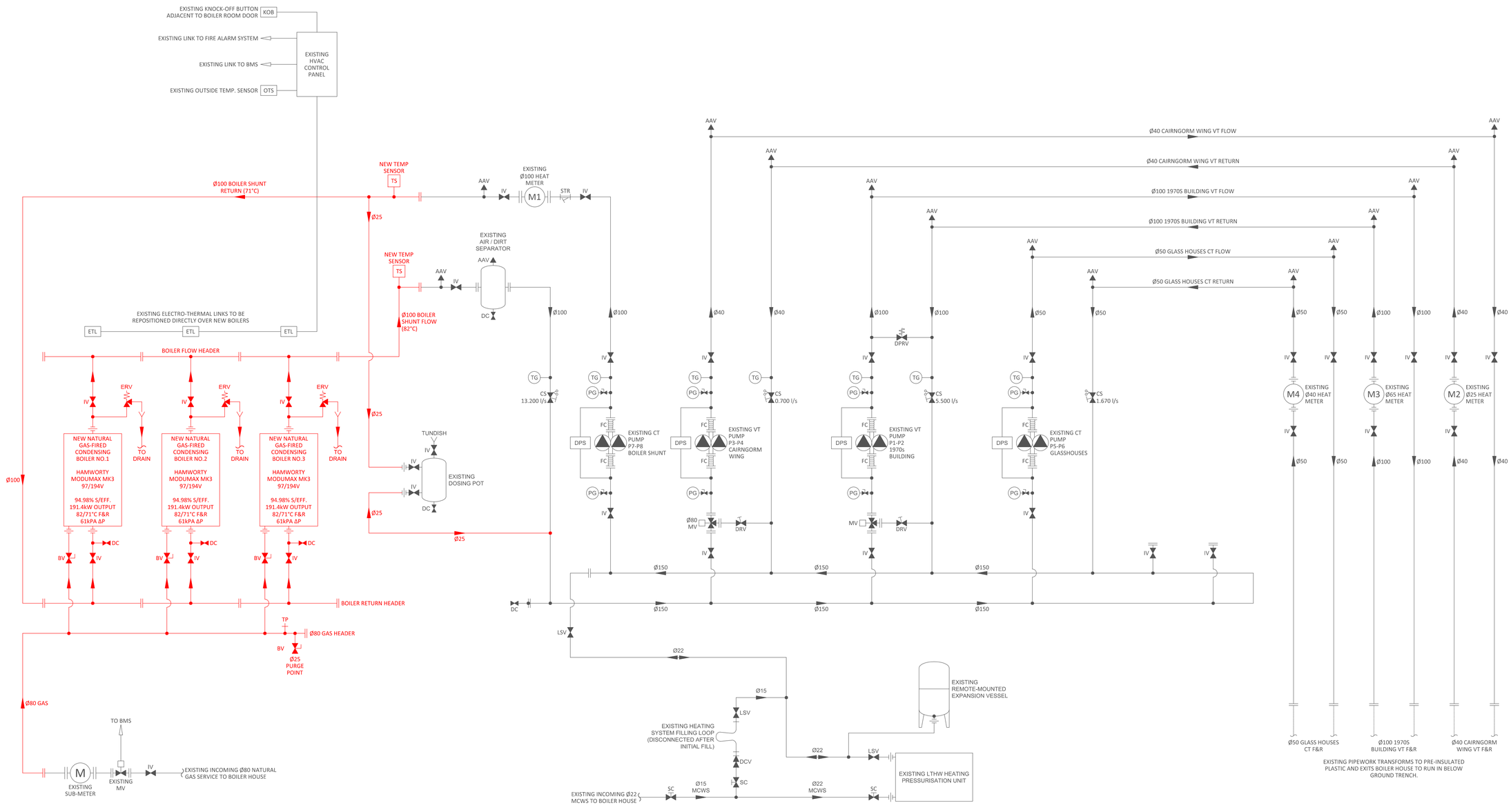
A1

ALL EXISTING PLANT AND PIPEWORK IS SHOWN IN BLACK.
ALL NEW PLANT AND PIPEWORK IS SHOWN IN RED.



These lines measure 100mm in length when plotted correctly.

All scaled dimensions taken from this drawing shall be verified on site.

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Notes

1. This drawing shall be read in conjunction with the relevant Kingswood specification(s) and all relevant Architect's and other Engineer's drawing(s).
2. Details are for tender purposes only and shall be verified on site by the Engineering Contractor where accuracy is critical. The exact location of all plant items/equipment and the route of all services shall be determined on site.
3. All plant, equipment, distribution system components and ancillaries shall be installed in strict accordance with the manufacturer's guidelines.
4. The installation personnel shall allow for changes in distribution system(s) invert levels (including any sets up and down etc.) as necessary to coordinate fully with the building structure and other M&E Services.
5. All LTHW Heating and Natural Gas pipework shall be black heavyweight mild steel tube to EN10255 (red primered finish). All fittings Ø50 and below shall be screwed to BS EN10241 and BS143. All fittings Ø65 and above shall be welded.
6. All Domestic Services pipework shall be copper tube to EN1057-R250 Table X with Geberit Mapress copper fittings (standard black CIIR Butyl Rubber seal rings).
7. All low points shall be fitted with a lockshield draincock. All high points shall be fitted with an automatic air vent.
8. All items of plant shall be fitted with isolating valves, and effective means of commissioning, draining and air venting, to enable inspection and/or maintenance works to be carried out without draining the entire system.
9. All pipework passing through walls and floor slabs shall be sleeved. All pipes passing through fire compartment walls and floor slabs shall also be fire stopped.
10. All LTHW Heating pipework shall be thermally insulated in accordance with the specification, Building Regulations Part L2: 2013, TIMSA Guide 2006 and BS 5422: 2001. All insulated pipework shall be identified with colour bands to BS 1710. All valves and flanges shall be provided with flexible removable insulation bags.
11. All Domestic Services plant, equipment, distribution system components and ancillaries shall be suitable for conveying wholesome (potable) water, shall be WRC / WRAS approved and shall comply with the Water Supply (Water Fittings) Regulations 1999.
12. All gas works shall be carried out by a Gas Safe registered Person in full accordance with the Gas Safety (Installation and Use) Regulations, BS6798, BS5449, BS5546-1, BS5440-2 and BS6891. All components shall be certified for use with natural gas.
13. Isolating valves, purge points and test points shall be fitted as necessary to the Natural Gas Service to comply with current guidelines and legislation.
14. All new Natural Gas Service pipework shall be fully identified in strict accordance with current statutory requirements and guidelines, in particular IGE/UP/2 Edition2 Clause 7.8.4.
15. All LTHW Heating flow rates to be measured on site prior to decommissioning works taking place.

LEGEND

ITEM	DESCRIPTION
— — —	PIPEWORK BELOW GROUND / IN FLOOR DUCT
———	PIPEWORK AT LOW LEVEL
— - —	PIPEWORK AT HIGH LEVEL
— – —	PIPEWORK IN CEILING / ROOF VOID
—●—	PIPEWORK RISER / DROPPER
▶	DIRECTION OF FLOW
AFFL	ABOVE FINISHED FLOOR LEVEL
L/L	LOW LEVEL
H/L	HIGH LEVEL
DTLL	DROP TO LOW LEVEL
DTB	DROP TO BELOW
DFA	DROP FROM ABOVE
RFB	RISE FROM BELOW
RTA	RISE TO ABOVE
LTHW	LOW TEMPERATURE HOT WATER
MCWS	MAINS COLD WATER SERVICE
CT	CONSTANT TEMPERATURE
VT	VARIABLE TEMPERATURE
F&R	FLOW AND RETURN
IV	ISOLATING VALVE (WHEELHEAD)
LSV	LOCKSHIELD VALVE
BV	BALL VALVE
SC	STOPCOCK
DC	DRAIN COCK
HUDC	HOSE UNION DRAIN COCK
AAV	AUTOMATIC AIR VENT
TP	TEST POINT (BINDER)
AG	ALTITUDE GAUGE
PG	PRESSURE GAUGE
TG	TEMPERATURE GAUGE
PTG	COMBINED TEMPERATURE / PRESSURE GAUGE
ERV	EXPANSION RELIEF VALVE
DRV	DOUBLE REGULATING VALVE
CS	COMMISSIONING STATION (DRV+OP)
NRV	NON-RETURN VALVE
DCV	DOUBLE CHECK VALVE
STR	STRAINER
FC	FLEXIBLE CONNECTION
MV	MOTORISED VALVE
TS	TEMPERATURE SENSOR
DPS	DIFFERENTIAL PRESSURE SENSOR / SWITCH
ETL	ELECTRO-THERMAL LINK
KOB	KNOCK-OFF BUTTON

ISSUE	DESCRIPTION	DATE	DRN	CHD
-	-	-	-	-
T1	TENDER ISSUE.	12.08.16	SPW	-

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STATUS **TENDER**

CLIENT CENTRE FOR ECOLOGY AND HYDROLOGY BUSH ESTATE, PENICUIK, MIDLOTHIAN, EH26 0QB

CONTRACT CEH EDINBURGH EXTERNAL PLANTROOM BOILER REPLACEMENT

TITLE PROPOSED HEATING & GAS SCHEMATIC

DATE	12.08.16	SCALE	N.T.S.	
DRAWN	SPW	JOB No.	DRG No.	REV
CHECKED	-	0747	56-602	T1
APPROVED	-			
EXTERNAL REF.	N/A			

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