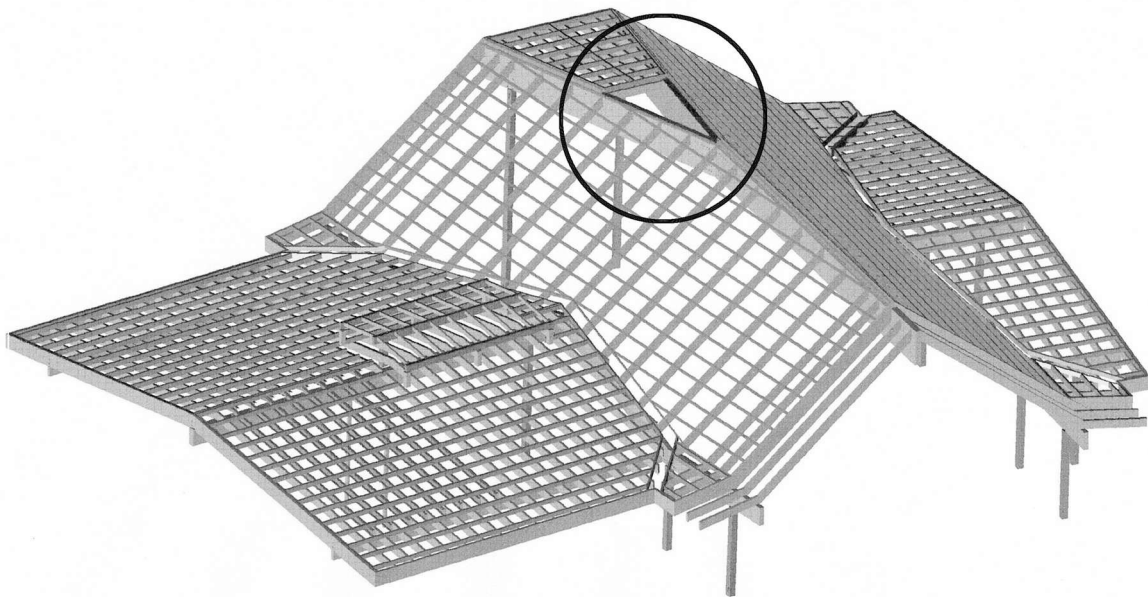


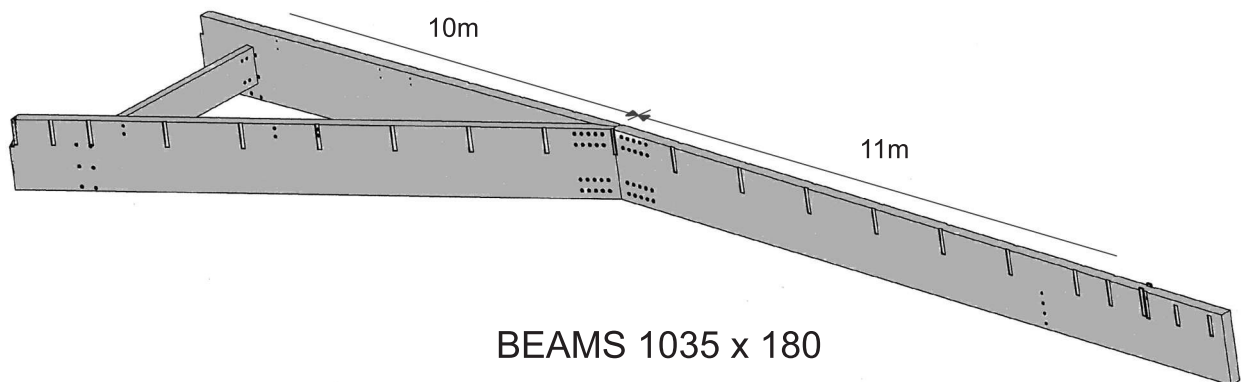
Case Study - Applying the Details - Springhill Hip

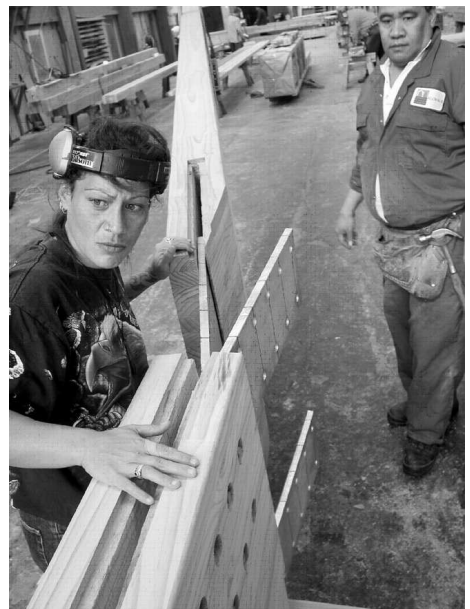
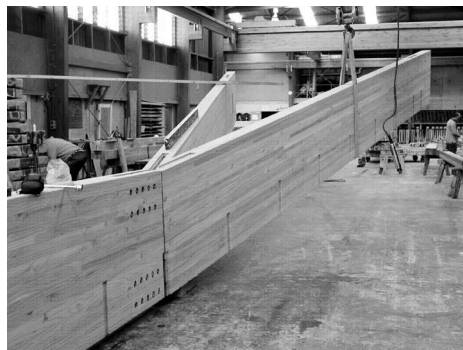
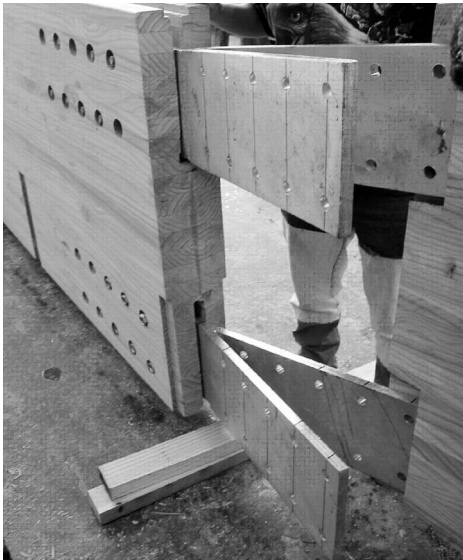
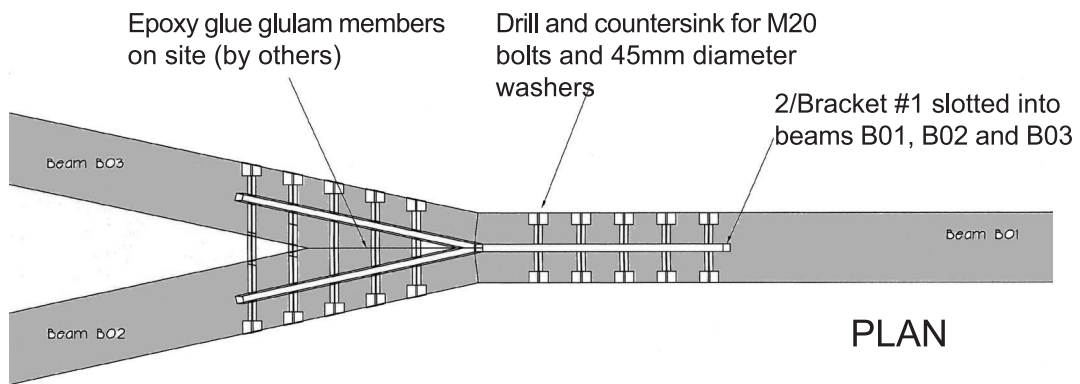
Owen Griffiths
Managing Director
McIntosh Timber Laminates

When Stephensen Turner designed the impressive Whare Hui for the Springhill Correctional Facility they incorporated a feature ridge beam that split in two at midspan. The two resultant forked hip beams spread out to form the angular axis of the structure. Breaking the continuity of the large ridge beam 1035 x 180 at mid span meant the introduction of massive steel connecting plates that were to be concealed within the Glulam beams. The manufacturing challenge that McIntosh faced was to slot, bevel, rebate, plumb cut, recess, drill and pre-form the joint in the factory.



Connell Wagner Engineer
Stephenson & Turner Architects





Forming the bifurcated joint using large steel plates on 11m long Glulam beams over one metre deep required precision plumb cuts, slotting, bevelling, drilling and recessing.

Factory prefitting using heavy duty lifting gear and a controlled environment was a more efficient option than struggling with on site conditions.



The requirement for concealed joints was achieved with insert plugs covering the edge of the slotted in steel plates.