

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2024/1575

Date: 04-Apr-2025



STRUCTURAL INSPECTION REPORT

15 HAWTHORNE STREET, WOOLLOONGABBA

AMENDED IN RED

By: Essen Joseph

Date: 4 Apr 2025



Prepared for

The Nazareth Lutheran Church of South Brisbane
12 Hawthorne Street
WOOLLOONGABBA QLD 4102

This development permit is limited to Building
Work involving the demolition of the building
shown in the images from pages 6 - 19 of this
document.

See conditions of approval for requirements.

Document Reference

23md106 - 2/SK
Tuesday, 8 October 2024

This investigation and report has been completed by Morgan Consulting Engineers Pty Ltd solely for the purposes as described in this report.

Heath Utting MIEAust CPEng RPEQ 28187

1.0 INTRODUCTION

In accordance with the instructions of Allen Truslove of The Nazareth Lutheran Church of South Brisbane, Sean Kelly and Harry Dorries of this office have carried out a walkover inspection of the residence at 15 Hawthorne Street, Woolloongabba on 19 September, 2024.

The purpose of the inspection was to investigate whether the building is structurally unsound and whether it is not reasonably capable of being made structurally sound.

This office has previously inspected the residence but at the time could not access all areas and fully determine the extent of damage and rectifications that may be required.

2.0 INSPECTION

2.1 General

The residence is a high-set timber framed and clad structure with timber stumps, a concrete slab on ground and a sheet metal roof (Photograph 1).

2.2 External

The eastern wall of the residence was positioned on the eastern boundary of the property and was situated directly adjacent to a publicly accessible footpath (Photograph 2).

There were a number of bulging weatherboards along the eastern side of the residence (Photographs 3 and 4). There was evidence of pest tracks in the gaps between the weatherboards on this side of the residence (Photograph 5). There was rippling to a number of the weatherboards and window trims along the eastern and northern sides of the residence (Photographs 6 and 7). There were gaps between the weatherboards at the north-western corner of the residence (Photograph 8).

There was warping and distortions to the external cladding on the western external wall of the residence (Photograph 9).

2.3 Internal

The majority of the internal walls were lined with what appeared to be asbestos sheeting (Photograph 10). The asbestos sheeting has been installed on top of the existing VJ linings to the internal walls in some areas (Photograph 11).

There was evidence of pest damage to the architraves and wall frames in the southern section of the residence, skirting boards in the western section and to the wall frames in the north-eastern section of the residence (Photographs 12, 13 and 14). There was also decay to the eastern wall frames in the north-eastern section of the residence (Photograph 14).

The eastern wall in the north-eastern section of the residence was able to move outwards towards the footpath with ease by hand. Part of the eastern wall in the adjacent bedroom could also be moved by hand, but required more force.

One of the floor boards in the southern section of the residence had split (Photograph 15). The kitchen floor had a noticeable downward deflection (Photograph 16).

Laser level measurements otherwise indicated that there were significant undulations and high points in the floor throughout the residence (Photographs 17, 18 and 19).

2.4 Subfloor

There were linings concealing the majority of the floor framing above the subfloor area.

There were pest tracks along the lower section of the eastern wall visible from within the subfloor (Photographs 20 and 21). There was decay and loss of cross-section to one of the bearers at the north-eastern corner of the subfloor (Photograph 22). There was a build-up of what appeared to be termite mud on the underside of one of the bearers in the northern section of the subfloor (Photograph 23). There was what appeared to be a timber packer between the underside of this bearer and the stump (Photograph 23). The timber packer was soft and could easily be penetrated with a sharp object.

One of the bearers in the western section of the subfloor was significantly distorted (Photograph 24).

There was decay and loss of cross-section from the bases of a number of the timber stumps, particularly in the southern section of the subfloor (Photographs 25 and 26). One of the stumps in the south-western section of the subfloor had a noticeable lean (Photograph 27).

3.0 CONCLUSIONS

The decay and pest damage to the eastern wall has resulted in a significant loss of structural integrity of this wall, enabling it to be moved under light hand pressure. As a result, it is expected that the eastern wall could collapse at any time. In addition, due to the proximity of this wall to the public footpath and road this wall's collapse would pose an unacceptable risk to the health and safety of the public in this area.

Due to the severe structural damage to the wall framing, particularly on the eastern side of the residence, significant structural rectifications including but not limited to replacement of the eastern wall framing will be required. However, due to the proximity of the road and public footpath these works are not considered to be practically possible to complete. If these works are undertaken there is a risk that any removal of linings or attempts to install temporary propping or bracing could trigger collapse of this wall onto the public footpath and road.

Due to the unacceptable risk to the health and safety of the public the residence should be demolished.

Based on the extent of damage and degradation to the external cladding, it is expected that the extent of concealed degradation and damage to the residence wall frames is significant. The probability of this is further supported by the presence of pest-related damage and activity in a number of locations throughout the residence.

We recommend that the affected wall frames are either replaced or rectified in accordance with a structural engineer's design. As the majority of the internal walls were lined with asbestos, it would need to be removed before such rectifications can be carried out safely. However, it is expected that the asbestos sheeting would be providing support and bracing to the structure and removing it would reduce the structure's stability, potentially causing it to collapse. As a result, the structure would need to be propped and braced to compensate for the removal of the asbestos linings to avoid collapse while the works are undertaken. As the eastern side of the residence was situated directly adjacent to a public footpath, additional bracing and propping may be required along this wall to ensure that this wall does not collapse onto the footpath.

Consideration would need to be given to restricting public access to this footpath and road prior to and while the rectifications are being undertaken to avoid injury to the public.

The decay and distortion observed to a number of the bearers and stumps indicates that these elements are no longer structurally sound and should also be replaced in accordance with a structural engineer's design. As there were linings concealing the majority of the floor framing elements in the subfloor, it was not possible to visually confirm the presence of damage or degradation to the floor joists. However, considering the extent to which the level of the floor deviated, the damage to a number of the floor boards and the pest-related activity to the skirting boards, it is likely that a number of the joists are also damaged and would require replacement. We recommend that the linings in the subfloor are removed to confirm the extent or presence of damage to the floor joists and the extent of rectifications required in this regard.

As discussed above, the structure would need to be propped and braced before rectifying the walls to avoid undue collapse and failure of the structure. However, as there was damage observed to a number of the floor framing elements, and considering the likelihood of further concealed damage, the existing floor structure should not be relied on when propping the structure. The rectifications to the floor framing would either need to be carried out before rectifying the walls, or props would need to be installed under the floor directly beneath the props to the upper level of the structure to ensure adequate support.

Based on the discussion above, it is possible to restore the residence's structural integrity, however it is expected that doing so would cause danger to the public due to the risk of collapse onto the adjacent footpath and road and would be financially unfeasible and impractical due to the expected significant scale of works required. As a result, we consider the residence to be structurally unsound and not reasonably capable of being made structurally sound.

4.0 RECOMMENDATIONS

As a result of our investigation, it is our opinion that the residence is unsound and not capable of being made structurally sound and should be demolished. However, if the residence is not demolished, then at a minimum the following structural rectifications will be required:

- Prop the residence structure and ensure public access to the road and footpath adjacent to the eastern side of the residence is restricted for the duration of the works.
- Replace the distorted, decayed and pest-damaged bearers in accordance with a structural engineer's design.
- Remove the linings in the subfloor, confirm the extent of damage to the floor joists and replace or rectify them as required.
- Replace the leaning and decayed stumps in accordance with a structural engineer's design.
- Replace or repair the damaged and degraded wall frames in accordance with a structural engineer's design. If the rectifications to the walls are carried out prior to the rectifications to the floor framing elements, the props to the upper level would need to be aligned with the props to the subfloor to ensure that the existing floor structure is not being relied on to provide support while undertaking these works.

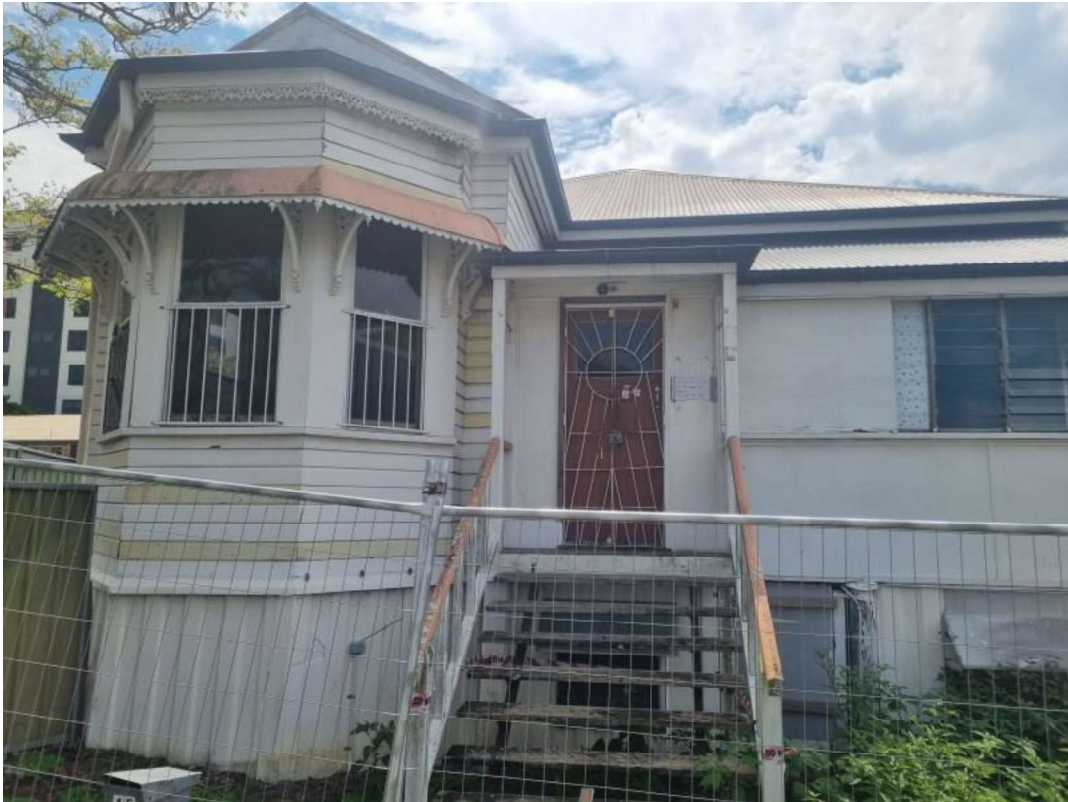
5.0 LIMITATIONS

This report has been prepared based on the information supplied and from our observations during our inspection and did not include any destructive investigations or testing beyond that described in this report.

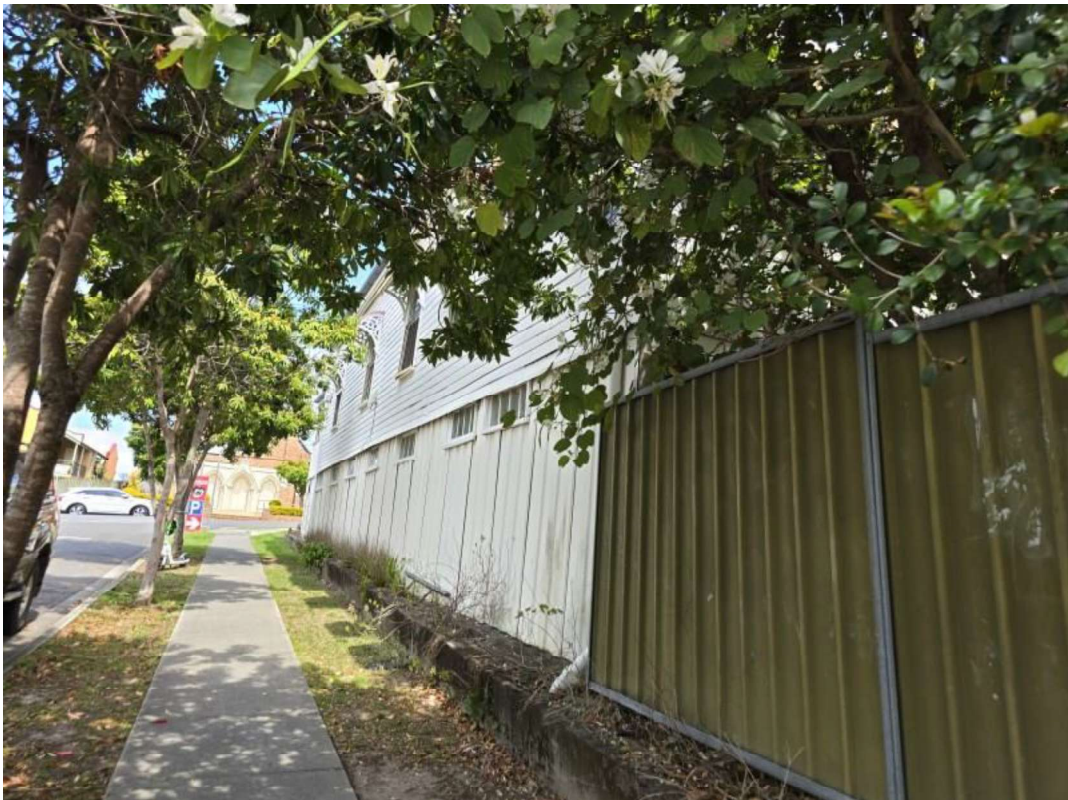
If you require any further information concerning this report, please contact this office.

MORGAN CONSULTING ENGINEERS PTY LTD

Enclosed: Photographic Record



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



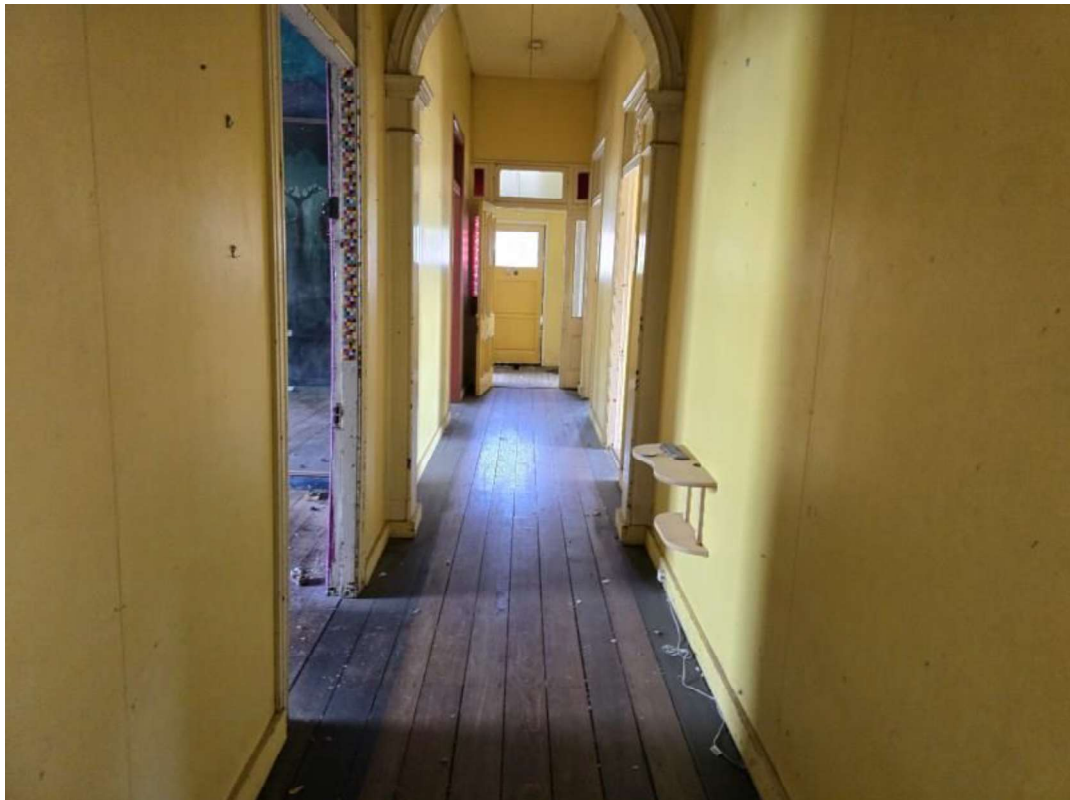
Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



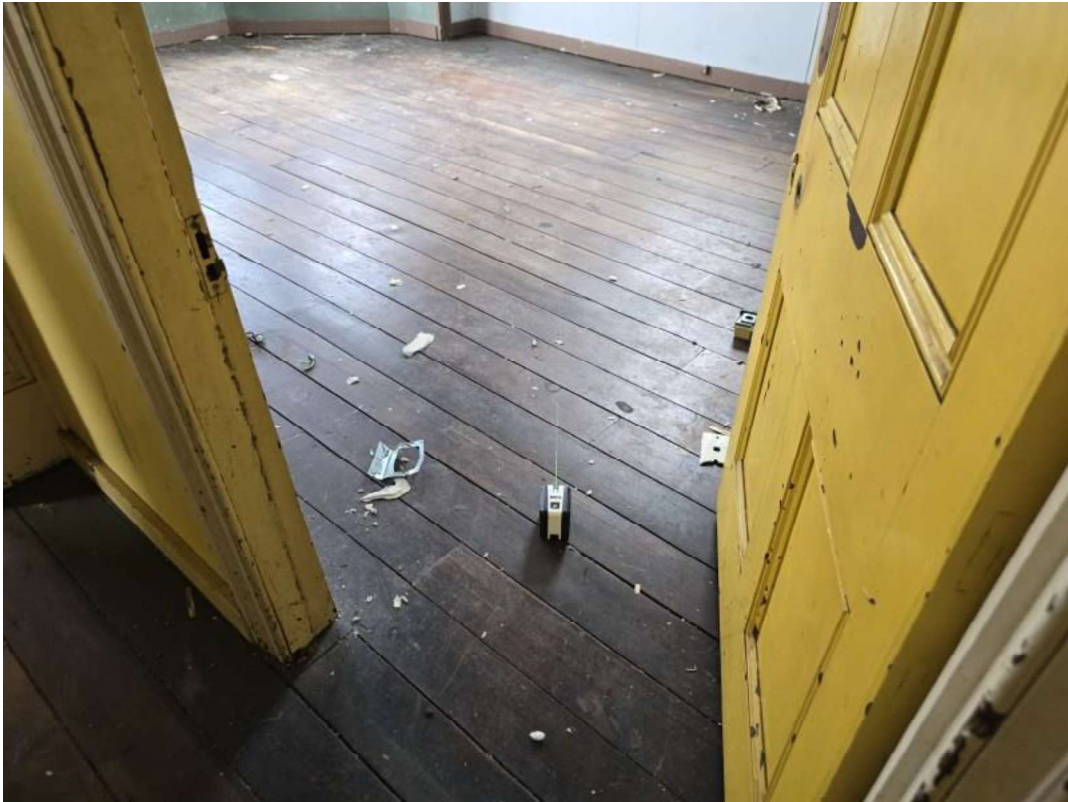
Photograph 16



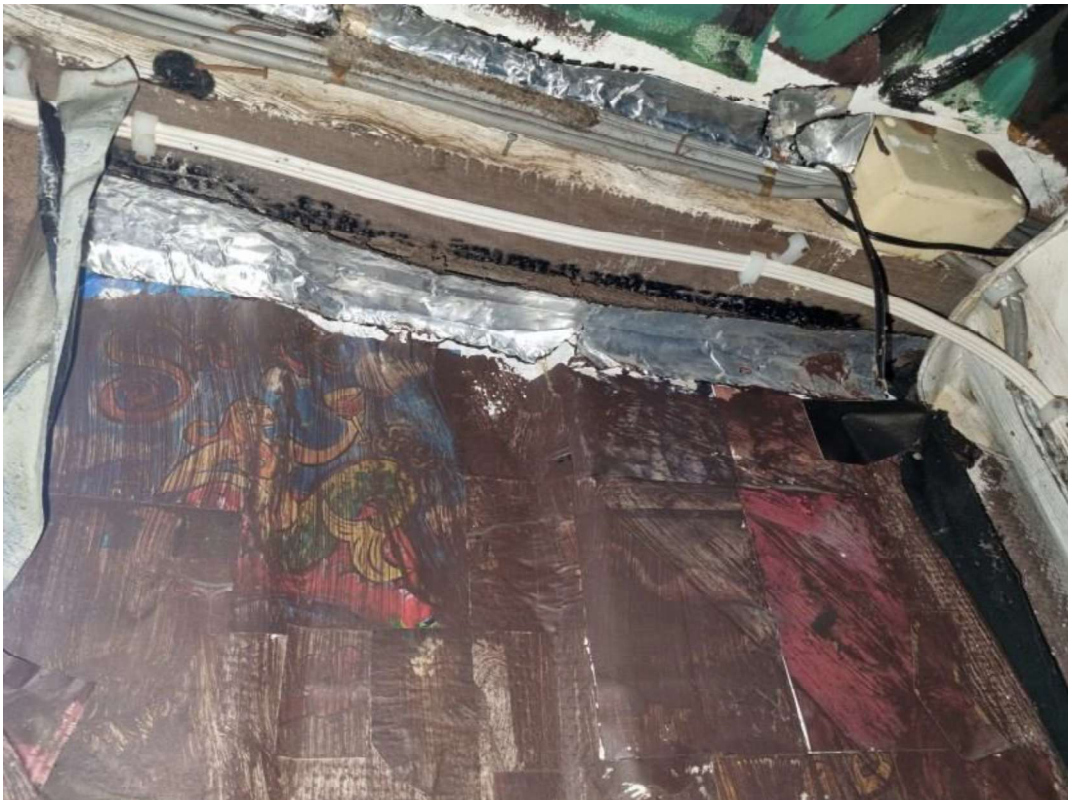
Photograph 17



Photograph 18



Photograph 19



Photograph 20



Photograph 21



Photograph 22



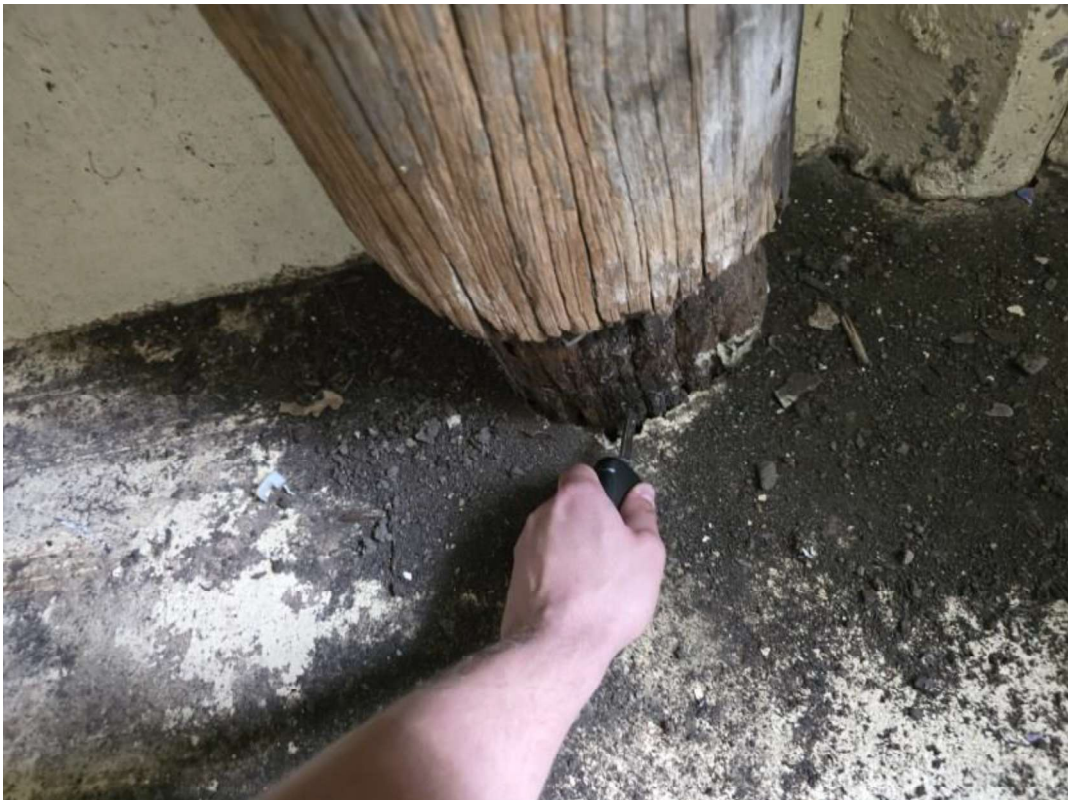
Photograph 23



Photograph 24



Photograph 25



Photograph 26



Photograph 27