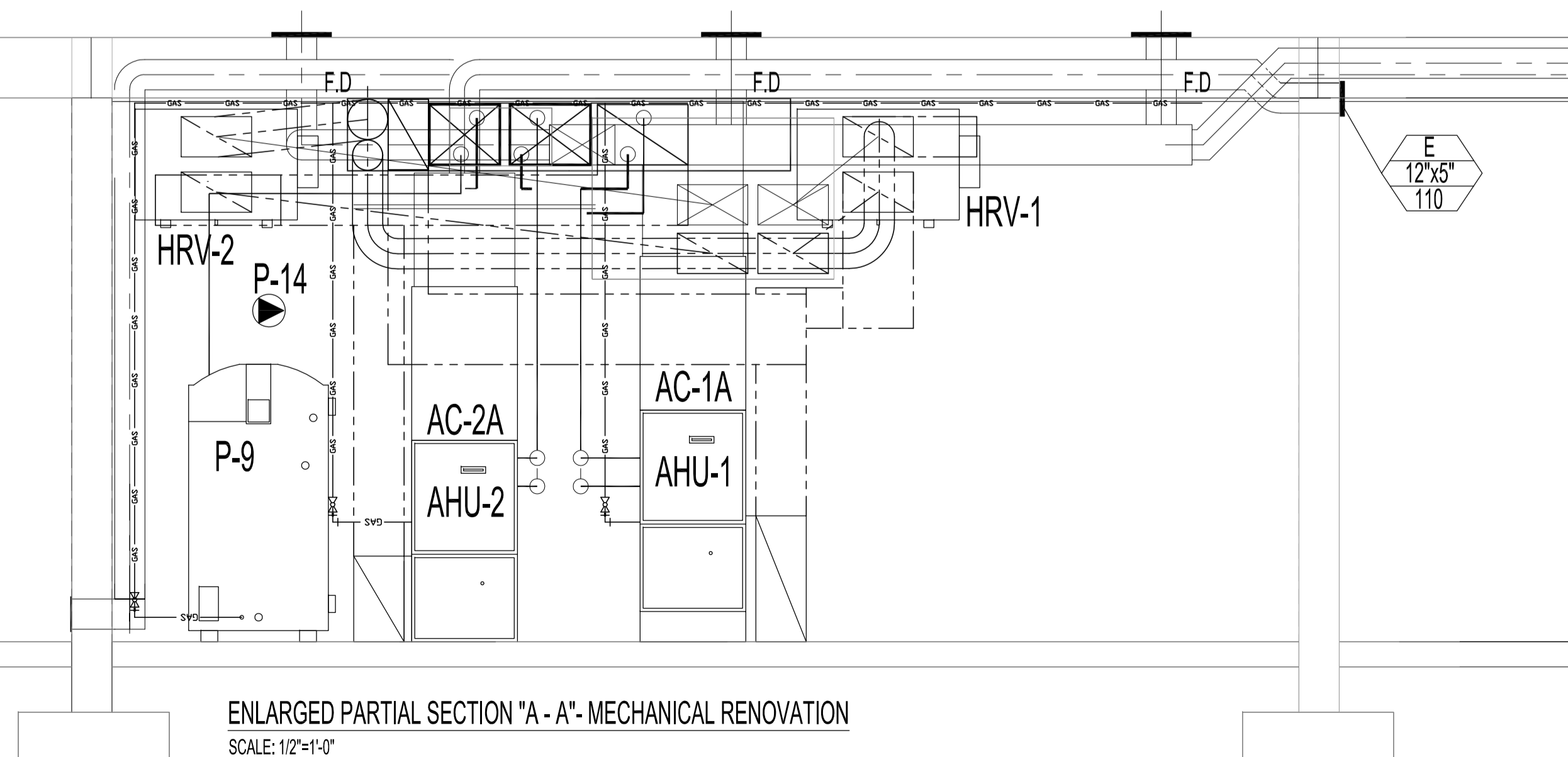


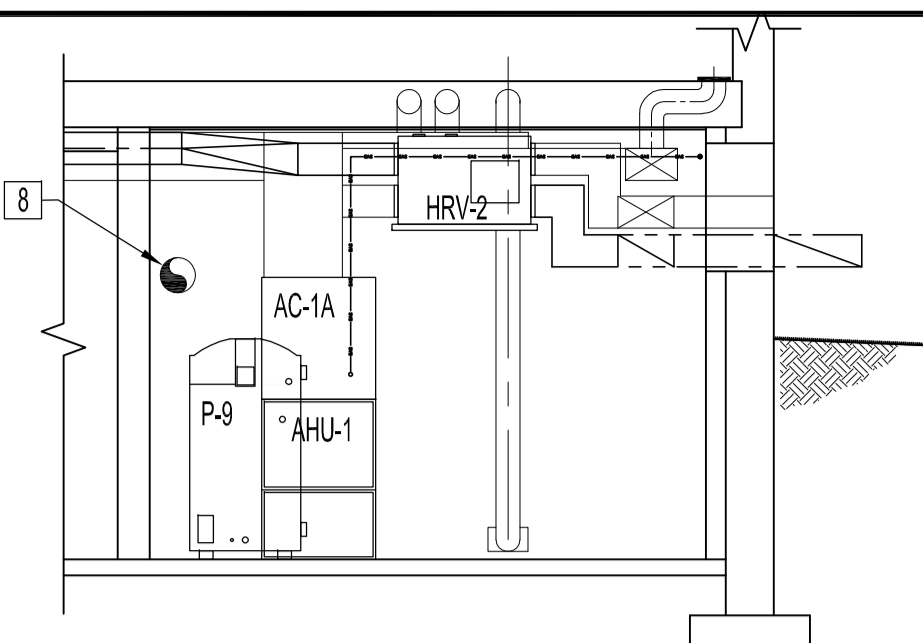
BASEMENT FLOOR PLAN - MECHANICAL DEMOLITION
SCALE: 1/8"=1'-0"

HVAC SCHEDULE		
TAG	DESCRIPTION	REMARKS
AHU-1	LENNOX MODEL # G61MPV42C-090, NATURAL GAS FIRED UP-FLOW, HIGH EFFICIENCY (90% AFUE), DIRECT VENT, TWO STAGE, VARIABLE SPEED BLOWER FURNACE, CAPACITY: 82,000 BTU/HR OUTPUT (HIGH FIRE), NOMINAL FAN CAPACITY: 2000 CFM @ 0.80 IN. W.G., 1HP, SINGLE PHASE, 120 VOLT BLOWER CW SPARE AIR FILTERS (10 PACK) AND RACK KIT FOR SIDE RETURN	MAIN FLOOR FURNACE
AC-1	LENNOX MODEL # XC13-042-230-2, 3.5 TON CONDENSER, 230V, SINGLE PHASE, MIN. CIRCUIT AMPACITY: 23.2AMP, CW TXV, LOW AMBIENT KIT MODEL # 34M72, FREEZE/STAT, CRANKCASE HEATER MODEL # 67K90, AND COMPRESSOR LOW AMBIENT CUT-OFF 45F08.	MAIN FLOOR COOLING 3.5 TON
AC-1A	EVAPORATOR COIL: LENNOX MODEL # CX34-49C-0F, 3.5 TON CAPACITY, NOMINAL AIR FLOW 2000 CFM, REFRIGERANT: R-410A.	
AHU-2	LENNOX MODEL # G61MPV42C-090, NATURAL GAS FIRED UP-FLOW, HIGH EFFICIENCY (90% AFUE), DIRECT VENT, TWO STAGE HEAT, VARIABLE SPEED BLOWER FURNACE, CAPACITY: 79,000 BTU/HR OUTPUT (HIGH FIRE), NOMINAL FAN CAPACITY: 1500 CFM @ 0.80 IN. W.G., 1/2 HP, SINGLE PHASE, 120 VOLT BLOWER CW SPARE AIR FILTERS (10 PACK).	BASEMENT FLOOR FURNACE
AC-2	LENNOX MODEL # XC13-042-230-2, 2 TON CONDENSER, 230V, SINGLE PHASE, MIN. CIRCUIT AMPACITY: 17.5AMP, CW TXV, LOW AMBIENT KIT MODEL # 34M72, FREEZE/STAT, CRANKCASE HEATER MODEL # 67K90, AND COMPRESSOR LOW AMBIENT CUT-OFF 45F08.	BASEMENT FLOOR COOLING 2 TON
AC-2A	EVAPORATOR COIL: LENNOX MODEL # CX34-31AB-4F, 2 TON CAPACITY, NOMINAL AIR FLOW 1500 CFM, REFRIGERANT: R-410A.	
HRV-1	FANTECH MODEL # SHR 6904 LIGHT COMMERCIAL HEAT RECOVERY VENTILATION SYSTEM, CW TWO BLOWERS, TWO 12" X 12" ALUMINUM CORE HEAT EXCHANGERS, FOUR WASHABLE ELECTROSTATIC FILTERS, AIR CAPACITY: 400 CFM, EXTERNAL 3 POSITION (LOW/STAND BY/MEDIUM) ROCKER SWITCH THAT WILL OFFER CONTINUOUS VENTILATION, PRESET DEFROST SEQUENCE ACTIVATED AT AN OUTDOOR AIR TEMP. OF -5C, 120V, 1PH, 60HZ, 5.5A.	CONNECTED TO AHU-1
HRV-2	FANTECH MODEL # SHR 6904 LIGHT COMMERCIAL HEAT RECOVERY VENTILATION SYSTEM, CW TWO BLOWERS, TWO 12" X 12" ALUMINUM CORE HEAT EXCHANGERS, FOUR WASHABLE ELECTROSTATIC FILTERS, AIR CAPACITY: 300 CFM, EXTERNAL 3 POSITION (LOW /STAND BY / MEDIUM) ROCKER SWITCH THAT WILL OFFER CONTINUOUS VENTILATION, PRESET DEFROST SEQUENCE ACTIVATED AT AN OUTDOOR AIR TEMP. OF -5C.	CONNECTED TO AHU-2
1	LENNOX 'SIGNATURE SERIES' TWO-STAGE HEAT/COOL THERMOSTAT, MODEL 9815L.	

GRILLE & DIFFUSER SCHEDULE		
TYPE	DESCRIPTION	MANUFACTURER
A	1000 HEAVY DUTY ALUMINUM LINEAR BAR GRILLE WITH OPPOSED BLADE DAMPER (VOLUME DAMPER), BRUSH ALUMINUM	E.H. PRICE TYPE LBP42C06 VCS3
B	1000 HEAVY DUTY ALUMINUM LINEAR BAR GRILLE, BRUSH ALUMINUM (FOR TOE KICKBOARD APPLICATION)	
C	ALUMINUM EGG CRATE FACE RETURN GRILLE, 2' x 2' ALUMINUM GRID CORE, ALUMINUM FINISH	E.H. PRICE TYPE 80FA/B15
D	FIRE-RATED SQUARE PLAQUE DIFFUSER WITH OPTIONAL VOLUME CONTROLLER, SURFACE MOUNT, WHITE POWDER COAT, 165°F FUSIBLE LINK	E.H. PRICE TYPE SPD-FR/B12
D1	SQUARE PLAQUE DIFFUSER WITH OPTIONAL VOLUME CONTROLLER, TEE-BAR LAY-IN, WHITE POWDER COAT	E.H. PRICE TYPE SPD/B12
E	FIRE-RATED STEEL CURVED VANE DIFFUSER, WITH OPTIONAL VOLUME CONTROLLER, TWO-WAY, WHITE POWDER COAT	E.H. PRICE TYPE SCVD-FR/B12
E1	STEEL CURVED VANE DIFFUSER, WITH OPTIONAL VOLUME CONTROLLER, TWO-WAY, WHITE POWDER COAT	E.H. PRICE TYPE SCVD/B12
F	FIRE-RATED LOUVERED FACE RETURN GRILLE WITH OPTIONAL VOLUME CONTROLLER, TEE-BAR LAY-IN, WHITE POWDER COAT	E.H. PRICE TYPE S3S-FR/L/B12
F1	LOUVERED FACE RETURN GRILLE, WHITE POWDER COAT	E.H. PRICE TYPE S3S/L/B12



ENLARGED PARTIAL SECTION "A - A" - MECHANICAL RENOVATION
SCALE: 1/2"=1'-0"



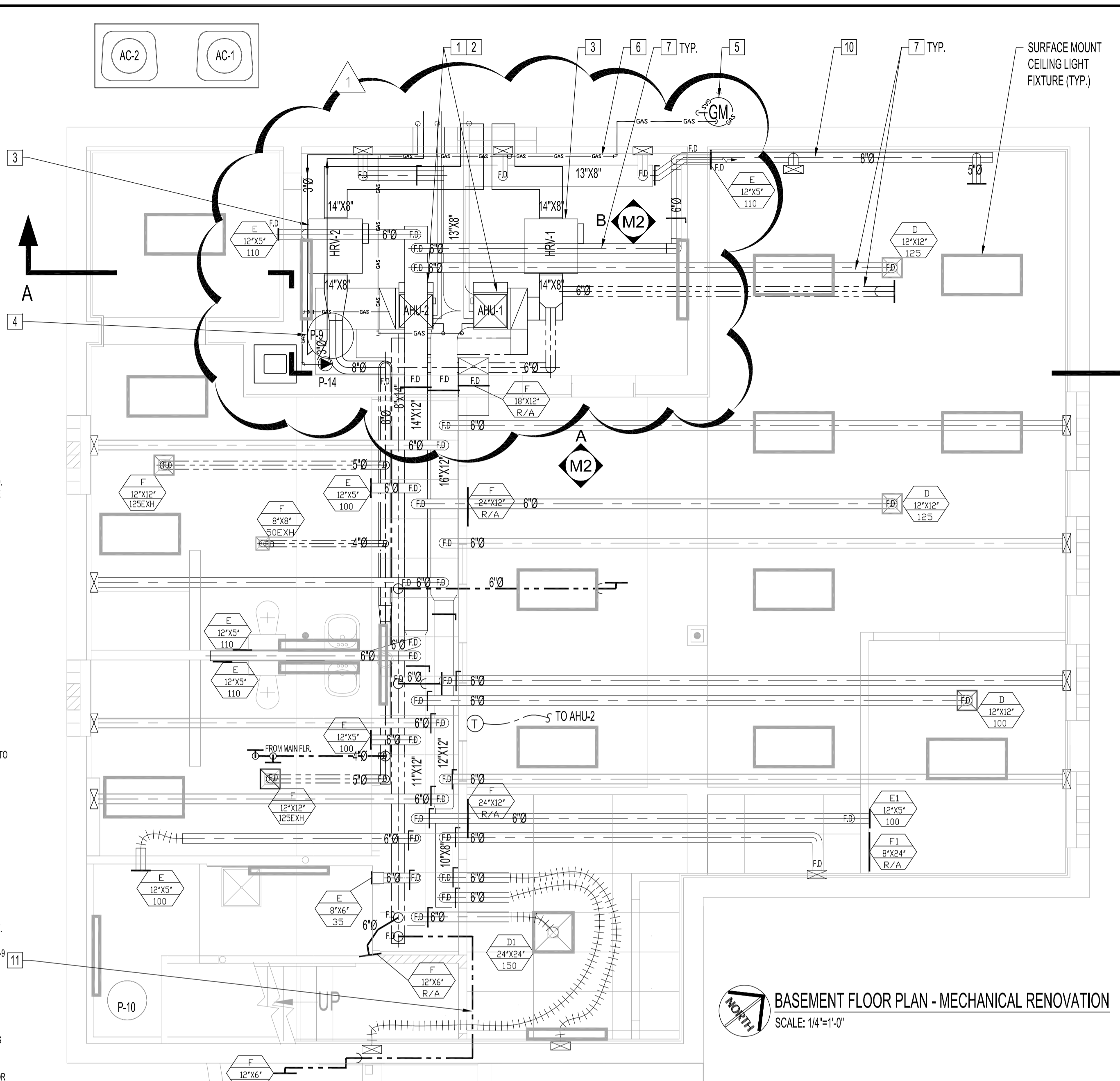
ELEVATION "B" - MECHANICAL ROOM B-04
SCALE: 1/4"=1'-0"

MECHANICAL DEMOLITION NOTES
DO NOT DISCONNECT EXISTING SECURITY SYSTEM COMPONENTS (MOTION SENSORS, DOOR CONTACTS, ETC). HANG COMPONENTS ABOVE NEW CEILING SPACE TEMPORARY FOR REINSTALLATION BY OTHERS.

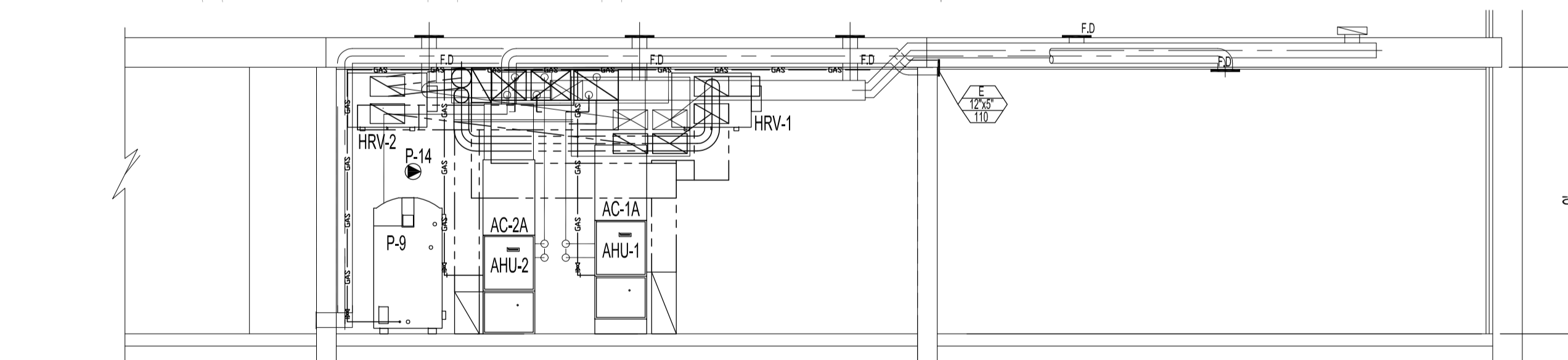
- REMOVE AND DISCARD EXISTING FRESH AIR INTAKE & COMBUSTION AIR INTAKE GRILLES.
- REMOVAL OF EXISTING GAS METER AND PRV TO BE DONE BY MANITOBA HYDRO. CONTRACTOR TO DISCONNECT & DISCARD EXISTING GAS LINE FROM FURNACE TO EXTERIOR REGULATOR.
- REMOVE AND DISCARD COMPLETE EXISTING FURNACE, SUPPLY AND RETURN DUCTWORK, HANGERS, DIFFUSERS, THERMOSTATS, EXHAUST FANS AND ALL ASSOCIATED MECHANICAL COMPONENTS FROM BASEMENT FLOOR.
- REMOVE AND DISCARD EXISTING EXHAUST FAN & WIRING BACK TO SOURCE. PATCH WALL TO MATCH EXISTING & WATER TIGHT, PRIOR TO EXTERIOR WALL WATER PROOFING.

MECHANICAL RENOVATION NOTES:
SUPPLY & INSTALL, UNLESS OTHERWISE NOTED.

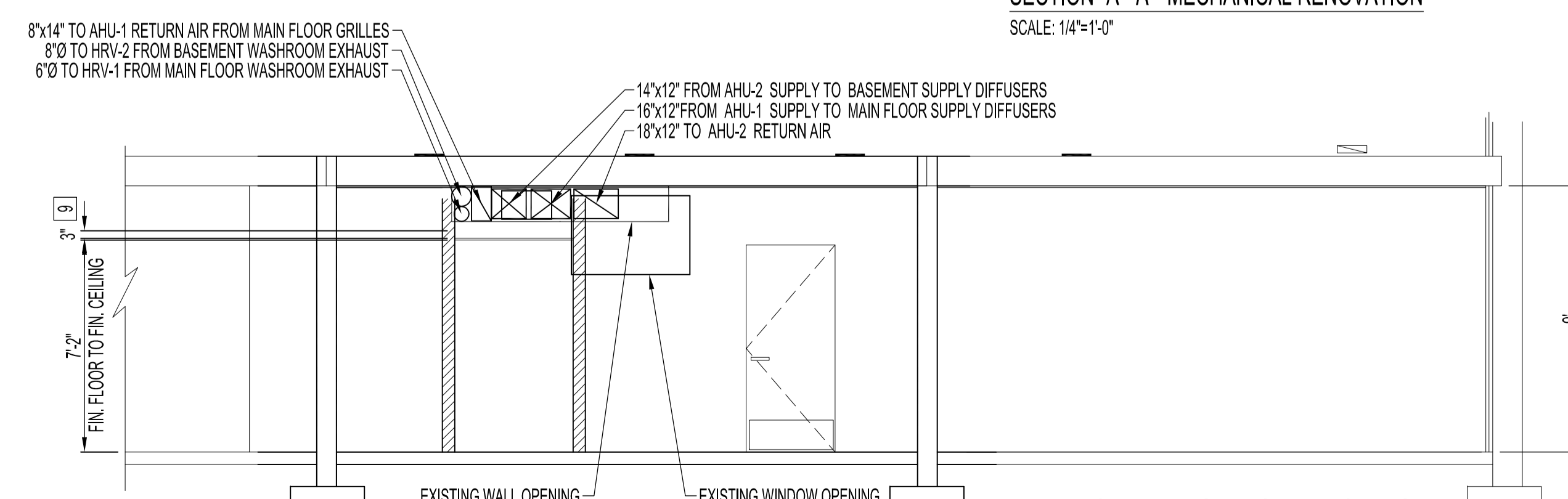
- SUPPLY AIR**
 - RETURN AIR**
- SUPPLY & INSTALL A FULLY-FUNCTIONING HVAC SYSTEM AHU-1, AHU-2, AC-1A, AC-2A, AS PER MANUFACTURING INSTALLATION INSTRUCTIONS & DIVISION 23 - MECHANICAL. FLEXIBLE AIR-TIGHT CONNECTIONS ARE REQUIRED ON FURNACES TO DUCTWORK. ROUTE GAS VENT PIPING THROUGH EXISTING WINDOW OPENING. SEE DRAWING M1, SEAL WINDOW OPENING AS PER ARCHITECTURAL DRAWING AFTER ALL PENETRATIONS (AHU-1, AHU-2, HRV-1, HRV-2, P-9) ARE FINALIZED. ROUTE CONDENSATE DRAIN LINES TO DISCHARGE ABOVE NEW DRAIN FUNNEL. SEE DRAWING M5, BASEMENT FURNACE, AHU-2, RETURN AIR IS VIA ABOVE CEILING SPACE TO RETURN AIR GRILLE AT MECHANICAL ROOM WALL.
 - SUPPLY & INSTALL A FULLY-FUNCTIONING AIR CONDITIONING SYSTEM AC-1 & AC-2, AS PER MANUFACTURING INSTALLATION INSTRUCTIONS & DIVISION 23 - MECHANICAL.
 - SUPPLY & INSTALL A FULLY-FUNCTIONING HRV SYSTEM HRV-1 & HRV-2, AS PER MANUFACTURING INSTALLATION INSTRUCTIONS & DIVISION 23 - MECHANICAL. FLEXIBLE AIR-TIGHT CONNECTIONS ARE REQUIRED BETWEEN HRV'S & DUCTWORK.
 - SUPPLY & INSTALL A FULLY-FUNCTIONING HOT WATER CIRCULATING SYSTEM P-9 & P-14, AS PER MANUFACTURING INSTALLATION INSTRUCTIONS & DIVISION 22 - PLUMBING. ROUTE GAS VENT PIPING THROUGH EXISTING OPENING NEXT TO EXISTING WINDOW, SEE DRAWING M1.
 - NEW GAS SERVICE, METER AND PRV BY MANITOBA HYDRO.
 - SUPPLY & INSTALL NEW GAS LINE WITH SHUT-OFF VALVES TO ALL NATURAL GAS EQUIPMENT.
 - ROUTE DUCT THROUGH FIRE-RATED CEILING GYPSUM BOARD & BETWEEN FLOOR JOISTS. ALL PENETRATIONS THROUGH FIRE-RATED CEILING SHALL BE FIRE-STOP AND FIRE DAMPER INSTALLED FOR DUCT, AS PER NOTES ON DRAWING M1. ALL DUCTS RUNNING NORTH & SOUTH SHALL BE ROUTED BETWEEN FLOOR JOIST TO ACCOMMODATE FIRE DAMPERS. REPLACE EXISTING CROSS-BRACING WITH 2"x4" BRACE. MOUNT FLUSH WITH THE UNDERSIDE OF THE FLOOR JOIST.
 - CAP EXISTING DUCT AT CHIMNEY WALL SURFACE.
 - 3" MINIMUM CLEARANCE FROM UNDERSIDE OF ALL DUCTS, COMPONENTS TO TOP OF CEILING TILE. EXCEPT FOR CEILING DIFFUSERS, TYPICAL FOR BASEMENT FLOOR & MAIN FLOOR.



BASEMENT FLOOR PLAN - MECHANICAL RENOVATION
SCALE: 1/4"=1'-0"



SECTION "A - A" - MECHANICAL RENOVATION
SCALE: 1/4"=1'-0"



ELEVATION "A" - MECHANICAL RENOVATION
SCALE: 1/4"=1'-0"

NOTES :
SEE NOTES ON DRAWING M1.
BASEMENT SUPPLY DIFFUSERS TO BE MOUNTED 12" ABOVE FINISH FLOOR, UNLESS OTHERWISE NOTED.
MAIN FLOOR SUPPLY DIFFUSERS TO BE FLUSH WITH FINISH FLOOR, UNLESS OTHERWISE NOTED.
BASEMENT RETURN GRILLES TO BE MOUNTED 12" BELOW FINISH CEILING, UNLESS OTHERWISE NOTED.
MAIN FLOOR RETURN GRILLES TO BE FLUSH WITH FINISH FLOOR, UNLESS OTHERWISE NOTED.
ROUTE DUCT THROUGH FIRE-RATED CEILING GYPSUM BOARD & BETWEEN FLOOR JOISTS. ALL PENETRATIONS THROUGH FIRE-RATED CEILING SHALL BE FIRE-STOP AND FIRE DAMPER INSTALLED FOR DUCT, AS PER NOTES ON DRAWING M1. ALL DUCTS RUNNING NORTH & SOUTH SHALL BE ROUTED BETWEEN FLOOR JOIST TO ACCOMMODATE FIRE DAMPERS. REPLACE EXISTING CROSS-BRACING WITH 2"x4" BRACE. MOUNT FLUSH WITH THE UNDERSIDE OF THE FLOOR JOIST.

MECHANICAL RENOVATION NOTES (CONT):
SUPPLY & INSTALL, UNLESS OTHERWISE NOTED.

- THIS DUCT BRANCH ASSEMBLY ONLY, MOUNT FLUSH BELOW FINISHED CEILING.
- DUCT TO BE CONCEALED BETWEEN JOIST, ABOVE SUSPENDED CEILING AND CONCEALED IN NEW WALL CAVITY. DUCT SHAPE CAN BE ALTERED TO FIT SPACE BUT TOTAL CROSS-SECTIONAL AREA TO BE 28 SQUARE INCHES.

ORIGINAL STAMPED BY: DOUG PALEY, P. ENG.
DATE: 2007.11.15

SEE ADDENDUM 4, BID OPPORTUNITY 629-2007, WASHROOMS & SHOWERS WERE SEPARATED BY WALLS. REVISED GRILLE & DIFFUSER LOCATIONS, DELETED 4" TAKE-OFF BRANCH TO GRILLE.
SEE ADDENDUM 1 BID OPPORTUNITY 629-2007, ADDED FIRE DAMPERS TO FIRE SEPARATION WALLS AND CEILINGS IN MECHANICAL RM. (B-04)

NO.	REVISION/DESCRIPTION	BY	DATE
SEALS			

DRAWN BY RCP/DTA **CHECKED BY** USER **APPROVED** APPROVAL
DATE 2007.10.11

CITY OF WINNIPEG
PLANNING, PROPERTY & DEVELOPMENT DEPARTMENT
CIVIC ACCOMMODATIONS DIVISION
300 - 65 GARRY ST. R3C 4K4

PROJECT
COMMUNITY POLICE SERVICE CENTRE

1400 HENDERSON HWY.

SHEET TITLE
BASEMENT FLOOR PLAN
MECHANICAL
DEMOLITION & RENOVATION

SCALE	PROJECT NO.	SHEET NO.
AS SHOWN	2004-023	M2R2