



## **DRAWING LIST**

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A202	REFLECTED CEILING AND FINISHES PLANS
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# **WATERLOO REGION DISTRICT SCHOOL BOARD**

## **KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOM RENOVATION**

**787 King Street West, Kitchener, Ontario**

**WalterFedy Project No.: 2023-0897-11**

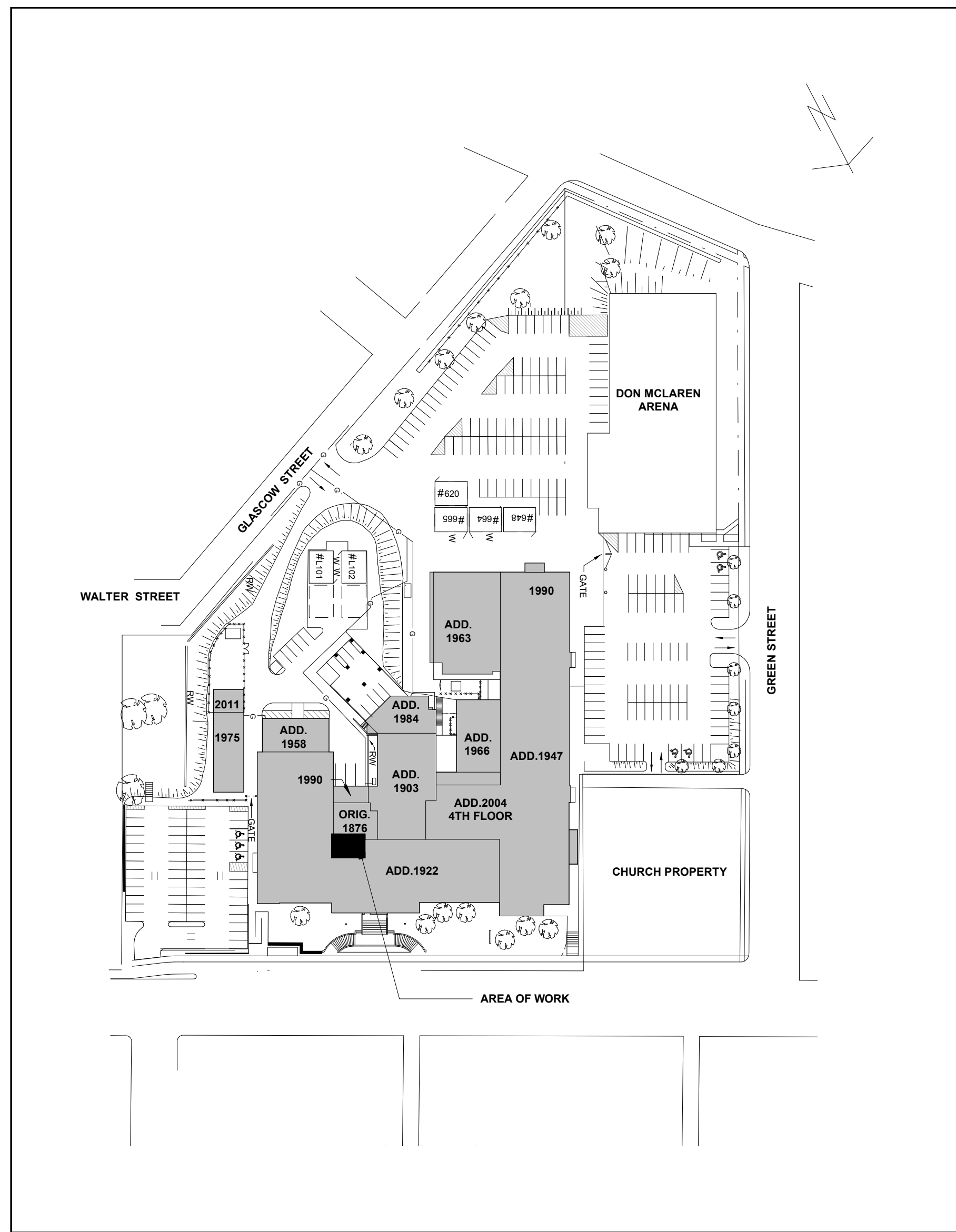
**2024-03-21 ISSUED FOR BID AND PERMIT**

**GENERAL DEMOLITION NOTES**

- THE PURPOSE OF THESE DRAWINGS IS TO SHOW GENERAL SCOPE OF DEMOLITION ONLY. THESE DRAWINGS HAVE BEEN DEVELOPED FROM REFERENCE FILES WHICH MAY NOT REFLECT ACTUAL FIELD CONDITIONS. CONTRACTOR TO VERIFY THESE DRAWINGS, INCLUDING ALL DIMENSIONS, AND NOTIFY THE ARCHITECT IMMEDIATELY OF INCONSISTENCIES BEFORE PROCEEDING WITH DEMOLITION & CONSTRUCTION. THE CONTRACTOR SHALL VERIFY AND CONFIRM THE COMPLETE SCOPE OF WORK DURING THE TENDER PERIOD BY ATTENDING SITE VISITS AND ALLOW FOR A REASONABLE QUANTITY OF UNFORESEEN HIDDEN DEMOLITION AND REMOVAL NOT SHOWN ON THESE DRAWINGS.
- DEMOLITION WORK SHALL BE EXECUTED IN CONFORMANCE WITH ALL CODES AND AS SET FORTH BY ALL GOVERNING AUTHORITIES. REFER TO SPECIFICATIONS FOR INTERIM LIFE SAFETY MEASURES.
- THE CONTRACTOR SHALL EXECUTE ALL DEMOLITION WORK AS REQUIRED TO FACILITATE THE NEW WORK AND COORDINATE ACTIVITIES ACCORDINGLY WITH THE WORK OF THE TRADES.
- EXECUTE DEMOLITION IN AN ORDERLY AND CAREFUL MANNER WITH DUE CONSIDERATION FOR ADJACENT STRUCTURES AND FINISHES. REPLACE OR REPAIR ANY FINISHES TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION (I.E. - CEILING GRID, CEILING TILE, WALL COVERING, FLOOR COVERINGS, ETC.). CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR, AND MAKE GOOD ALL DAMAGE TO ADJACENT FINISHED SURFACES AND ASSEMBLIES.
- REFER TO MECHANICAL AND ELECTRICAL SPECIFICATION, DRAWINGS OR DEMOLITION NOTES FOR DETAILS OF SCOPE OF MECHANICAL AND ELECTRICAL DEMOLITION.
- ALL WORK TO BE DONE IN ACCORDANCE WITH CSA Z317.13-17 INFECTION CONTROL. CONSTRUCT TEMPORARY HOARDING OPTIMIZING USEABLE AREA WITHIN THE CONSTRUCTION ZONE AND WORK LIMITS, AS REQUIRED TO MINIMIZE THE SPREAD OF DUST AND NOISE. LOCATION AND CONSTRUCTION TO MEET HOSPITAL INFECTION CONTROL REQUIREMENTS. ESTABLISH APPROVED SITE OPERATIONS AND CONSTRUCTION ACCESS TO CONSTRUCTION ZONES WITHIN THE AREA OF WORK.
- AS THE AREAS OF THE BUILDING PROPOSED FOR RENOVATION MAY CONTAIN DESIGNATED SUBSTANCES, SPECIAL PRECAUTIONS ARE REQUIRED FOR THE REMOVAL OF SPECIFIC DESIGNATED SUBSTANCES. COMPLETE REMOVAL OF ALL ASBESTOS-CONTAINING MATERIALS MUST PRECEDE ANY WORK THAT IS LIKELY TO DISTURB THESE MATERIALS. ALL DESIGNATED SUBSTANCES MUST BE HANDLED IN ACCORDANCE WITH THE APPROPRIATE FEDERAL, PROVINCIAL AND LOCAL GUIDELINES AND REGULATION 278/05. FOLLOW PROPER METHODS AND PROCEDURES FOR DISPOSAL WITH THE ONTARIO MINISTRY OF ENVIRONMENT. OTHER DESIGNATED SUBSTANCES MAY ALSO BE REQUIRED TO BE REMOVED WHICH MAY BE OBSTRUCTED UNTIL THE WORK OF THE NEW CONSTRUCTION COMMENCES. IN THE EVENT THAT DESIGNATED SUBSTANCES OR ACM (ASBESTOS CONTAINING MATERIAL) IS ENCOUNTERED DURING THE WORK, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY AND TAKE NECESSARY PRECAUTIONS TO ENSURE SAFETY OF WORKERS AND PUBLIC.
- REPAIR ANY DAMAGED FIRE-RATED ASSEMBLIES TO THEIR ORIGINAL SPECIFICATION. UNO, VERIFY THAT CONSTRUCTION OF WALLS WITHIN THE AREA OF RENOVATION (SMOKE COMPARTMENT) MEETS THE FIRE PROTECTION RATINGS DESIGNATED ON THE LIFE SAFETY PLANS. MAKE ANY REPAIRS OR MODIFICATIONS NECESSARY TO BRING WALLS, DOORS, DUCTS, ETC. UP TO THE PROPER FIRE PROTECTION RATING. DOORS AND/OR FRAMES SHALL HAVE THE PROPER LABELING, WHERE REMOVAL OF PIPES, CONDUITS AND ELECTRICAL SERVICES WITHIN EXISTING FIRE RATED ASSEMBLIES ARE IDENTIFIED ON MECHANICAL AND ELECTRICAL DRAWINGS, CONTRACTOR SHALL REPAIR AND MAKE GOOD TO MAINTAIN THE FIRE RESISTANCE RATING OF THE ASSEMBLY.
- REMOVE CONSTRUCTION AS INDICATED. TYPICAL WALL REMOVAL INCLUDES FINISHES AND MECHANICAL PLUMBING AND ELECTRICAL SYSTEMS CONTAINED THEREIN. REMOVE DOORS, CASEWORK, WINDOWS, FRAMES, AND OTHER FIXTURES AS REQUIRED. AFTER REMOVAL OF PIPE CHASES, PATCH HOLES IN FLOORS OR WALLS TO REMAIN TO MEET ORIGINAL FIRE PROTECTION AND STRUCTURAL REQUIREMENTS. PATCH ADJOINING WALLS, FLOORS AND DECK, AND PREPARE SURFACES TO RECEIVE NEW FINISHES PER FINISH SCHEDULE OR PER INTERIOR FINISH PLANS.
- WHERE NEW FINISHES ARE TO BE INSTALLED ON SURFACES TO REMAIN, REMOVE THE EXISTING FINISH AND PREPARE THE EXISTING SURFACE TO RECEIVE THE NEW FINISH.
- COORDINATE WITH THE OWNER ANY ITEMS TO BE STORED AND/OR RELOCATED. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR THE TEMPORARY REMOVAL OF ALL EQUIPMENT, FIXTURES, ACCESSORIES, ETC. PRIOR TO START OF ANY DEMOLITION WORK, COORDINATE WITH MECHANICAL & ELECTRICAL DWG'S, HANDLE ALL COMPONENTS OF EQUIPMENT CAREFULLY, CLEAN & STORE FOR RE-INSTALLATION UPON COMPLETION OF WORK AS REQUIRED (COORDINATE WITH OWNER).
- SEE MECHANICAL, PLUMBING, AND/OR ELECTRICAL DRAWINGS FOR DEMOLITION OF UTILITIES. FOR EXTENT AND LOCATION OF CHANNELING OF FLOOR SLABS, REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS. IF PIPING OR CONDUIT WORK (OTHER THAN THE DESIRED CONNECTION) IS ENCOUNTERED WHILE CHANNELING, NOTIFY THE ARCHITECT BEFORE CONTINUING.
- CONTRACTOR TO ENSURE ALL EXIT SIGNAGE TO REMAIN AS INSTALLED AND ENSURE FIXTURES ARE OPERATIONAL. CONTRACTOR TO PROVIDE RE-SUPPORT AS REQUIRED. CONTRACTOR TO VERIFY THAT EXIT EGRESS IS MAINTAINED FOR ALL OCCUPIED AREAS OF THE BUILDING THROUGHOUT CONSTRUCTION, AND ENSURE ALL EMERGENCY LIGHT FIXTURES TO REMAIN CONNECTED ALONG EGRESS ROUTES.
- ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO GUARD AGAINST MOVEMENT OR SETTLEMENT OF THE REMAINING STRUCTURE, INCLUDING ALL NECESSARY BRACING OR SHORING THAT IS REQUIRED. BRACE ALL STRUCTURES OR STRUCTURAL ELEMENTS AS NECESSARY DURING DEMOLITION. DO NOT CUT ANY STRUCTURAL WORK WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER. THE BUILDING ENVELOPE SHALL BE MAINTAINED IN A WATER TIGHT CONDITION AT ALL TIMES.
- WHEREVER POSSIBLE, RETAIN REMOVED MASONRY, TO BE USED TO FILL WALL OPENINGS OF SIMILAR CONSTRUCTION.
- WHERE CORE DRILLING ACTIVITIES ARE REQUIRED TO ACCOMMODATE SLEEVING OF NEW SERVICE PENETRATIONS THROUGH THE CONCRETE FLOOR SLAB, THESE AREAS SHALL BE MARKED OUT ON SITE WITH LOCATIONS DIMENSIONED AND SUBMITTED TO THE CONSULTANT FOR REVIEW/APPROVAL PRIOR TO COMMENCEMENT. STRUCTURAL OPENINGS IN CONCRETE DEMISING WALLS AND FLOOR SLAB SHALL BE MADE BY AN EXPERIENCED AND PROFESSIONAL CORE DRILLING AND CUTTING SUB-CONTRACTOR. THE CONTRACTOR SHALL INFILL OPENINGS IN SLABS WHERE CONDUITS HAVE BEEN REMOVED OR RELOCATED.
- WHERE WALL, GYPSUM BOARD CEILINGS, TERRAZZO COVERED BASES & CURBS OR FLOOR SURFACES ARE TO BE FILLED, PATCHED AND REPAIRED THE CONTRACTOR SHALL ENSURE THAT THE STRUCTURAL INTEGRITY OF THE BUILDING IS MAINTAINED.
- CONTRACTOR SHALL DEMOLISH MEMBRANE CEILING WHERE PRESENT ABOVE EXISTING CEILING AS REQUIRED.
- NOTIFY THE ARCHITECT IMMEDIATELY IF THE REMOVAL OF MECHANICAL, ELECTRICAL, PLUMBING SYSTEMS OR COMPONENTS WILL ADVERSELY AFFECT THE OPERATION OF MEP SYSTEMS OUTSIDE THE LIMIT OF DEMOLITION.
- ALL DEMOLITION DEBRIS TO BE DISPOSED OF BY GENERAL CONTRACTOR UNLESS OTHERWISE NOTED. CONTRACTOR SHALL DISPOSE OF DEMOLISHED MATERIALS AND DEBRIS IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS AT THE END OF EACH WORK DAY EXCEPT OTHERWISE INDICATED TO BE SALVAGED OR RE-USED.
- PRIOR TO COMMENCEMENT OF DEMOLITION ACTIVITIES, CONTRACTOR SHALL ARRANGE WITH THE APPROPRIATE TRADE FOR THE DISCONNECTION OF UTILITY SERVICES AFFECTING THE WORK. PRESERVE IN OPERATING CONDITION ALL ACTIVE UTILITIES TO REMAIN FUNCTIONAL DURING THE COURSE OF THE WORK. DISCONNECT AND TEMPORARILY RELOCATE EXISTING SERVICES WHERE AFFECTED BY THE SCOPE OF DEMOLITION WORK, AND WHERE NECESSARY, RECONNECT AS REQUIRED TO MAINTAIN NORMAL OPERATIONS OF THE BUILDING. THIS WORK SHALL INCLUDE, WITHOUT BEING LIMITED TO PLUMBING, DRAINAGE, HEATING, VENTILATION AND ELECTRICAL SERVICES.
- CONTRACTOR TO PROTECT AND SUPPORT ALL EXISTING HEAT AND SMOKE DETECTORS AS APPLICABLE DURING DEMOLITION. COORDINATE ANY NECESSARY REMOVALS WITH THE PROJECT MANAGER AND FIRE ALARM CONTRACTOR.
- CONTRACTOR TO REPAIR ANY EXISTING WALL, FLOOR, CEILING ASSEMBLY AFFECTED BY THE REMOVAL OF WALLS, DOORS, WINDOWS, MILLWORK, ETC. CONTRACTOR TO PATCH AND REPAIR EXISTING WALLS, FRAMES, DOOR SURFACES, CEILING BULKHEADS AS REQUIRED TO RECEIVE NEW PAINT FINISH.
- THE CONTRACTOR IS RESPONSIBLE AND SHALL MAKE ALL REASONABLE EFFORTS AND PROVIDE ADEQUATE MEASURES TO MITIGATE AND LIMIT THE TRANSMISSION OF NOISE, VIBRATION AND DUST MIGRATION INTO ADJOINING AND/OR NEIGHBORING OCCUPIED ROOM AREAS THROUGHOUT THE COURSE OF CONSTRUCTION.
- IF DEMOLITION OF WALL MOUNTED EQUIPMENT OR FINISHES RENDERS EXISTING G.W.B./PLASTER UNUSABLE FOR FINISH SURFACE, PATCH & REPAIR G.W.B. ACCORDINGLY. ALLOW FOR REMOVAL OF DAMAGED G.W.B. AS REQ.
- DASHED LINES INDICATE WORK THAT SHALL BE REMOVED UNLESS INDICATED OTHERWISE, ANY EXISTING WORK THAT IS INTENDED TO REMAIN UNDISTURBED AND IS DAMAGED RESULTING FROM THE COURSE OF THE WORK DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION THAT MATCHES EXISTING AND AT A LEVEL ACCEPTABLE TO THE STANDARD OF THE OWNER. ALL REPAIR WORK SHALL HAVE A NEAT AND CLEAN APPEARANCE AND BE COMPATIBLE WITH EXISTING FINISHES TO MATCH. INDIVIDUAL ITEMS IDENTIFIED AS PART OF A GENERAL INSTRUCTION, SUCH AS "ALL EXISTING", ARE TO BE UNDERSTOOD TO ILLUSTRATE THE GENERAL INSTRUCTION AND NOT LIMITED TO JUST THOSE ITEMS IDENTIFIED ON DRAWING.
- THE CONTRACTOR IS RESPONSIBLE FOR CLEANING THE AREA OF WORK UPON COMPLETION OF CONSTRUCTION ACTIVITY ON EACH WORK DAY TO ALLOW FOR THE OWNER TO RESUME OPERATIONS UNIMPEDED AS USUAL.

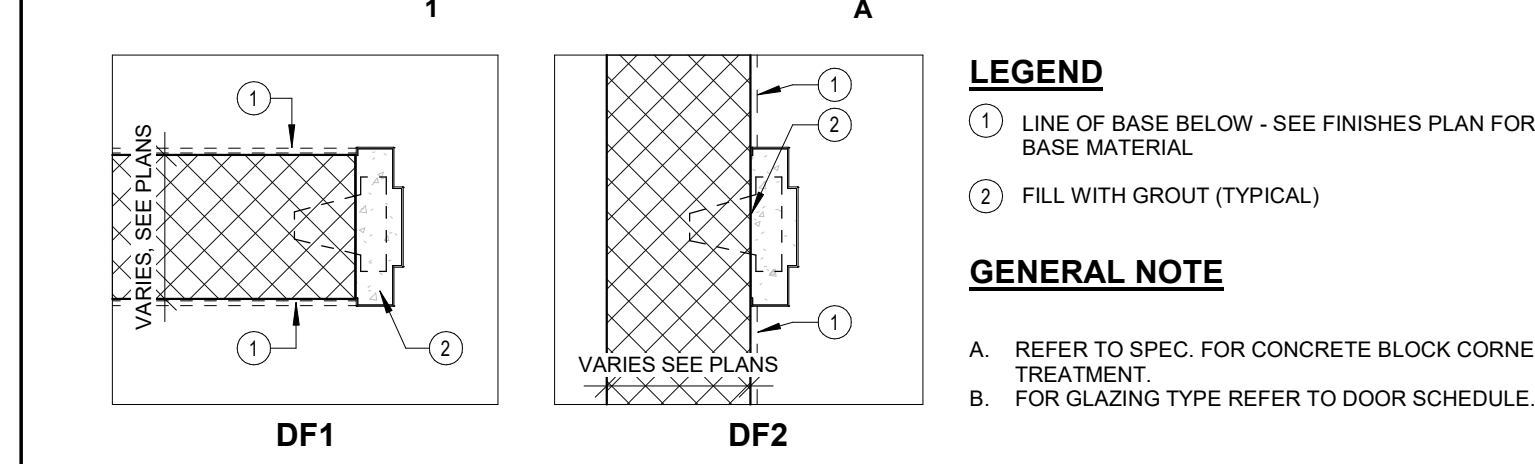
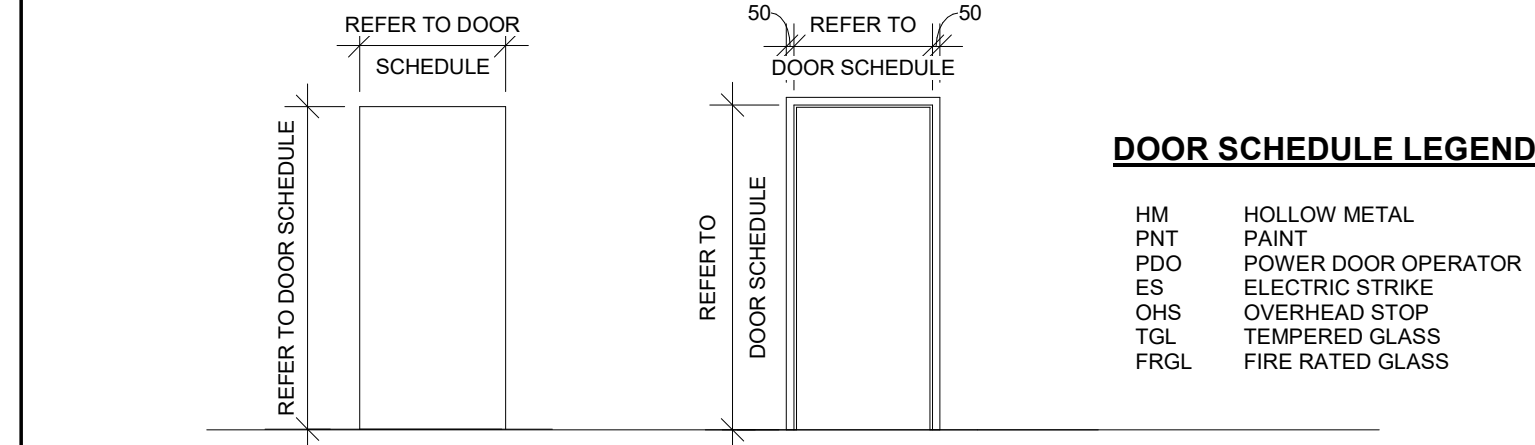
**GENERAL NOTES**

- ALL WALLS TO EXTEND TO UIS STRUCTURAL DECK UNLESS OTHERWISE NOTED.
- ASSEMBLY CONSTRUCTION READ FROM TAG SIDE OF ASSEMBLY.
- ALL DIMENSIONS ARE APPROXIMATE, CONTRACTOR TO SITE VERIFY ALL DIMENSIONS.
- DIMENSIONING TO/FROM EXISTING CONDITIONS SHALL BE AT FACE OF EXISTING ASSEMBLY.
- PROVIDE BLOCKING AS REQUIRED TO SUPPORT WALL MOUNTED EQUIPMENT.
- REFER TO ELECTRICAL DRAWINGS FOR ALL CEILING MOUNTED EQUIPMENT SIZE AND TYPE.
- SEE MECHANICAL DRAWINGS FOR HVAC EQUIPMENT SIZE AND TYPE.
- CONTRACTOR TO PROTECT ALL EXISTING INTERIOR FINISHES, MECHANICAL, ELECTRICAL, MILLWORK AND FURNITURE TO REMAIN DURING ALL PHASES OF CONSTRUCTION.
- MAKE GOOD ALL CEILING TILE/WALLS/SURFACES AFTER CONSTRUCTION, FIX AND PAINT WALLS DAMAGED BY CONSTRUCTION AND/OR REPLACE CEILING IF DAMAGED BY CONSTRUCTION.
- FIRESTOP AND SEAL ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES EQUAL TO ASSEMBLY RATING.
- ANY DAMAGE BY WINDOW CONTRACTOR TO EXISTING ADJACENT (INTERIOR AND EXTERIOR) MASONRY, DRYWALL, SKILLS, SOFFITS, A.C.T. CEILING AND GYPSUM BOARD CEILING, EQUIPMENT, LIGHT FIXTURES, MILLWORK, FURNITURE, FASCIA OR TRIM, ETC., WHICH ARE TO REMAIN, ARE TO BE REPAIRED/REPLACED AT NO EXPENSE TO THE SCHOOL BOARD.



**4 SITE PLAN FOR REFERENCE ONLY**  
A101 Scale: 1 : 1200

DOOR & SCREEN SCHEDULE															
Door/Screen	Width x Height x Thickness	Door/Screen				Frame				Hardware				Temp. Rise	Notes
		Type / Elev	Material	Finish	Glazing	Grille	Type / Elev	Profile	Material	Finish	ULC Panics	Closer	Threshold		
LEVEL 1															
101	965x2150x50	1	HM	PNT	--		A	DF1	HM	PNT	No		No	No	UNIVERSAL KIT, 25mm UNDERCUT
102	813x2150x50	1	HM	PNT	--		A	DF2	HM	PNT	No		No	No	OHS, 25mm UNDERCUT
103	813x2150x50	1	HM	PNT	--		A	DF1	HM	PNT	No		No	No	OHS, 25mm UNDERCUT
104	965x2150x50	1	HM	PNT	--		A	DF1	HM	PNT	No		No	No	PDO, ES, 25mm UNDERCUT
105	813x2150x50	1	HM	PNT	--		A	DF1	HM	PNT	No		No	No	OHS, 25mm UNDERCUT



Ontario's 2012 Building Code			OBC Reference
Data Matrix Part 11			
11.1	Existing Building Classification	Describe Existing Use: GROUP A2 TO REMAIN ( SECONDARY SCHOOL) Construction Index: - Hazard Index: - ■ Not Applicable (no change of major occupancy)	11.2.1. T11.2.1.1A T11.2.1.1B-N
11.2	Alteration to Existing Building is	Basic Renovation <input checked="" type="checkbox"/> Extensive Renovation <input type="checkbox"/>	
11.3	Reduction in Performance Level	Structural <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By Increase in Occupant Load <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes By Change of Major Occupancy <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Plumbing <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Sewage-System <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	11.4.2. 11.4.2.1-5
11.4	Compensating Construction	Structural <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (explain) - Increase in Occupant Load <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (explain) - Change of Major Occupancy <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (explain) - Plumbing <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (explain) - Sewage System <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (explain)	11.4.3. 11.4.3.2. 11.4.3.3. 11.4.3.4. 11.4.3.5. 11.4.3.6.
11.5	Compliance Alternatives Proposed	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (give number(s))	11.5.1.
11.6	Alternative Measures Proposed	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (give number(s))	11.5.2.

Plumbing Fixture Requirements Student: 1 fixture for 30 male students & 1 fixture for 26 female students in secondary schools (calculated based on actual no. of persons)				
Student Washroom Requirements (occupant load calculated based on chart 3.1.17.1)	Male Required	Male Provided	Female Required	Female Provided
TOTAL STUDENTS= 1700 people @ 50% = 850 females/850 males	29	28 ( existing)	33	34 (existing)
TOTAL TEACHER COUNT= Male: 100/30 = 3.33 = 4 required Female: 100/26 = 3.8 = 4 required	4	5 (existing)	4	5 (existing)
Universal Washrooms	<b>1 PROVIDED</b>			
Unisex Washrooms (Gender Inclusive)	<b>4 PROVIDED (1 BARRIER-FREE STALL INCLUDED)</b>			
<b>TOTAL WASHROOM COUNT</b>	<b>70 REQUIRED, 78 PROVIDED</b>			

**OBC NOTES:**

- MAJOR OCCUPANCY: GROUP A2 TO REMAIN (SECONDARY SCHOOL)
- EXISTING BUILDING AREA: **7,151.0 m<sup>2</sup> (76,972 SF)**
- AREA OF RENOVATION: **49 m<sup>2</sup> (527 SF)**
- EXISTING BUILDING: SPRINKLERED
- FIRE ALARM - EXISTING
- FIRE RESISTANCE RATING FOR THE CORRIDOR IS NOT REQUIRED AS THE CORRIDOR IS SPRINKLERED. 3.3.2.5(3) AND FIRE SEPARATION IS WAIVED AS THE EXIT TRAVEL DISTANCE DOES NOT EXCEED 45M AS PER 3.3.2.5(4).
- FIRE RESISTANCE RATING FOR FLOORS AND ALL SUPPORTING ASSEMBLIES TO REMAIN UNDISTURBED AND/OR REPAIRED AS REQUIRED TO MAINTAIN A 1 HR. FRR.



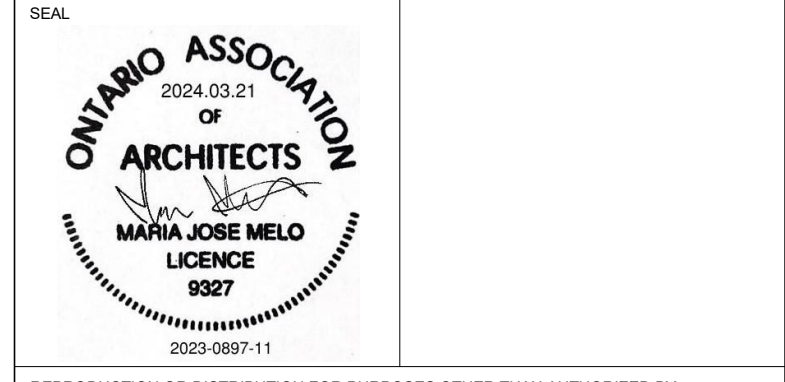
No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-02-22
2	ISSUED FOR 90% OWNER REVIEW	2024-03-08
3	ISSUED FOR BID AND PERMIT	2024-03-21

CLIENT  
**WATERLOO REGION DISTRICT SCHOOL BOARD**  
51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT  
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOM RENOVATION**  
787 King Street West, Kitchener, Ontario

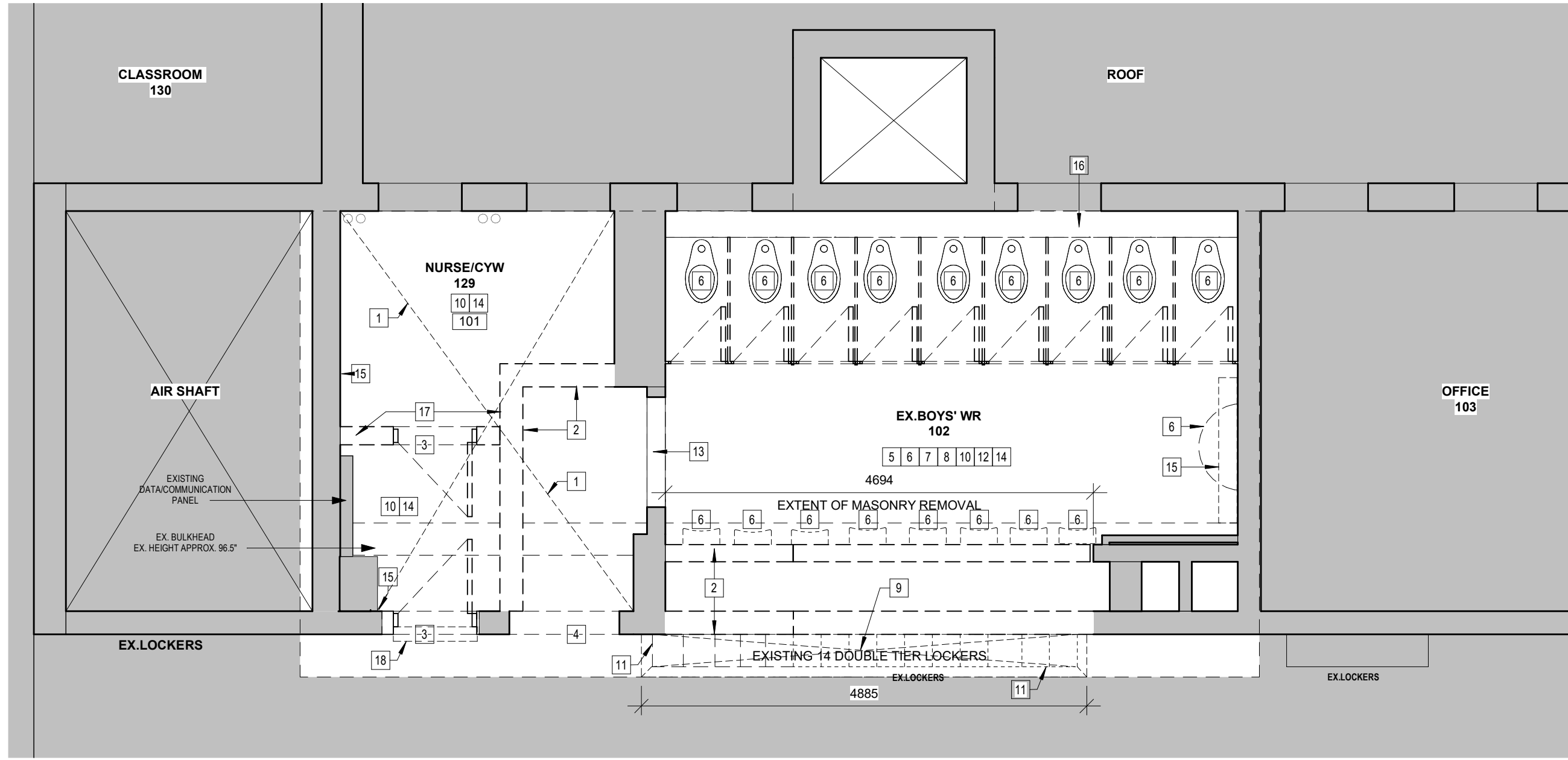
TITLE  
**GENERAL NOTES, SITE PLAN, DOOR SCHEDULE, OBC MATRIX**

**WALTERFEDY**  
TORONTO | CALGARY | KITCHENER | HAMILTON  
800.685.1378 walterfedy.com

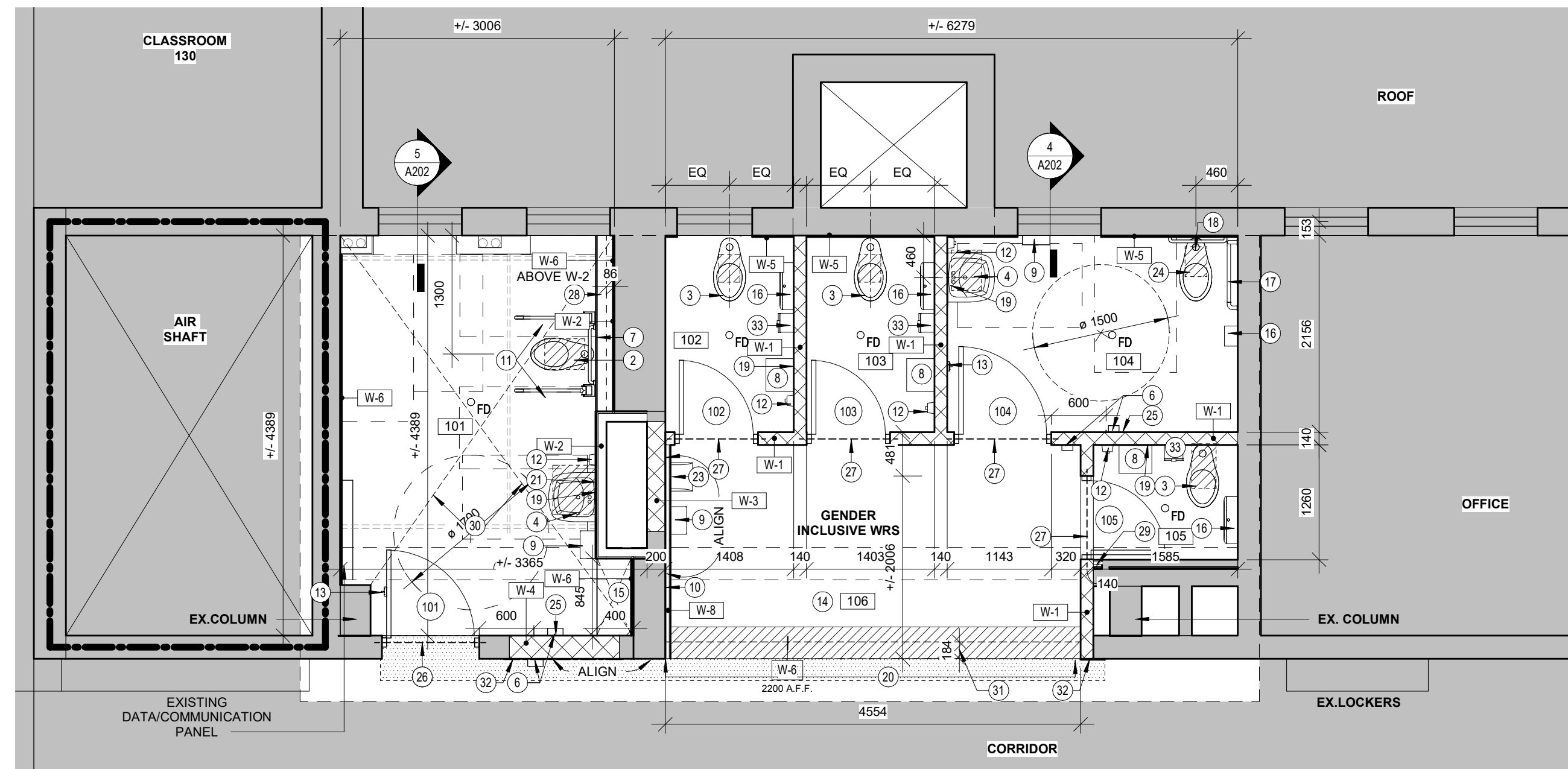


REPRODUCTION OR DISTRIBUTION FOR PURPOSES OTHER THAN AUTHORIZED BY WALTERFEDY, A PART OF WF GROUP, IS FORBIDDEN. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS TO WALTERFEDY, A PART OF WF GROUP. - DO NOT SCALE THIS DRAWING -

SCALE:	SHEET NO:
DATE: 2024-03-01	<b>A101</b>
PROJECT NO: 2023-0897-11	
DRAWN BY: SY	
CHECKED BY: MM	



1 PARTIAL GROUND FLOOR PLAN - DEMOLITION PLAN  
A201 Scale: 1 : 50



2 PARTIAL GROUND FLOOR PLAN- RENOVATION PLAN  
A201 Scale: 1 : 50

**DEMOLITION NOTES**

- REMOVE EXISTING VCT FLOORING, PLYWOOD OVERLAY AND WOOD DECK ON SLEEPERS IN THEIR ENTIRETY. EXPOSE BARE CONCRETE FLOOR. PREPARE EXPOSED FLOOR TO RECEIVE SELF LEVELLING CEMENT FILLER TO RAISE FLOOR TO CORRIDOR FLOOR LEVEL.
- REMOVE EXISTING NON-LOAD BEARING CONCRETE BLOCK WALL, FULL HEIGHT. EXTENT SHOWN ON DEMOLITION PLAN. GENERAL CONTRACTOR TO CAREFULLY REMOVE EXISTING CROWN MOULDING, ON CORRIDOR SIDE, OVER EXTENT OF CONCRETE BLOCK REMOVAL (SEE DEMO NOTE #1). SAFELY STORE SALVAGED CROWN MOULDING FOR RE-INSTALLATION.
- REMOVE EXISTING HM DOOR FRAME AND PLAM DOOR. REMOVE SECTIONS OF EXISTING NON-LOADBEARING CONCRETE BLOCK WALL AS REQUIRED TO INSTALL A NEW BARRIER FREE DOOR. PROVIDE TEMPORARY SHORING AS REQUIRED UNTIL PERMANENT LINTEL IS INSTALLED.
- REMOVE EXISTING HM DOOR FRAME AND HINGES AND PREPARE TO INFILL THE OPENING TO MATCH EXISTING ADJACENT SURFACES.
- REMOVE EXISTING WALL TILE C/W ADHESIVES. PREPARE SURFACE TO RECEIVE NEW WALL TILE. CONTRACTOR TO SITE VERIFY THE EXISTING WALLS, SOME WALLS ARE CLAY BRICK.
- REMOVE EXISTING PLUMBING FIXTURES, BRADLEY SINK (BOYS' WR), WATER CLOSETS (9), AND URINALS (8). PATCH AND PREPARE SURFACES TO RECEIVE NEW INDIVIDUAL WASHROOMS. PATCH AND PAINT WALL WHERE URINALS ARE REMOVED.
- REMOVE EXISTING WATER CLOSET PARTITIONS C/W FASTENERS.
- REMOVE EXISTING ACCESSORIES - SOAP DISPENSERS, MIRRORS, TOILET PAPER, AND PAPER TOWEL DISPENSERS.
- CAREFULLY REMOVE EXISTING LOCKERS TO ALLOW ACCESS TO PROPOSED WASHROOMS. TURN LOCKERS OVER TO OWNER.
- REMOVE EXISTING ACT TILES AND GRIDS. PATCH AND REPAIR TO ACCEPT NEW GYPSUM BOARD CEILING.
- SAW CUT AND REMOVE EXISTING TERRAZZO BASE BELOW LOCKERS. REPAIR EXISTING TERRAZZO FLOOR BELOW LOCKERS. PATCH AND MAKE GOOD WITH EXISTING ADJACENT SURFACES.
- REPAIR ALL HOLES AND DAMAGE TO EXISTING TERRAZZO FLOORING DUE TO DEMOLITION AND CONSTRUCTION. PATCH AND MAKE GOOD WITH EXISTING ADJACENT SURFACE.
- REMOVE EXISTING WOOD DOOR FRAME AND TRIM AND PREPARE TO INFILL OPENING.
- PROVIDE LAYOUT WITH SIZE AND LOCATIONS OF CORES THROUGH THE EXISTING SUSPENDED SLAB FOR APPROVAL PRIOR TO CUTTING THE SLAB. SCAN EXISTING SUSPENDED SLAB TO LOCATE REBAR PRIOR TO CUTTING ANY HOLES FOR SERVICES. PLACE NEW SERVICES BETWEEN SLAB REBAR AND DO NOT CUT ANY BARS. MAXIMUM CORE SIZE IS 100mm DIAMETER.
- PATCH THE WALL TO MATCH EXISTING ADJACENT UPON REMOVAL OF EXISTING MECHANICAL AND ELECTRICAL DEVICES, PRIME AND PAINT TO MATCH ADJACENT.
- REMOVE THE CHASE WALL IN ITS ENTIRETY. CAP THE PLUMBING FIXTURES PIPES UPON REMOVAL. REFER TO MECHANICAL FOR SCOPE OF WORK. INFILL ALL PENETRATIONS IN THE EXTERIOR WALL AND FLOOR TO MATCH EXISTING ASSEMBLY CONSTRUCTION AND RATING. PATCH AND MAKE GOOD TO ALL ADJACENT SURFACES TO ACCEPT NEW WALL FINISHES.
- REMOVE EXISTING DEMOUNTABLE PARTITIONS IN THEIR ENTIRETY. FULL HEIGHT: 2800mm +/-
- REMOVE EXISTING TERRAZZO RAMP AT DOOR TO EXISTING NURSE'S ROOM. MAKE TERRAZZO LEVEL WITH EXISTING ADJACENT TERRAZZO IN CORRIDOR. PATCH AND MAKE GOOD WITH EXISTING ADJACENT SURFACE.

HATCHED AREA DENOTES CONCRETE AND GROUT INFILL AS REQUIRED FOR DEMOLISHED PLUMBING FIXTURES (APPROX. 190mm THICK). FINISH FLUSH WITH ADJACENT EXISTING FLOOR FINISH. PATCH AND MAKE GOOD WITH EXISTING ADJACENT AND PREPARE SUBSTRATE TO RECEIVE NEW FLOOR FINISH - REFER TO STRUCTURAL FOR SLAB-ON-GRADE REPAIR DETAIL TYPICAL. PATCH AND FIRESTOP ALL PENETRATIONS THROUGH THE FLOOR ASSEMBLY TO ACHIEVE FIRE SEPARATION OF 1 HR. FRR.

AREA DENOTES PATCH AND REPAIR TERRAZZO TILE AND BASE REPAIR TO MATCH EXISTING ADJACENT AS REQUIRED FROM CORRIDOR SIDE.

**WALL ASSEMBLIES**

- W-X EXISTING WALL TO REMAIN.
- W-1 140mm CONCRETE BLOCK - PRIME AND PAINT
  - TO EXTEND TO U/S STRUCTURE ABOVE. REFER TO DRAWINGS S001 AND S002 FOR WALL REINFORCEMENT AND LATERAL SUPPORTS.
- W-2 16mm MOISTURE-RESISTANT CEMENT BOARD  
92mm STEEL STUDS @400mm O.C.
  - GYPSUM WALL BOARD TO EXTEND TO 152mm ABOVE CEILING ONLY UNLESS NOTED OTHERWISE.
- W-3 190mm CONCRETE BLOCK - PRIME AND PAINT.  
SITE VERIFY THE BLOCK SIZE PRIOR TO INFILLING OPENING. ALIGN WITH THE EXISTING WALL.
- W-4 240mm CONCRETE BLOCK - PRIME AND PAINT.  
SITE VERIFY THE BLOCK SIZE PRIOR TO INFILLING OPENING. ALIGN WITH THE EXISTING WALL.
- W-5 16mm MOISTURE-RESISTANT CEMENT BOARD  
EXISTING WALL ASSEMBLY
- W-6 16mm MOISTURE-RESISTANT GYPSUM BOARD  
EXISTING WALL ASSEMBLY
- W-7 BULKHEAD WALL:  
16mm GYPSUM WALL BOARD  
152mm METAL STUDS @ 400 O.C  
16mm GYPSUM WALL BOARD  
DIAGONALLY BRACE @ 1200mm O.C.
- W-8 16mm MOISTURE-RESISTANT GYPSUM BOARD  
42 METAL STUDS @ 400 O.C.

**ROOM LEGEND**

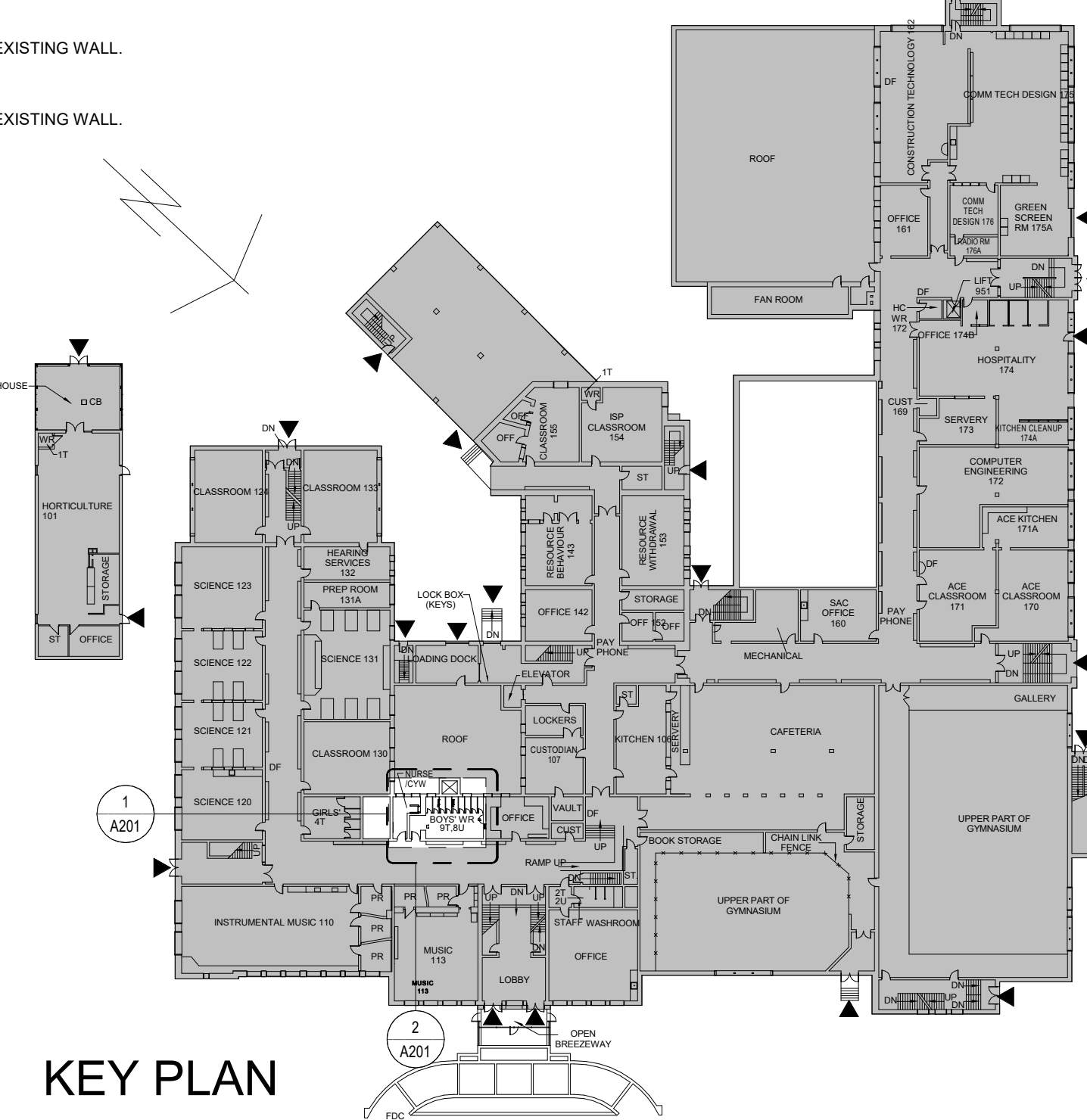
101	UNIVERSAL WASHROOM
102	WASHROOM 1
103	WASHROOM 2
104	BARRIER FREE WASHROOM
105	WASHROOM 3
106	GENDER INCLUSIVE WASHROOM ENTRY

**DRAWING LEGEND**

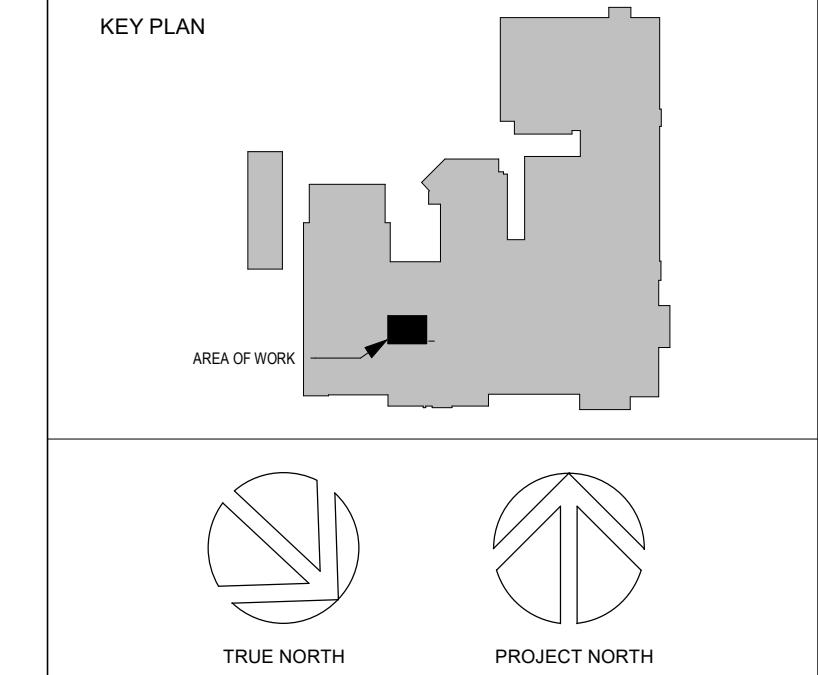
- DOOR, FRAME/SIDELIGHT TO BE REMOVED. REFER TO DEMOLITION NOTES FOR SPECIFIC SCOPE.
- WALL ASSEMBLY TO BE REMOVED. REFER TO DEMOLITION NOTES FOR SPECIFIC SCOPE.
- DENOTES EXISTING DOOR TO REMAIN UNDISTURBED.
- DENOTES EXISTING WALL TO REMAIN.
- HATCH DENOTES AREA NOT IN SCOPE OF ARCHITECTURAL WORK - TYPICAL
- 1 HR. FIRE RESISTANCE RATING

**DRAWING NOTES**

- INFILL OPENING IN WALL W/ NEW BLOCK TO MATCH EXISTING BLOCK SIZE. TOOTH-IN TO EXISTING BLOCK WALL. PATCH AND MAKE GOOD ALL EXISTING ADJACENT SURFACES TO REMAIN. PRIME AND PAINT BOTH SIDES TO MATCH EXISTING. REFER TO TYPICAL DETAIL M113 ON DRAWING S002 FOR MASONRY INFILL.
- BARRIER FREE WATER CLOSET C/W BIDET ROUGH-IN - REFER TO MECHANICAL.
- WATER CLOSET, REFER TO MECHANICAL.
- BARRIER-FREE SINK - REFER TO MECHANICAL.
- PATCH AND MAKE GOOD WALL WHERE PLUMBING HAS BEEN RELOCATED - REFER TO MECHANICAL.
- 1500 BARRIER-FREE POWER DOOR OPERATOR AND PUSH TO LOCK - REFER TO ELECTRICAL. RECESS PUSH BUTTON IN MASONRY.
- EMERGENCY CALL BUTTON, LOCATED 3'-0" ABOVE FINISHED FLOOR, OBC 3.8.3.12(2) - REFER TO ELECTRICAL.
- SINK- REFER TO MECHANICAL.
- HAND DRYER - REFER TO ELECTRICAL AND TYPICAL DETAILS FOR INSTALLATION HEIGHT AND CLEARANCES.
- FULL HEIGHT MIRROR.
- FOLD DOWN GRAB BARS C/W TOILET TISSUE DISPENSER, REFER TO TYPICAL DETAIL.
- SOAP DISPENSER, REFER TO TYPICAL DETAILS AND SPECIFICATIONS.
- COAT HOOK, REFER TO TYPICAL DETAILS AND SPECIFICATIONS.
- TERRAZZO BASE AND TERRAZZO FLOOR. PATCH AND REPAIR TO RECEIVE PORCELAIN TILE FINISH. ALIGN WITH ADJACENT TERRAZZO FLOOR LEVEL.
- MEDICAL SUPPLIES LOCKABLE CABINET
- TOILET TISSUE DISPENSER.
- 750 X 750 L-SHAPED GRAB BAR. REFER TO TYPICAL DETAILS FOR MOUNTING HEIGHTS.
- 380(11/2)" HORIZONTAL GRAB BAR 750 LONG, CENTERED OVER TOILET.
- 610 X 915 MIRROR, CENTERED ON SINK BELOW.
- INFILL WITH CEMENTITIOUS FLOOR LEVELLER. ALIGN WITH ADJACENT TERRAZZO FLOOR LEVEL. PATCH AND MAKE GOOD WITH EXISTING ADJACENT.
- UTILITY SHELF. REFER TO SPECIFICATIONS.
- RESERVED.
- PAPER TOWEL DISPENSER, REFER TO TYPICAL DETAILS AND SPECIFICATIONS.
- BARRIER FREE WATER CLOSET. REFER TO MECHANICAL.
- PUSH TO LOCK BUTTON, REFER TO ELECTRICAL, TYPICAL DETAILS AND SPECIFICATIONS.
- PROVIDE LINTEL ABOVE DOOR OPENING IN EX. WALL AS PER TYPICAL DETAIL M105 ON DRAWING S002. PROVIDE 2-L89X59X6.4 BACK-TO-BACK FOR 190 BLOCK WALL OR L102X76X6.4 LLH + L127X76X6.4 LLH BACK-TO-BACK FOR 240 BLOCK WALL. SITE VERIFY EXISTING WALL THICKNESS.
- PROVIDE LINTEL 2-L89X64X6.4 LLV BACK-TO-BACK ANGLES ABOVE DOOR OPENINGS PER TYPICAL DETAIL M105 ON DRAWING S002, TYP.
- INSTALL GYPSUM WALL BOARD COVER TO THE TOP OF PARTIAL HEIGHT WALL (TOP OF WALL TO ALIGN WITH THE BOTTOM OF THE WINDOW SILL) AND FINISH WITH WALL TILES TO MATCH ADJACENT.
- INFILL RECESSED AREA BETWEEN PROPOSED CONCRETE BLOCK AND EXISTING CHASE WALL WITH 16MM GWB ON 42MM METAL STUD FRAMING.
- INSTALL SELF LEVELLING CEMENTITIOUS UNDERLAYMENT TO ALIGN PROPOSED WASHROOM FLOOR LEVEL WITH CORRIDOR TERRAZZO FLOOR LEVEL. DEPTH 40MM TO 65MM +/- SITE VERIFY.
- INSTALL GYPSUM WALL BOARD AND METAL STUD BULKHEAD WALL ABOVE OPENING (WALL ASSEMBLY TYPE W-7). BULKHEAD TO BE SET AT 2200 A.F.F. AN TO BE CARRIED UP TO U/S STRUCTURE. DIAGONALLY BRACE WALL @ 1200MM O.C. ON WASHROOM SIDE. RE-INSTALL SALVAGED CROWN MOULDING ON CORRIDOR SIDE (SEE DEMO NOTE #1). PATCH AND MAKE GOOD WITH EXISTING ADJACENT SURFACES.
- INSTALL TERRAZZO BASE TO MATCH EXISTING ADJACENT. HEIGHT APPROX. 150MM SITE VERIFY.
- NAPKIN DISPOSAL (SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR)



KEY PLAN



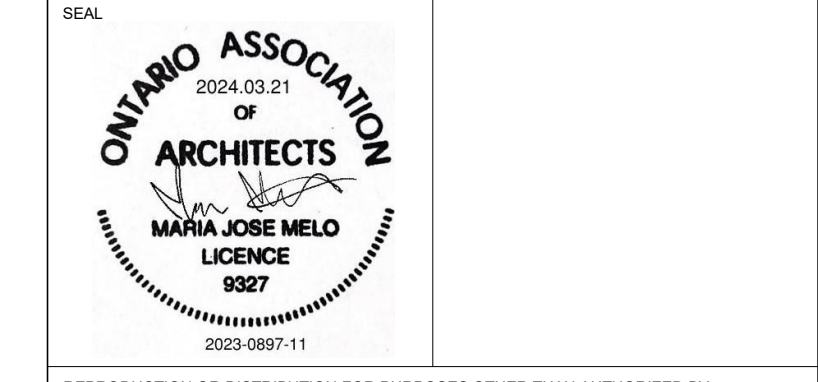
No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-02-22
2	ISSUED FOR 90% OWNER REVIEW	2024-03-08
3	ISSUED FOR BID AND PERMIT	2024-03-21

CLIENT  
**WATERLOO REGION DISTRICT SCHOOL BOARD**  
51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT  
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOM RENOVATION**  
787 King Street West, Kitchener, Ontario

TITLE  
**DEMOLITION AND RENOVATION FLOOR PLANS**

**WALTERFEDY**  
TORONTO | CALGARY | KITCHENER | HAMILTON  
800.685.1378 walterfedy.com



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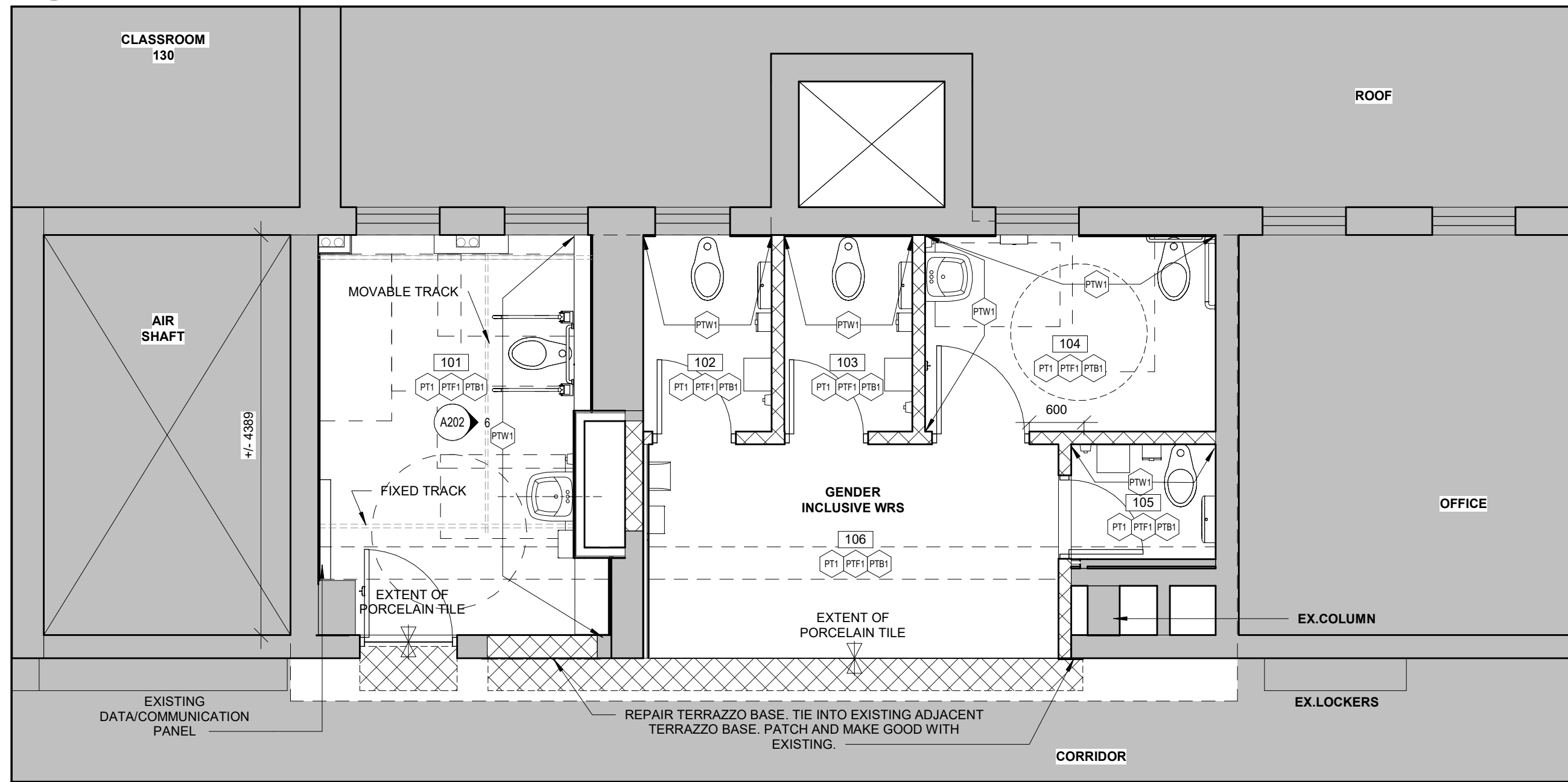
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SCALE: As indicated  
DATE: 2024-03-04  
PROJECT NO: 2023-0897-11  
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CHECKED BY: MM

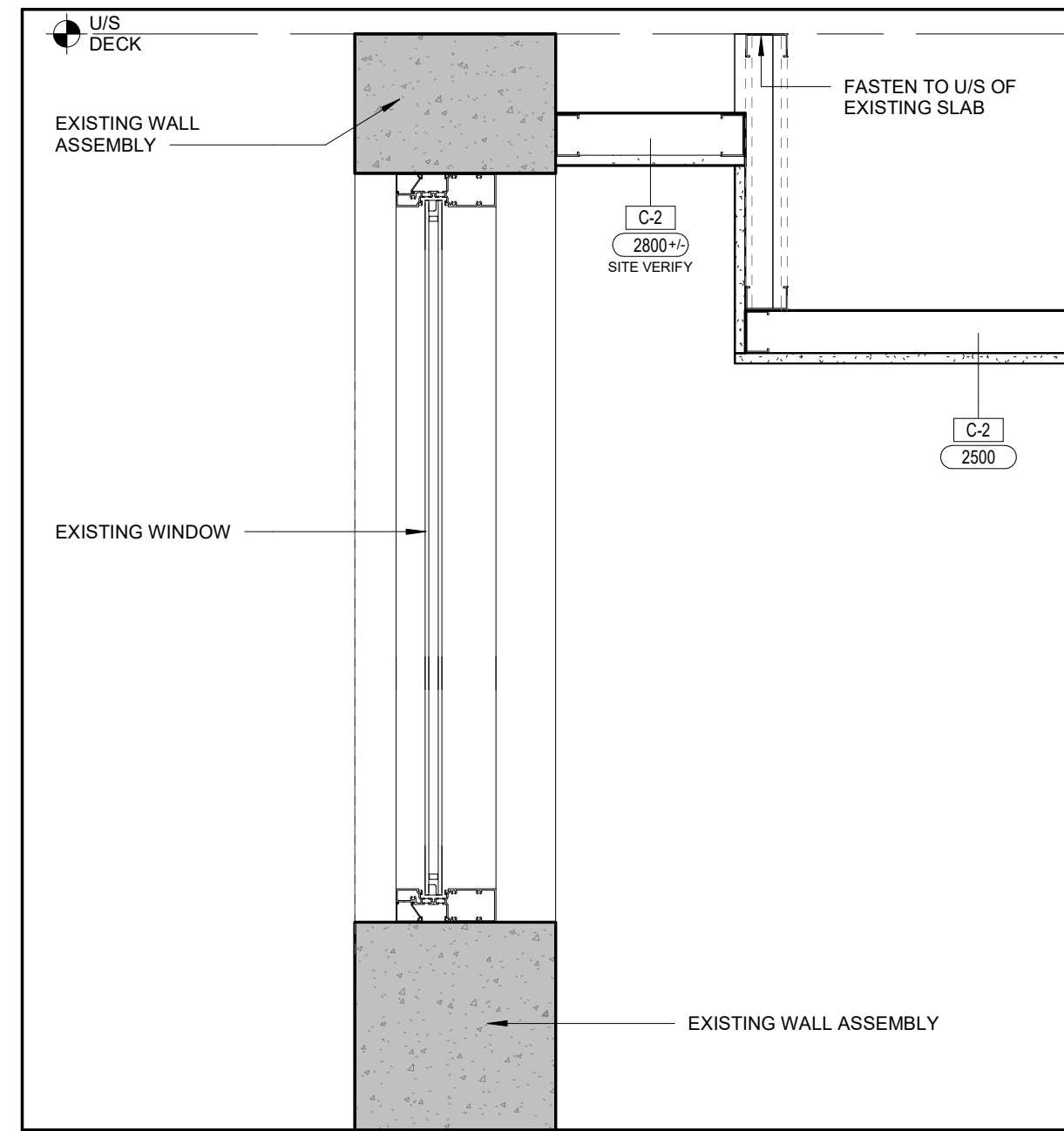
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**A201**



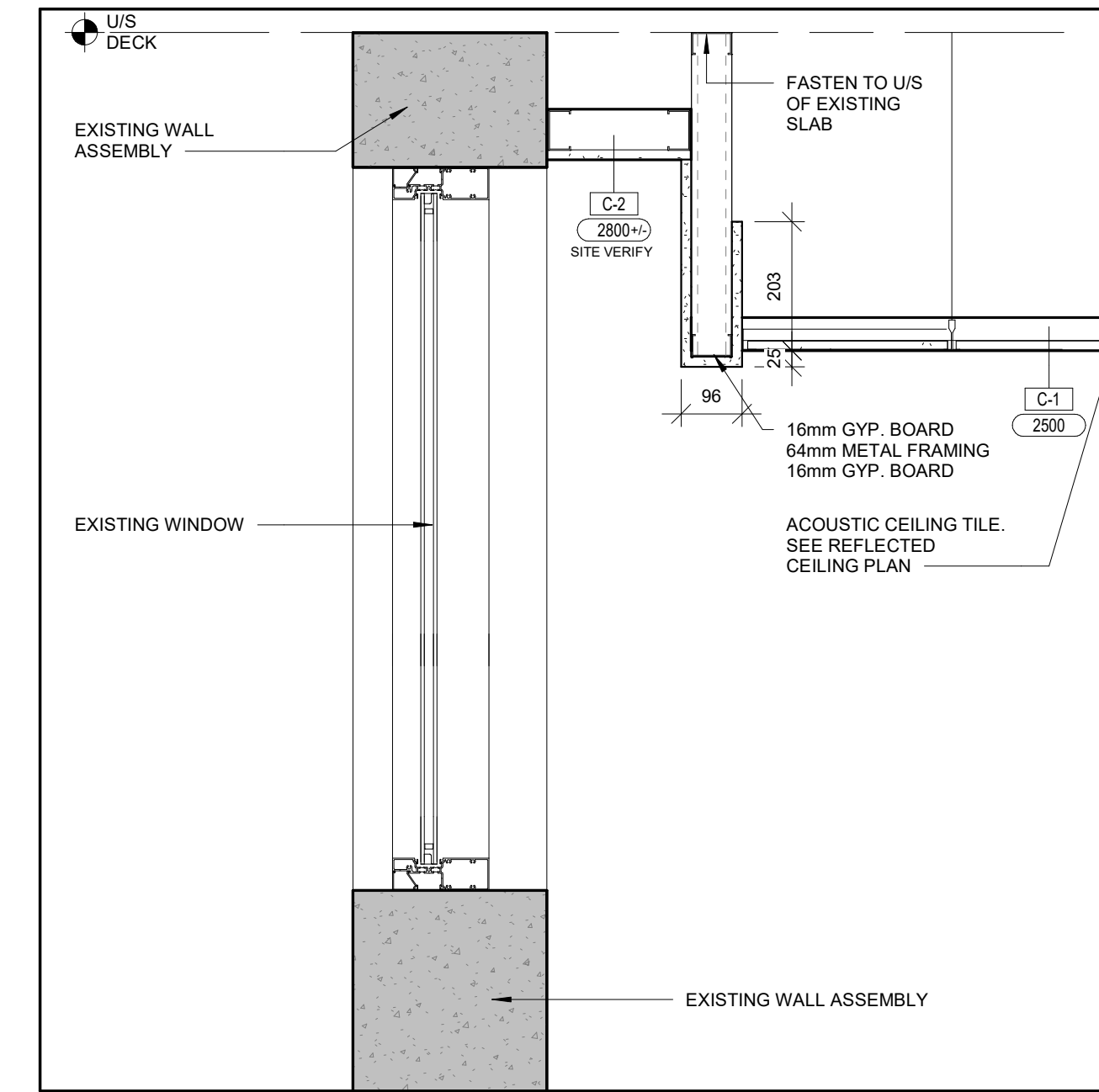
**2 PARTIAL REFLECTED CEILING PLAN**  
A202 Scale: 1 : 50



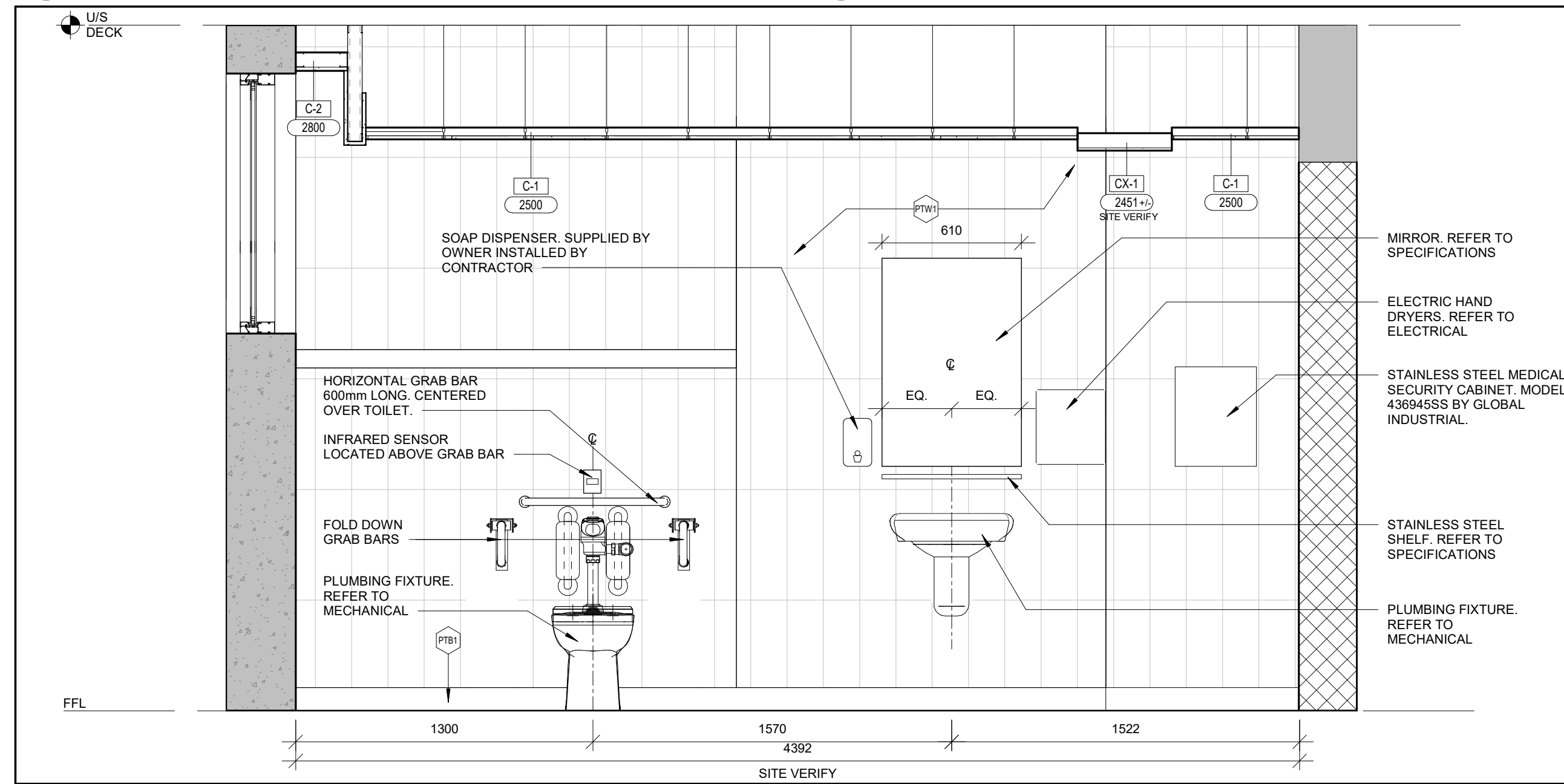
**1 PARTIAL GROUND FLOOR PLAN - FINISHES PLAN**  
A202 Scale: 1 : 50



**4 TYPICAL WINDOW BULKHEAD**  
A202 Scale: 1 : 10



**5 TYP. WINDOW BULKHEAD - UNIVERSAL WASHROOM**  
A202 Scale: 1 : 10



**6 UNIVERSAL WASHROOM - EAST ELEVATION**  
A202 Scale: 1 : 20

**GENERAL RCP NOTES**

- THE CONTRACTOR SHALL COMPARE THIS REFLECTED CEILING PLAN WITH ELECTRICAL LIGHTING PLANS, MECHANICAL SUPPLY, RETURN, AND EXHAUST PLANS. THE CONTRACTOR SHALL REPORT ANY OMISSIONS OR INCONSISTENCIES TO THE ARCHITECT.
- SEE ELECTRICAL DRAWINGS FOR THE LOCATIONS OF CEILING MOUNTED SMOKE DETECTORS, NURSE CALL DOME LIGHTS EXIT SIGNAGE, FIRE ALARM DEVICES, WALL MOUNTED EXIT LIGHTS, ETC.
- COORDINATE GYPSUM BOARD FURR DOWN HEIGHTS WITH FULL HEIGHT CABINETS AND INTERIOR ELEVATIONS.
- SPRINKLER HEAD LOCATIONS ARE NOT SHOWN ON ARCHITECTURAL REFLECTED CEILING PLANS. REFER TO MECH DRAWINGS FOR ANY WORK RELATED TO FIRE PROTECTION SYSTEMS.
- 18" MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE BOTTOM OF EXTENDED SPRINKLER HEADS AND THE TOP OF ANY FILES, SHELVING, LOCKERS, ETC.
- THE CONTRACTOR SHALL VERIFY THAT ACCESS PANELS OF TYPE SPECIFIED ARE INSTALLED IN NON-ACCESSIBLE TYPE CEILINGS WHERE SERVICE OR ADJUSTMENT TO MECHANICAL, PLUMBING, OR ELECTRICAL ITEMS MAY BE REQUIRED. ACCESS PANELS SHALL BE THE FIRE RATED TYPE EQUAL TO THE RATING OF THE CEILING IN WHICH THEY OCCUR.
- WHERE EXISTING LAY-IN CEILINGS ARE TO REMAIN, THE CONTRACTOR SHALL REPLACE ANY TILE THAT HAS BEEN DAMAGED WITH MATERIALS THAT MATCH THE EXISTING FOR COLOR, TEXTURE, PATTERN, ETC.
- RELOCATE SUPPLY DRAIN AND VENT PIPES TO MAINTAIN SCHEDULED CEILING HEIGHTS. COORDINATE RELOCATIONS WITH MEP.
- LOAD BEARING STEEL STUD FOR CEILING FRAMING TO BE DESIGNED BY OTHERS.

**CEILING NOTES**

- CEILING MOUNTED BARRIER FREE LIFT, FIXED TRACK, STEEL SUPPORTS TO THE EXISTING STRUCTURE IS REQUIRED. REFER TO STRUCTURAL AND SPECIFICATIONS.
- CEILING MOUNTED BARRIER FREE LIFT, MOVABLE TRACK. REFER TO SPECIFICATIONS.
- MAINTAIN FIRE RATED CEILING AS EXISTING CONDITION. PATCH AND FIRE STOP ALL EXISTING PENETRATIONS UPON COMPLETION OF MECHANICAL AND ELECTRICAL WORK.
- EXISTING GYPSUM BOARD BULKHEAD TO REMAIN UNDISTURBED. UNLESS NOTED OTHERWISE. SEE REFLECTED CEILING PLAN.
- RE-INSTALL SALVAGED CROWN MOULDING. PATCH AND MAKE GOOD WITH EXISTING ADJACENT CROWN MOULDING.
- RE-INSTALL SALVAGED CROWN MOULDING. PATCH AND MAKE GOOD WITH EXISTING ADJACENT CROWN MOULDING.
- PRIME AND PAINT EXISTING AND SALVAGED CROWN MOULDING. PAINT ENTIRE LENGTH BETWEEN EXISTING BEAMS.

**CEILING ASSEMBLIES**

- C-X1 610 x 1220 ACOUSTIC CEILING TILE ASSEMBLY WITH EXISTING METAL T-BAR SUSPENSION SYSTEM. REMOVE AS REQUIRED FOR MECH. / ELEC. / STRUC. SCOPE AND RE-STALL UPON COMPLETION WITH NEW ACOUSTIC CEILING TILES
- C-X2 EXISTING GYPSUM WALL BOARD CEILING TO BE LEFT UNDISTURBED UNLESS OTHERWISE NOTED
- C-1 610 x 1220 ACOUSTIC CEILING TILES WITH PREFINISHED METAL T-BAR SUSPENSION SYSTEM MAINTAIN 1 HR FIRE RATING
- C-2 16mm GYPSUM WALL BOARD 22mm METAL FURRING CHANNELS @ 400mm O.C. 64mm CARRYING CHANNELS @ 600mm O.C.

**CEILING LEGEND**

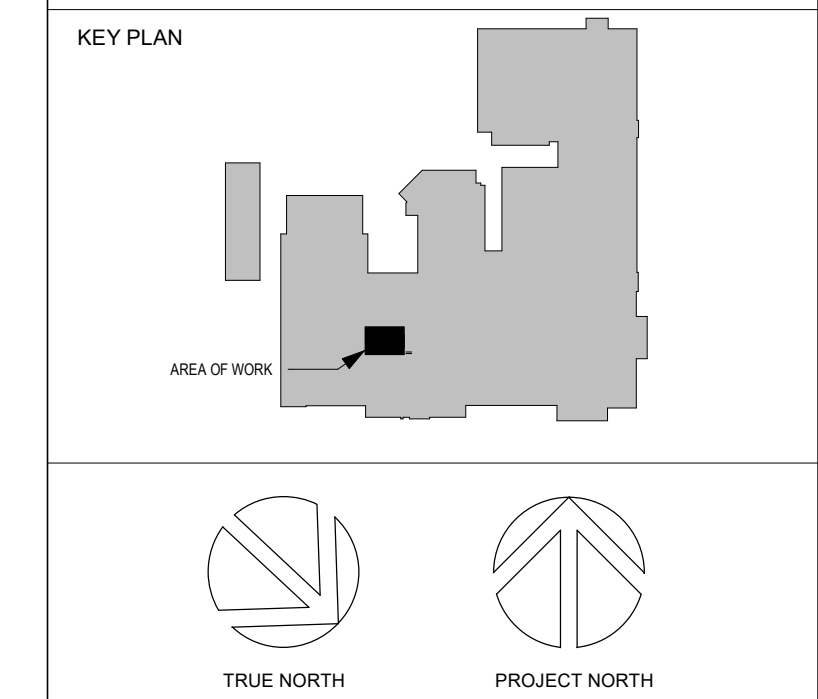
- DENOTES AREAS NOT IN SCOPE
- C-1 CEILING ASSEMBLY
- XXXX CEILING HEIGHT ABOVE FINISHED FLOOR
- ⊗ RECESSED LED LIGHT FIXTURE. REFER TO ELEC. DRAWINGS FOR TYPE AND SIZE
- MECHANICAL SUPPLY AIR DIFFUSER. REFER TO MECHANICAL DRAWINGS FOR TYPE AND SIZE
- ⊕ NEW AIR GRILLE C/W BALANCING DAMPER. REFER TO MECHANICAL DRAWINGS FOR TYPE AND SIZE
- 1 HR. FIRE RESISTANCE RATING

**FINISH LEGEND**

- WALL & CEILING**
  - P11 PAINT
  - P12 PAINT
  - P1W PORCELAIN WALL TILE
- FLOOR:**
  - P1F PORCELAIN FLOOR TILE
  - S11 SHEET VINYL
- BASE:**
  - P1B1 PORCELAIN TILE BASE
  - R11 RUBBER BASE
  - T11 TRANSITION STRIP

**ROOM LEGEND**

- 101 UNIVERSAL WASHROOM
- 102 WASHROOM 1
- 103 WASHROOM 2
- 104 BARRIER FREE WASHROOM
- 105 WASHROOM 3
- 106 GENDER INCLUSIVE WASHROOM ENTRY

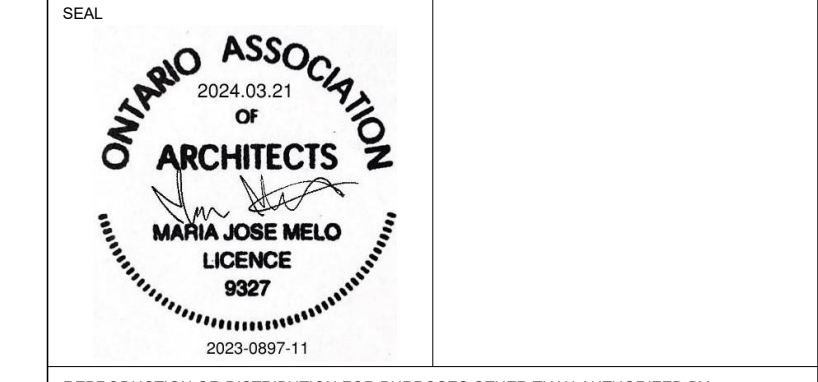


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2	ISSUED FOR 90% OWNER REVIEW	2024-03-08
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**CLIENT**  
WATERLOO REGION DISTRICT SCHOOL BOARD  
51 Ardelt Ave, Kitchener, ON N2C 2R5

**PROJECT**  
KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOM RENOVATION  
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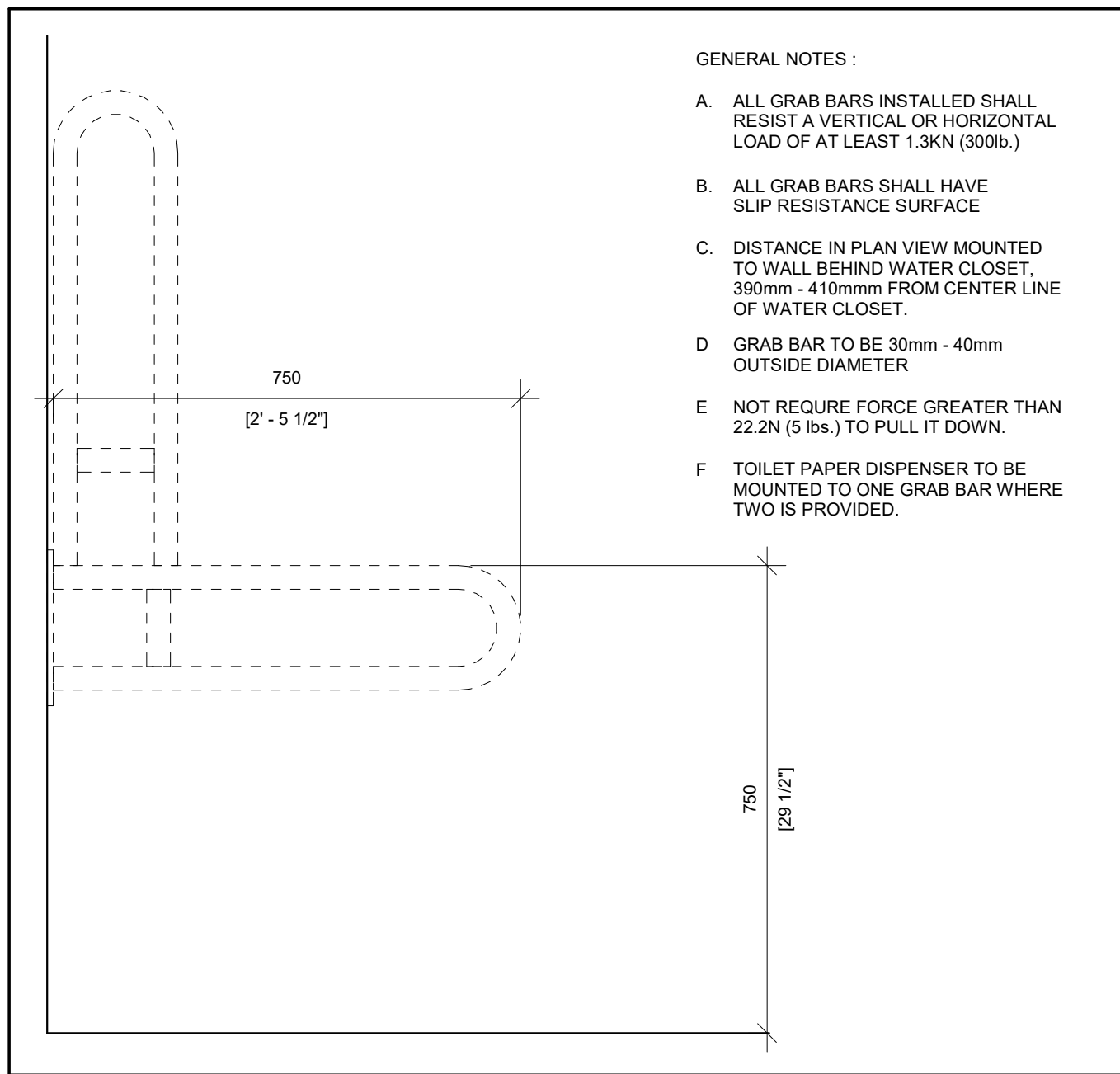
**TITLE**  
REFLECTED CEILING AND FINISHES PLANS



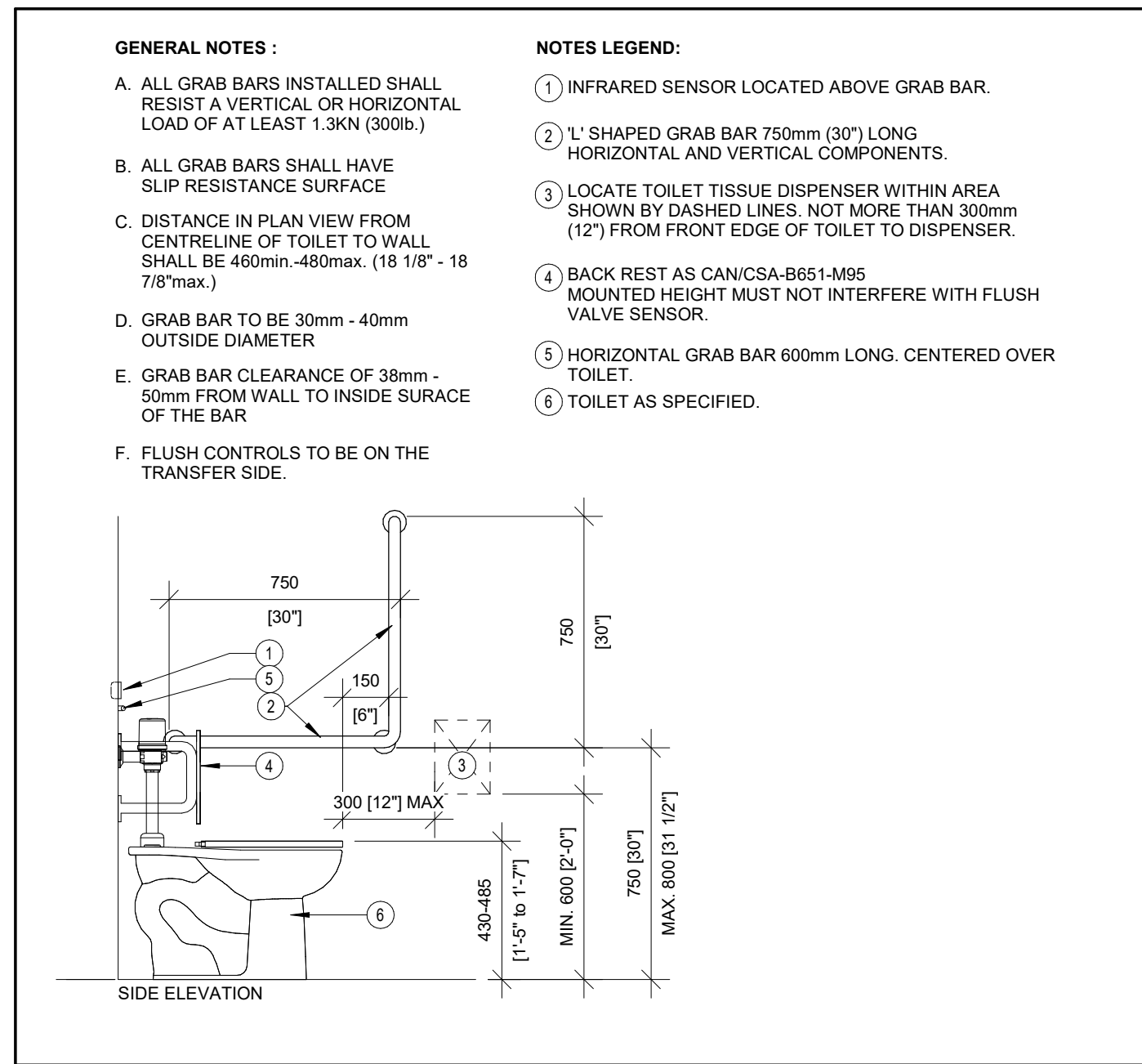
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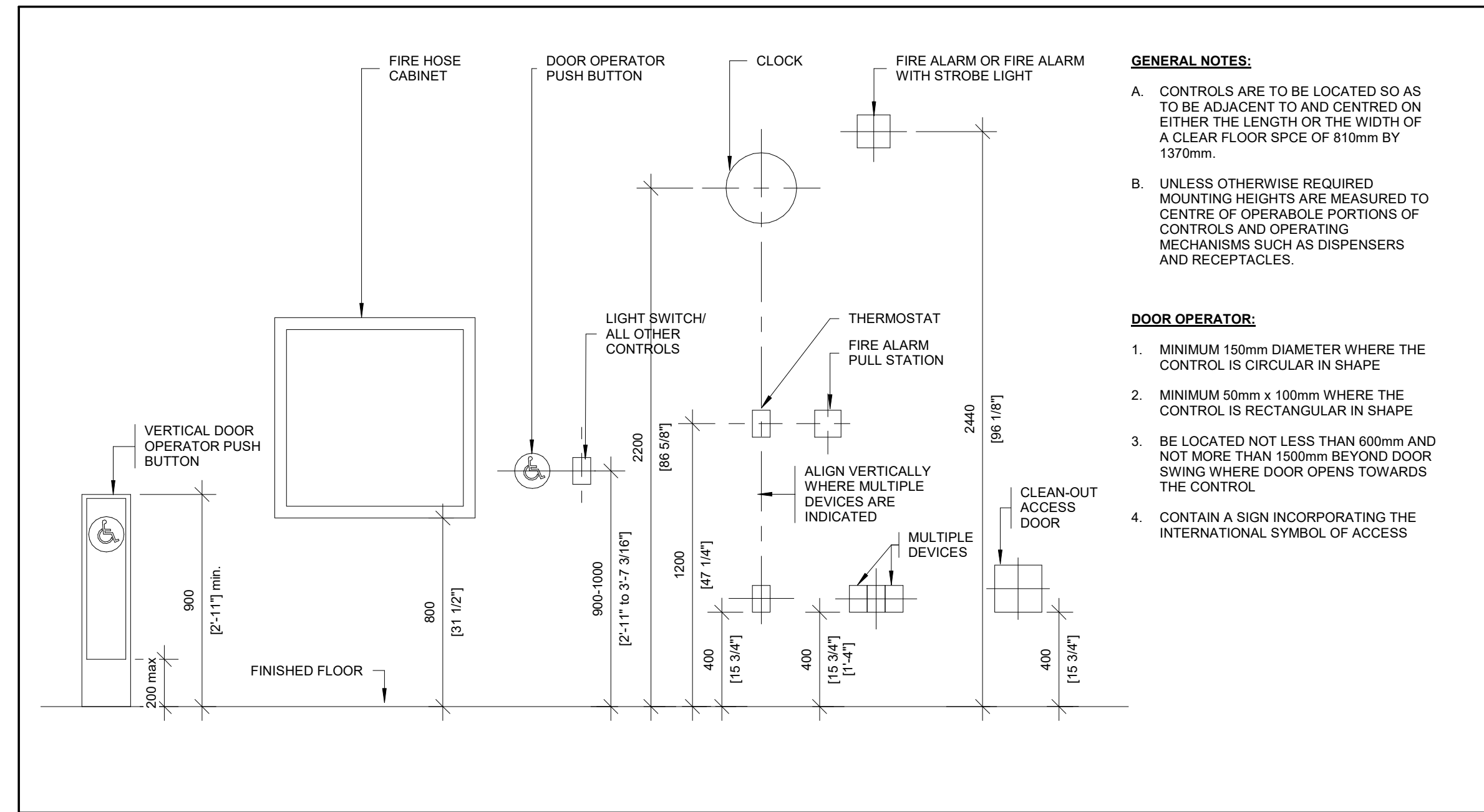
SCALE:	As indicated	SHEET NO:	<b>A202</b>
DATE:	2024-03-04		
PROJECT NO.:	2023-0897-11		
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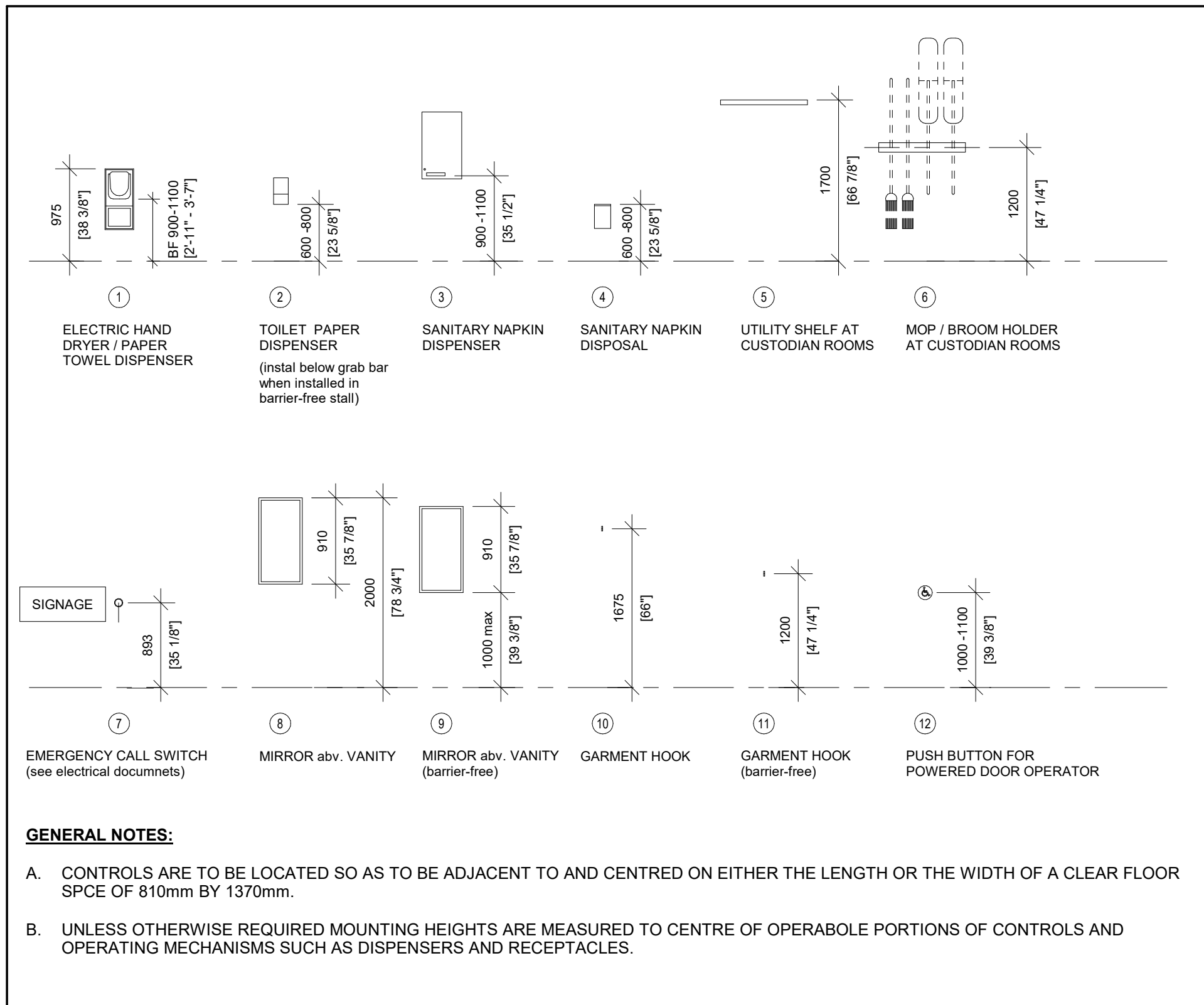
**8 B.F. DROP DOWN GRAB BAR LOCATIONS**  
A801 Scale: 1 : 10



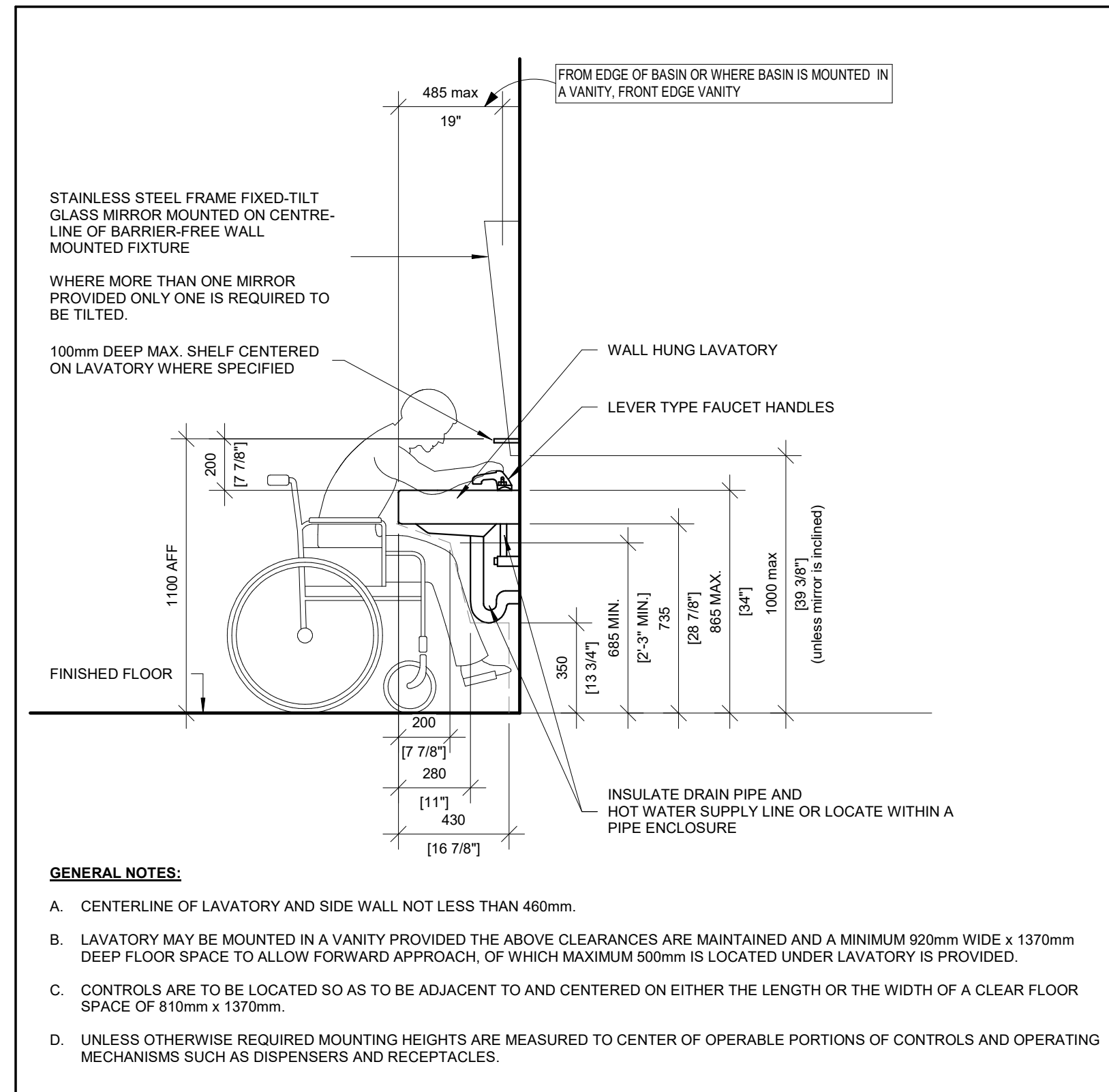
**2 TYPICAL B.F. 'L' GRAB BAR ELEVATION**  
A801 Scale: 1 : 20



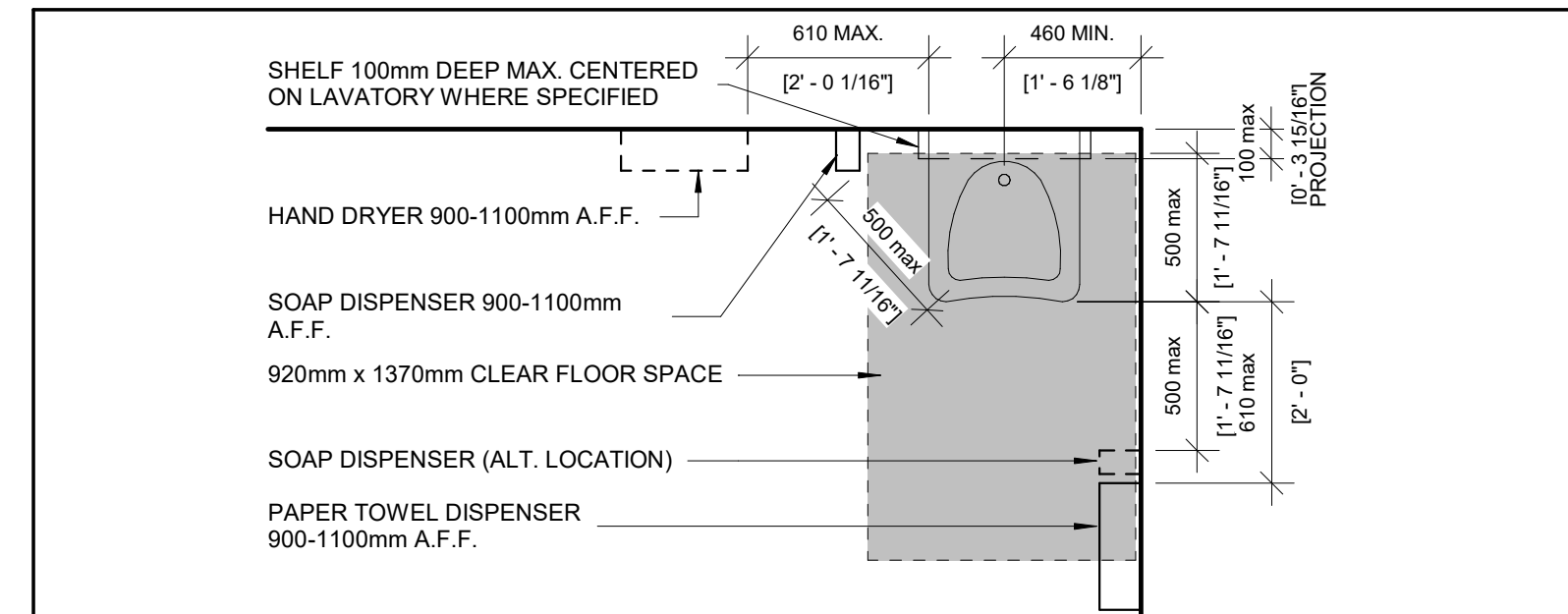
**3 TYPICAL FIXTURE MOUNTING HEIGHTS**  
A801 Scale: 1 : 20



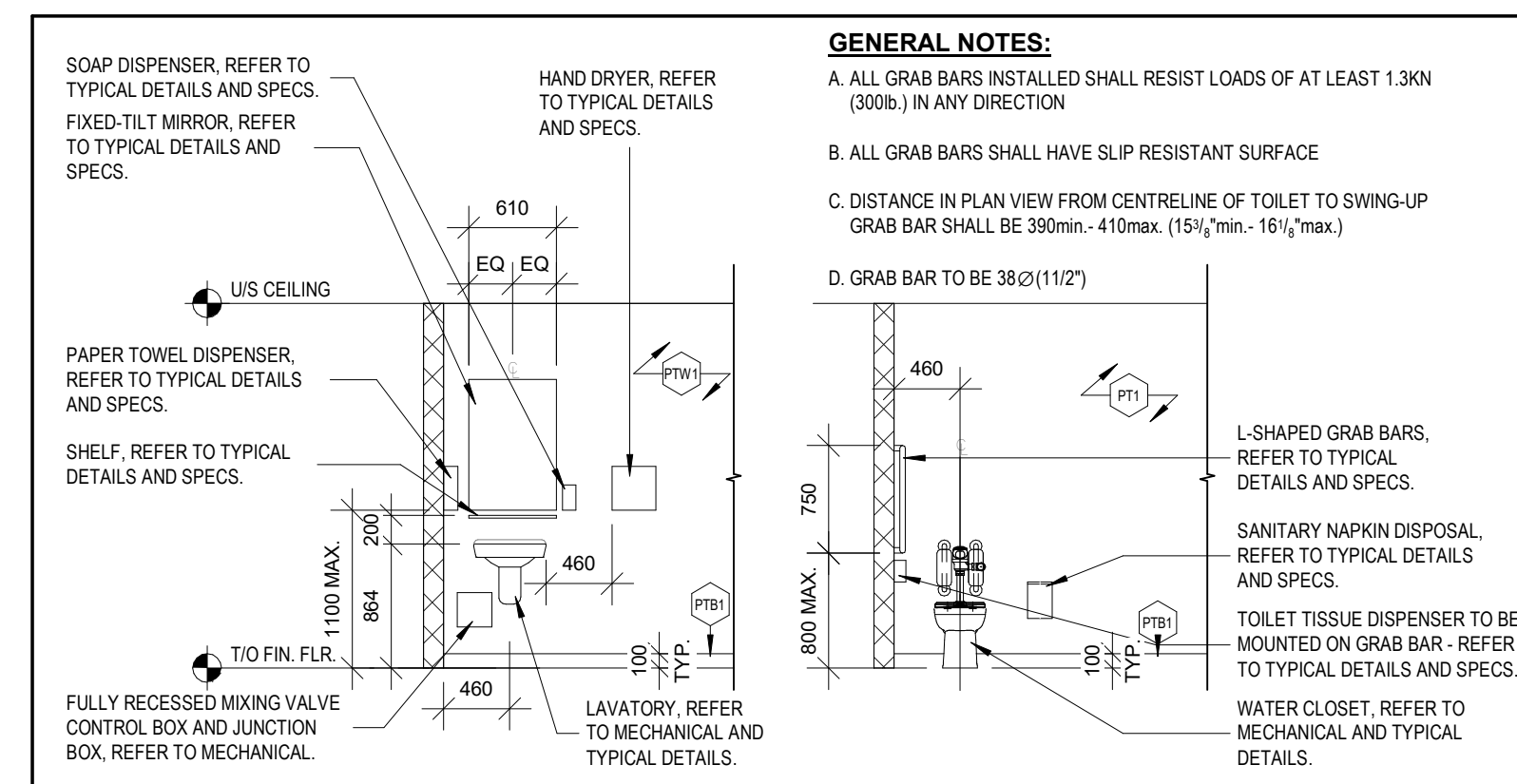
**4 TYPICAL WASHROOM ACCESSORY MOUNTING HEIGHTS**  
A801 Scale: 1 : 50



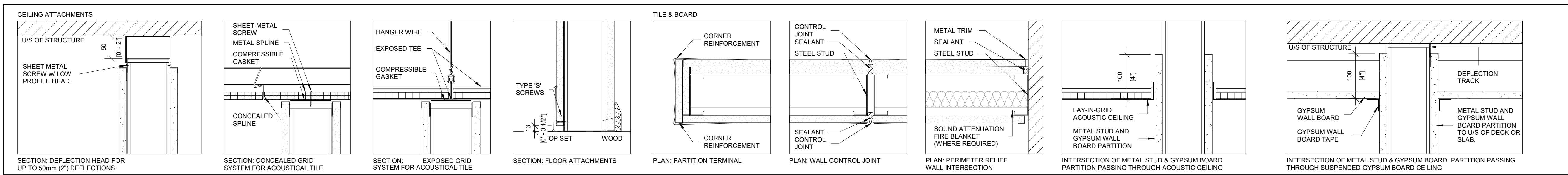
**5 ACCESSIBLE LAVATORY MOUNTING HEIGHTS AND DISTANCES**  
A801 Scale: 1 : 20



**6 BARRIER-FREE LAVATORY PLAN**  
A801 Scale: 1 : 25



**1 BF BARRIER FREE INTERIOR ELEVATION - TYPICAL**  
A801 Scale: 1 : 50



**7 TYPICAL GYPSUM WALL BOARD PARTITION DETAILS**  
A801 Scale: 1 : 5

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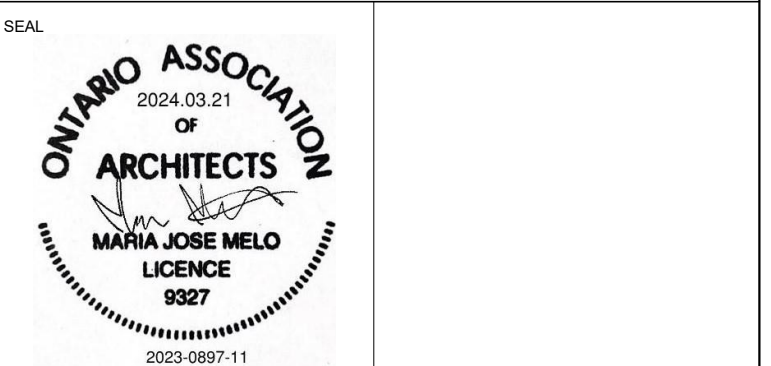
CLIENT  
**WATERLOO REGION DISTRICT SCHOOL BOARD**  
51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT  
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOM RENOVATION**  
787 King Street West, Kitchener, Ontario

TITLE  
**TYPICAL DETAILS**

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PROJECT NO.:	2023-0897-11	
DRAWN BY:	SY/AD	
CHECKED BY:	MM	

**A. GENERAL**

- MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2012 ONTARIO BUILDING CODE AND ANY APPLICABLE ACTS OF THE AUTHORITY HAVING JURISDICTION.
- READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE SPECIFICATIONS, AND ALL OTHER CONTRACT DOCUMENTS.
- VERIFY ALL STRUCTURAL DIMENSIONS WITH THE CIVIL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS, REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- THE MOST STRINGENT REQUIREMENT GOVERNS WHERE DISCREPANCIES OCCUR WITHIN THE CONTRACT DOCUMENTS, INCLUDING APPLICABLE CODES, STANDARDS AND ACTS.
- REFER TO THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SIZES OF OPENINGS, DEPRESSIONS, GROOVES, CURBS, CHAMFERS, SLOPES, SLEEVES, EQUIPMENT BASES, HOUSEKEEPING PADS, TRENCHES, SUMP PITS AND EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- OPENINGS AND SLEEVES SHOWN ARE LOCATED AND DIMENSIONED FOR STRUCTURAL DETAILING PURPOSES ONLY. COORDINATE THE EXACT SIZES AND LOCATIONS WITH THE CONSULTANT AND APPLICABLE TRADES DURING CONSTRUCTION, REPORT ANY CONFLICTS TO THE CONSULTANT.
- DO NOT CUT, DRILL OR ALTER STRUCTURAL MEMBERS WITHOUT PERMISSION FROM THE CONSULTANT, UNLESS NOTED ON THE DRAWINGS.
- THE STRUCTURAL DRAWINGS ARE FOR THE COMPLETED PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY, TEMPORARY WORKS AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION.
- CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LOADS SHOWN ON THE DRAWINGS.
- PROVIDE ALL TEMPORARY SHORING, BRACING, HOARDING AND PROTECTION NECESSARY TO COMPLETE THE WORK AND COMPLY WITH APPLICABLE REGULATIONS. TEMPORARY WORKS TO BE DESIGNED AND INSPECTED BY A PROFESSIONAL ENGINEER WHO IS RETAINED BY THE CONTRACTOR.
- ALL NEW CORES THROUGH EXISTING SUSPENDED CONCRETE SLAB ARE TO BE REVIEWED AND APPROVED BY THE CONSULTANT PRIOR TO CUTTING.
  - PROVIDE LAYOUT WITH SIZE AND LOCATIONS OF CORES TO THE CONSULTANT FOR APPROVAL.
  - SCAN EXISTING SUSPENDED SLAB TO LOCATE REBAR AND PLACE NEW CORES BETWEEN REBAR. DO NOT CUT ANY BARS. MAXIMUM CORE SIZE IS 100mm DIAMETER.

**B. EXISTING CONDITIONS**

- EXISTING STRUCTURE AND DIMENSIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE, AND ARE PROVIDED TO CONVEY DESIGN INTENT ONLY. THE DESIGN IS BASED ON THE INFORMATION CONTAINED IN THE RECORD DRAWINGS FOR THE EXISTING BUILDINGS, AND ON LIMITED SITE OBSERVATIONS. VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING THE WORK. NOTIFY THE CONSULTANT OF ANY DISCREPANCIES OR CONDITIONS ENCOUNTERED THAT COULD POTENTIALLY AFFECT THE WORK, AND OBTAIN DIRECTION BEFORE PROCEEDING.
- LOCATE ALL EXISTING BURIED UTILITIES AND STRUCTURES. REFER TO CIVIL, MECHANICAL, AND ELECTRICAL DOCUMENTS FOR APPROXIMATE LOCATION OF ALL PROPOSED AND KNOWN EXISTING SERVICES. REMOVE, RELOCATE OR PROVIDE PROTECTION DURING CONSTRUCTION, AS DIRECTED BY THE CONSULTANT.
- PROTECT EXISTING STRUCTURES FROM DAMAGE DURING CONSTRUCTION. PATCH AND MAKE GOOD ALL EXISTING BUILDING ELEMENTS DISTURBED OR DAMAGED AS PART OF THE WORK.

**C. STRUCTURAL STEEL**

- PERFORM WORK IN ACCORDANCE WITH CSA-S16 AND THE CISC CODE OF STANDARD PRACTICE.
- CONNECTIONS ARE SHOWN ON THE STRUCTURAL DRAWINGS TO INDICATE DESIGN INTENT. ALL CONNECTIONS ARE BEARING TYPE WITH A MINIMUM OF 2-19 (3/4") Ø BOLTS UNLESS NOTED OTHERWISE.
- DESIGN CONNECTIONS FOR FORCES INDICATED ON THE STRUCTURAL DRAWINGS. WHERE CONNECTION FORCES ARE NOT PROVIDED, DESIGN CONNECTIONS FOR THE FOLLOWING FORCES:
  - FACTORED SHEAR FORCE OF 50% OF THE TOTAL UNIFORMLY DISTRIBUTED FACTORED LOAD FOR LATERALLY SUPPORTED BEAMS LISTED IN THE BEAM LOAD TABLES OF THE CISC HANDBOOK OF STEEL CONSTRUCTION FOR END CONNECTIONS OF SIMPLY SUPPORTED NON-COMPOSITE BEAMS.
- PROVIDE 50 (2") NON-SHRINK, NON-METALLIC GROUT UNDER BASE PLATES UNLESS NOTED OTHERWISE.
- REFER TO ARCHITECTURAL DRAWINGS FOR STAIRS, LADDERS, HANDRAILS, PLATFORMS, AND OTHER ELEMENTS NOT DETAILED ON THE STRUCTURAL DRAWINGS.
- PROVIDE FIRE PROTECTION FOR STRUCTURAL STEEL IN ACCORDANCE WITH THE ARCHITECTURAL REQUIREMENTS. PROVIDE COMPATIBLE COATINGS OR SURFACE PREPARATION FOR STEEL MEMBERS TO FIRE-SPRAYED OR COATED WITH INTUMESCENT PAINT.
- ALL BOLTS ARE TO BE INSTALLED SNUG-TIGHT, AS DEFINED IN CSA S16.
- GRIND SMOOTH ALL WELDS AND FLAME-CUT EDGES EXPOSED TO VIEW.

**D. MATERIALS**

- STRUCTURAL CONCRETE:
  - CONCRETE: CONFORMING TO CSA A23.1 AND PER THE CONCRETE DESIGN PROPERTIES TABLE.
  - REINFORCING BARS: CONFORMING TO CSA G30.18, GRADE 400R (OR 400W WHERE WELDING IS REQUIRED). ALL REINFORCING TO BE BLACK STEEL UNLESS NOTED.
  - WELDED WIRE REINFORCING: CONFORMING TO ASTM A185/A185M, WITH MINIMUM YIELD STRENGTH OF 450 MPa, OR 386 MPa FOR DIAMETERS LESS THAN MW7.7 (3.1mm).
- STRUCTURAL STEEL:
  - CHANNELS AND ANGLES: CSA-G40.20/G40.21, GRADE 350W
  - PLATES, RODS AND BARS: CSA-G40.20/G40.21, GRADE 300W
  - STRUCTURAL BOLTS: ASTM A325/A325M
  - NUTS AND WASHERS: ASTM A563/A563M AND ASTM F436/F436M
  - WELDING ELECTRODES: E49XX
- STRUCTURAL MASONRY:
  - CONCRETE MASONRY UNITS: CONFORMING TO CSA 165, 15 MPa MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS
  - MASONRY GROUT: CONFORMING TO CSA 179, 15 MPa MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, 10mm (3/8") MAXIMUM AGGREGATE SIZE, 250 mm (10") SLUMP
  - MORTAR: CONFORMING TO CSA 179, TYPE S FOR LOAD BEARING WALLS, TYPE N OTHERWISE.
  - MASONRY TIES: CONFORMING TO CSA A370.
  - REINFORCING BARS: CONFORMING TO CSA G30.18, GRADE 400R (OR 400W WHERE WELDING IS REQUIRED). ALL REINFORCING TO BE BLACK STEEL UNLESS NOTED.
  - BED JOINT REINFORCING: LADDER TYPE, SIDE RODS CONFORMING TO ASTM A82, HOT-DIPPED GALVANIZED UNLESS NOTED, TYPE BL BY BLOK-LOK OR APPROVED ALTERNATE.
- NON-SHRINK GROUT: NON-METALLIC, 35 MPa MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS.
- UNISTRUT: 12 GAUGE, STEEL PLAIN, ASTM A1011 SS GR 33

**E. GENERAL REVIEW**

- WALTERFEDY WILL PERFORM PERIODIC FIELD REVIEWS OF A REPRESENTATIVE SAMPLE OF THE WORK TO CONFIRM THAT THE WORK FOR WHICH WE ARE RESPONSIBLE IS IN GENERAL CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS.
- GENERAL REVIEW OF WORK DESIGNED BY OTHER PROFESSIONAL ENGINEERS (STAMPED SHOP DRAWINGS) IS TO BE PERFORMED BY THE ENGINEER RESPONSIBLE FOR THAT DESIGN. SUBMIT FIELD REVIEW REPORTS TO THE CONSULTANT.
- COOPERATE WITH CONSULTANTS AND INDEPENDENT INSPECTION AND TESTING AGENCIES RETAINED TO PERFORM FIELD REVIEW. PROVIDE ACCESS AND ASSISTANCE AS REQUIRED FOR THE SAFE PERFORMANCE OF THEIR WORK.
- PROVIDE REASONABLE NOTICE FOR FIELD REVIEWS AND INSPECTIONS OF COMPLETED WORK, PRIOR TO CONCEALING OR ATTACHING TO THE WORK.
- FIELD REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR ACCURACY, QUALITY AND CONFORMANCE OF THE WORK WITH THE CONTRACT DOCUMENTS.

**F. STRUCTURAL MASONRY**

- PERFORM WORK IN ACCORDANCE WITH CSA A371.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR NON-LOAD BEARING MASONRY PARTITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. PROVIDE MINIMUM REINFORCING AND LINTELS IN NON-LOAD BEARING MASONRY WALLS PER SCHEDULES ON THE STRUCTURAL DRAWINGS. THESE WALLS AND LINTELS ARE NOT DETAILED ON THE STRUCTURAL DRAWINGS.
- PROVIDE CONTROL JOINTS PER THE SPECIFICATION, AND IS INDICATED ON THE ARCHITECTURAL DRAWINGS, MAXIMUM SPACING OF CONTROL JOINTS TO BE 7650 (25'-0") UNLESS NOTED OTHERWISE.
  - ALL CELLS CONTAINING REINFORCING.
  - ALL CELLS CONTAINING DOWELS, ANCHORS, OR OTHER STRUCTURAL CONNECTORS.
  - ALL CELLS IN PARAPETS.
  - CELLS BELOW BEARING CONNECTIONS PER STRUCTURAL DRAWINGS.
  - AS INDICATED ON THE STRUCTURAL DRAWINGS.
- PROVIDE CLEANOUTS AT BASE OF WALL LIFTS TO VERIFY PROPER PLACEMENT OF GROUT.
- PLACE GROUT IN MAXIMUM 3000 (10'-0") LIFTS. THE MAXIMUM LIFT HEIGHT IS REDUCED TO 1500 (5'-0") IF NO CLEANOUTS ARE PROVIDED.
- TERMINATE GROUT PLACEMENT 25 (1") BELOW TOP OF UPPER UNIT FOR HORIZONTAL CONSTRUCTION JOINTS IN GROUTED BLOCK CELLS. HORIZONTAL CONSTRUCTION JOINTS ARE REQUIRED WHERE GROUT PLACEMENT IS INTERRUPTED FOR A DURATION OF GREATER THAN 1 HOUR.
- BUILD MASONRY TIGHTLY INTO WEBS OF STEEL BEAMS BEARING ON WALLS, WEBS OF STEEL COLUMNS AND AROUND JOIST SHOES, UNLESS NOTED OTHERWISE.
- ENSURE THAT EMBEDDED ITEMS DO NOT AFFECT THE STRUCTURAL INTEGRITY OF THE MASONRY WALL OR IMPACT PLACEMENT OF REINFORCING.
- PROVIDE TEMPORARY BRACING TO MAINTAIN STABILITY OF WALLS UNTIL HORIZONTAL SUPPORTING ELEMENTS ARE IN-PLACE.
- BEARING SUPPORTS:
  - PROVIDE MINIMUM 200 (8") DEEP SOLID OR GROUT-FILLED MASONRY UNITS BELOW MASONRY, CONCRETE AND STEEL LINTELS AT BEARING LOCATIONS, PROJECTING AT LEAST 150 (6") BEYOND EDGE OF BEARING PLATES.
- NON-LOAD BEARING WALLS:
  - PROVIDE THE MINIMUM REINFORCING SHOWN IN THE NON-LOAD BEARING MASONRY WALL REINFORCING TABLE.
  - PROVIDE ADDITIONAL REINFORCING AS SHOWN IN THE DRAWINGS AND TYPICAL DETAILS.
- MASONRY REINFORCING:
  - PROVIDE MASONRY REINFORCING WHERE INDICATED ON THE DRAWINGS, TYPICAL DETAILS AND SPECIFICATIONS.
  - PROVIDE REINFORCING BAR EMBEDMENT AND LAP SPLICES IN ACCORDANCE WITH CSA, AND NOT LESS THAN THE VALUES IN THE MASONRY REINFORCING EMBEDMENT AND LAP SPLICE LENGTHS TABLE.
  - ALL TENSION LAP SPLICES ARE CLASS B UNLESS NOTED OTHERWISE.
  - LAP BED JOINT REINFORCING MINIMUM 300 (12").
  - PROVIDE 1-15M VERTICAL BAR EACH SIDE OF CONTROL JOINTS, FULL HEIGHT. KEEP CELLS CONTAINING REINFORCING FREE FROM MORTAR DROPPINGS.
- LINTELS:
  - PROVIDE LINTELS OVER ALL OPENINGS THROUGH MASONRY WALLS SHOWN ON THE ARCHITECTURAL DRAWINGS, AND AS REQUIRED FOR MECHANICAL AND ELECTRICAL TRADES.
  - PROVIDE STEEL LINTELS UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS.
  - REFER TO THE STEEL LINTELS FOR NON-LOAD BEARING MASONRY WALLS TABLE FOR LINTEL REQUIREMENTS FOR ALL NON-LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.
- BOND BEAMS:
  - PROVIDE BOND BEAMS IN ALL WALLS PER THE BOND BEAMS IN CONCRETE MASONRY UNIT WALLS TABLE, AND WHERE INDICATED ON THE STRUCTURAL DRAWINGS.
  - EXTEND BOND BEAMS 200 (8") BEYOND OPENINGS WHERE NOT CONTINUOUS, UNLESS NOTED OTHERWISE.

NON-LOAD BEARING MASONRY WALL REINFORCING				
WALL THICKNESS	LOCATION	VERTICAL REINF.	SPACING	HORIZONTAL REINF.
90	INTERIOR PARTITION	N/A	N/A	BLOK-LOK BL-10 X-HEAVY @ 400
140	INTERIOR PARTITION	1-10M	600	BLOK-LOK BL-10 X-HEAVY @ 400
190	INTERIOR PARTITION	1-15M	1200	BLOK-LOK BL-10 STD @ 200

NOTES:  
 1. PROVIDE REINFORCING FOR CONCRETE MASONRY WALLS AS PER THE SCHEDULE UNLESS NOTED OTHERWISE.  
 2. PROVIDE DOWELS INTO CONCRETE FOUNDATIONS AND SLAB THICKENINGS TO MATCH VERTICAL WALL REINFORCEMENT.  
 3. REFER TO TYPICAL DETAILS FOR ADDITIONAL SUPPORT REQUIREMENTS.

TABLE M4: MASONRY REINFORCING EMBEDMENT AND LAP SPLICE LENGTHS				
BAR SIZE	VERTICAL REINFORCEMENT		HORIZONTAL REINFORCEMENT	
	TENSION EMBEDMENT	TENSION LAP	TENSION EMBEDMENT	TENSION LAP
10M	575mm (23")	750mm (30")	750mm (30")	950mm (38")
15M	800mm (32")	1050mm (42")	1050mm (42")	1350mm (54")
20M	975mm (39")	1275mm (51")	1275mm (51")	1650mm (66")
25M	1575mm (63")	2050mm (82")	2050mm (82")	2650mm (106")

NOTES:  
 1. BAR DIAMETER NOT TO EXCEED 25M PER CSA S304-14.

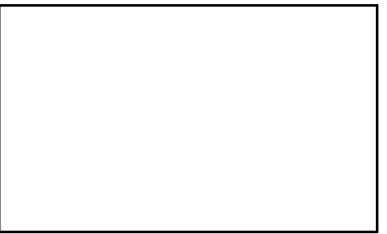
TABLE M2: BOND BEAMS IN CONCRETE MASONRY UNIT WALLS				
WALL TYPE	LOCATION	HEIGHT	REINFORCING (PER COURSE)	
ALL	BELOW ALL OPENINGS	1 COURSE	1-10M	
	ABOVE ALL PIPES GREATER THAN 100 (4") DIAMETER THROUGH WALL	1 COURSE	1-10M	

NOTES:  
 1. REFER TO STRUCTURAL MASONRY GENERAL NOTES.

CLIENT LOGO



KEYPLAN



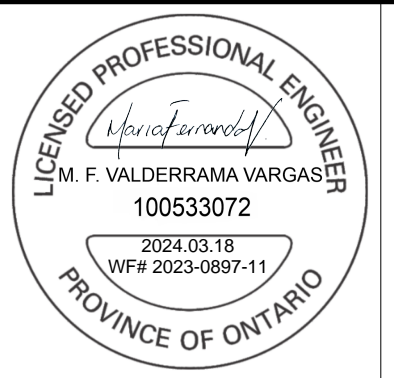
No.	ISSUANCE	DATE
1	ISSUED FOR 90% OWNER REVIEW	2024.03.08
2	ISSUED FOR BID AND PERMIT	2024.03.21

CLIENT  
**WATERLOO REGION DISTRICT SCHOOL BOARD**

PROJECT  
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOM RENOVATION**  
 787 King Street West, Kitchener, Ontario

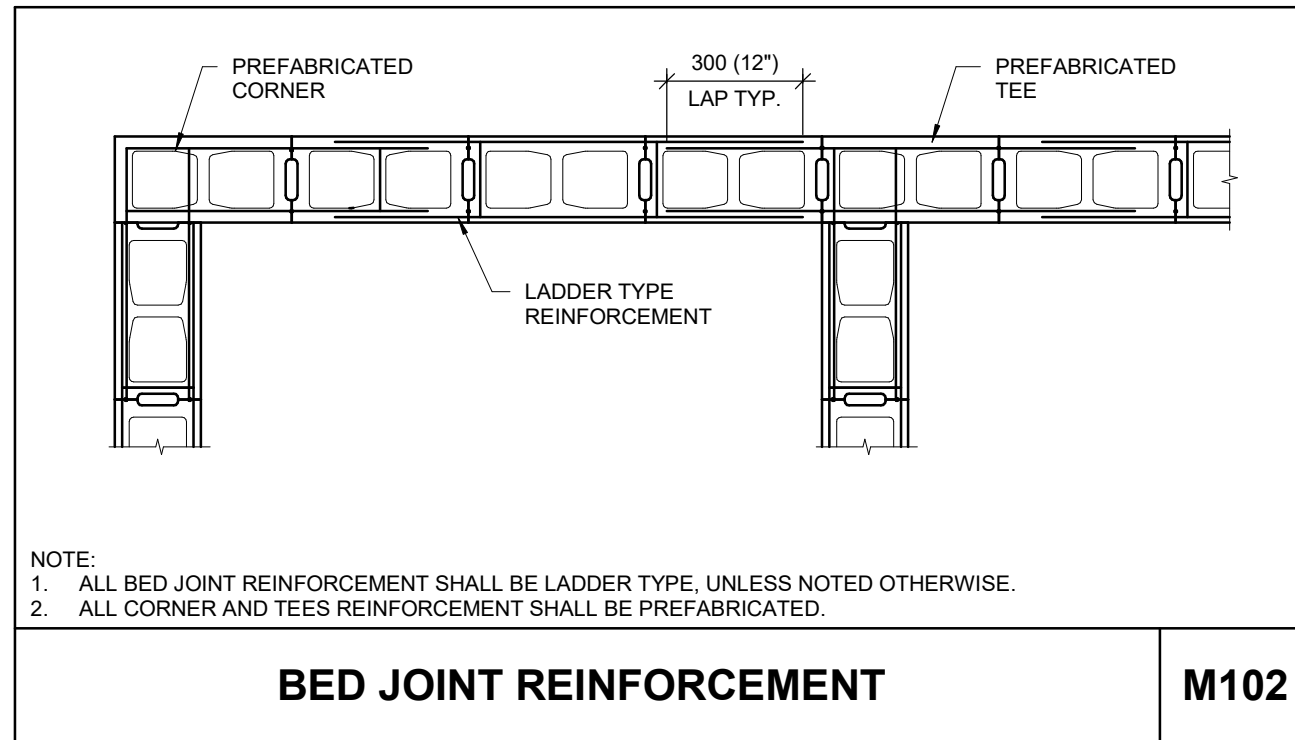
TITLE  
**GENERAL NOTES AND TABLES**

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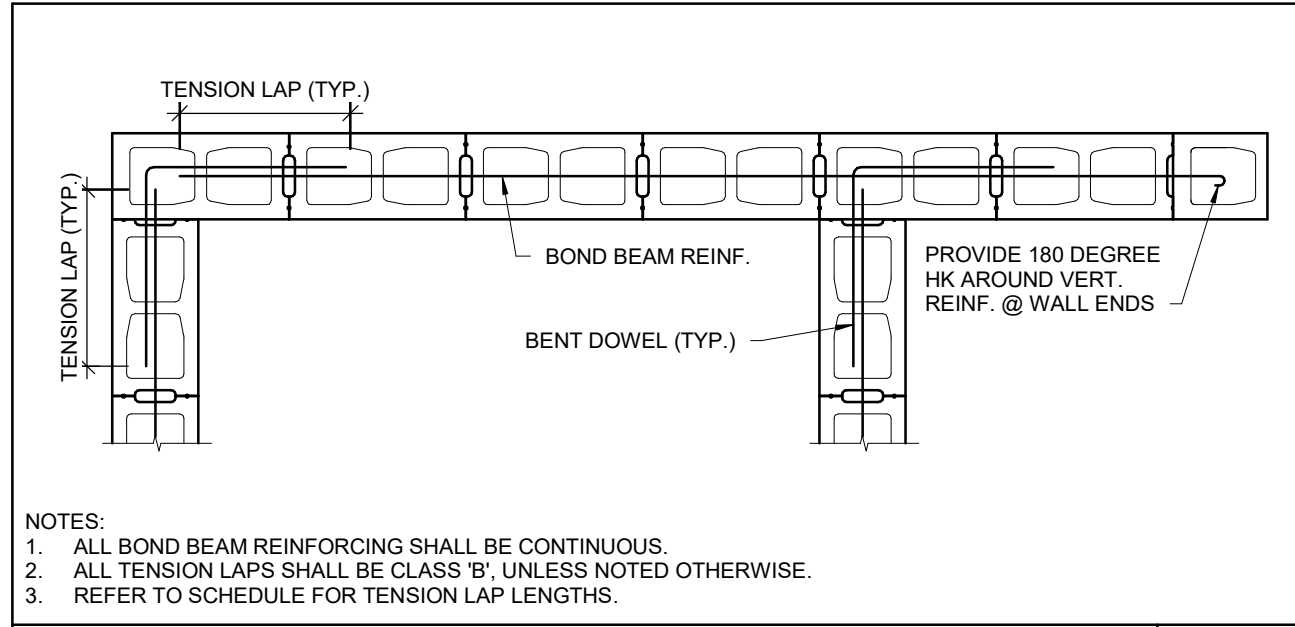
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SCALE: 1 : 1	<b>S001</b>
DATE: 03/01/2024	
PROJECT NO: 2023-0897-10	
DRAWN BY: TAJAK	
CHECKED BY: MV	



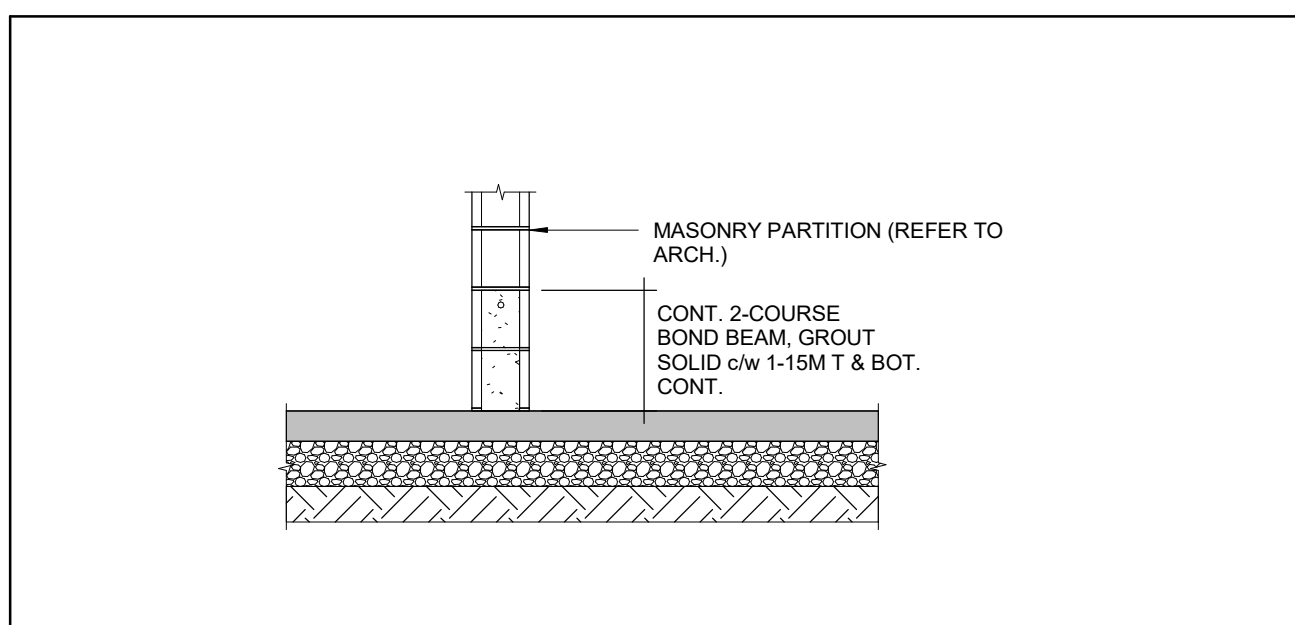
**BED JOINT REINFORCEMENT**

**M102**



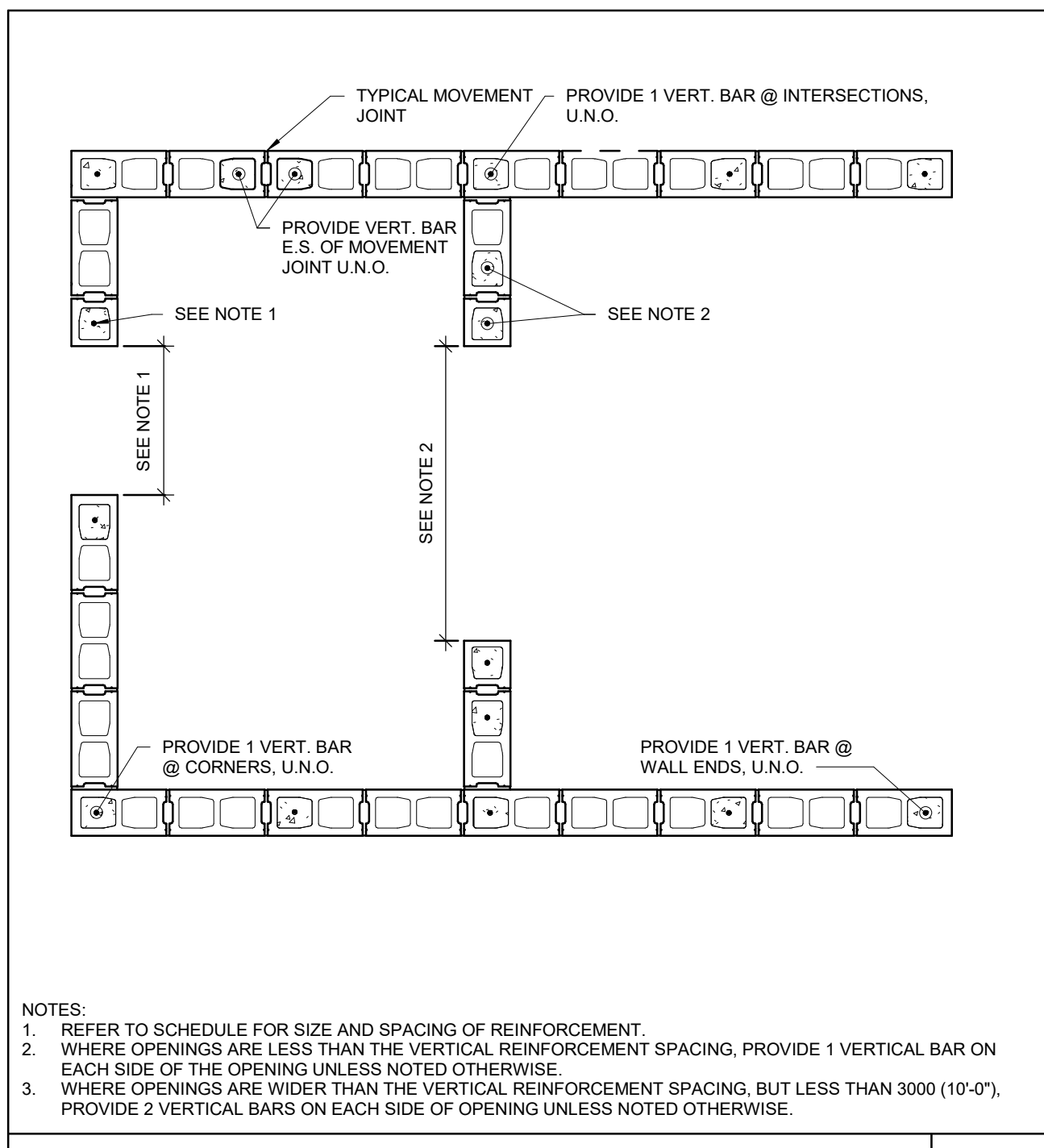
**BOND BEAM REINFORCING SCHEMATIC**

**M103**



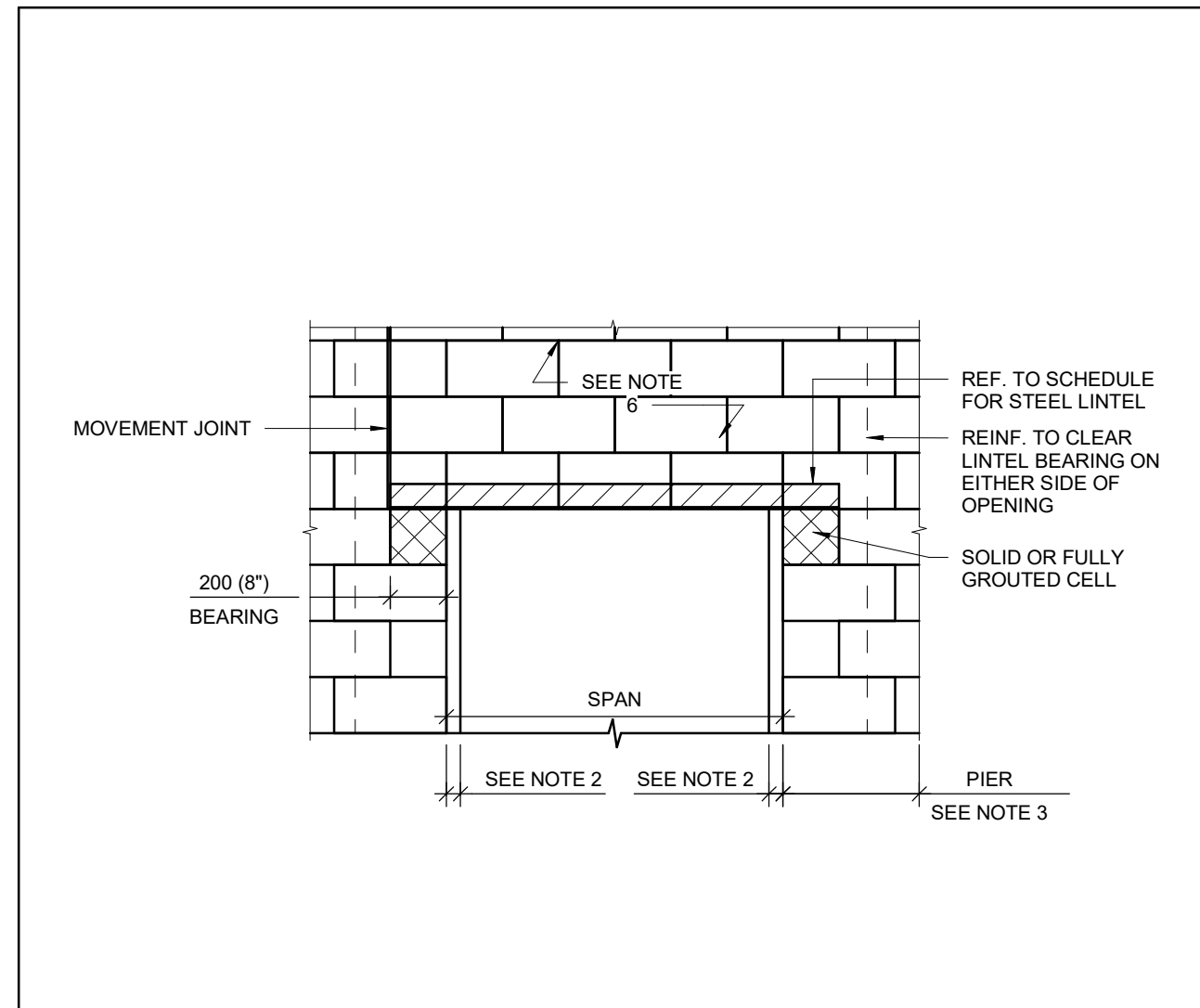
**MASONRY PARTITION ON EXISTING SLAB**

**M109**



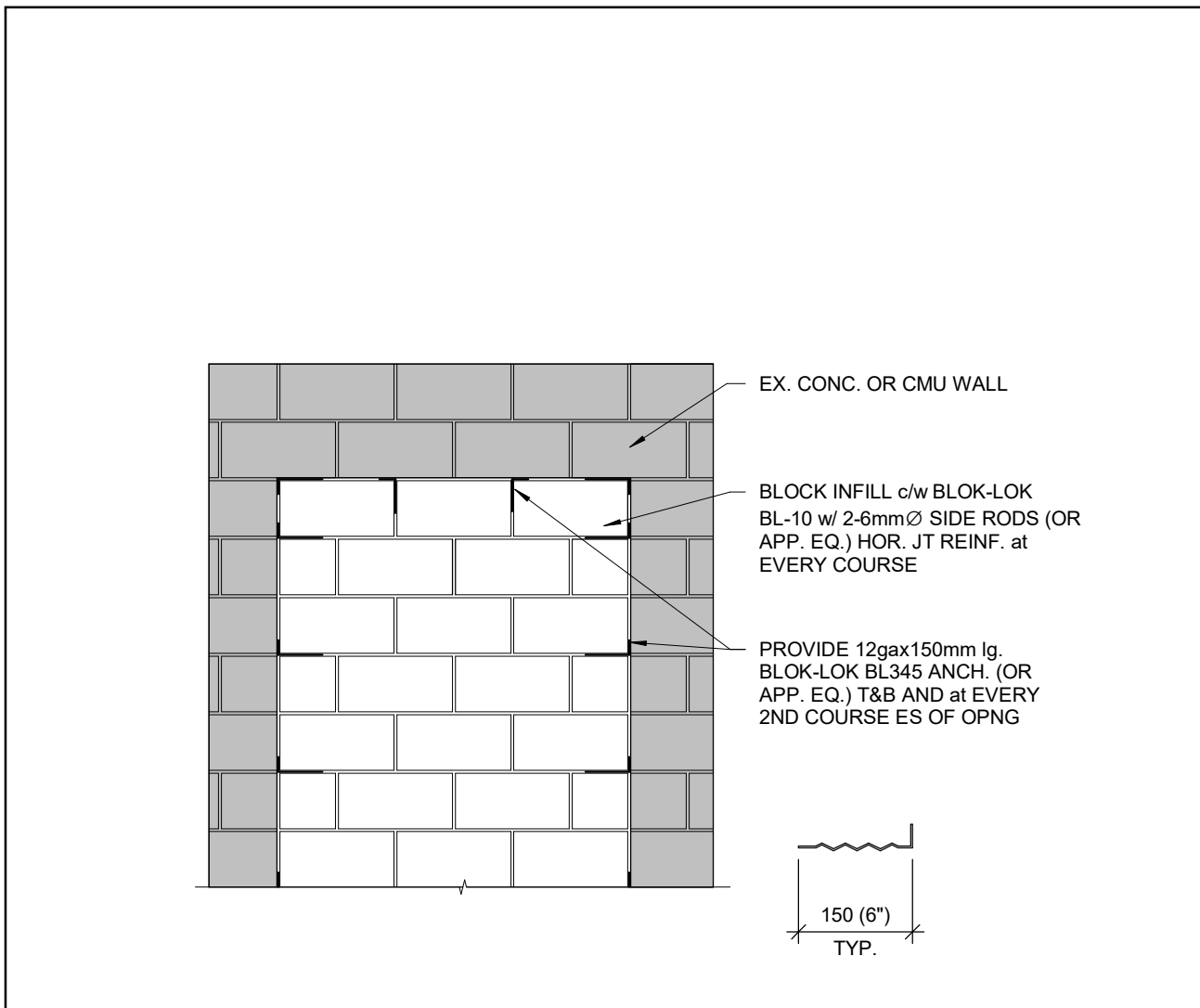
**VERTICAL REINFORCEMENT IN MASONRY WALLS**

**M101**



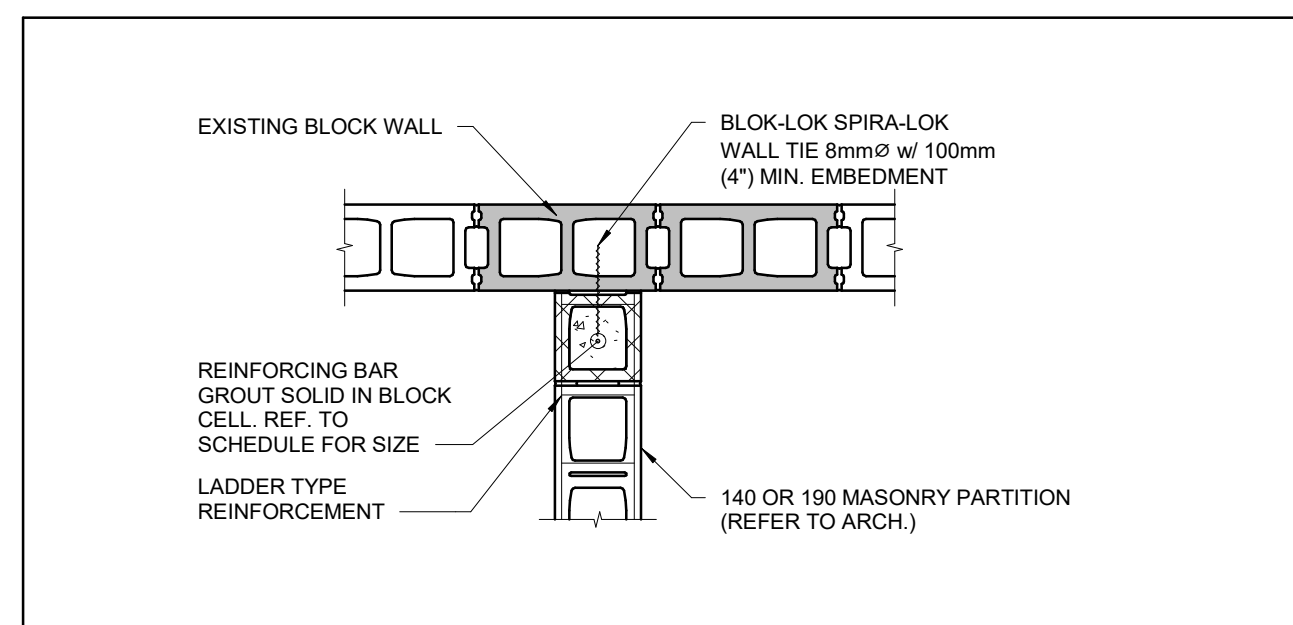
**STEEL LINTELS FOR MASONRY WALLS**

**M105**



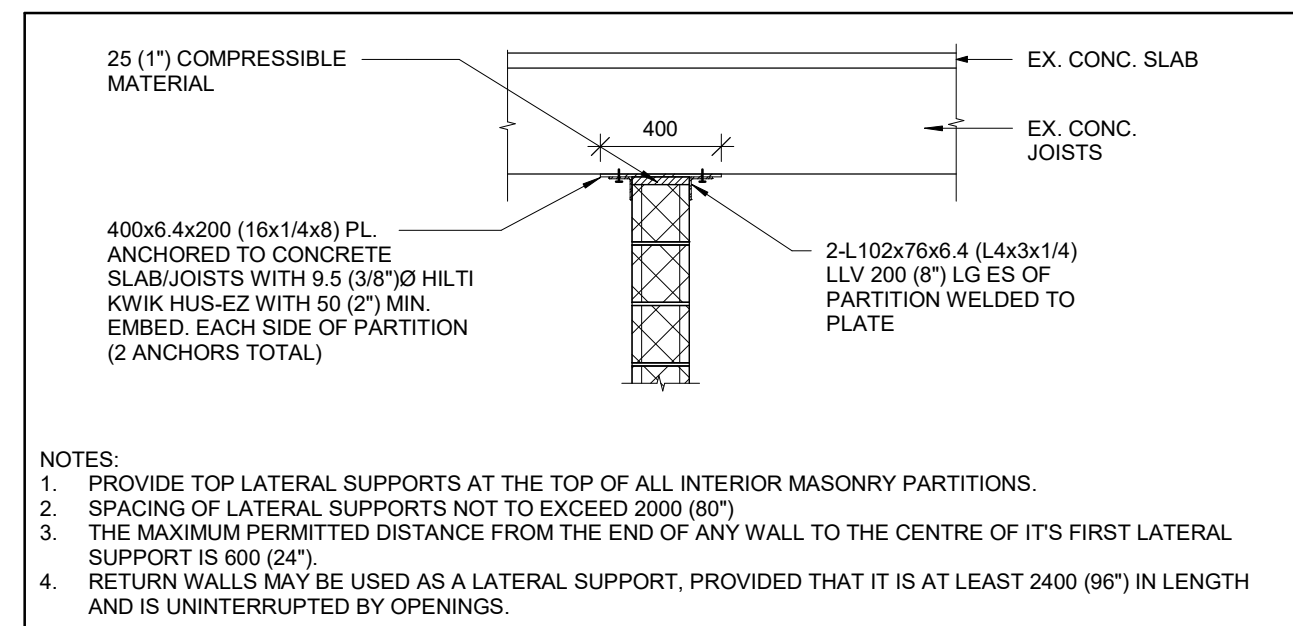
**INFILL EXISTING OPENINGS IN MASONRY WALLS**

**M113**



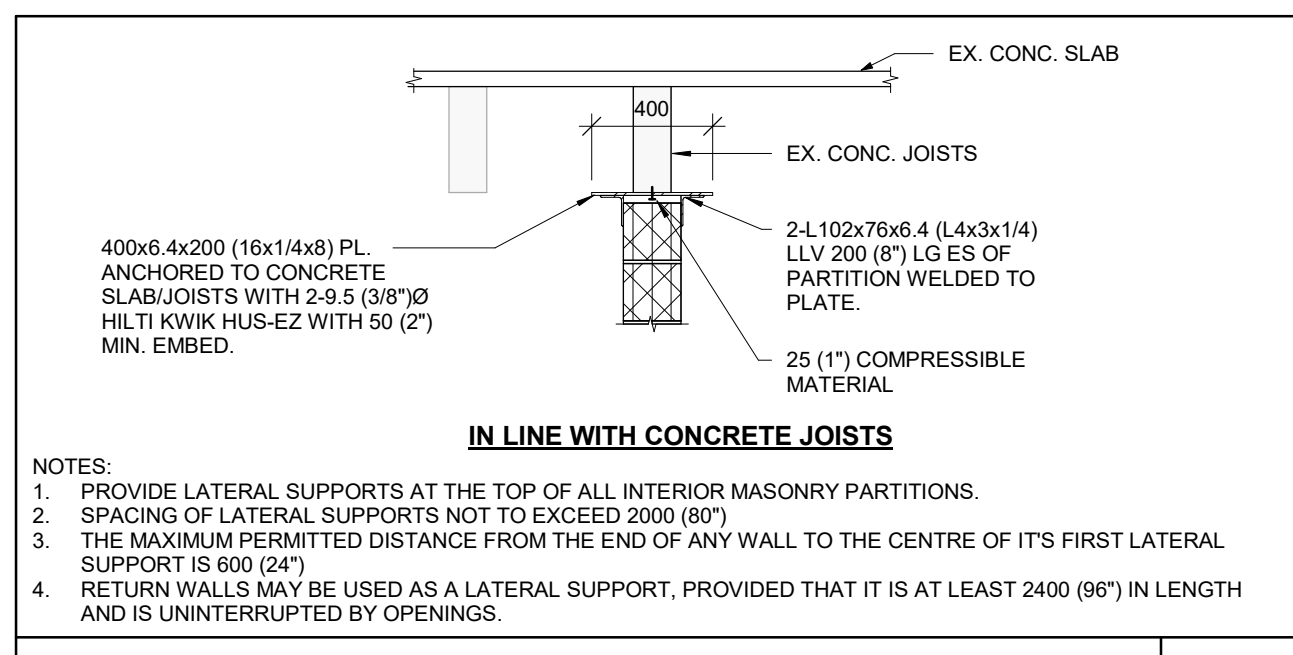
**CONNECTION BETWEEN NEW AND EXISTING MASONRY**

**M114**



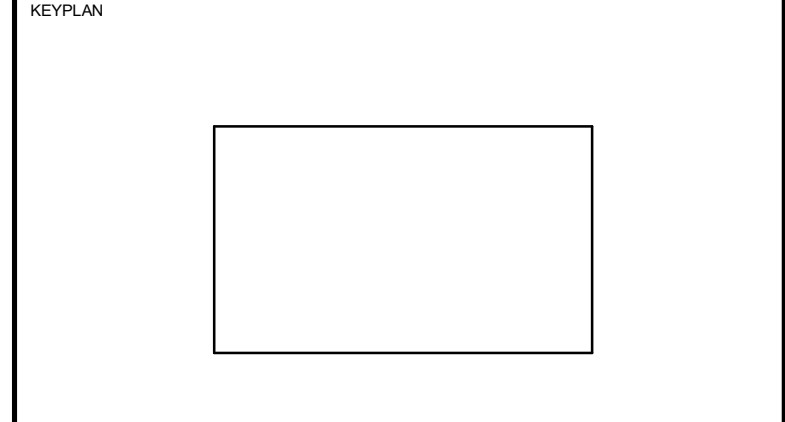
**LATERAL SUPPORT FOR MASONRY PARTITIONS**

**PD01**



**LATERAL SUPPORT FOR MASONRY PARTITIONS**

**PD02**



No.	ISSUANCE	DATE
1	ISSUED FOR 90% OWNER REVIEW	2024.03.08
2	ISSUED FOR BID AND PERMIT	2024.03.21

CLIENT  
**WATERLOO REGION DISTRICT SCHOOL BOARD**

PROJECT  
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOM RENOVATION**  
787 King Street West, Kitchener, Ontario

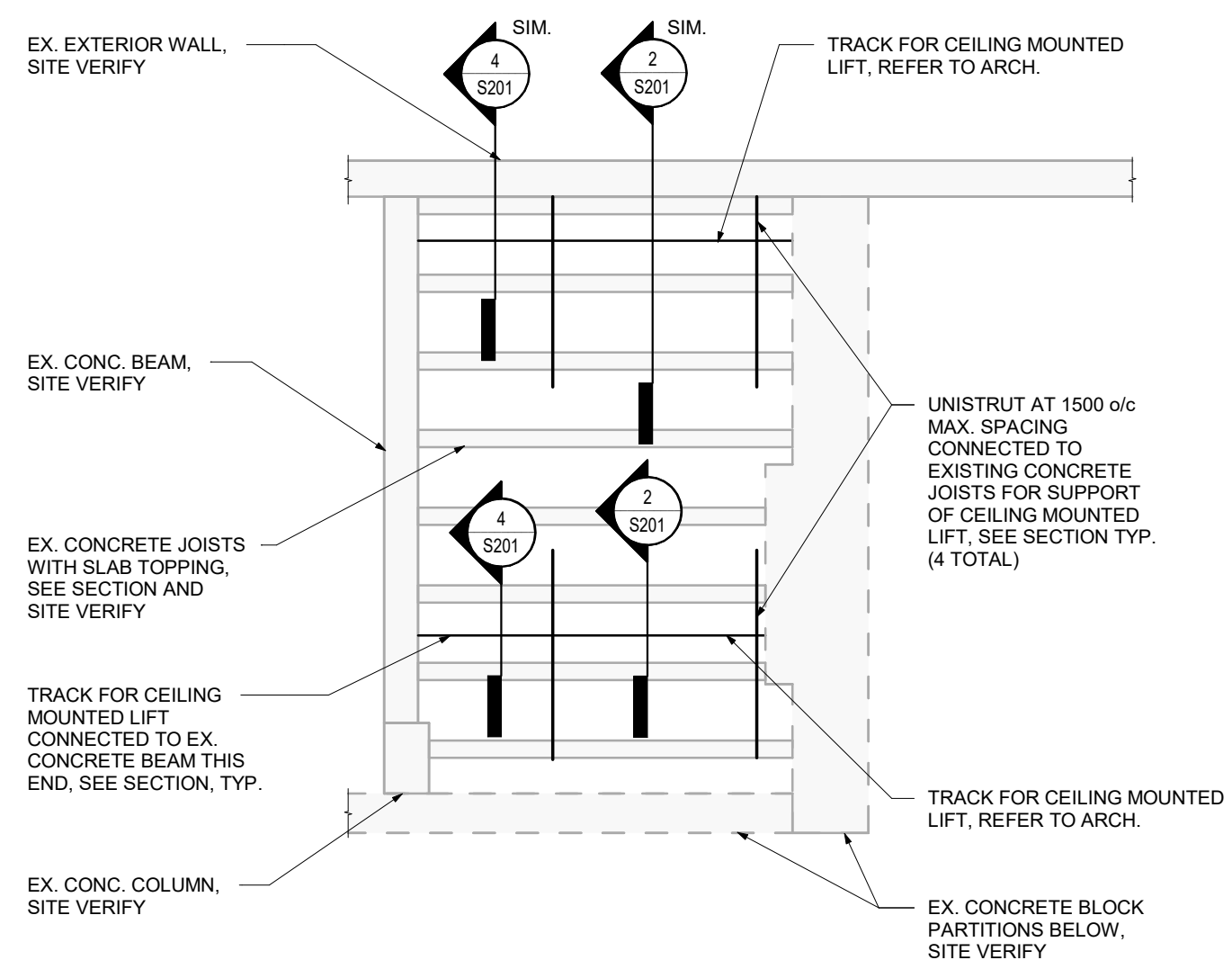
TITLE  
**TYPICAL DETAILS AND PROJECT DETAILS**

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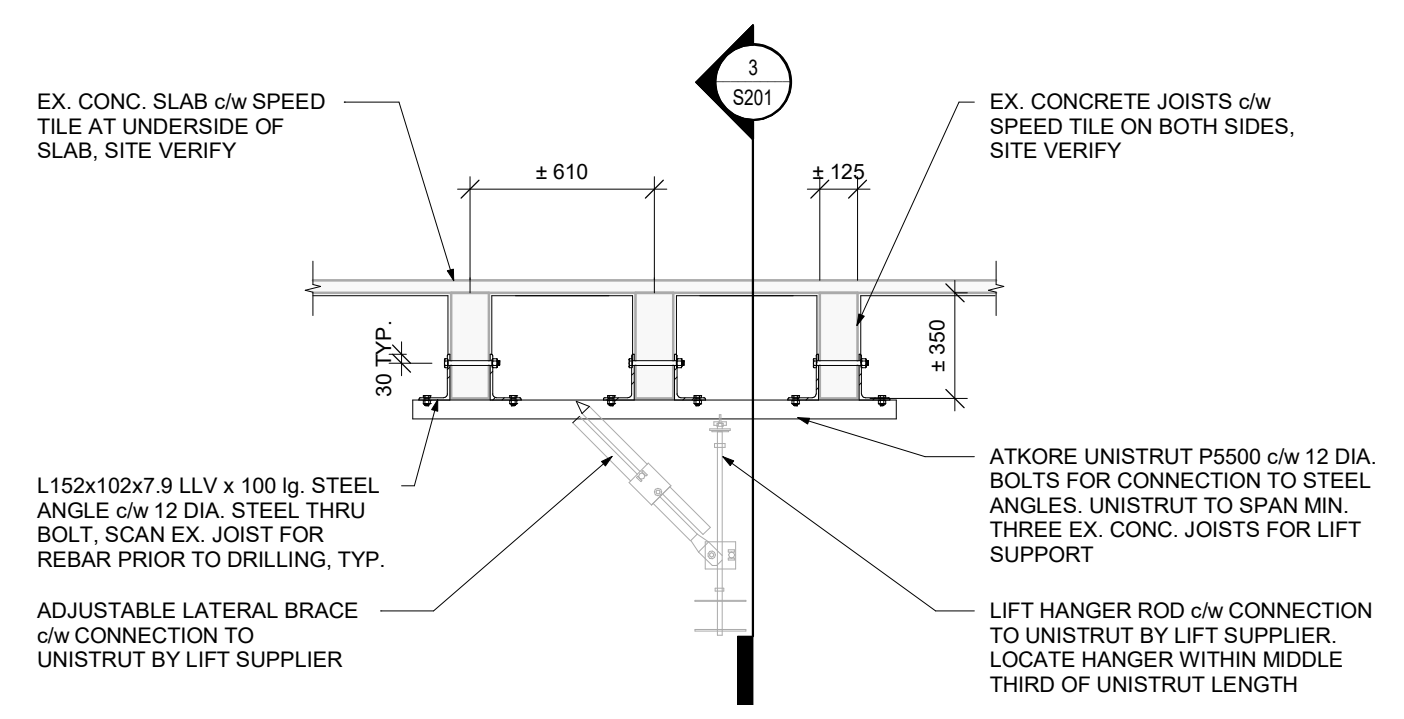
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DATE:	03/01/2024		
PROJECT NO.:	2023-0897-10		
DRAWN BY:	TA/AK		
CHECKED BY:	MV		



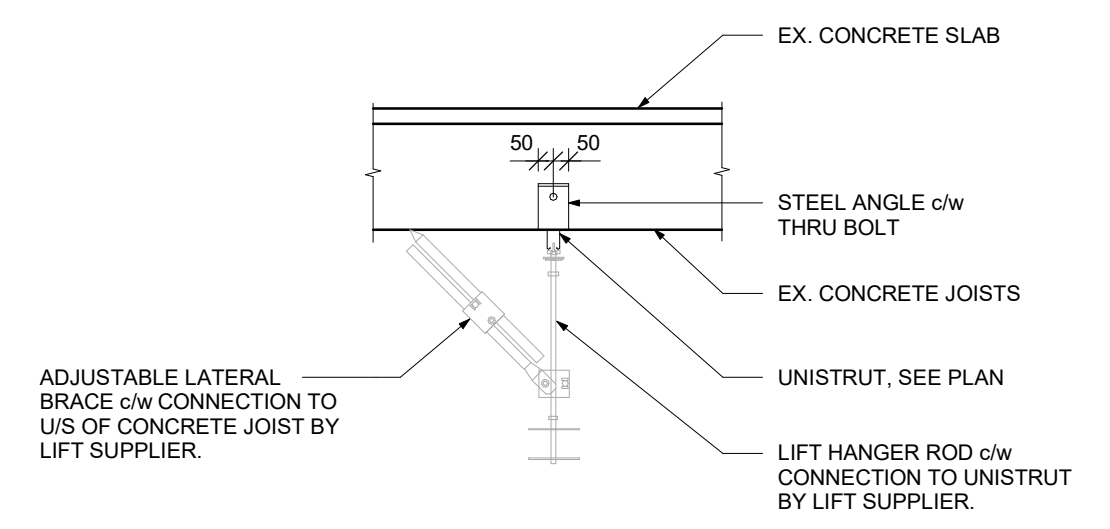
**1**  
**S201** PARTIAL FIRST FLOOR FRAMING PLAN  
1 : 50

PLAN NOTES:  
1. PARTIAL PLAN IS FOR AREA ABOVE THE UNIVERSAL WASHROOM, ROOM 101, REFER TO ARCHITECTURAL DRAWINGS.

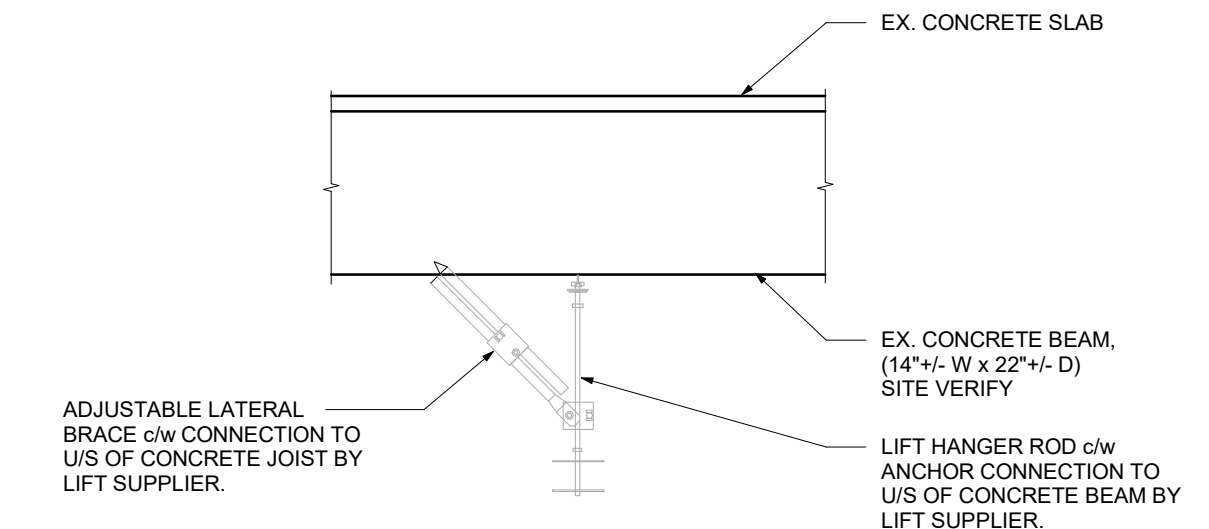


**2**  
**S201** UNISTRUT SUPPORT FOR CEILING MOUNTED LIFT  
1 : 25

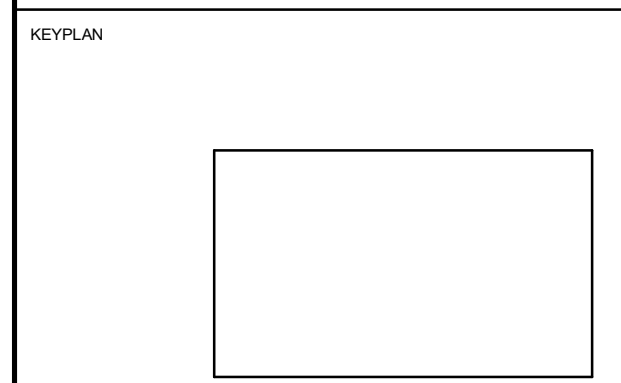
NOTES:  
1. LOADS FROM LIFT:  
DL = 0.9 kN (200 lbs)  
LL = 2.0 kN (450 lbs)



**3**  
**S201** SECTION  
1 : 25



**4**  
**S201** SECTION  
1 : 25



No.	ISSUANCE	DATE
1	ISSUED FOR 90% OWNER REVIEW	2024.03.08
2	ISSUED FOR BID AND PERMIT	2024.03.21

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**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOM RENOVATION**  
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TITLE  
**PARTIAL FRAMING PLAN AND SECTIONS**

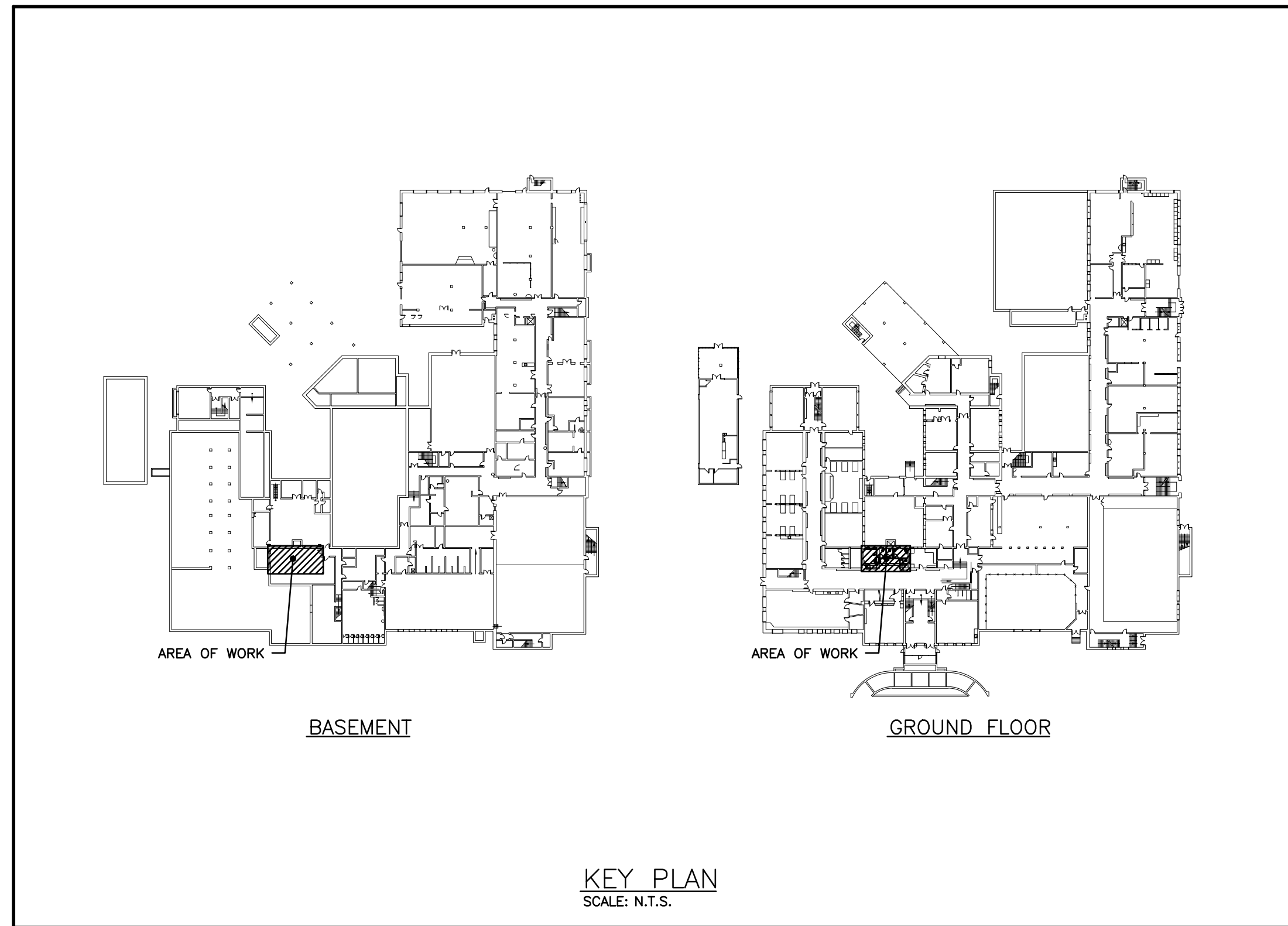
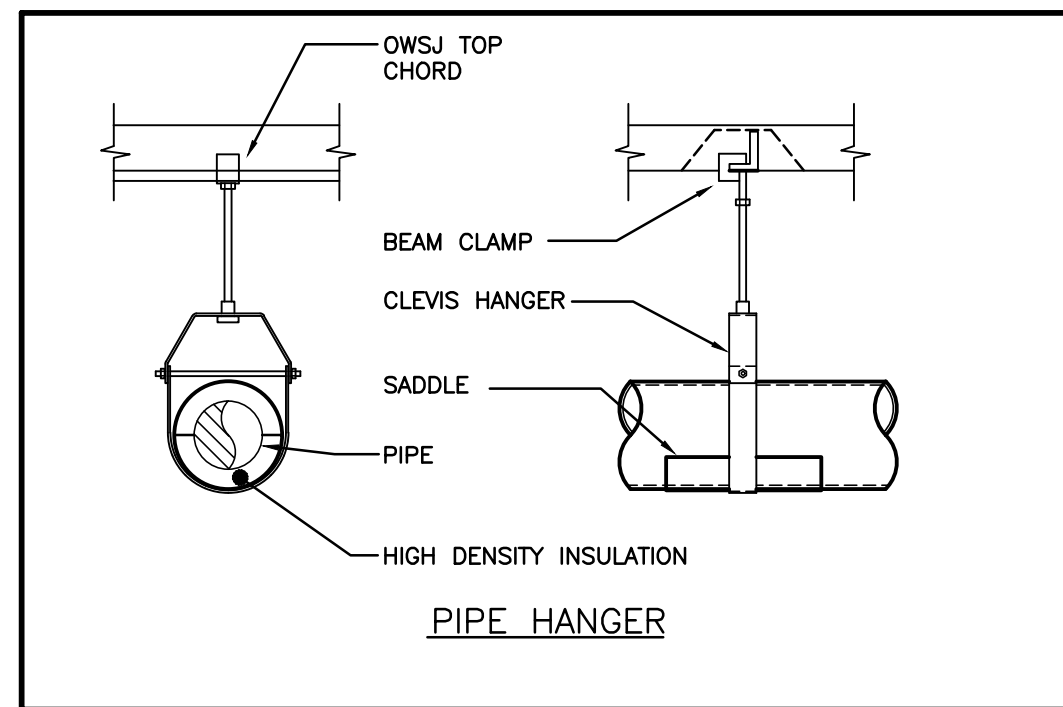
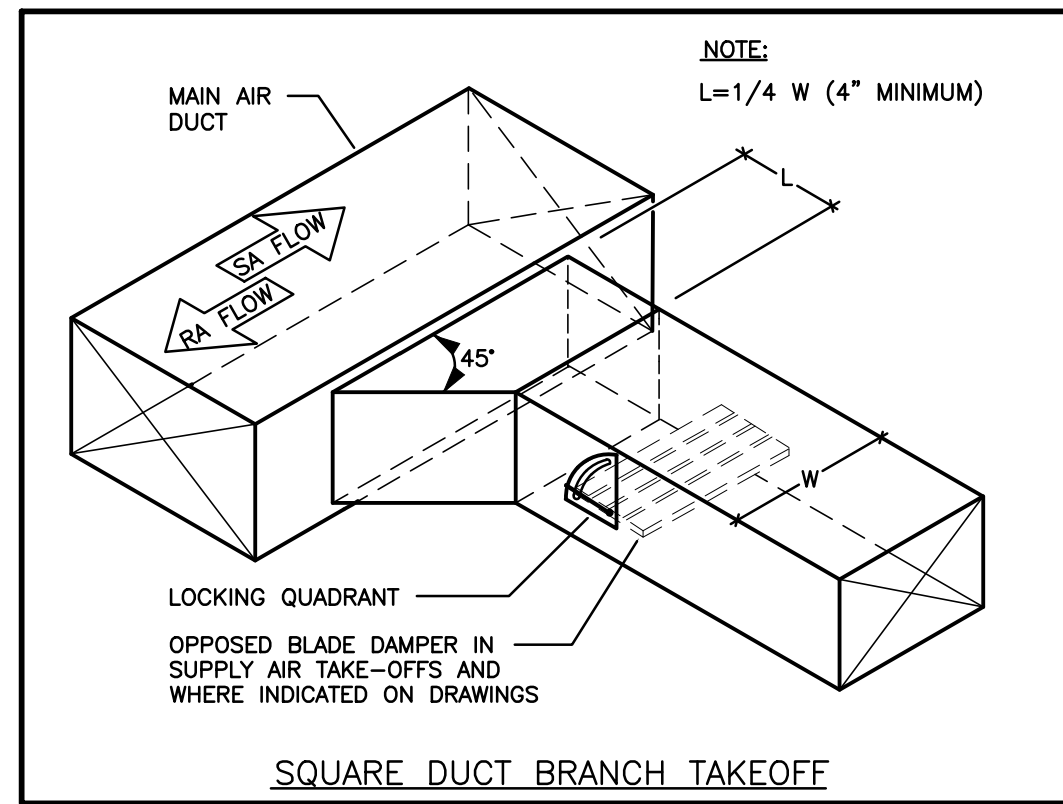
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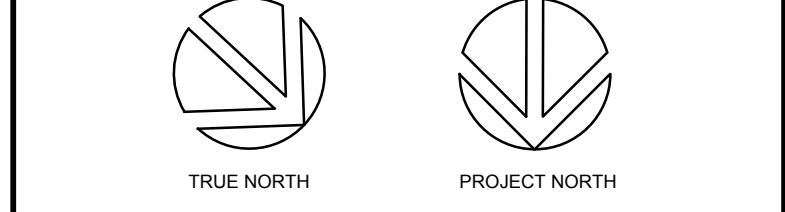
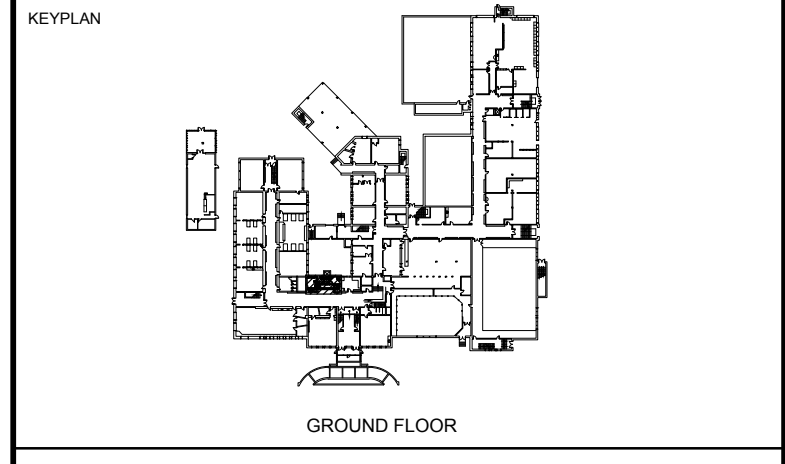
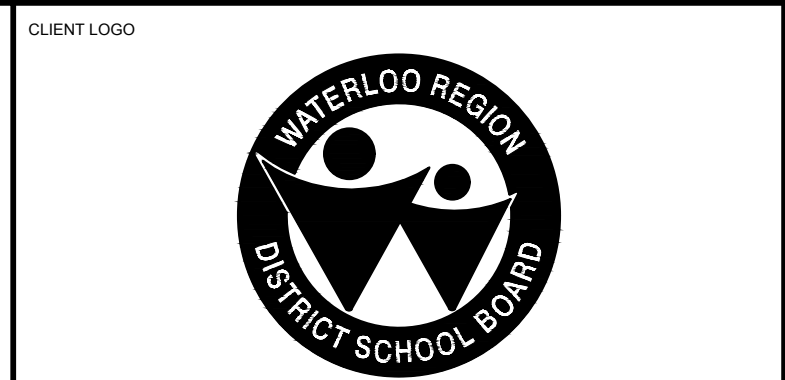
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DATE:	03/01/2024	<b>S201</b>
PROJECT NO:	2023-0897-10	
DRAWN BY:	TA/AK	
CHECKED BY:	MV	





MECHANICAL LEGEND					
Item	Description	Item	Description	Item	Description
	CUT EXISTING & CONNECT NEW PIPING		TEE CONNECTION		SUPPLY AIR DUCT
	FLOW DIRECTION		PIPE DOWN		RETURN/EXHAUST AIR DUCT
	DOMESTIC COLD WATER PIPING		PIPE UP		ACOUSTIC DUCT LINING
	DOMESTIC HOT WATER PIPING		BACKFLOW PREVENTOR		THERMAL INSULATION
	DOMESTIC HOT WATER RECIRC. PIPING		REDUCED PRESSURE BACKFLOW PREVENTOR		BRANCH LINE SPIN-IN COLLAR C/W BALANCING DAMPER
	EXISTING SANITARY PIPING ABOVE FLOOR		UNION		TRUNK MAIN BRANCH COLLAR C/W BALANCING DAMPER
	EXISTING SANITARY PIPING BELOW FLOOR		STRAINER		SCREWED OR WELDED PIPE CAP
	SANITARY PIPING ABOVE FLOOR		BALL VALVE		BALANCING DAMPER
	SANITARY PIPING BELOW FLOOR		BUTTERFLY VALVE		OPPOSED BLADE DAMPER
	VENT PIPING		RISER VALVE		FIRE DAMPER
	HEATING WATER SUPPLY PIPING		BALANCING VALVE		COMBINATION FIRE/SMOKE DAMPER
	HEATING WATER RETURN PIPING		TEMPERATURE CONTROL VALVE		FIRE FLAP
	FLOOR DRAIN		FLOOR CLEANOUT		BACKDRAFT DAMPER
	TRAP PRIMER		LINE CLEANOUT		FLEXIBLE ROUND DUCT
	RETURN IN CABINET		THERMOSTAT (WITH OR WITHOUT GUARD)		DIFFUSER/GRILLE SIZE (imp, TYPE & CAPACITY (cfm))
	ABOVE FINISHED FLOOR		ACCESS DOOR		HYDRONIC HEATING SIZE, TYPE & CAPACITY
	ABOVE FINISHED ROOF		EXPANSION COMPENSATOR/JOINT		
	CONNECT TO EXISTING		EXISTING DUCT (SIZE AS INDICATED)		



No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-02-12
2	ISSUED FOR 90% OWNER REVIEW	2024-03-08
3	ISSUED FOR BID AND PERMIT	2024-03-21

GRILLE SCHEDULE					
Item	Type	Manufacturer & Model	Finish	Remarks	
E1	CEILING RETURN/EXHAUST (DUCTED)	KRUEGER S580	BRITISH WHITE	ALUMINUM, FIXED BLADE AT 45° DEFLECTION, 3/4" SPACING, ALUMINUM AIRFOIL BLADES PARALLEL TO LONG DIMENSION, C/W BALANCING DAMPER, 1-1/4" FLAT BORDER & SCREWED FASTENING FOR SURFACE MOUNTING.	

GENERAL DIFFUSER/GRILLE NOTES:  
 1. ACCEPTABLE MANUFACTURERS: EH PRICE, NAILOR, TITUS, KRUEGER, CARNES, METALAIR, TUTTLE & BAILEY  
 2. GRILLE COLOURS ARE SELECTED BY ARCHITECT FROM STANDARD COLOUR CHART, UNLESS OTHERWISE NOTED.  
 3. PAINT INTERIOR OF DUCTWORK BEHIND GRILLE MATT BLACK (WHERE VISIBLE THRU GRILLE).

**GENERAL NOTES**

- ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PREPARED SPECIFICATION.
- ALL PIPING, DUCTWORK, AND EQUIPMENT IS TO BE RESTRAINED TO MEET SEISMIC CODE REQUIREMENTS. SUPPLY AND INSTALL ALL SEISMIC RESTRAINT MATERIALS TO MANUFACTURER'S WRITTEN INSTRUCTIONS. REFER TO SPECIFICATION.
- UPON COMPLETION OF THE PROJECT OR UPON COMPLETION OF EACH INDIVIDUAL PHASE OF THE PROJECT THE CONTRACTORS SHALL PROVIDE THE FOLLOWING CERTIFICATES BEFORE CONFORMANCE LETTERS ARE ISSUED BY THE CONSULTANT:
  - NFPA-13 SPRINKLER CONTRACTOR'S MATERIAL & TEST CERTIFICATE
  - FIRE PROTECTION ENGINEER'S INSPECTION/CONFORMANCE LETTER

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

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing. © 2024 DEI Consulting Engineers Inc.

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 MECHANICAL | ELECTRICAL | AQUATIC

PLUMBING FIXTURE SCHEDULE													
Item	Type	Connection Sizes				Fixture				Trim		Accessories	
		HW	CW	TW	Drain	Vent	Acceptable Manufacturer	Fixture Description	Acceptable Manufacturer	Trim Description	Acceptable Manufacturer	Accessory Description	
WC-1	BARRIER FREE WATER CLOSET FLUSH VALVE, HANDS-FREE (HARDWARE)	25		80	40	AMERICAN STANDARD MADERA 3461.001 KOHLER HIGHCREST K-4302 ZURN ECO VANTAGE	BARRIER FREE, 16.5" TALL TO RIM, VITREOUS CHINA, SIPHON JET, ELONGATED RIM, TOP SPUD FOR FLUSH VALVE, BOLT CAP, BOTTOM OUTLET, FLOOR-MOUNTED, 10" OR 12" ROUGH-IN, MIN 2" TRAP WAY, MAXIMUM 6 litres (1.6 gal) PER FLUSH.	DELTA 81T201-6-WMSHWA MOEN ZEMS6000AV SLOAN 111-ES-S	EXPOSED, POLISHED CHROME PLATTED, DIAPHRAGM TYPE FLUSH VALVE WITH 25MM (1") SCREWDRIVER ANGLE STOP, MOTORIZED ACTUATOR, AUTOMATIC SENSOR WITH MANUAL PUSH BUTTON OVERRIDE, VACUUM BREAKER ADJUSTABLE TAIL PIECE, AUTOMATIC 8 HR COURTESY FLUSH, RECESSED WALL MOUNTED SENSOR BOX, FLUSH CONNECTION & COUPLING FOR 40MM (1 1/2") TOP SPUD, WALL AND SPUD ESCUTCHEONS, HARDWIRED OPERATED POWER CONVERTOR, SENSOR BOX C/W COVER, VANDAL RESISTANT SCREWS, FLUSH CYCLE SET FOR 6.0 LITRES (1.6 GAL) PER FLUSH. COORDINATE SENSOR SITS ABOVE TOILET SEAT AND GRAB BARS.	SEAT: CENTOCO BEMIS	SEAT: BLACK, ELONGATED, OPEN FRONT LESS COVER, MOLDED SOLID ANTIMICROBIAL PLASTIC, STAINLESS STEEL CHECK HINGES, STAINLESS STEEL OR SOLID BRASS INSERT POST. REFER TO ARCHITECTURAL DOCUMENTS FOR VERTICAL BACKREST. MIN. 1000 MAP PERFORMANCE. SUPPLY KITS #13-2276M.		
WC-2	WATER CLOSET FLUSH VALVE, HANDS-FREE (HARDWARE)	25		80	40	AMERICAN STANDARD MADERA 3461.001 KOHLER HIGHCREST ZURN	VITREOUS CHINA, SIPHON JET, ELONGATED RIM, TOP SPUD FOR FLUSH VALVE, BOLT CAP, BOTTOM OUTLET, FLOOR-MOUNTED, 10" OR 12" ROUGH-IN, MIN 2" TRAP WAY, MAXIMUM 6 litres (1.6 gal) PER FLUSH.	DELTA 81T201-HWA MOEN COMMERCIAL SLOAN	EXPOSED, POLISHED CHROME PLATTED, DIAPHRAGM TYPE FLUSH VALVE WITH 25MM (1") SCREWDRIVER ANGLE STOP, MOTORIZED ACTUATOR, AUTOMATIC SENSOR WITH MANUAL PUSH BUTTON OVERRIDE, VACUUM BREAKER ADJUSTABLE TAIL PIECE, RECESSED WALL MOUNTED JUNCTION BOX, FLUSH CONNECTION & COUPLING FOR 40MM (1 1/2") TOP SPUD, WALL AND SPUD ESCUTCHEONS, HARDWIRED OPERATED POWER CONVERTOR, SENSOR BOX C/W COVER, VANDAL RESISTANT SCREWS, FLUSH CYCLE SET FOR 6.0 LITRES (1.6 GAL) PER FLUSH. COORDINATE SENSOR SITS ABOVE TOILET SEAT AND GRAB BARS.	SEAT: CENTOCO BEMIS	SEAT: BLACK, ELONGATED, OPEN FRONT, LESS COVER, MOLDED SOLID ANTIMICROBIAL PLASTIC, STAINLESS STEEL CHECK HINGES, STAINLESS STEEL OR SOLID BRASS INSERT POST. MIN. 1000 MAP PERFORMANCE.		
WC-3	BARRIER FREE WATER CLOSET FLUSH VALVE, HANDS-FREE (HARDWARE)	25		80	40	AMERICAN STANDARD MADERA 3461.001 KOHLER HIGHCREST K-4302 ZURN ECO VANTAGE	BARRIER FREE, 16.5" TALL TO RIM, VITREOUS CHINA, SIPHON JET, ELONGATED RIM, TOP SPUD FOR FLUSH VALVE, BOLT CAP, BOTTOM OUTLET, FLOOR-MOUNTED, 10" OR 12" ROUGH-IN, MIN 2" TRAP WAY, MAXIMUM 6 litres (1.6 gal) PER FLUSH.	DELTA 81T201-6-WMSHWA MOEN ZEMS6000AV SLOAN 111-ES-S	EXPOSED, POLISHED CHROME PLATTED, DIAPHRAGM TYPE FLUSH VALVE WITH 25MM (1") SCREWDRIVER ANGLE STOP, MOTORIZED ACTUATOR, AUTOMATIC SENSOR WITH MANUAL PUSH BUTTON OVERRIDE, VACUUM BREAKER ADJUSTABLE TAIL PIECE, AUTOMATIC 8 HR COURTESY FLUSH, RECESSED WALL MOUNTED SENSOR BOX, FLUSH CONNECTION & COUPLING FOR 40MM (1 1/2") TOP SPUD, WALL AND SPUD ESCUTCHEONS, HARDWIRED OPERATED POWER CONVERTOR, SENSOR BOX C/W COVER, VANDAL RESISTANT SCREWS, FLUSH CYCLE SET FOR 6.0 LITRES (1.6 GAL) PER FLUSH. COORDINATE SENSOR SITS ABOVE TOILET SEAT AND GRAB BARS.	SEAT: TOTO SW3056#01 WASHLET S550e	BIDET SEAT: WHITE, ELONGATED, CLOSED FRONT, WITH COVER, MOLDED SOLID ANTIMICROBIAL PLASTIC, STAINLESS STEEL CHECK HINGES, STAINLESS STEEL OR SOLID BRASS INSERT POST, INSTANT CERAMIC HEATING SYSTEM, TWIN ADJUSTABLE NOZZLES, WATER & TEMPERATURE SETTINGS, WATER PRESSURE CONTROLS, ADJUSTABLE WARM AIR DRYER, ACTIVATED CARBON DEODORIZER, SELF-CLEANING NOZZLES, SIDE ARM CONTROL. PROVIDE 1/2" WATER LINE TO BIDET. SUITABLE FOR 120/1/60		
L-1	B.F. WALL HUNG LAV, HANDS-FREE	15	15		32	AMERICAN STANDARD MURRO 0954.004EC KOHLER ZURN	WALL-HUNG SINK, VITREOUS CHINA, WITH SPLASH LIP, SUPPLY OPENINGS ON 100 MM (4") CENTRES, OVERFLOW. SIZE: 521 MM X 464 MM (21 7/8" X 17 3/4").	DELTA 5910256 MOEN COMMERCIAL SLOAN	HARDWIRED ELECTRONIC FAUCET. CAST BRASS ONE PIECE BODY WITH INTEGRAL WATER PROOF INFRA-RED SENSOR AND CONNECTOR. ADJUSTABLE SENSING RANGE 76MM TO 381MM (3" TO 15") AND TIME OUT 15 TO 75 SECONDS CHROME FINISH. VANDAL RESISTANT AERATOR HAVING INTEGRAL FLOW CONTROL FOR 1.5GPM (5.7 L/MIN) @ 413 KPA (60 PSI) MAX. SENSOR ACTIVATES IN PRESENCE OF PERSON'S HANDS IN LAVATORY. C/W PLUG-IN TRANSFORMER. MECHANICAL MIXING VALVE (SET TO 105°F) IN RECESSED CONTROL BOX #591T	INSULATION: MCGUIRE PROWRAP PWV8902 TRUEBRO LAV GUARD	WASTE FITTING: NPS 32 MM (1 1/4") OFFSET WASTE #33T290 WITH OPEN GRID STRAINER. P-TRAPS #33T311, SUPPLY KIT #13-2277 PROVIDE CONCEALED ARM SYSTEM Z-1232 CARRIER PROVIDE SHROUD/KNEE CONTACT GUARD #0059 020 THERMOSTATIC MIXING VALVE UNDER LAV. DELTA R3070-MIXLF. POWERS LM490 OR EQUAL.		
L-2	WALL HUNG LAV, HANDS FREE	15	15		32	GERBER WEST POINT (SPACE SAVER) G0012354 KOHLER ZURN	WALL-HUNG SINK, VITREOUS CHINA, WITH SPLASH LIP, SUPPLY OPENINGS ON 100 MM (4") CENTRES, OVERFLOW. SIZE: 360 MM X 303 MM (14 1/8" X 12").	DELTA 5910256 MOEN COMMERCIAL SLOAN	HARDWIRED ELECTRONIC FAUCET. CAST BRASS ONE PIECE BODY WITH INTEGRAL WATER PROOF INFRA-RED SENSOR AND CONNECTOR. ADJUSTABLE SENSING RANGE 76MM TO 381MM (3" TO 15") AND TIME OUT 15 TO 75 SECONDS CHROME FINISH. VANDAL RESISTANT AERATOR HAVING INTEGRAL FLOW CONTROL FOR 1.5GPM (5.7 L/MIN) @ 413 KPA (60 PSI) MAX. SENSOR ACTIVATES IN PRESENCE OF PERSON'S HANDS IN LAVATORY. C/W PLUG-IN TRANSFORMER. MECHANICAL MIXING VALVE (SET TO 105°F) IN RECESSED CONTROL BOX #591T	INSULATION: MCGUIRE PROWRAP PWV8902 TRUEBRO LAV GUARD	WASTE FITTING: NPS 32 MM (1 1/4") OFFSET WASTE #33T290 WITH OPEN GRID STRAINER. P-TRAPS #33T311, SUPPLY KIT #13-2277 PROVIDE CONCEALED ARM SYSTEM Z-1232 CARRIER PROVIDE SHROUD/KNEE CONTACT GUARD #0059 020 THERMOSTATIC MIXING VALVE UNDER LAV. DELTA R3070-MIXLF. POWERS LM490 OR EQUAL.		
FD-1	FLOOR DRAIN				NOTED	J.R. SMITH 2005A ZURN ZN415B MIFAB F1100-C WATTS FD-100-C-A	GENERAL DUTY CAST IRON BODY, ADJUSTABLE HEAD, NICKEL BRONZE STRAINER, INTEGRAL SEEPAGE PAN, AND CLAMPING COLLAR. STRAINER IN TILED AREAS AND ROUND STRAINER ELSEWHERE. C/W TRAP PRIMER						

CLIENT  
**WATERLOO REGION DISTRICT SCHOOL BOARD**  
 51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT  
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOMS RENOVATION**  
 787 King Street West, Kitchener, Ontario

TITLE  
**KEY PLAN, LEGEND & SCHEDULES**

**WALTERFEDY**  
 KITCHENER | HAMILTON | TORONTO  
 800.685.1378 walterfedy.com

SCALE: As indicated  
 DATE: 03/06/24  
 PROJECT NO.: 2023-0897-11  
 DRAWN BY: JH  
 CHECKED BY: CT

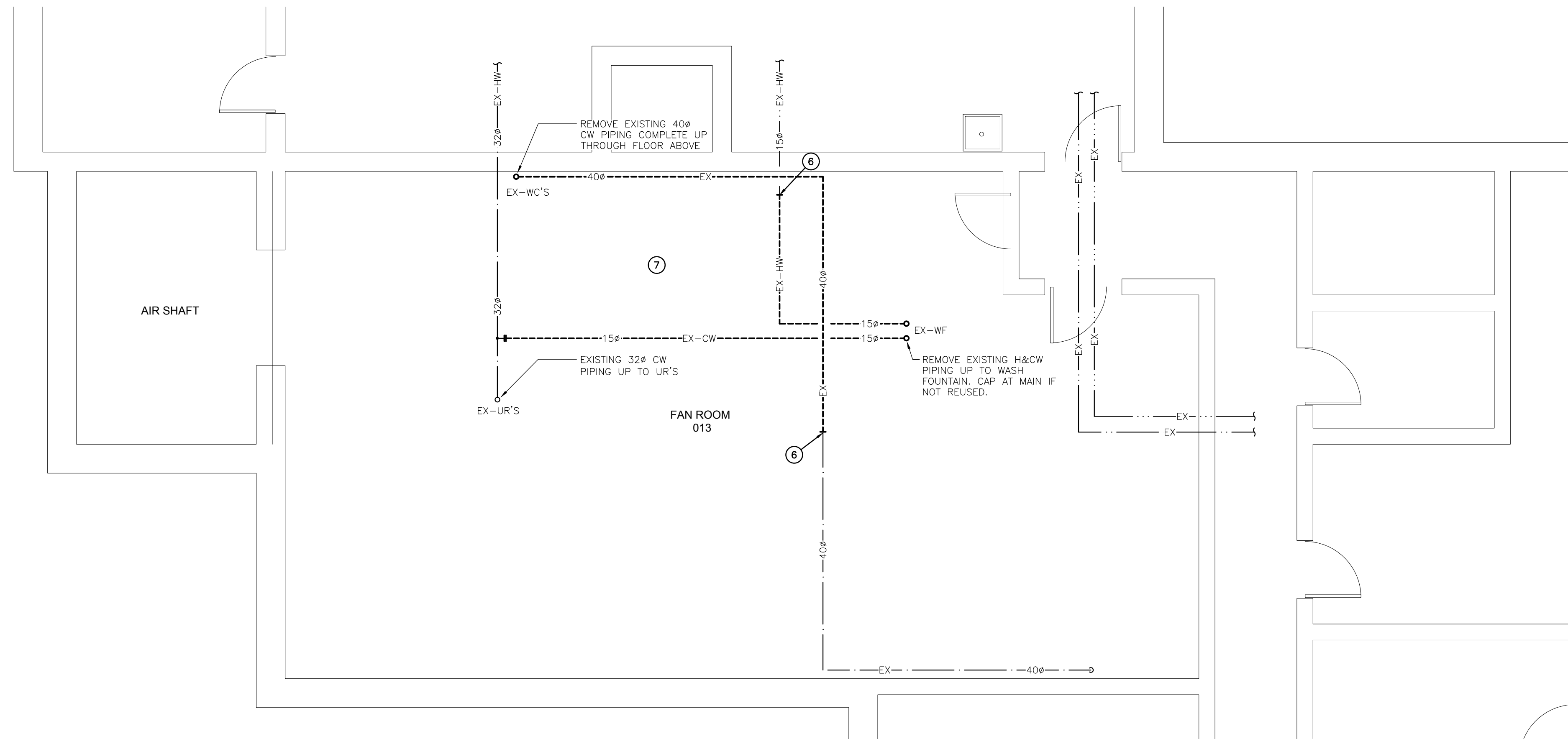
SHEET NO.: **M101**

**GENERAL DEMOLITION NOTES**

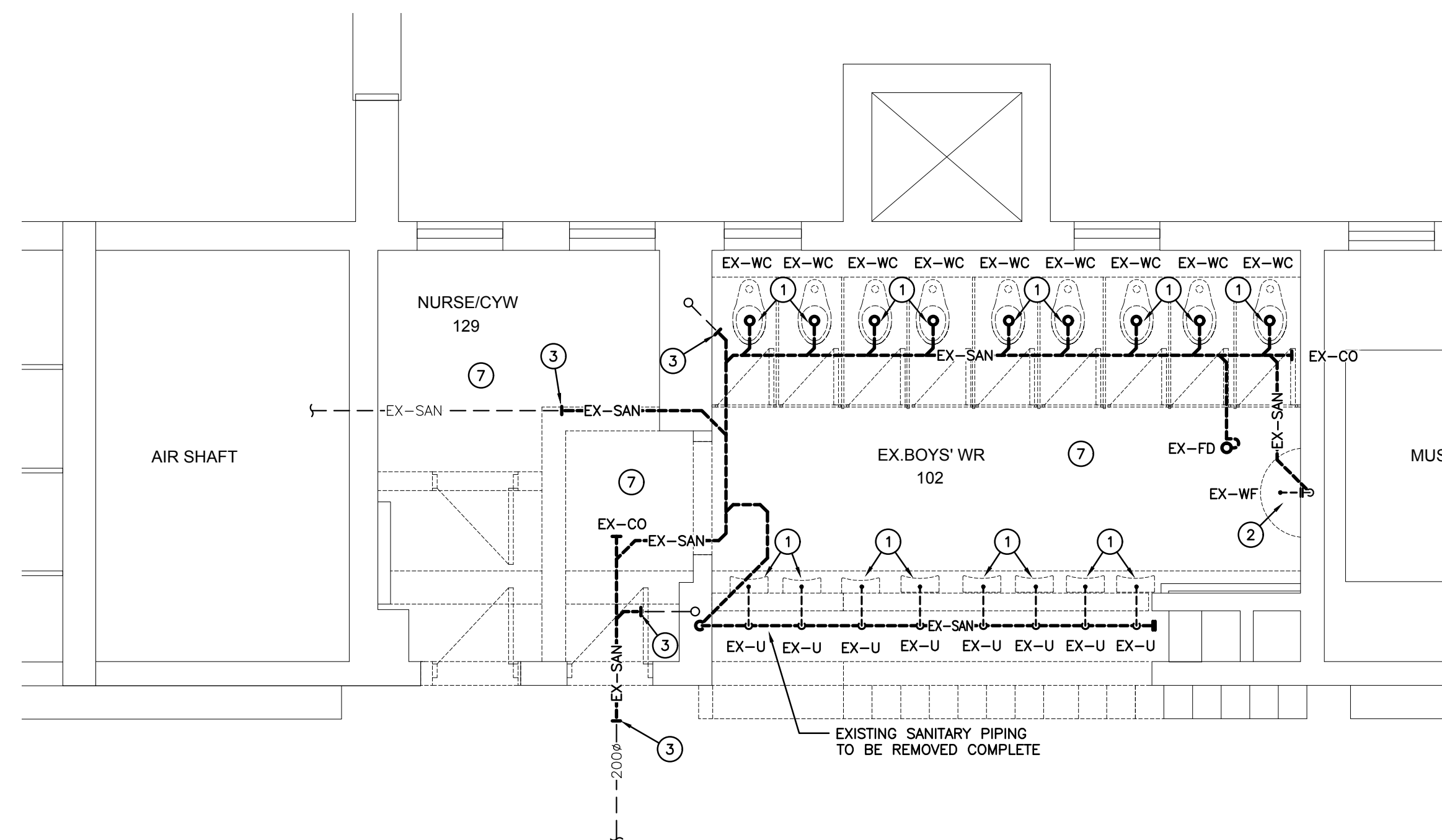
- EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
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- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES & EQUIPMENT PRIOR TO THE COMMENCEMENT OF WORK.
- ALL OPENINGS THAT RESULT FROM THE REMOVAL OF EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING CONSTRUCTION.
- PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED. REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING INTEGRITY OF EXISTING SYSTEMS TO REMAIN.
- REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS INCLUDES REMOVAL OF ALL HANGERS, INSULATION, FITTINGS, ETC.
- MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO REMAIN OR BE MODIFIED.
- INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.
- THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS AS REQUIRED FOR REMOVAL/REPLACEMENT OF SERVICES.
- CONTRACTOR TO CARRY IN THEIR PRICING TO DRAIN SYSTEM OR FREEZE PIPING TO COMPLETE WORK

**SPECIFIC P&D DEMOLITION NOTES**

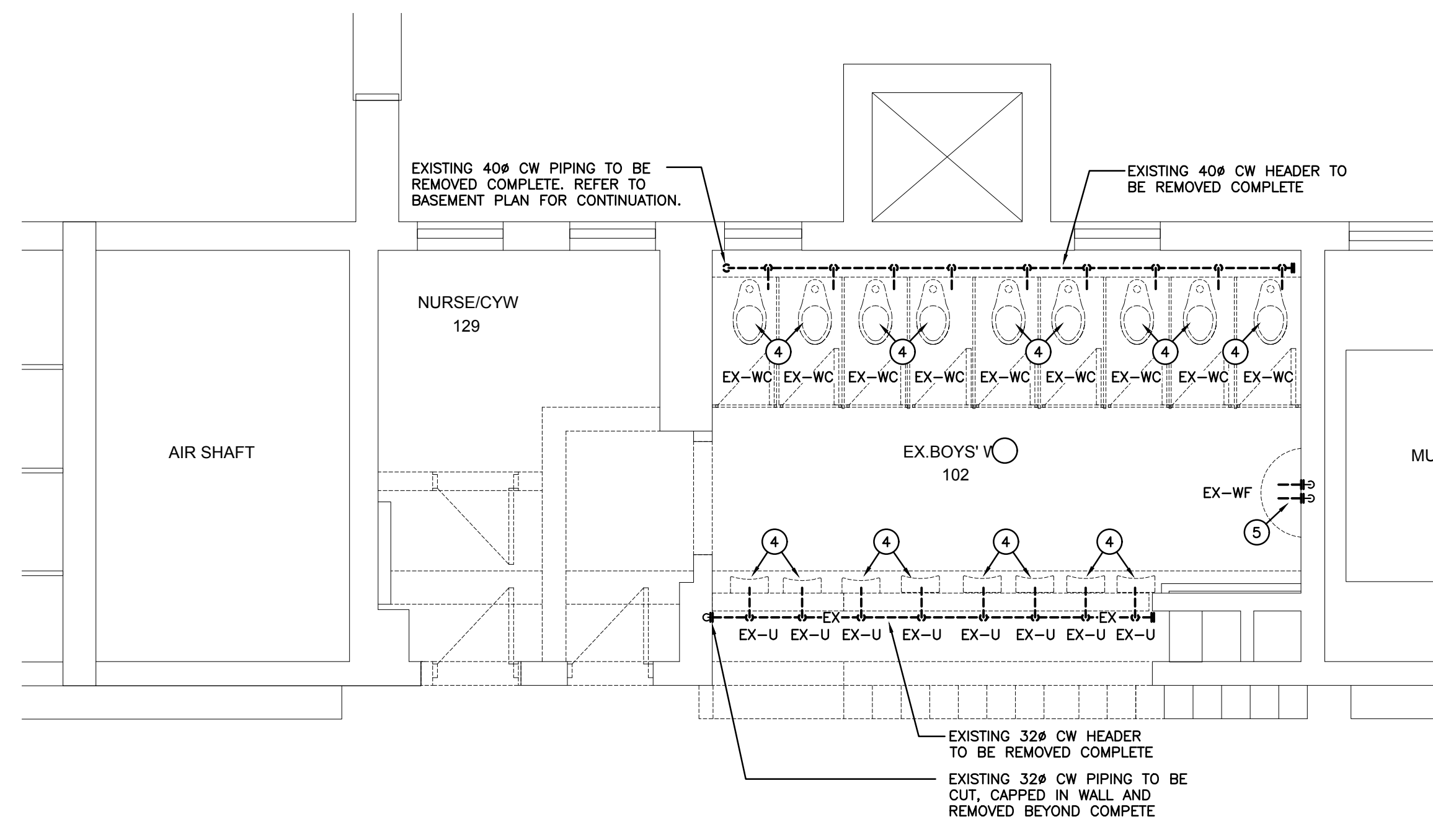
- EXISTING PLUMBING FIXTURE TO BE REMOVED COMPLETE. EXISTING SANITARY & VENT PIPING TO BE REMOVED COMPLETE.
- EXISTING PLUMBING FIXTURE TO BE REMOVED COMPLETE. EXISTING SANITARY PIPING TO BE CUT & CAPPED INSIDE WALL/BELOW FLOOR.
- CUT AND REMOVE EXISTING SANITARY PIPING BEYOND. REFER TO RENO DRAWING FOR NEW WORK.
- EXISTING PLUMBING FIXTURE TO BE REMOVED COMPLETE. EXISTING WATER PIPING TO BE REMOVED COMPLETE.
- EXISTING PLUMBING FIXTURE TO BE REMOVED COMPLETE. EXISTING WATER PIPING TO BE CUT & CAPPED INSIDE WALL/BELOW FLOOR.
- CUT AND REMOVE EXISTING SANITARY PIPING BEYOND. REFER TO RENO DRAWING FOR NEW WORK.
- THERE IS AN EXISTING LEAK IN BASEMENT FROM EXISTING WATER AND DRAIN PIPING. CONTRACTOR SHALL CARRY ALLOWANCE OF \$10,000 TO FIELD VERIFY AND FIX ALL THE LEAKS IN AREAS OF WORK.



**BASEMENT DEMOLITION PART PLAN – PIPING**  
SCALE: 1:50



**GROUND FLOOR DEMOLITION PART PLAN – DRAINAGE**  
SCALE: 1:50

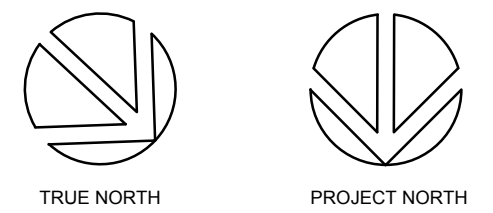
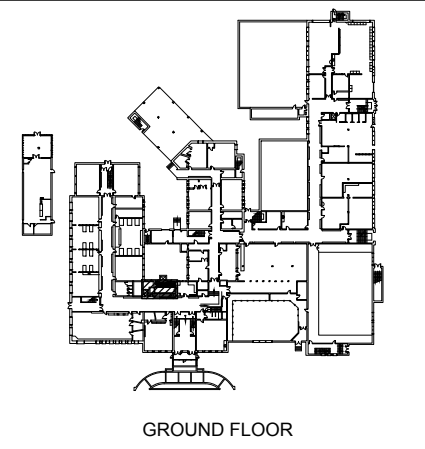


**GROUND FLOOR DEMOLITION PART PLAN – PIPING**  
SCALE: 1:50

CLIENT LOGO



KEYPLAN



No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-02-12
2	ISSUED FOR 90% OWNER REVIEW	2024-03-08
3	ISSUED FOR BID AND PERMIT	2024-03-21

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets, fittings and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing. © 2024 DEI Consulting Engineers Inc.



CLIENT

**WATERLOO REGION DISTRICT SCHOOL BOARD**

51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT

**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOMS RENOVATION**  
787 King Street West, Kitchener, Ontario

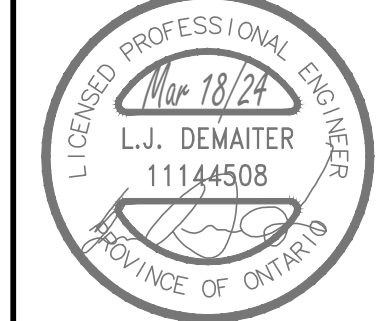
TITLE

**BASEMENT & GROUND FLOOR DEMOLITION PART PLANS - DRAINAGE & PIPING**

**WALTERFEDY**

KITCHENER | HAMILTON | TORONTO  
800.685.1378 walterfeddy.com

SEAL

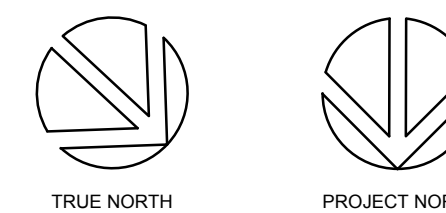
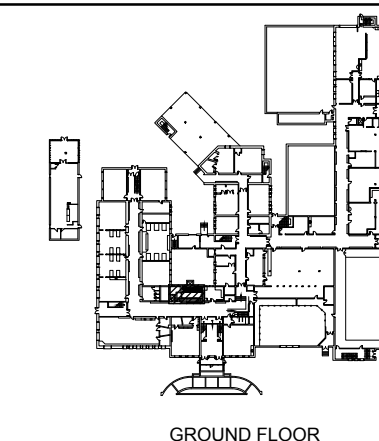


SCALE :	As indicated	SHEET NO :	<b>M201</b>
DATE :	03/06/24		
PROJECT NO :	2023-0897-11		
DRAWN BY :	JH		
CHECKED BY :	CT		



CLIENT LOGO

KEYPLAN



No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-02-12
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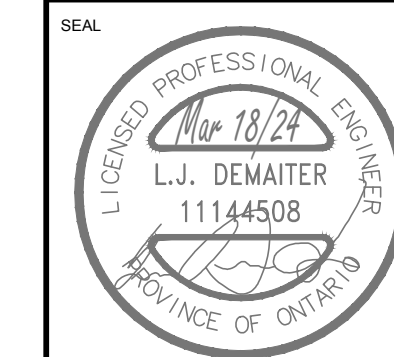


CLIENT  
**WATERLOO REGION DISTRICT SCHOOL BOARD**  
51 Ardelt Ave, Kitchener, ON N2C 2R5

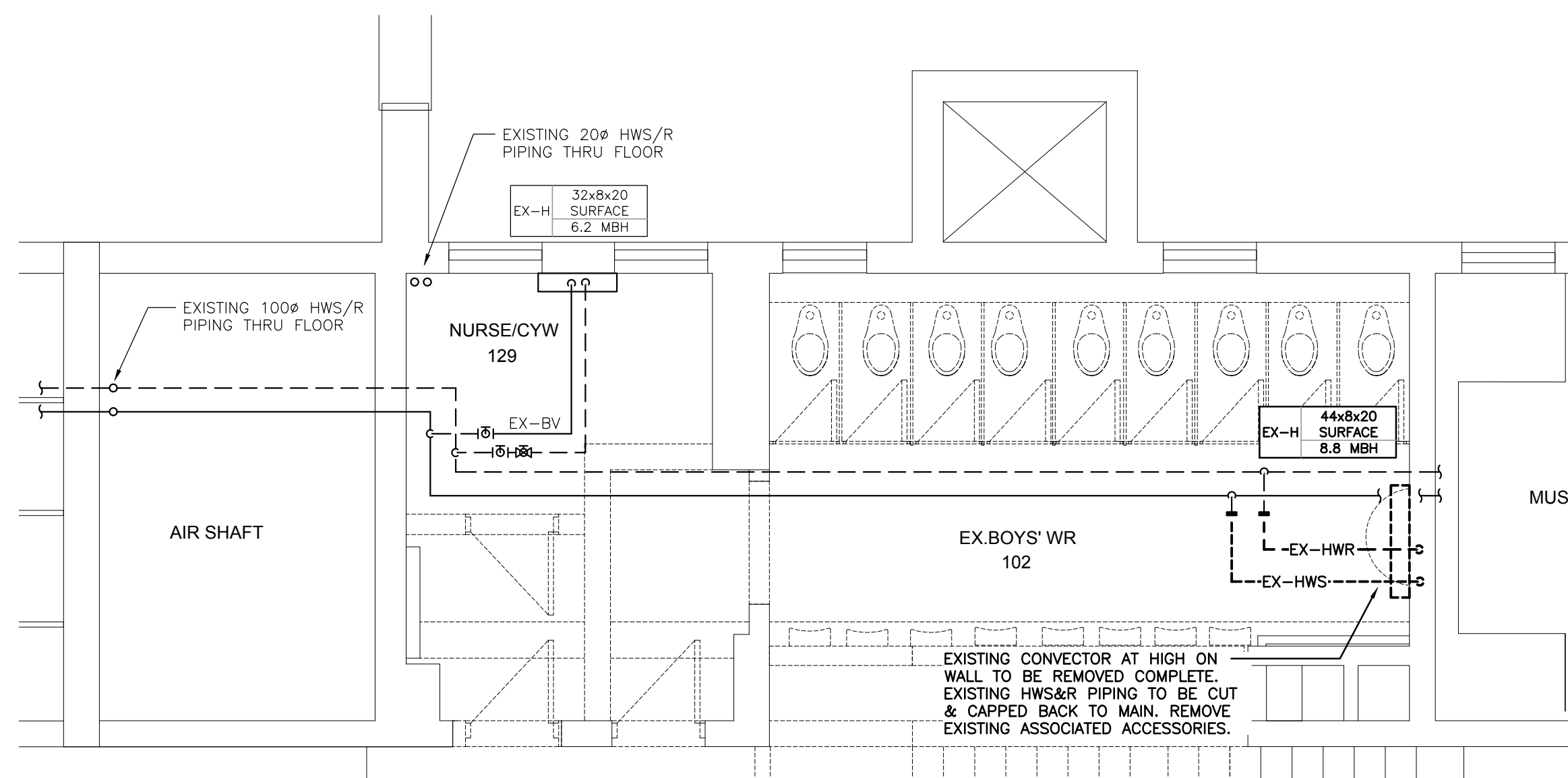
PROJECT  
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOMS RENOVATION**  
787 King Street West, Kitchener, Ontario

TITLE  
**GROUND FLOOR DEMOLITION PART PLANS - HEATING, DUCTWORK & SPRINKLER**

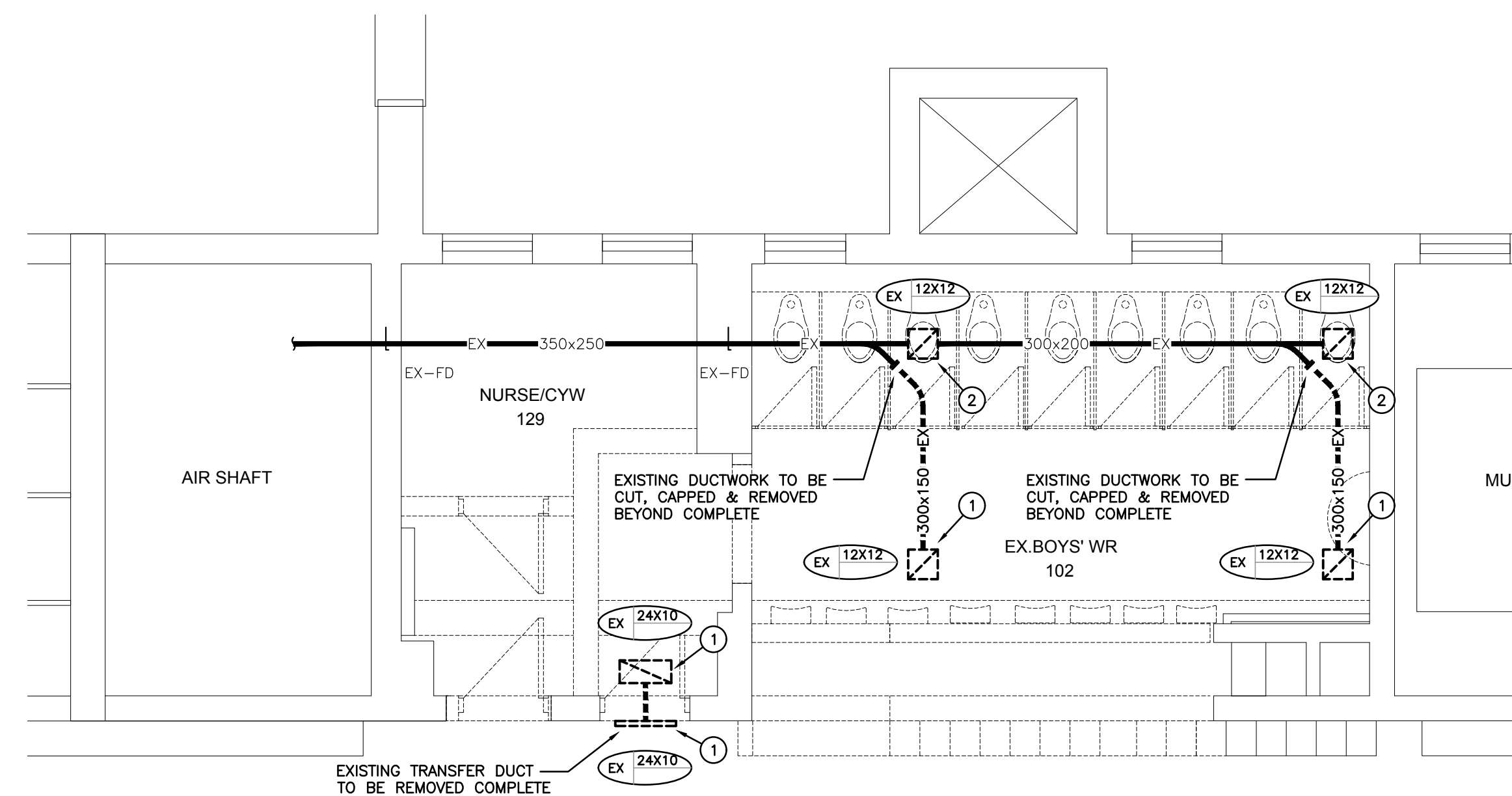
**WALTERFEDY**  
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800.685.1378 walterfedy.com



SCALE:	As indicated	SHEET NO:	<b>M202</b>
DATE:	03/06/24		
PROJECT NO:	2023-0897-11		
DRAWN BY:	JH		
CHECKED BY:	CT		



GROUND FLOOR DEMOLITION PART PLAN - HEATING  
SCALE: 1:50

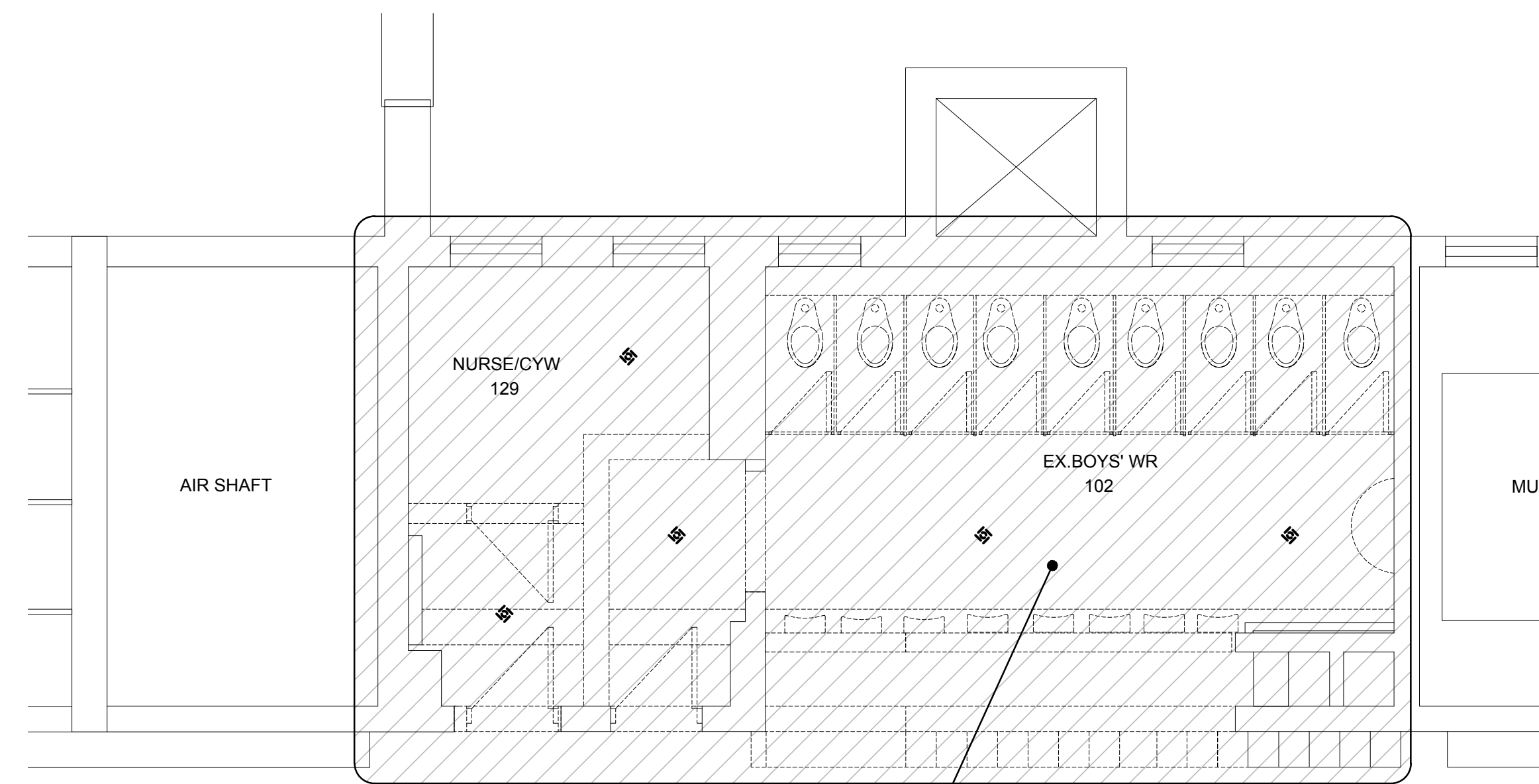


GROUND FLOOR DEMOLITION PART PLAN - DUCTWORK  
SCALE: 1:50

- GENERAL DEMOLITION NOTES**
- EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
  - EXISTING MECHANICAL ITEMS SHOWN BUT NOT NOTED AS BEING REMOVED OR RENOVATED SHALL REMAIN AS PRESENTLY INSTALLED AND OPERATING.
  - THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES & EQUIPMENT PRIOR TO THE COMMENCEMENT OF WORK.
  - ALL OPENINGS THAT RESULT FROM THE REMOVAL OF EQUIPMENT OR SERVICES SHALL BE NEATLY PATCHED WITH SUITABLE NEW MATERIALS TO SUIT EXISTING CONSTRUCTION.
  - PLUMBING VENTS ARE NOT INDICATED OR IDENTIFIED. REMOVE ALL REDUNDANT VENTS WHILE MAINTAINING INTEGRITY OF EXISTING SYSTEMS TO REMAIN.
  - REMOVAL OF EXISTING PIPING, OR DUCT SYSTEMS INCLUDES REMOVAL OF ALL HANGERS, INSULATION, FITTINGS, ETC.
  - MAINTAIN INTEGRITY OF EXISTING SYSTEMS THAT ARE TO REMAIN OR BE MODIFIED.
  - INSTALL NEW SYSTEM OR SERVICES WHERE REQUIRED TO MAINTAIN SYSTEM OPERATION PRIOR TO DEMOLITION OF EXISTING SERVICES.
  - THIS CONTRACTOR IS TO REMOVE & REPLACE CEILINGS AS REQUIRED FOR REMOVAL/REPLACEMENT OF SERVICES.
  - CONTRACTOR TO CARRY IN THEIR PRICING TO DRAIN SYSTEM OR FREEZE PIPING TO COMPLETE WORK

- SPECIFIC HVAC DEMOLITION NOTES**
- EXISTING GRILLE TO BE REMOVED COMPLETE. REWORK EXISTING DUCTWORK TO SUIT NEW.
  - EXISTING GRILLE TO BE REMOVED COMPLETE. CAP EXISTING DUCTWORK

- GENERAL SPRINKLER NOTES**
- SUBMIT PRELIMINARY DESIGN & HYDRAULIC CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER, AND MANUFACTURERS' PRODUCT SHEETS FOR SHOP DRAWING SUBMISSION AS SPECIFIED PRIOR TO COMMENCING WORK.
  - ENSURE DESIGN MEETS OR EXCEEDS PRESENT NFPA 13 STANDARDS. ENSURE SPRINKLER SYSTEMS ARE INSTALLED TO NFPA 13 STANDARDS. UPON COMPLETION, SPRINKLER CONTRACTOR TO PROVIDE REPRODUCIBLE DRAWING (AT 1=100 SCALE) AND HYDRAULIC CALCULATIONS OF AS-BUILT CONDITION.
  - SPRINKLER CONTRACTOR'S 'PROFESSIONAL ENGINEER' TO PROVIDE O.B.C. AND NFPA REQUIRED INSPECTION AND CERTIFICATION.
  - REFER TO ARCHITECTURAL DRAWINGS FOR REFLECTED CEILING PLAN.
  - PROVIDE SPRINKLER HEAD TYPES AS FOLLOWS:
    - PROVIDE UPRIGHT HEADS WITHIN 12" OF EXPOSED DECK THROUGHOUT EXPOSED STRUCTURE AREAS. PROVIDE HEAD GUARDS IN GYM, AREAS WHERE HEADS ARE BELOW 8'-0" & STORAGE ROOMS.
    - PROVIDE CONCEALED PENDENT HEADS IN CEILINGS OF UNSUPERVISED AREAS (CORRIDORS, CHANGE ROOMS AND WASHROOMS). COVER PLATE FINISH SELECTED BY CONSULTANT.
    - PROVIDE CONCEALED HEADS IN ALL OTHER CEILING AREAS OF SUPERVISED AREAS (CLASSROOMS, OFFICES, SEMINAR ROOMS, etc.). COVER PLATE FINISH SELECTED BY CONSULTANT.
  - SPRINKLER HEADS TO BE IN CENTRELINE OF CEILING TILE. MINIMUM 150mm (6") FROM EDGE.
  - FINAL NUMBER AND LOCATION OF SPRINKLER HEADS TO BE DETERMINED BY CONTRACTOR'S HYDRAULIC CALCULATIONS AND APPROVED DRAWINGS.
  - SPRINKLER PIPING TO BE COORDINATED WITH OTHER SERVICES PRIOR TO INSTALLATION
  - COORDINATE LOCATION OF INSPECTOR'S TEST CONNECTION WITH CONSULTANT PRIOR TO INSTALLATION.
  - PROVIDE SPRINKLER HEADS UNDER ALL DUCTWORK AND EQUIPMENT OVER 1200mm WIDE.
  - COMMISSIONING OF INTEGRATED TESTING OF FIRE PROTECTION AND LIFE SAFETY SYSTEM.
    - SPRINKLER CONTRACTOR TO PROVIDE SERVICES WITH THE FIRE COMMISSIONING AGENT (FCA) TO MEET THEIR REQUIREMENTS OF ADMINISTRATION, VERIFICATION, AND FINAL SIGNOFF TO THE LOCAL AUTHORITIES AND CONSULTANT. THE FCA IS BEING RETAINED BY THE ELECTRICAL CONTRACTOR, HOWEVER, THIS CONTRACTOR'S WORK TO SATISFY THE FCA REQUIREMENTS SHALL BE INCLUDED IN THE TENDER PRICE.
    - CHECK/TEST: MOVEMENT OF ALL VALVES, CREATE WATER FLOW AT ALL DEVICES TO VERIFY DETECTION AT FIRE ALARM PANEL, OPERATION OF ALL PUMPS &/OR COMPRESSORS.
    - PERFORM ALL WORK IN ACCORDANCE WITH NFPA 13.
    - RETURN SPRINKLER/STANDPIPE SYSTEM TO NORMAL OPERATION ON COMPLETION OF TESTING

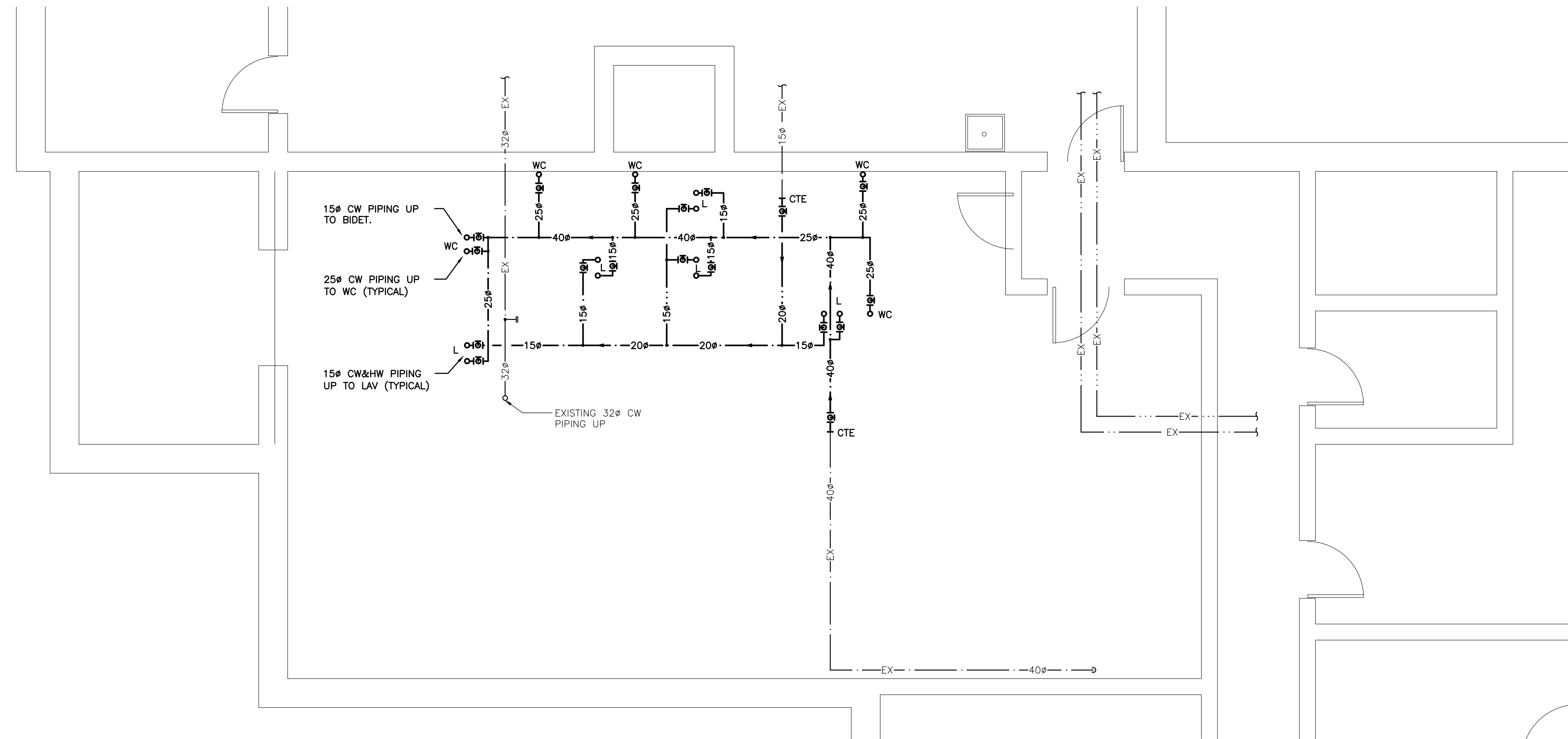


ALL EXISTING SPRINKLER HEADS AND ASSOCIATED SPRINKLER PIPING NEED TO BE REMOVED AND MODIFIED TO SUIT NEW ROOM LAYOUT. EXISTING LOCATIONS MUST BE REVIEWED AND SURVEYED BY SPRINKLER CONTRACTOR/PROFESSIONAL ENGINEER PRIOR TO INSTALLATION.

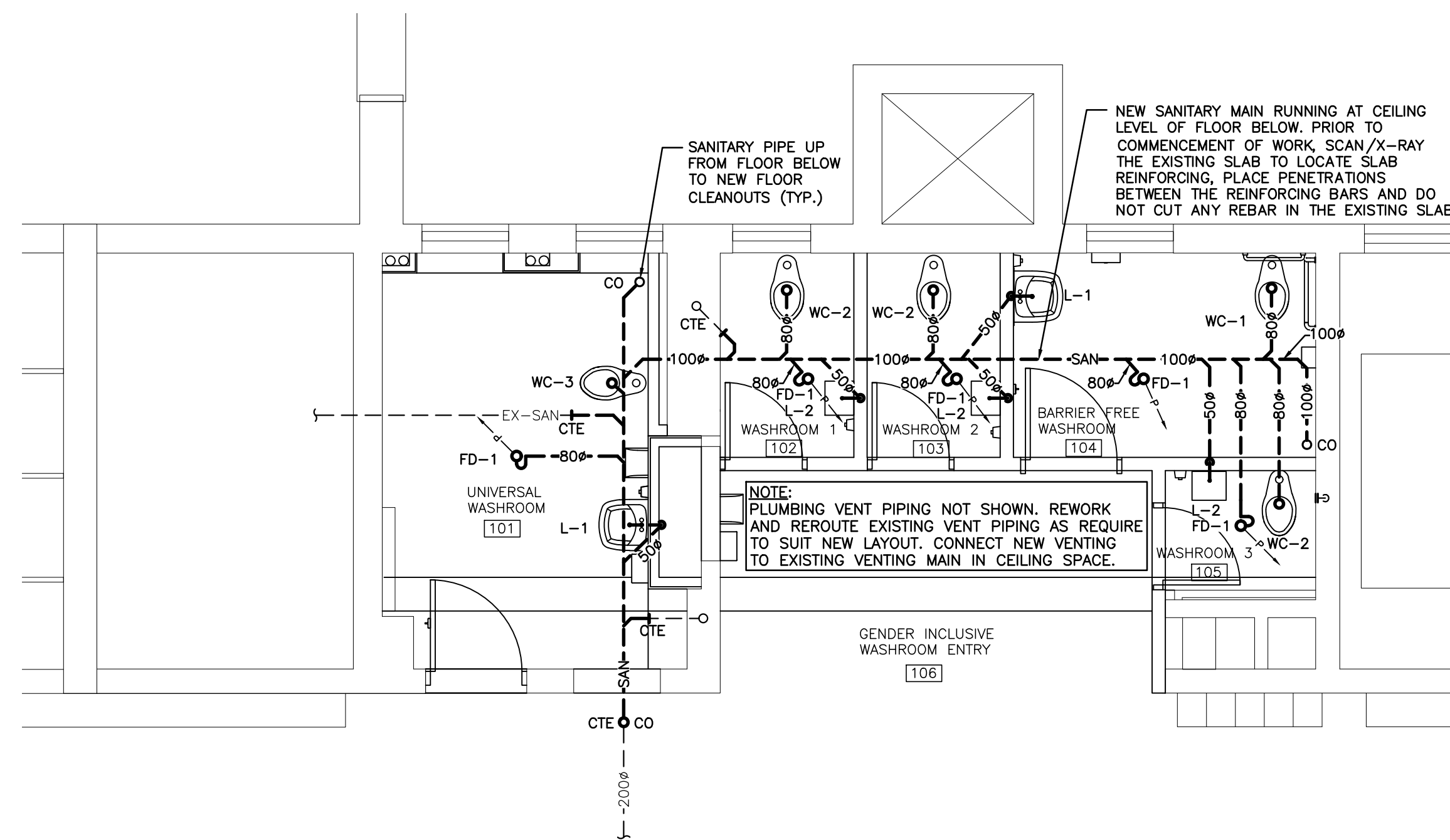
GROUND FLOOR DEMOLITION PART PLAN - SPRINKLER  
SCALE: 1:50

**GENERAL RENOVATION NOTES**

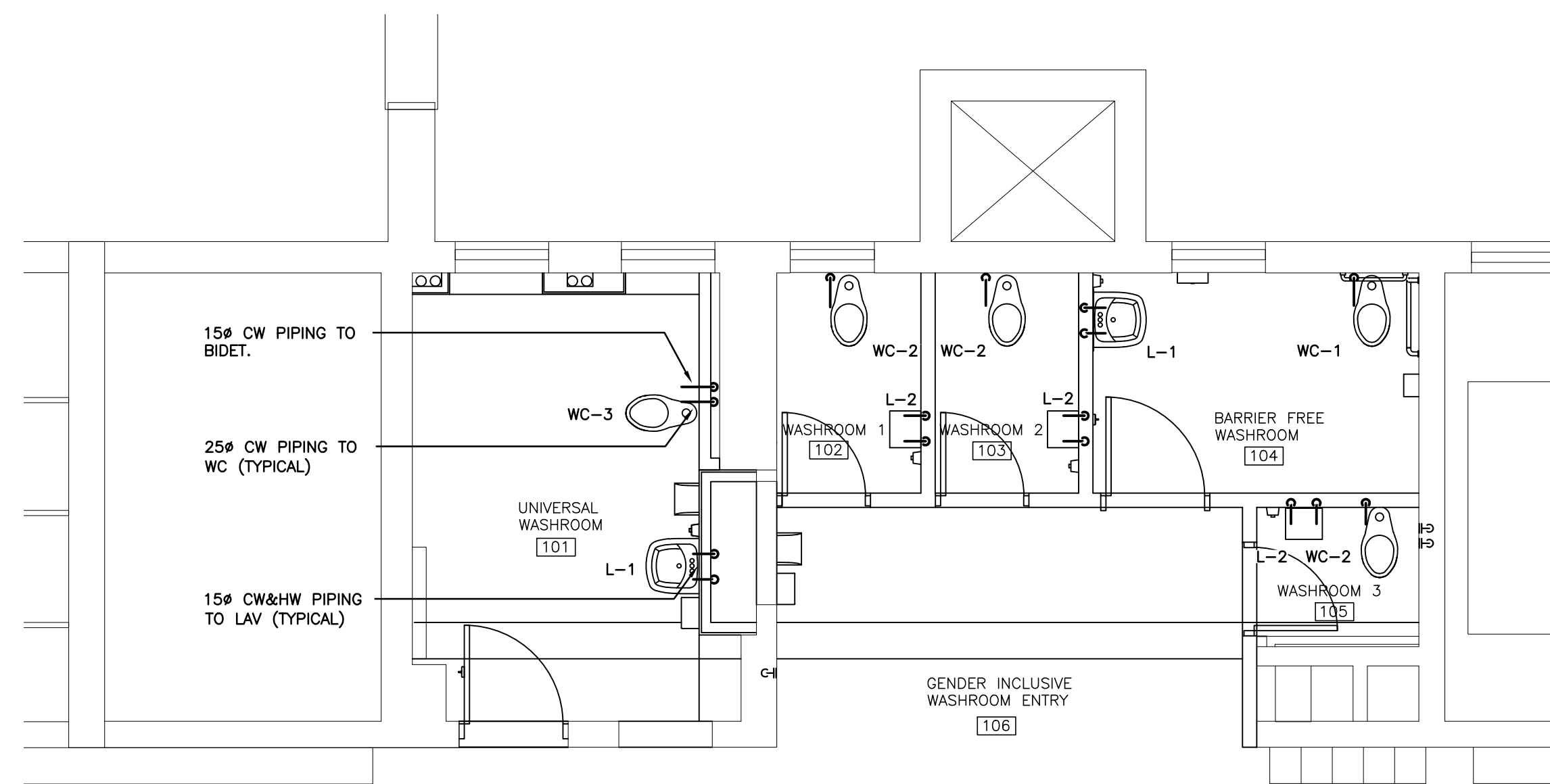
- CLEAN AND VACUUM EXISTING DUCTWORK ADJACENT TO NEW CONNECTIONS ± 10'-0" IN EACH DIRECTION.
- CO-ORDINATE ANY OWSJ BRIDGING RELOCATION OR REMOVAL/REPLACEMENT WITH THE GENERAL CONTRACTOR. PAY ALL COSTS REQUIRED TO MODIFY BRIDGING FOR INSTALLATION OF DUCTWORK.
- SANITARY VENT PIPING IS NOT SHOWN. PROVIDE ALL NECESSARY VENT PIPING FROM ALL FIXTURES FOR A COMPLETE SYSTEM TO ALL LOCAL PLUMBING CODE & LOCAL AUTHORITY REQUIREMENTS, CONNECTED TO EXISTING VENTS OR NEW VENTS AS REQUIRED. CO-ORDINATE VENT LOCATION(S) WITH GENERAL CONTRACTOR. MAINTAIN MINIMUM 3700mm (12'-0") FROM ANY AIR INLET. INSTALL VENT PIPING HIGH IN JOIST SPACE.
- REFER TO ARCHITECTURAL CEILING PLANS FOR GRILLES/DIFFUSERS LOCATIONS. CO-ORDINATE FINAL LOCATION ON SITE.
- CO-ORDINATE ROUGH-IN AND MOUNTING HEIGHTS OF FIXTURES WITH MILLWORK AND ARCHITECTURAL DETAILS.
- CONTRACTOR TO CARRY IN THEIR PRICING TO DRAIN SYSTEM OR FREEZE PIPING TO COMPLETE WORK
- EXTEND CLEANOUTS UP THROUGH FLOOR(TYPICAL)



**BASEMENT RENOVATION PART PLAN – PIPING**  
SCALE: 1:50



**GROUND FLOOR RENOVATION PART PLAN – DRAINAGE**  
SCALE: 1:50

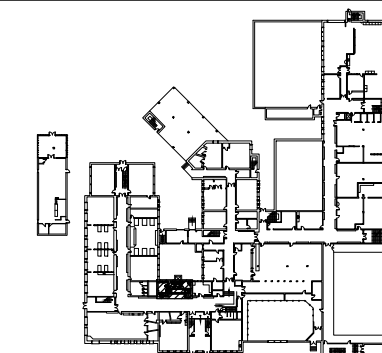


**GROUND FLOOR RENOVATION PART PLAN – PIPING**  
SCALE: 1:50

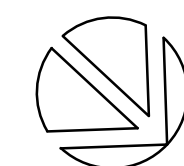
CLIENT LOGO



KEYPLAN



GROUND FLOOR



TRUE NORTH



PROJECT NORTH

No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-02-12
2	ISSUED FOR 90% OWNER REVIEW	2024-03-08
3	ISSUED FOR BID AND PERMIT	2024-03-21

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets, fittings and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing. © 2024 DEI Consulting Engineers Inc.

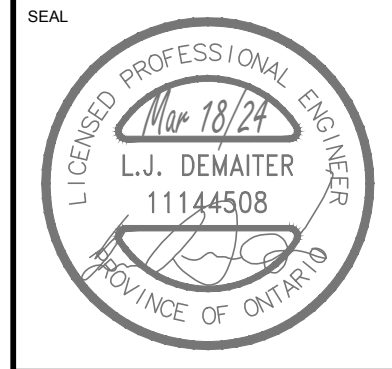


CLIENT  
**WATERLOO REGION DISTRICT SCHOOL BOARD**  
51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT  
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOMS RENOVATION**  
787 King Street West, Kitchener, Ontario

TITLE  
**BASEMENT & GROUND FLOOR RENOVATION PART PLANS - DRAINAGE & PIPING**

**WALTERFEDY**  
KITCHENER | HAMILTON | TORONTO  
800.685.1378 walterfedy.com

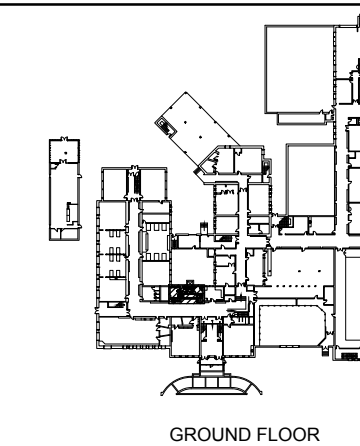


SCALE :	As indicated	SHEET NO :	<b>M301</b>
DATE :	03/06/24		
PROJECT NO :	2023-0897-11		
DRAWN BY :	JH		
CHECKED BY :	CT		

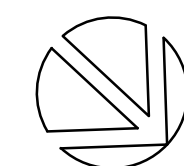


CLIENT LOGO

KEYPLAN



GROUND FLOOR



TRUE NORTH



PROJECT NORTH

No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-02-12
2	ISSUED FOR 90% OWNER REVIEW	2024-03-08
3	ISSUED FOR BID AND PERMIT	2024-03-21

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 Project Number: 24007

MECHANICAL | ELECTRICAL | AQUATIC

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**WATERLOO REGION DISTRICT SCHOOL BOARD**

51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT

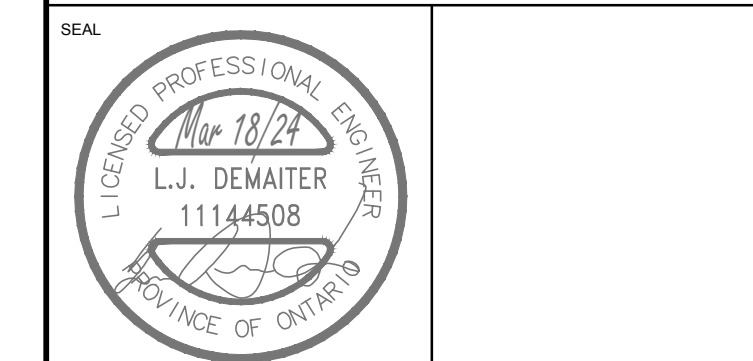
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOMS RENOVATION**  
 787 King Street West, Kitchener, Ontario

TITLE

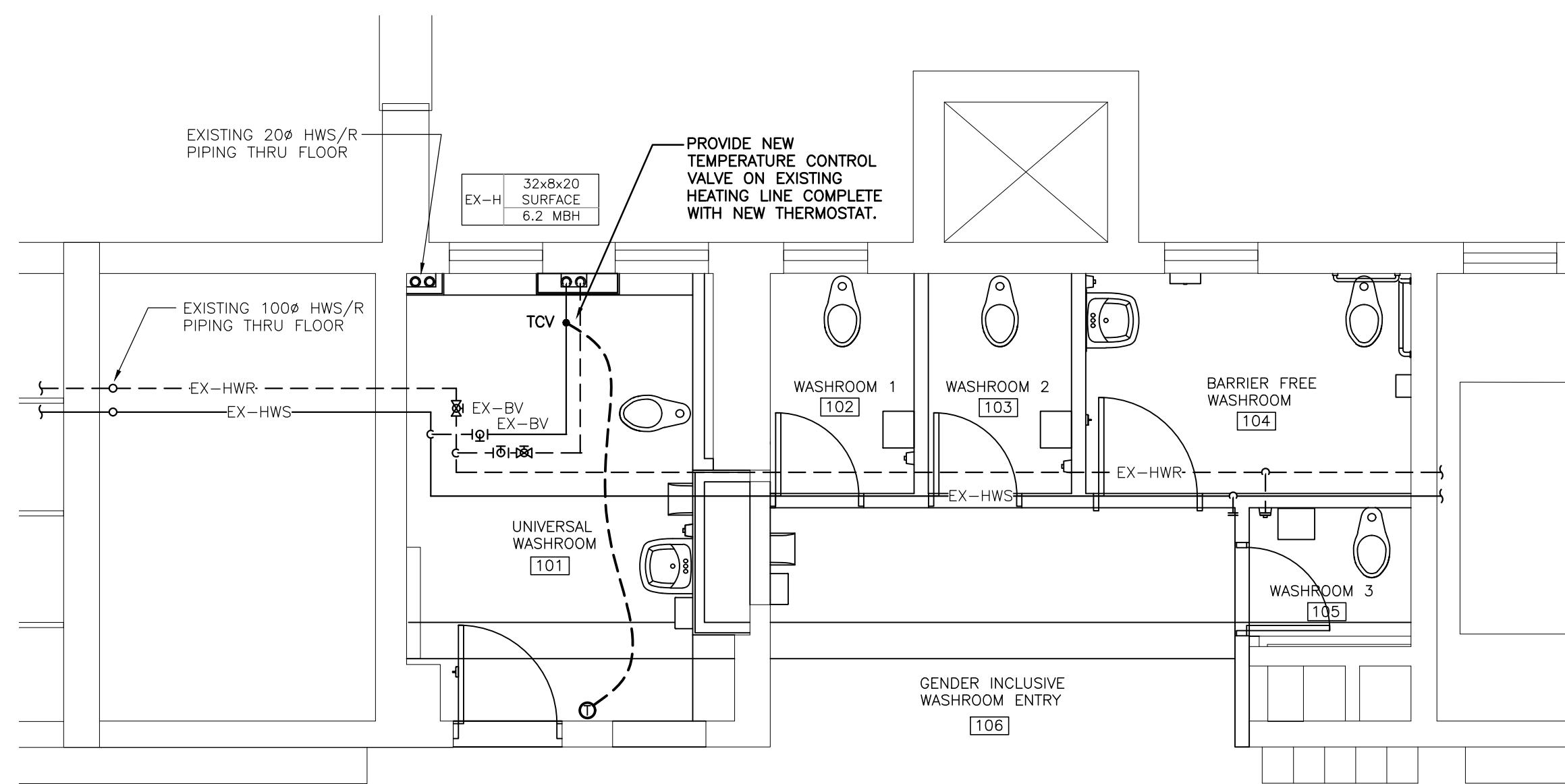
**GROUND FLOOR RENOVATION PART PLANS - HEATING, DUCTWORK & SPRINKLER**

**WALTERFEDY**

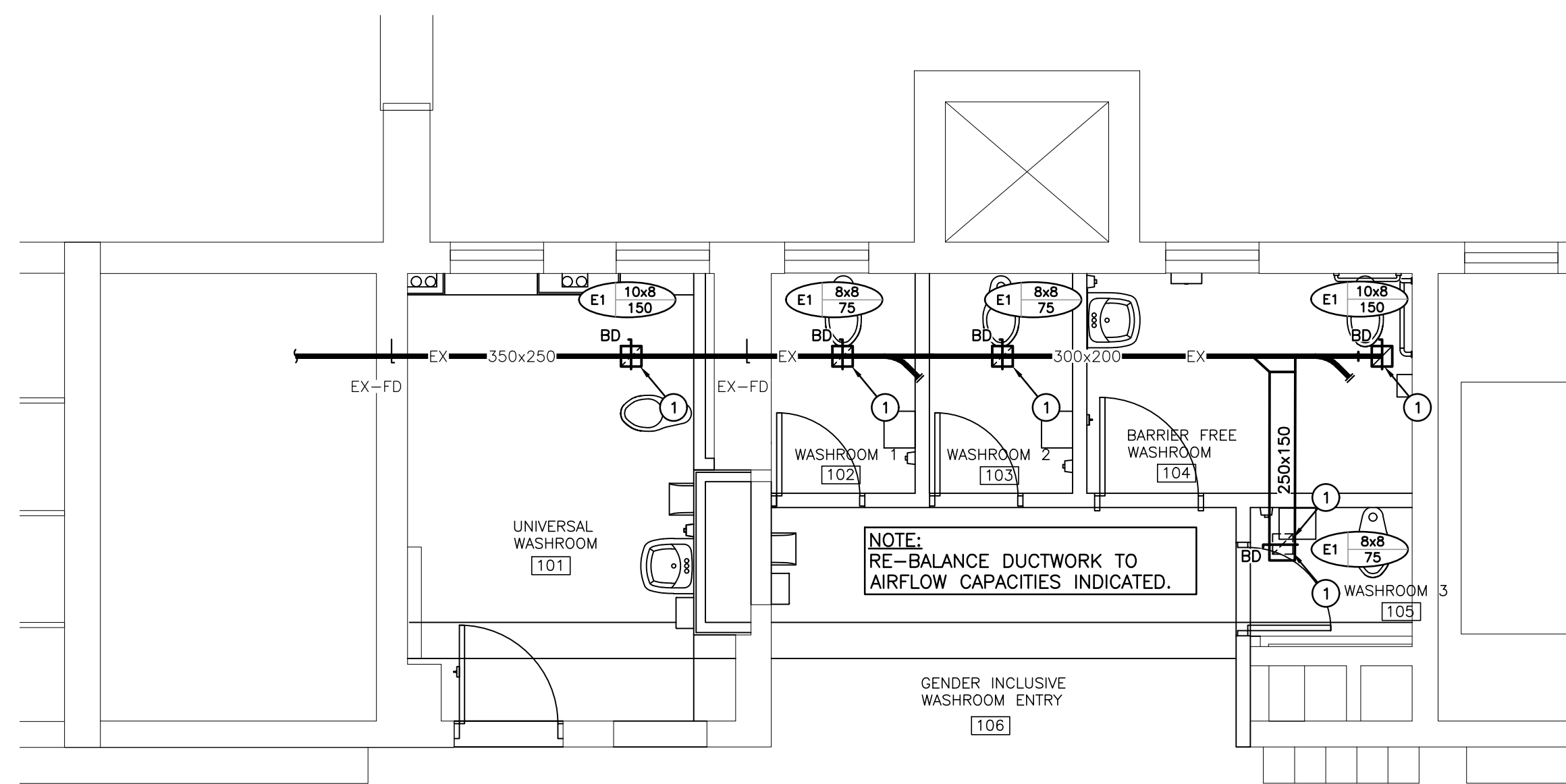
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DATE:	03/06/24		
PROJECT NO:	2023-0897-11		
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**GROUND FLOOR RENOVATION PART PLAN – HEATING**  
 SCALE: 1:50



**GROUND FLOOR RENOVATION PART PLAN – DUCTWORK**  
 SCALE: 1:50

**GENERAL RENOVATION NOTES**

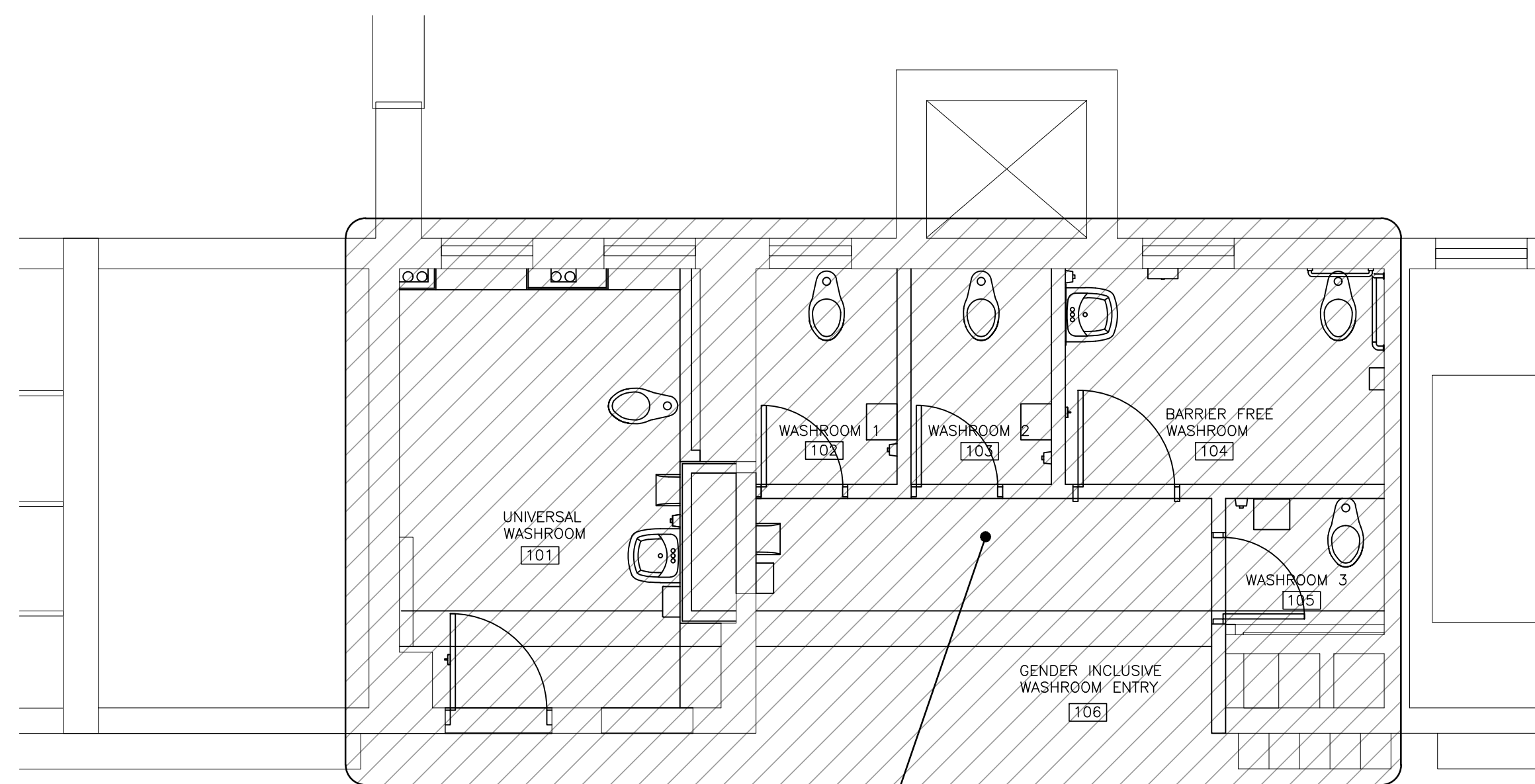
- CLEAN AND VACUUM EXISTING DUCTWORK ADJACENT TO NEW CONNECTIONS ± 10'-0" IN EACH DIRECTION.
- CO-ORDINATE ANY OWSJ BRIDGING RELOCATION OR REMOVAL/REPLACEMENT WITH THE GENERAL CONTRACTOR. PAY ALL COSTS REQUIRED TO MODIFY BRIDGING FOR INSTALLATION OF DUCTWORK.
- SANITARY VENT PIPING IS NOT SHOWN. PROVIDE ALL NECESSARY VENT PIPING FROM ALL FIXTURES FOR A COMPLETE SYSTEM TO ALL LOCAL PLUMBING CODE & LOCAL AUTHORITY REQUIREMENTS, CONNECTED TO EXISTING VENTS OR NEW VENTS AS REQUIRED. CO-ORDINATE VENT LOCATION(S) WITH GENERAL CONTRACTOR. MAINTAIN MINIMUM 3700mm (12'-0") FROM ANY AIR INLET. INSTALL VENT PIPING HIGH IN JOIST SPACE.
- REFER TO ARCHITECTURAL CEILING PLANS FOR GRILLES/DIFFUSERS LOCATIONS. CO-ORDINATE FINAL LOCATION ON SITE.
- CO-ORDINATE ROUGH-IN AND MOUNTING HEIGHTS OF FIXTURES WITH MILLWORK AND ARCHITECTURAL DETAILS.
- CONTRACTOR TO CARRY IN THEIR PRICING TO DRAIN SYSTEM OR FREEZE PIPING TO COMPLETE WORK
- EXTEND CLEANOUTS UP THROUGH FLOOR(TYPICAL)

**SPECIFIC HVAC RENOVATION NOTES**

- PROVIDE NEW GRILLE COMPLETE WITH DUCTWORK AND BALANCING DAMPER AND CONNECT TO EXISTING MAIN. BALANCE AIRFLOW TO NOTED CFM.

**GENERAL SPRINKLER NOTES**

- SUBMIT PRELIMINARY DESIGN & HYDRAULIC CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER, AND MANUFACTURERS' PRODUCT SHEETS FOR SHOP DRAWING SUBMISSION AS SPECIFIED PRIOR TO COMMENCING WORK.
- ENSURE DESIGN MEETS OR EXCEEDS PRESENT NFPA 13 STANDARDS. ENSURE SPRINKLER SYSTEMS ARE INSTALLED TO NFPA 13 STANDARDS. UPON COMPLETION, SPRINKLER CONTRACTOR TO PROVIDE REPRODUCIBLE DRAWING (AT 1=100 SCALE) AND HYDRAULIC CALCULATIONS OF AS-BUILT CONDITION.
- SPRINKLER CONTRACTOR'S "PROFESSIONAL ENGINEER" TO PROVIDE O.B.C. AND NFPA REQUIRED INSPECTION AND CERTIFICATION.
- REFER TO ARCHITECTURAL DRAWINGS FOR REFLECTED CEILING PLAN.
- PROVIDE SPRINKLER HEAD TYPES AS FOLLOWS:
  - PROVIDE UPRIGHT HEADS WITHIN 12" OF EXPOSED DECK THROUGHOUT EXPOSED STRUCTURE AREAS. PROVIDE HEAD GUARDS IN GYM, AREAS WHERE HEADS ARE BELOW 8'-0" & STORAGE ROOMS.
  - PROVIDE CONCEALED PENDENT HEADS IN CEILINGS OF UNSUPERVISED AREAS (CORRIDORS, CHANGE ROOMS AND WASHROOMS). COVER PLATE FINISH SELECTED BY CONSULTANT.
  - PROVIDE CONCEALED HEADS IN ALL OTHER CEILING AREAS OF SUPERVISED AREAS (CLASSROOMS, OFFICES, SEMINAR ROOMS, etc.). COVER PLATE FINISH SELECTED BY CONSULTANT.
- SPRINKLER HEADS TO BE IN CENTRELINE OF CEILING TILE. MINIMUM 150mm (6") FROM EDGE.
- FINAL NUMBER AND LOCATION OF SPRINKLER HEADS TO BE DETERMINED BY CONTRACTOR'S HYDRAULIC CALCULATIONS AND APPROVED DRAWINGS.
- SPRINKLER PIPING TO BE COORDINATED WITH OTHER SERVICES PRIOR TO INSTALLATION
- COORDINATE LOCATION OF INSPECTOR'S TEST CONNECTION WITH CONSULTANT PRIOR TO INSTALLATION.
- PROVIDE SPRINKLER HEADS UNDER ALL DUCTWORK AND EQUIPMENT OVER 1200mm WIDE.
- COMMISSIONING OF INTEGRATED TESTING OF FIRE PROTECTION AND LIFE SAFETY SYSTEM.
  - SPRINKLER CONTRACTOR TO PROVIDE SERVICES WITH THE FIRE COMMISSIONING AGENT (FCA) TO MEET THEIR REQUIREMENTS OF ADMINISTRATION, VERIFICATION, AND FINAL SIGNOFF TO THE LOCAL AUTHORITIES AND CONSULTANT. THE FCA IS BEING RETAINED BY THE ELECTRICAL CONTRACTOR, HOWEVER, THIS CONTRACTOR'S WORK TO SATISFY THE FCA REQUIREMENTS SHALL BE INCLUDED IN THE TENDER PRICE.
  - CHECK/TEST: MOVEMENT OF ALL VALVES, CREATE WATER FLOW AT ALL DEVICES TO VERIFY DETECTION AT FIRE ALARM PANEL, OPERATION OF ALL PUMPS &/OR COMPRESSORS.
  - PERFORM ALL WORK IN ACCORDANCE WITH NFPA 13.
  - RETURN SPRINKLER/STANDPIPE SYSTEM TO NORMAL OPERATION ON COMPLETION OF TESTING



PROVIDE NEW CONCEALED SPRINKLER HEADS AND ASSOCIATED SPRINKLER PIPING AS REQUIRED TO SUIT NEW LAYOUT.

**GROUND FLOOR RENOVATION PART PLAN – SPRINKLER**  
 SCALE: 1:50

MECHANICAL SPECIFICATION

PART A GENERAL NOTES

- 1. PROVIDE LABOUR, MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE INSTALLATION WITH QUALITY WORKMANSHIP ACCEPTABLE TO OWNER AND CONSULTANT.
2. OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES, AND OTHER COSTS INCURRED WITH THIS WORK. FILE ALL PLANS, OBTAIN ALL NECESSARY APPROVALS, CERTIFICATES, SUBMIT ALL FINAL CERTIFICATES TO THE CONSULTANT, COMPLY WITH RULES AND RECOMMENDATIONS OF THE BOARD OF FIRE UNDERWRITERS, THE CANADIAN GAS ASSOCIATION, THE LOCAL BUILDING CODE, AND ALL REQUIREMENTS OF THE LOCAL UTILITY COMPANY AND BY-LAWS. POST BUILDING PERMIT AT THE SITE IN ACCORDANCE WITH O.B.C. REQUIREMENTS.
3. VISIT THE SITE BEFORE SUBMITTING TENDERS TO EVALUATE ANY SITE CONDITIONS THAT MIGHT ARISE. INCLUDE ALL SITE CONDITIONS IN TENDER, EXTRAS WILL NOT BE ACCEPTED UNLESS BELIEVED TO BE REASONABLE BY THE OWNER AND CONSULTANT.
4. COORDINATE WITH OTHER CONTRACTORS INSTALLING EQUIPMENT OR MATERIAL AND ARRANGE EQUIPMENT IN PROPER RELATION WITH ALL OTHER TRADES. ENSURE SYSTEMS ARE SERVICEABLE.
5. CUTTING AND PATCHING SHALL BE BY THE CONTRACTOR REQUIRED TO INSTALL THE SERVICE.
6. THE DRAWINGS ARE DIAGRAMMATIC. THE SERVICES SHALL BE INSTALLED TO CONSERVE HEADROOM AND INTERFERE AS LITTLE AS POSSIBLE WITH THE FREE USE OF THE SPACES THROUGH WHICH THEY PASS.
7. PROVIDE TWO MARKED COPIES OF "RECORD DRAWINGS" SHOWING THE SYSTEM AS INSTALLED.
8. THE MECHANICAL SYSTEMS OF THIS BUILDING MUST ACHIEVE THE ENERGY EFFICIENCY LEVELS BY CONFORMING TO ANSI/ASHRAE/IESNA 90.1 "ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS" AND CHAPTER 2 OF DIVISION 3 OF SB-10 PRESCRIPTIVE METHOD FROM THE ONTARIO BUILDING CODE.
9. ALL EQUIPMENT AND MATERIAL SHALL BE NEW. REPLACE ALL DAMAGED EQUIPMENT.
10. MATERIAL AND EQUIPMENT ARE NAMED IN THE SPECIFICATION TO ESTABLISH AN ACCEPTABLE STANDARD OF MATERIALS AND THE QUALITY OF WORKMANSHIP BY WHICH TO ADHERE.
11. SUBMIT SHOP DRAWINGS ELECTRONICALLY FOR ALL EQUIPMENT. THESE WILL BE REVIEWED BY THE CONSULTANT. RESUBMIT AS OFTEN AS MAY BE FOUND NECESSARY. SUBMIT ONE COMPLETE SUBMISSION INDEXED AND LABELED FOR THIS PROJECT.
12. PROVIDE ALL NECESSARY PROTECTION FOR FINISHED OR UNFINISHED WORK. ALL OPENINGS IN PIPES, DUCTS AND EQUIPMENT SHALL BE CAPPED TO ENSURE SERVICES ARE KEPT CLEAN WHEN NOT IN USE.
13. MAINTAIN INSURANCE TO FULLY PROTECT THE CONTRACTOR, OWNER AND CONSULTANT FROM ANY AND ALL CLAIMS SUCH AS UNDER THE WORKERS COMPENSATION ACT, ETC. POST PROJECT NOTIFICATION AT THE SITE IN ACCORDANCE WITH THE MINISTRY OF LABOUR REQUIREMENTS.
14. EXCAVATION AND BACK FILLING SHALL BE BY THE TRADE INSTALLING THE SERVICE. PROVIDE COMPACTED 'A' GRAVEL FOR BEDDING AND BACKFILLING AS INDICATED. REMOVE SURPLUS MATERIAL FROM SITE.
15. PROVIDE STRUCTURAL SUPPORTS, PLATFORMS, SUPPORTING RODS, HANGERS, INSERTS AND BRACKETS FOR EQUIPMENT AND SERVICES. DO NOT SUPPORT SERVICES FROM STEEL DECK.
16. INSTRUCT THE OWNER'S STAFF IN THE CARE, MAINTENANCE AND OPERATION OF THE SYSTEMS.
17. SUBMIT TWO (2) COPIES OF OPERATING AND MAINTENANCE INSTRUCTIONS IN A 3 RING BINDER LABELED FOR THE PROJECT.
18. REMOVE ALL PROTECTIVE COVERINGS, CLEAN AND POLISH ALL EQUIPMENT, FREE ALL OBSTRUCTIONS, CLEAN AND REPLACE ALL FILTERS WITH NEW, AND LEAVE ALL KEYS AND WRENCHES WITH THE OWNER.
19. ALL SURPLUS AND WASTE MATERIALS SHALL BE PROMPTLY REMOVED FROM THE PREMISES.
20. ALL AREAS NOT AFFECTED BY RENOVATION OR DEMOLITION SHALL REMAIN AS PRESENTLY INSTALLED UNLESS NOTED OTHERWISE.
21. THE OWNER WILL DECIDE WHICH ITEMS OR EQUIPMENT SLATED FOR REMOVAL THAT THEY WISH TO RETAIN AS THEIR PROPERTY AND THIS CONTRACTOR SHALL REMOVE ALL OTHER MATERIALS FROM THE PREMISES.
22. PROVIDE LAMICOID TAGS FOR IDENTIFICATION OF NEW EQUIPMENT ADDED.
23. ALL ELECTRICAL LINE AND LOW VOLTAGE WIRING WHICH IS TO BE PROVIDED BY THE MECHANICAL CONTRACTOR AS SPECIFIED ELSEWHERE HEREIN SHALL BE RUN IN EMT CONDUIT TO STANDARDS OF THE ELECTRICAL DIVISION.
24. WARRANTY ALL MATERIAL AND EQUIPMENT FOR A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OF SYSTEM.
25. LOCATION OF EXISTING UNDERGROUND SERVICES
THIS CONTRACTOR SHALL LOCATE EXISTING SERVICES PRIOR TO STARTING ANY WORK IN THE AFFECTED AREA. THIS CONTRACTOR SHALL USE A VIDEO CAMERA FOR THE EXISTING STORM AND/OR SANITARY DRAINAGE AT THE INDICATED CONNECTION POINT TO CONFIRM LOCATION, SIZE AND INVERT OF THE EXISTING PIPING.
26. EXISTING CONCRETE SLAB X-RAY/SCANNING
THIS CONTRACTOR SHALL RETAIN THE SERVICES OF A QUALIFIED COMPANY TO PROVIDE AND X-RAY AND/OR SCAN OF THE EXISTING BURIED SERVICES IN WALL AND/OR FLOORS PRIOR TO STARTING ANY WORK IN THE AFFECTED AREA. FAILURE TO LOCATE EXISTING PIPING, CONDUIT REBAR ETC., SHALL NOT RELIEVE THIS CONTRACTOR OF REPAIR OF SAME PRIOR TO INSTALLING HIS SERVICE. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS AND/OR REPLACEMENT OF EXISTING SERVICES CAUSED BY CUTTING THE EXISTING CONCRETE SLABS AND/OR WALLS.
27. PIPE SLEEVES
PROVIDE SCHEDULE 40 STEEL PIPE SLEEVES AT POINTS WHERE PIPES PASS THROUGH MASONRY, CONCRETE OR FIRE RATED ASSEMBLIES AND AS INDICATED. GROUT SLEEVES IN PLACE. MINIMUM 6 MM (1/4") CLEARANCE ALL AROUND, BETWEEN SLEEVE AND UNINSULATED PIPE OR BETWEEN SLEEVE AND INSULATION. CAULK BETWEEN SLEEVE AND PIPE IN FOUNDATION WALLS AND BELOW GRADE FLOORS WITH WATERPROOF FIRE RETARDANT NON-HARDENING MASTIC. WHERE SLEEVES PASS THROUGH WALLS OR FLOORS, PROVIDE SPACE FOR FIRESTOPPING. WHERE PIPES PASS THROUGH FIRE RATED WALLS, FLOORS AND PARTITIONS, MAINTAIN FIRE RATING INTEGRITY. ENSURE NO CONTACT BETWEEN COPPER TUBE OR PIPE AND FERROUS SLEEVE. FILL FUTURE-USE SLEEVES WITH LIME PLASTER OR OTHER EASILY REMOVABLE FILLER. COAT EXPOSED EXTERIOR SURFACES OF FERROUS SLEEVES WITH HEAVY APPLICATION OF ZINC RICH PAINT TO CGSB 1-GP-181M+AMD-T-MAR-78.
28. DUCT SLEEVES
PROVIDE MINIMUM 20 GAUGE DUCT SLEEVES WHERE DUCTS PASS THROUGH MASONRY, CONCRETE OR FIRE RATED ASSEMBLIES. MAINTAIN MINIMUM 25 MM CLEARANCE ALL AROUND OR TO THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. SEAL AT WALL AS INDICATED. WHERE DUCTS PASS THROUGH FIRE RATED WALLS, FLOORS AND PARTITIONS, MAINTAIN FIRE RATING INTEGRITY.

PART B DEMOLITION NOTES

- 1. THIS PROJECT IS ONE OF A RETROFIT NATURE IN PART, AND WHICH WILL REQUIRE SOME DEMOLITION. ALLOW FOR ALL REMEDIAL WORK IN AREAS INDICATED ON THE DRAWINGS AND AS GENERALLY DEFINED IN THE RELEVANT SECTIONS OF THE SPECIFICATIONS.
2. THE SCOPE OF WORK IS ESSENTIALLY THE SELECTED DISCONNECTION AND/OR REMOVAL OF SERVICES AND/OR EQUIPMENT, PIPING, DUCTWORK ETC. AS INDICATED OR REQUIRED TO COMPLETE THE WORK.
3. THIS DIVISION IS TO LAISE WITH THE OWNERS OR CONSULTANT FOR EQUIPMENT BEING REMOVED THAT MAY BE SUITABLE FOR REUSE TO THAT SPECIFIED OR HANDED OVER TO THE OWNER.
4. THIS DIVISION TO TAKE FULL RESPONSIBILITY FOR ANY SPECIAL TOOLS OR EQUIPMENT REQUIRED TO DISASSEMBLE OR REMOVE MATERIAL FROM BUILDING.
5. THE GENERAL EXECUTION OF THE DEMOLITION IS TO BE CARRIED OUT IN A CLEAN AND EFFICIENT MANNER.
6. DEMOLITION OF EXISTING CEILING, WALLS ETC., TO FACILITATE REMOVAL OF EXISTING SERVICES OR EQUIPMENT OR INSTALLATION OF NEW TO BE KEPT TO A MINIMUM AND THEN RESTORED TO MATCH EXISTING.
7. ALL OPENINGS OR HOLES CREATED BY REMOVAL OF EXISTING MECHANICAL SYSTEMS WHICH ARE NOT BEING REUSED ARE TO BE PATCHED WITH THE SAME MATERIAL SURROUNDING SURFACES.
8. PROTECT ALL EXISTING FURNISHINGS MATERIALS AND EQUIPMENT. ANY DAMAGE OCCURRING AS A RESULT OF THE WORK OF THIS DIVISION SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THIS DIVISION.
9. WHERE WORK INVOLVES BREAKING INTO OR CONNECTING TO EXISTING SERVICES, CARRY OUT WORK AT TIMES DIRECTED BY THE OWNERS IN AN EXPEDITED MANNER WITH MINIMUM DISRUPTION TO THE FACILITY AND SYSTEMS DOWNTIME.
10. WHERE UNKNOWN SERVICES ARE ENCOUNTERED, IMMEDIATELY ADVISE CONSULTANT AND CONFIRM FINDINGS IN WRITING.
11. WHERE THE LOCATION OF ANY SERVICES HAS BEEN SHOWN ON THE PLANS, SUCH INFORMATION IS NOT GUARANTEED. IT IS THIS DIVISION'S RESPONSIBILITY TO VERIFY LOCATIONS, INVERT ELEVATIONS, ETC., IMMEDIATELY AFTER MOVING ON SITE. SHOULD FOR ANY REASON THE INFORMATION OBTAINED NECESSITATES CHANGES IN PROCEDURE OR DESIGN, ADVISE THE CONSULTANT AT ONCE. IF VERIFICATION OF EXISTING CONDITIONS IS NOT DONE AT THE OUTSET AND ANY PROBLEMS ARISE, THE RESPONSIBILITY FOR SAME IS ENTIRELY THIS DIVISION'S.
12. DISCONNECT AND/OR REMOVE EQUIPMENT PIPING, DUCTWORK, ETC. AS INDICATED.

- 13. CAP AND CONCEAL ALL REDUNDANT AND OBSOLETE CONNECTIONS.
14. PROVIDE A LIST OF EQUIPMENT TO BE REMOVED TO THE OWNER, FOR HIS ACCEPTANCE OF SAME. REMOVE ALL EQUIPMENT FROM SITE WHICH THE OWNER DOES NOT RETAIN.
15. MAINTAIN EQUIPMENT TO BE RETAINED BY OWNER ON SITE WHERE DIRECTED BY CONSULTANT.
16. DEMOLITION OF ALL PARTS OF THE WORK MUST BE COMPLETED WITHIN THE CONFINES OF THE WORK AREA AND IN SUCH A WAY AS THE DUST PRODUCED AND RISK TO INJURY OF WILL NOT ADVERSELY AFFECT THE BUILDING USERS.
17. DEMOLISHED AREAS OF THE EXISTING BUILDING WILL REMAIN IN THEIR CURRENT USE IN SOME CASES. DEMOLITION IN THESE AREAS MUST BE KEPT TO THE MINIMUM REQUIRED TO COMPLETE THE WORK.
18. DEMOLITION SHALL TAKE PLACE WITHIN AREAS ISOLATED FROM ALL OTHER AREAS WITH APPROPRIATE HOARDING, SCAFFOLDING, NETTING, FENCING OR OTHER MEANS OF SECURITY BETWEEN BUILDING USERS AND THE WORK.
19. CO-ORDINATE MAKING SAFE ELECTRICAL DEVICES, CAPPING PLUMBING AND REMOVAL OF FIXTURES PRIOR TO COMMENCEMENT OF DEMOLITION.
20. ALL PIPING AND EQUIPMENT TO BE REMOVED AND/OR ABANDONED SHALL BE DRAINED PRIOR TO CAPPING AND/OR ABANDONING. DISPOSAL OF ALL LIQUIDS SHALL BE TO THE APPROVAL OF AUTHORITY OF HAVING JURISDICTION AND/OR PROVINCIAL REGULATIONS.
21. DRAIN ALL EXISTING PIPING AND DRAINAGE SYSTEMS INCLUDING ALL RELATED EQUIPMENT AS REQUIRED TO FACILITATE SYSTEM RENOVATIONS.
22. DISPOSAL OF EXISTING SYSTEM SHALL BE TO THE REQUIREMENTS OF THE LOCAL AND/OR PROVINCIAL REGULATIONS.

PART C PLUMBING NOTES

- 1. CONTRACTOR TO PROVIDE POTABLE WATER CERTIFICATE FOR E. COLI AND COLIFORM FROM A RECOGNIZED TESTING LABORATORY UPON COMPLETION OF THE PROJECT. WATER IS TO BE TAKEN FROM A NEW FIXTURE TO TEST THE NEW PIPING INSTALLED.
2. SERVICES
CONNECT TO EXISTING SERVICES WHERE SHOWN ON DRAWINGS.
3. CODES AND REGULATIONS
SANITARY, SOIL WASTE, VENT, AND ALL WATER PIPING SHALL CONFORM AND BE INSTALLED TO THE ONTARIO PLUMBING CODE AND THE CANADIAN PLUMBING CODE, LATEST EDITION.
4. TESTING
SANITARY PIPING: ALL SANITARY PIPING SHALL BE TESTED WITH WATER UNDER THE GUIDANCE OF THE LOCAL PLUMBING INSPECTOR. SMOKE TESTS OR ANY OTHER TEST REQUIRED BY THE PLUMBING INSPECTOR SHALL ALSO BE MADE. WATER PIPING: ALL WATER PIPING SHALL BE TESTED TO 150 PSI. PRESSURE FOR NOT LESS THAN FOUR HOURS WITHOUT A LOSS IN PRESSURE.
FLUSHING AND DISINFECTING
MAINTAIN TESTABLE RP BACKFLOW PREVENTOR BETWEEN MUNICIPAL WATER AND NEW PLUMBING SYSTEM. ENSURE A MINIMUM OF WORKING PLUMBING FIXTURES ARE INSTALLED. FLUSH WATER MAINS THROUGH AVAILABLE OUTLETS WITH A SUFFICIENT FLOW OF POTABLE WATER TO PRODUCE A VELOCITY OF 1.5 M/S, WITHIN PIPE FOR 10 MIN, OR UNTIL FOREIGN MATERIALS HAVE BEEN REMOVED AND FLUSHED WATER IS CLEAR WITH BACKFLOW PROTECTION. PROVIDE CONNECTIONS AND PUMPS FOR FLUSHING AS REQUIRED, OPEN AND CLOSE VALVES, AND OPERATE FIXTURES TO ENSURE THOROUGH FLUSHING. TAKE WATER SAMPLES AT REMOTE FIXTURES AND SERVICE CONNECTIONS.
5. PIPE AND FITTINGS
SANITARY AND VENT DRAINS: (ABOVE GRADE), MEDIUM WEIGHT CAST IRON WITH MECHANICAL RUBBER JOINTS OR TYPE DWV COPPER PIPE. SANITARY AND VENT PIPING: (BELOW GRADE) PVC DRAINAGE PIPE TO SDR 35 WITH SOLVENT WELDED JOINTS. ABS DRAINAGE PIPE WITH SOLVENT WELDED JOINTS. WATER PIPING: TYPE L COPPER WITH LEAD FREE SOLDER JOINTS.
6. VALVES
ISOLATION VALVES: HOT AND COLD WATER BRONZE BODY, CLASS 150, STAINLESS STEEL BALL, FULL PORT, PTFE SEAT AND PACKING, STEEL LEVER HANDLE. MILWAUKEE BA-455, CRANE, TOYO CHECK VALVES: HOT AND COLD WATER SIZES 1/2" DIAMETER TO 2" DIAMETER CRANE FIG. 1342, OR EQUAL. JENKINS, BRONZE SWING CHECK, SOLDER ENDS. CRANE FIG. 29 OR EQUAL JENKINS VERTICAL LIFT CHECK VALVE, SCREWED ENDS ON VERTICAL PIPING.
7. TRAP PRIMERS
TRAP PRIMERS: ALL TRAPS WHERE REQUIRED BY THE CODE TO BE PRIMED OR WHERE SHOWN ON THE DRAWINGS SHALL HAVE MIFAB-MR-ENC-AG OR EQUAL PRESSURE DROP ACTIVATED TRAP SEAL PRIMER INSTALLED IN THE NEAREST COLD WATER LINE TO THE TRAP. TRAP PRIMER SHALL BE CONCEALED, PROVIDED WITH ENCLOSURE FOR INSTALLATION IN WALL AND HAVE INTEGRAL AIR GAP FOR BACKFLOW PREVENTION, PROVIDE ACCESS DOOR.
8. PLUMBING FIXTURES
FIXTURES AS LISTED ON THE DRAWINGS. ALL FIXTURES MUST BE NEW AND CLEAN WHEN THE WORK IS TAKEN OVER BY THE OWNER. ALL PLUMBING FIXTURES SHALL BE EQUIPPED WITH SUPPLY VALVES, FAUCETS, TRAPS, SUPPORTS, WATER CONNECTIONS, ESCUTCHEONS, HANGERS, BOLTS, SCREWDRIVER STOPS, ETC. TRAPS: 2" DIAMETER AND SMALLER, SHALL BE CAST BRASS AND CHROME PLATED IN EXPOSED AREAS. ALL SINK TRAPS SHALL BE TWO PIECE CONSTRUCTION. ALL TRIM MUST BE CAMBRIDGE BRASS OR EQUAL. ON COMPLETION ALL FIXTURES, ACCESSORIES AND EXPOSED PIPING SHALL BE THOROUGHLY CLEANED AND LEFT READY FOR USE. AFTER FINAL INSPECTION BY THE PLUMBING INSPECTOR CAULK AROUND BASE OF ALL FIXTURES TO THE WALL OR FLOOR WITH SILICONE CAULKING.
9. PIPE INSULATION
INSULATE ALL DOMESTIC HOT AND COLD WATER PIPING ABOVE GRADE, WITH 1" (FOR PIPING UNDER 1 1/2" DIAMETER) OR 1 1/2" (FOR PIPING 1 1/2" DIAMETER AND HIGHER) FIBERGLASS INSULATION WITH VAPOUR BARRIER. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS. RECOVER EXPOSED PIPING WITH 6 OZ. CANVAS JACKET AND TWO COATS LAGGING ADHESIVE.

PART D SPRINKLER NOTES

- 1. SERVICES
CONNECT TO EXISTING SERVICES WHERE SHOWN ON DRAWINGS.
2. CODES AND REGULATIONS
ALL SPRINKLER PIPING, SPACING AND EQUIPMENT SHALL CONFORM TO THE ONTARIO BUILDING CODE, NFPA-13 AND THE AUTHORITIES HAVING JURISDICTION.
3. TESTING
PIPING SHALL BE TESTED TO NFPA-13 REQUIREMENTS.
4. PRODUCTS
PIPE AND FITTINGS:
50 MM (2") AND SMALLER: SCHEDULE 40 STEEL PIPE WITH SCREWED FITTINGS.
65 MM (2 1/2") AND LARGER: SCHEDULE 10 STEEL PIPE WITH VICTAULIC FITTINGS.
PIPE HANGERS:
ULC LISTED FOR FIRE PROTECTION SERVICES.
5. SPRINKLER HEADS:
GENERAL: TO NFPA-13 AND ULC LISTED FOR FIRE SERVICES.
SPRINKLER HEADS SHALL BE FULLY CONCEALED WITH WHITE COVER. VIKING MODEL B-1 OR EQUAL. COORDINATE LOCATION WITH REFLECTED CEILING PLANS.
6. ENGINEERING DESIGN CRITERIA
DESIGN SYSTEM IN ACCORDANCE WITH ONTARIO FIRE MARSHALL, LOCAL AUTHORITY HAVING JURISDICTION, OWNERS, UNDERWRITERS AS REQUIRED, AND NFPA 13, USING FOLLOWING PARAMETERS:
HAZARD TO SUIT OCCUPANCY.
PIPE SIZE AND LAYOUT:
HYDRAULIC DESIGN OR PIPE SCHEDULE SIZING DESIGN.
SPRINKLER HEAD LAYOUT: TO NFPA 13 OR AS DIRECTED BY AUTHORITIES HAVING JURISDICTION, AND/OR AS INDICATED.
7. WATER SUPPLY:
CONDUCT FLOW AND PRESSURE TEST OF WATER SUPPLY IN VICINITY OF PROJECT TO OBTAIN CRITERIA FOR BASES OF DESIGN IN ACCORDANCE WITH NFPA 13. INDICATE LOCATION AND FLOW ON SHOP DRAWINGS.
8. ZONING:
SYSTEM ZONING AS INDICATED IN ACCORDANCE WITH NFPA 13.
9. PROVIDE COMPLETE DRAWINGS AND CALCULATIONS STAMPED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO.
10. PROFESSIONAL ENGINEER SHALL PROVIDE ON SITE REVIEW AND CERTIFICATION FOR LOCAL BUILDING CODE REVIEW.
11. INSTALLATION: INSTALL, INSPECT AND TEST TO ACCEPTANCE IN ACCORDANCE WITH ANSI/NFPA-13. TESTING TO BE WITNESSED BY AUTHORITY HAVING JURISDICTION. SPACE HANGERS AND SUPPORT OF SPRINKLER PIPING IN ACCORDANCE WITH NFPA REGULATIONS. PROTECT EXPOSED WORK. DO NOT COVER OR CONCEAL PIPING ACCESSORIES OR WORK PRIOR TO INSPECTION AND APPROVAL BY AUTHORITIES HAVING JURISDICTION. ADJUST EQUIPMENT TO SATISFACTION OF AUTHORITY HAVING JURISDICTION AND CONSULTANT. PROTECT EQUIPMENT DURING PAINTING. REPLACE DAMAGED AND PAINTED COMPONENTS. COORDINATE THE SPRINKLER PIPING AND EQUIPMENT WITH THAT OF OTHER TRADES ON THE JOB. MAINS

AND BRANCHES SHALL BE RUN SO AS NOT TO INTERFERE WITH BUILDING'S STRUCTURE, MECHANICAL OR ELECTRICAL INSTALLATIONS, GUARANTEE THAT THE SYSTEMS AND EQUIPMENT BE INSTALLED IN ACCORDANCE WITH ALL LOCAL AND PROVINCIAL BY-LAWS AND THE RULES AND REGULATIONS OF THE INSURANCE UNDERWRITERS AND THE BUILDING CODE OF ONTARIO.
12. WATER FLOW TEST
PROVIDE A FLOW TEST TO APPROVAL OF LOCAL FIRE DEPARTMENT AND LOCAL WATER COMMISSION AT NEAREST FIRE HYDRANT ADJACENT TO BUILDING TO DETERMINE WATER FLOW RATE AND PRESSURE. PROVIDE WRITTEN TEST RESULTS WITH SHOP DRAWING SUBMISSION.
PROVIDE A FORWARD FLOW TEST THRU THE BYPASS TO PROVE SYSTEM DEMAND CAN BE PROVIDED THRU THE BACKFLOW PREVENTOR.

PART D HYDRONIC HEATING

- 1. HEATING WATER PIPING:
SCHEDULE 40 STEEL PIPE TO ASTM 53, GRADE B
PIPING NPS 2 AND UNDER SHALL BE MALLEABLE IRON 150 LB SCREWED FITTINGS WITH PULVERIZED LEAD PASTE.
PIPING NPS 2 1/2 AND OVER SHALL BE WELDED FITTINGS AND STEEL FLANGES TO ANSI/ASME B16.5.
2. VALVES:
BALL VALVES: CLASS 125 SCREWED ENDS, STAINLESS STEEL BALL AND TEFLON SEATS.
CHECK VALVES: CLASS 125 WITH COMPOSITION DISC TO MSS SP-80.
BALANCING VALVES: BELL AND GOSSETT MODEL CB.
3. PIPE INSULATION:
INSULATE ALL HEATING WATER PIPING WITH 1 1/2" FIBERGLASS INSULATION WITH VAPOUR BARRIER. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS. RECOVER EXPOSED PIPING WITH PVC JACKET.
4. CONVECTOR:
1.6 MM (1/16 GAUGE) THICK STEEL WITH ROUNDED EXPOSED CORNERS AND EDGES, REMOVABLE PANELS, GLASS FIBRE INSULATION AND INTEGRAL AIR OUTLET AND INLET.
PUMP: ALUMINUM FINS MECHANICALLY BONDED TO COPPER TUBES IN COILS, HYDROSTATICALLY TESTED TO 1 MPA (145 PSI).
5. FILLING OF SYSTEM
REFILL SYSTEM WITH CLEAN WATER ADDING WATER TREATMENT AS SPECIFIED.
THIS CONTRACTOR SHALL CONTACT WATER TREATMENT SUPPLIER AND CO-ORDINATE WATER TREATMENT OF NEW SYSTEM. REFILL HEATING SYSTEM WITH SAME SOLUTION ON SITE.
6. FLUSHING AND CLEANING
PROCEDURE: FLUSHING AND CLEANING SHOULD ONLY TAKE PLACE AFTER SUCCESSFUL PIPING PRESSURE TESTING. TERMINAL DEVICE (PERIMETER RADATION, ETC.), AND THEIR ASSOCIATED CONTROL AND BALANCING VALVES SHOULD BE BYPASSED DURING THE PRELIMINARY FLUSHING AND CLEANING PROCESS. INSTRUMENTS SUCH AS FLOW METERS, FLOW METERING VALVES AND ORIFICE PLATES SHOULD ONLY BE INSTALLED AFTER FLUSHING AND CLEANING.
PRELIMINARY FLUSHING AND CLEANING PROCESS:
THE OVERALL CONSTRUCTION SCHEDULE IDENTIFIES PIPING FLUSHING AND CLEANING WITH REALISTIC TIME ALLOTMENTS. AS A MINIMUM, AT LEAST ONE PIPING FLUSHING AND CLEANING PROCEDURE SHALL BE WITNESSED, BY THE CONSULTANT AND/OR COMMISSIONING AGENT.
THE INSTALLED, FLUSH WATER MAINS CONTRACTOR SHALL UTILIZE THE EXISTING WATER TREATMENT SPECIALIST TO SUPERVISE THE FLUSHING AND CLEANING PROCESS AND PROVIDE THE CERTIFIED WATER ANALYSIS REPORT CERTIFYING THAT THE PIPING SYSTEMS ARE CLEAN. FLUSH AND CLEAN NEW PIPING SYSTEM IN PRESENCE OF CONSULTANT. FLUSH AFTER PRESSURE TEST FOR A MINIMUM OF 4 HRS.
FILL SYSTEM WITH SOLUTION OF WATER AND NON-FOAMING, PHOSPHATE-FREE DETERGENT 3% SOLUTION BY WEIGHT. CIRCULATE FOR MINIMUM OF 8 HRS.
THOROUGHLY FLUSH ALL NEW MECHANICAL SYSTEMS AND EQUIPMENT WITH APPROVED CLEANING CHEMICALS DESIGNED TO REMOVE DEPOSITION FROM CONSTRUCTION SUCH AS PIPE DOPE, OILS, LOOSE MILL SCALE AND OTHER EXTRANEOUS MATERIALS. CHEMICALS TO INHIBIT CORROSION OF VARIOUS SYSTEM MATERIALS AND BE SAFE TO HANDLE AND USE.
DURING CIRCULATION OF CLEANING SOLUTION, PERIODICALLY EXAMINE AND CLEAN FILTERS AND SCREENS AND MONITOR CHANGES IN PRESSURE DROP ACROSS EQUIPMENT. REFILL SYSTEM WITH CLEAN WATER. CIRCULATE FOR AT LEAST 2 HOURS. CLEAN OUT STRAINER SCREENS/BASKETS REGULARLY. THEN DRAIN. DRAINAGE TO INCLUDE DRAIN VALVES, DIRT POCKETS, STRAINERS, EVERY LOW POINT IN SYSTEM. DRAIN AND FLUSH SYSTEMS UNTIL ALKALINITY OF RINSE WATER IS EQUAL TO MAKE-UP WATER. REFILL WITH CLEAN WATER TREATED TO PREVENT SCALE AND CORROSION DURING SYSTEM OPERATION. REPEAT SYSTEM DRAIN AND FLUSH AS OFTEN AS NECESSARY TO HAVE A CLEAN SYSTEM. RE-INSTALL STRAINER SCREENS/BASKETS ONLY AFTER OBTAINING CONSULTANT'S APPROVAL AND APPROVAL FROM HVAC WATER TREATMENT CONTRACTOR. DISPOSAL OF CLEANING SOLUTIONS TO BE APPROVED BY AUTHORITY HAVING JURISDICTION. ISOLATE NEW PIPING SYSTEM FROM EXISTING SYSTEM AS REQUIRED FOR SYSTEM CLEANING.
7. EXISTING SYSTEM DRAINAGE
DRAIN EXISTING HOT HYDRONIC SYSTEM AS REQUIRED TO FACILITATE SYSTEM RENOVATIONS.
DISPOSAL OF EXISTING SYSTEM SHALL BE TO THE REQUIREMENTS OF THE LOCAL AND/OR PROVINCIAL REGULATIONS.
8. FLUSHING AND CLEANING

PART E HEATING, AIR CONDITIONING, AND VENTILATION NOTES

- 1. DUCTWORK TO BE CONSTRUCTED TO SMACNA STANDARDS, MEDIUM STATIC PRESSURE WITH LEAKAGE RATE OF 5% MAXIMUM. FABRICATED IN ACCORDANCE WITH RECOMMENDATIONS OF SMACNA AND ASHRAE. SEAL ALL TRANSVERSE AND LONGITUDINAL JOINTS WITH DUCT SEALER.
2. ROUND AND OVAL DUCTS: FACTORY FABRICATED, SPIRAL WOUND, WITH MATCHING FITTINGS AND SPECIALS TO SMACNA. TRANSVERSE JOINTS UP TO 900 MM (36"); SLIP TYPE WITH TAPE AND SEALANTS.
3. SQUARE AND RECTANGULAR DUCTS: TO SMACNA. TRANSVERSE JOINTS, LONGEST SIDE UP TO AND INCLUDING 750 MM (30"): SMACNA PROPRIETARY DUCT JOINTS.
4. DAMPERS
ALL DAMPERS TO TO SMACNA RECOMMENDATIONS AS MINIMUM ACCEPTABLE STANDARD. SPLITTER DAMPERS OF SAME MATERIAL AS DUCT BUT ONE SHEET METAL THICKNESS HEAVIER WITH APPROPRIATE STIFFENING, CUT AIRFOIL SHAPE, PIANO HINGE PIVOT, WITH CONTROL ROD WITH LOCKING DEVICE AND POSITION INDICATOR ON EXTERIOR OF DUCT. SINGLE BLADE BALANCING ROUND AND RECTANGULAR, MAXIMUM 100MM (4") HIGH, OR SAME MATERIAL AS DUCT BUT ONE SHEET METAL THICKNESS HEAVIER (MINIMUM 16 GAUGE), V-GROOVE STIFFENED WITH LOCKING QUADRANT. MULTI-LEAF OPPOSED BLADE DAMPERS DESIGNED TO SMACNA DETAILS. SELF-LUBRICATING NYLON BEARINGS. SHAFT EXTENSION TO ACCOMMODATE INSULATION THICKNESS, WITH LOCKING QUADRANT. MANUFACTURED ADJUSTABLE EXTRACTORS TO BE WITH ADJUSTMENT ROD. ACCEPTABLE PRODUCTS: TITUS, NAILOR OR EQUAL.
5. FIRE DAMPERS
UL OR ULC AND SHALL MEET REQUIREMENTS OF NFPA 90A-1978.
FACTORY FABRICATED FOR FIRE RATING REQUIREMENTS TO MAINTAIN INTEGRITY OF MEMBRANE BEING INSTALLED. MILD STEEL, FIRE LINK ACTUATED TOP, ROUND OR SQUARE GULLOTINE TYPE, WEIGHTED TO CLOSE AND LOCK IN CLOSED POSITION WHEN RELEASED. ROLL DOOR TYPE IN HORIZONTAL POSITION WITH VERTICAL AIRFLOW. SIZED TO MAINTAIN FULL FLOW CROSS SECTION OF DUCT (TYPE B).
6. FLEXIBLE CONNECTIONS
AT ALL DUCT CONNECTIONS TO FANS AND AIR HANDLING UNITS. NEOPRENE COATED GLASS FABRIC, NOT MORE THAN 6" LONG BETWEEN METAL PARTS INSTALLED SUFFICIENT SLACK TO PREVENT VIBRATION TRANSMISSION. ALLOW MOVEMENT (2") TO LOW PRESSURE FANS.
7. DUCTWORK INSULATION
ON THE LAST 5'-0" OF ALL EXHAUST DUCTS, INCLUDING PLENUM AND ALL AIR INTAKE DUCTWORK. FIBERGLASS FOIL FACED RIGID DUCT INSULATION 1" THICK TYPE PF-335-3/4 LB. DENSITY WITH RFRK FACING. GLUE AND PIN AS PER MANUFACTURERS RECOMMENDATIONS.
8. SYSTEM BALANCING
BALANCE AIR USING NEBB CERTIFIED OR AABC FIRM AND AS PER NEBB REQUIREMENTS TO WITHIN 5% OF TOTAL SYSTEM CAPACITY. PROVIDE 3 COPIES OF BALANCING REPORTS C/W SYSTEM SCHEMATICS. TAB CONTRACTORS MAY QUOTE: AIR AUDIT INC., CLARK BALANCING, AIRWASO, DYNAMIC FLOW BALANCING, AIR VELOCITIES CONTROL, FLOWSET BALANCING.
9. PROVIDE A DDC CONTROL SYSTEM AS AN EXPANSION OF THE EXISTING BUILDING AUTOMATION CONTROLS. PROVIDE NEW TEMPERATURE CONTROL VALVE AND THERMOSTAT. MODULATE THE TEMPERATURE CONTROL VALVE TO MAINTAIN ROOM TEMPERATURE. ADD TO BAS GRAPHICS.
10. ALTERNATES AND SUBSTITUTES
SHOULD ELECTRICAL CHARACTERISTICS FOR "ALTERNATE" OR "EQUAL" EQUIPMENT DIFFER FROM EQUIPMENT SPECIFIED IT SHALL BE THE RESPONSIBILITY OF THE EQUIPMENT MANUFACTURER TO PAY ALL COSTS ASSOCIATED WITH THE REVISIONS TO THE ELECTRICAL CONTRACT.

CLIENT LOGO



KEYPLAN

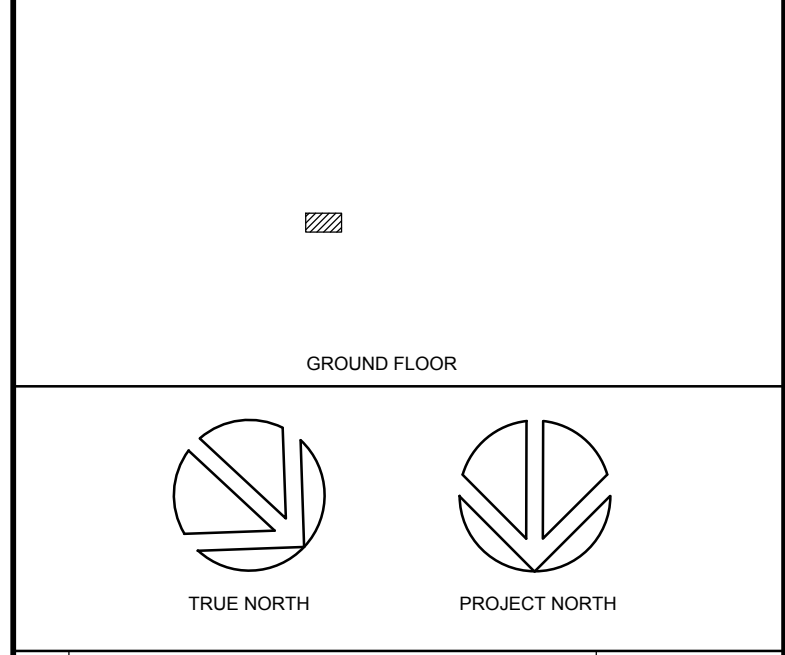


Table with 3 columns: No., ISSUANCE, DATE. Row 1: 1 ISSUED FOR 60% OWNER REVIEW 2024-02-12. Row 2: 2 ISSUED FOR 90% OWNER REVIEW 2024-03-08. Row 3: 3 ISSUED FOR BID AND PERMIT 2024-03-21.

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing. © 2024 DEI Consulting Engineers Inc.



CLIENT

WATERLOO REGION DISTRICT SCHOOL BOARD
51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT
KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOMS RENOVATION
787 King Street West, Kitchener, Ontario

TITLE
MECHANICAL SPECIFICATIONS



Table with 2 columns: SCALE, SHEET NO. Row 1: SCALE: As indicated, SHEET NO.: M401. Row 2: DATE: 03/06/24. Row 3: PROJECT NO.: 2023-0897-11. Row 4: DRAWN BY: JH. Row 5: CHECKED BY: CT.

**EXISTING PANEL 'LP-B1E' SCHEDULE**

VOLTAGE: 120/208 VOLTS  
 PHASE: 3P, 4W  
 MAINS: 225A  
 NEUTRAL BUS: FULL  
 MOUNTING: RECESSED  
 NOTES: EXISTING SQUARE D PRL SERIES, FED FROM DP-BB

AT THE COMPLETION OF THE PROJECT, PROVIDE A NEW TYPE WRITTEN PANEL DIRECTORY AND INCLUDE A COPY IN THE MAINTENANCE MANUALS

ER	CORRIDOR LIGHTS	15A	1	2	15A	RM 123 LIGHTS	ER
ER	EXISTING CIRCUIT	15A	3	4	15A	RM 120 LIGHTS	ER
ER	RM 122 LIGHTS	15A	5	6	15A	EXISTING CIRCUIT	ER
ER	GIRLS WR LIGHTS	15A	7	8	15A	RM 131 LIGHTS	ER
ER	RM 121 LIGHTS	15A	9	10	15A	RM 131 LIGHTS	ER
ER	EXISTING CIRCUIT	15A	11	12	15A	RM 130 LIGHTS	ER
ER	EXISTING CIRCUIT	15A	13	14	15A	RM 130 LIGHTS	ER
ER	EXISTING CIRCUIT	15A	15	16	15A	EXISTING CIRCUIT	ER
ER	EXISTING CIRCUIT	30A	17	18	15A	CORRIDOR REC.	ER
ER		2P	19	20	15A	RM 132 LIGHTS	ER
NB			21	22			NB
NB			23	24			NB
NB			25	26	100A	PANEL LP-B2E	ER
NB			27	28			ER
NB			29	30	3P		ER

**PROPOSED PANEL 'LP-B1E' SCHEDULE**

\* INDICATES 33mA GROUND FAULT STYLE BREAKER

ER	CORRIDOR LIGHTS	15A	1	2	15A	RM 123 LIGHTS	ER
ER	EXISTING CIRCUIT	15A	3	4	15A	RM 120 LIGHTS	ER
ER	RM 122 LIGHTS	15A	5	6	15A	EXISTING CIRCUIT	ER
ER	GIRLS WR LIGHTS	15A	7	8	15A	RM 131 LIGHTS	ER
ER	RM 121 LIGHTS	15A	9	10	15A	RM 131 LIGHTS	ER
ER	EXISTING CIRCUIT	15A	11	12	15A	RM 130 LIGHTS	ER
ER	EXISTING CIRCUIT	15A	13	14	15A	RM 130 LIGHTS	ER
ER	EXISTING CIRCUIT	15A	15	16	15A	EXISTING CIRCUIT	ER
ER	EXISTING CIRCUIT	30A	17	18	15A	CORRIDOR REC.	ER
ER		2P	19	20	15A	RM 132 LIGHTS	ER
NB	UNIVERSAL WR BIDET	20A	21	22	20A	UNIVERSAL WR HAND DRYER	NB
NB	WR POWER DOOR OPERATOR	15A	23	24	20A	WR 106 HAND DRYER	NB
NB	UNIVERSAL WR T-SLOT REC.	20A	25	26	100A	PANEL LP-B2E	ER
NB	WR PLUMBING FIXTURES	*15A	27	28			ER
NB	UNIVERSAL WR BF LIFT	20A	29	30	3P		ER

**DESIGNATION**

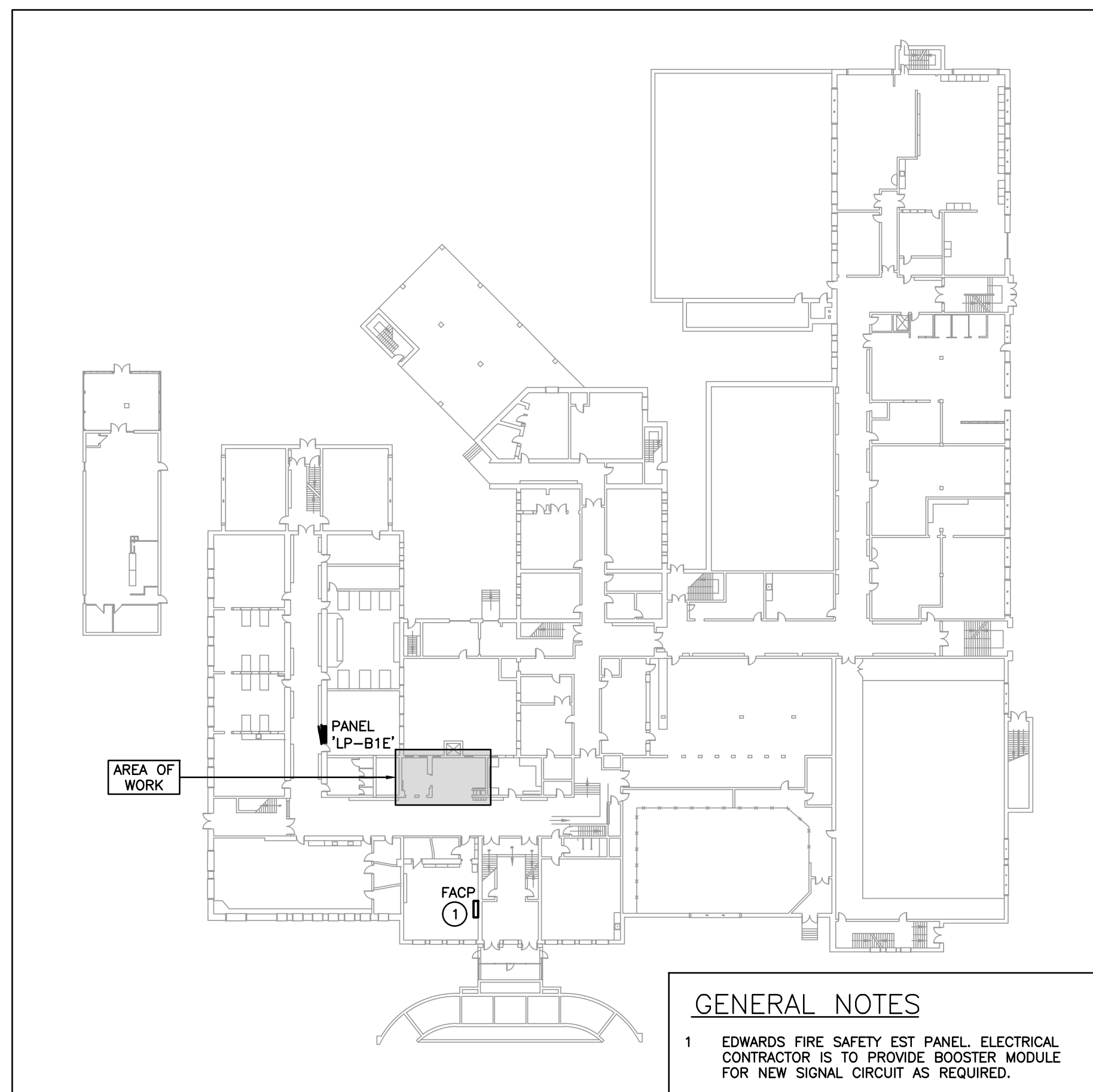
'ER' INDICATES EXISTING SERVICE AND BREAKER THAT SHOULD REMAIN UNTOUCHED  
 'SP' INDICATES EXISTING BREAKER THAT MAY BECOME SPARE DUE TO DEMOLITION. (CONFIRM ON SITE)  
 'RH' INDICATES EXISTING BREAKER THAT SHOULD BE REWIRED TO SERVICE DEVICES INDICATED ON PLAN  
 'SB' INDICATES SPARE BREAKER TO BE USED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

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

**LIGHT FIXTURE SCHEDULE**

Item	Manufacturer/Catalog Number	Voltage	Lamp	Mounting	Description
A	COOPER CAT. #14GR-LD5-42-A-UNV-LB40-CD1-SK-14-WX SIGNIFY CAT. #ZTC42LB40-4-FS-02F-UNV-DIM-FMA14	120V	LED 4300 LUMENS 4000K 42W	SURFACE	1X4 (305mmX1220mm) LED SURFACE MOUNT TROFFER C/W PATTERN 12 LENS AND WHITE FINISH.
B	COOPER CAT. #HC615D010-HM612840-61MDHWF LITHONIA CAT. #LDN6 40/15 LOGAR LSS MVOLT GZ1 TRW LIGHTOLIER CAT. #6RN-C6L15840M210U-C6RDLXX	120V	LED 1421 LUMENS 4000K 14.5W	RECESSED	RECESSED 6" (150mm) DIAMETER LED DOWNLIGHT C/W SELF-FLANGED 60 DEGREE BEAM REFLECTOR, SEMI-SPECULAR CLEAR FINISH, AND 0-10V DIMMING DRIVER. ARCHITECT TO CONFIRM FLANGE FINISH.
EMERG. BATT.	BEGHELLI NV12 SERIES: EM-1 #NV12-100/2SR EMERGITLITE CAT. #12LSE SERIES LUMACELL CAT. #RGS SERIES STANPRO CAT. #SLA-12 SERIES AIMLITE CAT. #EBST12 SERIES READY-LITE CAT. #LD12X SERIES	120V/12V	N/A	SURFACE	LONG LIFE, SEALED BATTERY, C/W MICRO SIZE 12V 4W (MINIMUM) LED HEADS.

**NOTES:** ① WHERE NOTED ABOVE THAT FIXTURES ARE TO HAVE FINISH TO SUIT ARCHITECT THE FINISH WILL BE SELECTED FROM MANUFACTURER'S OPTIONAL COLOUR CHART (i.e. RAL COLOURS OR EQUAL). PROVIDE THIS COLOUR CHART WITH SHOP DRAWING SUBMITTAL.  
 ② LED LUMEN VALUES QUOTED FOR FIXTURES ARE TO BE CONSIDERED MINIMUM, AND AS ABSOLUTE OR DELIVERED LUMENS. LUMEN VALUES SHOULD NOT EXCEED MORE THAN 10% OF SPECIFIED OUTPUT.  
 ③ IF THERE ARE ANY DISCREPANCIES BETWEEN THE FIXTURE PART NUMBER AND DESCRIPTION, IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO BRING THESE TO THE ELECTRICAL CONSULTANT'S ATTENTION PRIOR TO TENDER CLOSE. NO EXTRAS WILL BE ENTERTAINED FOR FAILURE TO DO SO. FINAL FIXTURE CHARACTERISTICS AND DESCRIPTION WILL BE MARKED BY CONSULTANT AT TIME OF SHOP DRAWING REVIEW.



**GENERAL NOTES**  
 1 EDWARDS FIRE SAFETY EST PANEL. ELECTRICAL CONTRACTOR IS TO PROVIDE BOOSTER MODULE FOR NEW SIGNAL CIRCUIT AS REQUIRED.

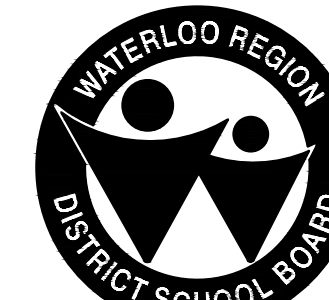
**OVERALL GROUND FLOOR PLAN**  
 SCALE: NTS

**ELECTRICAL SYMBOLS**

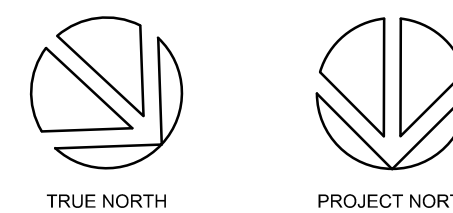
NOTE: ALL SYMBOLS MAY NOT BE USED

LIGHTING		ACCESS CONTROL	
[Symbol]	LIGHT FIXTURE TYPE AS INDICATED	[Symbol]	WALL MOUNTED RECEPTACLE (15A-120V)
[Symbol]	CEILING OR WALL MOUNTED LIGHT FIXTURE TYPE AS INDICATED	[Symbol]	WALL MOUNTED T-SLOT RECEPTACLE (20A-120V)
[Symbol]	WALL MOUNTED EXIT LIGHT SHADING INDICATES FACE	[Symbol]	T-SLOT RECEPTACLE MTD. ABOVE COUNTER (20A-120V)
[Symbol]	TWIN EMERGENCY LIGHTING FIXTURE	[Symbol]	RECEPTACLE MTD. ABOVE COUNTER S=SPLIT (15A-120V)
[Symbol]	BATTERY UNIT WITH INTEGRAL EMERGENCY FIXTURE (EM-X INDICATES BATTERY UNIT TYPE. DC-X INDICATES DC CIRCUIT, AND X-X INDICATES AC SOURCE CIRCUIT)	[Symbol]	DIRECT CONNECTION
[Symbol]	SINGLE POLE SWITCH (3=3 WAY, 4=4 WAY, P=PILOT LIGHT, K=KEYED, DM=DIMMER, M=MOTOR RATED)	[Symbol]	JUNCTION BOX
[Symbol]	OCCUPANCY SENSOR (PASSIVE)	[Symbol]	PANEL AS INDICATED
[Symbol]	CEILING MOUNTED MOTION SENSOR	[Symbol]	HAND DRYER
[Symbol]	ANALOG POWER PACK	[Symbol]	PUSH-BUTTON STATION (QUANTITY OF BUTTONS AS PER PLANS)
FIRE ALARM		GENERAL	
[Symbol]	SMOKE DETECTOR (RL=RELAY BASE)	[Symbol]	ELECTRIC STRIKE. CONFIRM ROUGHIN WITH DOOR HARDWARE.
[Symbol]	ALARM BELL	[Symbol]	"PUSH-TO-LOCK" BUTTON
[Symbol]	ALARM STROBE	[Symbol]	EMERGENCY PUSH BUTTON STATION
[Symbol]	CEILING MOUNTED SPEAKER	[Symbol]	"ASSISTANCE REQUIRED" DOME LIGHT WITH SOUNDER
[Symbol]	WALL MOUNTED SPEAKER (CS=COLUMN SPEAKER)	[Symbol]	"ASSISTANCE REQUIRED" INDICATOR LIGHT WITH SOUNDER
[Symbol]	CEILING MOUNTED SPEAKER	[Symbol]	INDICATED EXISTING ITEM TO REMAIN
[Symbol]	WALL MOUNTED SPEAKER (CS=COLUMN SPEAKER)	[Symbol]	INDICATES EXISTING ITEM TO BE DELETED
[Symbol]	CEILING MOUNTED SPEAKER	[Symbol]	INDICATES EXISTING ITEM TO BE RELOCATED/IN RELOCATED POSITION
STANDARD CIRCUIT LABELING		[Symbol]	GROUND FAULT
[Symbol]	POWER PANEL LABEL	[Symbol]	NOTE INDICATOR
[Symbol]	CIRCUIT INDICATION		
[Symbol]	SWITCH LEG (IF APPLICABLE)		

CLIENT LOGO



KEY PLAN



No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-02-12
2	ISSUED FOR 90% OWNER REVIEW	2024-03-08
3	ISSUED FOR BID AND PERMIT	2024-03-21

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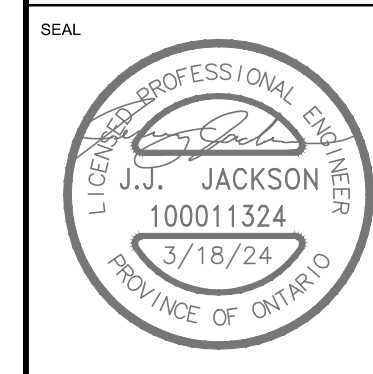


**CLIENT**  
 WATERLOO REGION DISTRICT SCHOOL BOARD  
 51 Ardelt Ave, Kitchener, ON N2C 2R5

**PROJECT**  
 KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOMS RENOVATION  
 787 King Street West, Kitchener, Ontario

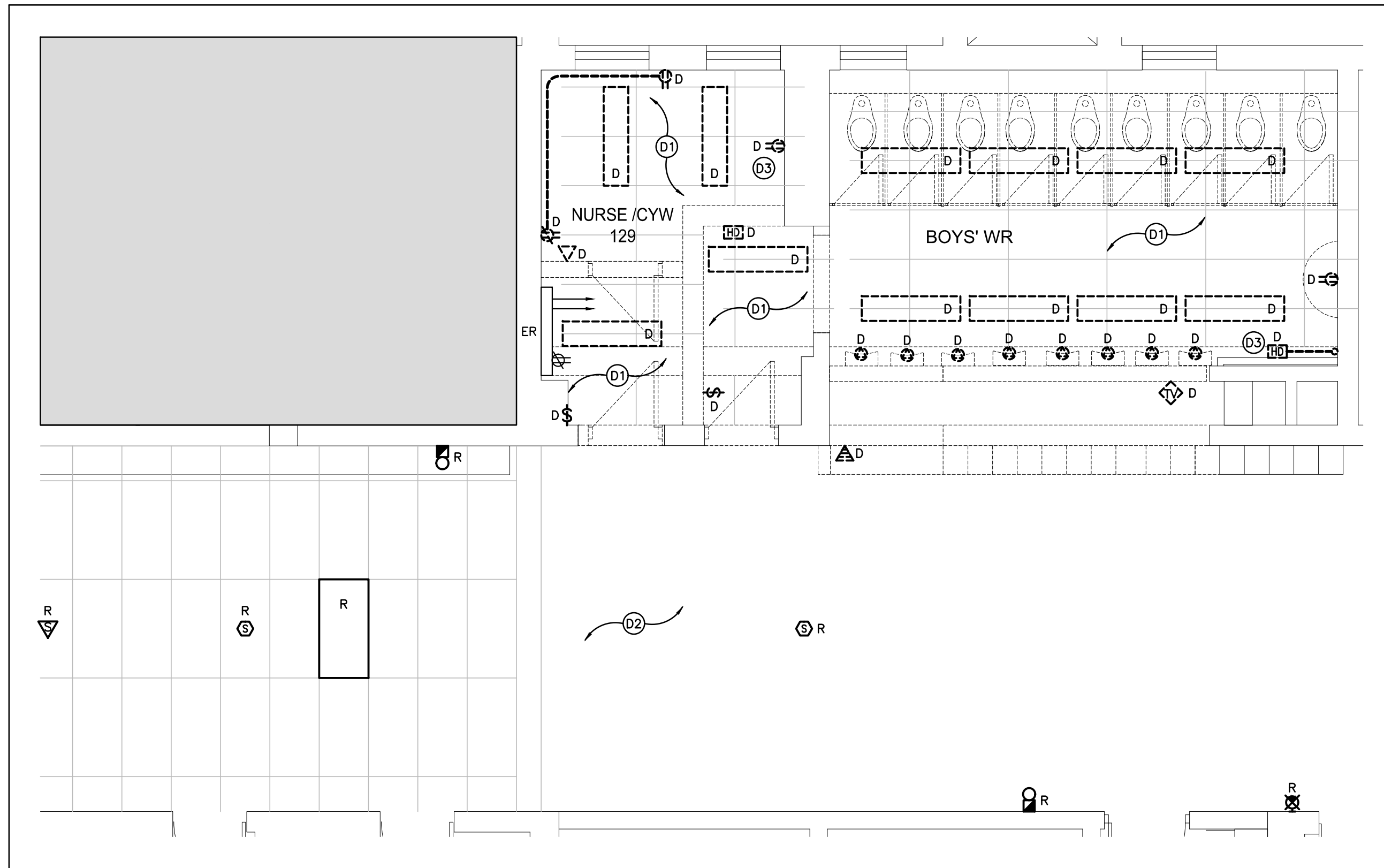
**TITLE**  
 OVERALL PLAN, LEGEND, AND SCHEDULES

**WALTERFEDY**  
 KITCHENER | HAMILTON | TORONTO  
 800.685.1378 walterfeddy.com



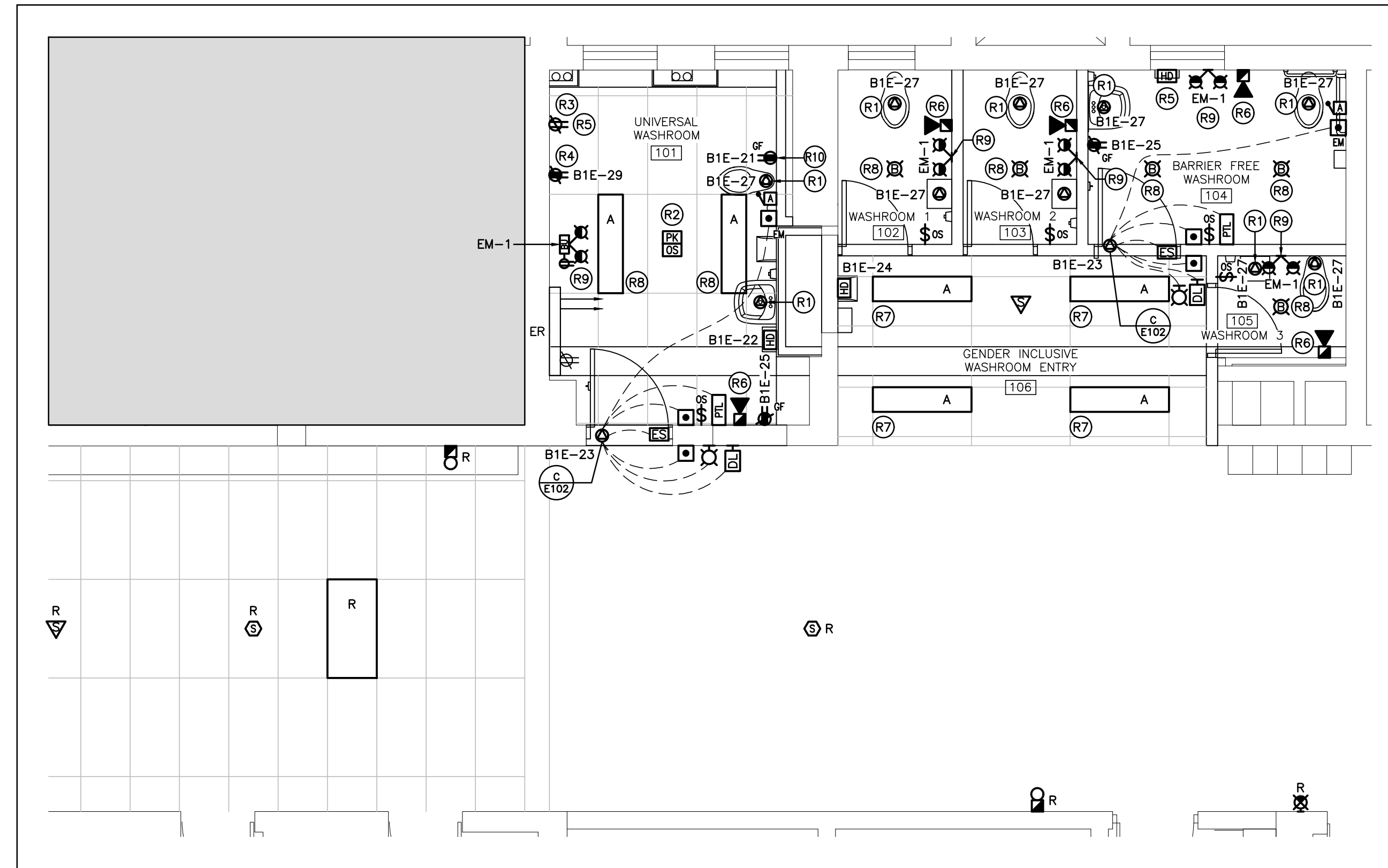
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 PROJECT NO: 2023-0897-11  
 DRAWN BY: JH  
 CHECKED BY: CT

**E101**



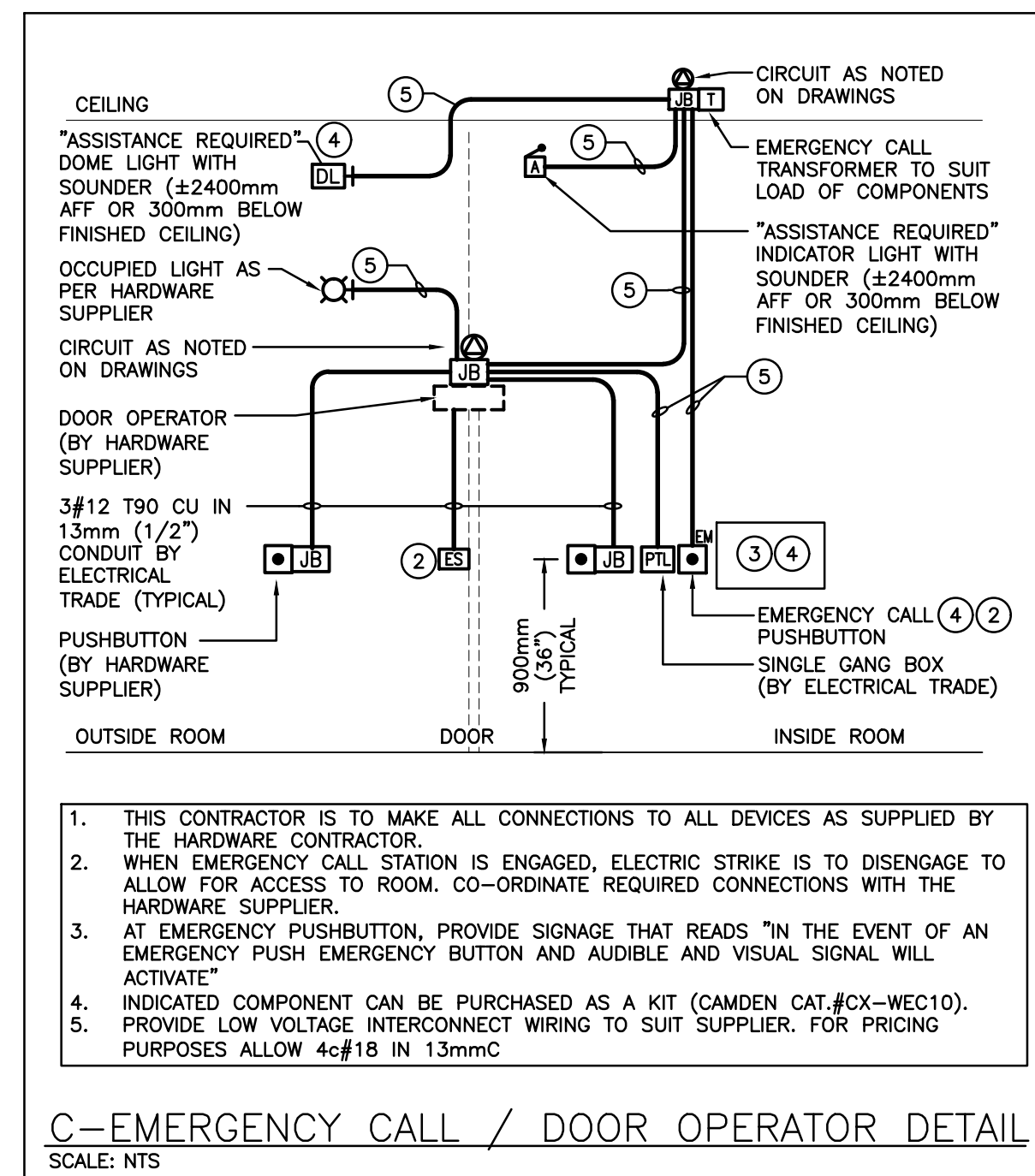
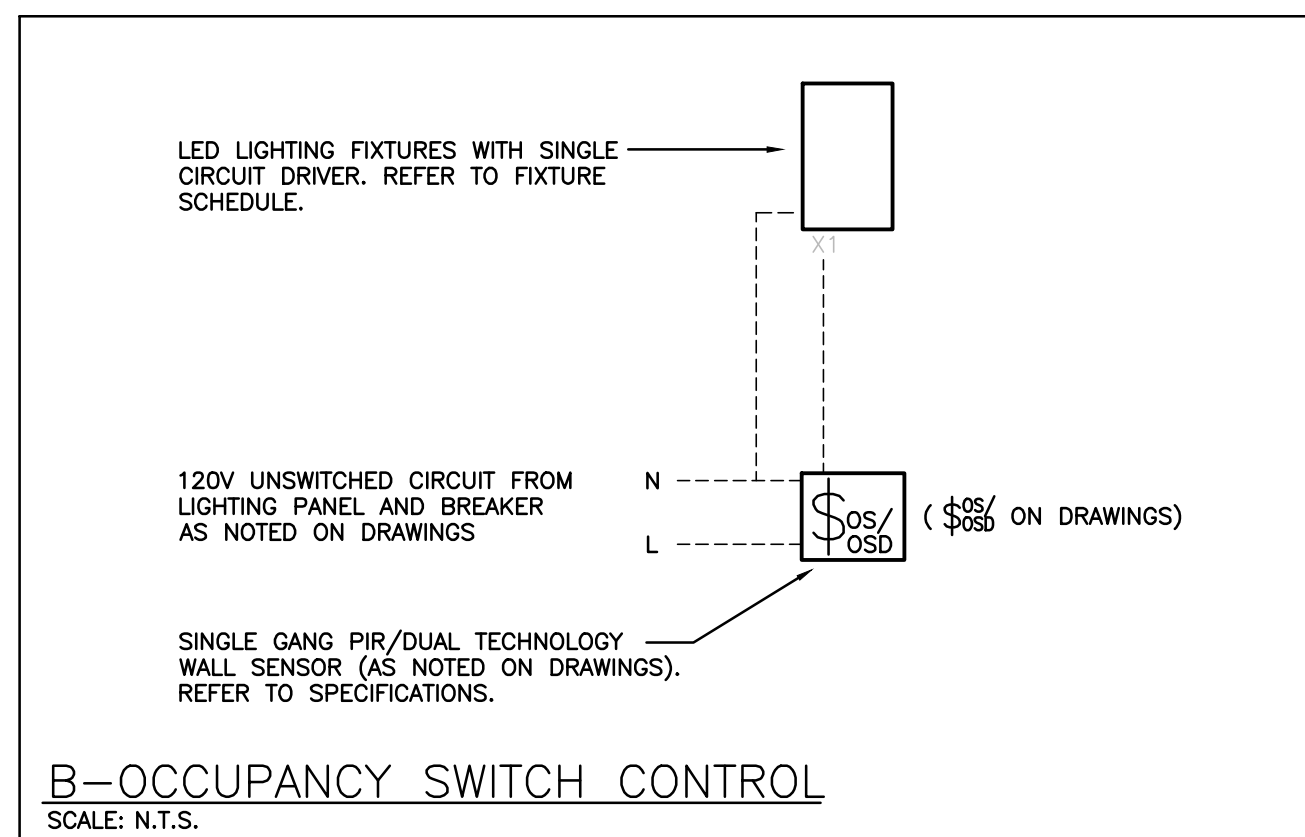
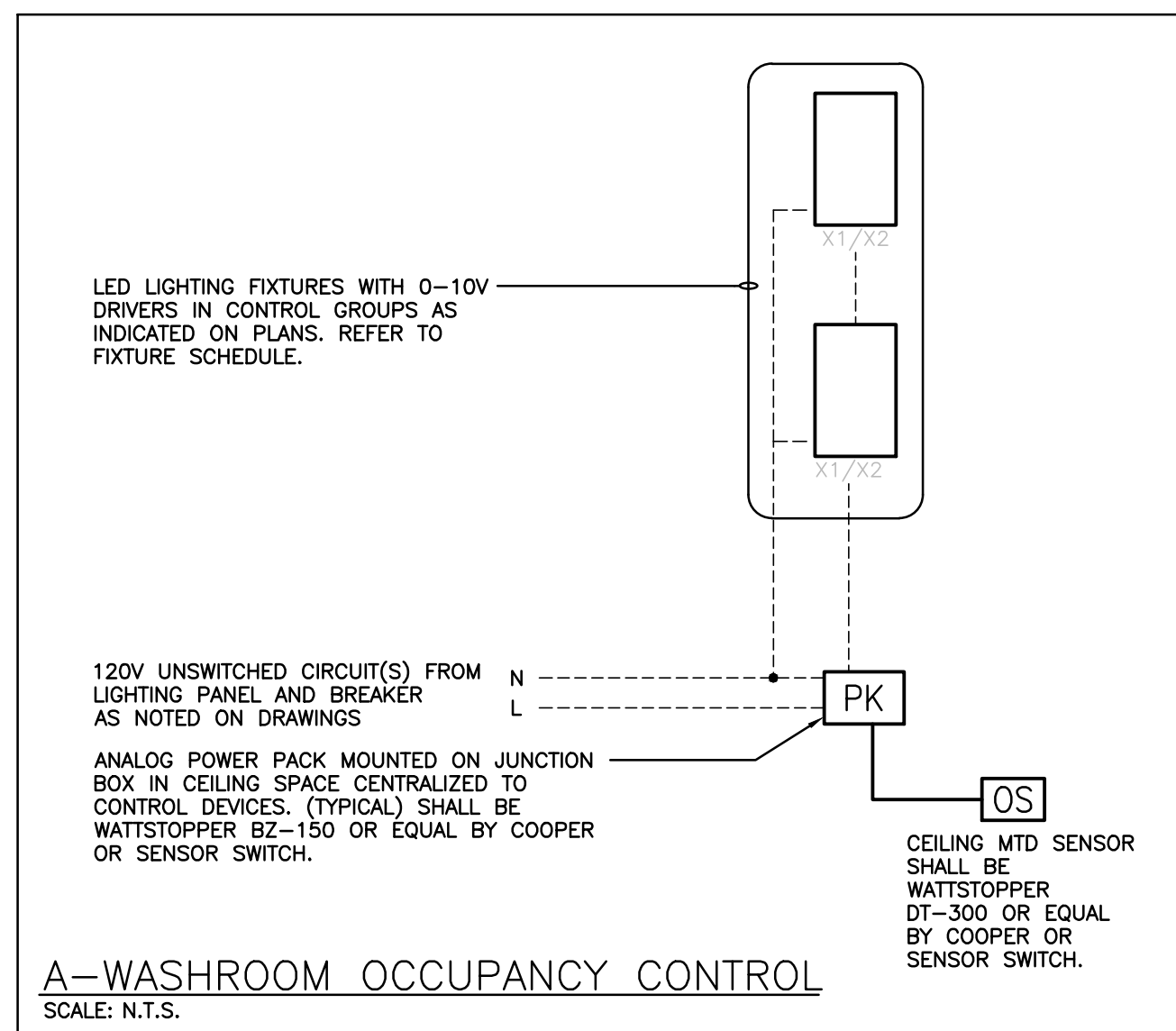
PARTIAL GROUND FLOOR PLAN - DEMOLITION

SCALE: 1:50



PARTIAL GROUND FLOOR PLAN - RENOVATION

SCALE: 1:50



**GENERAL DEMOLITION NOTES**

- 'ER' DENOTES EXISTING ITEM TO REMAIN.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- 'R' INDICATES EXISTING ITEM TO BE RELOCATED. REFER TO RENOVATION DRAWINGS AND RELOCATE DEVICE AND WIRING TO SUIT, UNLESS OTHERWISE NOTED.
- 'D' INDICATES EXISTING ITEM TO BE DELETED, UNLESS OTHERWISE NOTED DISCONNECT AND REMOVE NOTED DEVICE AND WIRING BACK TO SOURCE.
- ALL LIGHTING FIXTURES BEING RELOCATED SHALL BE CLEANED AND CHECKED PRIOR TO BEING REINSTALLED.

**SPECIFIC DEMOLITION NOTES**

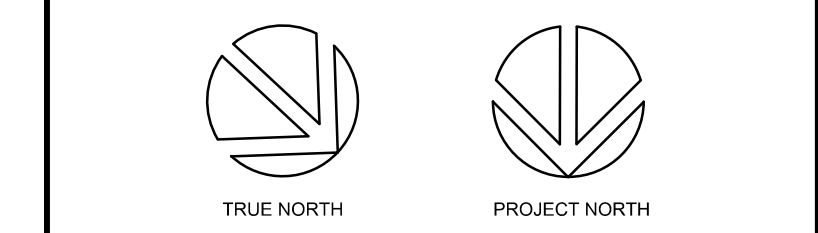
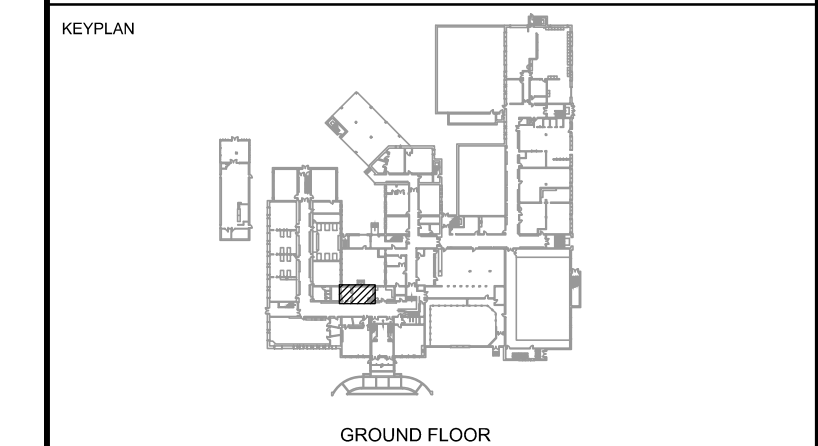
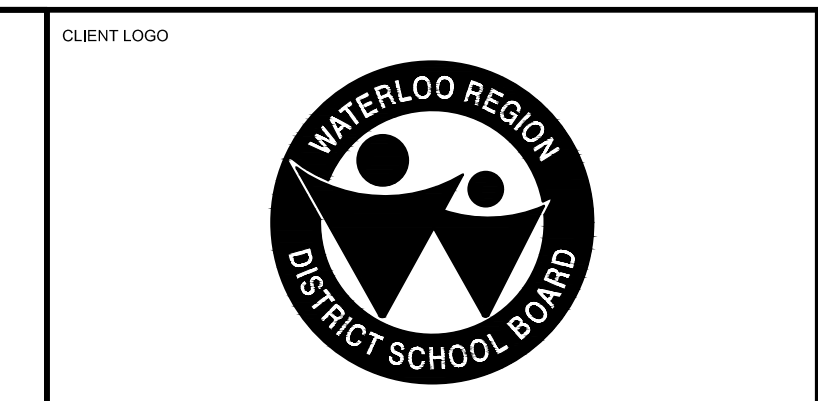
- DISCONNECT AND REMOVE EXISTING LIGHTING FIXTURE(S) WITHIN THIS AREA. MAINTAIN EXISTING LIGHTING CIRCUIT FOR RECONNECTION TO NEW LIGHTING. CONTRACTOR IS TO EXTEND ALL WIRING AND CONDUIT TO SUIT. REFER TO RENOVATION PLANS FOR ADDITIONAL INFORMATION.
- THIS CONTRACTOR IS RESPONSIBLE TO REMOVE AND RE-INSTALL CEILING TILE AND CEILING DEVICES TO SUITE RENOVATION. ANY DAMAGED OR FINGERPRINTED TILE MUST BE REPLACED.
- DISCONNECT AND REMOVE EXISTING DEVICE. MAINTAIN EXISTING WIRING FOR RECONNECTION TO NEW DEVICE DURING RENOVATION. EXTEND WIRING/CONDUIT TO SUIT.

**GENERAL RENOVATION NOTES**

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

**SPECIFIC RENOVATION NOTES**

- INDICATES 120V FEED TO 24VDC STEP DOWN TRANSFORMER MOUNTED ABOVE CEILING OR AT A HIGH LEVEL FOR AUTOMATIC PLUMBING FIXTURE(S). COORDINATE WITH MECHANICAL TRADE.
- INDICATES POWER PACK(S) INSTALLED WITHIN ACCESSIBLE CEILING SPACE FOR CONTROL OF NOTED OCCUPANCY SENSOR(S). REFER TO DETAIL A/E102 FOR DETAILS.
- INDICATED RECEPTACLE FOR CHANGE TABLE, COORDINATE EXACT LOCATION ON SITE.
- INDICATED RECEPTACLE TO BE MOUNTED AT HIGH LEVEL FOR LIFT.
- CONNECT INDICATED DEVICE TO WIRING MADE AVAILABLE DURING DEMOLITION.
- CONNECT INDICATED DEVICE TO NEW FIRE ALARM SIGNAL CIRCUIT.
- CONNECT INDICATED FIXTURE TO THE EXISTING CORRIDOR LIGHTING CIRCUIT AND CONTROLS.
- CONNECT INDICATED FIXTURE TO LIGHTING CIRCUIT MADE AVAILABLE DURING DEMOLITION. CONNECT TO NEW CONTROLS AS NOTED ON PLANS.
- CONNECT INDICATED DEVICE TO LINE SIDE OF THE LOCAL LIGHTING CIRCUIT.
- INDICATES DEDICATED RECEPTACLE FOR BIDET. COORDINATE EXACT LOCATION ON SITE PRIOR TO INSTALLATION.



No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-02-12
2	ISSUED FOR 90% OWNER REVIEW	2024-03-08
3	ISSUED FOR BID AND PERMIT	2024-03-21

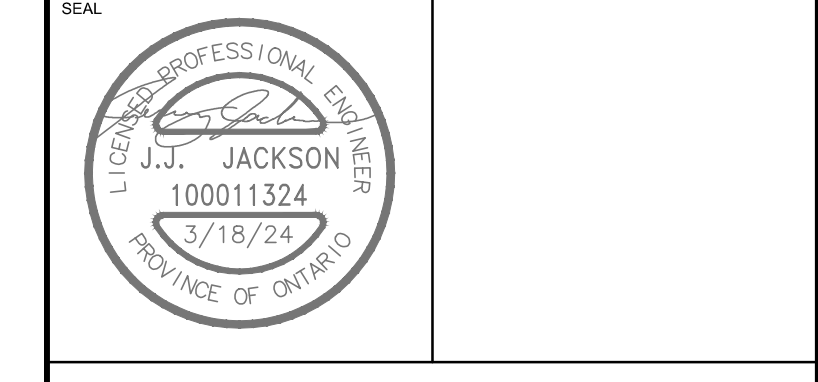
The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets, fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing. © 2024 DEI Consulting Engineers Inc.



CLIENT  
**WATERLOO REGION DISTRICT SCHOOL BOARD**  
51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT  
**KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOMS RENOVATION**  
787 King Street West, Kitchener, Ontario

TITLE  
**BATHROOM DEMOLITION AND RENOVATION PLANS**



SCALE:	As indicated	SHEET NO:	<b>E102</b>
DATE:	03/06/24		
PROJECT NO:	2023-0897-11		
DRAWN BY:	JH		
CHECKED BY:	CT		



ELECTRICAL SPECIFICATION

GENERAL NOTES

- 1 PROVIDE LABOUR MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE INSTALLATION WITH QUALITY WORKMANSHIP ACCEPTABLE TO THE OWNER, ARCHITECT AND CONSULTANT.
2 OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES AND OTHER COSTS INCURRED WITH THIS WORK. FILE ALL PLANS. OBTAIN NECESSARY APPROVALS, CERTIFICATES AND INSPECTIONS. SUBMIT ALL FINAL CERTIFICATES TO THE CONSULTANT.
3 COMPLY WITH RULES AND RECOMMENDATIONS OF THE BOARD OF UNDERWRITERS, ELECTRICAL SAFETY AUTHORITY, THE CANADIAN STANDARDS ASSOCIATION AND ALL REQUIREMENTS OF THE LOCAL UTILITY.
4 VISIT THE SITE BEFORE SUBMITTING TENDERS TO EVALUATE ANY SITE CONDITIONS THAT MIGHT ARISE. INCLUDE ALL SITE CONDITIONS IN TENDER, EXTRAS WILL NOT BE ACCEPTED UNLESS BELIEVED TO BE REASONABLE BY THE OWNER AND CONSULTANT.
5 CUTTING AND PATCHING SHALL BE BY THE CONTRACTOR REQUIRING TO INSTALL THE SERVICE.
6 THE DRAWINGS ARE DIAGRAMMATIC, THE SERVICES SHALL BE INSTALLED TO CONSERVE HEADROOM AND INTERFERE AS LITTLE AS POSSIBLE WITH THE FREE USE OF THE SPACES THROUGH WHICH THEY PASS.
7 SUBMIT COPIES OF SHOP DRAWINGS PDF FILES VIA EMAIL FOR ALL MAJOR EQUIPMENT. THESE WILL BE REVIEWED BY THE CONSULTANT. RESUBMIT AS OFTEN AS MAY BE FOUND NECESSARY.
8 PROVIDE ALL NECESSARY PROTECTION FOR FINISHED OR UNFINISHED WORK. ALL OPENINGS IN CONDUITS, DUCTS AND EQUIPMENT SHALL BE CAPPED TO ENSURE SERVICES ARE KEPT CLEAN WHEN NOT IN USE.
9 MAINTAIN INSURANCE TO FULLY PROTECT THE CONTRACTOR, OWNER AND CONSULTANT FROM ANY AND ALL CLAIMS SUCH AS UNDER THE WORKMEN'S COMPENSATION ACT, ETC. POST PROJECT NOTIFICATION AT THE SITE IN ACCORDANCE WITH THE MINISTRY OF LABOUR REQUIREMENTS.
10 PROVIDE STRUCTURAL SUPPORTS, PLATFORMS, SUPPORTING RODS, HANGERS, INSERTS AND BRACKETS FOR EQUIPMENT AND SERVICES. DO NOT SUPPORT SERVICES FROM STEEL DECK.
11 INSTRUCT THE OWNER'S STAFF IN THE CARE, MAINTENANCE AND OPERATION OF THE SYSTEMS.
12 WARRANTY ALL LABOUR, MATERIAL AND EQUIPMENT FOR A PERIOD OF TWO (2) YEARS AFTER FINAL ACCEPTANCE OF SYSTEM.
13 COORDINATE WITH OTHER CONTRACTORS INSTALLING EQUIPMENT OR MATERIAL AND ARRANGE EQUIPMENT IN PROPER RELATION WITH APPARATUS OF ALL OTHER TRADES.
14 PROVIDE LAMICOID TAGS FOR IDENTIFICATION OF NEW EQUIPMENT ADDED.
15 MOUNTING HEIGHTS SHALL BE AS FOLLOWS FROM FINISHED FLOOR TO CENTERLINE OF DEVICE/EQUIPMENT (UNLESS OTHERWISE NOTED):
- SWITCHES, DIMMERS AND SPEED CONTROLLERS: 1100mm (44")
- WALL RECEPTACLES:
- GENERAL: 400mm (16")
- ABOVE TOP OF COUNTERS: 100mm (4")
- IN MECHANICAL/ELECTRICAL ROOMS: 1100mm (44") (GANG WITH SWITCH).
- FIRE ALARM STROBES: 2250mm (7'-6")
16 ALL AREAS NOT AFFECTED BY RENOVATION OR DEMOLITION SHALL REMAIN AS PRESENTLY INSTALLED UNLESS OTHERWISE NOTED.
17 ALL EXISTING ELECTRICAL DEVICES, OUTLET BOXES, ETC., NOT SHOWN ON DRAWINGS OR MENTIONED IN THE FOLLOWING NOTES AND INSTALLED IN WALLS SLATED FOR DEMOLITION, SHALL BE DISCONNECTED AND REMOVED COMPLETELY IN ALL RESPECTS.
18 SUBMIT ONE COPY OF OPERATING AND MAINTENANCE INSTRUCTIONS IN A THREE RING BINDER LABELED FOR THE PROJECT COMPLETE WITH ITEMIZED SECTIONS CONTAINING PROJECT DATA, SHOP DRAWINGS, ETC. UPON ACCEPTANCE OF THE OPERATION AND MAINTENANCE MANUAL BY THE CONSULTANT PROVIDE TWO ADDITIONAL COPIES BOUND IN SEPARATE THREE RING BINDERS. A PDF FILE OF THE ENTIRE MANUAL IS TO BE PROVIDED ON A USB STICK. ONLY ONE USB STICK IS TO BE PROVIDED CONTAINING BOTH THE APPROVED MANUALS AND RECORD DRAWINGS.
19 CONTRACTOR SHALL PROVIDE 2 SETS OF REPRODUCIBLE ELECTRICAL DRAWINGS. MARK THEREON ALL CHANGES AS WORK PROGRESSES AND AS CHANGES OCCUR. THIS SHALL INCLUDE FIELD AND CONTRACT CHANGES TO ELECTRICAL SYSTEMS. IDENTIFY EACH DRAWING IN LOWER RIGHT HAND CORNER IN LETTERS AT LEAST 3mm (1/8") HIGH AS FOLLOWS: -- RECORD DRAWINGS: THIS DRAWING HAS BEEN REVISED TO SHOW ELECTRICAL SYSTEMS AS INSTALLED. (SIGNATURE OF CONTRACTOR)(DATE). SUBMIT HARD COPY TO CONSULTANT FOR APPROVAL. WHEN RETURNED, MAKE CORRECTIONS (IF ANY) AS DIRECTED. ONCE APPROVED, SUBMIT COMPLETED REPRODUCIBLE PAPER RECORD DRAWINGS AS WELL AS A SCANNED PDF COPY FILE ON USB STICK WITH OPERATING AND MAINTENANCE MANUALS.
20 THE CONTRACTOR WILL INCLUDE REDLINES FOR EACH AND EVERY ELECTRICAL DRAWING FOR DEI & ASSOCIATES INC. TO CAD THE RECORD DRAWINGS. THE CAD DRAWING FILES WILL BE PROVIDED TO THE OWNER AS PART OF THE MAINTENANCE MANUALS.

BASIC MATERIALS

- 1 JUNCTION, OUTLET AND PULL BOXES MUST BE APPROVED TO SUIT INSTALLATION METHODS AND ENVIRONMENT.
2 CONDUIT MUST BE CONCEALED UNLESS INSTALLED IN SERVICE OR STORAGE ROOMS.
3 CONDUIT MUST BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING LINES IN A NEAT AND WORKMANLIKE MANNER.
4 ALL FEEDER AND BRANCH CIRCUIT WIRING MUST BE COPPER, T90 RATING/STYLE RUN IN EMT CONDUIT WITH INTERNAL INSULATED GREEN GROUND WIRE UNLESS NOTED OTHERWISE. MINIMUM WIRE SIZE SHALL BE #12 AND MINIMUM CONDUIT SIZE SHALL BE 3/4" (19mm).
5 AC90 CABLE MAY BE USED FOR BRANCH CIRCUIT WIRING IN STEEL STUD WALLS AND "DROPS" IN T-BAR CEILING AREAS TO LIGHT FIXTURES AND FIRE ALARM DEVICES. LENGTH OF DROP MUST BE LIMITED TO 8'-0" (2400mm).
6 WHERE DEVICES ARE TO BE INSTALLED ON EXISTING WALLS IN FINISHED AREA, WHICH CANNOT BE FISHED, INSTALL FEEDS IN A SURFACE METAL RACEWAY EQUAL TO WIREMOLD V700 SERIES.
7 COLOUR CODE CONDUITS, BOXES AND METALLIC SHEATHED CABLES.
8 CODE WITH PLASTIC TAPE OR PAINT AT POINTS WHERE CONDUIT OR CABLE ENTERS WALL, CEILING, OR FLOOR, AND AT 15m(45') INTERVALS.
9 COLOUR BANDS MUST BE 25mm(1") WIDE AND CODED AS FOLLOWS FOR NOTED SYSTEMS.
SYSTEM COLOUR
UP TO 208V YELLOW
FIRE ALARM RED
10 THIS CONTRACTOR MUST PAINT ALL SYSTEM JUNCTION BOXES AND COVERS IN CONFORMANCE WITH THE ABOVE SCHEDULE.

DRAW BREAKDOWN

- 1 THIS CONTRACTOR MUST SUBMIT A BREAKDOWN OF THE TENDER PRICE INTO CLASSIFICATIONS TO THE SATISFACTION OF THE CONSULTANT, WITH THE AGGREGATE OF THE BREAKDOWN TOTALING THE TOTAL CONTRACT AMOUNT. EACH ITEM MUST BE BROKEN OUT INTO MATERIAL AND LABOUR COSTS. PROGRESS CLAIMS, WHEN SUBMITTED ARE TO BE ITEMIZED AGAINST EACH ITEM OF THE DRAW BREAKDOWN. THIS SHALL BE DONE IN TABLE FORM SHOWING CONTRACT AMOUNT, AMOUNT THIS DRAW, TOTAL TO DATE, % COMPLETE AND BALANCE.
2 BREAKDOWN SHALL BE AS FOLLOWS:
.1 PERMITS AND FEES
.2 MOBILIZATION (MAXIMUM 1%)
.3 DEMOLITION
.4 BRANCH CONDUITS
.5 BRANCH WIRING
.6 LIGHTING FIXTURES
.7 WIRING FOR MECHANICAL EQUIPMENT
.8 CONTRACT CLOSEOUT (MINIMUM 3% BUT NO LESS THAN \$1,000.00)
3 THE BREAKDOWN MUST BE APPROVED BY THE CONSULTANT PRIOR TO SUBMISSION OF THE FIRST DRAW.
4 BREAKDOWNS NOT COMPLYING TO THE ABOVE WILL NOT BE APPROVED.
5 BREAKDOWN MUST INDICATE TOTAL CONTRACT AMOUNT.
6 MOBILIZATION AMOUNT MAY ONLY BE DRAWN WHEN ALL REQUIRED SHOP DRAWINGS HAVE BEEN REVIEWED BY THE CONSULTANT.

SHOP DRAWINGS AND PRODUCT DATA

- 1 FURNISH COMPLETE CATALOG DATA FOR MANUFACTURED ITEMS OF EQUIPMENT TO BE USED IN THE WORK TO CONSULTANT FOR REVIEW WITHIN 30 DAYS AFTER AWARD OF CONTRACT.
2 IF MATERIAL OR EQUIPMENT IS NOT AS SPECIFIED OR SUBMITTAL IS NOT COMPLETE, IT WILL BE REJECTED BY CONSULTANT. ADDITIONAL SHOP DRAWINGS REQUIRED BY THE CONTRACTOR FOR MAINTENANCE MANUALS, SITE COPIES ETC., SHALL BE PHOTOCOPIES OF THE "REVIEWED" SHOP DRAWINGS. ALL COSTS TO PROVIDE ADDITIONAL COPIES OF SHOP DRAWINGS SHALL BE BORNE BY THE CONTRACTOR.
3 PARTIAL SUBMITTALS WILL NOT BE ACCEPTED.
4 CATALOG DATA OR SHOP DRAWINGS FOR EQUIPMENT, WHICH ARE NOTED AS BEING REVIEWED BY CONSULTANT OR HIS ENGINEER SHALL NOT SUPERSEDE CONTRACT DOCUMENTS.
5 REVIEW COMMENTS OF CONSULTANT SHALL NOT RELIEVE THIS DIVISION FROM RESPONSIBILITY FOR DEVIATIONS FROM CONTRACT DOCUMENTS UNLESS CONSULTANT'S ATTENTION HAS BEEN CALLED TO SUCH DEVIATIONS IN WRITING AT TIME OF SUBMISSION, NOR SHALL THEY RELIEVE THIS DIVISION FROM RESPONSIBILITY FOR ERRORS IN ITEMS SUBMITTED.
6 CHECK WORK DESCRIBED BY CATALOG DATA WITH CONTRACT DOCUMENTS FOR DEVIATIONS AND ERRORS.
7 SHOP DRAWINGS AND PRODUCT DATA SHALL SHOW:
.1 MOUNTING ARRANGEMENTS.
.2 OPERATING AND MAINTENANCE CLEARANCES. E.G. ACCESS DOOR SWING SPACES.
8 SHOP DRAWINGS AND PRODUCT DATA SHALL BE ACCOMPANIED BY:
.1 DETAILED DRAWINGS OF BASES, SUPPORTS, AND ANCHOR BOLTS.
.2 MANUFACTURER TEST DATA WHERE REQUESTED.
.3 MANUFACTURER TO CERTIFY AS TO CURRENT MODEL PRODUCTION.
.4 CERTIFICATION OF COMPLIANCE TO APPLICABLE CODES.
10 STATE SIZES, CAPACITIES, BRAND NAMES, MOTOR HP, ACCESSORIES, MATERIALS, GAUGES, DIMENSIONS, AND OTHER PERTINENT INFORMATION. LIST ON CATALOG COVERS PAGE NUMBERS OF SUBMITTED ITEMS. UNDERLINE APPLICABLE DATA.
11 ONCE THESE SHOP DRAWINGS ARE RETURNED "REVIEWED" OR "REVIEWED AS NOTED" FABRICATION, PRODUCTION, AND INSTALLATION MAY COMMENCE. NOTE: IF A SHOP DRAWING IS RETURNED "REVIEWED AS NOTED" THIS CONTRACTOR MUST PROVIDE WRITTEN INDICATION THAT THE COMMENTS HAVE BEEN COMPLIED WITH.
12 A PARTIAL LIST OF SHOP DRAWINGS INCLUDES:
.1 LUMINAIRES
.2 FIRESTOPPING MATERIALS
.3 HAND DRYERS
WIRING DEVICES
1 GENERAL PURPOSE AC SWITCHES MUST CONFORM TO CSA C22.2 NO. 111 (LATEST EDITION).
2 15 OR 20 A, 120 V, SINGLE POLE, DOUBLE POLE, THREE-WAY, OR FOUR-WAY SWITCHES.
3 INSTALL SWITCHES IN GANG TYPE OUTLET BOX WHEN MORE THAN ONE SWITCH IS REQUIRED IN ONE LOCATION.
4 RECEPTACLES, PLUGS, AND OTHER SIMILAR WIRING DEVICES MUST CONFORM TO CSA C22.2 NO. 42 (LATEST EDITION).
5 DUPLEX RECEPTACLES, CSA TYPE 5-15 R, 125 V, 15 A, U GROUND, WITH THE FOLLOWING FEATURES:
.1 UREA MOLDED HOUSING WITH COLOUR AS SELECTED BY ARCHITECT.
.2 SUITABLE FOR NO. 10 AWG FOR BACK AND SIDE WIRING.
.3 BREAK-OFF LINKS FOR USE AS SPLIT RECEPTACLES.
.4 EIGHT BACK WIRED ENTRANCES, FOUR SIDE WIRING SCREWS.
.5 TRIPLE WIRE CONTACTS AND RIVETED GROUNDING CONTACTS.
6 ACCEPTABLE MATERIALS:
.1 TAMPER RESISTANT RECEPTACLE: HUBBELL CAT. #BR1STR
.2 TAMPER RESISTANT T-SLOT RECEPTACLE: HUBBELL CAT. #BR20TR
.3 TAMPER RESISTANT GROUND FAULT PROTECTED RECEPTACLE: HUBBELL CAT. #GFTR15
.4 TAMPER RESISTANT GROUND FAULT PROTECTED T-SLOT RECEPTACLE: HUBBELL CAT. #GFTR20
7 OTHER RECEPTACLES WITH AMPACITY AND VOLTAGE AS INDICATED. COLOUR BY ARCHITECT.
8 ACCEPTABLE ALTERNATE MANUFACTURERS INCLUDE:
PASS & SEYMOUR
LEVITON
9 INSTALL DEVICES IN GANG TYPE OUTLET BOX WHEN MORE THAN ONE DEVICE IS REQUIRED IN ONE LOCATION.
10 SHEET STEEL UTILITY BOX COVER FOR WIRING DEVICES INSTALLED IN SURFACE MOUNTED UTILITY BOXES.
11 STAINLESS STEEL, VERTICALLY BRUSHED COVER PLATES FOR WIRING DEVICES MOUNTED IN FLUSH-MOUNTED OUTLET BOXES.
12 SHEET METAL COVER PLATES FOR WIRING DEVICES MOUNTED IN SURFACE-MOUNTED FS OR FD TYPE CONDUIT BOXES.
13 PROTECT STAINLESS STEEL COVER PLATE FINISH WITH PAPER OR PLASTIC FILM UNTIL PAINTING AND OTHER WORK IS FINISHED.
14 INSTALL SUITABLE COMMON COVER PLATES WHERE WIRING DEVICES ARE GROUPED.

EQUIPMENT

- 1 HAND DRYERS
.1 HAND DRYERS WHERE NOTED ON THE DRAWINGS ARE TO BE SUPPLIED AND INSTALLED BY THIS DIVISION WITH THE FOLLOWING FEATURES:
.1 SURFACE MOUNTING.
.2 FIXED NOZZLE.
.3 WHITE FINISH WITH AUTOMATIC ACTIVATION.
.4 RATING OF 1800W (20A) AT 120V.
.5 COMAC ONE CAT. #SW-100220004 SCHOOL EDITION

LIGHTING SYSTEMS

FIXTURES ARE TO BE PROVIDED AS NOTED IN THE LIGHT FIXTURE SCHEDULE C/W THE FOLLOWING FEATURES:

- 1 LED
.1 FIXTURE LED'S MUST BE TESTED IN CONFORMANCE WITH IESNA LM80 STANDARD.
.2 LED'S MUST BE SELECTED USING A BINNING ALGORITHM TO ENSURE COLOUR AND LUMEN OUTPUT OF A GIVEN FIXTURE ARE CONSISTENT, AS WELL AS MEET OR SURPASS ANSI C78.377 SPECIFICATION FOR THE RATED LIFETIME OF THE FIXTURE. COLOUR ACCURACY BETWEEN PRODUCTS MUST BE WITHIN A 2-STEP MACADAM ELLIPSE.
.3 LUMINAIRES MUST BE TESTED TO IESNA LM79 BY AN INDEPENDENT APPROVED LABORATORY.
.4 LUMINAIRES MUST BE TESTED PRIOR TO SHIPPING.
.5 LUMINAIRES MUST BE ULC CERTIFIED AND APPROVED FOR USE IN CANADA.
.6 FIXTURES MUST MAINTAIN A MINIMUM OF 90% OF THEIR INITIAL LIGHT OUTPUT FOR 60,000 HOURS. SUBMIT TEST RESULTS UPON REQUEST.
.7 LUMEN VALUES INDICATED FOR FIXTURES IN THE PROJECT DOCUMENTS ARE TO BE CONSIDERED AS "ABSOLUTE" OR "DELIVERED" VALUES.
.8 OTHER THAN FOR SPECIALTY FIXTURES, AND UNLESS OTHERWISE INDICATED, THE MAXIMUM DRIVER CURRENT IS TO BE 750 MA.
2 FIXTURE INSTALLATION
.1 LOCATE AND INSTALL LUMINAIRES AS INDICATED.
.2 FIXTURE SURFACE MOUNTED TO SUSPENDED CEILINGS MUST BE SECURED THROUGH CEILING ASSEMBLY TO CROSS MEMBER SUPPORTS. THESE SUPPORTS ARE TO BE STEEL CHANNELS OR ANGLES INDEPENDENTLY SECURED TO STRUCTURE USING #12 "JACK" CHAIN. EACH CHAIN MUST BE SECURED SO NO FIXTURE WEIGHT IS ADDED TO THE CEILING ASSEMBLY.
.3 PLASTER FRAMES/FLANGE KITS MUST BE PROVIDED BY THIS DIVISION FOR FIXTURES RECESSED IN PLASTER AND/OR DRYWALL CEILINGS.
.4 WHERE SPECIFIED, FIXTURES TO BE CHAIN HUNG SHALL BE HUNG USING "JACK" CHAIN WITH A CAPACITY TO SUIT THE FIXTURE WEIGHT. BRANCH CIRCUIT WIRING FEEDING THESE FIXTURES SHALL BE AC90 CABLE "TY-WRAPPED" AT 36" (900mm) INTERVALS ALONG LENGTH OF DROP. FINAL APPEARANCE MUST BE NEAT AND PROFESSIONAL.
.5 INSTALL EXIT LIGHTING UNITS AS INDICATED WITH ILLUMINATED FACES AND CHEVRONS/ARROWS INDICATING PATH(S) OF EXIT.
.6 INSTALL EMERGENCY LIGHTING UNITS AND ASSOCIATED REMOTE MOUNTED FIXTURES AS INDICATED.
.7 DIRECT "HEADS" ON UNITS AND REMOTE MOUNTED FIXTURES TO ILLUMINATE PATH(S) OF EXIT.
.8 INSTALL EMERGENCY LIGHTING UNITS AND REMOTE FIXTURES AT 8' (2400mm) ABOVE FINISHED FLOOR UNLESS INDICATED OTHERWISE.
.9 PROVIDE A 15A 120V DUPLEX RECEPTACLE (CONNECT TO CIRCUIT INDICATED) ADJACENT TO UNIT.
.10 CONNECT LUMINAIRES TO LIGHTING CIRCUITS AS INDICATED.
.11 CONNECT EXIT FIXTURES TO EXIT LIGHTING CIRCUITS AND UNIT EQUIPMENT (IF APPLICABLE).
.12 CONNECT UNIT EQUIPMENT TO CIRCUITS AS INDICATED.
.13 ALL WIRING OF REMOTE EMERGENCY FIXTURES SHALL BE MINIMUM #10 T90 FOR EACH CIRCUIT AND RUN IN CONDUIT. WIRING MUST BE SIZED IN CONFORMANCE WITH MANUFACTURERS' RECOMMENDATIONS FOR DISTANCE REQUIRED.
.14 ALIGN LUMINAIRES MOUNTED IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINES.
.15 ALIGN LUMINAIRES MOUNTED INDIVIDUALLY PARALLEL OR PERPENDICULAR TO BUILDING GRID LINES.
.16 ALL LIGHTING BRANCH CIRCUITS ARE TO BE PROVIDED WITH SEPARATE NEUTRALS.
3 GUARANTEE
.1 ALL LED FIXTURES AND DRIVERS ARE TO BE COMPLETE WITH A 5 YEAR GUARANTEE.
.2 THE LABOUR REQUIRED TO REPLACE THESE DRIVERS MUST BE INCLUDED IN THE ABOVE GUARANTEE
4 TESTING/CERTIFICATION
.1 AT THE COMPLETION OF THE PROJECT AND IN THE PRESENCE OF THE CONSULTANT, TEST ALL EXIT AND EMERGENCY FIXTURES, ON COMPANY LETTERHEAD, THE CONTRACTOR IS TO PREPARE A CHART INDICATING:
- PROJECT
- DATE
- EQUIPMENT TYPE
- CERTIFICATION OF CORRECT CONNECTION
- CERTIFICATION OF CORRECT OPERATION
- DURATION OF TEST IN MINUTES (MINIMUM 30)
- ACTUAL PERIOD OF TESTING (TIME OF DAY)

FIRESTOPPING

- 1 FIRESTOPPING MATERIAL AND INSTALLATION WITHIN ANNULAR SPACE BETWEEN CONDUITS, DUCTS, AND ADJACENT FIRE SEPARATION.
2 PROVIDE MATERIALS AND SYSTEMS CAPABLE OF MAINTAINING EFFECTIVE BARRIER AGAINST FLAME, SMOKE, AND GASES.
3 COMPLY WITH THE REQUIREMENTS OF CAN4-S115-M35, AND DO NOT EXCEED OPENING SIZED FOR WHICH THEY HAVE BEEN TESTED.
4 SYSTEMS TO HAVE AN F OR FT RATING (AS APPLICABLE) NOT LESS THAN THE FIRE PROTECTION RATING REQUIRED FOR CLOSURES IN A FIRE SEPARATION. PROVIDE "FIREWRAP" BLANKET AROUND SERVICES PENETRATING FIREWALLS.
5 EXTENT OF BLANKET MUST CORRESPOND TO ULC RECOMMENDATIONS. IN GENERAL WRAP INDIVIDUAL CONDUITS WITH APPROVED FIREWRAP MATERIALS ON EACH SIDE OF FIREWALL. REFER TO ARCHITECTURAL DRAWINGS FOR FT RATINGS. PROVIDE 1 AND/OR 2 LAYERS OF FIREWRAP WITH TRANSVERSE AND LONGITUDINAL SEAMS OVERLAPPED AND/OR BUTTED (SECOND LAYER OFFSET FROM FIRST LAYER). CUT EDGES ARE TO BE SEALED WITH ALUMINIUM FOIL TAPE. PROVIDE 50 MM STAINLESS STEEL BANDING AT 200 MM INTERVALS. INSTALL FIREWRAP TO MANUFACTURERS' RECOMMENDATIONS FOR PROPER FT RATING. ACCEPTABLE MANUFACTURERS ARE 3M FIREMASTER DUCTWRAP OR APPROVED EQUAL.
6 THE FIRESTOPPING MATERIALS ARE NOT TO SHRINK, SLUMP OR SAG AND BE FREE OF ASBESTOS, HALOGENS AND VOLATILE SOLVENTS.
7 FIRESTOPPING MATERIALS ARE TO CONSIST OF A COMPONENT SEALANT APPLIED WITH A CONVENTIONAL CAULKING GUN AND TROWEL.
8 FIRESTOP MATERIALS ARE TO BE CAPABLE OF RECEIVING FINISH MATERIALS IN THOSE AREAS, WHICH ARE EXPOSED AND SCHEDULED TO RECEIVE FINISHES.
9 FIRESTOPPING SHALL BE INSPECTED AND APPROVED BY LOCAL AUTHORITY PRIOR TO CONCEALMENT OR ENCLOSURE.
10 INSTALL MATERIAL AND COMPONENTS IN ACCORDANCE WITH ULC CERTIFICATION, MANUFACTURERS INSTRUCTIONS AND LOCAL AUTHORITY.
11 SUBMIT PRODUCT LITERATURE AND INSTALLATION MATERIAL ON FIRESTOPPING IN SHOP DRAWING AND PRODUCT DATA MANUAL.
12 ACCEPTABLE MANUFACTURERS:
FYREESLEEVE INDUSTRIES INC.
GENERAL ELECTRIC PENNSIL FIRESTOP SYSTEMS
INTERNATIONAL PROTECTIVE COATINGS CORP.
RECTORSEAL CORPORATION (METACAULK)
PROSET SYSTEMS
3M
AD SYSTEMS
HILTI
ROYAL
NOTE: FIRE STOP MATERIAL MUST CONFORM TO REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION. CONTRACTOR TO CONFIRM PRIOR TO APPLICATION AND ENSURE MATERIAL USED IS COMPATIBLE WITH THAT USED BY OTHER TRADES ON SITE.

CLIENT LOGO



KEYPLAN

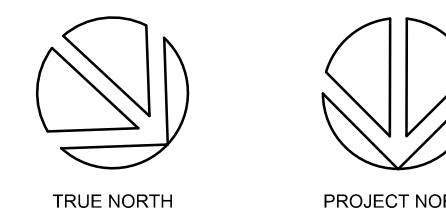


Table with 3 columns: No., ISSUANCE, DATE. Contains 3 rows of issuance records.

The contractor shall verify all dimensions and report all errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work.



CLIENT

WATERLOO REGION DISTRICT SCHOOL BOARD

51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT

KITCHENER- WATERLOO COLLEGIATE AND VOCATIONAL SCHOOL - WASHROOMS RENOVATION

787 King Street West, Kitchener, Ontario

TITLE

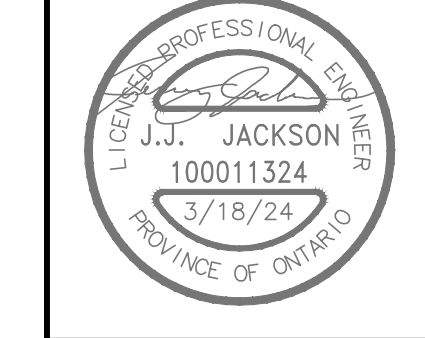
SPECIFICATION

WALTERFEDY

KITCHENER | HAMILTON | TORONTO

800.685.1378 walterfedycan.com

SEAL



SCALE: As indicated
DATE: 03/06/24
PROJECT NO: 2023-0897-11
DRAWN BY: JH
CHECKED BY: CT

SHEET NO: E103