

Safety Post

Purpose

A safety post shall be installed to prevent the gate leaf from toppling in the event of derailment. Derailment (running off the track) can occur due to a failure of the guide assembly, detachment of the gate leaf, debris on the track, or if the moving gate leaf comes into contact with a person or object.

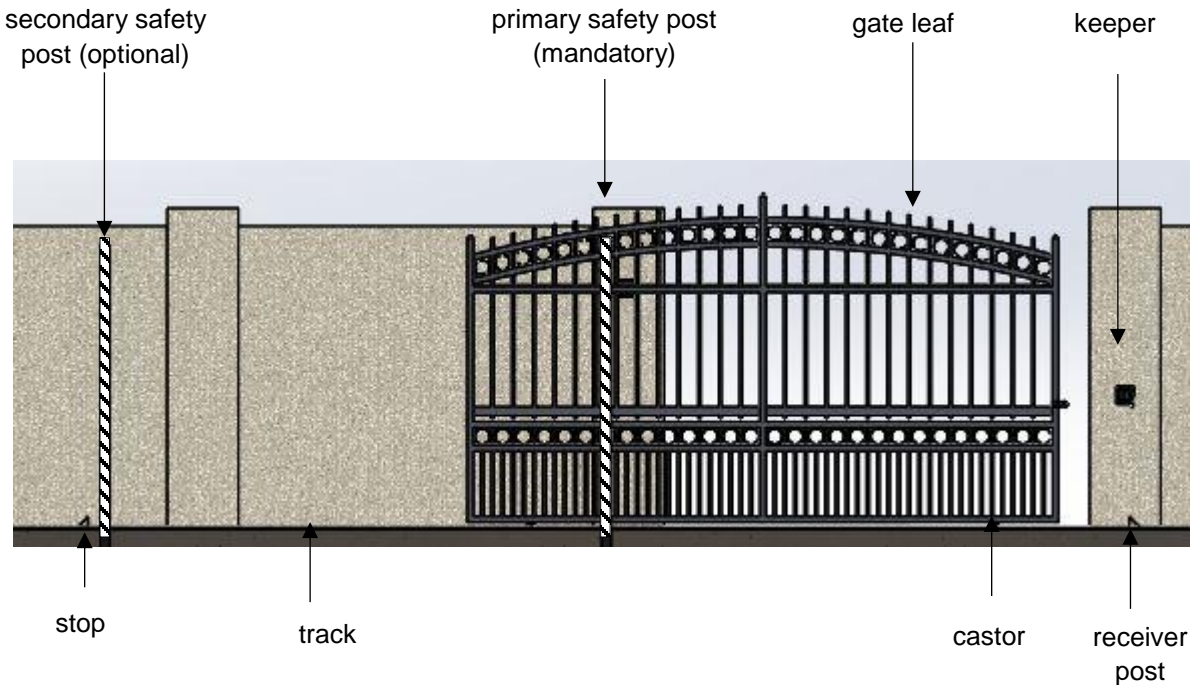


Figure 1 – Typical components of a sliding driveway gate

Location

At least one safety post must be used. This post shall be located adjacent to the guide post and positioned so that the gate leaf can move freely between the safety post and the adjacent guide post, wall or fence (see Figure 1)

However, it is recommended that two safety posts be used. Where this is done, the first (primary) post is located as described above, and the other (secondary) post is located near to the stop at the end of the gate leaf in its fully opened position.

Safety posts should be offset a horizontal distance approximately 200 mm (8 in) from the face of the gate post so that there is sufficient room for the gate leaf to slide between the guide post and the safety post (see Figure 2).

Safety Post

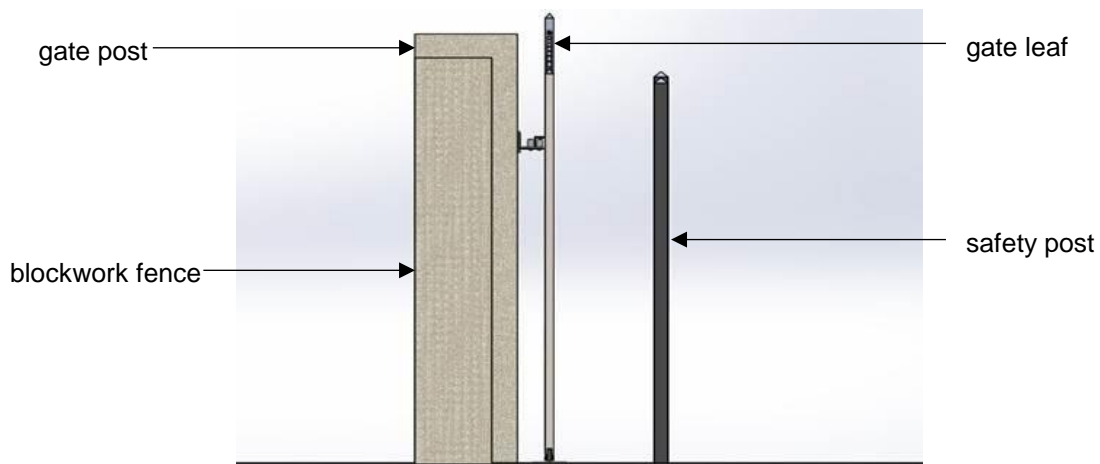


Figure 2 – Illustration showing end view of sliding gate and safety post

Design and construction

Safety posts shall:

- a) be constructed of steel, reinforced concrete or other durable material;
- b) be designed and constructed with a suitable footing ;
- c) be designed with a cross-section and dimensions suitable to the size and weight of the gate leaf requiring restraint; and
- d) extend to the height of the top rail or at least to the height of any horizontal stiffener located at or above the gate leaf mid-height and which spans the entire width of the gate leaf.

Typical construction practices

Steel safety posts are normally made from:

- a) rectangular hollow sections – 50 mm x 50 mm (2 in by 2 in), 75 mm x 75 mm (3 in by 3 in) or 100 mm x 100 mm (4 in by 4 in); or
- b) circular steel hollow sections –50 mm (2 in) to 100 mm (4 in).

The posts are cast into mass concrete footings (with adequate dowels or 'crabs') which extend to a suitable depth underground (usually equal to one-third to one-half the height of the post).

Concrete safety posts are normally cast in-situ with a suitably-sized pad foundation which should incorporate a short pile.

Precast concrete posts should be cast into a mass concrete footing of minimum dimensions 200 mm x 200 mm (8 in x 8 in) and a minimum depth of 600 mm (24 in).

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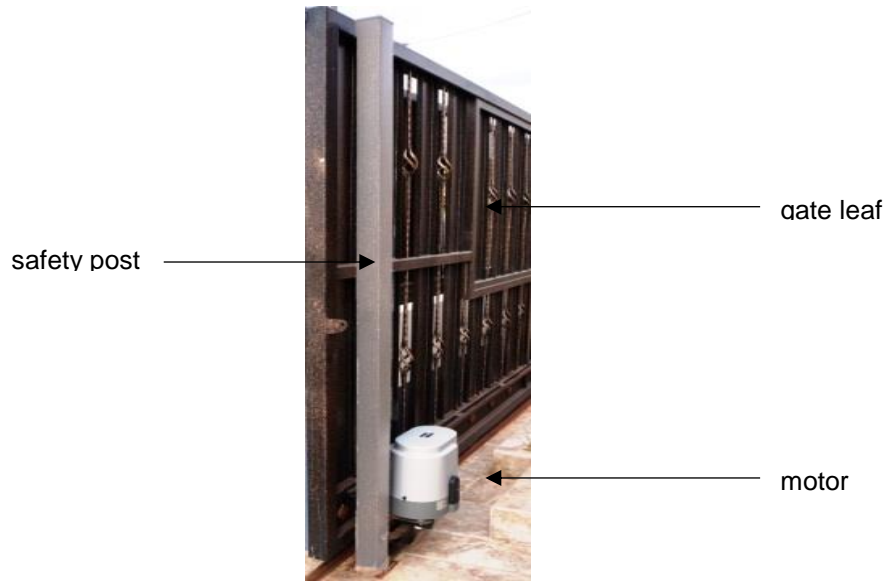


Figure 3 –Photograph of a Safety Post