PROJECT	JOB NO.	DATE
Example House 3 bed detached house · new build (example project)	LTD-EX-001	29 Oct 2026
SUBJECT	**CALC BY**	**CHECKED BY**
Lintels L1–L18	LoadTakedown (auto)	

LINTEL SCHEDULE

Generic lintel types (no maker named) selected against a **representative** safe working load (SWL, sheet 28): an unfactored total UDL with 150 mm bearings, for the inner:outer loading ratio. The applied load is therefore **characteristic** ($G_k + Q_k$), not ULS. "Or equal": any product whose own table gives at least the SWL scheduled.

REF	WALL	STY	CLEAR	LENGTH	CODE	TYPE, RATIO	LOAD KN	SWL KN	UTIL.	OR EQUAL	
L1	Front wall	F	1100	1500	CL-S	standard duty, 19:1	8.8	14.0	0.63	yes	PASS
L2	Front wall	F	2024	2400	CL-H	heavy duty, 19:1	16.2	18.2	0.89	yes	PASS
L3	Front wall	G	950	1350	CL-S	standard duty, 19:1	6.0	14.0	0.42	yes	PASS
L4	Front wall	G	2024	2400	CL-H	heavy duty, 5:1	13.4	22.1	0.61	yes	PASS
L5	Bay side (left)	F	450	750	BAY	by bay supplier, load given	0.3	–	–	–	CALC
L6	Bay side (left)	G	450	750	BAY	by bay supplier, load given	0.3	–	–	–	CALC
L7	Bay front	F	1100	1500	BAY	by bay supplier, load given	2.5	–	–	–	CALC
L8	Bay front	G	1100	1500	BAY	by bay supplier, load given	3.0	–	–	–	CALC
L9	Bay side (right)	F	450	750	BAY	by bay supplier, load given	0.3	–	–	–	CALC
L10	Bay side (right)	G	450	750	BAY	by bay supplier, load given	0.3	–	–	–	CALC
L11	Rear extension wall	G	3500	3900	CL-XH	extra heavy duty, 3:1	15.3	24.0	0.64	yes	PASS
L12	Rear extension wall	G	1200	1500	CL-S	standard duty, 5:1	4.7	17.0	0.28	yes	PASS
L13	Left extension wall	G	900	1200	CL-S	standard duty, 1:1	1.3	23.0	0.06	yes	PASS
L14	First floor rear wall	F	800	1200	CL-S	standard duty, 19:1	6.2	14.0	0.44	yes	PASS
L15	First floor rear wall	F	1600	1950	CL-H	heavy duty, 19:1	13.1	20.3	0.65	yes	PASS
L16	Spine wall	G	850	1200	BX-S	box lintel, 100 mm, standard duty	7.9	15.0	0.52	yes	PASS
L17	Spine wall	G	1600	1950	BX-H	box lintel, 100 mm, heavy duty	15.3	18.0	0.85	yes	PASS
L18	Hall wall	G	850	1200	BX-S	box lintel, 100 mm, standard duty	0.7	15.0	0.05	yes	PASS

Load: masonry within a 60° triangle over the clear span (BS 5977-1), clipped at the wall top where the wall is shorter, plus floor and roof loads within the triangle. Bearings 150 mm minimum (ADA 2C24). Cavity tray, stop ends and weeps over all external lintels. Worked example: sheet 29.

Governing lintel utilisation (L2) bay lintels excluded: by the bay supplier **0.89** PASS

DRAFT SAMPLE

PROJECT	JOB NO.	DATE
Example House 3 bed detached house · new build (example project)	LTD-EX-001	29 Oct 2026
SUBJECT	**CALC BY**	**CHECKED BY**
Lintels CL-S, CL-H, CL-XH	LoadTakedown (auto)	

LINTEL TYPES: REPRESENTATIVE SWL TABLES

REPRESENTATIVE tables, not any maker's data. Generic tables (kN, unfactored total UDL, 150 mm bearings; cavity at 3:1 inner:outer, x the ratio factor), not any maker's data: the chosen product's table must give at least the SWL scheduled. Every lintel is specified by its generic type code, "or equal".

Cavity lintels, 3:1 inner : outer, 100 mm cavity

BS EN 845-2; representative

SWL kN by lintel length mm

CODE	GENERIC TYPE	1200	1350	1500	1650	1800	1950	2100	2250
CL-S	standard duty	20.0	20.0	20.0	19.0	18.0	17.0	16.0	15.0
CL-H	heavy duty	–	–	30.0	30.0	30.0	29.0	28.0	27.0
CL-XH	extra heavy duty	–	–	–	–	40.0	–	38.0	–

SWL kN by lintel length mm

CODE	GENERIC TYPE	2400	2550	2700	3000	3300	3600	4200
CL-S	standard duty	14.0	13.0	12.5	11.0	–	–	–
CL-H	heavy duty	26.0	25.0	24.0	22.0	20.0	18.0	–
CL-XH	extra heavy duty	36.0	–	34.0	32.0	30.0	28.0	24.0

Loading ratio factors on the 3:1 table 1:1 × 1.15, 3:1 × 1.00, 5:1 × 0.85, 19:1 × 0.70

Single-leaf lintels (internal walls)

representative

SWL kN by lintel length mm

CODE	GENERIC TYPE	1200	1350	1500	1650	1800	2100	2400
BX-S	box lintel, 100 mm, standard duty	15.0	14.0	13.0	12.0	11.0	9.5	8.0
BX-H	box lintel, 100 mm, heavy duty	25.0	–	23.0	–	20.0	18.0	15.0
PC-100	precast concrete lintel, 100 x 215	35.0	–	33.0	–	30.0	27.0	24.0

CL-S: cavity lintel, standard duty; CL-H: heavy duty; CL-XH: extra heavy duty. The bifold lintel L11 is CL-XH; the bifold maker must confirm the head deflection their doors need.

***PASS** – Each scheduled SWL exceeds the characteristic load (lintel schedule)*

DRAFT SAMPLE

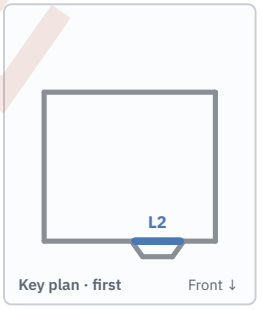
PROJECT	JOB NO.	DATE
Example House 3 bed detached house · new build (example project)	LTD-EX-001	29 Oct 2026
SUBJECT	**CALC BY**	**CHECKED BY**
Lintels L2	LoadTakedown (auto)	

LINTEL L2 – FRONT WALL, FIRST STOREY

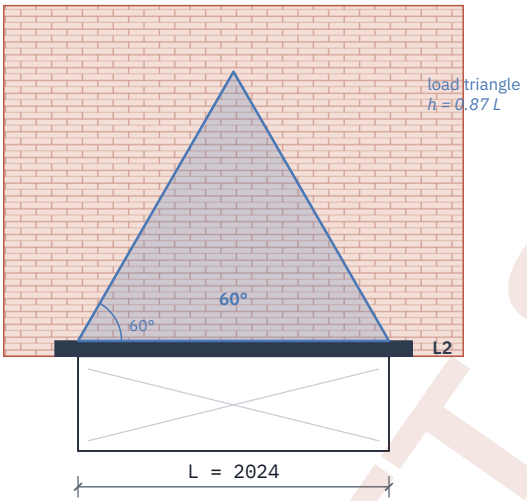
Clear span	L	**2024** mm
Lintel length	L + 2 × 150 bearing (to stock length)	**2400** mm
Type	cavity lintel, heavy duty, 19:1	
Loading ratio (inner : outer)	actual 5.97 : 1	**19:1**

60 deg triangle clipped at the wall top 0.30 m above the head.

REFERENCES



BS 5977-1:1981



Masonry within the 60° triangle bears on the lintel; loads above the apex arch onto the abutments.

Load on lintel (characteristic)

BS 5977-1 cl. 3

Masonry area in triangle	A	**0.555** m²
Masonry in triangle	$A \times w_{wall}$	**2.12** kN
First floor within triangle	$G_k + Q_k$	**0.00** kN
Roof within triangle	$G_k + Q_k$	**14.09** kN
Split	G_k = 10.69, Q_k = 5.52	kN
Inner / outer leaf	13.88 / 2.33 kN	
Total characteristic load	W	**16.21** kN

loading schedule, sheet 2

Selection

Safe working load	SWL (19:1)	**18.2** kN
	W / SWL = 16.21 / 18.2	**0.89**

representative generic SWL (unfactored total UDL), not a product

***PASS** – Safe working load exceeds characteristic load*

∴ PROVIDE 2400 MM CAVITY LINTEL, HEAVY DUTY, 19:1

Utilisation	**0.89** PASS

DRAFT SAMPLE