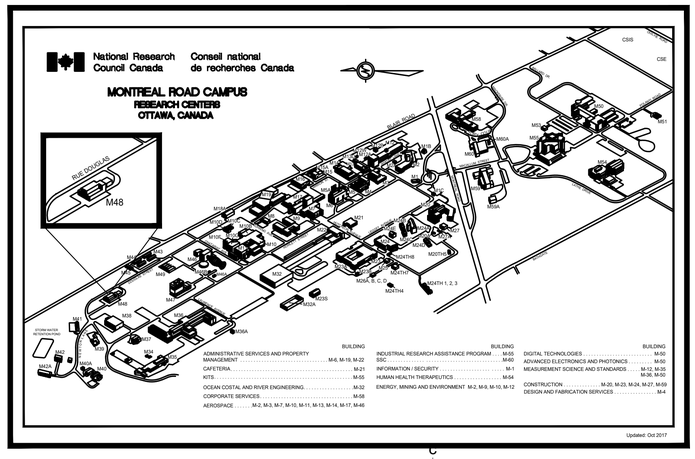
NATIONAL RESEARCH COUNCIL CANADA
MONTREAL ROAD CAMPUS

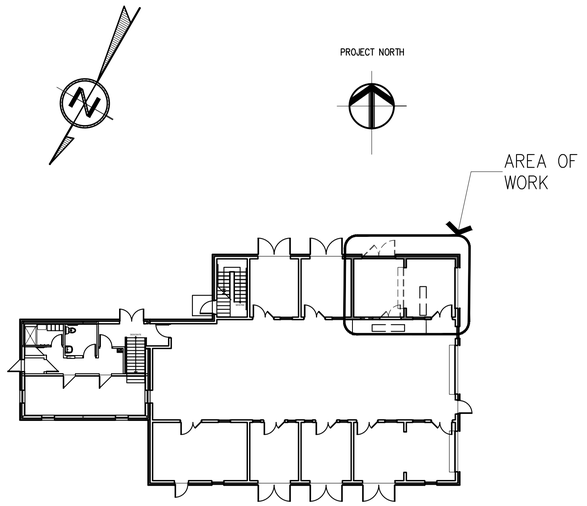
M-48 TEST CELL 3 & 4 MODIFICATIONS

DRAWING LIST	DRAWING No.
COVER SHEET	5975-CS1
ARCHITECTURAL	
DEMOLITION FLOOR PLAN AND DETAILS	5975-A01
CONSTRUCTION FLOOR PLAN AND DETAILS	5975-A02
REPLACEMENT DOOR, BLOW OUT PANEL AND SECURITY GRILLE DETAILS	5975-A03
MECHANICAL	
DEMOLITION AND NEW CONSTRUCTION PLANS, SCHEDULE AND DIAGRAM	5975-M01
ELECTRICAL	
ELECTRICAL LAYOUT	5975-E01

ABBREVIATIONS

ACP	ACOUSTIC CEILING PANEL	NTS	NOT TO SCALE
AFF	ABOVE FINISHED FLOOR	O.C.	ON CENTER
CONC	CONCRETE	PS	PRESSED STEEL
CPT	CARPET	PT	PAINT
CMU	CONCRETE MASONRY UNIT	PCT	PAINTED CONCRETE TOPPING
C/W	COMPLETE WITH	REV	REVERSE
DMNT	DEMOUNTABLE	RWB	RESILIENT WALL BASE
DWG	DRAWING	SIM	SIMILAR
(E)	EXISTING	SP	SPRINKLER HEAD
FFL	FINISHED FLOOR LEVEL	U/S	UNDERSIDE
GB	GYPSUM BOARD	TYP	TYPICAL
HM	HOLLOW METAL		





1 CS1 FIRST FLOOR KEY PLAN
SCALE = NTS

LEGEND
APPLICABLE TO ALL ARCHITECTURAL DRAWINGS

- XX — DRAWING NOTE
- X / AXX — ELEVATION REFERENCE
- X / AXX — DETAIL NUMBER / SECTION DETAIL REFERENCE / DRAWING NUMBER
- X / AXX — DETAIL REFERENCE
- XXX — ROOM NUMBER
- EXXX — CUBICLE ID NUMBER
- DXXX — DOOR TAG
- PX — PARTITION TYPE
- 00.00 — ELEVATION HEIGHT
- EXISTING WALL TO REMAIN
- EXISTING WALL TO BE REMOVED
- NEW WALL

National Research Council Canada / Conseil national de recherches Canada
Real Property Planning and Management Branch / Planification et gestion des biens immobiliers

NRC · CNRC

GENERAL NOTES

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KEY PLAN / PLAN CLÉ

No.	Date	Revision	By: Par:
2	22 04 2022	ISSUED FOR TENDER	MD
1	09 12 2021	99% REVIEW	MD

Date Printed / Date imprimée

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et toutes les conditions du chantier et assumer les responsabilités s'y rattachant.

A Detail no. N° du détail
B Location drawing no. sur dessin n°
C Drawing no. dessin n°

project / projet
BUILDING M-48
TEST CELL 3 AND 4 MODIFICATIONS

MONTREAL ROAD CAMPUS

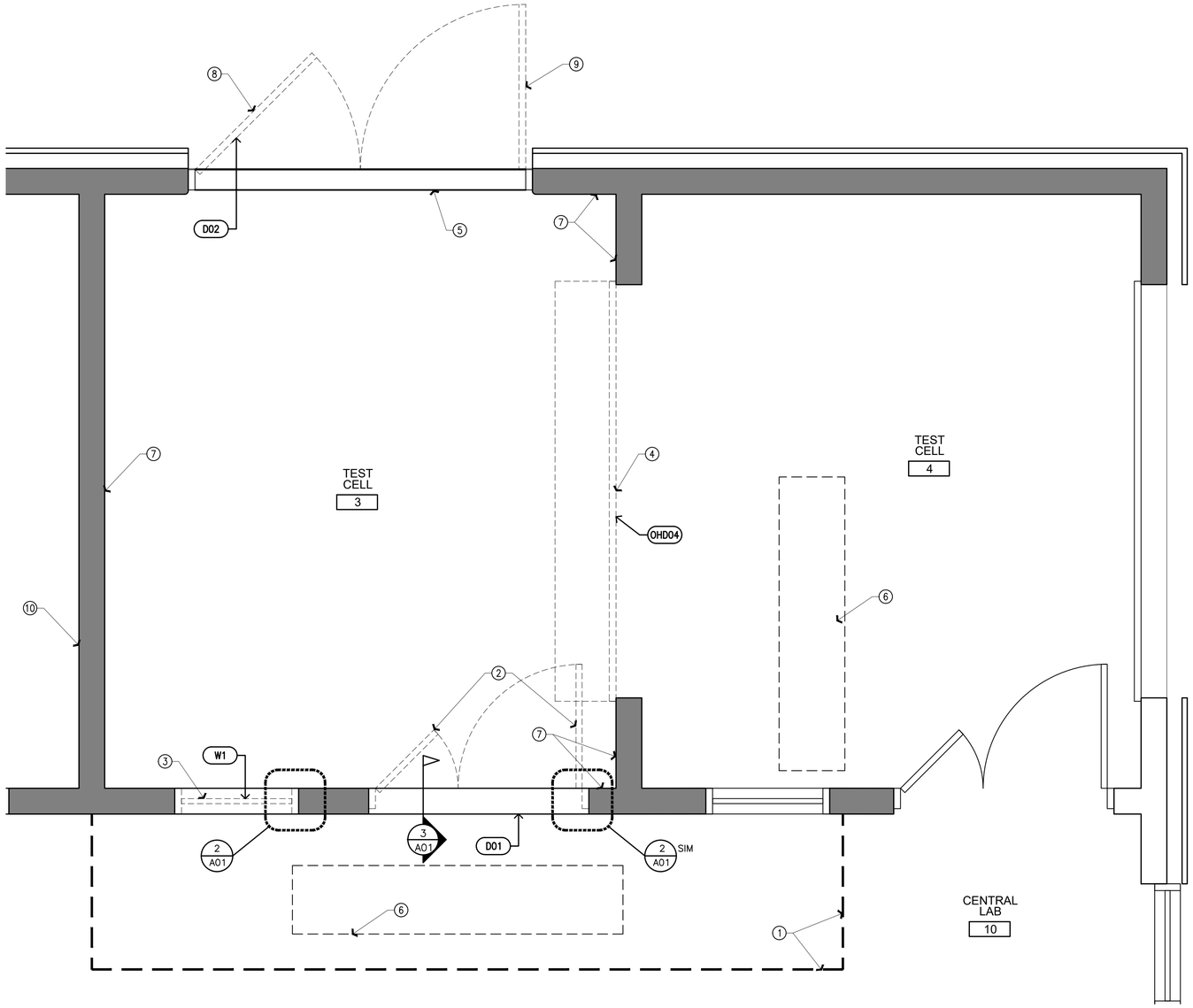
drawing / dessin
COVER SHEET

designed / conçu: **B.L. / SWH**	date / date: **APR 2022**
drawn / dessiné: **B.L. / SWH / MD**	scale / échelle: **AS NOTED**
checked / vérifié: **B.L.**	sheet / feuille: **2** of/de **4**
approved / approuvé: **M. O'C**	W.O.no. / D.T.n°:

dwg.no. / dessin n°: **5975-A01**

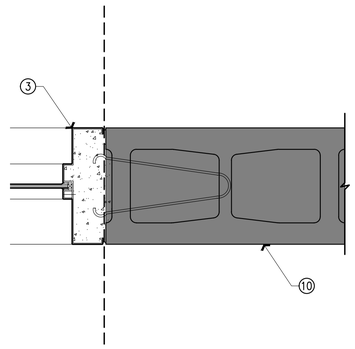
RPPM A1 (841x594)

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



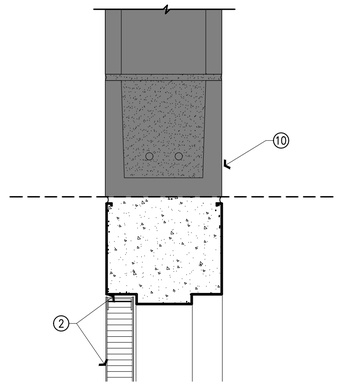
1 A01 DEMOLITION FLOOR PLAN – TEST CELL 3 & TEST CELL 4

SCALE = 1:20



2 A01 EXISTING W1 WINDOW JAMB DETAIL

SCALE = 1:5



3 A01 EXISTING D01 DOOR HEAD DETAIL

SCALE = 1:5

DEMOLITION NOTES

1. CONSTRUCT A PROTECTIVE/DUST BARRIER WITH ROOF, OUTSIDE OF DOORS & WINDOW PRIOR TO STARTING DEMOLITION WORK. REFER TO SPEC SECTION 01 56 00.
2. EXISTING STEEL DOUBLE DOORS AND FRAME TO BE REMOVED. SAW CUT PERIMETER AT JOINT BETWEEN FRAME AND CONCRETE BLOCK.
3. EXISTING WINDOW AND FRAME TO BE REMOVED. SAW CUT PERIMETER AT JOINT BETWEEN FRAME AND CONCRETE BLOCK.
4. EXISTING ROLL-UP GARAGE DOOR TO BE REMOVED. RELOCATE INTERFERING SERVICES/CONDUITS AS REQUIRED. COORDINATE WITH MECHANICAL & ELECTRICAL. HAND OVER TO NRC.
5. EXISTING DOOR SILL TO REMAIN.
6. SAW CUT EXISTING CONCRETE SLAB AND REMOVE AS REQUIRED FOR NEW MECHANICAL DRAIN LINE FOR SLOP SINK. COORDINATE WITH MECHANICAL.
7. PATCH AND REPAIR ALL WALLS WHERE EXISTING SERVICES ARE BEING REMOVED. FILL HOLES IN BLOCK WALLS USING NON-SHRINK GROUT AND REFINISH EXTERIOR WITH MATCHING EPOXY PAINT.
8. EXISTING EXTERIOR STEEL DOOR TO BE REMOVED. EXISTING LOCKSET AND HARDWARE TO BE RE-USED FOR NEW INSULATED HOLLOW-METAL DOOR IN EXISTING FRAME.
9. EXISTING EXTERIOR STEEL DOOR TO BE REMOVED. RETAIN ALL DOOR HARDWARE FOR REINSTATEMENT.
10. EXISTING 190mm CONCRETE BLOCK. GC TO CONFIRM ON SITE.

RPPM A1 (841x594)

C

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

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project / projet
BUILDING M-48
TEST CELL 3 AND 4 MODIFICATIONS

MONTREAL ROAD CAMPUS

drawing / dessin
DEMOLITION FLOOR PLAN AND DETAILS

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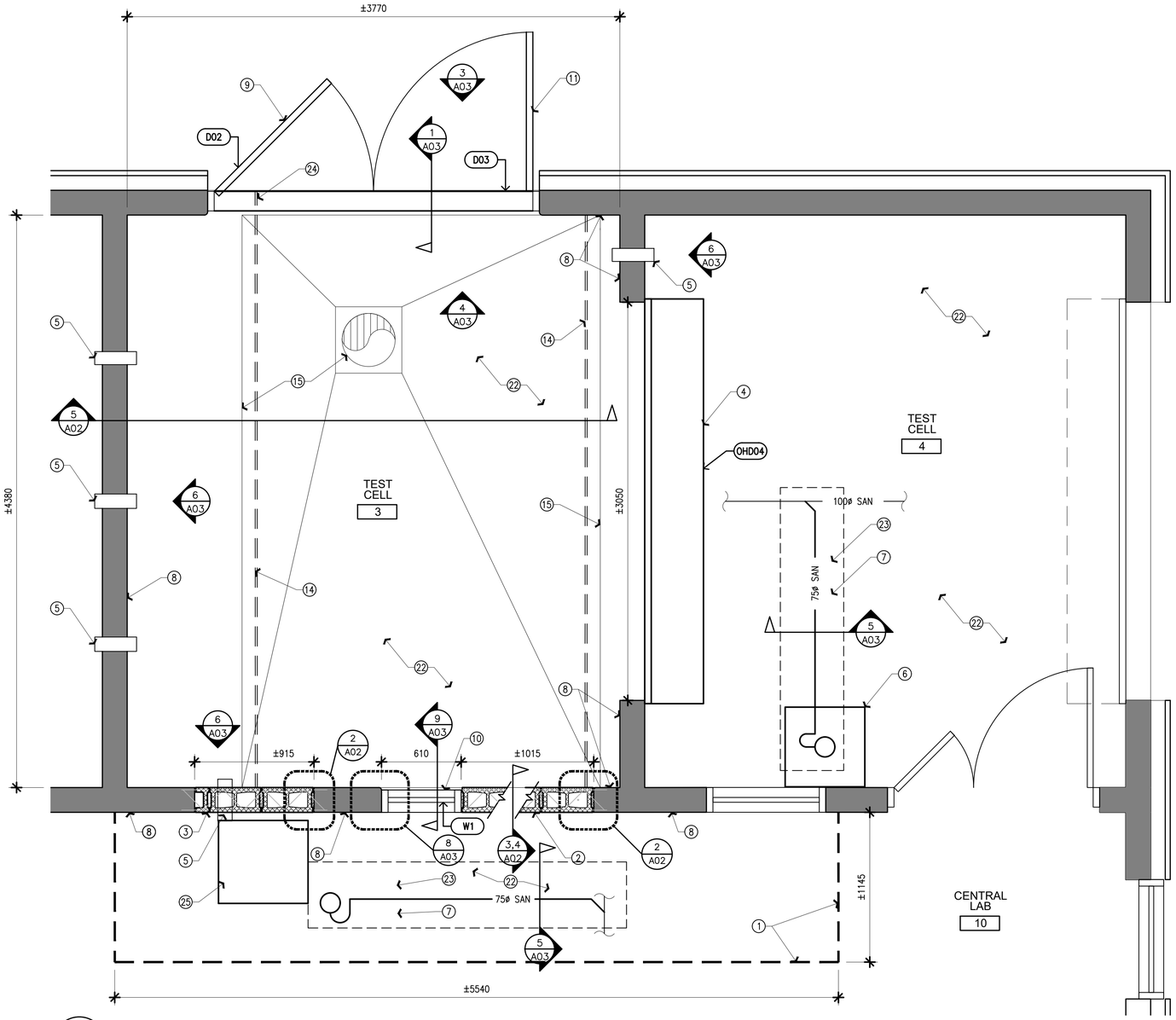
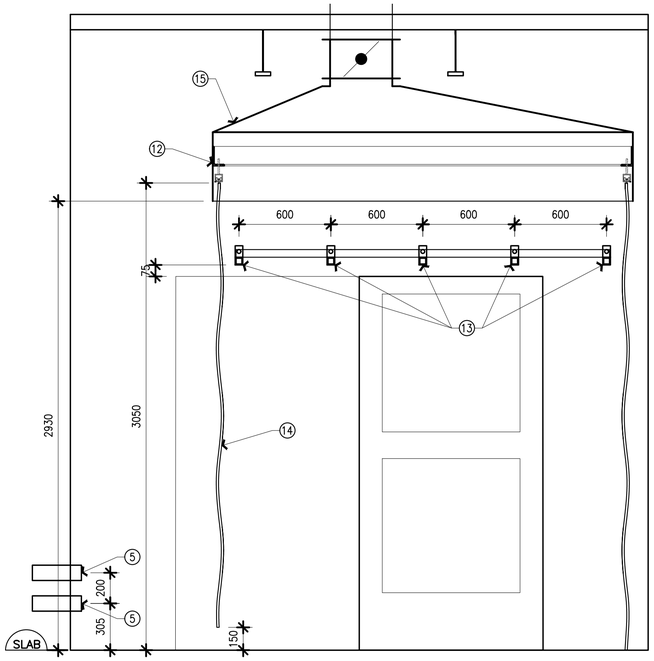


1 A02 CONSTRUCTION: FLOOR PLAN – TEST CELL 3 & 4

SCALE = 1:20



5 A02 EXHAUST CANOPY & WELDING CURTAIN SECTION

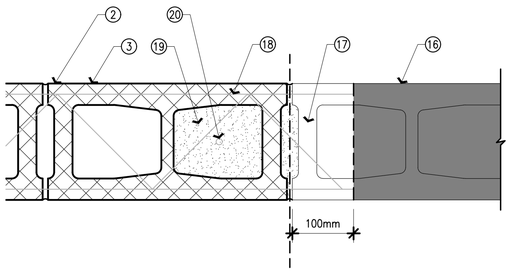
SCALE = 1:20

CONSTRUCTION NOTES

1. DISMANTLE & REMOVE PROTECTIVE/DUST BARRIER UPON COMPLETION OF CONSTRUCTION.
2. INFILL EXISTING DOOR OPENING WITH NEW CONCRETE BLOCK TO MATCH EXISTING.
3. INFILL EXISTING WINDOW OPENING WITH NEW CONCRETE BLOCK TO MATCH EXISTING.
4. NEW INSULATED 1¾ HR FIRE RATED ROLL-UP GARAGE DOOR & MOTOR ON THIS SIDE OF OPENING. RELOCATE INTERFERING SERVICES/CONDUITS AS REQUIRED. INSTALL FIREPROOF SEALANT BETWEEN CONCRETE BLOCK WALL AND OVERHEAD DOOR FRAME.
   4.1 SIMILAR PRODUCT TO :
   ERD21 FIREMISER SmokeShield® AS MANUFACTURED BY COOKSON OR APPROVED EQUAL, C/W SMOKE SEAL PACKAGE.
5. CORE DRILL EXISTING WALL AND INSTALL QTY TWO AT EACH LOCATION, NEW 'HILTI SPEED SLEEVE CP653', DIAMETER 100mm. INSTALL ACCORDING TO MANUFACTURES INSTRUCTIONS. EXACT LOCATIONS ARE TO BE DETERMINED ON SITE. SEE 6/A03 FOR TYPICAL SLEEVE ELEVATION
6. NEW FLOOR MOUNTED SLOP SINK. REFER TO MECHANICAL.
7. INFILL OPENING IN SLAB W/ NEW CONCRETE C/W STEEL REINFORCEMENT AS SHOWN IN 5/A-03 AND DESCRIBED IN "CONCRETE & REINFORCING GENERAL NOTES".
8. REFINISH PATCHED/REPAIRED EXISTING WALLS AND NEW CONCRETE BLOCK INFILLS WITH MATCHING EPOXY PAINT.
9. NEW INSULATED HOLLOW-METAL DOOR TO MATCH EXISTING C/W NEW PANIC BAR AND INTEGRAL EXTERIOR LOCKSET. RE-USE EXISTING HARDWARE.
10. 1½ HR. FIRE-RATED 610mmW x 915mmH VIEWING G.W.G. WINDOW. SEE 8/A03 & 9/A03 FOR WINDOW DETAIL.
11. INSTALL NEW INSULATED STEEL DOOR. SEE A03 FOR ELEVATIONS & DETAILS. PAINT COLOUR TO MATCH EXISTING. PROVIDE DOOR REINFORCING TO SUIT DOOR CUT-OUTS AND BOLT THROUGHS.
12. REINFORCING ANGLE ABOVE (SEE 5/A02) TO SUPPORT WELDING CURTAINS PROVIDED BY HOOD MANUFACTURER.
13. HEAVY-DUTY 50.8mm X 50.8mm UNISTRUT GRID SYSTEM @ 600mm O.C. EACH WAY. COMPLETE WITH WALL BRACKET MOUNTED TO CONCRETE BLOCK AS PER MANUFACTURERS' RECOMMENDATIONS.
14. TRACK MOUNTED ROLLING WELDING CURTAIN SYSTEM, COMPLETE SYSTEM FROM ONE MANUFACTURER.
    14.1. CONTINUOUS GALVANIZED CURTAIN ROD WITH STRAIGHT AND CURVED SECTIONS (32mm x 38mm),
    14.1.1. SUSPENDED ON THREADED ROD MIN 12mm DIA.
    14.1.2. C/W TRACK STOPS, QYT X 2.
    14.2. INSTALL 3 WELDING CURTAINS, 3050mm HEIGHT.
    14.2.1. 40 mil Transparent Vinyl PN#s: 623-
    14.2.2. Heavy duty vinyl provides the necessary protection from harmful UV rays for the casual viewer or passerby when protection from the arc is required.
    14.2.3. Suitable for high abrasion applications.
    14.2.4. Flame retardant.
    14.2.5. Temperature rating 150° F.
    14.2.6. WELDING CURTAIN TO REST ON FLOOR UNLESS OTHERWISE NOTED,
    14.2.7. GROMMETS ON THREE SIDES, SPACED @ 300mm O.C.
    14.2.8 COLOUR: AMBER/YELLOW TRANSPARENT,
    14.2.9. CURTAIN HOOKS: 2-WHEEL STEEL ROLLER.
    14.3 SIMILAR PRODUCT TO :
    14.3.1 40 mil Tillman® ArcShield Transparent Vinyl PN#s: 623 AS MANUFACTURED BY JOHN TILLMAN COMPANY OR APPROVED EQUAL.
15. EXHAUST HOOD. REFER TO MECHANICAL.
16. EXISTING CONCRETE BLOCK TO REMAIN.
17. REMOVE 100mm OF GROUT TO INSTALL NEW BLOCK LOCK & RE-GROUT TO MATCH EXISTING.
18. INSTALL NEW BLOCK LOCK @ EVERY 2ND COURSE.
19. FILL CONCRETE BLOCK VOIDS WITH GROUT.
20. EMBED EPOXY ARMOR 15M REBAR @ 400mm O.C. MINIMUM 100mm IN TOP & BOTTOM EXISTING CONCRETE BLOCK/EXISTING SLAB. REFER TO 2/A02, 3/A-02 & 4/A-02.
21. EXISTING SLAB TO REMAIN.
22. REPAIR EXISTING STONEHARD GS4, EPOXY FLOOR COATING AS REQUIRED.
23. CONCRETE SLAB INFILL, PROVIDE STONEHARD GREEN CONCRETE PRIMER AND STONEHARD GS4 EPOXY COATING.
24. EXTEND WELDING CURTAIN TO BE ABLE TO SEAL AGAINST THE NEW DOOR.
25. NEW FLOOR MOUNTED, SELF-CONTAINED, ELECTRIC RELEASE DELUGE SYSTEM, REFER TO MECHANICAL.

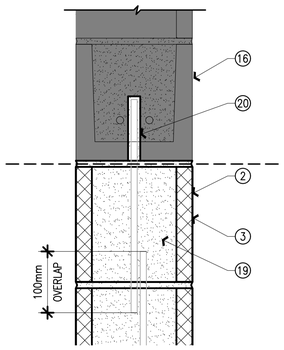
CONCRETE & REINFORCING STEEL GENERAL NOTES

- BACKFILL SHALL BE SAND, OR 0 – ¾" GRADED CRUSHED STONE, COMPACTED TO 95% PROCTOR DRY DENSITY.
- ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF MPa.
- CONCRETE BLOCK SHALL CONFORM TO CSA A165 SERIES 04, WITH A COMPRESSIVE STRENGTH OF 20MPa
- 190mm CONCRETE BLOCK WALLS SHALL BE REINFORCED WITH 15M VERTICAL BARS @ 1200mm O.C. AND HEAVY DUTY TRESS TYPE HORIZONTAL REINFORCING @ 200mm O.C.
- LAP ALL HORIZONTAL REINFORCING 300mm.
- MORTAR SHALL BE TYPE 'S' AND CONFORM TO CSA A179-04.
- GROUT SHALL CONFORM TO CSA A179-04, WITH A COMPRESSIVE STRENGTH OF 20MPa.
- NEW CONCRETE MUST BE VIBRATED TO REMOVE AIR VOIDS IN ENCASEMENT.
- THE CONCRETE SLAB SHALL RECEIVE A STEEL TROWELED FINISH AND SHALL BE WATER CURED FOR A PERIOD OF SEVEN DAYS.
- PROVIDE DOWELS IN SLAB AND CONCRETE WALL TO MATCH VERTICAL MASONRY REINFORCING STEEL.
- REINFORCING STEEL SHALL CONFORM TO CSA G30.18-09, GRADE 400.
- ALL MASONRY WORK SHALL CONFORM TO CAN/CSA A371-04.



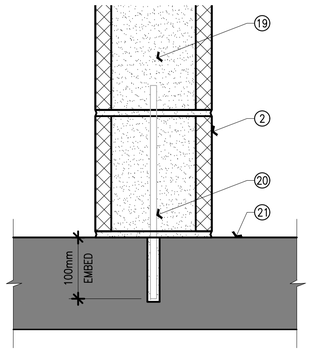
2 A02 TYPICAL NEW CMU INFILL PLAN DETAIL

SCALE = 1:5



3 A02 TYPICAL NEW CMU INFILL SECTION DETAIL

SCALE = 1:5



4 A02 TYPICAL NEW CMU INFILL @ SLAB

SCALE = 1:5

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project projet

BUILDING M-48
TEST CELL 3 AND 4 MODIFICATIONS

MONTREAL ROAD CAMPUS

drawing dessin

CONSTRUCTION FLOOR PLAN AND DETAILS

designed conçu	date date
SWH	APR 2022
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BL. / SHW / MD	AS NOTED
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5975-A02

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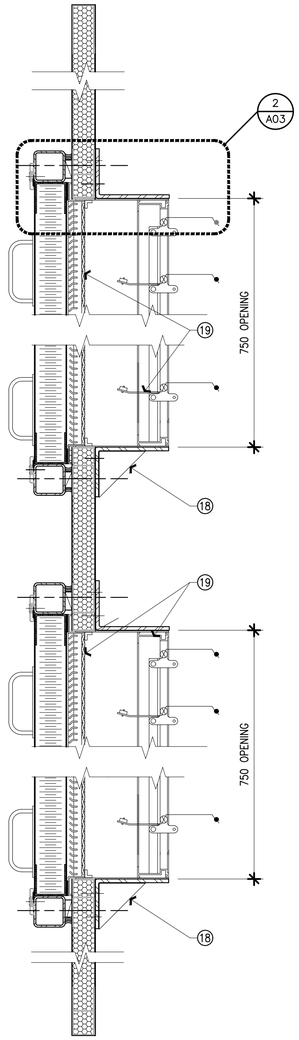
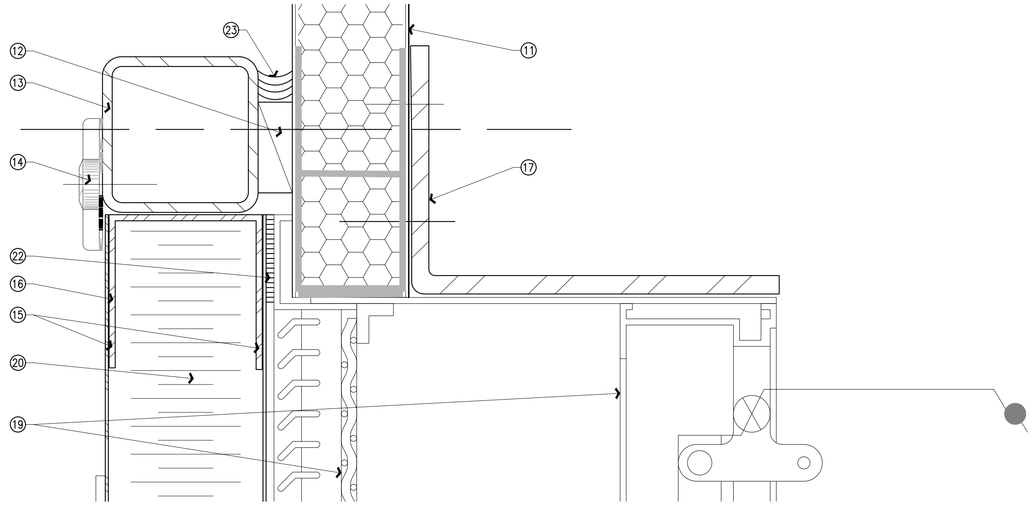
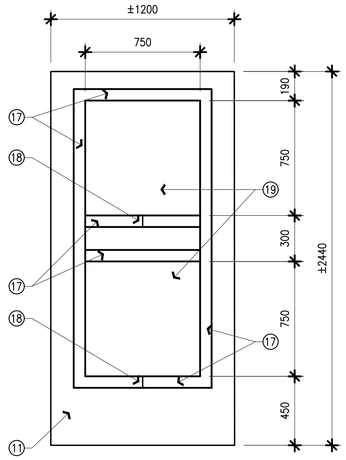
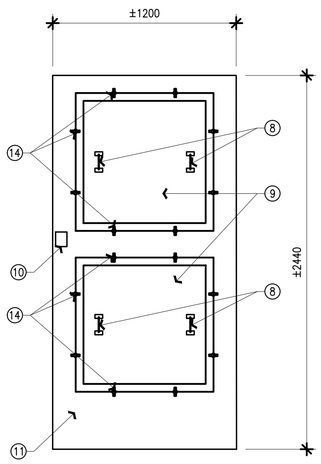
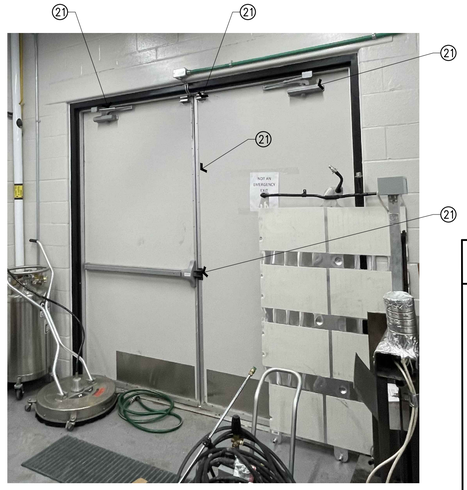




2 A03 NEW D03 SECTION DETAIL
SCALE = 1:1







1 A03 NEW D03 SECTION
SCALE = 1:5

3 A03 NEW INTERIOR DOOR D03 EXTERIOR ELEVATION
SCALE = 1:20

4 A03 NEW INTERIOR DOOR D03 INTERIOR ELEVATION
SCALE = 1:20

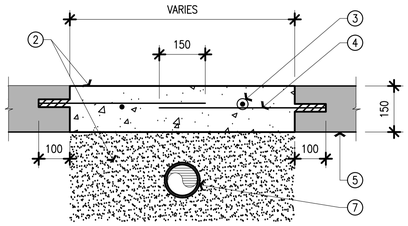
7 A03 EXISTING D03 PHOTO
SCALE = NTS

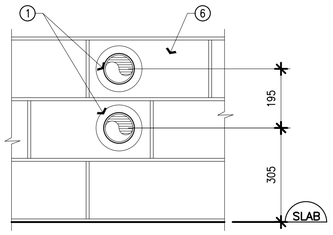
CONSTRUCTION NOTES

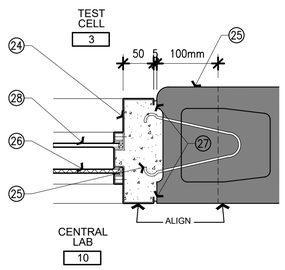
1. CORE DRILL EXISTING WALL AND INSTALL NEW 'HILTI SPEED SLEEVE CP653', DIAMETER 100mm. INSTALL ACCORDING TO MANUFACTURES INSTRUCTIONS. EXACT LOCATIONS ARE TO BE DETERMINED ON SITE. SEE 6/A03 FOR TYPICAL SLEEVE ELEVATION
2. INFILL OPENING IN SLAB W/ NEW CONCRETE C/W STEEL REINFORCEMENT & COMPACTED BACKFILL AS SHOWN IN 5/A-03 AND DESCRIBED IN "CONCRETE & REINFORCING GENERAL NOTES".
3. EMBED 15M @ 300mm O.C. EACH WAY W/ 100mm EMBEDMENT INTO EXISTING SLAB AS REQUIRED.
4. EMBED 15M @ 450mm O.C. DOWELS W/ EPOXY. INSTALL WITH 100mm EMBEDMENT INTO EXISTING SLAB AS REQUIRED.
5. EXISTING SLAB TO REMAIN.
6. EXISTING CONCRETE BLOCK TO REMAIN.
7. NEW SANITARY PIPE. REFER TO MECHANICAL.
8. INSTALL D PULLS MOUNTED ON INSULATED STAINLESS STEEL INSERT.
9. INSULATED STAINLESS STEEL WRAPPED INSERTS. SEE 1/A03 AND 2/A03.
10. REINSTATED EXISTING DOOR HARDWARE.
11. NEW INSULATED STEEL DOOR W/ REINFORCING FOR DOOR CUT-OUTS AND BOLT THROUGHS.
12. METAL SPACER.
13. STAINLESS STEEL HSS 50.8mm x 50.8mm X3.2mm.
14. STAINLESS STEEL BUTTER FLY TWIST LOCK, MIN. 8 PER PANEL.
15. CONTINUOUS BENT STAINLESS STEEL CHANNEL APPROX. 65mm x 50mm X 65mm.
16. STAINLESS STEEL SHEET ON BOTH SIDES OF 50mm RIGID INSULATION.
17. 75mm x 120mm x 6mm BENT PLATE.
18. VERTICAL REINFORCING STEEL WEB.
19. LOUVRE ASSEMBLY (SECURITY GRILLE & PRESSURE RELIEF DAMPERS SUPPLIED BY MECHANICAL.
20. 50mm RIGID INSULATION.
21. REUSE EXISTING DOOR HARDWARE (C/W WEATHERSTRIPPING) ON NEW INSULATED HOLLOW-METAL DOOR IN EXISTING FRAME.
22. CONTINUOUS SELF ADHERING NEOPRENE WEATHER STRIPPING.
23. CONTINUOUS SEALANT.
24. PRESSED STEEL FRAME. FRAME VOID FILLED W/ CONCRETE.
25. REMOVE 100mm OF GROUT AS REQUIRED TO INSTALL NEW MASONRY TIES & RE-GROUT TO MATCH EXISTING.
26. GEORGIAN WIRE GLASS PANE ON CENTRAL LAB SIDE. SEE SPECIFICATIONS.
27. CONTINUOUS FIREPROOF SEALANT BETWEEN WINDOW FRAME & CONCRETE BLOCK.
28. LAMINATED GLASS PANE ON TEST CELL SIDE. SEE SPECIFICATIONS.

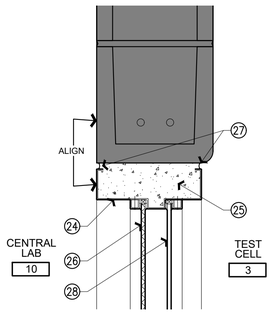
CONCRETE & REINFORCING STEEL GENERAL NOTES

- BACKFILL SHALL BE SAND, OR 0 – ¾" GRADED CRUSHED STONE, COMPACTED TO 95% PROCTOR DRY DENSITY.
- ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF MPa.
- CONCRETE BLOCK SHALL CONFORM TO CSA A165 SERIES 04, WITH A COMPRESSIVE STRENGTH OF 20MPa
- 190mm CONCRETE BLOCK WALLS SHALL BE REINFORCED WITH 15M VERTICAL BARS @ 1200mm O.C. AND HEAVY DUTY TRESS TYPE HORIZONTAL REINFORCING @ 200mm O.C.
- LAP ALL HORIZONTAL REINFORCING 300mm.
- MORTAR SHALL BE TYPE 'S' AND CONFORM TO CSA A179-04.
- GROUT SHALL CONFORM TO CSA A179-04, WITH A COMPRESSIVE STRENGTH OF 20MPa.
- NEW CONCRETE MUST BE VIBRATED TO REMOVE AIR VOIDS IN ENCASEMENT.
- THE CONCRETE SLAB SHALL RECEIVE A STEEL TROWELED FINISH AND SHALL BE WATER CURED FOR A PERIOD OF SEVEN DAYS.
- PROVIDE DOWELS IN SLAB AND CONCRETE WALL TO MATCH VERTICAL MASONRY REINFORCING STEEL.
- REINFORCING STEEL SHALL CONFORM TO CSA G30.18-09, GRADE 400.
- ALL MASONRY WORK SHALL CONFORM TO CAN/CSA A371-04.









5 A03 FLOOR SLAB REPAIR DETAIL
SCALE = 1:10

6 A03 TYPICAL SLEEVE ELEVATION
SCALE = 1:10

8 A03 NEW WINDOW JAMB DETAIL
SCALE = 1:5

9 A03 NEW WINDOW HEAD/ SILL DETAIL
SCALE = 1:5

RPPM A1 (841x594)

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

National Research Council Canada | Conseil national de recherches Canada
Real Property Planning and Management Branch | Planification et gestion des biens immobiliers

NRC · CNRC

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KEY PLAN | PLAN CLÉ

No.	Date	Revision	By: Par:
2	22 04 2022	ISSUED FOR TENDER	MD
1	09 12 2021	99% REVIEW	MD

Date Printed DD MM YYYY | Date imprimée

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et toutes les conditions du chantier et assumer les responsabilités s'y rattachant.

A Detail no. N° du détail
B Location drawing no. sur dessin n°
C Drawing no. dessin n°

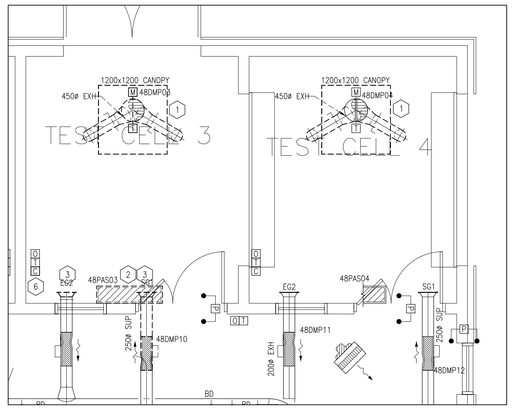
project / projet
BUILDING M-48
TEST CELL 3 AND 4 MODIFICATIONS

MONTREAL ROAD CAMPUS

drawing / dessin
REPLACEMENT DOOR , BLOW OUT PANEL AND SECURITY GRILLE DETAILS

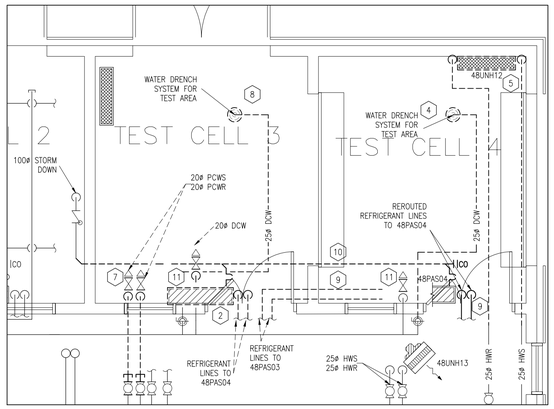
designed / conçu	date / date
SWH	APR 2022
drawn / dessiné	scale / échelle
SWH / MD	AS NOTED
checked / vérifié	sheet / feuille
B.L.	4 of/de 4
approved / approuvé	W.O.no. / D.T.n°
M. O'C	

dwg.no. / dessin n°
5975-A03



1 MO1 HVAC – DEMOLITION

SCALE = 1:50



2 MO1 UTILITIES – DEMOLITION

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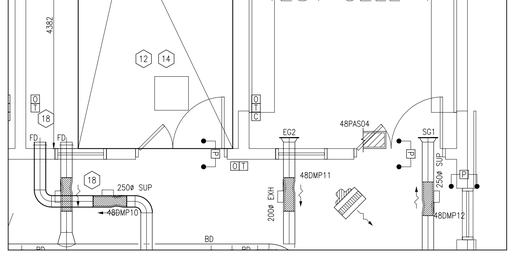

3 MO1 HVAC – NEW INSTALLATION

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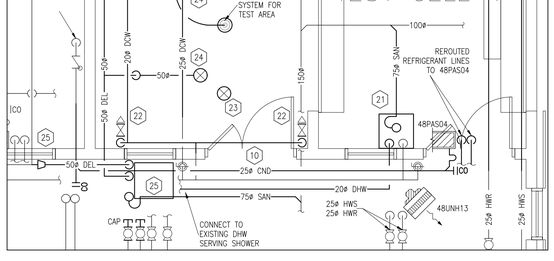
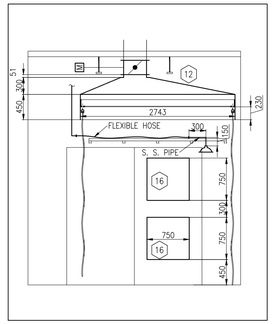


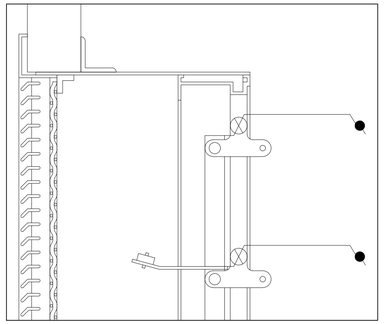
4 MO1 UTILITIES – NEW INSTALLATION

SCALE = 1:50



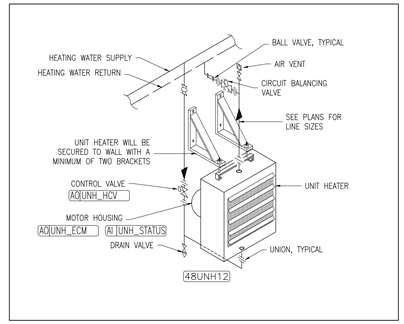
5 MO1 EXHAUST CANOPY

SCALE = 1:50



6 MO1 PRESSURE RELIEF

SCALE = 1:2



7 MO1 HOT WATER UNIT HEATER

NTS.

MECHANICAL DRAWING NOTES: (X)

1. CONTRACTOR TO REMOVE EXISTING CANOPIES, ASSOCIATED DUCTWORK AND BRANCH DUCTWORK C/W AS INDICATED. EXISTING MODULATING DAMPER TO REMAIN. TEMPORARILY SEAL DUCTWORK.
2. CONTRACTOR TO REMOVE EXISTING DX SPLIT SYSTEM 48PAS03 (INCLUDING OUTDOOR CONDENSING UNIT), ASSOCIATED REFRIGERANT LINES AND CONDENSATE DRAIN PIPING AS INDICATED. TURN OVER OUTDOOR AND INDOOR UNITS TO NRC REPRESENTATIVE FOR REUSE AFTER TEMPORARILY SEALING AND PURGING REFRIGERANT PIPING. RECORD AND CONFIRM AMOUNT OF REFRIGERANT REMOVED FROM SYSTEM AND PROVIDE CERTIFICATE TO NRC REPRESENTATIVE.
3. CONTRACTOR TO REMOVE EXISTING EXHAUST GRILLE, SUPPLY GRILL C/W PART OF OUTDOOR AIR (OA) DUCTWORK AS INDICATED. DISPOSE OF MATERIAL OFF SITE. COORDINATE CLOSING OF DAMPER TO FULLY CLOSED WITH NRC REPRESENTATIVE BEFORE COMMENCING WORK.
4. CONTRACTOR TO REMOVE EXISTING WATER DRENCH HEAD AND ASSOCIATED DOMESTIC COLD WATER PIPING AS INDICATED. CAP AND SEAL PIPING AT VALVE. PROVIDE TAG FOR VALVE INDICATE SYSTEM IS NO LONGER IN PLACE AND SHOULD NOT BE USED. TURN OVER THE DRENCH HEAD TO NRC REPRESENTATIVE.
5. CONTRACTOR TO ISOLATE, DRAIN AND REMOVE EXISTING RADIANT HEATING UNIT AS INDICATED. TEMPORARILY CAP AND SEAL PIPING TO ALLOW FOR FUTURE CONNECTION. DISPOSE OF UNIT OFF SITE. COORDINATE REMOVAL OF GRAPHIC FROM THE BAS WITH NRC REPRESENTATIVE.
6. CONTROLS CONTRACTOR TO REMOVE DX UNIT CONTROLLER, ASSOCIATED CONTROL WIRES AND CONDUIT. TURN OVER THE CONTROLLER TO NRC REPRESENTATIVE.
7. CONTRACTOR TO ISOLATE, DRAIN AND REMOVE EXISTING PROCESS CHILLED WATER PIPING AS INDICATED. PROVIDE ISOLATION VALVES PLUS CAP AND SEAL PIPING OUTSIDE THE ROOM FOR FUTURE USE.
8. CONTRACTOR TO TEMPORARILY REMOVE DRENCH HEAD AND PART OF DOMESTIC COLD WATER PIPING IN TEST CELL #3 AS INDICATED. KEEP DRENCH HEAD FOR USE ON NEW WORK PLAN. TEMPORARILY CAP AND SEAL PIPING.
9. CONTRACTOR TO REROUTE REFRIGERANT PIPING FROM 48PAS04 TO ASSOCIATED CONDENSING UNIT OUT OF TEST CELL #3 AND INTO THE CENTRAL CORE AS INDICATED. VERIFY OPERATION AFTER AND CONFIRM REFRIGERANT LEVELS IN SYSTEM.
10. CONTRACTOR TO REROUTE CONDENSATE DRAIN PIPING FROM 48PAS04 INTO THE CENTRAL CORE AS INDICATED.
11. CONTRACTOR TO REMOVE TWO (2) EXISTING HOSE BIBS AND RELATED DOMESTIC WATER PIPE AS SHOWN. KEEP HOSE BIBS FOR RE-USE.
12. CONTRACTOR TO PROVIDE NEW EXHAUST CANOPY C/W 127x76x8 mm (5"x3"x⅜") STEEL ANGLE REINFORCEMENT AS SHOWN. INSULATE THE TOP OF EXHAUST CANOPY USING HIGH-TEMPERATURE INSULATION AS PER SPEC BELOW. CONNECT TO EXISTING EXHAUST DAMPER FLANGE. CANOPY TO BE MADE OF GAUGE 16 304 STAINLESS STEEL SHEET METAL. PROVIDE TWO 600x600 mm ACCESS DOORS IN NEW EXHAUST CANOPY TO ALLOW ACCESS TO SPRINKLER HEADS ABOVE. REFER TO DETAIL 5.
13. CONTRACTOR TO CAP EXISTING MODULATING DAMPER IN TEST CELL #4.
14. CONTRACTOR TO PROVIDE TWENTY-FOUR (24) 600x600 CEILING PANELS TO FIT CEILING GRID. EACH PANEL SHALL BE MADE FROM GAUGE 16 GALVANIZED SHEET METAL WITH TWO (2) STAINLESS STEEL LIFTING HANDLES.
15. NOT USED.
16. CONTRACTOR TO PROVIDE NEW SECURITY GRILLES AND PRESSURE RELIEF DAMPERS IN NEW DOOR AS SHOWN. SIZE 750x750 (30"x30"). SECURITY GRILLE TO BE E. H. PRICE MEDIUM SECURITY BENT LOUVER MODEL MSBL C/W FP16 FRAME, STANDARD CORE STYLE C7, STANNDARD WIRE MESH, 152 mm (6") LONG S14 SLEEVE, 4-SIDED MOUNTING FRAME, AND B12 (WHITE) FINISH. PRESSURE RELIEF DAMPER TO BE NAILOR MODEL 1370CB COUNTER-BALANCED BACKDRAFT DAMPER, WITH STANDARD CF CHANNEL FRAME.
17. CONTRACTOR TO REINSTALL MODULATING DAMPER AS SHOWN. TURN 90° AND EXTEND THE DAMPER SHAFT TO OTHER SIDE OF JOIST. MAKE SURE DAMPER ACTUATOR IS ACCESSIBLE FOR SERVICE. PROVIDE ACTUATOR SUPPORT AND ADD END SWITCH IF REQUIRED. REFER TO DETAIL 5. PROVIDE TWO INDICATOR LIGHTS IN TEST CELL #2 (CONTROL ROOM), CONNECT TO DAMPER MOTOR END SWITCHES. ONE LIGHT SHALL TURN ON WHEN DAMPER IS FULLY OPEN, THE OTHER WHEN DAMPER IS FULLY CLOSED. LABEL EACH INDICATOR LIGHT ACCORDINGLY. EXACT LOCATION OF INDICATOR LIGHTS TO BE COORDINATED ON SITE WITH NRC REPRESENTATIVE.
18. CONTRACTOR TO RE-ROUTE OUTSIDE AIR SUPPLY DUCTWORK AS SHOWN. CORE DRILL CONCRETE BLOCK WALL WHERE REQUIRED. CONTRACTOR TO PROVIDE FIRE DAMPERS ON BOTH SUPPLY AND EXHAUST DUCTWORK INSIDE TEST CELL #3.
19. CONTRACTOR TO REINSTALL DRENCH HEAD WITH SECTION OF 25ø STAINLESS STEEL PIPE AND EXTRA-FLEXIBLE EXTREME-TEMPERATURE BRAIDED STAINLESS STEEL FLEXIBLE HOSE TO ALLOW DRENCH HEAD TO BE MOVED IN AND OUT OF THE NEW EXHAUST CANOPY. PROVIDE NEW DOMESTIC COLD WATER PIPE FOR DRENCH HEAD AS SHOWN. REFER TO DETAIL 5 AND SPECS.
20. CONTRACTOR TO PROVIDE NEW UNIT HEATER C/W RELATED HOT WATER PIPING, CONNECT TO EXISTING. REFER TO SCHEDULE AND DETAIL 7.
21. CONTRACTOR TO PROVIDE NEW MOP SINK AND UTILITY FAUCET, RELATED DOMESTIC WATER AND DRAIN PIPE. DOMESTIC COLD WATER PIPING TO BE CONNECTED TO EXISTING PIPING FOR REMOVED HOSE BIB. DOMESTIC HOT WATER PIPING TO BE CONNECTED TO EXISTING PIPING IN CENTRAL CORE SERVING EMERGENCY SHOWER. CONNECT DRAIN PIPE TO EXISTING UNDERGROUND PIPE. CONTRACTOR TO LOCATE EXISTING PIPE. MOP SINK TO BE ACORN PENAL-WARE MODEL 1630 C/W ONE 305x610 mm STAINLESS STEEL WALL GUARD AND 914 mm LONG HOSE WITH HOSE WALL HANGER. UTILITY FAUCET TO BE CHICAGO FAUCETS No. 686-RCF WITH SINK CLAMPS REMOVED. FAUCET TO BE SUPPORTED ON CONCRETE BLOCK WALL.
22. CONTRACTOR TO PROVIDE THREE (3) HOSE BIBS, 750 mm ABOVE FINISHED FLOOR AT THE LOCATION INDICATED, AND PROVIDE RELATED DOMESTIC COLD WATER PIPING AS SHOWN.
23. CONTRACTOR TO REPLACE TWO (2) EXISTING SPRINKLER HEADS ABOVE CANOPY WITH NEW ULTRAHIGH-TEMPERATURE (343 °C) UPRIGHT SPRINKLER HEADS
24. CONTRACTOR TO PROVIDE TWO (2) NEW DELUGE SYSTEM SPRAY NOZZLES UNDER THE NEW EXHAUST CANOPY C/W RELATED PIPING AS SHOWN. SPRAY NOZZLE TO BE VIKING MODEL E, WITH 125° SPRAY ANGEL, NOMINAL K-FACTOR OF 5.6 (U.S.), PART# 12896AZ, WITH BLOW-OFT PLUG (MAXIMUM TEMPERATURE 177 °C).
25. CONTRACTOR TO PROVIDE NEW SELF-CONTAINED, ELECTRIC RELEASE DELUGE SYSTEM. CONNECT WATER SUPPLY TO EXISTING 100ø SPRINKLER PIPING AS SHOWN. CONNECT DRAIN PIPE TO EXISTING UNDERGROUND PIPE AS SHOWN VIA INDIRECT CONNECTION. CONTRACTOR TO LOCATE EXISTING PIPE. DELUGE SYSTEM SHALL BE FIREFLEX TOTALPAC, WITH 2" (50 mm) DELUGE VALVE, C/W 120 VAC RELEASING CONTROL PANEL (VIKING MODEL VFR-400), AND COMPATIBLE HEAT DETECTORS (INSTALLED BY DIV. 26 UNDER THE CANOPY) AND MANUAL PULL STATION MOUNTED BESIDE DELUGE SYSTEM CABINET.

GENERAL CONTROL NOTES:

1. ALL BAS WORK SHOULD BE CARRIED OUT BY AINSWORTH CANADA, CONTACT: AARON DOBSON, (613)247-7938, AARON.DOBSON@AINSWORTH.COM
2. GENERAL CONTRACTOR TO CARRY COST FOR SETUP AND COMMISSIONING BY AINSWORTH, BALANCING CONTRACTOR, AND ALL OTHER RELATED TRADES.

DDC SEQUENCE OF OPERATION:

1. UNIT HEATER: 48UNH12
   - 1.1. WHEN BAS CALLS FOR HEATING, BAS SHALL START UNIT HEATER FAN AND OPERATE AT THE LOWER OF MINIMUM SPEED ALLOWED AND 10%.
   - 1.2. BAS SHALL MODULATE HEATING WATER CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE SET POINT.
   - 1.3. WHEN SPACE TEMPERATURE SET POINT CANNOT BE MAINTAINED WHILE HEATING WATER CONTROL VALVE IS FULLY OPEN, BAS SHALL MODULATE UNIT HEATER FAN SPEED TO MAINTAIN SPACE TEMPERATURE SET POINT.
   - 1.4. BAS SYSTEM SHOULD MONITOR FAN STATUS USING CURRENT SENSOR. SEND AN ALARM WHEN FAN MALFUNCTIONS.
   - 1.5. BAS SYSTEM SHOULD SEND AN ALARM WHEN SPACE TEMPERATURE REMAINS 2 °C BELOW SET POINT FOR MORE THAN 15 MINUTES.

LEGEND

	INDICATES NEW
	INDICATES EXISTING (TO REMAIN)
	INDICATES DEMOLISHED / REMOVED
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
CND	CONDENSATE DRAIN PIPING
SAN	SANITARY DRAIN PIPING
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
DEL	DELUGE SYSTEM PIPING
	BALL VALVE
	2-WAY CONTROL VALVE – DDC
	CIRCUIT BALANCING VALVE
	HOSE BIB
	CLEANOUT
	UNION
	CAP
	PIPE UP
	PIPE DOWN
	SANITARY TRAP
	AIR VENT
	SPRINKLER – UP-RIGHT
	RECTANGULAR DUCTWORK
	ROUND DUCTWORK
BDD	BACK DRAFT DAMPER
FD	FIRE DAMPER
T	THERMOSTAT (DDC)
C	AC UNIT CONTROLLER
M	MOTORIZED DAMPER MOTOR
O	OXYGEN SENSOR (DDC)

MECHANICAL SPECIFICATIONS:

1. DUCTWORK: STAINLESS STEEL TYPE 316 WITH METAL GAUGES IN ACCORDANCE WITH SMACNA STANDARDS TO SUIT DUCT CONFIGURATION AND CLASSIFICATION. WHERE DUCTWORK PASS THROUGH FIRE RATED WALLS AND FLOORS, PACK SPACE BETWEEN WITH COMPRESSED GLASS FIBRES AND SEAL WITH FIRE STOP CAULKING IN ACCORDANCE WITH CAN/CGSB-19.13-M89 AND NBC 3.1.7.
2. DUCT INSULATION: TO CAN/ULC- S102, MAX SMOKE SPREAD RATING OF 25, MAX SMOKE DEVELOPED RATING OF 50, MINERAL FIBRE, THERMAL CONDUCTIVITY SHALL NOT EXCEED VALUES AT 24°C MEAN TEMPERATURE WHEN TESTED IN ACCORDANCE TO ASTM C335, JACKET CGSB 51-GP-52MA, 50MM THICK, TIAC CODE C-2. JACKET SHALL BE 220 GM/M2 COTTON PLAIN WEAVE, TREATED WITH DILUTE FIRE RETARDANT LAGGING ADHESIVE TO ASTM C921, LAGGING ADHESIVE SHALL HAVE A MAX VOC LIMIT OF 50.
3. HIGH-TEMPERATURE INSULATION: ROCKWOOL CURTAINROCK 40 SEMI-RIGID, MINERAL WOOL INSULATION BOARD RATED FOR 649 °C. INSULATION THICKNESS 50 mm.
4. DOMESTIC HOT AND COLD WATER PIPING: TYPE "L" HARD DRAWN SEAMLESS COPPER TUBING TO ASTM B88M, WITH WROUGHT COPPER AND BRONZE FITTINGS TO ANSI B16.22 AND 95% TIN, 5% ANTIMONY SOLDER JOINTS TO ASTM B32.
5. DELUGE SYSTEM PIPING: FERROUS PIPING WITH THREADED FITTINGS AND JOINTS TO NFPA 13.
6. FLEXIBLE HOSE: MADE OF 316 STAINLESS STEEL, I.D. 25 mm (1"), LENGTH 3 m (120"), BEND RADIUS 180 mm OR LESS, WITH NPT THREADED FITTINGS. HOSE SHOULD HAVE A TEMPERATURE RANGE OF -100~645 °C AND PRESSURE RATING OF 300 PSI @ 22 °C.
7. SANITARY DRAIN AND CONDENSATE DRAIN PIPING: DWV GRADE HARD TEMPER COPPER TO ASTM B306 WITH WROUGHT COPPER SOLDER TYPE DRAINAGE FITTINGS TO CSA B15.81 AND ANSI B16.29 AND SOLDER JOINTS TO ASTM B32.
8. FIRE DAMPER: STATIC THINKLINE CURTAIN TYPE FIRE DAMPER WITH 3 HOUR LABEL, NAILOR MODEL 0590V, TYPE "CR" ROUND.

UNIT HEATER

MANUFACTURER		JAGA
EQUIPMENT I. D.		48UNH12
MODEL		DYNAMICS UNIT .31/EC
AIR FLOW	L/s / CFM	358/759
CAPACITY	kW / MBH	11.2/38.2
HOT WATER		
FLOW	L/m / GPM	14.5/3.82
EWT	C° / F°	82.2/180
LWT	C° / F°	71.1/160
ELECTRICAL		
POWER SUPPLY	V/PH/Hz	208/1/60
POWER	W	85
REMARK		UNIT C/W ECM MOTOR, 0-10 VDC CONTROL INPUT, SEISMIC KIT.

CIRCUIT BALANCING VALVE

MANUFACTURER		IMI HYDRONIC ENGINEERING (TA)
MODEL		STAD – 25
FLOW	L/m / GPM	14.5/3.82
REMARK		–

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Administrative Services and Property Management Branch / Division des services administratifs et gestion de l'immobilier

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No.	Date	Revision	By/ Par:
3	06-04-2022	ISSUED FOR TENDER	ZM
2	07-03-2022	ISSUED FOR TRANSLATION	ZM
1	27-01-2022	ISSUED FOR REVIEW	ZM
0	25-10-2021	ISSUED FOR REVIEW	ZM

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Date Printed / Date imprimée

A Detail no. N° du détail
B Location drawing no. sur dessin n°
C Drawing no. dessin n°

project / projet

BUILDING M-48
TEST CELL 3 AND 4 MODIFICTIONS

MONTREAL ROAD CAMPUS

drawing / dessin

MECHANICAL
DEMOLITION AND NEW CONSTRUCTION
PLANS, SCHEDULE AND DIAGRAM

designed / conçu	date / date
ZM / JWG	AUG. 2021
drawn / dessiné	scale / échelle
ZM / JWG	AS INDICATED
checked / vérifié	sheet / feuille
ZM	of 1 de
approved / approuvé	W.O.no. / D.T.no.
ALS	A1-017891-01-02

dwg.no. / dessin no.

5975-M01

ASPM A1 (841x594)

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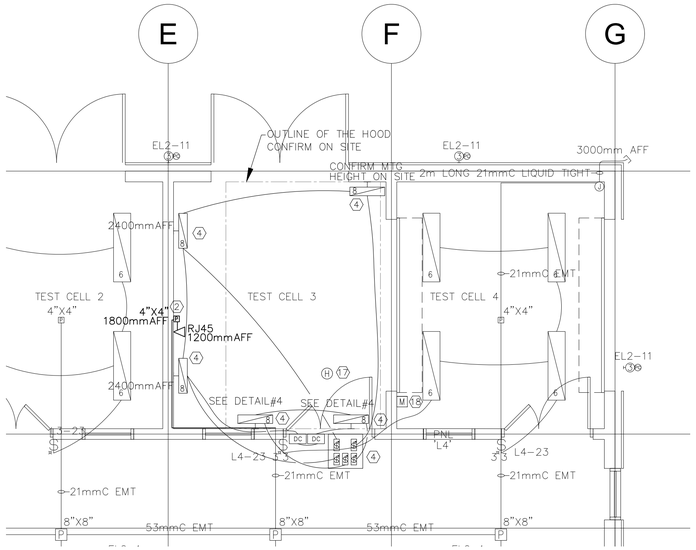
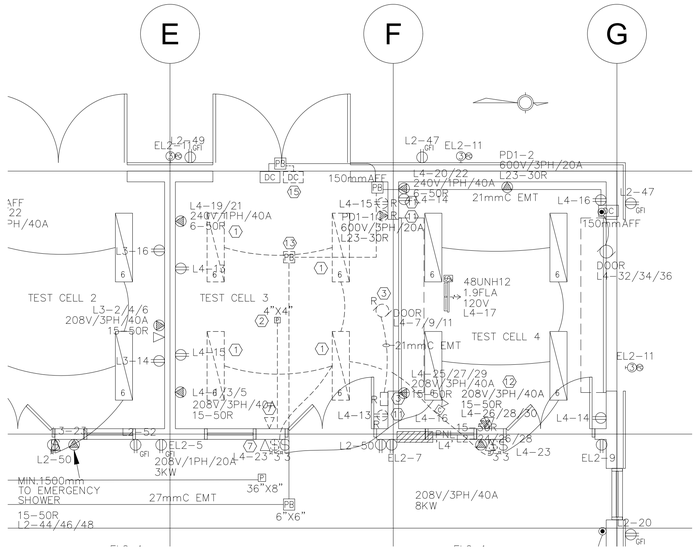


1 E01 PARTIAL LIGHTING AND AV LAYOUT

SCALE = 1:50



3 E01 PARTIAL DEMOLITION PLAN

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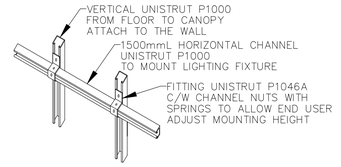
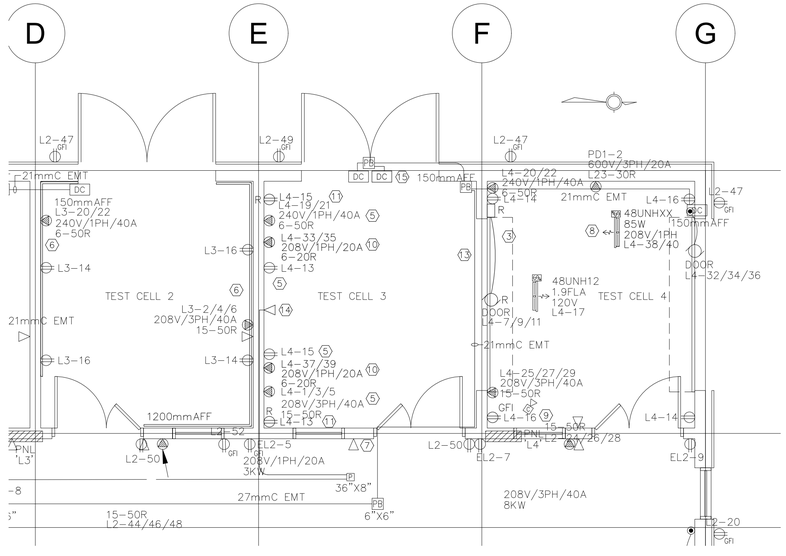


4 E01 LIGHTING SUPPORT DETAIL ④

N.T.S

ELECTRICAL DRAWING SYMBOLS LEGEND

	TYPICAL EXISTING
	TYPICAL NEW
	TYPICAL DEMOLITION / REMOVALS
	CEILING MOUNTED LUMINAIRE
	WALL MOUNTED LUMINAIRE
$	3-WAY SWITCH
	DUPLEX RECEPTACLE
	SPECIAL RECEPTACLE, TYPE AS SHOWN
P	PULL BOX
	MOTOR
	DATA/VOICE OUTLET
	ELECTRICAL PANEL
S	MANUAL SWITCH
GFI	GROUND FAULT INTERRUPT
R	RELOCATE TO NEW LOCATION



2 E01 PARTIAL POWER LAYOUT

SCALE = 1:50

PANEL L4

VOLTAGE	120/208V
PHASE	3
WIRE	4
RATING AMPS	225A
LOCATION	TEST CELL 3&4
MODEL NO.	SQUARE D NQOD
FED FROM	LD1

	1	2	
	3	4	
REC.	5	6	REC.
	7	8	
	9	10	
MOTORIZED DOOR	11	12	REC.
REC.	13	14	REC.
REC.	15	16	REC.
48UNH12	17	18	MOTORIZED DOOR
	19	20	
REC.	21	22	REC.
LTG	23	24	LTG.
	25	26	
CEILING REC. ENVIRO.CHAMBER	27	28	SPARE ~~CEILING REC. ENVIRO.CHAMBER~~
48UNH13	29	30	
	31	32	
	33	34	
REC.-TC#3	35	36	MOTORIZED DOOR
	37	38	TC#4
REC.-TC#3	39	40	UNIT HEATER ⑧
SPACE	41	42	SPACE

✳ NEW LOAD ON EXISTING BREAKER

△ PROVIDE NEW BREAKER AND CONNECT TO NEW LOAD

5 E01 PANEL SCHEDULE

N.T.S

DRAWING NOTES: ⓧ

1. DISCONNECT AND REMOVE EXISTING LUMINAIRES C/W SWITCHES BACK TO SOURCE AND MAKE SAFE. REMOVE CEILING JUNCTION BOX ABOVE THE NEW CANOPY.
2. DISCONNECT AND RELOCATE EXISTING AV PULL BOX TO NEW LOCATION AS SHOWN. MOUNT PULL BOX ON THE WALL @1800mm AFF. PROVIDE NEW RJ45 OUTLET AND CONNECT TO THE SAME PULL BOX. MOUNT THE RJ45 PORT AT 1200mm AFF. PULL CABLE FROM THE OUTLET ALL THE WAY BACK TO BASEMENT A/V RACK.
3. DISCONNECT AND REMOVE GARAGE DOOR OPERATOR C/W CONTROLLER. REUSE CIRCUIT NUMBER AND MAKE ALL FINAL CONNECTIONS TO NEW DOOR OPERATOR AND CONTROLLER. EXTEND/MODIFY WIRING AND CONDUITS TO SUIT.
4. PROVIDE NEW IP66/67, -40°C-65°C, LED LUMINAIRE WITH ADJUSTABLE MOUNTING BRACKET AND EXTERNAL DC POWER SUPPLY. MOUNT THE DC POWER SUPPLY OUTSIDE OF TC3 AND MAKE ALL FINAL CONNECTIONS. CONFIRM EXACT LOCATION ON SITE. STANDARD OF ACCEPTANCE: NEMALUX GS-4-50-W-BLK-O-24-66-A + PS2496XL. MOUNT THREE LUMINAIRES ONTO THE WALL DIRECTLY WITH ADJUSTABLE BRACKETS SO THE END USER CAN ADJUST AIMING ANGLE ON THEIR OWN. PROVIDE TWO MOUNTING RACK FOR LUMINAIRES ON THE EAST WALL TO ALLOW END USER ADJUST MOUNTING HEIGHT AND AIMING ANGLE ON THEIR OWN. REFER TO DETAIL #4 FOR ADDITIONAL INFORMATION. LEAVE ENOUGH SLACK OF CABLE TO ALLOW LUMINAIRE TRAVEL. PROVIDE FIVE NEW SWITCHES OUTSIDE TESTCELL TO CONTROL LIGHTS INDIVIDUALLY. LIGHT SWITCH TO HAVE INDICATOR LIGHT. SWITCH LAYOUT TO MATCH THE LAYOUT OF LIGHTS.
5. CHANGE EXISTING RECEPTACLES INTO WEATHER PROOF TYPE WITH IN-USE COVER. STANDARD OF ACCEPTANCE: HUBBELL WM510C.
6. PROVIDE 2" WIDE GROUND BUS BAR, C/W MOUNTING BRACKET, INSULATORS, PRE-DRILLED HOLES AND CONNECTORS. MOUNT BUS BAR AROUND TC3 AT 150mmAFF AND RUN #6 GROUNDING WIRE BACK TO BASEMENT ELECTRICAL ROOM BUILDING GROUNDING. STANDARD OF ACCEPTANCE: BURNDY BCB14212OSK.
7. DISCONNECT AND REMOVE DATA OUTLET BACK TO THE NEAREST SOURCE. REDIRECT CABLE AND JACK TO THE EXISTING DATA OUTLET OUTSIDE OF THE ROOM.
8. NEW FORCE FLOW HEATER TO BE SUPPLIED AND INSTALLED BY DIV.23. DIV.26 TO PROVIDE MANUAL SWITCH AT THE UNIT AND MAKE ALL FINAL CONNECTIONS. PROVIDE NEW 208V, 1ϕ, 15A BREAKER IN PANEL, TYPE TO MATCH EXISTING. MANUAL SWITCH TO HAVE PILOT LIGHT AND LOCK-OFF GUARD, STANDARD OF ACCEPTANCE: SQUARE D 2510 KG1A.
9. REPLACE EXISTING 120V DUPLEX RECEPTACLE WITH GFI RECEPTACLE.
10. PROVIDE NEW RECEPTACLE, TYPE AS SHOWN AND CONNECT TO CIRCUIT AS INDICATED. PROVIDE NEW 208V, 1ϕ, 20A BREAKER IN EXISTING PANEL, TYPE TO MATCH EXISTING.
11. RELOCATE EXISTING RECEPTACLES. EXTEND/MODIFY WIRING AND CONDUITS TO SUIT. CONFIRM EXACT LOCATION ON SITE.
12. DISCONNECT AND REMOVE EXISTING RECEPTACLE C/W ALL WIRING AND CONDUITS BACK TO SOURCE AND MAKE SAFE. TURN BREAKER TO 'OFF' POSITION AND MARK 'SPARE'.
13. RELOCATE CEILING MOUNTED SECURITY PULL BOX TO AVOID CONFLICT WITH NEW HOOD INSTALLATION. EXTEND/MODIFY CONDUIT AND WIRING TO SUIT.
14. PROVIDE NEW DATA DROP ROUGH-IN AND RUN CONDUIT BACK TO COMMUNICATION PULL BOX IN THE CENTER BAY.
15. DOOR IS TO BE REPLACED BY GENERAL CONTRACTOR. DIV.26 TO DISCONNECT AND REINSTATE DOOR CONTACT. COORDINATE WORK ON SITE WITH DOOR REPLACEMENT.
16. REPLACE TWO EXISTING 120V, 15A BREAKERS WITH EPD TYPE BREAKER TO PROVIDE 30mA GROUND FAULT PROTECTION.
17. PROVIDE 285F RATED HEAT DETECTOR AND MOUNT IT BELOW CANOPY, 450mm AWAY FROM THE WALL. PROVIDE PROPER SUPPORT TO COMPLETE THE INSTALLATION. CONNECT HEAT DETECTOR TO DELUGE SYSTEM. COORDINATE WORK ON SITE WITH DELUGE SYSTEM INSTALLATION. STANDARD OF ACCEPTANCE: CHUBB EDWARDS CF285.
18. PROVIDE ADDRESSABLE OUTPUT MODULE AND CONNECT TO FIRE ALARM LOOP. CONNECT OUTPUT SIGNAL TO OVERHEAD DOOR. COORDINATE WORK ON SITE WITH DOOR INSTALLATION. PROVIDE FIRE ALARM VERIFICATION UPON JOB COMPLETION. STANDARD OF ACCEPTANCE: CHUBB EDWARDS SIGA-CT1.

LUMINAIRE SCHEDULE

TYPE	LUMINAIRE TYPE	LAMP TYPE	LAMP WATT	LAMP VOLTAGE	COLOR TEMPERATURE	LUMEN OUTPUT	MODEL NUMBER	SIZE	NOTE
8	IP66 LINEAR LED WITH ADJUSTABLE MOUNTING BRACKET	LED	20W	120V	5000K	1292Lm	NEMALUX GS-2-50-W-BLK-O-24-IP66-A	2'	MUST HAVE IP66/67 RATING TO PROTECT LUMIAIRE AGAINST WATER JETS AND PROVIDE PROTECTION AGAINST EFFECTS OF IMMERSION. MUST HAVE MOUNTING BRACKET TO ALLOW FULL ADJUSTMENT WITH AIMING ANGLES.

C

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

ASPM A1 (841x594)

National Research Council Canada / Conseil national de recherches Canada
Administrative Services and Property Management Branch / Division des services administratifs et gestion de l'immobilier

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GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND CLEARANCES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES AND/OR OMISSIONS TO DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR MUST VISIT THE SITE AND FULLY FAMILIARIZE THEMSELF WITH THE SCOPE OF THE WORK PRIOR TO PROJECT COMMENCEMENT.
- ALL TRADES TO COORDINATE WORK ON SITE, WITH APPROVAL OF DEPARTMENTAL REPRESENTATIVE TO AVOID ANY CONFLICTS AND/OR INTERFERENCE.
- ANY AND ALL REQUIRED SHUTDOWNS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
- INSTALLATION OF ALL SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.
- CONTRACTOR TO BE RESPONSIBLE FOR REINSTATEMENT AND REPAIR OF ANY DAMAGE CAUSED BY WORK.
- CONTRACTOR SHALL PREVENT THE SPREAD OF DUST AND DEBRIS BEYOND AREA OF WORK AND CLEAN ALL SURFACES AT COMPLETION.

KEY PLAN / PLAN CLÉ

No.	Date	Revision	By: Par :
2	22 04 2022	ISSUED FOR TENDER	CYC
0	07 09 2021	DOCUMENT, À FAIRE RÉVISER.	CYC

Date Printed DD MM YYYY / Date d'impression

- Verify all dimensions and site conditions and be responsible for same
- Vérifier toutes les dimensions et toutes les conditions du chantier et assumer les responsabilités s'y rattachant.

A Detail no. N° du détail
B Location drawing no. sur dessin n°
C Drawing no. dessin n°

project / projet
BUILDING M-48 TEST CELL 3 AND 4 MODIFICATIONS

MONTREAL ROAD CAMPUS

drawing / dessin
ELECTRICAL LAYOUT

designed / conçu: CYC	date / date: SEP 2021
drawn / dessiné: CYC	scale / échelle: AS NOTED
checked / vérifié:	sheet / feuille: 1 of/de 1
approved / approuvé: ALS	W.O.no.: A1-017891-01-02 / D.T.no.

dwg.no. / dessin no.: 5975-E01