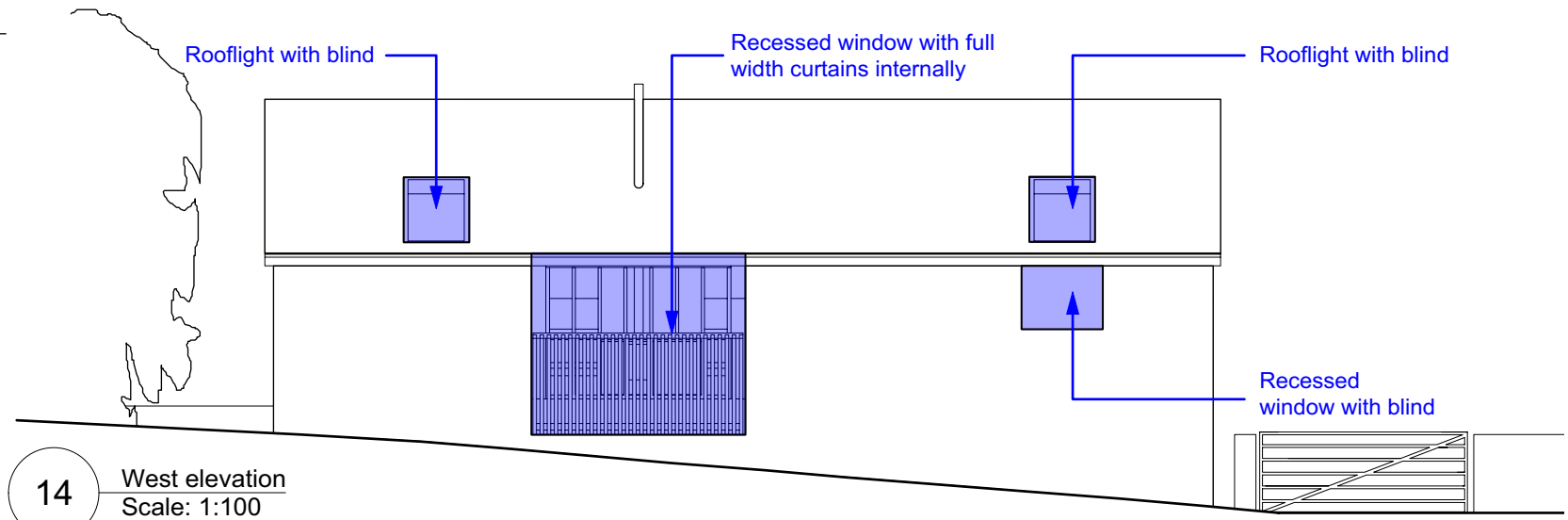
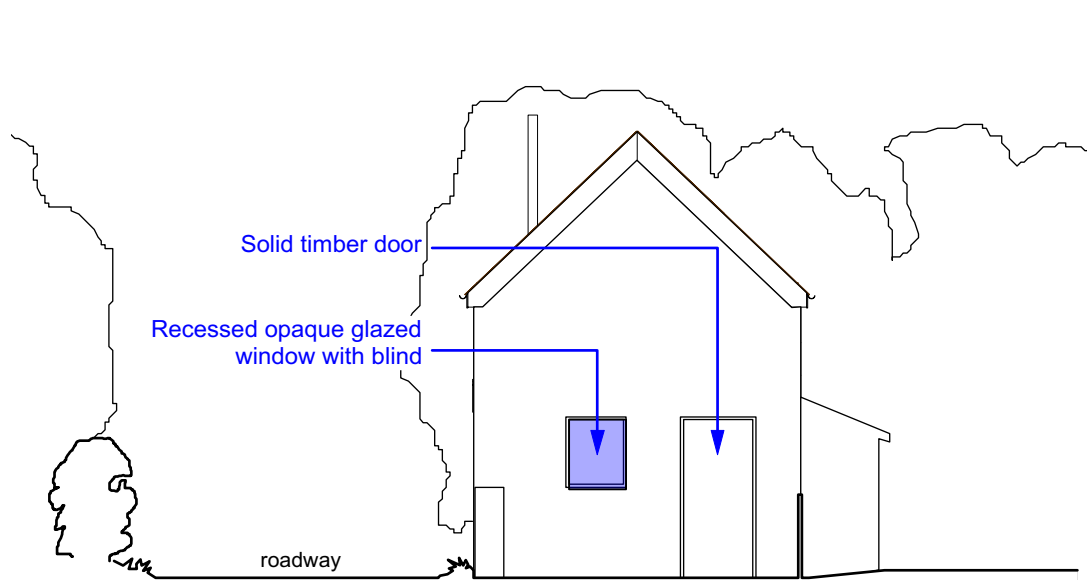


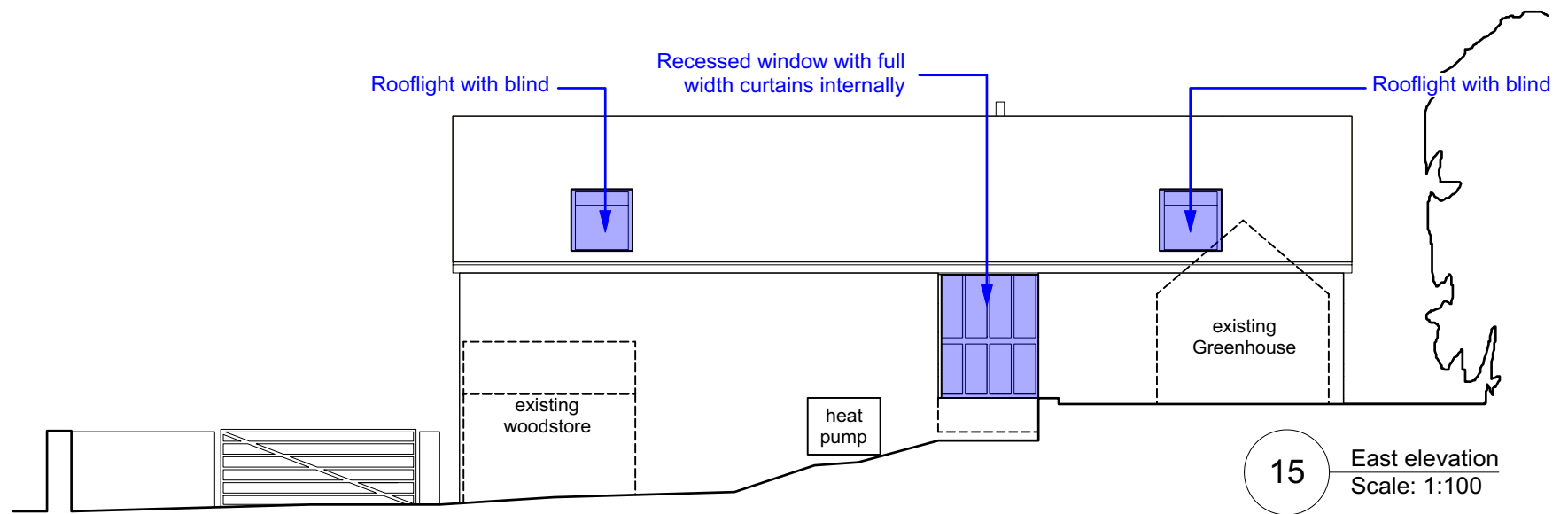
16 North Elevation
Scale: 1:100



14 West elevation
Scale: 1:100



13 South Elevation
Scale: 1:100



15 East elevation
Scale: 1:100

Appendix 1 - Guidelines for luminaires
(Guidance note 08/19 – Bats and Artificial Lighting in the UK)

- All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability
- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012)
- Internal luminaires can be recessed where installed in proximity to windows to reduce glare and light spill.
- The use of specialist bollard or low-level downward directional luminaires to retain darkness above can be considered. However, this often comes at a cost of unacceptable glare, poor illumination efficiency, a high upward light component and poor facial recognition, and their use should only be as directed by the lighting professional.
- Column heights should be carefully considered to minimise light spill.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used – See ILP Guidance for the Reduction of Obtrusive Light.
- Luminaires should always be mounted on the horizontal, ie no upward tilt.
- Any external security lighting should be set on motion-sensors and short (1min) timers.
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.

Lighting strategy is compiled with reference to the Bat Conservation Trust's Guidance note 08/19 (Bat's and Artificial Lighting in the UK) and correspondence with lighting design engineer Bonnie Brooks BA (Hons) BEng MSc MSLC MCIBSE of Illume Design.

Key Points

- No external lighting
- Light spill and glare from internal lighting minimised through directional lighting.
- No lights to be pointing towards any glazing to avoid light spill onto any external semi-natural habitat.
- The use of exclusively warm spectrum LED bulbs (<2700K) to minimise any impact of light spill.

Light Fittings

In accordance with guidelines for luminaires (see **Appendix 1 – Guidelines for Luminaires: Guidance note 08/19 – Bats and Artificial Lighting in the UK**). Internal lighting will be:

- Directional LED fittings (emit minimal ultra-violet light)
- Warm white spectrum (<2700 Kelvins)
- Mounted downwards to minimise glare and light spill.

Light spill from artificial lighting is to be controlled on all sides of the building. The building has no external lighting and all of the openings will have either blinds or curtains to mitigate light spill from the interior.

Note that the adjacent Birch Cottage also has no external lighting.

Birch Cottage Barn
(Planning Conditions)
Artificial lighting control strategy
Joseph Pawson 29th May 2021
Scale - 1 to 100 (at A3)