





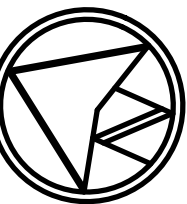
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SEAL:

PERMIT:

KEY PLAN:



EXISTING/DEMOLISHED PIPING:

— [TYPE] ——— EXISTING PIPEWORK TO BE DEMOLISHED
— [TYPE] ——— EXISTING PIPEWORK TO REMAIN
— DCW ——— EXISTING DOMESTIC COLD WATER
— DHW ——— EXISTING DOMESTIC HOT WATER
— DHWR ——— EXISTING DOMESTIC HOT WATER RECIRC.

PLUMBING:

— DCW ——— DOMESTIC COLD WATER
— DHW ——— DOMESTIC HOT WATER
— DHWR ——— DOMESTIC HOT WATER RECIRC.
— SW ——— SOFTENED DOMESTIC WATER
— TW ——— DOMESTIC TEMPERED WATER
— NPW ——— NON-POTABLE WATER PIPE
— SAN ——— SANITARY DRAINAGE
— SAN ——— SANITARY DRAINAGE (BELOW)
— V ——— SANITARY VENT
— STW ——— STORM WATER DRAINAGE
— STW ——— STORM WATER DRAINAGE (BELOW)
— P-HWS ——— POOL HEATING WATER SUPPLY
— P-HWR ——— POOL HEATING WATER RETURN

FUEL PIPING:

— G ——— NATURAL GAS

HEATING/COOLING PIPING:

— HWS ——— HEATING WATER SUPPLY
— HWR ——— HEATING WATER RETURN
— DTWS ——— DUAL TEMPERATURE WATER SUPPLY
— DTWR ——— DUAL TEMPERATURE WATER RETURN
— CWS ——— CHILLED WATER SUPPLY
— CWR ——— CHILLED WATER RETURN
— RL ——— REFRIGERANT LIQUID SUPPLY
— RV ——— REFRIGERANT VAPOUR RETURN

SPRINKLER AND FIRE PROTECTION PIPING

— . . . ——— FIRE PROTECTION ZONE
— . . . ——— FIRE PROTECTION RATING
— F ——— XXXX ——— FIRE PROTECTION PIPE
— SP ——— XXXX ——— SPRINKLER MAIN
— ——— XXXX ——— SPRINKLER BRANCH PIPING
— DSP ——— XXXX ——— DRY SPRINKLER PIPING
— PA ——— XXXX ——— PRE-ACTION SPRINKLER PIPING

VALVES

EXISTING DEMO NEW
— — — — — GATE VALVE
— — — — — BALL VALVE
— — — — — GLOBE VALVE (TOP / SIDE)
— — — — — CIRCUIT BALANCING VALVE
— — — — — TWO-WAY CONTROL VALVE
— — — — — SOLENOID OPERATED VALVE
— — — — — PLUG VALVE
— — — — — BACK FLOW PREVENTER
— — — — — SWING CHECK VALVE
— — — — — SPRING TYPE CHECK VALVE
— — — — — REDUCED PRESSURE BACKFLOW PREVENTER
— — — — — DOUBLE CHECK VALVE ASSEMBLY
— — — — — GAS PRV
— — — — — SAFETY OR RELIEF VALVE
— — — — — HOSE BIBB VALVE

VENTILATION:

— — — — — TERMINAL BOX / WITH ATTENUATOR / AND REHEAT COIL
— — — — — EXISTING DUCT TO REMAIN (TYPE INDICATED)
— — — — — EXISTING DUCT TO BE DEMOLISHED
— — — — — SUPPLY AIR DUCT
— — — — — RETURN AIR DUCT
— — — — — TRANSFER AIR DUCT
— — — — — OUTDOOR AIR DUCT
— — — — — GENERAL EXHAUST DUCT
— — — — — WASHROOM EXHAUST DUCT
— — — — — KITCHEN EXHAUST DUCT
— — — — — FUME HOOD EXHAUST DUCT
— — — — — RECTANGULAR DUCTS UP: (SUPPLY / RETURN / EXHAUST)
— — — — — RECTANGULAR DUCTS DOWN: (SUPPLY / RETURN / EXHAUST)
— — — — — MOTORIZED DAMPER / BALANCING DAMPER
— — — — — FIRE DAMPER / SMOKE DAMPER / COMBINATION FIRE-SMOKE DAMPER
— — — — — ROUND ELBOWS - 45°: R1.0 / R1.5 / R2.0
— — — — — ROUND ELBOWS - 90°: R1.0 / R1.5 / R2.0
— — — — — RECTANGULAR ELBOWS - 45°: R1.0 / R1.5
— — — — — RECTANGULAR ELBOWS - 90°: R1.0 / R1.5
— — — — — RECTANGULAR ELBOWS WITH TURNING VANES: (90° R1.0 / 45° R1.0 / 90° SQUARE)
— — — — — ACOUSTICALLY LINED DUCT
— — — — — GRILLES AND DIFFUSERS: SUPPLY / RETURN / EXHAUST
— — — — — SUPPLY DIFFUSERS: SQUARE / ROUND PLAQUE OR CONE
— — — — — HORIZONTAL OR WALL GRILLES / DIFFUSER: SUPPLY / RETURN OR EXHAUST.

PLUMBING & DRAINAGE

— — — — — FUNNEL FLOOR DRAIN / FLOOR DRAIN / FLOOR DRAIN WITH TRAP
— — — — — HUB DRAIN / WITH TRAP
— — — — — CLEAN OUT PLUG / FLOOR
— — — — — P-TRAP / SINK TRAP / P-TRAP BELOW GRADE
— — — — — HOT / DRAIN / COLD CONNECTIONS

CONTROLS

— — — — — CONTROL WIRE
— — — — — THERMOSTAT / SPACE TEMPERATURE SENSOR
— — — — — THERMOSTAT WITH GUARD
— — — — — HUMIDISTAT / HUMIDITY SENSOR
— — — — — CO2 SENSOR
— — — — — SWITCH
— — — — — PUSH BUTTON

FIRE PROTECTION

NOTE: DEMOLISHED ITEMS WITH "R" DENOTES "SAVE FOR REINSTALLATION IN NEW LOCATION"
● PENDANT
⊗ PENDANT (EXISTING TO REMAIN)
⊗_D PENDANT (DEMOLISHED)
⊗_R PENDANT (REMOVE AND REINSTALL IN NEW LOCATION)
⊕ RECESSED
○ UPRIGHT
⊕ CONCEALED
— DRY PENDANT
— DRY PENDANT (EXISTING)
X PRE-ACTION
△ SIDEWALL
△ CONCEALED SIDEWALL
△ RECESSED SIDEWALL
FE FIRE EXTINGUISHER
FE FIRE EXTINGUISHER (EXISTING)
□ SURFACE MOUNTED F.E. CABINET
□ SEMI-RECESSED F.E. CABINET
□ FULLY RECESSED F.E. CABINET
— FIRE DEPARTMENT CONNECTION
— FIRE DEPARTMENT TEST CONNECTION
— SMOKE DETECTOR "DSO" DENOTES DUCT MOUNTED SMOKE DETECTOR

PIPE ANNOTATION

UP FROM BELOW / UP TO ABOVE
DOWN TO BELOW / DOWN FROM ABOVE
VENT UP FROM BELOW / UP TO ABOVE
VENT UP FROM BELOW / UP TO VENT CAP
PIPEWORK SHORTENED FOR CLARITY
PIPEWORK CONTINUED ELSEWHERE
PIPEWORK SHORTENED FOR CLARITY (ALTERNATE SYMBOL)
PIPE FLOW ARROW (SMALL)
PIPE FLOW ARROW (LARGE)

EQUIPMENT:

— PUMP
— RADIANT PANEL
— UNIT HEATER (HORIZONTAL)
— UNIT HEATER (VERTICAL)

TAGS:

— SCHEMATIC INLET/OUTLET
— TYPE PLUMBING FIXTURE TYPE TAG
— TYPE SIZE FLOW GRILLE / DIFFUSER TAG
— TYPE IN LENGTH OUTPUT FIN TUBE RADIATION TAG
— TYPE OUTPUT RADIANT PANEL TAG
— XXXX EQUIPMENT IDENTIFICATION TAG
— TIE-IN POINT

MECHANICAL DRAWING LIST

MECHANICAL DRAWING LIST			FORMAL ISSUES									
DRAWING NAME AND NUMBER			SCALE	ISSUED FOR REVIEW (DRAFT)	ISSUED FOR REVIEW	ISSUED FOR FINAL REVIEW	ISSUED FOR TENDER					
M-00	COVER PAGE		NTS			*	*					
M-01	MECHANICAL SYMBOL LEGEND, DRAWING LIST & GENERAL NOTES		NTS	*	*	*	*					
MD-01	BASEMENT DEMOLITION PLAN - HVAC		1:50			*	*					
MD-01.1	BASEMENT DEMOLITION PLAN - PLUMBING		1:50			*	*					
M-02	BASEMENT FLOOR PLAN NEW - HVAC		1:50	*	*	*	*					
M-02.1	BASEMENT FLOOR PLAN NEW - PLUMBING		1:50				*					
M-03	GROUND FLOOR PLAN NEW		1:100	*	*	*	*					
M-04	SECOND FLOOR PLAN NEW		1:100			*	*					
M-05	ROOF DEMOLITION PLAN		1:100	*	*	*	*					
M-06	ROOF PLAN NEW		1:100			*	*					
M-07	HEATING WATER SCHEMATIC		NTS	*	*	*	*					
M-08	MECHANICAL DETAILS		NTS			*	*					
ME-01	EQUIPMENT SCHEDULES		NTS	*	*	*	*					
ME-02	EQUIPMENT SCHEDULES		NTS			*	*					

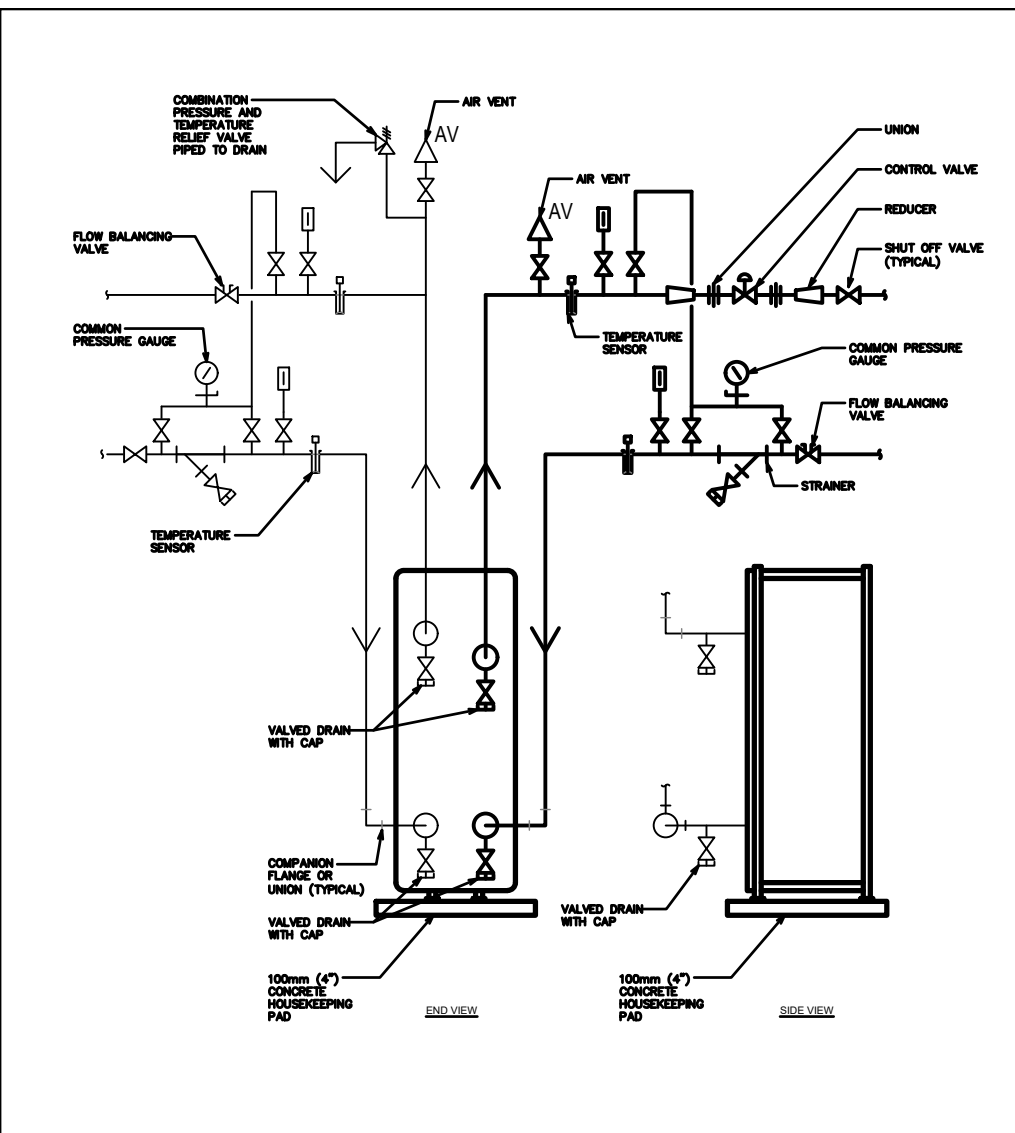
GENERAL NOTES:

ALL EQUIPMENT AND MATERIALS LOCATED IN ANY CONCEALED SPACE USED AS A RETURN AIR PLENUM SHALL CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE SECTION 3.6.3.

PIPING AND DUCTWORK LOCATIONS SHOWN ON PLAN ARE BASED ON LATEST MECHANICAL DRAWINGS AVAILABLE AND ARE APPROXIMATE. ACTUAL LOCATIONS MAY DIFFER FROM LOCATION SHOWN ON PLAN.

CONTRACTOR TO SUBMIT PRELIMINARY AND FINAL CONSTRUCTION SCHEDULE AS PER TENDER DOCUMENTS

NOT ALL SYMBOLS SHOWN ON THIS LEGEND ARE NECESSARILY USED ON THIS PROJECT.



1 PLATE & FRAME HEAT EXCHANGER PIPING ARRANGEMENT

5	ISSUED FOR TENDER	2025-07-23
4	RE-ISSUED FOR FINAL REVIEW	2025-03-31
3	ISSUED FOR FINAL REVIEW	2025-02-28
2	ISSUED FOR REVIEW	2025-01-10
1	ISSUED FOR REVIEW (DRAFT)	2024-10-11
No.	Issuance	Date

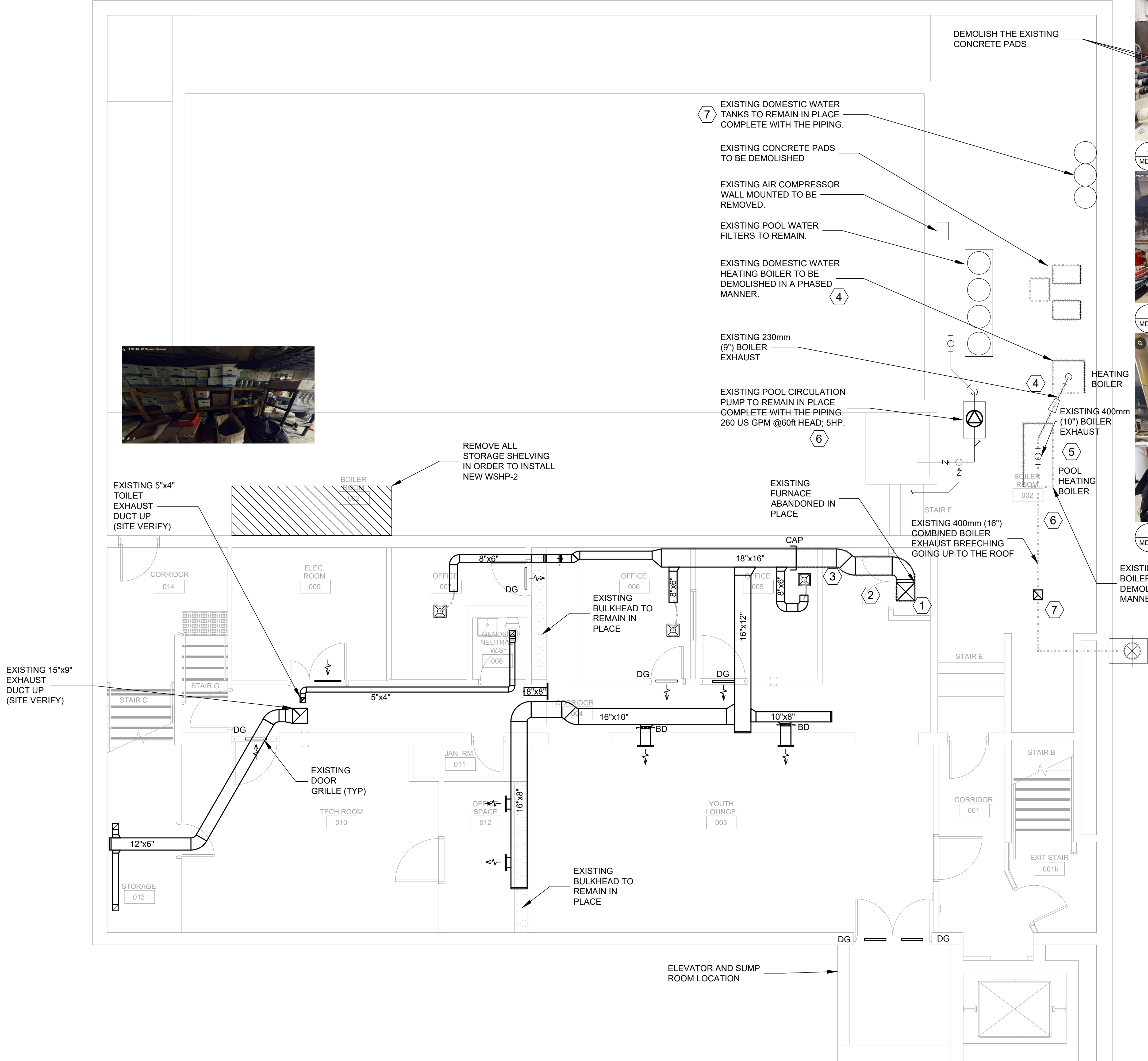
313 PHARMACY AVE.

PROJECT NO:	22241M	DRAWN:	EC
SCALE:	NTS	CHECKED:	EC
ISSUED:	JANUARY 01, 2025		

SHEET NAME:
MECHANICAL SYMBOL
LEGEND, DRAWING LIST
& GENERAL NOTES

SHEET NUMBER:

M-01



2 DELETION OF UNUSED CONCRETE PADS
MD-01



3 DEMOLITION OF HEATING WATER BOILER
MD-01



5 DEMOLITION OF POOL WATER BOILER
MD-01

EXISTING COMBINED
BREECHING FOR THE BOILERS
TO BE DEMOLISHED AND THE
OPENING IN THE CEILING TO
BE CAPPED.

EXISTING POOL HEATING
BOILER TO BE
DEMOLISHED IN A PHASED
MANNER.

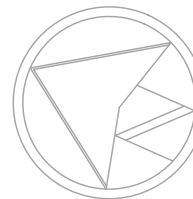
DEMOLITION GENERAL NOTES		
NO	DESCRIPTION	
1	CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES WITH CONTRACT DOCUMENTS OT THE ATTENTION OF THE DESIGN CONSULTANT PRIOR TO CONSTRUCTION.	
2	ALL WORK TO CONFORM TO EXISTING BY-LAWS, CODES AND AUTHORITIES HAVING JURISDICTION.	
3	CONTRACTOR TO REVIEW & FOLLOW THE CITY OF TORONTO'S CONSTRUCTION GUIDELINES PRIOR TO COMMENCEMENT OF ANY WORK.	
4	GENERAL CONTRACTOR SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF RUBBISH OR DEBRIS DURING CONSTRUCTION AND SHALL LEAVE THE PREMISES CLEAN UPON COMPLETION OF WORK. COORDINATE RUBBISH AND DEBRIS REMOVAL WITH THE BUILDING MANAGEMENT.	
5	MAINTAIN INTEGRITY OF ALL EXISTING FIRE PROTECTION SYSTEM PROVISIONS AT ALL TIMES DURING CONSTRUCTION.	
6	ALL EXISTING SERVICES ARE TO REMAIN UNLESS OTHERWISE NOTED.	

DEMOLITION KEY NOTES	
NO	DESCRIPTION
①	REMOVE THE EXISTING / ABANDONED GAS-FIRED FURNACE THAT PREVIOUSLY SERVED THE BASEMENT COMPLETE WITH ALL FITTINGS, CURBS AND ACCESSORIES. CAP THE HYDROIC PIPING SERVING AT THE POINT IT ENTERS THE MECHANICAL CLOSET. TEMPORARILY CAP THE DUCTWORK. PRIOR TO COMMENCEMENT OF THE WORK, DISCONNECT THE POWER SUPPLY TO THE UNIT AND TURN OFF THE BREAKER / DISCONNECT SWITCH.
②	REMOVE THE EXISTING WALL AND / OR COLUMN ENCLOSURE INCLUDING BUT NOT LIMITED CORNER GUARDS, METAL PANELS, WALL MOUNTED FIXTURES AND FINISHES. PROVIDE SMOOTH TRANSITION BETWEEN SURFACES AT DEMOLISHED AREA. REMOVE THE EXISTING DOOR AND FRAME CW DOOR HARDWARE. REPAIR ADJACENT AFFECTED WALL SURFACES.
③	REMOVE THE EXISTING SECTION OF THE SUPPLY DUCTWORK COMPLETE WITH ALL ACCESSORIES, FITTINGS AT THE POINT AS INDICATED ON THE DRAWING. ALLOW FOR NEW OR MODIFICATION OF THE EXISTING DUCTWORK AND ADD NEW DAMPERS TO CONNECT TO THE EXISTING DUCTWORK.
④	THE EXISTING BOILER SERVING THE DOMESTIC HOT WATER SYSTEM SHALL BE DISCONNECTED, MADE SAFE, AND REMOVED AFTER THE INSTALLATION AND COMMISSIONING OF THE NEW 1250 MBH CONDENSING GAS BOILER. CONTRACTOR TO PROVIDE A PHASING PLAN IN CONJUNCTION WITH THE FACILITY USERS AND COT TO MINIMIZE THE DISRUPTION TO THE FACILITY. ALL ACCESSORIES AND FITTINGS TO BE REMOVED. DISCONNECT AND CAP THE GAS CONNECTION.
⑤	THE EXISTING BOILER SERVING THE POOL HOT WATER SYSTEM SHALL BE DISCONNECTED, MADE SAFE, AND REMOVED AFTER THE INSTALLATION AND COMMISSIONING OF THE NEW 1250 MBH CONDENSING GAS BOILER. CONTRACTOR TO PROVIDE A PHASING PLAN IN CONJUNCTION WITH THE FACILITY USERS AND COT TO MINIMIZE THE DISRUPTION TO THE FACILITY. ALL ACCESSORIES AND FITTINGS TO BE REMOVED. DISCONNECT AND CAP THE GAS CONNECTION.
⑥	REMOVE THE EXISTING BOILER EXHAUST (BREECHING) FROM THE TWO BOILERS AND UP TO THE ROOF AS SHOWN.
⑦	REMOVE EXISTING BOILER EXHAUST VENT UP TO ROOF TERMINATION.

SEAL:

PERMIT:

KEY PLAN:



5	ISSUED FOR TENDER	2025-07-23
4	RE-ISSUED FOR FINAL REVIEW	2025-03-31
3	ISSUED FOR FINAL REVIEW	2025-02-28
2	ISSUED FOR REVIEW	2025-01-10
1	ISSUED FOR REVIEW (DRAFT)	2024-10-11
No.	Issuance	Date

313 PHARMACY AVE.

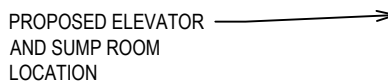
PROJECT NO:	22241M	DRAWN:	ET
SCALE:	1:50	CHECKED:	KC
ISSUED:	JANUARY 01, 2025		

SHEET NAME:

BASEMENT DEMOLITION PLAN - HVAC

SHEET NUMBER:

MD-01



3 DEMOLITION OF HEATING WATER BOILER PIPING
MD-02

NO	DESCRIPTION
1	CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES WITH CONTRACT DOCUMENTS AT THE ATTENTION OF THE DESIGN CONSULTANT PRIOR TO CONSTRUCTION.
2	ALL WORK TO CONFORM TO EXISTING BY-LAWS, CODES AND AUTHORITIES HAVING JURISDICTION.
3	CONTRACTOR TO REVIEW & FOLLOW THE CITY OF TORONTO'S CONSTRUCTION GUIDELINES PRIOR TO COMMENCEMENT OF ANY WORK.
4	GENERAL CONTRACTOR SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF RUBBISH OR DEBRIS DURING CONSTRUCTION AND SHALL LEAVE THE PREMISES CLEAN UPON COMPLETION OF WORK. COORDINATE RUBBISH AND DEBRIS REMOVAL WITH THE BUILDING MANAGEMENT.
5	MAINTAIN INTEGRITY OF ALL EXISTING FIRE PROTECTION SYSTEM PROVISIONS AT ALL TIMES DURING CONSTRUCTION.
6	ALL EXISTING SERVICES ARE TO REMAIN UNLESS OTHERWISE NOTED.

NO	DESCRIPTION
①	THE EXISTING BOILER SERVING THE DOMESTIC HOT WATER SYSTEM SHALL BE DISCONNECTED, MADE SAFE, AND REMOVED AFTER THE INSTALLATION AND COMMISSIONING OF THE NEW 1250 MBR CONDENSING GAS BOILER. CONTRACTOR TO PROVIDE A PHASING PLAN IN CONJUNCTION WITH THE FACILITY USERS AND C&I TO MINIMIZE THE DISRUPTION TO THE FACILITY. ALL ACCESSORIES AND FITTINGS TO BE REMOVED. DISCONNECT AND CAP THE GAS CONNECTION.
②	THE EXISTING BOILER SERVING THE POOL HOT WATER SYSTEM SHALL BE DISCONNECTED, MADE SAFE, AND REMOVED AFTER THE INSTALLATION AND COMMISSIONING OF THE NEW 1250 MBR CONDENSING GAS BOILER. CONTRACTOR TO PROVIDE A PHASING PLAN IN CONJUNCTION WITH THE FACILITY USERS AND C&I TO MINIMIZE THE DISRUPTION TO THE FACILITY. ALL ACCESSORIES AND FITTINGS TO BE REMOVED. DISCONNECT AND CAP THE GAS CONNECTION.
③	EXISTING THREE DOMESTIC HOT WATER STORAGE TANKS TO REMAIN IN PLACE C/W THE DISTRIBUTION PIPING.
④	EXISTING POOL HEATING PLATE AND FRAME HEAT EXCHANGER TO BE REMOVED C/W ALL FITTINGS AND ACCESSORIES. DISMANTLE AND REMOVE THE HEATING WATER PIPING FROM THE POOL HEATING WATER BOILER C/W ALL FITTINGS, VALVES AND ACCESSORIES AND PROVIDE CAPPED CONNECTIONS AS INDICATED. THIS PIPING IS ON THE INSIDE OF THE HEAT EXCHANGER. DISMANTLE AND REMOVE THE SUPPLY AND RETURN PIPING TO AND FROM THE POOL (THIS IS THE COLD SIDE OF THE HEAT EXCHANGER) AND CAP IT ON THE VERTICAL LEG AS INDICATED ON THE DRAWING.
⑤	REMOVE THE DOMESTIC HEATING WATER PIPING FROM THE HEATING WATER BOILER C/W ALL FITTINGS, VALVES AND ACCESSORIES TO AND FROM THE DOMESTIC HOT WATER STORAGE TANKS AND PROVIDE CAPPED CONNECTIONS AS INDICATED. CAP THE HEATING WATER PIPING AS INDICATED ON THE DRAWINGS. EXACT LOCATION OF THE CAPPED POINT TO BE DETERMINED AS PER SITE CONDITIONS.
⑥	REMOVE THE POOL HEATING WATER PIPING FROM THE POOL HEATING WATER BOILER C/W ALL FITTINGS, VALVES AND ACCESSORIES AND CAP THE PIPING AT THE POINT SHOWN ON THE DRAWINGS). DISCONNECT THE POWER TO THE POOL WATER HEATING PUMP AND REMOVE THE PUMP COMPLETE WITH ALL ACCESSORIES AND FITTINGS.
⑦	EXISTING THREE DOMESTIC HOT WATER STORAGE TANKS TO REMAIN IN PLACE C/W THE DISTRIBUTION PIPING.

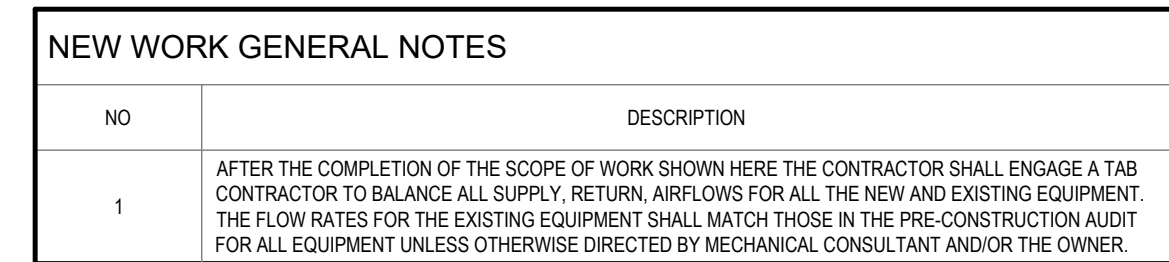
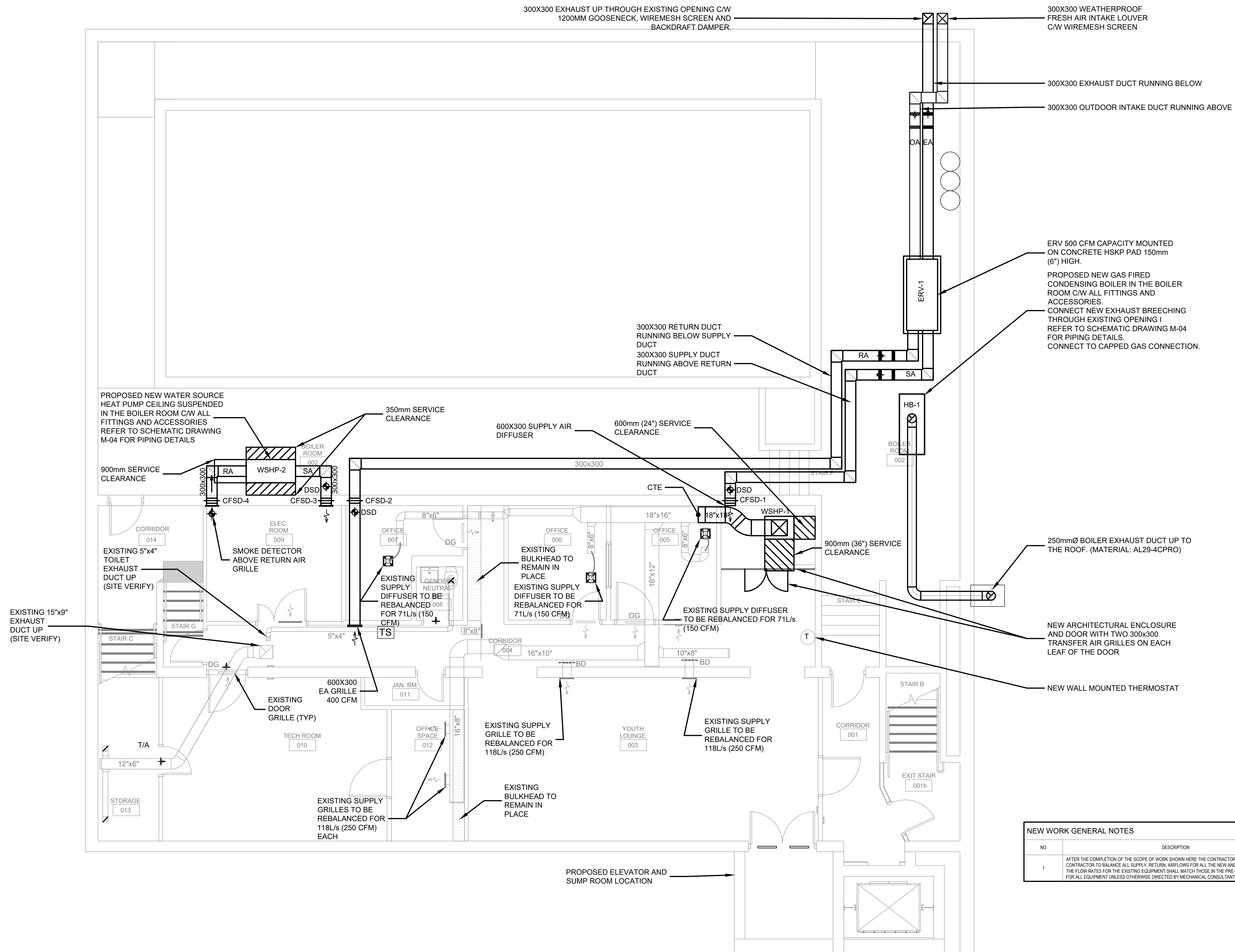
PERMIT:

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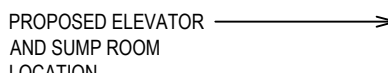
PROJECT NO: 22241M	DRAWN:
SCALE: 1:50	ET
ISSUED: JANUARY 01, 2025	CHECKED: KC

BASEMENT DEMOLITION PLAN - PLUMBING

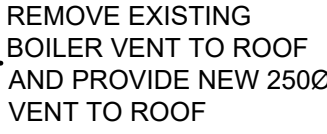
MD-01.1



NO	DESCRIPTION
1	AFTER THE COMPLETION OF THE SCOPE OF WORK SHOWN HERE THE CONTRACTOR SHALL ENGAGE A TAB CONTRACTOR TO BALANCE ALL SUPPLY, RETURN, AIRFLOWS FOR ALL THE NEW AND EXISTING EQUIPMENT. THE FLOW RATES FOR THE EXISTING EQUIPMENT SHALL MATCH THOSE IN THE PRE-CONSTRUCTION AUDIT FOR ALL EQUIPMENT UNLESS OTHERWISE DIRECTED BY MECHANICAL CONSULTANT AND/OR THE OWNER.

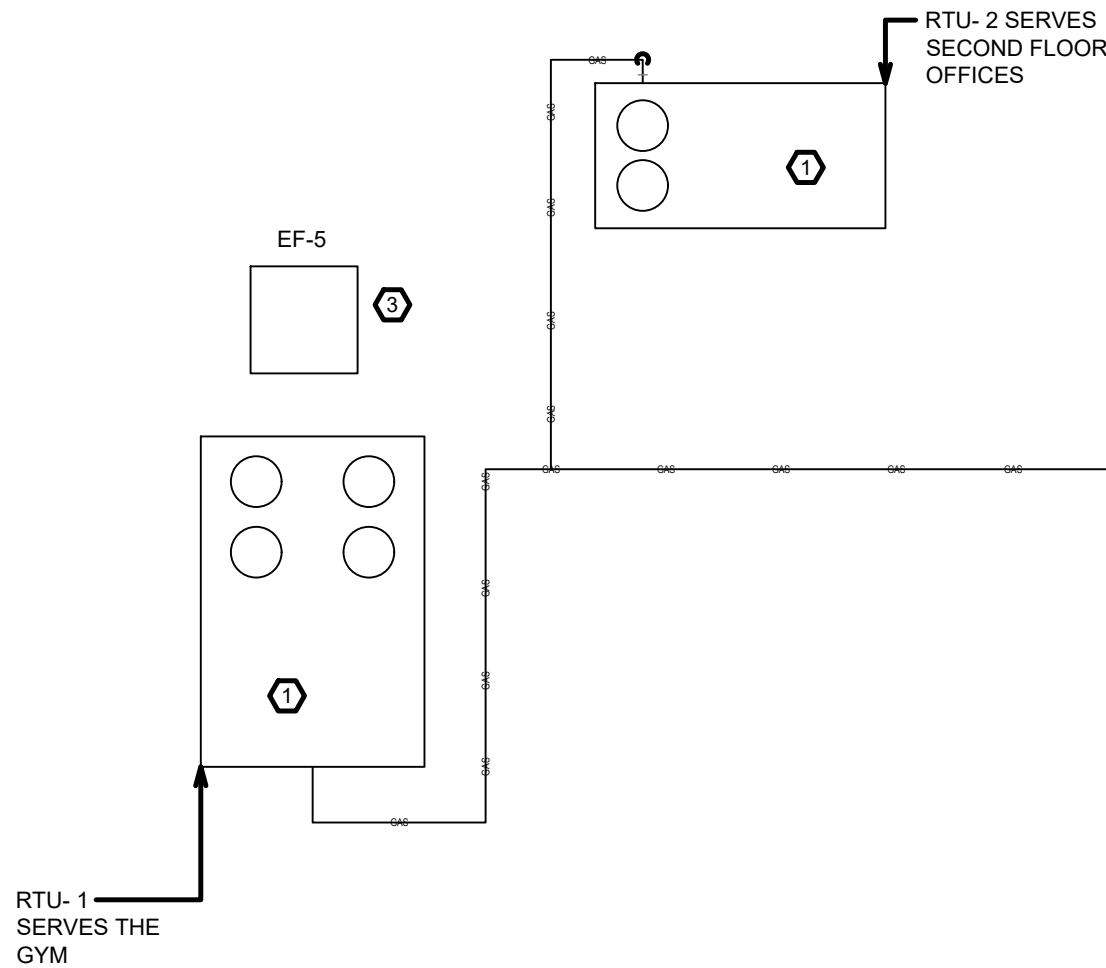


NO	DESCRIPTION
1	NOT USED
2	PROVIDE NEW PLATE AND FRAME HEAT EXCHANGER (TAG# HEX-2) COMPLETE WITH ALL FITTINGS AND ACCESSORIES. TO SERVE THE DOMESTIC HOT WATER DISTRIBUTION SYSTEM. REFER TO THE MECHANICAL SCHEMATIC FOR PIPE SIZES, VALVES AND INSTRUMENTATION. PROVIDE NEW BRANCH PIPING CW ACCESSORIES, FITTINGS, PIPE HANGARS AND INSTRUMENTATION FROM THE MAIN HEATING WATER LOOP TO THE SOURCE (HOT) SIDE OF THE HEAT EXCHANGER. PROVIDE NEW PIPING CW ACCESSORIES, FITTINGS, PIPE HANGARS AND INSTRUMENTATION FROM THE LOAD (COLD) SIDE OF THE HEAT EXCHANGER AND CONNECT TO THE CAPPED PIPING TO AND FROM THE DOMESTIC HOT WATER STORAGE TANKS AS SHOWN ON THE DRAWING.
3	PROVIDE NEW INLINE ELECTRIC BOOSTER HEATER IN THE NEW PIPING FROM THE HEAT EXCHANGER (TAG# HEX-2) TO THE DOMESTIC HOT WATER STORAGE TANKS AS INDICATED ON THE DRAWING. REFER TO ELECTRICAL DRAWINGS FOR THE POWER LAUYOT.
4	PROVIDE NEW PIPING CW ALL FITTINGS AND ACCESSORIES. PIPING SUPPORTS AND HANGARS TO CONNECT THE EXISTING DOMESTIC HOT WATER RECIRCULATION PUMP TO THE NEW DOMESTIC HOT WATER RETURN LINE AS INDICATED ON THE DRAWING. RECONNECT THE POWER TO THE PUMP. REFER TO THE ELECTRICAL DRAWINGS FOR THE POWER LAUYOT.
5	PROVIDE NEW PIPING CW ALL FITTINGS AND ACCESSORIES. PIPING SUPPORTS AND HANGARS TO CONNECT THE EXISTING MAKE-UP WATER LINE TO THE NEW DOMESTIC HOT WATER RETURN LINE AS INDICATED ON THE DRAWING.
6	PROVIDE NEW GAS FIRED CONDENSING HEATING BOILER (TAG#B-1) CW ALL FITTINGS AND ACCESSORIES. REFER TO THE MECHANICAL SCHEMATIC DRAWING FOR PIPE SIZING, VALVES AND INSTRUMENTATION DETAILS. CONNECT TO PREVIOUSLY CAPPED GAS CONNECTION. THE EXACT POINT OF CONNECTION TO THE GAS PIPING TO BE VERIFIED ON SITE. THIS BOILER IS CONNECTED TO THE MAIN HEATING WATER LOOP WITH 30% PROPYLENE GLYCOL.
7	PROVIDE NEW PLATE AND FRAME HEAT EXCHANGER (TAG# HEX-3) COMPLETE WITH ALL FITTINGS AND ACCESSORIES TO SERVE THE POOL WATER HEATING SYSTEM. REFER TO THE MECHANICAL SCHEMATIC FOR PIPE SIZES, VALVES AND INSTRUMENTATION. PROVIDE NEW BRANCH PIPING CW ACCESSORIES, FITTINGS, PIPE HANGARS AND INSTRUMENTATION FROM THE MAIN HEATING WATER LOOP (30% PROPYLENE GLYCOL) TO THE SOURCE (HOT) SIDE OF THE HEAT EXCHANGER AS SHOWN ON THE DRAWING.
8	PROVIDE THE NEW POOL WATER HEATING DISTRIBUTION PUMP (TAG# P-2) COMPLETE WITH ALL ACCESSORIES, FITTINGS, VALVES AND INSTRUMENTATION. REFER TO THE MECHANICAL SCHEMATIC FOR DETAILS. REFER TO THE ELECTRICAL DRAWINGS FOR ELECTRICAL POWER LAUYOTS. THIS PUMP IS LOCATED DOWNSTREAM OF THE LOAD (COLD SIDE) OF HEAT EXCHANGER (TAG# HEX-3). PROVIDE THE ASSOCIATED PIPING COMPLETE WITH ALL FITTINGS, PIPE HANGARS AND SUPPORTS. REFER TO THE MECHANICAL SCHEMATIC FOR PIPE SIZES. PROVIDE NEW BRANCH PIPING CW ACCESSORIES, FITTINGS, PIPE HANGARS AND INSTRUMENTATION FROM THE LOAD (COLD) SIDE OF THE HEAT EXCHANGER AS SHOWN ON THE DRAWING TO THE SUCTION OF THE PUMP (TAG# P-2) AS INDICATED ON THE DRAWING. REFER TO THE MECHANICAL SCHEMATIC FOR PIPE SIZES, VALVES AND INSTRUMENTATION.
9	PROVIDE NEW BRANCH SUPPLY PIPING CW ALL FITTINGS AND ACCESSORIES. PIPING SUPPORTS AND HANGARS DOWNSTREAM OF POOL WATER HEATING DISTRIBUTION PUMP (TAG# P-2) AND CONNECT TO THE PREVIOUSLY CAPPED CONNECTION ON THE POOL HEATING WATER LOOP AS INDICATED ON THE DRAWING. REFER TO MECHANICAL SCHEMATIC FOR PIPE SIZES, AND INSTRUMENTATION.
10	PROVIDE NEW BRANCH RETURN PIPING CW ALL FITTINGS AND ACCESSORIES. PIPING SUPPORTS AND HANGARS FROM THE POOL WATER HEATING DISTRIBUTION LOOP AND CONNECT TO THE RETURN PORT ON THE LOAD (COLD) SIDE OF HEAT EXCHANGER (TAG# HEX-3) AS INDICATED ON THE DRAWING. REFER TO MECHANICAL SCHEMATIC FOR PIPE SIZES, AND INSTRUMENTATION.
11	PROVIDE THE NEW DISTRIBUTION PUMP (TAG# P-1) SERVING THE NEW PLATE AND FRAME HEAT EXCHANGER (TAG# HEX-1) ON THE SOURCE (HOT) SIDE COMPLETE WITH ALL ACCESSORIES, FITTINGS, VALVES AND INSTRUMENTATION. REFER TO THE MECHANICAL SCHEMATIC FOR DETAILS. REFER TO THE ELECTRICAL DRAWINGS FOR ELECTRICAL POWER LAUYOTS. THIS PUMP IS LOCATED UPSTREAM OF THE SOURCE (HOT) SIDE OF HEAT EXCHANGER (TAG# HEX-1). PROVIDE THE ASSOCIATED PIPING COMPLETE WITH ALL FITTINGS, PIPE HANGARS AND SUPPORTS. REFER TO THE MECHANICAL SCHEMATIC FOR PIPE SIZES. PROVIDE AND INSTALL NEW BRANCH SUPPLY PIPING CW ALL FITTINGS AND ACCESSORIES. PIPING SUPPORTS AND HANGARS FROM THE POOL WATER HEATING DISTRIBUTION LOOP AND CONNECT TO THE SUCTION OF PUMP (TAG# P-1) AS INDICATED ON THE DRAWING. REFER TO MECHANICAL SCHEMATIC FOR PIPE SIZES, AND INSTRUMENTATION.
12	PROVIDE NEW PLATE AND FRAME HEAT EXCHANGER (TAG# HEX-1) COMPLETE WITH ALL FITTINGS AND ACCESSORIES. TO SERVE THE NEW WATER SOURCE HEAT PUMP DISTRIBUTION SYSTEM. REFER TO THE MECHANICAL SCHEMATIC FOR PIPE SIZES, VALVES AND INSTRUMENTATION. THE LOAD (HOT) SIDE OF THE HEAT EXCHANGER IS SERVED BY PUMP (P-1) AS INDICATED ON THE DRAWING. REFER TO MECHANICAL SCHEMATIC FOR PIPE SIZES, AND INSTRUMENTATION.
13	PROVIDE NEW BRANCH RETURN PIPING CW ALL FITTINGS AND ACCESSORIES. PIPING SUPPORTS AND HANGARS FROM THE THE RETURN PORT ON THE SOURCE (HOT) SIDE OF HEAT EXCHANGER (TAG# HEX-1) AND CONNECT TO THE MAIN POOL HEATING WATER LOOP AS INDICATED ON THE DRAWING. REFER TO MECHANICAL SCHEMATIC FOR PIPE SIZES, AND INSTRUMENTATION.
14	PROVIDE THE NEW DISTRIBUTION PUMP (TAG# P-3) SERVING THE NEW WATER SOURCE HEAT PUMP CONNECTED TO THE LOAD (COLD) SIDE OF HEAT EXCHANGER (TAG# HEX-1) COMPLETE WITH ALL ACCESSORIES, FITTINGS, VALVES AND INSTRUMENTATION. REFER TO THE MECHANICAL SCHEMATIC FOR DETAILS. REFER TO THE ELECTRICAL DRAWINGS FOR ELECTRICAL POWER LAUYOTS. THIS PUMP IS LOCATED DOWNSTREAM OF THE LOAD (SIDE) OF HEAT EXCHANGER (TAG# HEX-1) AND SERVES THE WATER SOURCE HEAT PUMP DISTRIBUTION LOOP AS INDICATED ON THE DRAWING. PROVIDE THE ASSOCIATED PIPING COMPLETE WITH ALL FITTINGS, PIPE HANGARS AND SUPPORTS. REFER TO THE MECHANICAL SCHEMATIC FOR PIPE SIZES.
15	PROVIDE NEW BRANCH SUPPLY AND RETURN PIPING CW ALL FITTINGS AND ACCESSORIES. PIPING SUPPORTS AND HANGARS CONNECTED TO THE WATER SOURCE HEAT PUMP TO SERVE WATER SOURCE HEAT PUMP (TAG# WSPH-1) SERVING THE BASEMENT AS INDICATED ON THE DRAWING. REFER TO MECHANICAL SCHEMATIC FOR PIPE SIZES, AND INSTRUMENTATION.
16	PROVIDE NEW BRANCH SUPPLY AND RETURN PIPING CW ALL FITTINGS AND ACCESSORIES. PIPING SUPPORTS AND HANGARS CONNECTED TO THE WATER SOURCE HEAT PUMP TO SERVE WATER SOURCE HEAT PUMP (TAG# WSPH-2) SERVING THE MAIN ELECTRICAL ROOM AS INDICATED ON THE DRAWING. REFER TO MECHANICAL SCHEMATIC FOR PIPE SIZES, AND INSTRUMENTATION.
17	PROVIDE NEW BRANCH RETURN PIPING CW ALL FITTINGS AND ACCESSORIES. PIPING SUPPORTS AND HANGARS TO THE THE RETURN PORT ON THE LOAD (COLD) SIDE OF HEAT EXCHANGER (TAG# HEX-1) AND CONNECT TO THE WATER SOURCE HEAT PUMP DISTRIBUTION LOOP AS INDICATED ON THE DRAWING. REFER TO MECHANICAL SCHEMATIC FOR PIPE SIZES, AND INSTRUMENTATION.
18	PROVIDE THE NEW MAIN DISTRIBUTION PUMP (TAG# P-3) COMPLETE WITH ALL ACCESSORIES, FITTINGS, VALVES AND INSTRUMENTATION. REFER TO THE MECHANICAL SCHEMATIC FOR DETAILS. REFER TO THE ELECTRICAL DRAWINGS FOR ELECTRICAL POWER LAUYOTS. PROVIDE THE ASSOCIATED PIPING COMPLETE WITH ALL FITTINGS, PIPE HANGARS AND SUPPORTS. REFER TO THE MECHANICAL SCHEMATIC FOR PIPE SIZES.



313 PHARMACY AVE.	
PROJECT NO: 22241M	DRAWN: ET
SCALE: 1:100	CHECKED: KC
ISSUED: JANUARY 01, 2025	

SHEET NAME:	
SECOND FLOOR PLAN NEW	
SHEET NUMBER:	
M-04	



NO	DESCRIPTION
1	CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES WITH CONTRACT DOCUMENTS OT THE ATTENTION OF THE DESIGN CONSULTANT PRIOR TO CONSTRUCTION.
2	ALL WORK TO CONFORM TO EXISTING BY-LAWS, CODES AND AUTHORITIES HAVING JURISDICTION.
3	CONTRACTOR TO REVIEW & FOLLOW THE CITY OF TORONTO'S CONSTRUCTION GUIDELINES PRIOR TO COMMENCEMENT OF ANY WORK.
4	GENERAL CONTRACTOR SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF RUBBISH OR DEBRIS DURING CONSTRUCTION AND SHALL LEAVE THE PREMISES CLEAN UPON COMPLETION OF WORK. COORDINATE RUBBISH AND DEBRIS REMOVAL WITH THE BUILDING MANAGEMENT.
5	MAINTAIN INTEGRITY OF ALL EXISTING FIRE PROTECTION SYSTEM PROVISIONS AT ALL TIMES DURING CONSTRUCTION.
6	ALL EXISTING SERVICES ARE TO REMAIN UNLESS OTHERWISE NOTED.
7	CONTRACTOR TO VERIFY THE EXISTING LOCATION AND DIMENSIONS OF THE ROOFTOP UNITS AND GAS PIPING SIZES PRIOR TO COMMENCEMENT OF ANY WORK.

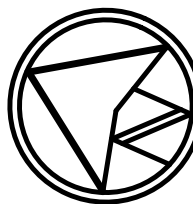
DEMOLITION KEY NOTES	
NO	DESCRIPTION
①	REMOVE THE EXISTING ROOFTOP UNITS COMPLETE WITH ALL FITTINGS AND ACCESSORIES EXCEPT THE EXISTING ROOF CURBS. PRIOR TO REMOVAL AND DECOMMISSIONING OF THE ROOFTOP UNITS, DISCONNECT THE POWER SUPPLY TO THE UNITS AND ISOLATE THE GAS SUPPLY TO THE UNITS AND MAKE SAFE. REMOVE THE EXISTING ROOFTOP UNITS AND CAP THE DUCT PENETRATION OPENINGS AND THE ROOF MOUNTED DUCT WORK (FOR RTUs). CONTRACTOR TO ENSURE THAT THE EXISTING DUCT PENETRATIONS ARE WATERIGHT AND PROTECTED FROM THE ELEMENTS AFTER THE REMOVAL OF THE EXISTING UNITS SHALL BE DISPOSED AS PER THE DIRECTIONS PROVIDED BY THE OWNER OR OWNER'S APPOINTED REPRESENTATIVE.
②	EXISTING POOL UNIT TO REMAIN IN PLACE COMPLETE WITH ALL ACCESSORIES AND FITTINGS. THE POOL UNIT SHALL NOT BE OPERATIONAL TEMPORARILY DURING THE REMOVAL OF THE OTHER UNITS SERVED BY THE SAME NATURAL GAS. CONTRACTOR TO COORDINATE WITH THE OWNER OR OWNERS APPOINTED REPRESENTATIVE TO SCHEDULE THE WORK IN ORDER TO MINIMIZE THE DISRUPTION TO THE OPERATION OF THE FACILITY AND SERVICES.
③	EXISTING EXHAUST FANS SHALL REMAIN IN PLACE. REFER TO REPORT FOR DETAILS.



SEAL:

PERMIT:

KEY PLAN:



5	ISSUED FOR TENDER	2025-07-23
4	RE-ISSUED FOR FINAL REVIEW	2025-03-31
3	ISSUED FOR FINAL REVIEW	2025-02-28
2	ISSUED FOR REVIEW	2025-01-10
1	ISSUED FOR REVIEW (DRAFT)	2024-10-11
No.	Issuance	Date

313 PHARMACY AV

PROJECT NO: 22241M

SCALE: 1:100

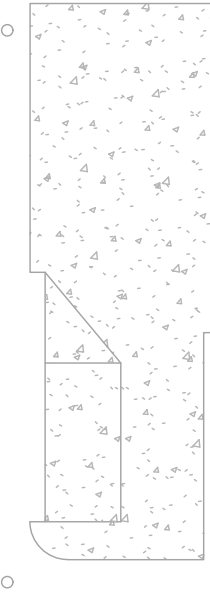
ISSUED:
JANUARY 01, 2025

SHEET NAME:

ROOF DEMOLITION PLAN

SHEET NUMBER:

M-05



DEMOLITION GENERAL NOTES	
NO	DESCRIPTION
1	CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND REPORT ALL DISCREPANCIES WITH CONTRACT DOCUMENTS AT THE ATTENTION OF THE DESIGN CONSULTANT PRIOR TO CONSTRUCTION.
2	ALL WORK TO CONFORM TO EXISTING BY-LAWS, CODES AND AUTHORITIES HAVING JURISDICTION.
3	CONTRACTOR TO REVIEW & FOLLOW THE CITY OF TORONTO'S CONSTRUCTION GUIDELINES PRIOR TO COMMENCEMENT OF ANY WORK.
4	GENERAL CONTRACTOR SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF RUBBISH OR DEBRIS DURING CONSTRUCTION AND SHALL LEAVE THE PREMISES CLEAN UPON COMPLETION OF WORK. COORDINATE RUBBISH AND DEBRIS REMOVAL WITH THE BUILDING MANAGEMENT.
5	MAINTAIN INTEGRITY OF ALL EXISTING FIRE PROTECTION SYSTEM PROVISIONS AT ALL TIMES DURING CONSTRUCTION.
6	ALL EXISTING SERVICES ARE TO REMAIN UNLESS OTHERWISE NOTED.
7	CONTRACTOR TO SITEVERIFY THE EXISTING LOCATION AND DIMENSIONS OF THE ROOFTOP UNITS AND GAS PIPING SIZES PRIOR TO COMMENCEMENT OF ANY WORK. THESE DRAWINGS INDICATE PROPOSED DESIGN INTENT ONLY. FINAL EQUIPMENT LOCATIONS AND ROUTING OF MECHANICAL SERVICES TO BE DETERMINED BY CONTRACTOR ON SITE.
8	AFTER THE COMPLETION OF THE SCOPE OF WORK SHOWN HERE THE CONTRACTOR SHALL ENGAGE A TAB CONTRACTOR TO BALANCE ALL SUPPLY, RETURN, INTAKE AND EXHAUST AIRFLOWS SERVED BY THE DEMOLISHED AND NEW EQUIPMENT. THE AIRFLOWS SHALL MATCH THOSE IN THE PRE-CONSTRUCTION AIR BALANCE AUDIT FOR ALL EQUIPMENT UNLESS OTHERWISE DICTATED BY MECHANICAL CONSULTANT AND/OR THE USERS.

DEMOLITION KEY NOTES	
NO	DESCRIPTION
①	<p>PROVIDE NEW ROOF/HEAT PUMP UNITS COMPLETE WITH ALL FITTINGS AND ACCESSORIES USING THE EXISTING ROOF CURBS WITH SUITABLE CURB ADAPTORS AS REQUIRED- RE-CONNECT THE POWER SUPPLY TO THE UNITS. RECONNECT THE NEW ROOF/HEAT PUMP UNITS TO THE EXISTING DUCT PENETRATION OPENINGS AND THE ROOF MOUNTED DUCT (FOR RTUS). CONTRACTOR TO ENSURE THAT SUITABLE DUCT FITTINGS AND ADAPTORS ARE USED TO CONNECT TO THE EXISTING DUCT CONNECTIONS THAT WERE PREVIOUSLY CAPPED. CONTRACTOR TO ALLOW FOR SITE MEASUREMENTS AND VERIFICATION PRIOR TO THE FABRICATION OF THE DUCT FITTINGS AND CONNECTIONS REQUIRED TO MAKE THE SYSTEM OPERATIONAL AGAIN.</p>
②	<p>EXISTING POOL UNIT TO REMAIN IN PLACE COMPLETE WITH ALL ACCESSORIES AND FITTINGS. THE POOL UNIT SHALL NOT BE OPERATIONAL TEMPORARILY DURING THE REMOVAL OF THE OTHER UNITS SERVED BY THE SAME NATURAL GAS LINE. CONTRACTOR TO COORDINATE WITH THE OWNER OR OWNERS APPOINTED REPRESENTATIVE TO SCHEDULE THE WORK IN ORDER TO MINIMIZE THE DISRUPTION TO THE OPERATION OF THE FACILITY AND SERVICES.</p>
③	<p>PRIOR TO THE DEMOLITION OF THE EXISTING ROOF/HEAT PUMP UNITS, THE GAS CONNECTION TO THE UNITS SHALL BE ISOLATED AND DISCONNECTED. THE PIPING CAPED AND UNIT MADE SAFE. AFTER THE INSTALLATION OF THE NEW ROOF/HEAT PUMP UNITS, THE CONTRACTOR TO RE-CONNECT THE NEW UNITS TO THE EXISTING GAS PIPING DISTRIBUTION. PROVIDE SUITABLE SPOOL, PIPES C/W FITTINGS, VALVES AND ACCESSORIES AND CONNECT TO THE CAPPED CONNECTIONS AS INDICATED. THE EXACT SIZE AND POINT OF THE CONNECTION TO BE DETERMINED BASED ON SITE VERIFICATION. THE DRAWING INDICATES THE PROPOSED DESIGN INTENT. THE PIPING TO BE TESTED PRIOR TO THE COMMISSIONING OF THE NEW ROOF/HEAT PUMP UNITS WITH GAS FIRED HEATING SECTIONS.</p>



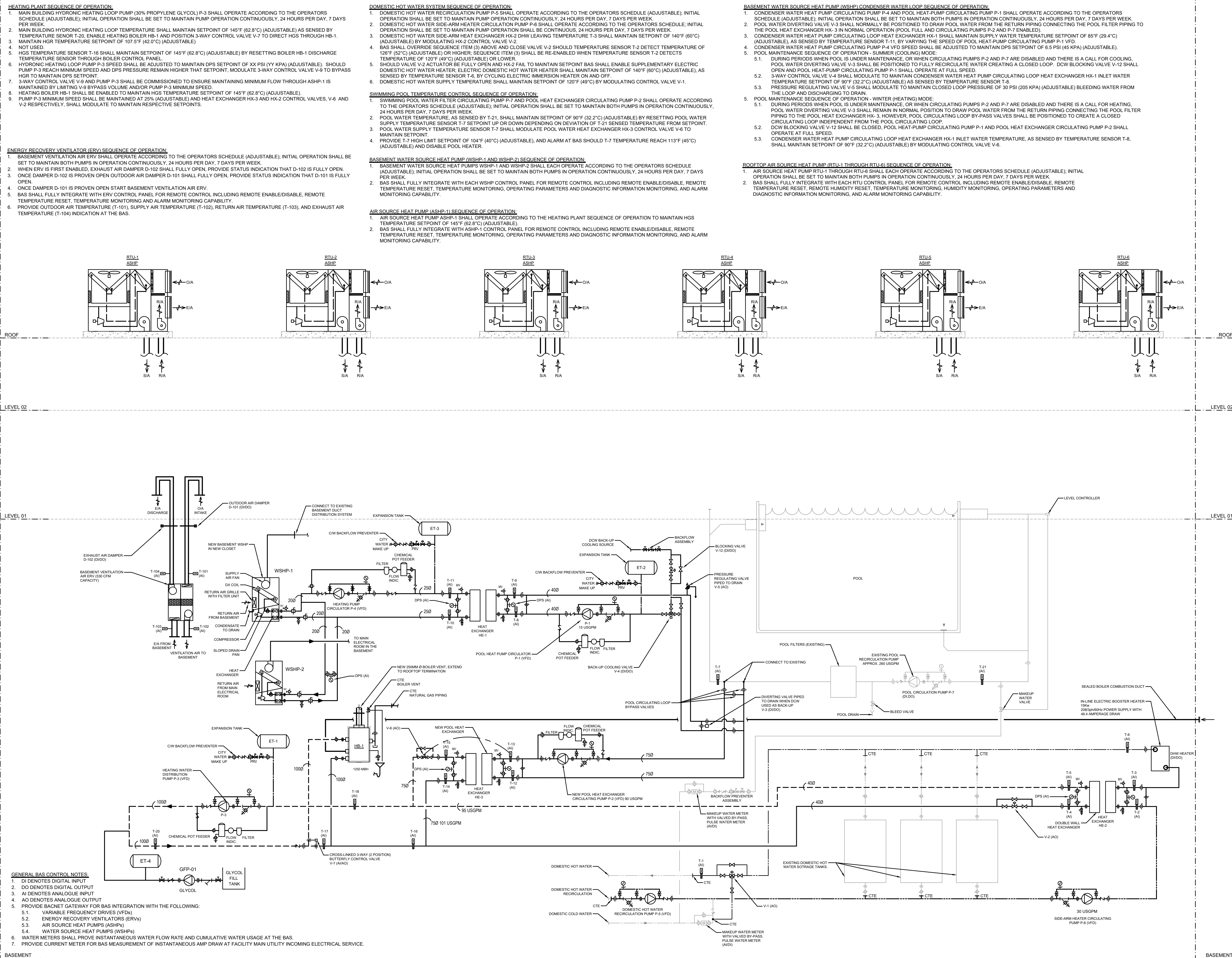
SEAL:

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PROJECT NO: 22241M	DRAWN:
SCALE: 1:100	ET
ISSUED: JANUARY 01, 2025	CHECKED: KC

M-06



SEAL:

PERMIT:

KEY PLAN:

5	ISSUED FOR TENDER	2025-07-23
4	RE-ISSUED FOR FINAL REVIEW	2025-03-31
3	ISSUED FOR FINAL REVIEW	2025-02-28
2	ISSUED FOR REVIEW	2025-01-10
1	ISSUED FOR REVIEW (DRAFT)	2024-10-11
No.	Issuance	Date

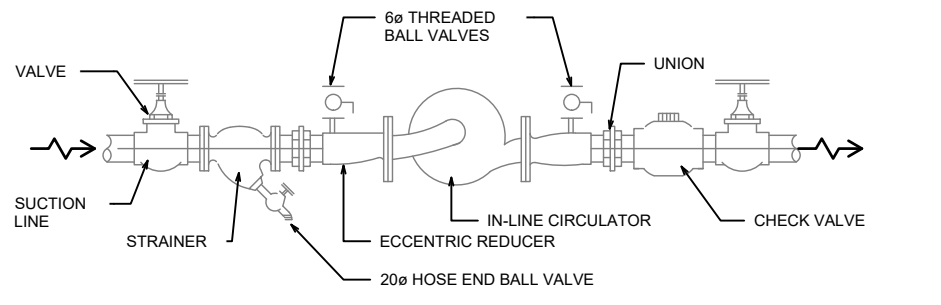
313 PHARMACY AVE.	
PROJECT NO:	22241M
SCALE:	NTS
ISSUED:	JANUARY 01, 2025
DRAWN:	ET
CHECKED:	KC

SHEET NAME:

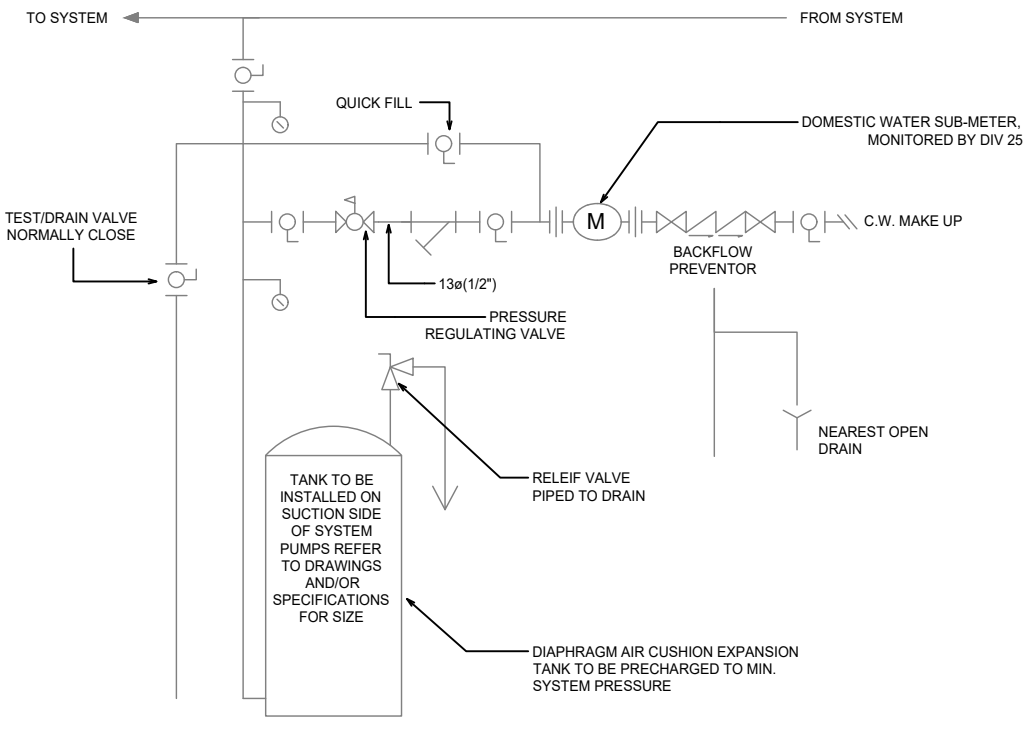
HEATING WATER SCHEMATIC

SHEET NUMBER:

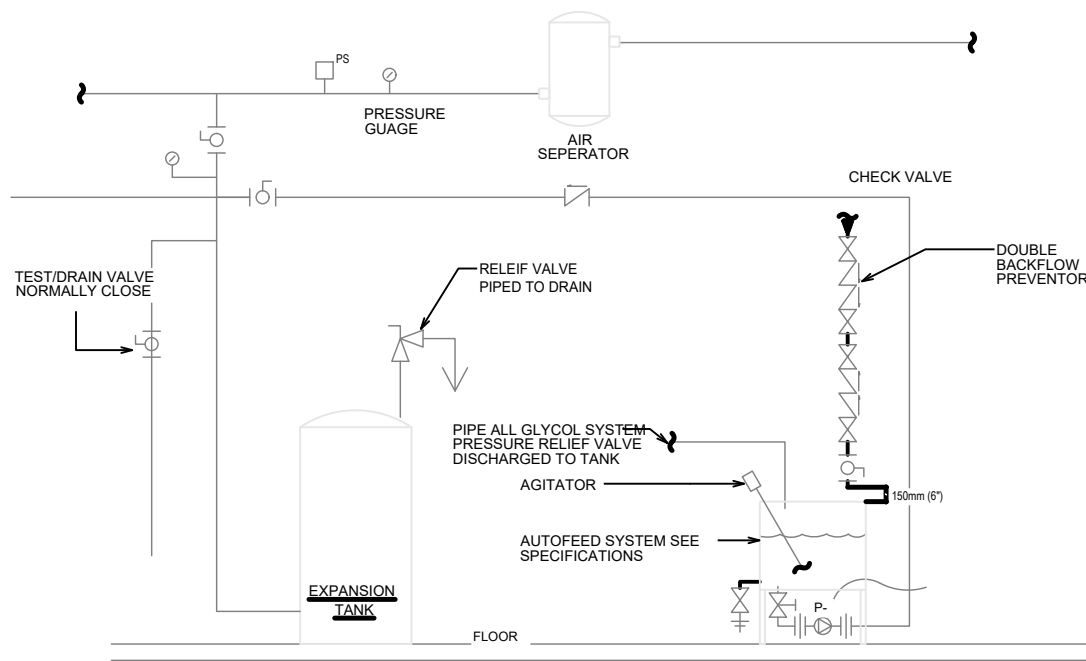
M-07



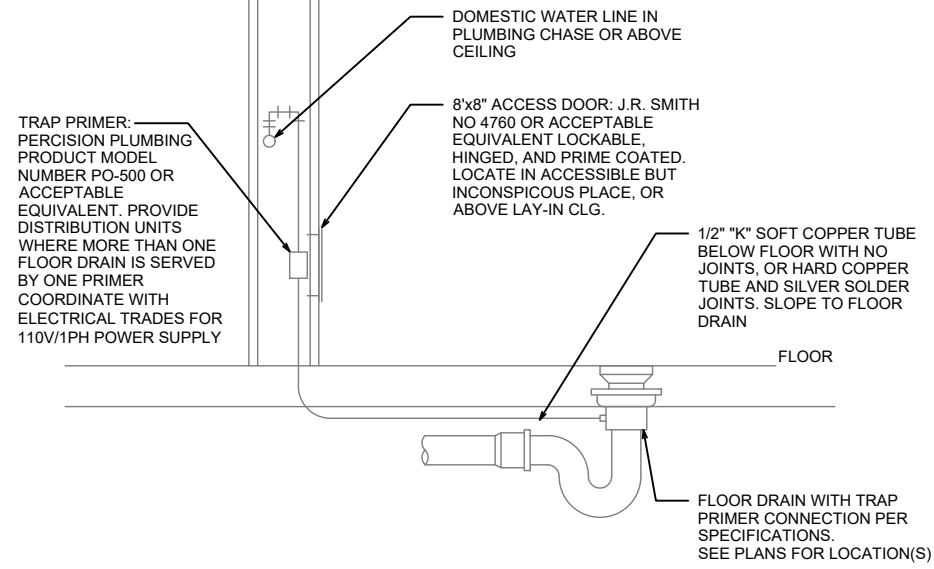
1 TYPICAL IN-LINE PUMP ARRANGEMENTS



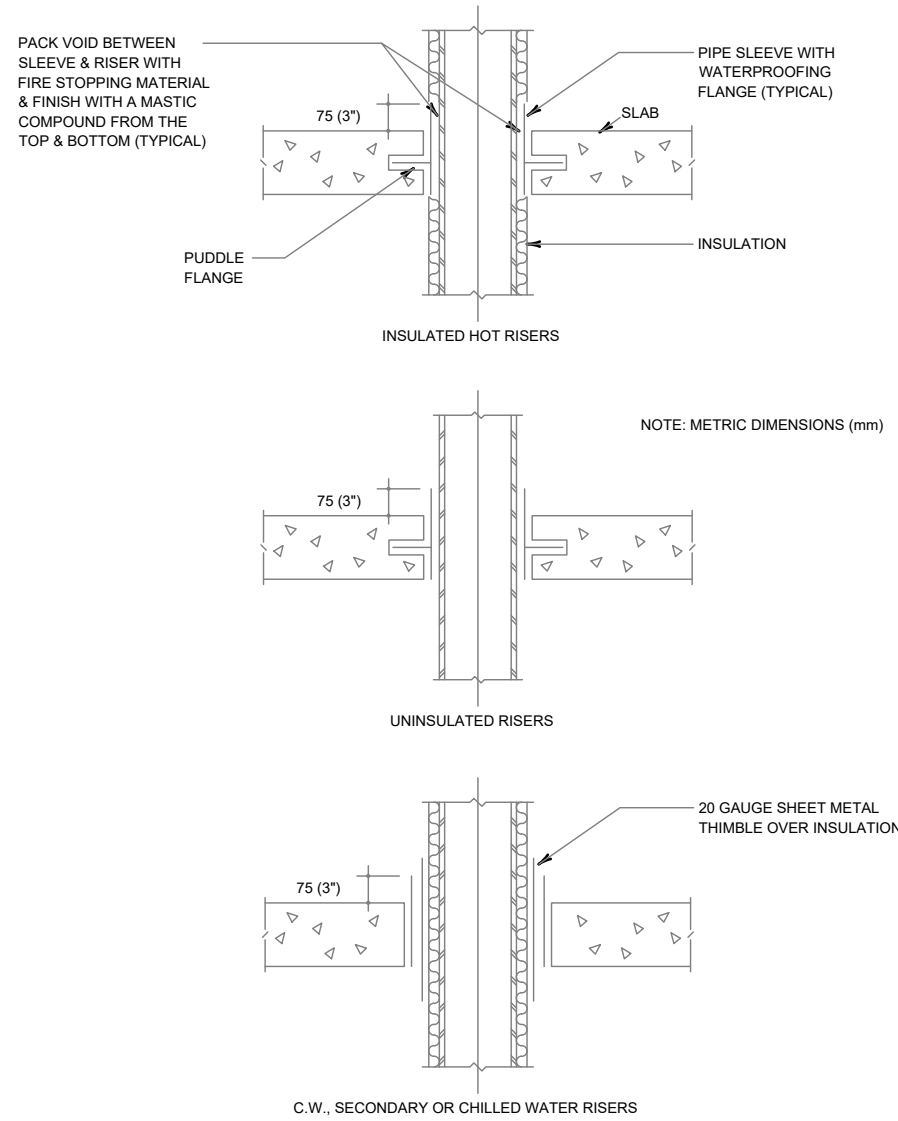
2 AIR CUSHION EXPANSION TANK



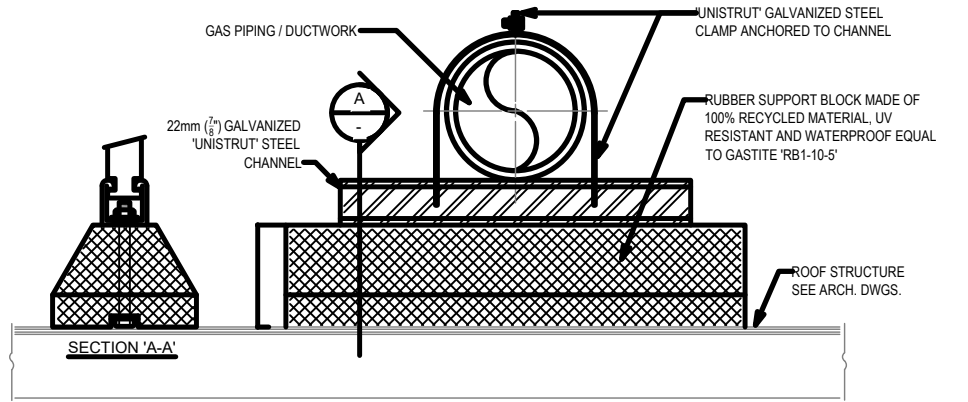
3 GLYCOL SYSTEM DIAPHRAGM TYPE EXPANSION TANK WITH AUTO FEED SYSTEM



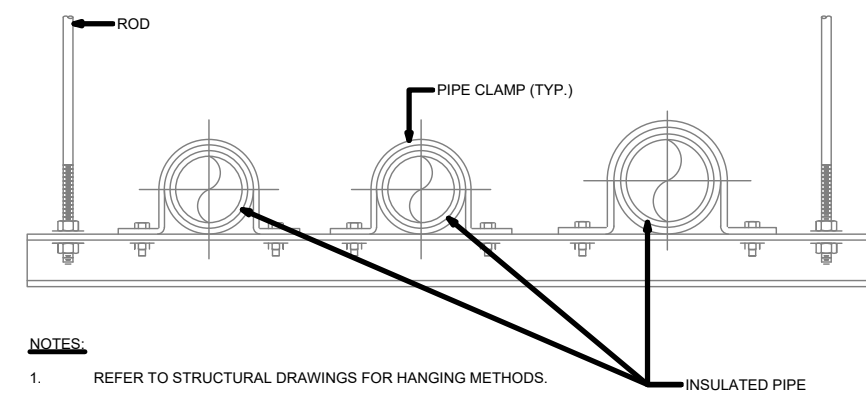
4 TRAP PRIMER DETAIL



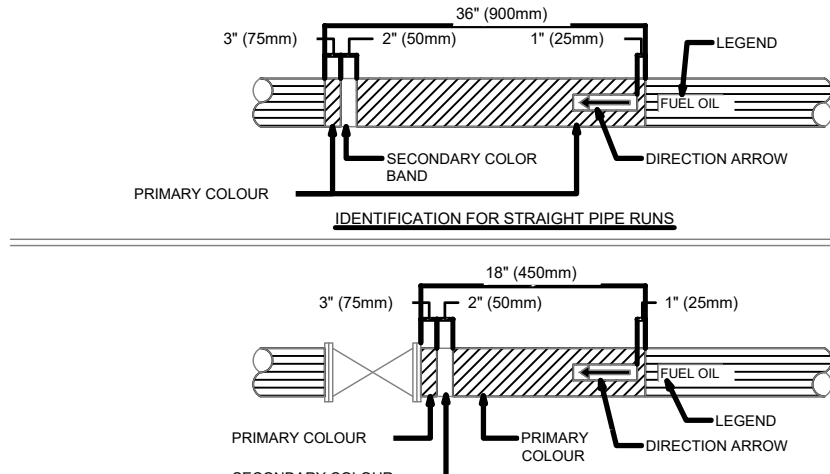
5 PIPES THROUGH CONCRETE SLABS OF MECHANICAL OR EQUIPMENT ROOM FLOORS



6 PIPE / DUCT SUPPORT ON ROOF

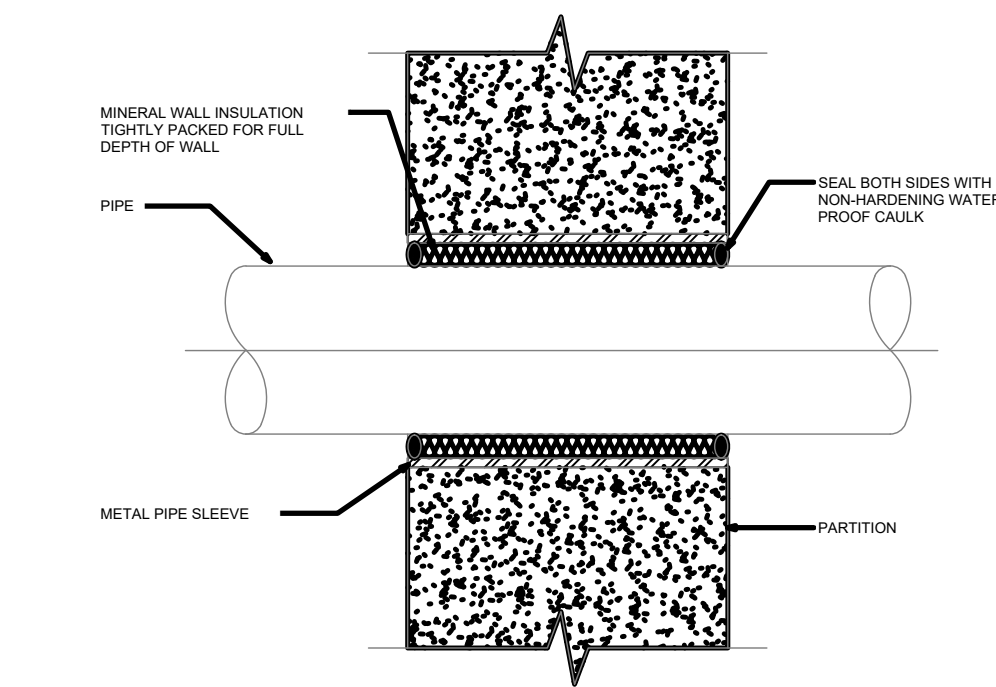


7 PIPE GROUP HANGER SUPPORT DETAIL

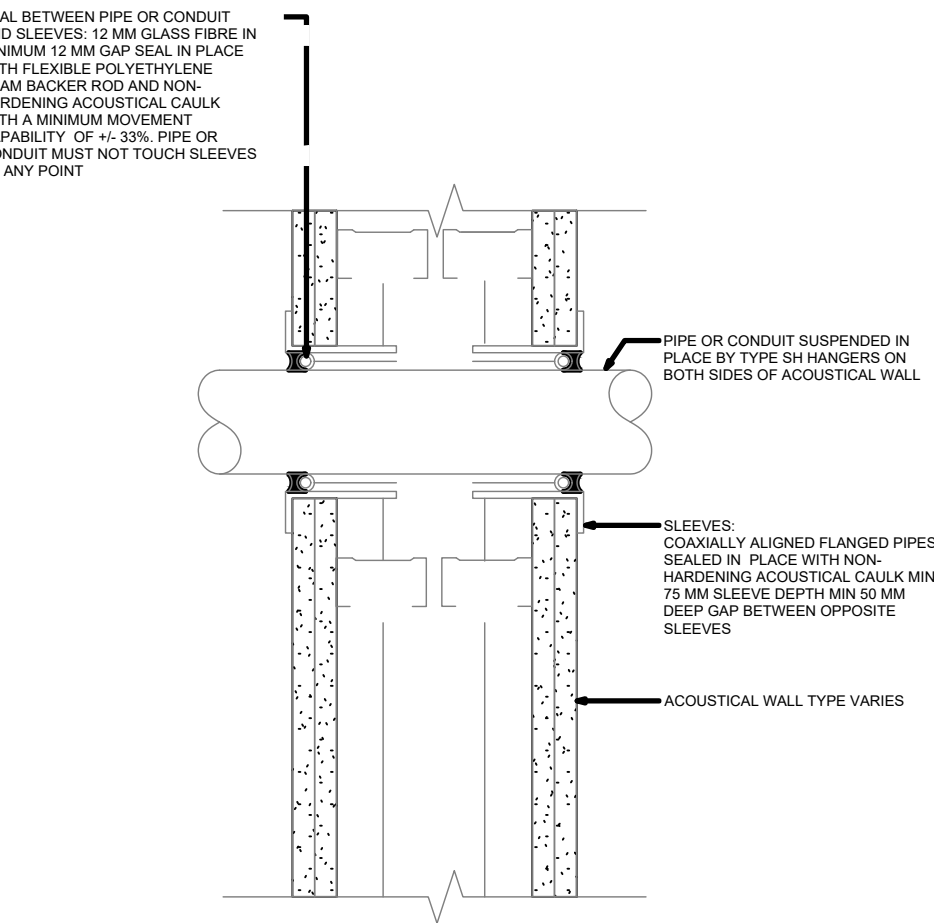


MATERIAL CLASSIFICATION	PRIMARY COLOR
1. DANGEROUS MATERIALS	YELLOW, 505-101
2. SAFE MATERIALS	GREEN, 505-102
3. PROTECTIVE MATERIALS	BLUE, 202-101
4. FIRE PROTECTION MATERIALS	RED, 509-102
MATERIAL CLASSIFICATION	SECONDARY COLOR
1. DANGEROUS MATERIALS	PRIMARY COLOR
2. FLAMMABLE	ORANGE, 508-102
3. POISONOUS OR RADIOACTIVE	PURPLE, 511-101
4. PHYSICALLY DANGEROUS	BLACK, 912-101
5. SAFE MATERIALS	NO SECONDARY COLOR REQUIRED
6. PROTECTIVE MATERIALS	PRIMARY COLOR
7. HAZARDOUS	YELLOW, 505-101
8. NON-HAZARDOUS	WHITE, 513-101
9. FIRE PROTECTION MATERIALS	PRIMARY COLOR
10. HAZARDOUS	YELLOW, 505-101
11. NON-HAZARDOUS	WHITE, 513-101

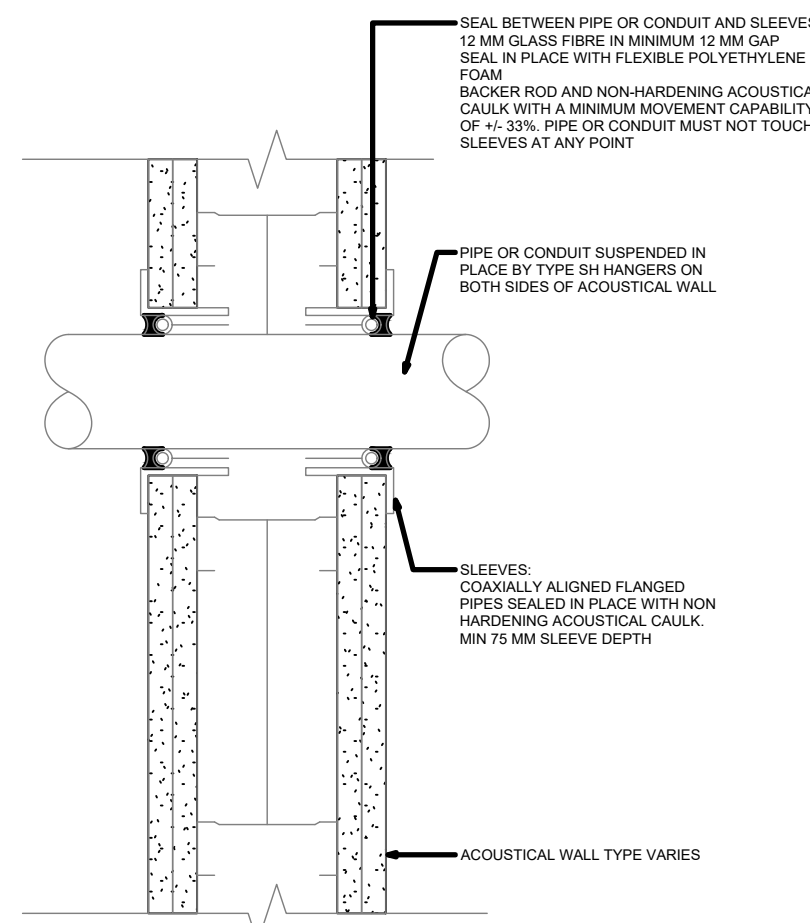
8 PIPE IDENTIFICATION



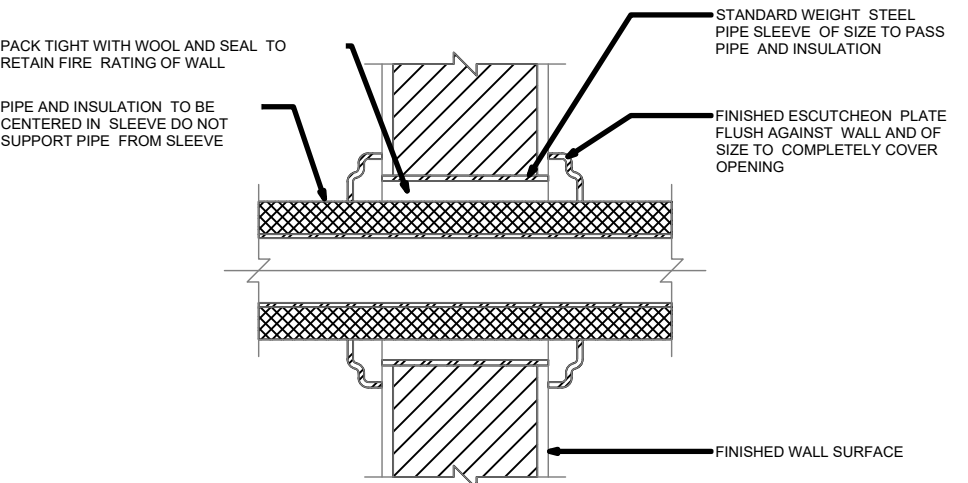
9 PIPE PENETRATION THROUGH NON-FIRE RATED WALL DETAIL



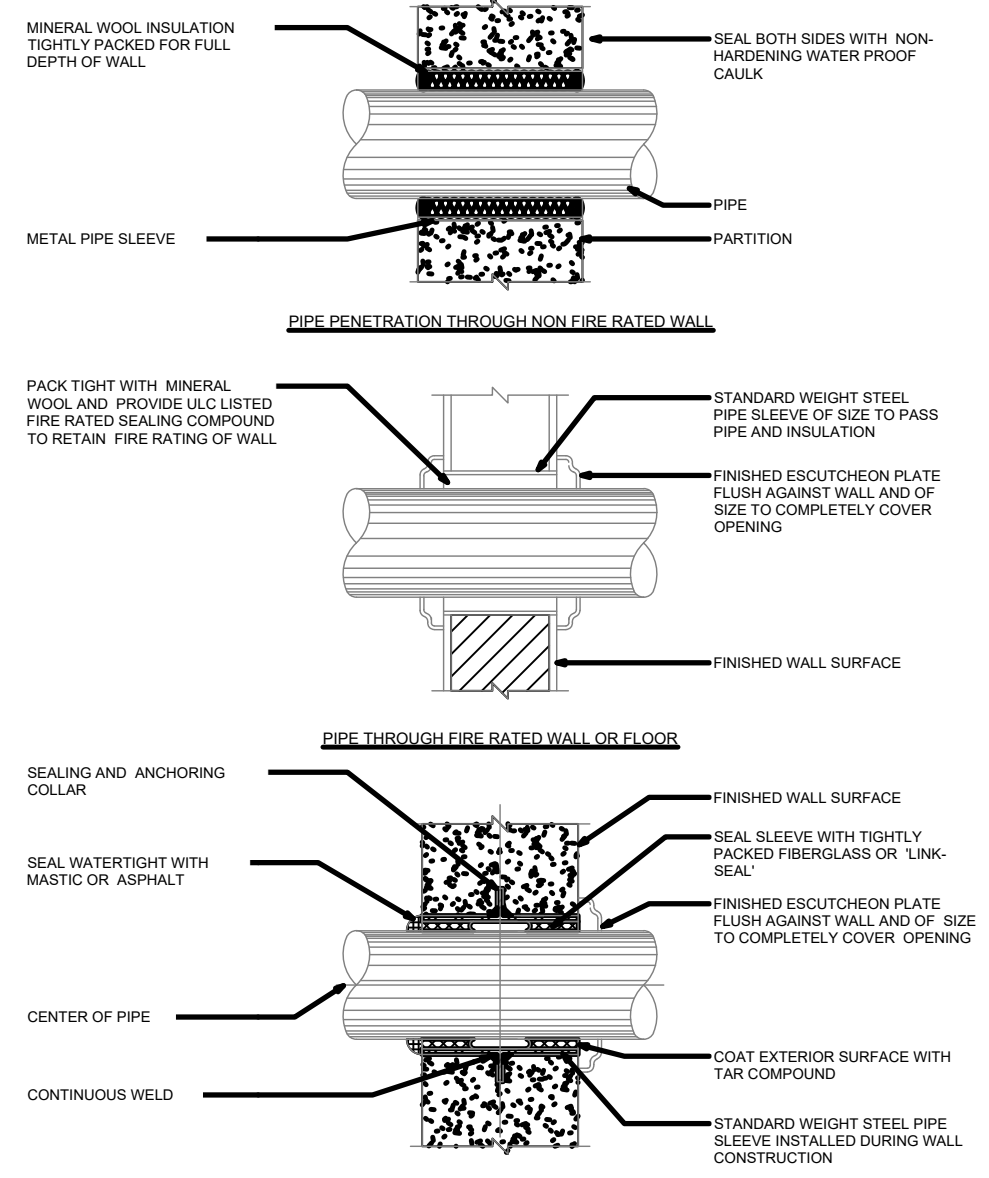
10 PIPE SEAL - ISOLATED WALL - PLAN



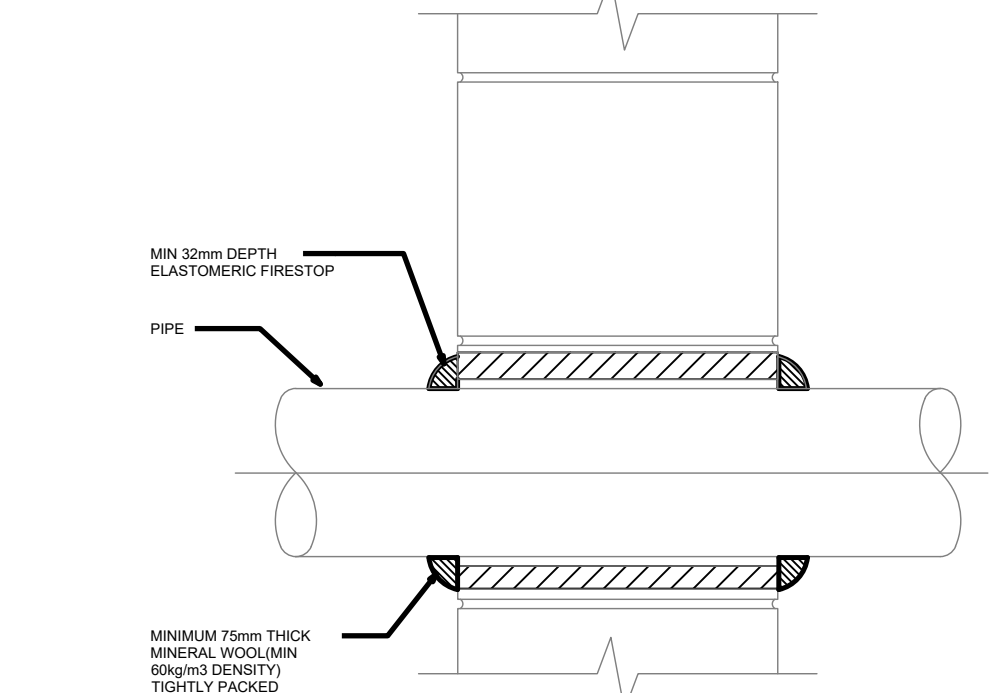
11 PIPE SEAL - SINGLE WALL - PLAN



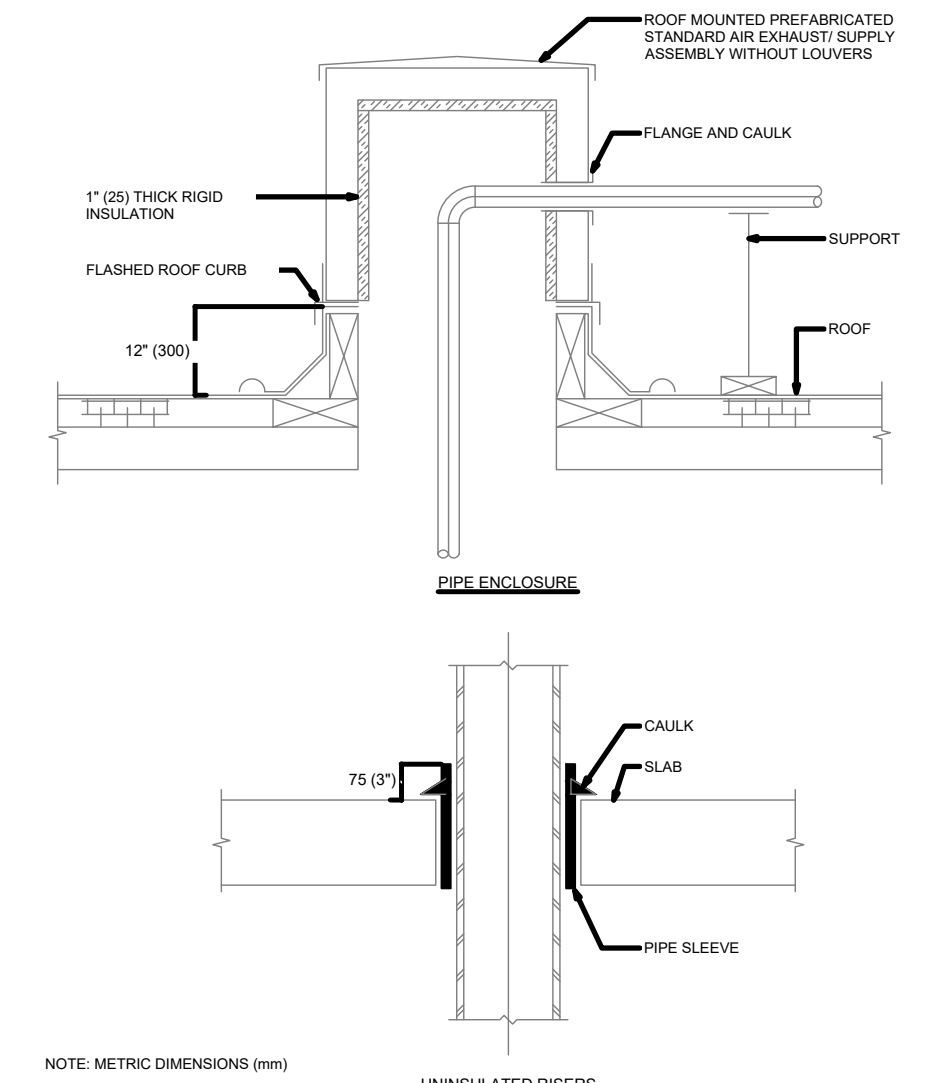
12 PIPE SLEEVE DETAIL



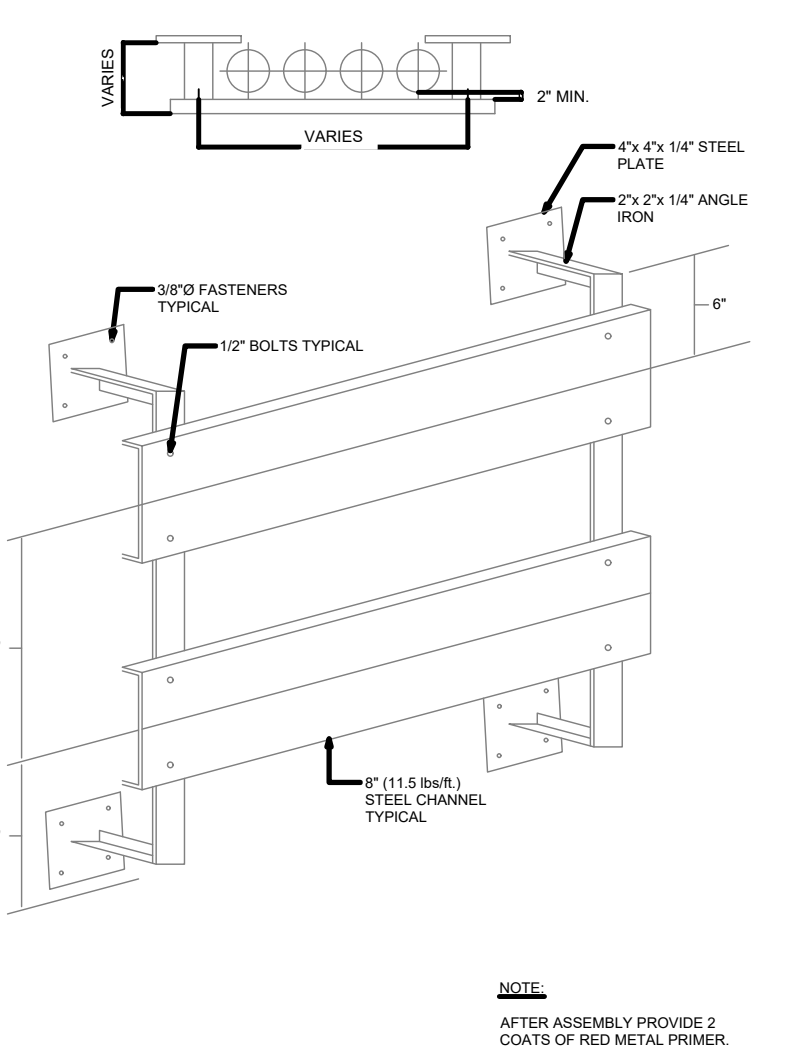
13 PIPE SLEEVE DETAIL 2



14 PIPE THROUGH CONCRETE OR BLOCK WALL ASSEMBLY DETAIL



15 PIPES THROUGH CONCRETE SLABS AND ROOF

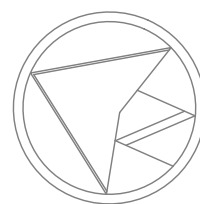


16 PIPING PROTECTION

SEAL:

PERMIT:

KEY PLAN:



5	ISSUED FOR TENDER	2025-07-23
4	RE-ISSUED FOR FINAL REVIEW	2025-03-31
3	ISSUED FOR FINAL REVIEW	2025-02-28
2	ISSUED FOR REVIEW	2025-01-10
1	ISSUED FOR REVIEW (DRAFT)	2024-10-11
No.	Issuance	Date

313 PHARMACY AVE.

PROJECT NO:	22241M	DRAWN:	ET
SCALE:	NTS	CHECKED:	KC
ISSUED:	JANUARY 01, 2025		

SHEET NAME:

MECHANICAL DETAILS

SHEET NUMBER:

M-08

PUMP SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	FLOW (L/S)	FLOW (GPM)	HEAD (KPA) (ft.wg)	APPROX. WEIGHT (kg)	RPM	MANUFACTURER	MODEL	TYPE / SIZE	MOTOR SIZE			FLA	POWER SUPPLY					STARTER			CONTROLS			OTHER REQUIREMENTS			REMARKS:
												KW	HP	BHP		VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY:	W.P. DISC. AT MOTOR	DISC. AT MOTOR	F.A. SHUT.	
P-1	POOL WATER CIRCULATING PUMP	BASEMENT	HEAT EXCHANGER (HEX-1) HOT SIDE	0.95	15	105 (35)	14.5	-	TACO	1915ECM	IN-LINE	3/4	0.37	-	208	3		-	Y	DIV. 23	DIV. 23	VSD	-	Y	DIV. 23	-	Y	-	OPERATING ARRANGEMENT: DUTY. WITH VFD; PUMP CONSTRUCTION SUITABLE FOR POTABLE WATER SERVICE	
P-2	MAIN POOL WATER HEATING PUMP	BASEMENT	HEAT EXCHANGER (HEX-3) COLD SIDE	5.68	90	44.8 (15)	80	1760	TACO	1941 ECM	IN-LINE	3/4	0.5	-	208	3		-	Y	DIV. 23	DIV. 23	VSD	-	Y	DIV. 23	-	Y	-	OPERATING ARRANGEMENT: DUTY. WITH VFD; PUMP CONSTRUCTION SUITABLE FOR POTABLE WATER SERVICE	
P-3	MAIN GLYCOL HEATING WATER CIRCULATING PUMP	BASEMENT	HEAT EXCHANGER (HEX- 2 & 3) HOT SIDE	8.20	130	149 (50)	92	3500	TACO	KS2007D	IN-LINE	3	2.2	-	208	3		-	Y	DIV. 23	DIV. 23	VSD	-	Y	DIV. 23	-	Y	-	OPERATING ARRANGEMENT : DUTY; FLUID IS 30% PROPYLENE GLYCOL	
P-4	WATER SOURCE HEAT PUMP CIRCULATING PUMP	BASEMENT	HEAT EXCHANGER (HX-1) COLD SIDE	1.32	21	74.7 (25)	40	1760	TACO	1915ECM	IN-LINE	0.5	0.28	-	208	3		-	Y	DIV. 23	DIV. 23	VSD	-	Y	DIV. 23	-	Y	-	OPERATING ARRANGEMENT: DUTY; WITH VFD	
P-5	DOMESTIC HOT WATER RECIRCULATION	BASEMENT	DOMESTIC HOT WATER SYSTEM	0.32	5	29.9 (10)	-	1725	TACO	1915ECM	IN-LINE	1/4	0.05	-	115	1		-	Y	DIV. 23	DIV. 23	VSD	-	Y	DIV. 23	-	Y	-	PUMP CONSTRUCTION SUITABLE FOR POTABLE WATER SERVICE	
P-6	DOMESTIC HOT WATER SIDE SIDEARM HEATING CIRCULATOR	BASEMENT	DOMESTIC HOT WATER HEAT EXCHANGER (HX-2)	1.89	30	44.8 (15)	-	1725	TACO	1911ECM	IN-LINE	1/3	0.19	-	115	1		-	Y	DIV. 23	DIV. 23	VSD	-	Y	DIV. 23	-	Y	-	PUMP CONSTRUCTION SUITABLE FOR POTABLE WATER SERVICE	
P-7	POOL WATER CIRCULATING PUMP (EXISTING)	BASEMENT	POOL FILTRATION & CIRCULATION	16.40	260	179	-	1725	ARMSTRONG	3x2x10 4280	BASE MOUNTED	5		-	208	3		-	Y	DIV. 23	DIV. 23	-	-	Y	DIV. 23	-	Y	-	PUMP CONSTRUCTION SUITABLE FOR POOL WATER SERVICE	

HEAT EXCHANGER SCHEDULE

REFERENCE	LOCATION	SERVICING	TOTAL HEAT EXCHANGED (kW)	DIMENSIONS (mm)				PRIMARY						SECONDARY						MANUFACTURER	TYPE	MODEL NUMBER	NOTES:
				LENGTH	WIDTH	HEIGHT	WEIGHT (kg)	FLUID	FLOW l/s (USGPM)	P.D. kPa (FT.WG)	EWT °C (°F)	LWT °C (°F)	PRESSURE RATING kPa	FLUID	FLOW l/s (USGPM)	P.D. kPa (FT.WG)	EWT °C (°F)	LWT °C (°F)	PRESSURE RATING kPa				
HE-01	BASEMENT	WSPH	21.66	409	200	800	80	POOL WATER	0.95 (21)	8.96 (3.0)	31.1 (88)	25.6 (78.1)	1034	CONDENSER WATER	1.325 (21)	20	24.9 (76.8)	28.83 (85.9)	1034	ALFA LAVAL	GASKETED PLATE	TL3-BFG	HEAT EXCHANGERS HX-02 AND HX-03 SHALL BE DOUBLE-WALL CONSTRUCTION SUITABLE FOR POTABLE WATER APPLICATIONS.
HE-02	BASEMENT	POTABLE WATER	83.3	750	330	880	246	30% PROPYLENE GLYCOL	1.89 (30)	54.44 (13.66)	35 (95)	1034	DOMESTIC HOT WATER	1.19 (18.8)	0.7 (0.23)	35.61 (96)	51.66 (125)	1034	ALFA LAVAL	GASKETED DOUBLE-WALL PLATE	T6-MdC-FG		
HE-3	BASEMENT	SWIMMING POOL	278	600	520	1195	611	30% PROPYLENE GLYCOL	6.36 (100.9)	1.22 (0.41)	54.44 (13.66)	35 (95)	1034	POOL WATER	5.68 (90)	1.22 (0.41)	29.44 (85)	40.6 (105)	1034	ALFA LAVAL	GASKETED DOUBLE-WALL PLATE	T10-MFG	

ENERGY RECOVERY VENTILATOR / WHEEL SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	SUPPLY AIR SIDE										EXHAUST AIR SIDE										NOTES: UNITS TO SHUTDOWN UPON DETECTION OF SMOKE WITHIN DUCTWORK ONLY. TO BE PROVIDED WITH 1.0 MTR LINED FLEX. DUCT BEFORE TERMINAL.
				AIR FLOW (l/s)	ESP (Pa)	EAT (OUTSIDE AIR)				LAT (SUPPLY AIR)				AIR FLOW (l/s)	ESP (Pa)	EAT (RETURN AIR)				LAT (EXHAUST AIR)				
						WINTER °C		SUMMER °C		WINTER °C		SUMMER °C				WINTER °C		SUMMER °C		WINTER °C		SUMMER °C		
						DB	WB	DB	WB	DB	WB	DB	WB			DB	WB	DB	WB	DB	WB	DB	WB	
ERV-01	ENERGY RECOVERY VENTILATOR	BASEMENT	BASEMENT	236.0	124.5	-28.9	-28.9	29.4	25.6	15.4	8.3	24.6	18.7	236.0	124.5	22.2	12.2	23.9	17.2	-21.7	-21.7	28.8	24.4	

MANUFACTURER	MODEL	FLA	MCA	MOP	POWER SUPPLY					STARTER			CONTROLS			OTHER REQUIREMENTS			OTHERS
					VOLTS	PHASE	FED FROM	EM.	NORM	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY:	DISC. AT MOTOR	W.P. DISC. AT MOTOR	F.A. SHUT DOWN	
ALDES	PE15[s]	10.2	12.8	15	208	3		-	Y	DIV. 23	DIV. 23	PKG	-	Y	DIV. 23	Y	-	-	RECOVERED ENERGY (HEATING)-52.5MBH; RECOVERED ENERGY (COOLING)-2 TONS; FRESH AIR MOTOR -0.75 HP; EXHAUST AIR MOTOR- 0.75 HP; MOTOR FOR THE ENERGY WHEEL - 0.05 HP

ROOFTOP AIR SOURCE HEAT PUMP (RTU) SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	AIR FLOW (L/S)	ESP (PA)	COOLING						HEATING			HEATING - HEAT PUMP			DIM.	WEIGHT (kg)	MANUF.	MODEL	MCA	MOP	POWER SUPPLY					STARTER			CONTROLS			OTHER REQUIREMENTS			REMARKS:			
					EAT DB (°C)	EAT WB (°C)	AMBIENT (°C)	COIL LAT DB (°C)	COIL LAT WB (°C)	GROSS TOTAL CAP. (KW)	GROSS SENSIBLE CAP. (KW)	INPUT CAP. (KW)	OUTPUT CAP. (KW)	EAT (°C)	LAT (°C)	CAP. (KW)							EAT (°C)	LAT (°C)	HXWLX (m)	VOLTS	PHASE	FED FROM	EM.	NORM	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY:		DISC. AT MOTOR	W.P. DISC. AT MOTOR	F.A. SHUT DOWN
RTU-01	ROOFTOP UNIT	ROOF	3775.6	364.4	23.9	17.2	35.0	12.1	11.6	66.8	53.8	117.1	94.9	15.6	36	65.9	15.6	32.4	1.7X2.2X3.1	1212	TRANE	DSK240A350H**D0E0A1 A30000000000000000000000000000000	108	150	208	3		-	Y	DIV. 23	DIV. 23	PKG	-	Y	DIV. 23	Y	-	-		
RTU-02	ROOFTOP UNIT	ROOF	1415.8	291.7	23.9	17.2	35.0	11.8	11.7	24.4	20.1	58.6	47.4	15.6	42.8	25.2	15.6	32.7	1.3X1.4X2.2	533	TRANE	DSK090A350H**D0E0A1 A30000000000000000000000000000000	43	50	208	3		-	Y	DIV. 23	DIV. 23	PKG	-	Y	DIV. 23	Y	-	-		
RTU-03	ROOFTOP UNIT	ROOF	943.9	333.3	23.9	17.2	35.0	11.7	11.6	16.5	13.6	43.9	35.6	15.6	46.4	15.4	15.6	31.4	1.2X1.1X1.8	387	TRANE	DSK060A350H**D0E0A1 A30000000000000000000000000000000	29	45	208	3		-	Y	DIV. 23	DIV. 23	PKG	-	Y	DIV. 23	Y	-	-		
RTU-04	ROOFTOP UNIT	ROOF	2831.7	321.8	23.9	17.2	35.0	12.1	11.6	50.3	40.4	117.1	94.9	15.6	42.8	48.5	15.6	32.1	1.5X2.2X3.1	1141	TRANE	DSK180A350H**D0E0A1 A30000000000000000000000000000000	84	110	208	3		-	Y	DIV. 23	DIV. 23	PKG	-	Y	DIV. 23	Y	-	-		
RTU-05	ROOFTOP UNIT	ROOF	2831.7	321.8	23.9	17.2	35.0	12.1	11.6	50.3	40.4	117.1	94.9	15.6	42.8	48.5	15.6	32.1	1.5X2.2X3.1	1061	TRANE	DSK180A350H**00E0A1A 30000000000000000000000000000000	84	110	208	3		-	Y	DIV. 23	DIV. 23	PKG	-	Y	DIV. 23	Y	-	-		
RTU-06	ROOFTOP UNIT	ROOF	1415.8	306.9	23.9	17.2	35.0	11.8	11.7	24.4	20.1	58.6	47.4	15.6	42.8	25.2	15.6	32.7	1.3X1.4X2.2	533	TRANE	DSK090A350H**D0E0A1 A30000000000000000000000000000000	43	50	208	3		-	Y	DIV. 23	DIV. 23	PKG	-	Y	DIV. 23	Y	-	-		

WATER SOURCE HEAT PUMP (WSHP) SCHEDULE

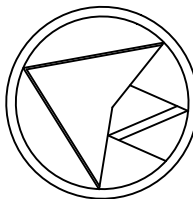
REFERENCE	DESCRIPTION	LOCATION	AIR FLOW (L/S)	ESP (PA)	COOLING							HEATING - HIGH GAS					DIM.	WEIGHT (kg)	MANUF.	MODEL	MCA	MOP	POWER SUPPLY					STARTER			CONTROLS			OTHER REQUIREMENTS			REMARKS:
					EAT DB (°C)	EAT WB (°C)	LAT DB (°C)	LAT WB (°C)	EWT (°C)	LWT (°C)	GROSS TOTAL CAP. (KW)	GROSS SENSIBLE CAP. (KW)	EAT DB (°C)	LAT DB (°C)	EWT (°C)	LWT (°C)							GROSS TOTAL CAP. (KW)	HXWXD (mm)	VOLTS	PHASE	FED FROM	EM.	NORM	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY:	DISC. AT MOTOR	
WSHP-1	WATER SOURCE HEAT PUMP	BASEMENT MECH RM	717.4	249.1	23.9	17.2	11.6	11.0	29.4	34.0	14.9	11.3	21.1	46.6	29.4	24.8	21.8	1397 X 646 X 826	171	TRANE	DXVYK060B	24	35	208	3	-	Y	DIV. 23	DIV. 23	PKG	-	Y	DIV. 23	Y	-	-	
WSHP-2	WATER SOURCE HEAT PUMP	BASEMENT MECH RM	359	286	23.9	17.2	11.8	11.2	29.4	34.93	7.2	5.61	-	-	-	-	-	1397 X 648X 501	175	TRANE	DXVh024B	10	15	208	3	-	Y	DIV. 23	DIV. 23	PKG	-	Y	DIV. 23	Y	-	-	COOLING ONLY



SEAL:

PERMIT:

KEY PLAN:



5	ISSUED FOR TENDER	2025-07-23
4	RE-ISSUED FOR FINAL REVIEW	2025-03-31
3	ISSUED FOR FINAL REVIEW	2025-02-28
2	ISSUED FOR REVIEW	2025-01-10
1	ISSUED FOR REVIEW (DRAFT)	2024-10-11
No.	Issuance	Date

313 PHARMACY AVE.	
PROJECT NO: 22241M	DRAWN:
SCALE: NTS	ET
ISSUED: JANUARY 01, 2025	CHECKED: KC

SHEET NAME

EQUIPMENT SCHEDULES

SHEET NUMBER

ME-01

HEATING BOILER SCHEDULE

REFERENCE	DESCRIPTION	LOCATION	SERVING	MAX. INPUT (kW)	MAX. OUTPUT (kW)	MIN. / MAX. GAS TRAIN INLET PRESSURE (kPa)	OPERATING PRESSURE MAX. (kPa)	OPERATING TEMP. MAX. (°C)	DESIGN OPERATING TEMPERATURE °C		MIN/ MAX FLOW (l/s)	PRESSURE DROP (kPa)	DIMENSIONS (m)			MANUFACTURER	MODEL	MOTOR SIZE			POWER SUPPLY							STARTER			CONTROLS			OTHER REQUIREMENTS			REMARKS:
									SUPPLY	RETURN			LxWxH (mm)	OP. WEIGHT (kg)	SHIP. WEIGHT (kg)			FLA	MCA	MCOP	VOLTS	PHASE	FED FROM	EM.	NORM.	SUPPLIED BY:	INSTALLED BY:	TYPE	MANUAL	AUTO.	INTERLOCK BY:	DISC. AT MOTOR	W.P. DISC. AT MOTOR	F.A. SHUT DOWN			
HB-1	HEATING WATER BOILER	BASEMENT MECH ROOM	FACILITY	732	658	0.99/3.5	689.50	-	63.00	35.00	-	10.5kPa@35L/s	1712x712 x1982	-	-	AERCO	BMK2500	-	1.60	-	20	-	-	208	3	YES	-	DIV. 20	DIV. 20	PKG	-	YES	DIV. 20	-	-	-	GAS FIRED CONDENSING UNIT BOILER WITH A VENTLESS GAS TRAIN; MIN TURNDOWN RATIO IS 1; BOILER SHALL BE CAPABLE OF UTILIZING NON-METALLIC VENT ; INTEGRATED BACNET; FLUID IS 30% PROPYLENE GLYCOL

NOTES: (1) REFER TO SECTION 23 52 00

EXPANSION VESSELS SCHEDULE

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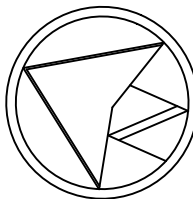
GLYCOL FILL PUMP PACKAGE SCHEDULE

[illegible]

SEAL:

PERMIT:

KEY PLAN:

[illegible]

313 PHARMACY AVE.	
PROJECT NO: 22241M	DRAWN: ET
SCALE: NTS	CHECKED: KC
ISSUED: JANUARY 01, 2025	

SHEET NAME

EQUIPMENT SCHEDULES

SHEET NUMBER

ME-02