



TAKING IT TO THE TOP WITH PARAPET DESIGNS

Instead of finishing the roof lines with hip ends and eave overhangs, extending the wall to form a parapet may seem like a small detail, but it can make a dynamic change to the external facade and enhance the architectural feel of the house.

There are many ways to frame parapets. In this Tech Talk we will go through some of these methods and some pitfalls when dealing with parapets.

One way to construct a parapet is to extend the height of external wall studs and fix the roof trusses to the wall using a pole plate. This is fine for small span trusses, but these higher wall studs can often be difficult to manufacture and transport. (Fig 2)

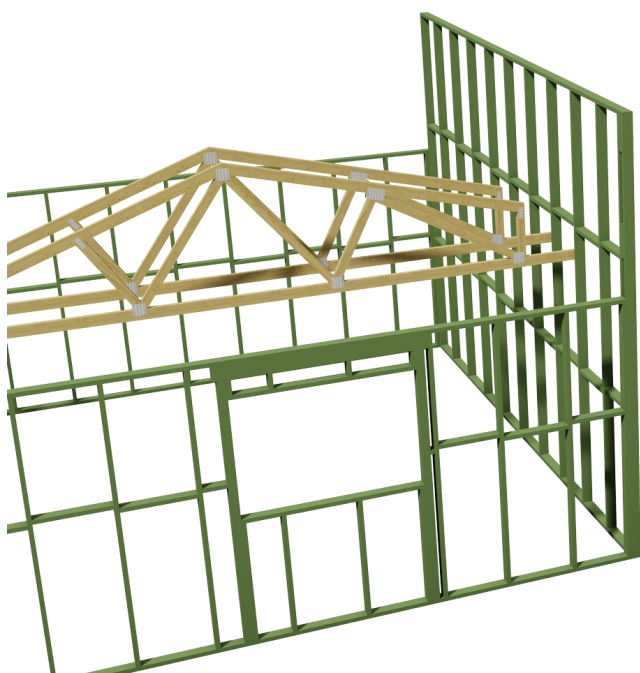


Figure 1

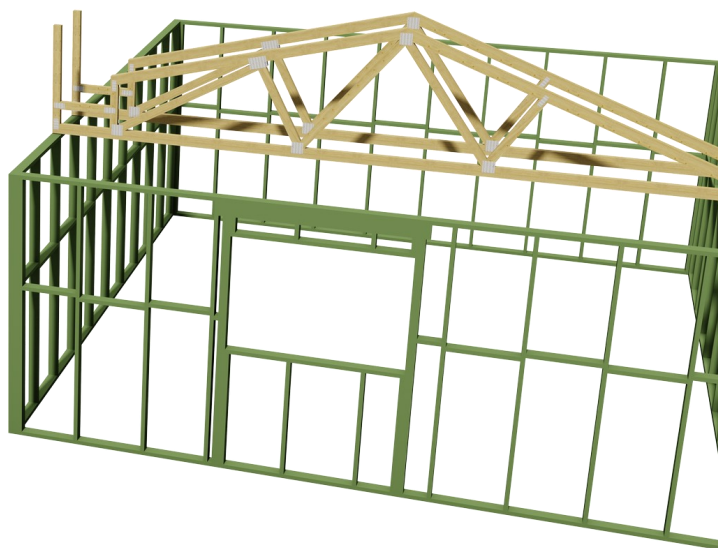


Figure 2

Another way to form parapets, is to design trusses with vertical members on the ends of extended bottom chords. This allows for standard height wall frames and roof trusses that are easier to install. However, there could be a lot of force on the vertical parapet member and connecting nailplate, so depending on the wind speed, the parapet height is usually limited to one metre. The inclusion of a box gutter member, can greatly stiffen the parapet vertical member and should therefore be included if possible. This will also help reduce the chances of damaging the parapet member during transportation and installation. (Fig 3a & b)

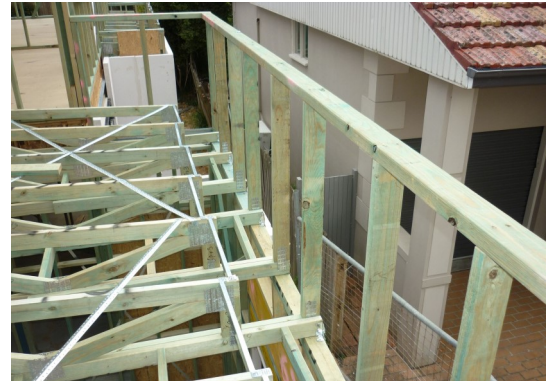


Figure 3a

Similar to the above method, an L-shaped nail-plated parapet frame could be screwed to the side of the roof trusses, to form the parapet.



Figure 3b

For short runs of parapets, which are restrained at each end, a short wall could be installed on top of the lower walls. Connecting a wall on top of another wall without it falling over could be problematic, so for short walls a wind beam may be required at the top of the parapet and the parapet would need to be strutted back to the roof structure, to stop it falling over. (Fig 4) This is usually not desirable, as it often requires a penetration through the roof sheeting and an exposed strut above the roof.



Figure 4

Using parallel chord trusses to form parapets, should be avoided. The horizontal top chord of the truss will need to be restrained at certain centres, so a parallel chord truss could be used, but will need the incorporation of one of the above methods to restrain the top chord.

I hope this has given you a few ideas for the design and construction of parapets.



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