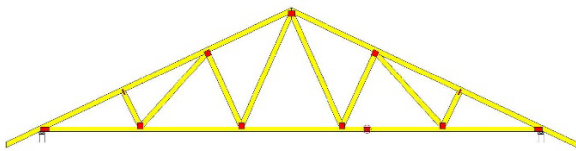
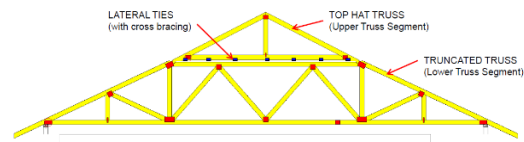


## FEATURES OF TOP HAT CONSTRUCTION

Top hat trusses are made in two segments, usually dictated by manufacturing and transport restrictions.



Deep standard truss

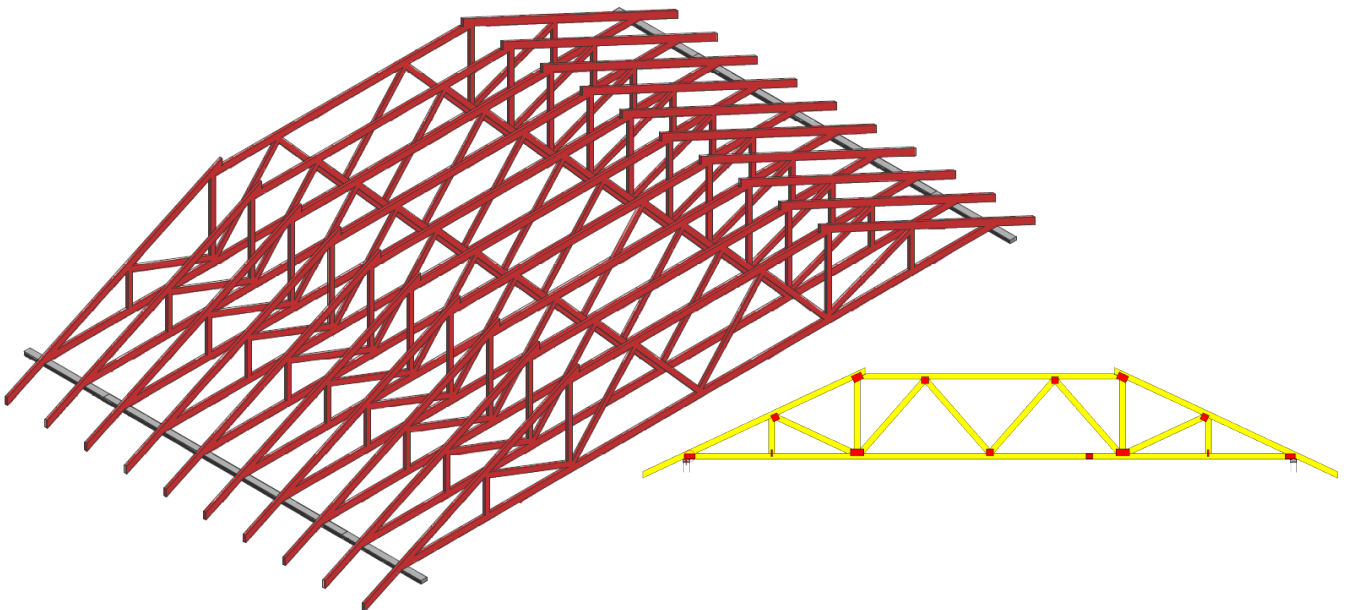


Deep standard truss converted to top hat construction

### STEP 1

Install truncated trusses, designed with suitable station to comply with manufacturing and transport restrictions.

Note: temporary bracing is not shown for clarity.

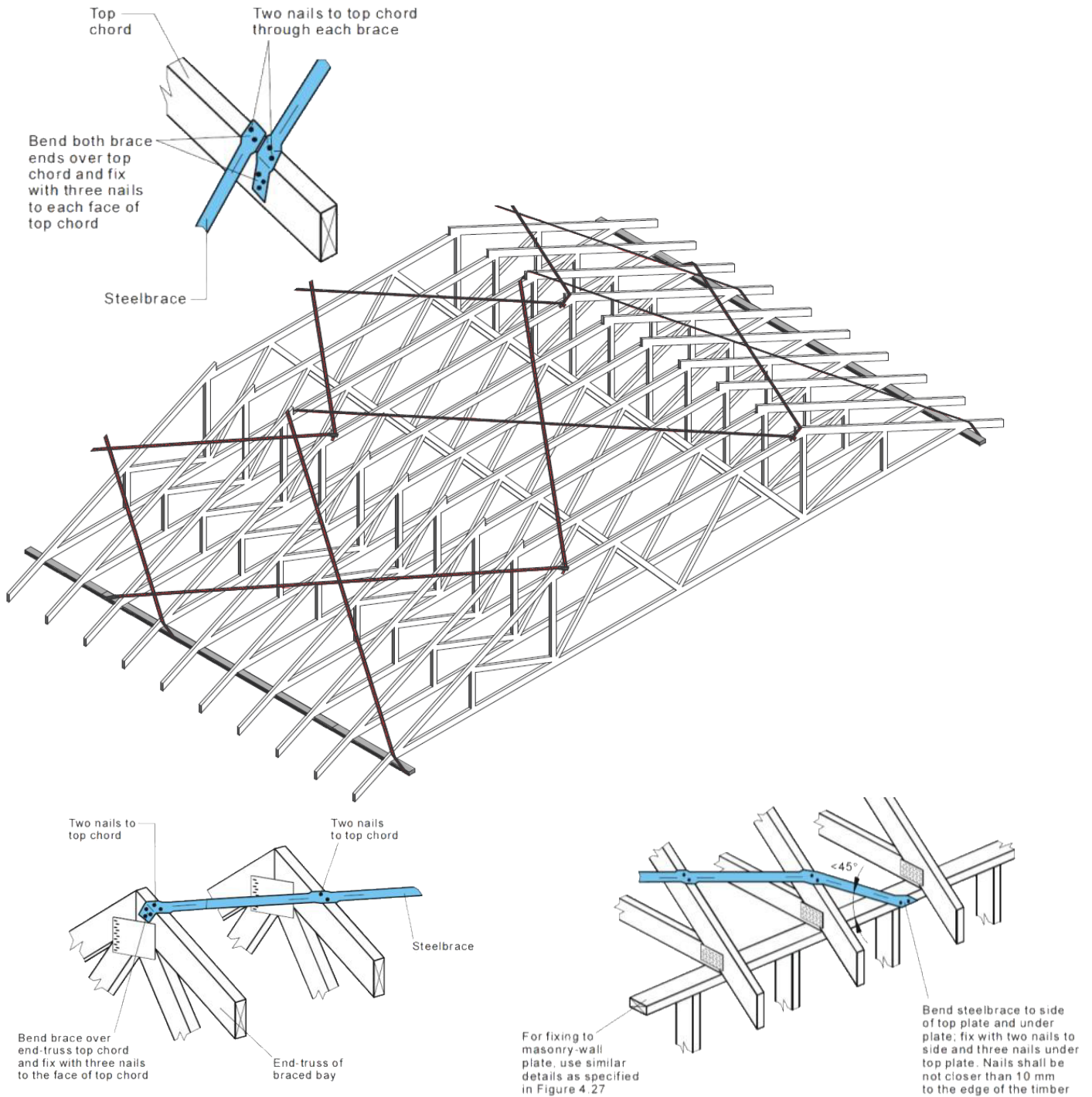


## STEP 2

Install diagonally crossed steel bracing on the horizontal plane and both sloping planes.

Adopt similar rules and fixing details as specified in AS4440:2004.

Note: temporary bracing is not shown for clarity.

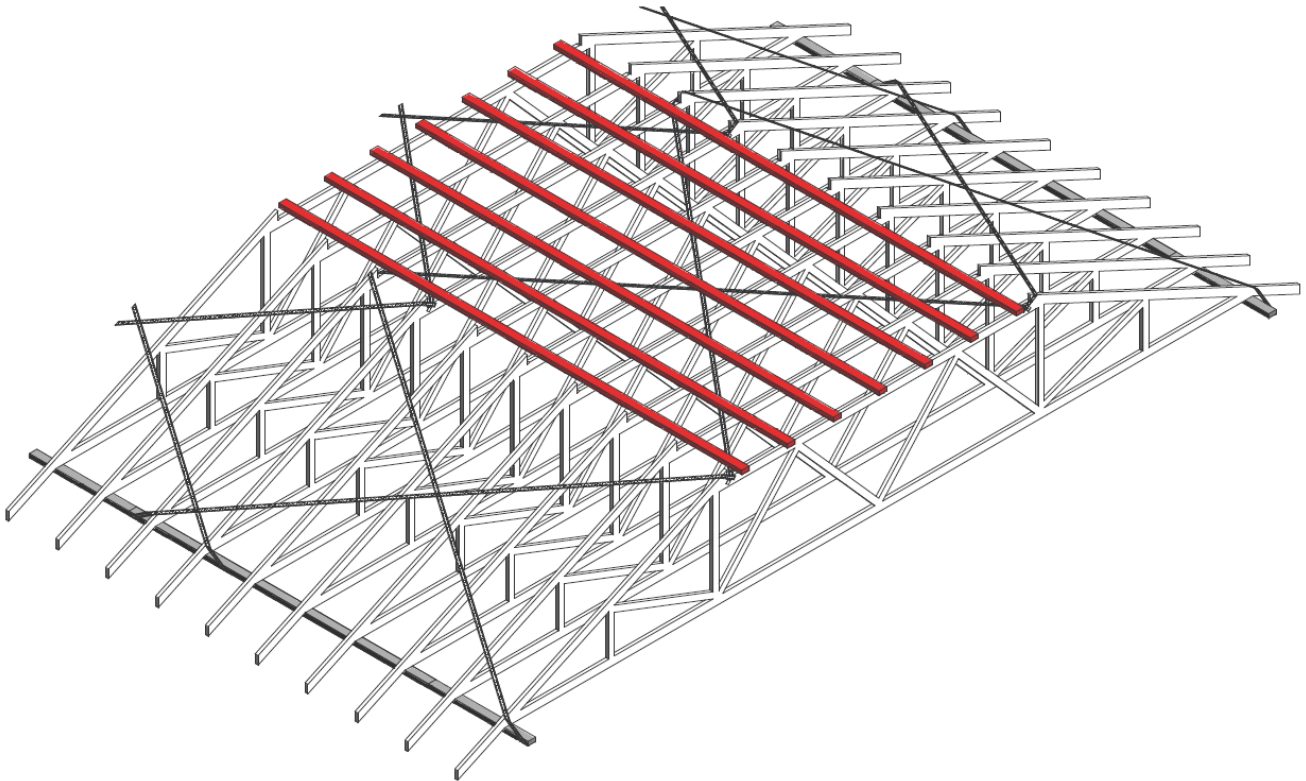


### STEP 3

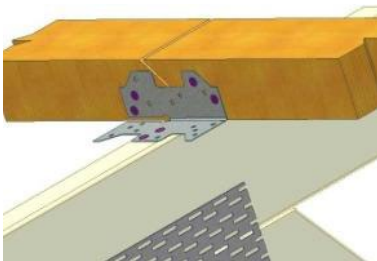
Install lateral ties at spacing determined by design (usually at truss spacing). These ties restrain the horizontal TC of the truncated truss.

Lateral Ties size and grade:

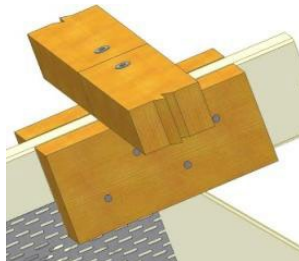
- For truss spacing up to 600mm:  
Use a minimum 70x35 F5 (on the flat) fixed with 1/65x2.8 dianail at every crossing truss chord.
- For truss spacing from 600mm to 1200mm:  
Use a minimum 90x45 MGP10 (on the flat) fixed with 1/75x3.05 dianail at every crossing truss chord.



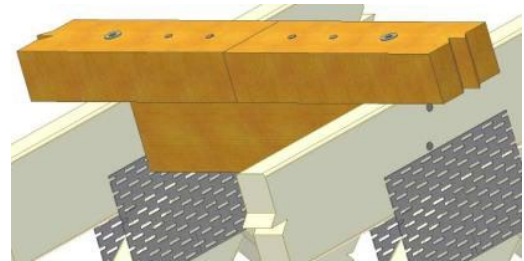
**Note:** Lateral ties should be spliced in accordance with [Pryda Technical Update No.12](#)



**batten splice using metal connector**



**batten splice using side blocks**

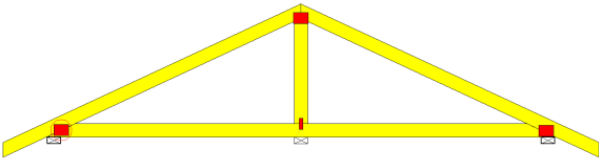
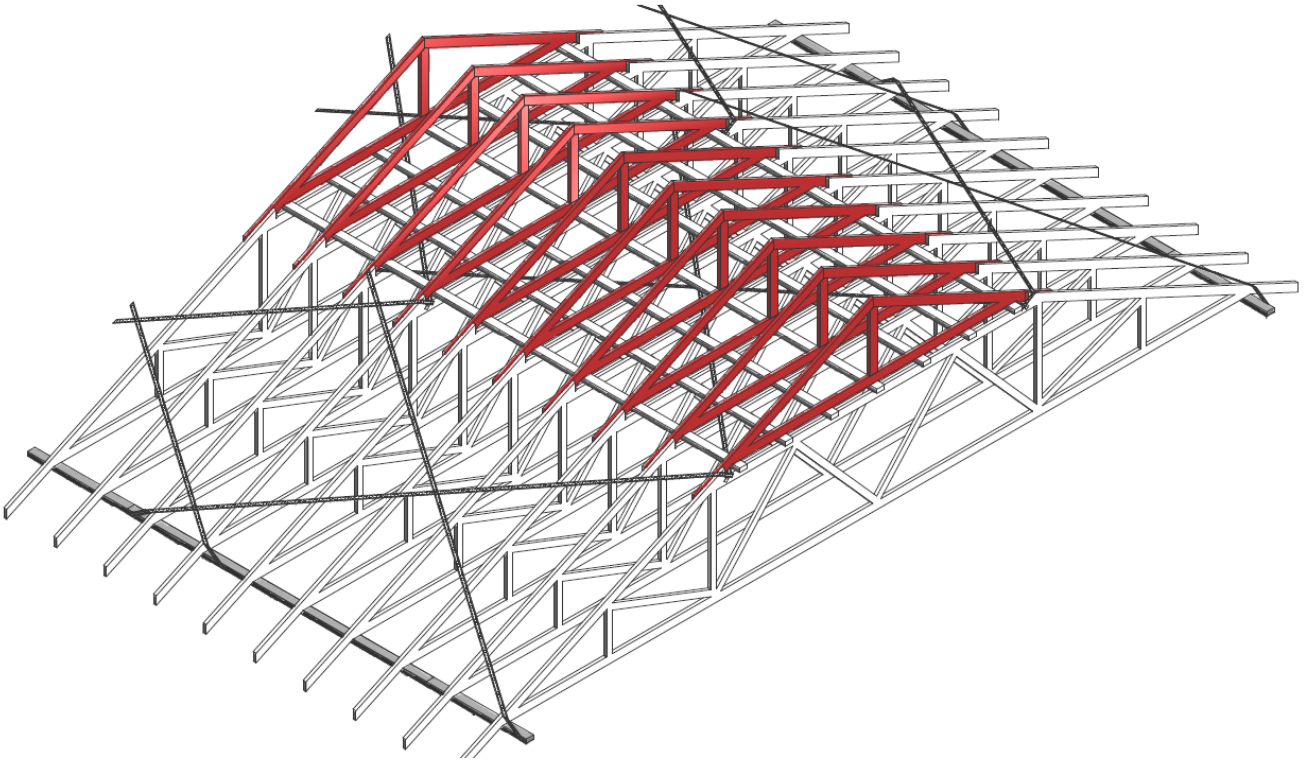


**batten splice using supplementary stiffener**

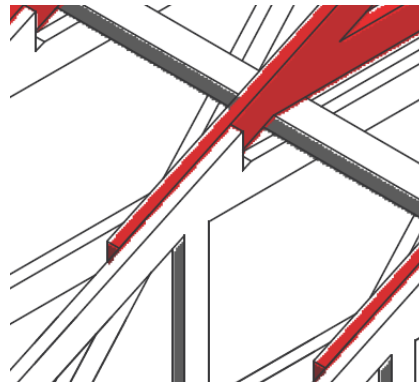
**STEP 4**

Install Top Hat trusses over the lateral ties These may be designed as fully supported trusses like saddle or valley trusses.

**Note:** Ensure any intermediate tie-down fixing (for sheet roof and/or high-wind regions) is anchored directly to the horizontal TC of the lower truss.



**Note:** In this example top hat trusses have been designed with a 300mm overhang. This will allow proper fixing between the sloping chords of the two trusses when installed with an off-set of 35mm (truss thickness).

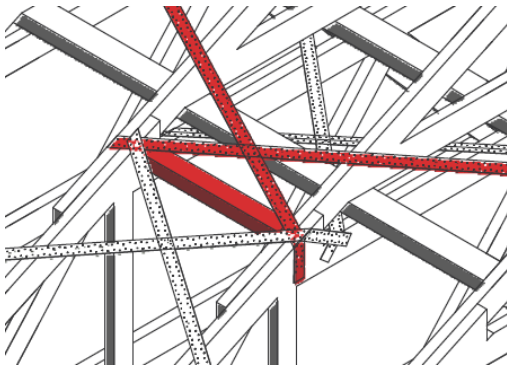
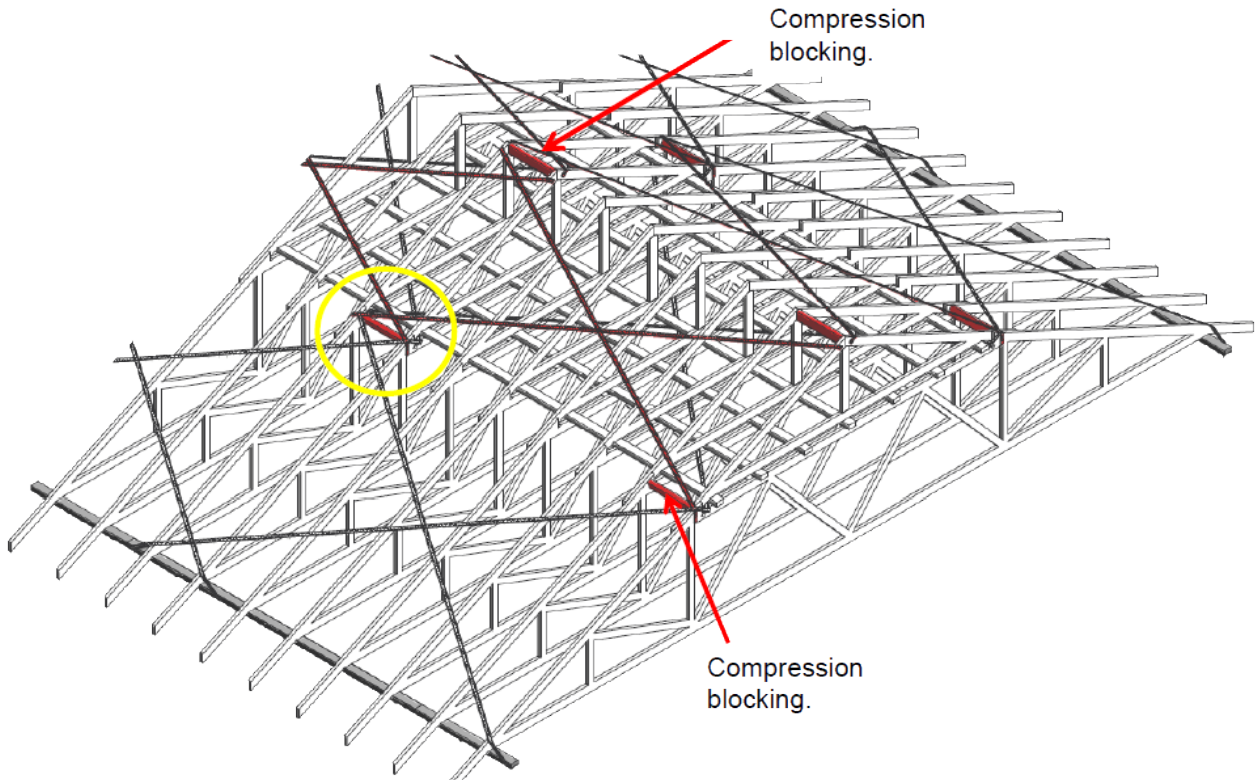


**Fix with 3/65x2.8 dianails**

**STEP 5**

Install further diagonally crossed steel bracing on the two sloping planes of the top hat truss.

**Note:** Use 90x35 F5 (min) as compression blocking between truss chords as shown, fixed with 2/65x2.8 dianails at each chord.



Use 90x35 F5 (min) as compression blocking between truss chords as shown, fixed with 2/65x2.8 dianails at each chord.