CLIENT:

Fort Erie International Academy

7 Tait Avenue | Fort Erie, ON | L2A 3P1

DRAWING LIST:

Architectural

A1-1 Overall Reference and Fire Rating Plans
A2-1 Localized Demolition Plans
A2-2 Localized Revised Plan and Kitchen Equipment List
A2-3 Localized Revised Reflected Ceiling Plan and Detail
A3-1 Elevations, Cross Section and Details
A4-1 Interior Elevation and Millwork Details
SC-1 Door, Room Finish Schedules and Specification

Mechanical

M0.0 Mechanical Legend and Drawing List
M1.0 Overall Ground and Second Floor Plans
M1.1 Overall Roof Level Plan
M2.0 Ground Floor Plumbing, Drainage and HVAC Demolition Plan
M3.0 Ground Floor New Plumbing and Drainage Plan
M4.0 Ground Floor New HVAC and Second Floor New Part Plumbing Plan
M5.0 Mechanical Details
M5.1 Mechanical Details
M6.0 Mechanical Schedules
ME1.0 Mechanical and Electrical Schedules

Electrical

E0.0 Electrical Legend and Drawing List
E1.0 Electrical Specification and Demolition and General Notes
E2.0 Electrical Ground Floor Overall and Demolition Plans
E2.1 Electrical Ground Floor Plans - New Lighting and Power and Systems
ME1.0 Mechanical and Electrical Schedules

New Kitchen for

Fort Erie International Academy

7 Tait Avenue

Fort Erie, ON

ONTARIO ASSOCIATION OF ARCHITECTS
KEVIN MARK EMRICH
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Project # 2345

Issued for Tender February 8, 2024

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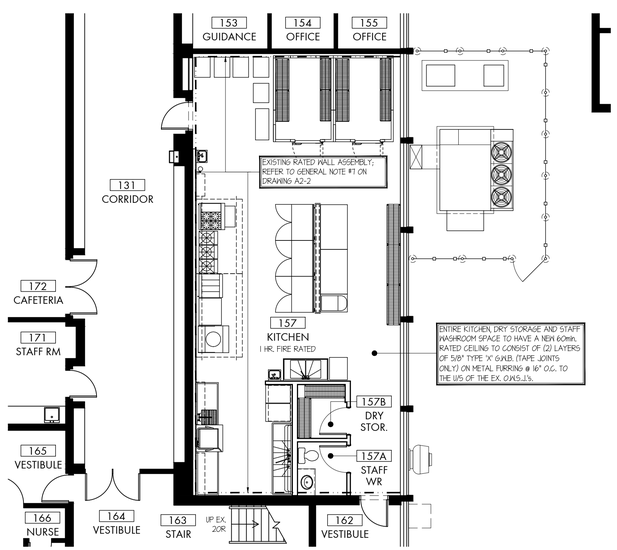
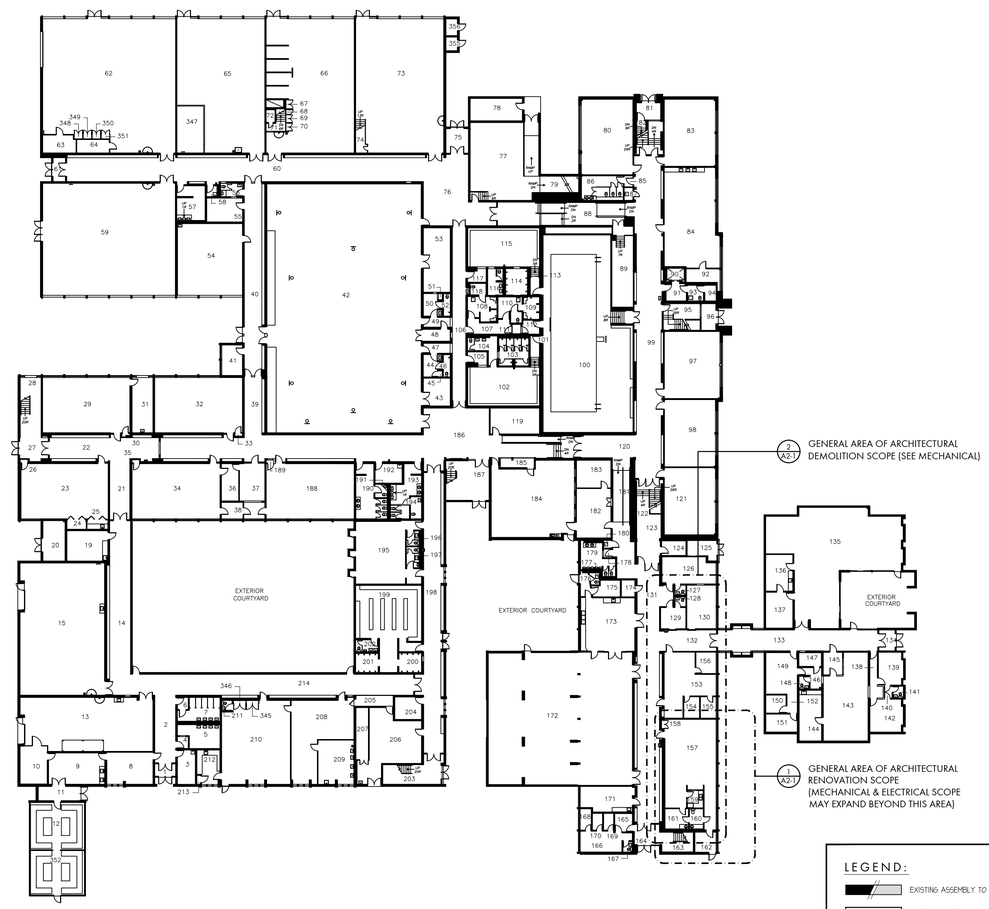
ROOM LEGENG:

1	VESTIBULE	56	MENS WASHROOM	111	HANDICAPPED ELEVATOR	166	NURSE	221	CORRIDOR	276	PRACTICE ROOM
2	CORRIDOR	57	STORAGE	112	VESTIBULE	167	WASHROOM	222	STORAGE	277	STORAGE
3	STORAGE	58	CARETAKERS CLOSET	113	CORRIDOR	168	RECOVERY ROOM	223	STORAGE	278	OFFICE
4	VESTIBULE	59	CONSTRUCTION TECHNOLOGY	114	SHOWER	169	RECOVERY ROOM	224	MEZZANINE	279	GYM STORAGE
5	STORAGE	60	CORRIDOR	115	BOYS CHANGEROOM	170	RECOVERY ROOM	225	COMPUTER ROOM	280	GYM STORAGE
6	VESTIBULE	61	VESTIBULE	116	WASHROOM	171	STAFF ROOM	226	ENGLISH DEPARTMENT	281	MECHANICAL ROOM
7	STORAGE	62	TRANSPORTATION TECHNOLOGY	117	VESTIBULE	172	CAFETERIA	227	CLASSROOM	282	WORK ROOM
8	HORTICULTURAL CLASSROOM	63	STORAGE	118	WASHROOM	173	KITCHEN	228	CLASSROOM	283	CLASSROOM
9	POTTING ROOM	64	STORAGE	119	WOMENS STAFF ROOM	174	STORAGE	229	CLASSROOM	284	CLOSET
10	STORAGE	65	MANUFACTURING CLASSROOM	120	CORRIDOR	175	STORAGE	230	CORRIDOR	285	WORK ROOM
11	VESTIBULE	66	COMMUNICATION TECHNOLOGY	121	CLASSROOM	176	CORRIDOR	231	CLASSROOM	286	CLASSROOM
12	GREENHOUSE	67	CLOSET	122	STAIR	177	WASHROOM	232	CORRIDOR	287	CLASSROOM
13	SMALL ENGINES	68	CLOSET	123	CORRIDOR	178	VESTIBULE	233	CLASSROOM	288	OFFICE
14	CORRIDOR	69	CLOSET	124	STORAGE	179	BOYS WASHROOM	234	CLASSROOM	289	OFFICE
15	WOODWORK SHOP	70	CLOSET	125	OUTDOOR STORAGE	180	STORAGE	235	STORAGE	290	STORAGE
16	STORAGE	71	STAIR	126	OFFICE	181	CORRIDOR	236	STORAGE	291	STORAGE
17	STORAGE	72	STORAGE	127	WASHROOM	182	STUDENT COUNCIL	237	CORRIDOR	292	WORK ROOM
18	STORAGE	73	WELDING CLASSROOM	128	WASHROOM	183	STORAGE	238	CARETAKERS CLOSET	293	CLASSROOM
19	STAFF ROOM	74	STORAGE	129	PHOTO COPY ROOM	184	MARKETING AND MERCHANDISING	239	HANDICAPPED WASHROOM	294	CLOSET
20	TRANSFORMER ROOM	75	VESTIBULE	130	MEETING ROOM	185	DISPLAY CASE	240	GIRLS WASHROOM	295	WORK ROOM
21	CORRIDOR	76	CORRIDOR	131	CORRIDOR	186	CORRIDOR	241	CLASSROOM	296	CLASSROOM
22	CORRIDOR	77	BOILER ROOM	132	CORRIDOR	187	STAIR	242	CLASSROOM	297	CLOSET
23	COMPUTER ROOM	78	TRANSFORMER ROOM	133	CORRIDOR	188	CLASSROOM	243	CLASSROOM	298	WOMENS WASHROOM
24	CLOSET	79	CORRIDOR RAMP	134	VESTIBULE	189	CLOSET	244	CORRIDOR	299	HANDICAPPED WASHROOM
25	CLOSET	80	CLASSROOM	135	LIBRARY	190	GIRLS WASHROOM	245	HANDICAPPED WASHROOM	300	CARETAKERS CLOSET
26	CLOSET	81	STAIR	136	OFFICE	191	HANDICAPPED WASHROOM	246	STORAGE	301	MENS WASHROOM
27	VESTIBULE	82	STAIR	137	WORK ROOM	192	CARETAKER	247	LEARNING RESOURCE	302	HANDICAPPED WASHROOM
28	STAIR	83	CLASSROOM	138	CORRIDOR	193	BOYS WASHROOM	248	CLASSROOM	303	STAFF ROOM
29	CLASSROOM	84	CLASSROOM	139	VICE PRINCIPAL	194	HANDICAPPED WASHROOM	249	CLASSROOM	304	STORAGE
30	CLOSET	85	VESTIBULE	140	CORRIDOR	195	STAFF ROOM	250	CLOSET	305	WOMENS WASHROOM
31	STORAGE	86	GIRLS WASHROOM	141	WASHROOM	196	WOMENS WASHROOM	251	CLASSROOM	306	MENS WASHROOM
32	CLASSROOM	87	CARETAKERS CLOSET	142	PRINCIPAL	197	MENS WASHROOM	252	CLOSET	307	CORRIDOR
33	CLOSET	88	CORRIDOR	143	OFFICE	198	CORRIDOR	253	VESTIBULE	308	CLASSROOM
34	CLASSROOM	89	MECHANICAL ROOM	144	COPY ROOM	199	BOYS CHANGEROOM	254	CARETAKERS CLOSET	309	CLASSROOM
35	CLOSET	90	ELEVATOR	145	VESTIBULE	200	SHOWER	255	GIRLS WASHROOM	310	CLASSROOM
36	STORAGE	91	CORRIDOR	146	CORRIDOR	201	SHOWER	256	CORRIDOR	311	CLASSROOM
37	OFFICE	92	STORAGE	147	VAULT	202	WASHROOM	257	GYM STORAGE	312	STORAGE
38	OFFICE	93	HANDICAPPED WASHROOM	148	WASHROOM	203	STAIR	258	STORAGE	313	CORRIDOR
39	CORRIDOR	94	ELEVATOR MECHANICAL ROOM	149	ATTENDANCE	204	OFFICE	259	GYMNASIUM	314	STORAGE
40	CORRIDOR	95	STAIR	150	OFFICE	205	DISPLAY CASE	260	CORRIDOR	345	CLOSET
41	TECHNICAL DIRECTOR	96	VESTIBULE	151	OFFICE	206	CARETAKERS OFFICE	261	STORAGE	346	CLOSET
42	GYMNASIUM	97	CLASSROOM	152	CORRIDOR	207	STORAGE	262	STORAGE	347	WORK ROOM
43	GYM STORAGE	98	CLASSROOM	153	GUIDANCE	208	COSMETOLOGY	263	CORRIDOR	348	CLOSET
44	INSTRUCTOR	99	CORRIDOR	154	OFFICE	209	HAIR DRESSING	264	VESTIBULE	349	CLOSET
45	CLOSET	100	POOL	155	OFFICE	210	SEWING	265	CORRIDOR	350	CLOSET
46	WASHROOM	101	CORRIDOR	156	OFFICE	211	WASHROOM	266	CORRIDOR	351	CLOSET
47	CORRIDOR	102	GIRLS CHANGEROOM	157	STAFF ROOM	212	STORAGE	267	CORRIDOR	352	GREENHOUSE
48	FOLDING WALL STORAGE	103	SHOWER	158	CLOSET	213	CLOSET	268	CLASSROOM	355	STORAGE
49	CORRIDOR	104	WASHROOM	159	KITCHEN	214	CORRIDOR	269	MUSIC ROOM	356	STORAGE
50	INSTRUCTOR	105	VESTIBULE	160	WASHROOM	215	STORAGE	270	CLOSET	353	MEZZANINE STORAGE
51	CLOSET	106	CORRIDOR	161	NURSERY SCHOOL	216	STORAGE	271	CLOSET	354	MEZZANINE STORAGE
52	WASHROOM	107	CORRIDOR	162	VESTIBULE	217	STORAGE	272	CLOSET	357	MEZZANINE
53	GYM STORAGE	108	CHANGEROOM	163	STAIR	218	CORRIDOR	273	CLOSET		
54	WEIGHT ROOM	109	CHANGEROOM	164	VESTIBULE	219	COMMUNICATION TECHNOLOGY	274	CLOSET		
55	STAFF ROOM	110	WASHROOM	165	VESTIBULE	220	WORK ROOM	275	PRACTICE ROOM		



LOCALIZED FIRE RATING PLAN: Ground

SCALE: 1/8" = 1'-0"



OVERALL REFERENCE PLAN: Ground

SCALE: 1/32" = 1'-0"

LEGEND:

- EXISTING ASSEMBLY TO REMAIN
- NEW ASSEMBLY
- 1 HR. FIRE RATED ASSEMBLY
- EXISTING FEATURE TO BE REMOVED

THESE DRAWINGS ARE NOT TO BE SCALED

ALL DRAWINGS, THE DESIGN, AND THE DETAILS THEREON REMAIN THE PROPERTY OF THE ARCHITECT AND ARE NOT TO BE ALTERED, RE-USED OR REPRODUCED WITHOUT THE ARCHITECT'S EXPRESS WRITTEN CONSENT.

THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MUST CONFIRM & CORRELATE ALL DETAILS WITHIN THE FULL DRAWING PACKAGE BEING RESPONSIBLE FOR SAME THROUGHOUT CONSTRUCTION, REPORTING ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO COMMENCING THE RELEVANT WORK.

ALL DRAWINGS, DETAILS & SPECIFICATIONS REPRESENTED IN THE DRAWINGS ARE TO BE USED FOR CONSTRUCTION ONLY WHEN ISSUED BY THE ARCHITECT AND NOTED ACCORDINGLY IN THE "ISSUE/REVISIONS" BOX HEREON.

0	Permit	2024-01-19
1	Tender	2024-02-08

PROJECT:

New Kitchen for

Fort Erie International Academy

7 Tait Ave., Fort Erie, ON

SEAL:

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DRAWING TITLE:

Overall Reference and Fire Rating Plans

SCALE: As Noted

DRAWN: D.V.

DATE: November 2023

PROJECT #: 2345

DRAWING #: A1-1

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GENERAL DEMOLITION NOTES:

1) THE INTENT OF THESE DEMOLITION DRAWINGS IS TO SHOW APPROXIMATE EXTENT AND NATURE OF DEMOLITION REQUIREMENTS ONLY. THE GENERAL CONTRACTOR IS RESPONSIBLE TO VERIFY ACTUAL SITE CONDITIONS AS THEY ARE RELATED TO NEW CONSTRUCTION ITEMS, REPORTING DISCREPANCIES TO THE ARCHITECT AS REQUIRED.

2) DEMOLITION DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS & RELATED INFORMATION SHOWN THEREON FOR A COMPLETE UNDERSTANDING OF THE INTENDED FINISHED PRODUCT AND RELATED DEMOLITION REQUIREMENTS.

3) IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO REMOVE & RELOCATE ALL EXISTING F.F.E. (FURNITURE, FIXTURES & EQUIPMENT) ITEMS FROM THE SUBJECT SPACE TO OWNER-DESIGNATED STORAGE LOCATIONS (ON-SITE), ITEMS DESIGNATED FOR RE-USE ARE TO BE RELOCATED INTO SUBJECT SPACES FOLLOWING CONSTRUCTION.

4) ITEMS TO BE DEMOLISHED SHALL BE DISPOSED OF LEGALLY OFF THE SITE AND COMPLY WITH ALL LOCAL HAULING & DISPOSAL REQUIREMENTS AT THE CONTRACTOR'S EXPENSE.

5) ALL ITEMS DESIGNATED FOR REMOVAL ARE TO BE OFFERED TO BUILDING OWNER FOR FIRST RIGHT TO REFUSAL PRIOR TO DISCARDING AT AN APPROVED LANDFILL SITE OR CONSTRUCTION MATERIALS RECYCLING DEPOT.

6) THE GENERAL CONTRACTOR SHALL MAINTAIN A PHYSICAL SEPARATION BETWEEN AREAS WITHIN THE SCOPE OF WORK AND AREAS OUTSIDE OF THE SCOPE OF WORK BY PROVIDING PLASTIC SHEATHING BETWEEN CONTIGUOUS SPACES AND/OR TEMPORARILY TAPING OF JOINTS AND GAPS TO PREVENT DUST MIGRATION.

7) WHERE EXISTING CEILING IS AFFECTED CONTRACTOR IS TO TAKE CARE IN REMOVAL TO ACCESS AREAS AND ANY TILES / GRID TO BE REPLACE IF DAMAGED. IT IS THE INTENT IF AREAS OF CEILING ARE TO BE TAKEN DOWN THAT THEY ARE RE-INSTATED TO MATCH EXISTING LAYOUTS, CONTRACTORS TO ALLOW FOR REPLACING DAMAGED TILES / GRID (TO MATCH EXISTING)

8) THE GENERAL CONTRACTOR SHALL CAUSE NO DAMAGE TO EXISTING CONSTRUCTION TO REMAIN WHEREVER POSSIBLE, AND SHALL TAKE SPECIAL CARE NOT TO ENCROACH ON ADJACENT OCCUPIED AREAS OR AREAS NOT WITHIN THE SCOPE OF WORK. PROTECT ALL EXISTING FINISHES, DOORS, FRAMES, ETC. WHICH ARE TO REMAIN.

9) THE GENERAL CONTRACTOR SHALL USE ALL MEANS NECESSARY TO ENSURE THE SAFETY OF ADJACENT OCCUPIED AREAS THROUGH THE ERECTION OF CONSTRUCTION HOARDING.

10) THE GENERAL CONTRACTOR SHALL CONDUCT DEMOLITION OPERATIONS & THE REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SURROUNDING AREAS OPERATING WITHIN THE FACILITY.

11) PRIOR TO ANY DEMOLITION COORDINATE WITH THE HAZARDOUS MATERIALS REPORT (BY OTHERS) AS/IF APPLICABLE.

12) THE ARCHITECT MAKES NO CLAIMS FOR AWARENESS OF ASBESTOS OR ANY OTHER HAZARDOUS MATERIALS ON JOBSITE. REPORT ALL SUSPECTED HAZARDOUS MATERIALS TO THE ARCHITECT PRIOR TO HANDLING ON JOBSITE.

13) MAINTAIN EXISTING UTILITIES TO REMAIN OPERATIONAL AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS.

14) SCHEDULE ALL SERVICE SHUT-DOWN(S) WITH THE OWNER, COORDINATING TIMING, LENGTH & DURATION ACCORDINGLY.

15) REFER TO STRUCTURAL, MECHANICAL& ELECTRICAL DRAWINGS FOR SPECIFIC DEMOLITION NOTES REGARDING THESE DISCIPLINES, INCLUDING REQUIRED EXTENT OF FLOOR TRENCHING FOR NEW ITEMS NOT SPECIFICALLY SHOWN HEREON. ALL TRENCHING IN CONCRETE FLOORS TO BE PATCHED AND REPAIRED AS PER SPECIFICATIONS AND / OR AS REQUIRED FOR NEWLY SPECIFIED FIXTURES.

16) UPON COMPLETION, CLEAN THE ENTIRE AREA OF DEMOLITION TO A TIDY, UNIFORM CONDITION, REMOVING ALL DEBRIS, DUST PARTITIONS AND ASSOCIATED MATERIALS USED DURING THE DEMOLITION. CLEAN ALL AREAS IMPACTED BY THE DEMOLITION, INCLUDING BUT NOT LIMITED TO, ADJACENT OCCUPIED AREAS AND AREAS NOT WITHIN THE SCOPE OF WORK.

17) ABANDONING ITEMS OR UNUSED UTILITIES IN PLACE IS STRICTLY PROHIBITED, UNLESS SPECIFICALLY PERMITTED BY THE OWNER; ENSURE THAT OBSOLETE MECHANICAL & ELECTRICAL ITEMS ARE REMOVED, CAPPED AND OR HANDLED IN FULL ACCORDANCE WITH MECHANICAL & ELECTRICAL SPECIFICATIONS.

18) COMPLY WITH ALL STANDARD LOCAL, REGIONAL, PROVINCIAL, AND NATIONAL SAFETY REQUIREMENTS FOR DEMOLITION.

19) AT ALL POINTS OF REMOVAL AND/OR REPAIR, MAKE GOOD & PREPARE ALL DISTURBED FINISHES, MATERIALS & SUBSTRATES AS REQUIRED TO ENSURE CLEAN TIE-IN TO NEWLY SPECIFIED MATERIALS THROUGHOUT. PATCH & REPAIR ALL EXISTING ASSEMBLIES WITH MATCHING MATERIALS UNLESS NOTED OTHERWISE.

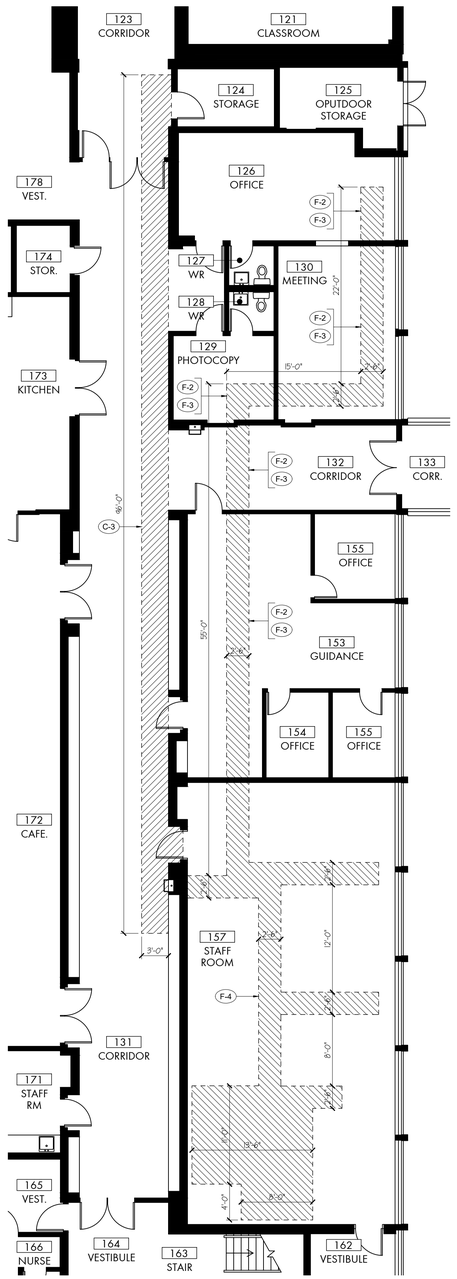
20) IN AREAS NOTED FOR DEMOLITION, ALL EXISTING SOAP DISPENSERS, PAPER TOWEL DISPENSERS AND OTHER WASHROOM/KITCHEN ACCESSORIES ARE TO BE REMOVED AND TURNED OVER TO OWNER FOR STORAGE.

21) AT ALL AREAS WHERE EXISTING WALLS ARE TO BE REMOVED OR PLUMBING IS TO BE REMOVED AND CAPPED, PROVIDE FOR FOR CONCRETE FLOOR REPAIR PRIOR TO INSTALLATION OF NEW SPECIFIED FLOORING.

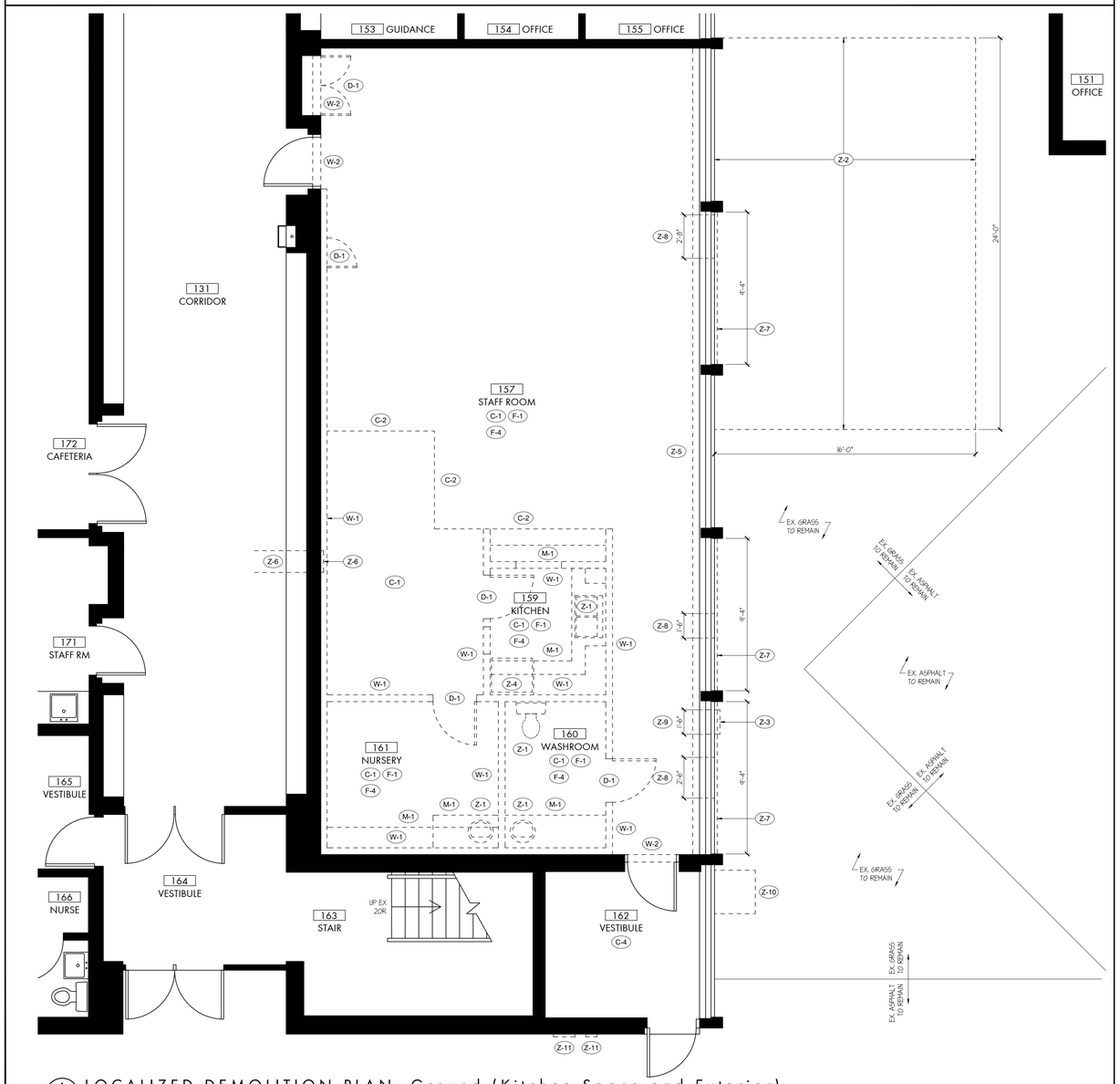
22) AT POINTS OF REMOVAL OF EXISTING THROUGH-WALL, FLOOR AND ROOF HVAC, HYDRONIC AND PLUMBING ITEMS (REFER TO MECHANICAL DRAWINGS); CONTRACTOR TO FILL OPENINGS TO MATCH EXISTING ASSEMBLY COMPLETE WITH FINISHES; MAINTAIN ALL FIRE/SMOKE RATING INCLUDING INSULATION AND SEALANT, AS REQUIRED.

23) AT POINTS OF REMOVAL/RELOCATION OF EXISTING MECHANICAL AND ELECTRICAL ITEMS (REFER TO MECHANICAL AND ELECTRICAL DRAWINGS); CONTRACTOR IS TO PATCH AND REPAIR THE EXISTING WALL CONSTRUCTION AND MATCH EXISTING TYPE AND FINISH.

24) IN AREAS NOTED FOR DEMOLITION, ALL EXISTING FURNITURE, TACKBOARDS AND ARTWORK ARE TO BE REMOVED AND TURNED OVER TO OWNER FOR STORAGE.



2 A1-1 LOCALIZED DEMOLITION PLAN: Ground (Slab & S.A.T. Removal/Reinstatement)
SCALE: 1/8" = 1'-0"



1 A1-1 LOCALIZED DEMOLITION PLAN: Ground (Kitchen Space and Exterior)
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES:

WALL DEMOLITION KEYING:

W-1 REMOVE EXISTING STUD WALL ASSEMBLY AND ASSOCIATED ITEMS TO ACCOMMODATE NEWLY SPECIFIED ITEMS.

W-2 REMOVE EXISTING WOOD PANEL AND ASSOCIATED ITEMS ABOVE THE EXISTING DOOR TO ACCOMMODATE NEWLY SPECIFIED ITEMS.

DOOR & WINDOW DEMOLITION KEYING:

D-1 EXISTING DOOR, FRAME AND HARDWARE TO BE REMOVED.

MILWORK DEMOLITION KEYING:

M-1 EXISTING FLOOR AND WALL MOUNTED BUILT-IN MILLWORK ITEMS (WITH ALL RELATED MECHANICAL AND ELECTRICAL ITEMS) TO BE REMOVED. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS AS REQUIRED.

CEILING DEMOLITION KEYING:

C-1 EXISTING S.A.T. CEILING TILES, GRID AND ASSOCIATED HANGERS TO BE REMOVED. EXISTING DRYWALL AND PLASTER ABOVE TO BE REMOVED. REFER TO REFLECTED CEILING FOR FOR NEW CEILING LAYOUT. REFER TO SECTION FOR NEW 6XLB. AT U/S OF STRUCTURE WITHIN ENTIRE KITCHEN SPACE. COORDINATE WITH MECHANICAL AND ELECTRICAL.

C-2 REMOVE EXISTING 6XLB. BULKHEAD AND ASSOCIATED FRAMING.

C-3 REMOVE AND REINSTATE EXISTING S.A.T. CEILING TILES AND GRID AS REQUIRED TO FACILITATE THE INSTALLATION AND REMOVED OF SPECIFIED ITEMS. REPAIR/REPLACE THE EXISTING S.A.T. CEILING TILES AND GRID AS REQUIRED.

C-4 REMOVE AND REINSTATE EXISTING CEILING TILES AS REQUIRED TO FACILITATE DEMOLITION OF SPECIFIED ITEMS. REPAIR/REPLACE THE EXISTING CEILING TILES AS REQUIRED. COORDINATE WITH MECHANICAL.

FLOOR DEMOLITION KEYING:

F-1 EXISTING FLOOR FINISH AND BASE TO BE REMOVED. EXISTING BUILT UP WOOD FLOOR ASSEMBLY CONSISTING OF 2 LAYERS T+G PLYWOOD ON 3/4" HARDWOOD ON 2"x4" SLEEPERS @ 16" O.C. TO BE REMOVED DOWN TO THE EXISTING CONCRETE SLAB. REFER TO RELATED DRAWINGS FOR INSTALLATION OF NEW CONCRETE SLAB ON EXISTING CONCRETE SLAB.

F-2 EXISTING CONCRETE SLAB TO BE REMOVED (LOCALLY) AS REQUIRED TO ACCOMMODATE NEWLY SPECIFIED ITEMS; COORDINATE WITH MECHANICAL DRAWINGS FOR UNDERGROUND ITEMS AS/IF APPLICABLE; NEW CONCRETE INFILL TO BE FLUSH WITH EXISTING SLAB & CONNECTED w/ 10M BARS @ 12" O.C. HORIZONTALLY. REFER TO DETAIL D/A3-1.

F-3 ALLOW FOR THE EXISTING FLOORING TO BE CUT BACK AND REINSTATED TO FACILITATE THE REMOVAL AND INSTALLATION OF NEWLY SPECIFIED ITEMS. AFTER FLOORING IS REMOVED, REMOVE ANY EXISTING GLUE/DEBRIS, REPAIR FLOOR AS REQUIRED. MATCH EXISTING SIZE AND TYPE.

F-4 EXISTING CONCRETE SLAB BELOW THE REMOVED BUILT-UP WOOD ASSEMBLY TO BE REMOVED (LOCALLY) AS REQUIRED TO ACCOMMODATE NEWLY SPECIFIED ITEMS; COORDINATE WITH MECHANICAL DRAWINGS FOR UNDERGROUND ITEMS AS/IF APPLICABLE; NEW CONCRETE INFILL TO BE FLUSH WITH EXISTING SLAB & CONNECTED w/ 10M BARS @ 12" O.C. HORIZONTALLY. NEW CONCRETE SLAB TO BE INSTALLED ON EXISTING SLAB. NEW CONC. SLAB TO BE LEVEL WITH THE CORRIDOR. REFER TO DETAIL F/A3-1 AND RELATED DRAWINGS.

MISCELLANEOUS DEMOLITION KEYING:

Z-1 REMOVE EXISTING PLUMBING FIXTURE AND RELATED ITEMS. COORDINATE WITH MECHANICAL.

Z-2 ALLOW FOR THE REMOVAL OF EXISTING GRASS AS REQUIRED FOR THE INSTALLATION OF THE NEW CONCRETE PADS, GRAVEL FINISH AND CHAIN LINK FENCE ENCLOSURE. REFER TO RELATED DRAWINGS.

Z-3 REMOVE EXISTING EXTERIOR LOUVER. COORDINATE WITH MECHANICAL.

Z-4 EXISTING APPLIANCE AND ALL ITEMS TO BE REMOVED. COORDINATE WITH MECHANICAL AND ELECTRICAL.

Z-5 EXISTING WALL FIN COVER AND ALL RELATED MECHANICAL AND ELECTRICAL ITEMS TO BE REMOVED. COORDINATE WITH MECHANICAL AND ELECTRICAL. PATCH AND REPAIR EXISTING WALL AFFECTED BY THE REMOVAL OF THE WALL FIN.

Z-6 REMOVE EXISTING DUCT. COORDINATE WITH MECHANICAL. ENCLOSE THE OPENING IN THE WALL WITH BLOCK. MATCH EXISTING SIZE AND TYPE.

Z-7 REMOVE THE SECTION OF THE EXISTING PRE-FINISHED METAL SIDING ABOVE THE WINDOW TO ACCOMMODATE NEWLY SPECIFIED ITEMS. REFER TO RELATED DRAWINGS FOR INSTALLATION OR REINSTATEMENT OF THE PRE-FINISHED METAL PANEL (MATCH EXISTING PANEL).

Z-8 MODIFY EXISTING STUD FRAMING ASSEMBLY ABOVE THE WINDOW TO ACCOMMODATE THE NEW OPENING. COORDINATE WITH MECHANICAL.

Z-9 REMOVE THE EXISTING EXHAUST DUCT. COORDINATE WITH MECHANICAL. INFILL THE OPENING FROM THE REMOVED DUCT WITH A NEW STUD FRAMING ASSEMBLY (MATCH EXISTING).

Z-10 REMOVE CONDENSING UNIT AND ASSOCIATED ITEMS. COORDINATE WITH MECHANICAL.

Z-11 REMOVE/REINSTATE EXISTING BRICK VENEER TO FACILITATE THE REMOVAL OF THE EXISTING DUCT AND LOUVER. COORDINATE WITH MECHANICAL. REPAIR/REPLACE EXISTING BRICK VENEER AND BLOCK AFFECTED BY DEMOLITION. ENCLOSE OPENING IN THE EXTERIOR WALL WITH NEW BRICK VENEER AND CONC. BLOCK. MATCH EXISTING SIZE AND TYPE.

LEGEND:

- EXISTING ASSEMBLY TO REMAIN
- NEW ASSEMBLY
- 1 HR FIRE RATED ASSEMBLY
- EXISTING FEATURE TO BE REMOVED
- 8'-0" HIGH STAINLESS STEEL PANELS
- 8'-0" HIGH FRP PANELS
- 3'-6" HIGH FRP PANELS
- 6'-0" CHAIN LINK FENCE
- SOUND PROOF INSULATION
- # DEMOLITION KEY
- # WALL TYPE AS SPEC'D
- # DOOR TYPE AS SPEC'D
- # EQUIPMENT TYPE AS SPEC'D
- # / # DETAIL # / SECTION # DRAWING #
- # INTERIOR ELEVATION #

ABBREVIATIONS:

T.B.	TACK BOARD	EQ.	EQUAL
W.B.	WHITE BOARD	REV.	REVERSE
B.F.	BARRIER FREE	EX.	EXISTING
G.B.	GRAB BAR	B/S	BOTH SIDES
F.D.	FLOOR DRAIN	WD.	WOOD
t/o	TOP OF	TYP.	TYPICAL
u/s	UNDERSIDE	c/w	COMPLETE WITH
w/	WITH	c/c	CENTRE TO CENTRE
U.N.O.	UNLESS NOTED OTHERWISE	o/c	ON CENTRE
REF.	REFERENCE	W.C.	WATER CLOSET
SIM.	SIMILAR	LAV.	LAVATORY
MIR.	MIRRORED	S.A.T.	SUSPENDED ACOUSTIC TILE
TYP.	TYPICAL	MUA.	MAKE UP AIR UNIT
G.W.B.	GYPSUM WALL BOARD	T+B	TOP AND BOTTOM
A.F.F.	ABOVE FINISHED FLOOR	EA.	EACH WAY
F.F.L.	FINISHED FLOOR LEVEL	FRP	FIBRE GLASS PANELS
MIN.	MINIMUM		
MAX.	MAXIMUM		
N.I.C.	NOT IN CONTRACT		

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0	Permit	2024-01-19
1	Tender	2024-02-08

PROJECT:
New Kitchen for

Fort Erie International Academy

7 Tait Ave., Fort Erie, ON

SEAL:

ONTARIO ASSOCIATION OF ARCHITECTS
KEVIN MARK EMRICH
LICENCE
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www@whitelinearchitects.com

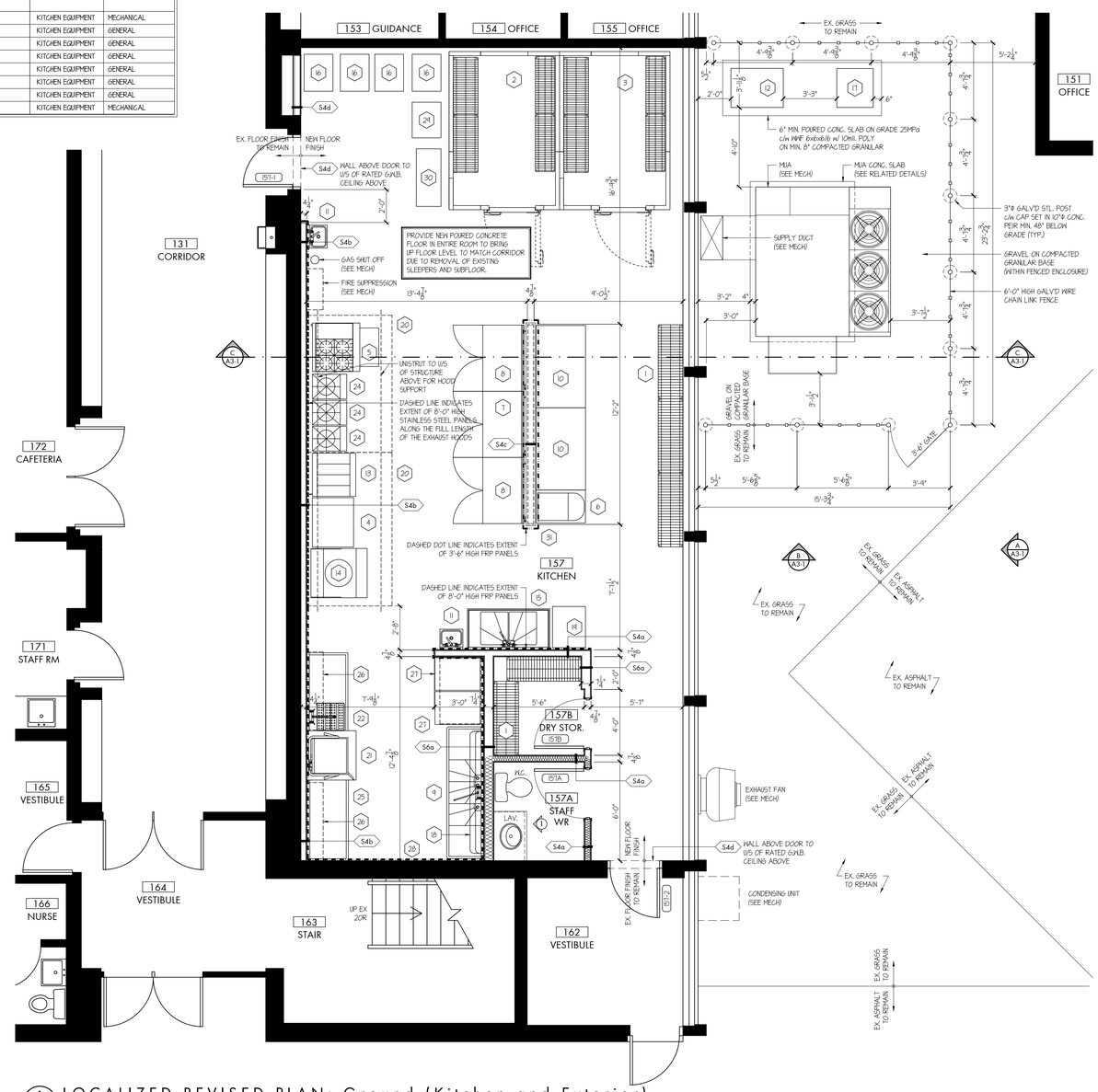
DRAWING TITLE:
Localized Demolition Plans

SCALE: As Noted
DRAWN: D.V.
DATE: November 2023
PROJECT #: 2345
DRAWING #: A2-1

PLOTTED 2/8/2024 9:43 AM

FOODSERVICE EQUIPMENT LIST AND SERVICES (Refer to 11400 Food Services Equipment for additional information)

NO.	Q'TY	DESCRIPTION	MANUF.	MODEL	MECHANICAL				ELECTRICAL			SUPPLIED BY	INSTALLED BY
					WATER		DRAIN	GAS	SINGLE PH.		3 PH.		
					HOT	COLD		BTUHR	120V	208V	208V		
1	14	Dry Storage Shelving	Advance Tabco	EG-								KITCHEN EQUIPMENT	GENERAL
2	1	Walk In Freezer	Curtis									KITCHEN EQUIPMENT	GENERAL
3	1	Walk In Refrigerator	Curtis									KITCHEN EQUIPMENT	GENERAL
4	1	Boilerless Combi Oven	Vulcan	TCM 61G		3/4"	1 1/2"	56,000			4.4 amp	KITCHEN EQUIPMENT	MECHANICAL
5	1	Two Burner Range/Griddle 1 Oven	Garland	G36-2G24R				140,000				KITCHEN EQUIPMENT	MECHANICAL
6	1	60 Quart Mixer	Estella	3405M60							13.6 amp	KITCHEN EQUIPMENT	GENERAL
7	1	Worktop Freezer	True	TWT-48F					5.0 amp			KITCHEN EQUIPMENT	MECHANICAL
8	2	Worktop Refridgerator	True	TWT-48					5.0 amp			KITCHEN EQUIPMENT	MECHANICAL
9	1	Pot / Dish Sink	Advance Tabco	7-1-3-54-18RL	1/2"	1/2"	1 1/2"					KITCHEN EQUIPMENT	MECHANICAL
10	2	Work table with shelf	Advance Tabco	VSS-304								KITCHEN EQUIPMENT	GENERAL
11	2	Hand Sink	Advance Tabco	7-PS-30	1/2"	1/2"	1 1/2"					KITCHEN EQUIPMENT	MECHANICAL
12	1	Condensing Unit (Walk In Freezer)	Curtis									KITCHEN EQUIPMENT	GENERAL
13	1	Fryer	Frymaster	MJ240				110,000				KITCHEN EQUIPMENT	MECHANICAL
14	1	Wok Range with Mandarin Chamber	Town	Y-1-55-N-13 YORK				75,000				KITCHEN EQUIPMENT	MECHANICAL
15	1	Two Compartment Preparation Sink	Advance Tabco	94-42-48	1/2"	1/2"	1 1/2"					KITCHEN EQUIPMENT	MECHANICAL
16	4	Food Delivery Cart	Nexel	ETG2127								BY OWNER	BY OWNER
17	1	Condensing Unit (Walk In Refrigerator)	Curtis									KITCHEN EQUIPMENT	GENERAL
18	1	Pot Rack	Advance Tabco	SNI-108								KITCHEN EQUIPMENT	GENERAL
19	1	Work Table (24"x30")	Advance Tabco	VSS-302								KITCHEN EQUIPMENT	GENERAL
20	2	Exhaust Hood	See mechanical	See mechanical								KITCHEN EQUIPMENT	MECHANICAL
21	1	Dishwasher	Champion	DH6000		3/4"	1"			11 amp		KITCHEN EQUIPMENT	MECHANICAL/ELECT.
22	1	Soiled Dish Table	Advance Tabco	DTS-530-60R	1/2"		1 1/2"					KITCHEN EQUIPMENT	GENERAL
23													
24	1	Single Stockpot Range	Vulcan	VSP100				110,000				KITCHEN EQUIPMENT	MECHANICAL
25	1	Clean Dish Table	Advance Tabco	DTC-530-60L								KITCHEN EQUIPMENT	GENERAL
26	1	Overshelf (1.8m)	Advance Tabco	K6-12-72								KITCHEN EQUIPMENT	GENERAL
27	2	Dish Cart	Cambro	DCS75H1								KITCHEN EQUIPMENT	GENERAL
28	1	Chemical Storage	-	-								KITCHEN EQUIPMENT	GENERAL
29	1	Mobile Pan Rack	U-Line	H4000								KITCHEN EQUIPMENT	GENERAL
30	1	4 Shelf Steelcart with spice rack	-	-								KITCHEN EQUIPMENT	GENERAL
31	1	Mixer Stand	Advance Tabco	MT-55-302								KITCHEN EQUIPMENT	MECHANICAL



1 A1-1 LOCALIZED REVISED PLAN: Ground (Kitchen and Exterior)

SCALE: 1/4" = 1'-0"

WALL ASSEMBLIES:

S4a
INTERIOR METAL STUD WALL
- 5/8" ABUSE RESISTANT GYPSUM WALLBOARD
- 3-5/8" METAL STUD FRAMING @ 16" O.C. MAX.
- FILL THE STUD CAVITY WITH SOUND PROOF INSULATION AROUND WASHROOM WALLS ONLY
- 5/8" ABUSE RESISTANT GYPSUM WALLBOARD

[STUD FRAMING FROM FLOOR LEVEL TO U/S OF RATED CEILING 6XB. ABOVE (PROVIDE SOLID BLOCKING BETWEEN THE EX. O.W.S.J's AND THE RATED CEILING 6XB. TO SECURE THE STUDS). 6XB. FROM FLOOR LEVEL TO 13" ABOVE HIGHEST ADJACENT CEILING. SOUND PROOF INSULATION TO BE FROM THE FLOOR LEVEL TO THE U/S OF THE STRUCTURAL ABOVE]

S4b
INTERIOR METAL STUD WALL
- 5/8" ABUSE RESISTANT GYPSUM WALLBOARD
- 3-5/8" METAL STUD FRAMING @ 16" O.C. MAX.

[STUD FRAMING FROM FLOOR LEVEL TO U/S OF RATED CEILING 6XB. ABOVE (PROVIDE SOLID BLOCKING BETWEEN THE EX. O.W.S.J's AND THE RATED CEILING 6XB. TO SECURE THE STUDS). 6XB. FROM FLOOR LEVEL TO 13" ABOVE HIGHEST ADJACENT CEILING]

S4c
INTERIOR METAL STUD LOW WALL
- 5/8" PLYWOOD SHEATHING
- 3-5/8" METAL STUD FRAMING @ 16" O.C. MAX.
- 5/8" PLYWOOD SHEATHING

[FROM FLOOR LEVEL TO 42" ABOVE FINISHED FLOOR]

S4d
INTERIOR METAL STUD RATED WALL
1 HR. F.R. U.L. DESIGN No. U415 SYSTEM A
- 5/8" TYPE 'X' GYPSUM WALLBOARD
- 4" C-T METAL STUD FRAMING @ 24" O.C. MAX.
- 1" TYPE 'X' GYPSUM WALL BOARD

[STUD FRAMING AND 6XB. FROM T/O FLOOR TO U/S OF RATED CEILING ABOVE]

S6a
INTERIOR METAL STUD WALL
- 5/8" ABUSE RESISTANT GYPSUM WALLBOARD
- 6" METAL STUD FRAMING @ 16" O.C. MAX.
- FILL THE STUD CAVITY WITH SOUND PROOF INSULATION AROUND WASHROOM WALLS ONLY
- 5/8" ABUSE RESISTANT GYPSUM WALLBOARD

[STUD FRAMING FROM FLOOR LEVEL TO U/S OF RATED CEILING 6XB. ABOVE (PROVIDE SOLID BLOCKING BETWEEN THE EX. O.W.S.J's AND THE RATED CEILING 6XB. TO SECURE THE STUDS). 6XB. FROM FLOOR LEVEL TO 13" ABOVE HIGHEST ADJACENT CEILING. SOUND PROOF INSULATION TO BE FROM THE FLOOR LEVEL TO THE U/S OF THE STRUCTURAL ABOVE]

GENERAL NOTES:
1) ALL WALLS TO BE STRUCTURALLY SUPPORTED AT TOP BY WAY OF STABILIZATION MEMBERS OR CONTINUATION OF STUDS TO STRUCTURAL SLAB ABOVE.
2) REFER TO FIRE SEPARATION DRAWING FOR RATING LOCATIONS.
3) STEEL STUD IN RATED ASSEMBLIES TO BE MIN. 0.53mm THICK.
4) REFER TO PLAN STAINLESS STEEL AND FRP PANELS LOCATIONS AND HEIGHTS.
5) REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR KITCHEN EQUIPMENT CONNECTIONS AS WELL AS ADDITIONAL ITEMS SUCH AS FAUCETS/DRAINS/ETC.
6) FRP PANELS SHALL BE SERIES 180 (0.080") BY CANADA PLASTICS (OR EQUAL) C/W ALL ACCESSORIES, IN COLOUR BRIGHT WHITE P168. INSTALL AS PER MANUFACTURES RECOMMENDATIONS.
7) INSPECTION AND REPAIR OF THE EXISTING RATED WALL ASSEMBLY.
7(i) AFTER THE DEMOLITION IS COMPLETE AND THE EXISTING RATED WALL ASSEMBLIES ARE EXPOSED (REFER TO RELATED DEMOLITION DRAWINGS). THE CONTRACTOR IS TO INSPECT THE INTEGRITY OF THE EXISTING RATED ASSEMBLY. IF THE INTEGRITY OF THE EXISTING RATED ASSEMBLY SEEMS COMPROMISED; THE CONTRACTOR IS TO REPORT TO THE ARCHITECT FOR DIRECTION TO REPAIR AND/OR REPLACE THE EXISTING RATED ASSEMBLY. ALLOW FOR MIN. 500 SQ. FT. OF THE EXISTING RATED ASSEMBLY TO BE REPAIRED/REPLACED TO MATCH EXISTING.

LEGEND:

- EXISTING ASSEMBLY TO REMAIN
- NEW ASSEMBLY
- 1 HR FIRE RATED ASSEMBLY
- EXISTING FEATURE TO BE REMOVED
- 8'-0" HIGH STAINLESS STEEL PANELS
- 8'-0" HIGH FRP PANELS
- 3'-6" HIGH FRP PANELS
- 6'-0" CHAIN LINK FENCE
- SOUND PROOF INSULATION
- # DEMOLITION KEY
- # WALL TYPE AS SPEC'D
- # DOOR TYPE AS SPEC'D
- # EQUIPMENT TYPE AS SPEC'D
- # / # DETAIL # / SECTION # DRAWING #
- # INTERIOR ELEVATION #

ABBREVIATIONS:

T.B.	TACK BOARD	EQ.	EQUAL
W.B.	WHITE BOARD	REV.	REVERSE
B.F.	BARRIER FREE	EX.	EXISTING
G.B.	GRAB BAR	B/S	BOTH SIDES
F.D.	FLOOR DRAIN	WD.	WOOD
t/o	TOP OF	TYP.	TYPICAL
u/s	UNDERSIDE	c/m	COMPLETE WITH
w/	WITH	c/c	CENTRE TO CENTRE
U.N.O.	UNLESS NOTED OTHERWISE	o/c	ON CENTRE
REF.	REFERENCE	W.C.	WATER CLOSET
SIM.	SIMILAR	LAV.	LAVATORY
MIR.	MIRRORED	S.A.T.	SUSPENDED ACOUSTIC TILE
TYP.	TYPICAL	MUA.	MAKE UP AIR UNIT
G.W.B.	GYPSUM WALL BOARD	T+B	TOP AND BOTTOM
A.F.F.	ABOVE FINISHED FLOOR	EW.	EACH WAY
F.F.L.	FINISHED FLOOR LEVEL	FRP	FIBRE GLASS PANELS
MIN.	MINIMUM		
MAX.	MAXIMUM		
N.I.C.	NOT IN CONTRACT		

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DRAWING TITLE:
Localized Revised Plan and Kitchen Equipment List

SCALE: As Noted

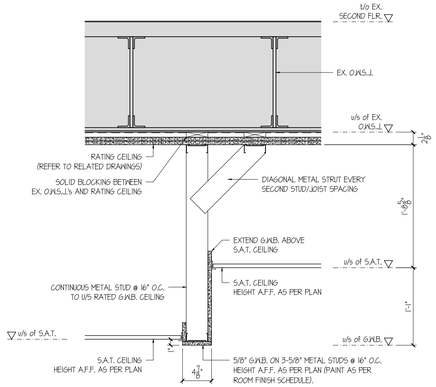
DRAWN: D.V.

DATE: November 2023

PROJECT #: 2345

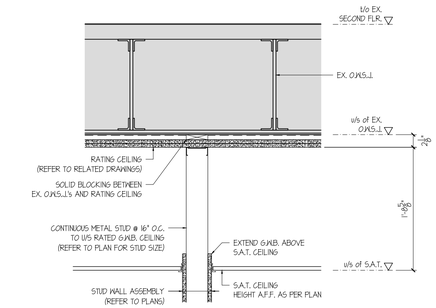
DRAWING #: A2-2

PLOTTED 2/8/2024 9:43 AM



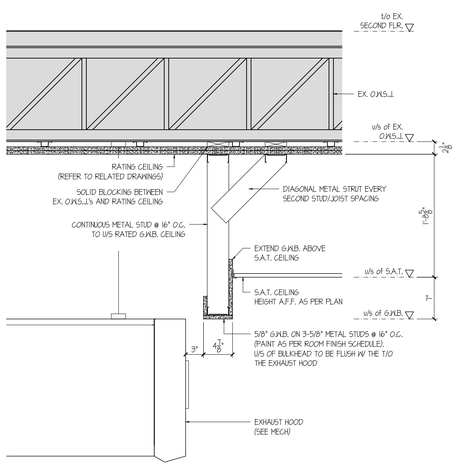
1 A2-3 SECTION DETAIL: Bulkhead

SCALE: 1" = 1'-0"



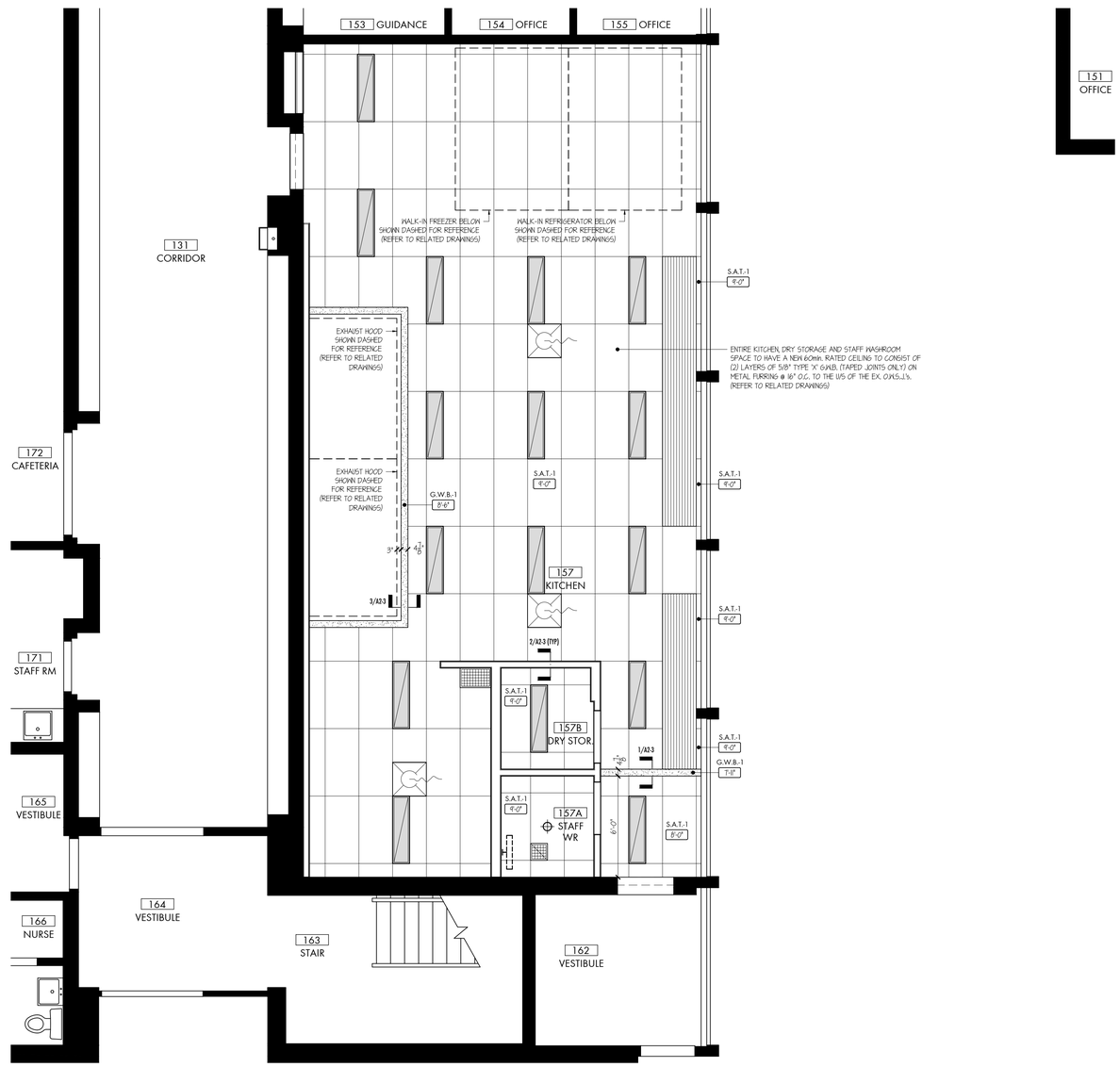
2 A2-3 SECTION DETAIL: Typ. Stud Wall @ Rated Ceiling

SCALE: 1" = 1'-0"



3 A2-3 SECTION DETAIL: Bulkhead @ E.H.

SCALE: 1" = 1'-0"



1 A1-1 LOCALIZED REVISED REFLECTED CEILING PLAN: Ground

SCALE: 1/4" = 1'-0"

CEILING FEATURES:

ARCHITECTURAL ITEMS:

X'-X" — FINISHED CEILING HEIGHT (TO UNDERSIDE) ABOVE FINISHED FLOOR.

ETR — EXISTING CEILING FINISHES TO BE REMOVED AND REINSTATED AS REQUIRED (& RELATED MECH'L & ELEC'L ITEMS AS APPLICABLE) TO REMAIN. REFER TO RELATED DRAWINGS.

S.A.T.-1 (CLEANABLE LAY-IN TILE): REFER TO SPECIFICATIONS.

6XB.-1 (BULKHEADS): GYPSUM WALL BOARD CEILING BULKHEAD 5/8" 6XB ON METAL STUDS @ 16" O.C. CONTINUOUS TO STRUCTURE ABOVE. REFER TO RELATED DRAWINGS. PAINT AS PER ROOM FINISH SCHEDULE.

MECHANICAL ITEMS:

RADIANT PANELS: 2'-0" WIDE RADIANT PANELS AS PER MECHANICAL

SUPPLY AIR DIFFUSER: SIZE AS PER MECHANICAL

RETURN AIR GRILLE: SIZE AS PER MECHANICAL

EXHAUST FAN and/or GRILLE: SIZE AS PER MECHANICAL

ELECTRICAL ITEMS:

RECESSED 12" x 48" LED LUMINAIRE AS PER ELECTRICAL

RECESSED LED POT LIGHT AS PER ELECTRICAL

WALL MOUNTED LUMINAIRE AS PER ELECTRICAL

NOTES:
- ALL MECHANICAL & ELECTRICAL CEILING FEATURES ARE TO BE LOCATED IN POSITIONS SHOWN ON ARCHITECTURAL DRAWINGS THROUGHOUT; ITEMS SHOWN ON MECHANICAL & ELECTRICAL DRAWINGS PROVIDE GENERAL LOCATIONS ONLY.

LEGEND:

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- NEW ASSEMBLY
- 1 HR FIRE RATED ASSEMBLY
- EXISTING FEATURE TO BE REMOVED
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- 8'-0" HIGH FRP PANELS
- 3'-6" HIGH FRP PANELS
- 6'-0" CHAIN LINK FENCE
- SOUND PROOF INSULATION
- # DEMOLITION KEY
- # WALL TYPE AS SPEC'D
- # DOOR TYPE AS SPEC'D
- # EQUIPMENT TYPE AS SPEC'D
- # / # DETAIL # / SECTION # DRAWING #
- # INTERIOR ELEVATION #

ABBREVIATIONS:

T.B.	TACK BOARD	EQ.	EQUAL
W.B.	WHITE BOARD	REV.	REVERSE
B.F.	BARRIER FREE	EX.	EXISTING
G.B.	GRAB BAR	B/S	BOTH SIDES
F.D.	FLOOR DRAIN	WD.	WOOD
t/o	TOP OF	TYP.	TYPICAL
u/s	UNDERSIDE	c/w	COMPLETE WITH
w/	WITH	c/c	CENTRE TO CENTRE
U.N.O.	UNLESS NOTED OTHERWISE	o/c	ON CENTRE
REF.	REFERENCE	W.C.	WATER CLOSET
SIM.	SIMILAR	LAV.	LAVATORY
MIR.	MIRRORED	S.A.T.	SUSPENDED ACOUSTIC TILE
TYP.	TYPICAL	M.U.	MAKE UP AIR UNIT
G.W.B.	GYPSUM WALL BOARD	T+B	TOP AND BOTTOM
A.F.F.	ABOVE FINISHED FLOOR	E.W.	EACH WAY
F.F.L.	FINISHED FLOOR LEVEL	FRP	FIBRE GLASS PANELS
MIN.	MINIMUM		
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0	Permit	2024-01-19
1	Tender	2024-02-08

PROJECT:

New Kitchen for

Fort Erie International Academy

7 Tait Ave., Fort Erie, ON

SEAL:

ONTARIO ASSOCIATION OF ARCHITECTS
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DRAWING TITLE:

Localized Revised Reflected Ceiling Plan and Detail

SCALE: As Noted

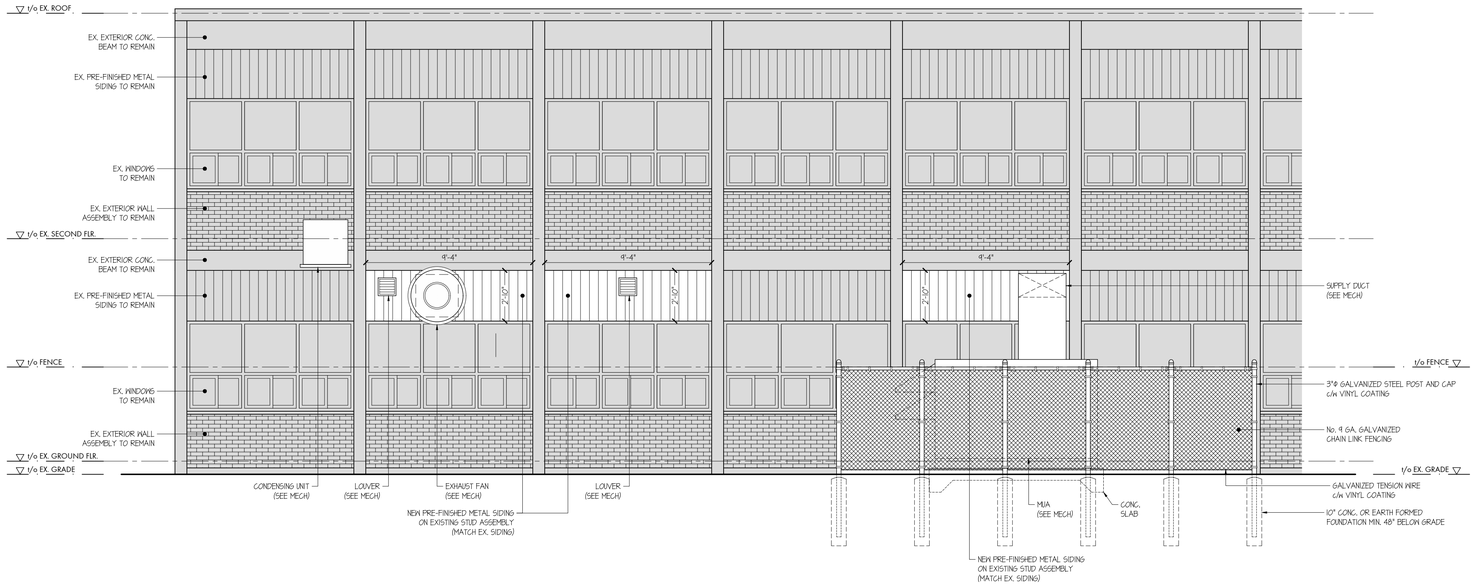
DRAWN: D.V.

DATE: November 2023

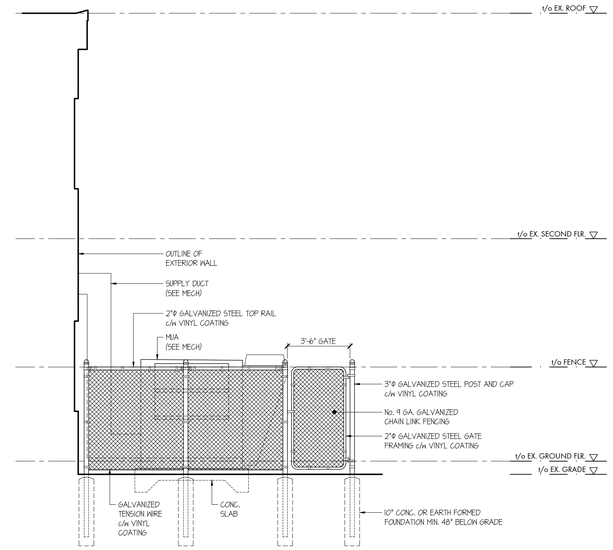
PROJECT #: 2345

DRAWING #: A2-3

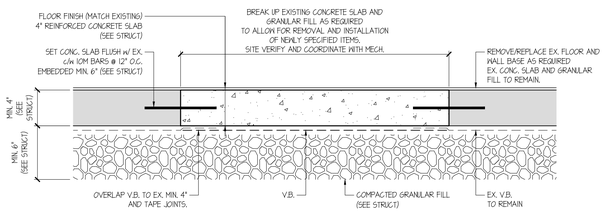
PLOTTED 2/8/2024 9:43 AM



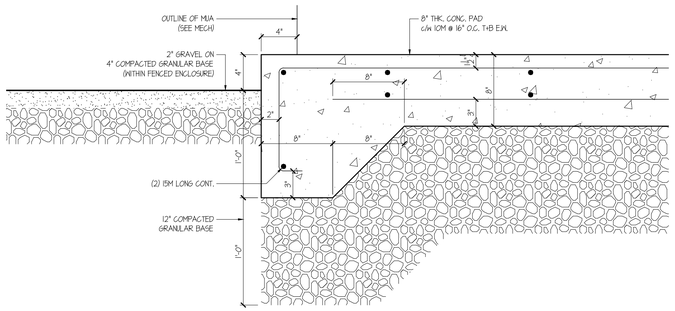
A A2-2 LOCALIZED EAST ELEVATION
SCALE: 1/4" = 1'-0"



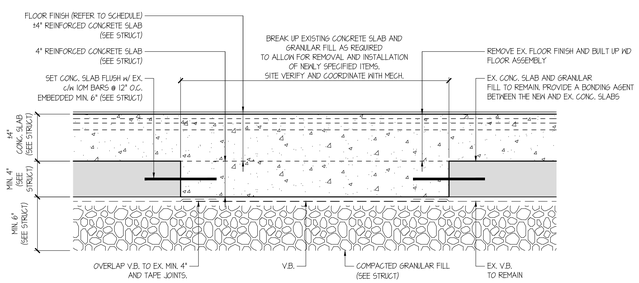
B A2-2 LOCALIZED SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



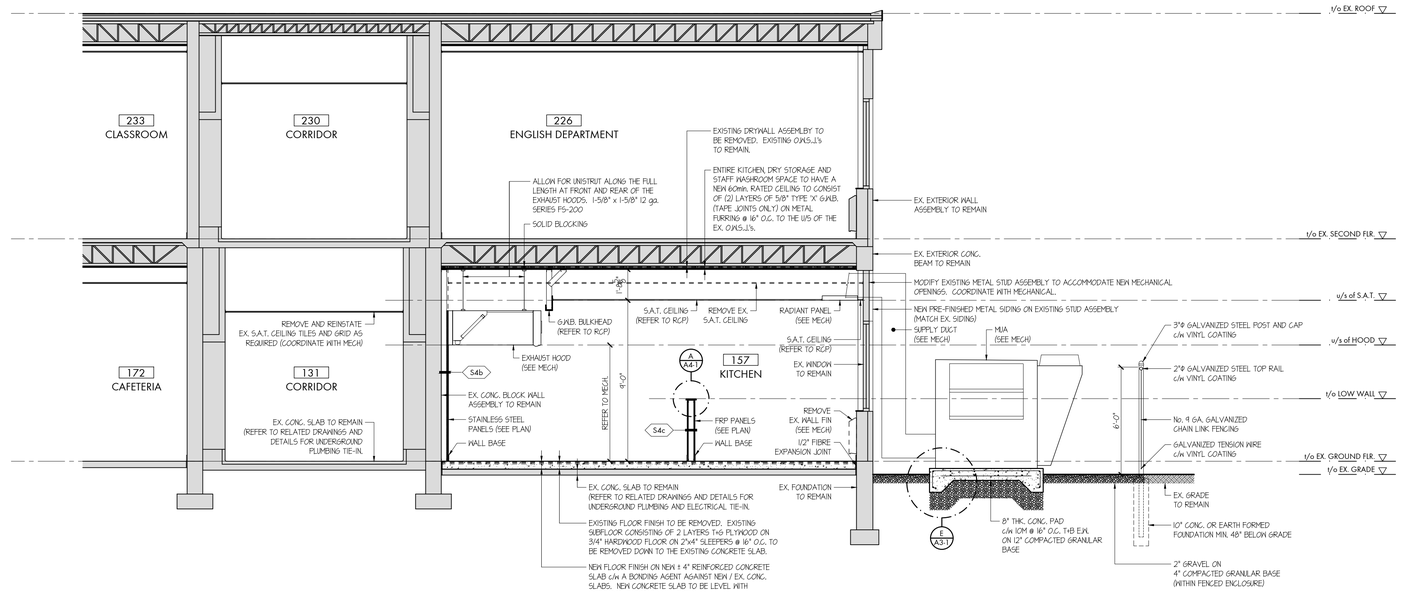
D A2-1 SECTION DETAIL: Typ. Conc. Slab at New/Removed Plumbing
SCALE: 1-1/2" = 1'-0"



E A3-1 SECTION DETAIL: MUA Conc. Slab
SCALE: 1-1/2" = 1'-0"



F A2-1 SECTION DETAIL: Typ. Conc. Slab at New/Removed Plumbing
SCALE: 1-1/2" = 1'-0"



C A2-2 CROSS SECTION
SCALE: 1/4" = 1'-0"

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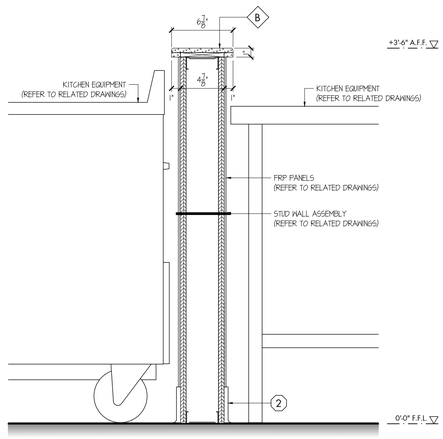
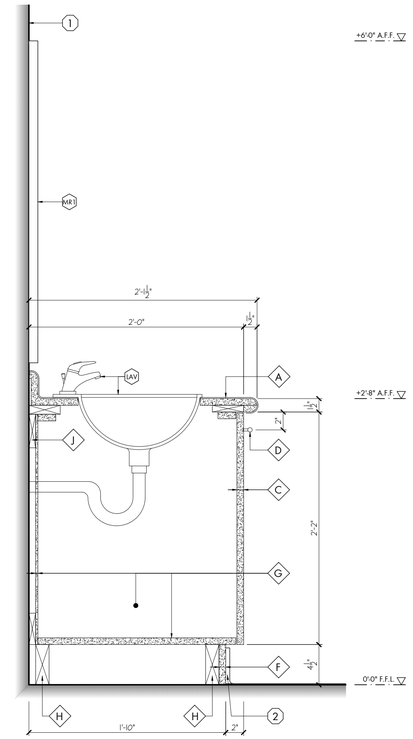
DRAWING TITLE:
Elevations, Cross Section, and Details

SCALE: As Noted
DRAWN: D.V.
DATE: November 2023
PROJECT #: 2345
DRAWING #: A3-1

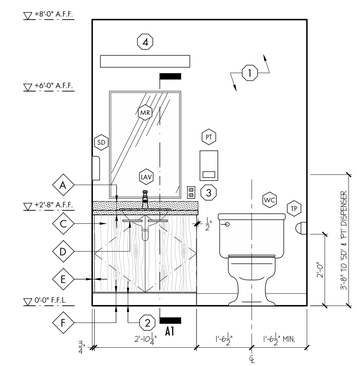
PLOTTED 2/8/2024 9:43 AM



A / A3-1 SECTION DETAIL: Low Wall
SCALE: 1/2" = 1'-0"



A1 SECTION DETAIL: Lower Cabinet
SCALE: 1-1/2" = 1'-0"



1 INTERIOR ELEVATION: Washroom
SCALE: 1/2" = 1'-0"

MILLWORK KEYING:

- **A** 180° POST-FORMED COUNTERTOP WITH INTEGRAL BACKSPACE TO BE PLASTIC LAMINATE #1 (ARBORITE P-344 VL ARTIC SNOW ON 3/4" PARTICLE BOARD TO SUIT)
- **B** SOLID SURFACE COUNTERTOP TO BE LG HIMACS R9003, TERAZZO MODERNA, 1/2" THICK C/W BUILT-UP NOSING (IN THICKNESS SPECIFIED ON DRAWINGS) WITH PENCIL RADIUS AT ALL OUTSIDE EDGES TO SUIT. CONTINUOUS WOOD SUPPORT RUNNERS BELOW COUNTERTOP TO SUIT.
- **C** ALL EXPOSED CABINET BODIES TO BE MELAMINE FINISH PARTICLE BOARD IN STOCK THICKNESS NOTED C/W 1.5 MM MATCHING PVC EDGEBANDING THROUGHOUT; DOOR FACINGS TO BE 3/4" PARTICLE BOARD; ALL EXPOSED CABINET BODIES TO BE 3/4" PARTICLE BOARD; 1/2" BACKING BOARD (WHERE SHOWN)2
- **D** CABINET PULLS TO BE RICHELIEU #BP186128-195, 6 3/8" LONG x 1 3/32" PROJECTION IN #195 BRUSHED NICKEL FINISH; POSITIONING AS PER ELEVATION.
- **E** FILLER STRIPS (IN WIDTHS TO SUIT) TO BE MELAMINE FINISH 3/4" PARTICLE BOARD C/W MATCHING 3MM PVC EDGE BANDING; PROVIDE CONTINUOUS MOUNTING STRIPS TO SUIT; INSTALLED FLUSH WITH ADJACENT CABINET FACES (WHERE APPLICABLE).
- **F** 4 1/2" HIGH x 2" DEEP TOEKICK TO BE 3/4" 'EXTIRA' EXTERIOR-GRADE WATER RESISTANT MDF ON CONCEALED WOOD BLOCKING TO SUIT; FINISH ALL RECESSED TOEKICKS WITH WALL BASE AS PER COLOUR FINISH SCHEDULE.
- **G** CONCEALED CABINET INTERIORS (BEHIND DRAWERS AND DOORS) TO BE WHITE MELAMINE FINISH PARTICLE BOARD C/W MATCHING TAPED EDGEBANDING; 3/4" THICK SHELVES, GABLES AND DRAWER BOXES; 3/8" THICK BACKING BOARD; SHELVES ARE TO BE FINISHED WITH EDGEBANDING ON ALL 6 SIDES; ALL SHELVES ARE TO ADJUSTABLE (UNO) C/W CLEAR ALUMINUM PILASTER STRIPS RECESSED INTO CABINET BODIES; SHELF QUANTITIES TO BE AS SHOWN ON ELEVATIONS (TYP.)
- **H** WOOD SUPPORT BLOCKING (OR CABINET LEVELING LEGS) TO SUIT
- **J** CONTINUOUS WOOD ANCHORING STRIPS (TO SUIT) ANCHORED INTO WALL BEHIND.

EQUIPMENT LIST:

- **LAV** LAVATORY (SINK AND FAUCET) AS PER MECHANICAL
- **MR** 24" x 36" MIRROR; BOBRICK MODEL B-1556 2436
- **PT** PAPER TOWEL DISPENSER PURCHASED BY OWNER INSTALLED BY CONTRACTOR
- **SD** SOAP DISPENSER PURCHASED BY OWNER INSTALLED BY CONTRACTOR
- **TP** TOILET PAPER DISPENSER PURCHASED BY OWNER INSTALLED BY CONTRACTOR
- **WC** WATER CLOSET AS PER MECHANICAL

MISCELLANEOUS GENERAL KEYING:

- **1** GYPSUM WALL BOARD FINISH AS PER ROOM FINISH SCHEDULE
- **2** WALL BASE AS PER ROOM FINISH SCHEDULE
- **3** RECEPTACLES, DATA TELECOM OUTLETS, ETC. AS PER ELEC. DRAWINGS
- **4** WALL MOUNTED LIGHT FIXTURE AS PER ELEC. DRAWINGS

MILLWORK FABRICATION NOTES:

1. ALL MILLWORK IS TO BE FABRICATED TO AWMAC 'CUSTOM GRADE' STANDARDS THROUGHOUT, AS REFERENCED IN THE MOST RECENTLY PUBLISHED STANDARD'S GUIDE.

2. ALL WOOD GRAIN LAMINATE + MELAMINES ARE TO BE INSTALLED IN THE GRAIN ORIENTATIONS ILLUSTRATED ON ARCHITECTURAL DRAWINGS; ENSURE CONTINUITY OF GRAIN BETWEEN VERTICALLY STACKED PANEL FACINGS THROUGHOUT.

THESE DRAWINGS ARE NOT TO BE SCALED

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THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MUST CONFIRM & CORRELATE ALL DETAILS WITHIN THE FULL DRAWING PACKAGE BEING RESPONSIBLE FOR SAME THROUGHOUT CONSTRUCTION, REPORTING ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO COMMENCING THE RELEVANT WORK.

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0	Permit	2024-01-19
1	Tender	2024-02-08

PROJECT:
New Kitchen for

Fort Erie International Academy

7 Tait Ave., Fort Erie, ON

SEAL:

ONTARIO ASSOCIATION OF ARCHITECTS
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www@whitelinearchitects.com

DRAWING TITLE:
Interior Elevation and Millwork Details

SCALE: As Noted
DRAWN: D.V.
DATE: November 2023
PROJECT #: 2345
DRAWING #: A4-1

PLOTTED 2/8/2024 9:43 AM

DOOR SCHEDULE

ID #	LOCATION		DOOR				FRAME					RATING	DOOR & FRAME GLAZING	
NO.	FROM	TO	SIZE	MATERIAL	ELEV.	FINISH	MATERIAL	JAMB	ELEV.	FINISH	DEPTH	FIRE RATING	TYPE	REMARKS
157-1	157	131	EXISTING	EX. H.M.	EX.	PAINT	EX. H.M.	EX	EX.	PAINT	EX.	EX. 3/4 HR.		EXISTING DOOR TO REMAIN. TO BE PAINTED.
157-2	157	162	EXISTING	EX. H.M.	EX.	PAINT	EX. H.M.	EX	EX.	PAINT	EX.	EX. 3/4 HR.		EXISTING DOOR TO REMAIN. TO BE PAINTED. PROVIDE CLOSURE.
157A	157	157A	3'-0" x 7'-0"	H.M.	1	PAINT	H.M.	A	F-1	PAINT	5 7/8"			
157B	157	157B	3'-0" x 7'-0"	H.M.	1	PAINT	H.M.	A	F-1	PAINT	5 7/8"			

GENERAL NOTES:

1. CONTRACTOR TO VERIFY ALL FRAME SIZES (INCLUDING DEPTHS) AND REPORT ANY DISCREPANCIES TO THE ARCHITECT FOR FURTHER CLARIFICATION PRIOR TO SHOP DRAWING SUBMISSION.
2. SITE VERIFY ALL OPENING DIMENSIONS PRIOR TO FABRICATION.
3. INSTALLATION ORIENTATIONS OF ALL DOOR AND DOOR FRAMES TO BE AS PER FLOOR PLAN.
4. FRAME DIMENSIONS SHOWN INCLUDE DIMENSIONAL ALLOWANCE FOR FRAME WRAP OVER G.W.B.
5. PROVIDE CONTINUOUS SEALANT (c/w BACKER ROD IF REQUIRED) AROUND FULL PERIMETER OF DOOR FRAME AT BOTH SIDES BETWEEN FRAME AND WALL TRANSITIONS.

HARDWARE:

DOOR 157A

TYPE:	MANUFACTURER:	MODEL:	TOTAL:
HINGES	IVES	5BB1 5x4.5; STAINLESS STEEL FINISH	3
PRIVACY SET	SARGENT	V20-8265-LNL-US; SATIN CHROME FINISH	1
WALL STOP	STANDARD METAL HARDWARE	S123; SATIN STAINLESS STEEL FINISH	1
KICKPLATE	STANDARD METAL HARDWARE	K10A 1" x 34"; STAINLESS STEEL FINISH	2

DOOR 157B

TYPE:	MANUFACTURER:	MODEL:	TOTAL:
HINGES	IVES	5BB1 5x4.5; STAINLESS STEEL FINISH	3
STOREROOM LOCKSET	SARGENT	28-13TP-11G04 LL; SATIN CHROME FINISH	1
WALL STOP	STANDARD METAL HARDWARE	S123; SATIN STAINLESS STEEL FINISH	1
KICKPLATE	STANDARD METAL HARDWARE	K10A 1" x 34"; STAINLESS STEEL FINISH	2

ABBREVIATIONS:

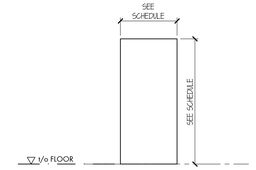
t/o	TOP OF
u/s	UNDERSIDE
H.M.	HOLLOW METAL

JAMB DETAIL

A

H.M. INTERIOR WRAP
AROUND G.W.B. JAMB

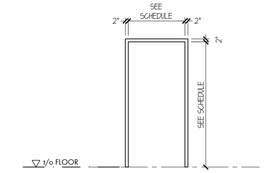
DOOR ELEVATION



1

HOLLOW METAL
(1 3/4" Thick)

DOOR FRAME



F-1
HOLLOW METAL

ROOM FINISH SCHEDULE

ROOM NO.	NAME	FLOORS: SUBFLOOR	FINISH	BASE	FLOORING NOTES	WALLS: MATERIAL	FINISH	WALL NOTES	CEILING: MATERIAL	FINISH	HEIGHT	CEILING NOTES	MILLWORK	GENERAL REMARKS	NO.
123	CORRIDOR	EX. CONCRETE	EX. TZ	EX. TZB	FN-1, FN-2	EX.	EX.		EX. S.A.T.	FF		CN-1			123
126	OFFICE	EX. CONCRETE	EX. VT	EX. RB	FN-1, FN-2	EX.	EX.		EX.						126
129	PHOTOCOPY	EX. CONCRETE	EX. VT	EX. RB	FN-1, FN-2	EX.	EX.		EX.						129
130	MEETING	EX. CONCRETE	EX. VT	EX. RB	FN-1, FN-2	EX.	EX.		EX.						130
131	CORRIDOR	EX. CONCRETE	EX. TZ	EX. TZB	FN-2	EX. BV	EX.		EX. S.A.T.	FF	8'-4"	CN-1		PAINT EXISTING DOOR AND FRAME TAGGED 157-1	131
132	CORRIDOR	EX. CONCRETE	EX. TZ	EX. TZB	FN-1, FN-2	EX. BV	EX.		EX. S.A.T.	FF					132
153	GUIDANCE	EX. CONCRETE	EX. VT	EX. RB	FN-1, FN-2	EX.	EX.		EX.						153
157	KITCHEN	EX. CONCRETE NEW CONCRETE	SRSF	IFCB	FN-1	EX. BLOCK, GYP.B.	PAINT, S.S. FRP	WN-1, WN-2	S.A.T.#1 GYP.B.	FF PAINT	9'-0" VARIES		MN-1	GN-2	157
157A	STAFF WASHROOM	EX. CONCRETE NEW CONCRETE	SRSF	IFCB	FN-1	EX. BLOCK, GYP.B.	PAINT	WN-1, WN-2	S.A.T.#1	FF	8'-0"		MN-1	GN-1, GN-2	157A
157B	DRY STORAGE	EX. CONCRETE NEW CONCRETE	SRSF	IFCB	FN-1	GYP.B.	PAINT	WN-1	S.A.T.#1	FF	8'-0"			GN-2	157B
162	VESTIBULE	EX. CONCRETE	EX. VT	EX. RB	FN-2	EX. BLOCK GYP.B	PAINT PAINT		EX. CT	FF	8'-0"	CN-2		PAINT EXISTING DOOR AND FRAME TAGGED 157-2	162

FLOORING ABBREVIATIONS:
EX EXISTING
RB RUBBER BASE
SRSF SLIP RESISTANT SHEET FLOORING
IFCB INTEGRAL FLASH COVE BASE
TZ TERRAZZO
TZB TERRAZZO
RB RUBBER BASE
VT VINYL TILE

FLOORING NOTES (FN):
FN-1 PATCH & PREPARE EXISTING CONCRETE SLAB FOR NEW PLUMBING AND ELECTRICAL TIE-IN.
FN-2 LOCALIZED REMOVE & REINSTATE EXISTING FLOOR FINISH AND BASE AS REQUIRED.

WALL ABBREVIATIONS:
EX EXISTING
BLOCK CONCRETE MASONRY UNIT
GYP.B. GYPSUM WALL BOARD
S.S. STAINLESS STEEL PANELS
FRP FIBRE GLASS PANELS
BV BRICK VENEER

WALL NOTES:
WN-1 PAINT ALL NEW AND EXISTING EXPOSED WALLS.
WN-2 MULTIPLE WALL TYPES WITHIN ROOM; REFER TO PLANS AND INTERIOR ELEVATIONS.
WN-3 PAINT ALL NEW EXPOSED WALLS. PAINT EXISTING EXPOSED WALLS AFFECTED BY DEMOLITION AND INSTALLATION. PAINT TO NEAREST CORNER.

CEILING ABBREVIATIONS:
EX EXISTING
FF FACTORY FINISH
GYP.B. GYPSUM WALL BOARD (ON METAL STUDS)
C.T. CEILING TILE
S.A.T. # SUSPENDED ACOUSTIC TILE CEILING & GRID SYSTEM

CEILING NOTES:
CN-1 REMOVE AND REINSTATE EXISTING S.A.T. CEILING AS REQUIRED.
CN-2 REMOVE AND REINSTATE EXISTING CEILING TILE AS REQUIRED.

MILLWORK NOTES (MN):
MN-1 MILLWORK AS PER ELEVATIONS AND PLANS

GENERAL REMARKS (GR):
GR-1 WALL-MOUNTED WASHROOM ACCESSORIES AS PER RELATED DRAWINGS.
GR-2 ALL NEW AND EXISTING DOORS AND FRAMES TO BE PAINTED.

GENERAL NOTES:
1. ALL ITEMS SPECIFIED TO RECEIVE PAINT FINISH ARE TO BE PREPPED & PRIMED AS REQUIRED THROUGHOUT; INCLUDING PATCH AND REPAIR OF ALL REMOVED ITEMS ON THAT SURFACE.
2. ROOM FINISH SCHEDULE IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS & SPECIFICATIONS TO PROVIDE A COMPLETE UNDERSTANDING OF PROJECT REQUIREMENTS. IN NO WAY IS THE REQUIRED SCOPE OF WORK LIMITED TO OR FULLY COVERED BY THIS ROOM FINISH SCHEDULE
3. ANY ITEMS INSUFFICIENTLY DOCUMENTED HEREIN ARE TO BE REPORTED TO THE ARCHITECT FOR DIRECTION PRIOR TO PROCEEDING WITH ANY RELATED WORK. ANY SUCH WORK COMPLETED ON SITE WITHOUT THE ARCHITECT'S PRIOR DIRECTION MAY REQUIRE SUBSEQUENT RECTIFICATION TO THE SATISFACTION OF THE ARCHITECT AT CONTRACTORS EXPENSE.

FLOORING FINISH SPECIFICATIONS:

SRSL: SLIP-RETARDANT SHEET FLOORING:

6' WIDE X 0.080" (2.03mm) THICK MANNINGTON ASSURANCE III ROLL GOODS IN COLOUR 'TAWNY GREY 16351' C/W MANUFACTURER SUPPLIED MATCHING WELDING RODS AT ALL SEAMS; PRODUCT TO BE INSTALLED IN FULL ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE INTNEDED APPLCIATION INCLUDING USE OF ALL RELATED TOOLS, INSTALLATION TECHNIQUES AND COMPATIBLE PRODUCTS [INCLUDING ADHESIVES]; ENSURE THAT ALL EXISITNG SUB-FLOOR SURFACE CONDITIONS EXHIBIT R.H. AND MOISTURE TOLERANCES SUITABLE FOR INSTALLATION; UTILIZE MANUFACTURER-RECOMMENDED HIGH R.H. ADHESIVES AS REQUIRED RELATIVE TO EXISTING SLAB MOISTURE LEVELS

RB RUBBER BASE:
4.375" HIGH JOHNSONITE 'TIGHTLOCK RESILIENT' RUBBER BASE IN COLOUR #20 CHARCOAL; INSTALL PRODUCT IN FULL ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE INTENDED APPLICATION; RELIEF-CUT REAR SIDE OF MATERIAL FOR ONE-PIECE INSTALLATION AROUND OUTSIDE CORNERS; USE MANUFACTURER-RECOMMENDED ADHESIVES AND/OR CONTACT CEMENT FOR HARD-TO-HOLD APPLICATIONS

CSL CONCRETE SELF-LEVELLING TOPPING:
SELF-LEVELLING TOPPING TO BE CEMENT-BASED OR OTHER NON-GYPSUM BASED PRODUCTS. TOPPING TO BE SELECTED TO SUIT THE INTENDED APPLICATION ENSURING:
- COMPATIBILITY OF TOPPING WITH APPLICABLE SUBSTRATE MATERIAL AND CONDITIONS
- FULL ADHESION BETWEEN TOPPING AND SUBSTRATE
- COMPATIBILITY OF TOPPING THICKNESS CAPABILITIES TO SITE REQUIREMENTS [MIN. AND MAX. TOPPING THICKNESSES]
- USE OF APPROPRIATE AGGREGATES IN TOPPING [IF REQUIRED] TO ACHIEVE HIGH-BUILD THICKNESS REQUIREMENTS
- ABILITY OF TOPPING TO BE FEATHERED OR TAPERED TO 0 AS/IF REQUIRED
- VISCOSITY, FLOW AND SELF-LEVELLING CAPABILITIES OF TOPPING SUITED TO SITE REQUIREMENTS AND ENVIRONMENTAL CONDITIONS
- PUMPING ABILITY OF TOPPING AS/IF REQUIRED SUITED TO SITE REQUIREMENTS
- COMPATIBILITY OF TOPPING DRY-TIME WITH PROJECT REQUIREMENTS
-

PRIOR TO INSTALLATION OF SELF-LEVELLING TOPPING, ALSO ENSURE USE OF THE FOLLOWING [AS/IF REQUIRED]:
- MANUFACTURER-RECOMMENDED ADHESION PRIMERS
- MANUFACTURER-RECOMMENDED SUB-FLOOR PATCH MATERIALS, FILL AND CRACK REPAIR AGENTS ETC. AND MISCELLANEOUS ITEMS AS REQUIRED TO ENSURE THE INTEGRITY OF THE TOPPING INSTALLATION

ACCEPTABLE SELF-LEVELLING CONCRETE TOPPINGS INCLUDE ARDEX K16 OR ARDEX K15 OR APPROVED ALTERNATE

TRANSITION STRIPS:

TRANSITION STRIPS ARE TO BE SUPPLIED AND INSTALLED AT ALL FLOORING TRANSITIONS THROUGHOUT WHERE DISSIMILAR FLOORING MATERIALS MEET AND/OR WHERE DISSIMILAR FLOORING MATERIALS OF DIFFERENT THICKNESSES MEET.

TRANSITION STRIPS SHALL INCLUDE ALL 'REDUCERS', 'ADAPTORS' 'SLIMLINE TRANSITIONS' AND/OR 'WHEELED TRAFFIC TRANSITIONS' AS MANUFACTURED BY TARKETT (UNLESS NOTED OTHERWISE). FLOORING TRADE TO DETERMINE THE REQUIRED PROFILE OF THE TRANSITION STRIPS FOR THE INTENDED APPLICATION, SUPPLYING AND INSTALLING SUITABLE TRANSITIONS STRIPS TO:
- MEDIATE/TRANSITION BETWEEN NEW FLOORING OF DIFFERENT THICKNESSES
- MEDIATE/TRANSITION BETWEEN A NEW FLOORING FINISH AND AN ADJACENT EXISTING FLOORING FINISH WHICH IS NOT CO-PLANAR (I.E. WITH A DIFFERENT FINISH LEVEL)

FLOORING TRADE TO SELECT APPROPRIATE PROFILES FROM TARKETT'S FULL PRODUCT RANGE SUITED TO THE INTENDED APPLICATION RELATIVE TO ABUTTING FLOORING TYPES AND THICKNESS, IN COLOUR TO MATCH ONE ABUTTING FLOORING FINISH AND/OR AS SELECTED BY THE ARCHITECTS FROM THE MANUFACTURER'S FULL COLOUR RANGE.

GWB SPECIFICATIONS:

ALL GYPSUM WALL BOARD THROUGHOUT IS TO BE 5/8" THICK GEORGIA-PACIFIC 'DENS ARMOR PLUS ABUSE RESISTANT INTERIOR PANELS' WITH MOISTURE-RESISTANT CORE FACED IN COATED FIBRE-GLASS MATTS. PRODUCT INHERENTLY MEETS TYPE 'X' FIRE-RATING REQUIREMENTS. BOARD WIDTHS TO BE 4'-0" X LONGEST PRACTICAL LENGTHS TO SUIT. ALL INSTALLED BOARDS ARE TO BE COMPOUNED, CORNER-BEADED, TAPED AND MUDDED AS REQUIRED TO PROVIDE A CONISTENT, FULLY-FINISHED FACE SUITABLE FOR FINISH COATING APPLICATION.

COATING SPECIFICATIONS:

PREPARATION OF PREVIOUSLY COATED SURFACES:
PAINTING CONTRACTOR TO INVESTIGATE ALL PREVIOUSLY COATED SURFACES TO DETERMINE NECESSARY REQUIREMENTS TO ENSURE PROPER ADHESION AND FORMULATION COMPATIBILITY OF NEWLY SPECIFIED PAINT FINISHES THROUGHOUT.

EXISTING PAINTED SURFACES (SPECIFIED TO BE RE-PAINTED) ARE TO BE TESTED WITH METHYL-HYDRATE TO DETERMINE IF THEY ARE ALKYD OR WATER-BASED MATERIALS TO DETERMINE COMPATIBLE FORMULATION OF NEW PAINT MATERIALS AND PRIMERS, ENSURING PRODUCT SELECTION TO ENSURE ADHESION AND DURABILTIY OF THE NEWLY APPLIED FINISH.

ALL EXISTING COATINGS ARE TO BE PROPERLY CLEANED, SCRAPED AND PREPARED FOR RECOAT TO ENSURE FULL AND LASTING ADHESION OF NEW PAINT FINISH. PREPARATION SHALL INCLUDE ANY FORM OF MECHANICAL ABRASION REQUIRED (SANDING, SCRAPING, SANDBLASTING, SHOT-BLASTING ETC.) TO REMOVE PEELING AND/OR LOOSE PAINT FINISHES TO ENSURE A PROPER AND LASTING BOND OF NEW PAINT FINISH. FILL IRREGULARITIES, HOLES AND VOIDS IN THE SUBSTRATE WITH PERMANENT FILLERS SANDED SMOOTH AND FLUSH WITH ADJACENT SURFACES.

NEW INTERIOR COATINGS:

EXISTING CONCRETE BLOCK WALLS - PAINT FINISH:
- 1 COAT APPROPRIATE BONDING PRIMER
- 2 COATS DULUX "DIAMOND INTERIOR 100% ACRYLIC", SATIN FINISH

EXISTING CONCRETE BLOCK WALLS - WATERBORNE EPOXY COATING FINISH:
- 1 COAT APPROPRIATE BONDING PRIMER
- 2 COATS DULUX 'PITT-GLAZE WB1' PRE-CATALZYED, MILDEW-RESISTANT WATER BORNE ACRYLIC EPOXY IN EGGSHELL FINISH

NEW CONCRETE BLOCK WALLS - WATERBORNE EPOXY COATING FINISH:
- 1 COAT SHERWIN WILLIAMS "PREP RITE" BLOCKFILLER, B25 SERIES
- 2 COATS DULUX 'PITT-GLAZE WB1' PRE-CATALZYED, MILDEW-RESISTANT WATER BORNE ACRYLIC EPOXY IN EGGSHELL FINISH

EXISTING CONCRETE CEILINGS - PAINT FINISH:
- 1 COAT APPROPRIATE BONDING PRIMER
- 2 COATS DULUX CEILING PAINT, FLAT FINISH

EXISTING GYPSUM WALL BOARD WALLS - PAINT FINISH
- 1 COAT APPROPRIATE BONDING PRIMER
- 2 COATS DULUX "DIAMOND INTERIOR 100% ACRYLIC", SATIN FINISH

NEW GYPSUM WALL BOARD WALLS - WATERBORNE EPOXY COATING FINISH:
- 1 COAT SHERWIN WILLIAMS "PREP RITE 200" PRIMER, B28W200 SERIES
- 2 COATS DULUX 'PITT-GLAZE WB1' PRE-CATALZYED, MILDEW-RESISTANT WATER BORNE ACRYLIC EPOXY IN EGGSHELL FINISH

NEW GYPSUM WALL BOARD WALLS & BULKHEADS - PAINT FINISH
- 1 COAT SHERWIN WILLIAMS "PREP RITE 200" PRIMER, B28W200 SERIES
- 2 COATS DULUX 'PITT-GLAZE WB1' PRE-CATALZYED, MILDEW-RESISTANT WATER BORNE ACRYLIC EPOXY IN EGGSHELL FINISH

EXISTING HOLLOW METAL DOORS AND FRAMES: PAINT FINISH:
- 1 COAT APPROPRIATE BONDING PRIMER
- 2 COATS SHERWIN WILLIAMS "INDUSTRIAL ENAMEL URETHANE" TOPCOAT (ALKYD), B54W151 SERIES, GLOSS FINISH; VOC COMPLIANT

SUSPENDED ACOUSTIC TILE SPECIFICATIONS:

ALL S.A.T. IS TO BE SUPPLIED AND INSTALLED IN FULL ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE INTENDED APPLCAITON UTILIZING ALL RELATED INSTALLATION PRODUCTS AND TECHNIQUES TO ENSURE A LEVEL AND TRUE FINISHED INSTALLATION WHICH IS TIGHTLY AND NEATLY FITTED THROUGHOUT. PRODUCT TO BE:

TILES:24" X 48" X ½" ROCKFON 'HYGENIC PLUS' #31101 SQUARE LAY-IN TILES WITH NRC = 0.90 IN WHITE FACTORY FINISH

GRID: ROCKFON CHICAGO METALLIC 1200 SERIES 15/16" EXPOSED TEE SYSTEM IN WHITE FACTORY FINISH

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0	Permit	2024-01-19
1	Tender	2024-02-08

PROJECT:
New Kitchen for

Fort Erie International Academy

7 Tait Ave., Fort Erie, ON

SEAL:

ONTARIO ASSOCIATION OF ARCHITECTS
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www@whitelinearchitects.com

DRAWING TITLE:
Door, Room Finish Schedules and Specifications

SCALE: As Noted
DRAWN: D.V.
DATE: November 2023
PROJECT #: 2345
DRAWING #: SC-1

PLOTTED 2/8/2024 9:43 AM

PIPING LEGEND

	HOT WATER SUPPLY (HWS) (NEW)
	HOT WATER RETURN (HWR) (NEW)
	HOT WATER SUPPLY (HWS) (EXISTING)
	HOT WATER RETURN (HWR) (EXISTING)
	EXISTING HOT WATER PIPE TO BE REMOVED
S	SUCTION LINE
L	LIQUID LINE
R	REFRIGERANT LINE
RV	RELIEF VENT
	PIPE ANCHOR
	PIPE GUIDE OR SLEEVE
	EXPANSION COMPENSATOR c/w GUIDES
	BOTTOM TAKE-OFF
	TOP TAKE-OFF
	ELBOW UP
	ELBOW DOWN
	VALVE – SEE SPECIFICATIONS
	UNION CONNECTION
	PLUG CAP
AV	AIR VENT
AAV	AUTOMATIC AIR VENT
T G	THERMOSTAT w/GUARD
	RADIANT PANELS (RP–)
	REHEAT COILS
AFF	ABOVE FINISHED FLOOR
CBV	CIRCUIT BALANCING VALVE
GPM	GALLONS PER MINUTE
REQ'D	REQUIRED
TCV	THERMOSTATIC CONTROL VALVE
TYP.	TYPICAL
CFH	CUBIC FEET HOUR

VENTILATION LEGEND

	FLEXIBLE CONNECTION
DN	DUCT OFFSET
	DUCT OFFSET (SINGLE LINE)
	TURNING VANES
BD	BALANCING DAMPER
	FIRE DAMPER
SD	SPLITTER DAMPER
BDD	BACKDRAFT DAMPER
OBD	OPPOSED BLADE DAMPER
MD	MOTORIZED DAMPER
	SUPPLY DUCT SECTION
	RETURN DUCT SECTION
	SUPPLY DIFFUSER
	EXHAUST GRILLE
D– XXX	DIFFUSER DESIGNATION AND CFM
G– XXX	GRILLE DESIGNATION AND CFM
	FLEXIBLE ROUND DUCT
	CAPPED END DUCT
	DUCT REDUCER/ENLARGER
	TRANSITION ☐ TO ◯ ROUND
T	THERMOSTAT
T_G	THERMOSTAT w/GUARD
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
CFM	CUBIC FEET PER MINUTE
EF	EXHAUST FAN
CH	CABINET HEATER
MUA	MAKE–UP AIR UNIT
KEH	KITCHEN EXHAUST HOOD
KEF	KITCHEN EXHAUST FAN
FC	FAN COIL
CU	CONDENSER UNIT
FC	FAN COIL

PLUMBING LEGEND

	SANITARY BURIED (NEW)
	DOMESTIC COLD WATER (NEW)
	DOMESTIC HOT WATER (NEW)
	DOMESTIC RECIRCULATED WATER (NEW)
V	VENT LINE
CO	CLEANOUT
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
FE	FIRE EXTINGUISHER
FB	FIRE BLANKET
WCT	WATER CLOSET TANK TYPE
L	LAVATORY
INV. ELEV.	INVERT ELEVATION
OBV. ELEV.	OBVERT ELEVATION
G	GAS (NEW)
GINT	GREASE INTERCEPTOR
G	GAS (EXISTING)
F	FIRE LINE (EXISTING)
	DOMESTIC COLD WATER (EXISTING)
	DOMESTIC HOT WATER (EXISTING)
	DOMESTIC RETICULATION (EXISTING)
#	KITCHEN EQUIPMENT DESIGNATION
	SANITARY BURIED (EXISTING)
	EXISTING SANITARY TO BE REMOVED
	EXISTING DOMESTIC PIPE TO BE REMOVED
	EXISTING FIXTURE TO BE REMOVED
	VALVE
	REDUCED/ENLARGER

DRAWING LIST

DWG No.	DRAWING TITLE
M0.0	MECHANICAL LEGEND & DRAWING LIST
M1.0	OVERALL GROUND & SECOND FLOOR PLANS
M1.1	OVERALL ROOF LEVEL PLAN
M2.0	GROUND FLOOR PLUMBING, DRAINAGE & HVAC DEMOLITION PLAN
M3.0	GROUND FLOOR NEW PLUMBING & DRAINAGE PLAN
M4.0	GROUND FLOOR NEW HVAC & SECOND FLOOR PLUMBING PLAN
M5.0	MECHANICAL DETAILS
M5.1	MECHANICAL DETAILS
M6.0	MECHANICAL SCHEDULES
ME1.0	MECHANICAL & ELECTRICAL SCHEDULES

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3 - ISSUED FOR TENDER- 2024-01-31
2 - ISSUED FOR PERMIT- 2024-01-18
1 - ISSUED FOR COORDINATION- 2024-01-15

PROJECT:

Interior Alterations at:

Fort Erie International Academy

7 Tait Ave., Fort Erie, ON

SEAL:

LICENSED PROFESSIONAL ENGINEER
M. W. WICKHAM
PROVINCE OF ONTARIO

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TRUE NORTH:

DRAWING TITLE:
MECHANICAL LEGEND & DRAWING LIST

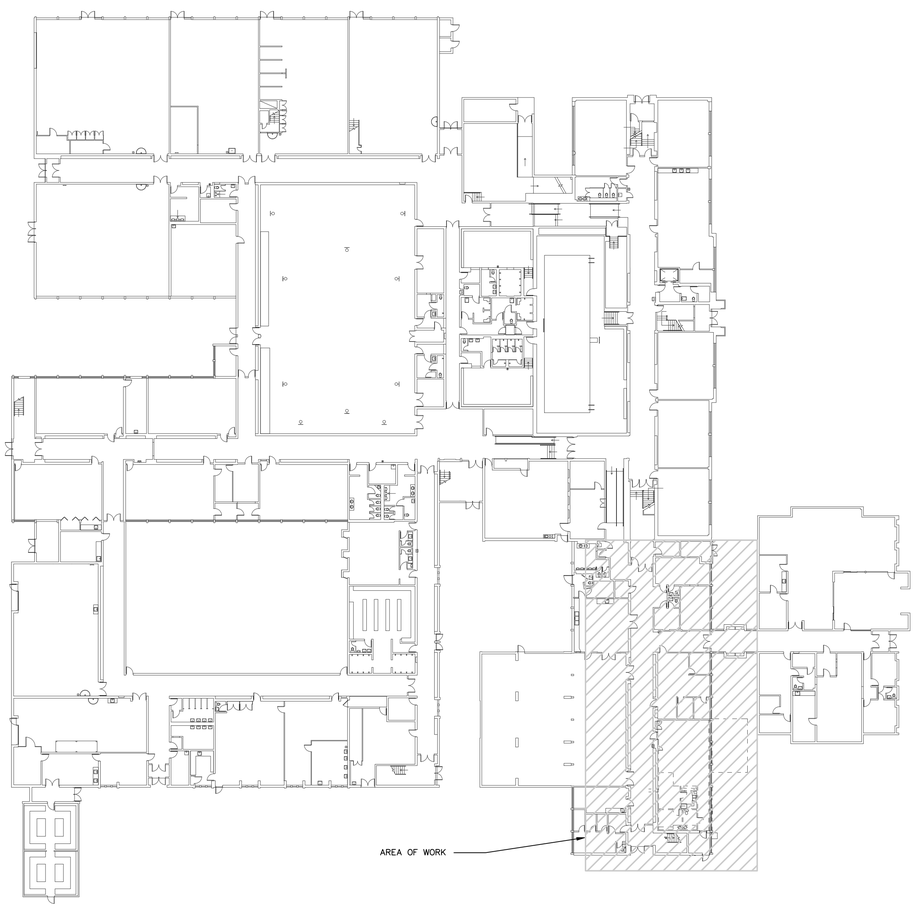
SCALE: AS NOTED

DRAWN: JL

DATE: DECEMBER 2023

PROJECT #: ALL–23014405–A0

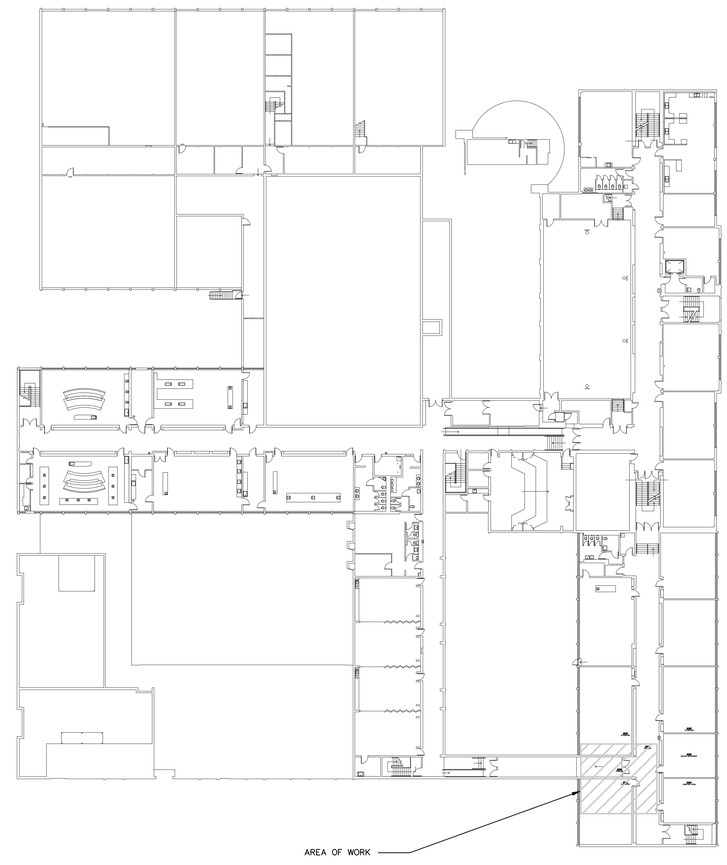
DRAWING #: M0.0



OVERALL GROUND FLOOR PLAN

SCALE– 1/32" = 1'–0"

0 20FT 40FT 60FT 80FT 100FT 120FT 140FT 160FT



OVERALL SECOND FLOOR PLAN

SCALE– 1/32" = 1'–0"

0 20FT 40FT 60FT 80FT 100FT 120FT 140FT 160FT

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TRUE NORTH:

DRAWING TITLE:
OVERALL GROUND & SECOND FLOOR PLANS

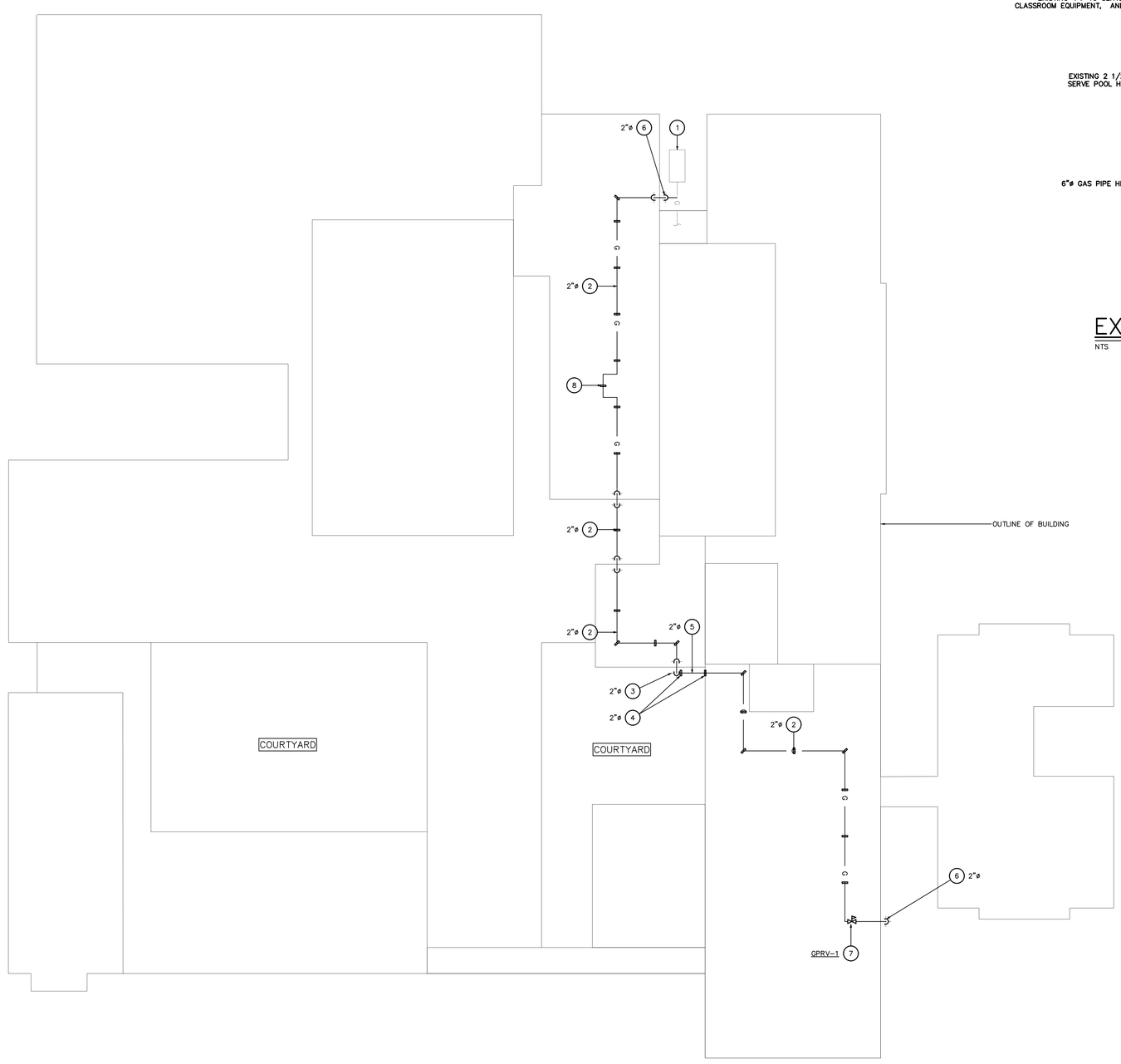
SCALE:
AS NOTED

DRAWN:
JL

DATE:
DECEMBER 2023

PROJECT #:
ALL–23014405–A0

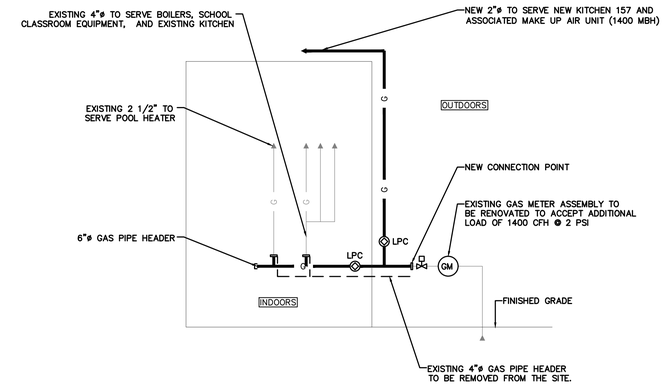
DRAWING #:
M1.0



ROOF LEVEL PLAN

SCALE- 3/64" = 1'-0"

0 20FT 40FT 60FT 80FT 100FT



EXISTING GAS METER SCHEMATIC

NTS

DRAWING NOTES

1. EXISTING NATURAL GAS METER ASSEMBLY TO BE UPGRADED TO ACCOMMODATE ADDITIONAL LOAD OF 1400 CFH. SEE SCHEMATIC ON THE MECHANICAL DRAWINGS. CONTRACTOR IS TO CARRY A CASH ALLOWANCE FOR NATURAL GAS SERVICE UPGRADE.
2. PIPE TO RUN EXPOSED ON ROOF COMPLETE WITH ROOF SLEEPERS. PAINT PIPE BRIGHT YELLOW. SEE DETAIL ON THE MECHANICAL DRAWINGS.
3. PIPE TO BE SECURED TO EXTERIOR WALL FACE COMPLETE WITH PIPE CLAMPS
4. PIPE CLAMPS SECURED TO THE WALL. CLAMP TO BE EQUAL TO ANVIL FIG.103, GALVANIZED.
5. PIPE TO RUN EXPOSED ACROSS WALL VALLEY
6. PIPE TO DROP EXPOSED TIGHT ALONGSIDE WALL COMPLETE WITH CLAMPS EQUAL TO ANVIL FIG. 103, GALVANIZED. PAINT PIPE TO MATCH WALL FACE COLOUR. PIPE TO BE COMPLETE WITH LABEL. GAS PIPE TO SERVE NEW COMMERCIAL KITCHEN EQUIPMENT AND NEW OUTDOOR AIR HANDLER. FOR CONTINUATION SEE "GROUND FLOOR NEW PLUMBING AND DRAINAGE PLAN" ON THE MECHANICAL DRAWINGS.
7. NEW NATURAL GAS PRV TO NEW MAKE-UP AIR UNIT AND KITCHEN EQUIPMENT. C/W ISOLATION VALVE, UNION. GRPV SIZE AND CAPACITY AS INDICATED.
8. INSTALL THERMAL EXPANSION LOOP IN GAS RUN.

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TRUE NORTH:

DRAWING TITLE:

OVERALL ROOF LEVEL PLAN

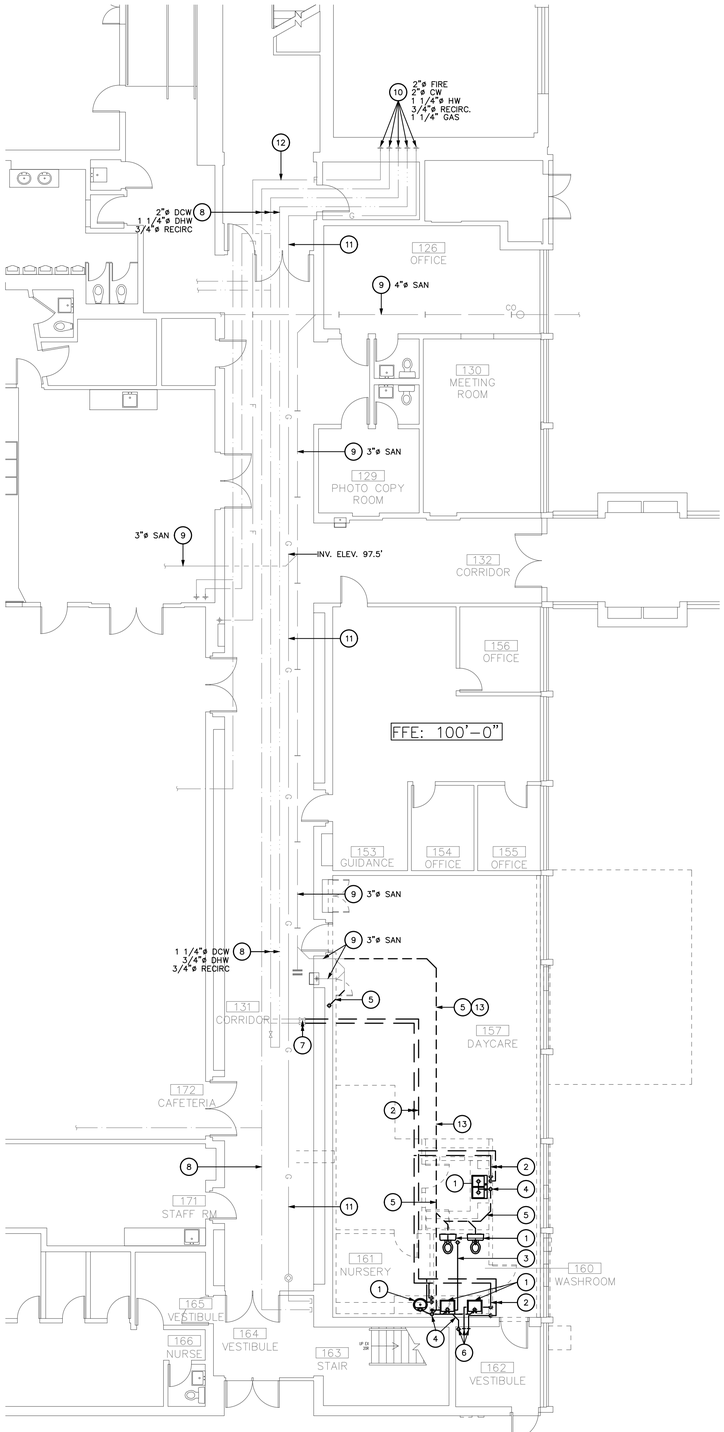
SCALE: AS NOTED

DRAWN: JL

DATE: DECEMBER 2023

PROJECT #: ALL-23014405-A0

DRAWING #: M1.1



GROUND FLOOR – PLUMBING & DRAINAGE DEMOLITION PLAN

SCALE– 1/8" = 1'–0"

0 5FT 10FT 15FT 20FT 25FT 30FT 35FT 40FT

DRAWING NOTES

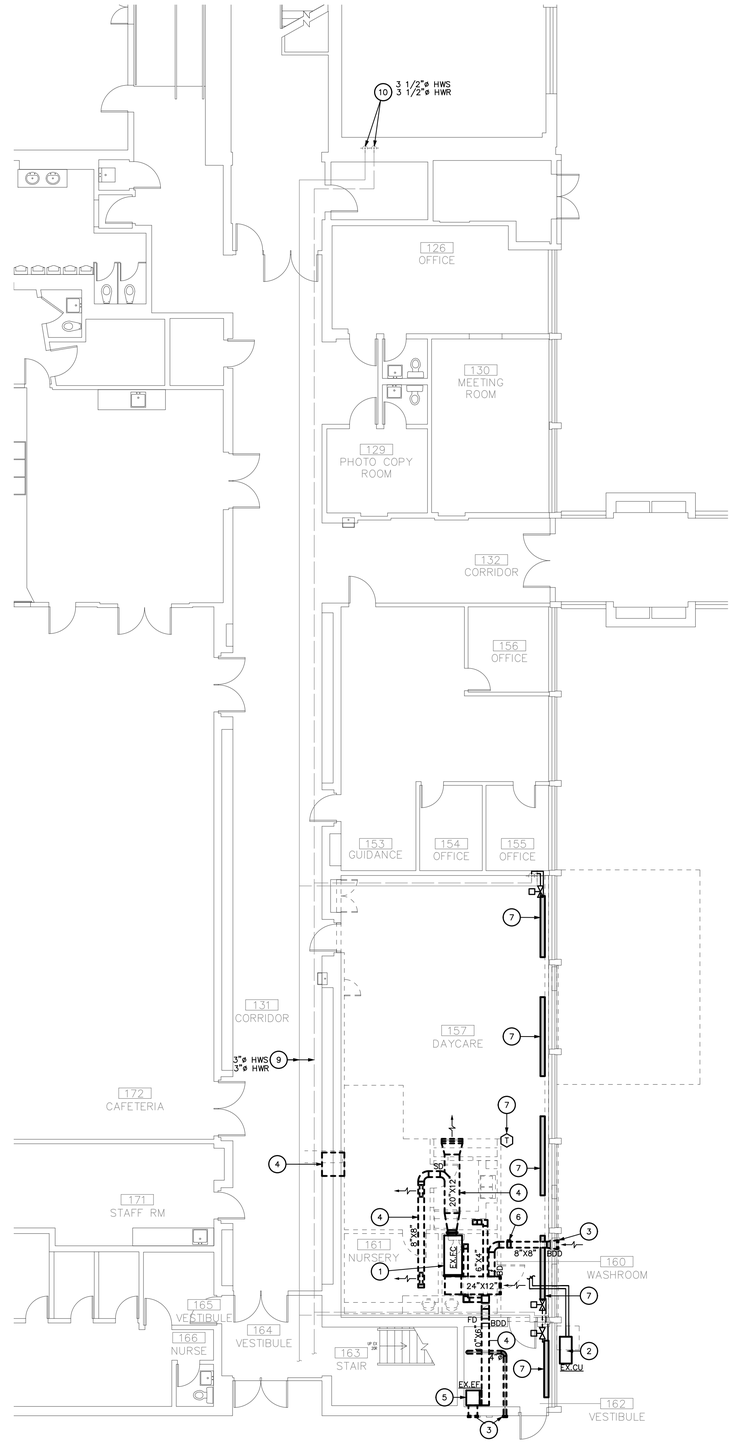
1. REMOVE AND DISPOSE OF PLUMBING FIXTURE. DELETE ALL PIPING AND HARDWARE.
2. DEMOLISH AND DISPOSE OF DOMESTIC WATER PIPING LOCATED IN CEILING SPACE TO EXTENT SHOWN.
3. DEMOLISH AND DISPOSE OF EXISTING CONDENSATE PIPING BACK TO EXISTING FAN COIL UNIT.
4. DEMOLISH AND DISPOSE OF ABOVE GROUND SANITARY PIPING. CUT BACK TO UNDERGROUND AND PROVIDE CAPPED CONNECTION AT UNDERGROUND PIPING WHICH IS TO BE ABANDONED.
5. EXISTING UNDERGROUND SANITARY PIPE TO BE REMOVED FROM THE SITE. LOCATION OF PIPE IS APPROXIMATE.
6. DEMOLISH AND DISPOSE OF EXISTING WASHING MACHINE HOSE BIBS AND DRAIN SPOUT.
7. EXISTING DOMESTIC WATER VALVES TO REMAIN AND PLACED IN CLOSED POSITION
8. EXISTING DOMESTIC WATER PIPING LOCATED IN CEILING SPACE IS TO REMAIN.
9. EXISTING U/G SANITARY PIPING IS TO REMAIN.
10. PIPING CONTINUES DOWN THROUGH CHASE TO BELOW.
11. EXISTING GAS PIPING LOCATED IN CEILING SPACE IS TO REMAIN.
12. EXISTING FIRE PIPING LOCATED IN CEILING SPACE IS TO REMAIN.
13. CUTTING AND PATCHING OF FLOOR TRENCH BY GENERAL CONTRACTOR. MECHANICAL CONTRACTOR TO MARK–OUT SLAB, EXCAVATE TRENCH, INSTALL DRAINAGE AND BACKFILL TRENCH. GENERAL CONTRACTOR TO MAKE GOOD FLOOR.

GENERAL NOTES

A. THE EXISTING SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM THE ORIGINAL AS–BUILT DRAWINGS. THIS INFORMATION MUST NOT BE ASSUMED TO BE COMPLETE OR UP–TO–DATE. THE MECHANICAL CONTRACTOR SHALL CARRY OUT A FULL SURVEY OF ALL EXISTING SERVICES AND STRUCTURE TO CONFIRM THE SIZE AND LOCATION OF THESE SERVICES, BEFORE THE COMMENCEMENT OF ANY WORK.

B. ALL CUTTING AND PATCHING OF EXISTING ROOFS, FLOORS AND WALLS BY MECHANICAL CONTRACTOR.

C. FOR DRAWING LEGENDS SEE DRAWING M0.0



GROUND FLOOR – HVAC DEMOLITION PLAN

SCALE– 1/8" = 1'–0"

0 5FT 10FT 15FT 20FT 25FT 30FT 35FT 40FT

DRAWING NOTES

1. DEMOLISH AND DISPOSE OF EXISTING FAN COIL UNIT. DEMOLISH ALL ASSOCIATED CONTROL WIRING, REFRIGERANT & CONDENSATE PIPING.
2. DEMOLISH AND DISPOSE OF EXISTING REMOTE COMDENSER UNIT. DEMOLISH ALL ASSOCIATED CONTROL WIRING AND REFRIGERANT PIPING.
3. DEMOLISH AND DISPOSE OF EXTERIOR WALL LOUVRE/GRILLE. REFER TO ARCHITECTURAL PLANS FOR PATCHING OF EXISTING WALL OPENING.
4. DEMOLISH AND DISPOSE OF EXISTING RETURN AIR TRANSFER BOOT, INCLUDING ALL ASSOCIATED DUCTWORK ACCESSORIES.
5. DEMOLISH AND DISPOSE OF EXISTING EXHAUST FAN, REMOVE ALL ASSOCIATED CONTROL WIRING.
6. DEMOLISH AND DISPOSE OF EXISTING ELECTRIC DUCT HEATER.
7. DEMOLISH AND DISPOSE OF EXISTING PERIMETER RADIATOR. DISPOSE OF ALL ASSOCIATED CONTROL VALVES. CUT BACK HYDRONIC PIPING TO MAINS AND PROVIDE A CAPPED CONNECTION.
8. DEMOLISH THERMOSTAT ASSOCIATED WITH EXISTING FAN COIL UNIT.
9. EXISTING HEATING WATER SUPPLY AND RETURN PIPING RUN IN CORRIDOR CEILING SPACE.
10. PIPING CONTINUES DOWN THROUGH CHASE TO BELOW.
11. EXISTING TRANSFER BOOT TO BE DEMOLISHED AND REMOVED FROM SITE. CUT DUCT WORK BACK TO WITHIN CORRIDOR AND PROVIDE CAPPED CONNECTION.

GENERAL NOTES

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B. ALL CUTTING AND PATCHING OF EXISTING ROOFS, FLOORS AND WALLS BY MECHANICAL CONTRACTOR.

C. FOR DRAWING LEGENDS SEE DRAWING M0.0

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TRUE NORTH:

DRAWING TITLE:
GROUND FLOOR PLUMBING, DRAINAGE & HVAC DEMOLITION PLAN

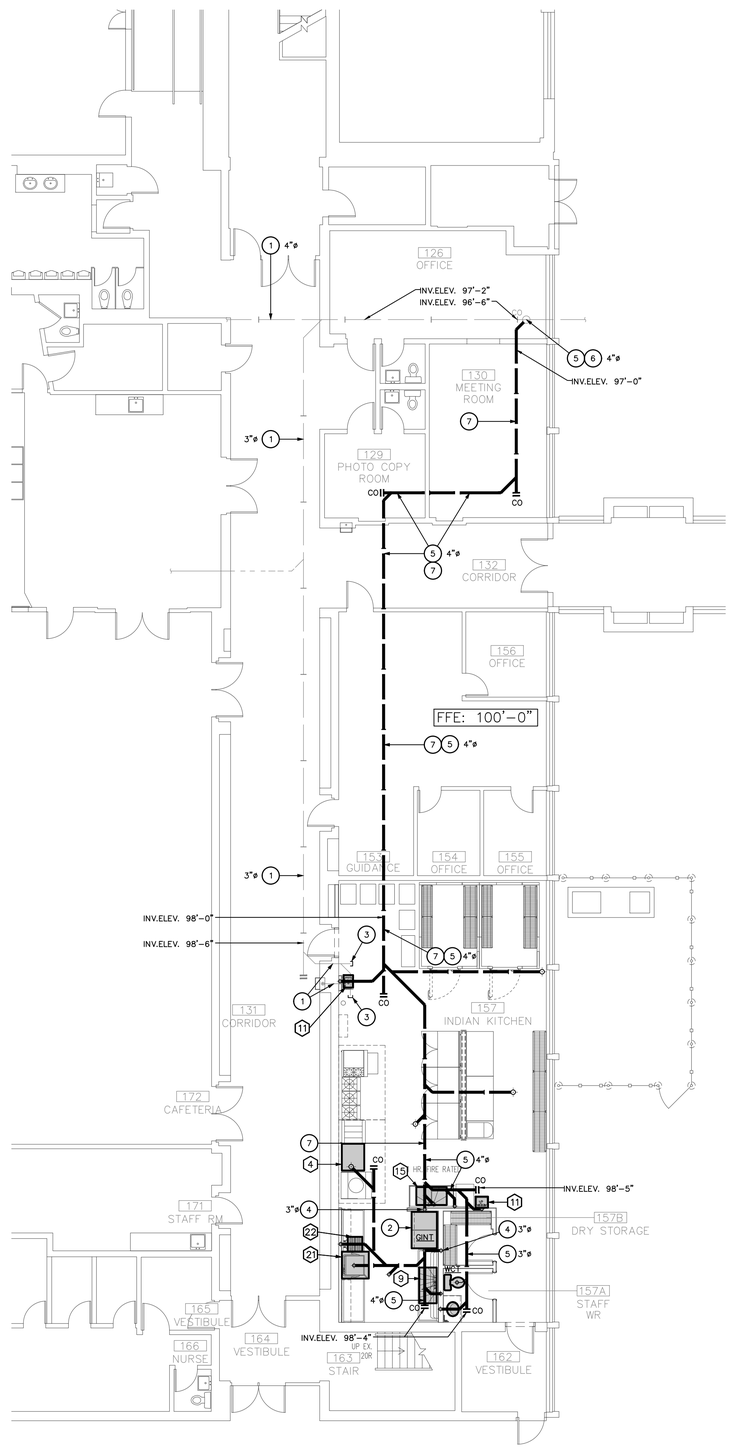
SCALE:
AS NOTED

DRAWN:
JL

DATE:
DECEMBER 2023

PROJECT #:
ALL–23014405–A0

DRAWING #:
M2.0



GROUND FLOOR – NEW UNDERGROUND DRAINAGE PLAN

SCALE– 1/8" = 1'-0"

0 5FT 10FT 15FT 20FT 25FT 30FT 35FT 40FT

DRAWING NOTES

1. EXISTING UNDERGROUND SANITARY PIPE TO REMAIN.
2. INSTALL NEW GREASE INTERCEPTOR SUCH THAT THE TOP OF THE INTERCEPTOR IS FLUSH WITH THE FINISHED FLOOR. INTERCEPTOR IS TO BE A ZURN Z1170–E–HD(300)–K–RE SIZE 900 OR EQUIVALENT. INTERCEPTOR SHALL HAVE A FLOW RATING OF 75 GPM WITH A GREASE CAPACITY OF 150 LBS.
3. SUPPLY AND INSTALL NEW CAPPED END CONNECTION.
4. VENT PIPE TO SERVE GREASE INTERCEPTOR TO RISE TO OUTDOORS.
5. SUPPLY AND INSTALL NEW BURIED SANITARY PIPE. MECHANICAL DIVISION TO EXCAVATE, INSTALL PIPE BEDDING AND BACKFILL.
6. CONNECT NEW BUILDING SANITARY PIPE TO EXISTING VERTICAL FLOOR CLEANOUT RISER PIPE.
7. CUTTING AND PATCHING OF FLOOR TRENCH BY GENERAL CONTRACTOR. MECHANICAL CONTRACTOR TO MARK–OUT SLAB, EXCAVATE TRENCH, INSTALL DRAINAGE PIPING AND BACKFILL TRENCH. GENERAL CONTRACTOR TO INSTALL NEW FLOOR TO MATCH EXISTING CONDITIONS.

GREASE INTERCEPTOR OBC Ch.7 CALCULATION

22 SOILED DISH TABLE: FLOW RATE = (0.75 DISPL.)(20"x20"x8") / (231 GAL/IN³)(1 MIN. DRAIN DOWN) = 10.5 GPM

9 POT SINK: FLOW RATE = (0.75 DISPL.)(3x20"x16"x12") / (231 GAL/IN³)(1 MIN. DRAIN DOWN) = 37.5 GPM

21 DISHWASHER: FLOW RATE = 15 GPM DRAIN DOWN

4 COMBI OVEN: FLOW RATE = 5 GPM DRAIN DOWN

TOTAL FLOW: 68 GPM

SELECTED MODEL: ZURN Z1170–E–HD(300)–K–RE SIZE 900
CAPACITY: 75 GPM, 150 LBS. OF GREASE

GENERAL NOTES

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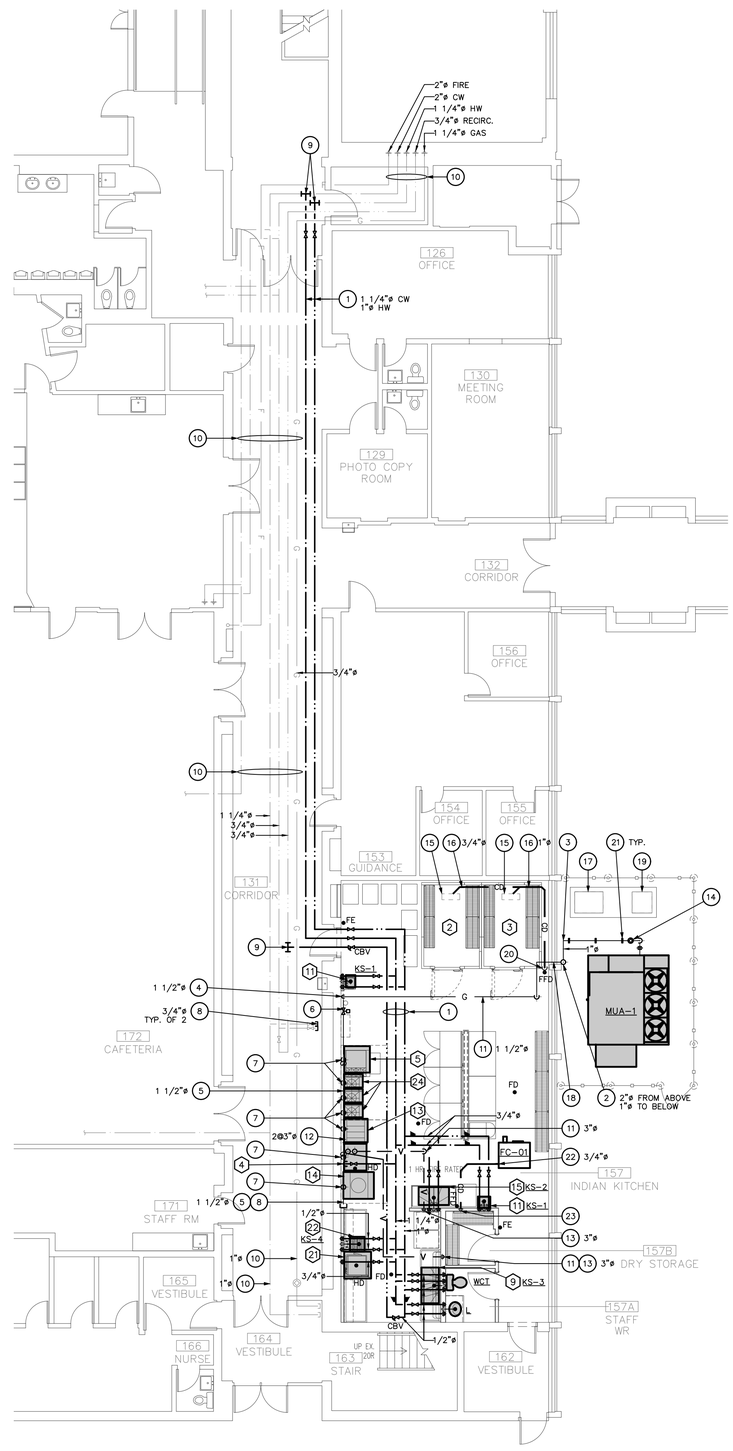
B. ALL NEW, PIPING, VALVES AND EQUIPMENT TO BE CONCEALED IN CEILING SPACE UNLESS OTHERWISE NOTED.

C. ALL CUTTING AND PATCHING OF EXISTING ROOFS, AND WALLS BY MECHANICAL CONTRACTOR.

D. SUPPLY AND INSTALL PIPE SLEEVES FOR PIPES PASSING THROUGH EXISTING ROOFS, WALLS OR FLOORS.

E. FOR DRAWING LEGENDS SEE DRAWING M0.0.

F. REFER TO DRAWING M6.0 FOR KITCHEN EQUIPMENT LIST.



GROUND FLOOR – NEW PLUMBING PLAN

SCALE– 1/8" = 1'-0"

0 5FT 10FT 15FT 20FT 25FT 30FT 35FT 40FT

DRAWING NOTES

1. NEW PIPE TO RUN CONCEALED IN EXISTING CEILING SPACE COMPLETE WITH HANGERS, INSULATION AND LABELING. CO–ORDINATE WITH EXISTING PIPES AND DUCTWORK.
2. PIPE TO DROP EXPOSED TIGHT ALONGSIDE WALL COMPLETE WITH WALL BRACKETS. BRANCH PIPE THROUGH EXTERIOR WALL INTO CEILING SPACE TO SERVE KITCHEN EQUIPMENT. PIPE TO CONTINUE TO BELOW AND SERVE NEW MAKE UP AIR UNIT. CONTRACTOR TO PAINT PIPE TO MATCH EXTERIOR WALL COLOUR.
3. PIPE TO RUN EXPOSED TIGHT ALONGSIDE WALL APPROXIMATELY 24" ABOVE FINISHED GRADE COMPLETE WITH WALL BRACKETS. PAINT PIPE TO MATCH EXTERIOR WALL COLOUR.
4. PIPE TO PASS THROUGH CEILING TILE AND DROP EXPOSED TIGHT ALONGSIDE WALL AND OFFSET APPROXIMATELY 66" ABOVE FINISH FLOOR. PAINT PIPE BRIGHT YELLOW COMPLETE WITH LABELING STATING "NATURAL GAS – 7"–14" WC"
5. PIPE TO RUN EXPOSED TIGHT ALONGSIDE WALL APPROXIMATELY 66" ABOVE FINISH FLOOR. PAINT PIPE BRIGHT YELLOW.
6. EMERGENCY GAS SHUTOFF VALVE TO BE EXPOSED TIGHT ALONGSIDE WALL AND INTERCONNECT WITH EXHAUST HOOD FIRE SUPPRESSION SYSTEM. REFER TO MECHANICAL DETAILS. VALVE SUPPLIED BY THE HOOD MANUFACTURER AND INSTALLED BY THE MECHANICAL DIVISION. VALVE TO BE APPROXIMATELY 66" A.F.F..
7. PIPE TAKE OFF COMPLETE WITH BALL TYPE ISOLATION VALVE AND FLEXIBLE PIPE TO CONNECT TO GAS FIRED EQUIPMENT.
8. SUPPLY AND INSTALL NEW CAPPED END CONNECTION.
9. CONNECT NEW PIPE TO EXISTING PIPE SYSTEM.
10. EXISTING PIPE CONCEALED IN CEILING SPACE TO REMAIN.
11. PIPE TO RUN BETWEEN AND/OR THROUGH EXISTING STEEL JOISTS
12. PIPE TO RISE THROUGH FINISHED FLOOR ABOVE.
13. VENT PIPE TO DROP CONCEALED IN WALL AND CONNECT TO GREASE INTERCEPTOR DRAIN PIPE.
14. NEW NATURAL GAS CONNECTION TO HVAC EQUIPMENT C/W ISOLATION VALVE, UNION AND DIRT LEG.
15. OUTLINE OF UNIT EVAPORATOR.
16. EVAPORATOR CONDENSATE PIPE TO RUN EXPOSED AT HIGH LEVEL TIGHT ALONGSIDE WALL.
17. OUT LINE OF FREEZER OUTDOOR CONDENSER UNIT.
18. PIPE TO PASS THROUGH EXTERIOR WALL INTO ROOM CEILING SPACE. SEAL GAP BETWEEN WALL AND PIPE WITH WEATHERPROOF MASTIC SEALANT.
19. OUTLINE OF WALK IN REFRIGERATOR OUTDOOR CONDENSER UNIT
20. PIPE TO DROP EXPOSED TIGHT ALONGSIDE WALL AND SPILL INTO FUNNEL FLOOR DRAIN.
21. NATURAL GAS PIPING TO BE SUPPORTED WITH SLEEPERS ON GRADE.
22. CONNECT TO FAN COIL CONDENSATE DRAIN AND ROUTE PIPE AT HIGH LEVEL WITHIN CEILING SPACE.
23. PIPE TO DROP CONCEALED WITHIN WALL SPACE AND SPILL INTO FUNNEL FLOOR DRAIN.

GENERAL NOTES

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B. ALL NEW, PIPING, VALVES AND EQUIPMENT TO BE CONCEALED IN CEILING SPACE UNLESS OTHERWISE NOTED.

C. ALL CUTTING AND PATCHING OF EXISTING ROOFS, AND WALLS BY MECHANICAL CONTRACTOR.

D. SUPPLY AND INSTALL PIPE SLEEVES FOR PIPES PASSING THROUGH EXISTING ROOFS, WALLS OR FLOORS.

E. FOR DRAWING LEGENDS SEE DRAWING M0.0

F. REFER TO DRAWING M6.0 FOR KITCHEN EQUIPMENT LIST.

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PROJECT:

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7 Tait Ave., Fort Erie, ON

SEAL:

LICENSED PROFESSIONAL ENGINEER
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TRUE NORTH:

DRAWING TITLE:
GROUND FLOOR NEW PLUMBING & DRAINAGE PLAN

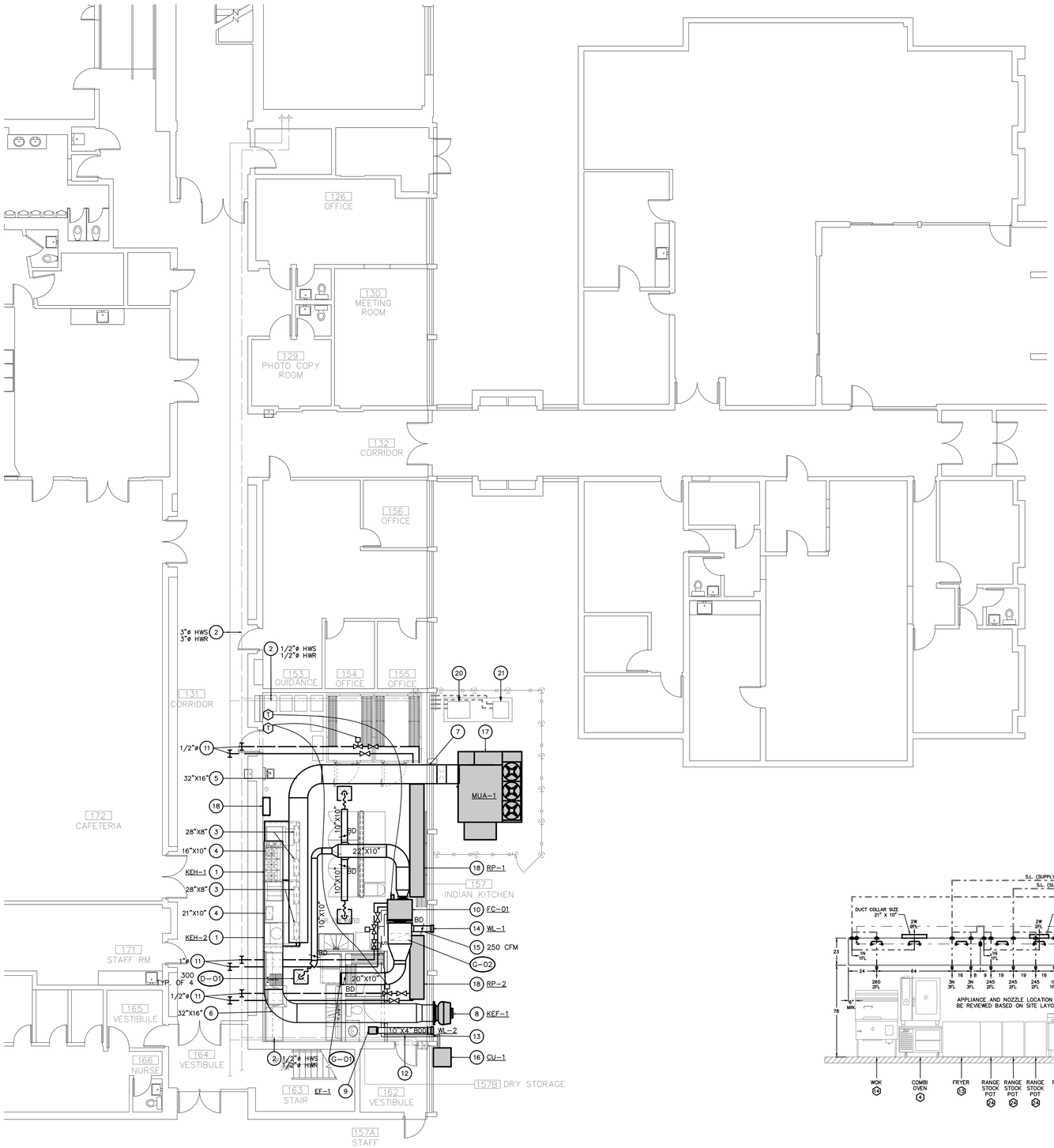
SCALE: AS NOTED

DRAWN: JL

DATE: DECEMBER 2023

PROJECT #: ALL–23014405–A0

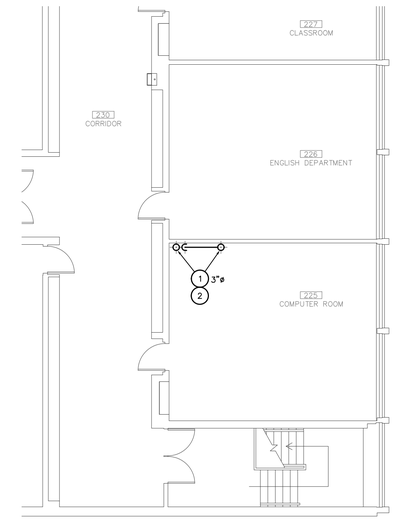
DRAWING #: M3.0



GROUND FLOOR – NEW HVAC PLAN

SCALE– 1/8" = 1'-0"

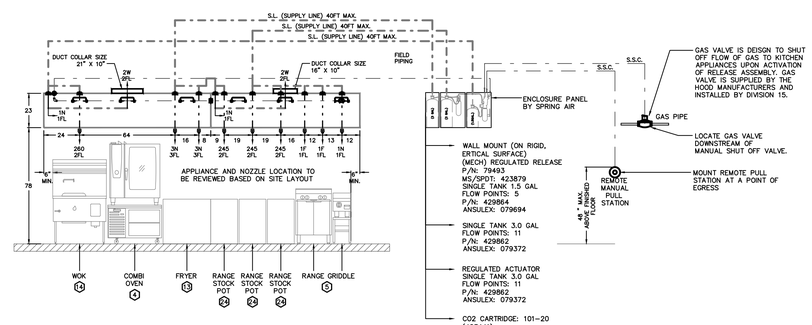
0 5FT 10FT 15FT 20FT 25FT 30FT 35FT 40FT



SECOND FLOOR – PART PLUMBING PLAN

SCALE– 1/8" = 1'-0"

0 5FT 10FT 15FT 20FT 25FT 30FT 35FT 40FT



KITCHEN EXHAUST HOOD – FIRE SUPPRESSION SYSTEM SCHEMATIC

N.T.S.

PLUMBING DRAWING NOTES

1. VENT PIPING SERVING NEW GREASE INTERCEPTOR, TO RISE TIGHT AGAINST WALL TO OUTDOORS COMPLETE WITH WALL CLAMPS. VENT PIPE TO BE COMPLETE WITH STACK JACK FLASHING EQUAL TO THALER MODEL SJ-38-ALUMINUM. ROUTE PIPING TO AVOID EXISTING EXPOSED CONDUIT AND SURFACE MOUNTED RECEPTACLES WHEREVER POSSIBLE. FOR ANY INTERFERENCES CONTRACTOR TO COORDINATE ONSITE WITH ELECTRICAL DIVISION FOR RELOCATION OF CONDUIT AND ELECTRICAL DEVICES.
2. THE GENERAL DIVISION IS TO CONCEAL VENT PIPING INSIDE 18 go SHEET METAL COVER. REFER TO MECHANICAL DETAILS.

HVAC DRAWING NOTES

1. INSTALL KITCHEN EXHAUST HOOD AS PER MANUFACTURERS INSTRUCTIONS.
2. EXISTING HOT WATER SUPPLY AND RETURN PIPING TO REMAIN.
3. DROP INSULATED MAKE UP AIR DUCT DOWN AND CONNECT TO KITCHEN EXHAUST HOOD SUPPLY DUCT COLLAR.
4. DROP FIRE-WRAPPED EXHAUST AIR DUCT DOWN AND CONNECT TO KITCHEN EXHAUST HOOD EXHAUST DUCT COLLAR.
5. RUN INSULATED MAKE-UP AIR DUCT AT HIGH LEVEL CONCEALED IN CEILING SPACE.
6. RUN FIRE-WRAPPED EXHAUST AIR DUCT AT HIGH LEVEL CONCEALED IN CEILING SPACE.
7. INSULATED MAKE-UP AIR DUCT TO PASS THROUGH EXTERIOR WALL INTO ROOM CEILING SPACE. SEAL GAP BETWEEN WALL AND PIPE WITH WEATHERPROOF MASTIC SEALANT.
8. INSTALL KITCHEN EXHAUST FAN AS PER MANUFACTURERS INSTRUCTION COMPLETE WITH SIDEWALL HINGE ADAPTER KIT. PROVIDE ALL NECESSARY DUCT TRANSITIONS TO CONNECT TO FIRE WRAPPED EXHAUST DUCT.
9. INSTALL EXHAUST FAN IN WASHROOM CEILING. INTERLOCK WITH ROOM LIGHT SWITCH.
10. INSTALL FAN COIL UNIT IN CEILING SPACE. CONNECT HWS/HWR, REFRIGERANT LIQUID AND REFRIGERANT SUCTION LINES.
11. CONNECT NEW PIPE TO EXISTING HOT WATER HEATING PIPING.
12. NEW REFRIGERANT PIPING RUN CONCEALED IN CEILING SPACE COMPLETE WITH HANGERS, INSULATION AND LABELING. CO-ORDINATE PIPE SIZE WITH MANUFACTURER.
13. REFRIGERANT PIPE TO PASS THROUGH EXTERIOR WALL INTO ROOM CEILING SPACE. SEAL GAP BETWEEN WALL AND PIPE WITH WEATHERPROOF MASTIC SEALANT.
14. INSTALL NEW WALL LOUVRE IN EXTERIOR WALL.
15. BALANCE FRESH AIR DUCT TO AIRFLOW INDICATED AND CONNECT TO FC-01 RETURN AIR PLENUM.
16. INSTALL NEW CONDENSER UNIT HANGING FROM WALL. INSTALL AS PER MANUFACTURERS INSTRUCTIONS.
17. INSTALL KITCHEN MAKE-UP AIR UNIT ON CONCRETE PAD. UNIT TO BE INSTALLED AS PER MANUFACTURERS INSTRUCTIONS. REFER TO ARCHITECTURAL PLANS FOR PAD DETAILS.
18. NEW WET CHEMICAL FIRE SUPPRESSION ENCLOSURE AND CONTROL PANEL TO BE WALL MOUNTED AT 7' A.F.F.. REFER TO SCHEMATIC ON THIS DRAWING.
19. SUPPLY AND INSTALL RADIANT CEILING PANELS AS PER MANUFACTURERS INSTRUCTIONS. CONNECT MODULATING CONTROL VALVE TO PANEL AND WIRE BACK TO THERMOSTAT.
20. FREEZER OUTDOOR CONDENSER UNIT SUPPLIED AND INSTALLED BY THE FREEZER UNIT MANUFACTURER. REFRIGERANT PIPING SUPPLIED AND INSTALLED BY THE FREEZER MANUFACTURER. CONDENSING UNIT TO BE ON 2-24"X24" CONCRETE PATIO SLABS. SLABS TO BE SUPPLIED AND INSTALLED BY THE MECHANICAL DIVISION. CONCRETE SLABS TO REST ON LEVEL FINISHED GRADE. SECURE CONDENSER TO CONCRETE SLABS. FINAL LOCATION OF CONDENSING UNIT TO BE DETERMINED BY THE MANUFACTURER.
20. WALK IN REFRIGERATOR OUTDOOR CONDENSER UNIT SUPPLIED AND INSTALLED BY THE REFRIGERATOR MANUFACTURER. REFRIGERANT PIPING TO BE SUPPLIED AND INSTALLED BY THE REFRIGERATOR MANUFACTURER. CONDENSING UNIT TO REST ON 2-24"X24" CONCRETE PATIO SLABS. SLABS TO BE SUPPLIED AND INSTALLED BY THE MECHANICAL DIVISION. CONCRETE SLABS TO REST ON LEVEL FINISHED GRADE. SECURE CONDENSER TO CONCRETE SLABS. FINAL LOCATION TO BE DETERMINED BY THE MANUFACTURER.

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B. ALL DUCTWORK, PIPING, VALVES AND EQUIPMENT TO BE CONCEALED IN CEILING SPACE UNLESS OTHERWISE NOTED.

C. CO-ORDINATE DUCT RUNS WITH PIPING, PLUMBING, HEATING AND ELECTRICAL DIVISIONS.

D. FOR EXACT LOCATION OF GRILLES AND DIFFUSERS REFER TO ARCHITECTURAL REFLECTED CEILING PLAN.

E. DUCT RUNOUTS TO MATCH GRILLE/DIFFUSER SIZE UNLESS OTHERWISE NOTED.

F. DUCTWORK LOCATIONS TO BE FULLY CO-ORDINATED WITH GENERAL, PLUMBING, SPRINKLER AND ELECTRICAL CONTRACTORS PRIOR TO FABRICATION OR INSTALLATION.

G. ALL CUTTING AND PATCHING OF EXISTING ROOFS, FLOORS AND WALLS BY MECHANICAL CONTRACTOR.

H. SUPPLY AND INSTALL PIPE SLEEVES FOR PIPES PASSING THROUGH EXISTING ROOFS, WALLS OR FLOORS.

I. FOR DRAWING LEGENDS SEE DRAWING M0.0

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TRUE NORTH:

DRAWING TITLE:

GROUND FLOOR NEW HVAC & SECOND FLOOR PLUMBING PLAN

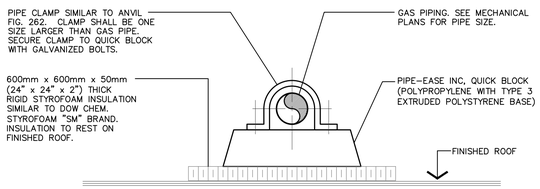
SCALE: AS NOTED

DRAWN:

DATE: DECEMBER 2023

PROJECT #: ALL-23014405-A0

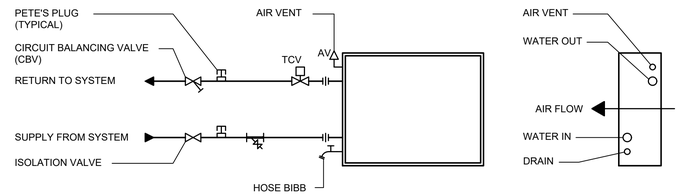
DRAWING #: M4.0



NOTE:
PIPE SUPPORTS TO BE MAXIMUM 2400mm (8'-0") APART.

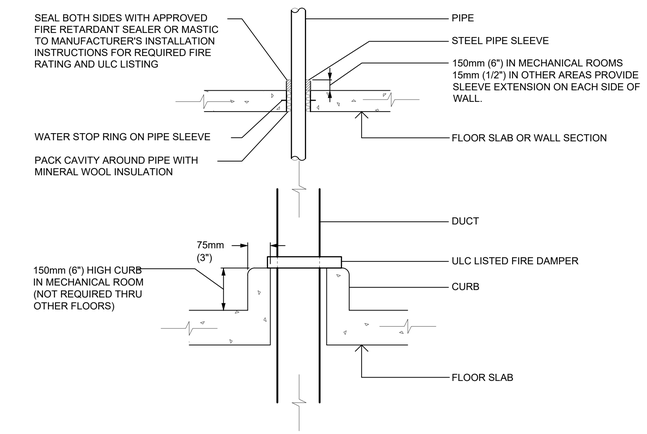
TYPICAL GAS PIPING SUPPORT ON ROOF

N.T.S.



FAN COIL UNIT TWO-WAY CONTROL VALVE PIPING SCHEMATIC

N.T.S.



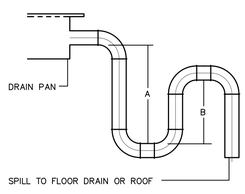
TYPICAL FLOOR CURB & SLEEVE DETAILS

N.T.S.

MINIMUM DIMENSIONS:

A. OPERATING PRESSURE (mm OF WATER) + 25mm (IN OF WATER) + 1 IN

BLOW – THRU SUPPLY AIR UNIT



MINIMUM DIMENSIONS:

A. 1 1/2 TIMES THE OPERATING STATIC PRESSURE (mm OF WATER) + 50mm (IN OF WATER) + 2 IN

B. 3/4 OF THE OPERATING STATIC PRESSURE (mm OF WATER) + 25mm (IN OF WATER) + 1 IN

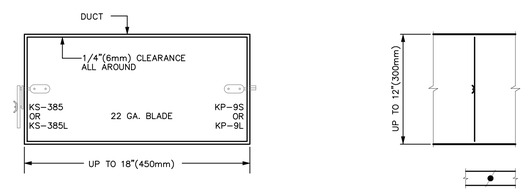
DRAW – THRU SUPPLY AIR UNIT

TYPICAL DRAIN PIPE TRAPS

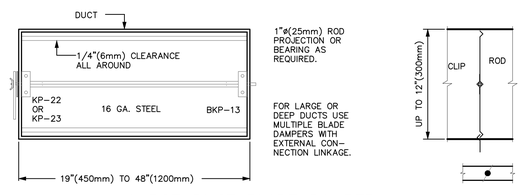
N.T.S.

SPLITTER DAMPER

ROUND DUCT BLADE DAMPER



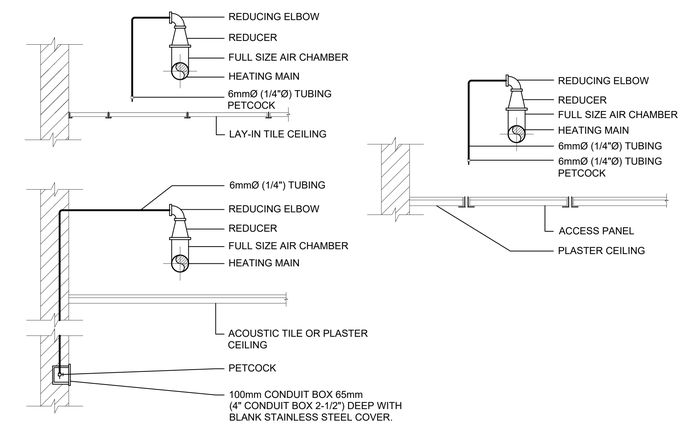
SMALL DUCT BLADE DAMPER



LARGE DUCT BLADE DAMPER

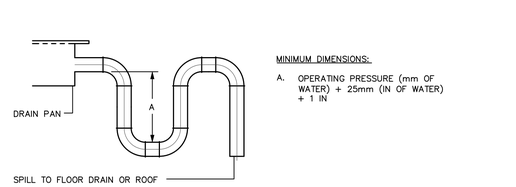
VOLUME DAMPERS

N.T.S.



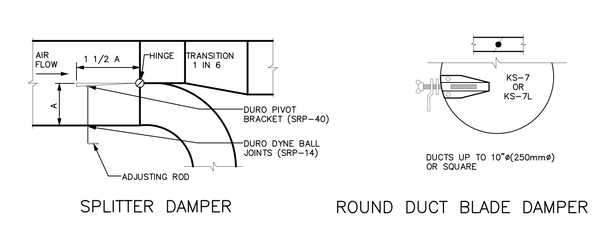
TYPICAL AIR VENTING OF MAINS OR HEATING UNITS IN CEILING SPACE

N.T.S.



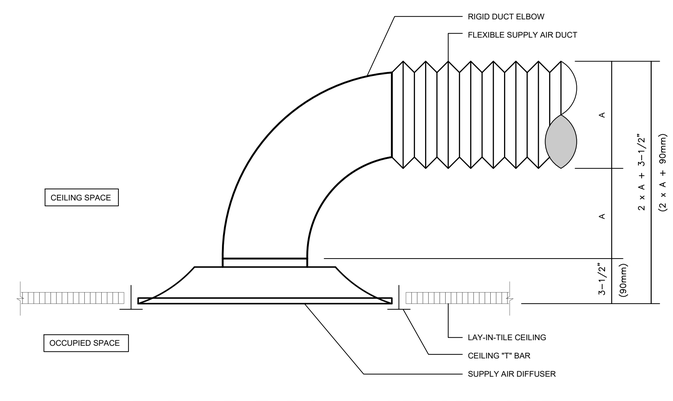
RADIANT CEILING PANEL SCHEMATIC

N.T.S.



SHEET METAL PIPE ENCLOSURE

N.T.S.



RIGID DUCT ELBOW DIFFUSER DETAIL

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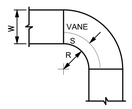
TRUE NORTH:

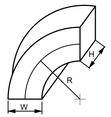
DRAWING TITLE:
MECHANICAL DETAILS

SCALE: AS NOTED
DRAWN:
DATE: DECEMBER 2023
PROJECT #: ALL-23014405-A0
DRAWING #: M5.0



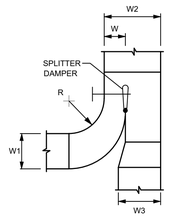
IF 'R' IS LESS THAN 'W'
'S' = 1/3 W

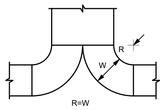
SHORT RADIUS ELBOW – DESIGNATED E3



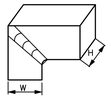
1. H/W AND R/W: 1.0 AND LESS SPLITTER TYPE TURNING VANES MUST BE USED SO THAT 'C' IS LESS THAN 0.15
2. H/W R/W: 1.5 AND LARGE SPLITTER TYPE TURNING VANES ARE NET REQUIRED WHEN 'C' IS LESS THAN 0.15 .

FULL RADIUS RECTANGULAR ELBOW – SMACNA 14–10 G ELBOW–DESIGNATED E1



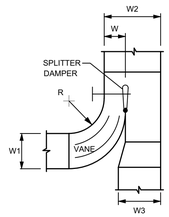


FULL RADIUS TEE – DESIGNATED T1

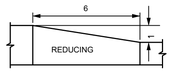


1. ALL ELBOWS GREATER THAN 30° TO HAVE 115MM SINGLE THICKNESS TURNING VANES ON CENTRE.
2. ALL ELBOWS TO HAVE A 45° OR RADIUS THROAT. 90° THROAT IS NOT ACCEPTABLE HIGH LOSS.
3. ALL TURNING VANES ARE TO BE ADJUSTED SO THAT THE TRAILING EDGE ARE TANGENT TO THE AIR STREAM. SMACNA FIG.5-15
4. DOUBLE THICKNESS TURNING VANES THAT REDUCE THE DUCT AREA MAY NOT BE USED

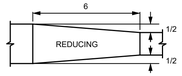
MITRED RECTANGULAR ELBOW – SMACNA 14–10 D ELBOW–DESIGNATED E2



BRANCH DUCT – DESIGNATED W2



TRANSITION ONE SIDE



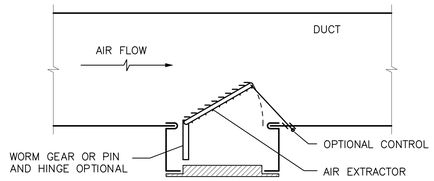
TRANSITION BOTH SIDES

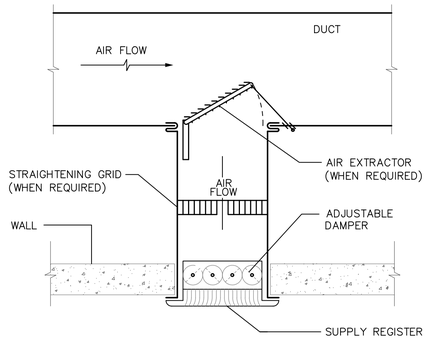
DUCT CONSTRUCTION NOTES:

1. ALL DUCTS AND FITTINGS TO BE CONSTRUCT FABRICATED TO SMACNA H.V.A.C. SYSTEMS DUCT DESIGN 1990 THIRD EDITION LOW FITTING LOSS PRACTICE.
2. TRANSITIONS SHALL NOT EXCEED 20° AT VELOCITIES ABOVE 1000/PM.
3. R/W EXCEEDING 1.0 SHALL BE USED IN ALL OPEN AREAS.

SQUARE, RADIUS ELBOW AND TRANSITION FITTINGS

N.T.S.



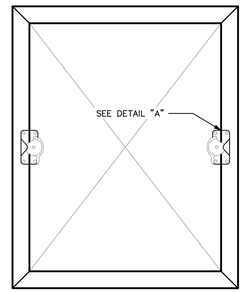


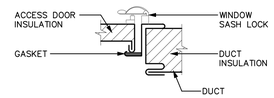
NOTE:
REGISTER CONTAINS VOLUME CONTROL AT GRILLE. GRILLE HAS NO VOLUME CONTROL.

GRILLE FLANGES MUST COVER DUCT FLANGES.

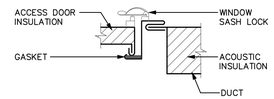
DUCT AIR EXTRACTOR DETAIL

N.T.S.

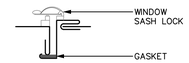




DETAIL "A" THERMAL INSULATION



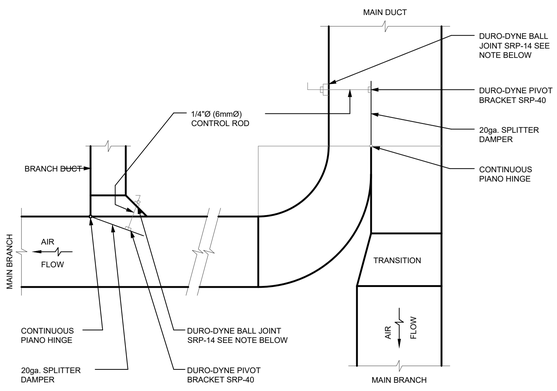
DETAIL "A" ACOUSTIC INSULATION



DETAIL "A" NO INSULATION

ACCESS PANEL DETAIL

N.T.S.



NOTE:

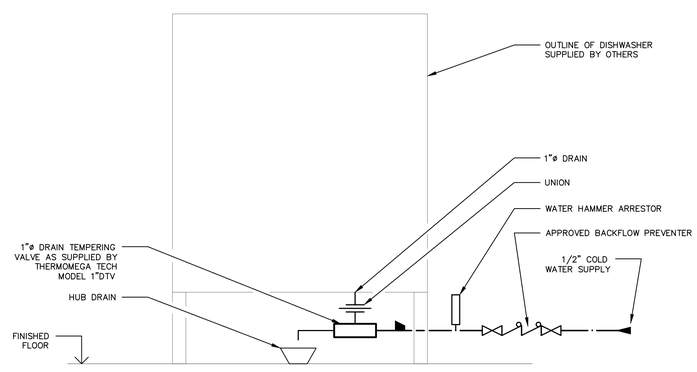
A. DUCT DEPTH UP TO 24"(600mm) 1 CONTROL ROD AND BALL JOINT REQUIRED

B. DUCT DEPTH OVER 24"(600mm) 2 CONTROL ROD AND BALL JOINTS REQUIRED

HARDWARE SHOWN IS DURO-DYNE (SEE SPECIFICATIONS FOR ALTERNATIVES)

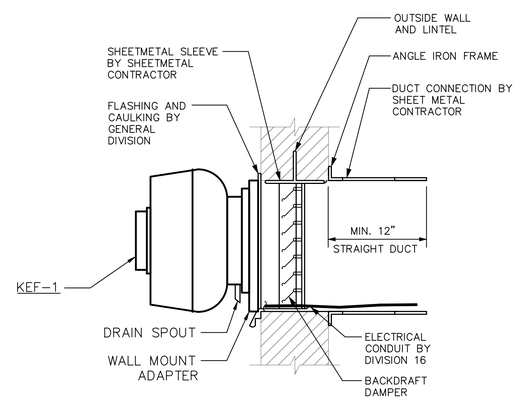
TYPICAL DUCT CONNECTION

N.T.S.



TEMPERING VALVE SCHEMATIC

N.T.S.



WALL MOUNTED KITCHEN EXHAUST FAN

N.T.S.

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3 - ISSUED FOR TENDER- 2024-01-31
2 - ISSUED FOR PERMIT- 2024-01-18
1 - ISSUED FOR COORDINATION- 2024-01-15

PROJECT:
Interior Alterations at:
Fort Erie International Academy
7 Tait Ave., Fort Erie, ON

SEAL:
LICENSED PROFESSIONAL ENGINEER
M. W. WICKHAM
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TRUE NORTH:

DRAWING TITLE:
MECHANICAL DETAILS

SCALE: AS NOTED
DRAWN:
DATE: DECEMBER 2023
PROJECT #: ALL–23014405–A0
DRAWING #: M5.1

JOB NAME:	FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS	JOB No.	ALL-23014405-A0

MECHANICAL SCHEDULE - KITCHEN EQUIPMENT

DWG. DESIGNATION	QUANTITY	DESCRIPTION	WATER (IN)			DRAIN (IN)		GAS (IN)	GAS (MBH)	MECHANICAL REMARKS
			COLD	HOT	TEMPERED	DIRECT	INDIRECT			
2	1	WALK-IN FREEZER					3/4"			DRAIN TO GREASE INTERCEPTOR
3	1	WALK-IN REFRIGERATOR					3/4"			DRAIN TO GREASE INTERCEPTOR
4	1	BOILERLESS COMBI OVEN	3/4"				1 1/2"	3/4"	56	DRAIN TO GREASE INTERCEPTOR
5	1	TWO BURNER RANGE/GRIDDLE AND OVEN						3/4"	140	
9	1	POT/DISH SINK	1/2"	1/2"		1 1/2"				DRAIN TO GREASE INTERCEPTOR
11	2	HAND SINK	1/2"	1/2"		1 1/2"				
13	1	FRYER						1"	110	
14	1	WOK RANGE WITH MANDARIN CHAMBER						3/4"	75	
15	1	TWO COMPARTMENT SINK	1/2"	1/2"		1 1/2"				
21	1	DISHWASHER	3/4"				1"			DRAIN TO GREASE INTERCEPTOR
22	1	SOILED DISH TABLE		1/2"		1 1/2"				DRAIN TO GREASE INTERCEPTOR
24	3	SINGLE STOCKPOT RANGE						3/4"	110	

NOTE: ALL EQUIPMENT BY KITCHEN EQUIPMENT SUPPLIER UNLESS OTHERWISE NOTED. ALL PIPING CONNECTIONS, DRAINS, FLEXIBLE PIPES, ISOLATION VALVES, PRESSURE REDUCING DEVICES AND VENTS BY THE DIVISION 15

JOB NAME:	FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS	JOB No.	ALL-23014405-A0

MECHANICAL SCHEDULE - AIR DIFFUSERS

DWG. DESIGNATION	MODEL			SIZE (L x W) (IN)	NECK SIZE (IN)	CFM		SP (IN W.G.)		MECHANICAL REMARKS
	SERIES	FRAME	CORE			MIN	MAX	MIN	MAX	
D-01	51400	23	4	24 x 24	10	300	500	0.07	0.15	KRUEGER ALUMINUM SQUARE CONE DIFFUSER

ALL GRILLES AND DIFFUSERS TO BE COLOUR WHITE

JOB NAME:	FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS	JOB No.	ALL-23014405-A0

MECHANICAL SCHEDULE - GRILLES AND REGISTERS

DWG. DESIGNATION	MODEL			SIZE (L x W) (IN)	CFM		SP (IN W.G.)		MECHANICAL REMARKS
	BORDER	FRAME	CORE		MIN	MAX	MIN	MAX	
G-01		F22	EGC5	20 x 10	450	1000	0.017	0.083	KRUEGER ALUMINUM EGG CRATE RETURN GRILLE
G-02		F22	S585	30 x 12	450	1200	0.003	0.019	KRUEGER ALUMINUM RETURN GRILLE, 35 DEG. DEFLECTION.

OBD = OPPOSED BLADE DAMPER
ALL GRILLES AND DIFFUSERS TO BE COLOUR WHITE

JOB NAME:	FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS	ALL-23014405-A0

MECHANICAL SCHEDULE - LOUVERS

DWG. DESIGNATION	DWG. NUMBER	MODEL	AIR FLOW CFM	SIZE (IN.)		MECHANICAL REMARKS
				WIDTH	HEIGHT	
WL-1	M4.0	VENTEX 2435	215	12	12	ALUMINUM CONSTRUCTION. 4" DRAINABLE LOUVRE.
WL-2	M4.0	VENTEX 2435	150	12	12	ALUMINUM CONSTRUCTION. 4" DRAINABLE LOUVRE.

JOB NAME:	FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS	JOB No.	ALL-23014405-A0

MECHANICAL SCHEDULE -RADIANT PANELS

DWG. DESIGNATION	SYSTEM and ROOM	MODEL	SIZE		GPM	PD (FT)	BTU/h/FT	OUTPUT (MBH)	WATER TEMP (°F)		MECHANICAL REMARKS
			LENGTH (FT)	WIDTH (FT)					EAT	LAT	
RP-1	INDIAN KITCHEN	ROSEMEX LINEAR CEILING RADIANT PANELS	16	2	1	4.75	393	6.29	180	160	ALUMINUM EXTRUDED RADIANT CEILIGN PANEL
RP-2	INDIAN KITCHEN	ROSEMEX LINEAR CEILING RADIANT PANELS	9	2	0.75	1.53	393	3.54	180	160	ALUMINUM EXTRUDED RADIANT CEILIGN PANEL

NOTES:
1. FIELD VERIFY ACTUAL LENGTH OF PANEL BEFORE COMMENCEMENT OF WORK.
2. PROVIDE A MINIMUM OF 0.5 GPM TO EACH TCV (TEMPERATURE CONTROL VALVE) LOOP.

JOB NAME:	FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS	JOB No.	ALL-23014405-A0

MECHANICAL SCHEDULE - GAS SERVICE PRESSURE REDUCING VALVE

DWG. DESIGNATION	SYSTEM and ROOM	CAPACTIY (FT^3/HR)	INLET PRESSURE (PSIG)	OUTLET PRESSURE (IN W.G)	MECHANICAL REMARKS
GPRV-1	NEW KITCHEN	1400	2	7"-14"	

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TRUE NORTH:

DRAWING TITLE:
MECHANICAL SCHEDULES

SCALE: AS NOTED
DRAWN:
DATE: DECEMBER 2023
PROJECT #: ALL-23014405-A0
DRAWING #: M6.0

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS ALL-23014405-A0

MECHANICAL SCHEDULE - ENERGY RECOVERY UNIT

DWG. DESIG.	SYSTEM and ROOM	MODEL	SPEC TYPE	WEIGHT (LBS)	SUPPLY FAN					AIR-SOURCE HEAT PUMP COOLING				DEHUMIDIFCATION		AIR-SOURCE HEAT PUMP HEATING			SECONDARY GAS HEATING					MECHANICAL REMARKS	ELECTRICAL REMARKS						ELECTRICAL WIRING INSTRUCTIONS
					FUNCTION	TYPE	SUPPLY AIR (CFM)	ESP (IN.WC)	MOTOR (HP)	AIR TEMPERATURE		TOTAL CAPACITY (MBH)	LATENT CAPACITY (MBH)	HOT GAS REHEAT CAPACITY (MBH)	AIR TEMPERATURE	AIR TEMPERATURE		CAPACITY	AIR TEMPERATURE		NATURAL GAS HEATING				MCA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
										EAT (DB/WB) (°F)	LAT (DB/WB) (°F)				LAT (°F)	EAT (DB/WB) (°F)	LAT (DB/WB) (°F)		EAT (DB/WB) (°F)	LAT (DB/WB) (°F)	INPUT (MBH)	OUTPUT (MBH)	TURNDOWN								
MUA-1	OUTDOOR ON GRADE	VALENT VX-212-25A-M-F1	MUA	3683	SUPPLY	DIRECT DRIVE	3,655	1	3	88.1/74.4	47.7/47.7	316	162.5	94.5	71.7	10	49.1	156.1	-1.8	80.2	400	324	15:1	OUTDOOR MAKE UP AIR UNIT AIRSOURCE HEAT PUMP HEATING/COOLING WITH SECONDARY GAS HEAT. STAINLESS STEEL HEAT EXCHANGER, INVERTER SCROLL COMPRESSOR, MODULATING HGRH, EC OUTDOOR FAN,MERV 8 FILTERS. C/W FACTORY INSTALLED DISCONNECT.	52.7	60	600/3	VFD (D15)	KITCHEN HOOD CONTROLLER	C3R (D15A)	DIVISION 16 TO PROVIDE DISCONNECT SWITCH AND WIRE 600V/3 TO FAN VIA DISCONNECT. ALL CONTROLS WIRING BY DIVISION 15.

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS JOB No. ALL-23014405-A0

MECHANICAL SCHEDULE - EXHAUST HOOD

DWG. DESIGNATION	SYSTEM and ROOM	MODEL	EXHAUST DUCT CONNECTION			SUPPLY DUCT CONNECTION			HOOD SIZE (L x W x H) (IN)	CFM		MAX GREASE EXTRACTOR RATING (CFM/L.F.)	WEIGHT (LBS)	MECHANICAL REMARKS	WIRING FOR MECHANICAL EQUIPMENT SCHEDULE							ELECTRICAL WIRING INSTRUCTIONS
			SIZE (L x W) (IN)	STATIC PRESSURE (IN.WC)	QTY	SIZE (L x W) (IN)	STATIC PRESSURE (IN.WC)	QTY		EXHAUST	SUPPLY				MOTOR W or HP	MCA FLA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
KEH-1	KITCHEN EXHAUST	SPRINGAIR FN-B-MB-8.33/4.5	16 x 10	0.64	1	28 x 8	0.2	2	100 x 54 x 23	1674	1591	500	458	DYNAFLOW WALL MOUNTED EXHAUST HOOD, INTEGRAL WET CHEMICAL FIRE PROTECTION SYSTEM, GREASE TRAP, AIR DIFFUSER. LED LIGHTING CIRCUIT	30 W	0.25		120/1	-	KITCHEN HOOD CONTROLLER	-	DIVISION 16 TO WIRE 120/1 TO FAN ON KITCHEN HOOD. ALL CONTROLS WIRING BY KITCHEN HOOD SUPPLIER.
KEH-2	KITCHEN EXHAUST	SPRINGAIR FN-B-MB-9.33/4.5	21 x 10	0.62	1	28 x 8	0.2	2	112 x 54 x 23	2174	2071	500	513	DYNAFLOW WALL MOUNTED EXHAUST HOOD, INTEGRAL WET CHEMICAL FIRE PROTECTION SYSTEM, GREASE TRAP, AIR DIFFUSER. LED LIGHTING CIRCUIT	45 W	0.38		120/1	-	KITCHEN HOOD CONTROLLER	-	DIVISION 16 TO WIRE 120/1 TO FAN ON KITCHEN HOOD. ALL CONTROLS WIRING BY KITCHEN HOOD SUPPLIER.

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS JOB No. ALL-23014405-A0

MECHANICAL SCHEDULE - FAN COILS

DWG. DESIGNATION	SYSTEM and ROOM	MODEL	SPEC TYPE	CFM		TSP (IN W.G)	COOLING	HEATING			WEIGHT LBS	MECHANICAL REMARKS	WIRING FOR MECHANICAL EQUIPMENT SCHEDULE							ELECTRICAL WIRING INSTRUCTIONS
				SUPPLY	OA		TOTAL COOLING (MBH)	TOTAL HEATING (MBH)	FLOW RATE (GPM)	PRESSURE DROP (FT H20)			MOTOR W or HP	MCA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
FC-1	KITCHEN	TRANE BCHE036	DX/2 PIPE	1200	215	1.6	38.33	54.8	5.23	8	210	FAN COIL UNIT, MERV 13 FILTER RACK, DX COIL, H/V COIL, FACTORY CONTROLS.	668 W	5.75	15	208/3	BIC	T (D15)	C2	DIVISION 16 TO PROVIDE DISCONNECT SWITCH AND WIRE 600V/3 TO UNIT VIA DISCONNECT. ALL CONTROLS WIRING BY DIVISION 15.

NOTE: 1) ALL CONTROL WIRING ARE TO BE CARRIED OUT IN 2 CORE 16AWG SHIELDING CABLE WITH COLOUR CODING AND TAGGED ID NUMBERS AT 3 METRE INTERVALS AS FOR EASE OF IDENTIFICATION AND MAINTENCE. CONTROL WIRING SHALL NOT BE RUN NEXT TO POWER WIRING. A MINIUM SPACE OF 100mm BETWEEN BOTH CONTROL AND POWER CABLES SHALL APPLY.

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS JOB No.: ALL-23014405-A0

MECHANICAL SCHEDULE - CONDENSING UNITS

DWG. DESIGNATION	EVAPORATOR UNIT DESIGNATION	SYSTEM and ROOM	MODEL	WEIGHT (LBS)	COOLING		MECHANICAL REMARKS	WIRING FOR MECHANICAL EQUIPMENT SCHEDULE							ELECTRICAL WIRING INSTRUCTIONS
					AMBIENT (°F)	CAPACITY (Nom. Ton)		MOTOR W or HP	MCA FLA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
CU-1	FC-1	ROOF	TRANE 4TTA4036A3000A	183	115	3	REMOTE CONDENSER, SPLIT SYSTEM AIR CONDITIONER. COORDIANTE REFRIGERANT PIPE SIZING WITH MANUFACTURER.		12	20	208/3	BIC	FC-1	C3R	DIVISION 16 TO PROVIDE DISCONNECT SWITCH AND WIRE 208V/3 TO UNIT VIA DISCONNECT. ALL CONTROLS WIRING BY DIVISION 15.

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS JOB No. ALL-23014405-A0

MECHANICAL SCHEDULE - FANS

DWG. DESIGNATION	SYSTEM and ROOM	MODEL	FLOW (CFM)	ESP (IN W.G.)	RPM	VFD	WEIGHT LBS	MECHANICAL REMARKS	WIRING FOR MECHANICAL EQUIPMENT SCHEDULE							ELECTRICAL WIRING INSTRUCTIONS
									MOTOR HP or W	FLA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
EF-1	STAFF WASHROOM	PENN BARRY ZJ1	157	0.13	1020	NO	19	LOW PROFILE CEILING FAN, BACK DRAFT DAMPER, ADJUSTABLE MOUNTING FLANGES	125 W			115/1	-	-	SW	DIVISION 16 TO WIRE TO ROOM LIGHTING CIRCUIT AND LIGHTING CONTROL. FAN RUNS WHEN LIGHTS ARE TURNED "ON" AND STOPS WHEN LIGHTS ARE TURNED "OFF"
KEF-1	KITCHEN EXHAUST	PENN BARRY FX18BH	3848	1.6	1328	NO	142	WALL MOUNTED UPBLAST SPUN ALUMINUM EXHAUST FAN, C/W CURB CAP, WALL MOUNTING ADAPTER, HINGED SUB-BASE.	2 HP	2.7		600/3	OUTDOOR COMBO H-O-A PL	KITCHEN HOOD CONTROLLER	C3R	DIVISION 16 TO PROVIDE DISCONNECT SWITCH AND WIRE 600V/3 TO FAN VIA DISCONNECT. ALL CONTROLS WIRING BY DIVISION 15.

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE LEGEND

AM – ACTUATOR MOTOR
APS – AIR PROVING SWITCH
AST – AQUASTAT
BAS – CONTROL BY BUILDING AUTOMATION SYSTEM CONTRACTOR
BIC – BUILT IN CONTROLLER
C1 – EEMAC–1 TYPE DISC. SWITCH
C2 – EEMAC–2 TYPE DISC. SWITCH
C3R – EEMAC–3R TYPE DISC. SWITCH
C4 – EEMAC–4 TYPE DISC. SWITCH
C12 – EEMAC–12 TYPE DISC. SWITCH
COMB – COMBINATION MAGNETIC STARTER
CP – CONTROL PANEL
CSR – CURRENT SENSING RELAY
CT – CONTROL TRANSFORMER
CWSV – COLD WATER SOLENOID VALVE
(D15) – ITEM ADJACENT IS SUPPLIED, INSTALLED AND WIRED BY MECHANICAL DIVISION.
(D15A) –ITEM ADJACENT IS SUPPLIED AND INSTALLED BY MECHANICAL DIVISION. ELECTRICAL DIVISION WIRES ITEM.
(D16) – ITEM ADJACENT IS SUPPLIED BY MECHANICAL DIVISION. ELECTRICAL DIVISION INSTALLS AND WIRES ITEM.
DISC – DISCONNECT
DM – DAMPER MOTOR
DMSW – DAMPER MOTOR SWITCH

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE LEGEND

DVR – DOUBLE VOLTAGE RELAY
FA – FIRE ALARM SYSTEM CONNECTION
FAIM – ADDRESSABLE FIRE ALARM INPUT MODULE
FACR – ADDRESSABLE FIRE ALARM CONTROL RELAY MODULE
FL – FLOAT SWITCH
FLA – FULL LOAD RUNNING AMPERES
FPU – FIELD PROCESSOR UNIT BY DIV. 15900*
FPU/SS – START/STOP CONTROL OUTPUT FROM FPU*
FPU/ST – MOTOR RUNNING STATUS INPUT TO FPU*
FRAC – FRACTIONAL HORSEPOWER
FS – FLOW SWITCH
GSV – GAS SOLENOID VALVE
HOA – HAND/OFF/AUTO SWITCH IN STARTER COVER
HUM – HUMIDISTAT
HWSV – HOT WATER SOLENOID VALVE
IRS – INFRARED SENSOR
KMSW – KEY OPERATED MOMENTARY CONTACT SWITCH
KSW/PL – KEY SWITCH(15A, 120V,SPST, LOCK TYPE C/W PILOT LIGHT)
LS – LEVEL SWITCH
LWCO – LOW WATER CUT OFF
MAG – MAGNETIC STARTER
LS – LEVEL SWITCH
LWCO – LOW WATER CUT OFF

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE LEGEND

MAG – MAGNETIC STARTER
MAN – MANUAL STARTER
MCA – MINIMUM CIRCUIT AMPS
MCC – MOTOR CONTROL CENTRE
MFA – MAXIMUM FUSE AMPACITY
MOCP – MAXIMUM OVER CURRENT PROTECTION
MVS – MONITORED VALVE SWITCH
ODT – OFF DELAY TIMER
PB – PUSHBUTTON ON/OFF SWITCH IN STARTER COVER
PL – PILOT LIGHT IN STARTER COVER
PLG – 120V RECEPTACLE BY ELECTRICAL DIVISION
PS – PRESSURE SWITCH
RPB – REMOTE STOP/START PUSHBUTTON
RPL – REMOTE PILOT LIGHT
SD – SMOKE DETECTOR (DUCT TYPE)
SS – SPEED SWITCH
SLS & PL – SELECTOR SWITCH AND PILOT LIGHT
SV – SOLENOID VALVE
SW – HP RATED TOGGLE SWITCH
TC – TEMPERATURE CONTROLLER
TI – TIMER (INTERVAL)
T7 – TIMER (7–DAY)
TRS – THERMOSTAT REVERSING SWITCH

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE LEGEND

TS – THERMOSTAT
T – THERMOSTAT OR TEMPERATURE SENSING UNIT
VM – VALVE MOTOR
VFD – (VSD) VARIABLE FREQUENCY (OR SPEED) DRIVE
TOA – TEST/OFF/AUTO SWITCH IN STARTER COVER.

KITCHEN HOOD CONTROLLER, CSA CERTIFIED
ITEM: CONTROL PANEL, MODEL: RPD–P11–MW–SW–AS

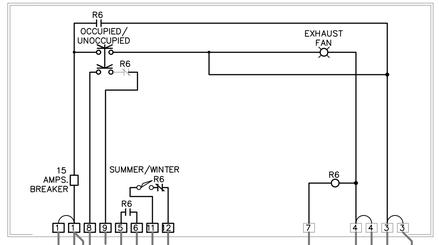
EMC TYPE: REMOTE EXHAUST MOTOR STARTER(S)			
START/STOP: MANUAL	MOUNTING: WALL		
SUPPLY: BY OTHERS	EXHAUST: BY OTHERS	HOOD(S): SPRING AIR	
SUPPLY MOTOR STARTER: UNIT MOUNTED		NO. OF EXHAUST FANS	1

△ POWER WIRING BY ELECTRICAL CONTRACTOR
▲ CONTROL WIRING BY CONTROL CONTRACTOR
● FACTORY WIRING BY SPRING AIR SYSTEMS

CALL SPRING AIR SERVICE AT 1–866–874–4505 IF YOU HAVE ELECTRICAL WIRING QUESTIONS

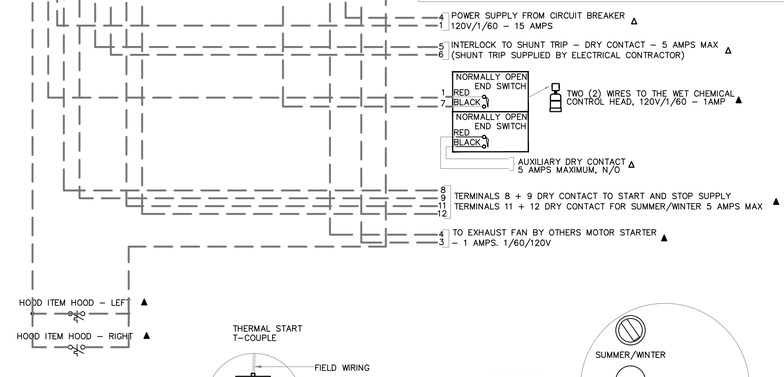
NOTE: MOTOR STARTERS OVERLOADS AND DISCONNECTS BY ELECTRICAL DIVISION

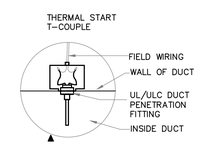
OPTIONS ☒THERMAL START ☒SUMMER/WINTER SWITCH



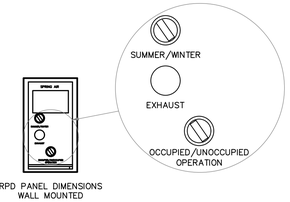
SEQUENCE OF OPERATION

AT THE START OF THE COOKING DAY:
Switch the on/off toggle to the Occupied position. The SAA inlet motorized damper opens and then the SAA supply fan starts. Shortly after, the exhaust fan(s) will energize.
EXHAUST FAN OPERATION:
The exhaust fan(s) starts immediately.
Dry contact on terminals 8+9 closes to start the supply fan. Some supply fans have an interlock with a fresh air damper and may take a few minutes to start. Once the supply air unit air proving switch closes the exhaust fan starts.
SUMMER/WINTER OPERATION:
Contractor to install DAT sensor in supply ductwork and wire back to MUA–1. Unit to modualte heating/cooling to satisfy a DAT setpoint of 68°F When summer/winter switch is rotated to the winter position, the supply unit will provide heating for the kitchen.
THERMAL START:
When any T–couple closes because of rise in temperature in ductwork, all the exhaust fans will start together. The factory temperature is set at 110F.
IN THE EVENT OF A SURFACE FIRE:
The surface fire suppression will activate. The dry contact on terminals 8+9 will open and the supply fan will shut off. The exhaust fan will operate at high volume.
AT THE END OF THE COOKING DAY:
Switch the on/off toggle to the OFF position. The exhaust and supply fan will stop operation. Inspect the hood baffle filters or inserts daily. Clean as necessary.
Wipe down the interior surface of the hood each day. Refer to the maintenance manuals for additional information.





T–COUPLE ASSEMBLY INSTALLED IN EACH EXHAUST HOOD DUCT COLLAR BY HOOD MANUFACTURER AND WIRED BY ELECTRICIAN



RPD PANEL DIMENSIONS WALL MOUNTED

KITCHEN EXHAUST HOOD – WIRING DIAGRAM

N.T.S.

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2 - ISSUED FOR TENDER- 2024-01-31
1 - ISSUED FOR PERMIT- 2024-01-18

PROJECT:
Interior Alterations at:
Fort Erie International Academy
7 Tait Ave., Fort Erie, ON

SEAL:
LICENSED PROFESSIONAL ENGINEER
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TRUE NORTH:

DRAWING TITLE:
MECHANICAL & ELECTRICAL SCHEDULES

SCALE: AS NOTED
DRAWN:
DATE: DECEMBER 2023
PROJECT #: ALL–23014405–A0
DRAWING #: ME1.0

POWER SINGLE LINE DIAGRAM SYMBOLS

Symbol	Description
###/#	CKT BREAKER, '###' INDICATES TRIP SETTING, '#' INDICATES NUMBER OF POLES
###/#	DRAW-OUT CKT BREAKER, '###' INDICATES TRIP SETTING, '#' INDICATES NUMBER OF POLES
###/#	FUSED SWITCH, '###' INDICATES TRIP SETTING, '#' INDICATES NUMBER OF POLES
	ENCLOSED CIRCUIT BREAKER
	ENCLOSED NON-FUSED SWITCH
	ENCLOSED FUSED SWITCH
K	KIRK KEY INTERLOCK
A	AUTOMATIC TRANSFER
SS	SOLID STATE, ELECTRONIC ADJUSTABLE TRIP
GFP	GROUND FAULT PROTECTION
SPD	SURGE PROTECTIVE DEVICE
DMM	DIGITAL MULTIMETER
M	UTILITY METER
N E L	AUTOMATIC/MANUAL TRANSFER SWITCH
N E ATS IS BP L	AUTOMATIC TRANSFER SWITCH, WITH BYPASS ISOLATION
	TRANSFORMER
	GENERATOR
PANEL NAME	PANELBOARD
	PAD MOUNTED TRANSFORMER
	GROUND
	POTENTIAL TRANSFORMER
	CURRENT TRANSFORMER

POWER DISTRIBUTION AND SMALL POWER

Symbol	Description	Symbol	Description
	DUPLEX RECEPTACLE, WALL MOUNTED		DOUBLE DUPLEX RECEPTACLE, WALL MOUNTED
	DUPLEX RECEPTACLE, ABOVE BACKSPLASH OF CABINET, COUNTERTOP OR SINK		DOUBLE DUPLEX RECEPTACLE, ABOVE BACKSPLASH OF CABINET, COUNTERTOP OR SINK
	DUPLEX RECEPTACLE, FLUSH MTD IN CEILING		DOUBLE DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING
	HALF SWITCHED DUPLEX RECEPTACLE, WALL MOUNTED		SIMPLEX RECEPTACLE, WALL MOUNTED
TYPE	SPECIAL PURPOSE RECEPTACLE, WALL MOUNTED. NEMA CONFIGURATION AS NOTED ON PLANS	TYPE	SPECIAL PURPOSE RECEPTACLE, CEILING MOUNTED NEMA CONFIGURATION AS NOTED ON PLANS
	SHADING REPRESENTS RECEPTACLE ON LIFE SAFETY BRANCH		SHADING REPRESENTS RECEPTACLE ON UPS BRANCH
	SHADING REPRESENTS RECEPTACLE ON NON-LIFE SAFETY BRANCH		SHADING REPRESENTS RECEPTACLE WITH ISOLATED GROUND

Symbol	Description
	DISCONNECT SWITCH, REFER TO EQUIPMENT CONNECTION SCHEDULE FOR DISCONNECT TYPE, UON
	COMBINATION MOTOR STARTER DISCONNECT
	MOTOR STARTER
	VARIABLE FREQUENCY DRIVE
X	DIRECT CONNECTION, WALL MOUNTED. SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER, REFER TO EQUIPMENT CONNECTION SCHEDULE.
X	DIRECT CONNECTION, CEILING MOUNTED. SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER, REFER TO EQUIPMENT CONNECTION SCHEDULE.
X	MOTOR, SUBSCRIPT 'X' DENOTES MOTOR DESIGNATION, REFER TO EQUIPMENT CONNECTION SCHEDULE
	GROUND BUS BAR
F	FURNITURE OUTLET, WALL MOUNTED
	PANELBOARD
	TRANSFORMER

Symbol	Description	Symbol	Description
X	FLOOR BOX, DUPLEX RECEPTACLE	FB#	SPECIAL FLOORBOX, "#" INDICATES UNIQUE FLOOR BOX TYPE
X	FLOOR BOX, DOUBLE DUPLEX RECPT		

X — RECEPTACLE TYPE
12 — NUMBER INDICATES BRANCH CIRCUIT NUMBER

CIRCUITING

KP.10
- CIRCUIT NUMBER
- PANEL DESIGNATION

3#12,#12G,21mmC
- CONDUIT SIZE
- GROUND CONDUCTOR QUANTITY AND SIZE
- CIRCUIT CONDUCTOR QUANTITY AND SIZE

GROUNDING AND LIGHTNING PROTECTION

Symbol	Description	Symbol	Description
	BONDING CONNECTION		MAIN CONDUCTOR CABLE
	DOWN CONDUCTOR		COUNTERPOISE CONDUCTOR CABLE
	UP CONDUCTOR		BONDING CONDUCTOR CABLE
	TEE CONNECTOR		GROUND ROD
	AIR TERMINAL		

LIGHTING, LIGHITNG SWITCHING & CONTROLS

AF10 — UPPER CASE LETTERS INDICATE LIGHTING FIXTURE TYPE
7ab — NUMBER INDICATES CIRCUIT NUMBER, LOWER CASE LETTER INDICATES SWITCHLEG

Symbol	Description	Symbol	Description
	LIGHTING FIXTURE ON NORMAL BRANCH POWER - CEILING MOUNTED		LIGHTING FIXTURE ON EMERGENCY BRANCH POWER - CEILING MOUNTED
	LIGHTING FIXTURE ON NORMAL BRANCH POWER - WALL MOUNTED		LIGHTING FIXTURE ON EMERGENCY BRANCH POWER - WALL MOUNTED
	STRIP LIGHTING FIXTURE ON NORMAL BRANCH POWER		STRIP LIGHTING FIXTURE ON EMERGENCY BRANCH POWER
	PENDANT LINEAR FIXTURE ON NORMAL BRANCH POWER		PENDANT LINEAR FIXTURE ON EMERGENCY BRANCH POWER
	DOWNLIGHT LIGHTING FIXTURE ON NORMAL BRANCH POWER - RECESSED MOUNTED		DOWNLIGHT LIGHTING FIXTURE ON EMERGENCY BRANCH POWER - RECESSED MOUNTED
	PENDANT LIGHTING FIXTURE ON NORMAL BRANCH POWER		PENDANT LIGHTING FIXTURE ON EMERGENCY BRANCH POWER
	WALL WASH LIGHTING FIXTURE ON NORMAL BRANCH POWER - ARROW INDICATES DIRECTION OF BEAM		WALL WASH LIGHTING FIXTURE ON EMERGENCY BRANCH POWER - ARROW INDICATES DIRECTION OF BEAM
	WALL MOUNTED LIGHTING FIXTURE ON NORMAL BRANCH POWER - WALL MOUNTED		WALL MOUNTED LIGHTING FIXTURE ON EMERGENCY BRANCH POWER - WALL MOUNTED
	BOLLARD LIGHT FIXTURE ON NORMAL BRANCH POWER		BOLLARD ON EMERGENCY BRANCH POWER
	SITE LIGHTING SINGLE HEAD ON NORMAL BRANCH POWER - POLE MOUNTED		SITE LIGHTING SINGLE HEAD ON EMERGENCY BRANCH POWER - POLE MOUNTED
	SITE LIGHTING DUAL HEAD ON NORMAL BRANCH POWER - POLE MOUNTED		SITE LIGHTING DUAL HEAD ON EMERGENCY BRANCH POWER - POLE MOUNTED
	EXIT SIGN - SINGLE FACE - CEILING MOUNTED		EXIT SIGN - DUAL FACE - CEILING MOUNTED
	EXIT SIGN - SINGLE FACE - WALL MOUNTED		EXIT SIGN - DUAL FACE - WALL MOUNTED
LL	LOW LEVEL EXIT SIGN - SINGLE FACE - WALL OR DOOR MOUNTED		SINGLE REMOTE EMERGENCY LIGHT - WALL MOUNTED
	DUAL HEAD EMERGENCY LIGHT WITH INTEGRAL BATTERY PACK - WALL MOUNTED		DUAL REMOTE EMERGENCY LIGHT - WALL MOUNTED

$ X ab — WALL SWITCH, 'ab' INDICATES INDIVIDUAL GANGED SWITCHES AND ASSOCIATED SWITCH LEGS CONTROLLED, SUBSCRIPT 'X' INDICATES:

- 2 - DOUBLE POLE
- 3 - THREE WAY
- 4 - FOUR WAY
- D - WALL BOX DIMMER
- K - KEY OPERATED
- LV - LOW VOLTAGE
- M - COMBINATION SWITCH/OCCUPANCY SENSOR
- P - PILOT LIGHT
- T - WALL BOX TIMER
- WP - WEATHER PROOF

Symbol	Description
OS	OCCUPANCY SENSOR, CEILING MOUNTED
OS	OCCUPANCY SENSOR, WALL MOUNTED
VS	VACANCY SENSOR, CEILING MOUNTED
VS	VACANCY SENSOR, WALL MOUNTED
DCP X	DIMMING CONTROL PANEL, SUBSCRIPT 'X' INDICATES TYPE
DIM X	DIMMING CONTROL STATION, SUBSCRIPT 'X' INDICATES TYPE OR UNIQUE IDENTIFIER
LCP	LIGHTING CONTROL PANEL
	SHUNT TRIP PUSH BUTTON
TC X	TIME CLOCK, SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER
DS X	DAYLIGHT SENSOR, CEILING MOUNTED
PC X	PHOTOCELL

FIRE ALARM SYSTEM

Symbol	Description	Symbol	Description
	FIRE ALARM STROBE, WALL MOUNTED		FIRE ALARM STROBE, CEILING MOUNTED.
	FIRE ALARM HORN, WALL MOUNTED		FIRE ALARM HORN, CEILING MOUNTED
	FIRE ALARM HORN/STROBE, WALL MOUNTED		FIRE ALARM HORN/STROBE, CEILING MOUNTED
SP	FIRE ALARM SPEAKER, WALL MOUNTED	SP	FIRE ALARM SPEAKER, CEILING MOUNTED
SP	FIRE ALARM SPEAKER/STROBE, WALL MOUNTED	SP	FIRE ALARM SPEAKER/STROBE, CEILING MOUNTED
	FIRE ALARM BELL, WALL MOUNTED		FIRE ALARM PULL STATION
	HEAT DETECTOR, WALL MOUNTED		HEAT DETECTOR, CEILING MOUNTED
	SMOKE DETECTOR, WALL MOUNTED	FRR	HEAT DETECTOR, CEILING MOUNTED COMBINATION FIXED TEMPERATURE (57°C) AND RATE-OF-RISE.
	SMOKE DETECTOR, DUCT MOUNTED		SMOKE DETECTOR, CEILING MOUNTED
	CARBON MONOXIDE DETECTOR		FIRE/SMOKE DAMPER
FF	FIREFIGHTERS TELEPHONE OUTLET		SMOKE DAMPER
	REMOTE INIDICATOR LIGHT	SA	SMOKE ALARM
FACP	FIRE ALARM CONTROL PANEL	SA CO	COMBINATION SMOKE ALARM AND CARBON MONOXIDE DETECTOR
FAA	FIRE ALARM REMOTE ANNUNCIATOR PANEL	TPS	TAMPER SWITCH
DGP	DATA GATHERING PANEL	RT	REMOTE TEST STATION
FATC	FIRE ALARM TERMINAL CABINET	FS	FLOW SWITCH
FATP	FIRE ALARM TRANSPONDER PANEL	SV	SUPERVISORY VALVE
			ELECTRO-MAGNETIC DOOR HOLDER

TELECOMMUNICATIONS SYSTEM

Symbol	Description	Symbol	Description
	WALL MOUNT VOICE OUTLET		FLOOR MOUNT VOICE OUTLET
	WALL MOUNT DATA OUTLET		FLOOR MOUNT DATA OUTLET
	WALL MOUNT DATA/VOICE OUTLET		FLOOR MOUNT DATA/VOICE OUTLET
WAP	CEILING MOUNT DATA FOR WIRELESS ACCESS POINT		

DEVICE LEGEND

- X — NUMBER OF DATA JACKS
- Y — NUMBER OF VOICE JACKS
- X/Y — NUMBER OF DATA/VOICE JACKS

NO SUBSCRIPT = (1) DATA/VOICE

MOUNTING:
OUTLET MOUNTING HEIGHTS TO BE COORDINATED WITH INTERIOR DESIGNER DURING DD PHASE

SECURITY SYSTEM

DEVICE LEGEND

DEVICE TAG → AAA M ← MOUNTING TAG; Y ← SECONDARY ATTRIBUTE

ALL SECURITY SYSTEM DEVICES ARE WALL MOUNTED UNLESS OTHERWISE INDICATED BY MOUNTING TAG

Symbol	Description	Symbol	Description
ACP	ACCESS CONTROL PANEL	ADO	AUTO DOOR OPERATOR
ALM	ALARM DEVICE	CR	CARD READER
DC	DOOR CONTACT	DCR	DOOR CONTROLLER
EL	ELECTRIFIED LOCKSET	EP	ELECTRIFIED PANIC HARDWARE
ES	ELECTRIC STRIKE	GB	GLASS BREAK DETECTOR
IC	INTERCOM	ID	INTRUSION DETECTION DEVICE
KP	KEYPAD	KEY	KEY SWITCH
ML	MAGNETIC LOCK	MS	MOTION SENSOR
PB	PUSH BUTTON	PNL	PANEL / CONTROLLER
PP	PUSH PLATE	PX	POWER TRANSFER
LFE	LOW FREQUENCY EXCITER	REX	REQUEST TO EXIT DEVICE
	INFRARED READER	SEN	ALARM SENSOR
RDU	REMOTE DISPLAY UNIT	SPS	SECURITY SYSTEM POWER SUPPLY
LAR	LOCAL AREA RECEIVER	SVR	SERVER
	DIRECTIONAL PASSIVE TAG DETECTOR	WKS	SECURITY WORKSTATION
IRC	INFRARED CURTAIN		CCTV CAMERA, WALL-MOUNTED
RFR	RF READER		CCTV CAMERA, CEILING-MOUNTED
RFM	RF READER MASTER	PS	POWER SUPPLY
RFLR	RF LONG RANGE READER		
RFER	RF ETHERNET READER		

AUDIOVISUAL SYSTEM DEVICES

DEVICE LEGEND

DEVICE TAG → AAA M ← MOUNTING TAG; Y ← SECONDARY ATTRIBUTE

ALL AV SYSTEM DEVICES ARE WALL MOUNTED UNLESS OTHERWISE INDICATED BY MOUNTING TAG

Symbol	Description	Note
AVx	AV CONNECTIVITY PLATE	"x" DENOTES AV OUTLET TYPE. REFER TO AV SYSTEMS DETAILS
D	DISPLAY	
TV	TELEVISION OUTLET	
PRS	PROJECTOR SCREEN	
PRJ	PROJECTOR	
CAM	AV SYSTEM CAMERA	
IRR	INFRARED RADIATOR	
ANT	ANTENNA	
ROS	AV SYSTEM ROOM OCCUPANCY SENSOR	

ABBREVIATIONS

Abbr.	Meaning	Abbr.	Meaning
A	ANALOG	MCB	MAIN CIRCUIT BREAKER
AFCI	ARC FAULT CIRCUIT INTERRUPTOR	MCC	MOTOR CONTROL CENTER
AFF	ABOVE FINISHED FLOOR	MD	MOTORIZED DAMPER
ATS	AUTOMATIC TRANSFER SWITCH	MH	MOUNTING HEIGHT
CK	CLOCK HANGER	NC	NORMALLY CLOSED
CL	CEILING MOUNTED	NO	NORMALLY OPEN
EMT	ELECTRICAL METALLIC TUBING	OC	OVER THE COUNTER
EP	EXPLOSION PROOF	PTZ	PAN, TILT, ZOOM
F	FURNITURE OR MILLWORK MOUNTED	ST	SHUNT TRIP
FL	FLOOR MOUNTED	TP	TAMPER PROOF
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	WP	WEATHER PROOF
GFI	GROUND FAULT INTERRUPTER		

AUDIOVISUAL SYSTEM DEVICES (CONTINUED)

Symbol	Description	Note
PS	AV SYSTEM PARTITION SENSOR	
LS	PHOTOMETRIC SENSOR	
BN	BACnet INTERFACE TO AV SYSTEM	
LI	LIGHTING INTERFACE TO AV SYSTEM	
SI	SHADE/DRAPE INTERFACE TO AV SYSTEM	
MIC	MICROPHONE	
TS	TOUCH SCREEN	
RSP	ROOM SCHEDULING PANEL	
RSS	ROOM SCHEDULING SIGN	
BP	BUTTON PANEL	
S	AV SYSTEM SPEAKER	
SUB	SUBWOOFER SPEAKER	
LCR	LOCAL CREDENZA RACK	
AVR	AV RACK	
FBx	FLOOR BOX	"x" DENOTES TYPE. REFER TO AV SYSTEMS DETAILS
PTx	POKE THROUGH	"x" DENOTES TYPE. REFER TO AV SYSTEMS DETAILS
TBx	TABLE BOX	"x" DENOTES TYPE. REFER TO AV SYSTEMS DETAILS

MISCELLANEOUS DEVICES

Symbol	Description
JB	JUNCTION BOX, WALL MOUNTED
JB	JUNCTION BOX, CEILING MOUNTED
C X	CONTACTOR, SUBSCRIPT 'X' INDICATES UNIQUE IDENTIFIER
R	CONTROL RELAY & REQUIRED INPUT/OUTPUT MODULE

DEMOLITION

Symbol	Description
< R >	EXISTING TO BE REMOVED
< RL >	EXISTING TO BE RELOCATED
< EX >	EXISTING TO REMAIN
< NL >	EXISTING - NEW LOCATION
— — — —	DEMOLITION CONDUIT
	DEMOLITION EQUIPMENT
———	EXISTING TO REMAIN CONDUIT
	EXISTING TO REMAIN EQUIPMENT

TAGS AND CALL OUT SYMBOLS

Symbol	Description
1 / E3.1	SECTION CALLOUT SECTION DESIGNATION SHEET NUMBER
A / E3.1	DETAIL CALLOUT DETAIL DESIGNATION SHEET NUMBER
#	REVISION CALLOUT
1	KEYNOTE CALLOUT

DRAWING LIST

1. E0.0 - ELECTRICAL LEGEND & DRAWINGS LIST
2. E1.0 - ELECTRICAL SPECIFICATION & DEMOLITION & GENERAL NOTES
3. E2.0 - ELECTRICAL GROUND FLOOR OVERALL & DEMOLTION PLANS
4. E2.1 - ELECTRICAL GROUND FLOOR PLANS - NEW LIGHITNG & POWER & SYSTEMS
5. ME1.0 - MECHANICAL & ELECTRICAL SCHEDULES

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3 - ISSUED FOR TENDER - 2024-01-31
2 - ISSUED FOR PERMIT - 2024-01-18
1 - PROGRESS SET - 2023-11-29

PROJECT:

Interior Alterations at:

Fort Erie International Academy

7 Tait Ave.,
Fort Erie, ON

SEAL:

LICENSED PROFESSIONAL ENGINEER
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TRUE NORTH:

DRAWING TITLE:

ELECTRICAL Legend & Drawing List

SCALE: AS NOTED

DRAWN:

DATE: DECEMBER 2023

PROJECT #: ALL-23014405-A0

DRAWING #: E0.0

ELECTRICAL SPECIFICATIONS

1. RELATED INSTRUCTIONS

1.1. THIS SPECIFICATION SHALL APPLY TO AND GOVERN ALL WORK BY DIVISION 16.

1.2. FURNISH ALL LABOUR, MATERIAL, TOOLS, EQUIPMENT, ETC., REQUIRED TO COMPLETE ALL WORK SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. THE WORK SHALL BE IN ACCORDANCE WITH RULES AND REGULATIONS OF ALL AUTHORITIES HAVING LEGAL JURISDICTION OVER THE WORK. PROVIDE ANY SMALL ITEMS OF WORK NOT SPECIFICALLY CALLED FOR BUT REQUIRED TO COMPLETE THE INTENDED INSTALLATION.

1.3. THE WORK OF THE ELECTRICAL DIVISION SHALL BE COORDINATED WITH THE WORK OF OTHER DIVISIONS TO AVOID INTERFERENCE. COORDINATE THE WORK TO ENSURE THE BEST INSTALLATION.

1.4. REMOVE ALL DEBRIS AND WASTE MATERIALS FROM THE SITE CAUSED BY THIS CONTRACTOR IN THE PERFORMANCE OF THE ELECTRICAL WORK.

1.5. THIS DIVISION SHALL CARRY OUT ANY CUTTING, DRILLING, CORING, PATCHING NECESSARY FOR THE ELECTRICAL WORK. PROVIDE APPROVED ULC FIRE STOP CONDUITS PENETRATING FIRE-RATED ASSEMBLIES.

2. LIABILITY INSURANCE

2.1. OBTAIN AND CARRY PROPER INSURANCE TO FULLY PROTECT BOTH THE OWNER AND HIMSELF FROM ANY AND ALL CLAIMS DUE TO ACCIDENTS, MISFORTUNES, ACTS OF GOD, ETC.

3. CODES, PERMITS AND INSPECTION

3.1. BUILDING PERMIT SHALL BE OBTAINED BY OWNER.

3.2. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR, AND OBTAIN ALL OTHER PERMITS, INSPECTIONS, VERIFICATIONS, ETC., AS REQUIRED BY ALL AUTHORITIES HAVING JURISDICTION OVER THIS WORK AND PAY FOR ALL FEES RELATED TO SAME.

3.3. DELIVER ALL PERMITS TO THE OWNER AS SOON AS THEY BECOME AVAILABLE.

3.4. AT THE CONCLUSION OF THE PROJECT, SUBMIT TO THE OWNER, THE ELECTRICAL SAFETY AUTHORITY FINAL ACCEPTANCE CERTIFICATE.

4. DRAWINGS

4.1. DO NOT SCALE THE DRAWINGS ANY INFORMATION INVOLVING ACCURATE MEASUREMENTS SHALL BE OBTAINED FROM THE BUILDING.

4.2. THE DRAWINGS INDICATE THE GENERAL LOCATION AND ROUTE OF THE CONDUITS, WIRING DEVICES, EQUIPMENT, ETC. AND ARE SHOWN DIAGRAMMATICALLY ONLY. CHANGE LOCATION OF ANY DEVICE/EQUIPMENT WITHIN 3M OF INDICATED LOCATION AT NO ADDITIONAL COST TO OWNER PROVIDED INSTRUCTIONS ARE RECEIVED PRIOR TO COMMENCING ROUGH-IN WORK. PRIOR TO COMMENCING ANY ROUGH-IN OR INSTALLATION WORK VISIT SITE, MEET WITH THE OWNERS REPRESENTATIVE AND CONFIRM EXACT LOCATION OF ALL DEVICES.

4.3. WHERE INCONSISTENCIES OCCUR, NOTIFY THE CONSULTANT/OWNER IMMEDIATELY AND DO NOT PROCEED WITH THE WORK UNTIL WRITTEN INSTRUCTIONS ARE RECEIVED FROM CONSULTANT/OWNER.

5. RECORD DRAWINGS AND EQUIPMENT MANUALS

5.1. AS THE PROJECT PROGRESSES, RECORD, ON A SET OF WHITE PRINTS, ALL ADDENDA, CHANGES TO AND DEVIATIONS FROM THE PLANS MADE DURING THE CONSTRUCTION PERIOD. ALSO, RECORD THE LOCATION OF ALL LIGHT FIXTURES AND OTHER ELECTRICAL EQUIPMENT AND WIRING FOR SAME.

5.2. MAKE THESE PROGRESS RECORD DRAWING WHITE PRINTS AVAILABLE TO THE CONSULTANTS FOR THEIR REVIEW AT ALL TIMES DURING THE CONSTRUCTION PERIOD.

5.3. AT THE CONCLUSION OF THE PROJECT, TRANSFER ALL RECORD DRAWING INFORMATION TO A UNIVERSAL SERIAL BUS (USB).

5.4. THE CONSULTANT SHALL PROVIDE TO THE CONTRACTOR AN ELECTRONIC REPRESENTATION OF THE DRAWINGS. COMPLETE AND RETURN THE RELEASE FORM "TRANSFER OF FILES ON ELECTRONIC MEDIA" IN ORDER TO RECEIVE AND USE THE ELECTRONIC FILES. (SAMPLE OF THE FORM CAN BE PROVIDED ON REQUEST).

5.5. BEFORE SUBSTANTIAL PERFORMANCE OF THE CONTRACT, COMPLY WITH THE FOLLOWING:

4.5.1. PROVIDE A USB CONTAINING ALL UPDATED RECORD DRAWING INFORMATION AS SPECIFIED HEREIN.

4.5.2. PROVIDE TWO (2) SETS OF EQUIPMENT DATA SHEETS AND/OR MANUFACTURER'S MAINTENANCE MANUALS COVERING EACH SYSTEM AND ITS COMPONENTS IN ACCORDANCE WITH REQUIREMENTS OF EACH APPROPRIATE SECTION. THESE SETS ARE TO BE IN GOOD QUALITY BINDERS EQUAL TO VYN-L-LINE #VL-3096-B 2", (51mm) RINGS. THE BINDER IS TO BE DIVIDED INTO SECTIONS WITH TABS CLEARLY MARKED INDICATING THE SYSTEMS, ETC.

6. EQUIPMENT AND MATERIAL

6.1. ALL EQUIPMENT AND MATERIAL, UNLESS SPECIFICALLY NOTED OTHERWISE, SHALL BE NEW AND WITHOUT BLEMISH OR DEFECT. ALL MATERIAL AND EQUIPMENT SHALL BEAR ULC. OR CSA LABELS.

7. ACCESSIBILITY

7.1. INSTALL ALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE AND REPAIRS.

8. RESPONSIBILITY

8.1. BE RESPONSIBLE FOR WORK UNTIL COMPLETION AND FINAL ACCEPTANCE, FOR REPLACING ANY ITEM THAT MAY BE DEFECTIVE, DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY TO THE COMPLETION OF THE PROJECT.

9. CONDUIT, AND WIRING

9.1. USE EMT CONDUIT FOR ALL WIRING UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL BE INSTALLED PARALLEL TO BUILDING LINES AND SECURELY FASTENED.

9.2. UNLESS NOTED OTHERWISE, CONDUITS SHALL BE CONCEALED ABOVE FINISHED CEILING, OR IN WALL PARTITIONS. EMT COMPLETE WITH STEEL SET SCREW TYPE CONNECTORS AND COUPLINGS.

9.3. MINIMUM SIZE TRADE CONDUIT IS 16MM. MINIMUM SIZE TRADE CONDUIT FOR COMMUNICATIONS IS 27MM. MINIMUM SIZE TRADE CONDUIT FOR SECURITY AND CCTV IS 21MM.

9.4. DO NOT RUN CONDUITS IN FIRE RATED CEILING SPACES.

9.5. FLEXIBLE CONDUIT SUITABLE FOR THE SPECIFIC APPLICATION AS PER OESC, AND NOT EXCEEDING 5 FEET IN LENGTH, SHALL BE USED FOR FINAL SHORT CONNECTIONS TO MOTORS, TRANSFORMERS AND SIMILAR EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION. FIXTURES AND SWITCH LEGS IN WOODEN, BLOCK OR STEEL PARTITIONS, SHALL NO EXCEED 10 FEET IN LENGTH.

9.6. CONDUIT AND CABLES SHALL BE INSTALLED TO AVOID PROXIMITY TO WATER AND HEATING PIPES, EXCEPT WHERE CROSSINGS ARE UNAVOIDABLE.

9.7. CONDUIT AND CABLES MUST NOT PASS THROUGH STRUCTURAL STEEL MEMBERS, CONCRETE BEAMS OR COLUMNS, WITHOUT PERMISSION FROM THE ENGINEER.

9.8. SURFACE RACEWAY SYSTEM WITH WIRING LAID IN SHALL BE ACCEPTABLE BUT KEPT TO A MINIMUM IN AREAS WHERE EMT CONDUIT CAN NOT BE CONCEALED. TWO PIECE STEEL ASSEMBLY MANUFACTURED AS LAY-IN TYPE RACEWAY C/W TEES, ELBOWS AND HANGER FITTING AND SUPPORTS REQUIRED FOR A COMPLETE SYSTEM - WIREMOLD OR APPROVED EQUAL.

9.9. ALL CONDUCTORS, UNLESS NOTED OTHERWISE. SHALL BE INSTALLED IN CONDUIT.

9.10. ALL CONDUCTORS SHALL BE COPPER, RW90 XLPE #12 AWG MINIMUM UNLESS NOTED OTHERWISE. WHERE THE DISTANCE FROM THE PANELBOARD TO THE LAST OUTLET EXCEEDS 50', #10 AWG CONDUCTOR MUST BE USED FOR THE FULL LENGTH OF THE CIRCUIT.

9.11. THE USE OF FLEXIBLE METALLIC-SHEATHED AC90 (BX) CABLES AS BRANCH WIRING SHALL BE LIMITED TO DRYWALL WALL DROPS TO SWITCHES, RECEPTACLES AND POWER OUTLETS THROUGH WALL CAVITIES, OR TO WIRING FROM JUNCTION BOXES IN DROP CEILING TO LIGHTING FIXTURES AND BETWEEN LIGHTING FIXTURES. SUPPORT BX DROPS INDEPENDENTLY. DO NOT LAY BX CABLES ON SUSPENDED CEILING. MAXIMUM RUN DISTANCE SHALL BE 10 FEET.

10. COLOUR CODING

10.1. PROVIDE COLOUR CODING MARKINGS USING MATERIALS SUITABLE FOR THE OPERATING ENVIRONMENT OR EQUIPMENT, CONDUIT AND CABLES.

10.2. COLOUR CODING, TO CONFORM TO CANADIAN AND ONTARIO ELECTRICAL CODES, SHALL BE:

PHASE A: RED
PHASE B: BLACK
PHASE C: BLUE
GROUND - GREEN
NEUTRAL:- WHITE

10.1. PROVIDE COLOUR CODED WIRES FOR FIRE ALARM CABLES, MATCH EXISTING.

10.2. PROVIDE COLOUR CODED WIRES FOR COMMUNICATION CABLES, MATCH EXISTING.

11. GROUNDING AND BONDING

11.1. THE GROUNDING AND BONDING OF THE ELECTRICAL SYSTEM IN ALL CASED SHALL CONFORM TO THE INSPECTION AUTHORITY HAVING JURISDICTION.

11.2. ALL FLEXIBLE CONDUIT SHALL BE PROPERLY BONDED.

11.3. ALL CONDUIT SHALL INCLUDE A BOND WIRE, SIZED TO OESC.

12. OUTLET, PULL AND JUNCTION BOXES

12.1. ALL LIGHTING FIXTURES, RECEPTACLES AND OTHER WIRING DEVICES FOR ANY CONDUIT SYSTEM SHOWN ON THE DRAWINGS IN WALLS, CEILINGS OR FLOOR, SHALL BE PROVIDED WITH AN OUTLET BOX AS SPECIFIED BELOW.

12.2. ALL OUTLET BOXES SHALL BE MANUFACTURED OF GAUGE GALVANIZED STEEL UNLESS SPECIFIED OTHERWISE AND SHALL BE SIZED FOR THE NUMBER OF WIRES ENTERING A BOX AS REQUIRED BY THE LOCAL ELECTRICAL CODE.

12.3. CEILING BOXES SHALL BE FOUR INCHES OCTAGON OR SQUARE COMPLETE WITH FITTINGS WHERE REQUIRED TO SUPPORT FIXTURES.

12.4. ALL OUTLET BOXES SHALL BE SUPPORTED INDEPENDENTLY OF THE CONDUIT.

12.5. PULL BOXES SHALL BE INSTALLED IN CONDUIT RUNS WHERE REQUIRED TO FACILITATE THE PULLING IN OF CABLE.

12.6. WHERE EMPTY CONDUIT ONLY IS TO BE INSTALLED FOR COMMUNICATIONS PATHWAYS, PULL BOXES SHALL BE INSTALLED ON STRAIGHT SECTIONS OF CONDUIT RUNS AND AT INTERVALS SUCH THAT NO CABLE WILL HAVE TO BE PULLED THROUGH MORE THAN TWO 90 DEGREE BENDS.

12.7. JUNCTION AND PULL BOXES SHALL BE LOCATED SO AS TO BE ACCESSIBLE AT ALL TIMES. WHEN INSTALLED IN CEILING SPACE, LOCKABLE ACCESS HATCHES MUST BE PROVIDED UNLESS CEILING TILE IS TO BE OF THE LAY-IN OR SNAP-IN STYLE.

13. WIRING DEVICES

13.1. SWITCHES: RATED 125VAC, 20 AMPERES AND LOW VOLTAGE IVORY TOGGLE TYPE COMPATIBLE WITH EXISTING.

13.2. INSTALL SINGLE THROW SWITCHES WITH HANDLE IN "UP" POSITION WHEN SWITCH CLOSED (ON).

13.3. INSTALL SWITCHES IN GANG-TYPE OUTLET BOX AT 1100mm ABOVE FINISHED FLOOR UNLESS INDICATED OTHERWISE.

13.4. 125V SWITCHES AS SHOWN SHALL BE LOW VOLTAGE COMPLETE WITH TRANSFORMERS AND CONTROL RELAYS LOCATED CONCEALED IN CEILING SPACES

13.5. RECEPTACLES: 3-WIRE, U-GROUND TYPE GENERAL PURPOSE, HEAVY DUTY, NEMA 5-15R.

13.6. INSTALL RECEPTACLES IN GANG-TYPE OUTLET BOX AT 450mm ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.

13.7. ONE PIECE GANG PLATES SHALL BE USED IN LOCATIONS WHERE MORE THAN ON DEVICES IS TO BE MOUNTED.

13.8. DO NOT INSTALL OUTLETS BACK-TO-BACK, STAGGER OUTLETS IN THE STUD CAVITIES TO REDUCE POSSIBILITY OF SOUND TRANSMISSION.

13.9. NEW RECEPTACLES SHALL MATCH EXISTING IN COLOUR.

13.10. COVERPLATES:

13.10.1. PROVIDE No.301 STAINLESS STEEL, BRUSHED COVERPLATES C/W PROTECTIVE PLASTIC FILM UNTIL PAINTING AND OTHER WORK IS FINISHED FOR ALL WIRING DEVICES MOUNTED IN A FLUSH MOUNTED OUTLET BOX. PROVIDE COMMON COVERPLATE WHEN WIRING DEVICES ARE GROUPED TOGETHER.

13.10.2. PROVIDE FITTING SHEET METAL (CAST) COVERPALTES FOR WIRING DEVICES MOUNTED IN SURFACE FS OR FD TYPE CONDUIT BOXES.

13.10.3. DO NOT USE COVERPLATES MEANT FOR FLUSH OUTLET BOXES ON SURFACE MOUNTED BOXES.

13.11. ACCEPTABLE MANUFACTURERS ARE:

13.11.1. HUBBELL
13.11.2. LEVITON
13.11.3. LEGRAND
13.11.4. COOPER
13.11.5. OR OTHER APPROVED EQUALS

14. DISCONNECT SWITCHES

14.1. DISCONNECT SWITCHES SHALL BE HEAVY DUTY WITH OPERATING HANDLE INTERLOCKED WITH THE SWITCH COVER.

14.2. DISCONNECT SWITCHES SHALL BE QUICK-MAKE, QUICK-BREAK, 600 VOLT WITH ARC QUENCHER AND SHALL BE HORSEPOWER RATED. PROVISION SHALL BE MADE FOR PADLOCKING IN EITHER THE "ON" OR "OFF" POSITION WITH UP TO 3 PADLOCKS.

14.3. DISCONNECT SWITCH BLADES SHALL BE FULLY VISIBLE WHEN IN THE "OFF" POSITION.

14.4. PREVENT DOOR FROM BEING OPENED WHEN SWITCH IS CLOSED. PROVISION SHALL BE MADE TO DEFEAT THIS INTERLOCK WITH A SCREWDRIVER.

14.5. DISCONNECT SWITCHES SHALL BE SPRINKLER PROOF IN INDOOR SPRINKLERED AREAS, NEMA 3R IN WET LOCATIONS.

14.6. A DISCONNECT SWITCH SHALL BE INSTALLED AHEAD OF ALL MOTORS, STARTERS AND ELECTRICAL DEVICES WHERE REQUIRED TO MEET CODE REGULATIONS, WHERE THE DEVICE IS INSTALLED UNDER THE ELECTRICAL DIVISION OR ANY OTHER DIVISION.

14.7. DISCONNECT ACCEPTABLE MANUFACTURERS ARE:

14.7.1. SCHNEIDER
14.7.2. EATON
14.7.3. SIEMENS

15. WIRING FOR MECHANICAL EQUIPMENT

15.1. SUPPLY AND INSTALL ALL STARTERS, DISCONNECTS, RELAYS, WIRING, ETC., TO ACCOMMODATE THE COMPLETE MECHANICAL SYSTEM, UNLESS NOTED OTHERWISE.

15.2. OTHER DIVISIONS SUPPLYING MOTOR-DRIVEN EQUIPMENT SHALL SUPPLY AND INSTALL ALL NECESSARY MOTORS WITH SUCH EQUIPMENT. ALL INTERNAL CONTROL WIRING IN SUCH EQUIPMENT SHALL BE FACTORY INSTALLED, OR SHALL BE SUPPLIED AND INSTALLED BY THOSE SUPPLYING THE EQUIPMENT.

15.3. REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS DURING TENDERING AND CONSTRUCTION TO ENSURE ENTIRE MECHANICAL EQUIPMENT WIRING SCOPE OF WORK IS UNDERSTOOD.

15.4. THIS DIVISION IS RESPONSIBLE FOR THE FOLLOWING:

15.4.1. SUPPLY AND INSTALLATION OF ALL STARTERS, DISCONNECT SWITCHES,PUSHBUTTON STATIONS, SPLITTER TROUGHS, JUNCTION BOXES AND TIME SWITCHES, ETC., AS NOTED ON DRAWING.

15.4.2. INSTALLATION AND WIRING OF ALL SEPARATELY MOUNTED THERMOSTATS, MOTOR CONTROLLERS AND CONTROL UNITS WHICH ARE SUPPLIED BY MECHANICAL.

15.4.3. SUPPLY AND INSTALLATION OF ALL POWER WIRING AND CONDUITS FROM THE DISTRIBUTION PANEL THROUGH THE STARTER AND DISCONNECT SWITCH ONTO THE MOTOR (OR EQUIPMENT).

15.4.4. SUPPLY AND INSTALLATION OF ALL CONTROL WIRING FROM REMOTE SWITCHES OR PUSHBUTTON STATIONS TO CONTROL STARTERS.

15.4.5. SUPPLY AND INSTALLATION OF ALL WIRING TO PROVIDE INTERLOCKING BETWEEN STARTERS COMPLETE WITH NECESSARY DOUBLE VOLTAGE RELAYS.

15.4.6. SUPPLY AND INSTALLATION OF TRANSIENT (SURGE) SUPPRESSERS ON HOLDING COILS OF MAGNETIC STARTERS, RELAYS, ETC., WHERE INDICATED FOR PROTECTION TO SOLID STATE EQUIPMENT THAT IS SENSITIVE TO SURGES, SPIKES, ETC.

16. MOTOR STARTERS

16.1. MANUAL STARTER SHALL HAVE QUICK-MAKE, QUICK-BREAK, SWITCHING MECHANICAL COMPLETE WITH OVERLOAD HEATERS, MANUAL RESET, TRIP INDICATING HANDLE, AND LOCKING TAB TO PERMIT PADLOCKING IN "ON" OR "OFF" POSITION.

16.2. MAGNETIC AND COMBINATION MOTOR STARTERS TO BE MINIMUM SIZE TYPE, AND RATING TO SUIT MOTOR LOAD. C/W CONTROL TRANSFORMER, CONTACTOR SOLENOID OPERATED, MOTOR OVERLOAD PROTECTIVE DEVICE IN EACH PHASE, MANUALLY RESET, POWER AND CONTROL TERMINALS, PUSHBUTTONS AND SELECTOR SWITCHES, TWO N/O AND TWO N/C AUXILIARY CONTACTS, PROVISION FOR PREVENTING SWITCHING TO "ON" POSITION WHILE ENCLOSURE DOOR IS OPEN.

17. PANELBOARDS

17.1. PANELBOARDS: TO CSA C22.2, NO. 29.

17.2. PANELBOARDS ARE TO BE THE PRODUCT OF ONE (1) MANUFACTURER.

17.3. PANELS SHALL BE SPRINKLER PROOF IN INDOOR SPRINKLERED AREAS, NEMA 3R IN WET LOCATIONS. ALL ENCLOSURES IN PUBLIC SPACES SHALL BE COMPLETE WITH ANTI-TAMPER LOCKABLE DOORS.

17.4. PANELBOARDS: BUS AND BREAKERS RATED FOR MINIMUM 14,000A (SYMMETRICAL) INTERRUPTING CAPACITY AT SYSTEM VOLTAGE OR AS INDICATED ON THE DRAWINGS.

17.5. SEQUENCE PHASE BUSSING WITH ODD NUMBERED BREAKERS ON LEFT AND EVEN ON RIGHT, WITH EACH BREAKER IDENTIFIED BY PERMANENT NUMBER IDENTIFICATION AS TO CIRCUIT NUMBER.

17.6. PANELBOARDS:

17.6.1. COPPER MAINS, NUMBER OF CIRCUITS, AND NUMBER AND SIZE OF BRANCH CIRCUIT BREAKERS AS INDICATED.
17.6.2. TWO (2) KEYS FOR EACH PANELBOARD AND KEY PANELBOARDS ALIKE.
17.6.3. COPPER BUS WITH FULL SIZE NEUTRAL.
17.6.4. MAINS FOR BOLT-ON BREAKERS.
17.6.5. FINISH TRIM AND DOOR BAKED GREY ENAMEL. PAINT TUB SAME AS DOOR.
17.6.6. COMPLETE CIRCUIT DIRECTORY WITH TYPEWRITTEN LEGEND SHOWING LOCATION AND LOAD OF EACH CIRCUIT UNDER PLASTIC COVER.

17.7. MINIMUM PANEL SIZE SHALL BE 42 CIRCUITS. ALL PANELS SHALL HAVE MINIMUM OF 25% SPACE CAPACITY, AND 10% SPARE BRANCH BREAKERS.

17.8. ALL PANELS SHALL BE PROVIDED WITH EXTERNALLY MOUNTED SURGE PROTECTION DEVICES.

17.9. MANUFACTURERS: EATON, SCHNEIDER, SIEMENS.

18. REVISIONS TO EXISTING PANEL BOARDS

18.1. ALL EXISTING PANEL BOARDS ON DRAWINGS TO REMAIN AND BE REUSED TO FEED NEW DEVICES. FOR IDENTIFIED PANELBOARDS WHERE APPLICABLE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL NEW BRANCH AND FEEDER BREAKERS, TYPE, QUANTITY AND CAPACITY AS IDENTIFIED ON DRAWING AND INSTALL IN EXISTING PANEL. ON EACH PANEL BOARD MODIFIED PROVIDE REVISED AND UPDATED PANEL BOARD SCHEDULE TO REFLECT NEW LOADS. RE-USE ALL SPARE BREAKERS MADE REDUNDANT IN DEMOLITION PHASE AND UPDATE PANEL BOARD SCHEDULES TO REFLECT ALL NEW AND REVISED CIRCUITS.

19. SURGE PROTECTION DEVICE

19.1. SPD UNITS AND ALL COMPONENTS SHALL BE DESIGNED, MANUFACTURED, AND TESTED IN ACCORDANCE WITH THE LATEST APPLICABLE UL STANDARD (ANSI/UL 1449).

19.2. SUBMITTALS - FOR REVIEW/APPROVAL. THE FOLLOWING INFORMATION SHALL BE SUBMITTED TO THE ENGINEER:

19.2.1. PROVIDE VERIFICATION THAT THE SPD COMPLIES WITH THE REQUIRED ANSI/UL 1449 LATEST EDITION LISTING BY UNDERWRITERS LABORATORIES (UL) OR OTHER NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL). COMPLIANCE MAY BE IN THE FORM OF A FILE NUMBER THAT CAN BE VERIFIED ON UL'S WEBSITE OR ON ANY OTHER NRTL'S WEBSITE, AS LONG AS THE WEBSITE CONTAINS THE FOLLOWING INFORMATION AT A MINIMUM: MODEL NUMBER, SPD TYPE, SYSTEM VOLTAGE, PHASES, MODES OF PROTECTION, VOLTAGE PROTECTION RATING (VPR), AND NOMINAL DISCHARGE CURRENT (IN).

19.2.2. FOR SIDEMOUNT APPLICATIONS (SPD MOUNTED EXTERNAL TO ELECTRICAL ASSEMBLY), ELECTRICAL/MECHANICAL DRAWINGS SHOWING UNIT DIMENSIONS, WEIGHTS, INSTALLATION INSTRUCTION DETAILS, AND WIRING CONFIGURATION.

19.3. WHERE APPLICABLE THE FOLLOWING ADDITIONAL INFORMATION SHALL BE SUBMITTED TO THE ENGINEER:

19.3.1. DESCRIPTIVE BULLETINS
19.3.2. PRODUCT SHEETS

19.4. OPERATION AND MAINTENANCE MANUALS SHALL BE PROVIDED WITH EACH SPD SHIPPED.

19.5. MANUFACTURERS: EATON YALE COMPANY, ERICO (CRITEC) INTERNATIONAL, SCHNEIDER ELECTRIC CANADA, MERSEN

19.6. THE LISTING OF SPECIFIC MANUFACTURERS ABOVE DOES NOT IMPLY ACCEPTANCE OF THEIR PRODUCTS THAT DO NOT MEET THE SPECIFIED RATINGS, FEATURES, AND FUNCTIONS. MANUFACTURERS LISTED ABOVE ARE NOT RELIEVED FROM MEETING THESE SPECIFICATIONS IN THEIR ENTIRETY.

20. LIGHTING

20.1. REFER TO LIGHTING FIXTURE SCHEDULE.

20.2. INSTALLATION OF ALL LIGHTING FIXTURES SHALL COMPLY WITH THE MANUFACTURER INSTALLATION RECOMMENDATIONS AND THE OESC

20.3. AT THE COMPLETION OF THE WORK. ALL LIGHTING FIXTURES SHALL BE CLEAN AND COMPLETE WITH ALL ACCESSORIES.

20.4. INDEPENDENT SUPPORT OF FIXTURES IN T-BAR CEILING.

21. FIRE ALARM SYSTEM

21.1. ALL NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM CONTROL. CONTRACTOR SHALL OBTAIN ADDITIONAL INFORMATION FROM THE SYSTEM MAINTENANCE COMPANY. TEST AND VERIFY SYSTEM UPON COMPLETION AND SUBMIT REPORT TO CONSULTANTS.

21.2. UPGRADE, RE-PROGRAM EXISTING CONTROL PANEL AND ALL REMOTE ANNUNCIATOR PANELS AS REQUIRED TO ACCOMMODATE NEW DEVICES AND INITIATING ZONES AS INDICATED ON PLANS FOR THE ADDITION OF NEW DEVICES AND NEW INITIATING ZONES TO THE EXISTING.

21.3. UNLESS INDICATED OTHERWISE ON PLANS, WIRE NEW DEVICES TO EXISTING LOCAL FIRE ALARM INITIATING ZONE AND NEW SPEAKERS TO EXISTING LOCAL SIGNAL CIRCUITS.

21.4. CODES AND STANDARDS

21.4.1. AUDIBLE SIGNAL APPLIANCES STANDARD ULC-S525
21.4.2. SMOKE DETECTORS STANDARD ULC-S529
21.4.3. SYSTEM INSTALLATION STANDARD CAN/ULC-S524
21.4.4. SYSTEM VERIFICATION STANDARD CAN/ULC-S537

21.5. PRODUCTS

SIMPLEX 4100ES FIRE ALARM CONTROL UNIT
COLOR ES TOUCH SCREEN DISPLAY

- CAPACITY FOR UP TO 1000 ADDRESSABLE IDNET POINTS, UP TO 127 VESDA AIR ASPIRATION POINTS, UP TO 2000 POINTS OF ANNUNCIATION, AND UP TO 20 INTERNAL AND EXTERNAL CARD ADDRESSES
- CPU ASSEMBLY INCLUDES DEDICATED COMPACT FLASH MEMORY FOR ON-SITE SYSTEM INFORMATION STORAGE AND CONVENIENT ETHERNET SERVICE PORT ACCESS
- 8 A POWER SUPPLY WITH UP TO 2 A OF AUXILIARY POWER AND BATTERY CHARGER
CAPACITY FOR UP TO 110 AH BATTERIES (UL) OR UP TO 50 AH BATTERIES (ULC), 33 AH MAX IN SINGLE BAY CONTROL CABINET 50 AH MAXIMUM WITH 4100-0650 BATTERY SHELF IN TWO-BAY CONTROL CABINET
- FOUR ONBOARD CLASS A OR B, 3 A NOTIFICATION APPLIANCE CIRCUITS (NACS)
AND ONE PROGRAMMABLE AUXILIARY RELAY OUTPUT RATED FOR 2 A AT 32 VDC
- IDNET ADDRESSABLE DEVICE COMMUNICATIONS THAT SUPPORT TRUEALARM ANALOG SENSORS AND IDNET COMMUNICATIONS MONITORING AND CONTROL DEVICES WITH AN ELECTRICALLY ISOLATED OUTPUT CHANNEL ALLOWING USE WITH EITHER SHIELDED OR UNSHIELDED, TWISTED OR UNTWISTED SINGLE PAIR WIRING; AND PROVIDING DUAL SHORT CIRCUIT ISOLATING OUTPUT LOOPS
- REMOTE ANNUNCIATOR MODULE SUPPORT WITH REMOTE UNIT INTERFACE (RUI) COMMUNICATIONS PORT, EITHER CLASS B OR CLASS A OPERATION
- 48 LED PANEL MOUNT ANNUNCIATION PROVIDES 40 RED AND 8 YELLOW PLUGGABLE LEDS (SELECT MODELS)

21.1. TESTING AND VERIFICATION

.1 PERFORM SYSTEM TESTING AND VERIFICATION AND SUBMIT REPORT TO CONSULTANTS.

22. CLEANING

22.1. REMOVE ALL DEBRIS AND WASTE MATERIALS FROM THE SITE CAUSED BY THIS CONTRACTOR IN THE PERFORMANCE OF THE ELECTRICAL WORK.

22.2. ALL EQUIPMENT SHALL BE CLEANED AND VACUUMED OUT PRIOR TO FINAL ACCEPTANCE OF THE WORK.

ELECTRICAL GENERAL DEMOLITION NOTES

1. THE ELECTRICAL CONTRACTOR SHALL, AS PART OF HIS WORK, PERFORM ALL RELATED DEMOLITION, MODIFICATIONS, RELOCATION OF ELECTRICAL DISTRIBUTION AND OTHER EQUIPMENT AND RELATED WORK, INCLUDING NEW WORK NECESSARY TO COMPLETE THE PROJECT.
2. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING BIDS. REFER TO EXISTING DRAWINGS AND VISIT THE SITE TO DETERMINE THE EXTENT OF THE DEMOLITION AND NEW WORK REQUIRED.
3. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL TECHNICAL DETAILS OF EQUIPMENT TO BE REMOVED. WHERE THERE IS A DISCREPANCY WITH THE TENDER DOCUMENTS, CONTRACTOR SHALL ENGAGE CONSULTANTS FOR DIRECTIONS. ELECTRICAL CONTRACTOR SHALL MAKE A LIST OF ALL EQUIPMENT TO BE REMOVED. THIS LIST SHALL BE WITH ALL FOLLOWING INFORMATION.
MAKE/MODEL#
** MANUFACTURER
** TECHNICAL DETAILS
** LOCATION THIS LIST SHALL BE SUBMITTED TO THE OWNER FO RECORD PURPOSES.
4. THE ELECTRICAL CONTRACTOR SHALL NOT DISCONNECT EQUIPMENT AND ELECTRICAL CIRCUITS IN THE RENOVATION AREA OR ANY PART OF THE BUILDING WITHOUT PRIOR NOTIFICATION AND PERMISSION FROM THE OWNER. EXTREME CARE SHALL BE TAKEN TO MINIMIZE DISTURBANCE TO THE SURROUNDING AREA.
5. ITEMS REMOVED AND NOT SCHEDULED TO BE RELOCATED SHALL BE OFFERED TO THE OWNER FOR THEIR USE AND IF NOT ACCEPTED BY THE OWNER, THE ELECTRICAL CONTRACTOR SHALL DISPOSE OF THE MATERIAL FROM THE SITE IN ACCORDANCE WITH LOCAL REGULATIONS, THE ELECTRICAL CONTRACTOR SHALL DELIVER ITEMS ACCEPTED BY THE OWNER TO THE DESIGNATED LOCATIONS AS DIRECTED BY THE OWNER.
6. IN ALL CASES WHERE WORK IS REMOVED, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS, EQUIPMENT AND LABOR TO SUSTAIN OPERATION OF ALL PARTS OF THE SYSTEMS CONNECTING TO OR FROM THE PART REMOVED, COMPLETING ALL WORK IN STRICT ACCORDANCE WITH APPLICABLE CODES.
7. ALL WIRING, CABLES AND FEEDERS INCLUDING BOTH CONNECTED TO DEVICES AND EQUIPMENT TO BE DEMOLISHED AND EXISTING THAT WERE ABANDONED IN PLACE SHALL BE REMOVED BACK TO THEIR SOURCES. UNLESS NOTED OTHERWISE, CONDUITS AND/OR WIRING SHALL, WHERE NECESSARY, BE RE-CIRCUIT AROUND THE REMOVED PART, KEEPING OCCUPIED PARTS OF THE BUILDING SYSTEM IN FULL SERVICE.
8. ALL EXISTING CONDUITS WHICH HAVE BEEN ABANDONED OR ARE UNUSED SHALL BE REMOVED.
9. PROVIDE BLANK METAL COVER PLATES FOR ALL JUNCTION/DEVICE BOXES NO LONGER IN USE THAT ARE EMBEDDED IN FLOOR SLAB OR MASONRY WALLS. PROVIDE PLUGS FOR ALL PANELS WHERE CONDUIT HAS BEEN REMOVED. COVER PLATES SHALL BE PAINTED TO MATCH EXISTING CONDITIONS.
10. WHERE REQUIRED COORDINATE WITH THE CONSULTANTS/OWNER FOR EXISTING PARTITIONS TO BE REMOVED TO FACILITATE WORK. DISCONNECT EXISTING BRANCH CIRCUITS SERVICING DEVICES IN PARTITIONS TO BE REMOVED. MAINTAIN CONTINUITY OF CIRCUITS SERVICING EXISTING DEVICES IN OTHER AREAS TO REMAIN.
11. LIGHTING FIXTURES: REMOVE LIGHTING FIXTURES AND SWITCH CONTROL WHEN THE FIXTURE TO BE REMOVED IS SERVED BY A CIRCUIT, THAT SUPPLIES FIXTURES IN OTHER, AREAS THAT ARE TO REMAIN, THE ELECTRICAL CONTRACTOR SHALL MAINTAIN THE CONTINUITY OF THE CIRCUIT TO THE REMAINING FIXTURES.
12. POWER RECEPTACLES: REMOVE RECEPTACLES. WHEN THE RECEPTACLE TO BE REMOVED IS SERVED BY A CIRCUIT THAT SUPPLIES RECEPTACLES IN OTHER AREAS, THAT ARE TO REMAIN, THE ELECTRICAL CONTRACTOR SHALL MAINTAIN THE CONTINUITY OF THE CIRCUIT TO THE REMAINING RECEPTACLES.
13. FIRE ALARM SYSTEM: COORDINATE AND CONSULT WITH CURRENT F/A SYSTEM SERVICE CONTRACTOR OR THEIR QUALIFIED REPRESENTATIVE FOR ALL FIRE ALARM DEMOLITION AND MODIFICATIONS. OPERATION SHALL BE MAINTAINED OF EXISTING FIRE ALARM SYSTEM SPECIFICALLY AS IT RELATES TO ADJACENT AREAS WHICH ARE NOT INCLUDED IN THE SCOPE OF THIS PROJECT.
14. ELECTRICAL CONTRACTOR SHALL PROVIDE UPDATED TYPE WRITTEN PANEL DIRECTORIES FOR ALL PANELS AFFECTED BY THE DEMOLITION AND/OR NEW WORK. CIRCUIT BREAKERS NOT USED FOR NEW WORK SHALL BE LABELED AS SPARE.
15. FOR EXISTING DEVICES/CIRCUITRY THAT ARE INDICATED TO BE REMOVED BACK TO POINT OF ORIGIN-THESE ITEMS ARE TO BE REMOVED BACK TO POINT OF ORIGIN UNLESS THERE WILL BE EXISTING DEVICES ON THE SAME CIRCUIT THAT ARE LOCATED OUTSIDE AREA OF WORK THAT ARE TO REMAIN. IN THAT CASE, REMOVE THE EXISTING DEVICES/CIRCUITRY IN AREA OF WORK BACK TO THESE EXISTING DEVICES TO REMAIN. ALL DEVICES/CIRCUITRY IN SURROUNDING AREAS THAT ARE TO REMAIN ARE TO BE KEPT ENERGIZED. FOR REMOVAL OF CONDUIT AND WIRING OUTSIDE OF AREA OF WORK COORDINATE AND SCHEDULE WITH OWNER PRIOR TO PERFORMING WORK.

GENERAL NOTES

A. PRIOR TO BIDDING, ELECTRICAL CONTRACTOR SHALL VISIT SITE AND BE FAMILIAR WITH ALL EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO EQUIPMENT LOCATIONS AND OTHER POSSIBLE INSTALLATION DIFFICULTIES. PAY AND OBTAIN ANY PERMITS REQUIRED INCLUDING ESA.

B. ALL CONDUIT ROUTES SHOWN ON DRAWINGS ARE APPROXIMATE AND NOT FINAL. CONTRACTOR SHALL VERIFY ROUTES AND DO A WALKTHROUGH BEFORE BID. CONTRACTOR SHALL ACCOUNT FOR POSSIBLE DAMAGE AND REPAIR TO EXISTING CEILING AND LIGHT FIXTURES. ALL MAIN CONDUIT RUNS SHALL BE IN CORRIDOR CEILING SPACE.

C. EXTEND/PROVIDE NEW WIRING/CONDUIT FOR ALL DEVICES THAT ARE RELOCATED.

D. ALL NEW RECEPTACLES IN THE SCHOOL SHALL BE TAMPER RESISTANT TYPE.

E. REMOVE AND RE-INSTATE ALL REQUIRED T-BAR OR DRY TYPE CEILINGS TO FACILITATE ELECTRICAL INSTALLATIONS. ANY DAMAGES TO T-BAR SHALL BE RE-INSTATED.

F. UNLESS OTHERWISE NOTED WITH A CIRCUIT NUMBER, RE-USE EXISTING CIRCUIT BREAKERS THAT HAD BECOME SPARE FROM THE DEMOLITION TO FEED NEW RECEPTACLES. MAXIMUM 6 DUPLEX RECEPTACLES PER CIRCUIT UNLESS OTHERWISE NOTED.

G. ALL I.T. CABLES SHALL BE PLENUM RATED.

H. UNLESS NOTED OTHERWISE, EVERY CONDUIT CONTAINING 120V OR GREATER WIRING SHALL CONTAIN A SEPARATE INSULATED GROUND WIRE RATED FOR 600V.

I. FOR EACH PANEL BOARD, PROVIDE AN UPDATED, TYPE WRITTEN DIRECTORY INDICATING ROOM AND ROOM NUMBER, EQUIPMENT IDENTIFICATIONS, SPARE OR SPACE AS APPLICABLE. DIRECTORY SHALL BE MOUNTED INSIDE PANEL BOARD.

J. ALL EMPTY CONDUITS SHALL CONTAIN PULL WIRES.

K. EQUIPMENT OR DEVICES THAT ARE LOCATED ABOVE OPENINGS SUCH AS DOORS, LOUVERS, ETC., SHALL BE CENTERED ABOVE OPENING. THIS NOTE REFERS TO, BUT IS NOT LIMITED TO EXIT LIGHTS, EXTERIOR LIGHT FIXTURES, ETC.

L. CONCEAL ALL CONDUIT IN FINISHED SPACES, IN UNFINISHED SPACES, ALL OUTLET BOXES SHALL BE RECESSED, AND ALL CONDUIT SHALL BE CONCEALED TO THE HIGHEST EXTENT POSSIBLE.

M. PROVIDE CONDUIT BUSHINGS FOR ALL CONDUIT NIPPLES, SLEEVES, AND STUBS FROM WALL BOXES TO ABOVE CEILING.

N. FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR ALL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT, TRANSFORMERS AND LIGHT FIXTURES, THE MAXIMUM ALLOWABLE LENGTH IS 3' FOR MOTORS /TRANSFORMERS AND 4' FOR LIGHT FIXTURE WHIPS. PVC JACKETED FLEX SHALL BE USED IN OUTDOOR AND POTENTIALLY WET LOCATION AREAS. THE USE OF FLEXIBLE CONDUIT OTHER THAN AS SPECIFIED IS PROHIBITED.

O. MINIMUM CONDUCTOR SIZE SHALL BE INCREASED AS REQUIRED FOR LONG RUNS, HIGH AMBIENT TEMPERATURES AND MULTIPLE CONDUCTORS IN A RACEWAY. FOR VOLTAGE DROP, INCREASE THE MINIMUM CONDUCTOR SIZES AS FOLLOWS (FOR ENTIRE CIRCUIT FROM CIRCUIT BREAKER TO LAST DEVICES OR LIGHT FIXTURE IN CIRCUIT):

** USE #10 AWG CONDUCTORS FOR 20 AMPERE, 120-VOLT, BRANCH CIRCUITS LONGER THAN 75 FEET.

** USE #8 AWG CONDUCTORS FOR 20 AMPERE, 120-VOLT, BRANCH CIRCUITS LONGER THAN 120 FEET.

** USE #10 AWG CONDUCTORS FOR 20 AMPERE, 277-VOLT, BRANCH CIRCUITS LONGER THAN 130 FEET.

P. THE USE OF FLEXIBLE NONMETALLIC CONDUIT IS PROHIBITED UNLESS PRIOR APPROVAL IS OBTAINED.

Q. CONDUIT INSTALLATION SHALL BE PARALLEL TO BUILDING LINES. NO BRANCH CIRCUIT CONDUIT WILL BE INSTALLED UNDER ON GRAD/FLOOR SLABS. JUNCTION BOXES IN I INACCESSIBLE SPACES WILL BE PROHIBITED, UNLESS SPECIFICALLY INDICATED OTHERWISE.

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3 - ISSUED FOR TENDER - 2024-01-31
2 - ISSUED FOR PERMIT - 2024-01-18
1 - PROGRESS SET - 2023-11-29

PROJECT:
Interior Alterations at:
Fort Erie International Academy
7 Tait Ave.,
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TRUE NORTH:

DRAWING TITLE:
ELECTRICAL SPECIFICATIONS AND DEMOLITION NOTES

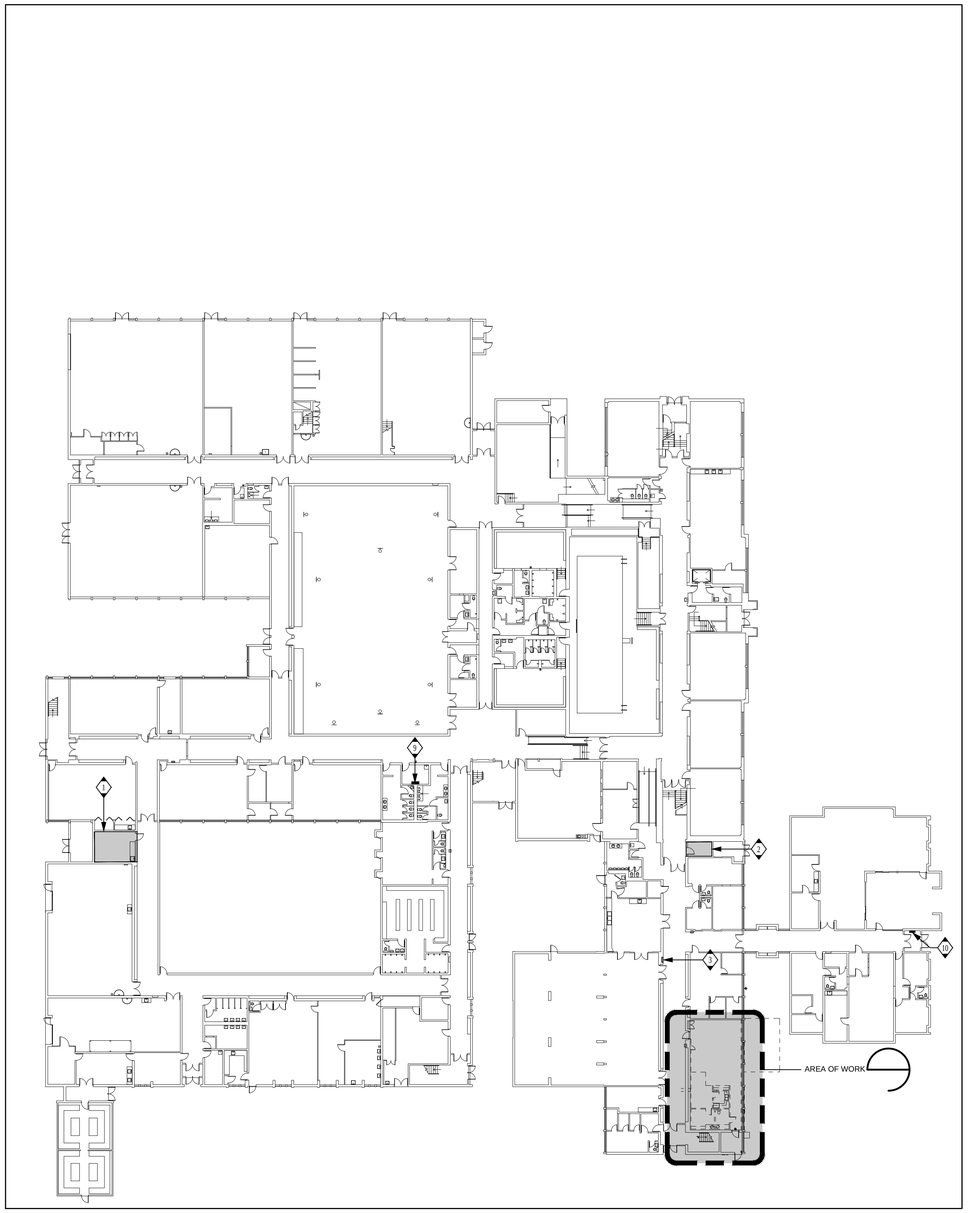
SCALE:
AS NOTED

DRAWN:

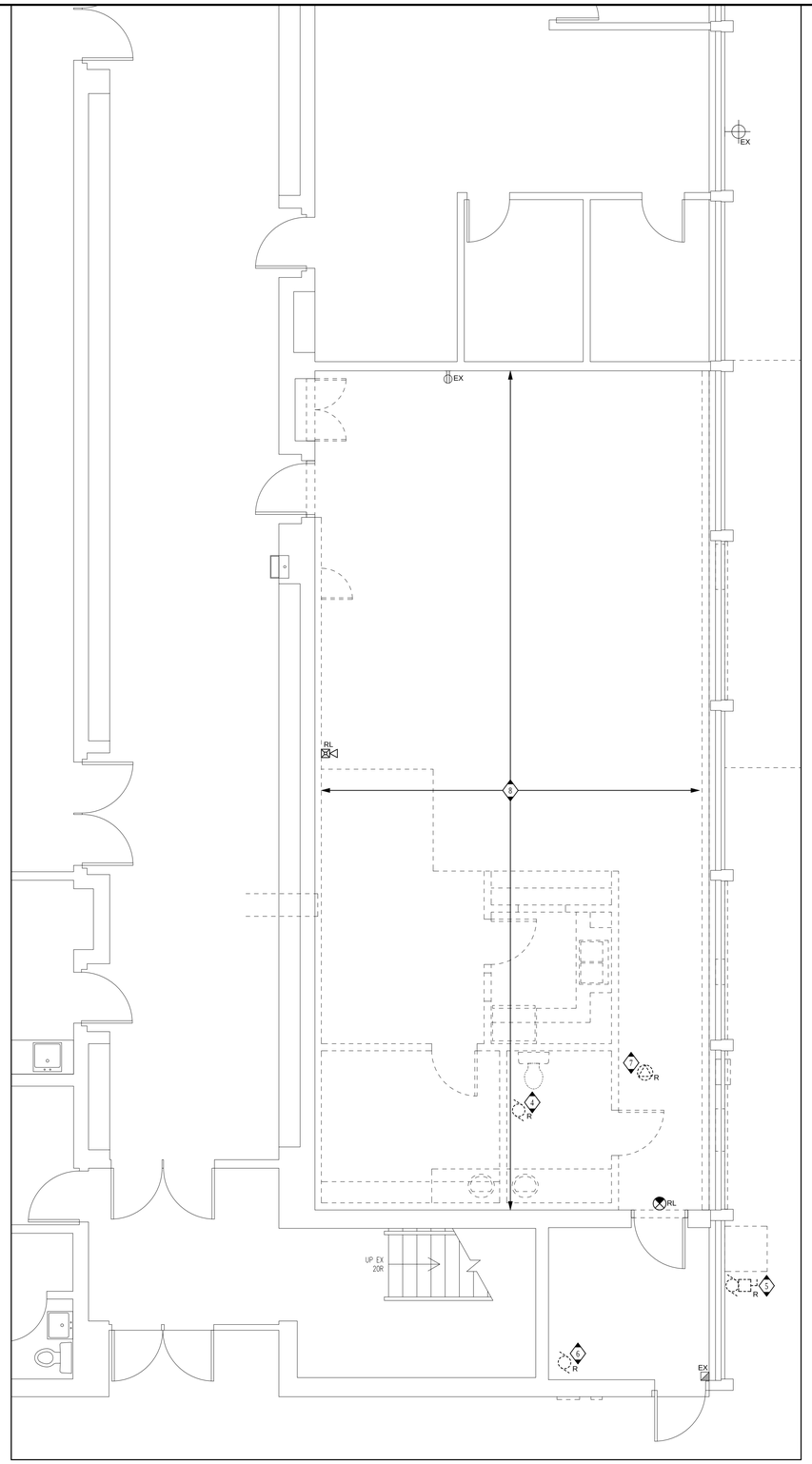
DATE:
DECEMBER 2023

PROJECT #:
ALL-23014405-A0

DRAWING #:
E1.0



1 E2.0 OVERALL GROUND FLOON PLAN
SCALE - 1/32" : 1'-0"



2 E2.0 PARTIAL GROUND FLOOR PLAN - ELECTRICAL DEMOLITION
SCALE - 1/4" : 1'-0"

DRAWING NOTES

1. MAIN ELECTRICAL ROOM 1011.

IN EXISTING SIEMENS MODEL FC1, 347/600V-3Ø-4W, 600A, 42kA SCCR DISTRIBUTION PANEL

ADD ONE (1)-60A-3P BREAKER IN AVAILABLE SPACE AND CONNECT TO NEW MAKE-UP AIR UNIT MUA-1 WITH 3#6+G IN 35mm CONDUIT. PROVIDE NEW LAMACOID NAMEPLATE MATCHING EXISTING NAMEPLATES WITH THE INSCRIPTION " NEW INDIAN KITCHEN MUA-1". REFER TO GROUND FLOOR PLAN - POWER AND SYSTEMS AND DRAWING NOTE No.11 ON DRAWING E2.1.

ADD ONE (1)-15A-3P BREAKER IN AVAILABLE SPACE AND CONNECT TO NEW KITCHEN EXHAUST FAN KEF-1 WITH 3#12+G IN 21mm CONDUIT. PROVIDE NEW LAMACOID NAMEPLATE MATCHING EXISTING NAMEPLATES WITH THE INSCRIPTION " NEW INDIAN KITCHEN KEF-1". REFER TO GROUND FLOOR PLAN - POWER AND SYSTEMS AND DRAWING NOTE No.12 ON DRAWING E2.1.

2. ELECTRICAL ROOM AREA #2, ROOM No.1073.
ADD NEW OR REUSE SPARE BREAKERS IN EXISTING ELECTRICAL PANELS IN THIS ROOM AS LISTED BELOW. ALL NEW BREAKERS TO MATCH ALL CHARACTERISTICS OF EXISTING BREAKERS. REFER TO FIRST FLOOR PLAN - POWER AND SYSTEMS PLAN ON DRAWING E2.1 FOR DETAILS.

IN EXISTING SIEMENS TYPE 1, 120/208V-3Ø-4W, 250A PANEL "EMC"

ADD THREE (4)-15A-1P BREAKERS IN AVAILABLE SPACES CIRCUITS NUMBERS Nos. 21, 25, 25 AND 27 AND CONNECT TO KITCHEN WALKTOP FREEZER EQUIPMENT No.7, WULKTOP REFRIGERATORS EQUIPMENT No.8, WALK-IN FREEZER EVAPORATOR COIL AND DRAIN LINE HEATER, EQUIPMENT Nos. 2A AND 2B AND WALK-IN COOLER EVAPORATOR COIL EQUIPMENT No.3A. UPDATE CIRCUIT DIRECTORY TO REFLECT ADDITION ON NEW EQUIPMENT.

ADD ONE(1)-15A-2P BREAKER IN AVAILABLE SPACES CIRCUITS NUMBERS Nos. 28 AND 30 AND CONNECT TO WALK-IN COOLER CONDENSER EQUIPMENT No.17. UPDATE CIRCUIT DIRECTORY TO REFLECT ADDITION ON NEW EQUIPMENT.

ADD ONE (1)-20A-2P BREAKER IN AVAILABLE SPACES CIRCUITS NUMBERS Nos. 24 AND 26 AND CONNECT TO KITCHEN WALK-IN FREEZER CONDESER EQUIPMENT No.12. UPDATE CIRCUIT DIRECTORY TO REFLECT ADDITION ON NEW EQUIPMENT.

IN EXISTING SIEMENS '208-N3' 120/208V-3Ø-4W, 800A DISTRIBUTION PANEL

REUSE EXISTING 150A SPARE BREAKER AND FEED NEW KITCHEN PANEL 'KP' IN NEW INDIAN KITCHEN 157 WITH 4-1/0+G IN 53mm CONDUIT. REMOVE EXISTING "SPARE" LAMACOID NAMEPLATE AND REPLACE WITH NEW NAMEPLATE, MATCHING EXISTING WITH THE INSCRIPTION 'INDIAN KITCHEN PANEL KP'.

3. EXISTING PANEL '1S'. SIEMENS TYPE 'P2', 250A MAIN, 120/208V-3Ø-4W FED FROM PANEL '208-N3' IN SECONDARY ELECTRICAL ROOM 1073.

4. DISCONNECT & DEMOLISH EXISTING FAN COIL WIRING FROM SOURCE PANEL AND MAKE IT SAFE FOR REMOVAL.

5. DISCONNECT & DEMOLISH EXISTING REMOTE CONDENSER UNIT WIRING FROM SOURCE PANEL AND MAKE IT SAFE FOR REMOVAL.

6. DISCONNECT & DEMOLISH EXISTING EXHAUST FAN WIRING FROM SOURCE PANEL AND MAKE IT SAFE FOR REMOVAL.

7. DISCONNECT & DEMOLISH EXISTING ELECTRIC DUCT HEATER WIRING FROM SOURCE PANEL AND MAKE IT SAFE FOR REMOVAL.

8. UNLESS INDICATED OTHERWISE, DISCONNECT, REMOVE AND DISCARD ALL EXISTING ELECTRICAL DEVICES, LIGHTING FIXTURES WITHIN THIS SPACE. PROTECT AND MAINTAIN EXISTING NORMAL AND EMERGENCY LIGHTING AND EXIT SIGNS BRANCH CIRCUITS FOR REUSE IN RENOVATION. CONTRACTOR SHALL REVIEW AND CONFIRM ON SITE THE EXTENT OF THE ELECTRICAL DEMOLITION SCOPE AND INCLUDE ALL ASSOCIATED COSTS IN HIS TENDER PRICE.

9. EXISTING EDWARDS FIRE ALARM SYSTEM CONTROL PANEL. MODIFY, UPGRADE PANEL AS REQUIRED TO ACCOMODATE NEW DEVICES FIRE ALARM INITIATING ZONES AND CONTROL RELAYS AS INDICATED ON THE DRAWINGS. ALL NEW DEVICES SHALL BE COMPATIBLE WITH THIS PANEL. COORDINATE ALL REQUIREMENTS WITH PANEL MANUFACTURER AND INCLUDE ALL ASSOCIATED COSTS IN TENDER PRICE.

10. EXISTING FIRE ALARM SYSTEM ANNUNCIATOR PANEL. MODIFY, UPGRADE PANEL AS REQUIRED TO ACCOMODATE NEW DEVICES FIRE ALARM INITIATING ZONES COORDINATE ALL REQUIREMENTS WITH PANEL MANUFACTURER.

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7 Tait Ave., Fort Erie, ON

SEAL:
LICENSED PROFESSIONAL ENGINEER
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TRUE NORTH:

DRAWING TITLE:
ELECTRICAL Ground Floor Overall & Demolition Plans

SCALE: AS NOTED
DRAWN:
DATE: DECEMBER 2023
PROJECT #: ALL-23014405-A0
DRAWING #: E2.0

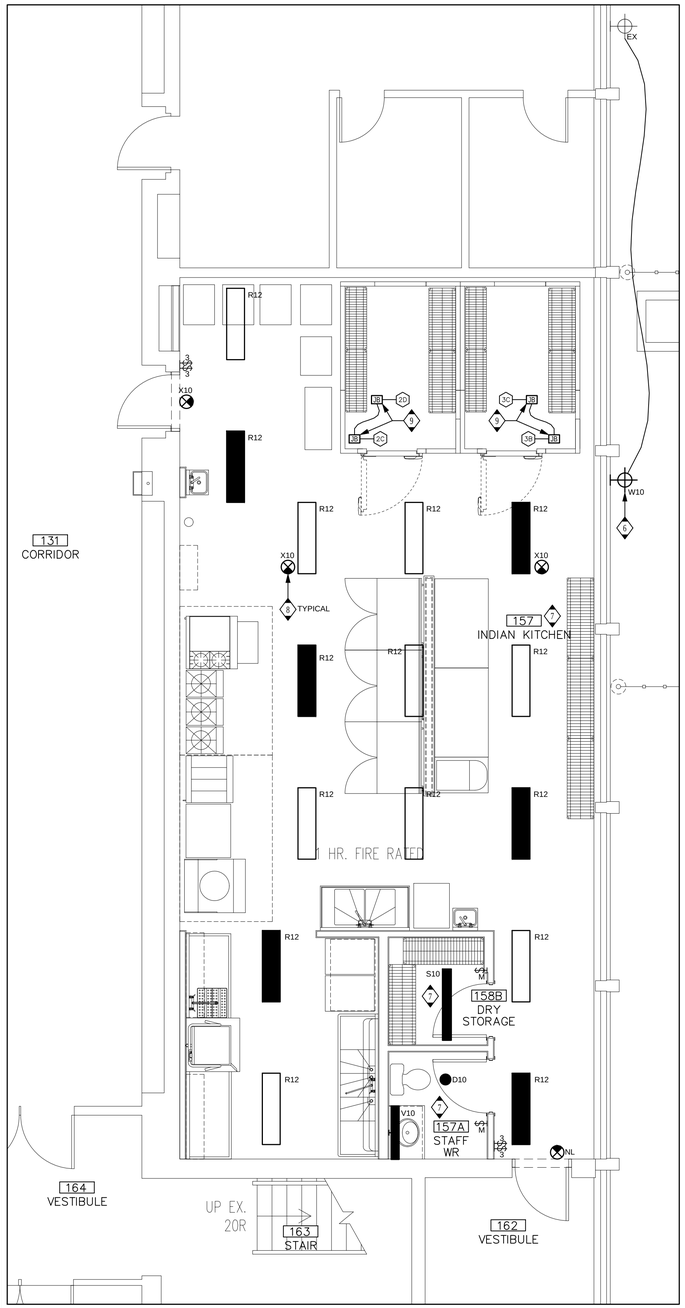
DRAWING NOTES

1. FIRE SUPPRESSION SYSTEM PULL RING FIRE STATION BY KITCHEN EQUIPMENT SUPPLIER. DIVISION 16 TO PROVIDE A RECESSED JUNCTION BOX AND WIRE THROUGH FIRE SUPPRESSION AUXILIARY CONTACT FOR MANUAL ACTIVATION OF FIRE SUPPRESSION SYSTEM AND INITIATION OF FIRE ALARM SYSTEM. COORDINATE INSTALLATION AND WIRING WITH KITCHEN EQUIPMENT SUPPLIER.
2. PROVIDE BRANCH CIRCUIT BREAKER WITH SHUNT TRIP WIRED TO THE FIRE SUSPRESSION SYSTEM FOR AUTOMATIC POWER SHUT-OFF UPON FIRE SUPRESSION ACTIVATION.
3. CONNECT TO A NEW FIRE ALARM INTIATING ZONE.
4. CONNECT TO EXISTING LOCAL FIRE ALARM SIGNALLING CIRCUITS.
5. CONNECT TO EXISTING LOCAL FIRE ALARM INITIATING ZONE.
6. MOUNT ON WALL AT THE SAME HEIGHT AS THE EXISTING LIGHT FIXTURE AND EXTEND EXISTING BRANCH CIRCUIT AND CONTROL WIRING IN SURFACE GALVANIZED STEEL CONDUIT FROM EXISTING LIGHT FIXTURE AND CONNECT TO NEW FIXTURE.
7. EXTEND EXISTING NORMAL AND EMERGENCY POWER LIGHTING BRANCH CIRCUITS WITHIN THE RENOVATED AREAS AND CONNECT TO NEW NORMAL POWER AND EMERGENCY LIGHTING FIXTURES VIA NEW LIGHTING CONTROL SWITCHES. SEE DRAWING NOTE NO.8 ON DRAWING E2.0.
8. EXTEND EXISTING EXIT SIGN BRANCH CIRCUIT AND CONNECT TO NEW EXIT SIGNS IN THE RENOVATION AREA. SEE DRAWING NOTE NO.8 ON DRAWING E2.0.
9. FOR COOLER AND FREEZER LIGHTING:
   EXTEND EXISTING, UNSWITCHED NORMAL POWER LIGHTING BRANCH CIRCUIT WITHIN THE RENOVATED AREAS AND CONNECT TO WIRING INTEGRAL TO COOLER OR FREEZER LIGHTING CONTROL WIRING IN JUNCTION BOX #1 AND RUN 2#12 + GND IN CONDUIT FROM JUNCTION BOX #1 TO JUNCTION BOX #2 AND CONNECT TO WIRING INTEGRAL TO COOLER OR FREEZER IN JUCTION BOX #2. SEE DRAWING NOTE NO.8 ON DRAWING E2.0.

   COOLER AND FREEZER LIGHTING CONTROL SWITCHES, LIGHTING FIXTURES AND INTEGRAL WIRING BETWEEN SWITCHES AND JUNCTION BOX #1 AND BETWEEN LIGHTING FIXTURES AND JUCTION BOX #2 ARE SUPPLIED AND INSTALLED BY COOLER AND FREEZER MANUFACTURER.
10. PROVIDE A TIME DELAY RELAY ('OFF 'DELAY) IN NEAREST ACCESSIBLE CEILING SPACE AND WIRING EXHAUST FAN TO WASHROOM LIGHTING BRANCH CIRCUIT AND CONTROL SO THAT FAN AUTOMATICALLY STARTS WHEN ROOM LIGHTING IS TURNED "ON" AND AUTOMATICALLY STOPS FIVE (5) MINUTES AFTER ROOM LIGHTING IS TURNED "OFF".
11. FEED FROM NEW 60A-3P BREAKER IN EXISTING MAIN DISTRIBUTION PANEL 600-N1 IN EXISTING MAIN ELECTRICAL ROOM 1011, NEW BREAKER TO MATCH ALL CHARACTERSITICS OF EXISTING BREAKERS. REFER TO OVERALL GROUND FLOOR PLAN AND DRAWING NOTE No.1 ON DRAWING E2.0.
12. FEED FROM NEW 15A-3P BREAKER IN EXISTING MAIN DISTRIBUTION PANEL 600-N1 IN EXISTING MAIN ELECTRICAL ROOM 1011. NEW BREAKER TO MATCH ALL CHARACTERSITICS OF EXISTING BREAKERS. REFER TO OVERALL GROUND FLOOR PLAN AND DRAWING NOTE No.1 ON DRAWING E2.0.
13. MOUNT AT 600mm ABOVE FINISHED GROUND COMPLETE COMPLETE WITH "IN-USE" WEATHERPROOF COVER.

FOODSERVICE EQUIPMENT LIST AND SERVICES (REFER TO 11400 FOOD SERVICES EQUIPMENT FOR ADDITIONAL INFORMATION)

No.	Q'TY	DESCRIPTION	MANUFACTURER	MODEL	ELECTRICAL SINGLE PH. 120V	ELECTRICAL SINGLE PH. 208V	ELECTRICAL 3 PH. 208V	CONNECTION TYPE	SUPPLIED BY	INSTALLED BY
2	1	WALK IN FREEZER	CURTIS	CF4-9138WW	-	-	-	-	KITCHEN EQUIPMENT	GENERAL
2A	1	WALK IN FREEZER EVAPORATOR COIL	CURTIS			0.8A		15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
2B	1	WALK IN FREEZER DRAIN LINE HEATER	CURTIS		1.0A			15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
2C	1	WALK IN FREEZER LIGHTING JUNCTION BOX #1	CURTIS		0.5A			15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
2D	1	WALK IN FREEZER LIGHTING JUNCTION BOX #2	CURTIS		-			15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
3	1	WALK IN COOLER	CURTIS	CF4-9138WW	-	-	-	-	KITCHEN EQUIPMENT	GENERAL
3A	1	WALK IN COOLER EVAPORATOR COIL	CURTIS			1.3A		15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
3B	1	WALK IN COOLER LIGHTING JUNCTION BOX #1	CURTIS		0.5A			15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
3C	1	WALK IN COOLER LIGHTING JUNCTION BOX #2	CURTIS		-			15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
4	1	BOILERLESS COMBI OVEN	VULCAN	TCM 61G	-		4.4 A	15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
6	1	60 QUART MIXER	ESTELLA	348SM60			13.6 A	NEMA 6-20R RECEPTACLE	KITCHEN EQUIPMENT	GENERAL
7	1	WORKTOP FREEZER	TRUE	TWT-48F	6.1 A			NEMA 5-15R RECEPTACLE	KITCHEN EQUIPMENT	MECHANICAL
8	2	WORKTOP REFRIDGERATOR	TRUE	TWT-48	5.0 A			NEMA 5-15R RECEPTACLE	KITCHEN EQUIPMENT	MECHANICAL
12	1	WALK IN FREEZER CONDENSER	CURTIS			12.4A		20A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
17	1	WALK IN COOLER CONDENSER	CURTIS			7.9A		15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
20	1	EXHAUST HOOD	CAPTIVEAIR	SEE MECHANICAL				15A DIRECT CONNECTION	KITCHEN EQUIPMENT	MECHANICAL
21	1	DISHWASHER	CHAMPION	DH6000		77 A		100A DIRECT CONNECTION	KITCHEN EQUIPMENT	MECHANICAL
	1	FIRE SUPPRESSION SYSTEM			5.0 A			15A DIRECT CONNECTION	KITCHEN EQUIPMENT	GENERAL
	1	GAS SOLENOID VALVE			0.4A			15A DIRECT CONNECTION	MECHANICAL	MECHANICAL



1 / E2.1 GROUND FLOOR PLAN - LIGHTING
SCALE - 1/4" : 1'-0"

PANEL NAME: **NEW KITCHEN PANEL "KP"**
MOUNTING: RECESSED
PANEL LOCATION: INDIAN KITCHEN 157
MAINS: 225A 120/208V 3Ø 4W
BUSSING: COPPER
OTHER:

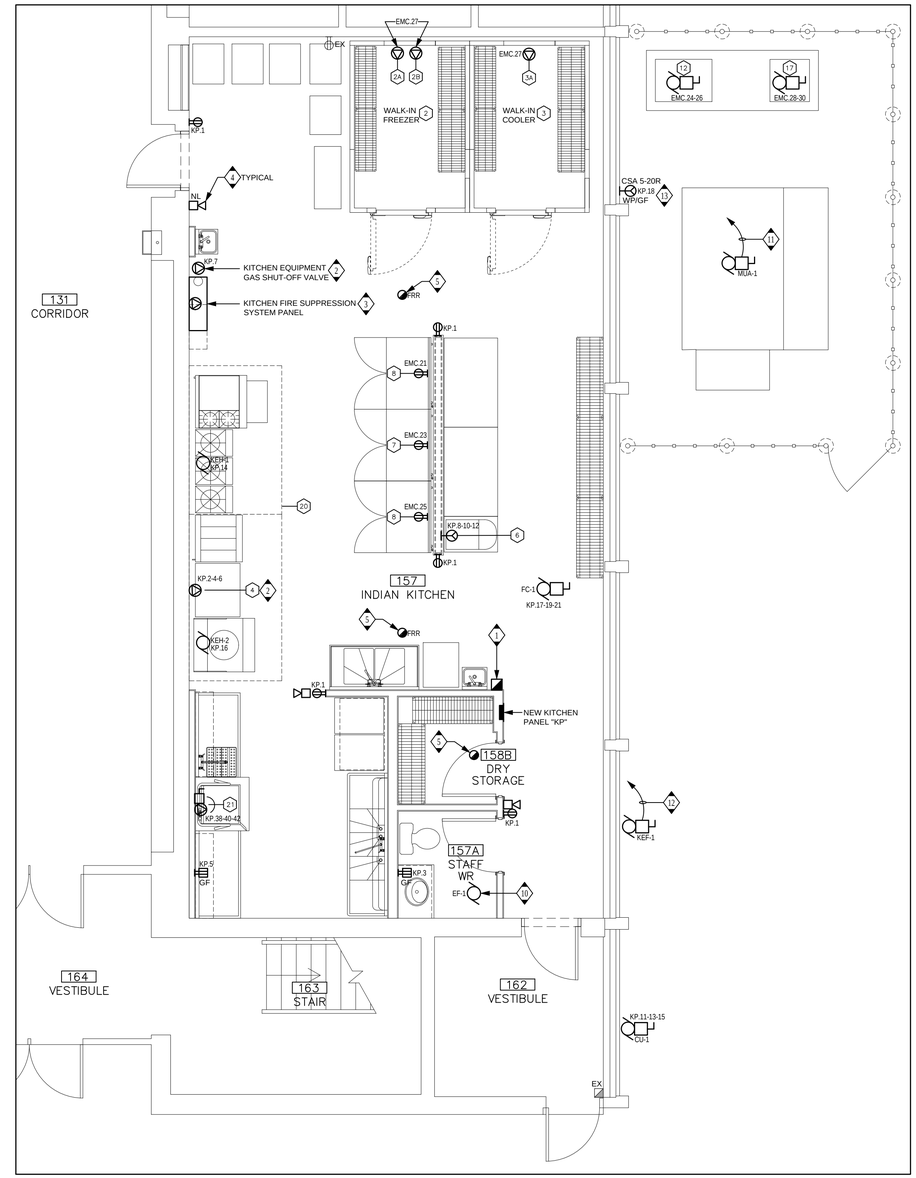
42 CIRCUIT PANELBOARD
ENCLOSURE: TYPE 1
SCCR: 10kA

LOAD DESCRIPTION	VA		BRKR		BRKR		VA	LOAD DESCRIPTION
KITCHEN UTILITY RECEPTACLES	600	1	15A		***15A	2		
STAFF WASHROOM GFCI RECEPTACLE	120	3	15A			4	1585	BOILERLESS COMBI OVEN (4)
KITCHEN GFCI RECEPTACLE	250	5	15A			6		
KITCHEN EQUIPMENT GAS SHUT-OFF VALVE	25	7	***15A		20A	8		
KITCHEN GFCI RECEPTACLE	250	9	15A			10	4895	60 QUART MIXER (6)
CU-1	4318	11	20A			12		
		13			15A	14	30	KITCHEN EXHAUST HOOD FAN KEH-1
		15	15A		15A	16	45	KITCHEN EXHAUST HOOD FAN KEH-2
FC-1	2093	17			20A	18	250	OUTDOOR SERVICE RECEPTACLE
		19			15A	20	*	SPARE
		21	15A		15A	22	*	SPARE
SPARE	*	23			15A	24	*	SPARE
SPACE		25			20A	26		SPACE
SPACE		27			20A	28		SPACE
SPACE		29			15A	30		SPACE
SPACE		31			15A	32		SPACE
SPACE		33			20A	34		SPACE
SPACE		35			100A	36		SPACE
SPACE		37				38		
SPACE		39				40	16000	DISHWASHER (21)
SPACE	*	41				42		
CONNECTED LOAD (L.H.)	7656						22805	CONNECTED LOAD (R.H.)

* - INDICATES GFCI BREAKER.
** - INDICATES BREAKER LOCK-ON DEVICE.
*** - INDICATES BREAKER WITH SHUT TRIP.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION
D10	- 4" DIAMETER RECESSED LED DOWNLIGHT - 120V, 1500LM, 4000K, 80+CRI, 7.6W - 0-10V DIMMING DRIVER - SEMI SPECULAR REFRLECTOR - MEDIUM DISTRIBUTION - WHITE FLANGE - CURRENT - PRESCOLITE LFR-R4D SERIES
R12	- 12" x 24" VOLUMETRIC RECESSED LED TROFFER - 120V, 2580LM, 4000K, 80+CRI, 7.6W - 0-10V DIMMING DRIVER - CURVED SHEILDING - WHITE FINISH - CURRENT - COLUMBIA LCAT14 SERIES
S10	- 4' LONG SURFACE MOUNTED LED STRIPLIGHT - 120V, 4400LM, 4000K, 80CRI, 32.5W - 0-10V DIMMING DRIVER - WHITE ROUND FROSTED LENS - WHITE FINISH - CURRENT - COLUMBIA LIGHTING CSL SERIES
V10	- 3' LONG SURFACE MOUNTED LED VANITY FIXTURE - 120V, 2854LM, 4000K, 80CRI, 18.2W - 0-10V DIMMING DRIVER - SQUARE FROSTED ACRYLIC LENS - WHITE FINISH - CURRENT - COLUMBIA LIGHTING WALL3 SERIES
W10	- SURFACE MOUNTED LED WALLPAK - 120V, 5619LM, 4000K, 80CRI, 40W - TYPE 4 DISTRIBUTION - BOROSILICATE GLASS LENS - WET LOCATION RATED - BRONZE FINISH - CURRENT - EXO LIGHTING WGH1 SERIES
X10	EXIT SIGN - SINGLE FACE, SELF POWERED - UNIVERSAL MOUNTING - 120V, 2 WATTS - DIRECTIONAL ARROW AS INDICATED ON PLAN - ABB EMERGI-LITE X10 LED SERIES



2 / E2.1 GROUND FLOON PLAN - POWER AND SYSTEMS
SCALE - 1/4" : 1'-0"

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SEAL:
LICENSED PROFESSIONAL ENGINEER
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TRUE NORTH:

DRAWING TITLE:
ELECTRICAL Ground Floor Plan New Power & Systems & Lighting

SCALE: AS NOTED
DRAWN:
DATE: DECEMBER 2023
PROJECT #: ALL-23014405-A0
DRAWING #: E2.1

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS ALL-23014405-A0

MECHANICAL SCHEDULE - ENERGY RECOVERY UNIT

DWG. DESIG.	SYSTEM and ROOM	MODEL	SPEC TYPE	WEIGHT (LBS)	SUPPLY FAN					AIR-SOURCE HEAT PUMP COOLING				DEHUMIDIFCATION		AIR-SOURCE HEAT PUMP HEATING			SECONDARY GAS HEATING					MECHANICAL REMARKS	ELECTRICAL REMARKS						ELECTRICAL WIRING INSTRUCTIONS
					FUNCTION	TYPE	SUPPLY AIR (CFM)	ESP (IN.WC)	MOTOR (HP)	AIR TEMPERATURE		TOTAL CAPACITY (MBH)	LATENT CAPACITY (MBH)	HOT GAS REHEAT CAPACITY (MBH)	AIR TEMPERATURE	AIR TEMPERATURE		CAPACITY	AIR TEMPERATURE		NATURAL GAS HEATING				MCA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
										EAT (DB/WB) (°F)	LAT (DB/WB) (°F)				LAT (°F)	EAT (DB/WB) (°F)	LAT (DB/WB) (°F)		EAT (DB/WB) (°F)	LAT (DB/WB) (°F)	INPUT (MBH)	OUTPUT (MBH)	TURNDOWN								
MUA-1	OUTDOOR ON GRADE	VALENT VX-212-25A-M-F1	MUA	3683	SUPPLY	DIRECT DRIVE	3,655	1	3	88.1/74.4	47.7/47.7	316	162.5	94.5	71.7	10	49.1	156.1	-1.8	80.2	400	324	15:1	OUTDOOR MAKE UP AIR UNIT AIRSOURCE HEAT PUMP HEATING/COOLING WITH SECONDARY GAS HEAT. STAINLESS STEEL HEAT EXCHANGER, INVERTER SCROLL COMPRESSOR, MODULATING HGRH, EC OUTDOOR FAN,MERV 8 FILTERS. C/W FACTORY INSTALLED DISCONNECT.	52.7	60	600/3	VFD (D15)	KITCHEN HOOD CONTROLLER	C3R (D15A)	DIVISION 16 TO PROVIDE DISCONNECT SWITCH AND WIRE 600V/3 TO FAN VIA DISCONNECT. ALL CONTROLS WIRING BY DIVISION 15.

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS JOB No. ALL-23014405-A0

MECHANICAL SCHEDULE - EXHAUST HOOD

DWG. DESIGNATION	SYSTEM and ROOM	MODEL	EXHAUST DUCT CONNECTION			SUPPLY DUCT CONNECTION			HOOD SIZE (L x W x H) (IN)	CFM		MAX GREASE EXTRACTOR RATING (CFM/L.F.)	WEIGHT (LBS)	MECHANICAL REMARKS	WIRING FOR MECHANICAL EQUIPMENT SCHEDULE							ELECTRICAL WIRING INSTRUCTIONS
			SIZE (L x W) (IN)	STATIC PRESSURE (IN.WC)	QTY	SIZE (L x W) (IN)	STATIC PRESSURE (IN.WC)	QTY		EXHAUST	SUPPLY				MOTOR W or HP	MCA FLA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
KEH-1	KITCHEN EXHAUST	SPRINGAIR FN-B-MB-8.33/4.5	16 x 10	0.64	1	28 x 8	0.2	2	100 x 54 x 23	1674	1591	500	458	DYNAFLOW WALL MOUNTED EXHAUST HOOD, INTEGRAL WET CHEMICAL FIRE PROTECTION SYSTEM, GREASE TRAP, AIR DIFFUSER, LED LIGHTING CIRCUIT	30 W	0.25		120/1	-	KITCHEN HOOD CONTROLLER	-	DIVISION 16 TO WIRE 120/1 TO FAN ON KITCHEN HOOD. ALL CONTROLS WIRING BY KITCHEN HOOD SUPPLIER.
KEH-2	KITCHEN EXHAUST	SPRINGAIR FN-B-MB-9.33/4.5	21 x 10	0.62	1	28 x 8	0.2	2	112 x 54 x 23	2174	2071	500	513	DYNAFLOW WALL MOUNTED EXHAUST HOOD, INTEGRAL WET CHEMICAL FIRE PROTECTION SYSTEM, GREASE TRAP, AIR DIFFUSER, LED LIGHTING CIRCUIT	45 W	0.38		120/1	-	KITCHEN HOOD CONTROLLER	-	DIVISION 16 TO WIRE 120/1 TO FAN ON KITCHEN HOOD. ALL CONTROLS WIRING BY KITCHEN HOOD SUPPLIER.

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS JOB No. ALL-23014405-A0

MECHANICAL SCHEDULE - FAN COILS

DWG. DESIGNATION	SYSTEM and ROOM	MODEL	SPEC TYPE	CFM		TSP (IN W.G)	COOLING	HEATING			WEIGHT LBS	MECHANICAL REMARKS	WIRING FOR MECHANICAL EQUIPMENT SCHEDULE							ELECTRICAL WIRING INSTRUCTIONS
				SUPPLY	OA		TOTAL COOLING (MBH)	TOTAL HEATING (MBH)	FLOW RATE (GPM)	PRESSURE DROP (FT H20)			MOTOR W or HP	MCA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
FC-1	KITCHEN	TRANE BCHE036	DX/2 PIPE	1200	215	1.6	38.33	54.8	5.23	8	210	FANCOIL UNIT, MERV 13 FILTER RACK, DX COIL, H/V COIL, FACTORY CONTROLS.	668 W	5.75	15	208/3	BIC	T (D15)	C2	DIVISION 16 TO PROVIDE DISCONNECT SWITCH AND WIRE 600V/3 TO UNIT VIA DISCONNECT. ALL CONTROLS WIRING BY DIVISION 15.

NOTE: 1) ALL CONTROL WIRING ARE TO BE CARRIED OUT IN 2 CORE 16AWG SHIELDING CABLE WITH COLOUR CODING AND TAGGED ID NUMBERS AT 3 METRE INTERVALS AS FOR EASE OF IDENTIFICATION AND MAINTENCE. CONTROL WIRING SHALL NOT BE RUN NEXT TO POWER WIRING. A MINIUM SPACE OF 100mm BETWEEN BOTH CONTROL AND POWER CABLES SHALL APPLY.

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS JOB No.: ALL-23014405-A0

MECHANICAL SCHEDULE - CONDENSING UNITS

DWG. DESIGNATION	EVAPORATOR UNIT DESIGNATION	SYSTEM and ROOM	MODEL	WEIGHT (LBS)	COOLING		MECHANICAL REMARKS	WIRING FOR MECHANICAL EQUIPMENT SCHEDULE							ELECTRICAL WIRING INSTRUCTIONS
					AMBIENT (°F)	CAPACITY (Nom. Ton)		MOTOR W or HP	MCA FLA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
CU-1	FC-1	ROOF	TRANE 4TTA4036A3000A	183	115	3	REMOTE CONDENSER, SPLIT SYSTEM AIR CONDITIONER. COORDIANTE REFRIGERANT PIPE SIZING WITH MANUFACTURER.		12	20	208/3	BIC	FC-1	C3R	DIVISION 16 TO PROVIDE DISCONNECT SWITCH AND WIRE 208V/3 TO UNIT VIA DISCONNECT. ALL CONTROLS WIRING BY DIVISION 15.

JOB NAME: FORT ERIE INTERNATIONAL ACADEMY INTERIOR RENOVATIONS JOB No. ALL-23014405-A0

MECHANICAL SCHEDULE - FANS

DWG. DESIGNATION	SYSTEM and ROOM	MODEL	FLOW (CFM)	ESP (IN W.G.)	RPM	VFD	WEIGHT LBS	MECHANICAL REMARKS	WIRING FOR MECHANICAL EQUIPMENT SCHEDULE							ELECTRICAL WIRING INSTRUCTIONS
									MOTOR HP or W	FLA	MCOP	VAC/ø	ROOM STARTER TYPE	REMOTE CONTROL DEVICE	DISC. TYPE	
EF-1	STAFF WASHROOM	PENN BARRY ZJ1	157	0.13	1020	NO	19	LOW PROFILE CEILING FAN, BACK DRAFT DAMPER, ADJUSTABLE MOUNTING FLANGES	125 W			115/1	-	-	SW	DIVISION 16 TO WIRE TO ROOM LIGHTING CIRCUIT AND LIGHTING CONTROL. FAN RUNS WHEN LIGHTS ARE TURNED "ON" AND STOPS WHEN LIGHTS ARE TURNED "OFF"
KEF-1	KITCHEN EXHAUST	PENN BARRY FX18BH	3848	1.6	1328	NO	142	WALL MOUNTED UPBLAST SPUN ALUMINUM EXHAUST FAN, C/W CURB CAP, WALL MOUNTING ADAPTER, HINGED SUB-BASE.	2 HP	2.7		600/3	OUTDOOR COMBO H-O-A PL	KITCHEN HOOD CONTROLLER	C3R	DIVISION 16 TO PROVIDE DISCONNECT SWITCH AND WIRE 600V/3 TO FAN VIA DISCONNECT. ALL CONTROLS WIRING BY DIVISION 15.

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE LEGEND

AM – ACTUATOR MOTOR
APS – AIR PROVING SWITCH
AST – AQUASTAT
BAS – CONTROL BY BUILDING AUTOMATION SYSTEM CONTRACTOR
BIC – BUILT IN CONTROLLER
C1 – EEMAC–1 TYPE DISC. SWITCH
C2 – EEMAC–2 TYPE DISC. SWITCH
C3R – EEMAC–3R TYPE DISC. SWITCH
C4 – EEMAC–4 TYPE DISC. SWITCH
C12 – EEMAC–12 TYPE DISC. SWITCH
COMB – COMBINATION MAGNETIC STARTER
CP – CONTROL PANEL
CSR – CURRENT SENSING RELAY
CT – CONTROL TRANSFORMER
CWSV – COLD WATER SOLENOID VALVE
(D15) – ITEM ADJACENT IS SUPPLIED, INSTALLED AND WIRED BY MECHANICAL DIVISION.
(D15A) –ITEM ADJACENT IS SUPPLIED AND INSTALLED BY MECHANICAL DIVISION. ELECTRICAL DIVISION WIRES ITEM.
(D16) – ITEM ADJACENT IS SUPPLIED BY MECHANICAL DIVISION. ELECTRICAL DIVISION INSTALLS AND WIRES ITEM.
DISC – DISCONNECT
DM – DAMPER MOTOR
DMSW – DAMPER MOTOR SWITCH

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE LEGEND

DVR – DOUBLE VOLTAGE RELAY
FA – FIRE ALARM SYSTEM CONNECTION
FAIM – ADDRESSABLE FIRE ALARM INPUT MODULE
FACR – ADDRESSABLE FIRE ALARM CONTROL RELAY MODULE
FL – FLOAT SWITCH
FLA – FULL LOAD RUNNING AMPERES
FPU – FIELD PROCESSOR UNIT BY DIV. 15900*
FPU/SS – START/STOP CONTROL OUTPUT FROM FPU*
FPU/ST – MOTOR RUNNING STATUS INPUT TO FPU*
FRAC – FRACTIONAL HORSEPOWER
FS – FLOW SWITCH
GSV – GAS SOLENOID VALVE
HOA – HAND/OFF/AUTO SWITCH IN STARTER COVER
HUM – HUMIDISTAT
HWSV – HOT WATER SOLENOID VALVE
IRS – INFRARED SENSOR
KMSW – KEY OPERATED MOMENTARY CONTACT SWITCH
KSW/PL – KEY SWITCH(15A, 120V,SPST, LOCK TYPE C/W PILOT LIGHT)
LS – LEVEL SWITCH
LWCO – LOW WATER CUT OFF
MAG – MAGNETIC STARTER
LS – LEVEL SWITCH
LWCO – LOW WATER CUT OFF

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE LEGEND

MAG – MAGNETIC STARTER
MAN – MANUAL STARTER
MCA – MINIMUM CIRCUIT AMPS
MCC – MOTOR CONTROL CENTRE
MFA – MAXIMUM FUSE AMPACITY
MOCP – MAXIMUM OVER CURRENT PROTECTION
MVS – MONITORED VALVE SWITCH
ODT – OFF DELAY TIMER
PB – PUSHBUTTON ON/OFF SWITCH IN STARTER COVER
PL – PILOT LIGHT IN STARTER COVER
PLG – 120V RECEPTACLE BY ELECTRICAL DIVISION
PS – PRESSURE SWITCH
RPB – REMOTE STOP/START PUSHBUTTON
RPL – REMOTE PILOT LIGHT
SD – SMOKE DETECTOR (DUCT TYPE)
SS – SPEED SWITCH
SLS & PL – SELECTOR SWITCH AND PILOT LIGHT
SV – SOLENOID VALVE
SW – HP RATED TOGGLE SWITCH
TC – TEMPERATURE CONTROLLER
TI – TIMER (INTERVAL)
T7 – TIMER (7–DAY)
TRS – THERMOSTAT REVERSING SWITCH

WIRING FOR MECHANICAL EQUIPMENT SCHEDULE LEGEND

TS – THERMOSTAT
T – THERMOSTAT OR TEMPERATURE SENSING UNIT
VM – VALVE MOTOR
VFD – (VSD) VARIABLE FREQUENCY (OR SPEED) DRIVE
TOA – TEST/OFF/AUTO SWITCH IN STARTER COVER.

KITCHEN HOOD CONTROLLER, CSA CERTIFIED
ITEM: CONTROL PANEL, MODEL: RPD–P11–MW–SW–AS

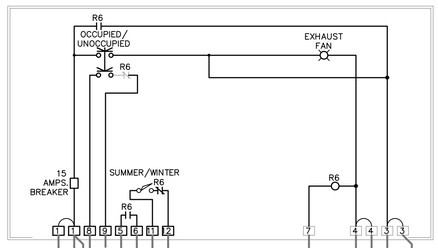
EMC TYPE: REMOTE EXHAUST MOTOR STARTER(S)			
START/STOP: MANUAL	MOUNTING: WALL		
SUPPLY: BY OTHERS	EXHAUST: BY OTHERS	HOOD(S): SPRING AIR	
SUPPLY MOTOR STARTER: UNIT MOUNTED		NO. OF EXHAUST FANS	1

OPTIONS ☒THERMAL START ☒SUMMER/WINTER SWITCH

△ POWER WIRING BY ELECTRICAL CONTRACTOR
▲ CONTROL WIRING BY CONTROL CONTRACTOR
● FACTORY WIRING BY SPRING AIR SYSTEMS

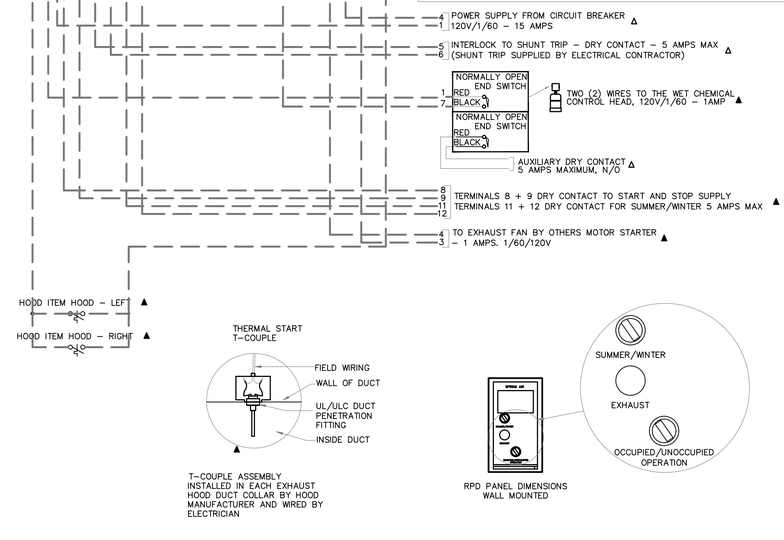
CALL SPRING AIR SERVICE AT 1–866–874–4505 IF YOU HAVE ELECTRICAL WIRING QUESTIONS

NOTE: MOTOR STARTERS OVERLOADS AND DISCONNECTS BY ELECTRICAL DIVISION



SEQUENCE OF OPERATION

AT THE START OF THE COOKING DAY:
Switch the on/off toggle to the Occupied position. The SAA inlet motorized damper opens and then the SAA supply fan starts. Shortly after, the exhaust fan(s) will energize.
EXHAUST FAN OPERATION:
The exhaust fan(s) starts immediately.
Dry contact on terminals 8+9 closes to start the supply fan. Some supply fans have an interlock with a fresh air damper and may take a few minutes to start. Once the supply air unit air proving switch closes the exhaust fan starts.
SUMMER/WINTER OPERATION:
Contractor to install DAT sensor in supply ductwork and wire back to MUA–1. Unit to modualte heating/cooling to satisfy a DAT setpoint of 68ºF When summer/winter switch is rotated to the winter position, the supply unit will provide heating for the kitchen.
THERMAL START:
When any T–couple closes because of rise in temperature in ductwork, all the exhaust fans will start together. The factory temperature is set at 110F.
IN THE EVENT OF A SURFACE FIRE:
The surface fire suppression will activate. The dry contact on terminals 8+9 will open and the supply fan will shut off. The exhaust fan will operate at high volume.
AT THE END OF THE COOKING DAY:
Switch the on/off toggle to the OFF position. The exhaust and supply fan will stop operation. Inspect the hood baffle filters or inserts daily. Clean as necessary.
Wipe down the interior surface of the hood each day. Refer to the maintenance manuals for additional information.



KITCHEN EXHAUST HOOD – WIRING DIAGRAM

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