

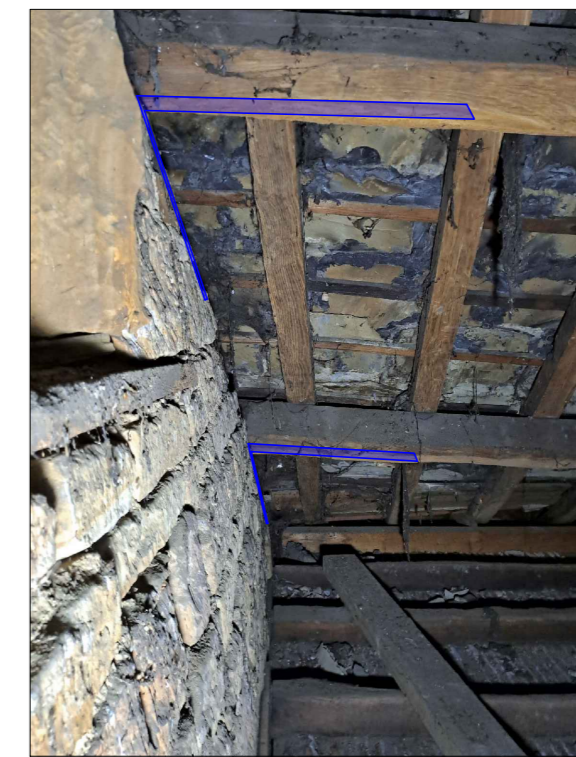
Repair R2.1 - Void in the gable

- Consolidation of the southeast gable above room 105 GAL with lime grout. Most likely carried out in stages from base of gable to top. Method to be developed with specialist contractor.



Repair R2.4 - Indicative sketch

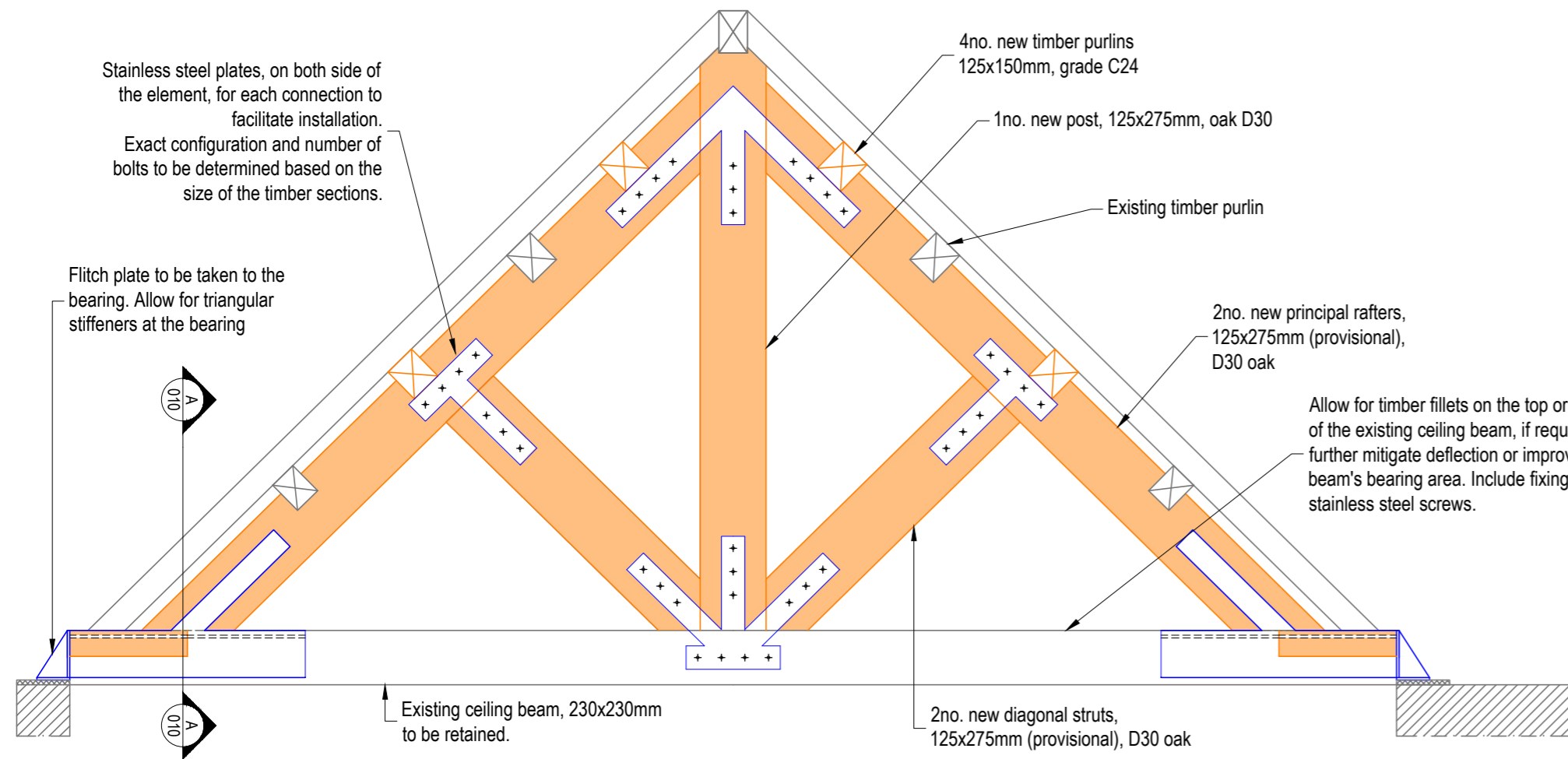
- Strengthening of ceiling joists above corridors 101 CIRC, 104 CIRC, and a section of 105 GAL. Allow for the installation of new timber ceiling joists, 165x70mm at 450mm centres, above the existing joists and the fastening of the two together with stainless steel screws driven from the existing joists into the new members (8mm screws at 200mm centres). Include for the patching of the plaster ceiling and joist hangers or the formation of new notches in the trusses.



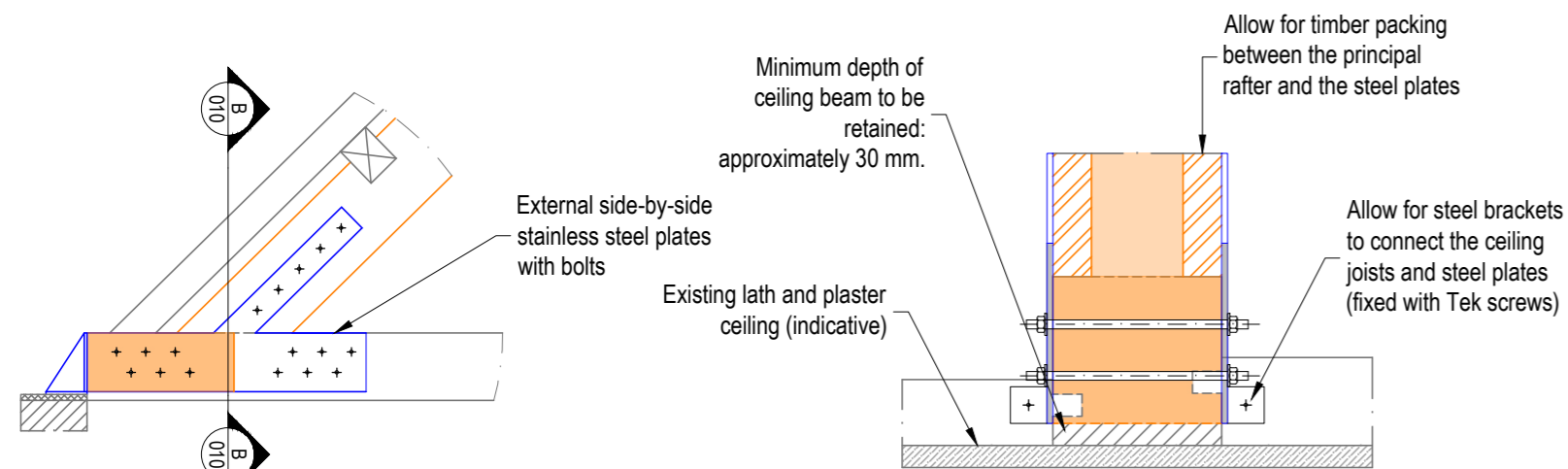
Repair R2.3 - Indicative sketch

- Allow for the installation of 4no. additional oak purlins of similar size to existing to remove part of the loads of the existing purlins.
- Allow for stainless steel straps of purlins to the gable to provide lateral restraint (resin fixed to the gable).

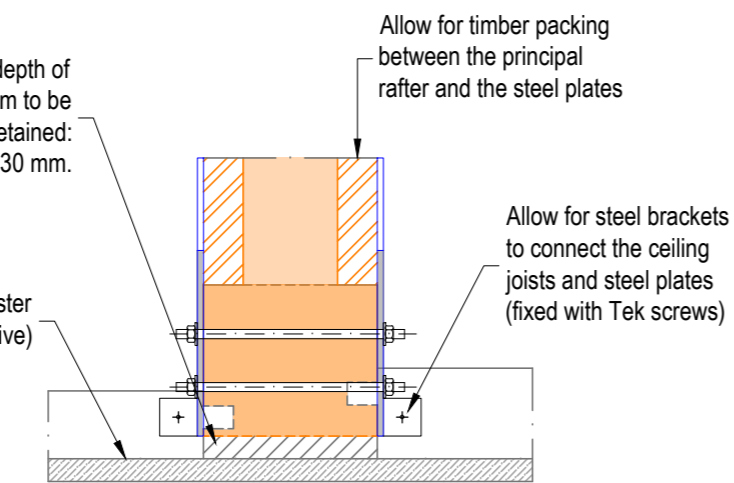
01 First floor plan with indicative location of trusses and ceiling beams
Scale: 1:100



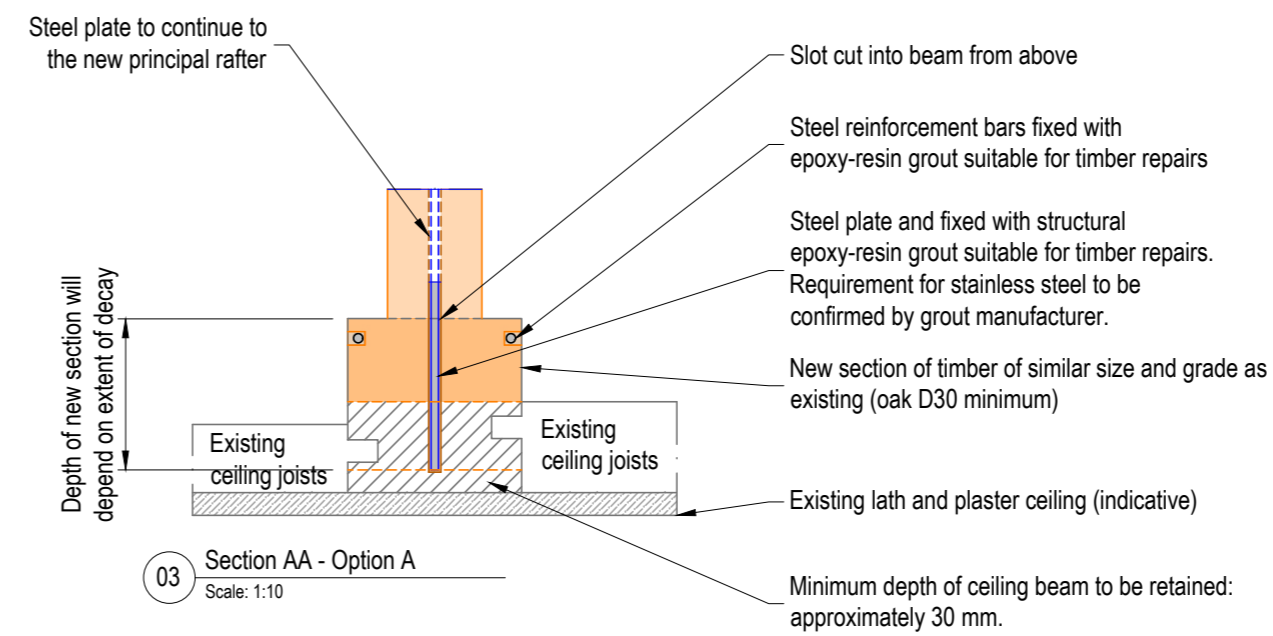
02 Repair 2.2 - Indicative sketch of new truss using the existing ceiling beam (with Option A for ceiling beam bearing repair)
Scale: 1:25



04 Option B for ceiling beam bearing repair
Scale: 1:25



05 Section BB - Option B
Scale: 1:10



03 Section AA - Option A
Scale: 1:10

Repair R2.5 - Allow for repairs/strengthening as follows (estimated quantities; size and grade (seasoned oak grade D30) to match existing):

- 30% of ridge beams
- 30% of rafters and rafters' feet
- 50% of wall plates (allow for half-lap joints with resin anchors to fix the new sections to the wall)
- 50% of valleys, and hip rafters.

For short lengths of ceiling joists, ridges, wall plates, and rafters, replacement of the timber member may be considered where the scarf joint requires more than 50% of the total length. For further details, refer to sketch 008.

Note:

The proposed intervention in R2.2 is to form a king post truss using the existing ceiling beam as a tie beam, in order to improve the structural performance of the existing purlins and ceiling beam. To facilitate construction, we propose the use of steel plates for the connections, as shown. For further details regarding the design development, refer to 22333-Y-LT-002.

Based on the findings of the inspection, the top section of the ceiling beam near the bearing is decayed and will most likely require repairs. Therefore, Options A and B are proposed for the repair of the bearing.

Option A can be considered for both significant and minor decay of the section and is the preferred solution. If half of the section of the ceiling beam can be retained, the repair can be carried out without disturbing the ceiling joists or the lath and plaster, as shown in Detail 3. If most of the section has to be replaced, we will aim to retain the bottom 30 mm of the ceiling beam to avoid directly disturbing the lath and plaster ceiling. However, the tenons of the existing ceiling joists will need to be cut, and the ceiling joists refixed to the new timber section. In this scenario, minor repairs to the ceiling may be required around the bearing (approximately 1 m²).

Option B can also be applied for different levels of decay. However, the use of external steel plates instead of a fitch plate will interfere with the ceiling joists and will result in minor repairs to the ceiling around the bearing, as noted above. This solution uses stainless steel plates and bolts for the repair, which may make it easier to install. This solution may be preferable if the splice of the ceiling beam is more than 1m from the wall.

Consideration should be given to the fact that, depending on the extent of decay, the ceiling beam may require temporary propping. This should be carefully designed to minimise damage to the existing fabric.

Notes

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The proposed sketches are indicative and final configuration will depend on the location of the repair, condition, and size of members.

Key of roof structural elements

- Timber truss
- Timber ceiling beam
- Timber ridge, valleys and hips
- Existing purlins
- New purlins

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P1	Preliminary issue - For LBC	SM	05.05.2026
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Client:	Kirklees Council		
Project:	Oakwell Hall		
Title:	Proposed repairs for roof and ceiling structure above 101 CIRC, 104 CIRC, 103 GAL, and 105 GAL		
Drawn:	SM	Checked:	RMP
Date:	13.04.2026		
Scale @ A2:	As noted		
Drawing No.:	22333-Y-SK-010	Rev:	P2