# NATIONAL RESEARCH COUNCIL CANADA MONTREAL ROAD CAMPUS

M-50 - 195 GREY ROOM

<u>Drawing list</u>

COVER SHEET 6120-A00

ARCHITECTURAL

DEMOLITION PLAN, DEMOLITION RCP, CONSTRUCTION PLAN & CONSTRUCTION RCP 6120-A01

MECHANICAL

MECHANICAL NEW WORK, DEMOLITION, SCHEDULES, SCHEMATIC, DESCRIPTION OF WORK & LEGEND 6120-M01

ELECTRICAL

POWER, GAS MONITOR AND LIGHTING PLAN 6120-E01

National Research Consell national de recherches Canada

MONTREAL ROAD CAMPUS RESEARCH CENTERS OTTAWA, CANADA

MESSARCH CENTERS OTTAWA, CANADA

ANALYSIS STATE OF THE STATE OF

National Research
Council Canada

Real Property Planning

and Management

Conseil national de recherches Canada Planification et gestion des biens immobiliers

NAC · CNAC

## GENERAL NOTES

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1	09/05/2022	ISSUED FOR TRANSLATION	JDG
No.	Date	Revision	By: Par:

Date imprim

- Verify all dimensions and site conditions and be responsible for same
- o Vérifier toutes les dimensions et l'etat des liéux et en

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A Detail no.
 No. du détail
 B Location drawing no.
 sur dessin no.
 C Drawing no.

M50 - 195 GREY ROOM

MONTREAL ROAD CAMPUS

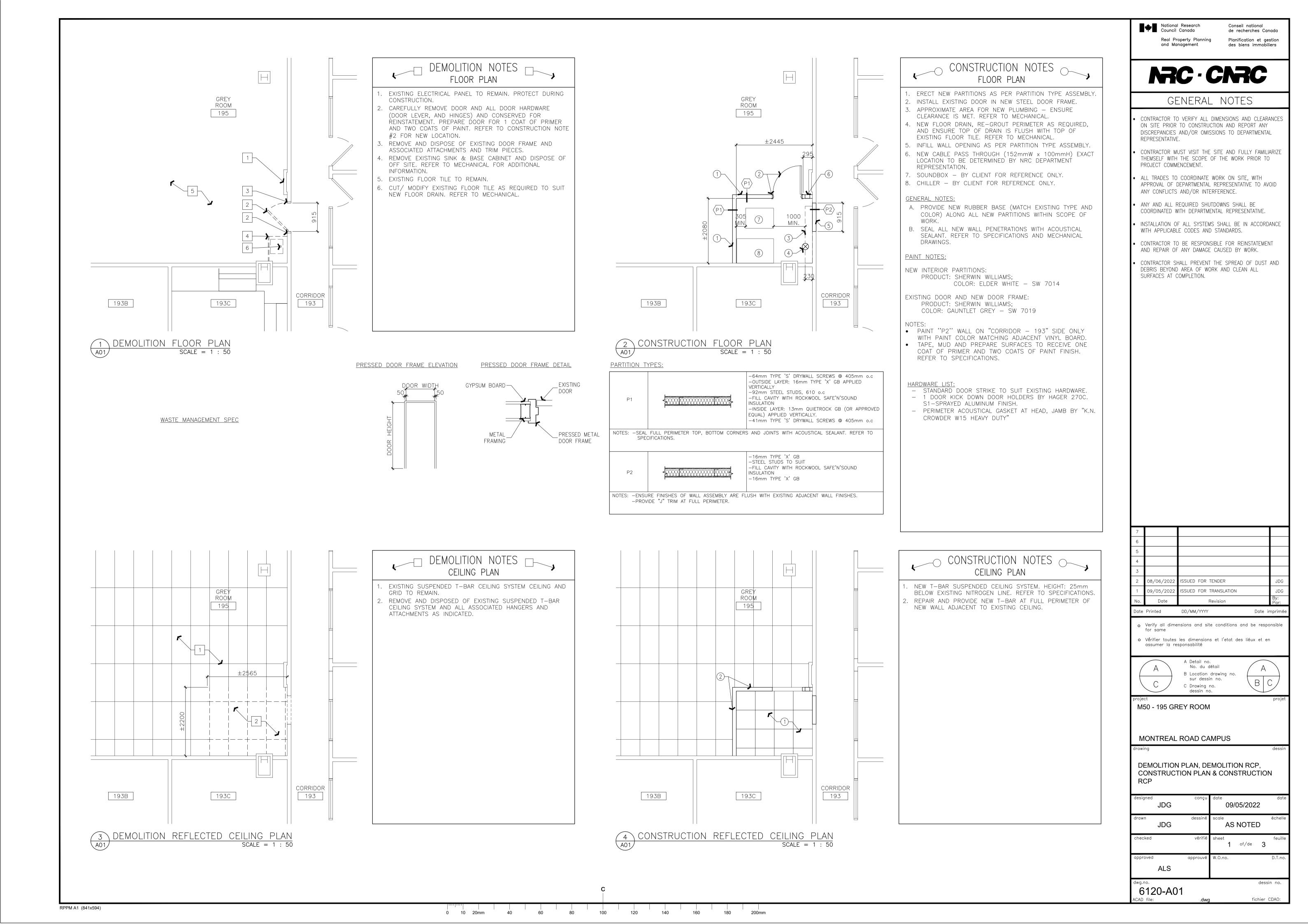
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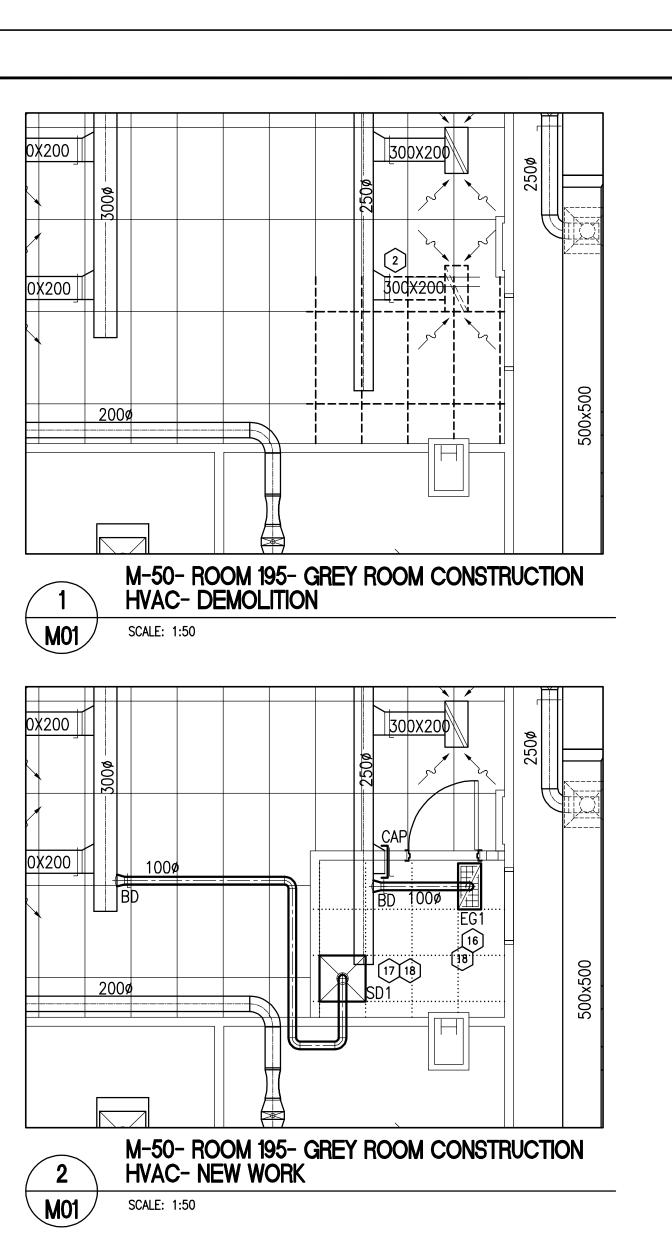
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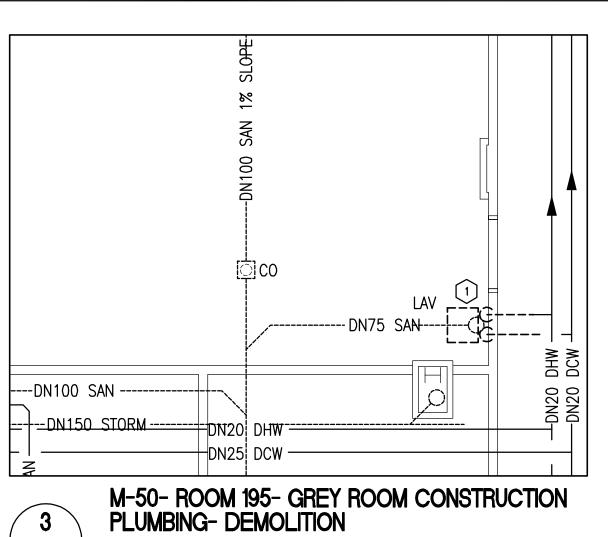
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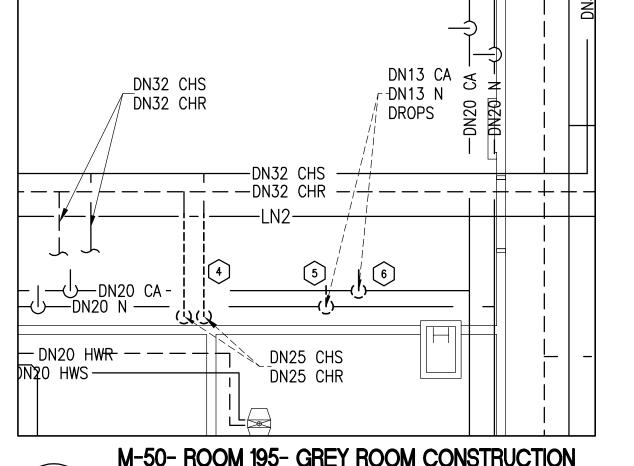
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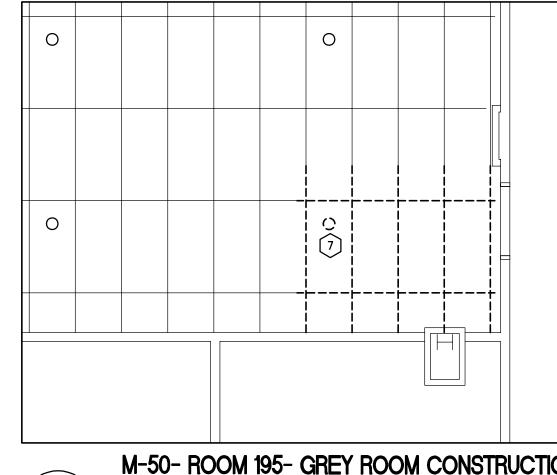




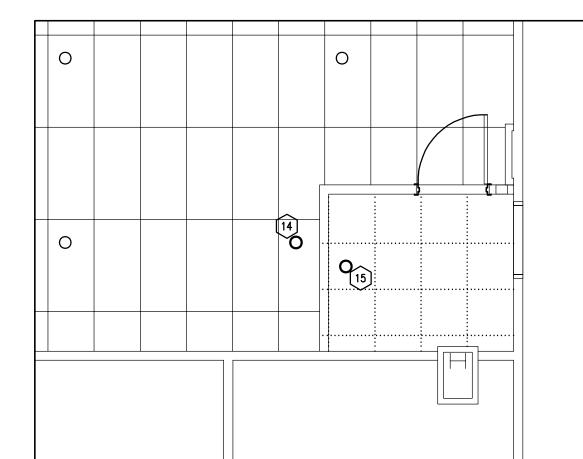


M-50- ROOM 195- GREY ROOM CONSTRUCTION UTILITIES- DEMOLITION **M**01 SCALE: 1:50

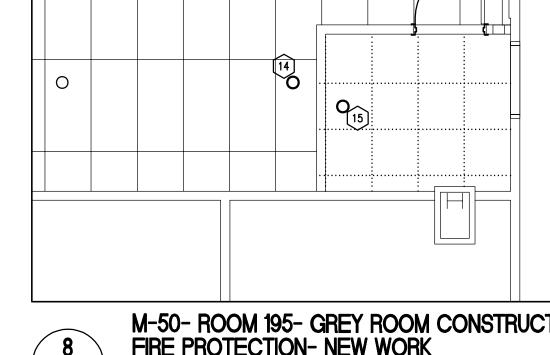
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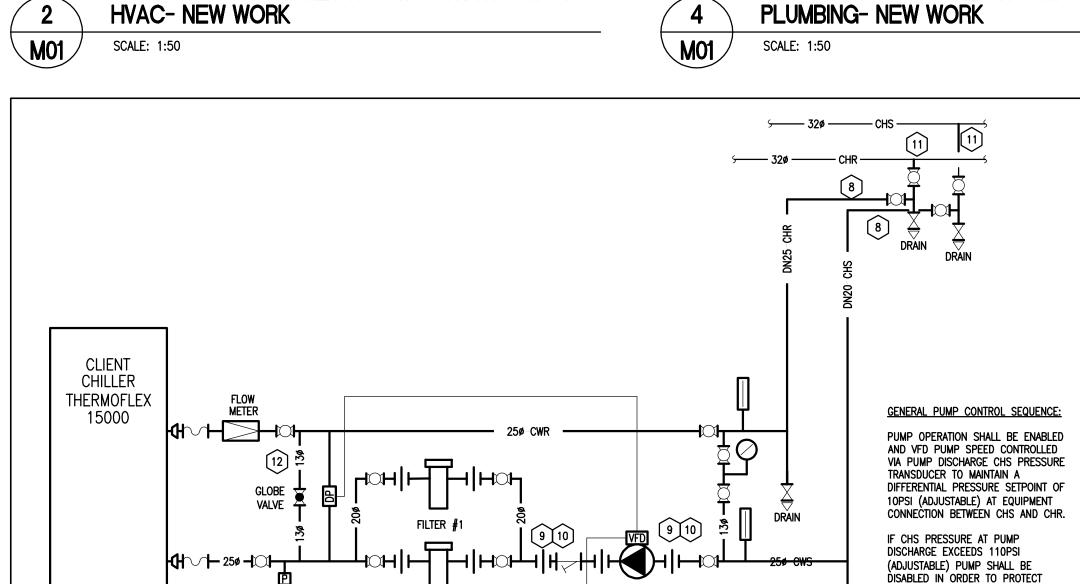


M-50- ROOM 195- GREY ROOM CONSTRUCTION FIRE PROTECTION- DEMOLITION **M01** SCALE: 1:50









50CWP25

--DN100 SAN -

-- DN150 STORM --

┼DN20¦ DHW

EQUIPMENT.

M-50- ROOM 195- GREY ROOM CONSTRUCTION



M-50- ROOM 195- GREY ROOM CONSTRUCTION

UTILITIES- NEW WORK

DN32 CHS DN32 CHR

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-DN20 HW<del>R</del> — — — →

— N2 —

NITROGEN PIPING

COMPRESSED AIR

CONTROL LINE

	•					MECHANICAL LEGEND
MECHAN	ICAL NOTES: (X)				SYMBOL	DESCRIPTION
MATER	IAL TO BE DISPOSED OFF SITE. EX	ISTING UNDER SLAB PIPING TO REMAIN AND BE REUSED AS PART OF	STIC COLD WATER (DHW AND DCW) AND SANITARY DRAIN AS INDICATED.	$\bowtie$	VALVE	
<ol><li>CONTR</li></ol>	ACTOR TO REMOVE AND RELOCATE	UST GRILLE AND ASSOCIATED BRANCH DUCTWORK AND ASSOCIATED D EXISTING SPRINKLER TO SUIT NEW WALL LOCATION AS INDICATED.		BALL VALVE		
FUTUR	E. PROVIDE NEW ISOLATION VALVES	ED WATER SUPPLY AND CHILLED WATER RETURN (CHS AND CHR) BF 3 AT CONNECTION POINT. ROP AND ASSOCIATED ISOLATION VALVE AND CAP AND SEAL AT MAIN.		AS INDICATED. BRANCH PIPING TAKE OFFS SHALL BE USED FOR		GLOBE VALVE
6. REMOV 7. REMOV	E EXISTING COMPRESSED AIR DRO E AND RETAIN EXISTING SPRINKLEI	P, ASSOCIATED COMPRESSED AIR CONNECTION AND ISOLATION VALVE. R TO ALLOW FOR NEW WALL CONSTRUCTION AND CEILING GRID INSTA	. CAP AND SEA	L AT MAIN.	M	CHECK VALVE
9. PROVII	DE NEW CHILLED WATER PUMP (50	OM MAINS TO NEW CHILLED WATER PUMP LOCATION AS INDICATED.  CWP), FLOW METER, FILTERS AND FITTINGS AS INDICATED, CONNEC	CCT TO EXISTING	BUILDING SERVICES. CONNECT TO THERMOFLEX CHILLER AS INDICATED.		DRAIN VALVE
10. PROVI	DE SUPPORT STRUCTURE FOR MOU		CESSORIES LOCA	TED RACK SHALL BE EASY TO SERVICE AND LOCATION COORDINATED	$\vdash$	STRAINER
11. TIE-IN	POINTS FOR NEW CHILLED WATER	System is in a location that does interfere with other equip Supply and return piping, connection to existing valves and Indicated. Globe valve to be adjusted to 10ps differential F	ID PROVIDE ANY		•	PUMP
POSITI	ON AFTER BALANCING.			TED FLUSH TO FLOOR AND ALL NEW FLOOR TILES SHALL SLOPE TO	1	CLEANOUT
DRAIN.	COORDINATE WITH ARCHITECTURAL		SHALL BE MOON	TED FLOOR TO FLOOR AND ALL NEW FLOOR TILES SHALL SLOPE TO	Ф	THERMOMETER
15. PROVIL FOR T	DE NEW SPRINKLER AS INDICATED IE—INS. COORDINATE SHUT DOWN \	AND NEW SPRINKLER PIPING. CONTRACTOR IS RESPONSIBLE FOR FOF WITH NRC REPRESENTATIVE.		CONFORMANCE WITH NFPA STANDARDS AND ALL REQUIRED SHUTDOWNS	Ø	PRESSURE GAUGE
INFORI	MATION.			INDICATED. REFER TO SPECIFICATIONS AND SCHEDULE FOR ADDITIONAL	0	PIPE UP
FOR A	DDITIONAL INFORMATION.	AND ASSOCIATED BRANCH DUCTWORK FROM EXISTING BUILDING SYSTE			O	PIPE DOWN
	18. TEST, ADJUST AND BALANCE EXHAUST AIR GRILLE AND SUPPLY DIFFUSER AND PUMP PRESSURE TO QUANTITIES INDICATED AND SUBMIT BALANCING REPORT TO NRC REPRESENTATIVE FOR REVIEW BEFORE INSERTING INTO O&M MANUAL.					SANITARY TRAP
					ı ı	UNION
					Г	CAP
					⊜	FLOOR DRAIN
		r			$\square$	AIR VENT
				MECHANICAL LINE TYPE LEGEND		FLOW CONTROL
			LINE	DESCRIPTION	0	SPRINKLER — PENDANT
				INDICATES NEW	•	SPRINKLER — PENDANT SEMI—RELEASED
				INDICATES EXISTING (TO REMAIN)	0	SPRINKLER — CONCEALED
				INDICATES DEMOLISHED/ REMOVED		RECTANGULAR DUCTWORK
SCHEDI	JLE		DCW	DOMESTIC COLD WATER	<del></del>	ROUND DUCTWORK
AIR FLOW	REMARKS		DHW	DOMESTIC HOT WATER		90. ETBOM
60 L/S	NEW		SAN	SANITARY DRAIN PIPING	$\triangle$	45' ELBOW
60 L/S	NEW		VNT	VENT PIPING		RECTANGULAR TAKE OFF C/W BALANCING DAMPER
			снѕ	CHILLED WATER SUPPLY		ROUND TAKE OFF C/W BALANCING DAMPER
HITE FINISH.				CHILLED WATER RETURN	BD	BALANCING DAMPER
PFRF COLOUR W SUBMITTED DUR	HITE. ING TENDERING PROCESS		LN2	LIQUID NITROGEN PIPING	Þ	FLOW SWITCH
			i l		1	·

PRESSURE SENSOR (DDC)

DIFFERENTIAL PRESSURE SENSOR (DDC)

VARIABLE FREQUENCY DRIVE

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Real Property Planning and Management Branch	Planification et gestion des biens immobiliers
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GENERAL NO	TES

Conseil national de recherches Canada

National Research Council Canada

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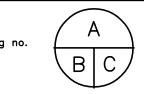
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'erify all dimensions and site conditions and be responsible

'érifier toutes les dimensions et l'etat des liéux et en ssumer la responsabilité

A Detail no. No. du détail B Location drawing no. sur dessin no. C Drawing no.



LDING M-50- ROOM 195- GREY ROOM RENOVATION

NTREAL ROAD CAMPUS

CHANICAL NEW WORK, DEMOLITION, SCHEDULES, HEMATIC, DESCRIPTION OF WORK AND LEGEND

esigned		conçu	date			date
	JWG		М	AY 2022		
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		DIFFUSER A	ND GRILL	E SCHEDU	JLE	
TAG	TYPE	SIZE (MM X MM)	INLET	AIR Flow	REMARKS	
SD1	PERF. FACE	610X610	100ø	60 L/S	NEW	
EG1	PERF. FACE	610X300	100ø	60 L/S	NEW	
NOTES:  1. NEW DIFFUSERS SD1 ARE BASED ON EH PRICE MODEL PDS, WHITE FINISH. 2. NEW RETURN GRILLES RG1 ARE BASED ON EH PRICE MODEL PFRF COLOUR WHITE. 3. ANY ALTERNATES FOR THE ABOVE BASIS OF DESIGN MUST BE SUBMITTED DURING TENDERING PROCESS BEFORE SPECIFIED DATE FOR ALTERNATES.						

PUMPS 50CWP26 IS BASED ON A WILDHELIX MODEL TE 1HP HELIX 2\1 2\3 HS SPEED DRIVE STANDALONE PACKAGED BOOSTER, STAINLESS STEEL CONSTRUCTION AND SHALL BE CONTROLLED TO THE SET POINT OUTLINED IN CONTROLS SEQUENCE. PUMP SHALL INCLUDE HIGH PRESSURE CUT OFF SWITCH SET TO 110PSI. PRESSURE TRANSDUCERS ARE BASED ON 2 X GREYSTONE PRESSURE TRANSDUCERS. NOTE THAT PUMPS SHALL BE ADJUSTABLE AND INSTRUCTION SESSION WITH NRC REPRESENTATIVE SHALL BE PROVIDED BY CONTRACTOR OR PUMP SUPPLIER'S REPRESENTATIVE.

CIRCULATING PUMP SCHEDULE

22.7 | 137 | 10.4 | 208/3/60 |

FILTER #2

VOLTAGE AMPS

CHILLED WATER SYSTEM FOR NEW 15000W

MATERIAL (L/MIN) (kPa) (KG)

WATER COOLED CHILLER

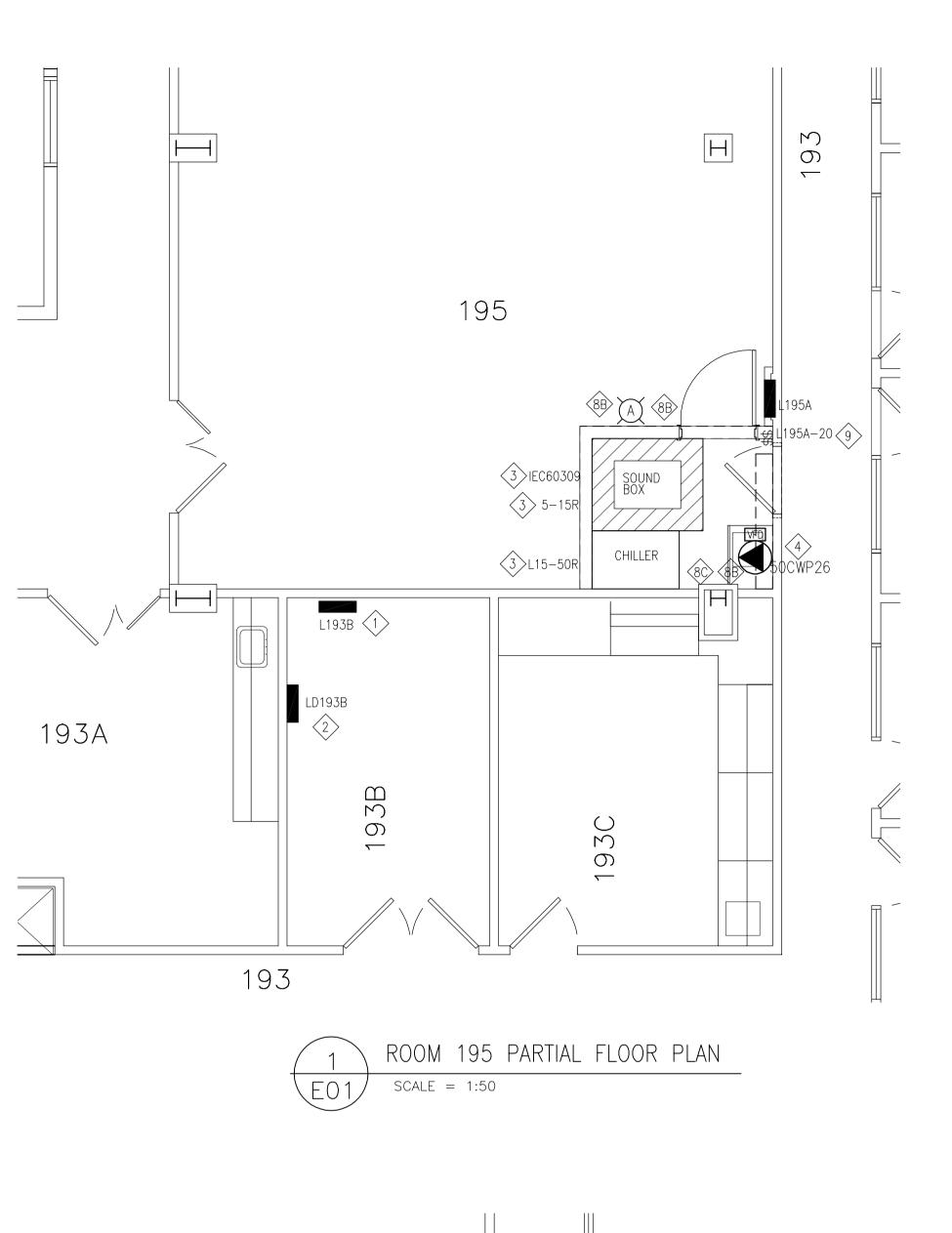
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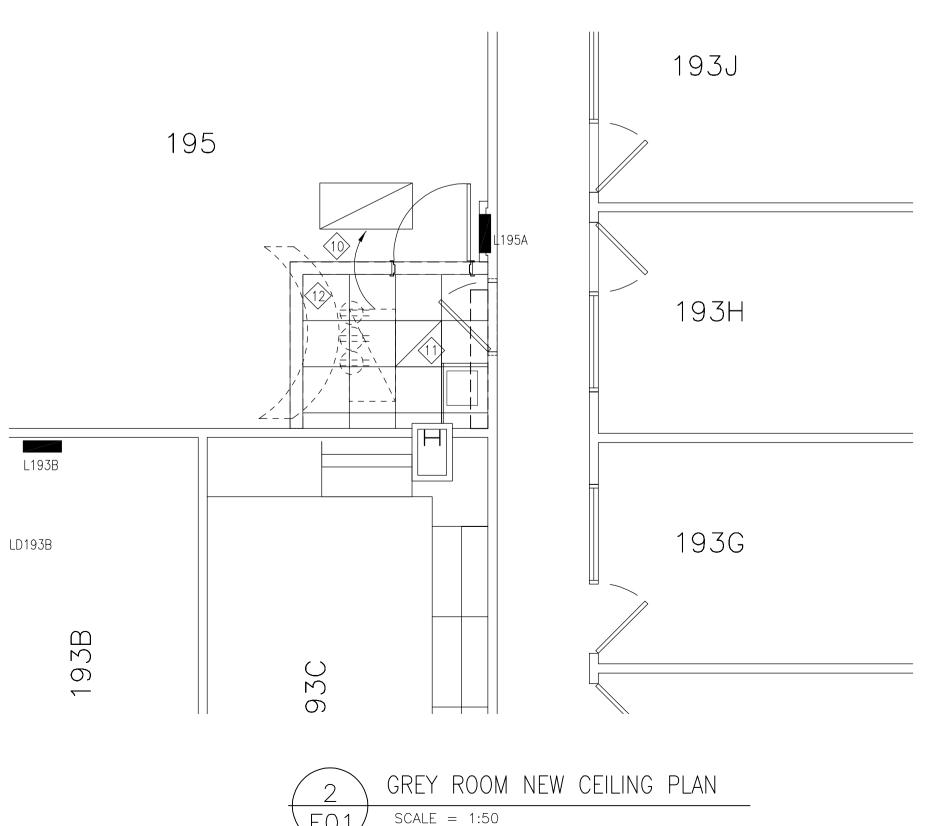
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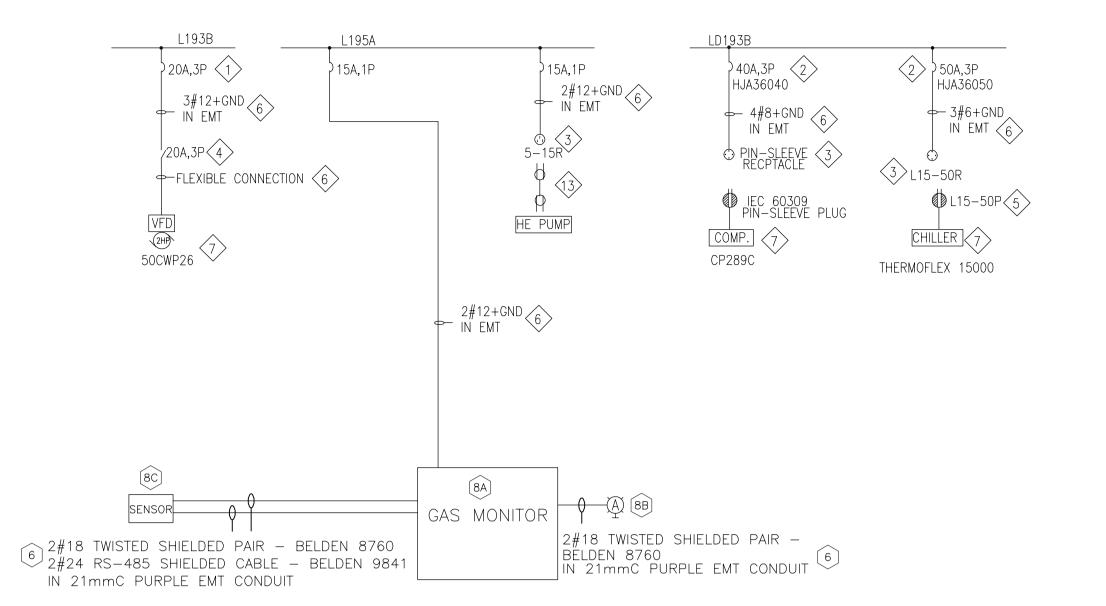
CIRCULATING

LOCATION

RPPM A1 (841x594)







WIRING DIAGRAM SCALE =

#### ELECTRICAL NOTES:

- 1. REPLACE EXISTING 1P SPARE BREAKER WITH 3P BREAKER AS SHOWN
- 2. PROVIDE NEW BREAKER IN EXISTING PANEL.
- 3. PROVIDE RECEPTACLE WITH RECESSED ELECTRICAL BACK BOX AS SHOWN, VERIFY CONFIGURATION AND COORDINATE FINAL LOCATION WITH END EQUIPMENT.
- 4. PROVIDE MOTOR RATED TOGGLE SWITCH ON SIGHT OF 50CWP26
- 5. PROVIDE PLUG AND 10FT EXTENSION CORD, WIRED TO EQUIPMENT END.
- 6. PROVIDE NEW WIRING AND CONNECTION
- 7. EQUIPMENT PROVIDED BY OTHERS
- 8. PROVIDE LOW OXYGEN DETECTION SYSTEM: A. PROVIDE QEL GAS MONITORING CONTROLLER AND ALL REQUIRED MOUNTING ACCESSORIES AND MOUNTED ON WALL. CONTROLLER STANDARD OF ACCEPTANCE: QEL Q4C C/W 120V-24V POWER SUPPLY. WHEN GAS SENSOR IS IN ALARM, THE CONTROLLER WILL TURN ON THE
- HORN/STROBE DEVICES AND CLOSE OUTPUT CONTACT TO START EXHAUST FAN . B. PROVIDE HIGH PERFORMANCE ELECTRONIC HORNS WITH AMBER STROBE LIGHT AND MOUNT ON WALL @2200mm ABOVE FLOOR. HORN/STROBE LIGHT TO BE 24VDC RATED AND BE POWERED FROM GAS MONITORING CONTROLLER. STANDARD OF ACCEPTANCE: ALLEN-BRADLEY 855H-BCD24ADR5 RANGE 'A' TYPE. PROVIDE LAMACOID WARNING SIGN BESIDE THE
- HORN/STROBE TO INDICATE 'LOW OXYGEN ALARM'. C. PROVÍDE OXYGEN SENSOR AS SHOWN AND CONNECT TO QEL GAS MONITORING CONTROLLER, WIRING AS SHOWN. MOUNT SENSORS AT 1500mm HIGH ON WALL. FOLLOW MANUFACTURER'S INSTRUCTION AND CONFIRM EXACT LOCATION ON SITE. STANDARD OF ACCEPTANCE: QEL Q5 SMART SENSOR. PROVIDE COMMISSIONING REPORT UPON JOB COMPLETION.
- D. OTHER THAN 120V POWER, COLOR OF CONDUIT OF THIS SYSTEM SHALL BE PURPLE. E. QEL REPRESENTATIVE PROVIDE COMMISSION REPORT
- 9. EXISTING LIGHT SWITCH TO BE DISCONNECTED AND REMOVED. REMOVE ADDITIONAL WIRES TO MAKE 2-WAY LIGHTING CONTROL.
- 10. RELOCATE EXISTING RECESSED 2X4 LIGHT AS SHOWN. APPLY SAME CIRCUIT.
- 11. PROVIDE NEW 2X2 LED RECESSED LIGHT: SIGNIFY DAY-BRITE CFI, FLUXGRID 2X2, 4000K, 3800 LUMEN, INTEGRAL SENSOR, 2FGG38L8402DUNVDIM-SWZCS. - FOR SUSPENDED CEILING INSTALLATIONS SUPPORT EACH LUMINAIRE INDEPENDENTLY OF THE CEILING SUPPORT SYSTEM WITH SEPARATE CHAINS AT EACH END. NO. 80 STEEL SASH CHAIN MINIMUM.
- 12. EXISTING PORTION OF OVERHEAD CABLE TRAY WITH POWER OUTLETS TO BE REMOVED. CIRCUIT WIRING TO BE REMOVED BACK TO SOURCE.
- 13. PROVIDE 10FT EXTENSION CORD WITH MALE TO MALE PLUGS

National Research Council Canada Administrative Services

Conseil national de recherches Canada administratifs et gestion de l'immobilier and Property Management

# RRC - CRRC

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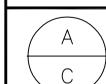
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dessin no.

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M50 - 195 GREY ROOM

MONTREAL ROAD CAMPUS

POWER, GAS MONITOR AND LIGHTING PLAN

KXL JUNE/2022

KXL AS NOTED E01 of/de E01 approuvé W.O.no.

6120-E01

ASPM A1 (841x594)