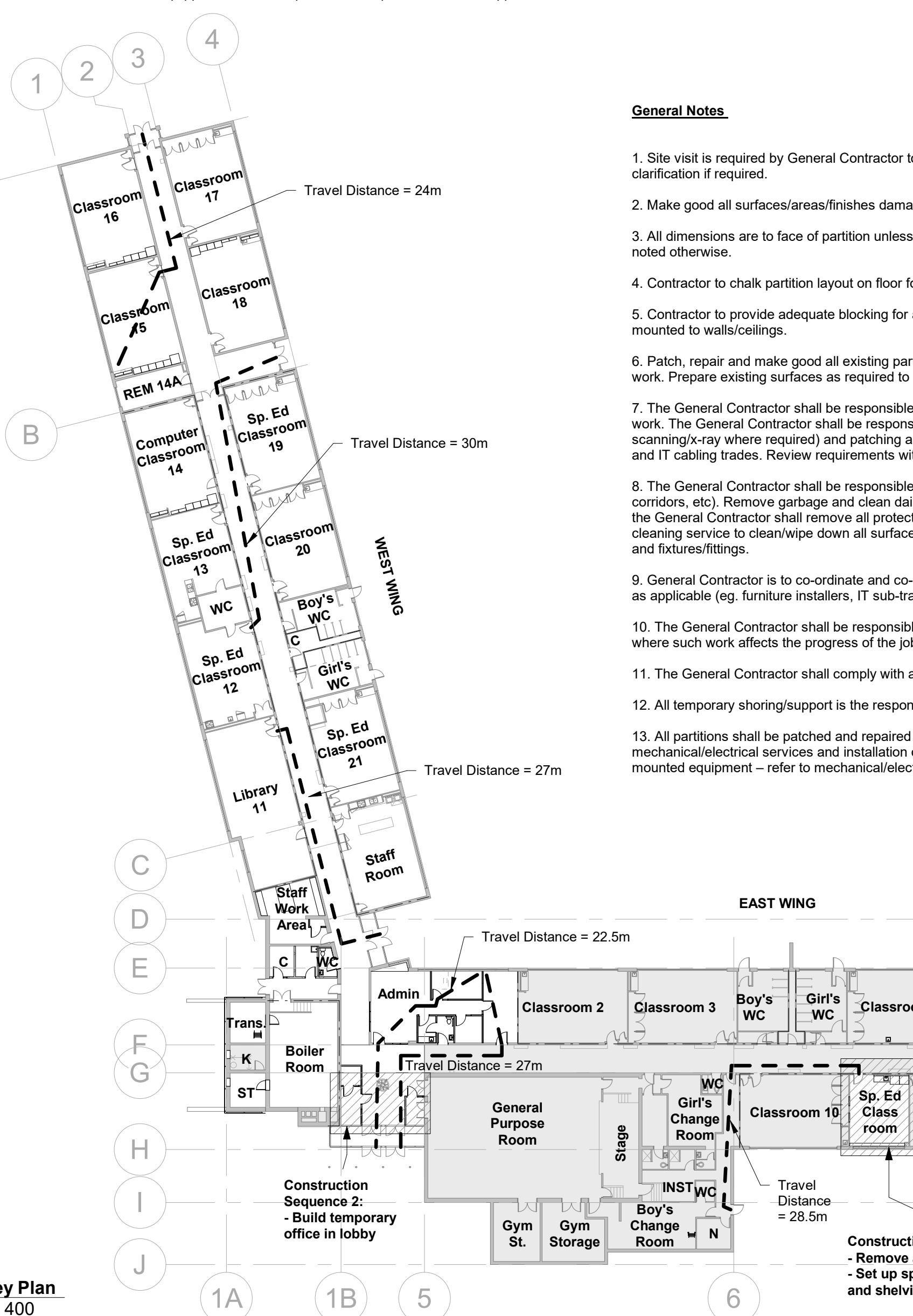


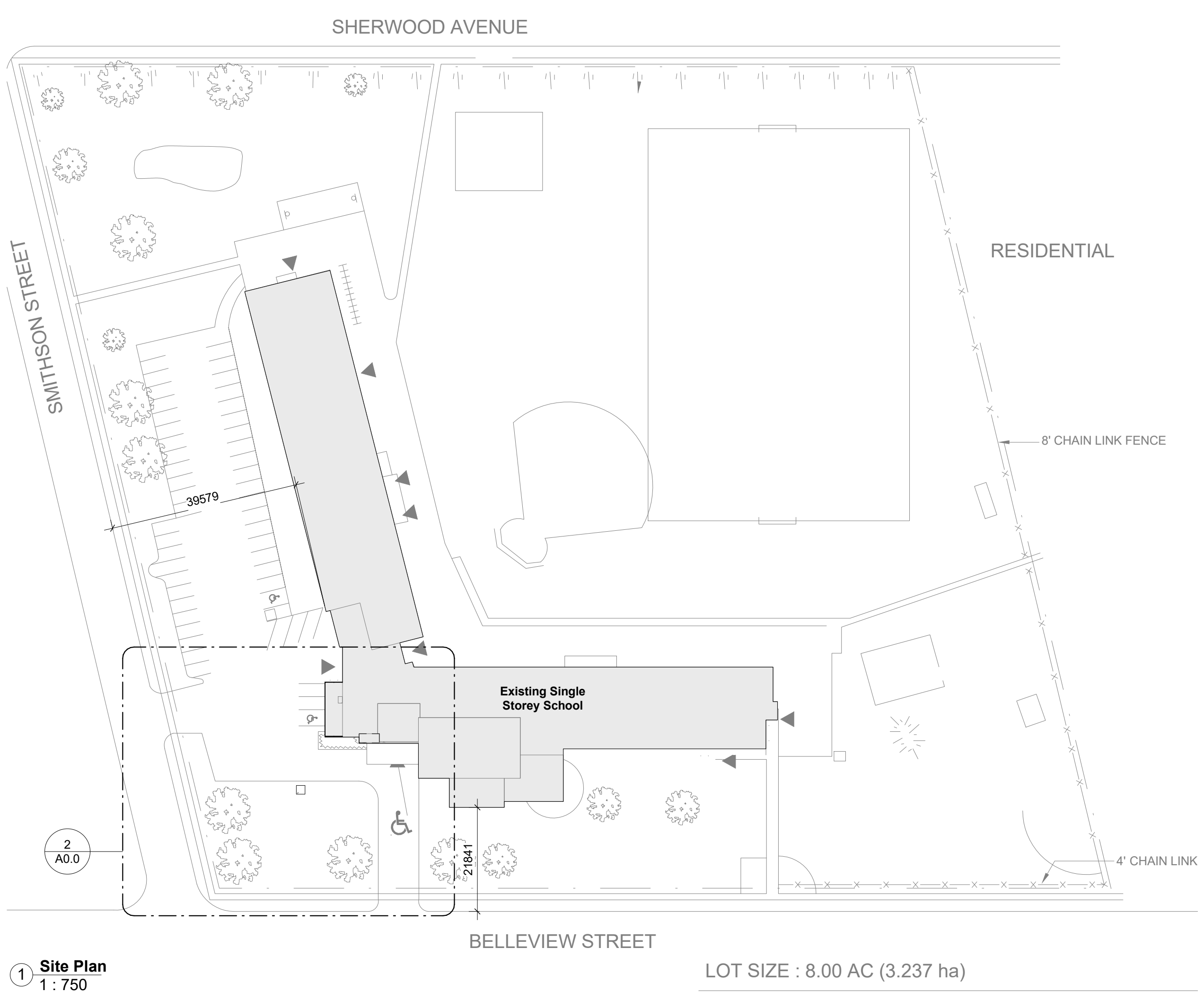
FIRM NAME: WORKSHOP ARCHITECTURE 6 SOUSA MENDES ST Toronto, ON M6P 0A8 tel. 416.901.8055 fax 416.849.0383	LOCATION: 150 Bellevue Avenue Kitchener, ON	PROJECT AREA: 480 M ² Interior Renovations & HVAC Upgrades	OBC REFERENCE References are to Division B unless noted [A] for Division A or [C] for Division C
ONTARIO'S 2012 BUILDING CODE DATA MATRIX PARTS 3 & 9			
1 PROJECT DESCRIPTION: <input type="checkbox"/> CHANGE OF USE <input type="checkbox"/> ADDITION <input checked="" type="checkbox"/> ALTERATION	<input type="checkbox"/> NEW <input type="checkbox"/> PART 11 <input type="checkbox"/> PART 3 <input type="checkbox"/> PART 9 11.1 TO 11.4 1.1.2 [A] & 9.10.1.3	<input type="checkbox"/> PART 3 <input type="checkbox"/> PART 9 3.1.2.1(1) 9.10.2	
2 MAJOR OCCUPANCY(S): A2		3.1.2.1(1) 9.10.2	
3 BUILDING AREA (M ²) EXISTING NEW TOTAL No change	1.4.1.2 [A] 1.4.1.2 [A]	1.4.1.2 [A] 1.4.1.2 [A]	
4 GROSS AREA EXISTING NEW TOTAL No change	1.4.1.2 [A] 1.4.1.2 [A]	1.4.1.2 [A] 1.4.1.2 [A]	
5 NUMBER OF STOREYS ABOVE GRADE 1 BELOW GRADE 0	1.4.1.2 [A] & 3.2.1.1 1.4.1.2 [A] & 9.10.4	1.4.1.2 [A] & 3.2.1.1 1.4.1.2 [A] & 9.10.4	
6 NUMBER OF STREETS / FIRE FIGHTER ACCESS	3.2.2.10 & 3.2.5 9.10.20	3.2.2.10 & 3.2.5 9.10.20	
7 BUILDING CLASSIFICATION	3.2.2.25 (Existing Non-conforming) 9.10.2	3.2.2.20-83 9.10.2	
8 SPRINKLER SYSTEM (PROPOSED) <input type="checkbox"/> ENTIRE BUILDING <input type="checkbox"/> BASEMENT <input type="checkbox"/> SELECTED FLOOR AREAS <input checked="" type="checkbox"/> NOT REQUIRED	<input type="checkbox"/> ENTIRE BUILDING <input type="checkbox"/> SELECTED COMPARTMENTS <input type="checkbox"/> IN LIEU OF ROOF RATING 3.2.2.20-83 3.2.1.5 3.2.2.17 INDEX	<input type="checkbox"/> ENTIRE BUILDING <input type="checkbox"/> SELECTED COMPARTMENTS <input type="checkbox"/> IN LIEU OF ROOF RATING 3.2.2.20-83 3.2.1.5 3.2.2.17 INDEX	9.10.8.2 9.10.8.2
9 STANDPIPE REQUIRED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.2.9	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.2.9	N/A
10 FIRE ALARM REQUIRED	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 3.2.4	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 3.2.4	9.10.18
11 WATER/SERVICE/SUPPLY IS ADEQUATE	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 3.2.5.7	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 3.2.5.7	N/A
12 HIGH BUILDING	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 3.2.6	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 3.2.6	N/A
13 CONSTRUCTION RESTRICTIONS ACTUAL CONSTRUCTION	<input checked="" type="checkbox"/> COMBUSTIBLE PERMITTED <input type="checkbox"/> NON-COMBUSTIBLE <input type="checkbox"/> NON-COMBUSTIBLE 3.2.2.20-83 9.10.6	<input checked="" type="checkbox"/> COMBUSTIBLE PERMITTED <input type="checkbox"/> NON-COMBUSTIBLE <input type="checkbox"/> NON-COMBUSTIBLE 3.2.2.20-83 9.10.6	9.10.6
14 MEZZANINE(S) AREA M ²	NA 3.2.1.1.(3)-(8)	NA 3.2.1.1.(3)-(8)	9.10.4.1
15 OCCUPANT LOAD BASED ON OCCUPANCY: A2	<input type="checkbox"/> M.S.Q./PERSON <input checked="" type="checkbox"/> DESIGN OF BUILDING 3.1.17	<input type="checkbox"/> M.S.Q./PERSON <input checked="" type="checkbox"/> DESIGN OF BUILDING 3.1.17	9.9.1.3
			240 students 18 staff TOTAL: 258 PERSONS UNCHANGED
16 BARRIER-FREE DESIGN	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (EXPLAIN) 3.8	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (EXPLAIN) 3.8	9.5.2
17 HAZARDOUS SUBSTANCES	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.3.1.2 & 3.3.1.19 9.10.1.3(4)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 3.3.1.2 & 3.3.1.19 9.10.1.3(4)	
18 REQUIRED FIRE RESISTANCE RATING (FRR)	HORIZONTAL ASSEMBLIES FRR (HOURS) LISTED DESIGN NO. OR DESCRIPTION (SG-2)	HORIZONTAL ASSEMBLIES FRR (HOURS) LISTED DESIGN NO. OR DESCRIPTION (SG-2)	3.2.2.20-83 & 3.2.1.4 9.10.8 9.10.9
	FLOORS 45 MIN existing no change ROOF 45 MIN existing no change MEZZANINE N/A FRR OF SUPPORTING MEMBERS	FLOORS 45 MIN existing no change ROOF 45 MIN existing no change MEZZANINE N/A FRR OF SUPPORTING MEMBERS	NO CHANGE NO CHANGE NO CHANGE
	FLOORS no change HOURS ROOF no change HOURS MEZZANINE N/A HOURS	FLOORS no change HOURS ROOF no change HOURS MEZZANINE N/A HOURS	NO CHANGE NO CHANGE NO CHANGE
19 SPATIAL SEPARATION - CONSTRUCTION OF EXTERIOR WALLS	NA 3.2.3	NA 3.2.3	9.10.14
20 OTHER-DESCRIBE			



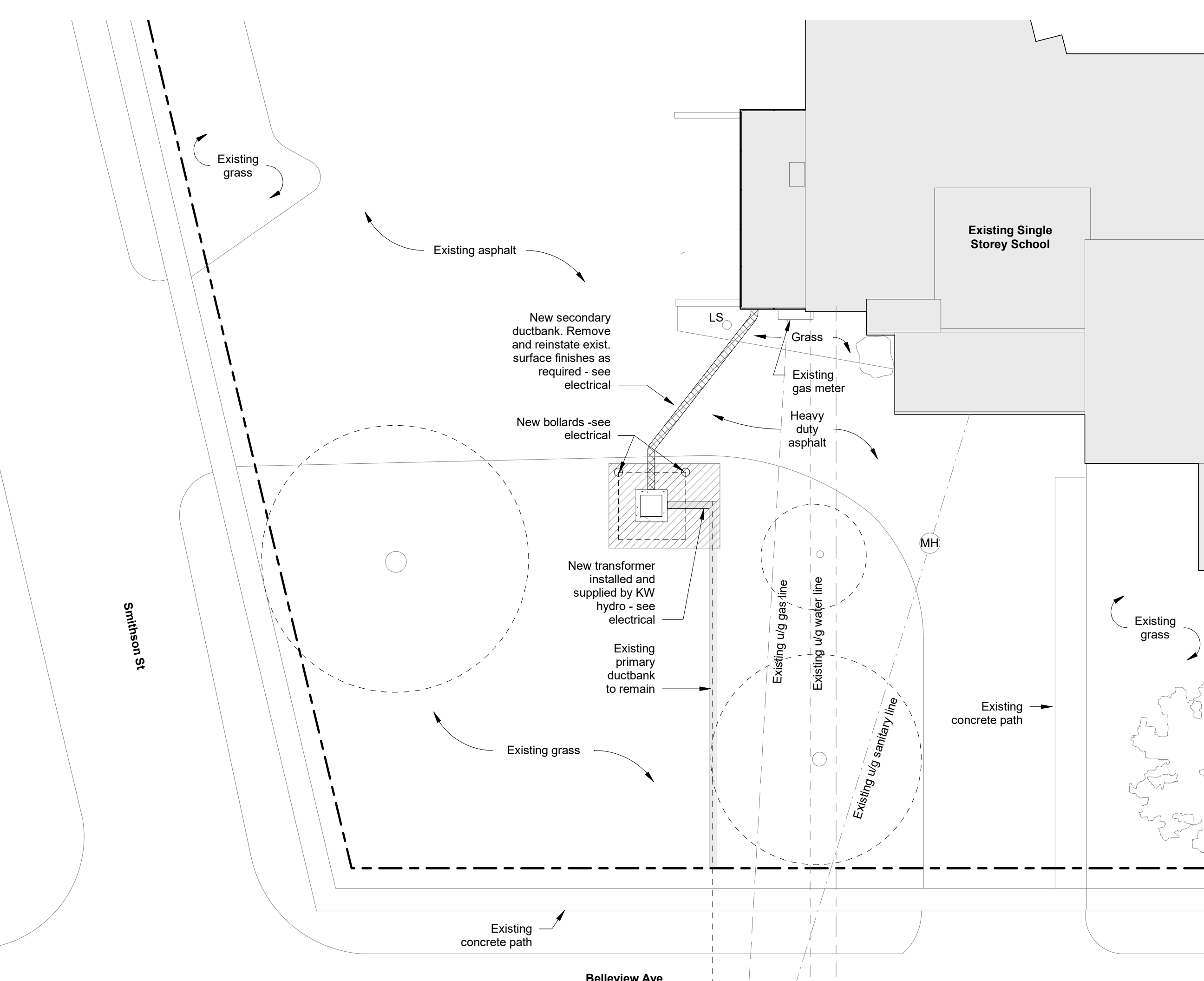
NAME OF PRACTICE: WORKSHOP Architecture 6 Sousa Mendes Street Toronto, ON M6P 0A8 phone: 416.901.8055	PROJECT DESCRIPTION: HVAC upgrades in classrooms, washrooms, corridors and vestibules in west wing & central lobby of school with minor interior renovations to suit. Interior renovations to reconfigure main office to include health room, barrier-free wc and expanded office area. Renovation to existing staff work room, staff wc and custodial area. Conversion of existing classroom in to Special Education Room. Demolition of existing redundant vestibule and boiler room chimney.
NAME OF PROJECT: Smithson PS HVAC Upgrades & Admin/Staff Area Renovations	
LOCATION: 150 Bellevue Avenue Kitchener, ON	

Ontario Building Code Data Matrix – Part 11 – Renovation of Existing Building			BC Reference
11.1	Existing Building classification:	Describe Existing Use: Construction Index: Existing Hazard Index: Hazard Index for Proposed use: <input checked="" type="checkbox"/> Not Applicable (no change of major occupancy)	A2 - Elementary School 11.2.1 T 11.2.1.1A to N
11.2	Alteration to Existing Building is:	Basic Renovation <input checked="" type="checkbox"/> Extensive Renovation <input type="checkbox"/>	11.3.3.1 11.3.3.2
11.3	Reduction in Performance Level:	Structural: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By Increase in occupant load: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By change of major occupancy: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Plumbing: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Sewage-system: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.4.2 11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5
11.4	Compensating Construction:	Structural: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Increase in occupant load: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Change of major occupancy: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Plumbing: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Sewage system: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.4.3 11.4.3.2 11.4.3.3 11.4.3.4 11.4.3.5 11.4.3.6
11.5	Compliance Alternatives Proposed:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.5.1

Sheet List	
Sheet Number	Sheet Name
ARCHITECTURAL	
A0.0	Cover Sheet
A1.0	Demolition Plans
A1.1	Demolition RCP
A2.0	Proposed Plans & Schedules
A2.1	Proposed Partial Plan
A2.2	Proposed RCP
A3.0	Roof Plan & Details
A4.1	Interior Elevations & Schedules
A5.0	Lower Roof Detail Plan, Exterior Elevations & Details
A5.1	Millwork Details
A5.2	Millwork Details
STRUCTURAL	
S1.0	Structural Details
S2.0	Screen Framing & Construction Notes
ARCHITECTURAL	
A4.0	Interior Elevations
MECHANICAL	
M0	Mechanical Specifications
M1	Site Plan
M2	Demo Plan - West Wing
M3	New HVAC Plan - West Wing
M4	New Hydronic Plan - West Wing
M5	Plumbing Plan - West Wing
M6	Roof Plan - West Wing
M7	Mechanical Details Part 1
M8	Mechanical Details Part 2
M9	Heating Pipe Schematic
M10	Mechanical Schedules
ELECTRICAL	
E1	Electrical Legend and Schedules
E2	Electrical Single Line Diagram and Site Plan
E3	Existing/ Demo Power Plans
E4	Existing/ Demo Fire Alarm Plans
E5	Existing/ Demo Lighting & Reflected Ceiling Plans
E5.1	Existing/ Demo Lighting & Reflected Ceiling Plans
E5.2	Existing/ Demo Emergency Lighting & Exit Sign Plans
E6	Proposed Power Plans
E6.1	Proposed Power Plans
E7	Proposed Fire Alarm Plans
E8	Proposed Lighting & Reflected Ceiling Plans
E8.1	Proposed Lighting & Reflected Ceiling Plans
E8.2	Proposed Emergency Lighting & Exit Sign Plans
E9	Electrical and Boiler Room Layouts
E10	Proposed Rooftop Plans
E11	Electrical Details
E11.1	Electrical Details



1 Site Plan
1 : 750



2 Site - Detail Plan
1 : 200

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Life Safety Plan Legend

- Travel Distance
Max Allowable = 30m
- Shaded area indicates scope of work
- Not In Contract (N.I.C.)
- 0HR FRR
- 0.45HR FRR



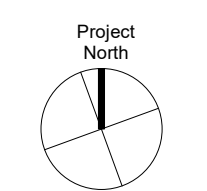
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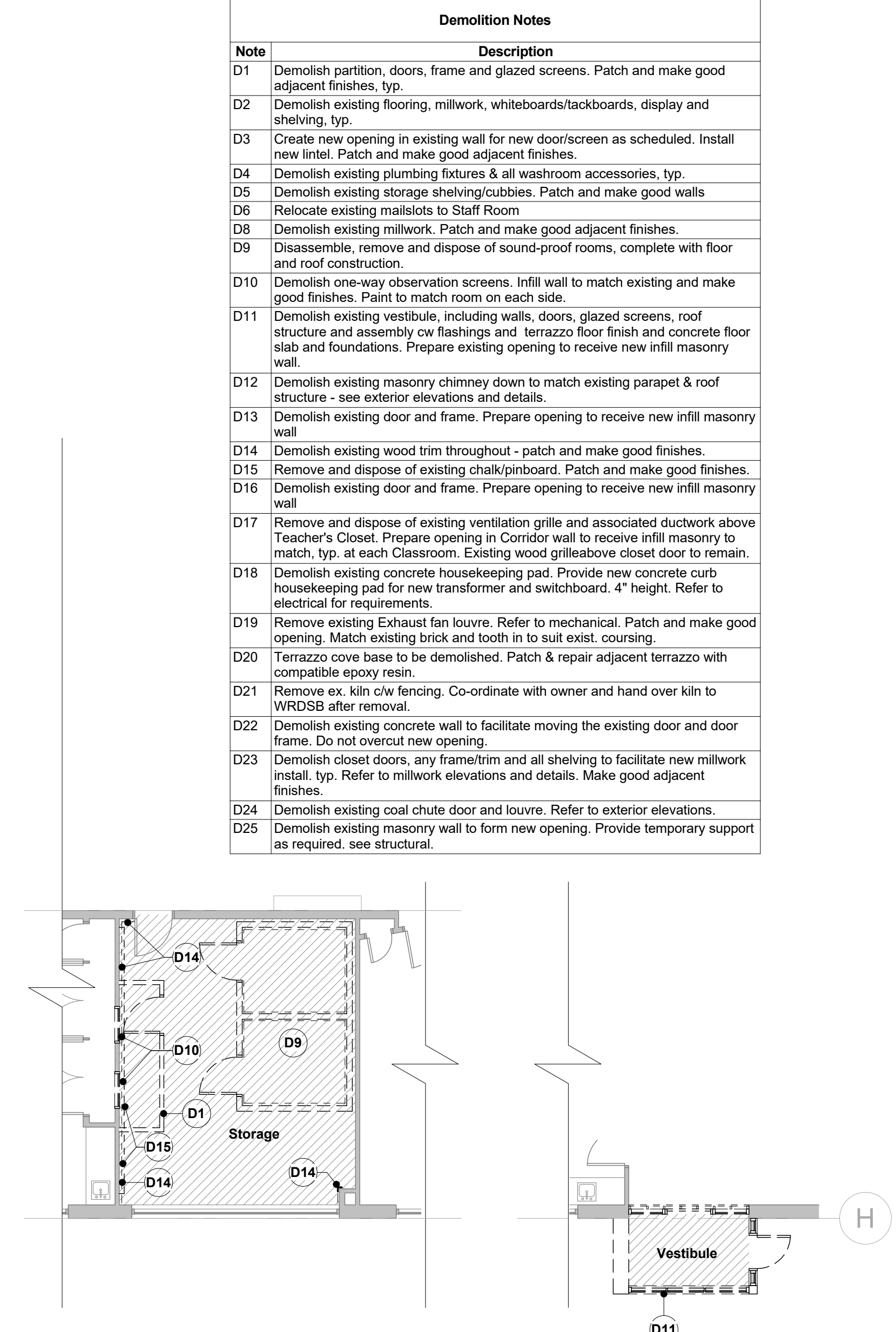
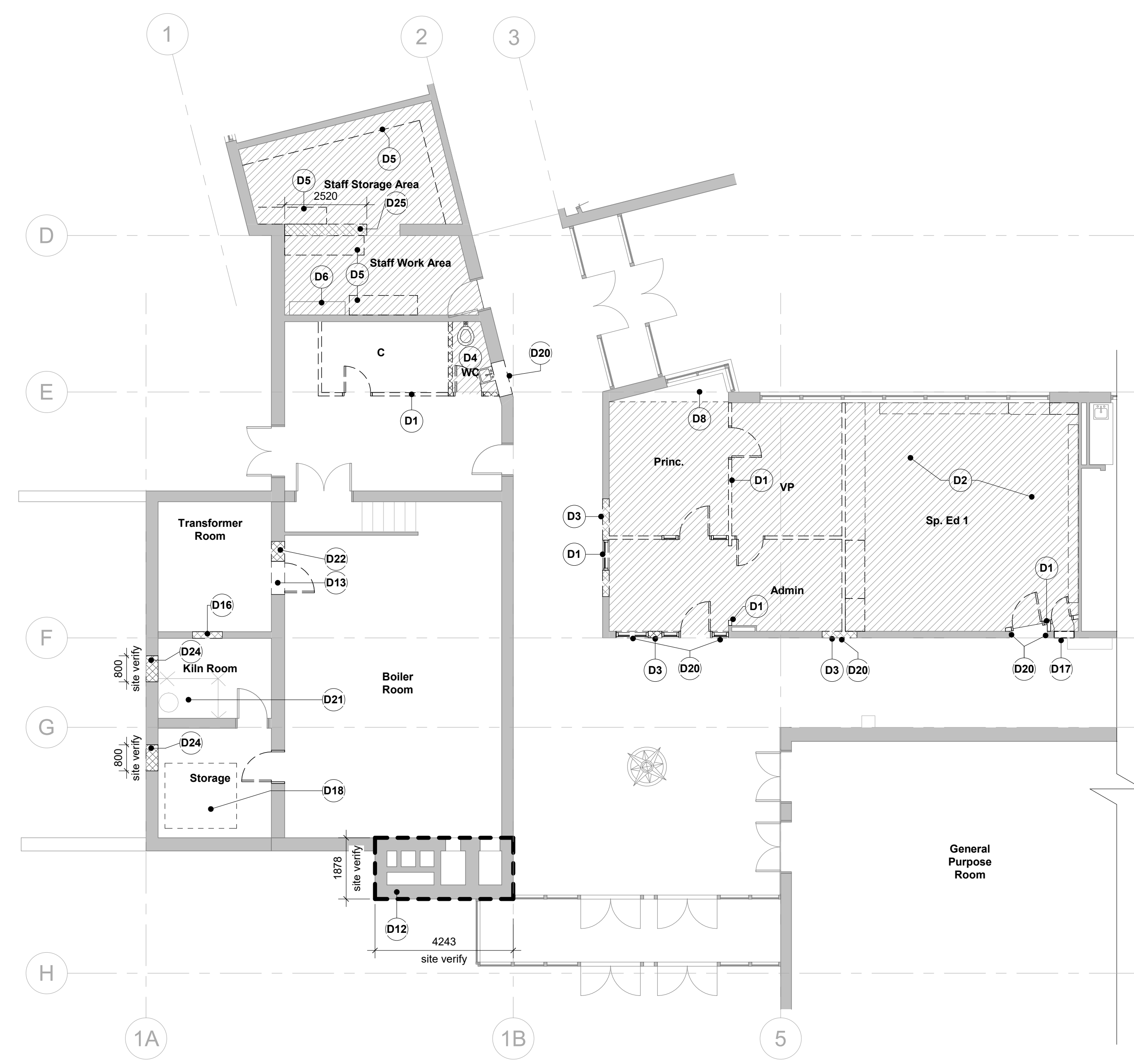
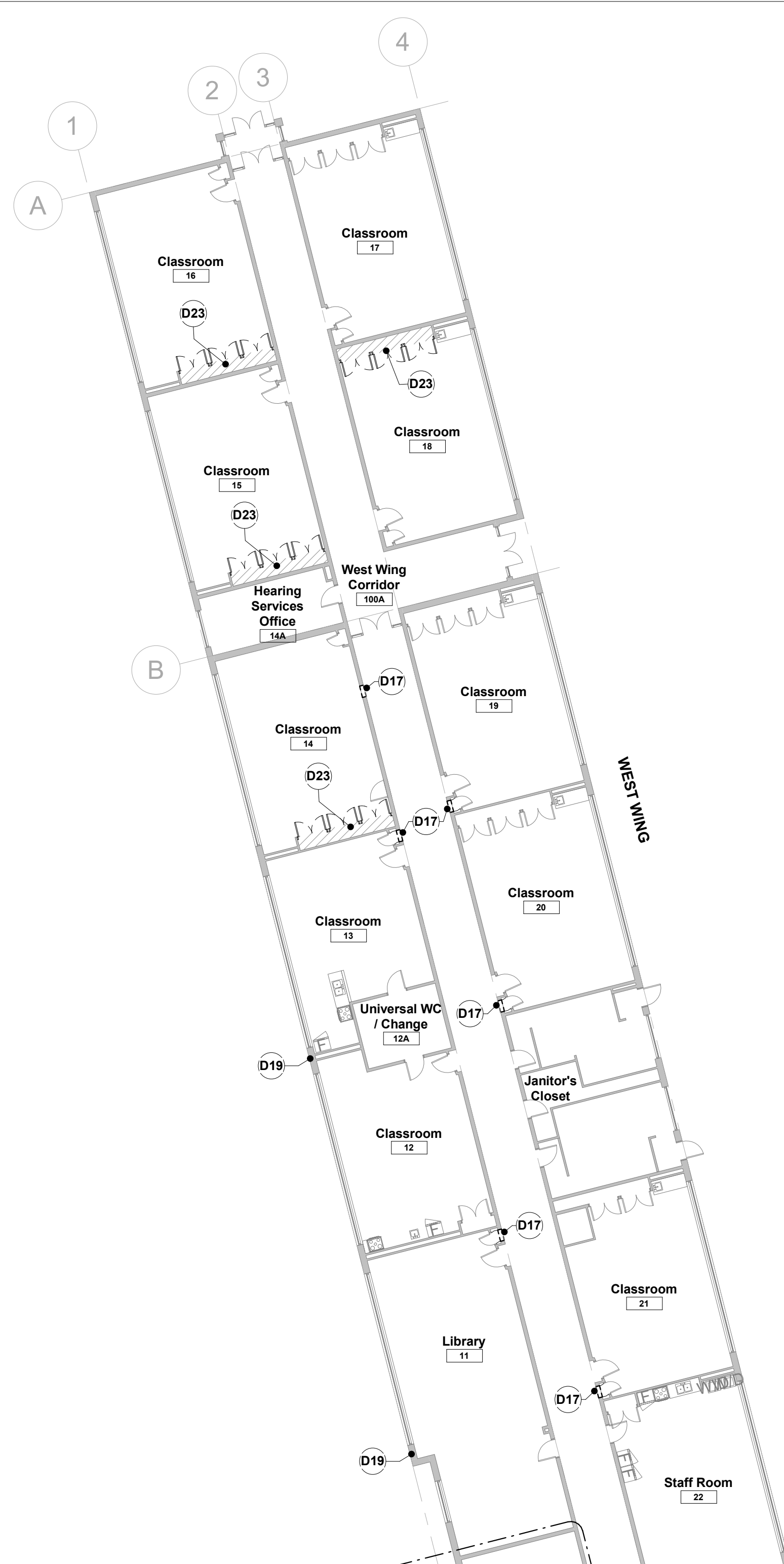
WRDSB Smithson Public School -
HVAC & Electrical Upgrades,
Interior Renovations
Smithson Public School
150 Bellevue Ave
Kitchener ON
N2B 1G7

PROJECT CODE: 20_28	SCALE: As indicated
DATE: December 2021	STATUS: Permit/Tender

Cover Sheet



Project Number
A0.0



Note	Description
D1	Demolish partition, doors, frame and glazed screens. Patch and make good adjacent finishes, typ.
D2	Demolish existing flooring, millwork, whiteboards/blackboards, display and shelving, typ.
D3	Create new opening in existing wall for new door/screen as scheduled. Install new lintel. Patch and make good adjacent finishes.
D4	Demolish existing plumbing fixtures & all washroom accessories, typ.
D5	Demolish existing storage shelving/cubbies. Patch and make good walls
D6	Relocate existing mailslots to Staff Room
D8	Demolish existing millwork. Patch and make good adjacent finishes.
D9	Disassemble, remove and dispose of sound-proof rooms, complete with floor and roof construction.
D10	Demolish one-way observation screens. Infill wall to match existing and make good finishes. Paint to match room on each side.
D11	Demolish existing vestibule, including walls, doors, glazed screens, roof structure and assembly w/ flashings and terrazzo floor finish and concrete floor slab and foundations. Prepare existing opening to receive new infill masonry wall.
D12	Demolish existing masonry chimney down to match existing parapet & roof structure - see exterior elevations and details.
D13	Demolish existing door and frame. Prepare opening to receive new infill masonry wall
D14	Demolish existing wood trim throughout - patch and make good finishes.
D15	Remove and dispose of existing chalk/pinboard. Patch and make good finishes.
D16	Demolish existing door and frame. Prepare opening to receive new infill masonry wall
D17	Remove and dispose of existing ventilation grille and associated ductwork above Teacher's Closet. Prepare opening in Corridor wall to receive infill masonry to match, typ. at each Classroom. Existing wood grille/above closet door to remain.
D18	Demolish existing concrete housekeeping pad. Provide new concrete curb housekeeping pad for new transformer and switchboard. 4" height. Refer to electrical for requirements.
D19	Remove existing Exhaust fan louvre. Refer to mechanical. Patch and make good opening. Match existing brick and tooth in to suit exist. coursing.
D20	Terrazzo cove base to be demolished. Patch & repair adjacent terrazzo with compatible epoxy resin.
D21	Remove ex. kiln c/w fencing. Co-ordinate with owner and hand over kiln to WRDSB after removal.
D22	Demolish existing concrete wall to facilitate moving the existing door and door frame. Do not overcut new opening.
D23	Demolish closet doors, any frame/trim and all shelving to facilitate new millwork install, typ. Refer to millwork elevations and details. Make good adjacent finishes.
D24	Demolish existing coal chute door and louvre. Refer to exterior elevations.
D25	Demolish existing masonry wall to form new opening. Provide temporary support as required. see structural.

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Demolition Legend	
	Existing CMU partition to be demolished
	Existing wall partition system to be demolished
	Existing element to be demolished
	Approximate extent of flooring to be removed
	Approximate extent of ceiling to be removed
	Approximate extent of fibreboard to be removed from US Joists
	Existing door leaf and frame to be demolished
	Area not in architectural scope of work

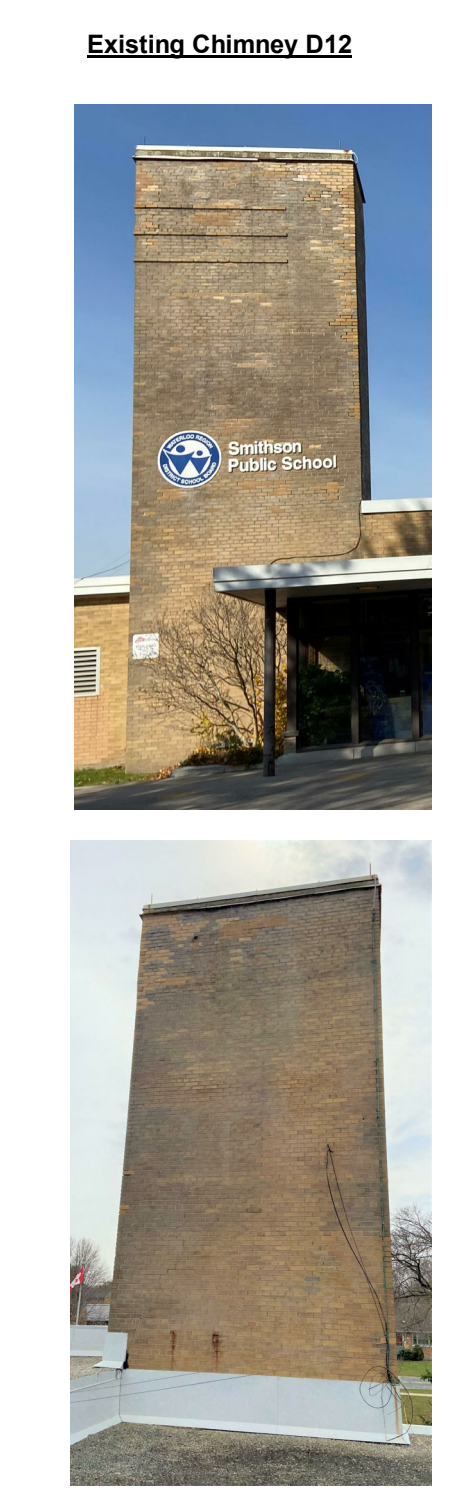
2 Demolition Plan - Area of Work 1
1:100

4 Demolition Plan - Area of Work 3
1:100

3 Demolition Plan - Area of Work 4
1:100



1 Demolition Plan - East Wing
1:200



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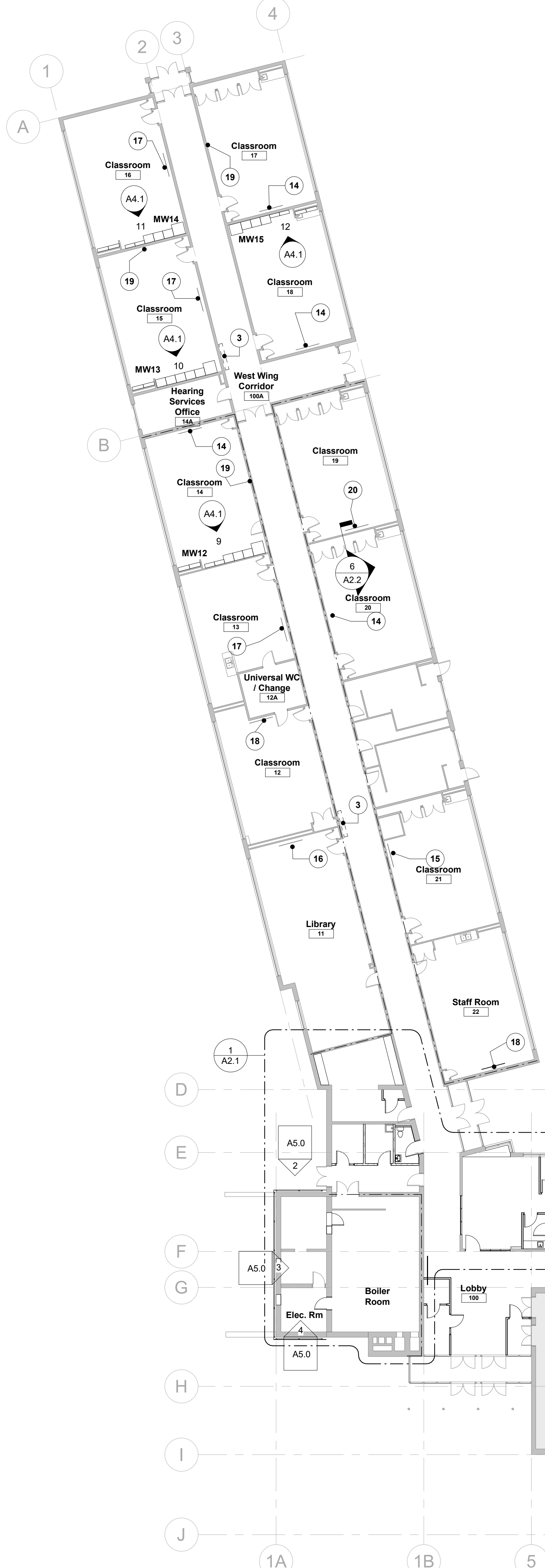
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PROJECT CODE:	SCALE:
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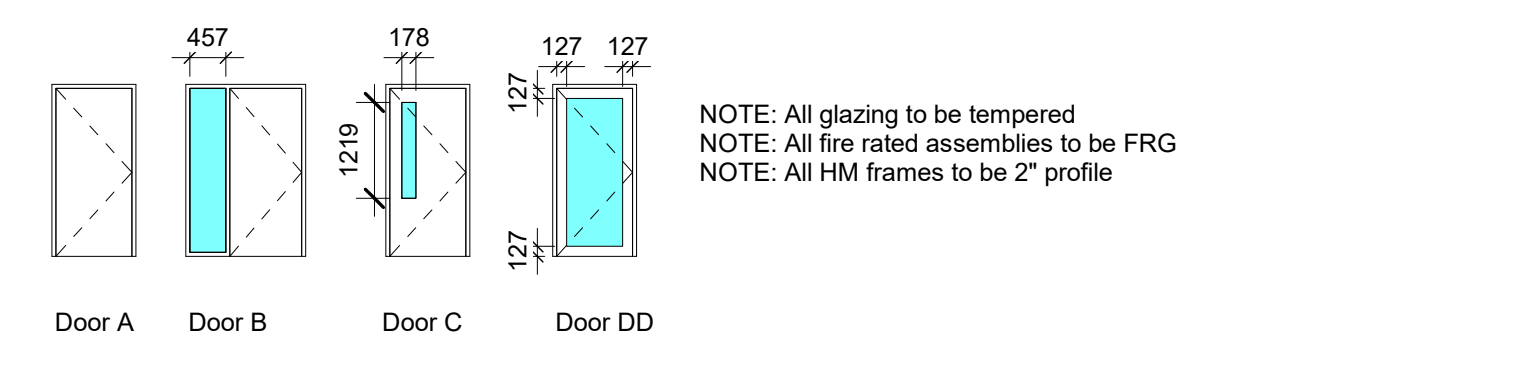
Demolition Plans

Project North

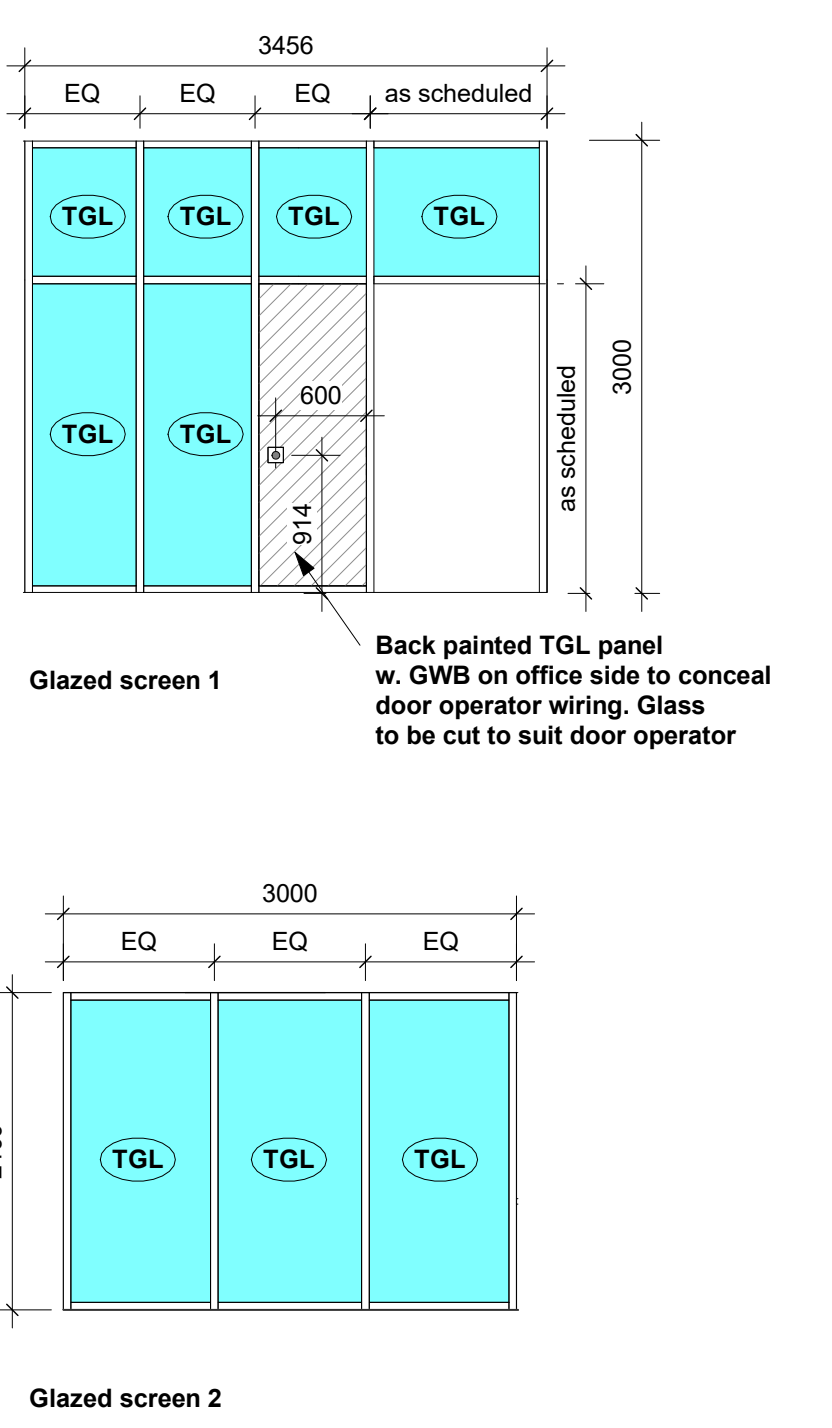
drawing number
A1.0



Door Schedule										
Door No.	Room	Type Mark	Height	Width	Door Mat'l	Finish	Frame Material	Frame Fin.	Fire Rating	Comments
D101	Reception/Admin	DD	2050	1095	ALUM	ALUM	ALUM	ALUM		Door is part of glazed screen
D102	Health Room	C	2134	965	SCW	WS	WD	PT		
D102A	Health Room	A	2134	965	SCW	WS	HM	PT		
D103	Principal's Office	B	2134	965	SCW	WS	WD	PT		
D104	Meeting Room	B	2134	965	SCW	WS	WD	PT		
D104A	Meeting Room	A	2134	1067	HM	PT	HM	PT	45MIN	Door and frame to suit existing rough opening - site verify
D105	Office	B	2134	965	SCW	WS	HM	PT		
D106	BF Washroom	A	2134	965	HM	PT	HM	PT		
D108	Staff WC	A	2134	965	SCW	WS	HM	PT	45MIN	
D114	Custodial Closet	A	2134	965	HM	PT	HM	PT		
D115	Custodial Office	B	2134	965	HM	PT	HM	PT		
D116A	IT Closet	A	2134	965	SCW	WS	WD	PT		
D117	Electrical Room	A	2134	914	HM	PT	HM	PT	45MIN	
D118	Roof Access Room	A	2134	914	EX	EX	HM	PT	45MIN	Keep existing door. Only provide new frame.



WA - Room Finish Schedule						
Room Name	Room No.	Wall Finish	Floor Finish	Base Finish	Ceiling Finish	Comments
Library	11				EXIST/ACT	
Classroom	12				EXIST/ACT	
Universal WC / Change	12A				EXIST	
Classroom	13				EXIST/ACT	
Classroom	14				EXIST/ACT	
Hearing Services Office	14A				EXIST/ACT	
Classroom	15				EXIST/ACT	
Classroom	16				EXIST/ACT	
Classroom	17				EXIST/ACT	
Classroom	18				EXIST/ACT	
Classroom	19				EXIST/ACT	
Classroom	20				EXIST/ACT	
Classroom	21				EXIST/ACT	
Staff Room	22				EXIST/ACT	
Lobby	100				FAB	
West Wing Corridor	100A				ACT	
Reception/Admin	101	PT	POR/CPT	POR/RB	ACT	
Health Room	102	PT	POR	RB	ACT	
Principal's Office	103	PT	CPT	RB	ACT	
Meeting Room	104	PT	CPT	RB	ACT	
Office	105	PT	CPT	RB	ACT	
BF WC	106	CER	POR	-	ACT	
Staff WC	107	CER	POR	-	GWB	
Custodial Closet	108	PT	EXIST	RB	EXIST	
Custodial Office	109	PT	POR	POR	ACT	
Staff Work Room	110	PT	RES	RB	PT EXIST	
IT Closet	110A	PT	RES	RB	-	
Electrical Room	111					



- ### ASSEMBLY SCHEDULE
- NOTES:
- USE WATER RESISTANT DRYWALL IN ALL WET AREAS - REFER TO SPECIFICATION 09250
 - PROVIDE CONTINUOUS PLYWOOD BLOCKING BEHIND ALL MILLWORK CABINETS, SUSPENDED ITEMS, TELEVISIONS ETC.
 - ALL INTERNAL PARTITIONS EXTEND TO U/S DECK ABOVE UNLESS NOTED OTHERWISE.
 - PROVIDE FIRE RESISTANCE RATINGS AS INDICATED ON DRAWINGS
- ### INTERIOR PARTITIONS
- PW1: 1 LAYER 16mm TYPE X GYPSUM WALLBOARD, 92mm STEEL STUDS, ACOUSTICAL FIRE BATT INSULATION, 1 LAYER 16mm TYPE X GYPSUM WALLBOARD TO U/S OF DECK
 - PW2: 140mm CMU PARTITION

- ### General Notes
- Provide new concrete curb housekeeping pad, height 4", painted safety yellow, co-ordinate exact style with mechanical trade.
 - Flush mount floor monument. Refer to electrical for requirements.
 - New convactor unit. Refer to mechanical for requirements. Make good all floor and wall finishes after installation.
 - Infill exterior wall to match existing brick.
 - Provide top soil and sod to match existing.
 - Exterior galvanized metal screen - see elevations. Refer to structural.
 - Infill exterior wall opening to match existing concrete block and brick assembly.
 - Infill existing door opening in concrete wall with block up to jamb of new door opening. Provide new door frame. Remove existing door, store and reuse in new frame.
 - New forced floor heater. Refer to mechanical for requirements. Make good all floor and wall finishes after installation.
 - For new beam and lintel type and section, see structural.
 - Transition between POR floor finish and CPT floor finish in the offices and meeting room. Provide aluminum transition, refer to specification.
 - Provide floor drain, see mechanical.
 - Provide new mop sink c/w side mount faucet on new wall, see mechanical.
 - Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB.
 - Provide wall mounted TV mounted on the corridor wall, to the right of white board, on open wall space. Elevation height - Match top of White boards/doors.
 - Provide wall mounted TV mounted below the current projector screen(to be removed). Two millwork book cases to be relocated to left side to replace unit with Tree.
 - Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Relocate existing white board. Coordinate with WRDSB.
 - Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Remove white boards or tack boards and hand over to WRDSB.
 - Provide new white board. New white boards are part of cash allowance for supply. Refer to specification and coordinate with WRDSB.
 - Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Modify & add white boards to fill all chalk board area along front of room. HDM/Data drop to be in the corner to the left. This room has several wall mounted speakers as part of an older soundfield system. Contractor to remove and hand over to the school.
 - Provide temporary administration offices during construction and prior to Demo Phase. Windows, doors, door frame and hardware will be provided from WRDSB. Coordinate exact location and duration at construction start up meeting. All partitions are PW-1 unconnected height of 10'-0" with PT finish and rubber baseboards. No ceiling. Temporary Office install is part of Cash Allowance.
 - Enlarge existing opening in concrete roof slab to suit new roof access hatch - see structural.

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- ### Materials Legend
- ACT Acoustic Ceiling Tile
 - ALUM Aluminum
 - CER Ceramic Tile
 - CPT Carpet
 - EPO Epoxy Paint
 - EXIST Existing
 - EXP Exposed
 - FAB Fabric Faced Acoustic Core Composite Ceiling Panel
 - FGL Frosted Glass
 - F1 Glazing Surface Film
 - GWB Gypsum Wallboard
 - MIR Mirror
 - MDF MDF Baseboard
 - PLY Fire Rated Plywood
 - POR Porcelain Tile
 - PLAM Plastic Laminate
 - PT Paint Finish
 - QTZ Quartz
 - RB Rubber Base
 - RES Resilient Sheet Flooring
 - SO Solid Polymer Fabrications
 - SS Stainless Steel
 - ST Natural Stone
 - TGL Tempered Glass
 - WB Dry Erase Whiteboard
 - WD Solid Wood
 - WS Wood Stain

- ### Legend
- Existing partition to remain
 - New partition as scheduled
- ### Symbols Legend
- PWX Partition Tag - refer to partition schedule
 - SX Glazed Screen tag - refer to schedule
 - DXX New Door tag - refer to schedule
 - MW1 Millwork Tag
 - GWB Ceiling Material Height above Finished Floor
 - (E) Existing



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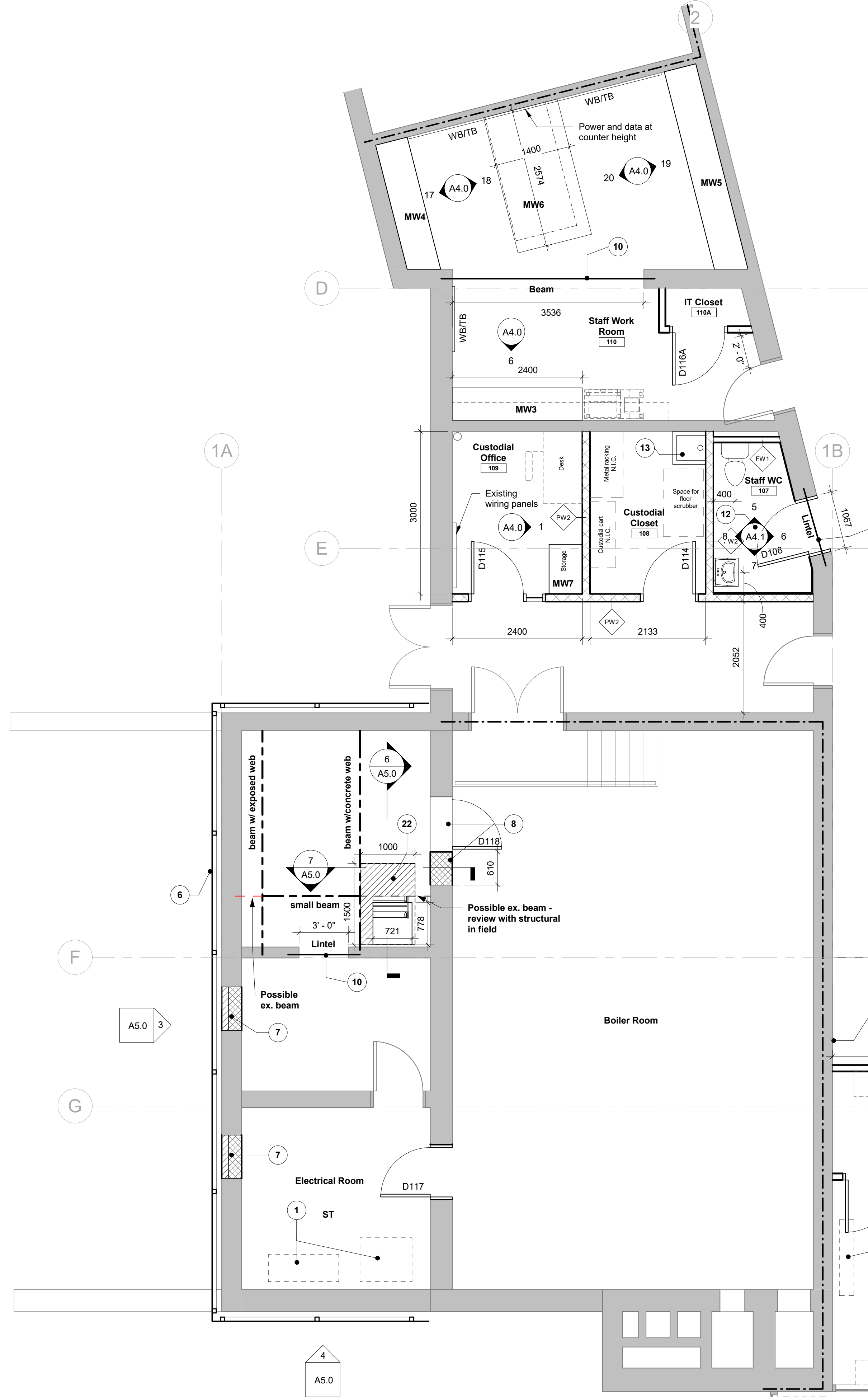
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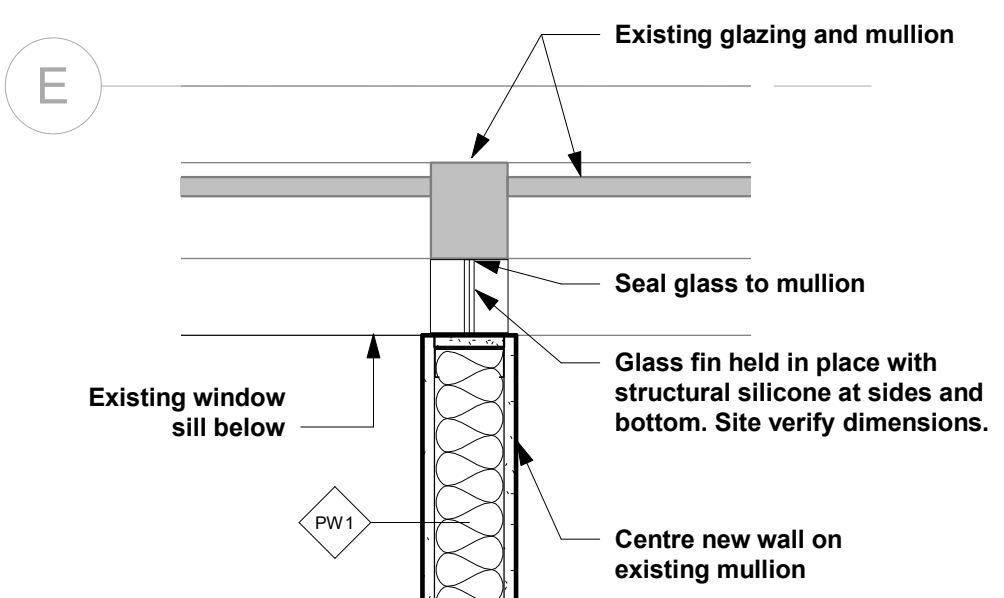
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Proposed Plans & Schedules
Project North
drawing number
A2.0

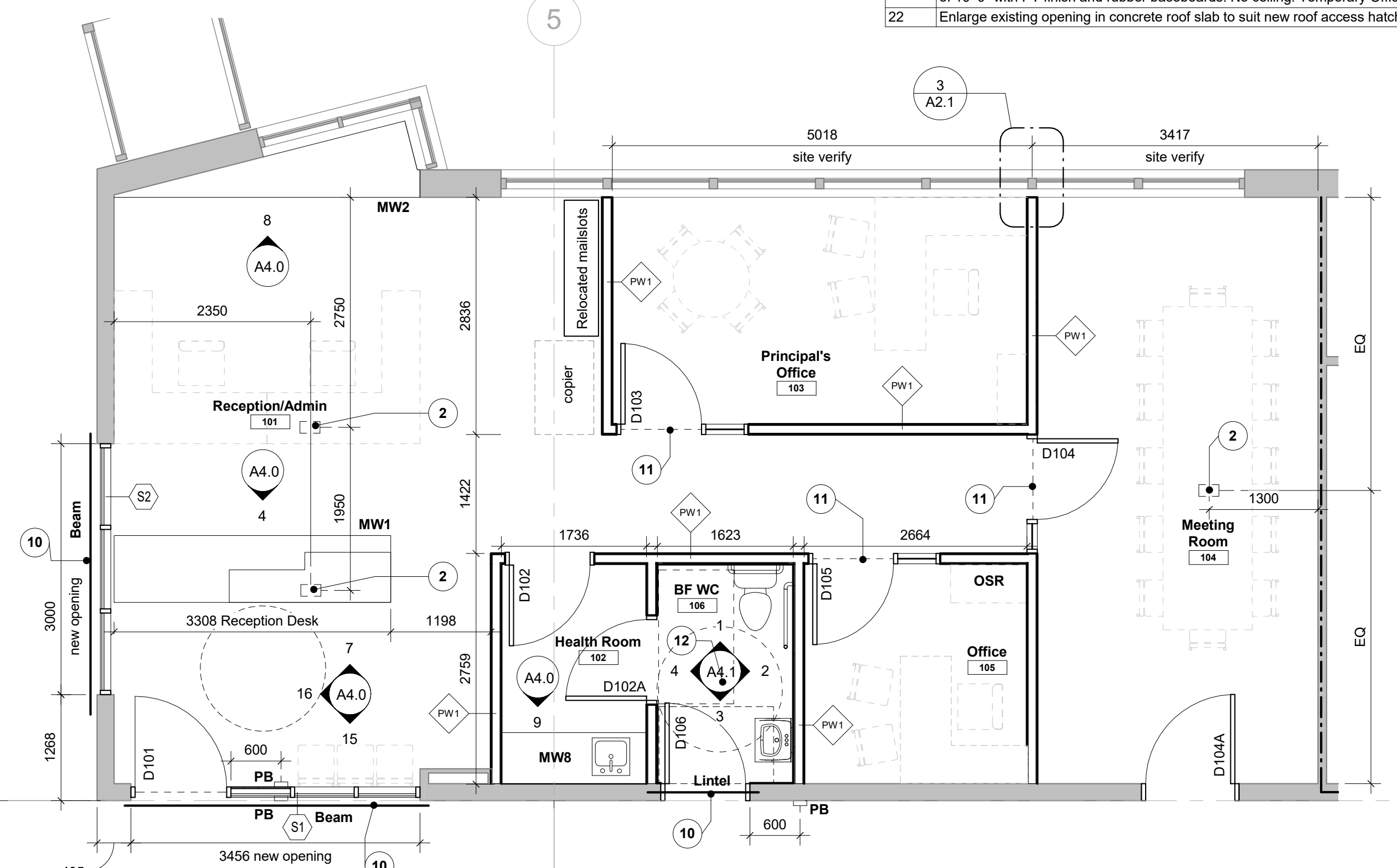
1 Proposed Plan - East Wing
1 : 200



1 Proposed Plan - Area of Work 1 - Admin/Staff/Custodial
1 : 50



3 Plan Detail - Partiton at existing mullion
1 : 10



2 Proposed Plan - Area of Work 2
1 : 50

General Notes	
Note	Description
1	Provide new concrete curb housekeeping pad, height 4", painted safety yellow, co-ordinate exact style with mechanical trade.
2	Flush mount floor monument. Refer to electrical for requirements.
3	New convector unit. Refer to mechanical for requirements. Make good all floor and wall finishes after installation.
4	Infill exterior wall to match existing brick.
5	Provide top soil and sod to match existing.
6	Exterior galvanized metal screen - see elevations. Refer to structural.
7	Infill exterior wall opening to match existing concrete block and brick assembly.
8	Infill existing door opening in concrete wall with block up to to jamb of new door opening. Provide new door frame. Remove existing door, store and reuse in new frame.
9	New forced floor heater. Refer to mechanical for requirements. Make good all floor and wall finishes after installation.
10	For new beam and lintel type and section, see structural.
11	Transition between POR floor finish and CPT floor finish in the offices and meeting room. Provide aluminum transition, refer to specification.
12	Provide floor drain, see mechanical.
13	Provide new mop sink c/w side mount faucet on new wall, see mechanical.
14	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB.
15	Provide wall mounted TV mounted on the corridor wall, to the right of white board, on open wall space. Elevation height - Match top of White boards/doors.
16	Provide wall mounted TV mounted below the current projector screen(to be removed). Two millwork book cases to be relocated to left side to replace unit with Trees.
17	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Relocate existing white board. Coordinate with WRDSB.
18	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Remove white boards or tack boards and hand over to WRDSB.
19	Provide new white board. New white boards are part of cash allowance for supply. Refer to specification and coordinate with WRDSB.
20	Provide wall mounted TV. Coordinate exact location and mounting height with WRDSB. Modify & add white boards to fill all chalk board area along front of room. HDMI/Data drop to be in the corner to the left. This room has several wall mounted speakers as part of an older soundfield system. Contractor to remove and hand over to the school.
21	Provide temporary administration offices during construction and prior to Demo Phase. Windows, doors, door frame and hardware will be provided from WRDSB. Coordinate exact location and duration at construction start up meeting. All partitions are PW-1 unconnected height of 10'-0" with PT finish and rubber baseboards. No ceiling. Temporary Office install is part of Cash Allowance.
22	Enlarge existing opening in concrete roof slab to suit new roof access hatch - see structural.

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4	Issued for Review	21 Jan 2022
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- Legend**
- Existing partition to remain
 - New partition as scheduled
- Symbols Legend**
- PWXX Partition Tag - refer to partition schedule
 - SX Glazed Screen tag - refer to schedule
 - DXXX New Door tag - refer to schedule
 - MW1 Millwork Tag
 - GWB Ceiling Material Height above Finished Floor
 - (E) Existing



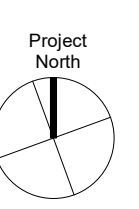
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SCALE: As indicated
DATE: December 2021
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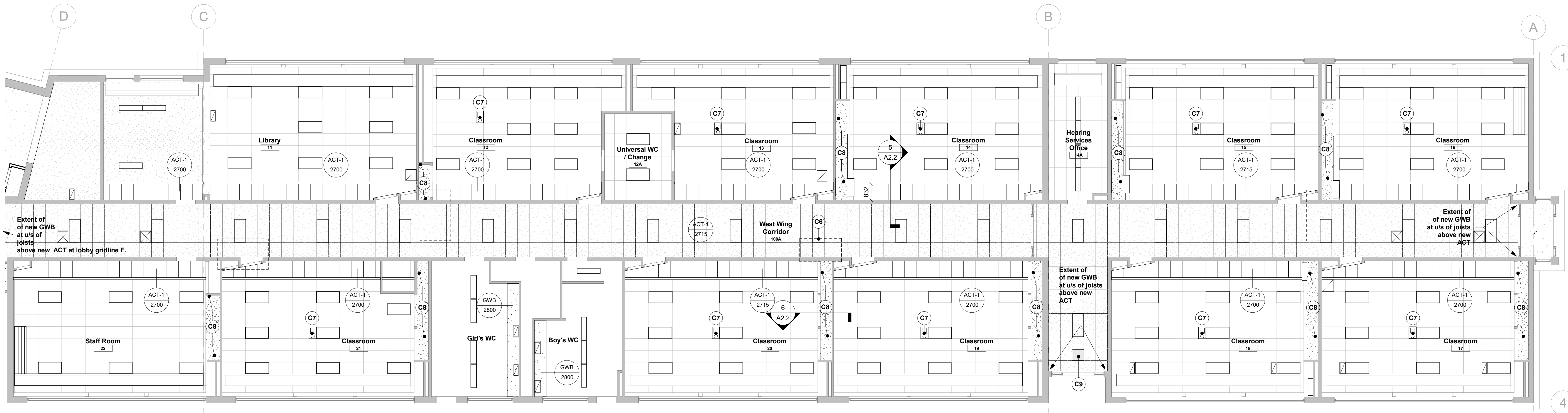
Proposed Partial Plan



drawing number
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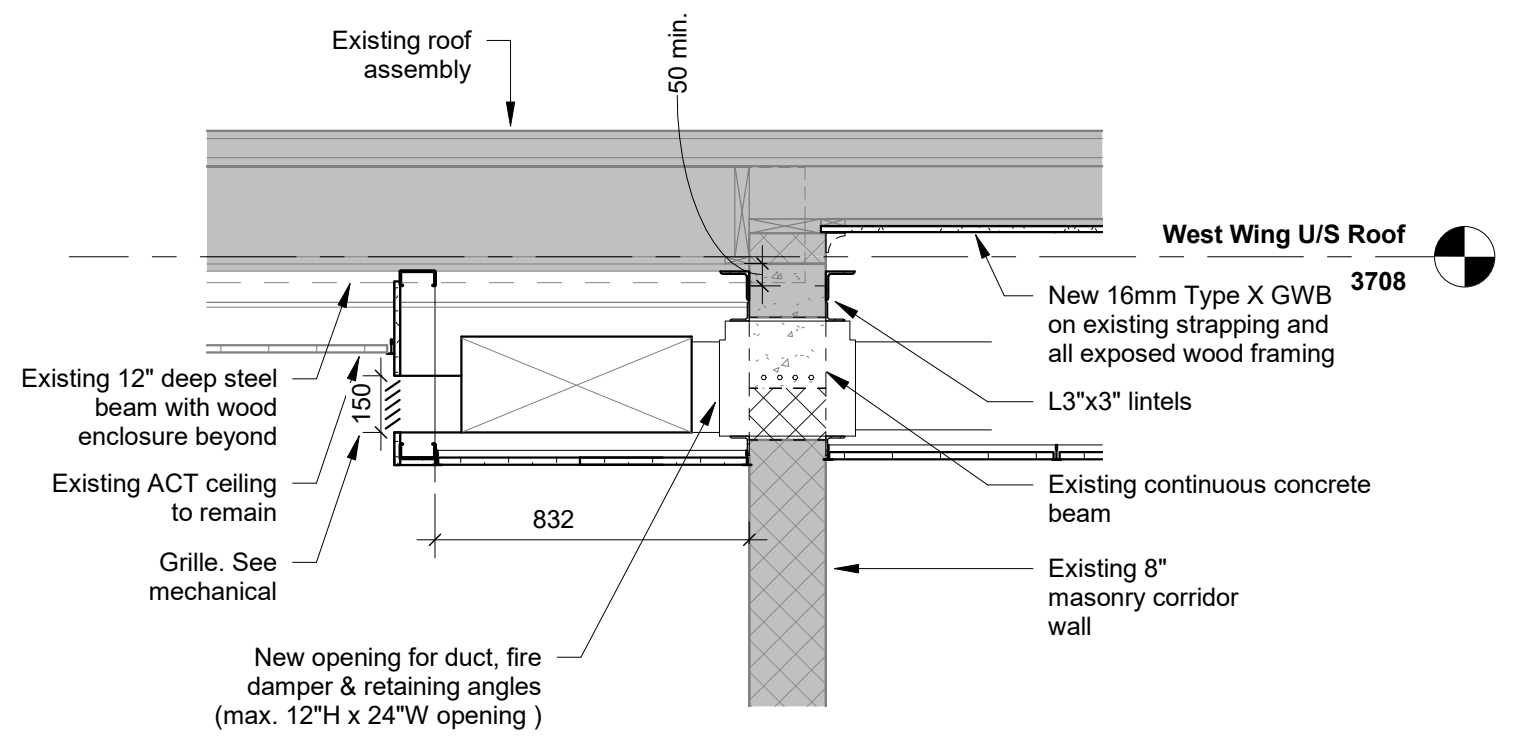
Rev	Description	Date
1	Issued for Schematic Design Report	04 Dec 2020
2	50% Review	26 Feb 2021
3	Issued for 90% Review	03 Dec 2021
4	Issued for Permit	21 Jan 2022
5	Issued for Tender	04 Feb 2022
6	Issued for Tender	15 Feb 2022



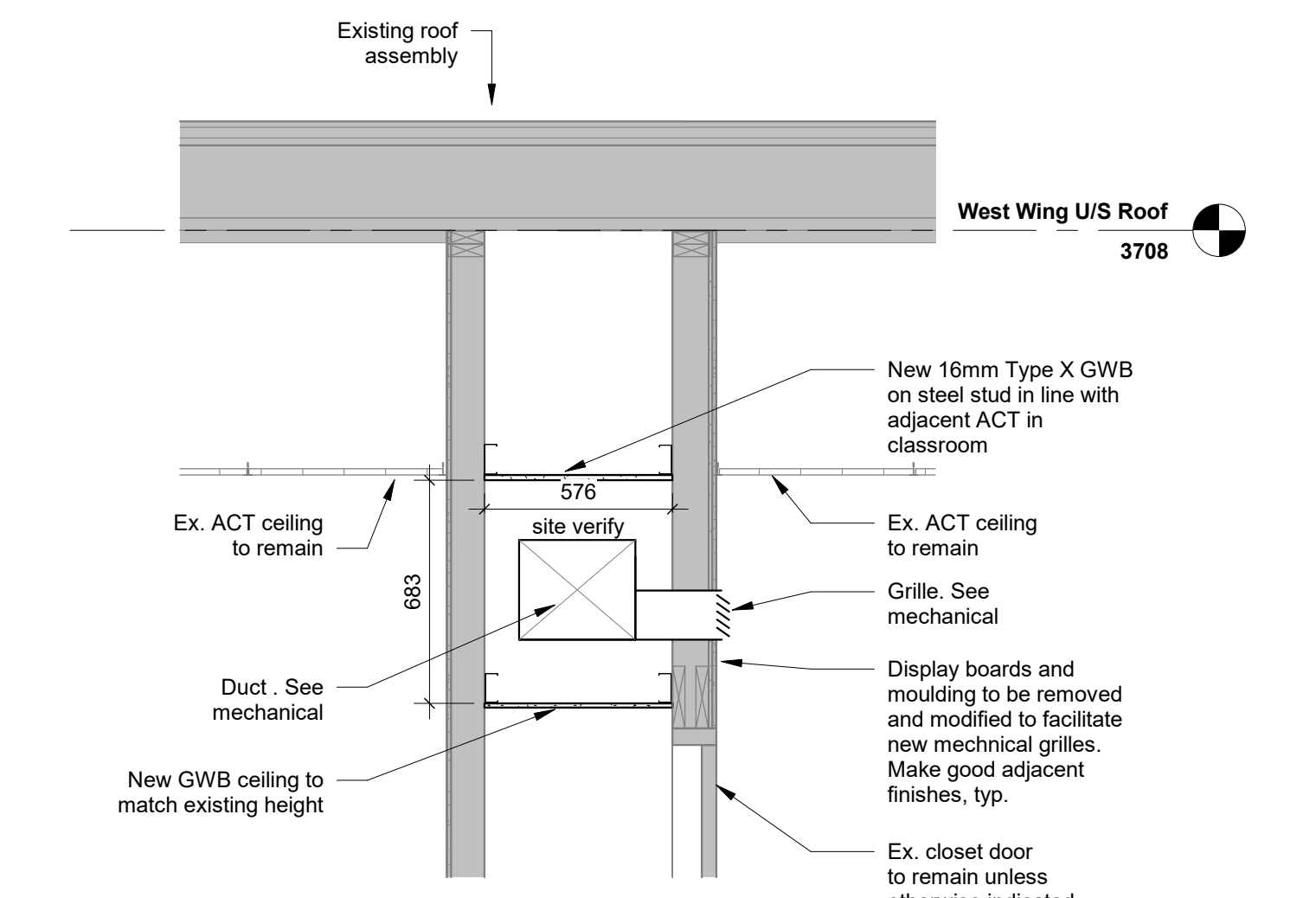
4 Proposed RCP - Area of Work 2 - West Wing
1:100

Ceiling Notes	
Note	Description
C1	New suspended felt batten ceiling
C2	Feature suspended light fixture (below felt ceiling) suspended at 3200mm AFF. See electrical
C3	35mm wide suspended linear light fixtures mounted flush with u/s felt battens, typ. Length as shown. See Electrical
C4	Extend existing ceiling grid to form continuous ceiling and provide matching ceiling tiles.
C5	Reconfigure existing grid and replace ceiling tiles to suit new partition layout
C6	Dashed lines indicate approx. location of mechanical equipment on roof, typ. - see mechanical
C7	Approx. location of Topcat Audio System. Refer to electrical for requirements, typ.
C8	Reinstate GWB ceiling in closets. Coordinate with mechanical grille requirements.
C9	Suspended cabinet heater - refer to mechanical.
C10	New roof access hatch - see details.

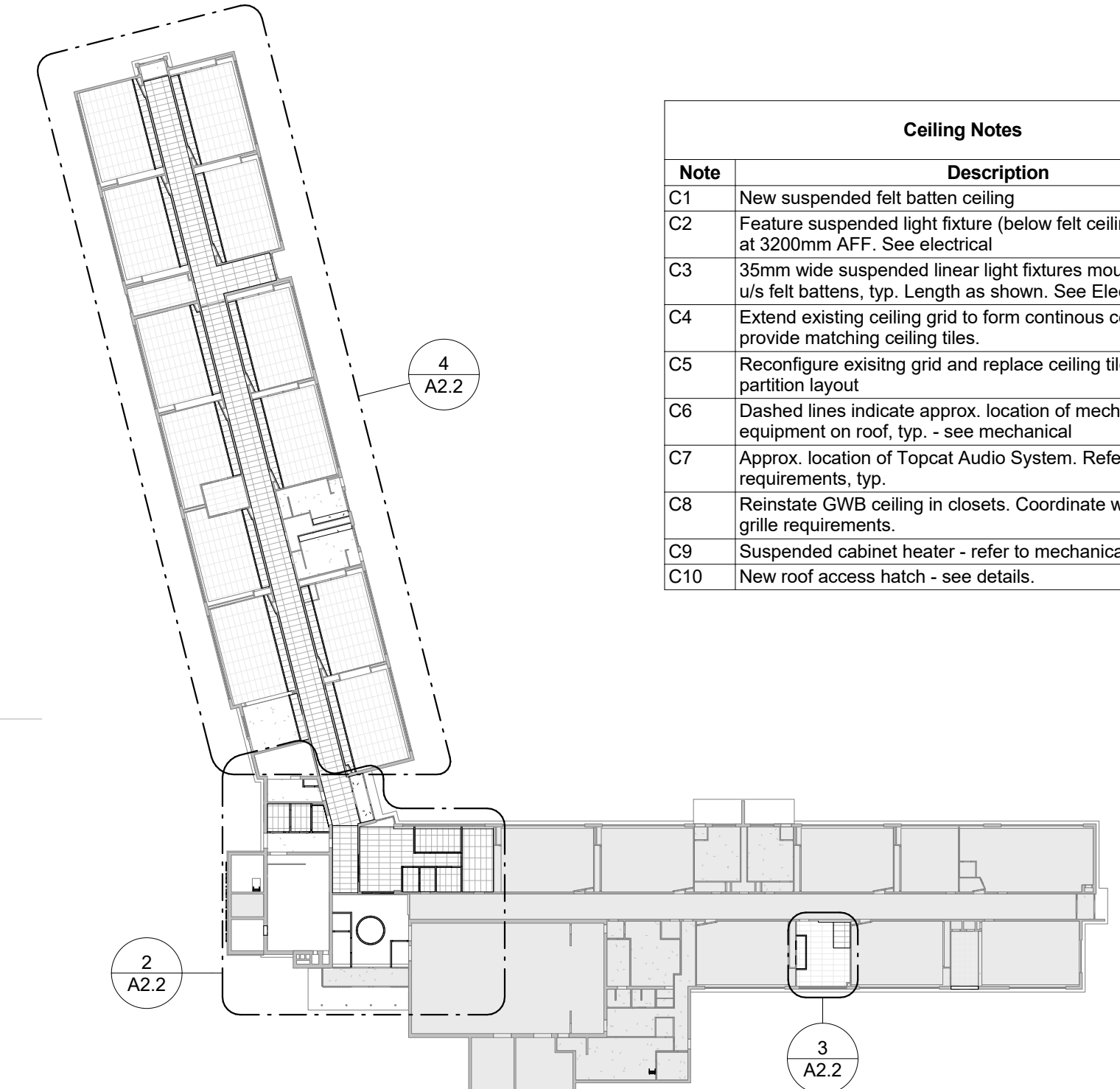
RCP LEGEND	
	Suspended LED fixture see electrical
	LED potlight - see electrical
	LED lighting fixture see electrical
	Transfer grille
	Supply air diffuser
	Radiant ceiling panel
	Topcat audio system
(E)	Existing



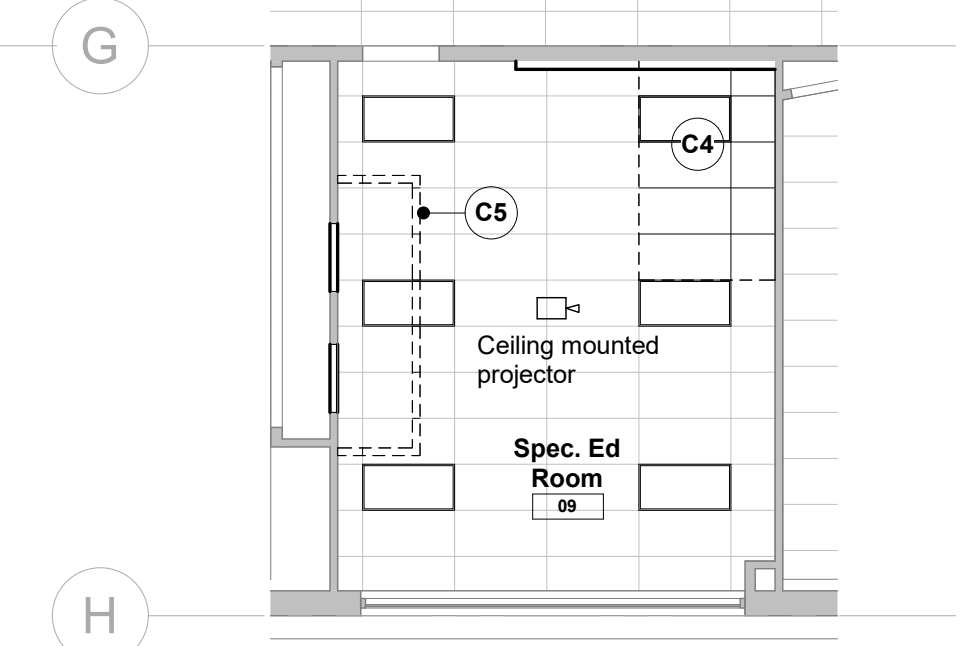
5 Section Detail - Typical Corridor Ceiling Bulkhead
1:20



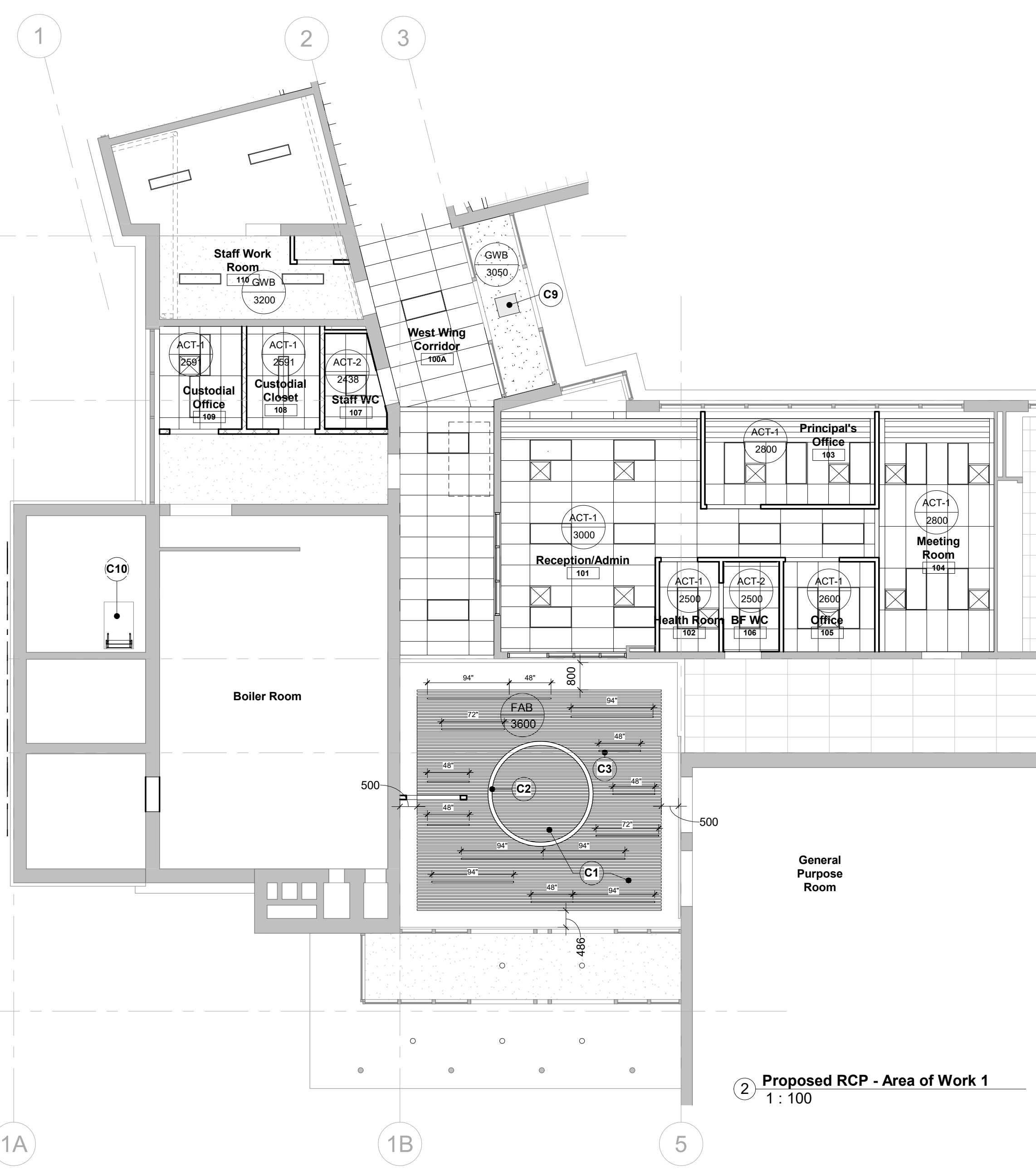
6 Section Detail - Typical Classroom Closet
1:20



1 Level 01 - Proposed RCP
N.T.S.



3 Proposed RCP - Area of Work 3
1:100



2 Proposed RCP - Area of Work 1
1:100



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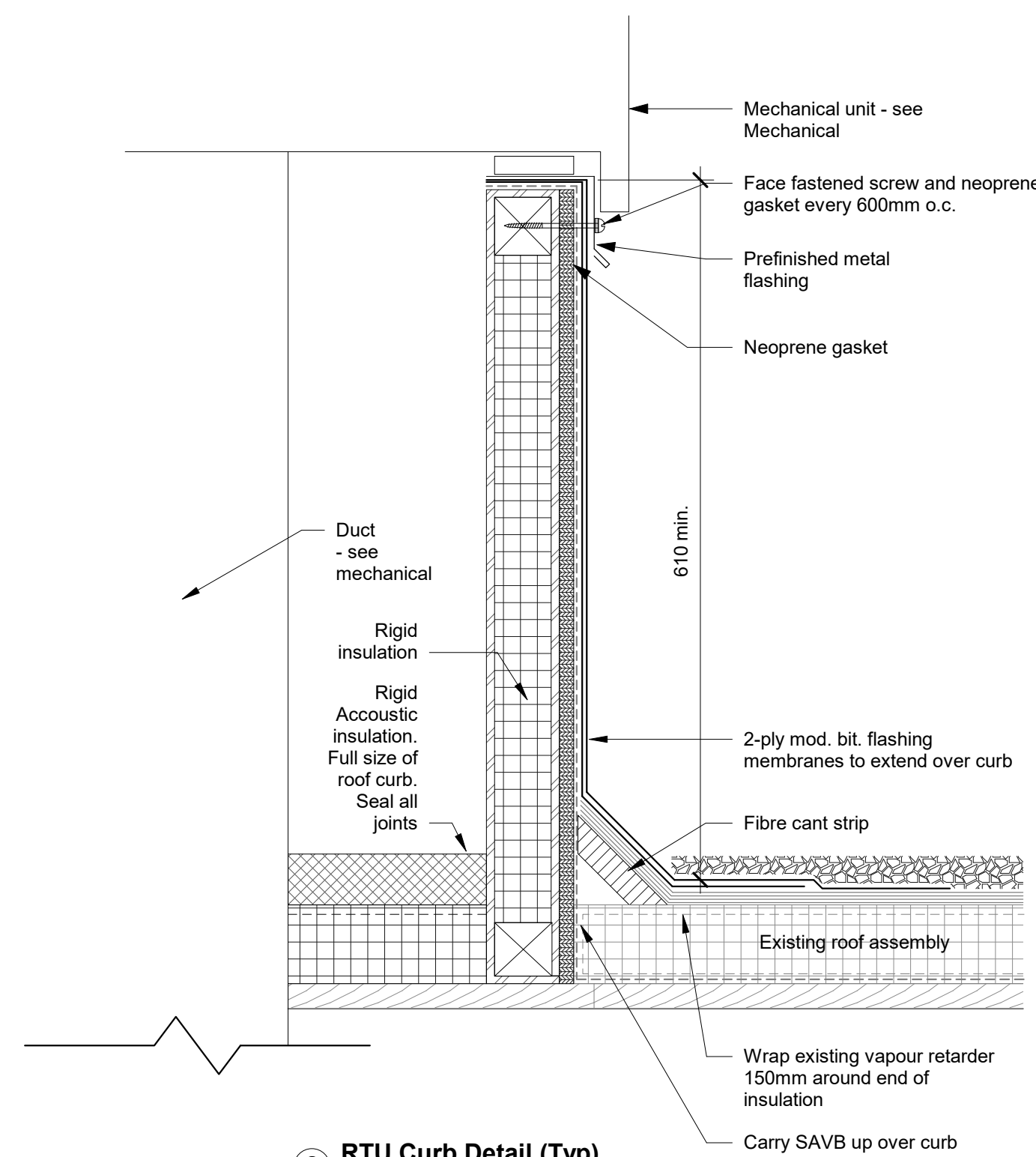
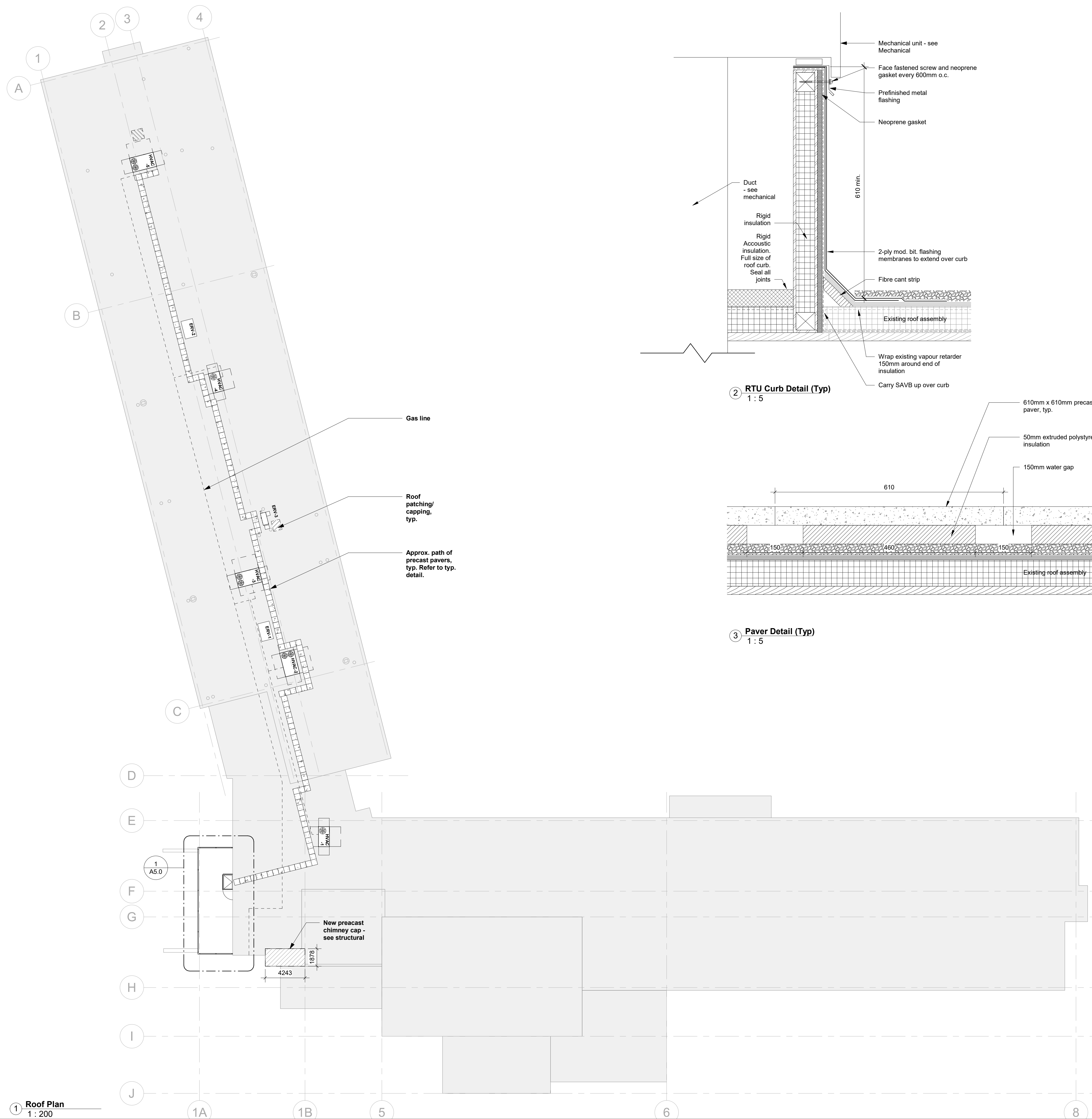
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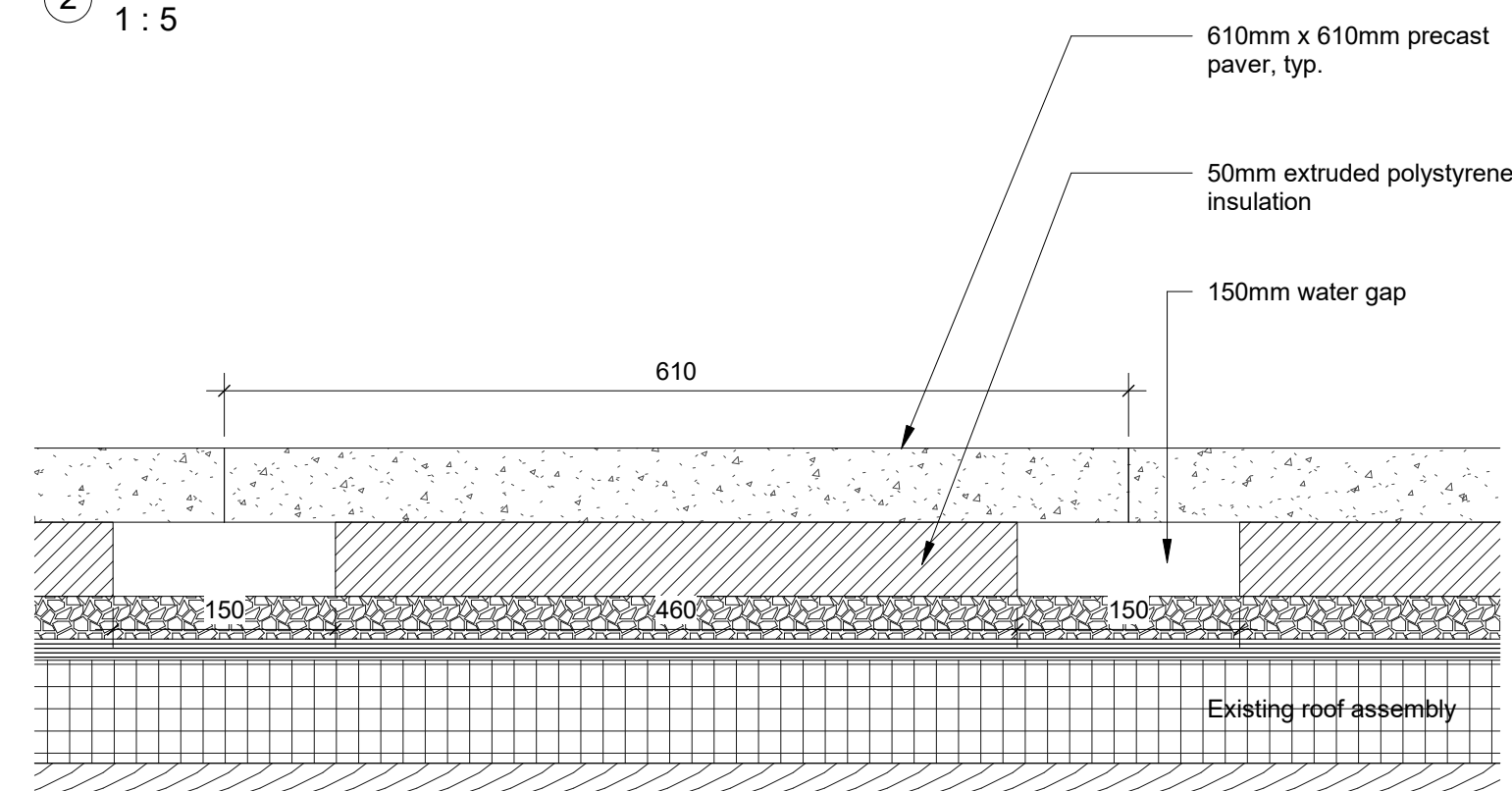
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Proposed RCP

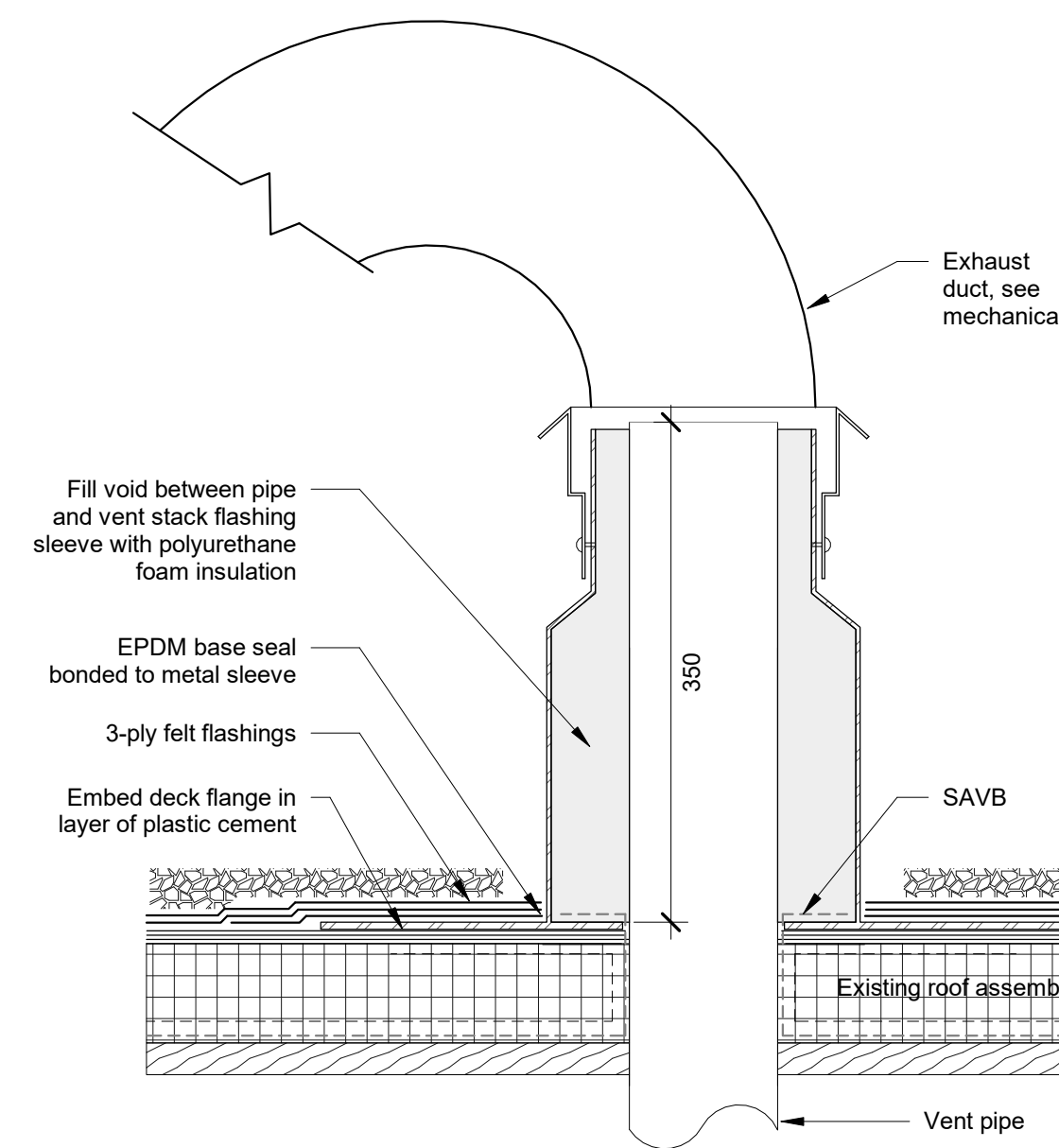
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② RTU Curb Detail (Typ)
1 : 5

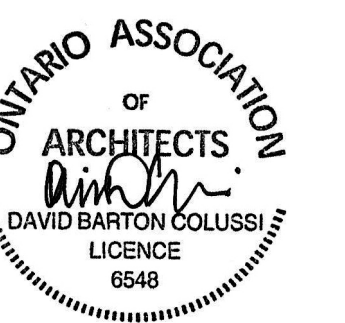


③ Paver Detail (Typ)
1 : 5



④ Section Detail - Exhaust Ductwork Thru Roof (Typ)
1 : 5

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Roof Plan & Details

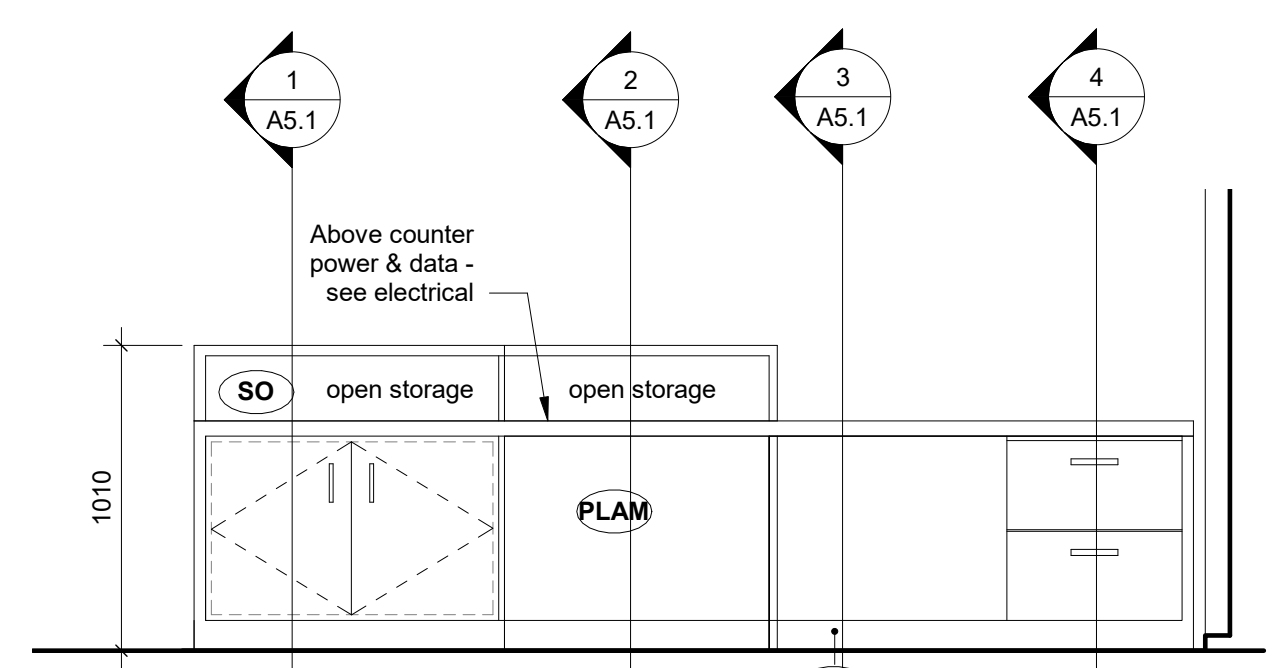
drawing number
A3.0

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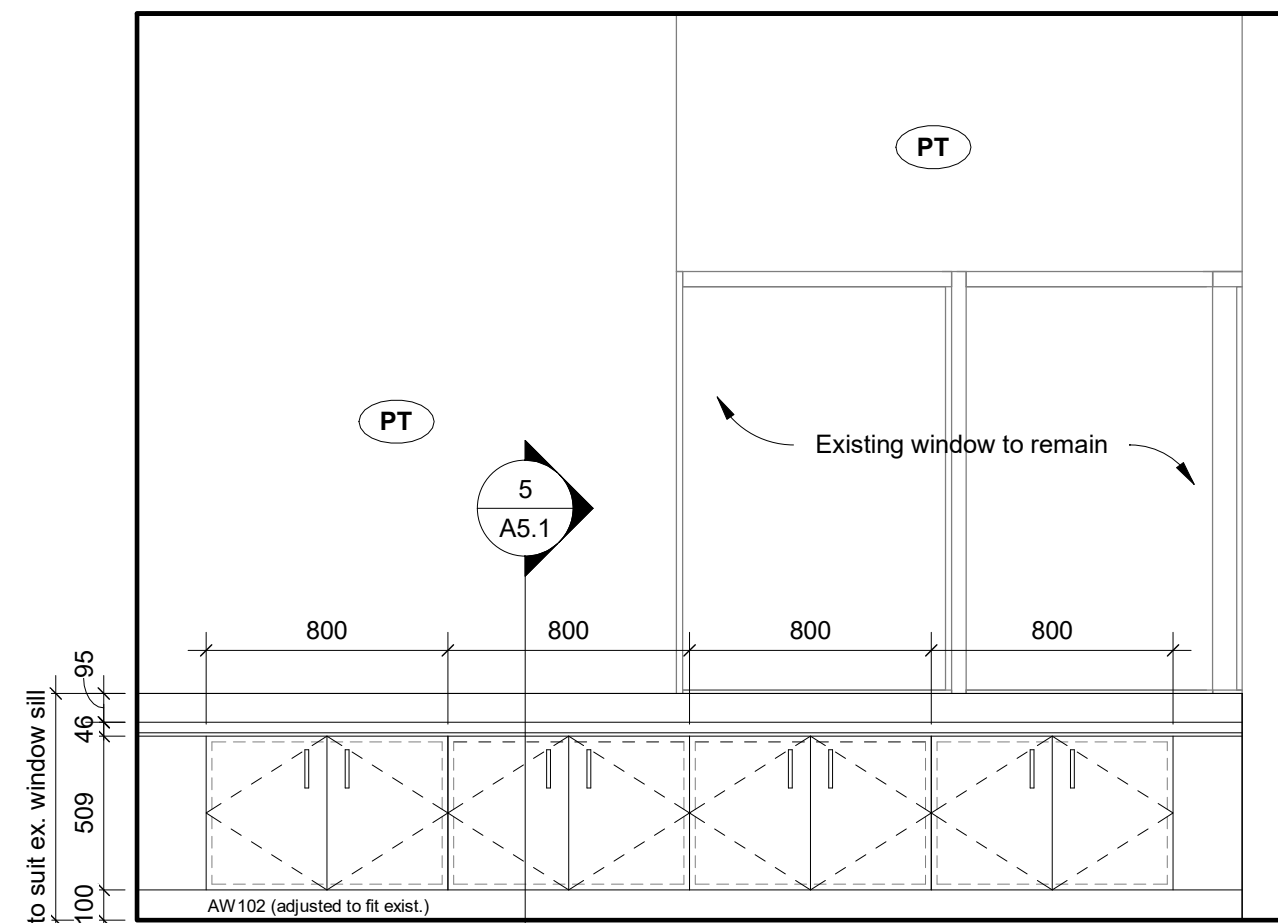
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Materials Legend

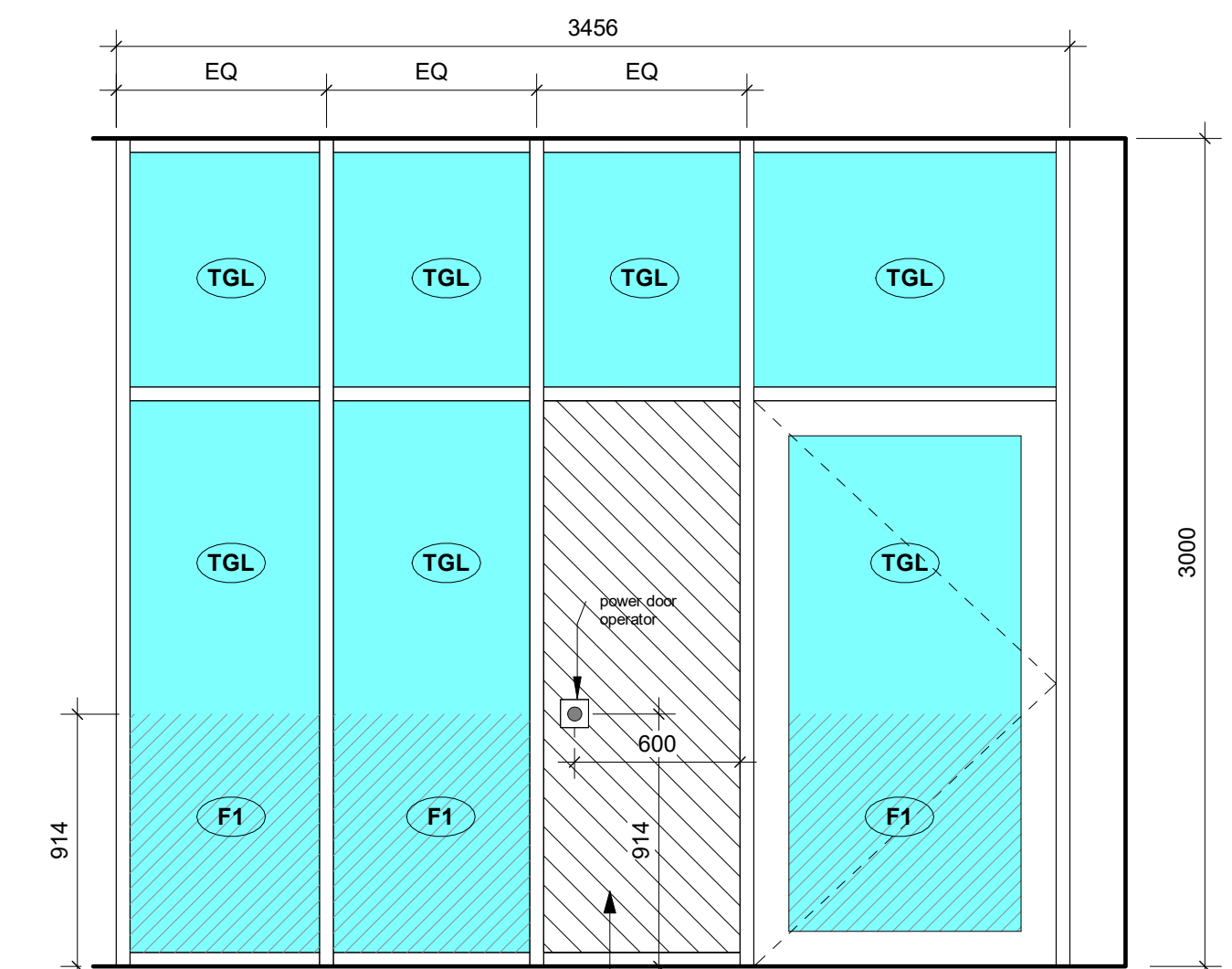
ACT	Acoustic Ceiling Tile
ALUM	Aluminum
CER	Ceramic Tile
CPT	Carpet
EPO	Epoxy Paint
EXIST	Existing
EXP	Exposed
FAB	Fabric Faced Acoustic Core Composite Ceiling Panel
FGL	Frosted Glass
F1	Glazing Surface Film
GWB	Gypsum Wallboard
MIR	Mirror
MDF	MDF Baseboard
PLY	Fire Rated Plywood
POR	Porcelain Tile
PLAM	Plastic Laminate
PT	Paint Finish
QTZ	Quartz
RB	Rubber Base
RES	Resilient Sheet Flooring
SO	Solid Polymer Fabrications
SS	Stainless Steel
ST	Natural Stone
TGL	Tempered Glass
WB	Dry Erase Whiteboard
WD	Solid Wood
WS	Wood Stain



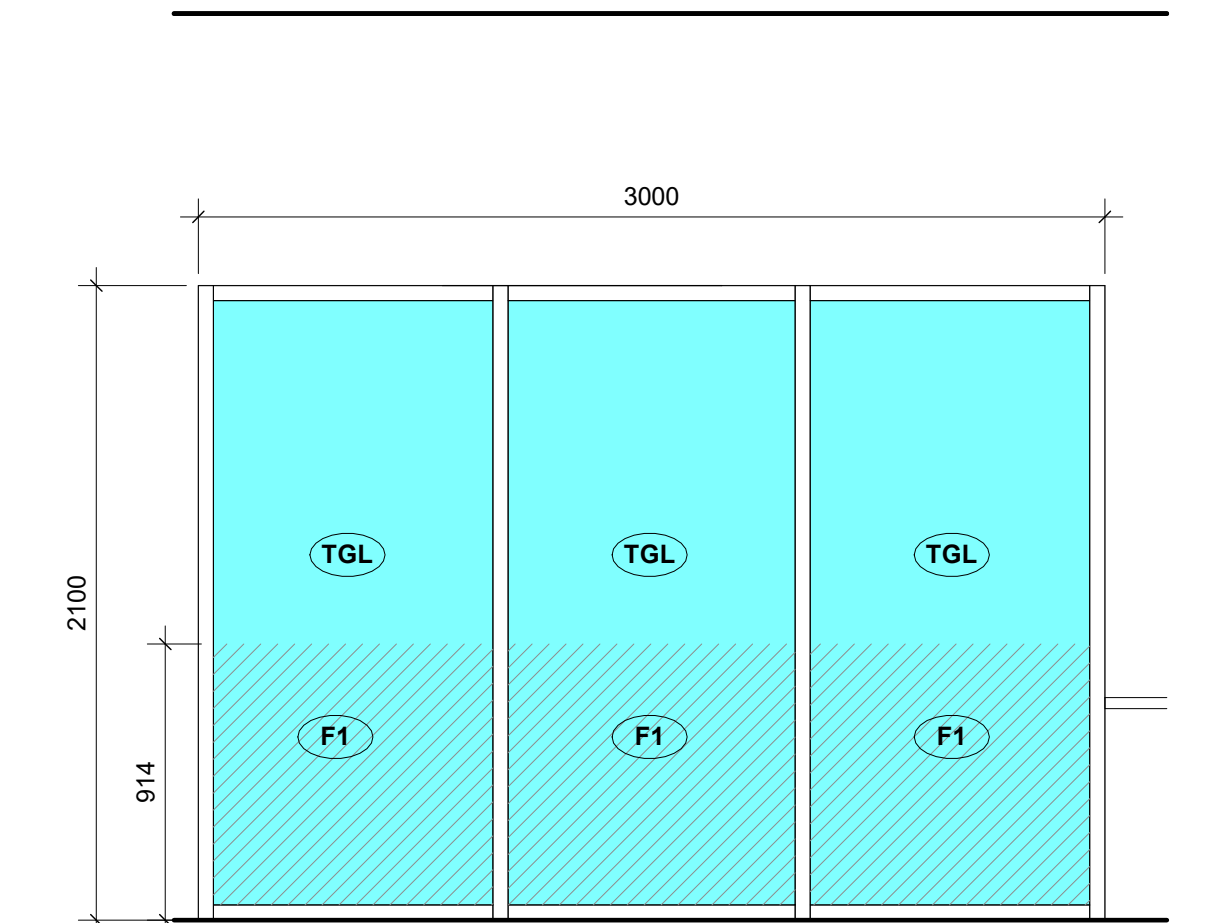
4 Interior Elevation - MW1 Reception Counter - Staff Side
1 : 25



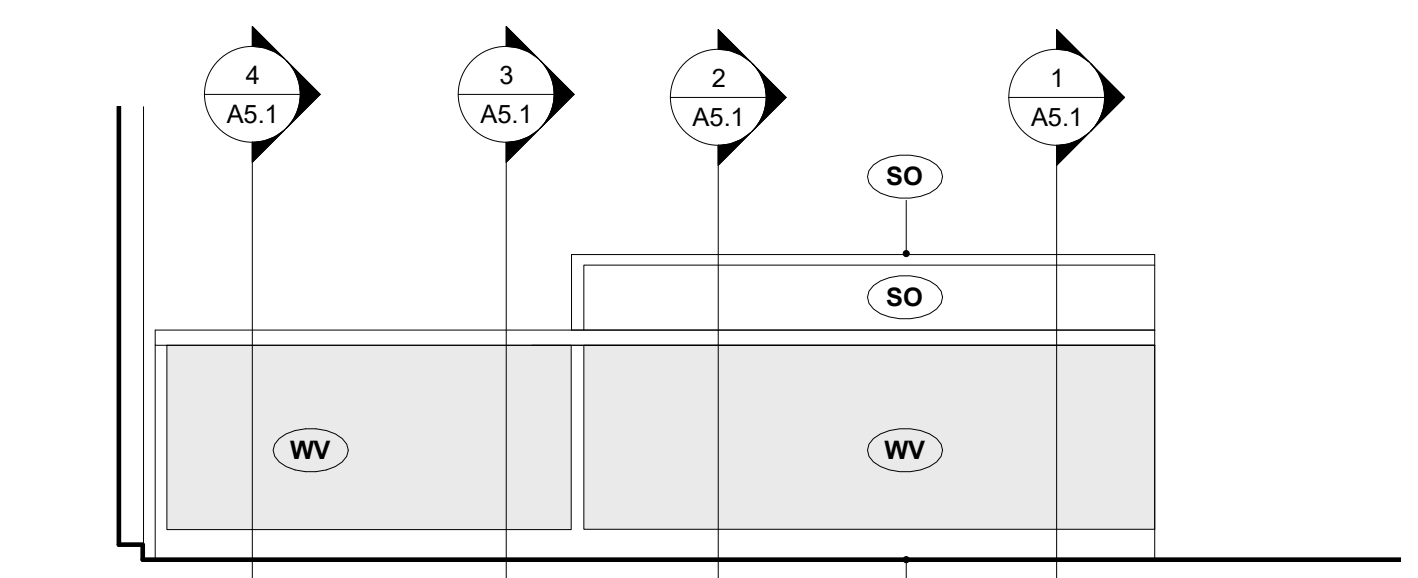
8 Interior Elevation - MW2 Reception Low Cabinets (Reception/Admin 101)
1 : 25



15 Interior Elevation - Reception New Glazing South (Reception/Admin 101)
1 : 25

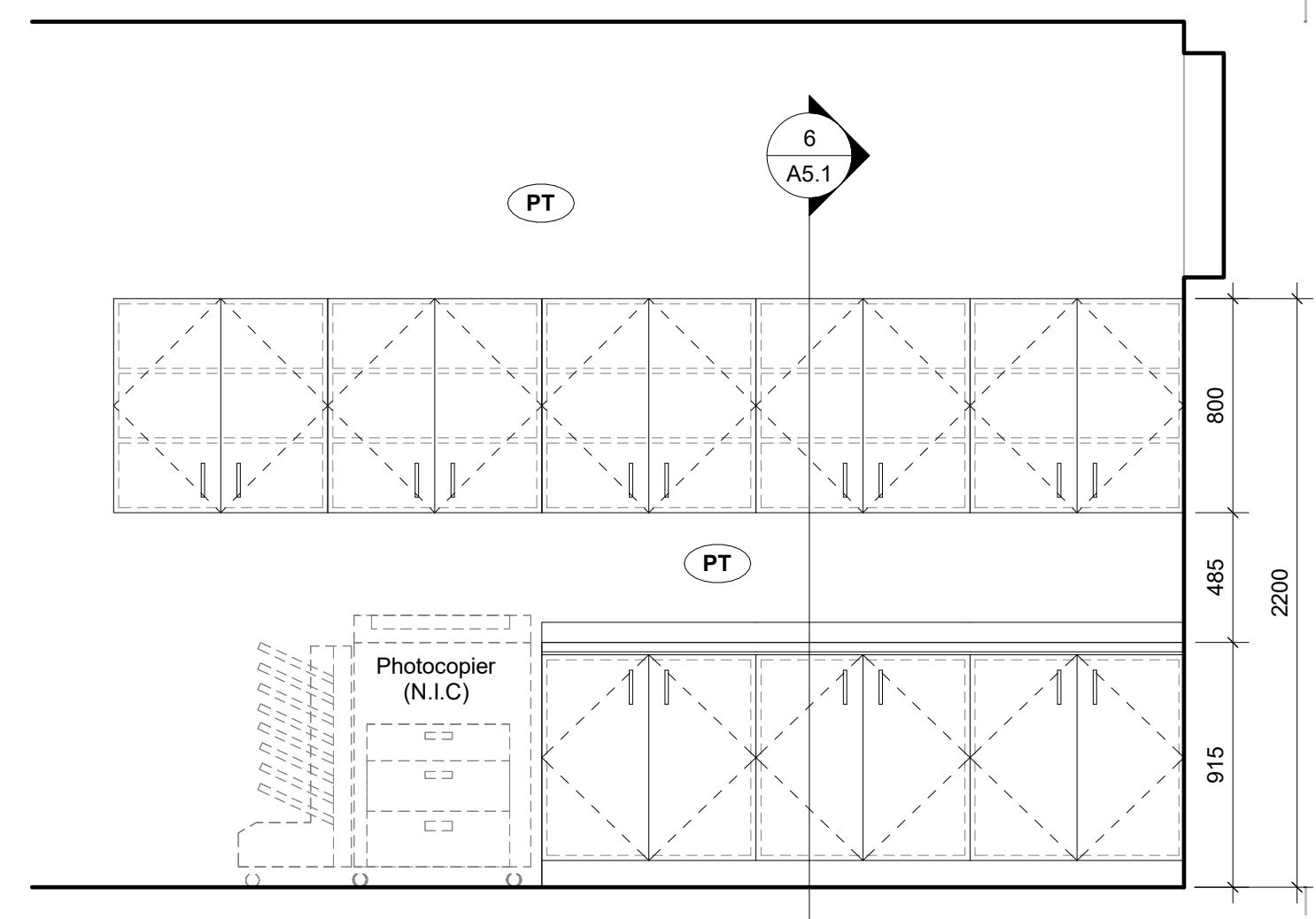
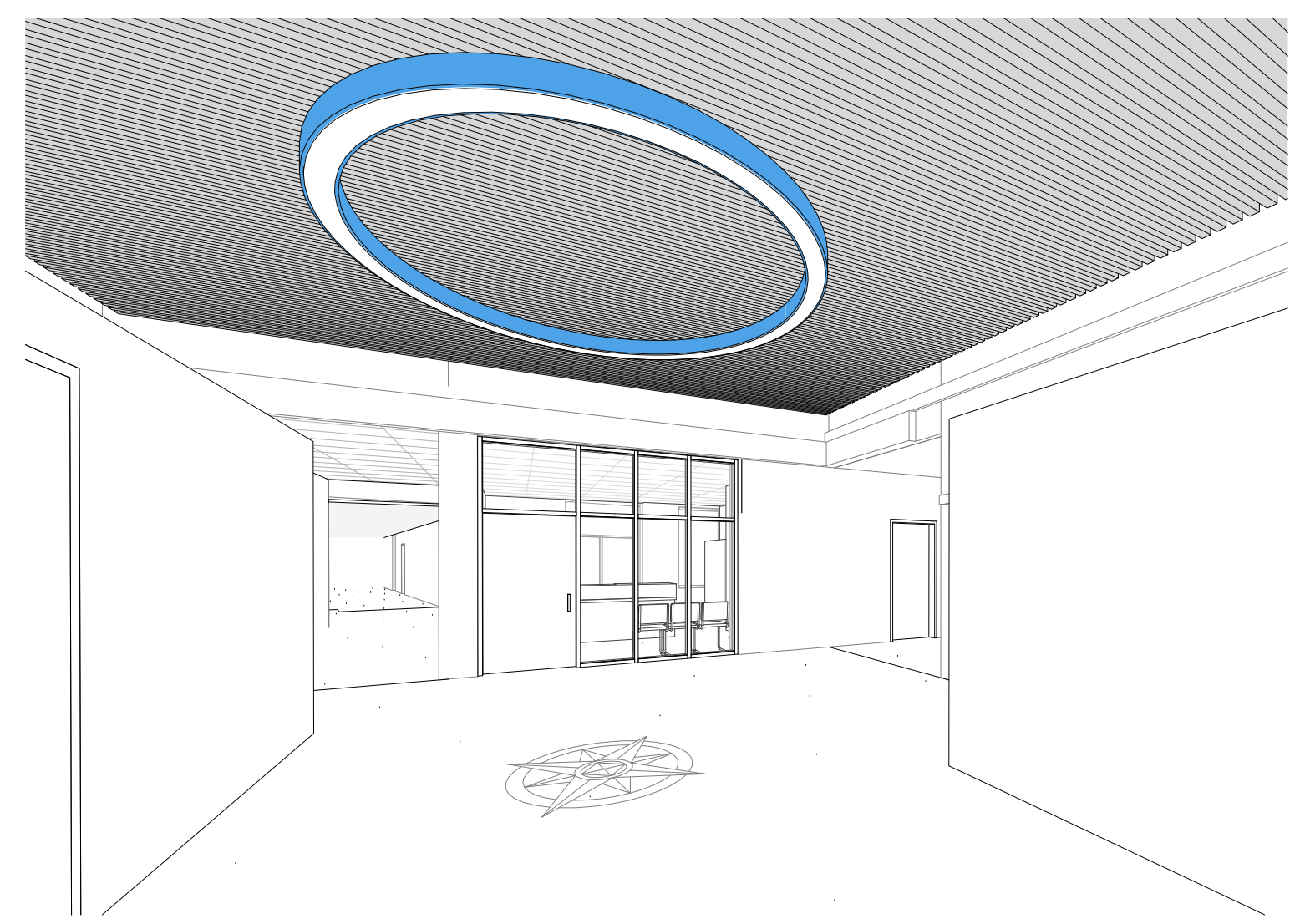


16 Interior Elevation - Reception New Glazing West (Reception/Admin 101)
1 : 25

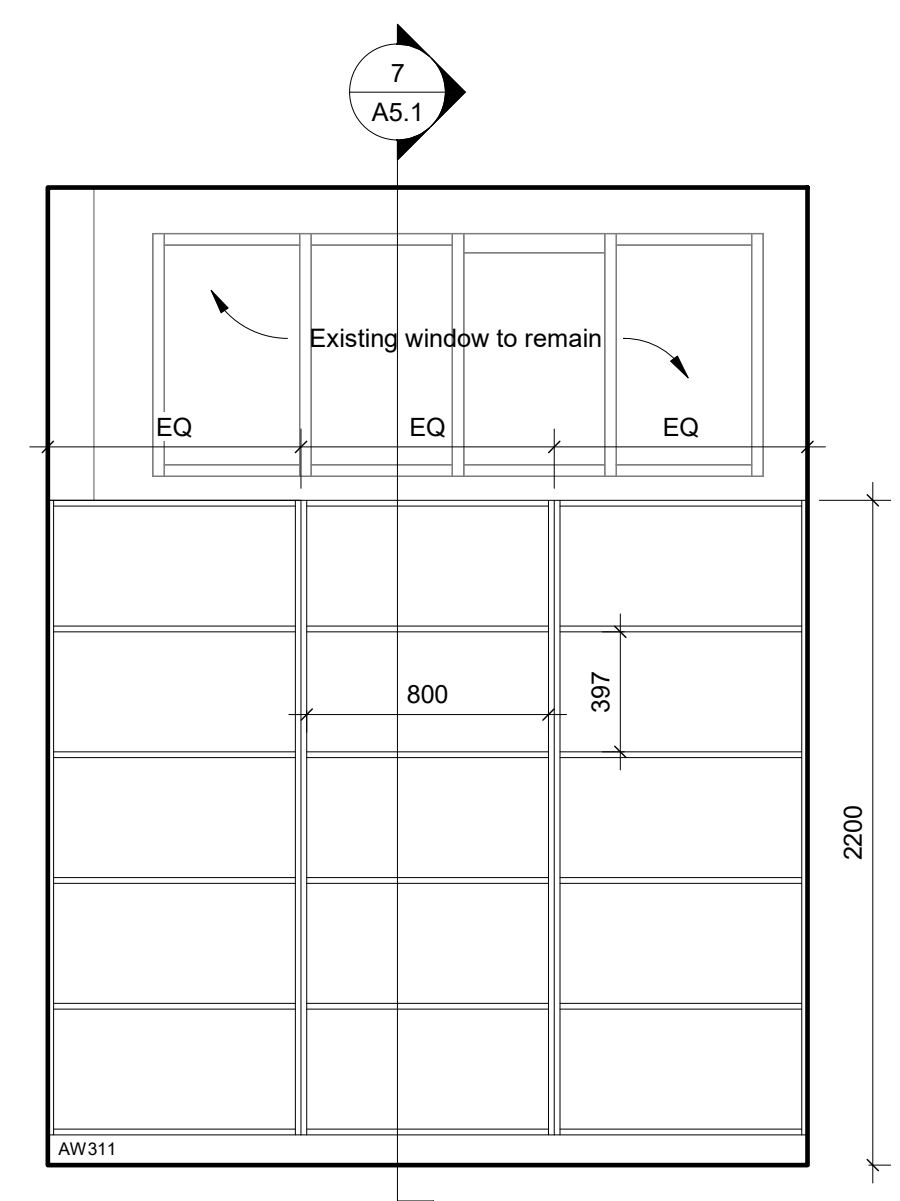


7 Interior Elevation - MW1 Reception Counter - Public Side
1 : 25

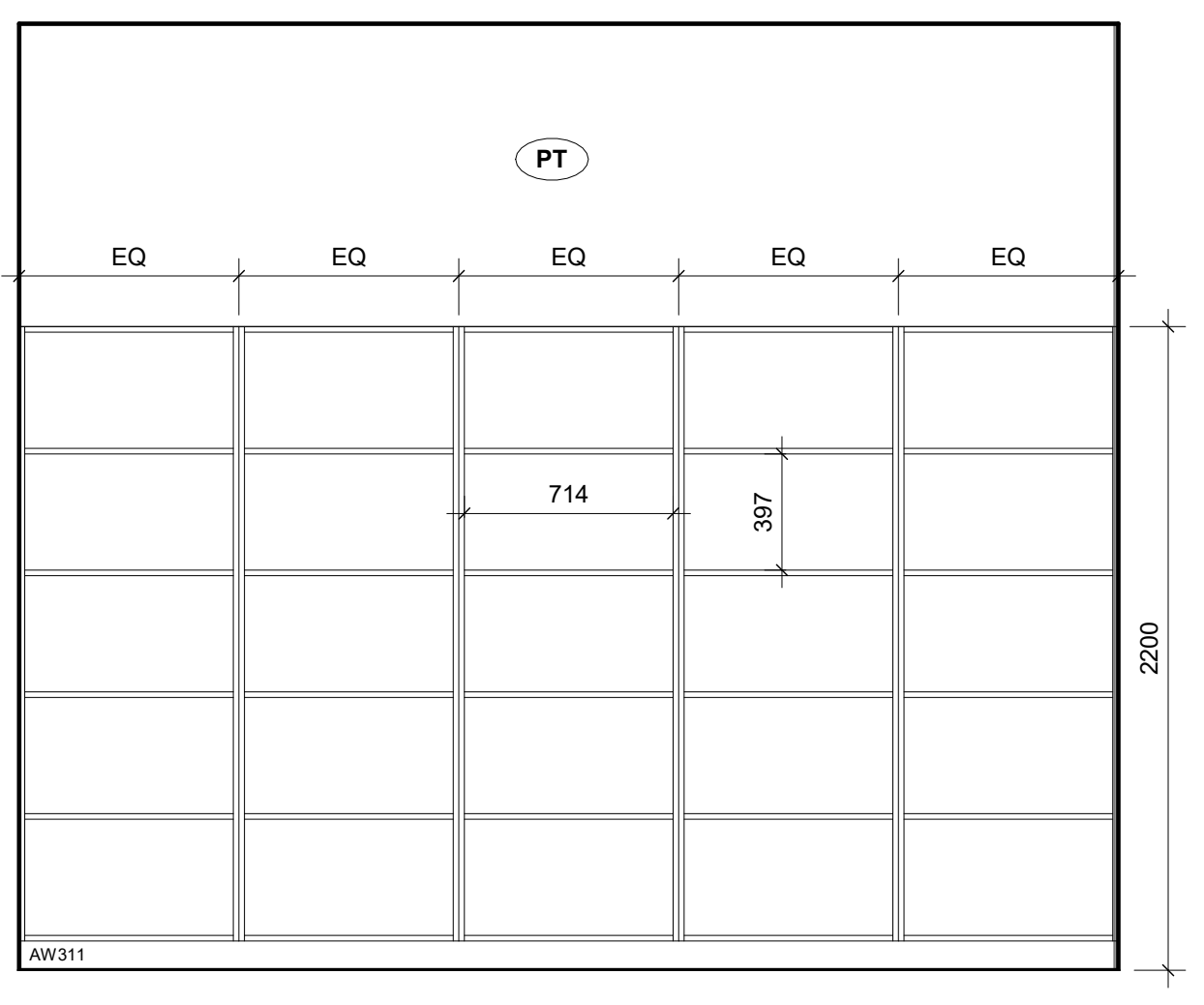
Back painted TGL panel w. GWB on office side to conceal door operator wiring. Glass to be cut to suit door operator



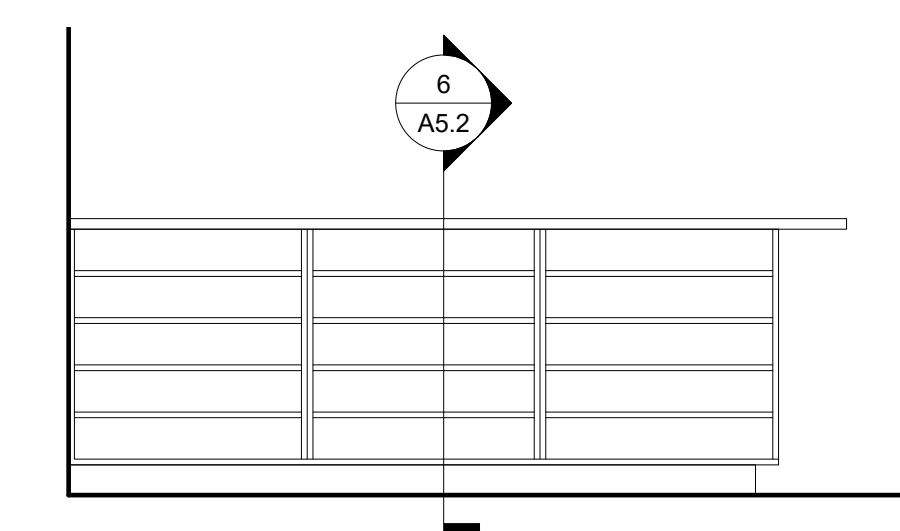
6 Interior Elevation - MW3 South Millwork (Staff Work Room 110)
1 : 25



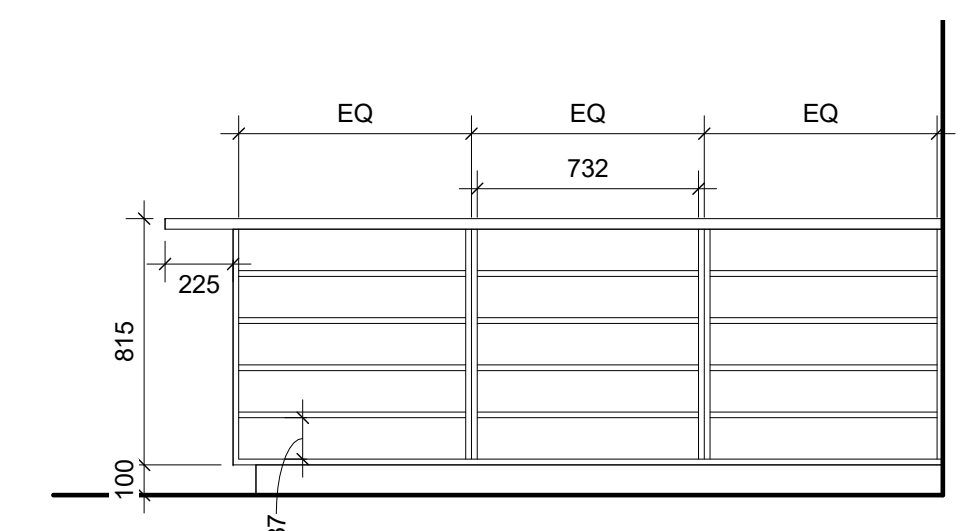
17 Interior Elevation - MW4 West Millwork (Staff Work Room 110)
1 : 25



19 Interior Elevation - MW5 East Millwork (Staff Work Room 110)
1 : 25



18 Millwork Elevation - MW6 West Counter (Staff Work Room 110)
1 : 25



20 Millwork Elevation - M6 East Counter (Staff Work Room 110)
1 : 25

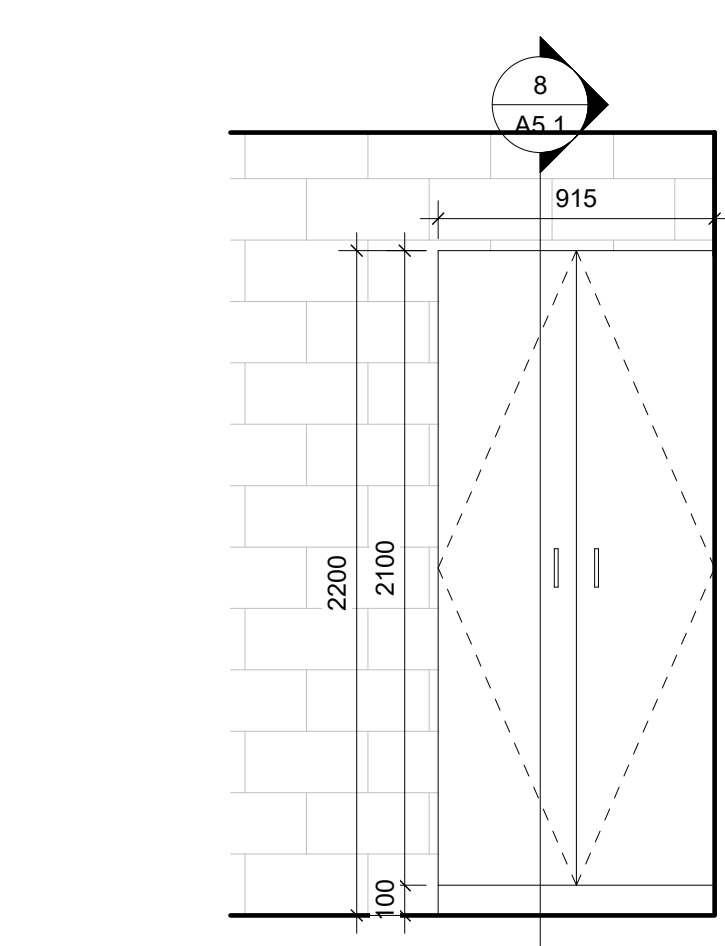


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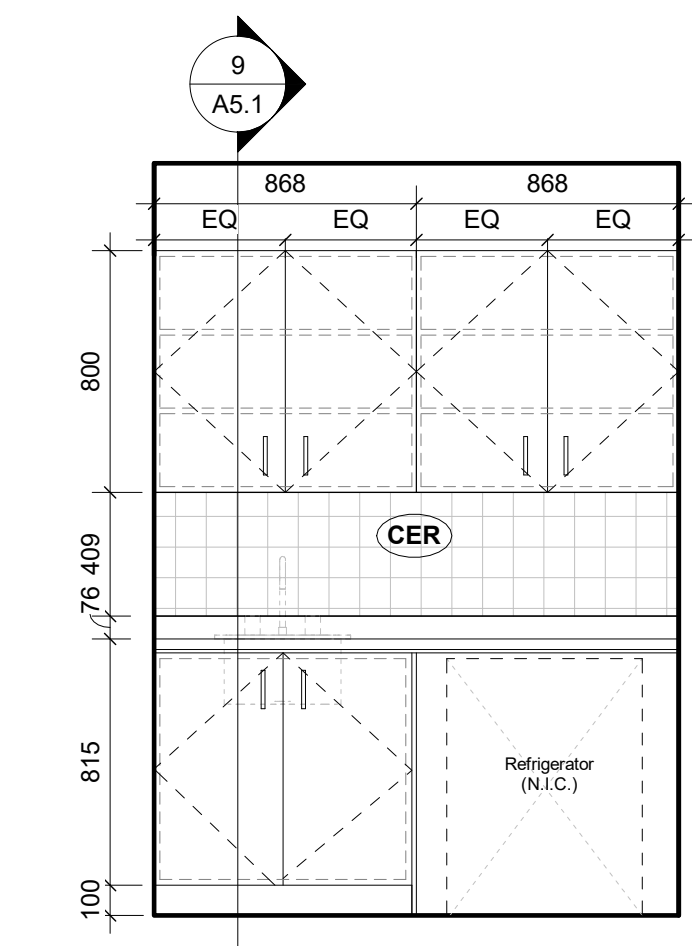
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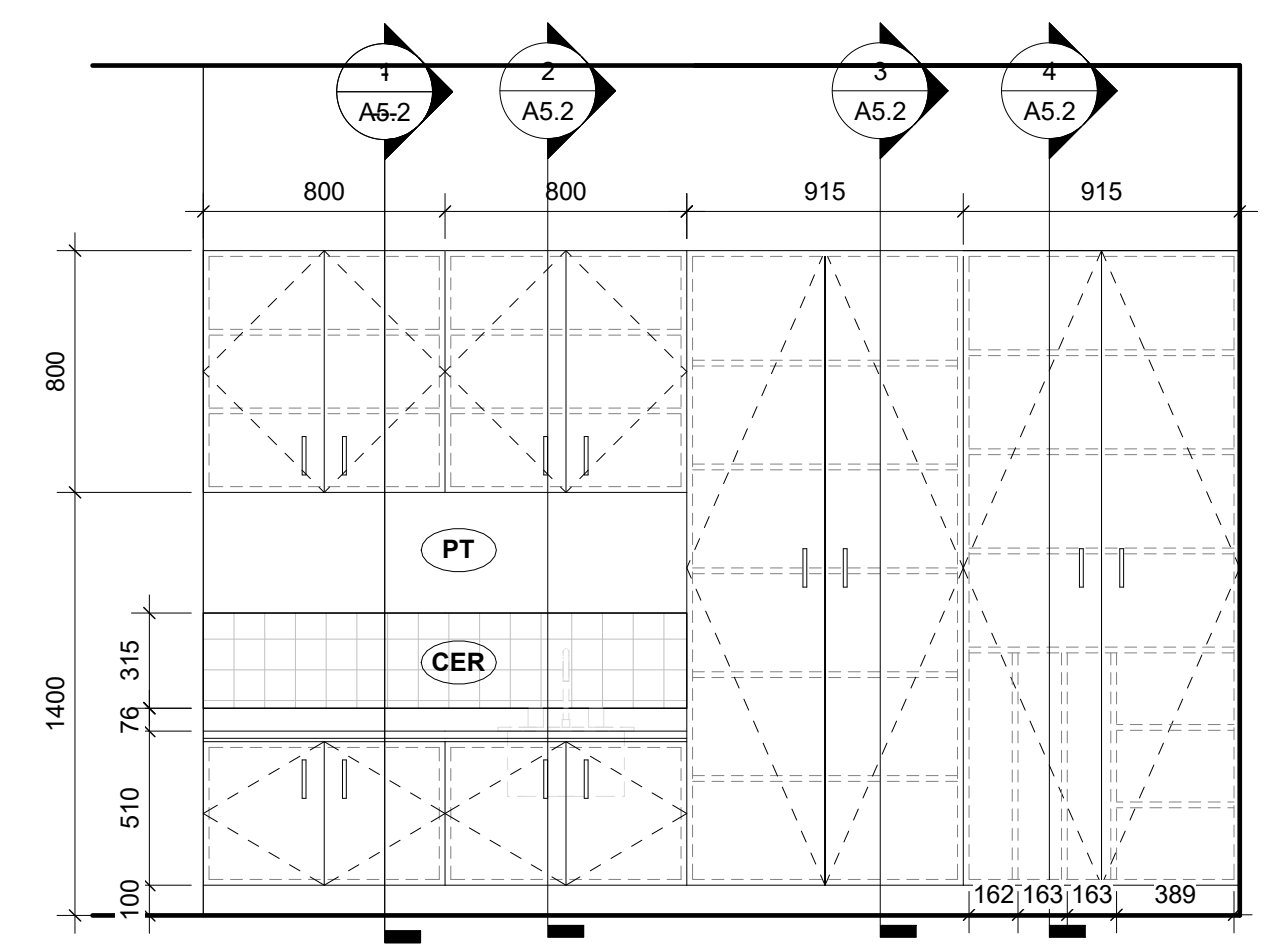
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December 2021	Permit/Tender



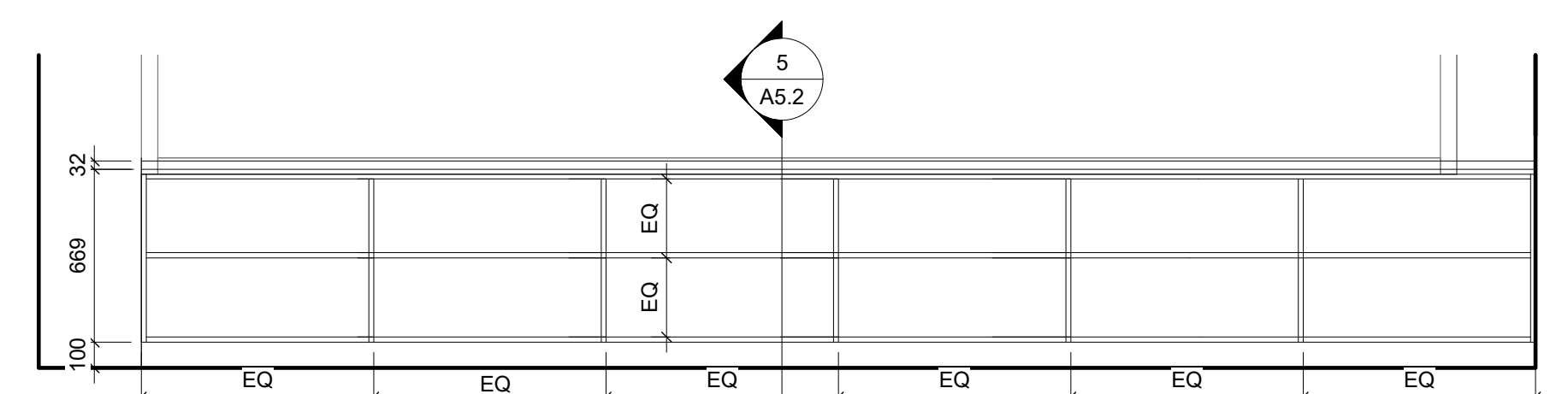
1 Interior Elevation - MW7 Storage (Custodial Storage 109)
1 : 25



9 Interior Elevation - MW8 Sink (Health Room 102)
1 : 25



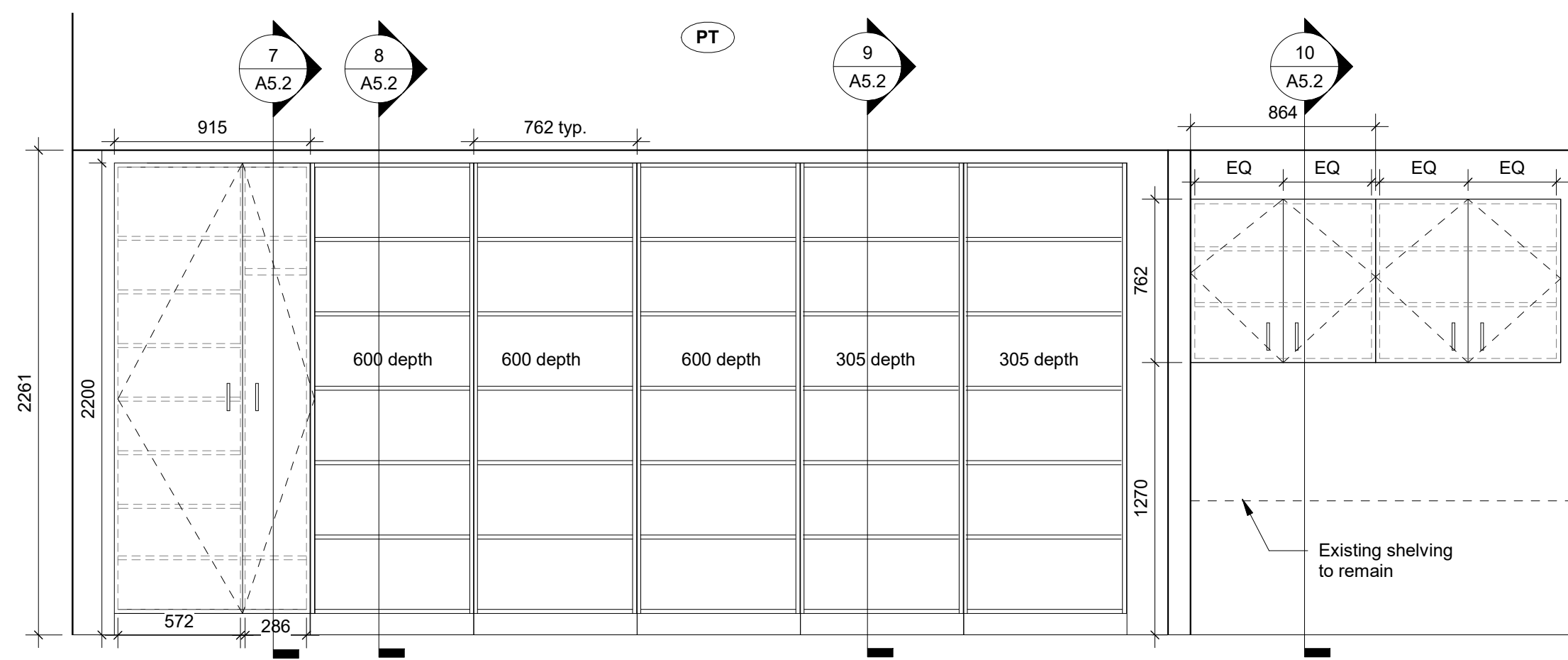
14 Interior Elevation - MW9 Sink & MW10 Teachers Closet (Spec. Ed. Room 09)
1 : 25



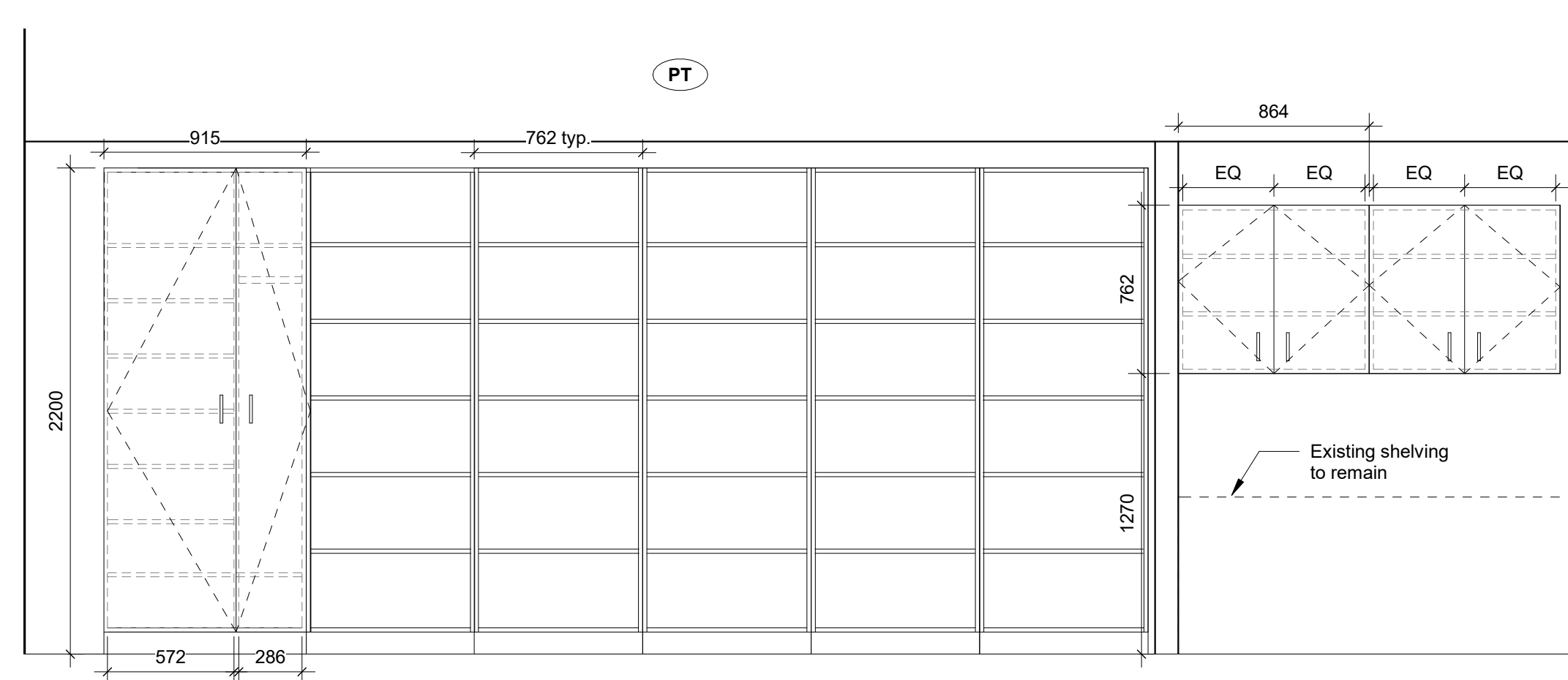
2 Interior Elevation - MW11 Perimeter Shelving (Spec. Ed. Room 09)
1 : 25

Interior Elevations

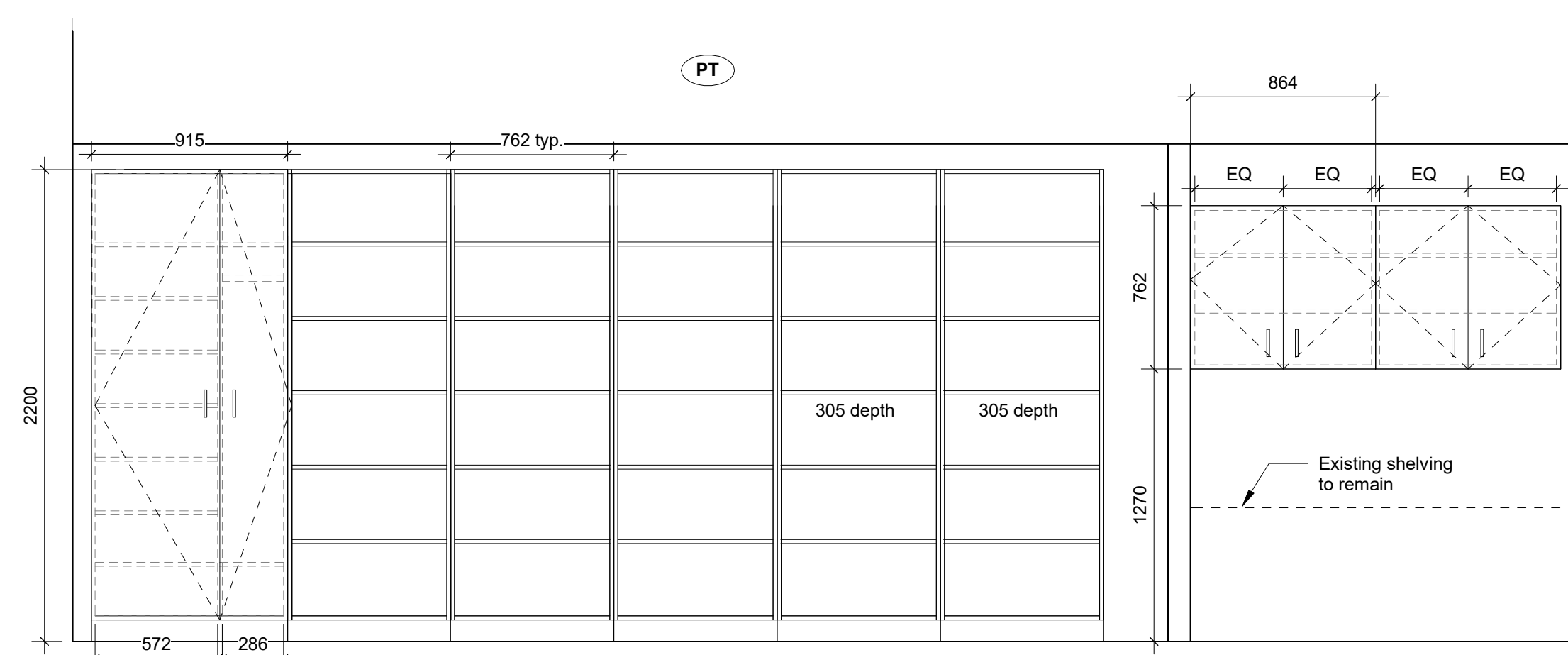
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A4.0



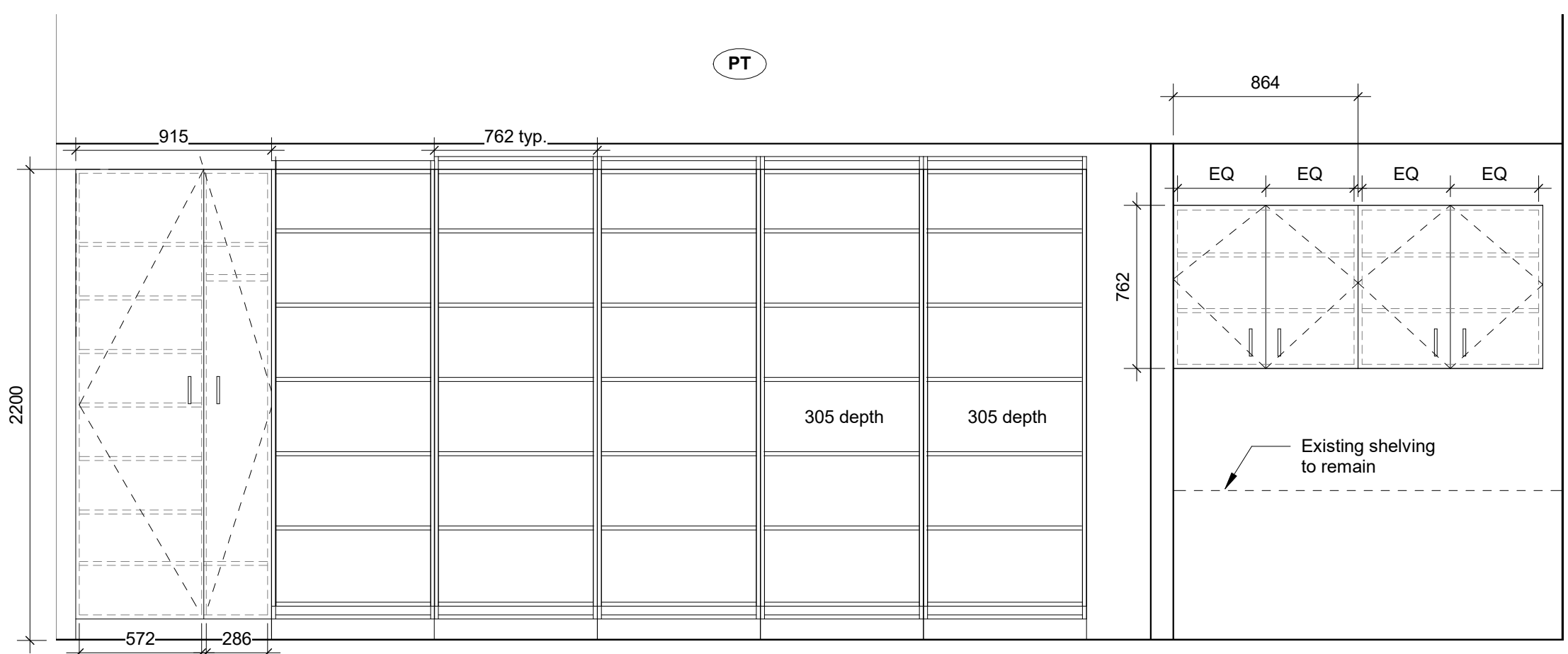
9 Interior Elevation MW12 - Classroom 14
1 : 25



10 Interior Elevation MW13 - Classroom 15
1 : 25



11 Interior Elevation MW14 - Classroom 16
1 : 25

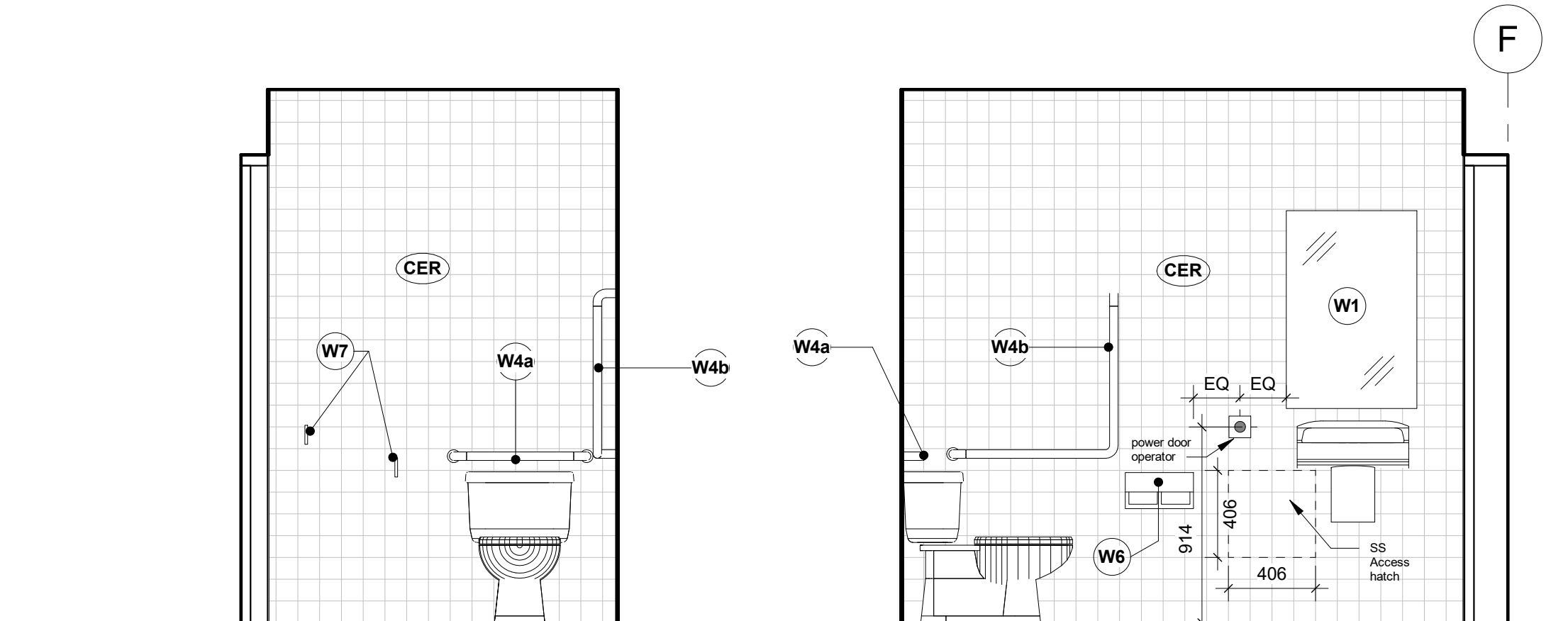


12 Interior Elevation MW15 - Classroom 18
1 : 25

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3	Issued for 90% Review	03 Dec 2021
4	Issued for Review	21 Jan 2022
5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022

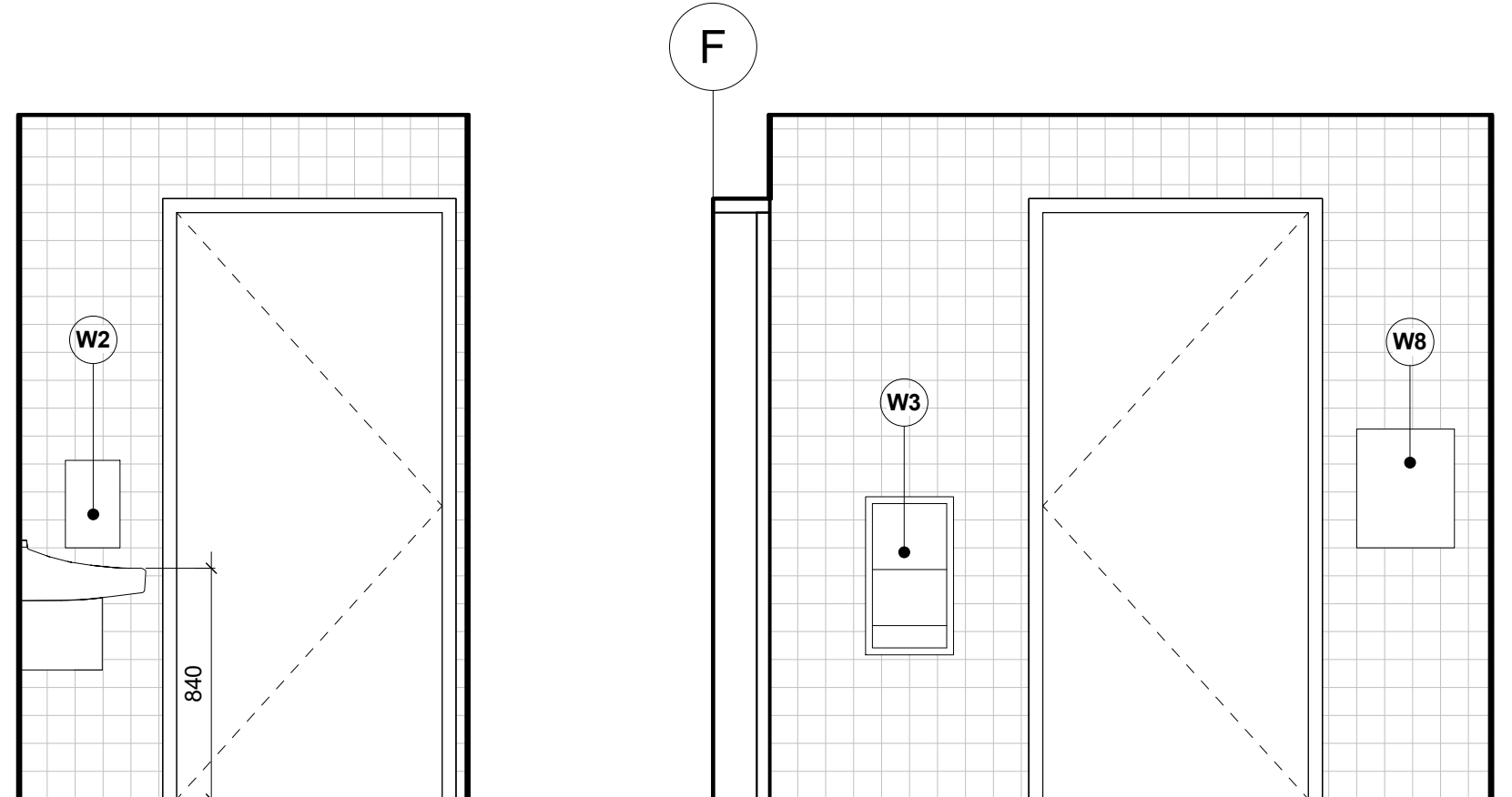
Materials Legend

ACT	Acoustic Ceiling Tile
ALUM	Aluminum
CER	Ceramic Tile
CPT	Carpet
EPO	Epoxy Paint
EXIST	Existing
EXP	Exposed
FAB	Fabric Faced Acoustic Core
FGL	Composite Ceiling Panel
F1	Frosted Glass
GWB	Glazing Surface Film
MIR	Gypsum Wallboard
MDF	Mirror
PLY	MDF Baseboard
POR	Fire Rated Plywood
PLAM	Porcelain Tile
PT	Plastic Laminate
QTZ	Paint Finish
RB	Quartz
RES	Rubber Base
SO	Resilient Sheet Flooring
SS	Solid Polymer Fabrications
ST	Stainless Steel
TGL	Natural Stone
WB	Tempered Glass
WD	Dry Erase Whiteboard
WS	Solid Wood
	Wood Stain



1 Interior Elevation - Barrier-Free WC North
1 : 25

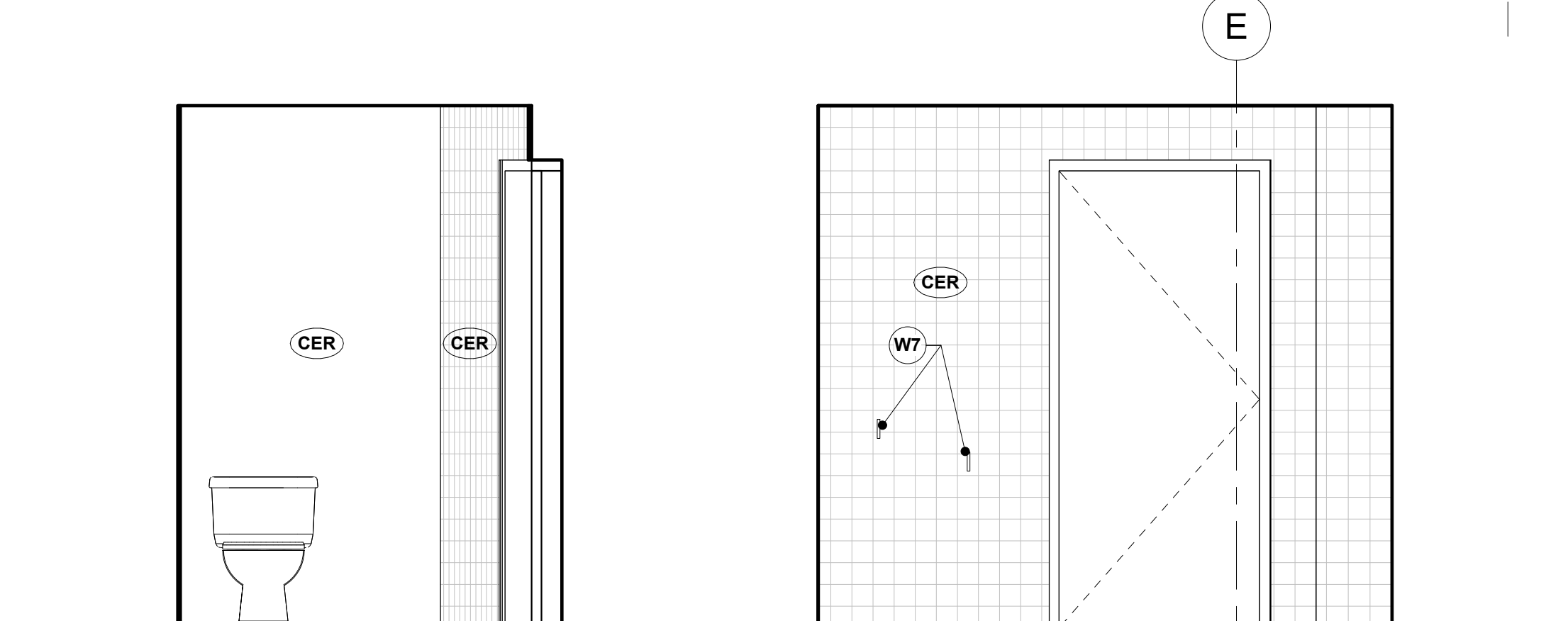
2 Interior Elevation - Barrier-Free WC East
1 : 25



3 Interior Elevation - Barrier-Free WC South
1 : 25

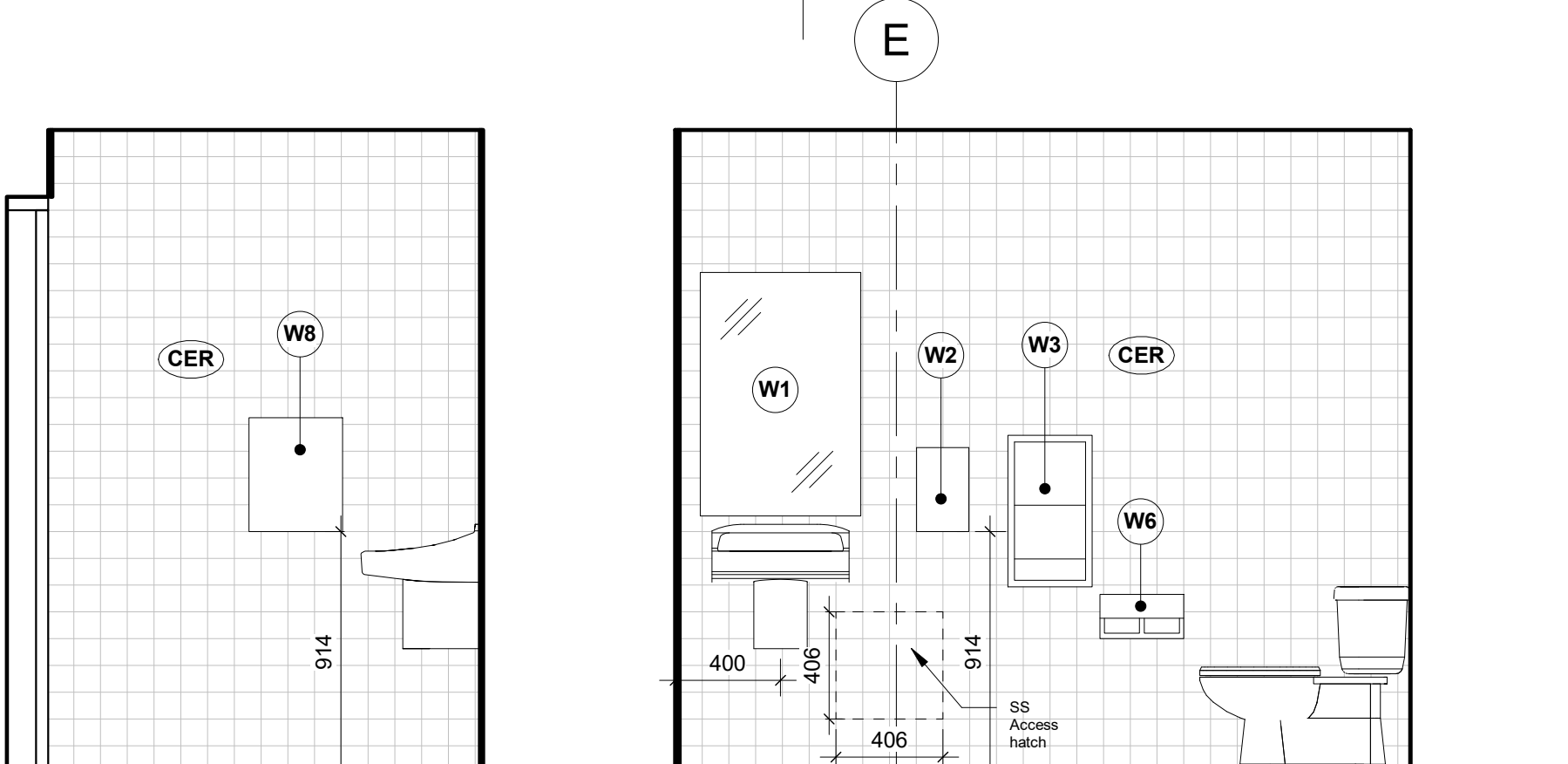
4 Interior Elevation - Barrier-Free WC West
1 : 25

Washroom Accessories	
Note	Description
W1	610mmx 915mm mirror
W2	Soap Dispenser (owner provided, contractor installed)
W3	Paper Towel Dispense (owner provided, contractor installed)
W4a	Straight grab bar
W4b	L-shape grab bar
W6	Toilet paper dispenser (owner supplied, contractor installed)
W7	Coat hook
W8	Stainless steel medicine cabinet



5 Interior Elevation - Staff WC North
1 : 25

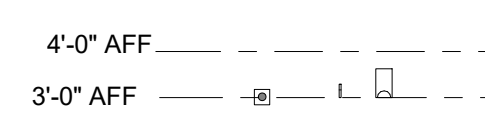
6 Interior Elevation - Staff WC East
1 : 25



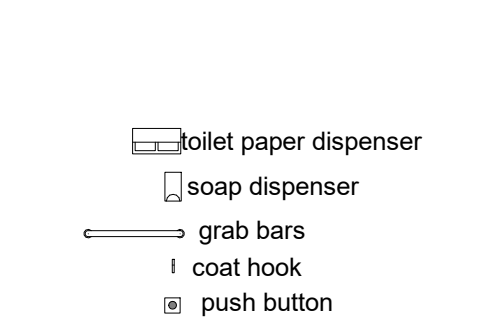
7 Interior Elevation - Staff WC South
1 : 25

8 Interior Elevation - Staff WC West
1 : 25

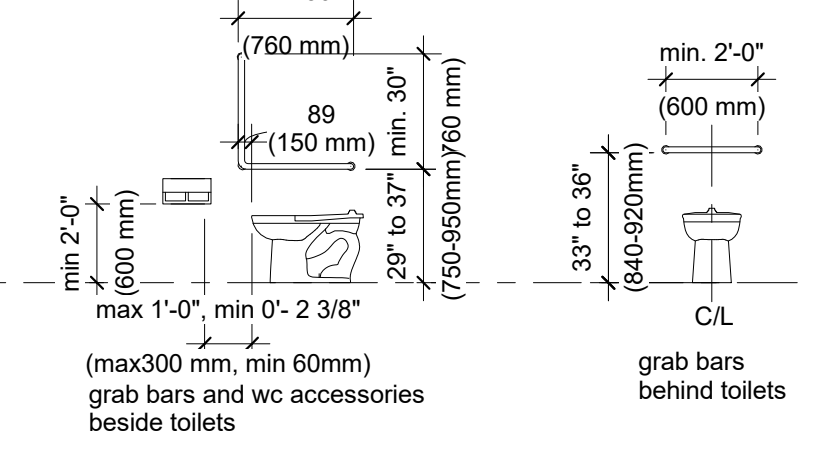
Hanging Schedule



T/O Finished Floor



WA Hanging Schedule
1 : 50



Notes:
1. All controls (power door operator, elevator call buttons, fire alarms, switches, emergency call button and fire extinguishers, coat hooks etc.) to be between 3' and 4' AFF.
2. Locations of all accessories and controls to be marked on site prior to installation for final sign off.



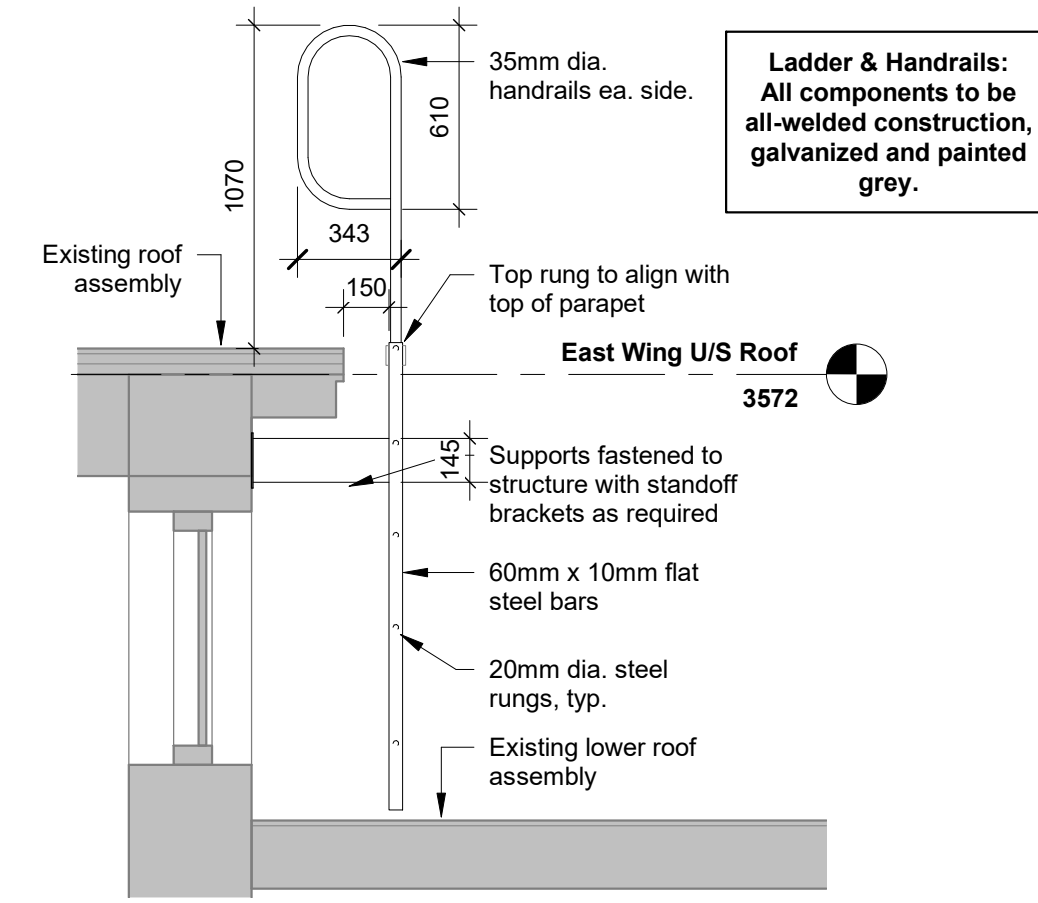
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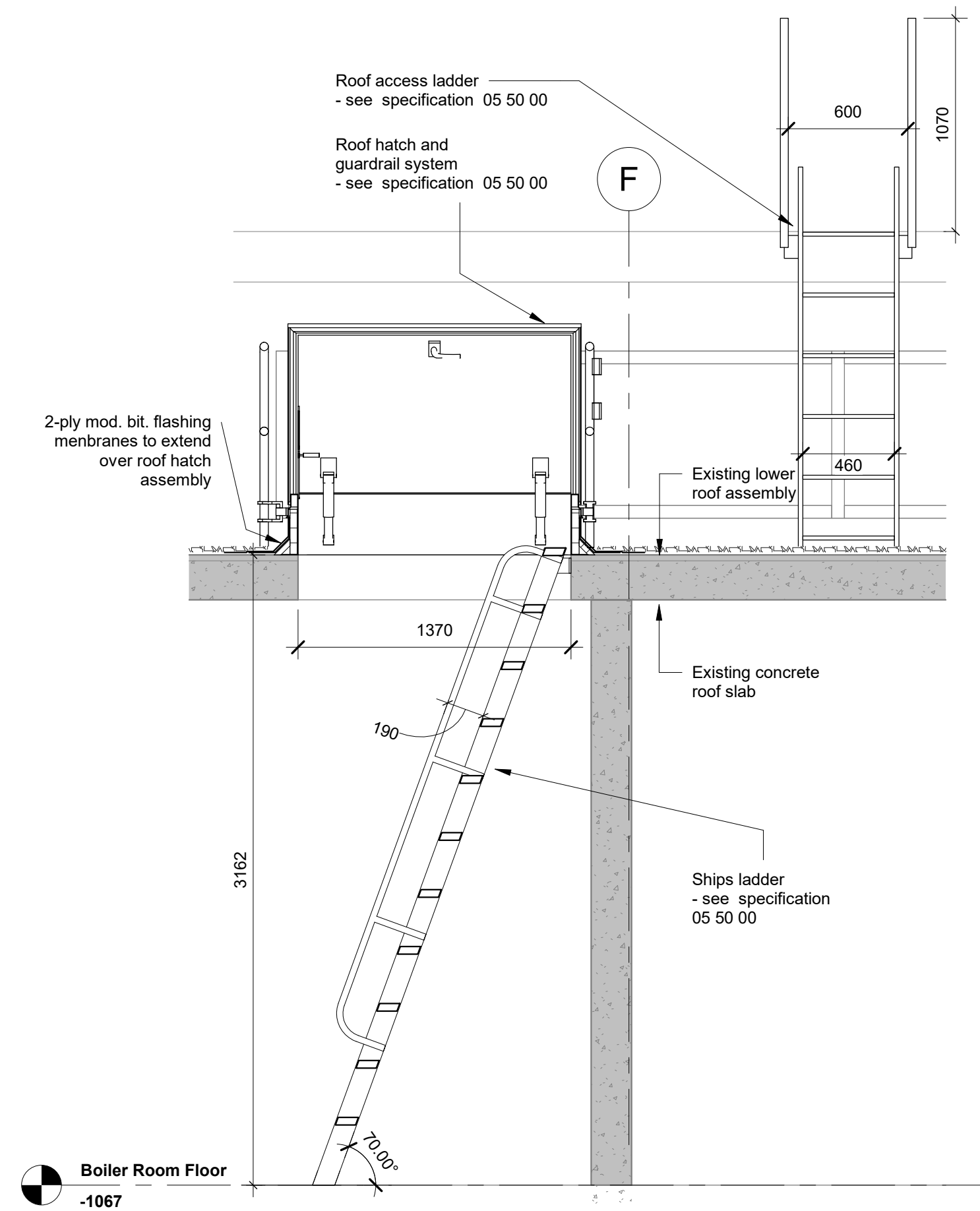
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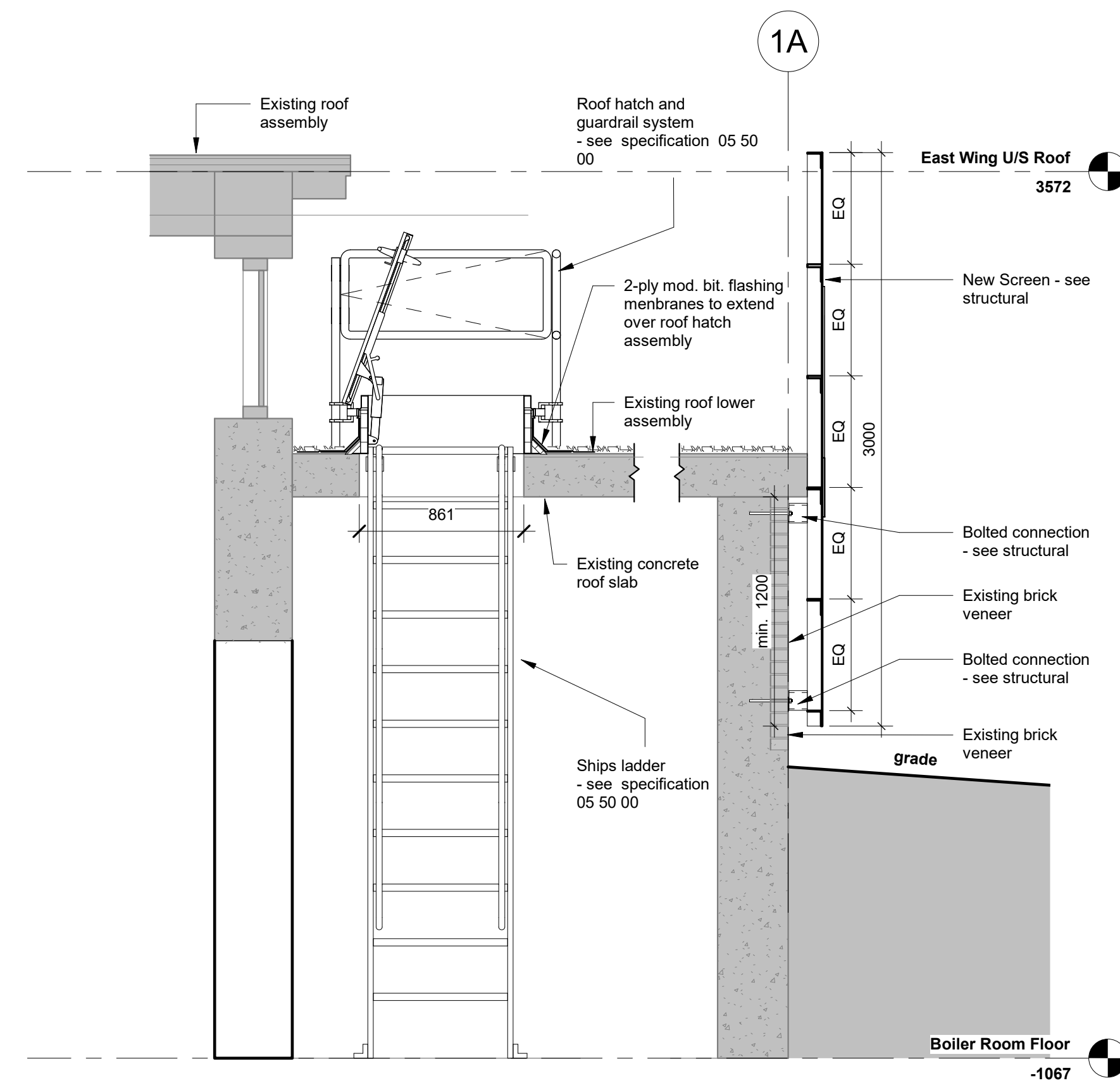
Interior Elevations &
Schedules



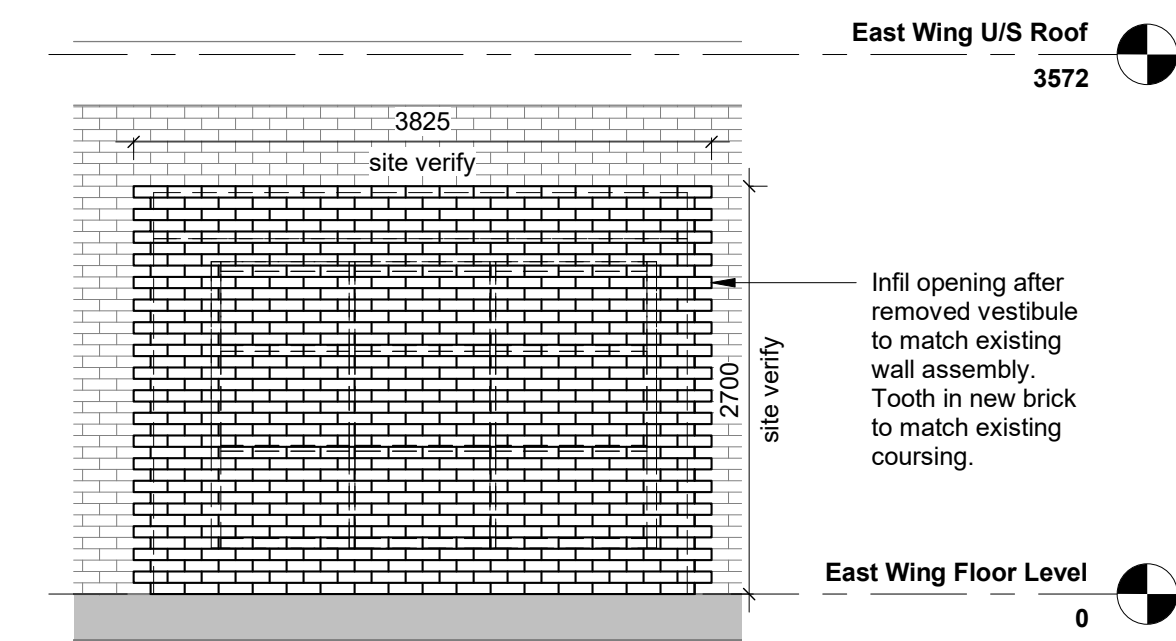
8 Section Detail - Upper Roof Ladder
1:25



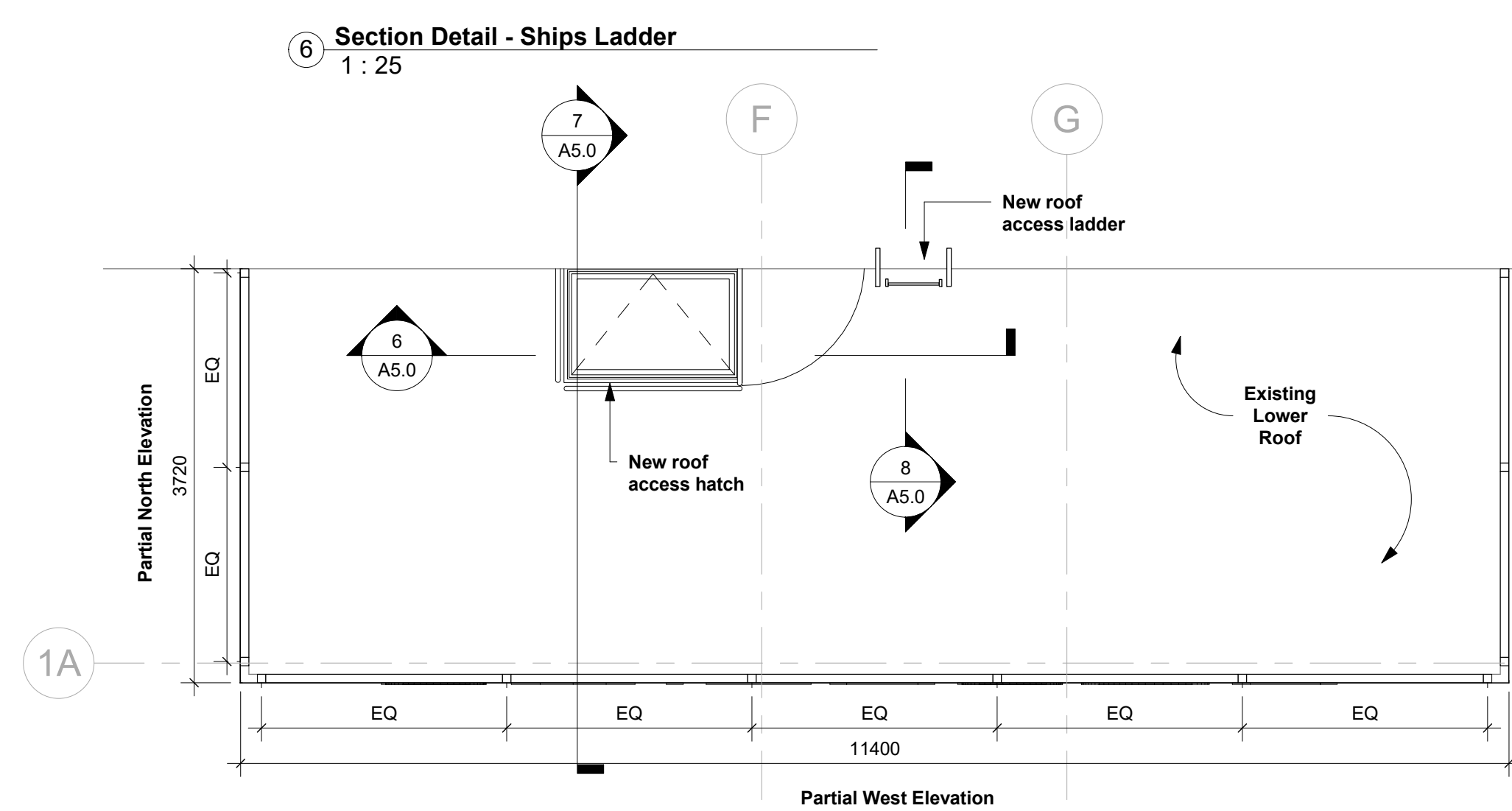
6 Section Detail - Ships Ladder
1:25



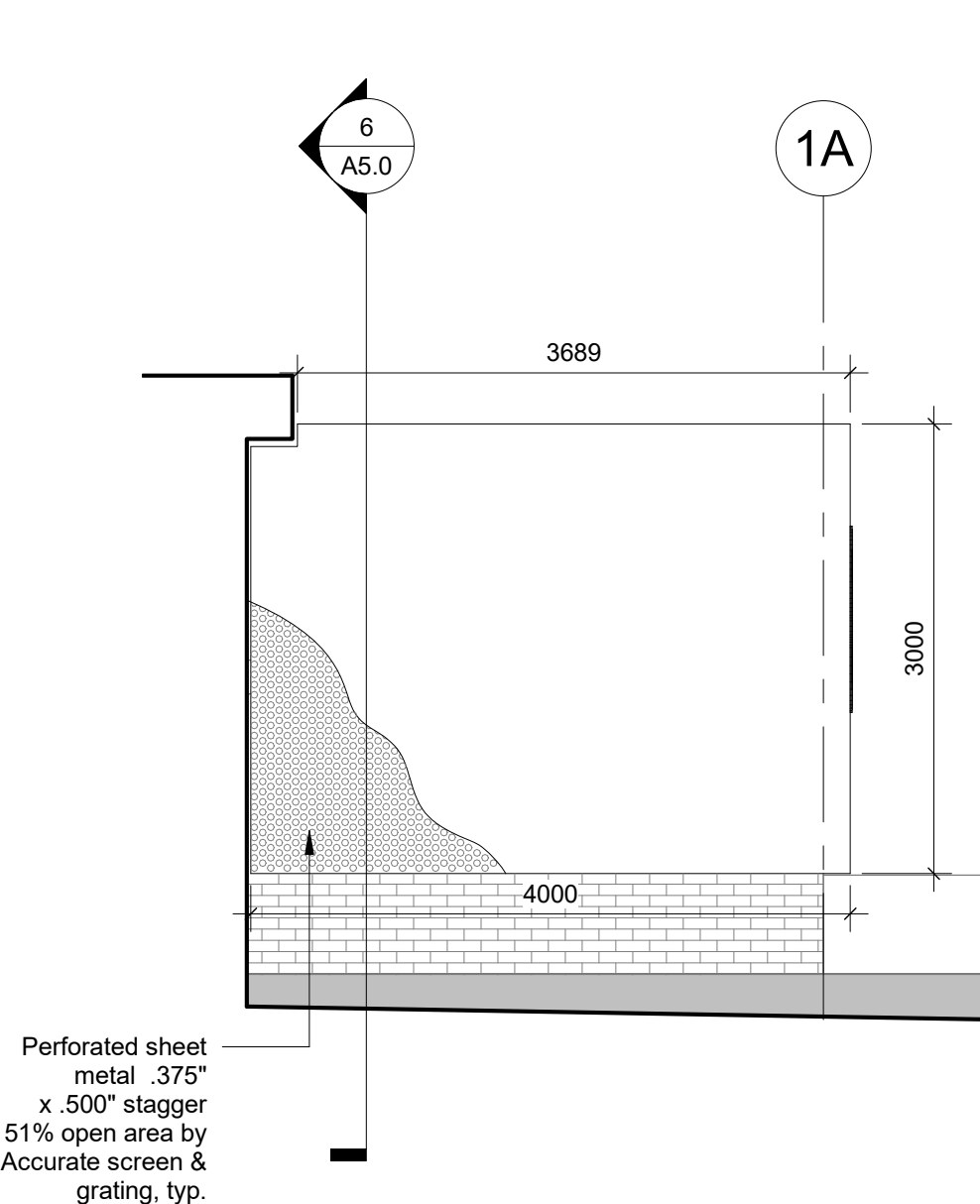
7 Section Detail - Ships Ladder and Lower Roof Screen
1:25



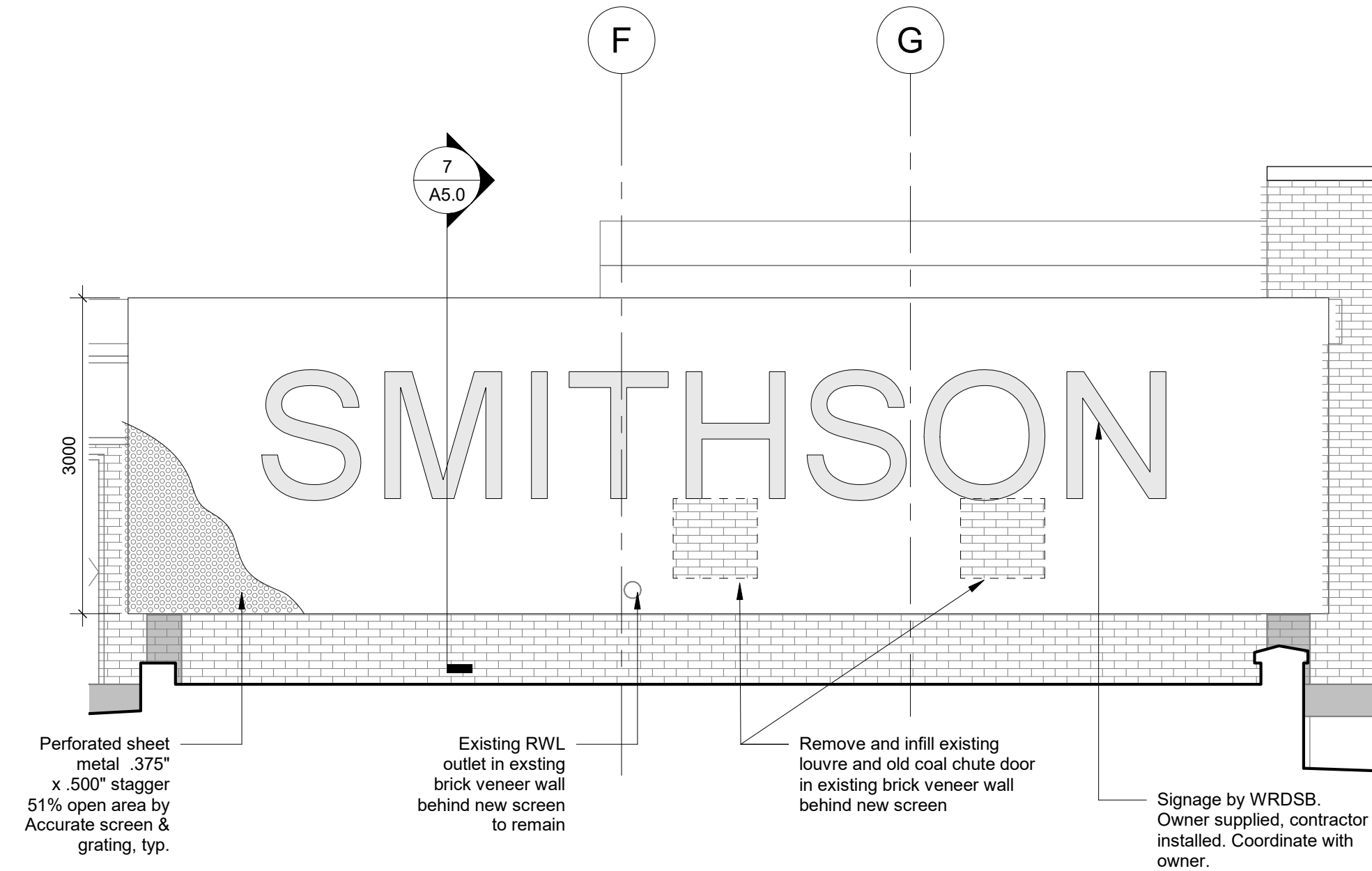
5 Partial Elevation - Infill Wall at Demolished Vestibule
1:50



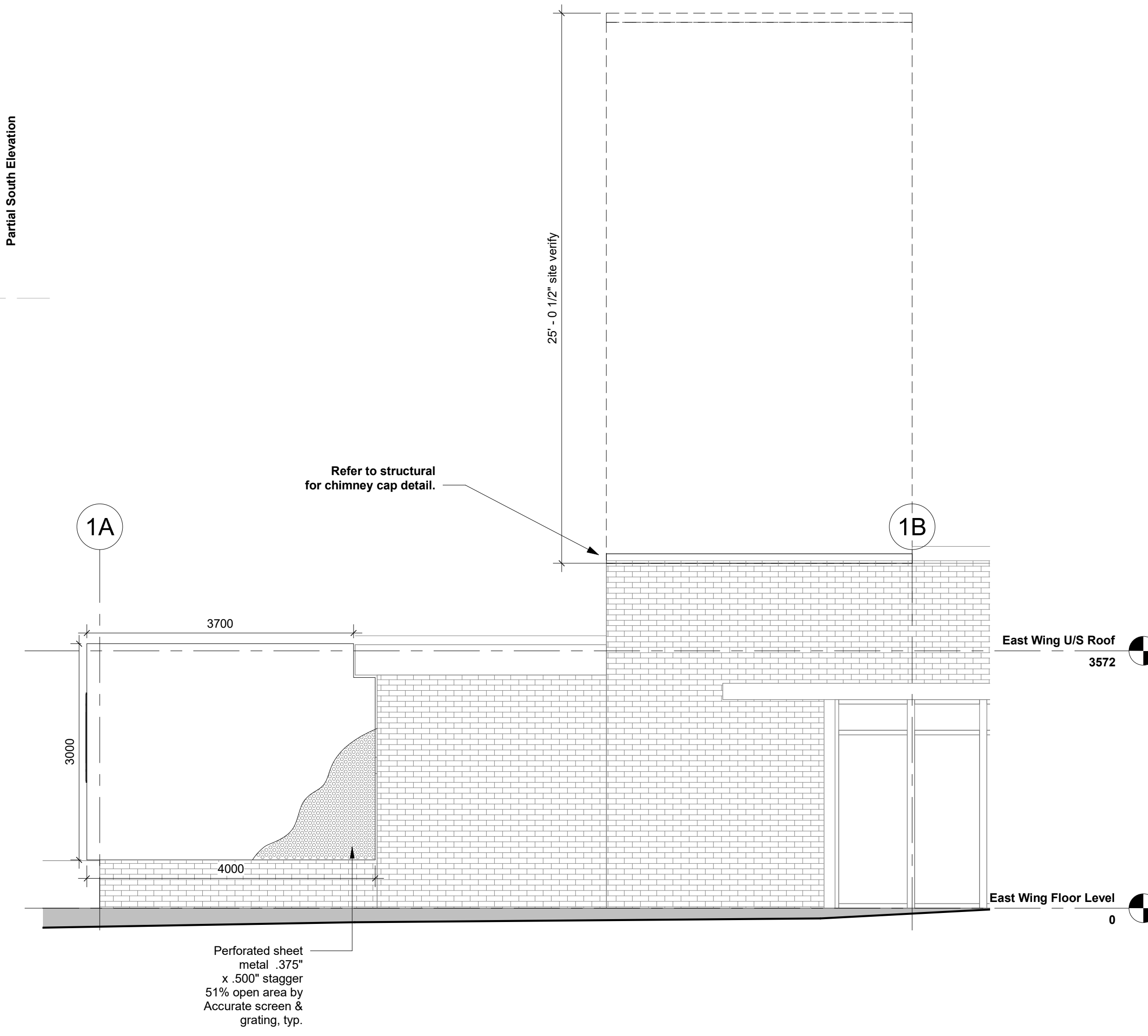
1 Detail Roof Plan
1:50



2 Partial North Elevation - Lower Roof Screen
1:50



3 Partial West Elevation - Lower Roof Screen & Chimney
1:50



4 Partial South Elevation - Lower Roof & Chimney
1:50

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3	Issued for 90% Review	03 Dec 2021
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5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022



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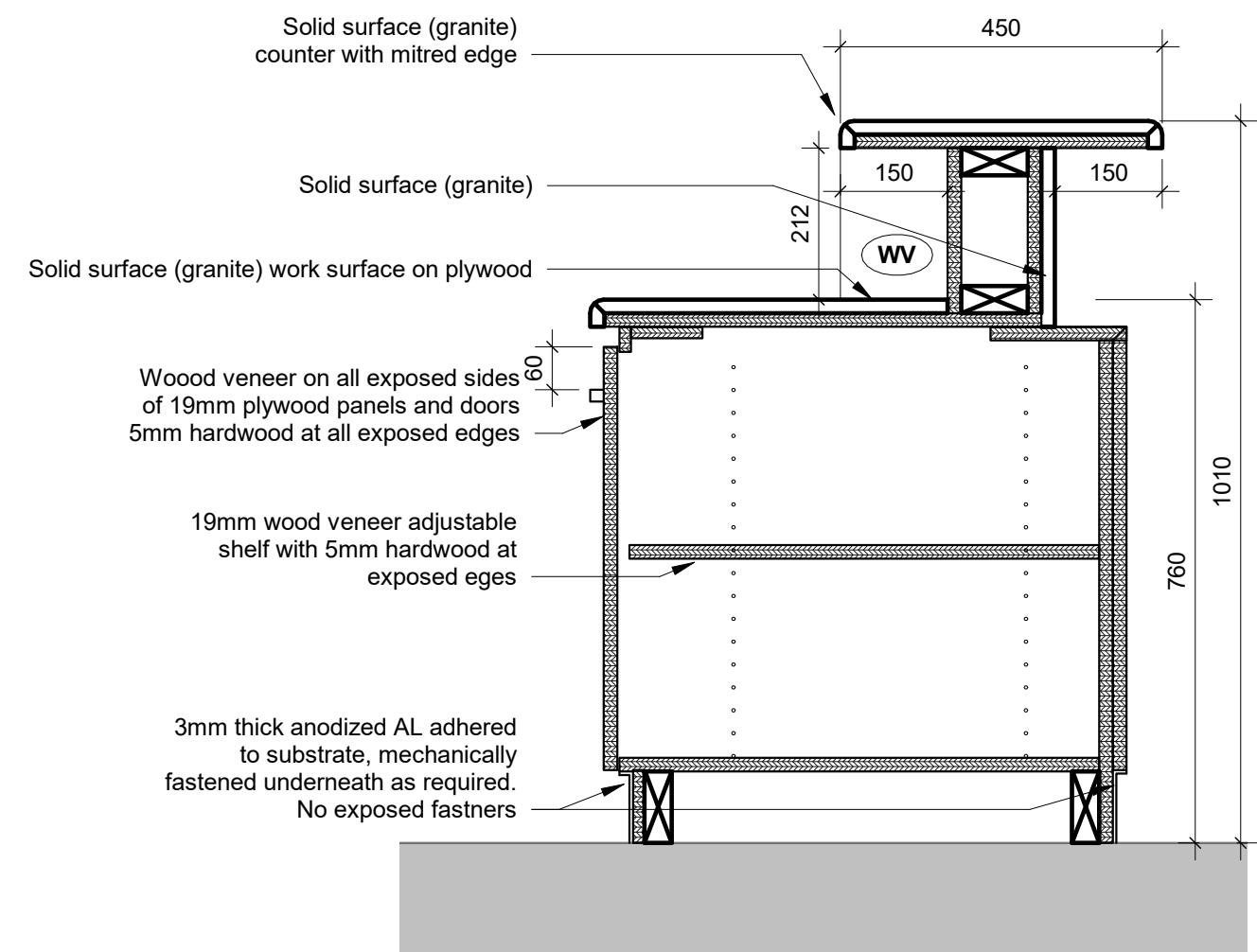
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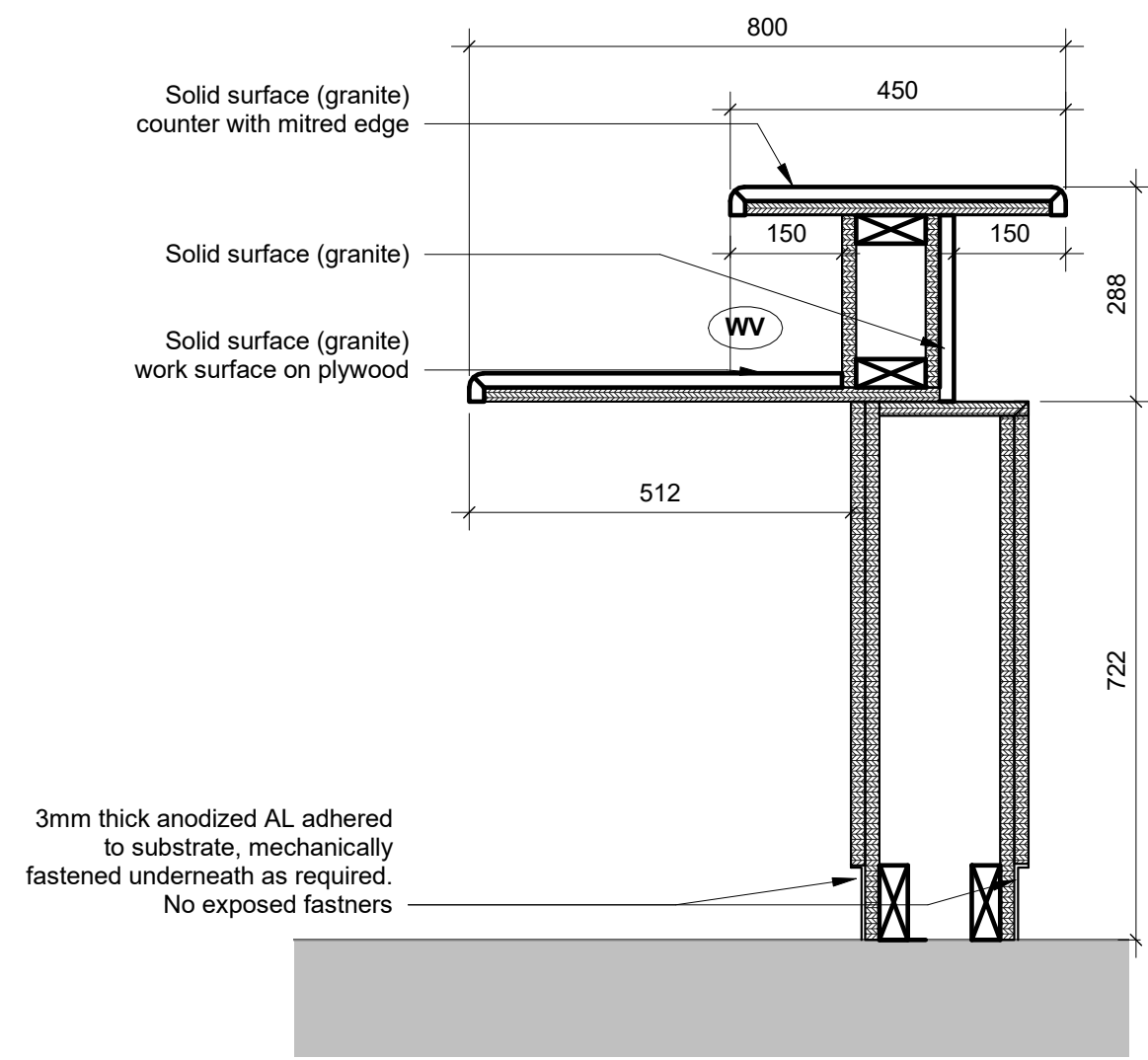
PROJECT CODE:	SCALE:
20_28	As indicated
DATE:	STATUS:
December 2021	Permit/Tender

Lower Roof Detail Plan,
Exterior Elevations & Details

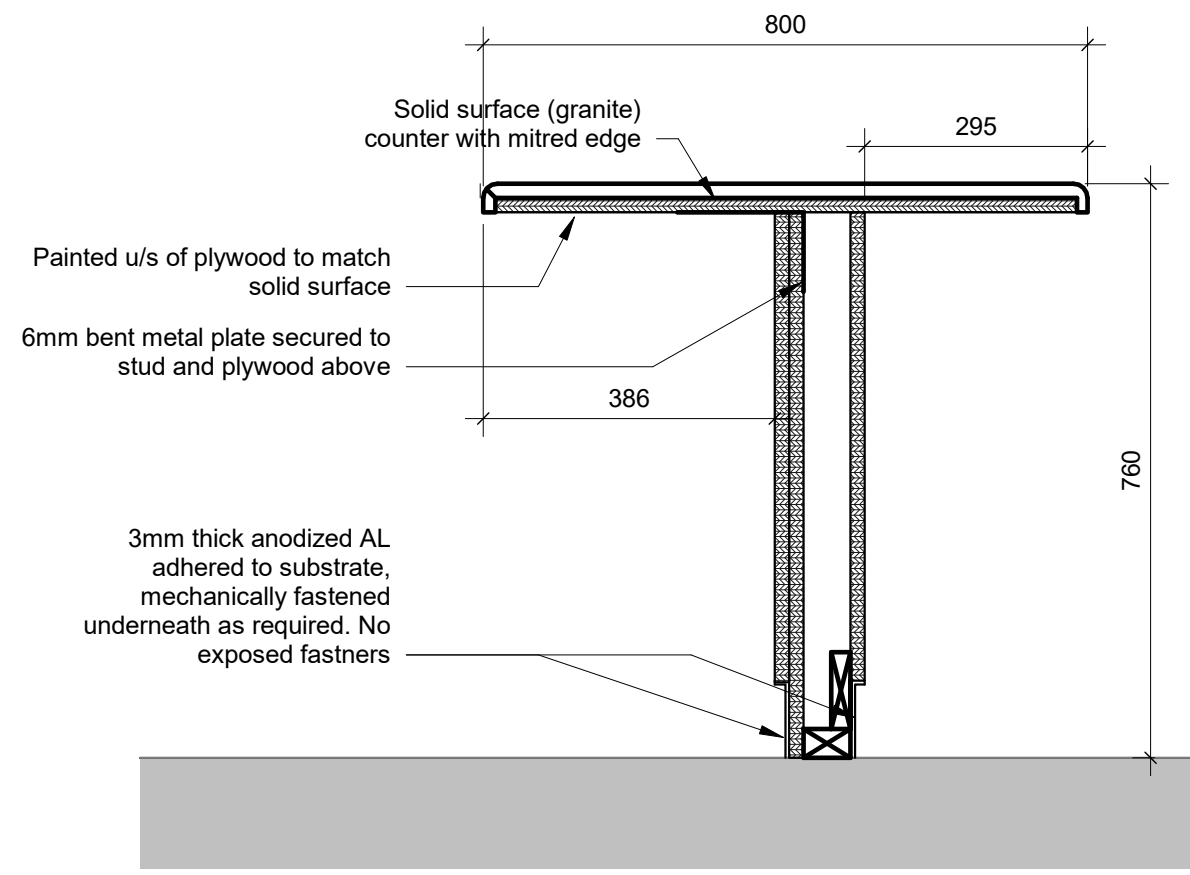
Rev	Description	Date
3	Issued for 90% Review	03 Dec 2021
4	Issued for Review	21 Jan 2022
5	Issued for Permit	04 Feb 2022
6	Issued for Tender	15 Feb 2022



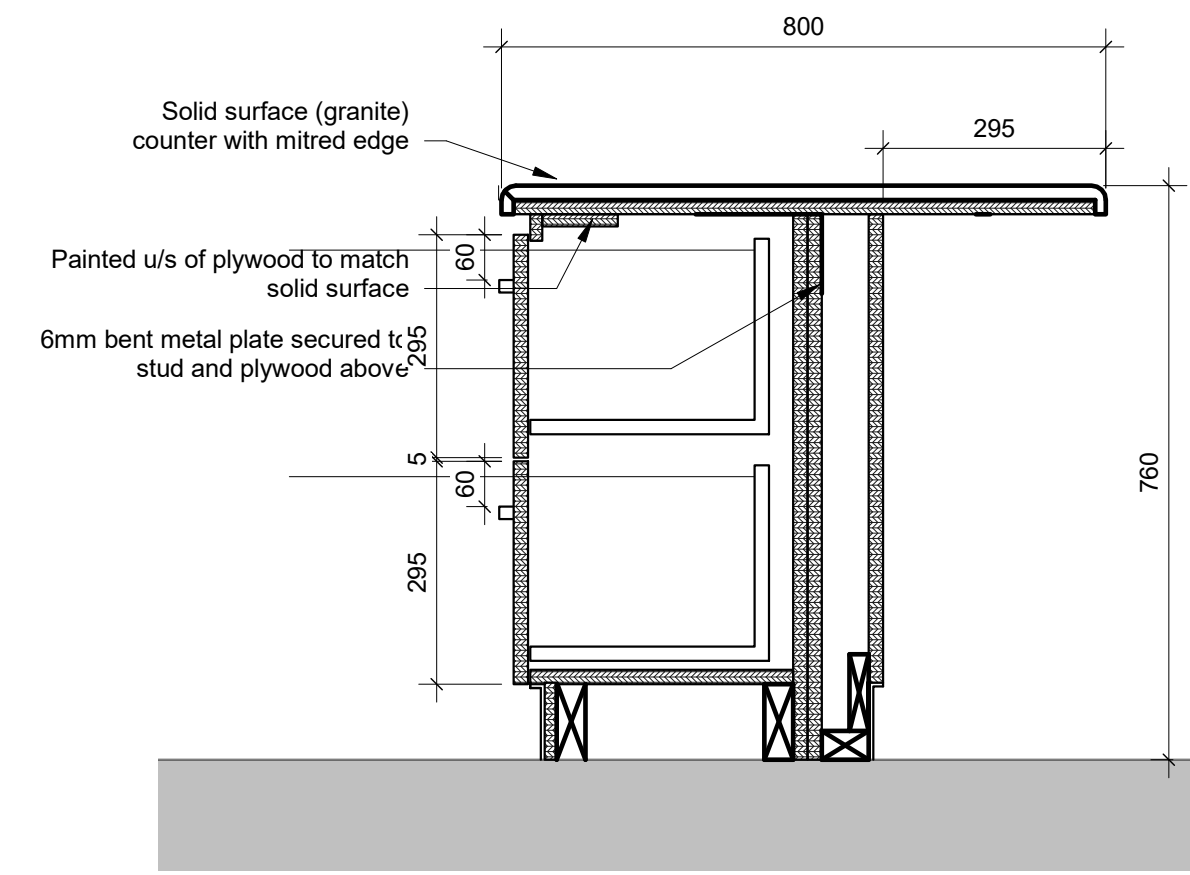
1 Detail Section - MW1 Reception Desk through Cabinet
1 : 10



2 Detail Section - MW1 Reception Desk through Transaction Counter
1 : 10



3 Detail Section - MW1 Reception Desk through Low Panel
1 : 10



4 Detail Section - MW1 Reception Desk through Drawers
1 : 10

Materials Legend

ACT	Acoustic Ceiling Tile
ALUM	Aluminum
CER	Ceramic Tile
CPT	Carpet
EPC	Epoxy Paint
EXST	Existing
EXP	Exposed
FAB	Fabric Faced Acoustic Core
FGL	Composite Ceiling Panel
F1	Frosted Glass
GWB	Glazing Surface Film
MIR	Gypsum Wallboard
MDF	Mirror
PLY	MDF Baseboard
POR	Fire Rated Plywood
PLAM	Porcelain Tile
PT	Plastic Laminate
QTZ	Paint Finish
RB	Quartz
RES	Rubber Base
SO	Resilient Sheet Flooring
SS	Solid Polymer Fabrications
ST	Stainless Steel
TGL	Natural Stone
WB	Tempered Glass
WD	Dry Erase Whiteboard
WS	Solid Wood
	Wood Stain

Millwork Hardware Legend

- Adjustable shelf pins/ferrules: Richelieu No 2291/2292-180, nickel finish at 2" centres
- Bumpers (2 each per door): Richelieu 3M (Peel & Stick)
- Cabinet/Drawer Pulls: Richelieu Functional Steel Pull #33205195, Brushed Nickel
- Concealed hinges: Blum Blumotion 110 degrees
- Concealed shelf support brackets: Richelieu 1621712G
- Soft close mechanism at all drawers: Richelieu BP97309910
- Steel Roller Glides at 350mm drawers: Accuride #3641 Full Extension
- Provide cam locks at all cabinets and drawers

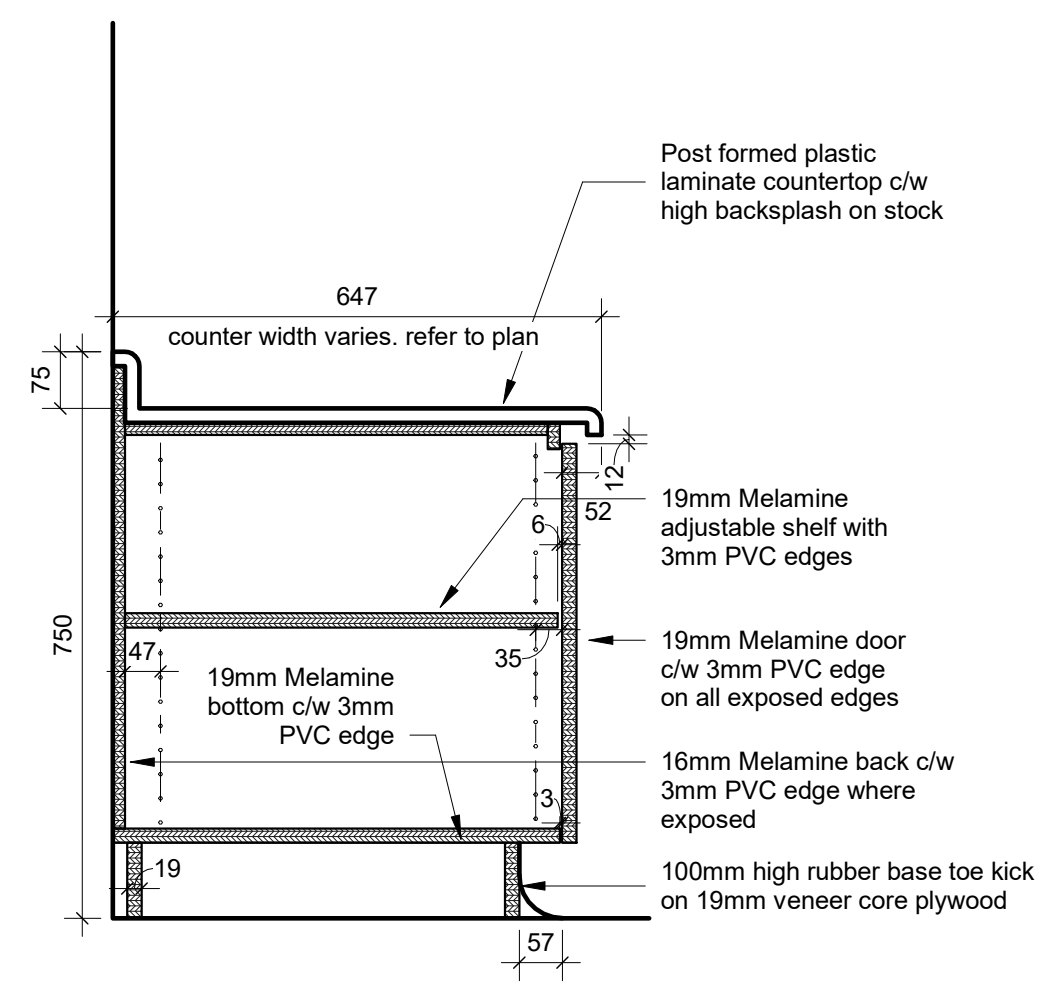


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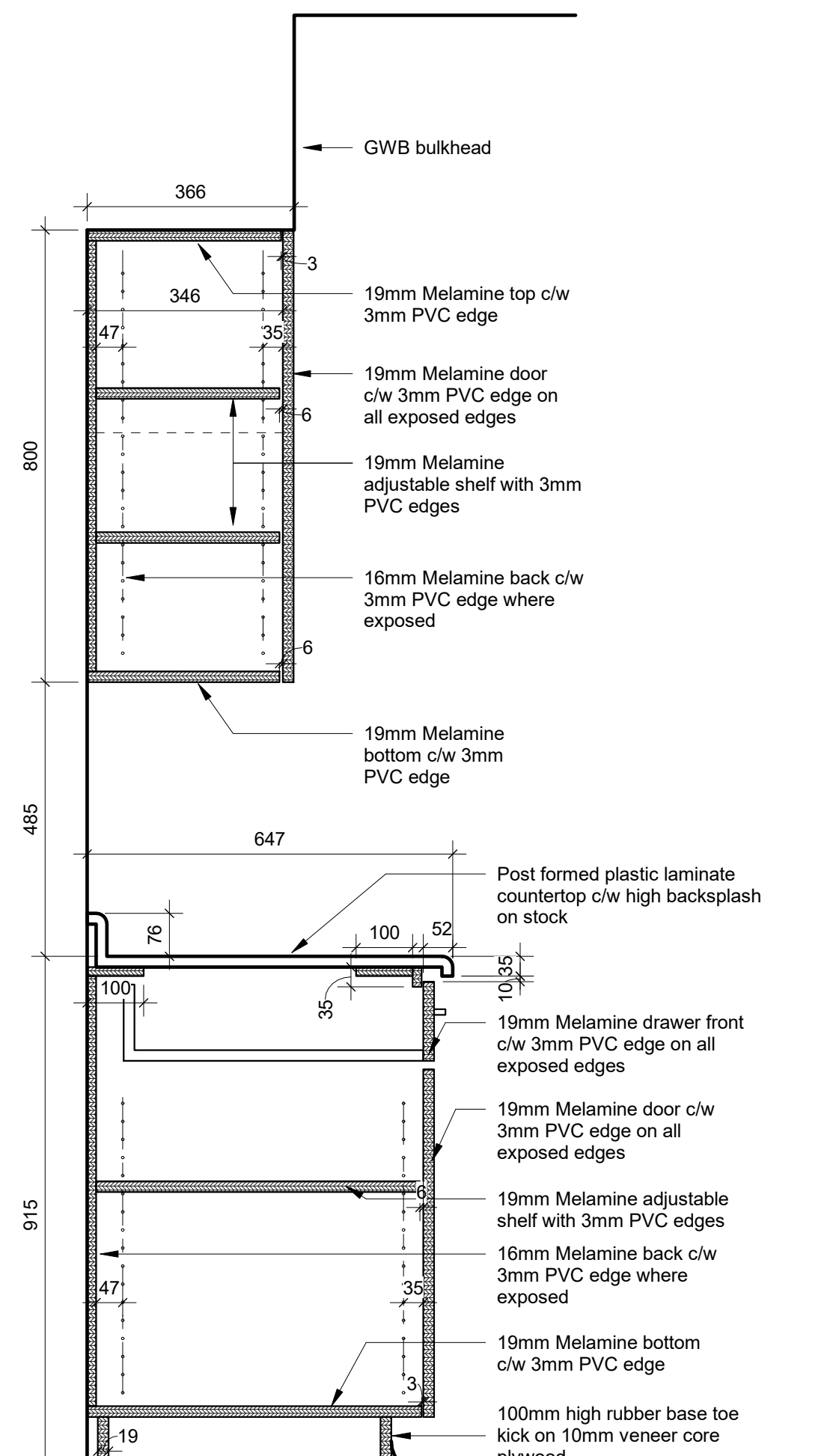
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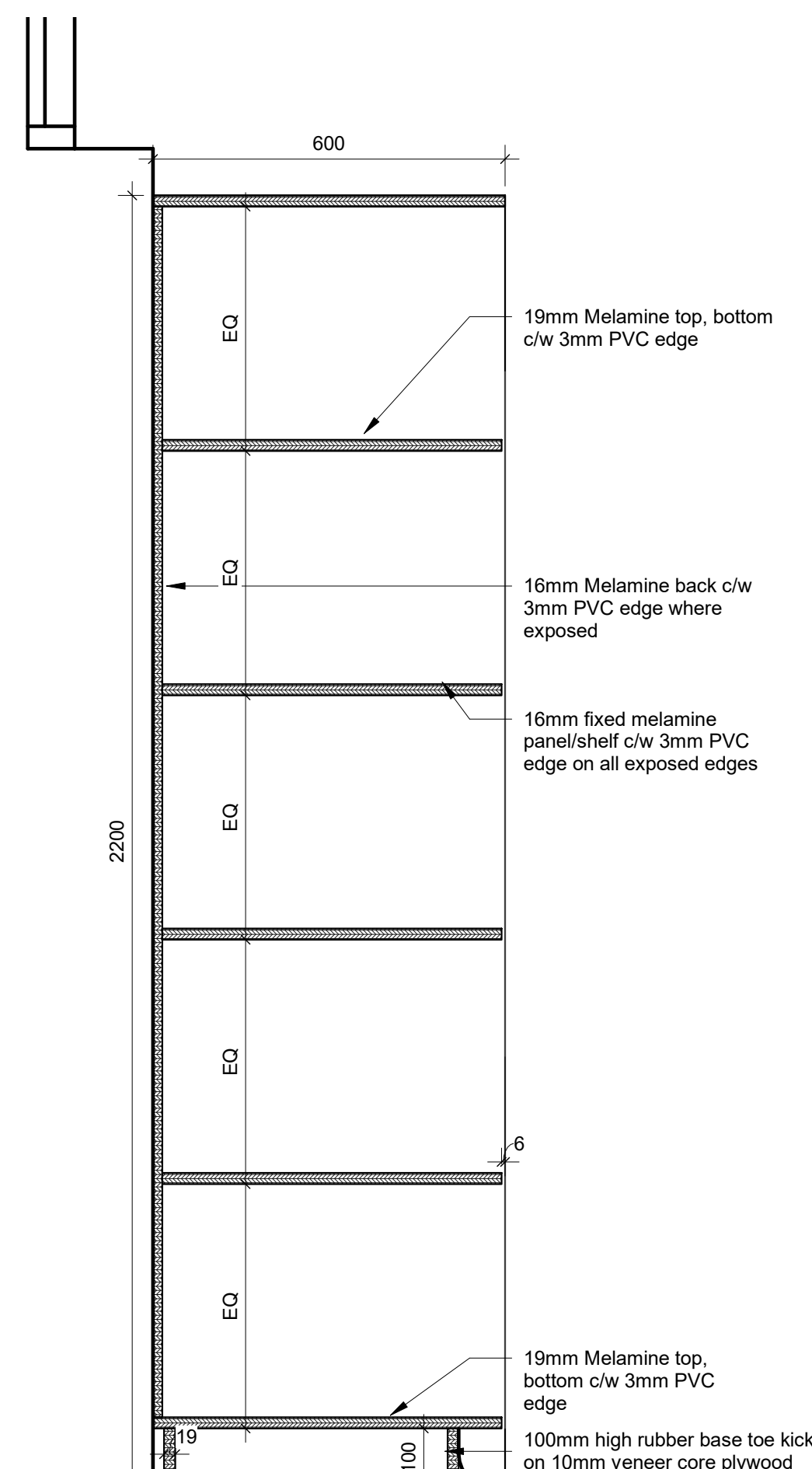
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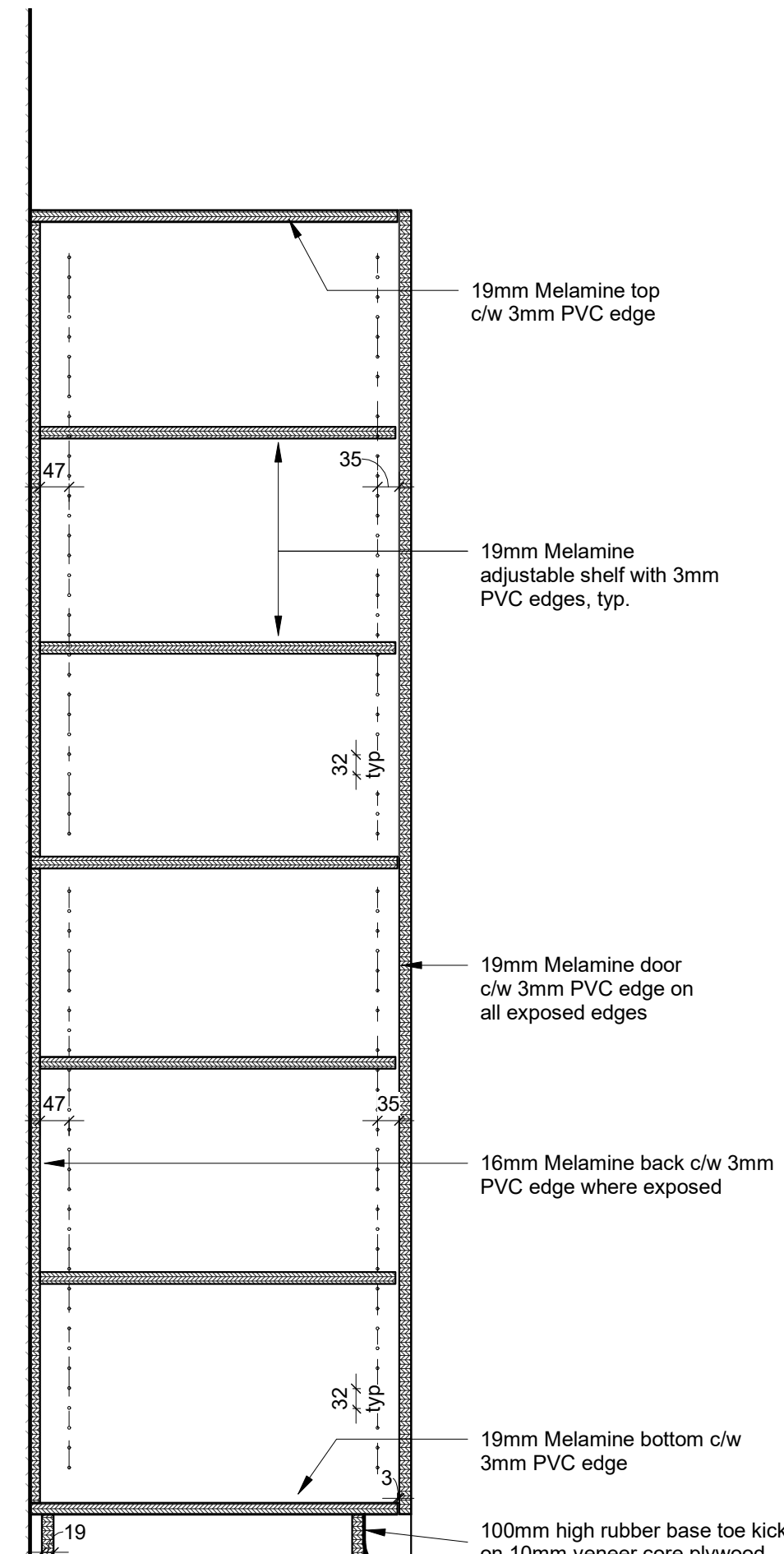
5 Detail Section - MW2 Reception Low Cabinets
1 : 10



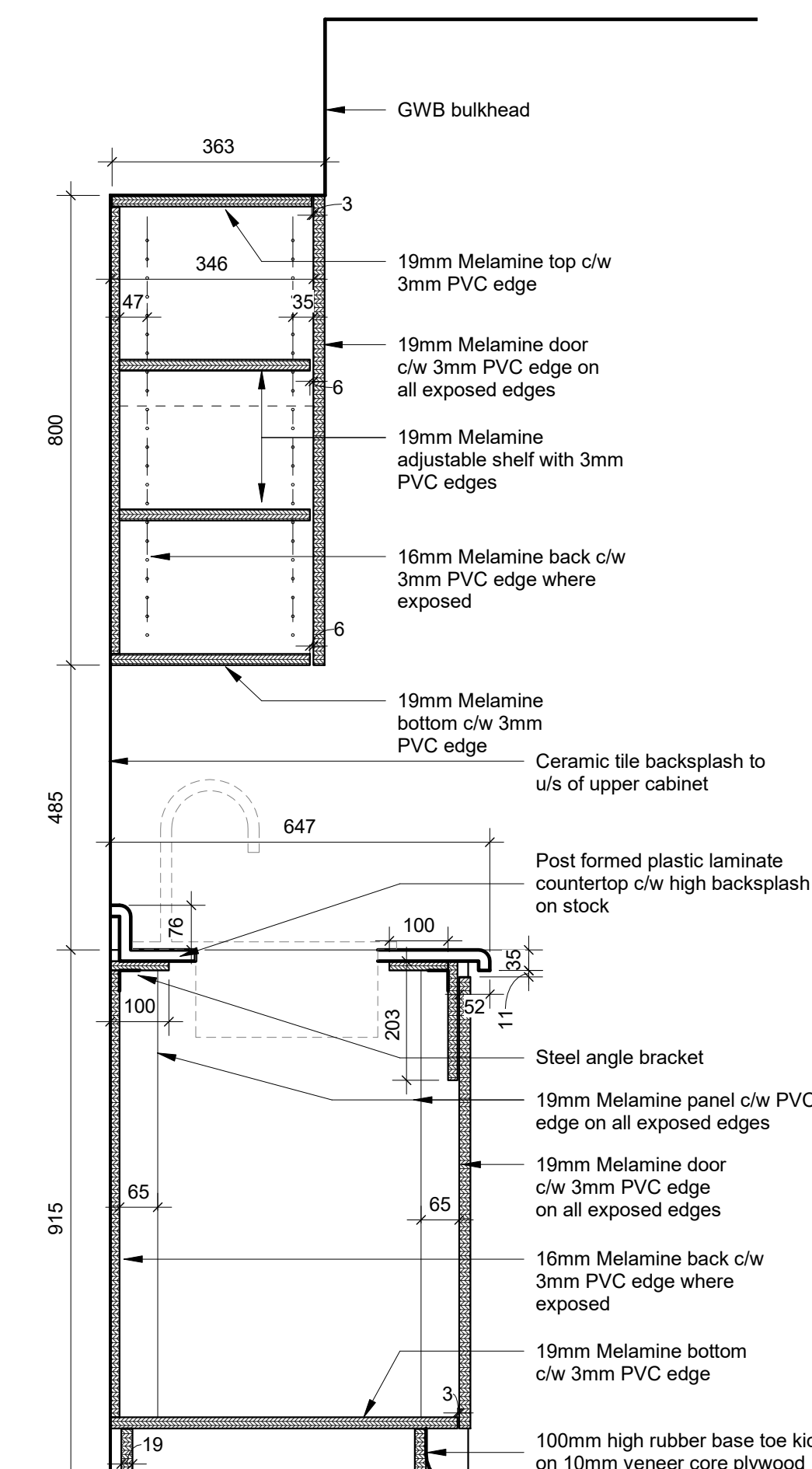
6 Detail Section - MW3 South Millwork (Staff Work Room 110)
1 : 10



7 Detail Section - MW4 West Millwork (Staff Work Room 110)
1 : 10



8 Detail Section - MW7 Storage (Custodial Storage 109)
1 : 10



9 Detail Section - MW8 Sink (Health Room 102)
1 : 10

Millwork Details

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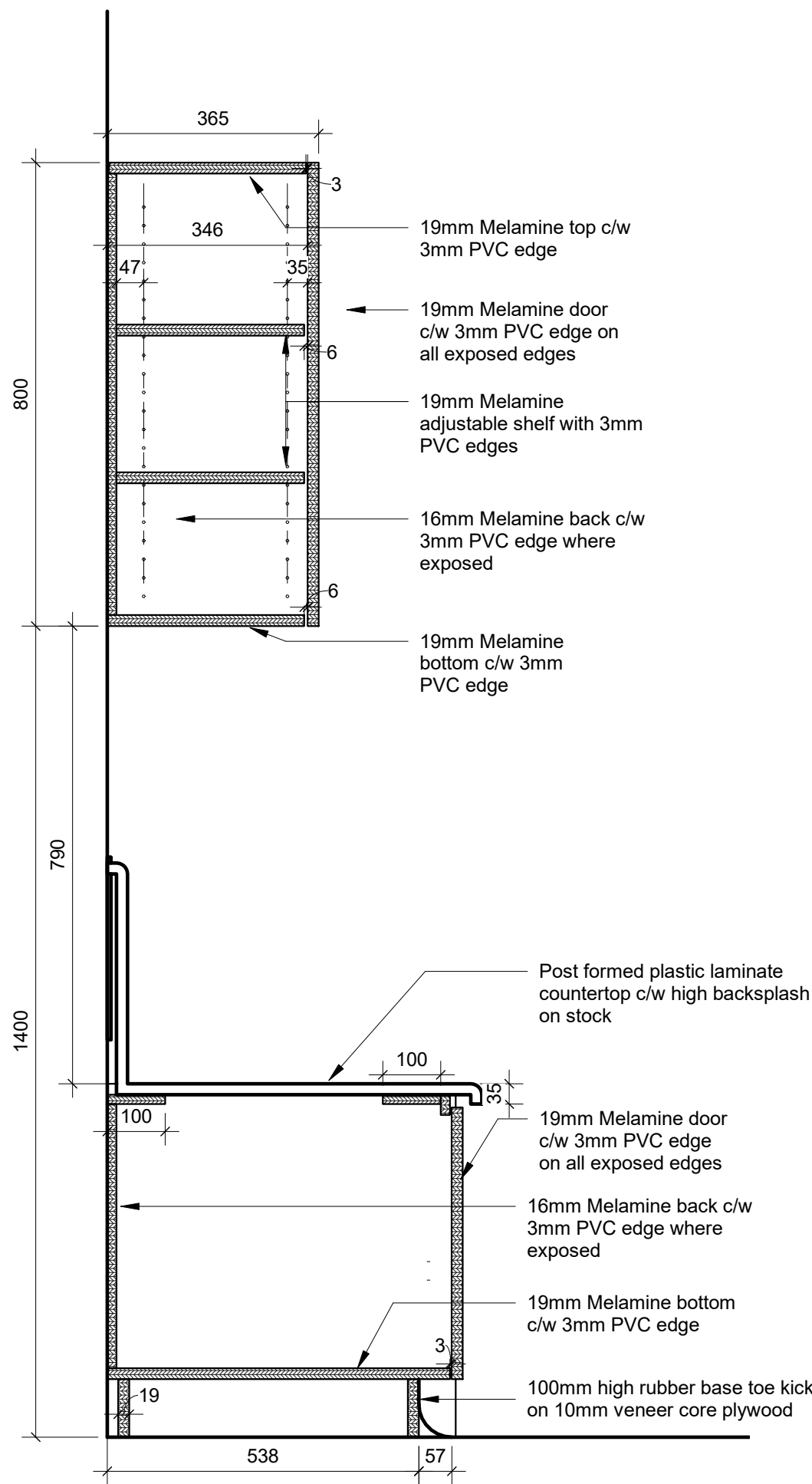


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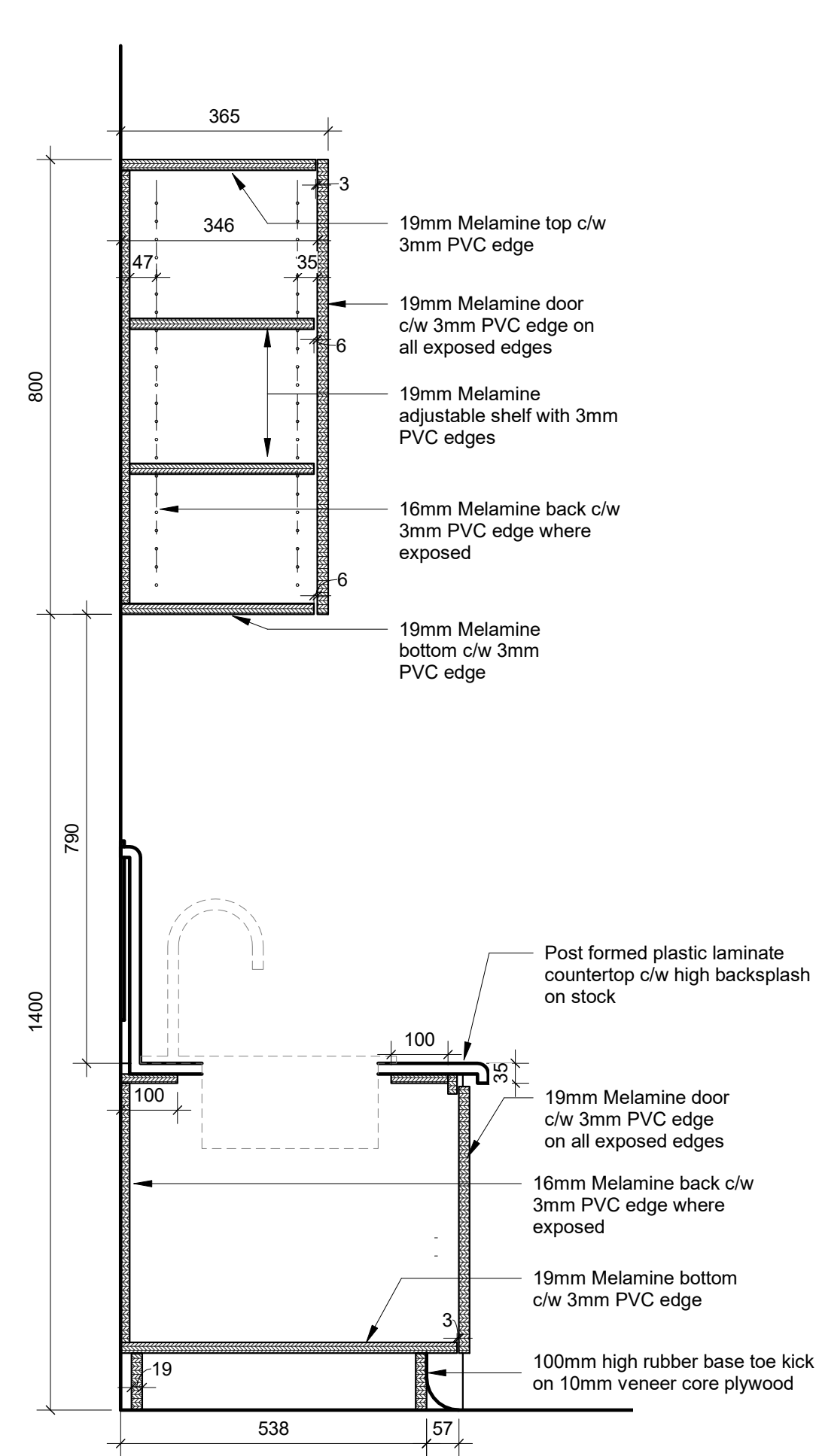
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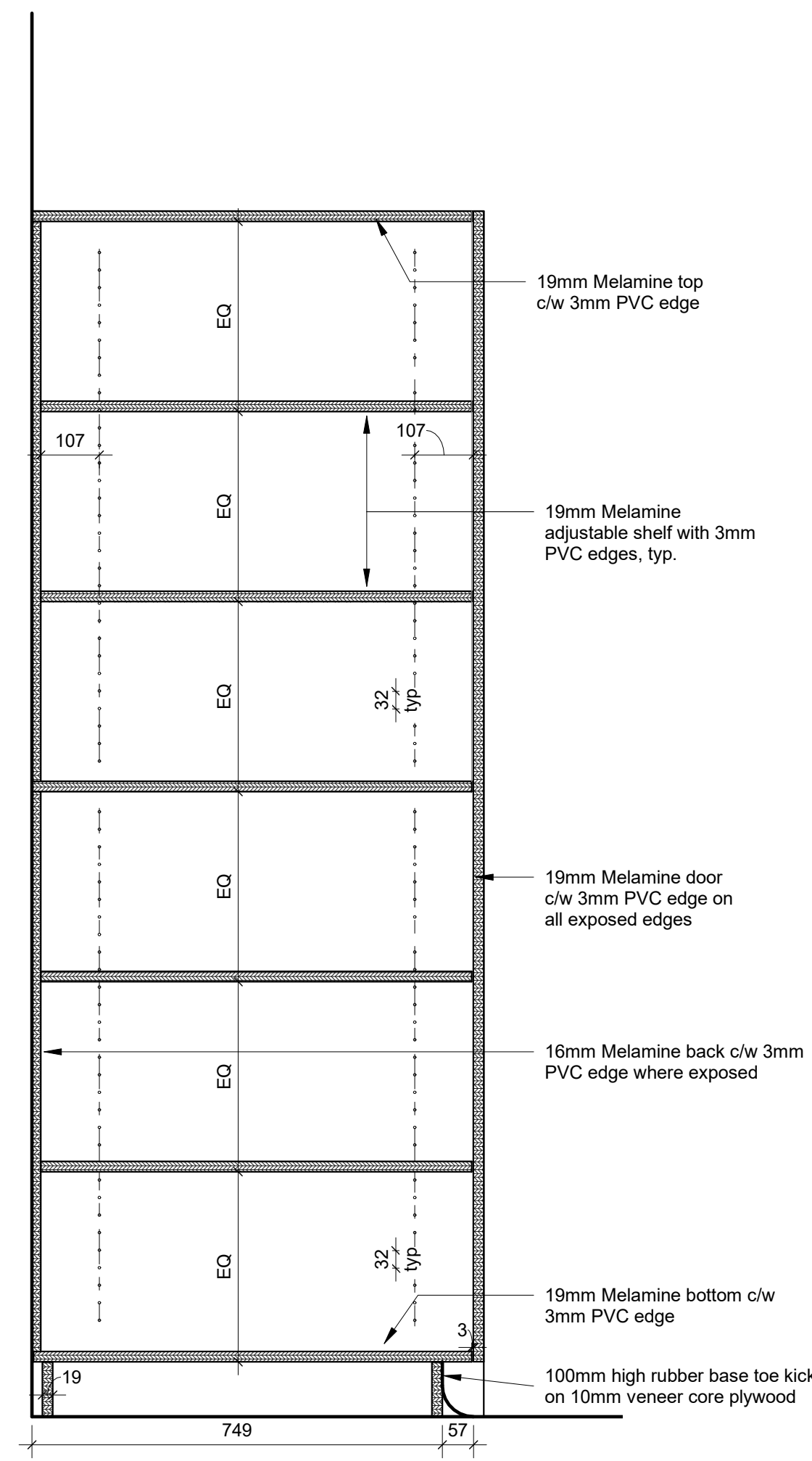
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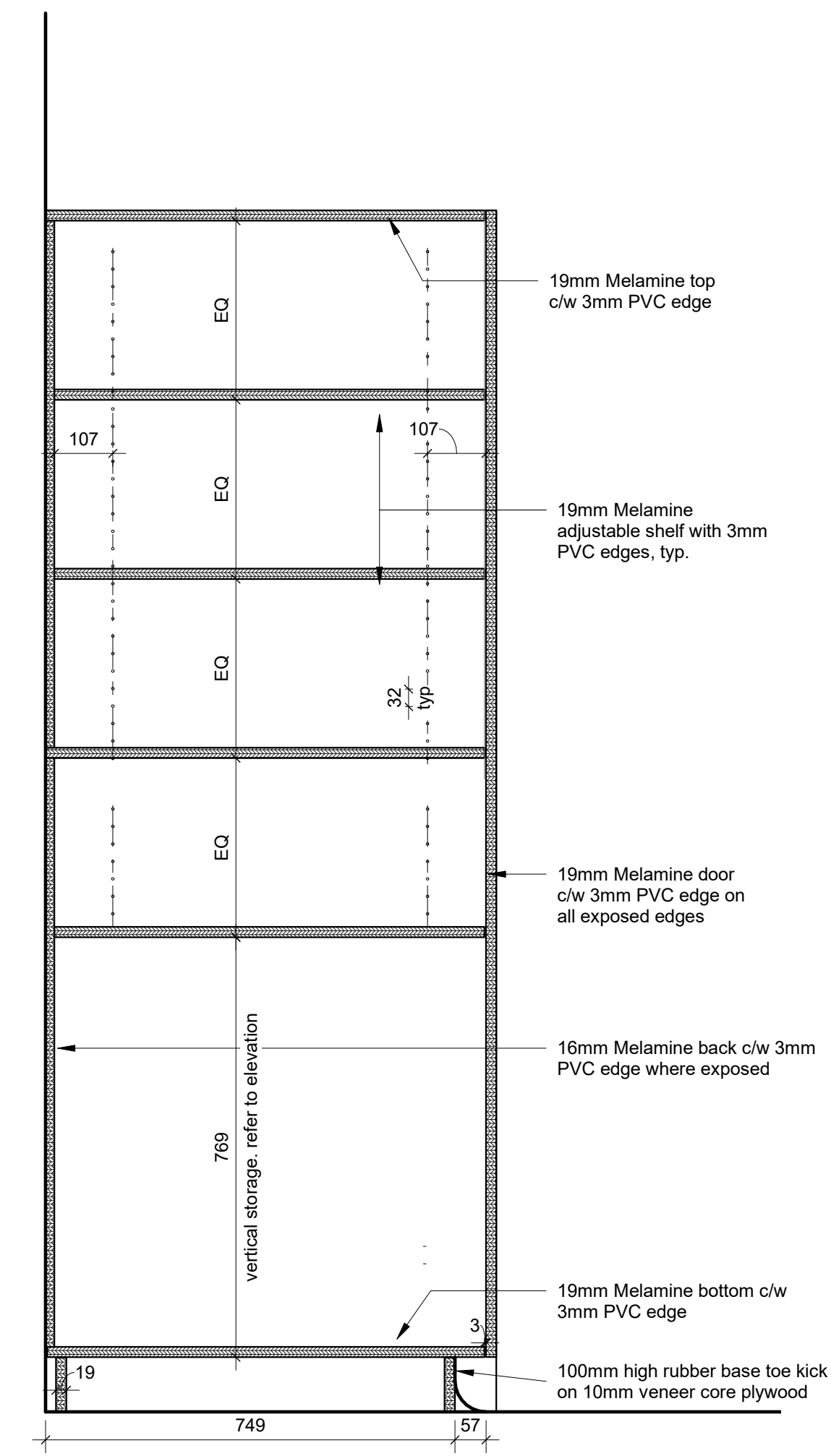
1 Detail Section - MW9 Sink (Spec. Ed. Room 09)
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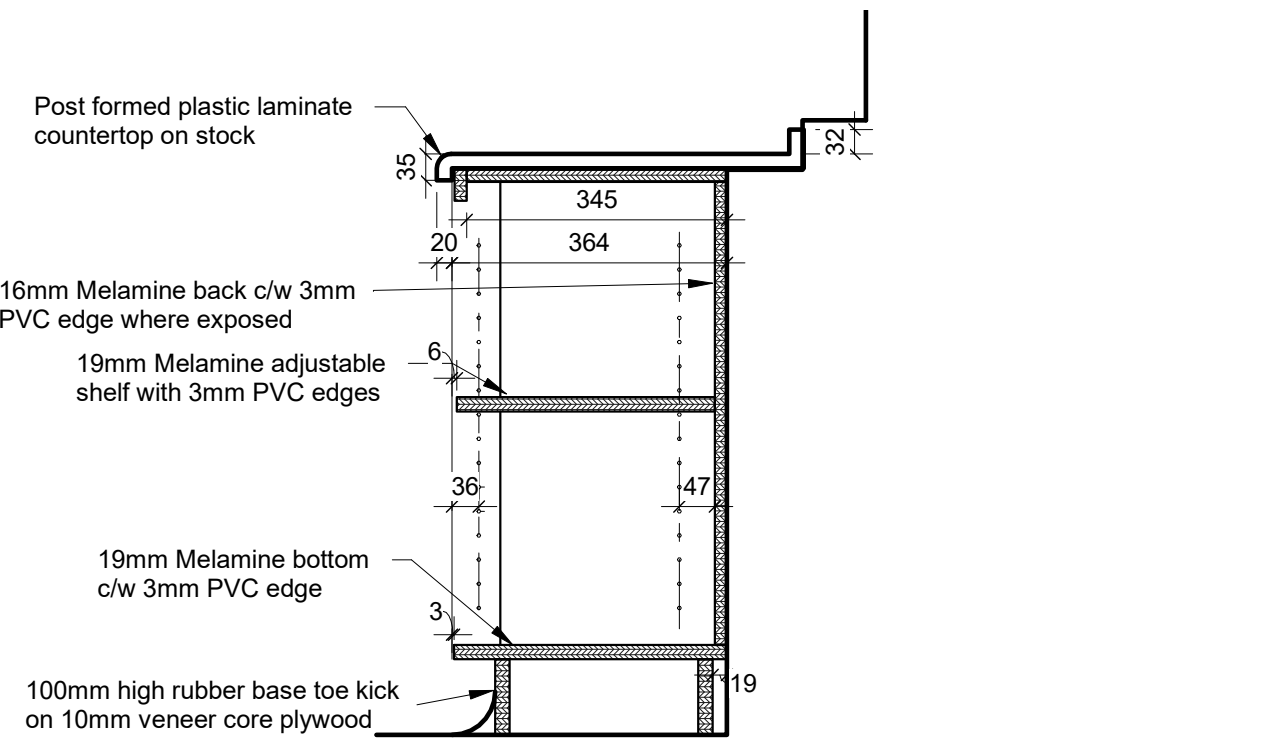
2 Detail Section - MW9 Sink 2 (Spec. Ed. Room 09)
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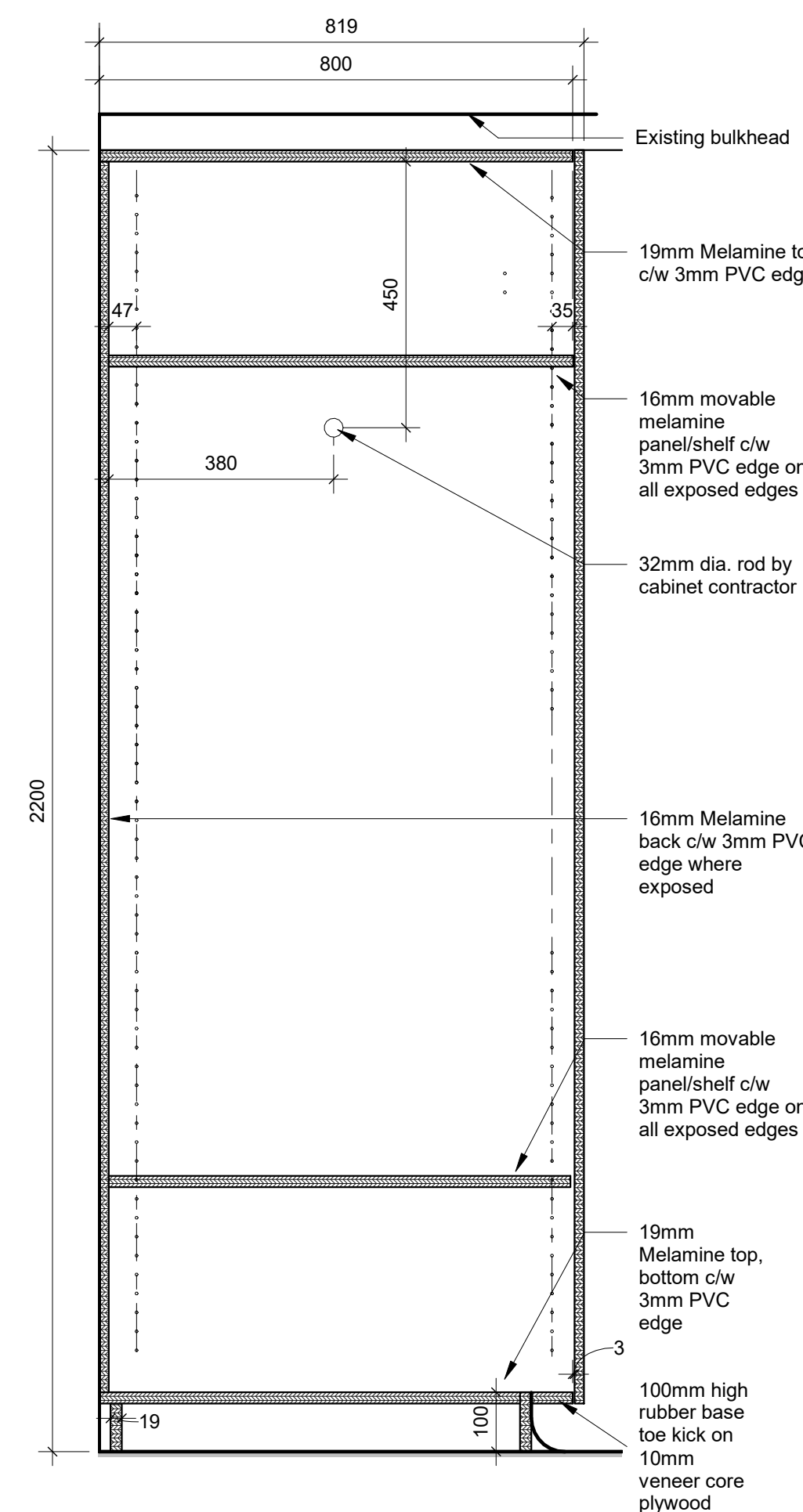
3 Detail Section - MW10 Teachers Closet (Spec. Ed. Room 09)
1 : 10



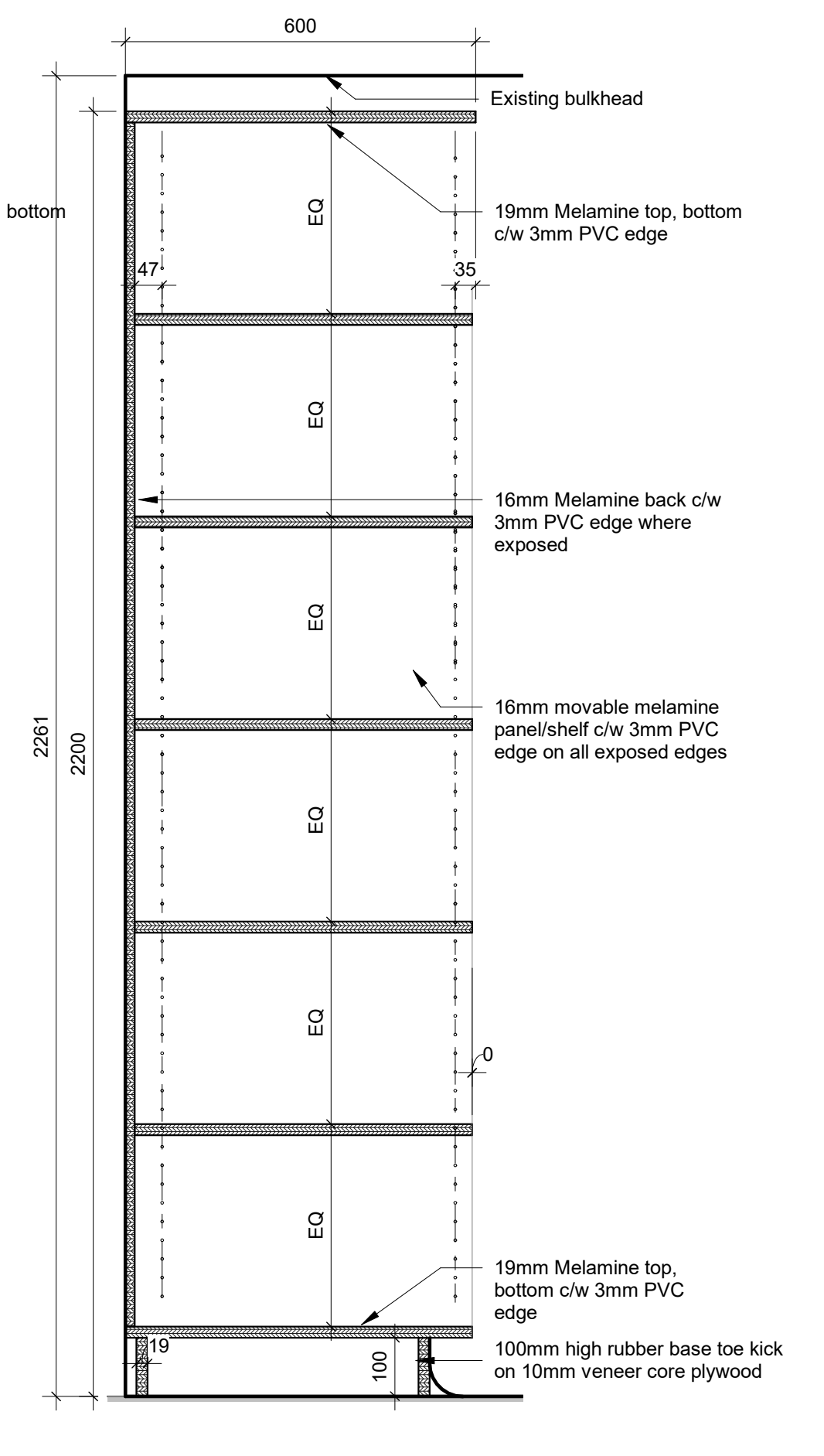
4 Detail Section - MW10 Teachers Closet 2 (Spec. Ed. Room 09)
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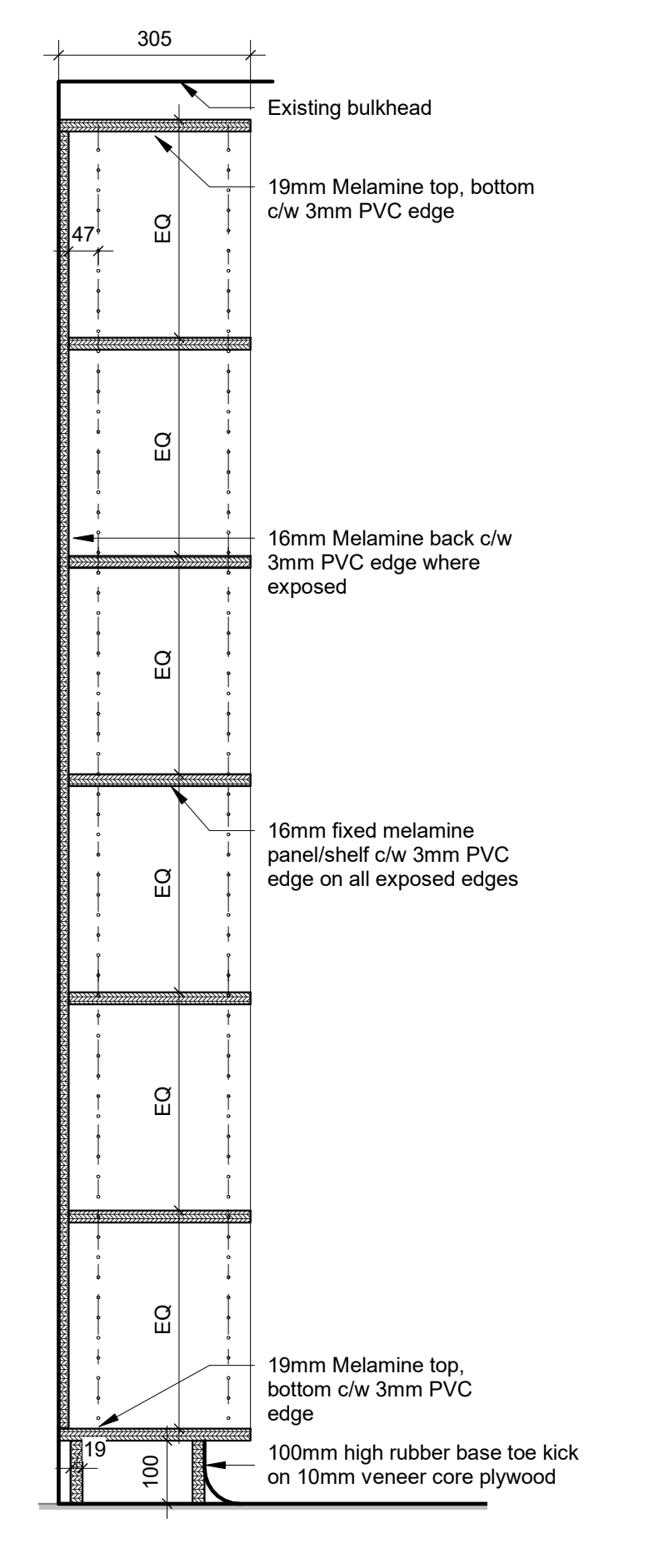
5 Detail Section - MW11 Perimeter Shelving (Spec. Ed. Room 09)
1 : 10



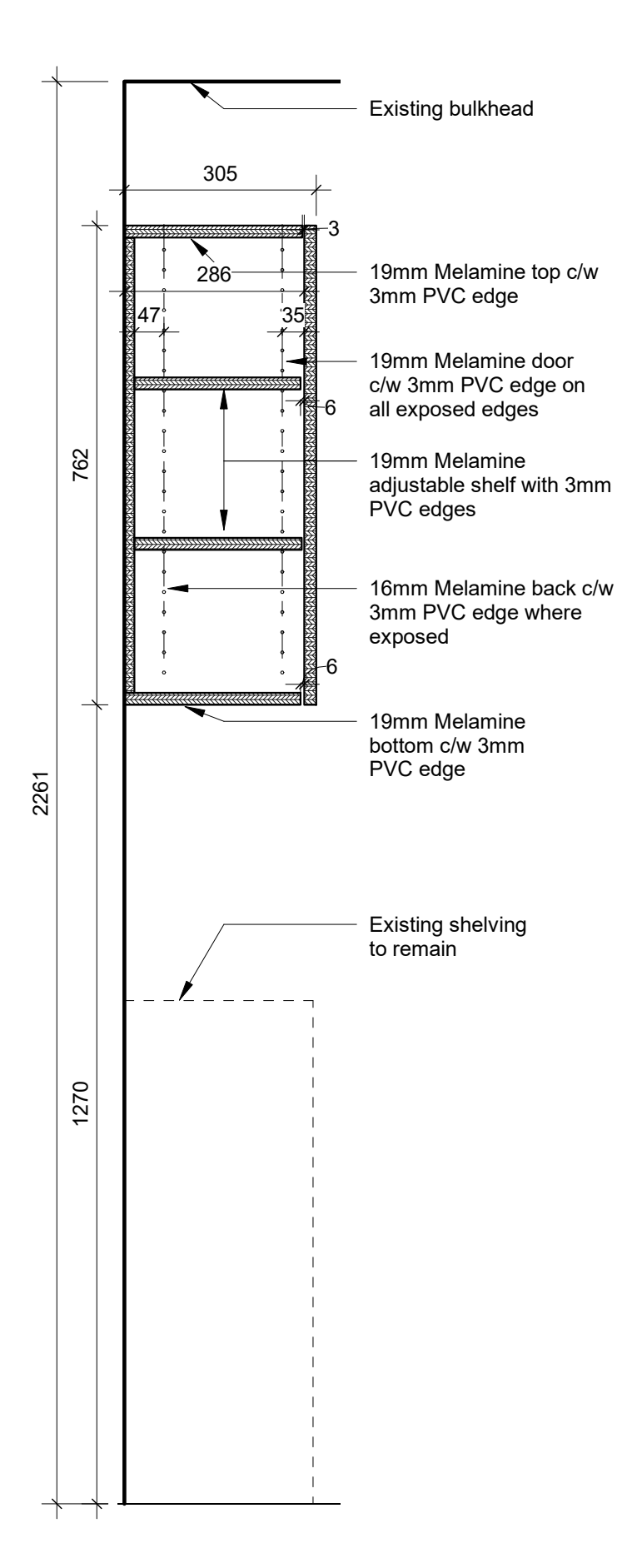
7 Detail Section - MW12-15 Teachers Closet
1 : 10



8 Detail Section - MW12-15 Open shelf 600 depth
1 : 10



9 Detail Section - MW12-15 Open shelf 310 depth
1 : 10

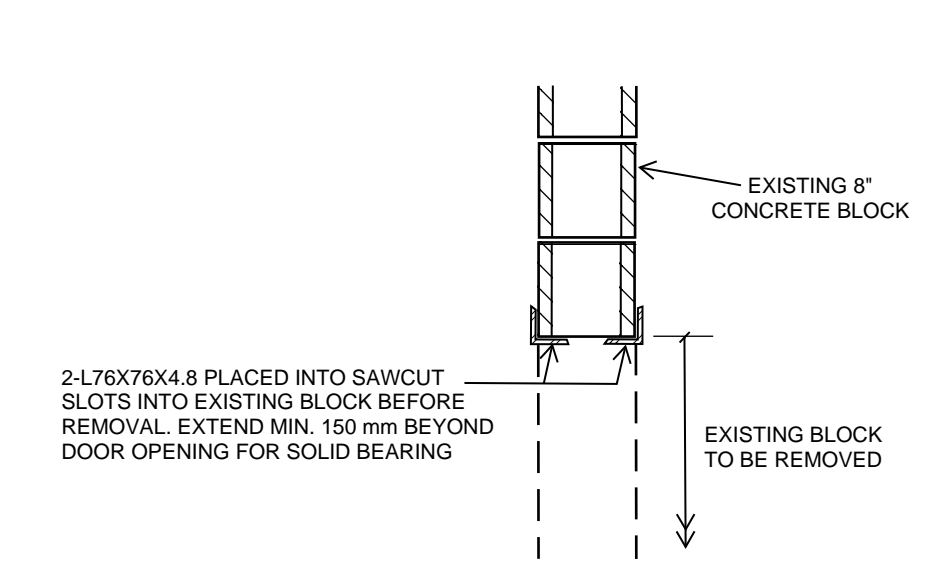


10 Detail Section MW12-15 Upper Shelves
1 : 10

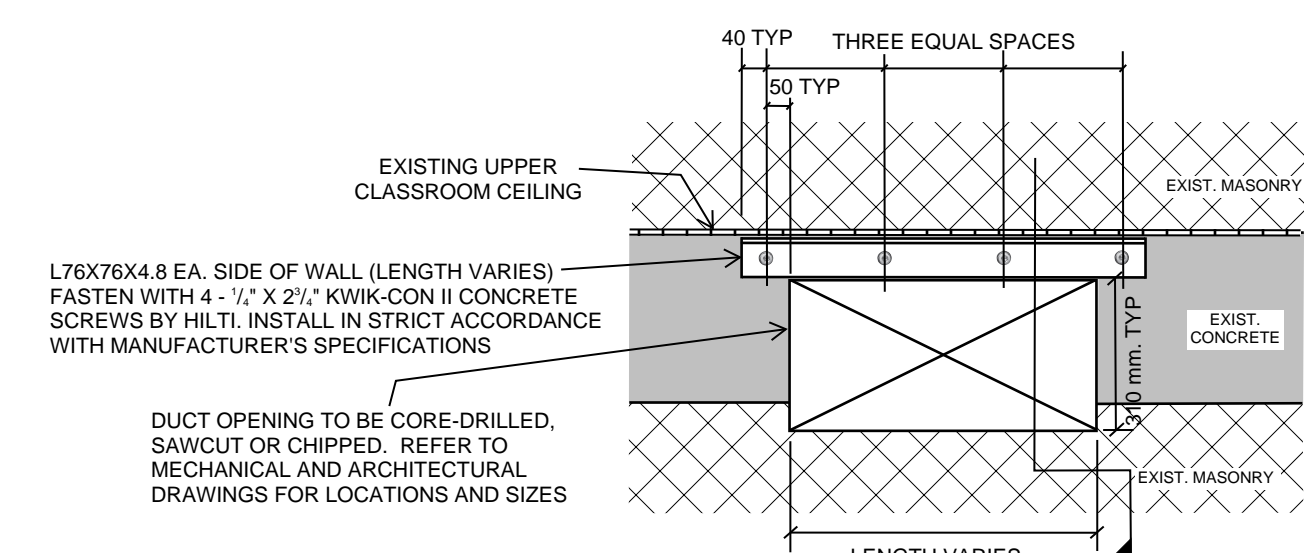
6 Detail Section - MW6 Counter (Staff Work Room 110)
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Millwork Details

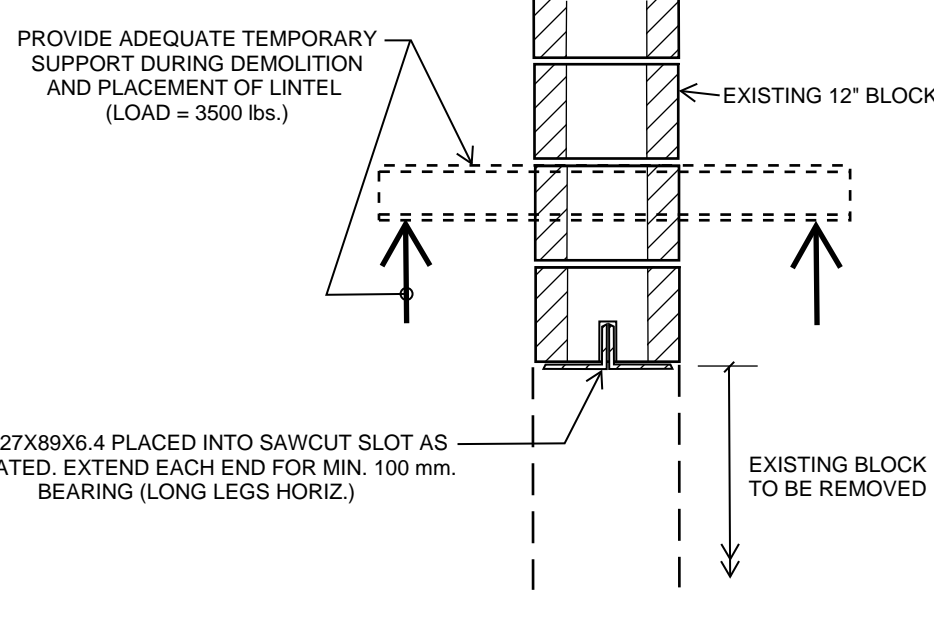
2 LINTEL L2
S1.0 SCALE: 1:15



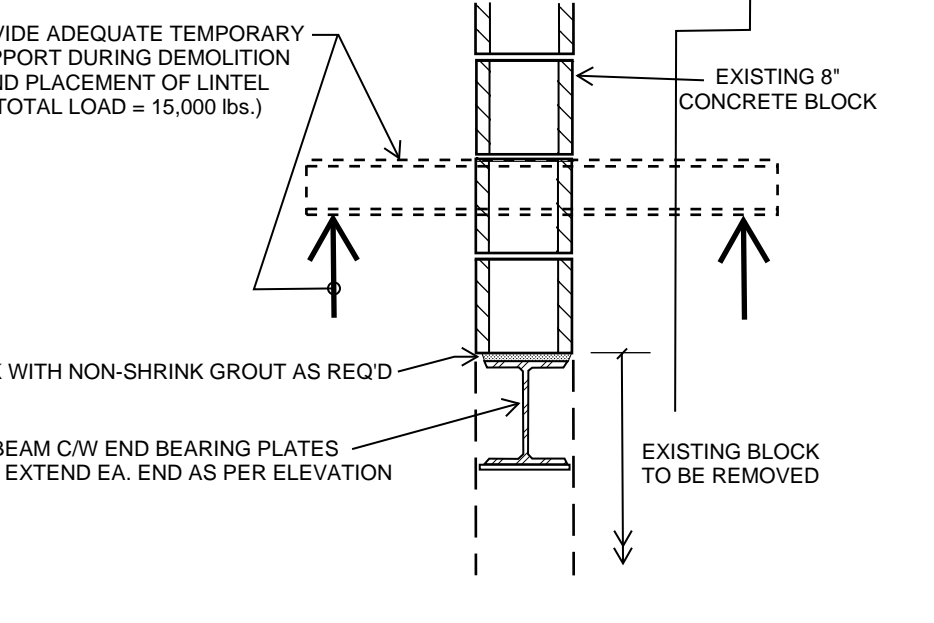
DEMOLITION/CONSTRUCTION SEQUENCE
1. REMOVE EXISTING COPING ON CLASSROOM SIDE OF WALL.
2. INSTALL STEEL L76X76'S AS DESCRIBED.
3. REMOVE CONCRETE AND MASONRY TO SIZES REQUIRED FOR DUCTWORK



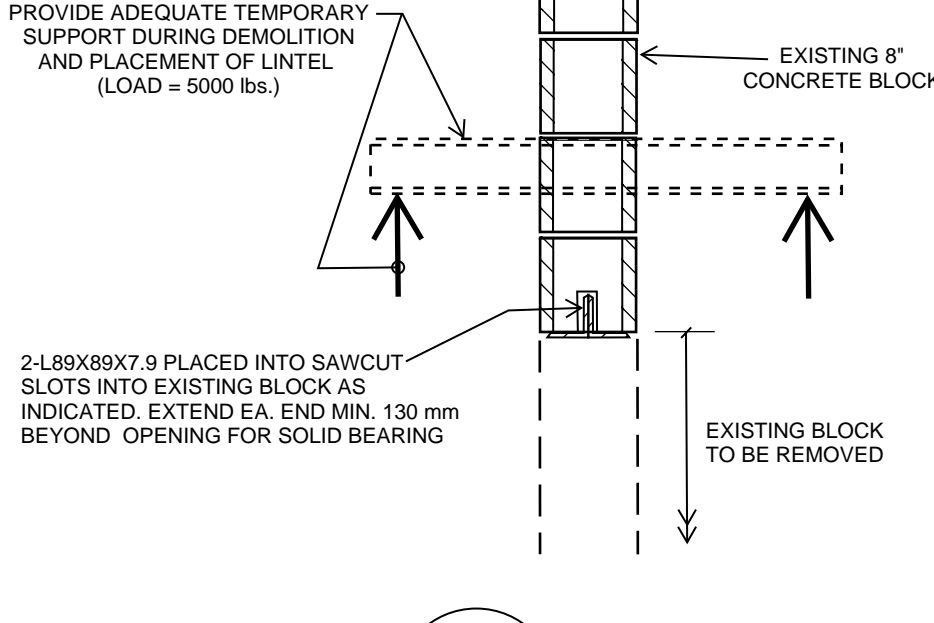
1 LINTEL L1
S1.0 SCALE: 1:15



6 BEAM B2
S1.0 SCALE: 1:15

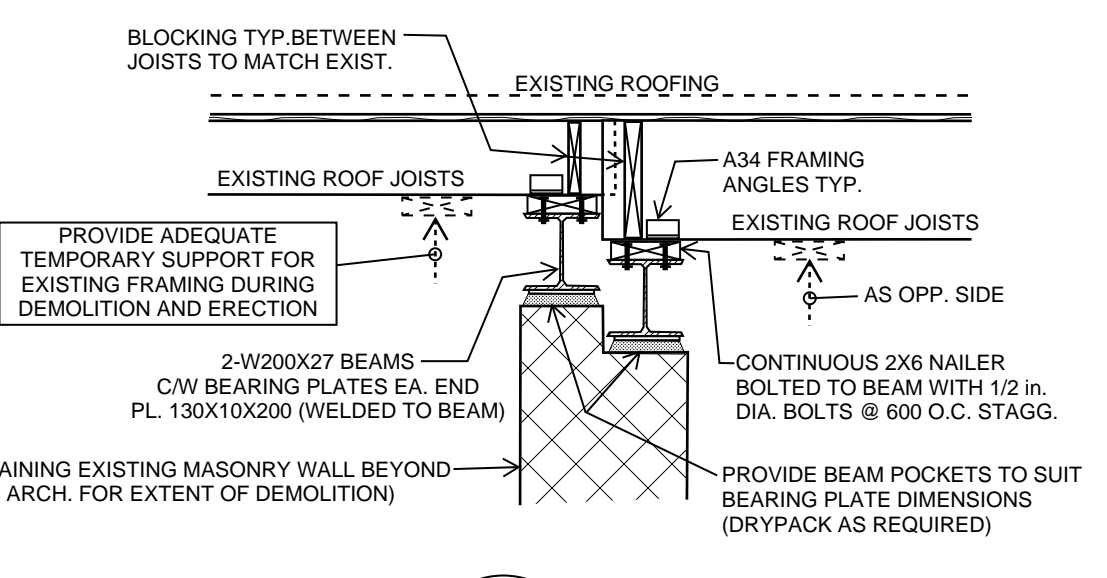


4 LINTEL L4
S1.0 SCALE: 1:15

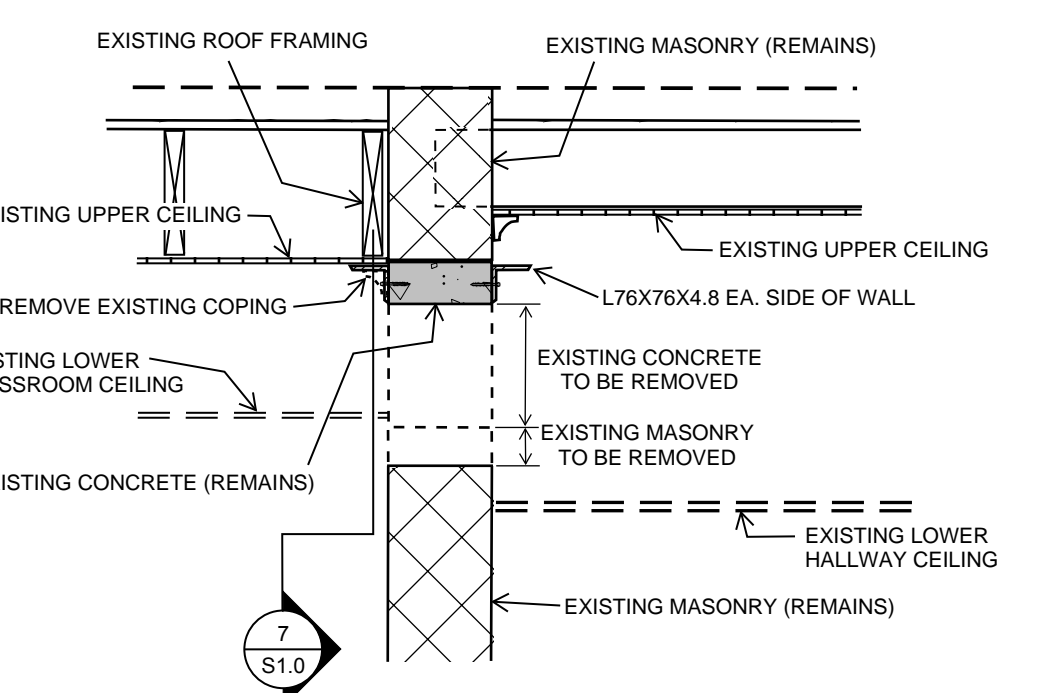


3 LINTEL L3
S1.0 SCALE: 1:15

5 BEAM B1
S1.0 SCALE: 1:15

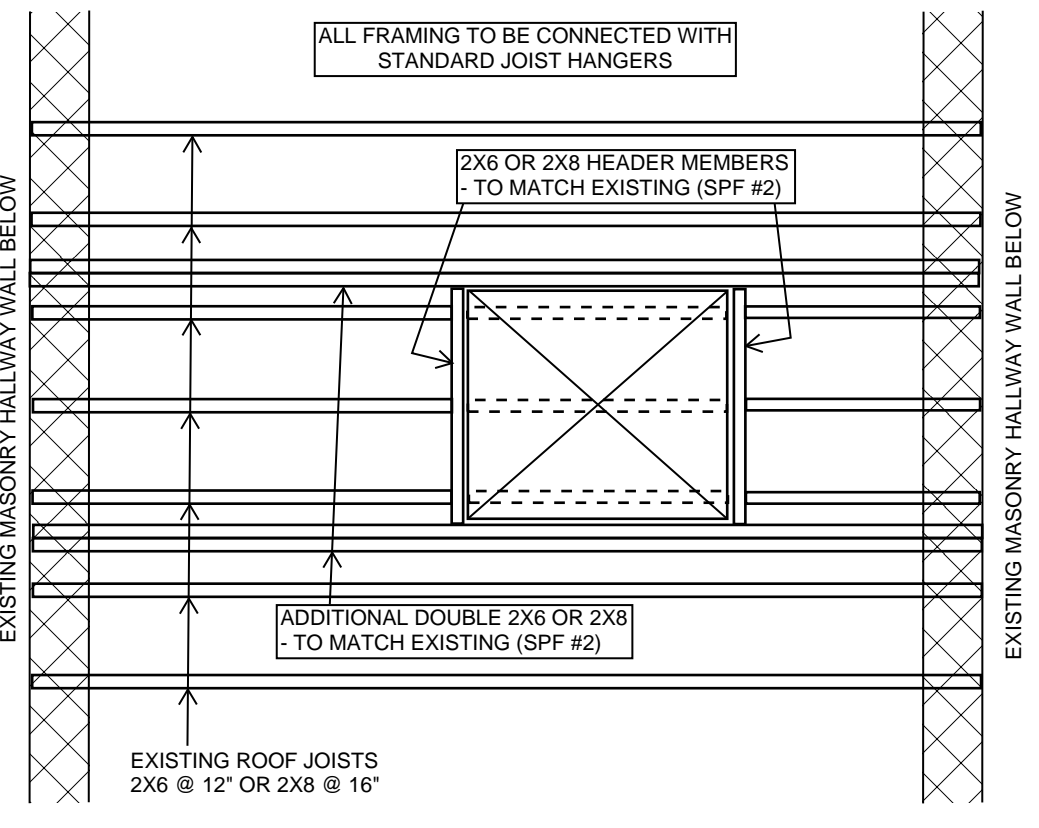


7 TYP. ELEVATION OF HALLWAY WALL OPENINGS
S1.0 SCALE: 1:15

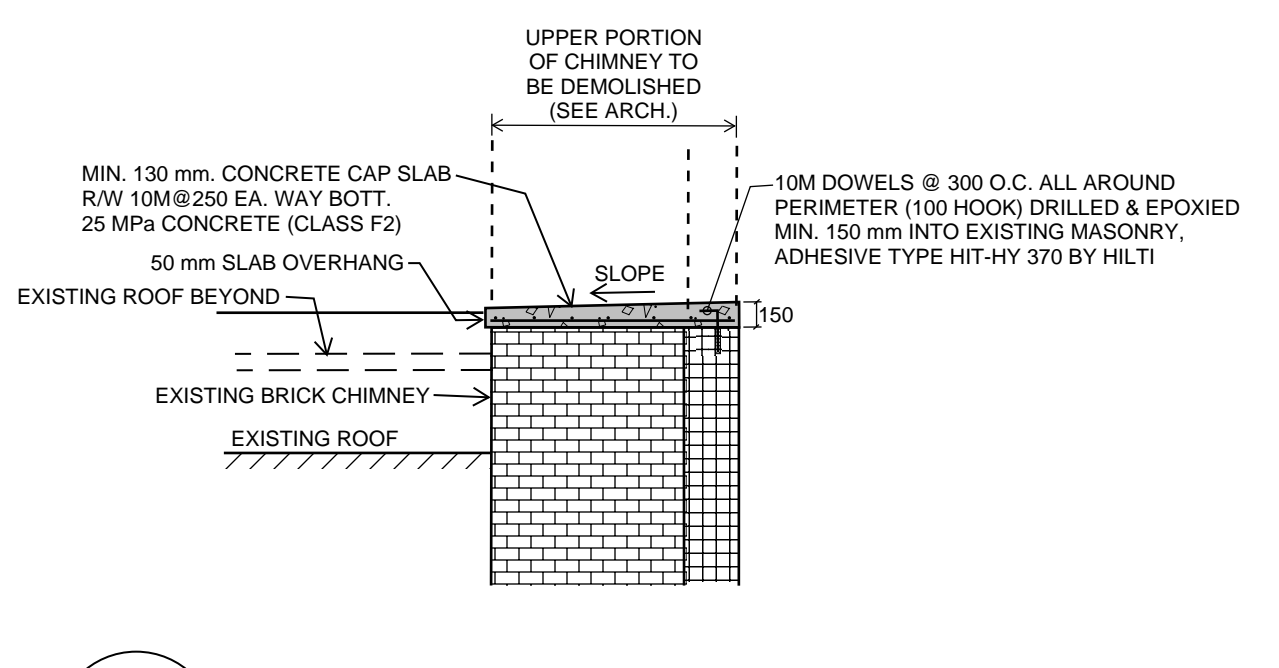


7A TYP. SECTION THROUGH HALLWAY WALL OPENINGS
S1.0 SCALE: 1:15

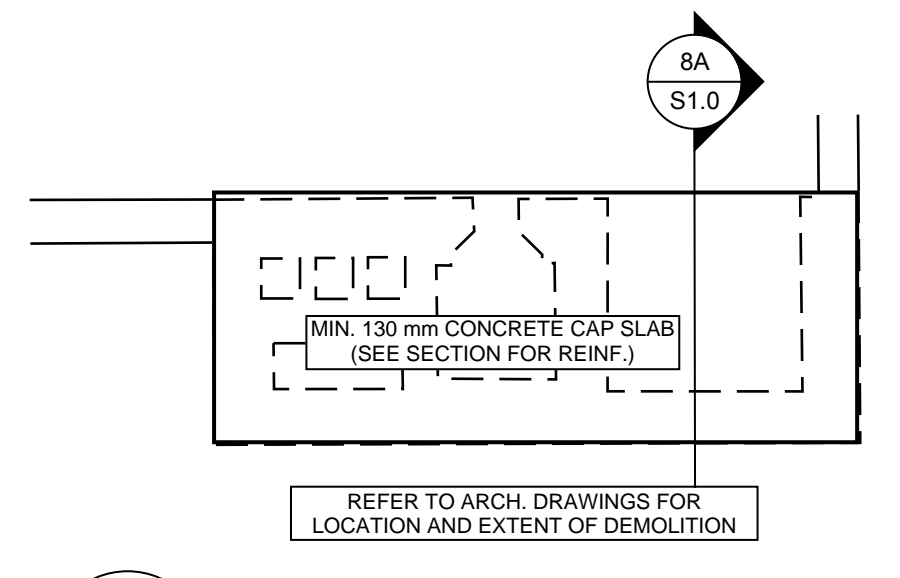
9A FRAMING PLAN FOR DUCT OPENINGS - TWO OR THREE EXIST. JOISTS CUT
S1.0 SCALE: 1:25



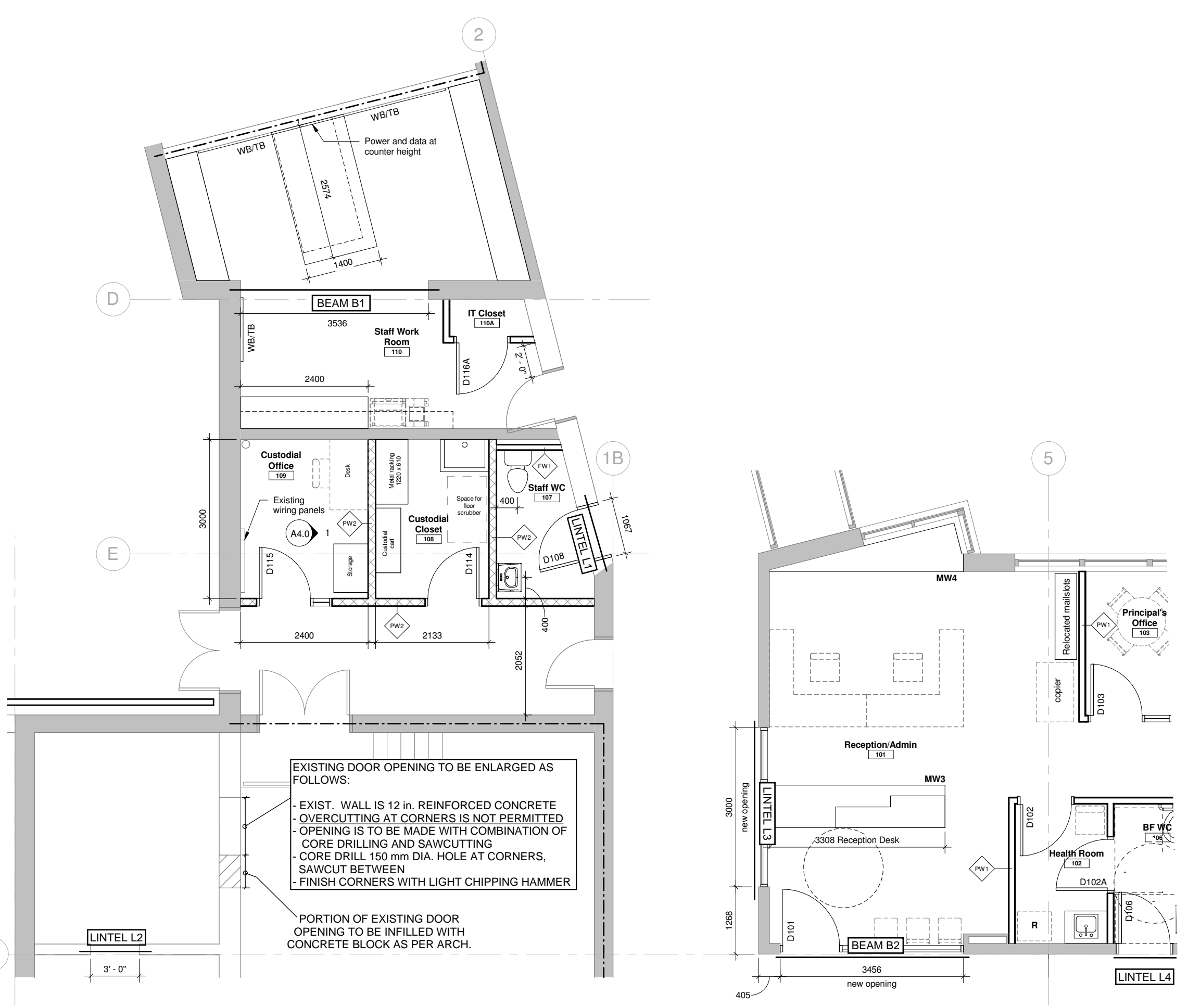
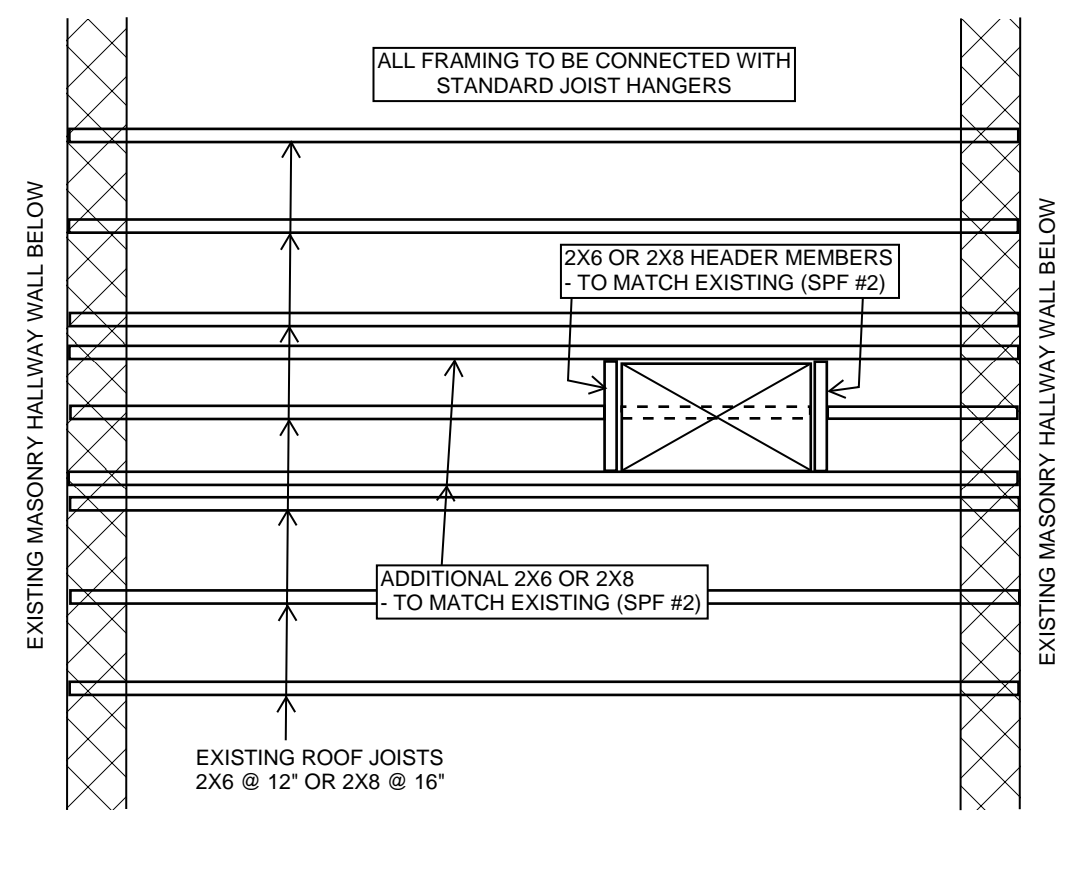
8A SECTION THROUGH EXISTING CHIMNEY DEMOLITION
S1.0 SCALE: 1:50



8 PLAN AT EXISTING CHIMNEY DEMOLITION
S1.0 SCALE: 1:50



9 FRAMING PLAN FOR DUCT OPENINGS - ONE EXIST. JOIST CUT
S1.0 SCALE: 1:25



KEY PLAN FOR MAIN FLOOR LINTELS AND BEAMS
NOT TO SCALE

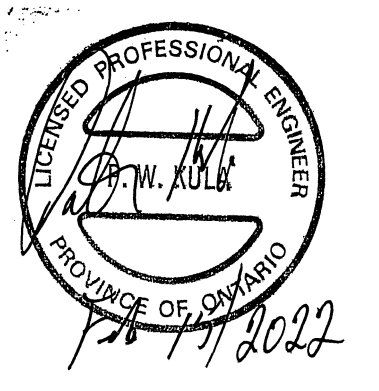
REVISION LOG

NO.	DATE	DESCRIPTION / NOTES
01	17.12.2021	Issued for Client Review
02	20.01.2022	Issued for Review
03	04.02.2022	Issued for Permit
04	15.02.2022	Issued for Tender

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PROJECT
WRDSB SMITHSON PUBLIC SCHOOL RENOVATIONS

PROJECT ADDRESS
**150 Bellevue Ave.
Kitchener Ontario**

DRAWING TITLE
STRUCTURAL DETAILS

PROJECT NO.	WORKS-21-031	DESIGNED BY	PWK
DATE	DECEMBER, 2021	DRAWN BY	PWK
SCALE	AS NOTED	CHECKED BY	PWK

DRAWING NO.
S1.0 [REV. 01]

GENERAL REQUIREMENTS FOR MASONRY

- MASONRY WORK SHALL CONFORM TO CAN/CSA-A371 MASONRY CONSTRUCTION FOR BUILDINGS AND THE FOLLOWING REFERENCED DOCUMENTATION:
 - CONCRETE MASONRY BLOCK CAN/CSA-A165.1 TYPE H15/A U.N.O.
 - MORTAR CAN/CSA-A179 TYPE S
 - GROUT CAN/CSA-A179 MIN. 20 MPa U.N.O.
 - MASONRY WIRE REINFORCING CSA G30.5
 - REINFORCING BARS CAN/CSA-G30.18 400MPa
 - CONNECTIONS CAN/CSA-A370
 - MASONRY DESIGN CSA S304.1 DESIGN OF MASONRY STRUCTURES
- TESTING OF MASONRY UNITS, MORTAR, AND GROUT SHALL BE PERFORMED IN ACCORDANCE WITH CAN/CSA S304.1 AND CAN/CSA-A371.
- UNLESS NOTED OTHERWISE, ALL LOAD-BEARING MASONRY TO BE RUNNING BOND CONSTRUCTION, KEYS IN AT CORNERS AND INTERSECTIONS.
- UNLESS NOTED OTHERWISE, PROVIDE 15M @ 1200 c/c FULL-HEIGHT AT ALL LOAD-BEARING MASONRY WALLS, MIN. 1200 mm STARTER DOWELS TO MATCH.
- ALL VERTICAL REINFORCING TO BE PLACED IN THE CENTRE OF THE WALL.
- PROVIDE CONTINUOUS HEAVY-DUTY LADDER TYPE OR TRUSS TYPE HORIZONTAL MASONRY REINFORCING AT 400 mm U.N.O., FULL OVERLAP AT CORNERS & INTERSECTIONS.
- AT LOCATIONS OF CONCENTRATED LOADS, SOLID-FILL AT LEAST 2 COURSES BELOW AND 1 CORE TO EACH SIDE OF BEARING WITH 20MPa GROUT.
- PROVIDE SOLID-GROUTED MASONRY BOND BEAM REINFORCED WITH 1-15M CONTINUOUS IN TOP COURSE OF WALLS BELOW BEAM OR JOIST BEARING
- PROVIDE MIN. LAPS FOR REINFORCING AS FOLLOWS:

9.1. WIRE REINFORCING	200 mm
9.2. 10M BARS	600 mm
9.3. 15M BARS	750 mm
- PROVIDE CLEANOUTS FOR ALL CELLS TO BE REINFORCED
- FILL ALL CELLS CONTAINING VERTICAL REINFORCING WITH 20MPa GROUT; VIBRATE OR PUDDLE FILL CELLS COMPLETELY. PROVIDE LINTELS OVER ALL WALL OPENINGS WITH MIN. 150 mm BEARING; SEE STRUCTURAL DRAWINGS FOR LINTEL SIZES AND ADDITIONAL REQUIREMENTS, GROUTING MIX TO HAVE SUFFICIENT WATER TO PRODUCE POURING CONSISTENCY WITHOUT SEGREGATION OF INGREDIENTS, AND TO RETAIN COHESIVENESS.
- FILL CELLS IN LIFTS OF NO MORE THAN 1200 mm OR BETWEEN BOND BEAMS, WHICHEVER IS LESS.
- NO MASONRY WORK SHALL BE PERMITTED AT TEMPERATURES BELOW 5 DEGREES CELSIUS UNLESS ADEQUATE PROVISIONS ARE MADE FOR HEATING AND PROTECTING THE MATERIALS IN ACCORDANCE WITH RECOMMENDED PRACTICES PUBLISHED BY THE INTERNATIONAL MASONRY ALL WEATHER COUNCIL.

GENERAL REQUIREMENTS FOR WOOD FRAMING

- ALL FRAMING DETAILS, MATERIALS, AND CONSTRUCTION TECHNIQUES TO BE IN ACCORDANCE WITH CAN/CSA-086 (ENGINEERING DESIGN IN WOOD) AND PART 9 OF THE ONTARIO BUILDING CODE 2012, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- REQUIREMENTS FOR FRAMING MATERIALS
 - WALL STUDS AND BUILT-UP POSTS - SPF STUD GRADE OR BETTER
 - CONVENTIONAL ROOF JOISTS AND BUILT-UP BEAMS - SPF #2 GRADE OR BETTER

GENERAL REQUIREMENTS FOR STRUCTURAL STEEL

- MATERIAL SPECIFICATIONS AND GRADES - ONLY NEW MATERIAL TO BE USED:
 - WIDE FLANGE SECTIONS CSA G40.21, GRADE 350W
 - CHANNEL AND ANGLE SECTIONS, PLATES CSA G40.21, GRADE 300W
 - HSS SECTIONS TO ASTM A500
 - PIPE SECTIONS TO ASTM A53/53M GRADE B
- STRUCTURAL STEEL CONNECTIONS
 - ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE.
 - STANDARD FRAME CONNECTIONS WHICH DO NOT HAVE DESIGN FORCES INDICATED ON THE STRUCTURAL DRAWINGS TO BE DESIGNED FOR THE FULL FLEXURAL CAPACITY OF THE MEMBER (AS PROVIDED IN "BEAM LOAD TABLES" OF THE CURRENT CISC HANDBOOK OF STEEL CONSTRUCTION) IN ACCORDANCE WITH THE REQUIREMENTS OF CAN/CSA-S19
- DESIGN DRAWINGS INCLUDE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS; PREPARATION OF ERECTION AND SHOP DRAWINGS TO BE DONE IN CONSIDERATION OF THE DESIGN DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS INCLUDING ROOF SLOPES, FLOOR AND ROOF ELEVATIONS, WHERE DIMENSIONS ARE ALSO INDICATED ON STRUCTURAL DRAWINGS, CONFIRM WITH ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCIES.
- SUBMIT ERECTION AND SHOP DRAWINGS FOR REVIEW BY THE CONSULTANTS PRIOR TO COMMENCEMENT OF FABRICATION
- FABRICATION, DESIGN, DETAILING AND ERECTION OF STRUCTURAL STEEL TO BE IN ACCORDANCE WITH CAN/CSA-S16 AND THE CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL; ALL WELDING TO BE IN ACCORDANCE WITH CSA W59
- STEEL FABRICATOR TO BE CERTIFIED TO DIVISION 2 (MINIMUM) OF CSA W47.1.
- SHOP WELDS, FIELD WELDS, BOLTED CONNECTIONS AND ERECTION TOLERANCES TO BE INSPECTED BY INDEPENDENT WELDING INSPECTION AGENCY CERTIFIED TO CSA W178.2.
- SURFACE PREPARATION, PRIME PAINTING AND GALVANIZING:
 - STEEL RECEIVING FINISH PAINT INCLUDES ARCHITECTURALLY EXPOSED STEEL WITH EXTERIOR EXPOSURE AND STEEL IN HUMID ENVIRONMENTS. SURFACE PREPARATION TO BE TO SSPC SP6 'COMMERCIAL BLAST CLEANING' - PRIMER PAINT TO BE FULLY COMPATIBLE WITH FINISH PAINT (COORDINATE WITH ARCHITECTURAL SPECIFICATIONS).
 - STEEL ONLY RECEIVING PRIMER FOR STEEL WITH INTERIOR EXPOSURE AND NOT RECEIVING FINISH PAINT. STEEL TO BE CLEANED TO REMOVE ALL LOOSE RUST, LOOSE SCALE, DIRT, WELD FLUS, ETC. ALL GREASE AND OIL TO BE REMOVED IN ACCORDANCE WITH SSPC SP1-63 'SOLVENT CLEANING'. PRIMER PAINT TO MEET THE REQUIREMENTS OF CISC/CPMA STANDARD 1-73a 'A QUICK-DRYING ONE-COAT PAINT FOR USE ON STRUCTURAL STEEL.'
 - GALVANIZED STEEL FINISH FOR STEEL WITH EXTERIOR EXPOSURE AND RECEIVING FINISH PAINT. SURFACE PREPARATION TO BE TO SSPC SP8 'PICKLING'; HOT DIP GALVANIZING TO BE IN ACCORDANCE WITH CAN/CSA G164. COORDINATE FINISH PAINT REQUIREMENTS WITH ARCHITECTURAL SPECIFICATIONS.

GENERAL REQUIREMENTS FOR CONCRETE

- SPECIFYING AND DESIGN OF ALL CONCRETE MIXES TO BE IN ACCORDANCE WITH CSA A23.1. CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION.
- CURING OF CONCRETE ELEMENTS TO BE IN ACCORDANCE WITH CSA A23.1.
- THE CONCRETE SUPPLIER TO BE CERTIFIED BY THE READY MIX CONCRETE ASSOCIATION OF ONTARIO.
- PORTLAND CEMENT FOR USE IN CONCRETE MIXES TO BE TYPE GU UNLESS OTHERWISE INDICATED. CONCRETE DENSITY TO HAVE A UNIT WEIGHT OF 23.0 ± 0.5 kN PER CU. METRE UNLESS NOTED OTHERWISE.
- CONCRETE PROPERTIES FOR THE PERFORMANCE-BASED ALTERNATIVE FOR SPECIFYING CONCRETE (REFER TO TABLE 5 OF CSA A23.1) TO BE AS FOLLOWS:

5.1. CONCRETE CAP SLAB FOR CHIMNEY (DETAIL 6/51.0)	28-DAY COMPRESSIVE STRENGTH= 25 MPa EXPOSURE CLASS C1
--	--
- CALCIUM CHLORIDE IS NOT PERMITTED AS AN ADDITIVE IN ANY MIX WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER
- COLD AND HOT DRY WEATHER PLACEMENT, FINISHING, AND CURING OF CONCRETE TO BE IN ACCORDANCE WITH CSA A23.1.

GENERAL CONSTRUCTION REQUIREMENTS

- CONTRACTOR IS RESPONSIBLE FOR JOBSITE SAFETY, DESIGN, AND CONSTRUCTION OF ALL TEMPORARY STRUCTURES, FORMWORK, SCAFFOLDING, AND SHORING AS NECESSARY TO COMPLETE THE WORK. CONSTRUCTION SAFETY TO BE IN ACCORDANCE WITH THE CANADA OCCUPATIONAL SAFETY AND HEALTH REGULATIONS UNDER THE CANADA LABOUR CODE, PART 2, AND THE ONTARIO OCCUPATIONAL SAFETY AND HEALTH ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS R.S.O. 1990.
- NOTWITHSTANDING THE PERIODIC FIELD REVIEW BY KONSOLIDATED STRUCTURAL, IT REMAINS THE RESPONSIBILITY OF THE CONTRACTOR TO CONSTRUCT THE WORK IN CONFORMITY WITH THE CONTRACT DOCUMENTS. KONSOLIDATED STRUCTURAL IS NOT RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR OR ANY OTHER PARTIES PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY PARTY TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR REMAINS RESPONSIBLE FOR QUALITY CONTROL OF THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL SITE CONDITIONS AND SITE DIMENSIONS AND REPORT ALL AND ANY DISCREPANCIES OR UNSATISFACTORY CONDITIONS WHICH MAY ADVERSELY AFFECT THE PROPER COMPLETION OF THE PROJECT BEFORE PROCEEDING WITH THE STRUCTURAL WORK. SUCH CONDITIONS MUST BE REPORTED IMMEDIATELY TO THE ARCHITECT AND THE ENGINEER.
- CONSTRUCTION TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE AND APPLICABLE MATERIAL CODES FOR THE SPECIFIC CONSTRUCTION MATERIALS USED ON THE PROJECT AS FOLLOWS (BUT NOT LIMITED TO THESE):

4.1. CAST-IN-PLACE CONCRETE	CSA A23.1-09, CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION
4.2. STRUCTURAL STEEL	S16-19 DESIGN OF STEEL STRUCTURES
4.3. MASONRY	CAN/CSA A371-14 MASONRY CONSTRUCTION FOR BUILDINGS
4.4. TIMBER	CSA 086-09, ENGINEERING DESIGN IN WOOD ONTARIO BUILDING CODE 2012
- UNLESS NOTED OTHERWISE, ALL CODES AND STANDARDS REFERENCED APPLY TO THE MOST RECENT VERSION IN USE AT THE TIME OF ISSUE FOR BUILDING PERMIT.
- COORDINATE ALL DIMENSIONS ON STRUCTURAL DRAWINGS WITH ALL OTHER CONTRACT DRAWINGS AND REPORT ALL AND ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER, DIMENSIONS, ELEVATIONS, AND LOCATIONS OF STRUCTURAL MEMBERS AND SYSTEMS, AS SHOWN ON THESE DRAWINGS, GOVERN THE CONSTRUCTION OF STRUCTURAL WORK UNLESS OTHERWISE REPORTED TO THE STRUCTURAL ENGINEER AND THE ARCHITECT OR OTHER AFFECTED DISCIPLINE.
- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND LANDSCAPE DRAWINGS FOR FLOOR/ROOF ELEVATIONS, CURBS, UPSTANDS, DRAINAGE SLOPES, RECESSES, OPENINGS THROUGH STRUCTURAL MEMBERS, AND LOCATIONS OF EQUIPMENT AFFECTING STRUCTURAL ELEMENTS.
- REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS FOR WATERPROOFING, DRAINAGE, AND EXTERIOR CLADDING REQUIREMENTS.
- SUBMIT SHOP DRAWINGS FOR CONSULTANT REVIEW AND PRIOR TO FABRICATION/CONSTRUCTION FOR STRUCTURAL ELEMENTS WHICH ARE DESIGNED BY FABRICATORS, ERECTORS, AND STRUCTURAL SUBTRADES FOR WORK INDICATED ON THE STRUCTURAL DRAWINGS. CONSULTANTS' REVIEW OF SHOP DRAWINGS DOES NOT RELIEVE THE SUBMITTING PARTY OF THEIR RESPONSIBILITIES FOR DESIGN, ACCURACY, ERRORS OR OMISSIONS PERTAINING TO CONTENT OF SHOP DRAWINGS.
- PERFORMING THE STRUCTURAL WORK TO CONSTRUCT STRUCTURAL COMPONENTS WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.

CONSTRUCTION REVIEW BY KONSOLIDATED STRUCTURAL

- PERIODIC SITE REVIEWS BY A DESIGNATED REPRESENTATIVE OF KONSOLIDATED STRUCTURAL WILL BE CONDUCTED TO DETERMINE, ON A RATIONAL SAMPLING BASIS, WHETHER THE WORK IS IN GENERAL CONFORMITY WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS.
- THESE PERIODIC VISITS TO THE PROJECT SITE DO NOT MAKE KONSOLIDATED STRUCTURAL GUARANTORS OF THE CONTRACTORS WORK, NOR SHALL THEY BE INTERPRETED AS FORMING THE CONTRACTORS QUALITY CONTROL MANAGEMENT OF THE WORK.
- QUALITY CONTROL, CONSTRUCTION SAFETY, AND CONSTRUCTION PROCEDURES TO ACHIEVE THE COMPLETED STRUCTURE REMAIN THE CONTRACTOR'S RESPONSIBILITY.
- KONSOLIDATED STRUCTURAL WILL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR OR OTHER PARTIES CONSTRUCTING THE STRUCTURAL COMPONENTS OR FOR THE FAILURE OF ANY PARTIES PERFORMING THE STRUCTURAL WORK TO CONSTRUCT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- PROVIDE A MINIMUM OF 24-HOURS NOTICE OF ANY REQUIRED FIELD REVIEW. THE WORK TO BE REVIEWED MUST BE SUBSTANTIALLY COMPLETE.

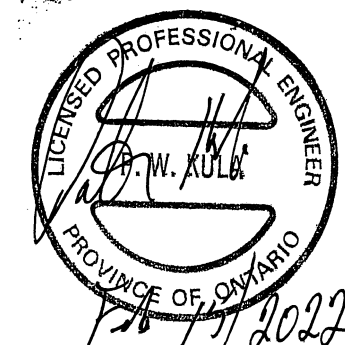
REVISION LOG

NO.	DATE	DESCRIPTION / NOTES
01	17.12.2021	Issued for Client Review
02	20.01.2022	Issued for Review
03	04.02.2022	Issued for Permit
04	15.02.2022	Issued for Tender

All dimensions are provided in millimeters unless noted otherwise. Do not scale drawings. Contractor shall confirm all dimensions with site conditions prior to commencing work and report any discrepancies to the consultants. Construction and any temporary works used are to conform with all applicable codes and standards mandated by authorities having jurisdiction. Konsolidated Structural bears no responsibility for the interpretation of these documents by the contractor. Upon written application, the engineer shall provide written or graphical clarification as supplementary information regarding the intent of the contract documents. COPYRIGHT 2012 Konsolidated Inc. O/A Konsolidated Structural. Copyright of this drawing and the design intent is reserved by the structural engineer. The drawings and all associated documents are an instrument of service by Konsolidated Structural. The drawings and information contained therein may not be reproduced in whole or in part without prior written permission of Konsolidated Structural.



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PROJECT
WRDSB SMITHSON PUBLIC SCHOOL RENOVATIONS

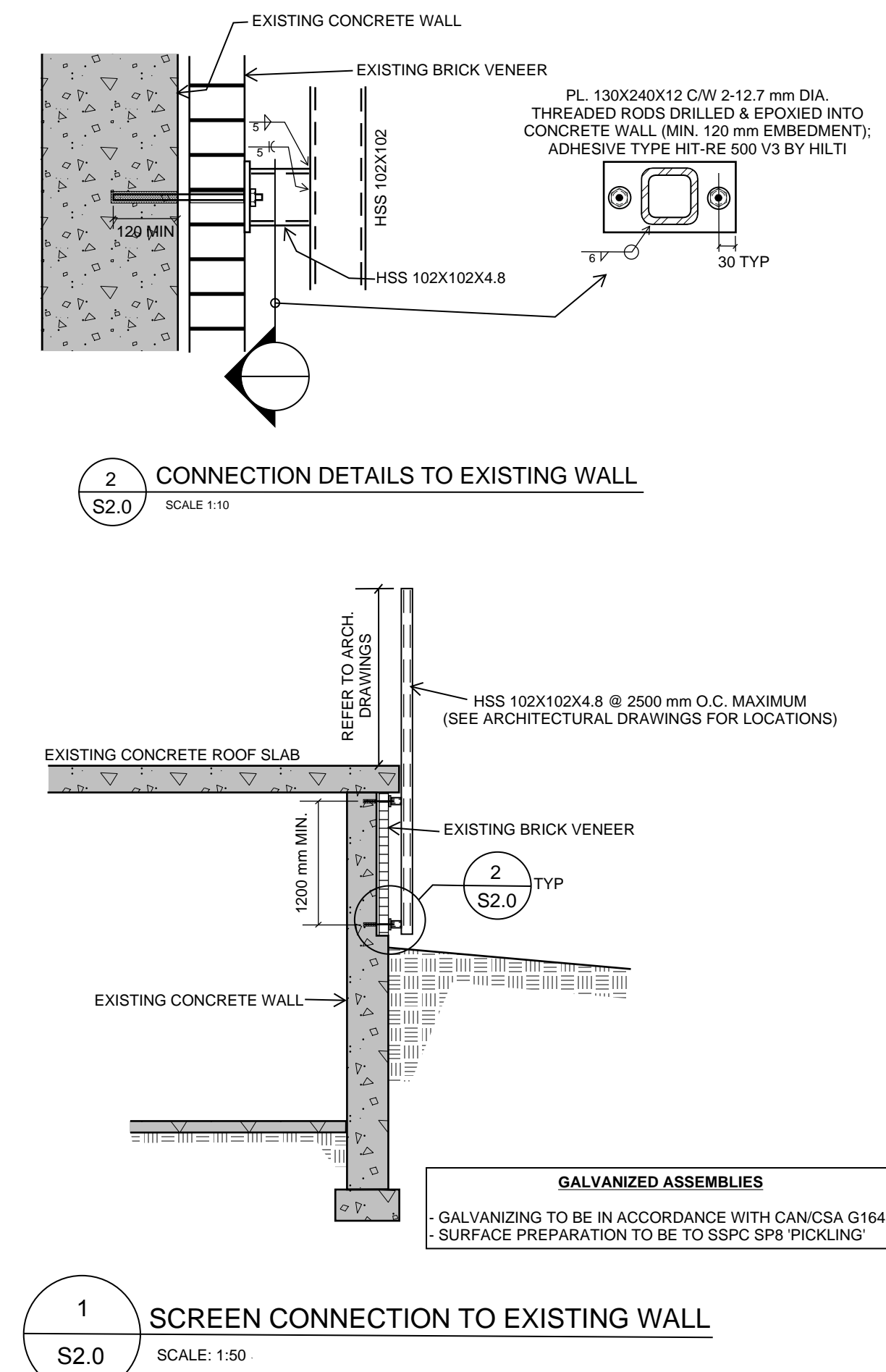
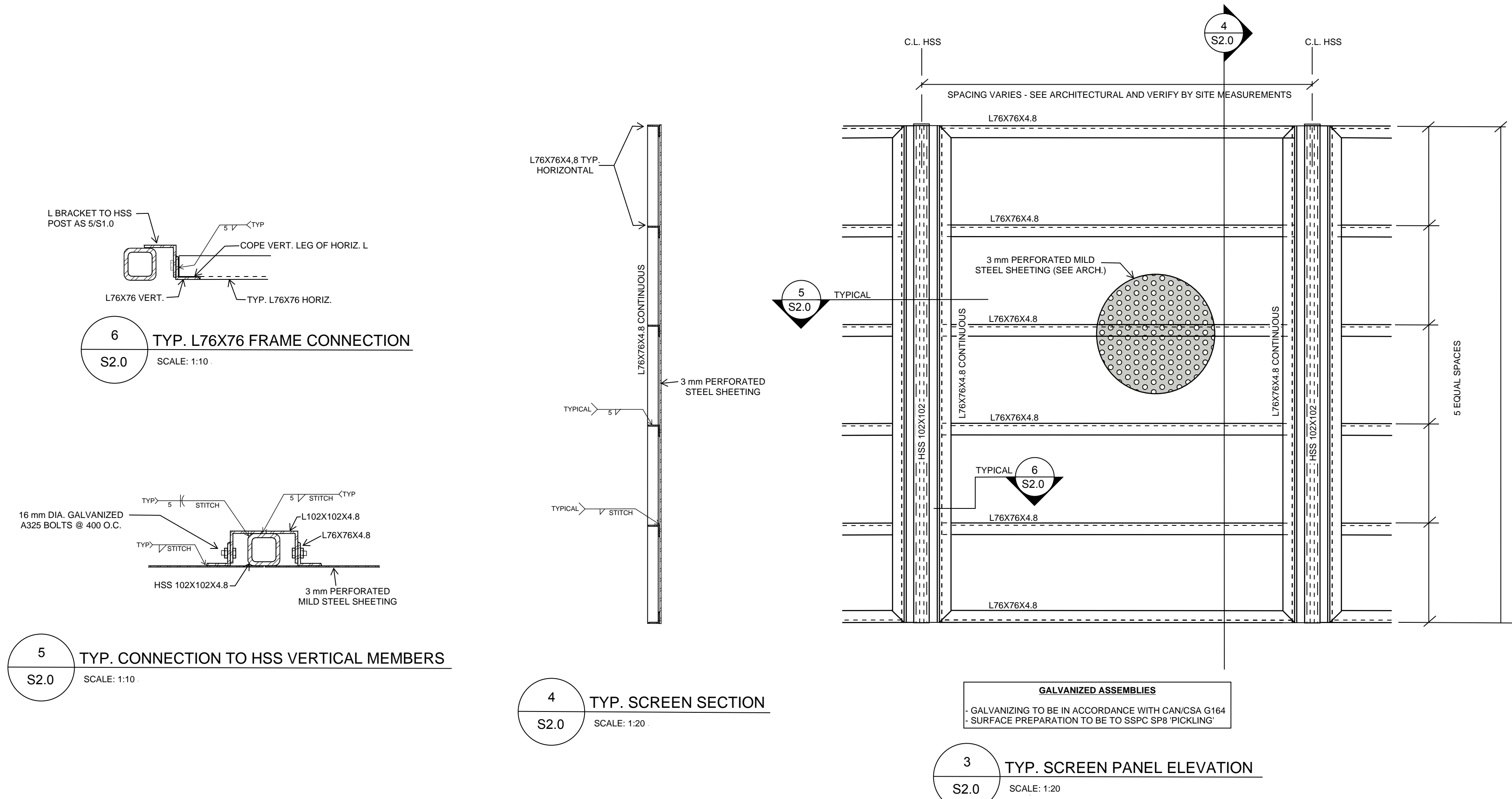
PROJECT ADDRESS
150 Bellevue Ave. Kitchener Ontario

DRAWING TITLE
SCREEN FRAMING & CONSTRUCTION NOTES

PROJECT NO.	WORKS-21-031	DESIGNED BY	PWK
DATE	DECEMBER, 2021	DRAWN BY	PWK
SCALE	AS NOTED	CHECKED BY	PWK

DRAWING NO.

S2.0 [REV. 01]



SMITHSON PUBLIC SCHOOL

150 BELLEVIEW AVE, KITCHENER, ON

WRDSB - WORKSHOP ARCHITECTURE - SMITHSON PS

PROJECT NO.: B20-349.02A

DRAWING LIST

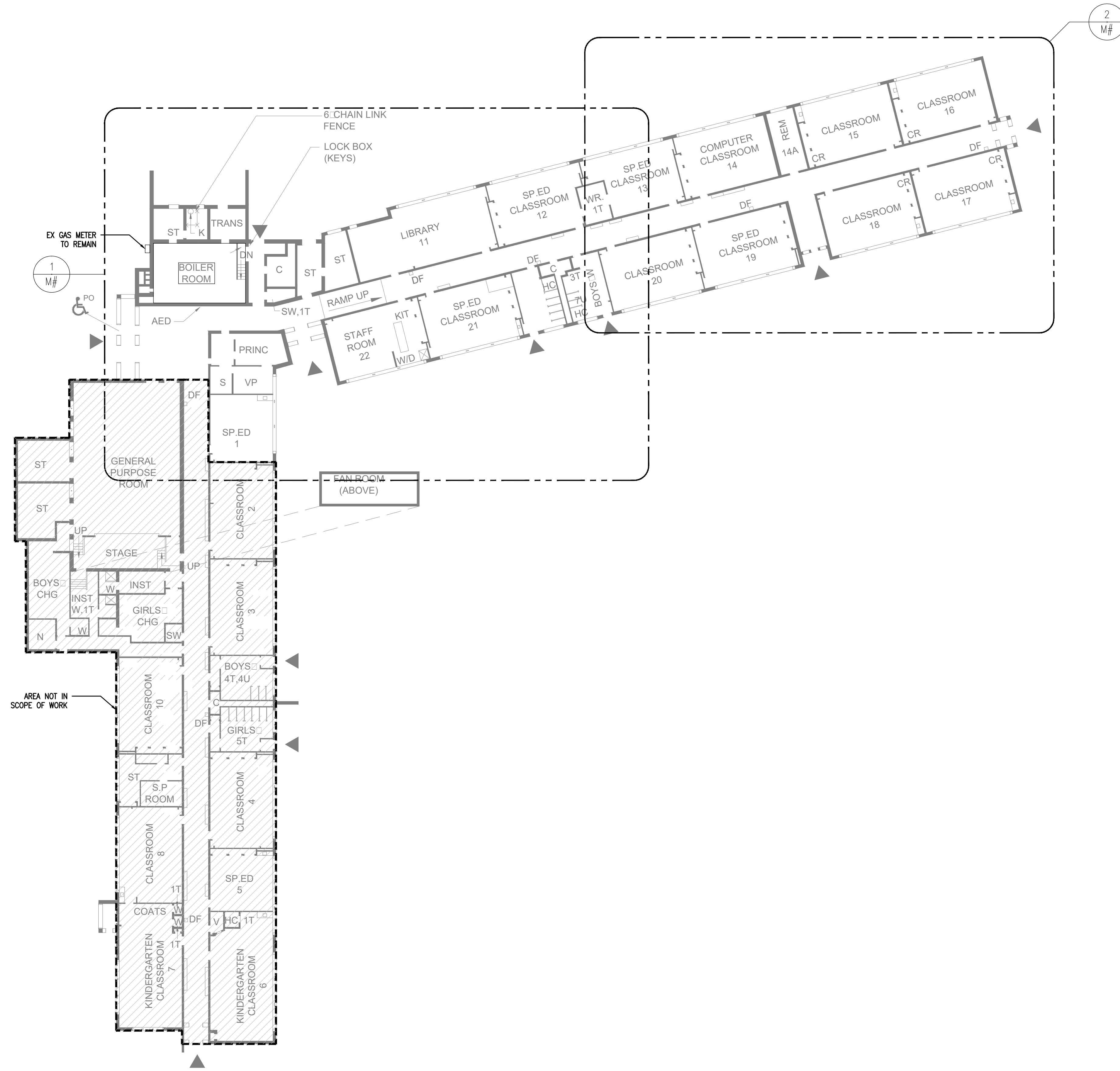
- M0 MECHANICAL SPECIFICATIONS
- M1 SITE PLAN
- M2 DEMO PLAN - WEST WING
- M3 NEW HVAC PLAN - WEST WING
- M4 NEW HYDRONIC PLAN - WEST WING
- M5 PLUMBING PLAN - WEST WING
- M6 ROOF PLAN - WEST WING
- M7 MECHANICAL DETAILS PART 1
- M8 MECHANICAL DETAILS PART 2
- M9 HEATING PIPING SCHEMATIC
- M10 MECHANICAL SCHEDULES



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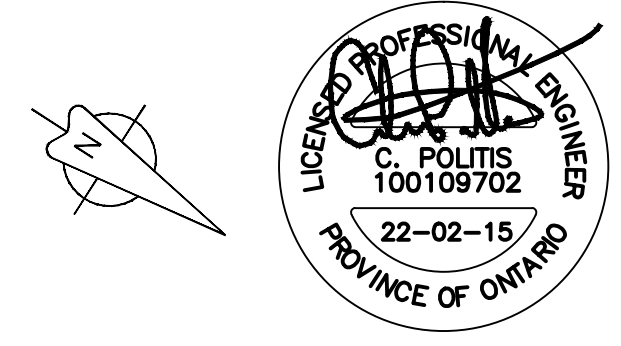
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Fax: 1-866-876-5758

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1 MECHANICAL KEY PLAN
M1 SCALE: 3/16" = 1'-0"

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1.	ISSUED FOR 33% REVIEW	20 DEC 04	MS

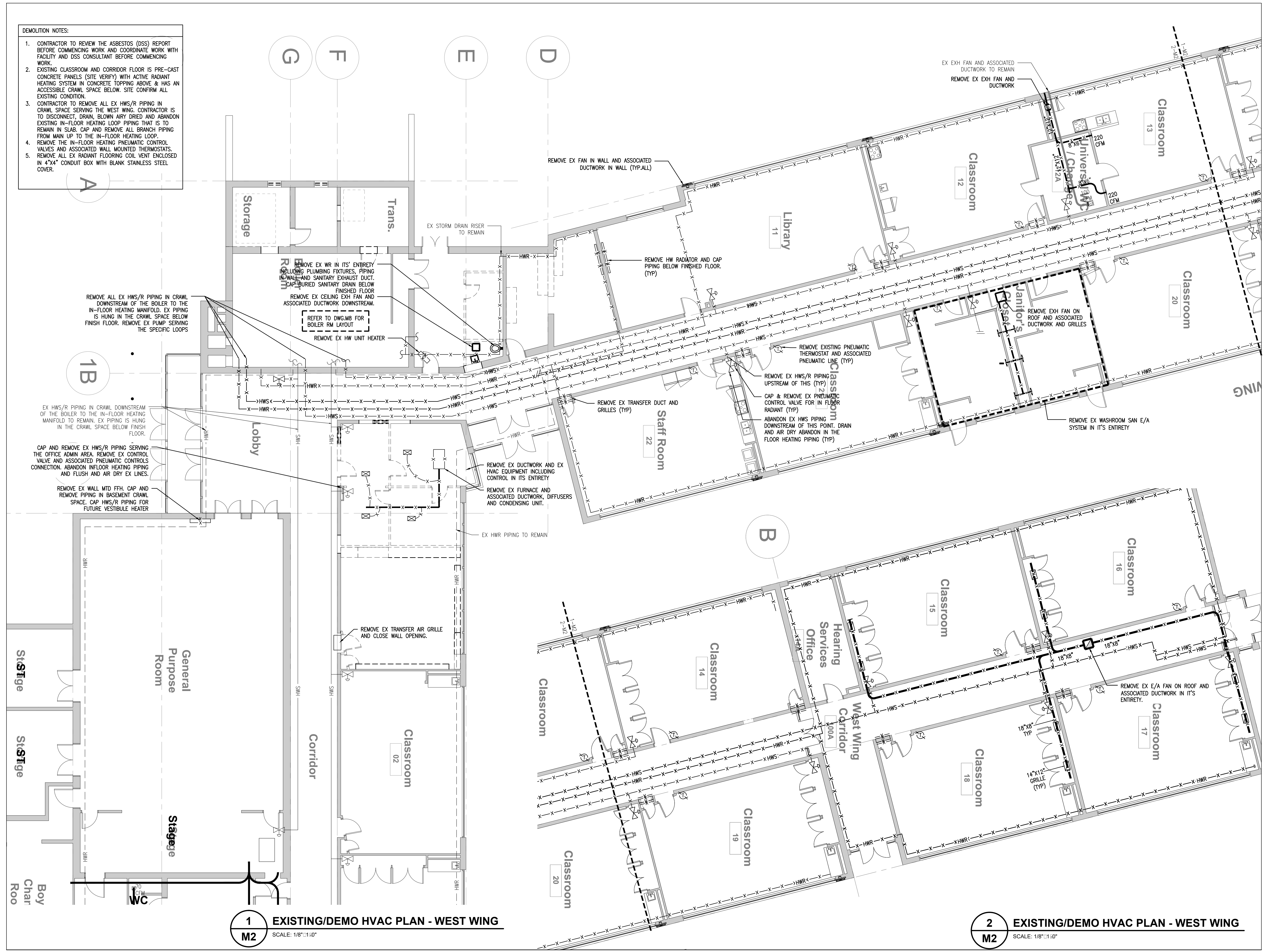
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Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
SITE PLAN

Drawn By MS Scale 1/8" = 1'-0"
 Designed By MS Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision
M1 1

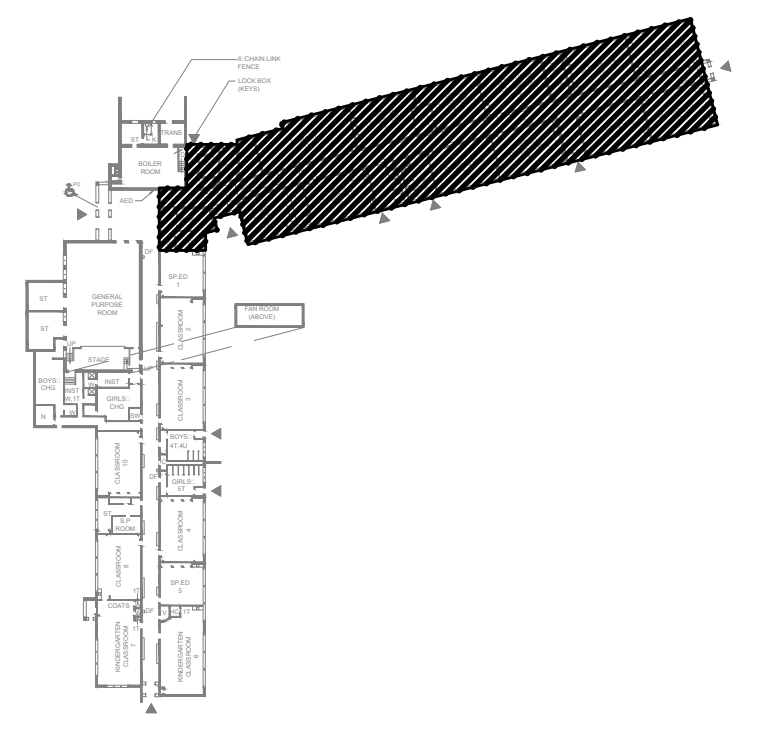
DEMOLITION NOTES:

1. CONTRACTOR TO REVIEW THE ASBESTOS (DSS) REPORT BEFORE COMMENCING WORK AND COORDINATE WORK WITH FACILITY AND DSS CONSULTANT BEFORE COMMENCING WORK.
2. EXISTING CLASSROOM AND CORRIDOR FLOOR IS PRE-CAST CONCRETE PANELS (SITE VERIFY) WITH ACTIVE RADIANT HEATING SYSTEM IN CONCRETE TOPPING ABOVE, & HAS AN ACCESSIBLE CRAWL SPACE BELOW. SITE CONFIRM ALL EXISTING CONDITION.
3. CONTRACTOR TO REMOVE ALL EX HWS/R PIPING IN CRAWL SPACE SERVING THE WEST WING. CONTRACTOR IS TO DISCONNECT, DRAIN, BLOWN AIRY DRIED AND ABANDON EXISTING IN-FLOOR HEATING LOOP PIPING THAT IS TO REMAIN IN SLAB. CAP AND REMOVE ALL BRANCH PIPING FROM MAIN UP TO THE IN-FLOOR HEATING LOOP.
4. REMOVE THE IN-FLOOR HEATING PNEUMATIC CONTROL VALVES AND ASSOCIATED WALL MOUNTED THERMOSTATS. REMOVE ALL EX RADIANT FLOORING COIL VENT ENCLOSED IN 4"x4" CONDUIT BOX WITH BLANK STAINLESS STEEL COVER.



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Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
EXISTING/DEMO HVAC PLANS - WEST WING

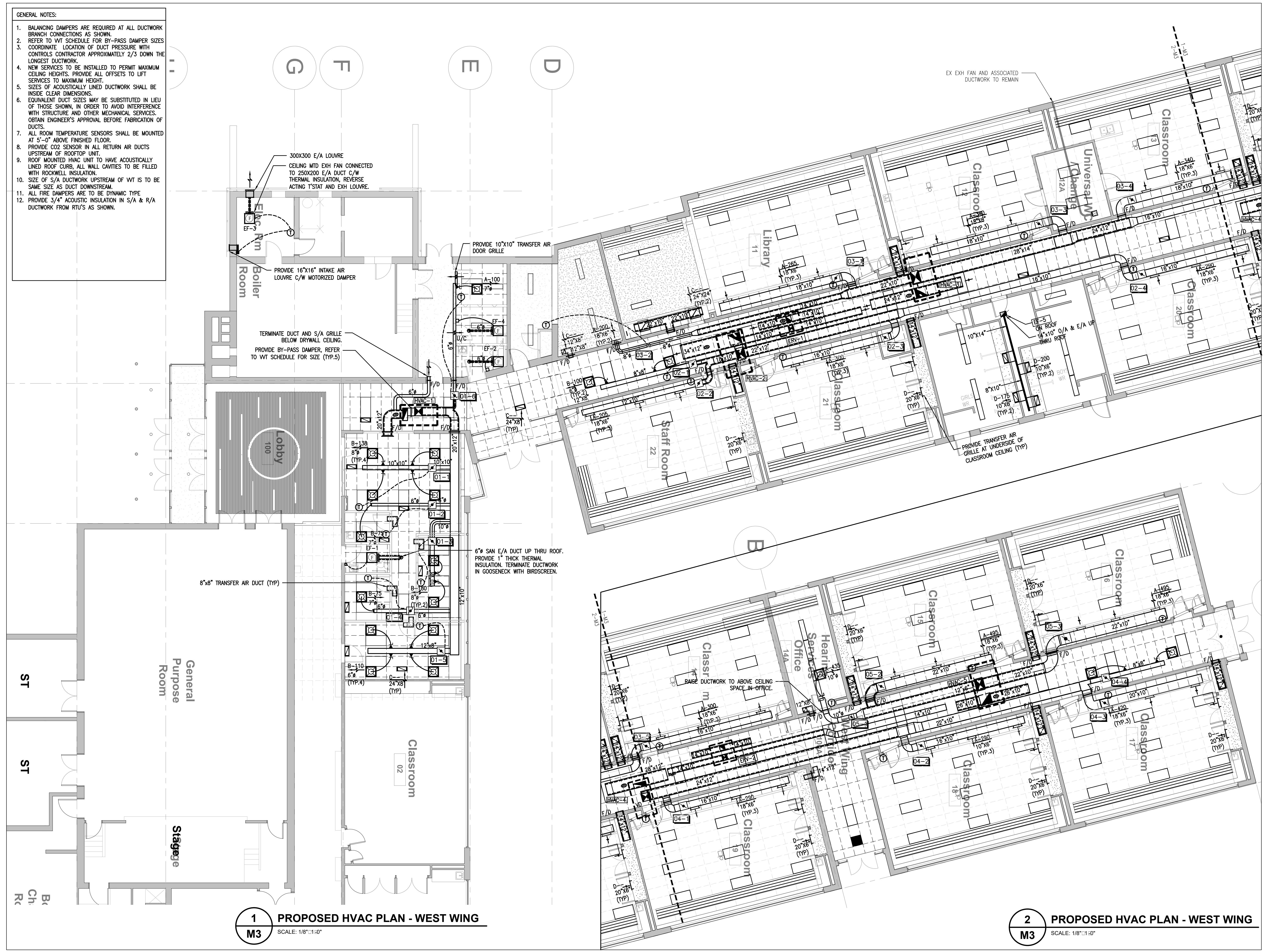
Drawn By MS Scale 1/8"=1'-0"
 Designed By MS Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision
M2 1

1 EXISTING/DEMO HVAC PLAN - WEST WING
 SCALE: 1/8"=1'-0"

2 EXISTING/DEMO HVAC PLAN - WEST WING
 SCALE: 1/8"=1'-0"

GENERAL NOTES:

- BALANCING DAMPERS ARE REQUIRED AT ALL DUCTWORK BRANCH CONNECTIONS AS SHOWN.
- REFER TO VIT SCHEDULE FOR BY-PASS DAMPER SIZES
- COORDINATE LOCATION OF DUCT PRESSURE WITH CONTROLS CONTRACTOR APPROXIMATELY 2/3 DOWN THE LONGEST DUCTWORK.
- NEW SERVICES TO BE INSTALLED TO PERMIT MAXIMUM CEILING HEIGHTS. PROVIDE ALL OFFSETS TO LIFT SERVICES TO MAXIMUM HEIGHT.
- SIZES OF ACOUSTICALLY LINED DUCTWORK SHALL BE INSIDE CLEAR DIMENSIONS.
- EQUIVALENT DUCT SIZES MAY BE SUBSTITUTED IN LIEU OF THOSE SHOWN, IN ORDER TO AVOID INTERFERENCE WITH STRUCTURE AND OTHER MECHANICAL SERVICES. OBTAIN ENGINEER'S APPROVAL BEFORE FABRICATION OF DUCTS.
- ALL ROOM TEMPERATURE SENSORS SHALL BE MOUNTED AT 5'-0" ABOVE FINISHED FLOOR.
- PROVIDE CO2 SENSOR IN ALL RETURN AIR DUCTS UPSTREAM OF ROOFTOP UNIT.
- ROOF MOUNTED HVAC UNIT TO HAVE ACOUSTICALLY LINED ROOF CURB, ALL WALL CAVITIES TO BE FILLED WITH ROCKWELL INSULATION.
- SIZE OF S/A DUCTWORK UPSTREAM OF VWT IS TO BE SAME SIZE AS DUCT DOWNSTREAM.
- ALL FIRE DAMPERS ARE TO BE DYNAMIC TYPE
- PROVIDE 3/4" ACOUSTIC INSULATION IN S/A & R/A DUCTWORK FROM RTU'S AS SHOWN.

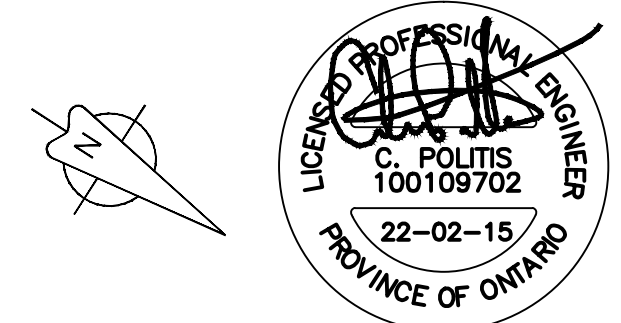
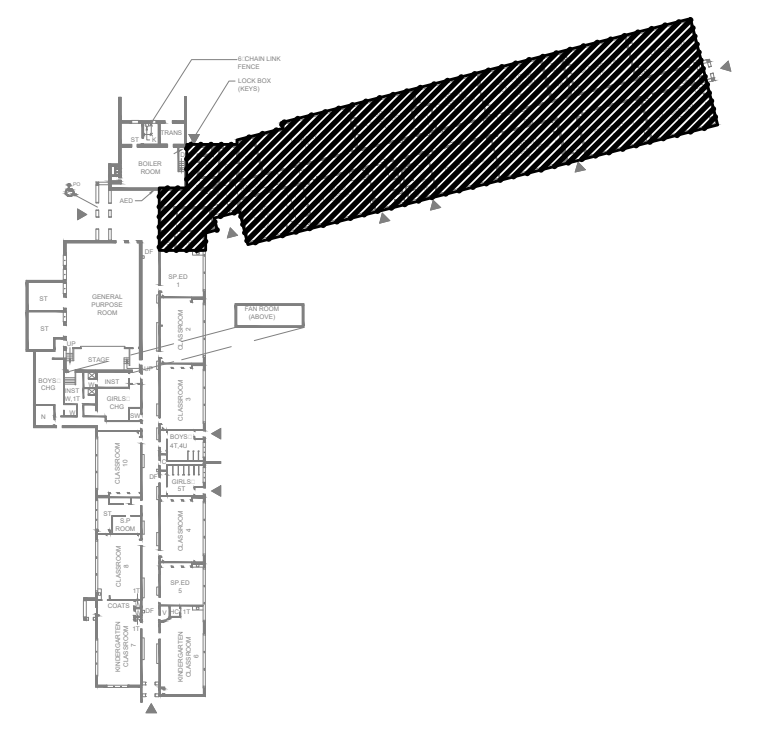


1 PROPOSED HVAC PLAN - WEST WING
SCALE: 1/8"=1'-0"

2 PROPOSED HVAC PLAN - WEST WING
SCALE: 1/8"=1'-0"

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No.	Revision	Date	By

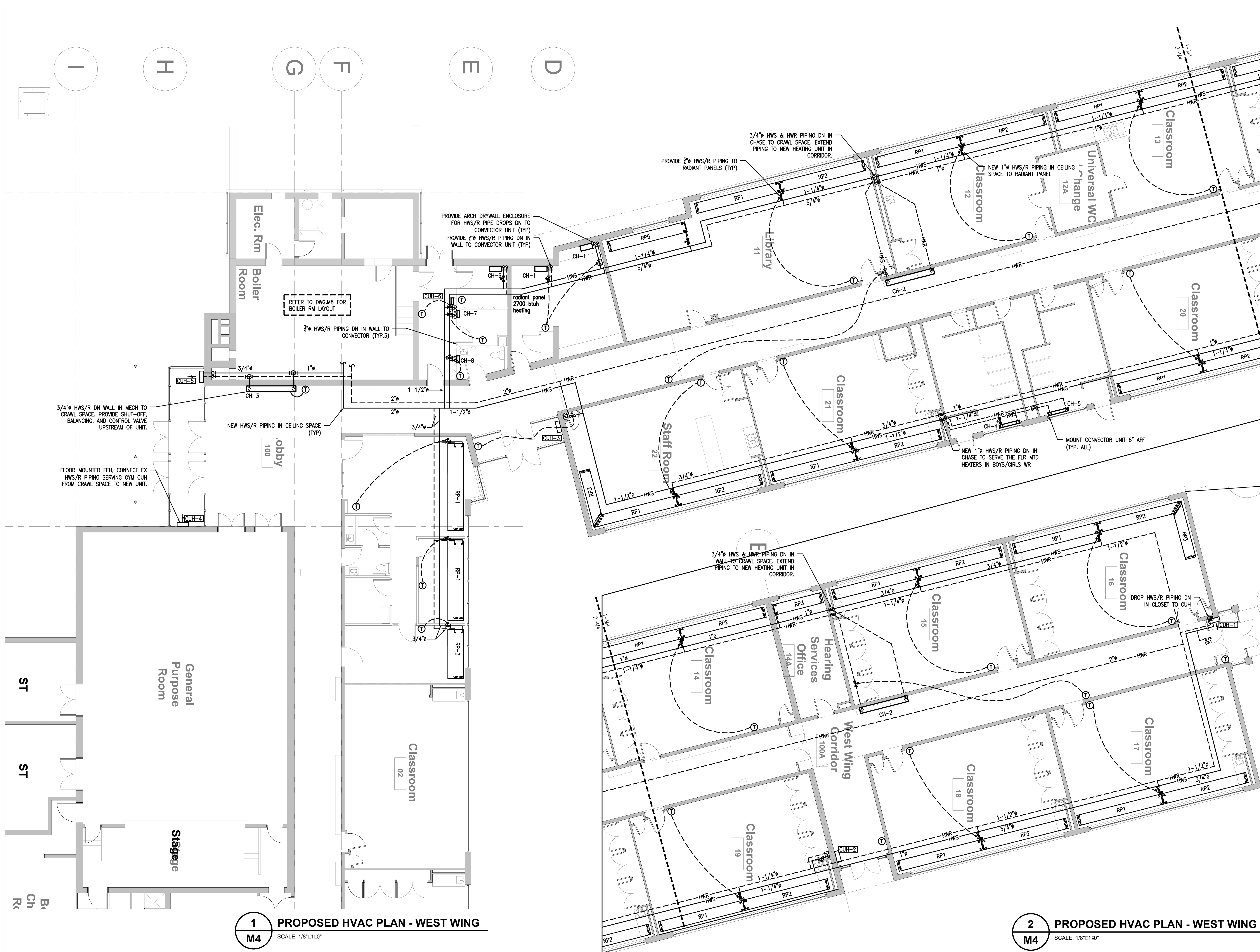
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Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
PROPOSED HVAC PLANS - WEST WING

Drawn By MS Scale 1/8"=1'-0"
 Designed By MS Date November 26, 2020
 Project Number **B20-349.02A**

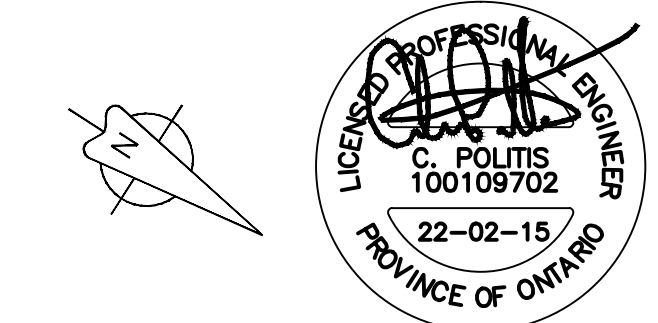
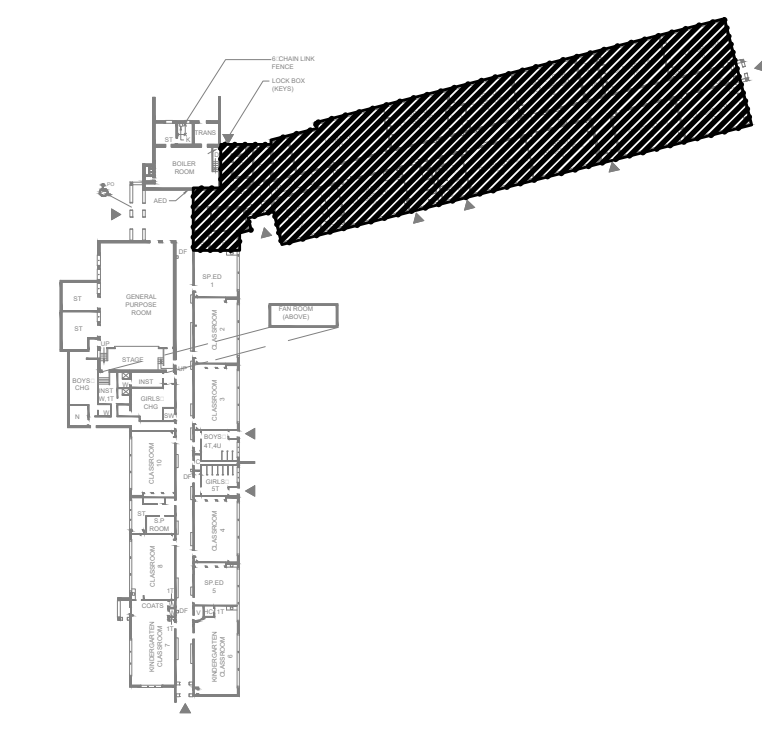
Sheet Number Revision
M3 1



1
M4 PROPOSED HVAC PLAN - WEST WING
SCALE: 1/8"=1'-0"

2
M4 PROPOSED HVAC PLAN - WEST WING
SCALE: 1/8"=1'-0"

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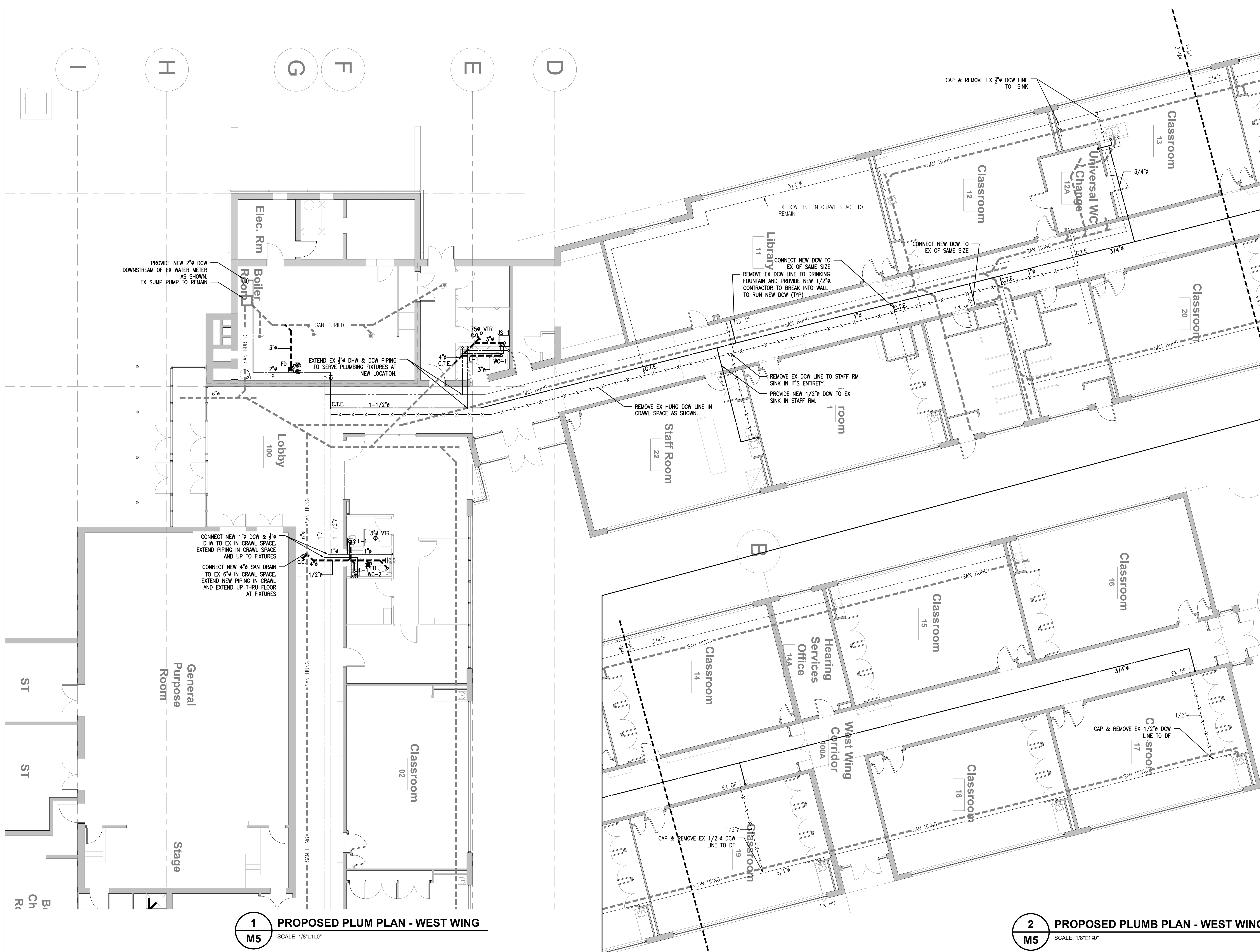
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Project Name
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SMITHSON PUBLIC SCHOOL
150 BELLVIEW AVENUE, KITCHENER

Sheet Title
HYDRONIC HVAC PLANS - WEST WING

Drawn By MS Scale 1/8"=1'-0"
Designed By MS Date November 26, 2020
Project Number **B20-349.02A**

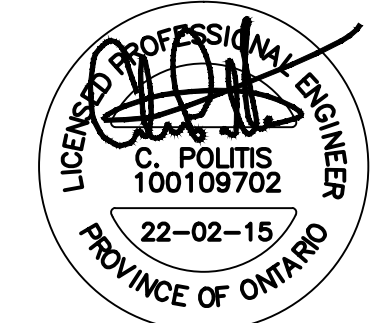
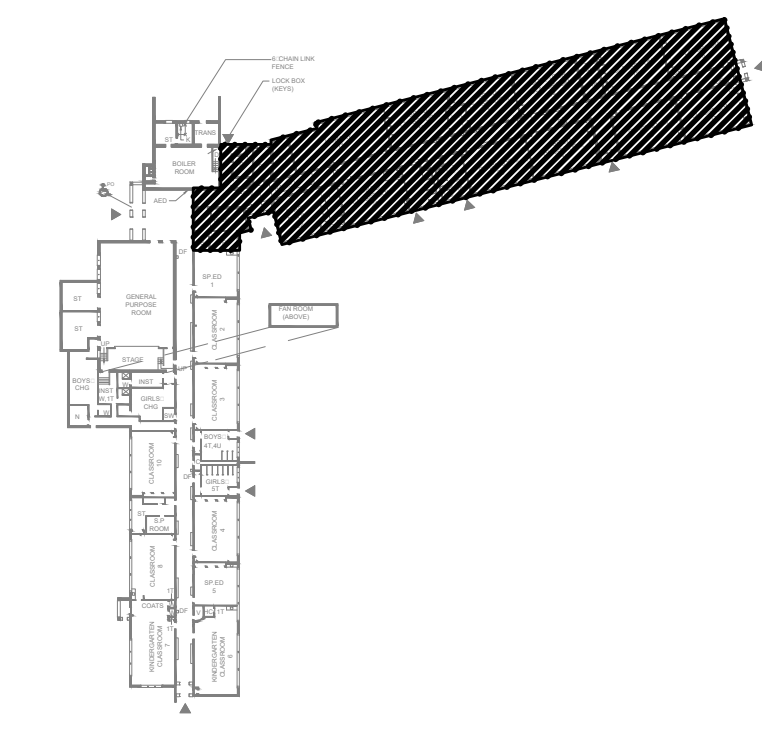
Sheet Number **M4** Revision **1**



1 PROPOSED PLUM PLAN - WEST WING
 M5 SCALE: 1/8"=1'-0"

2 PROPOSED PLUM PLAN - WEST WING
 M5 SCALE: 1/8"=1'-0"

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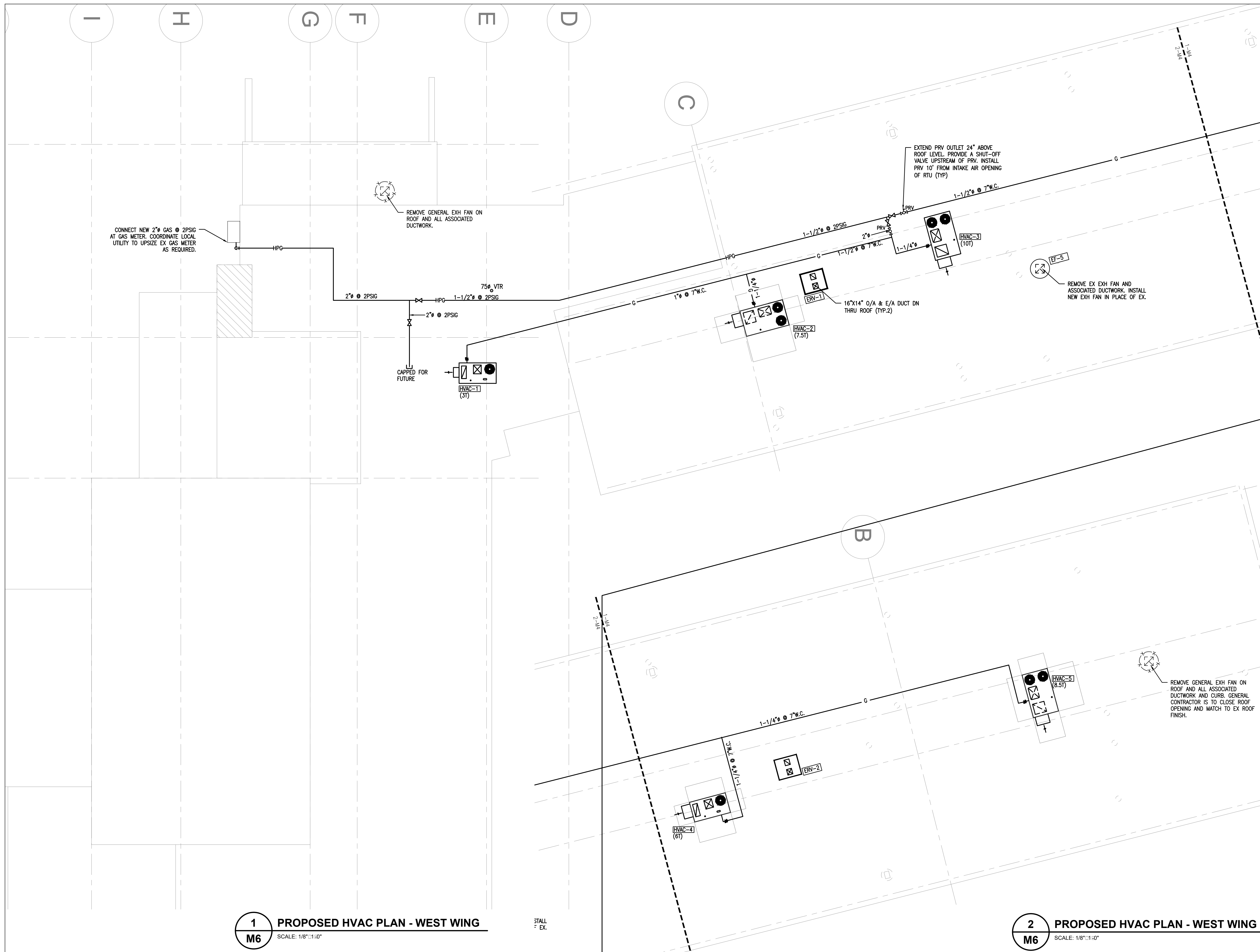
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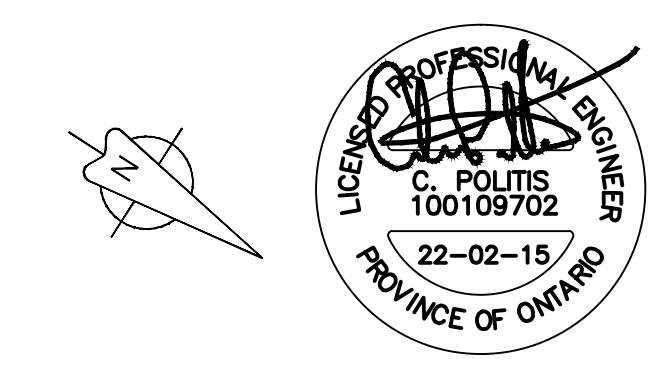
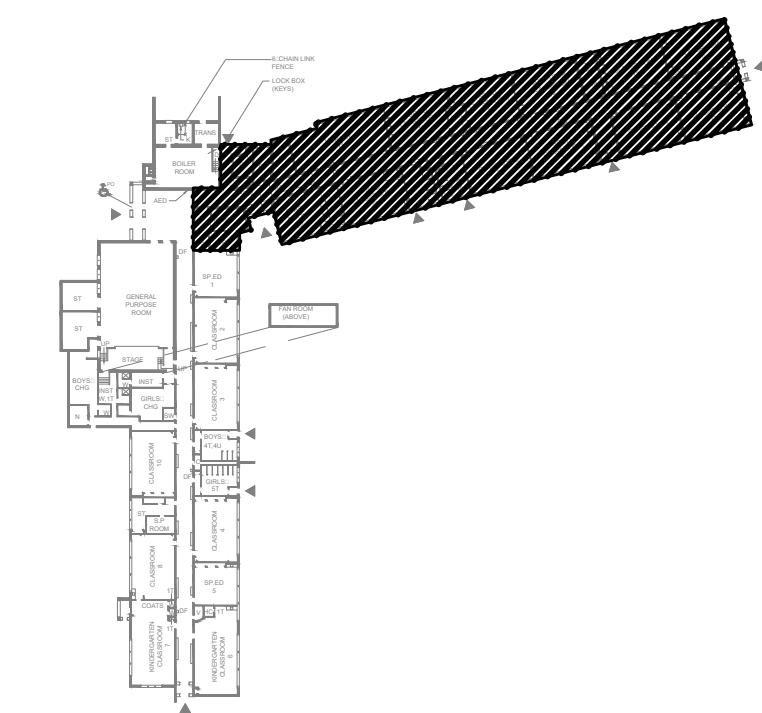
Sheet Title
PLUMBING PLAN - WEST WING

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 Project Number **B20-349.02A**

Sheet Number Revision
M5 1



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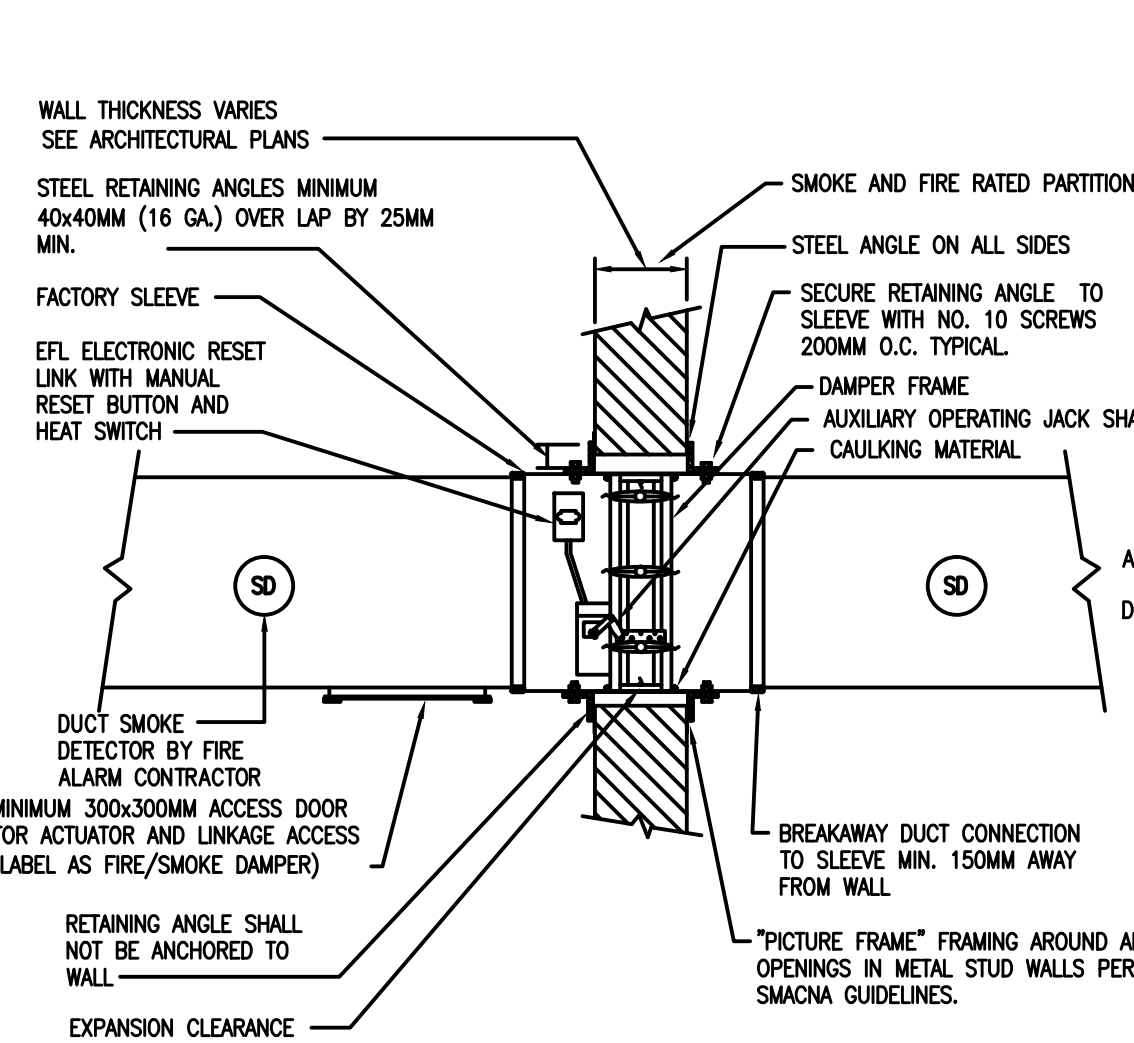
Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
ROOF PLAN

Drawn By MS Scale 1/8"=1'-0"
 Designed By MS Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision
M6 **1**

1 PROPOSED HVAC PLAN - WEST WING
 SCALE: 1/8"=1'-0"
M6

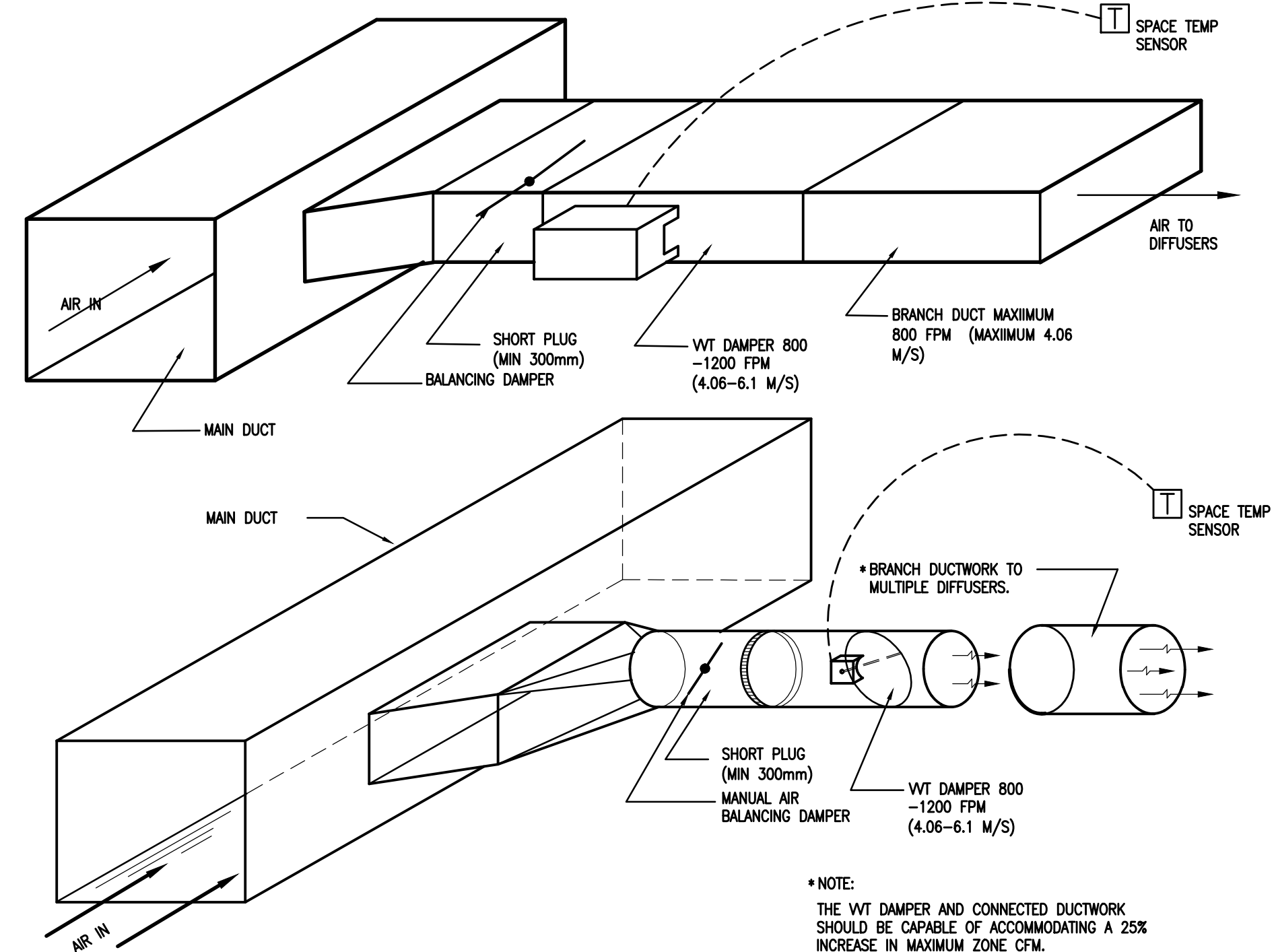
STALL
 = EX.

2 PROPOSED HVAC PLAN - WEST WING
 SCALE: 1/8"=1'-0"
M6

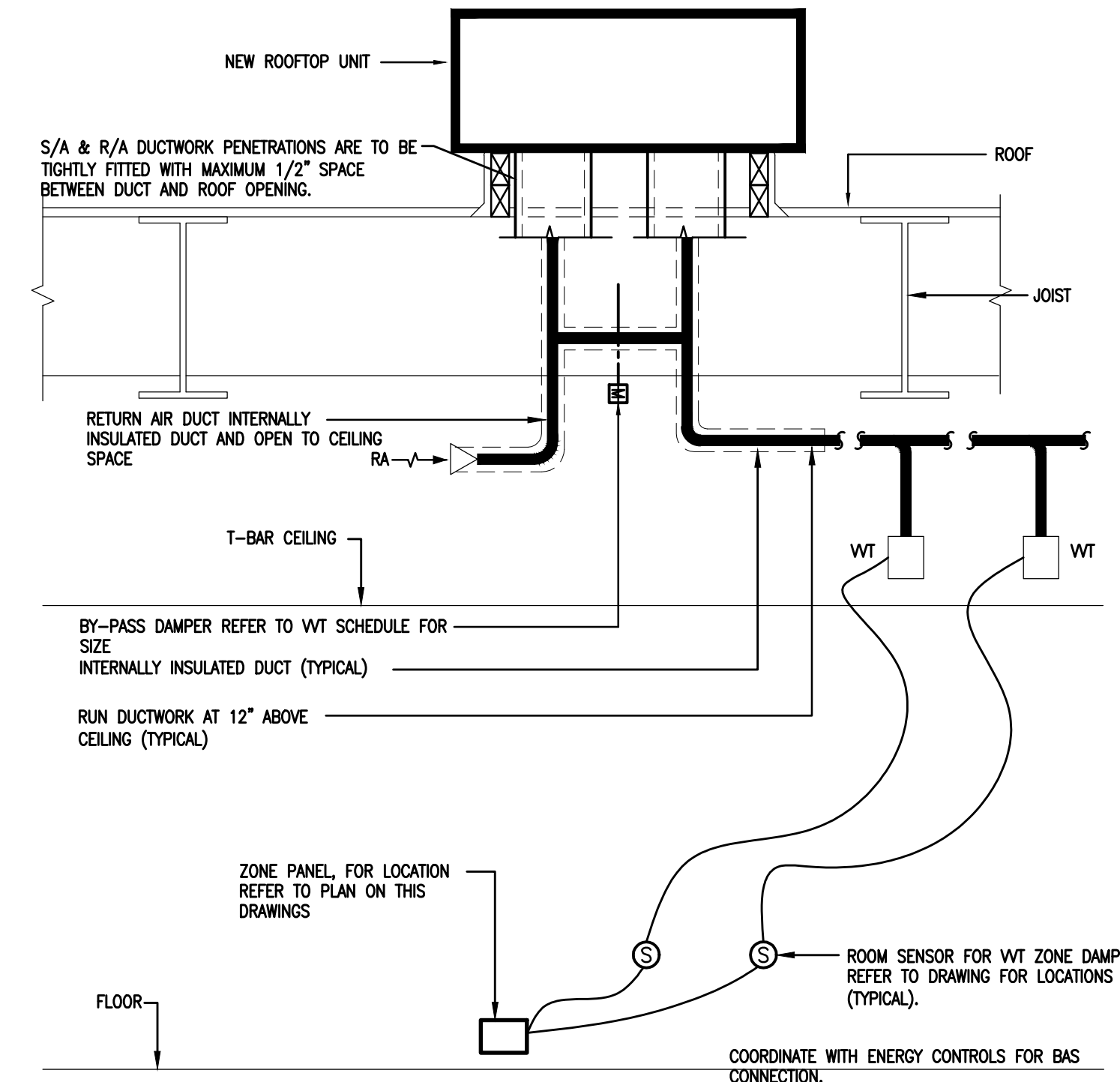


- NOTES:**
- DAMPERS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION REQUIREMENTS.
 - DAMPERS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH THE ULC REQUIREMENTS.
 - ALL FIRE/SMOKE DAMPERS AND THEIR RESPECTIVE DAMPER OPERATOR MECHANISMS SHALL BE ULC LABELED AND TESTED AS AN ASSEMBLY WITH THE DAMPER OPERATOR MECHANISM FASTENED TO THE DAMPER SLEEVE MEETING THE REQUIREMENTS SET IN ULC.
 - VERTICAL DAMPER SHOWN - HORIZONTAL INSTALLATION SIMILAR.
 - SMOKE DAMPER INSTALLATION SIMILAR BUT WITHOUT RESETTABLE LINK DEVICE.
 - DAMPER OPERATOR SHALL BE INTERLOCKED WITH ASSOCIATED FAN, UNLESS NOTED OTHERWISE.
 - WALL OPENINGS TO BE DUCT DIMENSIONS PLUS 10MM PER METER.
 - GENERAL CONTRACTOR TO COORDINATE CEILING ACCESS DOORS AS REQUIRED TO ACCESS AND MAINTAIN DAMPER.
 - DUCT SMOKE DETECTOR SHALL BE FURNISHED FOR EACH FIRE SMOKE DAMPER. SMOKE DETECTOR SHALL BE INSTALLED WITHIN 1.5 METERS OF THE FIRE SMOKE DAMPER.

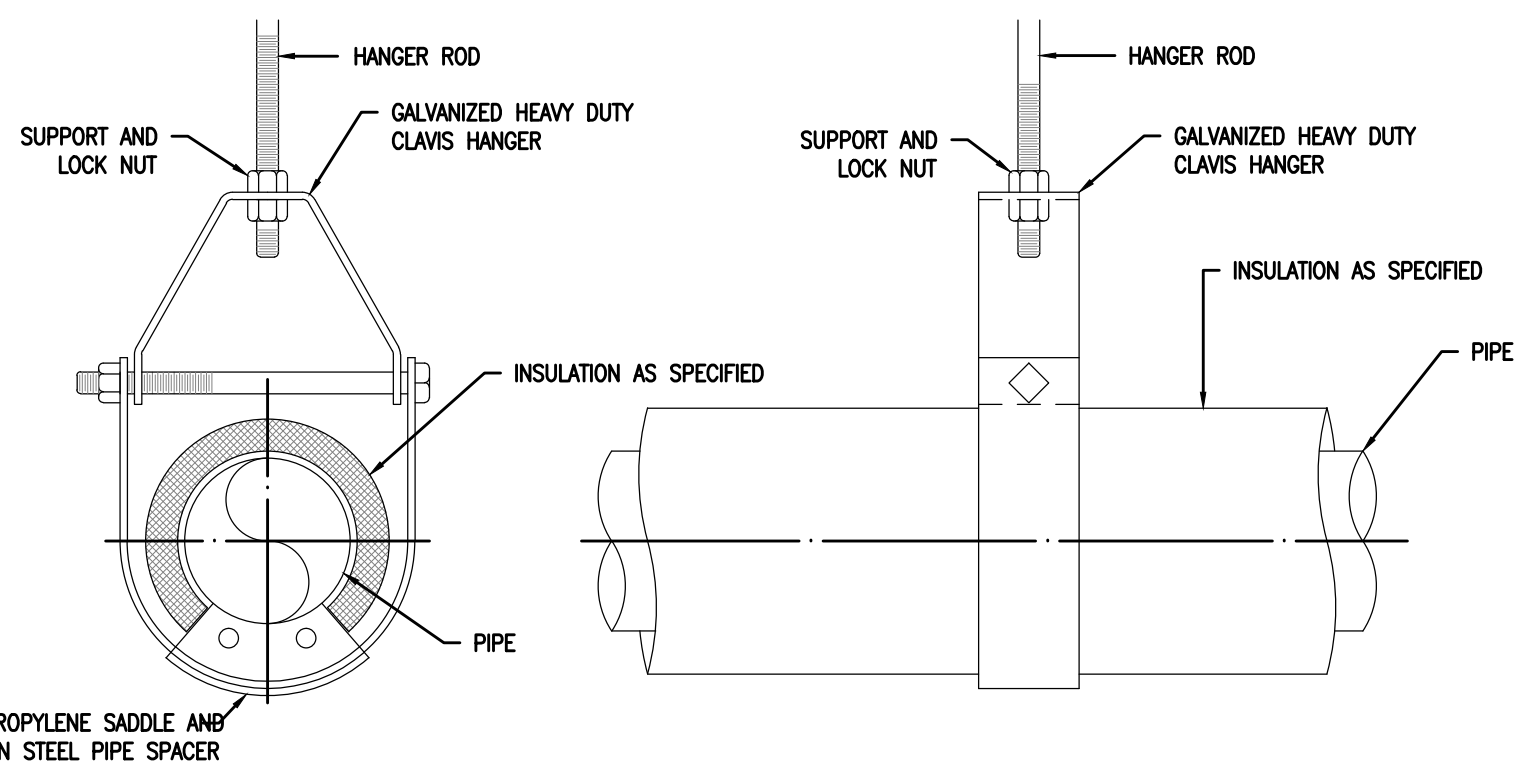
COMBINATION FIRE SMOKE DAMPER
N.T.S.



WT DAMPER DETAIL
N.T.S.



TYPICAL WT ROOF TOP UNIT DIAGRAM
N.T.S.

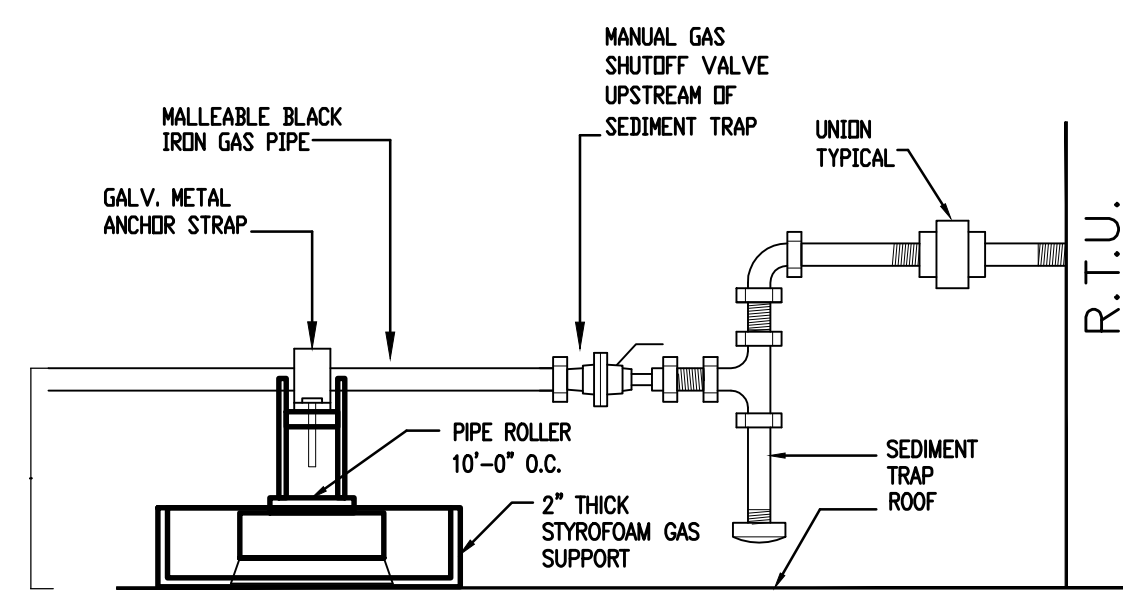


HANGER ROD SIZES				
PIPE SIZE	UP TO 2"	2 1/2" - 3"	4" - 5"	6" - 12"
HANGER ROD DIAMETER	3/8"	1/2"	5/8"	3/4"

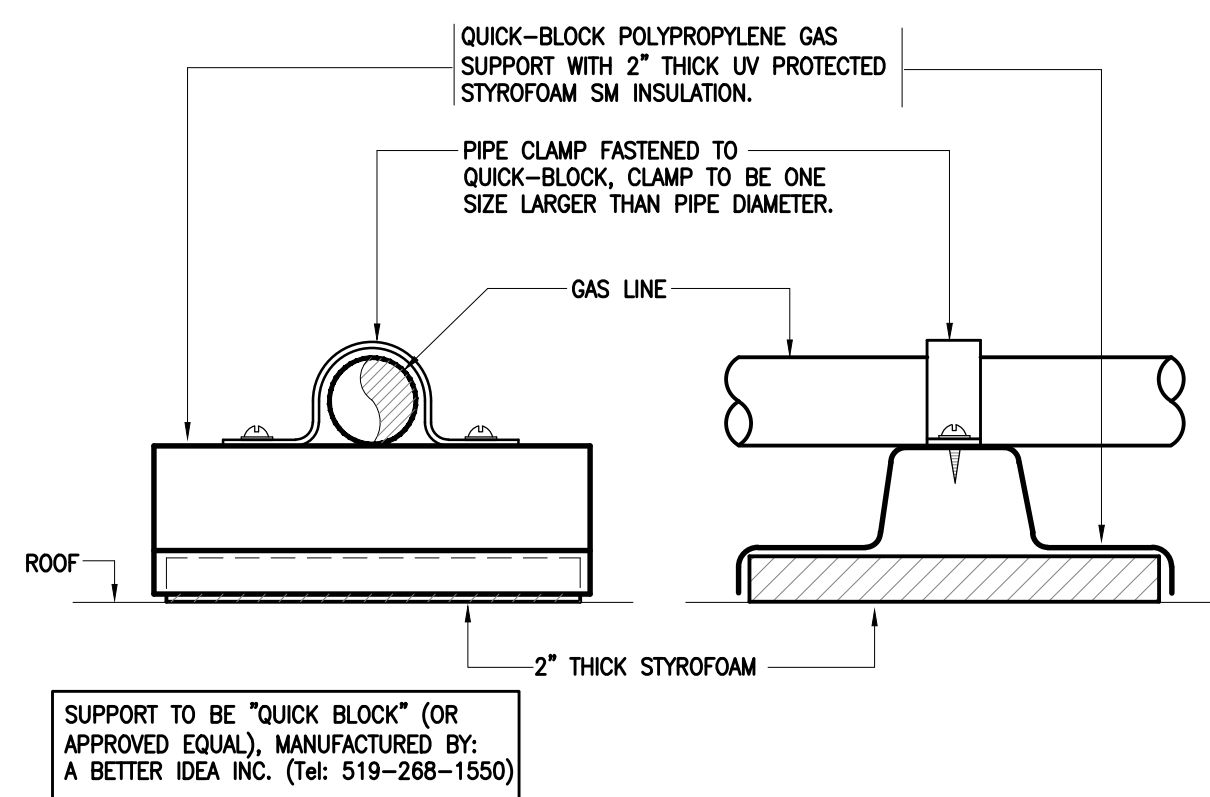
HANGER SPACING												
PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"
MAXIMUM SPACING	7'	8'	9'	10'	11'	12'	14'	16'	17'	19'	22'	23'

UNIT: IMPERIAL

PIPE HANGER DETAIL
N.T.S.

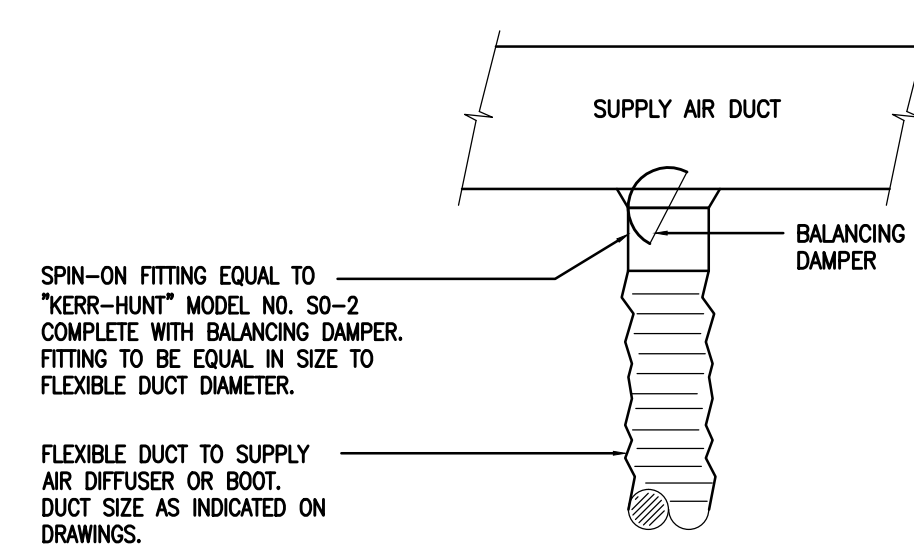


GAS CONNECTION @ RTU
N.T.S.

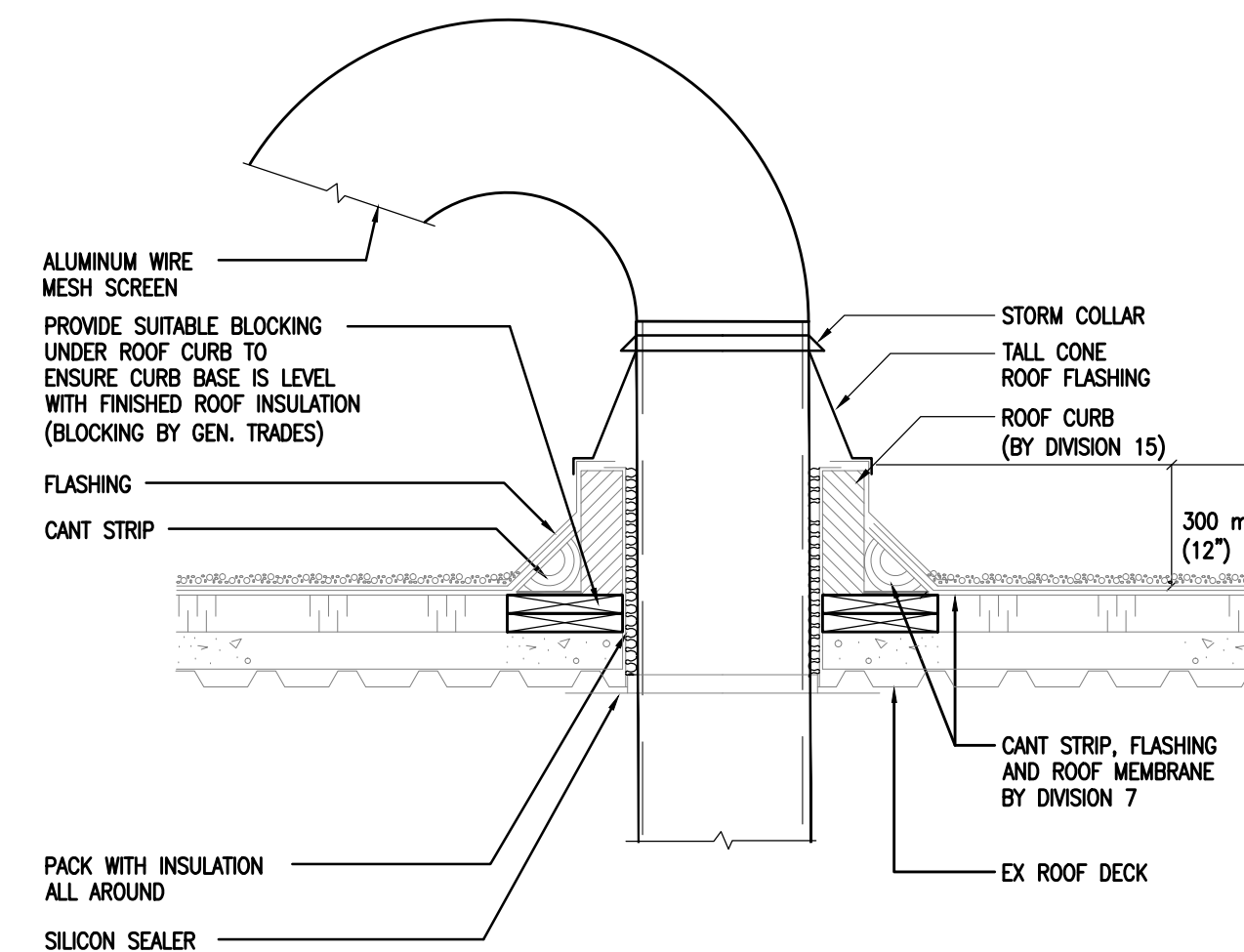


SUPPORT TO BE "QUICK BLOCK" (OR APPROVED EQUAL), MANUFACTURED BY: A BETTER IDEA INC. (Tel: 519-268-1550)

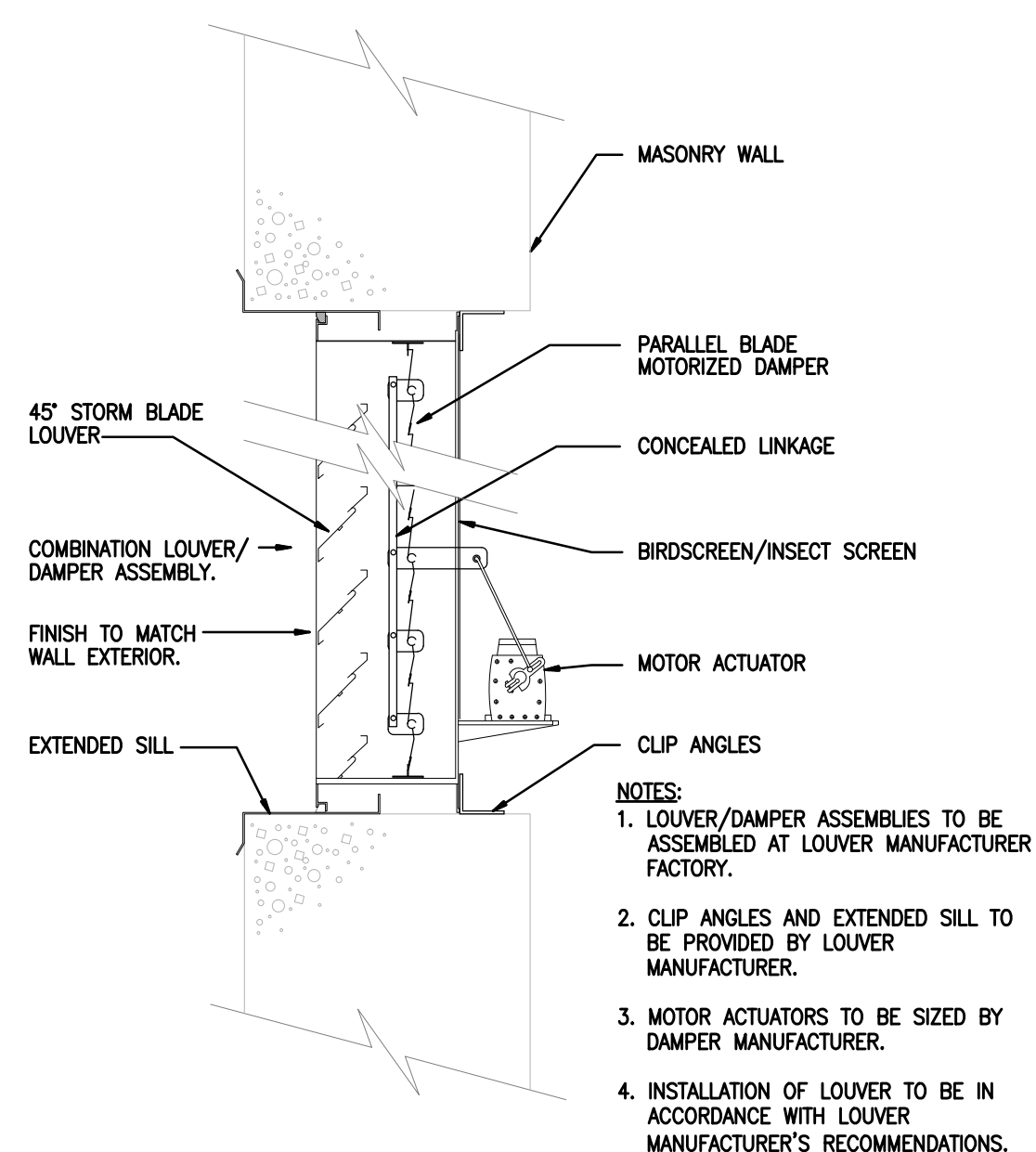
GAS PIPE SUPPORT DETAIL
N.T.S.



TYPICAL SPIN-ON FITTING DETAIL
N.T.S.

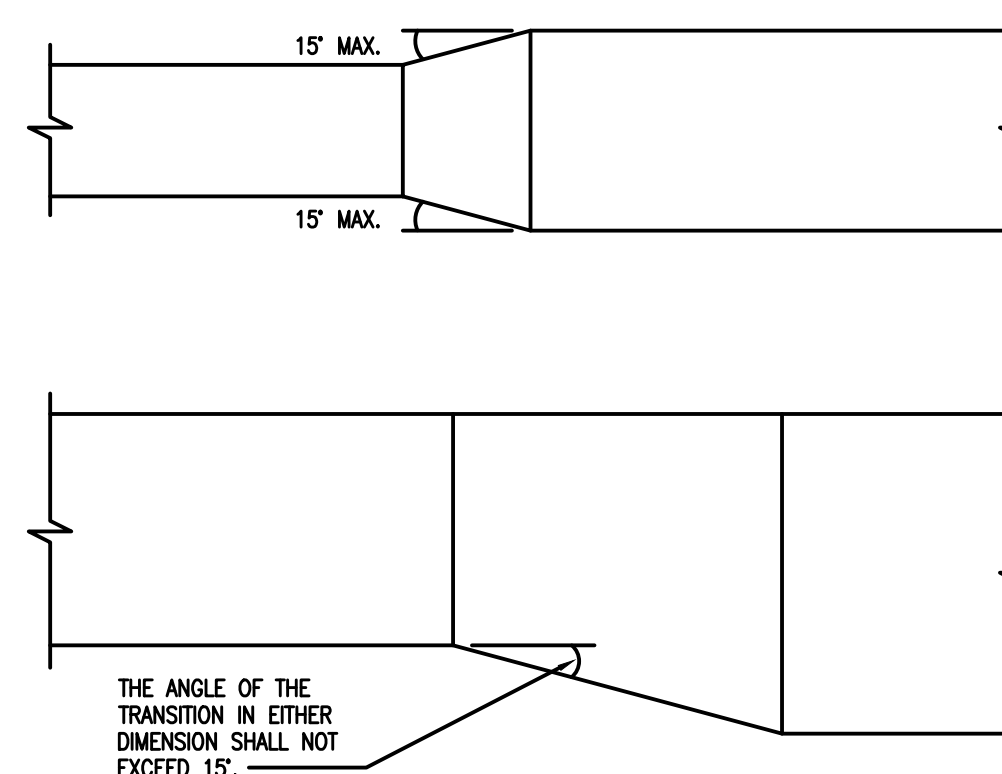


EXHAUST DUCTWORK THROUGH ROOF DETAIL
N.T.S.

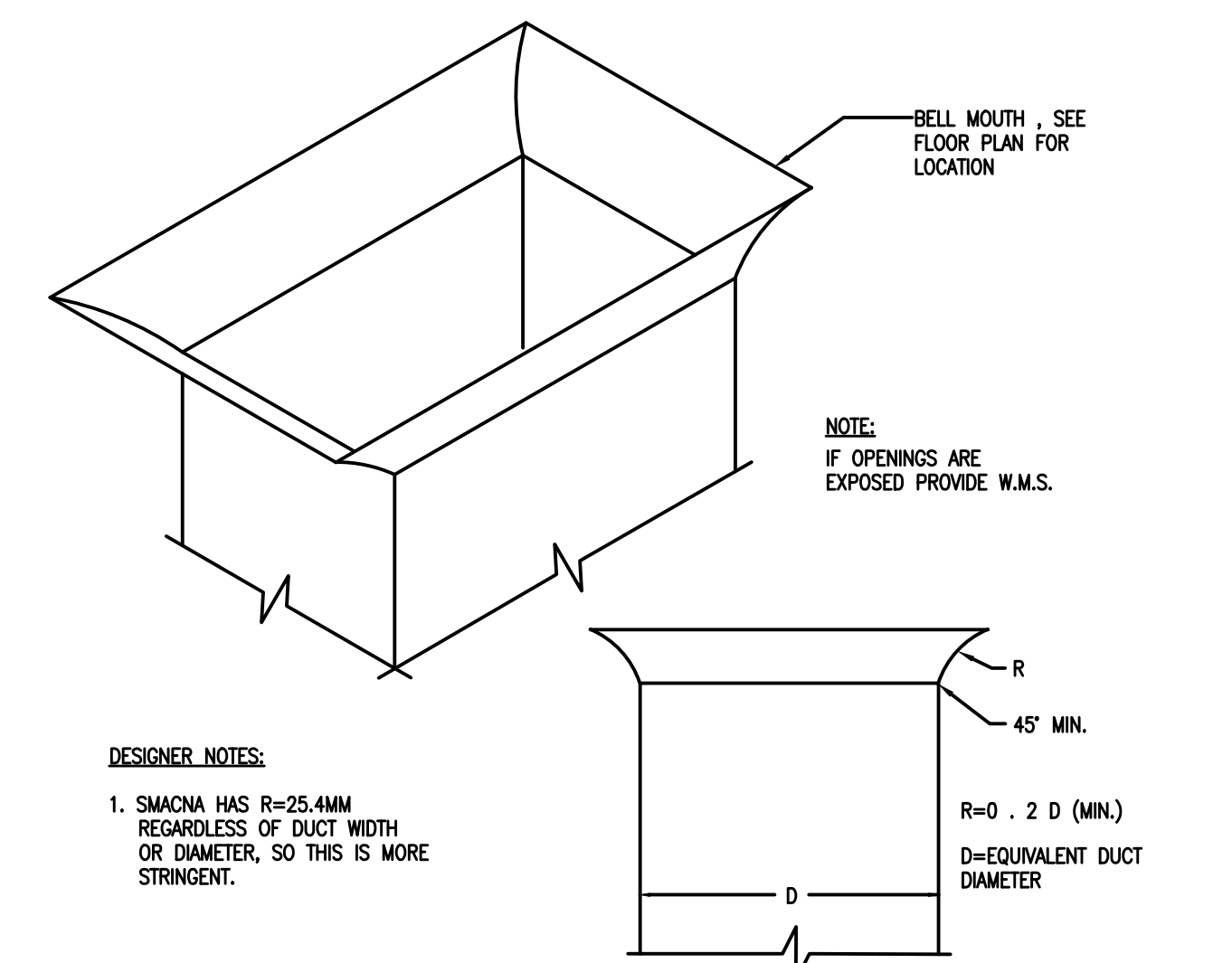


- NOTES:**
- LOUVER/DAMPER ASSEMBLIES TO BE ASSEMBLED AT LOUVER MANUFACTURER FACTORY.
 - CLIP ANGLES AND EXTENDED SILL TO BE PROVIDED BY LOUVER MANUFACTURER.
 - MOTOR ACTUATORS TO BE SIZED BY DAMPER MANUFACTURER.
 - INSTALLATION OF LOUVER TO BE IN ACCORDANCE WITH LOUVER MANUFACTURER'S RECOMMENDATIONS.

LOUVER/DAMPER
N.T.S.



DUCT TRANSITION
N.T.S.



RETURN AIR BELL MOUTH FITTING DETAIL (TYP)
N.T.S.

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Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
MECHANICAL DETAILS
 PART 1 OF 2

Drawn By MS Scale 1/8"=1'-0"
 Designed By MS Date November 26, 2020

Project Number **B20-349.02A**

Sheet Number Revision



TOUCH-UP PAINT

TO TOUCH UP PANELS SPRAY PAINT INTO A CLEAN RECEPTACLE AND APPLY LIGHTLY TO SCRATCHES WITH THE SUPPLIED BRUSH.

DO NOT APPLY DIRECTLY FROM CAN TO PANEL.

DUE TO THE DIFFERENCE IN PRODUCTS, LIQUID VERSUS POWDER COATING A SHINE DIFFERENCE WILL BE MORE EVIDENT IF SPRAYED DIRECTLY FROM CAN. PAINT IS SHIPPED IN SPRAY CAN TO PREVENT FREEZING ONLY, NOT FOR APPLICATION.

GENERAL NOTES

- SHOP DRAWINGS MUST BE AVAILABLE TO THE INSTALLERS PRIOR TO THE START OF PIPING ROUGH IN. PIPING FOR RADIANT PANELS MUST NOT CHANGE FROM THE MECHANICAL DRAWINGS FOR THE PROJECT.
- RADIANT PANEL SHOP DRAWINGS, ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS MUST BE CONSULTED BEFORE INSTALLATION BEGINS. REFER TO MECHANICAL DRAWINGS FOR PIPE SIZES AND VALVE LOCATIONS. ANY PANELS INSTALLED AGAINST EXTERIOR WALLS SHOULD HAVE THE FIRST TUBE SUPPLIED NEAREST THE WALL.
- INSTALL RADIANT PANELS WITH FEMALE EDGE TOWARD EXTERIOR WALL. PLEASE NOTE THAT ALL PANELS HAVE A RED LABEL INDICATING THE FEMALE EDGE.
- WIRE EMPLOYED TO SUSPEND THE RADIANT CEILING PANEL FROM THE EXISTING STRUCTURE. THE STANDARD MATERIAL IS 2.64mm (12 GAUGE) GALVANIZED, SOFT ANNEALED STEEL WIRE, CONFORMING TO ASTM A 641M OR A 641. VERTICAL SUSPENSION OF 1 (ONE) WIRE PER CROSS-BRACE FOR PANELS OF A WIDTH EQUAL TO OR LESS THAN 600mm (24"). PANELS OVER 600mm (24") REQUIRE A MINIMUM OF 2 WIRE HANGERS PER CROSS-BRACE. MINIMUM OF 2 WIRE HANGERS PER PANEL. WIRE HANGERS ARE TO BE SUSPENDED TO A MAXIMUM OF 1200mm (4') ON CENTRE. OR AS PER SEISMIC ENGINEER'S REQUIREMENTS.
- CROSS BRACING ON RADIANT PANELS:
 - 2 BRACES UP TO 1220mm
 - 3 BRACES 1221mm TO 2900mm
 - 4 BRACES 2901mm TO 4114mm
 - 5 BRACES 4115mm TO 4885mm
- FOR CUTTING OF RADIANT PANELS USE A CIRCULAR SAW WITH CARBIDE TIPPED BLADE. CUT WITH THE FINISH SURFACE FACING THE SAW. ENSURE YOU PROTECT THE FINISH SURFACE BEFORE CUTTING BEGINS.
- WHEN PANELS REQUIRE SITE CUTTING, FOLLOW THESE STEPS:
 - INSTALL ALL BUT THE LAST PANEL, MEASURE LENGTH REQUIRED.
 - CUT LAST PANEL TO THE REQUIRED LENGTH USING PROCEDURE LISTED IN PART 6 ABOVE.
 - INSTALL FINAL PANEL IN CEILING.
- SUPPLIER IS RESPONSIBLE ONLY FOR THE SUPPLY OF RADIANT PANELS. OTHERS ARE TO SUPPLY AND INSTALL THE FOLLOWING:
 - NECESSARY PIPING BETWEEN PANELS (OTHER THAN MANUFACTURER INTERCONNECTORS, AS SHOWN)
 - PIPING FROM PANELS TO SUPPLY AND RETURN MAINS.
 - SPECIFIED INSULATION AND HANGER WIRES
 - SUSPENDED CEILING GRIDS AND PANEL SUPPORT MOULDINGS.

GENERAL SPECIFICATIONS - LINEAR PANELS

MATERIAL SPECIFICATION:
THE ALUMINUM PLANKS INCORPORATE A TUBE SADDLE CHANNEL AS AN INTEGRAL PART OF THE PROFILE. THE COPPER TUBE IS SEATED INTO THIS CHANNEL AND HELD IN DIRECT THERMAL CONTACT WITH THE EXTRUSION. A NON-HARDENING HEAT PASTE BETWEEN COPPER AND ALUMINUM, AS WELL AS THE FACE PROFILE, ENSURES EVEN HEAT DISTRIBUTION TO THE ACTIVE PANEL PROVIDING OVERALL THERMAL EFFICIENCY.

PANEL PLANKS ARE TONGUE-AND-GROOVED TO PROVIDE A CLEAN JOINT LONGITUDINALLY. THEY ARE HELD TOGETHER USING A SPECIAL CLAMPING SYSTEM.

DIMENSIONS AND WEIGHT:
LINEAR PANELS CAN BE PROVIDED IN MULTIPLE LENGTHS OF UP TO 4877mm (16') AND WIDTHS IN MULTIPLES OF 102mm (4"), AND 152mm (6"). AN OPERATING WEIGHT OF 9.76 kg/m² (2lb/ft²) SHOULD BE USED WHEN CALCULATING THE REQUIREMENTS FOR CLAMPING AND SUSPENSION COMPONENTS.

MATERIALS OF CONSTRUCTION:
PIPEWORK: 16mm (5/8") O.D. COPPER TUBE.
PANELS: EXTRUDED ALUMINUM PLANKS WITH PROFILE FACE DESIGN.
PANEL JOINT STRIPS: CADMIUM OR ZINC-PLATED STEEL SPRINGS.
PANEL SUSPENSION CLIPS: CADMIUM OR ZINC-PLATED STEEL SPRINGS.
PIPEWORK CLIPS: CADMIUM OR ZINC-PLATED STEEL SPRINGS.
CROSS BRACE: EXTRUDED ALUMINUM 38mmx19mmx1.6mm (1 1/2" x 3/4" x 5/16")
COLOUR: STANDARD COLOUR IS AN OFF-WHITE ELECTROSTATIC POLYESTER POWDER COATING.
SUSPENSION SYSTEM: STANDARD T-BAR INSTALLATION.
INSULATION: AS PER ENGINEER'S SPECIFICATIONS (USUALLY FOIL-BACKED FIBERGLASS).

RADIANT PANEL INSTALLATION INSTRUCTIONS

AIRTEX RADIANT HEATING PANELS ARE FINISHED WITH A BAKED POLYESTER POWDER COATING THE PANEL SURFACE MUST NOT COME IN CONTACT WITH BARE SKIN. PERSPIRATION OR GREASE FROM GLOVED HAND WILL LEAVE A MARK ON THE PANEL.

INSTALLATION PERSONNEL MUST WEAR CLEAN WHITE GLOVES WHEN HANDLING THE RADIANT PANELS.

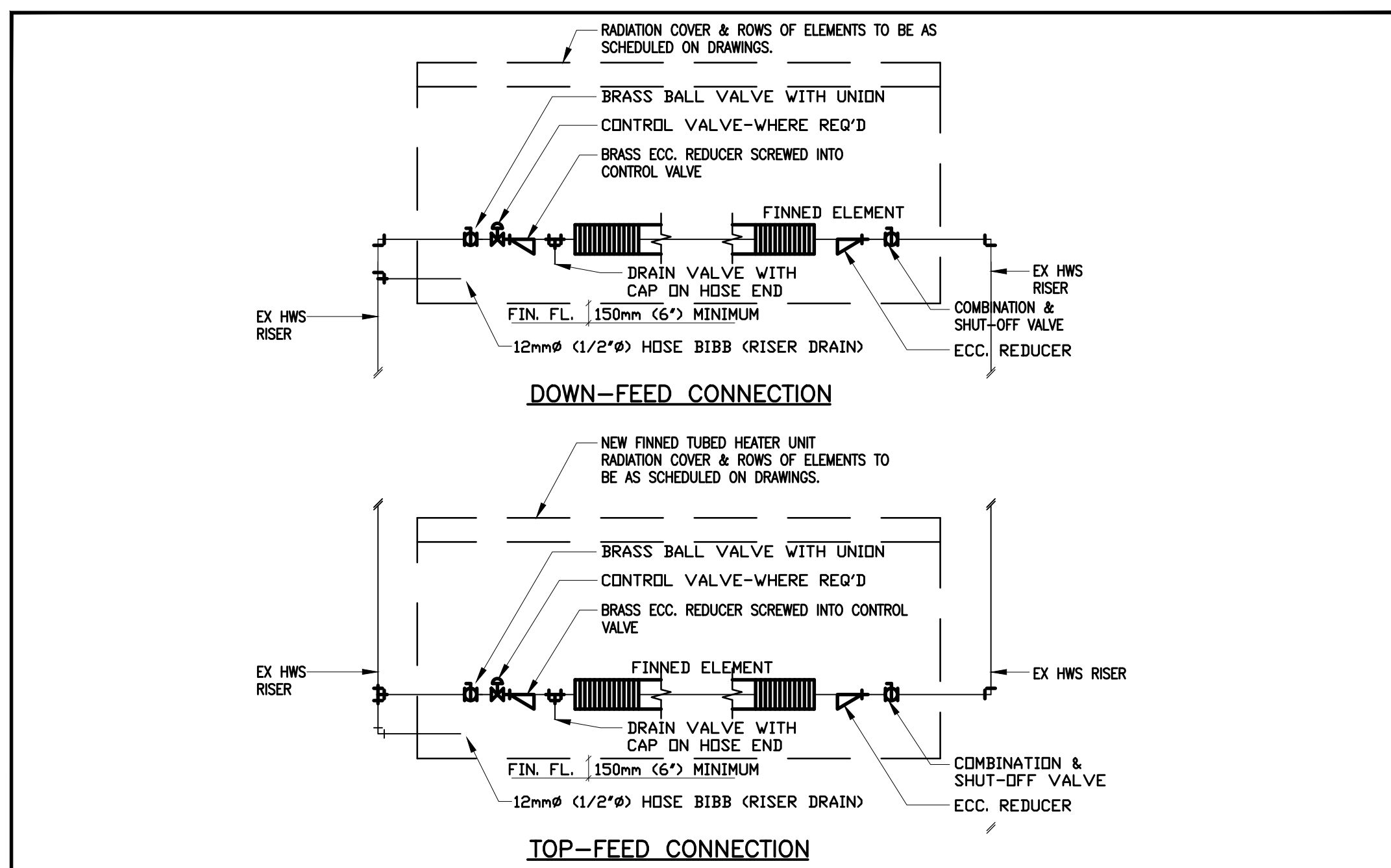
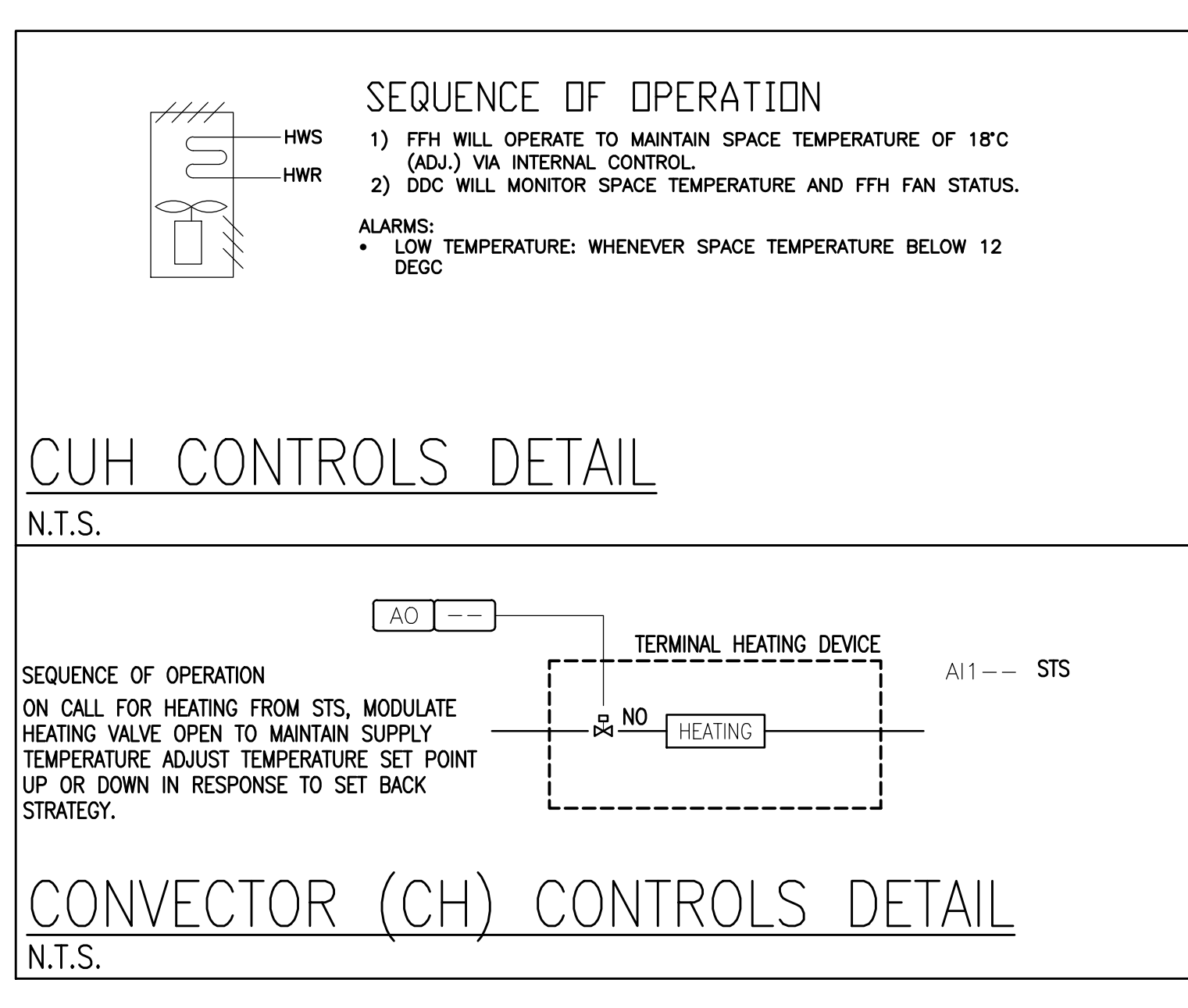
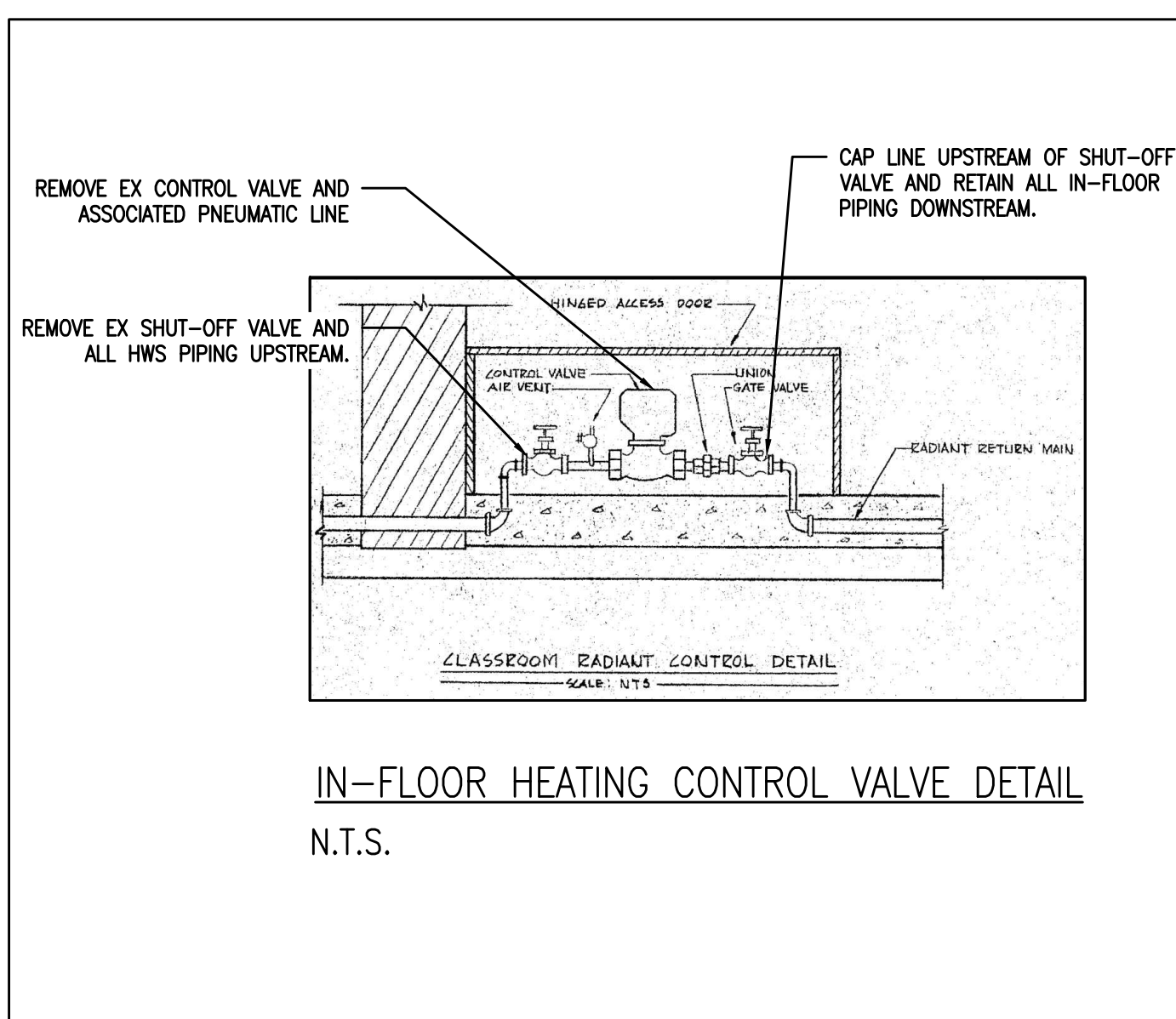
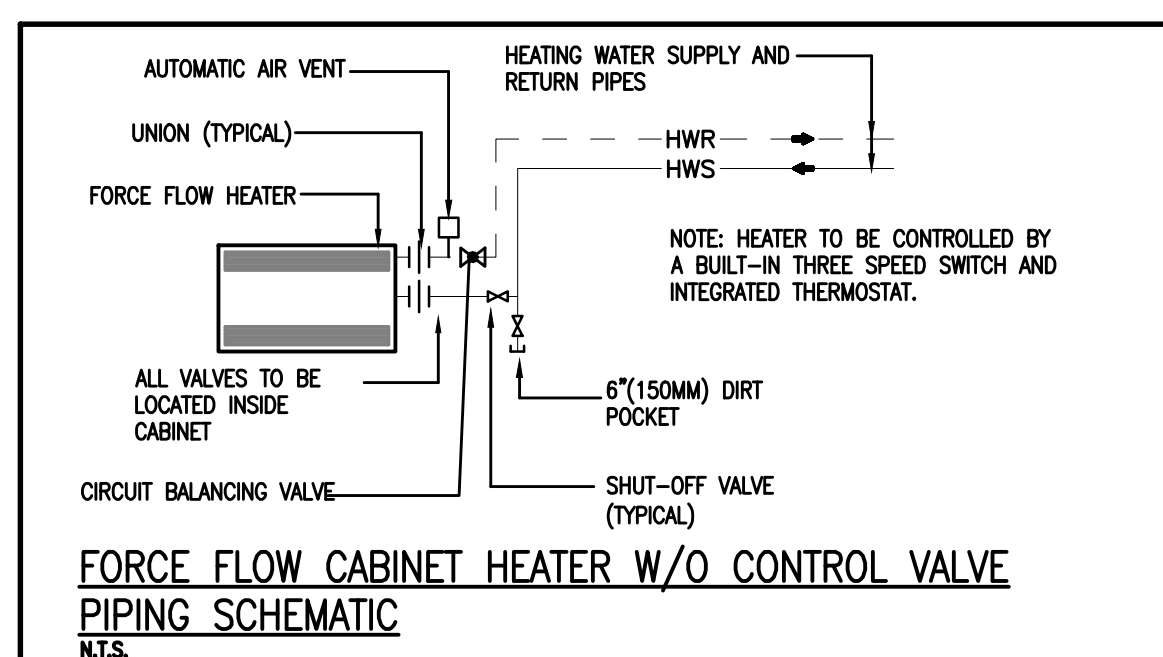
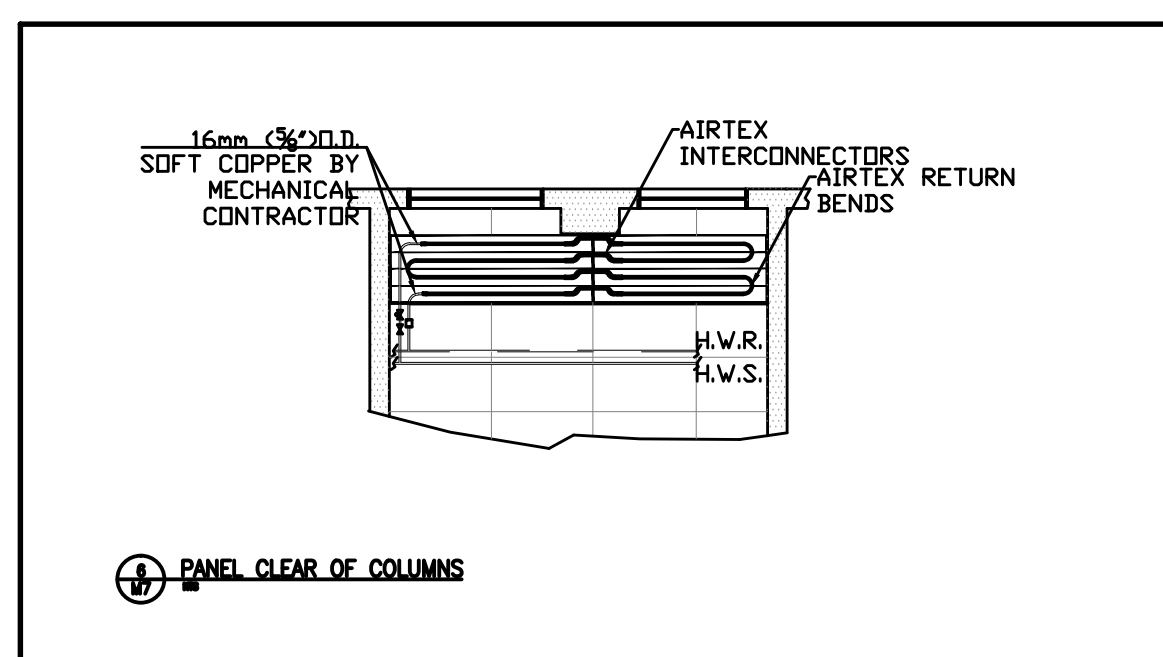
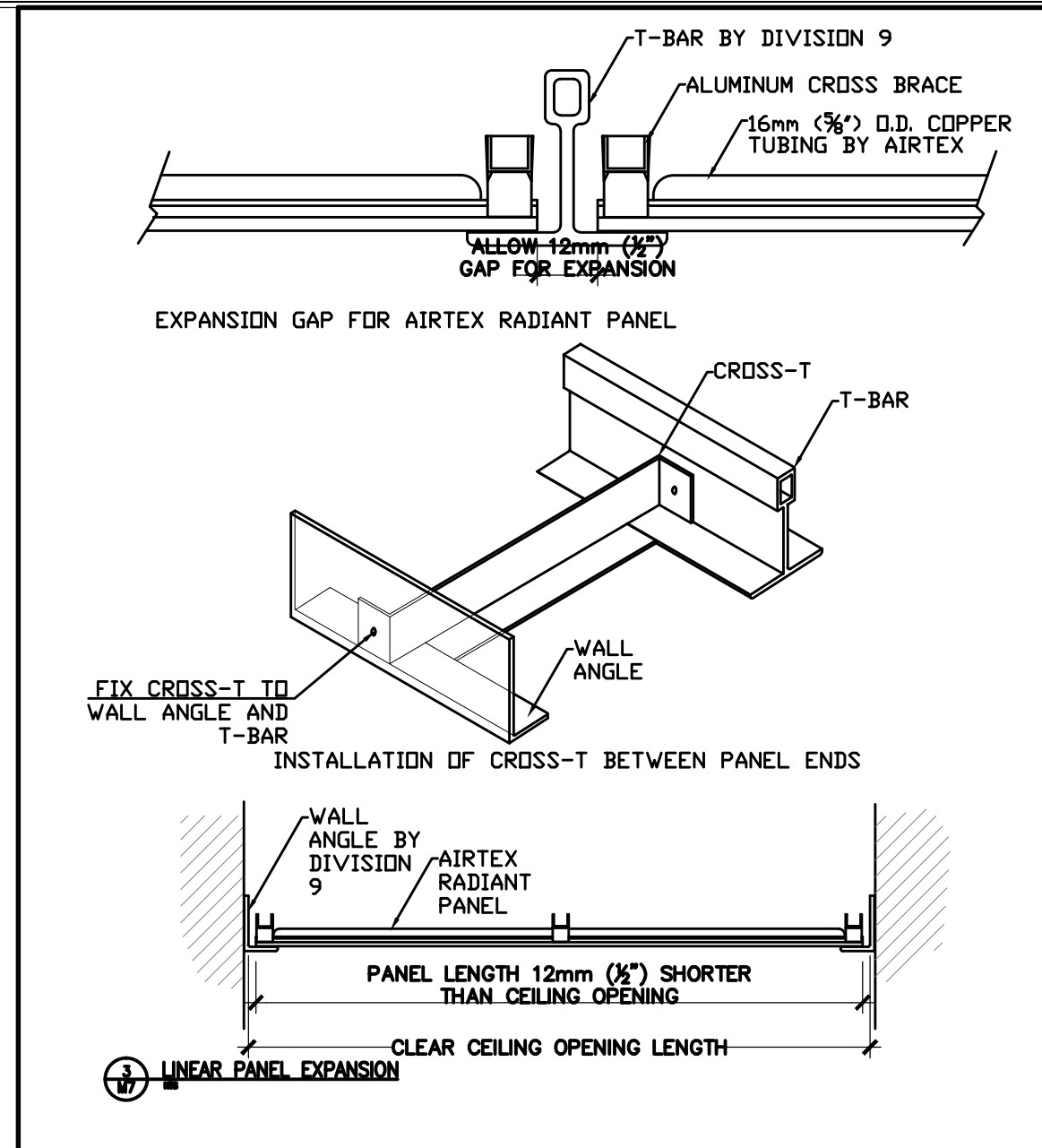
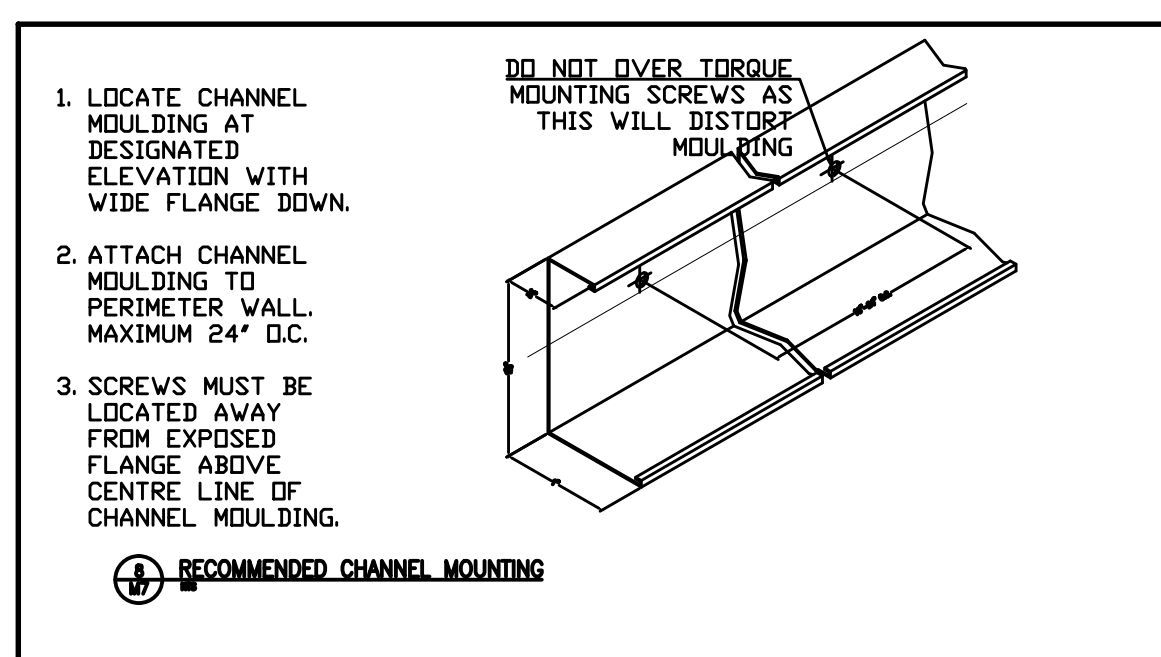
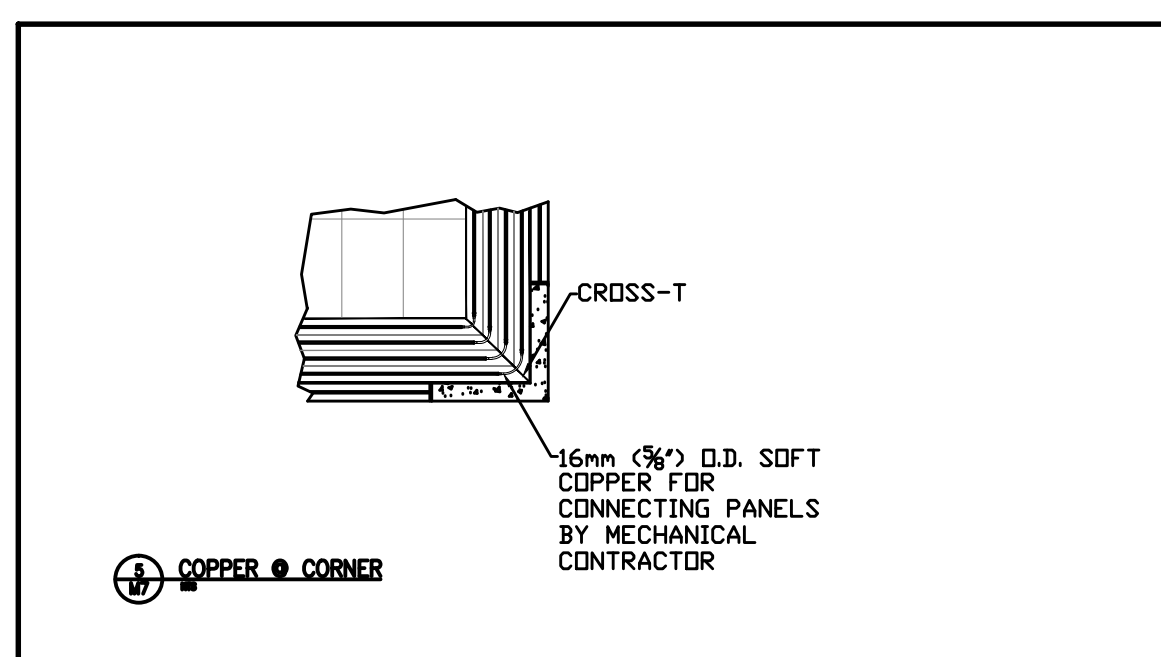
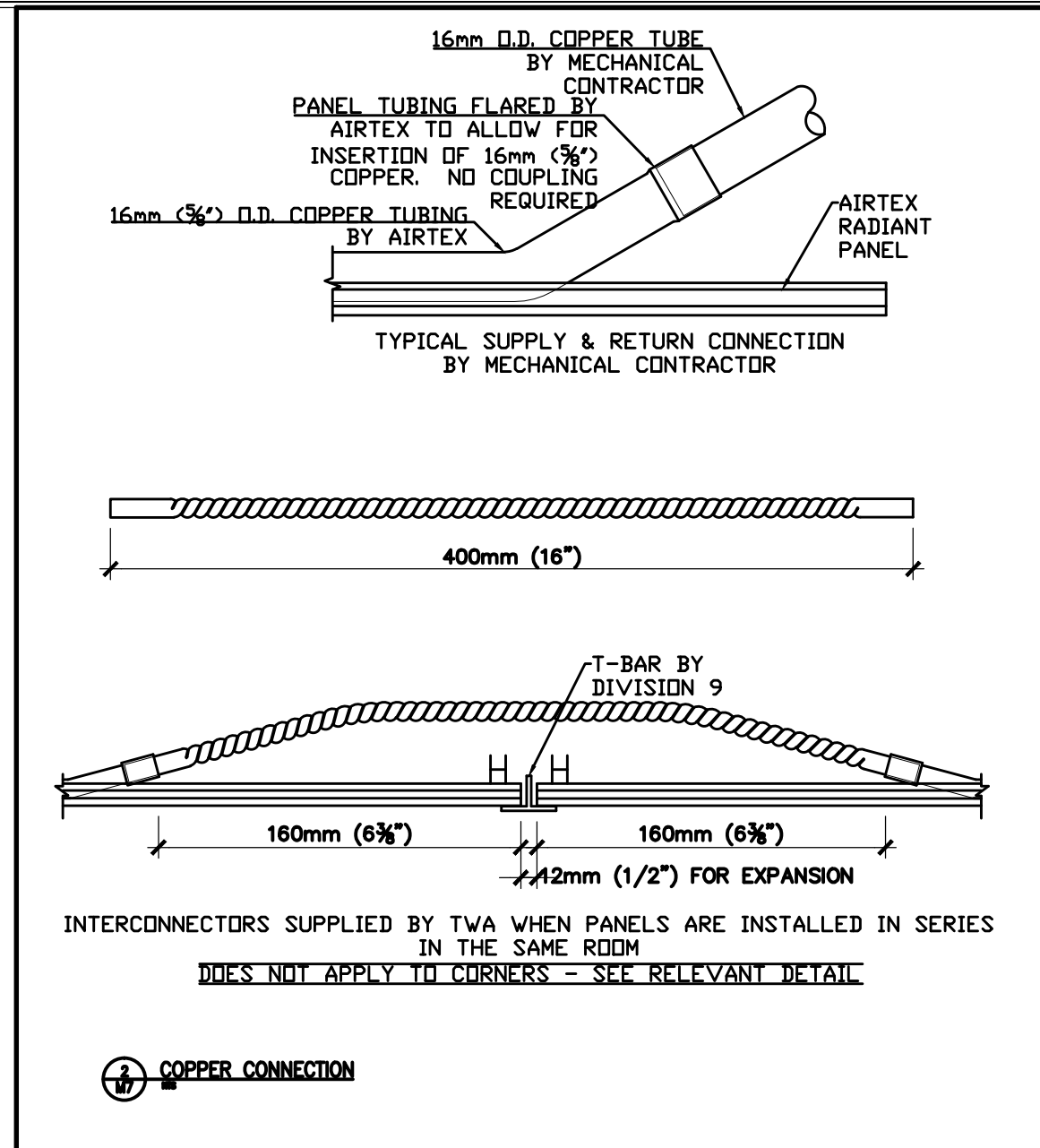
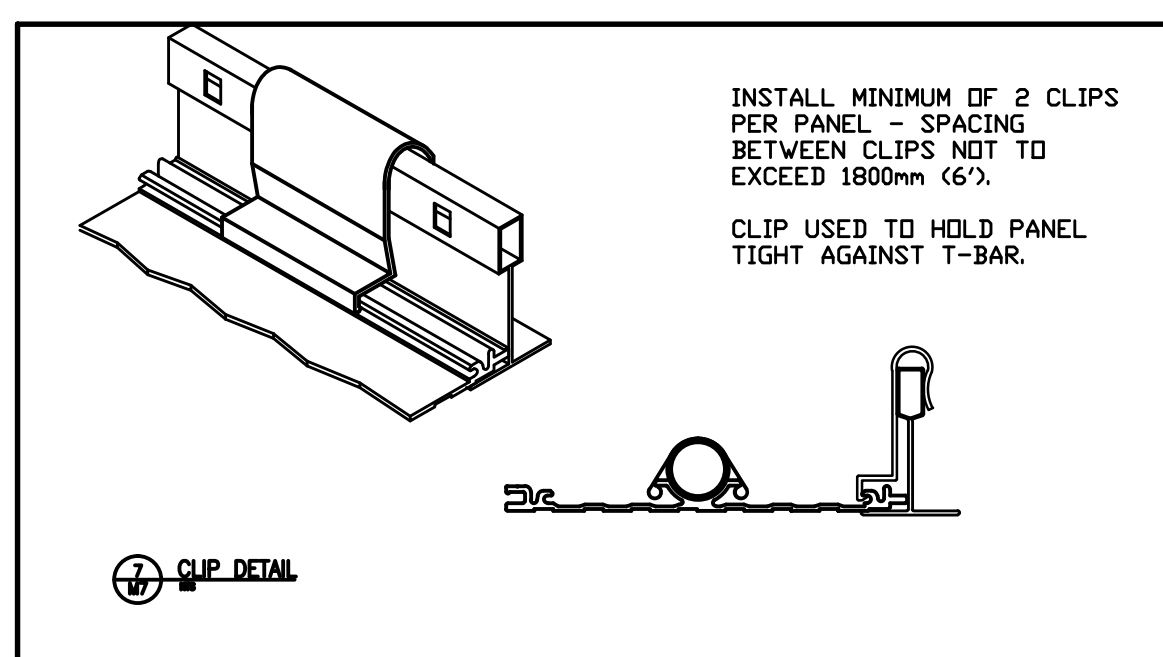
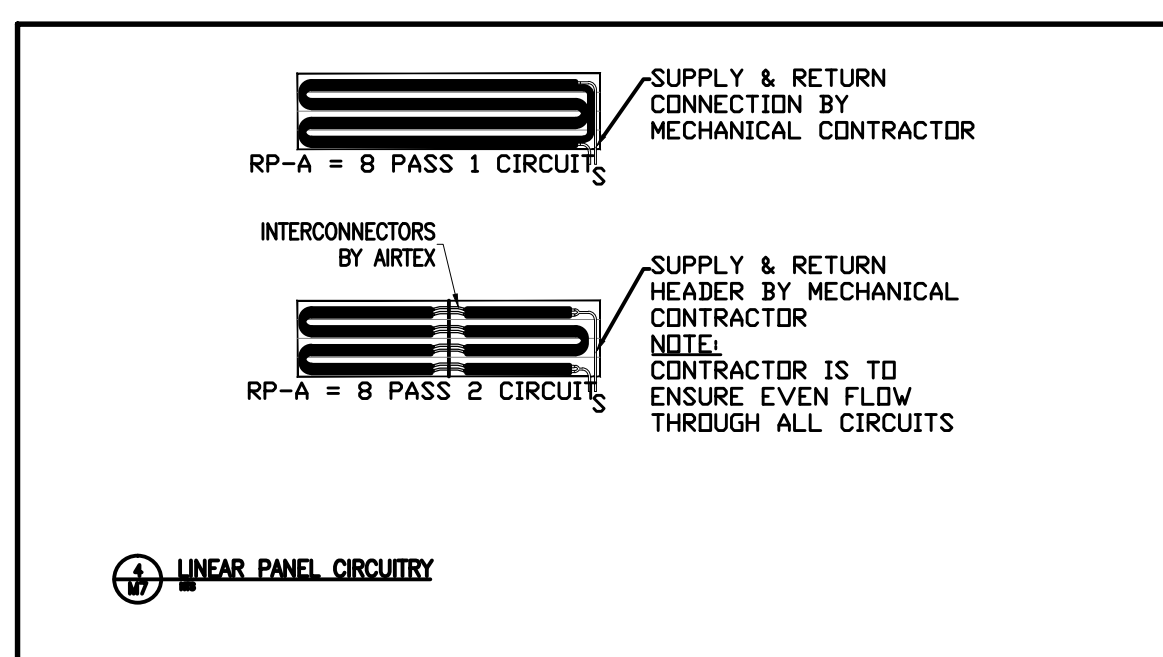
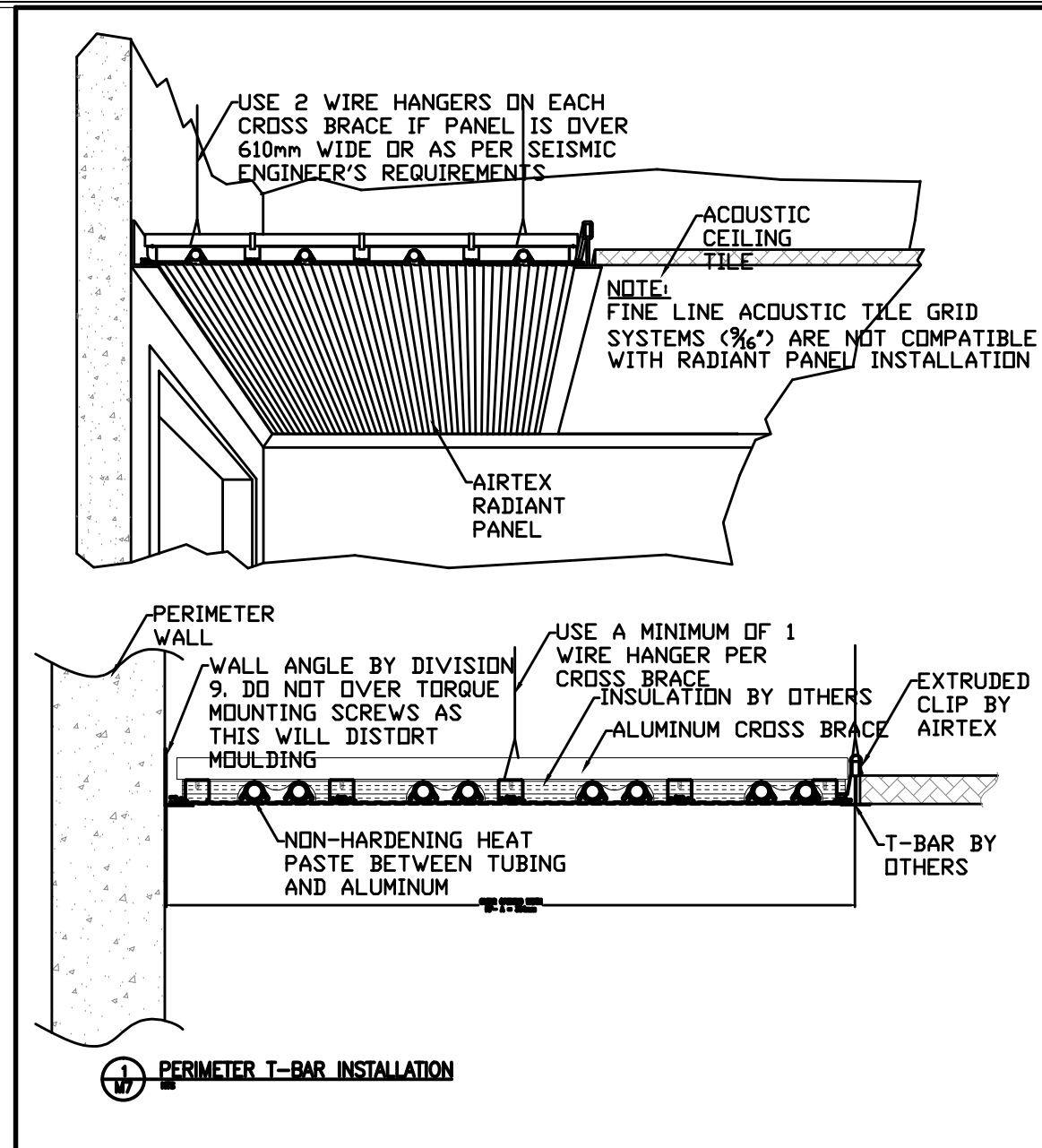
USE HEAT PAD BETWEEN RADIANT PANEL AND COPPER PIPE WHEN MAKING SOLDER CONNECTION. HEAT WILL DAMAGE BAKED ENAMEL FINISH.

ADDITIONAL RADIANT PANEL INFORMATION

TESTING:
ALL PANELS MUST BE PNEUMATICALLY TESTED BY THE MECHANICAL CONTRACTOR AFTER INSTALLATION ACCORDING TO THE ENGINEER'S TESTING PROCEDURE.

CLEANING & FLUSHING:
AS PER ENGINEER'S SPECIFICATIONS. ENSURE ALL AIR IS VENTED TO MAINTAIN NOISELESS OPERATION.

COLOUR: AIRTEX STANDARD WHITE, AS PER COLOUR SAMPLE.



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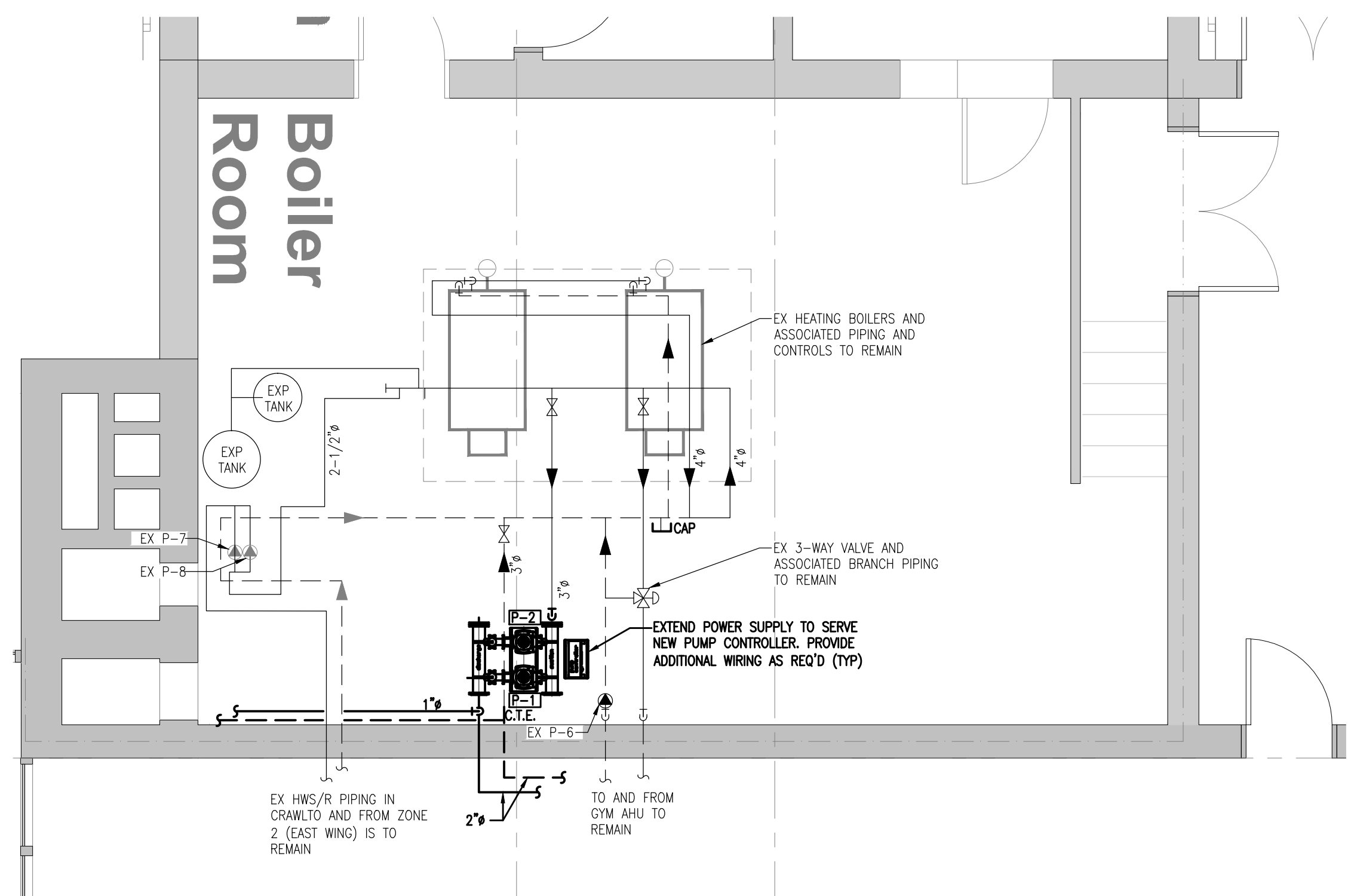
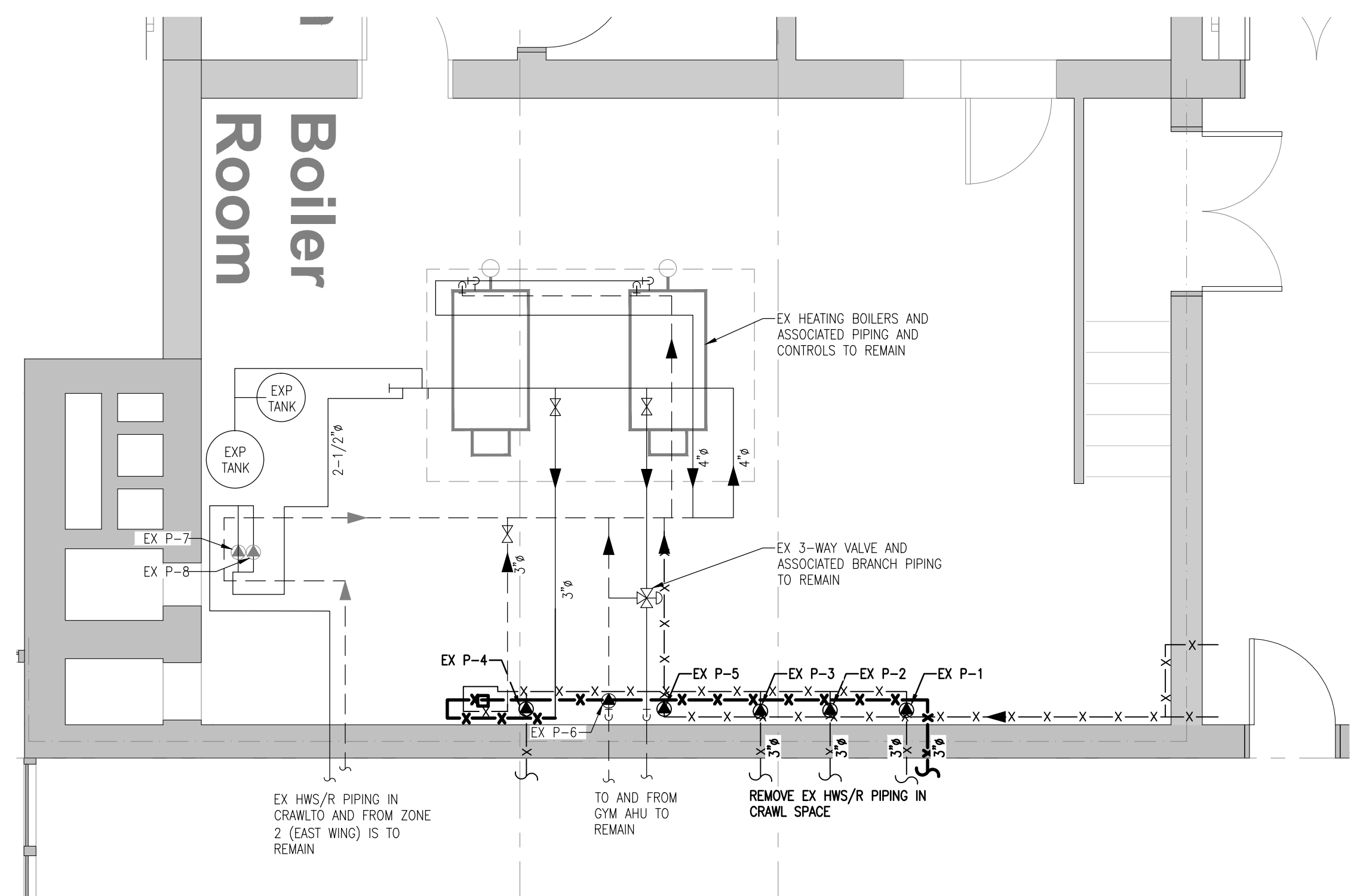
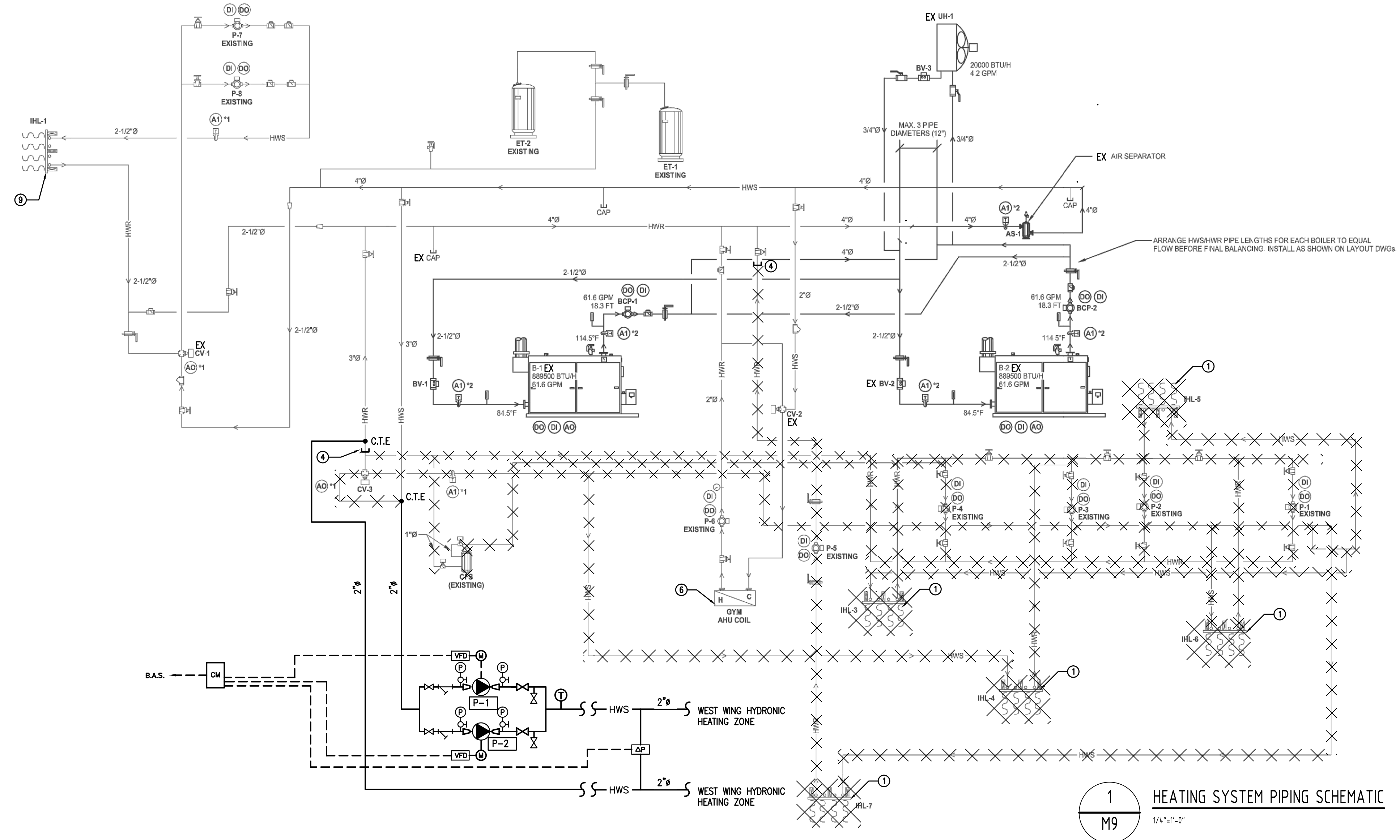
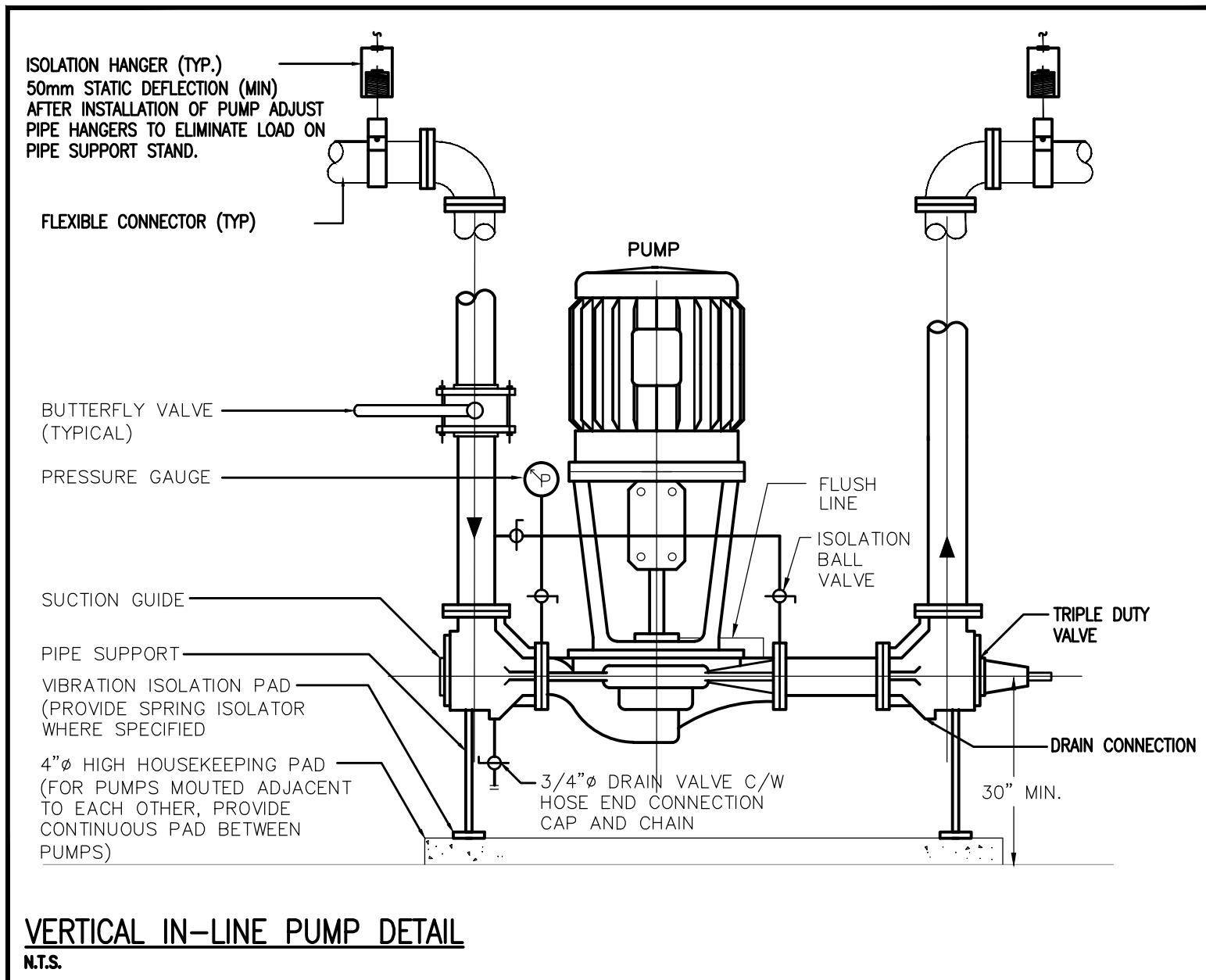
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SMITHSON PUBLIC SCHOOL
150 BELLVIEW AVENUE, KITCHENER

Sheet Title
MECHANICAL DETAILS
PART 2 OF 2

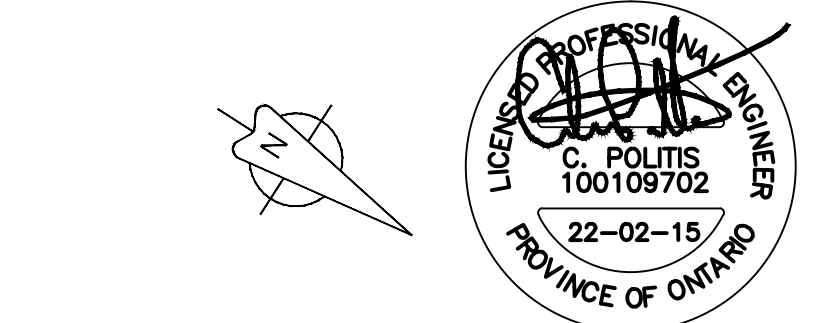
Drawn By MS Scale 1/8"=1'-0"
Designed By MS Date November 26, 2020
Project Number **B20-349.02A**

Sheet Number Revision

- ① CAP & REMOVE ALL HWS/R PIPING UPSTREAM OF IN-FLOOR HEATING MANIFOLD. EX MANIFOLD AND ASSOCIATED IN-FLOOR HEATING PIPING TO REMAIN. CONTRACT TO FLUSH AND VACUUM DRY IN-FLOOR HEATING PIPING (TYP)
- ② INSTALL NEW TEMP SENSOR IN S/A OF GYM AHU TO CONTROL S/A TEMP.
- ③ CAP & REMOVE EX HWS PIPING DOWNSTREAM OF THIS POINT
- ④ CAP & REMOVE EX HWS PIPING DOWNSTREAM OF THE SHUT-OFF VALVE
- ⑤ REMOVE EX HWS PUMP AND ASSOCIATED VALVES, FITTINGS AND PIPING
- ⑥ EX GYM AHU HEATING COIL PIPING TO REMAIN.
- ⑦ EX 3-WAY MIXING VALVE AND PIPING TO GYM AHU TO REMAIN
- ⑧ CAP & REMOVE PIPING UPSTREAM OF THIS POINT.
- ⑨ EX INFLOOR HEATING SYSTEM FOR THE EAST WING TO REMAIN. THIS WORK WILL BE REDESIGNED IN PHASE 2 OF THE RENOVATION PROJECT.



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Project Name
WRDSB - WORKSHOP ARCHITECTURE
HVAC UPGRADES & INTERIOR RENOVATIONS
SMITHSON PUBLIC SCHOOL
150 BELLVIEW AVENUE, KITCHENER

Sheet Title
HEATING PIPING SCHEMATIC

Drawn By MS Scale 1/8"=1'-0"
Designed By MS Date November 26, 2020
Project Number **B20-349.02A**
Sheet Number Revision
M9 **1**

**SMITHSON PUBLIC SCHOOL
HVAC UPGRADES & INTERIOR RENOVATIONS**

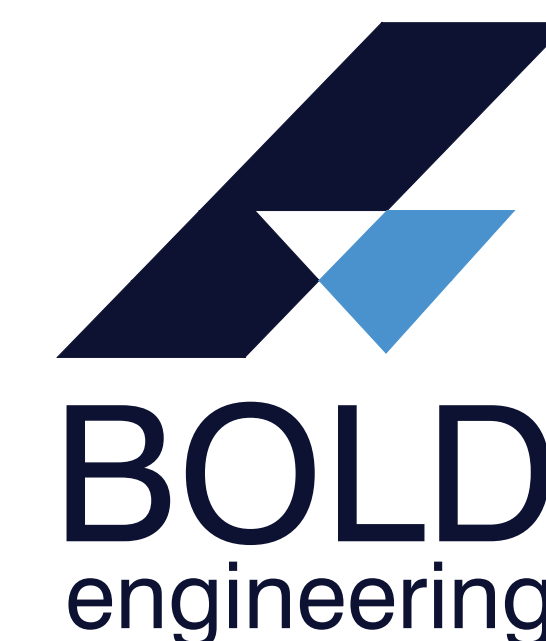
150 BELLEVIEW AVE, KITCHENER, ON

**WRDSB - WORKSHOP ARCHITECTURE -
SMITHSON PS**

PROJECT NO.: B20-349.02A

DRAWING LIST

- E1 ELECTRICAL LEGEND AND SCHEDULES
- E2 ELECTRICAL SINGLE LINE DIAGRAM AND SITE PLAN
- E3 EXISTING/DEMO POWER PLANS
- E4 EXISTING/DEMO FIRE ALARM PLANS
- E5 EXISTING/DEMO LIGHTING & REFLECTED CEILING PLANS
- E5.1 EXISTING/DEMO LIGHTING & REFLECTED CEILING PLANS
- E5.2 EXISTING/DEMO EMERGENCY LIGHTING & EXIT SIGN PLANS
- E6 PROPOSED POWER PLANS
- E6.1 PROPOSED POWER PLANS
- E7 PROPOSED FIRE ALARM PLANS
- E8 PROPOSED LIGHTING & REFLECTED CEILING PLANS
- E8.1 PROPOSED LIGHTING & REFLECTED CEILING PLANS
- E8.2 PROPOSED EMERGENCY LIGHTING & EXIT SIGN PLANS
- E9 ELECTRICAL AND BOILER ROOM LAYOUTS
- E10 PROPOSED ROOFTOP POWER PLANS
- E11 ELECTRICAL DETAILS
- E11.1 ELECTRICAL DETAILS



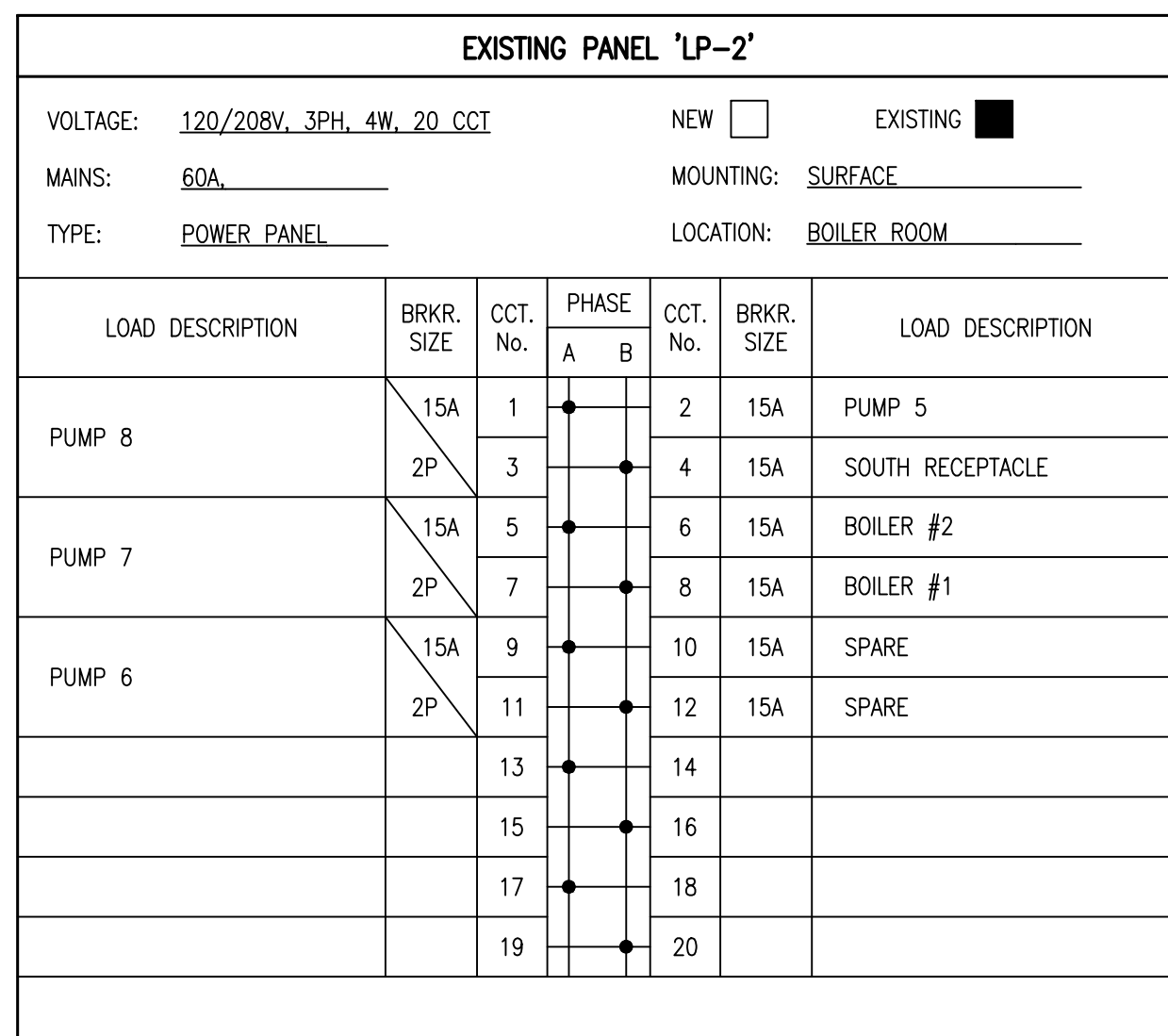
Bold Engineering Inc.
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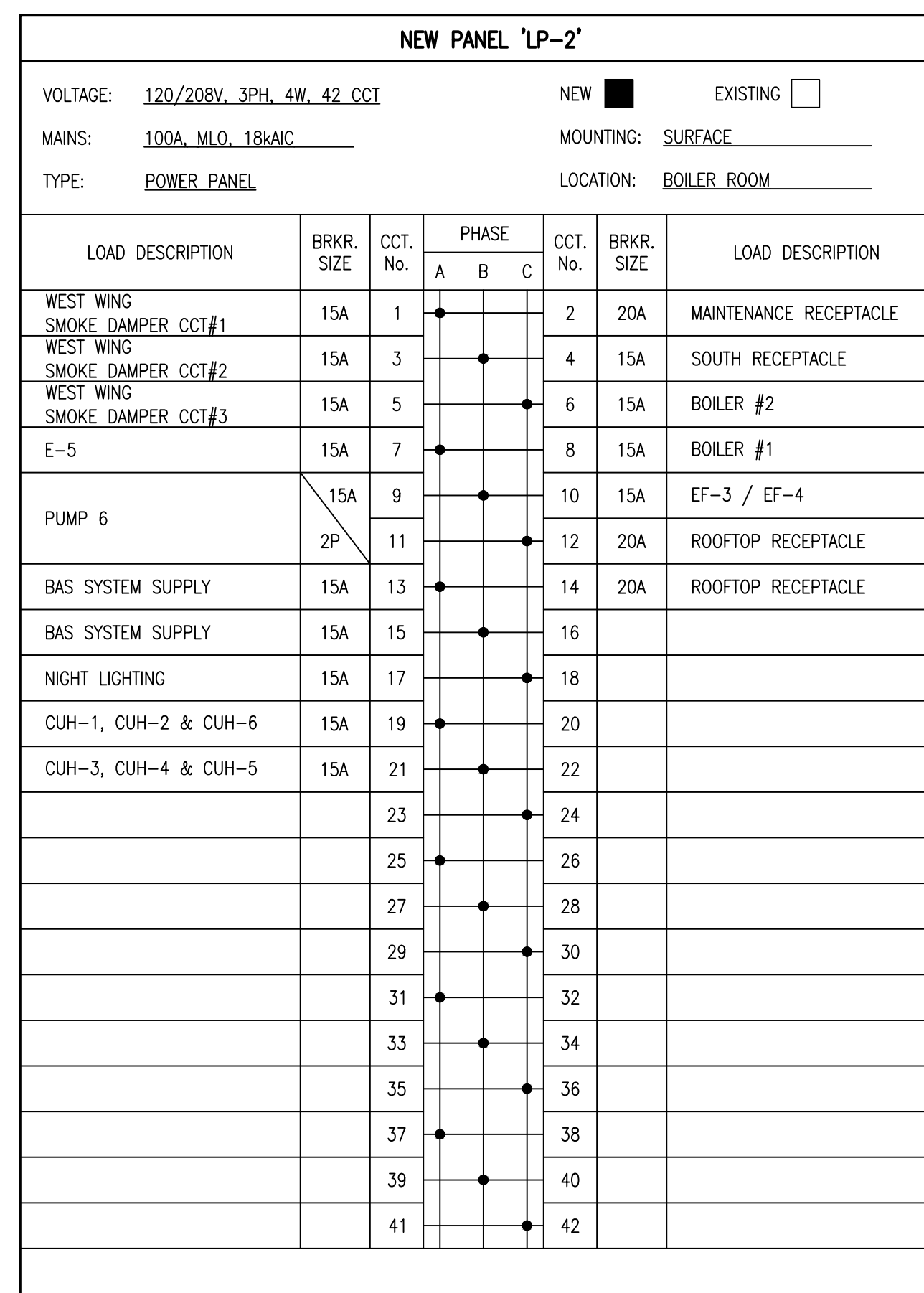
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ELECTRICAL LEGEND	
[Symbol]	BASE BUILDING LUMINAIRE
[Symbol]	NEW LUMINAIRE
'A'	LUMINAIRE DESIGNATOR LETTER DEMOTES TYPE REFER TO LUMINAIRE SCHEDULE
[Symbol]	WALL MOUNTED EMERGENCY LIGHTING REMOTE HEAD(S)
[Symbol]	WALL MOUNTED EMERGENCY LIGHTING BATTERY UNIT WITH HEAD(S)
[Symbol]	CEILING MOUNTED EXIT SIGN DIRECTIONAL ARROW(S) AND WALL FACE(S) AS SHOWN
[Symbol]	WALL MOUNTED EXIT SIGN DIRECTIONAL ARROW(S) AND WALL FACE(S) AS SHOWN
[Symbol]	EXIT SIGNS WITH BATTERIES
[Symbol]	TOGGLE SWITCH - 120V
[Symbol]	GANGED TOGGLE SWITCHES, 2, 3, 4 GANG
[Symbol]	DIMMER SWITCH
[Symbol]	3 - WAY SWITCH
[Symbol]	KEY SWITCH
[Symbol]	WALL MOUNTED DUPLEX RECEPTACLE
[Symbol]	WALL MOUNTED QUAD RECEPTACLE (15A, 120V UNLESS OTHERWISE NOTED)
[Symbol]	WALL MOUNTED ABOVE COUNTER, GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE (15A, 120V)
[Symbol]	NEMA 5-20R GFI DUPLEX RECEPT. C/W WEATHERPROOF COVER FOR HVAC MAINTENANCE INSTALLED AT 750mm ABOVE FINISHED ROOF
[Symbol]	WALL MOUNTED VOICE OUTLET
[Symbol]	WALL MOUNTED DATA OUTLET
[Symbol]	WALL MOUNTED DATA/VOICE OUTLET
[Symbol]	FLOOR MOUNTED VOICE OUTLET
[Symbol]	FLOOR MOUNTED DATA OUTLET
[Symbol]	FLOOR MOUNTED DATA/VOICE OUTLET
[Symbol]	WIRELESS ACCESS POINT
[Symbol]	FLOOR MOUNTED COMBINATION OUTLETS WITH OUTLETS AS SHOWN
[Symbol]	WALL FEED FOR POWER AND COMMUNICATIONS TO SYSTEM FURNITURE
[Symbol]	FLOOR FEED FOR POWER AND COMMUNICATIONS TO SYSTEM FURNITURE
[Symbol]	TELEVISION SYSTEM OUTLET - CEILING, WALL MOUNTED
[Symbol]	JUNCTION BOX
[Symbol]	DIRECTION CONNECTION OUTLET
[Symbol]	MOTOR CONNECTION
[Symbol]	DISCONNECT SWITCH - UNFUSED
[Symbol]	DISCONNECT SWITCH - FUSED
[Symbol]	SURFACE MOUNTED PANEL BOARD
[Symbol]	RECESSED MOUNTED PANEL BOARD
[Symbol]	TRANSFORMER
[Symbol]	FIRE ALARM PULL STATION
[Symbol]	FIRE ALARM HORN AND STROBE COMBO UNIT
[Symbol]	SPEAKER - CEILING, WALL MOUNTED
[Symbol]	OCCUPANCY SENSOR
[Symbol]	SMOKE DETECTOR
[Symbol]	DUCT TYPE SMOKE DETECTOR W/ REMOTE INDICATION
[Symbol]	HEAT DETECTOR - 135° FIXED TEMPERATURE TYPE - CEILING, WALL MOUNTED
[Symbol]	AUTOMATIC DOOR PUSHBUTTON
[Symbol]	MOTION DETECTOR
[Symbol]	TOPCAT AUDIO SYSTEM (CEILING MOUNTED)
[Symbol]	SMARTBOARD PROJECTOR MOUNT (CEILING MOUNTED)
[Symbol]	OUTLETS FOR AUDIO/VISUAL SYSTEM INSTALLATION
EX	EXISTING TO REMAIN
R	EXISTING TO BE REMOVED
RE/RE	EXISTING TO BE REMOVED AND REINSTALLED
RL	EXISTING IN RELOCATED POSITION
AFF	ABOVE FINISHED FLOOR
NL	NIGHT LIGHT CIRCUIT

LIGHTING SCHEDULE									
TYPE	MAKE / MODEL	DESCRIPTION	VOLTAGE	LAMP DATA				MOUNTING	REMARKS
				No.	TYPE	WATTS	COLOUR		
'L1'	LITHONIA LIGHTING 2GTL-4-48L-GZ10-LP840	RECESSED LED 2'x4' TROFFER	120V	1	LED	36W	4000K	RECESSED	LIGHTING TO BE ON DIMMERS AS SHOWN ON DRAWINGS. PROVIDE DIMMING CONTROLLER.
'L2'	LITHONIA LIGHTING 2GTL-4-40L-GZ10-LP840	RECESSED LED 2'x4' TROFFER	120V	1	LED	30W	4000K	RECESSED	LIGHTING TO BE ON DIMMERS AS SHOWN ON DRAWINGS. PROVIDE DIMMING CONTROLLER.
'L3'	LITHONIA LIGHTING SBL4-4000LM-40K	SURFACE MOUNTED 1'x4'	120V	1	LED	32W	4000K	SURFACE	-
'L4'	LITHONIA LIGHTING SBL4-4800LM-40K	SURFACE MOUNTED 1'x4'	120V	1	LED	40W	4000K	SURFACE	-
'L5'	LLI ARCHITECTURAL LIGHTING LLI-S-IC1-SF-XX-40K-24V-XX	SUSPENDED LINEAR STRIP	120V	1	LED	XW/FT	4000K	SUSPENDED	COORDINATE SUSPENSION LENGTH AND EXACT LOCATION WITH ARCHITECTURAL TRADE.
'L6'	CAMMAN LIGHTING P1044-108-40K-1-ACM	ARCHITECTURAL PENDENT	120V	1	LED	160W	4000K	SUSPENDED	COORDINATE SUSPENSION LENGTH AND EXACT LOCATION WITH ARCHITECTURAL TRADE
'L7'	LITHONIA LIGHTING 2GTL-2-48L-GZ10-LP840	RECESSED 2'x2' TROFFER	120V	1	LED	42W	4000K	RECESSED	-
'L8'	LITHONIA LIGHTING FMLWL-48-840-MVOLT	RECESSED FIXTURE	120V	1	LED	42W	4000K	SURFACE	PATCH EXISTING CEILING AROUND FIXTURE. FINISHES TO MATCH EXISTING.
'L9'	HOLOPHANE PARKPAK PPS0L2-P10-40K-PY-TSE	RECESSED EXTERIOR FIXTURE	120V	1	LED	25W	4000K	RECESSED	PATCH EXISTING SOFFIT AROUND FIXTURE. FINISHES TO MATCH EXISTING.
'L10'	LITHONIA LIGHTING MNSL-L48-21L-MVOLT-40K-80CRI-M6	SUSPENDED STRIP FIXTURE	120V	1	LED	35W	4000K	SUSPENDED	-
[Symbol]	BEGHELLI TEMPESTA LED TA-LED-SE-UNV-TB	EMERGENCY LIGHT WITH BATTERY PACK	120V	1	LED	2.3W	-	RECESSED	RECESSED IN ACT CEILING, C/W MINIMUM 90MIN BATTERY BACKUP.
[Symbol]	BEGHELLI FORTE RM FR-RM-SP-L-1/2-OLR-W/C-90SP	GREEN RUNNING MAN PICTOGRAM EXIT SIGN (SINGLE/DUAL FACE)	120V	1	LED	-	-	WALL/CEILING MOUNTED	COMPLETE WITH INTEGRAL STANDALONE 90MIN BATTERY BACKUP.



1 EXISTING "LP-2" PANEL SCHEDULE
E1 SCALE: N.T.S.



2 NEW "LP-2" PANEL SCHEDULE
E1 SCALE: N.T.S.

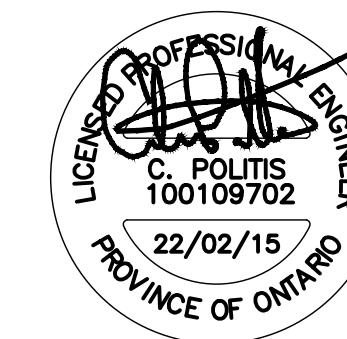
SWB-1 SWITCHBOARD DISTRIBUTION LOAD SCHEDULE (400A,600/347V,3PH,4W)

LOAD ID	LOAD DESCRIPTION	OVERCURRENT DEVICE TYPE	DEVICE AMP RATING	VOLTAGE	WIRING	# OF POLES
A1	EXISTING SWB	MOLDED CASE BREAKER	175A	600V	3-#3/0 CU + GND	3
A2	PHASE LOSS RLY	MOLDED CASE BREAKER	15A	600V	3-#12 AWG CU + GND	3
A3	SPD	MOLDED CASE BREAKER	30A	600V	3-#10 AWG CU + GND	3
A4	HVAC-1	MOLDED CASE BREAKER	15A	600V	3-#12 AWG CU + GND	3
A5	HVAC-2	MOLDED CASE BREAKER	25A	600V	3-#10 AWG CU + GND	3
A6	HVAC-3	MOLDED CASE BREAKER	25A	600V	3-#10 AWG CU + GND	3
A7	HVAC-4	MOLDED CASE BREAKER	20A	600V	3-#10 AWG CU + GND	3
A8	HVAC-5	MOLDED CASE BREAKER	25A	600V	3-#10 AWG CU + GND	3
A9	ERV-1/ERV-2	MOLDED CASE BREAKER	15A	600V	3-#12 AWG CU + GND	3
A10	PUMP P-1	MOLDED CASE BREAKER	15A	600V	3-#12 AWG CU + GND	3
A11	PUMP P-2	MOLDED CASE BREAKER	15A	600V	3-#12 AWG CU + GND	3

3 NEW SWB-1 BREAKER SCHEDULE
E1 SCALE: N.T.S.

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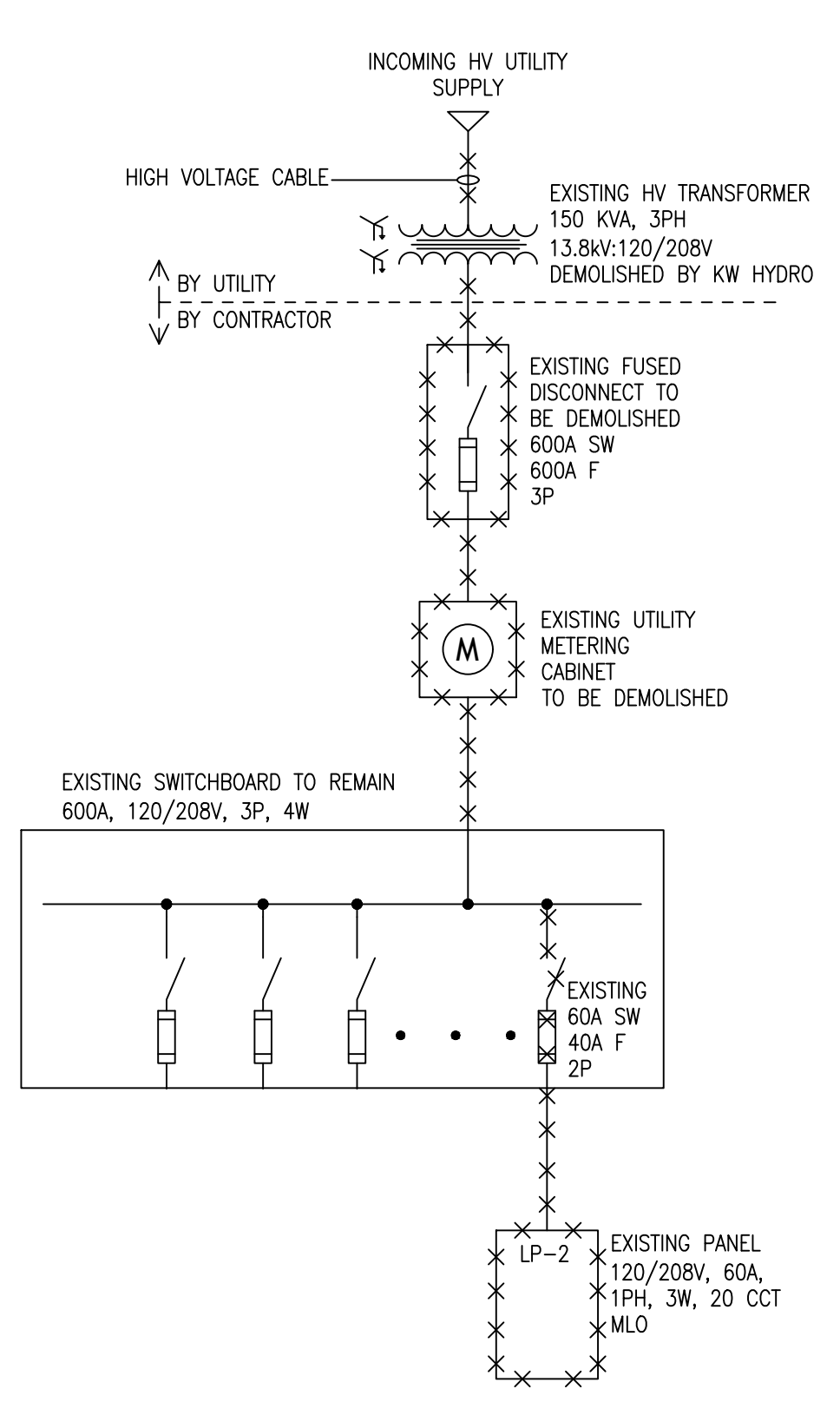
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ARCHITECTURE
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SMITHSON PUBLIC SCHOOL
150 BELLVIEW AVENUE, KITCHENER

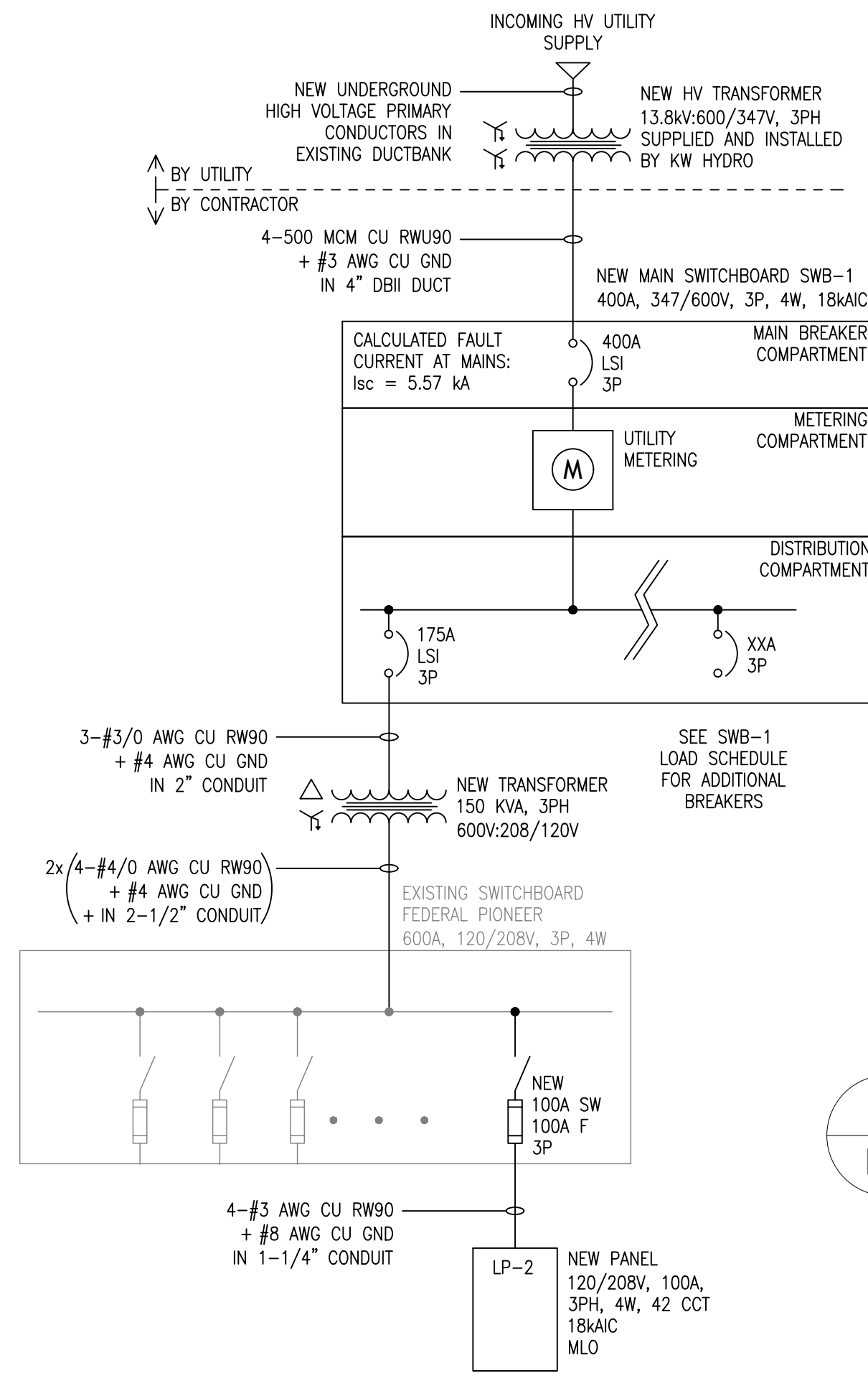
Sheet Title
ELECTRICAL LEGEND AND SCHEDULES

Drawn By DB Scale As Shown
Designed By DB Date November 26, 2020
Project Number B20-349.02A

Sheet Number Revision



1 EXISTING SINGLE LINE DIAGRAM
E2 SCALE: N.T.S.



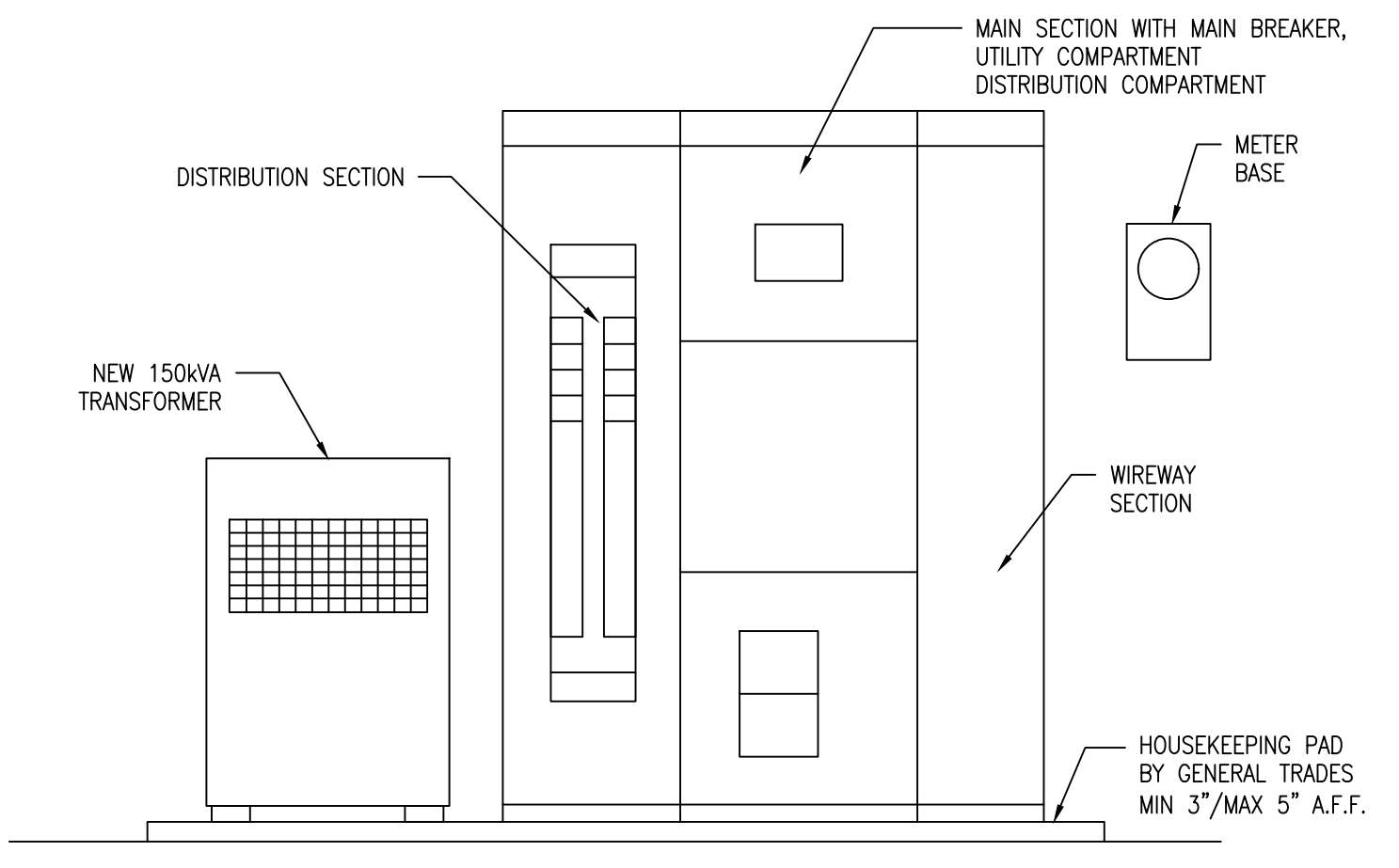
2 PROPOSED SINGLE LINE DIAGRAM
E2 SCALE: N.T.S.

ELECTRICAL SERVICE NOTES:

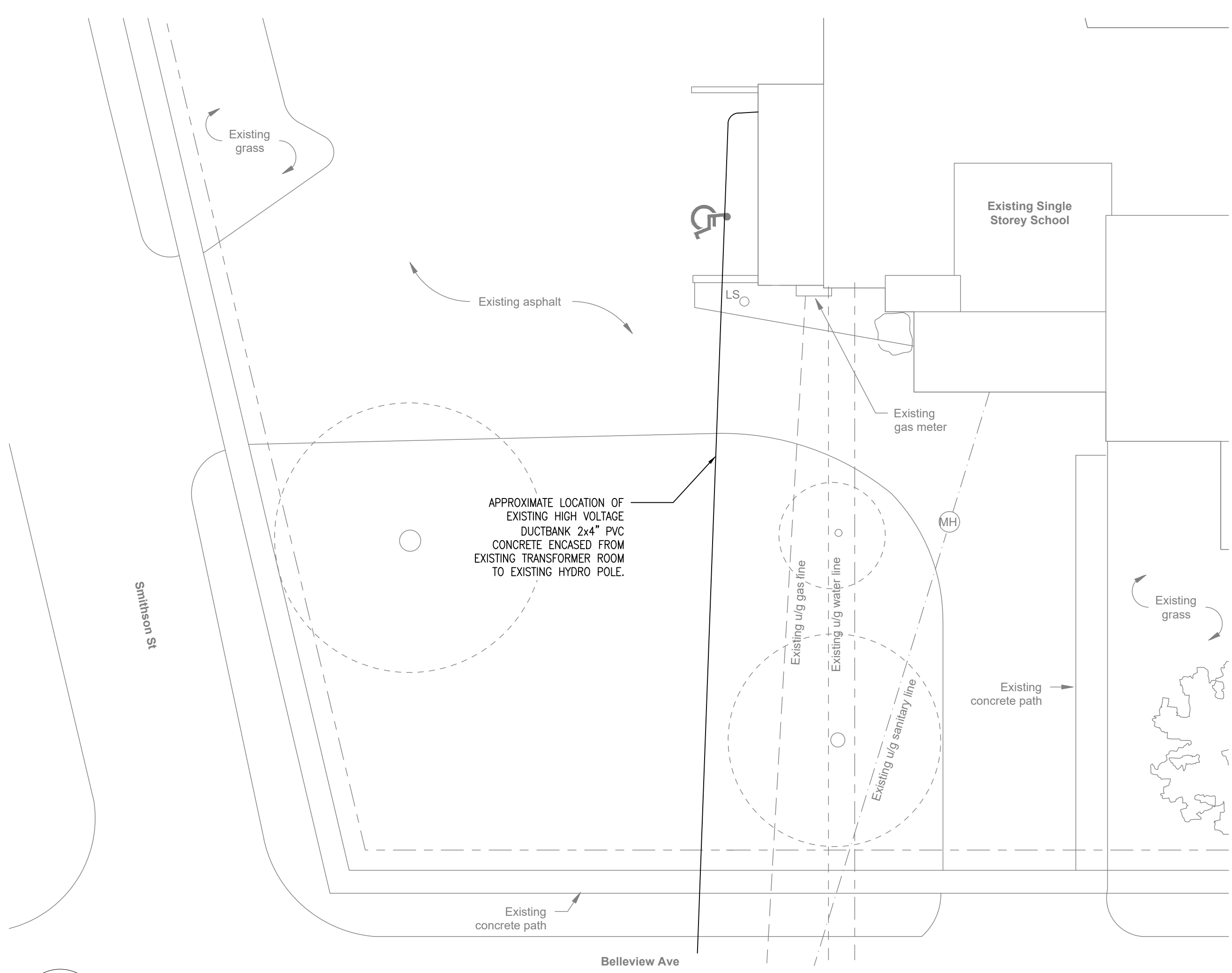
- CONTRACTOR TO SUPPLY AND INSTALL NEW MAIN SWITCHBOARD INCLUDING ALL CIRCUIT BREAKERS AND EQUIPMENT TO FACILITATE UTILITY METERING. SWITCHBOARD SHALL:
 - MAKE/MODEL: SCHNEIDER MDS, OR EQUIVALENT SIEMENS/EATON
 - INCLUDE WIREWAY SECTION AS REQUIRED.
 - MAIN SECTION SHALL INCLUDE MAIN 400A LSI BREAKER, UTILITY METERING COMPARTMENT, AND 1-LINE DISTRIBUTION COMPLETE WITH 175A, 3P LSI BREAKER FOR SUBFEED TO EXISTING SWITCHBOARD.
 - DISTRIBUTION SECTION WITH ADDITIONAL 70% SPACE FOR FUTURE BREAKERS.
 - SURGE PROTECTIVE DEVICE RATED FOR 160kA/PHASE, WITH INDICATION LIGHTS AND AUDIBLE ALARM
- CONTRACTOR TO SUPPLY AND INSTALL NEW 150kVA STEP-DOWN TRANSFORMER TO RE-SUPPLY EXISTING SWITCHBOARD.
- CONTRACTOR TO SUPPLY AND INSTALL ONE (1) 13-JAW METER BASE AT LOCATION PROVIDED BY KW HYDRO AT 5' ABOVE GRADE. CONFIRM REQUIREMENTS WITH KW HYDRO BEFORE PURCHASING AND INSTALLING EQUIPMENT.
- CONTRACTOR TO SUPPLY AND INSTALL PHASE LOSS RELAY AND SECURITY INTERFACE WITHIN NEW DISTRIBUTION BOARD AS PER WRDSB REQUIREMENTS. CONTRACTOR TO SUPPLY AND INSTALL SURGE PROTECTIVE DEVICE FOR NEW SWITCHBOARD SWB-1.
- CONTRACTOR TO SUPPLY AND MAINTAIN BACKUP POWER GENSET DURING MAIN SERVICE POWER SWITCH OVER TO MAINTAIN EXISTING FIRE ALARM, SECURITY, CORRIDOR LIGHTING AND CONSTRUCTION LOADS UNTIL UTILITY POWER IS RESTORED.
- CONTRACTOR TO PHASE INSTALLATION OF NEW DISTRIBUTION EQUIPMENT TO BE COMPLETED BEFORE TRANSFORMER REPLACEMENT TO ENSURE THAT NEW DISTRIBUTION SYSTEM IS READY TO BE ENERGIZED ONCE KW HYDRO SERVICE UPGRADE IS COMPLETED.
- CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING FUSED SWITCH, WIRING, CONDUITS AND PANELBOARD 'LP-2' FED FROM EXISTING SWITCHBOARD TO FACILITATE INSTALLATION OF REVISED PANEL. CONTRACTOR TO SUPPLY AND INSTALL NEW SWITCH, WIRING, CONDUITS AND 'LP-2' PANELBOARD AS SHOWN. RE-SUPPLY EXISTING FEEDS, EXTENDING EXISTING WIRING AS REQUIRED, AND SUPPLY AND INSTALL NEW BRANCH CIRCUITS AS PER THE PROPOSED POWER DESIGN.
- CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW CIRCUIT BREAKERS AND FUSES AS SHOWN. SUPPLY AND INSTALL CIRCUIT BREAKERS WITHIN SWB-1 AND ENSURE THAT DISTRIBUTION BOARD HAS 70% SPACE FOR ADDITIONAL FUTURE LOADS.
- ALL NEW SWITCHBOARDS, PANELBOARDS, BREAKERS, ETC FOR NEW POWER DISTRIBUTION EQUIPMENT SHALL BE FROM THE SAME MANUFACTURER.

ELECTRICAL SERVICE NOTES:

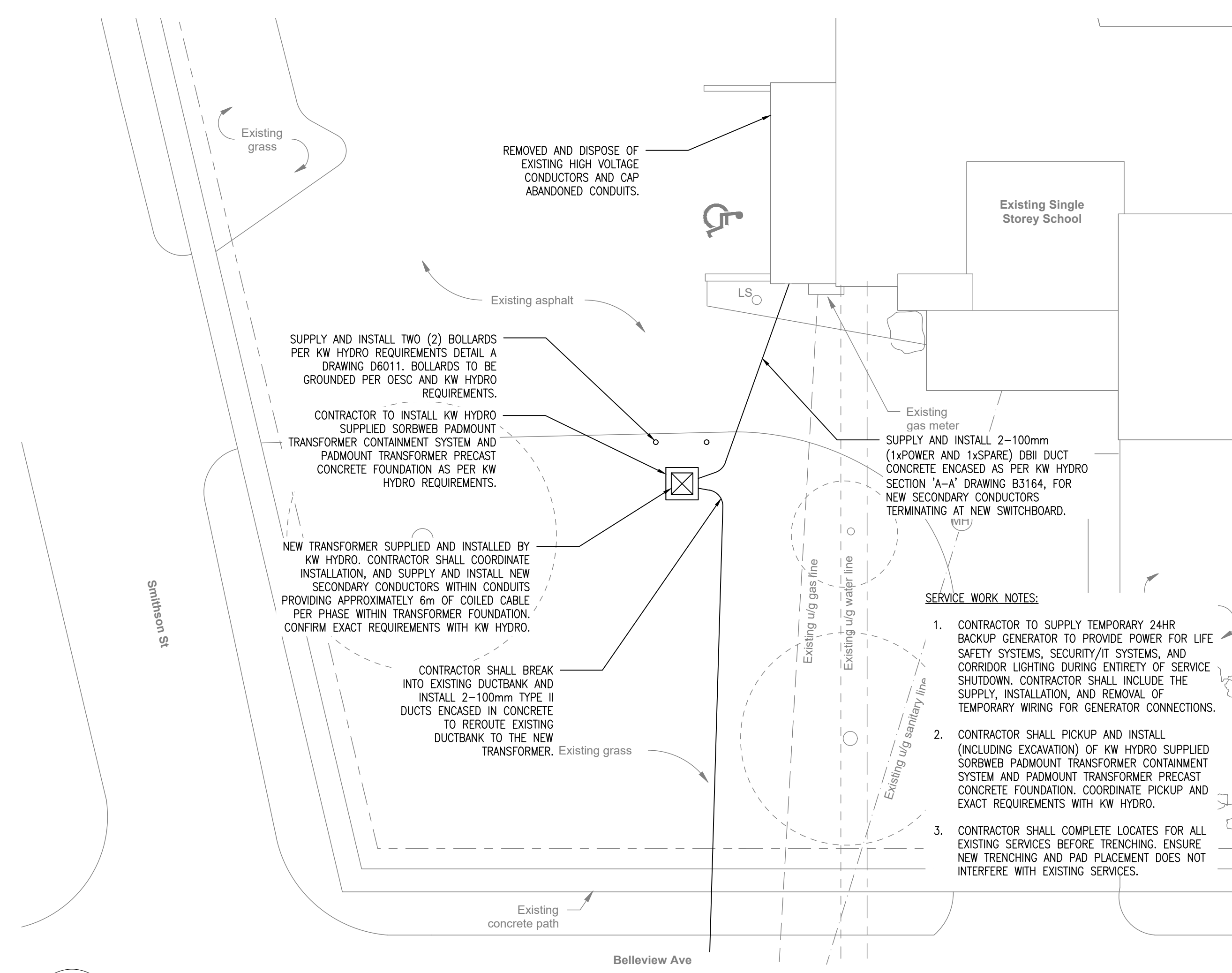
- GENERAL CONTRACTOR SUPPLY AND INSTALL HOUSEKEEPING PAD FOR NEW SWITCHBOARD AND TRANSFORMER.
- CONTRACTOR TO REVIEW KW HYDRO METERING REQUIREMENTS FOR UTILITY COMPARTMENT. PROPOSED SWITCHBOARD SHALL CONFORM TO ALL KW HYDRO STANDARDS INCLUDING KW HYDRO DRAWING E-9926 AND B3164. SUPPLY AND INSTALL 13-JAW METER BASE AND ALL METERING EQUIPMENT AS PER KW HYDRO METERING SPECIFICATIONS. CONTRACTOR SHALL INSTALL CT'S WITHIN METERING COMPARTMENT PROVIDED BY KW HYDRO.
- CONTRACTOR TO INSTALL NEW SORBWEB CONTAINMENT SYSTEM AND PRECAST CONCRETE FOUNDATION SUPPLIED BY KW HYDRO FOR NEW TRANSFORMER. CONTRACTOR INSTALL EQUIPMENT CONFORMING TO KW HYDRO DRAWINGS AND SPECIFICATIONS:
 - DRAWING B3164
 - DRAWING C-9981
 - DRAWING D-8817
 - DRAWING D-8818
 COORDINATE EXACT LOCATION AND INSTALLATION REQUIREMENTS WITH KW HYDRO.
- CONTRACTOR TO REVISE EXISTING PRIMARY DUCTBACK TO TERMINATE AT NEW CONCRETE PAD. CONTRACTOR TO SUPPLY AND INSTALL NEW SECONDARY DUCTBACK FROM CONCRETE PAD TO NEW SWITCHGEAR LOCATION. CONTRACTOR TO FOLLOW KW HYDRO DUCTBANK DRAWINGS AND SPECIFICATIONS DRAWINGS B3164 AND E-9436.
- CONTRACTOR TO SUPPLY AND INSTALL TWO (2) NEW BOLLARDS AS SHOWN. BOLLARDS ARE TO BE PAINTED YELLOW AND GROUNDED PER OESC AND KW HYDRO REQUIREMENTS DETAIL A DRAWING D6011.



3 SERVICE ENTRANCE ELEVATION
E2 SCALE: N.T.S.



4 EXISTING ELECTRICAL SERVICE
E2 SCALE: 1:200



5 NEW ELECTRICAL SERVICE
E2 SCALE: 1:200

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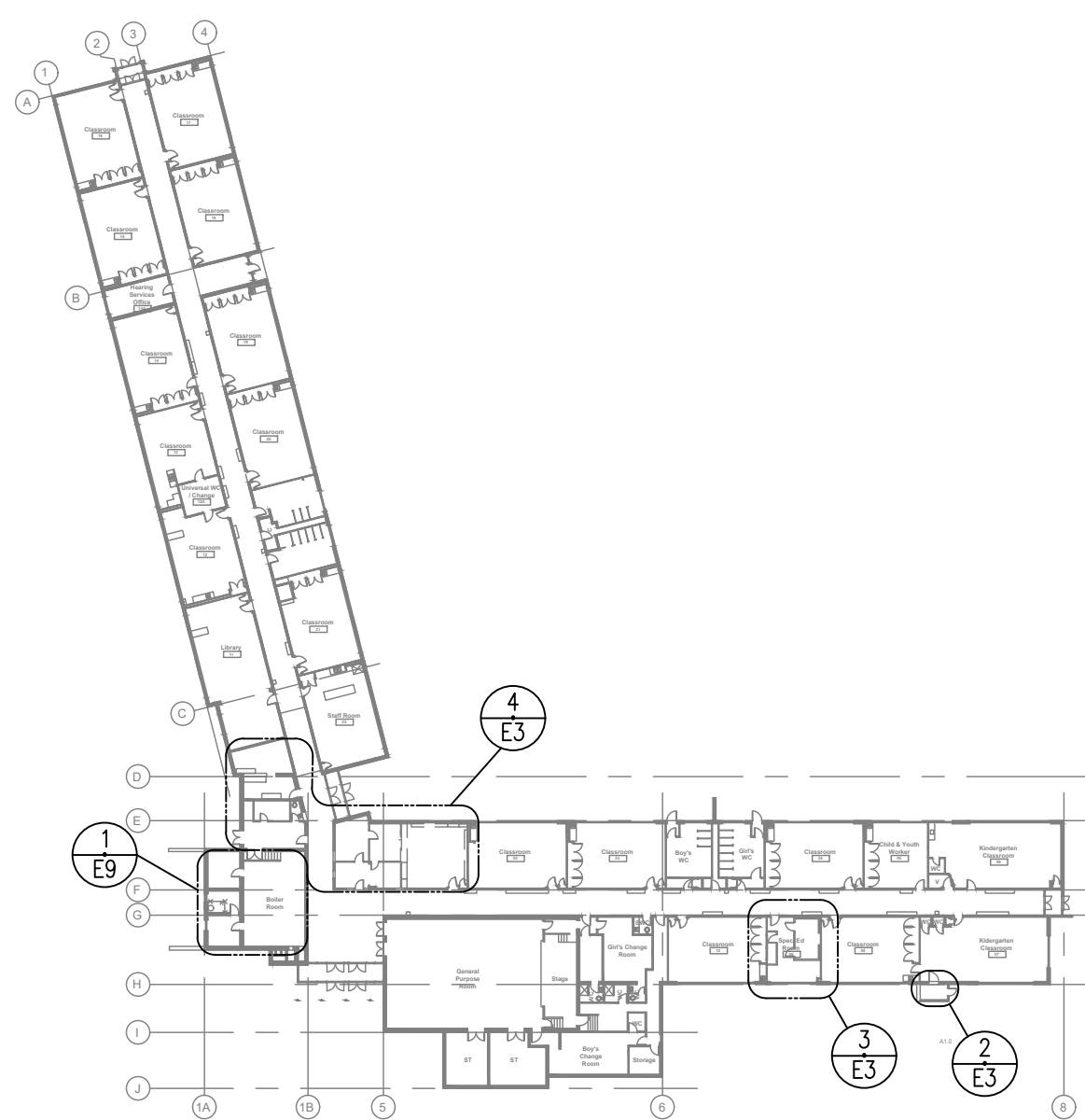
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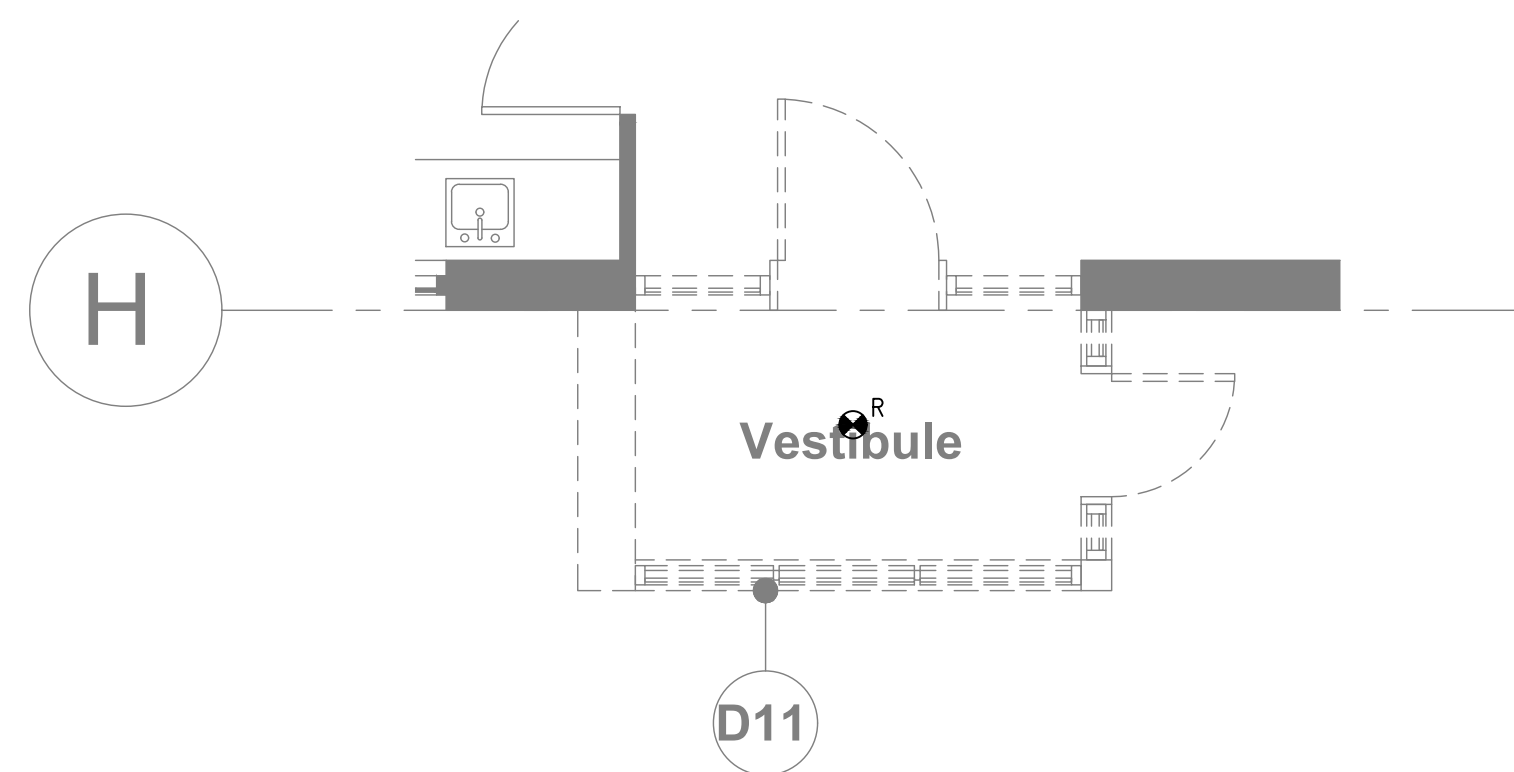
Sheet Title
ELECTRICAL SINGLE LINE DIAGRAM AND SITE PLAN

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

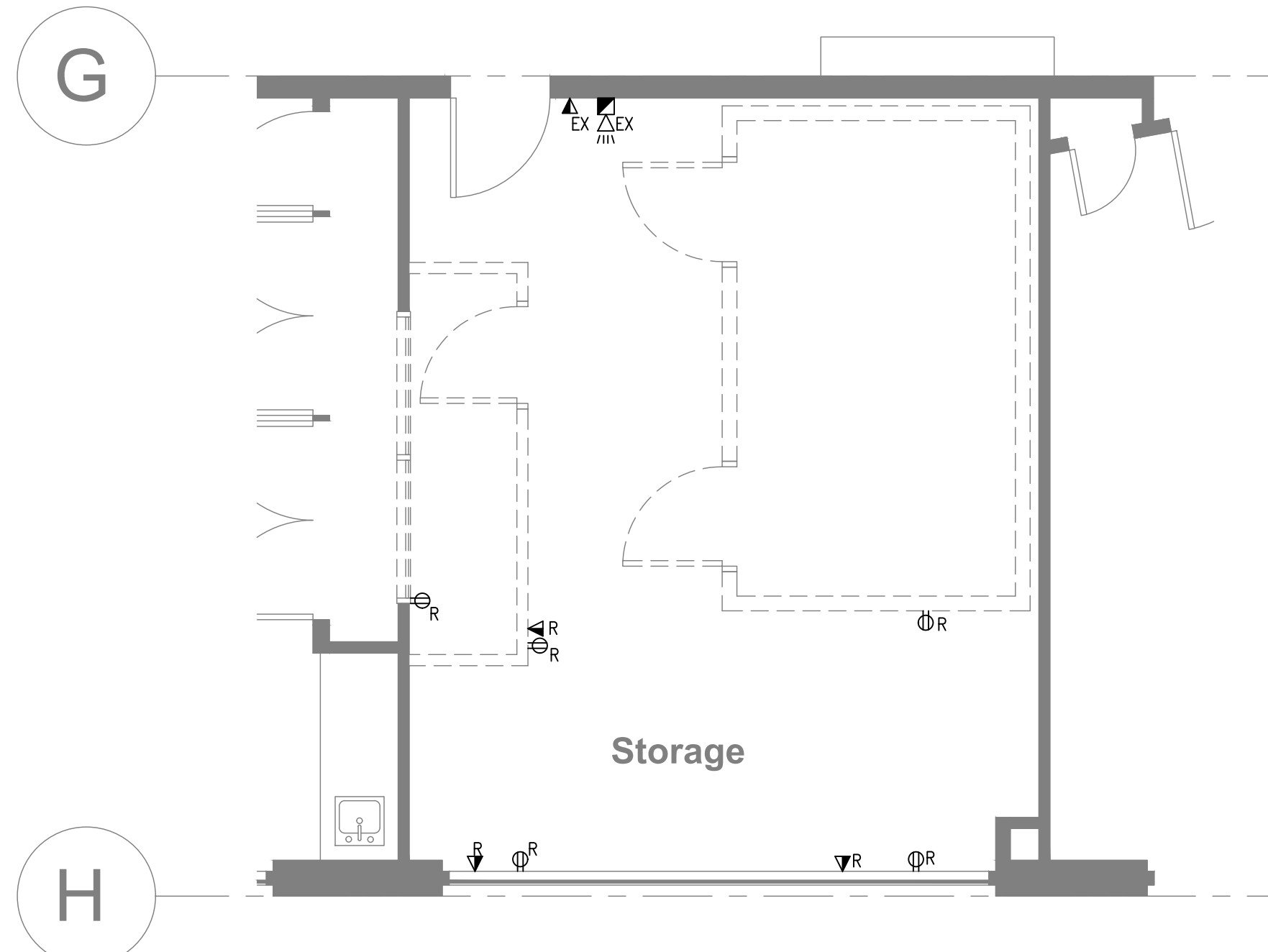
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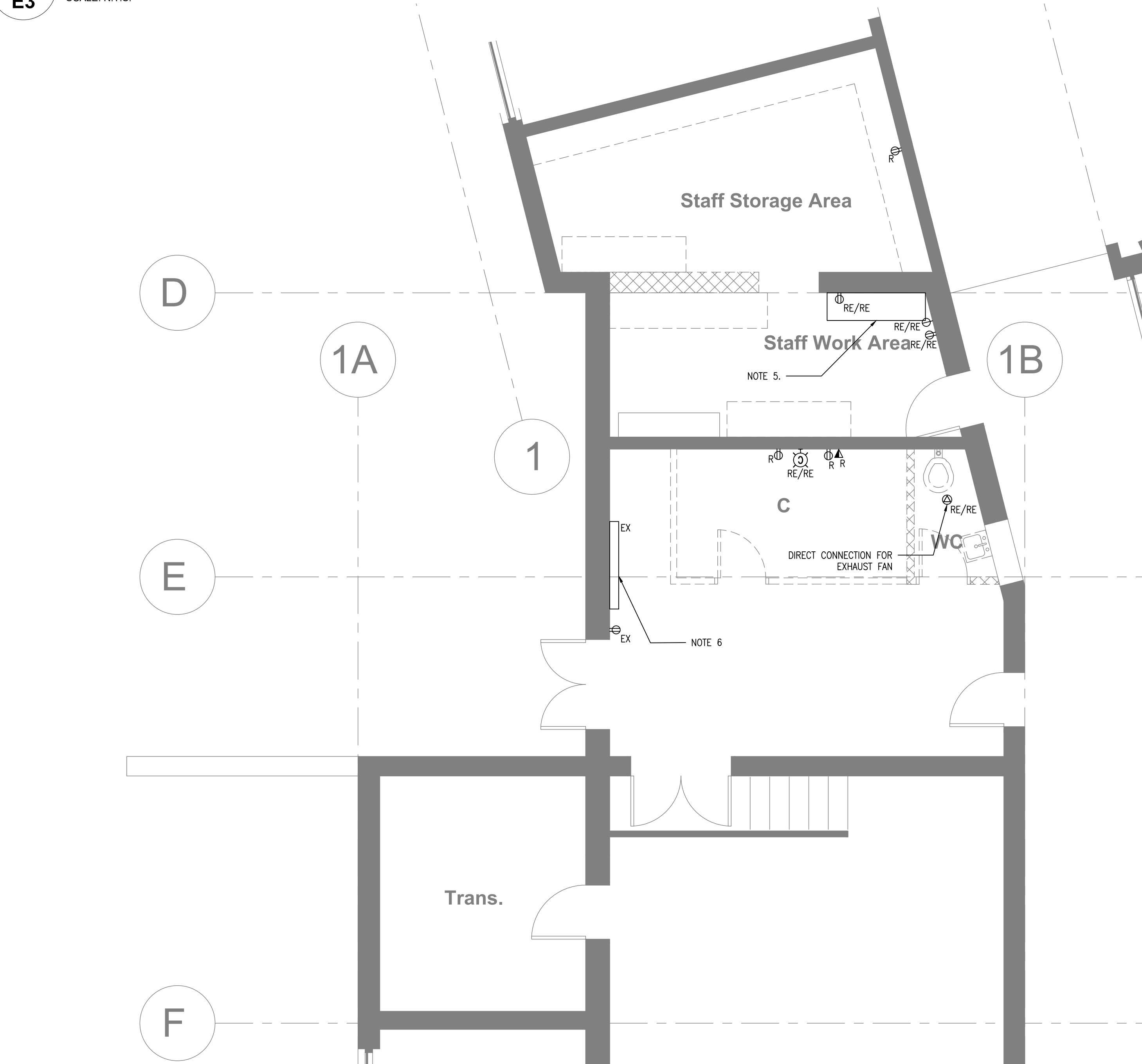
1 EXISTING/DEMO POWER - KEY PLAN
E3 SCALE: N.T.S.



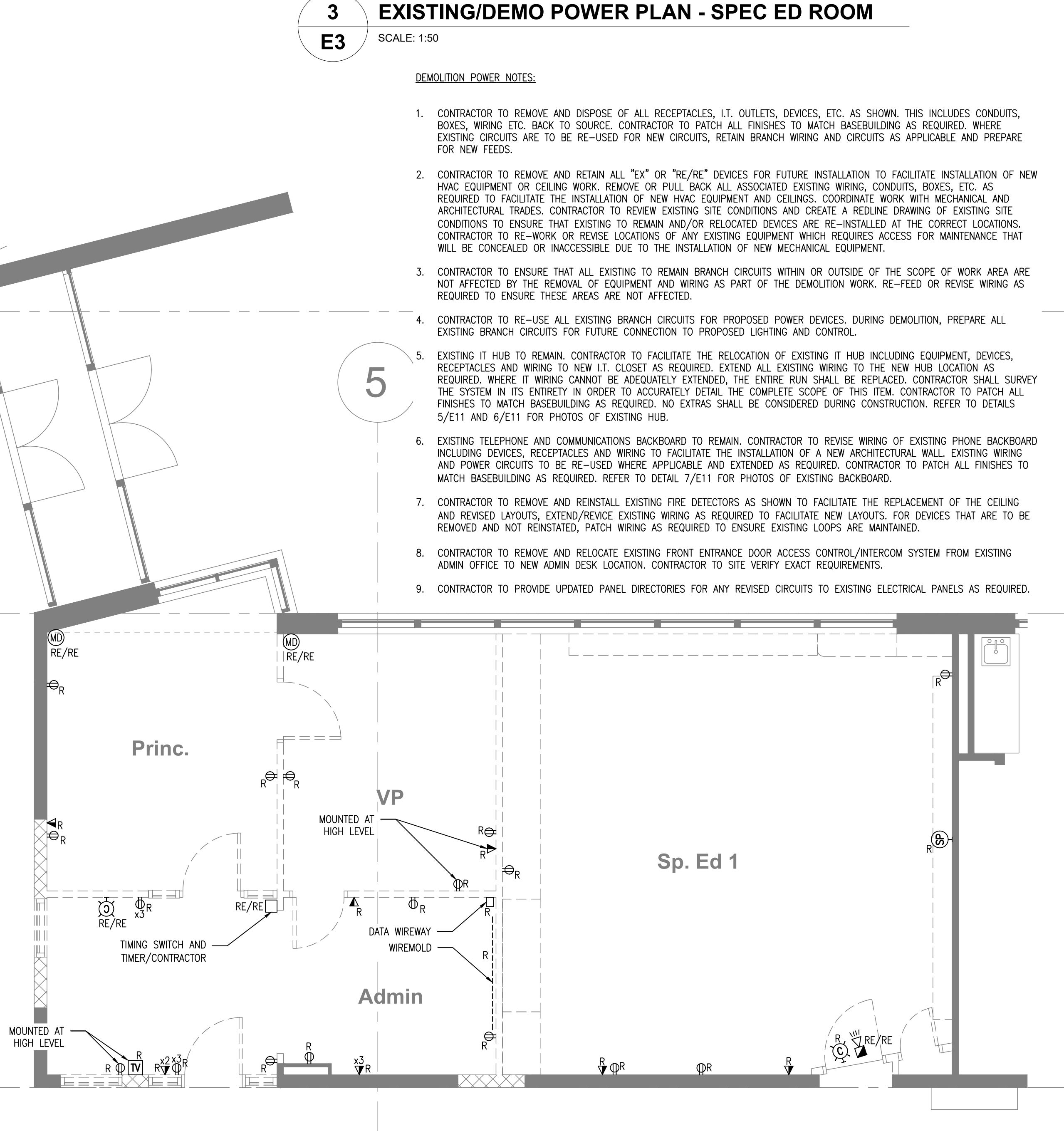
2 EXISTING/DEMO POWER - ENTRANCE VESTIBULE
E3 SCALE: 1:50



3 EXISTING/DEMO POWER PLAN - SPEC ED ROOM
E3 SCALE: 1:50



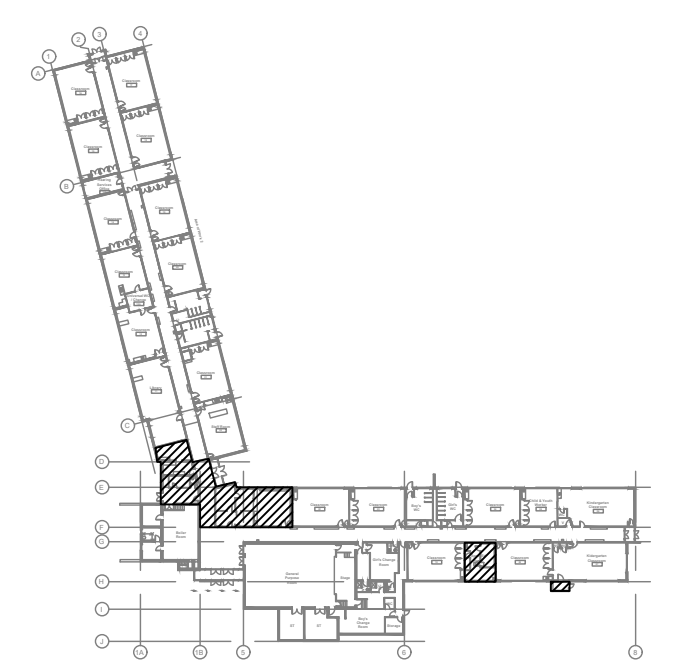
4 EXIST./DEMO POWER PLAN - CUST./STAFF WC/OFFICE
E3 SCALE: 1:50



- DEMOLITION POWER NOTES:**
- CONTRACTOR TO REMOVE AND DISPOSE OF ALL RECEPTACLES, I.T. OUTLETS, DEVICES, ETC. AS SHOWN. THIS INCLUDES CONDUITS, BOXES, WIRING ETC. BACK TO SOURCE. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED. WHERE EXISTING CIRCUITS ARE TO BE RE-USED FOR NEW CIRCUITS, RETAIN BRANCH WIRING AND CIRCUITS AS APPLICABLE AND PREPARE FOR NEW FEEDS.
 - CONTRACTOR TO REMOVE AND RETAIN ALL "EX" OR "RE/RE" DEVICES FOR FUTURE INSTALLATION TO FACILITATE INSTALLATION OF NEW HVAC EQUIPMENT OR CEILING WORK. REMOVE OR PULL BACK ALL ASSOCIATED EXISTING WIRING, CONDUITS, BOXES, ETC. AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW HVAC EQUIPMENT AND CEILINGS. COORDINATE WORK WITH MECHANICAL AND ARCHITECTURAL TRADES. CONTRACTOR TO REVIEW EXISTING SITE CONDITIONS AND CREATE A REDLINE DRAWING OF EXISTING SITE CONDITIONS TO ENSURE THAT EXISTING TO REMAIN AND/OR RELOCATED DEVICES ARE RE-INSTALLED AT THE CORRECT LOCATIONS. CONTRACTOR TO RE-WORK OR REVISE LOCATIONS OF ANY EXISTING EQUIPMENT WHICH REQUIRES ACCESS FOR MAINTENANCE THAT WILL BE CONCEALED OR INACCESSIBLE DUE TO THE INSTALLATION OF NEW MECHANICAL EQUIPMENT.
 - CONTRACTOR TO ENSURE THAT ALL EXISTING TO REMAIN BRANCH CIRCUITS WITHIN OR OUTSIDE OF THE SCOPE OF WORK AREA ARE NOT AFFECTED BY THE REMOVAL OF EQUIPMENT AND WIRING AS PART OF THE DEMOLITION WORK. RE-FEED OR REVISE WIRING AS REQUIRED TO ENSURE THESE AREAS ARE NOT AFFECTED.
 - CONTRACTOR TO RE-USE ALL EXISTING BRANCH CIRCUITS FOR PROPOSED POWER DEVICES. DURING DEMOLITION, PREPARE ALL EXISTING BRANCH CIRCUITS FOR FUTURE CONNECTION TO PROPOSED LIGHTING AND CONTROL.
 - EXISTING IT HUB TO REMAIN. CONTRACTOR TO FACILITATE THE RELOCATION OF EXISTING IT HUB INCLUDING EQUIPMENT, DEVICES, RECEPTACLES AND WIRING TO NEW I.T. CLOSET AS REQUIRED. EXTEND ALL EXISTING WIRING TO THE NEW HUB LOCATION AS REQUIRED. WHERE IT WIRING CANNOT BE ADEQUATELY EXTENDED, THE ENTIRE RUN SHALL BE REPLACED. CONTRACTOR SHALL SURVEY THE SYSTEM IN ITS ENTIRETY IN ORDER TO ACCURATELY DETAIL THE COMPLETE SCOPE OF THIS ITEM. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED. NO EXTRAS SHALL BE CONSIDERED DURING CONSTRUCTION. REFER TO DETAILS 5/E11 AND 6/E11 FOR PHOTOS OF EXISTING HUB.
 - EXISTING TELEPHONE AND COMMUNICATIONS BACKBOARD TO REMAIN. CONTRACTOR TO REVISE WIRING OF EXISTING PHONE BACKBOARD INCLUDING DEVICES, RECEPTACLES AND WIRING TO FACILITATE THE INSTALLATION OF A NEW ARCHITECTURAL WALL. EXISTING WIRING AND POWER CIRCUITS TO BE RE-USED WHERE APPLICABLE AND EXTENDED AS REQUIRED. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED. REFER TO DETAIL 7/E11 FOR PHOTOS OF EXISTING BACKBOARD.
 - CONTRACTOR TO REMOVE AND REINSTALL EXISTING FIRE DETECTORS AS SHOWN TO FACILITATE THE REPLACEMENT OF THE CEILING AND REVISED LAYOUTS. EXTEND/REVISE EXISTING WIRING AS REQUIRED TO FACILITATE NEW LAYOUTS. FOR DEVICES THAT ARE TO BE REMOVED AND NOT REINSTATED, PATCH WIRING AS REQUIRED TO ENSURE EXISTING LOOPS ARE MAINTAINED.
 - CONTRACTOR TO REMOVE AND RELOCATE EXISTING FRONT ENTRANCE DOOR ACCESS CONTROL/INTERCOM SYSTEM FROM EXISTING ADMIN OFFICE TO NEW ADMIN DESK LOCATION. CONTRACTOR TO SITE VERIFY EXACT REQUIREMENTS.
 - CONTRACTOR TO PROVIDE UPDATED PANEL DIRECTORIES FOR ANY REVISED CIRCUITS TO EXISTING ELECTRICAL PANELS AS REQUIRED.

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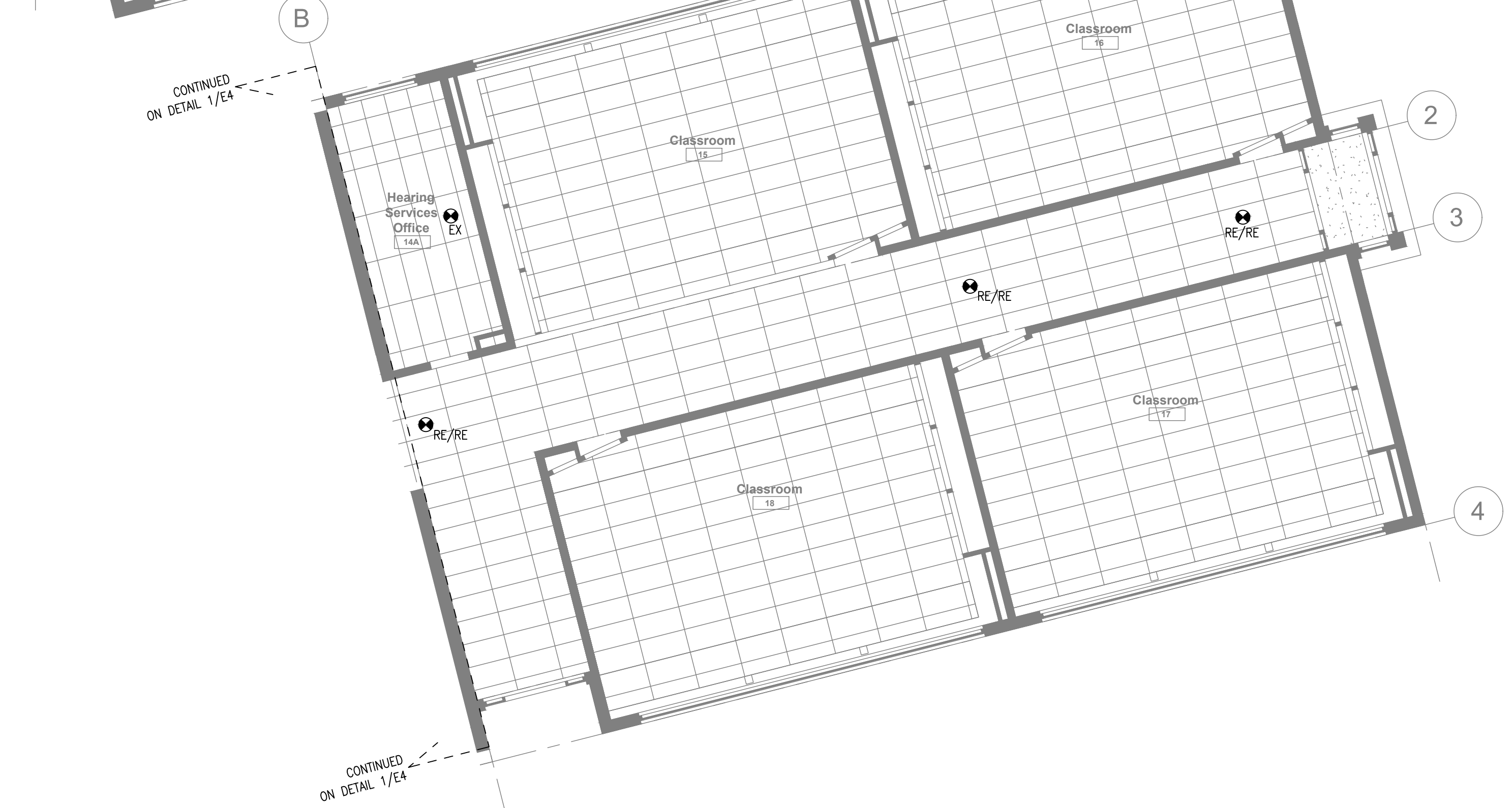
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Sheet Title
EXISTING/DEMO POWER PLANS

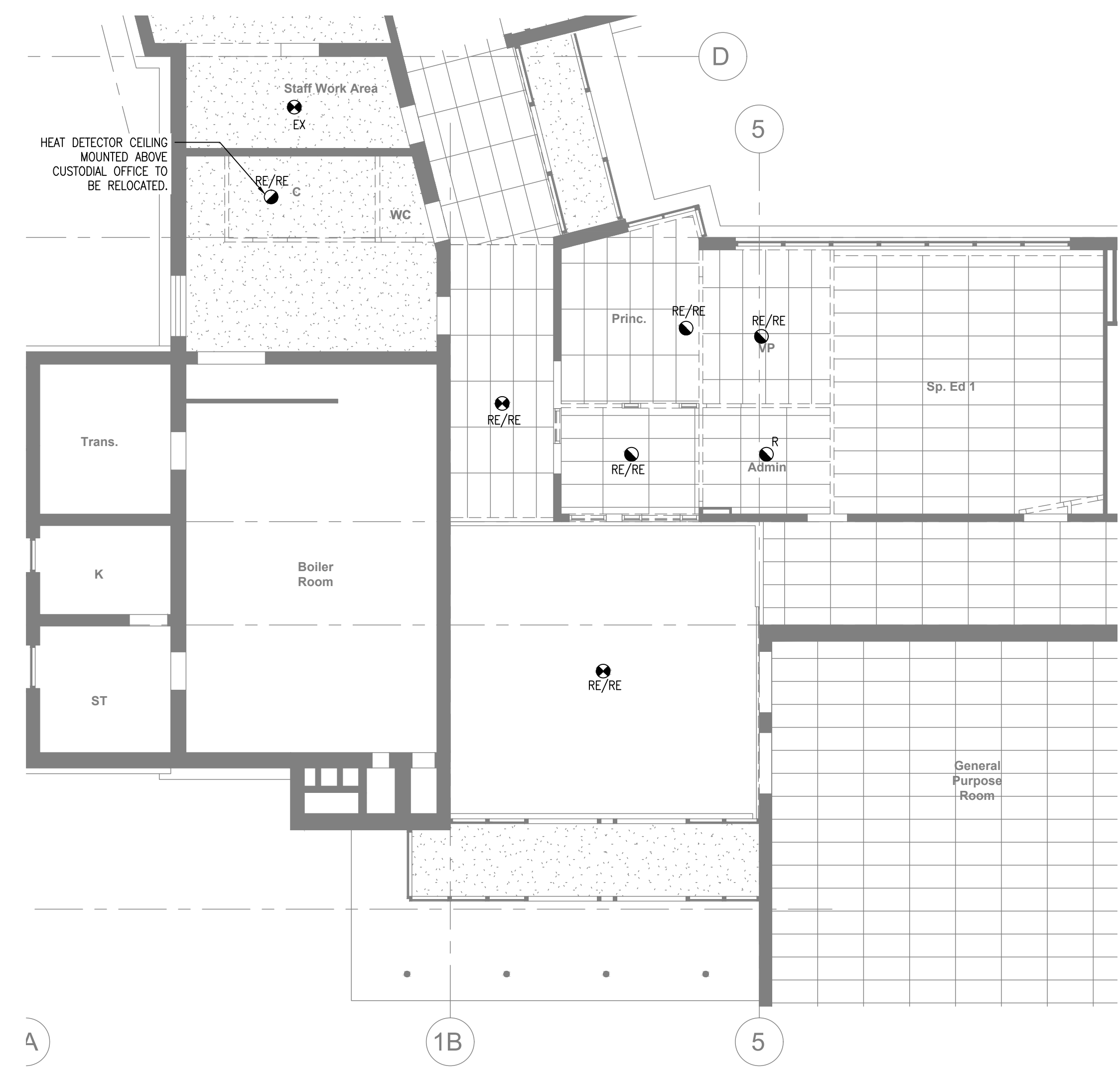
Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision
E3 1



1 EXIST./DEMO PART PLAN - WEST WING CORRIDOR
E4 SCALE: 1:100

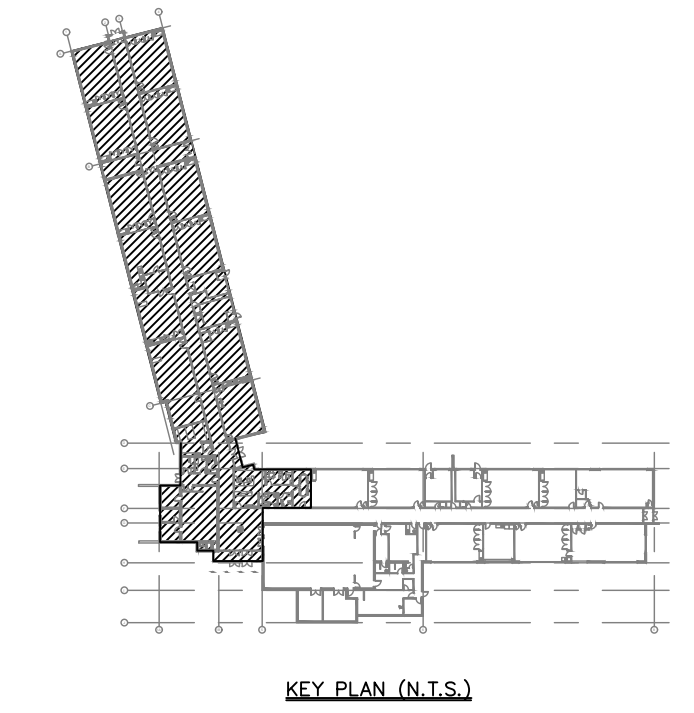


2 EXIST./DEMO PART PLAN - WEST WING CORRIDOR
E4 SCALE: 1:100



3 EXIST./DEMO PART PLAN - LOBBY/OFFICE
E4 SCALE: 1:100

- Drawing Notes**
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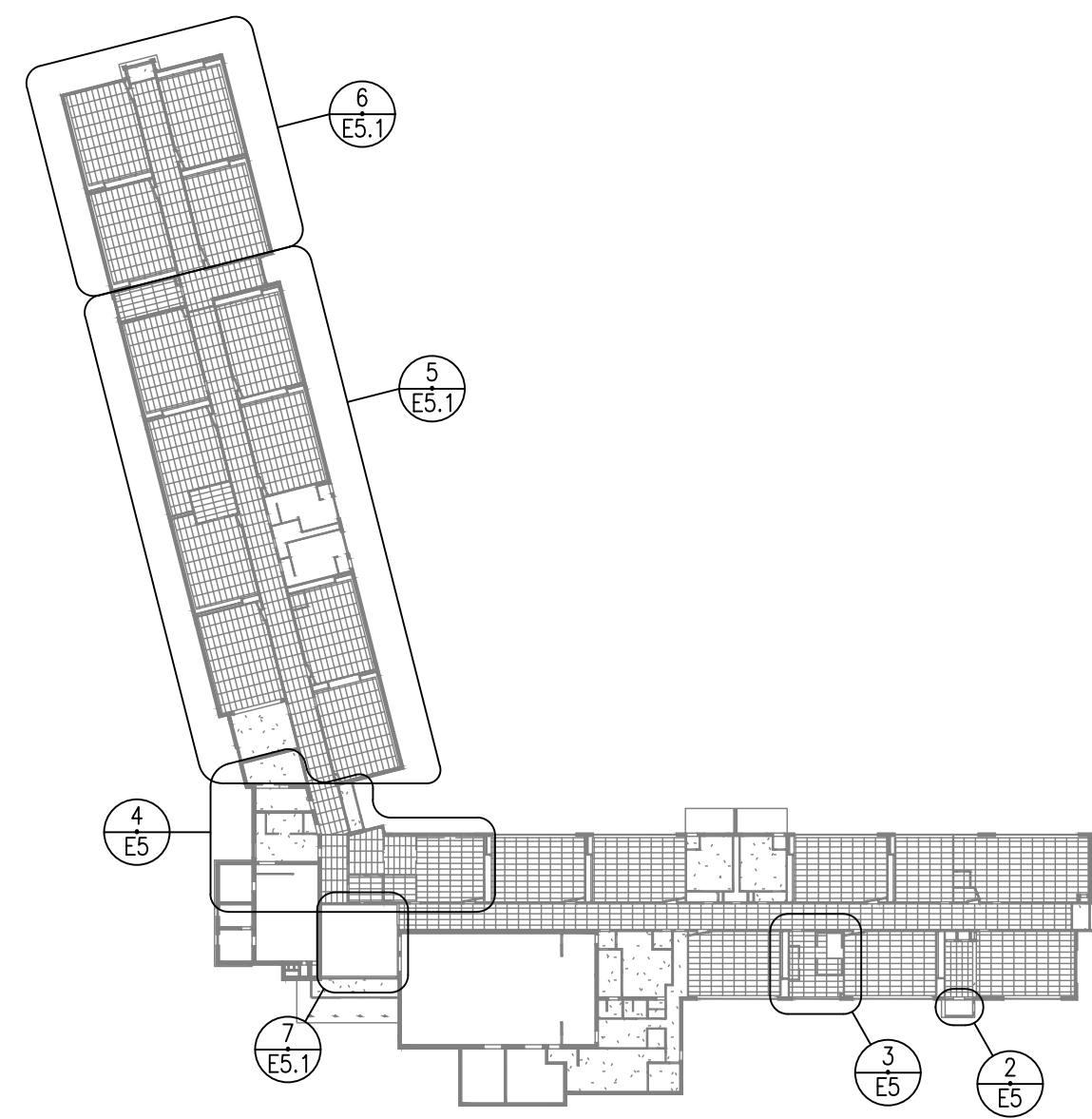


No.	Revision	Date	By
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB
5.	ISSUED PERMIT / TENDER	21 MAY 11	CP

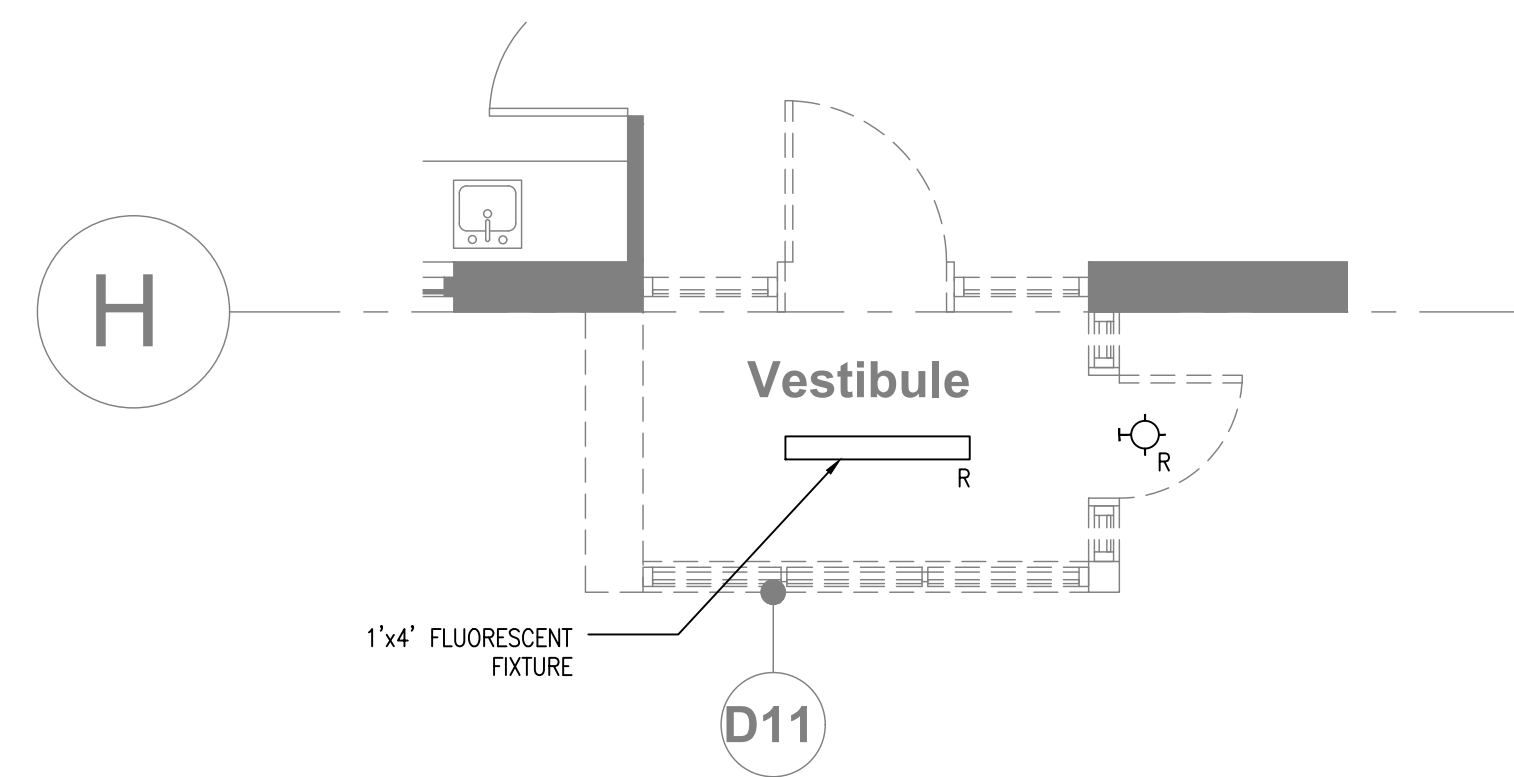
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 Tel: 416-556-0766
 Fax: 1-866-876-5758
 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
EXISTING/DEMO FIRE ALARM PLANS

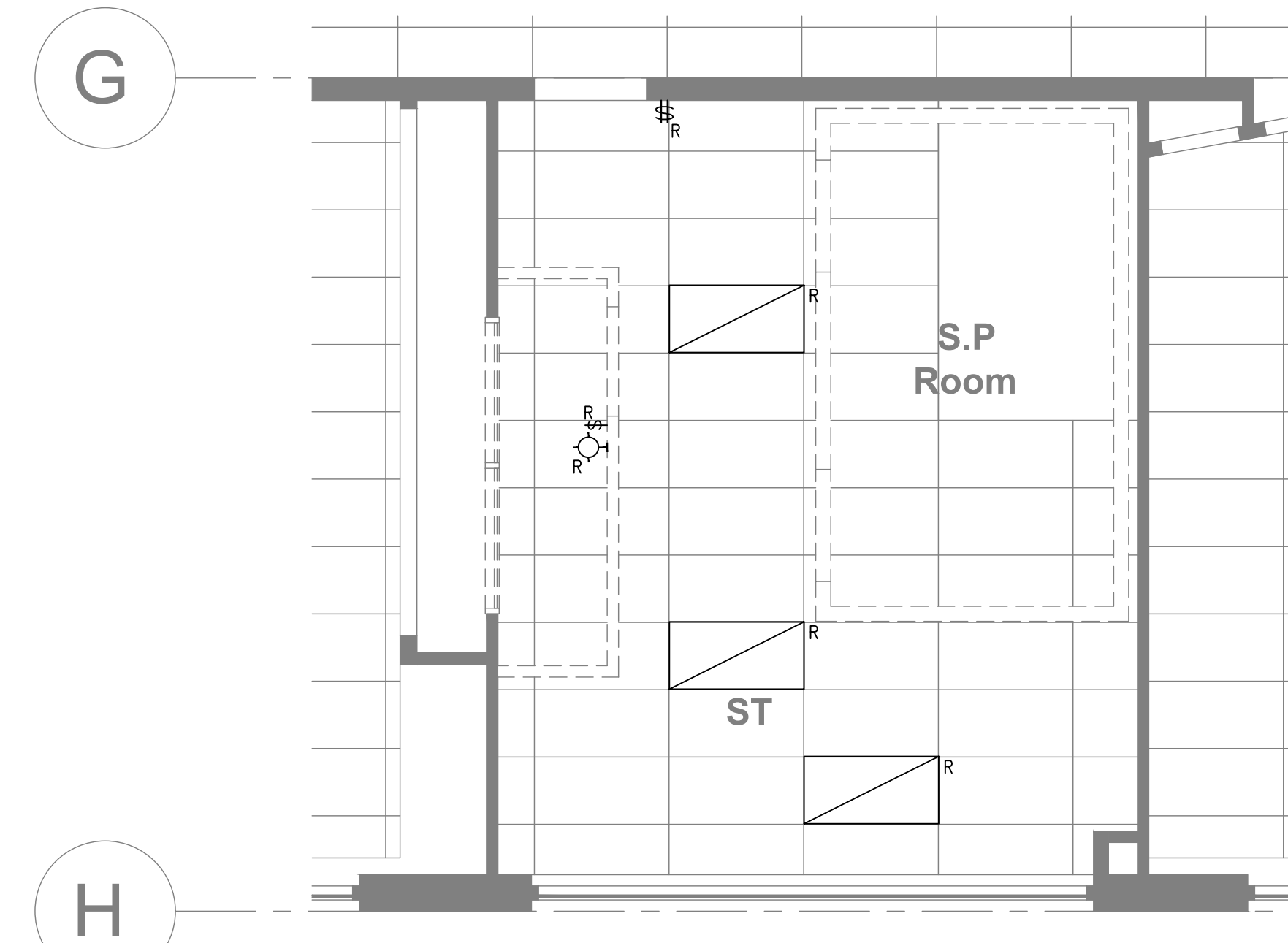
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Designed By	DB	Date	November 26, 2020
Project Number	B20-349.02A		
Sheet Number			Revision
E4			1



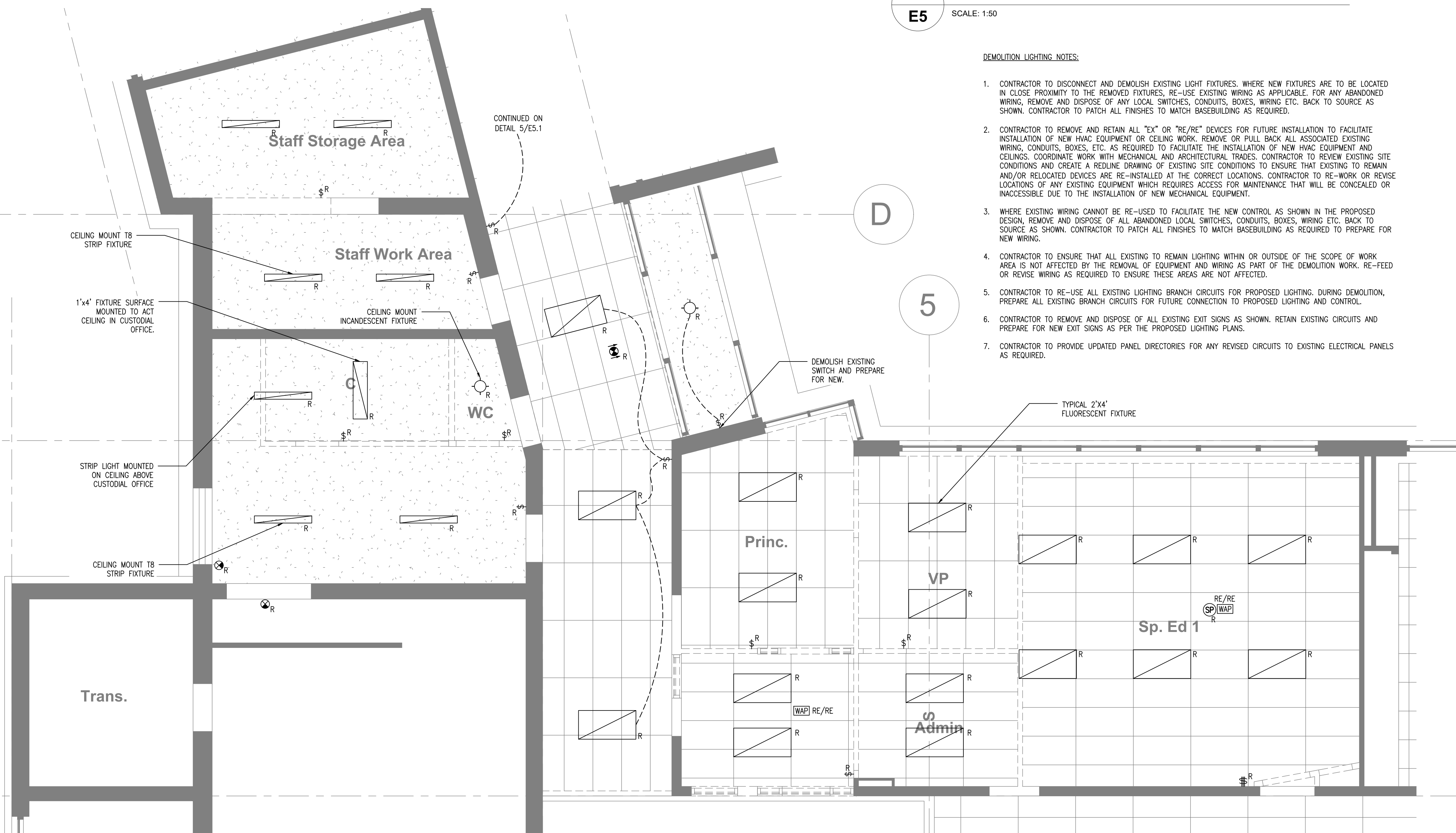
1 EXISTING/DEMO LIGHTING & RCP - KEY PLAN
E5 SCALE: N.T.S.



2 EXISTING/DEMO LIGHTING & RCP - ENTRANCE VESTIBULE
E5 SCALE: 1:50



3 EXISTING/DEMO LIGHTING & RCP - SPEC ED ROOM
E5 SCALE: 1:50



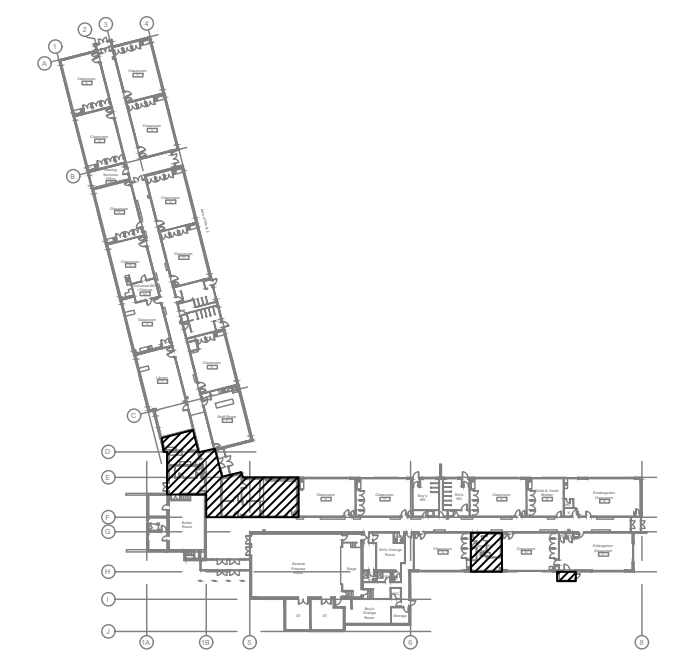
4 EXIST./DEMO LIGHTING & RCP - CUST./STAFF WC/OFFICE
E5 SCALE: 1:50

DEMOLITION LIGHTING NOTES:

- CONTRACTOR TO DISCONNECT AND DEMOLISH EXISTING LIGHT FIXTURES. WHERE NEW FIXTURES ARE TO BE LOCATED IN CLOSE PROXIMITY TO THE REMOVED FIXTURES, RE-USE EXISTING WIRING AS APPLICABLE. FOR ANY ABANDONED WIRING, REMOVE AND DISPOSE OF ANY LOCAL SWITCHES, CONDUITS, BOXES, WIRING ETC. BACK TO SOURCE AS SHOWN. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED.
- CONTRACTOR TO REMOVE AND RETAIN ALL "EX" OR "RE/RE" DEVICES FOR FUTURE INSTALLATION TO FACILITATE INSTALLATION OF NEW HVAC EQUIPMENT OR CEILING WORK. REMOVE OR PULL BACK ALL ASSOCIATED EXISTING WIRING, CONDUITS, BOXES, ETC. AS REQUIRED TO FACILITATE THE INSTALLATION OF NEW HVAC EQUIPMENT AND CEILINGS. COORDINATE WORK WITH MECHANICAL AND ARCHITECTURAL TRADES. CONTRACTOR TO REVIEW EXISTING SITE CONDITIONS AND CREATE A REDLINE DRAWING OF EXISTING SITE CONDITIONS TO ENSURE THAT EXISTING TO REMAIN AND/OR RELOCATED DEVICES ARE RE-INSTALLED AT THE CORRECT LOCATIONS. CONTRACTOR TO RE-WORK OR REVISE LOCATIONS OF ANY EXISTING EQUIPMENT WHICH REQUIRES ACCESS FOR MAINTENANCE THAT WILL BE CONCEALED OR INACCESSIBLE DUE TO THE INSTALLATION OF NEW MECHANICAL EQUIPMENT.
- WHERE EXISTING WIRING CANNOT BE RE-USED TO FACILITATE THE NEW CONTROL AS SHOWN IN THE PROPOSED DESIGN, REMOVE AND DISPOSE OF ALL ABANDONED LOCAL SWITCHES, CONDUITS, BOXES, WIRING ETC. BACK TO SOURCE AS SHOWN. CONTRACTOR TO PATCH ALL FINISHES TO MATCH BASEBUILDING AS REQUIRED TO PREPARE FOR NEW WIRING.
- CONTRACTOR TO ENSURE THAT ALL EXISTING TO REMAIN LIGHTING WITHIN OR OUTSIDE OF THE SCOPE OF WORK AREA IS NOT AFFECTED BY THE REMOVAL OF EQUIPMENT AND WIRING AS PART OF THE DEMOLITION WORK. RE-FEED OR REVISE WIRING AS REQUIRED TO ENSURE THESE AREAS ARE NOT AFFECTED.
- CONTRACTOR TO RE-USE ALL EXISTING LIGHTING BRANCH CIRCUITS FOR PROPOSED LIGHTING. DURING DEMOLITION, PREPARE ALL EXISTING BRANCH CIRCUITS FOR FUTURE CONNECTION TO PROPOSED LIGHTING AND CONTROL.
- CONTRACTOR TO REMOVE AND DISPOSE OF ALL EXISTING EXIT SIGNS AS SHOWN. RETAIN EXISTING CIRCUITS AND PREPARE FOR NEW EXIT SIGNS AS PER THE PROPOSED LIGHTING PLANS.
- CONTRACTOR TO PROVIDE UPDATED PANEL DIRECTORIES FOR ANY REVISED CIRCUITS TO EXISTING ELECTRICAL PANELS AS REQUIRED.

Drawing Notes

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KEY PLAN (N.T.S.)



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8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
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5.	ISSUED PERMIT / TENDER	21 MAY 11	CP

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Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
EXISTING/DEMO LIGHTING & REFLECTED CEILING PLANS

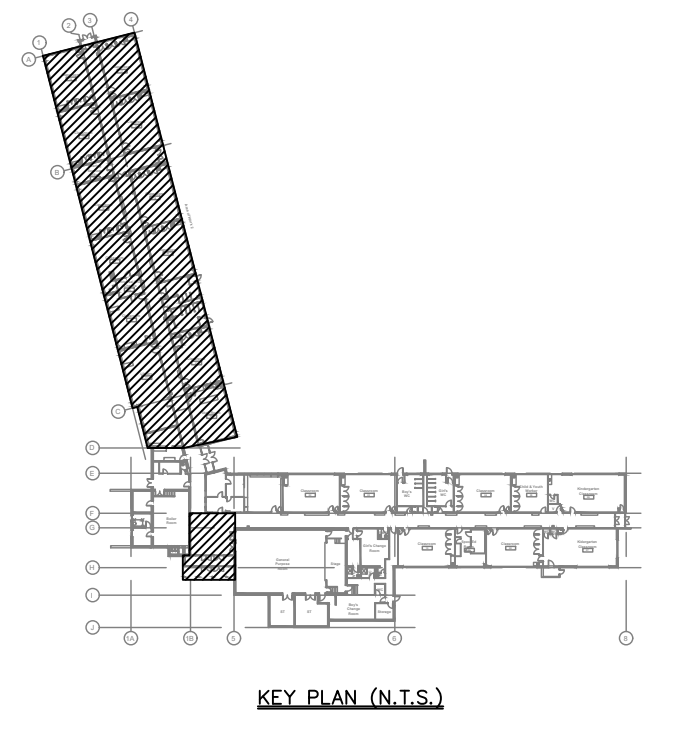
Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

Sheet Number Revision



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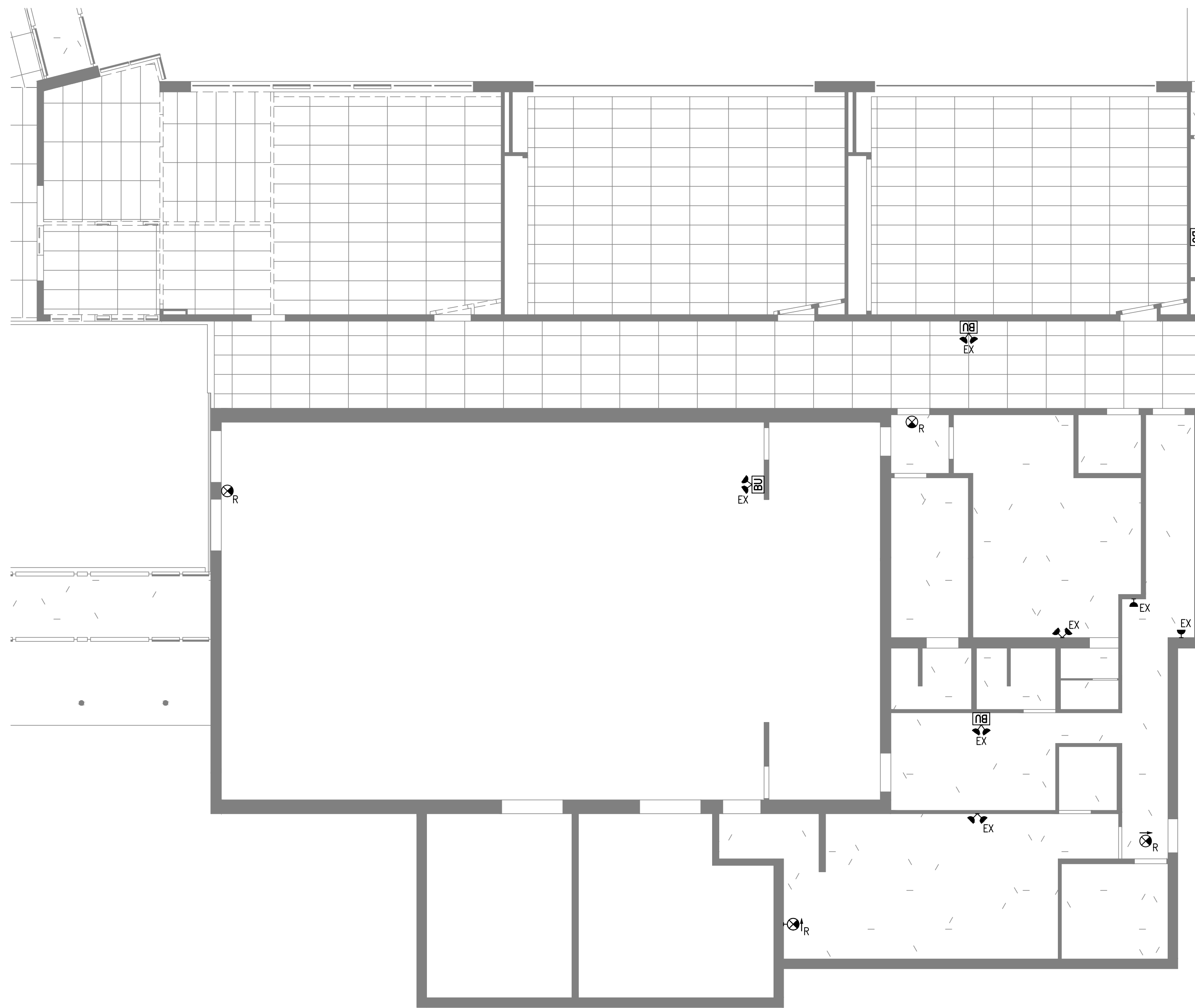
Bold Engineering Inc.
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Project Name
WRDSB - WORKSHOP ARCHITECTURE
HVAC UPGRADES & INTERIOR RENOVATIONS
SMITHSON PUBLIC SCHOOL
150 BELLVIEW AVENUE, KITCHENER

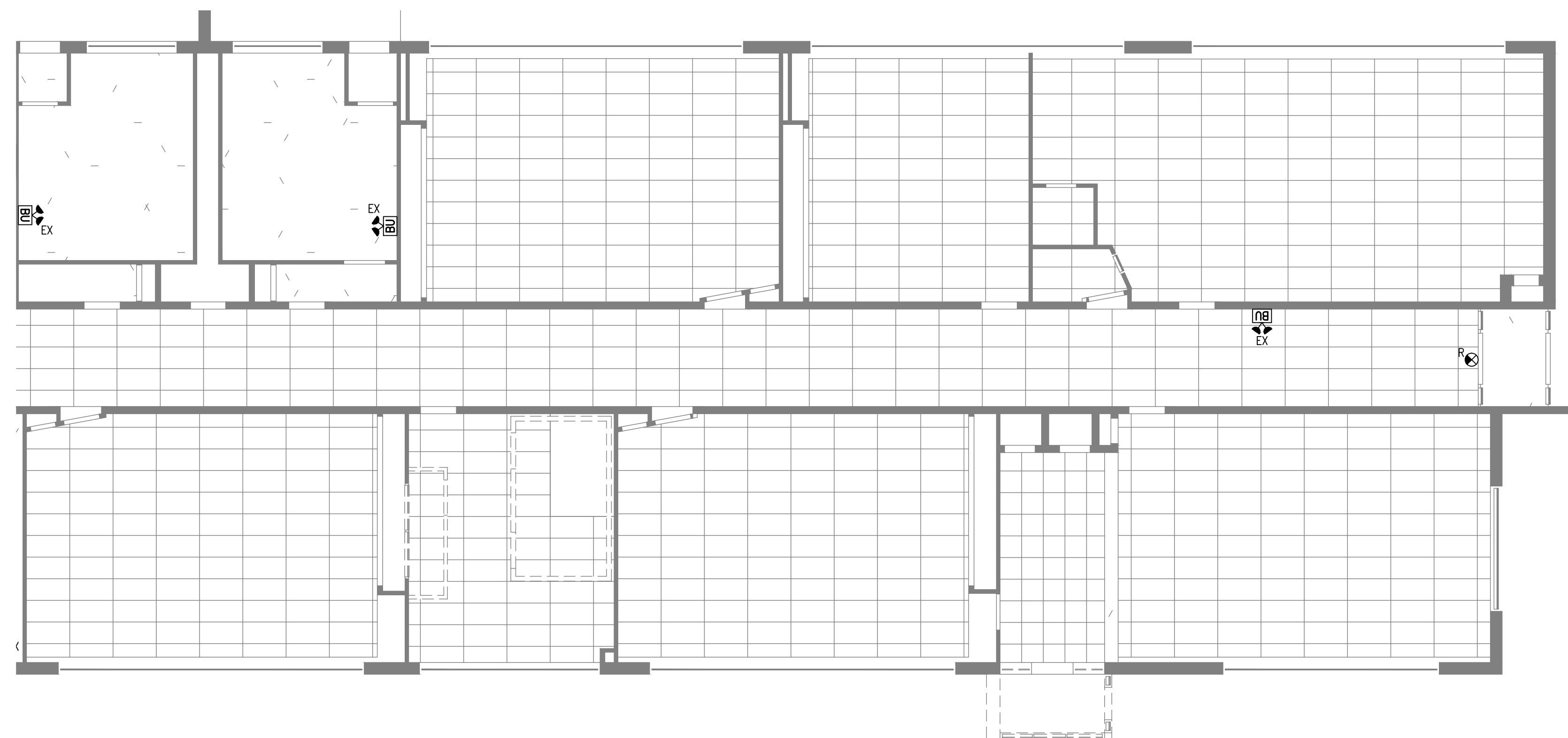
Sheet Title
EXISTING/DEMO LIGHTING & REFLECTED CEILING PLANS

Drawn By DB Scale As Shown
Designed By DB Date November 26, 2020
Project Number **B20-349.02A**

Sheet Number Revision
E5.1 1



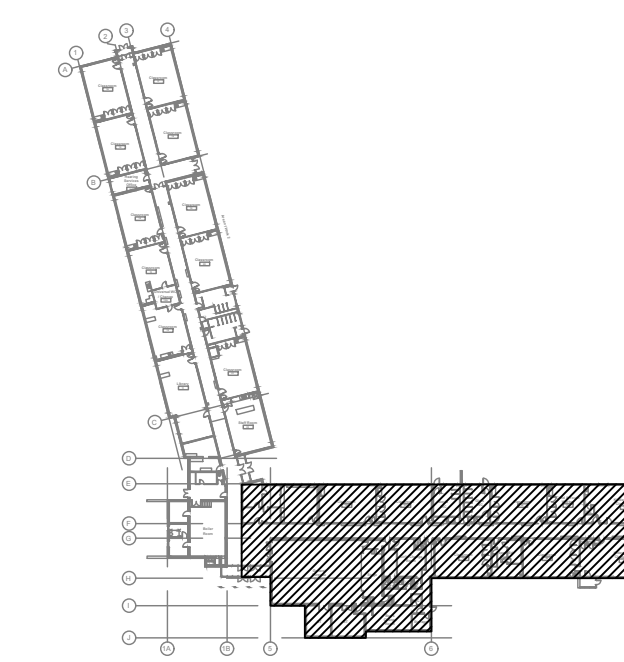
8 EXIST./DEMO EM LITG/EXISTS - EAST WING/GYM
E5.2 SCALE: 1:100



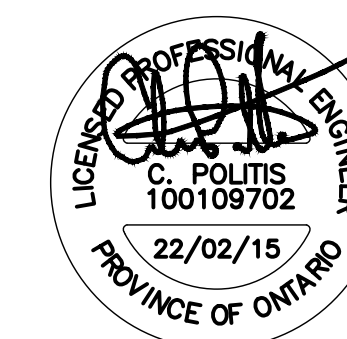
9 EXISTING/DEMO EM LLTG/EXITS - EAST WING COORIDOR
E5.2 SCALE: 1:100

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KEY PLAN (N.T.S.)



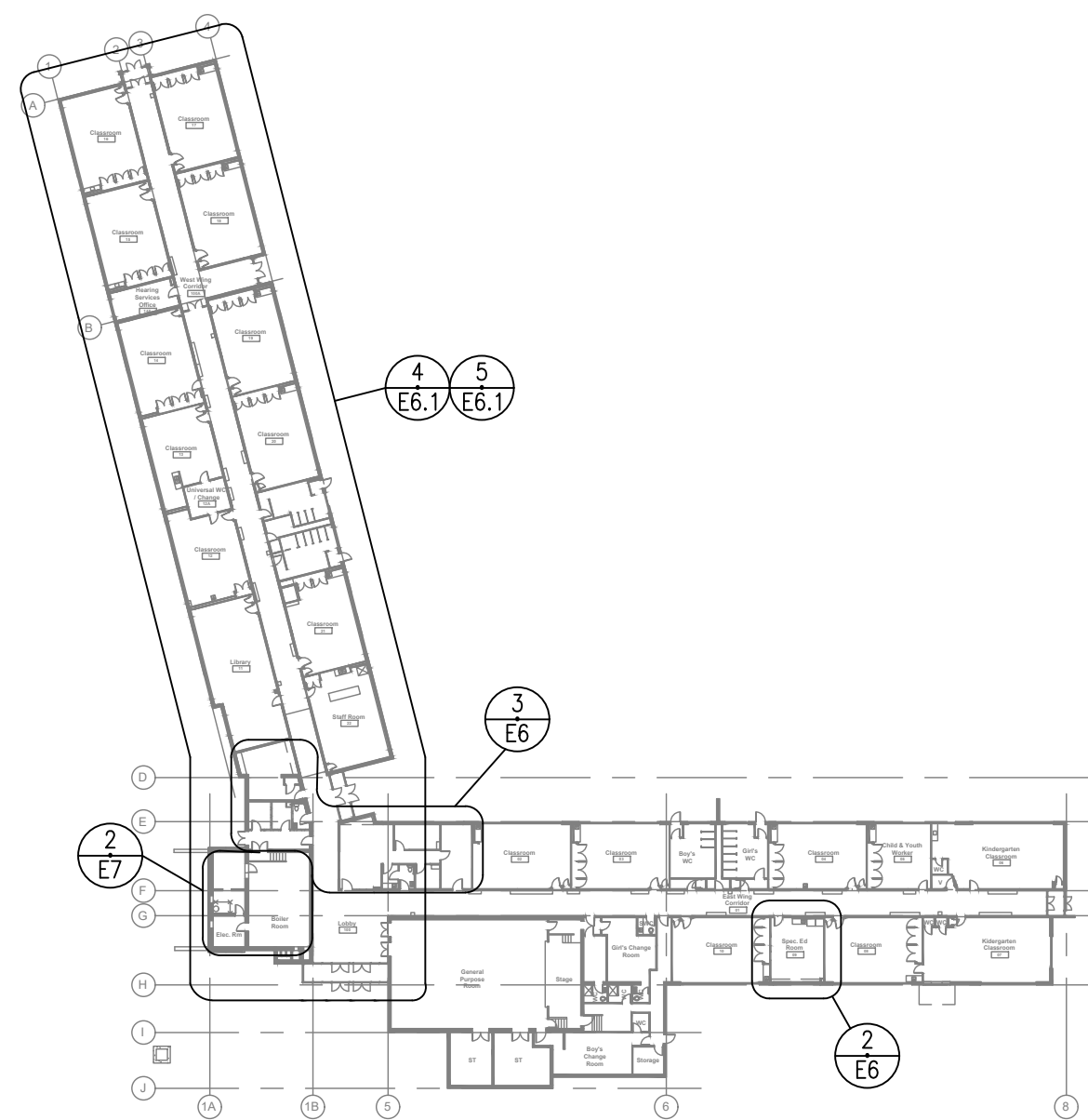
No.	Revision	Date	By
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Project Name
WRDSB - WORKSHOP
ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
EXISTING/DEMO EMERGENCY
LIGHTING & EXIT SIGN PLANS

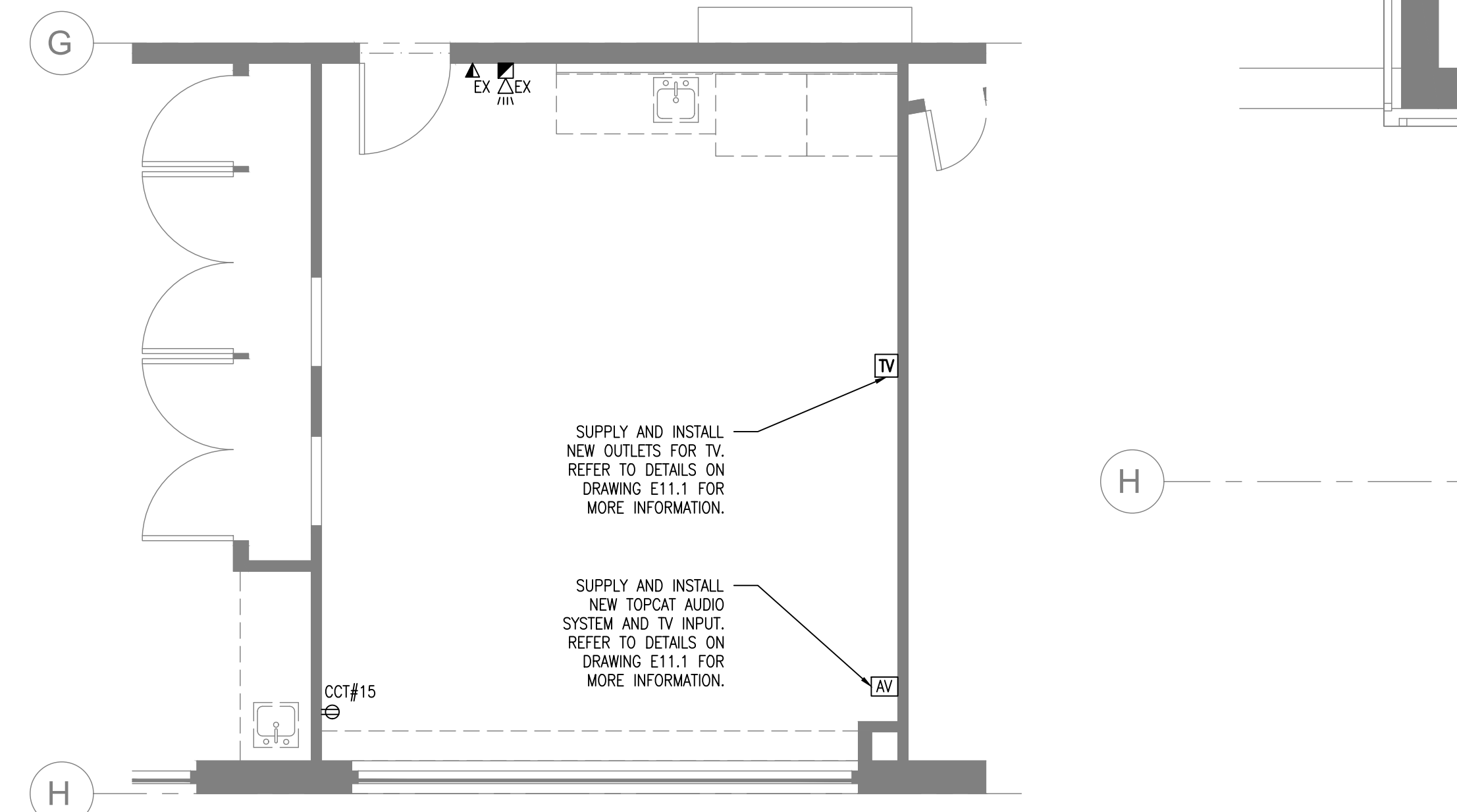
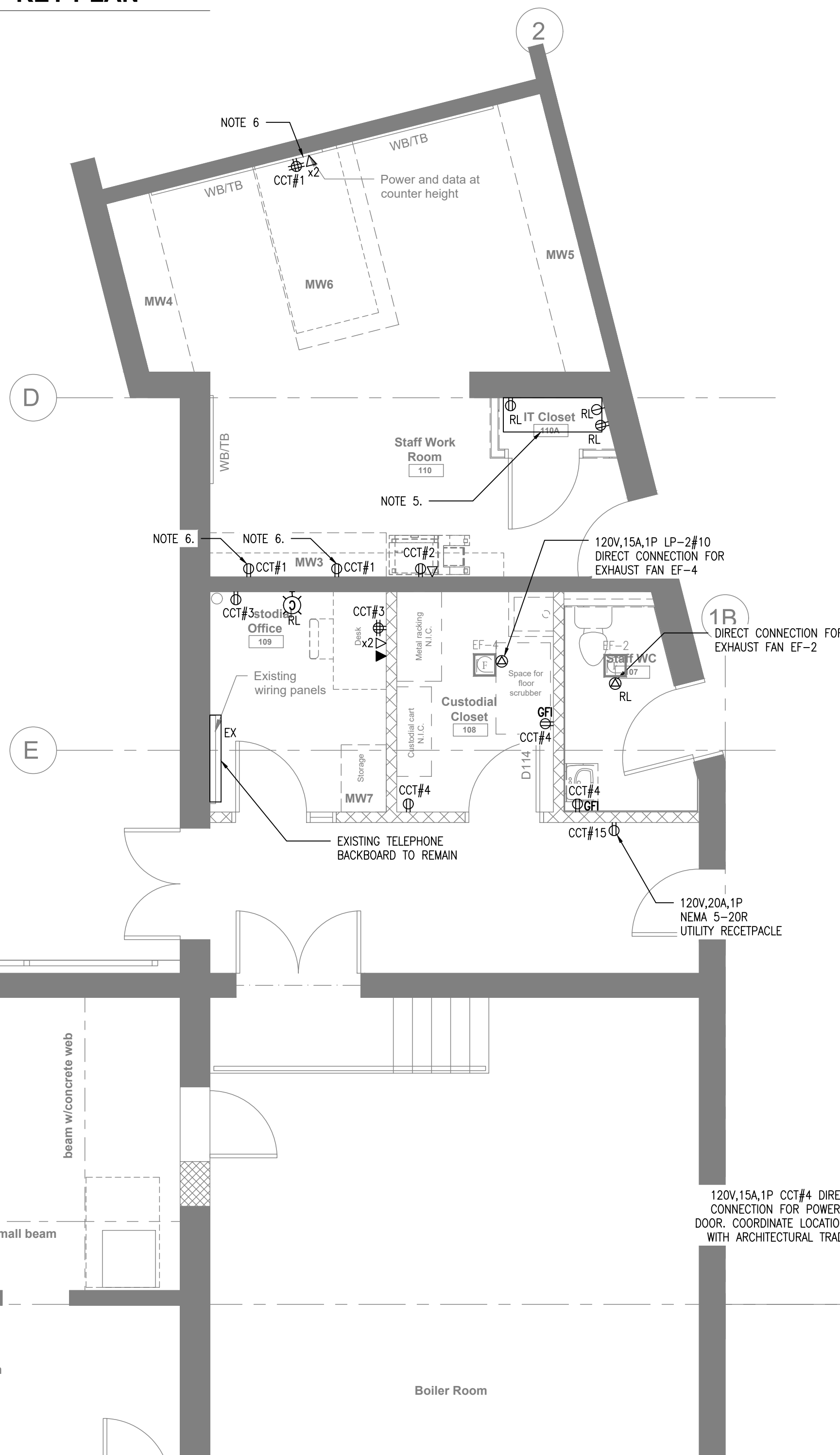
Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

Sheet Number Revision
E5.2 **1**



1 PROPOSED POWER - KEY PLAN

E6 SCALE: N.T.S.

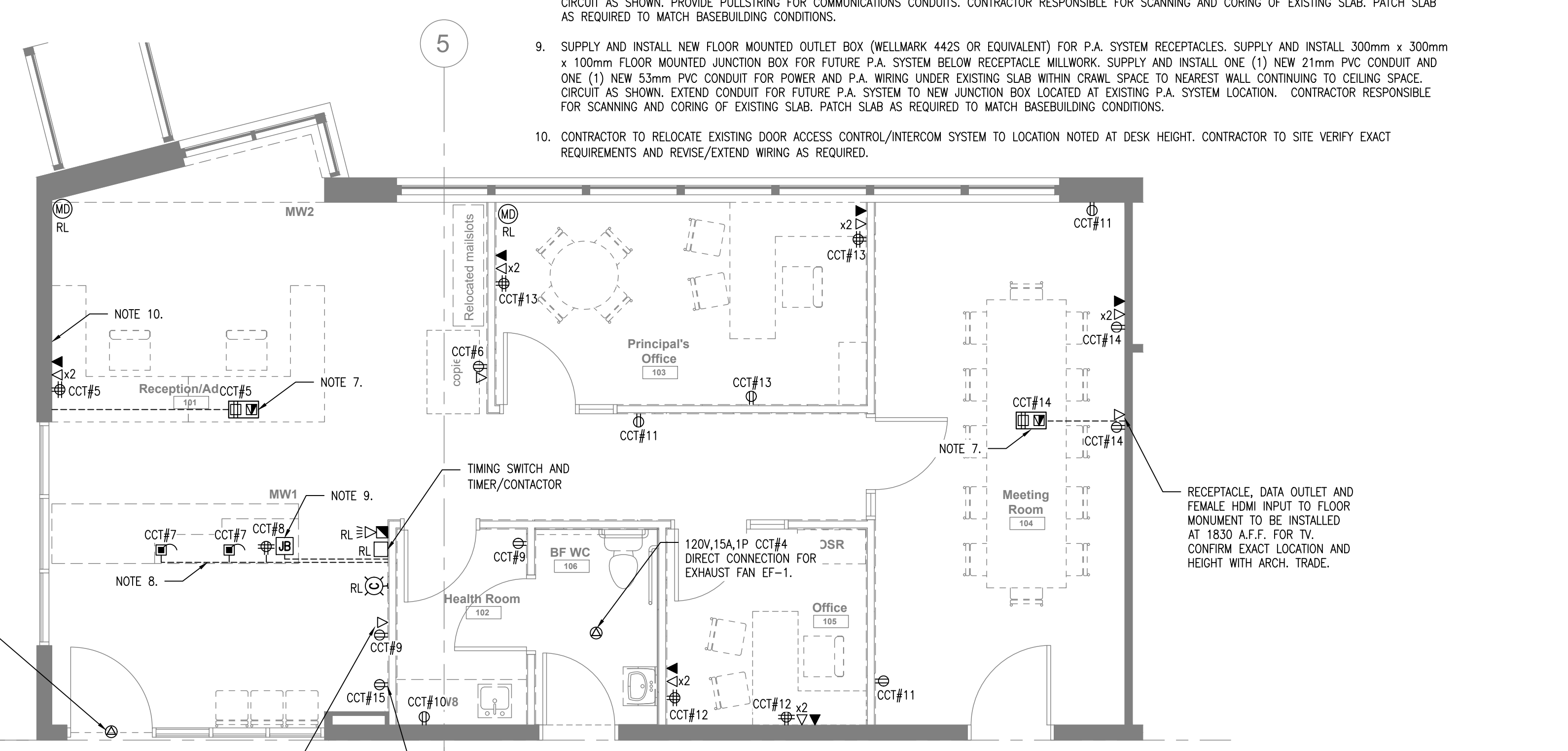


2 PROPOSED POWER PLAN - SPEC ED ROOM

E6 SCALE: 1:50

GENERAL POWER NOTES:

- LOCATIONS OF CONNECTIONS TO MECHANICAL EQUIPMENT IS APPROXIMATE AND SHOWN FOR REFERENCE ONLY. COORDINATE EXACT LOCATIONS AND TERMINATION REQUIREMENTS WITH MECHANICAL TRADE.
- FOR ALL NEW PUBLIC ADDRESS, TELEPHONE AND DATA CABLING DEVICES NOTED ON THE DRAWING, ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR:
 - DEVICE BACKBOX, SINGLE GANG UNLESS OTHERWISE NOTED.
 - 21mm CONDUIT (UNLESS NOTED OTHERWISE), COMPLETE WITH PULL STRING TO EXTEND FROM DEVICE TO CORRIDOR CEILING SPACE. INCLUDE REQUIRED CORE DRILLING OF EXISTING CORRIDOR WALL AND FIRESTOPPING OF NEW PENETRATION ONCE CONDUIT WORK IS COMPLETE. ALL CABLING AND DEVICES SHALL BE PROVIDED BY A SCHOOL BOARD PREFERRED VENDOR UNIT A PRIME COST ALLOWANCE CARRIED UNDER THIS CONTRACT.
- DEVICES SHOWN ON NEW WALL CONSTRUCTION SHALL BE INSTALLED FLUSH MOUNTED WITH CONCEALED CONDUITS. DEVICES SHOWN ON EXISTING WALL CONSTRUCTION SHALL BE INSTALLED SURFACE MOUNTED ON FS TYPE BACK BOXES WITH SURFACE RACEWAY (WHITE WIREMOLD) FROM DEVICE TO CEILING SPACE. CONDUIT SHALL BE PROVIDED ABOVE CEILING SPACE IN ALL LOCATIONS.
- CIRCUITING OF NEW ELECTRICAL DEVICES AND EQUIPMENT IS FOR GROUPING PURPOSES ONLY. CONTRACTOR TO RE-USE EXISTING BRANCH CIRCUITS AVAILABLE FROM DEMOLISHED EQUIPMENT WITHIN EACH AREA. REVISE AND EXTEND WIRING AS REQUIRED TO SUPPLY NEW DEVICES. IF EXISTING AVAILABLE BRANCH CIRCUITS ARE NOT SUFFICIENT FOR NEW EQUIPMENT, SUPPLY AND INSTALL NEW 120V,15A,1P CIRCUIT BREAKERS WITHIN NEW PANEL LP-2, AND SUPPLY AND INSTALL NEW BRANCH WIRING AS REQUIRED TO SUPPLY NEW CIRCUITS. UPDATE EXISTING PANEL SCHEDULES AS REQUIRED.
- EXISTING IT HUB IS TO REMAIN. RETAIN ALL DATA CABLING AND RECEPTACLES AND REVISE EQUIPMENT LAYOUT TO SUIT NEW IT CLOSET. CONTRACTOR SHALL INCLUDE CASH ALLOWANCE TO RETAIN THE SERVICES OF A WRDSB APPROVED 3RD PARTY IT CONTRACTOR TO REVISE EXISTING EQUIPMENT AND SUPPLY AND INSTALL NEW HARDWARE REQUIRED FOR ADDITIONAL DATA DROPS.
- OUTLETS INSTALLED AT 150mm ABOVE NEW COUNTER (915mm). CONFIRM EXACT HEIGHTS WITH ARCHITECTURAL TRADE.
- SUPPLY AND INSTALL FLOOR MOUNTED (WELLMARK FM4-XX-B OR EQUIVALENT) COMPLETE WITH TWO (2) DUPLEX RECEPTACLES AND TWO (2) IT OUTLETS, AND (1) FEMALE HDMI OUTLET FROM TV LOCATION. CONFIRM EXACT LOCATION WITH ARCHITECTURAL TRADES. SUPPLY AND INSTALL TWO (2) NEW 21mm PVC CONDUITS FOR POWER AND COMMUNICATIONS UNDER EXISTING SLAB WITHIN CRAWL SPACE TO NEAREST WALL CONTINUING TO CEILING SPACE. CIRCUIT AS SHOWN. PROVIDE PULLSTRING FOR COMMUNICATIONS CONDUITS. CONTRACTOR RESPONSIBLE FOR SCANNING AND CORING OF EXISTING SLAB. PATCH SLAB AS REQUIRED TO MATCH BASEBUILDING CONDITIONS.
- SUPPLY AND INSTALL FURNITURE WHIPS (WELLMARK 442D-FRN OR EQUIVALENT) FOR RECEPTACLES AND COMMUNICATION OUTLETS TO BE INSTALLED WITHIN FACE OF MILLWORK AT RECEPTION DESK. CONFIRM EXACT LOCATION AND TERMINATION REQUIREMENTS WITH ARCHITECTURAL AND MILLWORK TRADES. SUPPLY AND INSTALL TWO (2) NEW 21mm PVC CONDUITS FOR POWER AND COMMUNICATIONS UNDER EXISTING SLAB WITHIN CRAWL SPACE TO NEAREST WALL CONTINUING TO CEILING SPACE. CIRCUIT AS SHOWN. PROVIDE PULLSTRING FOR COMMUNICATIONS CONDUITS. CONTRACTOR RESPONSIBLE FOR SCANNING AND CORING OF EXISTING SLAB. PATCH SLAB AS REQUIRED TO MATCH BASEBUILDING CONDITIONS.
- SUPPLY AND INSTALL NEW FLOOR MOUNTED OUTLET BOX (WELLMARK 442S OR EQUIVALENT) FOR P.A. SYSTEM RECEPTACLES. SUPPLY AND INSTALL 300mm x 300mm x 100mm FLOOR MOUNTED JUNCTION BOX FOR FUTURE P.A. SYSTEM BELOW RECEPTACLE MILLWORK. SUPPLY AND INSTALL ONE (1) NEW 21mm PVC CONDUIT AND ONE (1) NEW 53mm PVC CONDUIT FOR POWER AND P.A. WIRING UNDER EXISTING SLAB WITHIN CRAWL SPACE TO NEAREST WALL CONTINUING TO CEILING SPACE. CIRCUIT AS SHOWN. EXTEND CONDUIT FOR FUTURE P.A. SYSTEM TO NEW JUNCTION BOX LOCATED AT EXISTING P.A. SYSTEM LOCATION. CONTRACTOR RESPONSIBLE FOR SCANNING AND CORING OF EXISTING SLAB. PATCH SLAB AS REQUIRED TO MATCH BASEBUILDING CONDITIONS.
- CONTRACTOR TO RELOCATE EXISTING DOOR ACCESS CONTROL/INTERCOM SYSTEM TO LOCATION NOTED AT DESK HEIGHT. CONTRACTOR TO SITE VERIFY EXACT REQUIREMENTS AND REVISE/EXTEND WIRING AS REQUIRED.

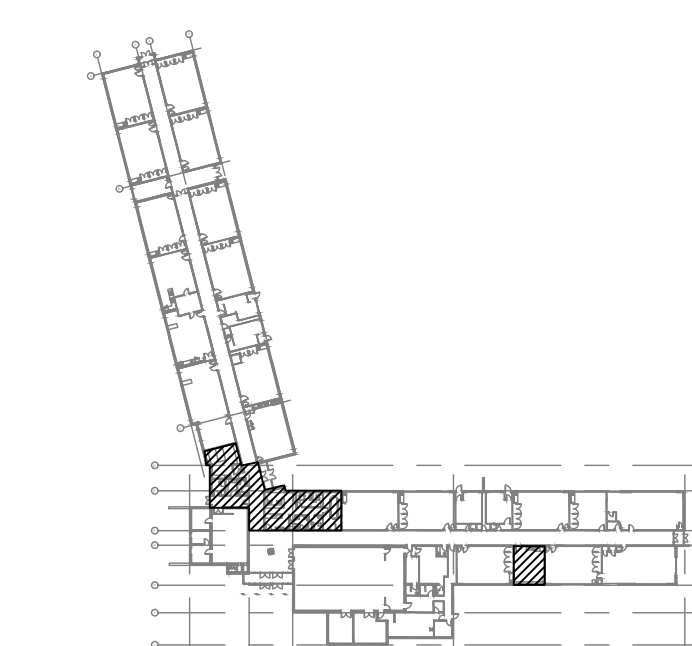


3 PROPOSED POWER PLAN - CUST./STAFF WC/OFFICE

E5 SCALE: 1:50

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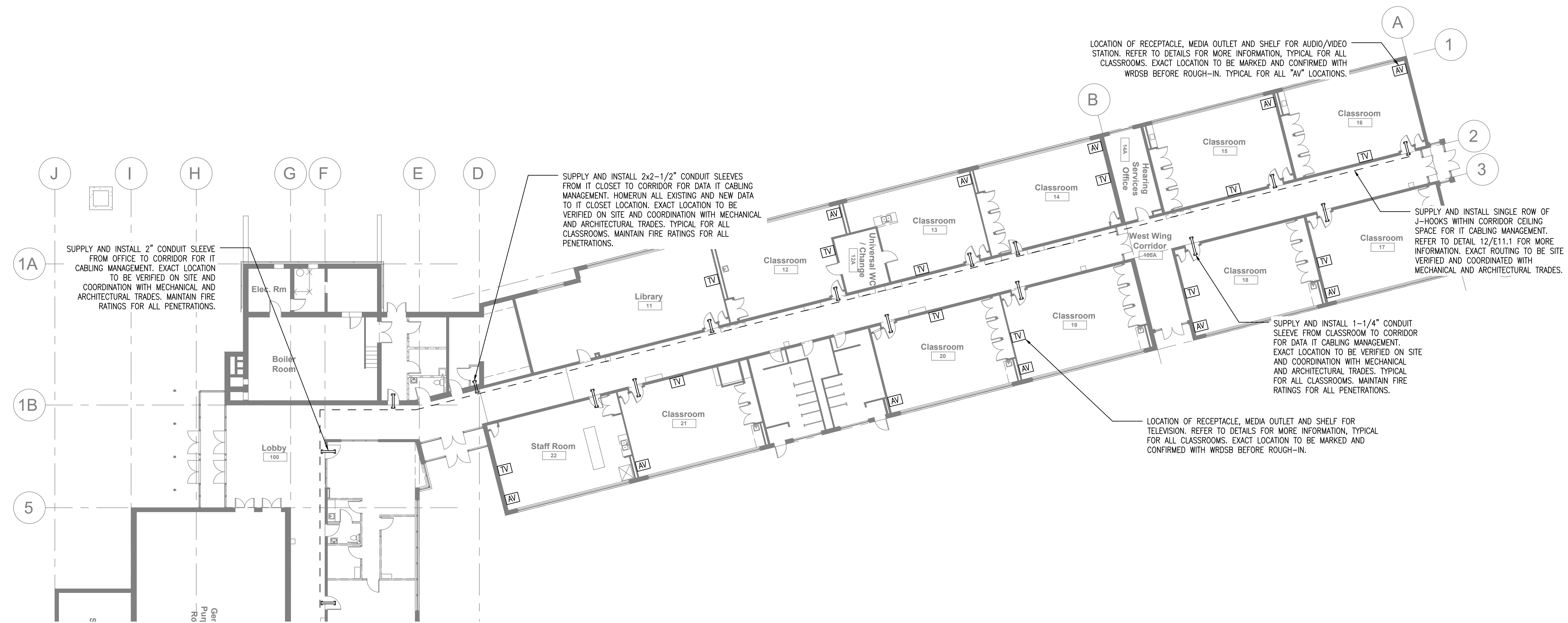


9.	ISSUED FOR TENDER	22 FEB 15	CP
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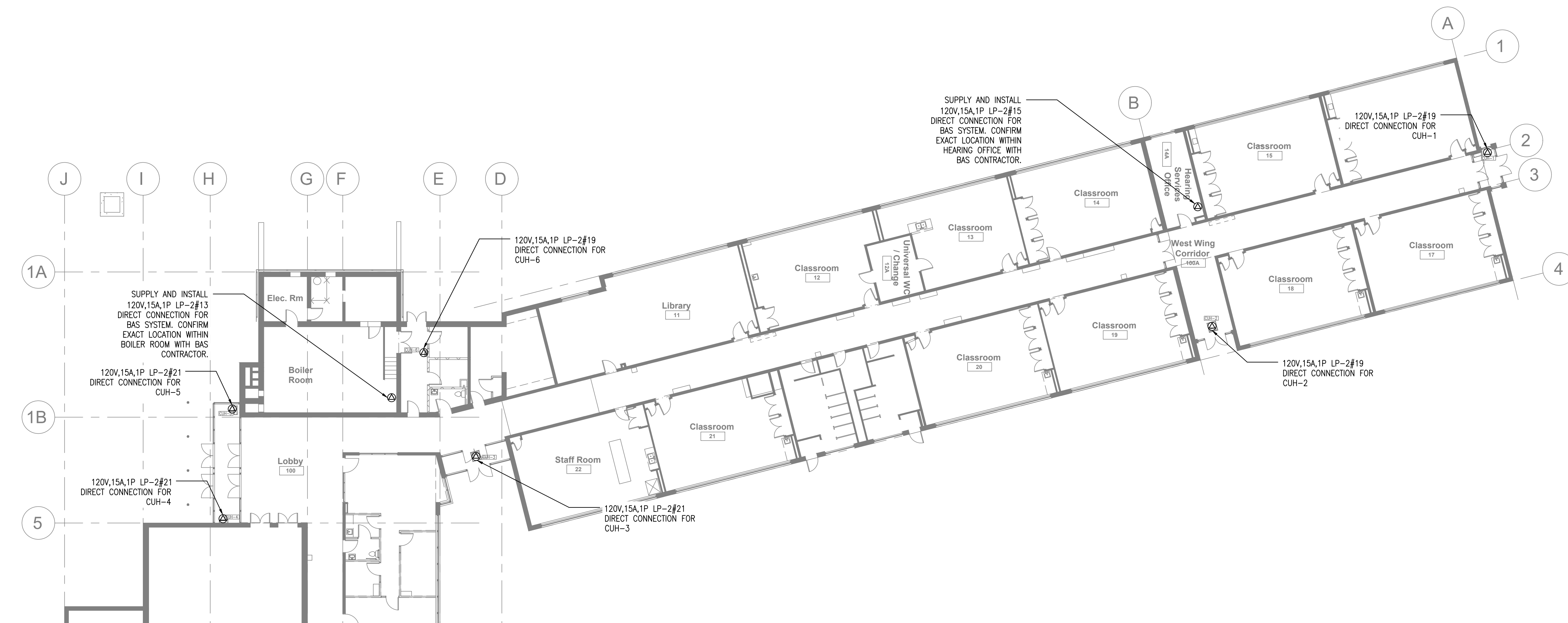
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Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
PROPOSED POWER PLANS

Drawn By DB Scale As Shown
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 Project Number **B20-349.02A**
 Sheet Number Revision
E6 **1**



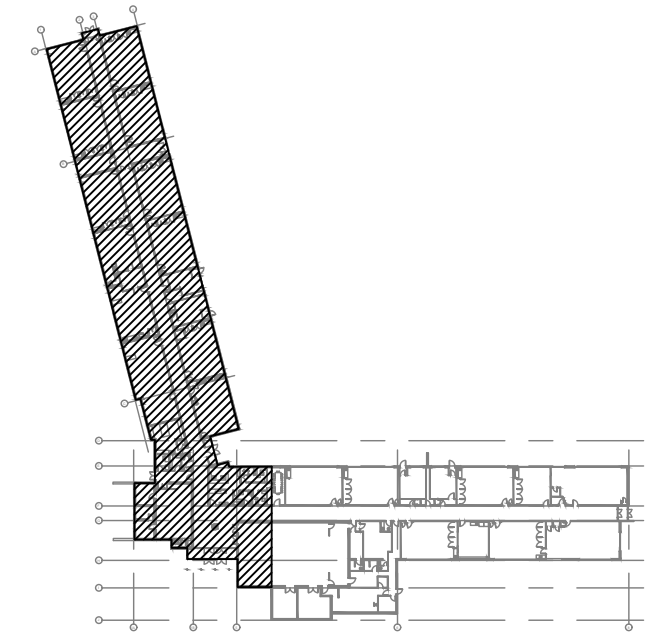
4 IT & MEDIA PLAN - WEST WING CORRIDOR
E6.1 SCALE: 1:200



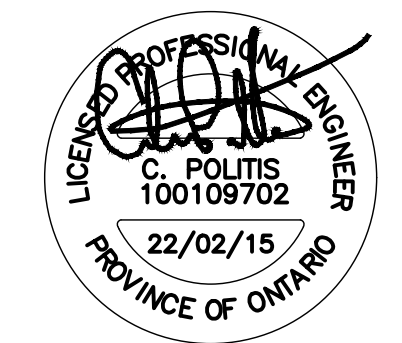
5 PROPOSED POWER PLAN - WEST WING CORRIDOR
E6.1 SCALE: 1:200

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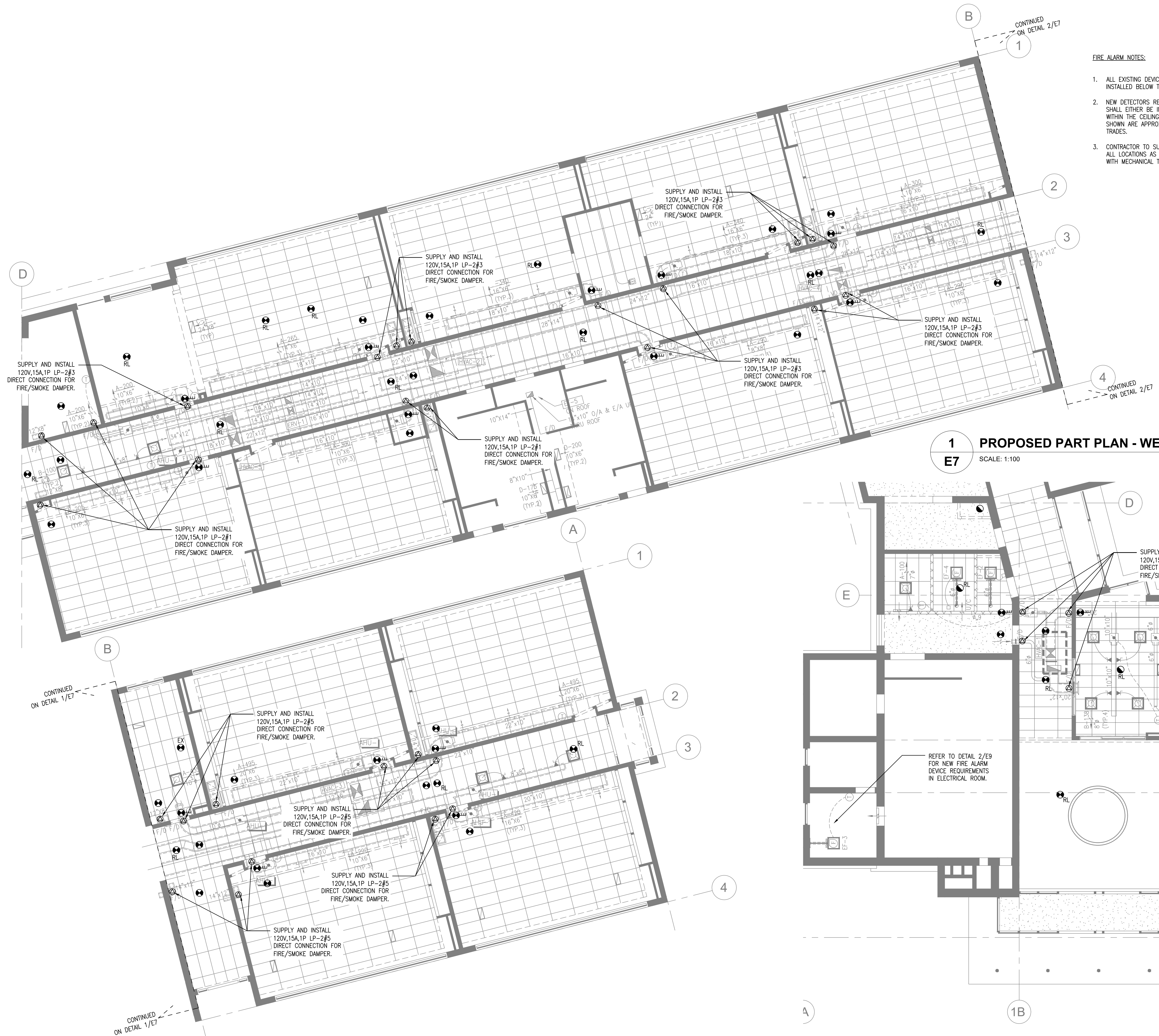
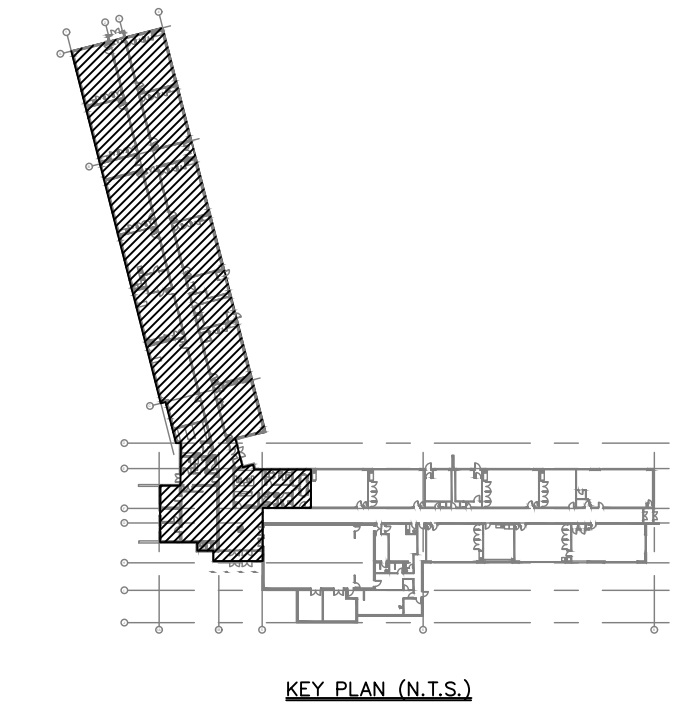
Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
PROPOSED POWER PLANS

Drawn By DB Scale As Shown
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 Sheet Number Revision

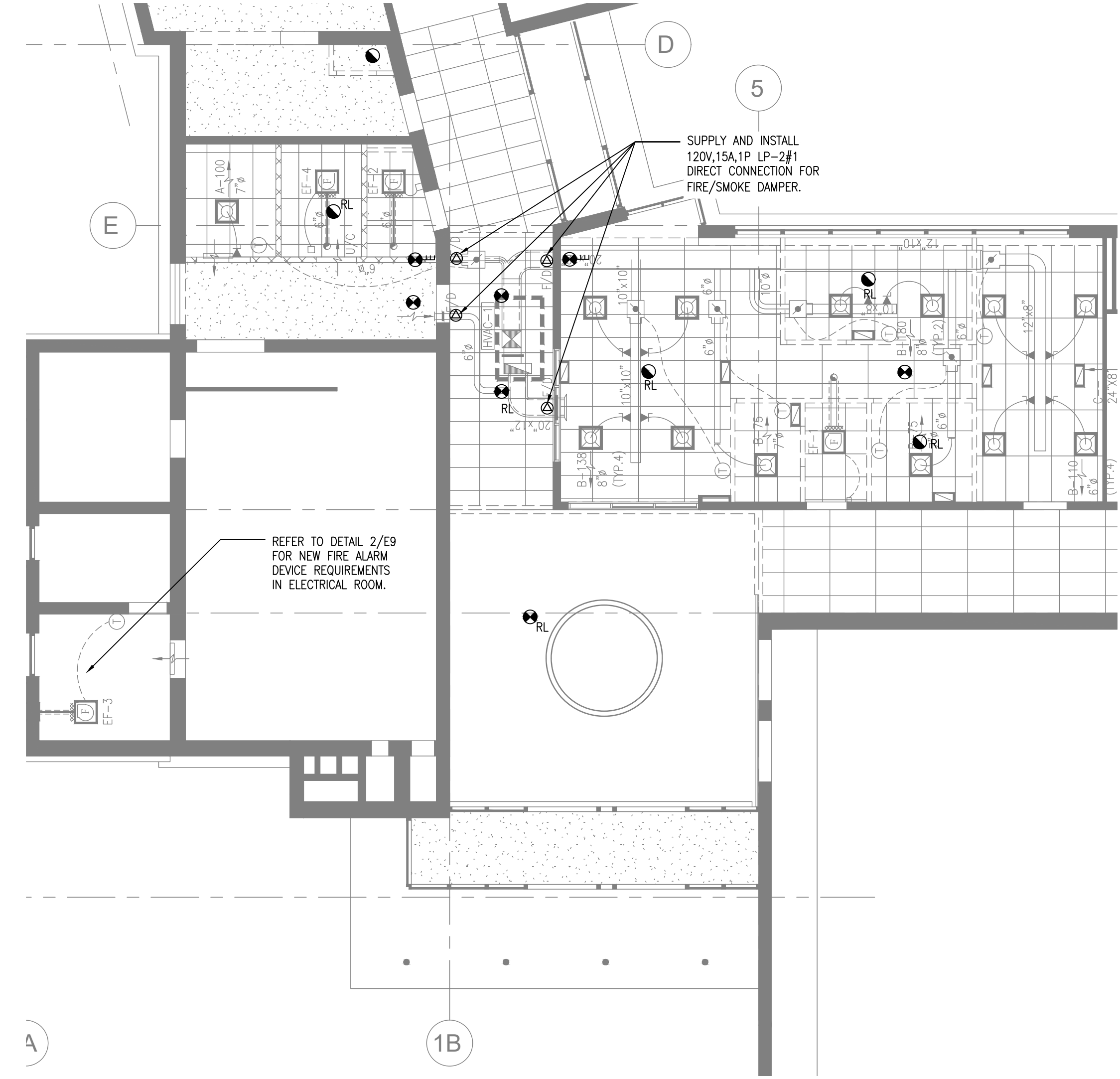
FIRE ALARM NOTES:

1. ALL EXISTING DEVICES THAT ARE EXISTING TO REMAIN, OR REMOVED AND RELOCATED ARE INSTALLED BELOW THE ACT CEILING.
2. NEW DETECTORS REQUIRED FOR OPERATION OF THE COMBINATION SMOKE/FIRE DAMPERS SHALL EITHER BE INSTALLED WITHIN THE DUCT, IF SHOWN AS DUCT TYPE DETECTORS, OR WITHIN THE CEILING SPACE ABOVE THE ACT WITHIN 1.5m OF THE PENETRATION. LOCATIONS SHOWN ARE APPROXIMATE, CONFIRM EXACT LOCATIONS AND REQUIREMENTS WITH MECHANICAL TRADES.
3. CONTRACTOR TO SUPPLY AND INSTALL POWER FOR COMBINATION SMOKE/FIRE DAMPERS AT ALL LOCATIONS AS SHOWN ON DRAWINGS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL TRADE.

- Drawing Notes**
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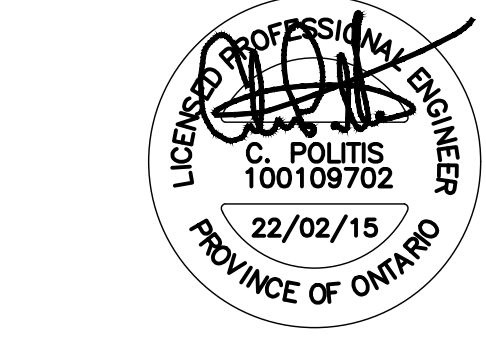


1 PROPOSED PART PLAN - WEST WING CORRIDOR
SCALE: 1:100



3 PROPOSED PART PLAN - LOBBY/OFFICE
SCALE: 1:100

2 PROPOSED PART PLAN - WEST WING CORRIDOR
SCALE: 1:100



No.	Revision	Date	By
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB
5.	ISSUED PERMIT / TENDER	21 MAY 11	CP

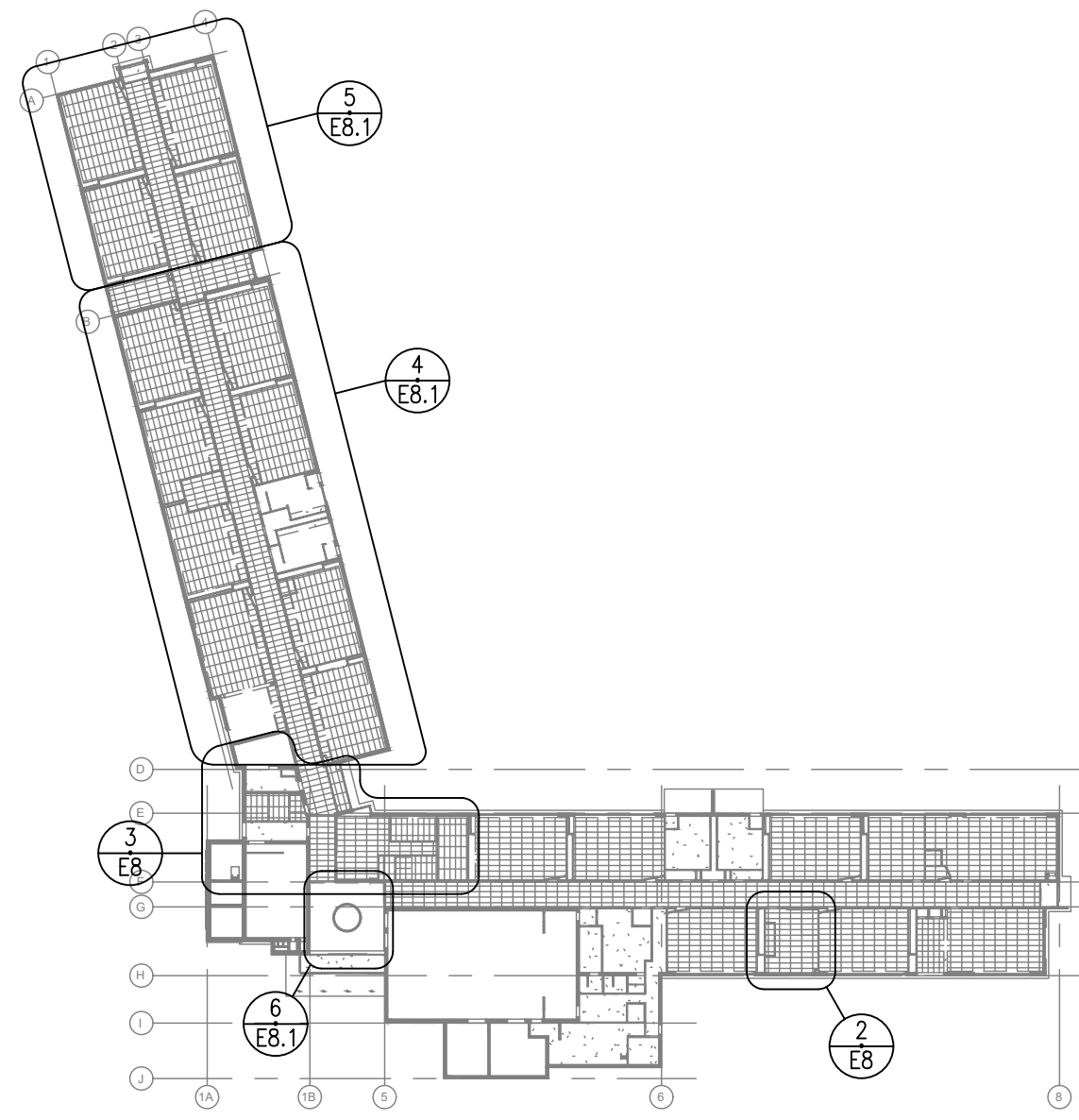
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 www.boldengineering.ca

Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
PROPOSED FIRE ALARM PLANS

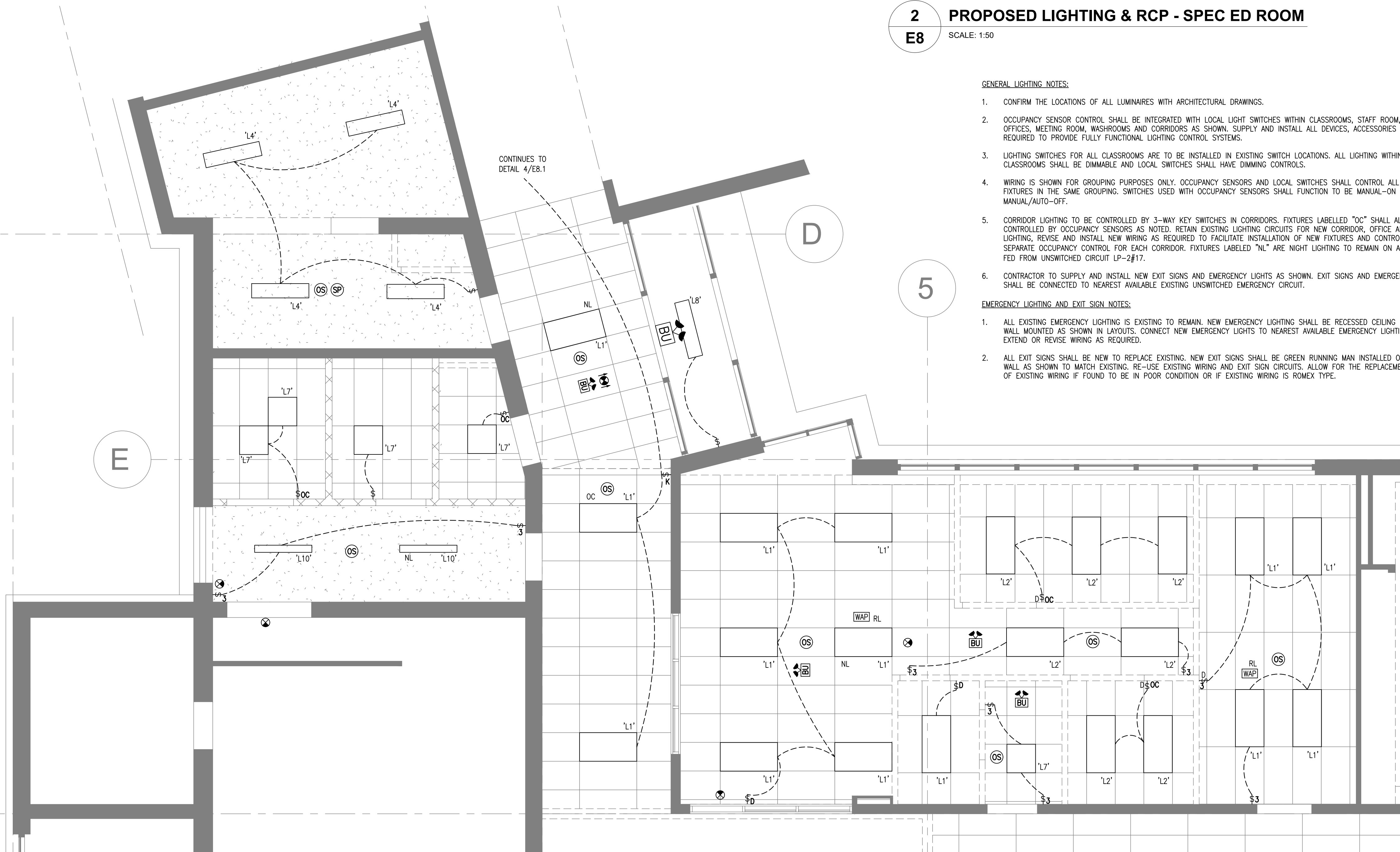
Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

Sheet Number **E7** Revision **1**



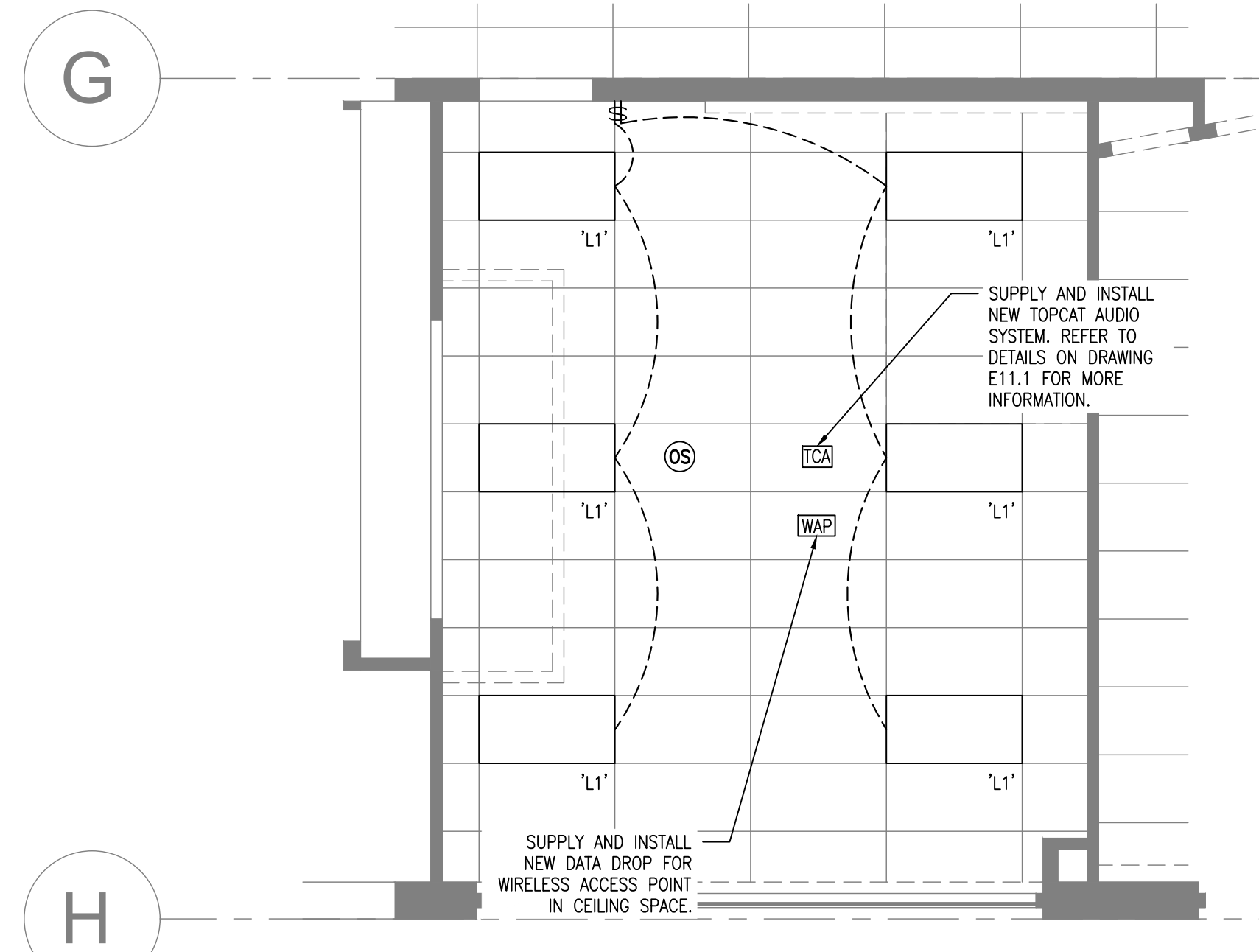
1 PROPOSED LIGHTING & RCP - KEY PLAN

E8 SCALE: N.T.S.



3 PROPOSED LIGHTING & RCP - CUST./STAFF WC/OFFICE

E8 SCALE: 1:50



2 PROPOSED LIGHTING & RCP - SPEC ED ROOM

E8 SCALE: 1:50

GENERAL LIGHTING NOTES:

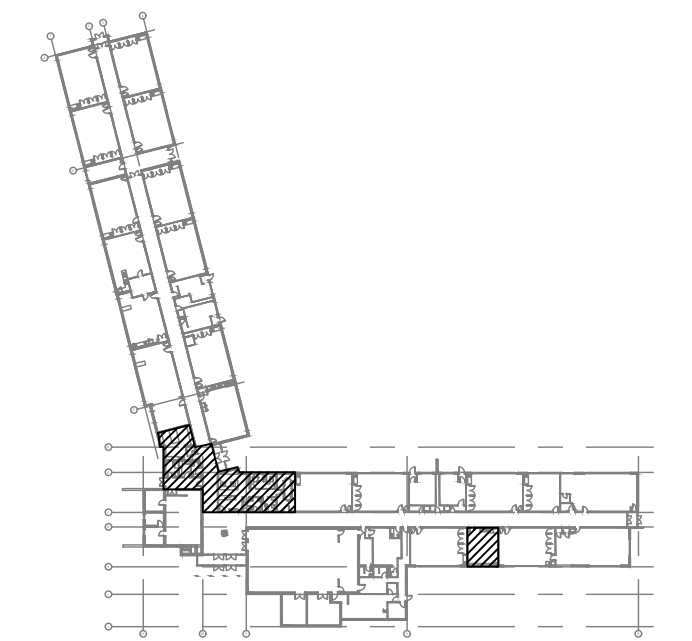
- CONFIRM THE LOCATIONS OF ALL LUMINAIRES WITH ARCHITECTURAL DRAWINGS.
- OCCUPANCY SENSOR CONTROL SHALL BE INTEGRATED WITH LOCAL LIGHT SWITCHES WITHIN CLASSROOMS, STAFF ROOM, INDIVIDUAL OFFICES, MEETING ROOM, WASHROOMS AND CORRIDORS AS SHOWN. SUPPLY AND INSTALL ALL DEVICES, ACCESSORIES AND WIRING REQUIRED TO PROVIDE FULLY FUNCTIONAL LIGHTING CONTROL SYSTEMS.
- LIGHTING SWITCHES FOR ALL CLASSROOMS ARE TO BE INSTALLED IN EXISTING SWITCH LOCATIONS. ALL LIGHTING WITHIN CLASSROOMS SHALL BE DIMMABLE AND LOCAL SWITCHES SHALL HAVE DIMMING CONTROLS.
- WIRING IS SHOWN FOR GROUPING PURPOSES ONLY. OCCUPANCY SENSORS AND LOCAL SWITCHES SHALL CONTROL ALL LIGHT FIXTURES IN THE SAME GROUPING. SWITCHES USED WITH OCCUPANCY SENSORS SHALL FUNCTION TO BE MANUAL-ON AND MANUAL/AUTO-OFF.
- CORRIDOR LIGHTING TO BE CONTROLLED BY 3-WAY KEY SWITCHES IN CORRIDORS. FIXTURES LABELED "OC" SHALL ALSO BE CONTROLLED BY OCCUPANCY SENSORS AS NOTED. RETAIN EXISTING LIGHTING CIRCUITS FOR NEW CORRIDOR, OFFICE AND STAFF LIGHTING. REVERSE AND INSTALL NEW WIRING AS REQUIRED TO FACILITATE INSTALLATION OF NEW FIXTURES AND CONTROLS. PROVIDE SEPARATE OCCUPANCY CONTROL FOR EACH CORRIDOR. FIXTURES LABELED "NL" ARE NIGHT LIGHTING TO REMAIN ON AT ALL TIMES FED FROM UNSWITCHED CIRCUIT LP-2#17.
- CONTRACTOR TO SUPPLY AND INSTALL NEW EXIT SIGNS AND EMERGENCY LIGHTS AS SHOWN. EXIT SIGNS AND EMERGENCY LIGHTS SHALL BE CONNECTED TO NEAREST AVAILABLE EXISTING UNSWITCHED EMERGENCY CIRCUIT.

EMERGENCY LIGHTING AND EXIT SIGN NOTES:

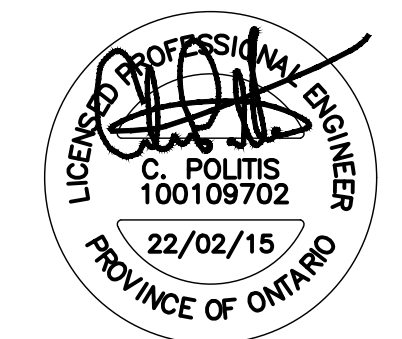
- ALL EXISTING EMERGENCY LIGHTING IS EXISTING TO REMAIN. NEW EMERGENCY LIGHTING SHALL BE RECESSED CEILING MOUNTED OR WALL MOUNTED AS SHOWN IN LAYOUTS. CONNECT NEW EMERGENCY LIGHTS TO NEAREST AVAILABLE EMERGENCY LIGHTING CIRCUIT. EXTEND OR REVISE WIRING AS REQUIRED.
- ALL EXIT SIGNS SHALL BE NEW TO REPLACE EXISTING. NEW EXIT SIGNS SHALL BE GREEN RUNNING MAN INSTALLED ON CEILING OR WALL AS SHOWN TO MATCH EXISTING. RE-USE EXISTING WIRING AND EXIT SIGN CIRCUITS. ALLOW FOR THE REPLACEMENT OF 25% OF EXISTING WIRING IF FOUND TO BE IN POOR CONDITION OR IF EXISTING WIRING IS ROMEX TYPE.

Drawing Notes

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KEY PLAN (N.T.S.)



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8.	ISSUED FOR PERMIT	22 FEB 03	CP
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No.	Revision	Date	By

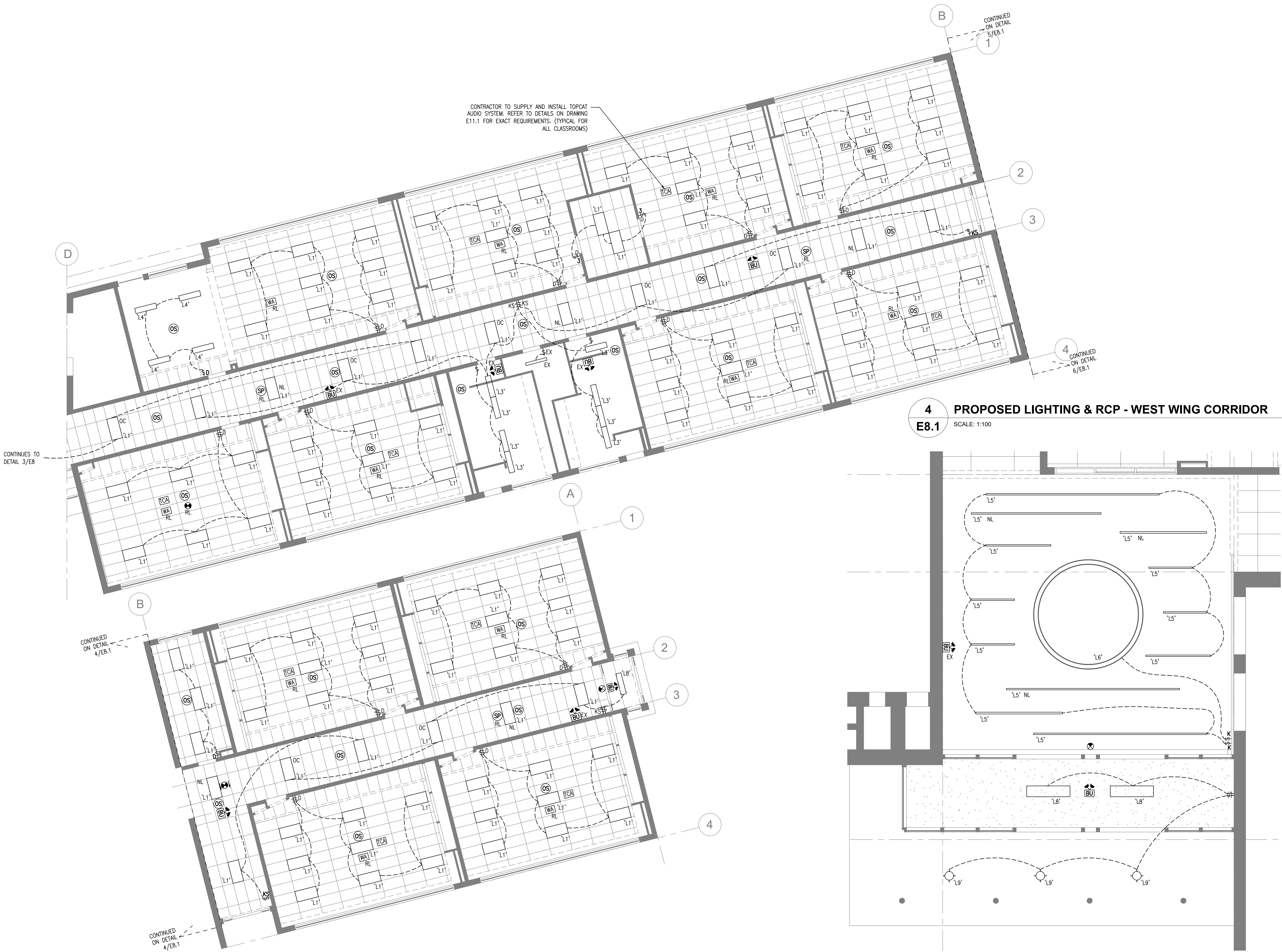
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Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
PROPOSED LIGHTING * REFLECTED CEILING PLANS

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

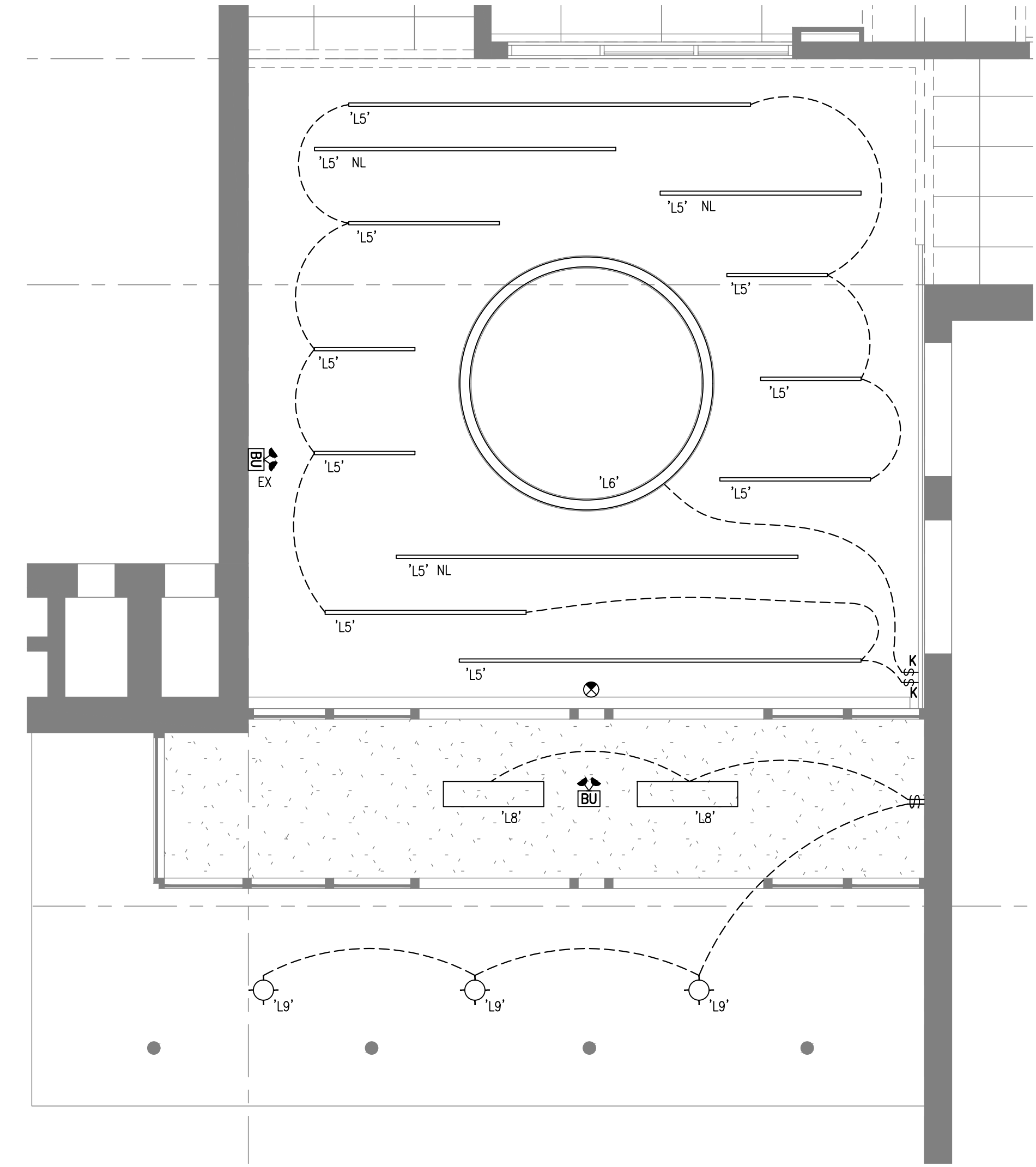
Sheet Number Revision

CONTRACTOR TO SUPPLY AND INSTALL TOPCAT AUDIO SYSTEM. REFER TO DETAILS ON DRAWING E11.1 FOR EXACT REQUIREMENTS. (TYPICAL FOR ALL CLASSROOMS)



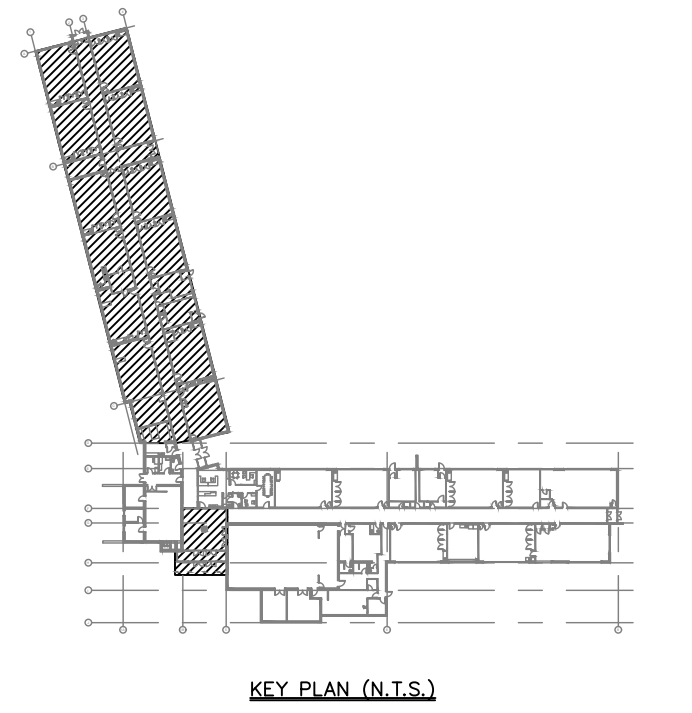
5 PROPOSED LIGHTING & RCP - WEST WING CORRIDOR
E8.1 SCALE: 1:100

4 PROPOSED LIGHTING & RCP - WEST WING CORRIDOR
E8.1 SCALE: 1:100



6 PROPOSED LIGHTING & RCP - LOBBY
E8.1 SCALE: 1:50

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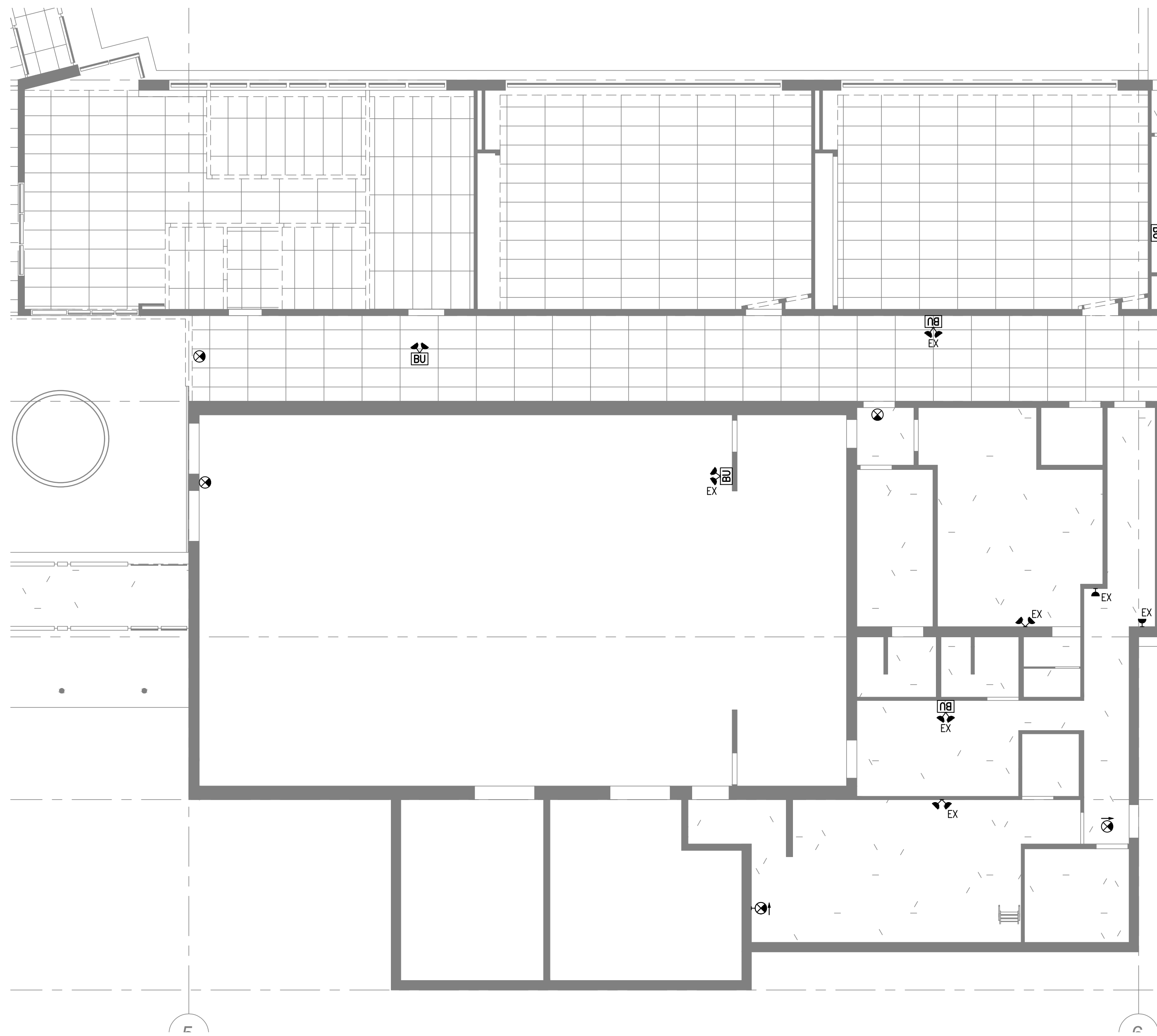
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Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
PROPOSED LIGHTING & REFLECTED CEILING PLANS

Drawn By DB Scale As Shown
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 Project Number **B20-349.02A**

Sheet Number **E8.1** Revision **1**

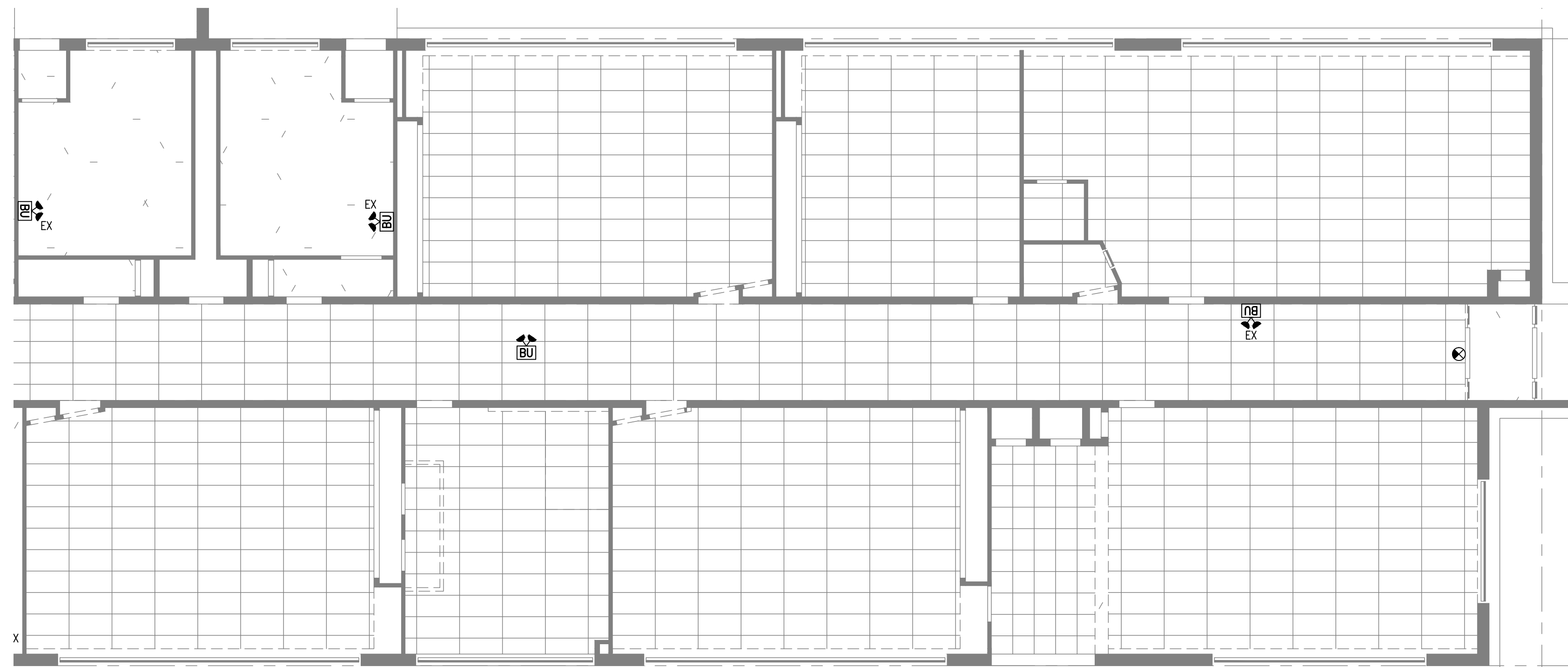


8 PROPOSED EM. LTG/EXITS - EAST WING/GYM

E8.2 SCALE: 1:100

EMERGENCY LIGHTING AND EXIT SIGN NOTES:

1. ALL EXISTING EMERGENCY LIGHTING IS EXISTING TO REMAIN. NEW EMERGENCY LIGHTING SHALL BE RECESSED CEILING MOUNTED OR WALL MOUNTED AS SHOWN IN LAYOUTS. CONNECT NEW EMERGENCY LIGHTS TO NEAREST AVAILABLE EMERGENCY LIGHTING CIRCUIT. EXTEND OR REVISE WIRING AS REQUIRED.
2. ALL EXIT SIGNS SHALL BE NEW TO REPLACE EXISTING. NEW EXIT SIGNS SHALL BE GREEN RUNNING MAN INSTALLED ON CEILING OR WALL AS SHOWN TO MATCH EXISTING. RE-USE EXISTING WIRING AND EXIT SIGN CIRCUITS. ALLOW FOR THE REPLACEMENT OF 25% OF EXISTING WIRING IF FOUND TO BE IN POOR CONDITION OR IF EXISTING WIRING IS ROMEX TYPE.

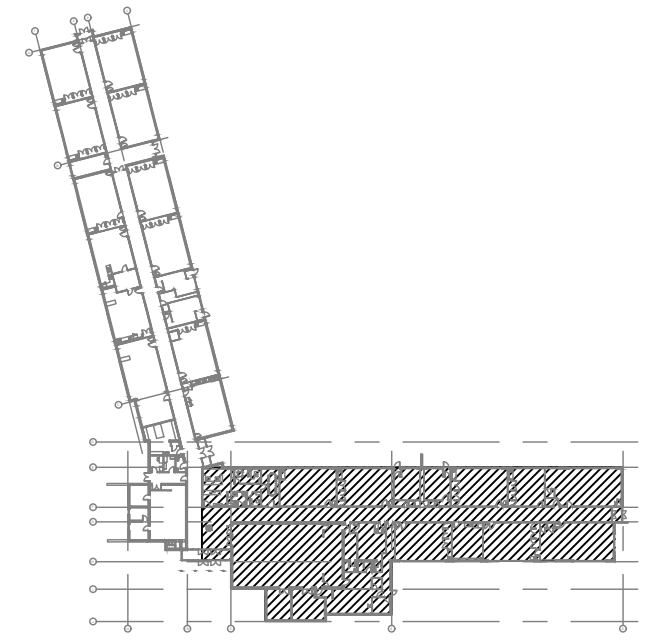


9 PROPOSED EM LTG/EXITS - EAST WING COORIDOR

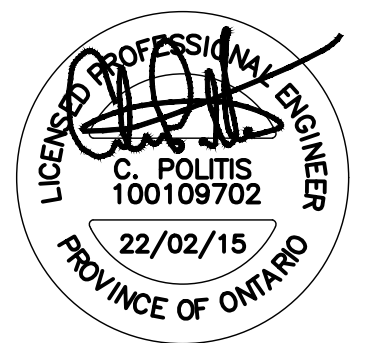
E8.2 SCALE: 1:100

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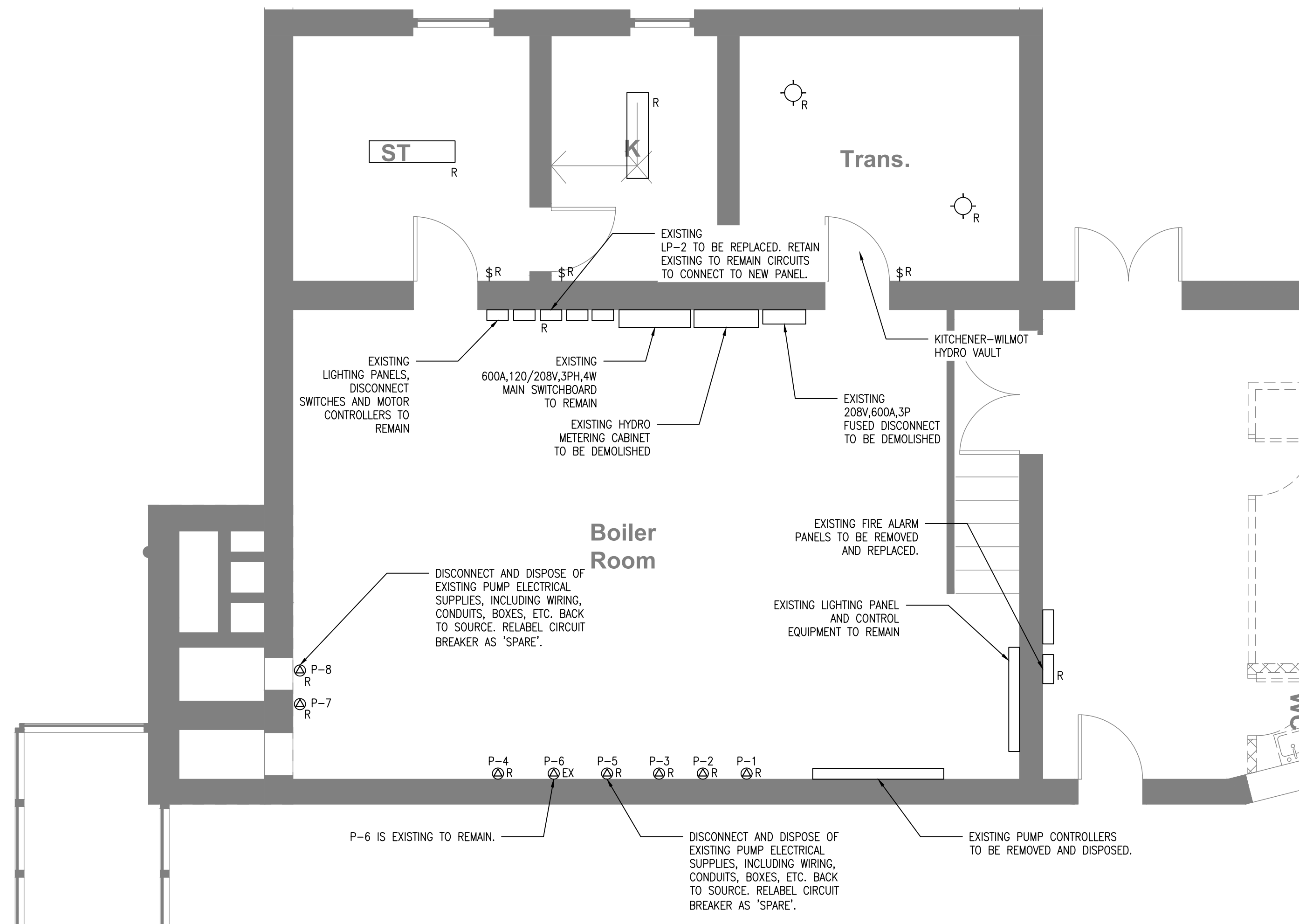
Project Name
WRDSB - WORKSHOP
 ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER

Sheet Title
PROPOSED EMERGENCY LTG & EXIT SIGN PLANS - EAST WING

Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**

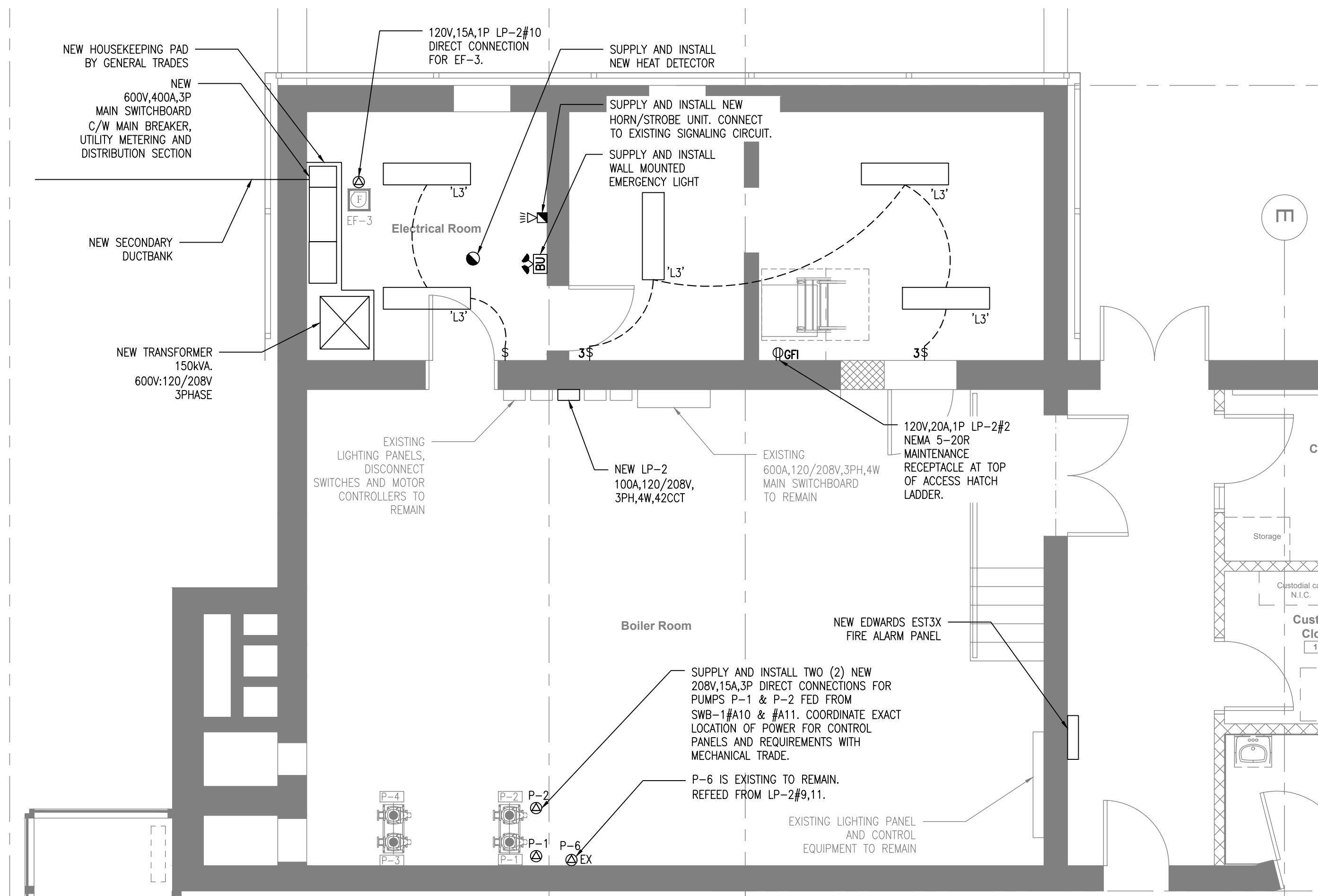
Sheet Number Revision

E8.2 **1**



1 EXISTING/DEMOLITION EQUIPMENT LAYOUT - BOILER ROOM

E9 SCALE: 1:50



2 PROPOSED EQUIPMENT LAYOUT - BOILER ROOM

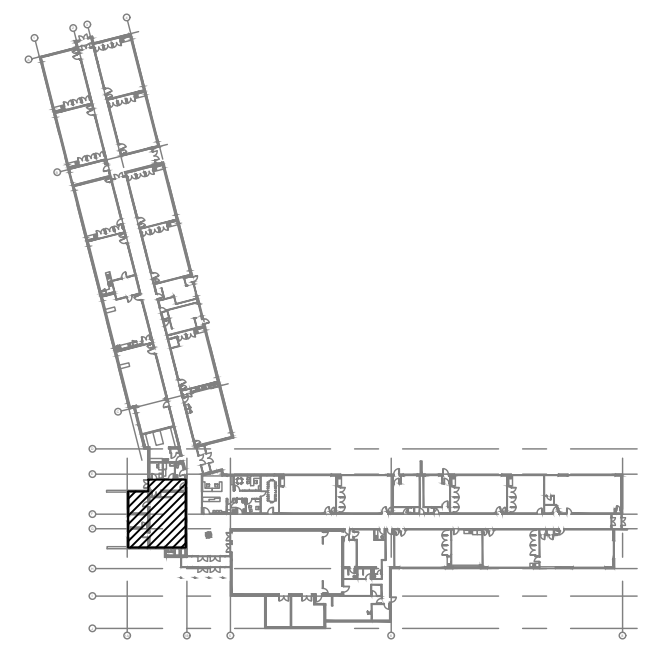
E9 SCALE: 1:50

FIRE ALARM SCOPE OF WORK:

- CONTRACTOR TO REMOVE AND DISPOSE OF EXISTING EDWARDS FIRESHIELD PLUS FIRE ALARM CONTROL PANEL AND ASSOCIATED ANNUNCIATOR. CONTRACTOR TO RETAIN ALL EXISTING CONVENTIONAL INITIATING DEVICE CIRCUITS AND ALL SIGNALING DEVICE CIRCUITS FOR NEW PANEL.
- CONTRACTOR TO SUPPLY AND INSTALL NEW EDWARDS EST3X FIRE ALARM PANEL AND ANNUNCIATOR AT EXISTING PANEL LOCATIONS. CONTRACTOR TO INTEGRATE EXISTING INITIATING DEVICES ON CONVENTIONAL ZONES, AND EXISTING SIGNALING DEVICES WITH NEW PANEL.
- CONTRACTOR TO SUPPLY AND INSTALL NEW CARDS FOR EST3X PANEL IN ORDER TO PICK UP EXISTING CONVENTIONAL ZONES. SUPPLY AND REVISE EXISTING END OF LINE DEVICES FOR EXISTING CONVENTIONAL ZONES WITH NEW AS NEEDED TO MATCH NEW PANEL REQUIREMENTS.
- CONTRACTOR TO SUPPLY AND INSTALL ALL NEW ADDRESSABLE DEVICES AS SHOWN ON LAYOUT DRAWINGS AND SUPPLY AND INSTALL NEW ADDRESSABLE LOOP TO FIRE ALARM PANEL TO PICK UP ALL NEW DEVICES.
- CONTRACTOR TO REMOVE AND RE-INSTALL ALL EXISTING INITIATING AND SIGNALING DEVICES MARKED AS 'RE/RE' AT NEW LOCATIONS MARKED AS 'RL'. REVISE AND/OR EXTEND EXISTING WIRING AS REQUIRED TO SUIT NEW LOCATIONS AND TO FACILITATE ARCHITECTURAL AND MECHANICAL ALTERATIONS.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING FIRE ALARM BELL/STROBE COMBINATION DEVICES AND SUPPLY AND INSTALL NEW HORN/STROBE DEVICES IN EXISTING LOCATIONS. ALL NEW HORN/STROBE DEVICES SHALL MATCH EXISTING VISUAL AND AUDIO PATTERNS.
- CONTRACTOR TO SUPPLY AND INSTALL NEW ADDRESSABLE DUCT SMOKE DETECTORS AT LOCATIONS SHOWN FOR INITIATING THE COMBINATION FIRE/SMOKE DAMPERS. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL TRADE. DUCT SMOKE DETECTORS SHALL BE INSTALLED WITHIN 1.5m HORIZONTALLY OF THE DUCT IN THE FIRE SEPARATION DOWNSTREAM OF THE COMBINATION FIRE AND SMOKE DAMPER. SUPPLY AND INSTALL 120V, 15A, 1P DIRECT CONNECTIONS AT EACH FIRE & SMOKE DAMPER LOCATION AS SHOWN.
- CONTRACTOR SHALL SUPPLY AND INSTALL NEW ADDRESSABLE MODULES AT EACH COMBINATION FIRE AND SMOKE DAMPER LOCATION. CONFIRM EXACT QUANTITIES AND LOCATIONS WITH MECHANICAL TRADE. MODULES SHALL BE EQUIPPED WITH A TROUBLE AND OUTPUT RELAY FOR MONITORING AND INITIATING THE SMOKE DAMPERS. PROGRAM FIRE RELAY MODULE TO CLOSE THE SMOKE DAMPER UPON SIGNAL FROM THE ASSOCIATED SMOKE DETECTORS.
- SUPPLY AND INSTALL ACCESS DOORS AS REQUIRED FOR DAMPER/MODULE INSPECTION AND TESTING. COORDINATE WITH ARCHITECTURAL TRADE.
- CONTRACTOR SHALL SUPPLY AND INSTALL AN ALARM CONTACT AND WIRING FROM THE FACP TO EACH ROOFTOP HVAC UNIT FOR AUTOMATIC SHUTDOWN UPON ACTIVATION OF ANY ASSOCIATED SMOKE DETECTORS. CONFIRM EXACT REQUIREMENTS WITH MECHANICAL TRADE.
- CONTRACTOR TO SUPPLY AND INSTALL A SET OF DRY CONTACTS WITHIN FACP FOR BAS NOTIFICATION. CONFIRM EXACT REQUIREMENTS WITH BAS SYSTEM SUPPLIER.
- CONTRACTOR TO SUPPLY AND INSTALL WIRING, DEVICES AND ACCESSORIES TO PROVIDE MONITORING OF COMBINATION FIRE AND SMOKE DAMPER ACTUATOR POWER SUPPLY CIRCUITS LP-2#1,3,5 WHICH SHALL PROVIDE A TROUBLE SIGNAL UPON LOSS OF POWER.
- CONTRACTOR SHALL MAINTAIN EXISTING CALL SIGNAL TO FIRE ALARM DEPARTMENT AND INTEGRATE WITH NEW PANEL.
- RETAIN THE SERVICES OF TROY LIFE & SAFETY LTD. (CONTACT CALEB JOHNSON 519-807-4489, CALEB.JOHNSON@TROYLFS.COM) TO TEST, VERIFY AND COMMISSION THE NEW FIRE ALARM PANEL, DEVICES, SIGNALING AND CONTROLS. PROGRAMMING AND COMMISSIONING OF FACP SHALL BE INCLUDED AS PART OF THIS CONTRACT.
- RETAIN THE SERVICES OF A WRDSR APPROVED QUALIFIED LIFE SAFETY TESTING AGENCY TO COMPLETE CAN/JULI C. S1001

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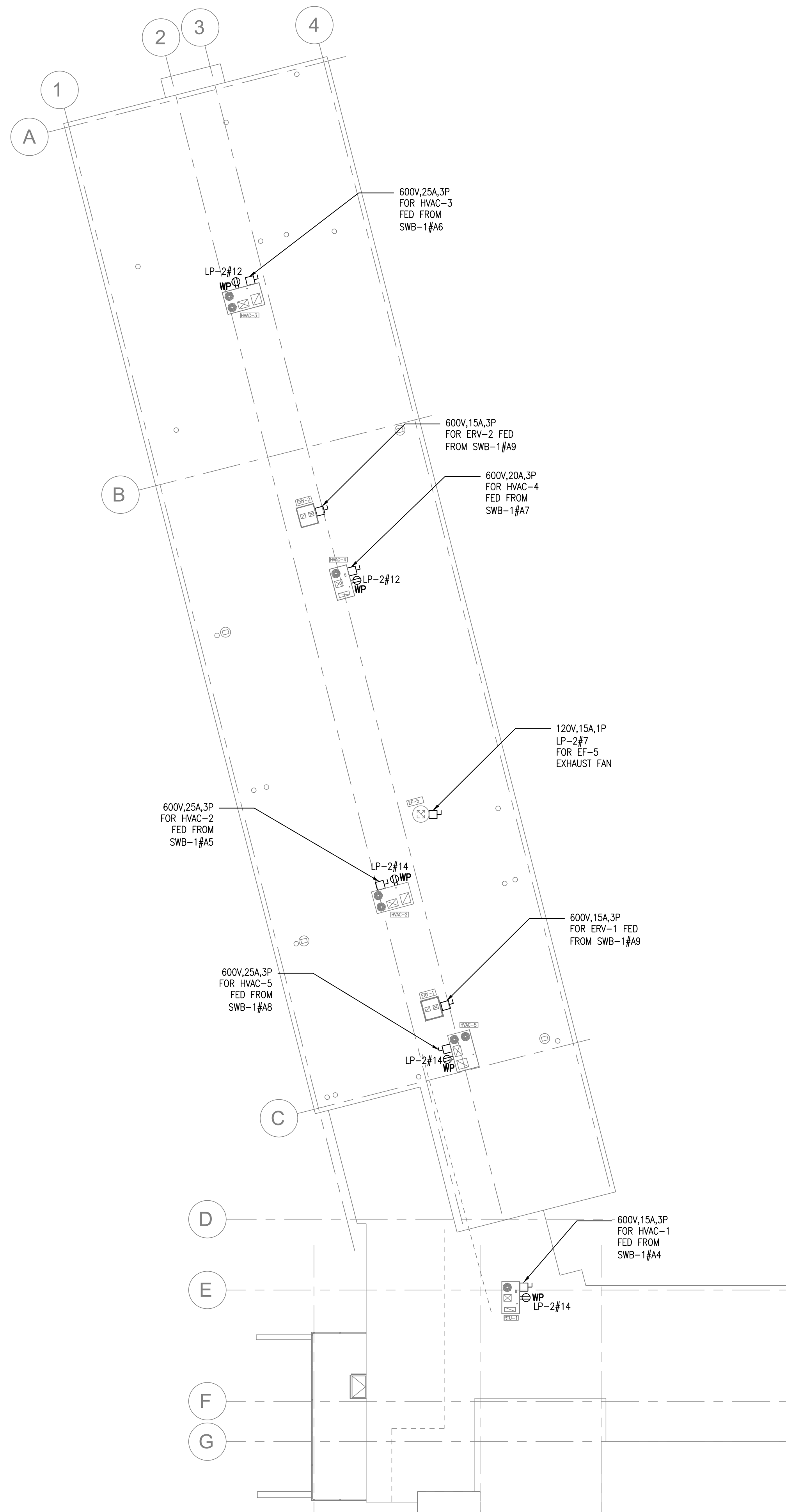
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Fax: 1-866-876-5758
www.boldengineering.ca

Project Name
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HVAC UPGRADES & INTERIOR RENOVATIONS
SMITHSON PUBLIC SCHOOL
150 BELLVIEW AVENUE, KITCHENER

Sheet Title
ELECTRICAL AND BOILER ROOM LAYOUTS

Drawn By DB Scale As Shown
Designed By DB Date November 26, 2020
Project Number **B20-349.02A**

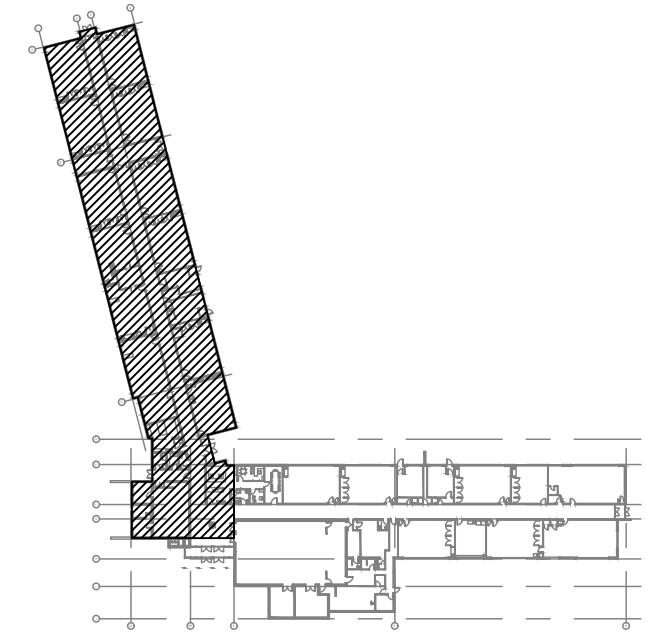
Sheet Number Revision
E9 **1**



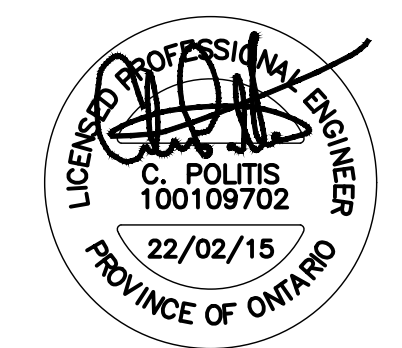
1 PROPOSED ROOFTOP PLAN
E10 SCALE: 1:200

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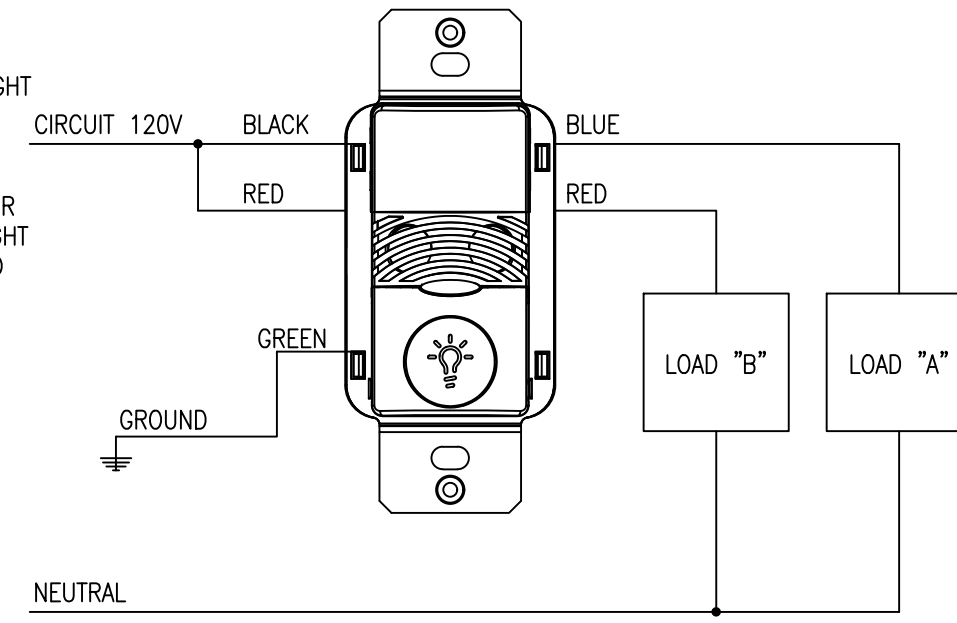
Project Name
WRDSB - WORKSHOP
ARCHITECTURE
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 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
PROPOSED ROOFTOP POWER PLAN

Drawn By DB Scale As Shown
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 Project Number **B20-349.02A**

Sheet Number Revision
E10 1

OPERATION / FUNCTION:

1. LIGHTS ARE TURNED ON BY LIGHT SWITCH. NO AUTOMATIC ON FUNCTION IS PERMITTED.
2. LOADS TURN OFF WHEN SENSOR TIMES OUT. 30 MINUTES. LIGHT SWITCH CAN ALSO BE USED TO TURN OFF LIGHTS.
3. DAY LIGHT SENSOR IS NOT ENABLED FOR THIS SENSOR.



1 WALL SWITCH OCCUPANCY SENSOR DETAIL

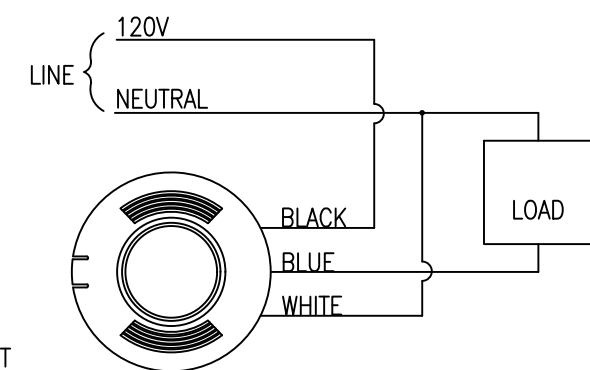
E11 SCALE: N.T.S.

AUTOMATIC MODE OPERATION:

1. WHEN SENSOR ACTIVATES LOAD TURNS ON.
2. LOAD TURNS OFF WHEN SENSOR TIMES OUT.

OPERATION / FUNCTION:

1. LIGHTS ARE TURNED ON BY LIGHT SWITCH. NO AUTOMATIC ON FUNCTION IS PERMITTED.
2. LOADS TURN OFF WHEN SENSOR TIMES OUT. 30 MINUTES. LIGHT SWITCH CAN ALSO BE USED TO TURN OFF LIGHTS.
3. WHERE DIMMER SWITCH IS REQUIRED, PLEASE CONNECT AS PER MANUFACTURER'S INSTRUCTIONS.
4. DAY LIGHT SENSOR IS NOT ENABLED FOR THIS SENSOR.



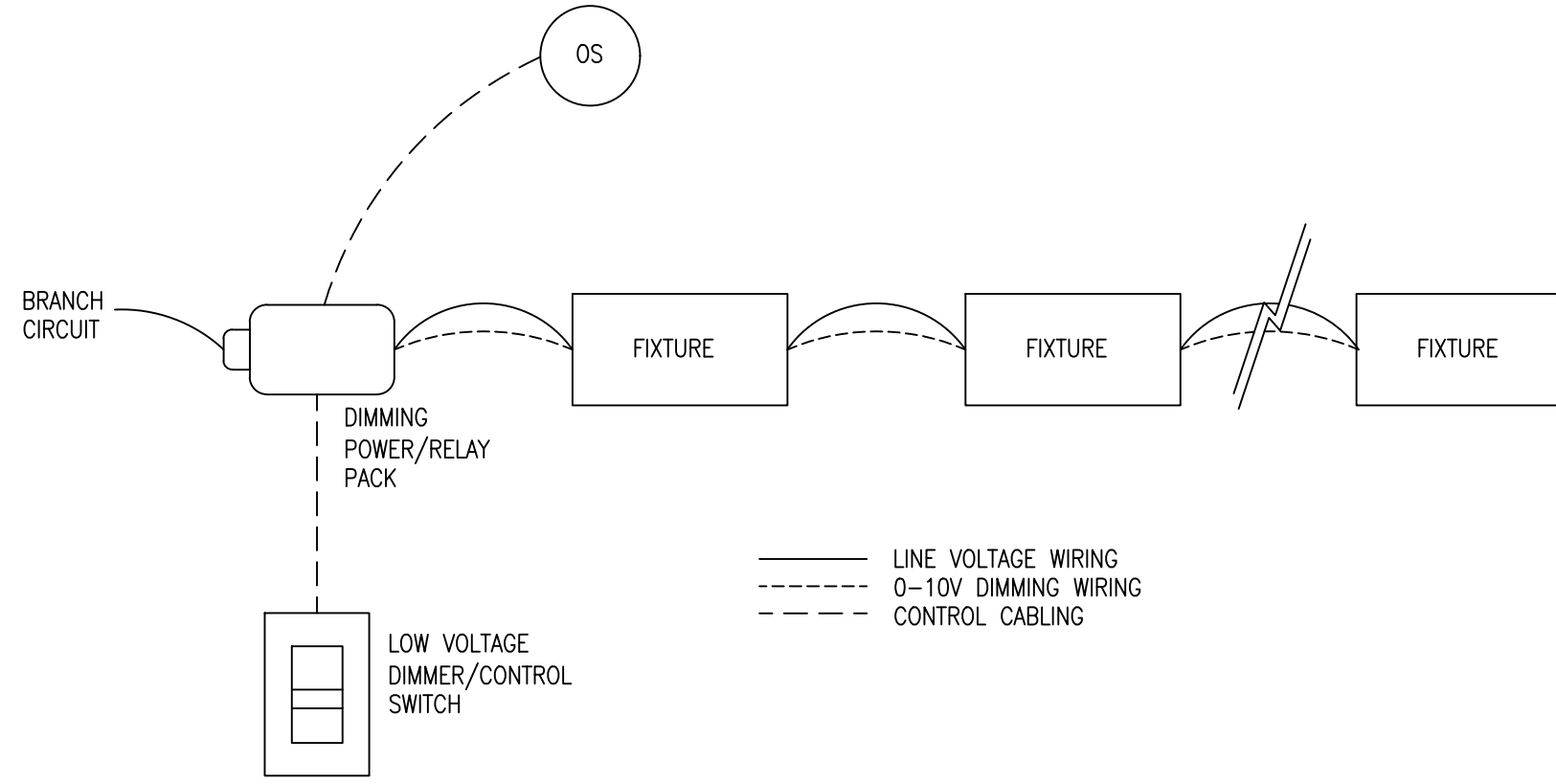
2 CEILING MOUNT OCCUPANCY SENSOR DETAIL

E11 SCALE: N.T.S.



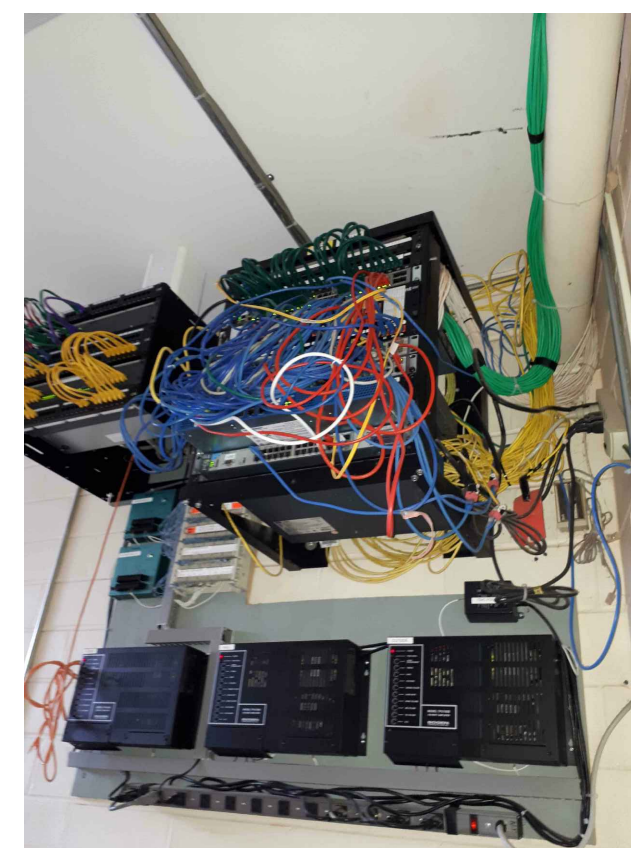
5 EXISTING IT HUB

E11 SCALE: N.T.S.



3 OCCUPANCY SENSOR WITH DIMMING DETAIL

E11 SCALE: N.T.S.



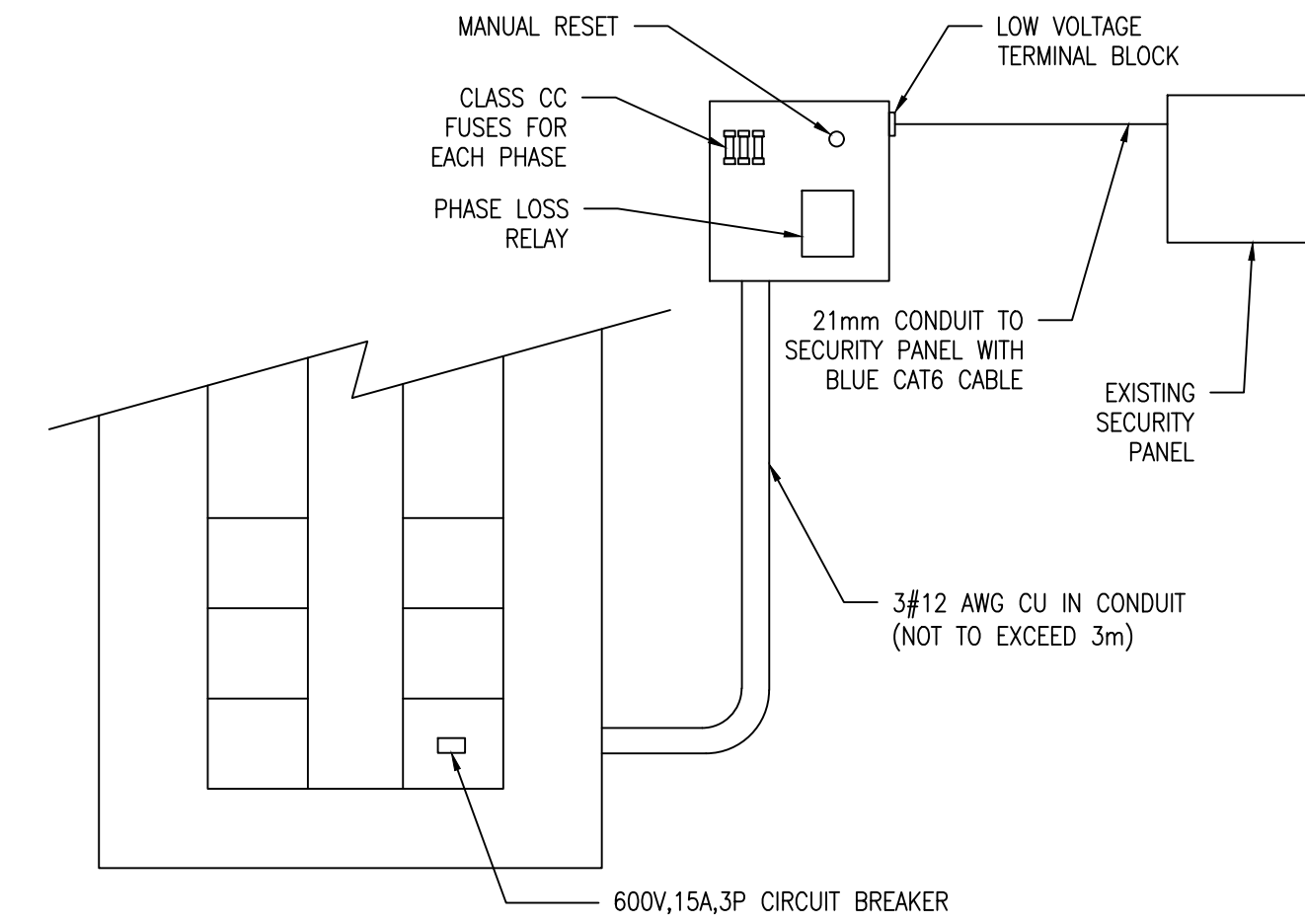
6 EXISTING IT HUB

E11 SCALE: N.T.S.



7 EXISTING PHONE BACKBOARD

E11 SCALE: N.T.S.

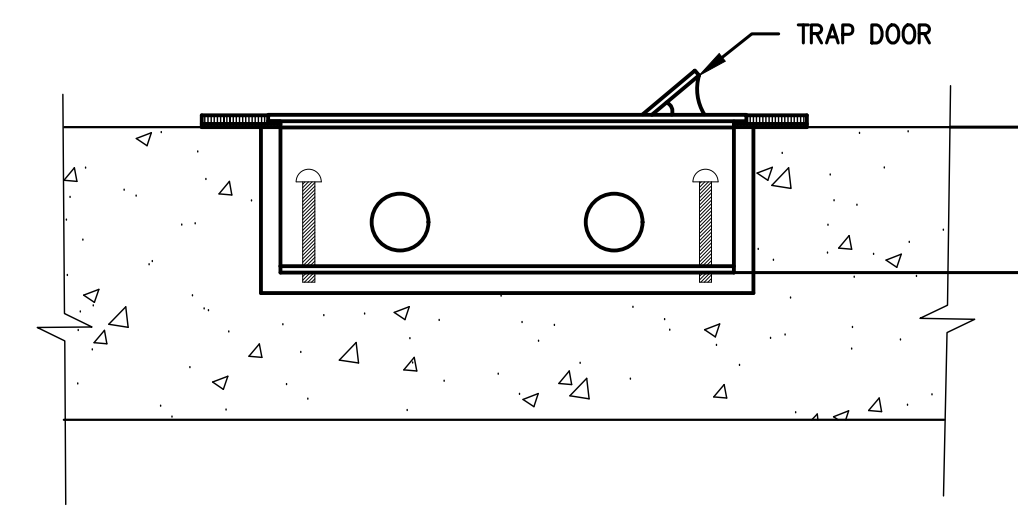


PHASE LOSS RELAY REQUIREMENTS:

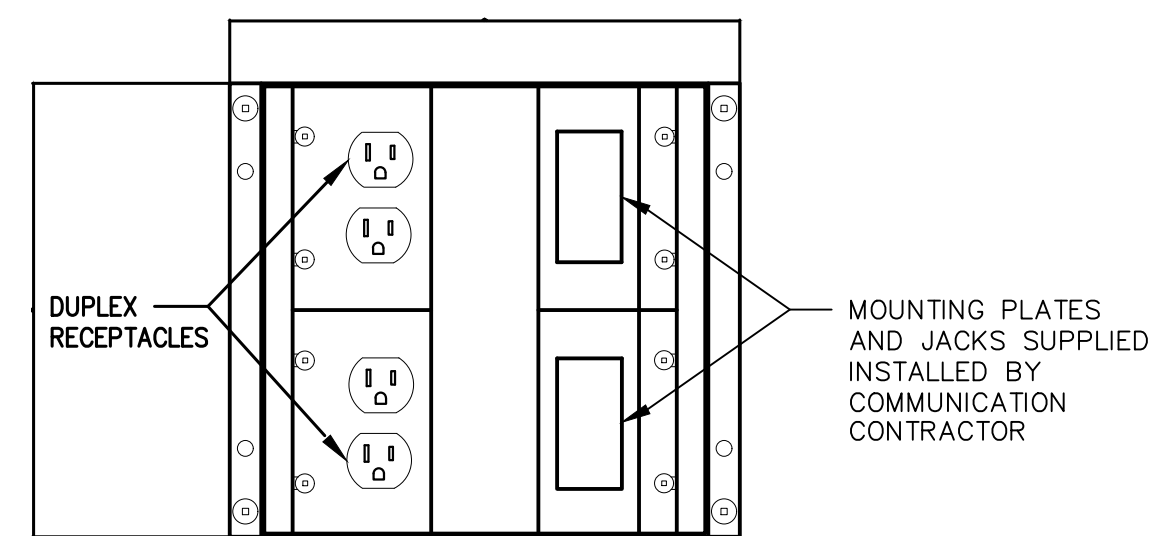
1. SUPPLY AND INSTALL 250mm x 250mm x 150mm BOX, PHASE LOSS RELAY (EATON D65VMS600 OR EQUIVALENT) AND ACCESSORIES AS SHOWN. LABEL ON COVER STATING: "PHASE LOSE RELAY. CONTACT MONITORING COMPANY BEFORE DE-ENERGIZING".
2. MOUNT RELAY ON DIN RAIL AND SUPPLY AND INSTALL CLASS CC FUSING WITHIN BOX. SUPPLY AND INSTALL 2-#18 AWG WIRES FROM OUTPUT CONTACT TO LOW VOLTAGE TERMINAL STRIP ON EXTERIOR OF BOX. WHEN PHASE IS LOST, THE CONTACT SHALL OPEN. SUPPLY AND INSTALL 21mm CONDUIT FROM LOW VOLTAGE TERMINAL BLOCK TO SECURITY PANEL COMPLETE WITH BLUE CAT6 CMP CABLE. FINAL TERMINATIONS BY SECURITY SUBCONTRACTOR.
3. SUPPLY AND INSTALL NORMALLY CLOSED PUSHBUTTON ON FRONT OF BOX TO MANUALLY RESET THE RELAY. PUSHBUTTON SHALL BE FLUSH WITH THE BOX AND SHALL BE LABELED "MANUAL RESET".
4. ADJUST UNDERVOLTAGE TO MINIMUM, UNBALANCE TO MAXIMUM AND TRIP DELAY TO MAXIMUM TO AVOID NUISANCE TRIPPING.

4 PHASE LOSS RELAY DETAIL

E11 SCALE: N.T.S.



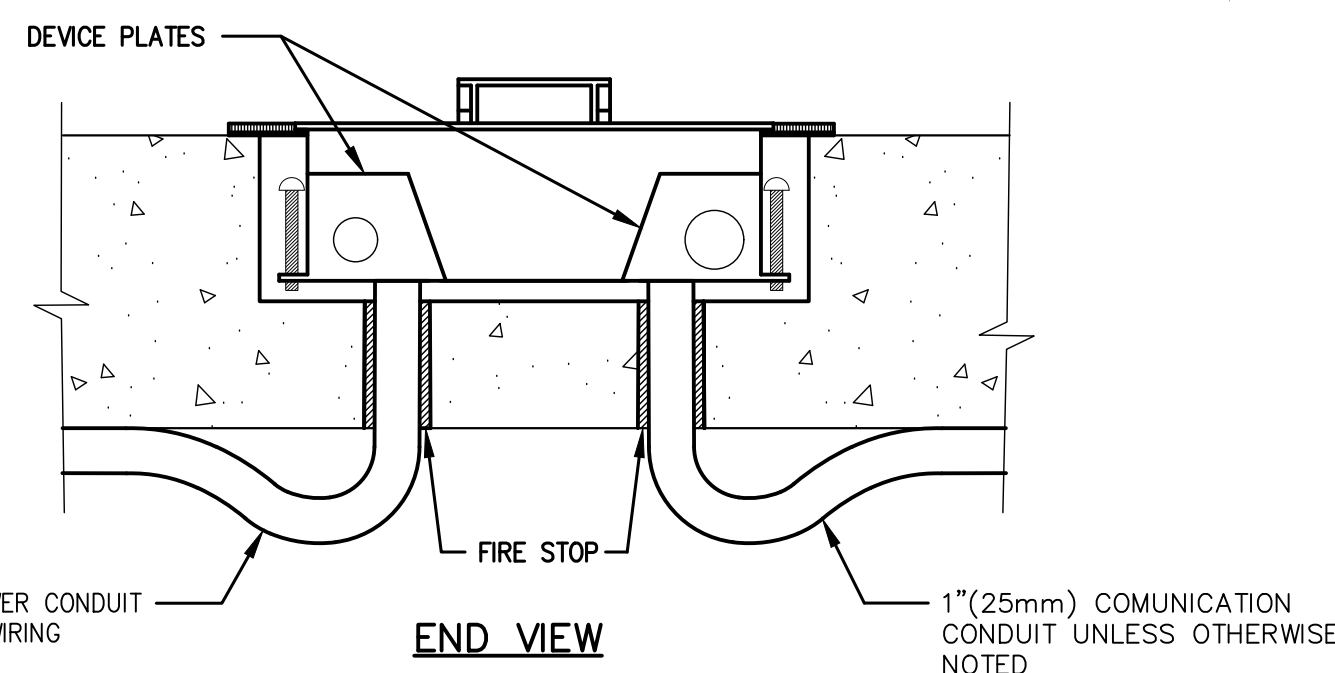
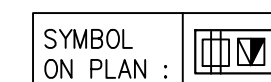
SIDE VIEW



TOP VIEW

NOTES:

1. FLOOR BOX SHALL BE NEPCO, WELLMARK OR CANADIAN ELECTRICAL RACEWAYS, "LOW PROFILE SERIES".
2. FLOOR BOX FINISH TO BE BLACK.



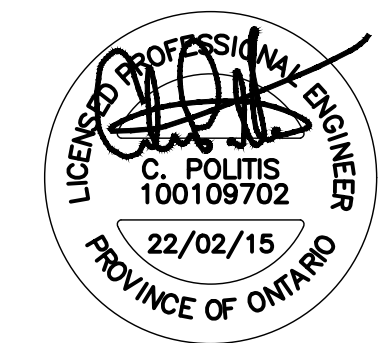
END VIEW

9 FLOOR BOX DETAIL

E11 SCALE: N.T.S.

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No.	Revision	Date	By
9.	ISSUED FOR TENDER	22 FEB 15	CP
8.	ISSUED FOR PERMIT	22 FEB 03	CP
7.	ISSUED FOR 90% REVIEW	22 JAN 21	DB
6.	ISSUED FOR 90% REVIEW	21 DEC 03	DB
5.	ISSUED PERMIT / TENDER	21 MAY 11	CP

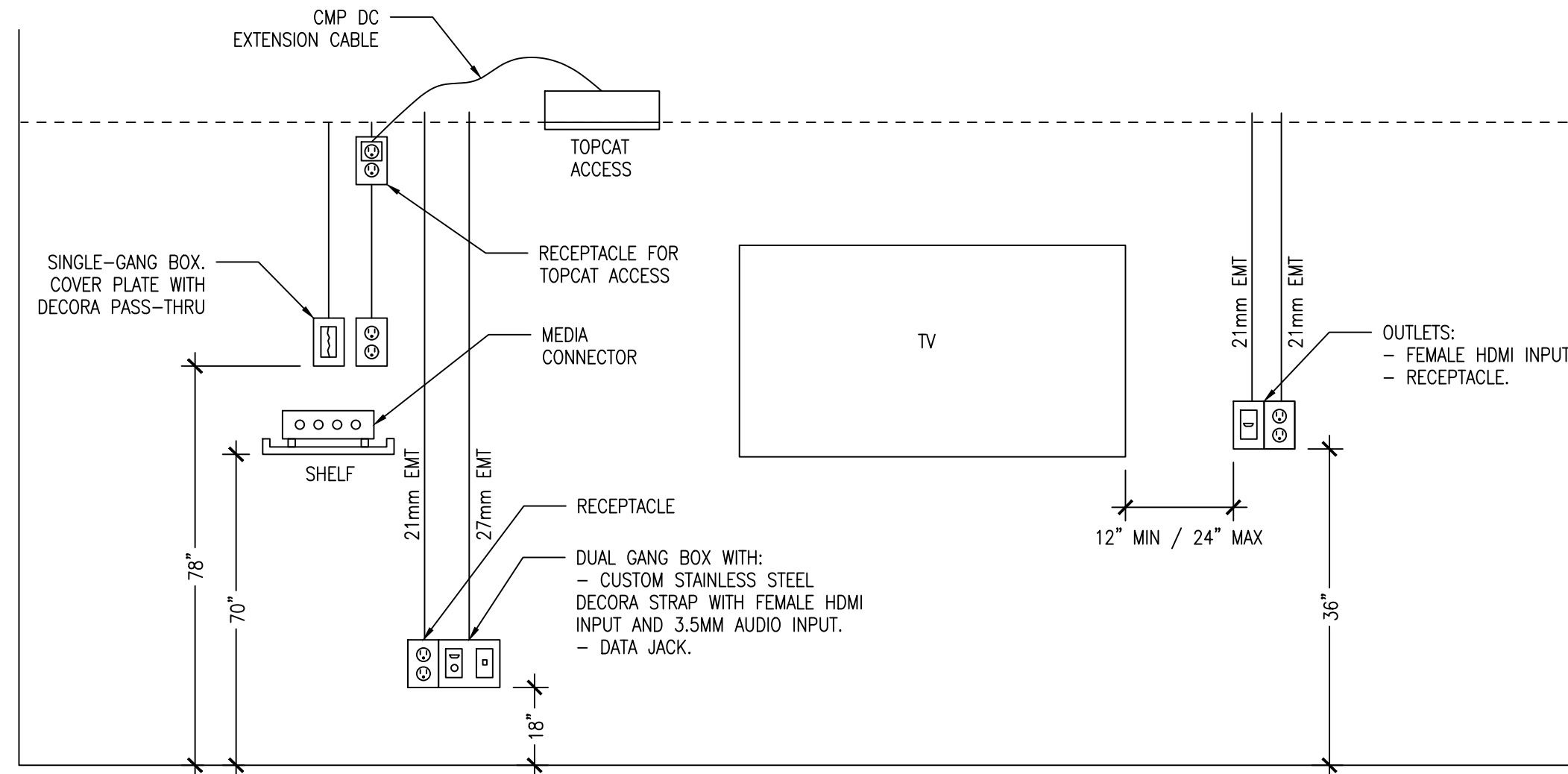
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Project Name
WRDSB - WORKSHOP ARCHITECTURE
 HVAC UPGRADES & INTERIOR RENOVATIONS
 SMITHSON PUBLIC SCHOOL
 150 BELLVIEW AVENUE, KITCHENER
 Sheet Title
ELECTRICAL DETAILS

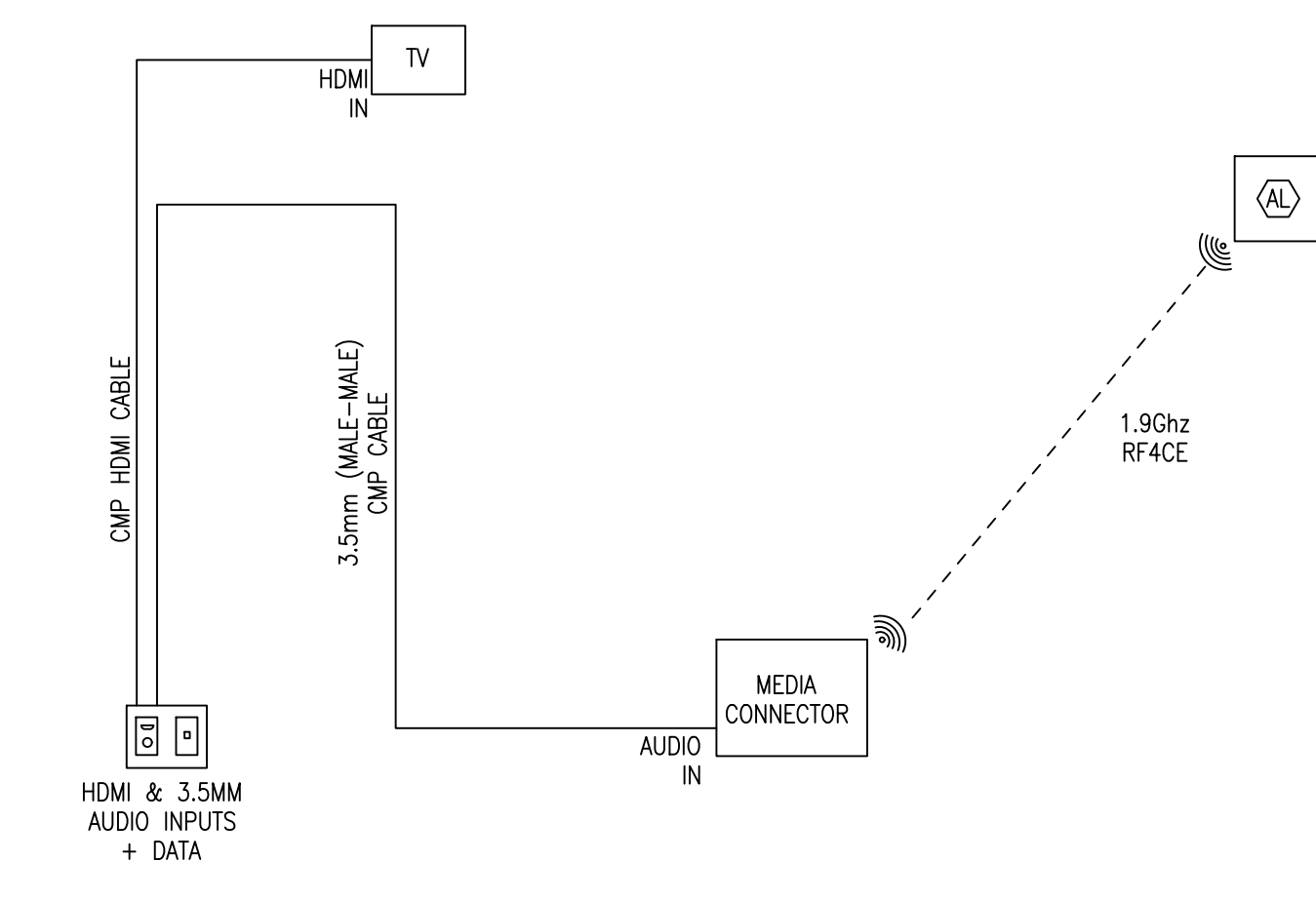
Drawn By DB Scale As Shown
 Designed By DB Date November 26, 2020
 Project Number **B20-349.02A**
 Sheet Number Revision
E11 **1**

TOPCAT AUDIO AND TV REQUIREMENTS:

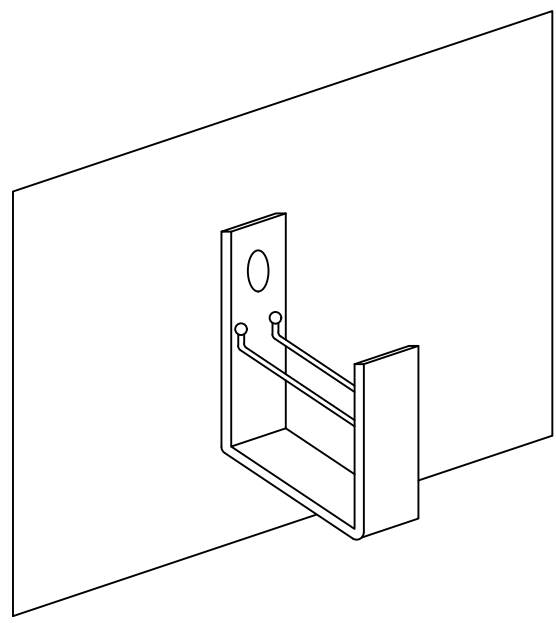
- TOPCAT AUDIO SYSTEM SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR. SUPPLY AND INSTALL OF TV IS NOT PART OF ELECTRICAL CONTRACTOR SCOPE OF WORK.
- ALL LOCATIONS FOR TV AND AV EQUIPMENT AND OUTLETS WITHIN CLASSROOMS IS APPROXIMATE. CONTRACTOR TO VERIFY AND RECOMMEND EXACT LOCATIONS BASED ON SITE CONDITIONS AND SUBMIT TO CONSULTANT FOR REVIEW AND APPROVAL.



10 TOPCAT AND PROJECTOR ROUGH-IN DETAIL
E11.1 SCALE: N.T.S.

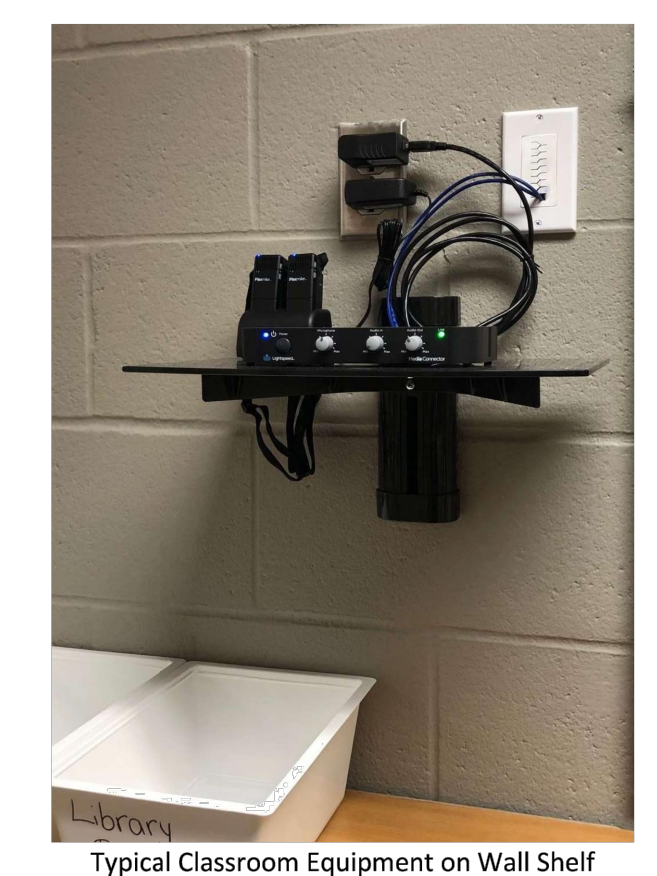


11 TOPCAT CABLING SCHEMATIC
E11.1 SCALE: N.T.S.



- NOTES:**
- INCLUDE CABLE RETAINERS WITH HANGER.
 - HANGERS SHALL BE WALL MOUNTED WHERE POSSIBLE. WHEN NOT POSSIBLE, UNITS SHALL BE SUSPENDED FROM STRUCTURE WITH THREADED ROD.
 - CORRIDOR MOUNTED HANGERS SHALL BE IN-LINE. MAXIMUM SPACING TO BE 1.5m.
 - COORDINATE INSTALLATION OF HANGERS WITH MECHANICAL TRADE TO AVOID CONFLICTS.
 - INSTALLATION OF POWER CABLES WITHIN HANGERS IS NOT PERMITTED.
 - J-HOOKS TO BE EATON BCH64 OR APPROVED EQUIVALENT.

12 J-HOOK INSTALLATION DETAIL
E11.1 SCALE: N.T.S.



SYSTEM DESCRIPTION

- Lightspeed TopCat Access is an all-in-one, ceiling-mount classroom audio system. A typical assistive listening system will include speakers, an integrated amplifier and a wireless audio receiver/transmitter.
- The TopCat assistive listening system shall include the following features and components:
 - A two-way hybrid speaker system with an exciter technology sound panel and low frequency cone driver.
 - Cross over technology to deliver high speech intelligibility and full range sound with even distribution throughout the classroom.
 - Pendant-style microphones for whole classroom instruction, team-teaching or student sharing.
 - Wireless Media Connector to integrate with and wirelessly transmit all classroom multimedia to be played.
 - Devices communicate using wireless Access Technology (1.9Ghz + RF4CE).
 - Suitable for use in return air plenums.

PRODUCTS

- Typical Classrooms**
 - Assistive listening equipment manufactured by Lightspeed for a typical classroom (approximately 75 m²) shall consist of the following:
 - One (1) Model No. TCA
 - Topcat ceiling-mounted wireless audio base station
 - Plug-in power adapter
 - 50' plenum rated DC power cable kit
 - Hybrid speaker system consisting of exciter sound panel plus low frequency cone driver
 - Panel Size: 13.75" x 6.75"
 - Cone Driver Size: 5.25"
 - Impedance: 8 Ω
 - Power Handling: 25W
 - (1) Tone control inside cabinet
 - Audio Input: (1) 3.5mm inside cabinet
 - Dimensions (W x D x H): 610 x 305 x 94mm
 - Two (2) Model No. FM
 - Flexmike pendant-style wireless microphone
 - AA NIMH rechargeable battery pack
 - Lavalier cord
 - Audio distortion: <1%
 - Integrated microphone type: uni-directional electret
 - Audio input: (1) 3.5mm
 - Earbud output: (1) 3.5mm
 - Push button volume control: +/- 6dB (total range = 12 dB)
 - Power: on/off/mute button
 - Battery run time: 8 hours
 - Dimensions (L x W x H): 74 x 28 x 25mm
 - One (1) Model No. FMCC
 - Cradle charger for two Flexmikes
 - Plug-in power adapter
 - One (1) Model No. Media connector
 - Wireless audio transmitter/receiver to integrate with classroom audio sources and send/receive the wireless signal to the Topcat system in the ceiling
 - Plug-in power adapter
 - Audio Inputs: (4) 3.5mm stereo jacks connect to classroom audio sources
 - Audio Outputs: (2) 3.5mm jack with volume control
 - (1) Microphone volume control
 - (1) Audio input volume control
 - (1) Audio output volume control
 - (1) Power button with LED
 - (1) Tone control
 - Dimensions (W x D x H): 193 x 104 x 28mm
 - One (1) wall-mounted, single shelf.
 - Glass shelf.
 - Black colour.

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