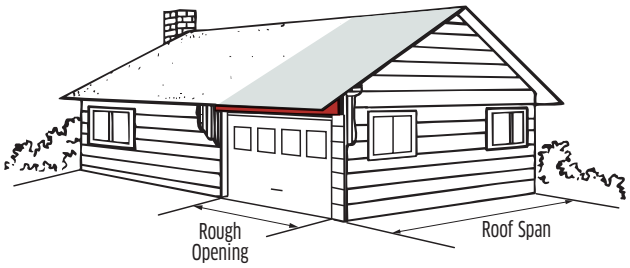
2.1E PWLVL

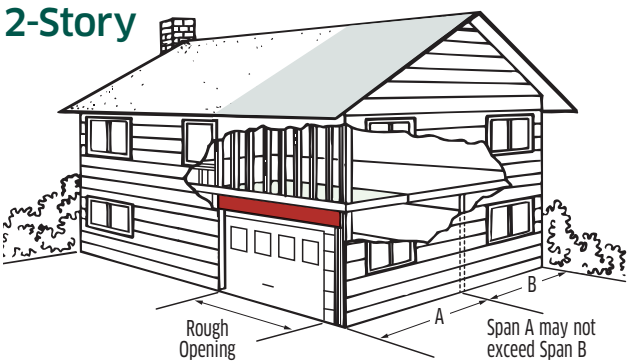
Garage Door Headers

1-Story



This table provides PWLVL header sizes for the support of roof trusses over various rough openings. A 2-foot maximum roof overhang is assumed.

2-Story



This table provides PWLVL header sizes for the support of one level of floor framing, an exterior wall and roof trusses over various rough openings. A 2-foot maximum roof overhang and center support for the floor framing are assumed.

1-STORY – 1¾" x 2.1E PWLVL

Roof Span	Roof Load																	
	Snow (115%)									Non-Snow (125%)								
	25 psf LL + 20 psf DL			30 psf LL + 20 psf DL			40 psf LL + 20 psf DL			20 psf LL + 15 psf DL			20 psf LL + 20 psf DL			20 psf LL + 25 psf DL		
	Rough Opening									Rough Opening								
	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"
20'	2-7¼"	2-11⅞"	2-14"	2-7¼"	2-11⅞"	2-14"	2-7¼"	2-14"	2-14"	2-7¼"	2-11⅞"	2-11⅞"	2-7¼"	2-11⅞"	2-14"	2-7¼"	2-11⅞"	2-14"
	3-7¼"	3-11⅞"	3-11⅞"	3-7¼"	3-11⅞"	3-11⅞"	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-9½"	3-11⅞"	3-7¼"	3-9½"	3-11⅞"	3-7¼"	3-11⅞"	3-11⅞"
24'	2-7¼"	2-11⅞"	2-14"	2-7¼"	2-14"	2-14"	2-9½"	2-14"	2-16"	2-7¼"	2-11⅞"	2-14"	2-7¼"	2-11⅞"	2-14"	2-7¼"	2-11⅞"	2-14"
	3-7¼"	3-11⅞"	3-11⅞"	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-9½"	3-11⅞"	3-7¼"	3-11⅞"	3-11⅞"	3-7¼"	3-11⅞"	3-11⅞"
28'	2-7¼"	2-14"	2-14"	2-9½"	2-14"	2-16"	2-9½"	2-14"	2-16"	2-7¼"	2-11⅞"	2-14"	2-7¼"	2-11⅞"	2-14"	2-7¼"	2-14"	2-14"
	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-11⅞"	3-11⅞"	3-7¼"	3-11⅞"	3-11⅞"	3-7¼"	3-11⅞"	3-14"
32'	2-9½"	2-14"	2-16"	2-9½"	2-14"	2-16"	2-9½"	2-16"	2-18"+	2-7¼"	2-11⅞"	2-14"	2-7¼"	2-14"	2-14"	2-9½"	2-14"	2-16"
	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-14"	3-14"	3-7¼"	3-11⅞"	3-11⅞"	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-11⅞"	3-14"
36'	2-9½"	2-14"	2-16"	2-9½"	2-16"	2-18"+	2-9½"	2-16"+	2-18"+	2-7¼"	2-14"	2-14"	2-9½"	2-14"	2-16"	2-9½"	2-14"	2-16"
	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-14"	3-14"	3-9½"	3-14"	3-16"	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-11⅞"	3-14"	3-7¼"	3-11⅞"	3-14"

+ see note 3

Notes:

1. PWLVL header sizes are listed as the number of 1¾" thick pieces by the header depth. e.g. 2 – 9½" indicates two 1¾" pieces by 9½" deep.
2. All PWLVL headers require support across their full width.
3. The minimum required bearing length (based on 850 psi) is 3" unless the + symbol is shown. In that case, 4½" is required.
4. The roof framing is assumed to be trusses supported by the exterior walls only.
5. Deflection is limited to L/240 at live load and L/180 at total load.

2-STORY – 1¾" x 2.1E PWLVL

Roof Span	Roof Load																	
	Snow (115%)									Non-Snow (125%)								
	25 psf LL + 20 psf DL			30 psf LL + 20 psf DL			40 psf LL + 20 psf DL			20 psf LL + 15 psf DL			20 psf LL + 20 psf DL			20 psf LL + 25 psf DL		
	Rough Opening									Rough Opening								
	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"	9' 3"	16' 3"	18' 3"
20'	2-9½"	2-16"	2-18"	2-9½"	2-16"	2-18"	2-9½"	2-16"	2-18"+	2-9½"	2-14"	2-16"	2-9½"	2-16"	2-16"	2-9½"	2-16"	2-18"
	3-9½"	3-14"	3-16"	3-9½"	3-14"	3-16"	3-9½"	3-14"	3-16"	3-7¼"	3-14"	3-14"	3-7¼"	3-14"	3-14"	3-9½"	3-14"	3-16"
24'	2-9½"	2-16"	2-18"+	2-9½"	2-16"+	2-18"+	2-9½"	2-18"+	–	2-9½"	2-16"	2-18"	2-9½"	2-16"	2-18"	2-9½"	2-16"	2-18"+
	3-9½"	3-14"	3-16"	3-9½"	3-14"	3-16"	3-9½"	3-16"	3-16"	3-9½"	3-14"	3-16"	3-9½"	3-14"	3-16"	3-9½"	3-14"	3-16"
28'	2-9½"	2-16"+	2-18"+	2-9½"	2-18"+	–	2-11⅞"	2-18"+	–	2-9½"	2-16"	2-18"+	2-9½"	2-16"+	2-18"+	2-9½"	2-16"+	2-18"+
	3-9½"	3-14"	3-16"	3-9½"	3-16"	3-16"	3-9½"	3-16"	3-18"	3-9½"	3-14"	3-16"	3-9½"	3-14"	3-16"	3-9½"	3-14"	3-16"
32'	2-11⅞"	2-18"+	–	2-11⅞"	2-18"+	–	2-11⅞"	–	–	2-9½"	2-16"+	2-18"+	2-9½"	2-18"+	–	2-11⅞"	2-18"+	–
	3-9½"	3-16"	3-18"	3-9½"	3-16"	3-18"	3-9½"	3-16"	3-18"+	3-9½"	3-14"	3-16"	3-9½"	3-16"	3-16"	3-9½"	3-16"	3-18"
36'	2-11⅞"	2-18"+	–	2-11⅞"	–	–	2-11⅞"	–	–	2-9½"	2-18"+	–	2-11⅞"	2-18"+	–	2-11⅞"	2-18"+	–
	3-9½"	3-16"	3-18"+	3-9½"	3-16"	3-18"+	3-9½"	3-16"+	3-18"+	3-9½"	3-16"	3-16"	3-9½"	3-16"	3-18"	3-9½"	3-16"	3-18"+

+ see note 3

Notes:

1. PWLVL header sizes are listed as the number of 1¾" thick pieces by the header depth. e.g. 2 – 9½" indicates two 1¾" pieces by 9½" deep.
2. All PWLVL headers require support across their full width.
3. The minimum required bearing length (based on 850 psi) is 3" unless the + symbol is shown. In that case, 4½" is required.
4. PWLVL header sizes are based on residential floor loading of 40 psf live load and 10 psf dead load, and an exterior wall weight of 100 plf. The roof framing is assumed to be trusses supported by the exterior walls only.
5. Deflection is limited to L/360 at live load and L/240 at total load.
6. PWLVL header sizes are based on the assumption that the floor joists are supported in the middle of the building by a beam or wall.