

# SmartLVL 18 Design Guide





## SCOPE OF THIS PUBLICATION

This Design Guide and Load Tables assist in the selection of SmartLVL 18 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 [Smartdata@tilling.com.au](mailto:Smartdata@tilling.com.au) or on the SmartData Customer HelpLine 1300 668 690.

## SUBSTITUTION OF OTHER PRODUCTS

All load tables in this document are designed using in-grade tested properties of SmartLVL 18 as distributed by Tilling Timber Pty Ltd. Other manufacturers' LVL may have different properties and therefore cannot be designed using these span tables.

## COPYRIGHT

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### **SmartFrame Product Warranty\***

Tilling Timber warrants that its SmartFrame Engineered Wood products will be free from manufacturing defects in workmanship and material.

In addition, provided the product is correctly installed and used, Tilling Timber warrants the adequacy of its design for the normal and expected life of the structure.

This warranty is backed by the full resources of Tilling Timber, Pacific Woodtech Corporation and by underwritten product liability insurance.

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# INTRODUCTION

## SmartLVL 18

SmartLVL 18 is engineered with sheets of thin ultrasonically graded Keruing bonded together with exterior grade adhesives manufactured to AS/NZS 4357 under a Standard Production Procedures and Quality Control process system certified to ISO 9002 with this quality process subject to third party audits and certification by the internationally recognised Lloyd's Register.

SmartLVL 18 is manufactured from sustainable forests under a chain CoC (chain of Custody) scheme certified as complying to PEFC (license No PEFC/34-31-091)

SmartLVL 18 is dimensionally stable and resists warping and twisting and is machined to consistently uniform sizes. Natural defects are dispersed throughout the member, unlike solid timber with knots. This uniformity provides a rigid, flat surface with good nail holding characteristics. It's a high strength structural member you can cut, fasten and nail with ease.

### PRODUCT SPECIFICATION:

Veneer:	Thickness (normal):	1.9 mm
	Species:	Keruing ( <i>Dipterocarpus spp</i> )
	Grade:	CD
	Joints:	Face Scarf and overlap

**MOISTURE CONTENT:** 12-15 %

### DIMENSIONAL TOLERANCES:

Length:	± 10 mm
Depth:	≤ 200 mm ± 1 mm
	≥ 201 mm ± 2 mm
Thickness:	+ 2.0, - 0 mm

**DENSITY:** Approx. 880 kg/m<sup>3</sup>

**ADHESIVE:** Phenol Formaldehyde (Type "A", AS2754.1)

**MAXIMUM SUPPLY LENGTH:** 6.0 metres



### CHARACTERISTIC STRENGTHS AND ELASTIC MODULI:

#### Characteristic short duration modulus of elasticity and strength values<sup>(1)</sup>

Modulus of Elasticity	E	19500	MPa
Rigidity	G	975	MPa
Bending	f <sub>b,300</sub>	72 <sup>(2)</sup>	MPa
Tension parallel to grain	f <sub>t,150</sub>	47 <sup>(3)</sup>	MPa
Compression perpendicular to grain	f <sub>p</sub>	19	MPa
Compression parallel to grain	f <sub>c</sub>	45	MPa
Shear* (3 point bending to AS/NZS 4063)	f <sub>s</sub>	6.4	MPa
Joint Group (Nails, screws bolts etc.)		JD2	
(Nailplates)		by Nail plate manufacturer	

1. Characteristic values apply to dry service conditions
2. For beams with a depth greater than 300 mm, multiply by  $\left(\frac{300}{d}\right)^{0.167}$  where d is the depth of the member
3. For tension members with the larger cross sectional dimension exceeding 150 mm multiply by  $\left(\frac{150}{d}\right)^{0.167}$  where d is the larger cross sectional dimension

### CAPACITY FACTORS (Φ) FOR USE WITH SmartLVL 18:

The capacity factor (Φ) for calculating the design capacity for a structural member depends upon the type of structural material and the application of the member as described in Table B1.2a of the BCA. SmartLVL 18 used as a structural member for houses for which failure would be unlikely to effect an area greater than 25 m<sup>2</sup> and as a secondary structural element in structures other than houses (as per definition in AS1720.1) has a capacity factor Φ of 0.95. For other structural applications, the values of Φ should be obtained from the above standard. All the tables within this document have been prepared with the value of Φ = 0.95.

### RIP SAWING SmartLVL 18

One of the unique properties of SmartLVL 18 is that it may be ripped through the thickness 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.

## MULTIPLE MEMBER LAMINATIONS

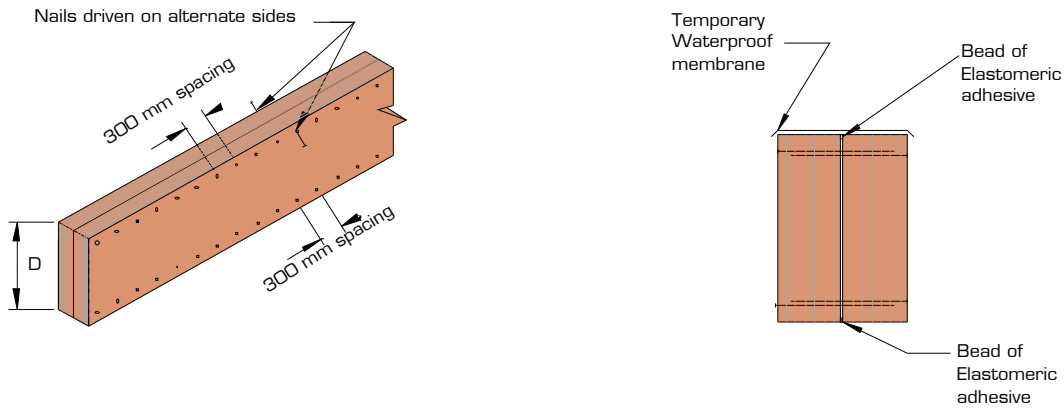
Vertical laminations may be achieved by adopting the procedures described in clause 2.3 of AS1684 however these procedures should be considered as the minimum requirements to achieve the desired effect.

Experience with SmartLVL 18 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 method of vertical lamination below provides a greater level of fixity between individual components, and with the use of an elastomeric adhesive, also prevents moisture penetration between the laminates.

### MULTIPLE MEMBER LAMINATING OF TOP LOADED BEAMS (Symmetrical loading)

The edges of the individual sections must be carefully aligned to each other so that the composite beam is flat, allowing the applied loads to be equally shared.

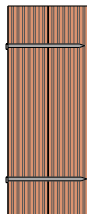
Depths up to and including 300 mm: 2 rows of nails as shown above at 300 mm centres  
 Depths in excess of 300 mm: 3 rows of nails as shown above at 300 mm centres



### MULTIPLE MEMBER LAMINATING OF SIDE LOADED BEAMS (Non-symmetrical loading)

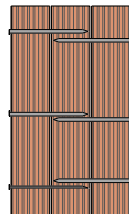
#### Combination 1

2 pieces of  
35 or 45 mm



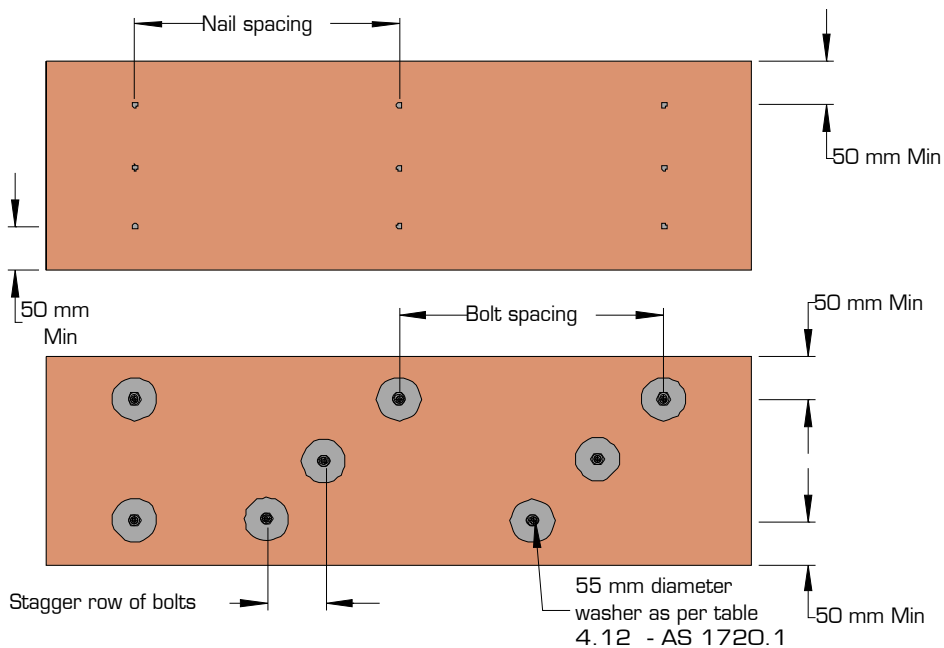
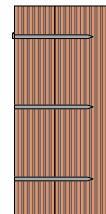
#### Combination 2

3 pieces of  
35 or 45 mm



#### Combination 3

1 piece of 35 or 45 mm  
1 piece of 65 mm



## MAXIMUM FLOOR LOAD WIDTH SUPPORTED BY EITHER OUTSIDE MEMBER (mm)

Combination (see details above)	3.75Φ x 90 mm nails		12 mm Φ bolts	
	2 rows at 300 mm ctrs	3 rows at 300 mm ctrs	2 rows at 600 mm ctrs	2 rows at 300 mm ctrs
Combination 1	3400	5100	7500	15000
Combination 2	2900	4000	5600	11000
Combination 3	2900	4000	5600	11000

### Notes:

1. Table values are for 40 kg/m<sup>2</sup> floors.
2. The table values for nails may be doubled for nails at 150 mm centres, and tripled for nails at 100 mm centres
3. The nail schedules shown apply to both sides of a three (3) piece beam
4. Bolts are to be grade 4.6 commercial bolts conforming to AS 1111. Bolt holes are to be a maximum of 13 mm diameter and are to be located NOT less than 50 mm from either edge.
5. All bolts shall be fitted with a washer at each end, of a size NOT less than that given in AS 1720.1 table 4.12.

## HOW TO USE THE MAXIMUM UNIFORM SIDE LOAD TABLE

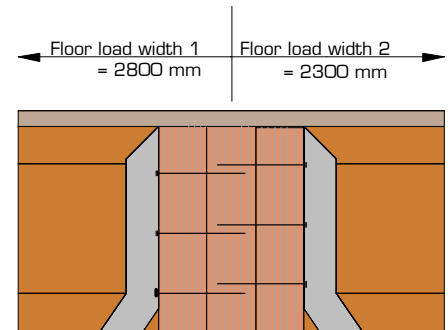
Example: see diagram opposite

Beam of 2 SmartFrame LVL loaded on both sides (Combination 1)

FLW 1 = 2800 mm, FLW 2 = 2300 mm

Total FLW = 2800 + 2300 = 5100 mm.

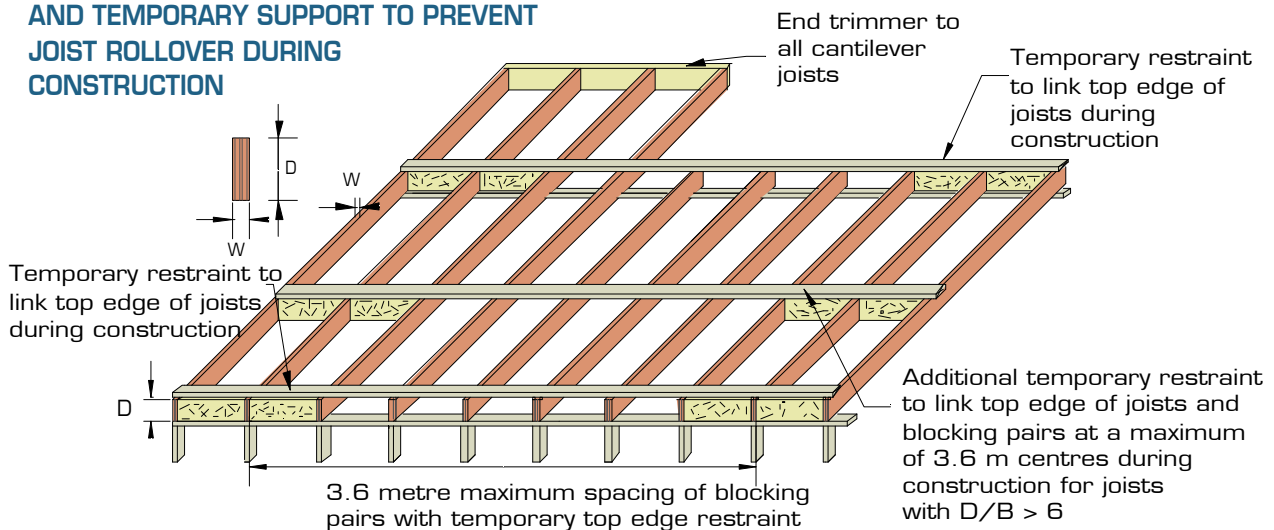
1. Use SmartFrame software or Smart LVL 18 span tables to size the two member section to support the FLW of 5100 mm.
2. Choose the larger of the side FLW's carried by the beam, in this case 2800 mm.
3. Enter the table at the "Combination 1" row and scan across to a table value greater than 2800 mm. The first value in the row at 3600 mm is greater than the 2800 mm required.
4. Thus adopt 2 rows of 3.75 Φ x 90 mm nails at 300 mm centres



## RESTRAINT FOR DEEP JOISTS DURING CONSTRUCTION

Floor joists with a depth of four (4) times the width are classified as deep joists. These joists, due to their large depth to width ratio, are prone to overturning or buckling under construction. To prevent this, restraint systems for deep joisted floor should comply with the diagram below as a minimum, or alternatively, the deep joist blocking detail in AS1684 .

### DEEP JOIST BLOCKING OF SmartLVL AND TEMPORARY SUPPORT TO PREVENT JOIST ROLLOVER DURING CONSTRUCTION



# LVL 18 - STORAGE, HANDLING AND END-USE INSTRUCTIONS

## Introduction

SmartLVL 18 is manufactured from Keruing, a hardwood with a natural durability rating of Class 3 (AS 5604), which is the same natural durability rating as some Eucalypts, and better than untreated commercial softwoods.

The very nature of the current gluing process requires the veneers of SmartLVL 18 to be quite dry, in fact for SmartLVL 18 the veneer moisture content (MC) is approximately 6% during manufacture. The manufactured product is then conditioned to raise the EMC to 10 -12 %. Natural growth stresses within individual veneers tends to be counteracted by adjacent veneers in LVL, one of the fundamental reasons why LVL products are so stable.

Rapid localised changes in the moisture content of timber veneers introduce large stresses at the glue-lines of laminated products. The higher strength and stiffness of the individual hardwood veneers makes the stress build up many times greater than that associated with the softer and weaker softwood veneers, which 're-shape' more easily to accommodate these stresses. In some cases, these stresses cause sections of wood fibre within veneers to tear apart.

LVL 18 showing distress due to the localised or extreme cycles of EMC levels is most likely to exhibit one or more of the following:

- i. Checking of the edge of member immediately adjacent to a glue-line to a depth of overall depth/4 - it may appear to be the actual glue-line but close inspection should reveal a very thin layer of wood fibre on both faces
- ii. End checking to a depth of 30 mm
- iii. Face checking, slight bubbling of face veneer and discolouration

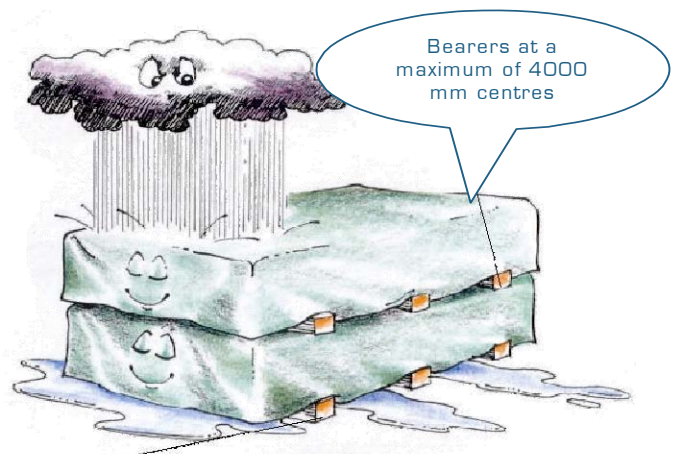
Note: if the veneers have totally separated for anything over 20% of their connecting faces then this scenario represents a product fault, and must be replaced.

**In essence, the very properties of hardwood veneers which give the LVL 18 product its superior strength and stiffness also make it more susceptible to damage due to localised moisture conditions and cycling of the EMC.**

SmartLVL 18 has had all the edges and ends factory coated with a short term water repellent as an aid to maintain a more stable EMC.

## STORAGE AND HANDLING

- i. Store SmartLVL 18 flat on a hard, dry surface.
- ii. If surface isn't paved, the ground should be covered with a polythene film.
- iii. Keep covered with waterproof material that allows bundles to "breathe".
- iv. Use bearers (bolsters) between the ground and the first bundle (4 metre max spacing)
- v. Use 100 x 50 timber flat between bundles at same spacing as bolsters.
- vi. Take great care to rewrap remaining material after opening bundles.
- vii. SmartLVL 18 "grows" in thickness and depth when allowed to get wet and may exhibit checking....KEEP DRY!
- viii. **NO WARRANTY claims will be accepted for SmartLVL 18 stored in the open**



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

## LIMITATIONS OF USE

Untreated or unpainted SmartLVL 18 should not be used where the equilibrium moisture content is likely to remain above 20% for an extended period.

Untreated SmartLVL 18 is not recommended for direct exposure to the weather or to humid indoor conditions, such as swimming pool enclosures. This would therefore preclude its use as balcony floor joists and for a pergola, but providing it is adequately protected (covered with a continuous elastomeric film of protective coating), would not exclude it from use as rafters with overhanging covered eaves.

Once framed into the standing structure, SmartLVL 18 may be exposed to the weather for a limited time without experiencing any structural damage provided that it is protected from excessive moisture as soon as practical.

It is **NOT** recommended that SmartLVL 18 built into prefabricated trusses that are stored outside in the weather prior to installation. This practice leads to excessive moisture uptake in periods of sustained wet weather with the normal ingress of water concentrated in some areas due to the taper cuts and plated joints that would typically be encountered in truss applications. Severe checking may lead to reduced nail plate and bearing capacities and differential swelling where it adjoins different timber species in the truss or frame. It is strongly recommended that prefabricated trusses incorporating SmartLVL 18 members components be stored and handled as per the instruction above, in simple terms, keep covered until ready to go into the structure.

## LIMITATIONS OF USE (cont'd)

Multiple members nail or bolt laminated together are particularly susceptible to problems caused by the ingress of moisture between them which becomes trapped and will most likely result in cupping of the outside edges. While this cupping produces more of a visual and possible fixity problem rather than being structurally significant, it must be avoided in the truss application.

Further information on this subject may be obtained by contacting Tilling Timber on 1300 668 690 or at smartdata@tilling.com.au

## CERTIFICATION

As a professional engineer, qualified and experienced in timber engineering, I certify that the use of the SmartLVL 18 members as shown in these tables, and installed in accordance with the provisions of this Design Guide, comply in every respect to the Building Code of Australia. These span tables have been prepared in accordance with standard engineering principles, the relevant test reports and Australian standards, ie:

- AS /NZS 1170.1 Structural Design Actions – Permanent, imposed and other actions
- AS /NZS 1170.2 Structural Design Actions – Wind actions
- AS 4055 Wind loads for houses
- AS 1684 Residential timber-framed construction
- AS 1720.1 Timber structures - design
- AS/NZS 4357 Structural Laminated Veneer Lumber
- AS/NZS 4063 Characterisation of Structural Timber

*Craig Kay.*

CRAIG KAY, PEng, EC-1961, RPEQ-5100, RBP-0730, CC5683 C NPER  
National Product Manager - EWP

Certificate No: KLR 0340519

**Lloyds  
Register**

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Office: Labuan

Date: 18 August 2003

This certificate is issued to ASTIM PLY LTD, PO Box 533, Subiaco, 6008, Western Australia to certify that at their request the undersigned surveyor to this society did attend at Shin Yang Plywood Sdn Bhd, Kuala Baram, Miri, Sarawak on the 18<sup>th</sup> August 2003 for the purpose of bi-annual auditing the said manufacturers production, procedures and documentation for the production of STRUCTURAL LAMINATED VENEER LUMBER against the AS/NZS 4357 : 1995 Code.

The following review and inspections were carried out:-

1. Review of the manufacturers Standard Production Procedures and Quality Control Manual – with updates and amendments as appeared in Rev. D dated 06 August 2003 for compliance against the AS/NZS 4357: 1995.
2. Inspection of the log selection and cutting process.
3. Inspection of the peeling procedure.
4. Inspection of the drying process, veneer selection procedure and moisture control process.
5. Inspection of the gluing procedure.
6. Inspection of the cold press process.
7. Inspection of the hot press process.
8. Inspection of the thickness measurement and sizing procedure.
9. Inspection of the sanding and ripping process.
10. Inspection of the grading procedure.
11. Review of the final documentation for discussions and shape.
12. Review of the resin and gluing mixing procedures and records.
13. Inspection of the brand marking by the manufacturers.

The above review and inspections were found satisfactory.

The process and procedures for the production of the Structural LVL was found to be in compliance with the manufacturers Standard Production Procedures and Quality Control Manual Rev. D dated 06 August 2003.

The manufacturer quality system was certified to ISO 9001: 1994 on 10 May 2002 by SIRIM QAS Sdn. Bhd.

To ensure ongoing compliance with AS/NZS 4357:1995, it is necessary that the manufacturer's process and procedures are regularly reviewed at six (6) monthly intervals.

Lloyd's Register is an internationally recognised organisation for conducting third party audits and certification. LR is ISO certified by BSI. BSI Certificate Number BS 30290.



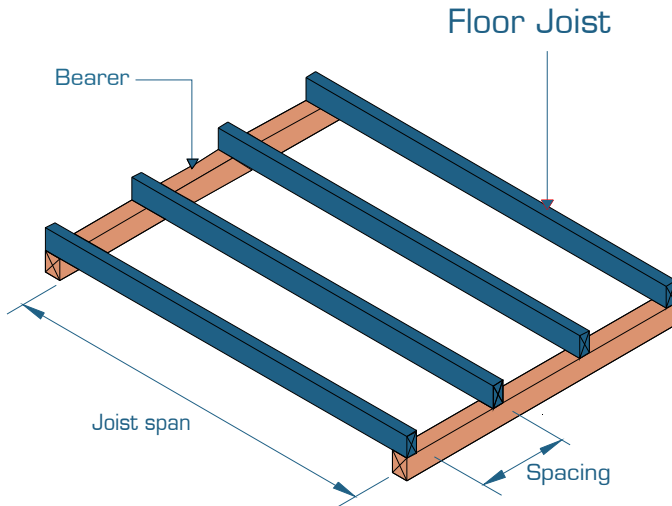
Kamariah Yusoff  
Surveyor to Lloyd's Register at 244 Yang Aji Road

A member of the Lloyd's Register Group

Form 1100 (03/05/03)

Third party certification of the production process by Lloyds Register Group

# FLOOR JOISTS SUPPORTING FLOOR LOADS ONLY



## 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

**SmartLVL 18**

170 x 35

Loadings: Permanent - Self weight + 40 kg/m<sup>2</sup> + 0.4 x LL permanently applied, live load - 1.5 kPa or floor point load of 1.8 kN

**Note: Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering.**

Joist spacing (mm)	300	450	600	300	450	600
Member size DxB (mm)	Maximum allowable span (mm)					
	Single span			Continuous span		
90x35	1700	1700	1700	2000	2000	2000
120x35	2700	2700	2600	3200	3200	3200
140x35	3300	3300	3000	3700	3700	3700
170x35	4100	4000	3700	4500	4500	4400
190x35	4500	4500	4100	5100	5100	4800
200x35	4800	4600	4300	5300	5300	5000
240x35	5700	5300	4900	6000	6000	5700
90x45	2000	2000	2000	2300	2300	2300
120x45	3000	3000	2800	3500	3500	3500
140x45	3600	3600	3300	4100	4100	4100
170x45	4400	4300	4000	4900	4900	4700
190x45	4900	4700	4400	5500	5500	5100
200x45	5200	4900	4600	5800	5700	5300
240x45	6000	5600	5300	6000	6000	6000
300x45	6000	6000	6000	6000	6000	6000
360x45	6000	6000	6000	6000	6000	6000
200x65	5800	5300	5000	6000	6000	5900
240x65	6000	6000	5700	6000	6000	6000
300x65	6000	6000	6000	6000	6000	6000
360x65	6000	6000	6000	6000	6000	6000

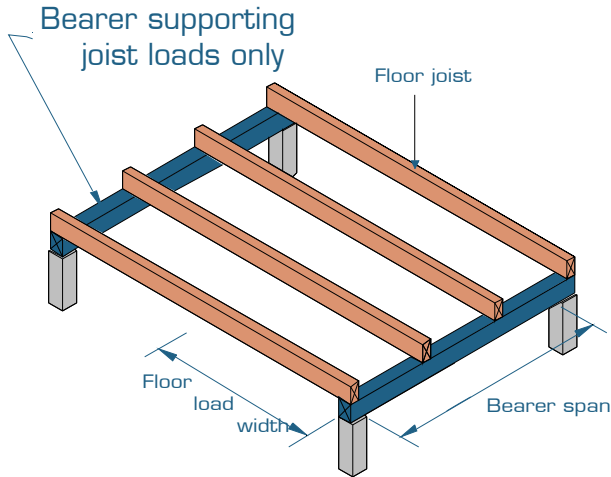
## NOTES:

1. D = member depth, B = member breadth, NS = not suitable
2. The above table was based on a maximum permanent load of 40 (kg/m<sup>2</sup>) + 0.4 x LL, floor live load of 1.5 (kPa), floor point load of 1.8 (kN)
3. End bearing lengths = 30 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 30 mm at end supports and 42 mm at internal supports
4. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6m
5. Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering

## FLOORING

Spans are suitable for solid timber, particle board and ply flooring. floor sheeting glued and nailed to joists will improve rigidity. Where heavy overlay material is to be applied such as a mortar bed or slate floor, the permanent load allowance should be increased to 1.2 kPa. A reduction in joist spacing may be used to accommodate this extra permanent load. A satisfactory result may be achieved by adopting the maximum spans for 600 and 450 mm spacings but installing the joists at 450 and 300 mm spacings respectively.

# SINGLE SPAN FLOOR BEARERS - SUPPORTING JOIST LOADS ONLY



## EXAMPLE:

domestic floor loads  
single span = 3000  
floor load width = 1950 mm

Enter single span table at 2400 mm in floor load width column, read down to a span equal to or greater than 3000 mm

**SmartLVL 18**

240 x 35

Loadings: Permanent - Self weight + 40 kg/m<sup>2</sup> + 0.4 x LL permanently applied, live load - 1.5 kPa or floor point load of 1.8 kN

**Note: Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering.**

Floor load width (mm)		1200	1800	2400	3000	3600	4200	4800	5400	6000	6600
Member size DxB (mm)	Floor mass (kg/m <sup>2</sup> )	Maximum Bearer span (mm)									
		Single span									
2/90x35	40	1900	1700	1500	1400	1300	1200	1200	1100	1100	1000
2/120x35	40	2600	2200	2000	1900	1700	1600	1600	1500	1400	1400
2/140x35	40	3000	2600	2400	2200	2000	1900	1800	1800	1700	1600
2/170x35	40	3600	3200	2900	2700	2500	2400	2200	2100	2100	2000
2/190x35	40	3900	3500	3200	3000	2800	2600	2500	2400	2300	2200
2/200x35	40	4100	3700	3400	3100	2900	2800	2600	2500	2400	2300
2/240x35	40	4700	4200	3900	3700	3500	3300	3200	3000	2900	2800
90x45	40	1600	1400	1300	1200	1100	1100	1000	NS	NS	NS
120x45	40	2200	1900	1700	1600	1500	1400	1300	1300	1200	1200
140x45	40	2600	2200	2000	1900	1800	1700	1600	1500	1500	1400
170x45	40	3100	2700	2500	2300	2100	2000	1900	1800	1800	1700
190x45	40	3500	3100	2800	2600	2400	2300	2200	2100	2000	1900
200x45	40	3700	3200	2900	2700	2500	2400	2300	2200	2100	2000 <sub>5</sub>
240x45	40	4200	3800	3500	3200	3000	2900	2700	2600 <sub>5</sub>	2500 <sub>5</sub>	2400 <sub>10</sub>
300x45	40	5000	4500	4200	3900	3700	3600 <sub>5</sub>	3400 <sub>10</sub>	3300 <sub>10</sub>	3200 <sub>15</sub>	3100 <sub>20</sub>
360x45	40	5700	5100	4800	4500	4300 <sub>5</sub>	4100 <sub>10</sub>	4000 <sub>15</sub>	3800 <sub>20</sub>	3700 <sub>25</sub>	3600 <sub>30</sub>
2/90x45	40	2100	1800	1600	1500	1400	1300	1300	1200	1200	1100
2/120x45	40	2800	2400	2200	2000	1900	1800	1700	1600	1600	1500
2/140x45	40	3200	2800	2600	2400	2200	2100	2000	1900	1800	1800
2/170x45	40	3800	3400	3100	2900	2700	2600	2400	2300	2200	2200
2/190x45	40	4200	3800	3500	3200	3000	2900	2700	2600	2500	2400
2/200x45	40	4300	3900	3600	3400	3200	3000	2900	2800	2600	2600
2/240x45	40	4900	4500	4200	3900	3800	3600	3500	3300	3200	3100
2/300x45	40	5800	5300	4900	4700	4400	4300	4100	4000	3900	3800
2/360x45	40	6000	6000	5600	5300	5100	4900	4700	4600	4400 <sub>5</sub>	4300 <sub>5</sub>
200x65	40	4000	3600	3300	3100	2900	2700	2600	2500	2400	2300
240x65	40	4600	4100	3900	3600	3400	3300	3100	3000	2900	2800
300x65	40	5400	4900	4600	4300	4100	3900	3800	3700 <sub>5</sub>	3600 <sub>5</sub>	3500 <sub>10</sub>
360x65	40	6000	5600	5200	4900	4700	4500	4400 <sub>5</sub>	4200 <sub>10</sub>	4100 <sub>10</sub>	4000 <sub>15</sub>
2/200x65	40	4700	4300	4000	3800	3600	3400	3200	3100	3000	2900
2/240x65	40	5400	4900	4600	4300	4100	3900	3800	3700	3600	3500
2/300x65	40	6000	5700	5400	5100	4900	4700	4500	4400	4200	4100
2/360x65	40	6000	6000	6000	5800	5600	5300	5200	5000	4900	4700

# CONTINUOUS SPAN FLOOR BEARERS - SUPPORTING JOIST LOADS ONLY

Loadings: Permanent - Self weight + 40 kg/m<sup>2</sup> + 0.4 x LL permanently applied live load - 1.5 kPa or floor point load of 1.8 kN

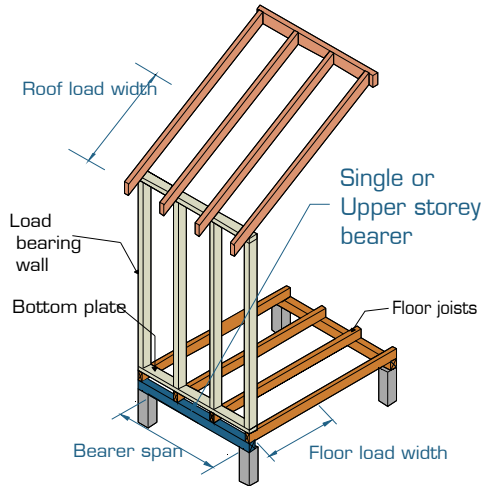
**Note: Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering.**

Floor load width (mm)		1200	1800	2400	3000	3600	4200	4800	5400	6000	6600
Member size DxB (mm)	Floor mass (kg/m <sup>2</sup> )	Maximum Bearer span (mm)									
		Continuous span									
2/90x35	40	2600	2300	2000	1900	1800	1700	1600	1500	1500	1400
2/120x35	40	3400	3000	2700	2500	2400	2300	2100	2100	2000	1900
2/140x35	40	3800	3400	3200	3000	2800	2600	2500	2400	2300	2200
2/170x35	40	4400	4000	3700	3500	3400	3200	3100	2900	2800 <sub>5</sub>	2700 <sub>10</sub>
2/190x35	40	4800	4300	4000	3800	3600	3500	3400 <sub>5</sub>	3300 <sub>10</sub>	3200 <sub>15</sub>	3000 <sub>20</sub>
2/200x35	40	5000	4500	4200	4000	3800	3600	3500 <sub>5</sub>	3400 <sub>10</sub>	3300 <sub>20</sub>	3200 <sub>25</sub>
2/240x35	40	5700	5200	4800	4600	4400	4200 <sub>10</sub>	4100 <sub>15</sub>	3900 <sub>25</sub>	3800 <sub>30</sub>	3700 <sub>40</sub>
90x45	40	2200	1900	1800	1600	1500	1400	1400	1300	1200	1100
120x45	40	3000	2600	2400	2200	2100	1900	1800	1700	1600	1500
140x45	40	3400	3000	2800	2600	2400	2300	2100	2000 <sub>5</sub>	1900 <sub>10</sub>	1800 <sub>15</sub>
170x45	40	4000	3600	3300	3100	2900	2800 <sub>10</sub>	2600 <sub>15</sub>	2400 <sub>20</sub>	2300 <sub>25</sub>	2200 <sub>30</sub>
190x45	40	4300	3900	3600	3400	3300 <sub>10</sub>	3100 <sub>20</sub>	2900 <sub>25</sub>	2700 <sub>30</sub>	2600 <sub>35</sub>	2500 <sub>40</sub>
200x45	40	4500	4000	3800	3600 <sub>5</sub>	3400 <sub>15</sub>	3300 <sub>25</sub>	3100 <sub>30</sub>	2900 <sub>35</sub>	2700 <sub>40</sub>	2600 <sub>45</sub>
240x45	40	5100	4600	4300	4100 <sub>15</sub>	3900 <sub>25</sub>	3700 <sub>35</sub>	3600 <sub>45</sub>	3500 <sub>55</sub>	3300 <sub>60</sub>	3100 <sub>70</sub>
300x45	40	6000	5500	5100 <sub>15</sub>	4800 <sub>25</sub>	4600 <sub>40</sub>	4400 <sub>55</sub>	4300 <sub>65</sub>	4200 <sub>80</sub>	4100 <sub>95</sub>	3900 <sub>105</sub>
360x45	40	6000	6000 <sub>5</sub>	5900 <sub>25</sub>	5500 <sub>40</sub>	5300 <sub>55</sub>	5100 <sub>70</sub>	4900 <sub>85</sub>	4800 <sub>100</sub>	4700 <sub>120</sub>	4500 <sub>130</sub>
2/90x45	40	2800	2500	2200	2100	1900	1800	1700	1700	1600	1500
2/120x45	40	3600	3300	3000	2800	2600	2500	2300	2200	2100	2100
2/140x45	40	4100	3700	3400	3200	3000	2900	2700	2600	2500	2400
2/170x45	40	4700	4300	4000	3700	3600	3400	3300	3200	3100	3000
2/190x45	40	5100	4600	4300	4100	3900	3700	3600	3500	3400	3300 <sub>5</sub>
2/200x45	40	5300	4800	4500	4200	4000	3900	3800	3600	3600 <sub>5</sub>	3500 <sub>10</sub>
2/240x45	40	6000	5500	5100	4900	4600	4500	4300	4200 <sub>10</sub>	4100 <sub>15</sub>	4000 <sub>20</sub>
2/300x45	40	6000	6000	6000	5800	5500	5300 <sub>5</sub>	5100 <sub>15</sub>	5000 <sub>20</sub>	4800 <sub>30</sub>	4700 <sub>35</sub>
2/360x45	40	6000	6000	6000	6000	6000 <sub>5</sub>	6000 <sub>15</sub>	5900 <sub>25</sub>	5700 <sub>35</sub>	5500 <sub>45</sub>	5400 <sub>50</sub>
200x65	40	4900	4400	4100	3900	3700	3600	3500 <sub>10</sub>	3400 <sub>15</sub>	3200 <sub>20</sub>	3100 <sub>30</sub>
240x65	40	5600	5100	4700	4500	4300 <sub>5</sub>	4100 <sub>10</sub>	4000 <sub>20</sub>	3900 <sub>30</sub>	3800 <sub>40</sub>	3700 <sub>45</sub>
300x65	40	6000	6000	5600	5300 <sub>5</sub>	5100 <sub>15</sub>	4900 <sub>25</sub>	4700 <sub>35</sub>	4600 <sub>45</sub>	4500 <sub>55</sub>	4300 <sub>65</sub>
360x65	40	6000	6000	6000	6000 <sub>15</sub>	5800 <sub>30</sub>	5600 <sub>40</sub>	5400 <sub>50</sub>	5200 <sub>60</sub>	5100 <sub>70</sub>	5000 <sub>80</sub>
2/200x65	40	5900	5300	4900	4600	4400	4300	4100	4000	3900	3800
2/240x65	40	6000	6000	5600	5300	5100	4900	4700	4600	4500	4400
2/300x65	40	6000	6000	6000	6000	6000	5800	5600	5400	5300 <sub>5</sub>	5200 <sub>15</sub>
2/360x65	40	6000	6000	6000	6000	6000	6000	6000	6000 <sub>10</sub>	6000 <sub>15</sub>	5900 <sub>25</sub>

**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<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 KN
3. End bearing lengths = 30 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 30 mm at end supports and 42 mm at internal supports
4. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6m
5. Not all sizes of SmartLVL 18 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



## EXAMPLE:

sheet roof - 40 kg/m<sup>2</sup>  
 roof load width = 1950 mm  
 bearer span = 3000 mm  
 floor load width = 3500 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<sup>2</sup> row.

SmartLVL 18

2/240 x 35

Note: Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering.

## 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 <sup>2</sup> )	Maximum Bearer span (mm)								
		Single span								
2/90x35	40	1500	1300	1200	1300	1200	1100	1100	1000	1000
	75	1400	1200	1100	1200	1100	1000	1100	1000	NS
2/120x35	40	2000	1800	1600	1700	1600	1500	1400	1400	1300
	75	1900	1600	1400	1700	1500	1400	1400	1300	1200
2/140x35	40	2300	2100	1900	2000	1900	1800	1700	1600	1600
	75	2200	1900	1700	2000	1700	1600	1700	1500	1400
2/170x35	40	2800	2500	2300	2500	2300	2200	2100	2000	1900
	75	2700	2300	2000	2400	2100	1900	2000	1900	1800
2/190x35	40	3200	2800	2600	2800	2600	2400	2300	2200	2100
	75	3000	2600	2300	2700	2400	2200	2300	2100	2000
2/200x35	40	3300	3000	2800	2900	2700	2500	2400	2300	2200
	75	3200	2700	2400	2800	2500	2300	2400	2200	2100
2/240x35	40	3900	3600	3300	3500	3300	3100	2900	2800	2700
	75	3700	3200	2900	3400	3000	2700	2900	2700	2500
90x45	40	1300	1100	1000	1100	1000	1000	NS	NS	NS
	75	1200	1000	NS	1100	NS	NS	NS	NS	NS
120x45	40	1700	1500	1400	1500	1400	1300	1200	1200	1100
	75	1600	1400	1200	1400	1300	1200	1200	1100	1000
140x45	40	2000	1800	1700	1800	1600	1500	1500	1400	1300
	75	1900	1600	1400	1700	1500	1400	1400	1300	1200
170x45	40	2500	2200	2000	2100	2000	1900	1800	1700	1600
	75	2300	2000	1800	2100	1800	1700	1700	1600	1500
190x45	40	2700	2500	2300	2400	2200	2100	2000	1900	1800
	75	2600	2200	2000	2300	2000	1900	2000	1800	1700
200x45	40	2900	2600	2400	2500	2300	2200	2100	2000	1900
	75	2700	2300	2100	2400	2200	2000	2100	1900	1800 <sub>5</sub>
240x45	40	3500	3100	2900	3000	2800	2600	2500 <sub>5</sub>	2400 <sub>5</sub>	2300 <sub>5</sub>
	75	3300	2800	2500	2900	2600	2400	2500 <sub>5</sub>	2300 <sub>5</sub>	2100 <sub>10</sub>
300x45	40	4100	3800	3600	3700	3500	3300	3200 <sub>10</sub>	3000 <sub>15</sub>	2900 <sub>15</sub>
	75	4000	3500	3100 <sub>5</sub>	3600	3200 <sub>5</sub>	3000 <sub>10</sub>	3100 <sub>10</sub>	2900 <sub>15</sub>	2700 <sub>20</sub>
360x45	40	4700	4400	4100	4300	4000 <sub>5</sub>	3900 <sub>5</sub>	3800 <sub>20</sub>	3600 <sub>20</sub>	3500 <sub>25</sub>
	75	4600	4000 <sub>5</sub>	3700 <sub>10</sub>	4200 <sub>5</sub>	3800 <sub>10</sub>	3600 <sub>15</sub>	3700 <sub>20</sub>	3500 <sub>25</sub>	3200 <sub>25</sub>

# 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 <sup>2</sup> )	Maximum Bearer span (mm)								
		Single span								
2/90x45	40	1600	1400	1300	1400	1300	1200	1200	1100	1100
	75	1500	1300	1200	1400	1200	1100	1100	1100	1000
2/120x45	40	2200	1900	1800	1900	1800	1600	1600	1500	1400
	75	2100	1700	1600	1800	1600	1500	1500	1400	1300
2/140x45	40	2500	2300	2100	2200	2100	1900	1900	1800	1700
	75	2400	2000	1800	2100	1900	1700	1800	1700	1600
2/170x45	40	3100	2800	2500	2700	2500	2300	2300	2100	2100
	75	2900	2500	2200	2600	2300	2100	2200	2000	1900
2/190x45	40	3400	3100	2800	3000	2800	2600	2500	2400	2300
	75	3300	2800	2500	2900	2600	2400	2500	2300	2100
2/200x45	40	3600	3300	3000	3200	2900	2800	2700	2500	2400
	75	3400	2900	2600	3100	2700	2500	2600	2400	2300
2/240x45	40	4100	3800	3600	3800	3500	3300	3200	3100	2900
	75	4000	3500	3200	3700	3300	3000	3100	2900	2700
2/300x45	40	4900	4500	4200	4400	4200	4000	3900	3800	3600
	75	4700	4200	3900	4300	3900	3700	3800	3600	3400
2/360x45	40	5600	5200	4900	5100	4800	4600	4500	4300	4200 <sub>5</sub>
	75	5400	4800	4400	5000	4500	4200	4400	4100 <sub>5</sub>	3900 <sub>5</sub>
200x65	40	3300	2900	2700	2900	2600	2500	2400	2300	2200
	75	3100	2600	2400	2800	2400	2200	2300	2200	2000
240x65	40	3800	3500	3200	3400	3200	3000	2900	2700	2600
	75	3700	3200	2800	3300	2900	2700	2800	2600	2400
300x65	40	4500	4200	3900	4100	3900	3700	3600 <sub>5</sub>	3400 <sub>5</sub>	3300 <sub>5</sub>
	75	4300	3900	3600	4000	3600	3400	3500 <sub>5</sub>	3200 <sub>5</sub>	3000 <sub>10</sub>
360x65	40	5200	4800	4500	4700	4400	4200	4100 <sub>5</sub>	4000 <sub>10</sub>	3800 <sub>10</sub>
	75	5000	4400	4100	4600	4200	3900 <sub>5</sub>	4000 <sub>10</sub>	3800 <sub>10</sub>	3600 <sub>15</sub>
2/200x65	40	3900	3600	3400	3600	3300	3100	3000	2900	2800
	75	3800	3300	3000	3500	3100	2800	2900	2700	2500
2/240x65	40	4500	4200	3900	4100	3900	3700	3600	3400	3300
	75	4400	3900	3600	4000	3700	3400	3500	3300	3100
2/300x65	40	5300	4900	4600	4800	4600	4400	4300	4100	4000
	75	5100	4600	4200	4700	4300	4000	4200	3900	3800
2/360x65	40	6000	5600	5300	5500	5200	5000	4900	4700	4600
	75	5900	5200	4800	5400	5000	4600	4800	4500	4300

**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<sup>2</sup>), total wall mass of 37 (kg/m<sup>2</sup>), 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 = 30 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 30 mm at end supports and 42 mm at internal supports
5. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6 m
6. Not all sizes of SmartLVL 18 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

## CONTINUOUS SPAN

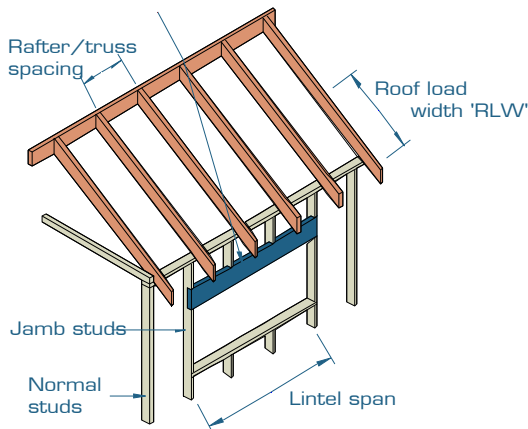
Floor load width (mm)		1200			2400			4800		
Roof load width (mm)		1500	4500	7500	1500	4500	7500	1500	4500	7500
Member size DxB (mm)	Roof mass (kg/m <sup>2</sup> )	Maximum Bearer span (mm)								
		Continuous span								
2/90x35	40	2000	1800	1700	1800	1600	1500	1500	1400	1300
	75	1900	1600	1500	1700	1500	1400	1400	1300	1200
2/120x35	40	2700	2400	2200	2400	2200	2100	2000	1900	1800
	75	2600	2200	2000	2300	2000	1900	1900	1800	1700
2/140x35	40	3200	2900	2600	2800	2600	2400	2300	2200	2100
	75	3000	2600	2300	2700	2400	2200	2300	2100	2000
2/170x35	40	3800	3500	3200	3400	3100	2900	2800	2700	2600 <sub>5</sub>
	75	3600	3100	2800	3300	2900	2600	2800	2600 <sub>5</sub>	2400 <sub>15</sub>
2/190x35	40	4100	3800	3600	3700	3500	3300	3200 <sub>5</sub>	3000 <sub>10</sub>	2900 <sub>10</sub>
	75	4000	3500	3100	3600	3200	3000 <sub>10</sub>	3100 <sub>10</sub>	2900 <sub>15</sub>	2700 <sub>20</sub>
2/200x35	40	4300	3900	3700	3900	3700	3500	3300 <sub>10</sub>	3200 <sub>15</sub>	3000 <sub>15</sub>
	75	4100	3600	3300 <sub>5</sub>	3800	3400	3100 <sub>10</sub>	3300 <sub>10</sub>	3000 <sub>15</sub>	2800 <sub>25</sub>
2/240x35	40	4900	4500	4300	4400	4200	4000 <sub>5</sub>	3900 <sub>20</sub>	3800 <sub>30</sub>	3600 <sub>35</sub>
	75	4700	4200	3900 <sub>15</sub>	4300	4000 <sub>10</sub>	3700 <sub>25</sub>	3800 <sub>25</sub>	3600 <sub>35</sub>	3400 <sub>45</sub>
90x45	40	1800	1600	1400	1500	1400	1300	1300	1200	1200
	75	1700	1400	1300	1500	1300	1200	1200	1100	1000
120x45	40	2400	2100	1900	2100	1900	1800	1700	1600	1600
	75	2200	1900	1700	2000	1700	1600	1700	1500	1400 <sub>5</sub>
140x45	40	2700	2500	2300	2400	2200	2100	2000 <sub>5</sub>	1900 <sub>10</sub>	1800 <sub>10</sub>
	75	2600	2200	2000	2300	2000	1900 <sub>5</sub>	2000 <sub>5</sub>	1800 <sub>10</sub>	1700 <sub>20</sub>
170x45	40	3300	3000	2800	2900	2700	2500 <sub>5</sub>	2400 <sub>20</sub>	2300 <sub>25</sub>	2200 <sub>30</sub>
	75	3200	2700	2400 <sub>15</sub>	2800	2500 <sub>10</sub>	2300 <sub>25</sub>	2400 <sub>20</sub>	2200 <sub>30</sub>	2000 <sub>40</sub>
190x45	40	3700	3300	3100 <sub>5</sub>	3300	3000 <sub>5</sub>	2800 <sub>15</sub>	2700 <sub>30</sub>	2600 <sub>35</sub>	2500 <sub>40</sub>
	75	3500	3000 <sub>5</sub>	2700 <sub>25</sub>	3200	2800 <sub>15</sub>	2500 <sub>35</sub>	2700 <sub>35</sub>	2500 <sub>40</sub>	2300 <sub>50</sub>
200x45	40	3800	3500	3200 <sub>5</sub>	3400	3200 <sub>5</sub>	3000 <sub>15</sub>	2900 <sub>35</sub>	2700 <sub>40</sub>	2600 <sub>45</sub>
	75	3700	3200 <sub>10</sub>	2800 <sub>30</sub>	3300 <sub>5</sub>	2900 <sub>20</sub>	2700 <sub>40</sub>	2800 <sub>40</sub>	2600 <sub>45</sub>	2400 <sub>55</sub>
240x45	40	4400	4100 <sub>5</sub>	3800 <sub>20</sub>	4000 <sub>10</sub>	3800 <sub>20</sub>	3600 <sub>35</sub>	3500 <sub>55</sub>	3300 <sub>60</sub>	3200 <sub>65</sub>
	75	4200	3700 <sub>25</sub>	3400 <sub>45</sub>	3900 <sub>15</sub>	3500 <sub>40</sub>	3200 <sub>60</sub>	3400 <sub>55</sub>	3100 <sub>65</sub>	2900 <sub>80</sub>
300x45	40	5200	4800 <sub>15</sub>	4500 <sub>35</sub>	4700 <sub>25</sub>	4400 <sub>35</sub>	4200 <sub>50</sub>	4100 <sub>80</sub>	4000 <sub>85</sub>	3900 <sub>95</sub>
	75	5000 <sub>5</sub>	4400 <sub>40</sub>	4100 <sub>70</sub>	4600 <sub>30</sub>	4200 <sub>55</sub>	3900 <sub>85</sub>	4100 <sub>85</sub>	3800 <sub>100</sub>	3600 <sub>120</sub>
360x45	40	6000 <sub>10</sub>	5500 <sub>30</sub>	5200 <sub>50</sub>	5400 <sub>40</sub>	5100 <sub>50</sub>	4900 <sub>70</sub>	4700 <sub>105</sub>	4600 <sub>110</sub>	4400 <sub>120</sub>
	75	5700 <sub>20</sub>	5100 <sub>55</sub>	4700 <sub>80</sub>	5300 <sub>45</sub>	4800 <sub>75</sub>	4500 <sub>110</sub>	4700 <sub>110</sub>	4400 <sub>120</sub>	4200 <sub>145</sub>
2/90x45	40	2200	2000	1800	1900	1800	1700	1600	1500	1500
	75	2100	1800	1600	1900	1600	1500	1600	1500	1400
2/120x45	40	3000	2700	2400	2600	2400	2200	2200	2100	2000
	75	2800	2400	2100	2500	2200	2000	2100	1900	1800
2/140x45	40	3500	3100	2900	3000	2800	2600	2500	2400	2300
	75	3300	2800	2500	2900	2600	2400	2500	2300	2100
2/170x45	40	4000	3700	3500	3600	3400	3200	3100	2900	2800
	75	3900	3400	3000	3600	3100	2900	3000	2800	2600
2/190x45	40	4400	4000	3800	4000	3700	3600	3400	3300	3200
	75	4200	3700	3400	3900	3500	3200	3400	3100	2900 <sub>10</sub>
2/200x45	40	4600	4200	3900	4100	3900	3700	3600	3500	3300 <sub>5</sub>
	75	4400	3900	3600	4000	3700	3400	3600	3300 <sub>5</sub>	3100 <sub>15</sub>
2/240x45	40	5200	4800	4500	4700	4500	4300	4100 <sub>10</sub>	4000 <sub>10</sub>	3900 <sub>15</sub>
	75	5000	4500	4100 <sub>5</sub>	4600	4200	3900 <sub>10</sub>	4100 <sub>10</sub>	3800 <sub>15</sub>	3700 <sub>30</sub>
2/300x45	40	6000	5700	5400	5600	5300	5000 <sub>5</sub>	4900 <sub>20</sub>	4700 <sub>25</sub>	4600 <sub>30</sub>
	75	5900	5300	4900 <sub>15</sub>	5400	5000 <sub>10</sub>	4700 <sub>25</sub>	4800 <sub>25</sub>	4500 <sub>35</sub>	4300 <sub>45</sub>
2/360x45	40	6000	6000	6000	6000	6000 <sub>5</sub>	5800 <sub>15</sub>	5600 <sub>35</sub>	5400 <sub>40</sub>	5300 <sub>45</sub>
	75	6000	6000 <sub>5</sub>	5600 <sub>30</sub>	6000	5700 <sub>20</sub>	5300 <sub>40</sub>	5500 <sub>35</sub>	5200 <sub>45</sub>	5000 <sub>60</sub>
200x65	40	4200	3900	3600	3800	3600	3400	3300 <sub>15</sub>	3100 <sub>15</sub>	3000 <sub>20</sub>
	75	4000	3600	3200 <sub>10</sub>	3700	3300	3000 <sub>15</sub>	3200 <sub>15</sub>	2900 <sub>20</sub>	2800 <sub>35</sub>
240x65	40	4800	4400	4200	4400	4100	3900 <sub>10</sub>	3800 <sub>25</sub>	3700 <sub>35</sub>	3600 <sub>40</sub>
	75	4600	4100	3800 <sub>20</sub>	4200	3900 <sub>15</sub>	3600 <sub>35</sub>	3800 <sub>30</sub>	3500 <sub>40</sub>	3300 <sub>50</sub>
300x65	40	5700	5300	4900 <sub>10</sub>	5200 <sub>5</sub>	4900 <sub>10</sub>	4700 <sub>25</sub>	4500 <sub>45</sub>	4400 <sub>50</sub>	4200 <sub>55</sub>
	75	5500	4900 <sub>15</sub>	4500 <sub>40</sub>	5000 <sub>10</sub>	4600 <sub>30</sub>	4300 <sub>50</sub>	4400 <sub>50</sub>	4200 <sub>55</sub>	4000 <sub>75</sub>
360x65	40	6000	6000 <sub>5</sub>	5700 <sub>25</sub>	5900 <sub>15</sub>	5600 <sub>25</sub>	5300 <sub>40</sub>	5200 <sub>60</sub>	5000 <sub>65</sub>	4900 <sub>75</sub>
	75	6000	5600 <sub>25</sub>	5100 <sub>55</sub>	5800 <sub>20</sub>	5300 <sub>45</sub>	4900 <sub>65</sub>	5100 <sub>60</sub>	4800 <sub>75</sub>	4600 <sub>95</sub>
2/200x65	40	5000	4600	4300	4500	4300	4100	4000	3800	3700
	75	4800	4300	3900	4400	4000	3800	3900	3700	3500
2/240x65	40	5700	5300	5000	5200	4900	4700	4500	4400	4200
	75	5500	4900	4500	5000	4600	4300	4500	4200	4000 <sub>5</sub>
2/300x65	40	6000	6000	5900	6000	5800	5500	5400	5200 <sub>5</sub>	5000 <sub>10</sub>
	75	6000	5800	5300	5900	5400	5100 <sub>5</sub>	5300	5000 <sub>10</sub>	4700 <sub>20</sub>
2/360x65	40	6000	6000	6000	6000	6000	6000	6000 <sub>10</sub>	5900 <sub>15</sub>	5800 <sub>20</sub>
	75	6000	6000	6000 <sub>5</sub>	6000	6000	5800 <sub>15</sub>	6000 <sub>10</sub>	5700 <sub>20</sub>	5400 <sub>30</sub>

**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<sup>2</sup>), total wall mass of 37 (kg/m<sup>2</sup>), 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 = 30 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 30 mm at end supports and 42 mm at internal supports
5. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6 m
6. Not all sizes of SmartLVL 18 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:

sheet roof - 40 kg/m<sup>2</sup>  
 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

**SmartLVL 18**

240 x 35

**Note:** Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering.

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 <sup>2</sup> )	Maximum Lintel span (mm)									
		Single span									
90x35	40	2000	2000	1600	1500	1400	1200	1300	1000	1200	NS
	75	1600	1500	1300	1100	1100	NS	1000	NS	NS	NS
120x35	40	2700	2700	2100	2100	1900	1900	1700	1600	1600	1500
	75	2200	2200	1700	1700	1500	1400	1400	1200	1300	1100
140x35	40	3100	3100	2500	2600	2200	2200	2000	2000	1800	1800
	75	2600	2600	2000	2000	1800	1700	1600	1500	1500	1300
170x35	40	3600	3600	3000	3000	2700	2700	2400	2500	2200	2200
	75	3100	3100	2500	2500	2200	2100	2000	1900	1800	1800
190x35	40	3900	3900	3300	3300	3000	3000	2700	2700	2500	2600
	75	3400	3300	2800	2800	2400	2400	2200	2200	2000	2000
200x35	40	4000	4000	3400	3400	3100	3100	2900	2900	2700	2700
	75	3500	3400	2900	2900	2600	2600	2300	2300	2200	2100
240x35	40	4600	4600	3900	3900	3600	3500	3300	3300	3100	3100
	75	4000	4000	3400	3300	3000	3000	2800	2800	2600	2600
90x45	40	2200	2200	1700	1700	1500	1400	1400	1200	1300	1100
	75	1800	1800	1400	1200	1200	1000	1100	NS	1000	NS
120x45	40	2900	2900	2300	2400	2000	2000	1800	1800	1700	1700
	75	2400	2500	1900	1900	1600	1600	1500	1300	1400	1200
140x45	40	3300	3300	2700	2800	2400	2400	2200	2200	2000	2000
	75	2800	2800	2200	2200	1900	1900	1700	1700	1600	1500
170x45	40	3800	3800	3200	3200	2900	2900	2600	2700	2400	2500
	75	3300	3200	2700	2700	2300	2400	2100	2100	2000	1900
190x45	40	4100	4100	3500	3500	3200	3100	3000	2900	2700	2800
	75	3600	3500	3000	3000	2600	2700	2400	2400	2200	2200
200x45	40	4300	4300	3600	3600	3300	3300	3100	3100	2900	2900
	75	3700	3700	3100	3100	2800	2800	2500	2600	2300	2300
240x45	40	4900	4900	4200	4200	3800	3800	3500	3500	3300	3300
	75	4200	4200	3600	3600	3200	3200	3000	3000	2800	2800
300x45	40	5800	5800	4900	4900	4500	4500	4200	4200	4000	3900
	75	5000	5000	4200	4200	3800	3800	3600	3500	3400	3300
360x45	40	6000	6000	5600	5600	5100	5100	4800	4800	4500	4500
	75	5700	5700	4900	4800	4400	4400	4100	4100	3900	3900
200x65	40	4700	4700	4000	4000	3600	3600	3400	3300	3200	3200
	75	4000	4000	3400	3400	3100	3100	2900	2900	2700	2700
240x65	40	5300	5300	4600	4500	4100	4100	3900	3800	3700	3600
	75	4600	4600	3900	3900	3500	3500	3300	3300	3100	3100
300x65	40	6000	6000	5400	5400	4900	4900	4600	4500	4300	4300
	75	5400	5400	4600	4600	4200	4200	3900	3900	3700	3700
360x65	40	6000	6000	6000	6000	5600	5600	5200	5200	5000	4900
	75	6000	6000	5300	5300	4800	4800	4500	4500	4200	4300

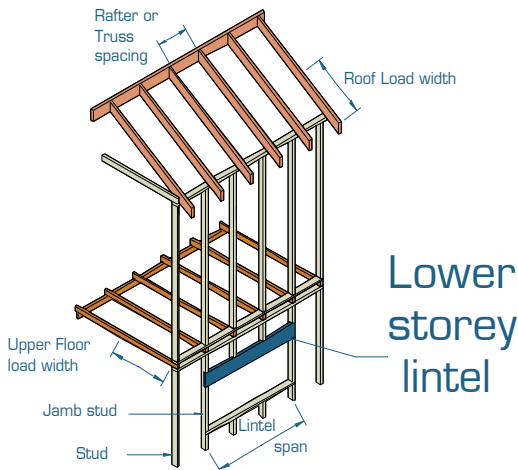
# SINGLE SPAN LINTELS IN SINGLE/UPPER STOREY WALLS AS 4055 CLASSIFICATION N1, N2 AND N3 (Cont'd)

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 <sup>2</sup> )	Maximum Lintel span (mm)									
		Single span									
2/90x35	40	2500	2600	2000	2000	1700	1700	1600	1500	1500	1300
	75	2100	2100	1600	1500	1400	1300	1300	1100	1200	1000
2/120x35	40	3300	3200	2700	2700	2400	2400	2100	2100	2000	2000
	75	2800	2800	2200	2200	1900	1900	1700	1700	1600	1500
2/140x35	40	3700	3600	3100	3100	2800	2800	2500	2600	2300	2400
	75	3100	3100	2600	2600	2200	2200	2000	2000	1900	1900
2/170x35	40	4200	4200	3600	3600	3300	3200	3000	3000	2800	2800
	75	3600	3600	3100	3100	2700	2800	2500	2500	2300	2300
2/190x35	40	4600	4600	3900	3900	3500	3500	3300	3300	3100	3100
	75	4000	3900	3400	3300	3000	3000	2800	2800	2600	2600
2/200x35	40	4700	4700	4000	4000	3700	3600	3400	3400	3200	3200
	75	4100	4100	3500	3400	3200	3100	2900	2900	2700	2700
2/240x35	40	5400	5400	4600	4600	4200	4200	3900	3900	3700	3700
	75	4700	4700	4000	4000	3600	3600	3400	3300	3200	3200
2/90x45	40	2700	2800	2200	2200	1900	1900	1700	1700	1600	1500
	75	2200	2300	1800	1800	1500	1400	1400	1200	1300	1100
2/120x45	40	3500	3400	2900	2900	2600	2600	2300	2400	2200	2200
	75	3000	3000	2400	2500	2100	2100	1900	1900	1700	1700
2/140x45	40	3900	3800	3300	3300	3000	3000	2700	2800	2500	2600
	75	3300	3300	2800	2800	2400	2500	2200	2200	2100	2000
2/170x45	40	4500	4400	3800	3800	3500	3400	3200	3200	3000	3000
	75	3900	3800	3300	3200	3000	3000	2700	2700	2500	2600
2/190x45	40	4800	4800	4100	4100	3800	3700	3500	3500	3300	3300
	75	4200	4200	3600	3500	3200	3200	3000	3000	2800	2800
2/200x45	40	5000	5000	4300	4300	3900	3900	3600	3600	3400	3400
	75	4400	4300	3700	3700	3400	3300	3100	3100	2900	2900
2/240x45	40	5700	5700	4900	4900	4500	4500	4200	4200	4000	3900
	75	5000	5000	4200	4200	3800	3800	3600	3600	3400	3400
2/300x45	40	6000	6000	5800	5800	5300	5300	4900	4900	4700	4700
	75	5900	5800	5000	5000	4600	4500	4200	4200	4000	4000
2/360x45	40	6000	6000	6000	6000	6000	6000	5600	5600	5400	5400
	75	6000	6000	5700	5700	5200	5200	4900	4800	4600	4600
2/200x65	40	5400	5400	4700	4700	4300	4200	4000	4000	3800	3700
	75	4700	4700	4000	4000	3700	3600	3400	3400	3200	3200
2/240x65	40	6000	6000	5300	5300	4900	4900	4600	4500	4300	4300
	75	5400	5400	4600	4600	4200	4200	3900	3900	3700	3700
2/300x65	40	6000	6000	6000	6000	5700	5700	5400	5400	5100	5100
	75	6000	6000	5400	5400	5000	5000	4600	4600	4400	4400
2/360x65	40	6000	6000	6000	6000	6000	6000	6000	6000	5800	5800
	75	6000	6000	6000	6000	5700	5700	5300	5300	5000	5000

**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. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6 m
4. Not all sizes of SmartLVL 18 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 AND N3



EXAMPLE:

sheet roof - 40 kg/m<sup>2</sup>  
 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

**SmartLVL 18**

240 x 65

**Note:** Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

Roof load width (mm)		1500			3000			4500			6000			7500		
Floor load width (mm)		1200	2400	3600	1200	2400	3600	1200	2400	3600	1200	2400	3600	1200	2400	3600
Member size DxB (mm)	Roof mass (kg/m <sup>2</sup> )	Maximum Lintel span (mm)														
		Single span														
90x35	40	1300	1100	1000	1200	1100	1000	1100	1000	NS	1100	1000	NS	1000	NS	NS
	75	1200	1100	1000	1100	1000	NS	1000	NS	NS	NS	NS	NS	NS	NS	NS
120x35	40	1800	1500	1400	1600	1400	1300	1500	1400	1300	1400	1300	1200	1400	1300	1200
	75	1600	1500	1300	1500	1300	1200	1300	1200	1200	1200	1200	1100	1200	1100	1100
140x35	40	2100	1800	1600	1900	1700	1500	1800	1600	1500	1700	1500	1400	1600	1500	1400
	75	1900	1700	1500	1700	1600	1400	1600	1500	1400	1500	1400	1300	1400	1300	1200
170x35	40	2500	2200	2000	2300	2100	1900	2200	2000	1800	2100	1900	1700	2000	1800	1700
	75	2400	2100	1900	2100	1900	1800	1900	1800	1700	1800	1700	1600	1700	1600	1500
190x35	40	2800	2400	2200	2600	2300	2100	2400	2200	2000	2300	2100	2000	2200	2000	1900
	75	2600	2300	2100	2300	2100	2000	2100	2000	1900	2000	1900	1800	1900	1800	1700
200x35	40	3000	2600	2300	2800	2400	2200	2600	2300	2100	2400	2200	2100	2300	2100	2000
	75	2800	2500	2200	2500	2200	2100	2300	2100	2000	2100	2000	1900	2000	1900	1800
240x35	40	3400	3100	2800	3200	2900	2700	3100	2800	2600	2900	2700	2500	2800	2600	2400
	75	3200	2900	2700	3000	2700	2500	2700	2500	2400	2500	2400	2300 <sub>5</sub>	2400	2300 <sub>5</sub>	2200 <sub>5</sub>
90x45	40	1400	1200	1100	1300	1200	1100	1200	1100	1000	1200	1100	1000	1100	1000	NS
	75	1300	1200	1100	1200	1100	1000	1100	1000	NS	1000	NS	NS	NS	NS	NS
120x45	40	1900	1700	1500	1800	1600	1400	1700	1500	1400	1600	1400	1300	1500	1400	1300
	75	1800	1600	1400	1600	1500	1300	1500	1400	1300	1400	1300	1200	1300	1200	1200
140x45	40	2300	1900	1700	2100	1800	1700	1900	1800	1600	1800	1700	1600	1800	1600	1500
	75	2100	1900	1700	1900	1700	1600	1700	1600	1500	1600	1500	1400	1500	1400	1400
170x45	40	2800	2400	2100	2500	2200	2000	2400	2100	2000	2200	2100	1900	2100	2000	1800
	75	2600	2300	2100	2300	2100	1900	2100	1900	1800	1900	1800	1700	1800	1700	1700
190x45	40	3000	2700	2400	2800	2500	2300	2700	2400	2200	2500	2300	2100	2400	2200	2100
	75	2900	2500	2300	2500	2300	2200	2300	2200	2000	2200	2000	1900	2100	2000	1900
200x45	40	3200	2800	2500	3000	2600	2400	2800	2500	2300	2700	2400	2200	2500	2300	2200
	75	3000	2700	2400	2700	2400	2300	2500	2300	2100	2300	2200	2000	2200	2100	2000
240x45	40	3600	3300	3000	3400	3100	2900	3300	3000	2800	3100	2900	2700	3000	2800	2600
	75	3400	3100	2900	3200	2900	2700	3000	2800	2600	2800	2600	2500	2600	2500	2400
300x45	40	4300	3900	3600	4000	3700	3500	3900	3600	3400	3700	3500	3300	3600	3400	3200
	75	4100	3700	3500	3700	3500	3300	3500	3300	3200	3300	3200	3100 <sub>5</sub>	3200	3100 <sub>5</sub>	3000 <sub>10</sub>
360x45	40	4900	4400	4100	4600	4200	4000 <sub>5</sub>	4400	4100	3900 <sub>5</sub>	4200	4000	3800 <sub>5</sub>	4100	3900	3700 <sub>5</sub>
	75	4700	4300	4000 <sub>5</sub>	4300	4000	3800 <sub>5</sub>	4000	3800	3600 <sub>10</sub>	3800	3600 <sub>5</sub>	3500 <sub>10</sub>	3700 <sub>5</sub>	3500 <sub>10</sub>	3400 <sub>15</sub>
200x65	40	3500	3100	2800	3300	3000	2700	3100	2900	2600	3000	2700	2500	2900	2600	2500
	75	3300	3000	2700	3000	2800	2600	2800	2600	2400	2600	2400	2300	2500	2300	2200
240x65	40	4000	3600	3300	3700	3400	3200	3600	3300	3100	3400	3200	3000	3300	3100	3000
	75	3800	3400	3200	3500	3200	3100	3200	3100	2900	3100	2900	2800	3000	2800	2700
300x65	40	4700	4200	3900	4400	4100	3800	4200	3900	3700	4100	3800	3600	3900	3700	3500
	75	4500	4100	3800	4100	3800	3600	3800	3600	3500	3600	3500	3300	3500	3400	3200
360x65	40	5400	4800	4500	5100	4600	4300	4800	4500	4200	4600	4400	4100	4500	4200	4000
	75	5100	4700	4400	4700	4400	4100	4400	4200	4000	4200	4000	3800	4000	3900	3700 <sub>5</sub>

# SINGLE SPAN LINTELS IN LOWER STOREY WALLS AS 4055 CLASSIFICATION N1, N2 AND N3 (Cont'd)

Roof load width (mm)		1500			3000			4500			6000			7500		
Floor load width (mm)		1200	2400	3600	1200	2400	3600	1200	2400	3600	1200	2400	3600	1200	2400	3600
Member size DxB (mm)	Roof mass (kg/m <sup>2</sup> )	Maximum Lintel span (mm)														
		Single span														
2/90x35	40	1700	1400	1300	1500	1400	1200	1400	1300	1200	1400	1200	1100	1300	1200	1100
	75	1600	1400	1200	1400	1300	1200	1300	1200	1100	1200	1100	1000	1100	1000	1000
2/120x35	40	2200	1900	1700	2100	1800	1700	1900	1700	1600	1800	1700	1500	1700	1600	1500
	75	2100	1800	1700	1900	1700	1600	1700	1600	1500	1600	1500	1400	1500	1400	1300
2/140x35	40	2600	2300	2000	2400	2100	1900	2300	2000	1900	2100	2000	1800	2000	1900	1800
	75	2400	2200	2000	2200	2000	1800	2000	1800	1700	1900	1700	1600	1700	1700	1600
2/170x35	40	3100	2800	2500	2900	2600	2400	2800	2500	2300	2600	2400	2200	2500	2300	2100
	75	3000	2600	2400	2600	2400	2200	2400	2200	2100	2300	2100	2000	2100	2000	1900
2/190x35	40	3400	3000	2800	3200	2900	2700	3000	2800	2600	2900	2700	2500	2800	2600	2400
	75	3200	2900	2700	3000	2700	2500	2700	2500	2400	2500	2400	2300	2400	2300	2200
2/200x35	40	3500	3200	2900	3300	3000	2800	3200	2900	2700	3000	2800	2600	2900	2700	2500
	75	3300	3100	2800	3100	2800	2600	2900	2700	2500	2700	2500	2400	2500	2400	2300
2/240x35	40	4000	3600	3400	3800	3500	3300	3600	3400	3200	3500	3300	3100	3400	3200	3000
	75	3800	3500	3300	3500	3300	3100	3300	3100	3000	3100	3000	2900	3000	2900	2700
2/90x45	40	1800	1600	1400	1700	1500	1300	1600	1400	1300	1500	1400	1300	1400	1300	1200
	75	1700	1500	1400	1500	1400	1300	1400	1300	1200	1300	1200	1100	1200	1100	1100
2/120x45	40	2400	2100	1900	2200	2000	1800	2100	1900	1700	2000	1800	1700	1900	1800	1600
	75	2300	2000	1800	2000	1800	1700	1800	1700	1600	1700	1600	1500	1600	1500	1500
2/140x45	40	2800	2500	2200	2600	2300	2100	2500	2200	2000	2300	2100	2000	2200	2100	1900
	75	2600	2300	2100	2400	2100	2000	2200	2000	1900	2000	1900	1800	1900	1800	1700
2/170x45	40	3300	3000	2700	3100	2800	2600	3000	2700	2500	2800	2600	2400	2700	2500	2300
	75	3100	2800	2600	2900	2600	2400	2600	2400	2300	2500	2300	2200	2300	2200	2100
2/190x45	40	3600	3200	3000	3400	3100	2900	3200	3000	2800	3100	2900	2700	3000	2800	2600
	75	3400	3100	2900	3100	2900	2700	2900	2700	2600	2700	2600	2500	2600	2500	2400
2/200x45	40	3800	3400	3100	3500	3200	3000	3400	3100	2900	3200	3000	2800	3100	2900	2800
	75	3600	3200	3000	3300	3100	2900	3100	2900	2700	2900	2700	2600	2700	2600	2500
2/240x45	40	4300	3900	3600	4100	3700	3500	3900	3600	3400	3700	3500	3300	3600	3400	3200
	75	4100	3700	3500	3700	3500	3300	3500	3300	3200	3300	3200	3100	3200	3100	3000
2/300x45	40	5100	4600	4200	4800	4400	4100	4600	4200	4000	4400	4100	3900	4200	4000	3800
	75	4800	4400	4100	4400	4100	3900	4200	3900	3800	4000	3800	3600	3800	3600	3500
2/360x45	40	5800	5200	4800	5500	5000	4700	5200	4900	4600	5000	4700	4500	4900	4600	4400
	75	5500	5000	4700	5100	4700	4500	4800	4500	4300	4500	4300	4200	4300	4200	4000
2/200x65	40	4100	3700	3400	3900	3500	3300	3700	3400	3200	3500	3300	3100	3400	3200	3100
	75	3900	3600	3300	3600	3300	3200	3400	3200	3000	3200	3000	2900	3100	2900	2800
2/240x65	40	4700	4200	3900	4400	4100	3800	4200	3900	3700	4100	3800	3600	3900	3700	3500
	75	4500	4100	3800	4100	3800	3600	3800	3600	3500	3700	3500	3400	3500	3400	3300
2/300x65	40	5500	5000	4600	5200	4800	4500	5000	4600	4400	4800	4500	4300	4600	4400	4200
	75	5200	4800	4500	4800	4500	4300	4500	4300	4100	4300	4100	4000	4100	4000	3900
2/360x65	40	6000	5700	5300	6000	5500	5100	5700	5300	5000	5500	5100	4900	5300	5000	4800
	75	6000	5500	5100	5500	5200	4900	5200	4900	4700	5000	4700	4600	4800	4600	4400

**NOTES:**

1. D = member depth, B = member breadth, NS = not suitable
2. total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN)
3. Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm
4. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6 m
5. Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering



## SINGLE SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION N1, N2 AND N3 [Cont'd]

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m <sup>2</sup> )	Maximum Ridge span (mm)					
		Single span					
2/90x35	40	2300	1900	1700	1500	1400	1300
	75	1900	1600	1400	1300	1200	1100
2/120x35	40	3100	2600	2300	2100	1900	1800
	75	2600	2100	1900	1700	1600	1500
2/140x35	40	3600	3000	2700	2400	2200	2100
	75	3000	2500	2200	2000	1900	1800
2/170x35	40	4400	3700	3200	2900	2700	2500
	75	3600	3100	2700	2500	2300	2100
2/190x35	40	4900	4100	3600	3300	3000	2800
	75	4100	3400	3000	2800	2600	2400
2/200x35	40	5100	4300	3800	3500	3200	3000
	75	4300	3600	3200	2900	2700	2500
2/240x35	40	6000	5200	4600	4100	3800	3600
	75	5100	4300	3800	3500	3200	3000
2/90x45	40	2500	2100	1800	1700	1500	1400
	75	2100	1700	1500	1400	1300	1200
2/120x45	40	3400	2800	2500	2200	2100	1900
	75	2800	2300	2100	1900	1700	1600
2/140x45	40	3900	3300	2900	2600	2400	2200
	75	3300	2700	2400	2200	2000	1900
2/170x45	40	4700	4000	3500	3200	2900	2700
	75	3900	3300	2900	2700	2500	2300
2/190x45	40	5300	4400	3900	3600	3300	3100
	75	4400	3700	3300	3000	2800	2600
2/200x45	40	5500	4700	4100	3700	3500	3200
	75	4600	3900	3500	3200	2900	2700
2/240x45	40	6000	5600	4900	4500	4100	3900
	75	5500	4700	4200	3800	3500	3300
2/300x45	40	6000	6000	6000	5600	5200	4800
	75	6000	5800	5200	4700	4400	4100
2/360x45	40	6000	6000	6000	6000	6000	5800
	75	6000	6000	6000	5700	5300	5000
2/200x65	40	6000	5200	4600	4200	3900	3600
	75	5200	4400	3900	3600	3300	3100
2/240x65	40	6000	6000	5500	5000	4700	4400
	75	6000	5200	4700	4300	4000	3700
2/300x65	40	6000	6000	6000	6000	5800	5400
	75	6000	6000	5800	5300	5000	4700
2/360x65	40	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	5900	5600

### 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. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6m
5. Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering

## CONTINUOUS SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION N1, N2 AND N3

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m <sup>2</sup> )	Maximum Ridge span (mm)					
		Continuous span					
90x35	40	2500	2100	1800	1700	1500	1400
	75	2100	1700	1500	1400	1300	1200
120x35	40	3400	2800	2500	2200	2100	1900
	75	2800	2300	2100	1900	1700	1600
140x35	40	4000	3300	2900	2600	2400	2200
	75	3300	2700	2400	2200	2000	1900
170x35	40	4800	4000	3500	3200	2900	2700
	75	4000	3300	2900	2700	2500	2300
190x35	40	5400	4500	3900	3600	3300	3000
	75	4400	3700	3300	3000	2800	2600 <sub>5</sub>
200x35	40	5600	4700	4100	3700	3400	3200
	75	4700	3900	3500	3100	2900	2700 <sub>10</sub>
240x35	40	6000	5600	5000	4500	4100	3900 <sub>5</sub>
	75	5600	4700	4200	3800	3500 <sub>15</sub>	3300 <sub>30</sub>
90x45	40	2800	2300	2000	1800	1700	1500
	75	2300	1900	1700	1500	1400	1300
120x45	40	3700	3100	2700	2400	2200	2100
	75	3000	2500	2200	2000	1900	1800
140x45	40	4300	3600	3100	2800	2600	2400
	75	3500	3000	2600	2400	2200	2100
170x45	40	5200	4300	3800	3500	3200	3000
	75	4300	3600	3200	2900	2700	2500
190x45	40	5800	4800	4300	3900	3600	3300
	75	4800	4000	3600	3200	3000	2800
200x45	40	6000	5100	4500	4100	3700	3500
	75	5100	4200	3800	3400	3200	3000
240x45	40	6000	6000	5400	4900	4500	4200
	75	6000	5100	4500	4100	3800	3600 <sub>15</sub>
300x45	40	6000	6000	6000	6000	5600	5300 <sub>10</sub>
	75	6000	6000	5600	5100 <sub>10</sub>	4800 <sub>25</sub>	4500 <sub>40</sub>
360x45	40	6000	6000	6000	6000	6000 <sub>5</sub>	6000 <sub>25</sub>
	75	6000	6000	6000	6000 <sub>25</sub>	5700 <sub>45</sub>	5400 <sub>65</sub>
200x65	40	6000	5700	5100	4600	4200	3900
	75	5700	4800	4200	3900	3600	3400
240x65	40	6000	6000	6000	5500	5100	4700
	75	6000	5700	5100	4600	4300	4000
300x65	40	6000	6000	6000	6000	6000	5900
	75	6000	6000	6000	5800	5400	5100 <sub>10</sub>
360x65	40	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	6000 <sub>10</sub>	6000 <sub>30</sub>

### 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. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6m
5. Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering

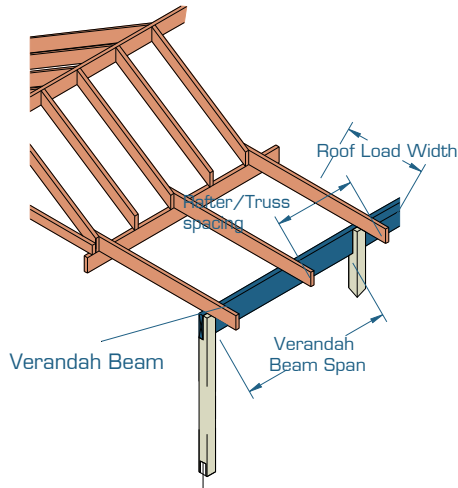
## CONTINUOUS SPAN RIDGE/INTERMEDIATE ROOF BEAM AS 4055 CLASSIFICATION N1, N2 AND N3 [Cont'd]

Roof load width (mm)		1800	3000	4200	5400	6600	7800
Member size DxB (mm)	Roof mass (kg/m <sup>2</sup> )	Maximum Ridge span (mm)					
		Continuous span					
2/90x35	40	3200	2600	2300	2100	1900	1800
	75	2600	2200	1900	1800	1600	1500
2/120x35	40	4200	3500	3100	2800	2600	2400
	75	3500	2900	2600	2400	2200	2000
2/140x35	40	4900	4100	3600	3300	3000	2800
	75	4100	3400	3000	2800	2600	2400
2/170x35	40	5900	5000	4400	4000	3700	3400
	75	5000	4200	3700	3400	3100	2900
2/190x35	40	6000	5600	4900	4500	4100	3800
	75	5500	4700	4100	3800	3500	3300
2/200x35	40	6000	5900	5200	4700	4300	4000
	75	5800	4900	4300	4000	3700	3400
2/240x35	40	6000	6000	6000	5600	5200	4900
	75	6000	5900	5200	4800	4400	4100
2/90x45	40	3400	2900	2500	2300	2100	2000
	75	2800	2400	2100	1900	1800	1700
2/120x45	40	4600	3800	3400	3100	2800	2600
	75	3800	3200	2800	2600	2400	2200
2/140x45	40	5300	4500	3900	3600	3300	3100
	75	4400	3700	3300	3000	2800	2600
2/170x45	40	6000	5400	4800	4300	4000	3700
	75	5400	4500	4000	3700	3400	3200
2/190x45	40	6000	6000	5300	4800	4500	4200
	75	6000	5000	4500	4100	3800	3600
2/200x45	40	6000	6000	5600	5100	4700	4400
	75	6000	5300	4700	4300	4000	3700
2/240x45	40	6000	6000	6000	6000	5600	5300
	75	6000	6000	5700	5200	4800	4500
2/300x45	40	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	6000	5600
2/360x45	40	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	6000	6000
2/200x65	40	6000	6000	6000	5700	5300	5000
	75	6000	6000	5300	4900	4500	4200
2/240x65	40	6000	6000	6000	6000	6000	5900
	75	6000	6000	6000	5800	5400	5100
2/300x65	40	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	6000	6000
2/360x65	40	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	6000	6000

### 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. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6 m
5. Not all sizes of SmartLVL 18 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:**

sheet roof - 40 kg/m<sup>2</sup>  
 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

**SmartLVL 18**

240 x 45

**Note:** Not all sizes of SmartLVL in this table are stocked in each state. Please check with your supplier before ordering.

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 <sup>2</sup> )	Maximum Verandah span (mm)									
		Single span									
90x35	40	1800	1800	1400	1300	1300	1000	1100	NS	1000	NS
	75	1500	1300	1200	NS	1000	NS	NS	NS	NS	NS
120x35	40	2400	2500	1900	1900	1700	1600	1500	1400	1400	1200
	75	2000	2000	1600	1400	1400	1200	1200	1000	1100	NS
140x35	40	2800	2900	2300	2300	2000	2000	1800	1800	1600	1600
	75	2300	2300	1800	1800	1600	1500	1500	1300	1400	1100
170x35	40	3500	3400	2800	2800	2400	2400	2200	2200	2000	2000
	75	2800	2800	2200	2200	1900	1900	1800	1700	1600	1600
190x35	40	3900	3800	3100	3100	2700	2700	2500	2500	2300	2300
	75	3200	3100	2500	2500	2200	2200	2000	1900	1800	1800
200x35	40	4000	4000	3300	3200	2800	2900	2600	2600	2400	2400
	75	3300	3300	2700	2700	2300	2300	2100	2100	1900	1900
240x35	40	4600	4600	3900	3900	3400	3400	3100	3100	2900	2900
	75	4000	4000	3200	3100	2800	2800	2500	2500	2300	2300
90x45	40	2000	2000	1600	1500	1400	1200	1300	1000	1100	NS
	75	1600	1500	1300	1100	1100	NS	1000	NS	NS	NS
120x45	40	2700	2700	2100	2100	1800	1800	1700	1600	1500	1400
	75	2200	2200	1700	1600	1500	1300	1400	1200	1300	1000
140x45	40	3100	3100	2500	2500	2200	2100	2000	1900	1800	1800
	75	2500	2600	2000	2000	1700	1700	1600	1500	1500	1300
170x45	40	3800	3700	3000	3000	2600	2700	2400	2400	2200	2200
	75	3100	3000	2400	2500	2100	2100	1900	1900	1800	1800
190x45	40	4100	4100	3400	3300	2900	2900	2700	2700	2500	2500
	75	3400	3400	2700	2800	2400	2400	2200	2100	2000	2000
200x45	40	4300	4300	3500	3500	3100	3100	2800	2800	2600	2700
	75	3600	3600	2900	2900	2500	2500	2300	2300	2100	2100
240x45	40	4900	4900	4200	4200	3700	3700	3400	3300	3100	3100
	75	4200	4200	3500	3400	3000	3000	2700	2800	2500	2600
300x45	40	5800	5700	4900	4900	4500	4400	4200	4200	3900	3900
	75	5000	5000	4200	4200	3800	3700	3500	3400	3200	3200
360x45	40	6000	6000	5600	5600	5100	5100	4800	4800	4500	4500
	75	5700	5700	4900	4800	4400	4400	4100	4100	3800	3800
200x65	40	4700	4600	4000	4000	3500	3400	3200	3100	2900	2900
	75	4000	4000	3300	3200	2800	2800	2600	2600	2400	2400
240x65	40	5300	5300	4600	4500	4100	4100	3800	3800	3500	3500
	75	4600	4600	3900	3900	3400	3400	3100	3100	2900	2900
300x65	40	6000	6000	5400	5400	4900	4900	4600	4500	4300	4300
	75	5400	5400	4600	4600	4200	4200	3900	3900	3600	3600
360x65	40	6000	6000	6000	6000	5600	5600	5200	5200	4900	4900
	75	6000	6000	5300	5300	4800	4800	4500	4500	4200	4200

## 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 <sup>2</sup> )	Maximum Verandah span (mm)									
		Single span									
2/90x35	40	2300	2300	1800	1800	1600	1500	1400	1300	1400	1100
	75	1800	1900	1500	1300	1300	1100	1200	NS	1100	NS
2/120x35	40	3000	3000	2400	2500	2100	2100	1900	1900	1800	1800
	75	2500	2600	2000	2000	1700	1700	1600	1400	1500	1300
2/140x35	40	3500	3500	2800	2900	2500	2600	2300	2300	2100	2100
	75	2900	2900	2300	2300	2000	2000	1800	1800	1700	1600
2/170x35	40	4200	4200	3500	3400	3000	3000	2800	2800	2600	2600
	75	3500	3500	2800	2800	2500	2500	2200	2200	2100	2000
2/190x35	40	4600	4500	3900	3800	3400	3400	3100	3100	2900	2900
	75	3900	3900	3200	3100	2800	2800	2500	2500	2300	2300
2/200x35	40	4700	4700	4000	4000	3600	3500	3300	3200	3000	3000
	75	4100	4100	3300	3300	2900	2900	2700	2700	2400	2500
2/240x35	40	5400	5400	4600	4600	4200	4200	3900	3900	3600	3600
	75	4700	4700	4000	4000	3500	3500	3200	3100	2900	2900
2/90x45	40	2500	2600	2000	2000	1700	1700	1600	1500	1500	1300
	75	2000	2000	1600	1500	1400	1200	1300	1100	1200	NS
2/120x45	40	3300	3300	2700	2700	2300	2400	2100	2100	2000	1900
	75	2700	2700	2200	2200	1900	1900	1700	1600	1600	1500
2/140x45	40	3800	3800	3100	3100	2700	2700	2500	2500	2300	2300
	75	3200	3100	2500	2600	2200	2200	2000	2000	1800	1800
2/170x45	40	4400	4400	3800	3700	3300	3300	3000	3000	2800	2800
	75	3800	3800	3100	3000	2700	2700	2400	2500	2300	2300
2/190x45	40	4800	4800	4100	4100	3700	3600	3400	3300	3100	3100
	75	4200	4200	3400	3400	3000	3000	2700	2800	2500	2600
2/200x45	40	5000	5000	4300	4300	3900	3800	3500	3500	3300	3200
	75	4300	4300	3600	3600	3200	3100	2900	2900	2700	2700
2/240x45	40	5700	5700	4900	4900	4500	4400	4200	4200	3900	3900
	75	5000	5000	4200	4200	3800	3800	3500	3400	3200	3200
2/300x45	40	6000	6000	5800	5700	5300	5300	4900	4900	4700	4600
	75	5800	5800	5000	5000	4500	4500	4200	4200	4000	4000
2/360x45	40	6000	6000	6000	6000	6000	6000	5600	5600	5300	5300
	75	6000	6000	5700	5700	5200	5200	4900	4800	4600	4600
2/200x65	40	5400	5400	4700	4600	4200	4200	4000	4000	3700	3700
	75	4700	4700	4000	4000	3600	3500	3200	3200	3000	3000
2/240x65	40	6000	6000	5300	5300	4900	4900	4600	4500	4300	4300
	75	5400	5400	4600	4600	4200	4200	3900	3900	3600	3600
2/300x65	40	6000	6000	6000	6000	5700	5700	5400	5400	5100	5100
	75	6000	6000	5400	5400	4900	4900	4600	4600	4400	4400
2/360x65	40	6000	6000	6000	6000	6000	6000	6000	6000	5800	5800
	75	6000	6000	6000	6000	5700	5600	5300	5300	5000	5000

### 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. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6m
5. Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering

## 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 <sup>2</sup> )	Maximum Verandah span (mm)									
		Continuous span									
90x35	40	2500	2500	1900	1900	1700	1500	1500	1400	1400	1200
	75	2000	2000	1600	1400	1400	1200	1200	NS	1100	NS
120x35	40	3300	3300	2600	2600	2300	2200	2100	2000	1900	1900
	75	2700	2700	2100	2100	1800	1800	1700	1500	1500	1400
140x35	40	3800	3800	3100	3000	2700	2700	2400	2400	2300	2200
	75	3100	3100	2500	2500	2200	2100	2000	1900	1800	1800
170x35	40	4500	4500	3700	3700	3300	3200	3000	3000	2800	2700
	75	3800	3800	3000	3000	2600	2600	2400	2400	2200	2100
190x35	40	4900	4900	4100	4100	3600	3600	3300	3300	3100	3100
	75	4200	4200	3400	3300	3000	3000	2700	2700	2500	2500
200x35	40	5000	5100	4300	4300	3800	3800	3500	3500	3200	3200
	75	4400	4300	3600	3500	3100	3100	2800	2800	2600	2600
240x35	40	5800	5800	4900	4900	4400	4400	4100	4100	3900	3900
	75	5000	5000	4200	4200	3700	3700	3400	3400	3200 <sub>s</sub>	3100
90x45	40	2700	2700	2100	2100	1900	1800	1700	1500	1500	1400
	75	2200	2100	1700	1500	1500	1300	1400	1100	1300	NS
120x45	40	3600	3600	2900	2900	2500	2500	2300	2200	2100	2000
	75	2900	2900	2300	2300	2000	2000	1800	1800	1700	1500
140x45	40	4100	4100	3300	3300	2900	2900	2600	2600	2500	2500
	75	3400	3400	2700	2700	2400	2400	2100	2100	2000	1900
170x45	40	4700	4700	4000	4000	3500	3500	3200	3200	3000	3000
	75	4100	4100	3300	3300	2900	2900	2600	2600	2400	2400
190x45	40	5100	5200	4400	4400	4000	3900	3600	3600	3300	3300
	75	4400	4400	3700	3700	3200	3200	2900	2900	2700	2700
200x45	40	5400	5400	4500	4500	4100	4100	3800	3800	3500	3500
	75	4600	4600	3900	3900	3400	3300	3100	3100	2900	2900
240x45	40	6000	6000	5200	5200	4700	4700	4400	4400	4200	4200
	75	5300	5300	4500	4500	4000	4000	3700	3700	3400	3400
300x45	40	6000	6000	6000	6000	5600	5600	5200	5200	4900	4900
	75	6000	6000	5300	5300	4800	4800	4500	4400	4200 <sub>10</sub>	4200 <sub>10</sub>
360x45	40	6000	6000	6000	6000	6000	6000	6000	6000	5700	5700
	75	6000	6000	6000	6000	5500	5500	5100 <sub>s</sub>	5100 <sub>s</sub>	4800 <sub>25</sub>	4800 <sub>25</sub>
200x65	40	5800	5800	5000	5000	4500	4500	4200	4200	4000	3900
	75	5000	5100	4300	4300	3800	3800	3500	3500	3200	3200
240x65	40	6000	6000	5700	5700	5200	5200	4800	4800	4600	4600
	75	5800	5800	4900	4900	4400	4400	4100	4100	3900	3900
300x65	40	6000	6000	6000	6000	6000	6000	5700	5700	5400	5400
	75	6000	6000	5800	5800	5200	5200	4900	4900	4600	4600
360x65	40	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	6000	6000	5600	5600	5300	5300

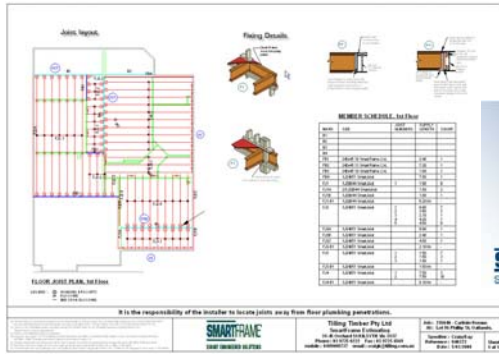
## CONTINUOUS SPAN VERANDAH BEAM AS 4055 CLASSIFICATION N1, N2 AND N3. (Cont'd)

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 <sup>2</sup> )	Maximum Verandah span (mm)									
		Continuous span									
2/90x35	40	3100	3100	2500	2500	2100	2100	1900	1900	1800	1800
	75	2500	2500	2000	2000	1700	1700	1600	1400	1500	1300
2/120x35	40	4100	4100	3300	3300	2900	2900	2600	2600	2500	2500
	75	3400	3300	2700	2700	2300	2300	2100	2100	2000	1900
2/140x35	40	4600	4500	3800	3800	3400	3300	3100	3000	2900	2800
	75	3900	3900	3100	3100	2800	2700	2500	2500	2300	2300
2/170x35	40	5300	5300	4500	4500	4100	4100	3700	3700	3500	3400
	75	4500	4500	3800	3800	3300	3300	3000	3000	2800	2800
2/190x35	40	5700	5700	4900	4900	4400	4400	4100	4100	3900	3900
	75	4900	5000	4200	4200	3700	3700	3400	3300	3100	3100
2/200x35	40	5900	5900	5000	5100	4600	4600	4300	4300	4100	4000
	75	5100	5200	4400	4300	3900	3900	3600	3500	3300	3300
2/240x35	40	6000	6000	5800	5800	5200	5300	4900	4900	4600	4600
	75	5900	5900	5000	5000	4500	4500	4200	4200	4000	4000
2/90x45	40	3300	3300	2700	2700	2300	2300	2100	2100	2000	1900
	75	2700	2700	2200	2100	1900	1900	1700	1500	1600	1400
2/120x45	40	4300	4300	3600	3600	3100	3100	2900	2900	2700	2600
	75	3700	3600	2900	2900	2600	2600	2300	2300	2100	2100
2/140x45	40	4800	4900	4100	4100	3700	3600	3300	3300	3100	3100
	75	4200	4200	3400	3400	3000	3000	2700	2700	2500	2500
2/170x45	40	5500	5600	4700	4700	4300	4300	4000	4000	3800	3800
	75	4800	4900	4100	4100	3600	3600	3300	3300	3100	3000
2/190x45	40	6000	6000	5100	5200	4700	4700	4400	4400	4200	4200
	75	5200	5200	4400	4400	4000	4000	3700	3700	3400	3400
2/200x45	40	6000	6000	5400	5400	4900	4900	4500	4500	4300	4300
	75	5400	5500	4600	4600	4200	4200	3900	3900	3600	3600
2/240x45	40	6000	6000	6000	6000	5600	5600	5200	5200	4900	5000
	75	6000	6000	5300	5300	4800	4800	4500	4500	4200	4200
2/300x45	40	6000	6000	6000	6000	6000	6000	6000	6000	5800	5800
	75	6000	6000	6000	6000	5700	5700	5300	5300	5000	5000
2/360x45	40	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	6000	6000	6000	6000	5700	5800
2/200x65	40	6000	6000	5800	5800	5300	5300	5000	5000	4700	4700
	75	5900	5900	5000	5100	4600	4600	4300	4300	4100	4000
2/240x65	40	6000	6000	6000	6000	6000	6000	5700	5700	5400	5400
	75	6000	6000	5800	5800	5200	5200	4900	4900	4600	4600
2/300x65	40	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	6000	6000	5800	5800	5500	5500
2/360x65	40	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
	75	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000

### 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. For SmartLVL 18 product, the maximum supply length is 6000 mm / 6m
5. Not all sizes of SmartLVL 18 in this table are stocked in each state. Please check with your supplier before ordering

# SmartFrame TOOLS



## SmartFrame Software

You really do need to see our software to believe it. This state of the art *FREE* software is world leading technology. Not only does it provide the services noted previously, but you also have the benefit of being able to 'size' specific members for your project—fast. No other software package can give you all these benefits at no charge.

### Quick Design -

Can't get a particular timber? Just enter the spans and you have a SmartFrame alternative. It's that easy.

### Take-Off -

This is the module from which we produce our designs. Either use this yourself, or send the plans to us and we'll do it for you. The take-off is provided in A3 full colour easy to read layouts.

### Bracing -

More for Designers and Engineers, this module will work out force summaries for wind bracing and more.

### Connection Details -

Ever wondered how to connect an I-Joist to a steel PFC? If you have, this is the module for you. Over 30 different types of connection details all with easy to read graphics and detailed notes.

### Select Bracket -

Want to be sure you've got the hardware? Visit 'select bracket' and you'll get all the info you need i.e.: size, the joists it suits and order code. Choose from straight face mount hangers, top mounts, 45° offsets, rafter to ridge hangers and even heavy duty hangers for our LVL.

### Tie Down -

A powerful tool to enable users to quickly calculate the uplift forces on a structure and to assign suitable tie down solutions as contained in Chapter 9 of AS 1684

### Reports -

Need a certificate report for council? Easy—just switch on your PC, bring up the job and hit the reports button. In one or two minutes, you'll have complete computer generated certifications suitable for most councils and inspectors. Of course, if they aren't satisfied,

send the job to us and our Engineer will look over it, ensure it's correct and then issue you an Engineer's Certificate.

## SmartFrame Design Service

Tilling offer a comprehensive design service to builders as part of our SmartFrame builders program—at no charge. Simply give us your plans and we'll supply you with the following:



**floor Beam/Post/Lintel Layout -** This is clearly show where members go, what they bear onto and how they connect within the frame, all in easy to read colour graphics.

**Joist Layout -** Showing the layout of joists, bearing points, where to start your layout and other site specific details such as joist hangers and rimboard/end blocking. These layouts can include location of service holes so the tradesman can adjust the joists as necessary.

**Member Schedule -** Our member schedule illustrates the direction of each member, size, length, count, how it bears left and right and any other information deemed to be needed.

**Order Schedule -** This is the take off to build the floor. Simply take a look at it to check everything is included, then fax it to your merchant for supply.

## Training

**Installation Training -** It's not always easy for carpenters to keep up to date on new products, however to produce a well built, strong home, it's a necessity. At Tilling, we realize that education and training are lynch pins of the SmartFrame range. If you've ever used our products before, or you've just started a new chippie crew, give us a call. Given either on site, in your office or ours, installation training runs through all the details required to install our joists and LVL, including shortcuts to save time and money. Once again this service is provided at no charge to SmartFrame users. It's all part of the service to ensure you can work with confidence.



# SMARTFRAME DESIGN COMPENDIUM

## Design Compendium Contents

Specification Software

- Technical Support

Design Guides (pdf)

Technical Illustrations (dxf/dwg for CAD)

Fixing Details - fixing details/hangers (jpg)

Video Clips - installation/company (mpg)

Software Tutorial

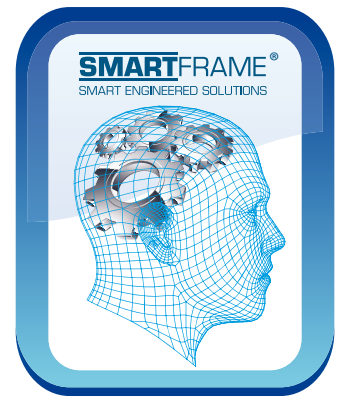
## Interactive



## Printable



## PC



Never before has so much user friendly computer power been unleashed into the hands of building industry professionals to allow the design and detailing of engineered timber products. This software, in conjunction with the SmartFrame Design Centre and SmartFrame engineered timber products themselves, combines to form the most sophisticated structural timber option ever available to the Australian market. The SmartFrame Engineered Timber Solution represents an entirely new and revolutionary concept in the delivery of 21st century technology and service to the building industry.

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