

GABLE END BRACING

OVER ROOF SECTION OF END WALLS

- Covers bracing of the roof section on gable end construction.
- Includes bracing on extra high gables.
- All timber to be minimum grade SG8 as defined in NZS 3604:2011 apart from gable end webs which are either SG6 or SG8 (see Tables 1A & 1B).
- Tables cover gable end truss installed as single component 45mm thick, double component 90mm thick, 45x70mm or 45x90mm webs "on flat".
- "On flat" description here refers to truss fabrication terminology.
- Design assumes restraints are provided at the ceiling and roof lines.
- Bracing covers loading conditions as per NZS 3604:2011 up to Extra High wind and includes full height brick veneer gables.
- Height of webs design for wind serviceability deflection limit of $h/180$ and a maximum of 15mm in accordance with NZS 3604:2011.

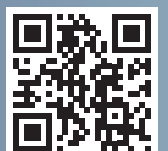


TABLE 1A - STRONGBACK LOCATION FOR WEBS @ 600MM CRS.

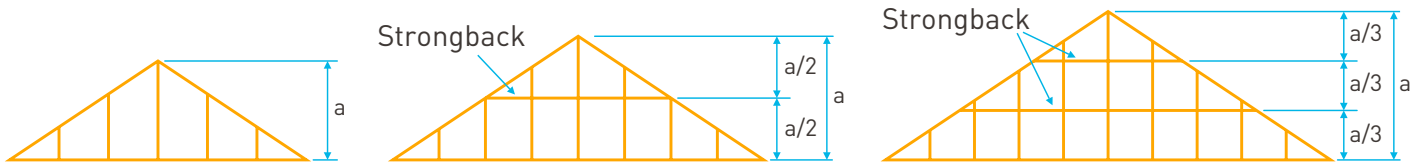
WIND ZONE	MAXIMUM STRONGBACK HEIGHT (h)											
	70 x 45 Web		90 x 45 Web		Double Component Gable Ends Webs				45 x 70 on Flat		45 x 90 on Flat	
					2/70 x 45		2/90 x 45					
	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8
LOW	1750	1950	1900	2100	2200	2450	2400	2650	2350	2600	2950	3150
MEDIUM	1600	1750	1750	1900	2000	2200	2200	2400	2150	2350	2750	2950
HIGH	1400	1500	1500	1650	1750	1900	1900	2100	1800	2050	2350	2650
VERY HIGH	1250	1400	1400	1500	1600	1750	1750	1900	1600	1900	2050	2400
EXTRA HIGH	1150	1350	1300	1450	1550*	1700*	1650*	1850*	1450	1700	1850*	2200*

TABLE 1B - STRONGBACK LOCATION FOR WEBS @ 400MM CRS.

WIND ZONE	MAXIMUM STRONGBACK HEIGHT (h)											
	70x45 Web		90x45 Web		Double Component Gable Ends Webs				45x70 on Flat		45x90 on Flat	
					2/70x45		2/90x45					
	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8	SG6	SG8
LOW	2000	2200	2200	2400	2550	2750	2750	2950	2700	2900	3250	3500
MEDIUM	1800	2000	2000	2200	2300	2550	2500	2750	2450	2700	3050	3300
HIGH	1600	1750	1750	1900	2000	2200	2200	2400	2150	2350	2750	2950
VERY HIGH	1450	1600	1600	1750	1850	2000	2000	2200	1950	2200	2500	2750
EXTRA HIGH	1400	1550	1500	1650	1750*	1950*	1900*	2100*	1800	2100	2300*	2650*

* Use these values for full height brick veneer attached to gable end.

Please note that the maximum height of brick veneer on a gable end wall is 5.5m.



• Where (a) is less than or equal to (h) - no strongback required.

• Where (a) is greater than (h) but less than 2(h) - lower strongback is required.
• Locate the strongback at height of (a/2).

• Where (a) is greater than 2(h) but less than 3(h) - lower and upper strongbacks are required.
• Locate strongbacks at height increments of (a/3).

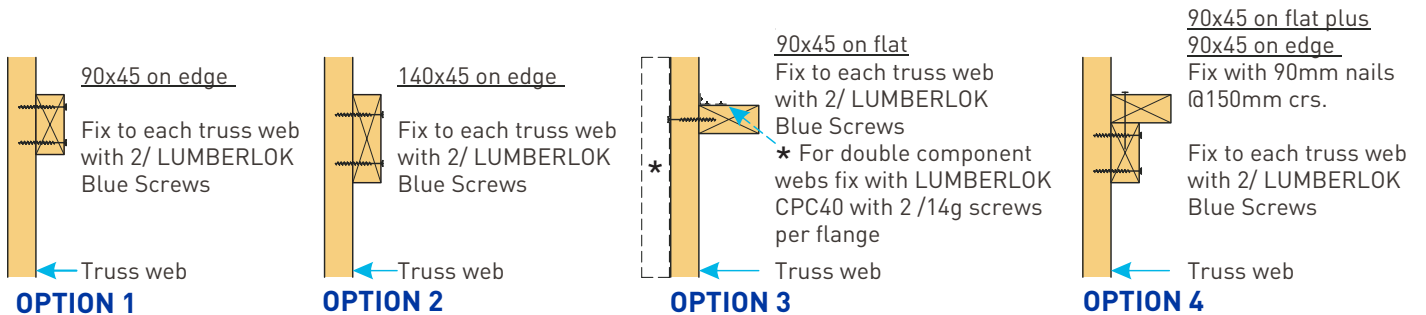
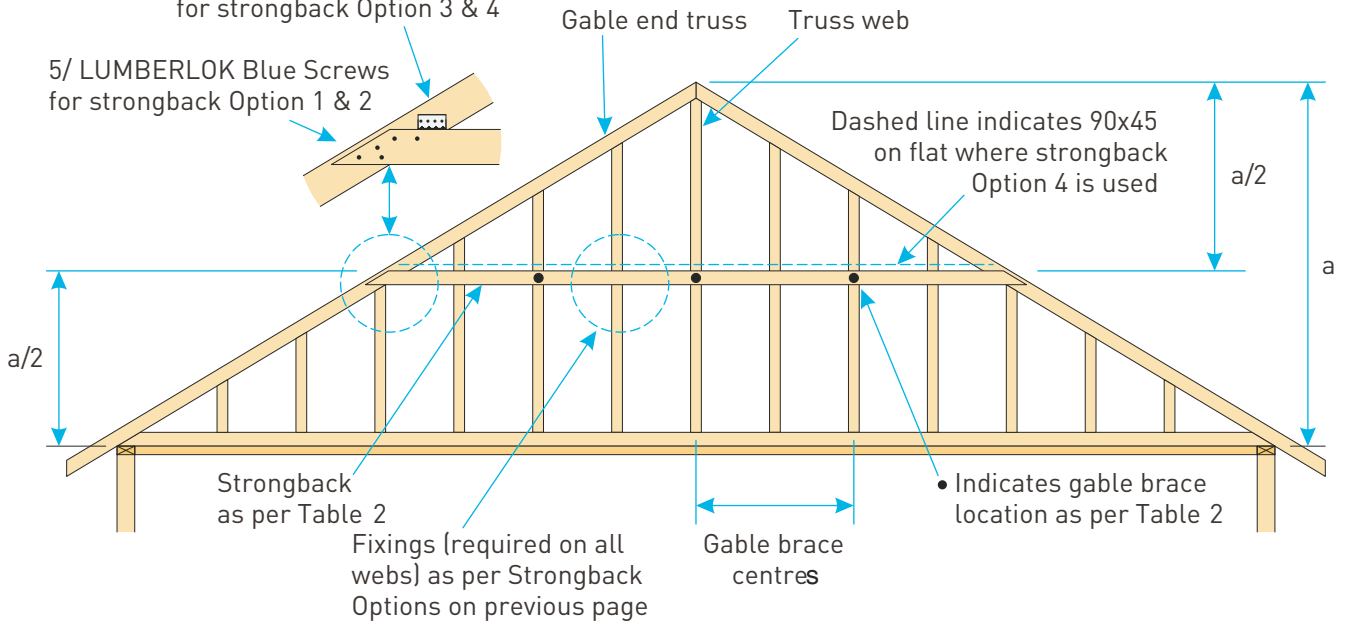


TABLE 2 - STRONGBACK SPAN AND GABLE BRACE LOCATION

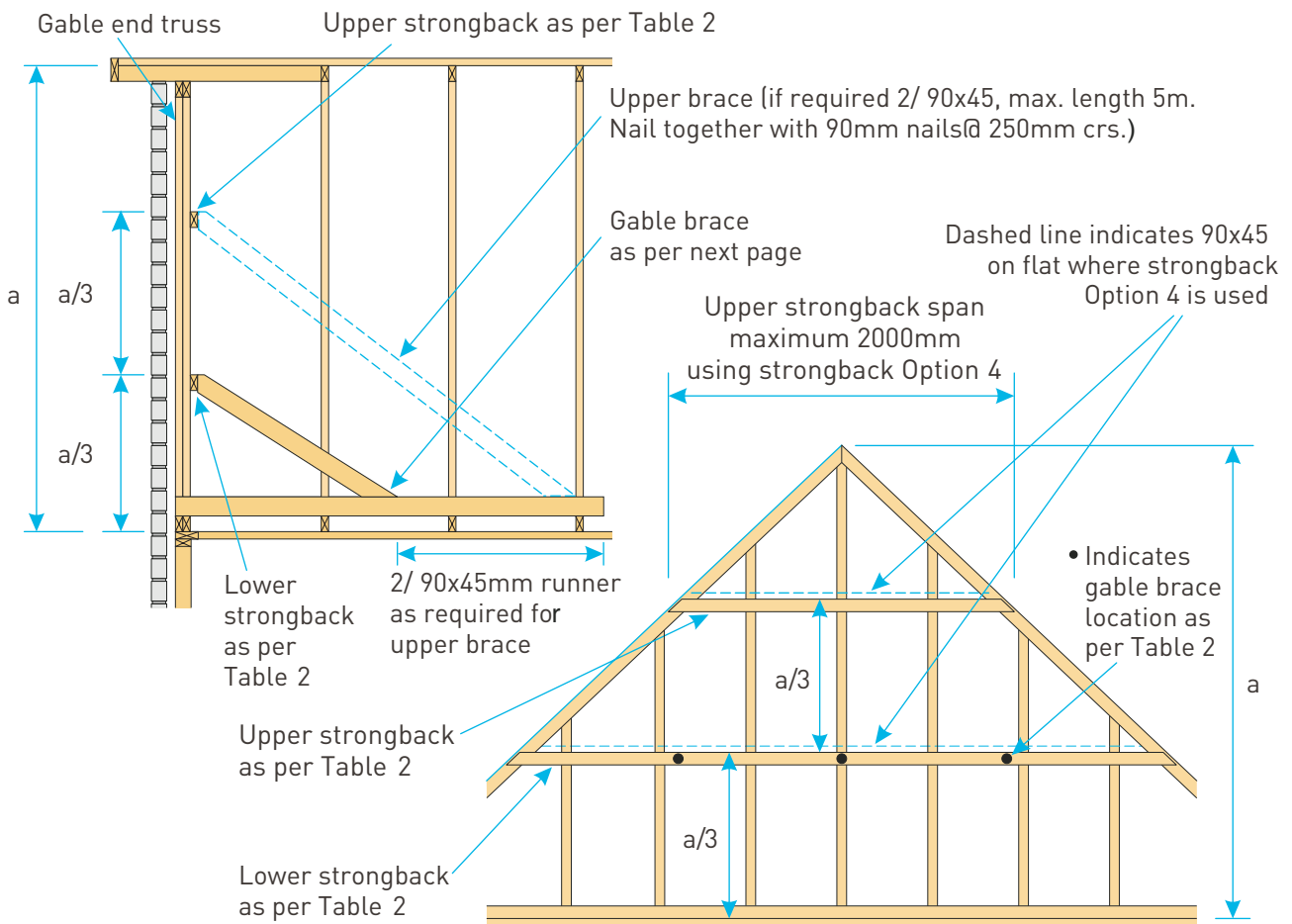
Option 1	Option 2	Option 3	Option 4
90x45 on edge	140x45 on edge	90x45 on flat	90x45 on flat plus 90x45 on edge
Max. span and/or gable brace location 1200mm	Max. span and/or gable brace location 1400mm	Max. span and/or gable brace location 1600mm	Max. span and/or gable brace location 2000mm

LUMBERLOK CPC80 fixed with 4/ 14g screws per flange for strongback Option 3 & 4

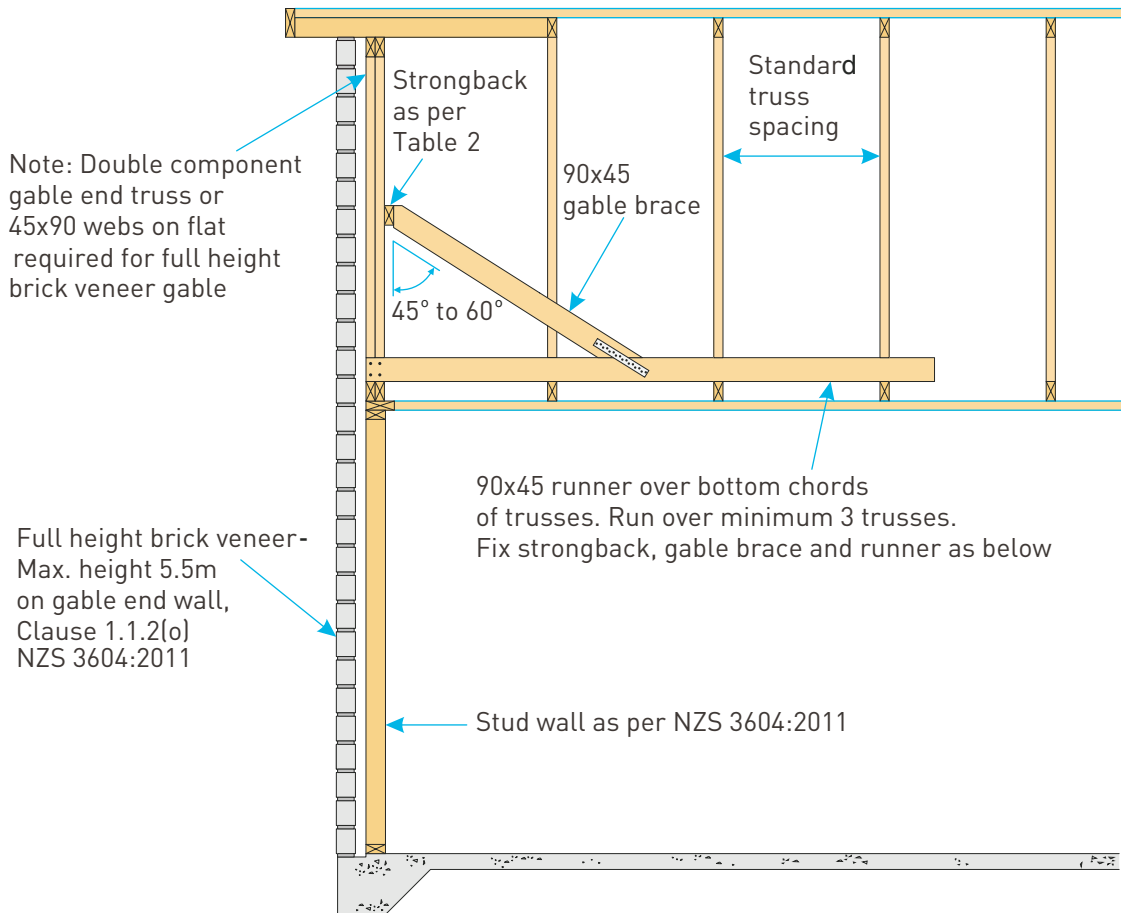
5/ LUMBERLOK Blue Screws for strongback Option 1 & 2



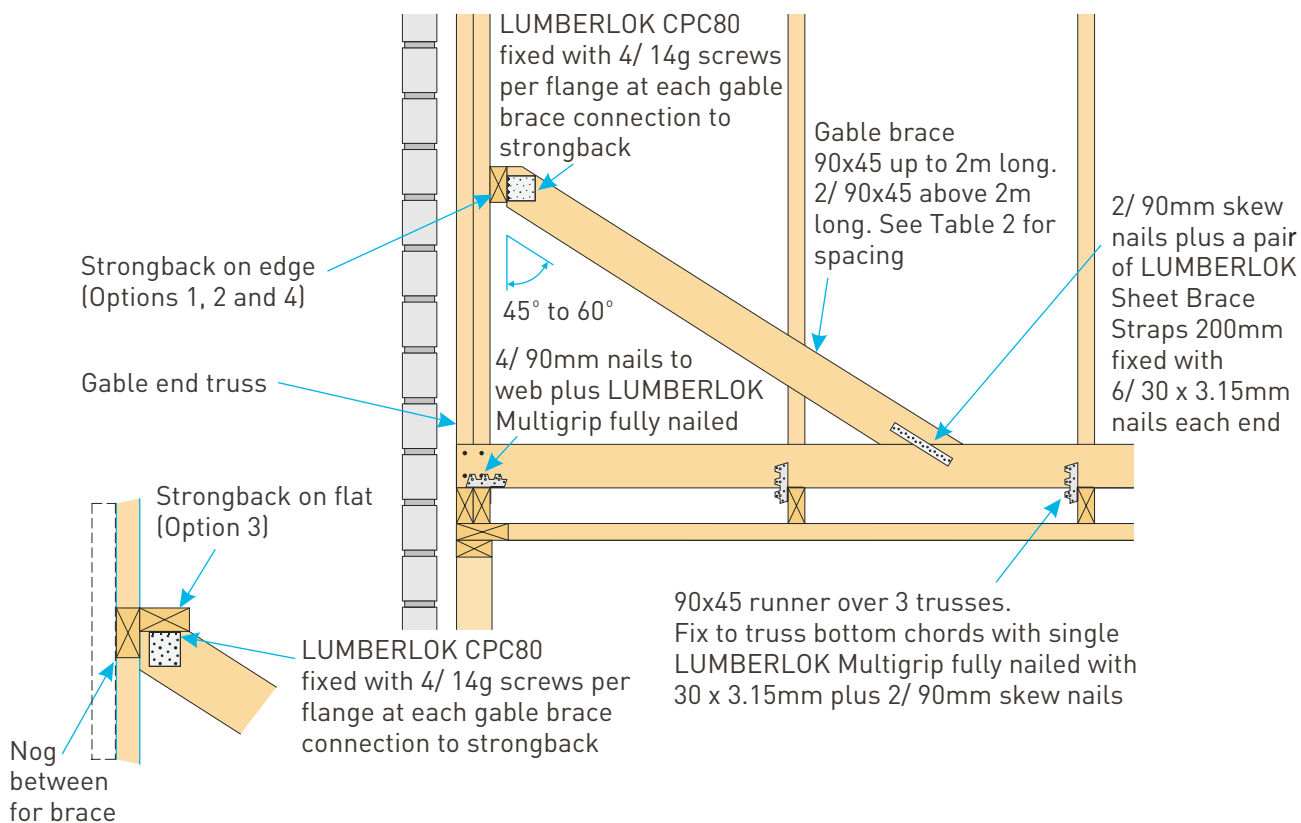
SINGLE STRONGBACK DETAILS



DOUBLE STRONGBACK DETAILS FOR ALL GABLE END OPTIONS (FULL HEIGHT BRICK VENEER OPTION SHOWN)



CROSS SECTION (FULL HEIGHT BRICK VENEER OPTION SHOWN)



CROSS SECTION (FULL HEIGHT BRICK VENEER OPTION SHOWN)