HOP POLE – RENOVATION PROJECT BRIEF V2 - 14 May 2023

RIBA Work Stage 3 & 4 – Design Brief Update

The Hop Pole Inn is a community owned building that is to be repaired, restored, renovated and extended as an attractive prospect for a tenant landlord.

This document is intended to be a concise summary describing the requirements for the renovation project. It has been prepared with reference to the RIBA Plan of Works with reference made to the RIBA Conservation Overlay, used when works are undertaken to historic buildings. All those using this brief should also make reference to these framework documents.

Stage 3 Summary Note:

The front building which makes us the historic core is to be renovated to achieve low energy in operation. The works will include the repair and enhancement of the full envelope.

The project delivery is defined by available funding. It is to be delivered in three phases:

Phase One – envelope, repair and thermal enhancement of the roof. Contractor lead with volunteer support where viable.

Phase Two – envelope enhancement, internal repairs and installation of building services. Contractor lead. Skilled volunteers to help minimise capital costs.

Phase Three – rebuilding of rear elements to achieve low energy in operation. Kitchen to be a distinct thermal element for energy use and operational purposes. Substantially community built.

Procurement

The works are to be undertaken through a variety of means.

Volunteers – Volunteer labour has been identified as a key part of the plan to minimise capital development costs.

Construction Personnel and Tradesmen - It is recognised that building contractors will be needed to undertake and lead much of the work. The ambition is to identify a contractor who can operate in partnership with LSCBS to exploit opportunities to minimise capital costs. The contractor will also need to be willing and able to make use of a volunteer labour force.

Formal Contracting - The form of contract that is agreed between LSCBS and a building contractor will need to be reviewed once the scope of the proposed works has been resolved. Initially at RIBA 3 / Planning submission and again at RIBA 4 one Building Regulations has been sought.

Funding

The funds to purchase the design services, pay for statutory fees and to pay for the construction works will all come from private investment and grant aid split broadly 70/30 private investment / grant streams. Further details are available as part of the LSCBS Hop Pole Business Plan.

Delivery

The intention is for the project to be delivered by the Limpley Stoke Community Benefit Society who will procure professional services to enable the key milestones to be achieved.

Surveys

A suite of survey has been procured to inform and guide the design process. A number of the surveys have been procured to comply with the requirements when seeking planning and listed building consent approval. Where additional surveys become necessary the intention is to procure them in parallel with the progression of the design and construction activities.

- Dimensional Survey – Fairfield Banks – March - May
- Asbestos – Innopulse Environmental - Renovation and Demolition – March
- Arboricultural – Arbtech – Survey April / Impact Assessment May / Protection Statement August
- Ecological – Johns Associates – PEA May / Impact Assessment and Mitigation August
- Fabric Condition Assessment – Harrison Brooks – May
- Heritage Statement – Andrew Foyle – Statement of Significance – April / Heritage Impact Assessment September
- Structural Appraisal – Mann Williams – May
- Drainage survey
- Fabric analysis and testing (hygrothermal, pathogens, toxins, etc.)

Design Team

The building is listed, located in an AoNB and a commercial premises in need of complete reservicing and modernisation. These factors impose a broad scope of need that requires the input of:

- Architects – fabric repair / sustainability / proposals for extension / planning and building regulations
- Structural Engineer – repair, extension and drainage
- Services Engineers – fabric analysis and sustainability (energy in use) / new building services
- Cost Consultant – to oversee the development phase and construction phase budget and if necessary to act as the contract administrator for the works.
- Ecologist – Garden and buildings propensity to house protected species (i.e. Bats).
- Arboriculturist – proposals for management and removal of special trees
- Acoustician – likely requirement for planning where new mechanical equipment is proposed

- Planning consultant – preparation of planning statements (if required, subject to pre-app observations)
- Interior Designer – fit out and FF&E proposals

Other consultants may be required to address emerging needs. Of the above a number have been appointed on favourable terms in recognition of the project's community status.

Where possible and without compromise to the future viability of the business, the LSCBS board will seek to minimise expenditure on fees. This is to be achieved through the procurement of consultant services on limited scopes. This decision has been made in recognition of the need to reduce projects costs and deliver the project within the proposed budget. It is recognised that the findings of the survey and design process will require the scope of services to be reviewed and this may result in an increase if consultant fees. The periodic review of funding and expenditure will be aligned with the delivery programme to minimise the risk of prolongation of the process.

Outline Proposal

To be delivered in three phases as required to enable the full expenditure of the Government Community Ownership Fund Grant.

Phase One and Two - The repair and renovation of the historic building with renewed rear extensions.

Gross Floor Area – The objective is to target at least 30 covers indoors as part of a pub that offers food and drink. This is to be achieved through renovation, re-ordering of spaces and reconstruction of the existing blocks to the rear which currently house the kitchen, female WC and male WC. Appraisal of the retention and / or rebuild options for the rear elements must seek a unified and cohesive outcome that provides for a commercially viable offer. This is to be market tested through consultation with active operators in the area.

The renewed buildings must accommodate a kitchen, WCs, storage space and additional volume for circulation and plant. The kitchen is to be a self-contained thermal volume with separation from the main pub. This is necessary to ensure the mechanical systems of the kitchen can operate independently of the main pub which is targeting a lower energy operation. The separation of the kitchen will decouple the energy hungry systems from this in the main building. This is necessary to address design complexities and higher costs which come with a low energy, heat and ventilation system for a commercial kitchen.

The first floor is to be retained as the apartment in service of the operation of the pub. Reordering proposals developed in early 2023 are to be worked up and will be delivered as part of Phase Two if 2023 funding permits or a future phase if not.

Planning and Listed Building Consent

LSCBS will work closely with the Architects for the applications for Planning and LBC. The consultant team will be commissioned to provide key designs proposals, statements and planning policy documents to support the application.

Construction Phase

The works are to be led by one or more contractors who will be selected for their familiarity with historic fabric, their commitment to utilising volunteer workforce and their ability to oversee a full scope of construction activity from ground works, envelope construction, servicing and finishing.

LSCBS will augment the board to include directors with appropriate experience to aid the delivery of the works during the construction period. In addition, an architect will be employed to oversee the works and guide the input of the design team.

Sustainability

The condition of the building fabric and its repair needs are substantial. This presents the opportunity for the substantial renovation of the building envelope and its services. In instances such as this there is a requirement for existing building fabric to be improved to achieve compliance with the Building Regulations. Dispensation for listed buildings allows for lesser standard to be targeted.

This project is taking place at a time of energy, climate, and ecological crisis. Current legislation sets out a requirement for all buildings to use less energy in operation. A significant shift in Historic England's support for retrofit of historic buildings has clarified the need for the scheme to seek high standards for energy efficiency[1]. In recognition of this, the proposals for the renovation and extension of the Hop Pole Inn are to achieve improved performance through the preparation and delivery of designs that achieve a thermally renovated envelope complete with new systems that minimise energy use while seeking to achieve a harmonious balance with the buildings historic fabric; a truly sustainable retrofit project.

The target standards resolved for RIBA 3:

Refer to Greengauge Energy and Building Physics Report – These were resolved based on a full width extension. Targets and performance to be reviewed as part of a Stage 3 review and PHPP model update.

Energy Overview and Fabric Targets:

[1] https://historicengland.org.uk/whats-new/features/climate-change/our-strategy/

Criteria	EnerPHit Target	Proposed Building
Average Element U-value (W/m²k)	<0.3	0.18
Wall with Internal Insulation U Value (W/m²k)	<0.5	0.48
Ground heat loss (kWh/(m².a))	<19.3	6.9
Vertical Windows and Door U-Value (W/m²k)	<1.07	1.07
Glazing g-value (-)	>0.41	0.5
Ventilation Heat Recovery Efficiency (%)	>75	81
Overheating frequency (%)	10	0
Primary Energy Renewable(PER) (kWh/(m².a))	<130	142

EnerPHit component method criteria and model results

Element	Insulation / Assumptions	Proposed U-value W/(m².K)	EnerPHit target
Ground floor	350mm Glapor (λ=0.078 W/m.K) with a 150mm Limecrete slab (λ=1.0 W/m.K) and 50mm insulating screed (λ=0.06 W/m.K) above.	0.18	0.30
Existing external wall	600-650mm of existing stone (λ=1.5 W/m.K) with 55mm of Diathonite Thermactive (λ=0.037 W/m.K) and 5mm of Diasen Argacem HP Finishing Coat (λ=0.7 W/m.K)	0.49	0.50
New External Wall	100mm of rigid insulation (λ=0.04 W/m.K) with 150mm insulation (λ=0.035 W/m.K) between timber studs (10% timber fraction assumed here)	0.15	0.30
Existing Roof	100mm flexible woodfibre (StecioFlex assumed with λ=0.036 W/m.K) between rafters (timber fraction assumed to be 15%) with 60mm sheathing board (λ=0.04 W/m.K) above.	0.26	0.30
New Pitched Roof	150mm flexible woodfibre (StecioFlex assumed with λ=0.036 W/m.K) between rafters (timber fraction assumed to be 15%) with 100mm sheathing board above.	0.17	0.30
New Flat Roof	235mm Insulation (λ=0.024 W/m.K) above a timber deck with suitable weatherproof finish	0.10	0.30

Proposed fabric and U-values

Airtightness target – targeting 1. Likely to achieve 3 m^3/h. m^2@50Pa (best practice mechanically ventilated)

Standard	Required air tightness result (ach at 50 Pa)
Passivhaus	0.6
EnerPHit	1.0
PHI Low Energy Building	1.0
AECB Building Standard	1.5
AECB Retrofit	2.0

Air tightness requirements for various standards

Windows front / retained existing – secondary glazing fitted on the insulation line

Windows rear / new windows - thermally broken and unit performance of 1.07w/m^2K

Window Assumptions

The table below outlines the key assumptions for the windows and doors within the model.

Element (excluding installation)	U-value (**W/m²k**)	Glazing g-value (-)
Opaque Doors	0.8	-
New Extension Glazed Doors	0.7	0.5
Front Façade Windows	1.5	0.5
Rear Façade Windows	1.1	0.5
New Extension Windows	0.7	0.5

Window data assumed in the model.

Energy source – electric only - subject to investigation and consultation with the energy provider. *Electric only Kitchen to be separately metered in operation.*

Mechanical systems – ventilation systems with heat recovery

Microgeneration – PVs placed on tall frames at within the garden. (Consult Nick Spicer YourEco)

Ecology – Enhanced ecology via a combined approach with the garden and building designs.

Operation Strategy

Refer to separate briefing document.

This is will be finalised in late 2024 with the input of the future operator. The current brief is based on commercial guidance from other operators. The current intension is for the premises to be leased to an operator. The lease will include a percentage for a sinking fund to manage the ongoing maintenance of the building fabric and general systems. The operator will be responsible for all of the bar equipment. The kitchen equipment is to be supplied to the project at no cost. It will be electric only, no natural gas will be used. See the appended outline schedule. The intention is to finalise the kitchen design in mid-2024 only once the main building has been completed.

Fixtures Fitting and Equipment (FF&E)

Interior design is to be resolved by LSCBS to ensure a high-quality finish is targeted. The design will be resolved to identify furniture suitable for the available fit out budget with options of final items to be resolved in consultation with the tenant operator. This will have to be a joined-up approach as the operator will be responsible for loose furniture and decorative fittings.

END

15 MAY 2023