

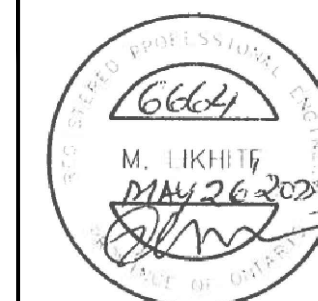


	MECHANICAL DRAWINGS LIST
DRAWING. NO.	DRAWING TITLE
M-1	KEY PLAN, DRAWING LIST, LEGEND SYMBOLS, GENERAL NOTES AND DETAILS
M-2	EQUIPMENT SCHEDULES
M-3	PART PLANS REFRIGERANT ROOM PIPING DEMOLITION
M-4	PART PLAN MECHANICAL REFRIGERATION ROOM PIPING PROPOSED
M-5	PART PLAN MECHANICAL ROOM PLUMBING PROPOSED
M-6	PART PLANS HVAC DEMOLITION AND PROPOSED
M-7	DOMESTIC WATER HEATING SYSTEM DEMOLITION AND PROPOSED



	EXISTING TO REMAIN
	EXISTING TO BE REMOVED
CTE	NEW EQUIPMENT/PIPING
EX.	CONNECT TO EXISTING
TK	EXISTING TANK
B	BOILER
DH	DEHUMIDIFIER
CH	CHILLER
C	COMPRESSOR
TW	TEMPERED WATER
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RECIRC.
ET	EXPANSION TANK
P	PUMP
HEX	HEAT EXCHANGER
PG	PRESSURE GAUGE
HGV	HOT GAS BYPASS SOLENOID
GLT	GLYCOL TANK
FS	FLOW SWITCH
	UNION
GLS	GLYCOL SUPPLY
GLR	GLYCOL RETURN
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
G	GAS LINE
TW	TEMPERED WATER
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRC.
	STRAINER
	CONTROL VALVE
	GATE VALVE
	CHECK VALVE
	CIRCUIT BALANCING VALVE
	BALL VALVE
	THERMOMETER

1. THE DESIGN DOCUMENTS HAVE BEEN PREPARED ON THE BASIS OF INFORMATION OBTAINED FROM THE GENERAL SITE REVIEW AND FROM THE EXISTING DOCUMENTS. MAKE NECESSARY ADJUSTMENTS TO LOCATIONS OF EQUIPMENT, DUCTWORK, ETC. TO SUIT EXISTING SITE CONDITIONS. MAKE ALLOWANCES FOR ADDITIONAL ELBOWS, FITTINGS, SUPPORTS, ETC. REQUIRED TO PROVIDE OFFSETS IN THE PIPING, ETC. TO SUIT EXISTING SITE CONDITIONS. NO EXTRAS WILL BE ALLOWED FOR THE INTENDED SCOPE OF WORK SHOWN IN THE TENDER DOCUMENTS.
2. PRIOR TO COMMENCING OF WORK, THOROUGHLY REVIEW AND VERIFY AT SITE SIZES AND ROUTINGS OF THE EXISTING CONTROLS AND ELECTRICAL POWER SUPPLY, AND ENSURE THAT THE NEW EQUIPMENT/COMPONENTS CAN BE INSTALLED TO PROVIDE A FULLY FUNCTIONAL SYSTEM. OBTAIN APPROVALS FROM THE CONSULTANTS OF DEFICIENCIES AFFECTING INTENDED EXECUTION OF WORK.
3. ADEQUATELY SUPPORT ALL EQUIPMENT AND PIPING.
4. PROVIDE INSTALLATION VERIFICATION REPORT FROM MANUFACTURER/SUPPLIER.
5. ALLOW FOR ALL CUTTING/PATCHING/PAINTING AS REQUIRED TO FACILITATE THE WORK.
6. PRIOR TO DEMOLITION OF ANY ELECTRICALLY OPERATED MECHANICAL EQUIPMENT, DECOMMISSION THE EQUIPMENT BY REMOVING THE POWER SAFELY. SEE MORE ON ELECTRICAL DRAWINGS.
7. ALL EXISTING MECHANICAL EQUIPMENT SHALL REMAIN AT THEIR ORIGINAL LOCATION UNLESS NOTED OTHERWISE IN DRAWINGS/ SPECIFICATIONS.
8. CONTRACTOR SHALL CONTACT BASE BUILDING CONTROLS CONTRACTOR ESC AUTOMATION, FOR ALL CONTROL REQUIREMENTS.



2	20/07/23	RE-ISSUED FOR TENDER
1	26/05/23	ISSUED FOR TENDER
NO	DATE	REVISIONS

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BRAMPTON
FlowerCity

TITLE

TERRY MILLER RECREATION CENTRE
1295 WILLIAMS PARKWAY EAST
BRAMPTON, ON

KEY PLAN, DRAWING LIST, LEGEND,
SYMBOLS, GENERAL NOTES AND
DETAILS

DATE: FEB. 2023

SCALE:
AS SHOWN

FILE NO.:
6664-M-1.dw

	DRAWING NO.:
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M-1

COMPRESSORS																	
EQUIP. NO.	MAKE/MODEL	CAPACITY TONS	REFRIGERANT	CONDENSING TEMP °F	SUCTION TEMP °F	POWER SUPPLY V/PH/HZ	MOTOR POWER HP	SPEED RPM	APPROX. WEIGHT LB	STARTER & DISC SW.				CONTROLS			REMARKS
										SUPPLIED BY		INSTALLED BY		AUTO	INTERLOCK BY		
										MECH	ELECT	MECH	ELECT			MECH	
C-1	MYCOM/N2MII	34.8	R-717	95	10	575/3/60	50	1021	1875	X	-	X	-	X	X	-	
C-2	MYCOM/N2MII	34.8	R-717	95	10	575/3/60	50	1021	1875	X	-	X	-	X	X	-	
NOTES: X- INDICATES THE SCOPE OF A SPECIFIC DIVISION.																	

DEHUMIDIFIERS															
EQUIP. NO.	MAKE/MODEL	CAPACITY LBS/HR	REFRIGERANT	MOTOR HP	MCA	POWER SUPPLY V/PH/HZ	APPROX. WEIGHT LB	STARTER & DISC SW.				CONTROLS			REMARKS
								SUPPLIED BY		INSTALLED BY		AUTO	INTERLOCK BY		
								MECH	ELECT	MECH	ELECT		MECH	ELECT	
DH-1	THERMOPLUS/IRD-050F	22.2	R-448A	3	15	575/3/60	1000	X	-	X	-	X	X	-	
DH-2	THERMOPLUS/IRD-050F	22.2	R-448A	3	15	575/3/60	1000	X	-	X	-	X	X	-	
NOTES: CAPACITY INDICATED ABOVE SHALL BE AT 60% RH AND 60 DEG. F AIR TEMP. X- INDICATES THE SCOPE OF A SPECIFIC DIVISION.															

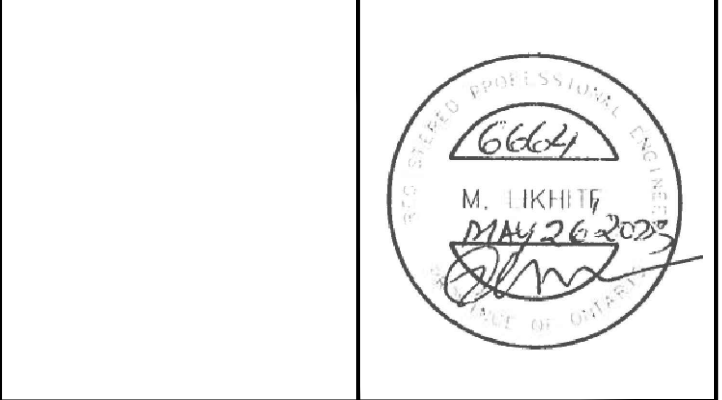
DESUPERHEATER															
EQUIP. NO.	MAKE	FIRST PASS PERFORMANCE					SECOND PASS PERFORMANCE				THIRD PASS PERFORMANCE				WEIGHT LBS
		TOTAL # OF PASSES	WATER GPM	WATER TEMP IN/OUT °F	TOTAL MBH	PRESS DROP PSI	WATER GPM	WATER TEMP IN/OUT °F	TOTAL MBH	PRESS DROP PSI	WATER GPM	WATER TEMP IN/OUT °F	TOTAL MBH	PRESS DROP PSI	
DS-1	DOUCETTE	3	4	60.0/96.9	73.8	2.2	4	96.9/128.3	62.8	2.1	4	128.3/152.7	48.8	2	500
NOTES: 1. DESUPERHEATER SHALL BE SUITABLE TO WORK WITH RECIPROCATORS COMPRESSOR.															

PREHEAT WATER STORAGE TANK													
EQUIP. NO.	MAKE/MODEL	CAPACITY GALLON	MAX. OPERATING TEMP °F	MAX. OPERATING PRESSURE PSI	APPROX. WEIGHT LBS	STARTER & DISC SW.				CONTROLS			REMARKS
						SUPPLIED BY		INSTALLED BY		AUTO	INTERLOCK BY		
						MECH	ELECT	MECH	ELECT		MECH	ELECT	
TK-1	LOCHINVAR/R*A0257	250	210	125	900	X	-	X	-	X	X	-	
NOTES: X- INDICATES THE SCOPE OF A SPECIFIC DIVISION.													

PUMPS													
EQUIP. NO.	FLUID	PUMP		MOTOR		STARTER				CONTROLS			REMARKS
		FLOW GPM	HEAD FT.	MOTOR HP	POWER SUPPLY V/PH/HZ	SUPPLIED BY		INSTALLED BY		AUTO	INTERLOCK BY		
						MECH	ELECT	MECH	ELECT		MECH	ELECT	
SP-1	40%/PROPYLENE GLYCOL	25	25	0.5	120/1/60	—	X	—	X	X	X	—	PUMP SHALL BE SUITABLE FOR 40% GLYCOL SOLUTION
DP-1	POTABLE WATER	4	10	0.25	120/1/60	—	X	—	X	X	X	—	POTABLE WATER PUMP
NOTES: X- INDICATES THE SCOPE OF A SPECIFIC DIVISION.													

HYDRONIC EXPANSION TANK								
EQUIP. NO.	MIN. ACCEPT. VOLUME GAL.	MIN. OPERATING TEMP (°F)	MAX. OPERATING TEMP (°F)	MIN. OPERATING PRESS. PSI	MAX. OPERATING PRESS. PSI	PROPYLENE (GLYCOL) (%)	APPROX. WEIGHT LBS	MAKE/MODEL
ET-1	17.7	40	180	10	100	40	72	WATTS/ETSX-90

HEAT EXCHANGER SCHEDULE										
EQUIP. NO.	TYPE	MAKE/MODEL	HOT SIDE (HOT WATER)				COLD SIDE (40% PROPYLENE GLYCOL)			
			EW T °F	LWT °F	DELTA T °F	GPM	EG T °F	LGT °F	DELTA T °F	GPM
HEX-1	PLATE FRAME	AIC/ LB31-70XJ	160	140	20	17.3	125	140	15	24.3



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1295 WILLIAMS PARKWAY EAST
BRAMPTON, ON

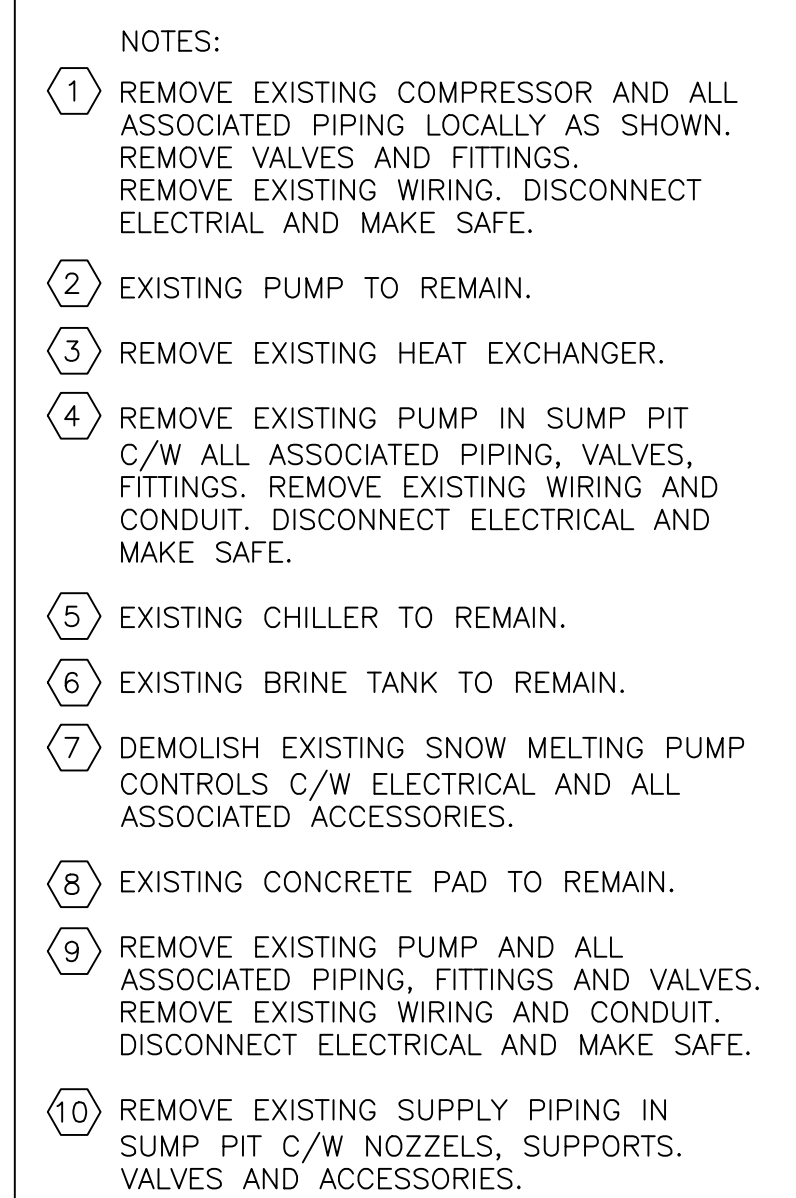
EQUIPMENT SCHEDULES

DATE: FEB. 2023

SCALE: NONE

FILE NO.: 6664-M-2.dwg

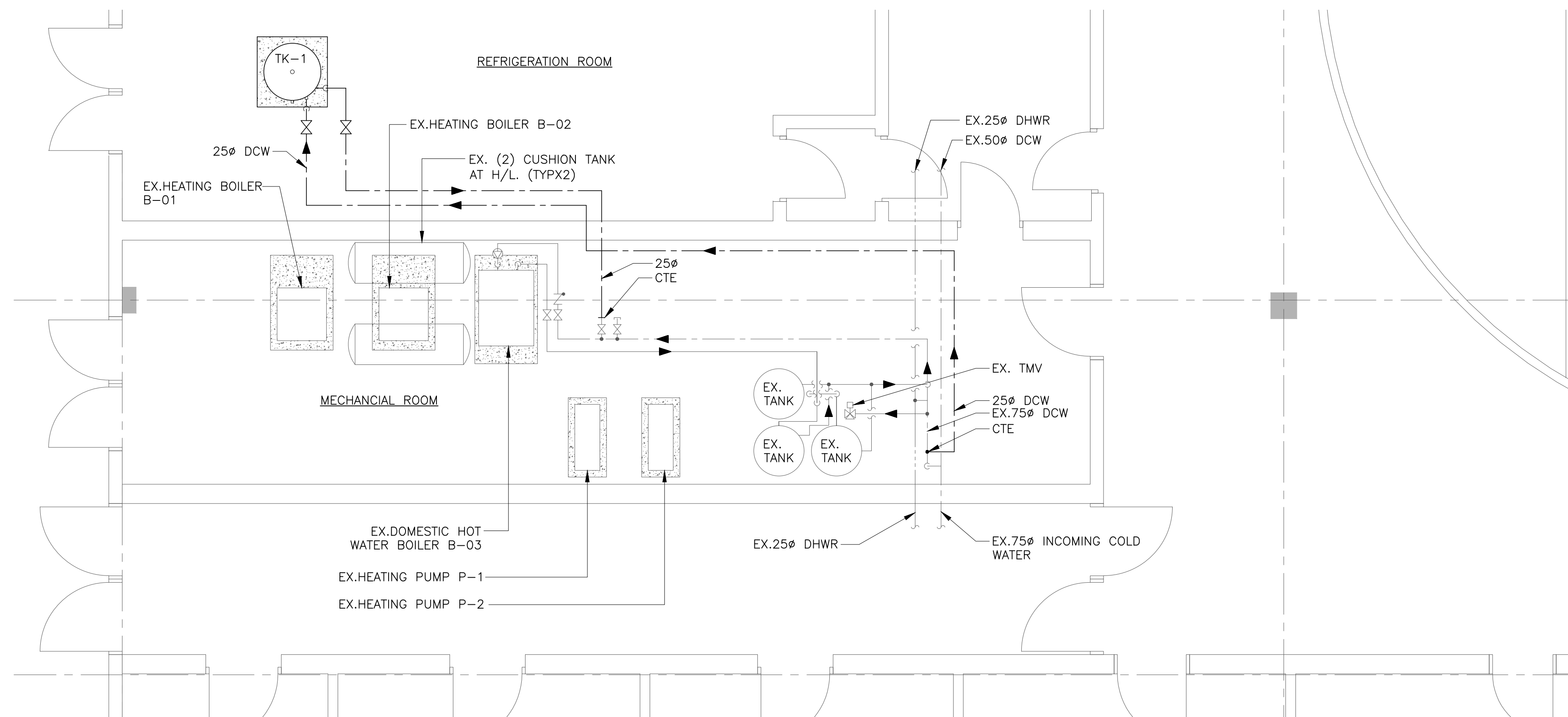
DRAWING NO.: M-2



GENERAL NOTES:

1. REPLACE EXISTING RELIEF PIPING AND A TOTAL OF 2 RELIEF VALVES (32MM Ø) TO MEET CSA-B52 REQUIREMENTS AND TO MEET ALL TSSA STANDARDS.
2. PATCH/PAINT ALL WALL OPENINGS TO MATCH EXISTING WALL CONSTRUCTION.
3. PAINT THE ENTIRE FLOOR OF THE REFRIGERATION ROOM WITH AN EPOXY BASED, INDUSTRIAL GRADE PAINT/COATINGS.

 BRAMPTON FlowerCity brampton.ca	
TITLE TERRY MILLER RECREATION CENTRE 1295 WILLIAMS PARKWAY EAST BRAMPTON, ON PART PLANS REFRIGERATION ROOM PIPING DEMOLITION	
DATE: FEB. 2023	SCALE: AS SHOWN
FILE NO.: 6664-M-3.dwg	DRAWING NO.: M-3



1 MECHANICAL ROOM PLUMBING – PROPOSED
M-5 SCALE: 1:50



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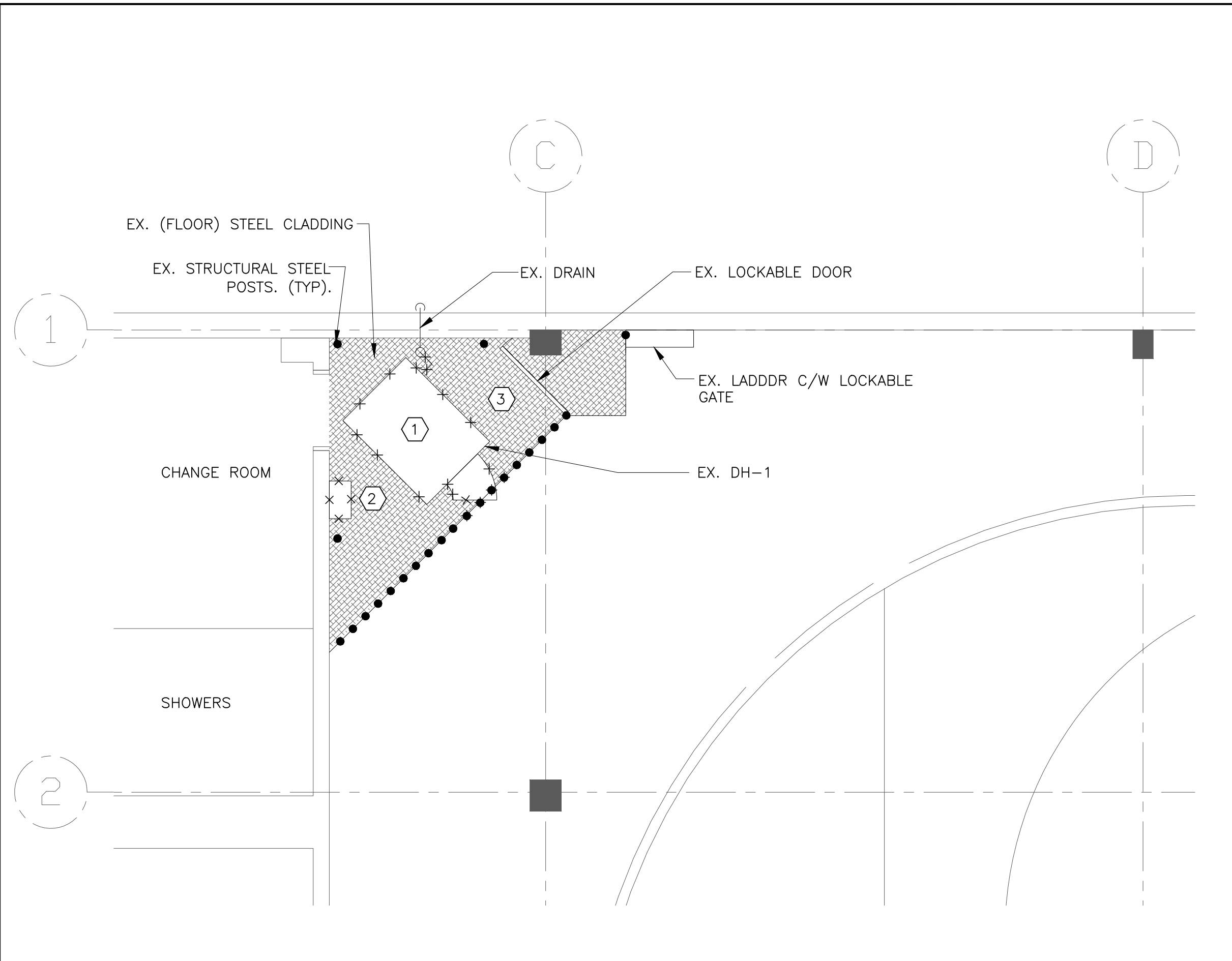
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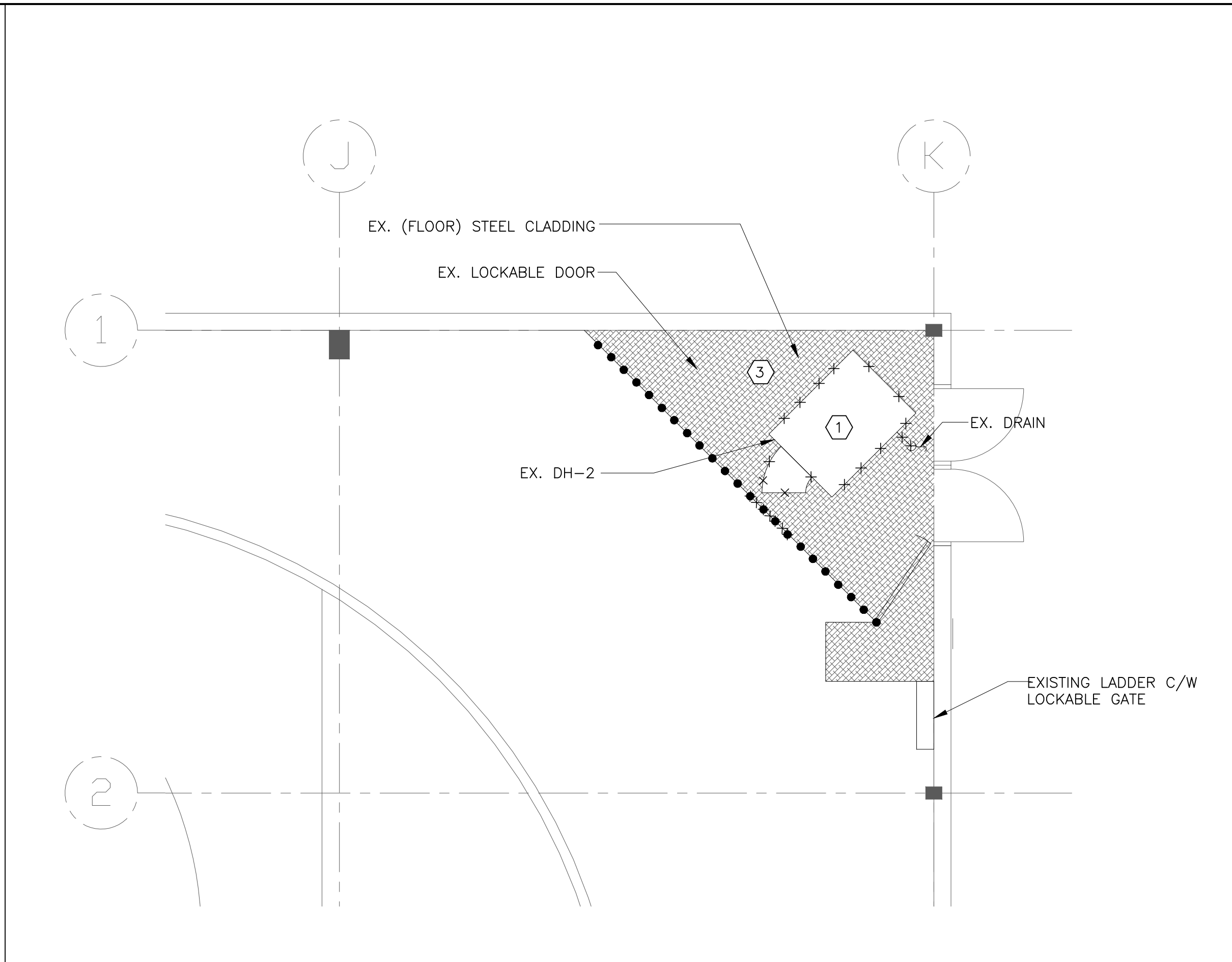
TITLE
TERRY MILLER RECREATION CENTRE
1295 WILLIAMS PARKWAY EAST
BRAMPTON, ON
PART PLAN MECHANICAL ROOM
PLUMBING DEMOLITION AND
PROPOSED

DATE: FEB. 2023 SCALE: AS SHOWN

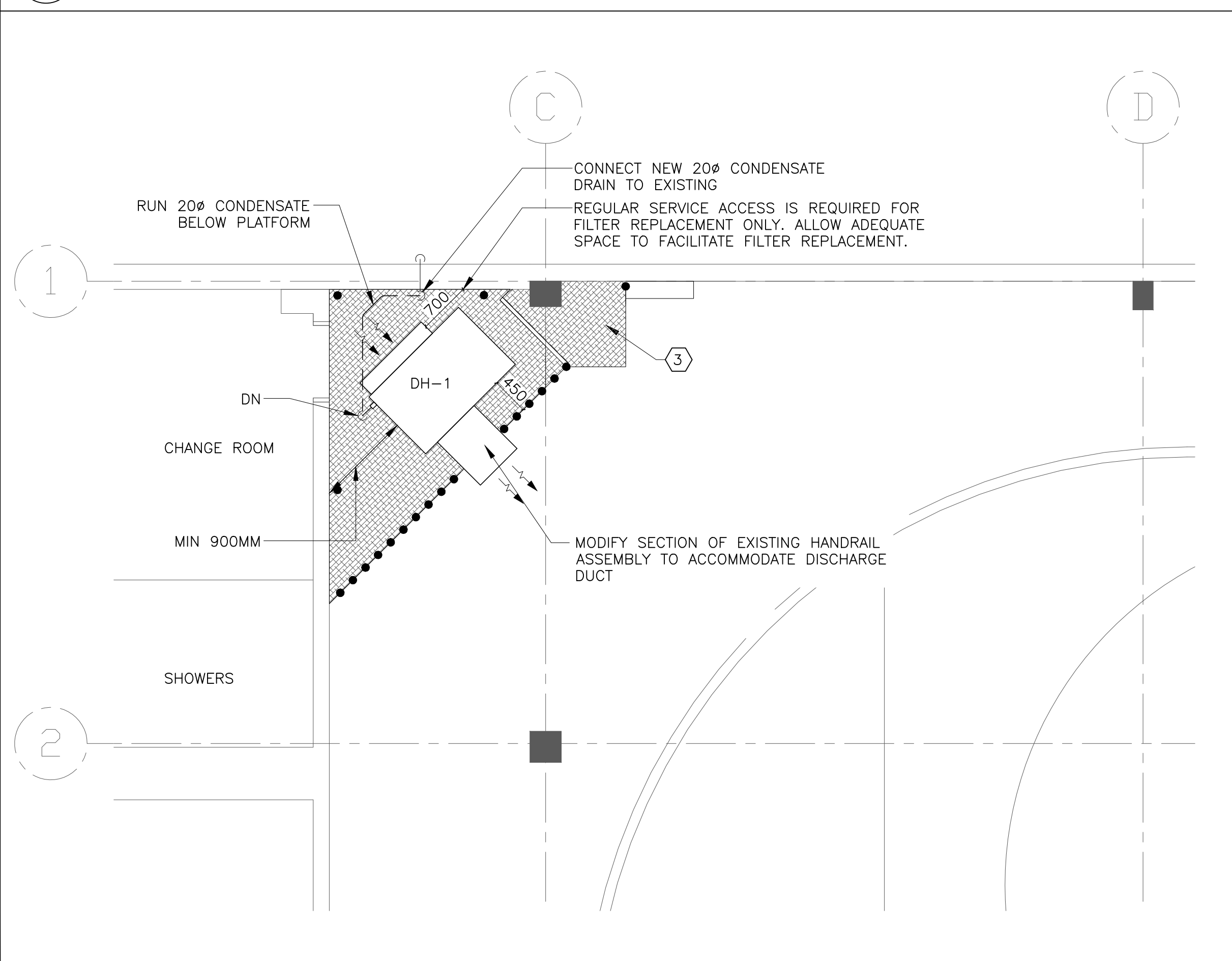
FILE NO.: 6664-M-5dwg DRAWING NO.: M-5



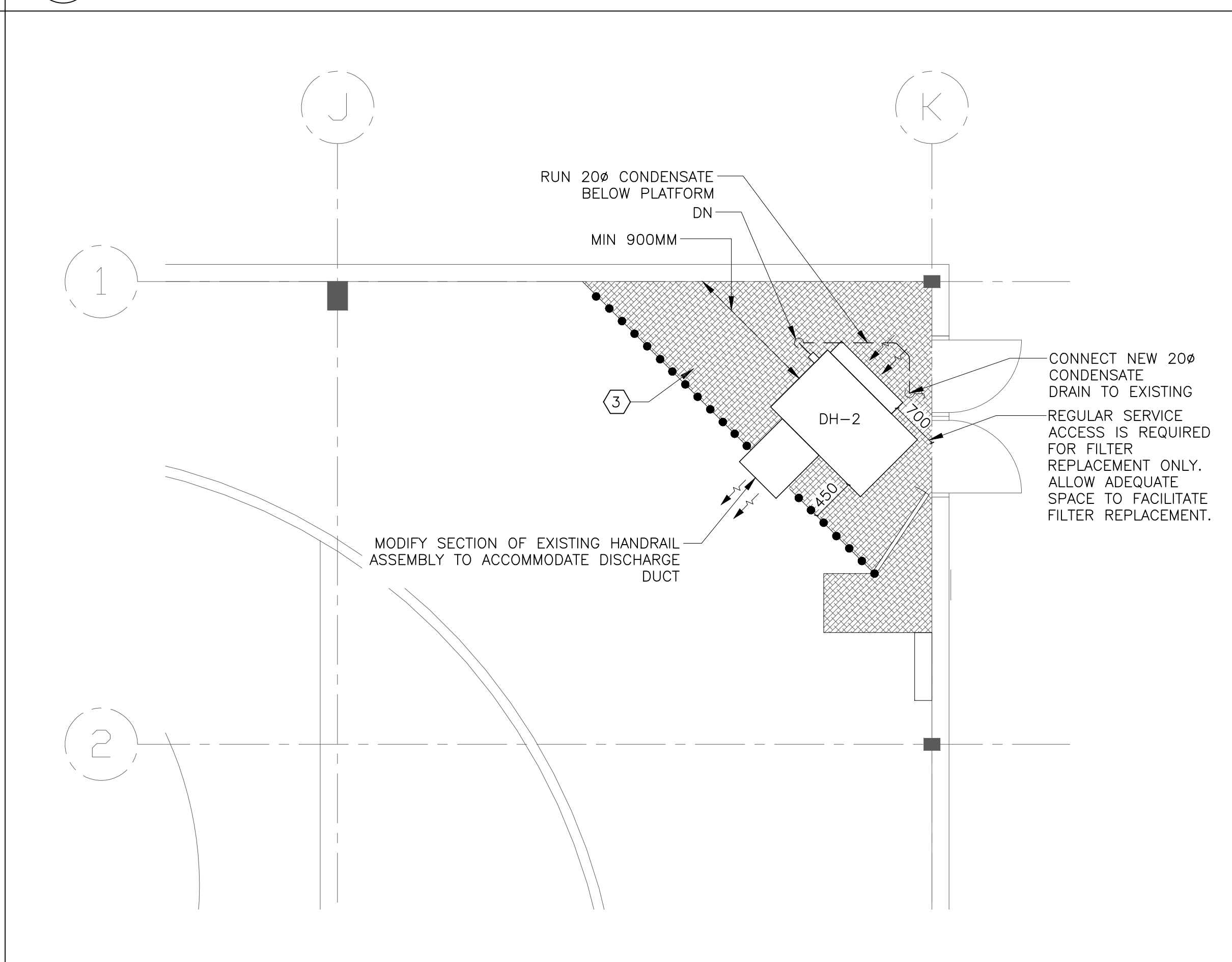
1 PART FLOOR PLAN HVAC – DEMOLITION
M-6 SCALE: 1:50



3 PART FLOOR PLAN HVAC – DEMOLITION
M-6 SCALE: 1:50



2 PART FLOOR PLAN HVAC – PROPOSED
M-6 SCALE: 1:50



4 PART FLOOR PLAN HVAC – PROPOSED
M-6 SCALE: 1:50

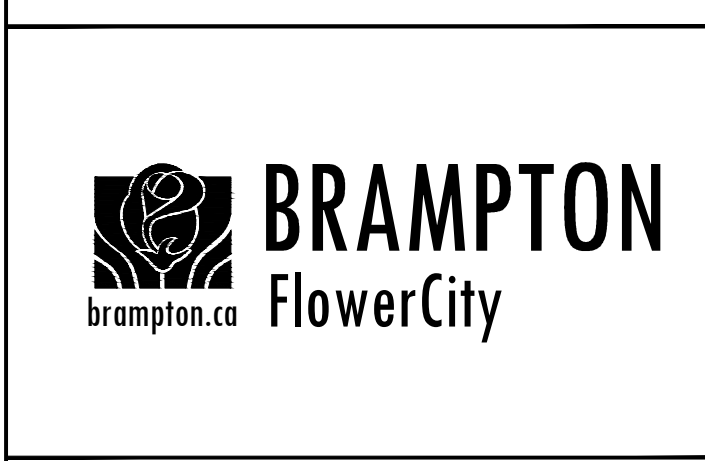
- NOTES:
- 1 REMOVE EXISTING ELECTRIC DEHUMIDIFIER AND ALL ASSOCIATED DUCTWORK AND PIPING AND SUPPORTS. REMOVE WIRING AND DISCONNECT ELECTRICAL AND MAKE SAFE.
 - 2 REMOVE EXISTING ON/OFF SWITCH. REMOVE WIRING AND DISCONNECT ELECTRICAL AND MAKE SAFE.
 - 3 EXISTNG PLATFORM 3000mm ABOVE FINISHED FLOOR.

- GENERAL NOTES:
- 1.) INCLUDE FOR REMOVAL AND REINSTALLATION OF NETTING IN THE ICE RINK ARENA TO FACILITATE DELIVERY AND INSTALLATION OF DEHUMIDIFIER. CONTRACTOR IS RESPONSIBLE TO FAMILIARIZE THEMSELVES WITH THE RINK CLEARANCES AND COME UP WITH AN ACTION PLAN TO DELIVER AND PLACE THE DEHUMIDIFIER ON THE EXISTING DEHUMIDIFIER PLATFORM.
 - 2.) REPLACEMENT OF DEHUMIDIFIERS SHALL BEGIN BY APRIL 8, 2024. NEW HUMIDIFIERS SHALL BE INSTALLED AND FULLY OPERATIONAL BY MAY 3, 2024.



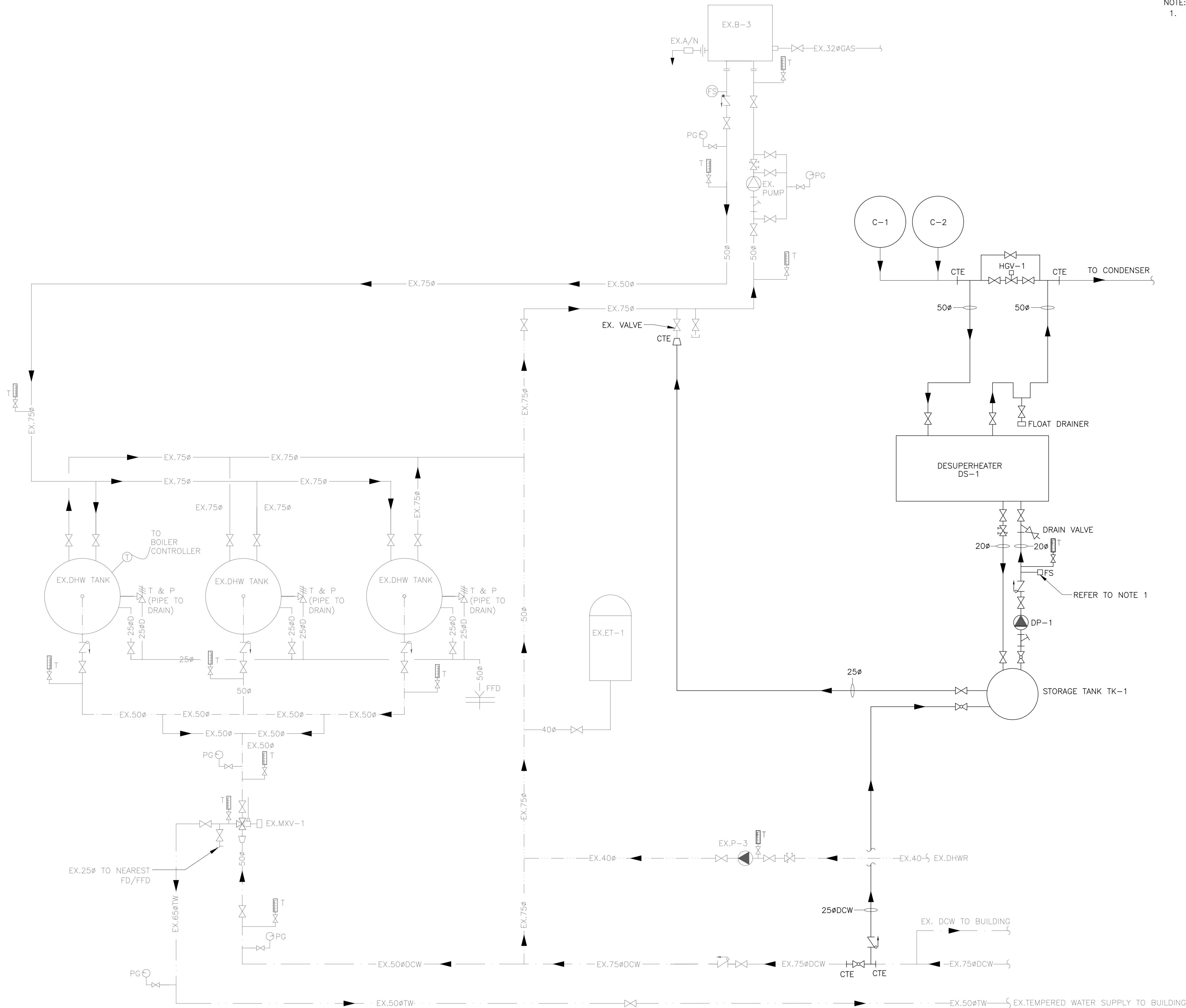
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TITLE
TERRY MILLER RECREATION CENTRE
1295 WILLIAMS PARKWAY EAST
BRAMPTON, ON
PART PLANS
HVAC DEMOLITION AND PROPOSED

DATE: FEB. 2023	SCALE: AS SHOWN
FILE NO.: 6664-M-6.dwg	DRAWING NO.: M-6



NOTE:
1. THERMOSTAT AND FLOW SWITCH SHALL BOTH OPEN THE HOT GAS BYPASS VALVE WHEN TRIPPED. HIGH TEMPERATURE ALARM SWITCH SHALL OPEN HGV-1 @ 160°F. FLOW SWITCH SHALL SOUND ON ALARM TO INDICATE PUMP FAILURE.



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TITLE
TERRY MILLER RECREATION CENTRE
1295 WILLIAMS PARKWAY EAST
BRAMPTON, ON
**DOMESTIC WATER HEATING SYSTEM
DEMOLITION AND PROPOSED**

DATE: **FEB. 2023** SCALE: **AS SHOWN**

FILE NO.: **6664-M-7.dwg** DRAWING NO.: **M-7**