

WATERLOO REGION DISTRICT SCHOOL BOARD

LINCOLN HEIGHTS PS BARRIER FREE WASHROOM ADDITION

270 Quickfall Dr, Waterloo, ON N2J 3S9

WalterFedy Project No.: 2022-0858-12 2024.03.11 ISSUED FOR BID AND PERMIT

DRAWING LIST

ARCHITECTURE

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A001 ASSEMBLIES, LEGENDS, NOTES AND OBC MATRIX

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A103 TYPICAL ROOFING DETAILS

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E2.1 PARTIAL FLOOR DEMOLITION PLAN E3.1 PARTIAL FLOOR RENOVATION PLAN

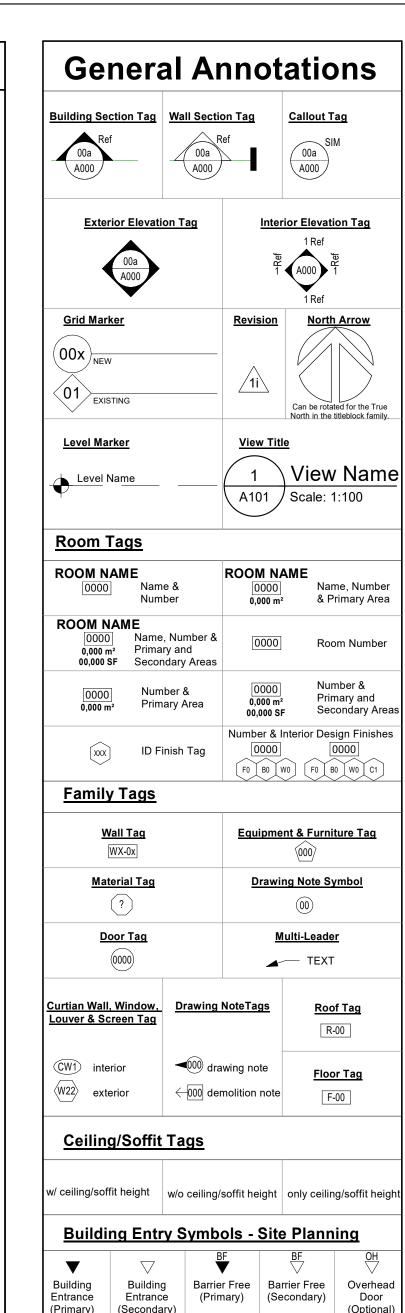
E4.1 ELECTRICAL SPECIFICATIONS

LARGE BUILDINGS: TO BOOK AN INSPECTION CALL THE INSPECTION REQUEST LINE AT 519-747-8789.









(Primary)

(Secondary)

DRAWING LEGEND:

ARCHITECTURAL WORK - TYPICAL

HATCH DENOTES AREA NOT IN SCOPE OF

☐ ☐ ☐ ☐ EXISTING TO BE DEMOLISHED SHOWN DASHED

GENERAL NOTES:

- A. ALL WALLS TO EXTEND TO U/S STRUCTURAL DECK UNLESS OTHERWISE NOTED.
- B. ASSEMBLY CONSTRUCTION READ FROM TAG SIDE OF ASSEMBLY
- C. ALL DIMENSIONS ARE APPROXIMATE, CONTRACTOR TO SITE VERIFY ALL DIMENSIONS.
- D. DIMENSIONING TO/FROM EXISTING CONDITIONS SHALL BE AT FACE OF EXISTING ASSEMBLY.
- E. PROVIDE BLOCKING AS REQUIRED TO SUPPORT WALL MOUNTED EQUIPMENT.
- F. REFER TO ELECTRICAL DRAWINGS FOR ALL CEILING MOUNTED EQUIPMENT SIZE AND TYPE.
- G. SEE MECHANICAL DRAWINGS FOR HVAC EQUIPMENT SIZE AND TYPE.
- H. MAKE GOOD ALL CEILING TILE/WALLS/SURFACES AFTER CONSTRUCTION, FIX AND PAINT WALLS DAMAGED BY CONSTRUCTION
- . FIRESTOP AND SEAL ALL PENETRATIONS THRO

AND/OR REPLACE CEILING IF DAMAGED BY CONSTRUCTION

- J. ANY DAMAGE TO EXISTING ADJACENT CONSTRUCTION INCLUDING BUT NOT LIMITED TO (INTERIOR AND EXTERIOR) MASONRY, DRYWALL, SILLS, SOFFITS, A.C.T. CEILING AND GYPSUM BOARD CEILING, EQUIPMENT, LIGHT FIXTURES, MILLWORK, FURNITURE, FASCIA OR TRIM, ETC., WHICH ARE TO REMAIN ARE TO BE REPAIRED/REPLACED AT NO EXPENSE TO THE SCHOOL
- K. CONTRACTOR TO PROTECT ALL EXISTING INTERIOR FINISHES, MECHANICAL, ELECTRICAL, MILLWORK AND FURNITURE DURING ALL PHASES OF CONSTRUCTION.
- L. REMOVE AND REINSTALL CEILINGS REQ'D TO BE DISTURBED DURING DEMOLITION AND CONSTRUCTION WHERE NEEDED. ADJUST CEILINGS ACCORDINGLY WHERE REQUIRED.
- M. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REFER TO ASBESTOS AUDIT PRIOR TO DEMOLITION WORKS.

N. CAREFULLY REMOVE SECTIONS OF EXISTING CEILING AS REQUIRED FOR PLUMBING WORK

GENERAL DEMOLITION NOTES:

- A. DRAWING TO BE READ IN CONJUNCTION W/ ALL OTHER CONTRACT DOCUMENTS INCLUDING ABATEMENT SPECIFICATION. COORDINATE W/ OTHER TRADES PRIOR TO COMMENCING WORK
- B. CARRY OUT ALL DEMOLITION, REMOVAL AND DISPOSAL IN ACCORDANCE WITH APPLICABLE PROVINCIAL AND LOCAL
- C. EXECUTE DEMOLITION IN AN ORDERLY AND CAREFUL MANNER WITH DUE CONSIDERATION FOR ADJACENT STRUCTURES
- D. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO GUARD AGAINST MOVEMENT OR SETTLEMENT OF THE REMAINING STRUCTURE, INCLUDING ALL NECESSARY BRACING OR SHORING THAT IS REQUIRED.
- E. ALL DEMOLITION DEBRIS TO BE DISPOSED BY DEMOLITION/ABATEMENT TRADE UNLESS OTHERWISE NOTED.
- F. ALL CONTRACTORS INCLUDING ABATEMENT TO REFER TO MECHANICAL AND ELECTRICAL DRAWINGS OR DEMOLITION NOTES FOR DETAILS OF SCOPE OF MECHANICAL AND ELECTRICAL DEMOLITIONS.
- G. CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR, AND MAKE GOOD ALL DAMAGE TO ADJACENT FINISHED SURFACES
- H. CONTRACTOR TO ENSURE ALL EXIT SIGNAGE TO REMAIN AS INSTALLED AND ENSURE FIXTURES ARE OPERATIONAL. CONTRACTOR TO PROVIDE RE-SUPPORT AS REQUIRED TO SUIT PHASING.
- CONTRACTOR TO ENSURE ALL EMERGENCY LIGHT FIXTURES TO REMAIN ALONG EGRESS ROUTES.
- . PATCH AND MAKE GOOD ANY DAMAGED FIRE ASSEMBLIES WITH CONTINUOUS FIRESTOPPING/FIREBLOCKING EQUAL TO THAT OF WALL/FLOOR.
- K. CONTRACTOR TO ENSURE ALL MANUAL PULL STATIONS AND FIRE ALARM BELLS REMAIN OPERATIONAL. IF A DEVICE MUST BE REMOVED, THE DEVICE MUST BE PROPERLY DE-PROGRAMMED BY LICENSED FIRE ALARM TECHNICIAN AND RE-ACTIVATED AT END OF WORKING DAY. FIRE WATCH MUST BE PROVIDED BY DEMOLITION/ABATEMENT TRADE WITHOUT ADDITIONAL COST TO OWNER OR CONSULTANT.
- L. CONTRACTOR TO PROVIDE DUST CONTROL AND HOARDING IN ISOLATED DEMOLITION, TYP. FOR EACH LOCATION.
- M. CONTRACTOR SHALL PATCH AND MAKE GOOD ALL FLOORS WHERE DISTURBED BY REMOVAL OF WALL ASSEMBLY AND/OR
- N. IF AN ITEM IS NOT NOTED TO BE REINSTALLED OR TURNED OVER TO THE OWNER, IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO DISPOSE OF ITEMS
- O. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO REVIEW ALL DESIGNATED SUBSTANCES DOCUMENTATION PRIOR TO COMMENCING WORK
- P. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO REMOVE ALL LOOSE FURNITURE AND WALL MOUNTED

Q. ANY MECHANICAL OR ELECTRICAL DEVICES THAT MAY BE TEMPORARILY REMOVED AND REINSTALLED FOR THIS WORK SHALL BE TESTED.

- R. LOCATE AND DISCONNECT, CAP AND PLUG ALL GAS, WATER, SEWER, HYDRO, TELEPHONE AND OTHER SERVICES AS REQUIRED.
- S. PREPARE ALL THE SURFACES TO BE ACCEPTABLE FOR PROPOSED FINISHING AFTER DEMOLITION WORKS
- T. OBTAIN SCHOOL APPROVAL OF DEMOLITION SCHEDULE AND LOCATION OF BINS.

		Ontario's 2012 Building	Code		OBC Reference								
	Data Matrix Part 11												
11.1	Existing Building Classification	Describe Existing Use: GROUP A2 Construction Index: - Hazard Index: - Not Applicable (no change of major		NTARY SCHOOL)	11.2.1. T11.2.1.1A T11.2.1.1B-N								
11.2	Alteration to Existing Building is	Basic Renovation Extensive Renovation □											
11.3	Reduction in Performance Level	Structural By Increase in Occupant Load By Change of Major Occupancy Plumbing Sewage-System	■ No ■ No ■ No ■ No	☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes	11.4.2. 11.4.2.15								
11.4	Compensating Construction	Structural - Increase in Occupant Load	■ No	☐ Yes (explain) ☐ Yes (explain)	11.4.3. 11.4.3.2. 11.4.3.3.								
		Change of Major Occupancy	■ No	☐ Yes (explain)	11.4.3.4.								
		Plumbing - Sewage System -	■ No	☐ Yes (explain)	11.4.3.5.								
11.5	Compliance Alternatives Proposed	■ No □ Yes (give number(s))			11.5.1.								
11.6	Alternative Measures Proposed	■ No □ Yes (give number(s))			11.5.2.								

OBC NOTES:

- 1. MAJOR OCCUPANCY: GROUP A2 TO REMAIN (ELEMENTARY SCHOOL)
- 2. EXISTING BUILDING AREA: 3,928.35 m² (42,284.5 SF)
- 3. AREA OF RENOVATION: <u>20 m² (215.3 SF)</u>
- 4. EXISTING BUILDING: UNSPRINKLERED 5. FIRE ALARM - EXISTING
- 6. PROVIDE A NEW BARRIER FREE WASHROOM.

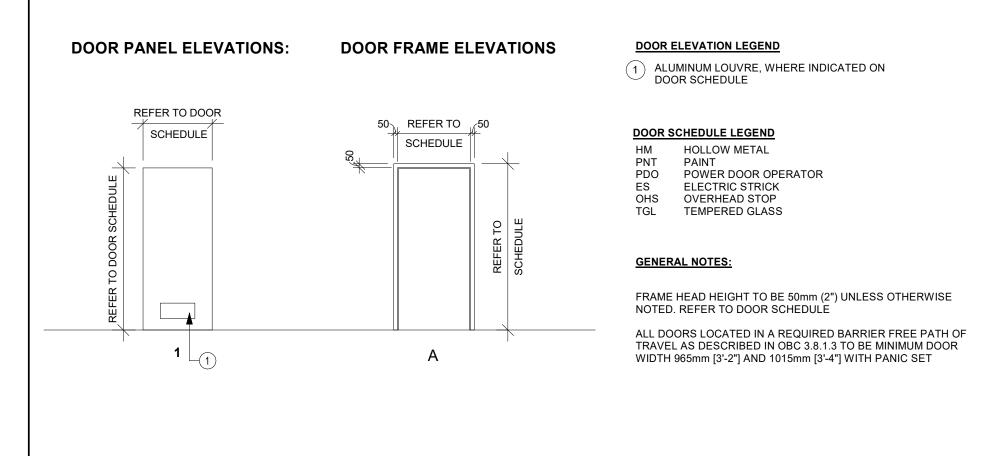
DOOR & SCREEN SCHEDULE

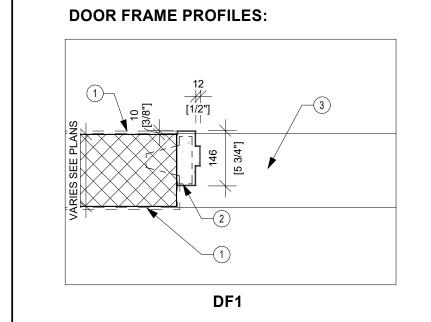
Door/Screen		Door/S	creen		Frame Hardware												
	Width x Height	Type /					Type /				ULC			Weather	Fire	Temp.	
Mark	x Thickness	Élev	Material	Finish	Glazing	Grille	Élev	Profile	Material	Finish	Panics	Closer	Threshold	Strip	Rating	Rise	Notes

101

102

Level															
1	965x2134x51	1	НМ	PNT	 	Α	DF1	HM	PNT	No	No	No	No	-	PDO, ES, OHS
2	813x2134x51	1	НМ	PNT	 	Α	DF1	HM	PNT	No	No	No	No	-	OHS





- (1) LINE OF BASE BELOW SEE FINISHES
- PLAN FOR BASE MATERIAL (2) FILL WITH GROUT (TYPICAL)
- (3) PATCH TERRAZO TILE BELOW

GENERAL NOTE:

LEGEND:

- A. REFER TO SPEC. FOR CONCRETE BLOCK CORNER TREATMENT.

B. FOR GLAZING TYPE REFER TO DOOR SCHEDULE.

CLIENT LOGO

ISSUANCE DATE **ISSUED FOR 60% OWNER REVIEW** 2024-01-31 2 ISSUED FOR 90% OWNER REVIEW 2024-02-29 3 ISSUED FOR BID AND PERMIT 2024-03-11

WATERLOO REGION DISTRICT SCHOOL BOARD

51 Ardelt Ave, Kitchener, ON N2C 2R5

LINCOLN HEIGHTS PS BARRIER FREE WASHROOM ADDITION

270 Quickfall Dr, Waterloo, ON N2J 3S9

ASSEMBLIES, LEGENDS, NOTES AND OBC MATRIX

WALTERFEDY KITCHENER | HAMILTON | TORONTO



2022-0858-12 REPRODUCTION OR DISTRIBUTION FOR PURPOSES OTHER THAN AUTHORIZED B NETROBUSTION OR DISTRIBUTION FOR FURTHORS SHALL VERIFY AND BE RESPONSIBLE FOR WALTERFEDY IS FORBIDDEN. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS TO WALTERFEDY.

DO NOT SCALE THIS DRAWING

SHEET NO: SCALE: As indicated 2024.03.06 PROJECT NO 2022-0858-12 DRAWN BY HA

CHECKED BY:

DRAWING NOTES (01) INSTALL A NEW HOLLOW METAL BARRIER FREE DOOR AND FRAME. REFER TO DOOR) POWER DOOR OPERATOR AND PUSH TO LOCK - REFER TO ELECTRICAL FIXTURES AND SERVICES FOR BARRIER-FREE WASHROOM, WATER CLOSET WITH A WALL MOUNTED FLUSH SENSOR LOCATED ABOVE GRAB BAR. REFER TO TYPICAL DETAILS AND MECHANICAL (04) 140mm BLOCK WALL - PRIME AND PAINT (05) INSTALL A NEW HOLLOW METAL DOOR AND FRAME FOR STANDARD WASHROOM ENCLOSURE. REFER TO DOOR SCHEDULE. (06) EXISTING STRUCTURAL PIER TO REMAIN (07) EXISTING PLUMBING FIXTURES AND SERVICES TO REMAIN (08) HEATING PIPING CHASE. REFER TO MECHANICAL DRAWINGS

DEMOLITION NOTES

- SAW CUT EXISTING NON-LOADBEARING CONCRETE BLOCK WALL WITH TERRAZZO BASE AS REQUIRED TO ACCOMMODATE NEW DOOR. PATCH AND MAKE GOOD ALL ADJACENT SURFACES TO REMAIN. PROVIDE TEMPORARY SHORING AS REQUIRED UNTIL PERMANENT
- SHOWER AND WATER CLOSET STALLS C/W DOORS, MISC. STRAPS, ANCHORS AND FASTENERS TO BE REMOVED. PATCH AND MAKE GOOD ALL ADJACENT SURFACES. EQUIPMENT TO BE TURNED OVER TO THE OWNER.
- 3 RESERVED
- [4] EXISTING PLUMBING FIXTURES AND SERVICES TO REMAIN.
- REMOVE AND DISPOSE OF EXISTING PLASTER CEILING AND METAL SUSPENSION SYSTEM IN ITS ENTIRETY, PATCH AND MAKE GOOD ALL ADJACENT SURFACES TO REMAIN TO ACCEPT NEW CEILING.
- 6 CLEAN AND PATCH EXISTING TERRAZZO FLOORING TO REMAIN. PREPARE SUBSTRATE AND CUT OFF TERRAZO BASE TO ACCEPT
- PROPOSED FLOOR AND BASE FINISH. EXISTING RADIATOR TO BE RE-WORKED AND RELOCATED AS REQUIRED TO ACCOMMODATE PROPOSED WALL OPENING AND BARRIER FREE DOOR - CUT EXISTING CONCRETE BLOCK ASSEMBLY

ACCEPT PROPOSED FINISHES

EXISTING LIGHT FIXTURES TO BE REMOVED AND DISPOSED. REFER TO ELECRICAL DRAWINGS.

AS REQUIRED. REFER TO MECHANICAL FOR COMPLETE SCOPE OF

WORK. PATCH AND MAKE GOOD ALL SURFACES TO REMAIN TO

- REMOVE EXISTING SHOWER FIXTURES COMPLETE. CAP, INFILL WALL AS REQUIRED TO MAKE GOOD. PRIME AND PAINT WALLS WHERE WALL TILES ARE NOT BEING INSTALLED.
- REMOVE TERRAZO CURB AS REQUIRED FOR SANITARY AND SAW CUT EXISTING CONCRETE CURB. REPAIR SLAB-ON-GRADE AS REQUIRED PER TYPICAL DETAIL C206 ON DRAWING S002. PATCH EXISTING TERRAZZO AS REQUIRED WITHIN STANDARD WASHROOMSURFACE FROM REMOVED CURB TO BE FILLED AS REQUIRED TO CREATE A LEVEL SURFACE. PREPARE SUBSTRATE TO RECEIVE PROPOSED FLOOR FINISH
- EXISTING TERRAZZO CURB OUTSIDE BARRIER FREE WASHROOM ENCLOSURE TO REMAIN IN PLACE

PER TYPICAL DETAIL M105 ON DRAWING S002. **CEILING ASSEMBLIES**

PAINTED TO MATCH EXSTING.

THE NEW DOORS.

EXISTING PLASTER FINISH CEILING TO BE LEFT UNDISTURBED UNLESS OTHERWISE NOTED

TILE CAN BE INTALLED AT GREATER HEIGHT

TYPICAL DETAIL M105 ON DRAWING S002.

610 x 1220 ACOUSTIC CEILING TILE WITH PREFINISHED METAL T-BAR SUSPENSION SYSTEM

WALL ASSEMBLIES

W-1 190mm CONCRETE BLOCK

W-2 140mm CONCRETE BLOCK WALLS TO EXTEND TO U/S OF STRUCTURE ABOVE. REFER TO DRAWINGS S001 AND S002 FOR WALL REINFORCEMENT AND LATERAL SUPPORTS.

WALL & CEILING:

PT1 PAINT

FINISH LEGEND:

FLOOR:

HAND DRYER - REFER TO TYPICAL DETAILS FOR INSTALATION HEIGHT AND CLEARANCES

RE-WORK. RELOCATE AND REPLACE EXISITING RADIATOR WITH A SURFACE MOUNTED

RADIATOR SHIFTED TO ACCOMMODATE THE NEWLY INSTALLED BARRIER FREE DOOR -

GOOD EXISTING WALL WHERE RECESSED RADIATOR IS BEING REMOVED. WORK WILL

REQUIRE MULTIPLE COATS OF PAINT (MORE THAN 3) TO MATCH ADJACENT SURFACES.

(12) EXISTING PLASTER CEILING TO REMAIN. ANY DAMAGE THAT OCCURS TO CEILING DURING

CONSTRUCTION TO BE REPAIRED AND PATCHED WITH GYPSUM BOARD. PRIMED AND

(13) EXISTING LIGHT FIXTURES TO BE REPLACED WITH NEW LED LIGHT, REFER TO EELECTRICAL

(14) PATCH ANY DAMAGED TERRAZZO OCCURS DURING DEMOLITION AND CONSTRUCTION OF

(16) PROVIDE LINTEL 2-L89x64x6.4 LLV BACK-TO-BACK ANGLES ABOVE DOOR OPENING PER

(19) TERRAZO BASE TO REMAIN FOR EXISITNG WALLS. REPAIR AND PATCH ANY DAMAGE OCCURS

DURING CONSTRUCTION. ONLY NEW WALLS TO RECEIVE PORCELAIN TILE BASE AS

(20) GENERAL CONTRACTOR TO NOTIFY TO CONSULTANT DURING CONSTRUCTION IF CEILING

(21) PROVIDE LINTEL 2-L89x89x6.4 BACK-TO-BACK ANGLES ABOVE DOOR OPENING IN EX. WALL

EMERGENCY LIGHTING, REFER TO ELECTRICAL DRAWINGS.

(15) SOAP DESPENSER, REFER TO TYPICAL DETAILS AND SPECIFICATIONS.

(17) PUSH TO LOCK BOTTON, REFER TO TYPICAL DETAILS AND SPECIFICATIONS.

(18) GARMENT HOOK, REFER TO TYPICAL DETAILS AND SPECIFICATIONS.

REFER TO MECHANICAL FOR COMPLETE SCOPE OF WORK. INFILL WALL, PATCH AND MAKE

PTF1 PORCELAIN FLOOR TILE

EXHAUST DUCT

CEILING LEGEND

C-1 CEILING ASSEMBLY

RECESSED LED LIGHT FIXTURE,

REFER TO ELEC. DRAWINGS FOR TYPE AND SIZE

CEILING MOUNTED FLUORESCENT

FOR TYPE AND SIZE

MECHANICAL EXHAUST FAN,

REFER TO MECHANICAL DRAWINGS

LIGHT FIXTURES

FLOOR

PTB1 PORCELAIN TILE BASE PORCELAIN WALL TILE [TIF-X] EXISTING TERRAZO FLOOR TILE [TIB-X] EXISTING TERRAZO TILE BASE

DENOTES AREAS NOT IN SCOPE XXXX CEILING HEIGHT ABOVE FINISHED

HATCHED AREA DENOTES APPROX. AREA OF CEILING REMOVAL TO ACCOMMODATE MECH./ELEC./STRUC. WORK. FINAL REMOVAL EXTENTS TO BE COORDINATED ON SITE.

GYPSUM/PLASTER:

- CAREFULLY REMOVE AS REQ'D, PROTECT ADJACENT SURFACES AND FINISHES.

- PATCH AND MAKE GOOD ADJACENT SURFACES AFFECTED BY WORK. PROVIDE NEW GYPSUM CEILING C/W METAL SUSPENSION SYSTEM AT AREAS OF REMOVAL.

- PRIME AND PAINT TO MATCH EXISTING ADJACENT.

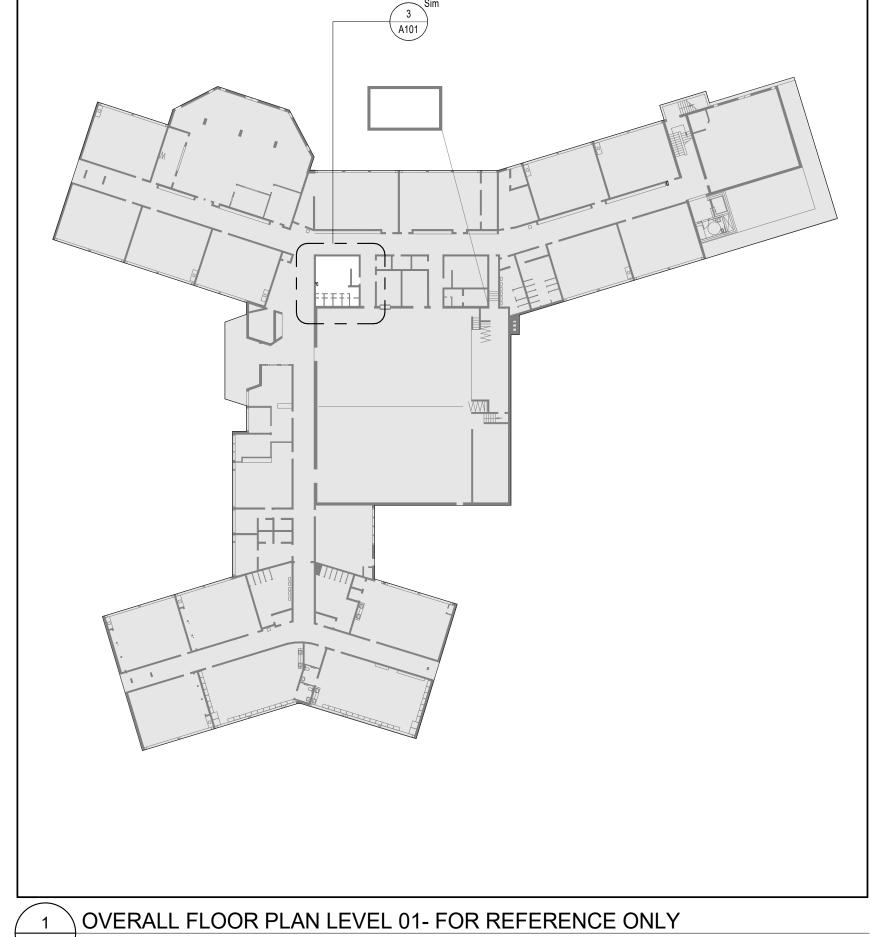
DRAWING LEGEND:

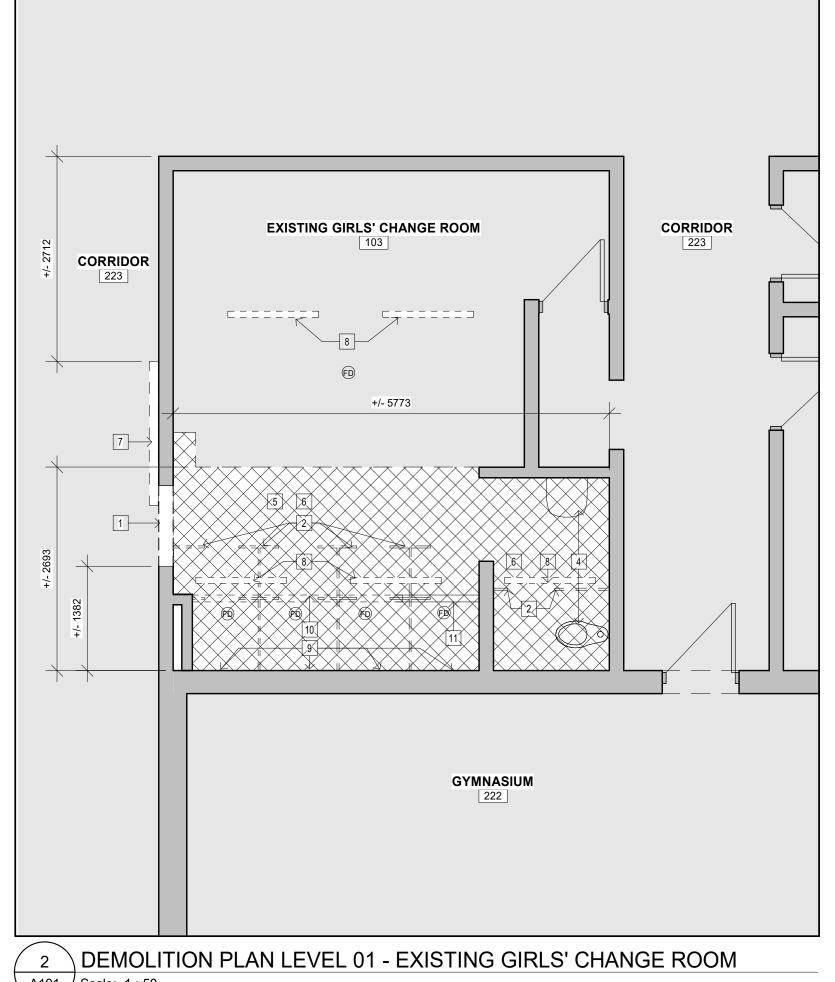
FLOOR DRAIN - REFER TO MECHANICAL DRAWINGS FOR SCOPE OF WORK.

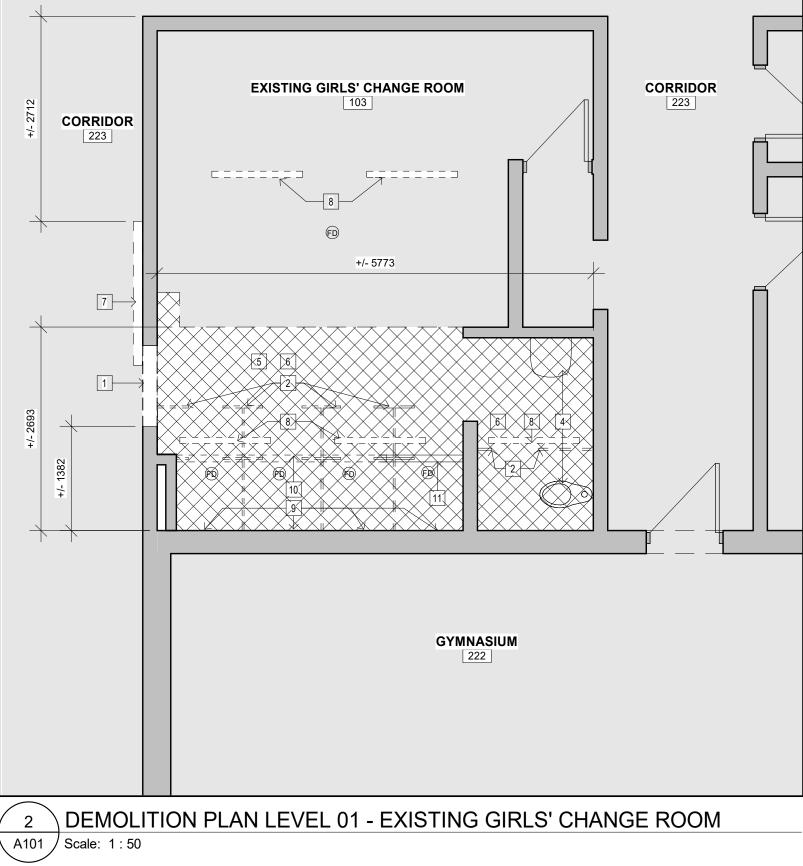
ROOM LEGEND

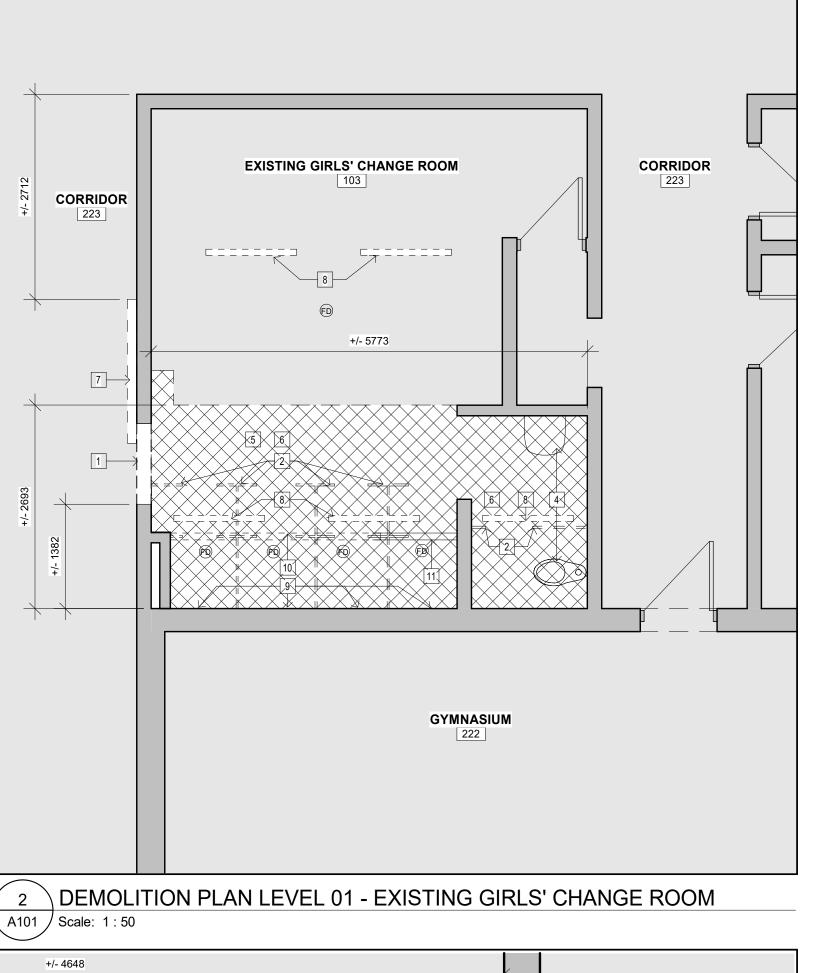
BARRIER-FREE WASHROOM STANDARD WASHROOM EXISTING GIRLS' CHANGE ROOM

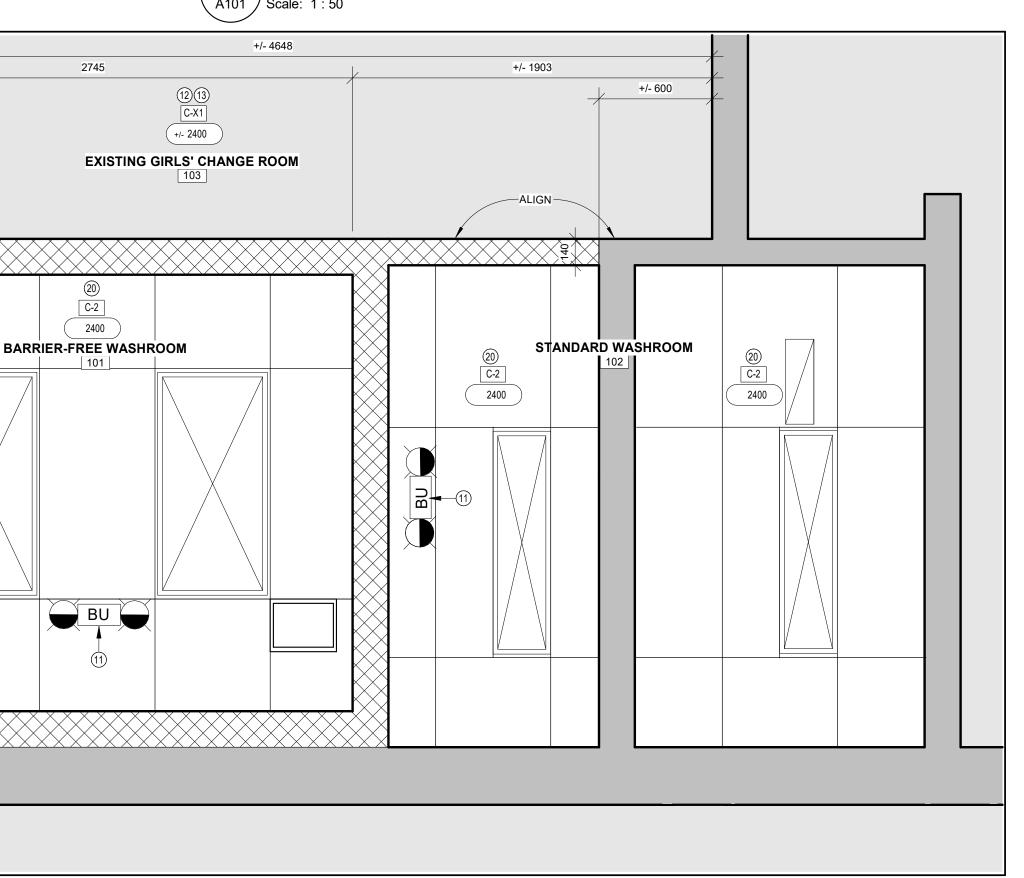
A101 / Scale: 1:500

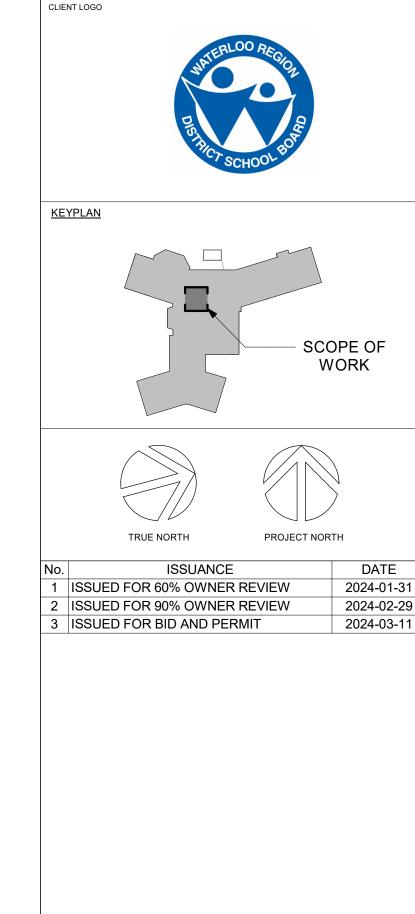












DISCLAIMER:

NOT FOR CONSTRUCTION

WATERLOO REGION DISTRICT SCHOOL BOARD

51 Ardelt Ave, Kitchener, ON N2C 2R5

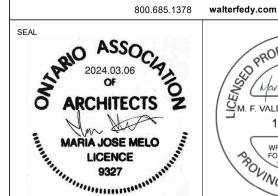
LINCOLN HEIGHTS PS BARRIER FREE WASHROOM ADDITION

270 Quickfall Dr, Waterloo, ON N2J 3S9

LEVEL 1 FLOOR PLANS AND REFLECTED CEILING PLANS

WALTERFEDY

A PART OF WF GROUP



Mariaterrandol/ M. F. VALDERRAMA VARGAS

Output

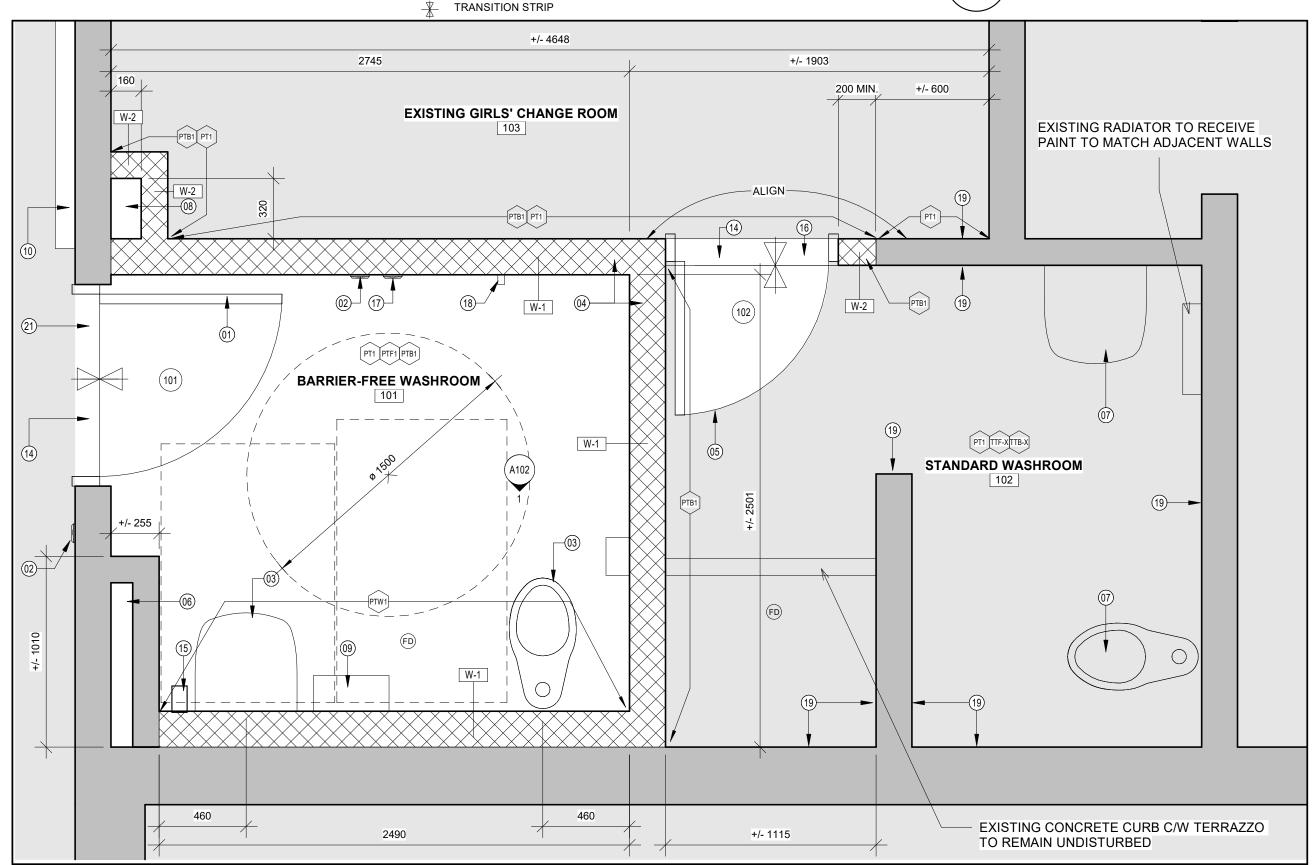
Description:

Output

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2022-0858-12 REPRODUCTION OR DISTRIBUTION FOR PURPOSES OTHER THAN AUTHORIZED B WALTERFEDY, A PART OF WF GROUP, IS FORBIDDEN. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS TO WALTERFEDY, A PART OF WF GROUP. WalterFedy, A Part of WF Group Inc.

SCALE: As indicated 2024.03.06 A101 PROJECT NO: 2022-0858-12 DRAWN BY CHECKED BY:

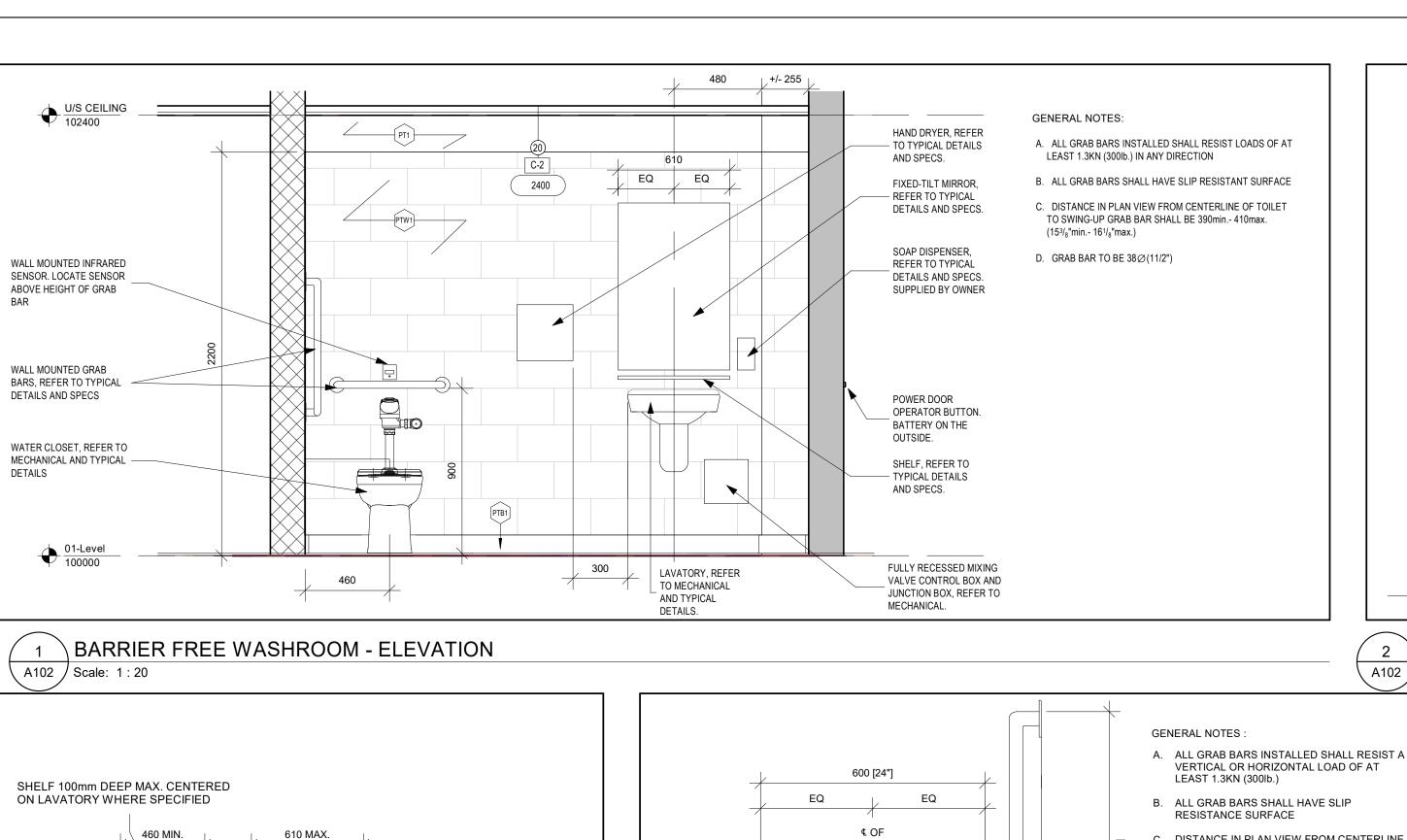


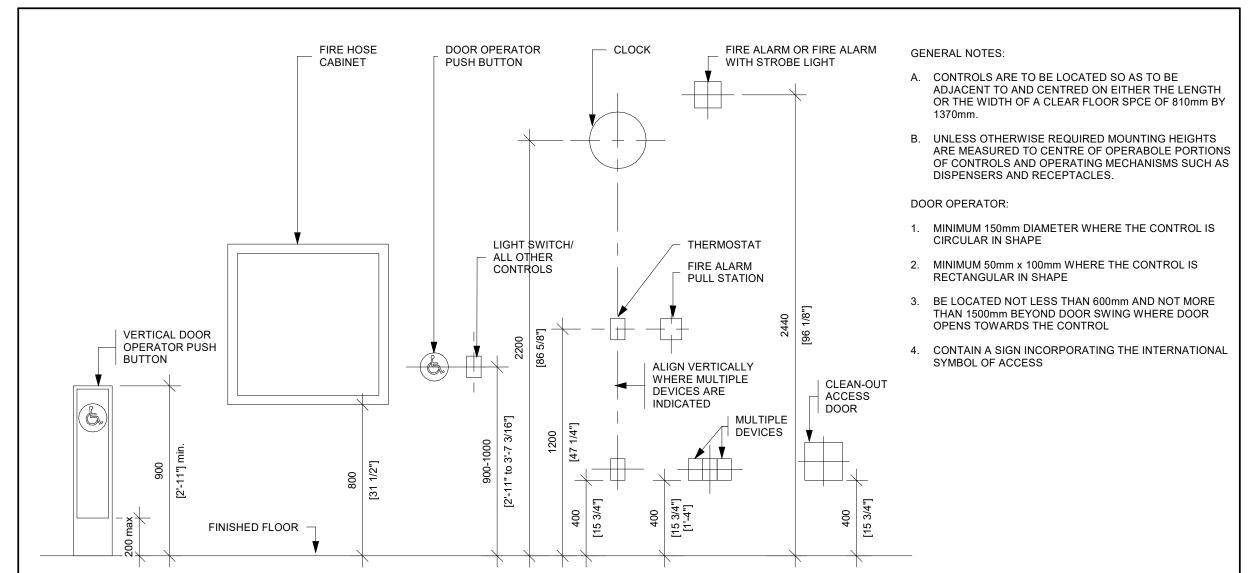
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C-2

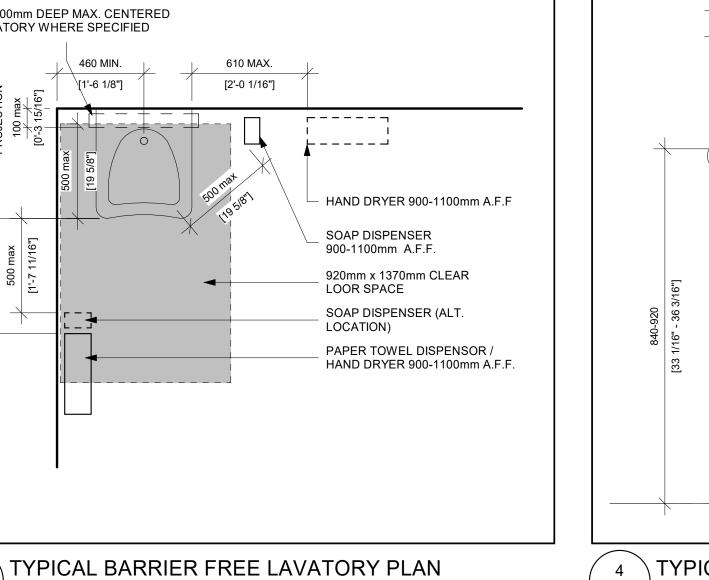
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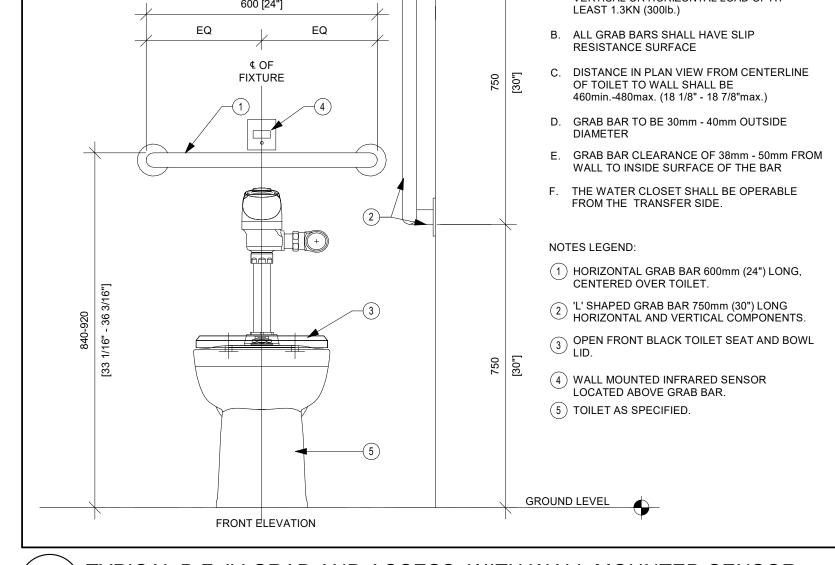
FLOOR PLAN - BARRIER-FREE WASHROOM





TYPICAL FIXTURE MOUNTING HEIGHTS A102 / Scale: 1:20 GENERAL NOTES: A. ALL GRAB BARS INSTALLED SHALL RESIST A VERTICAL OR HORIZONTAL LOAD OF AT LEAST 1.3KN (300lb.) B. ALL GRAB BARS SHALL HAVE SLIP RESISTANCE SURFACE C. DISTANCE IN PLAN VIEW FROM CENTERLINE OF TOILET TO WALL SHALL BE 460min.-480max. (18 1/8" - 18 D. GRAB BAR TO BE 30mm - 40mm OUTSIDE DIAMETER E. GRAB BAR CLEARANCE OF 38mm -50mm FROM WALL TO INSIDE SURFACE OF THE BAR [6"] NOTES LEGEND: HORIZONTAL GRAB BAR 600mm (24") LONG, CENTERED OVER TOILET. IN NO CASE SHALL THE BAR INTERFERE WITH THE TOILET SEAT LID IN THE UP POSITION. 'L' SHAPED GRAB BAR 750mm (30") LONG HORIZONTAL AND VERTICAL COMPONENTS. LOCATE TOILET TISSUE DISPENSER WITHIN AREA SHOWN BY DASHED LINES. NOT MORE THAN 300mm (12") OPEN FRONT BLACK TOILET SEAT AND BOWL COVER (5) INFRARED SENSOR - LOCATE SENSOR ABOVE GRAB (6) TOILET AS SPECIFIED. SIDE ELEVATION TYPICAL B.F. 'L' GRAB BAR AND ACCESS. FOR SENSOR TOILETS WITH COVER LID





4 TYPICAL B.F. 'L' GRAB AND ACCESS. WITH WALL MOUNTED SENSOR A102 / Scale: 1:10

GENERAL NOTES: A. CONTROLS ARE TO BE LOCATED SO AS TO BE (instal below grab bar when _____ ADJACENT TO AND CENTRED ON EITHER THE LENGTH OR THE WIDTH OF A CLEAR FLOOR SPCE OF 810mm BY 1370mm. B. UNLESS OTHERWISE REQUIRED MOUNTING HEIGHTS ARE MEASURED TO CENTRE OF OPERABOLE PORTIONS OF CONTROLS AND OPERATING MECHANISMS SUCH AS DISPENSERS AND RECEPTACLES. ELECTRIC HAND TOILET PAPER SANITARY NAPKIN UTILITY SHELF AT MOP / BROOM HOLDER SANITARY NAPKIN DISPENSER CUSTODIAN ROOMS DRYER / PAPER DISPENSER DISPOSAL AT CUSTODIAN ROOMS TOWEL DISPENSER SIGNAGE | φ

GARMENT HOOK

1 11 1

PUSH BUTTON FOR

POWERED DOOR OPERATOR

TYPICAL WASHROOM ACESSORY MOUNTING HEIGHTS A102 / Scale: 1:50

MIRROR abv. VANITY

(barrier-free)

GARMENT HOOK

MIRROR abv. VANITY

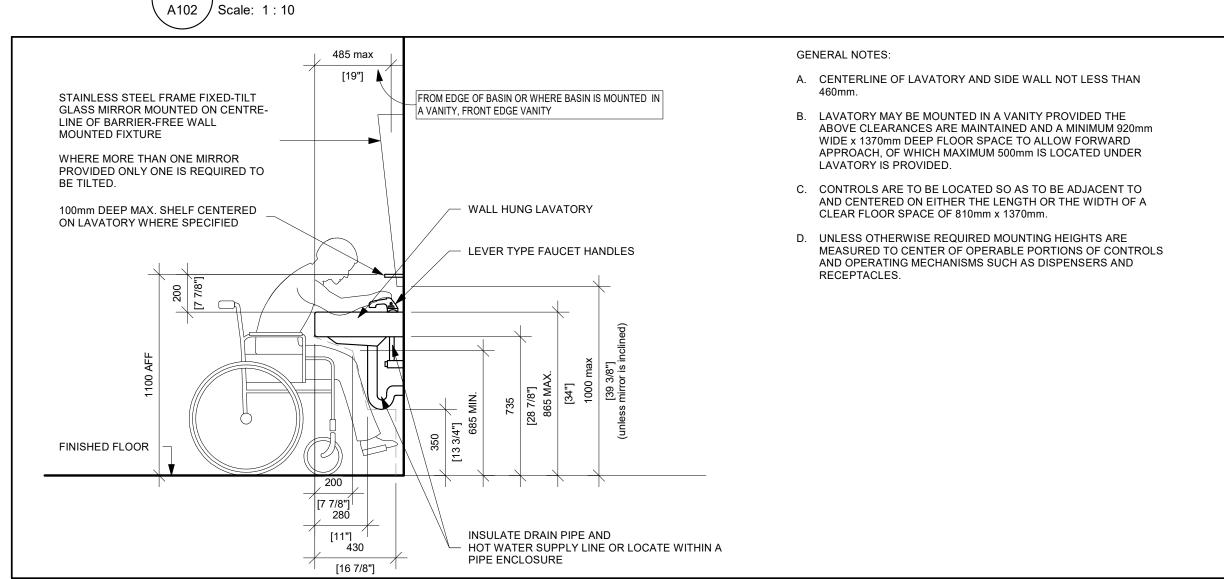
[2'-0 1/16"]

√A102 / Scale: 1 : 20

EMERGENCY CALL SWITCH

(see electrical documnets)

_ _ _ _ _



7 TYPICAL ACCESSIBLE LAVATORY MOUNTING HEIGHTS AND DISTANCES A102 / Scale: 1 : 20

DISCLAIMER:

CLIENT LOGO

NOT FOR CONSTRUCTION

ISSUANCE

1 ISSUED FOR 60% OWNER REVIEW

2 ISSUED FOR 90% OWNER REVIEW

3 ISSUED FOR BID AND PERMIT

DATE

2024-01-31

2024-02-29

2024-03-11

WATERLOO REGION DISTRICT SCHOOL BOARD

51 Ardelt Ave, Kitchener, ON N2C 2R5

LINCOLN HEIGHTS PS BARRIER FREE WASHROOM ADDITION

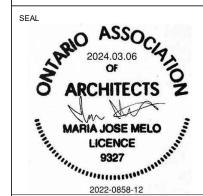
270 Quickfall Dr, Waterloo, ON N2J 3S9

BARRIER FREE WASHROOM **ELEVATION AND TYPICAL** DETAILS

WALTERFEDY

KITCHENER | HAMILTON | TORONTO | CALGARY A PART OF WF GROUP

800.685.1378 walterfedy.com

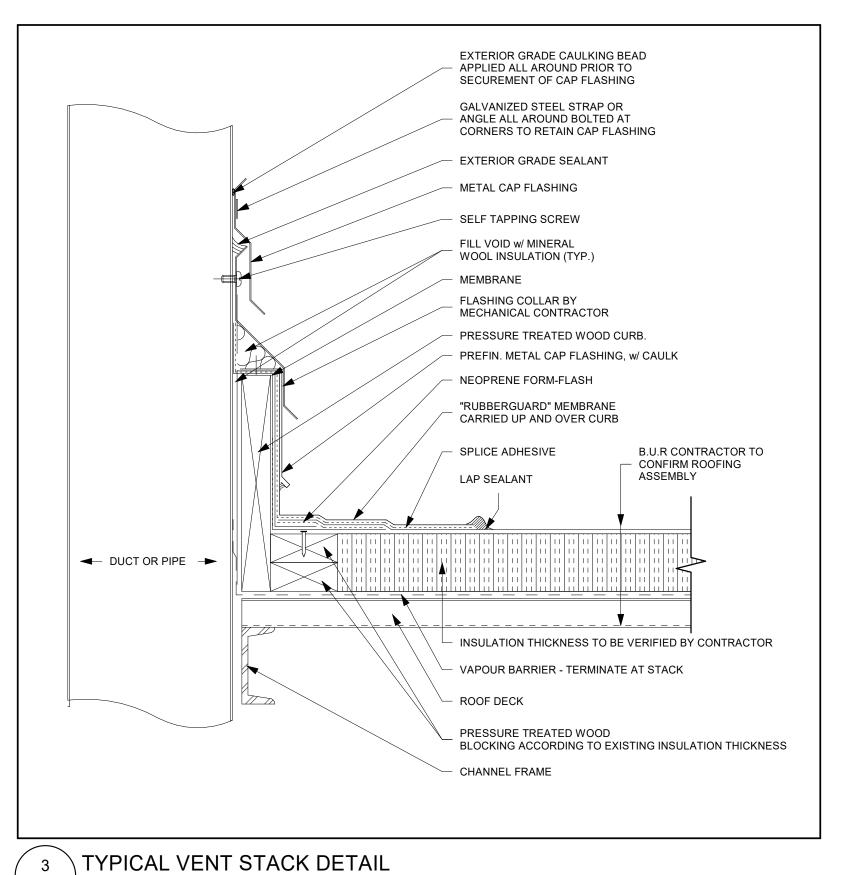


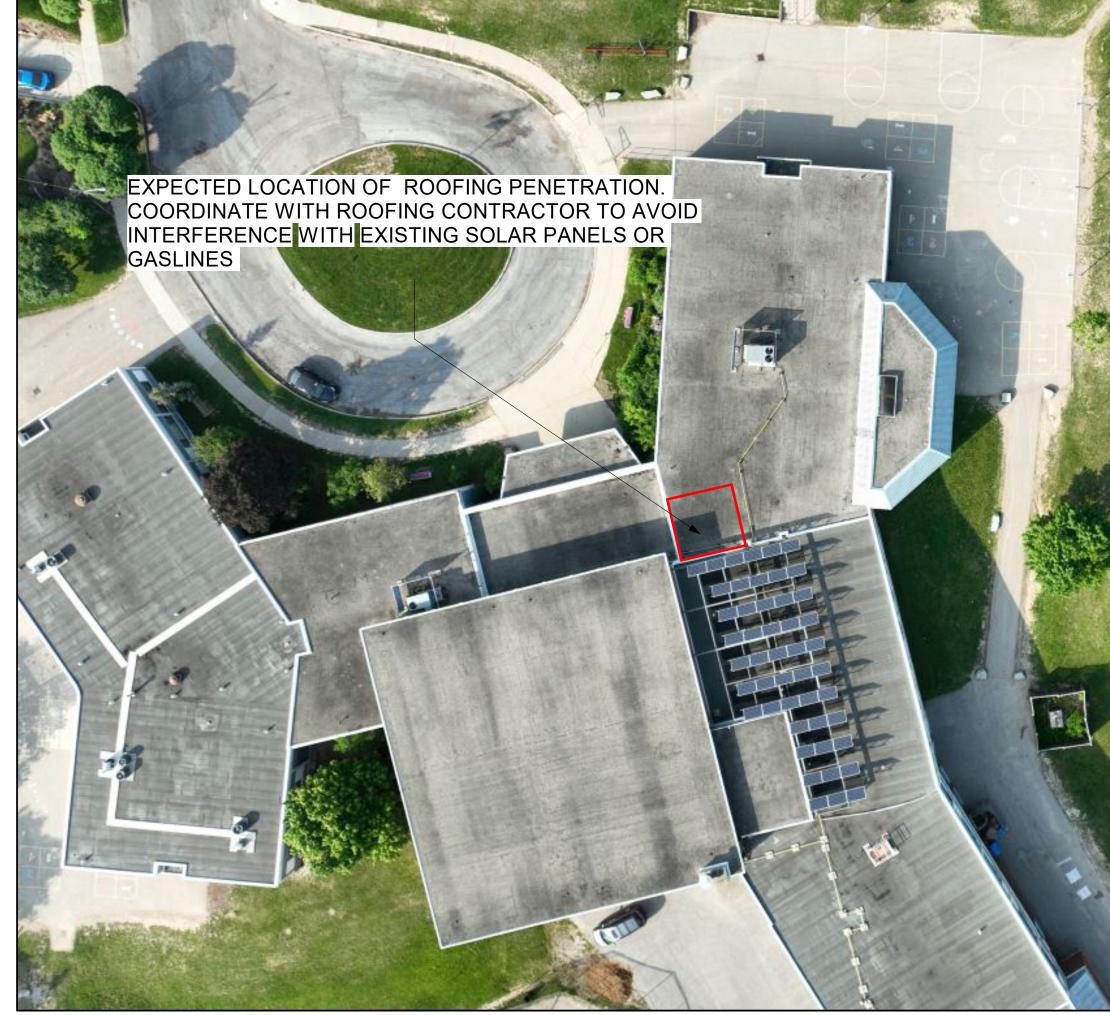
SCALE:

REPRODUCTION OR DISTRIBUTION FOR PURPOSES OTHER THAN AUTHORIZED BY WALTERFEDY, A PART OF WF GROUP, IS FORBIDDEN. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS TO WALTERFEDY, A PART OF WF GROUP.

WalterFedy, A Part of WF Group Inc.

As indicated 2024.03.06 A102 PROJECT NO: 2022-0858-12 DRAWN BY: HA CHECKED BY:





1 SITE PLAN FOR REFERENCE ONLY
Scale: 1:1



SCOPE OF WORK

No.	ISSUANCE	DATE
1	ISSUED FOR 60% OWNER REVIEW	2024-01-31
2	ISSUED FOR 90% OWNER REVIEW	2024-02-29
3	ISSUED FOR BID AND PERMIT	2024-03-11

DISCLAIMER:

NOT FOR CONSTRUCTION

CLIENT

WATERLOO REGION DISTRICT SCHOOL BOARD

51 Ardelt Ave, Kitchener, ON N2C 2R5

PROJECT

LINCOLN HEIGHTS PS BARRIER FREE WASHROOM ADDITION

270 Quickfall Dr, Waterloo, ON N2J 3S9

LE

TYPICAL ROOFING DETAILS

WALTERFEDY

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2022-0858-12

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SCALE: As indicated SHEET NO:

DATE: 2024.03.06

PROJECT NO: 2022-0858-12

DRAWN BY: HA

CHECKED BY: MM

A. GENERAL

- 1. MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2012 ONTARIO BUILDING CODE AND ANY APPLICABLE ACTS OF THE AUTHORITY HAVING JURISDICTION.
- 2. READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE SPECIFICATIONS, AND ALL OTHER CONTRACT DOCUMENTS.
- 3. VERIFY ALL STRUCTURAL DIMENSIONS WITH THE CIVIL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 4. THE MOST STRINGENT REQUIREMENT GOVERNS WHERE DISCREPANCIES OCCUR WITHIN THE CONTRACT DOCUMENTS, INCLUDING APPLICABLE CODES, STANDARDS AND ACTS.
- 5. REFER TO THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SIZES OF OPENINGS, DEPRESSIONS, GROOVES, CURBS, CHAMFERS, SLOPES, SLEEVES, EQUIPMENT BASES, HOUSEKEEPING PADS, TRENCHES, SUMP PITS AND EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- 6. OPENINGS AND SLEEVES SHOWN ARE LOCATED AND DIMENSIONED FOR STRUCTURAL DETAILING PURPOSES ONLY. COORDINATE THE EXACT SIZES AND LOCATIONS WITH THE CONSULTANT AND APPLICABLE TRADES DURING CONSTRUCTION. REPORT ANY CONFLICTS TO
- 7. DO NOT CUT, DRILL OR ALTER STRUCTURAL MEMBERS WITHOUT PERMISSION FROM THE CONSULTANT, UNLESS NOTED ON THE DRAWINGS.
- 8. THE STRUCTURAL DRAWINGS ARE FOR THE COMPLETED PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY, TEMPORARY WORKS AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION.
- 9. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LOADS SHOWN ON THE DRAWINGS.
- 10. PROVIDE ALL TEMPORARY SHORING, BRACING, HOARDING AND PROTECTION NECESSARY TO COMPLETE THE WORK AND COMPLY WITH APPLICABLE REGULATIONS. TEMPORARY WORKS TO BE DESIGNED AND INSPECTED BY A PROFESSIONAL ENGINEER WHO IS RETAINED BY THE

B. EXISTING CONDITIONS

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

C. STRUCTURAL STEEL

- 1. PERFORM WORK IN ACCORDANCE WITH CSA-S16 AND THE CISC CODE OF STANDARD
- 2. CONNECTIONS ARE SHOWN ON THE STRUCTURAL DRAWINGS TO INDICATE DESIGN INTENT. ALL CONNECTIONS ARE BEARING TYPE WITH A MINIMUM OF 2-19 (3/4") Ø BOLTS UNLESS NOTED
- 3. DESIGN CONNECTIONS FOR FORCES INDICATED ON THE STRUCTURAL DRAWINGS. WHERE CONNECTION FORCES ARE NOT PROVIDED, DESIGN CONNECTIONS FOR THE FOLLOWING 3.1. FACTORED SHEAR FORCE OF 50% OF THE TOTAL UNIFORMLY DISTRIBUTED FACTORED LOAD FOR LATERALLY SUPPORTED BEAMS LISTED IN THE BEAM LOAD TABLES OF THE
- SUPPORTED NON-COMPOSITE BEAMS. 4. PROVIDE 50 (2") NON-SHRINK, NON-METALLIC GROUT UNDER BASE PLATES UNLESS NOTED

CISC HANDBOOK OF STEEL CONSTRUCTION FOR END CONNECTIONS OF SIMPLY

- 5. REFER TO ARCHITECTURAL DRAWINGS FOR STAIRS, LADDERS, HANDRAILS, PLATFORMS, AND OTHER ELEMENTS NOT DETAILED ON THE STRUCTURAL DRAWINGS.
- 6. PROVIDE FIRE PROTECTION FOR STRUCTURAL STEEL IN ACCORDANCE WITH THE ARCHITECTURAL REQUIREMENTS. PROVIDE COMPATIBLE COATINGS OR SURFACE PREPARATION FOR STEEL MEMBERS TO FIRE-SPRAYED OR COATED WITH INTUMESCENT
- 7. ALL BOLTS ARE TO BE INSTALLED SNUG-TIGHT, AS DEFINED IN CSA S16.
- 8. GRIND SMOOTH ALL WELDS AND FLAME-CUT EDGES EXPOSED TO VIEW.

D. MATERIALS

- 1 STRUCTURAL CONCRETE 1.1. CONCRETE: CONFORMING TO CSA A23.1 AND PER THE CONCRETE DESIGN PROPERTIES
- 1.2. REINFORCING BARS: CONFORMING TO CSA G30.18, GRADE 400R (OR 400W WHERE
- WELDING IS REQUIRED). ALL REINFORCING TO BE BLACK STEEL UNLESS NOTED. 1.3. WELDED WIRE REINFORCING: CONFORMING TO ASTM A185/A185M, WITH MINIMUM YIELD STRENGTH OF 450 MPa, OR 386 MPa FOR DIAMETERS LESS THAN MW7.7 (3.1mm).

E49XX

- 2. STRUCTURAL STEEL: CSA-G40.20/G40.21, GRADE 350W 2.1. CHANNELS AND ANGLES CSA-G40.20/G40.21, GRADE 300W 2.2. PLATES, RODS AND BARS 2.3. STRUCTURAL BOLTS ASTM A325/A325M ASTM A563/A563M AND ASTM F436/436M
- STRUCTURAL MASONRY:
- 3.1. CONCRETE MASONRY UNITS: CONFORMING TO CSA 165, 15 MPa MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS.
- 3.2. MASONRY GROUT: CONFORMING TO CSA 179, 15 MPa MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, 10mm (3/8") MAXIMUM AGGREGATE SIZE, 250 mm (10") SLUMP. 3.3. MORTAR: CONFORMING TO CSA 179, TYPE S FOR LOAD BEARING WALLS, TYPE N
- 3.4. MASONRY TIES: CONFORMING TO CSA A370.
- 3.5. REINFORCING BARS: CONFORMING TO CSA G30.18, GRADE 400R (OR 400W WHERE
- WELDING IS REQUIRED). ALL REINFORCING TO BE BLACK STEEL UNLESS NOTED. 3.6. BED JOINT REINFORCING: LADDER TYPE, SIDE RODS CONFORMING TO ASTM A82, HOT-DIPPED GALVANIZED UNLESS NOTED, TYPE BL BY BLOK-LOK OR APPROVED ALTERNATE.
- 4. NON-SHRINK GROUT: NON-METALLIC, 35 MPa MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS.

E. STRUCTURAL CONCRETE

2.4 NUTS AND WASHERS

2.5. WELDING ELECTRODES

- 1. PERFORM WORK IN ACCORDANCE WITH CSA A23.1 AND CSA A23.3.
- 2. DO NOT LOAD CONCRETE ELEMENTS UNTIL DESIGN STRENGTH HAS BEEN REACHED.

- 3.1. CONCRETE IS SPECIFIED UNDER THE PERFORMANCE ALTERNATIVE.AND RESPONSIBILITIES OF THE CONTRACTOR AND CONCRETE SUPPLIER, ARE AS DEFINED IN CSA A23.1 TABLE 5. THE CONTRACTOR SHALL WORK WITH THE SUPPLIER TO ESTABLISH THE CONCRETE MIX PROPERTIES TO MEET PERFORMANCE CRITERIA FOR PLASTIC AND HARDENED CONCRETE CONSIDERING THE CONTRACTOR'S CRITERIA FOR CONSTRUCTION
- AND PLACEMENT AND THE SPECIFIED PERFORMANCE CRITERIA 3.2. PROTECT CONCRETE FROM FREEZING AND HOT WEATHER IN ACCORDANCE WITH THE COLD AND HOT WEATHER CONCRETE PROCEDURES OF CSA A23.1.
- 3.3. PLACE CONCRETE IN A MANNER TO MINIMIZE SEGREGATION AND VIBRATE AFTER PLACEMENT.
- 4. REFER TO TYPICAL DETAILS FOR DETAILING OF REINFORCING, JOINTS AND DIMENSIONS.
- 5.1. DETAIL AND PLACE REINFORCING STEEL IN ACCORDANCE WITH CSA A23.1, CSA A23.3 AND THE REINFORCING STEEL INSTITUTE OF CANADA MANUAL OF STANDARD PRACTICE. 5.2. PROVIDE LAP SPLICES FOR WELDED WIRE REINFORCEMENT AS FOLLOWS:
- MINIMUM LAP 100x100 (4x4) 350 (14")
- 150x150 (6x6) 500 (18") 5.3.TIE AND SECURE ALL REINFORCING IN PLACE USING PURPOSE MADE ACCESSORIES, WITH MAXIMUM SPACING 1200 (48") BETWEEN SUPPORT POINTS, IN ORDER ACHIEVE SPECIFIED COVER AND MAINTAIN POSITION DURING CONCRETE PLACEMENT. PROVIDE SIDE CHAIRS IN ALL VERTICAL ELEMENTS.
- 5.4.REINFORCING STEEL SHALL BE FREE OF ALL DIRT, FORM OIL, SIGNIFICANT CORROSION, GREASE, AND OTHER DELETERIOUS MATERIALS PRIOR TO PLACING CONCRETE. 5.5.DO NOT FIELD-BEND OR FIELD-CUT REINFORCING STEEL UNLESS DETAILED ON THE
- DRAWINGS OR APPROVED BY THE CONSULTANT.

G. GENERAL REVIEW

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

H. SUBMITTALS

- 1. SUBMIT THE FOLLOWING ERECTION AND FABRICATION SHOP DRAWINGS TO THE CONSULTANT FOR REVIEW PRIOR TO FABRICATION: 1.1. CONCRETE REINFORCING BARS
- 1.2. CONCRETE MIX DESIGN 1.3. ALL TESTING AND FIELD REPORTS PREFORMED BY OTHERS
- 2. SHOP DRAWINGS WILL BE REVIEWED SOLELY TO ASCERTAIN GENERAL CONFORMANCE WITH THE DESIGN CONCEPT. THE CONSULTANT'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWING OR RESPONSIBILITY FOR MEETING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

F. STRUCTURAL MASONRY

- 1. PERFORM WORK IN ACCORDANCE WITH CSA A371.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR NON-LOAD BEARING MASONRY PARTITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS. PROVIDE MINIMUM REINFORCING AND LINTELS IN NON-LOAD BEARING MASONRY WALLS PER SCHEDULES ON THE STRUCTURAL DRAWINGS. THESE WALLS AND LINTELS ARE NOT DETAILED ON THE STRUCTURAL DRAWINGS.
- 3. PROVIDE CONTROL JOINTS PER THE SPECIFICATION, AND IS INDICATED ON THE ARCHITECTURAL DRAWINGS. MAXIMUM SPACING OF CONTROL JOINTS TO BE 7650 (25'-0") UNLESS NOTED OTHERWISE.
- 4. FILL MASONRY UNITS WITH GROUT AS FOLLOWS: 4.1. ALL CELLS CONTAINING REINFORCING.
- 4.2. ALL CELLS CONTAINING DOWELS, ANCHORS, OR OTHER STRUCTURAL CONNECTORS. 4.3 ALL CELLS IN PARAPETS
- 4.4. CELLS BELOW BEARING CONNECTIONS PER STRUCTURAL DRAWINGS. 4.5. AS INDICATED ON THE STRUCTURAL DRAWINGS.
- 5. PROVIDE CLEANOUTS AT BASE OF WALL LIFTS TO VERIFY PROPER PLACEMENT OF GROUT.
- 6. PLACE GROUT IN MAXIMUM 3000 (10'-0") LIFTS. THE MAXIMUM LIFT HEIGHT IS REDUCED TO 1500 (5'-0") IF NO CLEANOUTS ARE PROVIDED.
- TERMINATE GROUT PLACEMENT 25 (1") BELOW TOP OF UPPER UNIT FOR HORIZONTAL CONSTRUCTION JOINTS IN GROUTED BLOCK CELLS. HORIZONTAL CONSTRUCTION JOINTS ARE REQUIRED WHERE GROUT PLACEMENT IS INTERRUPTED FOR A DURATION OF GREATER THAN 1
- 8. BUILD MASONRY TIGHTLY INTO WEBS OF STEEL BEAMS BEARING ON WALLS, WEBS OF STEEL COLUMNS AND AROUND JOIST SHOES, UNLESS NOTED OTHERWISE.
- 9. ENSURE THAT EMBEDDED ITEMS DO NOT AFFECT THE STRUCTURAL INTEGRITY OF THE MASONRY WALL OR IMPACT PLACEMENT OF REINFORCING.
- 10. PROVIDE TEMPORARY BRACING TO MAINTAIN STABILITY OF WALLS UNTIL HORIZONTAL SUPPORTING ELEMENTS ARE IN-PLACE.
- 11. BEARING SUPPORTS:
- PROVIDE MINIMUM 200 (8") DEEP SOLID OR GROUT-FILLED MASONRY UNITS BELOW MASONRY, CONCRETE AND STEEL LINTELS AT BEARING LOCATIONS, PROJECTING AT LEAST 150 (6") BEYOND EDGE OF BEARING PLATES.
- 12 NON-LOAD BEARING WALLS:
- 12.1. PROVIDE THE MINIMUM REINFORCING SHOWN IN THE NON-LOAD BEARING MASONRY WALL REINFORCING TABLE
- PROVIDE ADDITIONAL REINFORCING AS SHOWN IN THE DRAWINGS AND TYPICAL
- 13. MASONRY REINFORCING PROVIDE MASONRY REINFORCING WHERE INDICATED ON THE DRAWINGS, TYPICAL
- DETAILS AND SPECIFICATIONS. PROVIDE REINFORCING BAR EMBEDMENT AND LAP SPLICES IN ACCORDANCE WITH CSA, AND NOT LESS THAN THE VALUES IN THE MASONRY REINFORCING EMBEDMENT
- AND LAP SPLICE LENGTHS TABLE. ALL TENSION LAP SPLICES ARE CLASS B UNLESS NOTED OTHERWISE.
- LAP BED JOINT REINFORCING MINIMUM 300 (12"). PROVIDE 1-15M VERTICAL BAR EACH SIDE OF CONTROL JOINTS, FULL HEIGHT.
- 13.6. KEEP CELLS CONTAINING REINFORCING FREE FROM MORTAR DROPPINGS.
- 14. LINTELS: 14.1. PROVIDE LINTELS OVER ALL OPENINGS THROUGH MASONRY WALLS SHOWN ON THE
- ARCHITECTURAL DRAWINGS, AND AS REQUIRED FOR MECHANICAL AND ELECTRICAL
- 14.2. PROVIDE STEEL LINTELS UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS.
- REFER TO THE STEEL LINTELS FOR NON-LOAD BEARING MASONRY WALLS TABLE FOR LINTEL REQUIREMENTS FOR ALL NON-LOAD BEARING WALLS, UNLESS NOTED
- 15.1. PROVIDE BOND BEAMS IN ALL WALLS PER THE BOND BEAMS IN CONCRETE MASONRY UNIT WALLS TABLE, AND WHERE INDICATED ON THE STRUCTURAL DRAWINGS.
- 15.2. EXTEND BOND BEAMS 200 (8") BEYOND OPENINGS WHERE NOT CONTINUOUS, UNLESS NOTED OTHERWISE.

NON-LOAD BEARING MASONRY WALL REINFORCING

WALL THICKNESS	LOCATION	VERTICAL REINF.	SPACING	HORIZONTAL REINF.
140	INTERIOR PARTITION	1-10M	600	BLOK-LOK BL-10 X-HEAVY @ 400
190	INTERIOR PARTITION	1-15M	1200	BLOK-LOK BL-10 STD @ 200
190	EXTERIOR	1-15M	800	BLOK-LOK BL-10 X-HEAVY @ 200

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

	CONCRETE DESIGN PROPERTIES											
ELEMENT	LOCATION	COMPRESSIVE STRENGTH (MPa)	EXPOSURE CLASS	CHLORIDE EXPOSURE	FREEZE/ THAW EXPOSURE	REMARKS						
SLAB-ON-GRADE	INTERIOR	25	N-CF	NO	NO	NO SUPPLEMENTARY CEMENTING MATERIEALS						
MISCELLANEOUS CONCRETE	INTERIOR	25	N	NO	NO							

- USE HIGHEST STRENGTH AND MOST-SEVERE EXPOSURE CONDITION WHERE MULTIPLE CONDITIONS ARE APPLICABLE. COMPRESSIVE STRENGTH DENOTED IS A MINIMUM VALUE AT 28 DAYS, UNLESS NOTED OTHERWISE.
- ALL CONCRETE MIXES TO BE PROPORTIONED AS NORMAL DENSITY CONCRETE, UNLESS NOTED OTHERWISE.

NOMINAL AGGREGATE SIZE IS 20mm (3/4") UNLESS NOTED OTHERWISE

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

TABLE M4: MASONRY REINFORCING EMBEDMENT AND

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

REFER TO STRUCTURAL MASONRY GENERAL NOTES.

TABLE M2: BOND BEAMS IN CONCRETE MASONRY UNIT

	WALL	.S	
WALL TYPE	LOCATION	HEIGHT	REINFORCING (PER COURSE)
ALL	BELOW ALL OPENINGS	1 COURSE	1-10M
	ABOVE ALL PIPES GREATER THAN 100 (4") DIAMETER THROUGH WALL	1 COURSE	1-10M

CLIENT LOGO



ISSUANCE DATE ISSUED FOR 90% OWNER REVIEW 2024-02-29 2 ISSUED FOR BID AND PERMIT 2024-03-11

WATERLOO REGION DISTRICT SCHOOL BOARD

51 Ardelt Ave, Kitchener, ON N2C 2R5

LINCOLN HEIGHTS PS BARRIER FREE WASHROOM ADDITION

270 Quickfall Dr, Waterloo, ON N2J 3S9

STRUCTURAL GENERAL NOTES AND TABLES

WALTERFEDY

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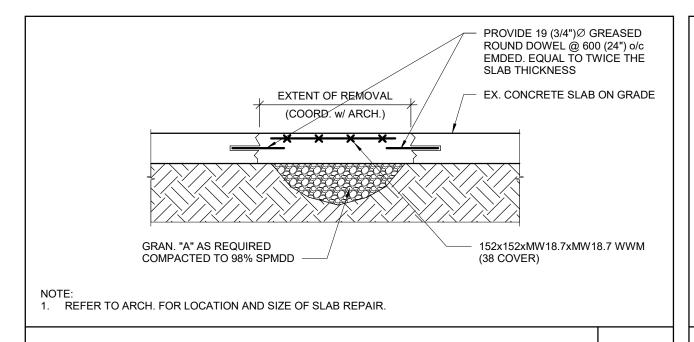
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SCALE: 1:1 02/22/2024 PROJECT NO: 2022-0858-12 TA/DM ORAWN BY .

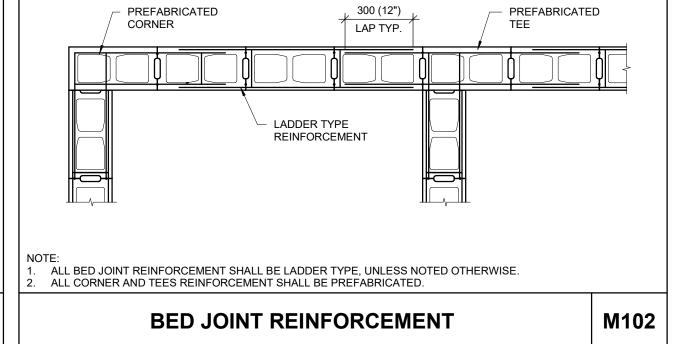
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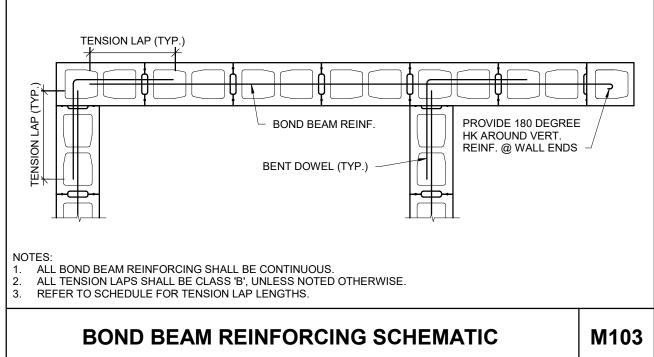
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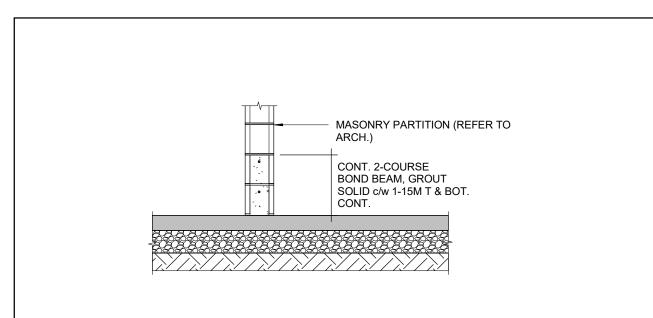
24-005209 Page 6 of 16



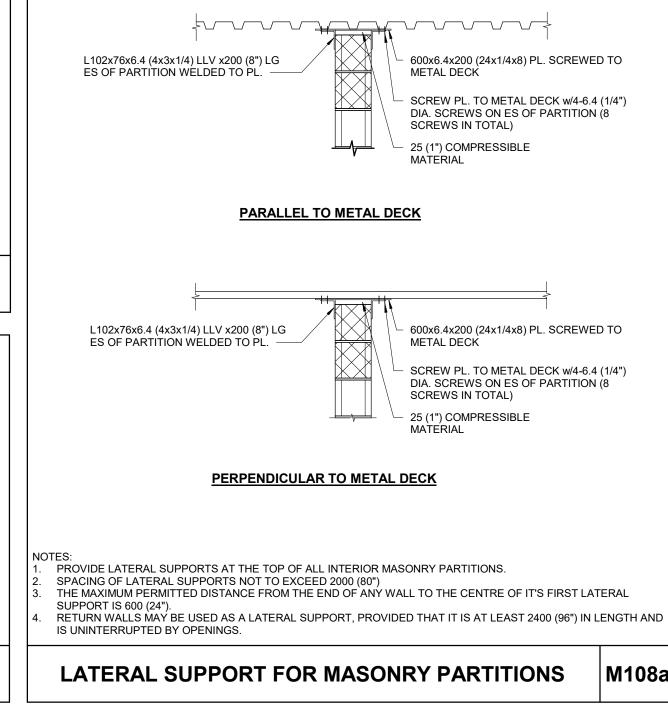


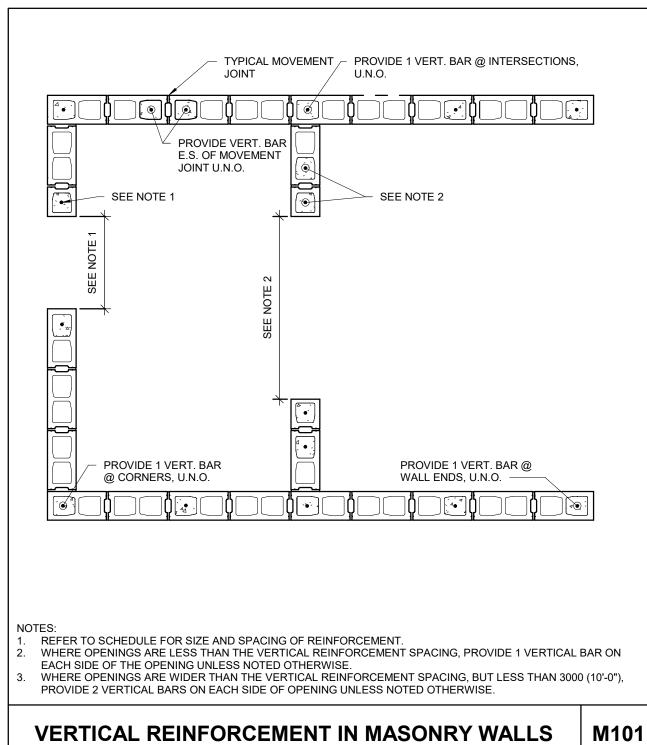


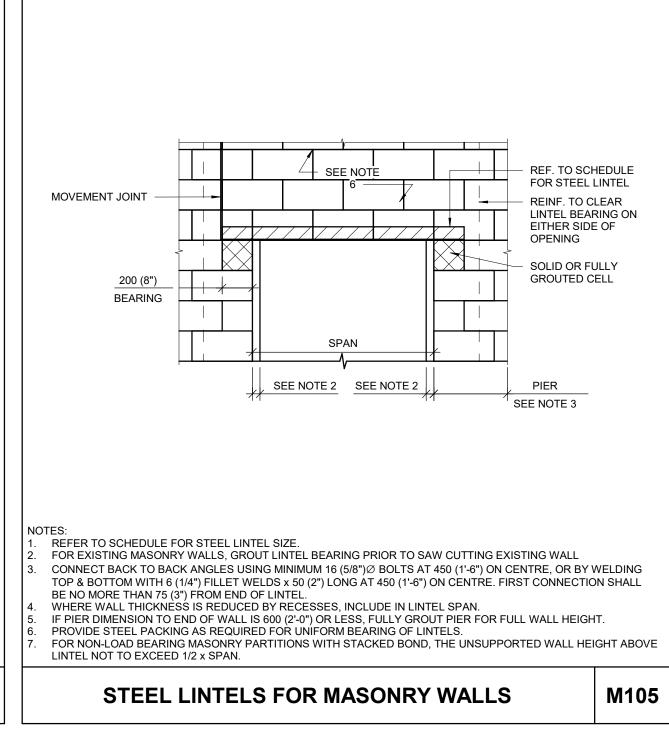


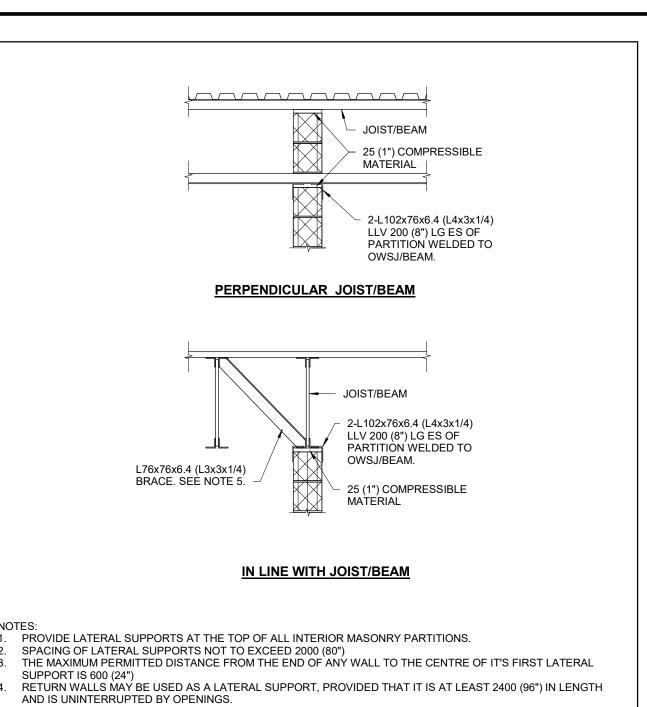


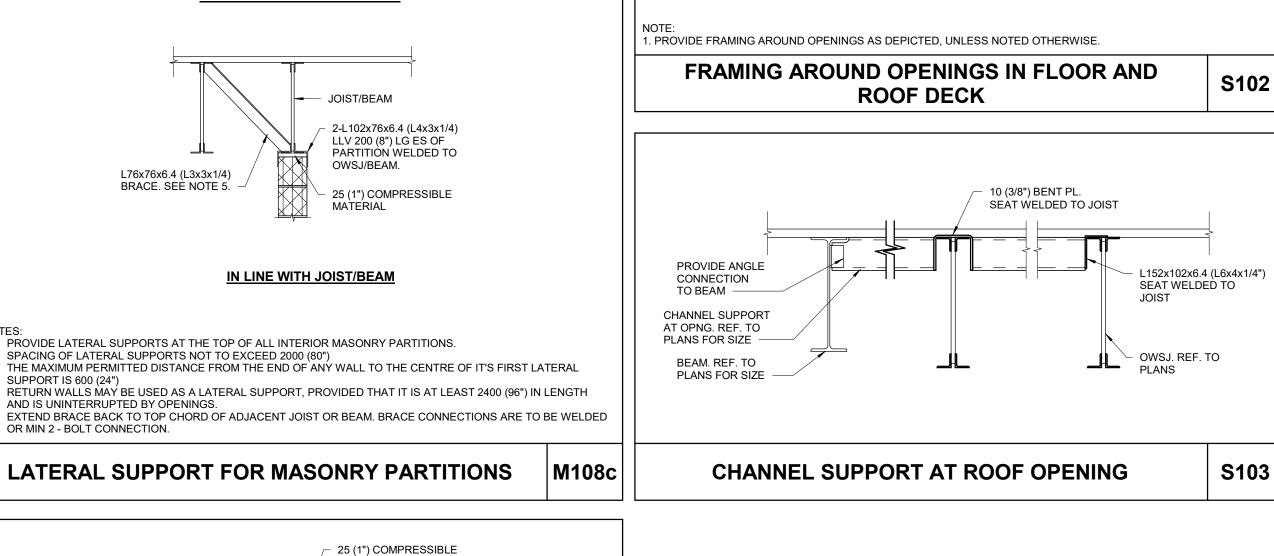
MASONRY PARTITION ON EXISTING SLAB M109

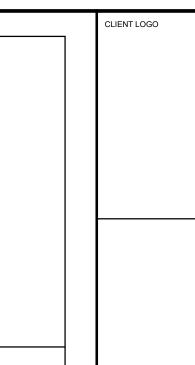












DECK

SPAN

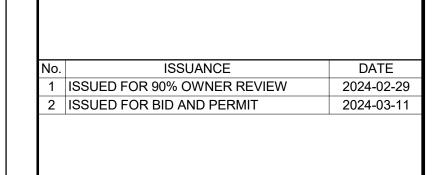
C150x12 (FLOOR)

C100x8 (ROOF)

C100x8 (ROOF)

(6'-8")







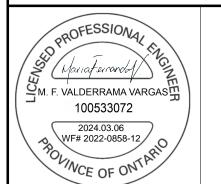
LINCOLN HEIGHTS PS BARRIER FREE WASHROOM ADDITION

270 Quickfall Dr, Waterloo, ON N2J 3S9

STRUCTURAL TYPICAL DETAILS



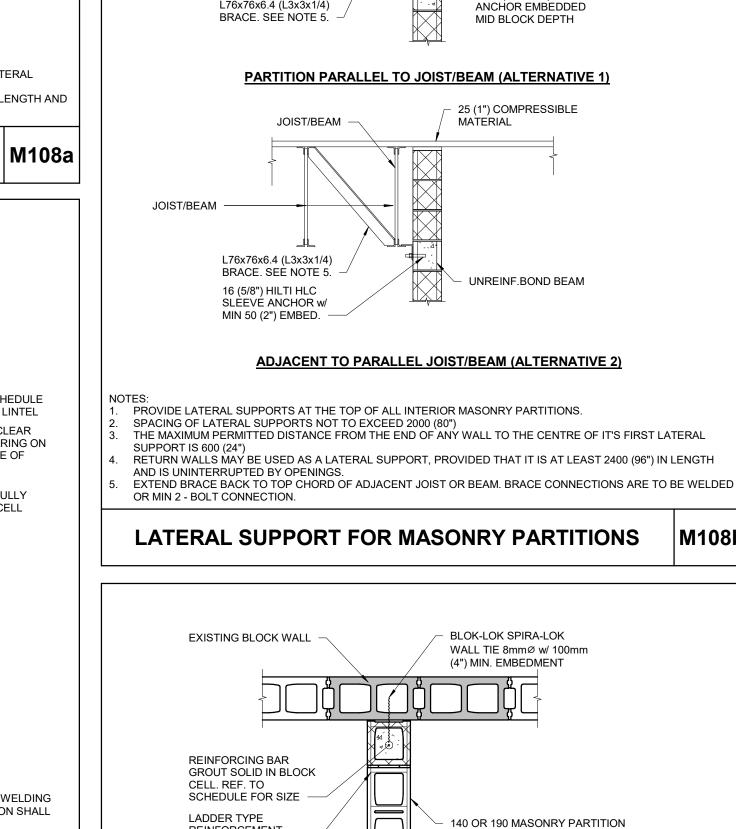
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SCALE: 24/02/2024 2022-0858-12 TA/DM DRAWN BY : CHECKED BY:

1:25 **S002**



REINFORCEMENT

(MAX.)

TWO COURSE

(REFER TO ARCH.)

CONNECTION BETWEEN NEW AND

EXISTING MASONRY

UNREINF. BOND BEAM

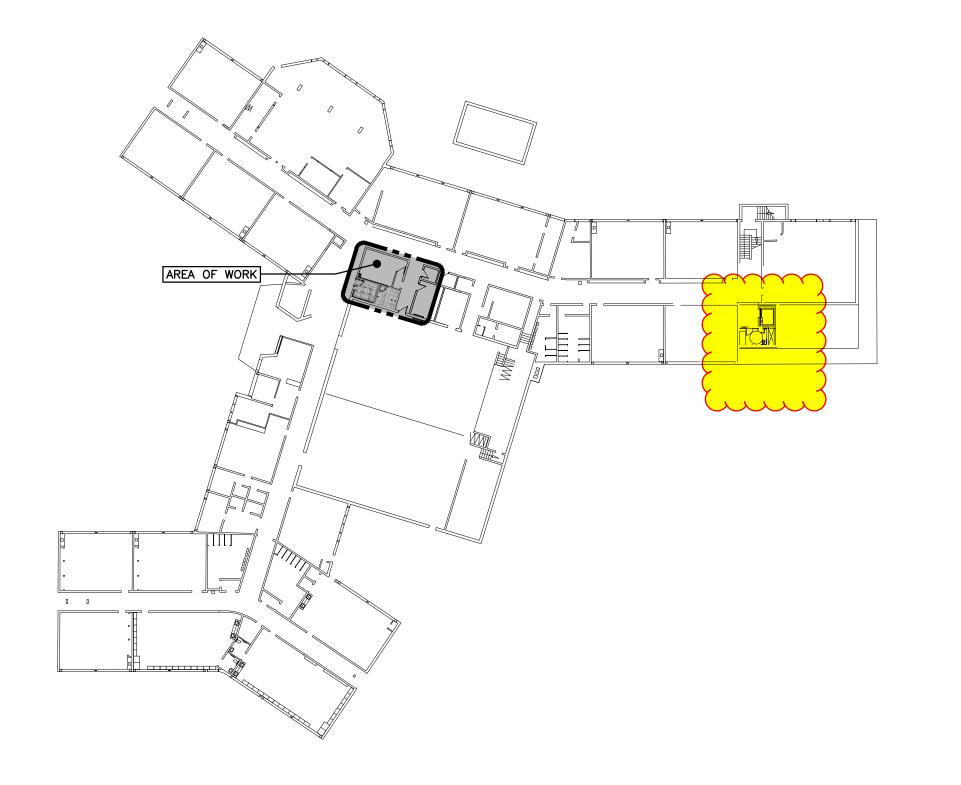
38x6 (11/2x1/4) STRAP

M108b

M114

JOIST/BEAM

L76x76x6.4 (L3x3x1/4)



KEYPLAN scale: n.t.s.

Item	Description	Item	Description	Item	Description
	CUT EXISTING & CONNECT NEW PIPING		TEE CONNECTION	— BD	BALANCING DAMPER
-	FLOW DIRECTION	c —	PIPE DOWN	— овр	OPPOSED BLADE DAMPER
	DOMESTIC COLD WATER PIPING	•—	PIPE UP	— FD	FIRE DAMPER
	DOMESTIC HOT WATER PIPING	─ 1 ७०% 0	REDUCED PRESSURE BACKFLOW PREVENTOR	-11111-0 FSD	COMBINATION FIRE/SMOKE DAMPER
	DOMESTIC HOT WATER RECIRC. PIPING	 	STRAINER	-11111-0 SD	SMOKE DAMPER
<u>т-</u>	DOMESTIC TEMPERED WATER PIPING		SCREWED OR WELDED PIPE CAP		FLEXIBLE ROUND DUCT
-EX-SAN-	EXISTING SANITARY PIPING ABOVE FLOOR	——IდI———	BALL VALVE		RIGID ROUND DUCT
-EX-SAN-	EXISTING SANITARY PIPING BELOW FLOOR	≮ C	RISER VALVE	Type Size Cap.	DIFFUSER/GRILLE SIZE (imp) TYPE & CAPACITY (cfm)
	SANITARY PIPING ABOVE FLOOR	BV BV	BALANCING VALVE	Size 1 Type Size 2	HYDRONIC HEATING SIZE,
-SAN	SANITARY PIPING BELOW FLOOR	TCV	TEMPERATURE CONTROL VALVE	Capacity	TYPE & CAPACITY
—CD——	CONDENSATE PIPING	o ^{CO}	FLOOR CLEANOUT	AD	ACCESS DOOR
	VENT PIPING	——- co	LINE CLEANOUT	RIC	RETURN IN CABINET
—HWS——	HEATING WATER SUPPLY PIPING	_C O	THERMOSTAT (WITH OR WITHOUT GUARD)	AFF	ABOVE FINISHED FLOOR
	HEATING WATER RETURN PIPING	>>>>	TURNING VANES	AFR	ABOVE FINISHED ROOF
FD O	FLOOR DRAIN		SUPPLY AIR DUCT	CTE	CONNECT TO EXISTING
-0-P-	TRAP PRIMER		RETURN/EXHAUST AIR DUCT	EX	EXISTING DUCT (SIZE AS INDICATED)

GENERAL NOTES

- ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PREPARED SPECIFICATION.
- UPON COMPLETION OF THE PROJECT OR UPON COMPLETION OF EACH INDIVIDUAL PHASE OF THE PROJECT THE CONTRACTORS SHALL PROVIDE THE FOLLOWING CERTIFICATES BEFORE CONFORMANCE LETTERS ARE ISSUED BY THE CONSULTANT:

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

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

FA	N SCHEDUL	<u>E</u>							
Item	Туре	Service	Capacity	aust Air Size hp	Data SP in. wc	Voltage	Manufacturer	Model	Remarks
EF-1	CEILING MOUNTED EXHAUST	LOCAL EXHAUST	150			120/1/60	PENN BARRY	Z6H	C/W VIBRATION ISOLATION HANGERS, SPEED CONTROLLER, WHITE ALUMINUM GRILLE. FOR NUMBER & LOCATION OF FANS REFER TO PLAN
GENE	RAL EXHAUST FAN NOTE	ES:							

HE.	ATING COMP	<u>TNBNC</u>	SCHED	<u>ULE</u>			
Item	Туре	Size	Capacity MBH	EWT *F	LWT *F	EAT Manufacturer & Model	Remarks
H-1	CONVECTOR	AS NOTED	AS NOTED	150	130	70 ENG AIR C-3W	6" DEEP, TOP OF UNIT AT 34" AFF SURFACE MOUNTED, FRONT INLET & OUTLET C/W RECESSING FRAME. CONTRACTOR TO MATCH EXISTING CONVECTOR SIZE TO MINIMIZE WALL INFILL/PATCHING REQUIRED

GENERAL HEATING COMPONENT NOTES: 1. ACCEPTABLE MANUFACTURERS: ENGINEERED AIR, SIGMA, RITTLING, SLANT-FIN, ROSEMEX, DUNHAM-BUSH 4. CABINET FINISHES ARE TO BE FACTORY FINISH PAINTED SELECTED FROM STANDARD MANUFACTURER'S COLOURS UNLESS OTHERWISE NOTED.

1. ACCEPTABLE MANUFACTURERS: BROAN, CARNES, COOK, DELHI, GREENHECK, PANASONIC

Item	Туре	Connection Sizes			Fixture		Trîm		Accessories
ICOM	Туре	HW CW	TW Drain Ven	t Acceptable Manufacturer	Fixture Description	Acceptable Manufacturer	Trim Description	Acceptable Manufacturer	Accessory Description
WC-1	BARRIER FREE WATER CLOSET FLUSH VALVE, 16" HIGH, HANDS FREE (HARDWIRE)	25	80 40	AMERICAN STANDARD MADERA 3461.001 KOHLER HIGHCREST MANSFIELD ADRIATIC ZURN ECO VANTAGE	BARRIER FREE, 16" TALL TO RIM, VITREOUS CHINA, SIPHON JET, ELONGATED RIM, TOP SPUD FOR FLUSH VALVE, BOLT CAP, BOTTOM OUTLET, FLOOR-MOUNTED, 12" ROUGH-IN, MIN 2" TRAP WAY, MAXIMUM 6 litres (1.5 gal) PER FLUSH.	ZURN ZEMS6000AV	EXPOSED, POLISHED CHROME PLATED, DIAPHRAGM TYPE FLUSH VALVE WITH 25MM (1") SCREWDRIVER ANGLE STOP, MOTORIZED ACTUATOR, AUTOMATIC SENSOR WITH MANUAL PUSH BUTTON OVERRIDE, VACUUM BREAKER ADJUSTABLE TAIL PIECE, AUTOMATIC 8 HR COURTESY FLUSH, RECESSED WALL MOUNTED SENSOR BOX, FLUSH CONNECTION & COUPLING FOR 40MM (1 1/2") TOP SPUD, WALL AND SPUD ESCUTCHEINS. HARDWIRED OPERATED POWER CONVERTOR, SENSOR BOX C/W COVER, VANDAL RESISTANT SCREWS, FLUSH CYCLE SET FOR 6.0 LITRES (1.6 GAL) PER FLUSH. COORDINATE SENSOR SITS ABOVE TOILET SEAT AND GRAB BARS	SEAT: CENTOCO BEMIS 1950	SEAT: BLACK, ELONGATED, OPEN FRONT WITH BLACK COVER MOLDED SOLID ANTIMICROBIAL PLASTIC, STAINLESS STEEL CHECK HINGES, STAINLESS STEEL OR SOLID BRASS INSERT POST.
L-1	B.F. WALL MOUNTED LAV ELECTRONIC FAUCET (HARDWIRE)	15 15	32 32	AMERICAN STANDARD MURRO 0954 000 KOHLER PINOIR K-2035-4-0	WALL-HUNG SINK, VITREOUS CHINA, WITH SPLASH LIP AND SHROUD, SUPPLY OPENINGS ON 100 MM (4") CENTRES, OVERFLOW. SIZE: 540 MM X 520 MM (21 1/4" X 20 1/2").	DELTA 591T0250 MOEN COMMERCIAL CA8301—AC ZURN Z6915—HW6—XL	HARDWIRED ELECTRONIC FAUCET. CAST BRASS ONE PIECE BODY WITH INTEGRAL WATER PROOF INFRA—RED SENSOR AND CONNECTOR. ADJUSTABLE SENSING RANGE 76mm TO 381mm (3" TO 15") AND TIME OUT 15 TO 75 SECONDS CHROME FINISH. VANDAL RESISTANT AERATOR HAVING INTEGRAL FLOW CONTROL FOR 1.5gpm (5.7 L/MIN) @ 413 KPA (60 PSI) MAX. SENSOR ACTIVATES IN PRESENCE OF PERSON'S HANDS IN LAVATORY. C/W PLUG—IN TRANSFORMER. MECHANICAL MIXING VALVE (SET TO 105°F) IN RECESSED CONTROL BOX #591T BELOW LAVATORY, OFFSET AS REQUIRED TO AVOID INTERFERENCES.	INSULATION: MCGUIRE PROWRAP PWV8902 TRUEBRO LAV GUARD	INSULATION: INSULATE WASTE AND SUPPLIES WITH UL LISTEI PREFORMED INSULATION SYSTEM COMPLETE WITH SEAMLESS JACKET. WASTE FITTING: NPS 32 MM (1¼") OFFSET WASTE WITH OPIGRID STRAINER. PROVIDE FLOOR MOUNTED WALL CARRIER THERMOSTATIC MIXING VALVE UNDER LAV. DELTA 591T, POWERS LM490 OR EQUAL. PROVIDE SHROUD/KNEE CONTACT GUARD #0059 020
FD-1	FLOOR DRAIN		NOTED 40	ZURN ZN415B MIFAB F1100-C CONTOUR C2000-R6 WATTS FD-100-C-A JAY R SMITH 2005A	GENERAL DUTY CAST IRON BODY, ADJUSTABLE HEAD, NICKEL BRONZE STRAINER, INTEGRAL SEEPAGE PAN, AND CLAMPING COLLAR. 5"Ø ROUND STRAINER. C/W TRAP PRIMER				



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commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to

accessories which may be required. Provide the same to meet the required conditions.

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TRUE NORTH PROJECT NORTH ISSUANCE

No.	ISSUANCE	DATE
1	ISSUED FOR BID AND PERMIT	2024-03-1

WATERLOO REGION DISTRICT SCHOOL BOARD

51 Ardelt Ave, Kitchener, ON N2C 2R5

LINCOLN HEIGHTS PS -RENOVATION

270 Quickfall Dr, Waterloo, ON N2J 3S9

KEY PLAN, LEGEND & SCHEDULES

WALTERFEDY

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800.685.1378 walterfedy.com

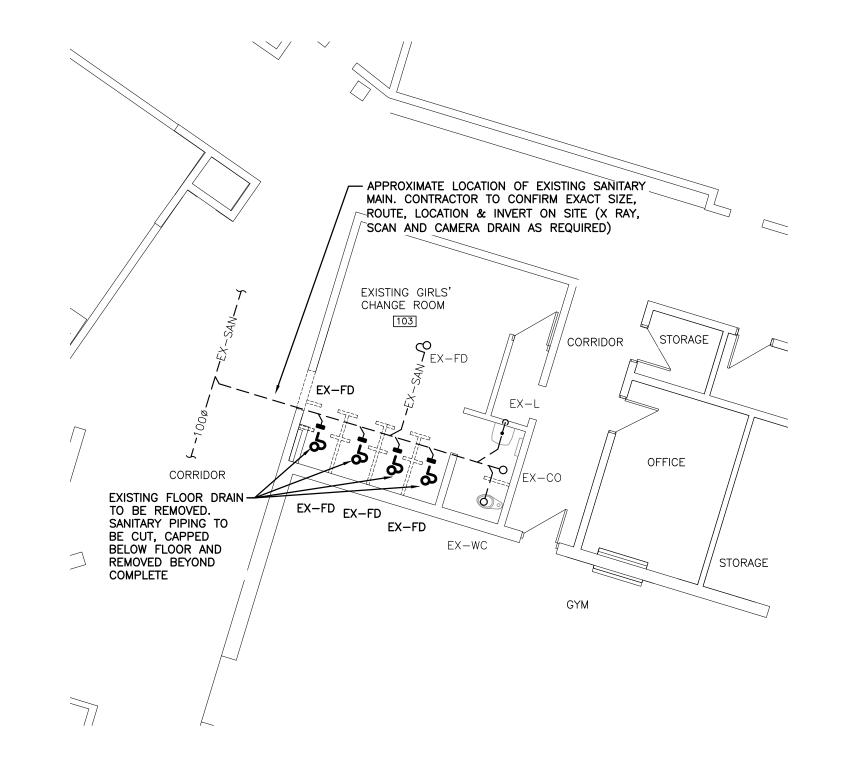


SCALE :	As indicated	SHEET NO:
DATE :	12/06/23	8.4.4
PROJECT NO:	2022-0858-11	M1
DRAWN BY :	AP	
CHECKED BY :	SO	

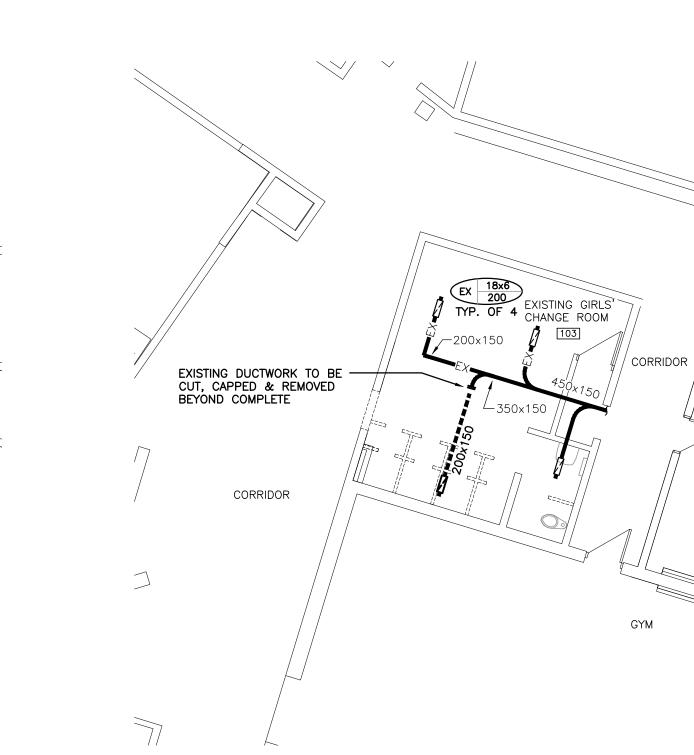
24-005209 Page 8 of 16

GENERAL DEMOLITION NOTES

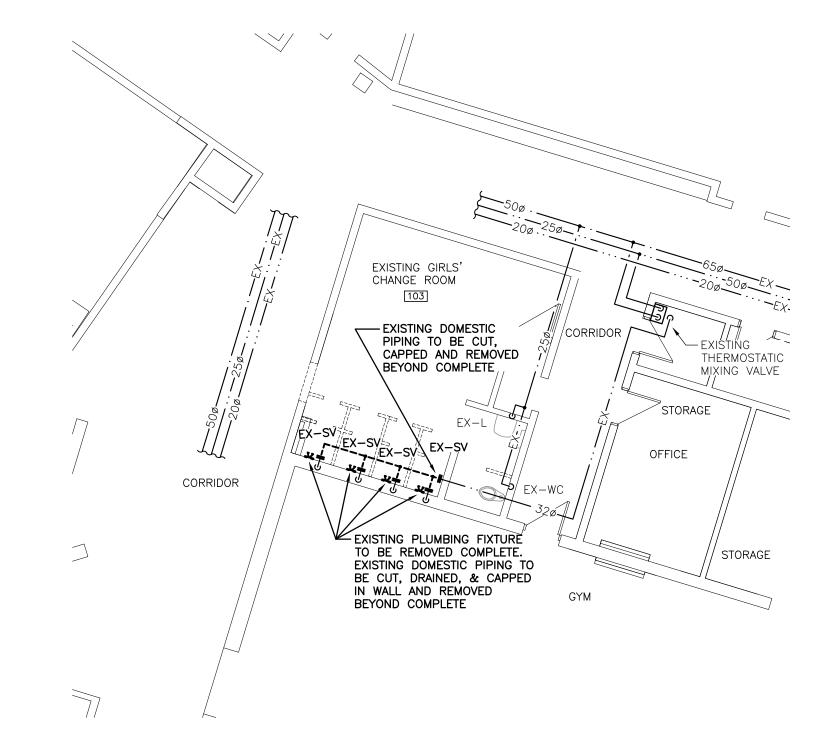
- EXISTING MECHANICAL ITEMS NOT SHOWN SHALL REMAIN UNLESS NOTED OTHERWISE.
- EXISTING MECHANICAL ITEMS SHOWN BUT NOT NOTED AS BEING REMOVED OR RENOVATED SHALL REMAIN AS PRESENTLY INSTALLED AND OPERATING.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE ALL LOCATIONS AND SIZES OF ALL SERVICES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



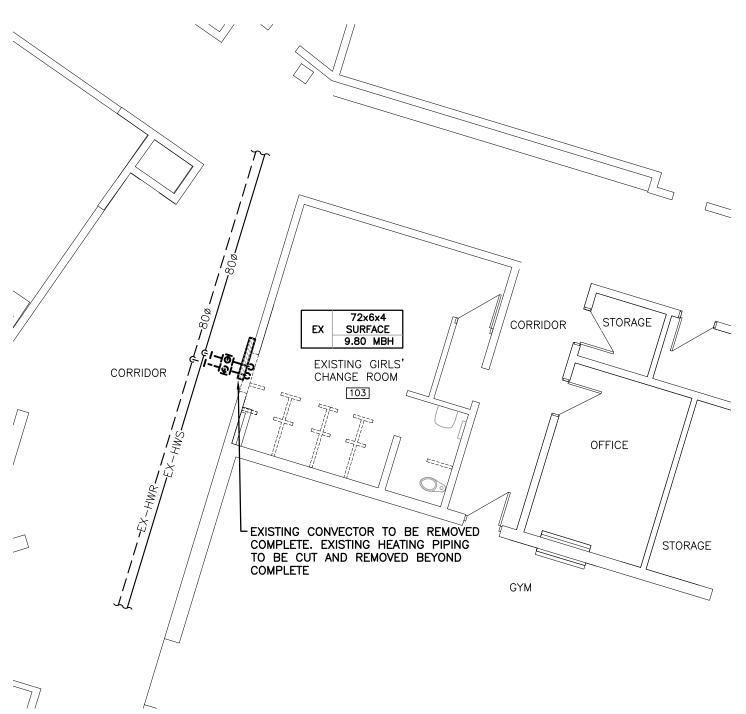
<u>GROUND FLOOR DEMOLITION PART PLAN — DRAINAGE</u> scale: 1:100



GROUND FLOOR DEMOLITION PART PLAN — DUCTWORK SCALE: 1:100



GROUND FLOOR DEMOLITION PART PLAN — DOMESTIC SCALE: 1:100



GROUND FLOOR DEMOLITION PART PLAN — HEATING SCALE: 1:100



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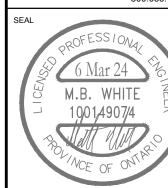
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OFFICE

STORAGE

GROUND FLOOR DEMOLITION PART PLANS - DRAINAGE, DOMESTIC, HEATING & DUCTWORK

A PART OF WF GROUP 800.685.1378 walterfedy.com



As indicated 12/06/23 2022-0858-11 PROJECT NO: RAWN BY : AP

M2.1 CHECKED BY: SO

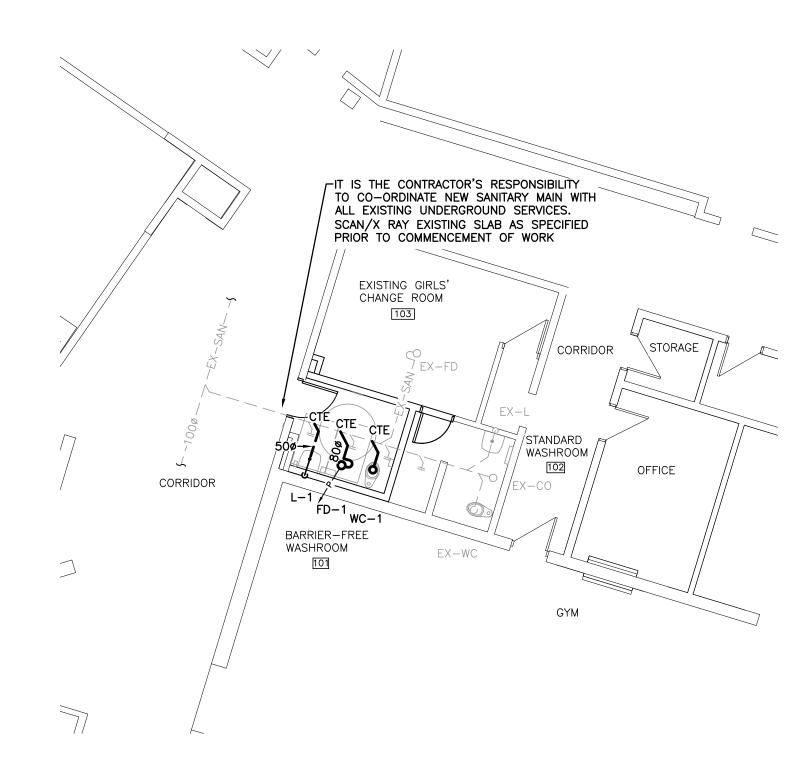
GENERAL RENOVATION NOTES

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

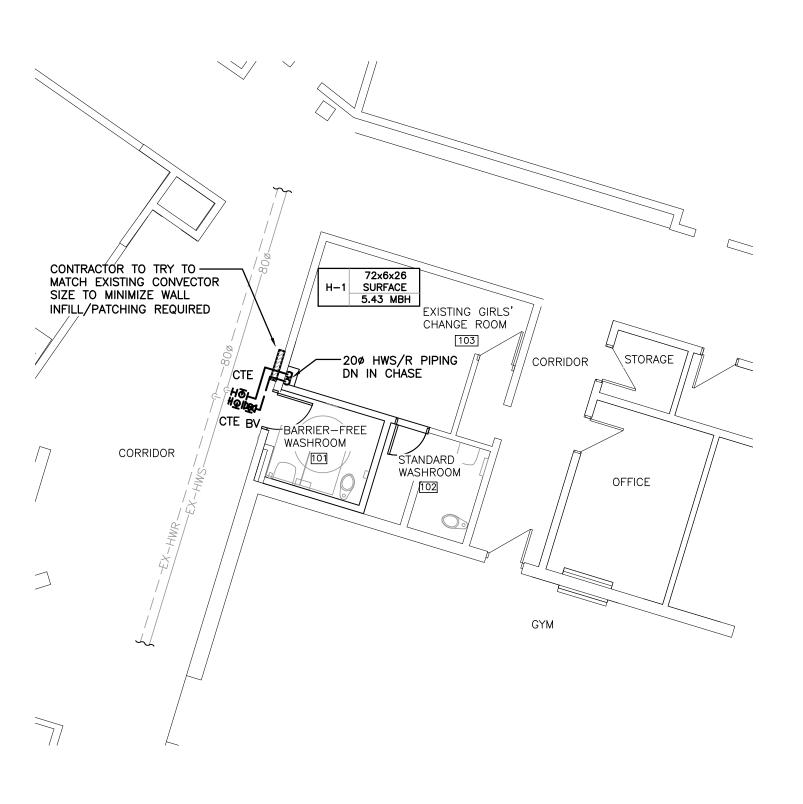
PROVISION REQUIRED TO PROTECT THE WATER DISTRIBUTION SYSTEM FROM THE ADVERSE EFFECTS OF WATER HAMMER AS PER 7.6.1.12.

AIR TEST REQUIRED AS PER OBC 7.3.6.5. ON ALL DRAINAGE, WASTE, AND VENTING

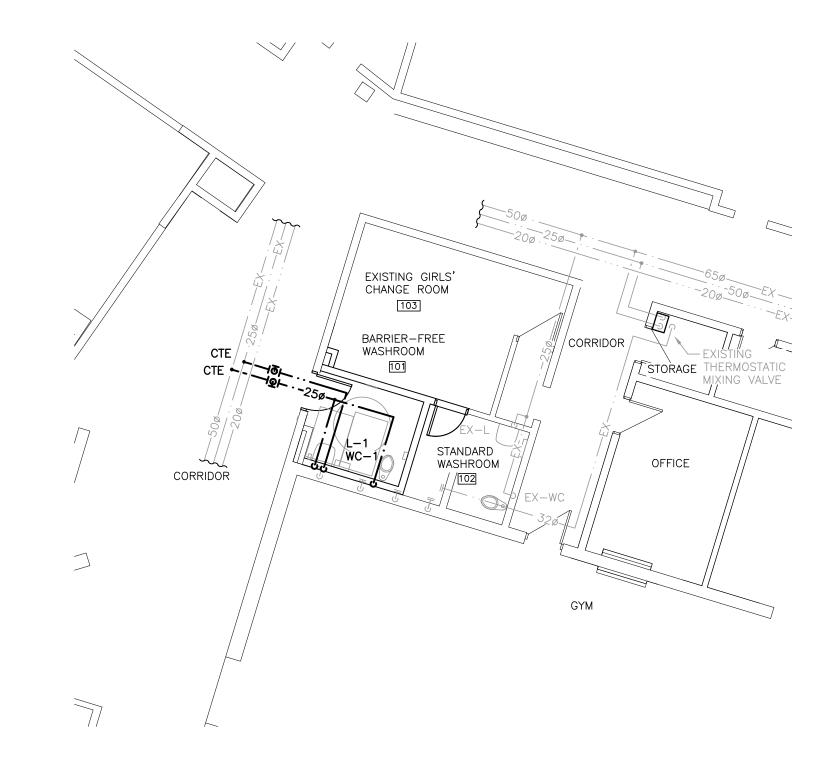
WATER TEST REQUIRED AS PER OBC 7.3.6.4. ON ALL DRAINAGE, WASTE, AND VENTING PIPING



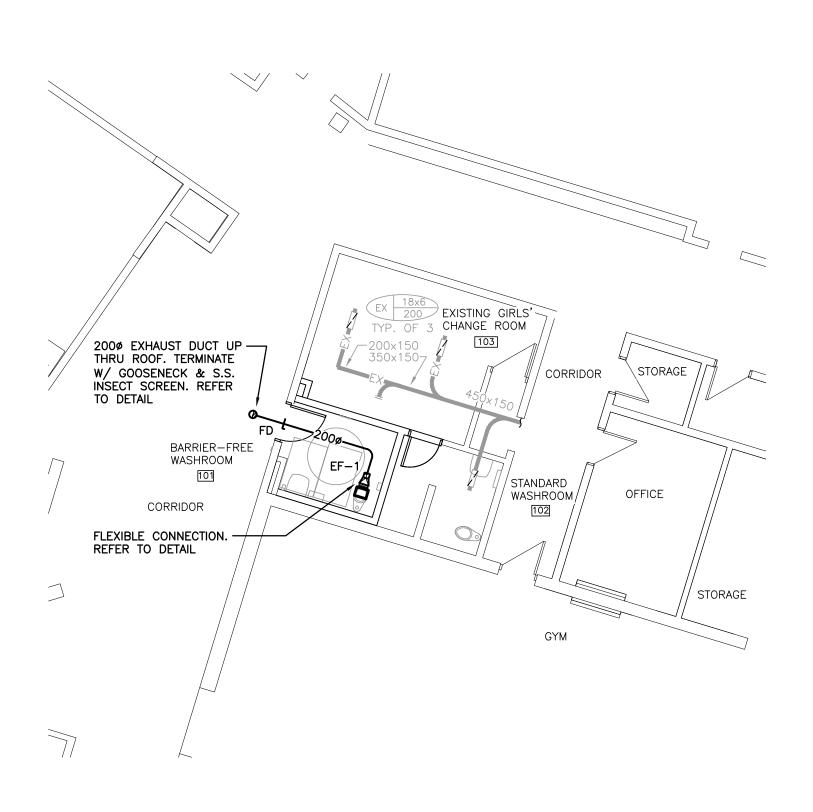
GROUND FLOOR RENOVATION PART PLAN — DRAINAGE SCALE: 1:100



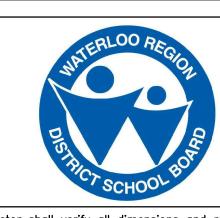
<u>GROUND FLOOR RENOVATION PART PLAN — HEATING</u>
SCALE: 1:100



GROUND FLOOR RENOVATION PART PLAN — DOMESTIC SCALE: 1:100



GROUND FLOOR RENOVATION PART PLAN — DUCTWORK SCALE: 1:100



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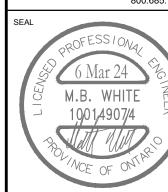
51 Ardelt Ave, Kitchener, ON N2C 2R5

LINCOLN HEIGHTS PS -RENOVATION

270 Quickfall Dr, Waterloo, ON N2J 3S9

GROUND FLOOR RENOVATION PART PLAN - DRAINAGE, DOMESTIC, HEATING & DUCTWORK

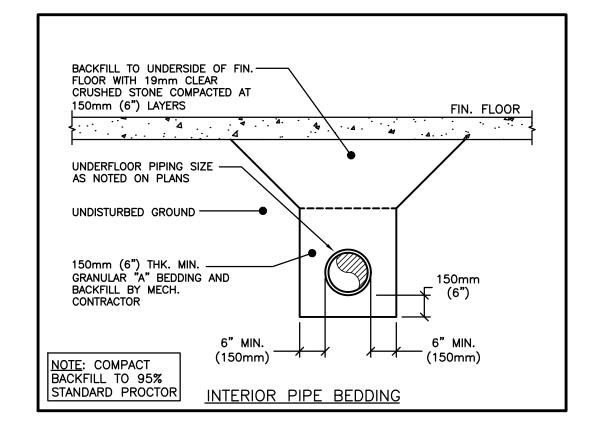
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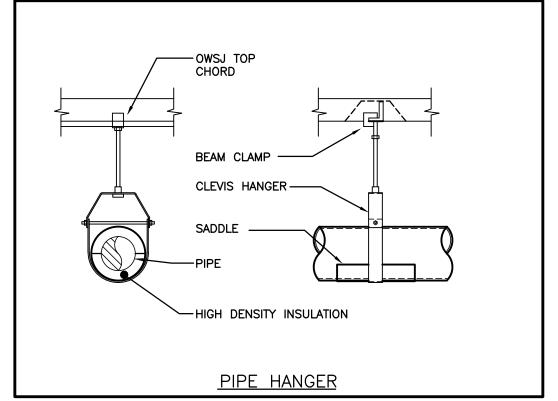


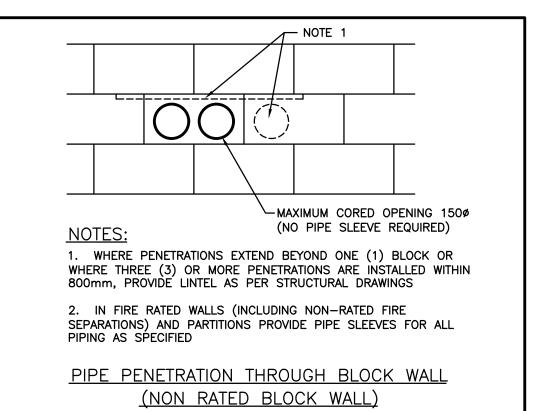
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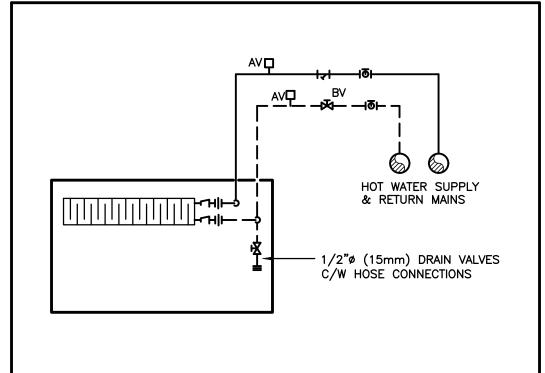
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As indicated 12/06/23 M3.1 2022-0858-11 PROJECT NO: RAWN BY : AP

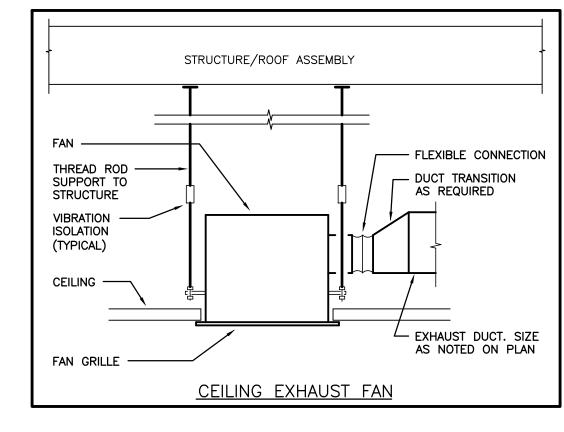


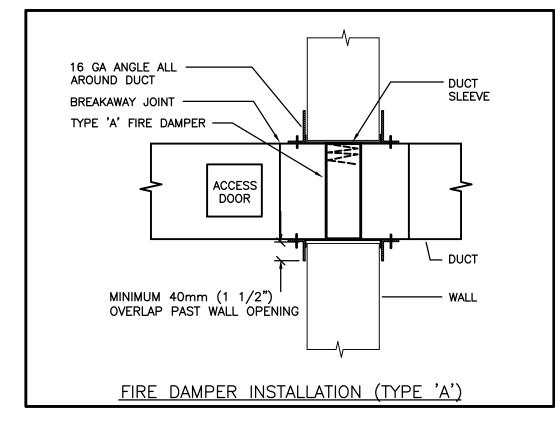


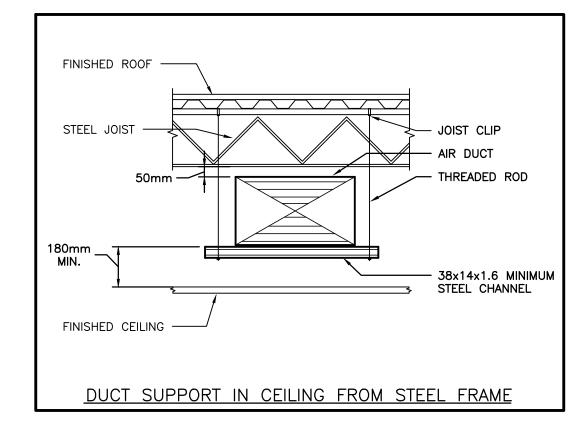


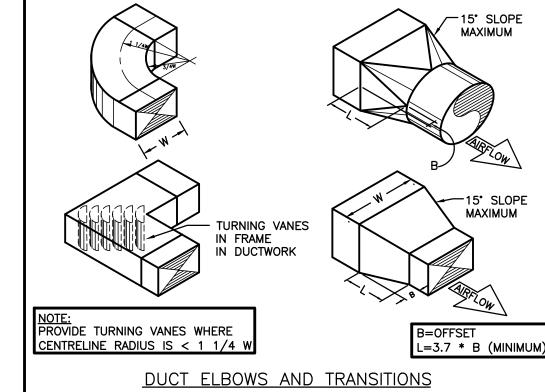


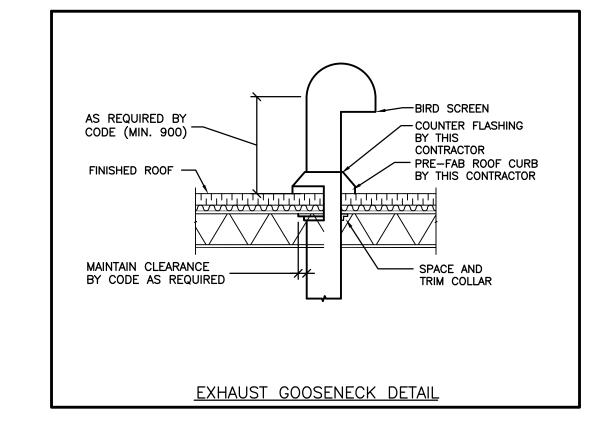
HOT WATER CONVECTOR

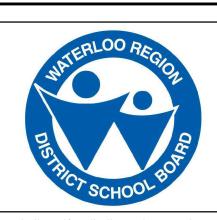












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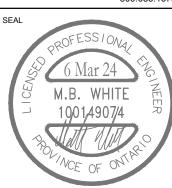
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DETAILS

WALTERFEDY

A PART OF WF GROUP

800.685.1378 walterfedy.com



As indicated 12/06/23 PROJECT NO: 2022-0858-11 DRAWN BY: AP

M4.1 CHECKED BY: SO

PART A GENERAL NOTES

- PROVIDE LABOUR, MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE INSTALLATION WITH QUALITY WORKMANSHIP ACCEPTABLE TO OWNER AND CONSULTANT.
- 2. OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES, AND OTHER COSTS INCURRED WITH THIS WORK. FILE ALL PLANS. OBTAIN ALL NECESSARY APPROVALS, CERTIFICATES. SUBMIT ALL FINAL CERTIFICATES TO THE CONSULTANT. COMPLY WITH RULES AND RECOMMENDATIONS OF THE BOARD OF FIRE UNDERWRITERS, THE CANADIAN GAS ASSOCIATION, THE LOCAL BUILDING CODE, AND ALL REQUIREMENTS OF THE LOCAL UTILITY COMPANY AND BY-LAWS. POST BUILDING PERMIT AT SITE IN ACCORDANCE WITH O.B.C. REQUIREMENTS.
- VISIT THE SITE BEFORE SUBMITTING TENDERS TO EVALUATE ANY SITE CONDITIONS THAT MIGHT ARISE. INCLUDE ALL SITE CONDITIONS IN TENDER, EXTRAS WILL NOT BE ACCEPTED UNLESS BELIEVED TO BE REASONABLE BY THE OWNER AND
- 4. COORDINATE WITH OTHER CONTRACTORS INSTALLING EQUIPMENT OR MATERIAL AND ARRANGE EQUIPMENT IN PROPER RELATION WITH ALL OTHER TRADES. ENSURE SYSTEMS ARE SERVICEABLE.
- 5. CUTTING AND PATCHING SHALL BE BY THE CONTRACTOR REQUIRED TO INSTALL THE SERVICE.
- 6. THE DRAWINGS ARE DIAGRAMMATIC. THE SERVICES SHALL BE INSTALLED TO CONSERVE HEADROOM AND INTERFERE AS LITTLE AS POSSIBLE WITH THE FREE USE OF THE SPACES THROUGH WHICH THEY PASS.
- PROVIDE TWO MARKED COPIES OF "RECORD DRAWINGS" SHOWING THE SYSTEM AS INSTALLED.
- 8. THE MECHANICAL SYSTEMS OF THIS BUILDING MUST ACHIEVE THE ENERGY EFFICIENCY LEVELS BY CONFORMING TO ANSI/ASHRAE/IESNA 90.1 "ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS" AND CHAPTER 2 OF DIVISION 3 OF SB-10 PRESCRIPTIVE METHOD FROM THE ONTARIO BUILDING CODE.
- 9. ALL EQUIPMENT AND MATERIAL SHALL BE NEW. REPLACE ALL DAMAGED EQUIPMENT.
- 10. MATERIAL AND EQUIPMENT ARE NAMED IN THE SPECIFICATION TO ESTABLISH AN ACCEPTABLE STANDARD OF MATERIALS AND
- 11. SUBMIT SHOP DRAWINGS ELECTRONICALLY FOR ALL EQUIPMENT. THESE WILL BE REVIEWED BY THE CONSULTANT. RESUBMIT AS OFTEN AS MAY BE FOUND NECESSARY. SUBMIT ONE COMPLETE SUBMISSION INDEXED AND LABELED FOR THIS PROJECT.
- 12. PROVIDE ALL NECESSARY PROTECTION FOR FINISHED OR UNFINISHED WORK. ALL OPENINGS IN PIPES, DUCTS AND EQUIPMENT SHALL BE CAPPED TO ENSURE SERVICES ARE KEPT CLEAN WHEN NOT IN USE.
- 13. MAINTAIN INSURANCE TO FULLY PROTECT THE CONTRACTOR, OWNER AND CONSULTANT FROM ANY AND ALL CLAIMS SUCH AS UNDER THE WORKERS COMPENSATION ACT, ETC. POST PROJECT NOTIFICATION AT THE SITE IN ACCORDANCE WITH THE
- 14. EXCAVATION AND BACK FILLING SHALL BE BY THE TRADE INSTALLING THE SERVICE. PROVIDE COMPACTED 'A' GRAVEL FOR BEDDING AND BACKFILLING AS INDICATED. REMOVE SURPLUS MATERIAL FROM SITE.
- 15. PROVIDE STRUCTURAL SUPPORTS, PLATFORMS, SUPPORTING RODS, HANGERS, INSERTS AND BRACKETS FOR EQUIPMENT AND SERVICES. DO NOT SUPPORT SERVICES FROM STEEL DECK.
- 16. INSTRUCT THE OWNER'S STAFF IN THE CARE, MAINTENANCE AND OPERATION OF THE SYSTEMS.
- 17. SUBMIT TWO (2) COPIES OF OPERATING AND MAINTENANCE INSTRUCTIONS IN A 3 RING BINDER LABELED FOR THE
- 18. REMOVE ALL PROTECTIVE COVERINGS, CLEAN AND POLISH ALL EQUIPMENT, FREE ALL OBSTRUCTIONS, CLEAN AND REPLACE ALL FILTERS WITH NEW, AND LEAVE ALL KEYS AND WRENCHES WITH THE OWNER.
- 19. ALL SURPLUS AND WASTE MATERIALS SHALL BE PROMPTLY REMOVED FROM THE PREMISES.
- 20. ALL AREAS NOT AFFECTED BY RENOVATION OR DEMOLITION SHALL REMAIN AS PRESENTLY INSTALLED UNLESS NOTED
- 21. THE OWNER WILL DECIDE WHICH ITEMS OR EQUIPMENT SLATED FOR REMOVAL THAT THEY WISH TO RETAIN AS THEIR PROPERTY AND THIS CONTRACTOR SHALL REMOVE ALL OTHER MATERIALS FROM THE PREMISES.
- 22. PROVIDE LAMICOID TAGS FOR IDENTIFICATION OF NEW EQUIPMENT ADDED.
- 23. ALL ELECTRICAL LINE AND LOW VOLTAGE WIRING WHICH IS TO BE PROVIDED BY THE MECHANICAL CONTRACTOR AS SPECIFIED ELSEWHERE HEREIN SHALL BE RUN IN EMT CONDUIT TO STANDARDS OF THE ELECTRICAL DIVISION.
- 24. WARRANTY ALL MATERIAL AND EQUIPMENT FOR A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OF SYSTEM.
- 25. LOCATION OF EXISTING UNDERGROUND SERVICES
- THIS CONTRACTOR SHALL LOCATE EXISTING SERVICES PRIOR TO STARTING ANY WORK IN THE AFFECTED AREA. THIS CONTRACTOR SHALL USE A VIDEO CAMERA FOR THE EXISTING STORM AND/OR SANITARY DRAINAGE AT THE INDICATED CONNECTION POINT TO CONFIRM LOCATION, SIZE AND INVERT OF THE EXISTING PIPING.
- 26. EXISTING CONCRETE SLAB X-RAY/SCANNING
- THIS CONTRACTOR SHALL RETAIN THE SERVICES OF A QUALIFIED COMPANY TO PROVIDE AND X-RAY AND/OR SCAN OF THE EXISTING BURIED SERVICES IN WALL AND/OR FLOORS PRIOR TO STARTING ANY WORK IN THE AFFECTED AREA. FAILURE TO LOCATE EXISTING PIPING, CONDUIT REBAR ETC., SHALL NOT RELIEVE THIS CONTRACTOR OF REPAIR OF SAME PRIOR TO INSTALLING HIS SERVICE. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS AND/OR REPLACEMENT OF EXISTING SERVICES CAUSED BY CUTTING THE EXISTING CONCRETE SLABS AND/OR WALLS.
- 27. EXCAVATING AND BACKFILLING PROVIDE ALL EXCAVATING AND BACKFILLING INSIDE AND OUTSIDE THE BUILDING FOR PLUMBING PIPES, DRAINS AND EQUIPMENT. ALL BACKFILLING SHALL BE NEW CLEAN GRANULAR 'A' FILL BROUGHT IN SPECIFICALLY FOR THE PURPOSE OF BACKFILLING TO THE UNDERSIDE OF FLOOR SLAB. ALL BACKFILLING SHALL BE COMPACTED AT INTERVALS NOT MORE THAN 150 MM (6") LAYER TO THE SATISFACTION OF THE CONSULTANT. PROVIDE EXCAVATING AND BACKFILLING OUTSIDE THE BUILDING WITH GRANULAR A BROUGHT IN SPECIFICALLY FOR BACKFILLING TO A MINIMUM OF 450 MM (18") OVER THE PIPE. BACKFILLING OUTSIDE BUILDING OVER AND ABOVE THE 450 MM (18") BACKFILL AS PREVIOUSLY SPECIFIED HEREIN SHALL BE BY THE MECHANICAL CONTRACTOR AS SPECIFIED UNDER DIVISION 2. WHERE BACKFILLING OUTSIDE THE BUILDING IS NOT SPECIFIED UNDER DIVISION 2 THE MECHANICAL CONTRACTOR SHALL PROVIDE NEW CLEAN GRANULAR 'A' FILL TO GRADE LEVEL. BOTTOMS OF TRENCHES SHALL BE EXCAVATED SO THAT THE PIPE WILL BE SUPPORTED ON A 150 MM (6") COMPACTED BED OF CLEAN GRANULAR 'A' FILL. PROVIDE ALL NECESSARY PUMPING TO MAINTAIN EXCAVATION FREE OF WATER. SHOULD WATER BE ENCOUNTERED DURING EXCAVATION, THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL LABOUR AND MATERIAL, INCLUDING ALL EQUIPMENT REQUIRED FOR DEWATERING THE EXCAVATION. AFTER THE WATER HAS BEEN REMOVED, THIS CONTRACTOR SHALL INSTALL A 300 MM (12") BASE OF COMPACTED 50 MM (2") CLEAR STONE COVERED WITH FILTER CLOTH BEFORE INSTALLING BACKFILL AS DETAILED AND/OR AS SPECIFIED. BE RESPONSIBLE FOR ALL WEATHER PROTECTION REQUIRED TO INSTALL PIPING AND/OR EQUIPMENT TO THE SATISFACTION OF THE CONSULTANT. BE RESPONSIBLE FOR PROVIDING ALL CLEAR STONE OR GRANULAR 'A' MATERIAL SUITABLE FOR APPLICATION TO REPLACE EXISTING SOIL NOT SUITABLE FOR BACKFILLING ABOVE THE 450 MM (18") BEDDING MATERIAL.
- PROVIDE SCHEDULE 40 STEEL PIPE SLEEVES AT POINTS WHERE PIPES PASS THROUGH MASONRY, CONCRETE OR FIRE RATED ASSEMBLIES AND AS INDICATED. GROUT SLEEVES IN PLACE. MINIMUM 6 MM (1/4") CLEARANCE ALL AROUND. BETWEEN SLEEVE AND UNINSULATED PIPE OR BETWEEN SLEEVE AND INSULATION. CÀULK BETWEEN SLEEVE AND PIPE IN FOUNDATION WALLS AND BELOW GRADE FLOORS WITH WATERPROOF FIRE RETARDANT NON-HARDENING MASTIC. WHERE SLEEVES PASS THROUGH WALLS OR FLOORS, PROVIDE SPACE FOR FIRESTOPPING. WHERE PIPES PASS THROUGH FIRE RATED WALLS, FLOORS AND PARTITIONS, MAINTAIN FIRE RATING INTEGRITY. ENSURE NO CONTACT BETWEEN COPPER TUBE OR PIPE AND FERROUS SLEEVE. FILL FUTURE-USE SLEEVES WITH LIME PLASTER OR OTHER EASILY REMOVABLE FILLER. COAT EXPOSED EXTERIOR SURFACES OF FERROUS SLEEVES WITH HEAVY APPLICATION OF ZINC RICH PAINT TO CGSB
- PROVIDE MINIMUM 20 GAUGE DUCT SLEEVES WHERE DUCTS PASS THROUGH MASONRY, CONCRETE OR FIRE RATED ASSEMBLIES. MAINTAIN MINIMUM 25 MM CLEARANCE ALL AROUND OR TO THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. SEAL AT WALL AS INDICATED. WHERE DUCTS PASS THROUGH FIRE RATED WALLS, FLOORS AND PARTITIONS, MAINTAIN FIRE RATING INTEGRITY

PART B DEMOLITION NOTES

1-GP-181M+AMDT-MAR-78.

- THIS PROJECT IS ONE OF A RETROFIT NATURE IN PART, AND WHICH WILL REQUIRE SOME DEMOLITION. ALLOW FOR ALL REMEDIAL WORK IN AREAS INDICATED ON THE DRAWINGS AND AS GENERALLY DEFINED IN THE RELEVANT SECTIONS OF THE
- 2. THE SCOPE OF WORK IS ESSENTIALLY THE SELECTED DISCONNECTION AND/OR REMOVAL OF SERVICES AND/OR EQUIPMENT, PIPING, DUCTWORK ETC. AS INDICATED OR REQUIRED TO COMPLETE THE WORK.
- THIS DIVISION IS TO LIAISE WITH THE OWNERS OR CONSULTANT FOR EQUIPMENT BEING REMOVED THAT MAY BE SUITABLE FOR REUSE TO THAT SPECIFIED OR HANDED OVER TO THE OWNER.
- 4. THIS DIVISION TO TAKE FULL RESPONSIBILITY FOR ANY SPECIAL TOOLS OR EQUIPMENT REQUIRED TO DISASSEMBLE OR REMOVE MATERIAL FROM BUILDING.
- 5. THE GENERAL EXECUTION OF THE DEMOLITION IS TO BE CARRIED OUT IN A CLEAN AND EFFICIENT MANNER.

MECHANICAL SPECIFICATION

- 6. DEMOLITION OF EXISTING CEILING, WALLS ETC., TO FACILITATE REMOVAL OF EXISTING SERVICES OR EQUIPMENT OR INSTALLATION OF NEW TO BE KEPT TO A MINIMUM AND THEN RESTORED TO MATCH EXISTING.
- 7. ALL OPENINGS OR HOLES CREATED BY REMOVAL OF EXISTING MECHANICAL SYSTEMS WHICH ARE NOT BEING REUSED ARE TO BE PATCHED WITH THE SAME MATERIAL SURROUNDING SURFACES.
- 8. PROTECT ALL EXISTING FURNISHINGS MATERIALS AND EQUIPMENT. ANY DAMAGE OCCURRING AS A RESULT OF THE WORK OF THIS DIVISION SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THIS DIVISION.
- 9. WHERE WORK INVOLVES BREAKING INTO OR CONNECTING TO EXISTING SERVICES, CARRY OUT WORK AT TIMES DIRECTED BY THE OWNERS IN AN EXPEDIENT MANNER WITH MINIMUM DISRUPTION TO THE FACILITY AND SYSTEMS DOWNTIME.
- 10. WHERE UNKNOWN SERVICES ARE ENCOUNTERED, IMMEDIATELY ADVISE CONSULTANT AND CONFIRM FINDINGS IN WRITING.
- 11. WHERE THE LOCATION OF ANY SERVICES HAS BEEN SHOWN ON THE PLANS, SUCH INFORMATION IS NOT GUARANTEED. IT IS THIS DIVISION'S RESPONSIBILITY TO VERIFY LOCATIONS, INVERT ELEVATIONS, ETC., IMMEDIATELY AFTER MOVING ON SITE. SHOULD FOR ANY REASON THE INFORMATION OBTAINED NECESSITATES CHANGES IN PROCEDURE OR DESIGN, ADVISE THE CONSULTANT AT ONCE. IF VERIFICATION OF EXISTING CONDITIONS IS NOT DONE AT THE OUTSET AND ANY PROBLEMS ARISE, THE RESPONSIBILITY FOR SAME IS ENTIRELY THIS DIVISION'S.
- 12. DISCONNECT AND/OR REMOVE EQUIPMENT PIPING, DUCTWORK, ETC. AS INDICATED.
- 13. CAP AND CONCEAL ALL REDUNDANT AND OBSOLETE CONNECTIONS
- 14. PROVIDE A LIST OF EQUIPMENT TO BE REMOVED TO THE OWNER, FOR HIS ACCEPTANCE OF SAME. REMOVE ALL EQUIPMENT FROM SITE WHICH THE OWNER DOES NOT RETAIN.
- 15. MAINTAIN EQUIPMENT TO BE RETAINED BY OWNER ON SITE WHERE DIRECTED BY CONSULTANT.
- 16. DEMOLITION OF ALL PARTS OF THE WORK MUST BE COMPLETED WITHIN THE CONFINES OF THE WORK AREA AND IN SUCH A WAY AS THE DUST PRODUCED AND RISK TO INJURY OF WILL NOT ADVERSELY AFFECT THE BUILDING USERS.
- 17. DEMOLISHED AREAS OF THE EXISTING BUILDING WILL REMAIN IN THEIR CURRENT USE IN SOME CASES. DEMOLITION IN THESE AREAS MUST BE KEPT TO THE MINIMUM REQUIRED TO COMPLETE THE WORK.
- 18. DEMOLITION SHALL TAKE PLACE WITHIN AREAS ISOLATED FROM ALL OTHER AREAS WITH APPROPRIATE HOARDING, SCAFFOLDING, NETTING, FENCING OR OTHER MEANS OF SECURITY BETWEEN BUILDING USERS AND THE WORK.
- 19. CO-ORDINATE MAKING SAFE ELECTRICAL DEVICES, CAPPING PLUMBING AND REMOVAL OF FIXTURES PRIOR TO
- 20. ALL PIPING AND EQUIPMENT TO BE REMOVED AND/OR ABANDONED SHALL BE DRAINED PRIOR TO CAPPING AND/OR ABANDONING. DISPOSAL OF ALL LIQUIDS SHALL BE TO THE APPROVAL OF AUTHORITY OF HAVING JURISDICTION AND/OR
- 21. DRAIN ALL EXISTING PIPING AND DRAINAGE SYSTEMS INCLUDING ALL RELATED EQUIPMENT AS REQUIRED TO FACILITATE SYSTEM RENOVATIONS.
- 22. DISPOSAL OF EXISTING SYSTEM SHALL BE TO THE REQUIREMENTS OF THE LOCAL AND/OR PROVINCIAL REGULATIONS.

PART C PLUMBING NOTES

COMMENCEMENT OF DEMOLITION

- 1. CONTRACTOR TO PROVIDE POTABLE WATER CERTIFICATE FOR E. COLI AND COLIFORM FROM A RECOGNIZED TESTING LABORATORY UPON COMPLETION OF THE PROJECT. WATER IS TO BE TAKEN FROM A NEW FIXTURE TO TEST THE NEW
- 2. SERVICES CONNECT TO EXISTING SERVICES WHERE SHOWN ON DRAWINGS.
- 3. CODES AND REGULATIONS
- SANITARY, SOIL WASTE, VENT, AND ALL WATER PIPING SHALL CONFORM AND BE INSTALLED TO THE ONTARIO PLUMBING CODE AND THE CANADIAN PLUMBING CODE, LATEST EDITION.
- SANITARY PIPING: ALL SANITARY PIPING SHALL BE TESTED WITH WATER UNDER THE GUIDANCE OF THE LOCAL PLUMBING INSPECTOR. SMOKE TESTS OR ANY OTHER TEST REQUIRED BY THE PLUMBING INSPECTOR SHALL ALSO BE MADE. WATER PIPING: ALL WATER PIPING SHALL BE TESTED TO 150 PSI. PRESSURE FOR NOT LESS THAN FOUR HOURS WITHOUT A LOSS
- MAINTAIN TESTABLE RP BACKFLOW PREVENTOR BETWEEN MUNICIPAL WATER AND NEW PLUMBING SYSTEM. ENSURE A MINIMUM OF 90% OF PLUMBING FIXTURES ARE INSTALLED. FLUSH WATER MAINS THROUGH AVAILABLE OUTLETS WITH A SUFFICIENT FLOW OF POTABLE WATER TO PRODUCE A VELOCITY OF 1.5 M/S, WITHIN PIPE FOR 10 MIN, OR UNTIL FOREIGN MATERIALS HAVE BEEN REMOVED AND FLUSHED WATER IS CLEAR WITH BACKFLOW PROTECTION. PROVIDE CONNECTIONS AND PUMPS FOR FLUSHING AS REQUIRED. OPEN AND CLOSE VALVES, AND OPERATE FIXTURES TO ENSURE THOROUGH FLUSHING. TAKE WATER SAMPLES AT REMOTE FIXTURES AND SERVICE CONNECTIONS.
- 5. PIPE AND FITTINGS
- SANITARY AND VENT DRAINS: (ABOVE GRADE), MEDIUM WEIGHT CAST IRON WITH MECHANICAL RUBBER JOINTS OR TYPE DWV COPPER PIPE. SANITARY AND VENT PIPING: (BELOW GRADE) PVC DRAINAGE PIPE TO SDR 35 WITH SOLVENT WELDED JOINTS.
- ISOLATION VALVES: HOT AND COLD WATER BRONZE BODY, CLASS 150, STAINLESS STEEL BALL, FULL PORT, PTFE SEAT AND PACKING, STEEL LEVER HANDLE. MILWAUKEE BA-455, CRANE, TOYO CHECK VALVES: HOT AND COLD WATER SIZES 1/2" DIAMETER TO 2" DIAMETER CRANE FIG. 1342, OR EQUAL JENKINS, BRONZE SWING CHECK, SOLDER ENDS. CRANE FIG. 29 OR EQUAL JENKINS VERTICAL LIFT CHECK VALVE, SCREWED ENDS ON VERTICAL PIPING.
- 7. TRAP PRIMERS TRAP PRIMERS: ALL TRAPS WHERE REQUIRED BY THE CODE TO BE PRIMED OR WHERE SHOWN ON THE DRAWINGS SHALL HAVE MIFAB-MR-ENC-AG OR EQUAL PRESSURE DROP ACTIVATED TRAP SEAL PRIMER INSTALLED IN THE NEAREST COLD WATER LINE TO THE TRAP. TRAP PRIMER SHALL BE CONCEALED, PROVIDED WITH ENCLOSURE FOR INSTALLTION IN WALL AND HAVE INTEGRAL AIR GAP FOR BACKFLOW PREVENTION, PROVIDE ACCESS DOOR.
- FIXTURES AS LISTED ON THE DRAWINGS. ALL FIXTURES MUST BE NEW AND CLEAN WHEN THE WORK IS TAKEN OVER BY THE OWNER. ALL PLUMBING FIXTURES SHALL BE EQUIPPED WITH SUPPLY VALVES, FAUCETS, TRAPS, SUPPORTS, WATER CONNECTIONS, ESCUTCHEONS, HANGERS, BOLTS, SCREWDRIVER STOPS, ETC. TRAPS: 2" DIAMETER AND SMALLER, SHALL BE CAST BRASS AND CHROME PLATED IN EXPOSED AREAS. ALL SINK TRAPS SHALL BE TWO PIECE CONSTRUCTION. ALL TRIM MUST BE CAMBRIDGE BRASS OR EQUAL. ON COMPLETION ALL FIXTURES, ACCESSORIES AND EXPOSED PIPING SHALL BE THOROUGHLY CLEANED AND LEFT READY FOR USE. AFTER FINAL INSPECTION BY THE PLUMBING INSPECTOR CAULK AROUND BASE OF ALL FIXTURES TO THE WALL OR FLOOR WITH SILICONE CAULKING.
- INSULATE ALL DOMESTIC HOT AND COLD WATER PIPING ABOVE GRADE, WITH 1" (FOR PIPING UNDER 1 1/2" DIAMETER) OR 1 1/2" (FOR PIPING 1 1/2" DIAMETER AND HIGHER) FIBERGLASS INSULATION WITH VAPOUR BARRIER. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS. RECOVER EXPOSED PIPING WITH 6 OZ. CANVAS JACKET AND TWO COATS LAGGING

PART D HYDRONIC HEATING

- 1. HEATING WATER PIPING:
- SCHEDULE 40 STEEL PIPE TO ASTM 53, GRADE B PIPING NPS 2 AND UNDER SHALL BE MALLEABLE IRON 150 LB SCREWED FITTINGS WITH PULVERIZED LEAD PASTE. PIPING NPS 21/2 AND OVER SHALL BE WELDED FITTINGS AND STEEL FLANGES TO ANSI/ASME B16.5.
- VALVES: BALL VALVES: CLASS 125 SCREWED ENDS, STAINLESS STEEL BALL AND TEFLON SEATS. CHECK VALVES: CLASS 125 WITH COMPOSITION DISC TO MSS SP-80. BALANCING VALVES: BELL AND GOSSETT MODEL CB.
- 3. PIPE INSULATION:
- INSULATE ALL HEATING WATER PIPING WITH 11/2" FIBERGLASS INSULATION WITH VAPOUR BARRIER. INSTALL AS PER MANUFACTURERS RECOMMENDATIONS. RECOVER EXPOSED PIPING WITH PVC JACKET.
- 1.6 MM (16 GAUGE) THICK STEEL WITH ROUNDED EXPOSED CORNERS AND EDGES, REMOVABLE PANELS, GLASS FIBRE INSULATION AND INTEGRAL AIR OUTLET AND INLET. PUMP: ALIMINUM FINS MECHANICALLY BONDED TO COPPER TUBES IN COILS, HYDROSTATICALLY TESTED TO 1 MPA (145
- 5. FILLING OF SYSTEM
- REFILL SYSTEM WITH CLEAN WATER ADDING WATER TREATMENT AS SPECIFIED. THIS CONTRACTOR SHALL CONTACT WATER TREATMENT SUPPLIER AND CO-ORDINATE WATER TREATMENT OF NEW SYSTEM. REFILL HEATING SYSTEM WITH SAME SOLUTION ON SITE.

- 6. FLUSHING AND CLEANING
- PROCEDURE: FLUSHING AND CLEANING SHOULD ONLY TAKE PLACE AFTER SUCCESSFUL PIPING PRESSURE TESTING. TERMINAL DEVICE (PERIMETER RADIATION, ETC.), AND THEIR ASSOCIATED CONTROL AND BALANCING VALVES SHOULD BE BYPASSED DURING THE PRELIMINARY FLUSHING AND CLEANING PROCESS. INSTRUMENTS SUCH AS FLOW METERS, FLOW METERING VALVES AND ORIFICE PLATES SHOULD ONLY BE INSTALLED AFTER FLUSHING AND CLEANING. PRELIMINARY FLUSHING AND CLEANING PROCESS:
- THE OVERALL CONSTRUCTION SCHEDULE IDENTIFIES PIPING FLUSHING AND CLEANING WITH REALISTIC TIME ALLOTMENTS. AS A MINIMUM, AT LEAST ONE PIPING FLUSHING AND CLEANING PROCEDURE SHALL BE WITNESSED, BY THE CONSULTANT
- THE MECHANICAL CONTRACTOR SHALL UTILIZE THE EXISTING WATER TREATMENT SPECIALIST TO SUPERVISE THE FLUSHING AND CLEANING PROCESS AND PROVIDE THE CERTIFIED WATER ANALYSIS REPORT CERTIFYING THAT THE PIPING SYSTEMS ARE CLEAN. FLUSH AND CLEAN NEW PIPING SYSTEM IN PRESENCE OF CONSULTANT. FLUSH AFTER PRESSURE TEST FOR A

THOROUGHLY FLUSH ALL NEW MECHANICAL SYSTEMS AND EQUIPMENT WITH APPROVED CLEANING CHEMICALS DESIGNED TO

- FILL SYSTEM WITH SOLUTION OF WATER AND NON-FOAMING, PHOSPHATE-FREE DETERGENT 3% SOLUTION BY WEIGHT. CIRCULATE FOR MINIMUM OF 8 HRS.
- REMOVE DEPOSITION FROM CONSTRUCTION SUCH AS PIPE DOPE, OILS, LOOSE MILL SCALE AND OTHER EXTRANEOUS MATERIALS. CHEMICALS TO INHIBIT CORROSION OF VARIOUS SYSTEM MATERIALS AND BE SAFE TO HANDLE AND USE. DURING CIRCULATION OF CLEANING SOLUTION, PERIODICALLY EXAMINE AND CLEAN FILTERS AND SCREENS AND MONITOR CHANGES IN PRESSURE DROP ACROSS EQUIPMENT. REFILL SYSTEM WITH CLEAN WATER. CIRCULATE FOR AT LEAST 2 HOURS. CLEAN OUT STRAINER SCREENS/BASKETS REGULARLY. THEN DRAIN. DRAINAGE TO INCLUDE DRAIN VALVES, DIRT POCKETS, STRAINERS, EVERY LOW POINT IN SYSTEM. DRAIN AND FLUSH SYSTEMS UNTIL ALKALINITY OF RINSE WATER IS EQUAL TO MAKE-UP WATER. REFILL WITH CLEAN WATER TREATED TO PREVENT SCALE AND CORROSION DURING SYSTEM OPERATION. REPEAT SYSTEM DRAIN AND FLUSH AS OFTEN AS NECESSARY TO HAVE A CLEAN SYSTEM. RE-INSTALL STRAINER SCREENS/BASKETS ONLY AFTER OBTAINING CONSULTANT'S APPROVAL AND APPROVAL FROM HVAC WATER TREATMENT CONTRACTOR. DISPOSAL OF CLEANING SOLUTIONS TO BE APPROVED BY AUTHORITY HAVING JURISDICTION. ISOLATE NEW PIPING SYSTEM FROM EXISTING SYSTEM AS REQUIRED FOR SYSTEM CLEANING.
- 7. EXISTING SYSTEM DRAINAGE
- DRAIN EXISTING HOT HYDRONIC SYSTEM AS REQUIRED TO FACILITATE SYSTEM RENOVATIONS. DISPOSAL OF EXISTING SYSTEM SHALL BE TO THE REQUIREMENTS OF THE LOCAL AND/OR PROVINCIAL REGULATIONS.
- 8. FLUSHING AND CLEANING

PART E HEATING, AIR CONDITIONING, AND VENTILATION NOTES

- 1. DUCTWORK TO BE CONSTRUCTED TO SMACNA STANDARDS, MEDIUM STATIC PRESSURE WITH LEAKAGE RATE OF 5% MAXIMUM. FABRICATED IN ACCORDANCE WITH RECOMMENDATIONS OF SMACNA AND ASHRAE. SEAL ALL TRANSVERSE AND LONGITUDINAL JOINTS WITH DUCT SEALER.
- 2. ROUND AND OVAL DUCTS: FACTORY FABRICATED, SPIRAL WOUND, WITH MATCHING FITTINGS AND SPECIALS TO SMACNA. TRANSVERSE JOINTS UP TO 900 MM (36"): SLIP TYPE WITH TAPE AND SEALANTS.
- 3. SQUARE AND RECTANGULAR DUCTS:TO SMACNA. TRANSVERSE JOINTS, LONGEST SIDE UP TO AND INCLUDING 750 MM (30"): SMACNA PROPRIETARY DUCT JOINTS.
- - ALL DAMPERS TO TO SMACNA RECOMMENDATIONS AS MINIMUM ACCEPTABLE STANDARD. SPLITTER DAMPERS OF SAME MATERIAL AS DUCT BUT ONE SHEET METAL THICKNESS HEAVIER WITH APPROPRIATE STIFFENING, CUT AIRFOIL SHAPE, PIANO HINGE PIVOT, WITH CONTROL ROD WITH LOCKING DEVICE AND POSITION INDICATOR ON EXTERIOR OF DUCT. SINGLE BLADE BALANCING ROUND AND RECTANGULAR, MAXIMUM 100MM (4") HIGH, OR SAME MATERIAL AS DUCT BUT ONE SHEET METAL THICKNESS HEAVIER (MINIMUM 16 GAUGE), V-GROOVE STIFFENED WITH LOCKING QUADRANT. MULTI-LEAF OPPOSED BLADE DAMPERS DESIGNED TO SMACNA DETAILS, SELF-LUBRICATING NYLON BEARINGS, SHAFT EXTENSION TO ACCOMMODATE INSULATION THICKNESS, WITH LOCKING QUADRANT. MANUFACTURED ADJUSTABLE EXTRACTORS TO BE WITH ADJUSTMENT ROD. ACCEPTABLE PRODUCTS: TITUS, NAILOR OR EQUAL.
- UL OR ULC AND SHALL MEET REQUIREMENTS OF NFPA 90A-1978. FACTORY FABRICATED FOR FIRE RATING REQUIREMENTS TO MAINTAIN INTEGRITY OF MEMBRANE BEING INSTALLED. MILD STEEL, FIRE LINK ACTUATED TOP. ROUND OR SQUARE GUILLOTINE TYPE, WEIGHTED TO CLOSE AND LOCK IN CLOSED POSITION WHEN RELEASED. ROLL DOOR TYPE IN HORIZONTAL POSITION WITH VERTICAL AIRFLOW. SIZED TO MAINTAIN FULL FLOW CROSS SECTION OF DUCT (TYPE B).
- AT ALL DUCT CONNECTIONS TO FANS AND AIR HANDLING UNITS. NEOPRENE COATED GLASS FABRIC, NOT MORE THAN 6"

6. FLEXIBLE CONNECTIONS

LONG BETWEEN METAL PARTS INSTALLED SUFFICIENT SLACK TO PREVENT VIBRATION TRANSMISSION. ALLOW MOVEMENT (2") TO LOW PRESSURE FANS.

EXHAUST FANS OF TYPE AND PERFORMANCE IN THE SCHEDULE AS SHOWN ON THE DRAWING AND/OR HEREIN. INSTALL

- EXHAUST FANS AS PER MANUFACTURERS RECOMMENDATIONS. FANS SHALL BE AMCA LABELED.
- 8. DUCTWORK INSULATION ON THE LAST 5'-0" OF ALL EXHAUST DUCTS, INCLUDING PLENUM AND ALL AIR INTAKE DUCTWORK. FIBERGLASS FOIL FACED RIGID DUCT INSULATION 1" THICK TYPE PF-335-3/4 LB. DENSITY WITH REFRK FACING, GLUE AND PIN AS PER MANUFACTURERS RECOMMENDATIONS.
- 9. SYSTEM BALANCING
- BALANCE AIR USING NEBB CERTIFIED OR AABC FIRM AND AS PER NEBB REQUIREMENTS TO WITHIN 5% OF TOTAL SYSTEM CAPACITY, PROVIDE 3 COPIES OF BALANCING REPORTS C/W SYSTEM SCHEMATICS, TAB CONTRACTORS MAY QUOTE: AIR AUDIT INC., CLARK BALANCING, AIRWASO, DYNAMIC FLOW BALANCING, AIR VELOCITIES CONTROL, FLOWSET BALANCING.
- 10. ALTERNATES AND SUBSTITUTES
 - SHOULD ELECTRICAL CHARACTERISTICS FOR "ALTERNATE" OR "EQUAL" EQUIPMENT DIFFER FROM EQUIPMENT SPECIFIED IT SHALL BE THE RESPONSIBILITY OF THE EQUIPMENT MANUFACTURER TO PAY ALL COSTS ASSOCIATED WITH THE REVISIONS TO THE ELECTRICAL CONTRACT.



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

The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These

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commencement of the work.



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WATERLOO REGION DISTRICT ISCHOOL BOARD

LINCOLN HEIGHTS PS -

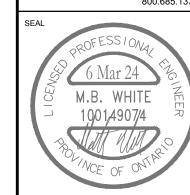
51 Ardelt Ave, Kitchener, ON N2C 2R5

RENOVATION 270 Quickfall Dr. Waterloo, ON N2J 3S9

MECHANICAL SPECIFICATION

WALTERFEDY

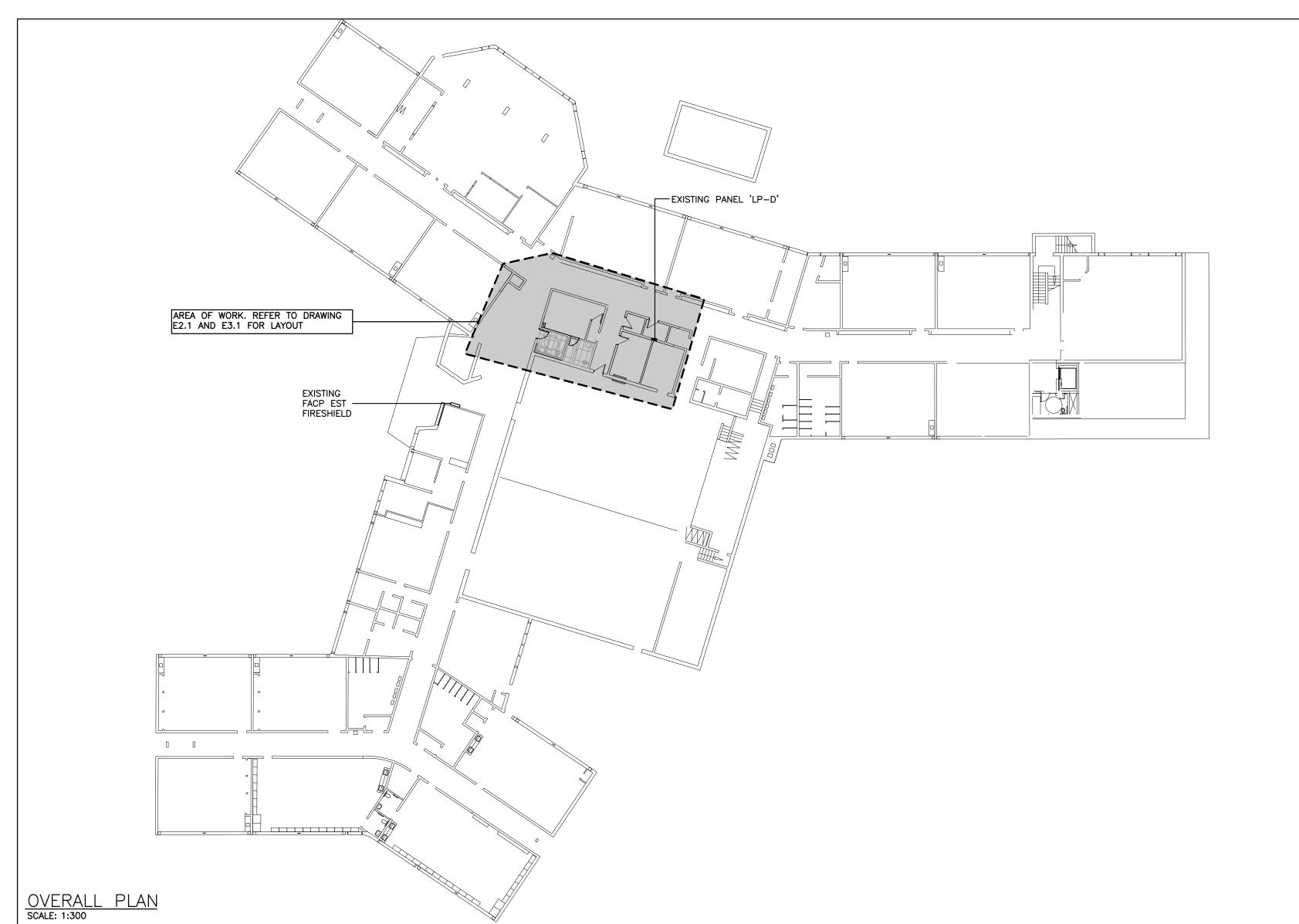
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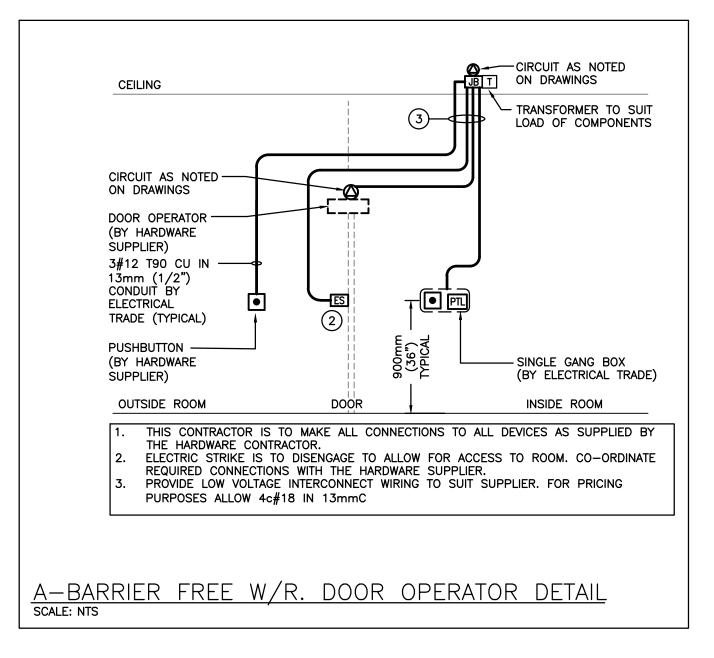
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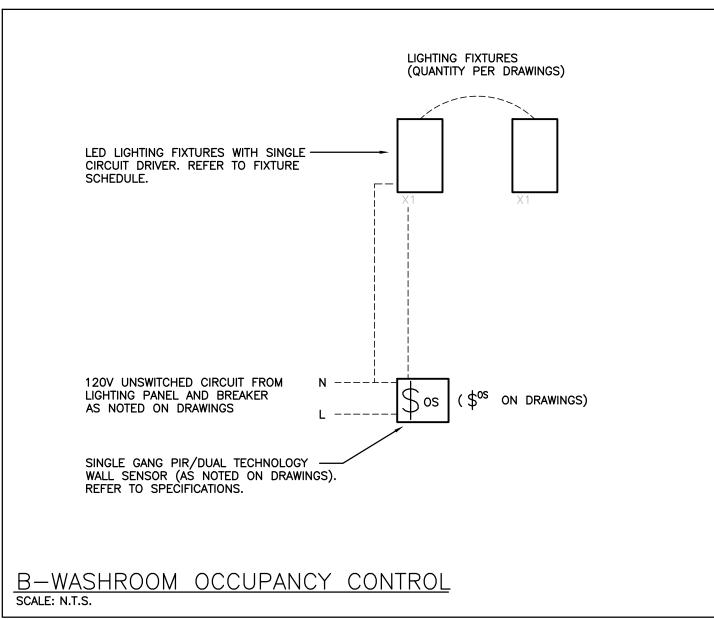
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	ELE	CTRICAL SYMBOLS	NOTE: ALL SYMBOLS MAY NOT BE USED								
		LIGHTING	POWER								
	X	CEILING MOUNTED LIGHT FIXTURE TYPE AS INDICATED	φ	WALL MOUNTED RECEPTACLE (15A-120V)							
	X	LIGHT FIXTURE TYPE AS INDICATED	#	RECEPTACLE MTD. ABOVE COUNTER (15A-120V)							
	Ŧ	SINGLE EMERGENCY LIGHTING FIXTURE AS INDICTAED	0	DIRECT CONNECTION							
		BATTERY UNIT WITH INTEGRAL EMERGENCY FIXTURE	•	PANEL AS INDICATED							
	DC-X	(EM-X INDICATES BATTERY UNIT TYPE AND DC-X INDICATES DC CIRCUIT)	HD	HAND DRYER							
		BATTERY UNIT WITH INTEGRAL EMERGENCY FIXTURE AS INDICATED	•	PUSH-BUTTON STATION AS NOTED							
	\$	SINGLE POLE SWITCH AS NOTED	M	INTERVAL TIMER							
	\$°s	OCCUPANCY SENSOR (PASSIVE) CAT. #WSXA WH		ACCESS CONTROL							
		FIRE ALARM	ES	ELECTRIC STRIKE. CONFIRM ROUGH-IN WITH DOOR HARDWARE.							
		FIRE ALARM CONTROL PANEL	PTL	"PUSH-TO-LOCK" BUTTON							
		GENERAL	STANDARD CIRCUIT LABELING								
	ER	INDICATED EXISTING ITEM TO REMAIN	POWER	'A'-1-1 PANEL LABEL — / / /							
	D	INDICATES EXISTING ITEM TO BE DELETED		INDICATION ————————————————————————————————————							
	GF	GROUND FAULT									
	X	NOTE INDICATOR									
	X	MECHANICAL ITEM NO.									
- 1											

Remote Items





																Jevic	e															
	Electrical Item	Description	Provided by	Voltage	Size hp/kW/Amps Phase	Magnetic	Manual	Contactor	Combination	Variable Frequency Drive	Hand/Off/Auto	Selector Start/Stop	PB. High/Low/Off	Pilot Light	Disconnect	WP Disconnect	Brkr/Fuse	Starter/Device Wired By	Thermostat	RA Thermostat	Interval Timer	Var.Speed	Motor Rated Sw.	Dual Voltage	Control Panel		Bldg Auto	System Wired by	` -	Interlock 10	Interlock By	Description
EF	EF-1 EXHAUST FAN M 120 FHP 1											E		E	М			E					E						LOCAL EXHAUST			
LIGHT FIXTURE SCHEDULE																																
Item	М	anufacturer/Catalog	, Nu	mber				V	oltage	e L	amp	Мо	unting		CRI	L	isting	ıs					D	escrip	otion							
A		CAT. #24CGTS—NUV CAT. #CPX 2X4 ALO	98 SW	W7 N	м2				120V	LU 40	D 000 MENS 000K 1.9W		ESSED	80		N/A	A		2'X4' (610mmX1220mm) LED BACKLIT FLAT PANEL FIXTURE C/W FIELD SELECTABLE LUMENS AND COLOUR TEMPERATURE, WHITE FROSTED LENS, 10% 0-10V DIMMING DRIVER, AND WHITE FINISH. LIGHT FIXTURE SETTING IS TO BE SET AT "4000K" AND AT "LOW"													
В		CAT. #14CGTS-NUV CAT. #CPX 1X4 ALO	07 SW	W7 N	И2				120V	LU 40	D 12 IMENS 100K .4W		ESSED	80		N/A	A	1'X4' (305mmX1220mm) LED BACKLIT FLAT PANEL FIXTURE C/W FIELD SELECTABLE LUMENS AND COLOUR TEMPERATURE, WHITE FROSTED LENS, 10% 0-10V DIMMING DRIVER, AND WHITE FINISH. LIGHT FIXTURE SETTING IS TO BE SET AT "4000K" AND AT "LOW"														
С	LITHONIA (CAT. -LD5-50SL-LW-UNV-L8 CAT. #CLX L48 5000LM I/WGCLX48					40K		120V		51 MENS 100K	SUR	FACE	80		N/A	A		4' (' DISTI	1220 RIBUT	mm) 「ION,	105	RFAC る 0-	E LE ·10V	D ST DIMM	RIP IING	LIGH' DRIV	T C/Y	W WII	DE LI WIRE	ENSED GUARI	OPTICAL).

EQUIPMENT WIRING SCHEDULE

Data

Starter

12V/120V 17W

CEILING

NOTES: 1 LED LUMEN VALUES QUOTED FOR FIXTURES ARE TO BE CONSIDERED MINIMUM, AND AS ABSOLUTE OR DELIVERED LUMENS. LUMEN VALUES SHOULD NOT EXCEED MORE

2 EQUAL MANUFACTURERS/SUPPLIERS MUST CONFIRM THE PROPOSED FIXTURE BY EMAIL WITH CONSULTANTS OFFICE A MINIMUM OF 10 DAYS PRIOR TO TENDER CLOSE.

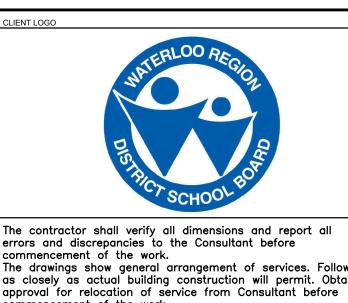
Control Device

Description

EMERG. LIGHTS (SELF LUMACELL CAT. POWERED) EM-1 #LBL SERIES STANDPRO CAT.

EM-1 #SWL SERIES

THAN 10% OF SPECIFIED OUTPUT.



errors and discrepancies to the Consultant before commencement of the work. The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain

commencement of the work. The drawings do not indicate all offsets fitting and accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must

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WATERLOO REGION DISTRICT SCHOOL BOARD

51 Ardelt Ave, Kitchener, ON N2C 2R5

E=ELECTRICAL M=MECHANICAL O=OTHERS

Remarks

Interlock

VANDAL RESISTANT LONG LIFE, BATTERY, C/W 17W LED MODULES, POLYCARBONATE BODY AND 90 MINUTE BATTERY DURATION.

LINCOLN HEIGHTS PS -RENOVATION

270 Quickfall Dr, Waterloo, ON N2J 3S9

KEY PLAN, LEGEND, DETAILS & SCHEDULES

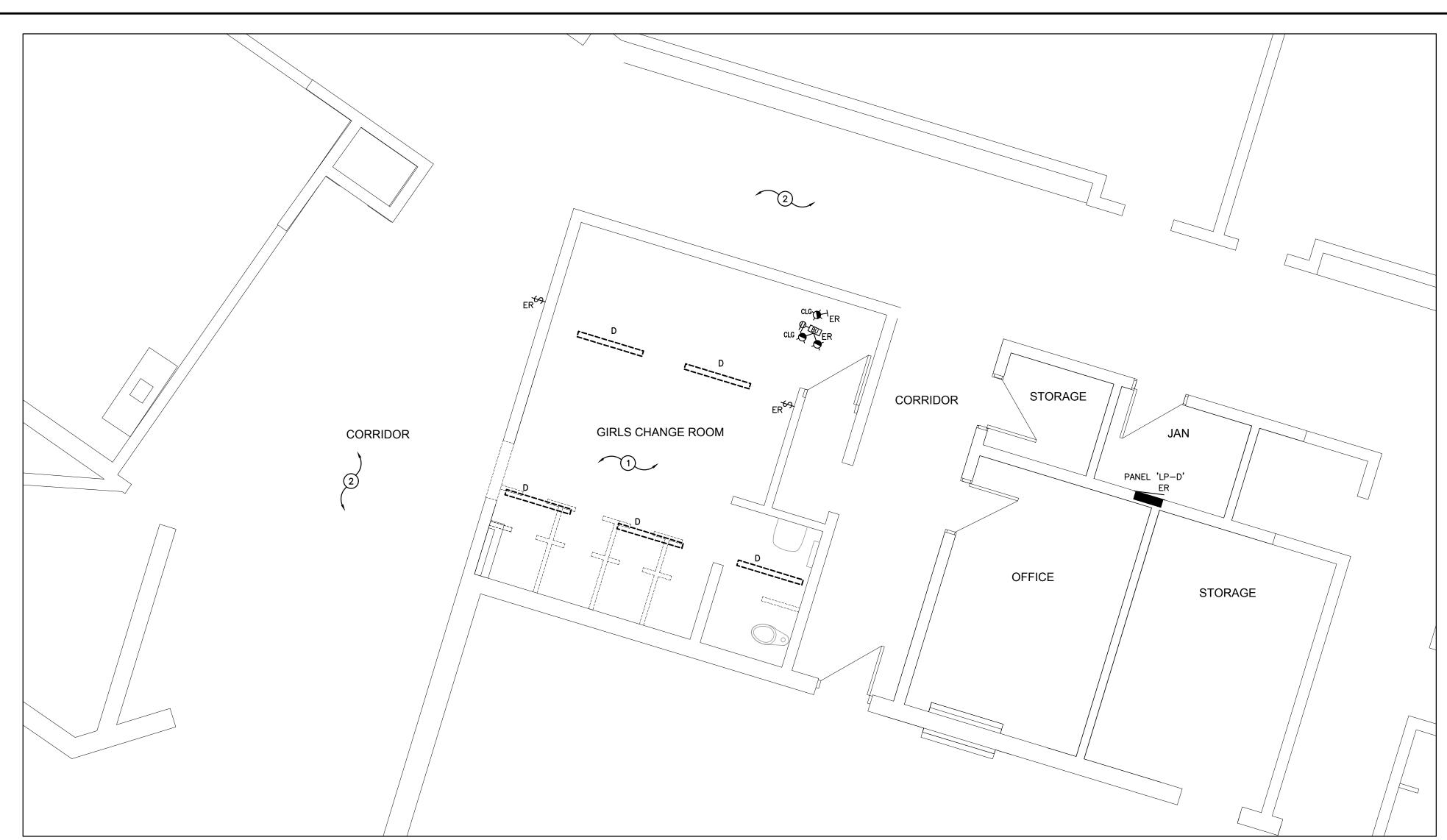
WALTERFEDY

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DATE :	12/06/23	
PROJECT NO:	2022-0858-11	
DRAWN BY :	SB	
CHECKED BY ·	RV	

E1.1



PARTIAL FLOOR DEMOLITION PLAN

GENERAL DEMOLITION NOTES

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

SPECIFIC DEMOLITION NOTES

- INDICATED EXISTING LIGHTING FIXTURES TO BE REMOVE. MAINTAIN EXISTING LIGHTING CIRCUIT. REFER RENOVATION PLAN FOR MORE INFORMATION.
- 2 INDICATED CEILING WITHIN THIS AREA IS GYPSUM BOARD TYPE.



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

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

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

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Waterloo, ON, N2V 1Y8 Phone: 519-725-3555 Website: deiassociates.ca Project Number: 23141

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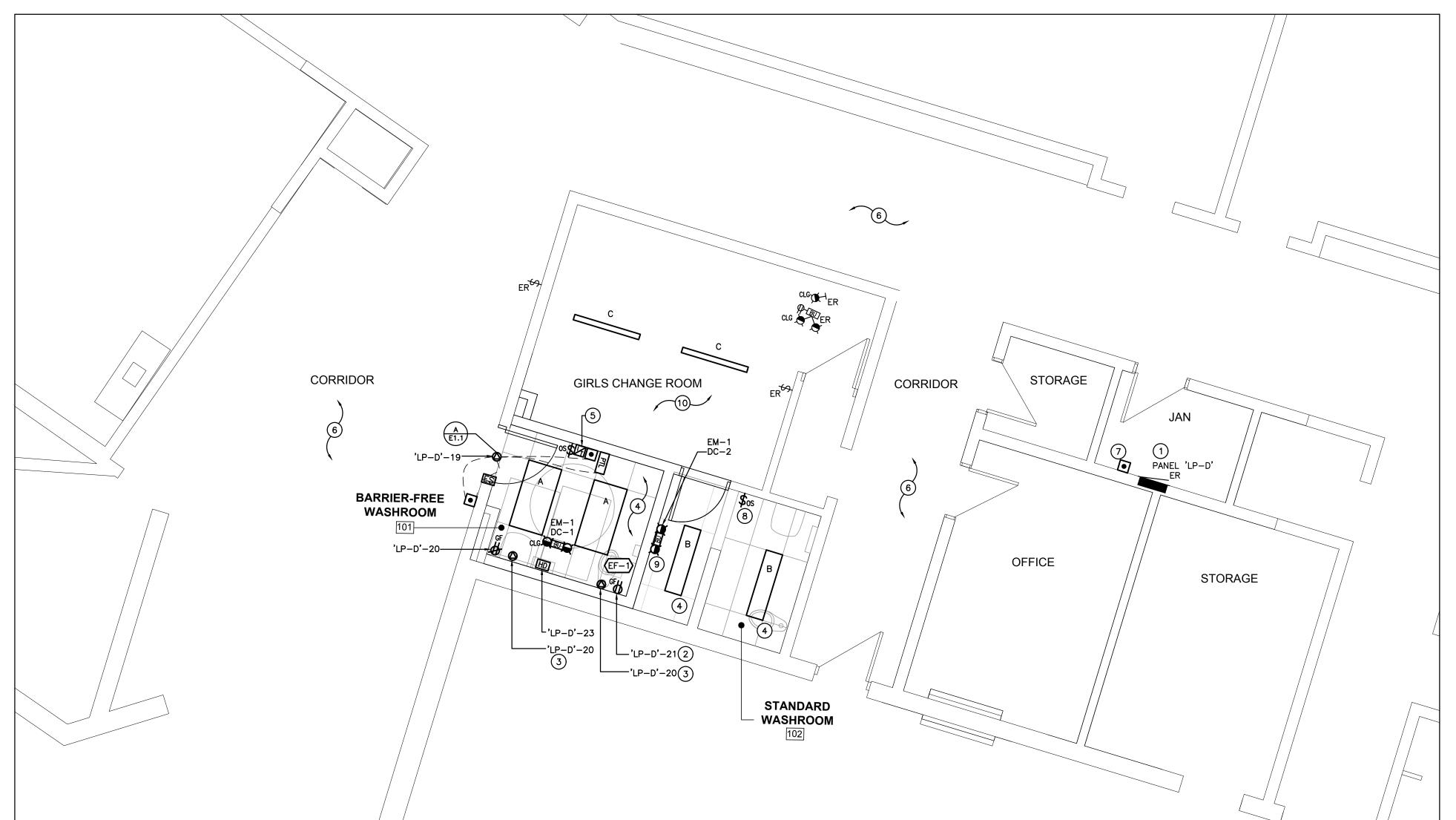
PARTIAL FLOOR DEMOLITION PLAN

A PART OF WF GROUP 800.685.1378 walterfedy.com

J.J. JACKSON 3/6/24

As indicated

12/06/23 **E2.1** PROJECT NO: 2022-0858-11 DRAWN BY: SB CHECKED BY: RV



PARTIAL FLOOR RENOVATION PLAN

GENERAL RENOVATION NOTES

- 'ER' INDICATES EXISTING ITEM TO REMAIN.
- ALL DEVICES SHOWN ARE NEW UNLESS OTHERWISE NOTED.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN SHALL REMAIN UNLESS OTHERWISE NOTED.
- MAINTAIN SERVICE TO ALL EXISTING DEVICES TO REMAIN.
- REVISE PANEL DIRECTORIES TO SUIT CHANGES (TYPED).
- EXTEND EXISTING CONDUIT TO PANEL AND DEVICES WHERE EVER POSSIBLE.
- EXISTING CONDUIT MADE EMPTY BY THE REMOVAL OF EQUIPMENT MAY BE REUSED TO FEED NEW EQUIPMENT AND OR DEVICES.
- WHEN UTILIZING EXISTING CIRCUIT, PROVIDE NEW BRANCH WIRING AS REQUIRED TO MEET O.H.E.S.C. REQUIREMENTS.
- PROVIDE ADEQUATE SUPPORT FOR ALL NEW FIXTURES MOUNTED TO U/S OF JOIST AS PER ESA CODE. REMOVE ALL EXISTING SUPPORTS/HARDWARE NOT BEING USED.
- THE CONTRACTOR MUST PATCH ALL SURFACES DISTURBED BY THE WORK MATCH ADJACENT

SPECIFIC RENOVATION NOTES

INDICATED EXISTING PANEL 'LP-D' IS A FEDERAL PACIFIC TYPE 'NBLP' PANELBOARD. THIS CONTRACTOR SHALL USE AND PROVIDE THE FOLLOWING BREAKERS TO SUIT INTERIOR

EXISTING BREAKER
SPARE 15A-1P CCT-#19 SPARE 15A-1P CCT-#20 SPARE 15A-1P CCT-#21

<u>DEVICE</u> BARRIER FREE WASHROOM DOOR OPERATOR BF W/R. SINK REC. & PLUMBING CONN. BF W/R. BIDET CONNECTION

FEED DEVICE
2#12 T90 CU IN 21mmC BF W/R. GFCI HAND DRYER CONN.

- INDICATED CONNECTION FOR AUTOMATIC PLUMBING FIXTURE. PROVIDE WIRING FOR CENTRALLY MOUNTED JUNCTION BOX LOCATED WITHIN CEILING SPACE TO FEED SENSOR.
- COORDINATE EXACT REQUIREMENTS WITH OTHER TRADES PRIOR TO ROUGH-IN. 4 INDICATED CONNECT NEW LIGHTING FIXTURES WITHIN THIS AREA TO EXISTING CIRCUIT MADE

INDICATED GFI RECEPTACLE FOR CONNECTION TO BIDET. COORDINATE EXACT LOCATION ON

- INDICATED LEVITON DECORA PRESENT 30 MINUTE DIGITAL COUNTDOWN TIMER SWITCH IN WHITE. MODEL #DT130-742.
- 6 INDICATED CEILING WITHIN THIS AREA IS GYPSUM BOARD TYPE.

AVAILABLE DURING DEMOLITION AND TO NEW CONTROL AS NOTED.

- INDICATED PROVIDE BLANKFACE GFCI OF 20A-120V SELF TEST AND 30mA FOR HAND DRYER. MOUNTED ON A SINGLE GANG SURFACE MTD. BOX C/W 16mmC TO CEILING SPACE.
- 8 INDICATED WIRE NEW OCCUPANCY SWITCH TO EXISTING LIGHT.
- 10 INDICATED CONNECT NEW LIGHTING FIXTURES WITHIN THIS AREA TO EXISTING CIRCUIT AND CONTROLS MADE AVAILABLE DURING DEMOLITION AS NOTED.

9 INDICATED CONNECT DEVICE TO THE LINE SIDE OF THE LOCAL LIGHTING CIRCUIT.



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

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

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

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TRUE NORTH

PROJECT NORTH

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LINCOLN HEIGHTS PS -RENOVATION

270 Quickfall Dr, Waterloo, ON N2J 3S9

PARTIAL FLOOR RENOVATION PLAN

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DATE :	12/06/23	
PROJECT NO:	2022-0858-11	E,
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3.1

ELECTRICAL SPECIFICATION

GENERAL NOTES

- PROVIDE LABOUR MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE A COMPLETE INSTALLATION WITH QUALITY WORKMANSHIP ACCEPTABLE TO THE OWNER, ARCHITECT AND CONSULTANT.
- .2 OBTAIN ALL PERMITS AND PAY ALL TAXES, FEES AND OTHER COSTS INCURRED WITH THIS WORK. FILE ALL PLANS. OBTAIN NECESSARY APPROVALS, CERTIFICATES AND INSPECTIONS. SUBMIT ALL FINAL CERTIFICATES TO THE CONSULTANT.
- .3 COMPLY WITH RULES AND RECOMMENDATIONS OF THE BOARD OF UNDERWRITERS, ELECTRICAL SAFETY AUTHORITY, THE CANADIAN STANDARDS ASSOCIATION AND ALL REQUIREMENTS OF THE LOCAL UTILITY.
- VISIT THE SITE BEFORE SUBMITTING TENDERS TO EVALUATE ANY SITE CONDITIONS THAT MIGHT ARISE. INCLUDE ALL SITE CONDITIONS IN TENDER, EXTRAS WILL NOT BE ACCEPTED UNLESS BELIEVED TO BE REASONABLE BY THE OWNER AND
- .5 CUTTING AND PATCHING SHALL BE BY THE CONTRACTOR REQUIRING TO INSTALL THE SERVICE.
- .6 THE DRAWINGS ARE DIAGRAMMATIC, THE SERVICES SHALL BE INSTALLED TO CONSERVE HEADROOM AND INTERFERE AS LITTLE AS POSSIBLE WITH THE FREE USE OF THE SPACES THROUGH WHICH THEY PASS.
- .7 SUBMIT COPIES OF SHOP DRAWINGS AS PDF FILES VIA EMAIL FOR ALL MAJOR EQUIPMENT. THESE WILL BE REVIEWED BY THE CONSULTANT. RESUBMIT AS OFTEN AS MAY BE FOUND NECESSARY.
- .8 PROVIDE ALL NECESSARY PROTECTION FOR FINISHED OR UNFINISHED WORK. ALL OPENINGS IN CONDUITS, DUCTS AND EQUIPMENT SHALL BE CAPPED TO ENSURE SERVICES ARE KEPT CLEAN WHEN NOT IN USE.
- MAINTAIN INSURANCE TO FULLY PROTECT THE CONTRACTOR, OWNER AND CONSULTANT FROM ANY AND ALL CLAIMS SUCH AS UNDER THE WORKMEN'S COMPENSATION ACT, ETC. POST PROJECT NOTIFICATION AT THE SITE IN ACCORDANCE WITH THE MINISTRY
- .10 PROVIDE STRUCTURAL SUPPORTS, PLATFORMS, SUPPORTING RODS, HANGERS, INSERTS AND BRACKETS FOR EQUIPMENT AND SERVICES. DO NOT SUPPORT SERVICES FROM STEEL DECK.
- .11 INSTRUCT THE OWNER'S STAFF IN THE CARE, MAINTENANCE AND OPERATION OF THE SYSTEMS.
- .12 WARRANTY ALL LABOUR, MATERIAL AND EQUIPMENT FOR A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OF SYSTEM
- .13 COORDINATE WITH OTHER CONTRACTORS INSTALLING EQUIPMENT OR MATERIAL AND ARRANGE EQUIPMENT IN PROPER RELATION WITH APPARATUS OF ALL OTHER TRADES.
- .14 PROVIDE LAMICOID TAGS FOR IDENTIFICATION OF NEW EQUIPMENT ADDED.
- .15 MOUNTING HEIGHTS SHALL BE AS FOLLOWS FROM FINISHED FLOOR TO CENTERLINE OF DEVICE/EQUIPMENT (UNLESS OTHERWISE
- SWITCHES, DIMMERS AND SPEED CONTROLLERS: 1100mm (44")
- WALL RECEPTACLES: GENERAL: 400mm (16")
- ABOVE TOP OF COUNTERS: 100mm (4") - IN MECHANICAL/ELECTRICAL ROOMS: 1100mm (44") (GANG WITH SWITCH).
- PANEL BOARDS: 1400mm (4'-8") OR AS REQUIRED BY CODE.
- TELEPHONE OUTLETS: 400mm (16")
- VOICE/DATA OUTLETS: 400mm (16") FIRE ALARM STATIONS: 1200mm (48")
- FIRE ALARM SIGNAL DEVICES: 2250mm (7'-6")
- FIRE ALARM STROBES: 2250mm (7'-6")THERMOSTAT: 1200mm (44")
- SECURITY SYSTEM MOTION DETECTORS: 300mm (12") BELOW FINISHED CEILING OR CEILING MOUNTED AS DIRECTED BY SECURITY SYSTEM KEY SWITCHES: 1100mm (44")
- .16 ALL AREAS NOT AFFECTED BY RENOVATION OR DEMOLITION SHALL REMAIN AS PRESENTLY INSTALLED UNLESS OTHERWISE NOTED.
- .17 ALL EXISTING ELECTRICAL DEVICES, OUTLET BOXES, ETC., NOT SHOWN ON DRAWINGS OR MENTIONED IN THE FOLLOWING NOTES AND INSTALLED IN WALLS SLATED FOR DEMOLITION, SHALL BE DISCONNECTED AND REMOVED COMPLETELY IN ALL RESPECTS.
- .18 SUBMIT ONE COPY OF OPERATING AND MAINTENANCE INSTRUCTIONS IN A THREE RING BINDER LABELED FOR THE PROJECT COMPLETE WITH ITEMIZED SECTIONS CONTAINING PROJECT DATA, SHOP DRAWINGS, ETC. UPON ACCEPTANCE OF THE OPERATION AND MAINTENANCE MANUAL BY THE CONSULTANT PROVIDE TWO ADDITIONAL COPIES BOUND IN SEPARATE THREE RING BINDERS. A PDF FILE OF THE ENTIRE MANUAL IS TO BE PROVIDED ON A USB STICK. ONLY ONE USB STICK IS TO BE PROVIDED CONTAINING BOTH THE APPROVED MANUALS AND RECORD DRAWINGS.
- .19 CONTRACTOR SHALL PROVIDE 2 SETS OF REPRODUCIBLE ELECTRICAL DRAWINGS. MARK THEREON ALL CHANGES AS WORK PROGRESSES AND AS CHANGES OCCUR. THIS SHALL INCLUDE FIELD AND CONTRACT CHANGES TO ELECTRICAL SYSTEMS. IDENTIFY EACH DRAWING IN LOWER RIGHT HAND CORNER IN LETTERS AT LEAST 3mm (1/8") HIGH AS FOLLOWS: - "RECORD DRAWINGS: THIS DRAWING HAS BEEN REVISED TO SHOW ELECTRICAL SYSTEMS AS INSTALLED. (SIGNATURE OF CONTRACTOR)(DATE)". SUBMIT HARD COPY TO CONSULTANT FOR APPROVAL, WHEN RETURNED, MAKE CORRECTIONS (IF ANY) AS DIRECTED. ONCE APPROVED, SUBMIT COMPLETED REPRODUCIBLE PAPER RECORD DRAWINGS AS WELL AS A SCANNED PDF COPY FILE ON USB STICK WITH OPERATING AND MAINTENANCE MANUALS.
- .20 CONTRACTOR SHALL PROVIDE RED LINE RECORD DRAWINGS OF EACH AND EVERY ELECTRICAL DRAWING FOR DEI CONSULTING ENGINEERS TO CAD THE RECORD DRAWINGS. THE CAD DRAWING FILES WILL BE PROVIDED TO THE OWNER AS PART OF THE
- .21 THE CONTRACTOR IS TO DETERMINE GENERAL INSPECTION FEES WITH THE ELECTRICAL SAFETY AUTHORITY AND INCLUDE AS PART
- .22 A SUBMISSION HAS BEEN MADE (IF REQUIRED BY THIS SCOPE OF PROJECT) BY THE CONSULTANT TO THE ELECTRICAL SAFETY AUTHORITY FOR REVIEW OF THIS PROJECT. THE PAYMENT OF THE REQUIRED REVIEW COSTS WILL BE COORDINATED BY THE CONSULTANT. A COPY OF THE ELECTRICAL SAFETY AUTHORITY REVIEW REPORT WILL BE FORWARDED TO THE SUCCESSFUL CONTRACTOR FOR INFORMATION AND ACTION.

BASIC MATERIALS

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

SYSTEM UP TO 208V 209 TO 600V WHITE **GREEN** VOICE SYSTEM DATA SYSTEM ORANGE SECURITY BROWN PUBLIC ADDRESS BLACK CABLE TV BLUE RED FIRE ALARM **EMERGENCY VOICE** EMERGENCY LIGHTING EMERGENCY UP TO 208V YELLOW/RED/YELLOW (STRIPED) EMERGENCY 209V TO 600V WHITE/RED/WHITE (STRIPED)

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

<u>DRAW BREAKDOWN</u>

- THIS CONTRACTOR MUST SUBMIT A BREAKDOWN OF THE TENDER PRICE INTO CLASSIFICATIONS TO THE SATISFACTION OF THE CONSULTANT, WITH THE AGGREGATE OF THE BREAKDOWN TOTALING THE TOTAL CONTRACT AMOUNT. EACH ITEM MUST BE BROKEN OUT INTO MATERIAL AND LABOUR COSTS. PROGRESS CLAIMS, WHEN SUBMITTED ARE TO BE ITEMIZED AGAINST EACH ITEM OF THE DRAW BREAKDOWN. THIS SHALL BE DONE IN TABLE FORM SHOWING CONTRACT AMOUNT, AMOUNT THIS DRAW, TOTAL TO DATE, % COMPLETE AND BALANCE.
- .2 BREAKDOWN SHALL BE AS FOLLOWS (WRITER TO EDIT):
- PERMITS AND FEES MOBILIZATION (MAXIMUM 1%)
- PANELBOARDS AND MISCELLANEOUS DISTRIBUTION EQUIPMENT
- BRANCH WIRING LIGHTING FIXTURES
- COMMISSIONING (MINIMUM 3%)
- .3 THE BREAKDOWN MUST BE APPROVED BY THE CONSULTANT PRIOR TO SUBMISSION OF THE FIRST DRAW.
- BREAKDOWNS NOT COMPLYING TO THE ABOVE WILL NOT BE APPROVED.
- .5 BREAKDOWN MUST INDICATE TOTAL CONTRACT AMOUNT.
- .6 MOBILIZATION AMOUNT MAY ONLY BE DRAWN WHEN ALL REQUIRED SHOP DRAWINGS HAVE BEEN REVIEWED BY THE CONSULTANT.

- FURNISH COMPLETE CATALOG DATA FOR MANUFACTURED ITEMS OF EQUIPMENT TO BE USED IN THE WORK TO CONSULTANT FOR REVIEW WITHIN 30 DAYS AFTER AWARD OF CONTRACT.
- .2 IF MATERIAL OR EQUIPMENT IS NOT AS SPECIFIED OR SUBMITTAL IS NOT COMPLETE, IT WILL BE REJECTED BY CONSULTANT.
- ADDITIONAL SHOP DRAWINGS REQUIRED BY THE CONTRACTOR FOR MAINTENANCE MANUALS, SITE COPIES ETC., SHALL BE PHOTOCOPIES OF THE "REVIEWED" SHOP DRAWINGS. ALL COSTS TO PROVIDE ADDITIONAL COPIES OF SHOP DRAWINGS SHALL BE BORNE BY THE CONTRACTOR.
- .4 PARTIAL SUBMITTALS WILL NOT BE ACCEPTED.
- CATALOG DATA OR SHOP DRAWINGS FOR EQUIPMENT, WHICH ARE NOTED AS BEING REVIEWED BY CONSULTANT OR HIS ENGINEER SHALL NOT SUPERSEDE CONTRACT DOCUMENTS.
- REVIEW COMMENTS OF CONSULTANT SHALL NOT RELIEVE THIS DIVISION FROM RESPONSIBILITY FOR DEVIATIONS FROM CONTRACT DOCUMENTS UNLESS CONSULTANT'S ATTENTION HAS BEEN CALLED TO SUCH DEVIATIONS IN WRITING AT TIME OF SUBMISSION, NOR SHALL THEY RELIEVE THIS DIVISION FROM RESPONSIBILITY FOR ERRORS IN ITEMS SUBMITTED.
- .7 CHECK WORK DESCRIBED BY CATALOG DATA WITH CONTRACT DOCUMENTS FOR DEVIATIONS AND ERRORS.
- .8 SHOP DRAWINGS AND PRODUCT DATA SHALL SHOW: MOUNTING ARRANGEMENTS
 - OPERATING AND MAINTENANCE CLEARANCES. E.G. ACCESS DOOR SWING SPACES.
- SHOP DRAWINGS AND PRODUCT DATA SHALL BE ACCOMPANIED BY: DETAILED DRAWINGS OF BASES, SUPPORTS, AND ANCHOR BOLTS.
- MANUFACTURER TEST DATA WHERE REQUESTED.
- MANUFACTURER TO CERTIFY AS TO CURRENT MODEL PRODUCTION. CERTIFICATION OF COMPLIANCE TO APPLICABLE CODES.
- .10 STATE SIZES, CAPACITIES, BRAND NAMES, MOTOR HP, ACCESSORIES, MATERIALS, GAUGES, DIMENSIONS, AND OTHER PERTINENT INFORMATION. LIST ON CATALOG COVERS PAGE NUMBERS OF SUBMITTED ITEMS. UNDERLINE APPLICABLE DATA.
- .11 ONCE THESE SHOP DRAWINGS ARE RETURNED "REVIEWED" OR "REVIEWED AS NOTED" FABRICATION, PRODUCTION, AND INSTALLATION MAY COMMENCE. NOTE: IF A SHOP DRAWING IS RETURNED "REVIEWED AS NOTED" THIS CONTRACTOR MUST PROVIDE WRITTEN INDICATION THAT THE COMMENTS HAVE BEEN COMPLIED WITH.
- .12 A PARTIAL LIST OF SHOP DRAWINGS INCLUDES (WRITER TO EDIT):
- EMERGENCY BATTERY UNITS AND FIXTURES HAND DRYERS
- .4 OCCUPANCY SENSORS

- .1 GENERAL PURPOSE AC SWITCHES MUST CONFORM TO CSA C22.2 NO. 111 (LATEST EDITION).
- .2 15 OR 20 A, 120 V, SINGLE POLE, DOUBLE POLE, THREE-WAY, OR FOUR-WAY SWITCHES.
- .3 RECEPTACLES, PLUGS, AND OTHER SIMILAR WIRING DEVICES MUST CONFORM TO CSA C22.2 NO. 42 (LATEST EDITION).
- .4 DUPLEX RECEPTACLES, CSA TYPE 5-15 R, 125 V, 15 A, U GROUND, WITH THE FOLLOWING FEATURES: UREA MOLDED HOUSING WITH COLOUR AS SELECTED BY ARCHITECT.
- SUITABLE FOR NO. 10 AWG FOR BACK AND SIDE WIRING. BREAK-OFF LINKS FOR USE AS SPLIT RECEPTACLES.
- EIGHT BACK WIRED ENTRANCES. FOUR SIDE WIRING SCREWS TRIPLE WIRE CONTACTS AND RIVETED GROUNDING CONTACTS.
- ACCEPTABLE MATERIALS: STANDARD DUPLEX RECEPTACLE: HUBBELL CAT. #HBL5252CN
- DECORA STYLE DUPLEX RECEPTACLE: HUBBELL CAT. #HBL2152 COMPLETE WITH DECORA STYLE COVERPLATE TO SUIT
- GROUND FAULT PROTECTED T-SLOT RECEPTACLES: HUBBELL CAT. #GF20X COMPLETE WITH DECORA STYLE COVERPLATE TO SUIT SPECIFICATION BELOW.
- TAMPER RESISTANT RECEPTACLE: HUBBELL CAT. #BR15TR TAMPER RESISTANT T-SLOT RECEPTACLE: HUBBELL CAT. #BR20TR
- TAMPER RESISTANT GROUND FAULT PROTECTED RECEPTACLE: HUBBELL CAT. #GFTR15
- AMPER RESISTANT GROUND FAULT PROTECTED T-SLOT RECEPTACLE: HUBBELL CAT. #GFTR20
- ECORA STYLE TAMPER RESISTANT RECEPTACLE: HUBBELL CAT. #DR15TR COMPLETE WITH DECORA STYLE COVERPLATE TO SUIT SPECIFICATION BELOW.
- .9 DECORAA STYLE TAMPER RESISTANT T-SLOT RECEPTACLE: HUBBELL CAT. #DR20TR COMPLETE WITH DECORA STYLE COVERPLATE TO SUIT SPECIFICATION BELOW.
- .11 ACCEPTABLE ALTERNATE MANUFACTURERS INCLUDE: PASS & SEYMOUR
- .12 WALL MOUNTED OCCUPANCY SENSORS LINE VOLTAGE (PASSIVE/DUAL TECHNOLOGY), AS INDICATED ON DRAWING: WATTSTOPPER CAT. #DSW-301-XX (COLOUR BY ARCHITECT)
- GREENGATE CAT. #ONW-D-1001-DMV-XX (COLOUR BY ARCHITECT) SENSOR SWITCH CAT. #WSXA PDT XX (COLOUR BY ARCHITECT)
- .13 ALL SENSORS SHALL BE SET TO 20 MINUTES "DELAY TO OFF" UNLESS OTHERWISE DIRECTED.
- .14 INSTALL DEVICES IN GANG TYPE OUTLET BOX WHEN MORE THAN ONE DEVICE IS REQUIRED IN ONE LOCATION.
- .15 SHEET STEEL UTILITY BOX COVER FOR WIRING DEVICES INSTALLED IN SURFACE MOUNTED UTILITY BOXES.
- .16 STAINLESS STEEL, VERTICALLY BRUSHED, 1mm THICK OR THERMOPLASTIC CONSTRUCTION, COLOUR TO MATCH WIRING DEVICES, THICKNESS 2.5mm, COVER PLATES FOR WIRING DEVICES MOUNTED IN FLUSH-MOUNTED OUTLET BOXES.
- .17 SHEET METAL COVER PLATES FOR WIRING DEVICES MOUNTED IN SURFACE-MOUNTED FS OR FD TYPE CONDUIT BOXES.
- .18 WEATHERPROOF "HEAVY DUTY IN USE" COVER PLATES, COMPLETE WITH GASKETS FOR DUPLEX RECEPTACLES AS INDICATED.
- .19 PROTECT STAINLESS STEEL COVER PLATE FINISH WITH PAPER OR PLASTIC FILM UNTIL PAINTING AND OTHER WORK IS FINISHED.
- .20 INSTALL SUITABLE COMMON COVER PLATES WHERE WIRING DEVICES ARE GROUPED.

LIGHTING SYSTEMS

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

- .1 FIXTURE LED'S MUST BE TESTED IN CONFORMANCE WITH IESNA LM80 STANDARD. .2 LED'S MUST BE SELECTED USING A BINNING ALGORITHM TO ENSURE COLOUR AND LUMEN OUTPUT OF A GIVEN FIXTURE
- ARE CONSISTENT, AS WELL AS MEET OR SURPASS ANSI C78.377 SPECIFICATION FOR THE RATED LIFETIME OF THE FIXTURE. COLOUR ACCURACY BETWEEN PRODUCTS MUST BE WITHIN A 2-STEP MACADAM ELLIPSE.
 - LUMINAIRES MUST BE TESTED TO IESNA LM79 BY AN INDEPENDENT APPROVED LABORATORY. LUMINAIRES MUST BE TESTED PRIOR TO SHIPPING. LUMINAIRES MUST BE ULC CERTIFIED AND APPROVED FOR USE IN CANADA.
 - FIXTURES MUST MAINTAIN A MINIMUM OF 90% OF THEIR INITIAL LIGHT OUTPUT FOR 60,000 HOURS. SUBMIT TEST RESULTS UPON REQUEST. LUMEN VALUES INDICATED FOR FIXTURES IN THE PROJECT DOCUMENTS ARE TO BE CONSIDERED AS 'ABSOLUTE' OR
 - 'DELIVERED' VALUES. .8 OTHER THAN FOR SPECIALTY FIXTURES, AND UNLESS OTHERWISE INDICATED, THE MAXIMUM DRIVER CURRENT IS TO BE
- .3 EMERGENCY LIGHTING UNITS .1 MUST CONFORM TO CSA C22.2 NO. 141 (LATEST EDITION).
 - .2 SUPPLY VOLTAGE: 120 VOLT, AC.
 - .3 OUTPUT VOLTAGE: 12 VOLT, DC.
 - .4 BATTERY: SEALED UNITS MUST BE CAPABLE OF SUPPLYING THE WATTAGE INDICATED FOR A MINIMUM OF 90 MINUTES.
 - .5 SIGNAL LIGHTS: "AC POWER ON" CONDITION AND "CHARGING" CONDITION
 - .6 LAMP HEADS: INTEGRAL ON UNIT, 345° HORIZONTAL AND 180° VERTICAL ADJUSTMENT LAMP TYPE: MINIMUM 4W LED.
- .7 AUXILIARY EQUIPMENT: TEST SWITCH

FIXTURE INSTALLATION

- AC INPUT AND DC OUTPUT TERMINAL BLOCKS INSIDE CABINET.
- .4 CORD AND PLUG CONNECTION FOR AC.

.1 LOCATE AND INSTALL LUMINAIRES AS INDICATED.

- .2 FIXTURE SURFACE MOUNTED TO SUSPENDED CEILINGS MUST BE SECURED THROUGH CEILING ASSEMBLY TO CROSS MEMBER SUPPORTS. THESE SUPPORTS ARE TO BE STEEL CHANNELS OR ANGLES INDEPENDENTLY SECURED TO STRUCTURE USING #12 "JACK" CHAIN. EACH CHAIN MUST BE SECURED SO NO FIXTURE WEIGHT IS ADDED TO THE CEILING ASSEMBLY.
- .3 PLASTER FRAMES/FLANGE KITS MUST BE PROVIDED BY THIS DIVISION FOR FIXTURES RECESSED IN PLASTER AND/OR DRYWALL CEILINGS.
- .4 WHERE SPECIFIED, FIXTURES TO BE CHAIN HUNG SHALL BE HUNG USING "JACK" CHAIN WITH A CAPACITY TO SUIT THE FIXTURE WEIGHT. BRANCH CIRCUIT WIRING FEEDING THESE FIXTURES SHALL BE AC90 CABLE "TY-WRAPPED" AT 36" (900mm) INTERVALS ALONG LENGTH OF DROP. FINAL APPEARANCE MUST BE NEAT AND PROFESSIONAL.
- .5 INSTALL EXIT LIGHTING UNITS AS INDICATED WITH ILLUMINATED FACES AND CHEVRONS/ARROWS INDICATING PATH(S) OF EXIT.
- .6 INSTALL EMERGENCY LIGHTING UNITS AND ASSOCIATED REMOTE MOUNTED FIXTURES AS INDICATED.
- .7 DIRECT "HEADS" ON UNITS AND REMOTE MOUNTED FIXTURES TO ILLUMINATE PATH(S) OF EXIT.
- .8 INSTALL EMERGENCY LIGHTING UNITS AND REMOTE FIXTURES AT 8' (2400mm) ABOVE FINISHED FLOOR UNLESS INDICATED
- .9 PROVIDE A 15A 120V DUPLEX RECEPTACLE (CONNECT TO CIRCUIT INDICATED) ADJACENT TO UNIT.
- .10 CONNECT LUMINAIRES TO LIGHTING CIRCUITS AS INDICATED.

.12 CONNECT UNIT EQUIPMENT TO CIRCUITS AS INDICATED.

- .11 CONNECT EXIT FIXTURES TO EXIT LIGHTING CIRCUITS AND UNIT EQUIPMENT (IF APPLICABLE).
- .13 ALL WIRING OF REMOTE EMERGENCY FIXTURES SHALL BE MINIMUM #10 T90 FOR EACH CIRCUIT AND RUN IN CONDUIT. WIRING MUST BE SIZED IN CONFORMANCE WITH MANUFACTURERS' RECOMMENDATIONS FOR DISTANCE REQUIRED.
- .14 ALIGN LUMINAIRES MOUNTED IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINES.
- .15 ALIGN LUMINAIRES MOUNTED INDIVIDUALLY PARALLEL OR PERPENDICULAR TO BUILDING GRID LINES. .16 ALL LIGHTING BRANCH CIRCUITS ARE TO BE PROVIDED WITH SEPARATE NEUTRALS.
- .1 ALL LED FIXTURES AND DRIVERS ARE TO BE COMPLETE WITH A 5 YEAR GUARANTEE.
- .2 THE LABOUR REQUIRED TO REPLACE THESE DRIVERS MUST BE INCLUDED IN THE ABOVE GUARANTEE
- .6 TESTING/CERTIFICATION
 - .1 AT THE COMPLETION OF THE PROJECT AND IN THE PRESENCE OF THE CONSULTANT, TEST ALL EXIT AND EMERGENCY FIXTURES. ON COMPANY LETTERHEAD, THE CONTRACTOR IS TO PREPARE A CHART INDICATION OF THE CONTRACTOR INDICATIO PROJECT
 - DATE
 - **EQUIPMENT TYPE** CERTIFICATION OF CORRECT CONNECTION
 - CERTIFICATION OF CORRECT OPERATION DURATION OF TEST IN MINUTES (MINIMUM 30)

ACTUAL PERIOD OF TESTING (TIME OF DAY)

THIRD PARTY FUNCTIONAL TESTING .1 AT THE COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMMISSIONED BY A MANUFACTURER'S FACTORY AUTHORIZED THIRD PARTY REPRESENTATIVE WHO SHALL PROVIDE FUNCTIONAL TESTING AND DOCUMENTATION CONFORMING TO

THE REQUIREMENTS OF ASHRAE 9.4.4. FUNCTIONAL THIRD PARTY TESTING SHALL INCLUDE LINE VOLTAGE OCCUPANCY

SENSORS AND DIGITAL ROOM CONTROL SYSTEMS. ALL COSTS SHALL BE INCLUDED IN THE CONTRACT.

- <u>ASBESTOS</u> .1 IF ASBESTOS IS SUSPECTED OR IDENTIFIED CEASE ALL WORK IN THE IMMEDIATE AREA IN ACCORDANCE WITH OHSA AND NOTIFY
- .2 EACH CONTRACTOR AND ON SITE EMPLOYEE OF THE CONTRACTOR SHALL HAVE "ASBESTOS AWARENESS TRAINING". .3 THE CONTRACTOR SHALL ENSURE THAT EMPLOYEES WHO MAY COME INTO CONTACT WITH ASBESTOS DUE TO THE NATURE OF THE WORK THAT THEY PERFORM, HAVE RECEIVED TRAINING THAT ENABLES THEM TO RECOGNIZE ASBESTOS AND THAT ENABLES THEM TO REACT IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS THERETO SHOULD CONTACT WITH
- ASBESTOS OCCUR DURING THE COURSE OF THEIR WORK. .4 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE ASBESTOS BOOK IN THE BUILDING PRIOR TO STARTING ANY
- EXISTING OCCUPIED BUILDINGS (DEPENDING UPON THEIR AGE) MAY CONTAIN ASBESTOS IN THERMAL INSULATING MATERIALS AND SOME MANUFACTURED PRODUCTS, SUCH AS VINYL ASBESTOS FLOOR TILE. ANY INSULATING MATERIALS, ON PIPES, FITTINGS, BOILERS, TANKS, DUCTWORK, ETC. MAY CONTAIN ASBESTOS AND SHALL NOT BE DISTURBED.
- .6 A SURVEY OF THE BUILDING DOCUMENTING THE LOCATION AND CONDITION OF ASBESTOS—CONTAINING MATERIALS IS AVAILABLE FOR YOUR MANDATORY REVIEW PRIOR TO COMMENCING ANY WORK ON PREMISES.

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

The drawings show general arrangement of services. Follow as closely as actual building construction will permit. Obtain approval for relocation of service from Consultant before commencement of the work. The drawings do not indicate all offsets fitting and

accessories which may be required. Provide the same to meet the required conditions. Drawings and specifications, etc., prepared and issued by the consultant are the property of the consultant and must be returned at the completion of the project. These documents are not to be duplicated or copied without the consent of the Consultant. Do not scale this drawing.

2024 DEI Consulting Engineers Inc.



ISSUED FOR BID AND PERMIT 2024-03-1

ISSUANCE

DATE

WATERLOO REGION DISTRICT SCHOOL BOARD

51 Ardelt Ave. Kitchener. ON N2C 2R5

RENOVATION 270 Quickfall Dr, Waterloo, ON N2J 3S9

LINCOLN HEIGHTS PS -

ELECTRICAL SPECIFICATIONS

KITCHENER | HAMILTON | TORONTO | CALGARY A PART OF WF GROUP 800.685.1378 walterfedv.com



CHECKED BY :

As indicated 12/06/23 E4.1 ROJECT NO: 2022-0858-11 AWN BY: SB

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