Front Boundary Wall at 70 Mellor Brow, Mellor, BB2 7EX

Proposed Repairs and Alterations

Approval in Principle Structural Report

Introduction and Background

An existing stone retaining wall runs along the boundary between the property No 70 Mellor Brow and the edge of the public highway of Mellor Brow.

The wall was damaged by a vehicle impact in December 2024 and needs partial rebuilding. The opportunity is being taken to carry out repointing works and minor alterations to the wall.

The existing wall and proposed works are shown on drawing 164/P/01.

A full technical assessment and design process is not appropriate as the wall requires only maintenance and minor alterations. This report therefore seeks to establish the condition of the wall and impact of the proposed works, and would constitute a simplified Approval in Principle process.

The wall after the vehicle damage December 2014

Description and Condition of Existing Wall

The wall is 8.65m long from the entranceway to No 70 Mellor Brow to the boundary with No 72 Mellor Brow, as shown on the existing elevation on drawing 164/P/01. The wall height steps down following the gradient of Mellor Brow, such that the height above the roadway averages around 1.0m, with a maximum height of 1.2m. The wall continues along the front boundary of No 72 Mellor Brow, where it reaches an existing height of 1.44m above road level.

Condition of existing wall January 2026

Ground level on the property side of the wall is higher than the road level. The difference in level varies between 0.3 and 1.55m, however the existing ground level slopes down to the top of the wall as shown in the Typical Cross-Section – Existing on the drawing. Thereby the retained height does not exceed 1.2m.

The wall thickness is 400mm, built in random stonework. It is topped with a 450mm wide precast concrete coping.

Other than the area of damage by vehicle impact, the wall is in good condition. It is straight and vertical, with no lean towards the highway. It has however been previously repointed with raised ribbon cement pointing which is now starting to break away in places and does not provide sufficient protection to the stonework.

Proposed Works

There are five elements to the proposed works, as follows:

1. The section of wall damaged by the vehicle will be re-built using the existing stone, but to a lower height than before (to improve visibility when exiting the property). This is illustrated on the Elevation from Roadway – Proposed.

2. The 4m section of wall from the mid-point to the boundary with no 72 will be increased in height, partly by 300mm and partly by 700mm, as illustrated on the same elevation drawing. The finished ground level within the property will be reduced in level such that the retained height of the wall does not exceed 1.45m.

3. A new 450mm wide flat natural stone coping will be installed throughout.

4. The entire wall will be repointed using a lime-based mortar with a slightly recessed finish.

5. New steel railings will be installed to the top of the wall to ensure safety for people at the higher level within the property. The railings will be safer than the existing hedge as they will afford improved visibility for exiting vehicles and will avoid the need for regular hedge cutting in the highway.

Assessment of Existing Wall

The wall is structurally in good condition, showing no signs of distress or structural deterioration. There are no cracks, and the wall does not lean either towards or away from the roadway. Consequently it is considered that the existing foundations and lower part of the wall can be retained without further analysis. Major excavation would be required in order to prove the dimensions and materials of the existing foundations, which would not be justified in view of the minor extent of works proposed.

Impact of Proposed Works on the Stability of the Wall

Much of the wall will not be increased in height. The collapsed section will be re-built to prevent further deterioration, to a lower height than existed prior to the vehicle impact. A 2.4m section of wall will be increased in height by 0.3m, and a 1.5m section will be increased in height by 0.7m, however as the ground level on the property side of the wall is to be lowered the retained height will not exceed 1.45m. The remaining 3m section will remain at the existing height. It is considered that such minor changes will have no significant impact on the stability of the wall.

Method Statement

To facilitate the works the existing hedge will first be removed, including excavation and removal of roots. The soil will be further excavated by hand to provide a working area along the property side of the wall. This excavation will continue down to expose the face of the wall sufficiently to establish sound existing construction to the normally concealed elevation.

Demolition will be limited to the lifting of the existing concrete copings, and the careful removal by hand of any loose stones not properly bedded.

Material storage will be within the property, and where possible the works will be undertaken from the property side. In addition, a safe working zone in the roadway hardstrip will be provided by signing and guarding using barriers and cones, with traffic and pedestrians controlled using the “give-and-take” method in accordance with Chapter 8 of the traffic Signs Manual. This zone will be for personnel only but will also act as a safety zone to separate the public from the works. The zone will be cleared and all signs and barriers removed at the end of each working day.

The proposed steel railings will be fabricated in panels, with each post sitting centrally on the flat stone copings. The posts will be secured using resin anchors into holes drilled through the copings and into the stonework to a minimum depth of 150mm.

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