

## SITE INSPECTION REPORT

<b>Attention:</b>		<b>Date:</b>	9/05/2022
<b>Company:</b>	City of Port Phillip		
<b>Phone Number:</b>		<b>Inspection Date:</b>	27/04/2022
<b>Email Address:</b>	[REDACTED]@portphillip.vic.gov.au		
<b>Site Address:</b>	39 The Avenue, Balaclava		
<b>Job Number:</b>	187501 PRJ725471	<b>Client Reference:</b>	
<b>Instruction Description:</b>	Structural Remediation of Roof Rafter		

Intrax Consulting Engineers (Intrax) have been engaged to carry out an inspection of the building at 39 The Avenue, Balaclava (Site/Building) and provide engineering advice in relation to structural matters identified in the Roof Condition Assessment Report, prepared by Redd Zebra, dated 28 March 2022 (RZ Report).

A structural matter of concern was identified in the RZ Report, which involves a damaged roof rafter, which has split (refer to Figure 1). Item 2.01 of the Schedule of Condition on page 12 of the RZ Reports states, *"There is a split in the rafter which would compromise the structural integrity of the roof in this area (see photo 25), further investigation is required"*. [Note that the photograph referenced in the RZ Report should be photograph 29 and not photograph 25]. There is also another split rafter visible in Photograph 30 (refer to Figure 2). The precise locations of the two split rafters are unknown, however it is understood to be at the south end of the roof space, based on subsequent information received from Redd Zebra.

An inspection of the building was carried out on 27 April 2022. Access to the roof space was facilitated by a tradesperson arranged by the City of Port Philip. Despite the provision of access ladders, access could not be safely or adequately gained into the roof space and the split rafters were not viewed or inspected. Refer to Figures 4 to 6 for photographs taken at the inspection from access hatch A and B and Figure 7 for access hatch locations.

Notwithstanding that the split rafters was not observed, review of photograph 29 and 30 in the RZ Report is deemed sufficient for the purposes of this report. Photographs 29 and 30 indicate that remediation of the split rafters is required and that a practical method of remediation would comprise augmentation of the split rafter. The split rafter shall remain in place and additional rafters at either side of the split rafter shall be installed.

The span of the existing rafters is estimated to be a maximum of 2.5m with a maximum load width of 750mm. Based on these dimensions, it is recommended that both split rafters are augmented with 2 / 140 x 35 MGP10 rafters, one each side of the existing split rafter. The new rafters shall provide support to the roof battens, therefore packing and shaping of the new rafters may be required. The new rafters shall be connected to the hip rafter with suitable angle brackets at the higher ends and shall be supported upon the external wall at the lower ends. The new rafters and the existing split rafters shall be bolted together using M12-4.6/s bolts at 300mm min to 450mm max centres (refer to Figure 2).

If you have any queries, please do not hesitate to contact our office.

### Intrax Consulting Engineers Pty Ltd



FIEAust CPEng NER  
Principal Forensic Engineer

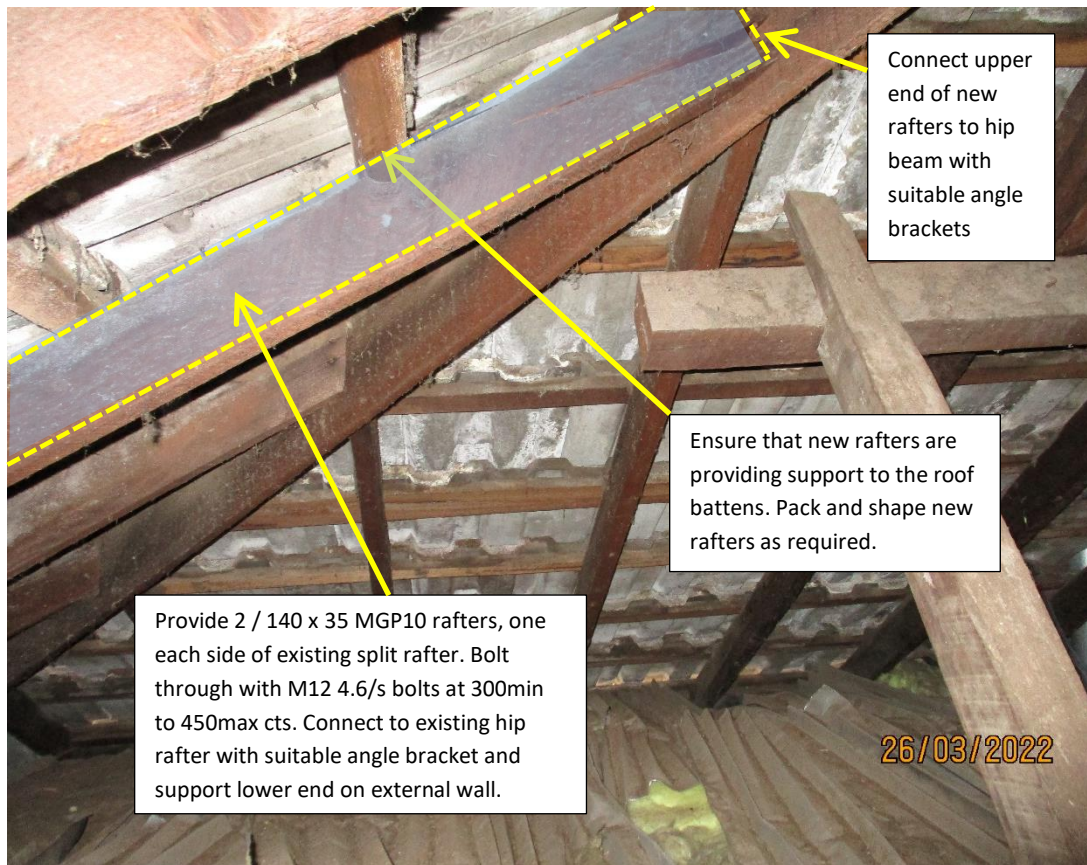


**Figure 1.** Photograph 29 excerpted from the RZ Report, indicates a split in a timber rafter no.1.



**Figure 2.** Photograph 30 excerpted from the RZ Report, indicates a split in a timber rafter no.2.





**Figure 3.** Remediation methodology of split rafters (no.1 shown). Proposed rafter behind split rafter not shown.



**Figure 4.** View of roof space from access hatch A.





**Figure 5.** View of roof space from access hatch B.



**Figure 6.** View of roof space from access hatch B.

