



01 July 2022

Manda Developers (Pty) Ltd
3 Inyanga Close
Umhlanga
Durban

Attention: Amanda Mhlonogo
Email: amanda@mnbs.co.za

Dear Madam,

RE: STRUCTURAL INVESTIGATION OF FIRST FLOOR BRICKWORK @ 336 CHE GUEVARA ROAD, BERA, DURBAN

BACKGROUND

DRE Projects, the project engineers, were asked by Mr Vishaal Dhanrathan to visually inspect and report on the structural brickwork on the first floor at the above address. Mr Duran Rammanhor accompanied by Mr Vishaal Dhanrathan, inspected the building on Wednesday 29 June 2022.

OBSERVATIONS



The existing building is a double story building with brick and mortar walls and a concrete slabs.

Based on the approved plans received from Neo Innovative Architects, the existing double storey building envelope was to remain and the internal walls to be demolished.

To date the existing internal ground floor brickwork has been demolished and new brickwork has been carried out in accordance with the approved plans.

The first floor works have commenced with existing roof structure having been removed.

From our inspection the first floor brickwork that remains has shown severe signs of structural instability. There are large sections of brickwork along the external envelope that has cracked diagonally and vertically as well as it has released from the first floor slab as per the images below.



As the demolition of the internal brickwork on the first floor continues there is a risk of the further movement and damage to the external brickwork. This will result in the external brickwork on the first floor being unstable and unsafe, which poses a huge threat to the workers on site as well as the neighbouring properties.

Furthermore, these external walls on the first floor will not be able to carry the load of the new floor above. Should any of the external brickwork on the first floor remain or be built around this will result in future problems such as cracks and water penetration into the building.

RECOMMENDATION

It is recommended that the external walls on the first floor be carefully demolished and rebuilt using new load bearing bricks. This being the most cost effective and quickest method.

Another recommendation would be to put in reinforced concrete columns and beams and infill with non-load bearing brickwork, however this will result in a higher cost and take more time to construct.

Both methods would still require the brickwork to be demolished.

CONCLUSION

From our assessment we conclude that the first floor brickwork is unstable and is therefore condemned.

New brickwork will be required on the first floor for the building works to continue.

We trust the above is in order, and should you require further information to this regard, kindly contact the writer.

Regards,



Duran Rammanhor
Pr Tech Eng
201270056