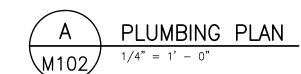
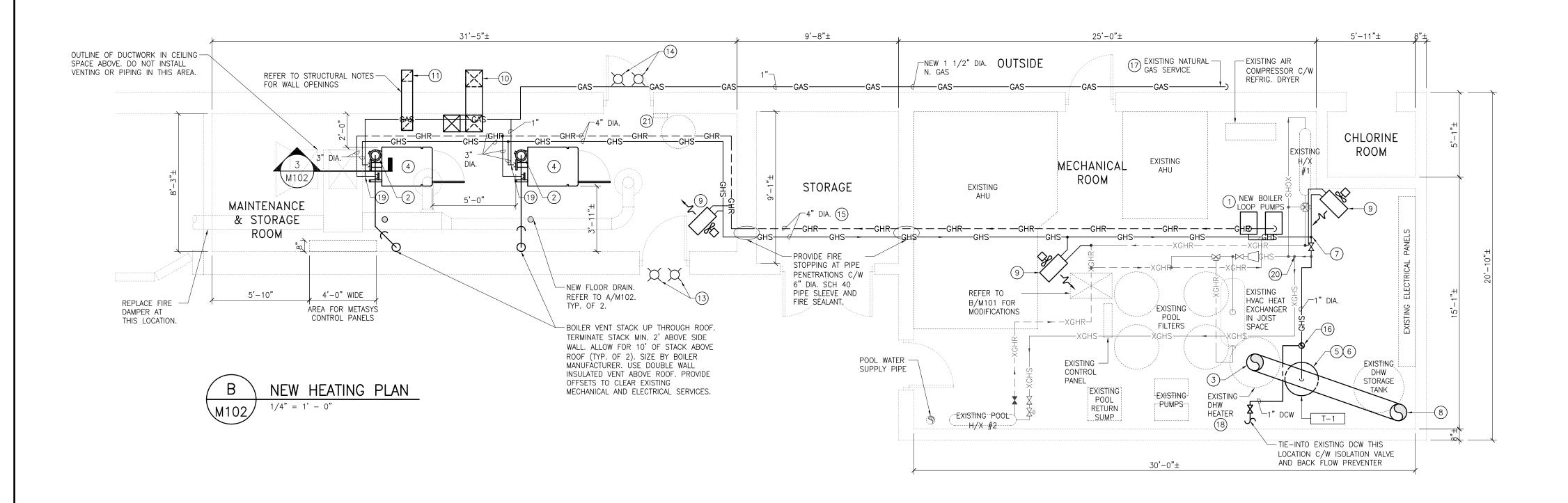
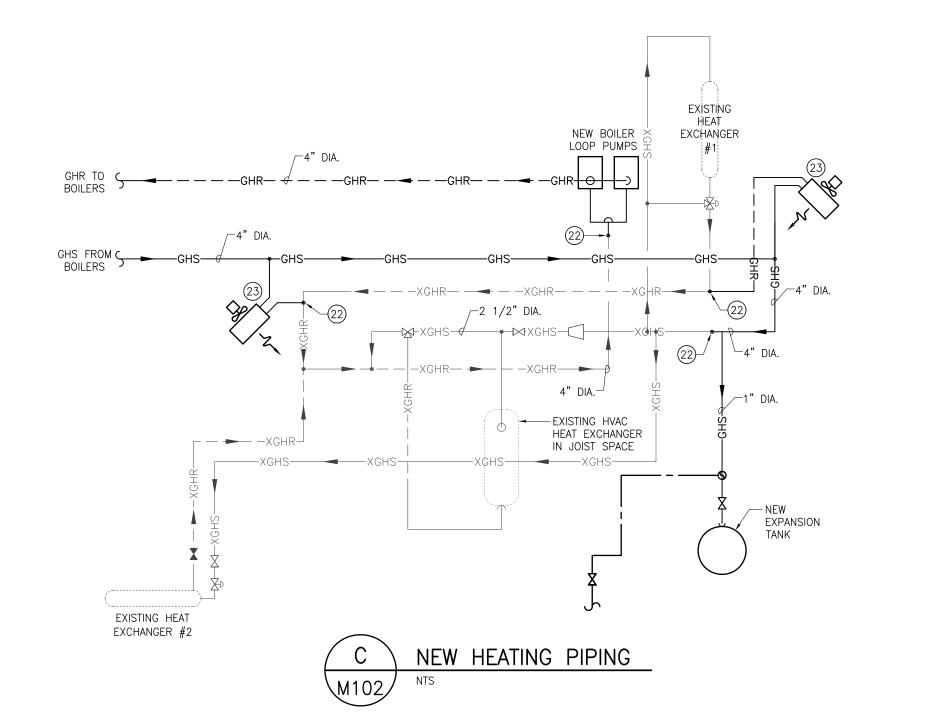


NOTE:
COORDINATE FLOOR DRAIN LOCATIONS
WITH FINAL BOILER LOCATION.







## **CONSTRUCTION NOTES:**

- 1) ROUTE NEW 4" LINE FROM DISCHARGE OF P-1 AND P-2 TO NEW BOILERS. PROVIDE NEW 3" TRIPE DUTY VALVE AT PUMP DISCHARGE, TYP. OF 2. REFER TO 2/M103 FOR DETAILS.
- PROVIDE NEW STACK FROM EACH NEW BOILER, TYP. 2 LOCATIONS USE 6"
  DIA. STACK C/W AERCO EXHAUST MUFFLER AND RAIN CAP. USE
  SECURITY CHIMNEY SECURE SEAL TYPE SSD, OR APPROVED EQUAL. TYPE
  AS REQUIRED BY BOILER MANUFACTURER. SUBMIT SHOP DRAWINGS WITH
  SIZING CALCULATIONS.
- PROVIDE NEW B-VENT STACK FROM EXISTING DHW HEATER, AO SMITH HW 520-962, UP THROUGH ROOF. SIZE BY CONTRACTOR, SUBMIT SHOP
- 4 NEW BOILER.
- (5) NEW EXPANSION TANK. REFER TO D/M103 FOR DETAILS
- (6) TIE-IN TO EXISTING LINE TO EXPANSION TANK AND ROUTE TO NEW EXPANSION TANK. USE H&G MODEL AL130 PRECHARGED TO 12-PSIG; 20"
- (7) APPROXIMATE TIE-IN LOCATION FOR NEW GHS.
- 8 NEW STACK FROM EXISTING DHW HEATER. USE 12" DIA. B-VENT; COMMERCIAL GRADE. EXTEND STACK ABOVE ROOF IN CONFORMANCE WITH CSA B149, PROVIDE BASE TEE. MAKE ROOF PENETRATION WEATHERTIGHT. CONFIRM SIZE SUIT APPLIANCE PRIOR TO ORDERING. SUBMIT SHOP DRAWINGS.
- 9 NEW HOT WATER UNIT HEATER. USE ENG. AIR MODEL H1 OR EQUAL. REFER TO DETAIL E/M102 FOR CONTROLS AND PIPING. BALANCE FLOW AT 3-USgpm TO EACH OF TWO UNITS.
- (10) 12"x12" COMBUSTION AIR INTAKE. REFER TO DETAIL A/M103.
- (1) 8"x8" VENTILATION DUCT. REFER TO DETAIL B/M103.
- (12) BLANK.
- RELOCATE WARNING LIGHTS TO POOL SIDE OF DOOR. REFET TO ELECTRICAL FOR DETAILS.
- NEW EXTERIOR RATED ALARM LIGHTS CONNECTED TO GAS DETECTION SYSTEM. REFER TO ELECTRICAL FOR DETAILS.
- (15) NEW 4" DIA. SCH 40 CARBON STEEL BOILER PIPING TO ASTM A53GRB. BUTT WELD JOINTS AND FITTING, INSULATED WITH 2" THK. FIBERGLASS C/W ASJ.
- (16) FIELD ROUTE NEW 1" GHS TO 4" MAIN. PROVIDE ISOLATION VALVE AT TIE—IN AND AT EXPANSION TANK.
- COORDINATE THE RENOVATION OF THE NATURAL GAS SERVICE WITH MANITOBA HYDRO. THE NATURAL GAS LOAD BEING REMOVED IS 1.2-MILLION BTU/HR, THE NATURAL GAS LOAD BEING ADDED IS 3.0-MILLION BTU/HR. THE GAS SERVICE WILL NEED TO CHANGE FROM AN "INCHES W.C." SERVICE TO A "POUNDS SERVICE." PROVIDE A GAS REGULATOR C/W RELIEF VALVE AT ALL EXISTING AND NEW APPLIANCES, NOT ALL APPLIANCES ARE SHOWN. CONFIRM ON SITE DURING TENDER PERIOD. RE-ROUTE EXISTING GAS LINE TO TIE-IN TO THE NEW GAS SERVICE; COORDINATE WITH MANITOBA HYDRO. SIZING OF GAS LINE IS BASED ON A POUNDS SERVICE BEING PROVIDED BY MANITOBA HYDRO. SUBMIT SHOP DRAWINGS FOR ALL PRESSURE REGULATORS/RELIEF VALVES BEING PROVIDED.
- (18) PROVIDE A NEW PRESSURE REGULATOR C/W INTERNAL RELIEF VALVE FOR THE DOMESTIC HOT WATER HEATER AFTER THE GAS SERVICE IS CHANGED TO A "POUNDS" SERVICE. COORDINATE THE INSTALLATION OF THE REGULATOR WITH THE CHANGE OF THE GAS SERVICE. VENT RELIEF IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS. SUBMIT SHOP DRAWINGS.
- PROVIDE ISOLATION BALL VALVE, PRESSURE REGULATOR C/W INTERNAL RELIEF AT EACH OF THE NEW BOILERS. VENT RELIEF IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS. PROVIDE DRIP LEG UPSTREAM OF CONNECTION TO APPLIANCE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND CSA B149.1.
- 20 RELOCATE 2" TIE-IN TO H/X #2 TO NEW PIPING IF REQUIRED.
- 21) EXISTING GAS DETECTOR TO REMAIN AS-IS.
- 22) APPROXIMATE TIE IN LOCATION.
- (23) REFER TO DETAIL C/M103 FOR PIPING AT UNIT HEATERS.

## STRUCTURAL NOTES

### WALL OPENING FOR DUCT

FOR NEW OPENINGS IN EXTERIOR CONCRETE BLOCK WALLS, UP TO 36 INCHES WIDE AND 24 INCHES HIGH, INSTALL NEW L4 X 4 X ¼ INCH STEEL ANGLE LINTELS ON EACH SIDE OF THE WALL PRIOR TO CUTTING OUT OPENING IN WALL. STEEL ANGLES TO EXTEND A MINIMUM OF 12 IN WIDER, ON EACH SIDE OF THE OPENING, THAN THE OPENING TO BE CREATED.

#### CONCRETE NOTES FOR FLOOR TRENCHING

CONTRACTOR TO CUT OUT EXISTING CONCRETE SLAB ON GRADE TO ACCOMMODATE INSTALLATION OF THE UNDER SLAB PIPING AS SHOWN ON THE DRAWINGS. TRENCH IS TO BE SAW CUT OUT WITH EDGES NEAT AND SQUARE, CORNERS OF THE TRENCH ARE TO BE CORED PRIOR TO SAW CUTTING TO PREVENT OVERCUTTING. ONCE PIPING IS INSTALLED AND GRANULAR IS COMPACTED, THE CUT OUT CONCRETE IS TO BE REPLACED WITH NEW 30 MPA CONCRETE, POURED THE FULL WIDTH OF THE TRENCH. THE EDGES OF THE EXISTING CONCRETE SLAB IN TRENCH ARE TO BE FULLY WETTED AND A PASTE OF CEMENT POWDER AND WATER IS TO BE LIBERALLY WORKED INTO THE SURFACE WITH A WIRE BRUSH TO FACILITATE BONDING OF THE NEW CONCRETE WITH THE OLD.

ANY SHRINKAGE CRACKS THAT MAY DEVELOP BETWEEN THE NEW CONCRETE AND EXISTING IS TO BE EPOXY GROUTED.

#### CORING OF EXISTING GRADE BEAM

CONTRACTOR TO CAREFULLY CORE HOLES OF SIZE(S) INDICATED ON THE DRAWINGS THROUGH THE EXISTING CONCRETE GRADE BEAM, AT THE ELEVATIONS SHOWN ON THE DRAWING, AND IN ORDER TO NOT IMPACT THE EXISTING REINFORCING STEEL INSIDE THE BEAM. CONTRACTOR MAY UTILIZE SIDE SCANNING RADAR TO DETECT REINFORCING STEEL PRIOR TO CORING HOLES. IF REINFORCING STEEL IS ENCOUNTERED DURING CORING, CORING IS TO STOP AND ENGINEER IS TO BE CONTACTED FOR DIRECTION. IF MULTIPLE HOLES ARE REQUIRED THEY SHOULD BE SPACED NO CLOSER THAN 18 INCHES APART.

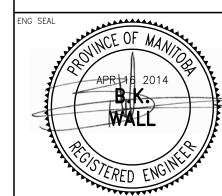
HOLES TO BE DRILLED AT RIGHT ANGLES TO THE FACE OF THE BEAM, AND



0	ISSUED FOR CONSTRUCTION	VCV	BKW	APR 16 2014	
С	ISSUED FOR CLIENT REVIEW	VCV	BKW	APR 09 2014	
В	ISSUED FOR COST ESTIMATE	VCV	BKW	SEP 18 2013	
Α	ISSUED FOR CLIENT REVIEW	VCV	BKW	SEP 18 2013	
REV	DESCRIPTION	DWN	APP	REV DATE	



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# CITY OF WINNIPEG MARGARET GRANT POOL BOILER REPLACEMENT

SHEET TITLE

PLUMBING PLAN AND NEW HEATING PLAN

DRAWN BY	CHECKED BY	DATE	SHEET NO
VCV	BKW	APR 16 2014	M102
DESIGNED BY	JOB NUMBER	SCALE	REVISION NO
BKW	18553	AS NOTED	0