
CLIENT SUMMARY

B99 Malthouse Block

Boiler House Replacement — Executive Summary

Prepared for	Grimshaw & Bolt Ltd
Prepared by	Built AI Ltd
Date	24 April 2026
Reference	KW-2026-4471

At a Glance

Built AI Ltd is pleased to submit its tender for the full replacement of the heat source and associated mechanical, electrical, public-health and controls infrastructure at the B99 Malthouse Block boiler house, Kettlewick College, Somerset, in our role as MEP / Public Health / Controls sub-contractor under Grimshaw & Bolt Ltd as Principal Contractor.

TOTAL FIXED TENDER SUM (BASELINE)

£481,954.33

Exclusive of VAT. Fixed for 12 months from order placement.

Up to £56,736.86 of additional Value Engineering savings available — refer separate VE Options tab.

Headline Position

Project	B99 Malthouse Block Boiler House Replacement
Site	Kettlewick College, Somerset
Client	Grimshaw & Bolt Ltd as Principal Contractor (on behalf of Kettlewick Estates)
Project Ref	KW-2026-4471
Sub-Contract Form	JCT Intermediate 2016 with Contractor's Design Portion
Programme	14 Weeks on-site (Kettlewick College summer-term stand-down window, Jul-Sep 2026)
Tender Total (Baseline)	£481,954.33 (ex VAT)
If All VE Options Accepted	£425,217.47 (ex VAT)
Tender Validity	90 Working Days
Defects Liability	12 months from Practical Completion
Revision	Rev 1

Where the Tender Sum Goes

Section-by-section breakdown of the £481,954.33 baseline

A	Preliminaries	£51,526 (10.7%)
B	Surveys & Investigations	£8,298 (1.7%)
C	Strip-Out & Removal	£26,377 (5.5%)
D	Builders' Work	£29,596 (6.1%)
E	Testing & Commissioning	£27,601 (5.7%)
F	Mechanical & Public Health	£296,990 (61.6%)
G	Electrical Services	£24,066 (5.0%)
H	Statutory	- - - -
I	Provisional Sums	£17,500 (3.6%)

FIXED TENDER TOTAL (excl. VAT)

£481,954.33

What We Are Delivering

A complete strip-out and replacement of the end-of-life heat source in B99. Continuity of heating and DHW to Malthouse Block during the 14-week construction period is provided directly by Grimshaw & Bolt Ltd (Principal Contractor); Built AI provides all interface points and changeover coordination. Scope includes mechanical, electrical, public-health, gas, insulation, builders' work and commissioning, with controls / BMS carried as a Prime Cost Sum for specialist procurement.

Heat Generation and Storage (Baseline Specification)

- ▶ 3 × IDEAL EVO Max 2 — 150 kW fully condensing modular gas boilers in cascade (450 kW total, turndown to ~11 kW), per SBS Quote 18-SQ0023969 Ver 1.
- ▶ 3 × 2,000 L vertical thermal stores (PD 5500 Cat 3) on bespoke 3-vessel steel support frame. VE 1 offers consolidation to 1 × 6,000 L unvented store.
- ▶ 2 × Stokvis Econoplate 700 kW packaged DHW PHEs providing N+1 resilience. VE 2 offers consolidation to 1 × 700 kW unit. VE 4 offers UKE supplier substitution.
- ▶ 1 × Stokvis Econoplate 250 kW packaged heating PHE skid. VE 5 offers UKE-5 bare-exchanger format alternative.

Pumps, Pressurisation and Cold Water

- ▶ Grundfos MAGNA3 D / MAGNA1 / AP50 pump suite with anti-vibration couplings and BMS interface.
- ▶ 2 × Flamco Flexfiller 225DS digital pressurisation units; expansion vessels 2 × 425 L primary + 3 × 110 L secondary.
- ▶ Arrow Valves Boost-A-Break Tank Set, WRAS Fluid Cat 5. VE 6 offers DAB ESYTANK PRO 500AG ESYTWIN substitute.

Flue, Gas Safety and Controls

- ▶ New twin-wall CE-marked V-band clamped flue, 4-hour fire-rated baseline. VE 3 offers 3-hour FR alternative.
- ▶ New Gas Safety Panel — SBS GSV065 65 nb gas solenoid valve, pressure proving, leak detection, emergency push-to-break, BMS volt-free contacts.
- ▶ BMS / Controls scope (54 points, Siemens / Satchwell head-end integration) carried as Prime Cost Sum for specialist procurement at Grimshaw & Bolt's instruction.
- ▶ MID Class 2 metering on gas, heat (LTHW and DHW) and boosted water with JSP 418-format M&T reporting.

Electrical and Builders' Work

- ▶ New Schneider Merlin Gerin Acti 9 12-way 125 A TP&N distribution board with new sub-main from Malthouse Block main LV panel.



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- ▶ Full NICEIC-certificated installation to BS 7671:2018+A2:2022, with LED task lighting, emergency lighting, fire alarm loop extension and emergency-stop.
 - ▶ All builders' work in connection — penetrations, EI 120 fire-stopping, new concrete plinths, sump pit, skylight remove/reinstate, chimney-top repointing.

Strip-Out and Heat Continuity

- ▶ Controlled, sequenced removal of 5 × Wessex boilers, 2 × Hamworthy DHW generators, 2 × Nalco vessels, existing MCP and redundant pipework.
- ▶ Licensed asbestos removal undertaken by separately-appointed LARC; Built AI commences intrusive strip-out only after Certificate of Reoccupation issued.
- ▶ Temporary boiler plant and DHW continuity provided directly by Grimshaw & Bolt Ltd (confirmed by Jamie, GB, 24 April 2026); Built AI provides hydraulic / electrical / BMS interface points.

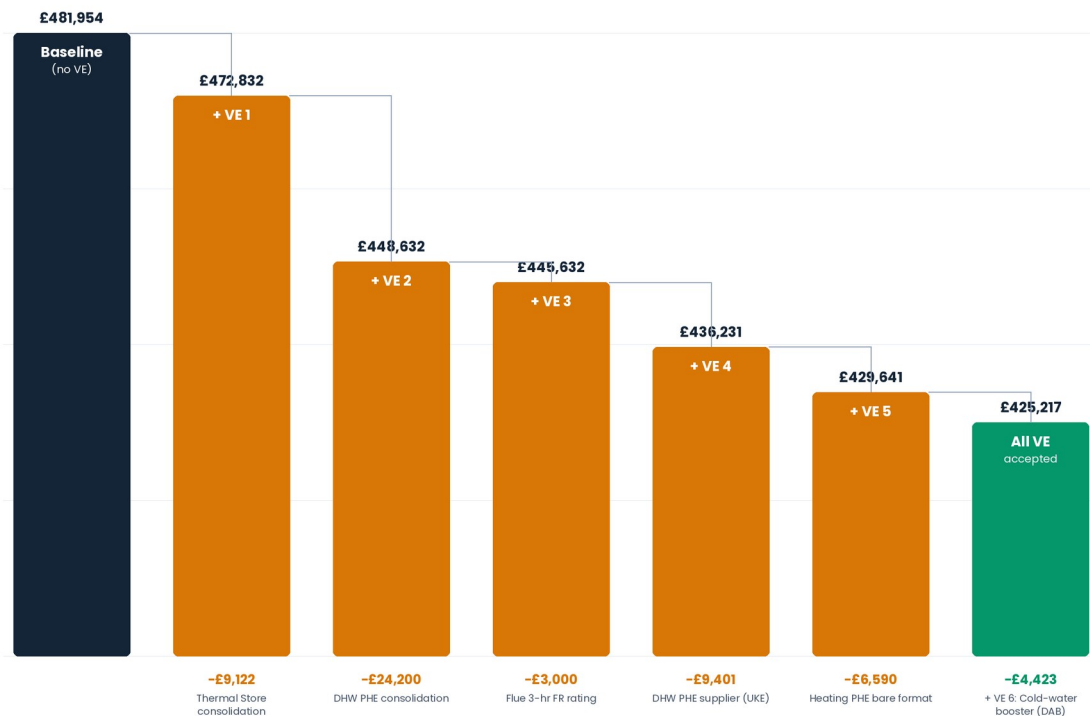
Value Engineering — Savings Available

Six independently-electable Value Engineering options are offered as alternatives to the baseline specification priced in the main Bill of Quantities. Each option may be accepted individually or in combination, subject to SES Ltd / Contract Administrator written sign-off. Full Baseline-vs-Alternative line-by-line schedules are presented in the dedicated VE Options tab of the Priced BoQ workbook.

#	VE Option	Saving (£)
1	Thermal Store Consolidation (1 × 6,000 L vs 3 × 2,000 L)	9,122.00
2	DHW PHE Consolidation (1 × vs 2 × 700 kW Stokvis — foregoing N+1)	24,200.00
3	Flue Fire-Resistance Rating (3-hr FR vs 4-hr FR)	3,000.00
4	DHW PHE Supplier Substitution (UKE for Stokvis, per PHE)	9,401.42
5	Heating PHE Format (UKE-5 bare for Stokvis packaged 250 kW)	6,590.00
6	Cold-Water Booster (DAB ESYTANK for Arrow Boost-A-Break)	4,423.44
	Maximum Potential VE Saving (all six accepted)	£56,736.86

Value Engineering — Savings Ladder

Stack the savings — each VE option independently electable



MAXIMUM POTENTIAL SAVING (all six VE options accepted)

Net tender if all accepted: £425,217.47 · Savings electable individually or in any combination

-£56,737



CS



TLP



PDP



BoQ



PRG

Important note on VE 4: The DHW PHE supplier substitution saving shown is per-PHE. If VE 2 (single-PHE consolidation) is accepted, only one PHE is in scope and the VE 4 saving is £9,401.42. If VE 2 is rejected (paired PHEs retained), VE 4 doubles to £18,802.83. The schedule above quotes the conservative single-PHE figure.

Commercial Basis

Tender Sum	Fixed lump sum at the baseline specification (excl. VAT)
Daywork rates	As agreed in the executed sub-contract; applicable only to Employer-instructed variations
Retention	3 % (moiety at PC, balance end of DLP)
Payment terms	Monthly interim valuations; 21 days payment
Insurances	CAR; EL £10m; PL £10m; PI £5m on CDP
Performance Bond	Offered at 0.5 % p.a. if required (not in sum)
Parent Company Guarantee	Offered at nil cost if required
Liquidated Damages	Accepted up to 10 % of Contract Sum (aggregate)

Provisional Sums Included (Doc 23 Table 18 — Client-Led)

Ref	Item	£
I1.1	Tests and samples additional	1,500.00
I2.1	Plant selection changes (Risk Tracker)	4,000.00
I3.1	Flue rejected by chimney — alternative routing	6,000.00
I4.1	Replacement lighting (Risk 29)	1,000.00
I5.1	Replacement fire alarm (Risk 30)	500.00
I6.1	Replacement sub-main and re-wiring (Risk 27)	2,000.00
I7.1	General project contingency	2,500.00
	Total Provisional Sums	£17,500.00

Prime Cost Sum Carried (BMS / Controls Specialist)

Section F6 (Building Management System / Controls package) is carried as a Prime Cost Sum within the Section F tender total. The BMS specialist sub-contractor will be appointed at Grimshaw & Bolt's instruction at PC Sum drawdown. Indicative scope covers MCP, 54-point I/O outstation, sensors, control valves, programming, head-end integration, SAT and BMS commissioning records.

Programme — 14 Weeks On-Site

The works are priced on a continuous 14-week on-site programme commencing within the Kettlewick College summer-term stand-down window (July–September 2026). An indicative sequence is outlined below; a fully resource-loaded Gantt to Grimshaw & Bolt's format will be issued at mobilisation.

Week	Activity	Duration	Key Hold-Point
0	Mobilisation, GB-administered induction, RAMS / COSHH issue	1 wk	GB site induction sign-off
1	Stage 4a surveys and tie-in verification	1 wk	Survey sign-off
0–1	Grimshaw & Bolt temporary boiler install + commission (GB-led)	by GB	Temp-boiler witness & AP sign-off
3–5	Strip-out (post-LARC clearance); waste managed under GB site admin	3 wk	Certificate of Reoccupation pre-strip
4–6	Builders' work — plinths, penetrations, fire-stopping, sump, chimney	3 wk	Plinth levels ± 3 mm
5–7	Heavy-plant lift-in (boilers, TS, PHEs, pressurisation, BTBS)	2 wk	TW Coordinator sign-off
6–10	Primary pipework, gas, flue, pumps, valves, insulation	5 wk	Hydraulic pressure test
8–11	Electrical distribution, containment, bonding, fire alarm, E-stop	4 wk	BS 7671 certification
10–12	BMS specialist install + point-by-point commissioning (PC Sum)	3 wk	BMS I/O sign-off
11–13	Chemical clean / flush / dose; OEM commissioning; witness tests	3 wk	Witness commissioning
13–14	Changeover from GB temp boiler; GB demobilises temp; training; O&M; PC	2 wk	PC Certificate
+4 mo	BMS summer / seasonal commissioning revisit	1 day	Included in Section E

Key Exclusions

The full Assumptions, Clarifications and Exclusions schedule is at Section 8.5 of the Tender Letter Proposal. The principal exclusions are:

- ▶ Licensed asbestos removal, disposal and four-stage clearance — undertaken by separately-appointed Licensed Asbestos Removal Contractor (LARC); Built AI commences intrusive strip-out only after Certificate of Reoccupation.
- ▶ Principal Contractor preliminaries — Construction Phase Plan, F10 notification, site office / welfare / perimeter, skip and waste, daily cleaning, broadband — within the Grimshaw & Bolt scope.
- ▶ Temporary heating and DHW continuity (boiler hire, fuel, maintenance, gas-safety check, removal) — directly provided by Grimshaw & Bolt Ltd.
- ▶ Internal boiler-house redecoration (D8 / D9 / D10 series).
- ▶ Performance and capacity testing (boiler seasonal efficiency, PHE heat-transfer rate verification, DHW peak functional test, thermal-store charge/discharge logging, BTBS performance test); first-3-month aftercare attendance; factory-witnessed tests.
- ▶ BSRIA BG 79/2020 specialist O&M authoring; scrap metal audit; reactive break-fix defects allowance.
- ▶ Incoming 11 kV / LV supply alterations upstream of the new sub-main origin.
- ▶ Kettlewick College IT / VPN / firewall / DVSAF approvals for BMS remote access (BMS delivered IP-ready).
- ▶ Planning, Listed Building, Heritage, MOD or Environment Agency consents.
- ▶ Acceleration, overtime, weekend or out-of-hours working unless instructed.
- ▶ 3.5 % IDEAL price increase if order placement slips past 31 May 2026 (per SBS 18-SQ0023969 Ver 1).
- ▶ Performance Bond (offered separately at 0.5 % p.a. if required).

Why Built AI

Built AI Ltd is a specialist MEP sub-contractor with a proven delivery record on heritage, Defence-estate and live-operational sites. Our team offers the following strengths:

- ▶ Gas Safe registered and NICEIC Approved Contractor — full in-house commercial gas, commercial electrical and BMS-interface competency.
- ▶ Direct experience of MOD estate works under JSP 375 / JSP 317 / JSP 850 governance, including live-site heating continuity delivery.
- ▶ JCT-experienced commercial and project management team operating under the Principal Contractor's CDM 2015 framework.
- ▶ Integrated supply-chain relationships with IDEAL, Stokvis, Grundfos, Flamco, Arrow Valves, Schneider, Siemens and SBS Cambridge.
- ▶ Single-point responsibility for mechanical, electrical, public-health and controls-interface packages, eliminating sub-contract interface risk for the Principal Contractor.
- ▶ Robust health and safety culture — current RAMS library, CITB-accredited supervisors, and full integration with Grimshaw & Bolt's Construction Phase Plan.

Next Steps

We look forward to engaging with Grimshaw & Bolt Ltd and the Employer's team to close out this tender and progress to contract award. Suggested next steps:

- ▶ Tender clarification queries — Built AI available for written or in-person Q&A within 5 working days.
- ▶ Post-tender interview — we are available to attend on-site or at a Grimshaw & Bolt office as preferred.
- ▶ Pre-contract survey visit — Built AI is willing to attend Kettlewick College at the Employer's convenience within the tender validity period to undertake an accompanied walk-through of the boiler house and agreed tie-in locations.
- ▶ Issue of the Letter of Intent — Built AI can mobilise within 4 weeks of LOI and is ready to support long-lead procurement commitments (IDEAL cascade, Stokvis PHEs, thermal stores, flue) on receipt of instruction. IDEAL order placement before 31 May 2026 is recommended to lock in the current pricing ahead of the OEM 3.5 % rise.

Primary contact for this tender:

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End of Client Summary — Rev 1

Refer to the Tender Letter Proposal Rev 1 (separate document) for full technical and commercial detail.

PRODUCTION NOTE

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