



13.0 Design

This section details how elements such as massing, scale and footprint of the proposals has been considered holistically across the scheme.



13.1 Change in use

Existing



Proposed



Use Classes

-  RESIDENTIAL
-  ANCILLARY RESIDENTIAL
-  REDUNDANT AGRICULTURAL



13.2 Massing

Proposals across the site look to reduce the massing wherever possible.

There is a large removal of massing due to:

- The demolition of the concrete barn. ⑥
- The removal of the later haphazard extensions to the east and west of the kitchen. ③

There is a reduction in massing due to:

- The removal of the pitched roof and replacement with smaller replacement roof design. ①

There is a consolidation of massing due to:

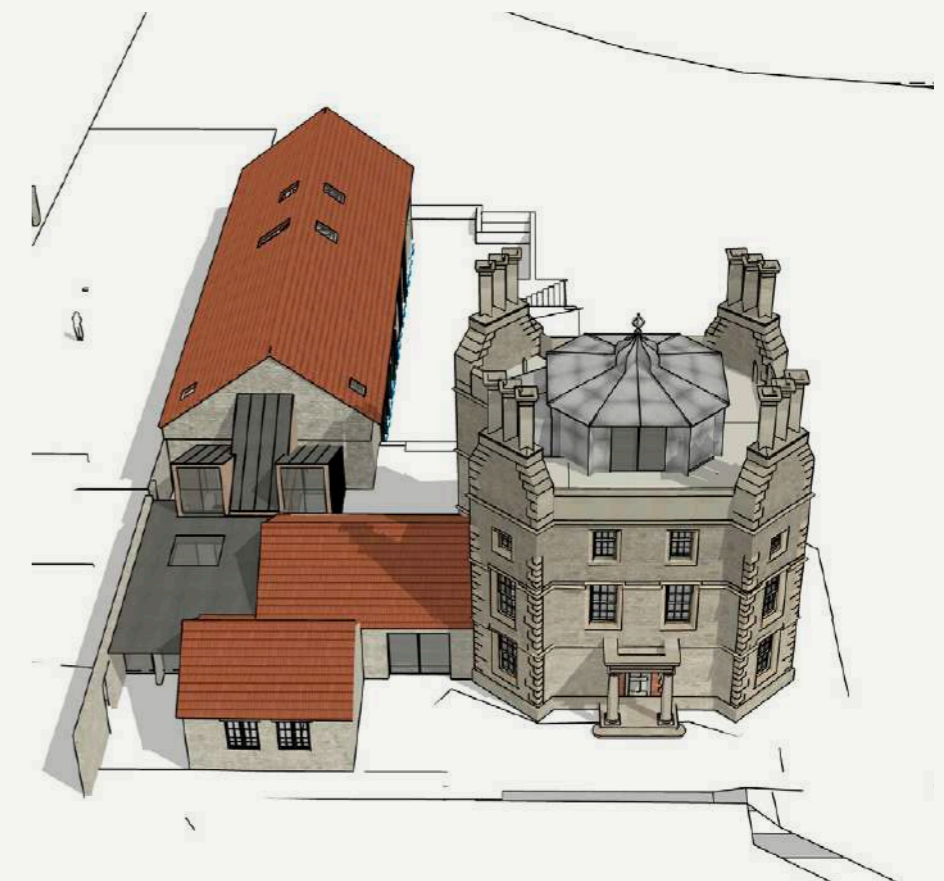
- The removal of the poor quality conservatory and agricultural link buildings to the apple barn. ④
- The cart shed will be slightly reduced when rebuilt to similar proportions.

The massing of the leisure barn is slightly than the existing consolidated barns. However some of this massing is in the form of an open loggia.

The little stone barn will be unchanged.



AERIAL VIEW OF THE EXISTING SITUATION MASSING MODEL:
THE EXTENSIONS AND AGRICULTURAL BUILDINGS TO THE NORTH OF THE HOUSE HAVE OCCURRED IN A HAPHAZARD MANNER, THE MAJORITY OF WHICH ARE NOT OF HIGH VISUAL/STRUCTURAL OR HERITAGE QUALITY AND THEY ARE CAUSING HARM TO THE HERITAGE ASSET BY ENCROACHING ON THE MAIN LISTED BUILDING.



AERIAL VIEW OF THE PROPOSED SITUATION MASSING MODEL:
NEGATIVE BUILDINGS THAT ENCROACH ON THE LISTED BUILDING OR HAVE A NEGATIVE VISUAL APPEARANCE ARE TO BE REMOVED, REFURBISHED OR REPLACED.



13.3 Scale

The main house will continue to be the tallest building on the site. The replacement roof massing is to be no higher than the roof being removed. The replacement chimneys have been carefully scaled based on the root proportions of the building.

All replacement buildings take their scale from the existing building they are replacing.



EXISTING SECTION



PROPOSED SECTION



13.4 Area

The proposed development sees the overall reduction of building footprint across the site with the removal of lower quality structures around the main heritage asset.

The proposed scheme has a net reduction in foot print and GIA compared to the existing.

On the apple barn, a large proportion of footprint is deducted with the removal of the large concrete barn, the glasshouse and refrigeration lean to.

The cart shed and the little stone barn see a like for like footprint.

The leisure barn proposal looks to consolidate three low quality barns into one simplified similar area building.

The GIA sees a reduction across the site. The main house existing GIA lower across all floors of the house than the proposed, despite the new third floor pavilion. The GIA in this application is lower than the first pre-planning application.

West Bradley House						
Area Schedule						
Pre-App 02 - Amended						
20.10.2023						
Footprint area m2						
	Existing			Proposed		
	Residential	Ancillary Residential	Redundant Agricultural	Residential	Ancillary Residential	Redundant Agricultural
House	260			229		
Garage		37			76	
Glasshouse		16.5			0	
Apple Barn and Link			437	330		
Cart shed			191		191	
Little Stone Barn			66		66	
Modern sheds (replaced with Leisure)			308		374	
Total	260	53.5	1002	559	707	0
		1315.5			1266	
						Net Reduction 49.5
GIA						
	Existing			Proposed		
	Residential	Ancillary Residential	Redundant Agricultural	Residential	Ancillary Residential	Redundant Agricultural
House (4 floors existing)	472			471.6		
Garage		32			67.5	
Glasshouse		16			0	
Apple Barn and link (2 flrs)			586.5	440		
Cart shed			181		172	
Little Stone Barn			53.4		51	
Modern sheds (replaced with Leisure)			290		330	
Total	472	48	1110.9	911.6	620.5	0
		1630.9			1532.1	
						Net Reduction 98.8



13.5 Appearance

The materials across the site have been carefully chosen to reflect the history and status of each building.

The selection of materials has been made with natural, locally sourced materials selected as a priority. This will ensure a low embodied carbon and provide a house that will naturally age and blend in with the surrounding environment.

Main House:



EXISTING LIAS STONE
CAREFULLY RE POINTED



EXISTING RED BRICK
INTERVENTIONS RE-
POINTED

Main House Roof:



DRESSED RUBBLE
LIAS STONE



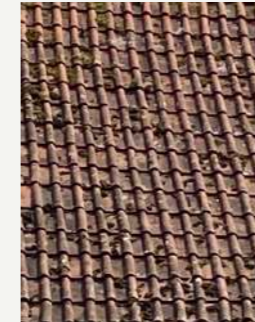
STANDING SEAM ZINC

Link:



VERTICAL WEATHERED
TIMBER CLADDING

Apple Barn:



EXISTING AND RE-
CLAIMED PANTILE ROOF



EXISTING LIAS STONE-
WORK

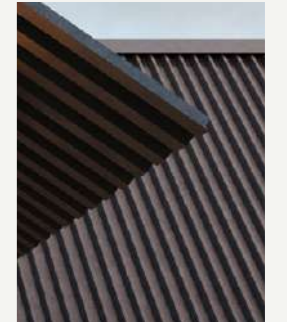
Outbuildings



WEATHERED STEEL
CLADDING



VERTICAL TIMBER
CLADDING



BOX PROFILE DARK
GREY STEEL ROOF

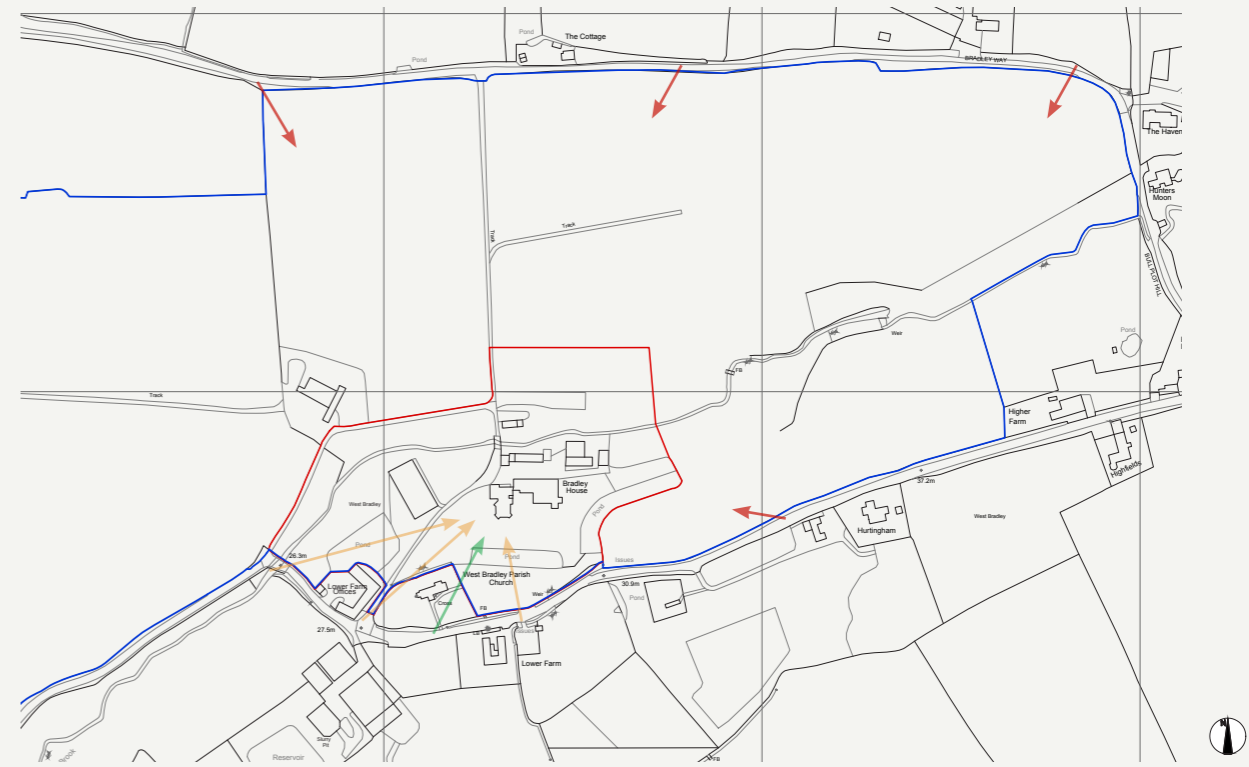





13.6 Visual and residential amenity

The house is valued due to its central position in the village. However, the house is hidden from the majority of the surrounding public lanes and footpaths by foliage. The house is only glimpsed from the road directly to the south and as a back drop to the church in winter months. There are no longer views than that from the bridge to the west.

Due to the distance between the house and surrounding properties, no properties' amenity is affected by the proposals.



LOCATION PLAN WITH VIEWS OF THE HOUSE MARKED

-  NO VIEW
-  PARTIAL WINTER VIEW
-  VIEW





13.7 Long views

The current roof is very prominent in the few public views. The proposals will improve the appearance of the property when seen from the viewpoints on Bradley Lane that exist.



EXISTING SOUTH VIEW OF THE HOUSE



ARTISTS IMPRESSION OF THE PROPOSED SOUTH VIEW OF THE HOUSE



EXISTING CHURCH VIEW OF THE HOUSE



ARTISTS IMPRESSION OF THE PROPOSED CHURCH VIEW OF THE HOUSE



13.8 Sustainable Construction and Design

The objective for the development of the site is to reduce energy consumption and CO2 emissions.

The Part L defined energy hierarchy has been used:-

- Use less energy.
- Supply energy efficiently
- Use renewable energy.

Use less energy

The retained listed buildings are to be improved where possible, but upgrades are limited due to the historic fabric constraints.

The main house currently has single glazing and no insulation. The existing single-glazed windows are refurbished to improve airtightness. The external building fabric cannot be insulated internally due to the presence of existing shutters. The replacement of the Main house roof provides an opportunity to improve the U values of the roof.

The Apple Barn, retained North extensions and the Little Stone Barn are to receive an improvement in their thermal performance using internal insulation and double-glazed window systems to reduce heat loss. These elements are to be upgraded to Part L refurbishment u values.

The new building elements are to benefit from: -

- High thermal performance by means of high specification insulation and double-glazed window systems to reduce heat loss.
- Air-tight construction techniques to minimise unwanted air infiltration, certified air-tight windows and post completion air-pressure testing to ensure

compliance with design standards.

- Mechanical heat recovery ventilation for the Pool building and The cart shed.
- Reducing summertime overheating by providing windows with lower g-value.
- Openable windows with cross ventilation.
- A-rated appliances. Water saving measures such as spray taps.
- Low energy light fittings.
- Good levels of natural lighting with south facing windows

Supply energy efficiently

Combined heat and power (CHP) has been considered for the development. It has been investigated and found that a CHP solution would not be the most feasible technology for the development, due to the suitability of such system on a scheme of this scale and affordability.

Use renewable energy

After considering the different Low & Zero Carbon Technologies, it was established the air source heat pump and Ground source heat pumps are economically and technically feasible renewable technologies for the development. Considering the financial viability and building loads, it is proposed the buildings will be heated with an air source heat pump except the leisure shed, which will be heated with ground source heat pump. This aligns with the Net Zero Carbon pathway. The carbon emission factors (SAP10) for grid electricity can be applied to the energy consumption for the buildings to demonstrate a further reduction against the Base Building Target emissions.

An energy statement has been included in the application providing more detail on the energy strategy taken.

It concludes:

- The proposed new build construction is responsible for 8% reduction in CO2 emissions over the minimum requirement for the building due to passive design features, such as the provision of high levels of thermal insulation, airtightness and low energy lighting.
- A further 49.4% carbon reduction is then achieved with Air & Ground source heat pump heating.
- The above total represents a total carbon reduction of 57.4% for Part L1 2021 on the new build units.
- The existing renovated buildings achieve an 83.8% reduction over their existing conditions due to improvements in thermal insulation, low energy lighting and replacing the existing heating system with heat pumps.