GANG-NAIL GUIDELINES No.163

ANOTHER MITEK ADVANTAGE

GABLE OVERHANGS - WILL SHE BE RIGHT?

I have seen and heard many scary things in my time here in North Queensland. The salt water crocodile stands out as one example.

They could be anywhere in a salt water creek or river. You have to be so aware of where you are and what you are doing at every moment; you certainly can't take a "She'll be right" attitude.

The same applies to gable or verge overhang framing, especially in cyclonic areas. But sadly, this attitude prevails amongst a few carefree builders.

A favourite response when asked how they would frame a gable end is: "She'll be right, just build a standard truss, and I will frame it up".

Given the chance, they would carry out that practice no matter how large the overhang rather than follow the truss manufacturer's provision of a raking truss with outriggers or verge sprockets.

They are content in the belief that battens can cantilever any distance, with perhaps a timber block underneath for assistance.

However, there are many batten products on the market, all with very different span and overhang capabilities.

Table 1 lists some of the typical battens used on trusses at 900mm spacing.

Wherever shown, a closer spacing is required to resist higher local wind pressures that occur within 1200mm around the perimeter of a roof plane (e.g. along apex, hip, eaves and gable overhang).

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The timber overhang limits are extracted from AS1684.3, which incidentally also assumes that a 190x19mm softwood structural fascia or equivalent is always present along the eaves or verge to spread the load.

The table below is provided for information purposes only, and it should always be checked against AS1684 or the steel batten supplier before use in design.

In a display of careless framing, Photo 1 (Courtesy of Building Services Authority Queensland) shows metal battens that are cantile-vered at least 600mm from the gable end truss and without a structural barge.

The cantilever distance is measured from the face of the gable end truss to the tip of the batten.

Since the gable end truss is usually set in from the outside of the wall for gable end studs, the setback should always be added to the overhang dimension shown in the plans.

Design certifications count for nought if the overhang is not properly framed as further shown in Photos 2 and 3. It is wishful thinking to believe that a simple timber block will hold the overhang up.

I leave you with a few points to consider the next time you design a gable overhang:

- If cantilevered battens are assumed, verify the limits of the roof batten system being used, and request documented evidence from the builder if it sounds like it is relying on 'sky hooks'.
- Suggest installing timber roof battens with reliable design information available in Australian Standards that won't prematurely fail the truss system when a cyclone visits the neighbourhood.
- Always make sure that the gable end truss is adequately designed to accommodate the extra load from the verge overhang, especially if it's more than half the truss spacing.
- If in doubt, talk to the project engineer, or consult your local nailplate manufacturer.

Let's not pretend "She'll be right" if it won't. TTN

Photo 1

Photo 2

Photo 3

ROOF BATTEN (C2 WIND, SHEET, TRUSSES @ 900CRS):

Roof Batten	Max Spacing (mm)	Max Overhang (mm)
45 x 70 MGP10	900	350 max (or ½ back span)
35 x 70 MGP12	900	375 max (or ½ back span)
35 x 90 MGP12	900	450 max (or ½ back span) or 349mm without struct. fascia
38 x 75 F14	900 with 675 at edges	500 max (or ½ back span)
TS40-75 or TS50-75	900 with 590 at edges	0 (Require specific design)
Stramit 0.75 Cyclonic	1020 with 650 at edges	300 max (or ½ back span)