1., 2.2.2.2. & 11.3.																
11.06	Number of Streets/ Firefighter access :	2 Street(s)	3.2.2.10., 3.2.1.1., 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 ☒ Not-Applicable (no change of major occupancy) Construction Index : - Hazard Index : - Importance Category: ☐ Low ☒ Normal ☐ 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	<table><tr><th>Floor Level/Area</th><th>Occupancy Type</th><th>Based On</th><th>Occupant Load (Persons)</th></tr><tr><td>LEVEL 1</td><td>A2</td><td>Design</td><td>EXISTING</td></tr><tr><td>LEVEL 2</td><td>A2</td><td>Design</td><td>EXISTING</td></tr><tr><td>TOTAL</td><td></td><td></td><td>EXISTING</td></tr></table>	Floor Level/Area	Occupancy Type	Based On	Occupant Load (Persons)	LEVEL 1	A2	Design	EXISTING	LEVEL 2	A2	Design	EXISTING	TOTAL			EXISTING	3.1.17., 2.1.2.2., & 11.4.2.2.
Floor Level/Area	Occupancy Type	Based On	Occupant Load (Persons)																
LEVEL 1	A2	Design	EXISTING																
LEVEL 2	A2	Design	EXISTING																
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 Entrances:	☐ No ☒ Yes Existing Number 2 Ex. East entrance & Ex. South entrance	11.3.1.2., 11.3.2., 11.3.3.2.																
11.13	Reduction in Performance Level:	Structural: ☒ No ☐ Yes By Increase in occupant load: ☒ No ☐ Yes By Change of major occupancy: ☒ No ☐ Yes Plumbing: ☒ No ☐ Yes Sewage-systems: ☒ No ☐ Yes Extension of Buildings of combustible construction: ☒ No ☐ Yes	11.4.2.1., 11.4.2.2., 11.4.2.3., 11.4.2.4., 11.4.2.5., 11.4.2.6.																
11.14	Compensating Construction:	Structural: ☐ No ☒ Yes Elevator being added Increase in occupant load: ☒ No ☐ Yes Change of major occupancy: ☒ No ☐ Yes Plumbing: ☒ No ☐ Yes Sewage-systems: ☒ No ☐ Yes n/a Extension of Buildings of combustible construction: ☒ No ☐ Yes n/a	11.4.3.1., 11.4.3.2., 11.4.3.3., 11.4.3.4., 11.4.3.5., 11.4.3.6.																
11.15	Compliance Alternatives Proposed:	☒ No ☐ Yes (List numbers and Describe)	11.5.1.																

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



GACESA | SLOTE ARCHITECTS

118 JAMES ST. NORTH, SUITE 300, HAMILTON, ONTARIO L8R 2K7

TEL: 905-297-0863

ONTARIO ASSOCIATION OF ARCHITECTS

STEVAN GACESA
LICENCE 5881

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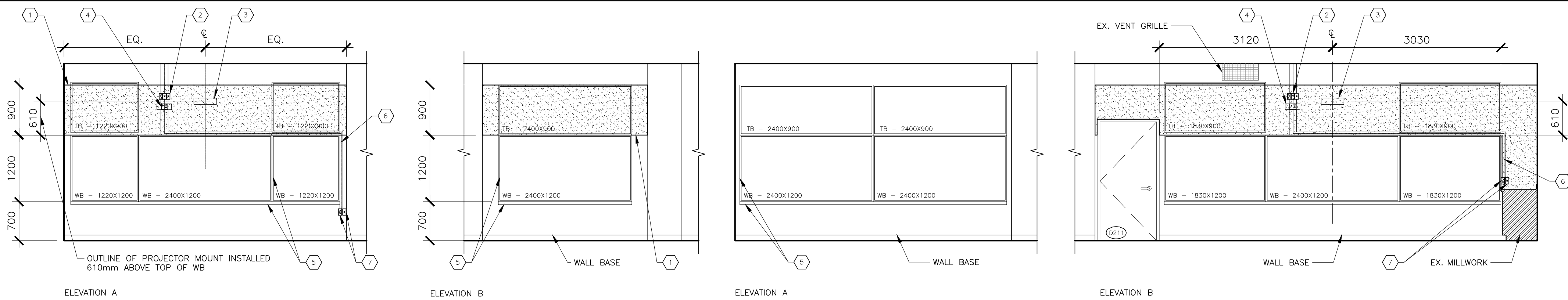
No.	Date	Remarks
02	2026-02-27	Issued for Permit
01	2025-11-19	Issued for Client Review

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

Dwg. Title:
**OBC Matrix
Life Safety &
Schedules**

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

Drawing No.:
A0.2



CITY OF HAMILTON
Building Division

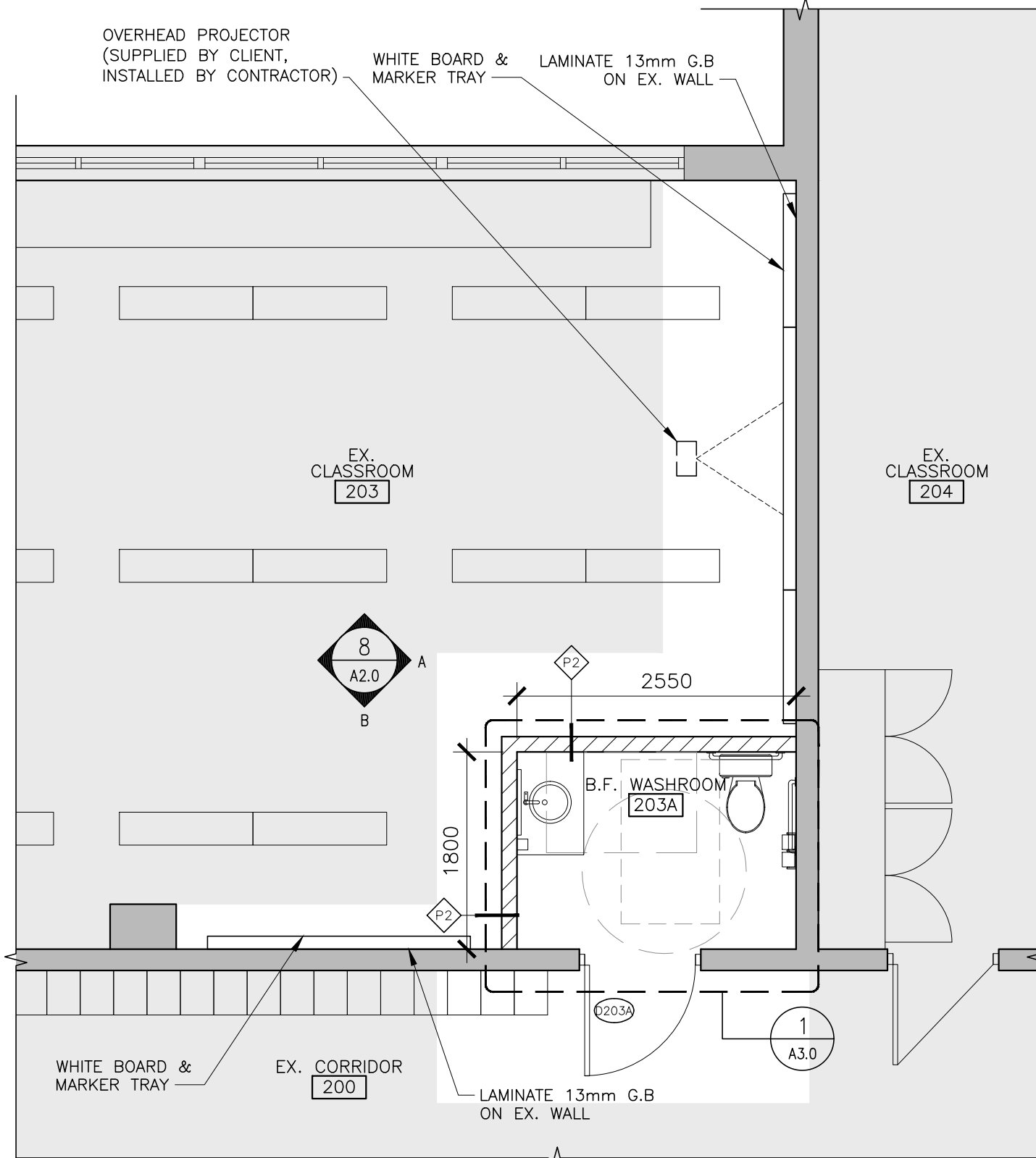
Permit No. 26-101123-00

THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE
THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH
THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW

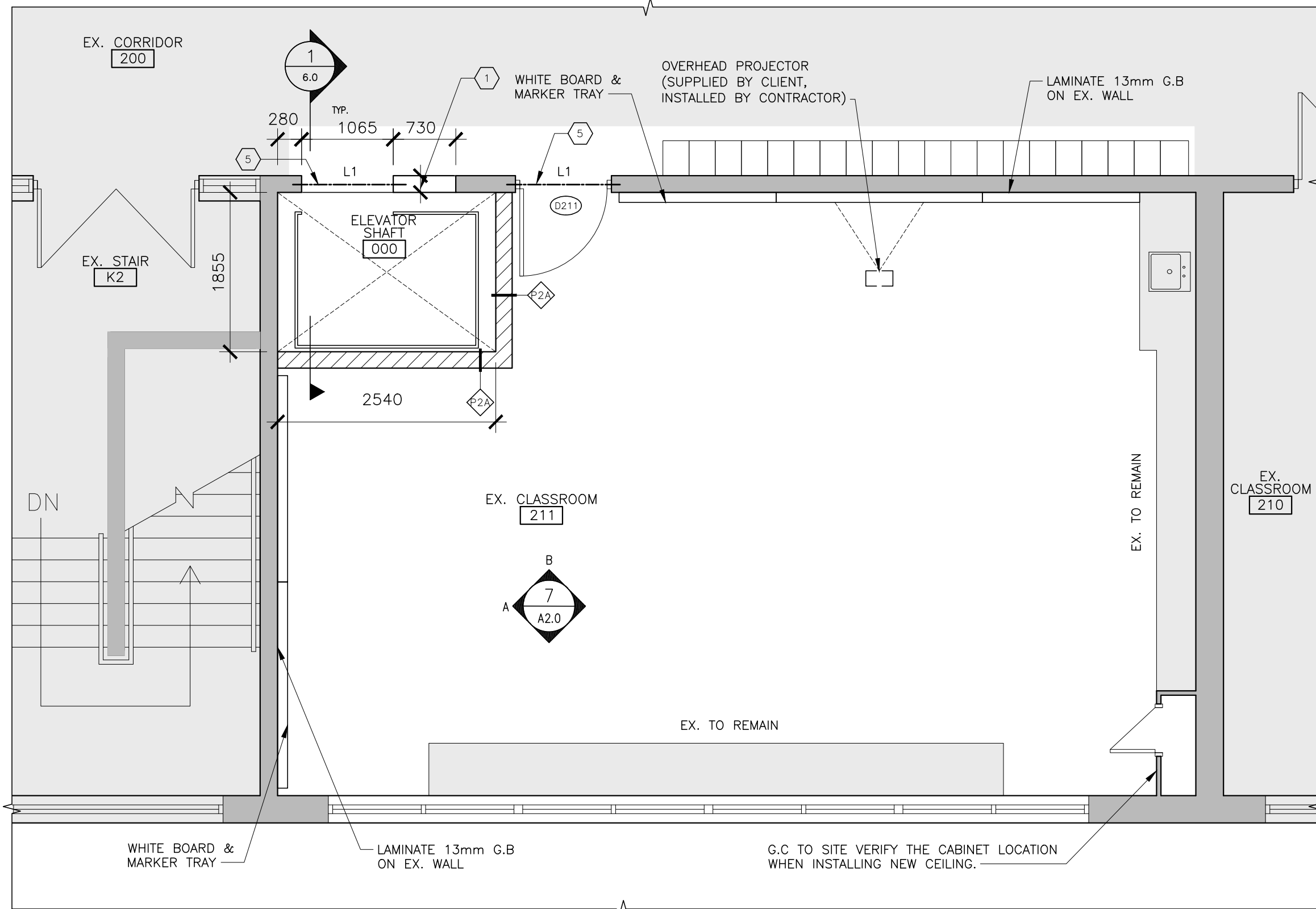
These drawings and/or specifications have been reviewed by
[Signature] Jun. 04, 2026 DATE
FOR CHIEF BUILDING OFFICIAL

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

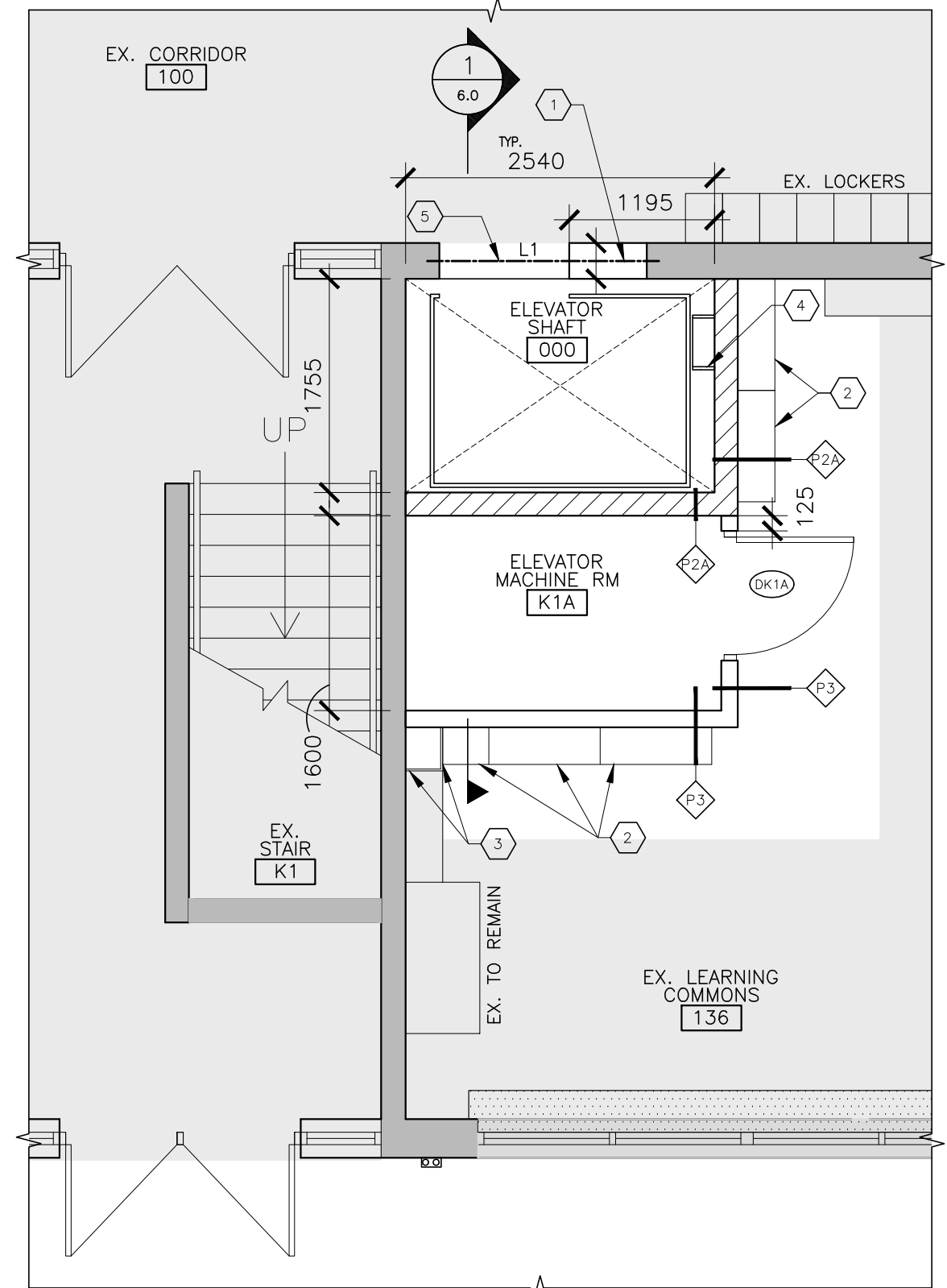
7 INTERIOR ELEVATION- CLASSROOM 211
A2.0 1:50



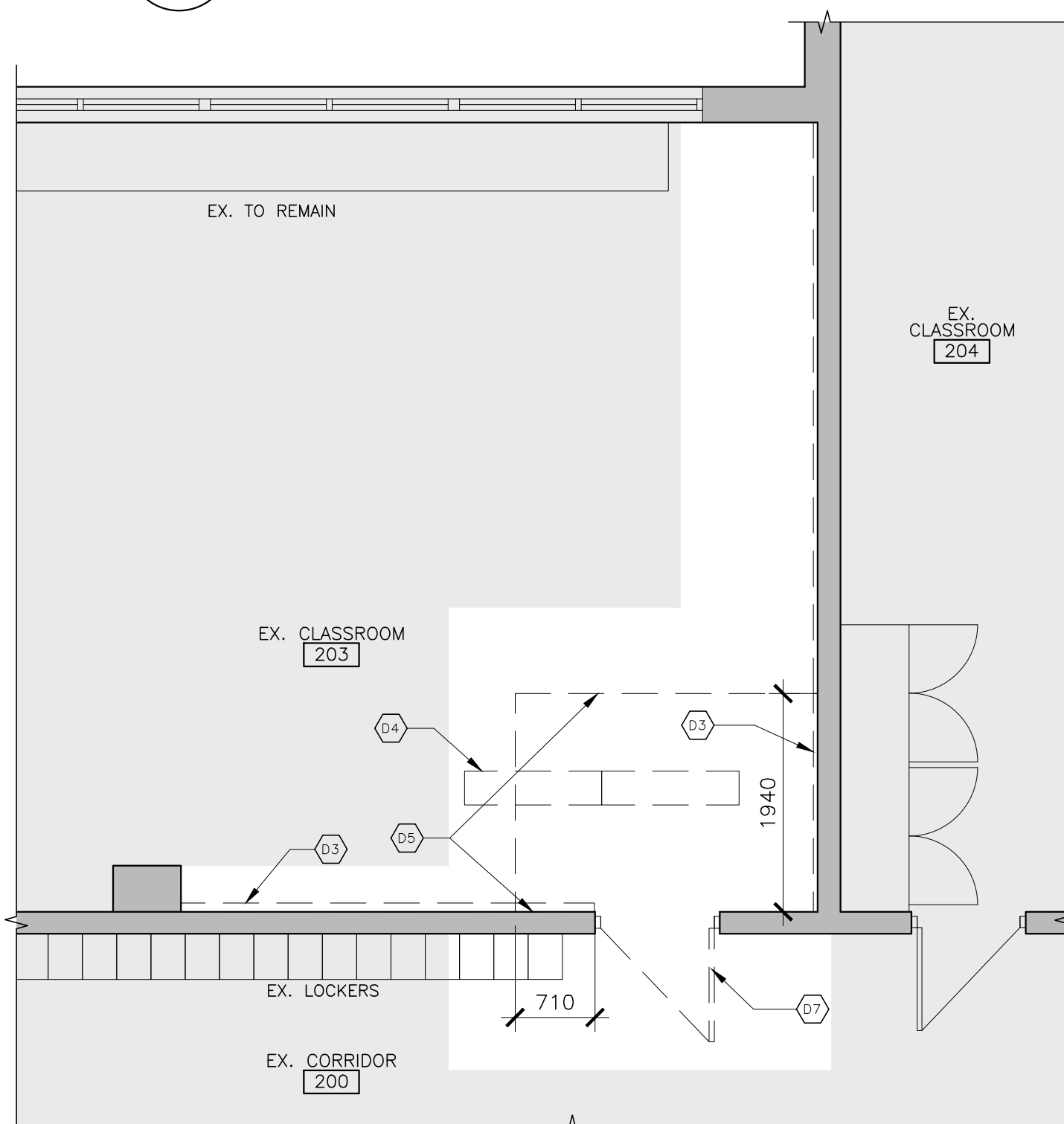
6 B.F. WASHROOM 203A
SECOND FLOOR PLAN
A2.0 1:50



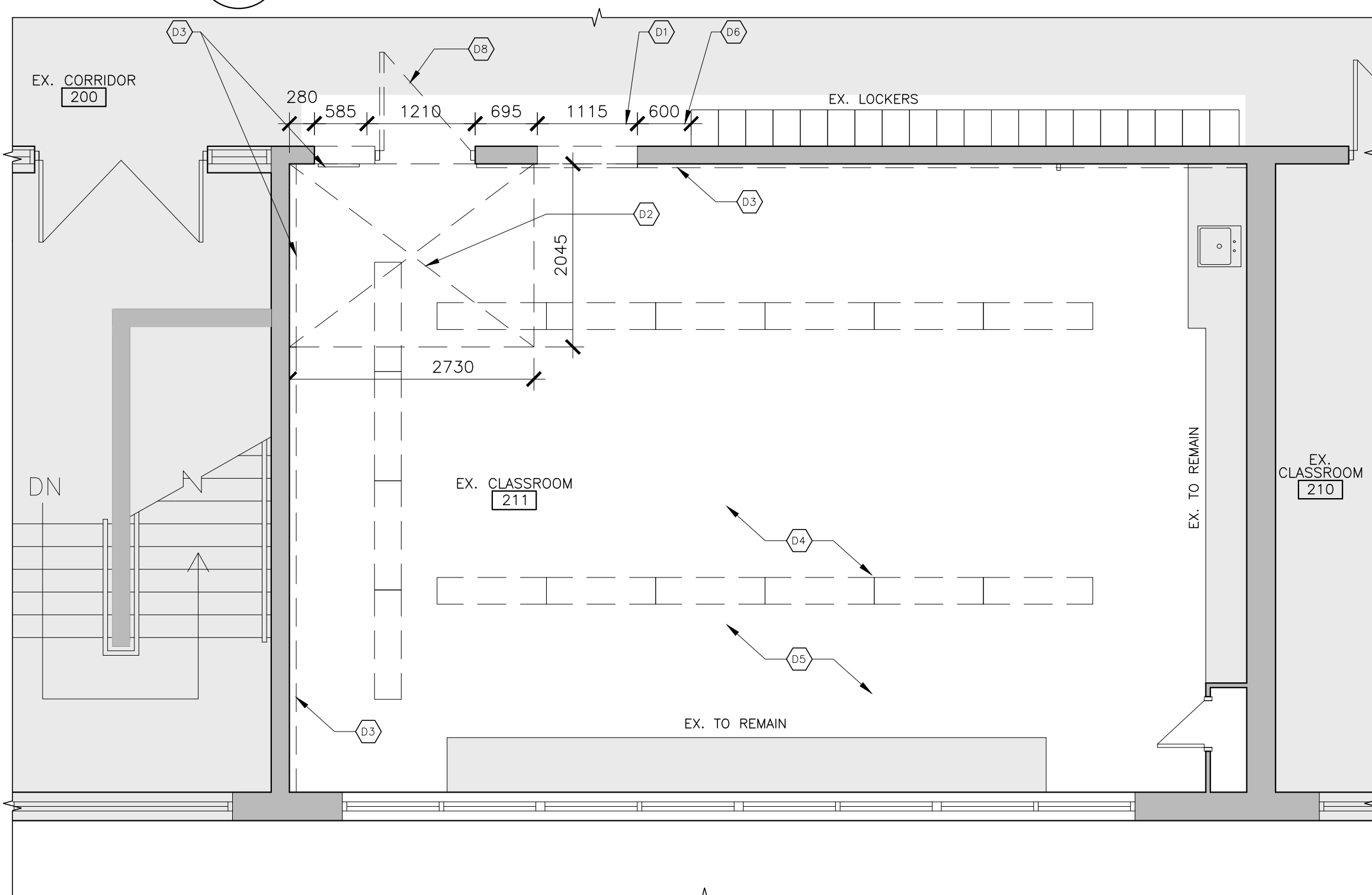
5 ELEVATOR SHAFT
PROPOSED SECOND FLOOR PLAN
A2.0 1:50



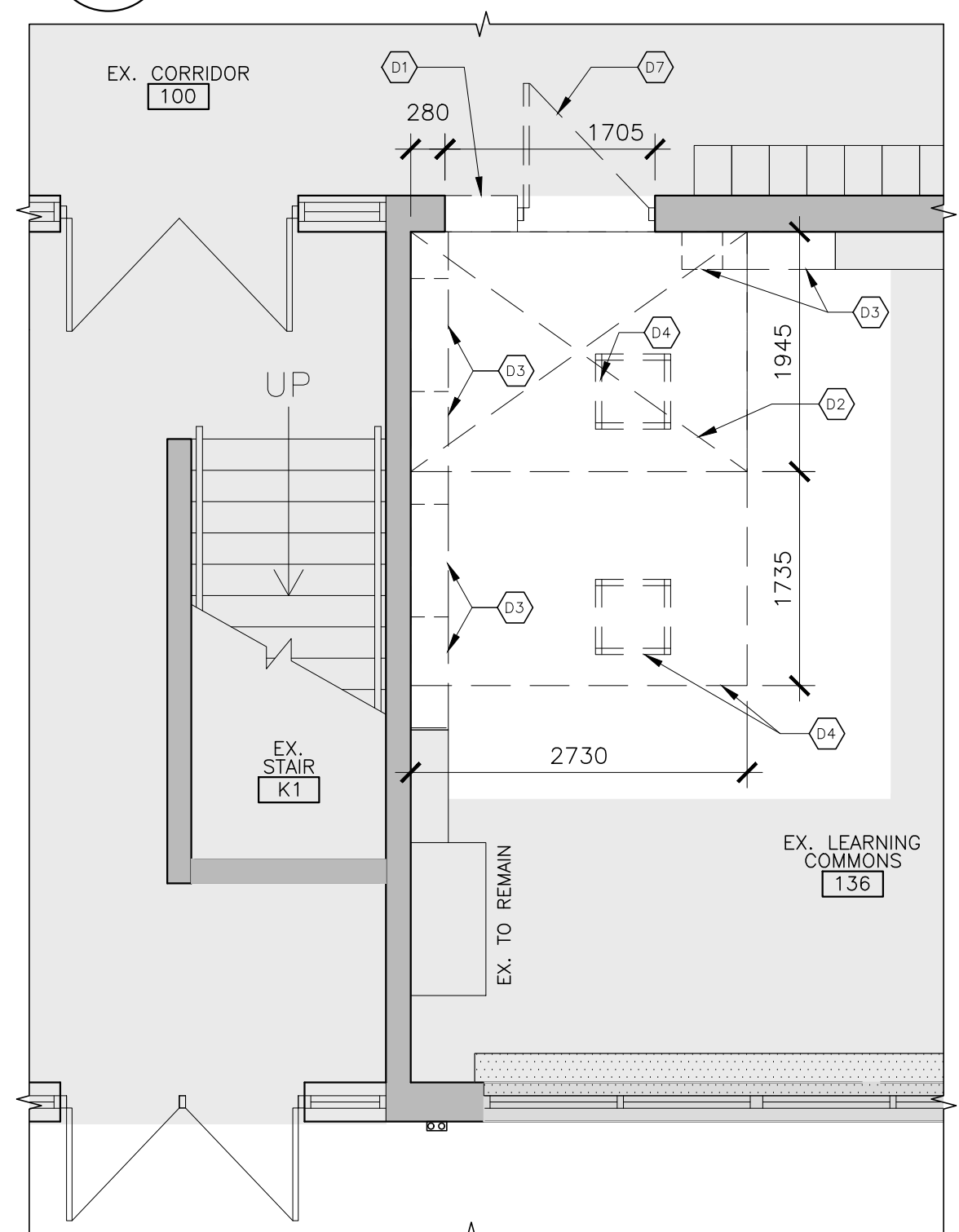
4 ELEVATOR SHAFT
PROPOSED GROUND FLOOR PLAN
A2.0 1:50



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



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



1 EX. LEARNING COMMONS 136
GROUND FLOOR DEMOLITION PLAN
A2.0 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.

PLAN KEY NOTES

- NOTE: ALL KEYNOTES MAY NOT BE USED.
- 1 NEW WALL TYPE AND THICKNESS TO MATCH EXISTING.
 - 2 RELOCATED EX. SHELING.
 - 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.

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

- | | |
|----------|---------------------------------------|
| [Symbol] | EXISTING |
| [Symbol] | NEW CONSTRUCTION |
| [Symbol] | NEW BLOCK WALL |
| [Symbol] | EXISTING DOOR TO REMAIN |
| [Symbol] | NEW DOOR |
| [Symbol] | FLOOR DRAIN |
| PB | PUSH BUTTON FOR AUTOMATIC DOOR OPENER |
| PA | PUBLIC ADDRESS SYSTEM |
| [Symbol] | NEW LINTEL |
| M1 | MIRROR |
| TPD | TOILET PAPER DISPENSER |
| SD | SOAP DISPENSER |
| PTD | PAPER TOWEL DISPENSER |
| HD | HAND DRYER |
| GB | BRAB BAR |

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 SHELING 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 & FRAME. SAVE DOOR HARDWARE FOR FUTURE USE.
 - 08 REMOVE EXISTING DOOR & FRAME. SAVE DOOR PANEL & HARDWARE FOR FUTURE USE.

DEMO PLAN LEGEND

1. PATCH AND MAKE GOOD ALL AREAS AFFECTED BY DEMOLITION.

DEMO PLAN LEGEND

- | | |
|----------|-------------------------|
| [Symbol] | EXISTING |
| [Symbol] | DEMOLITION |
| [Symbol] | EXISTING DOOR TO REMAIN |



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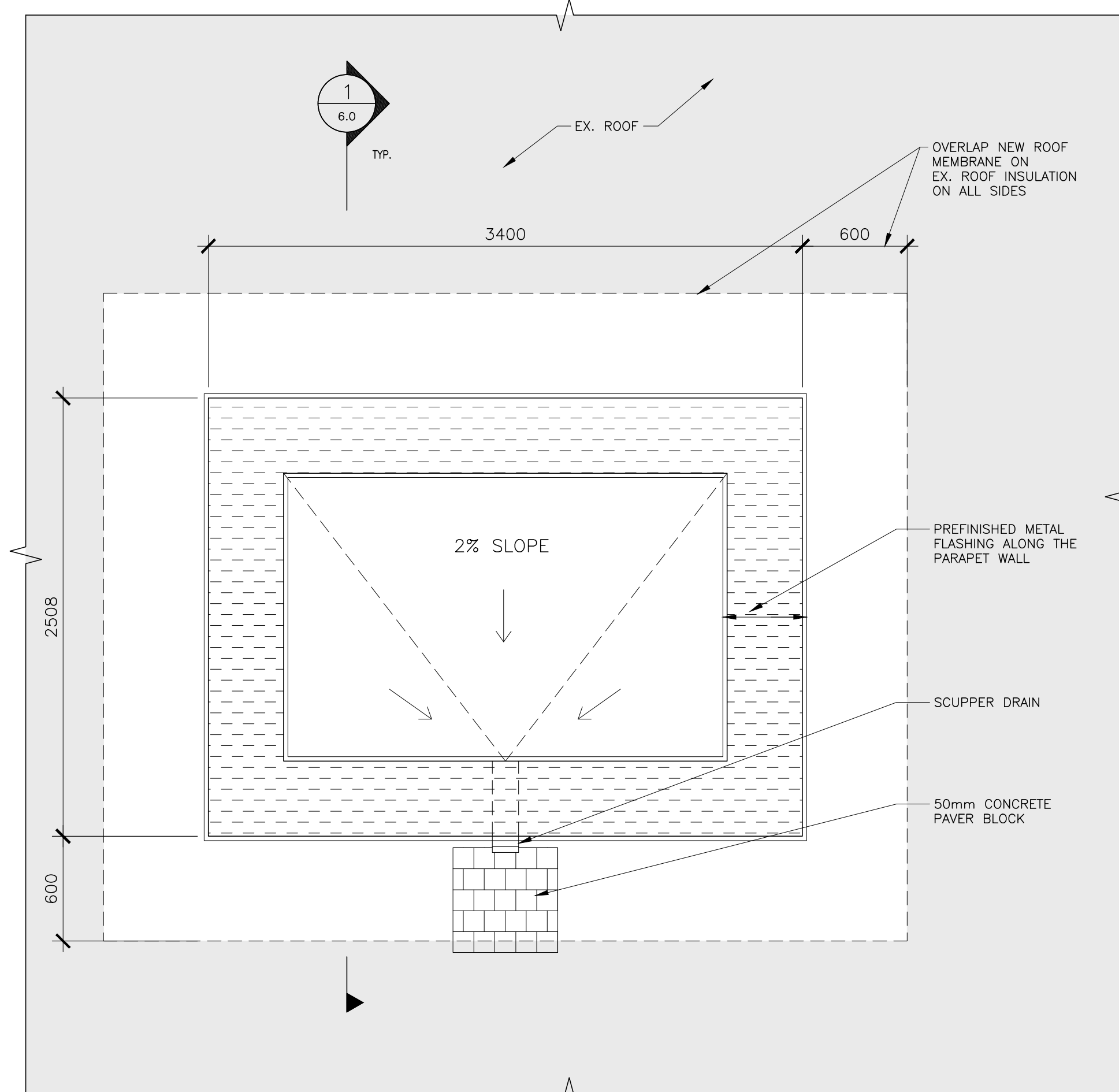
02	2026-02-27	Issued for Permit
01	2025-11-19	Issued for Client Review
No.	Date	Remarks

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

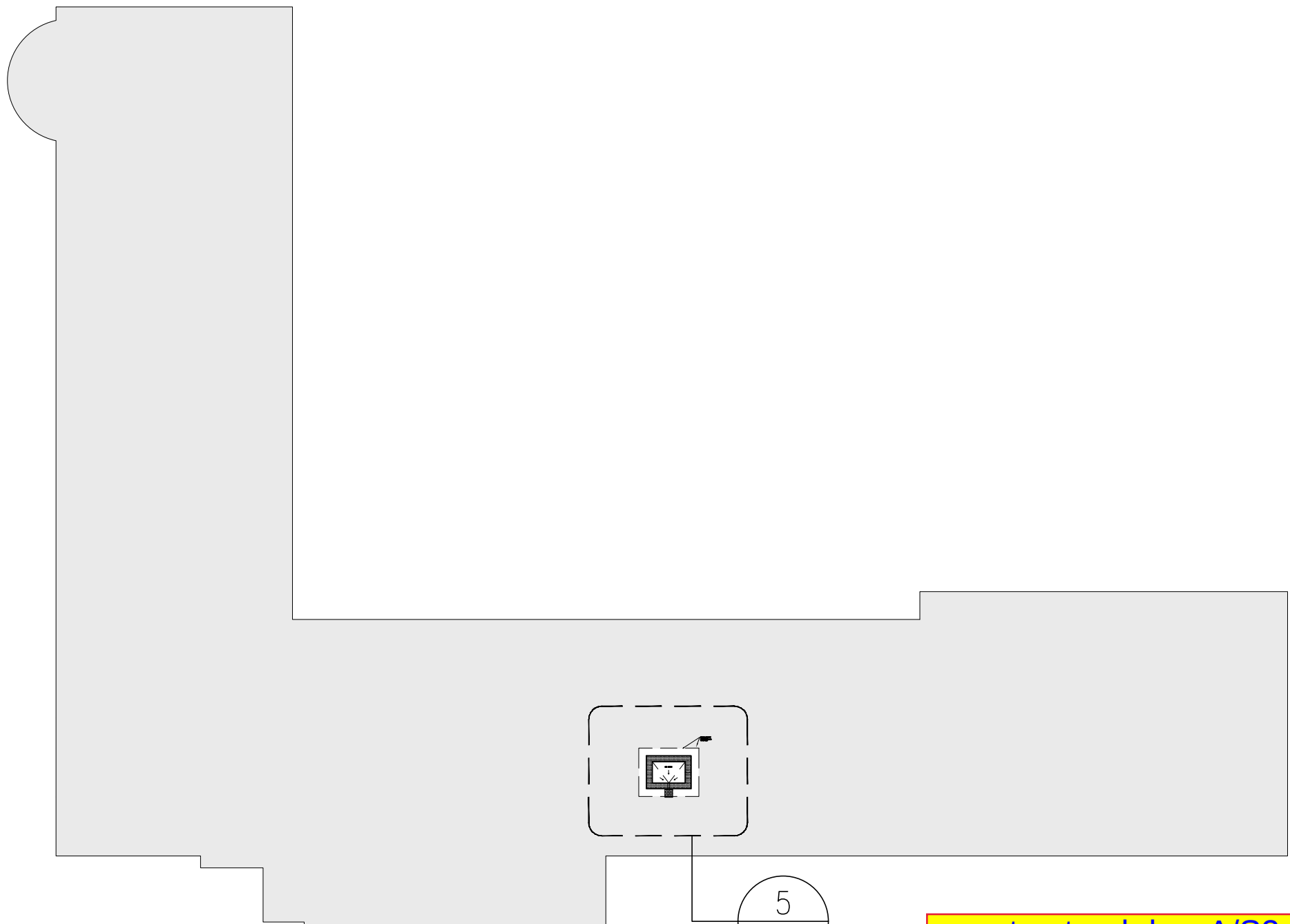
Dwg. Title:
**Demolition &
New Floor Plans
Interior
Elevations**

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

Drawing No.:
A2.0



5 PENTHOUSE ROOF PLAN
A2.1 1:25

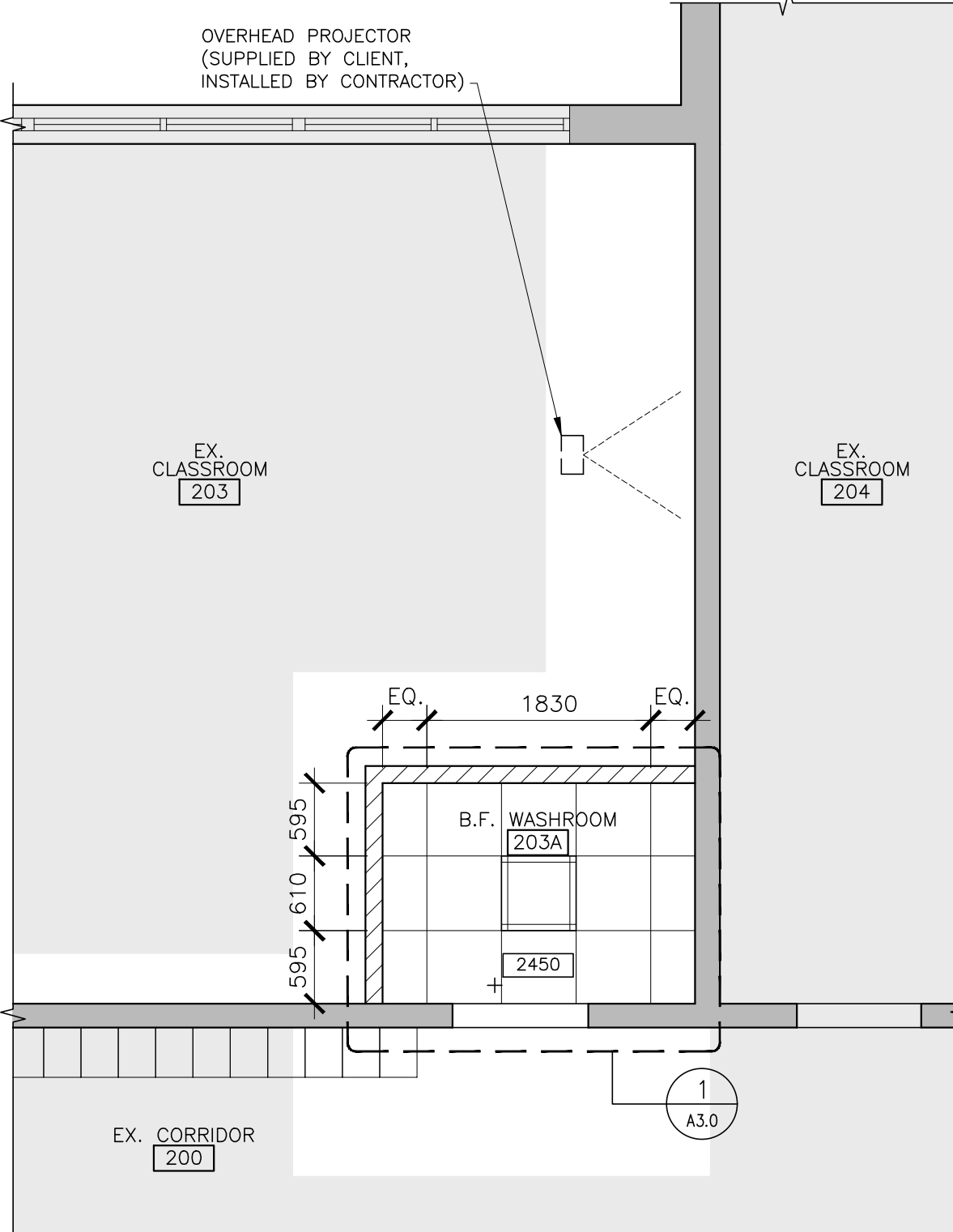


4 PENTHOUSE ROOF - KEY PLAN
A2.1 1:400

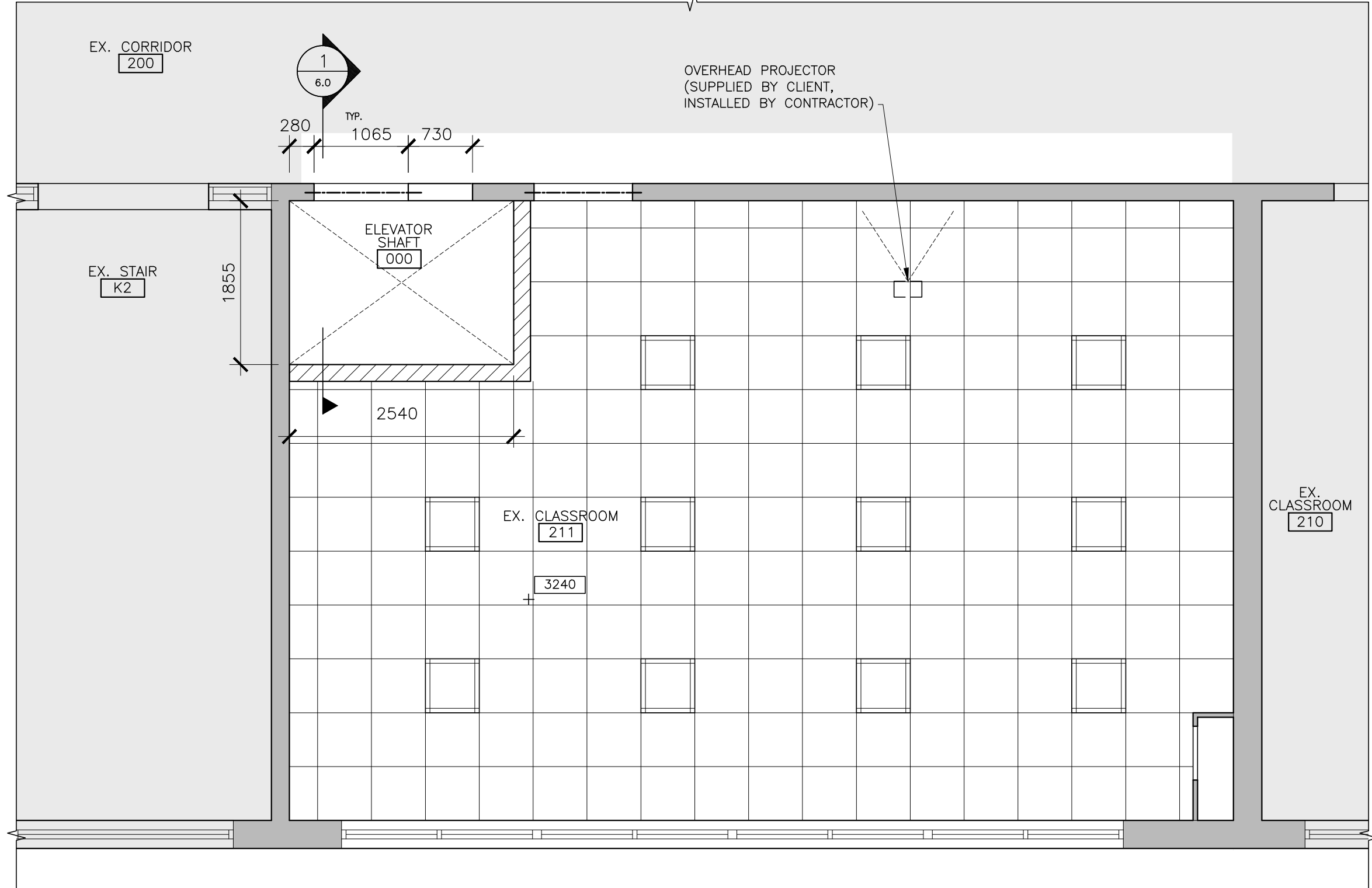
see structural dwg A/S2.0

PLAN KEYNOTES	
NOTE:	ALL KEYNOTES MAY NOT BE USED
1	REINSTALL EXISTING CEILING TILES REMOVED FROM DEMOLITION WORK.
HATCH LEGEND	
	AREA OF WORK
	EX. TO REMAIN
RCP LEGEND	
	EXIT LIGHT
	SURFACE MOUNTED EXTERIOR FIXTURE
	610x610 ACOUSTIC TILE CEILING TYP.
LIGHTING LEGEND	
	610x610 RECESSED LIGHT FIXTURE

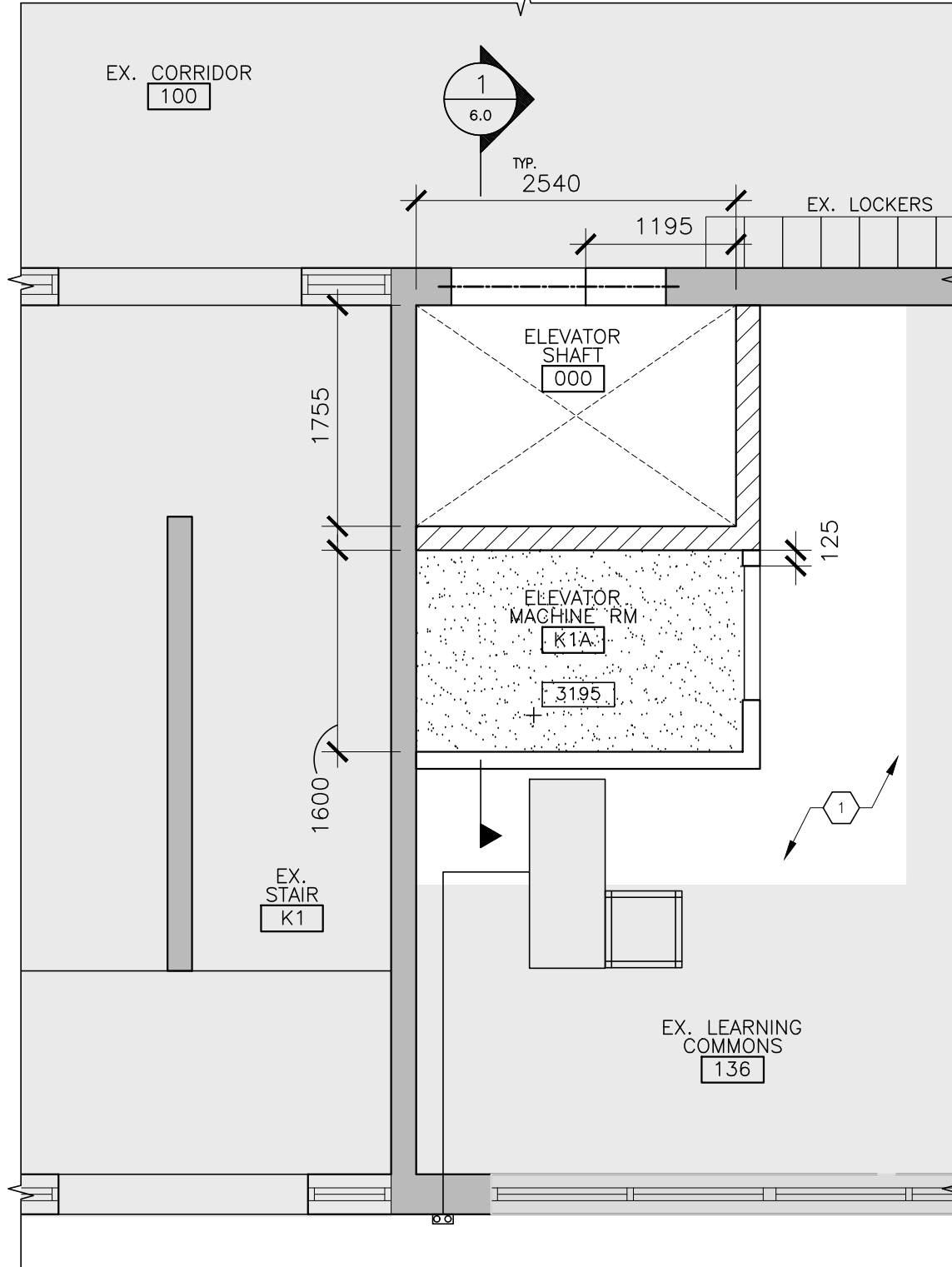
REFLECTED CEILING PLAN LEGEND	
	PROVIDE 16mm TYPE 'X' UNPAINTED GYPSUM BOARD CEILING C/W METAL TRACK TIGHT TO U/S OF LOWEST FIXED ITEMS SUCH AS STRUCTURAL STEEL OR PIPE WORK. GYPSUM CEILING TO PROVIDE 50 MINUTES FIRE- RESISTANCE AS PER SB-2 TABLE 2.3.4.B. AND TABLE 2.3.4.F. TAPE ALL JOINTS AND APPLY COMPOUND TO ALL EXPOSED FASTENERS. GYPSUM BOARD CEILING TO EXTEND ABOVE LOCKERS TO TERMINATE AT CORRIDOR WALLS. PROVIDE 50- 14"x14" MIN. 1- HOUR FIRE-RATED CEILING ACCESS PANELS. ACCESS PANELS TO BE LOCATED AS REQUIRED.



3 B.F. WASHROOM 203A
SECOND FLOOR - RCP
A2.1 1:50



2 EX. CLASSROOM 211
SECOND FLOOR - RCP
A2.1 1:50



1 EX. LEARNING COMMONS 136
GROUND FLOOR - RCP
A2.1 1:50



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NOTE: DRAWINGS ARE NOT TO BE SCALED.

No.	Date	Remarks
02	2026-02-27	Issued for Permit
01	2025-11-19	Issued for Client Review

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

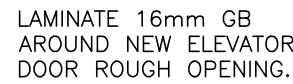
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Reflected
Ceiling Plan &
Penthouse Plan

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

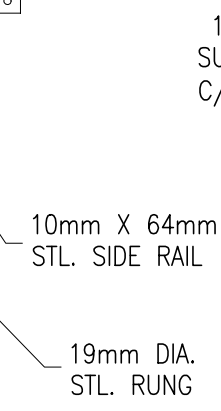
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Drawing No.:
A3.0

see structural detail A/S2.0



4 GB
A6.0 1:5



3 DET
A6.0 1:20



2 PA
A6.0 1:5



1	ELE
A6.0	1:20



1118 JAMES ST. NORTH, SUITE 300, HAMILTON, ONTARIO L8R 2K7
TEL 905-297-0863



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02	2026-02-27	Issued for Permit
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**Interior Renovations for
HWDSB Norwood
Accessibility Upgrades**
165 Terrace Dr, Hamilton,
ON L9A 2T2

Sections & Details

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

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 LATEROALLY 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.

CITY OF HAMILTON
Building Division

Permit No. 26-101123-00
THESE STAMPED DRAWINGS SHALL BE AVAILABLE ON SITE
THE OWNER AND/OR CONTRACTOR SHALL COMPLY WITH THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE LAW
These drawings and/or specifications have been reviewed by *Shirley* Jun. 04, 2026
FOR CHIEF BUILDING OFFICIAL DATE



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02/29/01/2026	Issued for Permit	
01/26/01/2026	Issued for Client Review	
No.	Date	Remarks

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

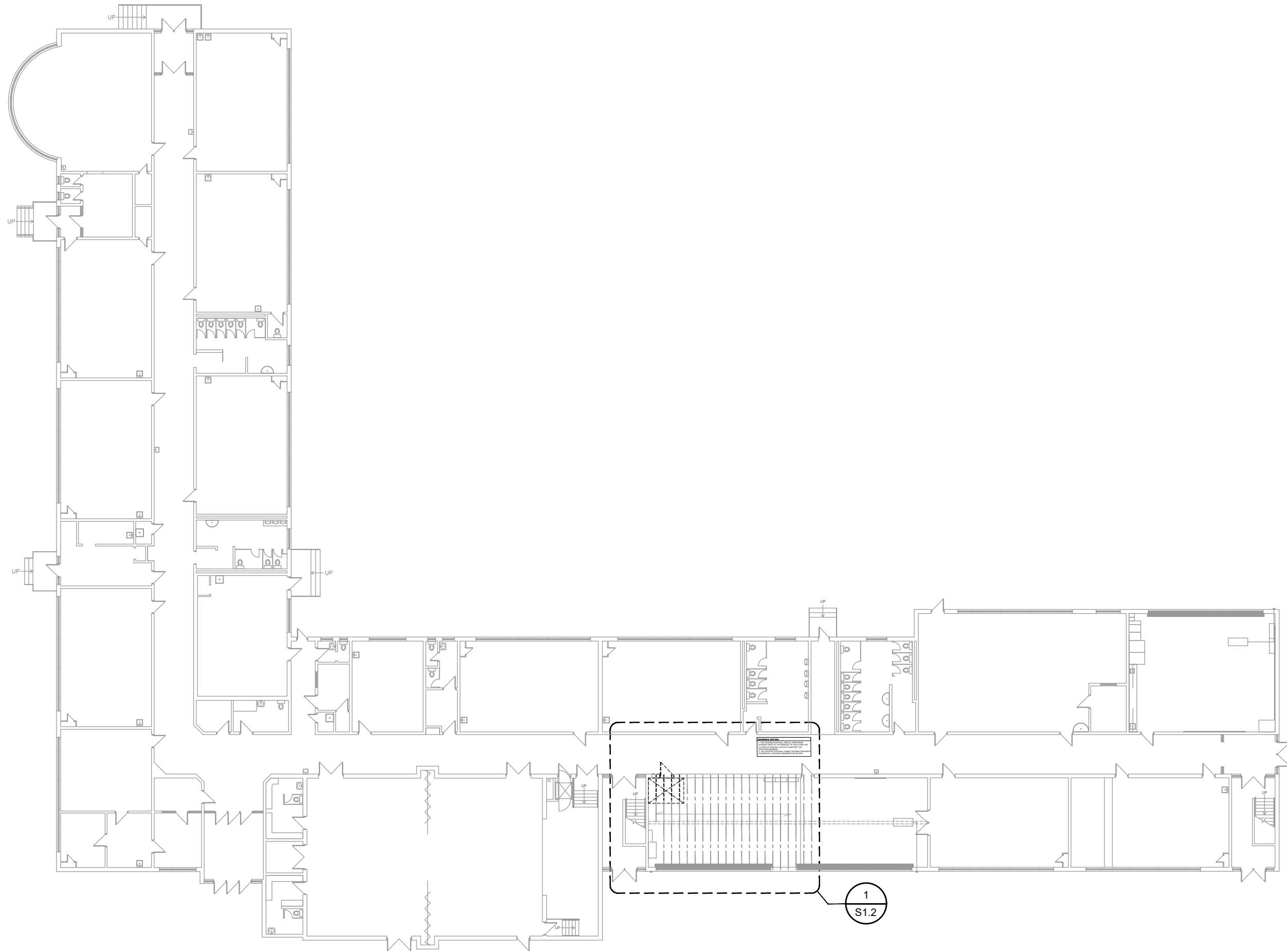
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GENERAL
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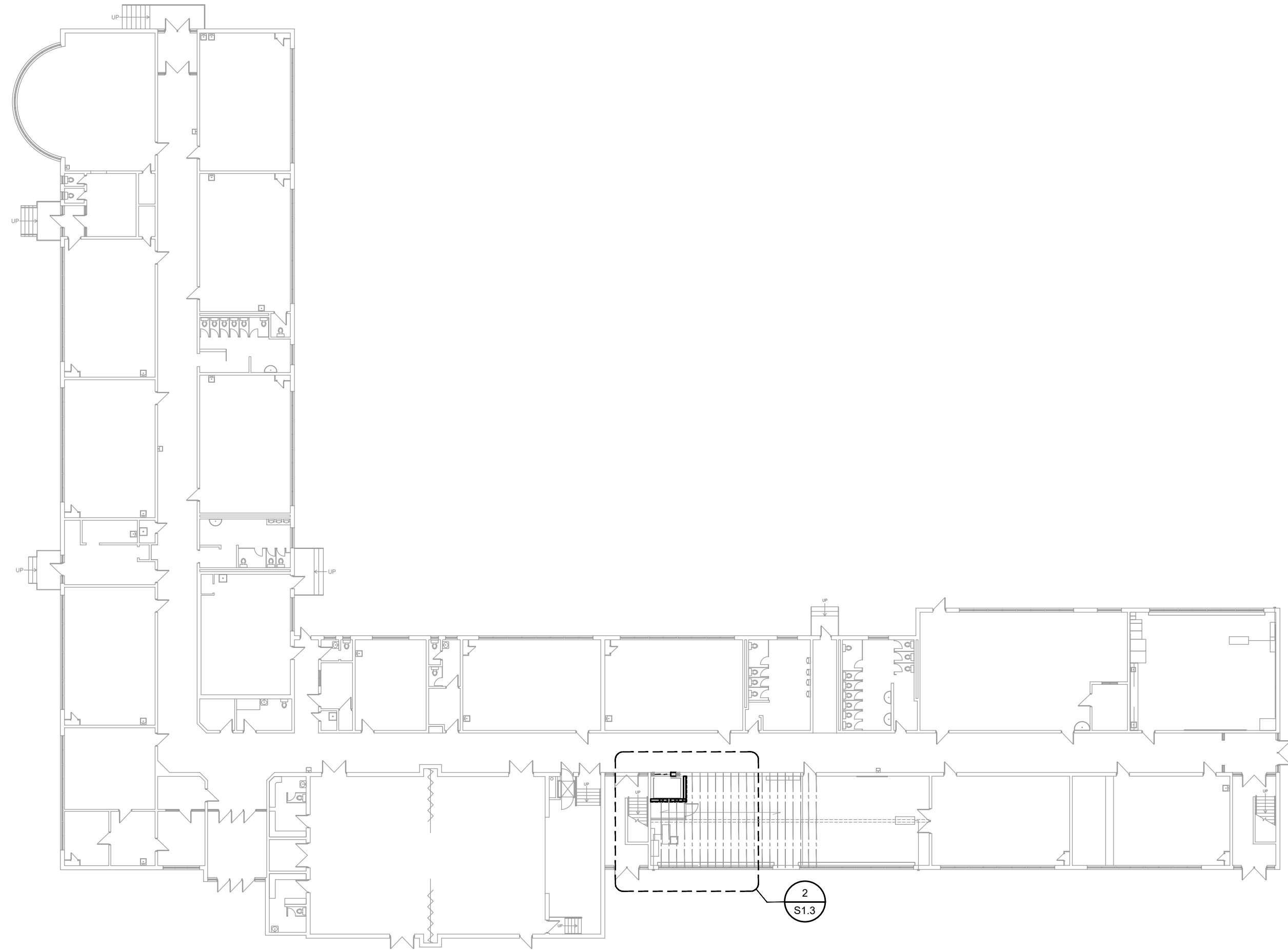
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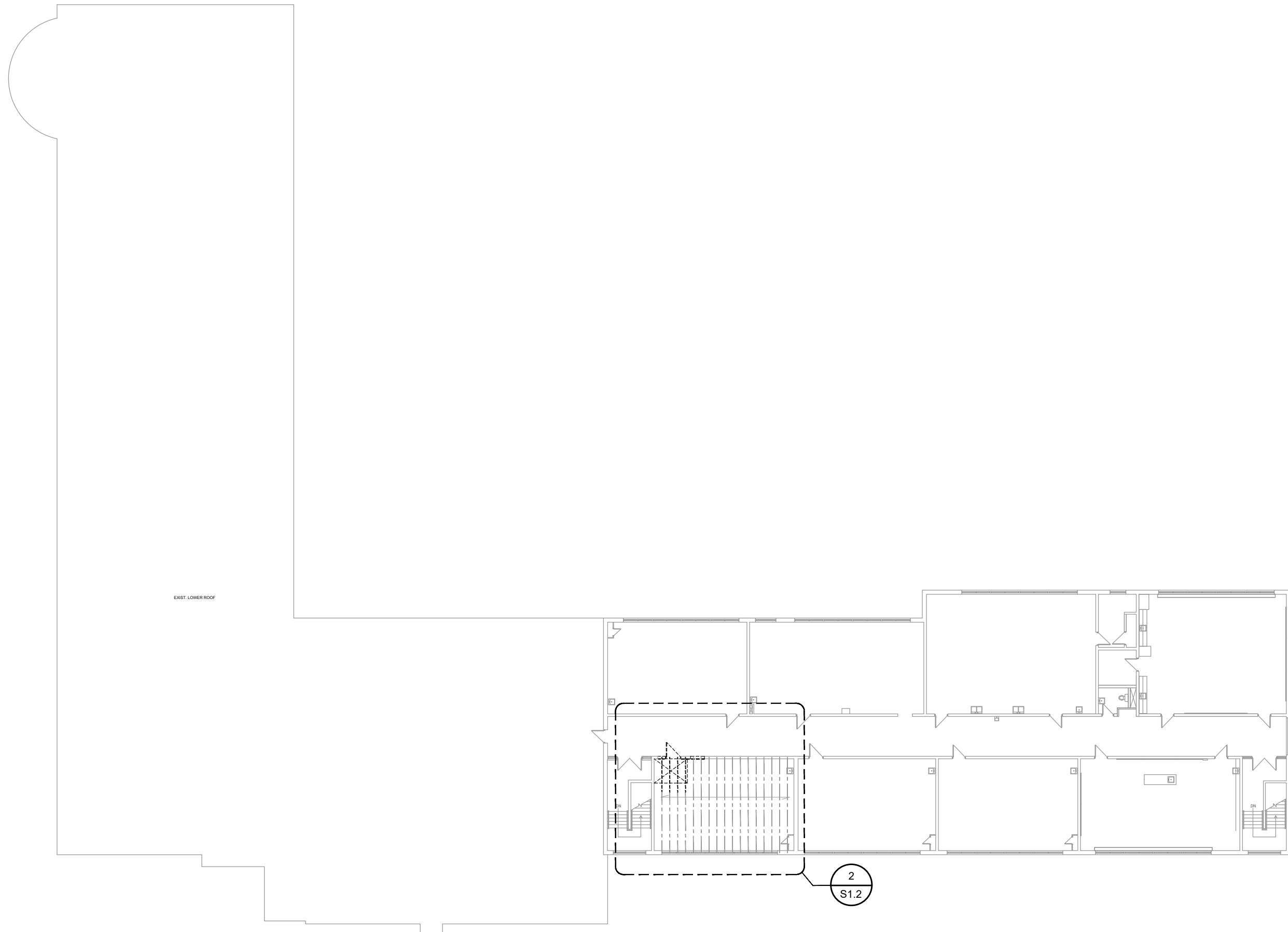
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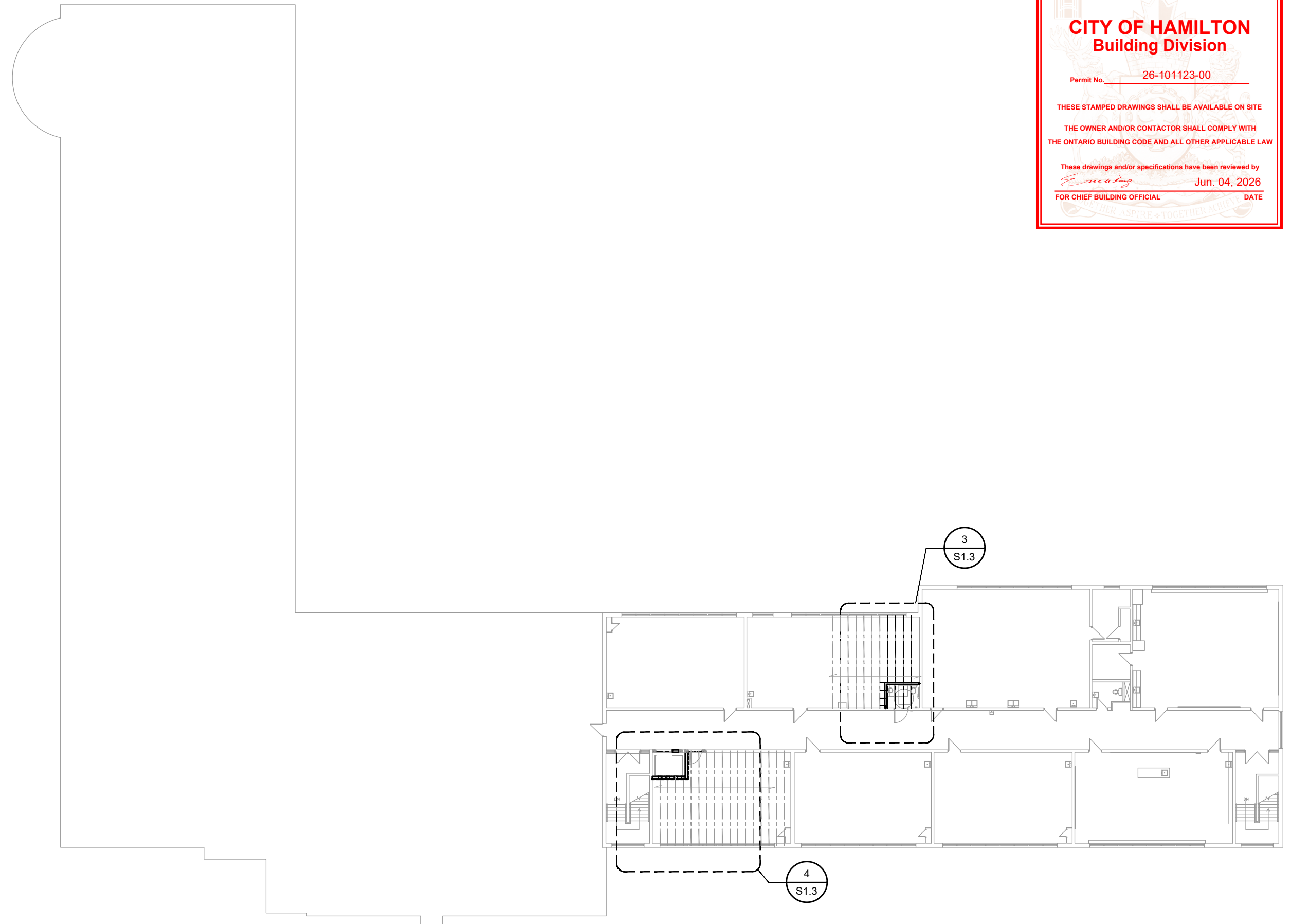
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S1.0 SCALE: 1:300



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



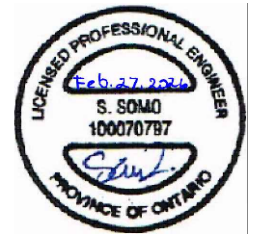
3 SECOND FLOOR DEMOLITION PLAN
S1.0 SCALE: 1:150



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

AILMAR ENGINEERING INC.
STRUCTURAL ENGINEERS

94 CURRAN RD.
ANCASTER, ON. L9K 0H4
PHONE: (905) 966-4797



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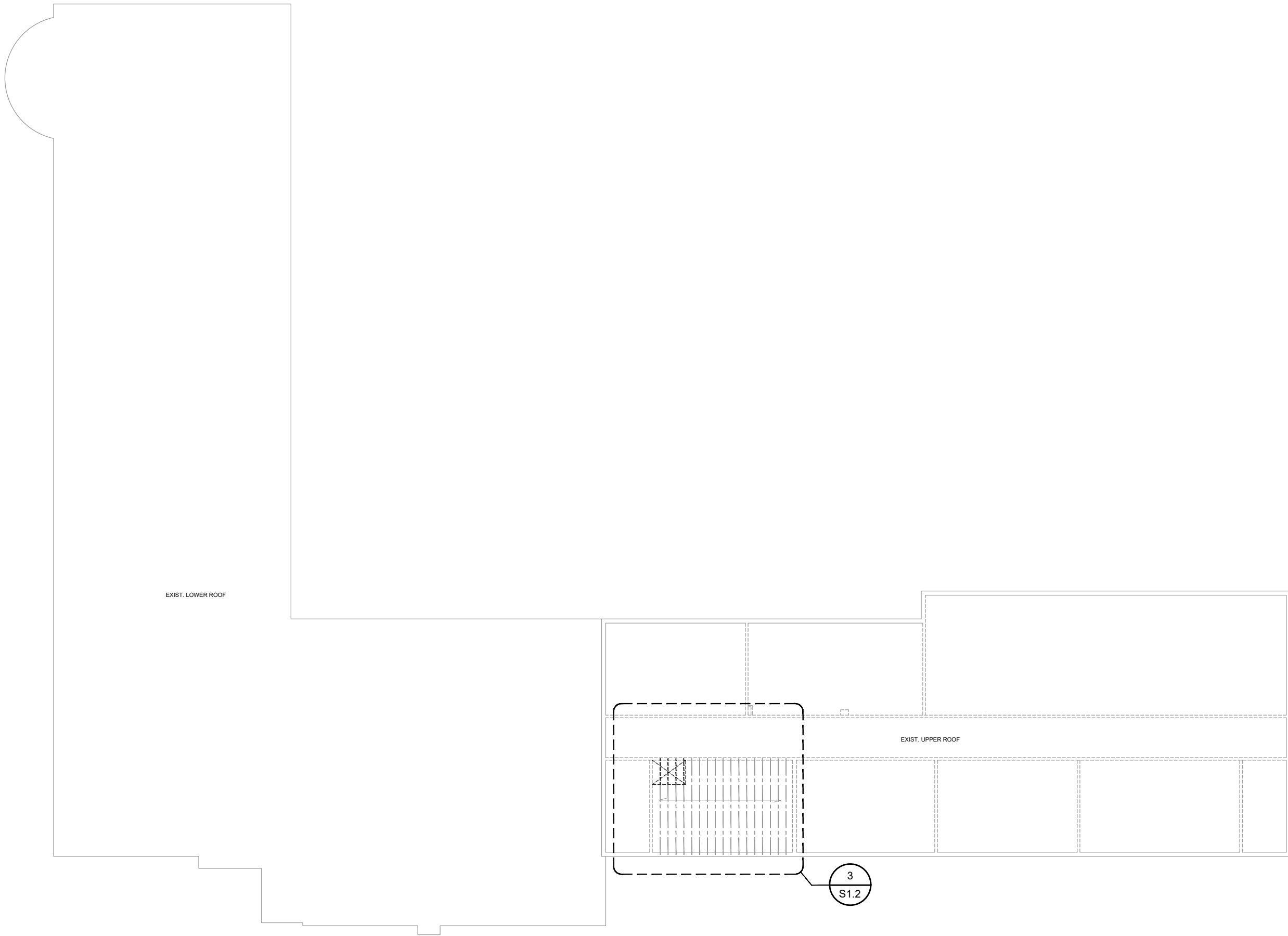
Renovations to
HWDSB Norwood Park
Accessibility Upgrades
165 Terrace Dr, Hamilton,
ON L9A 2Z2

Dwg. Title:
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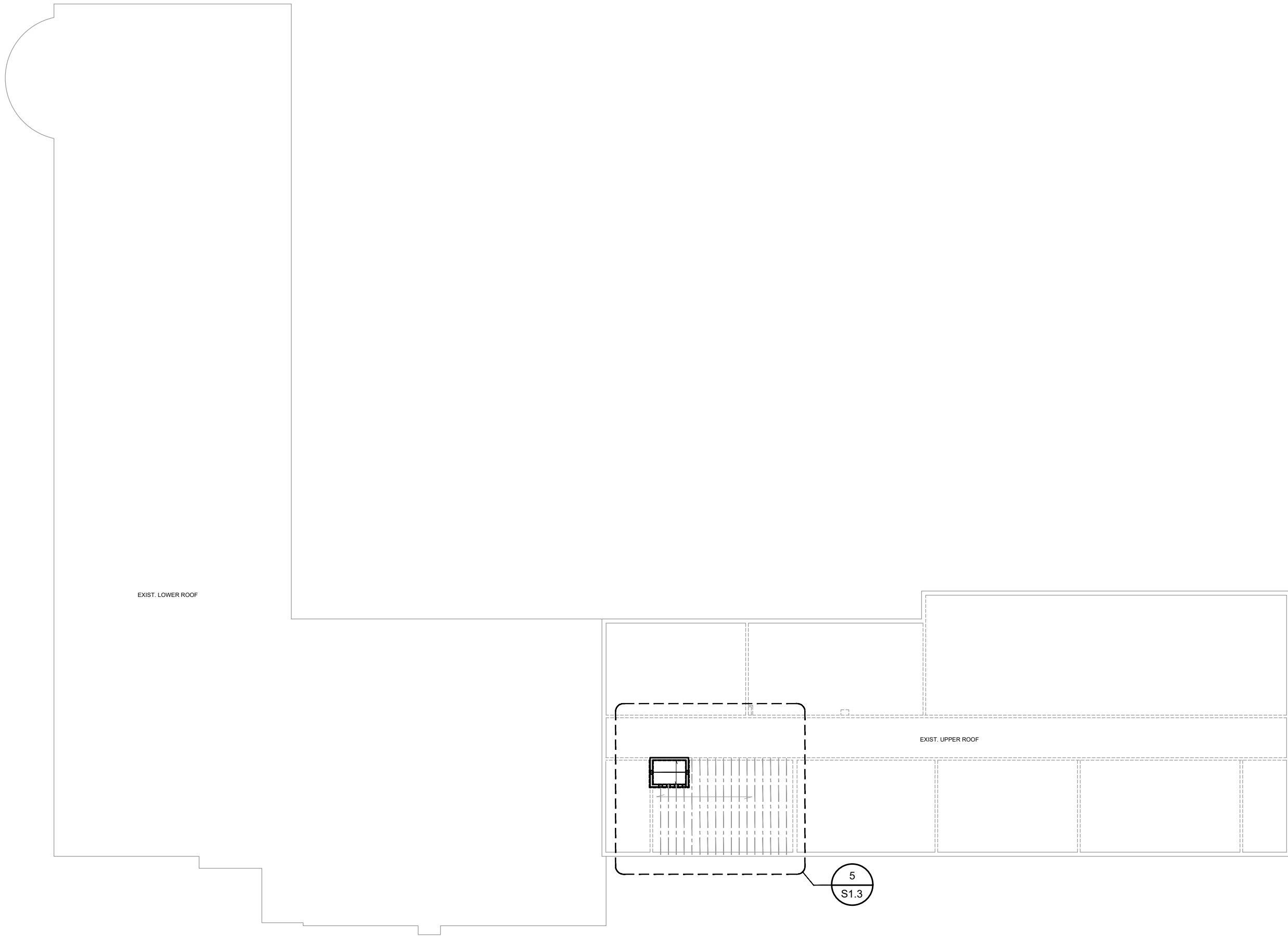
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Drawing No.:

S1.0



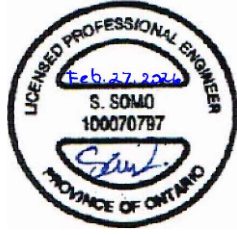
1 ROOF DEMOLITION PLAN
S1.1 SCALE: 1:300



2 ROOF PLAN
S1.1 SCALE: 1:300



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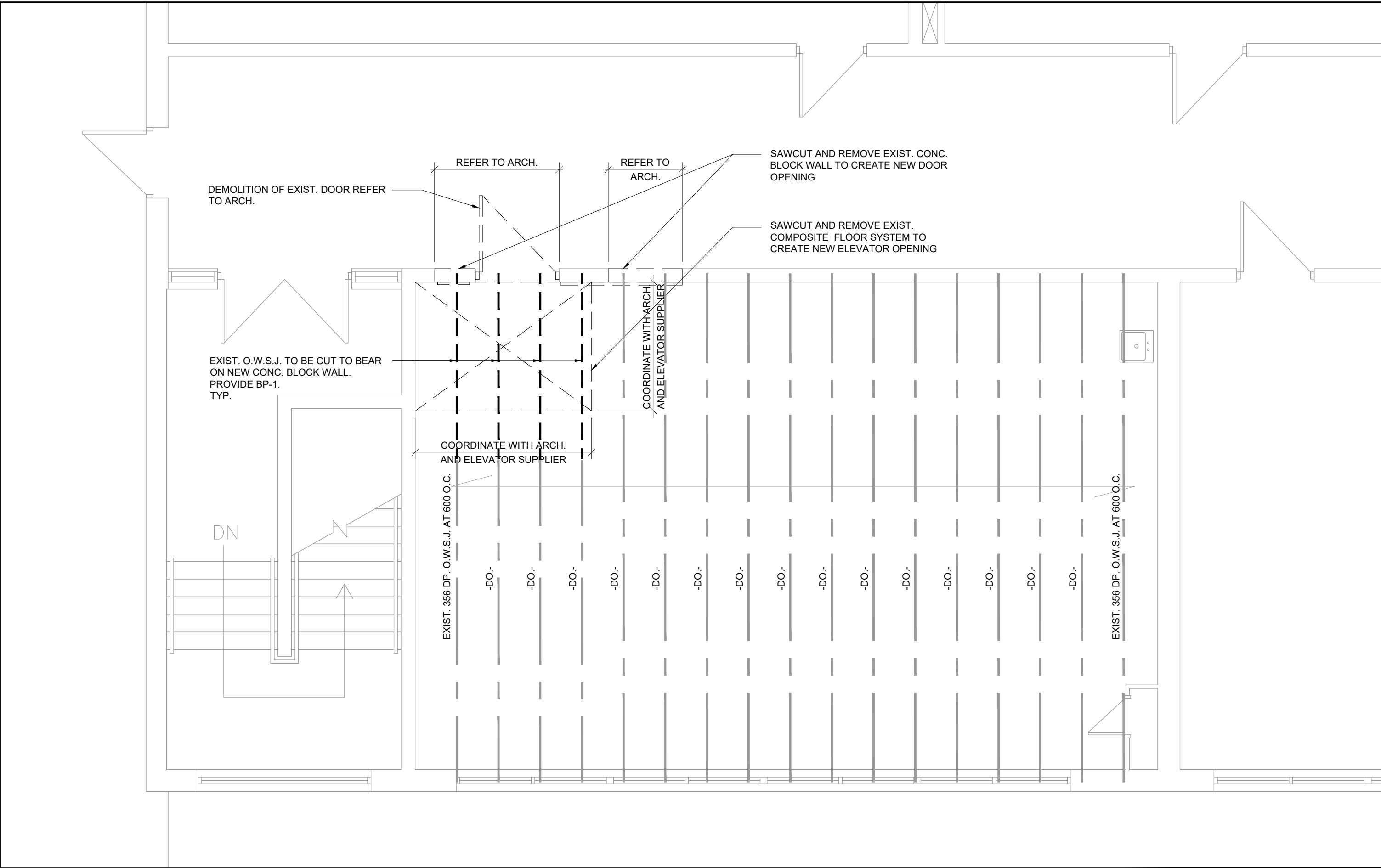
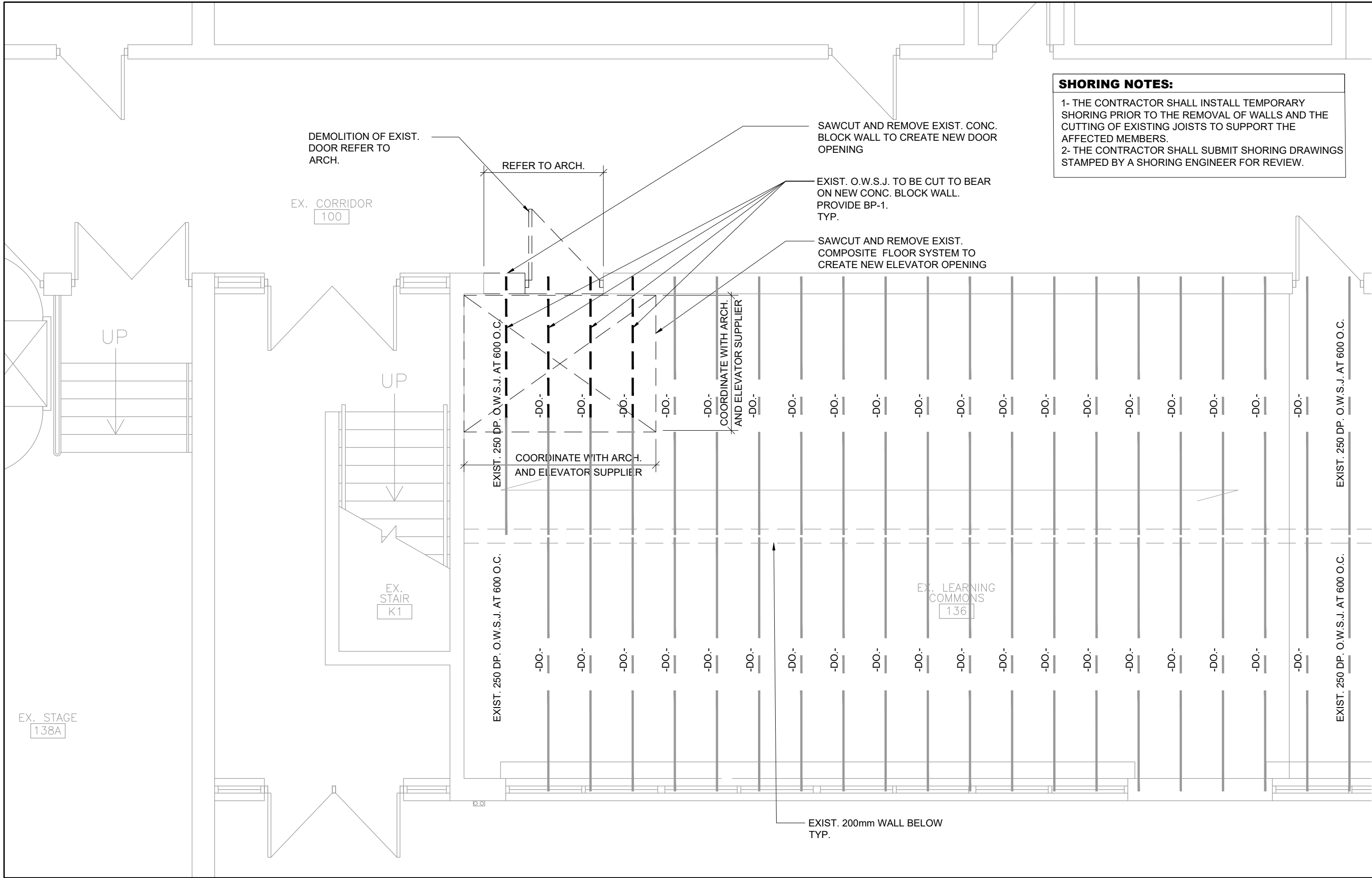
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Dwg. Title:
FLOOR PLANS

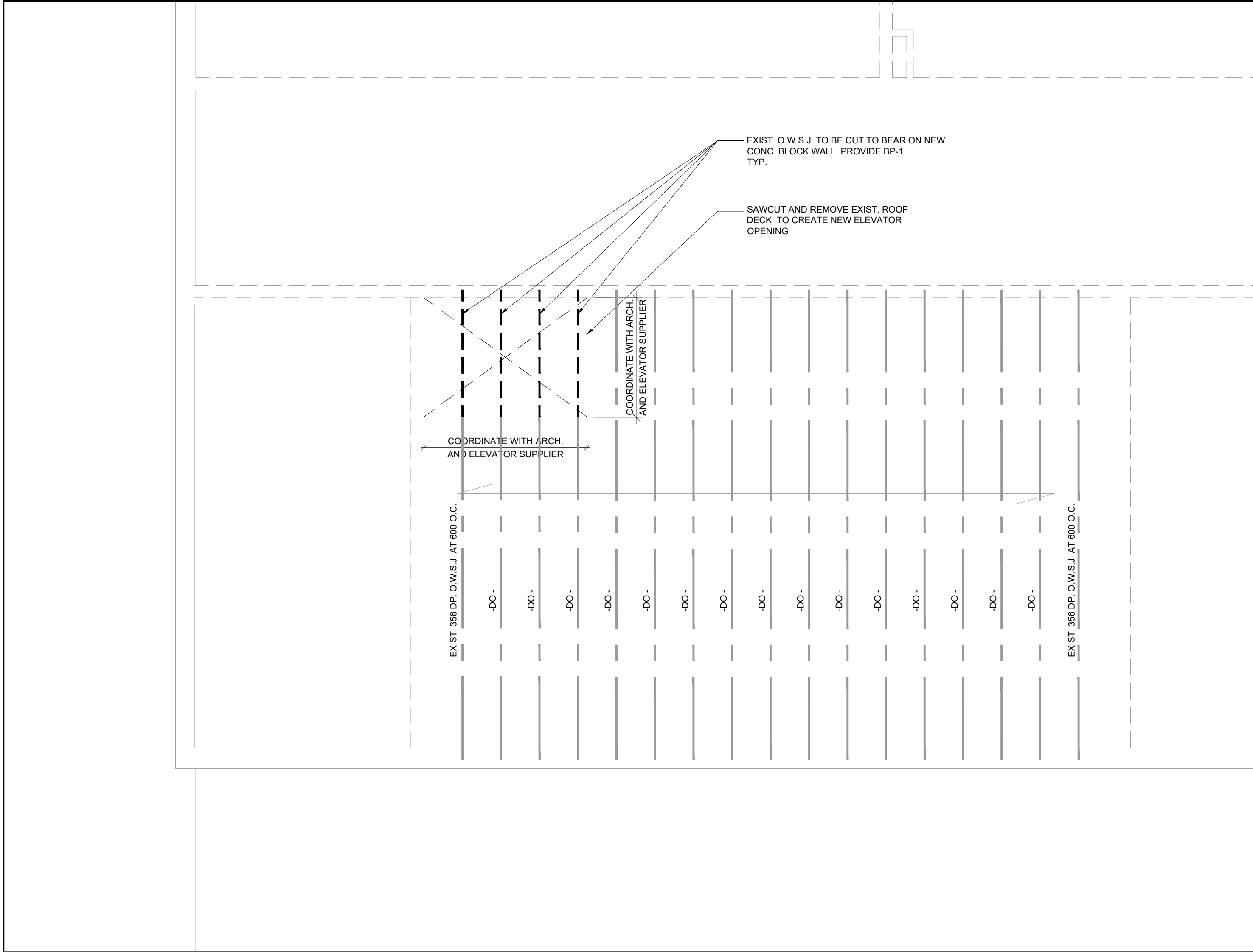
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Scale:	As noted		
Date:	JAN, 2026		

Drawing No.:
S1.1



1 PARTIAL GROUND FLOOR DEMOLITION PLAN
S1.2 SCALE: 1:50

2 PARTIAL SECOND FLOOR DEMOLITION PLAN
S1.2 SCALE: 1:50



3 PARTIAL ROOF DEMOLITION PLAN
S1.2 SCALE: 1:50



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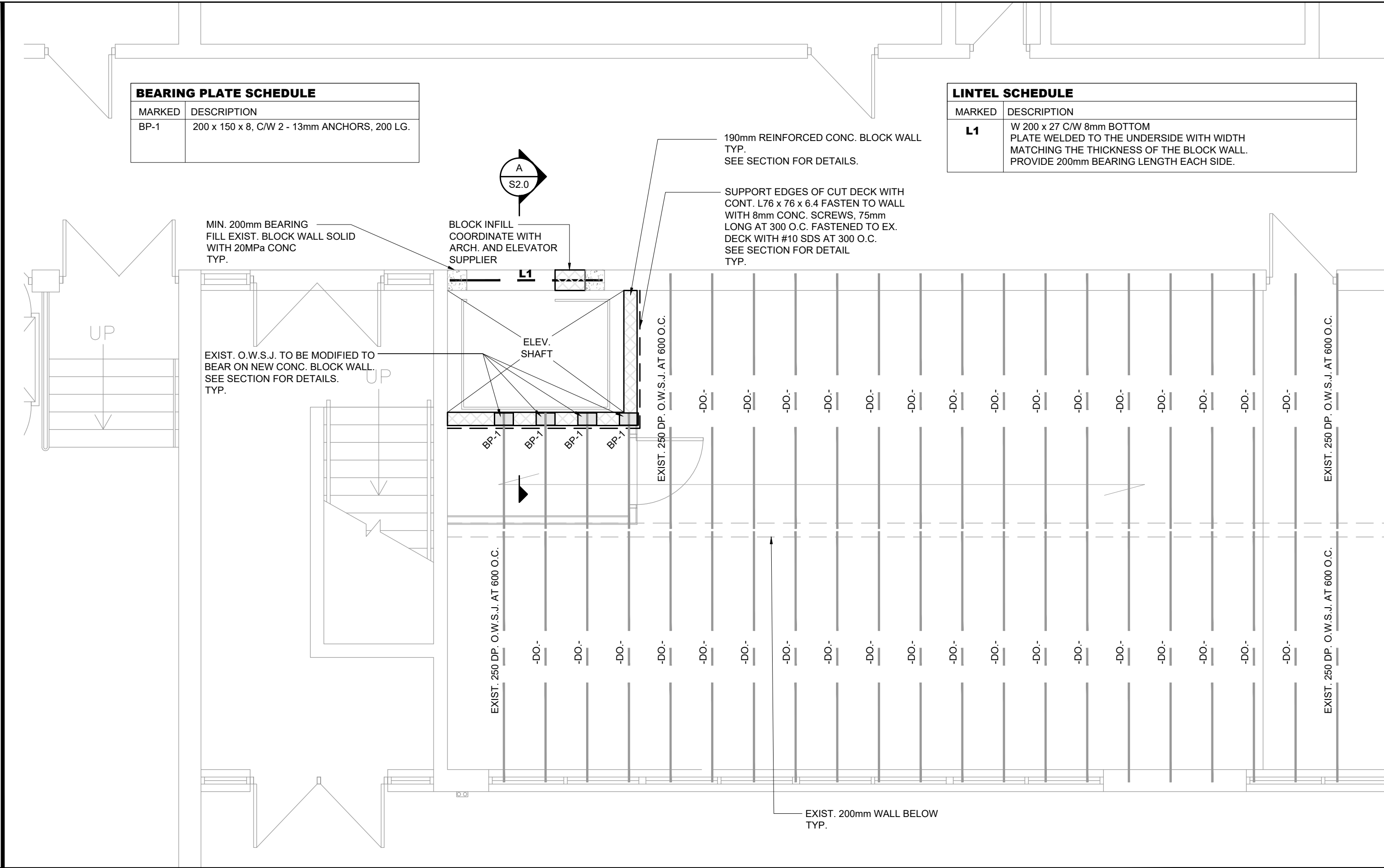
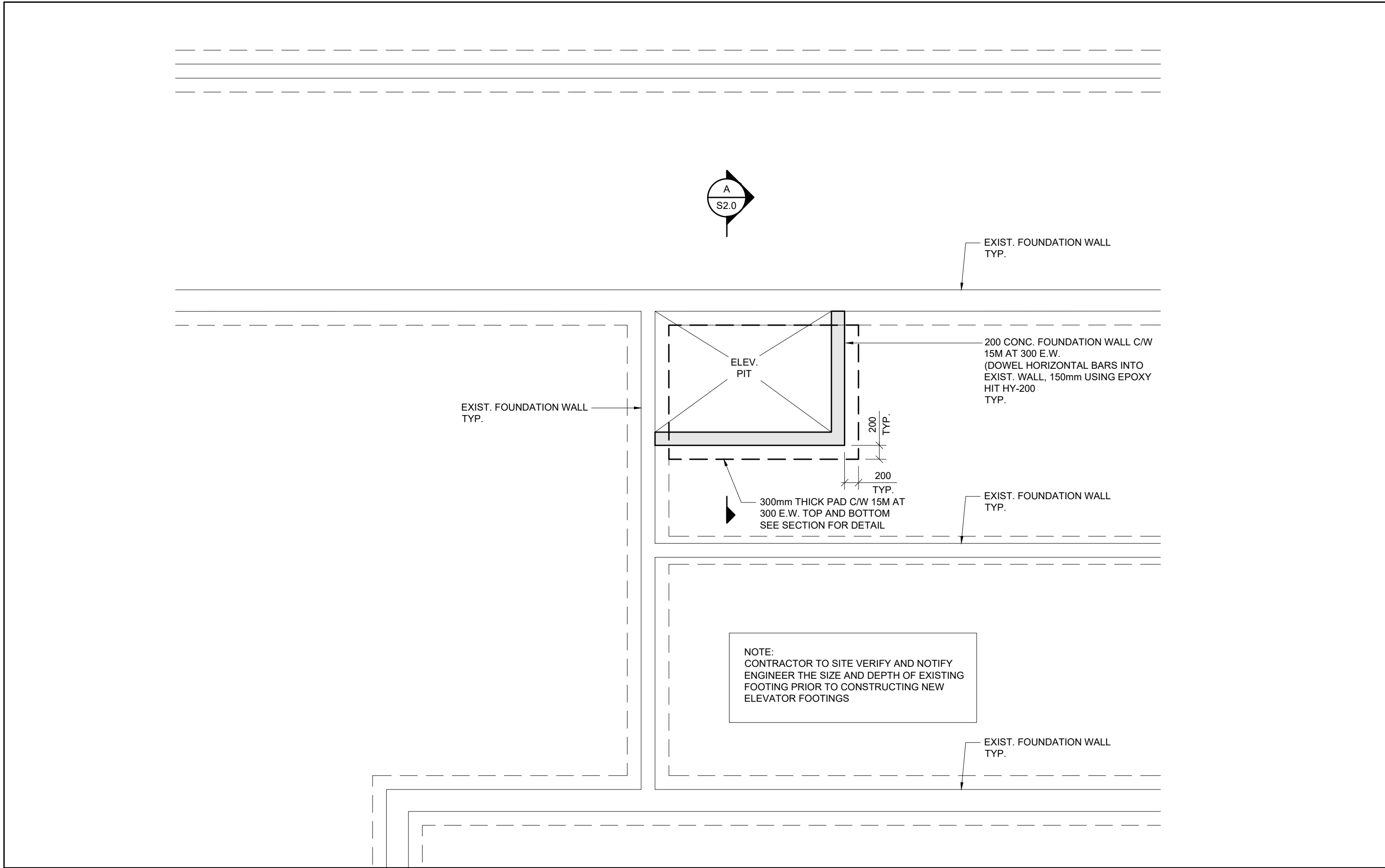


Renovations to
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Accessibility Upgrades
165 Terrace Dr, Hamilton,
ON L9A 2Z2

Dwg. Title:
**PARTIAL
DEMOLITION
PLANS**

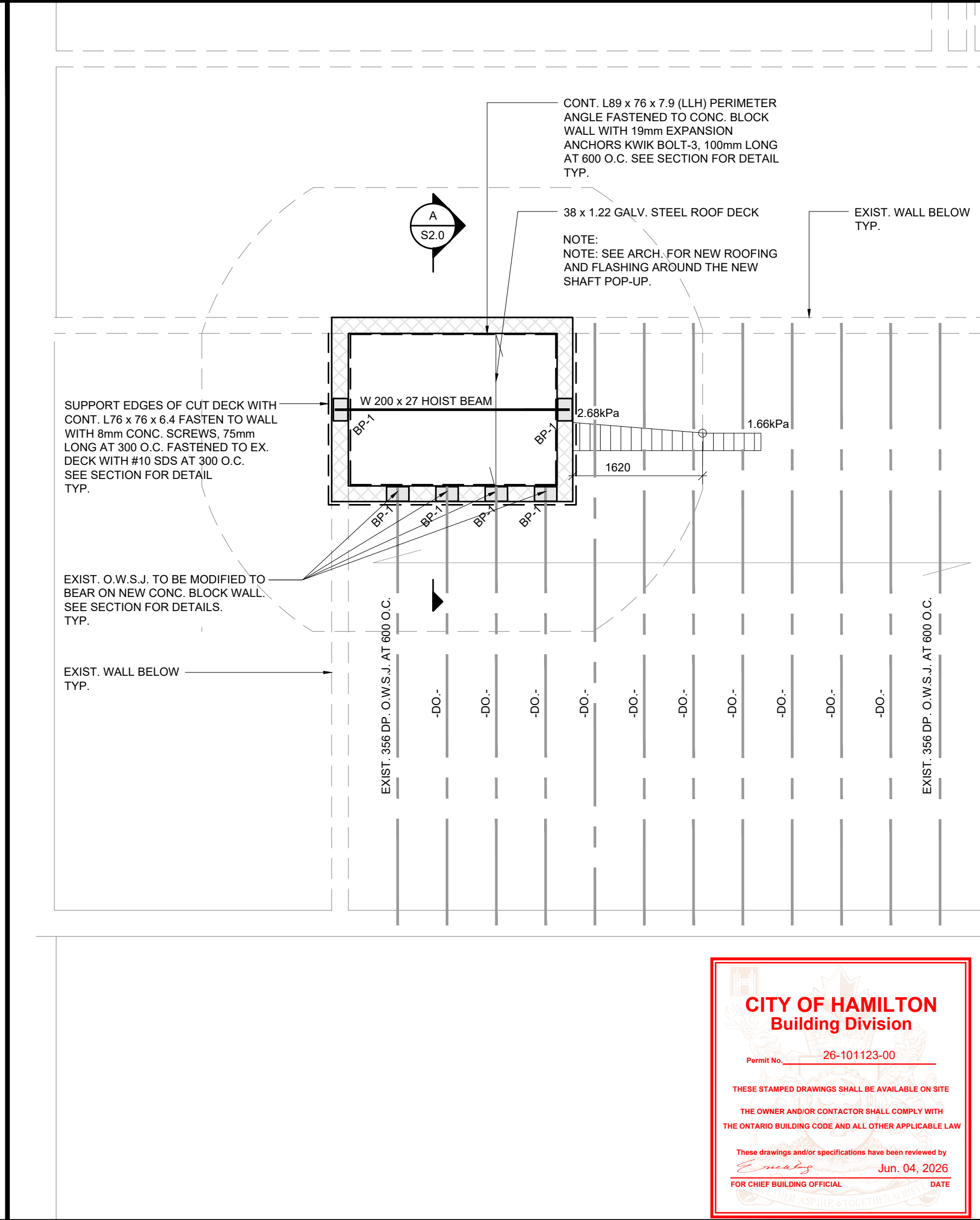
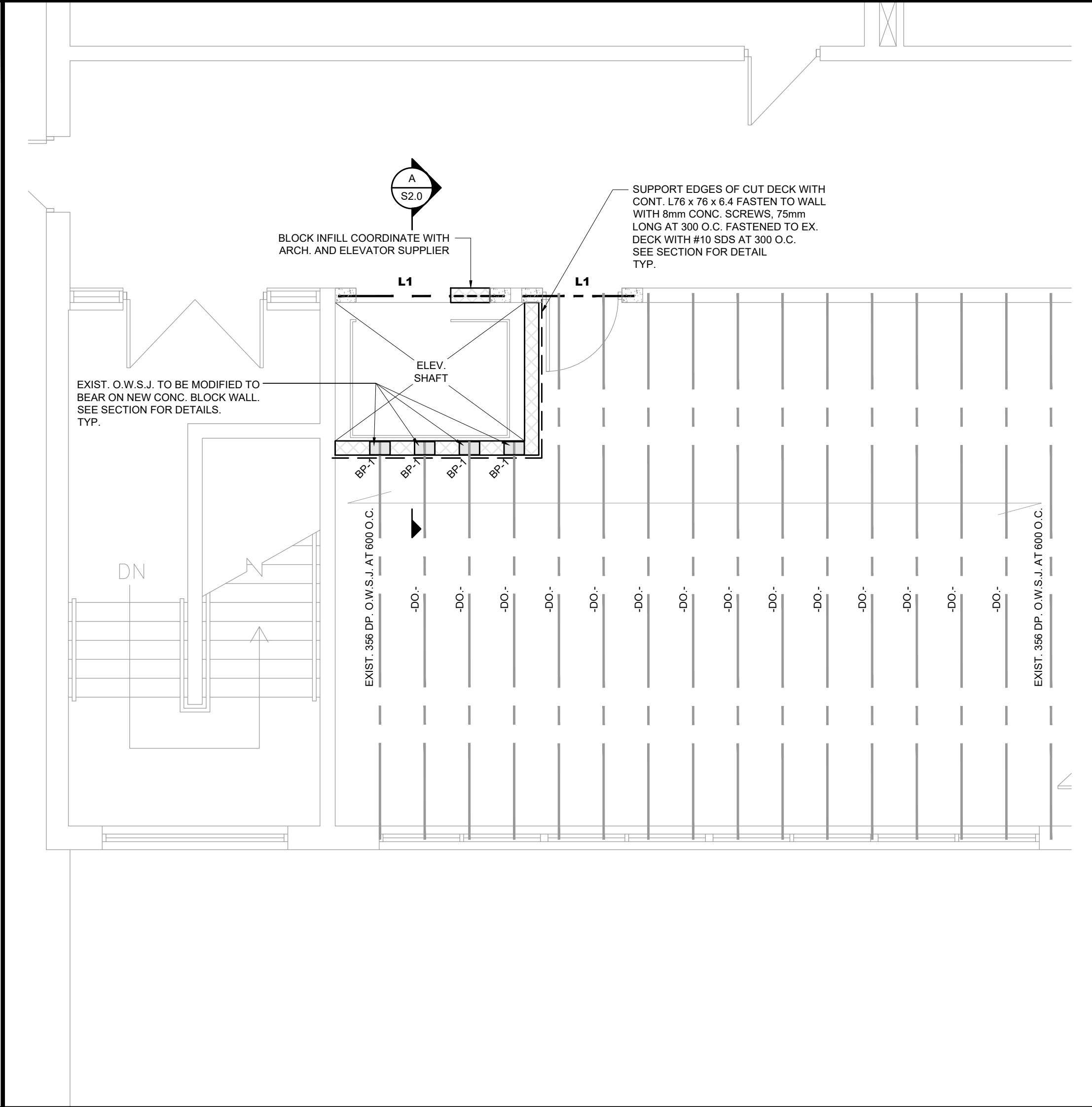
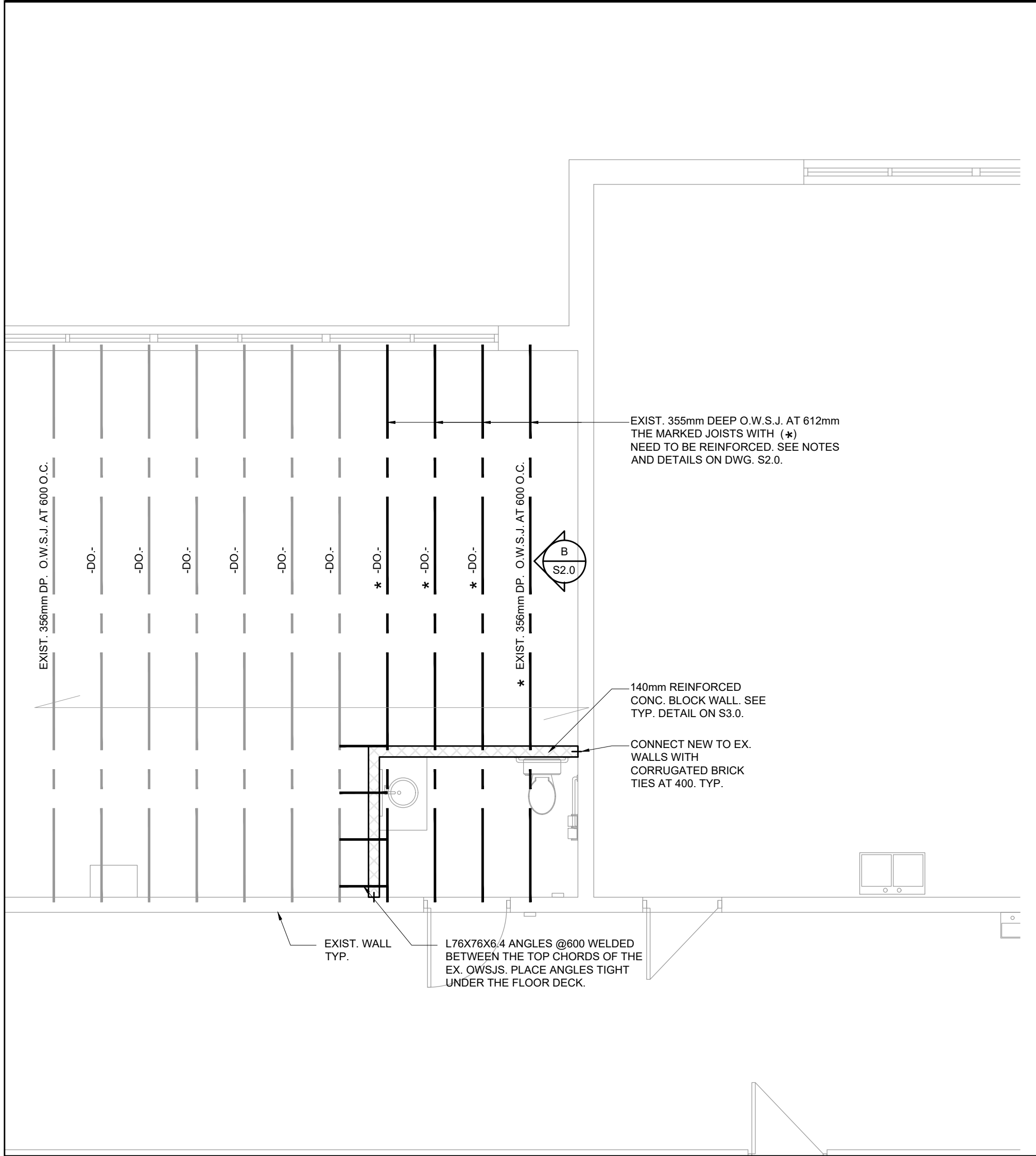
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Proj. No.:	14019		
Scale:	As noted		
Date:	JAN, 2026		

Drawing No.:
S1.2



1 PARTIAL FOUNDATION PLAN
SCALE: 1:50

2 PARTIAL GROUND FLOOR FRAMING PLAN
SCALE: 1:50



3 PARTIAL GROUND FLOOR FRAMING PLAN
SCALE: 1:50

4 PARTIAL SECOND FLOOR FRAMING PLAN
SCALE: 1:50

5 PARTIAL ROOF FRAMING PLAN
SCALE: 1:50

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Renovations to
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165 Terrace Dr, Hamilton,
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Dwg. Title:
PARTIAL
FRAMING
PLANS

Drwn: S.K. Chkd: S.S.
Proj. No.: 14019
Scale: As noted
Date: JAN. 2026

Drawing No.:
S1.3

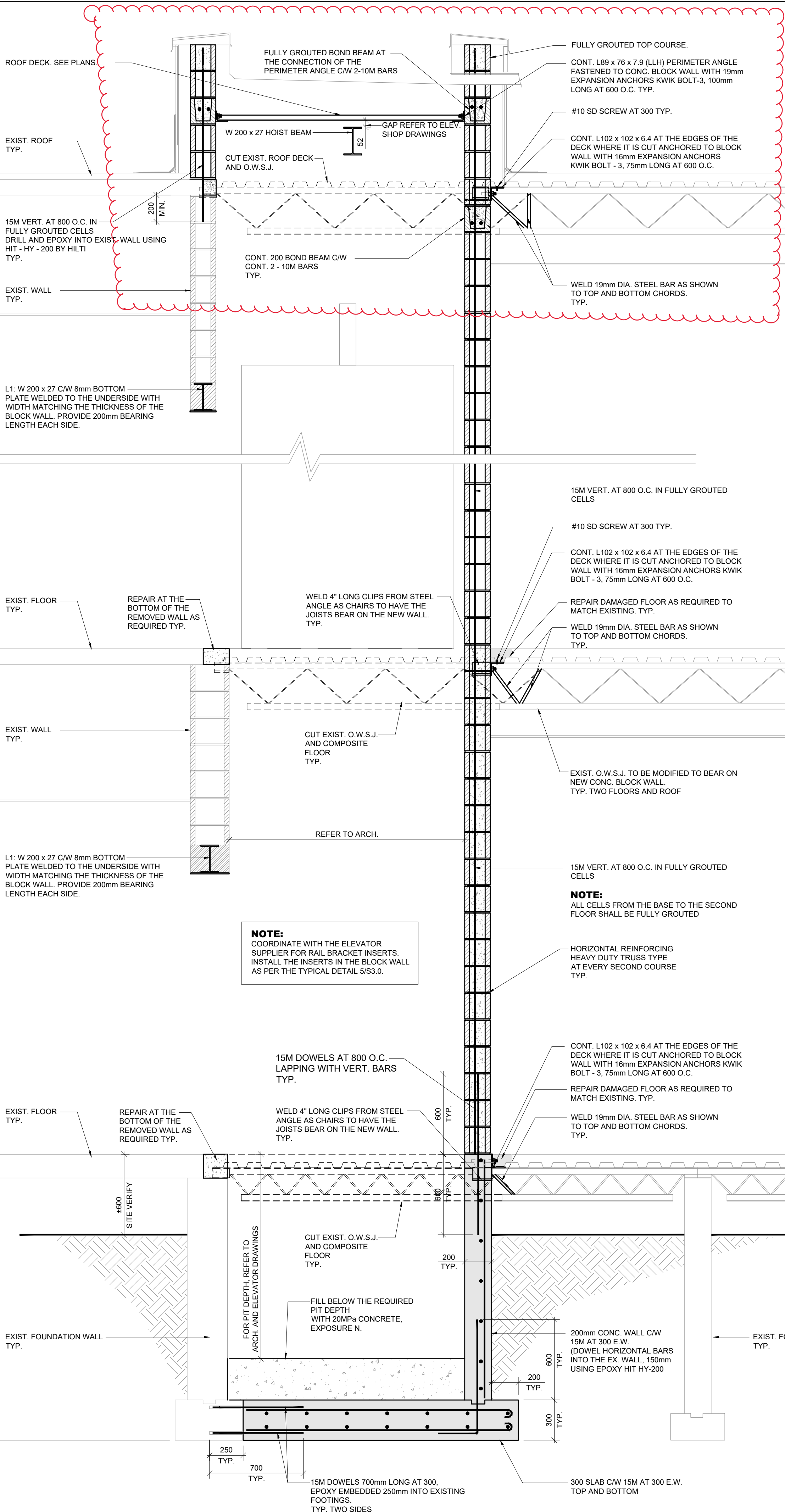


EXIST. ROOF
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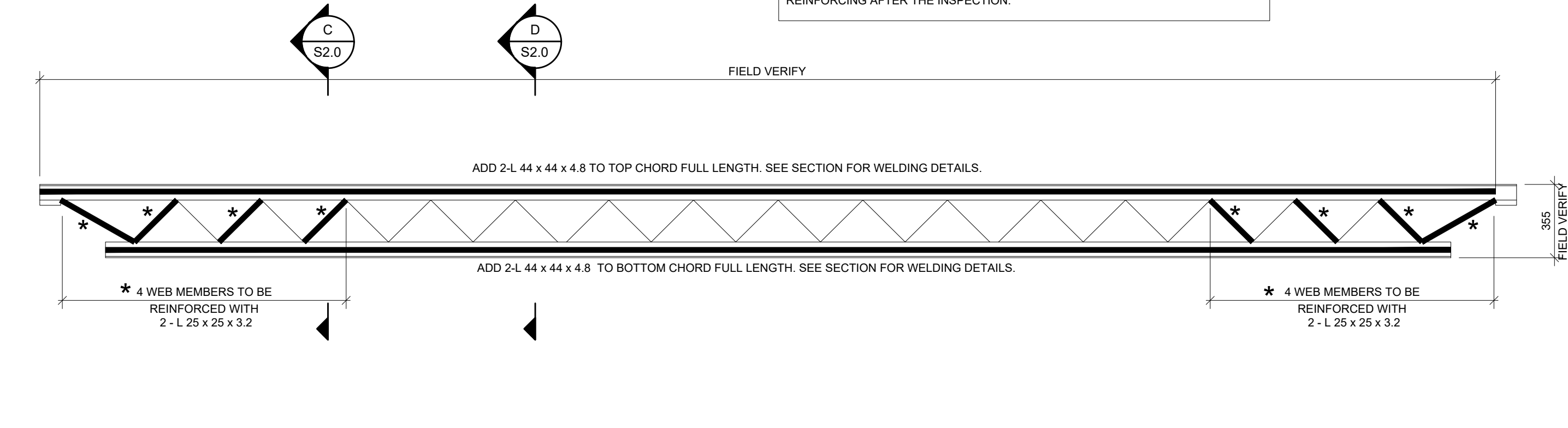
EXIST. SECOND FLOOR
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EXIST. GROUND FLOOR
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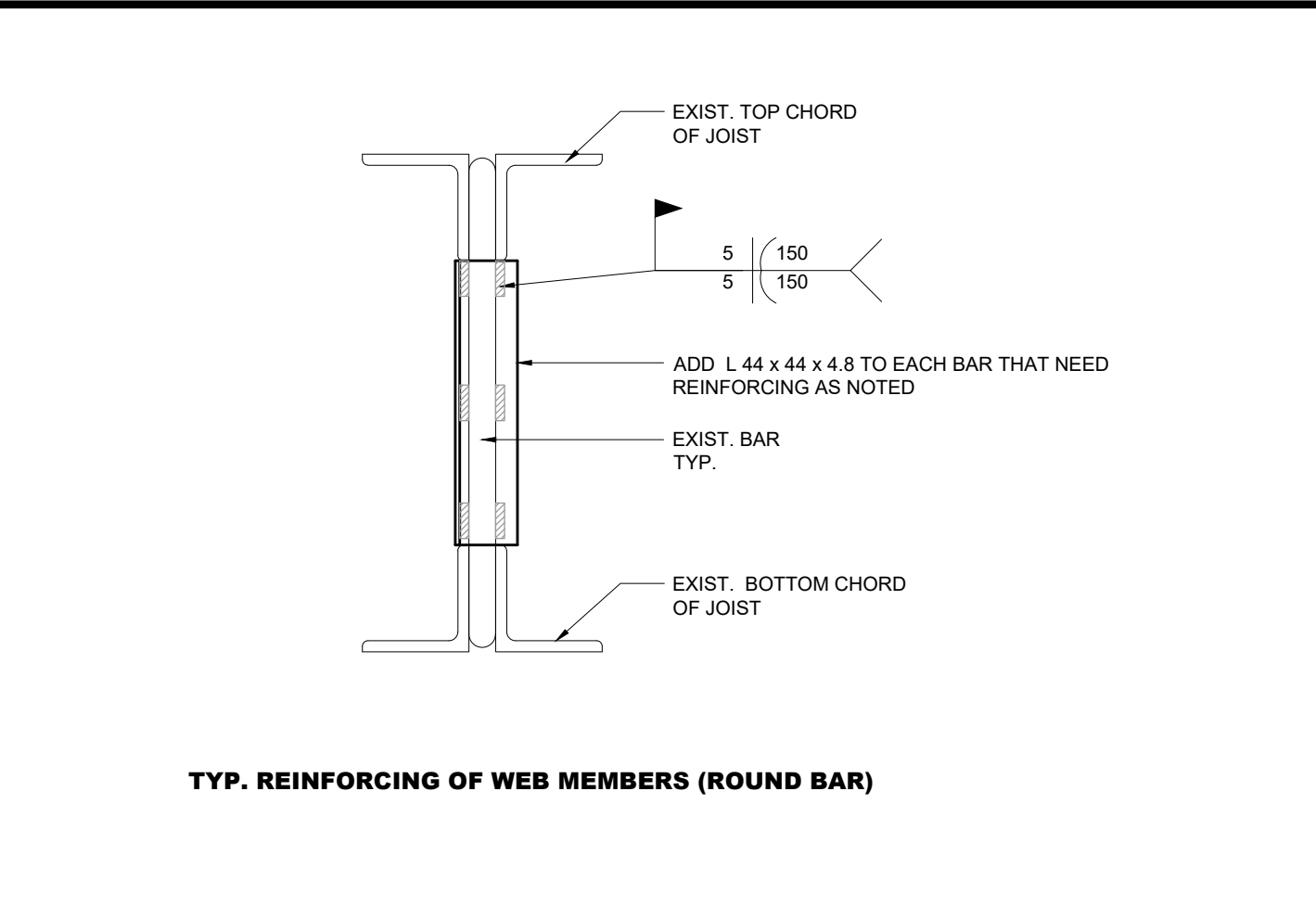
U/S OF EXIST. FOOTING
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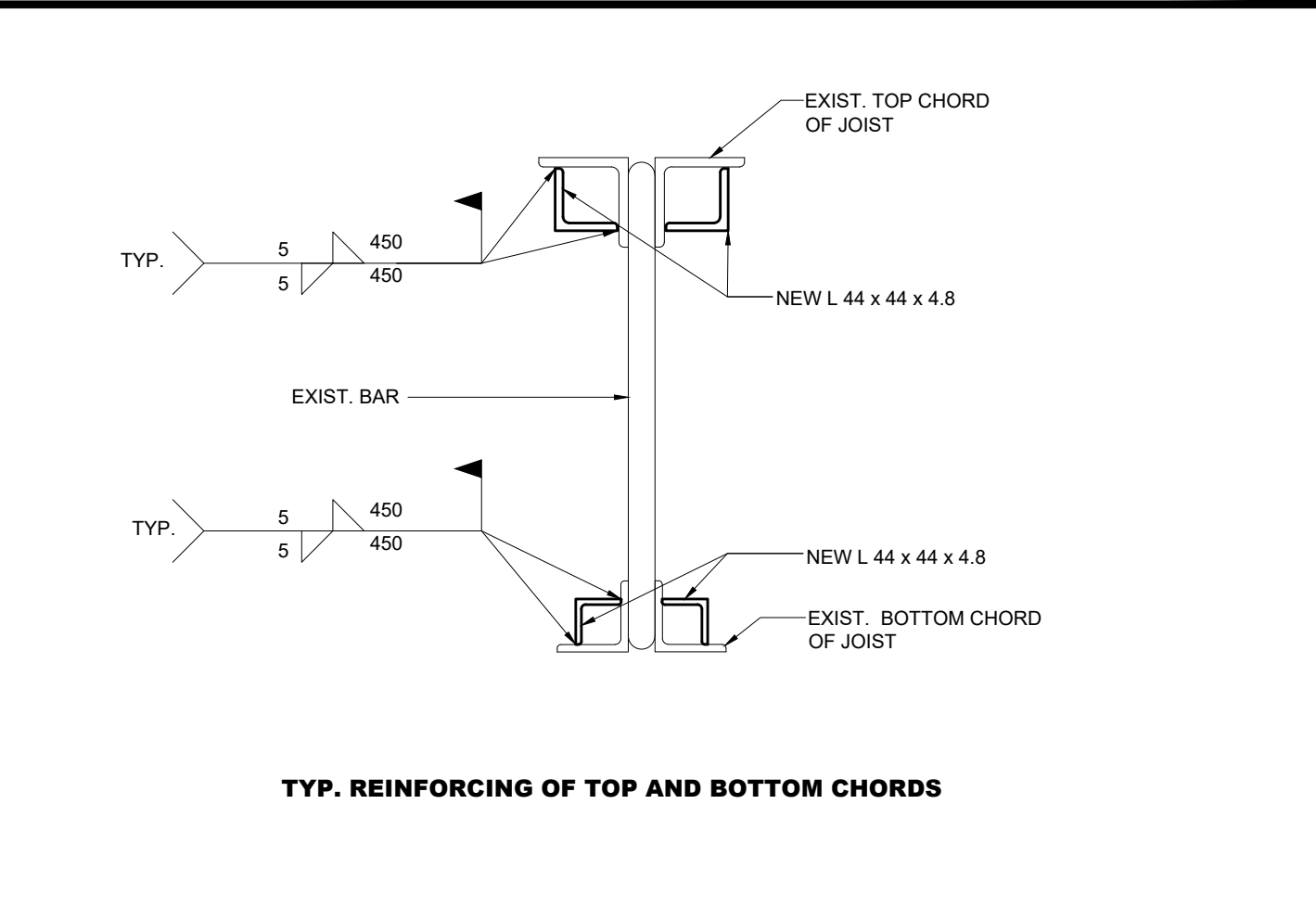
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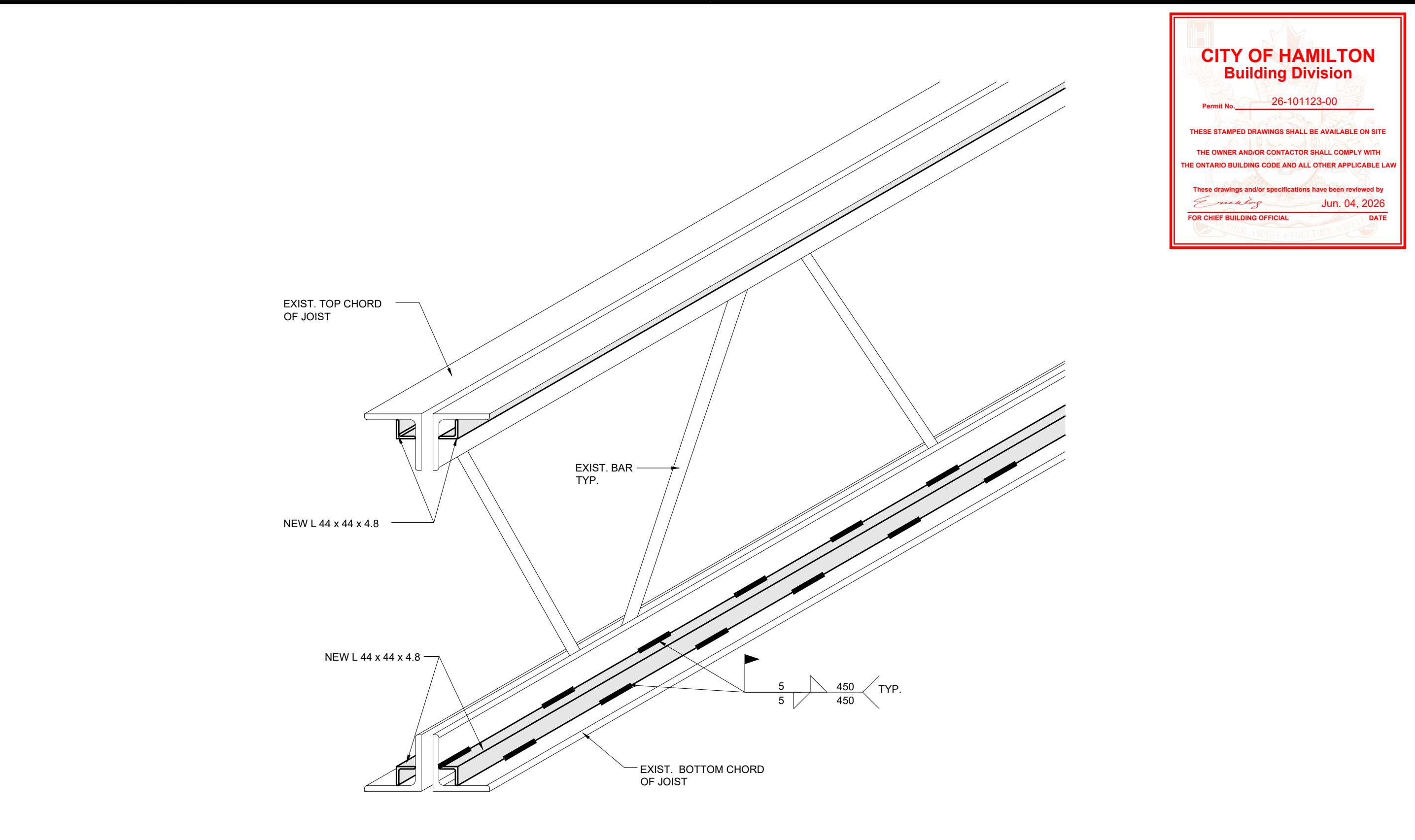
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TYP. ELEVATION OF REINFORCED EXIST. O.W.S.J.
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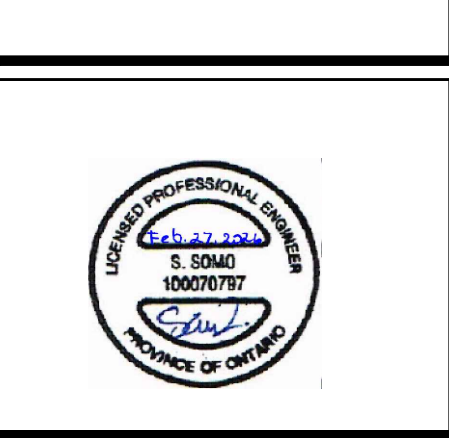
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1
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ISOMETRIC VIEW OF O.W.S.J. REINFORCEMENT DETAIL
SCALE: N.T.S.

AILMAR ENGINEERING INC.
STRUCTURAL ENGINEERS

94 CURRAN RD.
ANCASTER, ON. L9K 0H4
PHONE: (905) 966-4797



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.

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NOTE: DRAWINGS ARE NOT TO BE SCALED.

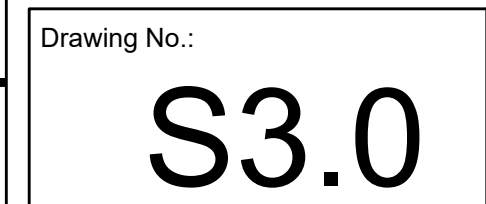
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02	29/01/2026	Issued for Permit
01	26/01/2026	Issued for Client Review

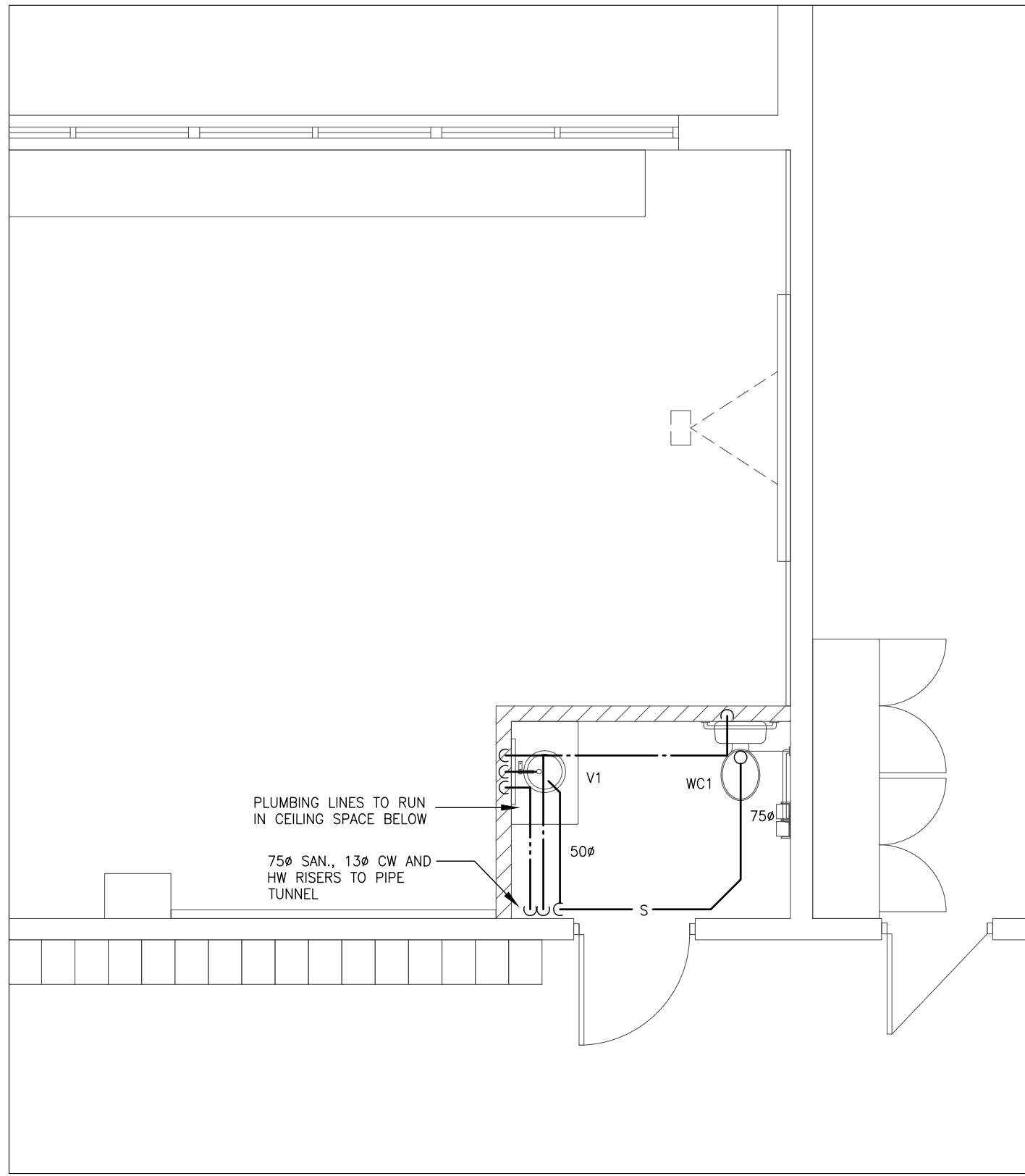
Renovations to
HWDSB Norwood Park
Accessibility Upgrades
165 Terrace Dr, Hamilton,
ON L9A 2Z2

Dwg. Title:
SECTION AND DETAILS

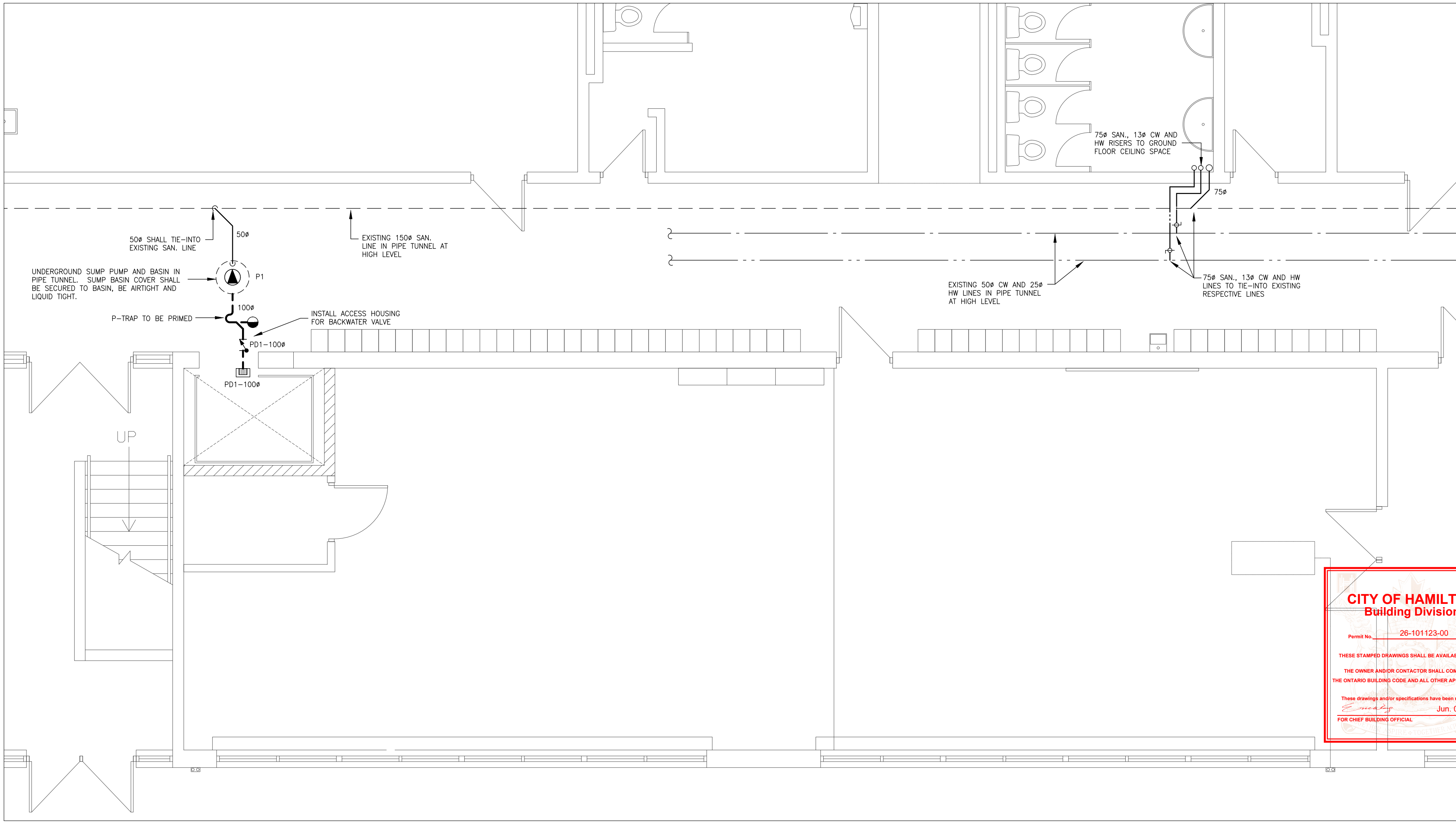
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Proj. No.:	14019		
Scale:	As noted		
Date:	JAN, 2026		

Drawing No.:
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2
B.F. WASHROOM 203A
SECOND FLOOR PLUMBING RENOVATION
M1-1 1:50

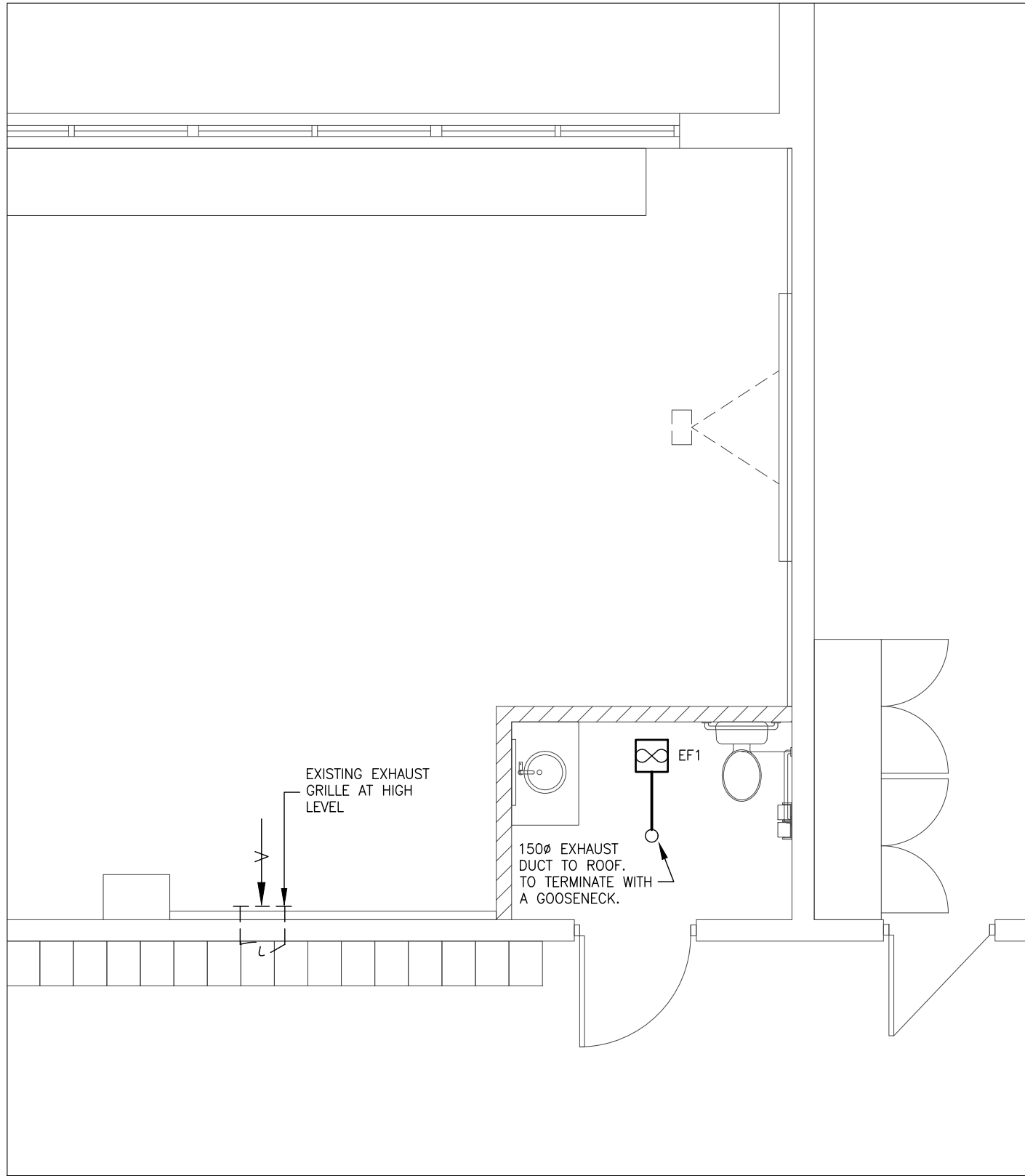


1
ELEVATOR SHAFT
GROUND FLOOR PLUMBING RENOVATION
M1-1 1:50

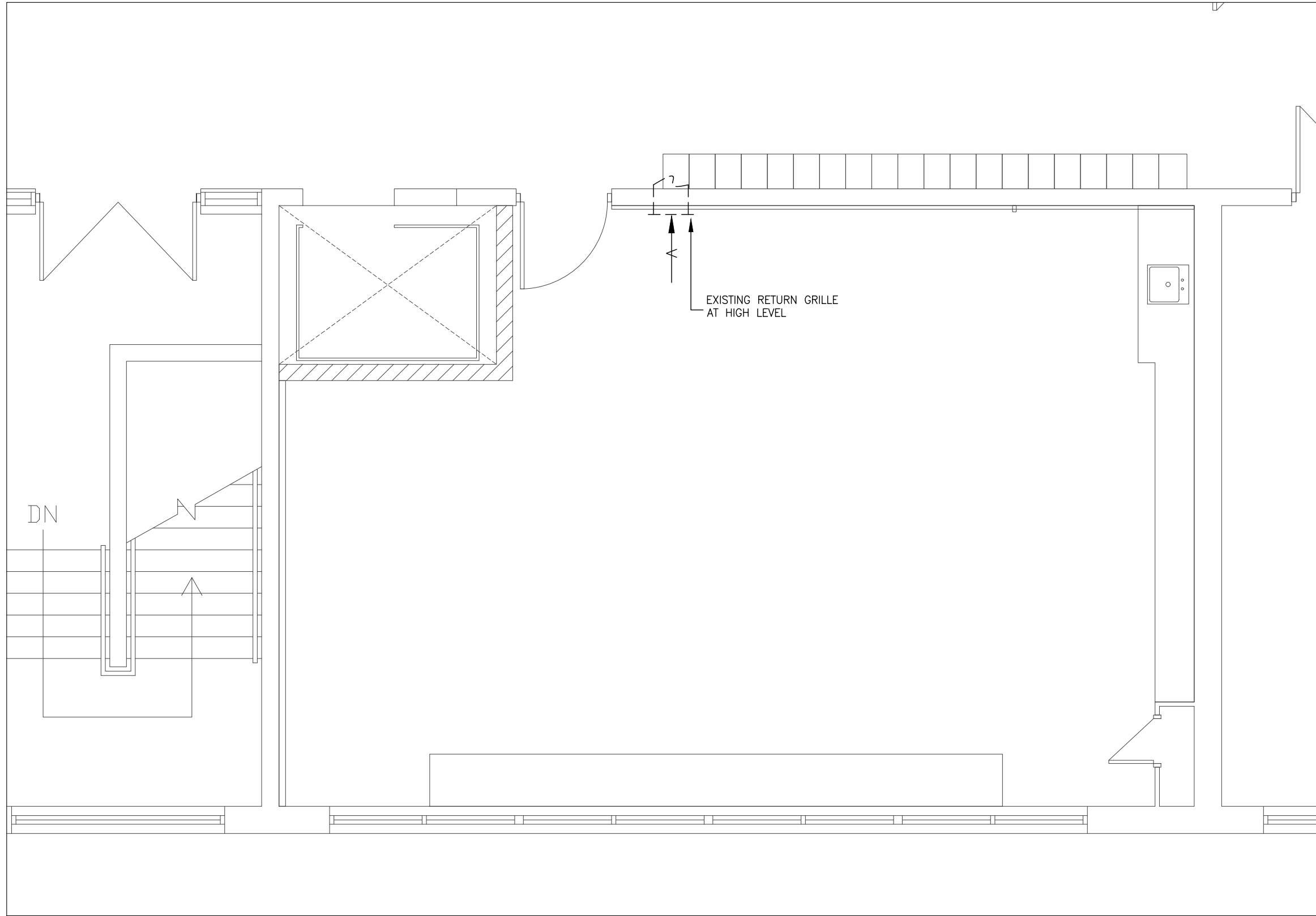


SYMBOL	DESCRIPTION
—	NEW LINES
- - -	EXISTING LINES
-X-X-X-	EQUIPMENT TO BE REMOVED
-RL-	EQUIPMENT TO BE RELOCATED
RV	EQUIPMENT TO BE REMOVED
—	CAPPED LINE
—o	PIPE RISE
—v	PIPE DROP
—S	SANITARY LINE BELOW GRADE
-S-	SANITARY LINE ABOVE GRADE
-6-	STORM LINE BELOW GRADE
-6-	STORM LINE ABOVE GRADE
-C-	COLD 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

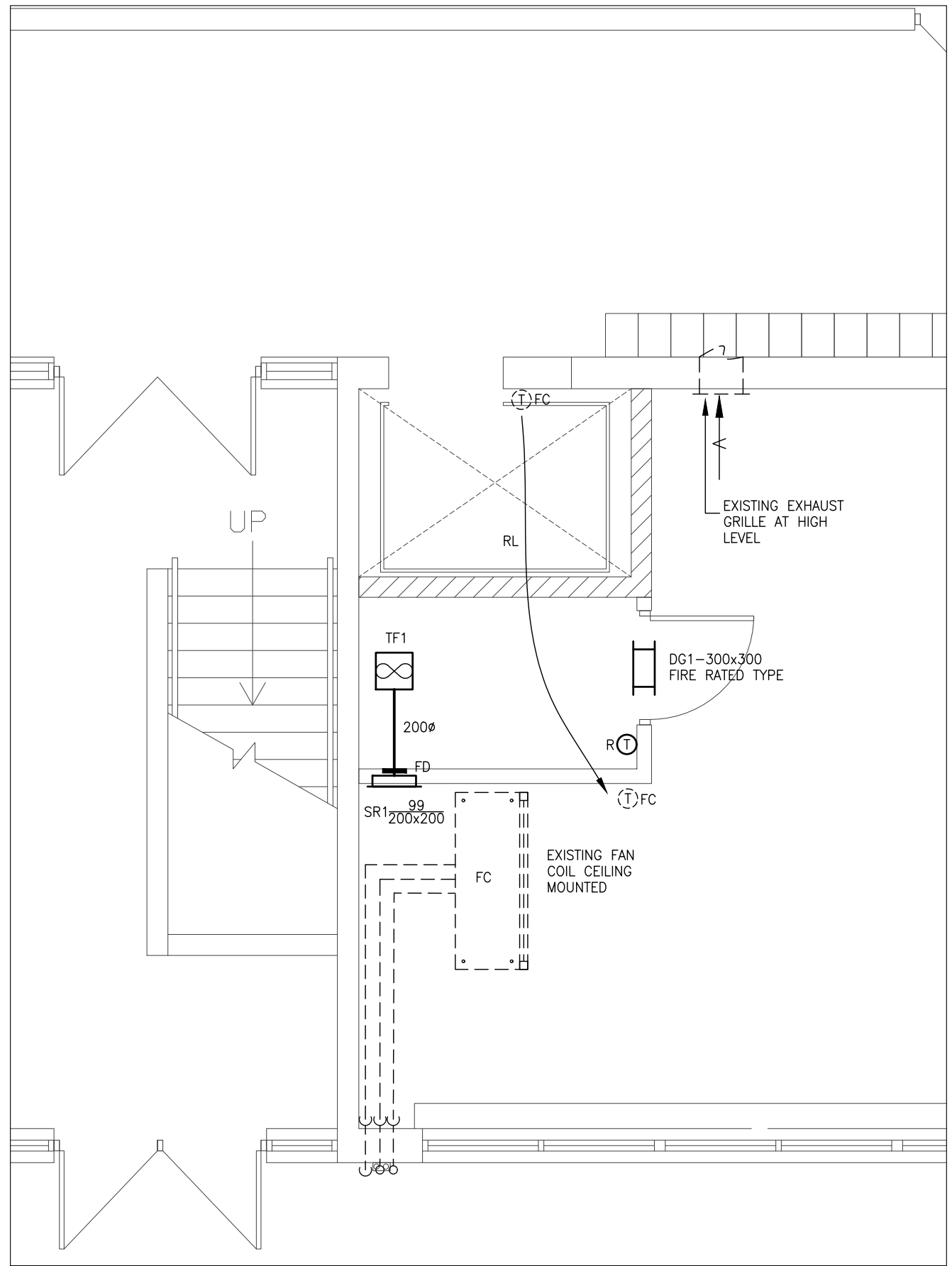
1	MAR.19/26	ISSUED FOR PERMIT
NO.	DATE	REVISION
DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR DURING THE COURSE OF WORK.		
CoPa ENGINEERING LTD.		
29 ROLLING ACRES DR. KITCHENER, ONTARIO N2A 3W5 MOB: (519) 496-2672		
PROJECT INTERIOR RENOVATIONS FOR HWDSB NORWOOD PARK ACCESSIBILITY 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



2 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
-x-x-x-	EQUIPMENT TO BE REMOVED
RL	EQUIPMENT TO BE RELOCATED
RV	EQUIPMENT TO BE REMOVED
---	DUCTING TO BE CAPPED
[Box with X]	SUPPLY DUCT
[Box with X]	EXHAUST/RETURN DUCT
[Box with X]	SUPPLY DIFFUSER
[Box with X]	DIFFUSER WITH BLANK SIDES
[Box with X]	SUPPLY REGISTER (WALL/SIDE DUCT MOUNTED)
[Box with X]	SUPPLY REGISTER
[Box with X]	ROUND DIFFUSER
[Box with X]	EXHAUST/RETURN GRILLE
A-2/3	DIFFUSER/GRILLE DATA: A-REF, 2-L/S, 3-MM
[Wavy line]	FLEXIBLE DUCT
[L-shape]	VOLUME CONTROL DAMPER
[L-shape]	SPLITTER DAMPER
[FD]	FIRE DAMPER
[Box with X]	EXHAUST FAN
[Circle with X]	THERMOSTAT
[Circle with X]	THERMOSTAT REVERSE ACTING 120v/1/60
[Circle with X]	VARIABLE SPEED CONTROLLER
[Wavy line]	OPPOSED BLADE MOTORIZED DAMPER
[Box with X]	ACOUSTIC LINING
[Box with X]	FLEXIBLE CONNECTION
[Box with X]	DOOR GRILLE
[Box with X]	TRANSFER AIR ELBOW ACOUSTICALLY LINED
[Box with X]	ELECTRIC FAN FORCED HEATER(BY MECHAN. DIV.)
[Box with X]	ELECTRIC BASEBOARD HEATER(BY MECHAN. DIV.)



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 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, N.T.P.A., ASHRAE, 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 IN 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 SERVICE, 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 FLASHING 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 ANNULAR 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 ULC 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 SOV 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 OBS. 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.)
 - 9. 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:
 - INSULATION THERMAL CONDUCTIVITY 0.24-0.28 EFTU/(W.H/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.
8. 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.
9. WHERE SUPPORTING COPPER PIPE, IT SHALL BE ISOLATED FROM ANY NON-COPPER HANGER WITH ELECTROLYTIC ACTION TAPE OR EQUIVALENT.
10. INSTALL VALVED SUPPLIES AT ALL PLUMBING FIXTURES.
11. 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.
12. 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.
13. FOR THE RENOVING 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.
14. 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/STU.
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 NFPA 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 INSULATION OF 39 OZ./YD2.
 - 1. INSTALL AT INLET/OUTLET OF IN-LINE FANS.

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, CENTIGOO 5000C WHITE FINISH. COMPLETE WITH FLEX SUPPLY WITH SCREENED/COVER 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. 3.8.3.1.1. INSTALL WITH MIXING VALVE SYMONS 7-210-26.
- P1 ELEVATOR SUMP PUMP, MYERS ME3F, 55 US.GPM. AT 12 FT. HEAD, WITH WIDE ANGLE PICOY-BACK FLOAT SWITCH, FIBERGLASS BASIN 24"DIA.X30" 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, BROWN 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, BROWN 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. DG1: DOOR GRILLE, FIRE RATED TYPE, NAYLOR IND. MOD. 610GG-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 190/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 190 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.
 - IF A FIRE ALARM OR VOICE COMMUNICATION SYSTEM OR ANY PART THEREOF IS SHUT DOWN:
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 INITIATION 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	⊗	⊗	⊗ x	PUSHBUTTON (BOX & 16mm EMT TO ACCESSIBLE CEILING SPACE)
	⊗	⊗	⊗ x	UNIVERSAL WASHROOM: ASSISTANCE REQUESTED AUDIBLE VISUAL SIGNAL
	⊗	⊗	⊗ x	COMMUNICATION BACKBOARD - PLYWOOD GOOD ONE SIDE
	⊗	⊗	⊗ x	WIFI ACCESS POINT
	⊗	⊗	⊗ x	SOUND SPEAKER
	⊗	⊗	⊗ x	SMOKE ALARM
FIRE ALARM DEVICE SCHEDULES	⊗	⊗	⊗ x	CO2 ALARM - 120V C/W BATTERY BACKUP
	⊗	⊗	⊗ x	SMOKE/CO2 ALARM - 120V C/W BATTERY BACKUP, STROBE VISUAL
	⊗	⊗	⊗ x	FIRE ALARM MANUAL PULL STATION
	⊗	⊗	⊗ x	FIRE ALARM HORN
	⊗	⊗	⊗ x	FIRE ALARM HORN STROBE (zz = CANDELA, 15cd DEFAULT)
	⊗	⊗	⊗ x	FIRE ALARM STROBE (zz = CANDELA, 15cd DEFAULT)
	⊗	⊗	⊗ x	FIRE ALARM SMOKE DETECTOR
	⊗	⊗	⊗ x	FIRE ALARM HEAT DETECTOR
	⊗	⊗	⊗ x	FIRE ALARM SMOKE DETECTOR c/w FORM 'C' RELAY SUB-BASE
	⊗	⊗	⊗ x	FIRE ALARM HEAT DETECTOR c/w FORM 'C' RELAY SUB-BASE
	⊗	⊗	⊗ x	POLYCARBONATE COVER WITH ALARM OVER MANUAL PULL STATION
	⊗	⊗	⊗ x	FIRE ALARM END OF LINE RESISTOR
FIRE ALARM DEVICE SCHEDULES	⊗	⊗	⊗ x	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
GFI	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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1	Issued For Permit	Mar 26, 2026
NO.	DESCRIPTION	DATE
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

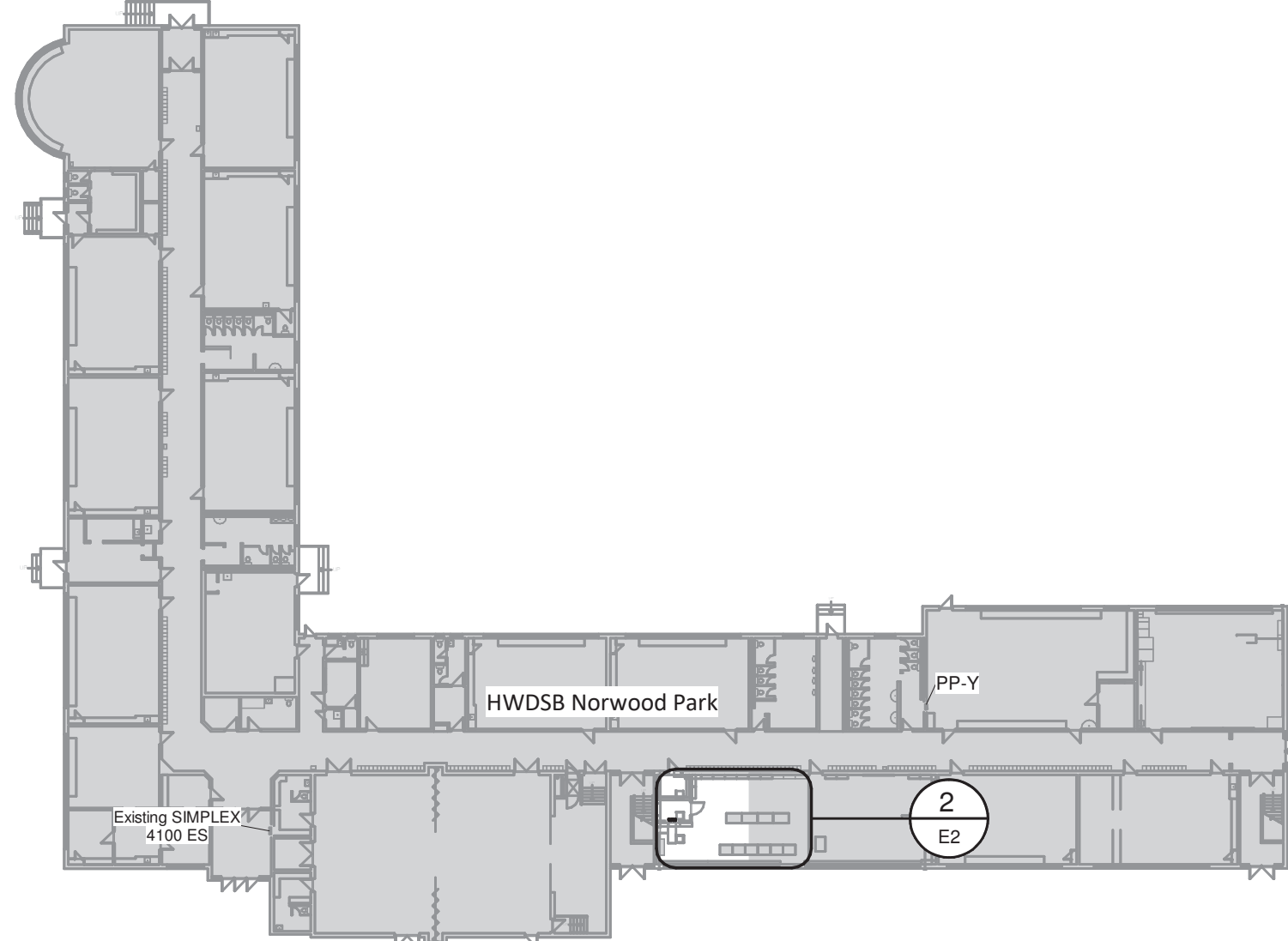
24"x36"

PROJECT NUMBER

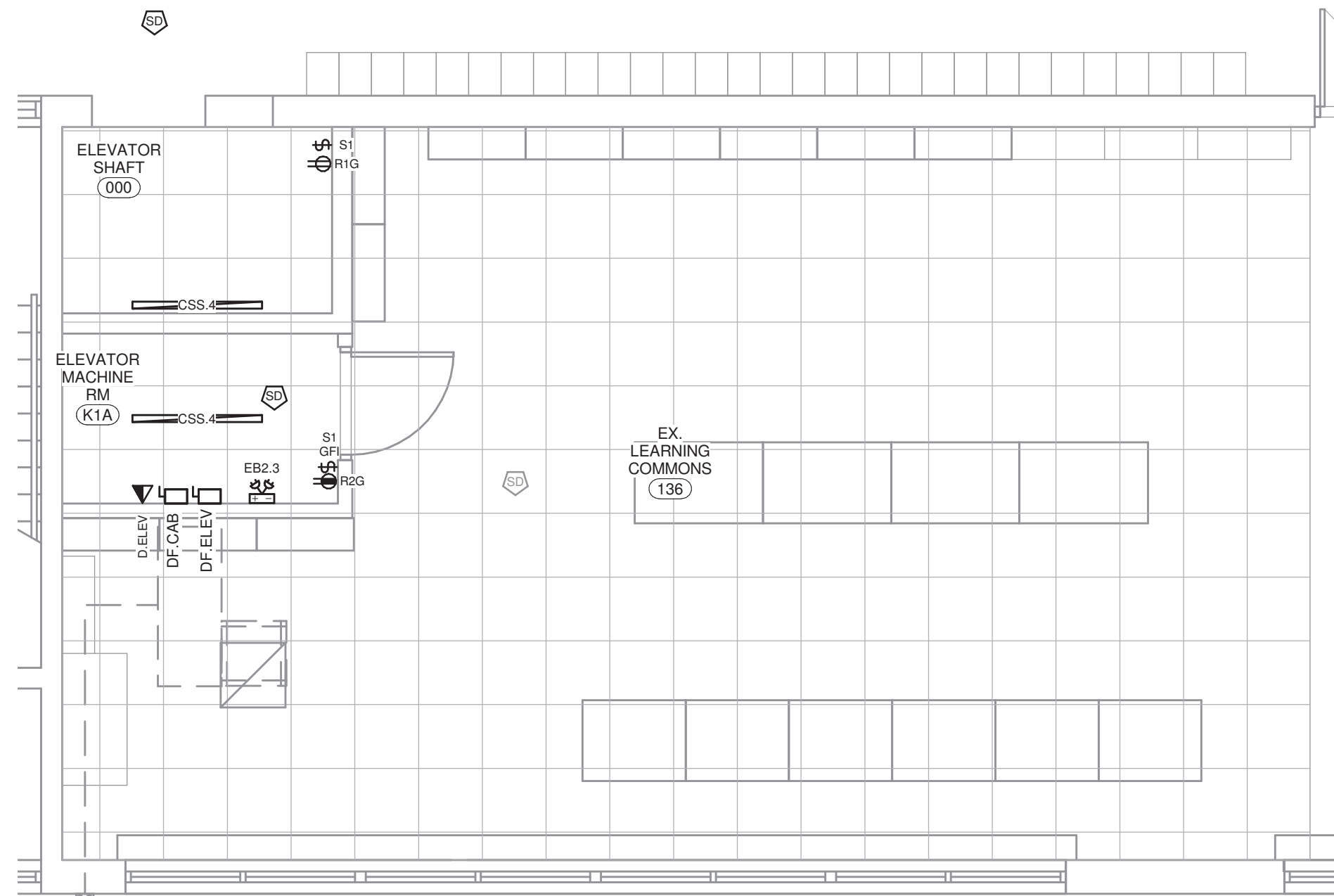
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DRAWING NUMBER

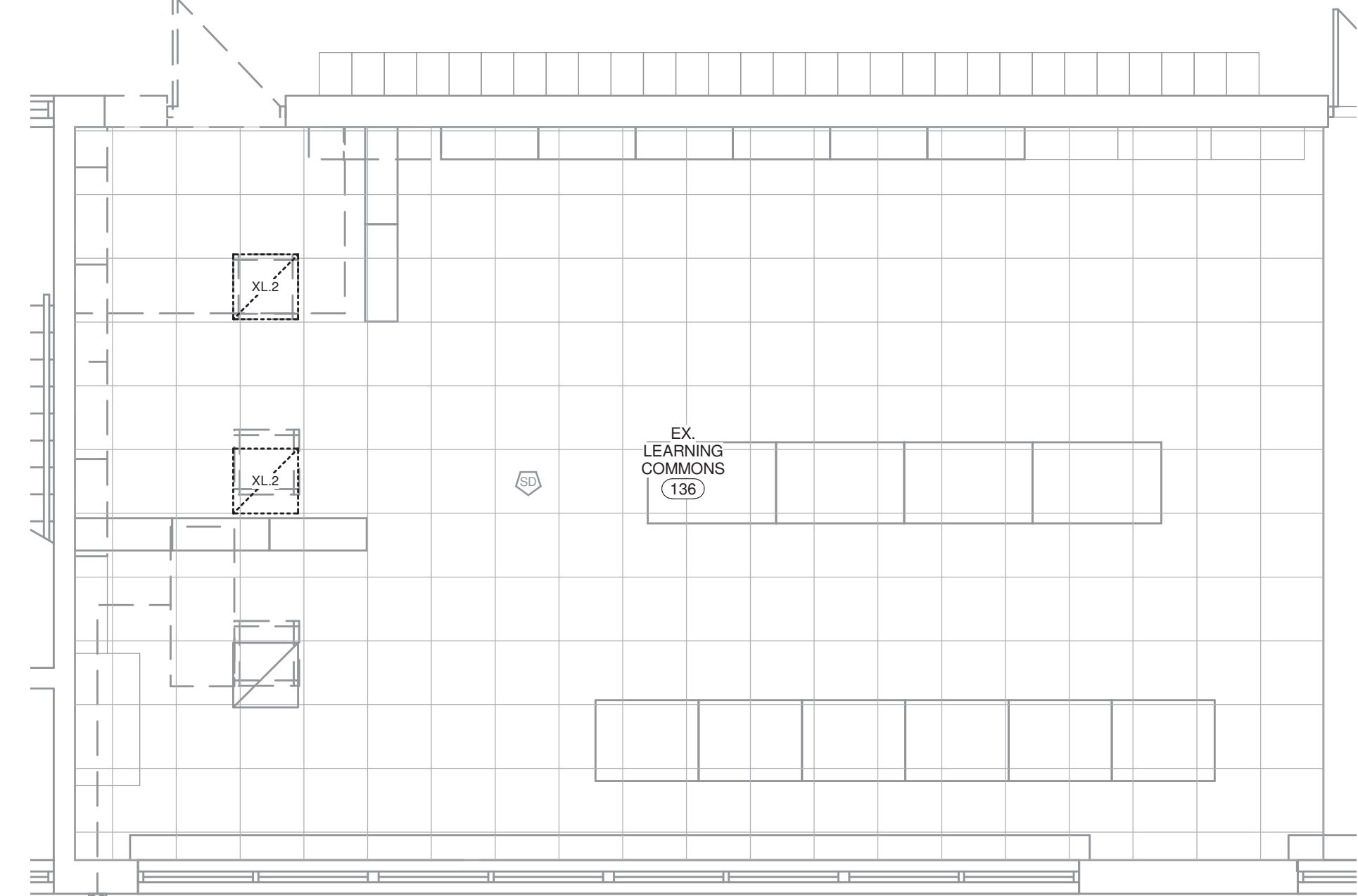
E1



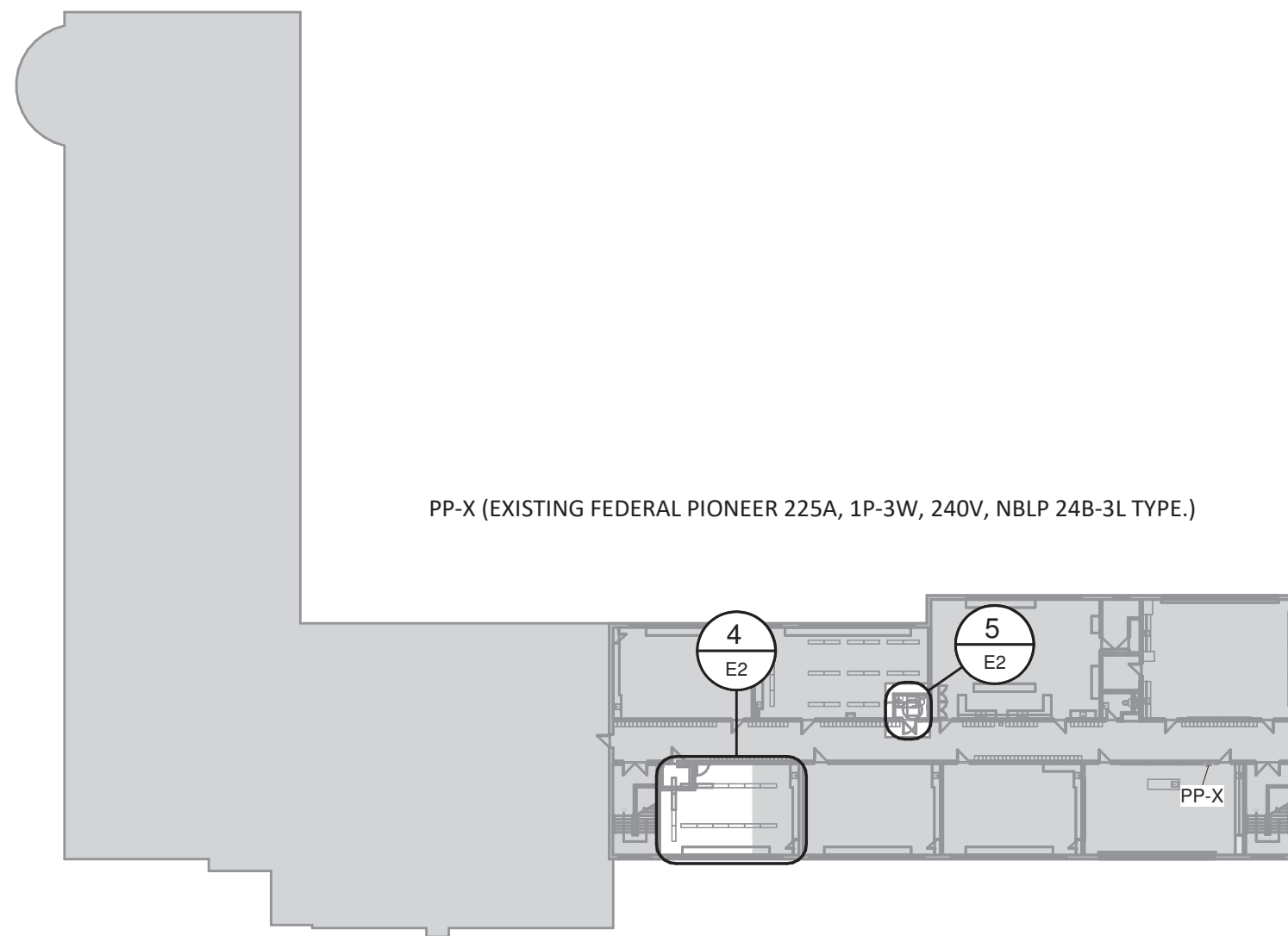
1 Keymap First Floor
1 : 500



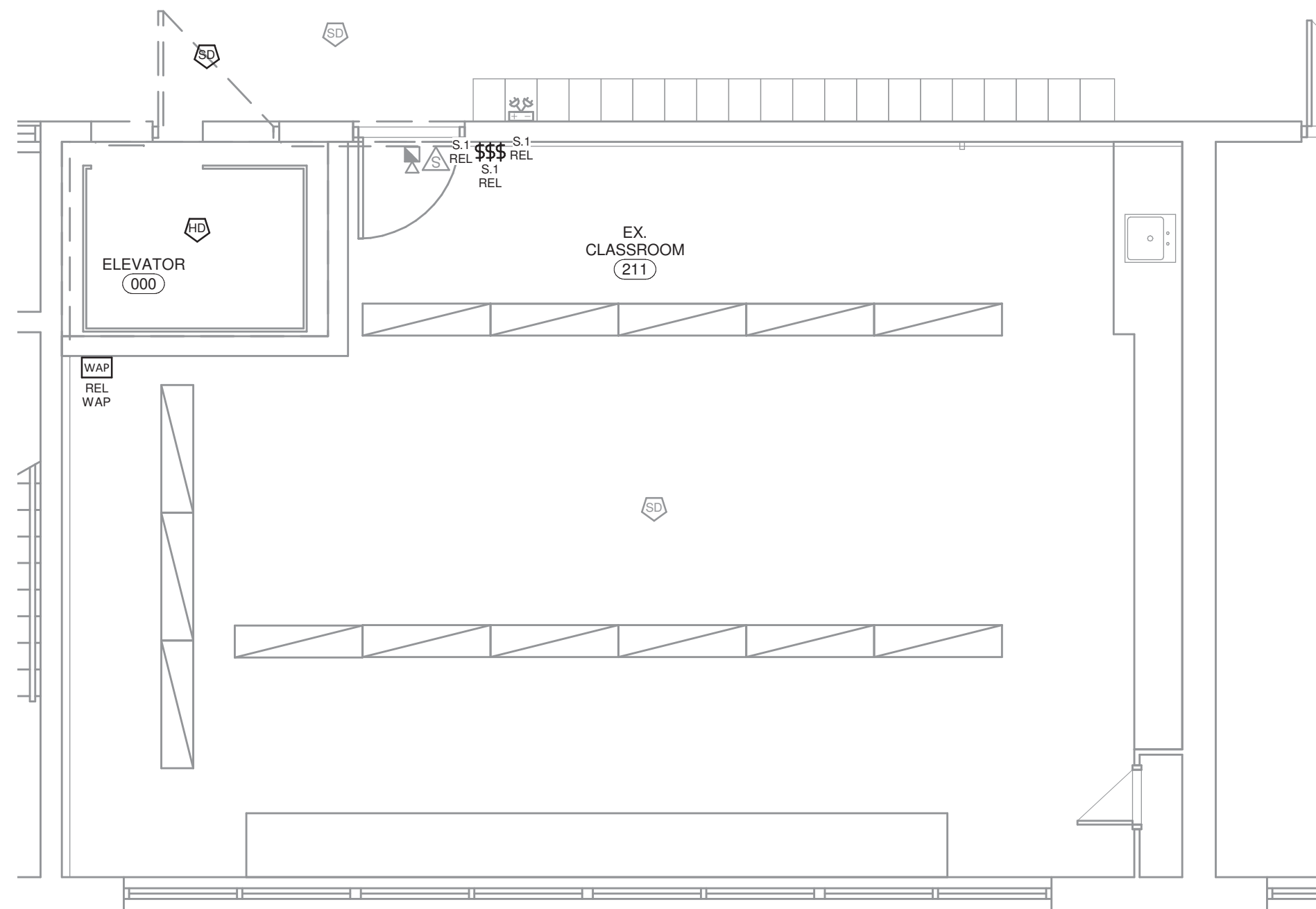
2 Proposed - Ex. Learning Commons 136 - Electrical Plan
1 : 50



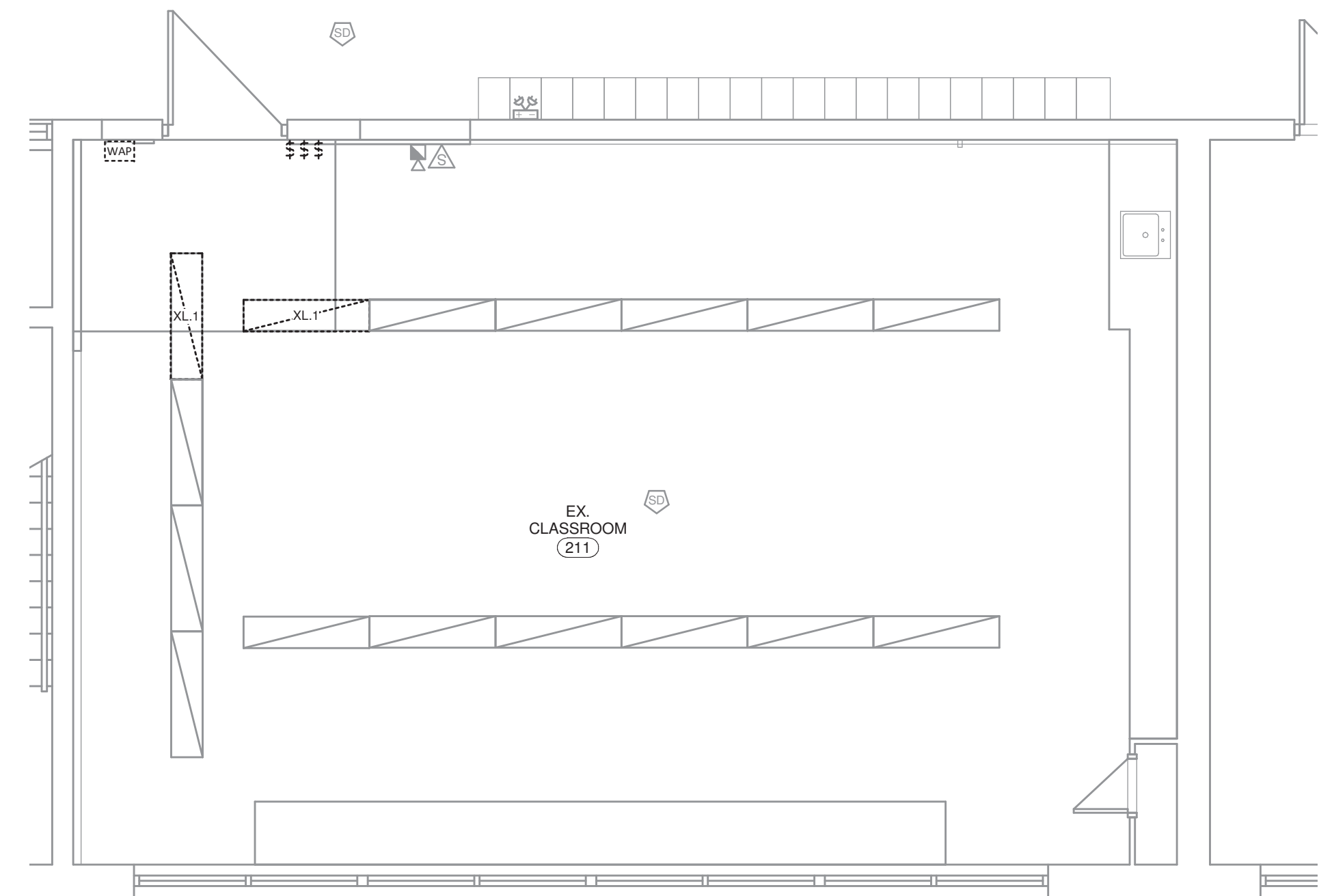
8 Demo - Ex. Learning Commons 136 - Electrical Plan
1 : 50



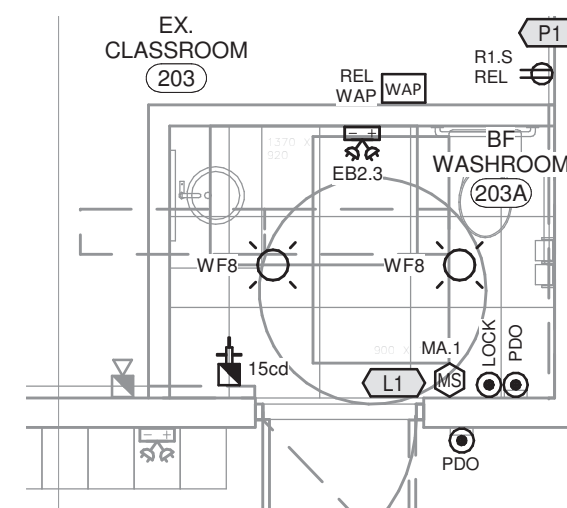
3 Keymap Second Floor
1 : 500



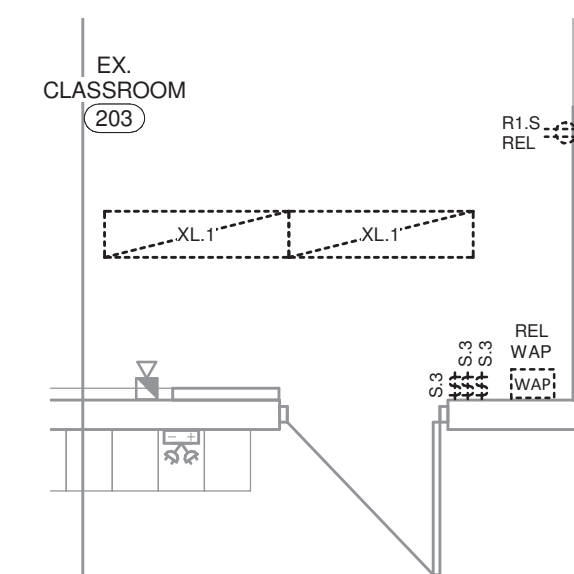
4 Proposed - Ex. Classroom 211 - Electrical Plan
1 : 50



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



5 Proposed - BF Washroom 203A - Electrical Plan
1 : 50



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



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NO.	DESCRIPTION	DATE
1	Issued For Permit	Mar 26, 2026



PROJECT NAME
HWD SB Norwood Park Elevator
165 Terrace Dr, Hamilton City, ON

DRAWING TITLE
Electrical Plan

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

1 - Total Removed - Low Voltage Device Schedule						
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: None		
QTY	Type	Conduit	Description		Phase Added	Phase Removed
2	WAP	16mm EMT	Existing Wifi Access Point.		EXISTING	Tender
Total: 2						

2 - Total Removed - Electrical Equipment Schedule							
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: None			
Qty	Equip ID	Description	Type Comments	Enclosure	Mounting	Phase Added	Phase Removed

3 - Total Removed - Electrical Device Schedule						
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: None		
Qty	Type ID	Relocated	Description	Type Comments	Phase Added	Phase Removed
1	R1.5	Yes	15A Duplex Receptacle	120V 5-15R; Surface mount device box.	EXISTING	Tender
Total: 1						

4 - Total Removed - Fire Alarm Device Schedule						
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: None		
QTY	Model	Description	Type Comments	Phase Added	Phase Removed	

5 - Total Removed - Lighting Control Device Schedule								
CURRENT SCHEDULE PHASE: Tender					SHOWING PHASE ITEMS: None			
Qty	Relocated	Type	Mfg.	Model	Description	Type Comments	Phase Added	Phase Removed
3	Yes	S.1	TBD	TBD	Switch, 1-Pole Architectural Decora Style	120V	EXISTING	Tender
3	No	S.3	TBD	TBD	Switch, 3-Way Architectural Decora Style	120V	EXISTING	Tender
Total: 6								

6 - Total Removed - Lighting Fixture Schedule										
CURRENT SCHEDULE PHASE: Tender					SHOWING PHASE ITEMS: None					
Qty	Image	Type	Mfg.	Model#	Mounting	Height	Description	Remarks	Phase Added	Phase Removed
4		XL.1	TBD	TBD			TBD	Existing Suspended Lighting fixture. Two 2T8 fluorescent.,	EXISTING	Tender
2		XL.2	TBD	TBD			TBD	Existing 2x2 LED Flat Panel	EXISTING	Tender
Total: 6										

1 - Total New/Relocated - Low Voltage Device Schedule						
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: Show Previous + New		
QTY	Relocated	Type	Conduit	Description	Phase Added	Phase Removed
1	No	D.ELEV	21mm EMT	Std. recessed device box & conduit to accessible ceiling; Conduit Bushing; Provide conduit path to accessible ceiling; provide conduit bushing & pull string	Tender	
1	No	LOCK	16mm EMT	Universal Washroom Lock Button. Device box & conduit to Door controller.	Tender	
2	No	PDO	16mm EMT	Power Door Operator; Device box & conduit to Door controller.	Tender	
2	Yes	WAP	16mm EMT	Existing Wifi Access Point.	Tender	
Total: 6						

2 - Total New/Relocated - Electrical Equipment Schedule						
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: Show Previous + New		
Qty	Equip ID	Description	Type Comments	Enclosure	Mounting	Phase Added
1	DF.CAB	Elevator Main Fused Disconnect	30A 15AF 120V; Type 1 Enclosure; Provide permanent lamacoid sign identifying the location of the supply side overcurrent protection device (as per OESC: 38-051)	Type 1	Surface	Tender
1	DF.ELEV	Elevator Main Fused Disconnect	30A 600V; c/w 20A Type D time delay fuses; Type 1 Enclosure; c/w Auxiliary contact that shall be positively opened mechanically, and the opening shall not be solely dependent on springs; Provide permanent lamacoid sign identifying the location of the supply side overcurrent protection device (as per OESC: 38-051)	Type 1	Surface	Tender
Total: 2						

3 - Total New/Relocated - Electrical Device Schedule						
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: Show Previous + New		
Qty	Type ID	Relocated	Description	Type Comments	Phase Added	Phase Removed
1	R1.5	Yes	15A Duplex Receptacle	120V 5-15R; Surface mount device box.	Tender	
1	R1G	No	15A Duplex Receptacle	120V 5-15R; Class A - GFI Receptacle	Tender	
1	R2G	No	20A Duplex Receptacle	120V 5-20R; Class A - GFI Receptacle	Tender	
Total: 3						

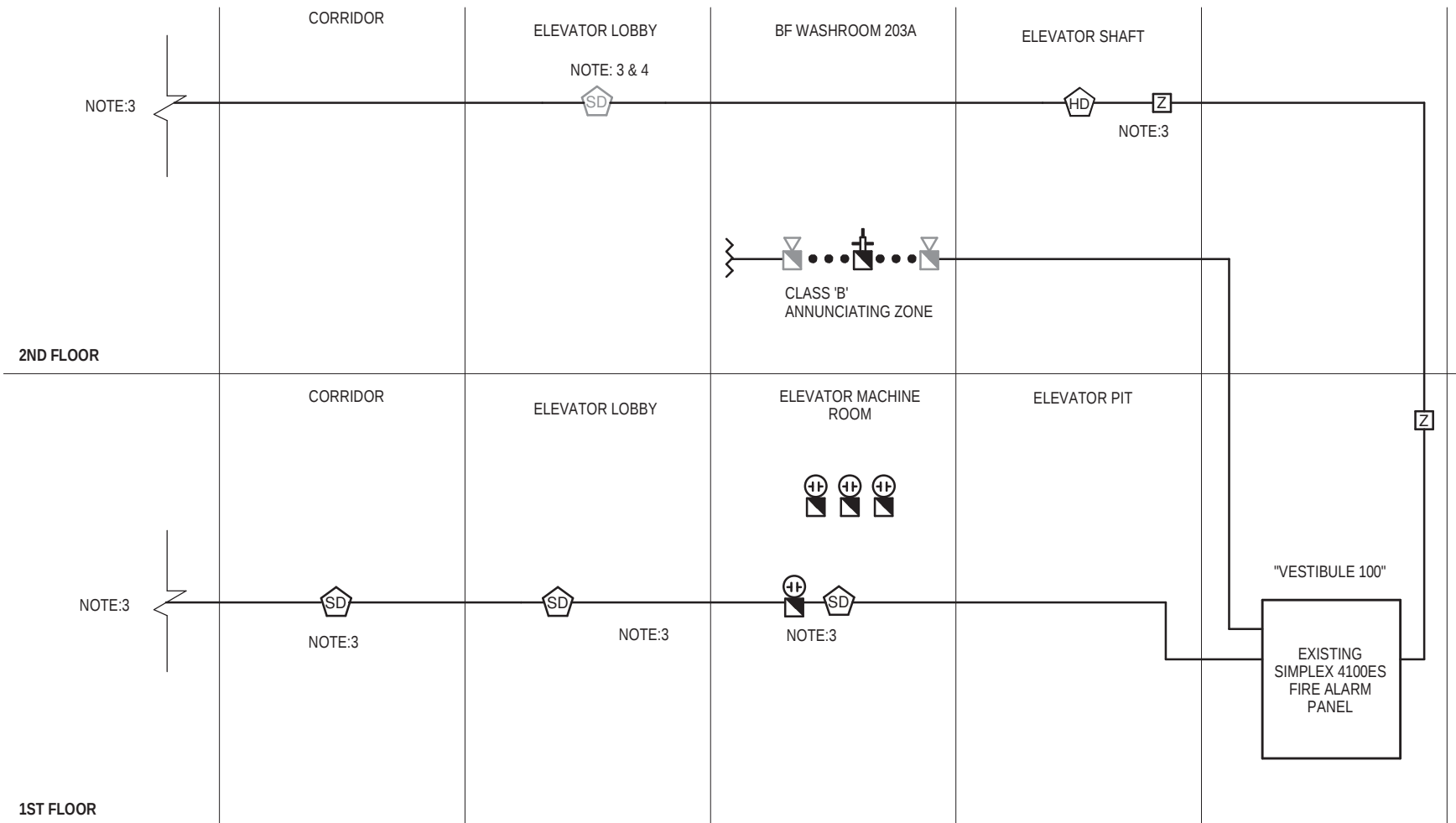
4 - Total New/Relocated - Fire Alarm Device Schedule						
CURRENT SCHEDULE PHASE: Tender				SHOWING PHASE ITEMS: Show Previous + New		
QTY	Model	Description	Type Comments		Phase Added	
1	15cd	ANNUNCIATING	Strobe, 15cd		Tender	
1	RoR	Fire Alarm Initiating	Heat Detector, 57C, Rate of Rise		Tender	
3		Fire Alarm Initiating	Smoke Detector		Tender	
Total: 5						

5 - Total New/Relocated - Lighting Control Device Schedule							
CURRENT SCHEDULE PHASE: Tender					SHOWING PHASE ITEMS: Show Previous + New		
Qty	Relocated	Type	Mfg.	Model	Description	Type Comments	Phase Added
1	No	MA.1	Sensor Switch	WSX WH	PIR Wall Switch Occ Sensor, Auto On/Off	120V; Auto-On; White	Tender
2	No	S1	TBD	TBD	Switch, 1-Pole Architectural Decora Style	120V	Tender
3	Yes	S.1	TBD	TBD	Switch, 1-Pole Architectural Decora Style	120V	Tender
Total: 6							

6 - Total New/Relocated - Lighting Fixture Schedule									
CURRENT SCHEDULE PHASE: Tender					SHOWING PHASE ITEMS: Show Previous + New				
Qty	Image	Type	Mfg.	Model#	Mounting	Height	Description	Remarks	Phase Added
2		CSS.4	Lithonia	CSS L48 7000LM MVOLT 40K 80CRI	Surface	Ceiling	LED Strip Light	55W 7387lumens 4' 120-277V 4000K 80CRI; Class 2 0-10V Dimmable	Tender
2		EB2.3	Stanpro	SLA.06.036.2N.3LI.WH	Wall	2300mm	Steel Battery Unit, Emergency Light	6V, 36W for 30min, 2-3W LJ Par18 LED Heads (2x313lm), White, Don't exceed battery capacity with additional remote lighting heads, Connect to Line Side of Local Lighting Circuit that also serves emergency lighting.	Tender
2		WFB	Lithonia	WFB-SWW5-89CRI-MW-19 W	Recessed	T-bar	Ultra-Thin Wafer Switchable Downlight	8" Wafer-Thin LED Downlight, round, Switchable White (2700K/3000K/3500K/4000K/5000K) Colour temperature, 90+CRI, Matte White, 18 Watts, Select Colour temperature to.	Tender
Total: 6									

FIRE ALARM NOTES:

- CONFIRM REQUIREMENTS WITH ELEVATOR PROVIDER PRIOR TO RELATED WORK.:
 - PROVIDE ONE ADDRESSABLE RELAY FOR 1ST FLOOR ELEVATOR LOBBY SMOKE DETECTOR (ALTERNATE RECALL TO 2ND FLOOR).
 - PROVIDE ONE ADDRESSABLE RELAY FOR 2ND FLOOR ELEVATOR LOBBY SMOKE DETECTOR (RECALL TO 1ST FLOOR)
 - PROVIDE ONE ADDRESSABLE RELAY FOR ELEVATOR TOP OF SHAFT HEAT DETECTOR (RECALL TO 1ST FLOOR)
 - PROVIDE ONE ADDRESSABLE RELAY FOR ELEVATOR MACHINE ROOM (RECALL TO 1ST FLOOR).
- UPDATE FIRE ALARM ANNUNCIATOR TO INDICATE NEW ELEVATOR SHAFT FIRE DETECTOR. "TOP OF ELEVATOR SHAFT RM:000 HEAT DETECTOR".
- EXISTING ADDRESABLE LOOP
- EXISTING SMOKE DETECTOR IS TO BE PROGRAMMED TO OPERATE WITH ELEVATOR RECALL.



1 Fire Alarm Elevator Phase 1 Emergency Recall

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1	Issued For Permit	Mar 26, 2026
NO.	DESCRIPTION	DATE
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 Details

SCALE

1 : 1

SHEET SIZE

24"x36"

PROJECT NUMBER

25150

DRAWING NUMBER

E3