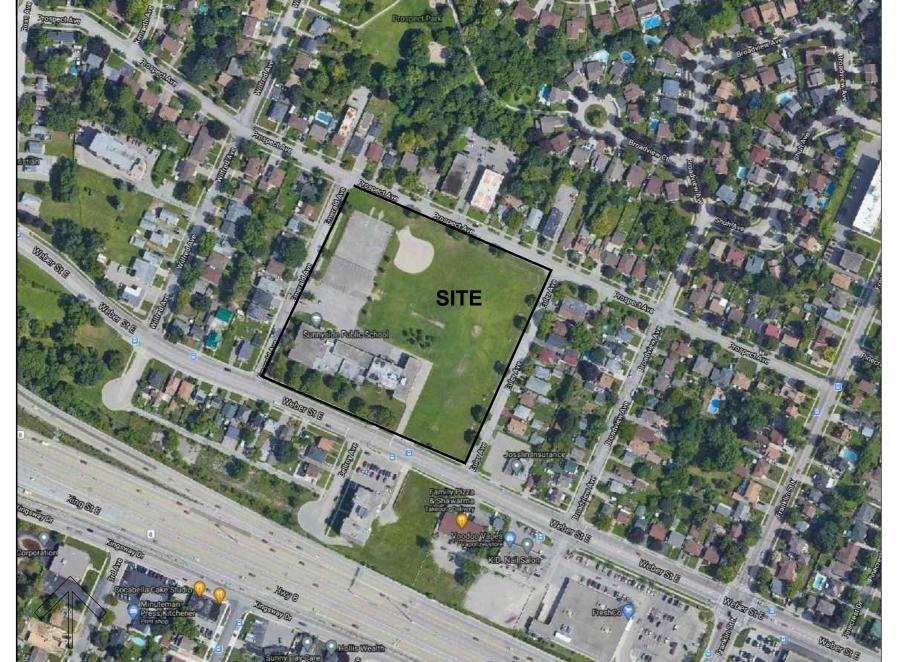


SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE TENDER No. #7168-KP-21 1042 Weber Street E. Kitchener, Ontario

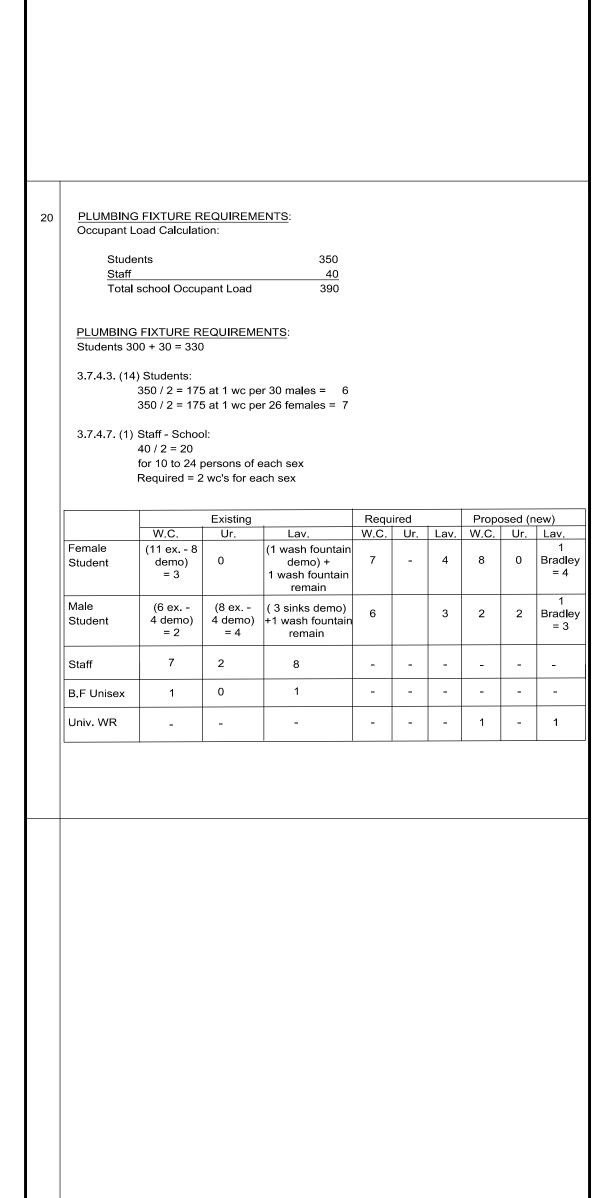






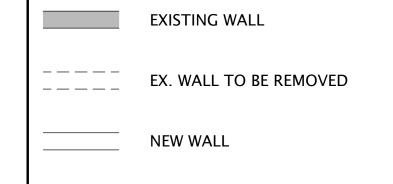
KEY PLAN

Certificate of Practice Number: The Certificate of Practice Number of the Firm Address and Contact Partner, B.E.S., B.Arch. O.A.A., LEED AP Facsimile: 416-203-7763 Name and Address of Project: SUNNYSIDE PUBLIC SCHOOL exercised responsible control 1042 Weber Street E. with respect to design activities. Kitchener, ON N2A 1B6 The architect's seal number is the architect's BCDN **OBC** Reference Ontario Building Code Data Matrix - Parts 3 & 9 ☐ Part 3 Project Description: ☐ Addition 1.1.2. [A] ☐ Change of Use ■ Alteration Major Occupancy(s): ELEMENTARY SCHOOL 3.1.2.1.(1) Total: 2648.39 m² | 1.4.1.2. [A] Existing: 3771.45 m² New: -Gross Area (m²) Total: 3771.45 m² 1.4.1.2 [A] 1.4.1.2.[A]&3.2.1. Number of Storeys: Above Grade: 2 Number of Streets/Fire Fighter Access: EXISTING 3.2.2.10 & 3.2.5 Building Classification: ASSEMBLY OCCUPANCY, GROUP A DIVISION 2 EXISTING □ entire building Sprinkler System Proposed: EXISTING ☐ selected compartments ☐ selected floor areas ☐ basement ☐ in lieu of roof rating INDEX not required 9 Standpipe required: ■ Yes □ No 10 Fire Alarm required: ■ Yes □ No Water Service/Supply is adequate: ☐ Yes ■ No ☐ Comb. Permitted ☐ Non-comb. required ■ Both Construction Restrictions Actual Construction: ☐ Combustible ☐ Non-combustible ■ Both Occupant Load based: \square m²/person \blacksquare design of building Load _____370 ___ persons Existing Building: Barrier-free Design: 3.3.1.2 & 3.3.1.19. Horizontal Assemblies Listed Design No. or Required FRR (Hours) Description (SB-3) Rating (FRR) Roof: EXISTING Hours EXISTING Min FRR of Supporting Members Listed Design No. or 45 Min or be of Noncombustible Construction Spatial Separation - Construction of Exterior Walls Wall Area of L.D. L/H or Permitted Proposed FRR Listed Design Comb. Comb. Const. Non-comb EBF(m²) | (m) | H/L | Max. % of | % of | (Hours) | or Description | Const. | Nonc. Cladding Const. Openings Openings



Ontari	o Building Code Da	ta Matrix - Parts 11 - Renovati	on of Existi	ng Building	OBC Reference
11.1	Project Description:	Describe Existing Use: ELEMENTA Construction index: Hazard Index:	ARY SCHOOL	- A2	11.2.1.1
		☐ Not Applicable (no change of ma	ajor occupancy	()	
11.2	Alteration to Existing Building is:	Basic Renovation ■ Extensive Renovation □			11.3.3.1
11.3	Reduction in				11.4.2
	Performance Level:	Structural:	■ No	☐ Yes	11.4.2.1
		By Increase in occupant load:	■ No	☐ Yes	11.4.2.2
		By change of major occupancy:	■ No	☐ Yes	11.4.2.3
		Plumbing:	■ No	☐ Yes	11.4.2.4
		Sewage-system:	■ No	☐ Yes	11.4.2.5
11.4	Compensating Construction:	Structural:	■ No	☐ Yes (explain)	11.4.3 11.4.3.2
		Increase in occupant load:	■ No	☐ Yes (explain)	11.4.3.3
		Change of major occupancy:	■ No	☐ Yes (explain)	11.4.3.4
		Plumbing: Plumbing fixtures replaced.	□ No	■ Yes (explain)	11.4.3.5
		Sewage System:	■ No	☐ Yes (explain)	11.4.3.6
11.5	Compliance Alternatives Proposed:	■ No □ Yes (give number(s))			11.5.1
116	Alternative Measures	■ No			11 5 2
11.6	Alternative Measures Proposed:	■ No			11.5.2

SYMBOL LEGEND



FIRE SEPARATION



DOOR NUMBER
EXISTING DOOR

BUILDING SECTION NUMBER
SHEET NUMBER

NEW DOOR

DOOR NUMBER

WALL SECTION NUMBER
SHEET NUMBER

DETAIL NUMBER

SHEET NUMBER

DETAIL DRAWING NUMBER SEE SPECIFICATION

WI WINDOW TYPE

SCREEN TYPE

NAME 000

ROOM NAME ROOM NUMBER

X — CEILING MATERIAL
X — CEILING HEIGHT

SEE SPECIFICATION FOR:

• ROOM FINISH SCHEDULE SECTION 00860

LIST OF DRAWINGS

ARCHITECTURAL

A0-0 COVER & OBC MATRIX
A2-0 OVERALL LOWER AND FIRST FLOOR PLANS
OVERALL SECOND & ROOF FLOOR PLANS

A2-2 PARTIAL MAIN FLOOR PLAN
GYMNASIUM DEMOLITION AND NEW LAYOUT

A2-3 PARTIAL LOWER FLOOR PLAN
DEMOLITION AND NEW LAYOUT
A2-4 LOWER FLOOR REFLECTED CEILING PLAN & SECTIONS

A2-5 PARTIAL MAIN FLOOR PLAN
GYMNASIUM FINISHES PLAN.

A2-6 PARTIAL LOWER FLOOR PLAN FINISHES PLAN

A3-0 A/C OVERALL LOWER AND MAIN FLOOR PLANS
A3-1 A/C OVERALL SECOND FLOOR AND ROOF PLANS

A3-2 A/C PARTIAL LOWER FLOOR
REFLECTED CEILING PLAN DEMOLITION
A3-3 A/C PARTIAL LOWER FLOOR

REFLECTED CEILING PLAN NEW
A3-4 A/C PARTIAL MAIN FLOOR
REFLECTED CEILING PLAN DEMOLITION

A3-5 A/C PARTIAL MAIN FLOOR
REFLECTED CEILING PLAN NEW

A3-6 A/C PARTIAL SECOND FLOOR
REFLECTED CEILING PLAN DEMOLITION
A3-7 A/C PARTIAL SECOND FLOOR

REFLECTED CEILING PLAN NEW

A4-0 INTERIOR ELEVATIONS
A4-1 EXISTING GYMNASIUM INTERIOR ELEVATIONS

MECHANICAL

M101 MECHANICAL LEGEND & SCHEDULES
M201 LOWER LEVEL PART PLAN DEMOLITION
M301 LOWER LEVEL PART PLANS RENOVATION
M401 BASEMENT PLAN
M402 FIRST FLOOR PLAN
M403 SECOND FLOOR PLAN
M404 ROOF PLAN

M501 VRF DETAILS & SCHEMATICS
 M502 VRF SYSTEM PIPING SCHEMATICS
 M503 VRF SYSTEM WIRING SCHEMATICS
 M601 MECHANICAL DETAILS

ELECTRICAL

E101 LEGEND AND KEY PLAN
E102 SCHEDULES AND DETAILS
E103 PARTIAL DISTRIBUTION RISER AND PANEL SCHEDULES
E201 BASEMENT DEMOLITION PLAN
E202 FIRST FLOOR DEMOLITION PLAN
E203 SECOND FLOOR DEMOLITION PLAN

E301 BASEMENT RENOVATION PLAN
E302 FIRST FLOOR RENOVATION PLAN
E303 SECOND FLOOR RENOVATION PLAN
E304 ROOF RENOVATION PLAN

ENLARGED LOWER LEVEL - RENOVATION PLAN
ELECTRICAL SPECIFICATIONS
ELECTRICAL SPECIFICATIONS

1 21/04/23 ISSUED FOR TENDER AND PERMIT
0 21/04/14 ISSUED FOR CLIENT REVIEW

DO NOT SCALE DRAWINGS. ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON THE JOB. ALL DRAWINGS REMAIN THE PROPERTY OF THE ARCHITECTS

GENERAL NOTES

WITH THE REQUIREMENTS OF THE ONTARIO
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DRAWINGS

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5. THE STABILITY OF THE STRUCTURAL FRAME IS DEPENDENT ON THE FULL INTERACTION OF ALL

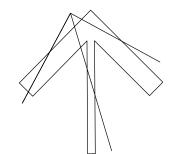
STRUCTURAL COMPONENTS. THE GENERAL

TEMPORARY BRACING DURING CONSTRUCTION

ALL DIMENSIONS GIVEN ARE IN METRIC.

CONTRACTOR SHALL PROVIDE ALL NECESSAR

DROJECT MODELL



Kingsland ___

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SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON N2A 1B6

DRAWING TITLE:
COVER & OBC MATRIX

PROJECT NO: SCALE:

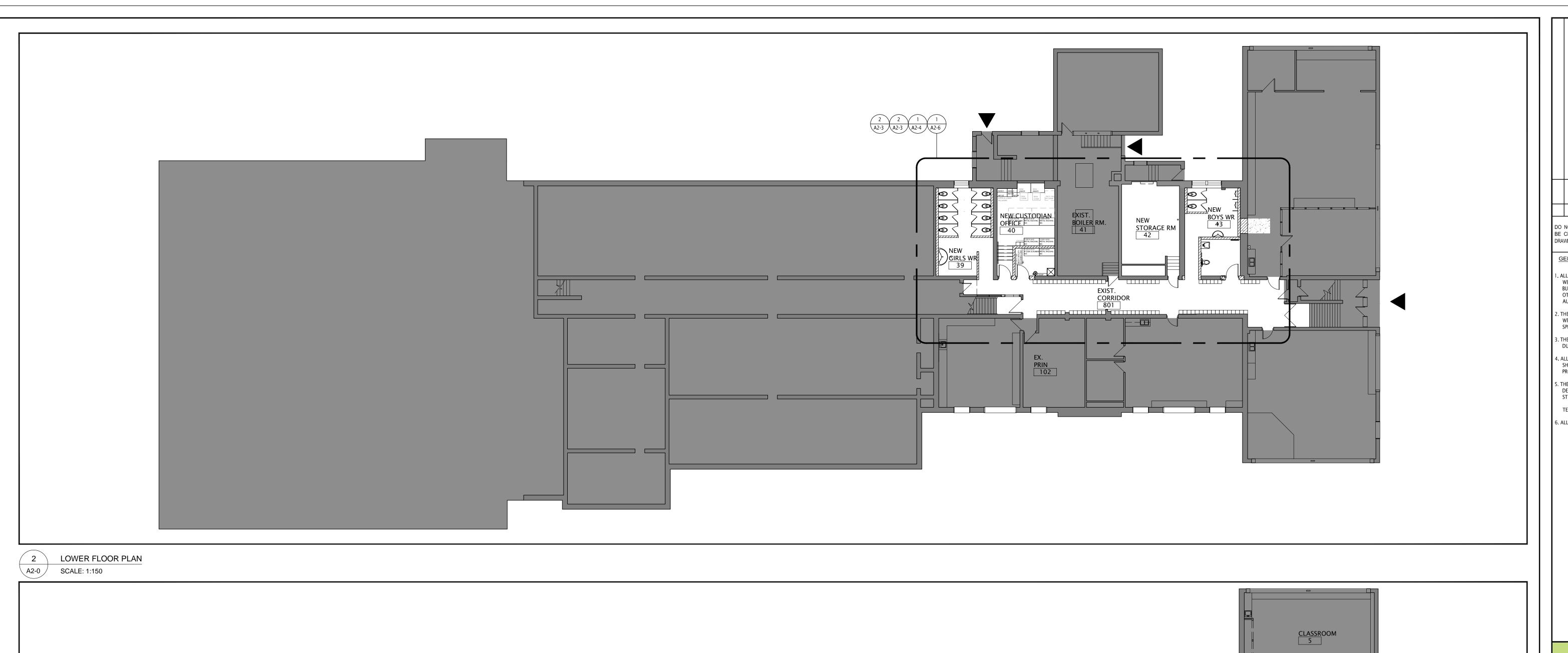
A20002.7 N.T.S.

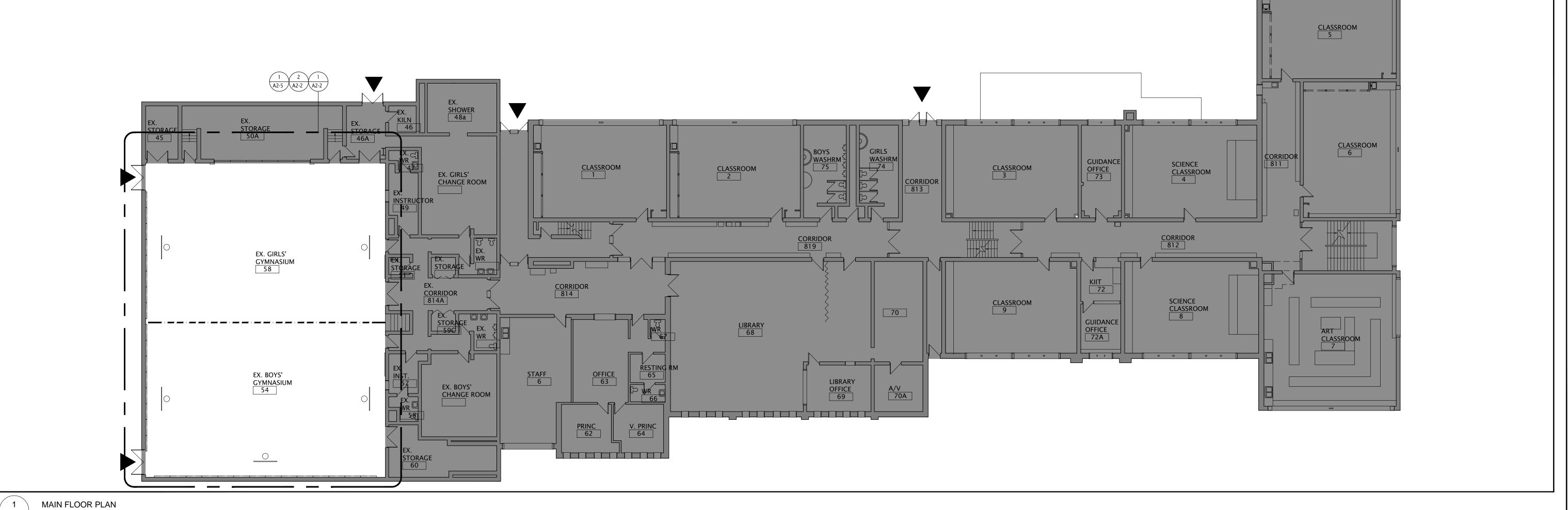
DRAWN: D.T/C.C.

CHECKED: B.F.

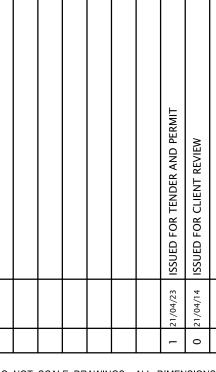
A0-0 1

FILES: A20002.7 - A0-0 COVER.DWG





SCALE: 1:150



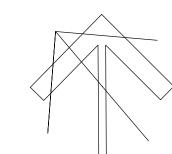
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 TEMPORARY BRACING DURING CONSTRUCTION.

6. ALL DIMENSIONS GIVEN ARE IN METRIC.

PROJECT NORTH



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SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

UPGRADE

1042 Weber Street E.

Kitchener, ON

N2A 1B6

DRAWING TITLE:
OVERALL
LOWER AND FIRST
FLOOR PLANS

 PROJECT NO:
 SCALE:

 A20002.7
 1:150

 DRAWN:
 DRAWING NO:
 REV.

 D.T./C.C
 CHECKED:
 Δ2-0
 1

DEC/20 | 1 A20002.7 - A2-0 OVERALL PLAN.DWG

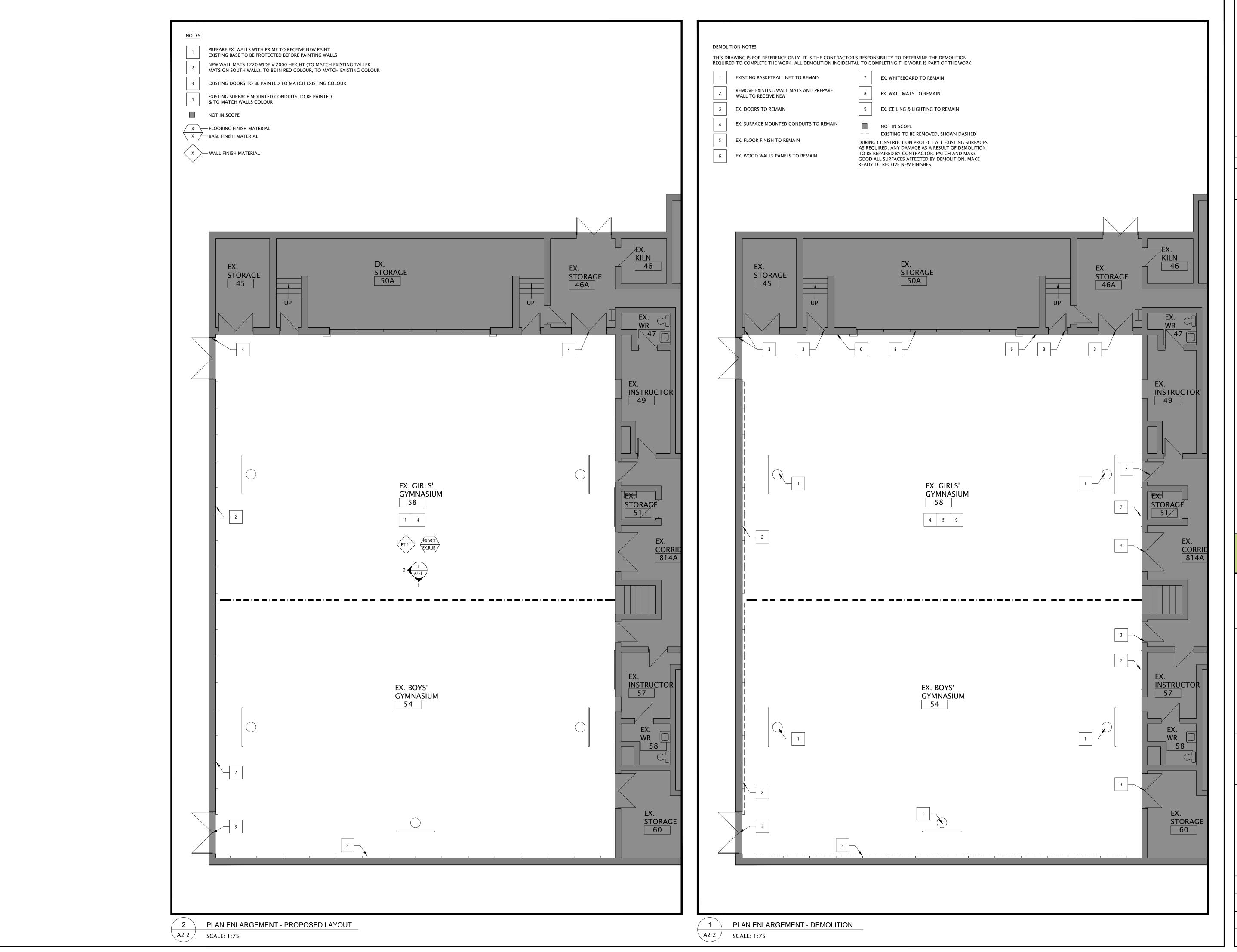


1 A20002.7 - A2-1 OVERALL PLAN.DWG

SCALE:

1:150

DRAWING NO: REV.



DRAWINGS REMAIN THE PROPERTY OF THE ARCHITECTS

DO NOT SCALE DRAWINGS. ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON THE JOB. ALL

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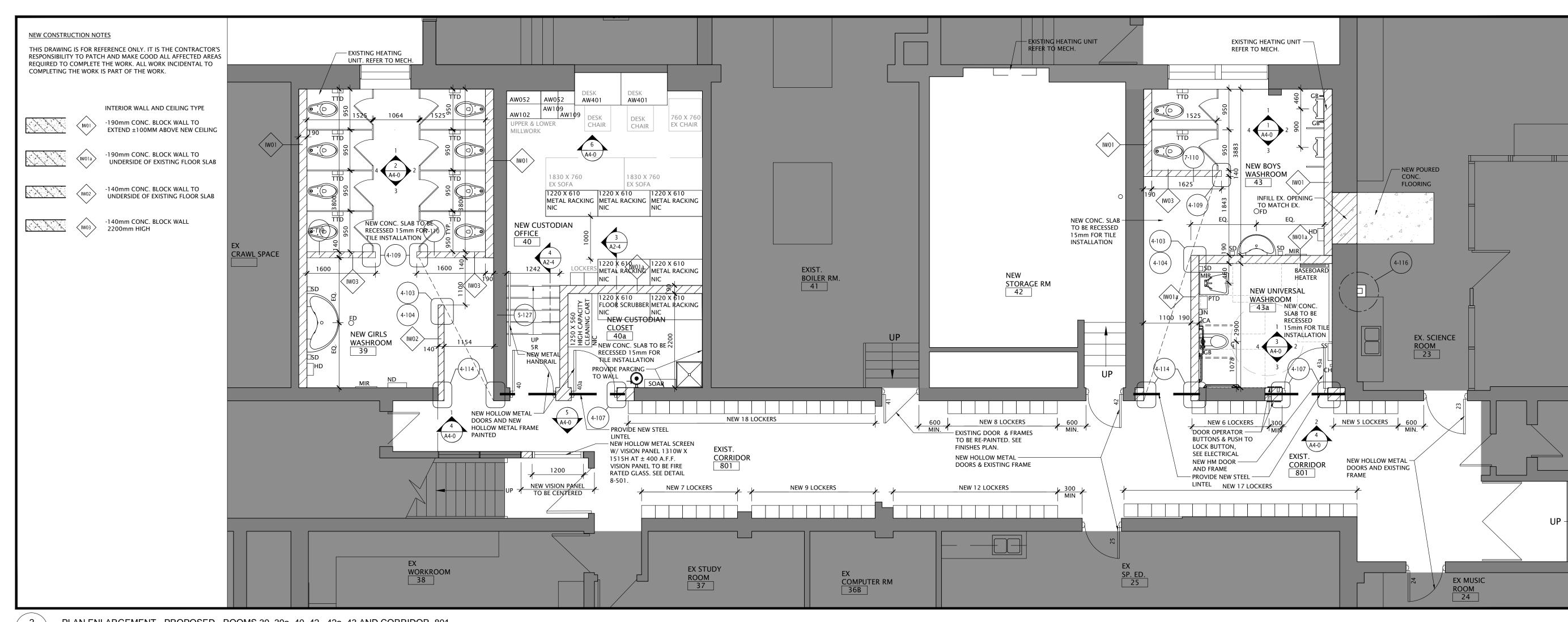
SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON

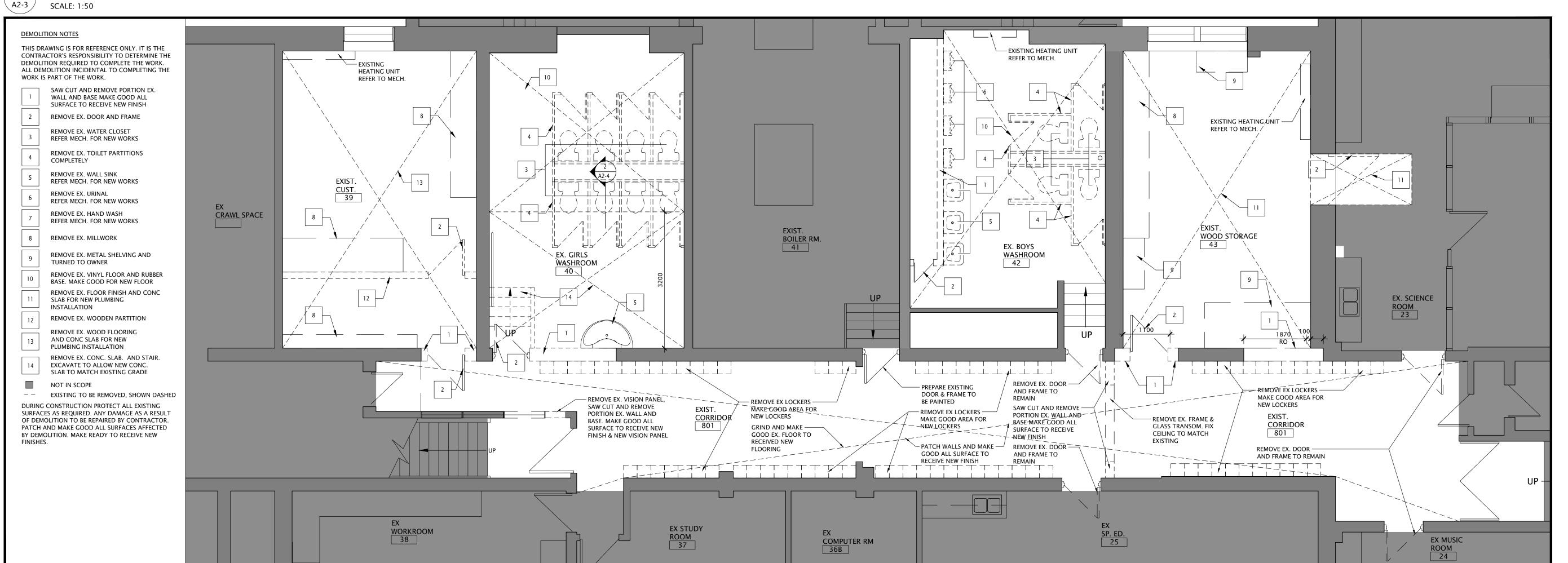
DRAWING TITLE:
PARTIAL MAIN FLOOR PLAN
GYMNASIUM DEMOLITION
AND NEW LAYOUT

PROJECT NO: SCALE: A20002.7 1:75 DRAWING NO: REV. D.T./C.C. CHECKED:

DEC/20 FILES: A20002.7 - A2-2 ENLARGEMENT DEMO & PR



2 PLAN ENLARGEMENT - PROPOSED - ROOMS 39, 39a, 40, 42, 42a, 43 AND CORRIDOR 801



PLAN ENLARGEMENT - DEMOLITION - ROOMS 39, 40, 42, 43 AND CORRIDOR 801

A2-3 SCALE: 1:50

FILES: A20002.7 - A2-3 ENLARGEMENT DEMO - PLI

SUNNYSIDE

PUBLIC SCHOOL

HVAC & WASHROOM

UPGRADE

1042 Weber Street E.

Kitchener, ON

N2A 1B6

PARTIAL LOWER FLOOR PLAN

DEMOLITION AND NEW LAYOUT

DO NOT SCALE DRAWINGS. ALL DIMENSIONS TO

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DRAWINGS REMAIN THE PROPERTY OF THE ARCHITECTS

ALL MATERIALS AND WORKMANSHIP SHALL COMPLY

WITH THE REQUIREMENTS OF THE ONTARIO

OTHER ACTS ADMINISTERED BY ALL

AUTHORITIES HAVING JURISDICTION.

BUILDING CODE, LATEST EDITION, AND ALL

. THESE DRAWINGS TO BE READ IN CONJUNCTION

WITH ALL OTHER CONTRACT DOCUMENTS, AND

3. THE DESIGN LOADS SHALL NOT BE EXCEEDED

I. ALL DIMENSIONS, SHOWN ON THE DRAWINGS, SHALL BE CHECKED BY THE CONTRACTOR BEFORE

. THE STABILITY OF THE STRUCTURAL FRAME IS

STRUCTURAL COMPONENTS. THE GENERAL

6. ALL DIMENSIONS GIVEN ARE IN METRIC.

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Toronto, Ontario M6K 3J1 ph 416.203.7799

fax 416.203.7763

DEPENDENT ON THE FULL INTERACTION OF ALL

CONTRACTOR SHALL PROVIDE ALL NECESSARY

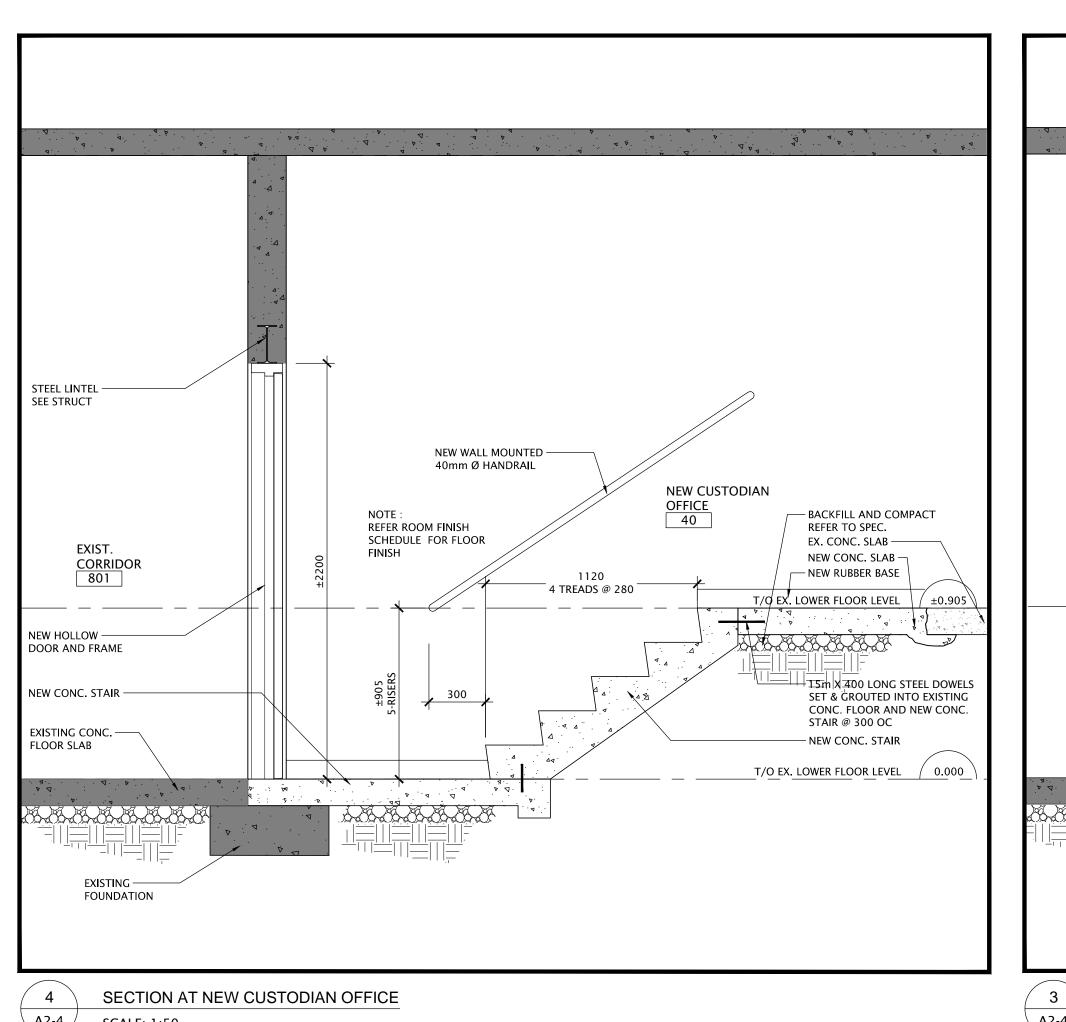
TEMPORARY BRACING DURING CONSTRUCTION.

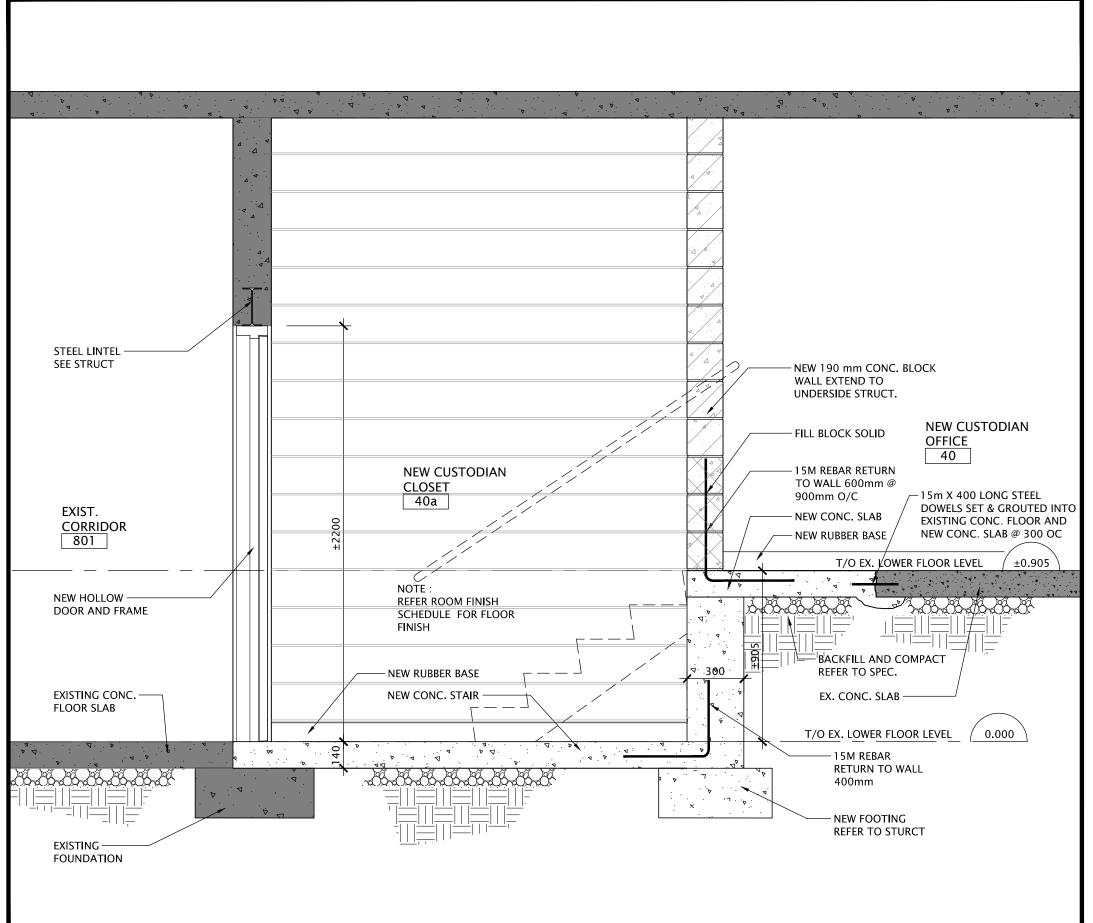
GENERAL NOTES

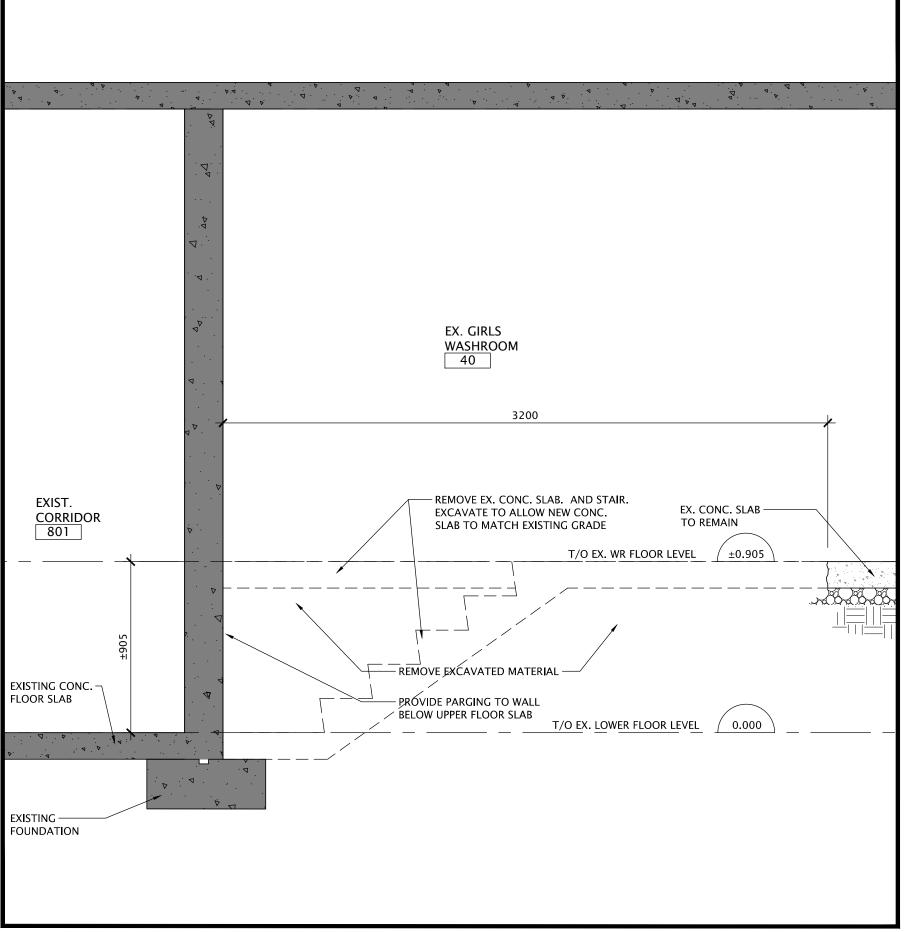
SPECIFICATIONS.

DURING CONSTRUCTION.

PROCEEDING WITH THE WORK.



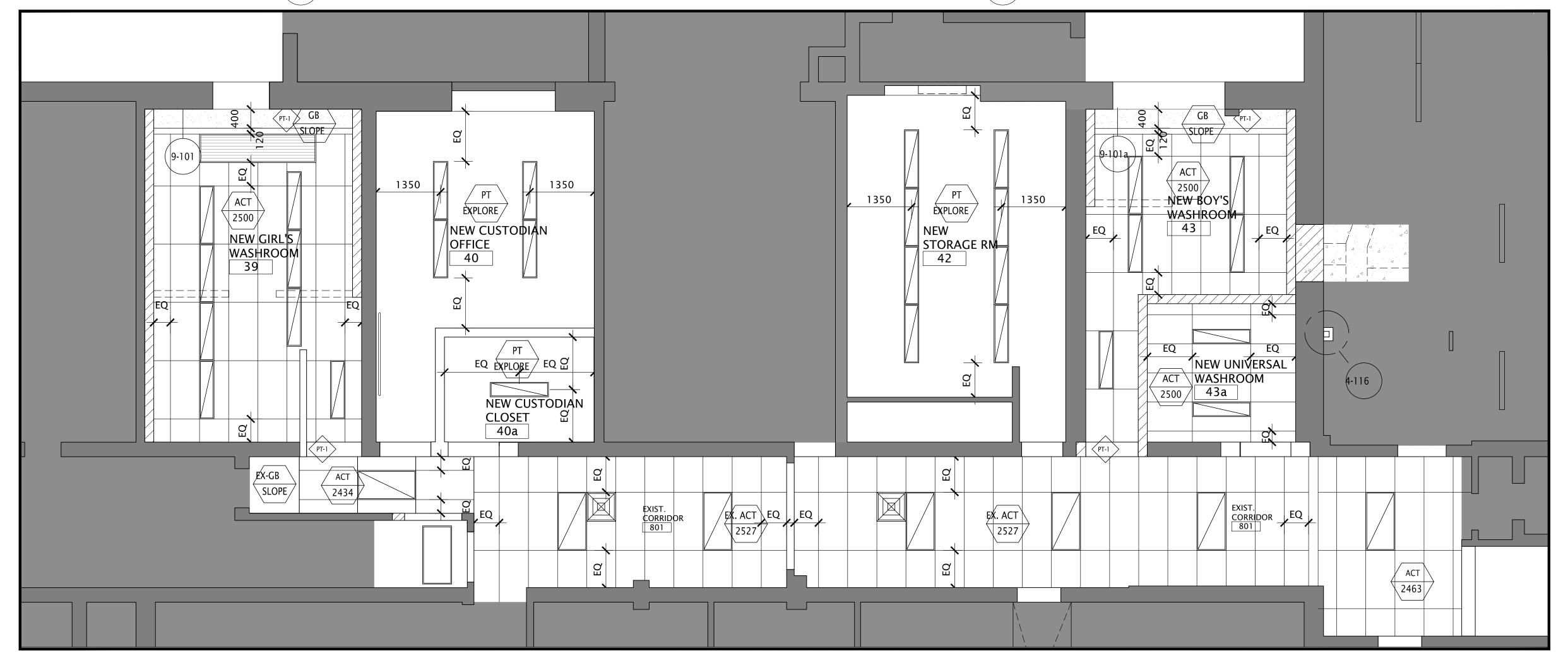




A2-4 SCALE: 1:50

SECTION AT NEW CUSTODIAN CLOSET SCALE: 1:50

SECTION - DEMOLITION \ A2-4 / SCALE: 1:50



PARTIAL REFLECTED CEILING PLAN A2-4 SCALE: 1:50

FILES: A20002.7 - A2-4 RCP & SECTIONS.DWG

DEC/20

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CONTRACTOR SHALL PROVIDE ALL NECESSARY

— CEILING HEIGHT

LED LIGHT 150 X 1220

TEMPORARY BRACING DURING CONSTRUCTION.

6. ALL DIMENSIONS GIVEN ARE IN METRIC.

LEGEND:

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SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM** UPGRADE 1042 Weber Street E.

Kitchener, ON PARTIAL REFLECTED

LOWER FLOOR REFLECTED **CEILING PLAN & SECTIONS** PROJECT NO: SCALE: A20002.7 1:50

DRAWN: DRAWING NO: REV. D.T./C.C. CHECKED: A2-4 1 1

	LINTEL SCHEDULE	
WALL TYPE	CLEAR OPENING LENGTH	LINTEL
140 190	UP TO 300	BLOCK LINTEL C/W 2-15M
140 190	300 TO 600	2L-89x89X6.4 2L-89x89X6.4
140 190	600 TO 900	2L-89x62x7.9 (LLV) 2L-127x89x7.9 (LLV)
140 190	900 TO 1200	W200X27 + 130X6 BOTTOM PLATE W200X27 + 180X6 BOTTOM PLATE

	140 190	900 TO 1200	I=	00X27 + 130X6 BOTTOM PLAT 00X27 + 180X6 BOTTOM PLAT
	LINTEL NOTES			A07
1.	FOR OPENINGS UP TO 1200 mm	R NOTED ON THE STRUCTURAL DRAWINGS, PROVIDE LIN (4'-0") CLEAR; (2" x 3 1/2" x 1/4") FOR EACH 100mm (4") OF WALL THICKNE		N MASONRY WALLS, AS FOLLOWS:
2.	FOR OPENINGS FROM 1200mm	'LINTEL BLOCK REINFORCED WITH 1-10M BOTTOM FOR 9 (4'-0") CLEAR TO 1800mm (6'-0") CLEAR; NG LEG VERTICAL (5"x 3 1/2" x 5/16") FOR EACH 100mm (4		
3. 4. 5. NO	ALL LINTELS TO BEAR 150mm (6 PAIRS OF LINTEL ANGLES ARE MASONRY LINTEL BLOCKS MAY OT ACCEPTABLE AND WILL BE	LINTEL BLOCK REINFORCED WITH 1-15M BOTTOM FOR B ") MINIMUM AT EACH END ON SOLID MASONRY, UNLESS. TO BE BOLTED OR WELDED TOGETHER, PRIOR TO SHIPM ONLY BE USED IN LOAD-BEARING WALLS WITH PERMISS REJECTED. PLIED BY STEEL CONTRACTOR BUT PLACED BY GENERA	SHOWN OTHERWISE. IENT, AT MAXIMUM 450mm (18 ION AND MUST BE FILLED WI	8") CENTRES. ITH 20 MPa CONCRETE. MORTAR IS

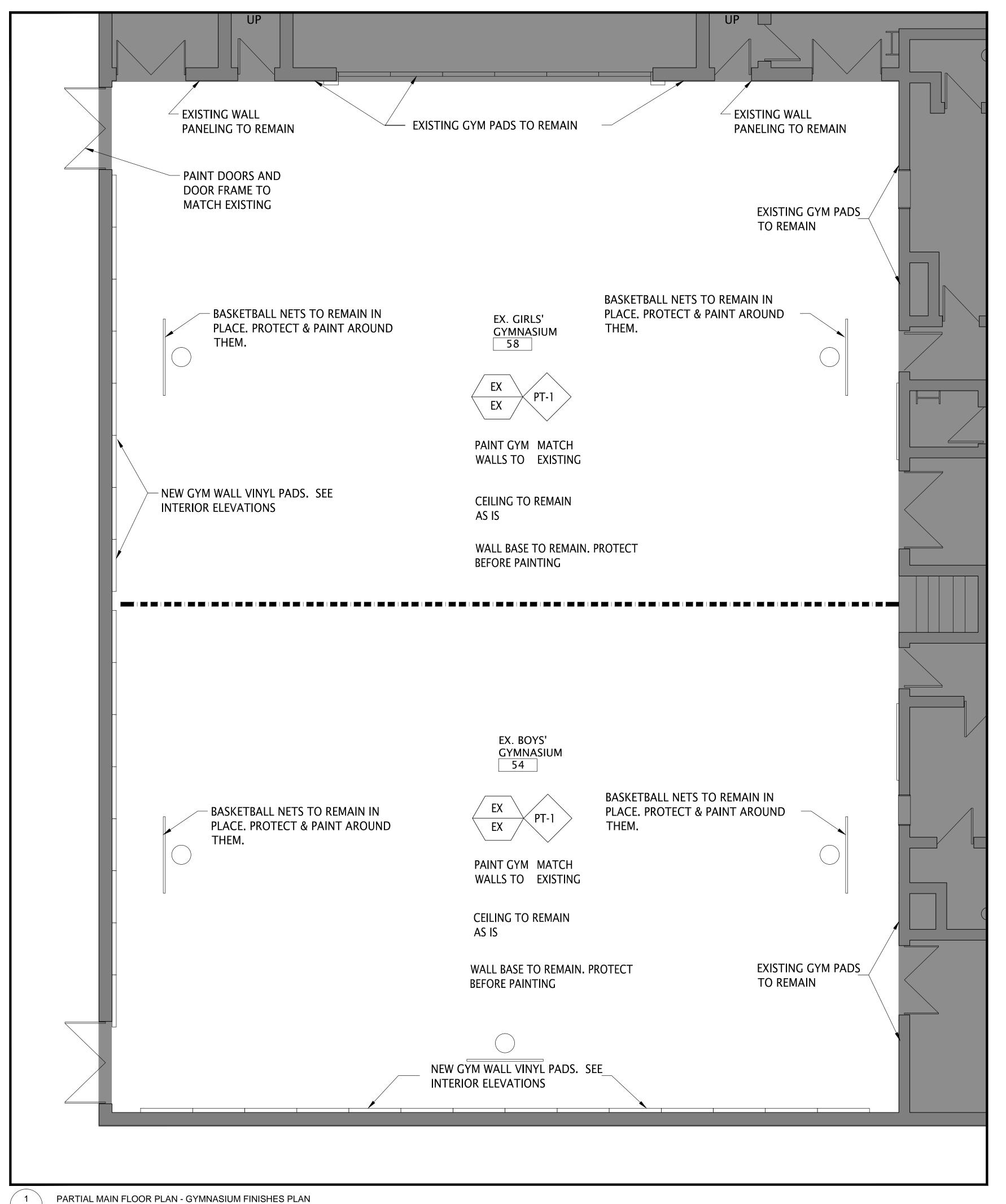
7. STEEL CONTRACTOR TO SUPPLY ALL NECESSARY DIRECTIONS REQUIRED FOR PLACING STEEL LINTELS.

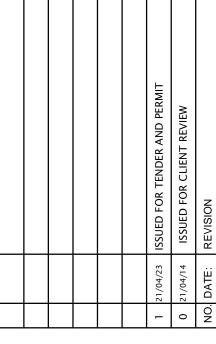
UNLESS OTHERWISE DIRECTED, LINTELS SHALL CONFORM TO THE ABOVE REQUIREMENTS.

9. REFER ALSO TO TYPICAL DETAILS.

8. WHILE EVERY EFFORT HAS BEEN MADE TO SHOW ON THE STRUCTURAL DRAWINGS EACH AND EVERY LINTEL OVER DOORS, MECHANICAL AND

ELECTRICAL SERVICES, RECESSES AND POCKETS ETC., THROUGH LOAD-BEARING MASONRY WALLS, IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CO-ORDINATE AND SUPPLY ALL LINTELS REQUIRED THROUGH ALL WALLS (INCLUDING NON-LOAD BEARING WALLS) THROUGHOUT THE PROJECT.





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SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM** UPGRADE

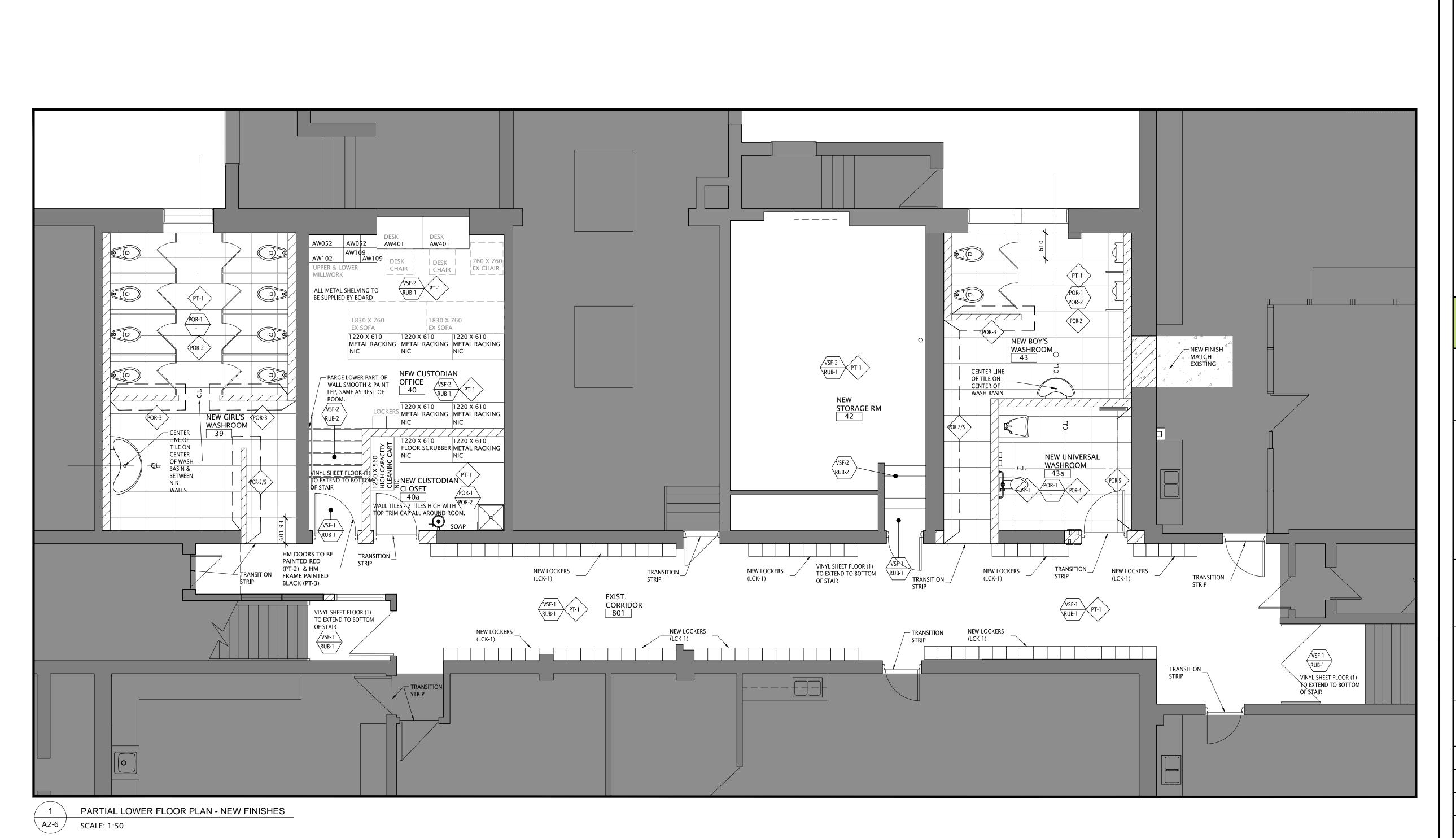
1042 Weber Street E. Kitchener, ON

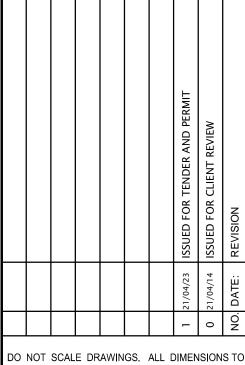
DRAWING TITLE: PARTIAL MAIN FLOOR PLAN GYMNASIUM - FINISHES PLAN. LINTEL SCHEDULE

			ı
PROJECT NO:	SCALE:		
A20002.7	1:50		
DRAWN:	DRAWING NO:	REV.	
D.T./C.C.			
CHECKED:	^ -	1	
B.F.	A2-5	1	
DATE:			
DEC/20			

FILES: A20002.7 - A2-5 MAIN FINISH.DWG

A2-5 SCALE: 1:50





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SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON N2A 1B6

DRAWING TITLE:
PARTIAL LOWER FLOOR PLAN
FINISHES PLAN

PROJECT NO:	SCALE:		2021
A20002.7	1:50		23, 20
DRAWN:	DRAWING NO:	REV.	April 2
M.L.			¥
CHECKED:	1000	1	ے ا
B.F.	A2-6	1	ATE PLOTTED:
DATE:			<u> </u>
DFC/20			l i



A/C OVERALL LOWER FLOOR PLAN

A3-0 SCALE: 1:150

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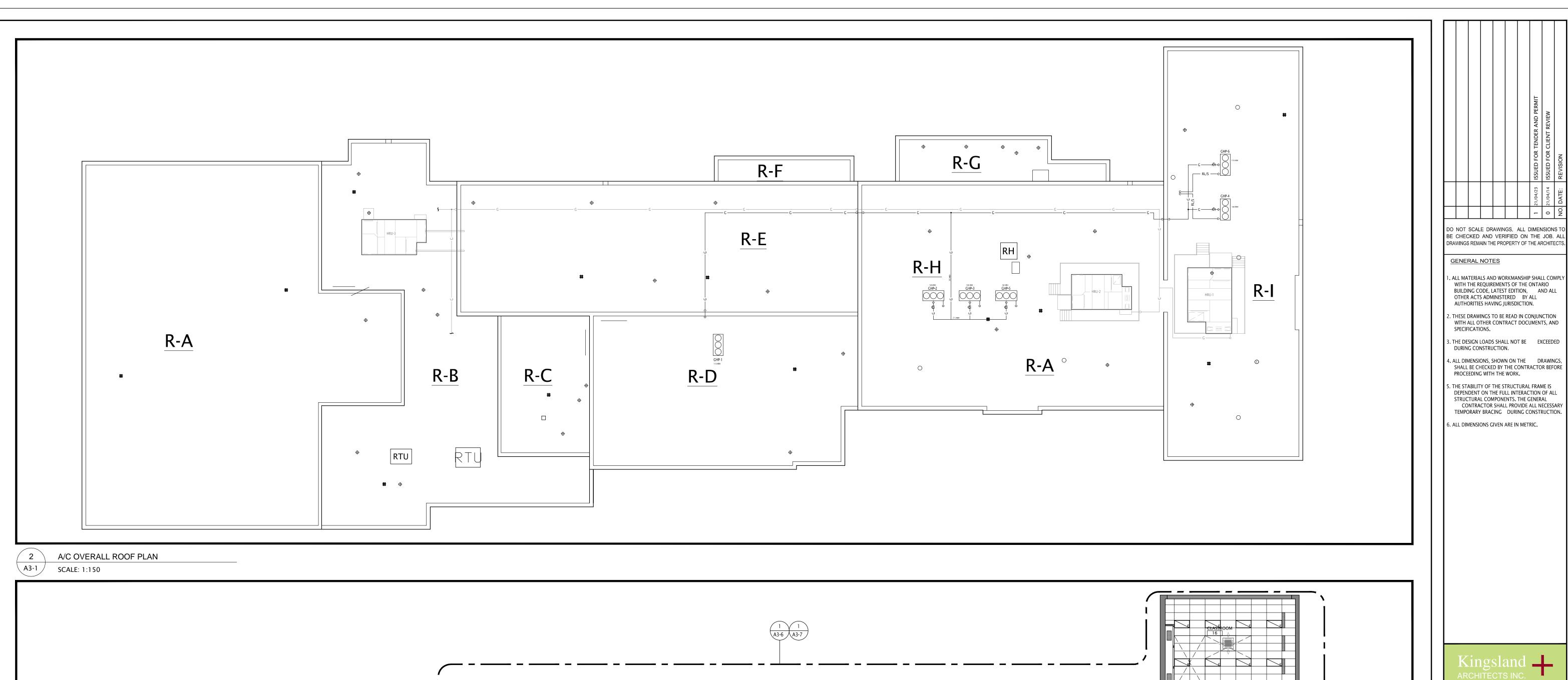
SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM** UPGRADE 1042 Weber Street E.

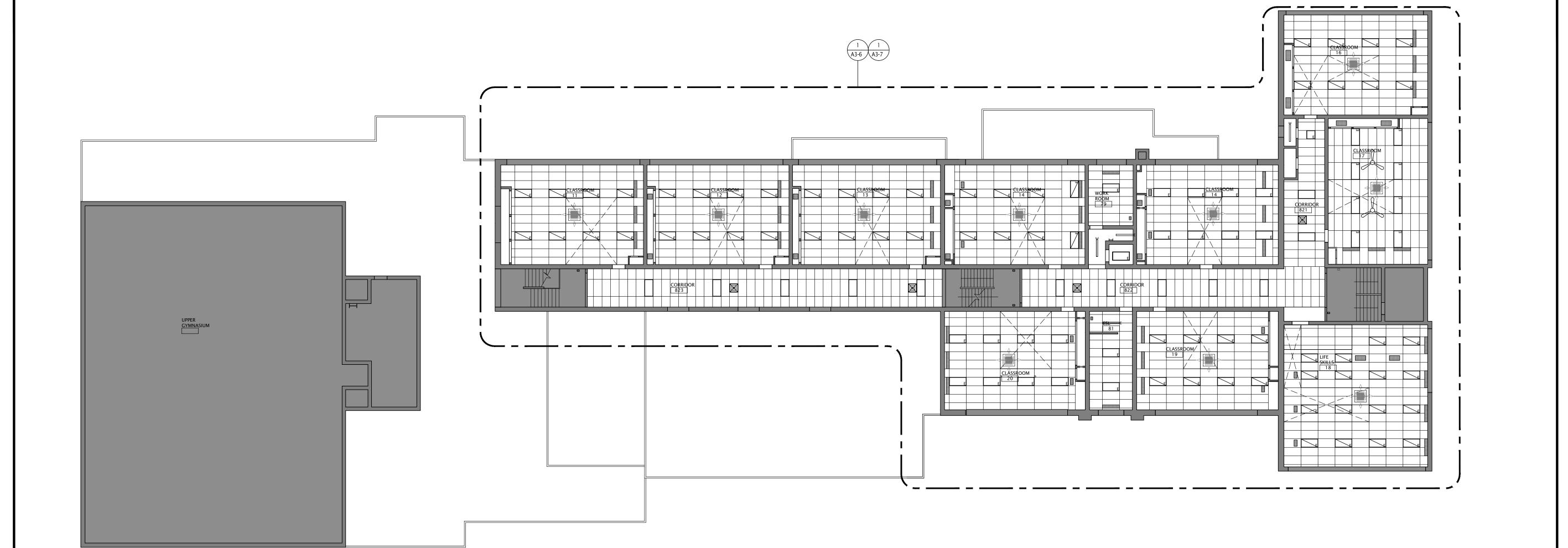
Kitchener, ON

A/C OVERALL LOWER AND MAIN FLOOR PLANS

PROJECT NO: SCALE: A20002.7 1:150 DRAWING NO: REV. C.C. CHECKED:

FILES: A20002.7 - A3-0 AC OVERALL PLAN.DWG





KINGSLAND + ARCHITECTS INC 219 Dufferin Street, Suite 308b Toronto, Ontario M6K 3J1 ph 416.203.7799 fax 416.203.7763





SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM** UPGRADE 1042 Weber Street E.

Kitchener, ON

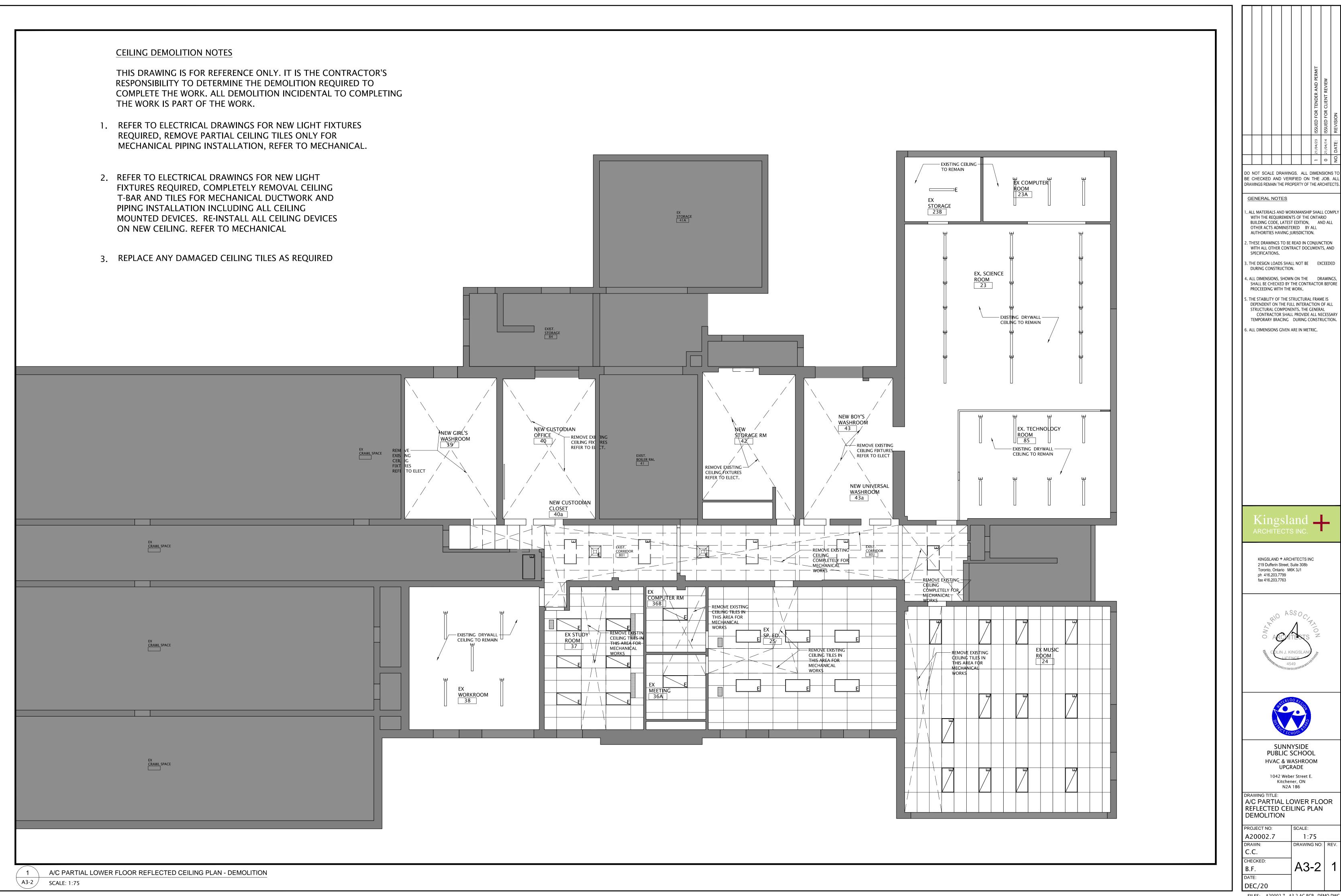
DRAWING TITLE:
A/C OVERALL
SECOND FLOOR AND ROOF PLAN PROJECT NO: SCALE:

A20002.7 1:150 DRAWING NO: REV. C.C. CHECKED: A3-1 1 | E

SCALE: 1:150

A/C OVERALL SECOND FLOOR PLAN

DEC/20 FILES: A20002.7 - A3-1 AC OVERALL PLAN.DWG



FILES: A20002.7 - A3-2 AC RCP - DEMO.DWG

SCALE:

1:75 DRAWING NO: REV.

UPGRADE



DO NOT SCALE DRAWINGS. ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON THE JOB. ALL DRAWINGS REMAIN THE PROPERTY OF THE ARCHITECTS.

GENERAL NOTES

- 1. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, LATEST EDITION, AND ALL
 OTHER ACTS ADMINISTERED BY ALL AUTHORITIES HAVING JURISDICTION.
- 2. THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS, AND SPECIFICATIONS.
- 3. THE DESIGN LOADS SHALL NOT BE EXCEEDED DURING CONSTRUCTION.
- 4. ALL DIMENSIONS, SHOWN ON THE DRAWINGS, SHALL BE CHECKED BY THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK.
- 5. THE STABILITY OF THE STRUCTURAL FRAME IS DEPENDENT ON THE FULL INTERACTION OF ALL STRUCTURAL COMPONENTS. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY BRACING DURING CONSTRUCTION.

6. ALL DIMENSIONS GIVEN ARE IN METRIC.

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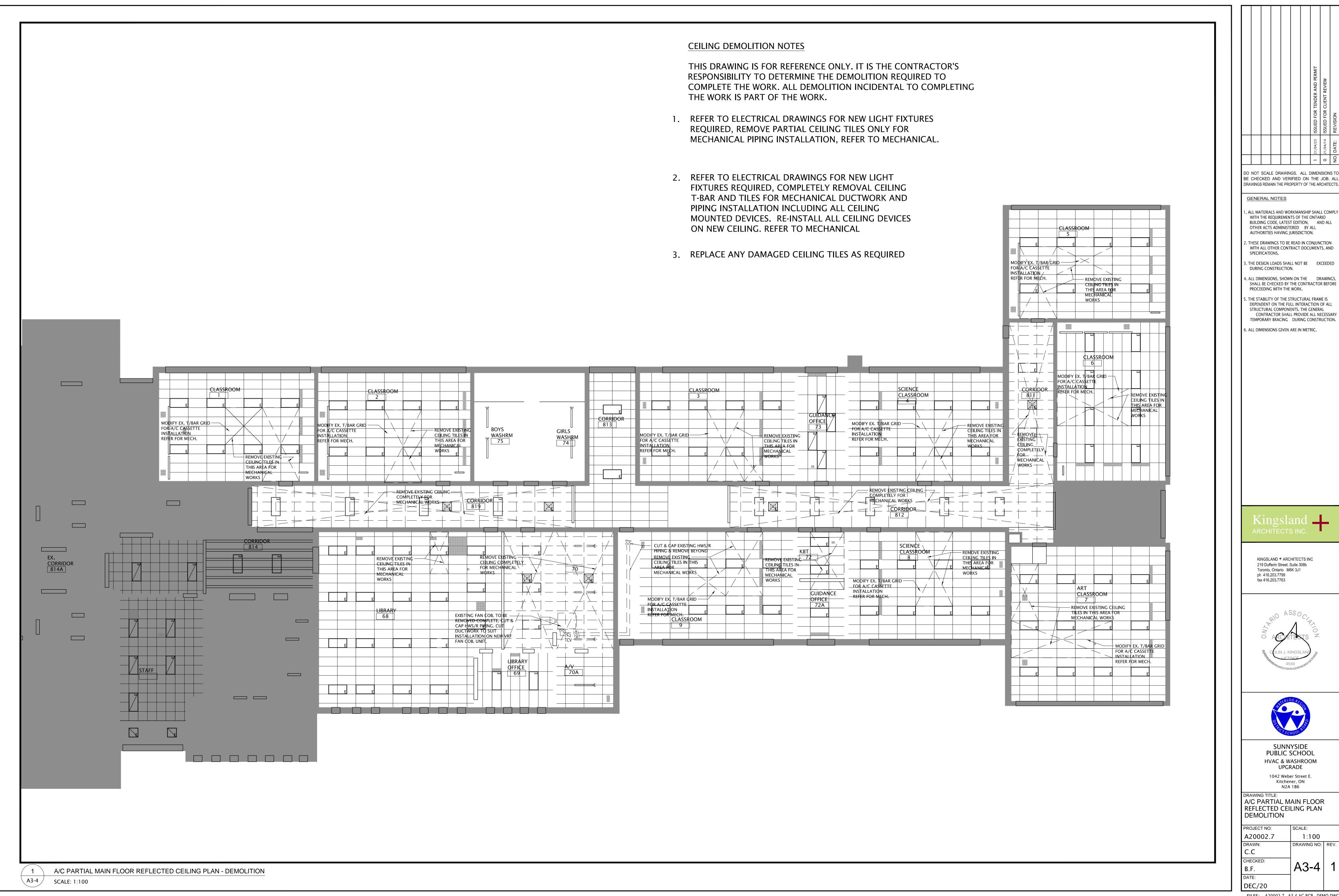
DRAWING TITLE: A/C PARTIAL LOWER FLOOR REFLECTED CEILING PLAN

Kitchener, ON

NEW PROJECT NO: SCALE: A20002.7 1:75

DRAWN: DRAWING NO: REV. = C.C. CHECKED: A3-3 1 | E

FILES: A20002.7 - A3-3 AC RCP - NEW.DWG



FILES: A20002.7 - A3-4 AC RCP - DEMO.DWG

SCALE:

1:100 DRAWING NO: REV.

A3-4

UPGRADE

Kitchener, ON



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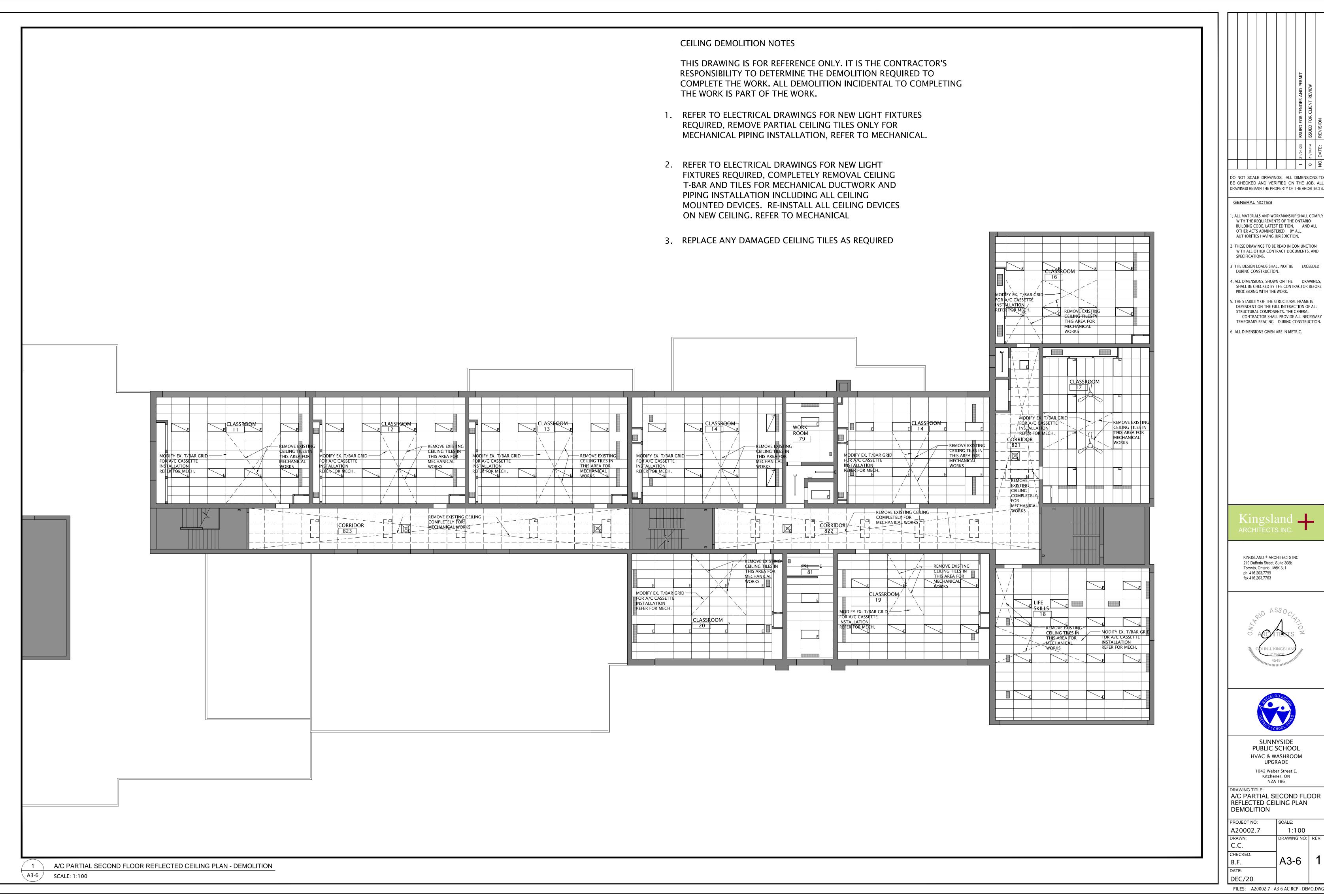
SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM** UPGRADE

1042 Weber Street E. Kitchener, ON

DRAWING TITLE: A/C PARTIAL MAIN FLOOR REFLECTED CEILING PLAN NEW

PROJECT NO:	SCALE:		2021
A20002.7	1:100		Ι.
DRAWN:	DRAWING NO:	REV.	April 23.
C.C			Ā
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B.F.	A3-5	1	TTO
DATE:			_

FILES: A20002.7 - A3-5 AC RCP - NEW.DWG

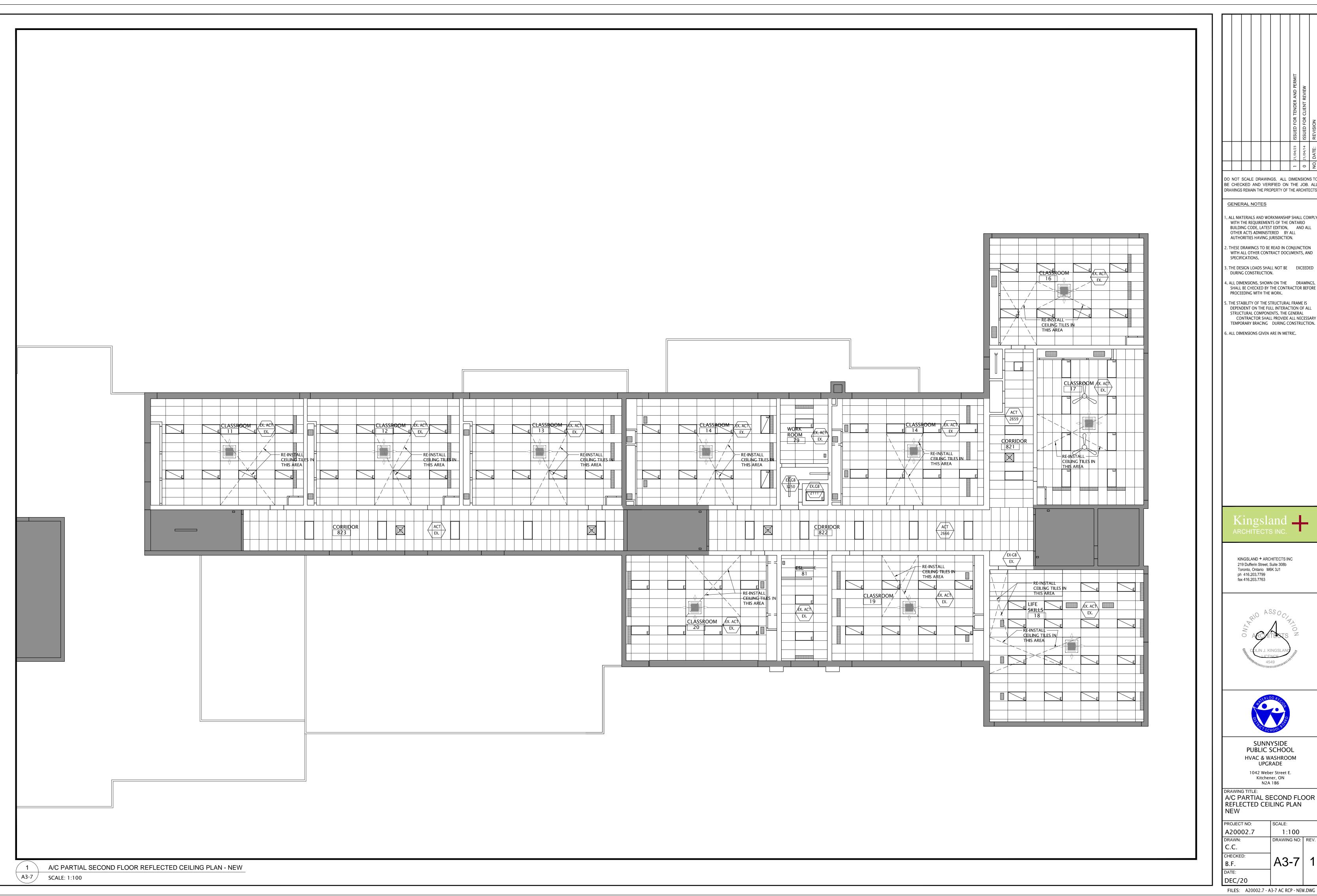


FILES: A20002.7 - A3-6 AC RCP - DEMO.DWG

1:100

A3-6

DRAWING NO: REV.



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GENERAL NOTES

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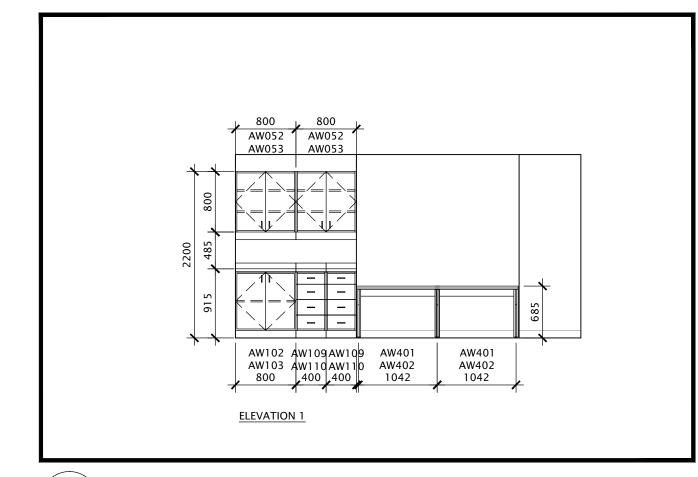
SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM** UPGRADE

1042 Weber Street E. Kitchener, ON

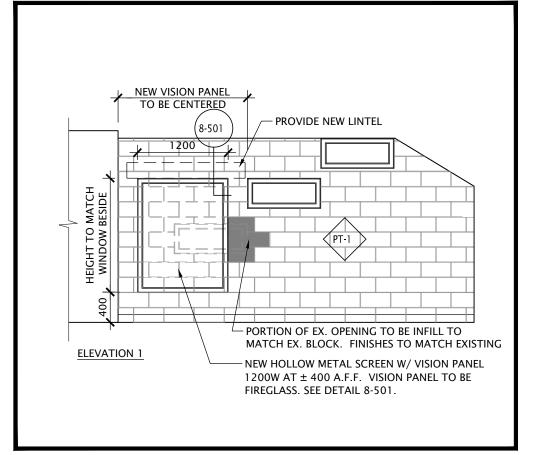
DRAWING TITLE: A/C PARTIAL SECOND FLOOR REFLECTED CEILING PLAN

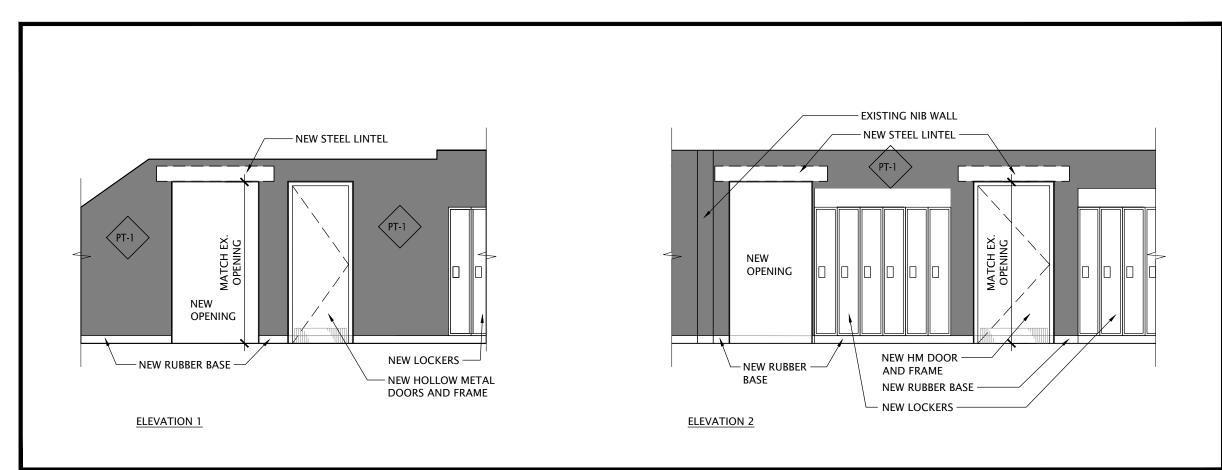
SCALE: A20002.7 1:100 DRAWING NO: REV.

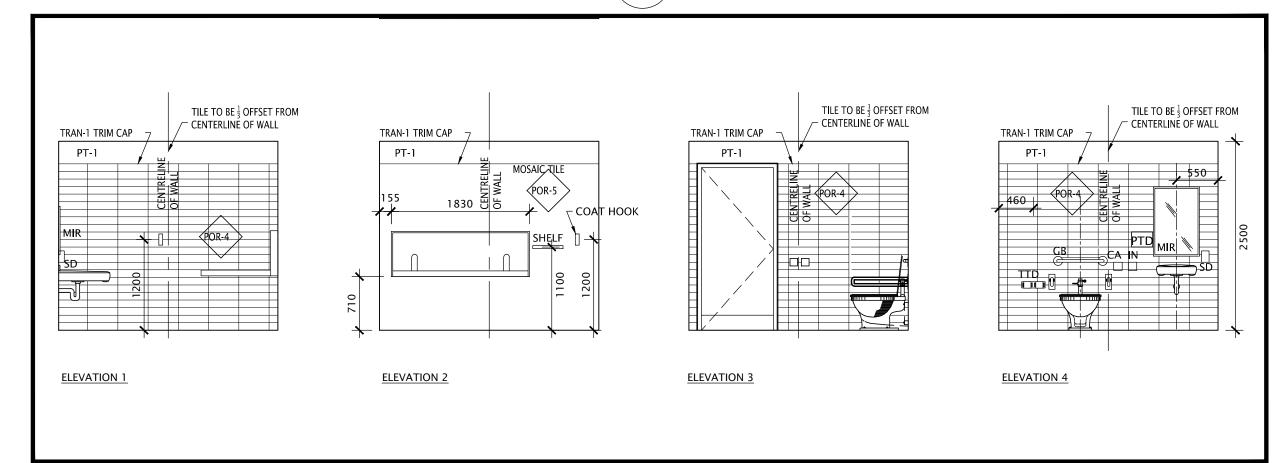
FILES: A20002.7 - A3-7 AC RCP - NEW.DWG



INTERIOR ELEVATION - NEW CUSTODIAN OFFICE 40 \ A4-0 / SCALE: 1:50



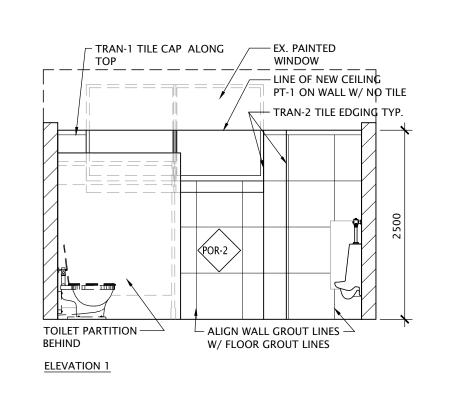


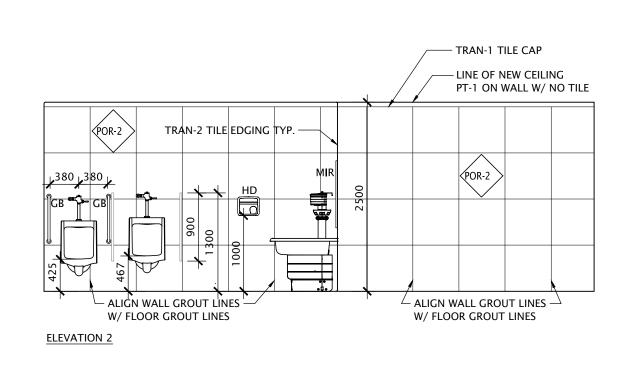


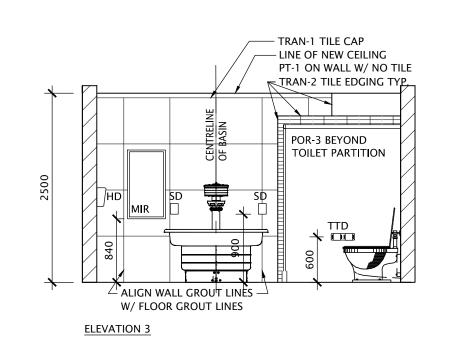
INTERIOR ELEVATION - EXISTING CORRIDOR 801 \ A4-0 /

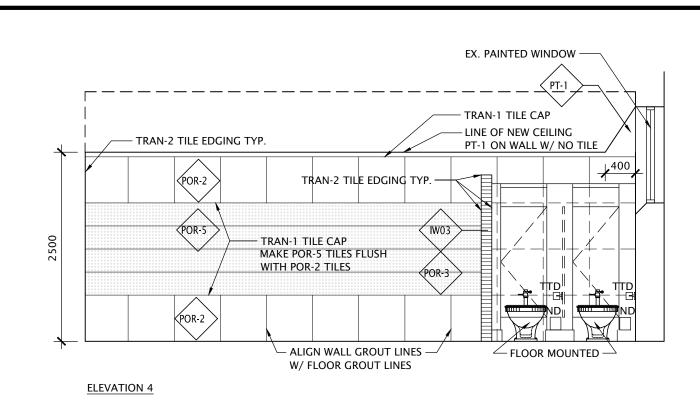
INTERIOR ELEVATION - EXISTING CORRIDOR 801 ∖ A4-0 /

INTERIOR ELEVATION - NEW UNIVERSAL WASHROOM 43a \ A4-0 / SCALE: 1:50

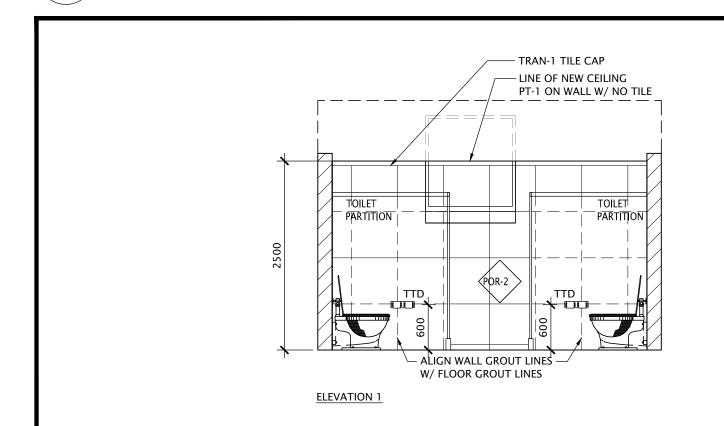


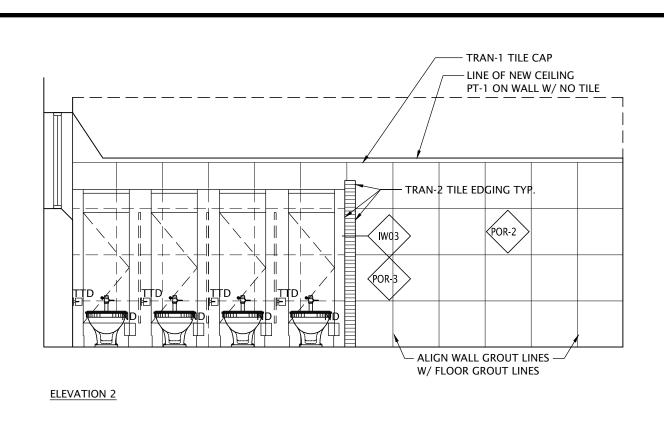


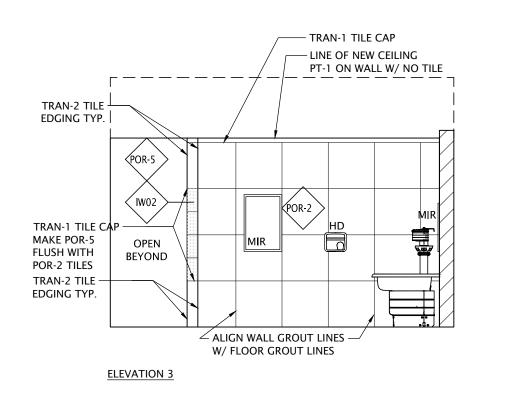


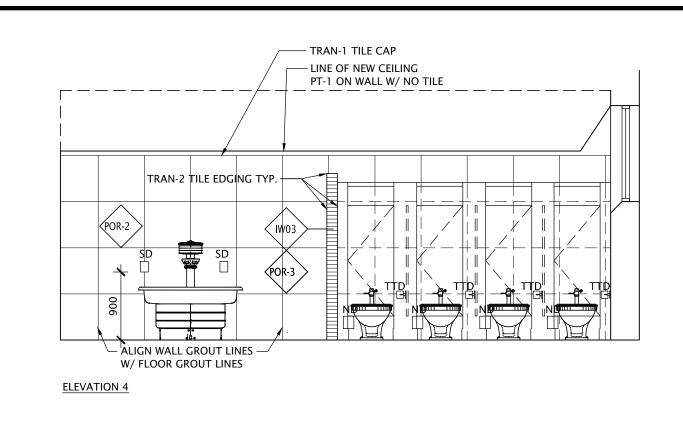


INTERIOR ELEVATION - NEW GIRL'S WASHROOM 39 A4-0









INTERIOR ELEVATION - NEW BOY'S WASHROOM 43

∖ A4-0 / SCALE: 1:50

SCALE: 1:50

SCALE: 1:50

FILES: A20002.7 - A4-0 INT. ELEVATION.DWG



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DEPENDENT ON THE FULL INTERACTION OF ALL

TEMPORARY BRACING DURING CONSTRUCTION.

GENERAL NOTES

SPECIFICATIONS.

DURING CONSTRUCTION.

PROCEEDING WITH THE WORK.

KINGSLAND + ARCHITECTS INC 219 Dufferin Street, Suite 308b Toronto, Ontario M6K 3J1 ph 416 203 7799 fax 416.203.7763



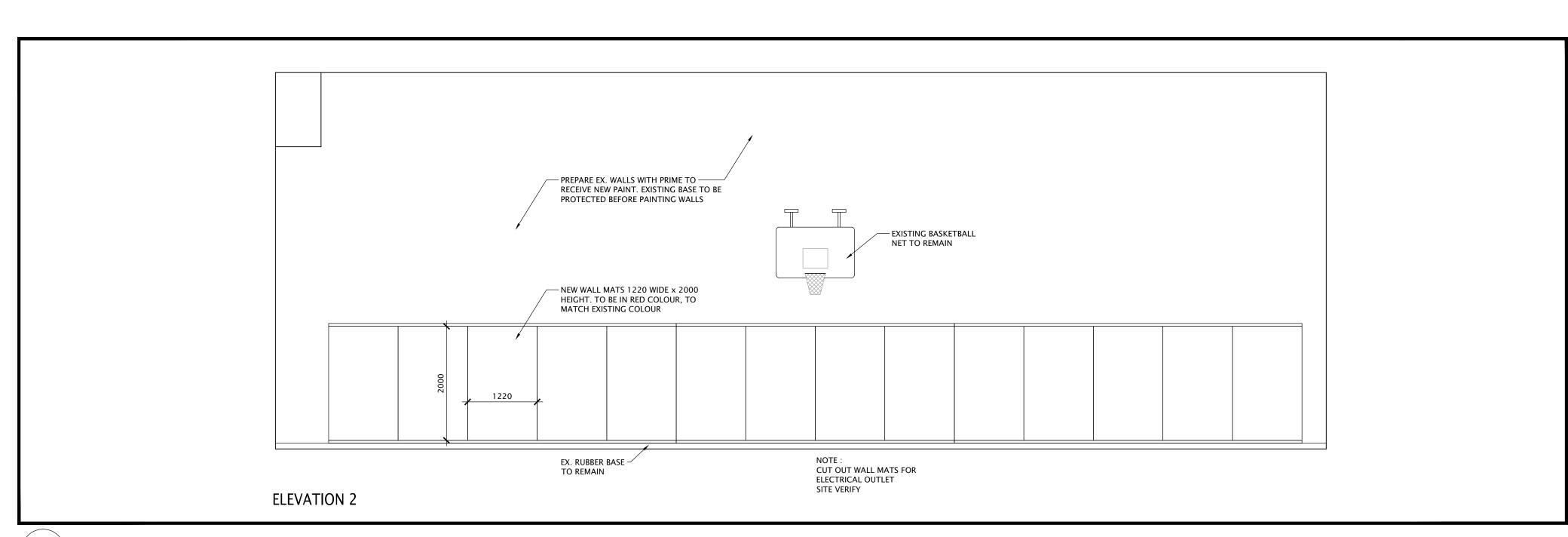


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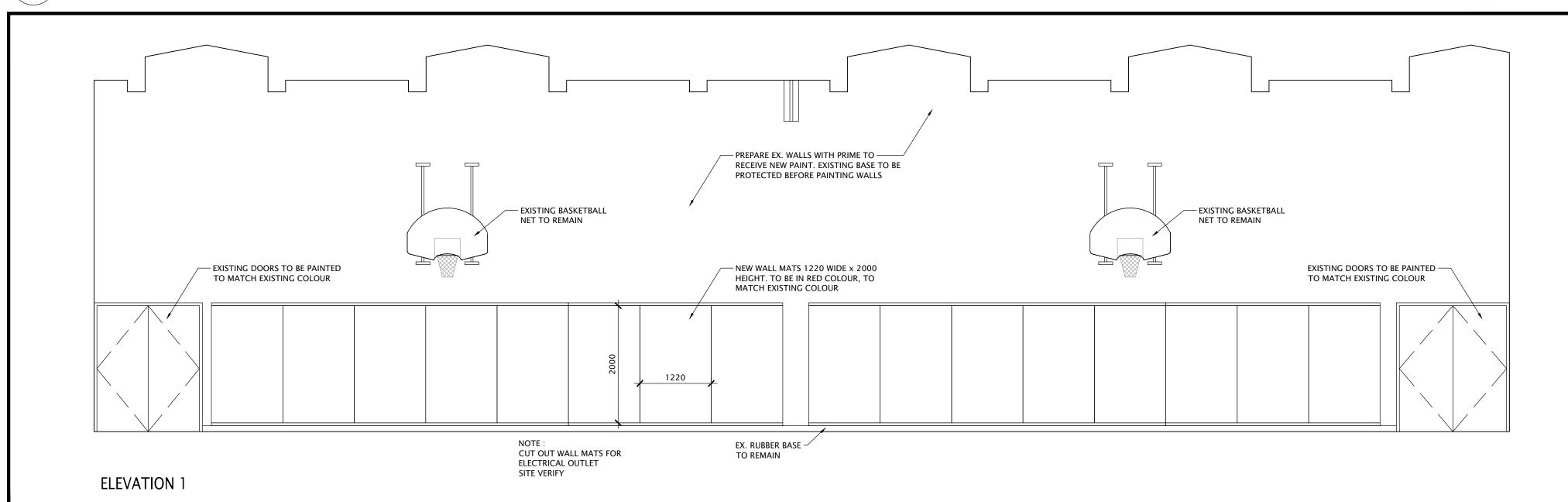
Kitchener, ON

N2A 1B6 DRAWING TITLE: INTERIOR ELEVATIONS

PROJECT NO: A20002.7 DRAWING NO: REV D.T./C.C. CHECKED:



INTERIOR ELEVATION ∖ A4-1 / SCALE: 1:50 - EXISTING GYMNASIUM



INTERIOR ELEVATION

SCALE: 1:50 - EXISTING GYMNASIUM

DEC/20 FILES: A20002.7 - A4-1 INT. ELEVATION - GYM.DV

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SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM** UPGRADE

1042 Weber Street E. Kitchener, ON N2A 1B6

DRAWING TITLE: EXISTING GYMNASIUM INTERIOR ELEVATIONS

PROJECT NO:	SCALE:		
A20002.7	1:50		•
DRAWN:	DRAWING NO:	REV.	
D.T./C.C.			
CHECKED:		4	
B.F.	A4-1	1	
DATE:			1
DEC /20			1 1

PLU	MBING FIXTUR	RE SCHEDU	<u>JLE</u>					
	_	Connection Siz	res	Fixture		Trim		Accessories
Item	Туре	HW CW TW Drain	Vent Acceptable Manufacturer	Fixture Description	Acceptable Manufacture	Trim Description	Acceptable Manufactur	er Accessory Description
WC-1	WATER CLOSET FLUSH VALVE HANDS FREE (BATTERY)	1 3	1 1/2 AMERICAN STANDARD MADERA 2234 001 KOHLER WELLCOMME K-4350 MANSFIELD BALTIC 1311NS ZURN Z5655-BWL	VITREOUS CHINA, SIPHON JET, ELONGATED RIM, TOP SPUD FOR FLUSH VALVE BOLT CAP, BOTTOM OUTLET, FLOOR-MOUNTED, 10" OR 12" ROUGH-IN, MIN 2" TRAP WAY, MAXIMUM 6 litres (1.6 gal) PER FLUSH.	, DELTA 81T201BT ZURN SLOAN	EXPOSED, POLISHED CHROME PLATED, SENSOR OPERATED DIAPHRAGM TYPE FLUSH VALVE WITH SEAT BUMPER, 25MM (1") SCREWDRIVER ANGLE STOP, MOTORIZED ACTUATOR, AUTOMATIC SENSOR WITH MANUAL PUSH BUTTON OVERRIDE, VACUUM BREAKER ADJUSTABLE TAIL PIECE, OPTIONAL 24 HR COURTESY FLUSH, FLUSH CONNECTION & COUPLING FOR 40MM (1 1/2") TOP SPUD WITH 11 1/2" TALL OUTLET TUBE, WALL AND SPUD ESCUTCHEINS. BATTERY OPERATED C/W 4 'AA' CELL BATTERIES, SENSOR BOX C/W COVER, VANDAL RESISTANT SCREWS, FLUSH CYCLE SET FOR 6.0 LITRE (1.6 GAL) PER FLUSH.	SEAT: BEMIS 1955C CENTOCO	SEAT: BLACK, ELONGATED, OPEN FRONT, LESS COVER, MOLDED SOLID PLASTIC, STAINLESS STEEL CHECK HINGES, STAINLESS STEEL OR SOLID BRASS INSERT POST.
WC-2	BARRIER FREE WATER CLOSET FLUSH VALVE, 16" HIGH, HANDS FREE (BATTERY)	1 3	1 1/2 AMERICAN STANDARD MADERA 3043.001 KOHLER HIGHCREST K-4302 MANSFIELD ADRIATIC 1319 ZURN ECO VANTAGE Z5665-BWL	BARRIER FREE, 16" TALL TO RIM, VITREOUS CHINA, SIPHON JET, ELONGATED RIM, TOP SPUD FOR FLUSH VALVE, BOLT CAP, BOTTOM OUTLET, FLOOR-MOUNTED, 12" ROUGH-IN, MIN 2" TRAP WAY, MAXIMUM 6 litres (1.5 gal) PER FLUSH.	DELTA 81T221BT ZURN SLOAN	EXPOSED, POLISHED CHROME PLATED, SENSOR OPERATED DIAPHRAGM TYPE FLUSH VALVE WITH SEAT BUMPER, 25mm (1") SCREWDRIVER ANGLE STOP, MOTORIZED ACTUATOR, AUTOMATIC SENSOR WITH MANUAL PUSH BUTTON OVERRIDE, VACUUM BREAKER ADJUSTABLE TAIL PIECE, OPTIONAL 24 hr COURTESY FLUSH, FLUSH CONNECTION & COUPLING FOR 40mm (1 1/2") TOP SPUD WITH 24" TALL OUTLET TUBE, WALL AND SPUD ESCUTCHEINS. BATTERY OPERATED C/W 4 'AA' CELL BATTERIES, SENSOR BOX C/W COVER, VANDAL RESISTANT SCREWS, FLUSH CYCLE SET FOR 6.0 litre (1.6 gal) PER FLUSH.	SEAT: BEMIS 1950 CENTOCO	SEAT: BLACK, ELONGATED, OPEN FRONT WITH COVER, MOLDED SOLID PLASTIC, STAINLESS STEEL CHECK HINGES, STAINLESS STEEL OR SOLID BRASS INSERT POST.
U-1	URINAL WITH FLUSHING SYSTEM	3/4 2	1 1/2 AMERICAN STANDARD WASHBROOK 6515.005 KOHLER BARDON K-4904-ER ZURN Z5760	VITREOUS CHINA, WASHOUT TYPE, INTEGRAL FLUSHING RIM, EXTENDED SHIELDS, INTEGRAL TRAP, BACK OUTLET, WALL—MOUNTED, BACK SUPPLY SPUD, MIN 2" TRAP WAY, MAXIMUM 1.9 litres (0.5 gal) PER FLUSH. C/W FLOOR MOUNTED CARRIER PROVIDE 400 mm (16") LONG x 20¢ (3/4"), STAINLESS STEEL FLEXIBLE SUPPLY CONNECTOR		REFER TO SPEC FOR AUTOMATIC URINAL FLUSHING SYSTEM. PROVIDE FLOOR MOUNTED WALL CARRIER.		
WF-1	B.F. WASH FOUNTAIN (4 USERS)	1/2 1/2 1 1/	2 1 1/4 BRADLEY SENTRY SN2024-A-IR-STD-TMA-NSD -BS	BARRIER FREE SEMI—CIRCULAR STAINLESS STEEL BOWL. ALL EXPOSED COMPONENTS TO BE STAINLESS STEEL. SUITABLE FOR FOUR (4) USERS. STANDARD PEDESTAL HEIGHT. C/W BACKSPLASH. TRIM: INFRARED CONTROLLED, AT EACH INDIVIDUAL USER, MOLDED SPRAYHEAD, STOP VALVES, HORIZONTAL SWING CHECK VALVES, THERMOSTATIC MIXING VALVE PRESET AT 40°C. NO SOAP DISPENSER. SUITABLE FOR 120 V/1/60 COMPLETE WITH CLASS II 120/24V PLUG IN TRANSFORMER. COLOUR BY ARCHITECT.				
WF-2	B.F. WASH FOUNTAIN (3 USERS)	1/2 1/2 1 1/	2 1 1/4 BRADLEY SENTRY SN2023-A-IR-STD-TMA-NSD -BS	BARRIER FREE SEMI-CIRCULAR STAINLESS STEEL BOWL. ALL EXPOSED COMPONENTS TO BE STAINLESS STEEL. SUITABLE FOR THREE (3) USERS. STANDARD PEDESTAL HEIGHT. C/W BACKSPLASH. TRIM: INFRARED CONTROLLED, AT EACH INDIVIDUAL USER, MOLDED SPRAYHEAD, STOP VALVES, HORIZONTAL SWING CHECK VALVES, THERMOSTATIC MIXING VALVE PRESET AT 40°C. NO SOAP DISPENSER. SUITABLE FOR 120 V/1/60 COMPLETE WITH CLASS II 120/24V PLUG IN TRANSFORMER. COLOUR BY ARCHITECT.				
L-1	BARRIER FREE WALL HUNG LAV FAUCET HANDS FREE (BATTERY)	1/2 1/2 1 1/	4 1 1/4 AMERICAN STANDARD MURRO 0955-001EC KOHLER BRENHAM K-1997 ZURN Z5344	WALL-HUNG SINK, VITREOUS CHINA, WITH SPLASH LIP, SINGLE CENTER SUPPLY OPENING, OVERFLOW. SIZE: 559 mm x 540 mm (22 x 21 1/4"). C/W SHROUD/KNEE CONTACT GUARD	DELTA 591T1256 MOEN COMMERCIAL ZURN	BATTERY ELECTRONIC PROXIMITY SENSING FAUCET. CAST BRASS ONE PIECE BODY. ADJUSTABLE SENSING RANGE AND TIME OUT, CHROME FINISH. VANDAL RESISTANT AERATOR HAVING INTEGRAL FLOW CONTROL FOR 0.5gpm (1.9 I/min) @ 413 kPa (60 psi) MAX. UNDER COUNTER PLASTIC SURFACE MOUNTED HOUSING WITH FLUSH STAINLESS STEEL COVER FOR SOLENOID AND CONTROLLER. SENSOR ACTIVATES IN PRESENCE OF PERSON'S HANDS IN LAVATORY. USES FOUR 'AA' CELL BATTERIES.		WASTE FITTING: NPS 32 MM (11/4") OFFSET WASTE WITH OPEN GRID STRAINER. PROVIDE FLOOR MOUNTED WALL CARRIER PROVIDE SHROUD/KNEE CONTACT GUARD
SH-1	BARRIER FREE SHOWER ROUGHIN	1/2 1/2	PIPING ROUGHIN ONLY					
FD-1	FLOOR DRAIN	NOTE	D 1 1/2 ZURN ZN415B MIFAB F1100-C CONTOUR C2000-R6 WATTS FD-100-C-A	GENERAL DUTY CAST IRON BODY, ADJUSTABLE HEAD, NICKEL BRONZE STRAINER, INTEGRAL SEEPAGE PAN, AND CLAMPING COLLAR. USE SQUARE STRAINER IN TILED AREAS AND ROUND STRAINER ELSEWHERE. C/W TRAP PRIMER				

<u>GRIL</u>	LE SCHEDULE				
ltem	Туре	Equalizing Grid	Volume Damper	Acceptable Manufacturer	Description
D1	SQUARE CEILING DIFFUSER	YES	NONE	EH PRICE SCDA	MULTICONE, FULLY ADJUSTABLE, 24x24, STEEL CEILING DIFFUSER W/ROUND NECK. SUITABLE FOR LAY-IN T-BAR CEILING, OR DRYWALL CEILING WHEN C/W FRAME. PROVIDE FIRE STOP FLAP & FIRE BLANKET.
R1	CEILING RETURN GRILLE (NON-DUCTED)	NO	NONE	EH PRICE 80-CH	1/2x1/2x1/2 ALUMINUM EGGCRATE CORE, C/W CHANNEL BORDER FOR LAY-IN T-BAR CEILING.
E1	EXHAUST GRILLE (DUCTED)	NO	NONE	EH PRICE 80-FA	1/2x1/2x1/2 ALUMINUM EGGCRATE CORE, C/W 1 1/4" FLAT BORDER & SCREWED FASTENING FOR SURFACE MOUNTING.
 ACCEPT GRILLE 	COLOURS ARE SELECTED B	Y ARCHITI	ECT FROM	IS, KRUEGER, CARNES, METALAIRE, STANDARD COLOUR CHART, UNLES BLACK (WHERE VISIBLE THRU GRILL	S OTHERWISE NOTED.
<u>HYDI</u>	RONIC HEATING	CO	<u>MPON</u>	ENT SCHEDULE	

Item	Туре	Acceptable Manufacturer	Description
H1	CONVECTOR	ENG-A C-3W	16ga STEEL CABINET WITH ALL MOUNTING HARDWARE. ELEMENT TO BE 4x4 ALUMINUM FINS ON 1/20 COPPE TUBE WITH 50 FINS/FT. PROVIDE STAMPED GRILLES ON FRONT INLET & OUTLET. SURFACE MOUNTED ON WALL WITH TOP OF UNIT AT 42" AFF. MANUAL CONTROL W/ DAMPER & OPERATOR
H2	RADIANT CEILING PANEL	ENG-A AIRTEX HEF-2	EXTRUDED ALUMINUM PANEL WITH EXPOSED TEXTURED FACE AND CONTINUOUS ALUMINUM SADDLES ON BACK TO HOLD 1/2"Ø COPPER TUBING BONDED TO SADDLE. PANEL FINISH COMPLETED IN FACTORY (NO FIELD APPLIED PAINT). PANEL SUITABLE FOR T-BAR INSTALLATION.

<u>SUM</u>	<u>P PUMP SC</u>	HEDL	<u>ILE</u>					
Item	Туре	Capacity USgpm	Head ft	Size hp	Speed rpm	Electrical Voltage	Manufacturer & Model	Remarks
\P_'/	SANITARY SUMP PUMP — DUPLEX	20	35	202	3450	208/3/60	MYERS WGL20	DUPLEX PUMPS TO BE COMPLETE WITH CONTROL PANEL, FLOATS, HIGH LEVEL ALARM WITH AUDIBLE SIGNAL AND TEST BUTTON. PROVIDE 36" DIAMETER FIBERGLASS SUMP WITH SEALED HEAVY DUTY LID.

Item	Description	ltem	Description
	ITEM TO BE REMOVED	 	STRAINER
	CUT EXISTING & CONNECT NEW PIPING		SCREWED OR WELDED PI
·	POTABLE COLD WATER	——-III———	BALL VALVE
	POTABLE HOT WATER	•	PENDENT HEAD
···	POTABLE HOT WATER RECIRC.	0	UPRIGHT PENDENT HEAD
SAN-EX	EXISTING SAN ABOVE FLOOR	\triangleright	SIDEWALL HEAD
SAN-EX	EXISTING SAN BELOW FLOOR	FHC	FIRE HOSE CABINET
— — SAN — —	SANITARY ABOVE FLOOR	FEC	RECESSED CABINET MOUNTIRE EXTINGUISHER
— — SAN — —	SANITARY BELOW FLOOR	▼ FE	WALL MOUNTED FIRE EXTINGUISHER
STM_EX	EXISTING STM ABOVE FLOOR	o ^{co}	FLOOR CLEANOUT
STM-EX .	EXISTING STM BELOW FLOOR	——-1 co	LINE CLEANOUT
	VENT	GФ	THERMOSTAT (WITH GUAR WHERE INDICATED)
SP	SPRINKLER		SUPPLY AIR DUCT
—нws-—	HEATING WATER SUPPLY		RETURN/EXHAUST AIR DU
— —нwr— —	HEATING WATER RETURN	-	ACOUSTIC DUCT LINING
FD & →	FLOOR DRAIN	— BD	BALANCING DAMPER
-79~	TRAP PRIMER	FSD	FIRE/SMOKE DAMPER
	TEE CONNECTION	— BDD	BACK DRAFT DAMPER
c —	PIPE DOWN	+	RECTANGULAR DUCTWORK
•—	PIPE UP		RIGID ROUND DUCT
~~	FLEXIBLE CONNECTION	Type Size Capacity	DIFFUSER/GRILLE SIZE (i TYPE & CAPACITY (cfm)
	REDUCER/INCREASER	Type Size / cfm Capacity	HYDRONIC HEATING SIZE, TYPE & CAPACITY
N >	CHECK VALVE	EX	EXISTING DUCT (SIZE AS INDICATED)
	UNION		

GENERAL NOTES

- A. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PREPARED SPECIFICATION.
- B. SANITARY VENT PIPING IS NOT SHOWN. PROVIDE ALL NECESSARY VENT PIPING FROM ALL FIXTURES FOR A COMPLETE SYSTEM TO ALL LOCAL PLUMBING CODE & LOCAL AUTHORITY REQUIREMENTS, CONNECTED TO EXISTING VENTS OR NEW VENTS AS REQUIRED. CO—ORDINATE VENT LOCATION(S) WITH GENERAL CONTRACTOR. MAINTAIN MIN 14'—0" FROM ANY AIR INLET. INSTALL VENT PIPING HIGH IN JOIST SPACE.
- C. UPON COMPLETION OF THE PROJECT THE CONTRACTORS SHALL PROVIDE THE FOLLOWING CERTIFICATES BEFORE CONFORMANCE LETTERS ARE ISSUED BY THE CONSULTANT:
- CONSULTANT:

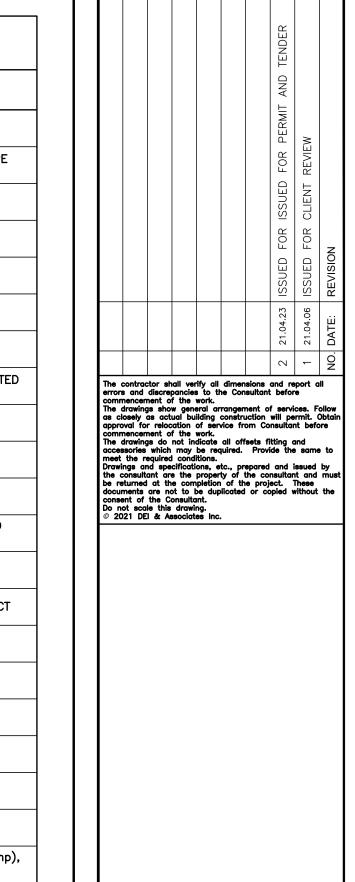
 POTABLE WATER TEST (SEE SPEC 15142/22 11 16 PART 3)

 BACKFLOW TEST CERTIFICATE(S) FOR ALL TESTABLE DEVICES

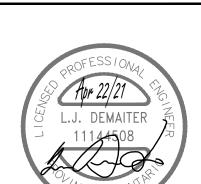
 COPY OF MANDATORY TSSA/CSA-B149 GAS PRESSURE TEST TAG

 TSSA CERTIFICATE OF AUTHORIZATION FOR SPLIT AIR CONDITIONING SYSTEMS (EXCEEDING 5 TONS)

 ALL CERTIFICATES ARE TO BE SUBMITTED TOGETHER IN A SINGLE PACKAGE.









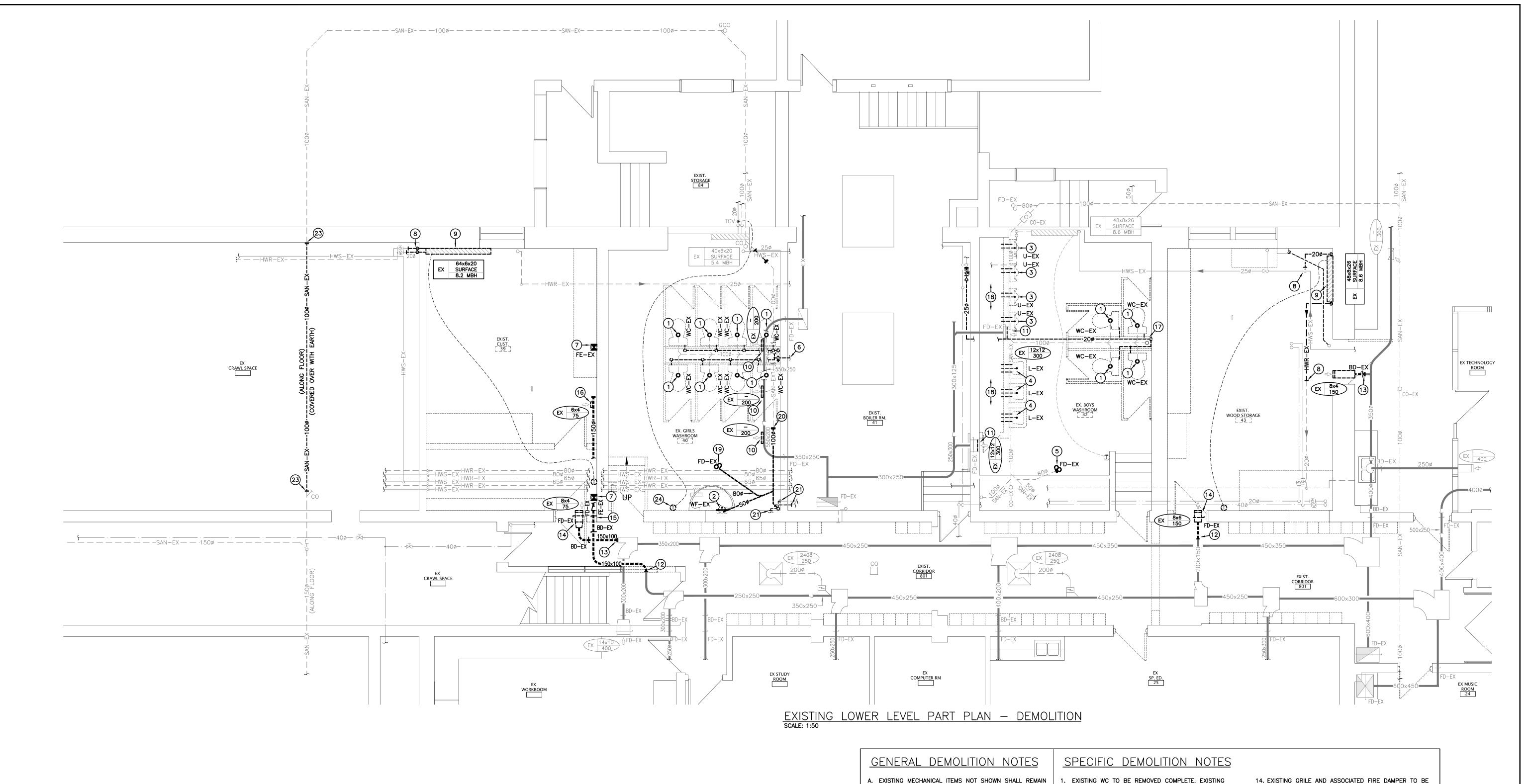
SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

> 1042 Weber Street E. Kitchener, ON N2A 1B6

DRAWING TITLE:

MECHANICAL LEGEND & SCHEDULES

& JCIIL	DOLLS		
PROJECT NO:	SCALE:		
A20002.7	AS NOTED)	
DRAWN: AH	DRAWING NO:	REV.	
CHECKED:			
AH	M101		
DATE:			
FEB 2021			



- A. EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- B. EXISTING MECHANICAL ITEMS SHOWN BUT NOT NOTED AS BEING REMOVED OR RENOVATED SHALL REMAIN AS PRESENTLY INSTALLED AND OPERATING.
- C. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES & EQUIPMENT PRIOR TO THE COMMENCEMENT
- D. ALL OPENINGS THAT RESULT FROM THE REMOVAL OF EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING CONSTRUCTION.
- E. PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED. REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING INTEGRITY OF EXISTING SYSTEMS TO REMAIN.
- REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS INCLUDES REMOVAL OF ALL HANGERS, INSULATION, FITTINGS, ETC.
- G. MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO REMAIN OR BE MODIFIED.
- I. INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.
- THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS AS REQUIRED FOR REMOVAL/REPLACEMENT OF SERVICES.
- 9. EXISTING HYDRONIC HEATER AND ASSOCIATED THERMOSTAT TO BE DISCONNECTED AND REMOVED
 - 10. EXISTING GRILLE TO BE REMOVED COMPLETE. RESULTING OPENING IN DUCT TO BE PATCHED AND MADE AIR TIGHT.

SAN TO BE CUT, CAPPED BELOW FLOOR AND

2. EXISTING WF TO BE REMOVED COMPLETE. EXISTING

AS INDICATED.

REMOVED COMPLETE.

REMOVED BEYOND COMPLETE.

REMOVED COMPLETE. EXISTING CW TO BE REMOVED

H&CW TO BE CUT, CAPPED IN WALL AND REMOVED

3. EXISTING URINAL TO BE REMOVED COMPLETE. EXISTING

SAN & CW TO BE CUT AND REMOVED COMPLETE.

SAN, H&CW TO BE CUT AND REMOVED COMPLETE.

5. EXISTING FD TO BE REMOVED COMPLETE. SAN TO BE

6. EXISTING CW TO BE CUT, CAPPED AT SOURCE AND

7. EXISTING FIRE EXTINGUISHER TO BE RELOCATED.

8. EXISTING HWS AND/OR HWR TO BE CUT AND

CUT, CAPPED BELOW FLOOR AND REMOVED COMPLETE.

4. EXISTING LAV TO BE REMOVED COMPLETE. EXISTING

COMPLETE. EXISTING SAN TO BE REMOVED COMPLETE.

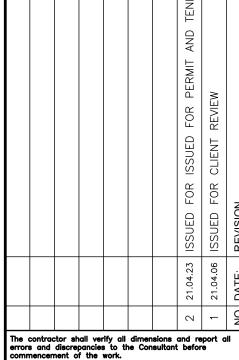
- 11. EXISTING GRILLE TO BE REMOVED COMPLETE. REPAIR OPENING IN WALL AS REQUIRED TO SUIT NEW DUCT
- CONNECTION. FIRE DAMPER TO REMAIN. 12. EXISTING DUCT TO BE CUT AND REMOVED AS INDICATED.
- 13. EXISTING DUCT TO BE CUT, CAPPED AND REMOVED COMPLETE.

15. EXISTING FIRE DAMPER AND ASSOCIATED DUCT TO BE REMOVED COMPLETE. PATCH WALL TO MATCH ADJACENT WALL CONSTRUCTION.

REMOVED COMPLETE. PATCH WALL TO MATCH

ADJACENT WALL CONSTRUCTION.

- 16. EXISTING GRILLE AND ASSOCIATED DUCT TO BE REMOVED COMPLETE.
- 17. EXISTING CW SERVING REMOVED WC'S TO BE REMOVED
- BACK INTO BOILER ROOM AND CAPPED AT SOURCE. 18. ALL EXISTING PIPING AND EQUIPMENT ASSOCIATED WITH WASHROOM FIXTURES TO BE REMOVED. CAP SAN BELOW FLOOR. CAP WATER PIPING AT SOURCE.
- 19. EXISTING FD TO BE REMOVED COMPLETE.
- 20. EXISTING SAN BELOW FLOOR TO BE CUT, CAPPED AND REMOVED COMPLETE TO SUIT NEW EXCAVATION OF
- 21. EXISTING SAN ABOVE FLOOR TO BE CUT AND REMOVED COMPLETE. TO SUIT NEW ROUTE OF SAN. REFER TO RENOVATION PLANS.
- 22. EXISTING SECTION OF SAN TO BE CUT AND REMOVED COMPLETE. REFER TO RENOVATION PLANS.
- 23. EXISTING SECTION OF SAN TO BE CUT AND REMOVED COMPLETE. PROVIDE CAPS ON EACH END OF EXISTING SAN THAT IS TO REMAIN. REMAINING SAN TO BE ABANDONED IN PLACE.
- 24. EXISTING THERMOSTAT TO BE RELOCATED.



commencement of the work.

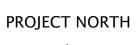
The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtal approval for relocation of service from Consultant before commencement of the work.

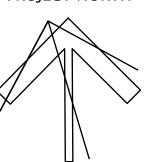
The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions.

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Do not scale this drawing.

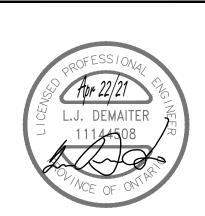
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Consulting Engineers

MECHANICAL ELECTRICAL AQUATIC 55 Northland Road, Waterloo, ON N2V 1Y8 Phone: 519-725-3555 Fax: 519-725-2515 Project Number: 20152





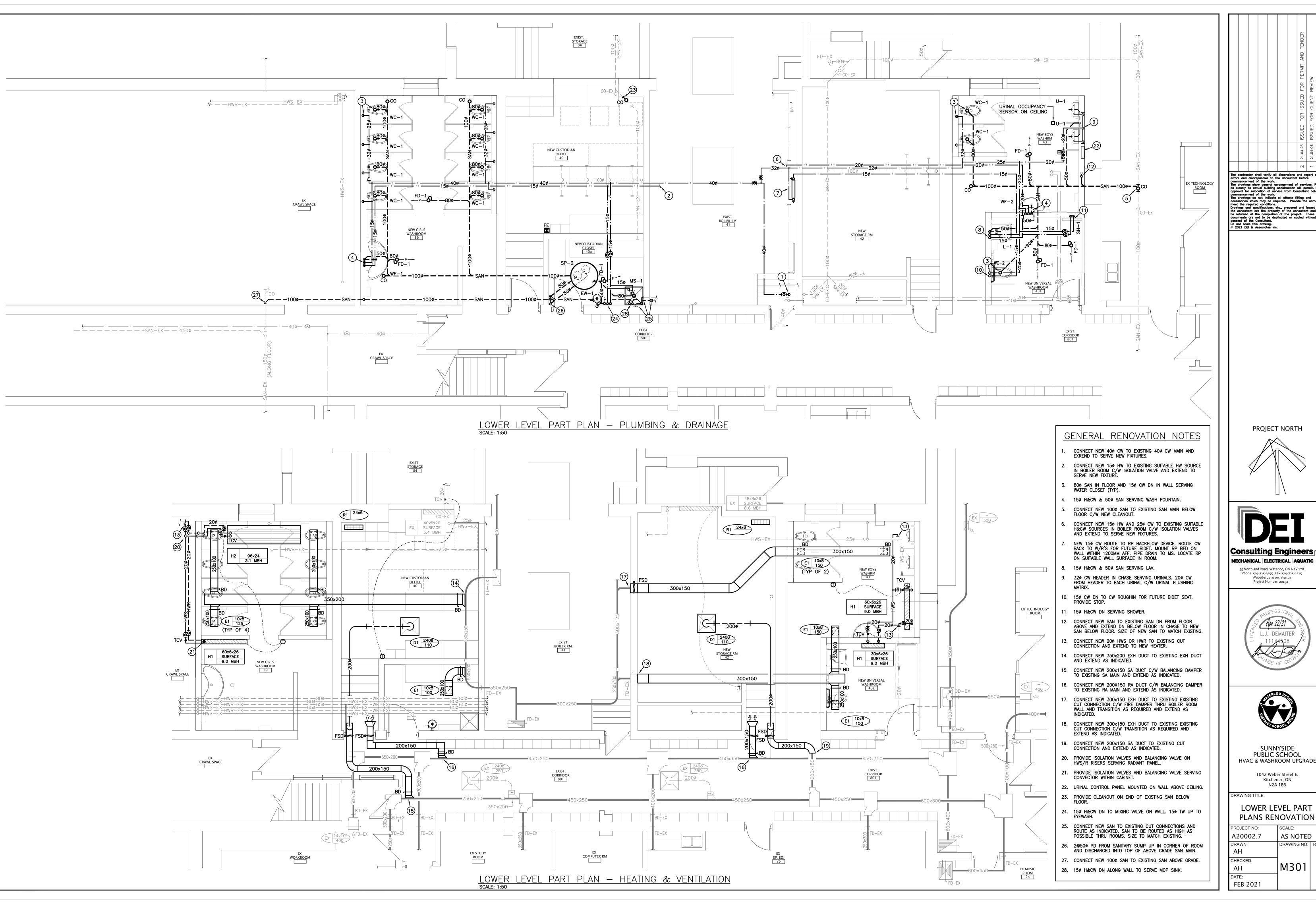
SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM UPGRADE**

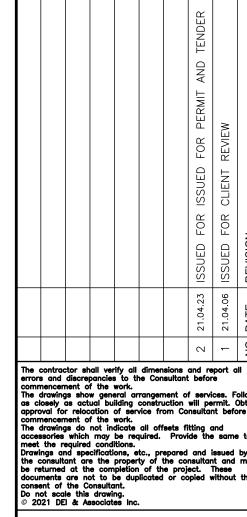
1042 Weber Street E. Kitchener, ON

N2A 1B6

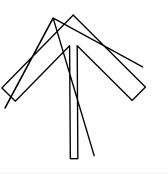
DRAWING TITLE: LOWER LEVEL PART PLAN

DEMOLITION PROJECT NO: SCALE: A20002.7 AS NOTED DRAWING NO: REV. AΗ CHECKED FEB 2021

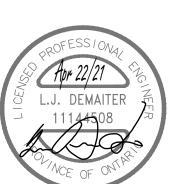




PROJECT NORTH









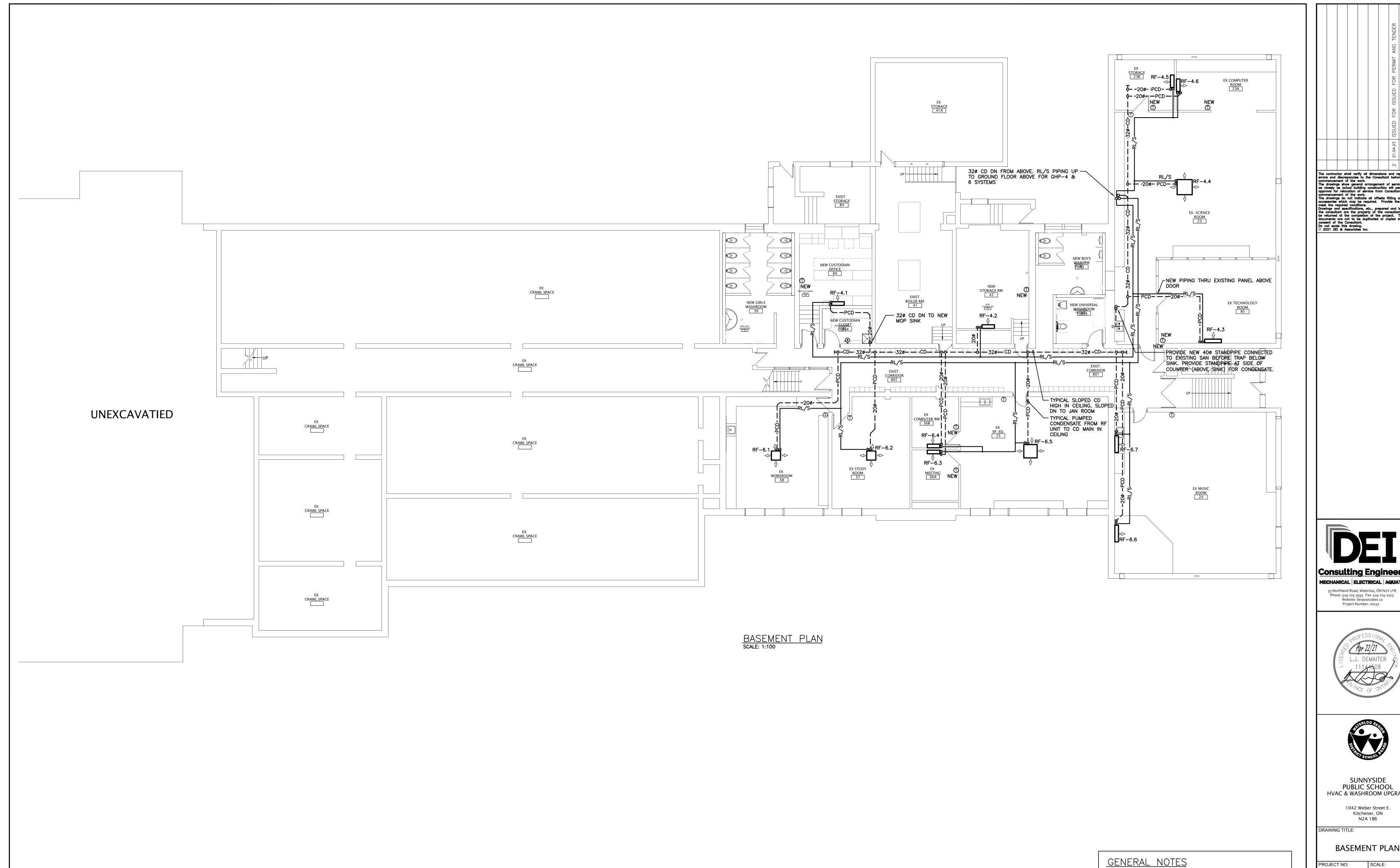
SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON N2A 1B6

PRAWING TITLE:

LOWER LEVEL PART PLANS RENOVATION

	PLAINS KLI	NOVATIO	IN
	PROJECT NO:	SCALE:	
	A20002.7	AS NOTED)
	DRAWN:	DRAWING NO:	REV.
	AH		
	CHECKED:		
	AH	M301	
	DATE:		



The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work.

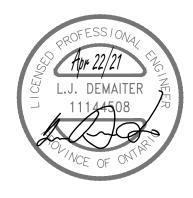
The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work.

The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions.

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Do not scale this drawing.







SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

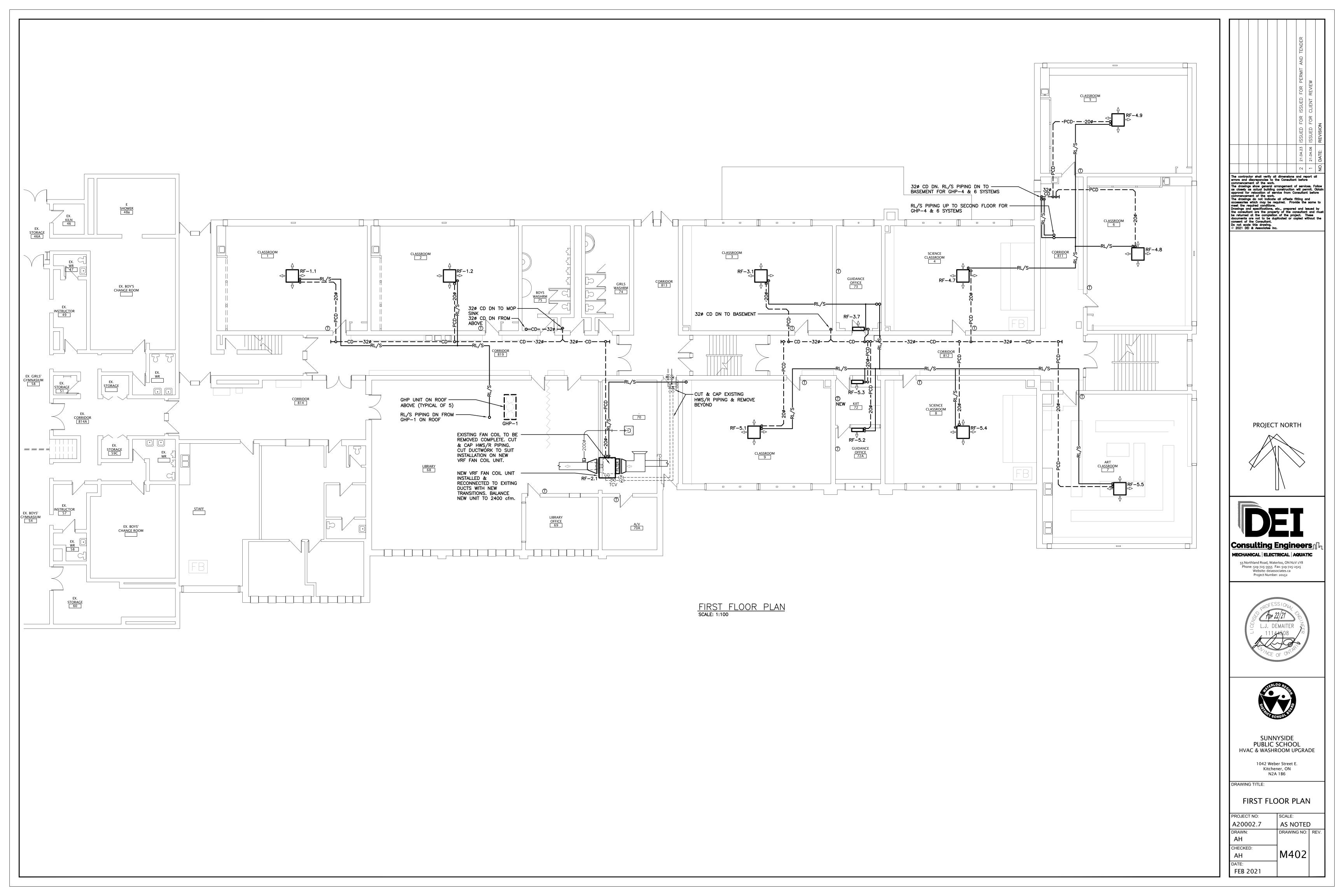
1042 Weber Street E. Kitchener, ON N2A 1B6

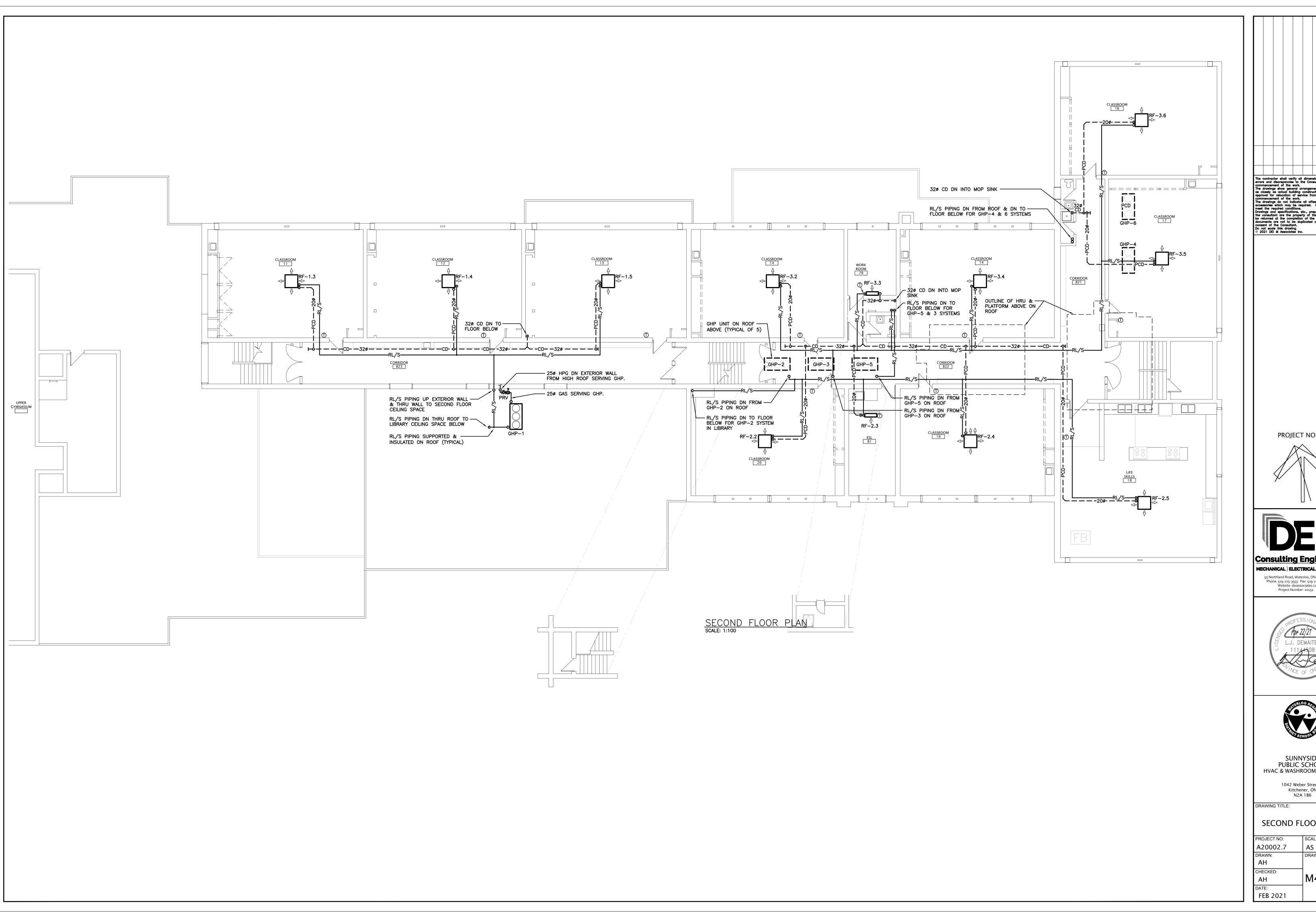
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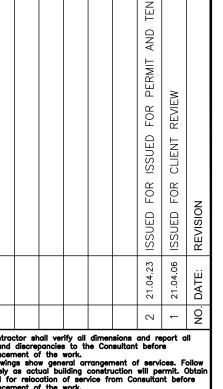
A. DWGS ARE DIAGRAMATIC. EXACT LOCATION & ROUTE OF PIPING TO BE COORDINATED ON SITE BY CONTRACTOR WITH EXISTING SERVICES IN CEILING SPACE (TYPICAL ALL FLOORS).

BASEMENT PLAN

PROJECT NO:	SCALE:
A20002.7	AS NOTED
DRAWN:	DRAWING NO: REV.
AH	
CHECKED:	
AH	M401
DATE:	
FEB 2021	







The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work.

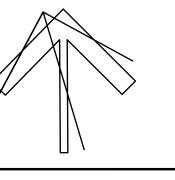
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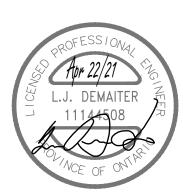
Do not scale this drawing.

PROJECT NORTH



MECHANICAL | ELECTRICAL | AQUATIC

55 Northland Road, Waterloo, ON N2V 1Y8 Phone: 519-725-3555 Fax: 519-725-2515 Website: deiassociates.ca Project Number: 20152



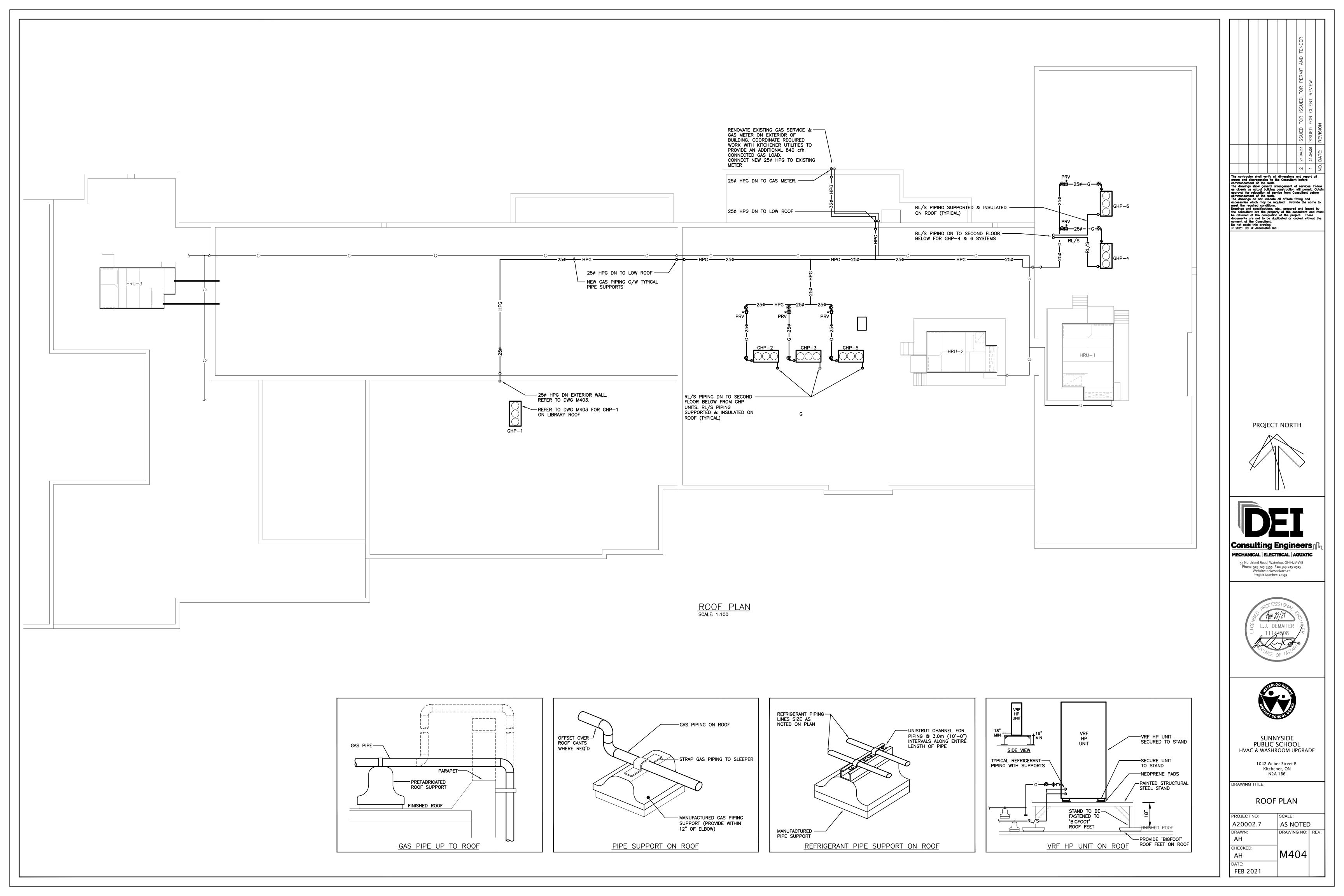


SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON

SECOND FLOOR PLAN

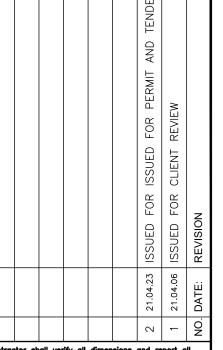
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<u>VRF</u>	HP UNIT SO	CHEDULE																						
				Total Capa	icity (BTU/h)	Fuel Consum	ption (BTU/h)	Fo	on .	Outdoo	Tempera	ture (°F)	Effic	ciency		Pipin	g Connections	(inch)				Power		Sound
Item	Model Number	Туре	Quantity	Total Cooling		Cooling	Heating	Airflow (CFM)	Quantity	Cooling DB	Cooling WB	Heating DB	Cooling IEER (SEER)	Heating COP (HSPF)	Refrigerant	Liquid	Suction	GAS	Volts	Phase	Hz		Power Consumption Cooling/Heating (kW)	
GHP-1	NNCP144J	HEAT PUMP (VRF)	1	143309	156000	119000	117000	12713	2	87.1	73.9	14.0	28.6	3.84	R410A	1/2	1 1/8	3/4	208V	1Ph	60Hz	3.98/3.53	0.89/0.79	57/54
GHP-2	NNCP168J	HEAT PUMP (VRF)	1	167194	189000	168000	147000	13420	2	87.1	73.9	14.0	28.6	3.84	R410A	5/8	1 1/8	3/4	208V	1Ph	60Hz	4.53/4.21	0.86/0.95	58/55
GHP-3	NNCP168J	HEAT PUMP (VRF)	1	167194	189000	168000	147000	13420	2	87.1	73.9	14.0	28.6	3.84	R410A	5/8	1 1/8	3/4	208V	1Ph	60Hz	4.53/4.21	0.86/0.95	58/55
GHP-4	NNCP168J	HEAT PUMP (VRF)	1	167194	189000	168000	147000	13420	2	87.1	73.9	14.0	28.6	3.84	R410A	5/8	1 1/8	3/4	208V	1Ph	60Hz	4.53/4.21	0.86/0.95	58/55
GHP-5	NNCP120J	HEAT PUMP (VRF)	1	119424	134000	93000	96000	12713	2	87.1	73.9	14.0	28.6	3.84	R410A	1/2	1	3/4	208V	1Ph	60Hz	4.44/4.13	0.89/0.79	57/54
GHP-6	NNCP120J	HEAT PUMP (VRF)	1	119424	134000	93000	96000	12713	2	87.1	73.9	14.0	28.6	3.84	R410A	1/2	1	3/4	208V	1Ph	60Hz	4.44/4.13	0.89/0.79	57/54

Material NNCP120J	Quantity	Description	
, water and	2	Heat pump	
NNCP144J	1	Heat pump	
NNCP168J	3	Heat pump	
FXAQ07P	6	Wall Mounted Type	
FXAQ09P	3	Wall Mounted Type	
FXAQ12P	2	Wall Mounted Type	
FXAQ18P	2	Wall Mounted Type	
FXAQ24P	1	Wall Mounted Type	
FXFQ15T	1	Round flow cassette	
FXFQ30T	18	Round flow cassette	
FXFQ48T	2	Round flow cassette	
FXMQ72M	1	Ceiling Concealed DC Duct Unit	
FXUQ18P	1	Ceiling-Suspended Type	
FXUQ36P	1	Ceiling-Suspended Type	
ACDC24	1	AC/DC Power Cord	
CLCW2B1	1	Remote Monitoring Adaptor	
YGAS560J1S	6	Anti-Vibration Mount	
BYCQ125B-W1	21	Standard Decoration Panel	
DACA-CP1-1	14	Optional Condensate Pump	
DMS502B71	1	BACnet interface	
RBPP22Y	15	Y branch, 2 pipes	
RBPP33Y	8	Y branch, 2 pipes	
RBPP72Y	9	Y branch, 2 pipes	
R410A	119.0lbs	Total extra refrigerant charge	
1/4	76.9ft	Pipe diameter (inch)	
3/8	857.3ft	Pipe diameter (inch)	
1/2	236.9ft	Pipe diameter (inch)	
5/8	702.2ft	Pipe diameter (inch)	
3/4	5.1ft	Pipe diameter (inch)	
7/8	220.0ft	Pipe diameter (inch)	
1 1/8	230.0ft	Pipe diameter (inch)	

	Model	_		Nominal Cape	acity (BTU/h)	Room Design	n Temp.(Return A	ir Temp.)(°F)	Air flow rate	Piping Conne	ections (inch)		Pov	ver		
ltem	Number	Туре	Quantity	Cooling	Heating	Cooling DB	Cooling WB	Heating DB	(CFM)	Liquid	Gas	Volts	Phase	Hz	MCA	Remarks
-1.1	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
-1.2	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
-1.3	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
F-1.4	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
F-1.5	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
-2.1	FXMQ72M	DUCTED CEILING	1	72000	81000	75.0	67.1	72.0	1784/2047	3/8	3/4	208/230V	1Ph	60Hz	9.5	C/W ACCESSORY PUMP DACA-CP1-1 & RA FILTER KIT
-2.2	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
F-2.3	FXAQ09P	WALL MOUNTED	1	9500	10500	75.0	67.1	72.0	175/280	1/4	1/2	208/230V	1Ph	60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
-2.4	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	742/1218	3/8	5/8	208/230V	1Ph	60Hz	1.8	
-2.5	FXFQ48T	CEILING CASSETTE	1	48000	54000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
-3.1	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
-3.2	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
-3.3	FXAQ07P	WALL MOUNTED	1	7500	8500	75.0	67.1	72.0	671/1112	1/4	1/2	208/230V	1Ph	60Hz	1.3	C/W ACCESSORY PUMP DACA-CP1-1
-3.4	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
F-3.5	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	160/260	3/8	5/8	208/230V	1Ph	60Hz	0.4	
-3.6	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
-3.7	FXAQ09P	WALL MOUNTED	1	9500	10500	75.0	67.1	72.0	175/280	1/4	1/2	208/230V	1Ph	60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
F-4.1	FXAQ12P	WALL MOUNTED	1	12000	13500	75.0	67.1	72.0	180/290	1/4	1/2	208/230V	1Ph	60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
F-4.2	FXAQ12P	WALL MOUNTED	1	12000	13500	75.0	67.1	72.0	180/290	1/4	1/2	208/230V	1Ph	60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
F-4.3	FXAQ18P	WALL MOUNTED	1	18000	20000	75.0	67.1	72.0	400/500	1/4	1/2	208/230V	1Ph	60Hz	0.5	C/W ACCESSORY PUMP DACA-CP1-1
F-4.4	FXUQ36P	CEILING SUSPENDED	1	36000	40000	75.0	67.1	72.0	742/1095	3/8	5/8	208/230V	1Ph	60Hz	1.4	
F-4.5	FXAQ07P	WALL MOUNTED	1	7500	8500	75.0	67.1	72.0	160/260	1/4	1/2	208/230V	1Ph	60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
F-4.6	FXAQ09P	WALL MOUNTED	1	9500	10500	75.0	67.1	72.0	175/280	1/4	1/2	208/230V	1Ph	60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
F-4.7	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
F-4.8	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V		60Hz	1.3	
F-4.9	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V	1Ph	60Hz	1.3	
F-5.1	FXFQ30T	CEILING CASSETTE	1	70000	74000	75.0	67.4	70.0	671/1112	3/8	5 /0	208/230V	1 Dh	6011-	4.7	
F-5.2	FXAQ07P	WALL MOUNTED		7500	34000 8500	75.0 75.0	67.1	72.0 72.0	160/260	1/4	5/8 1/2	208/230V 208/230V	1Ph 1Ph	60Hz 60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
F-5.3	FXAQ07P	WALL MOUNTED	1	7500	8500	75.0	67.1	72.0	160/260	1/4	1/2	208/230V	1Ph	60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
F-5.4	FXFQ30T	CEILING CASSETTE	'	30000	34000	75.0	67.1	72.0	671/1112	3/8		208/230V	1Ph	60Hz	1.3	JAN NOOLOOONI I OMII DAOA-OI I-I
-5. +	FXFQ301 FXFQ48T	CEILING CASSETTE	1	48000	54000	75.0	67.1	72.0	742/1218	3/8	5/8 5/8	208/230V 208/230V	1Ph	60Hz	1.3	
-6.1	FXUQ18P	CEILING SUSPENDED	1	18000	20000	75.0	67.1	72.0	565/795	1/4	1/2	208/230V	1Ph	60Hz	0.6	
-6.2	FXFQ15T	CEILING CASSETTE	1	15000	17000	75.0	67.1	72.0	388/512	1/4	1/2	208/230V	1Ph	60Hz	0.4	
-6.3	FXAQ07P	WALL MOUNTED	1	7500	8500	75.0	67.1	72.0	160/260	1/4	1/2	208/230V	1Ph	60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
-6.4	FXAQ07P	WALL MOUNTED	1	7500	8500	75.0	67.1	72.0	160/260	1/4	1/2	208/230V	1Ph	60Hz	0.4	C/W ACCESSORY PUMP DACA-CP1-1
-6.5	FXFQ30T	CEILING CASSETTE	1	30000	34000	75.0	67.1	72.0	671/1112	3/8	5/8	208/230V		60Hz	1.3	
-6.6	FXAQ24P	WALL MOUNTED	1	24000	27000	75.0	67.1	72.0	470/635	3/8	5/8	208/230V		60Hz	0.6	C/W ACCESSORY PUMP DACA-CP1-1
-6.7	FXAQ18P	WALL MOUNTED	1	18000	20000	75.0	67.1	72.0	400/500	1/4	1/2	208/230V		60Hz	0.5	C/W ACCESSORY PUMP DACA-CP1-1



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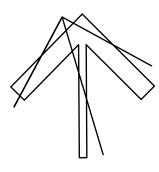
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PROJECT NORTH



Consulting Engineers MECHANICAL ELECTRICAL AQUATIC

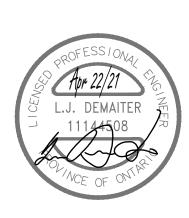
FECHANICAL | ELECTRICAL | AQUAT

55 Northland Road, Waterloo, ON N2V 1Y8

Phone: 519-725-3555 Fax: 519-725-2515

Website: deiassociates.ca

Project Number: 20152





SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

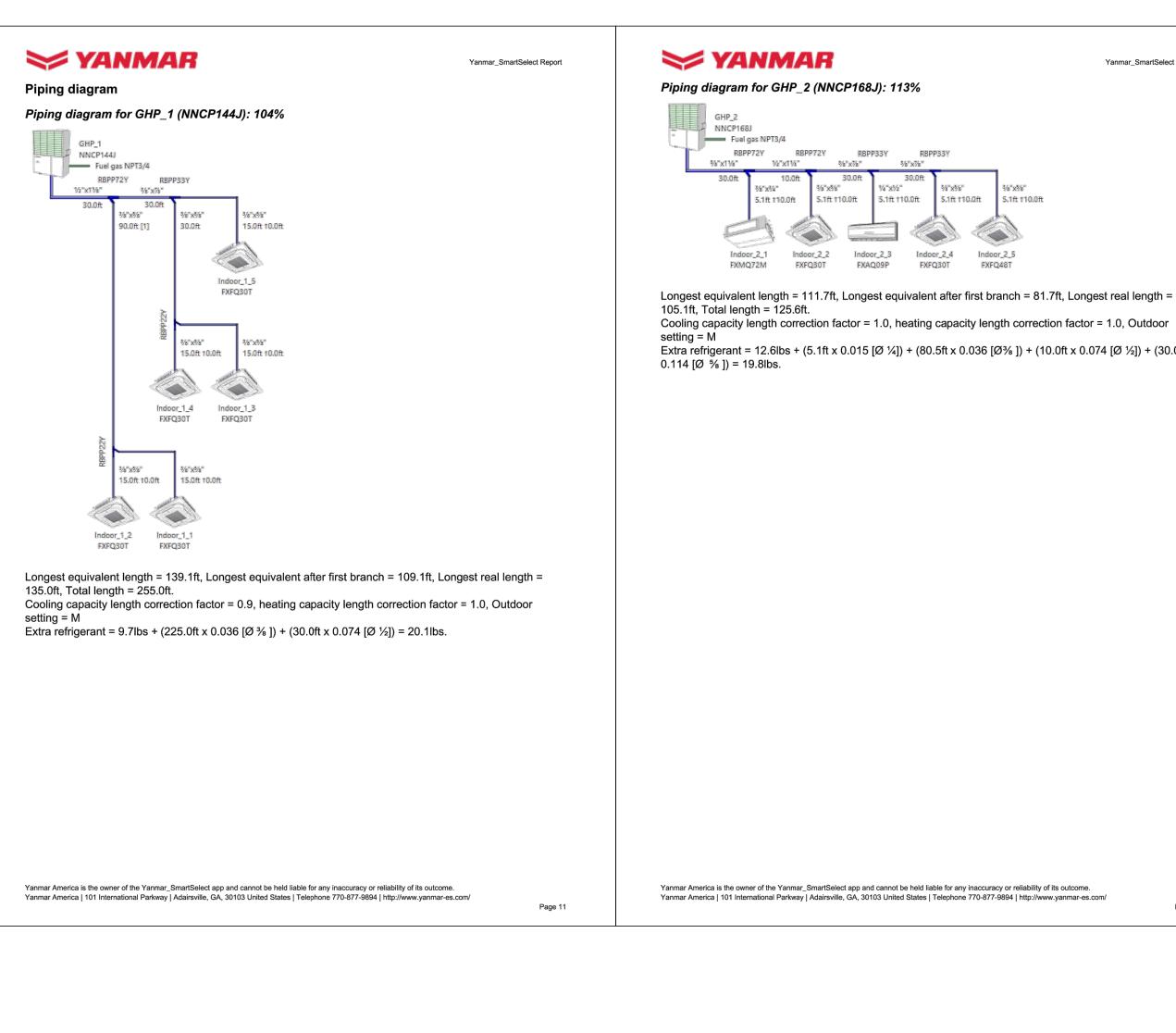
HVAC & WASHROOM UPGI 1042 Weber Street E. Kitchener, ON

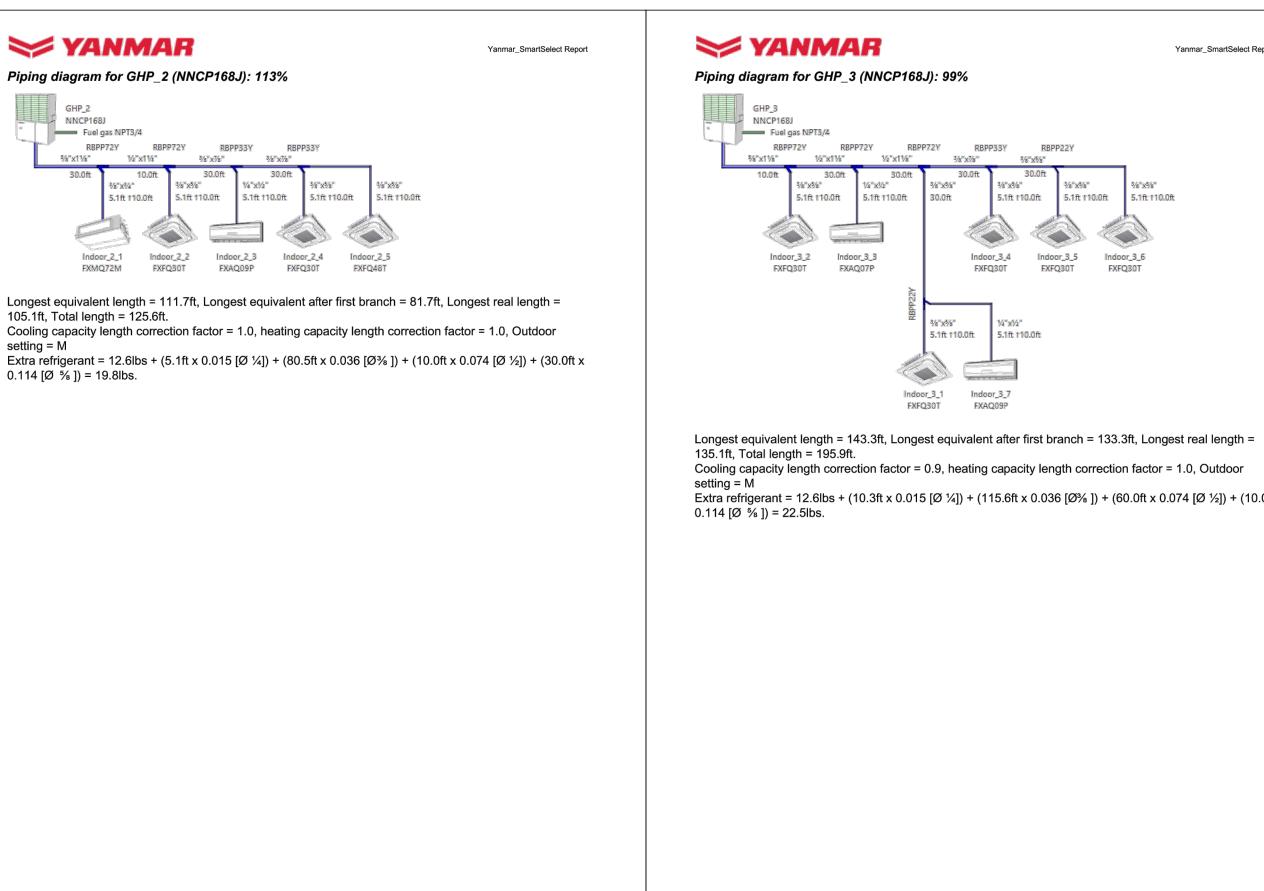
N2A 1B6

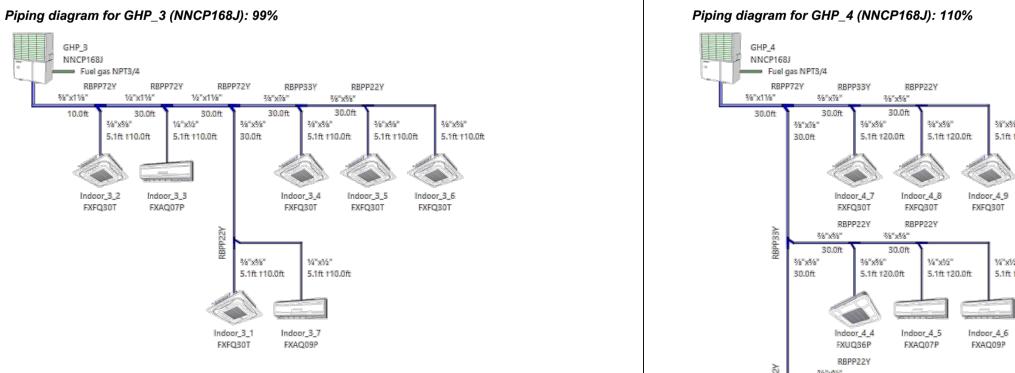
DRAWING TITLE:

VRF DETAILS & SCHEMATICS

JCITEIV	IATIC5	
PROJECT NO:	SCALE:	
A20002.7	AS NOTED)
DRAWN: AH	DRAWING NO:	REV.
CHECKED:	M501	
DATE: FEB 2021		







Yanmar_SmartSelect Report

Extra refrigerant = 12.6lbs + (10.3ft x 0.015 [Ø $\frac{1}{2}$]) + (115.6ft x 0.036 [Ø $\frac{3}{8}$]) + (60.0ft x 0.074 [Ø $\frac{1}{2}$]) + (10.0ft x 0.074 [Ø $\frac{1}{2}$]) Indoor_4_3 Indoor_4_2 Indoor_4_1 FXAQ18P FXAQ12P Longest equivalent length = 131.7ft, Longest equivalent after first branch = 101.7ft, Longest real length = 125.1ft, Total length = 266.2ft.

>> YANMAR

5.1ft †20.0ft

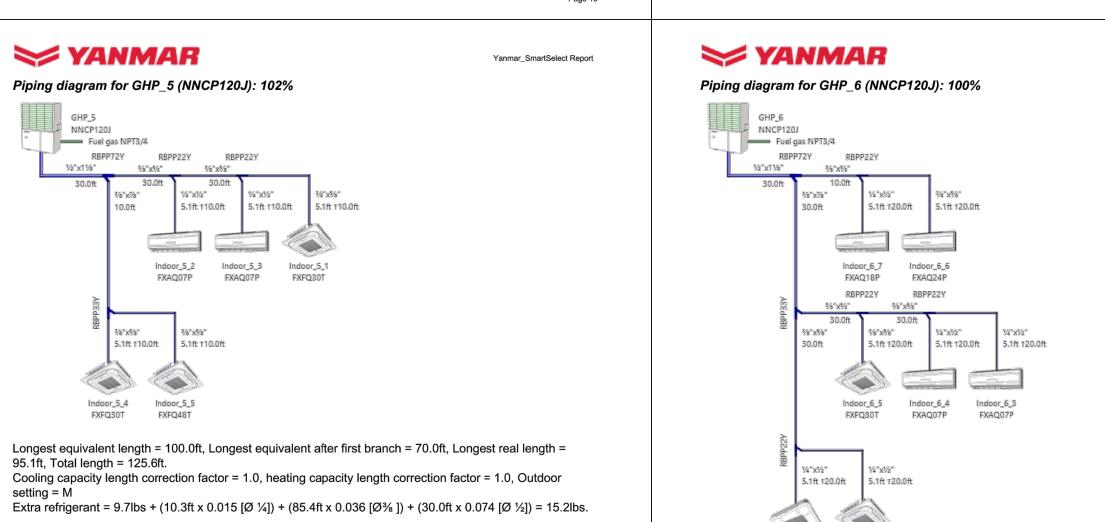
5.1ft †20.0ft

5.1ft †20.0ft

Cooling capacity length correction factor = 0.9, heating capacity length correction factor = 1.0, Outdoor

Extra refrigerant = 12.6lbs + (25.6ft x 0.015 [Ø $\frac{1}{2}$]) + (210.5ft x 0.036 [Ø $\frac{3}{2}$]) + (30.0ft x 0.114 [Ø $\frac{5}{2}$]) = 24.0lbs.

Yanmar America is the owner of the Yanmar_SmartSelect app and cannot be held liable for any inaccuracy or reliability of its outcome. Yanmar America is the owner of the Yanmar_SmartSelect app and cannot be held liable for any inaccuracy or reliability of its outcome. Yanmar America | 101 International Parkway | Adairsville, GA, 30103 United States | Telephone 770-877-9894 | http://www.yanmar-es.com/ Yanmar America | 101 International Parkway | Adairsville, GA, 30103 United States | Telephone 770-877-9894 | http://www.yanmar-es.com/ Page 13



Page 15

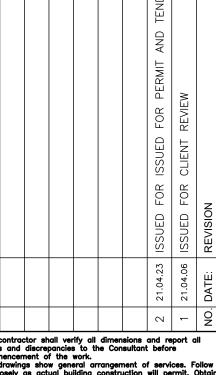
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Indoor_6_1 Indoor_6_2 FXUQ18P FXFQ15T Longest equivalent length = 131.7ft, Longest equivalent after first branch = 101.7ft, Longest real length = 125.1ft, Total length = 195.9ft. Cooling capacity length correction factor = 0.9, heating capacity length correction factor = 1.0, Outdoor Extra refrigerant = 9.7lbs + (25.6ft x 0.015 [Ø $\frac{1}{2}$]) + (140.3ft x 0.036 [Ø $\frac{3}{8}$]) + (30.0ft x 0.074 [Ø $\frac{1}{2}$]) = 17.4lbs.

Yanmar America is the owner of the Yanmar_SmartSelect app and cannot be held liable for any inaccuracy or reliability of its outcome.

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Yanmar_SmartSelect Report

Page 14

Page 16

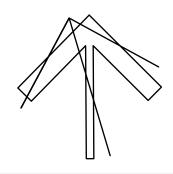
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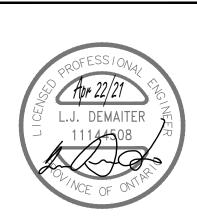
Do not scale this drawing.

PROJECT NORTH



Consulting Engineers ը հ MECHANICAL | ELECTRICAL | AQUATIC 55 Northland Road, Waterloo, ON N2V 1Y8 Phone: 519-725-3555 Fax: 519-725-2515 Website: deiassociates.ca

Project Number: 20152





SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM UPGRADE**

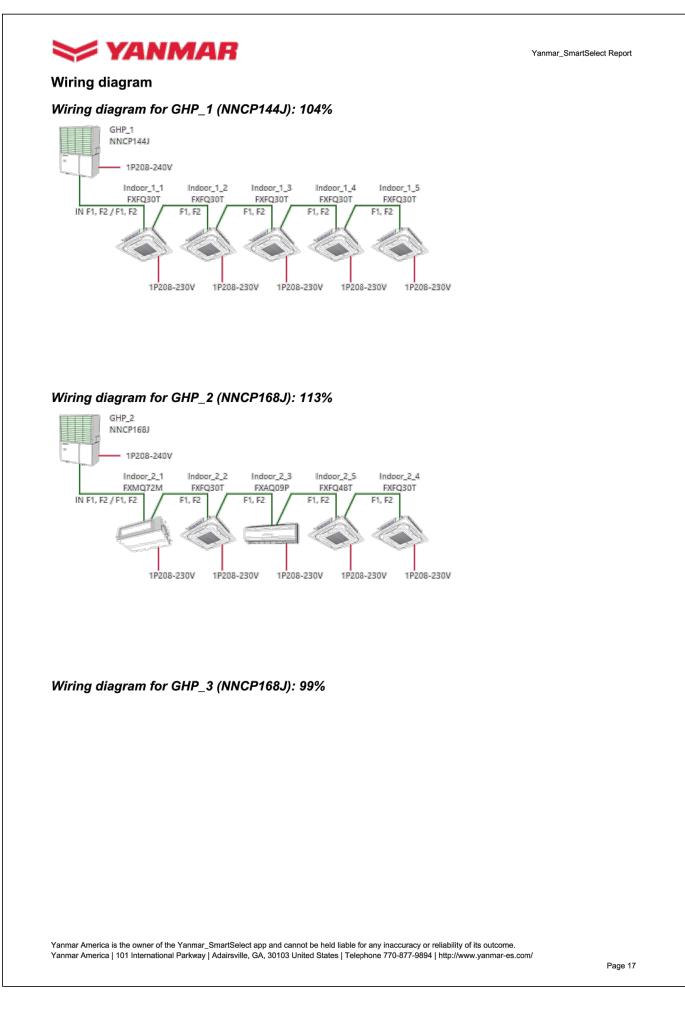
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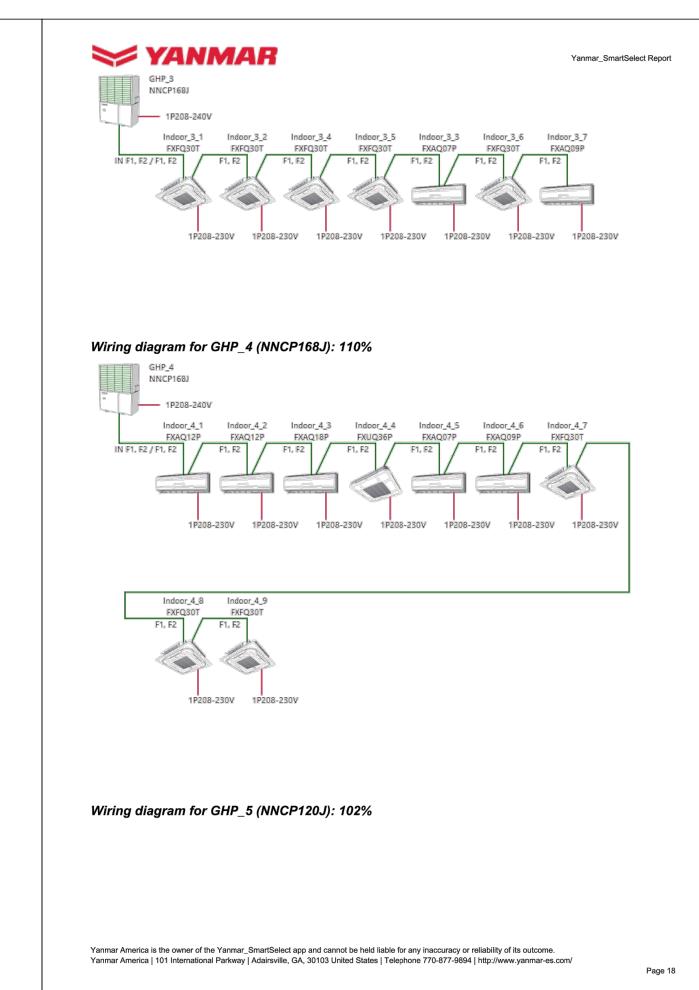
Kitchener, ON N2A 1B6

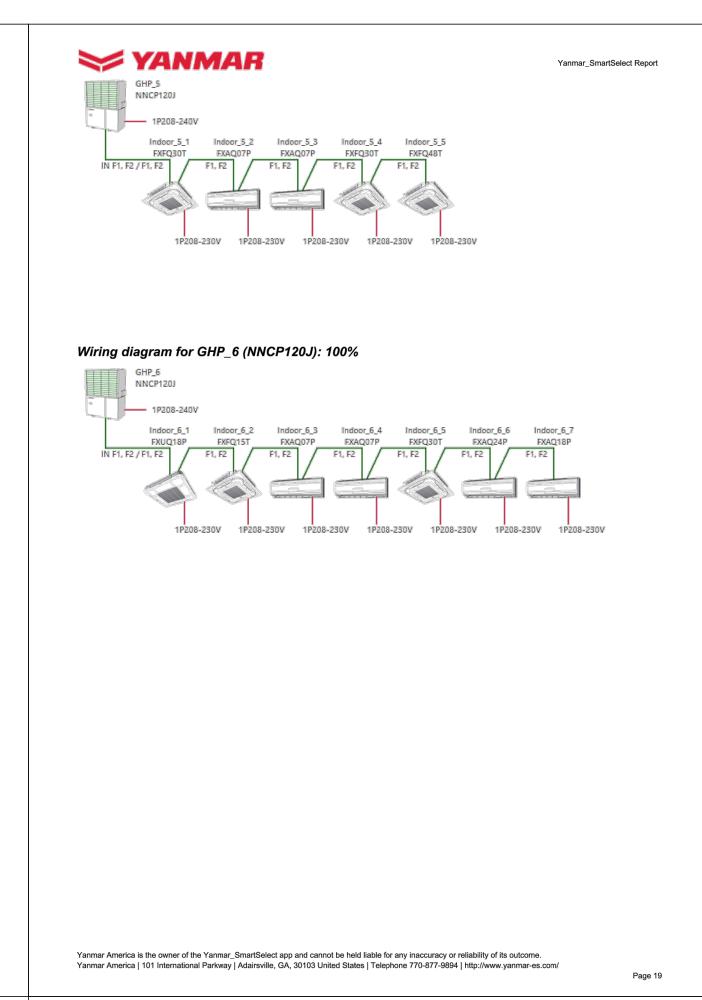
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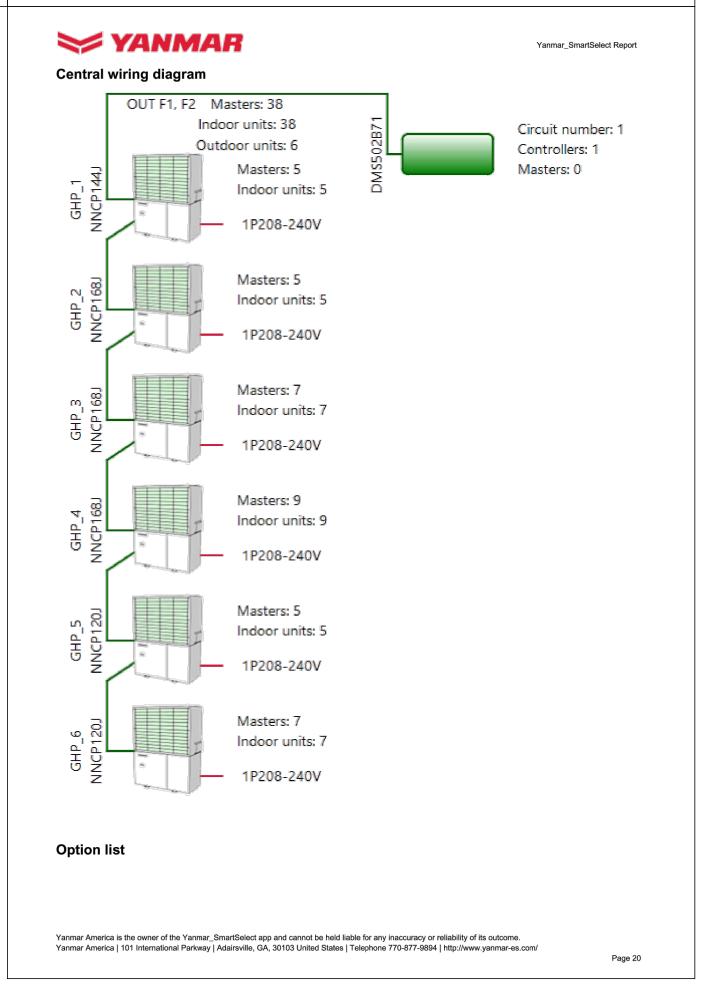
FEB 2021

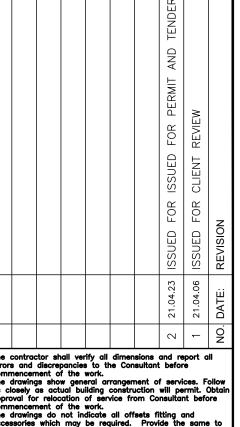
SCHEMATICS PROJECT NO: SCALE: A20002.7 AS NOTED DRAWING NO: REV. AH CHECKED: AH











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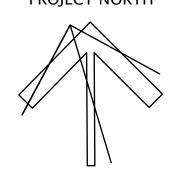
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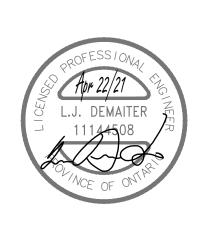


Consulting Engineers

MECHANICAL | ELECTRICAL | AQUATIC

55 Northland Road, Waterloo, ON N2V 1Y8
Phone: 519-725-3555 Fax: 519-725-2515
Website: deiassociates.ca

Project Number: 20152





SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON N2A 1B6

DRAWING TITLE:

VRF SYSTEM WIRING

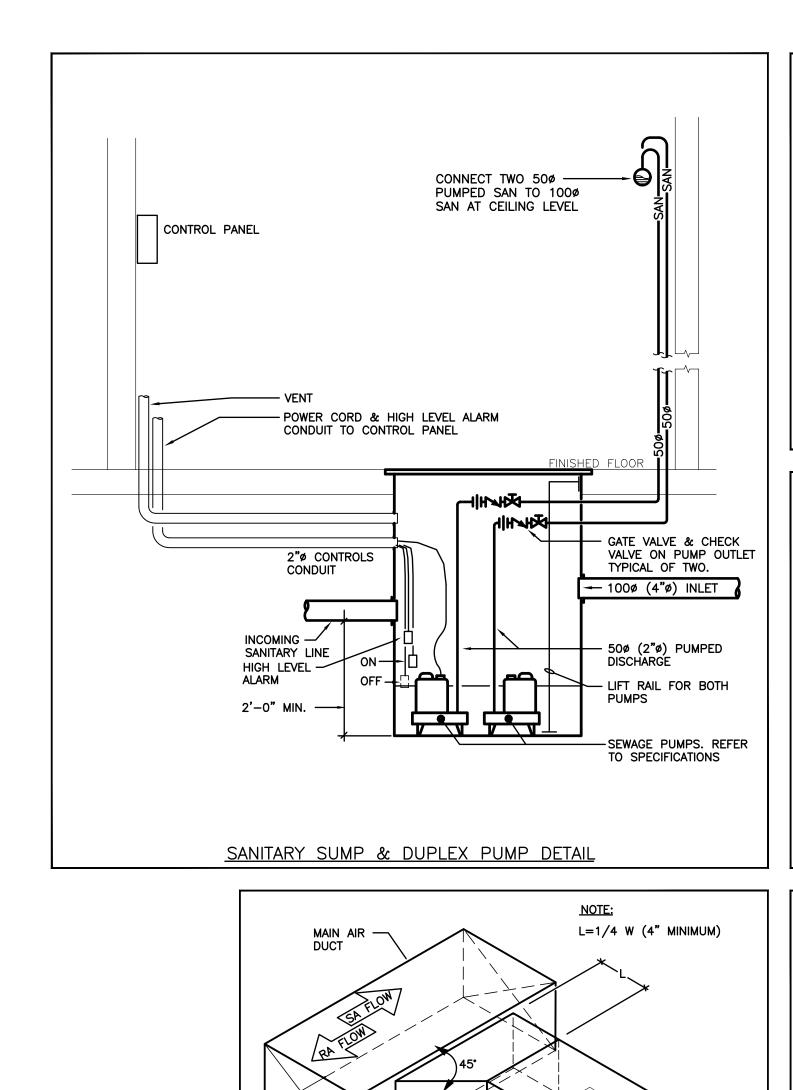
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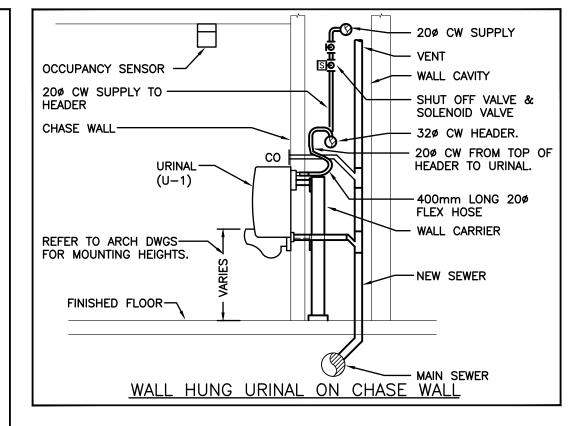
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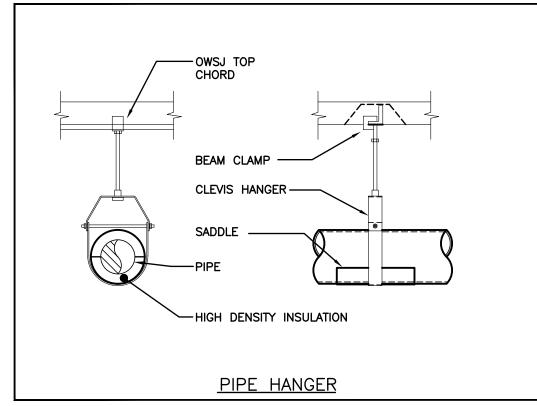
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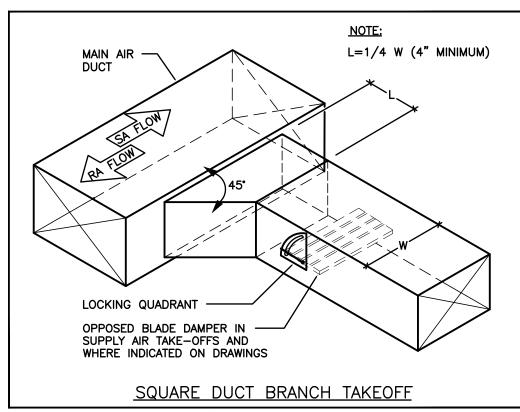
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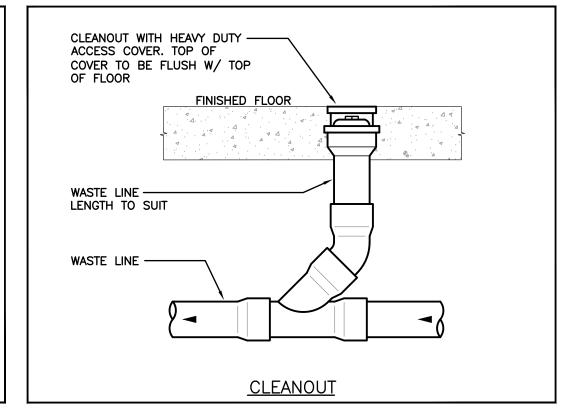
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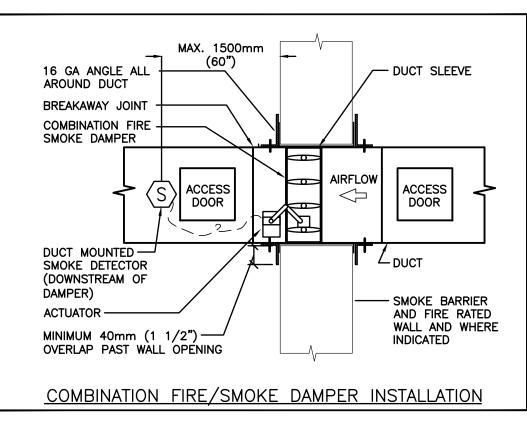


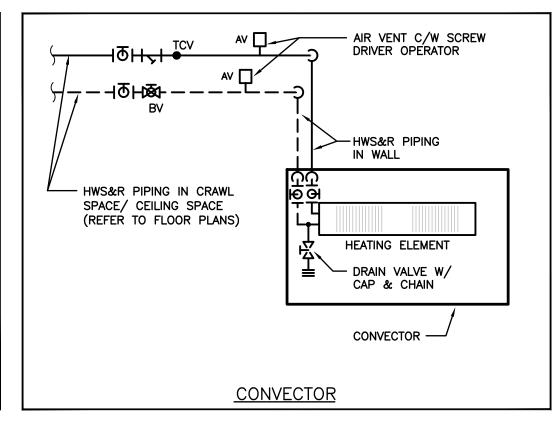


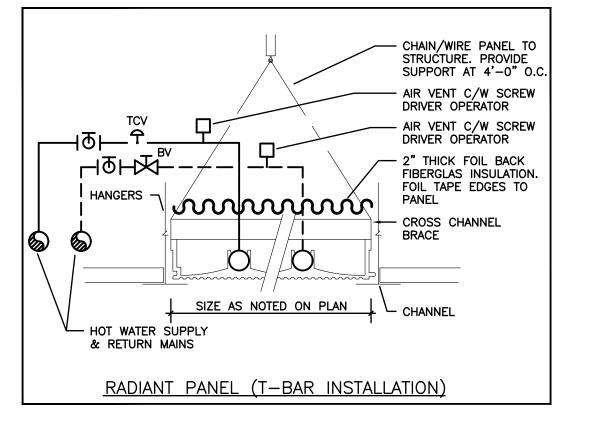


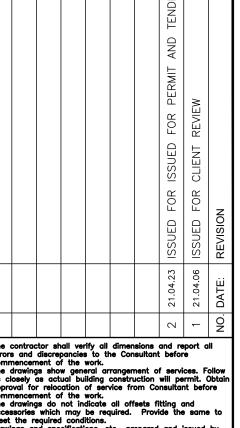












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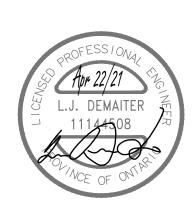
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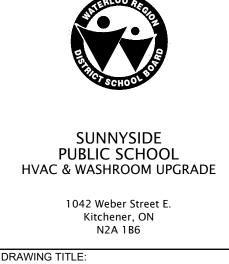
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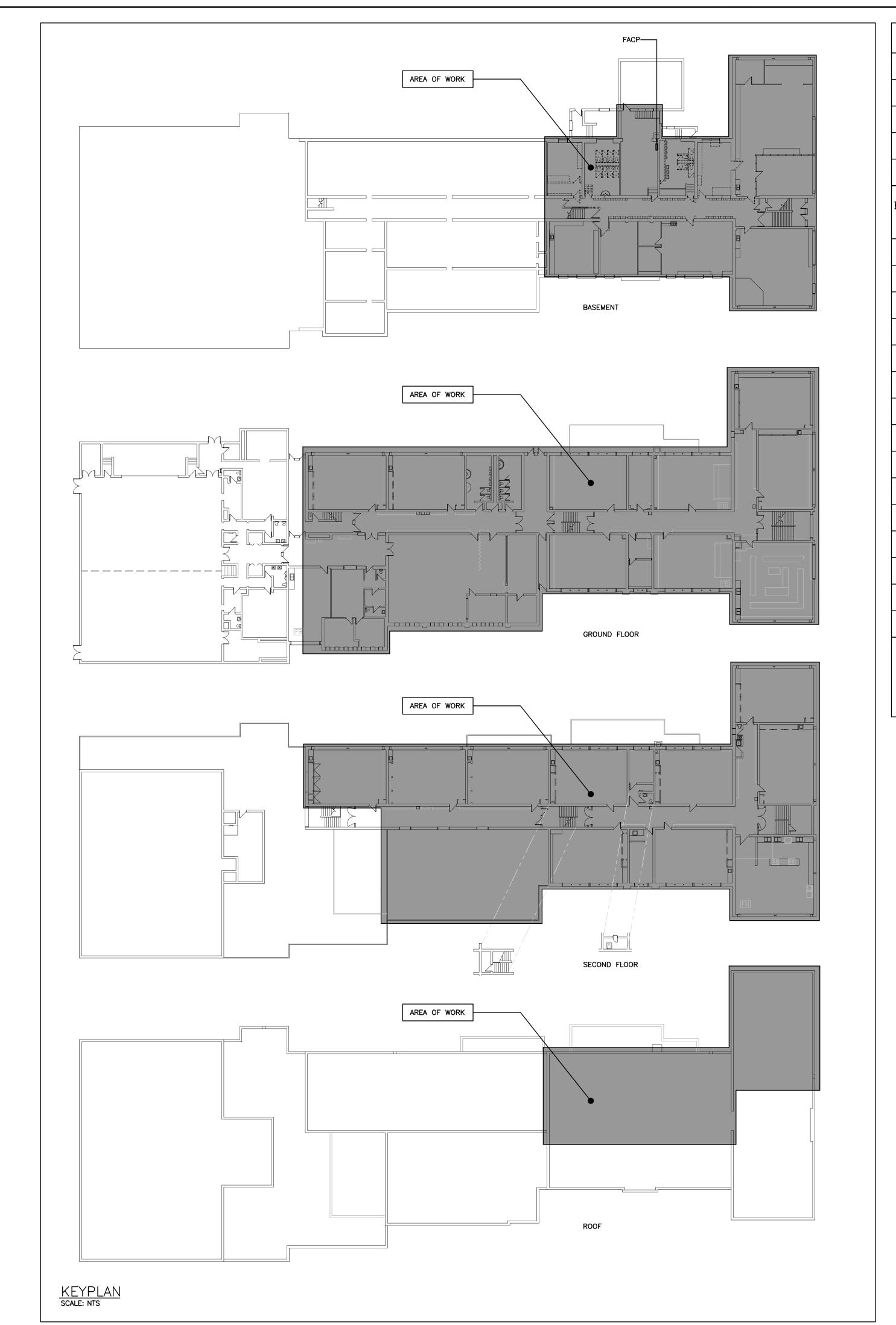






MECHANICAL DETAILS

PROJECT NO:	SCALE:	
A20002.7	AS NOTED	
DRAWN:	DRAWING NO:	REV.
AH		
CHECKED:		
AH	M601	
DATE:		
FEB 2021		



<u>ELE</u>	CTRICAL SYMBOLS	NO ⁻	TE: ALL SYMBOLS MAY NOT BE USED
	LIGHTING		POWER
X	LIGHT FIXTURE TYPE AS INDICATED	φ	WALL MOUNTED RECEPTACLE (15A-120V)
Ø Ø	CEILING OR WALL MOUNTED LIGHT FIXTURE TYPE AS INDICATED	•	WALL MOUNTED T-SLOT RECEPTACLE (20A-120V)
凌	WALL MOUNTED EXIT LIGHT SHADING INDICATES FACE	#	T-SLOT RECEPTACLE MTD. ABOVE COUNTER (20A-120V)
TRA	SINGLE OR TWIN EMERGENCY LIGHTING FIXTURE	P s	RECEPTACLE MTD. ABOVE COUNTER S=SPLIT (15A-120V)
EM-X DC-X X-X	BATTERY UNIT WITH INTEGRAL EMERGENCY FIXTURE (EM-X INDICATES BATTERY UNIT	—	PANEL AS INDICATED
1801-40 X−X^	TYPE, DC-X INDICATES DC CIRCUIT, AND X-X INDICATES AC SOURCE CIRCUIT	<u> </u>	UNFUSED DISCONNECT
\$	SINGLE POLE SWITCH (3=3 WAY, 4=4 WAY, P=PILOT LIGHT, K=KEYED, DM=DIMMER, M=MOTOR RATED)	HD	HAND DRYER
\$°s	OCCUPANCY SENSOR (PASSIVE)	•	PUSH-BUTTON STATION
os	DIGITAL CEILING MOUNTED MOTION SENSOR		COMMUNICATIONS
DR	DIGITAL ROOM CONTROLLER	∇	SINGLE COMPUTER OUTLET UNLESS OTHERWISE NOTED C/W 1" (27mm) C TO HANGER SYSTEM IN NEAREST CORRIDOR CEILING SPACE. 'WAP'
PK	POWER PACK		WIRELESS ACCESS POINT
ХВ	DIGITAL WALL STATION, 'X' DENOTES NUMBER OF CONTROL BUTTONS IN SINGLE GANG	8	WALL MOUNTED SPEAKER (CS=COLUMN SPEAKER)
	ACCESS CONTROL	8	CEILING MOUNTED SPEAKER
ES	ELECTRIC STRIKE. CONFIRM ROUGHIN WITH DOOR HARDWARE.		GENERAL
PTL	"PUSH-TO-LOCK" BUTTON	ER	INDICATED EXISTING ITEM TO REMAIN
● EM	EMERGENCY PUSH BUTTON STATION	D	INDICATES EXISTING ITEM TO BE DELETED
DL)-	"ASSISTANCE REQUIRED" DOME LIGHT WITH SOUNDER	R	INDICATES EXISTING ITEM TO BE RELOCATED/IN RELOCATED POSITION
Á	"ASSISTANCE REQUIRED" INDICATOR LIGHT WITH SOUNDER	WG	WIREGUARD
	FIRE ALARM	GF	GROUND FAULT
8	ALARM BELL (A, B = SIGNAL CIRCUIT)	\otimes	NOTE INDICATOR
Y	ALARM STROBE (A, B = SIGNAL CIRCUIT)	⊗	MECHANICAL ITEM NO.

STANDARD CIRCUITING LABELING

SWITCH LEG (IF APPLICABLE)

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SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON N2A 1B6

DRAWING TITLE:

LEGEND AND KEY PLAN

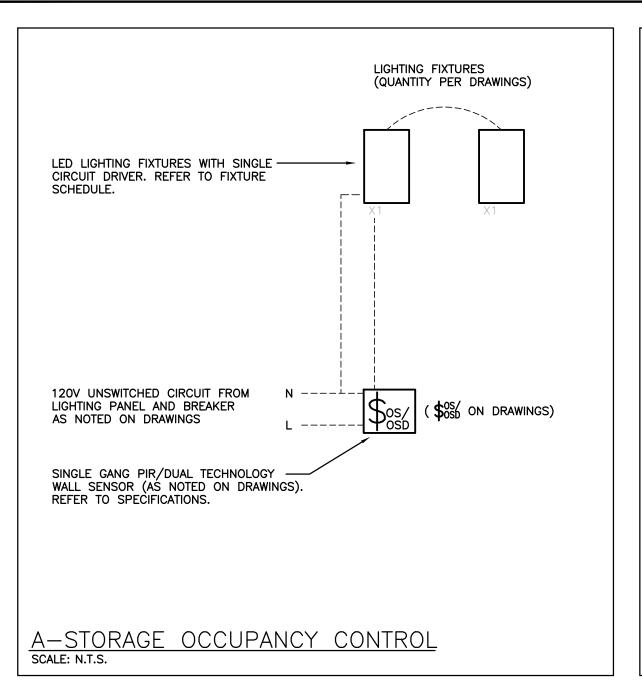
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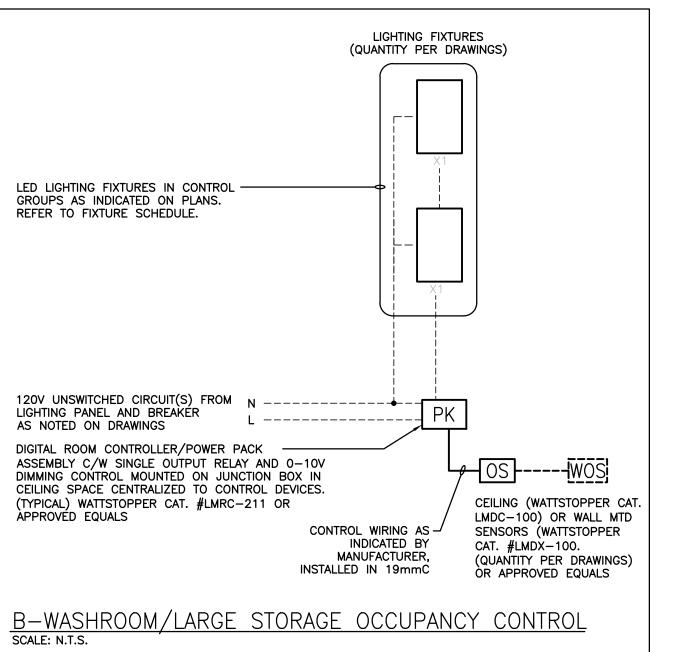
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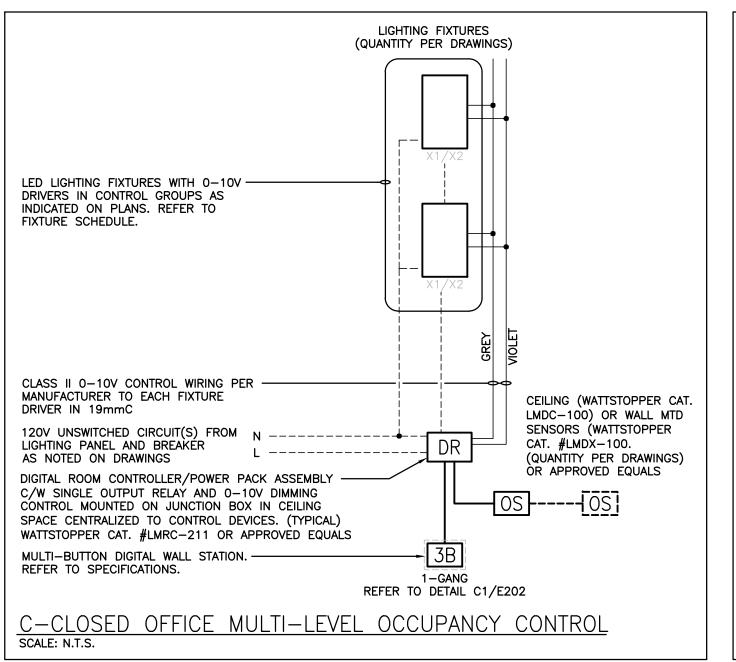
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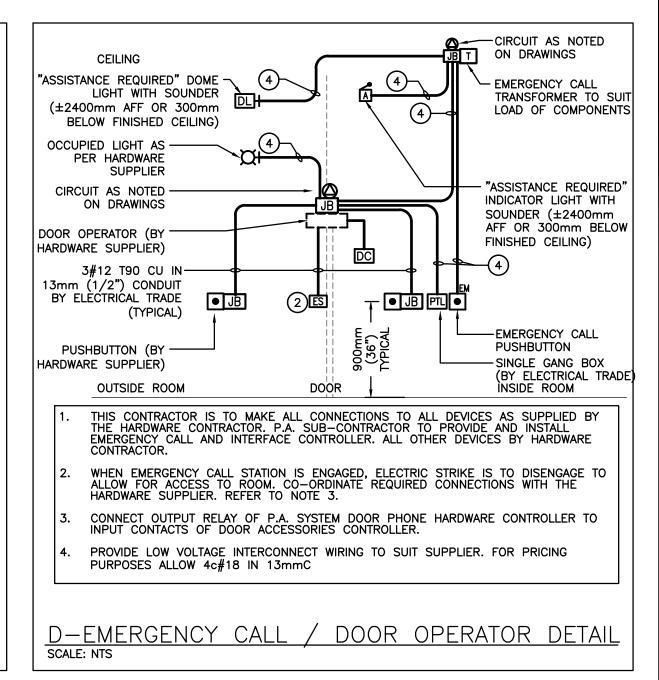
J.J. E101

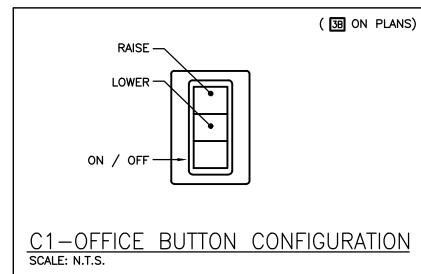
DATE:
FEB 2021



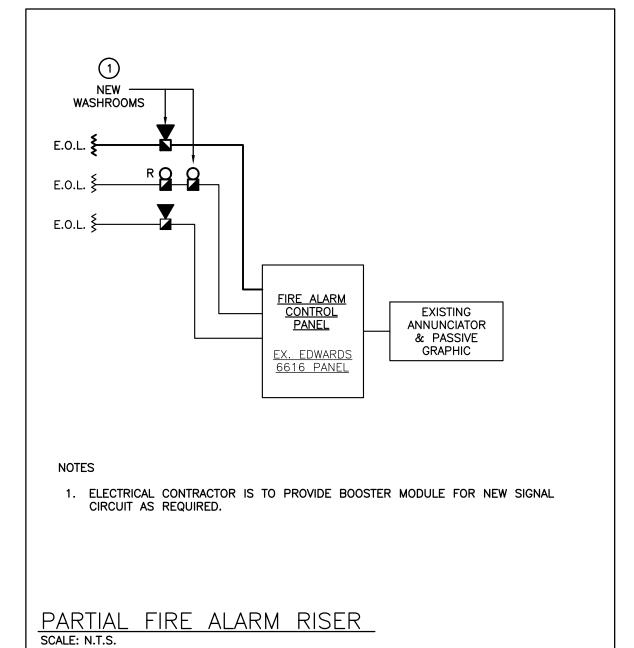






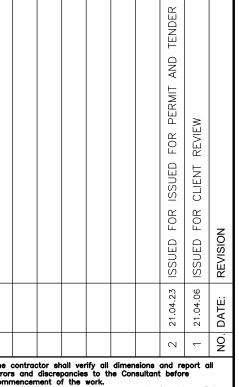


<u> </u>	<u>EQUIPMEN</u>	Τ	WI	RIN	<u>IG</u>	S	SCH	HE[<u>) U</u>	<u>LE</u>																							E=ELECTRICAL M=MECHANICAL O=OTHERS
	Description		ι	Data				Start	er		C	ontro	l Dev	rice		ls	olatir Devic	ng e				Re	emote	e Iter	ms					Inte	rlock		Remarks
Electrical Item	Description	Provided by	Voltage	Size hp/kW/Amps	Phase	Magnetic	Manual	Contactor	Combination	Variable Frequency Drive	Hand/Off/Auto	On/Off Selector	Start/Stop PB.	High/Low/Off	Pilot Light		WP Disconnect		Starter/Device Wired By	Thermostat	RA Thermostat	Time Clock	1	Motor Rated Sw. c/w Pilot Light	Dual Voltage Relay	Control Panel	Wired by	Bldg Auto System	Wired by	Interlock To	Interlock By		Description
1	GAS HEAT PUMP GHP-1,6	М	208	0.9 kW	1												Е	Е	Е													ROOF	
2	GAS HEAT PUMP GHP-2,3,4	М	208	1.0 kW	1												Е	Ε	Е													ROOF	
3	GAS HEAT PUMP GHP-5	М	208	0.9 kW	1												Ε	Е	Е													ROOF	
4	INDOOR UNITS RF-2-1	М	208	9.5 MCA	1											Ε		Е	Е	М							М	М	М				
5	RECESS/SUSP. RF FAN COIL	М	208	2.0 MCA	1											Ε		Ε	Е	М							М	М	М				
6	WALL MOUNT RF FAN COIL	М	208	0.6	1											Ε		Ε	Е	М							М	М	М				
7	CONDENSATE PUMP	М	120	FHP	1											E		Е	Е														
8	URINAL CONTROLLER	М	120	FHP	1											Е		Е	Е							М	M/E						



ltem	Manufacturer/Catalog Number	Voltage	Lamp	Mounting	Description
L3	COOPER CAT. #24-GR-LD5-38-A125-UNV-L840-CD-1 C/W SK-24-WS LITHONIA CAT. #2GTL-4-40L-EZ1-LP840 C/W 2X4SMKSHP PAF SIGNIFY CAT. #2TG43L840-4-FS-02F-UNV-DIM C/W FMA24	120V	LED 3800 LUMENS 4000K 35W	RECESSED	2X4 (610mmX1220mm) LED TROFFER C/W PATTERN 12 LENS, WHITE FINISH AND SURFACE MOUNTING KIT.
LU	METALUX CAT. #4SLSTP4040DD-120V LITHONIA CAT.#ZL1D-L48-5000LM-FST-MVOLT-35K-80CRI-WH SIGNIFY CAT.#FSS440L830-UNV-DIM	120V	LED 3500 LUMENS 4000K 44W	SURFACE	4' (1220mm) LENSED LED STRIP FIXTURE C/V
EMERG. BATT.	BEGHELLI TEMPESTA SERIES: EM-1 #TA-LED-EM-120-TB-90SP (RECESSED TBAR MOUNT) OR APPROVED EQUALS BY: EMERGILITE STANPRO DUAL-LITE READY-LITE AIMLIGHT CAT. #VP1 SERIES	12V/120V	N/A	AS NOTED	VANDAL RESISTANT LONG LIFE, SEALED BATTER C/W 17W LED MODULES, POLYCARBONATE BOI AND 90 MINUTE BATTERY DURATION
NOTES:	FOR INFORMATION REGARDING LENS INFORMATION ESPECIFICATION. LED LUMEN VALUES QUOTED FOR FIXTURES ARE TO CONSIDERED MINIMUM, AND AS ABSOLUTE OR DELIVING LUMENS. LUMEN VALUES SHOULD NOT EXCEED MOI OF SPECIFIED OUTPUT.	O BE VERED	10% (4	PART NUM RESPONSI THE ELEC DRAWING WHERE N TO SUIT MANUFACT COLOURS	ARE ANY DISCREPANCIES BETWEEN THE FIXTUR MBER AND DESCRIPTION, IT IS THE BILITY OF THIS CONTRACTOR TO BRING THIS TO TRICAL CONSULTANTS ATTENTION PRIOR TO SHO REVIEW. OTED ABOVE THAT FIXTURES ARE TO HAVE FINIS ARCHITECT THE FINISH WILL BE SELECTED FROM TURER'S OPTIONAL COLOUR CHART (i.e. RAL OR EQUAL). PROVIDE THIS COLOUR CHART WITH AWING SUBMITTAL.

Space Type	Room Names	Control Sequence / Control Device(s):	Control System
Custodial Office	TYPICAL	Sequence: ON: Lights turned on to 50% output setting via occupancy sensor(s). ADJUST: The occupant manually adjusts lighting within the room to desired level or preset in each group via wall scene station. OFF: 5 minutes after the room has been vacated, the lights will automatically turn off.	DIGITAL ROOM CONTROL SYSTEM
Washrooms/Storage	TYPICAL	Sequence: ON: Lights turned on automatically via occupancy sensor (where applicable). OFF: 5 minutes after the room has been vacated, the lights will automatically turn off.	LINE VOLTAGE OCCUPANCY CONTROL SYSTEM



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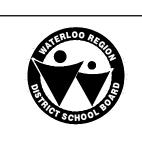
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SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

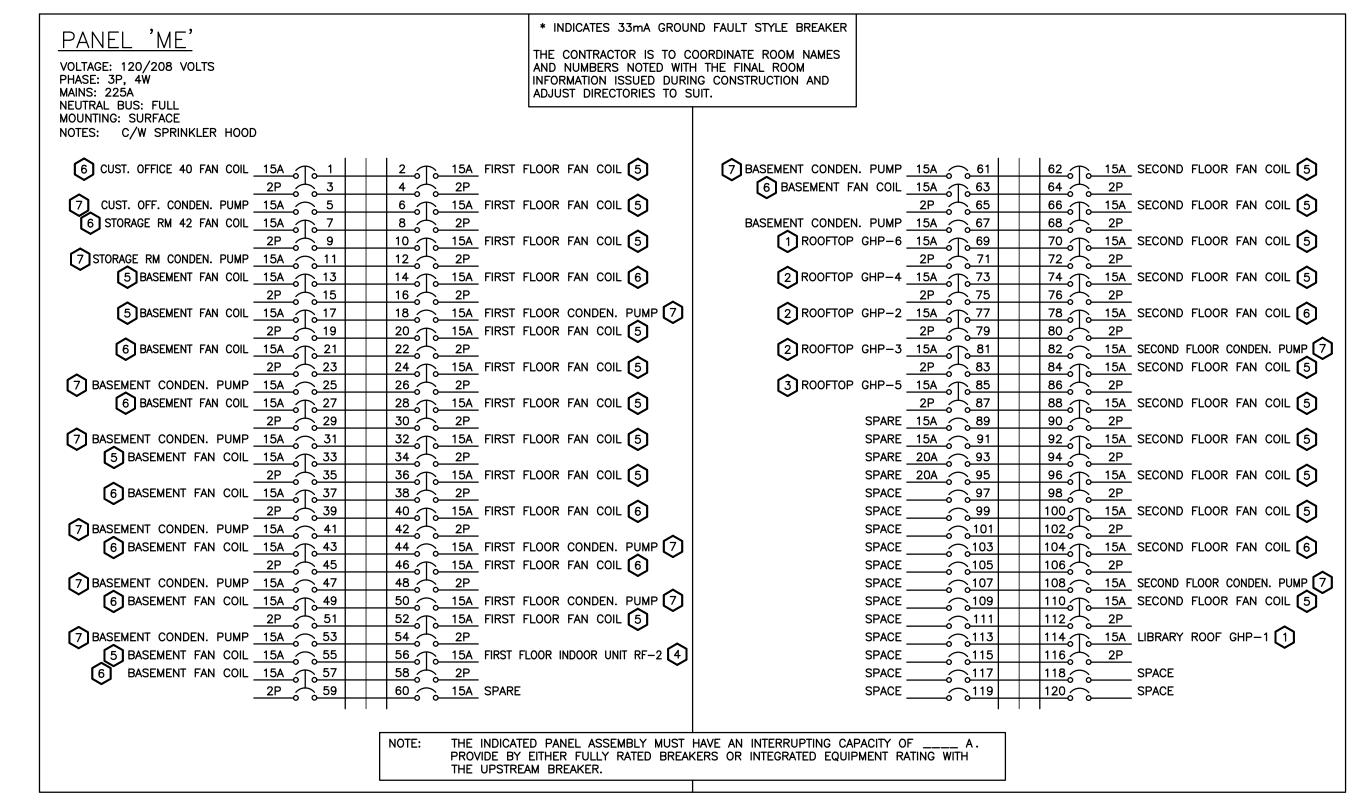
1042 Weber Street E. Kitchener, ON

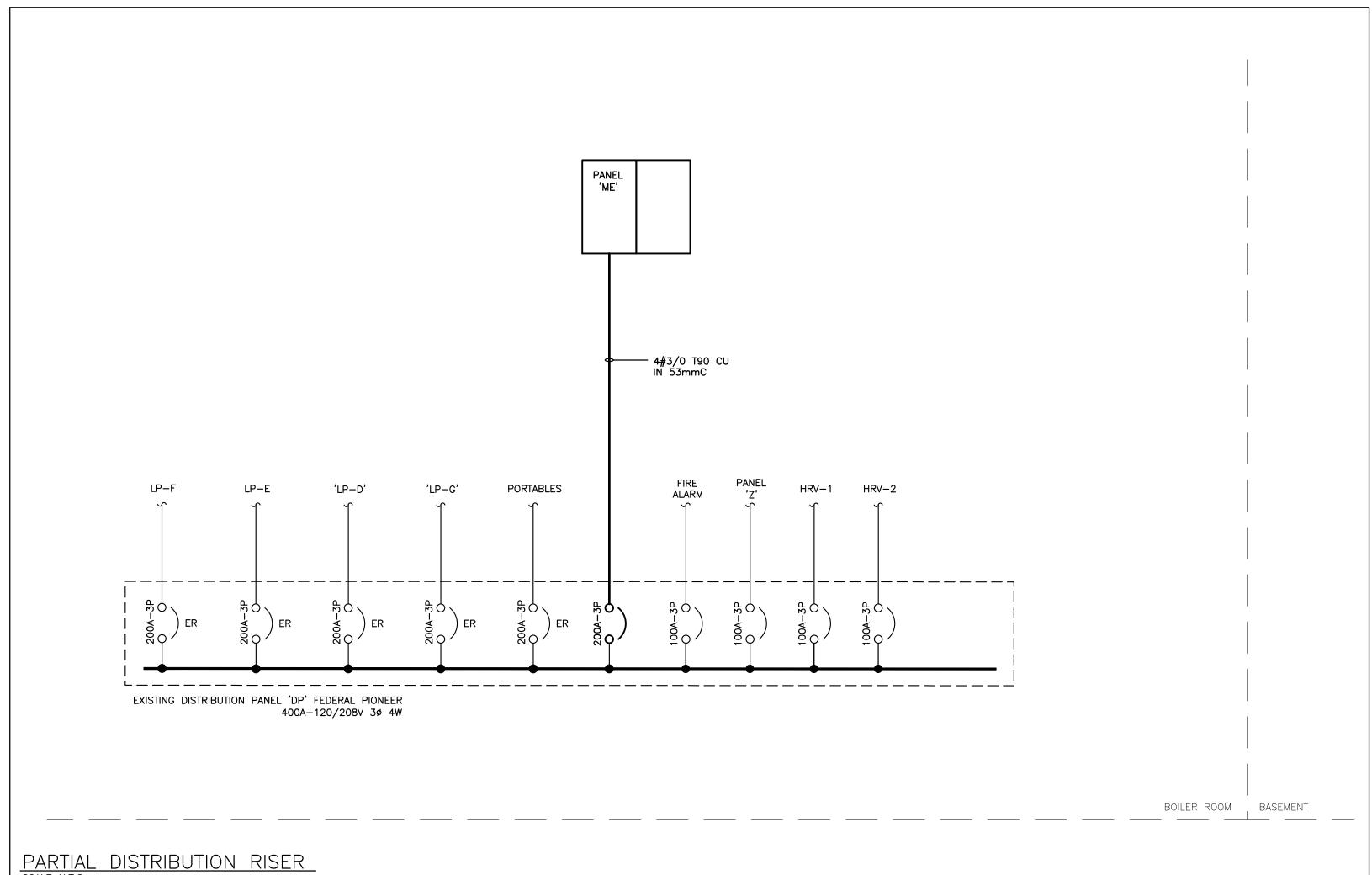
DRAWING TITLE:

SCHEDULES AND DETAILS

N2A 1B6

PROJECT NO:	SCALE:			
A20002.7	AS NOTED			
DRAWN:	DRAWING NO:	REV.		
TM				
CHECKED:				
J.J.	E102			
DATE:				
FEB 2021				





		ISTING PANEL '	F' SCHE	DULE		
	PHAS	AGE: 120/208 VOLTS E: 3P, 4W				
	NEUT	S: 225A RAL BUS:				
		NTING: SURFACE S: SQUARE D TYPE E2				
	 ER	EXISTING _	1541		EXISTING	E
5	ER	EXISTING	0 0	 	EXISTING	Ef
	ER	EXISTING _			_ _ EXISTING	Ef
5	ER	EXISTING	15A 7	8 15A	EXISTING	Ef
5	ER	EXISTING _		10	_ SPACE	Ef
	ER	EXISTING _	15A 11		_ EXISTING	Ef
5	ER	-	13	 	_ EXISTING	Ef
	ER	EXISTING _		16	_ SPACE	Ef
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ER	EXISTING	15A 17		18	SPACE	EF
ER	EXISTING	15A 19		20	SPACE	EF
ER	SPACE	21		22	SPACE	EF
ER	EXISTING	15A 23		24	SPACE	EF
ER	EXISTING	15A 25		26	SPACE	EF
ER	EXISTING	15A 27		28	SPACE	EF
ER	SPACE			30	SPACE	EF
ER	EXISTING	15A 31		32	15A EXISTING	Ef
ER		33		34	15A EXISTING	EF
ER		3P 35		36		EF
ER	EXISTING	15A 37		38	3P	Ef
ER		39		40	20A UNIV. W/R 43a REC	NE
ER		3P 41		42	15A CUSTODIAN OFFICE 40 REC	NE
ER	SPACE	43		44	15A STORAGE ROOM 42 REC.	NE
ER	SPACE	45		46	15A WASHROOM PLUMBING (8)	NE
ER	SPACE	47		48	15A UNIV. W/R 43a DOOR OPERATOR	NE
ER	SPACE	49		50	15A BOYS W/R 43 HAND DRYER	NE
ER	SPACE	51		52	15A BOYS W/R 43 REC	NE
ER	SPACE	53		54	15A CUSTODIAN CLOSET 40a REC	NE
ER	SPACE	55		56	20A ROOFTOP MAINTENANCE REC	NE
ER	SPACE	57		58	SPACE	Ef
ER	SPACE			60	SPACE	EF
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ER	SPACE	63		64	SPACE	EF
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ER	SPACE	67		68	SPACE	Ef
ER	SPACE	69		70	SPACE	Ef
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<u>DESIGNATION</u>

'ER' INDICATES EXISTING SERVICE AND BREAKER THAT SHOULD REMAIN UNTOUCHED
'SP' INDICATES EXISTING BREAKER THAT MAY BECOME SPARE DUE TO DEMOLITION. (CONFIRM ON SITE)
'RW' INDICATES EXISTING BREAKER THAT SHOULD BE REWIRED TO SERVICE DEVICES INDICATED ON PLAN
'SB' INDICATES SPARE BREAKER TO BE USED FOR NEW SERVICE INDICATED.
'NB' INDICATES NEW BREAKER AND WIRING TO SERVICE INDICATED. PROVIDE MOUNTING HARDWARE AS

'NB' INDICATES NEW BREAKER AND WIRING TO SERVICE INDICATED. PROVIDE MOUNTING HARDWARE AS REQUIRED.
'D' INDICATES EXISTING BREAKER TO BE REMOVED COMPLETE. PROVIDE FILLER PLATES AS REQUIRED.

NOTES: THIS CONTRACTOR IS TO INVESTIGATE BREAKERS AND REVISE PANEL SCHEDULES TO SUIT RENOVATION, NOTING ANY BREAKERS THAT BECOME SPARE DUE TO DEMOLITION. THIS CONTRACTOR IS ALSO TO NOTIFY THE CONSULTANT OF ANY BREAKERS THAT ARE INDICATED TO BE DEMOLISHED OR REUSED, BUT WHICH ARE IN USE BY OTHER DEVICES OR SERVICES.

							ISSUED FOR ISSUED FOR PERMIT AND TENDER	FOR CLIENT REVIEW	
							ISSUED FOR ISSU	ISSUED FOR CLIE	REVISION
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Consulting Engineers

MECHANICAL ELECTRICAL AQUATIC

55 Northland Road, Waterloo, ON N2V 1Y8
Phone: 519-725-3555 Fax: 519-725-2515
Website: deiassociates.ca

Project Number: 20152





SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON

N2A 1B6

PRAWING TITLE:

PARTIAL DISTRIBUTION RISER
AND PANEL SCHEDULES

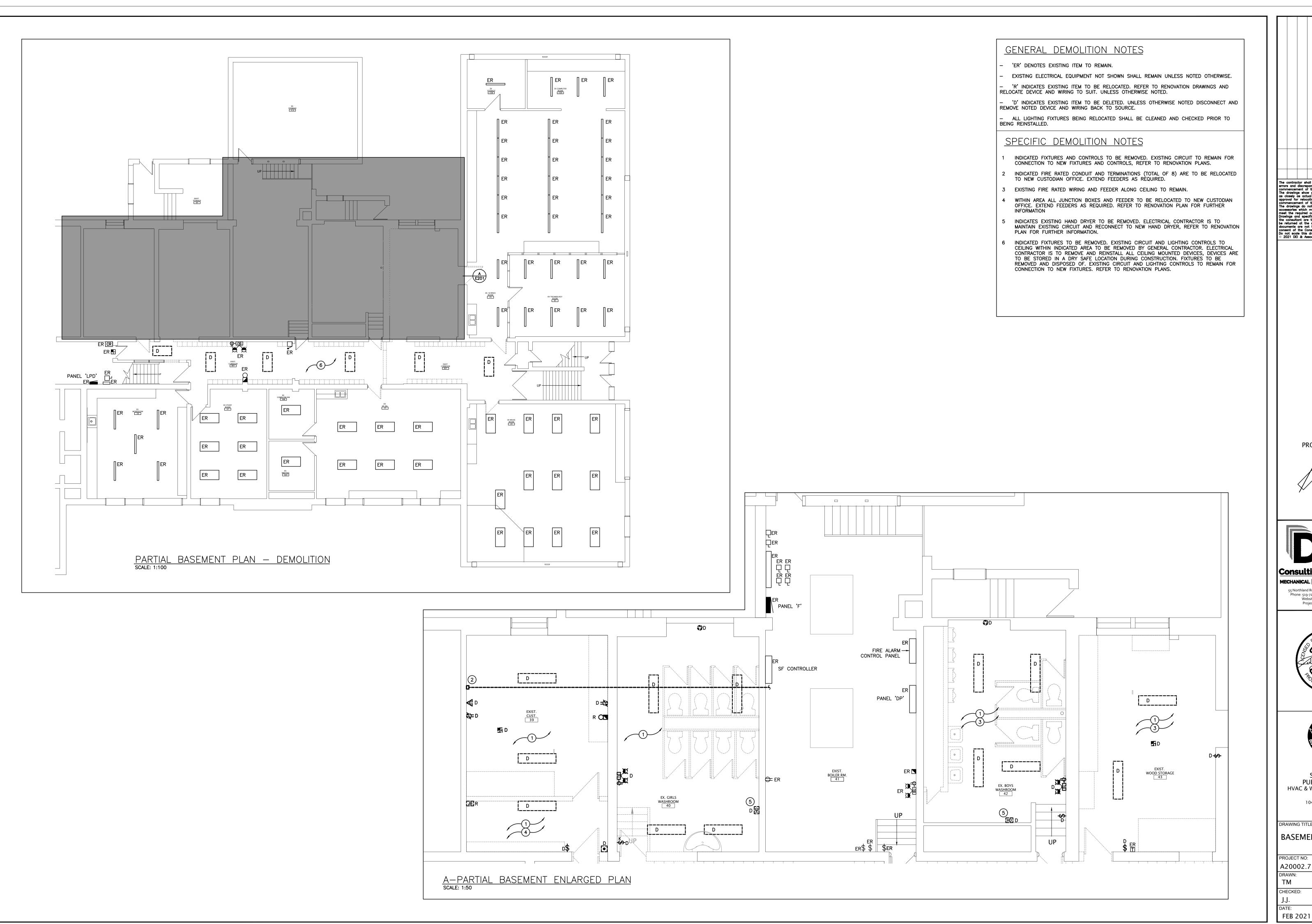
PROJECT NO: SCALE:
A20002.7 AS NOTED

DRAWN: DRAWING NO: TM

CHECKED:

J.J. E103

DATE:
FEB 2021



NO. DATE:	1 21.04	2 21.04			
	4.06	4.23			
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The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work.

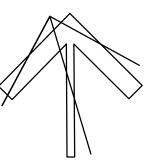
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Do not scale this drawing.

PROJECT NORTH



Consulting Engineers n

55 Northland Road, Waterloo, ON N2V 1Y8
Phone: 519-725-3555 Fax: 519-725-2515
Website: deiassociates.ca
Project Number: 20152



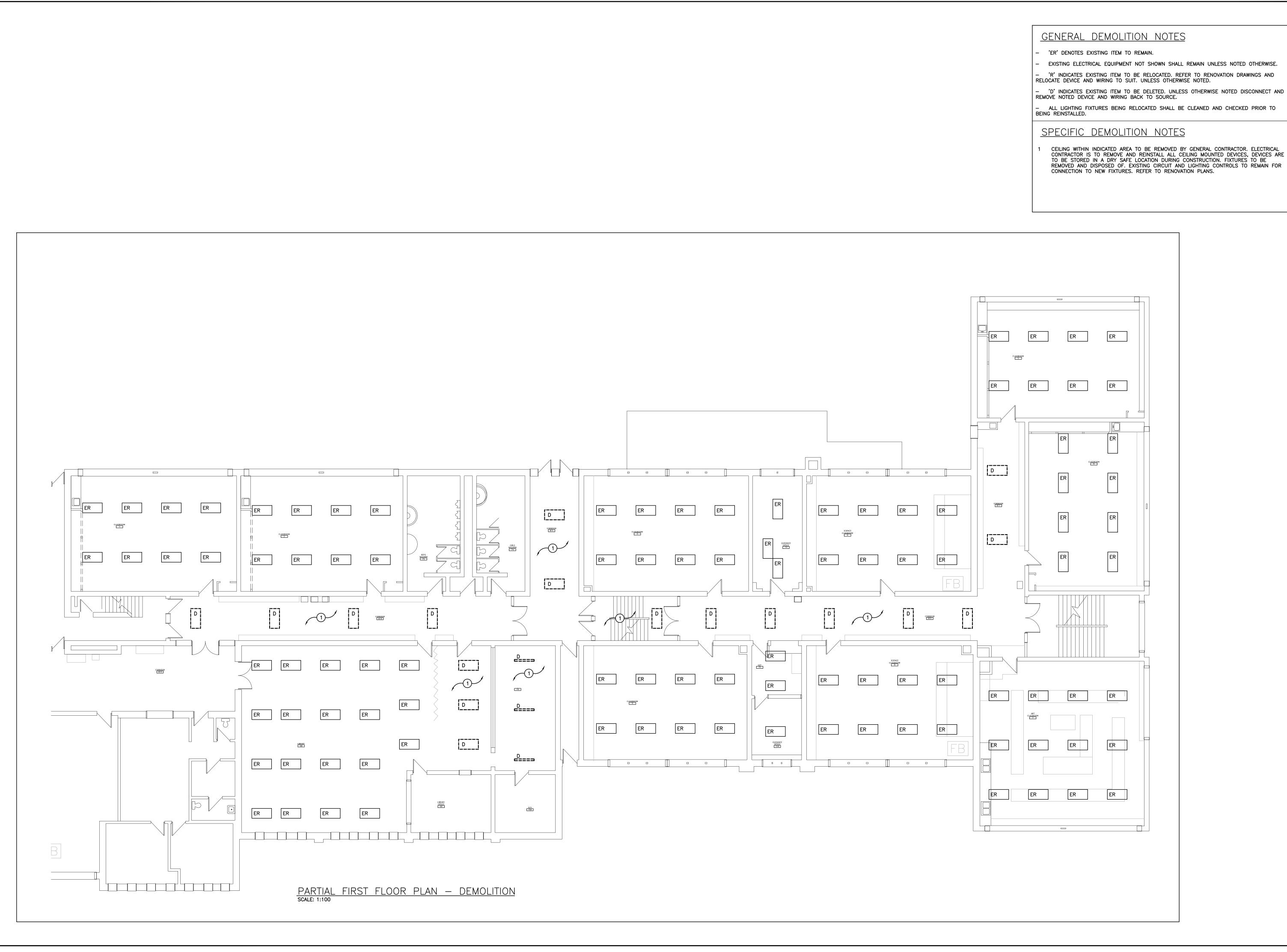


SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON N2A 1B6

BASEMENT DEMOLITION **PLANS**

AS NOTED A20002.7 CHECKED: E201



CEILING WITHIN INDICATED AREA TO BE REMOVED BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR IS TO REMOVE AND REINSTALL ALL CEILING MOUNTED DEVICES, DEVICES ARE TO BE STORED IN A DRY SAFE LOCATION DURING CONSTRUCTION. FIXTURES TO BE REMOVED AND DISPOSED OF. EXISTING CIRCUIT AND LIGHTING CONTROLS TO REMAIN FOR

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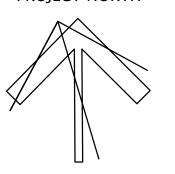
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PROJECT NORTH





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Project Number: 20152





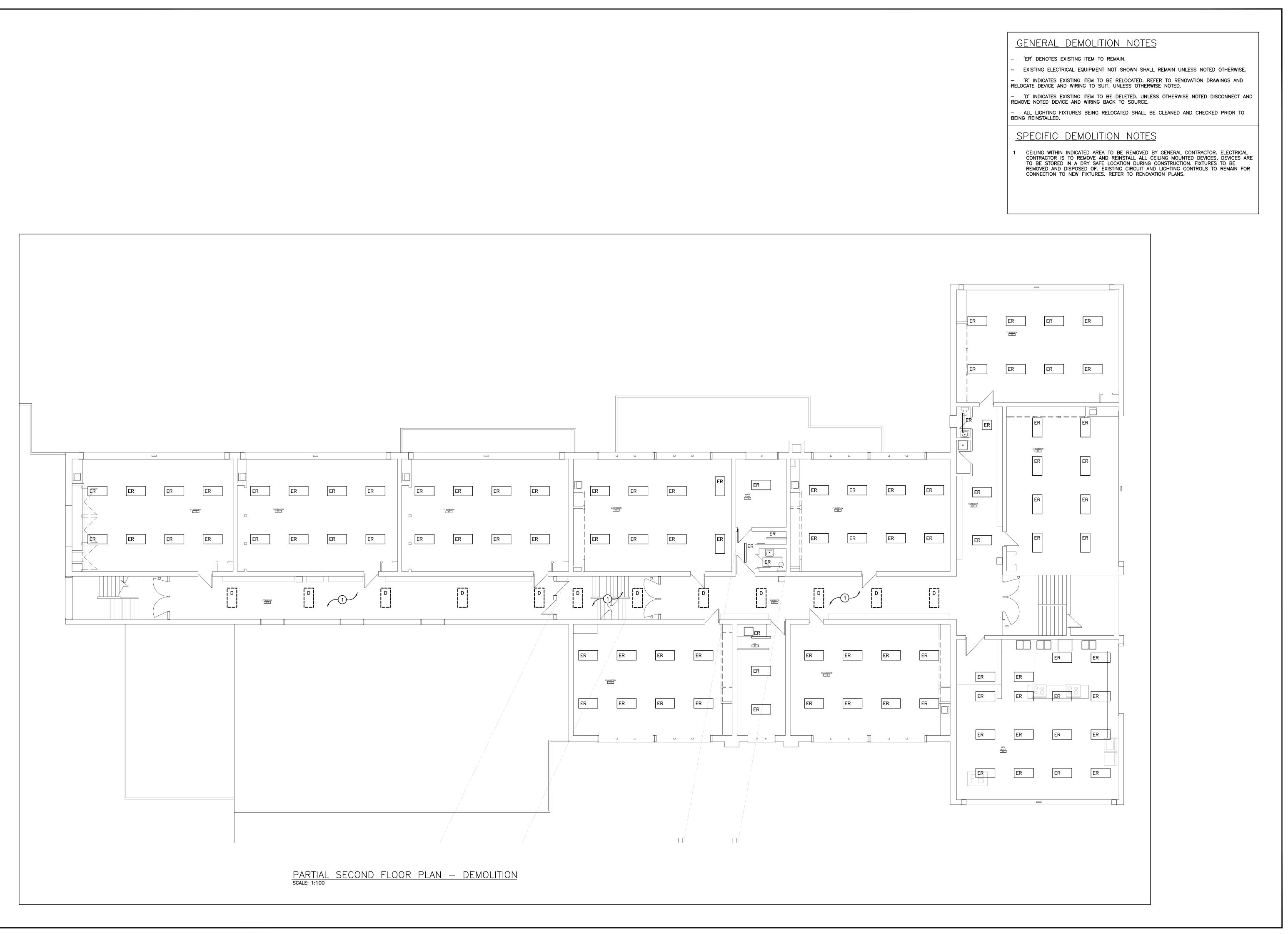
SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

> 1042 Weber Street E. Kitchener, ON N2A 1B6

FIRST FLOOR **DEMOLITION PLANS**

E202

A20002.7 AS NOTED CHECKED:



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1 21.04.06 ISSUED FOR CLIENT REVIEW

NO. DATE: REVISION

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work.

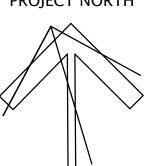
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SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener, ON N2A 1B6

DRAWING TITLE:

SECOND FLOOR DEMOLITION PLANS

PROJECT NO: SCALE:

A20002.7 AS NOTED

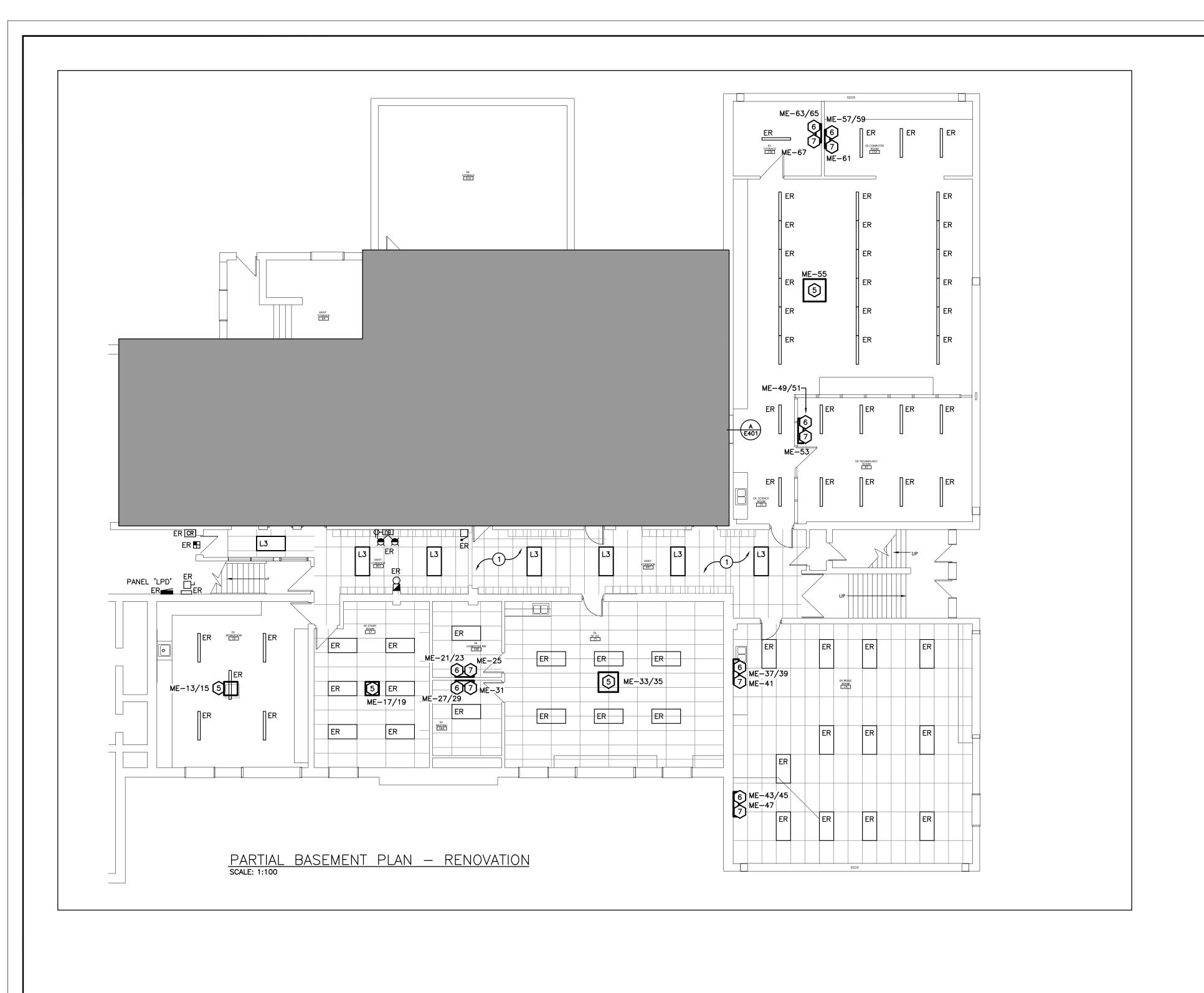
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TM

CHECKED:

FEB 2021

E203



GENERAL RENOVATION NOTES

'ER' INDICATES EXISTING ITEM TO REMAIN.

- 'R' INDICATES EXISTING ITEM IN RELOCATED POSITION.
- ALL DEVICES SHOWN ARE NEW UNLESS OTHERWISE NOTED.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- MAINTAIN SERVICE TO ALL EXISTING DEVICES TO REMAIN.
- REVISE PANEL DIRECTORIES TO SUIT CHANGES (TYPED).

SPECIFIC RENOVATION NOTES

INDICATES FIXTURES TO BE CONNECTED TO EXISTING CIRCUIT AND EXISTING CONTROLS MADE DURING DEMOLITION. CONTRACTOR IS TO SUPPLY AND INSTALL ANY ADDITIONAL SUPPORT REQUIRED FOR NEW FIXTURES. REFER TO SPECIFICATIONS.

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work.

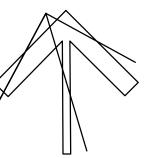
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PROJECT NORTH





55 Northland Road, Waterloo, ON N2V 1Y8 Phone: 519-725-3555 Fax: 519-725-2515 Website: deiassociates.ca Project Number: 20152





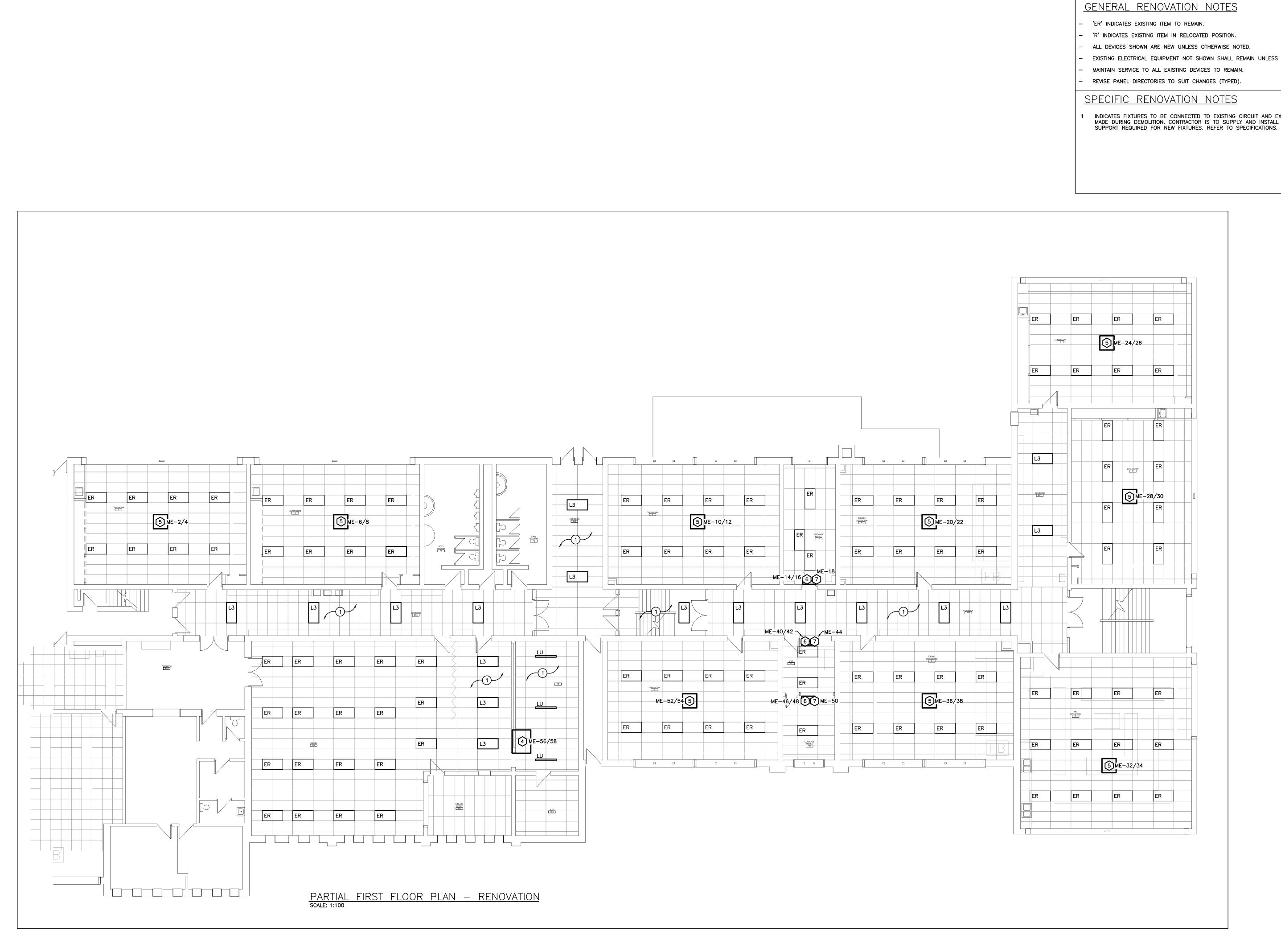
SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

> 1042 Weber Street E. Kitchener, ON N2A 1B6

BASEMENT RENOVATION PLANS

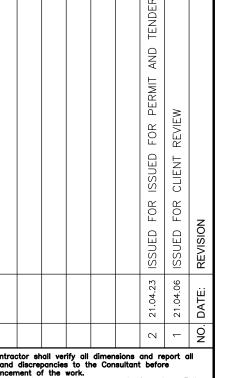
AS NOTED A20002.7 TM CHECKED:

E301 FEB 2021



EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.

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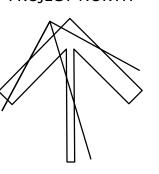
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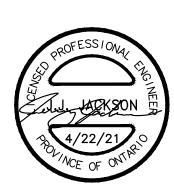
Do not scale this drawing.

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PROJECT NORTH









SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

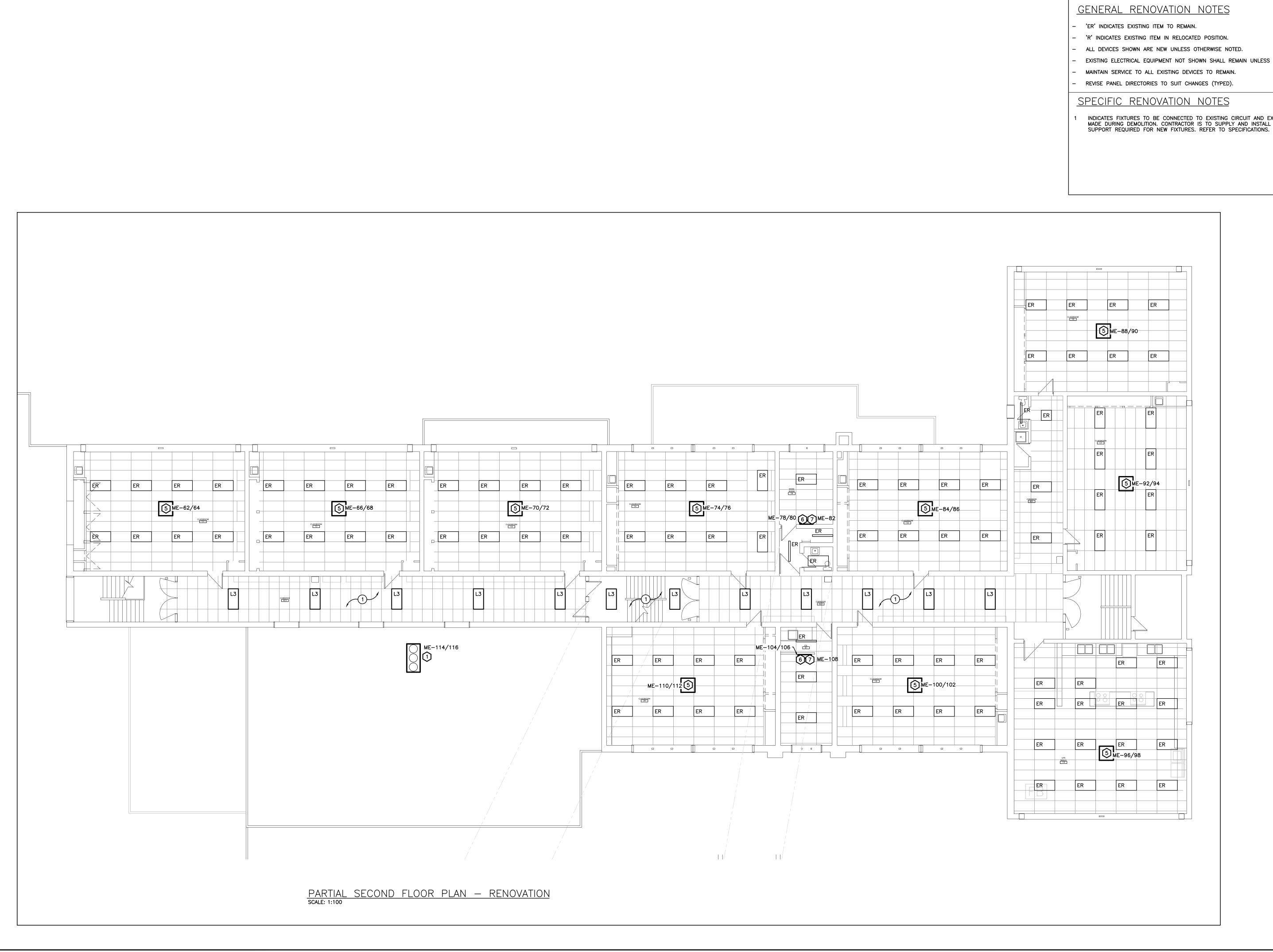
1042 Weber Street E. Kitchener, ON N2A 1B6

FIRST FLOOR RENOVATION PLANS

A20002.7 AS NOTED

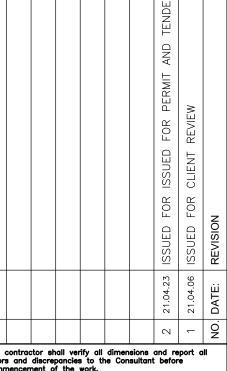
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E302 FEB 2021



EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.

INDICATES FIXTURES TO BE CONNECTED TO EXISTING CIRCUIT AND EXISTING CONTROLS MADE DURING DEMOLITION. CONTRACTOR IS TO SUPPLY AND INSTALL ANY ADDITIONAL



The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work.

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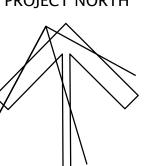
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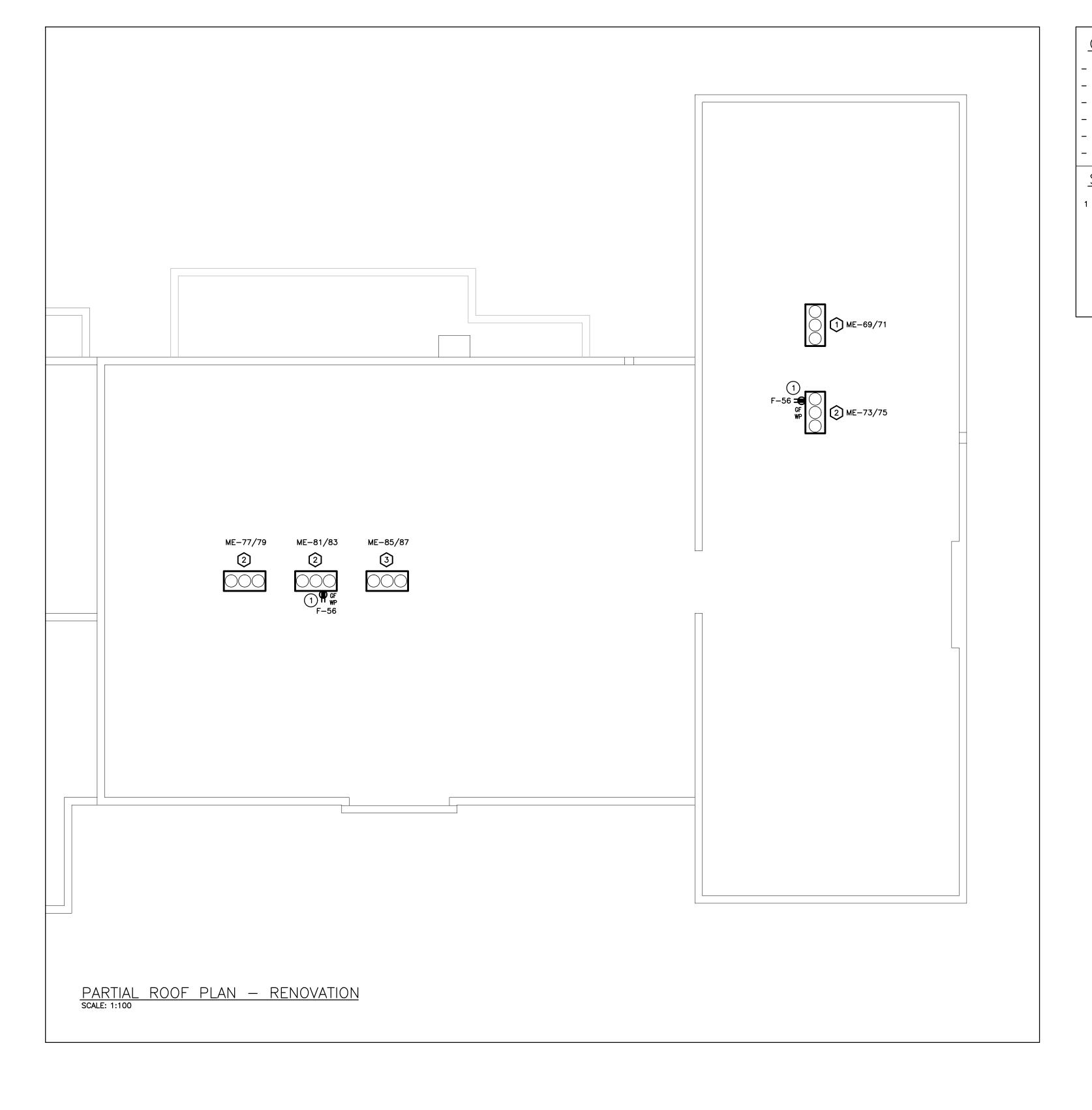
1042 Weber Street E. Kitchener, ON N2A 1B6

CHECKED:

SECOND FLOOR RENOVATION PLANS

A20002.7

AS NOTED E303



GENERAL RENOVATION NOTES

- 'ER' INDICATES EXISTING ITEM TO REMAIN.
- 'R' INDICATES EXISTING ITEM IN RELOCATED POSITION.
- ALL DEVICES SHOWN ARE NEW UNLESS OTHERWISE NOTED.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- MAINTAIN SERVICE TO ALL EXISTING DEVICES TO REMAIN.
- REVISE PANEL DIRECTORIES TO SUIT CHANGES (TYPED).

SPECIFIC RENOVATION NOTES

PROVIDE T-SLOT GROUND FAULT RECEPTACLE COMPLETE WITH "HEAVY DUTY IN-USE" WEATHER-PROOF COVER. COORDINATE PLACEMENT WITH MECHANICAL TRADE. INDICATED DEVICE IS TO BE MOUNTED ± 36 " (900mm) ABOVE FINISHED ROOF LEVEL.

2 21.04.23 ISSUED FOR ISSUED FOR PERMIT AND TENDEI
1 21.04.06 ISSUED FOR CLIENT REVIEW
NO. DATE: REVISION

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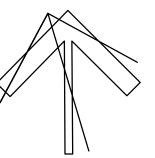
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PROJECT NORTH





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SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

> 1042 Weber Street E. Kitchener, ON N2A 1B6

DDAMING TITLE

ROOF RENOVATION PLANS

PROJECT NO: SCALE:

A20002.7 AS NOTED

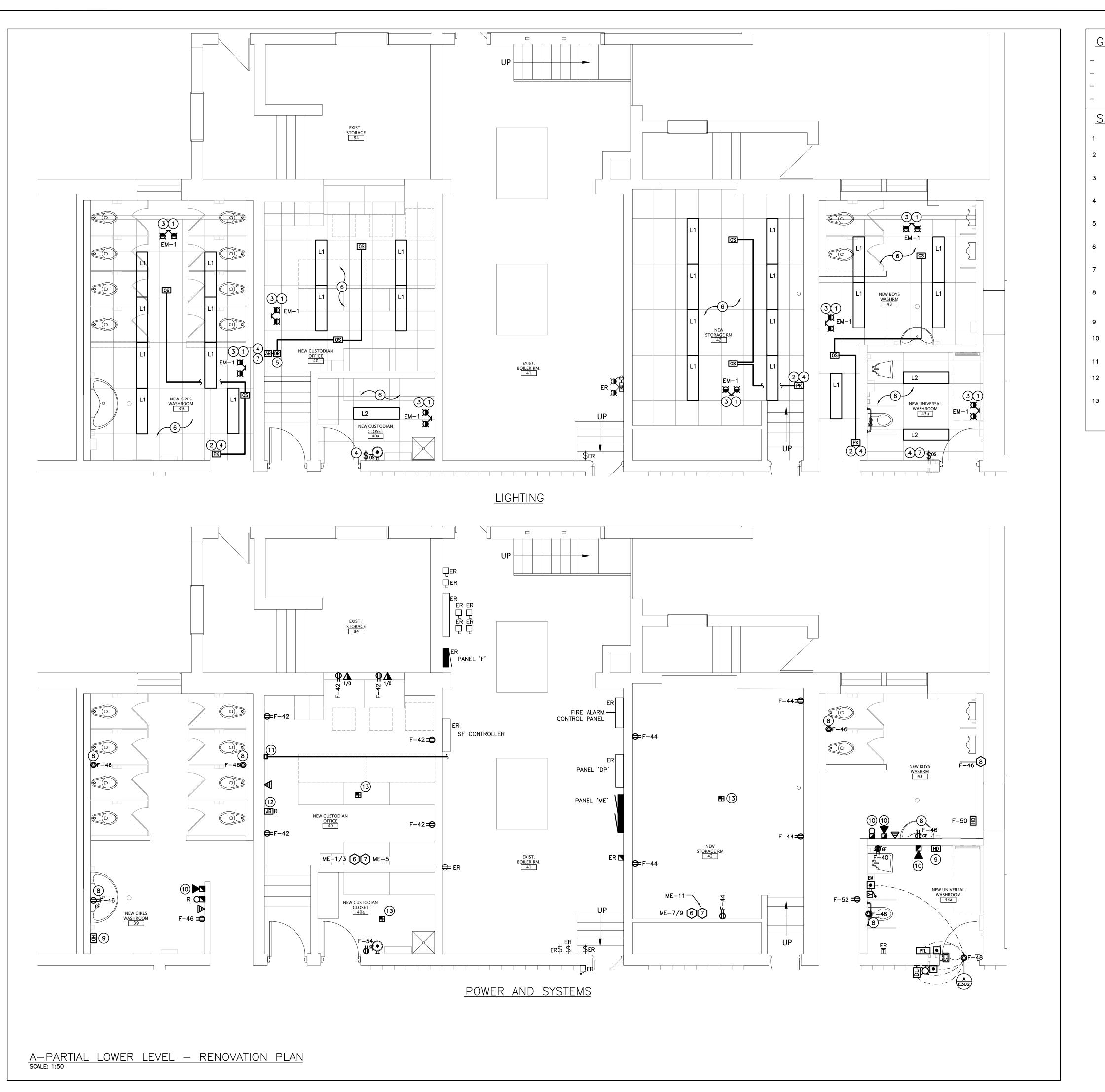
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DATE:
FEB 2021

E304



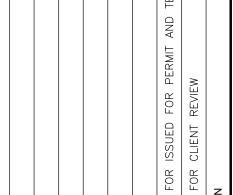
GENERAL RENOVATION NOTES

- ALL DEVICES SHOWN ARE NEW UNLESS OTHERWISE NOTED.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- MAINTAIN SERVICE TO ALL EXISTING DEVICES TO REMAIN.
- REVISE PANEL DIRECTORIES TO SUIT CHANGES (TYPED).

SPECIFIC RENOVATION NOTES

- INDICATED DEVICE IS TO BE CEILING MOUNTED. PROVIDE ADEQUATE SUPPORT.
- INDICATES POWER PACK INSTALLED WITHIN ACCESSIBLE CEILING SPACE FOR CONTROL OF NOTED MOTION SENSOR(S). REFER TO LIGHTING CONTROL DETAILS.
- CONNECT NEW EMERGENCY BATTERY UNIT TO UNSWITCHED SIDE OF EXISTING LIGHTING BRANCH CIRCUIT WHICH SERVES THIS AREA.
- 4 RE-WORK EXISTING LIGHTING CIRCUIT WITHIN THIS ROOM TO SUIT NEW SWITCHING ARRANGEMENT/CONTROLS.
- INDICATES DIGITAL ROOM CONTROLLER INSTALLED WITHIN ACCESSIBLE CEILING SPACE FOR CONTROL OF NOTED MOTION SENSOR(S). REFER TO LIGHTING CONTROL DETAILS.
- CONNECT NEW LIGHTING FIXTURES IN THIS AREA TO EXISTING LIGHTING BRANCH CIRCUIT AND NEW CONTROLS AS NOTED.
- INDICATES NEW WALL MOUNT STATION DEVICE. FISH PARTITION OR FEED TO SURFACE BOX WITH WIREMOLD PER SPECS.
- INDICATES 120V FEED TO 24VDC STEP DOWN TRANSFORMER MOUNTED ABOVE CEILING OR AT A HIGH LEVEL FOR AUTOMATIC PLUMBING FIXTURE(S). COORDINATE WITH MECHANICAL
- 9 CONNECT HAND DRYER TO EXISTING CIRCUIT, EXTEND CIRCUIT AS REQUIRED.
- 10 INDICATES NEW FIRE ALARM DEVICES TO BE INSTALLED ON SIGNAL CIRCUIT. CONTRACTOR IS TO PROVIDE BOOSTER MODULE FOR NEW SIGNAL DEVICE(S).
- 11 INDICATES NEW LOCATION OF FIRE RATED CONDUIT AND TERMINATIONS (TOTAL OF 8).
- 12 INDICATES LOCATION OF NEW JUNCTION BOX AND ASSOCIATED FEEDERS REMOVED FROM OLD CUSTODIAN ROOM.
- 13 INDICATES NEW HEAT DETECTOR TO BE CONNECTED TO EXISTING INITIATING CIRCUIT.

ALL RECEPTACLES ARE TO BE TAMPER RESISTANT TYPE PER 2019 OESC CODE UPDATES - RULE 26-706.



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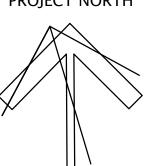
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PROJECT NORTH



Consulting Engineers

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Phone: 519-725-3555 Fax: 519-725-2515
Website: deiassociates.ca
Project Number: 20152





SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM UPGRADE**

> 1042 Weber Street E. Kitchener, ON N2A 1B6

ENLARGED LOWER LEVEL RENOVATION PLAN

AS NOTED A20002.7 CHECKED:

E401

ELECTRICAL SPECIFICATION

GENERAL NOTES

- .1 PROVIDE LABOUR MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE INSTALLATION WITH QUALITY WORKMANSHIP ACCEPTABLE TO THE OWNER, ARCHITECT AND CONSULTANT.
- .2 OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES AND OTHER COSTS INCURRED WITH THIS WORK. FILE ALL PLANS. OBTAIN NECESSARY APPROVALS, CERTIFICATES AND INSPECTIONS. SUBMIT ALL FINAL CERTIFICATES TO THE CONSULTANT.
- .3 COMPLY WITH RULES AND RECOMMENDATIONS OF THE BOARD OF UNDERWRITERS, ELECTRICAL SAFETY AUTHORITY, THE CANADIAN STANDARDS ASSOCIATION AND ALL REQUIREMENTS OF THE LOCAL UTILITY.
- .4 VISIT THE SITE BEFORE SUBMITTING TENDERS TO EVALUATE ANY SITE CONDITIONS THAT MIGHT ARISE, INCLUDE ALL SITE CONDITIONS IN TENDER, EXTRAS WILL NOT BE ACCEPTED UNLESS BELIEVED TO BE REASONABLE BY THE OWNER AND
- .5 CUTTING AND PATCHING SHALL BE BY THE CONTRACTOR REQUIRING TO INSTALL THE SERVICE.
- .6 THE DRAWINGS ARE DIAGRAMMATIC, THE SERVICES SHALL BE INSTALLED TO CONSERVE HEADROOM AND INTERFERE AS LITTLE AS POSSIBLE WITH THE FREE USE OF THE SPACES THROUGH WHICH THEY PASS.
- .7 SUBMIT COPIES OF SHOP DRAWINGS PDF FILES VIA EMAIL FOR ALL MAJOR EQUIPMENT. THESE WILL BE REVIEWED BY THE
- CONSULTANT. RESUBMIT AS OFTEN AS MAY BE FOUND NECESSARY. .8 PROVIDE ALL NECESSARY PROTECTION FOR FINISHED OR UNFINISHED WORK. ALL OPENINGS IN CONDUITS, DUCTS AND EQUIPMENT
- .9 MAINTAIN INSURANCE TO FULLY PROTECT THE CONTRACTOR, OWNER AND CONSULTANT FROM ANY AND ALL CLAIMS SUCH AS UNDER THE WORKMEN'S COMPENSATION ACT, ETC. POST PROJECT NOTIFICATION AT THE SITE IN ACCORDANCE WITH THE MINISTRY
- .10 PROVIDE STRUCTURAL SUPPORTS, PLATFORMS, SUPPORTING RODS, HANGERS, INSERTS AND BRACKETS FOR EQUIPMENT AND SERVICES. DO NOT SUPPORT SERVICES FROM STEEL DECK.
- .11 INSTRUCT THE OWNER'S STAFF IN THE CARE, MAINTENANCE AND OPERATION OF THE SYSTEMS.

SHALL BE CAPPED TO ENSURE SERVICES ARE KEPT CLEAN WHEN NOT IN USE.

- .12 WARRANTY ALL LABOUR, MATERIAL AND EQUIPMENT FOR A PERIOD OF TWO (2) YEARS AFTER FINAL ACCEPTANCE OF SYSTEM.
- .13 COORDINATE WITH OTHER CONTRACTORS INSTALLING EQUIPMENT OR MATERIAL AND ARRANGE EQUIPMENT IN PROPER RELATION WITH APPARATUS OF ALL OTHER TRADES.
- .14 PROVIDE LAMICOID TAGS FOR IDENTIFICATION OF NEW EQUIPMENT ADDED.
- .15 MOUNTING HEIGHTS SHALL BE AS FOLLOWS FROM FINISHED FLOOR TO CENTERLINE OF DEVICE/EQUIPMENT (UNLESS OTHERWISE
- SWITCHES, DIMMERS AND SPEED CONTROLLERS: 1100mm (44")
- WALL RECEPTACLES:
- ABOVE TOP OF COUNTERS: 100mm (4")
- IN MECHANICAL/ELECTRICAL ROOMS: 1100mm (44") (GANG WITH SWITCH). FIRE ALARM STROBES: 2250mm (7'-6")
- .16 ALL AREAS NOT AFFECTED BY RENOVATION OR DEMOLITION SHALL REMAIN AS PRESENTLY INSTALLED UNLESS OTHERWISE NOTED.
- .17 ALL EXISTING ELECTRICAL DEVICES, OUTLET BOXES, ETC., NOT SHOWN ON DRAWINGS OR MENTIONED IN THE FOLLOWING NOTES AND INSTALLED IN WALLS SLATED FOR DEMOLITION, SHALL BE DISCONNECTED AND REMOVED COMPLETELY IN ALL RESPECTS.
- .18 SUBMIT ONE COPY OF OPERATING AND MAINTENANCE INSTRUCTIONS IN A THREE RING BINDER LABELED FOR THE PROJECT COMPLETE WITH ITEMIZED SECTIONS CONTAINING PROJECT DATA, SHOP DRAWINGS, ETC. UPON ACCEPTANCE OF THE OPERATION AND MAINTENANCE MANUAL BY THE CONSULTANT PROVIDE TWO ADDITIONAL COPIES BOUND IN SEPARATE THREE RING BINDERS. A PDF FILE OF THE ENTIRE MANUAL IS TO BE PROVIDED ON A USB STICK. ONLY ONE USB STICK IS TO BE PROVIDED CONTAINING BOTH THE APPROVED MANUALS AND RECORD DRAWINGS.
- .19 CONTRACTOR SHALL PROVIDE 2 SETS OF REPRODUCIBLE ELECTRICAL DRAWINGS. MARK THEREON ALL CHANGES AS WORK PROGRESSES AND AS CHANGES OCCUR. THIS SHALL INCLUDE FIELD AND CONTRACT CHANGES TO ELECTRICAL SYSTEMS. IDENTIFY EACH DRAWING IN LOWER RIGHT HAND CORNER IN LETTERS AT LEAST 3mm (1/8") HIGH AS FOLLOWS: - "RECORD DRAWINGS: THIS DRAWING HAS BEEN REVISED TO SHOW ELECTRICAL SYSTEMS AS INSTALLED. (SIGNATURE OF CONTRACTOR)(DATE)". SUBMIT HARD COPY TO CONSULTANT FOR APPROVAL. WHEN RETURNED, MAKE CORRECTIONS (IF ANY) AS DIRECTED. ONCE APPROVED, SUBMIT COMPLETED REPRODUCIBLE PAPER RECORD DRAWINGS AS WELL AS A SCANNED PDF COPY FILE ON USB STICK WITH
- .20 THE CONTRACTOR WILL INCLUDE REDLINES FOR EACH AND EVERY ELECTRICAL DRAWING FOR DEI & ASSOCIATES INC. TO CAD THE RECORD DRAWINGS. THE CAD DRAWING FILES WILL BE PROVIDED TO THE OWNER AS PART OF THE MAINTENANCE MANUALS.

BASIC MATERIALS

- .1 JUNCTION, OUTLET AND PULL BOXES MUST BE APPROVED TO SUIT INSTALLATION METHODS AND ENVIRONMENT.
- .2 CONDUIT MUST BE CONCEALED UNLESS INSTALLED IN SERVICE OR STORAGE ROOMS.
- .3 CONDUIT MUST BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING LINES IN A NEAT AND WORKMANLIKE MANNEL
- .4 ALL FEEDER AND BRANCH CIRCUIT WIRING MUST BE COPPER, T90 RATING/STYLE RUN IN EMT CONDUIT WITH INTERNAL INSULATED GREEN GROUND WIRE UNLESS NOTED OTHERWISE. MINIMUM WIRE SIZE SHALL BE #12 AND MINIMUM CONDUIT SIZE SHALL BE
- .5 AC90 CABLE MAY BE USED FOR BRANCH CIRCUIT WIRING IN STEEL STUD WALLS AND "DROPS" IN T-BAR CEILING AREAS TO LIGHT FIXTURES AND FIRE ALARM DEVICES. LENGTH OF DROP MUST BE LIMITED TO 8'-0" (2400mm).
- .6 WHERE DEVICES ARE TO BE INSTALLED ON EXISTING WALLS IN FINISHED AREA, WHICH CANNOT BE FISHED, INSTALL FEEDS IN A SURFACE METAL RACEWAY EQUAL TO WIREMOLD V700 SERIES.
- .7 COLOUR CODE CONDUITS, BOXES AND METALLIC SHEATHED CABLES.
- .8 CODE WITH PLASTIC TAPE OR PAINT AT POINTS WHERE CONDUIT OR CABLE ENTERS WALL, CEILING, OR FLOOR, AND AT 15m(45')
- .9 COLOUR BANDS MUST BE 25mm(1") WIDE AND CODED AS FOLLOWS FOR NOTED SYSTEMS. SYSTEM UP TO 208V

FIRE ALARM

.10 THIS CONTRACTOR MUST PAINT ALL SYSTEM JUNCTION BOXES AND COVERS IN CONFORMANCE WITH THE ABOVE SCHEDULE.

DRAW BREAKDOWN

- .1 THIS CONTRACTOR MUST SUBMIT A BREAKDOWN OF THE TENDER PRICE INTO CLASSIFICATIONS TO THE SATISFACTION OF THE CONSULTANT, WITH THE AGGREGATE OF THE BREAKDOWN TOTALING THE TOTAL CONTRACT AMOUNT. EACH ITEM MUST BE BROKEN OUT INTO MATERIAL AND LABOUR COSTS. PROGRESS CLAIMS, WHEN SUBMITTED ARE TO BE ITEMIZED AGAINST EACH ITEM OF THE DRAW BREAKDOWN. THIS SHALL BE DONE IN TABLE FORM SHOWING CONTRACT AMOUNT, AMOUNT THIS DRAW, TOTAL TO DATE, % COMPLETE AND BALANCE.
- .2 BREAKDOWN SHALL BE AS FOLLOWS:
- PERMITS AND FEES MOBILIZATION (MAXIMUM 1%)
- DEMOLITION **BRANCH CONDUITS**
- BRANCH WIRING LIGHTING FIXTURES
- FIRE ALARM SYSTEM DEVICES
- WIRING FOR MECHANICAL EQUIPMENT HAND DRYERS
- .10 AUXILIARY SYSTEM ROUGH-INS .11 CONTRACT CLOSEOUT (MINIMUM 3% BUT NO LESS THAN \$1,500.00)
- .3 THE BREAKDOWN MUST BE APPROVED BY THE CONSULTANT PRIOR TO SUBMISSION OF THE FIRST DRAW.
- .4 BREAKDOWNS NOT COMPLYING TO THE ABOVE WILL NOT BE APPROVED.
- .5 BREAKDOWN MUST INDICATE TOTAL CONTRACT AMOUNT.
- .6 MOBILIZATION AMOUNT MAY ONLY BE DRAWN WHEN ALL REQUIRED SHOP DRAWINGS HAVE BEEN REVIEWED BY THE CONSULTANT.

WIRING DEVICES

- .1 GENERAL PURPOSE AC SWITCHES MUST CONFORM TO CSA C22.2 NO. 111 (LATEST EDITION).
- .2 15 OR 20 A, 120 V, SINGLE POLE, DOUBLE POLE, THREE-WAY, OR FOUR-WAY SWITCHES.
- .3 INSTALL SWITCHES IN GANG TYPE OUTLET BOX WHEN MORE THAN ONE SWITCH IS REQUIRED IN ONE LOCATION.
- .4 RECEPTACLES, PLUGS, AND OTHER SIMILAR WIRING DEVICES MUST CONFORM TO CSA C22.2 NO. 42 (LATEST EDITION).
- .5 DUPLEX RECEPTACLES, CSA TYPE 5-15 R, 125 V, 15 A, U GROUND, WITH THE FOLLOWING FEATURES: UREA MOLDED HOUSING WITH COLOUR AS SELECTED BY ARCHITECT.
- SUITABLE FOR NO. 10 AWG FOR BACK AND SIDE WIRING. BREAK-OFF LINKS FOR USE AS SPLIT RECEPTACLES.
- EIGHT BACK WIRED ENTRANCES, FOUR SIDE WIRING SCREWS TRIPLE WIRE CONTACTS AND RIVETED GROUNDING CONTACTS
- .6 ACCEPTABLE MATERIALS:
 - TAMPER RESISTANT RECEPTACLE: HUBBELL CAT. #BR15TR
 - TAMPER RESISTANT T-SLOT RECEPTACLE: HUBBELL CAT. #BR20TR TAMPER RESISTANT GROUND FAULT PROTECTED RECEPTACLE: HUBBELL CAT. #GFTR15
 TAMPER RESISTANT GROUND FAULT PROTECTED T—SLOT RECEPTACLE: HUBBELL CAT. #GFTR20
- .7 OTHER RECEPTACLES WITH AMPACITY AND VOLTAGE AS INDICATED. COLOUR BY ARCHITECT.
- .8 ACCEPTABLE ALTERNATE MANUFACTURERS INCLUDE: PASS & SEYMOUR
- .9 WALL MOUNTED OCCUPANCY SENSORS (PASSIVE TECHNOLOGY), OCCUPANCY SENSORS USED IN STORAGE AND SERVICE ROOMS
- WATTSTOPPER CAT. #PW-100-VOLT-X (COLOUR BY ARCHITECT SENSOR SWITCH CAT. #WSD-VOLT-X (COLOUR BY ARCHITECT) EQUAL BY COOPER CONTROLS
- .10 WHERE NOTED ON THE DRAWINGS, THE WALL MOUNTED SWITCH STYLE OCCUPANCY SENSOR USED IN ADMINISTRATIVE OFFICES AND SEMINAR/MEETING ROOMS SHALL BE A DUAL TECHNOLOGY WITCH WITH EITHER SINGLE OR DOUBLE RELAY (CIRCUIT) AS
- NOTED ON THE DRAWINGS. COLOUR TO SUIT ARCHITECT. SWITCHES SHALL BE EITHER: SINGLE RELAY (CIRCUIT): WATTSTOPPER CAT. #DW-100 DUAL RELAY (CIRCUIT): WATTSTOPPER CAT. #DW-200
- APPROVED EQUAL: .1 SENSOR SWITCH COOPER CONTROLS

NOTE: FOR DUAL RELAY SWITCHES, PROGRAM THE SENSORY FOR 15 MINUTE OFF DELAY, ENABLED WAL-THRU, AUDIBLE ALERT ENABLED, RELAY 1 ON MODE: AUTO ON, RELAY 2 ON MODE: MANUAL ON.

- .11 PROVIDE OTHER OCCUPANCY SENSORS TO SUIT THE DETAIL(S) ON THE DRAWINGS.
- .12 ALL SENSORS SHALL BE SET TO 5 MINUTES "DELAY TO OFF" UNLESS OTHERWISE DIRECTED.

.13 OCCUPANCY SENSORS: .1 INSTALL POWER PACKS IN ACCESSIBLE MAINTENANCE AREAS.

- .2 PROVIDE ACCESS DOORS IF POWER PACKS ARE INSTALLED ABOVE DRYWALL CEILINGS.
- .3 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND AIM SENSORY IN THE CORRECT LOCATION REQUIRED FOR COMPLETE AND PROPER COVERAGE WITHIN THE RANGE OF COVERAGE AS PER THE MANUFACTURER'S RECOMMENDATIONS. THE LOCATIONS AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE ROOMS WHICH ARE TO BE PROVIDED WITH SENSORS. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS IF REQUIRED TO PROPERLY AND COMPLETELY COVER THE RESPECTIVE ROOMS.
- .4 IT IS THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A PRE-INSTALLATION MEETING WITH THE MANUFACTURER'S FACTORY AUTHORIZED REPRESENTATIVE, AT THE FACILITY, TO VERIFY PLACEMENT TO SENSORS AND INSTALLATION CRITERIA.
- .5 THE CONTRACTOR SHALL ALSO PROVIDE THE ON-SITE TRAINING NECESSARY TO FAMILIARIZE THE OWNER'S PERSONNEL WITH THE OPERATION, USE, ADJUSTMENT AND PROBLEM SOLVING DIAGNOSIS OF THE OCCUPANCY SENSING DEVICES SYSTEMS.
- .6 UPON COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMPLETELY COMMISSIONED BY THE MANUFACTURER'S FACTORY AUTHORIZED TECHNICIAN WHO WILL VERIFY ALL ADJUSTMENTS AND SENSOR PLACEMENT TO ENSURE A TROUBLE-FREE OCCUPANCY-BASED LIGHTING CONTROL. SUBMIT COMMISSIONING REPORT WITH CLOSE-OUT DOCUMENTS.
- .14 INSTALL DEVICES IN GANG TYPE OUTLET BOX WHEN MORE THAN ONE DEVICE IS REQUIRED IN ONE LOCATION.
- .15 SHEET STEEL UTILITY BOX COVER FOR WIRING DEVICES INSTALLED IN SURFACE MOUNTED UTILITY BOXES.
- .16 STAINLESS STEEL, VERTICALLY BRUSHED, 1mm THICK COVER PLATES FOR WIRING DEVICES MOUNTED IN FLUSH-MOUNTED OUTLET
- .17 SHEET METAL COVER PLATES FOR WIRING DEVICES MOUNTED IN SURFACE—MOUNTED FS OR FD TYPE CONDUIT BOXES.
- .18 PROTECT STAINLESS STEEL COVER PLATE FINISH WITH PAPER OR PLASTIC FILM UNTIL PAINTING AND OTHER WORK IS FINISHED.
- .19 INSTALL SUITABLE COMMON COVER PLATES WHERE WIRING DEVICES ARE GROUPED.

FIRE ALARM SYSTEMS

.1 INSTALLATION OF FIRE ALARM DEVICES MUST CONFORM TO ULC-S524 (LATEST EDITION).

OPEN CONTACT FOR SINGLE STAGE, ENGLISH SIGNAGE.

- .2 ALL WIRING MUST BE COLOUR CODED, SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND CONFORM TO THE LATEST EDITION OF THE ELECTRICAL SAFETY CODE.
- .3 ALL NEW FIRE ALARM DETECTION AND SIGNALING DEVICES ADDED DUE TO RENOVATIONS AND ADDITIONS SHALL BE CONNECTED TO EXISTING LOCAL ZONE OR NEW ZONE AS INDICATED.
- .4 EQUIPMENT SHALL BE SUPPLIED AND INSTALLED AS FOLLOWS;
- AUTOMATIC ALARM INITIATING DEVICES .1 MANUAL ALARM STATIONS: PULL LEVER STYLE, WALL MOUNTED SEMI-FLUSH TYPE, NON-CODED SINGLE POLE NORMALLY
- THERMAL FIRE DETECTORS: FIXED TEMPERATURE, NON-RESTORABLE, RATED 57C OR 88C AS INDICATED
- THERMAL FIRE DETECTORS: COMBINATION FIXED TEMPERATURE AND RATE OF RISE, NON-RESTORABLE FIXED TEMPERATURE ELEMENT, SELF-RESTORING RATE OF RISE, FIXED TEMPERATURE 57C OR 88C, RATE OF RISE 8.3C PER
- .4 SMOKE DETECTOR: CEILING MOUNTED, PHOTO ELECTRIC TYPE, VISUAL ALARM INDICATOR, COMPLETE WITH RELAY BASE
- .5 SMOKE DETECTOR: PHOTO ELECTRIC TYPE AIR DUCT TYPE WITH SAMPLING TUBES WITH PROTECTIVE HOUSING. .1 PLUG-IN TYPE WITH FIXED BASE.
- .2 WIRE-IN BASE ASSEMBLY WITH INTEGRAL RED ALARM LED, AND TERMINALS FOR REMOTE ALARM LED.
- AUDIBLE/VISUAL SIGNAL DEVICES .1 STROBE: SEMI-RECESSED, 24VDC OPERATION, COMPLETE WITH SELECTABLE 15/30/75/110 CANDELA OUTPUT (UNLESS OTHERWISE NOTED SET AT 75 CD), SYNCHRONIZED STROBE, RED FINISH, FM AND ULC LISTED. SUITABLE FOR
- .2 250mm (10") BELLS: SURFACE MOUNTED BELL, VIBRATION TYPE 24VDC, 10", 94DBA RATING AT 3000mm (10'), RED FINISH, FM AND ULC LISTED.
- SIGNAL DEVICES WITH INTEGRAL STROBE LIGHTS IN HIGH ABUSE AREAS (I.E. GYMNASIUM, CHANGE ROOMS, ETC.)
- MUST BE PROVIDED WITH PROTECTIVE WIREGUARDS. .2 ANY SURFACE MOUNTED SIGNAL DEVICES MUST BE PROVIDED WITH SUITABLE BACKBOXES SUPPLIED BY THE
- .3 END-OF-LINE DEVICES .1 END-OF-LINE DEVICES TO CONTROL SUPERVISORY CURRENT IN ALARM CIRCUITS AND SIGNALING CIRCUITS, SIZED TO ENSURE CORRECT SUPERVISORY CURRENT FOR EACH CIRCUIT. OPEN, SHORT OR GROUND FAULT IN ANY CIRCUIT WILL ALTER SUPERVISORY CURRENT IN THAT CIRCUIT, PRODUCING AUDIBLE AND VISIBLE ALARM AT MAIN CONTROL PANEL
- AND REMOTELY AT ANNUNCIATORS. .5 ONCE INSTALLATION IS COMPLETE THE MANUFACTURER'S REPRESENTATIVE MUST MAKE AN INSPECTION OF THE DEVICES INSTALLED.
- .6 THIS TEST MUST CONFORM TO THE ONTARIO BUILDING CODE AND THE LATEST EDITION OF ULC CAN4-S537.
- .7 ALL COSTS ASSOCIATED WITH THIS INSPECTION BY THE CONTRACTOR AND MANUFACTURER MUST BE CARRIED IN THE TENDER
- .8 UPON SUCCESSFUL COMPLETION OF TESTING THE MANUFACTURER MUST SUBMIT TO THE CONTRACTOR AND CONSULTANT: A CERTIFICATE OF VERIFICATION
- FIELD TECHNICIAN VERIFICATION SHEETS FOR EACH DEVICE VERIFIED (INCLUDE COPIES OF SAME IN MAINTENANCE MANUALS) .9 THE TEST RESULTS ARE TO BE SUBMITTED TO THE CONSULTANT FOR REVIEW PRIOR TO ISSUING TO OWNER'S REPRESENTATIVES

- .1 HAND DRYERS WHERE NOTED ON THE DRAWINGS ARE TO BE SUPPLIED AND INSTALLED BY THIS DIVISION
 - WITH THE FOLLOWING FEATURES: .1 SURFACE MOUNTING.

AND/OR AUTHORITIES HAVING JURISDICTION.

- WHITE FINISH WITH AUTOMATIC ACTIVATION. RATING OF 1000W, 120V, THREE SPEED, SET TO MEDIUM SPEED AND LOW HEAT.
- WORLD DRYER CAT. #SMARTDRI APPROVED ALTERNATË: AMERICAN DRYER CAT. #GXT

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. commencement of the work.

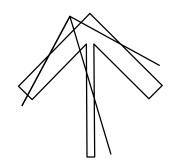
The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtai approval for relocation of service from Consultant before commencement of the work.

The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions.

Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant.

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PROJECT NORTH



Consultina Enaineers: MECHANICAL | ELECTRICAL | AQUATIC

5 Northland Road, Waterloo, ON N2V 1Y8

Phone: 519-725-3555 Fax: 519-725-2515

Project Number: 20152





SUNNYSIDE PUBLIC SCHOOL HVAC & WASHROOM UPGRADE

1042 Weber Street E. Kitchener. ON N2A 1B6

RAWING TITLE: **ELECTRICAL SPECIFICATIONS**

AS NOTED

ROJECT NO: A20002.7

CHECKED

LIGHTING SYSTEMS FIXTURES ARE TO BE PROVIDED AS NOTED IN THE LIGHT FIXTURE SCHEDULE C/W THE FOLLOWING FEATURES: SHOP DRAWINGS AND PRODUCT DATA FIXTURE LED'S MUST BE TESTED IN CONFORMANCE WITH IESNA LM80 STANDARD. REVIEW WITHIN 30 DAYS AFTER AWARD OF CONTRACT. LED'S MUST BE SELECTED USING A BINNING ALGORITHM TO ENSURE COLOUR AND LUMEN OUTPUT OF A GIVEN FIXTURE ARE CONSISTENT, AS WELL AS MEET OR SURPASS ANSI C78.377 SPECIFICATION FOR THE RATED LIFETIME OF THE FIXTURE. COLOUR ACCURACY BETWEEN PRODUCTS MUST BE WITHIN A 2-STEP MACADAM ELLIPSE. LUMINAIRES MUST BE TESTED TO IESNA LM79 BY AN INDEPENDENT APPROVED LABORATORY. BORNE BY THE CONTRACTOR. LUMINAIRES MUST BE TESTED PRIOR TO SHIPPING. PARTIAL SUBMITTALS WILL NOT BE ACCEPTED. LUMINAIRES MUST BE ULC CERTIFIED AND APPROVED FOR USE IN CANADA. SHALL NOT SUPERSEDE CONTRACT DOCUMENTS. FIXTURES MUST MAINTAIN A MINIMUM OF 90% OF THEIR INITIAL LIGHT OUTPUT FOR 60,000 HOURS. SUBMIT TEST RESULTS UPON REQUEST. .7 LUMEN VALUES INDICATED FOR FIXTURES IN THE PROJECT DOCUMENTS ARE TO BE CONSIDERED AS 'ABSOLUTE' OR SHALL THEY RELIEVE THIS DIVISION FROM RESPONSIBILITY FOR ERRORS IN ITEMS SUBMITTED. .8 OTHER THAN FOR SPECIALTY FIXTURES, AND UNLESS OTHERWISE INDICATED, THE MAXIMUM DRIVER CURRENT IS TO BE .8 SHOP DRAWINGS AND PRODUCT DATA SHALL SHOW: MOUNTING ARRANGEMENTS. .9 SHOP DRAWINGS AND PRODUCT DATA SHALL BE ACCOMPANIED BY: .2 SELF-POWERED EMERGENCY LIGHTING UNITS .1 EXIT LIGHTING MUST CONFORM TO CSA C22.2 No. 141 (LATEST EDITION OR CSA C860). DETAILED DRAWINGS OF BASES, SUPPORTS, AND ANCHOR BOLTS. MANUFACTURER TEST DATA WHERE REQUESTED. .2 LAMPS: LED 2W MANUFACTURER TO CERTIFY AS TO CURRENT MODEL PRODUCTION. .4 CERTIFICATION OF COMPLIANCE TO APPLICABLE CODES. .3 OPERATION: 25 YEARS LIFE INFORMATION. LIST ON CATALOG COVERS PAGE NUMBERS OF SUBMITTED ITEMS. UNDERLINE APPLICABLE DATA. .4 EXIT UNITS ARE TO BE PROVIDED WITH THREE (3) PICTOGRAM LEGENDS INDICATING "LEFT FROM HERE", "STRAIGHT FROM HERE", AND "RIGHT FROM HERE". INDICATION THAT THE COMMENTS HAVE BEEN COMPLIED WITH. .5 SUPPLY VOLTAGE: 120 VOLT, AC. .12 A PARTIAL LIST OF SHOP DRAWINGS INCLUDES: .6 BATTERY: SEALED MAINTENANCE FREE, 10 YEAR LIFE. BATTERY MUST BE CAPABLE OF SUPPLYING THE WATTAGE INDICATED FOR A MINIMUM OF 30 MINUTES. FIRE ALARM SYSTEM COMPONENTS LUMINAIRES EMERGENCY BATTERY UNITS AND FIXTURES .7 SIGNAL LIGHTS: "AC POWER ON" CONDITION AND "CHARGING" CONDITION. STARTERS, CONTACTORS, AND CONTROL DEVICES FIRESTOPPING MATERIALS .8 CABINET: FINISH: WHITE. HAND DRYERS LIGHTING CONTROL DEVICES .9 AUXILIARY EQUIPMENT: TEST SWITCH. WIRING DEVICES .3 FIXTURE INSTALLATION <u>FIRESTOPPING</u> .1 LOCATE AND INSTALL LUMINAIRES AS INDICATED. .2 FIXTURE SURFACE MOUNTED TO SUSPENDED CEILINGS MUST BE SECURED THROUGH CEILING ASSEMBLY TO CROSS MEMBER SUPPORTS. THESE SUPPORTS ARE TO BE STEEL CHANNELS OR ANGLES INDEPENDENTLY SECURED TO STRUCTURE USING #12 "JACK" CHAIN. EACH CHAIN MUST BE SECURED SO NO FIXTURE WEIGHT IS ADDED TO THE CEILING ASSEMBLY. .3 PLASTER FRAMES/FLANGE KITS MUST BE PROVIDED BY THIS DIVISION FOR FIXTURES RECESSED IN PLASTER AND/OR .4 WHERE SPECIFIED, FIXTURES TO BE CHAIN HUNG SHALL BE HUNG USING "JACK" CHAIN WITH A CAPACITY TO SUIT THE IN A FIRE SEPARATION. PROVIDE "FIREWRÀP" BLANKET AROUND SERVICES PENETRATING FIREWALLS. FIXTURE WEIGHT. BRANCH CIRCUIT WIRING FEEDING THESE FIXTURES SHALL BE AC90 CABLE "TY-WRAPPED" AT 36" (900mm) INTERVALS ALONG LENGTH OF DROP. FINAL APPEARANCE MUST BE NEAT AND PROFESSIONAL. .5 INSTALL EXIT LIGHTING UNITS AS INDICATED WITH ILLUMINATED FACES AND CHEVRONS/ARROWS INDICATING PATH(S) OF EXIT. .6 INSTALL EMERGENCY LIGHTING UNITS AND ASSOCIATED REMOTE MOUNTED FIXTURES AS INDICATED. 3M FIREMASTER DUCTWRAP OR APPROVED EQUAL. .7 DIRECT "HEADS" ON UNITS AND REMOTE MOUNTED FIXTURES TO ILLUMINATE PATH(S) OF EXIT. .8 INSTALL EMERGENCY LIGHTING UNITS AND REMOTE FIXTURES AT 8' (2400mm) ABOVE FINISHED FLOOR UNLESS INDICATED .9 PROVIDE A 15A 120V DUPLEX RECEPTACLE (CONNECT TO CIRCUIT INDICATED) ADJACENT TO UNIT. .10 CONNECT LUMINAIRES TO LIGHTING CIRCUITS AS INDICATED. SCHEDULED TO RECEIVE FINISHES. .11 CONNECT EXIT FIXTURES TO EXIT LIGHTING CIRCUITS AND UNIT EQUIPMENT (IF APPLICABLE). .12 CONNECT UNIT EQUIPMENT TO CIRCUITS AS INDICATED. .13 ALIGN LUMINAIRES MOUNTED IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINES. .14 ALIGN LUMINAIRES MOUNTED INDIVIDUALLY PARALLEL OR PERPENDICULAR TO BUILDING GRID LINES. .15 ALL LIGHTING BRANCH CIRCUITS ARE TO BE PROVIDED WITH SEPARATE NEUTRALS. .12 ACCEPTABLE MANUFACTURERS: FYREESLEEVE INDUSTRIES INC GENERAL ELECTRIC PENSIL FIRESTOP SYSTEMS INTERNATIONAL PROTECTIVE COATINGS CORP. .1 ALL LED FIXTURES AND DRIVERS ARE TO BE COMPLETE WITH A 5 YEAR GUARANTEE. RECTORSEAL CORPORATION (METACAULK) .2 THE LABOUR REQUIRED TO REPLACE THESE DRIVERS MUST BE INCLUDED IN THE ABOVE GUARANTEE PROSET SYSTEMS AD SYSTEMS .5 TESTING/CERTIFICATION .1 AT THE COMPLETION OF THE PROJECT AND IN THE PRESENCE OF THE CONSULTANT, TEST ALL EXIT AND EMERGENCY ROYAL FIXTURES. ON COMPANY LETTERHEAD, THE CONTRACTOR IS TO PREPARE A CHART INDICATING: PROJECT DATE CONFIRM PRIOR TO APPLICATION AND ENSURE MATERIAL USED IS COMPATIBLE WITH THAT USED BY OTHER TRADES ON SITE. EQUIPMENT TYPE CERTIFICATION OF CORRECT CONNECTION CERTIFICATION OF CORRECT OPERATION DURATION OF TEST IN MINUTES (MINIMUM 30) ACTUAL PERIOD OF TESTING (TIME OF DAY)

- .1 FURNISH COMPLETE CATALOG DATA FOR MANUFACTURED ITEMS OF EQUIPMENT TO BE USED IN THE WORK TO CONSULTANT FOR
- IF MATERIAL OR EQUIPMENT IS NOT AS SPECIFIED OR SUBMITTAL IS NOT COMPLETE, IT WILL BE REJECTED BY CONSULTANT. ADDITIONAL SHOP DRAWINGS REQUIRED BY THE CONTRACTOR FOR MAINTENANCE MANUALS, SITE COPIES ETC., SHALL BE PHOTOCOPIES OF THE "REVIEWED" SHOP DRAWINGS. ALL COSTS TO PROVIDE ADDITIONAL COPIES OF SHOP DRAWINGS SHALL BE
- CATALOG DATA OR SHOP DRAWINGS FOR EQUIPMENT, WHICH ARE NOTED AS BEING REVIEWED BY CONSULTANT OR HIS ENGINEER
- REVIEW COMMENTS OF CONSULTANT SHALL NOT RELIEVE THIS DIVISION FROM RESPONSIBILITY FOR DEVIATIONS FROM CONTRACT DOCUMENTS UNLESS CONSULTANT'S ATTENTION HAS BEEN CALLED TO SUCH DEVIATIONS IN WRITING AT TIME OF SUBMISSION, NOR
- CHECK WORK DESCRIBED BY CATALOG DATA WITH CONTRACT DOCUMENTS FOR DEVIATIONS AND ERRORS.
- OPERATING AND MAINTENANCE CLEARANCES. E.G. ACCESS DOOR SWING SPACES.
- .10 STATE SIZES, CAPACITIES, BRAND NAMES, MOTOR HP, ACCESSORIES, MATERIALS, GAUGES, DIMENSIONS, AND OTHER PERTINENT
- .11 ONCE THESE SHOP DRAWINGS ARE RETURNED "REVIEWED" OR "REVIEWED AS NOTED" FABRICATION, PRODUCTION, AND INSTALLATION MAY COMMENCE. NOTE: IF A SHOP DRAWING IS RETURNED "REVIEWED AS NOTED" THIS CONTRACTOR MUST PROVIDE WRITTEN
- .1 FIRESTOPPING MATERIAL AND INSTALLATION WITHIN ANNULAR SPACE BETWEEN CONDUITS, DUCTS, AND ADJACENT FIRE SEPARATION.
- .2 PROVIDE MATERIALS AND SYSTEMS CAPABLE OF MAINTAINING EFFECTIVE BARRIER AGAINST FLAME, SMOKE, AND GASES.
- .3 COMPLY WITH THE REQUIREMENTS OF CAN4-S115-M35, AND DO NOT EXCEED OPENING SIZED FOR WHICH THEY HAVE BEEN
- .4 SYSTEMS TO HAVE AN F OR FT RATING (AS APPLICABLE) NOT LESS THAN THE FIRE PROTECTION RATING REQUIRED FOR CLOSURES
- .5 EXTENT OF BLANKET MUST CORRESPOND TO ULC RECOMMENDATIONS. IN GENERAL WRAP INDIVIDUAL CONDUITS WITH APPROVED FIREWRAP MATERIALS ON EACH SIDE OF FIREWALL. REFER TO ARCHITECTURAL DRAWINGS FOR FT RATINGS. PROVIDE 1 AND/OR 2 LAYERS OF FIREWRAP WITH TRANSVERSE AND LONGITUDINAL SEAMS OVERLAPPED AND/OR BUTTED (SECOND LAYER OFFSET FROM FIRST LAYER). CUT EDGES ARE TO BE SEALED WITH ALUMINUM FOIL TAPE. PROVIDE 50 MM STAINLESS STEEL BANDING AT 200 MM INTERVALS. INSTALL FIREWRAP TO MANUFACTURERS' RECOMMENDATIONS FOR PROPER FT RATING. ACCEPTABLE MANUFACTURERS ARE
- .6 THE FIRESTOPPING MATERIALS ARE NOT TO SHRINK, SLUMP OR SAG AND BE FREE OF ASBESTOS, HALOGENS AND VOLATILE
- .7 FIRESTOPPING MATERIALS ARE TO CONSIST OF A COMPONENT SEALANT APPLIED WITH A CONVENTIONAL CAULKING GUN AND
- .8 FIRESTOP MATERIALS ARE TO BE CAPABLE OF RECEIVING FINISH MATERIALS IN THOSE AREAS, WHICH ARE EXPOSED AND
- .9 FIRESTOPPING SHALL BE INSPECTED AND APPROVED BY LOCAL AUTHORITY PRIOR TO CONCEALMENT OR ENCLOSURE.
- .10 INSTALL MATERIAL AND COMPONENTS IN ACCORDANCE WITH ULC CERTIFICATION, MANUFACTURERS INSTRUCTIONS AND LOCAL
- .11 SUBMIT PRODUCT LITERATURE AND INSTALLATION MATERIAL ON FIRESTOPPING IN SHOP DRAWING AND PRODUCT DATA MANUAL.

NOTE: FIRE STOP MATERIAL MUST CONFORM TO REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION. CONTRACTOR TO

			1.04.23 SSUED FOR ISSUED FOR PERMIT AND TEN	21.04.06 ISSUED FOR CLIENT REVIEW	ATE: REVISION	
			21.04.23	21.04.06	NO. DATE:	
			2	1	NO.	

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. commencement of the work.

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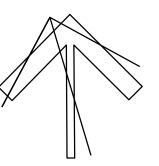
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PROJECT NORTH





5 Northland Road, Waterloo, ON N2V 1Y8 Phone: 519-725-3555 Fax: 519-725-2515 Website: deiassociates.ca Project Number: 20152





SUNNYSIDE PUBLIC SCHOOL **HVAC & WASHROOM UPGRADE**

> 1042 Weber Street E. Kitchener, ON

N2A 1B6 RAWING TITLE:

ELECTRICAL SPECIFICATIONS ROJECT NO:

A20002.7 AS NOTED CHECKED: