



Fig 33:

Roof 6, south pitch; showing loss of cross section to foot of upper common rafter



Fig 34:

Roof 6, south pitch; showing decay and damage to base of upper rafter



Fig 35:

Roof 6, south pitch; showing distribution of woodboring beetle flight holes to east face of rafter shown in previous image



Fig 36:

Roof 6, south pitch; showing damage and loss of cross section to head of lower common rafter at approximate mid-point



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Fig 37:

Roof 6, south pitch; showing upper common rafter with concentrated distribution of woodboring beetle flight holes. Diameter of flight holes consistent with common furniture beetle (*Anobium punctatum*)



Fig 38:

Roof 6; showing large split in ridge board towards western end



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Fig 39:

Roof 6, south pitch; showing lower common rafters supported onto plate between two section of poured concrete. No decay detected to plate. Moisture content readings well within dry parameters



Fig 40:

Roof 6, south pitch; showing localised decay damage to mid-span of lower rafter



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Fig 41:

Roof 6, south pitch; showing purlin connection to joint at western end. Width discrepancy between purlin dimensions. However, bolt appears stable. Potentially inadequate support to purlin joint on north pitch, south pitch supported by double post



Fig 42:

Roof 6, south pitch; showing discrepancy between board width of ridge board at western end. Note gap between half lap bevel joint



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Fig 43:

Roof 6, north pitch; showing a general view of jack rafters at the east end. Note that one had been recently replaced in contemporary softwood and fixed with galvanised mechanical fixings



Fig 44:

Roof 6, north pitch; showing upper common rafter 9 which had suffered significant section loss particularly at the top end. This had jeopardised the connection with the ridge board. Also note that splitting had occurred further reducing the structural integrity of the joint and significantly corroded mechanical fixings were also identified



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Fig 45:

Roof 6, north pitch; showing a focussed view of upper common rafter 14 which had a poor connection to the masonry corbel supporting it against the chimneystack. Note that the entire rafter was loose at the time of survey



Fig 46:

Roof 6, north pitch; showing upper common rafter 23 which had a large knot in the vertical face. This would likely be a significant strength reducing characteristic



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Fig 47:

Roof 6, north pitch; showing a general view of upper common rafter 27 which had been subjected to significant section loss due to historic decay. note that further decay to heartwood was noted



Fig 48:

Roof 6, north pitch; showing a series of upper common rafters at the west end comprising of rafters 29 to 36 which were deemed to be later softwood replacements. No defects were identified to these elements at the time of survey



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Fig 49:

Roof 6, north pitch; showing a general view of the lower common rafters at the west end. Note that several of these were later softwood replacements. No structural defects were identified to these elements at the time of survey



Fig 50:

Roof 6, north pitch; showing a focussed view of the lap scarf joints connecting purlin members at the west of the roof. The joint dimensions and presence of only a single fixing were considered to be possibly inadequate. Structural Engineer to comment



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Fig 51:

Roof 6, north pitch; showing a general view of the lower common and jack rafters at the east end of the roof structure. Note that these were formed of softwood. Investigations were limited due to the presence of additional roof materials. However, no evidence of critical issues were identified at the time of survey



Fig 52:

Roof 2; showing west side view of eaves location



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