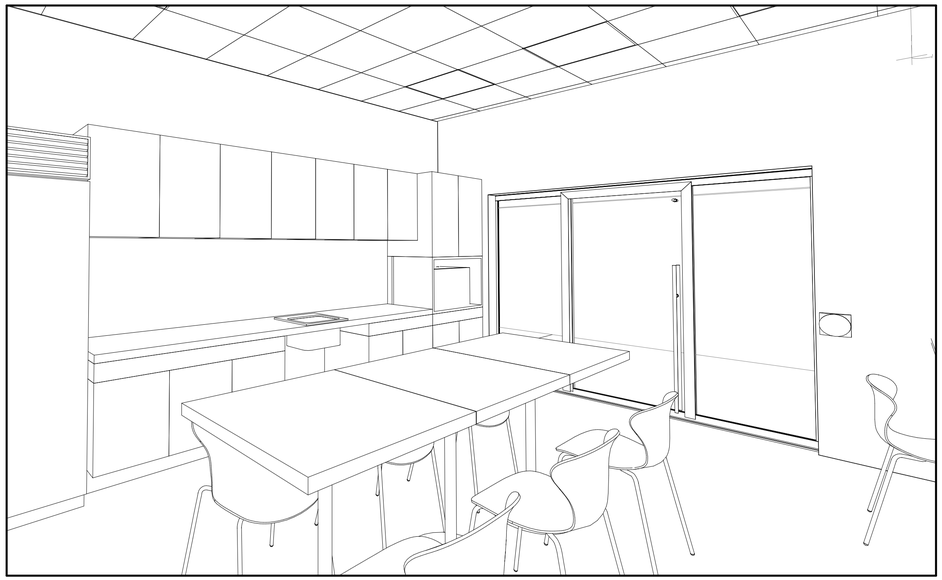
W.G. JOHNSON CENTRE LUNCHROOM

31 Kribs St, Cambridge, ON, N3C 2L3



LIST OF DRAWINGS:

ARCHITECTURAL

ELECTRICAL

MECHANICAL

STRUCTURAL

CLIENT:

CITY OF CAMBRIDGE

CAMBRIDGE
CANADA
PEOPLE • PLACE • PROSPERITY

CONSULTANTS:

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ISSUED FOR PERMIT & TENDER

2024.10.30

※ Inspired design – for everyone.

PROJECT NAME
W.G. JOHNSON CENTRE LUNCHROOM

CLIENT
CITY OF CAMBRIDGE

ARCHITECT

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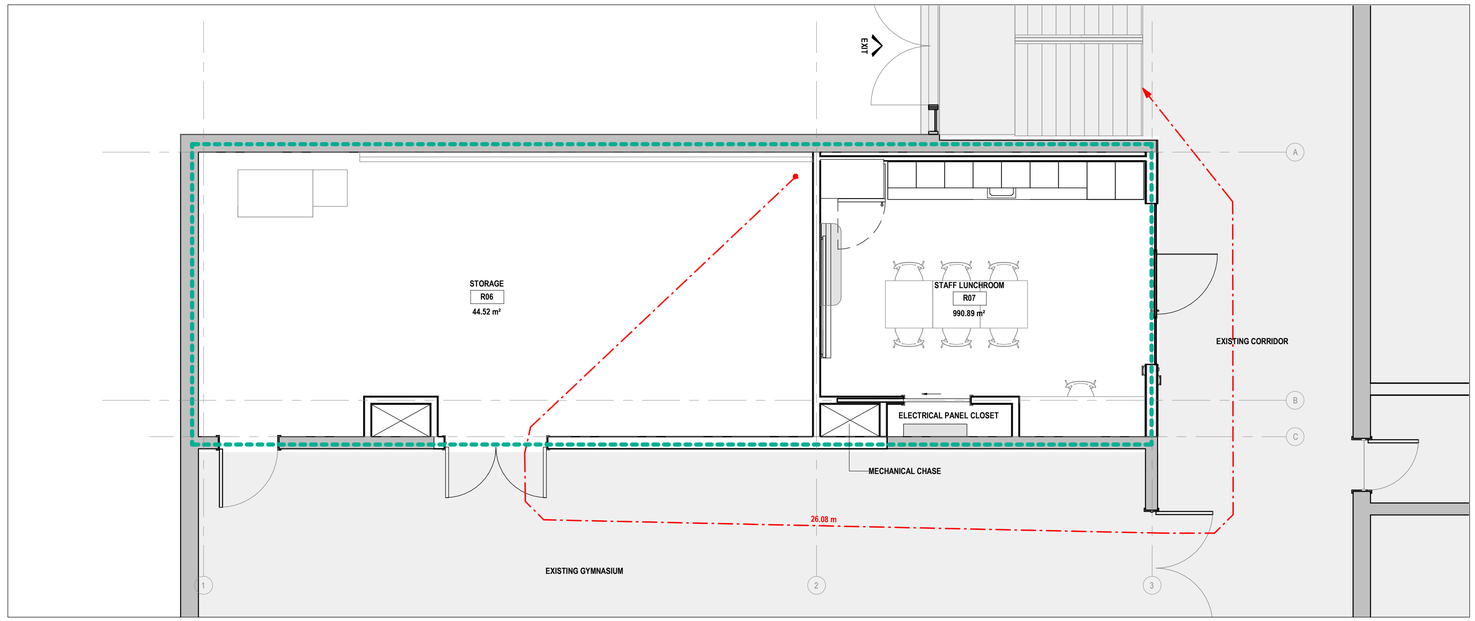
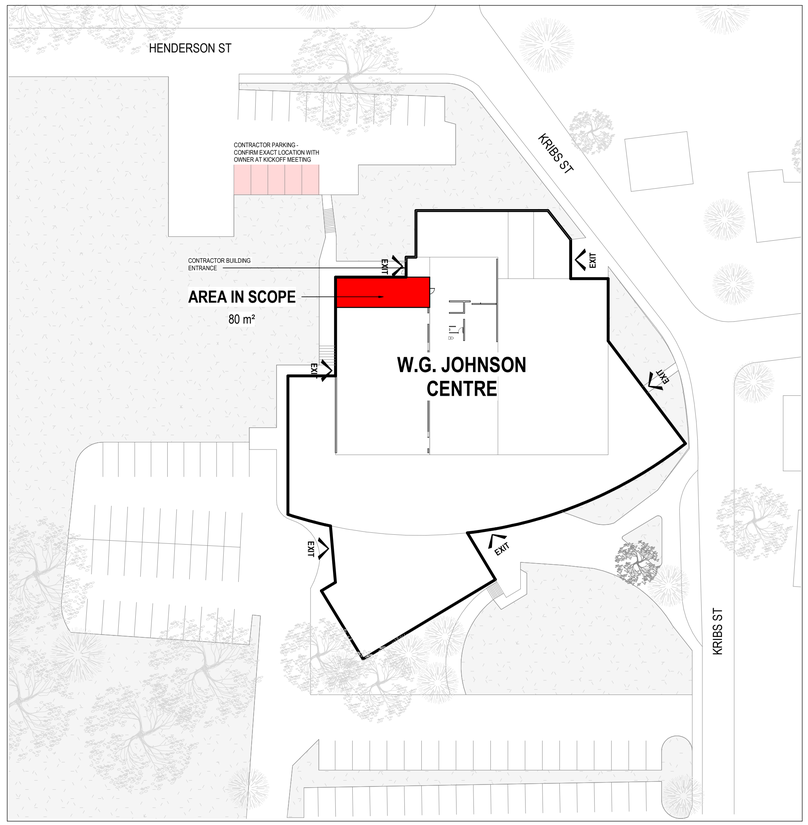
SHEET TITLE
COVER

PROJECT No.	**24012**
SHEET SIZE	**22"x34"**
DATE ISSUED	**2024.10.30**
DATE DRAWN 2024-10-30 6:10:25 PM	SHEET No. **A000**



1 A001 CODE PLAN
SCALE: 1/4" = 1'-0"



2 A001 SITE PLAN
SCALE: 1 : 500

FIRE STOPPING NOTES

1. ALL SUPPORTING WALLS, COLUMNS WILL BE FIRE RATED TO MATCH FIRE RESISTANT RATING OF SUPPORTED FLOORS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING CONTINUITY OF FIRE SEPARATION OF ALL WALLS AND FLOOR AND CEILING ASSEMBLY ABOVE AND BELOW. ALL SERVICE PENETRATIONS THROUGH FIRE-RATED WALLS SHALL BE PROPERLY FIRE STOPPED WITH ULC-APPROVED SYSTEMS APPROPRIATE FOR EACH ASSEMBLY BEING PENETRATED. PROVIDE COMPLETE SUBMITTAL PACKAGE FOR ALL FIRE STOP CONDITIONS FOR APPROVAL PRIOR TO INSTALLATION. PHOTO DOCUMENT ALL FIRESTOPPING FOR RECORD PURPOSES. CONTACT INSPECTOR AND ARCHITECTS FOR REVIEWS PRIOR TO ENCLOSING AND/OR FINISHING.
3. MECHANICAL DUCTS PENETRATING FIRE SEPARATIONS WILL BE ENCLOSED IN FIRE RATED BULKHEADS WITH A RATING EQUAL TO THAT OF SEPARATION PENETRATED OR EQUIPPED WITH FIRE DAMPERS.
4. ANY SERVICES THAT RUN THRU EXITS MUST BE PROTECTED WITH SHAFT WALL CONSTRUCTION WITH THE EXCEPTION OF SPRINKLER PIPING AND ANY ELECTRICAL THAT SERVE THE EXIT.
5. WHERE INTERIOR NON-RATED PARTITIONS MEET THE FIRE RATED PARTITIONS THE RATED GYPSUM IS TO BE CONTINUOUS.
6. REFER TO MANUFACTURER'S SPECIFIC SYSTEMS AND DOCUMENTATION FOR FIRE-STOPPING APPLICATIONS. THE INSTRUCTIONS BELOW ARE GIVEN AS GUIDELINES ONLY. THE CONTRACTOR MUST FAMILIARIZE THEMSELVES WITH THE FIRE-STOPPING SYSTEMS REQUIRED FOR VARIOUS APPLICATIONS.
7. FOR OPENINGS AROUND METAL PIPES AND CONDUITS THROUGH CONCRETE AND CONCRETE BLOCK WALLS:
   A. FILL VOIDS FROM BOTH SIDES OF WALL WITH MINERAL WOOL FIBRE INSUL. (e.g., ROXUL) AND ENSURE 13mm (1/2) GAP BETWEEN INSUL. AND FACE OF WALL
   B. APPLY MIN. 6MM (1/4") THICK NON-SLUMPING INTUMESCENT ELASTOMERIC LATEX SEALANT (e.g., CP-25-WB+ BY 3M OR APPROVED EQUAL) FROM UNDERSIDE OF FLOOR BASED ON 3M FIRESTOP SYSTEM C-AJ-1175
8. FOR OPENINGS AROUND METAL PIPES AND CONDUITS THROUGH PRECAST CONCRETE FLOORS:
   A. FILL VOIDS FROM THE UNDERSIDE OF THE FLOOR WITH MINERAL WOOL FIBRE INSUL. (e.g., ROXUL) AND ENSURE 13MM (1/2 INCH) GAP BETWEEN INSUL. AND UNDERSIDE OF THE PRECAST PANELS.
   B. APPLY MIN. 6MM (1/4 INCH) THICK NON-SLUMPING INTUMESCENT SILICONE SEALANT (e.g., FB-3000-WB BY 3M OR APPROVED EQUAL) FROM UNDERSIDE OF FLOOR BASED ON 3M FIRESTOP SYSTEM C-AJ-1175
9. OPENINGS THROUGH GYPSUM BOARD ASSEMBLIES:
   A. FILL VOIDS FROM BOTH SIDES OF WALL WITH MINERAL WOOL FIBRE INSUL. (e.g., ROXUL) AND ENSURE 13MM (1/2 INCH) GAP BETWEEN INSUL. AND FACE OF WALL
   B. APPLY MIN 6MM (1/4 INCH) THICK INTUMESCENT FIRE-RESISTIVE MOLDABLE PUTTY (e.g., FIRE BARRIER MP+ BY 3M OR APPROVED EQUAL) FROM UNDERSIDE OF FLOOR BASED ON 3M FIRESTOP SYSTEM W-L-1080
10. SUBMIT DOCUMENTATION FOR REVIEW FOR ANY ALTERNATE FIRE-STOPPING SYSTEMS PROPOSED
11. MIN. FIRE-STOPPING F-RATINGS REQUIRED AS PER O.B.C. 3.1.9.1.(1)(a) AND 3.1.8.4:
    A. 2.0-hr FIRE SEPERATION 2hr FIRE RATING
    B. 1.5-hr FIRE SEPERATION 1hr FIRE RATING
    C. 1.0-hr FIRE SEPERATION 45min. FIRE RATING

FIRE RATING LEGEND

- DENOTES FIRE SEPARATION WITH 0 hr F.R.R.
- DENOTES FIRE SEPARATION WITH 1 hr F.R.R.
- DENOTES PATH OF TRAVEL WITH TRAVEL DISTANCE

1. ALL SUPPORTING WALLS, COLUMNS WILL BE FIRE RATED TO MATCH 1HR FIRE RESISTANT RATING OF ROOF.
2. MECHANICAL DUCTS PENETRATING FIRE SEPARATIONS WILL BE ENCLOSED IN FIRE RATED BULKHEADS WITH A RATING EQUAL TO THAT OF SEPARATION PENETRATED OR EQUIPPED WITH FIRE DAMPERS.
3. ANY SERVICES THAT RUN THRU EXITS MUST BE PROTECTED WITH SHAFT WALL CONSTRUCTION WITH THE EXCEPTION OF SPRINKLER PIPING AND ANY ELECTRICAL THAT SERVE THE EXIT.

Ontario's Building Code Data Matrix
Part 11 - Renovation of Existing Buildings

			Building Code Reference
11.00	Building Code Version:	O.Reg. 332/12 Last Amendment : 563/17	
11.01	Project Type:	☐ Addition ■ Renovation ☐ Addition and Renovation ■ Change of Use Description: Renovation of existing Stage and Mech room into Staff Lunchroom and Storage room	[A]1.1.2.
11.02	Major Occupancy Classification:	Occupancy: Use group Existing within project area: A2, F3,D Existing: Multi-purpose Stage, Gym Storage Room, Small Office Proposed within project area: A2, F3 Proposed: Staff Lunch Room, Gym Storage Room Existing elsewhere in building: A2, A3, D Existing elsewhere in building: Indoor Pool, Gymnasia.	3.1.2.1.(1)
11.03	Superimposed Major Occupancies:	■ No ☐ Yes ☐ N/A Description:	3.2.2.7.
11.04	Building Area (m²)	Existing 2938 m² New 0m² Total 2938 m²	[A]1.4.1.2.
11.05	Building Height	1 Storeys Above Grade +/- 7m (m) Above Grade 0 Storeys Below Grade	[A]1.4.1.2. & 3.2.1.1.
11.06	Number of Streets/ Firefighter access	# Street(s): 2	3.2.2.10. & 3.2.5.
11.07	Building Size	☐ Small ☐ Medium ■ Large ☐ ≥ Large	T11.2.1.1 C&D
11.08	Existing Building Classification:	Construction in Major Occupancy: ☐ Yes ■ N/A (no change of major occupancy) Construction Index: 7 (existing record as 1hr roof rating) Hazard Index: Existing within project area: 6 (A2), 5(D) Proposed within project area: 6 (A2), 4 (F3) Importance Category: ☐ Low ☐ Normal ■ High ☐ Post-Disaster	11.2.1.1. T11.2.1.1A T11.2.1.1 C,J&N 4.1.2.1.(3) & 5.2.2.1.(2)
11.09	Renovation Type:	■ Basic Renovation ☐ Extensive Renovation	11.3.3.1. & 11.3.3.2.
11.10	Occupant Load	Floor Level / Area — Occupancy Type — Based On — Occupancy Load (Persons) Existing within project area — A2, D — 3.1.17 — 65 Proposed within project area — A2 — 3.1.17 — 21 Occupant load is decreasing from existing	3.1.17.
11.11	Plumbing Fixture Requirements	Ratio : Male/Female = 50 : 50, except as noted otherwise EXISTING TO REMAIN	9.31. & 3.7.4.
11.12	Barrier-free Design:	■ YES Explanation: ☐ NO	11.3.3.2.(2)
11.13	Reduction in Performance level:	Structural: ■ No ☐ Yes By Increase In Occupant Load: ■ No ☐ Yes By Change of Major Occupancy: ■ No ☐ Yes Plumbing: ■ No ☐ Yes Sewage System: ■ No ☐ Yes Extension of combustible Construction: ■ No ☐ Yes	11.4.2.1. 11.4.2.2. 11.4.2.3. 11.4.2.4. 11.4.2.5. 11.4.2.6.
11.14	Compensating Construction:	■ No ☐ Yes Structural: ■ No ☐ Yes By Increase In Occupant Load: ■ No ☐ Yes By Change of Major Occupancy: ■ No ☐ Yes Plumbing: ■ No ☐ Yes Sewage System: ■ No ☐ Yes Extension of combustible Construction: ■ No ☐ Yes	11.4.3.1. 11.4.3.2. 11.4.3.3. 11.4.3.4. 11.4.3.5. 11.4.3.6. 11.4.3.7.
11.15	Compliance Alternative Proposed:	☐ No ☐ Yes (list numbers and describe)	11.5.1.
11.16	Notes:		11.5.1.

1 *All references are to Division B of the OBC unless preceded by [A] for Division A and [C] for Division C.*

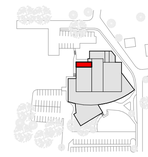
SITE EXAMINATION NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE SITE SURFACES, STRUCTURES AND WORK UNDERLYING OR ADJACENT TO THE WORK TO BE PERFORMED. REPORT ANY FORESEEABLE INTERFERENCE AND/OR DIFFICULTIES TO PERFORM THE WORK TO ARCHITECT.
2. CONTRACTOR SHALL TAKE FIELD MEASUREMENTS RELATIVE TO WORK AS REQUIRED. FABRICATE AND ERECT WORK TO SUIT FIELD DIMENSIONS AND FIELD CONDITIONS. REPORT ANY DISCREPANCIES TO ARCHITECT AT ONCE.
3. COMMENCEMENT OF WORK IMPLIES ACCEPTANCE OF THE EXISTING CONDITIONS AND NO EXTRA CLAIMS BASED ON THESE CONDITIONS WILL BE PERMITTED.

TRUE NORTH

PROJECT NORTH

KEY PLAN



DATE		ISSUED
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2024.10.30	2	ISSUED FOR PERMIT & TENDER
2024.05.23	1	ISSUED FOR CLIENT REVIEW

PROJECT NAME
W.G. JOHNSON CENTRE LUNCHROOM

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SHEET TITLE
CODE PLAN, OBC MATRIX, SITE PLAN

PROJECT No.	24012	SCALE	As indicated
		DRAWN By:	EW,SA
		CHECKED By:	EN

ONTARIO ASSOCIATION OF ARCHITECTS
Elisia Neves
ELISIA M. G. NEVES
LICENCE
8599

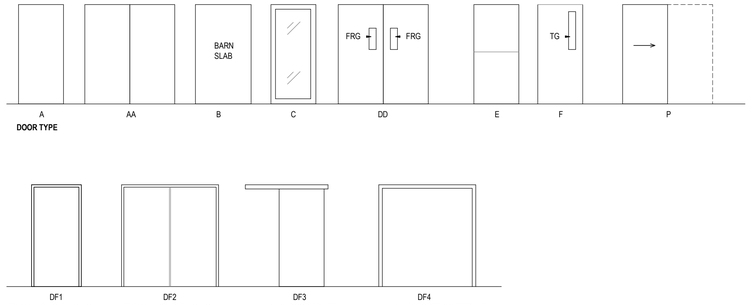
SHEET No.
A001

2024-10-30 6:10:30 PM

DOOR SCHEDULE

Door Number	CONDITION				DOOR								FRAME				HARDWARE													Comments
	From Room	To Room	Fire Rating	Existing/New	Width	Height	Thickness	Type	Material	Core	Finish	Glass	Type	Material	Finish	Glass	Handle Type	Door Viewer	DeadBolt	KickPlate	Stop	Threshold	Sweep	Weatherstrip	Closer	Panic	ElectricStrike	PowerDoorOp	MagneticLock	
D1	R125	R06	(none)	Existing	3' - 1"	6' - 8"	2"|	A	(none)	(none)	(none)	(none)	DF1	(none)	(none)	(none)	Invalid	No	No	No	(none)	No	No	No	No	No	No	No	No	DOOR IN STORAGE ROOM
D2	R125	R129	(none)	Existing	6' - 0"	6' - 8"	2"	AA	(none)	(none)	(none)	(none)	DF2	(none)	(none)	(none)	Invalid	No	No	Yes	(none)	No	No	No	No	No	No	No	No	No	DOUBLE DOOR IN GYM
D3	R132	EXT	(none)	Existing	6' - 3"	7' - 7 1/2"	2"	AA	(none)	(none)	(none)	(none)	DF4	(none)	(none)	(none)	Invalid	No	No	No	(none)	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	EMERGENCY DOOR
D4	R125	R06	(none)	New Construction	5' - 4"	6' - 8"	2"	AA	(none)	(none)	(none)	(none)	DF2	(none)	(none)	(none)	Invalid	No	No	No	(none)	No	No	No	No	No	No	No	No	No	DOUBLE DOOR IN STORAGE ROOM
D5	R129	R07	(none)	New Construction	3' - 6"	6' - 8"	1 3/4"			(none)	(none)	(none)	DF4	(none)	(none)	(none)					(none)							Yes			
D6	R10	R07	(none)	New Construction	3' - 6"	8' - 0"	2"	P	(none)	(none)	(none)	(none)	DF1	(none)	(none)	(none)	Invalid	No	No	No	(none)	No	No	No	No	No	No	No	No	No	POCKET DOOR IN ELECTRICAL ROOM

DOOR PANEL & FRAME TYPE



EXISTING ROOM LEGEND

Number	Name
R127	STORAGE
R128	STAGE
R130	STORAGE
R131	OFFICE
R132	VESTIBULE
R133	WOMEN'S CHANGING ROOMS
R129	CORRIDOR
R136	MEN'S CHANGING ROOMS
R138	MEN'S WASHROOM
R125	GYM

DOOR LEGEND

MATERIAL
WD - Wood
AL - Aluminum
HM - Hollow Metal
GL - Glass
MDF - MDF
FG - Fiber Glass
FP - Fiber Plastic

CORE
SC - Solid Core
HC - Honeycomb Core
PSC - Polystyrene Core
PUC - Polyurethane Core
SSC - Steel Stiffened Core
MC - Mineral Core
PBC - Particleboard Core
SLWC - Structural Laminated Wood Core

FINISH
PNT - Painted
ST - Stained
FF - Factory Finished
GV - Galvanized

HANDLE TYPE
LH - Lever
LHL - Lever lock
KH - Knob
KHL - Knob Lock
SPH - Short Pull
SPHL - Short Pull Lock
LPH - Long Pull
LPHL - Long Pull Lock
APH - Architectural Pull
APHL - Architectural Pull Lock
PDH - Pocket Door Hardware
PDHL - Pocket Door Lock
GDH - Glass Door Hardware
GDHL - Glass Door Lock

GLASS
TSG - Tempered Safety Glass
TG - Tempered Glass
FRG - Fire Rated Glass
PHG - Pin Hole Glass
CG - Clear Glass
IG - Insulated Glass

DOOR STOP
N/A - None
COS - Concealed
Overhead Stop
WS - Wall Stop
FS - Floor Stop

DOOR NOTES

1. EXTERIOR METAL DOORS SHALL BE INSULATED AND WEATHER STRIPPED. THE CAVITY BEHIND AND AROUND FRAMES SHALL BE FILLED WITH HIGH DENSITY EXPANDING POLY-URETHANE FOAM, PROVIDE CONTINUOUS EXTERIOR SEALANT OVER ALL JOINTS.
2. ALL FIRE-RATED DOORS AND DOOR FRAMES ARE TO BE CLEARLY LABELED WITH THE APPROPRIATE FIRE PROTECTION RATING (ULC), AS DESCRIBED IN THE DOOR SCHEDULE SUCH LABELS MUST NOT BE COVERED OR PAINTED OVER.
3. ALL HOLLOW METAL AND SOLID WOOD DOORS ARE TO BE INSTALLED WITH MINIMUM 3 HEAVY DUTY HINGES.
4. ALL DOORS WITHIN A BARRIER-FREE PATH OF TRAVEL (PUBLIC SPACES, BUILDING CODE, SUITE DOORS AND ACCESSIBLE SUITES) SHALL HAVE LEVER-STYLE PASSAGE AND LOCK SETS AS PER OBC 3.8.3.3.(7).
5. THE CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS FOR ALL DOORS TO CERTIFY COMPLIANCE WITH THE ONTARIO BUILDING CODE.
6. DOOR LEVER STYLES, ESCHUCHAN PLATES AND DOOR HARDWARE FINISHES TO MATCH EXISTING ADJACENT DOOR LEVERS AND HARDWARE UNLESS NOTED OTHERWISE.
7. ENERGY SAVINGS REQUIREMENTS AS PER OBC - SB12 AND ASHRAE 90.1. ALL WINDOWS DOORS & SCREEN DOORS ARE TO MEET THE FOLLOWING ASSEMBLY MAXIMUM U-VALUE:
   - ALUMINUM ENTRANCE DOOR - U-0.70
   - HOLLOW METAL DOOR - U-0.45
1. INTERIOR SUITE DOORS BY TRIM CARPENTER, MOULDED 2 PANEL DOORS HARDWARE BY SAFELOCK WINSTON, BRUSHED CHROME LEVERS, UNLESS OTHERWISE SPECIFIED.

GENERAL PROJECT NOTES

1. THE FOLLOWING GENERAL NOTES SHALL APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED.
2. ANY DISAGREEMENTS, CONFLICTS AND DISCREPANCIES BETWEEN CONSULTANT'S DOCUMENTS SHALL BE REPORTED TO FABRIK ARCHITECTS INC FOR CLARIFICATION AND INTERPRETATION PRIOR TO COMMENCEMENT OF WORK.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL DIMENSIONS ON SITE AND ON DRAWINGS. REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY. FAILURE TO DO SO WILL BE AT THE CONTRACTOR'S EXPENSE.
4. REQUEST ANY ADDITIONAL INFORMATION REQUIRED TO PROPERLY COMPLETE THE WORK. ALL REQUESTS FOR INFORMATION SHALL BE IN WRITING AND FORWARDED TO THE ARCHITECT.
5. THE WORK DELINEATED IN THESE DRAWINGS SHALL CONFORM TO CODES, STANDARDS AND REGULATIONS THAT HAVE JURISDICTION IN THE PROVINCE OF ONTARIO AND CITY OF CAMBRIDGE.
6. THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL COMPLY WITH THE APPROPRIATE MUNICIPAL AND REGULATORY AGENCIES, SHALL BE RESPONSIBLE FOR FILING FOR AND SECURING NECESSARY PERMITS AND APPROVALS FOR ALL TRADES, AND SHALL COMPLY WITH THE INSTRUCTIONS OF THE CONSTRUCTION DOCUMENTS.
7. SUBMIT ALL NECESSARY SHOP DRAWINGS PRIOR TO FABRICATION FOR APPROVAL BY ARCHITECT AND ENGINEERS. NO INFORMATION OR DETAILS ON THESE SHEETS MAY BE USED ON OTHER PROJECTS WITHOUT THE PERMISSION OF ARCHITECT.
8. ALL SUBSTITUTIONS MUST BE APPROVED IN WRITING BY THE ARCHITECT PRIOR TO ORDER PLACEMENT.
9. IN CASE OF AMBIGUITIES, DISCREPANCIES, OR IRREGULARITIES IN THE CONSTRUCTION DOCUMENTS, MANUFACTURER'S INSTRUCTIONS, SITE CONDITIONS, OR APPLICABLE CODES AND STANDARDS; REQUEST CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING. THE COST OF WORK DONE AS A RESULT OF PROCEEDING WITHOUT OBTAINING CLARIFICATION WILL BE BORNE SOLELY BY THE CONTRACTOR.
10. DO NOT SCALE OFF OF DRAWINGS. CONTACT ARCHITECT FOR ADDITIONAL INFORMATION IF REQUIRED.
11. THE CONTRACTOR SHALL SUPPLY AND MAINTAIN A COPY OF THE LATEST SET OF CONSTRUCTION DRAWINGS AT THE JOB SITE AT ALL TIMES.
12. UNLESS OTHERWISE SHOWN OR NOTED, TYPICAL DETAILS SHALL BE USED WHERE APPLICABLE.
13. SAFETY MEASURES: THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF THE PERSONS AND PROPERTY AND FOR INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS. THE ARCHITECT'S OR ENGINEER'S SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.
14. ALL WORK IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR UNLESS NOTED OTHERWISE.
15. THE TERM "CONTRACTOR" AND "G.C." REFER TO THE OWNER'S GENERAL CONTRACTOR. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO DETERMINE DIVISION OF WORK AMONG SUB-CONTRACTORS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISTRIBUTION OF DRAWINGS, ADDENDUMS, RFI RESPONSES, CHANGE ORDER REQUESTS, ETC. TO ALL TRADES UNDER HIS/HER JURISDICTION.
16. THE OWNER RESERVES THE RIGHT TO MAKE CHANGES IN THE DRAWINGS AND SPECIFICATIONS AS THE WORK PROGRESSES. CHANGE ORDERS, DRAWINGS, SPECITIATIONS, OR INSTRUCTIONS COVERING USCH CHANGES WILL BE ISSUED TO THE CONTRACTOR WHOSE RESPONSIBILITY WILL BE TO DISTRIBUTRE TO TRADES FOR PRICING. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL TRADES WITH WORK RELATED TO A CHANGE PROVIDE PRICING PRIOR TO SENDING TOTAL COST TO OWNER AND ARCHITECT FOR REVIEW AND APPROVAL.
17. ALL CONSTRUCTION LABORERS PERFORMING UNDER THIS WORK SHALL BE SKILLED WORKERS WITHIN THEIR RESPECTIVE TRADES.
18. REGARDING CONTRACTOR'S USE OF PREMISES. TIME RESTRICTIONS FOR PERFORMING WORK ARE TO BE VERIFIED WITH THE OWNER AND ALL UTILITY OUTAGES AND SHUTDOWNS SHALL BE COORDINATED WITH THE OWNER.
19. COMMENCEMENT OF WORK IMPLIES ACCEPTANCE OF THE EXISTING CONDITIONS AND NO EXTRA CLAIMS BASED ON THESE CONDITIONS WILL BE PERMITTED.
20. THE CONTRACTOR IS RESPONSIBLE TO CLEAN UP AND REMOVE FROM THE PREMISES ALL WASTE MATERIALS, RUBBISH, WRAPPINGS, AND SALVAGES AS GENERATED BY THE CONSTRUCTION, DEMOLITION AND/OR DELIVERY AND INSTALLATION OF ANY PRODUCTS, MATERIALS, OR EQUIPMENT WHICH IS PART OF THEIR CONTRACT ON A REGULAR BASIS THROUGHOUT THE COURSE OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING PROFESSIONAL CLEANERS TO CLEAN THE SPACE PRIOR TO SUBSTAINTIAL COMPLETION REVIEW UNLESS OTHERWISE NOTED.
21. ALL MATERIALS AND EQUIPMENT SPECIFIED SHALL BE SUPPLIED, INSTALLED, CONNECTED, REECTED, CLEANED, AND CONDITIONED AS DIRECTED BY THE SUPPLIER / MANUFACTURER, IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARD PRACTICE AND IN COMPLIANCE WITH PRODUCT WARRANTY.
22. CONTRACTOR SHALL REVIEW DSS REPORT SUPPLIED BY CLIENT AND PROVIDE ABATEMENT SERVICES AS INDICATED IN DRAWINGS AND SPECIFICATIONS AS REQUIRED AND IN CONFORMANCE WITH ALL APPLICABLE CODES AND STANDARDS.

BARRIER FREE NOTES

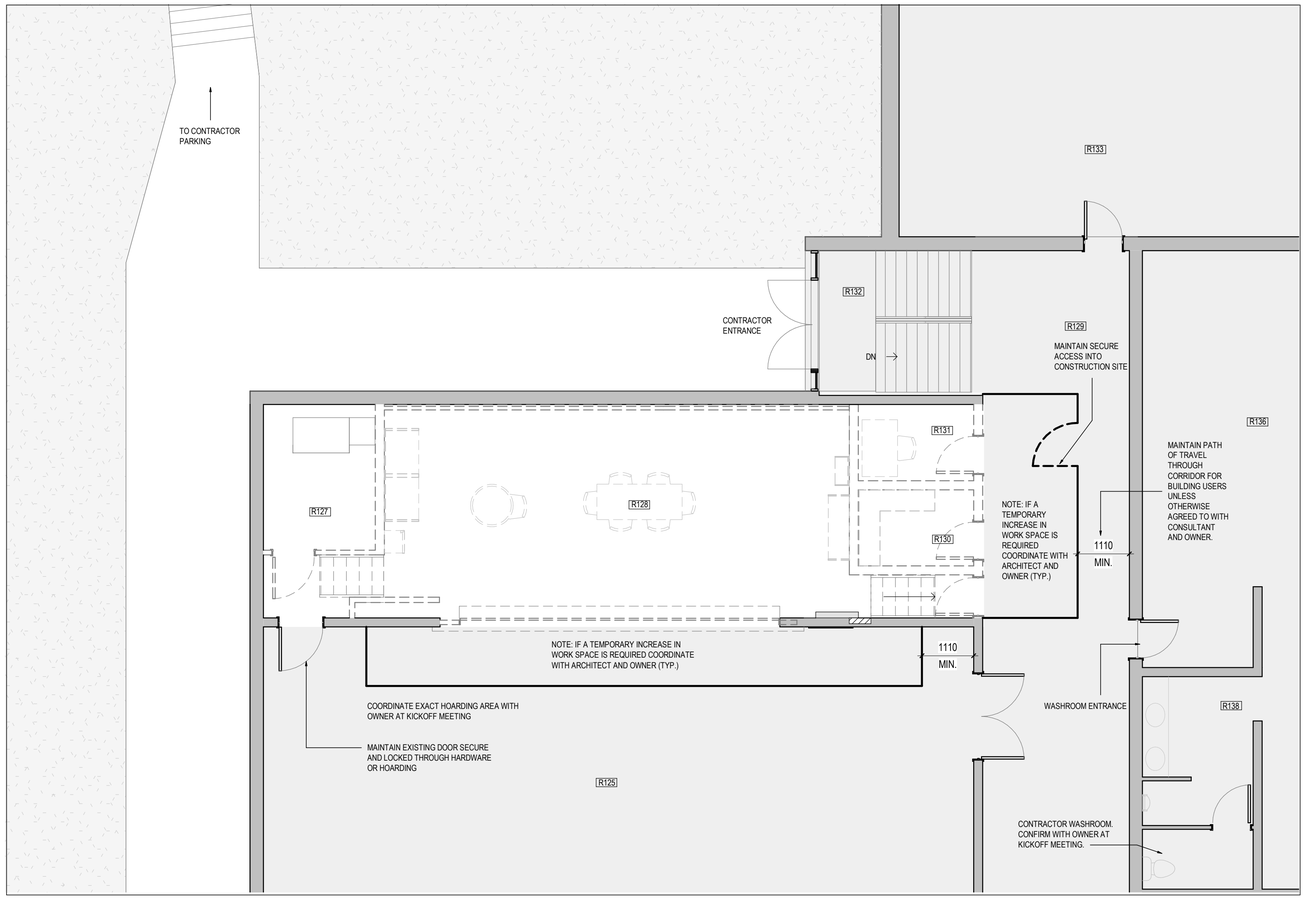
1. EXTERIOR WALKWAYS SHALL HAVE A SLIP RESISTANT FINISH (e.g., HEAVY BROOM FINISH ON CONCRETE). EXTERIOR WALKS THAT ARE FLUSH WITH ADJACENT LEVELS SHALL HAVE A TEXTURED SURFACE TO DIFFERENTIATE THE WALKWAY FROM SURROUNDING AREAS. MAX. GRADE ON WALKWAYS SHALL BE NOT MORE THAN 1: 20 (5%SLOPE).
2. SIGNS INCORPORATING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE INSTALLED WHERE NECESSARY TO INDICATE LOCATION OF THE ENTRANCE, ACCESSIBILITY WASHROOM, PARKING AREA, MEANS OF EGRESS. SIGN IF MOUNTED SHALL BE LOCATED NOT LESS THAN 48 INCHES (1200MM) AND NOT MORE THAN 60 INCHES (1500MM) AFF. (AS PER OBC 3.8.3.1.(5))
3. ALL BARRIER-FREE DOORS TO BE LOCATED 1'-0" (305mm) ON THE PUSH SIDE AND 2'-0" (610mm) ON THE LATCH SIDE FROM AN ADJACENT WALL.
4. PROVIDE SOLID BLOCKING IN WALLS FOR FUTURE GRAB BARS AT ALL SHOWERS AND W.C. AS PER OBC 9.5.2.3., 3.2.3.8.(1)(d) & 3.8.3.13.(1)(f).

STANDARD ABBREVIATIONS

ACT – ACOUSTIC CEILING TILE
AHJ – AUTHORITIES HAVING JURISDICTION
ALUM - ALUMINUM
AV – AUDIO VISUAL
C.M. – CONSTRUCTION MANAGER
CONC - CONCRETE
CR – CARD READER
CT – CERAMIC TILE
CPT – CARPET
C/W – COMPLETE WITH
CL – CENTRE LINE
EX – EXISTING
FE – FIRE EXTINGUISHER
FR – FIRE RATED
FRR – FIRE RESISTANCE RATING
G.C. – GENERAL CONTRACTOR
GYP. BD. – GYPSUM BOARD
HB – HOSE BIB
HM – HOLLOW METAL
HT - HEIGHT
MAX. - MAXIMUM
MIN. – MINIMUM
MTL – METAL
N/A – NOT APPLICABLE
N.I.C. – NOT IN CONTRACT
NTS – NOT TO SCALE
OBC – ONTARIO BUILDING CODE (LATEST VERSION)
OC – ON CENTER
PDO – PUSH DOOR OPERATOR
PT – PRESSURE TREATED
PTD - PAINTED
REQ'D - REQUIRED
U.N.O. – UNLESS NOTED OTHERWISE
V.I.F. – VERIFY IN FIELD

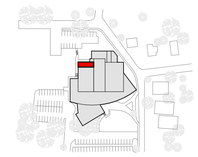
GENERAL HOARDING NOTES

1. CONTRACTOR TO COORDINATE EXACT LOCATION OF HOARDING IN FIELD BASED ON EXISTING CONDITIONS TO MAINTAIN BUILDING EGRESS AND BUILDING USER TRAVEL ADJACANET TO WORK AREA.
2. CONTRACTOR IS RESPONSIBLE TO MAINTAIN DUST CONTROL BETWEEN CONSTRUCTION AREA AND ADJACENT BUILDING AREAS THROUGHOUT ENTIREITY OF PROJECT.



1 A002 HOARDING PLAN
SCALE: 3/16" = 1'-0"

KEY PLAN



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2024.10.30	2	ISSUED FOR PERMIT & TENDER
2024.05.23	1	ISSUED FOR CLIENT REVIEW
DATE		ISSUED

PROJECT NAME
W.G. JOHNSON CENTRE LUNCHROOM

CLIENT
CITY OF CAMBRIDGE

ARCHITECT
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SHEET TITLE
SCHEDULES, PROJECT NOTES, & HOARDING PLAN

PROJECT No.	24012	SCALE	As indicated
		DRAWN By:	EW,SA
		CHECKED By:	EN

ONTARIO ASSOCIATION OF ARCHITECTS
Elisia M. G. Nevers
ELISIA M. G. NEVERS
LICENCE
8599

SHEET No.
A002

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SECTION 01 10 00 - SUMMARY OF WORK

COMPLEMENTARY DOCUMENTS

1. Drawings, specifications, and schedules are complementary each to the other and what is called for by one to be binding as if called for by all. Should any discrepancy appear between documents which leave doubt as to the intent or meaning, abide by Precedence of Documents article below and obtain direction from the Consultant.
2. Drawings indicate general location and route of conduit and wire/conductors. Install conduit or wiring/conductors and plumbing piping not shown or indicated diagrammatically in schematic or riser diagrams to provide an operational assembly or system.
3. Install components to physically conserve headroom, to minimize furring spaces, or obstructions. Locate devices with primary regard for convenience of operation and usage.
4. Examine all discipline drawings, specifications, and schedules and related Work to ensure that Work can be satisfactorily executed. Conflicts or additional work beyond work described to be brought to attention of Consultant.

DESCRIPTION OF THE WORK

1. Work of this Contract comprises renovation of storage room and staff lunchroom, located at 31 Kribs St, Cambridge, ON, N3C 2L3; and identified as the W.G. Johnson Centre.
2. Work includes but is not limited to interior demolition of existing stage and office walls to allow for reconfiguration achieving a storage room and staff lunchroom. Staff lunchroom and storage room to receive new finishes inclusive of flooring, gypsum board, painting, doors, ceilings, etc. Work also includes the infilling of the existing opening in the Gymnasium wall with structural block.
3. Asbestos Abatement is unknown for this project. Refer to the DSS report provided by Owner as part of tender documents for extents and types of material requiring abatement.
4. Division of the Work among Subcontractors and suppliers/vendors is solely the Contractor's responsibility. Neither the Owner nor Consultant assumes any responsibility to act as an arbiter to establish subcontract terms between sectors or disciplines of work.

DOCUMENTS PROVIDED

1. Owner will supply the Contractor with one (1) electronic pdf set of Contract Documents for construction purposes. The Contractor is responsible for printing sets as required to maintain drawings on site and for as-built / record drawing sets. The Contractor may obtain additional sets of Contract Documents at their own cost of printing, handling and shipping.
2. An electronic set of documents will be provided near the end of the Project for purposes of transferring changed information recorded on as-built documents to the electronic Record Documents when requested by the Contractor.

PERFORMANCE OF WORK AND SEQUENCING

1. The substantial performance of construction work to be completed by April 1st 2025.
2. Maintain fire access and control of fire protection equipment.

SECTION 01 14 00 - WORK RESTRICTIONS

HOURS OF WORK

1. Coordinate details of large beam install with owner to ensure no disruption to daily building activities
2. Coordinate working hours with Owner at kick off meeting.

EXISTING SERVICES

1. Notify Owner, Consultant, and utility companies of intended interruption of services and obtain required permission. Where Work involves breaking into or connecting to existing services, give Owner and Consultant, forty-eight (48) hours of notice for necessary interruption of mechanical or electrical service throughout course of work. Keep duration of interruptions minimum

SECTION 01 21 00 - ALLOWANCES

GENERAL

1. Costs Included in Cash Allowances: Cost of Product to Contractor less applicable trade discounts; delivery to site, and applicable taxes.
2. Consultant Responsibilities:
   A. Consult with Contractor for consideration and selection of Products, suppliers, and installers.
   B. Owner and Consultant to select Products.
   C. Prepare Change Order.
3. Contractor Responsibilities:
   A. Assist Consultant in selection of Products, suppliers and installers.
   B. Obtain proposals from suppliers and installers and offer recommendations.
   C. On notification of selection by Consultant or Owner, execute purchase agreement with designated supplier and installer.
   D. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
4. Differences in costs will be adjusted by Change Order.

ALLOWANCES SCHEDULE

1. CASH ALLOWANCE: GENERAL
   A. Include the stipulated sum of **$15,000.00**
2. CASH ALLOWANCE: ABATEMENT
   A. Include the stipulated sum of **$7,000.00** for demolition and removal of asbestos containing material being removed. Allowance value is inclusive of all temporary barriers, protection, and appropriate disposal of material off site in accordance with all applicable codes, regulations, and authorities having jurisdiction.
3. CASH ALLOWANCE: DOOR HARDWARE
   A. Include the stipulated sum of **$2,500.00** for door hardware.

SECTION 01 25 00 - SUBSTITUTION PROCEDURES

SUBSTITUTION TIMEFRAME AND REQUIREMENTS

1. Consultant will consider requests for Substitutions only within fifteen (15) days after date of Owner-Contractor Agreement and/or Contract. After this time, the Consultant and Owner reserve the right to deny requests for Substitutions without reason.
2. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.
3. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents. A request constitutes a representation that the Bidder, Contractor:
   A. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
   B. Will provide the same warranty for the Substitution as for the specified Product.
   C. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
   D. Waives claims for additional costs or time extension which may subsequently become apparent.
   E. Will reimburse Owner and Consultant for review or redesign services associated with re-approval by authorities.
4. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

SUBSTITUTION PROCEDURE

1. Submit one (1) digital copies of request for Substitution for consideration. Limit each request to one (1) proposed Substitution.
2. Submit shop drawings, product data, and certified test results attesting to the proposed Product equivalence. Burden of proof is on proposer.
3. The Consultant will notify Contractor in writing of decision to accept or reject request.

SECTION 01 31 00 - PROJECT MANAGING AND COORDINATION

PROJECT MEETINGS

1. Schedule and administer a kick-off and bi-weekly project meetings, throughout progress of Work as determined by Consultant.
2. Prepare agenda for meetings, inclusive of project kick-off meeting.
3. Distribute written notice of each meeting four (4) days in advance of meeting date to Consultant and Owner.
4. Provide physical space and make arrangements for meetings in coordination with Owner for adjacent space in the building.
5. Preside at meetings.
6. Record minutes. Include significant proceedings and decisions. Identify action by parties.
7. Reproduce and distribute copies of minutes within three (3) days after each meeting and transmit to meeting participants, affected parties not in attendance, Consultant and Owner.
8. Schedule and administer pre-installation meetings when specified in sections and when required to coordinate related or affected Work.

CONSTRUCTION ORGANIZATION AND START-UP

1. Within ten (10) days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
2. Senior representatives of the Consultant, representatives of the Owner, Contractor, major Subcontractors, field inspectors and supervisors are to be in attendance.
3. Establish time and location of meeting and notify parties concerned minimum five (5) days before meeting.
4. Project Kick-off Meeting Agenda to include:
   A. Appointment of official representative of participants in Work.
   B. Schedule of Work and progress scheduling.
   C. Schedule submission of product data, shop drawings, samples and closeout documents, maintenance information, etc.
   D. Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences, hoarding, etc.
   E. Delivery schedule of specified equipment.
   F. Site safety and security precautions and procedures.
   G. Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, and administrative requirements.
   H. Record / as-built drawings.
   I. Take-over procedures, acceptance, and warranties .
   J. Monthly progress claims, administrative procedures, photographs, and holdbacks.
   K. Appointment of inspection and testing agencies or firms.
   L. Insurances and transcript of policies.
5. Incorporate mutually agreed variations to Contract Documents into Agreement, prior to signing.
6. Comply with Consultant's and Owner's allocation of mobilization areas of site; for field sheds, access, traffic, and parking facilities. Comply with instructions of Consultant for use of temporary utilities and construction facilities.
7. During construction, coordinate use of site and facilities through Consultant's procedures for intra-project communications: Submittals, reports and records, schedules, coordination of drawings, recommendations, and resolution of ambiguities and conflicts.

CONSTRUCTION PROGRESS MEETINGS

1. During course of Work and two weeks prior to project completion, schedule progress meetings.
2. Contractor, major subcontractors involved in Work, Consultant, Owner are to be in attendance.
3. Notify parties minimum three (3) days prior to meetings. Meetings to be scheduled such that they are re-occurring time and day of the week whenever possible.
4. Record minutes of meetings and circulate to attending parties and affected parties not in attendance within three (3) days after meeting.
5. Agendas to include the following:
   A. Review, approval of minutes of previous meeting.
   B. Review of Work progress since previous meeting.
   C. Field observations, problems, conflicts.
   D. Problems which impede construction schedule.
   E. Review of off-site fabrication delivery schedules.
   F. Corrective measures and procedures to regain projected schedule.
   G. Revisions required to construction schedule.
   H. Upcoming scheduled tasks, during succeeding work period.
   I. Review submittal schedules: expedite as required.
   J. Maintenance of quality standards.
   K. Review proposed changes for affect on construction schedule and on completion date.
   L. Review site safety and security issues.
   M. Other business.

ON-SITE DOCUMENTATION

1. Maintain at the job site, one copy each of the following:
   A. Contract drawings.
   B. Specifications.
   C. Addenda.
   D. Reviewed shop drawings.
   E. Change orders.
   F. Other modifications to Contract.
   G. Field test reports.
   H. Copy of approved Work schedule.
   I. Manufacturers' installation and application instructions.
   J. Labour conditions and wage schedules.
   K. Applicable current editions of municipal regulations and by-laws. Current building codes, complete with adenda bulletins applicable to the Place of the Work.

COST RELATED SUBMITTALS AND REQUESTS FOR INFORMATION

1. Submit requests for payment for review, and for transmittal to Consultant.
2. Submit requests for interpretation of Contract Documents, and obtain instructions through Consultant.
3. Process substitutions through Consultant.
4. Process change orders through Consultant.

CLOSEOUT PROCEDURES

1. Deliver closeout submittals for review and preliminary inspections, for transmittal to Consultant.
2. Notify Consultant when Work is considered ready for Substantial Performance.
3. Accompany Consultant on preliminary inspection to determine items listed for completion or correction.
4. Comply with Consultant's instructions for correction of items of Work listed in executed certificate of Substantial Performance and for access to Owner-occupied areas.
5. Notify Consultant of instructions for completion of items of Work determined in Consultant's final inspection.

SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION

REQUIRED SCHEDULE TYPES

1. Submittal Schedule for Shop Drawings and Product Data.
2. Submittal Schedule for Samples.
3. Product Delivery Schedule.
4. Cash Allowance Schedule.
5. Shutdown or closure activity Schedule.
6. Construction Timeline Schedule.

SCHEDULE SUBMISSIONS

1. Submit initial format of all required schedules within ten (10) working days after award and signing of Contract. Consultant will review schedule and return review copy within ten (10) working days after receipt. Resubmit finalized schedule within seven (7) days after return of review copy.
2. Submit schedules in electronic format, forward through e-mail as *.pdf files.
3. Submit revised progress schedule to reflect current construction progress with each application for payment. Clearly indicate any items that have changed since last submission of schedule.
4. Distribute copies of revised schedule to the job site, subcontractorss, and other concerned parties. Instruct recipients to report to Contractor within five (5) days, any problems anticipated by timetable shown in schedule.

CONSTRUCTION TIMELINE SCHEDULE FORMAT

1. Prepare schedule in form of a horizontal bar chart.Provide a separate bar for each major item of work, operation.Split horizontally for projected and actual performance. Provide horizontal time scale identifying first Working Day of each week.
2. Format for listings: Chronological order of start of each item of work.
3. Identification of listings: By specification Section numbers, specification subjects, systems description.
4. Submit computer generated network analysis diagram using the critical path method.
5. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
6. Indicate estimated percentage of completion for each item of Work at each submission.

SUBMITTAL AND SHOP DRAWING SCHEDULE FORMAT

1. IncludeShop Drawings, product data, and physical samples
2. Indicate dates for submitting, review time, resubmission time, and last date for meeting fabrication schedule. Indicate if returned submittal requires to be resubmitted.
3. Keep track of all required resubmissions with their date of resubmission separate from the dates of the previous submission.

WEEKLY PROGRESS REPORTS AND PHOTOS

1. Provide a written narrative report weekly, to be sent out every Monday morning for the duration of the project in an email as a .pdf attachement, to include the following:
   A. Problem areas, anticipated delays, and impact on schedule.
   B. Corrective action recommended and its effect.
   C. Critical RFIs and submittals needed returned to keep project timeline.
   D. Minimum (4) four photos of site, illustrating major areas of progress since last report.
2. The contractor shall shall photo document all framing and MEP work before concealment.

SECTION 01 33 00 - SUBMITTAL PROCEDURES

ADMINISTRATIVE REQUIREMENTS

1. Submit to Consultant submittals listed, requested for review. Submit with reasonable promptness and in orderly sequence so as to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
2. Work affected by submittal shall not proceed until review is complete.
3. Present Shop Drawings, product data, samples and mock-ups in SI (metric) and IP (imperial inch-pound) units. Where items or information is not manufactured or produced in SI metric units, converted values within the metric measurement tolerances are acceptable.
4. Review submittals prior to submission to Consultant. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated, identified as to specific project, and attesting to their being reviewed will be returned without being examined and shall be considered rejected.
5. Notify Consultant, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
6. Verify field measurements and affected adjacent Work are coordinated.
7. Contractor's responsibility for errors and omissions and/or deviations in submission from requirements of Contract Documents is not relieved by Consultant's review of submittals.
8. Keep one (1) reviewed copy of each submission on site.
9. Allow ten (10) days for Consultant's review of each submission.
10. Adjustments made on Shop Drawings by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.

CERTIFICATES AND TRANSCRIPTS

1. Immediately after award of Contract, and with each monthly progress draw, submit Workers' Compensation Board status.
2. With each monthly progress draw, starting at the second draw, submit a Statuory Declaration of Progress Payment Distribution by Contractor.
3. Submit transcription of insurance immediately after award of Contract.

SAMPLES

1. Submit for review samples in duplicate as requested in respective specification Sections. Label samples with origin and intended use.
2. Deliver samples prepaid to Consultant's business address unless otherwise agreed to with Consultant.
3. Where colour, pattern or texture is criterion, submit full range of samples.
4. Make changes in samples which Consultant may require, consistent with Contract Documents.
5. Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

SHOP DRAWINGS AND PRODUCT DATA

1. The term "Shop Drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
2. Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
3. Make changes in Shop Drawings as Consultant may require, consistent with Contract Documents. When resubmitting, notify Consultant in writing of any revisions other than those requested.
4. Accompany all submissions with transmittal letter, containing the date; project title and number; Contractor's name and address; identiciation and quantity of each shop drawing; product data and sample; other pertinent data.
5. Submissions shall include date and revision dates; project title and number; name and address of subcontractor, supplier, and manufacturer; Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
6. Submit electronic copy of Shop Drawings for each requirement requested in specification Sections and as consultant may reasonably request.
7. Delete information not applicable to project. Supplement standard information to provide details applicable to project.
8. If upon review by Consultant, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If Shop Drawings are rejected, noted copy will be returned and re-submission of corrected Shop Drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

SECTION 01 35 23 - HEALTH AND SAFETY

REFERENCES

1. Province of Ontario: Occupational Health and Safety Act, Regulation and Code R.S.A - Amended, including requirements for a "Prime Contractor" as defined by the Act.

SAFETY PLAN

1. Develop written site-specific Health and Safety Plan based on hazard assessment prior to commencing any site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
2. Consultant may respond in writing; where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

RESPONSIBILITY

1. The "Prime Contractor" according applicable local jurisdiction, is responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
2. Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, and local statutes, regulations, and ordinances, and with site-specific City of Cambridge's Health and Safety Plan.
3. Should any unforeseen or peculiar safety-related factor, hazard, or condition become evident during performance of Work, and follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of the Province of Ontario and local regulators, having jurisdiction. Advise Consultant verbally and in writing.
4. Contractor is responsible for collecting WSIB Clearance Certificates and Certificates of Insurance (COIs) coverage for all subcontractors planned to be brought to the work site prior to arrival. The COIs should follow the minimum coverage requirements as required by the City and/or Township having jurisdiction.
5. Contractor is responsible for enforcing all PPE site requirements at all times from anyone accessing the designated work site area.

SAFETY SUBMITTALS

1. File Notice of Project with the Province of Ontario, Ministry of Labour and Owner prior to commencement of Work.
2. Submit site-specific Health and Safety Plan: Within seven (7) days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include results of site specific safety hazard assessment and results of safety and health risk or hazard analysis for site tasks and operation.
3. Submit 2 copies of Contractor's authorized representative's work site health and safety inspection reports to Consultant and Owner, weekly. Submit copies of reports or directions issued by Federal, Provincial and Municipal health and safety inspectors.
4. Submit copies of incident and accident reports.
5. Submit Safety Data Sheets (SDS) and Technical Data Sheets (TDS) to Consultant for any chemicals, products, and adhesives planned to be brought on site seven (7) days prior to site work for approval.
6. Consultant will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 7 days after receipt of plan. Revise plan as appropriate and resubmit plan to Consultant within 5 days after receipt of comments from Consultant. Consultant's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
7. On-site Contingency and Emergency Response Plan: Address standard operating procedures to be implemented during emergency situations.

ON-SITE CONTINGENCY AND EMERGENCY RESPONSE PLAN

1. Address standard operating procedeures to be implemented during emergency sistutation. Keep readily available on-site and submit to Consultant for review if requested.
   A. Contact local emergency authorities (911) and seek immediate medical assistance.
   B. Activation of on-site Emergency Response Team (ERT) for response to Working at Heights rescue and response.
   C. Securing of the incident scene.
   D. Provide immediate first aid.
   E. Post emergency contact information, directions to nearest hospital for emergency treatment.
   F. Relevant contact information to trained on-site Frist Aider, Prime Contractor, designated Health and Safety Coordinator.

PROJECT HEALTH AND SAFETY COORDINATOR OR ASSIGNED DESIGNATE

1. Employ and assign to Work, competent and authorized representative as Health and Safety Coordinator, or Assigned Designate with the following qualifications:
   A. Have minimum two (2) years' site-related working experience specific to activities associated with General construction health and safety; Industrial lift equipment safety and inspection requirements; Enforcement of site PPE, fall arrest equipment, inspection protocols for fall arrest equipment, and monitoring of adherence and use of required on-site PPE, hot work protocols, and LOTO requirements.
   B. Have working knowledge of occupational safety and health regulations.
2. Health and Safety Coordinator, or Assined Designate is responsible for completing the following tasks:
   A. Completing Contractor's Health and Safety Training Sessions and site safety orientation sesssions with all personnel who will be accessing the work site. Ensure that personnel not successfully completing required training are not permitted to enter site to perform Work. Safety orientation completion list to be maintained for the duration of the project showing that site safety rules have been reviewed by personnel accessing the work site.
   B. Assign a Ground-Level Spotter for any overhead work involving Mobile Elevated Work Platforms (MEWP). Ground-level Spotter must be always at ground level for the duration of the use of the MEWP equipment to ensure passersby individuals are away from the work area, and to support the MEWP operator in case of emergencies.
   C. Ensuring work areas around the use of MEWPs, cranes, or similar powered equipment is barricaded, fenced, tarped and cautioned off to prevent pedestrians to keep away from designated Work area.
   D. Ensure proper warning and danger signage is in place.
   E. Be responsible for checking the training records of all on-site Contractors prior to arrival on site, ensuring required training certificates for Working at Heights, LOTO, ladder safety and any other required safety training. Ensure training records are available and current (within the required training refreshment period). Obtain copies and keep on record for the duration of the project.
   F. Ensure any electrical, mechanical and technical subcontractors and trades provide training records and certifications for validation prior to working at the project site.
   G. Conducting ongoing site inspections throughout the working day, monitoring overall safety, taking immediate actions to resolve any observed health and safety discrepancies.
   H. Have full authority to stop any on-site Work when health and safety requirements are not met, or unsafe working conditions are observed.

POSTING OF DOCUMENTS

1. Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of the Province of Ontario and in consultation with Consultant.
2. Relevant on-site health and safety information is posted and contains most current updates related to onsite Work. Posted information to include relevant contact numbers to main Contractor, Consultant, and Owner contacts. Ensure building permits are posted along with all emergency protocols, mandatory PPE requirements, ERT, first aider, and all other applicable items.
3. Posted information to include daily work permits related to on-site works and activities.

CORRECTION OF NON-COMPLIANCE AND WORK STOPPAGE

1. Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Consultant.
2. Provide Consultant and Owner with written report of action taken to correct non-compliance of health and safety issues identified.
3. Owner, Consultant, Health and Safety Coordinator, Contractor, and any local building facilities staff member from the Owner side is empowered and has full authority to immediately stop any observed unsafe work activity, or unsafe work condition at any time to ensure the health and safety without hesitation. Work shall not proceed until issue is addressed and corrected.
4. Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

SECTION 01 35 23 - HEALTH AND SAFETY - Continued

HAZARDOUS WORK

1. No hot work, or works that generate heat, fire and/or sparks (e.g., welding, cutting, grinding, etc.) without prior approval from Consultant and Owner.
2. No roof top access or work without prior approval from Consultant and Owner.
3. No use of any Mobile Elevated Work Platforms (MEWPs) unless the equipment has been validated to have a current annual inspection and is in proper working condition. Any workers using MEWPs must have proper training and must conduct and document the pre-use inspection of the MEWP prior to operating the MEWP equipment.
4. All Working at Heights (WAH) works and activities must be performed by workers who have valid and current WAH training certificates.
5. Any work involving ladders (e.g., step ladders, roll-up ladders, etc.) must be performed only using ladders that are in good working condition, inspected prior to use for any defects and load capacities, and used by workers who have valid and current ladder safety training certificates.
6. Any equipment and device that is being serviced, repaired, decommissioned, removed, demolished and placed out of serviced must have all hazardous energy sources safety de-energized and locked and tagged by personnel with current and valid lockout-tagout (LOTO) training.
7. Traffic around the designated work area must be controlled at all times to ensure safe passage of pedestrian and clear segregation between pedestrian and any motor vehicles.
8. Maintain a clear separation between designated work areas, and surrounding areas by ensuring the entire work area is tarped-off, fenced off, and includes appropriate signage indicating hazards in the work area, PPE requirements, designated work contact, and an operational phone number where the designated work contact can be reached.

FIRE PROTECTION

1. Provide and maintain temporary fire protection equipment during performance of Work required by local governing codes, regulations and bylaws.
2. Maintain placed or installed fire resistive construction to protect the portions of the Work during construction.
3. Ensure all combustible material is removed to at least 35 feet away from the hot work area or shield with flameproof covers or curtains extending to the ground. Review any planned hot work works and activities with Consultant and Owner and obtain approval prior to planned work.
4. Assign a designated fire monitor and a fully trained fire watch in the use of a fire extinguisher and equipped with an operational and fully charged fire extinguisher for all hot work works and activities. Fire watch cannot have any other duties assigned while performing the role of a fire watch.
5. Any planned work on the site's fire and life safety systems (e.g., sprinklers, fire monitoring system, etc.) requires prior approval from Consultant and Owner.

KEY PLAN

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2024.05.23	1	ISSUED FOR CLIENT REVIEW
DATE		ISSUED

PROJECT NAME

W.G. JOHNSON CENTRE LUNCHROOM

CLIENT

CITY OF CAMBRIDGE

ARCHITECT

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fabrik ARCHITECTS

SHEET TITLE

ARCHITECTURAL SPECIFICATIONS

PROJECT No.	**24012**	SCALE	**12" = 1'-0"**
		DRAWN By:	**EW,SA**
		CHECKED By:	**EN**

ONTARIO ASSOCIATION OF ARCHITECTS
Elisia Neves
ELISIA M. G. NEVES
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SECTION 01 43 00 - QUALITY ASSURANCE

QUALITY ASSURANCE

1. Provide testing organization services as specified throughout the Contract Drawings and specifications.
2. Testing organization: Current member in good standing of their respective professional or industry organization and certified to perform specified services.
3. Comply with applicable procedures and standards of the certification sponsoring association.
4. Perform services under direction of supervisor qualified under certification requirements of sponsoring association.
5. Qualifications:
   A. Provide adequate workforce training through meetings and demonstrations.
   B. Have someone on site with deconstruction experience throughout project for consultation and supervision purposes.

SECTION 01 45 00 - QUALITY CONTROL

INSPECTION BY AUTHORITY

1. Allow Authorities Having Jurisdiction access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.
2. Give timely notice requesting inspection whenever portions of the Work are designated for special tests, inspections or approvals, either when described in the Contract Documents or when required by law in the Place of the Work.
3. If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.

REVIEW BY CONSULTANT

1. Consultant may order any part of the Work to be reviewed or inspected if Work is suspected to be not in accordance with Contract Documents.
2. If, upon review such work is found not in accordance with Contract Documents, correct such Work and pay cost of additional review and correction.
3. If such Work is found in accordance with Contract Documents, Owner and Consultant will pay cost of review and replacement.

INDEPENDENT INSPECTION AGENCIES

1. Independent Inspection and Testing Agencies will be engaged by Contractor as described in Contract Documents or otherwise as requested by Consultant for purpose of inspecting and testing portions of Work. Cost of such services will be borne by Contractor unless otherwise agreed to.
2. Testing Organizations: Listed by SCC within info.palcan@scc.ca listings.
3. Provide equipment required for executing inspection and testing by appointed agencies.
4. Employment of inspection and testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.
5. If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and testing to ascertain full degree of defect. Correct defect and irregularities as advised by Consultant at no cost to Owner. Pay costs for retesting and re-inspection.

ACCESS TO WORK

1. Allow inspection and testing agencies access to Work. Cooperate to provide reasonable access and facilities for such access.

PROCEDURES

1. Notify appropriate agency and Consultant in advance of requirement for tests, in order that attendance arrangements can be made.
2. Submit samples and materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in Work.
3. Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

REJECTED WORK

1. Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Consultant as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.
2. Make good other Contractor's work damaged by such removals or replacements promptly.
3. If in opinion of Consultant it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner may deduct from Contract Price the difference in value between Work performed and that called for by Contract Documents, amount of which shall be determined by Consultant.

REPORTS, TESTS AND MIX DESIGNS

1. Submit one (1) electronic copy of signed inspection and test reports to Consultant.
2. Provide signed paper and/or electronic copies to Subcontractor of work being inspected or tested, manufacturer or fabricator of material being inspected or tested.
3. Submit adjustment and balancing reports for mechanical, electrical and building equipment systems. Refer to mechanical and electrical drawings and specifications for definitive requirements.
4. Furnish test results and mix designs as may be requested.
5. The cost of tests and mix designs beyond those called for in Contract Documents or beyond those required by law of Place of Work shall be appraised by Consultant and may be authorized as recoverable.

SECTION 01 51 00 - TEMPORARY UTILITIES

INSTALLATION AND REMOVAL

1. Provide temporary utilities controls in order to execute work expeditiously.
2. Remove from site all such work after use.
3. Salvage and assist in recycling products for potential reuse.

WATER SUPPLY

1. Owner will provide continuous supply of potable water for construction use.
2. Owner will pay for utility charges at prevailing rates.

TEMPORARY HEATING AND VENTILATION

1. Provide temporary heat and ventilation in enclosed areas as required to Facilitate progress of Work; Protect Work and products against dampness and cold; Prevent moisture condensation on surfaces; Provide ambient temperatures and humidity levels for storage, installation and curing of materials; Provide adequate ventilation to meet health regulations for safe working environment.
2. Maintain temperatures of minimum 50 degrees F in areas where construction is in progress.
3. Provide temporary ventilation so as to Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction; Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas; Dispose of exhaust materials in manner that will not result in harmful exposure to persons; Ventilate storage spaces containing hazardous or volatile materials; Ventilate temporary sanitary facilities.
4. Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
5. Permanent heating system of building, may be used when available. Be responsible for damage to heating system if use is permitted.
6. On completion of Work for which permanent heating system is used, complete replacement of filters, cleaning of diffusers and grilled with work area.
7. Ensure date of Substantial Performance of the Work and Warranties for heating system do not commence until entire system is in as near original condition as possible and is certified by Consultant.
8. Owner will pay utility charges when temporary heat source is existing building equipment.
9. Maintain strict supervision of operation of temporary heating and ventilating equipment to Conform with applicable codes and standards; Enforce safe practices; Prevent abuse of services; Prevent damage to finishes; Vent direct-fired combustion units to outside.
10. Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

TEMPORARY POWER AND LIGHT

1. Owner will provide a source for, and pay the costs of temporary power during construction for temporary lighting and operating of power tools, to a maximum supply of 120 volt, 30 amps.
2. Provide and pay for temporary power for electric cranes and other equipment requiring temporary power in excess of above noted requirements.
3. Provide and maintain temporary lighting throughout project. Ensure level of illumination is not less than 162 lx, 16 lumen per sq ft.
4. Electrical power and lighting systems installed under this Contract may be used for construction requirements only with prior approval of Consultant provided that guarantees are not affected. Make good damage to electrical system caused by use under this Contract. Replace lamps which have been used for more than three (3) months.

SECTION 01 52 00 - CONSTRUCTION FACILITIES

INSTALLATION AND REMOVAL

1. Provide construction facilities in order to execute work expeditiously.
2. Remove from site all such work after use.

USE OF THE SITE

1. Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with Products.
2. Do not load or permit to load any part of Work with a weight or force that will endanger the Work.

CONSTRUCTION PARKING

1. Parking will be permitted on site provided it does not disrupt performance of Work and continuing operation of the facility. Location to be coordinated with Owner at project kick-off meeting.
2. Provide and maintain adequate access to project site. Emergency response vehicles must be able to enter and exit site at all times without obstruction.
3. If authorized to use existing roads for access to project site, maintain such roads for duration of Contract and make good damage resulting from Contractors' use of roads.

OFFICES

1. No construction office is required for this project.
2. Coordinate with Owner for location to hold construction progress meetings during course of project elsewhere in the building.

EQUIPMENT, TOOL AND MATERIALS STORAGE

1. Provide and maintain, in a clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials, where applicable.
2. Locate materials not required to be stored in weatherproof sheds on site in a manner to cause least interference with work activities.
3. Storage space within building may or may not be available. Coordinate extents and location of storage with Owner at project kick-off meeting. Storage space within site must be hoarded off with metal fencing or other hoarding type as reviewed and approved by Consultant and Owner.

SANITARY FACILITIES

1. Coordinate with Owner for location of sanitary facilities to be used on site.
2. Post notices and take such precautions as required by local health authorities.
3. Keep sanitary facilities clean at all times. If sanitary facilities are not kept clean, it is at the discresion of owner to revoke Contractor use of sanitary facilities, Contractor is then to be responsible for providing sanitary facilities for their use on site.

SECURITY

1. Ensure all materials and site are secure. The Owner shall not responsible for theft or damage if located outside or inside of the building. Storage within the building shall be coordinated with Owner during project kick-off meeting.

SECTION 01 53 00 - TEMPORARY CONSTRUCTION

INSTALLATION AND REMOVAL

1. Provide temporary controls and construction in order to execute Work expeditiously.
2. Remove from site all such work after use.

SITE ENCLOSURE

1. Coordinate exact details of hoarding enclosure with Owner and Consultant at kick off meeting.
2. Erect temporary site enclosure (hoarding) using 1-1/2 x 3-1/2 inch construction grade lumber framing at 24 inches on centre, and 48 x 96 inch size, 1/2 inch thick exterior grade Fir plywood. Apply panels vertically, flush and butt jointed. Insulate cavity of hoarding for sound control.
3. Temporarily seal to adjacent conditions when possible during duration of noisy and dusty work.
4. Provide dust tight barriers and screens to localize dust generating activities, and for protection of workers, finished areas of Work and public.Maintain and relocate protection until such work is complete.
5. Maintain public side of enclosure in clean condition.
6. If hoarding is used on the exterior to protect Contractor supplies or equipment, erect temporary site enclosure using new 4 ft high snow fence wired to rolled steel "T" bar fence, posts spaced at 8 ft maximum on centre. Provide lockable gates as required for safe and secure access. Maintain enclosure in good repair.
7. Protect from damage by equipment and construction procedures.

PROTECTION FOR OFF-SITE PROPERTY, PUBLIC PROPERTY, APPLIED FINISHES AND SURROUNDING WORK

1. Protect surrounding private and public property from damage during performance of Work.
2. Provide protection for finished and partially finished surfaces and equipment during performance of Work.
3. Provide protection for finished and partially finished Work from damage.
4. Provide necessary screens, covers, and hoardings.
5. Be responsible for damage incurred due to lack of or improper or inappropriate protection.

SECTION 01 70 00 - EXAMINATION AND PREPARATION

EXAMINATION

1. Inspect existing conditions, including elements or adjacent Work subject to irregularities, damage, movement, including Work during cutting and patching.
2. After uncovering, inspect conditions affecting performance of the Work.
3. Beginning of cutting or patching means acceptance of existing conditions.

PREPARATION

1. Provide supports to assure structural integrity of surroundings; provide devices and methods to protect other portions of project from damage.
2. Provide protection from elements for areas which may be exposed by uncovering work; maintain excavations free of water.

EXISTING SERVICES

1. Before commencing work, establish location and extent of service lines in area of Work and notify Consultant of findings.
2. Remove abandoned service lines within 6 ft of structures. Cap or seal lines at cut-off points as directed by Consultant.

LOCATION OF EQUIPMENT AND FIXTURES

1. Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.
2. Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.
3. Inform Consultant of impending installation and obtain approval for actual location.
4. Submit field drawings to indicate relative position of various services and equipment when required by Consultant.

SURVEY RECORD

1. Record locations of maintained, re-routed and abandoned service lines

SECTION 01 73 00 - EXECUTION

ATTACHING TO EXISTING WORK

1. Submit written request in advance of cutting or alteration which affects Structural integrity of any element of Project; Integrity of weather-exposed or moisture-resistant elements; Efficiency, maintenance, or safety of any operational element; Visual qualities of sight-exposed elements.
2. Include in request Identification of Project; Location and description of affected Work; Statement on necessity for cutting or alteration; Description of proposed Work, and products to be used; Alternatives to cutting and patching; Date and time work will be executed.

TOLERANCES

1. Monitor fabrication and installation tolerance control of Products to produce acceptable Work. Do not permit tolerances to accumulate beyond effective or practical limits.
2. Comply with manufacturers' tolerances. In case of conflict between manufacturers' tolerances and Contract Documents, request clarification from Consultant before proceeding.
3. Adjust Products to appropriate dimensions; position and confirm tolerance acceptability, before permanently securing Products in place.

EXECUTION

1. Execute cutting, fitting, and patching to complete the Work.
2. Perform all required excavation and fill to complete the Work.
3. Fit several parts together, to integrate with other Work.
4. Uncover Work to install ill-timed Work. Remove and replace defective or non-conforming Work.
5. Provide openings in non-structural elements of Work for penetrations of associated electrical, mechanical Work. Limit opening dimensions to minimal sizes required, and performed in a neat and clean fashion. Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
6. Employ qualified workers to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.
7. Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed on masonry or concrete work without prior approval.
8. Restore work with new products in accordance with requirements of Contract Documents.
9. At penetration of fire rated wall, ceiling, or floor construction, completely seal voids with firestopping material, for full thickness of the constructed element.
10. Re-finish surfaces to match adjacent finishes: For continuous surfaces re-finish to nearest intersection; for an assembly, re-finish entire unit.
11. Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise.

SECTION 01 74 00 - CLEANING AND WASTE PROCESSING

ASBESTOS ABATEMENT

1. Review provided assessment / re-assessment report from Owner to understand abatement areas. Some areas within project scope may have been unaccessible during assessment. Review site conditions periodically throughout demolition and report to Consultant and Owner should any asbestos containing material thought to be uncovered.
2. All asbestos must be disposed of in accordance with the Environmental Protection Act 347 section 17, most current version, unless otherwise authorized by provincial and local authorities and regulations.
3. HEPA vacuum and/or damp-wipe all surfaces within the immediate abatement area.
4. All abatement work shall be performed as per Ontario Regulation 278/05, most current version, unless otherwise authorized by provincial and local authorities and regulations.
5. This list of requirements is not intended to be exhaustive and the exclusion of any requirement does not permit the Contractor from being required to maintain conformance with all applicable codes, regulations, and authorities having jurisdiction regarding asbestos abatement.

PROGRESSIVE CLEANING

1. Maintain Work in tidy condition, free from accumulation of waste products and debris. Remove waste materials from site at regularly scheduled times (daily) or dispose of as directed by Consultant. Do not burn waste materials on site, unless approved by Consultant. Dispose of waste materials and debris off site.
2. Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
3. Provide on-site steel framed containers for collection of waste materials and debris. Provide and use clearly marked, separate bins for recycling.
4. Clean interior areas prior to start of finish work, and maintain areas free of dust and other contaminants during finishing operations.
5. Store volatile waste in covered metal containers, and remove from premises at end of each working day.
6. Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer. Cleaning agents and materials shall have low VOC content whenever possible.
7. Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

FINAL CLEANING PRIOR TO ACCEPTANCE

1. Execute final cleaning prior to final project assessment.
2. Use professional cleaners for final cleaning. Leave all surfaces in perfectly clean and unsoiled condition to the Owner satisfaction.
3. Prior to applying for Substantial Performance of the Work, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
4. Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy. Prior to final review, remove surplus products, tools, construction machinery and equipment.
5. Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.
6. Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, floors.
7. Clean lighting reflectors, lenses, and other lighting surfaces.
8. Vacuum clean and dust building interiors, behind grilles, louvres and screens.
9. Clean and polish surface finishes, as recommended by manufacturer.
10. Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
11. Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds. Remove dirt and other disfiguration from exterior surfaces within Contractor's work area and / or staging area.
12. Clean equipment and fixtures to a sanitary condition; replace filters of mechanical equipment.
13. Remove debris and surplus materials from crawl areas and other accessible concealed spaces.

STORAGE, HANDLING AND PROTECTION OF ITEMS AND MATERIALS

1. Store, materials to be reused, recycled and salvaged in locations as directed by Owner and/or Consultant. Protect, stockpile, store and catalogue reuse items.
2. Unless specified or agreed to otherwise, materials for removal do not become Contractor's property.
3. Protect structural components not removed for demolition from movement or damage. Support affected structures. If safety of building is endangered, cease operations and immediately notify Consultant.
4. Protect surface drainage, storm sewers, sanitary sewers, and utility services from damage and blockage.

WASTE MANAGEMENT GOALS

1. This Project is to generate the least amount of waste possible. This requires that construction processes ensure as little waste as possible, either due to error, poor planning, breakage, mishandling, contamination, or other factors.
2. Owner recognizes that waste in any project is inevitable, but indicates that as much of the waste materials as economically feasible. Reused, salvage, or recycle as required.
3. Minimize waste disposal to landfills.

SECTION 01 75 00 - START-UP, TESTING, ADJUSTING AND BALANCING

STARTING SYSTEMS

1. Coordinate schedule for start-up of various equipment and systems. Notify Consultant and Owner, seven (7) days prior to start-up of each item.
2. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
3. Verify tests, metre readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
4. Verify that wiring / support components for equipment are complete & tested.
5. Execute start-up under supervision of applicable manufacturer's representative and/or Contractors' personnel in accordance with manufacturers' written instructions.
6. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
7. Submit a written report that equipment or system has been properly installed and is functioning correctly.
8. Commissioning Agent will perform the following during start-up:
   A. Perform preliminary interim inspections as necessary.
   B. Witness manufacturers' equipment start-up.
   C. Verify starting, testing, adjusting and balancing by Contractor.
   D. Cooperate in systems and equipment demonstration and instruction.
   E. Initiate Change Orders as required.
   F. Verify correction of Contract deficiencies and defects by Contractor.
   G. Verify execution of Change Orders performed by Contractor.
9. The following will be performed to an on-going cycle of:
   A. Owner's inspections, Documentation of results, Diagnosis of problems, Correction of Contract Deficiencies and execution of Change Orders as required, Verification of results.

PERFORMANCE TESTING

1. Performance testing will be performed by the Commissioning Agent. It must be completed prior to Substantial Completion and when all systems have been balanced and tested and are operating to the satisfactory of the Commissioning Agent.
2. The following will be performed to an on-going cycle of:
   A. Performance testing.
   B. Documentation of results.
   C. Diagnosis of problems.
   D. Correction of Contract deficiencies, defects and execution of Change Orders as required.
   E. Verification of results.

THIRD PARTY TESTING

1. Third party independent testing will be carried out as requested in Contract Documents, Drawings and specifications, including mechanical and electrical, prior to substantial completion. Cooperate with independent testing agencies to enable thorough and detailed testing of all systems and equipment.

BALANCING

1. Prior to start of balancing, ensure systems are:
   A. Piped, ducted, wired and wireless services and systems, including components and equipment forming part thereof.
   B. Manually and mechanically operated, including components and equipment forming any part.
   C. Testing, adjusting and balancing will not be started until after all static checks have been completed for the system being balanced and signed off on the commissioning report forms.
   D. Contractor to ensure systems are operated at designated times, under conditions required for proper testing, adjusting, and balancing.
   E. Report any deficiencies or defects which may effect the balancing or noted during testing, adjusting and balancing, which cannot be promptly corrected.
2. Cooperate with, and assist the balancing agent to ensure that the various parts of system are in a proper state of equilibrium.

SECTION 01 78 00 - INSPECTIONS, CLOSEOUT SUBMITTALS & MAINTENANCE

INSPECTIONS AND DECLARATIONS

1. Contractor's Inspection: Contractor, Project Manager and all Subcontractors shall conduct an inspection of Work, identify deficiencies / defects, and repair as required to conform to Contract Documents. Notify Consultant in writing of satisfactory completion of Contractor's inspection and that corrections have been made. Request Consultant's Inspection.
2. Consultant's Inspection: Consultant and Contractor will perform inspection of Work to identify defects or deficiencies. Correct defective and deficient Work accordingly. Send photos of corrected work to Consultant if requested.
3. Completion: Submit written certificate that following have been performed:
   A. Work has been completed and inspected for compliance with Contract Documents.
   B. Defects have been corrected and deficiencies have been completed.
   C. Equipment and systems have been tested, adjusted, balanced and are fully operational.
   D. Certificates required by authorities having jurisdiction and Consultants have been submitted.
   E. Operation of systems have been demonstrated to Owner's personnel.
   F. Work is complete and ready for Final Inspection.
4. Final Inspection: When items noted above are completed, request final inspection of Work by Owner, Consultant, and Contractor. If Work is deemed incomplete by Owner and/or Consultant, complete outstanding items and request reinspection.
5. Defective products will be rejected, regardless of previous inspections. Replace products at own expense.
6. Declaration of Substantial Performance: When Owner and Consultant considers deficiencies and defects have been corrected and it appears requirements of Contract have been substantially performed, make application for Substantial Performance of the Work.
7. Commencement of Warranty Periods: The date of Substantial Performance of the Work shall be the date for commencement of the warranty period.
8. Commencement of Lien Periods: The date of publication of the certificate of Substantial Performance of the Work shall be the date for commencement of the lien period, unless required otherwise by the lien legislation applicable at the Place of the Work.
9. Final Payment: When Owner and Consultant considers final deficiencies and defects have been corrected and it appears requirements of Contract have been completed, make application for final payment.
10. Payment of Hold-back: After issuance of certificate of Substantial Performance of the Work, submit an application for payment of hold-back amount.

CLOSEOUT SUBMITTALS

1. Prepare instructions and data using personnel experienced in maintenance and operation of described products. Send copy to Consultant for review. Copy will be returned with Consultant's comments. Revise content of documents as required prior to final submittal.
2. Prior to Substantial Performance of the Work, submit to Owner and Consultant one (1) digital copy of operating and maintenance manuals in Canadian English. Provide physical format if requested by Owner.
3. Ensure spare parts, maintenance materials and special tools provided are new, undamaged or defective, and of same quality and manufacture as products provided in Work.
4. Operation and Maintenance Manual requirements are as follows:
   A. Organize data in the form of an instructional manual, digital or hard copy format as required by Owner.
   B. Hard copy format to be formatted within hard cover binder(s), in typewritten and printed text and drawings.
   C. Arrange content by systems under Section numbers / sequence.
   D. Provide a Table of Contents sheet / file that included title of project, date of submission. Names, addresses and telephone numbers of Consultant and Contractor, Project Manager with name of responsible parities and a schedule of products and systems.
   E. For each product or system, list names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
   F. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
   G. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
   H. Certificate of Acceptance: Relevant certificates issued by authorities having jurisdiction, including code compliance certificate, life safety systems performance certificate.

MAINTENANCE MATERIALS

1. Provide maintenance and extra materials, in quantities specified in individual specification sections. Provide items of same manufacture and quality as items in Work. Receive and catalogue all items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual. Obtain receipt for delivered products and submit prior to final payment.
2. Provide special tools, in quantities specified in individual specification section. Provide items with tags identifying their associated function and equipment. Receive and catalogue all items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual.
3. Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration. Store in original and undamaged condition with manufacturer's seal and labels intact.
4. Remove and replace damaged products at own expense and to satisfaction of Consultant.

AS-BUILT RECORDS, DOCUMENTS, SAMPLES AND SURVEY

1. Record information on set of black line opaque drawings, and within the Project Manual. Annotate with coloured felt tip marking pens, maintaining separate colours for each major system, for recording changed information. Record information concurrently with construction progress. Do not conceal Work of the Project until required information is accurately recorded. Legibly mark each item to record actual construction, including:
   A. Measured depths of elements below surface in relation to finish first floor datum.
   B. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
   C. Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
   D. Field changes of dimension and detail.
   E. Changes made by change orders.
   F. Details not on original Contract Drawings.
   G. References to related shop drawings and modifications.
   H. Specification changes including Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
2. Store as-built documents and samples in secure, safe place as agreed to by Consultant and Owner apart from documents used for construction. Provide files, racks, and secure storage as required. Label as-built documents and file in accordance with section number listings in List of Contents of the Project Manual. Label each document AS-BUILT DOCUMENTS in neat, large, printed letters. Maintain as-built documents in clean, dry and legible condition.
3. Keep as-built documents and samples available for inspection by Consultant.
4. Prior to Substantial Performance of the Work, provide on USB the marked up information from the as-built documents to a master set of Drawing and specification files provided by the Consultant, with drawings in Autocad 2007 and Adobe Acrobat pdf, and specifications in Adobe Acrobat pdf.
5. Employ a competent computer draftsperson to indicate changes on the electronic set of record drawings. Employ a competent specification writer to indicate changes to the electronic set of record specifications.
6. Submit completed record documents to Owner and Consultant on a USB, accompanied by hard copy sets if required by Owner.
7. Submit final site survey certificate, certifying that elevations and locations of completed Work are in conformance with Contract Documents. Inaccurate or neglectful information shall become a liability of the Contractor.

WARRANTIES AND BONDS

1. Separate each warranty or bond with index tab sheets keyed to Table of Contents listing. List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
2. Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten (10) days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Performance is determined.
3. Verify that documents are in proper form, contain full information, and are notarized. Co-execute submittals when required. Retain warranties and bonds until time specified for submittals.

SECTION 01 79 00 - DEMONSTRATION AND TRAINING

GENERAL

1. Demonstrate scheduled operation and maintenance of equipment, building systems to Owner's personnel two (2) weeks prior to date of final inspection or another time as agreed upon with Owner. Owner will provide list of personnel to receive instructions, and will coordinate their attendance at agreed-upon times.
2. Submit reports within one (1) week after completion of demonstration, that demonstration and instructions have been satisfactorily completed. Give time and date of each demonstration, with list of persons present.
3. Provide copies of completed operation and maintenance manuals for use in demonstrations and instructions.
4. Ensure adequate amount of time required for instruction of each item of equipment is provided and used.

DEMONSTRATION AND INSTRUCTIONS

1. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, and maintenance of each item of equipment at agreed upon times, at the equipment location.
2. Instruct personnel in all phases of operation and maintenance using operation and maintenance manuals as the basis of instruction.
3. Instruct personnel on control and maintenance of sensory equipment and operational equipment associated with maintaining energy efficiency and longevity of service.
4. Prepare and insert additional data in operations and maintenance manuals when the need for additional data becomes apparent during instructions.

KEY PLAN

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2024.10.30	2	ISSUED FOR PERMIT & TENDER
2024.05.23	1	ISSUED FOR CLIENT REVIEW
DATE		ISSUED

PROJECT NAME

W.G. JOHNSON CENTRE LUNCHROOM

CLIENT

CITY OF CAMBRIDGE

ARCHITECT

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fabrik ARCHITECTS

SHEET TITLE

ARCHITECTURAL SPECIFICATIONS

PROJECT No. 24012	SCALE 12" = 1'-0"
	DRAWN By: EW,SA
	CHECKED By: EN
	SHEET No. A004

ONTARIO ASSOCIATION OF ARCHITECTS
ELISIA M. G. NEVES
LICENCE 8599

2024-10-30 6:10:35 PM

SECTION 06 10 00 - ROUGH CARPENTRY

GENERAL

1. Wood framing design and construction shall conform to the latest version of CSA O86.
2. Sawn lumber shall conform to CSA Standard O141 and be S-P-F grade no. 2 or better.
3. Nails shall conform to steel wire nails and spikes as defined in CSA B111 unless noted otherwise.
4. All nails and fasteners in contact with pressure treated wood are to be hot dip calvanized or stainless steel.

SECTION 08 12 13 - HOLLOW METAL DOORS AND FRAMES

SUBMITTALS

1. Product Data: Indicate frame configurations and finishes, location of cut-outs fo hardware reinforcement.
2. Shop Drawings: Indicate frame elevations, reinforcement, anchor types and spacing, location of cut-outs for hardware, and finish.

QUALITY ASSURANCE

1. Manufactureed to ISO 9000 certification requirements.
2. Conform to requirements of CSDMA.

ACCEPTABLE MANUFACTURERS

1. Daybar Industries Ltd
2. Artek Door (1985) Ltd
3. Baron Steel Doors and Frames
4. Trillium Steel Doors

MATERIALS AND ACCESSORIES

1. Sheet Steel: Galvanized steel to ASTM A568-81, commercial grade Wipe Coat Galvaneal.
2. Exterior Doors: Coating designation ZF75, A25.
3. Reinforcement: CSA-G40.20/G40.21, ZF75, A25.
4. Door core material: Polyisocyanurate or Polyurethane Core: Rigid modified polyisocyanurate, closed cell board, 32 kg/cu m, 2.0 pcf
5. Primers: Rust inhibitive touch-up only
6. Door Silencers: Single stud rubber/neoprene
7. Exterior Top Caps: Rigid polyvinylchloride (PVC) extrusion

DOOR CONSTRUCTION

1. Longitudinal Edges: Mechanically inter-locked, adhesive assisted, tack welded edge seams at 6"o.c
2. Mortised, blanked, reinforced, drilled and tapped for templated hardware, in accordance with templates provided by hardware supplier
3. Reinforce for surface mounted hardware or non-templated hardware
4. Top and Bottom Channels: Inverted, recessed, welded steel channels
5. Exterior Door: Flush PVC or Steel top caps
6. Provide factory-applied touch-up primer at areas where zinc coating has been removed during fabrication

FRAME CONSTRUCTION

1. Exterior Frames: 1.6 mm, 16-gauge thick base metal thickness.
2. Welded frame types to be used for doors D01 and D02. Knock-down frame type to be used for door D03.
3. Mortised, blanked, reinforced, drilled and tapped for templated hardware, in accordance with templates provided by hardware supplier.

EXAMINATION AND INSTALLATION

1. Verify existing conditions before starting work
2. Verify that opening sizes and tolerances are acceptable, check floor area within path of door swing for flatness
3. Verify doors and frames are correct size, swing, rating and opening number
4. Install doors and frames to CSDMA
5. Coordinate installation of doors and frames with installation of hardware specified
6. Set frames plumb, square, level and at correct elevation
7. Secure anchorages and connections to adjacent construction
8. Remove wood spreaders after frames have been built-in
9. Make allowance for deflection to ensure structural loads are not transmitted to frame product
10. Install doors, and hardware in accordance with hardware templates and manufacturer's instructions
11. Adjust operable parts for correct clearances and function
12. Maximum Diagonal Distortion: 3 mm (1/8 inch) measured with straight edges, crossed corner to corner.

SECTION 08 71 00 - DOOR HARDWARE

SUBMITTALS & COORDINATION

1. Indicate locations and mounting heights of each type of hardware, schedules, catalogue cuts, electrical characteristics and connection requirements, finish options
2. Coordinate the work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door hardware and recessed items
3. Coordinate Owner's keying requirements during the course of the Work
4. Record Documentation:
   A. Record actual locations of installed cylinders and their master key code.
   B. Keys: Deliver with identifying tags to Owner by security shipment direct from hardware supplier
   C. Tools: Provide wrenches and tools required for maintenance of equipment

QUALITY ASSURANCE & REGULATORY REQUIREMENTS

1. Manufactureed to ISO 9000 certification requirements.
2. Conform to the following requirements:
   A. BHMA A156 Series.
   B. DHI A115 Series.
   C. DHI WDHS-3.
   D. CSDMA.
   E. NFPA 80.
   F. NFPA 252.
   G. UL 10B.
   H. UL 305.
   I. CAN/ULC-S132.
   J. CAN/ULC-S104
3. Conform to applicable code for Products requiring electrical connection. Listed and classified by testing firm acceptable to the authority having jurisdiction CSA as suitable for the purpose specified and indicated

WARRANTY

1. Provide five (5) year manufacturer warranty for door closers

ACCEPTABLE MANUFACTURERS

1. Knells
2. Muller Hardware & Supply
3. Tykel Commercial Door and Supply Inc.

PRODUCTS, KEYING AND FINISHES

1. Hinges: Stanley
2. Cylinder Locks: Schlage
3. Gasketing: Kncrowder
4. Lever: Schlage
5. Door Sweep: Kncrowder
6. Threshold: Kncrowder
7. Automatic Door Operator: CAMDEN Door Controls, CM-7536
   A. Automatic Door Equipment: Electrically operated with push plate control device
   B. Door: Single swing, hinged operation
   C. Accommodate medium pedestrian traffic, and weight of doors
   D. System Design: Operate, hold open, and close doors under design wind and suction loads calculated in accordance with applicable code
   E. Operating Temperature Range: -7 to 60 degrees C ambient
   F. Operators: Fully adjustable for opening and closing speeds
   G. Coordination: Coordinate with other work having a direct bearing on work of this section
   H. Perform work in accordance with CAN/CSA-C22.2 No. 247, BHMA A156.10, BHMA A156.19, UL 325. Maintain one (1) copy of document on site
   I. Touch/Push Bar Control Device
   a. 36" Long column push plate switch, mounted vertical on wall
   b. Type to be wireless unless otherwise reviewed and accepted by Architect
   c. Exposed Operator and Components: Finish to be selected from manufacturer's standard range
8. Door Lock Keying: Verify with Client
9. Finishes: To be confirmed by architect during shop drawing review. Match existing adjacent hardware to remain.

VERIFICATION, INSTALLATION, ADJUSTMENT

1. Verify that doors and frames are ready to receive work and dimensions are as indicated on Shop Drawings
2. Verify that electric power is available to power operated devices and is of the correct characteristics
3. Install hardware to manufacturer's written instructions. Use templates provided by hardware item manufacturer.
4. Mounting heights for hardware from finished floor to centre line of hardware item:
   A. Locksets: 1024 mm, 40 5/16 inch A.F.F.
5. Mounting heights for hardware from finished floor to centre line of hardware item, refer to:
   A. CSDMA, DHI WDHS-3, DHI A115 Series
6. Adjust hardware for smooth operation
7. Provide for thermal expansion and contraction of door and frame units and live and dead loads that may be transmitted to operating equipment
8. Provide for dimensional distortion of components during operation
9. Install pneumatic lines and door power units in a manner to prevent condensation or freezing
10. Demonstrate operation, operating components, adjustment features, and lubrication requirements

SECTION 09 21 16 - GYPSUM BOARD ASSEMBLIES

SUBMITTALS

1. Product Data: Provide data on gypsum board

QUALITY ASSURANCE & GENERAL CONDITIONS

1. Products of This Section: Manufactured to ISO 9000, ISO 14000 certification requirements
2. Perform Work in accordance with ASTM C840, GA-214, GA-216, GA-600. Maintain one (1) copy of document on site
3. Installer Qualifications: Company specializing in performing the work of this section with minimum three (3) years documented experience
4. Handling Gypsum Board: Comply with GA-801

MATERIALS, MANUFACTURERS AND PRODUCTS

1. All locations to receive moisture, mold resistant gypsum board unless otherwise specified
2. Manufacturer, Product: CertainTeed, Extreme Impact Resistant Drywall with M2Tech
3. Manufacturer, Product: USG, Sheetrock Brand Glass-Mat Panels Mold Touch AR Firecode X
4. Furring, Framing, and Accessories: ASTM C645, GA-216, GA-600
5. Fasteners: ASTM C1002, ASTM C514, GA-216
6. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place
7. Adhesive: ASTM C557, GA-216
8. Moisture Resistant Gypsum Board: ASTM C1396/C1396M, paper-faced, maximum available length in place; tapered edges, ends square cut, regular core, 5/8" thickness
9. Accessories:
   A. Corner Beads: GA-216, ASTM C1047, metal corner bead
   B. Edge Trim: ASTM C1047, GA-216; Type U casing bead, L bead, LK bead, LC bead
   C. Joint Materials: GA-216, ASTM C475/C475M
   D. Reinforcing tape, adhesive, and water
   E. Joint compound: Asbestos-free, dust-controlled
   F. Gypsum Board Fasteners: ASTM C1002, Type as required for substrate

EXAMINATION & INSTALLATION

1. Install gypsum board to ASTM C840, GA-216, GA-600, manufacturer's written instructions
2. Erect single layer gypsum board in most economical direction, with ends and edges occurring over firm bearing
3. Use screws when fastening gypsum board to wood furring or framing. Staples may only be used when securing the first layer of double layer applications
4. Treat cut edges and holes in moisture resistant gypsum board with sealant
5. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials
6. Joint Treatment
   A. Finish to ASTM C840, Level 4
   B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes
   C. Feather coats on to adjoining surfaces so that camber is maximum 1/32 inch
   D. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile. All cut edges and holes in moisture resistant gypsum board must be filled with sealant
7. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in any direction

SECTION 09 51 13 - ACOUSTIC PANEL CEILINGS

SUBMITTALS & EXTRA STOCK

1. Product Data: Provide data on metal grid system components and acoustic units.
2. Samples: Submit one 4 inch size sample of acoustic tile and one 6 inch long sample of suspension system main and cross runners.
3. Provide 10% of total of extra tile panels to Owner

QUALITY ASSURANCE & GENERAL CONDITIONS

1. Products of This Section: Manufactured to ISO 9000, ISO 14000 certification requirements
2. Maintain uniform temperature of minimum 16 degrees C, and maximum humidity of 40% prior to, during, and after acoustic panel installation

MATERIALS, MANUFACTURERS AND PRODUCTS

1. Suspension System
   A. Manufacturer: CertainTeed
   B. Product 15/16 EX Slab Classic System
   C. Other acceptable manufacturers offering functionally and aesthetically equivalent products
   D. Non-fire Rated Grid: ASTM C635/C635M intermediate duty; exposed T
   E. Grid Materials: Commercial quality cold rolled steel with galvanized coating or cold rolled aluminum
   F. Exposed Grid Surface Width: 15/16 inch
   G. Finish: White
   H. Suspension Wires: Galvanized soft-annealed, mild steel, to suit application
   I. Support Channels and Hangers: Galvanized steel; size and type to suit application
   J. Accessories: Stabilizer bars, clips, splices, perimeter moldings, hold down clips, as required for suspended grid system
2. Acoustic Tiles
   A. Manufacturer: CertainTeed
   B. Product: Symphony M
   C. Other acceptable manufacturers offering functionally and aesthetically equivalent products
   D. Size: 24" x 24"
   E. Thickness: 3/4"
   F. NRC: .75
   G. Fire Hazard Classiciation: Class A
   H. Square Edge
   I. Surface finish: Visually Smooth
3. Provide molding at junctions with other interruptions
4. Touch-up Paint: Type and colour to match acoustic and grid units

EXAMINATION & INSTALLATION

1. Install suspension system to manufacturer's written instructions, and as supplemented in this section
2. Locate system on room axis according to reflected plan
3. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members
4. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers related carrying channels to span the extra distance
5. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability. Support fixture loads by supplementary hangers located within 6 inches of each corner, or support components independently
6. Perimeter Molding:
   A. Install edge molding at intersection of ceiling and vertical surfaces with continuous gasket into bed of acoustic sealant
   B. Use longest practical lengths
   C. Mitre corners
   D. Provide molding at junctions with other interruptions

SECTION 09 65 10 - RESILIANT FLOORING

SUBMITTALS

1. Product Data: Submit data on specified products describing physical characteristics, sizes, and colours.
2. Provide physical samples of each item specified below for review.

GENERAL REQUIREMENTS

1. Store materials for three (3) days prior to installation in area of installation to achieve temperature stability
2. Maintain ambient temperature required by adhesive manufacturer three (3) days prior to, during, and twenty-four (24) hours after installation of materials

MATERIALS, MANUFACTURERS AND PRODUCTS

1. Vinyl Composition Tile
   A. Product: Tarkett VCT II
   B. Manufacturer: Tarkett
   C. Size: 12"x12"
   D. Color: Refer to finishes plan
2. Rubber Wall Base
   A. Product: Tarkett Johnsonite Baseworks
   B. Manufacturer: Tarkett / Johnsonite
   C. Height: 6"
   D. Coved base
   E. Color: To be selected by architect from manuf. full range
   F. Provide and install premoulded end stops, external corners, of same material, size, and colour as base
3. Sealer and Wax: Types recommended by flooring manufacturer.
4. primers and Adhesives: Waterproof, types recommended by flooring manufacturer

FLOORING INSTALLATION REQUIREMENTS

1. Maintain ambient temperature required by adhesive manufacturer three (3) days prior to, during, and twenty-four (24) hours after installation of materials
2. Maintain ambient temperature required by adhesive manufacturer three (3) days prior to, during, and twenty-four (24) hours after installation of materials
3. Maintain ambient temperature required by adhesive manufacturer three (3) days prior to, during, and twenty-four (24) hours after installation of materials
4. Set flooring in place, press with heavy roller to attain full adhesion
5. Lay flooring with joints and seams parallel to building lines to produce symmetrical tile pattern
6. Terminate flooring at centreline of door openings where adjacent floor finish is dissimilar
7. Install metal edge strips at unprotected or exposed edges, and where flooring terminates. Secure metal strips after installation of flooring with stainless steel screws
8. Clean, seal, and wax floor and base surfaces in accordance with manufacturer's written instructions

WALL BASE INSTALLATION REQUIREMENTS

1. Mitre internal corners. At external corners, use premoulded units. At exposed ends, use premoulded units
2. Install base on solid backing. Bond tight to wall and floor surfaces
3. Scribe and fit to door frames and other interruptions

SECTION 10 22 19 - DEMOUNTABLE PARTITIONS

SUBMITTALS & QUALITY ASSURANCE

1. Submit manufacturers shop drawings, including panel layout in plan and elevation, attachment details, opening locations and sizes, relationship to adjacent construction, components, and accessories.
2. Submit system extrusion samples no less than 4" of specified finish.
3. Manufacturer information:
4. 3 x 3-inch finish sample showing specified finish and color
5. 4 inch of each framing and trim profile
6. Each hardware component
7. Installer Qualifications: Certified by Demountable partition system manufacturer.

DELIVERY, STORAGE, AND HANDLING

1. Deliver materials to installation in manufacturers original packaging. Handle products in accordance with manufacturer's instructions. Store in dry, secure location protected against excessive moisture. Protect finished surfaces.

WARRANTY

1. Provide manufacturers standard warranty.
2. Aluminum and accessories carry a 5-year warranty (60 Month) limited warranty.
3. Installation: The manufacturers accredited installer Guarantees the installation and will repair or replace at no cost to the client, any damaged materials resulting from incorrectly installed manufacturers materials for 1 year from the last day of the original installation.

MANUFACTURERS

1. Acceptable Manufacture/Product include: My wall - H5T , Dirtt - Classic Glass Wall, KI - Lightline
2. Other acceptable manufacturers offering functionally and aesthetically equivalent products to be approved by Consultant.
3. All alternate systems being submitted to Consultant for review and approval must indicate structural loading support / path of weight to ground.
4. Any additional structural support required for alternate system shall be considered and covered by Contractor.

DEMOUNTABLE PARTITION SYSTEM

1. Provide pre-engineered demountable glazed partition system for interior use, at heights indicated in drawings, designed to permit relocation, and reuse of parts, with pre-drilled door housings, and door modules.
2. System is intended to be installed on top of finished floors using a base extrusion fastened directly to the existing floor.
3. Provide System in finishes specified.
4. Frame Materials
5. Aluminum Extrusion: ASTM B221, alloy and temper best suited to application.
6. Hardware and Doors: Refer to door schedule
7. Glass: 12mm Clear Laminated
8. Glazing Method – Butt joint with manufacturer's standard sealant system.

PREPARATION / PROJECT CONDITIONS

1. Do not begin installation until building is weather tight and environmental conditions in building are approximately equivalent to those that will exist after installation.
2. Make certain that area where system is to be installed is clean and free of debris that could interfere with installation outcomes.
3. Protect all adjacent surfaces, fixtures, equipment from damage caused by work of this section.
4. Ensure proper continuous blocking and opening finish is complete and ready for frame installation.

INSTALLATION & ADJUSTMENT

1. Install partition system in accordance with manufacturer's instructions and approved drawings.
2. Set partitions plumb, level, and straight.
3. Fit components to adjacent construction.
4. Assemble components with tight joints.
5. Conceal fasteners from view.
6. Install doors plumb and level.
7. Touch up of any minor scratches to wood components to match factory finishes provided.
8. Adjust doors with factory provided adjustments to operate smoothly.

CLEANING AND PROTECTION

1. Remove all packaging, and any protective considerations provided.
2. Protect exposed surfaces from subsequent construction.

SECTION 09 91 10 - PAINT

SUBMITTALS

1. Product Data: Submit information on all types of paint and primer being used in the project.
2. Provide paint draw down samples (minimum 4 inches x 4 inches in size) of each color with correct sheen being used.

EXTRA STOCK

1. Provide properly packaged maintenance material as follows
2. One (1) gal of each coating type and colour to Owner
3. Label each container with colour, type, texture and room locations in addition to manufacturer's label

QUALITY ASSURANCE & REGULATORY REQUIREMENTS

1. Conform to MPI Painting Manual requirements for materials, preparation and workmanship.
2. Conform to applicable code for flame and smoke rating requirements for finishes, storage, mixing, application and disposal of paint and related waste materials
3. Conform to manufacturer's directions for the delivery, storage, protection, and installation of their product.
4. Conform to applicable code for flame and smoke rating requirements for finishes, storage, mixing, application and disposal of paint and related waste materials.

GENERAL PRODUCT REQUIREMENTS

1. Conform to applicable code for flame and smoke rating requirements for finishes, storage, mixing, application and disposal of paint and related waste materials
2. Where possible, all materials to be lead and mercury free with low VOC content
3. Where possible, all materials to be lead and mercury free with low VOC content
4. Paint to be of top commercial product line offered by manufacturer. Provide Dulux Diamond or equal quality by other acceptable manufacturer's listed below
5. Walls inside of washrooms to recieve latex paint

ACCEPTABLE MANUFACTURERS / PRODUCTS

1. Dulux - Diamond Grade
2. Benjamin Moore
3. Sherwin Williams

EXAMINATION, PREPARATION, APPLICATION & FINISHING

1. Verify that substrate conditions, surfaces are ready to receive work as instructed by the product manufacturer
2. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application
3. Prepare surfaces in accordance with MPI requirements
4. Remove and store or mask miscellaneous hardware and surface fittings such as electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to painting. Clean and replace upon completion of painting Work in each area. Remove doors before painting to paint bottom and top edges and re-hung
5. Correct defects and clean surfaces which affect work of this section. Start of finish painting of defective surfaces indicates acceptance of substrate and making good defects will be at no cost to Owner
6. Apply paint or stain in accordance with MPI Painting Manual Premium Grade finish requirements
7. Apply products to adequately prepared surfaces, within moisture limits and acceptable environmental conditions
8. Apply each coat to uniform finish
9. Sand and dust between each coat to provide an anchor for next coat and to remove defects visible from a distance up to 39 inch
10. Vacuum clean surfaces free of loose particles. Use tack cloth just prior to applying next coat
11. Allow applied coat to dry before next coat is applied
12. Continue paint finish behind wall-mounted items such as chalk and tack boards
13. Paint inside of ductwork and convector and baseboard heating cabinets where visible behind louvers, grilles and diffusers for a minimum of 18 inch or beyond sight line, whichever is greater, with primer and one (1) coat of matt black (non-reflecting) paint
14. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings that were removed prior to finishing

SECTION 01 79 00 - WASHROOM ACCESSORIES

GENERAL

1. General Contractor is responsible for providing and installing in-wall blocking as required for secure attachement of all washroom accessories.
2. Items specified below are the basis of design. Follow guidelines laid out in this project's specifications for alternatives / substitution procedures.

ACCESSORIES SCHEDULE

1. Paper Towel Dispenser & Waste Receptacle
   A. Manufacturer: Bobrick
   B. Model: B2621
   C. Finish: Stainless Steel
2. Toilet Paper Dispenser
   A. Salvage and reuse exisitng
3. Soap Dispenser
   A. Salvage and Reinstall Existing
4. Grab Bar
   A. Manufacturer: Frost
   B. Model: 1001-NP24
   C. Finish: Stainless Steel, Concealed Mounting
   D. Dimensions: 1 1/2" diamter, See Drawings
5. Fold Down Grab Bar
   A. Manufacturer: Bradley Corp
   B. Model: 8370-107-2 Swing Up Grab Bar
   C. Finish: Stainless Steel with safety grip finish
   D. Dimensions: 1 1/4" diameter, 30" length minimum,
6. Adult Change Table
   A. Manufacturer: Pressalit
   B. Model: SCT 3000 Electrically Height Adjustable Change Table
   C. Finish: Graphite Gray, stainless steel
   D. Provide mounting kit and all acessories required for complete installation
7. Mirror
   A. Manufacturer: Frost
   B. Model: 941-TG
   C. Finish: Tempered Glass, Stainless Steel frame
   D. Dimensions: 24" x 36"
8. Collapsable Coat Hook
   A. Manufacturer: Frost
   B. Model: 1150-SS
   C. Finish: Stainless Steel
9. Shelf
   A. Manufacturer: Frost
   B. Model: 950-4x24
   C. Finish: Stainless Steel
   D. Dimensions: 4" Depth, 24" Length
10. Nurse Call Button
    A. Pull Chord Activation Type
    B. Provide and install all accessories to achieve system audible and visual signal devices inside and outside of the washroom
    C. Provide and install sign that contains the following words, posted above the nurse call button
    D. IN THE EVENT OF AN EMERGENCY PULL EMERGENCY CHORD AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE

KEY PLAN

	10	
	9	
	8	
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	4	
	3	
2024.10.30	2	ISSUED FOR PERMIT & TENDER
2024.05.23	1	ISSUED FOR CLIENT REVIEW
DATE		ISSUED

PROJECT NAME

W.G. JOHNSON CENTRE LUNCHROOM

CLIENT

CITY OF CAMBRIDGE

ARCHITECT

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fabrik ARCHITECTS

SHEET TITLE

ARCHITECTURAL SPECIFICATIONS

PROJECT No.	24012	SCALE	12" = 1'-0"
		DRAWN By:	EW,SA
		CHECKED By:	EN

ONTARIO ASSOCIATION OF ARCHITECTS
ELISIA M. G. NEVES
LICENCE
8599

SHEET No.

A005

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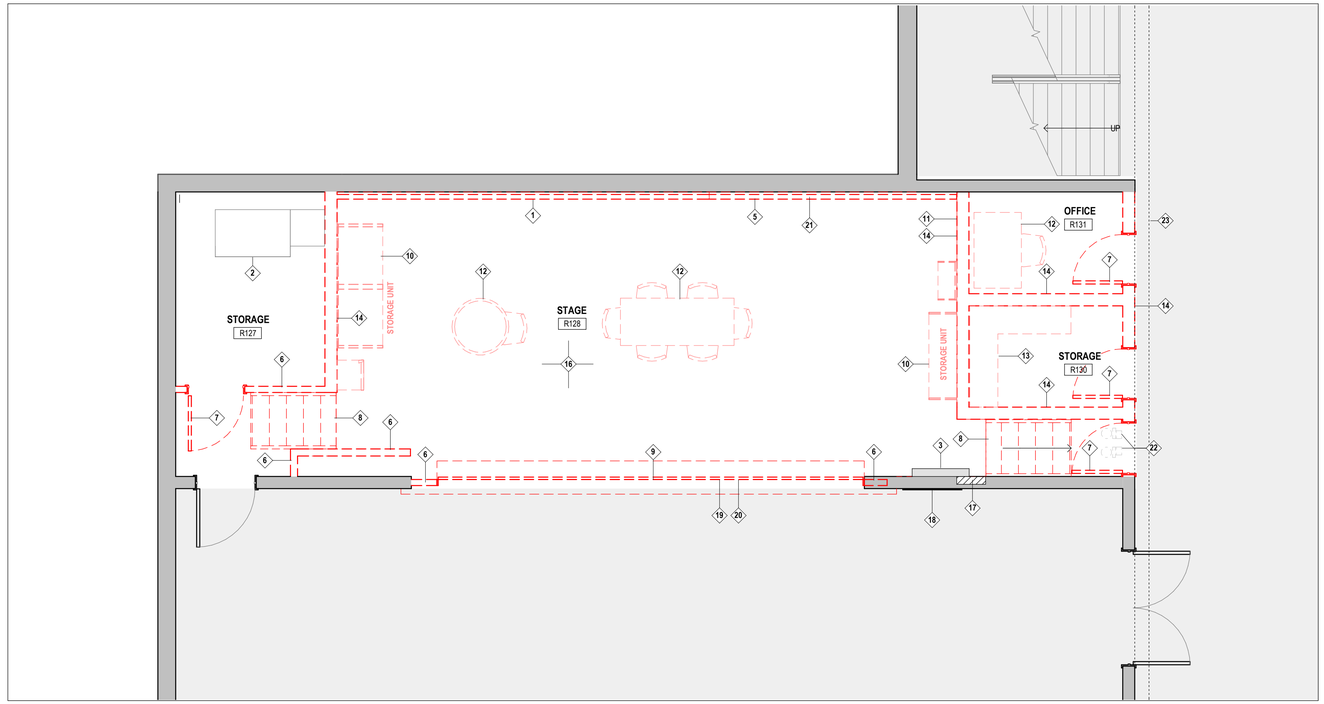
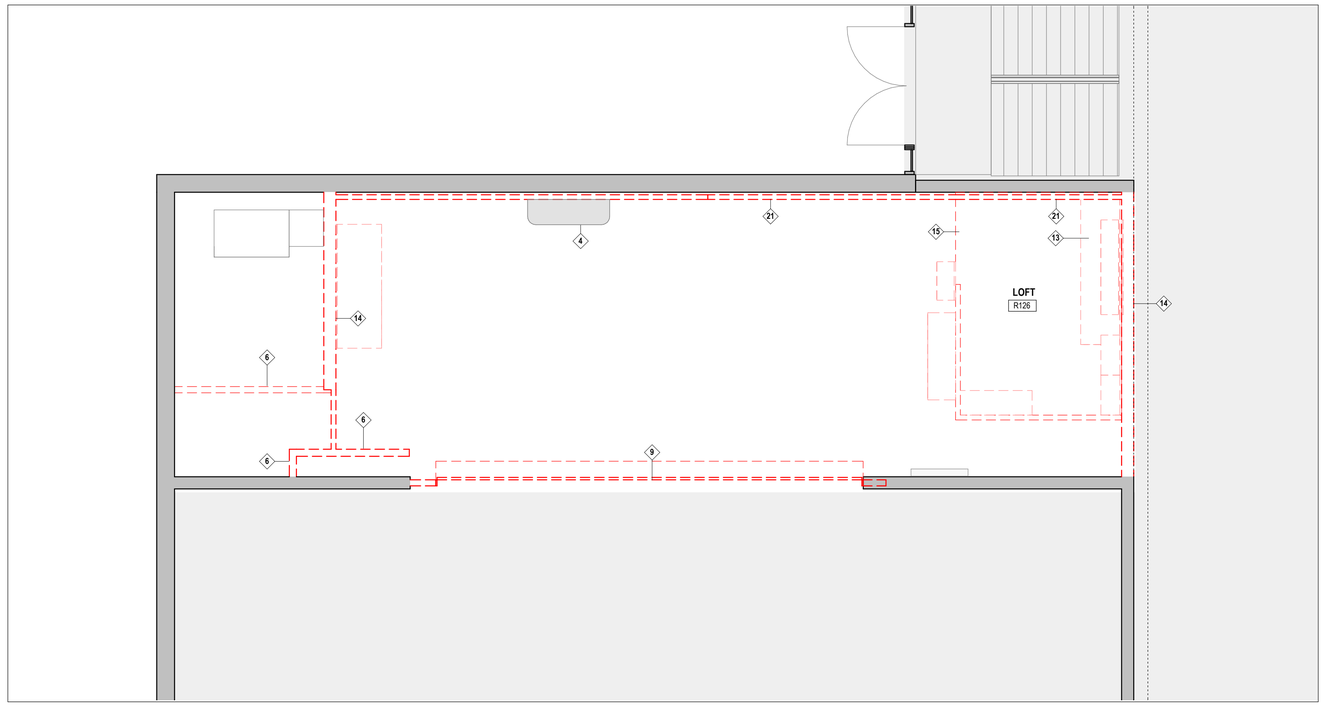


1 A100 DEMOLITION PLAN - LEVEL 1

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



2 A100 DEMOLITION PLAN - LOFT

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

GENERAL DEMOLITION NOTES

1. REVIEW AND COORDINATE EXTENTS OF DEMOLITION WITH EXTENTS OF NEW WORK. CONTRACTOR TO REPORT ALL DISCREPANCIES TO CONSTRUCTION MANAGER / GENERAL CONTRACTOR FOR CONFIRMATIN / CLARIFICATION PRIOR TO COMMENCEMENT OF ANY DEMOLITION SCOPE.
2. CARRY OUT ALL DEMOLITION, REMOVAL AND DISPOSAL IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND PROVINCIAL REGULATIONS.
3. EXECUTE DEMOLITION IN AN ORDERLY AND CAREFUL MANNER WITH DUE CONSIDERATION FOR ADJACENT STRUCTURES AND FINISHES TO REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPAIR / REPLACEMENT OF ANY DAMAGE TO ITEMS TO REMAIN AT NO COST TO THE OWNER.
4. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO GUARD AGAINST MOVEMENT OR SETTLEMENT OF REMAINING STRUCTURE, INCLUDING ALL NECESSARY BRACING OR SHORING THAT IS REQUIRED. IF ANY MOVEMENT OR SETTLING TAKES PLACE, IMMEDIATELY STOP WORK AND CONTACT ARCHITECT.
5. WHEN PERFORMING CONCRETE SLAB REMOVALS AND EXCAVATIONS FOR MECHANICAL / ELECTRICAL SERVICE CONNECTIONS, CONTRACTOR SHALL TAKE CARE NOT TO UNDERMINE EXISTING BLOCK WALLS OR CONCRETE SLABS. PROVIDE TEMPORARY SHORING OR LEAN CONCRETE FILL AS REQUIRED.
6. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS, SPECIFICATIONS, AND / OR DEMOLITION NOTES FOR DETAILS OF SCOPE RELATED TO MECHANICAL AND ELECTRICAL DEMOLITIONS.
7. LOCATE AND DISCONNECT, CAP AND PLUG ALL GAS, WATER, SERVER, HYDRO, TELEPHONE AND OTHER SERVICES AS REQUIRED. REMOVE BACK TO SOURCE ALL REDUCDANT MECHANICAL / ELECTRICAL SERVICES OR FIXTURES IF NOT BEING REUSED IN NEW WORK. COORDINATE WITH OWNER FOR SERVICES TO REMAIN LIVE DURING CONSTRUCTION. PREARRANGE WITH CONSTRUCTION MANAGER / GENERAL CONTRACTOR AND OWNER PRIOR TO ANY SERVICE SHUTDOWNS.
8. ALL ITEMS NOT IDENTIFIED IN DRAWINGS, SPECIFICATIONS OR TAGGED BY OWNER TO REMAIN ARE TO BE REMOVED AND DISPOSED OF.
9. ALL WHITE BOARDS, TACK BOARDS, SHELVES, HANGERS, HOOKS, BLINDS AND OTHER SIMILAR (FITMENTS) IN EXTENTS OF DEMOLITION SCOPE TO BE REMOVED UNLESS NOTED OTHERWISE. COORDINATE WITH OWNER PRIOR TO DISPOSAL OF THESE ITEMS.

FLOOR PLAN NOTES

1. PROVIDE SILL GASKETS BETWEEN ALL CONCRETE / WOOD LOCATIONS.
2. WALL DIMENSIONS ARE TO THE FACE OF STUDS OR THE CENTERLINE OF THE WALL.
3. REFER TO SCHEDULES FOR DOOR SIZES, PROVIDE MINIMUM CLEARANCES AT WALL CORNERS TO ALLOW FOR TRIM TO BE INSTALLED.
4. **FIRE RATED PARTITIONS**
   WHERE INTERIOR NON-RATED PARTITIONS MEET THE FIRE RATED PARTITIONS THE RATED GYPSUM IS TO BE CONTINUOUS.

SPECIFIC DEMOLITION NOTES (F)

1 EXISTING PORTION OF RADIATOR TO BE LOWERED TO NEW FINISHED FLOOR LEVEL. REFER TO MECHANICAL/ELECTRICAL.
2 EXISTING DUCT TO REMAIN.
3 EXISTING ELECTRICAL PANEL TO BE LOWERED TO NEW FINISHED FLOOR LEVEL. REFER TO ELECTRICAL..
4 AC UNIT TO BE RELOCATED. COORDINATE NEW LOCATION WITH OWNER AND ARCHITECT.
5 PORTION OF EXISTING RADIATOR TO BE RELOCATED. REFER TO MECHANICAL.
6 REMOVE AND DISPOSE OF EXISTING PARTITION FULL HEIGHT. PATCH AND MAKE GOOD TO EXISTING ADJACENT SURFACES.
7 REMOVE EXISTING DOOR, FRAME AND ASSOCIATED HARDWARE. SAVE FOR REUSE OR DONATION. COORDINATE WITH OWNER.
8 REMOVE AND DISPOSE OF EXISTING WOOD STAIRS.
9 REMOVE EXISTING STAGE ROOL UP DOOR, FRAME AND ASSOCIATED HARDWARE. RETURN TO OWNER.
10 REMOVE EXISTING STORAGE UNIT. SAVE FOR REUSE. COORDINATE WITH OWNER.
11 REMOVE EXISTING LADDER IN ITS ENTIRETY. RETURN TO OWNER.
12 REMOVE EXISTING FURNITURE. SAVE FOR REUSE. COORDINATE WITH OWNER.
13 REMOVE EXISTING MILLWORK/SHELVING COMPLETE. SAVE FOR REUSE. COORDINATE WITH OWNER.
14 REMOVE EXISTING PORTION OF INTERIOR MASONRY WALL TO U/S OF STEEL DECK. PROVIDE SHORING AS/IF REQUIRED DURING CONSTRUCTION. ASSUME WALL IS LOAD BEARING. PATCH AND MAKE GOOD TO EXISTING ADJACENT SURFACES. PREPARE OPENING FOR NEW DRYWALL AND GLASS WALL SYSTEM. COORDINATE WITH STRUCTURAL NOTES ON S100.
15 REMOVE EXISTING LOFT CEILING COMPLETE. PATCH AND MAKE GOOD TO EXISTING ADJACENT SURFACES.
16 REMOVE EXISTING STAGE COMPLETE. PREPARE FLOOR FOR NEW FINISH, REFER TO FINISHES SCHEDULE ON A300
17 EXISTING PANEL TO REMAIN.
18 REMOVE EXISTING WALL GRILLE TO BE RELOCATED. INFILL OPENING IN BLOCK WALL.
19 REMOVE DRYWALL PARTITION ABOVE COMPLETE TO ALLOW FOR NEW STRUCTURAL BLOCK INFILL.
20 VERIFY EXISTING W10 BEAM ABOVE EXISTING FOLDING DOOR TRACK. COORDINATE REMOVAL WITH ARCHITECT AND STRUCTURAL ENGINEER. PROVIDE TEMPORARY SHORING & BRACING AS REQUIRED UNTIL NEW MASONRY FILL WALL IS COMPLETE.
21 EXISTING GYPSUM BOARD FINISH ON FURRING. CONFIRM FINISH AND DEPTH IN FIELD. REMOVE AS REQUIRED TO COMPLETE NEW WORK. PATCH AND MAKE GOOD TO EXISTING ADJACENT SURFACES..
22 EXISTING PIPING TO REMAIN. PROTECT DURING COURSE OF WORK.
23 EXISTING VALANCE ABOVE TO REMAIN. STORE AND PROTECT DURING COURSE OF WORK. COORDINATE STORAGE WITH OWNER.

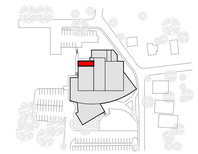
EXISTING ROOM LEGEND

Number	Name
R126	LOFT
R127	STORAGE
R128	STAGE
R130	STORAGE
R131	OFFICE

TRUE NORTH

PROJECT NORTH

KEY PLAN



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2024.10.30	2	ISSUED FOR PERMIT & TENDER
2024.05.23	1	ISSUED FOR CLIENT REVIEW
DATE		ISSUED

PROJECT NAME

W.G. JOHNSON CENTRE LUNCHROOM

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SHEET TITLE

DEMOLITION PLANS

PROJECT No.	24012	SCALE	As indicated
		DRAWN By:	EW,SA
		CHECKED By:	EN

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A100

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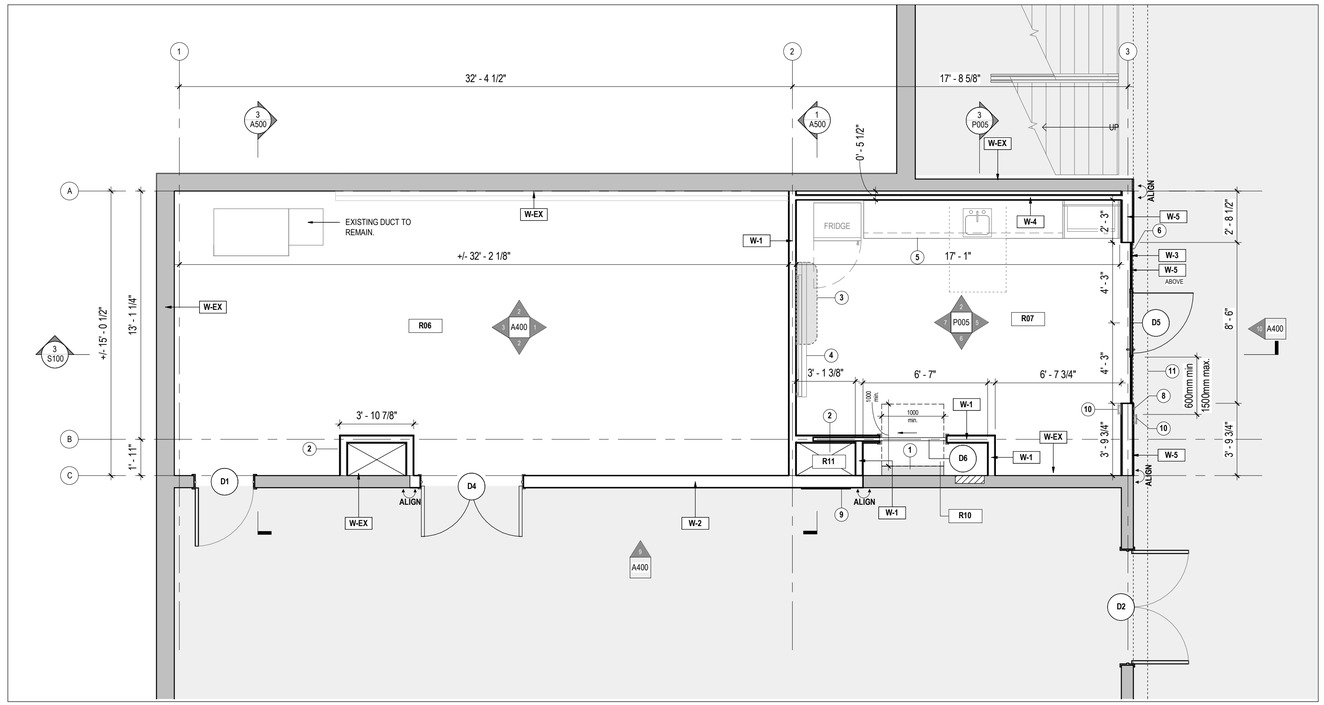
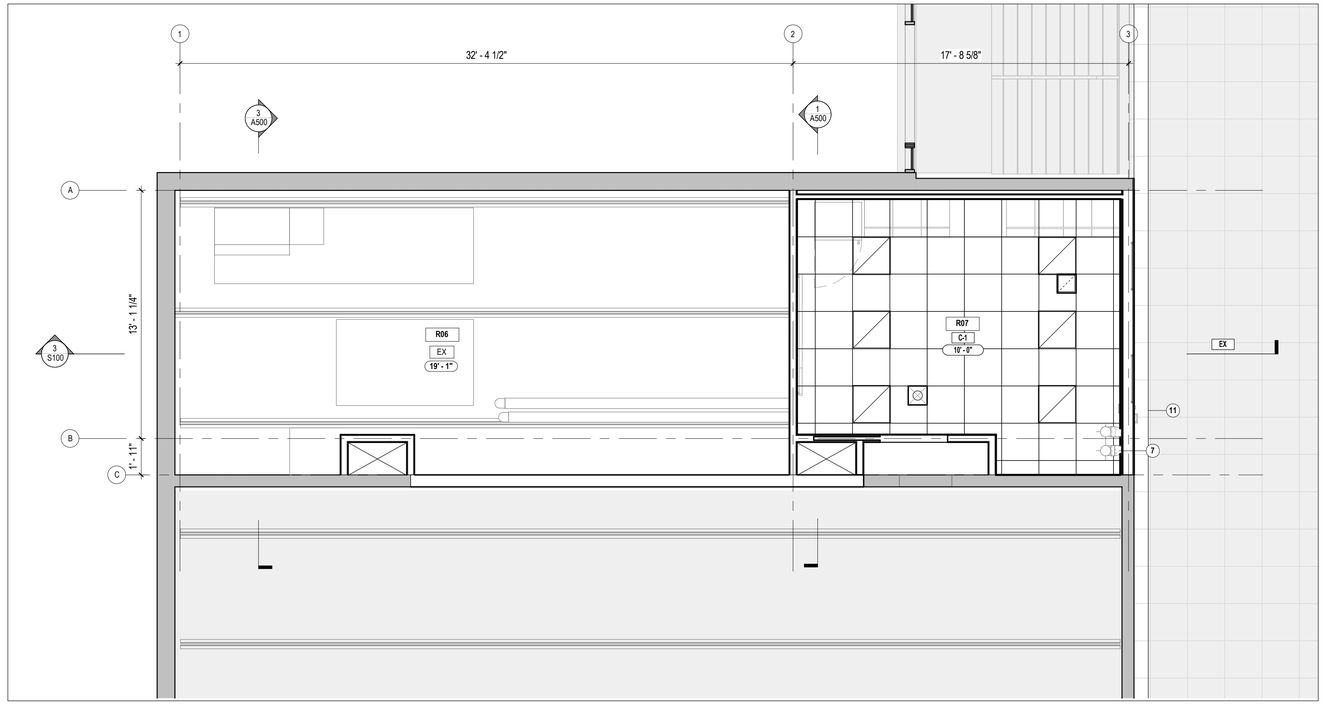


1 A200 CONSTRUCTION PLAN - LEVEL 1

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



2 A200 REFLECTED CEILING PLAN

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

GENERAL CONSTRUCTION NOTES

1. PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST VERSION OF THE ONTARIO BUILDING CODE 2012. HEREIN REFERRED TO AS O.B.C. AS WELL AS LOCAL BY-LAWS AND HEALTH & SAFETY REGULATIONS.
2. DO NOT SCALE DRAWINGS, SITE VERIFY ALL DIMENSIONS, ANY DISCREPANCIES TO BE CLARIFIED WITH THE ARCHITECT.
3. ALL INTERIOR DIMENSIONS ARE TO FINISHED SURFACES, UNLESS OTHERWISE NOTED.
4. LAYOUT ALL PARTITIONS AND DOORS (CHALK LINE) PRIOR TO INSTALL. NOTIFY ARCHITECT AT ONCE SHOULD ANY PROBLEMS ARISE FROM THE SITE CONDITIONS OR OTHER CAUSES. OBTAIN ARCHITECT'S APPROVAL FOR ANY DEVIATIONS PRIOR TO CONTINUING WORK.
5. REFER TO SCHEDULES FOR DOOR SIZES. PROVIDE MINIMUM CLEARANCES AT WALL CORNERS TO ALLOW FOR TRIM TO BE INSTALLED.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING CONTINUITY OF FIRE SEPARATION OF ALL WALLS AND FLOOR AND CEILING ASSEMBLY ABOVE AND BELOW. ALL SERVICE PENETRATIONS THROUGH FIRE-RATED WALLS SHALL BE PROPERLY FIRE STOPPED WITH ULC-APPROVED SYSTEMS APPROPRIATE FOR EACH ASSEMBLY BEING PENETRATED. PROVIDE A COMPLETE SUBMITTAL PACKAGE FOR ALL FIRE STOP CONDITIONS FOR APPROVAL PRIOR TO INSTALLATION. PHOTO DOCUMENT ALL FIRESTOPPING FOR RECORD PURPOSES. CONTACT INSPECTOR AND ARCHITECT FOR REVIEWS PRIOR TO ENCLOSING AND/OR FINISHING.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING CONTINUITY OF ALL VAPOR AND AIR BARRIERS AT EXTERIOR PENETRATIONS, FENESTRATIONS, OPENINGS, AND ASSEMBLIES. COMPLETELY SEAL WITH COMPATIBLE TRANSITION MEMBRANES AND SEALANTS. PHOTO DOCUMENT ALL MEMBRANES, JOINTING, AND SEALANTS PRIOR TO INSTALLATION OF WINDOWS, DOORS AND FINISHES. CONTACT ARCHITECT FOR REVIEW PRIOR TO ENCLOSING AND/OR FINISHING.
8. ALL WOOD BLOCKING WITHIN EXTERIOR WALLS TO BE PRESSURE TREATED UNLESS OTHHERWISE REVIEWED AND APPROVED BY ARCHITECT.
9. PROVIDE SILL GASKETS BETWEEN ALL CONCRETE / WOOD LOCATIONS.
10. ALL EXTERIOR HORIZONTAL SURFACES INCLUDING BUT NOT LIMITED TO FLASHINGS, SIDEWALKS, FINISH GRADE ETC. SHALL BE SLOPED AWAY FROM BUILDING.
11. REFER TO FINISHES PLAN AND IDENTIFY ALL PREPARATION WORK REQUIRED. PATCH ANY HOLES, FILL CRACKS, REMOVE ANY BUMPS OR PROTRUSIONS AND SAND SMOOTH. SKIM COAT AS REQUIRED. PATCH AND MAKE GOOD ALL EXISTING WALLS / FLOORS / CEILINGS PRIOR TO APPLYING FINISH.
12. GENERAL CONTRACTOR TO PROVIDE HVAC AND ELECTRICAL SUB-TRADES, AS REQUIRED.
13. CONTRACTOR SHALL BE RESPONSIBLE TO SUPPLY AND INSTALL ACCESS DOORS / PANELS FOR PLUMBING, ELECTRICAL, HVAC, ETC. AS REQUIRED TO ACCESS EQUIPMENT OR CONTROLS. ACCESS DOORS / PANELS TYPE AND FINISH TO BE SUBMITTED TO ARCHITECT FOR REVIEW PRIOR TO ORDER AND INSTALL. LOCATION(S) TO BE APPROVED BY ARCHITECT.
14. ALL ELECTRICAL MECHANICAL & EMERGENCY FIXTURE WORK TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES & REGULATIONS.
15. WHERE POWER AND COMMUNICATIONS OUTLETS HAVE BEEN REMOVED PATCH AND REPAIR WALL TO MATCH EXISTING. BLANK COVER PLATES WILL NOT BE ACCEPTED.
16. CONTRACTOR TO BE RESPONSIBLE FOR ALL CHASES AND OPENINGS AS MAY BE REQUIRED BY MECHANICAL, PLUMBING, ELECTRICAL OR CABLING TRADES. REFER TO DRAWINGS AND REVIEW THE REQUIREMENTS WITH THESE TRADES. MAKE GOOD ALL DAMAGED SURFACES RESULTING FROM WORK AND MAKE GOOD SUCH DAMAGES IN PROJECT SPACE WHERE MECHANICAL, PLUMBING, POWER, AND DATA PASS THROUGH.

GENERAL REFLECTED CEILING PLAN NOTES

1. REPORT ANY/ALL DISCREPANCIES OR CONFLICTS TO THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
2. GENERAL CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS, LIGHTING FIXTURE HEIGHTS, CEILING HEIGHTS AND LIGHTING FIXTURE MOUNTING TYPE WITH OWNER/ARCHITECT PRIOR TO ORDERING AND INSTALLING FIXTURES.
3. PROVIDE NECESSARY BLOCKING AND REINFORCING WITHIN CEILING WHERE LOADING AND/OR BRACING OF PARTITIONS BELOW IS ANTICIPATED. ALL WOOD PANELS AND BLOCKING TO BE FIRE RETARDANT TREATED MATERIALS AS PER CODE REQUIREMENTS. IF ADDITIONAL BLOCKING IS REQUIRED WITHIN EXISTING GYPSUM BOARD CEILING, CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING NEW BLOCKING AND PATCHING TO MAKE GOOD GYPSUM BOARD FINISH.
4. ALL NEW LIGHT FIXTURES, INCLUDING SURFACE MOUNTED FIXTURES EXCEEDING 20LBS SHALL BE INDEPENDENTLY CHAINED & SECURED INTO STRUCTURE ABOVE FOR SEISMIC CONSIDERATIONS.
5. PROVIDE ADDITIONAL SUPPORTS, HANGERS, ETC., AS REQUIRED TO SUPPORT FIXTURES MOUNTED UNDER DUCTWORK. THE FIXTURE SUPPORT SHALL NOT BE ATTACHED TO EITHER THE DUCTWORK OR THE DUCTWORK SUPPORTS.
6. ALL FIXTURES INSTALLED MUST BE PER JOB SPECIFICATIONS. ANY SUBSTITUTIONS WHICH MAY BE REQUIRED DUE TO EXTENDED DELIVER DATES ETC., MUST BE SUBMITTED TO ARCHITECT FOR WRITTEN APPROVAL PRIOR TO ORDER OR INSTALLING THE SUBSTITUTIVE FIXTURES.
7. ALL NEW LIGHT FIXTURES TO BE SUPPLIED WITH ADDITIONAL LAMPS, BALLAST AS REQUIRED, HOUSINGS, TRIMS, LENSES, AND ALL FITTINGS REQUIRED TO MAKE A COMPLETE JOB. ALL FIXTURES AND ASSOCIATED ACCESSORIES TO BE CONFIRMED BY ARCHITECT BY SHOP DRAWING SUBMITTAL REVIEW PRIOR TO ORDER AND INSTALLATION.
8. ALL DOWNLIGHTS TO BE CENTERED WITHIN CEILING TILE IN BOTH DIRECTIONS UNLESS NOTED OTHERWISE.
9. CLEAN EXISTING OPEN CEILING ELEMENTS OF DUST & DEBRIS & PREPARE ALL SURFACES FOR NEW PAINT FINISH. NOTIFY ARCHITECT OF ANY EXISTING RUSTING, OIL RESIDUE, FLAKING, ETC.
10. CLEAN ALL EXISTING DIFFUSERS AND AIR SUPPLY GRILLES OF DUST AND DEBRIS.
11. REFER TO MECHANICAL / ELECTRICAL DRAWINGS FOR COORDINATION OF FIRE PROTECTION / ALARM COMPONENTS, LIGHT FIXTURES, EXHAUST FANS, MECHANICAL DUCTING ETC.
12. FRAMER & DRYWALL CONTRACTOR TO COORDINATE SIZES AND LOCATIONS OF ALL BULKHEADS. BULKHEADS ARE REQUIRED AT ALL SERVICES (DUCTWORK, PIPING, CONDUITS, WIRES ETC.) AND AT KITCHEN UPPER CABINETS. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR SERVICE LOCATIONS AND SIZES. COORDINATE CONSTRUCTION OF ALL BULKHEADS WITH THE NECESSARY MECHANICAL, ELECTRICAL AND MILLWORK CONTRACTORS. AT SERVICE PENETRATIONS THAT CROSS EXIT SPACES, CONSTRUCT FIRE-RATED BULKHEADS WITH THE APPROPRIATE 1hr FIRE RESISTANCE CONSTRUCTION.
13. ALL FLAME SPREAD RATINGS, COMPLY WITH 9.10.7. OF THE OBC.

ROOM LEGEND

Number	Name
R06	STORAGE
R07	STAFF LUNCHROOM
R129	EXISTING CORRIDOR
R125	EXISTING GYMNASIUM
R10	ELECTRICAL PANEL CLOSET
R11	MECHANICAL CHASE

WALL ASSEMBLIES

W-EX EXISTING WALL TO REMAIN - SITE VERIFY ASSEMBLY
-SEAL TO U/S STRUCTURE ABOVE TO IMPROVE ACOUSTIC SEPARATIONS
- PATCH & REPAIR ALL ENDS, JUNCTIONS, AREAS AFFECTED DURING DEMO AND NEW WORK , MAKE GOOD.

W-1 5/8" GYPSUM WALL BOARD
3 5/8" METAL STUDS 16" O.C.
5/8" GYPSUM WALL BOARD

W-2 NEW CEMENT MASONRY BLOCK WALL
SIZE,TEXTURE AND PROFILE TO MATCH EXISTING.
TOOTH BLOCKS FOR SEAMLESS FINAL FINISH.
REVIEW PRODUCT SELECTIONS WITH ARCHITECT FOR APPROVAL.

W-3 TEMPERED SINGLE GLAZED IN PRE-FINISHED ALUMINUM FRAME WALL SYSTEM.
TOTAL PROFILE THICKNESS 4 1/2"
-STC 36: SINGLE GLAZED 3/8" .030 LAMINATED GLASS
-REFER TO SPECIFICATIONS FOR MANUFACTURER

W-4 5/8" GYPSUM WALL BOARD
2 1/2" METAL STUDS 16" O.C.

W-5 5/8" GYPSUM WALL BOARD
6" METAL STUDS 16" O.C.
5/8" GYPSUM WALL BOARD
*FURR OUT TO MATCH EXISTING ADJACENT WALL THICKNESS.

CEILING TYPE LEGEND

EX EXISTING CEILING TO REMAIN. REWORK AS REQUIRED FOR ELECTRICAL & MECHANICAL & FIRE SUPPRESSION WORK.
VERIFY CEILING TYPE AND HEIGHT IN FIELD.

C-1 NEW ACOUSTUC CEILING TILE AND T-BAR GRID CEILING
SIZE 24" X 24"
ARMSTRONG 9/16" GRID WITH CALLA MINERAL FIBER

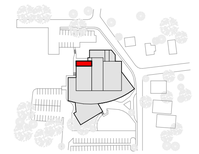
SPECIFIC CONSTRUCTION NOTES

1 PROVIDE NEW ELECTRICAL PANEL LOCATION. COORDINATE EXACT LOCATION AND HEIGHT WITH ARCHITECT.
2 PROVIDE NEW VERTICAL MECHANICAL CHASE. REUSE EXISTING GYM SUPPLY AIR GRILLE.
3 RELOCATED AC UNIT. COORDINATE EXACT MAKE AND MODEL WITH OWNER. COORDINATE EXACT LOCATION AND HEIGHT WITH OWNER AND ARCHITECT.
4 RELOCATED EXISTING RADIATOR PORTION LOCATION. REFER TO ELECTRICAL. COORDINATE EXACT LOCATION AND HEIGHT WITH ARCHITECT.
5 PROVIDE NEW MILLWORK, REFER TO ELEVATIONS & SECTIONS ON A400 & A600
6 PROVIDE INTERIOR GLAZING WALL SYSTEM IN ALUMINUM FRAME WITH INTEGRATED GLASS SWING DOOR. REFER TO INTERIOR ELEVATIONS & SPECIFICATIONS.
7 EXISTING PIPING TO REMAIN. PROTECT DURING COURSE OF WORK.
8 PROVIDE NEW CONDUIT FOR FOB CARD STRIKE.COORDINATE WITH ELECTRICAL DRAWINGS. ENSURE STRIKE IS CLEAR OF DOOR FRAME. REVIEW LOCATION PRIOR TO INSTALLATION WITH ARCHITECT ON SITE. MOUNTING HEIGHT: 900 - 1100MM ABOVE FINISH FLOOR TO CENTER OF DEVICE. ALL HEIGHTS TO MATCH.
9 CREATE NEW WALL GRILLE OPENING. RELOCATE EXISTING WALL GRILLE. COORDINATE WITH MECHANICAL DRAWINGS.
10 PROVIDE NEW CONDUIT FOR POWER DOOR OPERATOR.COORDINATE WITH ELECTRICAL DRAWINGS. ENSURE PUSH DOOR OPERATOR IS CLEAR OF DOOR FRAME. REVIEW LOCATION PRIOR TO INSTALLATION WITH ARCHITECT ON SITE. MOUNTING HEIGHT: 900 - 1100MM ABOVE FINISH FLOOR TO CENTER OF DEVICE. ALL HEIGHTS TO MATCH.
11 EXISTING VALANCE ABOVE TO REMAIN. STORE AND PROTECT DURING COURSE OF WORK. COORDINATE STORAGE WITH OWNER.
12 PROVIDE VINYL DECAL TO FULLY FROST GLAZING. CONFIRM DESIGN WITH ARCHITECT.

TRUE NORTH

PROJECT NORTH

KEY PLAN



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2024.05.23	1	ISSUED FOR CLIENT REVIEW

PROJECT NAME

W.G. JOHNSON CENTRE LUNCHROOM

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CONSTRUCTION PLAN & RCP

PROJECT No.	24012	SCALE	As indicated
		DRAWN By:	EW,SA
		CHECKED By:	EN

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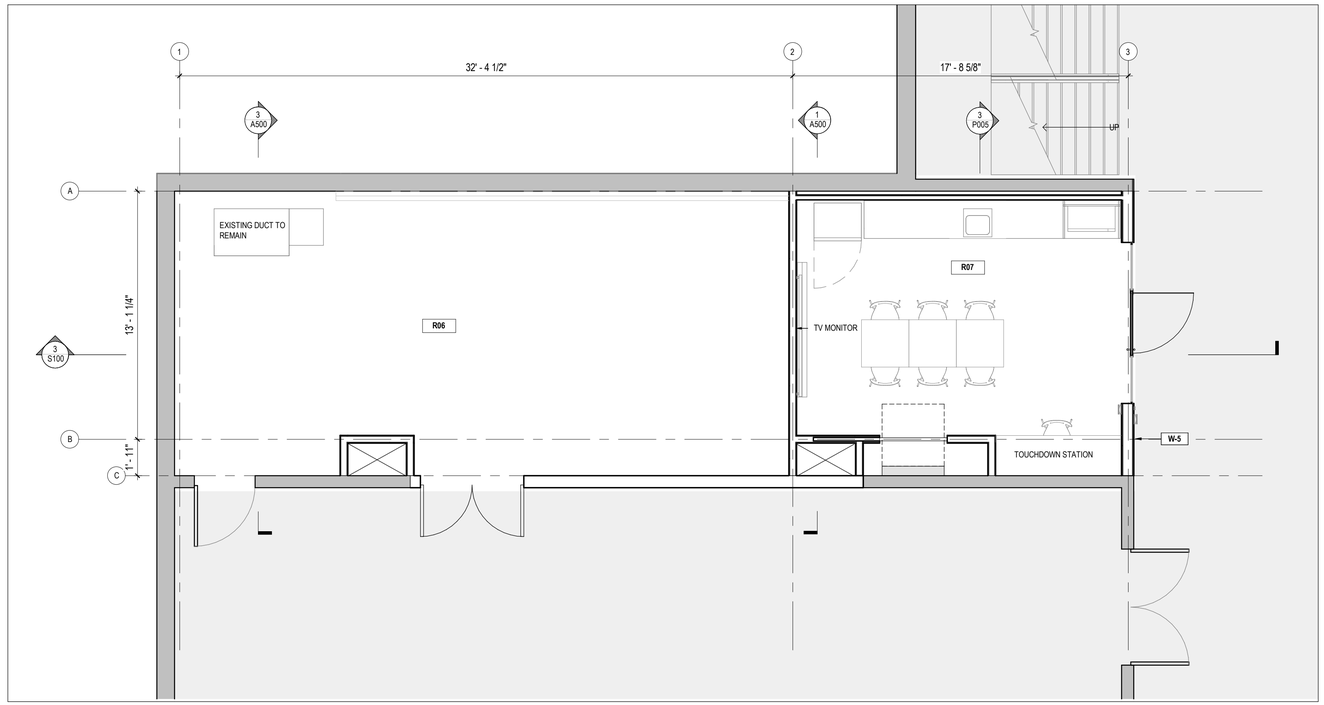
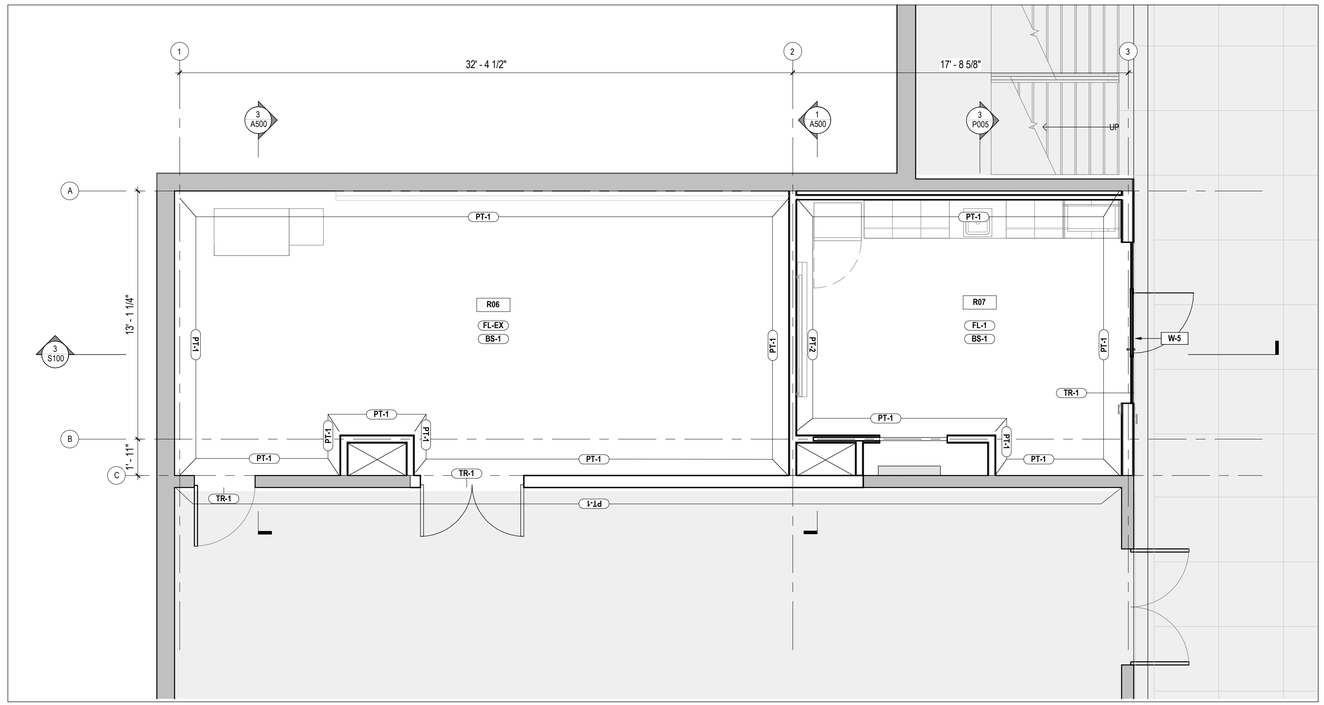


1 A300 FURNITURE PLAN - LEVEL 1

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



2 A300 FINISHES PLAN - LEVEL 1

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

ROOM LEGEND

Number	Name
R06	STORAGE
R07	STAFF LUNCHROOM
R129	EXISTING CORRIDOR
R125	EXISTING GYMNASIUM
R10	ELECTRICAL PANEL CLOSET
R11	MECHANICAL CHASE

GENERAL FINISHING NOTES

1. FIELD VERIFICATION IS REQUIRED FOR QUANTITIES OF ALL MATERIALS PRIOR TO ORDERING AND INSTALLING.
2. ALL MATERIALS LISTED TO BE AS SPECIFIED OR APPROVED ALTERNATIVES, ANY PROPOSED ALTERNATIVES TO BE SUBMITTED TO ARCHITECT FOR REVIEW OF COLOUR, FINISH AND QUALITY PRIOR TO ORDERING MATERIAL. G.C. TO SUPPLY AND INSTALL ALL MATERIALS ABOVE AS LISTED AND INDICATED ON PLANS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
3. PRIOR TO ORDERING, ALL FINISHES NEED TO BE CONFIRMED AND APPROVED BY CLIENT AND ARCHITECT. DO NOT ORDER WITHOUT WRITTEN CONFIRMATION; SUPPLY SAMPLES TO DESIGNER / PROJECT MANAGER FOR APPROVAL.
4. ALL MATERIALS TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS FOR THE INTENDED USAGE.
5. PREPARE A PACK OF SIGNIFICANT SIZE LEFTOVERS WHICH WILL REMAIN ON SITE FOR FUTURE REPAIRS AND PATCHING FOR EACH TYPE / COLOR OF ALL FINISHES. ASSUME 10% OVERAGE UNLESS OTHERWISE CONFIRMED WITH OWNER.
6. REPAIR AND MAKE GOOD ALL EXISTING FINISHES TO REMAIN WHICH ARE AFFECTED BY NEW CONSTRUCTION.
7. ALL DOOR FRAMES AND BASE MUST BE PROTECTED WITH APPROPRIATE MATERIAL TO AVOID DAMAGE DURING INSTALLATION OF FLOORING MATERIALS. THE PROTECTION MATERIALS AND METHODS OF ADHESION SHOULD NOT DAMAGE THE FINISH WHEN REMOVED. DAMAGE DONE TO COMPLETED WORK TO BE REPAIRED AT NO COST TO THE OWNER.
8. WALL PAINT TO BE APPLIED WITH 1 COAT PRIMER AND TWO COATS PAINT. ALL GENERAL WALLS TO BE PAINTED AS PER SPECIFCATIONS AND IN CONFORMANCE WITH CURRENT ISSUE OF MASTER PAINTERS INSISTUTE ARCHITECTURAL PAINTING SPECIFICIATIONS MANUAL AND MAINTENANCE REPAITING MANUAL REGARDING MATERIALS, PREPARATION AND WORKMANSHIP. PAINT FORMULA TO BE COMMERCIAL GRADE FOR HIGH TRAFFIC AREAS WITH EASILY WASHABLE AND STAIN RESISTANT FINISH.
9. REMOVE ALL SIGNS, COVER PLATES, ESCUTCHEON PLATES AND ANY LOOSE FIXTURES ON WALL PRIOR TO PAITNING / WALL COVERING. UPON COMPLETION, REINSTALL.
10. MASK OFF HINGES FROM EXISTING DOORS PRIOR TO PAINTING AND / OR REMOVE COMPLETE AND REINSTALL UPON COMPLETION.
11. ENSURE FLOOR IS PROPERLY PREPARED FOR INSTALLATION OF SPECIFIED FLOOR FINISH PER MANUFACTURER'S INSTRUCTIONS.
12. ENSURE SURFACE FLATNESS OF SUBSTRATES IS IN CONFORMANCE WITH MATERIAL / PRODUCT ACCEPTABLE STANDARDS. IF ACCEPTABLE STANDARDS ARE NOT MET, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MEET THESE STANDARDS BEFORE PROCEEDING WITH WORK.
13. ALL FLOORING MATERIAL TO HAVE MANUFACTURERS RECOMMENDED FINISH APPLIED AFTER INSTALLATION AND PROPER CARE AND MAINTENANCE INSTRUCTIONS TO BE ISSUED TO THE OWNER.
14. WHEN A CHANGE IN FLOOR FINISH OCCURS AT DOORWAY, LOCATE THE SEAM TO BE CENTERED UNDER THE DOOR IN THE CLOSED POSITION, UNLESS OTHERWISE INDICITATED.
15. CONTRACTOR IS RESPONSBILE TO PROVIDE FLOOR TRANSITIONS BETWEEN DISSIMILAR FLOORING MATERIAL AS REQUIRED BY THE ONTARIO BUILDING CODE. PROVIDE SUBMITTAL WITH PROFILE, MATERIAL, AND COLOR/FINISH FOR EACH TRANSITION LOCATION FOR ARCHITECT TO REVIEW PRIOR TO ORDER AND INSTALL.
16. ALL FLOOR FINISHES TO BE PROTECTED FROM DAMAGE BY TRADES AFTER INSTALLATION. ANY DAMAGE TO BE REPAIRED AT NO COST TO THE CLIENT.

FINISHES LEGEND

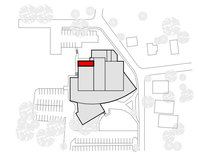
VERIFY ALL FINISH SELECTIONS WITH ARCHITECT BEFORE PURCHASE

- FL-1 — **TILE. COORDINATE SELECTION WITH ARCHITECT.**
- FL-EX — **EXISTING FLOOR**
- PT-1 — **WALL PAINT. COORDINATE SELECTION WITH ARCHITECT.**
- PT-2 — **ACCENT WALL PAINT. COORDINATE SELECTION WITH ARCHITECT.**
- BS-1 — **TILE BASE. COORDINATE SELECTION WITH ARCHITECT.**
- TR-1 — **COORDINATE TRANSITION WITH ARCHITECT**

TRUE NORTH

PROJECT NORTH

KEY PLAN



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SHEET TITLE

FURNITURE AND FINISHES FLOOR PLAN

PROJECT No.	24012	SCALE	As indicated
		DRAWN By:	EW,SA
		CHECKED By:	EN

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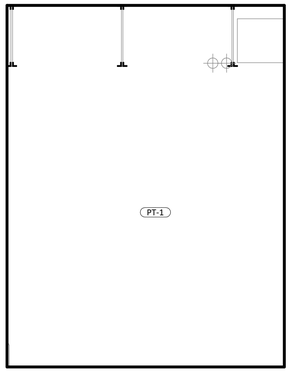
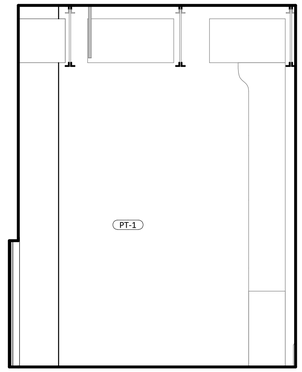
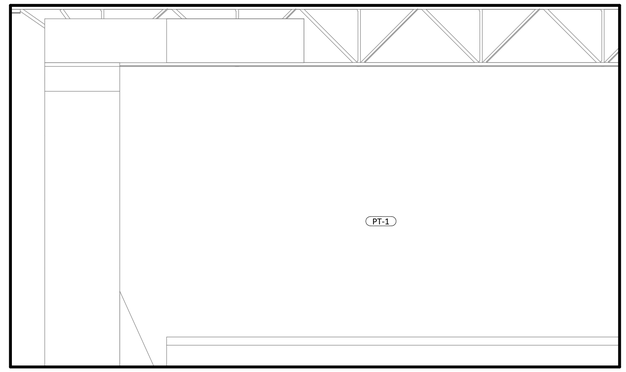


1 A400 STORAGE - EAST
SCALE: 1/4" = 1'-0"

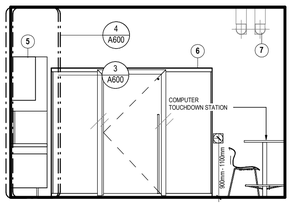
2 A400 STORAGE - SOUTH
SCALE: 1/4" = 1'-0"



3 A400 STORAGE - WEST
SCALE: 1/4" = 1'-0"



4 A400 STORAGE - NORTH
SCALE: 1/4" = 1'-0"



5 A400 STAFF LUNCHROOM - EAST
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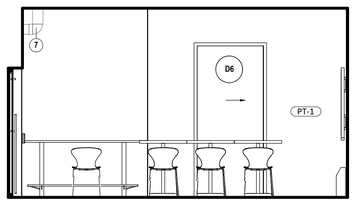
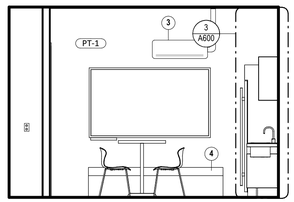
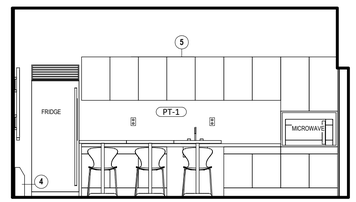


6 A400 STAFF LUNCHROOM - SOUTH
SCALE: 1/4" = 1'-0"



7 A400 STAFF LUNCHROOM - WEST
SCALE: 1/4" = 1'-0"



8 A400 STAFF LUNCHROOM - NORTH
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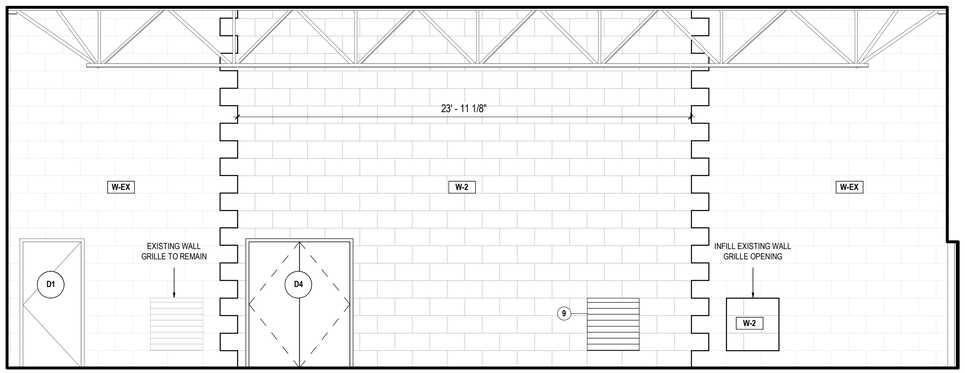

9 A400 GYM - NORTH
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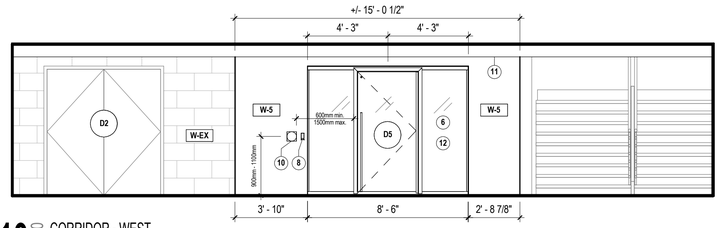


10 A400 CORRIDOR - WEST
SCALE: 1/4" = 1'-0"

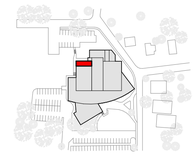
GENERAL CONSTRUCTION NOTES

1. PERFORM ALL WORK IN ACCORDANCE WITH THE LATEST VERSION OF THE ONTARIO BUILDING CODE 2012. HEREIN REFERRED TO AS O.B.C. AS WELL AS LOCAL BY-LAWS AND HEALTH & SAFETY REGULATIONS.
2. DO NOT SCALE DRAWINGS, SITE VERIFY ALL DIMENSIONS, ANY DISCREPANCIES TO BE CLARIFIED WITH THE ARCHITECT.
3. ALL INTERIOR DIMENSIONS ARE TO FINISHED SURFACES, UNLESS OTHERWISE NOTED.
4. LAYOUT ALL PARTITIONS AND DOORS (CHALK LINE) PRIOR TO INSTALL. NOTIFY ARCHITECT AT ONCE SHOULD ANY PROBLEMS ARISE FROM THE SITE CONDITIONS OR OTHER CAUSES. OBTAIN ARCHITECT'S APPROVAL FOR ANY DEVIATIONS PRIOR TO CONTINUING WORK.
5. REFER TO SCHEDULES FOR DOOR SIZES. PROVIDE MINIMUM CLEARANCES AT WALL CORNERS TO ALLOW FOR TRIM TO BE INSTALLED.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING CONTINUITY OF FIRE SEPARATION OF ALL WALLS AND FLOOR AND CEILING ASSEMBLY ABOVE AND BELOW. ALL SERVICE PENETRATIONS THROUGH FIRE-RATED WALLS SHALL BE PROPERLY FIRE STOPPED WITH ULC-APPROVED SYSTEMS APPROPRIATE FOR EACH ASSEMBLY BEING PENETRATED. PROVIDE A COMPLETE SUBMITTAL PACKAGE FOR ALL FIRE STOP CONDITIONS FOR APPROVAL PRIOR TO INSTALLATION. PHOTO DOCUMENT ALL FIRESTOPPING FOR RECORD PURPOSES. CONTACT INSPECTOR AND ARCHITECT FOR REVIEWS PRIOR TO ENCLOSING AND/OR FINISHING.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING CONTINUITY OF ALL VAPOR AND AIR BARRIERS AT EXTERIOR PENETRATIONS, FENESTRATIONS, OPENINGS, AND ASSEMBLIES. COMPLETELY SEAL WITH COMPATIBLE TRANSITION MEMBRANES AND SEALANTS. PHOTO DOCUMENT ALL MEMBRANES, JOINTING, AND SEALANTS PRIOR TO INSTALLATION OF WINDOWS, DOORS AND FINISHES. CONTACT ARCHITECT FOR REVIEW PRIOR TO ENCLOSING AND/OR FINISHING.
8. ALL WOOD BLOCKING WITHIN EXTERIOR WALLS TO BE PRESSURE TREATED UNLESS OTHHERWISE REVIEWED AND APPROVED BY ARCHITECT.
9. PROVIDE SILL GASKETS BETWEEN ALL CONCRETE / WOOD LOCATIONS.
10. ALL EXTERIOR HORIZONTAL SURFACES INCLUDING BUT NOT LIMITED TO FLASHINGS, SIDEWALKS, FINISH GRADE ETC. SHALL BE SLOPED AWAY FROM BUILDING.
11. REFER TO FINISHES PLAN AND IDENTIFY ALL PREPARATION WORK REQUIRED. PATCH ANY HOLES, FILL CRACKS, REMOVE ANY BUMPS OR PROTRUSIONS AND SAND SMOOTH. SKIM COAT AS REQUIRED. PATCH AND MAKE GOOD ALL EXISTING WALLS / FLOORS / CEILINGS PRIOR TO APPLYING FINISH.
12. GENERAL CONTRACTOR TO PROVIDE HVAC AND ELECTRICAL SUB-TRADES, AS REQUIRED.
13. CONTRACTOR SHALL BE RESPONSIBLE TO SUPPLY AND INSTALL ACCESS DOORS / PANELS FOR PLUMBING, ELECTRICAL, HVAC, ETC. AS REQUIRED TO ACCESS EQUIPMENT OR CONTROLS. ACCESS DOORS / PANELS TYPE AND FINISH TO BE SUBMITTED TO ARCHITECT FOR REVIEW PRIOR TO ORDER AND INSTALL. LOCATION(S) TO BE APPROVED BY ARCHITECT.
14. ALL ELECTRICAL MECHANICAL & EMERGENCY FIXTURE WORK TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES & REGULATIONS.
15. WHERE POWER AND COMMUNICATIONS OUTLETS HAVE BEEN REMOVED PATCH AND REPAIR WALL TO MATCH EXISTING. BLANK COVER PLATES WILL NOT BE ACCEPTED.
16. CONTRACTOR TO BE RESPONSIBLE FOR ALL CHASES AND OPENINGS AS MAY BE REQUIRED BY MECHANICAL, PLUMBING, ELECTRICAL OR CABLING TRADES. REFER TO DRAWINGS AND REVIEW THE REQUIREMENTS WITH THESE TRADES. MAKE GOOD ALL DAMAGED SURFACES RESULTING FROM WORK AND MAKE GOOD SUCH DAMAGES IN PROJECT SPACE WHERE MECHANICAL, PLUMBING, POWER, AND DATA PASS THROUGH.

SPECIFIC CONSTRUCTION NOTES

1 PROVIDE NEW ELECTRICAL PANEL LOCATION. COORDINATE EXACT LOCATION AND HEIGHT WITH ARCHITECT.
2 PROVIDE NEW VERTICAL MECHANICAL CHASE. REUSE EXISTING GYM SUPPLY AIR GRILLE.
3 RELOCATED AC UNIT. COORDINATE EXACT MAKE AND MODEL WITH OWNER. COORDINATE EXACT LOCATION AND HEIGHT WITH OWNER AND ARCHITECT.
4 RELOCATED EXISTING RADIATOR PORTION LOCATION. REFER TO ELECTRICAL. COORDINATE EXACT LOCATION AND HEIGHT WITH ARCHITECT.
5 PROVIDE NEW MILLWORK, REFER TO ELEVATIONS & SECTIONS ON A400 & A600
6 PROVIDE INTERIOR GLAZING WALL SYSTEM IN ALUMINUM FRAME WITH INTEGRATED GLASS SWING DOOR. REFER TO INTERIOR ELEVATIONS & SPECIFICATIONS.
7 EXISTING PIPING TO REMAIN. PROTECT DURING COURSE OF WORK.
8 PROVIDE NEW CONDUIT FOR FOB CARD STRIKE.COORDINATE WITH ELECTRICAL DRAWINGS. ENSURE STRIKE IS CLEAR OF DOOR FRAME. REVIEW LOCATION PRIOR TO INSTALLATION WITH ARCHITECT ON SITE. MOUNTING HEIGHT: 900 - 1100MM ABOVE FINISH FLOOR TO CENTER OF DEVICE. ALL HEIGHTS TO MATCH.
9 CREATE NEW WALL GRILLE OPENING. RELOCATE EXISTING WALL GRILLE. COORDINATE WITH MECHANICAL DRAWINGS.
10 PROVIDE NEW CONDUIT FOR POWER DOOR OPERATOR.COORDINATE WITH ELECTRICAL DRAWINGS ENSURE PUSH DOOR OPERATOR IS CLEAR OF DOOR FRAME. REVIEW LOCATION PRIOR TO INSTALLATION WITH ARCHITECT ON SITE. MOUNTING HEIGHT: 900 - 1100MM ABOVE FINISH FLOOR TO CENTER OF DEVICE. ALL HEIGHTS TO MATCH.
11 EXISTING VALANCE ABOVE TO REMAIN. STORE AND PROTECT DURING COURSE OF WORK. COORDINATE STORAGE WITH OWNER.
12 PROVIDE VINYL DECAL TO FULLY FROST GLAZING. CONFIRM DESIGN WITH ARCHITECT.

KEY PLAN



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2024.10.30	2	ISSUED FOR PERMIT & TENDER
2024.05.23	1	ISSUED FOR CLIENT REVIEW
DATE		ISSUED

PROJECT NAME
W.G. JOHNSON CENTRE LUNCHROOM

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SHEET TITLE
INTERIOR ELEVATIONS

PROJECT No.	24012	SCALE	As indicated
		DRAWN By:	EW,SA
		CHECKED By:	EN

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ELISIA M. G. NEVES
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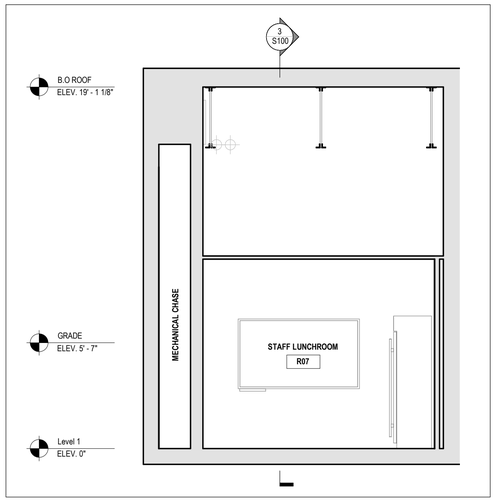
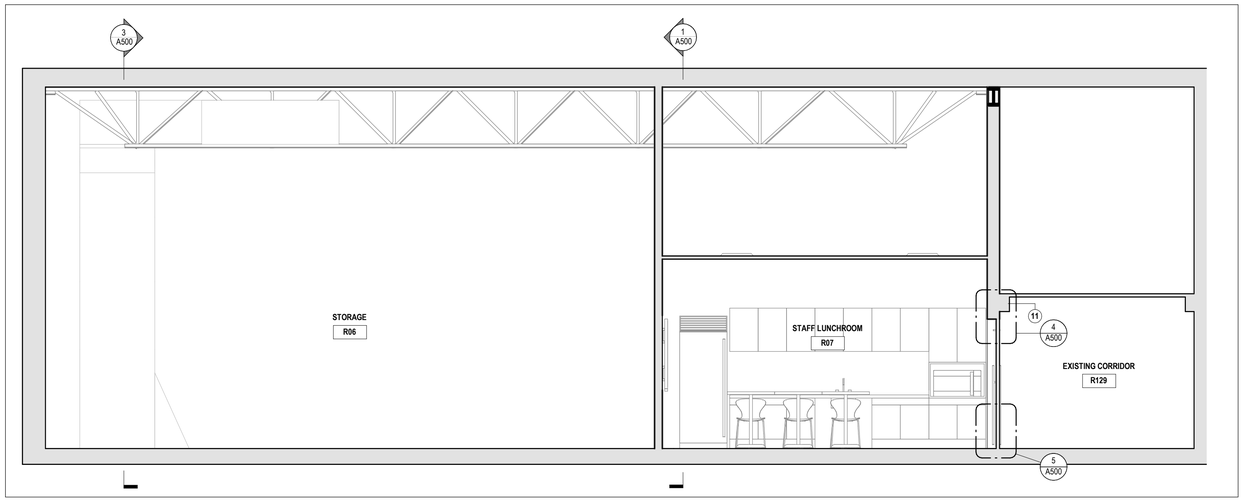
A400

2024-10-30 6:11:12 PM



1 A500 SECTION AA
SCALE: 1/4" = 1'-0"



2 A500 SECTION BB
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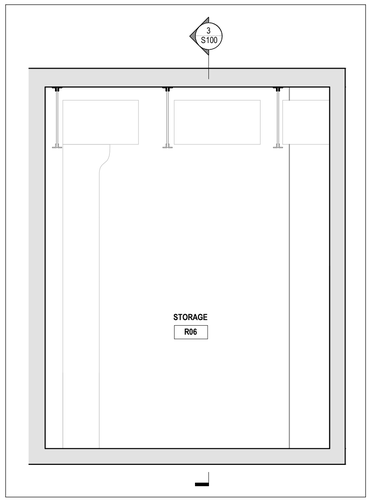
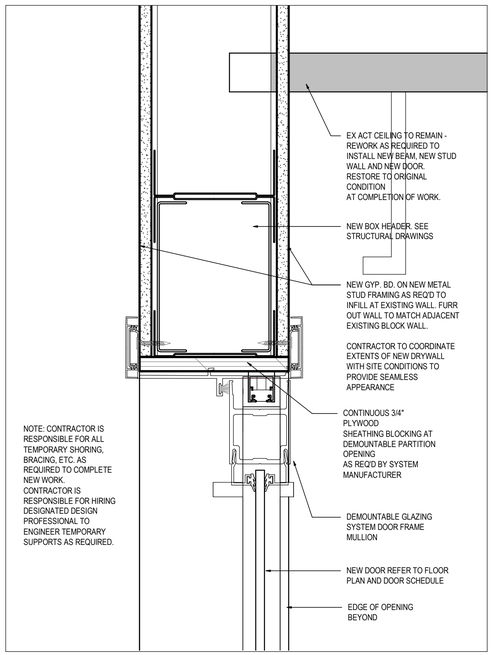
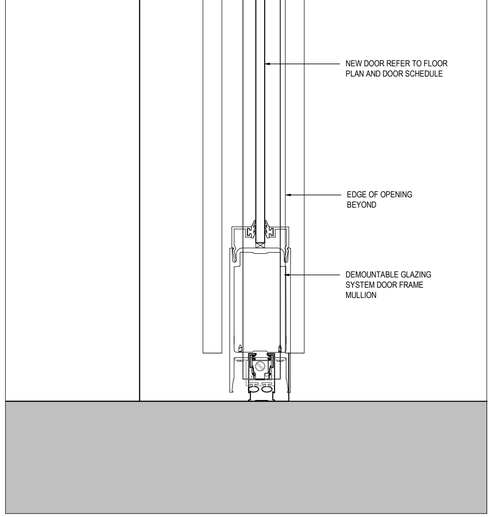


3 A500 SECTION CC
SCALE: 1/4" = 1'-0"

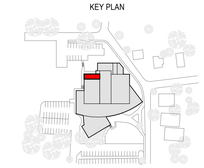


4 A500 SECTION DETAIL - GLASS SWING DOOR HEADER
SCALE: 3" = 1'-0"



5 A500 SECTION DETAIL - GLASS SWING DOOR BASE
SCALE: 3" = 1'-0"

KEY PLAN



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SHEET TITLE
BUILDING SECTIONS & DETAILS

PROJECT No.	24012	SCALE	As indicated
		DRAWN By:	EW,SA
		CHECKED By:	EN

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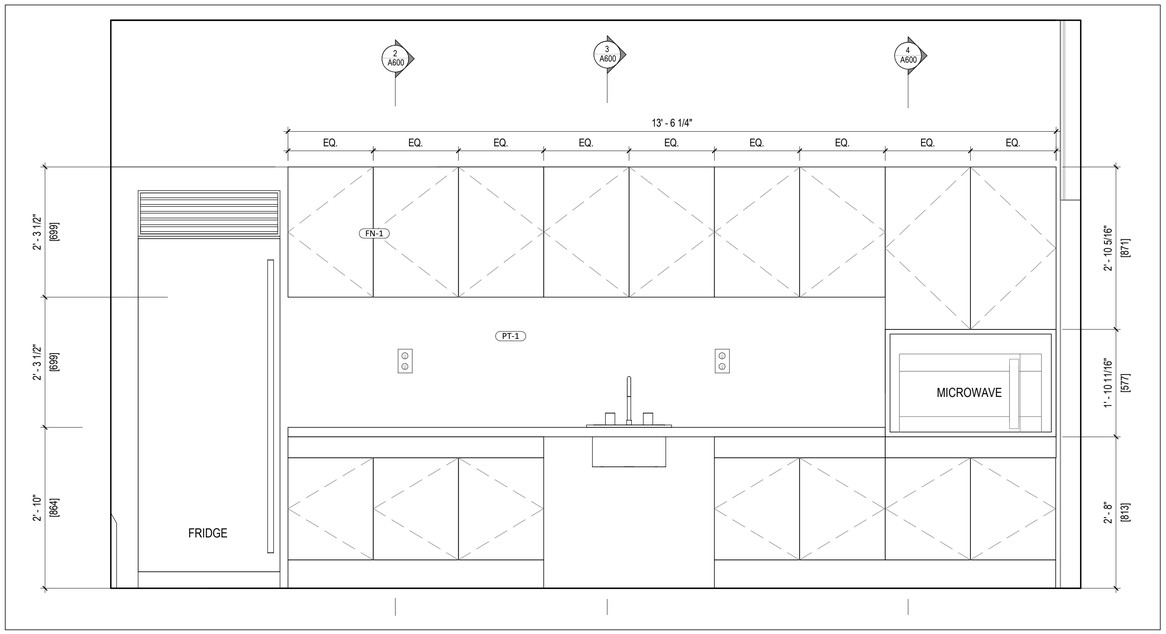
2024-10-30 6:11:14 PM

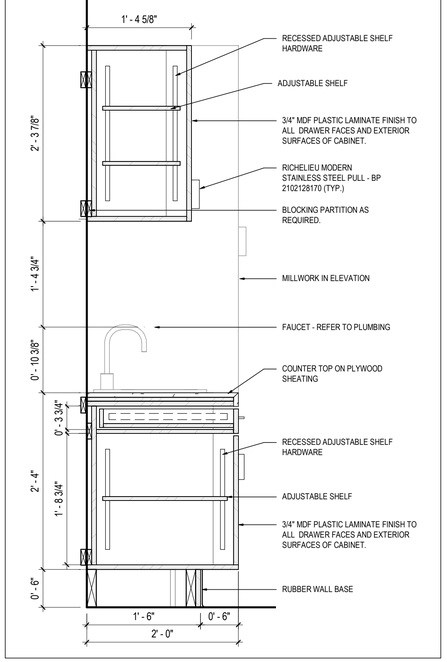


NOTES:
CONTRACTOR TO PROVIDE BLOCKING AS REQUIRED TO SUPPORT NEW MILLWORK, SHELVES, BRACKETS, ETC.

FOR ALL COUNTERTOP SUPPORTS SPACE EQUALLY. SHOW SPACING ON SHOP DRAWINGS FOR ARCHITECTURAL APPROVAL.

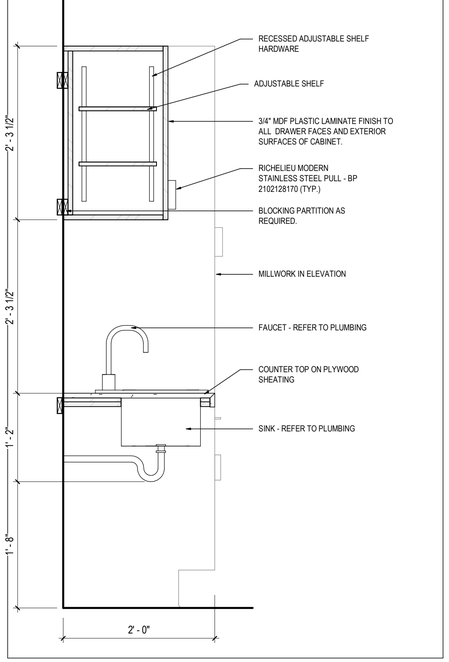
1 A600 MILLWORK ELEVATION

SCALE: 3/4" = 1'-0"



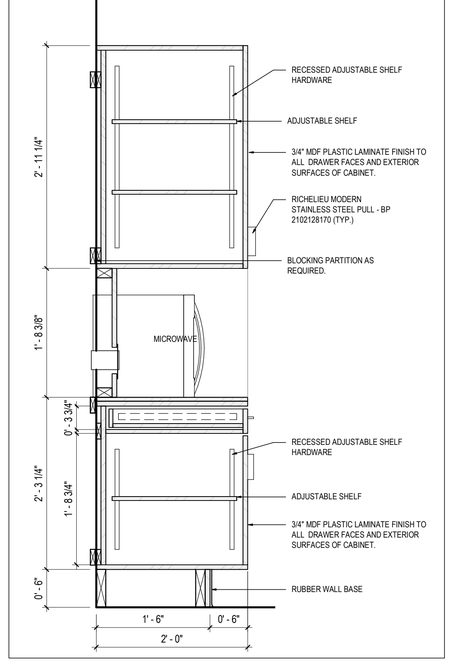
2 A600 MILLWORK SECTION A

SCALE: 1" = 1'-0"



3 A600 MILLWORK SECTION B

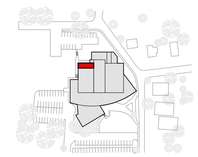
SCALE: 1" = 1'-0"



4 A600 MILLWORK SECTION C

SCALE: 1" = 1'-0"

KEY PLAN



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SHEET TITLE

MILLWORK ELEVATIONS & DETAILS

PROJECT No.	24012	SCALE	As indicated
		DRAWN By:	EW,SA
		CHECKED By:	EN

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2024-10-30 6:11:16 PM

ELECTRICAL SPECIFICATION

GENERAL CONDITIONS

1. THE CANADIAN STANDARD FORM OF CONSTRUCTION CONTRACT AND GENERAL CONDITIONS GOVERNING THE SAME CCDC PARTS 1 TO 12 INCLUSIVE ARE HEREBY MADE PART OF THIS SPECIFICATION.
2. ALL WORK SHALL BE IN FULL ACCORDANCE WITH THE REQUIREMENTS OF THE 2018 ONTARIO ELECTRICAL SAFETY CODE, ELECTRICAL SAFETY AUTHORITY (ESA), AND THE LOCAL BUILDING INSPECTION DEPARTMENT REQUIREMENTS.
3. ELECTRICAL CONTRACTOR SHALL INCLUDE FOR ESA INSPECTION FEES.
4. THIS CONTRACTOR SHALL MAINTAIN LIABILITY INSURANCE AS REQUIRED.
5. ALL WORKMANSHIP SHALL BE EXECUTED TO A STANDARD DETERMINED BY GOOD PRACTICE. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE THE EQUIPMENT & INSTALLATION FOR ONE YEAR FROM SUBSTANTIAL COMPLETION.
6. THE ELECTRICAL CONTRACTOR SHALL SUBMIT ONE SET OF ELECTRONIC PDF SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW. SHOP DRAWINGS TO INCLUDE ALL ELECTRICAL EQUIPMENT, DEVICES & ULC LISTED FIRE STOPPING DETAILS. MATERIALS **SHALL NOT BE ORDERED** UNTIL REVIEW HAS BEEN COMPLETED. APPROVAL IS FOR GENERAL DESIGN COMPLIANCE ONLY.
7. THE OWNERS RESERVE THE RIGHT TO ALTER THE LOCATION OF ANY ITEM UP TO TEN FEET (3m) WITHOUT INCURRING EXTRA COSTS, PROVIDED THE REQUEST IS MADE PRIOR TO INSTALLATION.
8. ALL MATERIAL AND EQUIPMENT USED ON THIS PROJECT SHALL BE C.S.A. APPROVED, ESA FIELD EVALUATED, OR MUST BEAR AN ESA RECOGNIZED CERTIFICATION MARK.
9. CUTTING AND PATCHING FOR ELECTRICAL WORK SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
10. THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE EXISTING CONDITIONS AND THEN MAKE NECESSARY ALLOWANCES IN THEIR TENDER PRICE FOR REMOVAL, RELOCATION, REROUTING AND/OR RECONNECTION OF EXISTING ELECTRICAL EQUIPMENT AND WIRING, AS MAY BE NECESSARY FOR THE EXECUTION AND COMPLETION OF THIS PROJECT. EXTRA CHARGES FOR PREMIUM TIME LABOUR SHALL BE INCLUDED IN THE TENDER PRICE, ALLOWING FOR AFTER HOURS, WEEKEND AND HOLIDAY LABOUR REQUIREMENTS.
11. THE DRAWINGS AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES OR CONTRADICTIONS SHALL BE BROUGHT TO THE CONSULTANT'S ATTENTION.
12. THE ELECTRICAL REQUIREMENTS OF ALL MECHANICAL EQUIPMENT **IS TO BE CONFIRMED** WITH MECHANICAL DRAWINGS & SCHEDULES PRIOR TO RELATED WORK.
13. ALL TEMPORARY LIGHTING AND POWER DURING CONSTRUCTION SHALL BE BY THE GENERAL CONTRACTOR AFTER AGREEMENT WITH THE ELECTRICAL CONTRACTOR. POWER SHALL BE PROVIDED FROM PANELS WITH REQUIRED SUPPLY AND CAPACITY.
14. TENDER SHALL BE BASED UPON THE SPECIFIED EQUIPMENT AND MATERIAL. REQUESTS FOR CONSIDERATION OF ALTERNATES TO THE SPECIFIED MATERIALS SHALL BE MADE TO THE CONSULTANT ONE WEEK PRIOR TO TENDER CLOSING AND SHALL INCLUDE MANUFACTURER, MODEL, AND COST MODIFICATION. COSTS OF ANY CHANGE REQUIRED TO OTHER TRADES AS A RESULT OF USING ALTERNATE EQUIPMENT ARE TO BE INCURRED BY THE ELECTRICAL CONTRACTOR.
15. ALL CLAIMS FOR EXTRA WORK NOT COVERED IN THE CONTRACT TO BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIALS AND LABOUR.
16. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS ARE TO BE TAKEN FROM THE ARCHITECTURAL DRAWINGS AND CONFIRMED ON SITE.
17. PROVIDE FIRE STOPPING PROTECTION FOR OPENINGS THROUGH ALL FIRE RATED ASSEMBLIES. ULC LISTED ASSEMBLY NUMBERS ARE TO BE USED.
18. LOW VOLTAGE CABLES (IE: NETWORK, SECURITY, CONTROL, ETC...) ROUTED WITHIN PLENUM SPACES SHALL BE FT6, CMP OR PLENUM RATED WHEN ROUTING THROUGH MECHANICAL CEILING PLENUMS.

MOUNTING HEIGHTS

1. DEVICE MOUNTING HEIGHT TO CENTRE OF DEVICE IS AS FOLLOWS:
   - LIGHT SWITCHES 1200mm (or 1050mm BARRIER FREE PATH OF TRAVEL)
   - RECEPTACLE 400mm
   - DATA OUTLETS 400mm
   - THERMOSTATS 1400mm (or 1150mm BARRIER FREE PATH OF TRAVEL)
   - POWER DOOR OPERATORS 1000mm
   - OTHER BUILDING CONTROLS 1000mm

NOTE: AUDIBLE FIRE ALARM DEVICES TO BE AT LEAST 150mm BELOW CEILING.

ELECTRICAL EQUIPMENT, DEVICES & MATERIAL

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

COMMUNICATION SYSTEM

1. PROVIDE PLYWOOD COMMUNICATION BACKBOARD WHERE SHOWN, GOOD ONE SIDE, PAINTED GRAY WITH FIRE RETARDANT INTUMESCENT PAINT. PROVIDE #6 AWG CU GROUND WIRE FROM MAIN BUILDING GROUND TO BACKBOARD.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE EMPTY CONDUIT SYSTEM FOR COMMUNICATION OUTLETS AS SHOWN ON THE PLANS.
3. PROVIDE CONDUIT AS PER LOW-VOLTAGE DEVICE SCHEDULE. CONDUIT TO BE METALLIC CONDUIT & FIRE STOPPPED WHEN PENETRATING FIRE SEPARATIONS.
4. PROVIDE NYLON PULL STRING IN ALL EMPTY CONDUITS.

LIGHTING

1. SUPPLY AND INSTALL LIGHTING FIXTURES AND DEVICES AS NOTED ON THE PLANS AS PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. INSTALL ALL FIXTURES PARALLEL WITH BUILDING LINES UNLESS INDICATED OTHERWISE.
3. FOR RECESSED FIXTURES (LED PUCK LIGHTS EXEMPTED) WITHIN SUSPENDED CEILINGS, PROVIDE EITHER:
   A. SAFETY 'JACK CHAIN' TO BUILDING STRUCTURE, OR
   B. MANUFACTURER APPROVED FASTENING DEVICES OR 'EARTHQUAKE CLIPS' FASTENED TO T-BAR.
4. INSTALL A SEPARATE NEUTRAL CONDUCTOR FOR EACH LIGHTING BRANCH CIRCUIT.

EXISTING CONDITIONS

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

DEMOLITION

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

GENERAL CLOSE OUT PROCEDURES

1. **DOCUMENTS:** ELECTRICAL CONTRACTOR TO SUBMIT:
   - ESA CERTIFICATE OF INSPECTIONS;
   - SIGNED COPY OF EMERGENCY LIGHTING TEST REPORT. EMERGENCY LIGHTING TEST REPORT TO INDICATE TOTAL RUNTIME OF EMERGENCY LIGHTING ONCE NORMAL POWER IS LOST FOR EACH BATTERY SYSTEM. (MINIMUM 30MIN AS PER OBC:3.2.7.4(1b))
2. **TRAINING:** ELECTRICAL CONTRACTOR SHALL PROVIDE TRAINING SESSIONS TO THE OWNER ON ALL MAJOR ELECTRICAL SYSTEMS.
3. **COMMISSIONING:** ALL MAJOR SYSTEMS ARE TO BE COMMISSIONED BY THE MANUFACTURERS REPRESENTATIVE INCLUDING FIRE ALARM, LIGHTING CONTROL SYSTEMS.
4. **FUNCTIONAL TESTING** (AT CONTRACTORS EXPENSE):
   A. LIGHTING CONTROL SYSTEM TESTING SHALL INCLUDE OCCUPANCY SENSOR PLACEMENT, SENSITIVITY, AND CONTROL SETTING CALIBRATION. PROPERLY OPERATING OCCUPANCY SENSORS ARE TO TURN OFF LIGHTS WITHIN A REASONABLE PERIOD OF TIME IN UNOCCUPIED SPACES AND SHALL NOT ALLOW LIGHTS TO TURN ON UNLESS SPACE IS OCCUPIED. CONFIRM ALL TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF. COORDINATE WITH MECHANICAL, HVAC SYSTEM TO BE ON DURING TESTING.
5. **RECORD DRAWINGS:** ELECTRICAL CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF ACTUAL INSTALLATION TO OWNERS WITHIN 30 DAYS OF SYSTEM ACCEPTANCE. DRAWINGS ARE TO INCLUDE SINGLE LINE DIAGRAM OF DISTRIBUTION SYSTEM; FLOOR PLANS SHOWING THE LOCATION OF DISTRIBUTION EQUIPMENT AND THE AREAS SERVED BY THAT EQUIPMENT; CHANGES TO LIGHTING, LIGHTING CONTROLS & CIRCUITING.

INSPECTIONS BY CONSULTANT

1. CONTRACTOR SHALL NOTIFY CONSULTANTS WHEN INSPECTIONS ARE REQUIRED. ALLOW FOR MINIMUM OF THREE BUSINESS DAYS OF NOTICE PRIOR TO INSPECTION.
2. INSPECTIONS ARE REQUIRED AT THE FOLLOWS MILESTONES:
   A. FINAL INSPECTION

All Sheet Notes

#	NOTE
P1	INCLUDE FOR THREE RECEPTACLES OR HARDWIRE CONNECTION NOT SHOWN ON THE PLANS. TO BE DEMOLISHED AND DISCONNECTED.
P2	ROLE UP DOOR + CONTROLS TO BE REMOVED COMPLETE

Electrical Sheet List

Sheet #	Sheet Name
E1	Electrical Legend & Specification
E2.1	Demolition Electrical Plan
E2.2	Proposed Electrical Plan
E3	Details & Schedules
Total: 4	

DEVICE/EQUIPMENT OPTIONS & TAGS

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

NEW DEVICE/EQUIPMENT

TO BE REMOVED

EXISTING TO REMAIN

TYPICAL SYMBOL LINETYPE FOR DEVICES or EQUIPMENT

1 New, Removed, Existing

2 Tags - Mechanical Equipment

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

3 Tags - Low Voltage Devices

27S — DEVICE TYPE ID (AS PER LOW VOLTAGE DEVICE SCHEDULE)
TV@1800mm — DEVICE SPECIFIC MOUNTING INSTRUCTIONS
DEVICE SYMBOL (VARIES)

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

4 Tags - Electrical Devices

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

5 Tags - Lighting Devices

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

ELECTRICAL LEGEND

SCHEDULE (x = TYPE)	EXISTING	DEMO	NEW	DESCRIPTION
LIGHTING DEVICE SCHEDULES				
	$	$	$x	LIGHT SWITCH
			x	DIMMER SWITCH
	MS	MS	MSx	LIGHTING MOTION SENSOR
	PP	PP	PPx	LIGHTING POWER PACK
	TC	TC	TCx	LIGHTING TIME CLOCK
	CNT	CNT	CNTx	LIGHTING CONTACTOR
	PC	PC	PCx	LIGHTING PHOTOCELL
LIGHTING FIXTURE SCHEDULES			x	EXIT SIGN, CEILING MOUNT, HATCH = SIGN, ARROW = DIRECTION
			x	EXIT SIGN, WALL MOUNT, HATCH = SIGN, ARROW=DIRECTION
			x	EXIT / EMERG COMBO, WALL MOUNT, HATCH=SIGN, ARROW=DIRECTION
			x	EMERGENCY LIGHT, BATTERY UNIT
			x	EMERGENCY LIGHT, REMOTE HEAD
			x	LIGHTING FIXTURE
			x	WALL MOUNTED LIGHTING FIXTURE
			x	LIGHTING FIXTURE
ELECTRICAL EQUIPMENT SCHEDULES				ELECTRICAL POWER PANEL
				ELECTRICAL DISCONNECT (FUSED OR UNFUSED)
				ELECTRICAL EQUIPMENT - MISCELLANEOUS
MECHANICAL EQUIPMENT SCHEDULES	M	M	Mx	MECHANICAL EQUIPMENT CONTROL
	M	M	Mx	MECHANICAL EQUIPMENT - HARDWIRE CONNECTION
	M	M	Mx	MECHANICAL EQUIPMENT c/w LOCAL DISCONNECT
ELECTRICAL DEVICE SCHEDULES			x	HARDWIRE CONNECTION
			x	DUPLEX RECEPTACLE 15A
			x	DUPLEX RECEPTACLE 15A - COUNTER (100mm ABOVE BACKSPLASH)
			x	DUPLEX RECEPTACLE 20A
			x	DUPLEX RECEPTACLE 20A - COUNTER (100mm ABOVE BACKSPLASH)
			x	SPECIAL RECEPTACLE
			x	QUAD RECEPTACLE 15A, 2-GANG, TWO DUPLEX 15A
			x	QUAD RECEPTACLE 20A, 2-GANG, TWO DUPLEX 20A
	JB	JB	JBx	POWER JUNCTION BOX
LOW VOLTAGE DEVICE SCHEDULES			x	DATA OUTLET
				PUSHBUTTON (BOX & 16mm EMT TO ACCESSIBLE CEILING SPACE)
				UNIVERSAL WASHROOM: ASSISTANCE REQUESTED AUDIBLE VISUAL SIGNAL
				COMMUNICATION BACKBOARD - PLYWOOD GOOD ONE SIDE
FIRE ALARM DEVICE SCHEDULES				FIRE ALARM MANUAL PULL STATION
				FIRE ALARM HORN
			zz	FIRE ALARM HORN STROBE (zz = CANDELA, 15cd DEFAULT)
			zz	FIRE ALARM STROBE (zz = CANDELA, 15cd DEFAULT)
	SD	SD	SDx	FIRE ALARM SMOKE DETECTOR
	HD	HD	HD	FIRE ALARM HEAT DETECTOR
	SDR	SDR	SDR	FIRE ALARM SMOKE DETECTOR c/w FORM 'C' RELAY SUB-BASE
	HDR	HDR	HDR	FIRE ALARM HEAT DETECTOR c/w FORM 'C' RELAY SUB-BASE
				FIRE ALARM BELL

LICENSED PROFESSIONAL ENGINEER
S. HOLDITCH
100108001
Oct 18, 2024
PROVINCE OF ONTARIO

NO.	DESCRIPTION	DATE
3	Issued For Permit/Tender	Oct 18, 2024
2	Issued For Review	Aug 08, 2024
1	Issued For Review	Jul 26, 2024

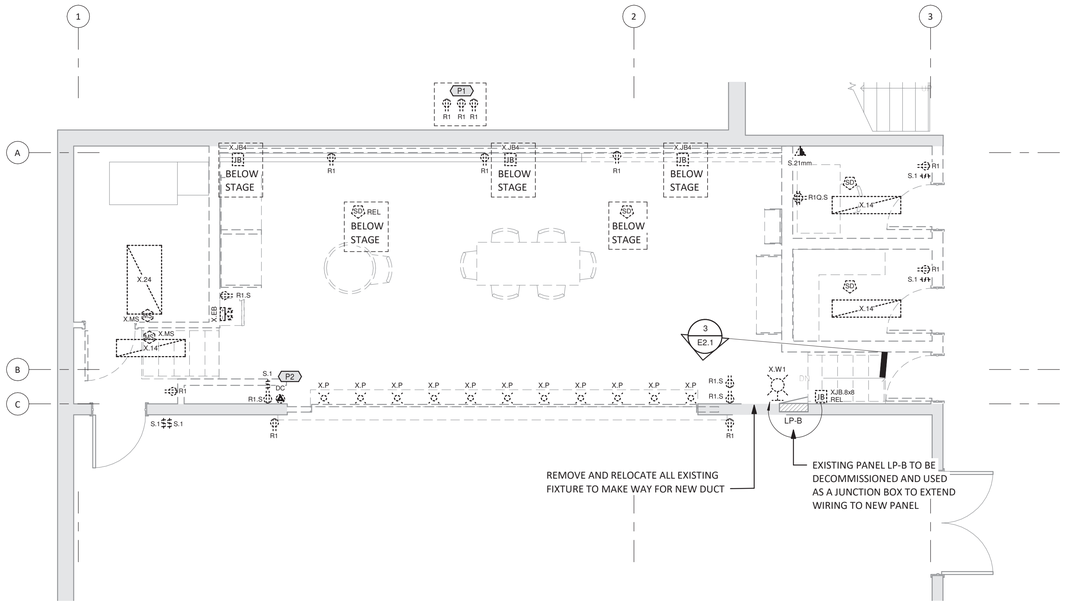
REVISION SCHEDULE

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

PROJECT NAME
W.G. Johnson Centre Lunchroom
31 Kribs Street,
Cambridge, ON

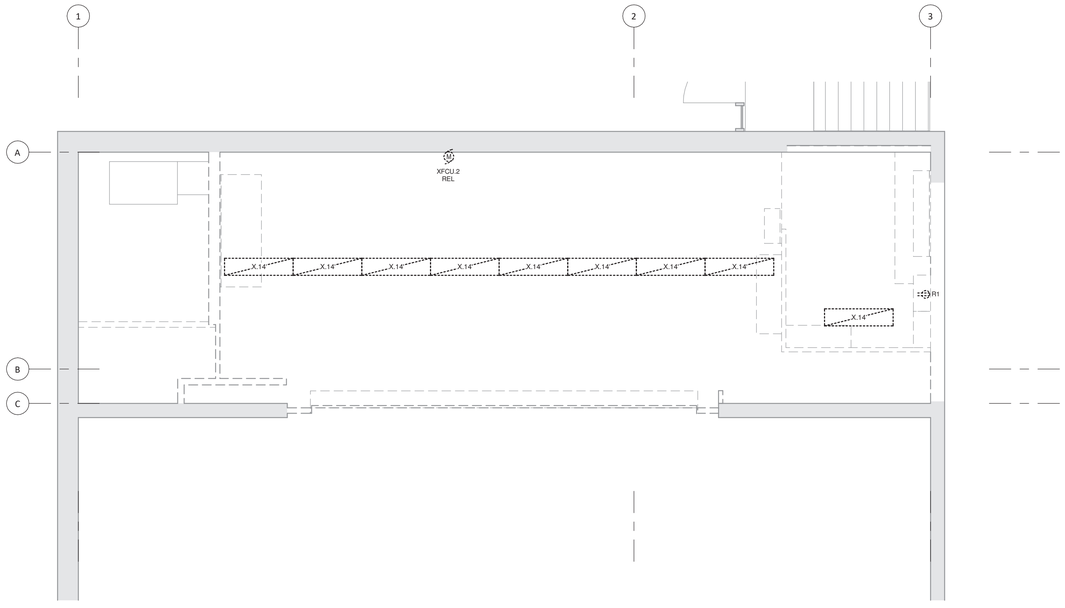
DRAWING TITLE
Electrical Legend & Specification

SCALE 1 : 1
SHEET SIZE 24"x36"
PROJECT NUMBER 24032
DRAWING NUMBER **E1**



1 Demolition - Level 1 - Power & Data Plan

1 : 50



2 Demolition - Loft - Power & Data Plan

1 : 50

3 Panel LP-B Location

Sheet Notes

#	NOTE
P1	INCLUDE FOR THREE RECEPTACLES OR HARDWIRE CONNECTION NOT SHOWN ON THE PLANS. TO BE DEMOLISHED AND DISCONNECTED.
P2	ROLE UP DOOR + CONTROLS TO BE REMOVED COMPLETE

LICENSED PROFESSIONAL ENGINEER
S. HOLDITCH
100108001
Oct 18, 2024
PROVINCE OF ONTARIO

NO.	DESCRIPTION	DATE
3	Issued For Permit/Tender	Oct 18, 2024
2	Issued For Review	Aug 08, 2024
1	Issued For Review	Jul 26, 2024

REVISION SCHEDULE

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

PROJECT NAME
W.G. Johnson Centre Lunchroom
31 Kribs Street,
Cambridge, ON

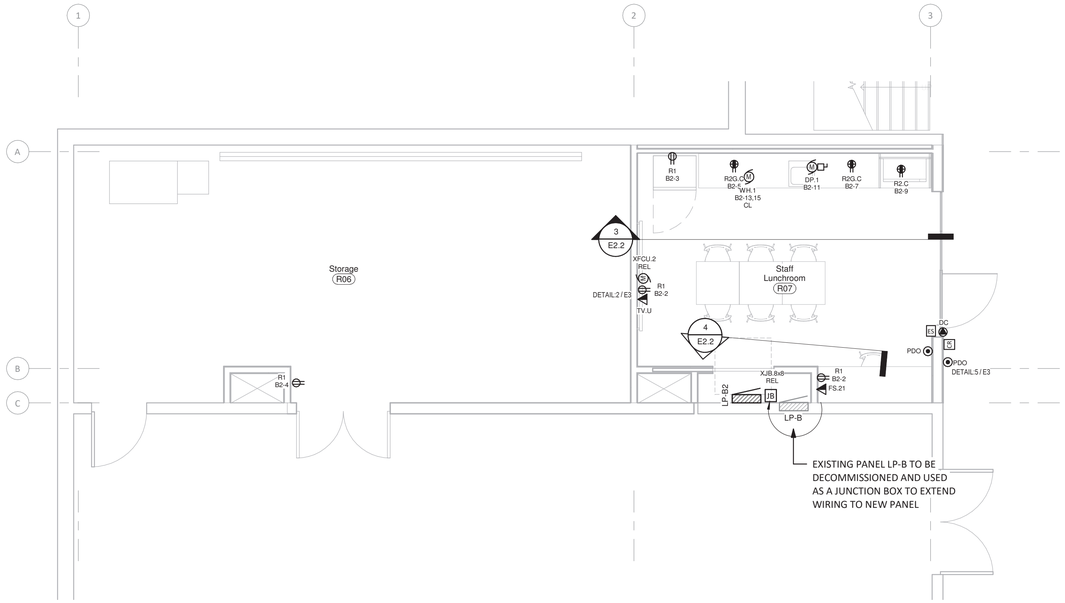
DRAWING TITLE
Demolition Electrical Plan

SCALE
As indicated

SHEET SIZE
24"x36"

PROJECT NUMBER
24032

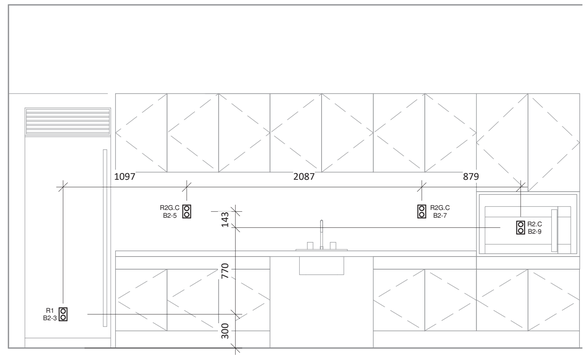
DRAWING NUMBER
E2.1



1 Proposed - Level 1 - Power & Data Plan

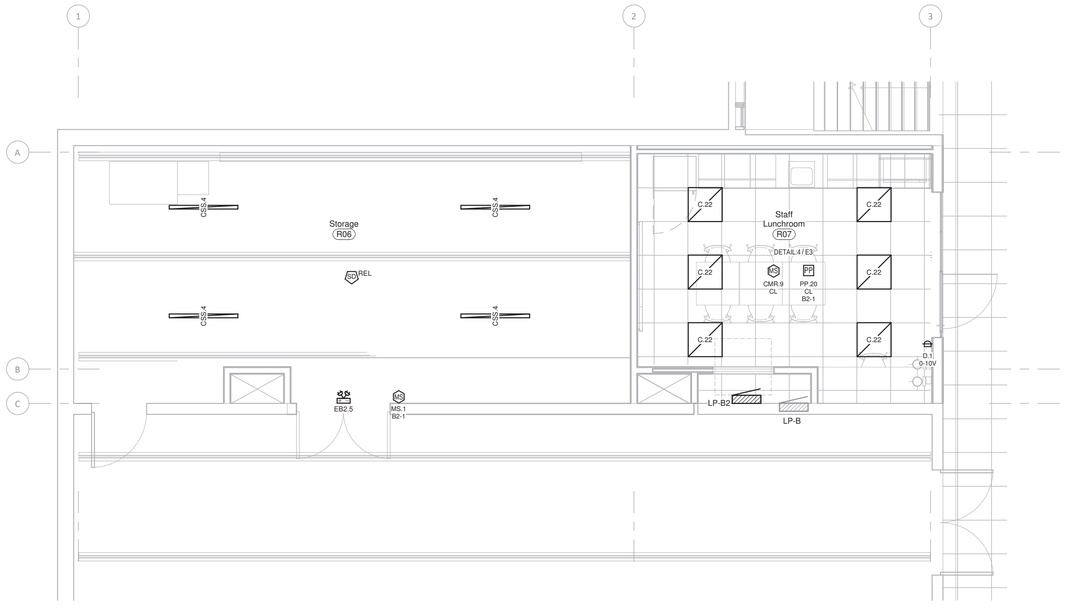
1 : 50

?	Sheet Notes
#	NOTE



3 Kitchenette

1 : 25



2 Proposed - Level 1 - Lighting & Life-Safety Plan

1 : 50

4 Panel LP-B Location

LICENSED PROFESSIONAL ENGINEER
S. HOLDITCH
100108001
Oct 18, 2024
PROVINCE OF ONTARIO

NO.	DESCRIPTION	DATE
3	Issued For Permit/Tender	Oct 18, 2024
2	Issued For Review	Aug 08, 2024
1	Issued For Review	Jul 26, 2024

REVISION SCHEDULE

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

PROJECT NAME

W.G. Johnson Centre Lunchroom

31 Kribs Street,
Cambridge, ON

DRAWING TITLE

Proposed Electrical Plan

SCALE: As indicated

SHEET SIZE: 24"x36"

PROJECT NUMBER: 24032

DRAWING NUMBER: **E2.2**

1 - Total Removed - Low Voltage Device Schedule

CURRENT SCHEDULE PHASE: EXISTING — SHOWING PHASE ITEMS: None

QTY	Type	Conduit	Description	Phase Added	Phase Removed
1	S.21mm	21mm EMT	Surface Mount Device Box & Conduit to accessible ceiling; Conduit Bushing	EXISTING	Tender
Total: 1					

3 - Total Removed - Electrical Device Schedule

CURRENT SCHEDULE PHASE: EXISTING — SHOWING PHASE ITEMS: None

Qty	Type ID	Relocated	Description	Type Comments	Phase Added	Phase Removed
1	DC	No	Direct Hardwire Connection	Powered Door Controller; Wired to line side of local lighting circuit. Estimated ~300W non-continuous load.	EXISTING	Tender
12	R1	No	15A Duplex Receptacle	120V 5-15R; 1-Gang Box	EXISTING	Tender
4	R1.S	No	15A Duplex Receptacle	120V 5-15R; Surface mount device box.	EXISTING	Tender
1	R1Q.S	No	15A Quad Receptacle - Surface Mount	120V 5-15R; Two - 15A Duplex Receptacles, in 2 Gang Surface Mount Box	EXISTING	Tender
3	X.JB4	No	Junction Box	4" x 4" Junction Box	EXISTING	Tender
1	XJB.8x8	Yes	Junction Box	Existing 8"x8" Junction Box; Relocate existing junction box and 21mm EMT feed to new wall location within closet. Assume seven #12 AWG wires require extending.	EXISTING	Tender
Total: 22						

4 - Total Removed - Fire Alarm Device Schedule

CURRENT SCHEDULE PHASE: EXISTING — SHOWING PHASE ITEMS: None

QTY	Model	Description	Type Comments	Phase Added	Phase Removed
4		Fire Alarm Initiating	Smoke Detector	EXISTING	Tender
Total: 4					

5 - Total Removed - Lighting Control Device Schedule

CURRENT SCHEDULE PHASE: EXISTING — SHOWING PHASE ITEMS: None

Qty	Type	Mfg.	Model	Description	Type Comments	Phase Added	Phase Removed
5	S.1	TBD	TBD	Switch, 1-Pole Architectural Decora Style	120V	EXISTING	Tender
2	X.MS	TBD	TBD	Generic Motion Sensor	120V	EXISTING	Tender
Total: 7							

6 - Total Removed - Lighting Fixture Schedule

CURRENT SCHEDULE PHASE: EXISTING — SHOWING PHASE ITEMS: None

Qty	Image	Type	Mfg.	Model#	Mounting	Height	Description	Remarks	Phase Added	Phase Removed
12		X.14	TBD	TBD			TBD	TBD	EXISTING	Tender
1		X.24	TBD	TBD			TBD	TBD	EXISTING	Tender
1		X.EB		Existing	Wall	2300mm	Emergency Battery Light - 2 Head;	Assumed 9W Incandescent	EXISTING	Tender
11		X.P	TBD	TBD			TBD	TBD	EXISTING	Tender
1		X.W1	TBD	TBD			TBD	TBD	EXISTING	Tender
Total: 26										

7 - Total Removed - Mechanical Equipment Schedule

E=Electrical, M=Mechanical

CURRENT SCHEDULE PHASE: EXISTING — SHOWING PHASE ITEMS: None

QTY	EQUIPMENT			ELECTRICAL					REMOTE ITEMS					
	Type ID	Relocated	Description	VOLTAGE	PHASE	hp - A - kW	MCA	MOCP	Interlock With	Isolation Switch By	Weather Proof	Wiring By:	Item Comments	Phase Added	Phase Removed
1	XFCU.2	Yes	Fan Coil Unit	120 V	1		15 A	15 A			No			EXISTING	Tender
1															

1 - Total New/Relocated - Low Voltage Device Schedule

CURRENT SCHEDULE PHASE: Tender — SHOWING PHASE ITEMS: Show Previous + New

QTY	Type	Conduit	Description	Phase Added
1	CR	16mm EMT	Security Card Reader. Device box & conduit to accessible ceiling within Tenant office space;	Tender
1	ES	16mm EMT	Electric Strike; Conduit to accessible ceiling within Tenant office space;	Tender
1	F5.21	21mm EMT	Std. recessed device Box & conduit to accessible ceiling; Conduit Bushing	Tender
2	PDO	16mm EMT	Power Door Operator; Device box & conduit to Door controller.	Tender
1	TV.U	27mm EMT	TV@1500mm; Deep 4x4 Device Box. Single gang plaster ring. Conduit to accessible ceiling; Conduit Bushing; Refer to TV detail; Confirm Mounting Height on Site prior to related work.; Fire caulk around penetration to corridor fire rated wall	Tender
Total: 6				

2 - Total New/Relocated - Electrical Equipment Schedule

CURRENT SCHEDULE PHASE: Tender — SHOWING PHASE ITEMS: Show Previous + New

Qty	Equip ID	Description	Type Comments	Enclosure	Mounting	Phase Added
1	LP-B2	Commercial Electrical Panel.	208/120V 3Φ4W 100A; Bolt On Breakers; c/w Hinged lockable cover	Type 1	Surface	Tender
Total: 1						

3 - Total New/Relocated - Electrical Device Schedule

CURRENT SCHEDULE PHASE: Tender — SHOWING PHASE ITEMS: Show Previous + New

Qty	Type ID	Relocated	Description	Type Comments	Phase Added
1	DC	No	Direct Hardwire Connection	Powered Door Controller; Wired to line side of local lighting circuit. Estimated ~300W non-continuous load.	Tender
4	R1	No	15A Duplex Receptacle	120V 5-15R; 1-Gang Box	Tender
1	R2.C	No	20A Duplex Receptacle	120V 5-20R; Mounted at Counter Height, 4" Above Backsplash.	Tender
2	R2G.C	No	20A Duplex Receptacle	120V 5-20R; Class A - GFI Receptacle; Mounted at Counter Height, 4" Above Backsplash.	Tender
1	XJB.8x8	Yes	Junction Box	Existing 8"x8" Junction Box; Relocate existing junction box and 21mm EMT feed to new wall location within closet. Assume seven #12 AWG wires require extending.	Tender
Total: 9					

5 - Total New/Relocated - Lighting Control Device Schedule

CURRENT SCHEDULE PHASE: Tender — SHOWING PHASE ITEMS: Show Previous + New

Qty	Type	Mfg.	Model	Description	Type Comments	Phase Added
1	CMR.9	Sensor Switch	CMR.9	PIR Ceiling Occ Sensor, Auto On/Off, 120V	120V; Auto-On; White; 360deg small motion; Single Relay	Tender
1	D.1	Sensor Switch	SPODM D WH	SwitchPod, Auto On, 24V, 0-10V Dimming, Push Button		Tender
1	MS.1	Sensor Switch	WSX WH	PIR Wall Switch Occ Sensor, Auto On/Off	120V; Auto-On; White; Surface EMT C. & Device Box	Tender
1	PP.20	Sensor Switch	PP20	Class 1 120V, to Class 2 15V Power / Relay Pack	Plenum Rated; Power up to 14 sensors	Tender
Total: 4						

6 - Total New/Relocated - Lighting Fixture Schedule

CURRENT SCHEDULE PHASE: Tender — SHOWING PHASE ITEMS: Show Previous + New

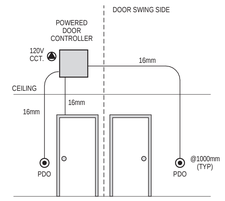
Qty	Image	Type	Mfg.	Model#	Mounting	Height	Description	Remarks	Phase Added
6		C.22	Lithonia	CPANL 2X2 24/33/44LM 40K M4 (CI-250ESS)	Recessed	Ceiling	LED 2x2 Flat Panel	120V, 20/28/39W; 2400/3300/4400 Lumen; 80 CRI; 4000K; Fixture set to be 2400 Lumens	Tender
4		CSS.4	Lithonia	CSS L48 4000LM MVOLT 40K 80CRI	Suspended	Ceiling	LED Strip Light	35.3W 4298Lumens 4' 120-277V 4000K 80CRI; Class 2 0-10V Dimmable; Chain hung at 10ft aff	Tender
1		EB2.5	Stanpro	SLA.12.050.2N.SLJ.WH	Wall	2300mm	Steel Battery Unit, Emergency Light	12V, 50W for 30min, 2-5W LJ Par18 LED Heads (2x655lm), White, Don't exceed battery capacity with additional remote lighting heads, Connect to Line Side of Local Lighting Circuit	Tender
Total: 11									

7 - Total New/Relocated - Mechanical Equipment Schedule

E=Electrical, M=Mechanical

CURRENT SCHEDULE PHASE: Tender — SHOWING PHASE ITEMS: Show Previous + New

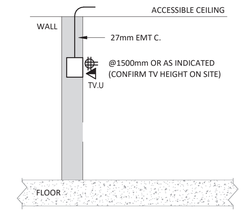
QTY	EQUIPMENT			ELECTRICAL						REMOTE ITEMS				
	Type ID	Relocated	Description	VOLTAGE	PHASE	hp - A - kW	MCA	MOCP	Interlock With	Isolation Switch By	Weather Proof	Wiring By:	Item Comments	Phase Added
1	DP.1	No		120 V	1	0.4HP, 4.5A	15 A	15 A		E	No			Tender
1	WH.1	No	Water Heater	208 V	1	2250 kW	15 A	15 A			No			Tender
1	XFCU.2	Yes	Fan Coil Unit	120 V	1		15 A	15 A			No			Tender
3														



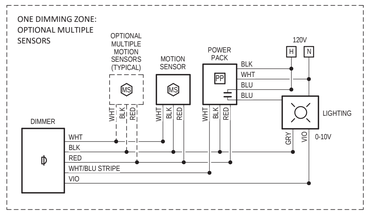
PROVIDE BACKING BOX & 16mm EMT FROM EACH DEVICE TO POWER DOOR CONTROLLER. COORDINATE WITH CONTROLLER PROVIDER.

- 16mm EMT TO DOOR HEADER, PULL STRING TO ELECTRIC STRIKE.
- PDO BUTTON OUTSIDE DOOR SWING AS SHOWN ON PLAN.
- PDO BUTTON ON DOOR SWING SIDE, BETWEEN 600mm & 1500mm FROM DOOR SWING
- PULL STRING IN ALL CONDUITS
- MOTION SENSOR MOUNTED AT 1050mm TO CENTRE

5 Conduit Detail - PDO



2 TV - Conduit Detail



WIRING DIAGRAM FOR 1 DIMMABLE MOTION CONTROLLED LIGHTING ZONE

ONE DIMMING ZONE, WITH ONE OR MORE MOTION SENSORS FOR COVERAGE.
DIMMER TYPE AS PER SCHEDULE DETERMINES AUTO-ON OR MANUAL-ON

4 SensorSwitch-Motion Controlled Dimming - Single Zone

PANEL: LP-B

Location: — **Volts:** 208/120 WYE — **A.I.C. Rating:**
Supply From: — **Phases:** 3 — **Mains Type:** MLO
Mounting: Recessed — **Wires:** 4 — **Mains Rating:** 125 A
Enclosure: Type 1 — **MCB Rating:**

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
B-1	Gym Lts. row 1 rm. 105	15 A	1							B-2
B-3	Gym Lts. row 4 rm. 105	15 A	1				1	15 A	Lts. in Gym Tan Rm 106	B-4
B-5	Gym Lts. row 3	15 A	1				1	15 A	Stage Lts B/Spare	B-6
B-7	Stage Rec. Stage Door	15 A	1				1	15 A	Stage Lts F/Spare	B-8
B-9	Trans Gym Lts/Spare	15 A	1				1	15 A	Stage Rec	B-10
B-11	Stage Flood Lts/Spare	15 A	1				1	15 A	Stage Rec	B-12
B-13	Stage Flood Lts/Spare	15 A	1				1	15 A	Stage Rec	B-14
B-15	Stage Flood Lts/Spare	15 A	1				1	15 A	Stage Rec	B-16
B-17	Stage Rec	15 A	1				1	15 A	Gym Rec & Clock	B-18
B-19	Gym Rec	15 A	1				1	15 A	Stage Lts	B-20
B-21	Rec in Gym Fan Room	15 A	1				1	15 A	Gym Spotlights	B-22
B-23	Maint. Rec on Stage	15 A	1				1	15 A	Exit Lites	B-24

Notes:
Hatch shows existing

PANEL: LP-B2

Location: — **Volts:** 208/120 WYE — **A.I.C. Rating:**
Supply From: — **Phases:** 3 — **Mains Type:** MLO
Mounting: Surface — **Wires:** 4 — **Mains Rating:** 100 A
Enclosure: Type 1 — **MCB Rating:**

Notes:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
B2-1	Lighting	15 A	1				1	15 A	Lunchroom Rec	B2-2
B2-3	Fridge	15 A	1				1	15 A	Storage Rec	B2-4
B2-5	Lunchroom Counter Rec	20 A	1							B2-6
B2-7	Lunchroom Counter Rec	20 A	1							B2-8
B2-9	Microwave	20 A	1							B2-10
B2-11	Drain Pump	15 A	1							B2-12
B2-13	Water Heater	15 A	2							B2-14
B2-15										B2-16
B2-17										B2-18
B2-19										B2-20
B2-21										B2-22
B2-23										B2-24

Notes:

NO.	DESCRIPTION	DATE
3	Issued For Permit/Tender	Oct 18, 2024
2	Issued For Review	Aug 08, 2024
1	Issued For Review	Jul 26, 2024

REVISION SCHEDULE

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

PROJECT NAME
W.G. Johnson Centre Lunchroom
31 Kribs Street,
Cambridge, ON

DRAWING TITLE
Details & Schedules

SCALE: 1 : 1
SHEET SIZE: 24"x36"
PROJECT NUMBER: 24032

DRAWING NUMBER
E3

DUCTWORK THICKNESS

LARGER DUCT DIMENSION (IN)	THICKNESS (US GA #)
UP TO 12	26
13 TO 29	24
30 TO 53	22
54 TO 82	20

COPPER & PEX/CPVC PIPE SIZE

NOMINAL PIPE SIZE (IN / MM)	COPPER PIPE TYPE "L" INSIDE DIA (IN / MM)	PEX/CPVC INSIDE DIA (IN / MM)
3/8 / 10	0.430 / 10.922	0.485 / 12.319
1/2 / 15	0.545 / 13.843	0.584 / 14.834
5/8 / 18	0.666 / 16.916	0.681 / 17.297
3/4 / 20	0.785 / 19.939	0.875 / 22.225
1 / 25	1.025 / 26.035	1.069 / 27.153
1-1/4 / 32	1.265 / 32.131	1.263 / 32.080
1-1/2 / 40	1.505 / 38.227	1.653 / 41.986
2 / 50	1.985 / 50.419	2.041 / 51.841
2-1/2 / 65	2.465 / 62.611	2.431 / 61.747
3 / 80	2.945 / 74.803	2.900 / 73.660
4 / 100	3.897 / 98.984	3.826 / 97.180
6 / 150	5.845 / 148.463	5.761 / 146.329

MECHANICAL LEGEND - PIPING

SCHEDULE (x = TYPE)	EXISTING	NEW	DESCRIPTION
PLUMBING SCHEDULES			EXISTING PIPING TO BE DEMOLISHED
	CW	CW	COLD WATER SUPPLY LINE
	NPW	NPW	NONPOTABLE WATER SUPPLY LINE
	PW	PW	POTABLE WATER SUPPLY LINE
	SW	SW	SOFT WATER LINE
	HWS	HWS	HOT WATER SUPPLY LINE
	HWR	HWR	HOT WATER RETURN LINE
	S	S	SANITARY LINE
	S (U)	S (U)	SANITARY LINE UNDER SLAB
	S (C)	S (C)	SANITARY LINE IN CEILING
	V	V	VENT LINE
	D	D	DRAIN LINE
	D (U)	D (U)	DRAIN LINE UNDER SLAB
	D (C)	D (C)	DRAIN LINE IN CEILING
	SD	SD	STORM DRAIN LINE
	SD (U)	SD (U)	STORM DRAIN LINE UNDER SLAB
	SD (C)	SD (C)	STORM DRAIN LINE IN CEILING
MECHANICAL PIPING SCHEDULES	G	G	GAS LINE
	CA	CA	COMPRESSED AIR LINE
	VA	VA	VACUUM LINE
	HEWS	HEWS	HEATING WATER SUPPLY LINE
	HEWR	HEWR	HEATING WATER RETURN LINE
	CHWS	CHWS	CHILLED WATER SUPPLY LINE
	CHWR	CHWR	CHILLED WATER RETURN LINE
	COWS	COWS	CONDENSER WATER SUPPLY LINE
	COWR	COWR	CONDENSER WATER RETURN LINE
	LPC	LPC	LOW PRESSURE CONDENSATE LINE

MECHANICAL LEGEND - FIRE PROTECTION

SCHEDULE (x = TYPE)	EXISTING	DEMO	NEW	DESCRIPTION
FIRE PROTECTION SCHEDULES	P	P	PN	PENDENT SPRINKLER HEAD
	U	U	UN	UPRIGHT SPRINKLER HEAD
	C	C	CN	CONCEALED SPRINKLER HEAD
			PC	SPRINKLER HEAD CONVERTED TO PENDENT
			UC	SPRINKLER HEAD CONVERTED TO UPRIGHT
			CC	SPRINKLER HEAD CONVERTED TO CONCEALED
	FHC	FHC	FHC	FIRE HOSE CABINET
	FE	FE	FE	PORTABLE FIRE EXTINGUISHER

PLUMBING SYSTEM LEGEND

SCHEDULE (x = TYPE)	EXISTING	DEMO	NEW	DESCRIPTION
PIPE ACCESSORY SCHEDULES	GV	GV	GV	GATE VALVE
				BALL VALVE
				BUTTERFLY VALVE
				CHECK VALVE
				THREE-WAY VALVE
				MOTORIZED VALVE
				MOTORIZED THREE-WAY VALVE
				PRESSURE REDUCING VALVE
				BACKFLOW PREVENTER
				COUPLING
				REDUCER
				HOSE BIBB
				STRAINER
	WM	WM	WM	WATER METER
				PUMP

MECHANICAL LEGEND

SCHEDULE (x = TYPE)	EXISTING	DEMO	NEW	DESCRIPTION
HVAC SCHEDULES				SUPPLY OR OUTDOOR AIR DUCTWORK UP
				SUPPLY OR OUTDOOR AIR DUCTWORK DOWN
				RETURN AIR DUCTWORK UP
				RETURN AIR DUCTWORK DOWN
				EXHAUST AIR DUCTWORK UP
				RETURN AIR DUCTWORK DOWN
	12Ø 16x12	12Ø 16x12	12Ø 16x12	ROUND (DIA) OR RECT (W x H) DUCT DIMENSIONS
				DUCT WITH INSIDE LINER
				DUCT WITH INSULATION
				FLEXIBLE DUCT
				SUPPLY AIR DIFFUSER (RECT OR ROUND NECK)
				EXHAUST AIR GRILLE (RECT OR ROUND NECK)
				RETURN AIR GRILLE (RECT OR ROUND NECK)
	T	T	T	THERMOSTAT
	H	H	H	HUMIDISTAT
	T	T	T	TEMPERATURE SENSOR
	P	P	P	PRESSURE SENSOR
	CO	CO	CO	CARBON MONOXIDE SENSOR
	CO2	CO2	CO2	CARBON DIOXIDE SENSOR
	S	S	S	SPEED CONTROLLER
				MOTORIZED DAMPER
	FD	FD	FD	FIRE DAMPER
	SD	SD	SD	SMOKE DAMPER
	CFSD	CFSD	CFSD	COMBINATION FIRE & SMOKE DAMPER

CD.3 — MARK (AS PER AIR TERMINAL SCHEDULE)
250 CFM — AIRFLOW

1 Tags - Air Terminals

T.1 — MECHANICAL CONTROL MARK
RTU.3 — MECHANICAL EQUIPMENT MARK
T / H — CONTROL SYMBOL (VARIES, REFER TO LEGEND)
IF CHARACTER IS SHOWN, ITEM IS RELOCATED

2 Tags - Mechanical Control

MECHANICAL ABBREVIATIONS

AC	AIR CONDITIONER
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AH	ACCESS HATCH
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS
B/W	BETWEEN
BBH	ELECTRIC BASEBOARD HEATER
BFP	BACKFLOW PREVENTER
BT	BATHTUB
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
BV	BALL VALVE
C/W	COMPLETE WITH
CO	CLEANOUT
CTE	CONNECT TO EXISTING
DB	DRY BULB TEMPERATURE
DF	DRINKING FOUNTAIN
DG	DOOR GRILLE
DIA	DIAMETER
DN	DOWN
DPDT	DOUBLE POLE DOUBLE THROW
DTBS	DOWN TO BELOW SLAB
DTL	DETAIL
EAD	EXHAUST AIR DUCT
ECM	ELECTRICALLY COMMUTATED MOTOR
EDF	ELECTRIC DRINKING FOUNTAIN
EEW	EMERGENCY EYE WASH
EEWS	EMERGENCY EYE WASH AND SHOWER
EL	ELEVATION
EX	EXISTING
EXP	EXPANSION
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
FFH	ELECTRIC FAN FORCED HEATER
FHC	FIRE HOSE CABINET
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HD	HUB DRAIN
HP	HORSEPOWER
HPF	HIGH PASS FILTER
HZ	HERTZ
ID	INSIDE DIAMETER
KS	KITCHEN SINK
KW	KILOWATT
L	LAVATORY
LB	LAUNDRY BOX
LPH	LITERS PER HOUR
LPS	LITERS PER SECOND
MBH	1000 BTUS PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MFR	MANUFACTURER
NC	NORMALLY CLOSED
NFHB	NONFREEZE HOSE BIBB
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NPS	NOMINAL PIPE SIZE
NTS	NOT TO SCALE
O/H	OVERHEAD
OA	OUTSIDE AIR
OAD	OUTSIDE AIR DUCT
OBVD	OPPOSED BLADE VOLUME DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OER	OPEN ENDED RETURN
PH	PHASE
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
RAD	RETURN AIR DUCT
RECT	RECTANGULAR
RH	ROOF HOPPER
RPM	REVOLUTIONS PER MINUTE
RV	RELIEF VENT
RWL	RAIN WATER LEADER
S	SINK
SAD	SUPPLY AIR DUCT
SH	SHOWER
SHD	SHOWER DRAIN
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION
SS	SERVICE SINK
SYMBOL	MEANING
T&P	TEMPERATURE AND PRESSURE
T/D	TRANSFER DUCT
TR	TONS OF REFRIGERATION
TYP	TYPICAL
U	URINAL
U/C	UNDERCUT
UL	UNDERWRITERS LABORATORIES
ULC	UNDERWRITERS LABORATORIES CANADA
USG	US GALLONS
UV	ULTRAVIOLET
V	VOLTS
VTR	VENT THROUGH ROOF
VVT	VARIABLE VOLUME & TEMPERATURE
W/O	WITHOUT
WB	WASH BASIN
WC	WATER CLOSET
WH	WATER HEATER
WM	WATER METER
WT	WEIGHT

Mechanical Sheet List

Sheet #	Sheet Name
M1	Mechanical Legend
M2	Mechanical Specification
M3	Plumbing Plan
M4	HVAC Plan
M5	Fire Protection Plan
Total: 5	

LICENSED PROFESSIONAL ENGINEER
S. HOLDITCH
100108001
Oct 18, 2024
PROVINCE OF ONTARIO

NO.	DESCRIPTION	DATE
3	Issued For Permit/Tender	Oct 18, 2024
2	90% Permit/Tender	Aug 08, 2024
1	90% Permit/Tender	Jul 26, 2024

REVISION SCHEDULE

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

PROJECT NAME
W.G. Johnson Centre Lunchroom
31 Kribs Street,
Cambridge, ON

DRAWING TITLE
Mechanical Legend

SCALE: 1 : 1
SHEET SIZE: 24"x36"
PROJECT NUMBER: 24032
DRAWING NUMBER: **M1**

GENERAL MECHANICAL SPECIFICATION

GENERAL CONDITIONS

A. THE CANADIAN STANDARD FORM OF CONSTRUCTION CONTRACT AND GENERAL CONDITIONS GOVERNING THE SAME CCDC PARTS 1 TO 12 INCLUSIVE ARE HEREBY MADE PART OF THIS SPECIFICATION.
B. ALL MECHANICAL WORK SHALL CONFORM TO THE LATEST VERSION OF THE ONTARIO BUILDING CODE (OBC) AND THE LATEST GOVERNING VERSION OF THE APPLICABLE STANDARDS/REGULATIONS OF THE FOLLOWING AUTHORITIES AS REFERENCED AND REQUIRED BY THE OBC:
   a. CGA - CANADIAN GAS ASSOCIATION
   b. TSSA - TECHNICAL STANDARDS AND SAFETY AUTHORITY
   c. NFPA - NATIONAL FIRE PROTECTION ASSOCIATION
   d. CSA - CANADIAN STANDARDS ASSOCIATION
   e. OFC - ONTARIO FIRE CODE
   f. OESC - ONTARIO ELECTRICAL SAFETY CODE
   g. ASHRAE - AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS
   h. AND ALL REGULATIONS OF MUNICIPALITIES, AND ANY OTHER AUTHORITIES HAVING JURISDICTION (AHJ).
C. IN CASE OF COINCIDING GUIDELINES, THE STRICTER CRITERIA SHALL BE IMPLEMENTED, OR AS SPECIFIED OTHERWISE.
D. THE CONTRACTOR SHALL MAINTAIN LIABILITY INSURANCE AS REQUIRED.
E. THIS SET OF DRAWINGS AND SPECIFICATIONS SHALL BE READ IN COORDINATION WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES OR UNCERTAINTIES SHALL BE RAISED TO ARCHITECT AND/OR ENGINEER PRIOR TO CLOSING OF TENDERS, ANY WORK, OR PRE-WORK. ANY UNCOORDINATED WORK NOT SHOWN ON PLANS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
F. THE CONTRACTOR SHALL SUBMIT ONE SET OF ELECTRONIC PDF SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW. SHOP DRAWINGS SHALL INCLUDE 'OPERATION AND MAINTENANCE MANUAL' CONTAINING ALL DATA SHEETS, BROCHURES, OPERATING AND MAINTENANCE MANUAL, RECOMMENDED SPARE PARTS. MATERIALS SHALL NOT BE ORDERED UNTIL REVIEW HAS BEEN COMPLETED. APPROVAL IS FOR GENERAL DESIGN COMPLIANCE ONLY.
G. ALL QUESTIONS REGARDING TO THE WORK, AND OR THIS SET OF DRAWINGS AND SPECIFICATIONS SHALL BE RAISED TO THE CONSULTANT THROUGH A REQUEST FOR INFORMATION (RFI) SUBMISSION. THE CONTRACTOR SHALL ALLOW FOR UP TO TWO WEEKS FOR RESPONSES AND/OR APPROVALS FROM THE ENGINEER/CONSULTANT. CLAIMS FOR DELAY WITHIN THIS PERIOD WILL NOT BE ACCEPTED.
H. THE CONTRACTOR SHALL PERFORM SITE INSPECTION PRIOR TO BIDDING TO VERIFY ALL EXISTING CONDITIONS AND INSTALLATIONS. THE CONTRACTOR SHALL INCLUDE ALL NECESSARY COSTS FOR ANY ADJUSTMENT OF INSTALLATIONS SHOWN ON THIS SET OF DRAWINGS AND SPECIFICATIONS AGAINST ACTUAL EXISTING CONDITIONS FOR THE COMPLETION OF WORK.
I. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS, AND OTHER DOCUMENTS/ACTIVITIES REQUIRED BY GOVERNING AUTHORITIES PRIOR TO CONSTRUCTION WORK AND THOSE REQUIRED AFTER SUBSTANTIAL COMPLETION OF PARTS AND SECTIONS OF THE CONTRACT. ALL APPLICABLE TAXES, AND ANY COSTS INCURRED BY RE-INSPECTION SHALL BE INCLUDED.
J. THE CONTRACTOR SHALL CLOSELY COORDINATE WITH ALL CONCERNED TRADES IN ORDER TO CARRY OUT THE DESIGN AS INTENDED BY THIS SET OF DRAWINGS AND SPECIFICATIONS WITHIN THE APPROVED PROJECT TIMELINE.
K. COPIES OF LATEST CONSTRUCTION DRAWINGS SHALL ALWAYS BE READILY AVAILABLE ON SITE. THE COPIES SHALL BE MARKED AND UPDATED REGULARLY TO SHOW PROGRESS OF CONSTRUCTION.
L. THE CONTRACTOR SHALL SHOULDER ANY COST IMPLICATIONS OF IMPLEMENTATION OF ALTERNATIVE PRODUCTS INCLUDING ALL COSTS INCURRED BY OTHER TRADES, UNLESS OTHERWISE APPROVED AND AGREED UPON UNDER A SIGNED DOCUMENT BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
M. THE CONTRACTOR SHALL PROVIDE COMPLETE COST BREAKDOWN FOR ALL ADDITIONAL WORK OR ANY REMOVED SCOPE FROM CONTRACT.
N. ALL WORK AFFECTING NORMAL OPERATION OF AREAS AND/OR UTILITIES OUTSIDE OF CONTRACT AND/OR OUTSIDE NORMAL WORKING HOURS SHALL BE COORDINATED WITH OWNER/LANDLORD FOR PROPER INSTRUCTION AND SCHEDULING. ALL COST IMPLICATIONS SHALL BE SHOULDERED BY THE CONTRACTOR.
O. THE CONTRACTOR SHALL PROVIDE ACCESS DOORS OR OTHER APPROVED MEANS OF ACCESS TO MECHANICAL AND PLUMBING EQUIPMENT AND ACCESSORIES (SUCH AS VOLUME AND FIRE DAMPERS) FOR SERVICING AS SHOWN ON PLANS AND/OR AS REQUIRED IN CEILINGS AND/OR WALLS. ALL ACCESS DOORS IN FIRE RATED ASSEMBLIES SHALL BE APPROVED FOR SUCH USE IN ITS ULC LISTING.
P. THIS SET OF PLANS INCLUDES SCHEDULES FOR MATERIAL LENGTHS AND FITTINGS. THE QUANTITIES SHOWN IN THESE SCHEDULES ARE **APPROXIMATE VALUES** OF THE REQUIREMENTS ONLY. THE CONTRACTOR SHALL VERIFY ACTUAL QUANTITY OF MATERIALS TO BE USED BASED ON EXISTING SITE CONDITIONS IN THE FIELD.
Q. APPROPRIATE SLEEVES AND COLLARS ON BOTH SIDES SHALL BE PROVIDED FOR PIPE AND DUCT PENETRATIONS AS APPLICABLE. PROVIDE FIRESTOPPING AND/OR WEATHER-TIGHT SYSTEMS AS REQUIRED.
R. ALL PIPING AND DUCTWORK PENETRATING THROUGH FIRE-RATED ASSEMBLIES SHALL BE NON-COMBUSTIBLE. ALL OPENINGS AND PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES SHALL BE PROPERLY TREATED WITH AN APPROVED FIRESTOPPING MATERIAL AND METHOD. CONTRACTOR TO SUBMIT FIRESTOPPING LISTING CERTIFICATES AND RELATED DOCUMENTS TO ENGINEER PRIOR TO ANY COVERING WORKS, INCLUDING DRYWALL. EXISTING SYSTEMS (SUCH AS DUCTWORK AND PIPING) THAT WILL PENETRATE NEW FIRE-RATED ASSEMBLIES SHOULD ALSO BE PROVIDED WITH APPROVED FIRESTOPPING MATERIAL AND METHOD THAT IS COMPATIBLE WITH EXISTING MATERIAL.
S. APPROPRIATE SCANNING, SUCH AS USE OF GROUND PENETRATING RADAR EQUIPMENT, OF BUILDING ELEMENTS (WALLS, FLOORS, CEILINGS) IS REQUIRED PRIOR TO ANY RELATED WORK AND SHALL BE INCLUDED IN TENDER PRICE. SCANNING WORK SHALL BE COORDINATED WITH OWNER/LANDLORD. CUTTING, DRILLING, AND OTHER SIMILAR WORK ON BUILDING ELEMENTS (WALLS, FLOORS, CEILINGS) SHALL BE APPROVED BY OWNER/LANDLORD PRIOR TO RELATED WORK.
T. ALL EQUIPMENT, PLUMBING FIXTURES, PIPES, INSULATION AND RELATED ACCESSORIES SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS, AND SHALL BE PROVIDED WITH APPROPRIATE SPACE FOR SERVICING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. ALL EQUIPMENT DRAINS SHALL BE PIPED TO FLOOR DRAINS UNLESS OTHERWISE SPECIFIED. EQUIPMENT SUPPORTS NOT SUPPLIED BY MANUFACTURER SHALL BE CONSTRUCTED USING STRUCTURAL-GRADE STEEL.
U. ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED WITH ISOLATION VALVES AND/OR FITTINGS TO ALLOW REMOVAL OF EQUIPMENT FOR SERVICING.
V. ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATORS OR OTHER SIMILAR MEANS TO ISOLATE EQUIPMENT VIBRATION FROM BUILDING STRUCTURE. ALL MECHANICAL EQUIPMENT SHALL BE CONNECTED TO PIPING AND/OR DUCTWORK BY MEANS OF A FLEXIBLE CONNECTION.

CUTTING, PATCHING & REFINISHING

A. ALL CUTTING, PATCHING, AND REFINISHING WORKS ON ARCHITECTURAL AND STRUCTURAL ASSEMBLIES NECESSARY TO CARRY OUT THE DESIGN INTENDED BY THIS SET OF DRAWINGS AND SPECIFICATIONS SHALL BE DONE BY THE GENERAL CONTRACTOR AT THIS CONTRACTOR'S EXPENSE.
B. PATCHING SHALL BE CARRIED OUT WHILE MAINTAINING THE INTEGRITY OF ANY FIRE-RATED MEMBRANES, NOISE MITIGATION SYSTEMS, VAPOR RETARDANT LAYERS, THERMAL INSULATION, AND ALL OTHER SYSTEMS AFFECTED BY THE WORK.

TESTING, ADJUSTING & BALANCING

A. ALL DUCTED AIR AND ALL WATER SYSTEMS SHALL HAVE ALL OF THEIR APPLICABLE COMPONENTS AND SUBSYSTEMS BALANCED AS SCHEDULED AND SHOWN ON PLANS. AIR AND/OR WATER BALANCING SHALL BE CARRIED OUT BY A CERTIFIED THIRD-PARTY CONTRACTOR. AIR BALANCING REPORT AND/OR WATER BALANCING REPORT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. TESTING CERTIFICATIONS SHALL BE INCLUDED IN THE CLOSE-OUT DOCUMENTS.
B. ALL EXISTING AIR TERMINALS AFFECTED BY RENOVATION WORK AND IN SYSTEMS INVOLVING PARTIAL RENOVATION SHALL HAVE THEIR AIRFLOW SETTINGS RECORDED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ENSURE THAT AIRFLOW AT ALL AIR TERMINALS BE MAINTAINED AS RECORDED OR OTHERWISE AS DESCRIBED IN THIS SET OF PLANS. TEST AND BALANCE AS NEEDED. AFTER CONSTRUCTION, AIRFLOW SETTINGS SHALL BE RECORDED AGAIN FOR COMPARISON. REPORT SHALL BE SUBMITTED TO ENGINEER.

RENOVATION

A. THE CONTRACTOR SHALL PERFORM SITE INSPECTION PRIOR TO BIDDING TO VERIFY ALL EXISTING CONDITIONS AND INSTALLATIONS. THE CONTRACTOR SHALL INCLUDE ALL NECESSARY COSTS FOR ANY ADJUSTMENT OF EXISTING UTILITIES AND EQUIPMENT ON SITE, AND FOR ANY ADJUSTMENT OF INSTALLATIONS SHOWN ON THIS SET OF DRAWINGS AND SPECIFICATIONS AGAINST ACTUAL EXISTING CONDITIONS FOR THE COMPLETION OF WORK.
B. ALL ALTERATION AND DEMOLITION WORK OF EXISTING EQUIPMENT AND SERVICES SHALL BE COORDINATED WITH THE OWNER/LANDLORD TO MINIMIZE SYSTEM INTERRUPTIONS AND OPERATIONAL SETBACKS.
C. ALL REMOVED AND DEMOLISHED EXISTING EQUIPMENT AND MATERIALS SHALL BE THE OWNER'S PROPERTY. ALL ITEMS TAGGED AS 'FOR DISPOSAL' BY THE OWNER OR THE OWNER'S REPRESENTATIVE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

CLOSE-OUT REQUIREMENTS

A. DOCUMENTS:
   a. TESTING, BALANCING, AND COMMISSIONING CERTIFICATES AND REPORTS (SIGNED AND IN CONTRACTOR'S COMPANY LETTERHEAD) OF ALL APPLICABLE MECHANICAL AND PLUMBING SYSTEMS UNDER CONTRACT APPROVED BY THE ENGINEER AND ALL GOVERNING AUTHORITIES INCLUDING BUT NOT LIMITED TO:
      - PIPE TEST REPORT AT THE ROUGH-IN STAGE STATING THAT UNDERGROUND PIPES ARE SLOPED PER OBC 7.4.8.1 AND TESTED AS PER OBC 7.3.6.4 OR 7.3.6.5 PRIOR TO CONCRETE POURING.
      - PRESSURE TEST REPORT USING AIR/WATER AT THE ROUGH-IN STAGE IN ACCORDANCE WITH OBC 7.3.6.1.(1) FOR DRAINS AND VENTS.
      - AIR BALANCING REPORT
      - FINAL TEST REPORT USING SMOKE OR AIR PRESSURE AFTER THE INSTALLATION OF ALL FIXTURES, IN ACCORDANCE WITH OBC 7.3.6.1.(2) FOR DRAINS AND VENTS
      - PRESSURE TEST REPORT USING AIR/WATER ON THE COMPLETE SYSTEM AFTER THE INSTALLATION OF ALL FIXTURES, IN ACCORDANCE WITH OBC 7.3.7.1.(1) FOR POTABLE WATER SYSTEMS
   b. TESTING REPORT OF SMOKE, FIRE, AND/OR COMBINATION FIRE/SMOKE DAMPERS INDICATING THAT THE DAMPER(S) CLOSED DURING ALARM TESTS SIGNED BY CONTRACTOR ON COMPANY LETTERHEAD.
   c. WRITTEN DOCUMENT AS WARRANTY FOR ALL INSTALLATIONS IN THIS CONTRACT FOR A PERIOD OF ONE YEAR FROM AN AGREED UPON DATE BY THE OWNER OR THE OWNER'S REPRESENTATIVE IN ACCEPTANCE OF CONSTRUCTION CONTRACT COMPLETION.
   d. THREE (3) SETS OF HARD-BOUND 'OPERATION AND MAINTENANCE MANUAL' CONTAINING ALL DATA SHEETS, BROCHURES, OPERATING AND MAINTENANCE MANUAL, RECOMMENDED SPARE PARTS, COMPLETE APPROVED SHOP DRAWINGS, AND OTHER RELEVANT DOCUMENTS, LABELED ACCORDINGLY, AND WITH MARKERS/DIVIDERS/INSERTS FOR LOGICAL ORGANIZATION, AND AN ELECTRONIC COPY (IN PDF) SAVED IN A USB FLASH DRIVE. A PRELIMINARY SET (IN PDF) SHALL BE SUBMITTED TO CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO REPRODUCTION. REVISE AND RESUBMIT AS REQUIRED UPON REVIEW.
B. TRAINING: THE CONTRACTOR SHALL CONDUCT ORIENTATION AND TRAINING SESSIONS TO THE OWNER AND/OR OWNER'S MAJOR PERSONNEL IN THE PROPER OPERATION AND MAINTENANCE OF ALL INSTALLED MECHANICAL AND PLUMBING EQUIPMENT UNDER CONTRACT. THE TRAINING SHALL BE OUTLINED AND CARRIED OUT REFERENCING THE 'OPERATION AND MAINTENANCE MANUAL' PROVIDED AS PART OF CLOSE-OUT DOCUMENTS.
C. RECORD DRAWINGS:
   a. WITHIN THIRTY (30) DAYS OF COMPLETION OF CONTRACT WORK, THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS FOR ALL COMPLETED DISCIPLINES UNDER SCOPE. THE AS-BUILT DRAWINGS SHALL REFLECT ALL ACTUAL CONSTRUCTION WORK, INCLUDING ALL DEVIATIONS FROM CONSTRUCTION DRAWINGS AND ALL APPROVED ALTERNATES IMPLEMENTED ON SITE. PROVIDE ONE (1) SET OF THE FINAL AS-BUILT DRAWINGS, CERTIFIED AND SIGNED, TO ENGINEER FOR REVIEW. THE ENGINEER'S REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY OF THE ACCURACY OF REFLECTED INFORMATION ON THE AS-BUILT DRAWINGS.
   b. IN THE EVENT OF ANY DISCREPANCIES AND ANOMALIES IN THE REFLECTED INFORMATION ON THE AS-BUILT DRAWINGS AND THE ACTUAL CONSTRUCTION ON SITE, THE CONTRACTOR SHALL SHOULDER ALL COST IMPLICATIONS OF RECTIFICATION OF ALL DEFICIENCIES AND PROBLEMS DISCOVERED WITHIN A PERIOD OF ONE (1) YEAR FROM AN AGREED UPON DATE BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

INSPECTIONS BY CONSULTANT

A. CONTRACTOR SHALL NOTIFY CONSULTANTS WHEN INSPECTIONS ARE REQUIRED. ALLOW MINIMUM OF THREE (3) BUSINESS DAYS OF NOTICE PRIOR TO ACTUAL DATE OF INSPECTION.
B. THE CONTRACTOR SHALL ENSURE THAT ALL UPDATED DRAWINGS AND OTHER RELEVANT DOCUMENTS REQUIRED FOR PROPER ANALYSIS AND/OR RESOLUTION ARE PROVIDED ON THE DAY OF INSPECTION.
C. INSPECTIONS ARE REQUIRED AT THE FOLLOWING MILESTONES:
   a. MECHANICAL AND PLUMBING SYSTEM INSTALLATIONS PRIOR TO ENCLOSURE INCLUDING ROUGHINS PRIOR TO DRYWALL AND CONCRETE COVERING.
   b. FINAL INSPECTION.

MISCELLANEOUS

A. ALL MATERIALS WITHIN A FLOOR, CEILING, OR ROOF ASSEMBLY USED AS A RETURN AIR PLENUM SHALL HAVE A FLAME-SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED CLASSIFICATION OF NOT MORE THAN 50. EXPOSED WOOD AND WOOD FRAMING IS NOT PERMITTED WITHIN A RETURN AIR PLENUM.
B. SEPARATION BETWEEN DISSIMILAR METALS SHALL BE PROVIDED THROUGH GASKETS OR SHIMS OF APPROVED MATERIAL TO PREVENT ELECTROLYTIC ACTION. DIELECTRIC UNIONS OR FLANGES SHALL BE PROVIDED WHERE PIPING OF DISSIMILAR METALS ARE CONNECTED. IN CASE OF CONNECTIONS BETWEEN COPPER AND STEEL PIPING, A BRASS FITTING OR VALVE MAY BE USED. COPPER PIPING AND CONCRETE OR MASONRY CONSTRUCTION SHALL NOT BE PERMITTED TO HAVE DIRECT CONTACT.

MOUNTING HEIGHTS

A. ALL CONTROL DEVICES OF MECHANICAL SYSTEMS LOCATED IN A BARRIER-FREE PATH OF TRAVEL SHALL BE MOUNTED TO CENTRE OF DEVICE AT
   a. 1200MM AFF, IN CASE OF THERMOSTATS
   b. BETWEEN 900MM TO 1100MM AFF LEVEL FOR ALL OTHER CONTROLS
B. ALL CONTROL DEVICES OF MECHANICAL SYSTEMS NOT LOCATED IN A BARRIER-FREE PATH OF TRAVEL SHALL BE MOUNTED TO CENTRE OF DEVICE AT 1400MM AFF, OR OTHERWISE AS NOTED IN THIS SET OF PLANS AND AS RECOMMENDED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
C. ALL CONTROL DEVICES SHALL BE INSTALLED IN THE IMMEDIATE VICINITY OF LIGHT SWITCHES IN THE ROOM/SPACE AS APPLICABLE OR AS OTHERWISE NOTED IN THIS SET OF PLANS.
D. THE FOLLOWING SHALL BE MOUNTED TO BOTTOM OF EQUIPMENT AS FOLLOWS:
   a. BASEBOARD HEATER 100MM AFF (OR ABOVE BASEBOARD TRIM, IF ANY)

THERMAL INSULATION

GENERAL CONDITIONS

A. ALL INSULATION SHALL CONFORM TO THE THERMAL INSULATION ASSOCIATION OF CANADA (TIAC) NATIONAL INSULATION STANDARDS MANUAL, THE MANUFACTURER'S PUBLISHED INSTRUCTION AND REQUIREMENT REFERENCES, AND THESE SPECIFICATIONS.
B. ALL ITEMS TO BE COVERED SHALL BE TESTED AGAINST LEAKAGE BEFORE COVERING APPLICATION.
C. INSULATION OVER EQUIPMENT WHICH MAY REQUIRE SERVICING, MAINTENANCE, OR REPLACEMENT SHALL BE INSTALLED IN A MANNER THAT ALLOWS EASY REMOVAL OR REPLACEMENT WITHOUT DAMAGE TO ADJACENT INSULATION (ONLY PREFABRICATED TYPE INSULATION SHALL BE USED).
D. ALL VALVES, UNIONS, AND OTHER FITTINGS WHICH ARE 25MM AND SMALLER IN POTABLE AND NON-POTABLE WATER SYSTEMS SHALL NOT BE REQUIRED TO BE INSULATED.
E. ALL EXISTING SYSTEMS REQUIRING INSULATION WITHIN AREA OF WORK WITH DILAPIDATED OR MISSING INSULATION SHALL BE REPAIRED AND/OR PROVIDED WITH APPROPRIATE INSULATION.

PIPE INSULATION

A. ALL DOMESTIC WATER AND HYDRONIC PIPING SHALL BE PROVIDED WITH PRE-FORMED SECTIONAL FIBERGLASS PIPE INSULATION WITH VAPOR BARRIER JACKET .
B. INSULATION THICKNESS SHALL BE AS FOLLOWS:
   a. 15MM FOR METAL POTABLE AND NON-POTABLE COLD WATER.
   b. FOR PLASTIC POTABLE AND NON-POTABLE COLD WATER, NO INSULATION SHALL BE REQUIRED EXCEPT FOR METAL PARTS IN COLD WATER PIPING SHALL BE PROVIDED WITH 15MM INSULATION.
   c. HOT WATER PIPING 32MM OR SMALLER SHALL BE PROVIDED WITH 25MM INSULATION.
   d. HOT WATER PIPING 38MM OR LARGER SHALL BE PROVIDED WITH 38MM INSULATION.
   e. 25MM FOR ABOVE GROUND PLASTIC AND METAL HORIZONTAL STORM WATER, AND 25MM FOR UNDERSIDE OF ROOF DRAIN ASSEMBLIES.
C. ALL FITTINGS, VALVES, AND ACCESSORIES CONNECTED TO HOT AND COLD WATER PIPING SYSTEMS SHALL BE PROVIDED WITH INSULATION CEMENT WITH THICKNESS AS OUTLINED ABOVE. COLD WATER FITTING INSULATION SHALL BE SEALED WITH VAPOUR BARRIER ADHESIVE, SHALL BE REINFORCED WITH GLASS OPEN WEAVE FIBRE TAPE AND SHALL BE SMOOTH-FINISHED WITH A COAT OF MASTIC.
D. ULC-LABELLED SELF ADHESIVE ALUMINUM TAPE SHALL BE USED. INSULATION AND VAPOR BAERRIER SHALL BE SEALED WITH SUITABLE LAP CEMENT.
E. ALL INTERIOR EXPOSED PIPE INSULATION SHALL BE PROVIDED WITH PVC JACKETING AND SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S REQUIREMENTS.

DUCT INSULATION

A. 15MM THICK ACOUSTIC LINING SHALL BE PROVIDED AS SHOWN ON PLANS AND ON THE FIRST 3 METERS OF SUPPLY AND RETURN DUCTWORK. WHERE ACOUSTIC LINING IS INSTALLED, SIZE OF DUCTWORK SHOWN SHALL BE THE ACTUAL INSIDE DUCT DIMENSION INCLUDING ACOUSTIC LINING THICKNESS.
B. DUCT INSULATION WITH VAPOR BARRIER SHALL BE PROVIDED FOR ALL DUCTWORK RUNNING IN UNCONDITIONED SPACE.
C. INSULATION THICKNESS FOR ALL DUCTWORK SHALL BE AS FOLLOWS:
   a. INDOOR SUPPLY AIR DUCTS FROM HEATING/COOLING SOURCES SHALL BE AT LEAST 15MM THICK AND VAPOR TIGHT.
   b. INDOOR OUTSIDE AIR INTAKE AND EXHAUST DUCTS SHALL BE AT LEAST 50MM THICK AND VAPOR TIGHT.
D. THE FIRST 3000MM DUCT RUN FROM A FAN OR FROM AN OUTSIDE AIR INTAKE TERMINAL, AND 2000MM EXHAUST DUCT RUN TO TERMINATION SHALL BE PROVIDED WITH DUCT INSULATION.
E. EXPOSED DUCTWORK INSTALLED WITHIN THE SPACE IT SERVES SHALL NOT REQUIRE INSULATION.

ELECTRICAL

GENERAL CONDITIONS

A. ALL POWER AND CONTROL WIRING OVER 50V SHALL BE BY ELECTRICAL CONTRACTOR. CONTROL CONDUIT & WIRING BELOW 50V BY MECHANICAL/CONTROLS CONTRACTOR.
B. ALL CONTROL DEVICES, CONDUIT & LOW VOLTAGE CONTROL WIRING (LESS THAN 50V), AND NECESSARY APPURTENANCES FOR COMPLETE AND OPERATIONAL SYSTEMS SHALL BE PROVIDED BY THE CONTRACTOR.
C. THE CONTRACTOR SHALL COORDINATE EQUIPMENT ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR PRIOR TO ACQUISITION OF ANY EQUIPMENT.
D. ALL CONTROL WIRING AND TRANSFORMERS SHALL BE OF CLASS 1 OR 2 AS REQUIRED BY THE OESC FOR SYSTEM OPERATING VOLTAGES AND CURRENTS.
E. LOW VOLTAGE WIRING WITHIN FIRE RATED ASSEMBLIES SHALL BE RUN WITHIN METALLIC CONDUIT & METALLIC DEVICE BOXES. LOW VOLTAGE WIRING PENETRATING FIRE SEPARATIONS SHALL BE RUN WITHIN METAL CONDUIT AT THE PENETRATION.
F. CONTROL WIRING SIZES AND CONTROL TRANSFORMER CAPACITIES SHALL BE SIZED FOR ALL CONTROL EQUIPMENT SERVED.

PLUMBING

GENERAL CONDITIONS

A. PIPING SHOWN ON PLANS ARE SCHEMATIC AND ARE SHOWN TO EMPHASIZE CONNECTIONS TO FIXTURES AND EQUIPMENT. ALL ACTUAL PIPING, HANGERS, AND OTHER RELATED WORK SHALL BE CARRIED OUT IN THE BEST WORKMANSHIP AND MANNER IN ACCORDANCE TO THE BEST PRACTICES OF THE INDUSTRY.
B. ALL SANITARY, STORM AND WATER PIPING SHALL BE KEPT CLEAR OF OUTSIDE WALLS. THE RESPONSIBILITY OF ENSURING THAT FREEZING CONDITIONS WITHIN THE PLUMBING PIPING INSTALLED IS PREVENTED SHALL BE SHOULDERED BY THE CONTRACTOR.
C. ALL PIPING AND ITS COMPONENTS INSTALLED IN A BUILDING OF NONCOMBUSTIBLE CLASSIFICATION SHALL HAVE FLAME SPREAD RATING OF 25 OR LESS. REFER TO MANUFACTURER'S DOCUMENTATION FOR APPLICABILITY.
D. AT PENETRATIONS THROUGH FIRE SEPARATIONS: PROVIDE NON-COMBUSTIBLE PIPING OR FIRE STOP COLLAR WITH F-RATING EQUAL OR GREATER THAN THAT OF THE FIRE SEPARATION FOR 40mm PIPE OR LARGER. PROVIDE NON-COMBUSTIBLE PIPING THROUGH ALL FIRE SEPARATIONS FOR 32MM PIPE OR LESS.

DOMESTIC WATER

A. ALL DOMESTIC WATER PIPING SHALL BE TYPE 'L' COPPER WITH CAST BRASS OR WROUGHT COPPER FITTINGS, PEX OR CPVC CONFORMING TO THE ONTARIO BUILDING CODE. WATER PIPE SIZING SHOWN ON THIS PLAN IS BASED ON COPPER PIPING. FOR PEX OR CPVC, SIZES MUST BE ADJUSTED TO MEET REQUIRED MINIMUM INSIDE DIAMETER, REFERRING TO MANUFACTURER'S DATA AS NECESSARY. EXPANSION LOOPS FOR CPVC HOT WATER AND HOT WATER RECIRCULATION MAINS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATION.
B. PROVIDE ISOLATING VALVES ON MAIN AND/OR BRANCHES, AND FOR ALL EQUIPMENT SERVICED BY HOT AND COLD WATER LINES. ALL VALVES SHALL BE RATED FOR USE UNDER THE OPERATING PRESSURE OF THE SYSTEM IN WHICH THEY ARE INSTALLED.

SANITARY DRAIN & VENT

A. INSTALL PLUMBING VENT LINES IN COMPLIANCE WITH OBC PART 7. DISTRIBUTION AND SIZING SHALL BE BY PLUMBING CONTRACTOR.
B. FOR BELOW GROUND PIPING:
   a. FOR ALL SIZES INSIDE THE BUILDING: ABS DWV OR PVC SDR-35 PIPE WITH INJECTION-MOLDED SOCKET FITTINGS, OR
   b. FOR PIPES 50MM OR SMALLER: TYPE "L" HARD COPPER WITH CAST BRASS OR WROUGHT COPPER FITTINGS, OR
   c. FOR PIPES LARGER THAN 50MM: CAST IRON WITH "MJ" FITTINGS, OR
   d. FOR PIPES OUTSIDE THE BUILDING: PVC SDR-28 FOR PIPES 150MM OR SMALLER, COMPLETE WITH INJECTION-MOLDED GASKETED FITTINGS.
C. FOR ABOVE GROUND PIPING:
   a. FOR PIPES 50MM OR SMALLER: TYPE DWV HARD DRAWN COPPER TUBE WITH CAST BRASS ALLOY DRAINAGE FITTINGS, OR
   b. FOR PIPES LARGER THAN 50MM: CAST IRON PIPE WITH "MJ" FITTINGS OR DWV COPPER TUBING WITH CAST ALLOY DRAINAGE FITTINGS, OR
   c. FOR ALL SIZES: PVC DWV WITH INJECTION-MOLDED SOCKET FITTINGS. PIPE SHALL BE SUITABLE FOR USE IN NON-COMBUSTIBLE BUILDING CONSTRUCTION (IPEX SYSTEM 15 OR APPROVED EQUAL). FOR PIPING RUNNING THROUGH RETURN AIR CEILING PLENUMS, PIPING SHALL HAVE MAXIMUM SMOKE DEVELOPMENT RATING OF 50 (IPEX SYSTEM XFR 15-50 OR APPROVED EQUAL).
D. DISCONNECT AND TERMINATE ALL EXISTING DRAIN PIPES NOT USED IN THIS SET OF DRAWINGS AND SPECIFICATIONS AT CEILING, FLOOR, OR WALL. DEMOLISH ALL REDUNDANT PIPING TO THE FIRST TAKE OFF POINT.
E. TRAPS SHALL BE PROVIDED FOR ALL FIXTURE DRAINS. NO FIXTURE SHALL BE DOUBLE TRAPPED.
F. TRAPS COMPLETE WITH TRAP SEAL PRIMING SYSTEM SHALL BE PROVIDED FOR ALL FLOOR DRAINS AND HUB DRAINS SHOWN IN THIS SET OF DRAWINGS ACCORDING TO THE REQUIREMENTS OF THE OBC.
G. ALL EQUIPMENT PRIMARY DRAIN LINES AND DRAIN PANS SHALL INDIRECTLY TERMINATE TO THE DRAINAGE SYSTEM.

TESTING & INSPECTION

A. ALL PLUMBING SYSTEMS SHALL BE TESTED AND INSPECTED FOR THE ACCEPTANCE OF ALL GOVERNING AUTHORITIES.
B. DRAINAGE, VENT, AND DOMESTIC WATER PIPING SHALL BE TESTED TO PLUMBING CODE REQUIREMENTS. ALL LEAKS AND OTHER DEFICIENCIES SHALL BE REPAIRED TO THE SATISFACTION OF THE INSPECTING AUTHORITY AND/OR THE CONSULTANT. TESTING REPORT SHALL BE PROVIDED PRIOR TO COVERING, SUCH AS INSULATION, DRYWALL, AND/OR BURYING, OF PIPE SECTIONS.
C. ALL EQUIPMENT/DEVICES PRONE TO DAMAGE FROM TEST PRESSURES SHALL BE ISOLATED DURING TESTING PROCEDURES.
D. AFTER COMPLETION OF PRESSURE TESTS, ALL PIPING SYSTEMS SHALL BE CLEANED AND FLUSHED PRIOR TO START-UP AND COMMISSIONING. CLEANING AND FLUSHING SHALL COMPLY WITH OBC REQUIREMENTS.

HEATING, VENTILATING & AIR CONDITIONING

GENERAL CONDITIONS

A. ALL DUCTWORK, HANGERS, AND OTHER RELATED WORK SHALL BE CARRIED OUT AND FABRICATED IN ACCORDANCE WITH THE LATEST ASHRAE AND SMACNA REGULATIONS. ALL WORK SHALL BE CARRIED OUT IN THE BEST WORKMANSHIP AND MANNER IN ACCORDANCE TO THE BEST PRACTICES OF THE INDUSTRY.
B. RECTIFY ALL EXISTING INSULATION AS NEEDED AT ALL CONNECTION POINTS TO EXISTING UTILITIES.

DUCTWORK

A. ALL DUCTWORK SHALL BE G-60 GALVANIZED STEEL UNLESS OTHERWISE SPECIFIED, IN ACCORDANCE WITH ASTM A-653 AND A-294. THICKNESS AND FABRICATION SHALL BE IN ACCORDANCE TO ASHRAE AND SMACNA STANDARDS.
B. EXPOSED DUCTWORK SHALL BE MADE WATERPROOF. ALL SEAMS, JOINTS AND CONNECTIONS SHALL BE MADE WATERTIGHT WITH SEALING COMPOUND.
C. ALL FINISHES OF AIR TERMINALS SHALL BE COORDINATED WITH AND APPROVED BY THE ARCHITECT.
D. VOLUME DAMPERS, OR VOLUME CONTROL DEVICES SHALL BE PROVIDED AS SHOWN ON PLANS.
E. PROVIDE COMBINATION SMOKE & FIRE DAMPERS, FIRE DAMPERS, AND/OR SMOKE DAMPERS, COMPLETE WITH APPROVED ACCESS DOORS, AS SHOWN ON PLANS. FIRE DAMPERS SHALL BE ULC APPROVED, LABELED, AND INSTALLED IN DUCT SLEEVE IN ACCORDANCE WITH NFPA 90A AND GOVERNING AUTHORITIES.
F. PROVIDE BALANCING DAMPERS, COMPLETE WITH APPROVED MEANS OF ACCESS, AS SHOWN ON PLANS.
G. ALL AIR TERMINALS SHALL BE EQUIPPED WITH CLOSE-OFF DAMPERS AND ADJUSTABLE DEFLECTION VANES WHERE INDICATED ON PLANS.
H. ALL DUCT SIZES SHOWN ON PLANS MAY BE MODIFIED TO ADAPT TO SITE CONDITIONS, AS LONG AS THE INSIDE CROSS-SECTIONAL FREE AREA IS MAINTAINED AND DUCT ASPECT RATIO DOES NOT EXCEED 4:1.

CONDENSATE DRAIN PIPING

A. CONDENSATE DRAIN LINE SHALL BE PROVIDED FOR EACH EQUIPMENT REQUIRING IT, ACCORDING TO EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS. DRAINS SHALL BE COPPER OR NON-KINKING PLASTIC, INSULATED IF FROM COOLING-TYPE EQUIPMENT, AND PUMPED OR GRAVITY DRAINED. TRAPS SHALL BE PROVIDED FOR CONDENSATE LINES. DRAINS SHALL RUN AT MINIMUM OF 1:80 SLOPE. PIPING SHALL BE SUITABLY SIZED FOR EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATION AND SHALL NOT BE LESS THAN 20MM, AND SHALL NOT DECREASE IN SIZE FROM THE DRAIN PAN CONNECTION TO THE TERMINATION. THE CONDENSATE DRAIN SHALL BE INDIRECTLY CONNECTED TO THE SANITARY DRAIN BY MEANS OF AN AIR GAP.
B. AFTER CONSTRUCTION, ALL INSTALLED CONDENSATE DRAINAGE PIPING SYSTEMS SHALL BE INSPECTED UNDER NORMAL OPERATING CONDITIONS FOR ANY WATER STAGNATION OR WATER DAMAGE POTENTIAL.

RENOVATION

A. ALL AFFECTED EXISTING SPRINKLER HEADS AND PIPING SHALL BE RELOCATED AND/OR ADJUSTED TO ACCOMMODATE NEW PARTITIONING AND CEILINGS. NEW MATERIALS SHALL BE PROVIDED AS NECESSARY.
B. CONTRACTOR SHALL PROVIDE CERTIFIED AND STAMPED DRAWINGS AND SPECIFICATIONS, INCLUDING CALCULATIONS AND OTHER REPRESENTATION AS REQUIRED BY GOVERNING AUTHORITIES FOR ACCEPTANCE.
C. CONTRACTOR SHALL REVIEW AND PROVIDE INVENTORY OF ALL EXISTING FIRE EXTINGUISHERS ON SITE. ALL EXTINGUISHERS WITH MANUFACTURING DATE PRIOR TO OCTOBER 1984 SHALL BE REPLACED WITH APPROVED OR EQUAL MODEL, MANUFACTURED POST OCTOBER 1984. PROPOSED REPLACEMENT UNIT SUBMITTALS SHALL BE PROVIDED BY THE CONTRACTOR TO THE ENGINEER FOR REVIEW.
D. CONTRACTOR SHALL PROVIDE NEW AND/OR ADDITIONAL FIRE EXTINGUISHERS AS REQUIRED BY CHANGE OF OCCUPANCY OR NEW PARTITIONING AND BY ALL GOVERNING AUTHORITIES.

HYDRONIC SPACE HEATING

GENERAL REQUIREMENTS

A. SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS INCLUDING INSTALLATION DETAIL AND RECOMMENDED PIPING SYSTEM ARRANGEMENT.
B. PIPING SHALL BE:
   a. ABOVE GROUND HEATING MAINS: SHALL BE TYPE L COPPER WITHIN MECHANICAL ROOM. PIPING MAY BE EQUAL TOP UPONOR HEPEXA CROSS LINKED POLYETHYLENE C/W OXYGEN BARRIER AFTER ZONE PUMPS, VALVES SERVING INDIVIDUAL RUN OUTS TO EQUIPMENT OR MANIFOLDS. THE TRANSITION FROM COPPER TO HEPEXA SHALL OCCUR AT MINIMUM 12" AFTER ZONE PUMPS AND VALVES.
   b. AFTER MANIFOLDS: SHALL BE EQUAL TO UPONOR HEPEXA CROSS LINKED POLYETHYLENE C/W OXYGEN BARRIER.

NO.	DESCRIPTION	DATE
3	Issued For Permit/Tender	Oct 18, 2024
2	90% Permit/Tender	Aug 08, 2024
1	90% Permit/Tender	Jul 26, 2024

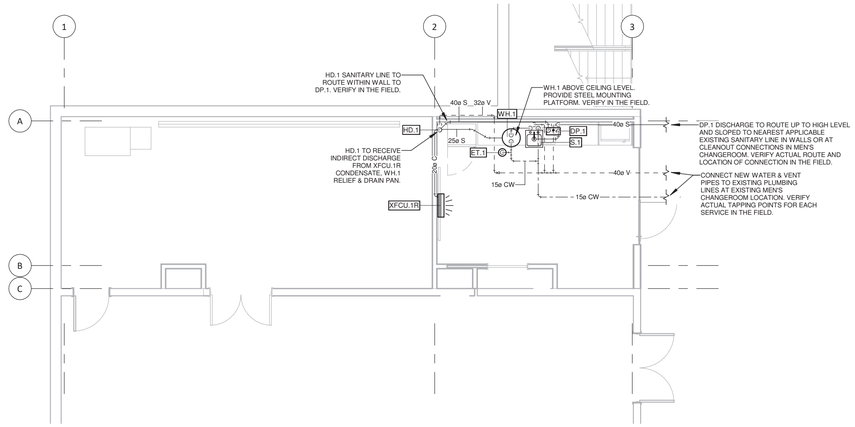
REVISION SCHEDULE

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

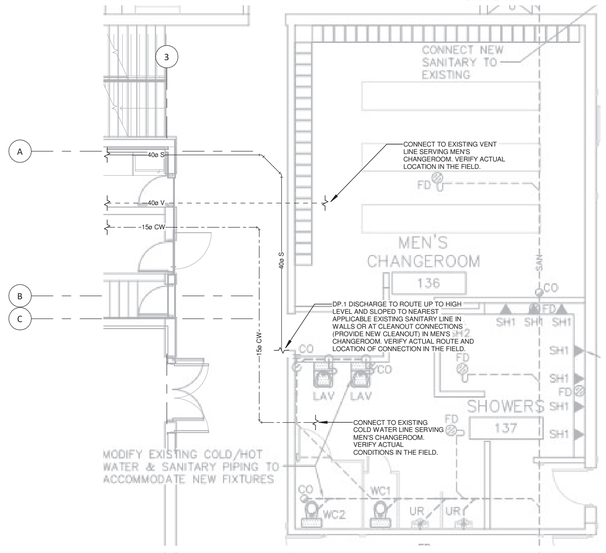
PROJECT NAME
W.G. Johnson Centre Lunchroom
31 Kribs Street,
Cambridge, ON

DRAWING TITLE
Mechanical Specification

SCALE: 1 : 1
SHEET SIZE: 24"x36"
PROJECT NUMBER: 24032
DRAWING NUMBER: **M2**



1 Proposed - Plumbing Plan
1 : 75



2 Proposed - Expanded Plumbing Plan on As-Built Drawings
1 : 75

New Plumbing Fixture Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show New Only

Mark	QTY	Description	Connections (mm)				Remarks	Phase Added
			CW	HW	D	V		
HD.1	1	HUB DRAIN Model: Zurn Z1870	0	0	40	32	C/W trap, trap seal primer.	Tender
S.1	1	SINGLE COMPARTMENT SINK Sink: Franke Commercial LBS6808P-1/3 Single compartment, 18 gauge stainless steel with ledge Faucet: Delta Commercial 100LF-HDF Chrome	15	15	40	40	Maximum 6.8 Liters/minute (1.8 GPM). C/W Trap, crumb cup strainer, supplies with stops, flow restrictor and escutcheons. To drain into Drain Pump DP.1 below. Single compartment @ 18"x16"x8" Volume = 2304 cu. in. or 10 Gal.	Tender

New Plumbing Equipment Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show New Only

Mark	QTY	Description	Remarks	Phase Added
WH.1	1	WATER HEATER - ELECTRIC Model: John Woods SS19L5EB1 Capacity: 19 USG Elec Data: 208V/1Ph/60Hz, 2255W Element	C/W ET.1 expansion tank, TMV.1 thermostatic mixing valve, steel platform mounting assembly and accessories, unions, shutoff valves, check valves, drain pan. Route relief valve and drain pan discharge separately to hub drain and terminate indirectly. Install according to manufacturer's instructions. Set heater at minimum 140 deg F (60 deg C).	Tender
DP.1	1	DRAIN PUMP - PACKAGED UNDERCOUNTER Model: Saniflo Sanivite Drain pump Capacity: 18 GPM @ 16' Lift, 150' max horizontal delivery Elec: 120V, 4.5A, 0.4HP, Plug-in cord	C/W 1-1/2" inlet, tank, pump, auto switch, internal piping check valves, gas tight cover. Install according to manufacturer's instructions and complying with OBC requirements. Verify actual location on site.	Tender
ET.1	1	POTABLE WATER EXPANSION TANK Model: AMTROL ST-5 THERM-X-TROL Capacity: 2.0 USG		Tender

LICENSED PROFESSIONAL ENGINEER
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Oct 18, 2024
PROVINCE OF ONTARIO

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2	90% Permit/Tender	Aug 08, 2024
1	90% Permit/Tender	Jul 26, 2024

REVISION SCHEDULE

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

PROJECT NAME
W.G. Johnson Centre Lunchroom
31 Kribs Street,
Cambridge, ON

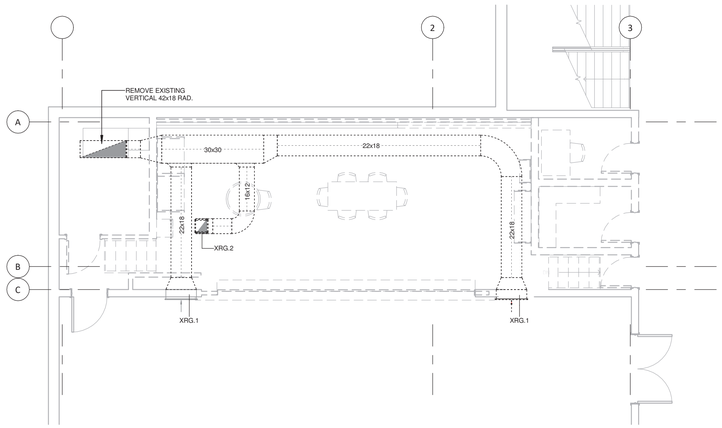
DRAWING TITLE
Plumbing Plan

SCALE
1 : 75

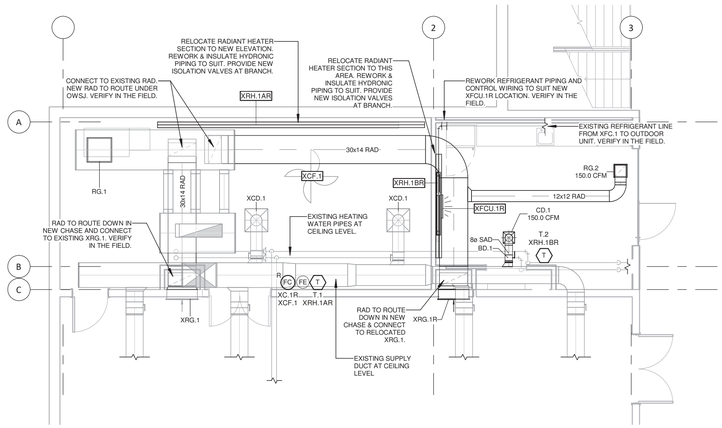
SHEET SIZE
24"x36"

PROJECT NUMBER
24032

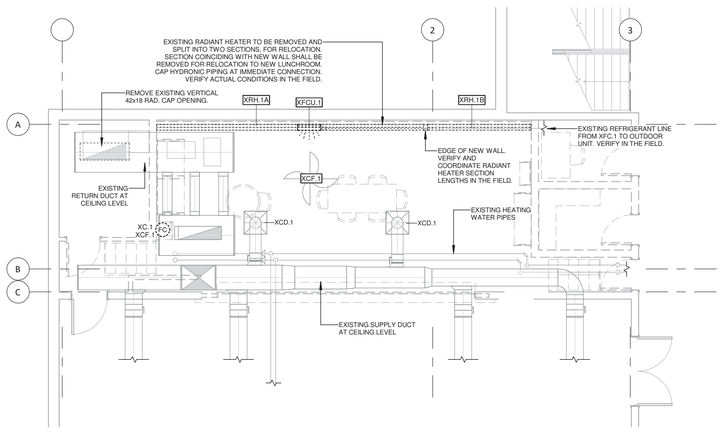
DRAWING NUMBER
M3



1 Demolition - Under Stage - HVAC Plan
1 : 75



3 Proposed - Level 1 - HVAC Plan
1 : 75



2 Demolition - Level 1 - HVAC Plan
1 : 75

Removed Mechanical Equipment Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show Demo Only

Mark	QTY	Description	Remarks	Phase Added	Phase Removed
XFCU.1		FAN COIL UNIT - WALL CASSETTE	To be removed and relocated as shown on plans. Disconnect from existing services.	EXISTING	Tender
XRH.1A		HYDRONIC RADIANT HEATER SECTION	To be removed and relocated to new elevation. Disconnect from hydronic piping and existing services. Verify in the field.	EXISTING	Tender
XRH.1B		HYDRONIC RADIANT HEATER SECTION	To be removed and relocated as shown. Disconnect from hydronic piping and existing services. Verify in the field.	EXISTING	Tender

Removed Mechanical Control Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show Demo Only

Mark	QTY	Description	Remarks	Phase Added	Phase Demolished
XC.1		WALL-MOUNTED FAN CONTROL	To be removed and relocated as shown. Disconnect from existing control wiring.	EXISTING	Tender

Removed Air Terminal Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show Demo Only

Mark	QTY	Type	Model	Face	Remarks	Phase Added	Phase Demolished
XRG.1		Return Wall Grille	TBD	34"x26"	To be removed and relocated as shown.	EXISTING	Tender
XRG.2		Return Floor Grille	TBD	14"x14"		EXISTING	Tender

Existing Air Terminal Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show Previous Phase

Mark	QTY	Type	Model	Face	Neck	Remarks	Phase Added
XCD.1	2	Ceiling Supply Square Diffuser	TBD	24"x24"	12 in. dia	Determine total airflow and record for balancing purposes. Rebalance to provide airflow to new CD.1 in lunchroom. Verify in the field.	EXISTING
XRG.1		Return Wall Grille	TBD	34"x26"	22"x18"		EXISTING

Relocated Mechanical Equipment Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show New Only

Mark	QTY	Description	Remarks	Phase Added
XFCU.1R		FAN COIL UNIT - WALL CASSETTE	Relocate as shown. Rework refrigerant piping, power and control wiring to suit. Provide new condensate drain line to hub drain. Verify in the field.	Tender
XRH.1AR		HYDRONIC RADIANT HEATER SECTION	Relocate to new elevation. Rework and insulate hydronic piping to suit. Provide new materials to ensure that system is able to function separately from the other section, including but not limited to, hydronic piping, isolation valves, thermostat, new custom metal end housing finished with high temperature resistant paint to match existing. Assume 1" hydronic supply and return piping. Verify in the field.	Tender
XRH.1BR		HYDRONIC RADIANT HEATER SECTION	Relocate to new elevation and as shown. Rework and insulate hydronic piping to suit. Provide new materials to ensure that system is able to function separately from the other section, including but not limited to, hydronic piping, isolation valves, thermostat, new custom metal end housing finished with high temperature resistant paint to match existing. Assume 1" hydronic supply and return piping. Verify in the field.	Tender

Relocated Mechanical Control Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show New Only

Mark	QTY	Description	Remarks	Phase Added
XC.1R		WALL-MOUNTED FAN CONTROL	Relocate as shown. Rework control wiring to suit. Verify in the field.	Tender

Relocated/Reinstalled Air Terminal Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show New Only

Mark	QTY	Type	Model	Face	Neck	Remarks	Phase Added
XRG.1R		Return Wall Grille	TBD	34"x26"	22"x18"	Relocate as shown. Refurbish as necessary. Verify and coordinate finish with Architect.	Tender

New Mechanical Control Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show New Only

Mark	QTY	Description	Remarks	Phase Added
T.1		WALL-MOUNTED THERMOSTAT	Provide compatible 24/7 programmable thermostat for individual control of corresponding hydronic heater section. Verify actual heater requirements.	Tender
T.2		WALL-MOUNTED THERMOSTAT	Provide compatible 24/7 programmable thermostat for individual control of corresponding hydronic heater section. Verify actual heater requirements.	Tender

New Air Terminal Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show New Only

Mark	QTY	Type	Model	Face	Neck	Remarks	Phase Added
CD.1		Ceiling Supply Square Diffuser	Price SCD-FR	12"x12"	4 in. dia	White. Order to mount to T-bar ceiling. Balance existing XCD.1 to provide airflow to this diffuser.	Tender
RG.1		Ceiling Return Grille	Price 80	24"x24"	22"x22"	White, C/W balancing damper. Balance to new XCD.1 total value in storage room. Verify in the field.	Tender
RG.2		Ceiling Return Grille	Price 80	14"x14"	12"x12"	White, C/W balancing damper. Order to mount to T-bar ceiling.	Tender

New Duct Accessory Schedule

CURRENT PHASE: Tender — CURRENT ITEMS: Show New Only

Mark	QTY	Type	Size	Remarks	Phase Added
BD.1		Balancing Damper - Round	8ø-8ø		Tender

Fire Extinguisher Schedule

CURRENT PHASE Tender

Type	Count	Phase Created	Phase Removed
3A-10BC, 5LBS		Tender	None

LICENCED PROFESSIONAL ENGINEER
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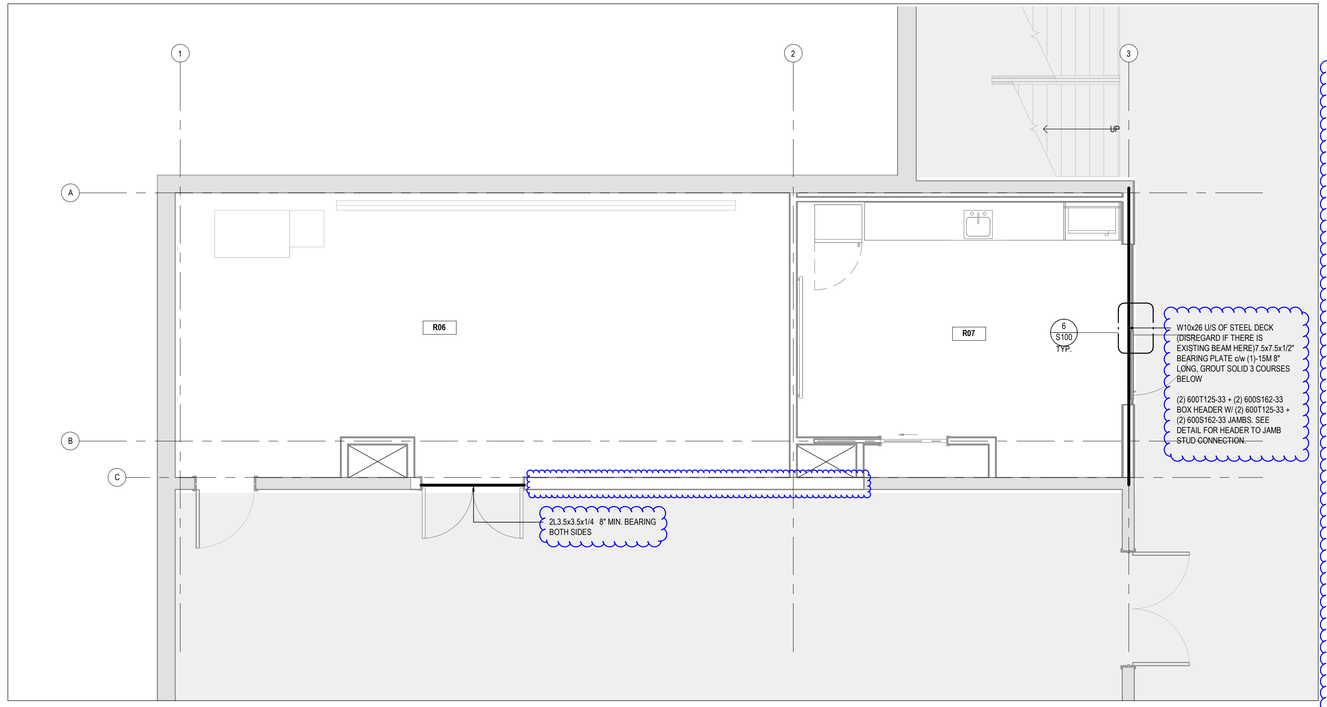
REVISION SCHEDULE

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

PROJECT NAME
W.G. Johnson Centre Lunchroom
31 Kribs Street,
Cambridge, ON

DRAWING TITLE
HVAC Plan

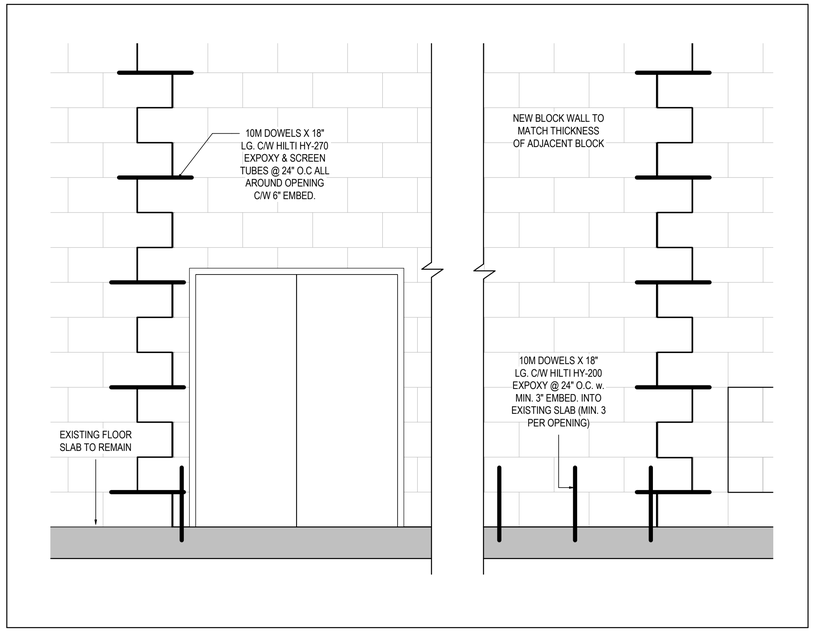
SCALE 1 : 75
SHEET SIZE 24"x36"
PROJECT NUMBER 24032
DRAWING NUMBER **M4**



1 S100 STRUCTURAL PLAN - LEVEL 1

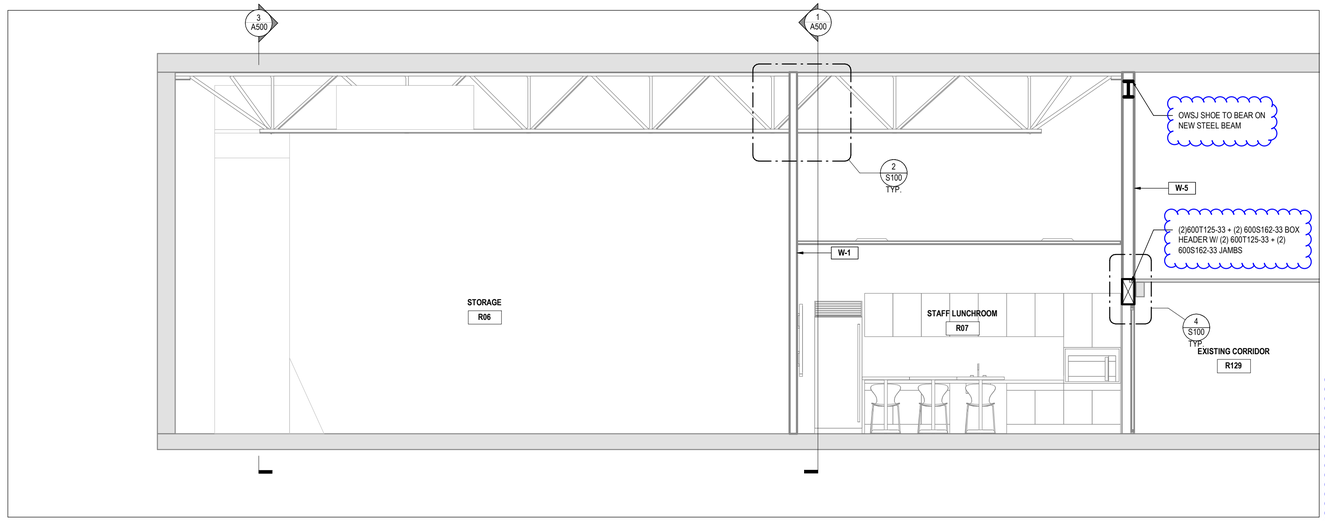
SCALE: 1/4" = 1'-0"

NOTE: CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING, BRACING, ETC. AS REQUIRED TO COMPLETE NEW WORK. CONTRACTOR IS RESPONSIBLE FOR HIRING DESIGNATED DESIGN PROFESSIONAL TO ENGINEER TEMPORARY SUPPORTS AS REQUIRED.



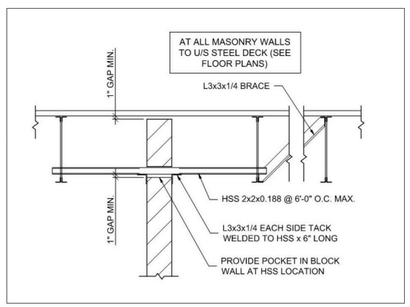
5 S100 TYPICAL BLOCK WALL INFILL

SCALE: 1/2" = 1'-0"



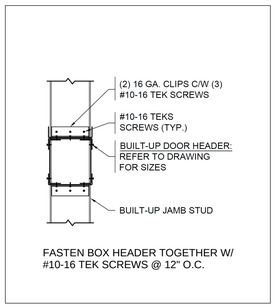
3 S100 STRUCTURAL SECTION BB

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



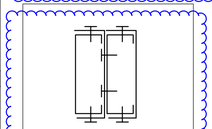
2 S100 TYPICAL WALL BRACING DETAIL - OWSG PARALLEL TO WALL

SCALE: 1/2" = 1'-0"



4 S100 HEADER TO JAMB STUD CONNECTION

SCALE: 1" = 1'-0"



6 S100 BUILT-UP JAMB DETAIL

SCALE: 1 1/2" = 1'-0"

WITZEL DYCE ENGINEERING INC.
WDE PROJECT NO.: 16873-100

DESIGN LOADS:
DL: 15 psf
SL: 40.3 psf

GENERAL NOTES:
1. FOR STRUCTURAL DESIGN OF CLOUDED ITEMS ONLY
2. CONTRACTOR TO VERIFY ALL DIMENSIONS
3. CONTRACTOR TO CONTACT WDE SHOULD EXISTING SITE CONDITIONS VARY FROM THOSE ASSUMED ON DRAWINGS
4. PROVIDE SOLID BLOCKING BELOW ALL POINT LOADS IN FLOOR SYSTEM AND ABOVE FOUNDATION WALLS AND POSTS

STEEL NOTES:
1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST VERSION OF CAN/CSA-S16 AND THE CISC CODE OF STANDARD PRACTICE.
2. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST VERSION OF CAN/CSA G40.20, G40.21 GRADE 350W CLASS C FOR H.S.S., G40.21 GRADE 350W FOR W SHAPE SECTIONS AND G40.21 GRADE 300W FOR CHANNELS, ANGLES AND MISCELLANEOUS METAL.
3. STRUCTURAL STEEL MEMBERS SHALL NOT BE SPLICED WITHOUT THE APPROVAL OF THE ENGINEER.
4. DO NOT CUT OPENINGS IN STRUCTURAL STEEL MEMBERS WITHOUT ENGINEERS APPROVAL.
5. REINFORCING STEEL SHALL CONFORM TO THE LATEST VERSIONS OF CAN/CSA-G30.18. REINFORCING BARS SHALL BE DEFORMED, GRADE 400 MPa. STEEL REINFORCING SHALL NOT BE SUBSTITUTED UNLESS APPROVED BY THE ENGINEER.

STEEL STUD NOTES:
1. ALL METAL STUD WORK SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT "LIGHTWEIGHT STEEL FRAMING DESIGN MANUAL" BY CSSBI S8-2018 AND CSA-S136.
2. STEEL FOR STEEL STUDS AND TRACK SHALL MEET THE REQUIREMENTS OF ASTM A653/A653M, "STANDARD SPECIFICATION FOR SHEET STEEL, ZINC COATED (GALVANIZED) BY THE HOT-DIP PROCESS" AND ASTM A729/A729M, "SPECIFICATION FOR SHEET STEEL, ALUMINUM-ZINC ALLOY-COATED BY HOT-DIP PROCESS". MINIMUM GRADES ARE :
-GRADE 230, (33ksi) FOR 1.28mm (0.048", 18ga.) MATERIAL AND THINNER, AND
-GRADE 340, (50ksi) FOR 1.53mm (0.060", 16ga.) MATERIAL AND THICKER.

CONNECTION NOTES:
1. WELDING SHALL CONFORM TO CSA W59 AND CSA W47 DIVISION 1 OR DIVISION 2.1 BY THE CANADIAN WELDING BUREAU. WELDING SHALL BE COMPLETED BY CWB CERTIFIED FABRICATOR AND ERECTOR TO THE CSA STANDARDS W178.1 AND W178.2.
2. ALL WELDS NOT SPECIFIED IN DRAWINGS ARE TO BE XX" FILLET WELDS ALL AROUND OR EQUIVALENT GROOVE WELD.
3. FASTENERS TO BE A325 STRUCTURAL BOLT ASSEMBLIES U.N.O.

DESIGNED BY: ISS

TRUE NORTH

PROJECT NORTH

KEY PLAN

	10	
	9	
	8	
	7	
	6	
	5	
	4	
2024.09.09	3	ISSUED FOR 90% CLIENT REVIEW
2024.08.08	2	ISSUED FOR 90% CLIENT REVIEW
2024.05.23	1	ISSUED FOR CLIENT REVIEW
DATE		ISSUED

PROJECT NAME

W.G. JOHNSON CENTRE LUNCHROOM

CLIENT

CITY OF CAMBRIDGE

ARCHITECT

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fabrik ARCHITECTS

SHEET TITLE

STRUCTURAL PLANS & DETAILS

PROJECT No.	24012	SCALE	As indicated
		DRAWN By:	EW,SA
		CHECKED By:	EN
		SHEET No.	S100

ONTARIO ASSOCIATION OF ARCHITECTS
ELISIA M. G. NEVES
LICENCE 8559

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