

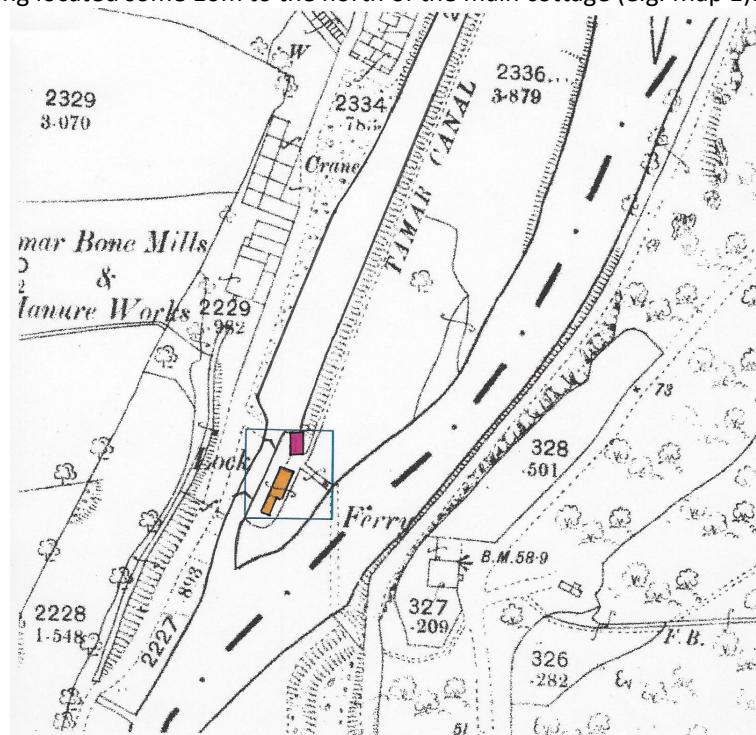
Design Report - Demolition and construction of new wood-shed within the curtilage of Grade II listed Lock Cottage, Gunnislake, Cornwall PL18 9BZ.

Introduction

1. This Design Report has been prepared by the owners of Lock Cottage, Paul and Shân Norman. It forms part of our plans to revive the former lock-keeper's cottage, the main works of which are described in a planning application and accompanying listed building consent which were approved, with conditions, by Cornwall Council on 21 August 2020. (Ref: PA20/03052 and PA20/03053 both validated 27 Apr 2020).

Historical Context

2. [Lock Cottage](https://historicengland.org.uk/listing/the-list/list-entry/1158203)¹ is a Grade 2 Listed building (Historic England List Entry 1158203) located on, but not part of a Scheduled Monument (List Entry 1007302) that is the Canal, lock, island and salmon keeping pond and known collectively as the [Tamar Canal](https://historicengland.org.uk/listing/the-list/list-entry/1007302)².
3. The cottage was built between 1800-1830 and the curtilage has always included outbuildings used for various storage and workshop functions commensurate its use as a home for the lock-keeper and water bailiff. Outbuildings were constructed and used as storage for the river and canal-side activities that historically operated from within the curtilage of the cottage. Maps and engravings dating back to the mid-19th century all show an outbuilding located some 10m to the north of the main cottage (e.g. Map 1).



Map 1 – Tamar Canal, pre-1900, showing the lock-keepers cottage (orange), including an outbuilding ~10m to the north of the main cottage (red).

¹ <https://historicengland.org.uk/listing/the-list/list-entry/1158203>

² <https://historicengland.org.uk/listing/the-list/list-entry/1007302>



Photo 1. Aerial Photograph of Lock Cottage and Curtilage in July 2021, showing the outbuilding in top-centre of image with rust streaked roof.

4. Photographs dating from the early 20th century show the outbuilding being used for river boat and fishing equipment storage (Photos 2 and in close-up, Photo 3). This structure appears to have been an enclosed rectangular building, clad in wood with a low-pitched roof. The front (east) elevation appears to have a door(s) and window(s) and the back of the structure lay against the garden wall at the back of the building. The building appears to be around two metres in height at the eaves and three metres at the roof apex. Since then, the outbuilding has fallen into disrepair and has been patched up with rough-hewn timber and wood offcuts, and the roof has been replaced with corrugated iron sheeting. Most recently in the 21st century the outbuilding has served as a wood-store and a small open-fronted garage for a paddock tractor. Over the 200 year+ history of Lock Cottage, the structure has probably been demolished and rebuilt several times.

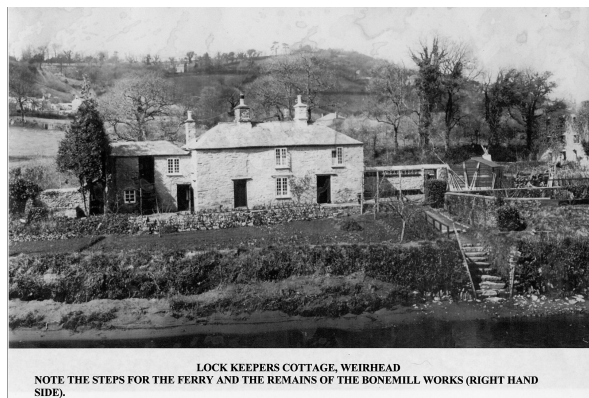


Photo 2: Eastern elevation of Lock Cottage, showing outbuilding to the north of the main cottage (right of picture). Date: circa 1920.



Photo 3: Close up of outbuilding with rowing oars or net stakes leaning against the gable end. Note front (right hand side) of outbuilding appears to be enclosed with window/door.

Reasons for the redevelopment

5. The current outbuilding (Photos 4 to 7) is a single storey structure with a low-pitch corrugated iron roof 2m in height at its eaves and 2.5m in height at its apex and with a footprint of 3.3m (depth) and 4.2m (width), divided into two open-fronted bays. The roof eave is supported at the rear by the two metre high garden wall. The three roof trusses are supported by timber posts, reinforced and repaired (several times) in places where the frame has lost structural integrity. Note that the capping stones of the garden wall at the rear (east) of the structure have removed to support and anchor the rusty corrugated iron roof (Photo 5, below). The wooden frame and supporting posts and trusses are constructed from a mix of rough-hewn boughs, reinforced in places with treated timber. All of the original timbers are infested with woodworm and rot. The frame is close to collapse and the owners have had to prop up the frame to prevent complete collapse. The gable ends are infilled with oddments of wooden board nailed crudely to the frame. The corrugated iron roof is deeply rusted.
6. The floor of the outbuilding is constructed from random cobbling, presumed to be original. It is intact for the entire footprint of the structure, historically important and very attractive. The floor slopes downwards, rear to front, by 15 cm over the 3.3m depth of the outbuilding. The immediate area in front of the outbuilding is covered in slate flagstones resting on the undersoil before running into a strip of grass lying between the outbuilding and the wall of the adjacent fish keep.



Photo 4: Existing outbuilding - Front (East) elevation



Photo 5: Rear (West) elevation.



Photo 6: North elevation



Photo 7: South Elevation

Visibility for Public Rights of Way

7. The western elevation of the outbuilding – essentially the rusty roofline (Photo 5) - is visible from the Public Right of Way (PROW) which runs along the canal and riverside (see Site Plan). The north elevation (photo 6) is also partly visible from the same PROW through, in summer, dense foliage.

Proposed new design

8. The new proposed outbuilding would occupy the same footprint as the existing structure and would seek to emulate the design seen in the photographs taken in the 1920s (Photos 2 and 3). The proposed structure, which would be constructed on site by a local joinery and building company, would be timber framed with three roof trusses and divided into two bays. The front (east) elevation would be largely enclosed:
 - The left-hand bay would fully enclosed and used as a workshop and a store for garden equipment. It would have outward opening double doors fitted with windows for light. The new wooden floor of the workshop area would be raised some 30cm at the front and 15cm at the back above the random cobbles of the existing building. This would make the floor level and reduce the flood risk (see below).
 - The right hand bay would be used principally as a wood-store and accessed by two half-height stable doors. This would allow full ventilation for drying timber and firewood. The floor would be the existing random cobble.

- The north and south elevations would be clad in dark-stained horizontally mounted wooden boards. The dark stain/preservative would also be used on the timbers on the east and west elevations.
- The existing random cobble floor would be retained in its entirety. The cobbles under the workshop/garden tool store would be concealed by the raised wooden floor, but left as they are. The random cobble floor of the wood-store bay would remain exposed. Ground anchors for the vertical support posts would be outside the line of the cobbled area.
- The new low-pitch roof would be supported by three trusses. Vertical posts at the back of the outbuilding would be attached to the stone wall. The missing capping stones on this section of wall would be restored. The roof would be constructed from dark green corrugated bitumen roofing sheets with dark-stained timber fascia boards to match the elevations. The front and rear eaves would collect rainwater into water butts.

Flood Risk

9. Lock Cottage has its own flood plan which involves the occupants being subscribed to Environmental Agency and local council flood warnings systems. Occupants would evacuate at times of flood risk. This flood plan was included in the planning application which was approved in August 2020.
10. Like the main house, the existing and proposed outbuilding is located on a medium risk flood area. In flood situations water fills the old Tamar Canal and flows over the ground around the outbuilding downstream (south) to merge (again) with the waters of the River Tamar. The new design seeks to address the flood risk and seeks to protect property, by:
 - Using the stone wall at the rear as an anchor for the frame and the roof trusses.
 - Anchoring vertical support posts in the ground.
 - Gaps would be left in the cladding at low level to allow the passage of flood water, so as to reduce sheer pressure.
 - The frame would incorporate additional struts and supports to resist the lateral forces of moving water (north to south).
 - The floor of the proposed workshop/garden equipment store would be raised between 15cm (rear) and 30cm (front) from ground level.
 - Doors have been included in the design to prevent buoyant objects, such as firewood, from washing away.



Sketch of proposed replacement outbuilding