SmartLVL 15 Design Guide

Edition 1 2021

SmartLVL® 15 Design Guide

Scope of this publication

This Design Guide and Load Tables assist in the selection of SmartLVL® 15 beams for most of the common structural arrangements met in domestic construction.

Methods of developing lateral restraint and providing adequate support, adequate anchorage against wind uplift, and overall structural stability are outside the scope of this publication, however some limited examples have been reproduced within this document.

Information on the above matters can be obtained from AS 1684 Residential timber-framed construction or from a structural engineer experienced in timber construction.

Tilling Timber Pty Ltd have structural engineers at the SmartFrame Design Centre who can be contacted for advice on matters concerning the use of its engineered timber products in timber construction at techsupport@tilling.com.au or on the Techsupport HelpLine 1300 668 690.

Substitution of other products

All load tables in this document are designed using in-grade tested properties of SmartLVL® as distributed by Tilling Timber Pty Ltd. Other manufacturers' LVL may have different properties and therefore cannot be designed using these span tables.

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Certification

As a professional engineer, qualified and experienced in timber engineering, I certify that the use of the SmartLVL members as shown in these tables, and installed in accordance with the provisions of this Design Guide, complies to the National Construction Code (NCC). These span tables have been prepared in accordance with standard engineering principles, the relevant test reports and Australian standards, ie:

- AS 1720.3 Design criteria for timber-framed residential buildings
- AS 1720.1 Timber structures - design methods
- AS 4055 Wind loads for houses
- AS/NZS 4357 Structural laminated veneer lumber
- AS/NZS 4063 Characterisation of structural timber

CRAIG KAY, RPEng, BDC0730, PE0001869, RPEQ 05100, CC5635C, NER
National Product Engineer

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The information contained in this product brochure is current as at November 2021 and is based on data available to Tilling Timber Pty Ltd at the time of going to print. Tilling Timber Pty Ltd has used its reasonable endeavours to ensure the accuracy and reliability of the information contained in this document and, to the extent permitted by law, will not be liable for any inaccuracies, omissions or errors in this information nor for any actions taken in reliance on this information. Tilling Timber Pty Ltd reserves the right to change the information contained in this document without prior notice. It is important that you call the techsupport Helpline on 1300 668 690 to confirm that you have the most up to date information available.

1. SmartLVL 15®

Description

SmartLVL 15 is a structural Laminated Veneer Lumber (LVL) manufactured by toll manufacturers for Tilling Timber to meet the quality controlled process requirements of AS/NZS 4357 - Structural Laminated Veneer Lumber.

Quality

Compliance with process based quality control requirements is third party audited by SAI-Global, and the audits, together with end product testing is used as the basis for Product Certification by SAI -Global as a JAS-ANZ accredited Product Certification body.

JAS-ANZ stands for the government established "Joint Accreditation System of Australia and New Zealand" which exists as the peak organisation for accreditation of Product Certification bodies.

Preservative Treatment options

Stock SmartLVL 15 is H2s (glue line) treated for use South of the Tropic of Capricorn. It can be post- production pressure treated to H2 or H3 in conformance to AS/NZS 1604.1:2021

Short term water repellency

SmartLVL 15 comes with a clear **new generation** short term water repellency H_2O Shield® to replace the old fashioned wax sealers used by most other LVL manufacturers. H_2O Shield® is a water-based sealer specifically formulated and exclusively licensed in Australia to Tilling Timber Pty Ltd.

H_2O shield offers numerous key benefits:

i) High-penetrating surface treatment
ii) Formulated to repel rain during storage and construction
iii) Includes a biocide/fungicide
iv) Paintable - acrylic and oil based coatings
v) Glueable – using standard construction adhesives between the LVL and wood or plaster products
vi) When transporting or walking on the LVL, it does not become slippery like the wax surface coating
vii) Environmentally friendly

Users will notice that the new sealer absorbs into the wood instead of leaving a film on top of the surfaces, which is the key to its added benefits.

1.1 SmartLVL Design/effective span

Normal structural analysis uses the centreline representation of the member. The term "span" can be defined in a number of ways and these are defined as follows:

Clear Span. This is the distance between the faces of any support. It is generally the one easiest to measure and read from the drawings

Nominal span/centre-line span. This is the distance between the centre of the supports. This span is used to determine bending moments and deflections for continuous spanning members

Design span/Effective span. This is the span used for single span members to determine the bending moment, the slenderness of bending members and the deflections. In NZS 3603 this is the dimension referred to as "L", and is defined below.

Design span/Effective span is the distance between -

- The centre of the bearing at each end of a beam where the bearing lengths have NOT been conservatively sized
- The centre of notional bearing that have been sized appropriately, where the size of the bearing IS conservative.

Diagram (a) shows beam where bearings have been designed appropriately. The effective span is taken as the distance between the centre of each bearing area

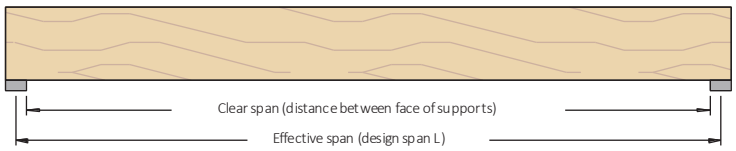
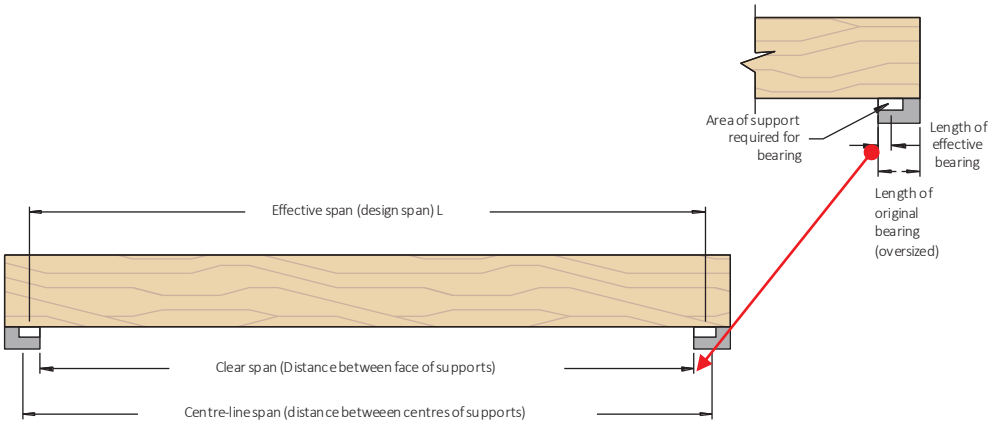


Diagram (b) shows beam where bearings at each end have been oversized. (This is frequently the case for beams that bear onto brickwork or concrete walls where the thickness of the wall is in excess of the area required to give the beam bearing capacity).
To find the correct effective span:

1. Calculate the minimum bearing required to carry the loads satisfactorily
2. Add minimum bearing length to "clear span" distance.



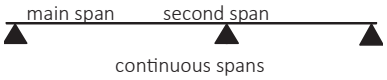
1.2 Continuous spans

For beams continuous over two (2) unequal spans, the design span and the "Resultant Span Description" depend upon the percentage difference between the two spans as shown below:

Note, for continuous spans, the Design Span is taken as the distance between the centre of the supports, as shown in **"Design Span"** on page 1 of the Design Guide.

Span Difference %	Effective span	Resultant span Description
10% max	Main span	Continuous
10 - 30%	1.1 x Main span	Continuous
above 30%	Main span	Single

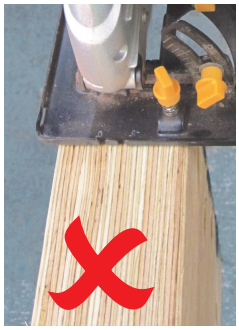
$$\text{span difference} = \frac{(\text{main span} - \text{second span}) \times 100}{(\text{main span} + \text{second span})}$$



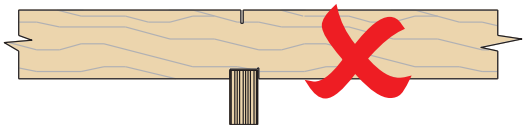
continuous spans

1.3 Rip sawing SmartLVL 15

One of the unique properties of Smart LVL is that it may be ripped through the depth to the smaller section sizes as those given in these span tables without affecting the basic strength properties. It is important that the new members are not cut undersized if the maximum spans in these tables are to be used.



The sawing through the thickness to produce sections of a lesser thickness may decrease the integrity of the SmartLVL and is therefore NOT recommended under any circumstances.



Joist and bearer span tables do NOT allow for the practice of notching the top of the member over a support

1.4 Multiple SmartLVL 15 section beams

Vertical laminations may be achieved by adopting the procedures described in clause 2.3 of AS1684, however these procedures should be considered as the minimum requirements to achieve the desired effect.

Experience with SmartLVL 15 beams indicates that this degree of fixing may not satisfactorily prevent cupping of individual components as a result of the ingress of moisture between laminates during construction.

The suggested methods of vertical lamination below provide a greater level of fixity between individual components, and with the use of an elastomeric adhesive, also prevents moisture penetration between the laminates.

Maximum floor load width tables for multiple member laminations of SmartLVL 15:

1. Nail lamination
2. Type 17 screw lamination
3. Bolt lamination

are shown below

1. Nailing

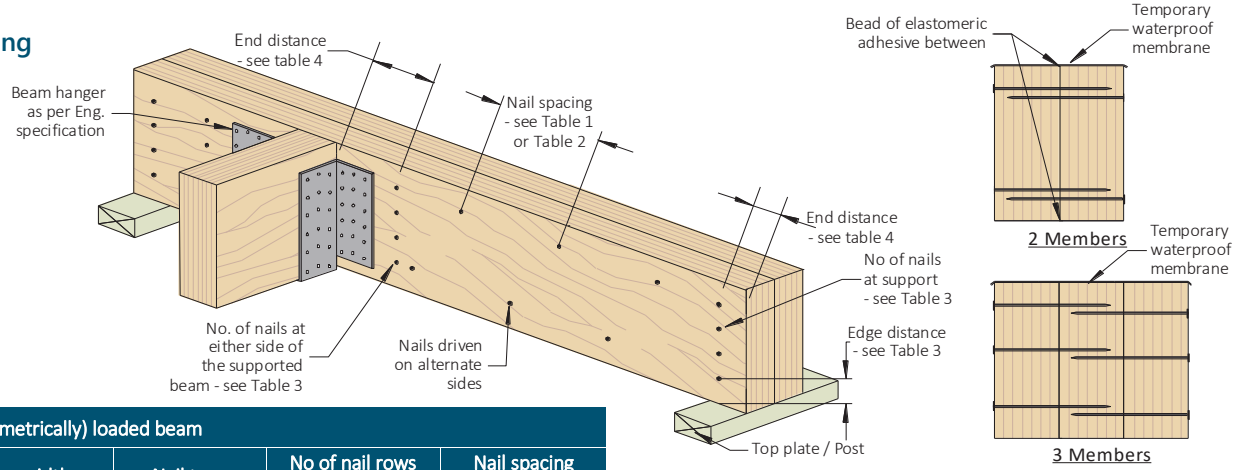


Table 1

Top (symmetrically) loaded beam			
Section width	Nail type	No of nail rows (both sides)	Nail spacing (mm)
2/35	3.15 x 65	2 or 3*	300
3/35 & 2/45	3.30 x 90	2 or 3*	300
2/42	3.06 x 75	2 or 3*	200
3/42, 3/45 & 2/58 3/58, 2/65 & 3/65	Nail lamination is not suitable, requires screws or bolts		

* Beam depth ≥ 300 mm 3 rows of nails

Note: Addition Tables 2,3 and 4 are on next page

1. Nailing (cont'd)

Table 2

Side (non-symmetrically) loaded beam					
Section width	Nail type	No of nail rows at 300mm ctrs (both sides)	Max. floor joist span supported by outer member (mm)*	No of nail rows at 300mm ctrs (both sides)	Max. floor joist span supported by outer member (mm)*
2/35	3.15 x 65	2	2150	3	3250
3/35	3.30 x 90	2	5100	3	7600
2/45	3.30 x 90	2	2550	3	3800
2/42	3.06 x 75	2	2300	3	3400
3/42 & 3/45	3.30 x 90	2	2550	3	3800
2/58 & 3/58	3.30 x 100	2	2500	3	3800
2/65 & 3/65	3.30 x 100	2	1350	3	2050

* Floor loads G = 62 kg/m^2, Q = 1.5 kPa

Table 3

Beam depth (mm)	Min. number of nails required	
	At support	At either side of supported beam
90 –150	3	3
160—300	5	6
> 300	6	8

Table 4

Nail dia. (mm)	Min. edge distance (mm)	Min. end distance (mm)	Min. distance between nails (across the grain) (mm)
3.06 & 3.15	20	70	40
3.30	20	75	45

2. Type 17 screws

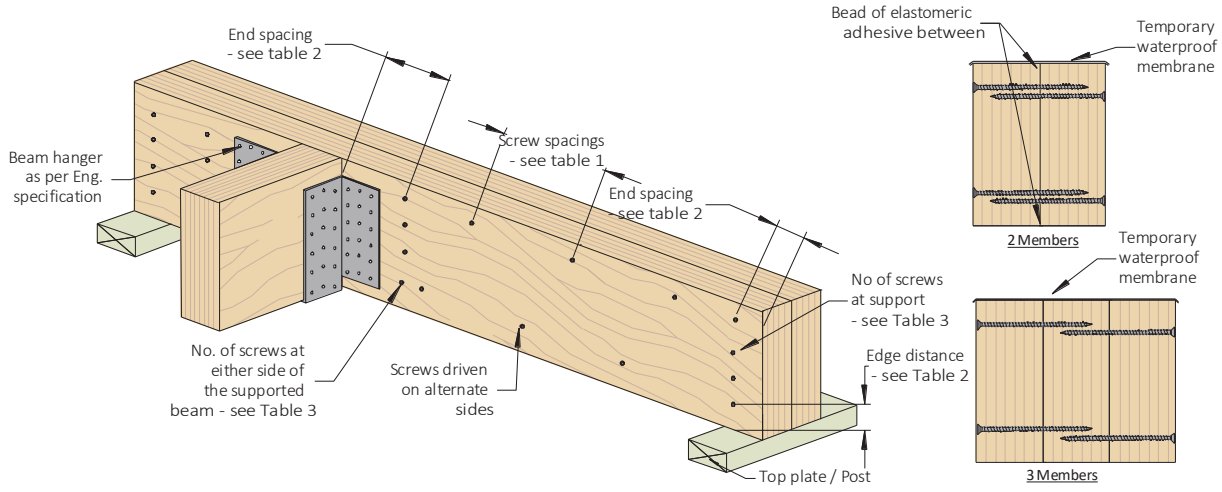


Table 1

Side (non-symmetrically) and top loaded beam				
Section width	Type 17 screw size	No of screw rows (both sides)	Screw spacing (mm)	Max. floor joist span supported by outer member (mm)**
2/35 & 3/35	10g x 65	2 or 3*	200	4500
2/42 & 3/42	12g x 75	2 or 3*	200	5900
2/45 & 3/45	12g x 90	2 or 3*	200	6400
2/58 & 3/58	14g x 100	2 or 3*	200	7100
2/65 & 3/65	14g x 125	2 or 3*	300	6000

* for beam depths ≥ 300 mm, use 3 rows of screws

** Floor loads G = 1.25 kPa, Q = 2.0 kPa

Table 2

Type 17 screw size	Min. edge distance (mm)	Min. end distance (mm)	Min. distance between screws (across the grain) (mm)
10g	30	50	20
12g	35	60	25
14g	40	70	30

Table 3

Beam depth (mm)	Min. number of screws required	
	At support	At either side of supported beam
90 –240	3	3
> 240	4	4

Multiple member lamination (Cont'd)

3. Bolts

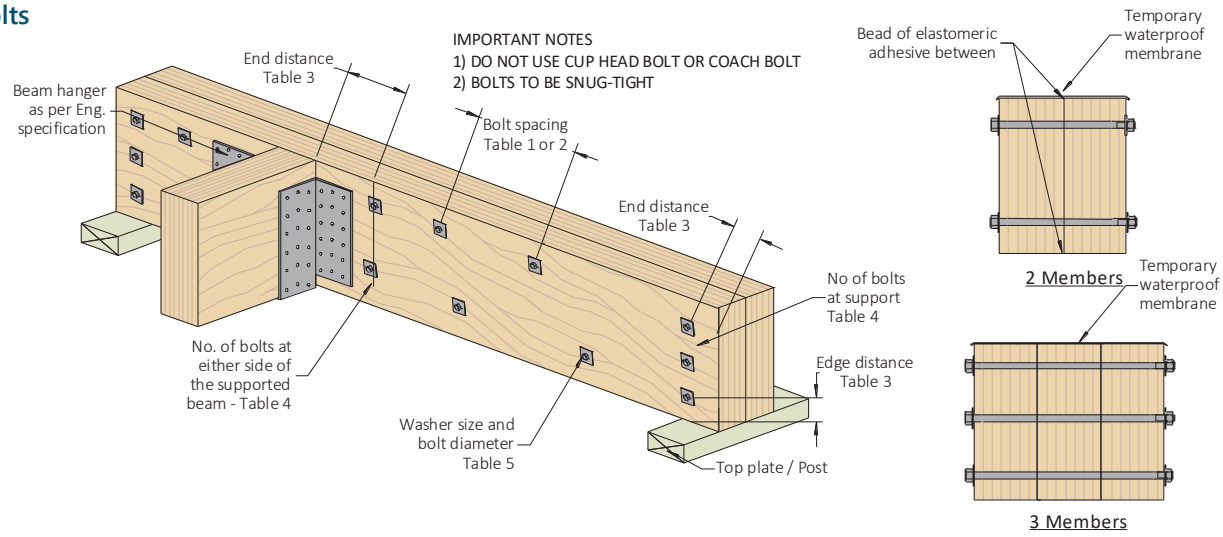


Table 1

Top (symmetrically) loaded beam - M12 Hex head bolt	
Beam depth ≤ 300 mm	Beam depth > 300 mm
2 rows of bolts at 300 mm ctrs	3 rows of bolts at 300 mm ctrs

Table 2

Side (Non symmetrically) loaded beam - M12 Hex head bolt		
Maximum floor joist span supported by the beam mm*		
2 rows at 600 mm ctrs	2 rows at 300 mm ctrs	3 rows at 600 mm ctrs
7200 mm	12,000 mm	10,800 mm

* based upon floor loads of G: 1.25 kPa Q: 2.0 kPa

Table 3

Bolt size	Min. edge distance	Min. end distance	Min. distance between bolts (across grain)
M12 Hex head	60 mm	60 mm	60 mm

Table 4

Beam depth (mm)	Min. number of bolts required	
	At support	At either side of supported beam
90 –150	1	1
160—240	2	2
> 240	3	3

Table 5

Bolt diameter (mm)	Washer dimensions		
	Thickness (mm)	Min. diameter of round washers (mm)	Min. side length of square washers (mm)
M12	3	55	50

1.5 On-site cutting, notching and drilling of SmartLVL beams, bearers, rafters and joists

The cutting, notching and drilling details within Fig 4.1 of AS 1684 pre-date both the introduction of LVL and the common use of roof trusses, and therefore presents deemed-to-satisfy solutions based upon the solid section timber types/sizes and systems commonly used to frame a typical Class 1 and 10a building at that time.

Contemporary open plan building styles with larger spans and deeper/thinner beams made possible by the introduction of LVL combined with the near universal practice of building with roof trusses that typically load only to external walls have now rendered some of these deemed-to-satisfy solutions non- conservative, especially in cyclonic wind loadings.

It is for this reason that it is recommended that on-site cutting, notching and drilling of SmartLVL 15 be limited to the provisions shown below.

Further information about the effects of cutting and notching of timber elements can be found in Appendix E of AS 1720.1

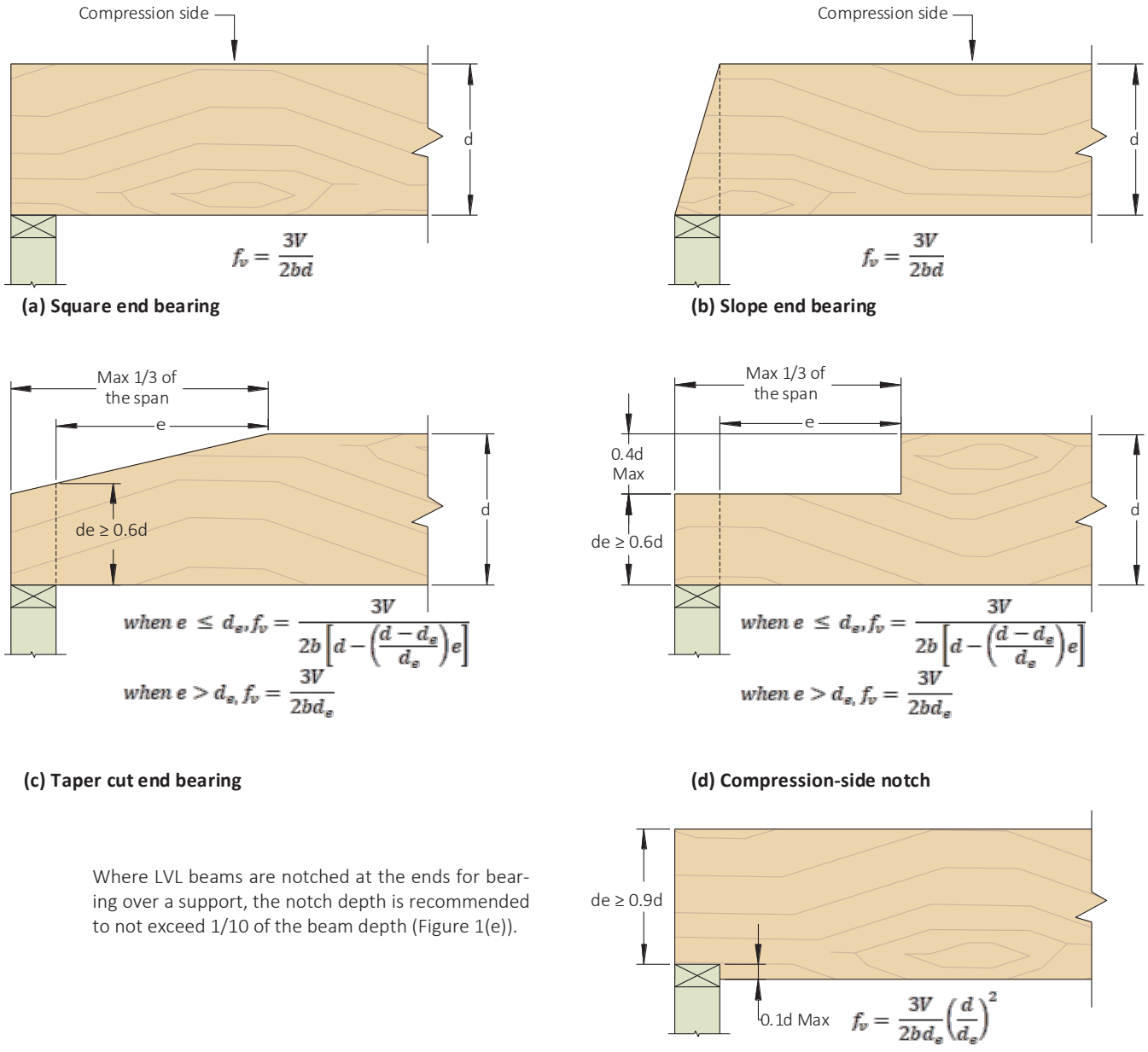
1. Notching

Notching of LVL beams should be avoided whenever possible, especially on the tension side of a member. Tension-side notching of LVL beams is not recommended except at end bearings and then only under specific conditions. The notching of LVL beams on the tension side results in decreased strength caused by stress concentrations that develop around the notch and a reduction of the net cross section resisting the bending and shear forces. Such notches induce perpendicular-to-grain tensile stresses which, in conjunction with horizontal shear forces, can cause splitting along the grain, typically starting at the inside corner of the notch. Stress concentrations, due to notches, can be reduced by using a gradually tapered notch configuration in lieu of a square-cornered notch.

All onsite notches should be accurately cut. Avoid over cutting at the corners of the notch. Drilling a 16 mm ϕ pilot hole in a member at the interior corner of a notch as a stop point for the saw blade provides both a rounded corner and minimizes over cutting at the corner and reduces stress concentrations in these areas.

1.5 On-site cutting, notching and drilling of SmartLVL beams, bearers, rafters and joists (Cont'd)

Figure 1



Where LVL beams are notched at the ends for bearing over a support, the notch depth is recommended to not exceed 1/10 of the beam depth (Figure 1(e)).

f_v = shear stress (MPa)
d = depth of LVL beam (mm)
V = shear force at notch location (kN)
d_e = effective depth as shown (mm)
b = width of LVL beam (mm)
e = length of notch as shown (mm)

For notches on the compression side, a less severe condition exists and equations for the analysis of the effects of these notches are also given in Figure 1. The equations given are empirical in nature and were developed for the conditions shown.

As the notching provisions given in this Note are limited to uniformly loaded simple span beams, the notches shown in Figure 1 occur in areas of high shear and lower moment. For this reason, the design equations given are shear equations.

When necessary to cut a small notch in the top of an LVL beam (in the compression side) to provide passage for small-diameter pipe or conduit, the cut should be made in an area of the beam stressed to less than 50% of the allowable bending stress. The net section in this area should be checked for shear and bending stresses to ensure adequate performance.

It should be recognized that the top of an LVL beam might not always be stressed in compression and the bottom of an LVL beam might not always be stressed in tension. For example, if the LVL beam is designed for wind uplift, the top of the LVL will be stressed in tension and the bottom of the LVL will be stressed in compression.

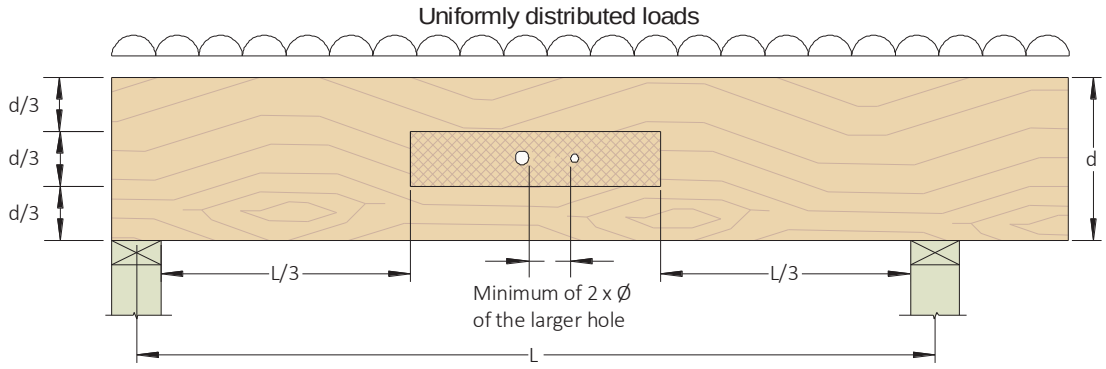
In this case, the recommendations given above should be applied accordingly. Furthermore, when evaluating the effect of notching, the shear force within a distance from supports equal to the beam depth should not be neglected, as typically permitted by the design of rectangular wood members in accordance with the AS 1720.1.

Horizontal Holes

Like notches, holes in an LVL beam reduce the net section of the beam at the hole location and introduce stress concentrations. This causes a reduction in the beam capacity. For this reason, horizontal holes in LVL are limited in size and location to maintain the structural integrity of the beam. Figure 2 shows the zones of a uniformly loaded beam in simple or multiple spans, where the onsite drilling of holes may be considered. The requirements given consider the effect of the horizontal hole on the shear and moment capacities of an LVL beam, and may be applied to multiple-piece built-up LVL beams.

Where larger horizontal holes than those specified in this document cannot be avoided in design, in some circumstances larger penetrations may be specifically designed by a structural engineer experienced in timber engineering.

Figure 2
Permissible horizontal round hole locations for LVL beams under uniform loads



Zone where horizontal holes are permitted for the passage of wires, conduits etc.

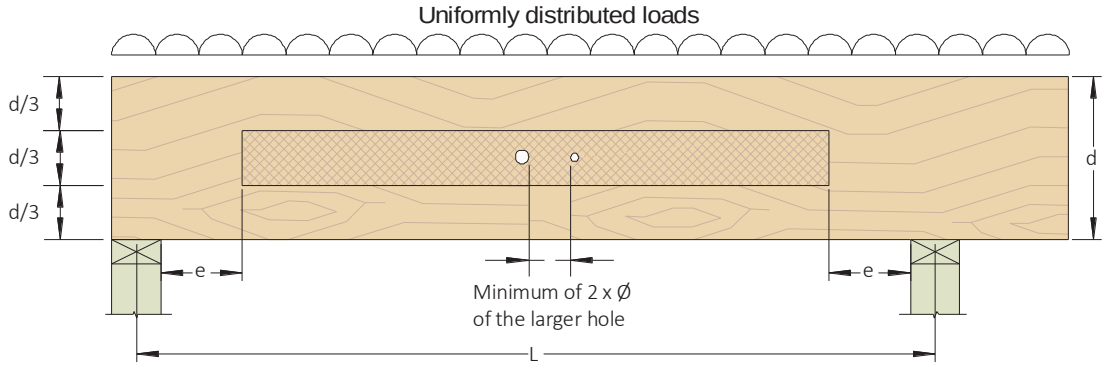
Beam depth (mm)	Hole Ø (mm)
90	20
150	30
200	40
> 200	Max 50 (unless specifically designed by an engineer)

a) Maximum of three (3) holes per span
b) Holes should not be cut in cantilevers

A 25 mm Ø or smaller hole may be cut at the middle ⅓ of the beam depth anywhere along the span, except for the area that is within 150 mm of clear distance between the face of the support and the nearest edge of the hole (see Figure 3 on next page), provided the following conditions are all met:

1. The beam is at least 190 mm in depth
2. The beam is subject to uniform loads only
3. The span-to-depth ratio (l/d) is at least 11
4. The maximum number of holes for each span is limited to three
5. The horizontal spacing must be a minimum of two diameters clear distance between adjacent holes based on the diameter of the larger hole
6. The hole must not be cut in cantilevers.

Figure 3
Zones where a 25 mm or smaller diameter horizontal holes are permitted in a uniformly loaded LVL beam of depth ≥ 190 mm



Zone where a maximum of 25 mm Ø holes are permitted for the passage of wires, conduits etc.

a) Maximum of three (3) holes per span

b) No holes permitted in cantilever

e = 150 mm where L/d ≥ 11, or L/6 where L/d < 11

1.5 On-site cutting, notching and drilling of SmartLVL beams, bearers, rafters and joists (Cont'd)

Horizontal Holes (Cont'd)

Beam depth (mm)	Span when L/d = 11 (mm)
200	2200
240	2640
300	3300
360	3960
400	4400
450	4950
525	5775
600	6600

The L/d of 11, is the span to depth ratio that segments the expected failure modes between shear and bending. When L/d < 11, the span is short, and it is expected that shear strength rather than bending will govern.

Onsite-drilled horizontal holes should be used for access only and should not be used as attachment points for brackets or other load bearing hardware unless specifically designed as such by an engineer. Examples of access holes include those used for the passage of wires, electrical conduit, small-diameter sprinkler pipes, fibre-optic cables and other small, lightweight materials.

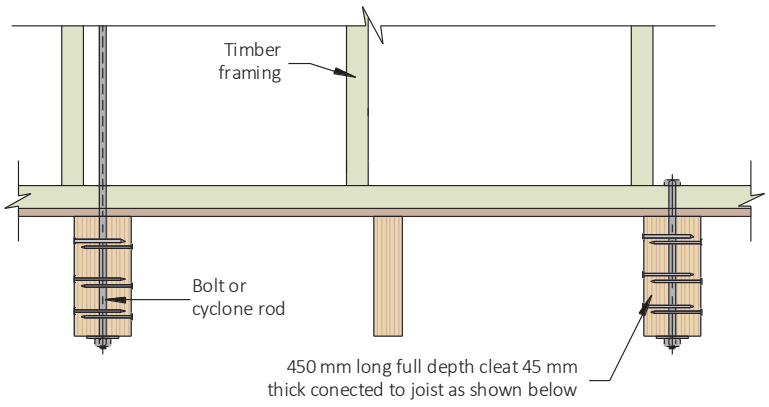
For LVL beams that have been over-sized, the guidelines given above may be relaxed based on an engineering analysis. When holes are required to be drilled outside the allowable zones, an engineering analysis should be conducted and approved by a structural engineer experienced in timber engineering.

Regardless of the hole location, holes drilled horizontally through a member should be positioned and sized with the understanding that the beam will deflect (creep) more over a period of time under in-service loading conditions. This deflection could overstress supported equipment or piping unless properly considered.

Vertical Holes

Whenever possible, avoid drilling vertical holes through LVL beams unless the beam width is at least 58 mm. For SmartLVL elements ≤ 58 mm thick, a 450 mm long cleat should be added as shown below, to avoid drilling vertical hole through thinner member.

450 mm long reinforcement cleat



Nails/screws/bolts	Design Capacity
6 off 3.75 ø nails each side with min 40 mm penetration into adjacent joist/cleat	20 kN Wind uplift
6 off No 12 Type 17 screws with min 40 mm penetration into joist	
5 off No 14 Type 17 screws with min 45 mm into joist	
3 off M10 bolts	

Use a drill guide to minimize "wandering" of the bit to ensure a true alignment of the hole through the depth of the beam. The vertical hole should be centred in the beam width.

As a rule of thumb, vertical holes drilled through the depth of an LVL beam cause a reduction in the capacity at that location directly proportional to the ratio of 1½ times the diameter of the hole to the width of the beam. For example, a 12 mm hole drilled in a 58 mm wide LVL beam would reduce the beam capacity at that section by approximately (12 x 1.5)/58 = 31%

Holes for Support of Suspended Equipment

Heavy equipment or piping suspended from LVL beams should be attached such that the load is applied to the top of the beam to avoid inducing tension perpendicular-to-grain stresses.

Any horizontal holes required for support of significant weight, such as suspended heating and cooling units or main water lines, should be located above the neutral axis of the beam and in a zone stressed to less than 50% of the allowable bending stress. The beam capacity should be checked for all such loads to ensure proper performance.

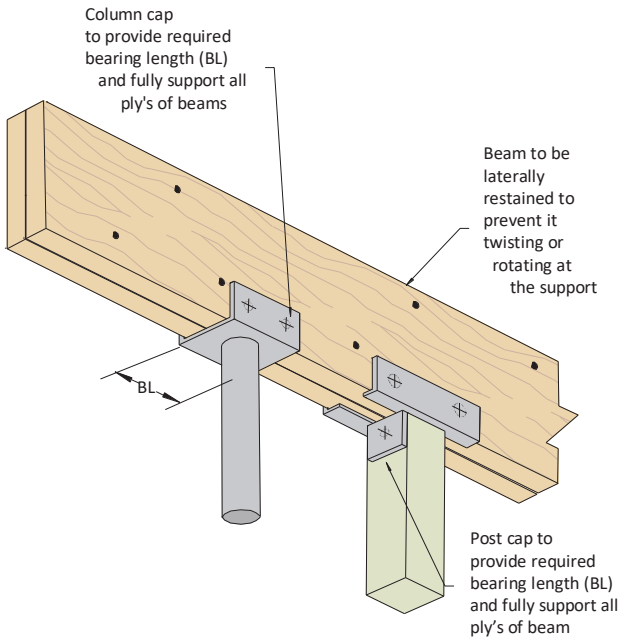
Protection of Onsite-Cut Notches and Holes

Frequently, LVL beams are provided by the manufacturer with the ends sealed by a protective coating. This sealer is applied to the end grain of the LVL to retard the migration of moisture in and out of the beam ends during transit and job site storage. On-site cutting a notch at the end of a beam can change the moisture absorption characteristics of LVL at the notch location. This can result in localized splitting at the corners of the notch. To minimize this possibility, all notches should be sealed with a water-repellent sealer immediately after cutting. Sealing other onsite cuts as well as onsite-drilled holes is also recommended. These sealers can be applied with a brush, swab, roller or spray gun.

Further Information

Further information about the provision of larger holes, or advice about dealing with holes that have been cut into the LVL that are outside these guideline can be obtained by contacting the techsupport helpline on 1300 668 690 or at techsupport@tilling.com.au.

1.6 Steel and timber post fixing to SmartLVL



1.7 Fire resistance

The Fire Resistance Level (FRL) is the performance criteria for fire resistance, i.e. the grading periods (in minutes) for the following criteria as specified in the BCA:

a. Structural adequacy: (the duration for which the elements can carry its designated load)

b. Integrity: (the duration for which the element can maintain its integrity to prevent the spread of fire to/ from the compartment)

and

c. Insulation: (the duration for which the element is insulating the adjacent space from excessive temperature rise)

and is expressed in that order e.g. 30/30/30. The method for determining the structural component of the Fire Resistance Period for timber (including LVL and Glulam) is described in AS /NZS 1720.4 - 2019 Timber Structures Part 4: Fire resistance of timber elements.

$$c = 0.4 + \left(\frac{280}{\delta}\right)^2 \qquad \text{Equation 2.5.2}$$

where:
c = notional charring rate, in mm per minute
d = timber density of SmartLVL 15 - ~ 610 kg/m^3

The effective depth of charring (d_c) after a period of time (t) shall be calculated in accordance with Clause 2.6.1 for surfaces exposed to fire and in accordance with Clause 2.6.2 for surfaces behind fire- resistant protective insulation.

. The examples detailed below contain generic fire detailing principles related to a non-rated floor abutting a rated wall where separation walls require a FRL not less than 60/60/60, commonly found in class 1a applications.

They have been included only to demonstrate that the type of joists within the non-rated floor do not effect the FRL of the rated wall junction, provided the wall is correctly detailed.

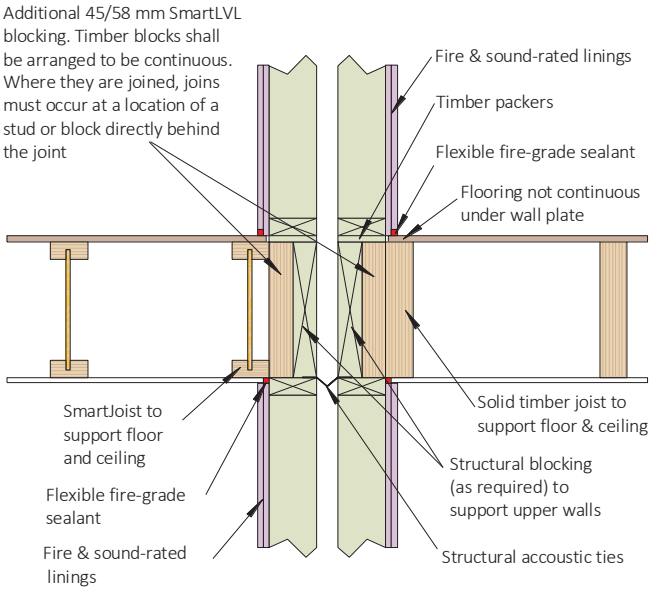
It is mandatory that those designing fire separation walls seek out and specify the latest relevant details either from a Fire Engineer, WoodSolutions® Technical Design Guides available at www.woodsolutions.com.au and Regulatory Authorities.

If using a tested and certified proprietary system, that system must be followed without variation.

Further information about using SmartFrame product in fire rated applications can be obtained by contacting the Techsupport Helpline on 1300 668 690

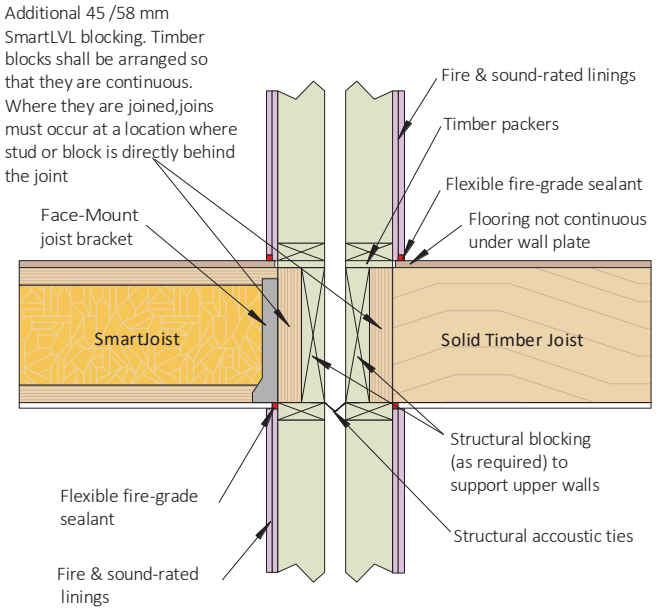
Floor joists parallel to the wall

CB2

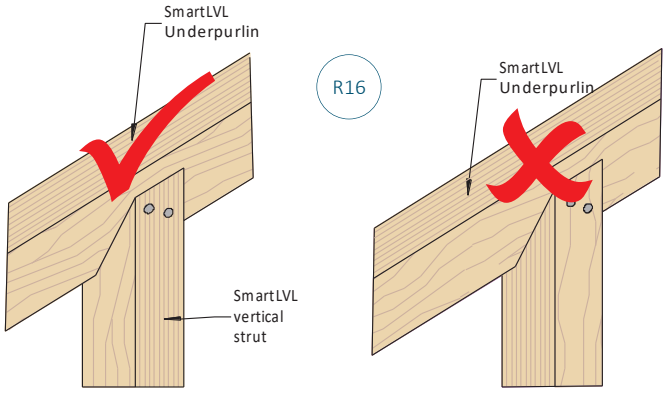


Floor joists perpendicular to the wall

CB1

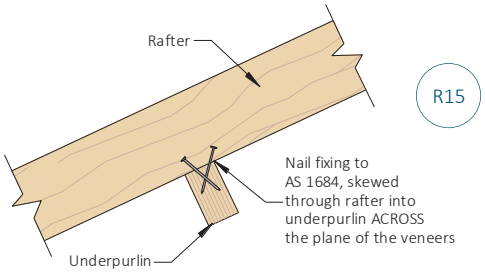


1.8 Roof construction detailing



Vertical SmartLVL roof struts

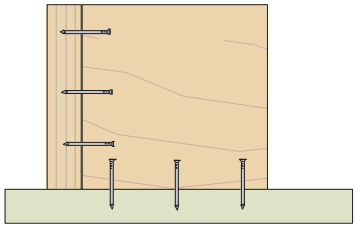
DO NOT cut the birdsmouth in the direction of the SmartLVL veneers



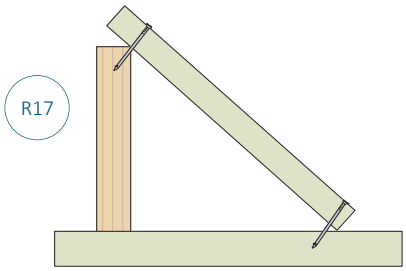
Rafters are NOT to be skew nailed to the underpurlin with the nails parallel to the direction of the veneers

Rafter underpurlin fixing

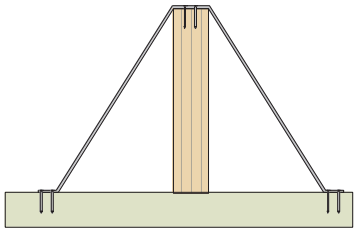
1.9 Lateral restraint of Hanging, Counter, Strutting, Strutting/hanging beams, Strutting/counter beams



(a) Block skew nailed to beam and to support with 3/75 mm skew nails to each member.



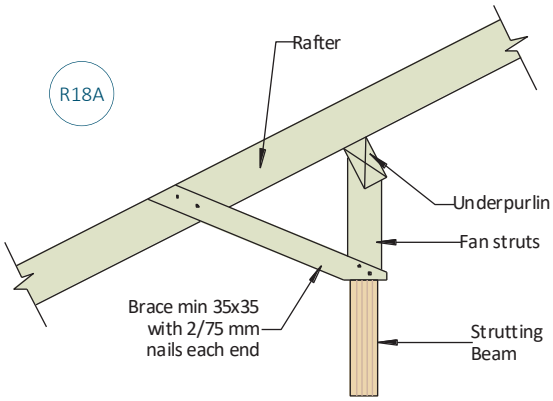
(b) Min 35 x 32 mm tie nailed to top of beam and to support with 2/75 mm nails at each end.



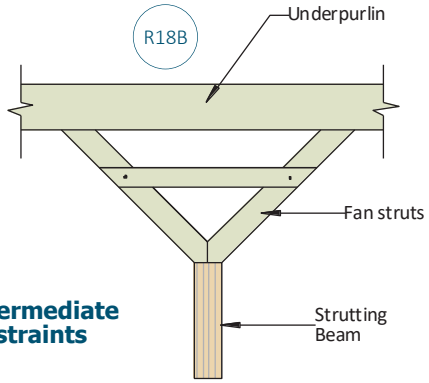
(c) Galvanised strap nailed to support and top of beam with 2/30 x 2.8 ϕ mm nails each end and to beam.

Notes:

1. Method used depends upon whether ceiling joists are perpendicular or parallel to the beam
2. Methods given in (b) and (c) are particularly suitable for restraining strutting beams and strutting/hanging beams at the intermediate points where the beams are supported, as they also permit these beams to be supported up clear of the ceiling joists by packing under at their supports.



Example intermediate lateral restraints



1.10 Chemical resistance

SmartLVL (wood in general) has a definite advantage over steel members when exposed to corrosive environments. Timber and wood products are able to withstand mild acid conditions and are more resistant to degradation.

The behaviour of SmartLVL in chemical environments depends upon a number of factors, including PH and temperature. Wood essentially responds by either swelling (Category S), similar to moisture response, or by chemical degradation (Category D). Damage due to swelling is essentially reversible, but chemical degradation results in breakdown of the wood structure and is non-reversible. Category S agents include alcohol and other polar agents. These agents swell dry wood causing a strength (and stiffness) loss proportional to the swelling.

Category D agents include acids, alkalis and salts and result in a loss of strength and stiffness directly related to the loss of member cross-section. The table below provides a rough guide to performance of SmartLVL in chemical environments.

The effect of chemicals on wood will generally be worsened by increased exposure time, temperature, extremes of pH and chemical concentration. Wood generally offers considerably less resistance to alkalis than acids. Softwoods (includes SmartLVL) generally have better resistance to acids than hardwoods.

Where there is the possibility of chemical attack on SmartLVL members, designers should seek expert advice.

Agent category	Chemical agent	Mode of attack	Damage - reversible or permanent	Severity - (loss of strength and/or stiffness)
Neutral	Non-polar liquids such as petroleum hydrocarbons	None	Negligible	Negligible
S (swelling)	Alcohol and other polar solvents	Swelling	Reversible	Proportional to volumetric swelling
D (degrading)	Inorganic acids	Hydrolysis of cellulose	Permanent	Slight to moderate
D	Organic acids such as: Formic, acetic, propionic and lactic acid	Hydrolysis of cellulose	Permanent	Slight (pH 3-6)
D	Alkalis such as: sodium, calcium and magnesium hydroxide	De-lignification of wood and dissolving of hemicellulose	Permanent	Moderate (pH > 9.5) Severe (pH > 11)
D	Salts (considered as weak acids)	Hydrolysis of cellulose	Permanent	Slight

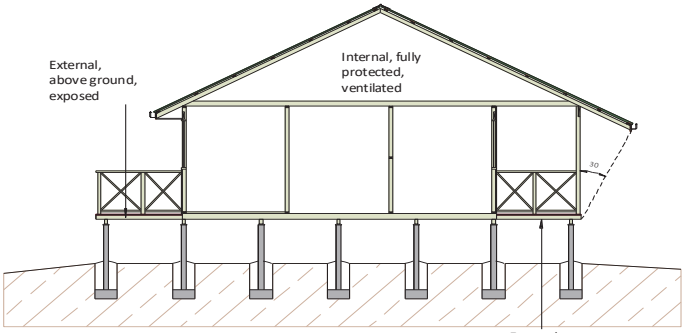
Table reference Williamson T.G. 2002 APA Engineered Wood Handbook

1.11 Durability and exposure to moisture

SmartLVL is manufactured from softwood veneers which have a durability rating of class 4, which is the same rating as some Ash type Eucalypts. Untreated SmartLVL should not be used where the equilibrium moisture content is likely to remain above 20% for an extended period.

Untreated and H2s SmartLVL is suitable in the ***internal, fully protected, ventilated*** and the ***external above ground, protected*** zones of the structure as shown below. Untreated or H2s SmartLVL is not suitable for ***external above ground, exposed*** or humid indoor conditions, such as swimming pool enclosures.

Definitions of exposure zones within a structure



External timbers are regarded as protected in AS 1684 if they are covered by a roof projection (or similar) at 30° to the vertical and they are well detailed and maintained (painted and kept well ventilated).

1.11.1 Moisture effects on LVL

SmartLVL, like all wood products, is hygroscopic, which means it has an affinity for water, and being a LVL, should be considered as a composite of many pieces of wood, each with different potential swelling. Moisture exposure will ultimately lead to dimensional change.

SmartLVL is supplied WITH a new generation short term construction water repellent (H_2O Shield™) and once framed into a structure may be exposed to the weather for a limited time (usually not greater than 3 months) without negative affect, BUT, it may exhibit some effects of this exposure such as swelling and checking (especially at cut ends), depending upon the weather conditions.

While offering significant water short term repellency comparable to wax coatings, the H_2O Shield™ does NOT totally WATER PROOF the LVL. While the products will withstand normal exposure, excessive exposure during distribution, storage or construction may lead to dimensional changes that affect serviceability. These changes include cupping, bowing or expansion to dimensions to beyond the specified tolerance of the product in the "as-manufactured" condition.

Individual members of a vertically laminated multi member may exhibit some cupping if water becomes trapped between the laminates. This cupping produces more of a visual and possible fixity problem rather than being structurally significant. If not properly dried out, this moisture between laminated members may lead to decay. To prevent this effect, use construction details as shown on page 2.

As an organic material, mould and mildew may grow on untreated wood products if moisture is present. Prolonged periods of high moisture may also support the growth of wood decay fungi. The H_2O Shield™ does provide some resistance to mould and fungi attack, but it is NOT equivalent to H3 treatment.
In critical applications where dimensional change due to moisture exposure is to be absolutely minimised (e.g. truss applications in wet humid conditions) it is recommended that the remedial H_2O shield available from Tilling Timber in spray cans (or bulk for airless spray guns) be used to recoat any cut ends or notches etc.

The table below shows the moisture content of LVL as a function of humidity.

Moisture content of wood products % [1]	
Relative Humidity %	LVL MC
10	1.2
20	2.8
30	4.6
40	5.8
50	7.0
60	8.4
70	11.1
80	15.3
90	19.4

1. Approx. moisture content at 21^{0}C

1.11.2 Dimensional change

SmartLVL will shrink and swell in proportion to changes in moisture content between 0 and 28 % fibre saturation point.

The most significant moisture movement will occur across the grain (tangential and radial directions within a log). Longitudinal (movement in the grain direction) may be a factor depending upon the type of structure. Detailing of SmartLVL to be used where moisture contents will cycle should allow for dimensional instability.

The AVERAGE amount of dimensional change in a piece of LVL changes in moisture content can be APPROXIMATED by the following formula:

$$\Delta D = D_i S (MC_i - MC_f)/FSP$$

Where:
ΔD = change in dimension
D_i = Initial dimension
S = Shrinkage coefficient = approximately 6%
MC_i = Initial moisture content
MC_f = final moisture content
FSP = fibre saturation point approximately 28%

HOWEVER, these dimensional effects are quite variable. Thickness swell in LVL is erratic along the length because of the densification of the lap joints during manufacture tends to "relieve" when saturated and the total swell in sections containing two (2) laps can be as much as 3 mm.

1.11.3 Change in characteristic strengths

Changes in moisture content in wood results in changes in mechanical properties, with higher properties at lower moisture contents. Estimates of the effect of moisture differentials on the properties of clear wood may be obtained by the following equation:

$$P = P_{12}\left(\frac{P_{12}}{P_g}\right)^{\left(\frac{12-M}{M_p-12}\right)}$$

Where:
P= Characteristic property at moisture content
P_{12} = same Characteristic property at 12% moisture content
P_g = same Characteristic property for Green wood
M_p = Intersection moisture content = 24% for Doug Fir

1.11 Durability and exposure to moisture (Cont'd)

The APPROXIMATE affect upon key Characteristic Properties of LVL by changes in MC are outlined in the table below:

Characteristic Property		% Reduction in Characteristic strength at % MC					
		14	16	18	20	22	24
MOE (Stiffness)	E	3.3	6.5	9.7	12.7	15.6	18.4
MOR (Bending)	F'_b	8.4	16.1	23.1	29.6	35.5	40.9
Compression perpendicular to grain	f'_p	9.9	18.9	27.0	34.2	40.8	46.7
Compression parallel to grain	f'_c	11.0	20.7	29.4	37.2	44.1	50.2
Shear	f'_s	6.6	12.8	18.6	24.0	29.0	33.7

The design Characteristic properties of SmartLVL can therefore be considerably reduced by severe increase in MC of the LVL.

If the SmartLVL is being built into structures (such as Prefabricated trusses) that are:

1. Likely to experience large increase in MC due to weather exposure or stored on the ground
2. Likely to be loaded to at/or close to design loads while in the high MC state

then the reduced Characteristic Strengths as detailed above NEED to be used in the design or members may require temporary propping.

Once covered, the SmartLVL will ultimately dry and re-equilibrate to the ambient humidity conditions, but some expansion or swelling will remain after re-drying. The thickness swelling in laps will never fully shrink back and a large piece of LVL can have a final thickness variation along the length of 3-4 mm

1.11.4 Design for durability

i. The use of building overhangs and other structures which protect the beams from excessive moisture movement and sun exposure.

ii. All beams should be provided with adequate ventilation so that moisture content within beams will not exceed 15% and moisture gradients across the beam will not occur.

iii. The use of arrised or round edges on beams to reduce the likelihood of coating failures on sharp edges.

iv. The use of drip edges or other devices which provide a path for free moisture flow away from the timber beam.

v. Joint detailing should, wherever possible, comply with the following:

   1. Keep horizontal contact areas to a minimum, in favour of self draining vertical surfaces.
   2. Ventilate joint surfaces by using spacers, wherever possible
   3. Always use compatible fasteners which have adequate corrosion protection and do not cause splitting during installation e.g. hot dipped galvanic coatings or stainless steel
   4. Ensure any moisture entering a joint is not trapped but can adequately drain away from the joint.

Allow for thermal expansion/contraction in the joint design.

1.11.5 Post-Production treatment

SmartLVL is supplied glue-line H2S* treated or can be supplied either LOSP treated or Tru-Core® treated to either H2 or H3 hazard class levels, as per AS/NZS 1604.4. (Tru-Core® is a registered trade mark of Kop-Coat Australia PTY Limited)

To maintain effective treatment it is a requirement that any cuts, notches or penetrations made in post production treated LVL be painted with a suitable "brush/spray on" preservative.

The hazard class number selected is based upon the specific exposure condition for the proposed end use of the SmartLVL, as shown in the table below.

Hazard class selection guide

Hazard class	Exposure	Specific service conditions	Biological hazard	Typical uses
H1†	Inside, above ground	Completely protected from the weather and well ventilated, and protected from termites	Lyctid borers	Interior beams, staircases, stringers
H2S*	Inside, above ground	Protected from wetting Nil leaching	Borers and termites	Interior beams, staircases, trusses, joists
H2	Inside, above ground	Protected from wetting Nil leaching	Borers and termites	Interior beams, staircases, trusses, joists
H3	External, above ground	Subject to periodic moderate wetting and leaching	Moderate decay, borers and termites	Exterior beams (1)

† The timber species in SmartLVL are not susceptible to Lyctid Borer attack
* H2S treatment is only suitable South of the Tropic of Capricorn

A more comprehensive Hazard Class Table is available in AS/NZS 1604.4, but it is **NOT** recommended that SmartLVL be used in end uses with exposures requiring treatment in excess of H3.

(1) Experience is showing that post production treated LVL in the ***external above ground, exposed*** (H3 Hazard Class) may experience some leaching of the active ingredients of the treatment. To minimise the possibility of timber degradation in these situations, it is recommended that H3 treated Smart LVL NOT be used where the surface is horizontally exposed AND unprotected from water entrapment OR where post-treatment protection cannot be maintained.

Post treatment protection may include:

(i) Protectadeck ™ high density water proof joist/ bearer cover or malthoid capping

and

(ii) An impervious membrane such as regularly maintained painting or staining

(iii) Construction detailing to prevent water entrapment.

H3 treated SmartLVL is NOT recommended for fascia's, pergolas or other similar ***external above ground, exposed*** applications due to mechanical degradation of the wood fibre causing checking and cracking which is both aesthetically unacceptable and allows ingress of water to inner veneers.

1.11.6 Fasteners for H3 LVL

For any H3 Smart LVL to be used in exposed exterior applications, it is recommended that either hot dipped galvanised or stainless steel fasteners are used.

Specifically, If the Tru-Core® Copper Quat H3 treatment process is used, high grades (304, 305 and 316) of stainless steel materials perform the best.

1.11.7 Painting of treated SmartLVL

1. General

To provide the longest service life of the SmartLVL it is recommended the LVL is painted with an exterior paint with a Light Reflectance Value (LRV) greater than 30%. Heat reduction exterior paints should be used where the desired colour is dark or has a LRV of less than 30% The heat reflective paint's colours should be limited to a Total Solar Reflectance (TSR) value greater than 29%.

Any paint or stain must be recommended by the manufacturer as being suitable for the proposed application and must be applied in a manner in strict compliance to the manufacturer's recommendations

2. LOSP Treated

Wait until excess solvents have evaporated and timber is dry. The pressure of the solvent (white spirits) from the LOSP treatment may affect the drying and hardening of paints if there has been insufficient evaporation time after the treatment. It is strongly recommended that the treated timber is left to recondition for at least 7 days in the end use situation before painting.

One coat of premium quality primer as a minimum should be applied to all surfaces prior to erection of beam and to any cuts or holes drilled. If the first coat of primer, sealant paint or stain fails to dry or adhere within the time expected, do not proceed to any further coats until the first coat has achieved satisfactory dryness and adhesion. If the first coat fails to dry it may be necessary to strip back to bare timber and allow it to weather for another week or two.

a. Paint

Exterior solid colour acrylic finish. One coat of oil based primer followed by one or two coats of the exterior acrylic finish as required.

or

Exterior solid colour oil based enamel. One coat of oil based primer followed by one coat of oil based under-coat (if required) then two coats of the oil based enamel.

b. Stains

Exterior semi-transparent or solid colour penetrating oil based stain or similar. Two or three coats of the stain as required or recommended by the manufacturer.

Water based stains and un-pigmented sealants, oil or water repellents are NOT recommended.

3. Tru-Core® Treated

1. The wood must be dry and clean prior to applying any finish coating. If initial cleaning of the treated wood is needed, it is recommended that the project be cleaned with a deck cleaning product and allow to fully dry.
2. At this time, a clear water repellent may be added to the project. If applied, allow 8 weeks prior to the application of a semi-transparent stain or paint
3. If no water repellent is added, an oil based stain can be applied to the clean, dry wood in 30-60 days from treatment date
4. A water based stain can be applied to the clean, dry wood in 45-70 days from treatment date.
5. Depending on the treatment method used, if the wood is left uncoated and without UV protection:

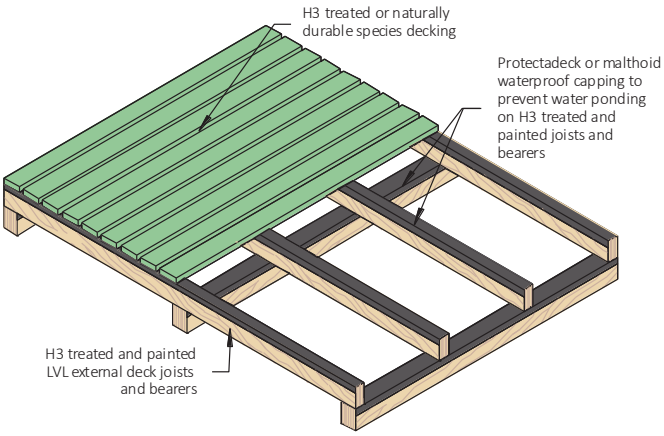
    i. The typical brown colour of the Copper Quat treated wood will naturally weather to a grey colour over long-term exposure to the sun

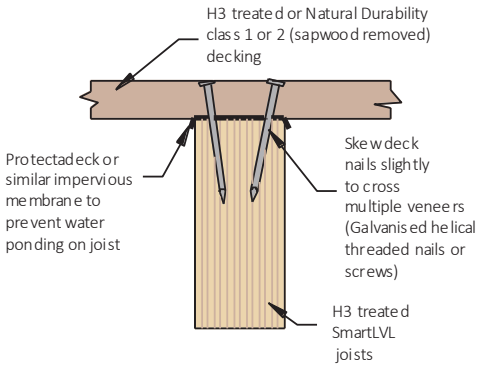
    ii. The Azole treated wood has no colouration so it will naturally weather to a grey colour over long-term exposure to the sun.

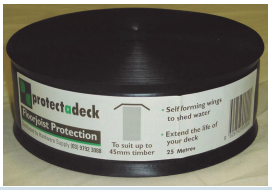
Users must always conduct their own tests on coatings in inconspicuous areas of the project to determine acceptability of colour, adhesion and appearance.

1.11.8 H3 Deck bearers and joists

H3 Treated Deck joists and bearers are a common application for treated SmartLVL. The diagram demonstrates the minimum construction detailing for H3 treated joists and bearers. Failure to follow these guidelines may render treatment warranties void.
It is recommended that deck nails be slightly skewed as per the detail below.







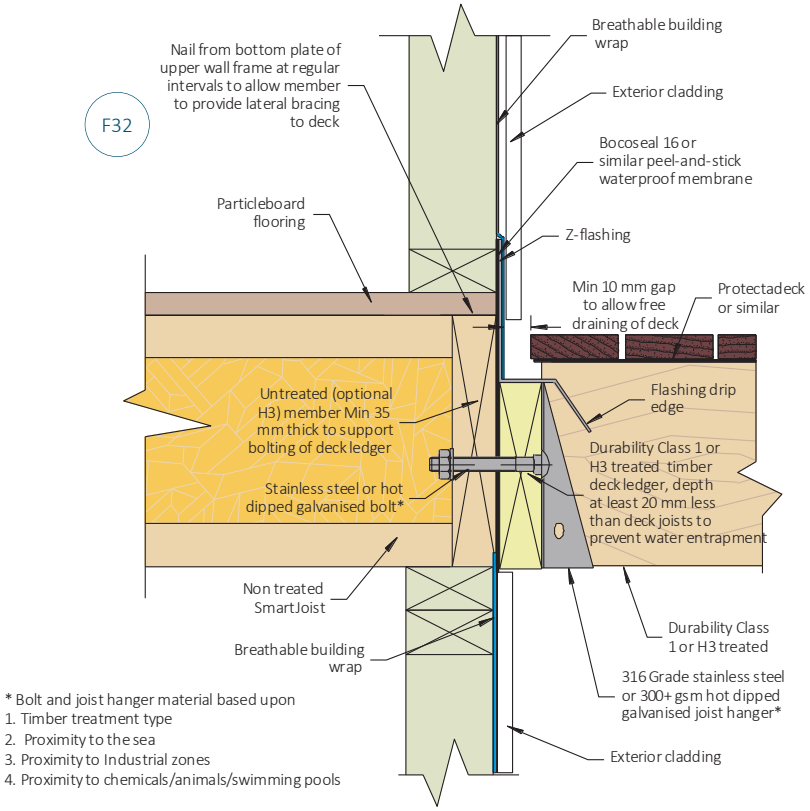
Recommended proprietary top protection for joists and bearers

1.12 Deck ledger attachments

As with window and door installations in walls, paying careful attention to flashing details for decks attached to the house exterior is critical to avoid potential rot and mould of inner non treated wall frames and floor systems. Water from direct rainfall, splash from decks and runoff from incorrectly sloped deck surfaces can leak into the exterior wall where the deck attaches to the house.

Several conditions contribute to the water problem:

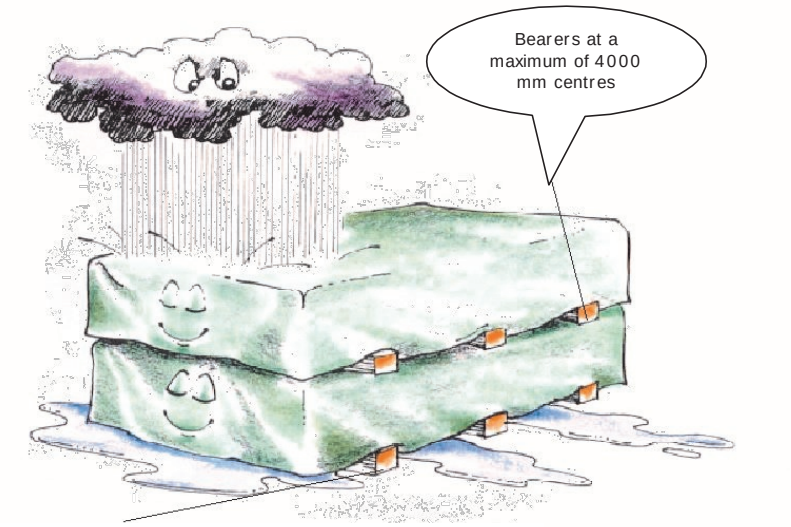
- The ledger board is simply attached to the house with numerous lag screws or other hardware that penetrate the wall's cladding and drainage plane, but no flashing has been installed to protect these areas
- Water is often trapped behind the ledger board
- Upward splashing of rain from the deck adds significant wetting to the cladding, and inadequate flashing results in wetting and rot in the wall's framing and other internal elements.
- Integrating the attachment of the ledger board with the drainage plane behind the wall's cladding and adding proper flashing will maintain the integrity of the drainage plane and channel water away from the wall's surface.



Example flashing of deck ledger connection to un-treated house frame

1.13 Storage and handling of SmartLVL

- Store SmartLVL flat on a hard, dry surface
- If surface isn't paved, the ground should be covered with a polythene film
- Keep covered with waterproof material that allows bundles to "breathe"
- Use bearers (bolsters) between the ground and the first bundle (4 metre max spacing)
- Use 100 x 50 timber flat between bundles at same spacing as bolsters
- Take great care to rewrap remaining material after opening bundles
- LVL "grows" in thickness and depth when allowed to get wet....KEEP DRY!
- LVL with high MC has short term reduction in Characteristic Strengths .... KEEP DRY!
- Under NO circumstances is stored SmartLVL to be in contact with the ground.



Use bearers to keep stacked material away from damp surfaces. Align bearer vertically

1.14 SmartLVL 15 hanger details

Given the high load carrying capacity of SmartLVL, it is essential that the connection of SmartLVL to other structural members is considered carefully, with the industry practice of simple skew or end nailing of SmartLVL not recommended for anything but the lightest loads.

The list below contains the common light to medium duty SmartLVL framing brackets stocked by Tilling Timber. Member connections requiring capacities greater than those listed below can be designed by your own Engineer or SmartFrame Engineers, but any non-standard connection system designed by your own engineer or SmartFrame Engineers may take some time to be fabricated.

Tilling framing bracket code	Fixing to SUPPORTING beam	Design Capacity $ØN_j$ (kN) $1.2G+1.5Q_f$ (DL + FLL)	Fixing to SUPPORTED beam	Wind Uplift (k_1 = 1.14) Design Capacity $ØN_j$ (kN) $1.2G+1.5Q_f$ (DL + RLL) for Joint group			
		JD4		JD5	JD4	JD3	Max.
SLF3590, SLF4290	8 Nails 4 Screws	4.6 6.1	4 nails 2 screws	3.2 3.5	3.7 5.0	5.3 5.0	6.0 5.0
SLF35120, SLF42120	12 Nails 6 Screws	6.4 9.1	6 nails 4 screws	4.7 7.1	5.7 10.0	7.9 10.0	9.0 10.0
SLF35140, SLF42140	16 Nails 6 Screws	8.4 9.1	8 nails 4 screws	6.2 7.1	7.5 10.0	10.6 10.0	12.0 10.0
SLF35180, SLF42180	20 Nails 8 Screws	10.3 12.1	10 nails 6 Screws	7.4 10.6	8.9 15.0*	12.4 15.0*	15.0* 15.0*
SLF42220	26 Nails 10 Screws	13.1 14.2	13 nails 8 Screws	9.5 14.2	11.3 15.0*	15.0* 15.0*	15.0* 15.0*
SLF60130	12 Nails 4 screws	6.4 6.1	3 nails 7 nails 4 screws	2.4 5.4 7.1	2.8 6.6 10.0	3.9 9.3 10.0	4.5 10.5 10.0
SLF65170	18 Nails 6 screws	9.3 9.1	6 nails 11 nails 6 screws	4.7 8.1 10.6	5.7 9.8 15.0*	7.9 13.6 15.0*	9.0 15.0* 15.0*
SLF90200	26 Nails 10 Screws	12.9 14.2	3 nails 13 nails 8 screws	2.4 9.6 14.2	2.8 11.6 15.0*	3.9 15.0* 15.0*	4.5 15.0* 15.0*
LVSIA (Horizontal) LVSIA (Vertical)	6 screws 6 screws	8.2 5.8	1 screw 6 screws	1.0	1.4 8.6	1.8 13.3	1.8 13.3
Pryda JHS (pair)	16 Nails 16/8g x 25 mm type 17 screws	15.0 17.9	16 Nails 16 Screws	23.8 33.7	28.3 40.0	29.8 40.0	29.8 40
SPH180 (pair)	4 No 14 x 30 screws‡ 8 No 14 x 30 screws‡	11.4 20.9	4 No 14 x 30 screws 8 No 14 x 30 screws	13.3 24.5	18.8 34.6	20.4 37.8	20.4 37.8
SPH220 (pair)	5 No 14 x 30 screws‡ 10 No 14 x 30 screws‡	13.4 25.6	5 No 14 x 30 screws 10 No 14 x 30 screws	15.7 30.0	22.1 42.3	25.5 46.0	25.5 46.0
Dunnings Girder brackets	4 nails‡ 6 nails‡	6.2 9.4	4 nails ‡ 6 nails ‡	8.4 12.6	10.2 15.4	14.4 21.6	14.4 21.6

‡ in each face of joist hanger

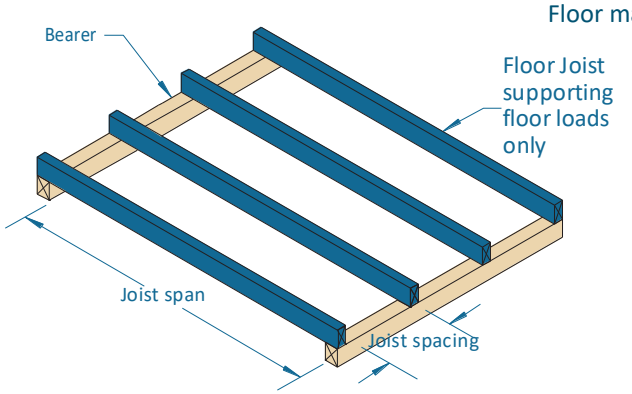
Notes:

1. For this table, SmartLVL has been given a uniform JD4 Joint Strength Group. For more detailed calculations of joint strength group in particular planes contact the Techsupport Helpline on 1300 668 690
2. The above tabulated capacities are for a minimum beam thickness of 35 mm
3. Wind uplift capacities apply to designs in accordance with AS/NZS 1170:2002
4. SLF Framing Bracket capacity has been limited to 15.0 kN shown *
5. These capacities apply directly for joints in houses and on secondary beams in other structures. For joints on primary beams in structures other than houses, reduce the capacity by 0.85/0.95 = 0.89
6. Multiple Laminated Supporting Beams - Fasteners with longer lengths are required when Joist Hangers are fixed into a multiple laminated supporting beam. For double laminates, use 65 long nails or screws. Alternatively, for double or triple laminated supporting beams, additional fixings may be provided at hanger locations to laminate plies. Seek advice from the Engineer.

2. Index of Span Tables

Floor joists supporting floor loads only

Floor mass - 40 kg/m^2



EXAMPLE:

domestic floor loads
single span
joist spacing = 450 mm
joist span = 3500 mm

Enter single span table at 450 mm in joist spacing column, read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLVL 15 - 170x42

Loadings: permanent - self weight + 40 kg/m^2 + 0.5 kPa of the live load, live load - 1.5 kPa or floor point load of 1.8 kN

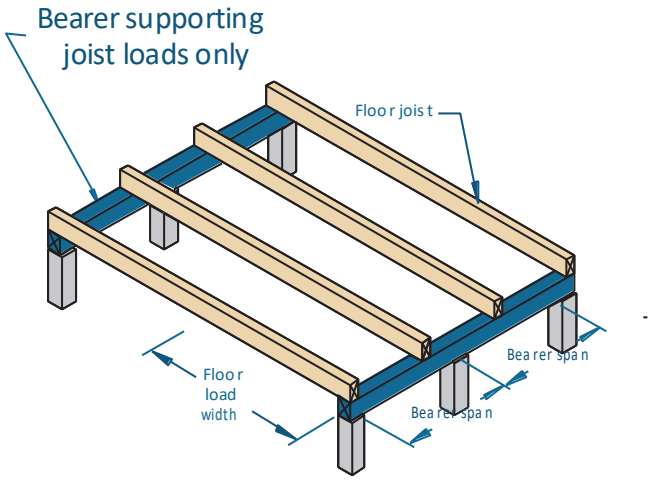
Joist Spacing (mm)	300	400	450	600	300	400	450	600
Size DxB (mm)	Maximum recommended floor joist span (mm)							
	Single span				Continuous span			
90x42	2100	1900	1800	1700	2600	2200	2100	1900
120x42	3200	2600	2500	2300	3700	3200	3000	2600
130x42	3400	2900	2700	2500	3900	3600	3200	2900
140x42	3600	3100	2900	2700	4200	3900	3600	3100
170x42	4200	3900	3700	3300	4800	4500	4400	3900
190x42	4500	4200	4100	3800	5300	4900	4700	4400
200x42	4700	4400	4200	3900	5500	5100	4900	4600
240x42	5400	5000	4900	4500	6300	5800	5700	5300
300x42	6400	5900	5800	5400	7400	6900	6700	6200
360x42	7300	6800	6600	6100	8500	7900	7700	7100
400x42	7900	7400	7200	6700	9200	8500	8300	7700
90x58	2500	2100	2000	1900	3200	2500	2400	2200
120x58	3500	2900	2800	2600	4000	3700	3400	3000
130x58	3700	3300	3100	2800	4300	4000	3700	3300
140x58	3900	3500	3300	3000	4500	4200	4100	3500
170x58	4500	4200	4100	3800	5200	4900	4700	4400
190x58	4900	4600	4400	4100	5700	5300	5100	4800
200x58	5100	4700	4600	4300	5900	5500	5400	5000
240x58	5900	5400	5300	4900	6800	6300	6100	5700
300x58	6900	6400	6300	5800	8100	7500	7300	6800
360x58	7900	7400	7200	6700	9200	8600	8300	7700
400x58	8600	8000	7800	7200	9300	9300	9000	8400
450x58	9400	8700	8500	7900	10400	9900	9800	9100
300x75	7400	6900	6700	6200	8600	8000	7700	7200
400x75	9000	8500	8300	7700	10800	9900	9600	8900
525x75	10500	9900	9900	9400	12000	10400	10000	9900

NOTES:

1. Spans are suitable for solid timber, particle board and ply flooring. floor sheeting glued and nailed to joists will improve floor rigidity. Where heavy overlay material is to be applied, such as a mortar bed tiled or slate floor, the permanent load allowance should be increased to 1.2 kPa. A reduction of joist spacing may be used to accommodate this extra permanent load. A satisfactory result can be achieved by adopting the maximum spans for 600 mm and 450 mm spacing but installing the joists at 450 and 300 mm spacing respectively
2. For beams which are continuous over two unequal spans, the design span and the 'resultant span description' depend upon the percentage span differences between the two spans as shown on page 2
3. D = member depth, B = member breadth, NS = not suitable.
4. End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering .

Single span floor bearers supporting floor loads only

Floor mass - 40 kg/m^2



EXAMPLE:

single span bearer = 4000 mm
floor load width = 6000 mm

Enter single span table at 6000 mm in floor load width column, read down to a span equal to or greater than 4000 mm

ADOPT:

SmartLVL 15 - 2/360 x 42

Loadings: permanent - self weight + 40 kg/m^2 +0.5 kPa of the live load, live load - 1.5 kPa or floor point load of 1.8 kN

Floor load width (mm)	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600
Member size DxB (mm)	Maximum recommended bearer span (mm)									
	Single span									
2/90x42	2000	1800	1600	1500	1400	1300	1200	1200	1100	1100
2/120x42	2700	2300	2100	2000	1800	1700	1700	1600	1500	1500
2/130x42	2900	2500	2300	2100	2000	1900	1800	1700	1600	1600
2/140x42	3100	2700	2500	2300	2100	2000	1900	1800	1800	1700
2/150x42	3400	2900	2700	2500	2300	2200	2100	2000	1900	1800
2/170x42	3700	3300	3000	2800	2600	2500	2400	2300	2200	2100
2/190x42	4100	3700	3400	3100	2900	2800	2600	2500	2400	2300
2/200x42	4200	3800	3600	3300	3100	2900	2800	2700	2600	2500
2/240x42	4800	4400	4100	3800	3700	3500	3300	3200	3100	3000
2/300x42	5700	5200	4800	4500	4300	4200	4000	3900	3800	3700
2/360x42	6500	5900	5500	5200	5000	4800	4600	4400	4300	4200
2/400x42	7000	6400	5900	5600	5400	5100	5000	4800	4700	4600_{5}
90x58	1800	1500	1400	1300	1200	1100	1100	1000	1000	NS
120x58	2400	2100	1900	1700	1600	1500	1500	1400	1300	1300
130x58	2600	2300	2000	1900	1800	1700	1600	1500	1400	1400
140x58	2800	2400	2200	2000	1900	1800	1700	1600	1600	1500
150x58	3000	2600	2400	2200	2000	1900	1800	1700	1700	1600
170x58	3400	3000	2700	2500	2300	2200	2100	2000	1900	1800
190x58	3700	3300	3000	2800	2600	2400	2300	2200	2100	2100
200x58	3900	3500	3100	2900	2700	2600	2500	2300	2300	2200
240x58	4400	4000	3700	3500	3300	3100	3000	2800	2700	2600
300x58	5200	4700	4400	4200	4000	3800	3700	3500	3400	3300_{5}
360x58	6000	5400	5000	4800	4500	4400	4200	4100_{5}	3900_{10}	3800_{20}
400x58	6400	5800	5400	5100	4900	4700	4500_{5}	4400_{10}	4300_{20}	4200_{25}
450x58	7000	6400	5900	5600	5400	5100_{5}	5000_{10}	4800_{20}	4700_{25}	4500_{35}
300x75	5500	5000	4700	4400	4200	4000	3900	3800	3700	3600
400x75	6800	6200	5800	5500	5200	5000	4800	4700	4500_{5}	4400_{10}
525x75	8200	7500	7000	6700	6400	6100	5900_{5}	5700_{15}	5600_{20}	5400_{25}

Continuous span floor bearers supporting floor loads only

Floor mass - 40 kg/m^2

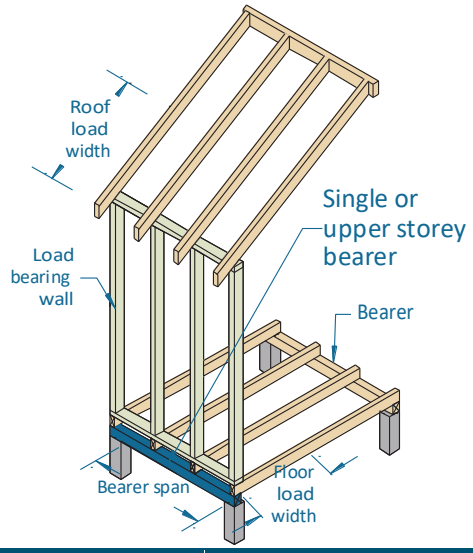
Loadings: permanent - self weight + 40 kg/m^2 +0.5 kPa of the live load, live load - 1.5 kPa or floor point load of 1.8 kN

Floor load width (mm)	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600
Member size DxB (mm)	Maximum recommended bearer span (mm)									
	Continuous span									
2/90x42	2500	2200	2000	1900	1700	1700	1600	1500	1500	1400
2/120x42	3300	3000	2700	2500	2300	2200	2100	2000	2000	1900
2/130x42	3600	3200	2900	2700	2500	2400	2300	2200	2100	2100
2/140x42	3800	3400	3100	2900	2700	2600	2500	2400	2300	2200_{5}
2/150x42	4000	3600	3300	3100	2900	2800	2700	2600	2500_{5}	2400_{15}
2/170x42	4400	3900	3700	3500	3300	3200	3000_{5}	2900_{10}	2800_{20}	2700_{25}
2/190x42	4700	4300	4000	3800	3600	3500_{5}	3300_{15}	3200_{20}	3100_{30}	3000_{35}
2/200x42	4900	4500	4100	3900	3700	3600_{5}	3500_{15}	3400_{25}	3300_{35}	3100_{40}
2/240x42	5700	5100	4800	4500	4300_{10}	4100_{20}	4000_{30}	3900_{40}	3800_{50}	3700_{65}
2/300x42	6700	6100	5600	5300_{10}	5100_{25}	4900_{35}	4700_{50}	4600_{65}	4500_{90}	4400_{100}
2/360x42	7700	6900	6400_{10}	6100_{25}	5800_{40}	5600_{55}	5400_{80}	5300_{95}	5100_{110}	5000_{125}
2/400x42	8300	7500	7000_{15}	6600_{35}	6300_{50}	6100_{75}	5900_{95}	5700_{110}	5600_{125}	5400_{140}
90x58	2200	1900	1800	1600	1500	1500	1400	1300	1200	1200
120x58	3000	2600	2400	2200	2100	1900	1800	1700	1600_{5}	1500_{5}
130x58	3200	2800	2600	2400	2200	2100	2000	1800_{5}	1700_{10}	1600_{15}
140x58	3400	3100	2800	2600	2400	2200	2100_{5}	2000_{10}	1800_{15}	1800_{20}
150x58	3600	3300	3000	2800	2600	2400_{5}	2200_{10}	2100_{15}	2000_{20}	1900_{25}
170x58	4000	3600	3300	3100	2900_{5}	2700_{15}	2500_{20}	2300_{25}	2200_{30}	2100_{35}
190x58	4300	3900	3600	3400_{5}	3200_{15}	3000_{25}	2800_{30}	2600_{35}	2500_{45}	2300_{50}
200x58	4500	4100	3800	3600_{10}	3400_{20}	3100_{25}	2900_{35}	2700_{40}	2600_{50}	2400_{55}
240x58	5200	4700	4300_{5}	4100_{20}	3900_{35}	3700_{45}	3400_{55}	3200_{70}	3000_{85}	2900_{95}
300x58	6100	5500	5100_{20}	4800_{40}	4600_{55}	4500_{85}	4200_{100}	3900_{110}	3700_{120}	3500_{130}
360x58	7000	6300_{15}	5900_{35}	5600_{55}	5300_{90}	5100_{110}	4900_{125}	4600_{140}	4400_{155}	4200_{165}
400x58	7600	6900_{20}	6400_{45}	6000_{80}	5800_{105}	5500_{125}	5400_{145}	5100_{160}	4800_{175}	4600_{185}
450x58	8300_{5}	7500_{30}	7000_{60}	6600_{95}	6300_{120}	6000_{145}	5800_{165}	5700_{190}	5300_{200}	5100_{215}
300x75	6500	5900	5500_{5}	5200_{20}	4900_{35}	4700_{50}	4600_{60}	4500_{90}	4200_{95}	4000_{105}
400x75	8100	7300_{5}	6800_{25}	6400_{45}	6100_{65}	5900_{90}	5700_{110}	5500_{125}	5400_{140}	5200_{155}
525x75	9900	9000_{25}	8300_{50}	7900_{85}	7500_{105}	7200_{130}	7000_{150}	6800_{170}	6600_{190}	6500_{215}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum DL of 40 (kg/m^2) + 0.5 kPa of LL, floor live load of 1.5 (kPa), floor point load of 1.8 (kN)
3. End bearing lengths = 42 mm at end supports and 58 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 42 mm at end supports and 58 mm at internal supports
4. Restraint value for slenderness calculations is 600 mm (floor joist centres at 600 mm max)
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering

Floor bearers supporting single storey load bearing wall - sheet and tiled roof



Floor mass - 40 kg/m^2

EXAMPLE:

sheet roof - 40 kg/m^2
roof load width = 1950 mm
bearer span = 3000 mm (single span)
floor load width = 2200 mm

Enter single span table at 2400 mm in floor load width column, 4500 roof load width column, read down to a span equal to or greater than 3000 mm in the 40 kg/m^2 row.

ADOPT:

SmartLVL 15—2/240x42

Single span

Floor load width (mm)		1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended single span floor bearer supporting single storey load bearing wall span (mm)								
2/90x42	40	1500	1300	1100	1300	1200	1100	1100	1000	NS
	90	1400	1100	1000	1200	1000	NS	1100	NS	NS
2/120x42	40	2000	1700	1500	1800	1600	1400	1500	1400	1300
	90	1800	1500	1300	1700	1400	1200	1400	1300	1200
2/130x42	40	2200	1900	1600	1900	1700	1600	1600	1500	1400
	90	2000	1600	1400	1800	1500	1400	1600	1400	1300
2/140x42	40	2300	2000	1800	2100	1900	1700	1800	1600	1500
	90	2200	1700	1500	2000	1700	1500	1700	1500	1400
2/150x42	40	2500	2200	1900	2200	2000	1800	1900	1700	1600
	90	2300	1900	1600	2100	1800	1600	1800	1600	1500
2/170x42	40	2800	2500	2200	2500	2300	2000	2100	2000	1800
	90	2600	2100	1900	2400	2000	1800	2100	1800	1700
2/190x42	40	3200	2700	2400	2800	2500	2300	2400	2200	2100
	90	2900	2400	2100	2700	2300	2000	2300	2000	1900
2/200x42	40	3300	2900	2600	3000	2700	2400	2500	2300	2200
	90	3100	2500	2200	2800	2400	2100	2400	2200	2000
2/240x42	40	3900	3500	3100	3600	3200	2900	3000	2800	2600
	90	3700	3000	2600	3400	2900	2500	2900	2600	2400
2/300x42	40	4600	4100	3800	4200	3900	3600	3700	3500	3300
	90	4300	3700	3300	4000	3600	3200	3600	3300	3000
2/360x42	40	5300	4700	4300	4800	4500	4100	4300	4100	3900
	90	5000	4300	3900	4600	4100	3700	4200	3800	3600
2/400x42	40	5700	5100	4700	5200	4800	4500	4600	4400	4200
	90	5400	4600	4200	5000	4400	4100	4500	4100	3900_{10}
90x58	40	1300	1100	1000	1200	1000	NS	1000	NS	NS
	90	1200	1000	NS	1100	NS	NS	NS	NS	NS
120x58	40	1800	1500	1300	1600	1400	1300	1300	1200	1100
	90	1600	1300	1100	1500	1200	1100	1300	1100	1000
130x58	40	1900	1600	1500	1700	1500	1400	1400	1300	1200
	90	1800	1400	1200	1600	1300	1200	1400	1200	1100
140x58	40	2100	1800	1600	1800	1600	1500	1500	1400	1300
	90	1900	1500	1300	1700	1500	1300	1500	1300	1200
150x58	40	2200	1900	1700	2000	1800	1600	1700	1500	1400
	90	2000	1700	1400	1900	1600	1400	1600	1400	1300
170x58	40	2500	2200	1900	2200	2000	1800	1900	1800	1600
	90	2300	1900	1600	2100	1800	1600	1800	1600	1500
190x58	40	2800	2400	2100	2500	2200	2000	2100	2000	1800
	90	2600	2100	1800	2400	2000	1800	2000	1800	1600
200x58	40	3000	2600	2300	2600	2400	2100	2200	2100	1900
	90	2700	2200	1900	2500	2100	1900	2100	1900	1700

Floor bearers supporting single storey load bearing wall - sheet and tiled roof

Single span (Cont'd)

Floor load width (mm)		1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended single span floor bearer supporting single storey load bearing wall span (mm)								
240x58	40	3600	3100	2700	3200	2800	2600	2700	2500	2300
	90	3300	2700	2300	3000	2500	2200	2600	2300	2100
300x58	40	4200	3800	3400	3900	3600	3200	3400	3100	2900
	90	4000	3400	2900	3700	3200	2800	3200	2900	2600_{5}
360x58	40	4800	4300	4000	4400	4100	3800	3900_{5}	3700_{10}	3500_{10}
	90	4600	3900	3500	4200	3700	3400_{10}	3800_{5}	3500_{15}	3100_{20}
400x58	40	5200	4700	4300	4800	4400	4100	4200_{10}	4000_{15}	3800_{20}
	90	4900	4200	3800_{10}	4600	4100	3700_{15}	4100_{10}	3800_{20}	3500_{30}
450x58	40	5700	5100	4700	5200	4800	4500	4600_{15}	4400_{20}	4200_{30}
	90	5400	4600	4200_{15}	5000	4400	4000_{25}	4500_{20}	4100_{30}	3800_{40}
300x75	40	4500	4000	3700	4100	3800	3500	3600	3400	3200
	90	4200	3600	3200	3900	3500	3100	3500	3100	2900
400x75	40	5500	5000	4600	5100	4700	4400	4500	4300	4100_{5}
	90	5200	4500	4100	4900	4300	3900	4400	4000_{5}	3700_{15}
525x75	40	6800	6100	5600	6200	5800	5400	5500_{10}	5200_{15}	5000_{20}
	90	6400	5500	5000_{10}	6000	5300	4800_{20}	5400_{15}	4900_{25}	4600_{35}

Floor bearers supporting single storey load bearing wall - sheet and tiled roof

Continuous span

Floor load width (mm)		1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Continuous span floor bearer supporting single storey load bearing wall span (mm)								
2/90x42	40	2000	1800	1500	1800	1600	1500	1500	1400	1300
	90	1900	1500	1300	1700	1400	1300	1500	1300	1200
2/120x42	40	2700	2400	2100	2400	2200	2000	2000	1900	1800
	90	2500	2000	1800	2300	1900	1700	2000	1800	1600
2/130x42	40	3000	2600	2300	2600	2400	2100	2200	2100	1900
	90	2700	2200	1900	2500	2100	1900	2100	1900	1700_{5}
2/140x42	40	3200	2800	2400	2800	2500	2300	2400	2200	2100_{5}
	90	2900	2400	2100	2700	2300	2000	2300	2100_{5}	1900_{10}
2/150x42	40	3400	3000	2600	3000	2700	2500	2600	2400_{5}	2200_{10}
	90	3200	2600	2200	2900	2400	2100_{5}	2500_{5}	2200_{10}	2000_{20}
2/170x42	40	3800	3300	3000	3400	3100	2800	2900_{10}	2700_{15}	2500_{20}
	90	3600	2900	2500_{10}	3300	2800	2400_{15}	2800_{15}	2500_{20}	2300_{30}
2/190x42	40	4100	3700	3300	3800	3500	3100_{5}	3300_{25}	3000_{25}	2800_{30}
	90	3900	3300	2800_{15}	3600	3100_{5}	2700_{25}	3100_{25}	2800_{35}	2500_{45}
2/200x42	40	4300	3800	3500	3900	3600	3300_{5}	3400_{30}	3200_{30}	3000_{40}
	90	4000	3400	3000_{20}	3800	3200_{10}	2900_{30}	3300_{30}	2900_{40}	2700_{50}
2/240x42	40	4900	4400	4000_{10}	4500	4100_{10}	3900_{20}	4000_{45}	3800_{50}	3600_{65}
	90	4600	4000_{10}	3600_{40}	4300_{5}	3800_{25}	3500_{55}	3900_{50}	3500_{65}	3200_{90}
2/300x42	40	5800	5200	4800_{25}	5300_{15}	4900_{25}	4600_{40}	4700_{75}	4500_{90}	4200_{100}
	90	5500	4700_{25}	4200_{75}	5100_{20}	4500_{40}	4100_{90}	4600_{85}	4200_{100}	3900_{125}
2/360x42	40	6600	6000_{15}	5500_{40}	6100_{25}	5600_{40}	5200_{60}	5400_{100}	5100_{115}	4900_{125}
	90	6300	5400_{45}	4900_{100}	5800_{35}	5200_{65}	4700_{115}	5300_{110}	4800_{125}	4500_{150}
2/400x42	40	7200	6500_{20}	5900_{50}	6600_{35}	6100_{50}	5700_{80}	5800_{115}	5500_{130}	5300_{140}
	90	6800_{10}	5800_{55}	5300_{115}	6300_{45}	5600_{85}	5100_{130}	5700_{120}	5200_{145}	4900_{170}

Floor bearers supporting single storey load bearing wall - sheet and tiled roof—(Cont'd)

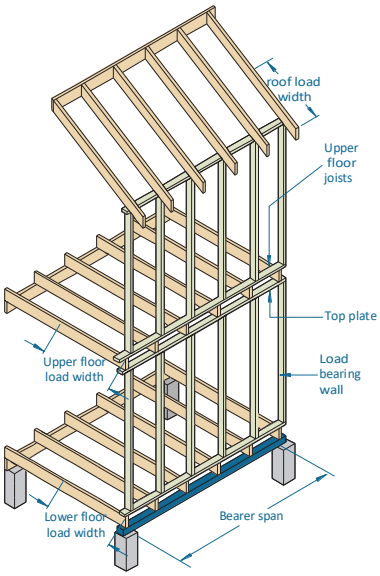
Continuous span

Floor load width (mm)		1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Continuous span floor bearer supporting single storey load bearing wall span (mm)								
90x58	40	1800	1500	1400	1600	1400	1300	1300	1200	1100
	90	1700	1300	1200	1500	1300	1100	1300	1100	1000
120x58	40	2400	2100	1800	2100	1900	1700	1700	1600_{5}	1500_{10}
	90	2200	1800	1600	2000	1700	1500_{5}	1600	1500_{10}	1300_{10}
130x58	40	2600	2300	2000	2300	2100	1900	1800_{5}	1700_{10}	1600_{15}
	90	2400	2000	1700_{5}	2200	1800	1600_{10}	1800_{5}	1600_{15}	1400_{20}
140x58	40	2800	2400	2100	2500	2200	2000	1900_{10}	1800_{15}	1700_{20}
	90	2600	2100	1800_{10}	2400	2000	1800_{20}	1900_{10}	1700_{20}	1500_{25}
150x58	40	3000	2600	2300	2700	2400	2200_{5}	2100_{15}	2000_{20}	1800_{25}
	90	2800	2300	2000_{20}	2500	2100_{5}	1900_{25}	2000_{20}	1800_{30}	1600_{30}
170x58	40	3400	3000	2600_{5}	3100	2700_{5}	2500_{15}	2300_{25}	2200_{30}	2100_{40}
	90	3200	2600_{5}	2200_{30}	2900	2400_{15}	2100_{35}	2300_{30}	2000_{40}	1800_{45}
190x58	40	3800	3300	2900_{10}	3400_{5}	3100_{15}	2800_{25}	2600_{35}	2400_{45}	2300_{50}
	90	3500	2900_{15}	2500_{40}	3200_{10}	2700_{25}	2300_{50}	2500_{40}	2300_{55}	2000_{65}
200x58	40	3900	3500	3100_{15}	3600_{10}	3200_{20}	2900_{30}	2700_{40}	2600_{50}	2400_{60}
	90	3700	3000_{20}	2600_{50}	3400_{15}	2900_{35}	2400_{55}	2600_{45}	2400_{60}	2100_{80}
240x58	40	4500	4000_{10}	3700_{35}	4100_{25}	3800_{35}	3500_{50}	3200_{70}	3000_{85}	2800_{95}
	90	4200	3600_{40}	3100_{85}	3900_{30}	3400_{55}	2900_{95}	3100_{80}	2800_{95}	2500_{110}
300x58	40	5300_{5}	4800_{25}	4300_{55}	4900_{45}	4500_{55}	4200_{90}	3900_{110}	3700_{120}	3500_{130}
	90	5000_{10}	4300_{60}	3700_{115}	4700_{50}	4100_{95}	3500_{130}	3800_{115}	3400_{135}	3100_{150}
360x58	40	6100_{15}	5500_{40}	5000_{90}	5600_{65}	5100_{90}	4800_{115}	4600_{140}	4400_{155}	4100_{170}
	90	5700_{25}	4900_{95}	4400_{150}	5300_{80}	4700_{115}	4200_{165}	4500_{150}	4100_{170}	3700_{190}
400x58	40	6600_{25}	5900_{50}	5400_{100}	6000_{85}	5600_{105}	5200_{130}	5100_{165}	4800_{175}	4500_{190}
	90	6200_{35}	5300_{105}	4800_{170}	5800_{95}	5100_{135}	4600_{190}	4900_{170}	4500_{195}	4100_{220}
450x58	40	7200_{30}	6400_{70}	5900_{115}	6600_{100}	6100_{120}	5600_{150}	5600_{185}	5300_{200}	5000_{220}
	90	6800_{45}	5800_{125}	5200_{195}	6300_{110}	5600_{155}	5100_{215}	5500_{195}	5000_{225}	4500_{250}
300x75	40	5600	5100_{10}	4600_{30}	5200_{20}	4800_{35}	4400_{50}	4400_{85}	4200_{95}	3900_{105}
	90	5300	4600_{35}	4100_{90}	5000_{25}	4400_{55}	4000_{105}	4300_{90}	3900_{110}	3600_{125}
400x75	40	7000_{5}	6300_{30}	5700_{65}	6400_{45}	5900_{60}	5500_{95}	5700_{135}	5400_{145}	5100_{160}
	90	6600_{15}	5700_{75}	5100_{130}	6100_{55}	5400_{100}	5000_{150}	5500_{135}	5100_{165}	4600_{185}
525x75	40	8500_{25}	7700_{55}	7000_{105}	7800_{90}	7200_{105}	6700_{135}	7000_{180}	6600_{190}	6300_{215}
	90	8100_{35}	6900_{115}	6300_{175}	7500_{95}	6700_{140}	6100_{195}	6800_{185}	6200_{215}	5800_{250}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on total ground floor mass of 40 kg/m^2 + 0.5 kPa of LL, wall mass of 37 kg/m^2, floor live load of 1.5 kPa, floor point load of 1.8 kN
3. The above table was based on a wall height of 2700 mm
4. End bearing lengths = 70 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 70 mm at end supports and 70 mm at internal supports.
5. Restraint value for slenderness calculations is 600 mm
6. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering

Single span floor bearer supporting double storey load bearing wall - sheet and tile roof



EXAMPLE:

sheet roof - 40 kg/m^2
roof load width = 1950 mm
bearer span = 3100 mm (single span)
lower floor load width = 3500 mm
upper floor load width = 1500 mm

Enter single span table at 3600 mm in lower floor load width column, 1800 mm in upper floor width column, 4500 mm roof load width column, read down to a span equal to or greater than 3100 mm in the 40 kg/m^2 row.

ADOPT:

SmartLVL 15 - 2/240x42
(With additional bearing length of 50 mm required)

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended floor bearer supporting double loadbearing wall span (mm)											
		Single span											
2/120x42	40	2100	1900	1800	1900	1800	1700	1900	1800	1700	1800	1700	1600
	90	2000	1800	1600	1900	1700	1500_{5}	1900	1700	1500_{5}	1700	1600	1400_{10}
2/130x42	40	2300	2100	2000	2100	2000	1800	2100	2000	1800	1900	1800	1700_{5}
	90	2200	1900	1700	2000	1800	1700_{10}	2000	1800	1700_{10}	1900	1700_{5}	1600_{15}
2/140x42	40	2500	2300	2100	2200	2100	2000	2200	2100	2000_{5}	2100_{5}	2000_{5}	1900_{10}
	90	2400	2100	1900_{10}	2200	2000_{5}	1800_{15}	2200	2000_{5}	1800_{15}	2000_{5}	1900_{10}	1700_{20}
2/150x42	40	2600	2400	2300	2400	2300	2100_{10}	2400	2300_{5}	2100_{10}	2200_{10}	2100_{10}	2000_{15}
	90	2500	2200	2000_{15}	2300	2100_{10}	1900_{25}	2300	2100_{10}	1900_{25}	2200_{10}	2000_{20}	1800_{30}
2/170x42	40	3000	2800	2600_{10}	2700	2600_{10}	2400_{20}	2700_{10}	2600_{15}	2400_{20}	2500_{20}	2400_{25}	2300_{30}
	90	2900	2500_{10}	2300_{25}	2700_{5}	2400_{20}	2200_{35}	2700_{15}	2400_{20}	2200_{35}	2500_{20}	2300_{30}	2000_{40}
2/190x42	40	3400	3100_{5}	2900_{15}	3100_{10}	2900_{20}	2700_{30}	3100_{20}	2900_{25}	2700_{30}	2900_{30}	2700_{35}	2600_{40}
	90	3200	2800_{20}	2600_{40}	3000_{15}	2700_{30}	2500_{50}	3000_{25}	2700_{30}	2500_{50}	2800_{35}	2600_{45}	2300_{55}
2/200x42	40	3500	3300_{10}	3000_{20}	3200_{15}	3000_{25}	2900_{35}	3200_{25}	3000_{30}	2900_{35}	3000_{35}	2900_{40}	2700_{50}
	90	3400_{5}	3000_{25}	2700_{45}	3100_{20}	2800_{40}	2600_{60}	3100_{25}	2800_{40}	2600_{60}	2900_{40}	2700_{50}	2400_{70}
2/240x42	40	4100_{10}	3800_{25}	3600_{40}	3800_{30}	3600_{45}	3400_{60}	3800_{45}	3600_{50}	3400_{60}	3600_{60}	3400_{75}	3300_{90}
	90	3900_{15}	3600_{45}	3300_{85}	3700_{35}	3400_{60}	3100_{100}	3700_{45}	3400_{60}	3100_{100}	3500_{65}	3200_{90}	2900_{105}
2/300x42	40	4800_{25}	4500_{45}	4300_{70}	4500_{50}	4300_{75}	4100_{100}	4500_{75}	4300_{90}	4100_{100}	4300_{100}	4100_{110}	3900_{120}
	90	4700_{35}	4300_{80}	3900_{115}	4400_{60}	4100_{100}	3800_{135}	4400_{85}	4100_{100}	3800_{135}	4200_{100}	3900_{125}	3600_{145}
2/360x42	40	5500_{40}	5200_{65}	4900_{100}	5100_{85}	4900_{100}	4700_{125}	5100_{100}	4900_{110}	4700_{125}	4900_{120}	4700_{135}	4500_{150}
	90	5300_{55}	4900_{100}	4500_{140}	5000_{90}	4700_{130}	4400_{165}	5000_{105}	4700_{130}	4400_{165}	4800_{130}	4500_{155}	4300_{190}
2/400x42	40	6000_{55}	5600_{85}	5300_{115}	5600_{95}	5300_{115}	5100_{140}	5600_{115}	5300_{125}	5100_{140}	5300_{140}	5100_{150}	4900_{165}
	90	5800_{65}	5300_{115}	4900_{160}	5500_{105}	5100_{145}	4700_{185}	5500_{120}	5100_{145}	4700_{185}	5200_{145}	4900_{170}	4600_{210}
90x58	40	1400	1300	1200	1300	1200	1100	1300	1200	1100	1100	1100	1000
	90	1300	1200	1000	1200	1100	NS	1200	1100	NS	1100	1000	NS
120x58	40	1900	1700	1600	1700	1600	1500_{10}	1700	1600_{5}	1500_{10}	1500_{5}	1400_{10}	1300_{10}
	90	1800	1600	1300_{10}	1600	1400_{10}	1200_{15}	1600	1400_{10}	1200_{15}	1500_{10}	1300_{10}	1100_{20}
130x58	40	2000	1900	1700_{5}	1800	1700_{5}	1600_{15}	1800_{5}	1700_{10}	1600_{15}	1600_{15}	1500_{15}	1400_{20}
	90	1900	1700_{5}	1400_{15}	1800	1600_{15}	1300_{20}	1700_{10}	1600_{15}	1300_{20}	1600_{15}	1400_{20}	1200_{25}
140x58	40	2200	2000	1900_{10}	2000_{5}	1900_{15}	1700_{20}	1900_{10}	1800_{15}	1700_{20}	1700_{20}	1600_{20}	1500_{25}
	90	2100	1800_{15}	1600_{25}	1900_{10}	1700_{20}	1400_{30}	1900_{15}	1700_{25}	1400_{30}	1700_{20}	1500_{25}	1300_{35}
150x58	40	2300	2200_{5}	2000_{20}	2100_{10}	2000_{20}	1800_{30}	2000_{15}	1900_{20}	1800_{30}	1900_{25}	1800_{30}	1600_{30}
	90	2200	2000_{20}	1700_{30}	2100_{15}	1800_{30}	1500_{35}	2000_{20}	1800_{30}	1500_{35}	1800_{30}	1600_{30}	1400_{40}
170x58	40	2600_{5}	2400_{15}	2300_{30}	2400_{20}	2200_{30}	2000_{40}	2300_{30}	2200_{35}	2000_{40}	2100_{40}	2000_{45}	1800_{45}
	90	2500_{10}	2200_{30}	1900_{45}	2300_{25}	2000_{40}	1700_{50}	2200_{30}	2000_{40}	1700_{50}	2000_{40}	1800_{45}	1500_{55}
190x58	40	3000_{15}	2700_{30}	2500_{40}	2700_{30}	2500_{40}	2300_{55}	2500_{40}	2400_{45}	2300_{55}	2300_{50}	2200_{55}	2000_{65}
	90	2800_{20}	2500_{45}	2100_{60}	2600_{35}	2200_{55}	1900_{70}	2500_{45}	2200_{55}	1900_{70}	2300_{55}	2000_{65}	1700_{85}
200x58	40	3100_{20}	2900_{35}	2600_{45}	2800_{40}	2600_{50}	2400_{60}	2700_{45}	2500_{50}	2400_{65}	2400_{55}	2300_{65}	2200_{80}
	90	3000_{25}	2600_{50}	2200_{75}	2700_{40}	2300_{60}	2000_{85}	2600_{50}	2300_{65}	2000_{85}	2400_{60}	2100_{80}	1800_{90}
240x58	40	3700_{40}	3400_{55}	3100_{80}	3300_{60}	3100_{85}	2800_{95}	3100_{75}	3000_{90}	2800_{95}	2900_{95}	2700_{100}	2600_{110}
	90	3600_{45}	3000_{85}	2600_{110}	3200_{70}	2800_{100}	2400_{115}	3000_{85}	2800_{100}	2400_{115}	2800_{95}	2500_{110}	2200_{120}

Single span floor bearer supporting double storey load bearing wall - sheet & tile roof (cont'd)

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended floor bearer supporting double loadbearing wall span (mm)											
		Single span											
300x58	40	3400	3200	3000	3200	3000	2800	3200	3000	2800	2900	2800	2700_{5}
	90	3300	2900	2600_{5}	3100	2800	2500_{10}	3100	2800	2500_{10}	2900	2600_{5}	2400_{15}
360x58	40	4000	3800	3600	3700	3600_{5}	3400_{10}	3700_{5}	3600_{10}	3400_{10}	3500_{10}	3400_{15}	3200_{20}
	90	3900	3500_{5}	3200_{15}	3600	3300_{15}	3000_{25}	3600_{5}	3300_{15}	3000_{25}	3400_{15}	3200_{20}	2900_{35}
400x58	40	4300	4100	3900_{10}	4000	3900_{10}	3700_{20}	4000_{10}	3900_{15}	3700_{20}	3800_{20}	3700_{25}	3500_{30}
	90	4200	3800_{10}	3500_{25}	3900_{5}	3700_{20}	3400_{35}	3900_{10}	3700_{20}	3400_{35}	3800_{20}	3500_{30}	3300_{45}
450x58	40	4700	4500_{5}	4200_{15}	4400_{5}	4200_{15}	4000_{30}	4400_{15}	4200_{20}	4000_{30}	4200_{25}	4000_{30}	3900_{40}
	90	4600	4200_{15}	3900_{35}	4300_{10}	4000_{30}	3800_{50}	4300_{20}	4000_{30}	3800_{50}	4100_{30}	3900_{40}	3600_{60}
300x75	40	3700	3500	3200	3400	3200	3000	3400	3200	3000	3200	3000	2900
	90	3600	3200	2900	3300	3000	2800	3300	3000	2800	3100	2900	2700_{5}
400x75	40	4600	4300	4100	4300	4100	3900_{5}	4300	4100	3900_{5}	4100_{5}	3900_{10}	3800_{15}
	90	4500	4100	3800_{10}	4200	3900_{5}	3700_{20}	4200	3900_{5}	3700_{20}	4000_{5}	3800_{15}	3600_{30}
525x75	40	5600	5300	5000_{10}	5300	5000_{10}	4800_{20}	5300_{10}	5000_{15}	4800_{20}	5000_{20}	4800_{25}	4600_{35}
	90	5500	5000_{10}	4600_{30}	5200_{5}	4800_{20}	4500_{40}	5200_{15}	4800_{20}	4500_{40}	4900_{25}	4600_{35}	4400_{50}

Continuous span floor bearer supporting double storey load bearing wall - sheet & tile roof

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended floor bearer supporting double loadbearing wall span (mm)											
		Continuous span											
2/120x42	40	2100	1900	1800	1900	1800	1700	1900	1800	1700	1800	1700	1600
	90	2000	1800	1600	1900	1700	1500_{5}	1900	1700	1500_{5}	1700	1600	1400_{10}
2/130x42	40	2300	2100	2000	2100	2000	1800	2100	2000	1800	1900	1800	1700_{5}
	90	2200	1900	1700	2000	1800	1700_{10}	2000	1800	1700_{10}	1900	1700_{5}	1600_{15}
2/140x42	40	2500	2300	2100	2200	2100	2000	2200	2100	2000_{5}	2100_{5}	2000_{5}	1900_{10}
	90	2400	2100	1900_{10}	2200	2000_{5}	1800_{15}	2200	2000_{5}	1800_{15}	2000_{5}	1900_{10}	1700_{20}
2/150x42	40	2600	2400	2300	2400	2300	2100_{10}	2400	2300_{5}	2100_{10}	2200_{10}	2100_{10}	2000_{15}
	90	2500	2200	2000_{15}	2300	2100_{10}	1900_{25}	2300	2100_{10}	1900_{25}	2200_{10}	2000_{20}	1800_{30}
2/170x42	40	3000	2800	2600_{10}	2700	2600_{10}	2400_{20}	2700_{10}	2600_{15}	2400_{20}	2500_{20}	2400_{25}	2300_{30}
	90	2900	2500_{10}	2300_{25}	2700_{5}	2400_{20}	2200_{35}	2700_{15}	2400_{20}	2200_{35}	2500_{20}	2300_{30}	2000_{40}
2/190x42	40	3400	3100_{5}	2900_{15}	3100_{10}	2900_{20}	2700_{30}	3100_{20}	2900_{25}	2700_{30}	2900_{30}	2700_{35}	2600_{40}
	90	3200	2800_{20}	2600_{40}	3000_{15}	2700_{30}	2500_{50}	3000_{25}	2700_{30}	2500_{50}	2800_{35}	2600_{45}	2300_{55}
2/200x42	40	3500	3300_{10}	3000_{20}	3200_{15}	3000_{25}	2900_{35}	3200_{25}	3000_{30}	2900_{35}	3000_{35}	2900_{40}	2700_{50}
	90	3400_{5}	3000_{25}	2700_{45}	3100_{20}	2800_{40}	2600_{60}	3100_{25}	2800_{40}	2600_{60}	2900_{40}	2700_{50}	2400_{70}
2/240x42	40	4100_{10}	3800_{25}	3600_{40}	3800_{30}	3600_{45}	3400_{60}	3800_{45}	3600_{50}	3400_{60}	3600_{60}	3400_{75}	3300_{90}
	90	3900_{15}	3600_{45}	3300_{85}	3700_{35}	3400_{60}	3100_{100}	3700_{45}	3400_{60}	3100_{100}	3500_{65}	3200_{90}	2900_{105}
2/300x42	40	4800_{25}	4500_{45}	4300_{70}	4500_{50}	4300_{75}	4100_{100}	4500_{75}	4300_{90}	4100_{100}	4300_{100}	4100_{110}	3900_{120}
	90	4700_{35}	4300_{80}	3900_{115}	4400_{60}	4100_{100}	3800_{135}	4400_{85}	4100_{100}	3800_{135}	4200_{100}	3900_{125}	3600_{145}
2/360x42	40	5500_{40}	5200_{65}	4900_{100}	5100_{85}	4900_{100}	4700_{125}	5100_{100}	4900_{110}	4700_{125}	4900_{120}	4700_{135}	4500_{150}
	90	5300_{55}	4900_{100}	4500_{140}	5000_{90}	4700_{130}	4400_{165}	5000_{105}	4700_{130}	4400_{165}	4800_{130}	4500_{155}	4300_{190}
2/400x42	40	6000_{55}	5600_{85}	5300_{115}	5600_{95}	5300_{115}	5100_{140}	5600_{115}	5300_{125}	5100_{140}	5300_{140}	5100_{150}	4900_{165}
	90	5800_{65}	5300_{115}	4900_{160}	5500_{105}	5100_{145}	4700_{185}	5500_{120}	5100_{145}	4700_{185}	5200_{145}	4900_{170}	4600_{210}

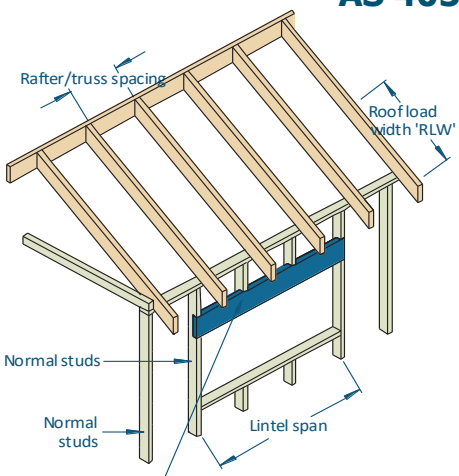
Continuous span floor bearer supporting double storey load bearing wall - sheet & tile roof (cont'd)

Lower floor load width (mm)		1800						3600					
Upper floor load width (mm)		1800			3600			1800			3600		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB	Roof mass (kg/m^2)	Maximum recommended floor bearer supporting double loadbearing wall span (mm)											
		Continuous span											
90x58	40	1400	1300	1200	1300	1200	1100	1300	1200	1100	1100	1100	1000
	90	1300	1200	1000	1200	1100	NS	1200	1100	NS	1100	1000	NS
120x58	40	1900	1700	1600	1700	1600	1500_{10}	1700	1600_{5}	1500_{10}	1500_{5}	1400_{10}	1300_{10}
	90	1800	1600	1300_{10}	1600	1400_{10}	1200_{15}	1600	1400_{10}	1200_{15}	1500_{10}	1300_{10}	1100_{20}
130x58	40	2000	1900	1700_{5}	1800	1700_{5}	1600_{15}	1800_{5}	1700_{10}	1600_{15}	1600_{15}	1500_{15}	1400_{20}
	90	1900	1700_{5}	1400_{15}	1800	1600_{15}	1300_{20}	1700_{10}	1600_{15}	1300_{20}	1600_{15}	1400_{20}	1200_{25}
140x58	40	2200	2000	1900_{10}	2000_{5}	1900_{15}	1700_{20}	1900_{10}	1800_{15}	1700_{20}	1700_{20}	1600_{20}	1500_{25}
	90	2100	1800_{15}	1600_{25}	1900_{10}	1700_{20}	1400_{30}	1900_{15}	1700_{25}	1400_{30}	1700_{20}	1500_{25}	1300_{35}
150x58	40	2300	2200_{5}	2000_{20}	2100_{10}	2000_{20}	1800_{30}	2000_{15}	1900_{20}	1800_{30}	1900_{25}	1800_{30}	1600_{30}
	90	2200	2000_{20}	1700_{30}	2100_{15}	1800_{30}	1500_{35}	2000_{20}	180030	1500_{35}	1800_{30}	1600_{30}	1400_{40}
170x58	40	2600_{5}	2400_{15}	2300_{30}	2400_{20}	2200_{30}	2000_{40}	2300_{30}	2200_{35}	2000_{40}	2100_{40}	2000_{45}	1800_{45}
	90	2500_{10}	2200_{30}	1900_{45}	2300_{25}	2000_{40}	1700_{50}	2200_{30}	2000_{40}	1700_{50}	2000_{40}	1800_{45}	1500_{55}
190x58	40	3000_{15}	2700_{30}	2500_{40}	2700_{30}	2500_{40}	2300_{55}	2500_{40}	2400_{45}	2300_{55}	2300_{50}	2200_{55}	2000_{65}
	90	2800_{20}	2500_{45}	2100_{60}	2600_{35}	2200_{55}	1900_{70}	2500_{45}	2200_{55}	1900_{70}	2300_{55}	2000_{65}	1700_{85}
200x58	40	3100_{20}	2900_{35}	2600_{45}	2800_{40}	2600_{50}	2400_{60}	2700_{45}	2500_{50}	2400_{65}	2400_{55}	2300_{65}	2200_{80}
	90	3000_{25}	2600_{50}	2200_{75}	2700_{40}	2300_{60}	2000_{85}	2600_{50}	2300_{65}	2000_{85}	2400_{60}	2100_{80}	1800_{90}
240x58	40	3700_{40}	3400_{55}	3100_{80}	3300_{60}	3100_{85}	2800_{95}	3100_{75}	3000_{90}	2800_{95}	2900_{95}	2700_{100}	2600_{110}
	90	3600_{45}	3000_{85}	2600_{110}	3200_{70}	2800_{100}	2400_{115}	3000_{85}	2800_{100}	2400_{115}	2800_{95}	2500_{110}	2200_{120}
300x58	40	4400_{65}	4100_{95}	3800_{115}	4100_{105}	3800_{120}	3400_{135}	3800_{110}	3600_{120}	3400_{135}	3500_{130}	3300_{140}	3200_{150}
	90	4300_{85}	3700_{120}	3200_{145}	3900_{110}	3400_{135}	3000_{160}	3700_{115}	3400_{135}	3000_{160}	3400_{135}	3100_{150}	2700_{170}
360x58	40	5000_{95}	4700_{120}	4500_{150}	4700_{130}	4500_{155}	4100_{175}	4500_{145}	4300_{155}	4100_{175}	4200_{165}	4000_{175}	3800_{190}
	90	4900_{105}	4400_{155}	3800_{185}	4600_{140}	4100_{180}	3600_{205}	4400_{150}	4000_{175}	3600_{205}	4100_{170}	3700_{190}	3300_{215}
400x58	40	5400_{105}	5100_{135}	4900_{170}	5100_{145}	4900_{175}	4600_{200}	5000_{165}	4700_{180}	4400_{195}	4600_{190}	4400_{200}	4100_{215}
	90	5300_{120}	4800_{175}	4200_{215}	5000_{160}	4500_{200}	3900_{230}	4800_{175}	4400_{195}	3900_{230}	4500_{195}	4100_{220}	3600_{240}
450x58	40	5900_{125}	5600_{155}	5300_{190}	5600_{165}	5300_{195}	5100_{230}	5500_{190}	5200_{205}	4900_{225}	5100_{220}	4800_{230}	4600_{245}
	90	5800_{140}	5300_{200}	4800_{250}	5400_{180}	5000_{235}	4400_{270}	5400_{200}	4900_{225}	4300_{260}	4900_{220}	4500_{250}	4000_{285}
300x75	40	4700_{35}	4400_{55}	4200_{90}	4400_{65}	4200_{90}	3900_{110}	4400_{90}	4100_{100}	3900_{110}	4000_{105}	3800_{115}	3600_{125}
	90	4500_{45}	4100_{90}	3700_{120}	4300_{85}	3900_{115}	3400_{135}	4200_{95}	3800_{110}	3400_{135}	3900_{110}	3600_{125}	3200_{145}
400x75	40	5800_{70}	5500_{100}	5200_{130}	5400_{110}	5200_{130}	5000_{160}	5400_{130}	5200_{145}	5000_{160}	5100_{155}	4900_{165}	4700_{180}
	90	5600_{85}	5100_{135}	4800_{180}	5300_{120}	4900_{165}	4500_{200}	5300_{135}	4900_{165}	4400_{195}	5100_{165}	4600_{185}	4200_{215}
525x75	40	7100_{110}	6700_{140}	6300_{175}	6600_{150}	6400_{180}	6100_{210}	6600_{175}	6400_{195}	6100_{210}	6300_{205}	6100_{225}	5900_{245}
	90	6900_{125}	6300_{180}	5800_{240}	6500_{165}	6000_{215}	5700_{270}	6500_{185}	6000_{215}	5700_{270}	6200_{215}	5800_{250}	5300_{290}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on total upper floor mass of 40 kg/m^2 , total ground floor mass of 30 kg/m^2, floor live load of 1.5 kPa, floor point load of 1.8 kN, wall mass of 37 kg/m^2, and permanent floor live load of 0.5 kPa.
3. The above table was based on a wall height of 5400 mm
4. End bearing lengths = 70 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 70 mm at end supports and 70 mm at internal supports.
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering

Single span lintels in single/upper storey walls
AS 4055 classification N1, N2 and N3



Single/Upper storey lintel

EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m^2
rafter/truss spacing = 600 mm
lintel span = 3500 mm
roof load width = 3900 mm
Enter span table at 4500 roof load width column, rafter/truss spacing 600 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLVL 1 5 - 300x42
(with additional bearing length of 5 mm required)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Lintel span (mm)									
		Single span									
120x42	40	2500	2600	2000	2000	1700	1700	1500	1400	1400	1200
	90	2000	2000	1500	1400	1300	1200	1100	1000	1000	NS
130x42	40	2700	2800	2200	2200	1900	1800	1600	1600	1500	1400_{5}
	90	2200	2200	1700	1600	1400	1300	1300	1100	1100_{10}	NS
140x42	40	3000	3000	2300	2400	2000	2000	1800	1800	1600	1500_{5}
	90	2300	2300	1800	1800	1500	1500	1400	1300_{5}	1300_{10}	NS
150x42	40	3100	3100	2500	2600	2100	2100	1900	1900	1700	1700_{5}
	90	2500	2600	2000	1900	1700	1600	1500_{5}	1400_{15}	1400_{10}	1200_{10}
170x42	40	3400	3400	2800	2800	2400	2400	2200	2100	2000_{5}	1900_{5}
	90	2800	2800	2200	2200	1900_{5}	1900	1700_{5}	1700_{10}	1500_{15}	1500_{30}
190x42	40	3700	3700	3100	3100	2700	2700	2400	2400_{10}	2200_{10}	2200_{10}
	90	3100	3100	2500	2500	2200_{5}	2100_{5}	1900_{15}	1900_{15}	1700_{15}	1700_{20}
200x42	40	3900	3900	3200	3200	2800	2900	2500	2600_{10}	2300_{10}	2300_{10}
	90	3200	3200	2600	2700	2300_{5}	2200_{5}	2100_{15}	2000_{15}	1900_{30}	1800_{25}
240x42	40	4400	4400	3700	3700	3300	3300	3000_{15}	3000_{10}	2800_{10}	2800_{25}
	90	3700	3700	3100	3100	2700_{5}	2800_{20}	2400_{20}	2400_{30}	2200_{35}	2200_{30}
300x42	40	5200	5200	4400	4400	3900_{5}	3900_{5}	3600_{20}	3600_{15}	3400_{25}	3300_{20}
	90	4400	4400	3700_{5}	3600	3300_{20}	3300_{15}	3000_{25}	3000_{35}	2800_{35}	2800_{60}
2/120x42	40	3100	3100	2500	2600	2200	2200	2000	1900	1700	1700
	90	2500	2600	2000	2000	1700	1600	1500	1400	1400	1200
2/130x42	40	3300	3300	2700	2700	2300	2400	2100	2100	1900	1900
	90	2700	2700	2100	2100	1900	1800	1600	1600	1500	1400
2/140x42	40	3500	3500	2900	2900	2500	2600	2200	2200	2100	2000
	90	2900	2900	2300	2300	2000	2000	1800	1800	1600	1600
2/150x42	40	3700	3700	3100	3100	2700	2700	2400	2400	2200	2200
	90	3100	3100	2400	2500	2100	2100	1900	1900	1800	1700
2/170x42	40	4000	4000	3400	3400	3000	3000	2700	2700	2500	2500
	90	3400	3300	2800	2800	2400	2400	2200	2200	2000	2000
2/190x42	40	4400	4400	3700	3700	3300	3300	3000	3000	2800	2800
	90	3700	3600	3100	3100	2700	2700	2400	2400	2200	2200
2/200x42	40	4500	4500	3800	3800	3400	3400	3100	3100	2900	2900
	90	3800	3800	3200	3200	2800	2900	2500	2600	2300	2300
2/240x42	40	5200	5200	4400	4400	3900	3900	3600	3600	3400	3300
	90	4400	4400	3700	3600	3300	3300	3100_{5}	3000	2800_{5}	2800_{10}
2/300x42	40	6100	6000	5200	5200	4600	4600	4300	4300	4000	4000
	90	5100	5200	4300	4300	3900	3900	3600_{10}	3600_{5}	3400_{10}	3400_{10}
2/360x42	40	6900	6900	5900	5900	5300	5300	4900	4900_{5}	4600_{5}	4600_{5}
	90	5900	5900	5000	5000	4500	4500	4100_{15}	4100_{15}	3900_{20}	3900_{15}
2/400x42	40	7400	7400	6300	6300	5700	5700	5300	5300_{5}	4900_{5}	4900_{15}
	90	6300	6300	5400	5400	4800	4800_{10}	4500_{10}	4500_{15}	4200_{25}	4200_{30}

Single span lintels in single/upper storey walls AS 4055 classification N1, N2 and N3 (Cont'd)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Lintel span (mm)									
		Single span									
120x58	40	2800	2800	2200	2200	1900	1900	1700	1600	1500	1400
	90	2200	2200	1700	1700	1500	1400	1300	1200	1200	1000
130x58	40	3000	3000	2400	2500	2100	2000	1900	1800	1700	1600
	90	2400	2400	1900	1900	1600	1500	1400	1300	1300	1200
140x58	40	3200	3200	2600	2600	2200	2200	2000	2000	1800	1800
	90	2600	2600	2100	2000	1800	1700	1500	1500	1400	1300
150x58	40	3400	3400	2800	2800	2400	2400	2100	2100	2000	1900
	90	2700	2800	2200	2200	1900	1900	1700	1600	1500	1400_{10}
170x58	40	3700	3700	3100	3100	2700	2700	2400	2400	2200	2200
	90	3100	3100	2400	2500	2100	2100	1900	1900	1700_{5}	1700_{5}
190x58	40	4000	4000	3400	3300	3000	3000	2700	2700	2400	2500_{5}
	90	3400	3300	2700	2800	2400	2400	2200_{5}	2100_{5}	2000_{10}	1900_{10}
200x58	40	4200	4200	3500	3500	3100	3100	2800	2800	2600	2600_{5}
	90	3500	3500	2900	2900	2500	2500	2300_{5}	2200_{5}	2100_{15}	2000_{10}
240x58	40	4800	4800	4000	4000	3600	3600	3300	3300	3100_{10}	3100_{5}
	90	4000	4000	3300	3300	3000	3000_{5}	2700_{5}	2800_{20}	2500_{15}	2500_{25}
300x58	40	5600	5600	4700	4700	4200	4200	3900_{5}	3900_{5}	3600_{15}	3600_{10}
	90	4700	4700	4000	4000	3600_{10}	3500_{5}	3300_{20}	3300_{15}	3100_{20}	3100_{30}
360x58	40	6400	6400	5400	5400	4900	4800_{5}	4500_{10}	4500_{10}	4200_{20}	4200_{25}
	90	5400	5400	4500	4500	4100_{10}	4100_{10}	3800_{25}	3800_{20}	3500_{30}	3500_{30}
400x58	40	6900	6900	5900	5800	5300_{5}	5300_{5}	4800_{10}	4800_{20}	4500_{20}	4500
	90	5800	5800	4900	4900_{5}	4400_{15}	4400_{20}	4100_{25}	4100_{20}	3800_{45}	3800_{35}
300x75	40	5900	5900	5000	5000	4500	4500	4100	4100	3900_{5}	3900_{5}
	90	5000	5000	4200	4200	3800	3800	3500_{5}	3500_{5}	3300_{20}	3300_{15}
400x75	40	7200	7200	6200	6200	5600	5600	5100_{5}	5100_{10}	4800_{5}	4800_{20}
	90	6200	6200	5200	5200	4700_{5}	4700_{5}	4400_{20}	4400_{20}	4100_{25}	4100_{20}
525x75	40	8700	8700	7500	7500	6800	6800_{5}	6300_{15}	6300_{10}	5900_{20}	5900_{25}
	90	7500	7500	6400_{5}	6400	5800_{15}	5800_{20}	5400_{35}	5400_{30}	5000_{30}	5000_{45}

Single span lintels in single/upper storey walls AS 4055 classification C1, C2 and C3

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Lintel span (mm)									
		Single span									
120x42	40	2400	2400	1700	1300	NS	NS	NS	NS	NS	NS
	90	2000	2000	1500	1300	NS	NS	NS	NS	NS	NS
130x42	40	2600	2600	1800_{5}	1500	1100_{10}	NS	NS	NS	NS	NS
	90	2200	2200	1700_{5}	1500_{10}	1100_{15}	NS	NS	NS	NS	NS
140x42	40	2800	2800	2000_{5}	1800_{5}	1200_{10}	NS	NS	NS	NS	NS
	90	2300	2300	1800_{10}	1800_{10}	1200_{15}	NS	NS	NS	NS	NS
150x42	40	3000	2900	2100_{5}	2000_{5}	1300_{5}	NS	NS	NS	NS	NS
	90	2500	2600	2000_{10}	1900_{10}	1300_{10}	NS	NS	NS	NS	NS
170x42	40	3400	3300	2300_{5}	2300_{10}	1900_{25}	1400_{10}	1200_{25}	NS	NS	NS
	90	2800	2800	2200_{10}	2200_{15}	1900_{35}	1400_{15}	1200_{35}	NS	NS	NS
190x42	40	3700	3700	2600_{10}	2600_{15}	2100_{30}	1600_{20}	1300_{25}	NS	1000_{15}	NS
	90	3100	3100	2500_{15}	2500_{25}	2100_{40}	1600_{30}	1300_{30}	NS	1000_{20}	NS
200x42	40	3900	3900	2700_{10}	2700_{20}	2200_{30}	1700_{20}	1400_{20}	1000_{15}	1200_{45}	NS
	90	3200	3200	2600_{15}	2700_{25}	2200_{40}	1700_{25}	1400_{30}	1100_{25}	1200_{55}	NS
240x42	40	4400	4400	3300_{20}	3200_{20}	2600_{25}	2600_{45}	2200_{50}	1700_{45}	1500_{35}	1100_{25}
	90	3700_{5}	3700	3100_{30}	3100_{25}	2600_{35}	2600_{55}	2200_{65}	1700_{55}	1500_{45}	1200_{35}
300x42	40	5200_{5}	5200_{10}	4100_{35}	4000_{25}	3300_{50}	3200_{45}	2600_{45}	2800_{70}	2500_{70}	1800_{65}
	90	4400_{5}	4400_{5}	3700_{40}	3600_{30}	3300_{65}	3200_{60}	2600_{55}	2700_{85}	2400_{90}	1800_{80}

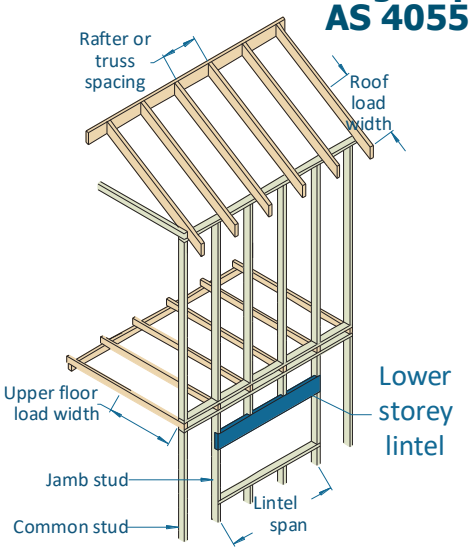
Single span lintels in single/upper storey walls AS 4055 classification C1, C2 and C3 (Cont'd)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/Truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Lintel span (mm)									
		Single span									
2/120x42	40	3100	3100	2500	2600	2100	2000	1800_{5}	1300	1100	NS
	90	2500	2600	2000	2000	1700	1600	1500	1300	1100_{5}	NS
2/130x42	40	3300	3300	2700	2700	2300	2200	2000_{10}	1500_{5}	1300	NS
	90	2700	2700	2100	2100	1900	1800	1600_{5}	1500_{10}	1500_{10}	NS
2/140x42	40	3500	3500	2900	2900	2400	2400_{5}	2100_{5}	2000_{10}	1900_{15}	1100
	90	2900	2900	2300	2300	2000_{5}	2000	1800_{10}	1800_{10}	1600_{10}	1100_{5}
2/150x42	40	3700	3700	3100	3100	2600	2600_{10}	2200_{5}	2200_{10}	2000_{20}	1400_{15}
	90	3100	3100	2400	2500	2100	2100_{5}	1900_{10}	1900_{10}	1800_{20}	1400_{20}
2/170x42	40	4000	4000	3400	3400	2900	2900_{5}	2500_{10}	2500_{20}	2200_{15}	1600_{10}
	90	3400	3300	2800	2800	2400	2400_{10}	2200_{15}	2200_{15}	2000_{30}	2000_{25}
2/190x42	40	4400	4400	3700	3700	3300_{5}	3200_{10}	2800_{10}	2800_{20}	2300_{15}	2500_{30}
	90	3700	3600	3100	3100	2700_{5}	2700_{15}	2400_{15}	2400_{25}	2200_{25}	2200_{25}
2/200x42	40	4500	4500	3800	3800	3400_{5}	3300_{10}	2900_{15}	2900_{20}	2600_{20}	2600_{30}
	90	3800	3800	3200	3200	2800_{5}	2900_{15}	2500_{15}	2600_{25}	2300_{25}	2300_{30}
2/240x42	40	5200	5200	4400	4400	3900_{15}	3900_{15}	3600_{30}	3400_{25}	3200_{35}	3100_{30}
	90	4400	4400	3700_{5}	3600	3300_{15}	3300_{15}	3100_{30}	3000_{25}	2800_{30}	2800_{45}
2/300x42	40	6100	6000	5200_{5}	5200_{10}	4600_{15}	4600_{20}	4300_{35}	4300_{40}	3900_{45}	3800_{40}
	90	5100	5200	4300_{5}	4300_{10}	3900_{25}	3900_{20}	3600_{40}	3600_{30}	3400_{45}	3400_{45}
2/360x42	40	6900	6900	5900_{10}	5900_{10}	5300_{30}	5300_{30}	4900_{35}	4900_{50}	4600_{50}	4600_{55}
	90	5900	5900	5000_{5}	5000_{15}	4500_{25}	4500_{30}	4100_{50}	4100_{55}	3900_{60}	3900_{50}
2/400x42	40	7400	7400	6300_{15}	6300_{15}	5700_{35}	5700_{35}	5300_{50}	5300_{55}	4900_{50}	4900_{75}
	90	6300	6300	5400_{20}	5400_{15}	4800_{25}	4800_{40}	4500_{45}	4500_{50}	4200_{70}	4200_{80}
120x58	40	2800	2800	2000	1900	1600	NS	NS	NS	NS	NS
	90	2200	2200	1700	1700	1500_{5}	NS	NS	NS	NS	NS
130x58	40	3000	3000	2100	2100	1700	1300	1100_{10}	NS	NS	NS
	90	2400	2400	1900	1900	1600_{5}	1400_{15}	1100_{15}	NS	NS	NS
140x58	40	3200	3200	2300	2300	1900_{10}	1500_{5}	1200_{5}	NS	NS	NS
	90	2600	2600	2100	2000	1800_{15}	1500_{10}	1200_{15}	NS	NS	NS
150x58	40	3400	3400	2400	2500_{5}	2000_{10}	1600_{5}	1300_{5}	NS	1000_{5}	NS
	90	2700	2800	2200	2200	1900_{15}	1900_{15}	1700_{20}	NS	1100_{10}	NS
170x58	40	3700	3700	2800	2800_{5}	2200_{10}	2200_{10}	2000_{20}	1400_{25}	1200_{15}	NS
	90	3100	3100	2400	2500_{10}	2100_{20}	2100_{20}	1900_{30}	1500_{30}	1300_{25}	NS
190x58	40	4000	4000	3100_{5}	3000_{5}	2500_{10}	2500_{20}	2100_{25}	1600_{20}	1600_{15}	1100_{15}
	90	3400	3300	2700_{5}	2800_{10}	2400_{15}	2400_{30}	2100_{35}	1700_{25}	1900_{45}	1200_{20}
200x58	40	4200	4200	3300_{5}	3200_{5}	2600_{10}	2600_{20}	2200_{25}	1800_{15}	2000_{35}	1400_{15}
	90	3500	3500	2900_{5}	2900_{10}	2500_{20}	2500_{30}	2200_{35}	2200_{35}	2000_{45}	1400_{25}
240x58	40	4800	4800	3900_{15}	3800_{10}	3200_{25}	3100_{20}	2700_{25}	2700_{40}	2400_{40}	1800_{30}
	90	4000	4000	3300_{10}	3300_{15}	3000_{25}	3000_{30}	2600_{35}	2700_{50}	2300_{55}	1800_{40}
300x58	40	5600	5600	4700_{15}	4700_{20}	3900_{35}	3800_{30}	3400_{45}	3200_{40}	3000_{45}	2900_{70}
	90	4700	4700	4000_{20}	4000_{15}	3600_{45}	3500_{35}	3300_{60}	3200_{55}	2900_{55}	2900_{90}
360x58	40	6400	6400	5400_{25}	5400_{35}	4600_{35}	4700_{40}	4000_{60}	3900_{50}	3600_{85}	3400_{60}
	90	5400	5400_{5}	4500_{20}	4500_{25}	4100_{45}	4100_{40}	3800_{75}	3800_{60}	3500_{80}	3400_{80}
400x58	40	6900	6900_{5}	5900_{30}	5800_{30}	5100_{60}	5100_{60}	4400_{70}	4400_{75}	4000_{85}	3800_{65}
	90	58005	5800_{5}	4900_{20}	4900_{40}	4400_{55}	4400_{60}	4100_{75}	4100_{65}	3800_{100}	3800_{80}
300x75	40	5900	5900	5000_{10}	5000_{15}	4400_{20}	4400_{25}	3900_{40}	3700_{30}	3500_{40}	3300_{40}
	90	5000	5000	4200_{10}	4200_{15}	3800_{30}	3800_{25}	3500_{35}	3500_{35}	3300_{60}	3200_{50}
400x75	40	7200	7200	6200_{20}	6200_{15}	5600_{40}	5600_{45}	5100_{45}	5100_{60}	4500_{65}	4500_{70}
	90	6200	6200	5200_{20}	5200_{20}	4700_{30}	4700_{35}	4400_{60}	4400_{65}	4100_{70}	4100_{60}
525x75	40	8700	8700	7500_{30}	7500_{35}	6800_{45}	6800_{65}	6300_{80}	6300_{65}	5800_{95}	5700_{100}
	90	7500_{5}	7500_{5}	6400_{30}	6400_{25}	5800_{55}	5800_{60}	5400_{85}	5400_{80}	5000_{75}	5000_{105}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.
3. Restraint value for slenderness calculations is 600 mm.
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering

Single span lintels in lower storey walls
AS 4055 classification N1, N2, N3 & C1



EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m^2
rafter/truss spacing = 600 mm
lintel span = 3500 mm
roof load width = 3900 mm
floor load width = 1200 mm
Enter span table at 4500 roof load width column, floor load width 1200 mm, and read down to a span equal to or greater than 3500 mm

ADOPT:

SmartLVL 15 - 2/300x42

Roof load width (mm)		1500			3000			4500			6000		
floor load width (mm)		1200	2400	3600	1200	2400	3600	1200	2400	3600	1200	2400	3600
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Lintel span (mm)											
		Single span											
120x42	40	1600	1400	1300	1400	1300	1200	1300	1200	1200	1300	1200	1100
	90	1400	1300	1200	1300	1200	1100	1200	1100	1000	1100	1000	1000
130x42	40	1700	1500	1400	1600	1400	1300	1500	1300	1300	1400	1300	1200
	90	1600	1400	1300	1400	1300	1200	1300	1200	1100	1200	1100	1100
140x42	40	1800	1600	1500	1700	1500	1400	1600	1500	1400	1500	1400	1300
	90	1700	1500	1400	1500	1400	1300	1400	1300	1200	1300	1200	1200_{5}
150x42	40	2000	1700	1600	1800	1700	1500	1700	1600	1500	1600	1500	1400
	90	1800	1600	1500	1600	1500	1400	1500	1400	1300_{5}	1400	1300	1300_{5}
170x42	40	2200	2000	1800_{5}	2100	1900	1700_{5}	1900	1800	1700_{5}	1800	1700	1600_{5}
	90	2100	1900	1700_{5}	1800	1700	1600_{5}	1700	1600_{5}	1500_{10}	1600_{5}	1500_{5}	1400_{10}
190x42	40	2500	2200	2000_{10}	2300	2100	1900_{10}	2200	2000	1900_{10}	2000	1900_{5}	1800_{10}
	90	2300	2100	1900_{10}	2100	1900_{5}	1800_{10}	1900	1800_{5}	1700_{15}	1700_{10}	1700_{10}	1600_{15}
200x42	40	2600	2300	2100_{10}	2400	2200	2000_{10}	2300	2100_{5}	2000_{10}	2100	2000_{5}	1900_{15}
	90	2400	2200	2000_{10}	2200	2000_{5}	1900_{15}	2000_{5}	1900_{10}	1800_{15}	1800_{10}	1800_{15}	1700_{20}
240x42	40	3100	2800_{5}	2600_{20}	2900	2700_{10}	2500_{20}	2700	2500_{10}	2400_{20}	2600_{5}	2400_{15}	2300_{25}
	90	2900	2700_{10}	2500_{20}	2600_{5}	2400_{10}	2300_{20}	2400_{10}	2300_{15}	2100_{25}	2200_{20}	2100_{25}	2000_{30}
300x42	40	3700	3400_{15}	3200_{30}	3500_{5}	3200_{20}	3100_{30}	3300_{10}	3100_{20}	3000_{35}	3200_{15}	3000_{25}	2800_{35}
	90	3500_{5}	3200_{20}	3100_{30}	3200_{15}	3000_{25}	2900_{35}	3000_{25}	2800_{30}	2700_{40}	2800_{35}	2700_{40}	2500_{45}
2/120x42	40	2000	1800	1600	1800	1700	1500	1700	1600	1500	1600	1500	1400
	90	1800	1700	1500	1600	1500	1400	1500	1400	1300	1400	1300	1300
2/130x42	40	2100	1900	1700	2000	1800	1700	1900	1700	1600	1700	1600	1500
	90	2000	1800	1700	1800	1600	1500	1600	1500	1400	1500	1400	1400
2/140x42	40	2300	2100	1900	2100	1900	1800	2000	1800	1700	1900	1800	1700
	90	2100	1900	1800	1900	1800	1700	1700	1600	1600	1600	1500	1500
2/150x42	40	2500	2200	2000	2300	2100	1900	2100	2000	1800	2000	1900	1800
	90	2300	2100	1900	2000	1900	1800	1900	1800	1700	1700	1700	1600
2/170x42	40	2800	2500	2300	2600	2400	2200	2400	2200	2100	2300	2100	2000
	90	2600	2400	2200	2300	2200	2000	2100	2000	1900	2000	1900	1800
2/190x42	40	3100	2800	2600	2900	2700	2500	2700	2500	2400	2600	2400	2300
	90	2900	2700	2500	2600	2400	2300	2400	2200	2100	2200	2100	2000
2/200x42	40	3200	3000	2700	3000	2800	2600	2900	2700	2500	2700	2500	2400
	90	3000	2800	2600	2700	2600	2400	2500	2400	2300	2300	2200	2100
2/240x42	40	3700	3400	3200	3500	3300	3100	3300	3100	3000	3200	3000	2900_{5}
	90	3500	3200	3100	3200	3000	2900	3000	2800	2700_{5}	2800	2700_{5}	2600_{5}
2/300x42	40	4400	4000	3700_{5}	4100	3800	3600_{5}	3900	3700	3500_{10}	3700	3600	3400_{10}
	90	4100	3800	3600_{5}	3800	3600	3400_{10}	3500	3400_{5}	3300_{10}	3400_{5}	3200_{10}	3100_{15}
2/360x42	40	5000	4600	4300_{10}	4700	4400	4200_{10}	4500	4200_{5}	4000_{15}	4300	4100_{5}	3900_{15}
	90	4700	4400	4200_{10}	4300	4100_{5}	3900_{15}	4100_{5}	3900_{10}	3800_{20}	3800_{15}	3700_{15}	3600_{20}
2/400x42	40	5400	5000_{5}	4700_{15}	5100	4800_{5}	4500_{15}	4900	4600_{5}	4400_{15}	4600_{5}	4400_{10}	4200_{20}
	90	5100	4800_{5}	4500_{15}	4700	4500_{10}	4300_{20}	4400_{10}	4200_{15}	4100_{25}	4200_{15}	4000_{20}	3900_{25}

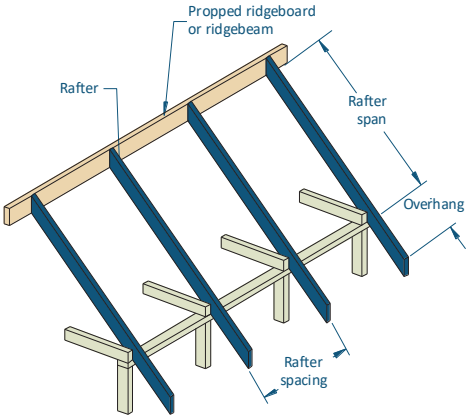
Single span lintels in lower storey walls
AS 4055 classification N1, N2, N3 & C1 (Cont'd)

Roof load width (mm)		1500			3000			4500			6000		
floor load width (mm)		1200	2400	3600	1200	2400	3600	1200	2400	3600	1200	2400	3600
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Lintel span (mm)											
		Single span											
120x58	40	1700	1600	1400	1600	1500	1400	1500	1400	1300	1400	1300	1200
	90	1600	1500	1400	1400	1300	1300	1300	1200	1200	1200	1200	1100
130x58	40	1900	1700	1500	1800	1600	1500	1600	1500	1400	1500	1400	1300
	90	1700	1600	1500	1600	1400	1400	1400	1300	1300	1300	1300	1200
140x58	40	2000	1800	1700	1900	1700	1600	1800	1600	1500	1700	1500	1500
	90	1900	1700	1600	1700	1600	1500	1500	1500	1400	1400	1400	1300
150x58	40	2200	1900	1800	2000	1800	1700	1900	1700	1600	1800	1700	1600
	90	2000	1800	1700	1800	1700	1600	1600	1600	1500	1500	1500	1400
170x58	40	2500	2200	2000	2300	2100	1900	2100	2000	1900	2000	1900	1800
	90	2300	2100	1900	2000	1900	1800	1900	1800	1700	1700	1700	1600_{5}
190x58	40	2800	2500	2300	2600	2300	2200	2400	2200	2100	2300	2100	2000_{5}
	90	2600	2300	2200	2300	2100	2000	2100	2000	1900_{5}	1900	1900_{5}	1800_{5}
200x58	40	2900	2600	2400	2700	2500	2300	2500	2300	2200_{5}	2400	2200	2100_{5}
	90	2700	2500	2300	2400	2300	2100_{5}	2200	2100	2000_{5}	2000	2000_{5}	1900_{10}
240x58	40	3400	3100	2900_{10}	3200	3000	2700_{10}	3000	2800	2600_{10}	2900	2700_{5}	2500_{10}
	90	3200	3000	2700_{10}	2900	2700_{5}	2600_{10}	2700_{5}	2500_{10}	2400_{15}	2500_{10}	2400_{15}	2300_{15}
300x58	40	4000	3700_{5}	3400_{15}	3800	3500_{5}	3300_{20}	3600	3400_{10}	3200_{20}	3400_{5}	3300_{10}	3100_{25}
	90	3800	3500_{5}	3300_{20}	3500_{5}	3300_{10}	3100_{20}	3200_{10}	3100_{15}	3000_{25}	3100_{20}	3000_{25}	2800_{30}
360x58	40	4600	4200_{10}	3900_{25}	4300	4000_{15}	3800_{25}	4100_{5}	3900_{15}	3700_{30}	3900_{10}	3700_{20}	3600_{30}
	90	4300	4000_{15}	3800_{25}	4000_{10}	3800_{20}	3600_{30}	3700_{15}	3600_{25}	3400_{35}	3500_{25}	3400_{30}	3300_{40}
400x58	40	4900	4500_{15}	4200_{30}	4700_{5}	4400_{15}	4100_{30}	4400_{10}	4200_{20}	4000_{35}	4200_{15}	4000_{25}	3900_{35}
	90	4700_{5}	4400_{15}	4100_{30}	4300_{10}	4100_{20}	3900_{35}	4000_{20}	3900_{30}	3700_{40}	3800_{30}	3700_{40}	3600_{45}
300x75	40	4200	3900	3600_{10}	4000	3700	3500_{10}	3800	3600	3400_{10}	3600	3500_{5}	3300_{15}
	90	4000	3700	3500_{10}	3700	35005	3300_{15}	3400_{5}	3300_{10}	3200_{15}	3300_{10}	3200_{15}	3100_{20}
400x75	40	5200	4800_{5}	4500_{20}	5000	4600_{10}	4400_{20}	4700	4500_{10}	4200_{20}	4500_{5}	4300_{15}	4100_{25}
	90	5000	4600_{10}	4400_{20}	4600_{5}	4300_{15}	4200_{25}	4300_{10}	4100_{20}	4000_{30}	4100_{20}	3900_{25}	3800_{30}
525x75	40	6400	5900_{15}	5500_{30}	6100_{5}	5700_{20}	5400_{30}	5800_{10}	5500_{20}	5200_{35}	5500_{15}	5300_{25}	5100_{35}
	90	6100_{5}	5700_{20}	5400_{30}	5600_{15}	5300_{25}	5100_{35}	5200_{25}	5000_{30}	4900_{40}	5000_{35}	4800_{40}	4700_{45}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.
3. Restraint value for slenderness calculations is 600 mm.
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering

Single/continuous span roof rafter - with ceiling attached
AS 4055 classification N1, N2 and N3



Maximum Birdsmouth = 30% of rafter depth

EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m^2
rafter/truss spacing = 600 mm
rafter span = 5800 mm (single span)
Enter span table at rafter spacing of 600 mm, and read down to a span equal to or greater than 5800 mm for the 40 kg/m^2 row

ADOPT:

SmartLVL 15 - 200x42

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size D x B (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
90x42	30	2500	1000	2400	900	2400	850	2300	750	3100	1000	3100	900	3100	850	3100	750
	40	2500	1000	2400	900	2300	850	2100	800	3100	1000	3100	900	3100	850	2900	800
	75	2400	1000	2200	900	1900	800	1700	750	3100	1000	3000	900	2600	800	2400	750
	90	2300	1000	2100	900	1800	800	1600	750	3100	1000	2800	900	2500	800	2200	750
120x42	30	3800	1300	3700	1200	3400	1100	3100	950	4700	1300	4700	1200	4600	1100	4200	950
	40	3800	1300	3500	1200	3100	1100	2800	1000	4700	1300	4700	1200	4200	1100	3900	1000
	75	3200	1300	2900	1200	2600	1100	2300	1050	4300	1300	4000	1200	3500	1100	3200	1050
	90	3000	1300	2700	1200	2400	1100	2200	1050	4100	1300	3700	1200	3300	1100	3000	1050
130x42	30	4200	1400	4100	1300	3700	1200	3400	1000	5300	1400	5300	1300	5000	1200	4600	1000
	40	4100	1400	3800	1300	3400	1200	3100	1050	5300	1400	5200	1300	4600	1200	4200	1050
	75	3400	1400	3100	1300	2800	1200	2500	1150	4700	1400	4300	1300	3800	1200	3400	1150
	90	3300	1400	3000	1300	2600	1200	2400	1150	4400	1400	4100	1300	3600	1200	3200	1150
140x42	30	4700	1500	4500	1400	4000	1250	3600	1050	6000	1500	6000	1400	5400	1250	4900	1050
	40	4500	1500	4100	1400	3600	1300	3300	1100	6000	1500	5600	1400	4900	1300	4500	1100
	75	3700	1500	3400	1400	3000	1300	2700	1250	5000	1500	4600	1400	4100	1300	3700	1250
	90	3500	1500	3200	1400	2800	1300	2600	1250	4800	1500	4400	1400	3800	1300	3500	1250
150x42	30	5100	1600	4800	1500	4200	1300	3900	1150	6600	1600	6300	1500	5800	1300	5300	1150
	40	4800	1600	4400	1500	3900	1350	3600	1150	6300	1600	6000	1500	5300	1350	4800	1150
	75	4000	1600	3600	1500	3200	1400	2900	1350	5400	1600	4900	1500	4300	1400	4000	1350
	90	3700	1600	3400	1500	3000	1400	2700	1350	5100	1600	4700	1500	4100	1400	3700	1350
170x42	30	5800	1800	5300	1700	4800	1450	4400	1250	7300	1800	6900	1700	6400	1450	6000	1250
	40	5300	1800	4900	1700	4400	1500	4000	1300	6900	1800	6500	1700	6000	1500	5500	1300
	75	4500	1800	4100	1700	3600	1550	3300	1500	6100	1800	5600	1700	4900	1550	4500	1500
	90	4200	1800	3900	1700	3400	1550	3100	1500	5800	1800	5300	1700	4600	1550	4200	1500
190x42	30	6300	2000	5900	1900	5300	1600	4900	1350	7900	2000	7500	1900	6900	1600	6500	1350
	40	5900	2000	5500	1900	4900	1650	4500	1400	7500	2000	7000	1900	6500	1650	6100	1400
	75	5000	2000	4600	1900	4000	1750	3700	1650	6600	2000	6100	1900	5500	1750	5000	1650
	90	4700	2000	4300	1900	3800	1750	3500	1650	6300	2000	5900	1900	5200	1750	4700	1650
200x42	30	6500	2100	6200	1950	5600	1650	5100	1400	8200	2100	7700	1950	7100	1650	6700	1400
	40	6200	2100	5800	1950	5100	1750	4700	1500	7800	2100	7300	1950	6700	1750	6300	1500
	75	5200	2100	4800	1950	4200	1850	3900	1750	6800	2100	6400	1950	5800	1850	5300	1750
	90	5000	2100	4500	1950	4000	1850	3700	1750	6500	2100	6100	1950	5500	1850	5000	1750
240x42	30	7300	2500	7000	2350	6500	1950	6100	1650	9300	2500	8800	2350	8100	1950	7600	1650
	40	7000	2500	6600	2350	6100	2000	5600	1700	8800	2500	8300	2350	7700	2000	7200	1700
	75	6200	2500	5700	2350	5100	2200	4600	2000	7800	2500	7300	2350	6700	2200	6200	2000
	90	5900	2500	5400	2350	4800	2200	4400	2050	7400	2500	7000	2350	6400	2200	6000	2050
300x42	30	8500	3150	8100	2950	7500	2350	7100	2000	10700	3150	10200	2950	9500	2350	8900	2000
	40	8100	3150	7700	2950	7100	2450	6700	2050	10200	3150	9700	2950	9000	2450	8400	2050
	75	7200	3150	6800	2950	6200	2700	5800	2400	9100	3150	8500	2950	7800	2700	7300	2400
	90	6900	3100	6500	2900	6000	2600	5500	2450	8800	3100	8200	2900	7500	2600	7000	2450

Single/continuous span roof rafter - with ceiling attached
AS 4055 classification N1, N2 and N3 (Cont'd)

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size D x B (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
90x58	30	2900	1100	2900	1000	2800	950	2600	900	3600	1100	3600	1000	3600	950	3500	900
	40	2900	1100	2900	1000	2600	950	2400	900	3600	1100	3600	1000	3500	950	3200	900
	75	2600	1100	2400	1000	2100	950	1900	900	3600	1100	3300	1000	2900	950	2600	900
	90	2500	1100	2300	1000	2000	950	1800	900	3400	1100	3100	1000	2700	950	2500	900
130x58	30	4900	1550	4500	1450	4100	1350	3700	1200	6300	1550	6100	1450	5500	1350	5100	1200
	40	4500	1550	4200	1450	3700	1350	3400	1250	6100	1550	5700	1450	5100	1350	4600	1250
	75	3800	1550	3500	1450	3100	1350	2800	1300	5200	1550	4700	1450	4200	1350	3800	1300
	90	3600	1550	3300	1450	2900	1350	2600	1300	4900	1550	4500	1450	3900	1350	3600	1300
150x58	30	5600	1750	5200	1650	4600	1550	4300	1350	7100	1750	6700	1650	6200	1550	5800	1350
	40	5200	1750	4800	1650	4300	1550	3900	1400	6800	1750	6400	1650	5800	1550	5300	1400
	75	4400	1750	4000	1650	3500	1550	3200	1500	5900	1750	5400	1650	4800	1550	4400	1500
	90	4100	1750	3800	1650	3300	1550	3000	1500	5600	1750	5200	1650	4500	1550	4100	1500
170x58	30	6200	2000	5800	1850	5200	1750	4800	1500	7800	2000	7400	1850	6800	1750	6400	1500
	40	5800	2000	5400	1850	4800	1750	4400	1550	7400	2000	7000	1850	6400	1750	6000	1550
	75	4900	2000	4500	1850	4000	1750	3700	1650	6500	2000	6100	1850	5400	1750	5000	1650
	90	4700	2000	4300	1850	3800	1750	3400	1650	6200	2000	5800	1850	5100	1750	4700	1650
200x58	30	6900	2350	6500	2200	6100	2000	5600	1700	8600	2350	8200	2200	7600	2000	7200	1700
	40	6500	2350	6200	2200	5600	2050	5200	1750	8200	2350	7800	2200	7200	2050	6800	1750
	75	5700	2350	5300	2200	4700	2050	4300	1950	7300	2350	6800	2200	6300	2050	5800	1950
	90	5400	2350	5000	2200	4400	2050	4100	1950	7000	2350	6600	2200	6000	2050	5500	1950
240x58	30	7800	2800	7400	2650	6900	2350	6500	2000	9800	2800	9300	2650	8600	2350	8200	2000
	40	7400	2800	7000	2600	6500	2450	6100	2050	9300	2800	8800	2600	8200	2450	7700	2050
	75	6600	2800	6200	2600	5600	2450	5100	2350	8300	2800	7800	2600	7200	2450	6700	2350
	90	6300	2800	6000	2650	5300	2400	4900	2250	8000	2800	7500	2650	6900	2400	6400	2250
300x58	30	9000	3500	8600	3250	8000	2800	7600	2400	11200	3500	10800	3250	10100	2800	9500	2400
	40	8600	3500	8200	3250	7600	2950	7200	2500	10800	3500	10300	3250	9600	2950	9000	2500
	75	7700	3450	7300	3250	6700	2950	6300	2750	9700	3450	9100	3250	8400	2950	7900	2750
	90	7400	3350	7000	3100	6400	2850	6000	2650	9400	3350	8800	3100	8100	2850	7600	2650
360x58	30	10000	4200	9600	3900	9000	3300	8600	2800	12000	4200	12000	3900	11400	3300	10800	2800
	40	9700	4200	9200	3900	8600	3450	8100	2900	12000	4200	11600	3900	10800	3450	10200	2900
	75	8700	3900	8200	3700	7600	3350	7100	3150	11000	3900	10400	3700	9600	3350	9000	3150
	90	8400	3800	8000	3550	7300	3250	6900	3000	10600	3800	10000	3550	9200	3250	8600	3000
400x58	30	10700	4650	10300	4350	9700	3600	9200	3050	12000	4650	12000	4350	12000	3600	11600	3050
	40	10300	4650	9900	4350	9200	3750	8800	3150	12000	4650	12000	4350	11600	3750	11000	3150
	75	9400	4200	8900	3950	8200	3650	7700	3400	11800	4200	11200	3950	10300	3650	9700	3400
	90	9000	4050	8600	3850	7900	3500	7400	3250	11400	4050	10800	3850	9900	3500	9300	3250
450x58	30	11500	5150	11100	4900	10500	4000	10000	3350	12000	5150	12000	4900	12000	4000	12000	3350
	40	11100	5000	10700	4750	10000	4200	9500	3500	12000	5000	12000	4750	12000	4200	12000	3500
	75	10200	4550	9600	4300	8900	3950	8400	3700	12000	4550	12000	4300	11200	3950	10500	3700
	90	9800	4400	9300	4150	8600	3800	8100	3550	12000	4400	11700	4150	10800	3800	10100_5	3550

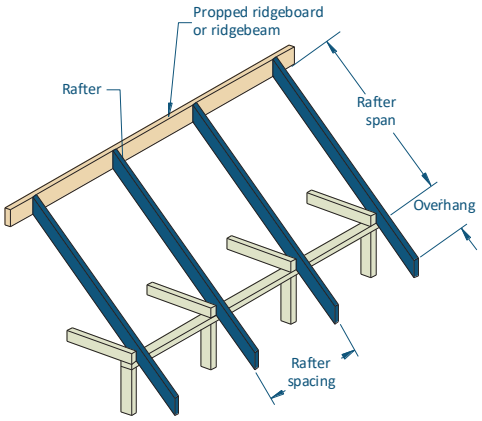
Single/continuous span roof rafter - with ceiling attached AS 4055 classification N1, N2 and N3 (Cont'd)

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size D x B (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
300x75	30	9150	2675	8800	2675	8100	2175	7550	1850	11500	2675	11050	2675	9800	2175	8350	1850
	40	8800	2675	8400	2675	7850	2225	7450	1875	11050	2675	10600	2675	9850	2225	8450_{5}	1875
	75	7950	2600	7500	2475	6950	2250	6500	2025	10000	2675	9450	2675	8700	2400	8200_{10}	2025
	90	7650	2500	7250	2350	6650	2150	6250	2050	9650	2675	9100	2675	8400	2475	7850_{5}	2100
400x75	30	10950	3550	10550	3475	10000	2775	9400	2325	12000	3550	12000	3525	12000_{5}	2775	10700_{20}	2325
	40	10550	3475	10150	3300	9550	2825	9050	2375	12000	3550	12000	3550	12000_{10}	2825	10800_{20}	2375
	75	9650	3175	9150	3000	8500	2800	8000	2575	12000	3550	11500	3500	10650_{5}	3050	10050_{25}	2575
	90	9350	3075	8850	2900	8200	2700	7700	2500	11750	3550	11150	3375	10300_{5}	3125	9700_{25}	2675
525x75	30	12000	3950	12000	3950	11900	3500	11400	2925	12000	3950	12000	3950	12000_{5}	3500	12000_{30}	2925
	40	12000	3950	12000	3950	11400	3575	10900	3000	12000	3950	12000	3950	12000_{10}	3575	12000_{30}	3000
	75	11500	3750	11000	3625	10250	3375	9700	3200	12000	3950	12000	3950	12000_{15}	3850	12000_{40}	3225
	90	11200	3650	10650	3500	9900	3250	9350	3075	12000	3950	12000	3950	12000_{20}	3775	11750_{45}	3350

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 42 mm at internal supports for continuous members. Subscript values Indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 42 mm at Internal supports
5. Construction loads shall not be applied to overhangs until a 190x19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. Rafter spacing up to 1200 mm
7. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Single/continuous span roof rafter - with ceiling attached
AS 4055 classification C1, C2 and C3



Maximum Birdsmouth = 30% of rafter depth

EXAMPLE:

wind speed = C3
tile roof - 75 kg/m^2
rafter/truss spacing = 600 mm
rafter span = 5800 mm
Enter span table at rafter spacing of 600 mm, and read down to a span equal to or greater than 5800 mm for the 75 kg/m^2 row

ADOPT:

SmartLVL 15 - 300x42

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size D x B	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
90x42	30	2500	600	2400	550	2400	400	2200	350	3100	600	3100	550	2700	400	2200	350
	40	2500	650	2400	550	2300	400	2100	350	3100	650	3100	550	2700	400	2200	350
	75	2400	650	2200	550	1900	450	1700	350	3100	650	3000	550	2600	450	2300	350
	90	2300	650	2100	550	1800	450	1600	400	3100	650	2800	550	2500	450	2200	400
120x42	30	3800	800	3700	650	3200	550	2900	450	4700	800	4400	650	3500	550	2900	450
	40	3800	800	3500	650	3100	550	2800	450	4700	800	4500	650	3600	550	3000	450
	75	3200	800	2900	700	2600	550	2300	450	4300	800	4000	700	3500	550	3100	450
	90	3000	850	2700	700	2400	550	2200	500	4100	850	3700	700	3300	550	3000	500
130x42	30	4200	850	4000	700	3500	550	3200	500	5300	850	4800	700	3800	550	3200	500
	40	4100	850	3800	700	3400	550	3100	500	5300	850	4800	700	3800	550	3200	500
	75	3400	900	3100	750	2800	600	2500	500	4700	900	4300	750	3800	600	3300	500
	90	3300	900	3000	750	2600	600	2400	500	4400	900	4100	750	3600	600	3200	500
140x42	30	4700	900	4300	750	3800	600	3400	500	6000	900	5100	750	4100	600	3400	500
	40	4500	900	4100	750	3600	600	3300	500	6000	900	5200	750	4100	600	3500	500
	75	3700	950	3400	800	3000	650	2700	550	5000	950	4600	800	4100	650	3600	550
	90	3500	950	3200	800	2800	650	2600	550	4800	950	4400	800	3800	650	3500	550
150x42	30	5100	950	4700	800	4100	650	3700	550	6400	950	5500	800	4400	650	3700	550
	40	4800	950	4400	800	3900	650	3600	550	6300	950	5500	800	4400	650	3700	550
	75	4000	1000	3600	850	3200	650	2900	550	5400	1000	4900	850	4300	650	3800	550
	90	3700	1000	3400	850	3000	700	2700	550	5100	1000	4700	850	4100	700	3700	550
170x42	30	5800	1050	5300	900	4600	700	4100	600	7200	1050	6100	900	4900	700	4100	600
	40	5300	1050	4900	900	4400	700	4000	600	6900	1050	6200	900	5000	700	4200	600
	75	4500	1100	4100	950	3600	750	3300	600	6100	1100	5600	950	4900	750	4300	600
	90	4200	1100	3900	950	3400	750	3100	650	5800	1100	5300	950	4600	750	4200	650
190x42	30	6300	1150	5900	950	5200	750	4600	650	7900	1150	6800	950	5500	750	4600	650
	40	5900	1150	5500	1000	4900	750	4500	650	7500	1150	6900	1000	5500	750	4700	650
	75	5000	1200	4600	1000	4000	800	3700	700	6600	1200	6100	1000	5500	800	4800	700
	90	4700	1200	4300	1000	3800	800	3500	700	6300	1200	5900	1000	5200	800	4700	700
200x42	30	6500	1200	6200	1000	5400	800	4800	650	8200	1200	7100	1000	5700	800	4800	650
	40	6200	1200	5800	1000	5100	800	4700	700	7800	1200	7200	1000	5800	800	4900	700
	75	5200	1250	4800	1050	4200	850	3900	700	6800	1250	6400	1050	5800	850	5100	700
	90	5000	1250	4500	1050	4000	850	3700	700	6500	1250	6100	1050	5500	850	5000	700
240x42	30	7300	1350	7000	1150	6400	900	5800	750	9200	1350	8400	1150	6800	900	5800	750
	40	7000	1400	6600	1150	6100	950	5600	800	8800	1400	8300	1150	6900	950	5800	800
	75	6200	1450	5700	1200	5100	950	4600	800	7800	1450	7300	1200	6700	950	6000_{10}	800
	90	5900	1450	5400	1250	4800	1000	4400	850	7400	1450	7000	1250	6400	1000	6000_{15}	850
300x42	30	8500	1650	8100	1400	7500	1100	7100	950	10700	1650	10200	1400	8400_{5}	1100	7100_{10}	950
	40	8100	1650	7700	1400	7100	1100	6700	950	10200	1650	9700	1400	8400_{5}	1100	7200_{15}	950
	75	7200	1750	6800	1450	6200	1150	5800	1000	9100	1750	8500	1450	7800_{10}	1150	7300_{25}	1000
	90	6900	1750	6500	1500	6000	1150	5500	1000	8800	1750	8200	1500	7500_{10}	1150	7000_{25}	1000

Single/continuous span roof rafter - with ceiling attached
AS 4055 classification C1, C2 and C3 (cont'd)

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size D x B (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
90x58	30	2900	750	2900	650	2700	500	2400	450	3600	750	3600	650	3200	500	2600	450
	40	2900	750	2900	650	2600	500	2400	450	3600	750	3600	650	3200	500	2700	450
	75	2600	800	2400	650	2100	550	1900	450	3600	800	3300	650	2900	550	2600	450
	90	2500	800	2300	650	2000	550	1800	450	3400	800	3100	650	2700	550	2500	450
130x58	30	4900	1000	4500	850	3900	700	3600	550	6300	1000	5700	850	4500	700	3800	550
	40	4500	1000	4200	850	3700	700	3400	600	6100	1000	5700	850	4600	700	3800	600
	75	3800	1050	3500	900	3100	700	2800	600	5200	1050	4700	900	4200	700	3800	600
	90	3600	1050	3300	900	2900	700	2600	600	4900	1050	4500	900	3900	700	3600	600
150x58	30	5600	1100	5200	950	4500	750	4100	650	7100	1100	6500	950	5200	750	4400	650
	40	5200	1150	4800	950	4300	750	3900	650	6800	1150	6400	950	5200	750	4400	650
	75	4400	1150	4000	1000	3500	800	3200	700	5900	1150	5400	1000	4800	800	4400	700
	90	4100	1200	3800	1000	3300	800	3000	700	5600	1200	5200	1000	4500	800	4100	700
170x58	30	6200	1250	5800	1050	5100	850	4700	700	7800	1250	7300	1050	5800	850	4900	700
	40	5800	1250	5400	1050	4800	850	4400	700	7400	1250	7000	1050	5900	850	5000	700
	75	4900	1300	4500	1100	4000	900	3700	750	6500	1300	6100	1100	5400	900	5000	750
	90	4700	1300	4300	1100	3800	900	3400	750	6200	1300	5800	1100	5100	900	4700	750
200x58	30	6900	1400	6500	1200	6000	950	5500	800	8600	1400	8200	1200	6800	950	5800	800
	40	6500	1450	6200	1200	5600	950	5200	800	8200	1450	7800	1200	6800	950	5800	800
	75	5700	1500	5300	1250	4700	1000	4300	850	7300	1500	6800	1250	6300	1000	5800	850
	90	5400	1500	5000	1300	4400	1000	4100	850	7000	1500	6600	1300	6000	1000	5500	850
240x58	30	7800	1650	7400	1400	6900	1100	6500	950	9800	1650	9300	1400	8000	1100	6800	950
	40	7400	1650	7000	1400	6500	1100	6100	950	9300	1650	8800	1400	8100	1100	6900	950
	75	6600	1750	6200	1450	5600	1150	5100	1000	8300	1750	7800	1450	7200	1150	6700	1000
	90	6300	1750	6000	1500	5300	1200	4900	1000	8000	1750	7500	1500	6900	1200	6400	1000
300x58	30	9000	2000	8600	1700	8000	1300	7600	1100	11200	2000	10800	1700	9900	1300	8400_{5}	1100
	40	8600	2000	8200	1700	7600	1350	7200	1150	10800	2000	10300	1700	9600	1350	8500_{5}	1150
	75	7700	2100	7300	1750	6700	1400	6300	1150	9700	2100	9100	1750	8400	1400	7900_{10}	1150
	90	7400	2100	7000	1800	6400	1400	6000	1200	9400	2100	8800	1800	8100	1400	7600_{10}	1200
360x58	30	10000	2300	9600	1950	9000	1550	8600	1300	12000	2300	12000	1950	11400_{5}	1550	9900_{15}	1300
	40	9700	2350	9200	2000	8600	1550	8100	1300	12000	2350	11600	2000	10800_{5}	1550	10000_{15}	1300
	75	8700	2450	8200	2050	7600	1600	7100	1350	11000	2450	10400	2050	9600_{5}	1600	9000_{20}	1350
	90	8400	2450	8000	2100	7300	1650	6900	1400	10600	2450	10000	2100	9200_{5}	1650	8600_{20}	1400
400x58	30	10700	2550	10300	2150	9700	1700	9200	1400	12000	2550	12000	2150	12000_{10}	1700	10800_{20}	1400
	40	10300	2550	9900	2150	9200	1700	8800	1400	12000	2550	12000	2150	11600_{10}	1700	10900_{25}	1400
	75	9400	2650	8900	2250	8200	1750	7700	1500	11800	2650	11200	2250	10300_{5}	1750	9700_{25}	1500
	90	9000	2700	8600	2300	7900	1800	7400	1500	11400	2700	10800	2300	9900_{10}	1800	9300_{25}	1500
450x58	30	11500	2800	11100	2350	10500	1850	10000	1550	12000	2800	12000	2350	12000_{10}	1850	11900_{30}	1550
	40	11100	2800	10700	2400	10000	1850	9500	1550	12000	2800	12000	2400	12000_{10}	1850	12000_{30}	1550
	75	10200	2950	9600	2450	8900	1950	8400	1650	12000	2950	12000	2450	11200_{15}	1950	10500_{30}	1650
	90	9800	3000	9300	2500	8600	1950	8100	1650	12000	3000	11700	2500	10800_{15}	1950	10100_{30}	1650

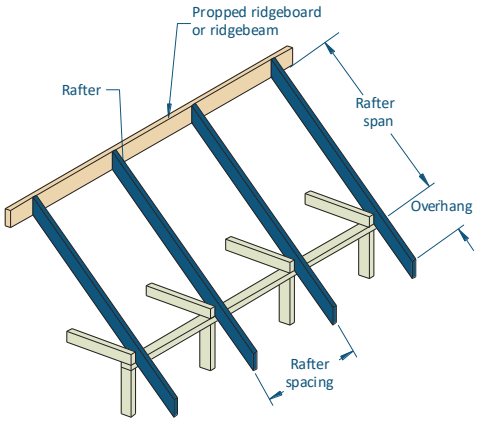
Single/continuous span roof rafter - with ceiling attached AS 4055 classification C1, C2 and C3 (cont'd)

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size D x B (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
300x75	30	9150	2675	8800	2675	8100	2175	7550	1850	11500	2675	11050	2675	9800	2175	8350	1850
	40	8800	2675	8400	2675	7850	2225	7450	1875	11050	2675	10600	2675	9850	2225	8450_{5}	1875
	75	7950	2600	7500	2475	6950	2250	6500	2025	10000	2675	9450	2675	8700	2400	8200_{10}	2025
	90	7650	2500	7250	2350	6650	2150	6250	2050	9650	2675	9100	2675	8400	2475	7850_{5}	2100
400x75	30	10950	3550	10550	3475	10000	2775	9400	2325	12000	3550	12000	3525	12000_{5}	2775	10700_{20}	2325
	40	10550	3475	10150	3300	9550	2825	9050	2375	12000	3550	12000	3550	12000_{10}	2825	10800_{20}	2375
	75	9650	3175	9150	3000	8500	2800	8000	2575	12000	3550	11500	3500	10650_{5}	3050	10050_{25}	2575
	90	9350	3075	8850	2900	8200	2700	7700	2500	11750	3550	11150	3375	10300_{5}	3125	9700_{25}	2675
525x75	30	12000	3950	12000	3950	11900	3500	11400	2925	12000	3950	12000	3950	12000_{5}	3500	12000_{30}	2925
	40	12000	3950	12000	3950	11400	3575	10900	3000	12000	3950	12000	3950	12000_{10}	3575	12000_{30}	3000
	75	11500	3750	11000	3625	10250	3375	9700	3200	12000	3950	12000	3950	12000_{15}	3850	12000_{40}	3225
	90	11200	3650	10650	3500	9900	3250	9350	3075	12000	3950	12000	3950	12000_{20}	3775	11750_{45}	3350

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 42 mm at internal supports for continuous members. Subscript values Indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 42 mm at Internal supports
5. Construction loads shall not be applied to overhangs until a 190x19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. Rafter spacing up to 1200 mm
7. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Single/continuous span roof rafter - without ceiling attached
AS 4055 classification N1, N2 and N3



Maximum Birdsmouth = 30% of rafter depth

EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m^2
rafter/truss spacing = 600 mm
rafter span = 5800 mm (single span)
Enter span table at rafter spacing of 600 mm, and read down to a span equal to or greater than 5800 mm for 40 kg/m^2 row

ADOPT:

SmartLVL 15 - 200x42

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
90x42	10	2500	1000	2400	900	2400	800	2300	700	3100	1000	3100	900	3100	800	3100	700
	20	2500	1000	2400	900	2400	850	2300	750	3100	1000	3100	900	3100	850	3100	750
	40	2500	1000	2400	900	2300	850	2100	800	3100	1000	3100	900	3100	850	2900	800
	60	2500	1000	2300	900	2100	850	1900	800	3100	1000	3100	900	2800	850	2600	800
120x42	10	3800	1300	3700	1200	3600	1050	3500	900	4700	1300	4700	1200	4700	1050	4700	900
	20	3800	1300	3700	1200	3600	1050	3500	900	4700	1300	4700	1200	4700	1050	4700	900
	40	3800	1300	3500	1200	3100	1100	2800	1000	4700	1300	4700	1200	4200	1100	3900	1000
	60	3400	1300	3100	1200	2700	1100	2500	1050	4600	1300	4200	1200	3700	1100	3400	1050
130x42	10	4200	1400	4200	1300	4000	1100	3900	950	5300	1400	5300	1300	5300	1100	5300	950
	20	4200	1400	4200	1300	4000	1150	3800	1000	5300	1400	5300	1300	5300	1150	5200	1000
	40	4100	1400	3800	1300	3400	1200	3100	1050	5300	1400	5200	1300	4600	1200	4200	1050
	60	3700	1400	3400	1300	3000	1200	2700	1150	5000	1400	4600	1300	4100	1200	3700	1150
140x42	10	4700	1500	4600	1400	4500	1150	4300	1000	5900	1500	5900	1400	5900	1150	5900	1000
	20	4700	1500	4600	1400	4500	1200	4100	1050	5900	1500	5900	1400	5900	1200	5600	1050
	40	4500	1500	4100	1400	3600	1300	3300	1100	6000	1500	5600	1400	4900	1300	4500	1100
	60	4000	1500	3600	1400	3200	1300	2900	1200	5400	1500	4900	1400	4400	1300	4000	1200
150x42	10	5200	1600	5100	1500	4900	1250	4700	1050	6600	1600	6600	1500	6600	1250	6500	1050
	20	5200	1600	5100	1500	4800	1250	4400	1100	6600	1600	6600	1500	6300	1250	6000	1100
	40	4800	1600	4400	1500	3900	1350	3600	1150	6300	1600	6000	1500	5300	1350	4800	1150
	60	4200	1600	3900	1500	3400	1400	3100	1250	5800	1600	5300	1500	4700	1400	4300	1250
170x42	10	6100	1800	6000	1700	5800	1350	5400	1150	8000	1800	8000	1700	7900	1350	7400	1150
	20	6100	1800	5900	1700	5300	1400	4900	1200	7900	1800	7500	1700	6900	1400	6500	1200
	40	5300	1800	4900	1700	4400	1500	4000	1300	6900	1800	6500	1700	6000	1500	5500	1300
	60	4800	1800	4400	1700	3900	1550	3500	1400	6400	1800	6000	1700	5300	1550	4800	1400
190x42	10	7200	2000	7000	1850	6700	1500	6100	1250	9300	2000	9000	1850	8500	1500	8100	1250
	20	6700	2000	6400	1900	5900	1550	5500	1300	8500	2000	8100	1900	7500	1550	7000	1300
	40	5900	2000	5500	1900	4900	1650	4500	1400	7500	2000	7000	1900	6500	1650	6100	1400
	60	5300	2000	4900	1900	4300	1750	4000	1550	6900	2000	6500	1900	5900	1750	5400	1550
200x42	10	7700	2100	7400	1950	7000	1550	6400	1350	9600	2100	9300	1950	8700	1550	8300	1350
	20	7000	2100	6600	1950	6200	1600	5800	1350	8800	2100	8300	1950	7700	1600	7300	1350
	40	6200	2100	5800	1950	5100	1750	4700	1500	7800	2100	7300	1950	6700	1750	6300	1500
	60	5600	2100	5100	1950	4500	1850	4200	1600	7100	2100	6700	1950	6100	1850	5700	1600
240x42	10	8600	2500	8300	2300	7800	1800	7500	1550	10800	2500	10400	2300	9800	1800	9400	1550
	20	7900	2500	7500	2350	7000	1850	6600	1600	9800	2500	9400	2350	8800	1850	8300	1600
	40	7000	2500	6600	2350	6100	2000	5600	1700	8800	2500	8300	2350	7700	2000	7200	1700
	60	6500	2500	6100	2350	5400	2200	5000	1850	8100	2500	7600	2350	7000	2200	6500	1850
300x42	10	9800	3150	9500	2750	9000	2200	8700	1850	12000	3150	11900	2750	11400	2200	10900	1850
	20	9100	3150	8700	2850	8100	2250	7700	1900	11400	3150	10900	2850	10200	2250	9700	1900
	40	8100	3150	7700	2950	7100	2450	6700	2050	10200	3150	9700	2950	9000	2450	8400	2050
	60	7600	3150	7100	2950	6500	2650	6100	2250	9500	3150	8900	2950	8200	2650	7700	2250

Single/continuous span roof rafter - without ceiling attached
AS 4055 classification N1, N2 and N3 (Cont'd)

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
90x58	10	2900	1100	2900	1000	2800	950	2700	850	3600	1100	3600	1000	3600	950	3600	850
	20	2900	1100	2900	1000	2800	950	2700	850	3600	1100	3600	1000	3600	950	3600	850
	40	2900	1100	2900	1000	2600	950	2400	900	3600	1100	3600	1000	3500	950	3200	900
	60	2800	1100	2600	1000	2300	950	2100	900	3600	1100	3500	1000	3100	950	2800	900
130x58	10	4900	1550	4800	1450	4700	1300	4500	1100	6300	1550	6300	1450	6300	1300	6300	1100
	20	4900	1550	4800	1450	4500	1350	4200	1150	6300	1550	6300	1450	6100	1350	5700	1150
	40	4500	1550	4200	1450	3700	1350	3400	1250	6100	1550	5700	1450	5100	1350	4600	1250
	60	4100	1550	3700	1450	3300	1350	3000	1300	5500	1550	5100	1450	4500	1350	4100	1300
150x58	10	6000	1750	5900	1650	5700	1450	5300	1250	7700	1750	7800	1650	7600	1450	7300	1250
	20	6000	1750	5700	1650	5200	1500	4800	1300	7600	1750	7300	1650	6800	1500	6400	1300
	40	5200	1750	4800	1650	4300	1550	3900	1400	6800	1750	6400	1650	5800	1550	5300	1400
	60	4600	1750	4300	1650	3800	1550	3500	1500	6200	1750	5800	1650	5200	1550	4700	1500
170x58	10	7100	2000	7000	1850	6600	1650	6100	1400	9000	2000	8700	1850	8300	1650	7900	1400
	20	6600	2000	6300	1850	5800	1700	5400	1450	8300	2000	7900	1850	7400	1700	7000	1450
	40	5800	2000	5400	1850	4800	1750	4400	1550	7400	2000	7000	1850	6400	1750	6000	1550
	60	5200	2000	4800	1850	4300	1750	3900	1650	6800	2000	6400	1850	5800	1750	5300	1650
200x58	10	7900	2350	7700	2200	7300	1850	7000	1600	10000	2350	9700	2200	9200	1850	8800	1600
	20	7300	2350	7000	2200	6500	1950	6200	1650	9200	2350	8800	2200	8200	1950	7800	1650
	40	6500	2350	6200	2200	5600	2050	5200	1750	8200	2350	7800	2200	7200	2050	6800	1750
	60	6100	2350	5600	2200	5000	2050	4600	1900	7600	2350	7200	2200	6600	2050	6200	1900
240x58	10	8800	2800	8600	2600	8200	2200	7900	1850	11100	2800	10800	2600	10300	2200	9900	1850
	20	8200	2800	7900	2650	7400	2250	7000	1900	10300	2800	9900	2650	9300	2250	8800	1900
	40	7400	2800	7000	2600	6500	2450	6100	2050	9300	2800	8800	2600	8200	2450	7700	2050
	60	6900	2800	6500	2600	6000	2450	5500	2250	8700	2800	8200	2600	7500	2450	7000	2250
300x58	10	10100	3500	9800	3250	9400	2650	9100	2250	12000	3500	12000	3250	11900	2650	11400	2250
	20	9400	3500	9100	3250	8600	2700	8200	2300	11900	3500	11400	3250	10800	2700	10300	2300
	40	8600	3500	8200	3250	7600	2950	7200	2500	10800	3500	10300	3250	9600	2950	9000	2500
	60	8000	3500	7600	3250	7000	3050	6600	2700	10100	3500	9500	3250	8800	3050	8300	2700
360x58	10	11200	4200	10900	3900	10500	3050	10200	2600	12000	4200	12000	3900	12000	3050	12000	2600
	20	10500	4200	10200	3900	9600	3200	9200	2700	12000	4200	12000	3900	12000	3200	11600	2700
	40	9700	4200	9200	3900	8600	3450	8100	2900	12000	4200	11600	3900	10800	3450	10200	2900
	60	9100	4050	8600	3850	8000	3500	7500	3150	11400	4050	10800	3850	10000	3500	9400	3150
400x58	10	11800	4650	11600	4300	11200	3350	10900	2850	12000	4650	12000	4300	12000	3350	12000	2850
	20	11200	4650	10900	4350	10300	3500	9900	2950	12000	4650	12000	4350	12000	3500	12000	2950
	40	10400	4650	9900	4350	9200	3750	8800	3150	12000	4650	12000	4350	11600	3750	11000	3150
	60	9700	4350	9200	4150	8600	3800	8100	3450	12000	4350	11600	4150	10800	3800	10200	3450
450x58	10	12000	5200	12000	4800	12000	3700	11700	3150	12000	5200	12000	4800	12000	3700	12000	3150
	20	12000	5200	11700	4900	11100	3850	10700	3250	12000	5200	12000	4900	12000	3850	12000	3250
	40	11100	5000	10700	4750	10000	4200	9500	3500	12000	5000	12000	4750	12000	4200	12000	3500
	60	10500	4700	10000	4450	9300	4100	8800	3850	12000	4700	12000	4450	11700	4100	11000	3850

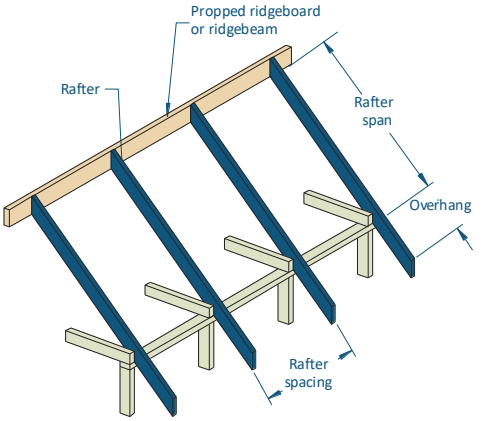
Single/continuous span roof rafter - without ceiling attached AS 4055 classification N1, N2 and N3 (Cont'd)

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
300x75	10	10150	2675	9950	2675	9600	2675	9200	2675	12000	2675	12000	2675	12000	2675	11550	2675
	20	9600	2675	9300	2675	8800	2675	8400	2675	12000	2675	11700	2675	11050	2675	10600	2675
	40	8800	2675	8400	2675	7850	2550	7450	2450	11050	2675	10600	2675	9850	2675	9350	2675
	60	8250	2675	7850	2550	7250	2350	6850	2250	10400	2675	9850	2675	9100	2675	8600	2625
400x75	10	11950	3550	11750	3550	11400	3550	11050	3550	12000	3550	12000	3550	12000	3550	12000	3550
	20	11400	3550	11050	3550	10550	3475	10150	3300	12000	3550	12000	3550	12000	3550	12000	3550
	40	10550	3475	10150	3300	9550	3150	9050	2975	12000	3550	12000	3550	12000	3550	11400	3475
	60	10000	3300	9550	3150	8850	2900	8400	2750	12000	3550	12000	3550	11150	3375	10550	3200
525x75	10	12000	3950	12000	3950	12000	3950	12000	3950	12000	3950	12000	3950	12000	3950	12000	3950
	20	12000	3950	12000	3950	12000	3950	12000	3950	12000	3950	12000	3950	12000	3950	12000	3950
	40	12000	3950	12000	3950	11400	3750	10900	3550	12000	3950	12000	3950	12000	3950	12000	3950
	60	11900	3925	11400	3750	10650	3500	10100	3325	12000	3950	12000	3950	12000	3950	12000	3875

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Maximum birdsmouth depth = 30 % of rafter depth
4. End bearing lengths = 35 mm at end supports and 42 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 42 mm at internal supports
5. Construction loads shall not be applied to overhangs until a 190 x 19 (minimum) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
6. Rafter spacing up to 1200 mm
7. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Single/continuous span roof rafter - without ceiling attached
AS 4055 classification C1, C2 and C3



Maximum Birdsmouth = 30% of rafter depth

EXAMPLE:

wind speed = C3
sheet roof - 40 kg/m^2
rafter/truss spacing = 600 mm
rafter span = 5800 mm
Enter span table at rafter spacing of 600 mm, and read down to a span equal to or greater than 5800 mm in the 40 kg/m^2 row

ADOPT:

SmartLVL 15 - 200x42

Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
90x42	10	2500	600	2400	500	2400	400	2200	350	3100	600	3100	500	2600	400	2200	350
	20	2500	600	2400	500	2400	400	2200	350	3100	600	3100	500	2600	400	2200	350
	40	2500	650	2400	550	2300	400	2100	350	3100	650	3100	550	2700	400	2200	350
	60	2500	650	2300	550	2100	450	1900	350	3100	650	3100	550	2700	450	2300	350
120x42	10	3800	750	3700	650	3200	500	2900	450	4700	750	4400	650	3500	500	2900	450
	20	3800	800	3700	650	3200	500	2900	450	4700	800	4400	650	3500	500	2900	450
	40	3800	800	3500	650	3100	550	2800	450	4700	800	4500	650	3600	550	3000	450
	60	3400	800	3100	700	2700	550	2500	450	4600	800	4200	700	3600	550	3000	450
130x42	10	4200	800	4000	700	3500	550	3100	450	5300	800	4700	700	3700	550	3100	450
	20	4200	850	4000	700	3500	550	3200	450	5300	850	4700	700	3800	550	3200	450
	40	4100	850	3800	700	3400	550	3100	500	5300	850	4800	700	3800	550	3200	500
	60	3700	850	3400	750	3000	600	2700	500	5000	850	4600	750	3900	600	3300	500
140x42	10	4700	850	4300	750	3800	600	3400	500	5900	850	5000	750	4000	600	3400	500
	20	4700	900	4300	750	3800	600	3400	500	5900	900	5100	750	4000	600	3400	500
	40	4500	900	4100	750	3600	600	3300	500	6000	900	5200	750	4100	600	3500	500
	60	4000	900	3600	800	3200	600	2900	500	5400	900	4900	800	4200	600	3500	500
150x42	10	5100	900	4700	800	4100	600	3600	500	6300	900	5400	800	4300	600	3600	500
	20	5100	950	4700	800	4100	650	3600	550	6300	950	5400	800	4300	650	3600	550
	40	4800	950	4400	800	3900	650	3600	550	6300	950	5500	800	4400	650	3700	550
	60	4200	950	3900	800	3400	650	3100	550	5800	950	5300	800	4500	650	3800	550
170x42	10	5800	1000	5300	850	4600	700	4100	600	7000	1000	6000	850	4800	700	4100	600
	20	5800	1000	5300	850	4600	700	4100	600	7100	1000	6100	850	4900	700	4100	600
	40	5300	1050	4900	900	4400	700	4000	600	6900	1050	6200	900	5000	700	4200	600
	60	4800	1050	4400	900	3900	700	3500	600	6400	1050	6000	900	5100	700	4300	600
190x42	10	6500	1100	5900	950	5200	750	4500	650	7800	1100	6700	950	5400	750	4500	650
	20	6500	1100	5900	950	5200	750	4600	650	7900	1100	6700	950	5400	750	4600	650
	40	5900	1150	5500	1000	4900	750	4500	650	7500	1150	6900	1000	5500	750	4700	650
	60	5300	1150	4900	1000	4300	800	4000	650	6900	1150	6500	1000	5600	800	4800	650
200x42	10	6800	1150	6200	1000	5400	800	4800	650	8200	1150	7000	1000	5600	800	4800	650
	20	6800	1150	6200	1000	5400	800	4800	650	8200	1150	7100	1000	5700	800	4800	650
	40	6200	1200	5800	1000	5100	800	4700	700	7800	1200	7200	1000	5800	800	4900	700
	60	5600	1200	5100	1050	4500	800	4200	700	7100	1200	6700	1050	5900	800	5000	700
240x42	10	8200	1350	7500	1150	6500	900	5700	750	9700	1350	8300	1150	6700	900	5700	750
	20	7800	1350	7500	1150	6500	900	5700	750	9800	1350	8400	1150	6700	900	5700	750
	40	7000	1400	6600	1150	6100	950	5600	800	8800	1400	8300	1150	6900	950	5800	800
	60	6500	1400	6100	1200	5400	950	5000	800	8100	1400	7600	1200	7000	950	5900_5	800
300x42	10	9800	1600	9300	1350	8100	1050	7000	900	11900	1600	10200	1350	8200	1050	7000_5	900
	20	9100	1600	8700	1400	8100	1100	7100	900	11400	1600	10300	1400	8300	1100	7100_{10}	900
	40	8100	1650	7700	1400	7100	1100	6700	950	10200	1650	9700	1400	8400_5	1100	7200_{15}	950
	60	7600	1700	7100	1450	6500	1150	6100	950	9500	1700	8900	1450	8200_{10}	1150	7300_{20}	950

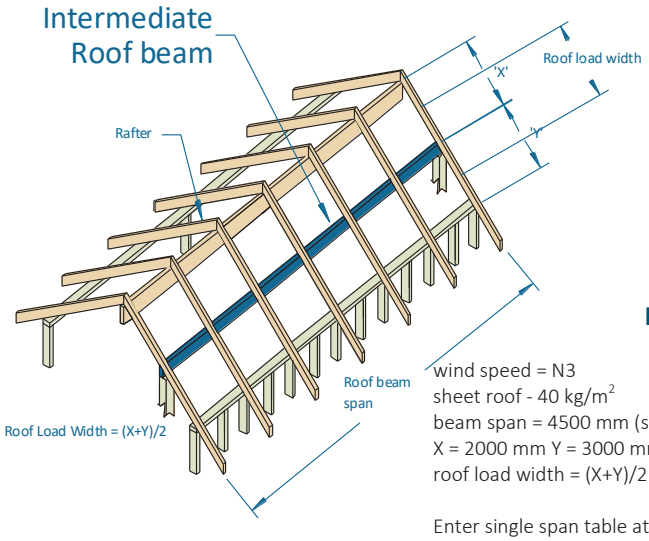
Single/continuous span roof rafter - without ceiling attached
AS 4055 classification C1, C2 and C3 (Cont'd)

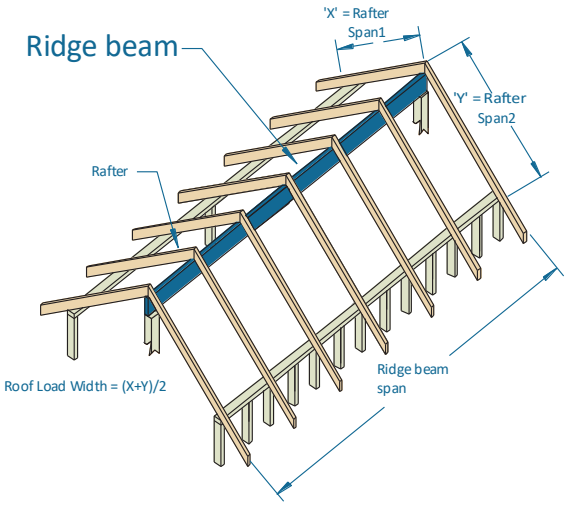
Rafter spacing (mm)		450		600		900		1200		450		600		900		1200	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended single span (mm)								Maximum recommended continuous span (mm)							
90x58	10	2900	750	2900	600	2700	500	2400	400	3600	750	3600	600	3100	500	2600	400
	20	2900	750	2900	650	2700	500	2400	400	3600	750	3600	650	3100	500	2600	400
	40	2900	750	2900	650	2600	500	2400	450	3600	750	3600	650	3200	500	2700	450
	60	2800	750	2600	650	2300	500	2100	450	3600	750	3500	650	3100	500	2700	450
130x58	10	4900	1000	4500	850	3900	650	3600	550	6300	1000	5600	850	4400	650	3700	550
	20	4900	1000	4500	850	3900	650	3600	550	6300	1000	5600	850	4500	650	3800	550
	40	4500	1000	4200	850	3700	700	3400	600	6100	1000	5700	850	4600	700	3800	600
	60	4100	1000	3700	900	3300	700	3000	600	5500	1000	5100	900	4500	700	3900	600
150x58	10	5700	1100	5200	950	4500	750	4100	650	7400	1100	6300	950	5100	750	4300	650
	20	5700	1100	5200	950	4500	750	4100	650	7500	1100	6400	950	5100	750	4300	650
	40	5200	1150	4800	950	4300	750	3900	650	6800	1150	6400	950	5200	750	4400	650
	60	4600	1150	4300	1000	3800	800	3500	650	6200	1150	5800	1000	5200	800	4500	650
170x58	10	6500	1200	5900	1050	5100	850	4700	700	8300	1200	7100	1050	5700	850	4800	700
	20	6500	1200	5900	1050	5100	850	4700	700	8300	1200	7200	1050	5800	850	4900	700
	40	5800	1250	5400	1050	4800	850	4400	700	7400	1250	7000	1050	5900	850	5000	700
	60	5200	1300	4800	1100	4300	850	3900	750	6800	1300	6400	1100	5800	850	5100	750
200x58	10	7600	1400	6900	1200	6000	950	5500	800	9700	1400	8300	1200	6700	950	5700	800
	20	7300	1400	6900	1200	6000	950	5500	800	9200	1400	8400	1200	6700	950	5700	800
	40	6500	1450	6200	1200	5600	950	5200	800	8200	1450	7800	1200	6800	950	5800	800
	60	6100	1450	5600	1250	5000	1000	4600	850	7600	1450	7200	1250	6600	1000	5900	850
240x58	10	8800	1600	8300	1350	7200	1100	6600	900	11100	1600	9800	1350	7900	1100	6700	900
	20	8200	1650	7900	1400	7200	1100	6600	950	10300	1650	9900	1400	8000	1100	6800	950
	40	7400	1650	7000	1400	6500	1100	6100	950	9300	1650	8800	1400	8100	1100	6900	950
	60	6900	1700	6500	1450	6000	1150	5500	950	8700	1700	8200	1450	7500	1150	7000	950
300x58	10	10100	1950	9800	1650	9100	1300	8200	1100	12000	1950	12000	1650	9700	1300	8300	1100
	20	9400	1950	9100	1650	8600	1300	8200	1100	11900	1950	11400	1650	9800	1300	8400	1100
	40	8600	2000	8200	1700	7600	1350	7200	1150	10800	2000	10300	1700	9600	1350	8500_{5}	1150
	60	8000	2050	7600	1750	7000	1350	6600	1150	10100	2050	9500	1750	8800	1350	8300_{10}	1150
360x58	10	11200	2250	10900	1900	10500	1500	9700	1250	12000	2250	12000	1900	11300	1500	9700_{5}	1250
	20	10500	2300	10200	1950	9600	1500	9200	1300	12000	2300	12000	1950	11400_{5}	1500	9800_{10}	1300
	40	9700	2350	9200	2000	8600	1550	8100	1300	12000	2350	11600	2000	10800_{5}	1550	10000_{15}	1300
	60	9100	2400	8600	2000	8000	1600	7500	1350	11400	2400	10800	2000	10000_{5}	1600	9400_{20}	1350
400x58	10	11800	2500	11600	2100	11200	1650	10600	1350	12000	2500	12000	2100	12000_{5}	1650	10600_{15}	1350
	20	11200	2500	10900	2100	10300	1650	9900	1400	12000	2500	12000	2100	12000_{5}	1650	10700_{15}	1400
	40	10300	2550	9900	2150	9200	1700	8800	1400	12000	2550	12000	2150	11600_{10}	1700	10900_{25}	1400
	60	9700	2600	9200	2200	8600	1750	8100	1450	12000	2600	11600	2200	10800_{10}	1750	10200_{25}	1450
450x58	10	12000	2750	12000	2300	12000	1800	11700	1500	12000	2750	12000	2300	12000_{5}	1800	11700_{20}	1500
	20	12000	2750	11700	2350	11100	1800	10700	1550	12000	2750	12000	2350	12000_{5}	1800	11800_{25}	1550
	40	11100	2800	10700	2400	10000	1850	9500	1550	12000	2800	12000	2400	12000_{10}	1850	12000_{30}	1550
	60	10500	2900	10000	2450	9300	1900	8800	1600	12000	2900	12000	2450	11700_{15}	1900	11000_{30}	1600
300x75	10	9650	2675	9000	2650	8100	2100	7550	1775	12000	2675	11300	2650	9600	2100	8200	1775
	20	9600	2675	9000	2675	8100	2125	7550	1800	12000	2675	11300	2675	9700	2125	8300	1800
	40	8800	2675	8400	2675	7850	2225	7450	1875	11050	2675	10600	2675	9850	2225	8450_{5}	1875
	60	8250	2675	7850	2550	7250	2300	6850	1950	10400	2675	9850	2675	9100	2300	8600_{10}	1950
400x75	10	11950	3550	11150	3400	10100	2675	9400	2250	12000	3550	12000	3400	12000_{5}	2675	10500_{10}	2250
	20	11400	3550	11050	3475	10100	2725	9400	2300	12000	3550	12000	3475	12000_{5}	2725	10600_{15}	2300
	40	10550	3475	10150	3300	9550	2825	9050	2375	12000	3550	12000	3550	12000_{10}	2825	10800_{20}	2375
	60	10000	3300	9550	3150	8850	2900	8400	2475	12000	3550	12000	3550	11150_{10}	2950	10550_{25}	2475
525x75	10	12000	3950	12000	3950	12000	3375	11500	2825	12000	3950	12000	3950	12000_{5}	3375	12000_{25}	2825
	20	12000	3950	12000	3950	12000	3425	11500	2875	12000	3950	12000	3950	12000_{5}	3425	12000_{25}	2875
	40	12000	3950	12000	3950	11400	3575	10900	3000	12000	3950	12000	3950	12000_{10}	3575	12000_{30}	3000
	60	11900	3925	11400	3750	10650	3500	10100	3125	12000	3950	12000	3950	12000_{15}	3725	12000_{35}	3125

NOTES:

See notes on page 40

Single span ridge/intermediate roof beam
AS 4055 classification N1, N2 and N3





EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m^2
beam span = 4500 mm (single span)
X = 2000 mm Y = 3000 mm
roof load width = (X+Y)/2 = 2500 mm

Enter single span table at 3000 roof load width with column and read down to span equal to or greater than 4500 mm in the 40 kg/m^2 row

ADOPT:

SmartLVL 15 - 300x42

Roof load width (mm)		1500		3000		4500		6000		7500	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended Ridge or Intermediate roof beam span - Single span (mm)									
150x42	40	3200	1200	2500	1200	2100	1050	1900	950	1700	850
	90	2500	1200	2000	1000	1700	850	1500	750	1400	700
170x42	40	3600	1400	2800	1350	2400	1200	2200	1100	2000	1000
	90	2800	1400	2200	1100	1900	950	1700	850	1600	800_{10}
190x42	40	4100	1550	3200	1500	2700	1350	2400	1200	2200	1100_{10}
	90	3200	1550	2500	1250	2200	1100	1900	950	1800	900_{20}
200x42	40	4300	1600	3300	1600	2900	1450	2600	1300_{5}	2300	1150_{15}
	90	3300	1600	2600	1300	2300	1150	2000	1000_{5}	1900	950_{25}
240x42	40	5100	1950	4000	1850	3500	1750_{5}	3100	1550_{20}	2800	1400_{35}
	90	4000	1950	3200	1600	2700	1350_{5}	2500	1250_{25}	2300	1150_{45}
300x42	40	6200	2400	5000	2300	4300	2050_{20}	3900	1900_{40}	3500	1750_{65}
	90	5000	2400	4000	2000_{5}	3400	1700_{25}	3100	1550_{50}	2800_{85}	1400_{85}
2/150x42	40	4000	1550	3100	1500	2700	1350	2400	1200	2200	1100
	90	3100	1550	2500	1250	2100	1050	1900	950	1800	900
2/170x42	40	4500	1700	3600	1700	3100	1550	2700	1350	2500	1250
	90	3500	1700	2800	1400	2400	1200	2200	1100	2000	1000
2/190x42	40	5000	1900	4000	1850	3400	1700	3100	1550	2800	1400
	90	4000	1900	3100	1550	2700	1350	2400	1200	2200	1100
2/200x42	40	5200	2000	4200	1950	3600	1800	3200	1600	2900	1450
	90	4200	2000	3300	1650	2900	1450	2600	1300	2400	1200
2/240x42	40	6200	2400	5000	2300	4300	2050	3900	1900	3500	1750
	90	5000	2400	4000	2000	3400	1700	3100	1550	2800	1400
2/300x42	40	7200	3000	6100	2750	5400	2450	4800	2250	4400	2100_{5}
	90	6100	2850	4900	2400	4300	2150	3900	1950_{5}	3600	1800_{20}
2/360x42	40	8200	3550	7000	3200	6300	2850	5800	2600_{5}	5300	2450_{20}
	90	7000	3250	5900	2750	5200	2450	4700	2300_{20}	4300	2150_{40}
2/400x42	40	8800	3900	7600	3450	6800	3100	6300	2850_{15}	5900	2650_{30}
	90	7500	3500	6400	3000	5700	2700_{10}	5200	2500_{30}	4800	2350_{50}

Single span ridge/intermediate roof beam
AS 4055 classification N1, N2 and N3 [Cont'd]

Roof load width (mm)		1500		3000		4500		6000		7500	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended Ridge or Intermediate roof beam - Single span (mm)									
150x58	40	3600	1350	2800	1350	2400	1200	2100	1050	1900	950
	90	2800	1350	2200	1100	1900	950	1700	850	1600	800
170x58	40	4000	1550	3200	1500	2700	1350	2400	1200	2200	1100
	90	3100	1550	2500	1250	2100	1050	1900	950	1800	900
190x58	40	4500	1700	3500	1650	3000	1500	2700	1350	2500	1250
	90	3500	1700	2800	1400	2400	1200	2200	1100	2000	1000
200x58	40	4700	1800	3700	1750	3200	1600	2800	1400	2600	1300
	90	3700	1800	2900	1450	2500	1250	2300	1150	2100	1050_{5}
240x58	40	5600	2150	4500	2050	3800	1900	3400	1700	3100	1550_{10}
	90	4400	2150	3500	1750	3000	1500	2700	1350_{5}	2500	1250_{20}
300x58	40	6700	2650	5500	2500	4800	2250	4300	2050_{15}	3900	1900_{30}
	90	5500	2600	4400	2200	3800	1900_{5}	3400	1700_{25}	3200	1600_{45}
360x58	40	7600	3150	6500	2900	5700	2600_{10}	5100	2400_{30}	4700	2200_{50}
	90	6400	3000	5300	2500	4600	2250_{25}	4100	2050_{45}	3800_{80}	1900_{80}
400x58	40	8200	3500	7000	3150	6300	2800_{20}	5700	2600_{45}	5200	2400_{70}
	90	7000	3250	5800	2700_{5}	5100	2450_{30}	4600	2250_{60}	4200_{100}	2100_{100}
450x58	40	8900	3900	7600	3450	6800	3100_{30}	6300	2850_{55}	5900	2650_{95}
	90	7600	3550	6400	3000_{15}	5700	2650_{45}	5200_{85}	2450_{85}	4700_{115}	2300_{115}
300x75	40	7000	2900	6000	2700	5200	2400	4700	2200	4300	2050_{15}
	90	6000	2750	4800	2300	4100	2050	3700	1850_{10}	3400	1700_{25}
400x75	40	8600	3800	7400	3350	6600	3000_{5}	6100	2750_{20}	5700	2600_{40}
	90	7300	3450	6200	2900	5500	2600_{15}	5000	2400_{35}	4600	2250_{60}
525x75	40	10400	4800	9000	4100	8100	3700_{20}	7500	3400_{45}	7000	3200_{80}
	90	8900	4200	7600	3550_{10}	6900	3200_{35}	6400	2950_{75}	6000_{110}	2800_{110}

Continuous span ridge/intermediate roof beam
AS 4055 classification N1, N2 and N3

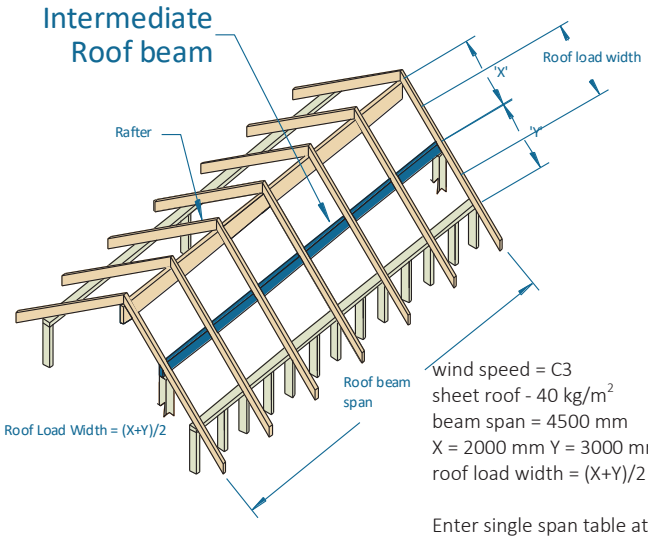
Roof load width (mm)		1500		3000		4500		6000		7500	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum Ridge or Intermediate roof beam - Continuous span (mm)									
150x42	40	4400	1200	3400	1200	2900	1200	2600	1100	2300	1000
	90	3400	1200	2700	1150	2300	1050	2100_{5}	950_{5}	1800_{10}	850_{10}
170x42	40	4900	1400	3900	1350	3300	1300	2900	1200	2500_{5}	1100_{5}
	90	3900	1400	3000	1300	2600	1150	2300_{10}	1050_{10}	2000_{20}	950_{20}
190x42	40	5500	1550	4300	1500	3700	1450	3200_{5}	1300_{5}	2800_{15}	1200_{15}
	90	4300	1550	3400	1400	2900_{5}	1250_{5}	2600_{25}	1150_{25}	2300_{35}	1100_{35}
200x42	40	5800	1600	4600	1600	3900	1500	3300_{5}	1350_{5}	2900_{20}	1250_{20}
	90	4500	1600	3600	1450	3100_{15}	1300_{15}	2700_{15}	1200_{15}	2400_{40}	1150_{40}
240x42	40	6700	1950	5500	1850	4600_{10}	1750_{10}	3900_{20}	1600_{20}	3500_{35}	1500_{35}
	90	5400	1950	4300_{5}	1700_{5}	3700_{10}	1500_{10}	3200_{50}	1400_{50}	2800_{65}	1300_{65}
300x42	40	7900	2400	6600_{5}	2300_{5}	5600_{15}	2050_{15}	4800_{45}	1900_{45}	4300_{65}	1750_{65}
	90	6600	2400	5400_{5}	2000_{5}	4500_{55}	1800_{55}	3900_{90}	1650_{90}	3400_{105}	1550_{105}

Roof load width (mm)		1500		3000		4500		6000		7500	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum Ridge or Intermediate roof beam - Continuous span (mm)									
2/150x42	40	5400	1550	4300	1500	3700	1400	3300	1300	3000	1200
	90	4300	1550	3400	1400	2900	1250	2600	1150	2400	1100
2/170x42	40	6100	1700	4800	1700	4200	1550	3700	1450	3400	1350
	90	4800	1700	3800	1550	3300	1400	3000	1250	2700	1200
2/190x42	40	6600	1900	5400	1850	4700	1700	4200	1600	3800	1450
	90	5400	1900	4300	1700	3700	1500	3300	1400	3100_{5}	1300
2/200x42	40	6800	2000	5700	1950	4900	1800	4400	1650	4000	1550
	90	5700	2000	4500	1750	3900	1550	3500	1450	3200_{5}	1350_{5}
2/240x42	40	7800	2400	6600	2300	5900	2050	5300	1900	4800_{5}	1750_{5}
	90	6600	2400	5400	2000	4700	1800	4200_{10}	1650_{10}	3900_{25}	1550_{25}
2/300x42	40	9100	3000	7700	2750	7000	2450	6400_{10}	2250_{10}	6000_{25}	2100_{25}
	90	7700	2850	6500	2400	5800_{10}	2150_{10}	5300_{5}	2000_{5}	4900_{20}	1850_{20}
2/360x42	40	10300	3550	8800	3200	8000	2850	7300_{20}	2600_{20}	6800_{20}	2450_{20}
	90	8800	3250	7500	2750	6700_{25}	2450_{25}	6200_{20}	2300_{20}	5800_{90}	2150_{90}
2/400x42	40	11100	3900	9500	3450	8600_{10}	3100_{10}	7900_{15}	2850_{15}	7400_{50}	2650_{50}
	90	9500	3500	8100_{5}	3000_{5}	7300_{5}	2700_{5}	6700_{25}	2500_{25}	6300_{105}	2350_{105}
2/450x42	40	12000	4350	10400	3750	9300_{15}	3400_{15}	8600_{20}	3100_{20}	8100_{65}	2900_{65}
	90	10300	3850	8800_{15}	3250_{15}	7900_{15}	2950_{15}	7300_{90}	2700_{90}	6900_{125}	2550_{125}
150x58	40	4800	1350	3800	1350	3300	1300	2900	1200	2600	1100
	90	3800	1350	3000	1250	2600	1150	2300	1050	2100	950
170x58	40	5500	1550	4300	1500	3700	1400	3300	1300	3000	1200
	90	4300	1550	3400	1400	2900	1250	2600	1150	2400_{10}	1100_{10}
190x58	40	6100	1700	4800	1650	4100	1550	3700	1450	3300	1350
	90	4800	1700	3800	1500	3300	1350	2900_{5}	1250_{5}	2600_{15}	1200_{15}
200x58	40	6300	1800	5100	1750	4400	1600	3900	1500	3500_{5}	1400_{5}
	90	5000	1800	4000	1600	3500	1400	3100_{10}	1300_{10}	2800_{25}	1250_{25}
240x58	40	7200	2150	6000	2050	5200	1900	4600_{10}	1700_{10}	4100_{20}	1600_{20}
	90	6000	2150	4800	1850	4100_{10}	1650_{10}	3700_{10}	1500_{10}	3300_{25}	1400_{25}
300x58	40	8400	2650	7100	2500	6400_{15}	2250_{15}	5600_{15}	2050_{15}	5000_{40}	1900_{40}
	90	7100	2600	6000_{10}	2200_{10}	5200_{10}	1950_{10}	4500_{55}	1800_{55}	4000_{85}	1700_{85}
360x58	40	9600	3150	8100	2900	7300_{25}	2600_{25}	6700_{50}	2400_{50}	5900_{70}	2200_{70}
	90	8100	3000	6800_{20}	2500_{20}	6200_{20}	2250_{20}	5400_{95}	2100_{95}	4700_{115}	1950_{115}
400x58	40	10300	3500	8800_{5}	3150_{5}	7900_{15}	2800_{15}	7200_{65}	2600_{65}	6500_{95}	2400_{95}
	90	8800	3250	7400	2700	6700_{85}	2450_{85}	5900_{115}	2250_{115}	5200_{135}	2100_{135}
450x58	40	11200	3900	9600_{15}	3450_{15}	8600_{25}	3100_{25}	7900_{85}	2850_{85}	7200_{110}	2650_{110}
	90	9500	3550	8100_{10}	3000_{10}	7300_{100}	2650_{100}	6500_{135}	2450_{135}	5800_{160}	2300_{160}
300x75	40	8900	2900	7500	2700	6800	2400	6200_{15}	2200_{15}	5700_{15}	2050_{15}
	90	7500	2750	6400	2300	5600_{20}	2100_{20}	5100_{15}	1950_{15}	4500_{25}	1800_{25}
400x75	40	10900	3800	9300	3350	8400_{15}	3000_{15}	7700_{20}	2750_{20}	7200_{60}	2600_{60}
	90	9300	3450	7900_{15}	2900_{15}	7100_{15}	2600_{15}	6600_{90}	2400_{90}	5900_{115}	2250_{115}
525x75	40	12000	4800	11200_{5}	4100_{5}	10200_{20}	3700_{20}	9400_{70}	3400_{70}	8800_{105}	3200_{105}
	90	11200	4200	9600_{5}	3550_{5}	8700_{90}	3200_{90}	8000_{125}	2950_{125}	7500_{165}	2800_{165}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. Maximum rafter spacing up to 1200 mm
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Single span ridge/intermediate roof beam
AS 4055 classification C1, C2 and C3



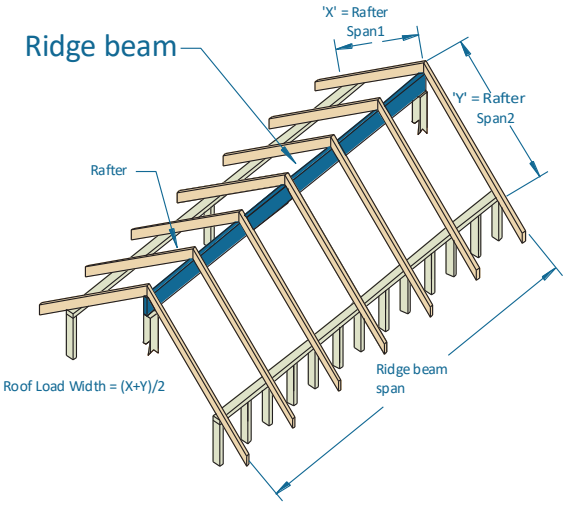
EXAMPLE:

wind speed = C3
sheet roof - 40 kg/m^2
beam span = 4500 mm
X = 2000 mm Y = 3000 mm
roof load width = (X+Y)/2 = 2500 mm

Enter single span table at 3000 roof load width with column
And read down to span equal to or greater than 4500 mm in the 40 kg/m^2 row

ADOPT:

SmartLVL 15 -2/240x42



Roof load width (mm)		1500		3000		4500		6000		7500	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended ridge/Intermediate roof beam - Single span (mm)									
150x42	40	3200	1200	2200	900	1800	750	1600	650	1400	550
	90	2500	1200	2000	900	1700	750	1500	650	1400_{5}	600_{5}
170x42	40	3600	1400	2500	1000	2000	800	1800	700	1600_{5}	650
	90	2900	1400	2200	1050	1900	850	1700_{5}	750	1600_{10}	650_{10}
190x42	40	4100	1550	2800	1100	2300	900	2000_{5}	800	1800_{10}	700
	90	3200	1550	2500	1150	2200	950	1900_{10}	800	1800_{15}	700_{15}
200x42	40	4300	1600	2900	1150	2400	950	2100_{5}	800	1800_{10}	750
	90	3400	1600	2600	1200	2300_{5}	950	2100_{10}	850	1900_{20}	750_{20}
240x42	40	5100	1950	3400	1350	2800_{5}	1100	2400_{10}	950	2200_{15}	850
	90	4000	1950	3200	1400	2800_{10}	1150	2500_{20}	1000	2300_{30}	900_{30}
300x42	40	6300	2400	4200_{5}	1650	3400_{15}	1350	3000_{20}	1200	2700_{30}	1050
	90	5000	2400	4000_{10}	1700	3400_{25}	1400	3100_{35}	1200_{35}	2800_{40}	1100_{40}
2/150x42	40	4000	1550	3200	1250	2700	1050	2400	900	2100	800
	90	3200	1550	2500	1200	2200	1050	1900	900	1800	850
2/170x42	40	4500	1700	3600	1400	3100	1150	2700	1000	2400	900
	90	3600	1700	2800	1400	2400	1200	2200	1050	2000	900
2/190x42	40	5000	1900	4000	1550	3400	1300	3000	1100	2700	1000
	90	4000	1900	3200	1600	2700	1300	2500	1150	2300	1000
2/200x42	40	5300	2000	4200	1650	3600	1350	3100	1150	2800	1050
	90	4200	2000	3300	1600	2900	1350	2600	1200	2400	1050
2/240x42	40	6300	2400	5000	1900	4300	1550	3700	1350	3300_{5}	1200
	90	5000	2400	4000	2000	3500	1600	3100	1400	2900_{5}	1250
2/300x42	40	7800	3000	6300	2350	5200	1900	4500_{10}	1650	4000_{15}	1500
	90	6200	2850	5000	2400	4300	2000	3900_{10}	1700	3600_{15}	1550
2/360x42	40	9200	3600	7500	2750	6000_{10}	2250	5200_{15}	1950	4700_{20}	1750
	90	7400	3300	6000	2750	5200_{10}	2300	4700_{15}	2000	4300_{25}	1800
2/400x42	40	10200	4000	8200_{5}	3000	6600_{10}	2450	5700_{20}	2100	5100_{25}	1900
	90	8200	3550	6600	3000	5800_{15}	2500	5200_{25}	2150	4800_{30}	1950_{30}

Single span ridge/intermediate roof beam
AS 4055 classification C1, C2 and C3 (Cont'd)

Roof load width (mm)		1500		3000		4500		6000		7500	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended ridge/Intermediate roof beam - Single span (mm)									
150x58	40	3600	1350	2600	1050	2100	850	1900	750	1700	650
	90	2800	1350	2200	1100	1900	900	1700	750	1600	700
170x58	40	4100	1550	3000	1150	2400	950	2100	850	1900	750
	90	3200	1550	2500	1200	2200	1000	1900	850	1800	750
200x58	40	4800	1800	3400	1350	2800	1100	2400	950	2200_{5}	850
	90	3700	1800	2900	1400	2500	1150	2300_{5}	1000	2100_{10}	900
240x58	40	5700	2150	4000	1600	3300	1300	2900_{5}	1150	2600_{10}	1000
	90	4500	2150	3500	1650	3100_{5}	1350	2800_{10}	1150	2500_{20}	1050
300x58	40	7000	2650	4900	1950	4000_{5}	1600	3500_{15}	1400	3100_{20}	1250
	90	5600	2600	4400	2000	3800_{10}	1650	3500_{20}	1450	3200_{30}	1300_{30}
360x58	40	8300	3200	5700_{5}	2250	4700_{15}	1850	4100_{20}	1600	3700_{30}	1450
	90	6700	3000	5300_{10}	2350	4600_{20}	1900	4100_{30}	1650_{30}	3800_{40}	1500_{40}
400x58	40	9200	3550	6300_{10}	2450	5100_{15}	2000	4400_{25}	1750	4000_{35}	1550
	90	7400	3250	5900_{10}	2550	5100_{25}	2100	4600_{40}	1800_{40}	4200_{50}	1600_{50}
450x58	40	10300	4000	7000_{15}	2700	5600_{20}	2200	4900_{30}	1950	4400_{40}	1750
	90	8300	3550	6600_{20}	2800	5800_{35}	2300_{35}	5100_{45}	2000_{45}	4600_{55}	1800_{55}
300x75	40	7000	2300	4900	1600	4000	1300	3500	1150	3100	1000
	90	5850	1925	4700	1550	4000	1300	3450	1100	3050	1000
400x75	40	8550	2800	6250	2050	5100	1675	4400	1450	3950	1300
	90	7250	2350	6150	2025	5050	1650	4350	1425	3900_{5}	1275_{5}
525x75	40	10350	3400	8050	2650	6350	2050	5500	1800	4950	1625
	90	8850	2900	7500	2475	6300_{5}	2075_{5}	5450_{10}	1750_{10}	4850_{15}	1600_{15}

Continuous span ridge/intermediate roof beam
AS 4055 classification C1, C2 and C3

Roof Load width (mm)		1500		3000		4500		6000		7500	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended ridge/Intermediate roof beam - Continuous span (mm)									
150x42	40	3200	1200	2200	900	1800	750	1400	650	1300	550
	90	3400	1200	2300	900	1900	750	1600	650	1300	600
170x42	40	3600	1400	2500	1000	2000	800	1600	700	1400	650
	90	3800	1400	2600	1050	2100	850	1800	750	1500	650
190x42	40	4100	1550	2800	1100	2300	900	1800	800	1600	700
	90	4300	1550	2900	1150	2400	950	2000	800	1700	700
200x42	40	4300	1600	2900	1150	2400	950	1900	800	1700	750
	90	4500	1600	3100	1200	2500	950	2100	850	1700_{10}	750_{10}
240x42	40	5100	1950	3400	1350	2800	1100	2300	950	2000	850
	90	5400	1950	3600	1400	2900	1150	2500_{15}	1000	2100_{30}	900_{30}
300x42	40	6300	2400	4200	1650	3400	1350	2900	1200	2500	1050
	90	6700	2400	4400	1700	3600_{20}	1400	3100_{40}	1200_{40}	2600_{50}	1100_{50}

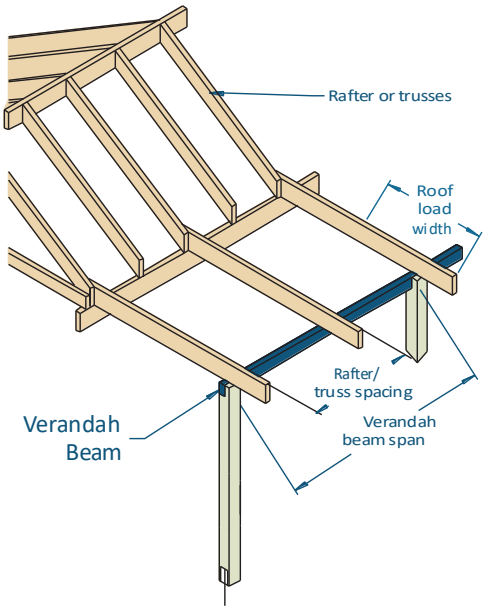
Continuous span ridge/intermediate roof beam (Cont'd)
AS 4055 classification C1, C2 and C3

Roof Load width (mm)		1500		3000		4500		6000		7500	
Member size DxB (mm)	Roof mass (kg/m^2)	span	O/H	span	O/H	span	O/H	span	O/H	span	O/H
		Maximum recommended ridge/Intermediate roof beam - Continuous span (mm)									
2/150x42	40	5000	1550	3400	1250	2800	1050	2400	900	2100	800
	90	4300	1550	3400	1300	2900	1050	2500	900	2300	850
2/170x42	40	5600	1700	3800	1400	3100	1150	2700	1000	2400	900
	90	4900	1700	3900	1450	3300	1200	2800	1050	2500	900
2/190x42	40	6200	1900	4200	1550	3400	1300	3000	1100	2700	1000
	90	5400	1900	4300	1600	3600	1300	3100	1150	2800	1000
2/200x42	40	6500	2000	4400	1650	3600	1350	3100	1150	2800	1050
	90	5700	2000	4500	1700	3800	1350	3300	1200	2900	1050
2/240x42	40	7700	2400	5200	1900	4300	1550	3700	1350	3300	1200
	90	6800	2400	5400	2000	4500	1600	3900	1400	3500_{5}	1250
2/300x42	40	9500	3000	6400	2350	5200	1900	4500	1650	4000	1500
	90	8500	2850	6700	2400	5500	2000	4700_{10}	1700	4300_{25}	1550
2/360x42	40	11100	3600	7500	2750	6000	2250	5200	1950	4700	1750
	90	10100	3300	7900	2750	6300_{10}	2300	5500_{30}	2000	4900_{45}	1800
2/400x42	40	12000	4000	8200	3000	6600	2450	5700	2100	5100	1900
	90	11200	3550	8700	3000	6900_{20}	2500	6000_{40}	2150	5400_{60}	1950_{60}
150x58	40	3600	1350	2600	1050	2100	850	1900	750	1700	650
	90	2800	1350	2200	1100	1900	900	1700	750	1600	700
170x58	40	4100	1550	3000	1150	2400	950	2100	850	1900	750
	90	3200	1550	2500	1200	2200	1000	1900	850	1800	750
200x58	40	4800	1800	3400	1350	2800	1100	2400	950	2200_{5}	850
	90	3700	1800	2900	1400	2500	1150	2300_{5}	1000	2100_{10}	900
240x58	40	5700	2150	4000	1600	3300	1300	2900_{5}	1150	2600_{10}	1000
	90	4500	2150	3500	1650	3100_{5}	1350	2800_{10}	1150	2500_{20}	1050
300x58	40	7000	2650	4900	1950	4000_{5}	1600	3500_{15}	1400	3100_{20}	1250
	90	5600	2600	4400	2000	3800_{10}	1650	3500_{20}	1450	3200_{30}	1300_{30}
360x58	40	8300	3200	5700_{5}	2250	4700_{15}	1850	4100_{20}	1600	3700_{30}	1450
	90	6700	3000	5300_{10}	2350	4600_{20}	1900	4100_{30}	1650_{30}	3800_{40}	1500_{40}
400x58	40	9200	3550	6300_{10}	2450	5100_{15}	2000	4400_{25}	1750	4000_{35}	1550
	90	7400	3250	5900_{10}	2550	5100_{25}	2100	4600_{40}	1800_{40}	4200_{50}	1600_{50}
450x58	40	10300	4000	7000_{15}	2700	5600_{20}	2200	4900_{30}	1950	4400_{40}	1750
	90	8300	3550	6600_{20}	2800	5800_{35}	2300_{35}	5100_{45}	2000_{45}	4600_{55}	1800_{55}
300x75	40	7450	2450	4900	1600	4000_{15}	1300	3500_{5}	1150	3100_{5}	1000_{5}
	90	7400	2250	4900_{10}	1600	4000	1300	3450_{10}	1100	3050_{10}	1000_{10}
400x75	40	9550	3150	6250_{20}	2050	5100_{5}	1675	4400_{10}	1450_{10}	3950_{20}	1300_{20}
	90	9150_{5}	2775	6200_{5}	2000	5050_{10}	1650_{10}	4350_{20}	1425_{20}	3900_{25}	1275_{25}
525x75	40	12000_{20}	3950	8050_{10}	2650	6350_{15}	2050_{15}	5500_{25}	1800_{25}	4950_{30}	1625_{30}
	90	11100_{25}	3375	7950_{15}	2600_{15}	6300_{25}	2075_{25}	5450_{30}	1750_{30}	4850_{155}	1600_{155}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. rafter spacing up to 1200 mm
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Single span verandah beam
AS 4055 classification N1, N2 and N3



EXAMPLE:

wind speed = N3
sheet roof - 40 kg/m^2
rafter/truss spacing = 600 mm
verandah span = 3500 mm
roof load width = 3900 mm
Enter span table at 4500 roof load width column, rafter spacing of 600 mm, and read down to a span equal to or greater than 3500 mm in the 40 kg/m^2 row

ADOPT:

SmartLVL 15 - 300x42
(with additional bearing length of 5 mm required)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended verandah beam span - single span (mm)									
150x42	10	4000	3900	3400	3300	2700	2700	2400	2300	2100	2000
	20	3700	3600	3000	3000	2600	2700	2400	2300	2200	2100
	40	3000	3000	2400	2400	2100	2000	1900	1900	1700	1700
	60	2600	2700	2100	2000	1800	1800	1600	1500	1500	1400
	90	2300	2300	1800	1800	1600	1500	1400	1300	1300	1100
170x42	10	4400	4300	3800	3700	3100	3000	2700	2600	2400	2300
	20	4100	4100	3400	3300	2900	2900	2700	27005	2500	2300
	40	3400	3300	2700	2700	2300	2400	2100	2100	2000	1900_{5}
	60	2900	2900	2300	2400	2100	2000	1800	1800	1700	1700_{5}
	90	2600	2600	2100	2000	1800	1800	1600	15005	1500	1400
200x42	10	5200	5300	4400	4400	3600	3400	3100	3000	2800	2700_{5}
	20	4600	4600	3900	3900	3500	3400	3200	3000	2800_{5}	2700_{10}
	40	3900	3900	3200	3100	2800	2800	2500	2600_{5}	2300_{5}	2300_{5}
	60	3500	3400	2800	2800	2400	2400	2200	2200	2000	2000_{5}
	90	3000	3000	2400	2400	2100	2100	1900	1900	1800	1700_{10}
240x42	10	6000	6000	5200	5200	4300	4200	3700_{5}	3500	3300	3100_{5}
	20	5300	5300	4500	4500	4100	4100	3800_{5}	3600_{5}	3400_{10}	3200_{10}
	40	4500	4500	3800	3800	3300	3300	3000	3000_{5}	2800_{10}	2800_{20}
	60	4100	4100	3300	3300	2900	2900	2700_{5}	2700_{10}	2400_{10}	2400_{20}
	90	3700	3600	2900	2900	2500	2600_{5}	2300_{5}	2300_{5}	2200_{15}	2100_{15}
300x42	10	7000	7000	6200	6100	5200_{5}	5200_{5}	4500_{5}	4500_{10}	4000_{10}	3900_{10}
	20	6200	6100	5300	5300	4900_{5}	4800_{10}	4500_{5}	4500_{10}	4100_{20}	4000_{15}
	40	5300	5300	4500	4500	4100_{5}	4100_{10}	3800_{10}	3800_{10}	3500_{20}	3500_{15}
	60	4900	4800	4100	4100	3600_{5}	3600	3300_{5}	3300_{10}	3100_{15}	3100_{25}
	90	4400	4400	3600	3600	3200	3200_{5}	2900_{15}	2900_{25}	2700_{20}	2700_{30}
360x42	10	7900	7900	7000	7000	6200_{10}	6100_{5}	5300_{20}	5300_{20}	4800_{25}	4800_{30}
	20	7000	7000	6100	6000	5500_{5}	5500_{10}	5200_{15}	5200_{25}	4900_{30}	4900_{35}
	40	6100	6000	5200	5200	4700	4700_{5}	4400_{15}	4400_{20}	4200_{30}	4200_{40}
	60	5500	5500	4700	4700	4300_{10}	4300_{15}	4000_{15}	4000_{15}	3700_{30}	3700_{25}
	90	5100	5000	4300	4300_{5}	3800_{10}	3800_{10}	3500_{10}	3400_{15}	3200_{20}	3200_{35}
400x42	10	8500	8400	7500	7500_{5}	6800_{10}	6800_{15}	5900_{15}	5800_{20}	5200_{25}	5200_{30}
	20	7500	7500	6600	6500	6000_{5}	6000_{10}	5600_{20}	5600_{25}	5300_{30}	5300_{35}
	40	6500	6600	5600	5600	5100_{10}	5100_{15}	4800_{25}	4700_{30}	4500_{25}	4500_{35}
	60	6000	6000	5100	5100_{5}	4600_{5}	4600_{10}	4300_{20}	4300_{30}	4100_{30}	4100_{25}
	90	5500	5400	4600	4600	4200_{10}	4200_{10}	3900_{25}	3800_{20}	3600_{40}	3600_{30}

Single span verandah beam
AS 4055 classification N1, N2 and N3 (Cont'd)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended verandah beam span - single span (mm)									
150x58	10	4400	4300	3900	3700	3100	3000	2700	2600	2400	2300
	20	4000	4000	3300	3200	2900	2900	2600	2700	2400	2400
	40	3300	3200	2600	2700	2300	2300	2100	2100	1900	1900
	60	2900	2900	2300	2300	2000	2000	1800	1800	1700	1600
	90	2500	2600	2000	2000	1700	1700	1600	1500	1500	1300
170x58	10	4900	5000	4300	4200	3500	3400	3000	2900	2700	2600
	20	4400	4400	3700	3700	3300	3200	3000	3000	2700	2700
	40	3700	3700	3000	3000	2600	2700	2400	2400	2200	2200
	60	3300	3200	2600	2700	2300	2300	2100	2000	1900	1900
	90	2900	2900	2300	2300	2000	2000	1800	1800	1700	1600
200x58	10	5600	5600	4900	5000	4100	4000	3500	3400	3100	3000
	20	4900	5000	4300	4200	3900	3800	3500	3400	3200	3100
	40	4300	4200	3500	3500	3100	3100	2800	2800	2600	2700
	60	3900	3800	3100	3100	2700	2700	2400	2500	2300	2200
	90	3400	3300	2700	2700	2300	2300	2100	2100	2000	1900
240x58	10	6400	6300	5600	5600	4800	4800	4200	4000	3700	3600
	20	5600	5600	4900	4900	4400	4400	4100	4100	3800	3600
	40	4900	4900	4100	4100	3700	3700	3400	3300	3100	3100
	60	4400	4400	3700	3700	3200	3200	2900	2900	2700_{5}	2800_{10}
	90	4000	4000	3200	3200	2800	2800	2600	2600_{5}	2400_{5}	2400_{10}
300x58	10	7400	7300	6600	6600	5900	5800	5100	5100_{5}	4600	4500_{5}
	20	6600	6600	5700	5700	5200	5200	4900_{5}	4900_{5}	4600_{10}	4600_{10}
	40	5700	5700	4900	4900	4400	4400	4100	4100_{5}	3900_{5}	3900_{5}
	60	5200	5200	4400	4400	4000	4000	3700_{5}	3600	3400_{10}	3400_{5}
	90	4800	4700	4000	4000	3600	3500	3200	3200_{5}	3000_{10}	3000_{15}
360x58	10	8300	8300	7500	7500	6900	7000	6500	6500	6100	6000
	20	7500	7500	6500	6500	6000	6000	5600	5600	5300	5300
	40	6500	6500	5600	5600	5100	5100	4800	4800	4500	4600
	60	6000	6000	5100	5100	4700	4700	4300	4300	4100	4100
	90	5500	5500	4700	4700	4200	4200	3900	3900	3600_{10}	3600_{5}
400x58	10	8900	8900	8000	8000	7500	7500	7000	7100	6600	6600
	20	8000	8000	7100	7100	6500	6500	6100	6000	5800	5700
	40	7000	7100	6100	6000	5500	5500	5200	5200	4900	4900
	60	6500	6500	5500	5500	5000	5000	4700	4700	4400	4500
	90	5900	5900	5000	5000	4600	4600	4200_{5}	4200_{10}	4000_{10}	4000_{5}
450x58	10	9600	9600	8700	8700	8100	8100	7600	7600	7300	7300
	20	8700	8700	7700	7600	7000	7100	6600	6600	6300	6300
	40	7700	7600	6600	6600	6000	6000	5600	5600	5300	5300
	60	7100	7100	6000	6000	5500	5500	5100	5100	4900	4900_{5}
	90	6400	6400	5500	5500	5000	5000	4600	4700_{5}	4400_{15}	4400_{25}
300x75	10	7600	7600	6800	6800	6300	6300	5900	5900	5700	5600
	20	6800	6800	6000	5900	5400	5400	5100	5100	4900	4800
	40	6000	5900	5100	5100	4700	4600	4300	4300	4100	4100
	60	5500	5400	4700	4600	4200	4200	3900	3900	3700	3600
	90	5000	5000	4200	4200	3800	3700	3500	3400	3200	3200
400x75	10	9100	9100	8300	8200	7700	7700	7300	7300	7000	6900
	20	8200	8200	7300	7300	6700	6700	6300	6300	6000	6000
	40	7300	7300	6300	6300	5800	5700	5400	5400	5100	5100
	60	6700	6700	5800	5700	5200	5200	4900	4900	4600	4600
	90	6100	6100	5200	5200	4800	4700	4400	4400_{5}	4200_{5}	4200_{5}
525x75	10	10700	10700	9900	9800	9200	9300	8800	8800	8400	8400
	20	9800	9800	8800	8800	8100	8100	7600	7700	7300	7300
	40	8800	8800	7700	7600	7000	7000	6600	6600	6200	6200
	60	8100	8100	7000	7000	6400	6400	6000	6000	5700_{5}	5600_{10}
	90	7500	7400	6400	6400	5800	5800_{5}	5400_{10}	5400_{15}	5100_{20}	5100_{25}

Continuous span verandah beam
AS 4055 classification N1, N2 and N3

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended verandah beam span - continuous span (mm)									
150x42	10	4900	5000	3400	3400	2800	2800	2400	2500	2200	1600
	20	4700	4700	3500	3400	2800	2800	2500	2600	2200	1600
	40	4000	4000	3200	3100	2800	2800	2500	2500	2200	1600
	60	3500	3500	2800	2800	2500	2400	2200	2100	2000	1600_{5}
	90	3100	3100	2500	2400	2100	2100	1900	1600	1600	1400
170x42	10	5500	5500	3900	3800	3100	3100	2700	2700	2300	2100
	20	5100	5200	3900	3900	3200	3200	2800	2800	2500	2600
	40	4400	4400	3600	3600	3200	3100	2800	2800	2500_{5}	2600_{5}
	60	4000	3900	3200	3100	2800	2800	2500	2500_{5}	2300_{5}	1700
	90	3500	3500	2800	2800	2400	2400	2200	2100	2000_{10}	1600_{10}
200x42	10	6300	6300	4500	4400	3600	3500	3100	2900	2800	2800
	20	5800	5800	4600	4500	3700	3600	3200	3000	2900_{5}	2900_{5}
	40	4900	5000	4200	4200	3700	3700	3300_{10}	3200_{5}	2900_{15}	2900_{15}
	60	4500	4500	3700	3700	3300	3200	3000_{10}	2900_{10}	2700_{20}	2700_{25}
	90	4100	4100	3300	3200	2900	2900	2600_{10}	2600_{10}	2300_{20}	1700
240x42	10	7300	7500	5300	5300	4300	4300	3700	3600	3300_{10}	3100_{5}
	20	6500	6600	5400	5400	4400	4400	3800_{10}	3700_{5}	3400_{20}	3100_{10}
	40	5600	5700	4800	4800	4400_{10}	4300_{10}	3900_{25}	3800_{20}	3400_{35}	3100_{20}
	60	5100	5200	4400	4300	3900_{10}	3900_{10}	3600_{25}	3500_{25}	3200_{40}	3100_{35}
	90	4700	4600	3900	3900	3400_{10}	3400_{10}	3100_{30}	3100_{25}	2900_{45}	2900_{45}
300x42	10	10100	10100	7100	7100	5800	5700	5000	5000	4500	4500
	20	10400	10400	7300	7300	6000	5900	5100	5200	4600	4500
	40	11100	11000	7700	7800	6300	6300	5400_{5}	5400	4900_{15}	4800_{15}
	60	9900	9900	7100	7100	5900_{20}	5800_{20}	5100_{40}	5100_{40}	4600_{55}	4500_{50}
	90	8200	8100	5900_{20}	5800_{20}	4800_{45}	4700_{45}	4100_{70}	4100_{70}	3700_{90}	3600_{90}
360x42	10	11800	11800	8300	8200	6700	6700	5800	5800	5200	5200
	20	12000	12000	8500	8500	6900	6900	6000	5900	5300	5300
	40	12000	12000	9000	9000	7300_{5}	7300_{5}	6300_{20}	6300_{20}	5700_{30}	5600_{30}
	60	11300	11300	8200_{15}	8200_{15}	6800_{40}	6800_{40}	5900_{60}	5800_{60}	5300_{80}	5300_{80}
	90	9400_{5}	9400_{5}	6800_{40}	6800_{40}	5600_{70}	5500_{70}	4800_{95}	4800_{95}	4300_{115}	4300_{115}
400x42	10	12000	12000	9000	9000	7300	7300	6300	6300	5700	5600
	20	12000	12000	9300	9300	7500	7500	6500	6500	5800_{5}	5800_{5}
	40	12000	12000	9800	9800	8000_{15}	8000_{15}	6900_{30}	6900_{30}	6200_{40}	6100_{40}
	60	12000	12000	8900_{25}	8900_{25}	7400_{50}	7300_{50}	6400_{75}	6400_{75}	5700_{95}	5700_{95}
	90	10200_{10}	10200_{10}	7400_{50}	7300_{50}	6100_{90}	6000_{85}	5200_{110}	5300_{110}	4700_{130}	4600_{130}
150x58	10	6300	6300	4500	4400	3600	3500	3100	3100	2800	2800
	20	6500	6500	4600	4500	3700	3600	3200	3200	2900	2900
	40	6900	6900	4900	4900	4000	3900	3400	3300	3000	3000
	60	6300	6200	4500	4500	3700	3600	3200	3100	2800	2800
	90	5200	5200	3700	3600	3000	3000	2600	2700	2200	2100
170x58	10	7100	7100	5000	5000	4100	4100	3500	3400	3100	3100
	20	7300	7300	5100	5200	4200	4200	3600	3500	3200	3200
	40	7700	7800	5400	5400	4400	4400	3800	3800	3400	3400
	60	7000	7000	5000	5100	4100	4100	3600	3500	3200	3200
	90	5800	5700	4100	4100	3400	3300	2900	2900	2600	2700
200x58	10	8300	8200	5800	5700	4700	4700	4100	4100	3600	3600
	20	8500	8400	5900	5900	4800	4800	4200	4200	3700	3700
	40	9000	9000	6300	6300	5100	5200	4400	4400	4000	3900
	60	8100	8000	5800	5800	4800	4800	4100	4100	3700	3600
	90	6700	6600	4800	4800	3900	3900	3400	3300	3000_{15}	2900_{10}

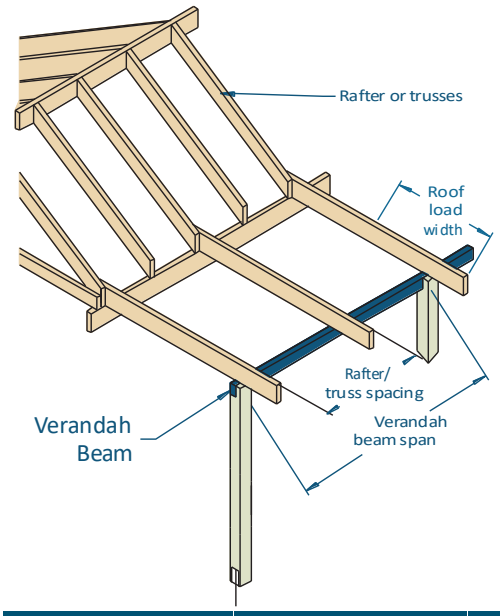
Continuous span Verandah beam
AS 4055 classification N1, N2 and N3 (Cont'd)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended verandah beam span - continuous span (mm)									
240x58	10	9800	9800	6800	6800	5600	5500	4800	4800	4300	4300
	20	10000	10000	7000	7000	5700	5700	4900	5000	4400	4400
	40	10600	10600	7500	7500	6100	6000	5200	5200	4700	4600
	60	9400	9400	6800	6800	5600	5600	4900	4900	4400_{10}	4400_{10}
	90	7800	7800	5600	5600	4600_{5}	4500_{5}	4000_{20}	4000_{20}	3600_{30}	3500_{30}
300x58	10	12000	11900	8400	8300	6800	6800	5900	5800	5300	5300
	20	12000	12000	8600	8600	7000	7000	6100	6000	5400	5400
	40	12000	12000	9100	9100	7400	7400	6400	6400	5700	5700
	60	11400	11400	8300	8300	6800_{5}	6800_{5}	6000_{20}	5900_{20}	5300_{30}	5300_{30}
	90	9500	9500	6800_{5}	6800_{5}	5600_{25}	5600_{25}	4900_{45}	4800_{45}	4400_{60}	4400_{60}
360x58	10	9700	10300	8600	8600	7000_{5}	7000_{5}	6100_{15}	6000_{15}	5400_{25}	5400_{25}
	20	8700	9200	7800	8100	7200_{10}	7100_{10}	6200_{25}	6100_{25}	5500_{35}	5500_{35}
	40	7800	8100	6900	7000	6300_{10}	6300_{15}	5900_{35}	6000_{35}	5600_{55}	5600_{55}
	60	7200	7400	6300	6300	5800_{15}	5800_{15}	5400_{35}	5400_{35}	5100_{60}	5100_{55}
	90	6700	6800	5800	5800	5200_{20}	5200_{20}	4900_{45}	4900_{45}	4600_{70}	4600_{70}
400x58	10	10300	11000	9300	9400	7700_{10}	7700_{10}	6600_{25}	6600_{25}	6000_{35}	5900_{35}
	20	9200	9900	8200	8700	7700_{20}	7900_{20}	6800_{35}	6800_{35}	6100_{45}	6000_{45}
	40	8200	8700	7300	7500	6800_{20}	6800_{20}	6400_{40}	6400_{40}	6100_{70}	6100_{75}
	60	7700	8000	6800	6800	6200_{20}	6200_{20}	5800_{45}	5800_{45}	5500_{75}	5500_{80}
	90	7200	7300	6200	6200	5700_{30}	5700_{30}	5300_{55}	5300_{55}	5000_{90}	5000_{90}
450x58	10	11100	11900	10000	10500_{5}	8600_{20}	8500_{20}	7400_{35}	7400_{35}	6600_{50}	6600_{50}
	20	10000	10800	8900	9500	8200_{25}	8800_{30}	7600_{45}	7600_{45}	6800_{65}	6800_{65}
	40	8800	9500	7800	8200	7300_{25}	7500_{30}	6900_{55}	7000_{55}	6600_{90}	6600_{90}
	60	8300	8700	7300	7500_{5}	6800_{30}	6800_{30}	6400_{55}	6400_{60}	6000_{95}	6100_{95}
	90	7700	8000	6800_{10}	6800_{10}	6200_{40}	6200_{40}	5800_{75}	5800_{75}	5400_{105}	5400_{105}
300x75	10	9000	9500	8000	8000	6500	6500	5600	5600	5000	5000
	20	8200	8600	7300	7500	6600	6600	5700	5700	5100_{5}	5200_{5}
	40	7300	7500	6400	6500	5900	5900	5500_{5}	5500_{5}	5200_{15}	5200_{15}
	60	6800	6900	5900	5900	5400	5400	5000_{5}	5000_{5}	4700_{20}	4700_{20}
	90	6300	6300	5400	5400	4900	4900	4500_{10}	4500_{10}	4300_{25}	4300_{25}
400x75	10	10700	11400	9700	10300	8400	8400	7300_{10}	7200_{10}	6500_{20}	6500_{20}
	20	9700	10400	8600	9200	8000	8500_{5}	7400_{15}	7400_{15}	6600_{30}	6600_{25}
	40	8600	9200	7700	8000	7100	7300_{5}	6800_{20}	6800_{20}	6500_{40}	6500_{40}
	60	8100	8500	7100	7300	6600_{5}	6600_{5}	6200_{25}	6200_{25}	5900_{45}	5900_{45}
	90	7500	7800	6600	6600	6000_{10}	6000_{10}	5600_{30}	5600_{30}	5300_{50}	5300_{50}
525x75	10	12000	12000	11400	12000	10700_{20}	10800_{20}	9300_{35}	9300_{35}	8300_{45}	8300_{45}
	20	11400	12000	10200	11100	9400_{15}	10200_{20}	9000_{35}	9500_{45}	8500_{60}	8500_{60}
	40	10200	11100	9000	9700	8400_{15}	8900_{20}	8000_{40}	8300_{45}	7600_{65}	7900_{75}
	60	9500	10200	8400	8900	7800_{20}	8100_{25}	7400_{45}	7600_{45}	7100_{75}	7200_{85}
	90	8800	9400	7800	8100_{5}	7200_{30}	7400_{30}	6800_{55}	6900_{55}	6500_{90}	6500_{90}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 45 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. Restraint value for slenderness calculations is 1200 mm
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Single span Verandah beam
AS 4055 classification C1, C2 and C3



EXAMPLE:

wind speed = C3
sheet roof - 40 kg/m^2
rafter/truss spacing = 600 mm
verandah span = 3500 mm
roof load width = 3900 mm
Enter span table at 4500 roof load width column, rafter spacing of 600 mm, and read down to a span equal to or greater than 3500 mm in the 40 kg/m^2 row

ADOPT:

SmartLVL 15-300x42
(with additional 30 mm bearing required)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended verandah beam span - single span (mm)									
	20	3200	3100	2300	2100	1800	1000	1500_{5}	NS	NS	NS
	40	3000	3000	2300	2200	1800	1300	1600_{5}	NS	1000	NS
	60	2600	2700	2100	2000	1800	1400_{10}	1600_{5}	NS	1400_{20}	NS
	90	2300	2300	1800	1800	1600	1400	1400_{15}	NS	1300_{20}	NS
170x42	10	3600	3400	2500	2400	2000	1500_{5}	1700	NS	1500_{10}	NS
	20	3700	3500	2600	2500	2000_{5}	1500_{5}	1700	NS	1500_{15}	NS
	40	3400	3300	2600	2600_{5}	2100_{5}	1600_{5}	1700_{5}	NS	1600_{15}	NS
	60	2900	2900	2300	2400_{5}	2100_{10}	1600_{5}	1700_{5}	NS	1600_{15}	NS
	90	2600	2600	2100	2000	1800	1600_{10}	1600_{10}	NS	1500_{25}	NS
200x42	10	4200	4100	2900	2800	2400_{5}	2300_{5}	2000_{5}	1300	1700_{5}	NS
	20	4200	4100	2900	2800	2400_{10}	2300_{10}	2000_{5}	1400	1700_{10}	NS
	40	3900	3900	3000	2900_{5}	2500_{10}	2300_{20}	2100_{20}	1500_{25}	1700_{10}	NS
	60	3500	3400	2800	2800_{10}	2400_{15}	2400_{25}	2200_{25}	1600_{25}	1700_{15}	NS
	90	3000	3000	2400	2400_{10}	2100_{15}	2100_{15}	1900_{10}	1500_{30}	1700_{20}	NS
240x42	10	5000	4900	3500	3300	2800_{10}	2700_{15}	2400_{20}	1800_{15}	1900_{5}	1400_{5}
	20	5000	5000	3500	3400_{5}	2800_{15}	2800_{25}	2500_{25}	1800_{15}	2100_{15}	1500_{10}
	40	4500	4500	3600_{10}	3400_{5}	2900_{15}	2800_{25}	2500_{25}	1900_{15}	2200_{35}	1600_{40}
	60	4100	4100	3300_{10}	3300_{10}	2900_{20}	2900_{30}	2600_{30}	2500_{45}	2300_{35}	1600_{40}
	90	3700	3600	2900_{5}	2900_{10}	2500_{20}	2600_{30}	2300_{25}	2300_{30}	2200_{45}	1600_{50}
300x42	10	6100	6000	4300_{5}	4200_{15}	3500_{20}	3300_{15}	3000_{25}	2900_{40}	2600_{35}	1900_{25}
	20	6100	6000	4300_{10}	4200_{15}	3500_{25}	3300_{20}	3000_{30}	2900_{45}	2600_{35}	2000_{25}
	40	5300	5300	4400_{10}	4300_{15}	3600_{30}	3400_{25}	3100_{30}	3000_{45}	2700_{40}	2100_{25}
	60	4900	4800	4100_{15}	4100_{25}	3600_{35}	3500_{30}	3100_{35}	3000_{50}	2800_{45}	2700_{60}
	90	4400	4400	3600_{15}	3600_{15}	3200_{20}	3200_{30}	2900_{45}	2900_{60}	2700_{55}	2700_{70}
360x42	10	7200_{5}	7200_{5}	5000_{15}	5000_{20}	4100_{25}	4000_{20}	3600_{40}	3400_{35}	3200_{40}	3000_{60}
	20	7000	7000	5100_{20}	5100_{25}	4100_{35}	4000_{25}	3600_{45}	3400_{35}	3200_{45}	3000_{60}
	40	6100	6000	5200_{20}	5200_{25}	4200_{35}	4100_{30}	3700_{50}	3500_{40}	3300_{45}	3100_{65}
	60	5500	5500	4700_{10}	4700_{20}	4300_{40}	4200_{50}	3800_{55}	3600_{45}	3300_{50}	3200_{70}
	90	5100	5000	4300_{20}	4300_{30}	3800_{40}	3800_{35}	3500_{35}	3400_{50}	3200_{60}	3200_{80}
400x42	10	7900_{5}	7800_{10}	5500_{20}	5500_{25}	4500_{25}	4500_{35}	3900_{40}	3800_{35}	3500_{35}	3300_{55}
	20	7500_{5}	7500_{5}	5600_{20}	5500_{30}	4600_{30}	4500_{40}	3900_{45}	3800_{35}	3500_{40}	3400_{55}
	40	6600	6500	5600_{25}	5600_{30}	4700_{30}	4700_{40}	4000_{50}	3900_{45}	3600_{40}	3400_{60}
	60	6000	6000	5100_{25}	5100_{30}	4600_{35}	4600_{45}	4100_{55}	4000_{50}	3700_{80}	3500_{65}
	90	5500	5400_{5}	4600_{15}	4600_{25}	4200_{40}	4200_{40}	3900_{65}	3800_{55}	3600_{90}	3500_{75}

Single span Verandah beam
AS 4055 classification C1, C2 and C3 (cont'd)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss Spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended verandah beam span - single span									
150x58	10	3600	3500	2500	2500	2000	1900	1700	1100	1500	NS
	20	3700	3500	2600	2500	2100	1900	1700	1200	1500	NS
	40	3300	3200	2600	2600	2100	2000	1800	1400	1600	NS
	60	2900	2900	2300	2300	2000	2000	1800	1500_{10}	1600	NS
	90	2500	2600	2000	2000	1700	1700	1600	1400_{10}	1500_{10}	NS
170x58	10	4100	3900	2800	2800	2300	2200	2000	1500	1700	NS
	20	4100	4000	2900	2800	2400	2200	2000	1600	1700	NS
	40	3700	3700	2900	2800	2400	2300	2000	1600_{5}	1800	1100
	60	3300	3200	2600	2700	2300	2300	2100_{10}	1900_{10}	1800_{5}	1300_{5}
	90	2900	2900	2300	2300	2000	2000	1800	1800_{10}	1700_{5}	1300_{10}
200x58	10	4800	4700	3300	3200	2700	2600	2400_{5}	2200_{5}	2000	1500_{10}
	20	4800	4700	3400	3200	2700	2600_{5}	2400_{5}	2200_{5}	2100	1600_{10}
	40	4300	4200	3400	3300	2800	2700_{5}	2400_{10}	2300_{10}	2100_{15}	1600_{15}
	60	3900	3800	3100	3100	2700_{5}	2700_{10}	2400_{15}	2300_{15}	2200_{15}	1700_{15}
	90	3400	3300	2700	2700	2300_{5}	2300_{15}	2100_{10}	2100_{15}	2000_{10}	1700_{20}
240x58	10	5600	5500	3900	3800	3200	3000_{5}	2700_{5}	2700_{15}	2500_{15}	2300_{25}
	20	5600	5600	4000	3800	3200	3100_{5}	2800_{10}	2700_{15}	2500_{15}	2400_{25}
	40	4900	4900	4000	3900	3300	3100_{5}	2800_{15}	2700_{25}	2500_{20}	2400_{30}
	60	4400	4400	3700	3700	3200_{5}	3200_{10}	2900_{15}	2800_{30}	2600_{25}	2500_{35}
	90	4000	4000	3200	3200	2800_{10}	2800_{15}	2600_{20}	2600_{30}	2400_{30}	2400_{40}
300x58	10	6900	6800	4800	4800_{5}	3900_{10}	3800_{5}	3400_{5}	3200_{15}	3000_{20}	2900_{35}
	20	6600	6600	4900_{5}	4800_{10}	4000_{10}	3800_{10}	3400_{10}	3300_{15}	3000_{20}	2900_{35}
	40	5700	5700	4900_{5}	4900_{10}	4000_{15}	3900_{10}	3500_{25}	3300_{20}	3100_{25}	3000_{40}
	60	5200	5200	4400	4400_{5}	4000_{20}	4000_{15}	3600_{30}	3400_{25}	3200_{25}	3000_{40}
	90	4800	4700	4000_{5}	4000_{5}	3600_{20}	3500_{15}	3200_{20}	320_{030}	3000_{35}	3000_{50}
360x58	10	8100	8000	5700_{5}	5600_{10}	4600_{10}	4600_{15}	4000_{20}	3900_{20}	3600_{35}	3400_{25}
	20	7400	7400	5800_{5}	5700_{10}	4700_{10}	4700_{15}	4000_{25}	3900_{20}	3600_{40}	3400_{30}
	40	6500	6500	5600_{10}	5600_{15}	4800_{25}	4800_{30}	4100_{35}	4000_{25}	3700_{45}	3500_{35}
	60	6000	5900	5100_{10}	5100_{15}	4600_{15}	4600_{25}	4200_{40}	4100_{30}	3800_{50}	3600_{40}
	90	5400	5400	4600_{5}	4600_{10}	4200_{25}	4200_{35}	3900_{40}	3800_{35}	3600_{55}	3600_{45}
400x58	10	8800	8800	6300_{10}	6200_{10}	5100_{20}	5100_{25}	4400_{25}	4300_{35}	3900_{35}	3800_{30}
	20	8000	8000	6300_{10}	6200_{10}	5100_{20}	5100_{30}	4400_{30}	4400_{35}	4000_{40}	3800_{30}
	40	7000	7000	6000_{15}	6000_{10}	5300_{25}	5200_{30}	4500_{30}	4500_{40}	4000_{45}	3900_{35}
	60	6400	6400	5500_{15}	5500_{20}	5000_{30}	5000_{35}	4700_{35}	4600_{45}	4100_{50}	4000_{45}
	90	5900	5900	5000_{15}	5000_{20}	4500_{25}	4500_{30}	4200_{45}	4200_{60}	4000_{55}	4000_{50}
450x58	10	9500	9500	7000_{15}	7000_{15}	5700_{25}	5600_{30}	4900_{40}	4900_{45}	4400_{45}	4300_{55}
	20	8600	8600	7100_{15}	7000_{20}	5700_{25}	5600_{35}	5000_{40}	5000_{50}	4400_{45}	4400_{60}
	40	7600	7600	6600_{15}	6600_{15}	5900_{30}	5800_{35}	5100_{45}	5000_{55}	4500_{50}	4500_{60}
	60	7000	7000	6000_{10}	6000_{15}	5500_{35}	5400_{45}	5100_{50}	5100_{60}	4600_{55}	4600_{65}
	90	6400	6400	5500_{20}	5400_{25}	5000_{35}	4900_{45}	4600_{40}	4600_{55}	4400_{65}	4400_{80}
300x75	10	7500	7500	5300	5200	4300	4200_{5}	3700_{10}	3500_{5}	3300_{5}	3100_{15}
	20	6900	6800	5300	5300	4300	4200_{5}	3700_{10}	3600_{10}	3300_{5}	3200_{15}
	40	6000	6000	5200	5200	4400_{5}	4300_{10}	3800_{15}	3700_{10}	3400_{10}	3200_{20}
	60	5500	5500	4700	4700	4300_{5}	4300_{10}	3900_{15}	3700_{15}	3500_{25}	3300_{20}
	90	5100	5100	4300	4300	3900_{10}	3800_{5}	3500_{20}	3500_{15}	3300_{15}	3200_{25}
400x75	10	9100	9100	6800_{5}	6800_{5}	5600_{10}	5500_{15}	4800_{20}	4800_{25}	4300_{25}	4200_{35}
	20	8300	8300	6900_{5}	6900_{5}	5600_{10}	5500_{20}	4900_{25}	4900_{30}	4300_{25}	4300_{35}
	40	7400	7400	6400_{5}	6400_{5}	5700_{15}	5600_{20}	5000_{25}	5000_{35}	4400_{30}	4400_{40}
	60	6800	6800	5800	5800_{5}	5300_{15}	5300_{20}	5000_{30}	4900_{40}	4500_{35}	4500_{45}
	90	6200	6200	5300_{5}	5300_{5}	4800_{20}	4800_{25}	4500_{25}	4500_{35}	4300_{45}	4300_{55}
525x75	10	10800	10700	8800_{15}	8700_{10}	7200_{25}	7100_{25}	6200_{35}	6100_{30}	5500_{35}	5400_{45}
	20	9900	9900	8900_{15}	8800_{15}	7200_{30}	7200_{35}	6200_{35}	6100_{30}	5600_{45}	5500_{45}
	40	8900	8900	7800_{10}	7800_{15}	7100_{25}	7100_{30}	6400_{40}	6300_{35}	5700_{50}	5600_{60}
	60	8200	8200	7100_{10}	7100_{15}	6500_{25}	6500_{20}	6100_{45}	6000_{40}	5800_{55}	5700_{65}
	90	7600	7600	6500_{10}	6500_{10}	5900_{25}	5900_{30}	5500_{40}	5500_{45}	5200_{55}	5200_{65}

Continuous span Verandah beam
AS 4055 classification C1, C2 and C3

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Verandah beam span - Continuous span (mm)									
150x42	10	3200	3200	2200	2100	1600	1300	1400	NS	1000	NS
	20	3300	3200	2200	2100	1600	1300	1400	NS	1000	NS
	40	3400	3300	2300	2100	1600	1400	1400	NS	1000	NS
	60	3400	3300	2400	2500	1600	1400	1400	NS	1000	NS
	90	3100	3100	2400	2400_{5}	1600	1400	1400_{5}	NS	1000_{5}	NS
170x42	10	3600	3500	2600	2600	1700	1500	1500	NS	1100	NS
	20	3700	3600	2600	2600	1700	1500	1500	NS	1100	NS
	40	3800	3700	2600	2700	1700	1600	1500	NS	1100	NS
	60	3800	3800	2700	2700	2000	1600_{5}	1600_{5}	1200	1100	NS
	90	3500	3500	2700	2700	2000_{10}	1600_{10}	1600_{15}	1200_{5}	1100_{5}	NS
200x42	10	4200	4200	2900	2900	2200	1700	1600	1300	1400_{5}	NS
	20	4200	4200	3000	2900	2200	1700	1600	1300	1400_{10}	NS
	40	4300	4300	3000	2900	2300_{5}	1700	1600_{5}	1400_{10}	1500_{15}	NS
	60	4400	4400	3100_{5}	2900	2300_{15}	1700	1700_{10}	1400_{10}	1500_{25}	1000
	90	4100	4100	3100_{10}	2900_{10}	2300_{25}	1700	1700_{20}	1400_{15}	1500_{30}	1000_{5}
240x42	10	5000	5000	3500	3300	2500_{5}	2800_{20}	1900_{5}	1900_{10}	1900_{25}	1800_{20}
	20	5000	5100	3500_{5}	3400	2700_{15}	2900_{20}	1900_{10}	1900_{10}	1900_{30}	1800_{25}
	40	5100	5100	3600_{10}	3500_{10}	2700_{20}	2900_{30}	2100_{25}	1900_{15}	1900_{40}	1900_{40}
	60	5100	5200	3700_{20}	3600_{15}	3000_{40}	3000_{40}	2200_{40}	1900_{25}	1900_{45}	1900_{50}
	90	4700	4600	3600_{25}	3600_{25}	3000_{50}	3000_{50}	2200_{50}	1900_{30}	1900_{60}	1900_{60}
300x42	10	6100	6000	4300_{15}	4300_{15}	3200_{30}	3200_{30}	2500_{35}	2800_{45}	2000_{35}	2000_{35}
	20	6100	6100	4300_{20}	4300_{20}	3300_{35}	3300_{35}	2600_{40}	2800_{50}	2000_{40}	2000_{40}
	40	6300	6300	4400_{30}	4400_{30}	3600_{55}	3200_{40}	3100_{85}	2900_{70}	2200_{55}	2000_{50}
	60	6100_{5}	6100_{5}	4500_{40}	4500_{40}	3700_{75}	3200_{50}	3200_{100}	2900_{90}	2400_{95}	2000_{60}
	90	5500	5500	4500_{50}	4500_{50}	3700_{95}	3200_{65}	3200_{115}	2900_{110}	2300_{100}	2000_{85}
360x42	10	7200_{5}	7100_{5}	5100_{35}	5100_{35}	4000_{55}	3500_{40}	3300_{80}	3100_{60}	2800_{90}	2700_{80}
	20	7300_{5}	7200_{5}	5100_{40}	5100_{40}	4200_{75}	3700_{50}	3400_{90}	3400_{50}	2800_{95}	2800_{95}
	40	7400_{15}	7400_{15}	5200_{50}	5200_{50}	4200_{90}	4200_{90}	3400_{100}	3300_{85}	2800_{110}	2800_{110}
	60	6800_{15}	6900_{15}	5300_{65}	5300_{65}	4300_{105}	4400_{105}	3400_{115}	3200_{105}	3200_{145}	2900_{125}
	90	6300_{15}	6300_{15}	5300_{85}	5300_{85}	4300_{120}	4300_{120}	3500_{135}	3200_{120}	3100_{160}	2900_{145}
400x42	10	7900_{10}	7900_{10}	5600_{45}	5600_{45}	4500_{85}	4500_{85}	3500_{90}	3300_{75}	2900_{100}	2900_{95}
	20	8000_{15}	8000_{15}	5600_{50}	5600_{50}	4600_{90}	4500_{90}	3500_{95}	3300_{85}	2900_{105}	2900_{105}
	40	7800_{20}	8100_{25}	5700_{65}	5700_{65}	4700_{105}	4600_{105}	3700_{115}	3300_{100}	3300_{135}	3000_{120}
	60	7300_{20}	7500_{20}	5900_{90}	5800_{85}	4800_{120}	4600_{120}	4000_{145}	3400_{115}	3300_{150}	3000_{140}
	90	6700_{20}	6800_{20}	5800_{100}	5800_{100}	4800_{140}	4600_{130}	4000_{165}	3400_{130}	3300_{170}	3000_{155}
150x58	10	3700	3600	2600	2600	2100	1900	1600	1300	1400	NS
	20	3700	3600	2600	2700	2100	2000	1600	1300	1500	NS
	40	3800	3700	2700	2700	2200	2000	1600	1400	1500	NS
	60	3900	3800	2700	2700	2200	2100	1600	1500	1500	NS
	90	3400	3400	2700	2700	2200	2100	1600	1500	1500	NS
170x58	10	4100	4100	2900	2900	2300	2100	1700	1500	1600	1200
	20	4100	4100	2900	2900	2300	2100	1700	1600	1600	1200
	40	4200	4200	3000	2900	2400	2500	2000	1600_{5}	1600	1300
	60	4300	4300	3000	3000	2500	2600	2100_{5}	1600_{5}	1600	1300_{10}
	90	3900	3900	3000	3000	2500	2600_{5}	2100_{10}	1600_{5}	1600_{5}	1300_{15}
200x58	10	4700	4700	3400	3300	2700	2700	2200	1700	1700	1400
	20	4800	4800	3400	3300	2800	2800	2300	1700	1700	1400
	40	4900	4900	3400	3400	2800	2800	2300_{5}	1700	1700	1500
	60	4800	4900	3500	3400	2900_{5}	2900_{5}	2300_{15}	2100_{5}	1800_{10}	1600_{15}
	90	4400	4400	3500	3400	2800_{10}	2800_{15}	2300_{20}	2100_{10}	1800_{15}	1600_{10}
240x58	10	5600	5600	4000	3900	3200	3100	2700_{10}	2800_{10}	2200_{15}	1900
	20	5700	5600	4000	4000	3300_{5}	3100	2700_{15}	2800_{15}	2300_{15}	1900
	40	5800	5700	4100	4100	3300_{10}	3100_{5}	2800_{25}	2900_{25}	2500_{30}	2600_{40}
	60	5500	5600	4100	4100	3400_{20}	3300_{15}	2900_{30}	2900_{30}	2500_{40}	2700_{50}
	90	5000	5100	4100_{10}	4100_{10}	3400_{25}	3300_{25}	2900_{40}	2900_{40}	2500_{50}	2700_{65}

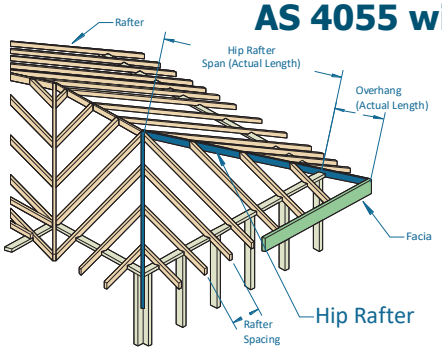
Continuous span Verandah beam
AS 4055 classification C1 - C3 (cont'd)

Roof load width (mm)		1500		3000		4500		6000		7500	
Rafter/truss spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended verandah beam span - continuous span (mm)									
300x58	10	6900	6900	4800	4800	3900_{15}	3900_{15}	3400_{30}	3200_{25}	3000_{45}	2900_{40}
	20	6900	6900	4900_{5}	4900_{5}	4000_{20}	4000_{20}	3500_{35}	3400_{25}	3100_{50}	3000_{45}
	40	7000	7100	5000_{10}	5000_{10}	4100_{30}	4100_{30}	3500_{45}	3200_{40}	3100_{65}	3100_{60}
	60	6500	6500	5100_{20}	5100_{20}	4100_{40}	4100_{40}	3600_{55}	3200_{45}	3200_{85}	3100_{80}
	90	5900	6000	5000_{25}	5100_{25}	4100_{50}	4100_{50}	3600_{85}	3200_{60}	3200_{100}	3100_{95}
360x58	10	8100	8100	5700_{15}	5700_{15}	4700_{35}	4600_{30}	4000_{50}	4000_{50}	3400_{65}	3200_{50}
	20	8200	8200	5800_{20}	5700_{15}	4700_{40}	4600_{35}	4100_{55}	4100_{60}	3500_{75}	3300_{60}
	40	7800	8100	5900_{25}	5800_{25}	4800_{50}	4700_{50}	4100_{80}	4100_{80}	3600_{90}	3300_{80}
	60	7200	7400	6000_{35}	6000_{35}	4900_{65}	4900_{65}	4200_{95}	4200_{95}	3800_{115}	3400_{95}
	90	6700	6800	5800_{40}	5800_{40}	4900_{85}	4800_{85}	4200_{110}	4200_{110}	3800_{130}	3400_{110}
400x58	10	8900	8900	6300_{25}	6300_{25}	5100_{45}	5100_{45}	4400_{65}	4400_{70}	4000_{95}	3400_{60}
	20	9000	9000	6300_{25}	6300_{25}	5200_{50}	5200_{50}	4500_{85}	4500_{85}	4000_{100}	3400_{70}
	40	8300	8700	6500_{35}	6500_{40}	5300_{65}	5300_{70}	4600_{95}	4500_{100}	4100_{115}	3500_{90}
	60	7700	8000	6600_{45}	6600_{45}	5400_{90}	5400_{90}	4700_{110}	4600_{110}	4200_{135}	3700_{110}
	90	7200	7300	6200_{50}	6200_{50}	5300_{100}	5300_{100}	4600_{125}	4600_{125}	4100_{150}	3600_{125}
450x58	10	9900_{5}	9900_{5}	7000_{35}	7000_{35}	5700_{60}	5700_{60}	4900_{90}	4900_{90}	4400_{110}	4100_{100}
	20	10000_{5}	10000_{5}	7100_{40}	7000_{40}	5800_{75}	5700_{70}	5000_{100}	4900_{95}	4400_{120}	4400_{115}
	40	8900_{5}	9500_{10}	7200_{50}	7200_{50}	5900_{90}	5800_{90}	5100_{115}	5100_{125}	4500_{125}	4500_{125}
	60	8300_{5}	8700_{5}	7300_{60}	7300_{60}	6000_{105}	5900_{105}	5200_{130}	5200_{130}	4600_{155}	4500_{150}
	90	7700_{5}	8000_{5}	6800_{65}	6800_{70}	5900_{120}	5900_{120}	5100_{145}	5100_{145}	4600_{175}	4500_{170}
300x75	10	7500	7500	5300	5300	4300	4300	3700_{15}	3600_{15}	3300_{25}	3200_{25}
	20	7600	7600	5300	5300	43005	4300_{5}	3800_{20}	3700_{15}	3400_{30}	3300_{25}
	40	7300	7500	5400	5400	4400_{15}	4400_{15}	3800_{25}	3800_{25}	3400_{40}	3200_{35}
	60	6800	6900	5600_{5}	5600_{5}	4500_{20}	4500_{20}	3900_{35}	3900_{35}	3500_{50}	3300_{40}
	90	6300	6300	5400_{10}	5400_{10}	4500_{30}	4500_{30}	3900_{45}	3800_{45}	3500_{60}	3300_{55}
400x75	10	9800	9700	6900_{10}	6900_{10}	5600_{25}	5600_{25}	4900_{40}	4800_{40}	4300_{55}	4300_{55}
	20	9600	9800	6900_{10}	6900_{10}	5600_{30}	5600_{30}	4900_{45}	4800_{45}	4400_{65}	4400_{65}
	40	8600	9200	7100_{20}	7000_{20}	5800_{40}	5700_{40}	5000_{60}	4900_{60}	4500_{90}	4500_{90}
	60	8100	8500	7100_{25}	7200_{30}	5900_{50}	5800_{50}	5100_{85}	5100_{85}	4500_{100}	4500_{100}
	90	7500	7800	6600_{30}	6600_{30}	5800_{65}	5800_{65}	5000_{95}	5000_{95}	4500_{115}	4500_{115}
525x75	10	12000	12000	8800_{30}	8800_{30}	7200_{55}	7100_{55}	6200_{90}	6100_{90}	5500_{105}	5500_{105}
	20	11400	12000_{5}	8900_{35}	8900_{35}	7300_{65}	7200_{65}	6200_{95}	6200_{95}	5600_{115}	5600_{115}
	40	10200	11100	9000_{45}	9100_{50}	7400_{90}	7300_{90}	6400_{110}	6400_{110}	5700_{130}	5700_{130}
	60	9500	10200	8400_{45}	8900_{55}	7500_{100}	7500_{100}	6500_{125}	6500_{125}	5800_{150}	5800_{150}
	90	8800	9400	780050	8100_{55}	7200_{110}	7400_{115}	6400_{140}	6400_{140}	5800_{165}	5700_{165}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports
3. Restraint value for slenderness calculations is 1200 mm
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Hip rafter - sheet and tile roof
AS 4055 wind classification N1 - N3 and C1 - C3



EXAMPLE:

wind speed = N3
roof load = 40 kg/m^2 (sheet roof)
hip rafter span = 4500 mm (single span)
rafter spacing = 600 mm

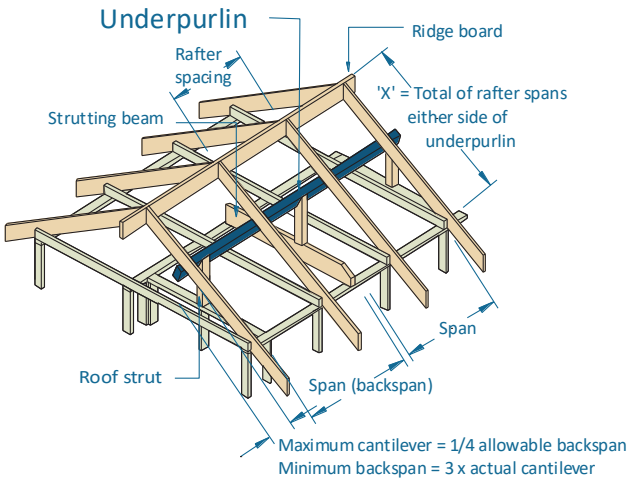
Enter column at (N1-N3) wind speed, 600 mm rafter spacing and read down to span equal to or greater than 4500 mm for a 40 kg/m^2 roof load
ADOPT: SmartLVL 15 - 240x42

AS 4055 wind category		N1 - N3				C1 - C3			
Maximum rafter spacing (mm)		600		1200		600		1200	
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum hip rafter and overhang span - single span (mm)							
		span	O/H	span	O/H	span	O/H	span	O/H
130x42	40	3200	725	3200	600	3050	675	3050	450
	90	2600	700	2600	550	2600	700	2600	500
140x42	40	3350	800	3350	625	3150	700	3150	475
	90	2750	750	2750	600	2750	750	2750	550
150x42	40	3550	875	3550	650	3300	750	3300	525
	90	2900	800	2900	625	2900	800	2900	575
170x42	40	3900	1050	3900	725	3550	825	3550	575
	90	3200	900	3200	725	3200	900	3200	625
190x42	40	4200	1150	4200	800	3800	900	3800	625
	90	3500	1000	3500	800	3500	1000	3500	700
200x42	40	4400	1200	4400	825	3950	950	3950	650
	90	3600	1050	3600	825	3600	1050	3600	725
240x42	40	5000	1400	5000	975	4400	1100	4400	750
	90	4150	1250	4150	1000	4150	1225	4150	825
300x42	40	5850	1700	5850	1175	5000_{10}	1325	5000_{10}	900
	90	4900	1550	4900	1225	4900_{15}	1475	4900_{15}	1000
360x42	40	6500_{5}	1975	6500_{5}	1350	5600_{20}	1550	5600_{20}	1050
	90	5600_{5}	1825	5600_{10}	1475	5600_{30}	1700	5600_{30}	1175
400x42	40	6950_{10}	2150	6950_{10}	1475	5950_{30}	1675	5950_{30}	1150
	90	6050_{10}	1950	6050_{20}	1625	5950_{40}	1875	5950_{35}	1275
130x58	40	3450	825	3450	700	3250	800	3250	550
	90	2850	775	2850	625	2850	775	2850	600
150x58	40	3800	1025	3800	775	3550	900	3550	625
	90	3150	875	3150	700	3150	875	3150	675
170x58	40	4200	1225	4200	875	3800	975	3800	675
	90	3450	975	3450	800	3450	975	3450	750
200x58	40	4750	1450	4750	1000	4200	1125	4200	775
	90	3900	1150	3900	925	3900	1150	3900	850
240x58	40	5400	1675	5400	1150	4700	1300	4700	900
	90	4450	1375	4450	1100	4450	1375	4450	1000
300x58	40	6200	2025	6200	1400	5350_{5}	1575	5350_{5}	1075
	90	5300	1700	5300	1375	5300_{10}	1700	5300_{5}	1200
360x58	40	6950	2250	6950	1625	5950_{10}	1850	5950_{10}	1250
	90	6050	1950	6050	1625	5950_{20}	1950	5950_{20}	1400
400x58	40	7400_{5}	2400	7400_{5}	1750	6350_{20}	2000	6350_{20}	1375
	90	6450	2125	6450_{5}	1800	6350_{25}	2050	6350_{25}	1525
450x58	40	7950_{10}	2600	7950_{10}	1950	6850_{25}	2225	6850_{25}	1500
	90	6900_{10}	2275	6900_{10}	2025	6850_{35}	2250	6850_{35}	1675
300x75	40	6550	2150	6550	1600	5650	1825	5650	1250
	90	5600	1800	5600	1475	5600	1800	5600	1375
400x75	40	7800	2550	7800	2025	6700_{10}	2200	6700_{10}	1575
	90	6750	2225	6750	1975	6700_{20}	2200	6700_{15}	1750
525x75	40	9150_{10}	3000	9150_{10}	2550	7900_{30}	2600	7900_{30}	1975
	90	7950_{10}	2600	7950_{10}	2550	7900_{40}	2600	7900_{35}	2200

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a batten spacing of 900 mm
3. Minimum backspan = 200 % of overhang, Maximum birdsmouth depth = 30 % of depth
4. End bearing length = 35 at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end support
6. Construction loads shall not be applied to overhangs until a 190 x 19 mm (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs
7. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering..

Underpurlins - sheet and tiled roof
AS 4055 wind classification N1 - N3



RLW = X/2 where ridge is strutted

EXAMPLE:

wind speed = N3
rafter spacing = 1200 mm
roof load = 20 kg/m^2 (sheet roof)
underpurlin span = 3500 mm (single span)

'X' (total of rafter span) = 5400 mm
roof load width = 'X' / 2 = 5400 / 2 = 2700 mm

Enter single span table at 2700 mm roof load width column, 1200 rafter spacing and read down to span equal to or greater than 3500 mm at a 20 kg/m^2 row

ADOPT:

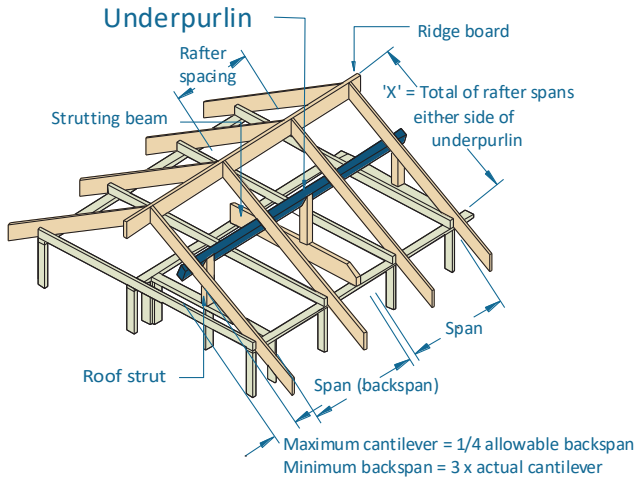
SmartLVL 15 - 150x58

Roof load width (mm)		1800		2700		3600		1800		2700		3600	
rafter spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Single span						Continuous span					
		Maximum recommended underpurlin span (mm)											
90x42	20	2200	2200	1900	1900	1700	1700	2900	2900	2600	2600	2300	2300
	60	1500	1400	1300	1100	1200	NS	2000	2000	1800	1700	1600	1400
120x42	20	2900	2900	2500	2600	2300	2300	3900	3800	3400	3400	3100	3100
	60	2000	2000	1700	1700	1600	1500	2700	2700	2400	2400	2100	2100
130x42	20	3100	3100	2700	2800	2500	2600	4200	4200	3700	3700	3400	3300
	60	2200	2200	1900	1900	1700	1700	2900	2900	2600	2600	2300	2300
140x42	20	3400	3300	2900	2900	2700	2700	4500	4500	4000	3900	3600	3600
	60	2300	2400	2100	2000	1800	1800	3200	3100	2800	2700	2500	2500
150x42	20	3600	3600	3200	3100	2900	2900	4800	4900	4300	4200	3900	3900
	60	2500	2600	2200	2200	2000	2000	3400	3400	3000	3000	2700	2700
90x58	20	2400	2500	2100	2100	1900	1900	3200	3200	2800	2800	2600	2600
	60	1600	1600	1500	1300	1300	1100	2200	2200	2000	1900	1800	1800
130x58	20	3400	3400	3000	3000	2800	2800	4600	4600	4100	4100	3700	3700
	60	2400	2500	2100	2100	1900	1900	3300	3200	2900	2900	2600	2600
150x58	20	4000	3900	3500	3500	3200	3200	5300	5300	4700	4700	4300	4300
	60	2800	2800	2500	2500	2200	2200	3800	3800	3300	3300	3000	3000
170x58	20	4500	4500	4000	3900	3600	3600	6000	6000	5300	5300	4900	4900
	60	3200	3100	2800	2800	2500	2600	4300	4300	3700	3700	3400	3400
200x58	20	5200	5300	4600	4600	4300	4200	6900	7000	6200	6200	5700	5700
	60	3700	3700	3300	3200	3000	3000	5000	5100	4400	4400	4000	4000
300x75	20	8200	8200	7400	7400	6800	6800	9800	11000	8900	9900	8400	9100
	60	6000	6000	5300	5300	4900	4900	7600	8200	7000	7100	6500_{10}	6500_{10}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Maximum cantilever = 1/4 allowable backspan
3. Minimum backspan = 3 x actual cantilever
4. End bearing length = 45 at end supports and 45 mm at internal for continuous member. Subscript values indicate the minimum additional bearing length where required to be greater than 45 mm at end support and 45 mm at internal for continuous member
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Underpurlins - sheet and tiled roof
AS 4055 wind classification C1, C2 and C3



RLW = X/2 where ridge is strutted

EXAMPLE:

wind speed = C3
rafter spacing = 1200 mm
roof load = 20 kg/m^2 (sheet roof)
underpurlin span = 3400 mm (single span)

'X' (total of rafter span) = 5400 mm
roof load width = 'X' / 2 = 5400 / 2 = 2700 mm

Enter single span table at 2700 mm roof load width column, 1200 rafter spacing and read down to span equal to or greater than 3400 mm at a 20 kg/m^2 row

ADOPT:

SmartLVL 15 - 200x58

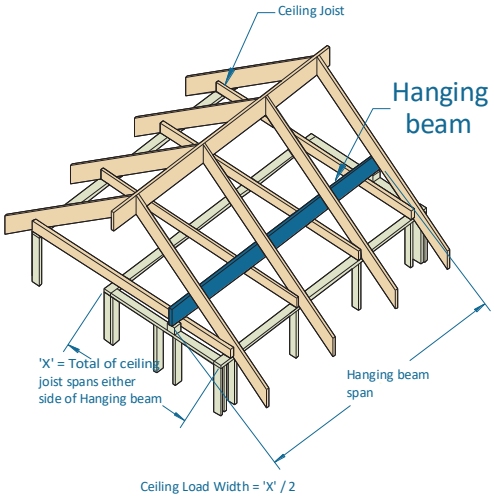
Roof load width (mm)		1800		2700		3600		1800		2700		3600	
Rafter spacing (mm)		600	1200	600	1200	600	1200	600	1200	600	1200	600	1200
Member size DxB (mm)	Roof mass (kg/m^2)	Single span						Continuous span					
		Maximum recommended underpurlin span (mm)											
90x42	20	1800	1500	1400	NS	1300	NS	1800	1800	1400	1000	1000	NS
	60	1500	1400	1300	1100	1200	NS	2000	1900	1400	1400	1400	NS
120x42	20	2400	2300	1900	1700	1600	NS	2500	2600	2000	1500	1500	1300
	60	2000	2000	1700	1700	1600	1400	2600	2600	2100	2000	1500	1500
130x42	20	2600	2600	2100	2000	1800	1300	2600	2700	2100	2000	1500	1400
	60	2200	2200	1900	1900	1700	1500	2800	2800	2200	2100	1700_{5}	1500
140x42	20	2800	2700	2300	2100	1900	1500	2800	2800	2300	2100	1700	1600
	60	2300	2400	2100	2000	1800	1800	2900	2900	2400	2500_{10}	2100_{15}	1600
150x42	20	3000	2900	2400	2300	2000	1600	3000	3000	2400	2600	2100_{10}	1600
	60	2500	2600	2200	2200	2000	2000	3200	3100	2600_{10}	2600_{15}	2200	1600
90x58	20	2100	1900	1600	1300	1400	NS	2100	2000	1700	1700	1400	1200
	60	1600	1600	1500	1300	1300	1000	2200	2200	1800	1800	1500	1400
130x58	20	2900	2800	2400	2300	2000	1900	2900	2900	2400	2500	2100	2000
	60	2400	2500	2100	2100	1900	1900	3100	3100	2600	2600	2200	2100
150x58	20	3400	3200	2700	2600	2400	2200	3400	3300	2800	2800	2400	2500
	60	2800	2800	2500	2500	2200	2200	3500	3500	2900	2900	2500_{10}	2600_{10}
170x58	20	3800	3600	3000	2900	2600	2600	3800	3700	3100	3100	2700	2700_{5}
	60	3200	3100	2800	2800	2500	2600	4000	4000	3300_{5}	3200_{5}	2800_{15}	2800_{15}
200x58	20	4400	4300	3600	3400	3100	2900	4400	4400	3600	3500	3100_{10}	3100_{10}
	60	3700	3700	3300	3200	3000	3000	4600	4600	3800_{15}	3700_{15}	3300_{25}	3200_{25}
300x75	20	6900	6900	5600	5500	4900	4800	7000_{5}	6900	5700_{15}	5600_{15}	4900_{25}	4900_{25}
	60	6000	6000	5300	5300	4900	4900	7200_{15}	7200_{15}	5900_{30}	5900_{30}	5100_{40}	5100_{40}

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Maximum cantilever = 1/4 allowable backspan
3. Minimum backspan = 3 x actual cantilever
4. End bearing length = 45 at end supports and 45 mm at internal for continuous member. Subscript values indicate the minimum additional bearing length where required to be greater than 45 mm at end support and 45 mm at internal for continuous member
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Hanging beam supporting ceiling loads only
AS 4055 classification N1 - N3

ceiling mass - 20 kg/m^2



EXAMPLE:

wind speed = N3
hanging beam span = 4200 mm
X = 5000 mm

ceiling load width = X/2 = 5000/2 = 2500 mm

Enter column at 3000 mm ceiling load width & read down to a span greater than or equal to 4200 mm

ADOPT:

SmartLVL 15 - 240x42

Ceiling load width (mm)	1800	2400	3000	3600	4200	4800
Member size DxB (mm)	Maximum recommended hanging beam span (mm)					
150x42	3650	3300	3050	2850	2650	2500
170x42	4000	3700	3450	3200	3000	2850
200x42	4500	4200	3900	3700	3550	3350
240x42	5150	4750	4500	4250	4050	3900
300x42	6050	5600	5300	5000	4800	4600
2/150x42	4250	3950	3750	3500	3300	3150
2/170x42	4650	4350	4100	3900	3700	3550
2/200x42	5200	4850	4600	4350	4200	4000
2/240x42	5950	5550	5250	5000	4750	4600
2/300x42	6900	6500	6150	5850	5600	5400
2/360x42	7800	7350	7000	6650	6400	6150
2/400x42	8400	7900	7500	7200	6900	6650
150x58	3950	3650	3350	3150	2950	2800
170x58	4300	4000	3750	3550	3350	3150
200x58	4850	4500	4250	4000	3850	3700
240x58	5500	5150	4850	4600	4400	4200
300x58	6450	6000	5650	5400	5150	4950
360x58	7300	6850	6450	6150	5900	5650
400x58	7850	7350	6950	6650	6350	6100
450x58	8500	8000	7550	7200	6900	6650
300x75	6750	6350	6000	5700	5450	5250
400x75	8250	7750	7350	7000	6700	6450
525x75	9850	9350	8900	8500	8150	7850

NOTES:

1. D = member depth, B = member breadth, NS = not suitable
2. The above table was based on a maximum ceiling mass of 20 kg/m^2
3. Minimum bearing length = 70 mm at end supports
4. Restraint value for slenderness calculations is 1500 mm
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Hanging beam supporting ceiling loads only
AS 4055 classification C1 - C3

ceiling mass - 20 kg/m^2

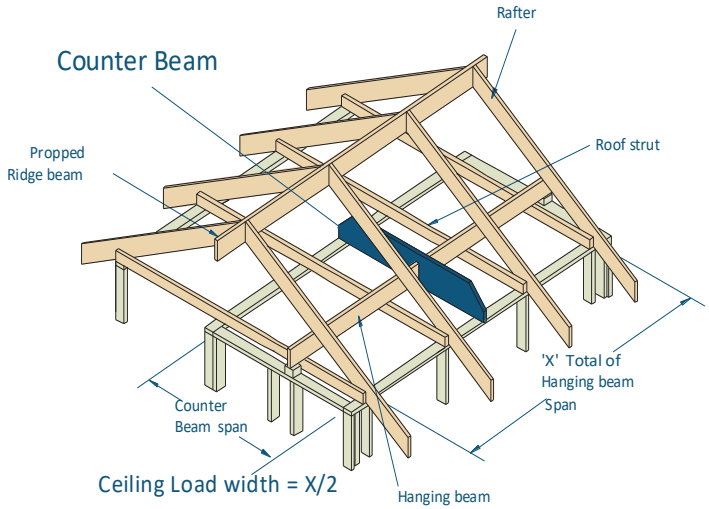
Ceiling load width (mm)	1800	2400	3000	3600	4200	4800
Member size DxB (mm)	Maximum recommended hanging beam span (mm)					
150x42	3650	3300	3050	2800	2550	2400
170x42	4000	3700	3400	3100	2850	2700
200x42	4500	4200	3900	3600	3300	3100
240x42	5150	4750	4500	4250	3900	3650
300x42	6050	5600	5300	5000	4800	4450
2/150x42	4250	3950	3750	3500	3300	3150
2/170x42	4650	4350	4100	3900	3700	3550
2/200x42	5200	4850	4600	4350	4200	4000
2/240x42	5950	5550	5250	5000	4750	4600
2/300x42	6900	6500	6150	5850	5600	5400
2/360x42	7800	7350	7000	6650	6400	6150
2/400x42	8400	7900	7500	7200	6900	6650
150x58	3950	3650	3350	3150	2900	2700
170x58	4300	4000	3750	3500	3250	3000
200x58	4850	4500	4250	4000	3750	3500
240x58	5500	5150	4850	4600	4400	4100
300x58	6450	6000	5650	5400	5150	4950
360x58	7300	6850	6450	6150	5900	5650
400x58	7850	7350	6950	6650	6350	6100
450x58	8500	8000	7550	7200	6900	6650
300x75	6750	6350	6000	5700	5450	5250
400x75	8250	7750	7350	7000	6700	6450
525x75	9850	9350	8900	8500	8150	7850

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum ceiling mass of 20 kg/m^2
3. Minimum bearing length = 70 mm at end supports.
4. Restraint value for slenderness calculations is 1500 mm
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Counter beam supporting hanging beam
AS 4055 classification N1, N2 and N3

ceiling mass - 20 kg/m^2



EXAMPLE:

wind speed = N3
total of hanging beam span = 6400 mm
ceiling load width = 'X' / 2 = 6400 / 2 = 3200 mm

counter beam span = 4500 mm

Enter column at 3600 mm ceiling load width and read down to a span greater than or equal to 4500 mm

ADOPT:

SmartLVL 15 - 240x42

Ceiling load width (mm)	600	1800	2400	3000	3600	4200	4800	5400	6600
Member size DxB (mm)	Maximum recommended counter beam span (mm)								
150x42	5250	4150	3800	3550	3350	3200	3050	2950	2750
170x42	5750	4600	4300	4000	3800	3600	3450	3350	3150
200x42	6400	5200	4900	4650	4450	4250	4050	3900	3650
240x42	7200	5900	5550	5300	5100	4900	4750	4650	4400
300x42	8300	6900	6500	6200	5950	5750	5600	5450	5200
2/150x42	5850	4900	4600	4350	4150	3950	3800	3650	3450
2/170x42	6350	5300	5050	4800	4600	4450	4300	4150	3900
2/200x42	7050	5950	5650	5400	5200	5000	4900	4750	4550
2/240x42	7850	6750	6400	6100	5900	5700	5550	5400	5200
2/300x42	9000	7800	7450	7150	6900	6700	6500	6350	6100
2/360x42	10000	8800	8400	8100	7850	7600	7400	7250	6950
2/400x42	10650	9450	9050	8700	8400	8200	7950	7800	7450
150x58	5550	4550	4200	3900	3700	3550	3400	3250	3050
170x58	6050	4950	4650	4400	4200	4000	3850	3700	3450
200x58	6700	5550	5250	5000	4800	4600	4500	4300	4050
240x58	7550	6300	5950	5700	5450	5300	5100	5000	4750
300x58	8650	7350	6950	6650	6400	6200	6000	5850	5600
360x58	9650	8300	7900	7550	7300	7050	6850	6700	6400
400x58	10300	8900	8450	8100	7850	7600	7400	7200	6900
450x58	11050	9650	9200	8800	8500	8250	8050	7850	7500
300x75	8900	7650	7300	7000	6750	6550	6350	6200	5950
400x75	10550	9300	8850	8500	8250	8000	7800	7600	7300
525x75	12000	11050	10600	10250	9900	9650	9400	9200	8850

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
3. The above table was based on a maximum ceiling mass of 20 kg/m^2
4. Minimum bearing length = 70 mm at end supports
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.
5. Top edge of counter beams with D/B > 3 shall be laterally restrained as per details on page 9

Counter beam supporting hanging beam
AS 4055 classification C1 - C3

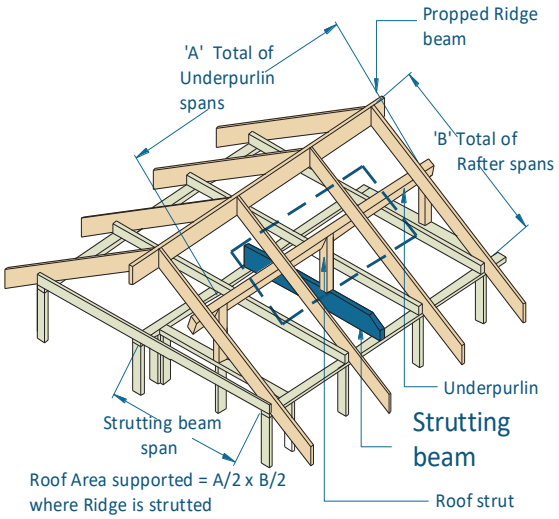
ceiling mass - 20 kg/m^2

Ceiling load width (mm)	600	1800	2400	3000	3600	4200	4800	5400	6600
Member size DxB (mm)	Maximum recommended Counter beam span (mm)								
150x42	5250	4000	3450	3100	2850	2600	2450	2300	2100
170x42	5750	4450	3850	3450	3150	2950	2750	2600	2350
200x42	6400	5150	4450	4000	3650	3400	3150	3000	2700
240x42	7200	5900	5250	4700	4300	4000	3750	3500	3200
300x42	8300	6900	6450	5750	5250	4900	4550	4300	3900
2/150x42	5850	4900	4600	4350	4150	3950	3700	3500	3150
2/170x42	6350	5300	5050	4800	4600	4400	4150	3900	3500
2/200x42	7050	5950	5650	5400	5200	5000	4800	4500	4100
2/240x42	7850	6750	6400	6100	5900	5700	5550	5300	4800
2/300x42	9000	7800	7450	7150	6900	6700	6500	6350	5850
2/360x42	10000	8800	8400	8100	7850	7600	7400	7250	6900
2/400x42	10650	9450	9050	8700	8400	8200	7950	7800	7450
150x58	5550	4500	3900	3500	3200	2950	2750	2600	2350
170x58	6050	4950	4350	3900	3550	3300	3100	2900	2650
200x58	6700	5550	5050	4500	4100	3800	3550	3350	3050
240x58	7550	6300	5900	5300	4850	4500	4200	3950	3600
300x58	8650	7350	6950	6500	5900	5500	5150	4850	4400
360x58	9650	8300	7900	7550	6950	6450	6050	5700	5150
400x58	10300	8900	8450	8100	7650	7100	6650	6250	5700
450x58	11050	9650	9200	8800	8500	7900	7400	6950	6300
300x75	8900	7650	7300	7000	6450	5950	5600	5250	4750
400x75	10550	9300	8850	8500	8250	7700	7200	6800	6150

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
3. The above table was based on a maximum ceiling mass of 20 kg/m^2
4. Minimum bearing length = 70 mm at end supports
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.
5. Top edge of Counter beams with D/B > 3 shall be laterally restrained as per details on page 9

Strutting beam supporting underpurlins
AS 4055 classification N1- N3



EXAMPLE:

wind speed = N3
sheet roof = 20 kg/m^2
total of underpurlin span 'A'= 5000 mm
total of rafter span 'B' = 4200 mm
roof area supported = (A/2) x (B/2)
= (5000/2) x (4200/2)
= 5250000 mm^2 **(Convert to m^2)**
= 5250000/1000000 = 5.25 m^2

strutting beam span = 4500 mm

Enter column at 6 m^2 roof area supported and read down to a span greater than or equal to 4500 mm at the 20 kg/m^2 row

ADOPT:

SmartLVL 15 -240x42

Roof area supported (m^2)		2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Strutting beam span (mm)					
130x42	20	3350	2750	2000	1500	NS	NS
	60	2550	1850	1500	1200	NS	NS
140x42	20	3700	3050	2300	1700	1150	NS
	60	2850	2050	1650	1450	NS	NS
150x42	20	4100	3350	2600	1950	1550	NS
	60	3100	2250	1850	1600	NS	NS
170x42	20	5000	3950	3300	2450	1950	1500
	60	3700	2700	2250	1950	1750	NS
200x42	20	5850	4950	4200	3300	2650	2200
	60	4650	3450	2850	2450	2200	2000
240x42	20	7050	6150	5350	4600	3650	3050
	60	5900	4450	3700	3250	2900	2650
300x42	20	8400	7400	6750	6300	5500	4600
	60	7150	6050	5100	4450	4000	3700
2/130x42	20	4650	3650	3100	2750	2450	2250
	60	3450	2550	2100	1850	1650	1500
2/140x42	20	5050	4050	3450	3050	2750	2500
	60	3800	2850	2350	2050	1850	1650
2/150x42	20	5450	4400	3750	3350	3050	2800
	60	4150	3100	2600	2250	2050	1850
2/170x42	20	6150	5150	4450	3950	3600	3350
	60	4900	3700	3100	2700	2450	2250
2/190x42	20	6700	5900	5150	4600	4200	3900
	60	5600	4350	3650	3200	2850	2650
2/200x42	20	6900	6150	5500	4950	4500	4200
	60	5950	4650	3900	3450	3100	2850
2/240x42	20	7850	7100	6550	6150	5750	5350
	60	6900	5900	5050	4450	4000	3700
2/300x42	20	9050	8400	7850	7400	7050	6750
	60	8200	7150	6500	6050	5500	5100
2/360x42	20	10150	9500	9000	8550	8200	7900
	60	9350	8300	7600	7100	6700	6350
2/400x42	20	10800	10200	9700	9300	8950	8600
	60	10050	9050	8350	7800	7350	7000

Strutting beam supporting underpurlins AS 4055 classification N1 - N3 (Cont'd)

Roof area supported (m^2)		2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Strutting beam span (mm)					
130x58	20	3900	3150	2650	2100	1650	1400
	60	2950	2150	1750	1500	1350	NS
150x58	20	4850	3850	3200	2700	2150	1800
	60	3600	2650	2150	1900	1700	1550
170x58	20	5550	4500	3850	3400	2700	2250
	60	4250	3150	2600	2250	2050	1850
200x58	20	6550	5550	4800	4250	3650	3050
	60	5250	3950	3300	2900	2600	2350
240x58	20	7500	6600	6050	5450	4950	4250
	60	6400	5100	4300	3750	3400	3100
300x58	20	8750	7900	7300	6800	6450	6150
	60	7650	6550	5850	5150	4650	4300
360x58	20	9850	9050	8450	7950	7550	7250
	60	8850	7700	6950	6450	6050	5550
400x58	20	10500	9750	9150	8650	8250	7950
	60	9550	8400	7650	7100	6650	6300
300x75	20	9450	8500	7800	7300	6900	6550
	60	8250	7000	6250	5650	5100	4700
400x75	20	11450	10550	9850	9300	8850	8450
	60	10300	9000	8150	7550	7050	6700
525x75	20	12000	12000	12000	11550	11100	10650
	60	12000	11250	10300	9600	9100	8650

Strutting beam supporting underpurlins AS 4055 classification C1, C2 and C3

Roof area supported (m^2)		2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended strutting beam span (mm)					
130x42	20	3350	2000	1150	NS	NS	NS
	60	2550	1850	1400	NS	NS	NS
140x42	20	3700	2250	1500	NS	NS	NS
	60	2850	2050	1600	NS	NS	NS
150x42	20	4100	2550	1700	NS	NS	NS
	60	3100	2250	1800	NS	NS	NS
170x42	20	5000	3200	2150	1400	NS	NS
	60	3700	2700	2250	1650	NS	NS
200x42	20	5850	4350	2850	2150	1300	NS
	60	4650	3450	2850	2300	1450	NS
240x42	20	7050	6050	4000	3000	2400	1550
	60	5900	4450	3700	3200	2550	1750
300x42	20	8400	7400	6050	4500	3600	3000
	60	7150	6050	5100	4450	3800	3150_5

Strutting beam supporting underpurlins
AS 4055 classification C1, C2 and C3 (cont'd)

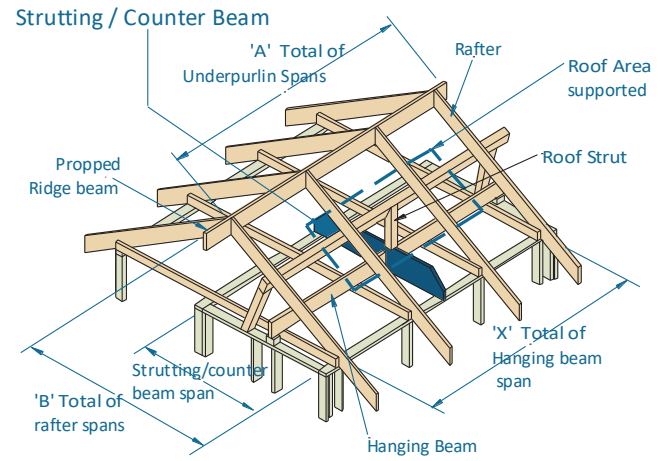
Roof area supported (m^2)		2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended strutting beam span (mm)					
2/130x42	20	4650	3650	3000	2250	1800	1150
	60	3450	2550	2100	1850	1650	1400
2/140x42	20	5050	4050	3450	2600	2050	1700
	60	3800	2850	2350	2050	1850	1650
2/150x42	20	5450	4400	3750	2950	2350	1950
	60	4150	3100	2600	2250	2050	1850
2/170x42	20	6150	5150	4450	3700	2950	2450
	60	4900	3700	3100	2700	2450	2250
2/200x42	20	6900	6150	5500	4950	3950	3300
	60	5950	4650	3900	3450	3100	2850
2/240x42	20	7850	7100	6550	6150	5500	4550
	60	6900	5900	5050	4450	4000	3700
2/300x42	20	9050	8400	7850	7400	7050	6750
	60	8200	7150	6500	6050	5500	5100
2/360x42	20	10150	9500	9000	8550	8200	7900
	60	9350	8300	7600	7100	6700	6350
2/400x42	20	10800	10200	9700	9300	8950	8600
	60	10050	9050	8350	7800	7350	7000
130x58	20	3900	2750	1800	1350	NS	NS
	60	2950	2150	1750	1450	NS	NS
150x58	20	4850	3550	2350	1750	1100	NS
	60	3600	2650	2150	1900	1250	NS
170x58	20	5550	4500	2950	2200	1750	1000
	60	4250	3150	2600	2250	1900	1150
200x58	20	6550	5550	4000	3000	2400	1950
	60	5250	3950	3300	2900	2550	2100
240x58	20	7500	6600	5550	4150	3300	2750
	60	6400	5100	4300	3750	3400	2950
300x58	20	8750	7900	7300	6250	5000	4150
	60	7650	6550	5850	5150	4650	4300
360x58	20	9850	9050	8450	7950	6750	5600
	60	8850	7700	6950	6450	6050	5550
400x58	20	10500	9750	9150	8650	8050	6650
	60	9550	8400	7650	7100	6650	6300
300x75	20	9450	8500	7800	6500	5150	4300
	60	8250	7000	6250	5650	5100	4400
400x75	20	11450	10550	9850	9300	8350	6950
	60	10300	9000	8150	7550	7050	6700
525x75	20	12000	12000	12000	11550	11100	10650
	60	12000	11250	10300	9600	9100	8650

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 70 mm at end supports.
3. Restraint value for slenderness calculations is 1500 mm
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.
5. Top edge of strutting beams with D/B > 3 shall be laterally restrained as per details on 9
6. Value in subscript indicate extra bearing length required

Strutting/counter beam supporting underpurlins & hanging beam AS 4055 classification N1- N3

ceiling mass - 20 kg/m^2



Roof Area supported = A/2xB/2 Counter/Strutting beam spacing = X/2

EXAMPLE:

wind speed = N3
sheet roof = 40 kg/m^2
total of underpurlin span 'A'= 5000 mm
total of rafter span 'B' = 4200 mm
roof area supported = (A/2) x (B/2)
= (5000/2) x (4200/2)
= 5250000 mm^2 **(Convert to m^2)**
= 5250000/1000000 = 5.25 m^2
total of hanging beam span 'X' = 4500 mm
effective beam spacing = 'X' / 2 = 4500 / 2 = 2250 mm
strutting counter beam span = 4500 mm

Enter column at 3600 mm effective beam spacing, 6 m^2 roof area supported and read down to a span greater than or equal to 4500 mm at the 40 kg/m^2 row

ADOPT:

SmartLVL 15 - 2/300x42

Effective beam spacing (mm)		1800						3600					
Roof area supported (m^2)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended strutting/counter beam span (mm)											
150x42	40	2950	2400	2050	1800	1650	1400	2600	2250	1950	1750	1600	1400
	75	2550	1950	1650	1450	1300	1150	2350	1850	1600	1400	1250	1150
170x42	40	3400	2800	2450	2200	2000	1750	3000	2600	2300	2100	1900	1700
	75	2950	2350	1950	1700	1550	1400	2700	2200	1900	1700	1500	1400
200x42	40	3950	3450	3050	2750	2500	2300	3600	3150	2850	2600	2400	2250
	75	3600	2900	2450	2200	1950	1800	3300	2750	2400	2100	1950	1800
240x42	40	4550	4100	3800	3500	3200	3000	4150	3850	3600	3300	3050	2850
	75	4250	3650	3200	2850	2550	2350	3900	3450	3050	2750	2500	2300
300x42	40	5450	4950	4600	4300	4100	3900	4900	4600	4350	4100	3950	3800
	75	5100	4500	4100	3800	3500	3250	4700	4250	3900	3650	3400	3150
2/150x42	40	3700	3200	2800	2500	2300	2100	3350	2950	2650	2400	2200	2050
	75	3350	2650	2250	2000	1800	1650	3050	2550	2200	1950	1750	1650
2/170x42	40	4100	3700	3300	2950	2750	2550	3750	3400	3100	2800	2600	2450
	75	3800	3150	2700	2400	2150	2000	3500	2950	2600	2350	2100	1950
2/190x42	40	4500	4050	3750	3450	3150	2950	4100	3800	3550	3250	3050	2850
	75	4150	3650	3150	2800	2550	2350	3850	3400	3000	2700	2500	2300
2/200x42	40	4650	4250	3900	3650	3400	3150	4250	3950	3700	3450	3250	3050
	75	4350	3800	3400	3000	2750	2550	4050	3600	3200	2900	2650	2450
2/240x42	40	5350	4900	4600	4300	4100	3900	4900	4550	4300	4100	3950	3800
	75	5050	4450	4050	3800	3550	3300	4650	4250	3900	3650	3400	3200
2/300x42	40	6300	5850	5500	5250	5000	4800	5750	5450	5200	4950	4750	4600
	75	6000	5400	4950	4650	4400	4150	5500	5100	4750	4500	4250	4100
2/360x42	40	7150	6750	6400	6100	5850	5600	6550	6250	6000	5750	5550	5400
	75	6850	6250	5800	5450	5200	4950	6300	5900	5550	5250	5000	4800
2/400x42	40	7700	7300	6950	6650	6400	6150	7050	6750	6500	6250	6050	5900
	75	7400	6800	6350	6000	5700	5450	6850	6400	6050	5750	5500	5300

Strutting/counter beam supporting underpurlins & hanging beam AS 4055 classification N1- N3 (Cont'd)

ceiling mass - 20 kg/m^2

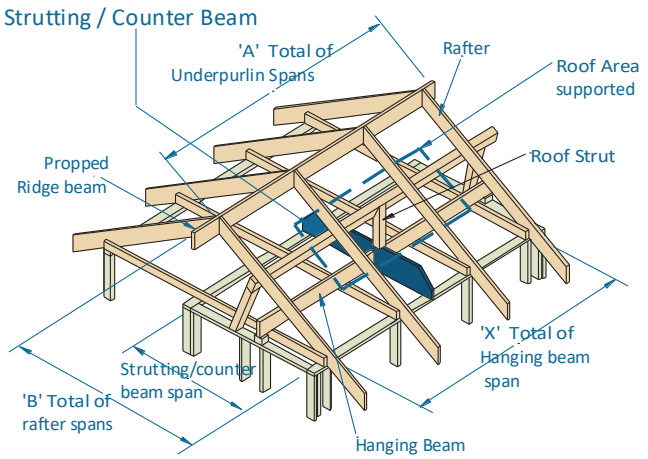
Effective beam spacing (mm)		1800						3600					
Roof area supported (m^2)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended strutting/counter beam span (mm)											
150x58	40	3300	2750	2400	2100	1900	1750	2950	2550	2250	2050	1850	1750
	75	2900	2250	1900	1650	1500	1400	2650	2150	1850	1650	1500	1350
170x58	40	3750	3200	2800	2500	2300	2150	3350	2950	2650	2400	2200	2050
	75	3400	2700	2300	2000	1800	1650	3050	2550	2200	1950	1800	1650
200x58	40	4300	3850	3500	3150	2900	2700	3900	3600	3250	3000	2750	2600
	75	3950	3350	2850	2550	2300	2100	3650	3150	2750	2450	2250	2100
240x58	40	4950	4500	4150	3900	3650	3450	4500	4150	3900	3700	3500	3300
	75	4600	4050	3650	3300	3000	2750	4250	3850	3500	3150	2900	2700
300x58	40	5850	5400	5000	4750	4500	4300	5300	5000	4700	4500	4300	4150
	75	5500	4900	4500	4150	3900	3700	5050	4650	4300	4050	3800	3650
360x58	40	6700	6200	5850	5550	5300	5100	6050	5750	5500	5250	5050	4850
	75	6350	5700	5250	4900	4650	4400	5850	5400	5050	4750	4500	4300
400x58	40	7200	6750	6400	6050	5800	5550	6550	6200	5950	5700	5500	5350
	75	6850	6250	5800	5400	5100	4900	6300	5850	5500	5200	4950	4750
450x58	40	7800	7400	7000	6700	6400	6200	7100	6800	6550	6300	6100	5900
	75	7500	6850	6400	6000	5700	5450	6900	6450	6050	5750	5500	5300
300x75	40	6150	5700	5300	5000	4750	4550	5550	5250	4950	4750	4550	4400
	75	5800	5200	4750	4400	4150	3950	5350	4900	4550	4250	4050	3850
400x75	40	7600	7150	6750	6400	6150	5900	6850	6550	6300	6050	5800	5650
	75	7250	6600	6100	5750	5400	5150	6650	6200	5800	5500	5250	5000
525x75	40	9200	8750	8400	8050	7750	7450	8350	8000	7750	7500	7300	7100
	75	8900	8250	7700	7300	6950	6650	8100	7650	7250	6950	6650	6400

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 70 mm at end supports
3. The above table was based on a maximum ceiling mass of 20 kg/m^2
4. Top edge of strutting/counter beams with D/B > 3 shall be laterally restrained as per details on page 9
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Strutting/counter beam supporting underpurlins & hanging beam AS 4055 classification C1 - C3

ceiling mass - 20 kg/m^2



Roof Area supported = A/2xB/2 Counter/Strutting beam spacing = X/2

EXAMPLE:

wind speed = C3
sheet roof = 40 kg/m^2
total of underpurlin span 'A'= 5000 mm
total of rafter span 'B' = 4200 mm
roof are supported= (A/2) x (B/2)
= (5000/2) x (4200/2)
= 5250000 mm^2 **(Convert to m^2)**
= 5250000/1000000 = 5.25 m^2
total of hanging beam span 'X' = 4500 mm
effective beam spacing = 'X' / 2 = 4500 / 2 = 2250 mm
strutting counter beam span = 4500 mm

Enter column at 3600 mm effective beam spacing, 6m^2 roof area supported and read down to a span greater than or equal to 4500 mm at the 40 kg/m^2 row

ADOPT:

SmartLVL 15 - 2/300x42

Effective beam spacing (mm)		1800						3600					
Roof area supported (m^2)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Strutting/counter beam span (mm)											
150x42	40	2950	1800	1200	NS	NS	NS	2600	1850	1200	NS	NS	NS
	75	2550	1950	1250	NS	NS	NS	2350	1850	1300	NS	NS	NS
170x42	40	3400	2300	1500	1100	NS	NS	3000	2350	1500	1100	NS	NS
	75	2950	2350	1600	1200	NS	NS	2700	2200	1600	1200	NS	NS
200x42	40	3950	3100	2000	1500	1200	NS	3600	3150	2050	1500	1200	NS
	75	3600	2900	2150	1600	1250	NS	3300	2750	2200	1600	1300	NS
240x42	40	4550	4100	2800	2100	1650	1400	4150	3850	2900	2100	1650	1400
	75	4250	3650	3050	2250	1800	1500	3900	3450	3050	2250	1800	1500
300x42	40	5450	4950	4300	3150	2500	2100	4900	4600	4350	3200	2550	2100
	75	5100	4500	4100	3400	2700	2250	4700	4250	3900	3450	2700	2250
2/150x42	40	3700	3200	2750	2050	1600	1350	3350	2950	2650	2050	1650	1350
	75	3350	2650	2250	2000	1750	1450	3050	2550	2200	1950	1750	1450
2/170x42	40	4100	3700	3300	2600	2050	1700	3750	3400	3100	2600	2050	1700
	75	3800	3150	2700	2400	2150	1800	3500	2950	2600	2350	2100	1850
2/200x42	40	4650	4250	3900	3500	2750	2300	4250	3950	3700	3450	2800	2300
	75	4350	3800	3400	3000	2750	2450	4050	3600	3200	2900	2650	2450
2/240x42	40	5350	4900	4600	4300	3850	3200	4900	4550	4300	4100	3900	3250
	75	5050	4450	4050	3800	3550	3300	4650	4250	3900	3650	3400	3200
2/300x42	40	6300	5850	5500	5250	5000	4800	5750	5450	5200	4950	4750	4600
	75	6000	5400	4950	4650	4400	4150	5500	5100	4750	4500	4250	4100
2/360x42	40	7150	6750	6400	6100	5850	5600	6550	6250	6000	5750	5550	5400
	75	6850	6250	5800	5450	5200	4950	6300	5900	5550	5250	5000	4800
2/400x42	40	7700	7300	6950	6650	6400	6150	7050	6750	6500	6250	6050	5900
	75	7400	6800	6350	6000	5700	5450	6850	6400	6050	5750	5500	5300

Strutting/counter beam supporting underpurlins & hanging beam AS 4055 classification C1 - C3 (Cont'd)

ceiling mass - 20 kg/m^2

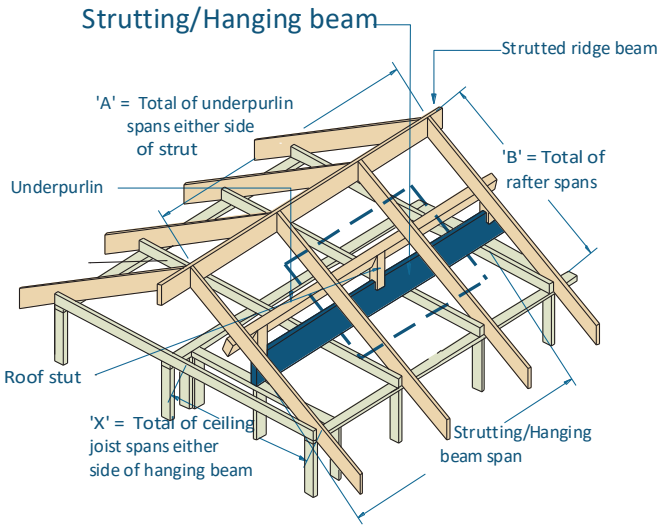
Effective beam spacing (mm)		1800						3600					
Roof area supported (m^2)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended strutting /counter span (mm)											
150x58	40	3300	2500	1650	1200	NS	NS	2950	2550	1650	1250	NS	NS
	75	2900	2250	1750	1300	1050	NS	2650	2150	1800	1300	1050	NS
170x58	40	3750	3200	2100	1550	1200	1000	3350	2950	2100	1550	1250	1000
	75	3400	2700	2250	1650	1300	1100	3050	2550	2200	1650	1300	1100
200x58	40	4300	3850	2800	2100	1650	1350	3900	3600	2850	2100	1650	1400
	75	3950	3350	2850	2250	1750	1450	3650	3150	2750	2250	1800	1450
240x58	40	4950	4500	3950	2900	2300	1900	4500	4150	3900	2950	2350	1950
	75	4600	4050	3650	3100	2500	2050	4250	3850	3500	3150	2500	2050
300x58	40	5850	5400	5000	4400	3500	2900	5300	5000	4700	4500	3550	2900
	75	5500	4900	4500	4150	3750	3100	5050	4650	4300	4050	3800	3150
360x58	40	6700	6200	5850	5550	4750	3900	6050	5750	5500	5250	4850	3950
	75	6350	5700	5250	4900	4650	4200	5850	5400	5050	4750	4500	4250
400x58	40	7200	6750	6400	6050	5700	4700	6550	6200	5950	5700	5500	4750
	75	6850	6250	5800	5400	5100	4900	6300	5850	5500	5200	4950	4750
450x58	40	7800	7400	7000	6700	6400	5700	7100	6800	6550	6300	6100	5850
	75	7500	6850	6400	6000	5700	5450	6900	6450	6050	5750	5500	5300
300x75	40	6150	5700	5300	4650	3700	3050	5550	5250	4950	4750	3750	3100
	75	5800	5200	4750	4400	3650	3050	5350	4900	4550	4250	3600	3000
400x75	40	7600	7150	6750	6400	6000	4950	6850	6550	6300	6050	5800	5050
	75	7250	6600	6100	5750	5400	4850	6650	6200	5800	5500	5250	4700
545x75	40	9200	8750	8400	8050	7750	7450	8350	8000	7750	7500	7300	7100
	75	8900	8250	7700	7300	6950	6650	8100	7650	7250	6950	6650	6400

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. Minimum bearing length = 70 mm at end supports.
3. The above table was based on a maximum ceiling mass of 20 kg/m^2
4. Top edge of strutting/counter beams with D/B > 3 shall be laterally restrained as per details on page 9
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Strutting/hanging beam
AS 4055 classification N1 - N3

ceiling mass - 20 kg/m^2



Roof Area Supported =A/2 x B/2 Ceiling Load width = X/2

EXAMPLE:

wind speed = N3
sheet roof = 40 kg/m^2
A = 5000 mm, B = 4200 mm
roof area supported = (A/2) x (B/2)
= (5000/2) x (4200/2)
= 5250000 mm^2 **(Convert to m^2)**
= 5250000/1000000 = 5.25 m^2
strutting/hanging beam span = 4200 mm
ceiling joist span ('X') = 4400 mm
ceiling load width = ['X' / 2) = 4400/2 = 2200 mm

Enter column at 3600 mm ceiling load width, 6 m^2 roof area supported and read down to a span greater than or equal to 4200 mm at the 40 kg/m^2 row

ADOPT:

SmartLVL 15 - 300x42

Ceiling load width (mm)		1800						3600					
Roof area supported (m^2)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended strutting/hanging beam span (mm)											
150x42	40	2800	2350	2000	1800	1650	1000	2400	2100	1850	1700	1550	1000
	75	2450	1900	1600	1400	1000	NS	2150	1800	1550	1350	NS	NS
170x42	40	3250	2750	2400	2150	1950	1750	2750	2450	2200	2000	1850	1700
	75	2900	2300	1950	1700	1550	NS	2550	2100	1850	1650	1500	NS
200x42	40	3850	3400	3000	2700	2450	2300	3300	2950	2700	2500	2300	2150
	75	3550	2850	2450	2150	1950	1800	3050	2600	2300	2050	1900	1750
240x42	40	4450	4050	3700	3450	3150	2950	3900	3650	3400	3150	2950	2750
	75	4150	3600	3150	2800	2550	2350	3750	3300	2900	2650	2450	2250
300x42	40	5350	4900	4550	4250	4050	3850	4650	4400	4200	4000	3800	3700
	75	5000	4450	4050	3750	3500	3250	4450	4100	3800	3550	3300	3100
2/150x42	40	3650	3100	2750	2450	2250	2100	3100	2750	2500	2300	2150	2000
	75	3250	2600	2250	2000	1800	1650	2850	2400	2100	1900	1750	1600
2/170x42	40	4000	3600	3250	2950	2700	2500	3500	3200	2900	2700	2500	2350
	75	3700	3100	2650	2350	2150	2000	3300	2850	2500	2250	2050	1900
2/200x42	40	4550	4150	3850	3600	3350	3150	4000	3750	3550	3300	3100	2950
	75	4250	3750	3350	3000	2700	2500	3850	3450	3100	2800	2600	2400
2/240x42	40	5250	4850	4500	4250	4050	3900	4650	4400	4150	4000	3800	3700
	75	4950	4400	4050	3750	3500	3250	4450	4100	3800	3600	3350	3100
2/300x42	40	6200	5800	5450	5200	4950	4750	5500	5200	5000	4800	4650	4500
	75	5900	5350	4900	4600	4350	4150	5300	4900	4600	4400	4200	4000
2/360x42	40	7100	6700	6350	6050	5800	5600	6250	6000	5800	5600	5400	5250
	75	6800	6200	5750	5450	5150	4900	6100	5700	5400	5150	4900	4700
2/400x42	40	7650	7250	6900	6600	6350	6100	6800	6500	6300	6100	5900	5750
	75	7350	6750	6300	5950	5650	5400	6600	6200	5900	5600	5400	5200

Strutting/hanging beam
AS 4055 classification N1, N2 and N3 (Cont'd)

ceiling mass - 20 kg/m^2

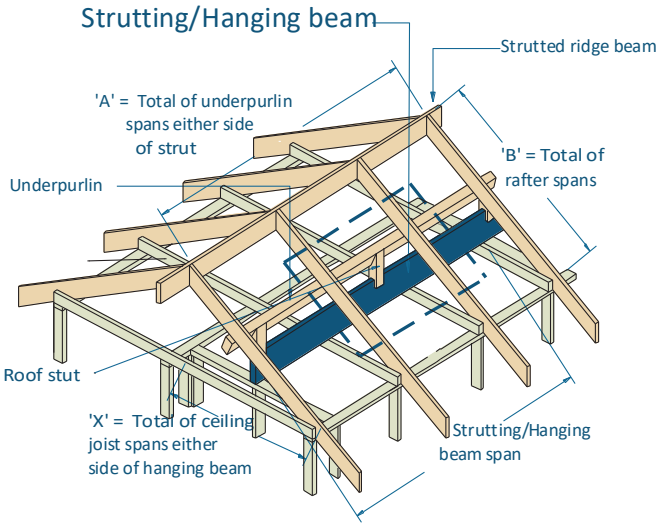
Ceiling load width (mm)		1800						3600					
Roof area supported (m^2)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum strutting/hanging beam span (mm)											
150x58	40	3200	2700	2350	2100	1900	1750	2700	2400	2150	1950	1800	1700
	75	2800	2250	1900	1650	1500	1350	2450	2050	1800	1600	1450	1350
170x58	40	3650	3150	2750	2500	2250	2100	3100	2750	2500	2300	2150	2000
	75	3300	2650	2250	2000	1800	1650	2850	2450	2150	1900	1750	1600
200x58	40	4200	3750	3400	3100	2850	2650	3650	3350	3100	2850	2650	2500
	75	3900	3300	2850	2500	2300	2100	3450	3000	2650	2400	2200	2050
240x58	40	4850	4400	4100	3850	3650	3400	4250	4000	3750	3600	3350	3200
	75	4500	4000	3600	3250	2950	2750	4050	3700	3350	3050	2800	2650
300x58	40	5750	5300	4950	4700	4450	4250	5050	4750	4550	4350	4200	4050
	75	5400	4850	4450	4150	3900	3700	4850	4450	4150	3950	3750	3550
360x58	40	6600	6150	5800	5500	5250	5050	5800	5500	5300	5100	4900	4750
	75	6250	5650	5200	4900	4600	4400	5600	5200	4900	4650	4400	4250
400x58	40	7100	6700	6300	6000	5750	5550	6250	6000	5750	5550	5350	5200
	75	6800	6200	5750	5400	5100	4850	6050	5650	5350	5100	4850	4650
450x58	40	7750	7300	6950	6650	6350	6150	6850	6550	6300	6100	5900	5750
	75	7450	6800	6350	6000	5650	5400	6650	6250	5900	5650	5400	5200
300x75	40	6100	5600	5200	4900	4700	4500	5300	5000	4800	4600	4400	4300
	75	5700	5100	4700	4400	4100	3900	5100	4700	4400	4100	3900	3800
400x75	40	7500	7100	6700	6400	6100	5900	6600	6300	6100	5800	5700	5500
	75	7200	6600	6100	5700	5400	5100	6400	6000	5600	5400	5100	4900
525x75	40	9200	8700	8400	8000	7700	7400	8100	7800	7500	7300	7100	6900
	75	8900	8200	7700	7300	6900	6600	7900	7400	7100	6800	6500	6300

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum ceiling mass of 20 kg/m^2
3. Minimum bearing length = 70 mm at end supports.
4. Top edge of strutting/hanging beams with D/B > 3 shall be laterally restrained as per detail on page 9
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Strutting/hanging beam
AS 4055 classification C1 - C3

ceiling mass - 20 kg/m^2



Roof Area Supported =A/2 x B/2 Ceiling Load width = X/2

EXAMPLE:
wind speed = C3
sheet roof = 40 kg/m^2
A = 5000 mm, B = 4200 mm
roof area supported = (A/2) x (B/2)
= (5000/2) x (4200/2)
= 5250000 mm^2 **(Convert to m^2)**
= 5250000/1000000 = 5.25 m^2
strutting hanging beam span = 4200 mm
ceiling joist span ('X') = 4400 mm
ceiling load width = ['X' / 2) = 4400/2 = 2200 mm

Enter column at 3600 mm ceiling load width, 6m^2 roof area supported and read down to a span greater than or equal to 4200 mm at the 40 kg/m^2 row

ADOPT:

SmartLVL 15 - 2/300x42

Ceiling load width (mm)		1800						3600					
Roof area supported (m^2)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended Strutting/hanging beam span (mm)											
150x42	40	2800	2200	1700	NS	NS	NS	2000	2050	1650	NS	NS	NS
	75	2450	1900	1300	NS	NS	NS	2050	1800	1200	NS	NS	NS
170x42	40	3200	2650	2150	1200	NS	NS	2250	2300	2050	1150	NS	NS
	75	2900	2300	1900	NS	NS	NS	2250	2100	1850	NS	NS	NS
200x42	40	3650	3400	2800	2150	1150	NS	2600	2650	2700	2100	1150	NS
	75	3550	2850	2450	1700	NS	NS	2600	2600	2300	1600	NS	NS
240x42	40	4300	4050	3650	2950	2400	1400	3050	3100	3150	2850	2350	1350
	75	4150	3600	3150	2650	1750	1050	3050	3150	2900	2600	1700	1050
300x42	40	5250	4900	4550	4250	3550	3000_{10}	3700	3750	3800	3850	3450	2900_{10}
	75	5000	4450	4050	3750	3200_{5}	2550_{15}	3750	3800	3800	3550	3100_{10}	2450_{20}
2/150x42	40	3650	3100	2550	2200	1950	1800	3000	2750	2500	2200	1950	1800
	75	3250	2600	2250	2000	1800	1300	2850	2400	2100	1900	1750	1250
2/170x42	40	4000	3600	3100	2650	2400	2200	3350	3200	2900	2650	2400	2200
	75	3700	3100	2650	2350	2150	2000	3300	2850	2500	2250	2050	1900
2/200x42	40	4550	4150	3850	3400	3050	2800	3850	3750	3550	3300	3050	2800
	75	4250	3750	3350	3000	2700	2500	3850	3450	3100	2800	2600	2400
2/240x42	40	5250	4850	4500	4250	4000	3650	4550	4400	4150	4000	3800	3650
	75	4950	4400	4050	3750	3500	3250	4450	4100	3800	3600	3350	3100
2/300x42	40	6200	5800	5450	5200	4950	4750	5500	5200	5000	4800	4650	4500
	75	5900	5350	4900	4600	4350	4150	5300	4900	4600	4400	4200	4000
2/360x42	40	7100	6700	6350	6050	5800	5600	6250	6000	5800	5600	5400	5250
	75	6800	6200	5750	5450	5150	4900	6100	5700	5400	5150	4900	4700
2/400x42	40	7650	7250	6900	6600	6350	6100	6800	6500	6300	6100	5900	5750
	75	7350	6750	6300	5950	5650	5400	6600	6200	5900	5600	5400	5200

Strutting/hanging beam
AS 4055 classification C1 - C3 (Cont'd)

ceiling mass - 20 kg/m^2

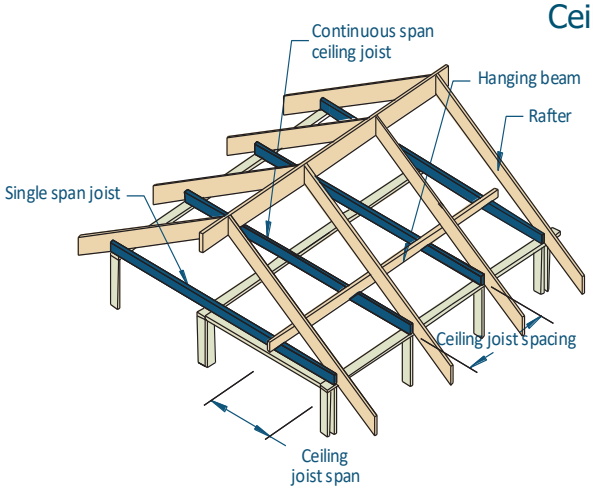
Ceiling load width (mm)		1800						3600					
Roof area supported (m^2)		2	4	6	8	10	12	2	4	6	8	10	12
Member size DxB (mm)	Roof mass (kg/m^2)	Maximum recommended strutting/hanging beam span (mm)											
150x58	40	3200	2600	2100	1750	NS	NS	2350	2400	2100	1750	NS	NS
	75	2800	2250	1900	1550	NS	NS	2400	2050	1800	1450	NS	NS
170x58	40	3650	3150	2550	2200	1800	NS	2600	2650	2500	2150	1750	NS
	75	3300	2650	2250	2000	1150	NS	2650	2450	2150	1900	1100	NS
200x58	40	4200	3750	3250	2850	2400	2000	3000	3050	3100	2850	2350	1900
	75	3850	3300	2850	2500	2150	1250	3050	3000	2650	2400	2100	1250
240x58	40	4850	4400	4100	3700	3300	2750	3550	3600	3650	3600	3200	2700
	75	4500	4000	3600	3250	2950	2450	3600	3700	3350	3050	2800	2400
300x58	40	5750	5300	4950	4700	4450	4100	4350	4400	4450	4350	4200	3950
	75	5400	4850	4450	4150	3900	3650	4400	4450	4150	3950	3750	3550
360x58	40	6600	6150	5800	5500	5250	5050	5050	5100	5150	5100	4900	4750
	75	6250	5650	5200	4900	4600	4400	5050	5150	4900	4650	4400	4250
400x58	40	7100	6700	6300	6000	5750	5550	5500	5550	5600	5550	5350	5200
	75	6800	6200	5750	5400	5100	4850	5500	5600	5350	5100	4850	4650
450x58	40	7750	7300	6950	6650	6350	6150	6050	6100	6150	6100	5900	5750
	75	7450	6800	6350	6000	5650	5400	6050	6150	5900	5650	5400	5200
300x75	40	6100	5600	5200	4700	3700	3000	5300	5000	4800	4600	3800	3100
	75	5700	5100	4700	4400	3700	3100	5100	4700	4400	4100	3600	3000
400x75	40	7500	7100	6700	6400	6000	5000	6600	6300	6100	5800	5700	5100
	75	7200	6600	6100	5700	5400	4900	6400	6000	5600	5400	5100	4700
525x75	40	9200	8700	8400	8000	7700	7400	8100	7800	7500	7300	7100	6900
	75	8900	8200	7700	7300	6900	6600	7900	7400	7100	6800	6500	6300

NOTES:

1. D = member depth, B = member breadth, NS = not suitable.
2. The above table was based on a maximum ceiling mass of 20 kg/m^2
3. Minimum bearing length = 70 mm at end supports. Subscript values indicate the minimum additional bearing length
4. Top edge of strutting/hanging beams with D/B > 3 shall be laterally restrained as per detail on page 9
5. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Ceiling joists
AS 4055 wind classification N1-N3 and C1-C3

Ceiling mass 20 kg/m^2



EXAMPLE:

wind speed = N3
ceiling mass = 20 kg/m^2
ceiling Joist span = 4500 mm (single span)
ceiling Joist spacing = 450 mm

Enter single span table at 450 mm in joist spacing column, read down to a span equal to or greater than 4500 mm

ADOPT:
SmartLVL 15 - 140x42

Ceiling joist spacing (mm)	450	600	900	1200	450	600	900	1200
Member size DxB (mm)	Maximum recommended single span (mm)				Maximum recommended continuous span (mm)			
90x42	2300	2300	2300	2300	3100	3100	3100	2900
120x42	3600	3600	3500	3200	4700	4700	4500	3800
130x42	4000	4000	3700	3400	5300	5300	4900	4100
140x42	4500	4500	4000	3700	6000	5700	5200	4400
150x42	5000	4800	4300	3900	6300	6000	5500	4700
170x42	5500	5200	4800	4500	6900	6500	6000	5300
200x42	6100	5800	5400	5100	7700	7300	6800	6200
240x42	6900	6600	6100	5800	8600	8200	7700	7300
300x42	7900	7600	7100	6700	10000	9600	8900	8500
90x58	2700	2700	2700	2600	3600	3600	3600	3300
130x58	4700	4500	4100	3800	6100	5800	5300	4700
150x58	5300	5100	4700	4300	6700	6400	5900	5400
170x58	5800	5500	5100	4800	7200	6900	6400	6000
200x58	6400	6100	5700	5400	8100	7700	7200	6800
240x58	7200	6900	6500	6100	9000	8700	8100	7700
300x58	8200	8000	7500	7200	10400	10000	9400	9000
360x58	9200	8900	8400	8100	11600	11200	10600	10200
400x58	9800	9500	9000	8700	12000	12000	11400	10900
450x58	10500	10200	9700	9400	12000	12000	12000	11800
300x75	8500	8200	7800	7500	10700	10300	9800	9400
400x75	10000	9800	9300	9000	12000	12000	11800	11300
525x75	10800	10500	10000	9700	12000	12000	12000	12000

NOTES:

1. D = member depth, B = member breadth
2. Do not walk on joists during construction unless a construction plank is in place
3. Minimum end/internal bearing length of 70 mm
4. Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering
5. Ceiling space is not designed for storage purposes

SMARTFRAME®

POWERED BY INNOVATION

Head Office

Victoria

31-45 Orchard Street,
Kilsyth Vic 3137

email: sales@tilling.com.au

Phone +61 3 9725 0222

Fax +61 3 9725 3045

New South Wales

109 Kurrajong Avenue,
Mt Druitt, NSW 2770

email: nswsales@tilling.com.au

Phone +61 2 9677 2600

Fax +61 2 9677 2500

Queensland

84 Magnesium Drive,
Crestmead QLD 4132

email: qldsales@tilling.com.au

Phone +61 7 3440 5400

Fax +61 7 3440 5444

Western Australia

10 Cartwright Drive
Forrestdale WA 6112

email: wasales@tilling.com.au

Phone +61 8 9399 1609

Fax +61 8 9399 1065

South Australia

5-9 Woomera Ave
Edinburgh SA 5111

email: sasales@tilling.com.au

Phone +61 8 8345 1966

Fax +61 8 8345 1977

Sales 1800 33 77 03

Technical support 1300 66 86 90

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