

NRC BUILDING S77 - RM 4099 STEAM BOILER

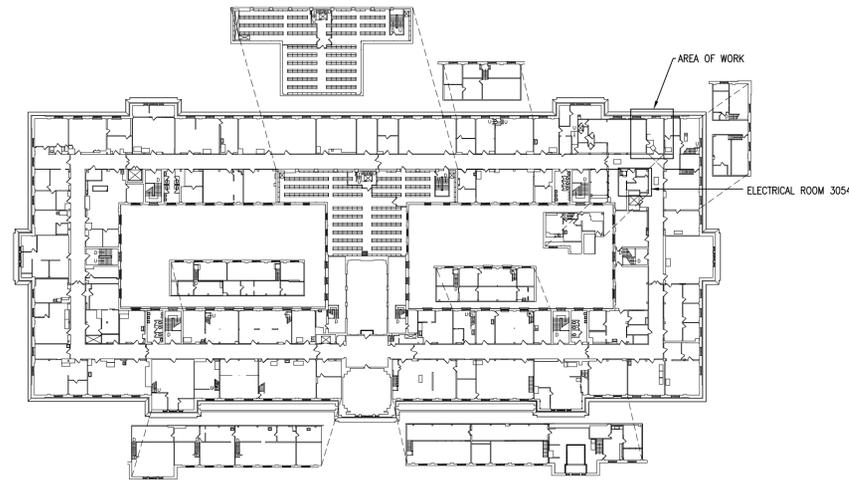
100 SUSSEX DRIVE, OTTAWA, ON.

ELECTRICAL

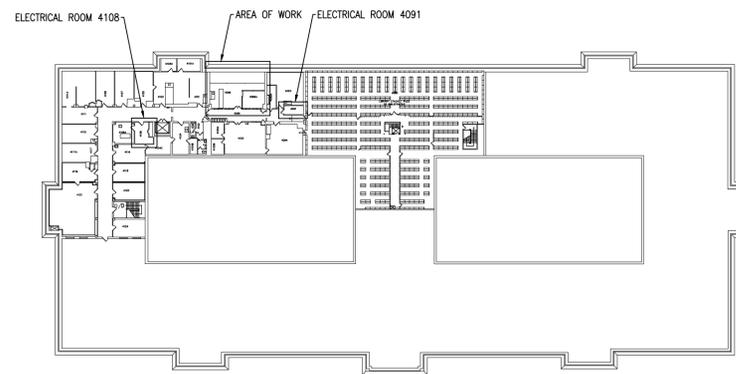


GENERAL NOTES

- 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 THEMSELVES 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.
- ALL ISOLATIONS AND SHUTDOWNS TO BE PERFORMED OUTSIDE OF NORMAL WORKING HOURS.



1
E1
3RD FLOOR - KEY PLAN
N.T.S.



2
E1
4TH FLOOR - KEY PLAN
N.T.S.

GENERAL NOTES

DEMOLITION NOTES:

- UNLESS OTHERWISE NOTED, MATERIALS FOR REMOVAL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE TAKEN FROM SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS AND REGULATIONS.
- DISCONNECT AND MAKE SAFE ALL SYSTEMS TO BE DEMOLISHED INCLUDING PANELS, FEEDERS, BRANCH CIRCUITS AND EQUIPMENT BY OTHER DIVISIONS. COORDINATE WITH OTHER DIVISIONS.
- MAINTAIN EXISTING REMAINING CIRCUITS, SYSTEMS, ETC., WHICH PASS THROUGH AREA OF CONSTRUCTION AND IN CLOSE PROXIMITY. PROVIDE NECESSARY COMPONENTS TO MAINTAIN SYSTEMS. ENSURE COMPONENTS WILL BE CONCEALED WHEN CONSTRUCTION IS COMPLETE.
- REINSTATE IMMEDIATELY ANY REMAINING EXISTING SYSTEMS IN-ADVERTENTLY INTERRUPTED DURING CONSTRUCTION.
- THE DRAWINGS INDICATE KNOWN CONDITIONS AND MAY NOT INDICATE ALL DEMOLITION REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO TENDER SUBMISSION AND VERIFY REQUIREMENTS AND INCLUDE ALL COSTS IN TENDER.
- REMOVE REDUNDANT CONDUIT AND WIRING BACK TO SOURCE UNLESS OTHERWISE NOTED, AND MAKE SAFE.
- DEVICES FROM DEMOLITION ARE NOT TO BE REUSED UNLESS NOTED OTHERWISE. NEW DEVICES SHALL BE SUPPLIED WHERE NECESSARY.
- ALL FIRE ALARM DEVICES TO REMAIN IN OPERATION. PROTECT SMOKE DETECTORS FROM DUST EXPOSURE DURING CONSTRUCTION.
- ENSURE FIRE ALARM SYSTEM IS OPERATIONAL AT THE END OF EACH SHIFT.
- AFTER DEMOLITION WORK IS COMPLETE AND MINIMUM THREE (3) WORKING DAYS PRIOR TO PROCEEDING WITH NEW WORK, NOTIFY ENGINEER FOR INSPECTION.

GENERAL NOTES:

- ELECTRICAL WORK TO BE DONE IN ACCORDANCE WITH THE ELECTRICAL SAFETY CODE OF ONTARIO, AND WITH NEW ARCHITECTURAL/INTERIOR DESIGNER'S LAYOUT (LOCATION/MOUNTING HEIGHTS). CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS, PAY ALL APPLICABLE FEES AND INSPECTION COSTS.
- COORDINATE WORK WITH ALL OTHER TRADES TO AVOID INTERFERENCE.
- ENSURE ELECTRICAL COMPONENTS (E. WIRING, CONDUIT, ETC.) RELATING TO THE AREA OF WORK ARE INDEPENDENTLY SECURED TO COMPLY WITH CODE REQUIREMENTS. IT IS NOT ACCEPTABLE TO SECURE THE COMPONENTS TO DUCTWORK, DUCT WORK TO CONDUIT, OR ANY OTHER SYSTEMS.
- ENSURE ALL EXISTING CEILING MOUNTED BOXES ARE CLOSED PRIOR TO COMPLETION OF PROJECT. PROVIDE LABELLED AND COLOUR CODED COVER PLATES (E. PANEL NAME AND CIRCUIT NUMBER) AS REQUIRED.
- MINIMUM THREE (3) WORKING DAYS PRIOR TO CLOSING CEILING, NOTIFY THE ENGINEER FOR CEILING INSPECTION.

POWER NOTES:

- ENSURE EXISTING REMAINING OUTLETS IN AFFECTED AREA ARE FUNCTIONAL.

COLOR CODING:

APPLICABLE TO NEW OR RELOCATED WORK UNLESS OTHERWISE NOTED.

- TO CONFORM TO CLIENT'S BUILDING CODING SYSTEM.
- COLOUR CODE CONDUITS AND BOXES.
- CODE WITH PLASTIC TAPE OR PAINT WHERE CONDUITS ENTER WALLS, CEILING, OR FLOOR AND AT 15 METERS INTERVALS.
- COLOURS: 25mm WIDE PRIME COLOUR AND 20mm WIDE AUXILIARY COLOUR.

SERVICE	PRIME COLOUR	AUXILIARY COLOUR
UP TO 250V	BLUE	YELLOW
UP TO 600V		

DRAWING LIST

DWG NO.	DESCRIPTION
6092-E01	ELECTRICAL LEGENDS, DRAWING LIST AND KEY PLANS
6092-E02	ROOM 3053 ELECTRICAL WORK
6092-E03	ROOM 4099 ELECTRICAL WORK

LINETYPE LEGEND

SYMBOL	DESCRIPTION
---	EXISTING
---	NEW WORK
---	DEMOLITION WORK

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
⊕	15A, 120V WALL MOUNTED DUPLEX RECEPTACLE
⊕	20A, 120V, T-SLOT RECEPTACLE
⊕	DISCONNECT SWITCH, BY DIVISION 26 UNLESS OTHERWISE INDICATED
⊕	SINGLE PHASE ELECTRIC MOTOR
⊕	THREE PHASE ELECTRIC MOTOR
⊕	SURFACE MOUNT ELECTRICAL PANEL
⊕	FLEXIBLE CONDUIT
⊕	ELECTRIC DUCT HEATER
⊕	DRY TYPE TRANSFORMER, SIZE AS SHOWN
⊕	JUNCTION BOX
⊕	HARDWIRE CONNECTION



No.	Date	Revision
05	2023-01-13	ISSUED FOR TENDER
04	2022-12-21	ISSUED FOR 100% REVIEW
03	2022-12-08	ISSUED FOR 99% REVIEW - MECHANICAL
02	2022-09-30	ISSUED FOR 66% REVIEW
01	2022-09-02	ISSUED FOR 33% REVIEW



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- Verify all dimensions and site conditions and be responsible for same
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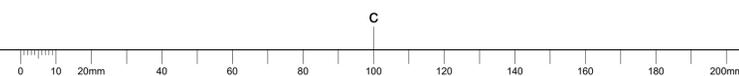
A	A Detail no.	A
B	B Location drawing no. sur dessin no.	B C
C	C Drawing no. dessin no.	

project
BUILDING S77
RM 4099 STEAM BOILER

100 SUSSEX DRIVE, OTTAWA, ON.
drawing
ELECTRICAL LEGENDS, DRAWING LIST AND KEY PLANS

designed	conçu	date	date
A.G.			
drawn	dessiné	scale	échelle
A.G.		AS NOTED/COMME INDIQUÉ	
checked	vérifié	sheet	feuille
R.B.		of/de	—
approved	approuvé	W.O.no.	D.T.no.
—			

dwg.no. **6092-E01** dessin no.



GENERAL NOTES

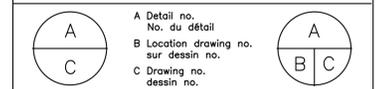
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project **BUILDING S77**
RM 4099 STEAM BOILER
 100 SUSSEX DRIVE, OTTAWA, ON.
 drawing **ROOM 3053**
ELECTRICAL WORK

designed	A.G.	conçu		date	
drawn	A.G.	dessiné		scale	AS NOTED/COMME INDIQUÉ
checked	R.B.	vérifié		sheet	of/de — feuille
approved	—	approuvé		W.O.no.	D.T.no.

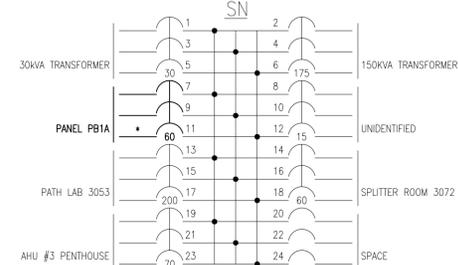
dwg.no. **6092-E02** dessin no.

DRAWING NOTES

- PROVIDE CONNECTION TO NEW 600V, 3-PHASE, 36kW ELECTRIC DUCT HEATER DH-2 C/W INTEGRAL DISCONNECT SWITCH SUPPLIED AND INSTALLED BY MECHANICAL TRADES. CONNECT TO INDICATED CIRCUIT. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL TRADES.
- PROVIDE CONNECTION TO NEW 600V, 3-PHASE, 9kW ELECTRIC DUCT HEATER DH-1 C/W INTEGRAL DISCONNECT SWITCH SUPPLIED AND INSTALLED BY MECHANICAL TRADES. CONNECT TO INDICATED CIRCUIT. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL TRADES.
- PROVIDE CONNECTION TO NEW 600V, 3-PHASE, 6kW ELECTRIC DUCT HEATER DH-3 C/W INTEGRAL DISCONNECT SWITCH SUPPLIED AND INSTALLED BY MECHANICAL TRADES. CONNECT TO INDICATED CIRCUIT. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL TRADES.
- PROVIDE NEW 600V, 3-PHASE, 60A, 24 CIRCUIT SURFACE MOUNT ELECTRICAL PANEL ON 4TH FLOOR ABOVE STAIRWELL AS SHOWN. REPLACE EXISTING 40A, 3-POLE BREAKER IN PANEL 'PB1' LOCATED IN ROOM 3054 WITH NEW 60A, 3-POLE BREAKER. PROVIDE NEW 3#6+GND-35mmC FEEDER AS SHOWN. PROVIDE CORING AND FIRESTOP ALL PENETRATIONS.

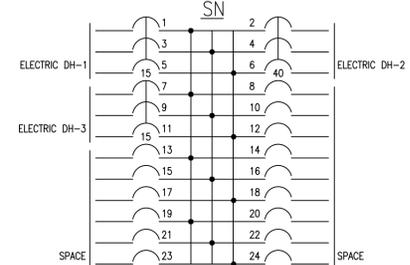
EXISTING PANEL PB1

VOLTAGE	600V
PHASE	3ø
WIRE	3W
RATING AMPS	225A
TRIM	SURFACE
INTERRUPTING CAPACITY	14kA

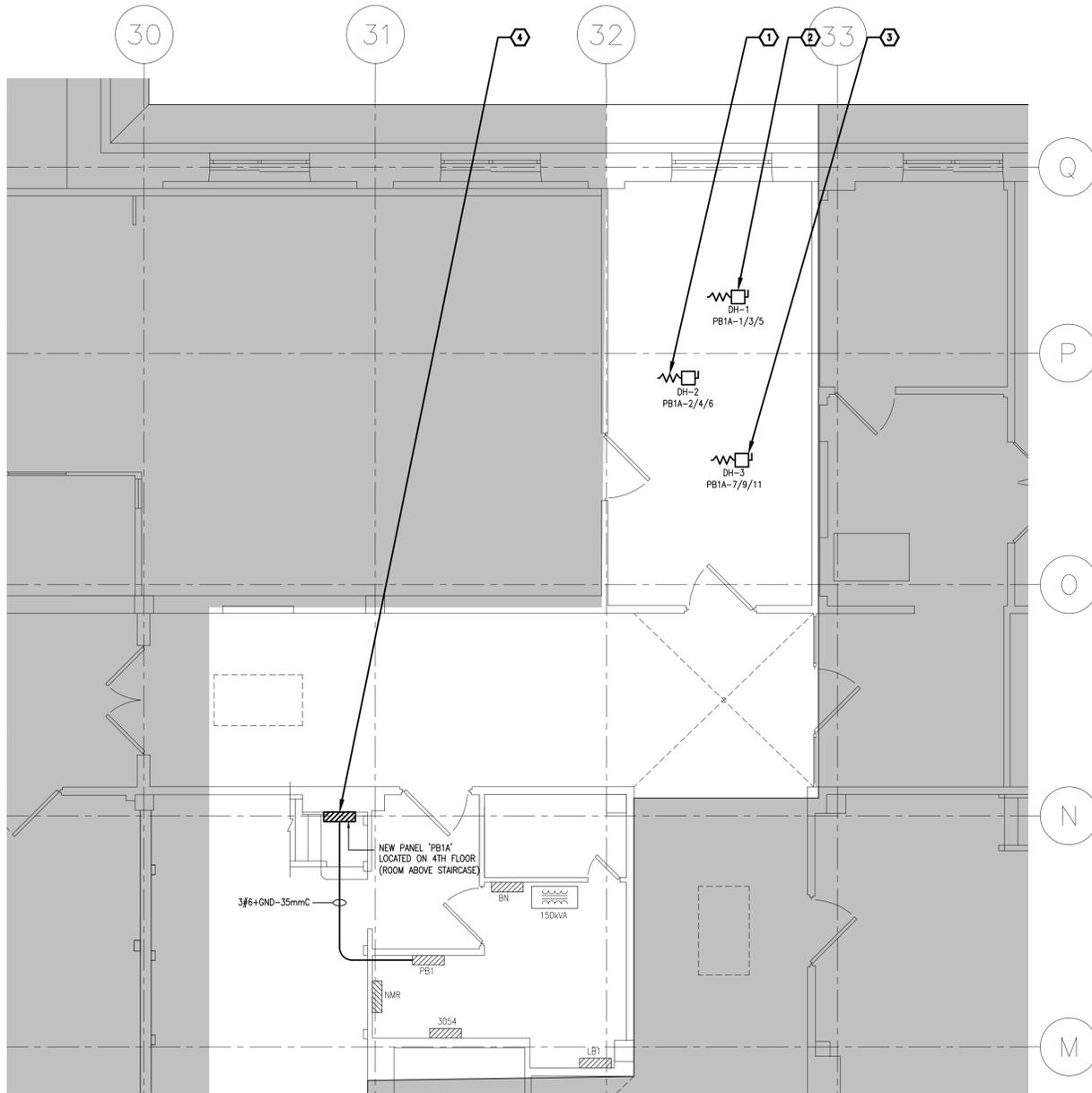


NEW PANEL PB1A

VOLTAGE	600V
PHASE	3ø
WIRE	3W
RATING AMPS	60A
TRIM	SURFACE

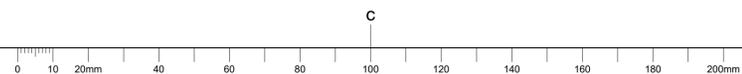


MANUFACTURER: SQUARE D, I-LINE SERIES
 * PROVIDE NEW BREAKER TO MATCH EXISTING.



ROOM 3053
ELECTRICAL NEW WORK

1
 E02 1:50



GENERAL NOTES

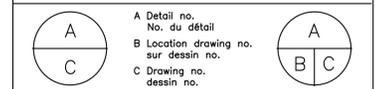
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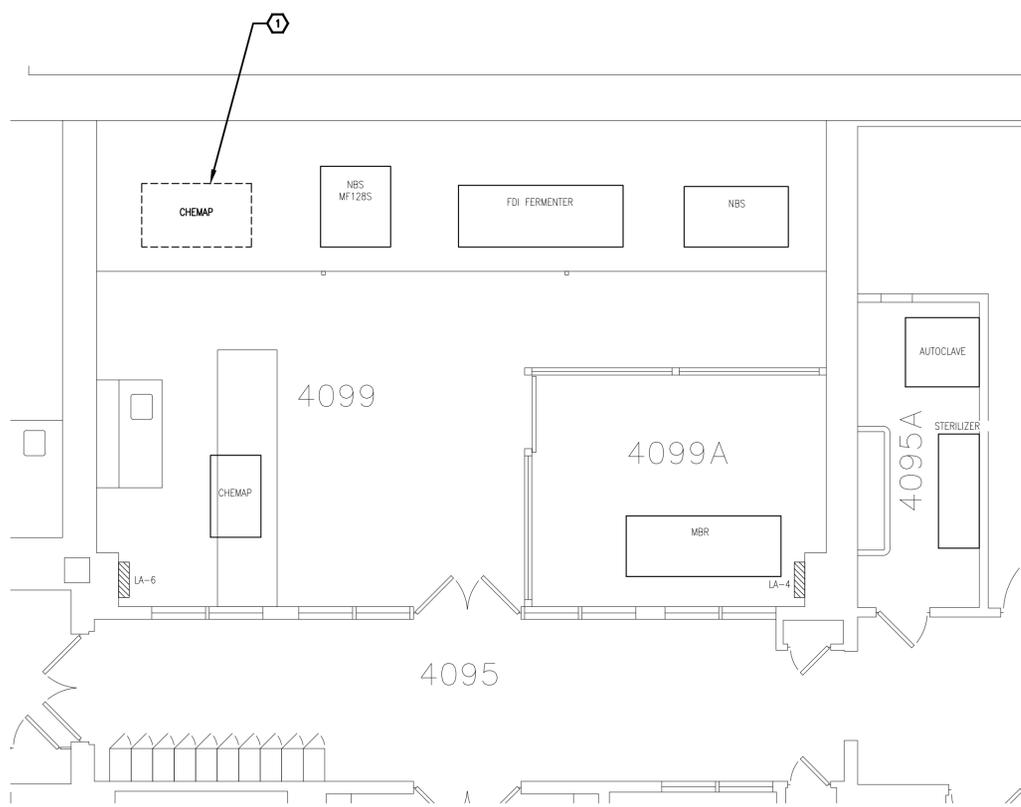
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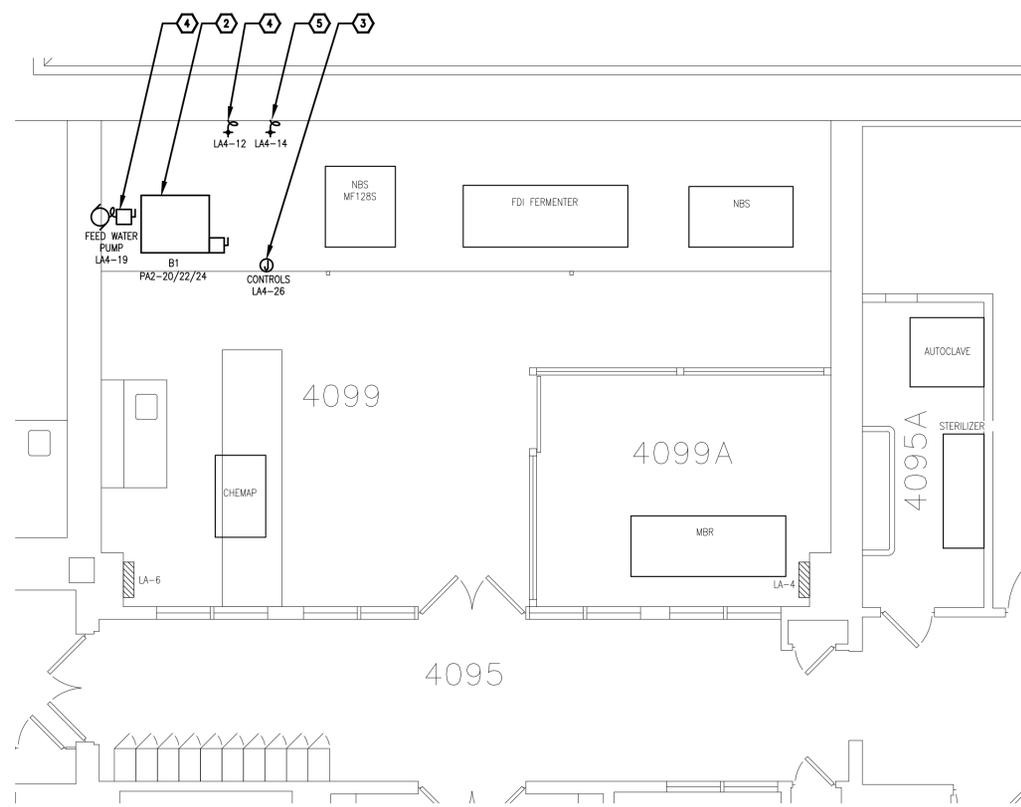
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 100 SUSSEX DRIVE, OTTAWA, ON.
 drawing **ROOM 4099 ELECTRICAL WORK** dessin

designed	conçu	date	date
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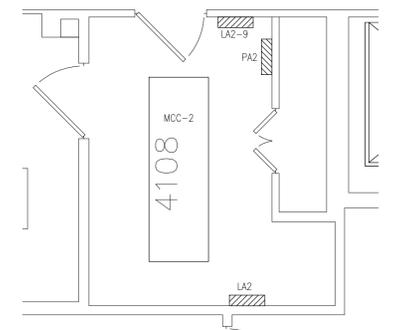
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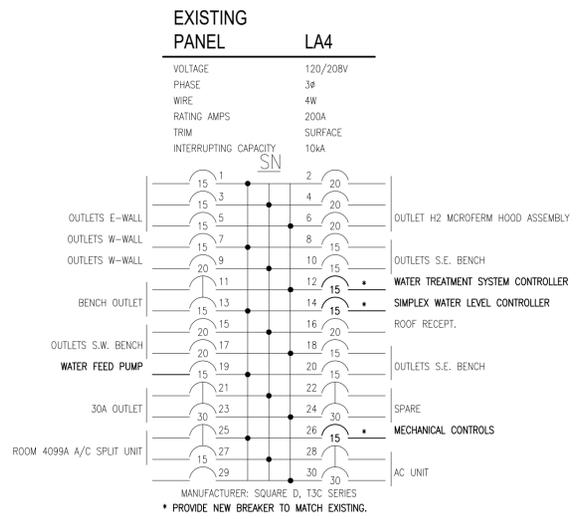
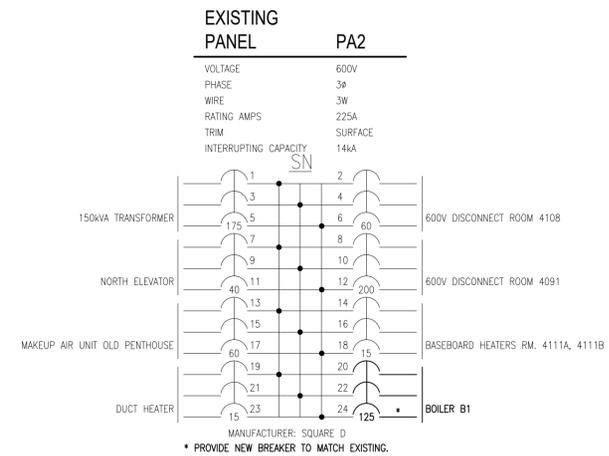
ROOM 4099 ELECTRICAL DEMOLITION WORK
 1 E03 1:50



ROOM 4099 ELECTRICAL NEW WORK
 2 E03 1:50



ELECTRICAL ROOM 4108 DETAIL
 3 E03 1:50



- DRAWING NOTES**
- EXISTING 600V, 3-PHASE, 30A CHEMAP 75L FERMENTER TO BE REMOVED BY MECHANICAL TRADES. DISCONNECT AND REMOVE EXISTING WIRING AND CONDUIT BACK TO 600V, 60A SPLITTER IN ELECTRICAL ROOM 4091 AND MAKE SAFE. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL TRADES.
 - PROVIDE DISCONNECT SWITCH AND CONNECTION TO NEW 600V, 3-PHASE, 105kW ELECTRIC BOILER B-1 SUPPLIED AND INSTALLED BY MECHANICAL TRADES. PROVIDE ONE (1) 125A, 3-POLE BREAKER IN PANEL PA2 LOCATED IN ELECTRICAL ROOM 4108 C/W 3φ+GND-55mm² FEEDER. PROVIDE ALL REQUIRED CORING AND FIRESTOP ALL PENETRATIONS. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL TRADES.
 - PROVIDE JUNCTION BOX IN CEILING SPACE AND 15A, 120V CONNECTION TO MECHANICAL LOW VOLTAGE TRANSFORMER FOR BOILER CONTROLS. TRANSFORMER TO BE SUPPLIED BY MECHANICAL TRADES. INSTALLED AND WIRED BY THIS CONTRACTOR. COORDINATE EXACT LOCATION ON SITE.
 - PROVIDE DISCONNECT SWITCH AND CONNECTION TO NEW 120V, 1-PHASE, 1/3HP WATER FEED PUMP SUPPLIED AND INSTALLED BY MECHANICAL TRADES. CONNECT TO INDICATED CIRCUIT. COORDINATE EXACT LOCATION ON SITE.
 - PROVIDE 15A, 120V TO NEW WATER TREATMENT SYSTEM CONTROLLER SUPPLIED AND INSTALLED BY MECHANICAL TRADES. CONNECT TO INDICATED CIRCUIT. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL TRADES.
 - PROVIDE 15A, 120V TO NEW SIMPLEX WATER LEVEL CONTROLLER SUPPLIED AND INSTALLED BY MECHANICAL TRADES. CONNECT TO INDICATED CIRCUIT. COORDINATE EXACT LOCATION ON SITE WITH MECHANICAL TRADES.

