

Brick bearing-walls shall not be built of a greater total height than 40 ft., and such height shall be measured from the mean level of the footpath or ground adjoining the wall to the eaves, top of parapet, or half-way up a gable, whichever is the greater. The height of a brick wall shall in no case exceed one and a half times the width of the building at its base. This provision shall also apply to any wing or annexe the length of which is more than twice its width.

Walls shall be deemed to be divided into distinct lengths by return or cross walls, and the length of every wall shall be measured from the centre of one return wall to the centre of another, provided that such return walls are external, party, or cross walls of the thickness required under this section and are thoroughly bonded into the walls so deemed to be divided.

The thickness of any return or cross wall shall be not less than two-thirds of the thickness prescribed for the external wall into which it bonds, and in no case less than 9 in., except that in single-story domestic buildings two $4\frac{1}{2}$ in. partition walls shall be considered equivalent to one 9 in. wall.

No wall shall be deemed a cross-wall unless it is carried up to the plate level of the topmost story, and unless in each story the aggregate extent of the vertical faces or elevations of all the recesses and openings therein does not exceed 50 per cent. of the whole extent of the vertical face or elevation of the wall. Walls of strong-rooms, lift-wells, or light-areas shall be deemed cross-walls.

If a cross-wall be carried on a girder across the ground-floor story and be supported by piers and braced to the satisfaction of the engineer, such wall shall be deemed to be a cross-wall.

If a cross-wall becomes in any part an external wall, the whole wall shall be of the thickness prescribed for external walls of the same height and length.

Party walls shall be constructed of a thickness not less than 50 per cent. greater than the thickness prescribed for external walls of the same height and length.

The minimum thicknesses of brick external walls shall be as given below. Brick walls may be constructed with a $2\frac{1}{4}$ in. cavity, provided the thickness of the walls, when finished, is $2\frac{1}{4}$ in. greater than that specified below and that ties are used as specified in Section 10.

For dwellings, when the length of wall between cross-walls does not exceed 30 ft.—

Third story : 9 in.

Second story : $13\frac{1}{2}$ in.

First story : 18 in.

For warehouses, offices, &c., when the length of wall between cross-walls does not exceed 50 ft.—

Third story : 9 in. with $4\frac{1}{2}$ in. piers.

Second story : $13\frac{1}{2}$ in., or 9 in. with 9 in. piers.

First story : 18 in., or $13\frac{1}{2}$ in. with 9 in. piers.

When the length of wall exceeds 50 ft. but does not exceed 100 ft.—

Third story : $13\frac{1}{2}$ in., or 9 in. with 9 in. piers.

Second story : 18 in., or $13\frac{1}{2}$ in. with 9 in. piers.

First story : $22\frac{1}{2}$ in.

No brick wall shall exceed 100 ft. in length between cross-walls.

When walls are thickened by piers as above, the aggregate width of such piers evenly spaced throughout the length of the wall shall be not less than one-fifth of the length of such wall. In all cases the width of the adjacent reinforced concrete bands shall be the full width of wall and pier combined.

In no case shall a 9 in. solid or 11 in. cavity external wall be built to a greater story-height than 10 ft., or any story exceed 15 ft., except that for a single-story building with trussed roof a maximum height of 22 ft. may be permitted, provided the wall thickness is not less than one-fifteenth the height of the wall.

Openings in the walls of any story shall not constitute more than $33\frac{1}{3}$ per cent. of the length of the wall, unless the walls are proportionately thickened.

Where pipes, &c., cannot be exposed on the surface of walls, recesses or chases must be prearranged and formed when the wall is built, in such manner that the strength of wall is not affected. No chase shall be put in the $4\frac{1}{2}$ in. brickwork of a hollow bearing-wall.

The permissible floor-loads in a warehouse shall be governed by the following in the case of brick bearing-walls : Except to the extent that part of the horizontal load due to earthquake acceleration at any floor is taken by properly designed and calculated internal columns, the total floor-load at either first- or second-floor level shall not exceed 4,000 lb. per foot run of building carried on two walls.

9. *Isolated Piers.*—No isolated brick pier shall be built of greater height than four times its lesser lateral dimension.

10. *Cavity Walls.*—Cavity-wall ties shall be built into every fourth course in height at not more than 27 in. centres in each row, and shall be staggered. Additional ties shall be built in to complete each row at all angles, opposite cross-walls, and round all openings. Where the reinforced-concrete band joins the brickwork the cavity shall be bridged in such a manner that the adhesion between the full thickness of brickwork and the concrete is not broken.

11. *Parapet Walls.*—Parapet walls to brick buildings shall not exceed 3 ft. in height above gutter or roof, and shall be either 6 in. thick of reinforced concrete or 4 in. reinforced-concrete backing faced with $4\frac{1}{2}$ in. brickwork. Parapets shall be adequately anchored to concrete wall-bands, return walls, and piers, and they shall be suitably thickened at line of flashing and grooved to receive same.

12. *Facings.*—Where stone or other facing-materials are used for brick walls, such facings shall be of sizes to bond with brickwork, and shall be bonded and anchored into walls as the brickwork is laid.

Where facings are placed over concrete bands or piers or walls, they shall be thoroughly anchored with metal ties.