Continuous lateral web bracing, Erection and General bracing of wood trusses

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While the recommendations for handling, erection and bracing contained herein are technically sound, it is not intended that they be considered the only method for erecting and bracing of a roof system. Neither should these recommendations be interpreted as a standard procedure, be superior to, or be preferred in lieu of an architect's or engineer's method for erection or design for bracing a particular roof system.

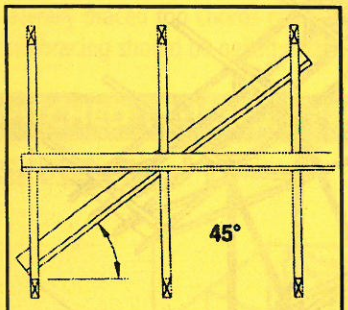
These recommendations originate from the collective experience of leading technical personnel in the wood truss industry, but must, due to the nature of responsibilities involved, be presented only as a guide for the use of a qualified building designer/builder or erection contractor. Thus, **AQFSB** (QWTMA) expressly disclaims any responsibility for damages arising from the use, application, or reliance on the recommendations and information contained herein by building designers or erection contractors.

FOR ALL TRUSSES OF OVER 60 FT IN SPAN, THE INFORMATION CONTAINED IN THIS BROCHURE IS INCOMPLETE. PLEASE FOLLOW THE INSTRUCTIONS OF A REGISTERED PROFESSIONAL ENGINEER IN CHARGE OF THE BUILDING ERECTION.

CONTINUOUS LATERAL WEB BRACING

Continuous lateral braces (1x4, 2x3, 2x4) are installed to prevent truss compression webs to buckle and are not intended to brace the overall building envelope or roof system. Their location and number are always specified on the individual truss design drawings.

In order to prevent toppling of trusses, additional cross braces must be installed. Cross braces are installed under the web plane and assure the vertical stability of trusses. Repeat these cross braces at 20 feet intervals.



45° cross brace at each end of the building and at 20' intervals

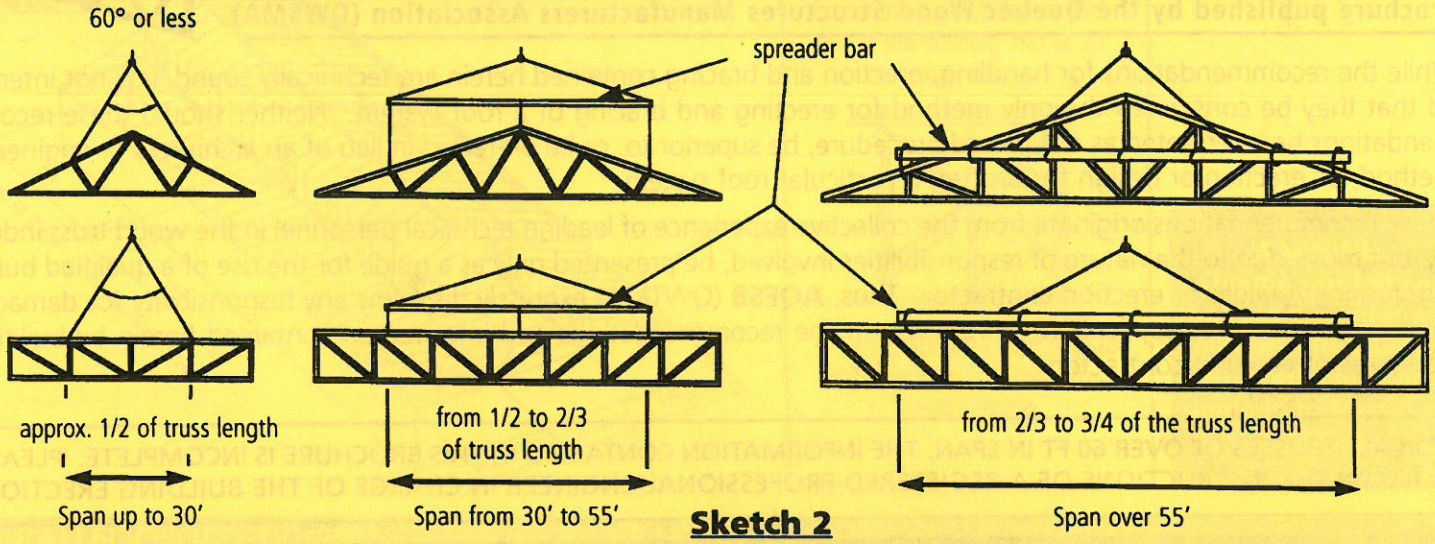
WARNING : THE STRUCTURAL PERFORMANCE OF THE TRUSSES DEPENDS HIGHLY ON THE INSTALLATION OF THE CONTINUOUS LATERAL BRACES AND THE CROSS BRACES.

Sketch 1

QWSMA MEMBER

LÉON CHOUINARD & FILS LTÉE
199 RUE L'ANSE
EEL RIVER CROSSING (NB) E8E 1R2

LIFTING PROCEDURE

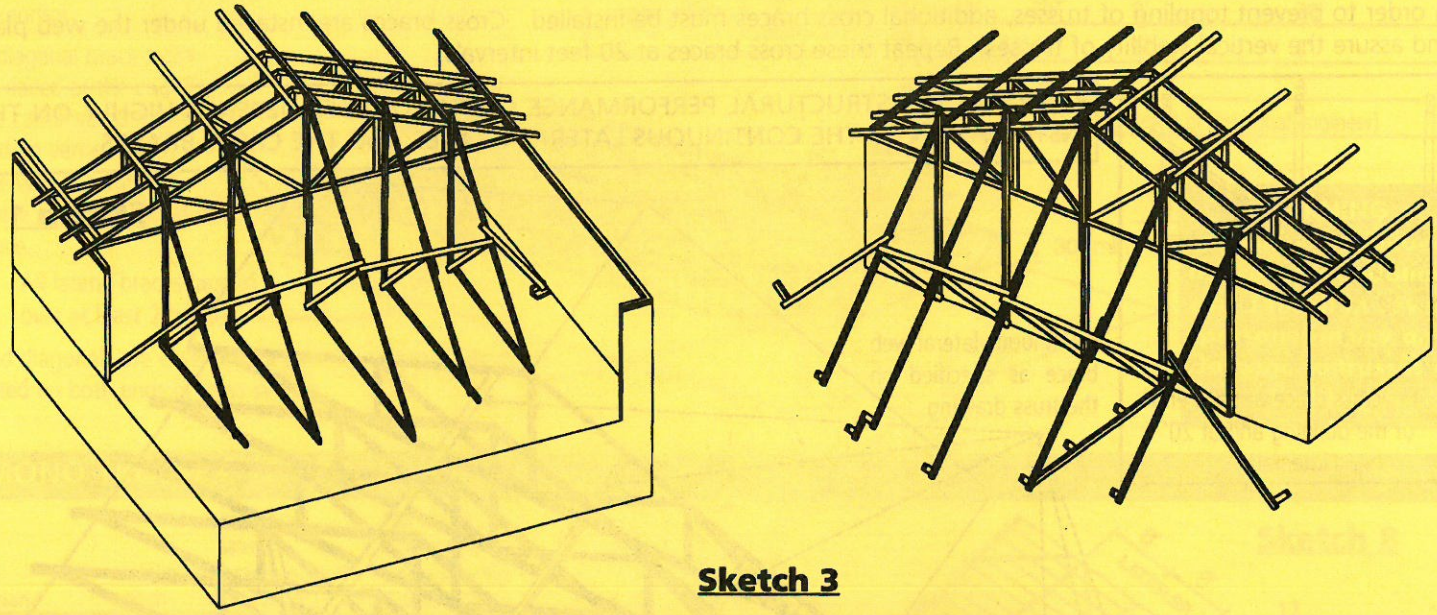


Sketch 2

TEMPORARY BRACING DURING ERECTION

Ground brace-interior

Ground brace-exterior



Sketch 3

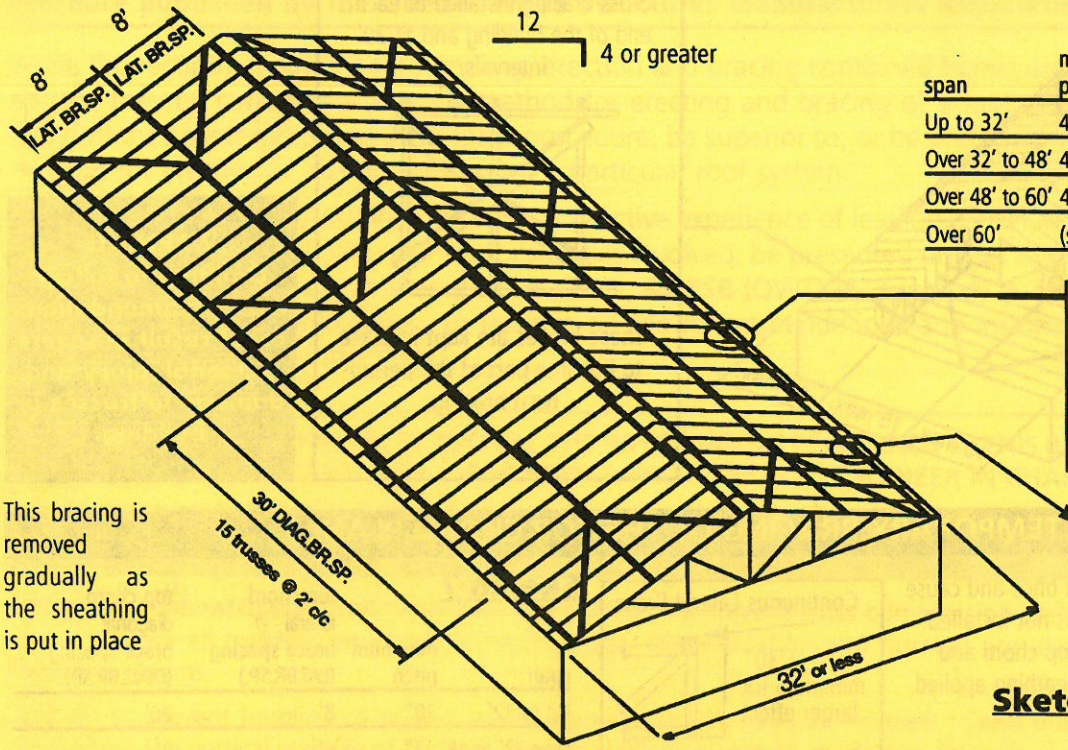
TEMPORARY AND PERMANENT BRACING

1. **Temporary bracing** must be installed from the beginning of the erection process and continued until all trusses are stable and at their correct spacing. Once completed, rooffing and ceiling materials may be installed.

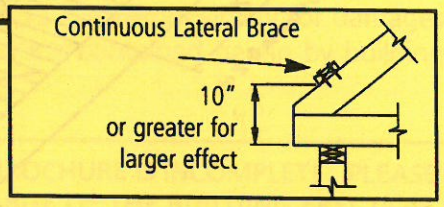
THIS BRACING IS ALMOST ALWAYS LEFT IN PLACE ONCE THE ERECTION IS COMPLETED TO BECOME PART OF THE PERMANENT BRACING SYSTEM.

2. **Permanent bracing** must ensure the total integrity of the building (roof, floor, walls). This bracing has to transfer the loads and forces applied on the trusses by snow and wind to the other structural components (walls, beams, foundations). The permanent bracing is thus the building designer's responsibility.

PITCHED TRUSSES, TEMPORARY BRACING OF THE TOP CHORD PLANE



span	minimum pitch	top chord lateral brace spacing (LAT.BR.SP.)	top chord diagonal brace spacing (DIAG.BR.SP.)
Up to 32'	4/12	8'	30'
Over 32' to 48'	4/12	6'	14'
Over 48' to 60'	4/12	5'	10'
Over 60'	(see a registered professional engineer)		



All lateral braces lapped over at least 2 trusses

This bracing is removed gradually as the sheathing is put in place

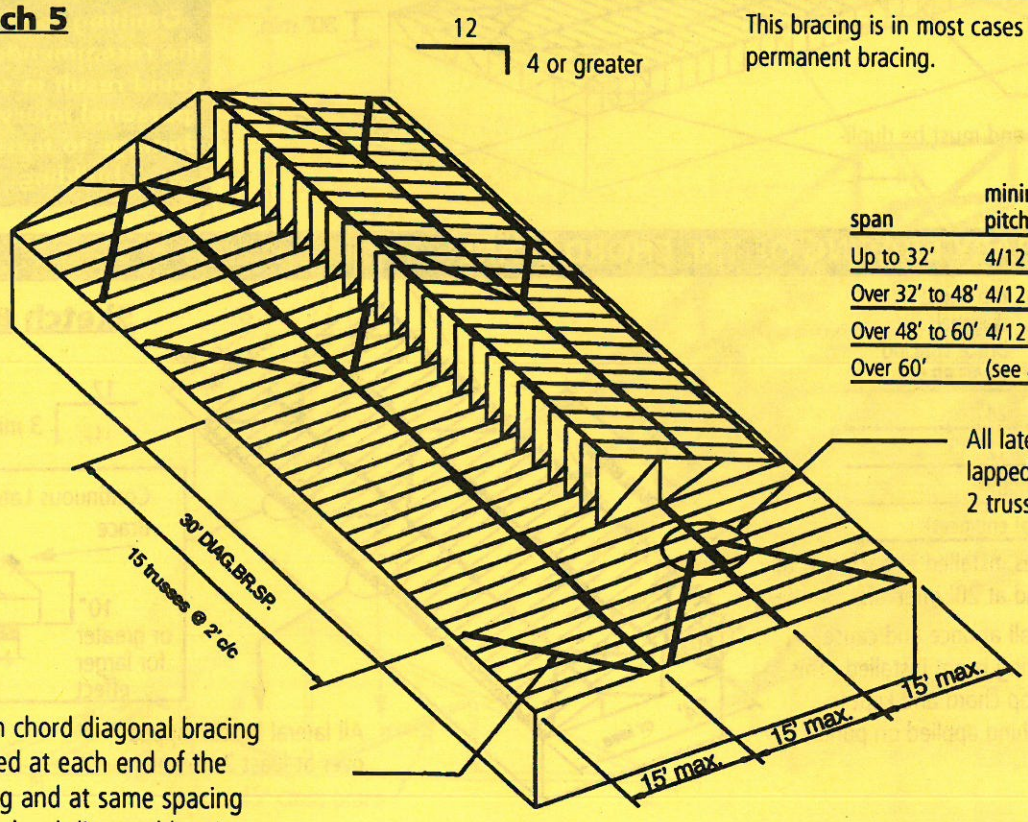
Sketch 4

WARNING
Omitting to install temporary bracing can cause a domino effect resulting in collapse and possible severe personal injury

Laterally braced top chords can buckle all at once and cause the collapse of the roof if diagonal bracing is not installed. This bracing should be nailed underneath the top chord and kept in place if the roof is metal sheathing applied on purlins.

PITCHED TRUSSES, TEMPORARY BRACING OF THE BOTTOM CHORD PLANE

Sketch 5



This bracing is in most cases kept in place to become part of the permanent bracing.

span	minimum pitch	top chord lateral brace spacing (LAT.BR.SP.)	top chord diagonal brace spacing (DIAG.BR.SP.)
Up to 32'	4/12	15'	30'
Over 32' to 48'	4/12	15'	14'
Over 48' to 60'	4/12	15	10'
Over 60'	(see a registered professional engineer)		

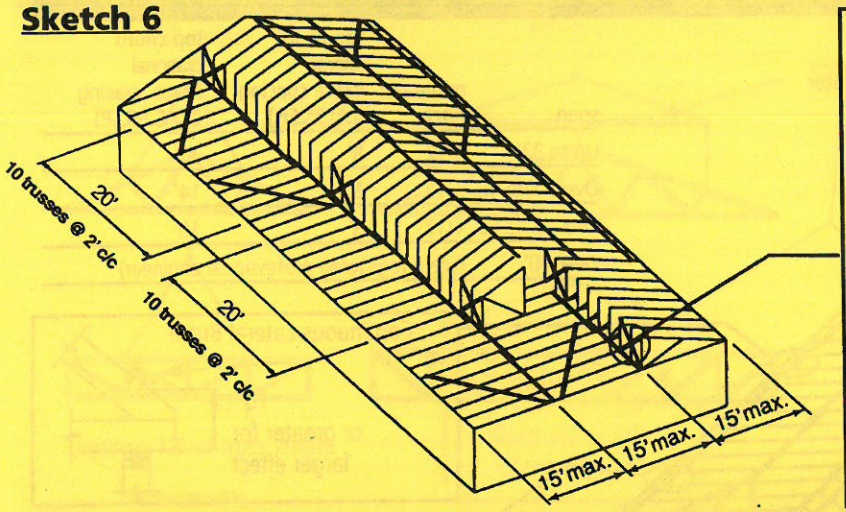
All lateral braces lapped over at least 2 trusses

Bottom chord diagonal bracing repeated at each end of the building and at same spacing as top chord diagonal bracing.

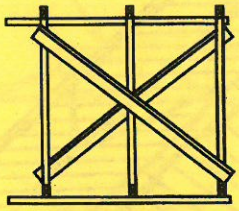
WARNING
Omitting to install permanent bracing can weaken the roof and the whole building

PITCHED TRUSSES, TEMPORARY BRACING OF A WEB MEMBER PLANE

Sketch 6



Cross bracing installed at each end of the building and at 20' intervals.



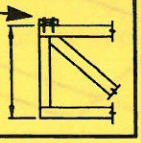
These braces are kept in place to become part of the permanent bracing.

WARNING
Omitting to follow the recommendations could result in severe personal injury and damage to trusses or building.

PARALLEL CHORD TRUSSES, TEMPORARY BRACING OF THE TOP CHORD PLANE

Laterally braced top chords can buckle all at once and cause the collapse of the roof if diagonal bracing is not installed. This bracing can be nailed underneath the top chord and kept in place if the roof material is metal sheathing applied on purlins.

Continuous Lateral Brace

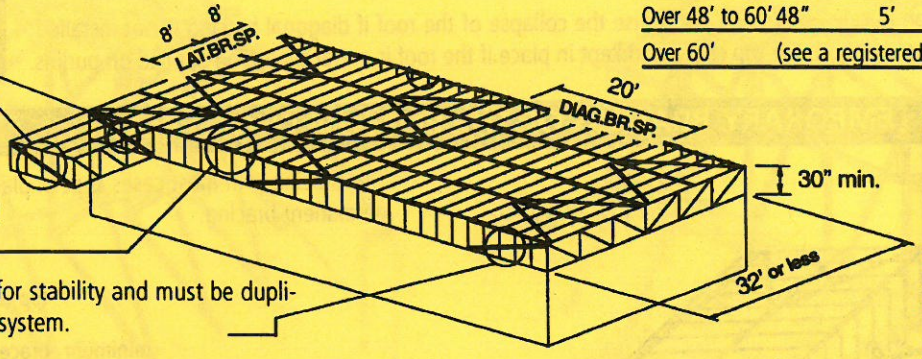


Sketch 7

span	minimum pitch	top chord lateral brace spacing (LAT.BR.SP.)	top chord diagonal brace spacing (DIAG.BR.SP.)
Up to 32'	30"	8'	20'
Over 32' to 48'	42"	6'	8'
Over 48' to 60'	48"	5'	4'
Over 60'	(see a registered professional engineer)		

A diagonal brace must be nailed at the end of the cantilevered trusses and on vertical webs in line with the support. These are always kept in place.

All lateral braces lapped over at least 2 trusses



End diagonals are essential for stability and must be duplicated on both ends of truss system.

WARNING
Omitting to follow the recommendations could result in severe personal injury and damage to trusses or building.

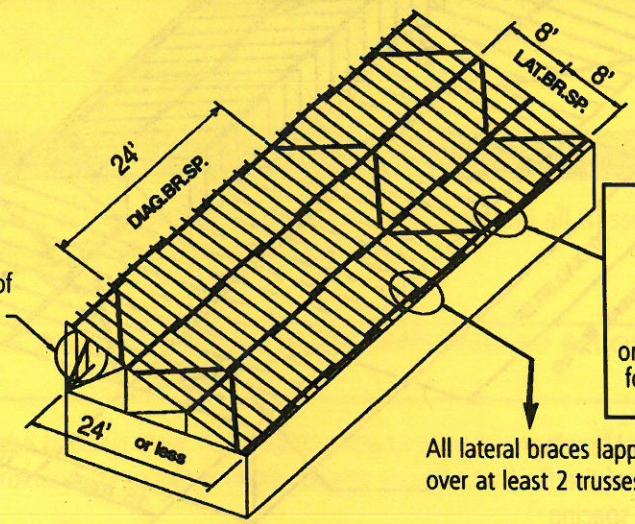
MONO TRUSSES, TEMPORARY BRACING OF THE CHORD PLANE

span	minimum pitch	top chord lateral brace spacing (LAT.BR.SP.)	top chord diagonal brace spacing (DIAG.BR.SP.)
Up to 24'	3/12	8'	24'
Over 24' to 42'	3/12	7'	12'
Over 42' to 54'	3/12	6'	8'
Over 54'	(see a registered professional engineer)		

Cross braces installed at each end of building and at 20' intervals

Laterally braced top chords can buckle all at once and cause the collapse of the roof if diagonal bracing is not installed. This bracing can be nailed underneath the top chord and kept in place if the roof material is metal sheathing applied on purlins.

Sketch 8



All lateral braces lapped over at least 2 trusses

