Extract from: National Building Code-2019 Alberta Edition NBC(AE) Division B 9.23.10.1. Stud Size and Spacing

1) The size and spacing of studs shall conform to Table 9.23.10.1.

Table 9.23.10.1. Size and Spacing of Studs Forming Part of Sentence 9.23.10.1.(1)

Type of Wall	Supported Loads (including dead loads)	Minimum Stud Size, mm	Maximum Stud Spacing, mm(1)	Maximum Unsupported Height, m
Interior	No load	38 x 38	400	2.4
		38 x 89 flat(*)	400	3.6
	Attic not accessible by a stairway	38 x 64	600	3.0
		38 x 64 flat(2)	400	2.4
		38 x 89	600	3.6
		38 x 89 flat(2)	400	2.4
	Attic accessible by a stairway plus one floor Roof load plus one floor Attic not accessible by stairway plus 2 floors	38 x 89	400	3.6
	Roof load	38 x 64	400	2.4
	Attic accessible by a stairway Attic not accessible by a stairway plus one floor	38 x 89	600	3.6
	Attic accessible by a stairway plus 2 floors Roof load plus 2 floors	38 x 89	300	3.6
		64 x 89	400	3.6
		38 x 140	400	4.2
	Attic accessible by a stairway plus 3 floors Roof load plus 3 floors	38 x 140	300	4.2
Exterior	Roof with or without attic storage	38 x 64	400	2.4
		38 x 89	600	3.0
	Roof with or without attic storage plus one floor	38 x 89	400	3.0
		38 x 140	600	3.0
	Roof with or without attic storage plus 2 floors	38 x 89	300	3.0
		64 x 89	400	3.0
		38 x 140	400	3.6
	Roof with or without attic storage plus 3 floors	38 x 140	300	1.8

Notes to Table 9.23.10.1.:

- (1) See Note A-9.4.2.1.(1).
- (2) See Article 9.23.10.3.

9.23.10.3. Orientation of Studs

- 1) Except as permitted in Sentences (2) and (3), all studs shall be placed at right angles to the wall face.
- **2)** Studs on the flat are permitted to be used in gable ends of roofs that contain only unfinished space or in non-loadbearing interior walls within the limits described in Article 9.23.10.1.
- **3)** Wall studs that support only a load from an attic not accessible by a stairway are permitted to be placed on the flat within the limits permitted in Article 9.23.10.1. provided
- **a)** the studs are clad on not less than one side with plywood, OSB or waferboard sheathing fastened to the face of the studs with a structural adhesive, and
- **b)** the portion of the roof supported by the studs does not exceed 2.1 m in width.

Any walls exceeding these permitted heights, for the location, material and spacing selected, must be engineered.