3D ISOMETRIC VIEW(S)
FOR PRESENTATION ONLY

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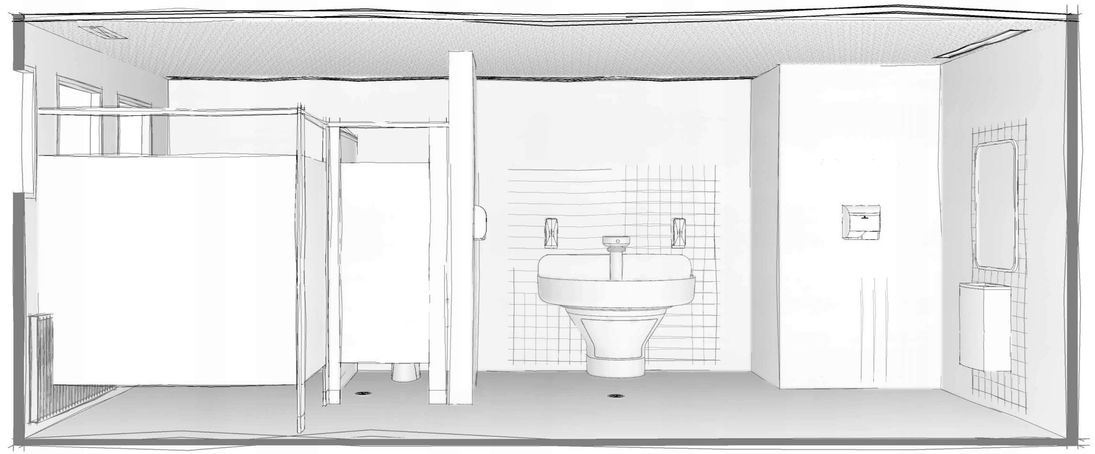

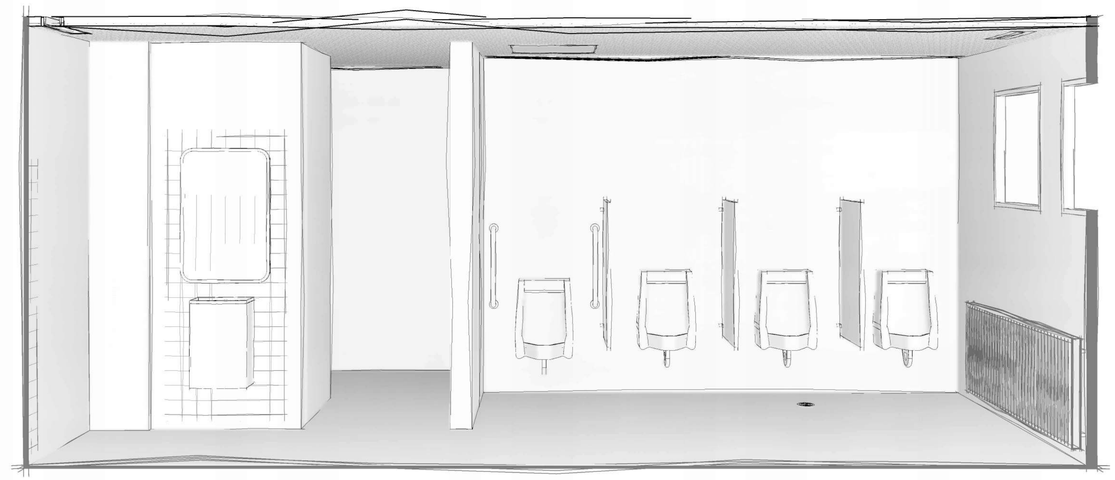

HWDSB

2026-133-P02206 Chedoke Elementary School

Washroom Renovations

500 Bendamere Ave., Hamilton, ON

AMRA J ARCHITECTS INC.

Benexsys

SHEET	ARCHITECTURAL DRAWINGS
A0.01	COVER SHEET
A1.01	GENERAL NOTES, LEGENDS, OBC MATRIX
A1.02	GROUND FLOOR DEMOLITION
A1.03	SECOND FLOOR DEMOLITION
A1.04	GROUND FLOOR PROPOSED FLOOR PLANS
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A1.06	GROUND FLOOR PROPOSED INTERIOR ELEVATIONS
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A1.08	GROUND FLOOR PROPOSED FINISHES
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SHEET	MECHANICAL DRAWINGS
M-0.01	MECHANICAL SPECIFICATIONS, LEGEND, SCHEDULE
M-1.01	MECHANICAL DEMOLITION
M-1.02	MECHANICAL NEW CONSTRUCTION
M-2.01	PLUMBING FIXTURES

SHEET	ELECTRICAL DRAWINGS
E-0.01	ELECTRICAL SPECIFICATIONS, LEGEND, SCHEDULE
E-1.01	ELECTRICAL DEMOLITION
E-1.02	ELECTRICAL NEW CONSTRUCTION LAYOUT

project number: 25-25

DRAWING NO.: A0.01

Z:\Projects\25-25 2025-P02206 Chedoke Elementary School\25-25 CHEDOKE ELEMENTARY SCHOOL.rvt

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Name of Practice:
AMRA J Architects Inc.
info@aja.design
905.920.5121

Name of Project:
2025-P02206 CHEDOKE ELEMENTARY SCHOOL WASHROOM RENOVATIONS

Location:
500 Bendamere Ave. Hamilton, ON

Date:
DECEMBER 16, 2025

2024 Ontario Building Code Data Matrix Part 11 – Renovation

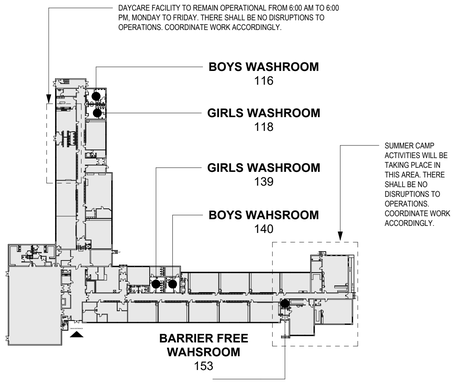
			Building Code Reference [1]
11.00	Building Code Version:	O. Reg. 163/24 Last Amendment O. Reg. 447/24	
11.01	Project Type:	☐ Addition ☒ Renovation ☐ Addition and renovation ☐ Change of use Description: Renovation of washrooms	[A] 1.3.3.3B.
11.02	Major Occupancy Classification:	Occupancy / Use A2 / EX ELEMENTARY SCHOOL	3.1.2.1.(1), 2.1.4.1.(1), and 11.2.1.
11.03	Superimposed Major Occupancies:	☒ No ☐ Yes Description:	11.2., 3.2.2.5. to 3.2.2.8., and 2.2.1.
11.04	Building Area (m^2) *Insert additional lines as needed*	Description: Existing New Total EXISTING 0 0 0	[A] 1.4.1.2., 11.2., and 11.3.
11.05	Building Height	2 Storeys above grade EX (m) Above grade 0 Storeys below grade	[A] 1.4.1.2., 3.2.1.1., 2.2.2.2., and 11.3.
11.06	Number of Streets/ Firefighter Access	EX street(s)	3.2.2.10., 3.2.5., 2.2.4.1., and 11.3.
11.07	Building Size	☐ Small ☐ Medium ☒ Large ☐ > Large	11.2.1.1., and T.11.2.1.1.B-N.
11.08	Existing Building Classification:	Change in Major Occupancy: ☐ Yes ☒ Not Applicable (no change of major occupancy) Construction Index: 0 Hazard Index: 0 Importance Category : ☐ Low ☐ Normal ☐ High ☐ Post-disaster	10.1.1.2., 11.2.1.1., T.11.2.1.1.A T.11.2.1.1.B to N 4.1.2.1.(3), 2.3.1., and 5.2.2.1.(2)
11.09	Renovation Type:	☒ Basic Renovation ☐ Extensive Renovation	11.3.3.1., and 11.3.3.2.
11.10	Occupant Load *Insert additional lines as needed*	Floor Level/Area / Occupancy Type / Based On / Occupant Load (Persons) FIRST AND SECOND / SCHOOL / DESIGN / 483	3.1.17., 2.1.2.2., and 11.4.2.2.
11.11 a	Plumbing Fixture Requirements *Insert additional lines as needed*	Ratio: M:F = 50:50 Except as otherwise noted Floor Level/Area / Occupant Load / OBC Reference / WCs Required / WCs Provided FIRST/SECOND / 483 / 3.7.4.3.(14) / 10F + 9M / 13F + 17M	3.7.4., 11.3.4., 11.3.5., 11.4.2.4., and 11.4.2.5.
11.11 b	Plumbing Fixture Requirements continued: *Insert additional lines as needed*	Floor Level/Area (repeated) / Barrier-free WCs Required / Barrier-free WCs Provided / Universal Washrooms Required / Universal Washrooms Provided FIRST / SECOND / 6 / 6 / 1 / 1 EX	Tables 3.8.2.3.A and 3.8.2.3.B
11.12	Barrier-free Design: Barrier-free Entrances:	■ Yes ☐ No NEW CONSTRUCTION IS MEETING BARRIER FREE DESIGN Number EX EX	11.3.1.2., 11.3.2., 11.3.3.2.
11.13	Reduction in Performance Level:	Structural: ☒ No ☐ Yes By Increase in occupant load: ☒ No ☐ Yes By change of major occupancy: ☒ No ☐ Yes Plumbing: ☒ No ☐ Yes Sewage-systems: ☒ No ☐ Yes Extension of buildings of combustible construction: ☒ No ☐ Yes	11.4.2.1. 11.4.2.2. 11.4.2.3. 11.4.2.4. 11.4.2.5. 11.4.2.6.
11.14	Compensating Construction:	☒ No ☐ Yes Structural: ☒ No ☐ Yes (Describe) Increase in occupant load: ☒ No ☐ Yes (Describe) Change of major occupancy: ☒ No ☐ Yes (Describe) Plumbing: ☒ No ☐ Yes (Describe) Sewage systems: ☒ No ☐ Yes (Describe) Extension of buildings of combustible construction: ☒ No ☐ Yes (Describe)	11.4.3.1. 11.4.3.2. 11.4.3.3. 11.4.3.4. 11.4.3.5. 11.4.3.6. 11.4.3.7.
11.15	Compliance Alternatives Proposed: *Insert additional lines as needed*	☒ No ☐ Yes (list numbers and describe) (list numbers and describe) (list numbers and describe)	11.5.1.

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

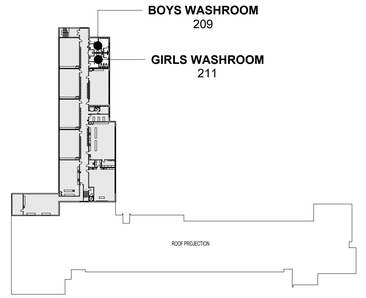
WASHROOM FIXTURES COUNT (483 OCCUPANCY)

FLOOR	ROOM NAME	WC	URINAL
1	BOYS WASHROOM (116)	2	4
	GIRLS WASHROOM (118)	4	0
	GIRLS WASHROOM (139)	5	0
	BOYS WASHROOM (140)	3	2
2	BOYS WASHROOM (209)	2	4
	GIRLS WASHROOM (211)	4	0
TOTAL:		**20**	**10**

WASHROOM TYPE	OBC REQUIREMENT (483)	TOTAL REQUIRED	TOTAL PROVIDED
BOYS WASHROOMS	**9**	**9**	**17**
GIRLS WASHROOMS	**10**	**10**	**13**
SINGLE USE WASHROOMS	**1**	**1**	**1**



GROUND FLOOR KEY MAP
SCALE: 1 : 1000



SECOND FLOOR KEY MAP
SCALE: 1 : 1000

NOTES AND SPECIFICATIONS

PROJECT SCOPE

The project scope includes the complete renovation of the existing washrooms and adition of ADO system at room 153 at Chedoke Elementary School.
The building has an area of 3,996 sq.m. It is of non-combustible construction, is not sprinklered, and is equipped with a fire alarm system.
There is no proposed change of use or increase in occupancy.

The primary objective of the project is to improve accessibility and functionality of existing washrooms. The scope includes architectural, mechanical, and electrical modifications. The total renovation area is approximately 183 sq.m.

All work to be carried out in accordance with the latest edition of the local, provincial and federal construction and building codes, the National Fire Code, the Occupational Health and Safety Act, and any other authorities having jurisdiction.

The general contractor shall comply with all the requirements with respect to construction procedures, insurance, security, building access, life safety & fire regulations, security clearances of employees, hoisting, garbage removal, etc., as set out by the school board/client and instructions to bidders.

The contractor shall read the drawings provided in conjunction with specifications & instructions on the bid documents. Any discrepancies or omissions on any drawings or specifications are to be reported to the consultant prior to commencement of work.

The general contractor is recommended to familiarize themselves with existing site conditions during designated site visit date or otherwise obtain information required to submit a firm quotation. Contractors will not be allowed to visit the site prior to or after the designated site visit date.

All dimensions are clear unless otherwise noted, contractor to field verify all dimensions and elevations prior to construction and report discepancies to consultant prior to making modifications to suit existing site conditions.

All materials specified are to be installed, finished & sealed in accordance with the manufacturer's recommendations & specifications.

All materials shall be as specified. Contractor must obtain written approval from the Architect for any material or finish substitutions or alternatives. Requests for substitutions must be submitted as a question during the tender period.

All materials as supplied and installed in this project must meet the smoke/flame spread rating as specified in the building code.

The contractor shall ensure all areas are sealed against dust & secured with safety walls/hoarding. Damages to existing materials, windows, furnishings, equipment, base building finishes within and outside the "area of work" will be the full responsibility of the contractor to replace without additional costs.

The "area of work" is defined as the immediate areas where demolition and new construction occurs but may not be completely limited to the area defined within.

The contractor is reponsible for the supply and installation of any materials not specifically indicated but reasonably implied and necessary for completion of work with no additional costs under his or her contract.

To minimize dust travel, all supply air diffusers & exhaust air grilled to be sealed in areas of demolition and construction.

The contractor shall patch and repair and/or skim coat at damages, punctures, and other irregularities on existing walls, floors, and ceilings where damages are existing or caused by demolition. The contractor shall ensure a smooth and even surface to the satisfaction of the architect, in preparation for new finish applications as specified.

The contractor is to coordinate any water/electricity shutoff with the owner at least 72 hours in advance to work commencing.

It is the sole responsbility of the contractor to design all shoring and temporary bracing as per O.Reg 213/91 and the contractor shall retain an engineer as required. Any new openings within the existing block walls will require temporary shoring.

DEMOLITION:

- Review the entire set of drawings, including mechanical and electrical design, for the full scope of work. Include provisions for all repairs of materials disturbed by mechanical or electrical demolition and new work.
- Verify all dimensions on site and review any discrepancies with the consultants. Report any contemplated deviations from the drawings prior to making changes.
- Ensure that all areas disturbed or damaged during construction, whether shown on the drawings or not, are restored to their original condition.

At a minimum, within the area of renovation:

- Remove existing plumbing fixtures, toilet partitions, and bathroom accessories.
- Return existing toilet tissue, paper towel, and soap dispensers to the owner.
- Review with the owner which items will be reinstalled after construction is completed.
- Where existing flooring is removed, prepare the substrate as required for the new tile finish.
- Fully enclose the construction area and coordinate all demolition and new work in such a manner as not to disturb the day-to-day operation of the surrounding areas.

NEW CONSTRUCTION

PHASING:
Phase 1 (to be completed no later than September 7, 2026)
Girls' washroom 139
Boys' washroom 140
Barrier-free washroom 153

Phase 2 (during school year – from September 14, 2026 to November 30, 2026) Boys'
washroom 116
Boys' washroom 209

Phase 3 (during school year – from December 1, 2026 to February 23, 2027) Girls'
washroom 118
Girls' washroom 211

New work includes construction required to renovate the group student washroom, including:
- Installation of new barrier-free compliant toilets, sinks, washroom partitions, and accessories.
- Construction of new masonry walls where required.
- Prepare existing walls as required for tiles installation.
- Review of existing wall-mounted conduits, pipes, and ducts, allowing for relocation or new finishes to achieve the new construction look.
- Construction of new gypsum board wall partitions as indicated.
- Installation of new tile flooring with baseboard.
- Replacement of all gypsum board ceilings, coordinated with existing ducts and new mechanical and electrical services.
- Use of aluminum edge profiles at junctions of tile finishes.

ABBREVIATION LEGEND

STANDARDS

A.F.F.	ABOVE FINISHED FLOOR	ND-X	NAPKING DISPOSAL	WR	WASTE RECEPTACLE
c/w	COMPLETE WITH	H/R	HANDRAIL	SD	SOAP DISPENSER
DN	DOWN	H.D.G.	HOT DIPPED GALVENIZED	HD	HAND DRYER
EL.	ELEVATION	N.I.C.	NOT IN CONTRACT		
EX.	EXISTING	N.T.S.	NOT TO SCALE		
EXP.	EXPOSED	SIM.	SIMILAR		
FIN.	FINISHED	STRU.	STRUCTURE		
FTG	FOOTING	T/	TOP OF		
G.C.	GENERAL CONTRACTOR	TYP.	TYPICAL		
GL	GRID LINE	u/s	UNDERSIDE		
G/R	GUARDRAIL	NIC	NOT INCLUDED		
GB-X	GRAB BAR	MR	MIRROR		

MATERIAL

ACT	ACOUSTICAL CEILING TILE	RB	RUBBER BASE
CAR	CARPET	TB	TILE BASE
CMU	CONCRETE MASONRY UNIT	SC	SOLID CORE
CONC	CONCRETE	SHT	SHEET
GB	GYPSUM BOARD	S.S.	STAINLESS STEEL
GW	GEORGIAN WIRE	ST	STAIN
HM	HOLLOW METAL	TG	TEMPERED GLASS
INT	INTEGRAL	VCT	VINYL COMPOSITE TILE
PT-X	PAINT	SU	DOUBLED GLAZED SEALED UNIT
		CT-X	CERAMIC TILE
		FL-X	FLOORING
		TP-X	TOILET PARTITION

SITE LOCATION
SCALE: NTS

PARTITION SCHEDULE
SCALE: 1 : 20

P1 • 6" CONCRETE BLOCK

P2 • 15.9MM GYPSUM BOARD WATER RESISTANT
• 92MM STEEL STUDS @ 400MM O.C.
• 15.9MM GYPSUM BOARD WATER RESISTANT

F1 • 15.9MM GYPSUM BOARD WATER RESISTANT
• 64MM STEEL STUDS @ 400MM O.C.

F2 • 15.9MM GYPSUM BOARD WATER RESISTANT
• 92MM STEEL STUDS @ 400MM O.C.

CEILING SCHEDULE
SCALE: 1 : 20

GB1
• SUSPENSION WIRE OR METAL STUDS
• 64MM STEEL STUDS @ 400MM O.C
• 16MM GYPSUM BOARD

SYMBOL LEGEND

ELEVATION NAME — ELEVATION REFERENCE
1-B / 1-A A100 1-C / 1-D — INTERIOR ELEVATION REFERENCE
W1 — WALL TAG
1 / A01 SIM — SECTION REFERENCE
EL. — SPOT ELEVATION
W1 — WINDOW / SCREEN TAG
1 / A100 SIM — DETAIL REFERENCE
? — DEMOLITION / CONSTRUCTION TAG
— REVISION TAG
2 / 1 A100 3 / 4 — EXTERIOR ELEVATION REFERENCE
ROOM NAME / 101 — ROOM TAG
C1 — CEILING TAG
D100 — DOOR TAG
0.00 — WALL HEIGHT
FINISH TAG

DRAWING LEGEND

EXISTING
AREA OF WORK
MASONRY WALLS
GYPSUM BOARD
EXISTING WALL TO REMAIN
EXISTING TO BE DEMOLISHED
EX — EXISTING DOORS TO REMAIN
GYPSUM BOARD CEILING

CONSTRUCTION HOARDING PARTITION:
16mm GWB ON 92mm STEEL STUDS FRAMING @ 610mm O.C.
EXTEND TO U/S OF EXISTING CEILING. PROVIDE SMOKE AND FIRE SEALS AT JUNCTIONS.(TYP) PROVIDE TEMPORARY CONSTRUCTION DOORS WITH LOCKS.
PATCH AND REPAIR EXISTING WALL, FLOOR AND CEILING AS MAY BE REQUIRED AFTER REMOVAL OF HOARDING. (TYP)
DOORS TO BE DEMOLISHED
NEW DOORS
DIFFUSER

No.	DESCRIPTION	DATE
1	ISSUED FOR TENDER	26/03/25
0	ISSUED FOR BUILDING PERMIT	25/12/18

REVISIONS

SEAL:

HWDSB

Benexsys

AMRA J ARCHITECTS INC.
EMAIL: info@aja.design 905-920-5121
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Washroom Renovations

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GENERAL NOTES, LEGENDS, OBC MATRIX

drawn: AS
checked: AJ
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Revision: 1

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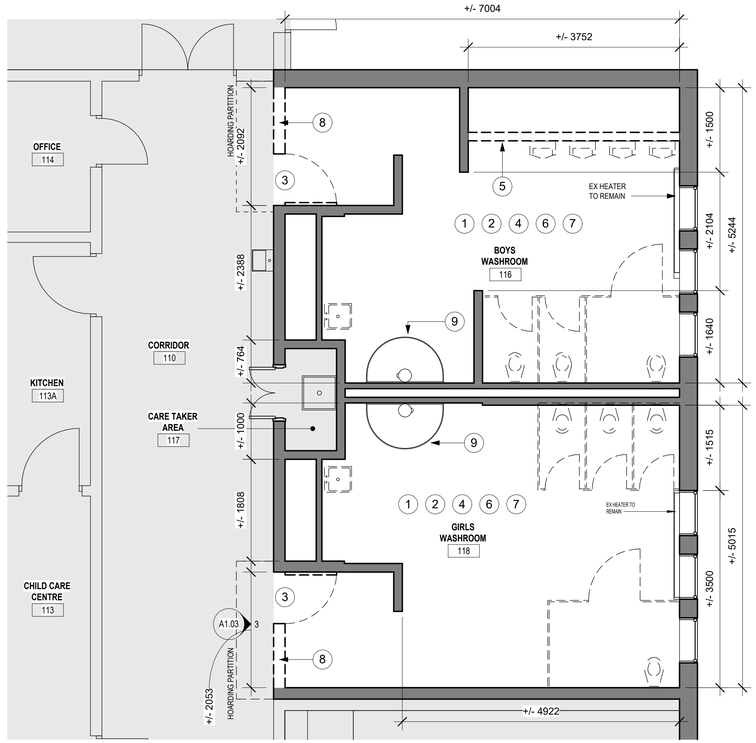
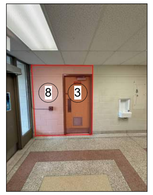


ROOMS 116, 118 (PARTIAL RENOVATION) DEMOLITION

SCALE: 1 : 50

1 / A1.02



ROOM 116

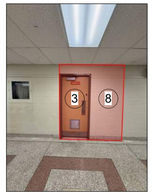
ROOM 116

ROOM 116

ROOM 116

ROOM 116

ROOM 116



ROOM 118

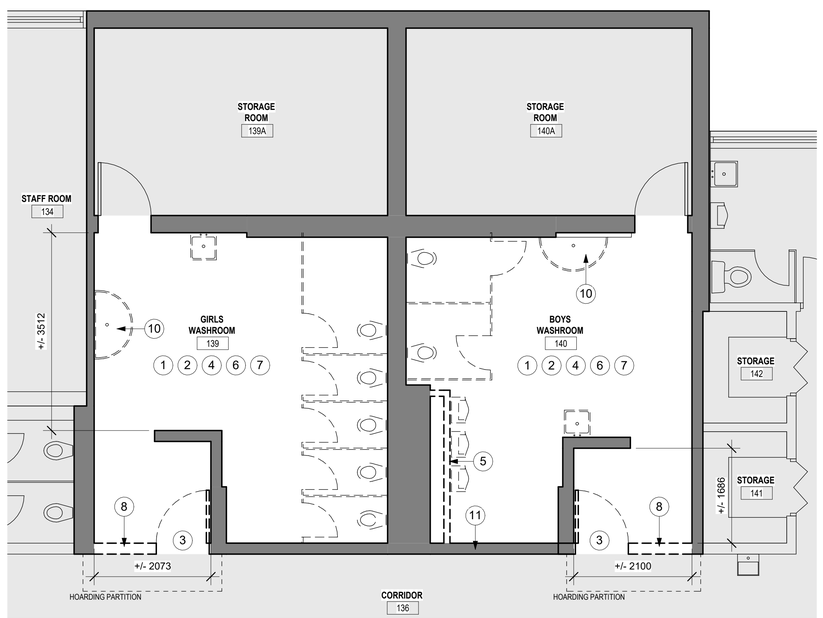
ROOM 118

ROOM 118

ROOM 118

ROOM 118

ROOM 118



ROOMS 139, 140 (FULL RENOVATION) DEMOLITION

SCALE: 1 : 50

2 / A1.02

ROOM 139

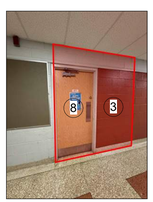
ROOM 139

ROOM 139

ROOM 139

ROOM 139

ROOM 139



ROOM 140

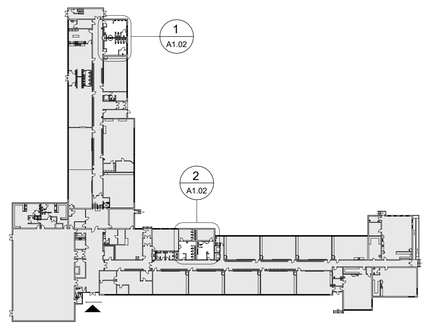
ROOM 140

ROOM 140

ROOM 140

ROOM 140

ROOM 140



GROUND FLOOR DEMOLITION - KEY MAP

SCALE: 1 : 850

DEMOLITION NOTES

1. REMOVE ALL EXISTING WALL-MOUNTED WASHROOM ACCESSORIES. REMOVE ANY SCREWS, NAILS, OR FASTENERS LEFT IN WALLS.
2. REMOVE AND DISPOSE EXISTING PLUMBING FIXTURES, INCLUDING WASHROOM PARTITIONS AND ACCESSORIES, INCLUDING BUT NOT LIMITED TO MIRRORS, SHELVES, PAPER HOLDERS, NAPKIN DISPOSALS, AND GRAB BARS. REFER TO MECHANICAL PLANS FOR THE FULL SCOPE OF WORK.
3. REMOVE EXISTING DOOR AND FRAME.
4. REMOVE EXISTING METAL WALL PANELS/COVERS AND INFILL WALL WITH MATERIALS TO MATCH IF REQUIRED
5. DEMOLISH EXISTING GYPSUM BOARD PARTITION AND FINISHES
6. DEMOLISH GYPSUM BOARD CEILING AND ITS SUPPORT SYSTEM
7. REMOVE EXISTING FLOORING AND BASE WHILE PRESERVING ADJACENT SURFACES IN GOOD CONDITION. LEVEL AS REQUIRED (UP TO 1/2"), AND PREPARE FLOOR FOR NEW FINISH.
8. DEMOLISH THE MASONRY WALL UP TO THE UNDERSIDE OF THE STRUCTURE TO WIDEN THE EXISTING OPENING. REFER TO DETAIL 3/A1.03 AND THE NEW LAYOUT FOR REFERENCE.
9. TEMPORARILY REMOVE EXISTING BRADLEY FOUNTAIN FOR TILE FINISH INSTALLATION; REINSTALL AT EXISTING LOCATION.
10. ALTERNATE PRICE: REMOVE AND RELOCATE BRADLEY WASHFOUNTAIN FROM ROOMS 139 AND 140 FOR REUSE IN ROOMS 209 AND 211.
11. REMOVE EXISTING DRYWALL FRAMING AROUND MECHANICAL DUCT.
12. RELOCATE EXISTING LOCKERS AS REQUIRED FOR NEW OPENING; COORDINATE NEW LOCATION WITH SCHOOL.

GENERAL DEMOLITION NOTES:

ALL SURFACES WITHIN THE SCOPE OF WORK DAMAGED DURING DEMOLITION/REMOVAL SHALL BE REPAIRED OR REINSTATED AS NEEDED TO RECEIVE NEW FINISHES AS INDICATED ON THE PROPOSED LAYOUT.

No.	DESCRIPTION	DATE
1	ISSUED FOR TENDER	26/03/25
0	ISSUED FOR BUILDING PERMIT	25/12/18

REVISIONS

SEAL:

HWDSB

Benexsys

AMRA J ARCHITECTS INC.
EMAIL: info@aja.design 905-920-5121
https://aja.design

project title:
2026-133-P02206 Chedoke Elementary School
Washroom Renovations

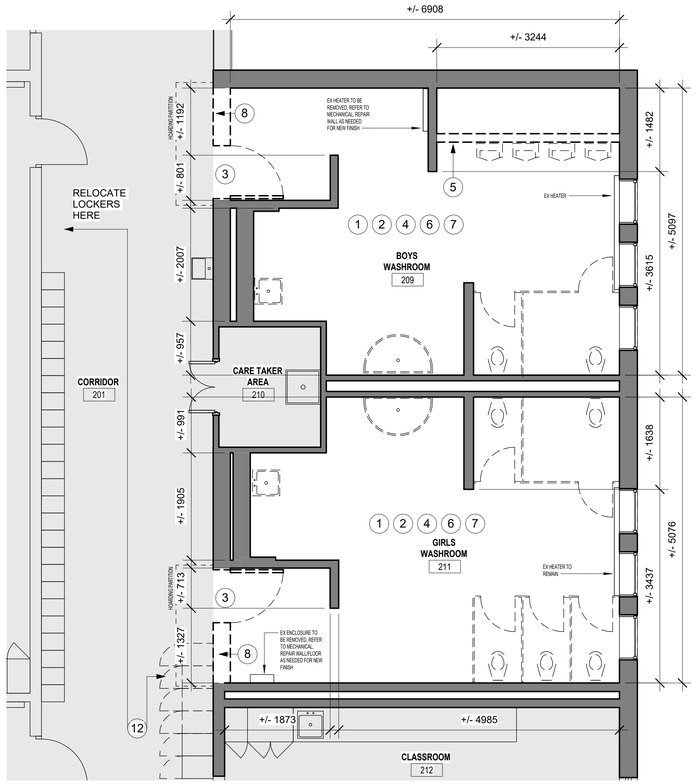
500 Bendamere Ave., Hamilton, ON

drawing title:
GROUND FLOOR DEMOLITION

drawn: AS
scale: As indicated
checked: AJ
project number: 25-25

DRAWING NO: A1.02
Revision: 1

Z:\Projects\25-25 2025-P02206 Chedoke Elementary School\25-25 CHEDOKE ELEMENTARY SCHOOL.rvt



ROOMS 209, 211 (PARTIAL RENOVATION) DEMOLITION

SCALE: 1 : 50

2 A1.03

ROOM 209

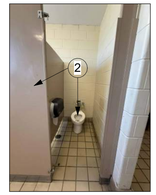
ROOM 209

ROOM 209

ROOM 209

ROOM 209

ROOM 209



ROOM 209

ROOM 209

ROOM 211

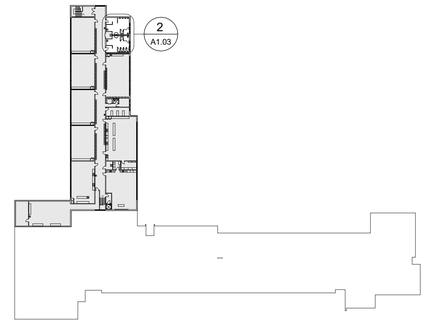
ROOM 211

ROOM 211

ROOM 211

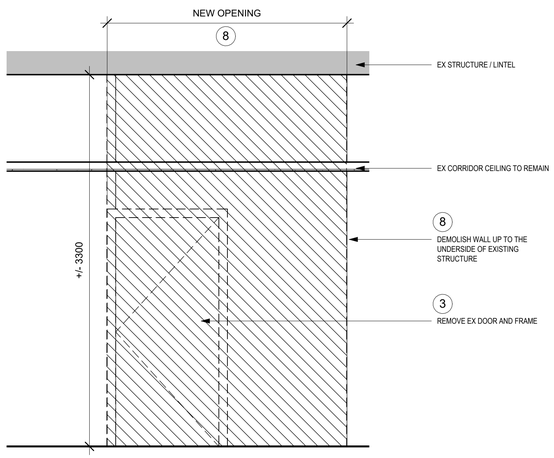
ROOM 211

ROOM 211



SECOND FLOOR DEMOLITION - KEY MAP

SCALE: 1 : 850



OPENING DEMOLITION TYP DETAIL

SCALE: 1 : 25

3 A1.03

DEMOLITION NOTES

1. REMOVE ALL EXISTING WALL-MOUNTED WASHROOM ACCESSORIES. REMOVE ANY SCREWS, NAILS, OR FASTENERS LEFT IN WALLS.
2. REMOVE AND DISPOSE EXISTING PLUMBING FIXTURES, INCLUDING WASHROOM PARTITIONS AND ACCESSORIES, INCLUDING BUT NOT LIMITED TO MIRRORS, SHELVES, PAPER HOLDERS, NAPKIN DISPOSALS, AND GRAB BARS. REFER TO MECHANICAL PLANS FOR THE FULL SCOPE OF WORK.
3. REMOVE EXISTING DOOR AND FRAME.
4. REMOVE EXISTING METAL WALL PANELS/COVERS AND INFILL WALL WITH MATERIALS TO MATCH IF REQUIRED
5. DEMOLISH EXISTING GYPSUM BOARD PARTITION AND FINISHES
6. DEMOLISH GYPSUM BOARD CEILING AND ITS SUPPORT SYSTEM
7. REMOVE EXISTING FLOORING AND BASE WHILE PRESERVING ADJACENT SURFACES IN GOOD CONDITION. LEVEL AS REQUIRED (UP TO 1/2"), AND PREPARE FLOOR FOR NEW FINISH.
8. DEMOLISH THE MASONRY WALL UP TO THE UNDERSIDE OF THE STRUCTURE TO WIDEN THE EXISTING OPENING. REFER TO DETAIL 3/A1.03 AND THE NEW LAYOUT FOR REFERENCE.
9. TEMPORARILY REMOVE EXISTING BRADLEY FOUNTAIN FOR TILE FINISH INSTALLATION; REINSTALL AT EXISTING LOCATION.
10. ALTERNATE PRICE: REMOVE AND RELOCATE BRADLEY WASHFOUNTAIN FROM ROOMS 139 AND 140 FOR REUSE IN ROOMS 209 AND 211.
11. REMOVE EXISTING DRYWALL FRAMING AROUND MECHANICAL DUCT.
12. RELOCATE EXISTING LOCKERS AS REQUIRED FOR NEW OPENING; COORDINATE NEW LOCATION WITH SCHOOL.

GENERAL DEMOLITION NOTES:

ALL SURFACES WITHIN THE SCOPE OF WORK DAMAGED DURING DEMOLITION/REMOVAL SHALL BE REPAIRED OR REINSTATED AS NEEDED TO RECEIVE NEW FINISHES AS INDICATED ON THE PROPOSED LAYOUT.

No.	DESCRIPTION	DATE
1	ISSUED FOR TENDER	26/03/25
0	ISSUED FOR BUILDING PERMIT	25/12/18

REVISIONS

SEAL:

HWDSB

Benexsys

AMRA J ARCHITECTS INC.
EMAIL: info@aja.design 905-920-5121
https://aja.design

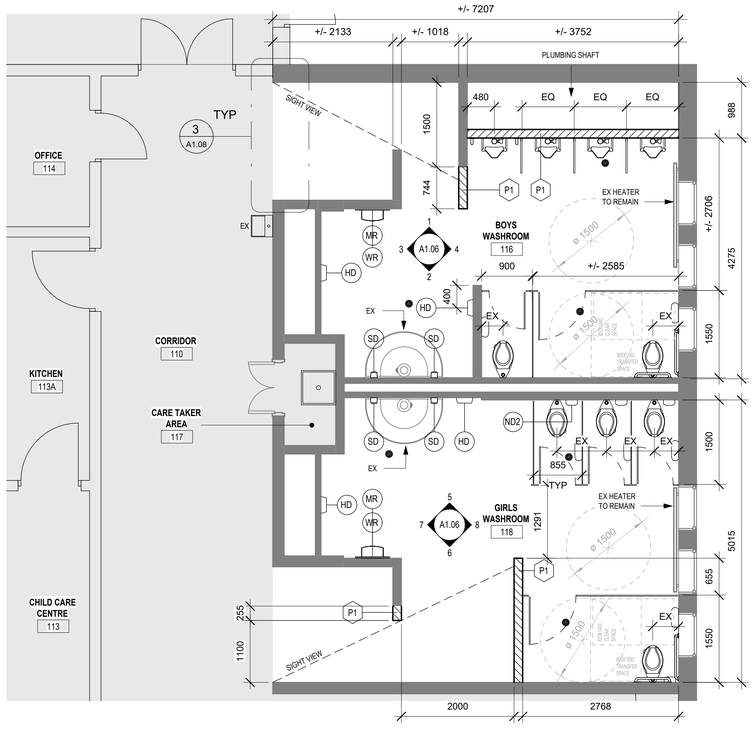
project title:
2025-133-P02206 Chedoke Elementary School
Washroom Renovations
500 Bendamere Ave., Hamilton, ON

drawing title:
SECOND FLOOR DEMOLITION

drawn: AS
scale: As indicated
checked: AJ
project number: 25-25

DRAWING NO: A1.03
1 Revision

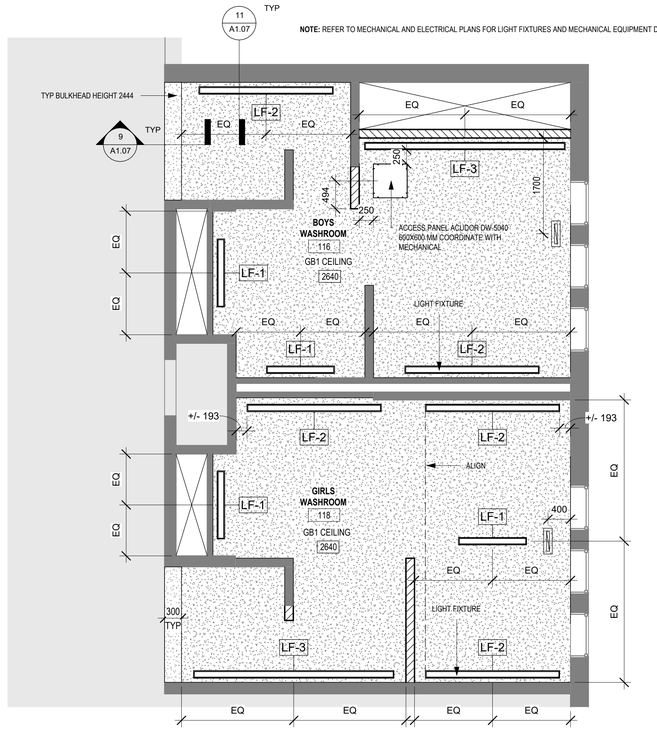
3/25/2026 2:24:48 PM



ROOMS 116, 118 (PARTIAL RENOVATION) PROPOSED FLOOR PLAN

SCALE: 1 : 50

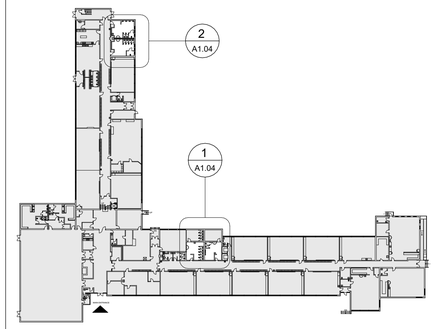
2 A1.04



ROOMS 116, 118 PROPOSED RCP

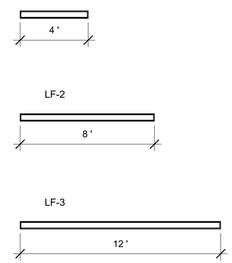
SCALE: 1 : 50

3 A1.04



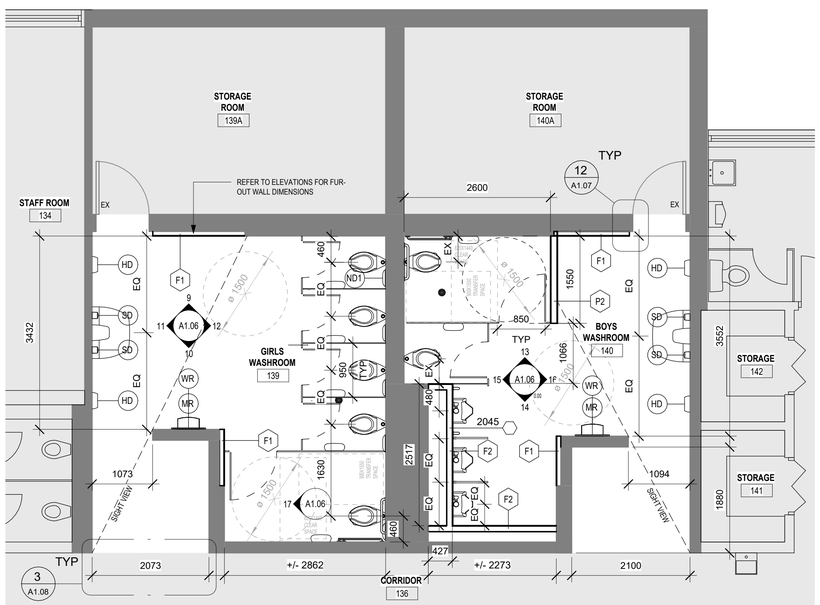
GROUND FLOOR PROPOSED FLOOR PLAN - KEY MAP

SCALE: 1 : 850



LIGHT FIXTURES

SCALE: 1 : 50

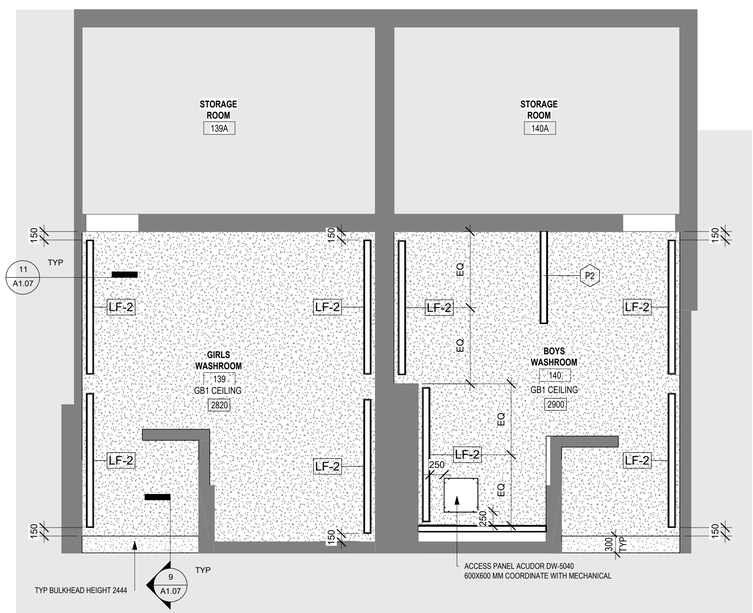


ROOMS 139, 140 (FULL RENOVATION) PROPOSED LAYOUT FLOOR PLAN

SCALE: 1 : 50

1 A1.04

NOTE: REFER TO MECHANICAL AND ELECTRICAL PLANS FOR LIGHT FIXTURES AND MECHANICAL EQUIPMENT DETAILS



ROOMS 139, 139A, 140, 140A PROPOSED RCP

SCALE: 1 : 50

6 A1.04

WASHROOM ACCESSORIES ABBREVIATIONS	
CH	COAT HOOKS INTEGRATED IN TOILET PARTITONS
HD	HAND DRYER (SEE ELECTRICAL DWGS)
PTD	PAPER TOWEL DISPENSER (SUPPLIED BY OWNER, INSTALLED BY GC)
SD	SOAP DISPENSER (SUPPLIED BY OWNER, INSTALLED BY GC)
TPD	TOILET PAPER DISPENSER
GB1	STRAIGHT GRAB BAR. BOBRICK MODEL B-5806 x 24: 24" (610MM)
GB2	L - SHAPED GRAB BAR BOBRICK MODEL B-6898.99, 30" x 30" (762MM X 762MM)
ND-1	NAPKIN DISPOSAL: BRADLEY MODEL 4A00-RECESSED, SATIN FINISH (SUPPLIED BY OWNER, INSTALLED BY GC)
ND-2	NAPKIN DISPOSAL: BRADLEY MODEL 4A10-11 SURFACE MOUNTED, SATIN FINISH (SUPPLIED BY OWNER, INSTALLED BY GC)
MR	MIRROR: BRADLEY MODEL 7B1-0024360, NO SHELF, 24" X 36"
WR	WASTE RECEPTACLE: BOBRICK, B-277
PS	PRIVACY SCREEN: ASI WALL-HUNG SCREEN 48" HEIGHT COLOR: GRAY 2125

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1	ISSUED FOR TENDER	26/03/25
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REVISIONS

SEAL:

HWDSB

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905-920-5121

project title:
2026-133-P02206 Chedoke Elementary School
Washroom Renovations

500 Bendamere Ave., Hamilton, ON

drawing title:
GROUND FLOOR PROPOSED FLOOR PLANS

drawn: AS
scale: As indicated
checked: AJ
project number: 25-25

DRAWING NO: A1.04
Revision: 1

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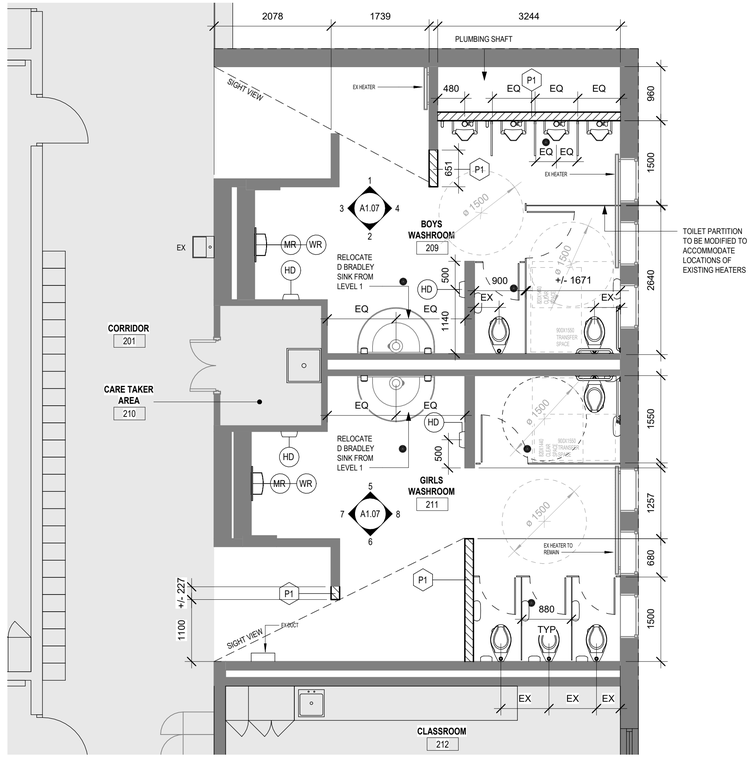

ROOMS 209, 211 (PARTIAL RENOVATION) PROPOSED LAYOUT FLOOR PLAN

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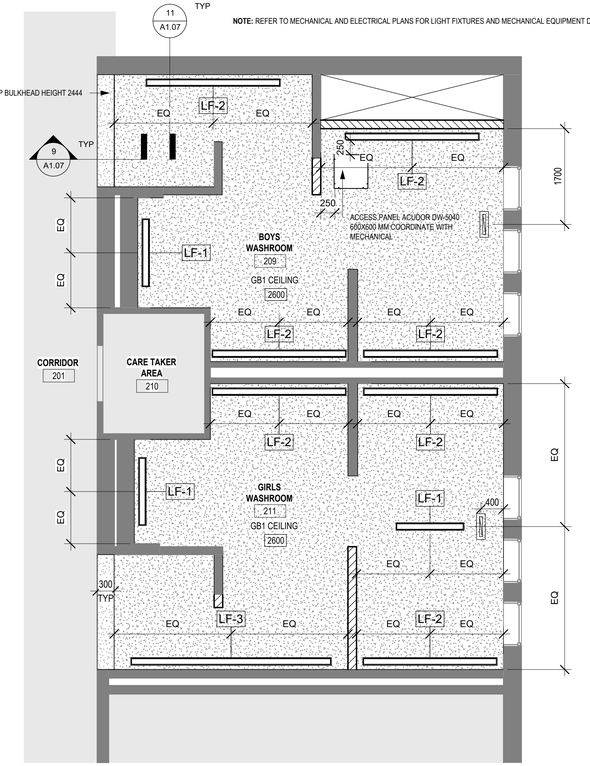
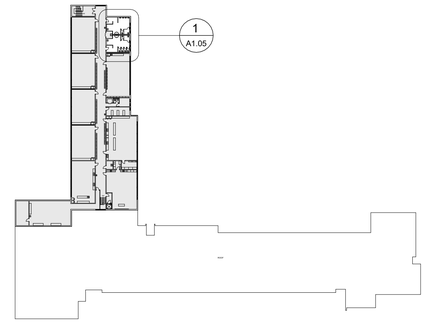
1 A1.05



ROOMS 209, 211 PROPOSED RCP

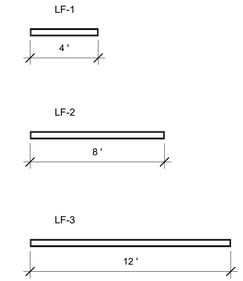
SCALE: 1 : 50

2 A1.05



SECOND FLOOR PROPOSED FLOOR PLAN - KEY MAP

SCALE: 1 : 850

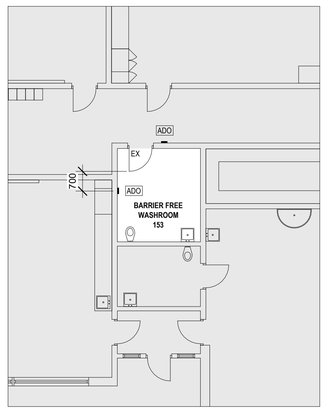


LIGHT FIXTURES

SCALE: 1 : 50

ROOM FINISH SCHEDULE

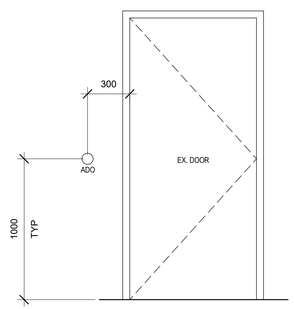
ROOM NO.	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH	CEILING HEIGHT	COMMENTS
116	BOYS WASHROOM	PORCELAIN TILE	CERAMIC BASE	CERAMIC TILE/PT-1	GB/PT-2	2640	ACCENT TILE AT WASHROOM ACCESORIES — SEE ELEVATIONS FOR LOCATIONS.
118	GIRLS WASHROOM	PORCELAIN TILE	CERAMIC BASE	CERAMIC TILE/PT-1	GB/PT-2	2640	ACCENT TILE AT WASHROOM ACCESORIES — SEE ELEVATIONS FOR LOCATIONS.
139	GIRLS WASHROOM	PORCELAIN TILE	CERAMIC BASE	CERAMIC TILE/PT-1	GB/PT-2	2820	TILES ON ALL WALLS. SEE ELEVATIONS FOR HEIGHT INFORMATION.
140	BOYS WASHROOM	PORCELAIN TILE	CERAMIC BASE	CERAMIC TILE/PT-1	GB/PT-2	2900	TILES ON ALL WALLS. SEE ELEVATIONS FOR HEIGHT INFORMATION.
209	BOYS WASHROOM	PORCELAIN TILE	CERAMIC BASE	CERAMIC TILE/PT-1	GB/PT-2	2600	ACCENT TILE AT WASHROOM ACCESORIES — SEE ELEVATIONS FOR LOCATIONS.
211	GIRLS WASHROOM	PORCELAIN TILE	CERAMIC BASE	CERAMIC TILE/PT-1	GB/PT-2	2600	ACCENT TILE AT WASHROOM ACCESORIES — SEE ELEVATIONS FOR LOCATIONS.



ROOM 153 NEW ADO

SCALE: 1 : 100

4 A1.05



ROOM 153 EXTERIOR DOOR ELEVATION

SCALE: 1 : 20

5 A1.05

WASHROOM ACCESSORIES ABBREVIATIONS	
CH	COAT HOOKS INTEGRATED IN TOILET PARTITONS
HD	HAND DRYER (SEE ELECTRICAL DWGS)
PTD	PAPER TOWEL DISPENSER (SUPPLIED BY OWNER, INSTALLED BY GC)
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TPD	TOILET PAPER DISPENSER
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MR	MIRROR: BRADLEY MODEL 7B1-0024360, NO SHELF, 24" X 36"
WR	WASTE RECEPTACLE: BOBRICK, B-277
PS	PRIVACY SCREEN: ASI WALL-HUNG SCREEN 48" HEIGHT COLOR: GRAY 2125

No.	DESCRIPTION	DATE
1	ISSUED FOR TENDER	26/03/25
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REVISIONS

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HWDSB

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2026-133-P02206 Chedoke Elementary School
Washroom Renovations

500 Bendamere Ave., Hamilton, ON

drawing title:
SECOND FLOOR PROPOSED FLOOR PLANS

drawn: AS
checked: AJ
scale: As indicated
project number: 25-25

DRAWING NO: A1.05
Revision: 1

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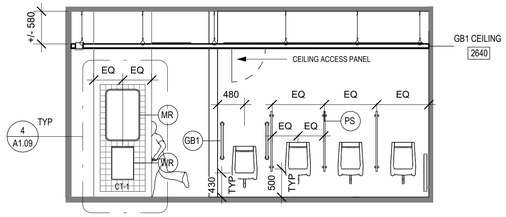
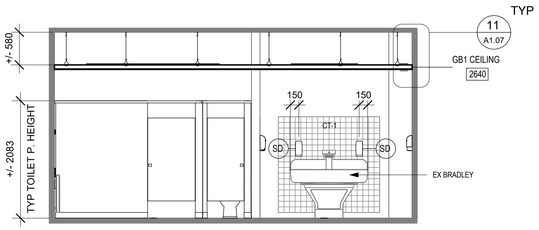


BOYS WASHROOM 116 NORTH ELEVATION — 1 / A1.04
SCALE: 1 : 50



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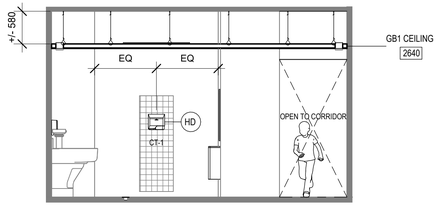

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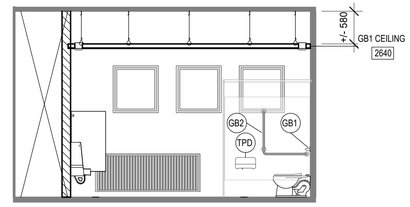

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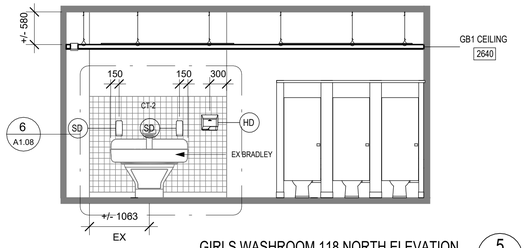

GIRLS WASHROOM 118 NORTH ELEVATION — 5 / A1.04
SCALE: 1 : 50

GIRLS WASHROOM 118 SOUTH ELEVATION — 6 / A1.04
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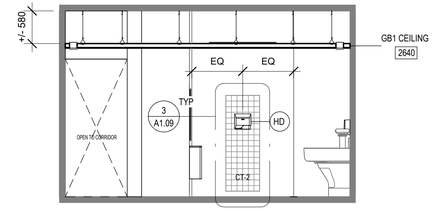

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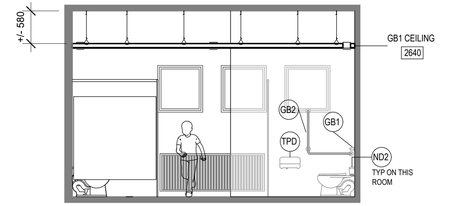

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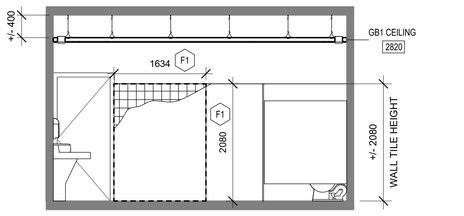

GIRLS WASHROOM 139 NORTH ELEVATION — 9 / A1.04
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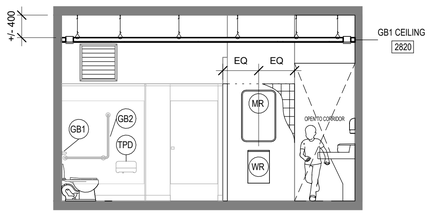

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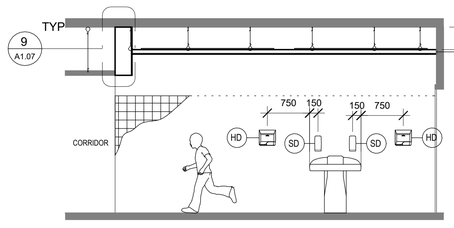

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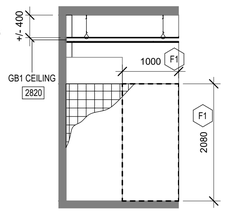

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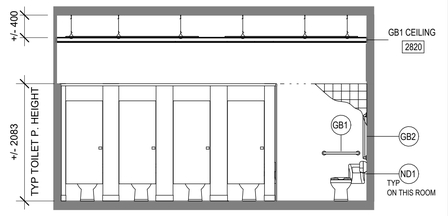

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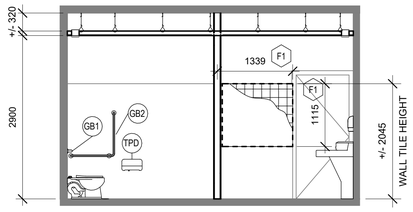

BOYS WASHROOM 140 NORTH ELEVATION — 13 / A1.04
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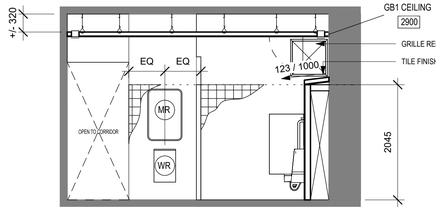

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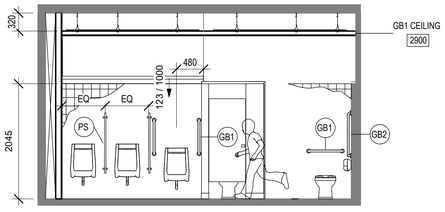

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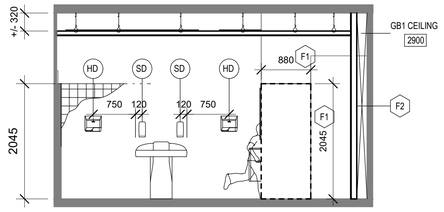
SCALE: 1 : 50



BOYS WASHROOM 140 EAST ELEVATION — 16 / A1.04
SCALE: 1 : 50

WASHROOM ACCESSORIES ABBREVIATIONS	
CH	COAT HOOKS INTEGRATED IN TOILET PARTITONS
HD	HAND DRYER (SEE ELECTRICAL DWGS)
PTD	PAPER TOWEL DISPENSER (SUPPLIED BY OWNER, INSTALLED BY GC)
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Washroom Renovations

500 Bendamere Ave., Hamilton, ON

drawing title:
GROUND FLOOR PROPOSED INTERIOR ELEVATIONS

drawn: AS
checked: AJ
scale: As indicated
project number: 25-25

DRAWING NO: A1.06
Revision: 1

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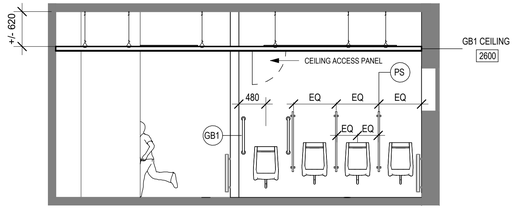

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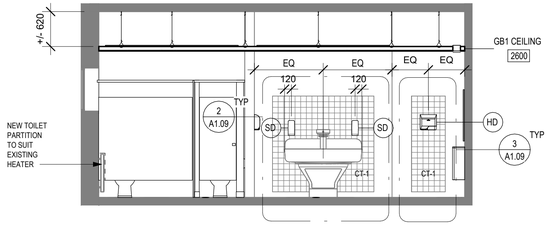

BOYS WASHROOM 209 SOUTH ELEVATION — 2 / A1.05
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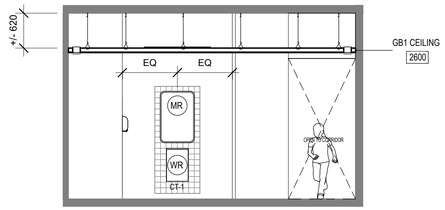

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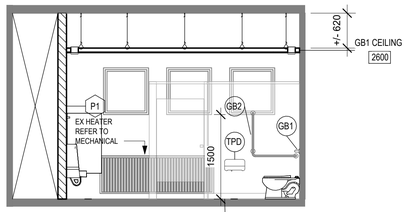
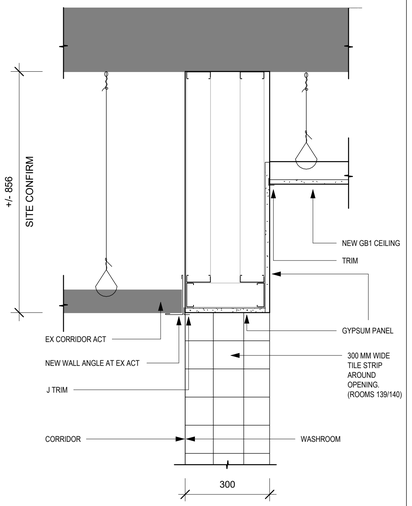
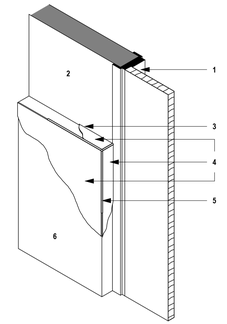


BOYS WASHROOM 209 EAST ELEVATION — 4 / A1.05
SCALE: 1 : 50



BULKHEAD TYPICAL DETAIL — 9 / A1.07
SCALE: 1 : 10



1- EXISTING DOOR / FRAME

2- EXISTING MASONRY WALL TO BE PAINTED

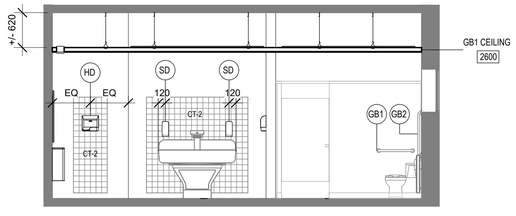
3- SEALANT

4- TILE

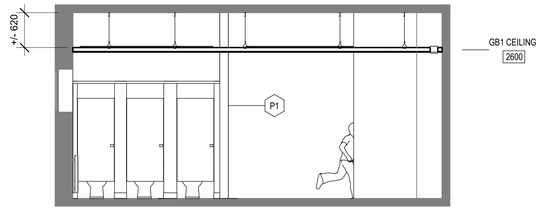
5- STAINLESS STEEL SCHLUTER QUADEC / SIZE TO SUIT INSTALLATION

6- EX MASONRY / NEW F1 FUR OUT

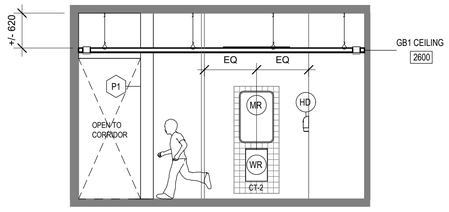
WALL FUR OUT TYPICAL TILE DETAIL — 12 / A1.07
SCALE: 1 : 15



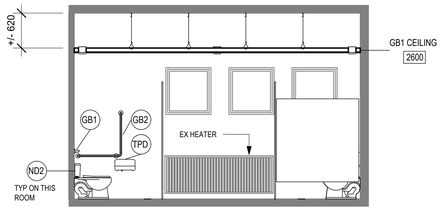
GIRLS WASHROOM 211 NORTH ELEVATION — 5 / A1.05
SCALE: 1 : 50



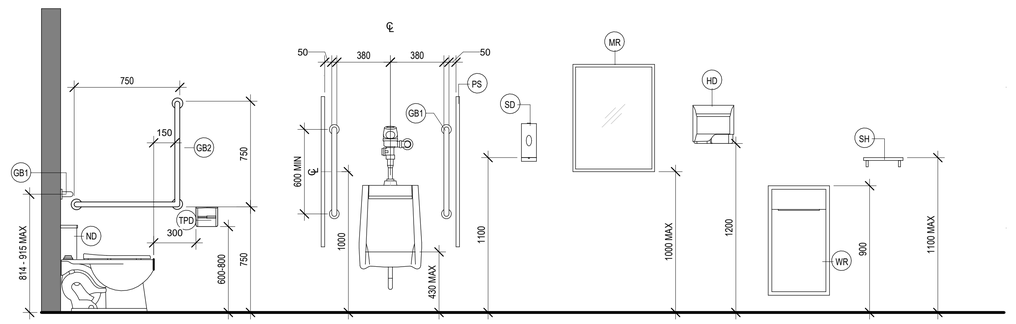
GIRLS WASHROOM 211 SOUTH ELEVATION — 6 / A1.05
SCALE: 1 : 50



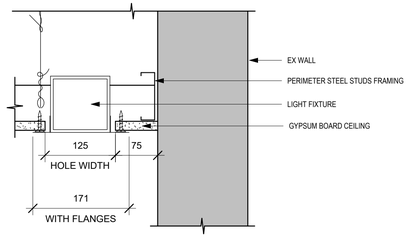
GIRLS WASHROOM 211 WEST ELEVATION — 7 / A1.05
SCALE: 1 : 50



GIRLS WASHROOM 211 EAST ELEVATION — 8 / A1.05
SCALE: 1 : 50



TYPICAL WASHROOM ACCESSORIES MOUNTING HEIGHT
SCALE: 1 : 20



NOTE: REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE TYPE AND SPECIFICATIONS. MOUNT RECESSED FIXTURE PER MANUFACTURER 'S INSTRUCTIONS USING DS SPACKLE FLANGE MOUNTING OPTION.

LINEAR LIGHT DETAIL — 11 / A1.07
SCALE: 1 : 5

WASHROOM ACCESSORIES ABBREVIATIONS	
CH	COAT HOOKS INTEGRATED IN TOILET PARTITONS
HD	HAND DRYER (SEE ELECTRICAL DWGS)
PTD	PAPER TOWEL DISPENSER (SUPPLIED BY OWNER, INSTALLED BY GC)
SD	SOAP DISPENSER (SUPPLIED BY OWNER, INSTALLED BY GC)
TPD	TOILET PAPER DISPENSER
GB1	STRAIGHT GRAB BAR. BOBRICK MODEL B-5806 x 24: 24" (610MM)
GB2	L - SHAPED GRAB BAR BOBRICK MODEL B-6898.99, 30" x 30" (762MM X 762MM)
ND-1	NAPKIN DISPOSAL: BRADLEY MODEL 4A00-RECESSED, SATIN FINISH (SUPPLIED BY OWNER, INSTALLED BY GC)
ND-2	NAPKIN DISPOSAL: BRADLEY MODEL 4A10-11 SURFACE MOUNTED, SATIN FINISH (SUPPLIED BY OWNER, INSTALLED BY GC)
MR	MIRROR: BRADLEY MODEL 7B1-0024360, NO SHELF, 24" X 36"
WR	WASTE RECEPTACLE: BOBRICK, B-277
PS	PRIVACY SCREEN: ASI WALL-HUNG SCREEN 48" HEIGHT COLOR: GRAY 2125

WASHROOM FLOOR PLAN ABBREVIATIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR TENDER	26/03/25
0	ISSUED FOR BUILDING PERMIT	25/12/18

REVISIONS

SEAL:

HWDSB

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project title:
2026-133-P02206 Chedoke Elementary School
Washroom Renovations

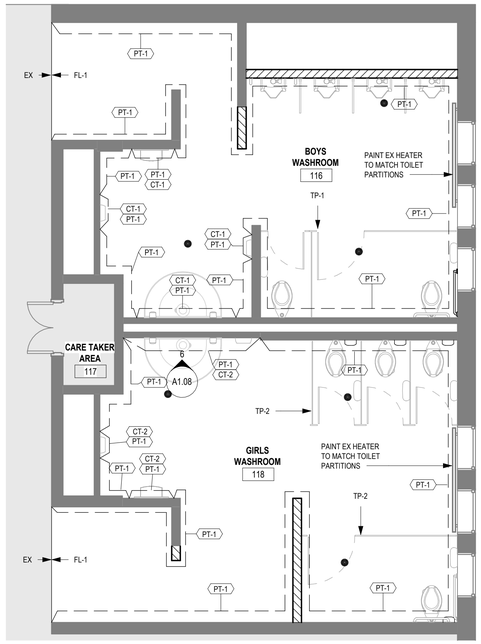
500 Bendamere Ave., Hamilton, ON

drawing title:
SECOND FLOOR PROPOSED INTERIOR ELEVATIONS

drawn: AS
scale: As indicated
checked: AJ
project number: 25-25

DRAWING NO: A1.07
Revision: 1

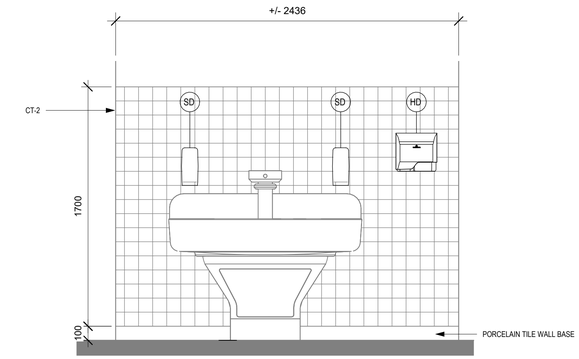
Z:\Projects\25-25 2025-P02206 Chedoke Elementary School\25-25 CHEDOKE ELEMENTARY SCHOOL.rvt



ROOMS 116, 118 (PARTIAL RENOVATION) PROPOSED FINISHES

SCALE: 1 : 50

1 / A1.08



TILE MOSAIC ACCENT BEHIND BRADLEY AND HAND DRYER ROOM 118

SCALE: 1 : 20

6 / A1.08

NOTE: REFER TO INTERIOR ELEVATIONS FOR TILE FINISH HEIGHT.

ROOMS 139, 140 (FULL RENOVATION) PROPOSED FINISHES

SCALE: 1 : 50

2 / A1.08

1- STAINLESS STEEL SCHLUTER QUADEC / SIZE TO SUIT INSTALLATION

2- NEW WALL TILE

3- STAINLESS STEEL SCHLUTER DILEX-AHKA / SIZE TO SUIT INSTALLATION

4- STAINLESS STEEL SCHLUTER RONDEC-STEP / SIZE TO SUIT INSTALLATION

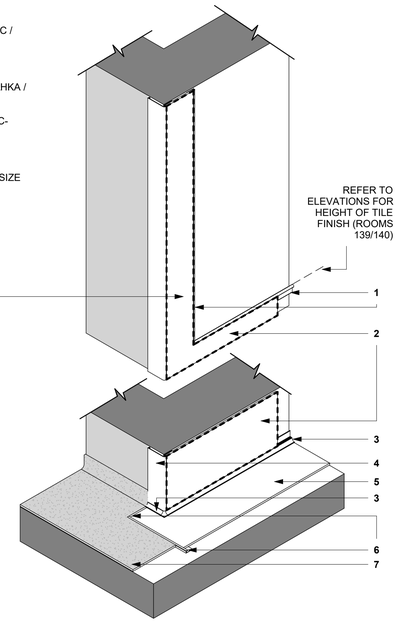
5- NEW TILE FLOORING

6- STAINLESS STEEL SCHULTER DECO / SIZE TO SUITE INSTALLATION

7- EXISTING CORRIDOR FLOORING

300 MM WIDE TILE STRIP AROUND OPENING. (ROOMS 139/140)

REFER TO ELEVATIONS FOR HEIGHT OF TILE FINISH (ROOMS 139/140)



WASHROOM OPENING TO CORRIDOR TYP DETAIL

SCALE: 1 : 8

3 / A1.08

FL-1	ACCADEMIA FULL BODY, TIEPOLO SOFT 24"X24"
PT-1	PROMAR 200 HP ZERO VOC BY SHERWIN-WILLIAMS, COLOR: SW 6253 OLYMPUS WHITE
PT-2	PROMAR 200 HP ZERO VOC BY SHERWIN-WILLIAMS, COLOR: SW 9542 NATURAL WHITE
CT-1	CENTURA LA FABBRICA UP GREEN MATE 4"X4", TEC GROUT, COLOR 953 STARRY NIGHT
CT-2	CENTURA LA FABBRICA UP BLUE MATE 4"X4", TEC GROUT, COLOR 953 STARRY NIGHT
TP-1	ASI-GLOBAL PARTITIONS GRAY 2125
TP-2	ASI-GLOBAL PARTITIONS SAGE 2141

FINISHES LEGEND

No.	DESCRIPTION	DATE
1	ISSUED FOR TENDER	26/03/25
0	ISSUED FOR BUILDING PERMIT	25/12/18

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project title:
2026-133-P02206 Chedoke Elementary School
Washroom Renovations

500 Bendamere Ave., Hamilton, ON

drawing title:
GROUND FLOOR PROPOSED FINISHES

drawn: AS
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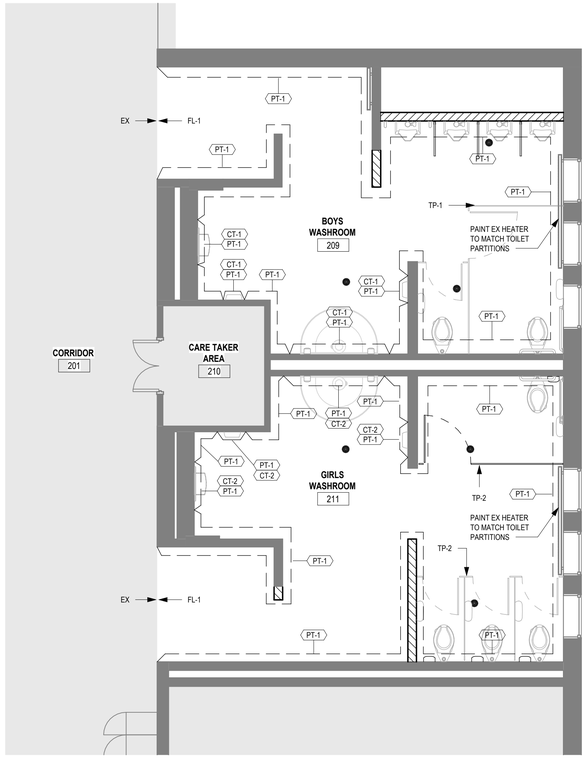
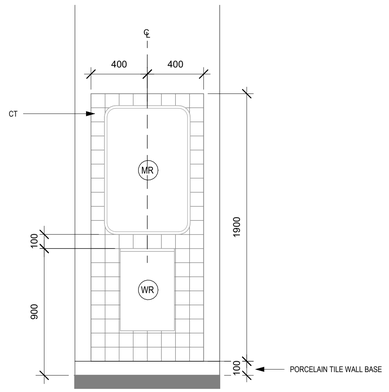
scale: As indicated
project number: 25-25

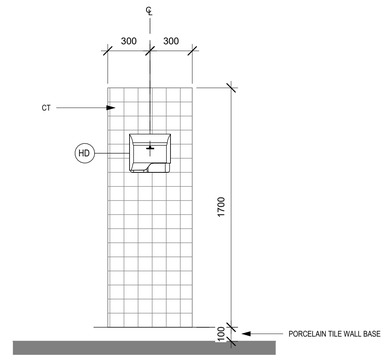
DRAWING NO: A1.08
Revision: 1



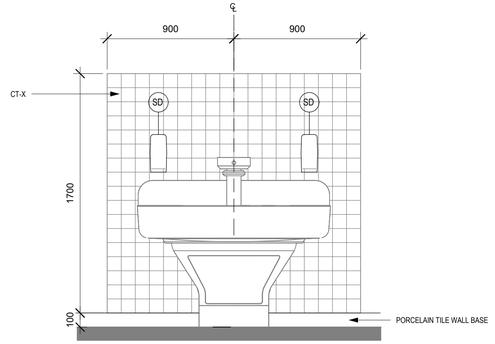
ROOMS 209, 211 (PARTIAL RENOVATION) PROPOSED FINISHES
SCALE: 1 : 50
1 A1.09



TYP. TILE MOSAIC ACCENT BEHIND MIRROR AND WASTE RECEPTACLE
SCALE: 1 : 20
4 A1.09



TYP. TILE MOSAIC ACCENT BEHIND HAND DRYER
SCALE: 1 : 20
3 A1.09



TYP. TILE MOSAIC ACCENT BEHIND BRADLEY
SCALE: 1 : 20
2 A1.09

FL-1	ACCADEMIA FULL BODY, TIEPOLO SOFT 24"X24"
PT-1	PROMAR 200 HP ZERO VOC BY SHERWIN-WILLIAMS, COLOR: SW 6253 OLYMPUS WHITE
PT-2	PROMAR 200 HP ZERO VOC BY SHERWIN-WILLIAMS, COLOR: SW 9542 NATURAL WHITE
CT-1	CENTURA LA FABBRICA UP GREEN MATE 4"X4", TEC GROUT, COLOR 953 STARRY NIGHT
CT-2	CENTURA LA FABBRICA UP BLUE MATE 4"X4", TEC GROUT, COLOR 953 STARRY NIGHT
TP-1	ASI-GLOBAL PARTITIONS GRAY 2125
TP-2	ASI-GLOBAL PARTITIONS SAGE 2141

FINISHES LEGEND

No.	DESCRIPTION	DATE
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2026-133-P02206 Chedoke Elementary School
Washroom Renovations

500 Bendamere Ave., Hamilton, ON

drawing title:
SECOND FLOOR PROPOSED FINISHES

drawn: AS
checked: AJ
scale: As indicated
project number: 25-25

DRAWING NO: A1.09
Revision: 1

GENERAL PROVISIONS FOR MECHANICAL SPECIFICATIONS:

1. GENERAL CONTRACT

1.1. THE INSTRUCTIONS TO BIDDERS AND THE GENERAL CONDITIONS OF THE ARCHITECTURAL SPECIFICATIONS ARE AN INTEGRAL PART OF MECHANICAL DIVISION, AND SHALL BE READ IN CONJUNCTION HEREWITH. THESE INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS SHALL BE FULLY BINDING ON THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS TO THE FULL SATISFACTION OF THE ARCHITECT AND ENGINEER.

1.2. THE RESPONSIBILITY AND SCOPE OF EACH SUB-TRADE RESTS SOLELY WITH THE GENERAL CONTRACTOR. EXTRAS WILL NOT BE CONSIDERED BASED ON THE GROUNDS OF DIFFERENCE IN INTERPRETATION OF SPECIFICATIONS AND DRAWINGS AS TO WHICH TRADE INVOLVED SHALL PROVIDE CERTAIN SPECIALTIES OR MATERIALS.

1.3. THE INTENT OF THIS SPECIFICATION AND DRAWING IS TO PROVIDE FOR A COMPLETE OPERATING SYSTEM IN COMPLETE ACCORD WITH ALL APPLICABLE CODES. THESE SPECIFICATIONS MAY NOT COVER EACH AND EVERY ITEM REQUIRED FOR THE COMPLETE INSTALLATION; THEREFORE, THE CONTRACTOR SHALL MAKE PROVISIONS FOR ALL LABOUR, MATERIAL, AND EQUIPMENT DEEMED NECESSARY TO COMPLETE THE SYSTEM.

2. EXAMINATION OF PREMISES AND PLANS

2.1. THIS DRAWINGS AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH BASE BUILDING DRAWINGS AND SPECIFICATIONS. MAXIMUM CONDITIONS WILL GOVERN.

2.2. THE LAYOUT OF THE EXISTING SYSTEMS HAS BEEN TAKEN FROM AVAILABLE INFORMATION AND SHALL BE ACCURATELY CHECKED ON THE SITE.

3. PERMITS AND FEES

3.1. GIVE ALL NECESSARY NOTICE, OBTAIN ALL NECESSARY PERMITS AND PAY ALL FEES IN ORDER THAT THE WORK SPECIFIED MAY BE CARRIED OUT AND FURNISH ANY CERTIFICATES NECESSARY AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.

4. CODES AND BYLAWS

4.1. COMPLY WITH ALL CODES AND BY-LAWS RELATING TO THE INSTALLATIONS AND EQUIPMENT. CARRY OUT, WITHOUT CHARGE TO THE OWNER, ALL CHANGES AND ALTERATIONS REQUIRED BY AN AUTHORIZED INSPECTOR OF AN AUTHORITY HAVING JURISDICTION. PROVIDE ANY CERTIFICATES, AT THE ENGINEER'S REQUEST AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.

4.2. INSTALLATION OF ALL MECHANICAL AND ELECTRICAL SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF ONTARIO BUILDING CODE 2006.

5. INTERRUPTION OF EXISTING SERVICES

5.1. THE CONTRACTOR SHALL ARRANGE THE SCHEDULE AND PROCEED WITH THE WORK DESCRIBED WITH THE MINIMUM DISTURBANCE AND INTERRUPTION OF EXISTING FACILITIES AND SERVICES.

5.2. THE PREMISES WILL BE KEPT OPERATIONAL DURING ENTIRE LENGTH OF CONSTRUCTION. CONTRACTOR TO MAKE ALL NECESSARY ALLOWANCES.

6. RESPONSIBILITY

6.1. ASSUME FULL RESPONSIBILITY FOR LAYOUT OF THE WORK AND FOR ANY DAMAGE CAUSED THE OWNER OR OTHERS BY IMPROPER LOCATION OR CARRYING OUT OF THIS WORK.

7. CLEANING

7.1. DURING THE COURSE OF CONSTRUCTION AND UPON COMPLETION, REMOVE FROM THE PROJECT SITE, TO COMPLETE SATISFACTION OF THE OWNER, ALL RUBBISH AND WASTE RESULTING FROM THIS WORK. CLEAN-UP TO INCLUDE FLOOR, WALL, CEILING AND ROOF AREAS.

8. GUARANTEE

8.1. FURNISH THE OWNER WITH A WRITTEN GUARANTEE FOR THE SATISFACTORY OPERATION OF ALL WORK AND APPARATUS INSTALLED UNDER THIS CONTRACT, AND REPLACE FORTHWITH, AT THE CONTRACTOR'S OWN EXPENSE, ON ANY PART OF THE SYSTEM WHICH MAY FAIL OR PROVE DEFECTIVE WITHIN A PERIOD OF 12 MONTHS AFTER THE SUBSTANTIAL PERFORMANCE ACCEPTANCE, PROVIDED SUCH FAILURE IS NOT DUE TO IMPROPER USAGE OR ORDINARY WEAR AND TEAR.

9. CUTTING AND PATCHING

9.1. ALL CUTTING AND PATCHING REQUIRED TO PERFORM WORK, TO BE THE RESPONSIBILITY OF THE INDIVIDUAL DIVISION.

10. SHOP DRAWINGS

10.1. SUBMIT DETAILED SHOP DRAWINGS FOR REVIEW BY ENGINEER. THESE WILL BE REVIEWED FOR SPECIFICATION COMPLIANCE AND SHALL BE REVISED AS OFTEN AS MAY BE FOUND NECESSARY TO THE SATISFACTION OF THE ENGINEER. NUMBER OF REQUIRED COPIES SHALL BE DETERMINED AND COORDINATED WITH ARCHITECT, GENERAL CONTRACTOR AND OWNER AT START UP OF THE PROJECT.

10.2. ALL SHOP DRAWINGS SHALL BE REVIEWED, SIGNED AND STAMPED BY CONTRACTOR INDICATING THAT PROPOSED MATERIAL, EQUIPMENT AND SYSTEM, COMPLIES WITH DRAWINGS, SPECIFICATIONS AND PROJECT REQUIREMENT. REVIEW OF SHOP DRAWINGS BY CONSULTANT IS FOR CONFORMANCE WITH GENERAL DESIGN CONCEPT AND DOES NOT APPROVE THE DETAILS OF CONSTRUCTION AND INSTALLATION OF THE MATERIAL, EQUIPMENT AND SYSTEMS, RESPONSIBILITY OF WHICH REMAINS WITH CONTRACTOR AND SUPPLIER.

11. RECORD DRAWINGS

11.1 DURING CONSTRUCTION CLEARLY MARK ON A SET OF WHITE PRINTS OF CONTRACT DRAWINGS ALL CHANGES WHICH ARE REQUIRED BY ADDENDUMS, SITE INSTRUCTIONS, CHANGE NOTICES AND SITE CONDITIONS AND MAKE IT AVAILABLE TO CONSULTANT FOR REVIEW.

11.2. AFTER COMPLETION OF THE WORK SUBMIT ONE SET OF ELECTRONIC COPY OF MARKED UP 'AS BUILT' DRAWINGS TO CONSULTANT FOR REVIEW. REVIEW OF RECORD DRAWINGS BY CONSULTANT SHALL BE FOR GENERAL CONFORMANCE AND IT IS NOT APPROVAL OF THE ACCURACY OF THE DRAWINGS. THIS DIVISION IS RESPONSIBLE FOR ACCURACY OF 'AS BUILT' DRAWINGS.

11.3. INCORPORATE ALL THE COMMENTS FROM CONSULTANT AND SUBMIT CAD FILE AND TWO SETS OF HARD COPIES OF AS BUILT DRAWINGS TO THE OWNER. AN E-MAIL COPY OF TENDER DRAWINGS CAN BE OBTAINED FROM CONSULTANT AT NO CHARGE.

11.4. INSTRUCT THE OWNER'S REPRESENTATIVE IN THE OPERATION AND MAINTENANCE OF ALL EQUIPMENT.

12. REMOVAL OF EXISTING MATERIALS

12.1. PRESENT EXISTING MATERIAL AND EQUIPMENT REMOVED FROM WORK BUT NOT IDENTIFIED FOR RE-USE ON SITE TO OWNER. ACCEPTANCE OF REMOVED MATERIAL AND EQUIPMENT IS AT THE DISCRETION OF OWNER. WHERE DEEMED UNSUITABLE, CONTRACTOR TO REMOVE SUCH ITEMS FROM SITE.

13. OPERATION & MAINTENANCE (O&M) MANUAL

SUBMIT DIGITAL COPIES OF O&M MANUALS TO CONSULTANT FOR REVIEW. MANUALS SHALL INCLUDE SHOP DRAWINGS OF ALL NEW EQUIPMENT, TEST AND BALANCING REPORTS, COMMISSIONING REPORTS, WARRANTIES, AND OPERATION AND MAINTENANCE PROCEDURES.

14. TESTING, BALANCING & ADJUSTING

PERFORM TESTING, BALANCING AND ADJUSTING TO PERTINENT SYSTEMS INCLUDING:

- HVAC SYSTEM
- SUBMIT BALANCING REPORT TO CONSULTANT FOR APPROVAL TO ENSURE THAT ALL COMPONENTS ARE OPERATING WITHIN THEIR DESIGN PARAMETERS.
- TEST AND COMMISSION ALL NEW EQUIPMENT AND SYSTEMS.
- PROVIDE GAS CERTIFICATE OF TESTING ENTITY.
- COMPILE AND PROVIDE AS-BUILT DRAWINGS AND OPERATION AND MAINTENANCE MANUALS AS INDICATED.

MECHANICAL SPECIFICATION

PLUMBING

1. MATERIALS AND INSTALLATION MUST COMPLY WITH THE STANDARDS OF THE ONTARIO BUILDING CODE AND PLUMBING CODE
2. COORDINATE LOCATIONS AND ROUTING WITH OTHER TRADES FOR EQUIPMENT, CONTROL DEVICES, SERVICES AND DISTRIBUTION SYSTEMS.
3. PROVIDE WIRING DRAWINGS TO THE ELECTRICAL CONTRACTOR FOR MECHANICAL CONNECTIONS.
4. CONFIRM EXACT DIMENSIONS AND LOCATIONS OF OPENINGS, SLEEVES AND INSERTS ON SITE. ANY REQUIRED CUTTING, CHASES OR HOLES IN FLOORS, WALLS OR ROOFS SHALL BE EXECUTED BY THE CONTRACTOR AND MADE GOOD AS REQUIRED.
5. USE DIELECTRIC COUPLINGS FOR CONNECTIONS BETWEEN DISSIMILAR METALS.
6. DOMESTIC WATER PIPING: TYPE L HARD-DRAWN SEAMLESS COPPER TUBE TO ASTM B88M WITH COPPER SOLDER-TYPE FITTINGS TO ASME B16.18 AND LEAD-FREE SOLDERED JOINTS.
7. SANITARY DRAINAGE AND VENT PIPING: ABOVE FLOOR: CAST IRON DWV PIPING TO CAN/CSA B70. BELOW FLOOR: ABS-DWV PIPING TO CAN/CSA B181.1 FOR SIZES 80 mm (3") AND SMALLER AND PVC SDR-35 TO CAN/CSA B181.2 FOR SIZES 100 mm (4") AND LARGER. CONNECT TO EXISTING PIPING USING APPROVED NO-HUB MECHANICAL COUPLINGS.
8. REMOVE ALL EXISTING DRAIN, VENT, HOT AND COLD WATER PIPES NOT USED IN THIS CONTRACT AT FLOOR, WALL OR CEILING.
9. PROVIDE AND INSTALL VENTING SYSTEM FOR ALL PLUMBING FIXTURE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE. ALL FLOOR DRAIN TRAPS SHALL BE VENTED AND PRIMED.
10. SUPPORT HORIZONTAL PIPING EVERY 2500 MM (8') FOR 3/4" PIPE AND SMALLER, AND EVERY 3000 MM (10') FOR LARGER SIZES. PROVIDE PIPE HANGERS AND SUPPORTS AS FOLLOWS: HANGERS SHALL BE ADJUSTABLE SWIVEL RING TYPE (GRINNELL FIGURE #101) FOR UP TO 50 MM AND ADJUSTABLE WROUGHT CLEVIS TYPE (GRINNELL FIGURE #250) FOR 2-1/2" AND OVER. ALL HANGERS AND RODS SHALL BE ADEQUATE IN SIZE AND STRENGTH TO SAFELY SUPPORT THE PIPING SYSTEM.
11. ARRANGE PIPING TO AVOID AIR BINDING AND WATER HAMMER; SLOPE DRAINAGE PIPING TO ELIMINATE AIR POCKETS.
12. PROVIDE CLEANOUTS AS REQUIRED. CLEANOUTS SHALL BE OF THE SAME SIZE AS THE PIPE UP TO 4". BRANCH CLEANOUTS SHALL BE ACCESSIBLE; INSTALL CLEANOUTS AT THE END OF BRANCHES AND AT THE BASE OF SOIL/WASTE STACKS. CLEANOUTS SHALL BE BRASS SCREW PLUG TYPE WITH CAST IRON BODIES WHERE INDICATED.
13. SHUT-OFF VALVES 50 MM (2") AND SMALLER SHALL BE 150 LB SOLDER JOINT BRONZE BALL VALVES WITH LEVER HANDLES AND STEM EXTENSIONS WHERE REQUIRED.
14. SUPPLY AND INSTALL THE PLUMBING FIXTURES SHOWN AND LISTED IN THE FIXTURE SCHEDULE; SUBMIT SHOP DRAWINGS FOR FIXTURES PRIOR TO INSTALLATION.

PIPING INSULATION (PLUMBING)

1. DOMESTIC COLD WATER PIPING TO BE INSULATED WITH PREFORMED GLASS FIBER INSULATION TO CSGB 51-GP-9C, FACTORY APPLIED RFFRK VAPOUR BARRIER JACKET WITH WHITE KRAFT SIDE FACING OUT 1/2" THICK. K FACTOR 0.25 @ 75OF OR BETTER. SEAL BUTT JOINTS AND END JOINTS WITH PRESSURE SENSITIVE VAPOUR BARRIER ADHESIVE.
2. DOMESTIC COLD WATER PIPING IN UNCONDITIONED SPACE OR OUTSIDE TO BE INSULATED WITH PREFORMED GLASS FIBER INSULATION TO CSGB 51-GP-9C, FACTORY APPLIED RFFRK VAPOUR BARRIER JACKET WITH WHITE KRAFT SIDE FACING OUT 1-1/2" THICK. K FACTOR 0.25 @ 75OF OR BETTER. SEAL BUTT JOINTS AND END JOINTS WITH PRESSURE SENSITIVE VAPOUR BARRIER ADHESIVE AMD PVC JACKET.

PLUMBING FIXTURE INSTALLATION

1. FIXTURE INSTALLATION - GENERAL

1.1. INSTALL FIXTURES EXACTLY AS SHOWN ON ARCHITECTURAL DRAWINGS; EACH FIXTURE SHALL BE COMPLETE WITH TRIM, ACCESSORIES, SUPPORTS AND FASTENING HARDWARE. FIXTURES AND TRIMS MUST BE C.S.A. APPROVED; EXACT LOCATIONS TO BE COORDINATED ON SITE WITH THE LATEST ARCHITECTURAL DRAWINGS.

1.2. PROVIDE DOMESTIC WATER PIPING, SHUT-OFF VALVES, TRAPS AND DRAINAGE FOR EACH FIXTURE. INSTALL FIXTURES COMPLETE, TESTED AND READY FOR SERVICE IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS. ARRANGE CUTTING AND PATCHING REQUIRED FOR INSTALLATION; CUTTING OF WALLS/FLOORS/CEILINGS IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE MADE GOOD BY OTHERS AS NOTED.

1.3. FINAL ROUTING OF PIPES TO BE DETERMINED ON SITE AFTER REVIEW OF STRUCTURAL, ELECTRICAL AND ARCHITECTURAL CONDITIONS. THE CONTRACTOR SHALL COORDINATE ROUTING WITH OTHER TRADES; ANY CHANGES REQUIRED DURING CONSTRUCTION SHALL BE ACCOMMODATED BY THE CONTRACTOR UNLESS THE CHANGE EXCEEDS 2.5 METRES FROM THE SHOWN CONNECTION, IN WHICH CASE ADDITIONAL COST SHALL BE ADDRESSED.

1.4. SUPPORT FIXTURES LEVEL AND SQUARE AND CONNECT WITH SUPPLIES, DRAINS, TRAPS AND VENTS.

1.5. WHERE A FAUCET HAS SEPARATE HOT AND COLD WATER HANDLES, POSITION THE HOT WATER HANDLE ON THE LEFT SIDE OF THE FAUCET.

1.6. WHERE FIXTURES ON LOCATED ON EXTERIOR WALLS, RUN THE WATER SUPPLIES UP THROUGH THE FLOOR. FOR OTHER FIXTURE LOCATIONS, RUN WATER SUPPLIES IN THE WALL CAVITY.

1.7. PROVIDE RESILIENT, WATERTIGHT AND GAS-TIGHT SEALS FOR EVERY JOINT IN A FLOOR FLANGE OR BETWEEN A FLOOR-OUTLET FIXTURE AND THE DRAIN.

2. START-UP AND TESTING

2.1 TEST, ADJUST AND SET TEMPERATURE CONTROL ON THERMOSTATIC MIXING VALVES TO SUPPLY A MAXIMUM WATER TEMPERATURE OF 29°C (85°F).

2.2 TEST, ADJUST AND SET HIGH TEMPERATURE LIMIT STOPS ON THERMOSTATIC MIXING VALVES TO SUPPLY A TEMPERED WATER NOT EXCEEDING 32°C (90°F).

2.3 FLOW WATER THROUGH EACH EMERGENCY FIXTURE AND TMV FOR AT LEAST TWO (2) MINUTES. RECORD THE WATER TEMPERATURE (AS MEASURED AT THE TMV) AT 10 SECONDS FROM ON-SET OF FLOW, AT THE TIME TO REACH THE CONTROL SETPOINT, AND AGAIN AT THE END OF THE TEST PERIOD.

3. TEST AND INSTALLATION RECORDS

3.1 AFTER COMPLETION OF TESTING AND AT TURN-OVER TO THE OWNER, ATTACH AND FILL OUT AN INSPECTION TAG TO EACH EMERGENCY FIXTURE IDENTIFYING THE DATE OF THE TEST AND THE PERSON WHO CONDUCTING THE TEST.

3.2 PROVIDE A REPORT OF THIS TESTING AND INCLUDE:

3.2.1 FIXTURE REFERENCE,

3.2.2 MEASURED TEMPERATURES,

3.2.3 DATE OF TEST(S),

3.2.4 SIGNATURE OF PERSON(S) CONDUCTING TEST.

3.3 SUBMIT A COPY OF EACH REPORT TO THE CONSULTANT AND OWNER FOR REVIEW AND ACCEPTANCE.

3.4 THE ABOVE TESTS ARE SUBJECT TO A DEMONSTRATION TEST AUDIT OF UP TO 10% OF THE TOTAL FIXTURE COUNT TO VERIFY COMPLIANCE. IF AUDIT TESTS ARE NOT SATISFACTORY TO THE CONSULTANT, ADDITIONAL TESTING AND VERIFICATION WILL BE CONDUCTED BY THE CONTRACTOR UNTIL SUCH TIME AS A DEMONSTRATION AUDIT PROVIDES SATISFACTORY RESULTS TO THE CONSULTANT.

4. FIXTURE SUPPORTS

4.1 PROVIDE PLATES, BRACKETS, WALL CARRIERS, CLEATS, AND SUPPORTS TO SECURE FIXTURES IN PLACE.

4.2 FASTEN WALL BRACKETS WITH BOLTS ATTACHED TO DOUBLE STEEL SUPPORTING PLATES.

4.3 BOLT FIXTURE TO WALL THROUGH CORED HOLES UNDER LAVATORY WALL FLANGE, USING CHROME PLATED CARRIAGE BOLTS WITH INTEGRAL WASHERS, AND EXPANSION SHIELDS.

4.4 INSTALL EXTRA-HEAVY-DUTY CHAIR CARRIERS FOR FIXTURES NOT DIRECTLY SUPPORTED FROM FLOOR.

4.5 CONCEAL VERTICAL SUPPORTS AND BASEPLATES IN WALL CONSTRUCTION.

4.6 APPLY SEALANT BEAD BETWEEN WALL MOUNTED FIXTURE AND FINISHED WALL AND FINISH WITH A SMOOTH CONCAVE PROFILE.

4.7 SET FLOOR MOUNTED WATER CLOSET BOWLS IN MASTIC, AND SEAL THE FLOOR FLANGE WITH A RESILIENT, WATERTIGHT AND GAS-TIGHT FLANGE SEAL.

5. PROTECTION

5.1 COVER PLUMBING FIXTURES AND TRIM WITH PLYWOOD, CARDBOARD OR HEAVY PAPER AND KEPT PROTECTED BEFORE, DURING AND AFTER INSTALLATION AND UNTIL WORK IS COMPLETED AND ACCEPTED.

5.2 CLEAN FIXTURES, AND TRIM IMMEDIATELY PRIOR TO BUILDING COMPLETION.

WATER TREATMENT

DRAIN AND FLUSH THE AFFECTED PORTION OF THE HEATING SYSTEM AND PERFORM CHEMICAL TREATMENT. COORDINATE THE WORK WITH THE OWNER'S WATER TREATMENT SERVICE PROVIDER: AQUARIAN CHEMICALS INC. (CONTACT: MAURO CESA, CET, 905-825-3711, MCESA@AQUARIANCHEMICALS.COM). UPON COMPLETION, RESTORE SYSTEM WATER QUALITY AND PROVIDE A WATER TREATMENT REPORT CONFIRMING SYSTEM CONDITIONS.

CONTROLS

PROVIDE ALL REQUIRED CONTROL DEVICES, WIRING, AND INTERFACE HARDWARE NECESSARY FOR FULL BAS MONITORING AND CONTROL AS PER HWDSB BAS STANDARD. COORDINATE WITH THE BASE BUILDING BAS SERVICE PROVIDER, JOHNSON CONTROLS (CONTACT: RAY KAMPEN, 905-730-9695, RAYMOND.A.KAMPEN@JCI.COM.

DAYCARE FACILITY

ENSURE NO INTERRUPTION TO DAYCARE FACILITY OPERATIONS DURING CONSTRUCTION. PERFORM ANY REQUIRED SERVICE SHUTDOWNS AFTER HOURS TO MAINTAIN CONTINUOUS DAYCARE OPERATION.

CONSTRUCTION PHASING:
REFER TO ARCHITECTURAL DRAWINGS FOR CONSTRUCTION PHASING AND RELATED REQUIREMENTS.

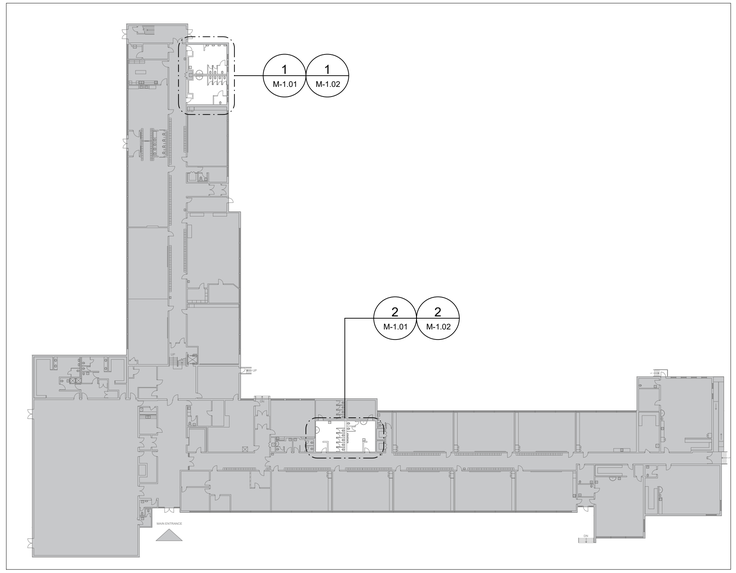
DRAWINGS LIST

DWG NO.	DRAWING NAME
M-0.01	MECHANICAL SPECIFICATIONS, LEGEND, SCHEDULE
M-1.01	MECHANICAL DEMOLITION
M-1.02	MECHANICAL NEW CONSTRUCTION
M-2.01	PLUMBING FIXTURES

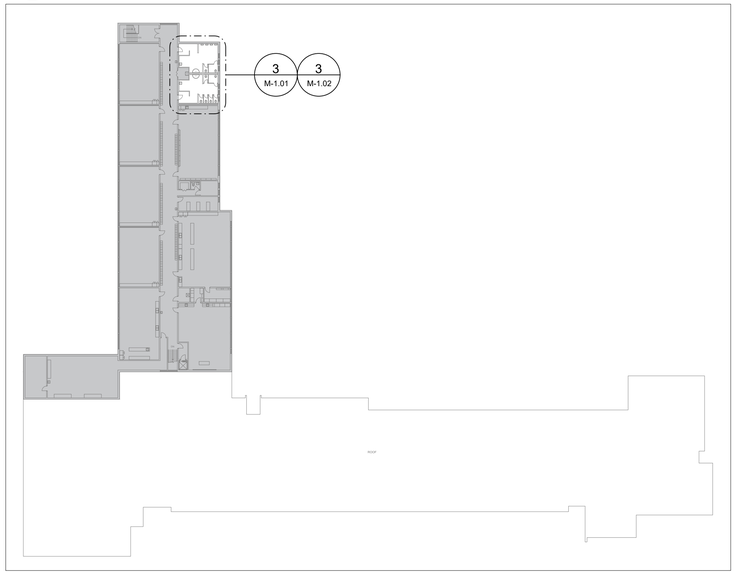
LEGEND

PLUMBING AND DRAINAGE

SYMBOL	DESCRIPTION
SAN	SANITARY AT HIGH LEVEL
SAN	SANITARY UNDER SLAB OR CEILING BELOW
	FLOOR DRAIN
	TRAP PRIMER
TPA	TRAP PRIMER ASSEMBLY C/W SOLENOID VALVE & TIMER
V	SANITARY VENT
CO	SANITARY CLEANOUT IN ACCESSIBLE CEILING SPACE
CO	SANITARY CLEANOUT IN SLAB
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
TAG SIZE FLOW	AIR OUTLET OR INLET TAG



1 M-0.01 GROUND FLOOR - KEY MAP
1 :500



2 M-0.01 SECOND FLOOR - KEY MAP
1 :500

PLUMBING FIXTURES SCHEDULE

TAG/MARK/LABEL	PRODUCT CATEGORY	MANUFACTURER	MODEL NUMBER	DESCRIPTION	ROUGH IN				FAUCET/FLUSH VALVE	ACCESSORIES	REMARKS/COMMENTS
					DRAIN	VENT	HOT	COLD			
WC-1	TOILET	AMERICAN STANDARD	3451001.020	WHITE FINISH VITREOUS CHINA, EVERCLEAN® ANTIMICROBIAL SURFACE	3	1 1/2	-	1	SLOAN ROYAL 111-1.6, LOW CONSUMPTION 6.0 LPF (1.6 GPF), MANUAL	SEAT: BEMIS BEMIS COMMERCIAL 1955CT 000, FITS MOST MANUFACTURERS' ELONGATED TOILETS, WHITE, ECO-FRIENDLY HEAVY-DUTY PLASTIC WITH MOLDED-IN COLOR	PROVIDE ALL REQUIRED ACCESSORIES. COMPONENTS SHOWN ON DWG M2.01 ARE DIAGRAMMATIC/ILLUSTRATIVE ONLY.
WC-2	TOILET	AMERICAN STANDARD	3641001.020	WHITE FINISH VITREOUS CHINA	3	1 1/2	-	1	SLOAN ROYAL 111-1.6, LOW CONSUMPTION 6.0 LPF (1.6 GPF), MANUAL		SAME AS ABOVE.
UR-1	URINAL	AMERICAN STANDARD	6590001.020 7381755-200.0020A	WASHBROOK® FLOWISE®, WALL-HUNG, FLUSH VALVE URINAL, STANDARD USE, VITREOUS CHINA, WHITE FINISH, 19 MM (3/4") SPUD CONNECTION, TOP SPUD, URINAL OPERATES IN THE RANGE OF 0.5 TO 3.8 LPF (0.125 - 1.0 GPF), POWERFUL WASHDOWN, VANDAL-RESISTANT STAINLESS STEEL STRAINER	2	1 1/2	-	3/4	WATER MARTIX UTC SENTINEL REFER TO INSTALLATION DETAILS.	CARRIER: WATTS CA-321, URINAL CARRIER, WALL PLATE COUPLING: MISSION RUBBER PRODUCTS CORP NO HUB SERIES	SAME AS ABOVE.
WS-1	GROUP HANDWASHING STATIONS	ACORN	3604-2-SO		2	1 1/4	3/4	3/4		MIXING VALVE: LAWLER 570-86820 SUPPLY: MCGUIRE LFBV170	SAME AS ABOVE.

FLOOR DRAIN AND CLEAN OUT SCHEDULE

TAG/MARK/LABEL	PRODUCT CATEGORY	MANUFACTURER	MODEL NUMBER	DESCRIPTION	BODY MATERIAL	TOP/GRATE/STAINER/DOME	COVER	OUTLET SIZE (INCHES)	REMARKS/COMMENTS
UR-1	CLEAN OUT	WATTS	CO-38CO-382-RD-RD	WALL ACCESS, NON-ADJUSTABLE, WALL CLEANOUT, GASKETED BRASS COUNTERSUNK PLUG FOR URINAL	CAST IRON	ROUND	STAINLESS STEEL ACCESS COVER	51 MM (2") PIPE SIZE, NO-HUB OUTLET	
FD	FLOOR DRAIN	WATTS	FD-103-C-A-6-7	FINISHED AREA, FLOOR DRAIN, ANCHOR FLANGE, TRAP PRIMER TAPPING, REVERSIBLE MEMBRANE CLAMP, COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, VANDAL-PROOF, TRAP PRIMER TAPPING	EPOXY COATED CAST IRON, STANDARD BODY MATERIAL	ADJUSTABLE, 6 MM (1/4") THICK TOP, ROUND, UNSIZED STRAINER		76 MM (3") PIPE SIZE, TO BE DETERMINED	USE SQUARE STRAINER IN TILED AREAS AND ROUND STRAINER ELSEWHERE. C/W TRAP PRIMER
CO	CLEAN OUT	WATTS	CO-200-R	UNFINISHED AREA, ADJUSTABLE, FLOOR CLEANOUT	EPOXY COATED CAST IRON, STANDARD (EPOXY COATED CAST IRON)	ROUND, 130 MM (5-1/8") NICKEL BRONZE TOP	UNSIZED COVER	UNSIZED PIPE, TO BE DETERMINED	

CONVECTOR SCHEDULE

TAG	MANUFACTURER	MODEL	LEVEL	ROOM	HEATING CAPACITY (BTU/HR)	AWT (°F)	EAT (°F)	HEIGHT (IN)	WIDTH (IN)	LENGTH (IN)	WATER FLOW (GPM)
CV-1	TRANE OR APPROVED EQUAL	SW-A	LEVEL 2	RM 209	7,200	170	65	32	8	32	0.82

NOTE: C/W ENCLOSURE AND ACCESS PANEL FOR CONTROL VALVE SERVICE AND MAINTENANCE.

REGISTER, GRILLE & DIFFUSER SCHEDULE

TAG	MANUFACTURER	MODEL	QTY	TYPE	MATERIAL	REMARKS
E-1	PRICE OR EQUIVALENT	80	SEE PLAN	EGG CRATE GRILLE	ALUMINUM	1/2X1/2X1/2 ALUMINUM EGGCRATE CORE, C/W 1 1/4" FLAT BORDER & SCREWED FASTENING FOR SURFACE MOUNTING.
E-2	PRICE OR EQUIVALENT	630 SERIES	SEE PLAN	LOUVERED GRILLE	ALUMINUM	0° DEFLECTION 3/4 IN. BLADE SPACING, C/W BORDER & SCREWED FASTENING FOR SIDE WALL MOUNTING.

NOTES:
- PROVIDE FULL PERIMETER GASKET WITH PLASTER FRAMES CONCEALED FASTENERS AND CONCEALED OPERATOR.
- COLOR: COORDINATE WITH ARCHITECTURAL

C

0 10mm 20 40 60 80 100 120 140 160 180 200mm

PAPER SIZE: ARCH D 24 x 36 (610 x 914) ● READ DRAWING ACCORDINGLY

Rev	Description	Date
4.0	RE-ISSUED FOR TENDER	2026/03/25
3.0	ISSUED FOR TENDER	2026/02/17
2.0	ISSUED FOR PERMIT	2025/12/15
1.0	ISSUED FOR CLIENT REVIEW	2025/07/19

Orientation

Seal

Key Plan

The Contractor shall check and verify all dimensions and report all errors and omissions to the Owner's/MBS Designee (as applicable) for his/her written direction before proceeding with the Work.

A/B A Detail No
B Sheet No where detailed

The specifications are to be considered as an integral part of these drawings. Neither the drawings nor the specifications shall be used alone.

Architect

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Client

HWDSB

Project:

Chedoke Elementary School Washroom Renovation

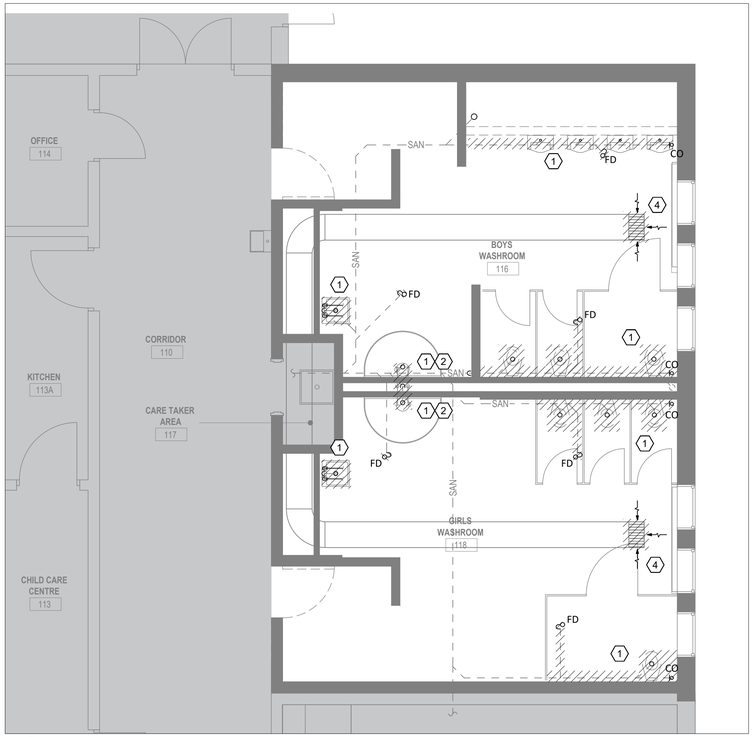
Location:

500 Bendamere Ave., Hamilton, ON

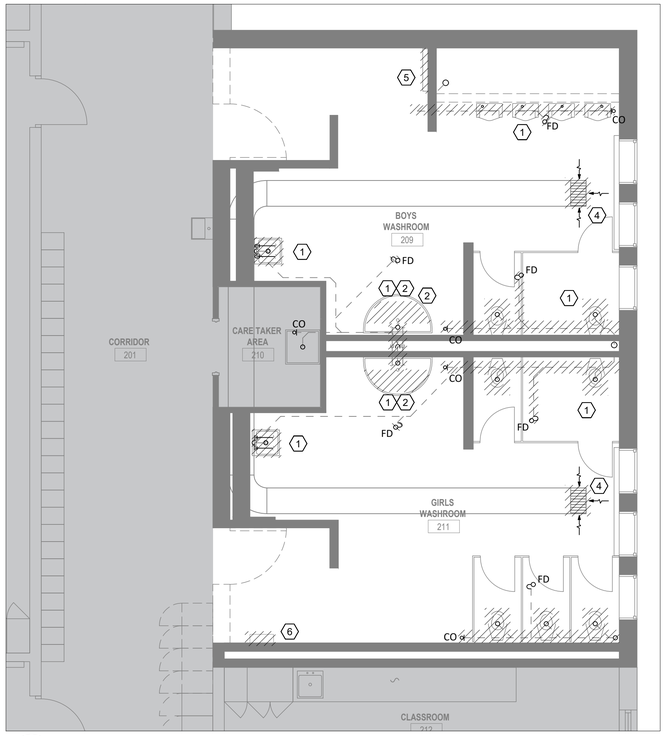
DRAWING TITLE :

MECHANICAL SPECIFICATIONS, LEGEND, SCHEDULE

Substantial Performance Date: TBD	CLIENT PROJECT NO : 25-25
DATE : 2025-11-03	PROJECT NO : D102
SCALE : AS SHOWN	
DRAWN BY : MA	DRAWING NO : M-0.01
DESIGNED BY : MF	
APPROVED BY : MS	



1 ROOMS 116, 118 MECHANICAL DEMOLITION
M-1.01 1 : 50



3 ROOMS 209, 211 MECHANICAL DEMOLITION
M-1.01 1 : 50

2 ROOMS 139, 140 MECHANICAL DEMOLITION - FULL RENOVATION
M-1.01 1 : 50

CONSTRUCTION NOTES

GENERAL

1. ASSUMPTIONS HAVE BEEN MADE REGARDING EXISTING CONDITIONS DUE TO THE LACK OF ACCURATE AS-BUILT DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING RELATED SERVICES ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL CARRY THE COST AS PART OF THE ORIGINAL BID FOR ADJUSTMENTS, RELOCATIONS, OR EXTENSIONS OF SERVICES TO SUIT THE NEW LAYOUT.
2. SANITARY VENT PIPING IS NOT SHOWN ON THE DRAWINGS. SUPPLY AND INSTALL ALL VENT PIPING REQUIRED TO SERVE EACH FIXTURE, ENSURING THE SYSTEM IS COMPLETE AND MEETS LOCAL PLUMBING CODES AND AUTHORITIES HAVING JURISDICTION. CONNECT TO EXISTING OR NEWLY PROVIDED VENT STACKS AS APPLICABLE.
3. PROVIDE TEMPORARY PLUGS AS REQUIRED TO PREVENT ODORS.
4. INSTALL OVERHEAD PIPING TIGHT TO STRUCTURE WITH INSULATION CLEARANCE.
5. INCLUDE SHUT-OFF VALVES ON ALL RISERS AND EQUIPMENT CONNECTIONS.
6. COORDINATE WITH THE GENERAL CONTRACTOR FOR ALL CUTTING, EXCAVATION, BACKFILLING AND FINISHES.
7. COORDINATE THE NEW SERVICES WITH EXISTING MECHANICAL AND ELECTRICAL SERVICES AND STRUCTURAL MEMBERS. OFFSET PIPE ROUTES AS REQUIRED.
8. PROVIDE AN ACCESS DOOR FOR VALVES OR OTHER PLUMBING COMPONENTS INSTALLED IN CONCEALED SPACES THAT REQUIRE ACCESS FOR SERVICE AND MAINTENANCE.
9. MAINTAIN CONTINUOUS OPERATION OF ESSENTIAL SERVICES DURING CONSTRUCTION. PHASE WORK TO AVOID DISRUPTIONS.
10. VERIFY STRUCTURAL INTEGRITY BEFORE OPENINGS.

KEYED NOTES:

(1) REMOVE ALL EXISTING PLUMBING FIXTURES, FLOOR DRAINS, AND CLEANOUTS IN THE WASHROOMS AS SHOWN, C/W ALL ASSOCIATED DOMESTIC WATER, DRAIN, AND VENT PIPING TO THE EXTENT REQUIRED TO COMPLETE THE NEW INSTALLATION, INCLUDING BACK TO MAIN WHERE NECESSARY, AND CAP. REMOVE EXISTING ACCESS PANELS UPON REMOVAL OF EXISTING LAVATORIES.

(2) ADDITIONAL NOTES FOR WASH FOUNTAINS:

- **2.1. ROOMS 116 & 118:** REMOVE EXISTING WASH FOUNTAINS AND REINSTALL AFTER COMPLETION OF NEW WALL AND FINISH WORK.
- **2.2. ROOMS 139 & 140:** REMOVE EXISTING WASH FOUNTAINS AND CONFIRM UNITS ARE FULLY OPERATIONAL AND BEAR A CSA LABEL FOR POTENTIAL RELOCATION.
- **2.3. ROOMS 209 & 211:** REMOVE EXISTING WASH FOUNTAINS AND PROVIDE NEW UNITS UNDER THE BASE BID. IF UNITS REMOVED FROM ROOMS 139 & 140 ARE CONFIRMED FULLY OPERATIONAL AND BEAR A CSA LABEL, RELOCATE THEM TO ROOMS 209 & 211 AND PROVIDE A CREDIT FOR THE NEW UNITS SPECIFIED FOR THESE ROOMS.

(3) THE LOCATIONS OF DRAIN PIPING IN ROOM 139 & 140 WERE UNKNOWN DURING DESIGN, AND NOT SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL CONDUCT INVESTIGATION, INCLUDING VIDEO LOCATING, TO IDENTIFY THE EXACT LOCATION OF DRAIN PIPING. THE EXISTING FLOOR DRAIN IS CURRENTLY PLUGGED. PROVIDE NEW DOMESTIC WATER AND SANITARY PIPING TO SUITE THE NEW FIXTURES LOCATION AS REQUIRED. PROVIDE MARK UPS FOR AS-BUILT DRAWINGS.

(4) REMOVE THE EXISTING EXHAUST AIR GRILLES.

(5) REMOVE THE EXISTING HEATING CONVECTOR C/W ASSOCIATED COMPONENTS.

(6) OPEN EXISTING ENCLOSURE AND INVESTIGATE CONCEALED PIPING. IF FOUND ABANDONED, CUT AND CAP PIPING BELOW FLOOR. ALLOW FOR CEILING OPENING AND REINSTATEMENT AS REQUIRED. IF FOUND OPERATIONAL, PROVIDE CREDIT FOR DEMOLITION WORK.

ROOM 211

ROOM 211

Rev	Description	Date
4.0	RE-ISSUED FOR TENDER	2026/03/25
3.0	ISSUED FOR TENDER	2026/02/17
2.0	ISSUED FOR PERMIT	2025/12/15
1.0	ISSUED FOR CLIENT REVIEW	2025/07/19

Orientation

Seal

Key Plan

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Client
HWDSB

Project:
Chedoke Elementary School Washroom Renovation

Location:
500 Bendamere Ave., Hamilton, ON

DRAWING TITLE :
MECHANICAL DEMOLITION LAYOUT

Substantial Performance Date:	TBD	CLIENT PROJECT NO : 25-25
DATE :	2025-11-03	PROJECT NO : D102
SCALE :	AS SHOWN	
DRAWN BY :	MA	DRAWING NO : M-1.01
DESIGNED BY :	MF	
APPROVED BY :	MS	

PAPER SIZE: ARCH D 24 x 36 (610 x 914) ● READ DRAWING ACCORDINGLY

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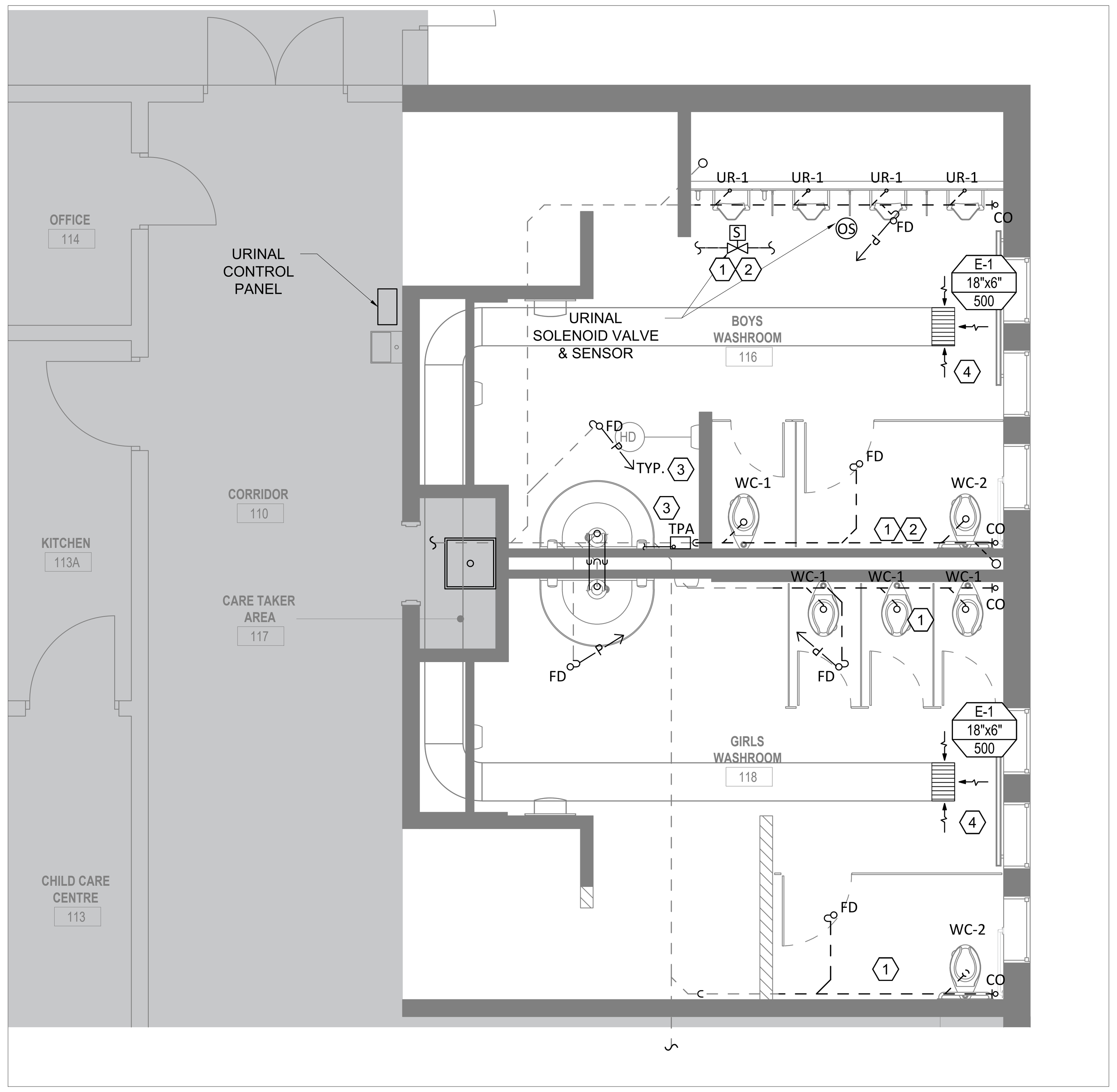
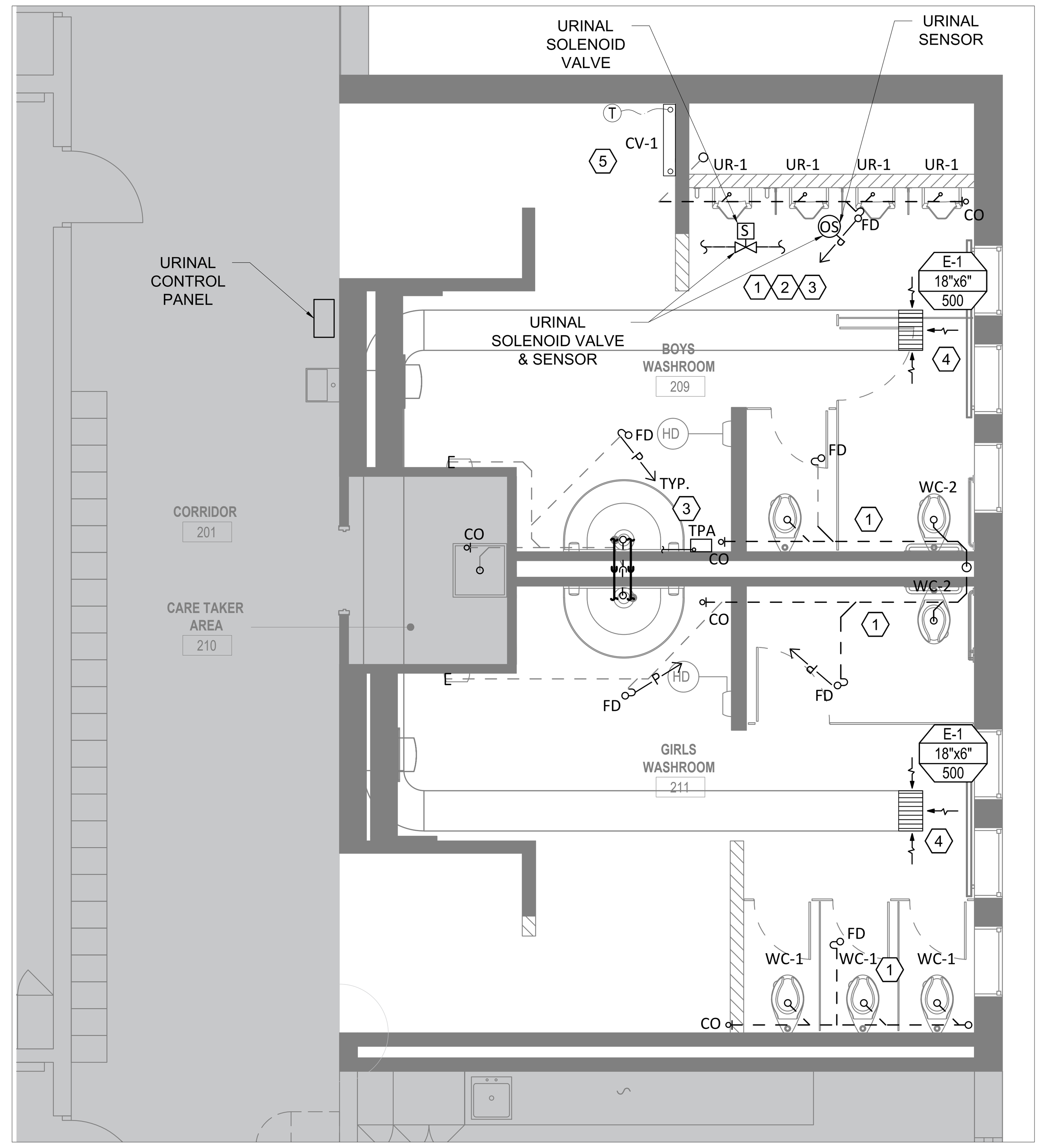


1 M-1.02 ROOMS 116, 118 MECHANICAL NEW CONSTRUCTION
1 : 50



3 M-1.02 ROOMS 209, 211 MECHANICAL NEW CONSTRUCTION
1 : 50

CONSTRUCTION NOTES

GENERAL

1. ASSUMPTIONS HAVE BEEN MADE REGARDING EXISTING CONDITIONS DUE TO THE LACK OF ACCURATE AS-BUILT DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING RELATED SERVICES ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL CARRY THE COST AS PART OF THE ORIGINAL BID FOR ADJUSTMENTS, RELOCATIONS, OR EXTENSIONS OF SERVICES TO SUIT THE NEW LAYOUT.
2. SANITARY VENT PIPING IS NOT SHOWN ON THE DRAWINGS. SUPPLY AND INSTALL ALL VENT PIPING REQUIRED TO SERVE EACH FIXTURE, ENSURING THE SYSTEM IS COMPLETE AND MEETS LOCAL PLUMBING CODES AND AUTHORITIES HAVING JURISDICTION. CONNECT TO EXISTING OR NEWLY PROVIDED VENT STACKS AS APPLICABLE.
3. PROVIDE TEMPORARY PLUGS AS REQUIRED TO PREVENT ODORS.
4. INSTALL OVERHEAD PIPING TIGHT TO STRUCTURE WITH INSULATION CLEARANCE.
5. INCLUDE SHUT-OFF VALVES ON ALL RISERS AND EQUIPMENT CONNECTIONS.
6. COORDINATE WITH THE GENERAL CONTRACTOR FOR ALL CUTTING, EXCAVATION, BACKFILLING AND FINISHES.
7. COORDINATE THE NEW SERVICES WITH EXISTING MECHANICAL AND ELECTRICAL SERVICES AND STRUCTURAL MEMBERS. OFFSET PIPE ROUTES AS REQUIRED.
8. PROVIDE AN ACCESS DOOR FOR VALVES OR OTHER PLUMBING COMPONENTS INSTALLED IN CONCEALED SPACES THAT REQUIRE ACCESS FOR SERVICE AND MAINTENANCE.
9. MAINTAIN CONTINUOUS OPERATION OF ESSENTIAL SERVICES DURING CONSTRUCTION. PHASE WORK TO AVOID DISRUPTIONS.
10. VERIFY STRUCTURAL INTEGRITY BEFORE OPENINGS.

KEYED NOTES:

(1) SUPPLY AND INSTALL NEW PLUMBING FIXTURES AS SHOWN AND AS INDICATED ON THE FIXTURE SCHEDULE, C/W ALL ASSOCIATED DOMESTIC WATER, DRAIN, AND VENT PIPING. EXTEND NEW PIPING AS REQUIRED TO SUIT NEW FIXTURE LOCATIONS AND TO CONNECT TO EXISTING SYSTEMS, INCLUDING BACK TO MAIN WHERE NECESSARY. REFER TO FIXTURE SCHEDULE FOR MINIMUM PIPE SIZES AND CONNECTION REQUIREMENTS. PROVIDE NEW ACCESS PANEL FOR THE NEW CLEAN OUTS AND TRAP PRIMERS. COORDINATE WITH ARCHITECTURAL FOR ACCESS PANEL DETAILS.

(2) SUPPLY AND INSTALL URINAL FLUSHING SYSTEM AS PER INSTALLATION DETAIL SHOWN C/W ALL ASSOCIATED NEW PIPING AND CONTROLS FOR A FULLY OPERATIONAL SYSTEM.

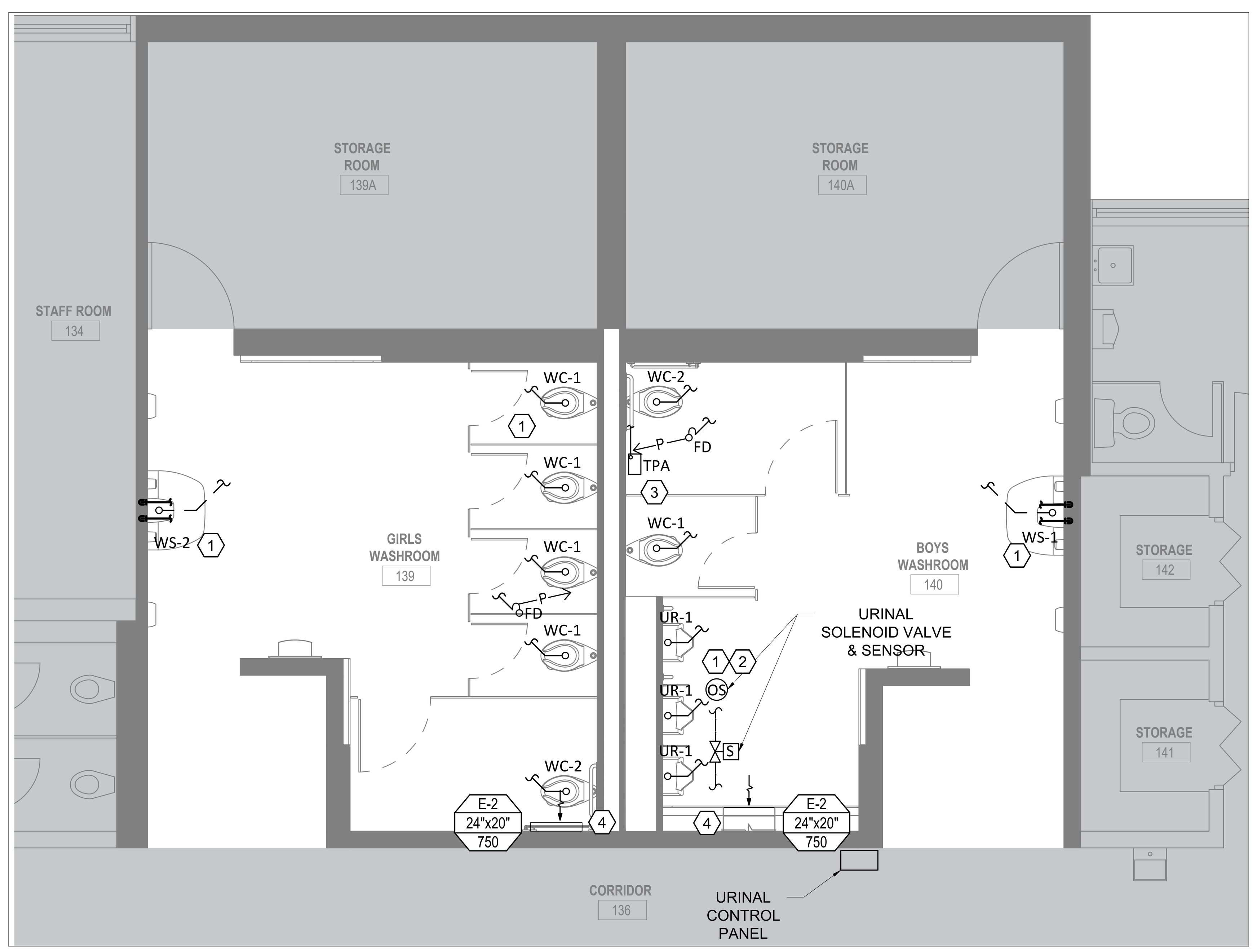
(3) SUPPLY AND INSTALL A NEW ELECTRONIC TRAP PRIMER SYSTEM COMPLETE WITH DISTRIBUTION PIPING, MANIFOLDS, AND CONNECTION TO FLOOR DRAIN TRAPS AS SHOWN. COORDINATE POWER SUPPLY AND CONTROL REQUIREMENTS. VERIFY INSTALLATION LOCATION AND EXISTING CONDITIONS ON SITE. RELOCATE AND MODIFY AS REQUIRED. ALLOW FOR FLOOR CUTTING, PATCHING AND REINSTATEMENT.

(4) SUPPLY AND INSTALL NEW EXHAUST AIR GRILLE. VERIFY SIZE ON SITE TO SUIT EXISTING OPENING. ALLOW FOR DUCTWORK MODIFICATION AND EXTENSION TO MOUNT THE EXHAUST AIR GRILLE FLUSHED ON THE NEW WALL IN ROOM 140. PERFORM DUCT CLEANING FOR THE ENTIRE EXHAUST AIR DISTRIBUTIONS WITHIN THE WASHROOMS AREAS. CARRY OUT AIR BALANCING TO VERIFY AND ADJUST AIRFLOW RATES TO MEET DESIGN REQUIREMENTS AS SHOWN. SUBMIT AIR BALANCING REPORT FOR REVIEW.

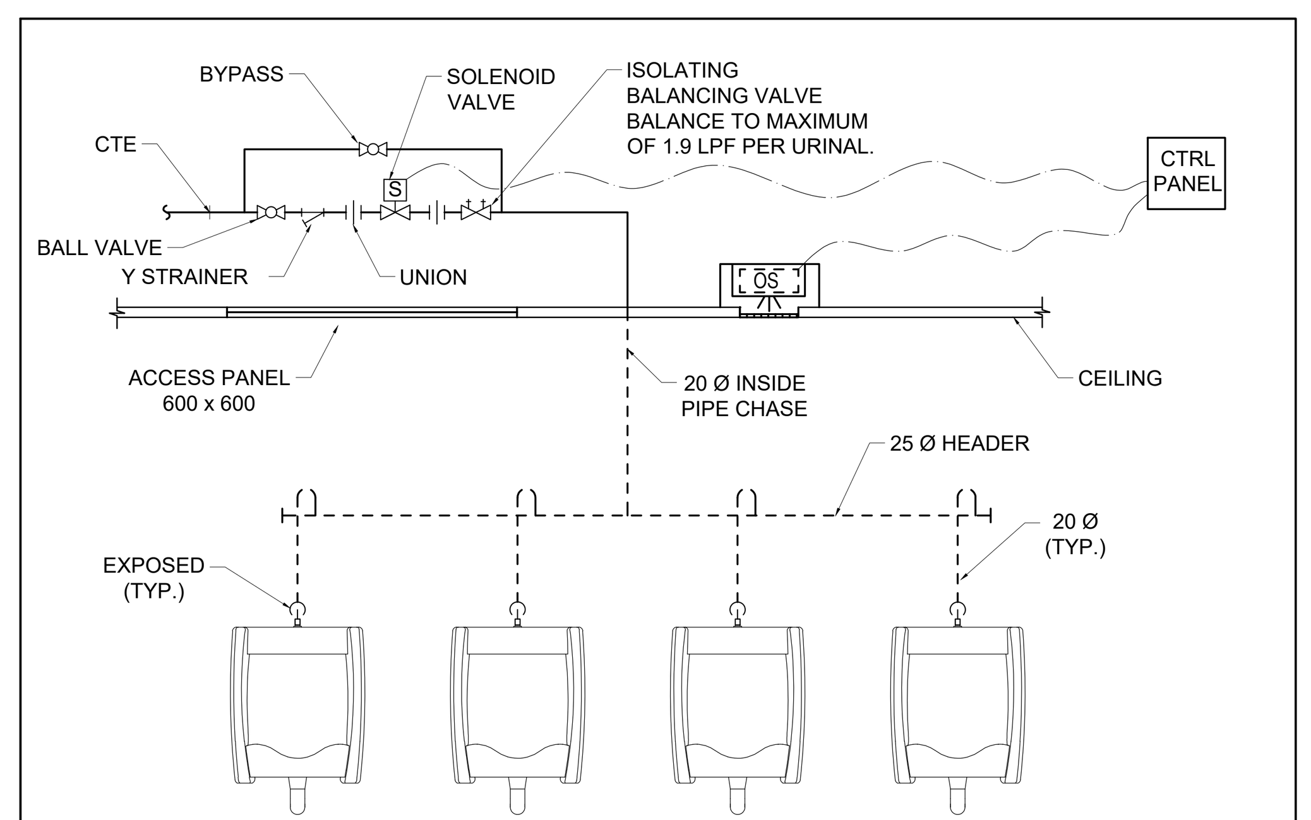
(5) SUPPLY AND INSTALL NEW TERMINAL UNIT C/W ALL ASSOCIATED COMPONENTS AS PER INSTALLATION DETAILS. PROVIDE NEW CONTROL VALVE AND WALL PLATE TEMPERATURE SENSOR C/W NEW CONTROLLER WITH WIRING AND CONDUIT AS REQUIRED AND INTEGRATE TO THE EXISTING BAS SYSTEM. UTILIZE EXISTING RECESSED CONDUIT TO RUN NEW WIRING; IF NOT AVAILABLE, PROVIDE SURFACE-MOUNTED METAL RACEWAY. PROVIDE NEW PIPING, INSULATION, AND SUPPORT CONNECT TO EXISTING AS REQUIRED. ALLOW FOR SYSTEM DRAINING, FILLING, TESTING AND WATER TREATMENT TO COMPLETE INSTALLATION IN COORDINATION WITH SCHOOL BOARD.

(6) PROVIDE CUSTOM 304 BRUSHED STAINLESS STEEL PIPE COVER, MIN. 20 GA, FOR ARCHITECTURAL CONCEALMENT OF EXISTING EXPOSED PIPING FOR THE CONVECTORS IN ROOM 116 & 118. COORDINATE WITH FIELD CONDITIONS. PROVIDE CLEAN FINISH WITH CONCEALED FASTENERS. REFER TO PHOTO BELOW.

(7) ALLOW FOR HEATING CONVECTORS ENCLOSURES MODIFICATION WITH NEW CAP ENDS TO SUIT THE NEW WASHROOM PARTITIONS IN ROOM 116 & 118. REFER TO PHOTO BELOW.

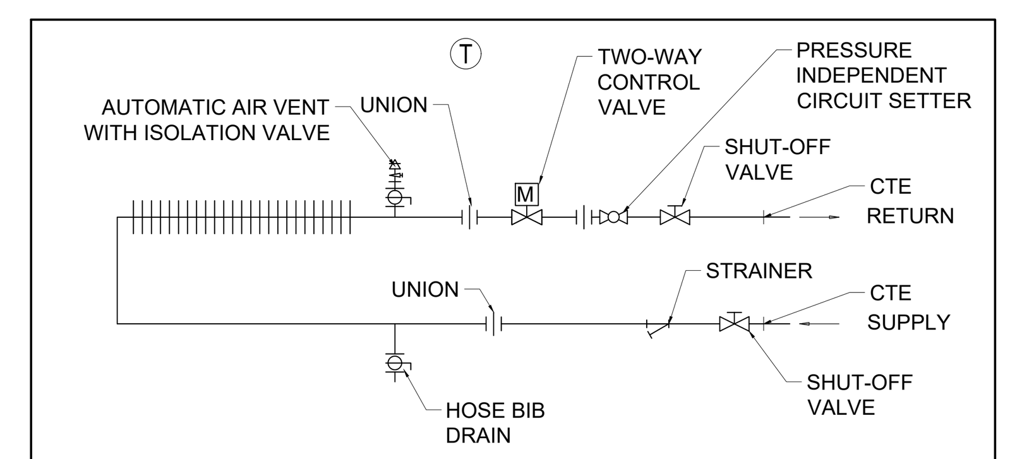


2 M-1.02 ROOMS 139, 140 MECHANICAL NEW CONSTRUCTION - FULL RENOVATION
1 : 50



NOTES:
1. REFER TO PLAN DRAWINGS FOR CONTROL UNIT LOCATION AND NUMBER OF URINALS.
2. LOCATE THE OCCUPANCY SENSOR TO ENSURE UNOBSTRUCTED LINE OF SIGHT TO ALL OF THE URINALS BEING CONTROLLED. INSTALL THE SENSOR RECESSED IN THE CEILING USING AN ELECTRICAL BOX IN FRAME WITH A PROTECTIVE GRATE.
3. FASTEN THE CONTROL UNIT SECURELY TO THE WALL BY USING APPROPRIATE WOOD, METAL OR MASONRY FASTENERS TO GUARANTEE A SECURE INSTALLATION.
4. ELECTRICAL TO PROVIDE A STANDARD 110V AC ELECTRICAL OUTLET WITH 4.5 FEET OF CONTROL BOX LOCATION.
5. PROVIDE A NEW ACCESS PANEL FOR SERVICE AND MAINTENANCE. REFER TO ARCHITECTURAL FOR DETAILS.
6. EXPOSED PIPING SHALL BE HEAVY-DUTY, DEZINCIFICATION-RESISTANT BRASS ALLOY WITH A POLISHED CHROME-PLATED FINISH. INCLUDE FOR ALL THE NECESSARY ACCESSORIES FOR A FINISHED LOOK INCLUDING BUT NOT LIMITED TO THE REQUIRED FITTINGS, COUPLING, ESCUTCHEON, COMPRESSION NUTS, O-RING, AND SEAL.

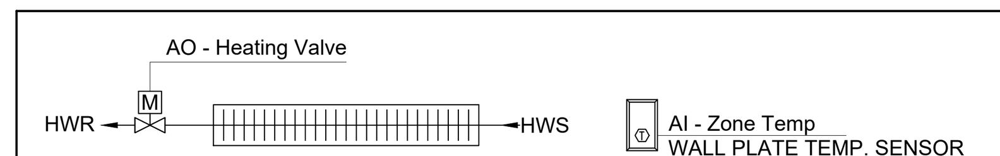
4 M1.02 URINAL FLUSH SYSTEM INSTALLATION DETAILS
N.T.S.



NOTES:
1. ALL PIPE, VALVES, & FITTINGS SHALL BE ARRANGED SO AS NOT TO INTERFERE WITH COIL ACCESS OR REMOVAL.
2. CONTROL VALVE: 2-WAY CCV BELIMO OR EQUAL, WITH MODULATING ACTUATOR.

5 M1.02 WALL FIN/CONVECTOR HEATER
N.T.S.

ROOM 116 & 118 TYP.



Point Name	Hardware Points AI	AO	BI	BO	Software Points AV	BV	Loop	Trend	Alarm	Show On Graphic
Zone Temp	x							x		x
Heating Valve		x						x		x
Heating Setpoint					x			x		x
Low Zone Temp								x	x	x

PERIMETER HEATER
RUN CONDITIONS - CONTINUOUS:
THE UNIT SHALL RUN CONTINUOUSLY AND SHALL MAINTAIN A HEATING SETPOINT OF 70°F (ADJ.).

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS LESS THAN THE HEATING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).

HEATING COIL VALVE:
THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND MODULATE THE HEATING COIL VALVE TO MAINTAIN ITS HEATING SETPOINT.

THE HEATING SHALL BE ENABLED WHENEVER:

- OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F (ADJ.).

AND THE ZONE TEMPERATURE IS BELOW HEATING SETPOINT.

6 M1.02 HEATING TERMINAL UNITS CONTROLS
N.T.S.

Rev	Description	Date
4.0	RE-ISSUED FOR TENDER	2026/03/25
3.0	ISSUED FOR TENDER	2026/02/17
2.0	ISSUED FOR PERMIT	2025/12/15
1.0	ISSUED FOR CLIENT REVIEW	2025/07/19

Orientation
N

Seal

Key Plan

The Contractor shall check and verify all dimensions and report all errors and omissions to the Owner's/MBS Designee (as applicable) for his/her written direction before proceeding with the Work.

A — A Detail No
B — B Sheet No where detailed

The specifications are to be considered as an integral part of these drawings. Neither the drawings nor the specifications shall be used alone.

Architect
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Benexsys
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Client
HWDSB

Project:
Chedoke Elementary School Washroom Renovation

Location:
500 Bendamere Ave., Hamilton, ON

DRAWING TITLE :
MECHANICAL NEW CONSTRUCTION LAYOUT

Substantial Performance Date:	TBD	CLIENT PROJECT NO :	25-25
DATE :	2025-11-03	PROJECT NO :	D102
SCALE :	AS SHOWN		
DRAWN BY :	MA	DRAWING NO :	M-1.02
DESIGNED BY :	MF		
APPROVED BY :	MS		

PAPER SIZE: ARCH D 24 x 36 (610 x 914) • SCALE DRAWING ACCORDINGLY

0 10mm 20 40 60 80 100 120 140 160 180 200mm

American Standard

WC-1

MADERA™ FloWise®

Toilet - Floor mounted with floor outlet

American Standard- Toilet

☒ **3451001.020**

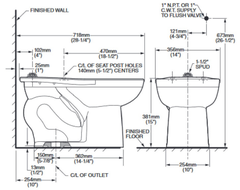
Bemis - Seat

☒ **1955CT 000 BEMIS Commercial Heavy-duty Open front Toilet seat Without** cover, Fits most manufacturers' elongated toilets, White, Eco-friendly heavy-duty plastic with molded-in color, Color-matched plastic check hinges with stainless steel posts and pintles, preventing the seat from exceeding 11° beyond vertical, Stay Tite® Seat Fastening System™, Four (4) ring bumpers.
Compliances and certifications: IAPMO/ANSI Z124.5 compliant, IAPMO/ANSI Z124.5 compliant.
Dimensions: 471 mm (18-9/16") long x 368 mm (14-1/2") wide x 60 mm (2-3/8") high.

Toilet, Floor mounted with floor outlet, Toilet operates in the range of 4.2 to 6.0 LPF (1.1 - 1.6 GPF), Vitreous china, White finish, EverClean® antimicrobial surface, Elongated bowl, 381 mm (15") rim height, 254 mm (10") to 305 mm (12") rough-in from wall to the center of waste outlet, Direct-fed siphon jet flush action, 38 mm (1-1/2") top spud, Flush valve by others, Fully-glazed 54 mm (2-1/8") trapway, Condensation channel, Toilet seat not included, Two (2) colour-matched bolt caps with retainers (481310-100).
Consisting of:
Overall Dimensions: 356 mm (14") wide x 718 mm (28-1/4") from finished wall x.
Water Surface: 254 x 305 mm (10" x 12") water surface area.
Map Score: >=1000 MaP® flush score
Compliances and certifications: ASME A112.19.2 compliant, CSA B45.1 compliant.

Delta - Flush Valve

☒ **DELTA 81T201** Manual Exposed Water closet flushometer, 38 mm (1-1/2") spud coupling For top spud toilet, constructed from Semi-red brass, Polished chrome finish, Low consumption 6.0 LPF (1.6 GPF), Chloramine resistant PERMEX® synthetic rubber diaphragm, Metal oscillating handle with triple seal handle packing, Flush tube for 292 mm (11-1/2") rough-in, Adjustable tailpiece, 25 mm (1") I.P.S. screwdriver Bak-Chek® angle control stop with free spinning vandal-resistant stop cap, Dual-filtered fixed bypass, Sweat solder adapter kit with cover tube, High back pressure vacuum breaker, Inlet located right of valve, 25 mm (1") supply pipe, Cast wall flange with set screw, Non-hold-open, no external volume adjustment, fixed volume accuracy is controlled by CID™ technology.
Pressure Range: 103 - 552 kPa (15 - 80 PSI) operating water pressure.
Compliances and certifications: Requires less than 5 pounds of force to activate (push-button), cUPC compliant.



Note:

Spec Reference: 311110
Product Reference: 17168881; 34422354;
7307932

(1)

American Standard

WC-2

RIGHT WIDTH™ FloWise®

Toilet - Floor mounted with floor outlet

American Standard- Toilet

☒ **3641001.020**

Delta - Flush Valve

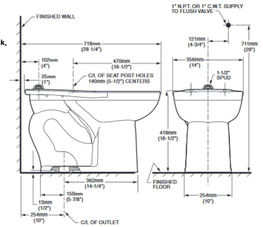
☒ **DELTA 81T201** Manual Exposed Water closet flushometer, 38 mm (1-1/2") spud coupling For top spud toilet, constructed from Semi-red brass, Polished chrome finish, Low consumption 6.0 LPF (1.6 GPF), Chloramine resistant PERMEX® synthetic rubber diaphragm, Metal oscillating handle with triple seal handle packing, Flush tube for 292 mm (11-1/2") rough-in, Adjustable tailpiece, 25 mm (1") I.P.S. screwdriver Bak-Chek® angle control stop with free spinning vandal-resistant stop cap, Dual-filtered fixed bypass, Sweat solder adapter kit with cover tube, High back pressure vacuum breaker, Inlet located right of valve, 25 mm (1") supply pipe, Cast wall flange with set screw, Non-hold-open, no external volume adjustment, fixed volume accuracy is controlled by CID™ technology.
Pressure Range: 103 - 552 kPa (15 - 80 PSI) operating water pressure.
Compliances and certifications: Requires less than 5 pounds of force to activate (push-button), cUPC compliant.

Toilet, Floor mounted with floor outlet, Toilet operates in the range of 4.8 to 6.0 LPF (1.28 - 1.6 GPF), Vitreous china, White finish, Elongated bowl, Right Height® rim at 432 mm (17"), Wider footprint ideal for retrofit installation, 254 mm (10") to 305 mm (12") rough-in from wall to the center of waste outlet, Siphon jet flush action, Gravity-assisted flush, 38 mm (1-1/2") top spud, Flush valve by others, Fully-glazed 51 mm (2") trapway, Static load rating of 908 kg (2000 lb), Includes colour-matched 5309110 Right Width® heavy duty elongated toilet open front seat, less cover, molded solid polypropylene with stainless steel check hinges, Two (2) bolt caps.
Consisting of: 5309110 seat.
Overall Dimensions: 432 mm (17") wide x 718 mm (28-1/4") from finished wall x.
Water Surface:
Map Score: >=1000 MaP® flush score (when use with proper flush valve).
Compliances and certifications: ASME A112.19.2 compliant, CSA B45.1 compliant.

Franke Commercial - Backrest

☒ **CM-16104-WM wall mounting, back rest, solid core plastic laminate panel back,** Antique white, 305 mm (12") wide, 102 mm (4") high, 137 mm (5-3/8"), 18 gauge stainless steel bar with #4 gloss with flanges and covers, concealed snap flanges and mounting hardware included, Provide adequate backing in wall for support and comply to local codes for barrier free requirements.

3461.001/3462.001



Note:

Spec Reference: 311110
Product Reference: 222308; 7307932; 7039293

(2)

American Standard

UR-1

WASHBROOK® FLOWISE® - Top spud

Flush valve urinal Top spud

American Standard- Urinal

☒ **6590001.020 7381755-200.0020A**

FLUSH SYSTEM

☒ **UTC SENTINEL WATER MATRIX**
1. PASSIVE INFRARED MOTION SENSOR: THE PIR SENSOR MAY BE FLUSH-MOUNTED ON THE CEILING OR HIDDEN BEHIND A CEILING GRATE WHILE STILL PROVIDING OPTIMAL PERFORMANCE. IT ACTIVATES ONLY WHEN URINALS ARE USED AND IS DESIGNED FOR 360° COVERAGE BUT WILL DETECT ONLY PEOPLE STANDING DIRECTLY IN FRONT OF THE URINALS. AN ACTIVATION LIGHT INDICATES WHEN MOTION IS DETECTED; THIS LIGHT CAN REMAIN VISIBLE OR BE COVERED AFTER INSTALLATION SO IT DOES NOT ATTRACT ATTENTION. THE LIGHT IS MAINLY USED DURING SETUP TO ADJUST THE ACTIVATION FIELD. THE SENSOR OPERATES ON 16 VDC AT 50 MA.

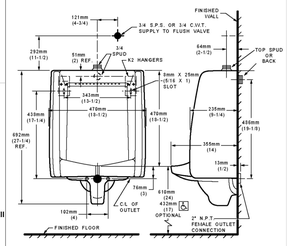
2. SOLENOID VALVE AND ASSEMBLY: THE SOLENOID VALVE MUST BE INSTALLED IN THE MAIN WATER SUPPLY LINE AND IS RATED AT 6 WATTS, OPERATING ON 24 VDC. IT IS A NORMALLY CLOSED VALVE, MEANING IT WILL REMAIN SHUT IF POWER IS LOST, AND IS SPECIFICALLY DESIGNED AS A SLOW-ACTUATING VALVE SO IT OPENS AND CLOSES GRADUALLY TO REDUCE STRESS ON THE SYSTEM.

3. PROGRAMMABLE CONTROL UNIT: THE CONTROL UNIT PLUGS INTO A STANDARD 110-VOLT OUTLET AND OUTPUTS 24 VDC / 60 HZ / 1.2 A, WITH CSA APPROVAL. IT INCLUDES THREE PROGRAMMABLE STAGES: AN INACTIVITY TIMER (1–99 HOURS) THAT PERIODICALLY FLUSHES EVEN WITHOUT SENSOR ACTIVATION; A POST-ACTIVATION DELAY TIMER (1–99 MINUTES) THAT PREVENTS FLUSHING AFTER EVERY USER; AND A FLUSH-DURATION TIMER (1–99 MINUTES) THAT DETERMINES HOW LONG THE SOLENOID STAYS OPEN AND HOW MUCH WATER IS USED. THE UNIT ALSO INCLUDES A TEST BUTTON THAT INITIATES A REDUCED-DELAY FLUSH FOR MAINTENANCE AND MONITORS THE TOTAL NUMBER OF FLUSHES.

Watts - Carrier

☒ **CA-321 epoxy coated, Floor Mounted Urinal Carrier with Bearing Plate, Wall** Plate, welded feet, Universal steel hangar support plate, bottom bearing plate, Heavy gauge steel offset uprights, integral mounting brackets, Plated hardware.

WASHBROOK® FLOWISE®, Wall-hung, Flush valve urinal, Top spud, Vitreous china, White finish, Urinal operates in the range of 0.5 to 3.8 LPF (0.125 - 1.0 GPF), Powerful washdown flush action, 51 mm (2") NPT female outlet, 19 mm (3/4") spud connection, The flush valve can be installed either on left or right side, Vandal-resistant stainless steel strainer.
Overall dimensions: 359 mm (14-1/8") projection from the wall, 479 mm (18-7/8") wide, 664 mm (26-1/8") high.
Pressure rating: 552 kPa (80 PSI) operating pressure, 1.7 bar (25 psi) working pressure.
Compliances and certifications: CSA B45.4-08 compliant, ANSI A117.1 compliant, ASME A112.19.2 compliant.



Note:

Spec Reference: 311110
Product Reference: 9282675; 18979307;
7007619; 7301681; 25029650

(3)

American Standard

UR-1

WASHBROOK® FLOWISE® - Top spud

Flush valve urinal Top spud

Watts - Cleanout

☒ **CO-38CO-382-RD-RD** Non-adjustable Wall cleanout, Cast iron, 51 mm (2") pipe size No-hub outlet, Round, Stainless steel access cover, Gasketed brass countersunk plug for urinal.

Note:

Spec Reference: 311110
Product Reference: 9282675; 18979307;
7007619; 7301681; 25029650

(4)

Bradley

Wash Station

Terreon Tri-Fount

Group Handwashing Stations

Terreon® Tri-Fount™ Washfountains

☒ **MF2933**

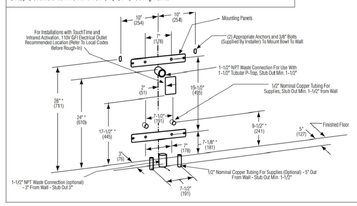
Lawler - Mixing Valve

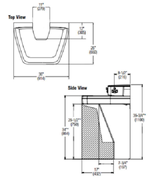
☒ **570-86820 Point of Use and Master controlled fixtures, Thermostatic master** water mixing control valve, The temperature is adjusted with the help of Spindle.

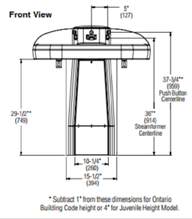
On-floor, circular, 3-station washfountain, solid-surface construction, infrared sensor operation (plug-in power), accommodates up to three simultaneous users, wall spud water connection, vandal-resistant sprayhead, and 38 mm (1-1/2") nominal waste outlet.

McGuire - Supply

☒ **LFBV170 CONVERTIBLE™ Commercial Faucet Supply kit, consisting of (2)** stop valves, (2) risers, (2) flanges (standard), Lead Free Brass body, Chrome-plated finish, 138 - 862 kPa (20 - 125 PSI) operating pressure, 4 to 60 °C (40 to 140 °F) operating temperature, Convertible loose key/triangle handle, Quarter turn ball valve, Angle stop, Brass ball valve, C.P. wrought steel deep bell wall flange (standard), C.P. prefabricated 127 mm (5") copper sweat tube extension nipple, 305 mm (12") C.P. lavatory flexible copper riser tubes (standard), 13 mm (1/2") Sweat inlet x 10 mm (3/8") O.D. outlet, 82 °C (180 °F) maximum during high-temperature system flush.
Compliances and certifications: AB 100 compliant, ASME A112.18.1 compliant, ASME A112.18.2-2 (risers), CSA B125.2 compliant (risers), Certified to NSF/ANSI 372, Certified to NSF/ANSI 61, UPC compliant.







Note:

Spec Reference: 311110
Product Reference: 9063020; 7018383;
9737641

(5)

PPP

Electric Trap Primer

PRIME-TIME ELECTRONIC TRAP PRIMING ASSEMBLY

Trap Primer

To be specified

Cabinet
☒ 16 gauge steel, galvanized -Dry wall, flush mount (In wall) cabinet depth 4", mounting anchor Provided
☐ 16 gauge steel, galvanized - Fire Rated, flush mount (In wall) abinet depth 6", mounting anchors Provided

Compression Fittings
☒ 1/2" Comp. for 3/8" ID Copper line
☐ 5/8" Comp. for 1/2" ID Copper line. This line is the floor drain trap make-up water line.
☐ 1/2" PEX
☐ 1/2" ProPEX

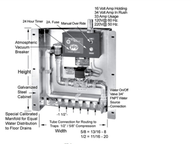
Number of Drains
☐ serving 4 drains (ID Width 14" x height 16" cabinet)
☒ serving 6 drains (ID Width 14" x height 16" cabinet)
☐ serving 8 drains (ID Width 14" x height 16" cabinet)
☐ serving 10 drains (ID Width 14" x height 16" cabinet)
☐ serving 12 drains (ID Width 14" x height 16" cabinet)
☐ serving 13 to 20 drains (ID Width 20-1/2" x height 16-1/2")
☐ serving 21 to 30 drains (ID Width 30-1/2" x height 20-1/2")

Voltage
☐ 24 V (energy management system)
☒ 120 V
☐ 240 V

PPP- Trap Primer

☒ **PT-6-500**

Flush mount, electronic trap priming assembly, 3/4"" NPT female, 5/8" or 1/2"" compression fitting, serving 6 drains (ID Width 14" x height 16" cabinet) , 1/2" Comp. for 3/8" ID Copper line, Anti-Siphon atmospheric vacuum breaker meets Los Angeles code, IAPMO, New York board of standards, ASSE 1001 and CSA, 3/4" type "L" copper tubing ASTM B88, 20 PSI-150 PSI, 120 V, Circuit Breaker, Test Switch, Timer, Solenoid Valve marked as UL listed. Electronic assembly tested and certified per UL #73.



PART NUMBERS & SPECIFICATIONS

PART NUMBER	Manifold Opening	Manifold Fittings	Dimensions
PT-4	4	1/2" or 5/8	14"W x 16"H x 3-3/8"D
PT-6	6	1/2" or 5/8	14"W x 16"H x 3-3/8"D
PT-8	8	1/2" or 5/8	14"W x 16"H x 3-3/8"D
PT-10	10	1/2" or 5/8	14"W x 16"H x 3-3/8"D
PT-12	12	1/2" or 5/8	14"W x 16"H x 3-3/8"D

Note:

Spec Reference: 311110
Product Reference: 9082419

(1)

Rev	Description	Date
4.0	RE-ISSUED FOR TENDER	2026/03/25
3.0	ISSUED FOR TENDER	2026/02/17
2.0	ISSUED FOR PERMIT	2025/12/15
1.0	ISSUED FOR CLIENT REVIEW	2025/07/19

Orientation

Seal

Key Plan

The Contractor shall check and verify all dimensions and report all errors and omissions to the Owner's/MBS Designee (as applicable) for his/her written direction before proceeding with the Work.

A Detail No
B Sheet No where detailed

The specifications are to be considered as an integral part of these drawings. Neither the drawings nor the specifications shall be used alone.

Architect

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Benexsys
Website: Benexsys.com
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Client

HWDSB

Project:

Chedoke Elementary School Washroom Renovation

Location:

500 Bendamere Ave., Hamilton, ON

DRAWING TITLE :

PLUMBING FIXTURES

Substantial Performance Date: TBD	CLIENT PROJECT NO : 25-25
DATE : 2025-11-03	PROJECT NO : D102
SCALE : AS SHOWN	
DRAWN BY : MA	DRAWING NO : M-2.01
DESIGNED BY : MF	
APPROVED BY : MS	

PAPER SIZE: ARCH D 24 x 36 (610 x 914) ● READ DRAWING ACCORDINGLY

0 10mm 20 40 60 80 100 120 140 160 180 200mm

GENERAL PROVISIONS FOR ELECTRICAL SPECIFICATIONS:

1. GENERAL

1.1. SUPPLY LABOR, TOOLS, AND SERVICES AND PROVIDE ALL MATERIALS AND EQUIPMENT TO COMPLETE WORK IN ACCORDANCE WITH DRAWINGS AND SPECIFICATION.
1.2. COMPLY WITH LAWS, REGULATIONS, C.S.A., BUILDING CODE, ELECTRICAL SAFETY CODE, FIRE CODE, CODES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION.

2. EXISTING CONDITION

2.1. CAREFULLY READ SPECIFICATION AND DRAWINGS AND BECOME FAMILIAR WITH PROJECT AND OTHER ASSOCIATED WORKS IN ORDER THAT THE BID INCLUDES FOR EVERYTHING REQUIRED TO COMPLETE THE WORK.
2.2. REMOVE ALL EXISTING ELECTRICAL EQUIPMENT, WIRING, CONDUITS AND DEVICES WHERE NOT TO BE REUSED AND AS NOTED ON THE DRAWING. WHERE EQUIPMENT IS REMOVED, CUT-OFF AT THE POINT OF SUPPLY, REMOVE WIRING AND MAKE THE SYSTEM SAFE.
2.3. CO-ORDINATE WITH DIVISION 15 FOR DEMOLITION OF MECHANICAL EQUIPMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTING AND REMOVAL OF POWER SUPPLY, CONDUIT, WIRING, BOXES. ETC., FOR THE MECHANICAL EQUIPMENT TO BE REMOVED AS SPECIFIED UNDER DIVISION 15 AND MAKE SAFE.
2.4. ALL MATERIALS AND/OR EQUIPMENT DESIGNATED FOR SALVAGE SHALL BE TURNED OVER TO THE OWNER. ALL OTHER MATERIALS AND/OR EQUIPMENT DESIGNATED FOR REMOVAL BECOMES THE PROPERTY OF THIS CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM SITE. UNDER NO CIRCUMSTANCES SHALL THE MATERIALS AND/OR EQUIPMENT BE SOLD DIRECTLY FROM SITE.
2.5. CONTACT THE OWNER PRIOR TO ANY DEMOLITION WORK. IN ADDITION TO THE EQUIPMENT AND/OR MATERIAL AS SHOWN ON THE DRAWING, THE OWNER WILL DESIGNATE WHICH EQUIPMENT AND/OR MATERIALS ARE TO BE SALVAGED. DEMOLITION WORK IS TO PROCEED ONLY AFTER OWNER'S APPROVAL IS OBTAINED.
2.6. ACTIVE SERVICES TO THE EXISTING FACILITY SHALL BE PROTECTED AND MAINTAINED WITHOUT INTERRUPTION.
2.7. WHENEVER EXISTING ELECTRICALLY OPERATED EQUIPMENT IS REMOVED FROM ITS PRESENT LOCATION OR RE-INSTALLED ELSEWHERE, REMOVE REDUNDANT EXISTING CONDUITS, BOXES, CABLES, FIXTURES, ETC. OPENINGS IN BOXES, RACEWAYS, PANELS, ETC. WHICH MAY RESULT FROM SUCH REMOVAL OF EQUIPMENT SHALL BE CLOSED IN A PROPER MANNER AND ALL CABLES AND WIRES PROPERLY TERMINATED AND INSULATED TO RESTORE THE SYSTEM TO A SAFE AND SOUND CONDITION AND TO THE ARCHITECT'S SATISFACTION.
2.8. WHERE ELECTRICAL WIRING AND/OR CONDUIT PASS THROUGH OR IN THE AREA TO SERVE ITEMS WHICH ARE TO REMAIN, THE SERVICE SHALL BE MAINTAINED. WHENEVER EXISTING CONCEALED FINISHES (SUCH AS DRYWALL BULKHEAD, SUSPENDED CEILING AND DRYWALL CEILING, FURRED-OUT WALL SPACE, ETC.) IS TO BE DEMOLISHED AND REPLACED WITH EXPOSED STRUCTURE, REPLACE ALL ACTIVE WIRING INCLUDING BX CABLE CONCEALED BEHIND EXISTING FINISHES AND WHICH HAVE BECOME EXPOSED DURING RENOVATION WORK WITH WIRING IN METAL CONDUIT AND/OR WIREMOULD. ALL EXISTING OUTLET BOXES, JUNCTION BOXES AND DEVICES MOUNTED IN OR ON THE EXISTING CONCEALED FINISHES AND/OR ANY EXISTING WIRING IN CONDUIT INSTALLED IN THE EXISTING CONCEALED FINISHES SHALL BE RELOCATED AND/OR REROUTED TO THE FINAL FINISHED STRUCTURAL OF ROUTING, METHOD AND DETAIL AS LATER DIRECTED BY THE ENGINEER ON SITE TO SUIT SITE CONDITION.
2.9. IN EVERY INSTANCE WHERE IT IS REQUIRED IN THE SPECIFICATIONS AND/OR ON THE DRAWINGS THAT EQUIPMENT AND/OR MATERIALS BE REMOVED FROM EXISTING LOCATIONS AND BE RE-INSTALLED, EITHER IN WHOLE OR IN PART, IN NEW LOCATIONS, ALL SUCH EQUIPMENT AND/OR MATERIALS SHALL BE THOROUGHLY CLEANED AND WHERE NECESSARY PUT INTO GOOD OPERATING CONDITION BEFORE BEING RE-INSTALLED IN THE NEW LOCATION.
2.10. OFFSET EXISTING CONDUIT, WIRING WHERE NECESSARY TO SUIT NEW MECHANICAL, ARCHITECTURAL AND STRUCTURAL WORK.
2.11. IN AREAS WHERE IT WILL BECOMES INACCESSIBLE FOR SERVICING, SUCH AS A NEW DRYWALL CEILING, REMOVE, EXTEND AND RELOCATE ALL EXISTING JUNCTION BOXES/OUTLET BOXES TO AN AREA WHICH IS ACCESSIBLE FOR SERVICING, SUCH AS A "T-BAR" CEILING OR EXTEND EXISTING JUNCTION BOX/OUTLET BOXES TO THE UNDERSIDE OF NEW FINISHED CEILING WITH DECORATIVE COVERPLATES, PER ENGINEER'S SITE DIRECTION AT LATER DATE.
2.12. TEST ALL PARTS OF THE RE-USED OR RELOCATED ELECTRICAL EQUIPMENT AND CORRECT ALL FAULTS, GROUNDS, ETC.
2.13. WHENEVER THE EXISTING CONDUITS/CABLES/WIRES ARE TO REMAIN, PACK AND SEAL THE VOID BETWEEN THE OPENING AND THE EXISTING CONDUIT WITH DOW CORNING SERIES 2000 FIRE STOP SEALANT AND APPROVED MATERIAL. PACK AND SECURE IN SUCH A MANNER THAT THE PACKING IN VERTICAL HOLE AND OPENING WILL NOT FALL OUT.
2.14. WHENEVER THE EXISTING CONDUITS/CABLES/WIRES ARE REMOVED, PACK AND SEAL THE EXISTING OPENING WITH DOW CORNING SERIES 2000 FIRE STOP SEALANT AND APPROVED MATERIAL SAME AS ABOVE.

3. PERMITS, CERTIFICATES AND FEES

3.1. APPLY, PAY FOR AND OBTAIN ALL PERMITS REQUIRED TO COMPLETE THE WORK BY AUTHORITIES HAVING JURISDICTION.
3.2. WHEN WORK IS COMPLETE, SUPPLY AND HAND OVER INSPECTION CERTIFICATES FROM AUTHORITIES TO CONSULTANT/ARCHITECT AND PAY ALL REQUIRED FEES AND CHARGES.

4. COORDINATION AND COOPERATION

4.1. COORDINATE YOUR WORK WITH THE WORK OF OTHER TRADES TO ENSURE A PROPER AND COMPLETE INSTALLATION.
4.2. ESTABLISH EXACT ROUTES OF SERVICES, LOCATION OF EQUIPMENT AND DEVICES IN COORDINATION WITH OTHER TRADES IN ORDER TO COMPLY WITH ALL APPLICABLE CODES AND TO AVOID ANY INTERFERENCE.

5. CLEANING AND NOISE CONTROL

5.1. DURING CONSTRUCTION KEEP SITE CLEAR OF WASTE AND RUBBISH. AFTER COMPLETION OF THE WORK CLEAN SITE, REMOVE ALL DEBRIS AND PAY FOR REPAIR OF DAMAGES CAUSED BY THE WORK OF THIS DIVISION.
5.2. COORDINATE WORK WITH OTHER TRADES TO MINIMIZE NOISE AND ALL WORK WHICH MAY CAUSE NOISE DISTURBANCE MUST BE COORDINATED WITH CONSULTANT/ARCHITECT AND THE OWNER.

6. INSPECTION, TESTING AND COMMISSIONING

6.1. CONSULTANT SHALL HAVE ACCESS TO SITE AT ALL TIMES. CONTRACTOR SHALL NOTIFY CONSULTANT OF THE STAGES OF THE WORK.
6.2. IF WORK DOES NOT COMPLY WITH DRAWINGS, SPECIFICATION AND CODES, SUCH DEFICIENCIES SHALL BE CORRECTED AT CONTRACTOR'S EXPENSE.
6.3. ALL INSTALLATIONS AND SYSTEMS SHALL BE TESTED AND COMMISSIONED TO ENSURE PROPER OPERATION AND REQUIREMENT OF AUTHORITIES HAVING JURISDICTION.

7. INSURANCE

7.1. MAINTAIN ALL NECESSARY INSURANCE TO PROTECT THE OWNER AND THE TRADES OF THIS DIVISION FROM ALL POSSIBLE CLAIMS.

8. SCHEDULE OF THE WORK

8.1. COMPLY WITH THE SCHEDULE OF THE WORK AND PHASING OF THE PROJECT PREPARED AND REQUIRED BY ARCHITECT AND GENERAL CONTRACTOR.

9. WARRANTY

9.1. AFTER COMPLETION OF THE WORK SUBMIT A WRITTEN WARRANTEE LETTER INDICATING THAT FROM THE DATE OF WRITTEN ACCEPTANCE BY CONSULTANT AND FOR PERIOD OF ONE YEAR, ANY DEFECT IN MATERIAL OR WORKMANSHIP WILL BE RECTIFIED AT NO COST TO THE OWNER.

10. SHOP DRAWINGS

10.1. SUBMIT ELECTRONIC COPIES OF SHOP DRAWINGS FOR ALL ELECTRICAL EQUIPMENT, DEVICES AND LIGHTING FIXTURE FOR APPROVAL.
10.2. ALL SHOP DRAWINGS SHALL BE REVIEWED, SIGNED AND STAMPED BY CONTRACTOR INDICATING THAT PROPOSED MATERIAL, EQUIPMENT AND SYSTEM, COMPLIES WITH DRAWINGS, SPECIFICATIONS AND PROJECT REQUIREMENT. REVIEW OF SHOP DRAWINGS BY CONSULTANT IS FOR CONFORMANCE WITH GENERAL DESIGN CONCEPT AND DOES NOT APPROVE THE DETAILS OF CONSTRUCTION AND INSTALLATION OF THE MATERIAL, EQUIPMENT AND SYSTEMS, RESPONSIBILITY OF WHICH REMAINS WITH CONTRACTOR AND SUPPLIER.

11. HAZARDOUS MATERIALS

11.1. IF AT ANY TIME DURING CONSTRUCTION ASBESTOS MATERIAL ARE FOUND OR SUSPECTED, IMMEDIATELY STOP WORKING IN THAT AREA AND REPORT TO GENERAL CONTRACTOR/ARCHITECT. DO NOT CONTINUE WORK IN THE AFFECTED AREA WITHOUT APPROVAL FROM ASBESTOS CONSULTANT.

12. RECORD DRAWINGS AND MANUALS

12.1. DURING CONSTRUCTION, CLEARLY MARK ON A SET OF WHITE PRINTS OF CONTRACT DRAWINGS ALL CHANGES WHICH ARE REQUIRED BY ADDENDUMS, SITE INSTRUCTIONS, CHANGE NOTICES AND SITE CONDITIONS AND MAKE IT AVAILABLE TO CONSULTANT FOR REVIEW.
12.2. AFTER COMPLETION OF THE WORK, SUBMIT ONE SET OF HARD COPY AND ONE ELECTRONIC COPY (IN PDF FORMAT) OF MARKED UP 'AS BUILT' DRAWINGS TO CONSULTANT FOR REVIEW. REVIEW OF RECORD DRAWINGS BY CONSULTANT SHALL BE FOR GENERAL CONFORMANCE AND IT IS NOT APPROVAL OF THE ACCURACY OF THE DRAWINGS. THIS DIVISION IS RESPONSIBLE FOR ACCURACY OF 'AS BUILT' DRAWINGS.
12.3. INCORPORATE ALL THE COMMENTS FROM CONSULTANT AND SUBMIT CAD FILE AND TWO SETS OF HARD COPIES OF AS BUILT DRAWINGS TO THE OWNER. AN ELECTRONIC COPY OF TENDER DRAWINGS CAN BE OBTAINED FROM CONSULTANT AT NO CHARGE.
12.4. AFTER COMPLETION OF THE PROJECT SUBMIT ONE ELECTRONIC COPY (IN PFD FORMAT) OF ELECTRICAL MANUALS. EACH MANUAL SHALL INCLUDE: LETTER OF WARRANTY, ESA CERTIFICATE, FIRE ALARM INSTALLATION AND VERIFICATION REPORT AND CERTIFICATE, EMERGENCY LIGHTING TEST REPORT, ALL APPROVED SHOP DRAWINGS AND OPERATING MANUALS.
12.5. INSTRUCT THE OWNER'S REPRESENTATIVE IN THE OPERATION AND MAINTENANCE OF ALL EQUIPMENT.

13. CUTTING, PATCHING, CORE DRILLING AND SLEEVES

13.1. ALL REQUIRED CUTTING, PATCHING AND CORE DRILLING REQUIRED FOR ELECTRICAL CONTRACTOR'S WORK SHALL BE BY ELECTRICAL CONTRACTOR. PATCHING SHALL EXACTLY MATCH EXISTING FINISHES AND SHALL BE PERFORMED BY SKILLED TRADESMAN TO THE APPROVAL OF GENERAL CONTRACTOR.
13.2. ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION OF REQUIRED FLOOR CORE DRILLING WITH GENERAL CONTRACTOR IN RELATION TO REINFORCING RODS AND OTHER SERVICES.
13.3. PROVIDE GALVANIZED STEEL SLEEVES WHERE CONDUIT PASSING THROUGH WALLS, PARTITIONS AND FLOORS. THE SPACE BETWEEN THE SLEEVE AND CONDUIT SHALL BE FILLED WITH ULC LISTED MATERIAL TO PROVIDE SMOKE SEAL AND FIRE STOP RATING TO BUILDING CODE REQUIREMENTS.
13.4. PROVIDE ACCESS DOOR AS REQUIRED IN WALLS AND CEILINGS. ENSURE THAT ACCESS IS PROVIDED FOR ALL EQUIPMENT, DEVICES AND APPURTENANCES. PROVIDE ACCESS COMPATIBLE WITH THE ADJACENT FINISHES AND FIRE RATING EQUAL TO SURFACES IN WHICH INSTALLED.
13.5. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL CONE ROOF FLASHING AND SEALANT FOR POWER CABLES PENETRATION THRU ROOF.

14. GENERAL MATERIALS AND WORKMANSHIP

14.1. ALL MATERIALS SHALL BE NEW AND OF THE TYPE AS SPECIFIED AND FREE FROM DEFECTS AND SHALL BE C.S.A. APPROVED. IF ACCEPTABLE MANUFACTURERS ARE LISTED, ENSURE PRODUCT SUPPLIED BY MANUFACTURER OTHER THAN BASE SPECIFIED PRODUCT, MEETS ALL THE REQUIREMENTS OF THE PROJECT AND ARE EQUIVALENT.
14.2. ALL WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER, PRESENT NEAT APPEARANCE AND SHALL CONFORM TO ELECTRICAL SAFETY CODE, AND LOCAL AUTHORITY'S REQUIREMENTS.
14.3. ELECTRICAL DEVICES AND/OR EQUIPMENT MAY BE RELOCATED UP TO 3M (10') IN ANY DIRECTION WITHOUT ADJUSTMENT TO CONTRACT PRICE.
14.4. PRODUCTS NOT SPECIFICALLY SPECIFIED SHALL BE OF A QUALITY CONSISTENT WITH THE REMAINDER OF THE SPECIFICATION. 14.5 PROVIDE A COMPLETE ITEMIZED BREAKDOWN OF MATERIAL AND LABOUR FOR EACH CHANGE AT NET COST.

COMMON ELECTRICAL PROVISIONS

1. REFERENCES

1.1. ALL WORK SHALL COMPLY WITH THE LATEST EDITIONS OF APPLICABLE STANDARDS AND CODES, INCLUDING BUT NOT LIMITED TO:
1.2. CSA-C22.1 – CANADIAN ELECTRICAL CODE, PART I.
1.3. ONTARIO ELECTRICAL SAFETY CODE (OESC).
1.4. CSA C22.2 PRODUCT STANDARDS.
1.5. CAN/CSA-C22.3 NO.1 – OVERHEAD SYSTEMS.
1.6. CAN3-C235 – PREFERRED VOLTAGE LEVELS FOR AC SYSTEMS.

2. ELECTRICAL DEMOLITION

2.1. DISCONNECT AND REMOVE ALL DEVICES, CONDUITS, AND EQUIPMENT ASSOCIATED WITH REDUNDANT SYSTEMS.
2.2. MAINTAIN CIRCUIT INTEGRITY FOR ACTIVE EQUIPMENT.
2.3. DE-ENERGIZE AND LABEL UNUSED BREAKERS; UPDATE PANEL SCHEDULES.
2.4. REMOVE OR PROPERLY TERMINATE ABANDONED WIRING IN ACCORDANCE WITH OESC RULES 2-126, 12-114, AND 12-3000, AND APPLICABLE ESA BULLETINS.

3. CONDUCTORS AND CABLES

3.1. MINIMUM CONDUCTOR SIZE: #12 AWG COPPER, RW90 INSULATION, 600 V RATING.
3.2. AC90 LIMITED TO FIXTURE AND DEVICE DROPS (MAX. 3 M EXPOSED RUN); NOT PERMITTED IN PATIENT AREAS OR FOR INTERCONNECTION BETWEEN LUMINAIRES.
3.3. OUTDOOR AND WET LOCATIONS: RWU90 COPPER ONLY.
3.4. CONNECTORS AND TERMINATIONS: CSA APPROVED, COPPER OR COPPER ALLOY COMPONENTS.
3.5. VOLTAGE DROP LIMITS: 2% FOR FEEDERS, 3% FOR BRANCH CIRCUITS.

4. CONDUIT AND RACEWAYS

4.1. USE EMT FOR INTERIOR BRANCH CIRCUITS, PVC FOR EXTERIOR, AND LIQUID-TIGHT FLEXIBLE CONDUIT FOR VIBRATING OR WET LOCATIONS.
4.2. CONCEAL CONDUIT IN FINISHED SPACES; INSTALL EXPOSED ONLY IN SERVICE AREAS.
4.3. FASTEN CONDUITS USING GALVANIZED STEEL STRAPS OR CHANNEL SUPPORTS—NO PERFORATED STRAPS OR TIE WIRE PERMITTED.
4.4. PROVIDE SLEEVES AND CONDUIT RUNS BEFORE CONCRETE POURS; ALIGN WITH STRUCTURAL GRIDS.

5. BOXES AND ENCLOSURES

5.1. JUNCTION AND PULL BOXES: WELDED STEEL CONSTRUCTION TO CSA C22.2 NO. 40; PROVIDE AS REQUIRED TO LIMIT CONDUIT RUNS TO 30 M.
5.2. OUTLET BOXES: GALVANIZED STEEL, MINIMUM 3"X2"X1¼"; SIZE ACCORDING TO NUMBER OF CONDUCTORS PER OESC.
5.3. MAINTAIN 150 MM MINIMUM SEPARATION BETWEEN OUTLETS ON OPPOSITE WALL FACES.
5.4. RELOCATION WITHIN 3 M PERMITTED WITHOUT COST ADJUSTMENT IF REQUESTED PRIOR TO INSTALLATION.

6. GROUNDING AND BONDING

6.1. GROUND ALL ELECTRICAL EQUIPMENT AND SYSTEMS REGARDLESS OF NOTATION.
6.2. PROVIDE DEDICATED GROUNDING CONDUCTORS IN EVERY CONDUIT.
6.3. ENSURE NO OBJECTIONABLE CURRENT FLOW UNDER NORMAL OPERATING CONDITIONS.

7. SUPPORTS AND MOUNTING

7.1. USE HOT-DIPPED GALVANIZED STRUT CHANNELS, THREADED RODS, AND ANCHORS.
7.2. CONDUITS AND PANELS MUST BE SECURELY SUPPORTED; NO WIRE OR PERFORATED STRAP HANGERS ALLOWED.
7.3. PROVIDE CONCRETE HOUSEKEEPING PADS (100 MM HIGH) FOR ALL FLOOR-MOUNTED ELECTRICAL EQUIPMENT.

8. VIBRATION ISOLATION

8.1. INSTALL FLEXIBLE CONNECTIONS AND ISOLATORS TO PREVENT TRANSMISSION OF VIBRATION OR NOISE FROM ELECTRICAL EQUIPMENT TO STRUCTURE.

9. IDENTIFICATION

9.1. ENSURE ALL NAMEPLATES AND CSA MARKINGS REMAIN VISIBLE POST-INSTALLATION.
9.2. IDENTIFY WIRING WITH PERMANENT PHASE COLOURS OR NUMBER-CODED MARKERS CONSISTENT ACROSS THE PROJECT:
347/600 V – BLUE, 120/208 V – BLACK, EMERGENCY – YELLOW, UPS – ORANGE, COMMUNICATIONS – GREEN, FIRE ALARM – RED
9.3. LABEL ALL RECEPTACLES AND DEVICES WITH PANEL AND CIRCUIT NUMBER ON THE COVER PLATE.
9.4. UPDATE AND TYPE ALL PANEL DIRECTORIES; INCLUDE PANEL NAME, VOLTAGE, PHASE, CURRENT RATING, AND SOURCE.

10. PROTECTIVE DEVICE COORDINATION

10.1. CONFIRM THAT ALL FUSES, BREAKERS, AND RELAYS ARE SET AND RATED ACCORDING TO COORDINATION REQUIREMENTS BEFORE ENERGIZING THE SYSTEM.

11. EQUIPMENT WIRING

11. PLUMBING EQUIPMENT WIRING
11.1. PROVIDE BRANCH CIRCUIT WIRING AND AN OUTLET FOR PLUMBING FIXTURE CONTROL. CONTROL WIRING PERFORMED BY PLUMBING TRADE.
12. HVAC EQUIPMENT WIRING
12.1. IN THE CASE OF UNIT HEATERS, REHEAT COILS AND CABINET UNIT HEATERS, TERMINATE WIRING ON TERMINALS PROVIDED. CONTROL WIRING, THERMOSTAT INTEGRATION, AND OTHER CONTROLS ARE TO BE PERFORMED BY THE SUPPLYING TRADE.
12.2. PROVIDE BRANCH CIRCUIT WIRING AND AN OUTLET FOR EACH MOTORIZED DAMPER, VARIABLE AIR VOLUME BOX (VAV BOX), OR HEATING CONTROL VALVE. CONTROL WIRING PERFORMED BY HVAC TRADE.
13. MOTOR SIZING
13.1. MOTORS UP TO AND INCLUDING 1/3 HP, SHALL BE 1 PHASE, 60 HZ, 120 VOLTS.
13.2. MOTORS ABOVE 1/3 HP AS INDICATED ON DRAWINGS.

LOW-VOLTAGE TRANSFORMERS

1. STANDARDS AND CONSTRUCTION
1.1. DRY-TYPE TRANSFORMERS TO MEET CSA C22 AND C802 STANDARDS.
1.2. CSA TYPE 2 DRIP-PROOF ENCLOSURE, COMPLIANT WITH ANSI, NEMA, AND IEEE STANDARDS.
1.3. FINISH: ASA 61 GRAY EPOXY.
1.4. 3-PHASE, 3-COIL, ANN-TYPE, DELTA-WYE CONNECTION; 600-120/208 V; 60 HZ.
1.5. FOUR (4) TAPS: 2XFCAN AND 2XFCBN AT 2.5% PER TAP.
1.6. COPPER WINDINGS, EPOXY IMPREGNATED, WITH ANTI-VIBRATION PADS AND ELECTROSTATIC SHIELDING.
1.7. INSULATION CLASS 220, 115°C (239°F) WINDING RISE.
1.8. WALL-MOUNTED FOR UNITS ≤ 45 KVA UNLESS NOTED OTHERWISE.
1.9. HEAVY-GAUGE STEEL CONSTRUCTION WITH RUST AND CORROSION PROTECTION.
1.10. 1-2 KV CLASS, 10 KV BIL.
1.11. DOUBLE NEUTRAL CONNECTOR.

2. EFFICIENCY AND NOISE
2.1. TRANSFORMERS SHALL MEET OR EXCEED ASHRAE 90.1-2010 TABLE 8.1 NOMINAL EFFICIENCIES.
2.2. MAXIMUM SOUND LEVELS:
UP TO 45 KVA: 45 DB, UP TO 150 KVA: 50 DB, UP TO 300 KVA: 55 DB, UP TO 500 KVA: 60 DB
2.3. T-CONNECTED TRANSFORMERS ARE NOT PERMITTED.

WIRING DEVICES

1. SWITCHES

1. MANUALLY-OPERATED GENERAL PURPOSE AC SWITCHES : CSA C22.2 NO. 111-M1986.
2. SNAP SWITCHES: CSA C22.2 NO. 55-M1986.
3. RATINGS: 15 A, 20 A, 120 V; SINGLE, DOUBLE, THREE-WAY, FOUR-WAY; PILOT LIGHTS OR KEY OPERATOR AS INDICATED.
4. SINGLE MANUFACTURER THROUGHOUT; COLOR PER ARCHITECT.
5. LOCAL SPECIFICATION GRADE:
5.1. 120 V: P&S #26021 SERIES, HUBBELL #2121 SERIES
5.2. 347 V: P&S #2601-347 SERIES

2. RECEPTACLES

1. PROVIDE CSA APPROVED, EXTRA HEAVY DUTY, INDUSTRIAL GRADE, AC QUIET ACTION NYLON TOGGLE TYPE, 20A, 120 & 208V SWITCHES AND EXTRA HEAVY DUTY, SPECIFICATION GRADE PREMIUM QUALITY, NYLON BODY CONSTRUCTION, DUPLEX, U GROUND, 15A 125V, 3W RECEPTACLES. DEVICES SHALL BE BACK AND SIDE WIRED. PROVIDE STAINLESS STEEL TYPE OR IMPACT RESISTANT THERMOPLASTIC FACEPLATES WITH MATCHING SCREWS, AS PER EXISTING STANDARDS.
2. IDENTIFY CIRCUIT NUMBERS ON RECEPTACLE DESIGNATED LABELLING SPACES. PROVIDE PERMANENTLY LABELLED, ENGRAVED, IDENTIFICATION LABEL ON OUTSIDE OF EACH DEVICE OUTLET, IDENTIFYING LOCATION FROM WHERE EACH DEVICE IS FED. COMPLY WITH CSA Z32 WITH REGARDS TO LABELLING AND IDENTIFICATION OF DEVICES.
3. WHERE SHOWN, 15A 125V, ULC LISTED, CLASS A, GROUP ONE, 2 POLE, 3W, WHITE COLOURED, SPECIFICATION GRADE, GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE, COMPLETE WITH WHITE FACEPLATES DECORA STYLE.
4. CONFIRM RECEPTACLE TYPE, NUMBER OF POLES, AND FINISHES OF DEVICES WITH CONSULTANT PRIOR TO ORDERING. SUBMIT SAMPLES AND FINISHES FOR CONSULTANT'S REVIEW.
5. MANUFACTURERS: HUBBELL, LEVITON, PASS & SEMOUR, BRYANT, EATON WIRING DEVICES..

3. COVER PLATES

1. COMPATIBLE WITH DEVICE TYPE, ONE MANUFACTURER THROUGHOUT.
2. SURFACE-MOUNTED STEEL PLATES FOR UTILITY BOXES; STAINLESS STEEL FOR FLUSH OR SURFACE MOUNT IN FINISHED AREAS.
3. WET-LOCATION RATED FOR EXTERIOR APPLICATIONS.

CIRCUIT PROTECTION DEVICES

1. FUSES

1.1. CSA C22.2 NO. 248 SERIES, CLASS AS INDICATED.
1.2. MANUFACTURERS: MERSEN, GEC, LITTELFUSE, EATON-COOPER BUSSMAN.
1.3. VOLTAGE RATING SUITABLE FOR PHASE-TO-PHASE VOLTAGE.
1.4. FEEDER SWITCHES: HRC-1 CLASS J, TIME DELAY (GOULD AJT TYPE).

2. ENCLOSED SWITCHES

1.1. FUSIBLE AND NON-FUSIBLE, PADLOCKABLE DISCONNECTS, CSA ENCLOSURE AS INDICATED.
1.2. MECHANICALLY INTERLOCKED DOOR TO PREVENT OPENING WHEN SWITCH IS ON.
1.3. FUSE HOLDERS SIZED FOR SPECIFIED FUSES; QUICK-MAKE/QUICK-BREAK ACTION.
1.4. SWITCH POSITION MARKED ON/OFF ON ENCLOSURE.

INTERIOR LIGHTING

1. GENERAL

10.1. PROVIDE ALL LUMINARIES AS SHOWN ON THE DRAWINGS AND AS SPECIFIED IN THE LUMINAIRE SCHEDULE.
10.2. ALL LUMINARIES SHALL BE COMPLETE WITH NEW LAMPS, DRIVERS, ACCESSORIES AND MOUNTING APPURTENANCES.
10.3. ALL LUMINARIES TO BE CSA APPROVED.
10.4. AIM AND ADJUST ALL LUMINARIES AS REQUIRED.
10.5. ALL NEW DOWNLIGHTS AND SURFACE-MOUNTED LUMINAIRES INSTALLED IN OR ON BASE BUILDING CEILINGS SHALL BE INDEPENDENTLY SUPPORTED FROM THE BUILDING STRUCTURE USING TENSO CHAINS, UNLESS OTHERWISE SPECIFIED.
10.6. IF WRITTEN CONFIRMATION CANNOT BE PROVIDED THAT THE EXISTING BASE BUILDING CEILING IS DESIGNED TO CARRY THE ADDED WEIGHT OF LUMINAIRES, THE ELECTRICAL CONTRACTOR SHALL INSTALL ADDITIONAL STRUCTURAL SUPPORTS FOR ALL NEW AND RELOCATED BASE BUILDING LUMINAIRES. EACH TROFFER FIXTURE SHALL BE SUPPORTED BY TWO TENSO CHAINS FROM THE STRUCTURE ABOVE, AND EACH DOWNLIGHT BY AT LEAST ONE TENSO CHAIN. INCLUDE ALL ASSOCIATED COSTS IN THE TENDER PRICE.
10.7. COOPERATE WITH ALL OTHER TRADES FOR THE PROPER INSTALLATION OF ALL LUMINARIES.

11. LED INTERIOR LUMINAIRES

1.1. TESTED PER IES LM-79, LM-80; AND L70 LUMEN MAINTENANCE AT ≥ 50 000 HOURS
1.2. DRIVERS: PF ≥ 0.9, THD ≤ 20%, 0-10 V DIMMING STANDARD OR COMPATIBLE PROTOCOL.
1.3. WARRANTY: 5 YEARS.
1.4. CRI ≥ 80; EFFICACY PER DLC OR ENERGY STAR. DLC LISTED

EMERGENCY LIGHTING

1. BATTERY UNITS AND REMOTE HEADS

1.1. MINIMUM 10 AWG OR HEAVIER TO LIMIT VOLTAGE DROP ≤ 5%; CONSULT MANUFACTURER TABLES.
1.2. CIRCUIT BREAKER LOCK AT SOURCE PANELBOARD.
1.3. CONTRACTOR TO CERTIFY COMPLIANCE WITH CSA C22.2 NO.141 AND VOLTAGE DROP LIMITS.
1.4. MOUNT UNIT 300 MM (12") BELOW FINISHED CEILING UNLESS NOTED OTHERWISE AND AIM FIXTURE HEAD TO ILLUMINATE EXIT PATH. PROVIDE WIRE GUARDS FOR ALL SURFACE-MOUNTED BATTERY PACKS AND REMOTE EMERGENCY FIXTURES INSTALLED IN PUBLIC AREAS (I.E. SCHOOL WASHROOMS).
1.5. MANUFACTURERS: LUMACELL, EMERGILITE, BEGHELLI, STANPRO.

LIGHTING CONTROLS

1. OCCUPANCY AND TIME-CONTROL DEVICES

1.1. ALL DEVICES INSTALLED AS INDICATED IN THE APPLICABLE SCHEDULES.
1.2. CONFIGURE OCCUPANCY SENSORS TO TURN LIGHTS OFF NO LATER THAN 30 MINUTES AFTER A SPACE BECOMES UNOCCUPIED. CONFIRM THE EXACT TIMING WITH THE CONSULTANT BEFORE INSTALLATION.

TRACING EXISTING ELECTRICAL CIRCUITS

1. TRACE ALL CIRCUITS IN THE AREA OF WORK LISTED AS EXISTING, AND VERIFY EXISTING CONDITIONS PRIOR TO ANY MODIFICATIONS AS INDICATED.
2. WHERE DRAWINGS INDICATE "CONNECT TO EXISTING CIRCUIT", USE A SPARE BREAKER, WHERE AVAILABLE. OTHERWISE, VERIFY EXISTING LOAD WITH A METER AND ADVISE THE CONSULTANT IF THE ADDITIONAL LOAD WILL CAUSE A CIRCUIT TO TRIP.
3. WHERE PROVIDED PANELBOARD SCHEDULES INDICATE "EXISTING CIRCUIT" OR SIMILAR, PROVIDE THE CORRECT DESCRIPTION FOR THE CIRCUIT. "EXISTING CIRCUIT" WILL NOT BE ACCEPTABLE IN THE FINAL PANELBOARD SCHEDULES SUBMITTED AS PART OF CLOSEOUT SUBMITTALS.

TESTING, BALANCING & ADJUSTING

1. PERFORM TESTING, BALANCING AND ADJUSTING TO PERTINENT SYSTEMS INCLUDING:
1.1. ELECTRICAL DISTRIBUTION SYSTEM
1.2. MOTOR STARTERS AND VARIABLE FREQUENCY DRIVES
1.3. FIRE ALARM SYSTEMS
1.4. COMPILE AND PROVIDE AS-BUILT DRAWINGS AND OPERATION AND MAINTENANCE MANUALS AS INDICATED
1.5. LIGHTING CONTROLS - THIRD PARTY COMPANY SHALL BE USED TO PERFORM TESTING OF LIGHTING CONTROL DEVICES.

COMMISSIONING

1. COMMISSION ALL ELECTRICAL SYSTEMS TO CONFIRM THEY ARE INSTALLED, TESTED, AND OPERATING IN ACCORDANCE WITH THE DESIGN INTENT, MANUFACTURER RECOMMENDATIONS, AND APPLICABLE CODES. COORDINATE ACTIVITIES WITH OTHER TRADES AND PROVIDE ALL REQUIRED INSTRUMENTS AND PERSONNEL FOR TESTING.
2. NO SYSTEM SHALL BE ENERGIZED UNTIL INSULATION, CONTINUITY, AND GROUNDING TESTS HAVE BEEN SUCCESSFULLY COMPLETED AND ACCEPTED BY THE CONSULTANT.
3. PERFORM INSULATION RESISTANCE TESTS AS FOLLOWS:
3.1. CIRCUITS, FEEDERS, AND EQUIPMENT RATED UP TO 350 V: TEST WITH A 500 V MEGGER.
3.2. CIRCUITS AND EQUIPMENT RATED 350–600 V: TEST WITH A 1000 V MEGGER.
3.3. RECORD ALL RESULTS AND CONFIRM ACCEPTABLE RESISTANCE TO GROUND PRIOR TO ENERGIZING ANY SYSTEM.
4. CONDUCT LOAD AND VOLTAGE VERIFICATION DURING COMMISSIONING:
4.1. MEASURE PHASE CURRENTS ON PANELBOARDS UNDER TYPICAL LOAD CONDITIONS AND REBALANCE CIRCUITS TO ACHIEVE A MAXIMUM DEVIATION OF 5% BETWEEN PHASES.
4.2. MEASURE PHASE VOLTAGES AT REPRESENTATIVE LOADS AND ADJUST TRANSFORMER TAPS TO MAINTAIN VOLTAGE WITHIN ±2% OF NOMINAL RATING.
4.3. RECORD AND SUBMIT READINGS AS PART OF THE COMMISSIONING DOCUMENTATION.
5. COMPLETE STARTUP OF ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NETA ATS STANDARDS AND MANUFACTURER REQUIREMENTS. CONFIRM PROPER PHASING, ROTATION, AND OPERATION OF ALL MOTORS AND CONTROLS. COORDINATE STARTUP SEQUENCING WITH MECHANICAL AND CONTROL SYSTEMS.
6. PERFORM LIGHTING SYSTEM COMMISSIONING TO VERIFY PROPER OPERATION AND CONTROL FUNCTIONALITY. ENGAGE A QUALIFIED MANUFACTURER'S REPRESENTATIVE OR TESTING AGENCY FOR TESTING. CONFIRM ALL SWITCHES, DIMMERS, SENSORS, AND CONTROL DEVICES ARE PROPERLY INSTALLED, CALIBRATED, AND PROGRAMMED. ADJUST OCCUPANCY SENSORS, DAYLIGHT SENSORS, AND TIME SWITCHES TO ENSURE RELIABLE AUTOMATIC OPERATION AND SHUTOFF PERFORMANCE.
7. PREPARE AND SUBMIT A COMMISSIONING AND TEST REPORT SUMMARIZING INSULATION READINGS, LOAD BALANCE DATA, VOLTAGE LEVELS, AND RESULTS OF LIGHTING AND CONTROL TESTING. INCLUDE EQUIPMENT CALIBRATION CERTIFICATES AND ANY CORRECTIVE ACTIONS TAKEN.

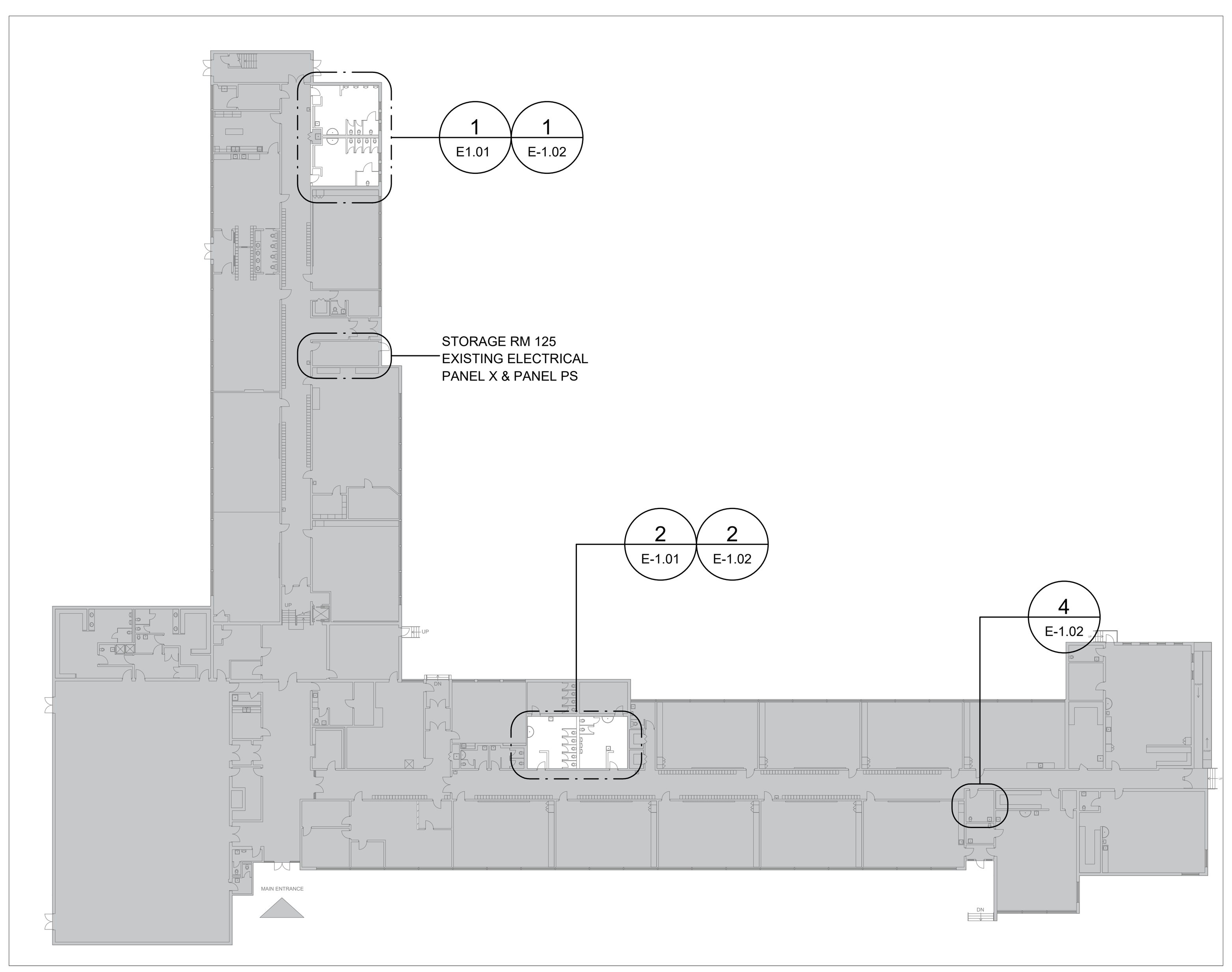
DAYCARE FACILITY

ENSURE NO INTERRUPTION TO DAYCARE FACILITY OPERATIONS DURING CONSTRUCTION. PERFORM ANY REQUIRED SERVICE SHUTDOWNS AFTER HOURS TO MAINTAIN CONTINUOUS DAYCARE OPERATION.

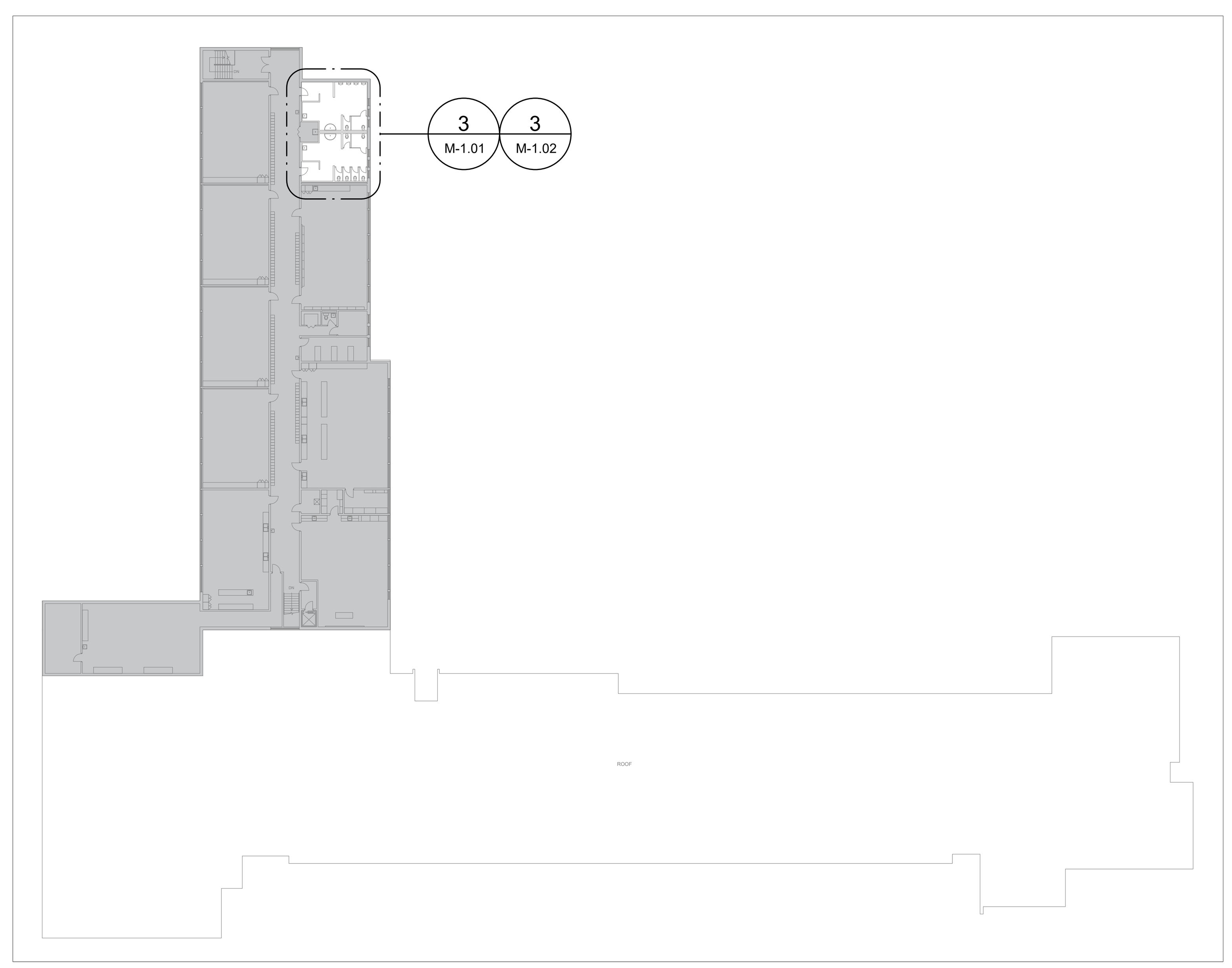
FIRE ALARM

PROVIDE ALL REQUIRED DEVICES, WIRING, AND INTERFACE COMPONENTS NECESSARY FOR FULL FIRE ALARM SYSTEM OPERATION AND INTEGRATION AS PER APPLICABLE STANDARD AND AHJ. COORDINATE WITH THE BASE BUILDING FIRE ALARM SERVICE PROVIDER, HAMILTON FIRE CONTROL (CONTACT: MICHAEL FLEET, 905-527-7042, M: 905-971-5186, E: MICHAEL@HAMILTONFIRECONTROL.CA).

CONSTRUCTION PHASING:
REFER TO ARCHITECTURAL DRAWINGS FOR CONSTRUCTION PHASING AND RELATED REQUIREMENTS.



1 / E-0.01 — GROUND FLOOR - KEY MAP
1 :500



2 / E0.01 — SECOND FLOOR - KEY MAP
1 :500

C

0 10mm 20 40 60 80 100 120 140 160 180 200mm

PAPER SIZE: ARCH D 24 x 36 (610 x 914) ● READ DRAWING ACCORDINGLY.

DRAWINGS LIST

DWG NO.	DRAWING NAME
E-0.01	ELECTRICAL SPECIFICATIONS, LEGEND, SCHEDULE
E-1.01	ELECTRICAL DEMOLITION
E-1.02	ELECTRICAL NEW CONSTRUCTION

LEGEND

SYMBOL	DESCRIPTION
	LINEAR LUMINAIRE, SURFACE MOUNTED TO CEILING
	LINEAR LUMINAIRE, SURFACE MOUNTED TO CEILING, CONNECTED TO EMERGENCY
	RECESSED LUMINAIRE / POT LIGHT, EXISTING
	RECESSED LUMINAIRE / POT LIGHT, EXISTING, CONNECTED TO EMERGENCY
$	SINGLE POLE LINE VOLTAGE SWITCH3=3 WAY, 4=4 WAY, P=PILOT LIGHT, K=KEYED, DM=DIMMER, M=MOTOR RATED
OS	CEILING MOUNTED LIGHTING OCCUPANCY SENSOR (TYPE AS INDICATED)
BU	EMERGENCY LIGHTING BATTERY UNIT C/W REMOTE HEADS (WALL MOUNTED)
	EMERGENCY LIGHTING REMOTE HEADS (WALL MOUNTED)
	DUPLEX 5-15R RECEPTACLE
GF	DUPLEX 5-15R RECEPTACLE C/W INTEGRAL GFCI PROTECTION
	DUPLEX 5-20R RECEPTACLE, T-SLOT
	SINGLE 5-15R RECEPTACLE
	DISCONNECT SWITCH
S	PUBLIC ANNOUNCEMENT SPEAKER
FS	FIRE ALARM SPEAKER
	FIRE ALARM SMOKE/HEAT DETECTOR
F	WALL MOUNTED FIRE ALARM COMBINATION HORN/STROBE
JB	JUNCTION BOX
EXR	EXISTING TO REMAIN
EXD	EXISTING TO BE REMOVED AND DISPOSED
EXL	EXISTING TO BE RELOCATED AND REUSED
S	WAVE TO OPEN DOOR SENSOR

Rev	Description	Date
4.0	RE-ISSUED FOR TENDER	2026/03/25
3.0	ISSUED FOR TENDER	2026/02/17
2.0	ISSUED FOR PERMIT	2025/12/15
1.0	ISSUED FOR CLIENT REVIEW	2025/07/19

Orientation: N

Seal: LICENSED PROFESSIONAL ENGINEER 2026/03/25 M. SARKHOSH 100511120 PROVINCE OF ONTARIO

Key Plan

The Contractor shall check and verify all dimensions and report all errors and omissions to the Owner's/MBS Designee (as applicable) for his/her written direction before proceeding with the Work.

A Detail No
B Sheet No where detailed

The specifications are to be considered as an integral part of these drawings. Neither the drawings nor the specifications shall be used alone.

Architect
AMRA J ARCHITECTS INC.
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Engineer
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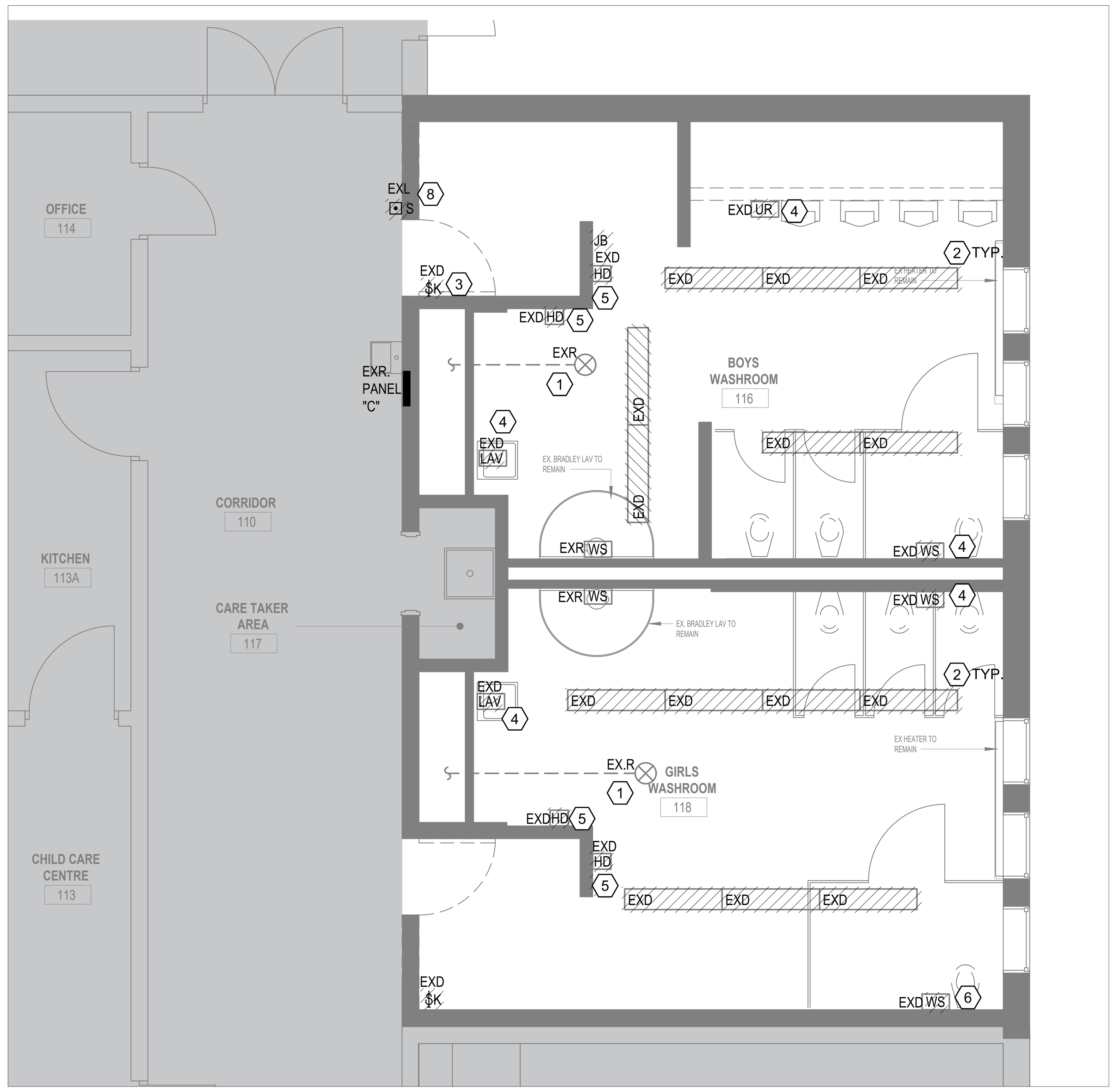
Client
HWDSB

Project: Chedoke Elementary School Washroom Renovation

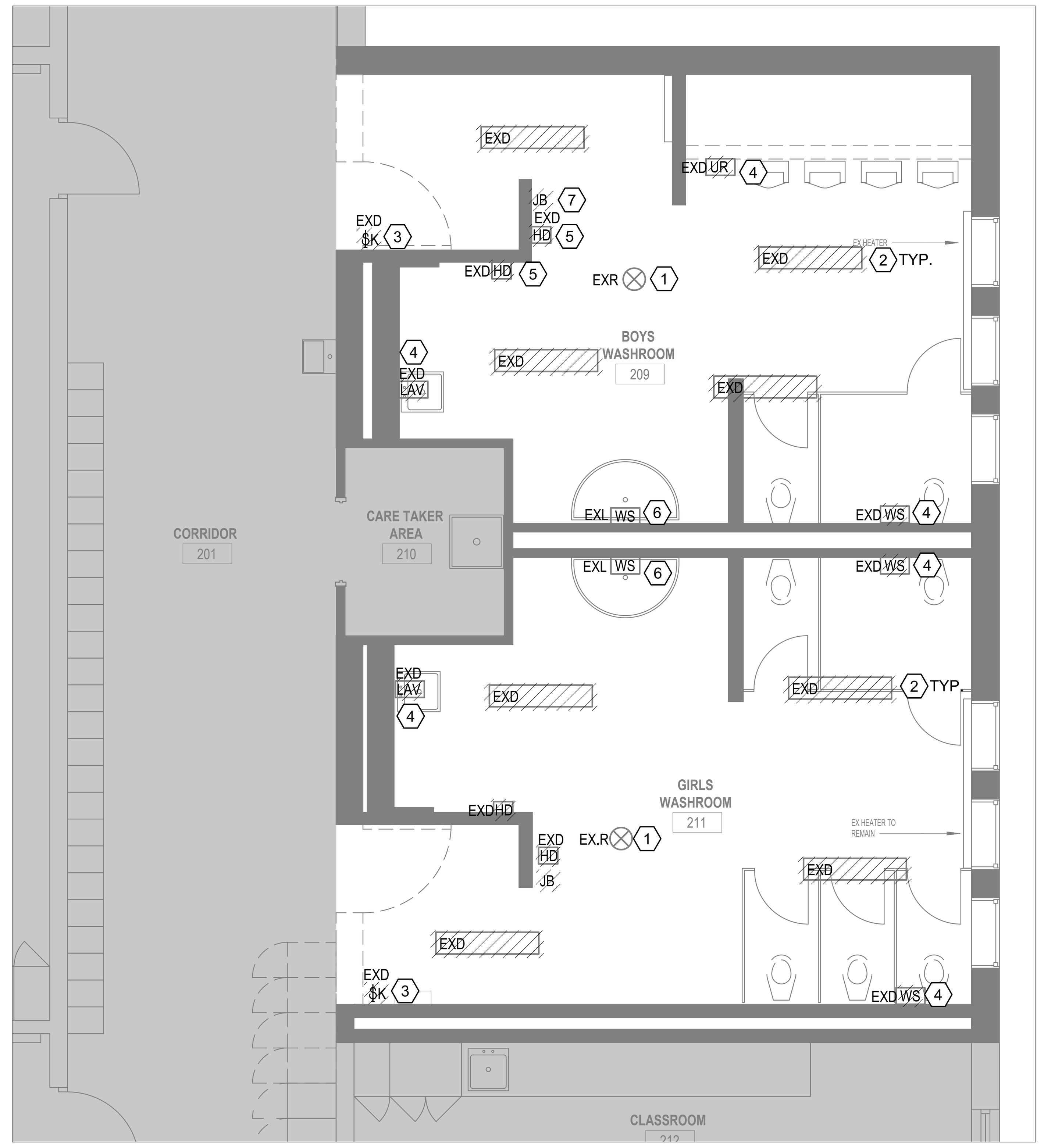
Location: 500 Bendamere Ave., Hamilton, ON

DRAWING TITLE : ELECTRICAL SPECIFICATIONS, LEGEND, SCHEDULE

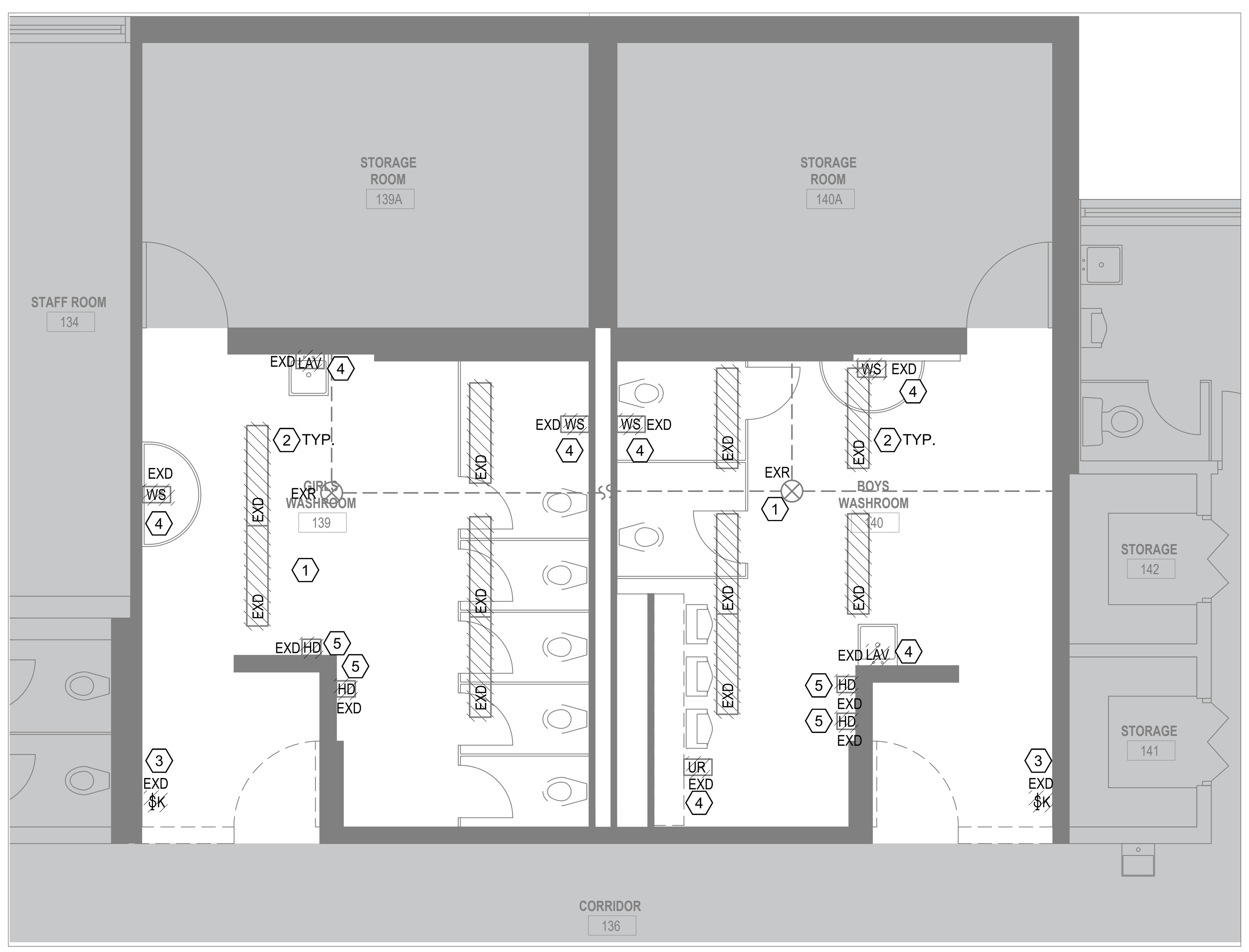
Substantial Performance Date:	TBD	CLIENT PROJECT NO :	25-25
DATE :	2025-11-03	PROJECT NO :	D102
SCALE :	AS SHOWN		
DRAWN BY :	MA	DRAWING NO :	E-0.01
DESIGNED BY :	MF		
APPROVED BY :	MS		



1 ROOMS 116, 118 ELECTRICAL DEMOLITION
E-1.01 1 : 50



3 ROOMS 209, 211 ELECTRICAL DEMOLITION
E-1.01 1 : 50



2 ROOMS 139, 140 ELECTRICAL DEMOLITION - FULL RENOVATION
E-1.01 1 : 50

CONSTRUCTION NOTES

GENERAL

1. ASSUMPTIONS HAVE BEEN MADE REGARDING EXISTING CONDITIONS DUE TO THE LACK OF ACCURATE AS-BUILT DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING RELATED SERVICES ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT/ENGINEER. THE CONTRACTOR SHALL CARRY THE COST AS PART OF THE ORIGINAL BID FOR ADJUSTMENTS, RELOCATIONS, OR EXTENSIONS OF SERVICES TO SUIT THE NEW LAYOUT.
2. TRACE ALL EXISTING CIRCUITS IN THE AREA OF WORK AND VERIFY EXISTING CONDITIONS PRIOR TO ANY MODIFICATIONS.
3. WHERE DRAWINGS INDICATE "CONNECT TO EXISTING CIRCUIT," USE A SPARE BREAKER WHERE AVAILABLE. OTHERWISE, VERIFY EXISTING LOAD USING A METER AND NOTIFY THE CONSULTANT IF THE ADDITIONAL LOAD WILL EXCEED CIRCUIT CAPACITY. PANEL C SHOWN ON 1ST FLOOR CORRIDOR OUTSIDE WASHROOM 116 & 118 IS FULL AND DOES NOT HAVE SPARE BREAKER.
4. UPDATE THE EXISTING PANELBOARDS SCHEDULES IMPACTED AS PART OF THIS SCOPE OF WORK TO REFLECT THE ACTUAL CIRCUIT DESIGNATION IN FINAL CLOSEOUT DOCUMENTATION. "EXISTING CIRCUIT" WILL NOT BE ACCEPTABLE.
5. COORDINATE NEW AND EXISTING CONDUIT ROUTING WITH MECHANICAL SERVICES, STRUCTURAL ELEMENTS, AND ARCHITECTURAL FEATURES. OFFSET OR RELOCATE AS REQUIRED TO AVOID CONFLICTS.
6. MAINTAIN CONTINUOUS OPERATION OF ESSENTIAL ELECTRICAL SERVICES DURING CONSTRUCTION. PHASE WORK TO AVOID SERVICE INTERRUPTIONS UNLESS APPROVED BY THE OWNER.
7. CONFIRM ALL DEVICE AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS PRIOR TO INSTALLATION.
8. INSTALL ALL WORK IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE (OESC) AND AUTHORITIES HAVING JURISDICTION.

KEYED NOTES:

1. EXISTING HEAT/SMOKE DETECTOR TO REMAIN. PROTECT IN PLACE DURING CONSTRUCTION. MODIFY EXISTING SURFACE-MOUNTED CONDUIT TO RECESSED CONDUIT AND REINSTALL EXISTING HEAT/SMOKE DETECTOR FLUSH WITH CEILING.
2. REMOVE ALL EXISTING CEILING-MOUNTED LIGHT FIXTURES C/W ASSOCIATED COMPONENTS, MOUNTING HARDWARE, AND WIRING TO NEAREST JUNCTION BOX. CAP UNUSED CONDUCTORS AND DISPOSE OF REMOVED MATERIALS.
3. REMOVE EXISTING LIGHT SWITCH AND ASSOCIATED WIRING BACK TO NEAREST JUNCTION BOX. CAP UNUSED CONDUCTORS. PLUG AND SEAL THE OLD OPENING.
4. DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTION OF THE PLUMBING FIXTURES C/W THE ASSOCIATED TRANSFORMER, WIRING AND CONDUIT BACK TO THE PANEL AND MAKE SAFE.
5. DISCONNECT AND REMOVE EXISTING HAND DRYERS C/W THE ASSOCIATED WIRING AND CONDUIT BACK TO NEAREST JUNCTION BOX. CAP UNUSED CONDUCTORS AND DISPOSE OF REMOVED MATERIALS.
6. VERIFY LOCATION AND DISCONNECT ELECTRICAL CONNECTIONS AND TRANSFORMER FEEDING THE EXISTING PLUMBING FIXTURES TO ACCOMMODATE RELOCATION OF THE FIXTURE.
7. DISCONNECT AND REMOVE THE EXISTING SURFACE MOUNTED JUNCTION BOX C/W WIRING, CONDUIT AND MAKE SAFE. CAP UNUSED CONDUCTORS AND DISPOSE OF REMOVED MATERIALS.
8. REMOVE EXISTING SURFACE-MOUNTED WAVE-TO-OPEN DOOR SENSOR C/W ASSOCIATED WIRING AND CONDUIT AS REQUIRED DUE TO WALL DEMOLITION. RETAIN DEVICE FOR REINSTALLATION.

Rev	Description	Date
4.0	RE-ISSUED FOR TENDER	2026/03/25
3.0	ISSUED FOR TENDER	2026/02/17
2.0	ISSUED FOR PERMIT	2025/12/15
1.0	ISSUED FOR CLIENT REVIEW	2025/07/19

Orientation

Seal

Key Plan

The Contractor shall check and verify all dimensions and report all errors and omissions to the Owner's/MBS Designee (as applicable) for his/her written direction before proceeding with the Work.

A Detail No
B Sheet No where detailed

The specifications are to be considered as an integral part of these drawings. Neither the drawings nor the specifications shall be used alone.

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PAPER SIZE: ARCH D 24 x 36 (610 x 914) ■ REAO DRAWING ACCORDINGLY

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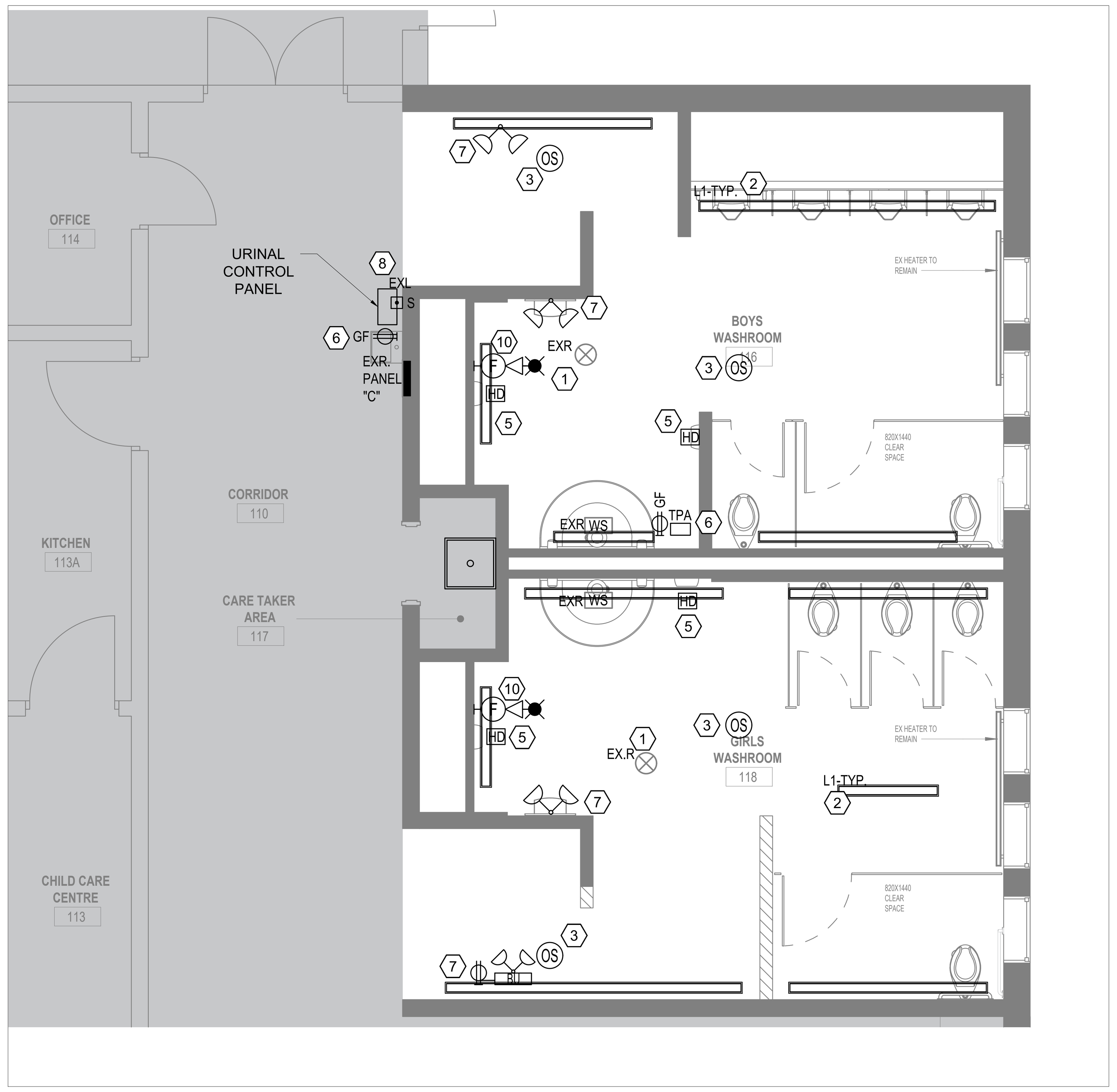
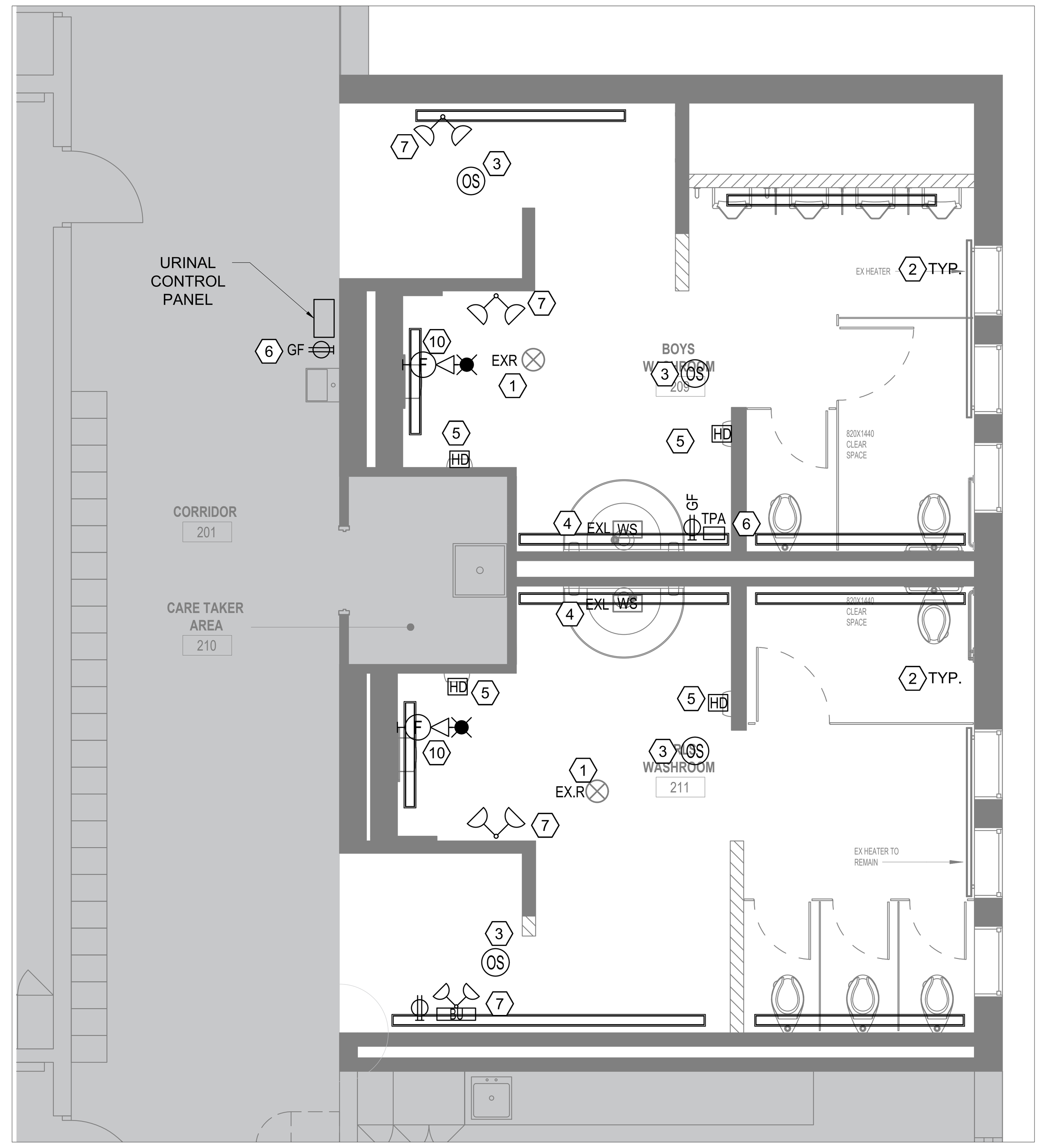


1 E-1.02 ROOMS 116, 118 ELECTRICAL NEW CONSTRUCTION
1 : 50



3 E-1.02 ROOMS 209, 211 ELECTRICAL NEW CONSTRUCTION
1 : 50

CONSTRUCTION NOTES

GENERAL

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2. TRACE ALL EXISTING CIRCUITS IN THE AREA OF WORK AND VERIFY EXISTING CONDITIONS PRIOR TO ANY MODIFICATIONS.
3. WHERE DRAWINGS INDICATE "CONNECT TO AN EXISTING PANEL", INCLUDE FOR RE-ARRANGING THE EXISTING CIRCUITS AND UTILIZING SPACE SAVER BREAKERS TO MAKE SPACE IN EXISTING PANEL. CONTRACTOR IS ALLOWED TO UTILIZE EXISTING SPARE BREAKERS IN EXISTING PANELS, IF AVAILABLE. PANEL C SHOWN ON 1ST FLOOR CORRIDOR OUTSIDE WASHROOM 116 & 118 IS FULL AND DOES NOT HAVE SPARE BREAKER.
4. UPDATE THE EXISTING PANELS SCHEDULES IMPACTED AS PART OF THIS SCOPE OF WORK TO REFLECT THE ACTUAL CIRCUIT DESIGNATION IN FINAL CLOSEOUT DOCUMENTATION. "EXISTING CIRCUIT" WILL NOT BE ACCEPTABLE.
5. COORDINATE NEW AND EXISTING CONDUIT ROUTING WITH MECHANICAL SERVICES, STRUCTURAL ELEMENTS, AND ARCHITECTURAL FEATURES. OFFSET OR RELOCATE AS REQUIRED TO AVOID CONFLICTS.
6. MAINTAIN CONTINUOUS OPERATION OF ESSENTIAL ELECTRICAL SERVICES DURING CONSTRUCTION. PHASE WORK TO AVOID SERVICE INTERRUPTIONS UNLESS APPROVED BY THE OWNER.
7. CONFIRM ALL DEVICE AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS PRIOR TO INSTALLATION.
8. INSTALL ALL WORK IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE (OESC) AND AUTHORITIES HAVING JURISDICTION.

KEYED NOTES:

(1) VERIFY CONDITION AND OPERATION OF EXISTING HEAT/SMOKE DETECTOR LEFT IN PLACE. RESTORE CONNECTIONS AS REQUIRED.

(2) PROVIDE NEW LIGHT FIXTURES AS PER LIGHTING SCHEDULE AND CONNECT TO OCCUPANCY SENSOR CONTROL CIRCUIT. VERIFY SENSOR/DRIVER/LED COMPATIBILITY, MINIMUM LOAD AND IN-RUSH RATINGS PRIOR TO INSTALLATION.

(3) PROVIDE NEW LINE-VOLTAGE CEILING-MOUNTED OCCUPANCY SENSOR FOR LIGHTING CONTROL. EXTEND/RE-ROUTE SWITCHED HOT AS REQUIRED FROM THE OLD SWITCH LOCATION OR JUNCTION BOX TO SENSOR JUNCTION BOX IN CEILING. CAP AND LABEL UNUSED CONDUCTORS. COORDINATE SENSOR LOCATION AND COMMISSIONING WITH MANUFACTURER TO ENSURE MAXIMUM COVERAGE.

(4) RECONNECT PLUMBING FIXTURE ELECTRICAL CONNECTIONS AT NEW LOCATIONS. EXTEND WIRING AND CONDUITS AS REQUIRED. FINAL TERMINATION OF FIXTURE CONTROL WIRING SHALL BE COMPLETED BY MECHANICAL CONTRACTOR.

(5) SUPPLY AND INSTALL NEW HAND DRYER AT THE NEW LOCATION AND PROVIDE POWER USING THE EXISTING CIRCUIT C/W NEW WIRING AND CONDUIT. CONDUIT SHALL BE FACTORY-PAINTED TO MATCH ADJACENT WALL FINISH. EXTEND WIRING AND CONDUIT AS REQUIRED. EXTEND WIRING AND CONDUIT AS REQUIRED.

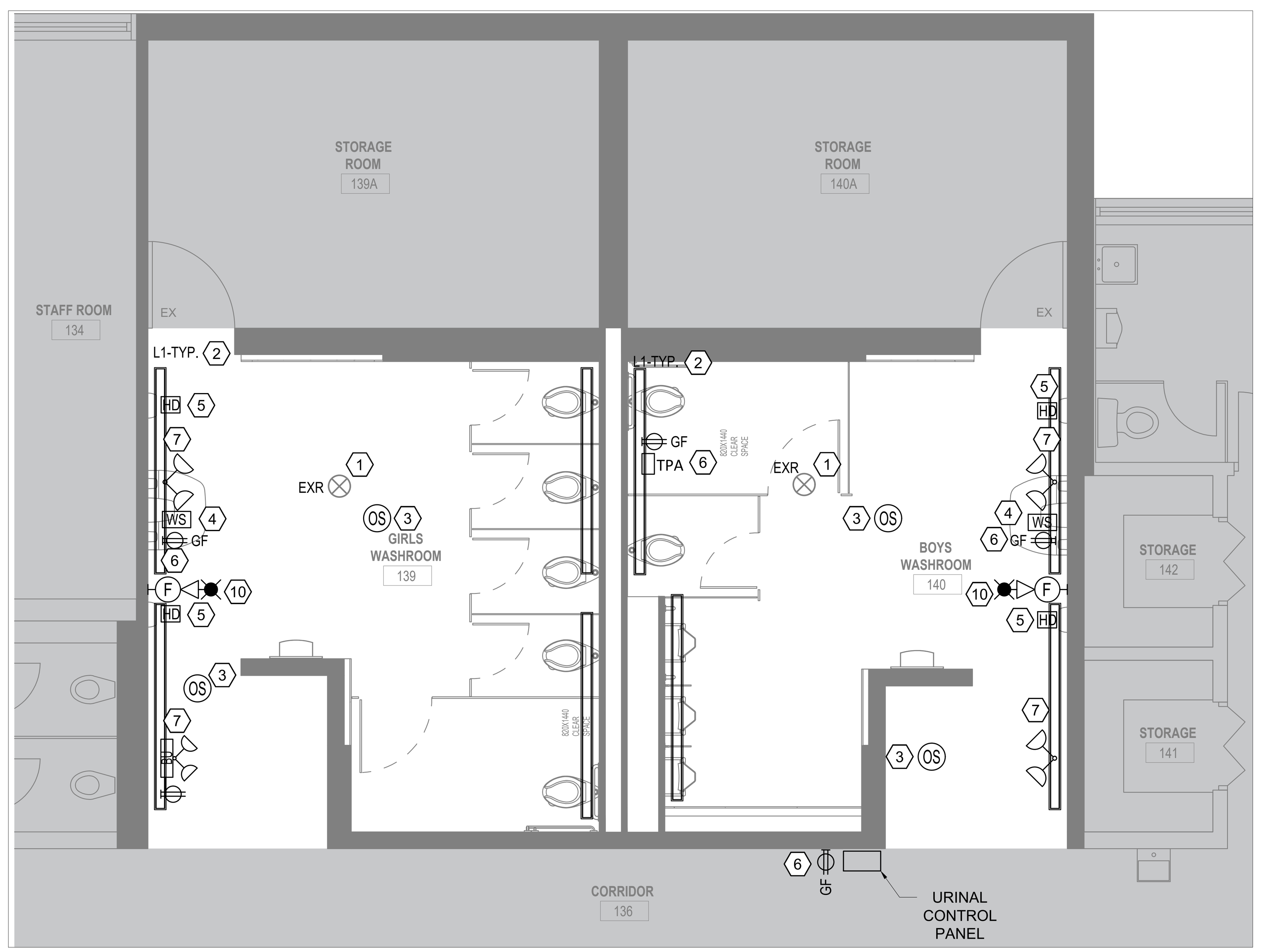
(6) SUPPLY AND INSTALL A NEW 15 A-1P 120 V GFI DUPLEX RECEPTACLE C/W WIRING AND CONDUIT FOR THE NEW ELECTRONIC TRAP PRIMER BOX RECESSED IN THE WALL, URINAL CONTROL PANEL, AND NEW WASH FOUNTAIN. COORDINATE FIXTURE LOCATION AND CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR. PROVIDE POWER VIA A NEW 15A-1P DEDICATED CIRCUIT FROM PANEL "PS" SHOWN ON E0.01 OR THE NEAREST EXISTING PANEL C/W ASSOCIATED WIRING AND CONDUIT TO SOURCE POWER.

(7) SUPPLY AND INSTALL NEW BATTERY PACK EMERGENCY LIGHTING UNIT WITH REMOTE HEADS AS INDICATED C/W DC WIRING & CONDUIT RUN AND A NEW 15 A-1P 120 V DUPLEX RECEPTACLE. LOCATE NO LOWER THAN 8'-0" (2400 MM) AFF. PROVIDE POWER VIA A NEW 15A-1P DEDICATED CIRCUIT WITH A BREAKER LOCK FROM PANEL "PS" SHOWN ON E0.01 OR THE NEAREST EXISTING PANEL C/W ASSOCIATED WIRING AND CONDUIT TO SOURCE POWER.

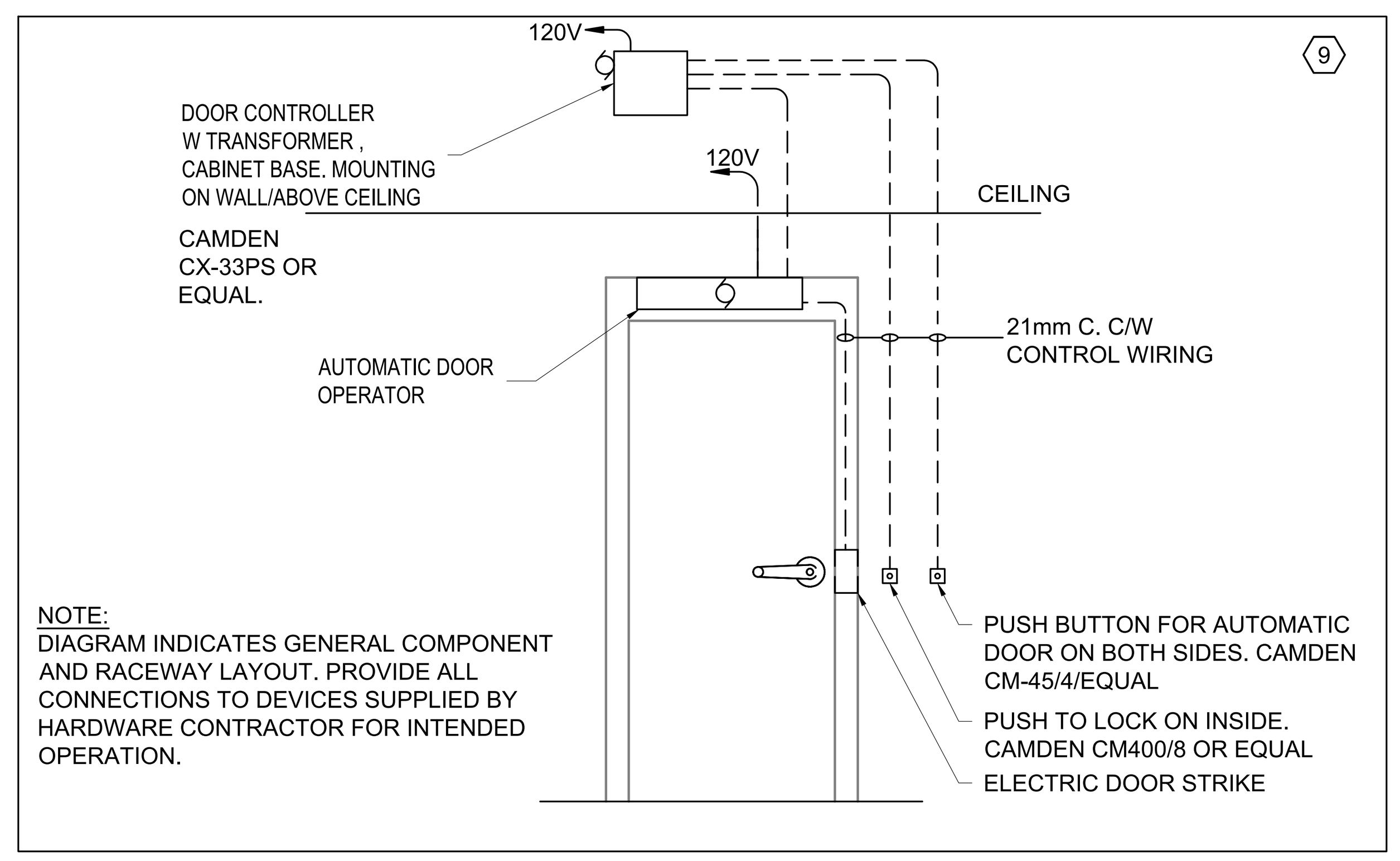
(8) RELOCATE AND REINSTALL EXISTING SURFACE-MOUNTED WAVE-TO-OPEN DOOR SENSOR AT THE NEW LOCATION AS SHOWN. PROVIDE NEW SURFACE-MOUNTED BOX AND CONDUIT EXTENSIONS AS REQUIRED AND RECONNECT TO EXISTING DOOR OPERATOR. TEST AND CONFIRM PROPER OPERATION.

(9) PROVIDE 120V POWER AND ROUGH-IN FOR THE AUTOMATIC DOOR OPERATOR (ADO), CONTROLLER, AND ASSOCIATED ACTIVATION DEVICES, C/W BACKBOXES, WIRING, AND CONDUITS AS REQUIRED, AS SHOWN ON ARCHITECTURAL DRAWINGS. PROVIDE POWER VIA A NEW 15A-1P DEDICATED CIRCUIT FROM PANEL "PS" SHOWN ON E0.01 OR THE NEAREST EXISTING PANEL, C/W WITH ASSOCIATED WIRING AND CONDUIT. COORDINATE WITH DOOR HARDWARE SUPPLIER AND ARCHITECTURAL DRAWINGS. REFER TO DETAIL #4 ON THIS DRAWING.

(10) SUPPLY AND INSTALL NEW COMBINATION HORN/STROBE UNITS IN EACH WASHROOM, FULLY INTEGRATED WITH THE EXISTING FIRE ALARM SYSTEM AS PER THE OBC & ULC REQUIREMENT. WORK INCLUDES SUPPLY, INSTALLING, WIRING, INSTALLATION, TESTING, AND COMMISSIONING WITH REPORT. ALL WORK SHALL BE PERFORMED BY THE APPROVED HWDSB FIRE ALARM CONTRACTOR. EXACT LOCATIONS TO BE FIELD DETERMINED FOR FULL COVERAGE.



2 E-1.02 ROOMS 139, 140 ELECTRICAL NEW CONSTRUCTION - FULL RENOVATION
1 : 50



4 E-1.02 ROOM 153 - WASHROOM DOOR ADO
NTS

LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	LUMEN PER LAMP	[MANUFAC]	DESCRIPTION
L1	AS SHOWN	L1	4000	AXIS LIGHTING	CAT# BBRLED-1000-80-40-FL-xxFT-W-UNV-DP-1-DF. , 0.900 LLD, 0-10 V INTEGRATED DIMMING DRIVER, FLUSHED, CCT SET TO 4000K, 80+CRI, VOLTAGE 120, DLC LISTED, 5 YEARS WARRANTY. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE LENGTH.
BU	3	BU	LED 2-4W MR16	EMERGI-LITE	CAT# EM-1 #12JMLA-72-U/2-LG TWIN HEAD (1 CUBE 2 LAMPS) LED REMOTE MR16 FIXTURE C/W COMPACT VANDAL RESISTANT DESIGN, WHITE COLOUR, FULL AIMING ADJUSTMENT, 360° ROTATION AND LEXAN COVER WITH WIRE GUARD
	9	NA	LED 2-4W MR16	EMERGI-LITE	CAT. #EF39-D-M-LG TWIN HEAD (1 CUBE 2 LAMPS) LED REMOTE MR16 FIXTURE C/W COMPACT VANDAL RESISTANT DESIGN, WHITE COLOUR, FULL AIMING ADJUSTMENT, 360° ROTATION AND LEXAN COVER WITH WIRE GUARD.

ELECTRICAL APPLIANCES

LABEL	QTY	AMP	WATTS/HZ	[MANUFAC]	DESCRIPTION
HD	12	8.3	120V/60HZ	SLIMDRI	SURFACE-MOUNTED ADA COMPLIANT HAND DRYERS, STAINLESS STEEL WITH POLISHED FINISH, KIT #L-972, UNIT WEIGHT 10.7 LBS (4.8 KG). UNIT DIMENSIONS 10.7 × 11.43 × 3.9 INCHES

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